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<td>DTC Logic</td>
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</table>
OVERALL SEQUENCE

1. Get information for symptom
Get detailed information about the symptom from the customer.

2. Confirm the symptom
Try to confirm the symptom described by the customer.

3. Detect malfunctioning part by diagnostic procedure.

4. Repair or replace the malfunctioning part.

5. Final check
Confirm the repair.

Details Flow

1. GET INFORMATION FOR SYMPTOM
Get detailed information from the customer about the symptom (the condition and the environment when the incident/malfunction occurred).

>> GO TO 2.

2. CONFIRM THE SYMPTOM
Try to confirm the symptom described by the customer. Verify relation between the symptom and the condition when the symptom is detected.

>> GO TO 3.

3. DETECT MALFUNCTIONING PART BY DIAGNOSTIC PROCEDURE
Inspect according to Diagnostic Procedure of the system.
< BASIC INSPECTION >

Is malfunctioning part detected?
YES >> GO TO 4.
NO >> GO TO 2.

4. REPAIR OR REPLACE THE MALFUNCTIONING PART

1. Repair or replace the malfunctioning part.
2. Reconnect parts or connectors disconnected during Diagnostic Procedure.

>> GO TO 5.

5. FINAL CHECK

Refer to confirmed symptom in step 2, and make sure that the symptom is not detected.
Has the symptom been repaired?
YES >> Inspection End.
NO >> GO TO 2.
System Description

AUDIO SYSTEM
The audio system consists of the following components
• Audio unit
• Display unit
• Bluetooth control unit
• Window antenna
• Steering wheel audio control switches
• Front door speakers
• Tweeters
• Rear door speakers
• Subwoofer amp.
• Subwoofers
When the audio system is on, radio signals are received by the window antenna. The audio unit then sends audio signals to the front door speakers, tweeters, rear door speakers, subwoofer amp. and subwoofers. Refer to Owner’s Manual for audio system operating instructions.
Component Parts Location

1. Tweeter LH M143
2. Display unit M109
3. Tweeter RH M144
4. Audio unit M133, M147
5. Steering wheel audio control switches
6. Front door speaker
   LH D3
   RH D103
7. Rear door speaker
   LH D209
   RH D309
8. Subwoofers (view of underside of parcel shelf)
   LH B16
   RH B17
9. Bluetooth control unit B125, B126, B130
10. Subwoofer amp. B21
11. Microphone R7

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## Component Description

<table>
<thead>
<tr>
<th>Part name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audio unit</td>
<td>Controls audio system functions.</td>
</tr>
<tr>
<td>Steering wheel audio control switches</td>
<td>• Each audio operation can be operated.</td>
</tr>
<tr>
<td></td>
<td>• Steering switch signal (operation signal) is output to audio unit.</td>
</tr>
<tr>
<td>Front door speakers</td>
<td>• Outputs audio signal from audio unit.</td>
</tr>
<tr>
<td></td>
<td>• Outputs high, mid and low range sounds.</td>
</tr>
<tr>
<td>Tweeters</td>
<td>• Outputs audio signal from audio unit.</td>
</tr>
<tr>
<td></td>
<td>• Outputs high range sounds.</td>
</tr>
<tr>
<td>Rear door speakers</td>
<td>• Outputs audio signal from audio unit.</td>
</tr>
<tr>
<td></td>
<td>• Outputs high, mid and low range sounds.</td>
</tr>
<tr>
<td>Bluetooth control unit</td>
<td>• Receives signals from the audio unit.</td>
</tr>
<tr>
<td></td>
<td>• Outputs display signals.</td>
</tr>
<tr>
<td>Display unit</td>
<td>• Receives and displays signals from the Bluetooth control unit.</td>
</tr>
<tr>
<td></td>
<td>• Displays audio system information.</td>
</tr>
<tr>
<td>Subwoofer amp.</td>
<td>• Receives and amplifies sound signal from audio unit.</td>
</tr>
<tr>
<td></td>
<td>• Outputs amplified sound signal to the subwoofers.</td>
</tr>
<tr>
<td>Subwoofers</td>
<td>• Outputs audio signal from subwoofer amp.</td>
</tr>
<tr>
<td></td>
<td>• Outputs low range sounds.</td>
</tr>
</tbody>
</table>
System Description

Refer to the owner's manual for Bluetooth telephone system operating instructions.

**NOTE:**
Cellular telephones must have their wireless connection set up (paired) before using the Bluetooth telephone system. Bluetooth telephone system allows users who have a Bluetooth cellular telephone to make a wireless connection between their cellular telephone and the Bluetooth control unit. Hands-free cellular telephone calls can be sent and received. Some Bluetooth cellular telephones may not be recognized by the Bluetooth control unit. When a cellular telephone or the Bluetooth control unit is replaced, the telephone must be paired with the Bluetooth control unit. Different cellular telephones may have different pairing procedures. Refer to the cellular telephone operating manual.

**BLUETOOTH CONTROL UNIT**
When the ignition switch is turned to ACC or ON, the Bluetooth control unit will power up. During power up, the Bluetooth control unit is initialized and performs various self checks. Initialization may take up to 20 seconds. If a phone is present in the vehicle and paired with the Bluetooth control unit, Nissan Voice Recognition will then become active. Bluetooth telephone functions can be turned off using the Nissan Voice Recognition system.

**STEERING WHEEL AUDIO CONTROL SWITCHES**
When buttons on the steering wheel audio control switch are pushed, the resistance in steering wheel audio control switch circuit changes depending on which button is pushed. The Bluetooth control unit uses this signal to perform various functions while navigating through the voice recognition system. The following functions can be performed using the steering wheel audio control switch:
- Initiate self-diagnosis of the Bluetooth telephone system
- Start a voice recognition session
- Answer and end telephone calls
- Adjust the volume of calls

**MICROPHONE**
The microphone is located in the roof console assembly. The microphone sends a signal to the Bluetooth control unit. The microphone can be actively tested during self-diagnosis.

**AUDIO UNIT**
The audio unit receives signals from the Bluetooth control unit and sends audio signals to the speakers.
Component Parts Location

1. Tweeter LH M143
4. Audio unit M133, M147
7. Rear door speaker
   LH D209
   RH D309
10. Subwoofer amp. B21

2. Display unit M109
5. Steering wheel audio control switches

3. Tweeter RH M144
6. Front door speaker
   LH D3
   RH D103
8. Subwoofers (view of underside of parcel shelf)
   LH B16
   RH B17
9. Bluetooth control unit B125, B126, B130

11. Microphone R7
## Component Description

<table>
<thead>
<tr>
<th>Part name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audio unit</td>
<td>• Receives telephone voice signal from Bluetooth control unit.</td>
</tr>
<tr>
<td></td>
<td>• Sends telephone voice signals to the speakers.</td>
</tr>
<tr>
<td>Front door speaker</td>
<td>Receives telephone voice signals from the audio unit.</td>
</tr>
<tr>
<td>Tweeter</td>
<td>Start a voice recognition session.</td>
</tr>
<tr>
<td></td>
<td>• Answer and end telephone calls.</td>
</tr>
<tr>
<td></td>
<td>• Adjust the volume level.</td>
</tr>
<tr>
<td>Steering wheel audio control switches</td>
<td>Controls hands-free phone functions.</td>
</tr>
<tr>
<td></td>
<td>• Receives display signals from audio unit.</td>
</tr>
<tr>
<td></td>
<td>• Outputs display signals to the display unit.</td>
</tr>
<tr>
<td>Microphone</td>
<td>Sends voice signals to Bluetooth control unit.</td>
</tr>
<tr>
<td>Bluetooth control unit</td>
<td>Receives display signals from Bluetooth control unit.</td>
</tr>
<tr>
<td></td>
<td>Displays audio system information.</td>
</tr>
<tr>
<td>Display unit</td>
<td>Sends telephone voice signal to bluetooth control unit.</td>
</tr>
</tbody>
</table>

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DIAGNOSIS SYSTEM (AUDIO UNIT)

< FUNCTION DIAGNOSIS >

DIAGNOSIS SYSTEM (AUDIO UNIT)

Diagnosis Description

Self-diagnosis mode can perform the following items.
• Versions display
• Channel check diagnosis
• Key check diagnosis
• AV communication diagnosis

VERSIONS DISPLAY FUNCTION

1. Turn ignition switch ON.
2. Turn the audio unit off.
3. While pressing “1” button, turn volume control dial clockwise or counterclockwise for 30 clicks or more.

4. Diagnosis default screen of audio display unit is displayed.
   NOTE:
   Diagnosis default screen = All icons and segments of the audio display unit are turned on.

5. Pressing the AUDIO switch briefly displays the version display mode. Pressing the AUDIO switch briefly switches to each version display. Pressing and holding the AUDIO switch when displaying each software version returns to the diagnosis default screen.

<table>
<thead>
<tr>
<th>Version display item</th>
<th>Mode</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Software V#####</td>
<td>Audio unit software version is displayed.</td>
</tr>
<tr>
<td></td>
<td>Hardware V#####</td>
<td>Audio unit hardware version is displayed.</td>
</tr>
<tr>
<td></td>
<td>CD Mech V#####</td>
<td>Audio unit CD mechanism version is displayed.</td>
</tr>
<tr>
<td></td>
<td>EEPROM V#####</td>
<td>Audio unit EEPROM version is displayed.</td>
</tr>
<tr>
<td></td>
<td>Disp SW V#####</td>
<td>Display unit software version is displayed.</td>
</tr>
<tr>
<td></td>
<td>Disp HW V#####</td>
<td>Display unit hardware version is displayed.</td>
</tr>
<tr>
<td></td>
<td>SDARS V#####</td>
<td>Audio unit SDARS version is displayed.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NOTE: “VFFFFFF” is displayed when SDARS is not available.</td>
</tr>
</tbody>
</table>

6. Self-diagnosis mode is canceled when the ignition switch is turned OFF.

CHANNEL CHECK DIAGNOSIS FUNCTION

1. Turn ignition switch ON.
2. Turn the audio unit off.
3. While pressing the “1” button, turn the volume control dial clockwise or counterclockwise for 30 clicks or more.

4. The diagnosis default screen of audio display unit is displayed.
   **NOTE:**
   Diagnosis default screen = All icons and segments of the audio display unit are turned on.

5. Turning the TUNE/FOLDER dial clockwise displays the channel check mode. Pressing and holding the AUDIO switch during each channel check or waiting approximately 1 second after finishing all channel checks returns to the diagnosis default screen.

<table>
<thead>
<tr>
<th>Channel check item</th>
<th>Mode</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Channel check</td>
<td>Channel Check Front Left</td>
<td>Connection of a speaker can be confirmed by test tone.</td>
</tr>
<tr>
<td></td>
<td>Channel Check Front Right</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Channel Check Rear Right</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Channel Check Rear Left</td>
<td></td>
</tr>
</tbody>
</table>

6. Self-diagnosis mode is canceled when the ignition switch is turned OFF.

**KEY CHECK DIAGNOSIS FUNCTION**

1. Turn ignition switch ON.
2. Turn the audio unit off.
3. While pressing the “1” button, turn the volume control dial clockwise or counterclockwise for 30 clicks or more.

4. The diagnosis default screen of audio display unit is displayed.
   **NOTE:**
   Diagnosis default screen = All icons and segments of the audio display unit are turned on.

5. Turning the TUNE/FOLDER dial counterclockwise displays the key check mode, and the pressed switch name is shown. Pressing and holding the AUDIO switch during the key check mode returns to the diagnosis default screen.
### Key check item (audio unit)

<table>
<thead>
<tr>
<th>Mode</th>
<th>Display item</th>
<th>Switch name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Preset button “1” switch</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Preset button “2” switch</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Preset button “3” switch</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Preset button “4” switch</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Preset button “5” switch</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Preset button “6” switch</td>
<td></td>
</tr>
<tr>
<td></td>
<td>POWER</td>
<td>ON-OFF switch</td>
</tr>
<tr>
<td></td>
<td>VOLUME up</td>
<td>VOL up switch</td>
</tr>
<tr>
<td></td>
<td>VOLUME down</td>
<td>VOL down switch</td>
</tr>
<tr>
<td></td>
<td>AM-FM</td>
<td>AM-FM switch</td>
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<tr>
<td></td>
<td>DISC</td>
<td>DISC switch</td>
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<tr>
<td></td>
<td>AUX</td>
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<tr>
<td></td>
<td>AUDIO</td>
<td>AUDIO switch</td>
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<tr>
<td></td>
<td>TUNE/FOLDER up</td>
<td>TUNE/FOLDER up switch</td>
</tr>
<tr>
<td></td>
<td>TUNE/FOLDER down</td>
<td>TUNE/FOLDER up switch</td>
</tr>
<tr>
<td></td>
<td>DISP CLOCK</td>
<td>DISP CLOCK switch</td>
</tr>
<tr>
<td></td>
<td>SCAN</td>
<td>SCAN switch</td>
</tr>
<tr>
<td></td>
<td>RPT/RDM</td>
<td>RPT RDM switch</td>
</tr>
<tr>
<td></td>
<td>SEEK/TRACK up</td>
<td>SEEK CAT switch</td>
</tr>
<tr>
<td></td>
<td>SEEK/TRACK down</td>
<td>TRACK switch</td>
</tr>
<tr>
<td></td>
<td>LOAD</td>
<td>LOAD switch</td>
</tr>
<tr>
<td></td>
<td>EJECT</td>
<td>EJECT switch</td>
</tr>
</tbody>
</table>

### Key check item (steering switch)

<table>
<thead>
<tr>
<th>Mode</th>
<th>Display item</th>
<th>Switch name</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>STR SOURCE</td>
<td>SOURCE switch</td>
</tr>
<tr>
<td></td>
<td>STR VOL UP</td>
<td>VOL up switch</td>
</tr>
<tr>
<td></td>
<td>STR VOL DOWN</td>
<td>VOL down switch</td>
</tr>
<tr>
<td></td>
<td>STR UP</td>
<td>MENU up switch</td>
</tr>
<tr>
<td></td>
<td>STR DOWN</td>
<td>MENU down switch</td>
</tr>
<tr>
<td></td>
<td>STR TEL END</td>
<td>switch</td>
</tr>
<tr>
<td></td>
<td>STR TEL SEND</td>
<td>switch</td>
</tr>
</tbody>
</table>

6. **Self-diagnosis mode is canceled when the ignition switch is turned OFF.**

### AV COMMUNICATION DIAGNOSIS FUNCTION

1. Turn ignition switch ON.
2. Turn the audio unit off.
3. While pressing the “6” button, turn the volume control dial clockwise or counterclockwise for 30 clicks or more.
4. Returns to diagnosis default screen and displays “AV DIAGNOSIS”.

5. Pressing the AUDIO switch briefly displays the AV communication diagnosis mode. Pressing the AUDIO switch briefly again switches to each AV communication display.

### AV communication diagnosis item

<table>
<thead>
<tr>
<th>Display item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AV communication item</td>
<td>Current</td>
</tr>
<tr>
<td>TRANSMIT</td>
<td>OK / UN</td>
</tr>
<tr>
<td>DISP</td>
<td>OK / UN</td>
</tr>
<tr>
<td>DISP MPDT</td>
<td>OK / UN</td>
</tr>
<tr>
<td>BTHF MPDT</td>
<td>OK / UN</td>
</tr>
<tr>
<td>NO HISTORY BTHF</td>
<td>—</td>
</tr>
<tr>
<td>AV TROUBLE DEL</td>
<td>—</td>
</tr>
</tbody>
</table>

6. Pressing the SEEK up switch displays the confirmation screen of “delete error record”. Press the SEEK down switch if returning from RECORD DEL YES? to RECORD DEL NO? The item is automatically determined approximately 6 seconds after it is displayed. Then the display returns to AV TROUBLE DEL display item.

<table>
<thead>
<tr>
<th>Display item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RECORD DEL–NO?</td>
<td>Does not delete error record.</td>
</tr>
<tr>
<td>RECORD DEL–YES?</td>
<td>Deletes error record.</td>
</tr>
</tbody>
</table>

7. Self-diagnosis mode is canceled when the ignition switch is turned OFF.
FUNCTION DIAGNOSIS

DIAGNOSIS SYSTEM (BLUETOOTH CONTROL UNIT)

Diagnosis Description

The Bluetooth control unit has two diagnostic checks. The first diagnostic check is performed automatically every ignition cycle during control unit initialization. The second diagnostic check is performed by the technician using the steering wheel audio control switches prior to trouble diagnosis.

BLUETOOTH CONTROL UNIT INITIALIZATION CHECKS

- Internal control unit failure
- Bluetooth antenna connection open or shorted
- Steering wheel audio control switches (SEND/END) stuck closed
- Vehicle speed pulse count
- Microphone connection test (with playback to operator)
- Bluetooth inquiry check

OPERATION PROCEDURE

1. Turn ignition switch to ACC or ON.
2. Wait for the Bluetooth system to complete initialization. This may take up to 10 seconds.
3. Press and hold the steering wheel audio control switch SEND button for at least 5 seconds. The Bluetooth system will begin to play a verbal prompt.
4. While the prompt is playing, press and hold the steering wheel audio control switch END button until you hear the “Diagnostics mode” prompt. The Bluetooth system will sound a 5-second beep.
5. While the beep is sounding, press and hold the steering wheel audio control switch END button again until you hear prompts.
6. The Bluetooth system has now entered into the diagnostic mode. Results of the diagnostic checks will be verbalized to the technician. Refer to AV-28, “Work Flow”.
7. After the failure records are reported, an interactive microphone test will be performed. Follow the voice prompt. If the microphone test fails, refer to AV-28, “Work Flow”.
8. Self-diagnosis mode is complete when the voice prompt says “All diagnostic functions completed”.

Work Flow

<table>
<thead>
<tr>
<th>Failure Message</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Internal failure”</td>
<td>Replace Bluetooth control unit. Refer to AV-85, &quot;Removal and Installation&quot;.</td>
</tr>
<tr>
<td>“Bluetooth antenna open”</td>
<td>1. Inspect harness connection.</td>
</tr>
<tr>
<td></td>
<td>2. Replace Bluetooth antenna. Refer to AV-84, &quot;Removal and Installation&quot;.</td>
</tr>
<tr>
<td>“Bluetooth antenna shorted”</td>
<td>Check steering wheel audio control switches. Refer to AV-78, &quot;Removal and Installation&quot;.</td>
</tr>
<tr>
<td>“Phone/SEND for Hands Free System is stuck”</td>
<td></td>
</tr>
<tr>
<td>“Phone/END for the Hands Free System is stuck”</td>
<td></td>
</tr>
<tr>
<td>“Microphone test” (failed interactive test)</td>
<td>1. Inspect harness between Bluetooth control unit and microphone.</td>
</tr>
<tr>
<td></td>
<td>2. Replace microphone. Refer to AV-83, &quot;Removal and Installation&quot;.</td>
</tr>
</tbody>
</table>

Revision: November 2009

AV-28

2010 Maxima
POWER SUPPLY AND GROUND CIRCUIT

COMPONENT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT

AUDIO UNIT

AUDIO UNIT : Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-49, "Wiring Diagram".

1. CHECK FUSES

Check that the following fuses are not blown.

<table>
<thead>
<tr>
<th>Unit</th>
<th>Terminals</th>
<th>Signal name</th>
<th>Fuse No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audio unit</td>
<td>19</td>
<td>Battery power</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>Ignition switch ACC or ON</td>
<td>17</td>
</tr>
</tbody>
</table>

Are the fuses OK?

YES >> GO TO 2.

NO >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse.

2. POWER SUPPLY CIRCUIT CHECK

1. Disconnect audio unit connector M133.

2. Check voltage between the audio unit connector M133 and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>(+)</th>
<th>OFF</th>
<th>ACC</th>
<th>ON</th>
</tr>
</thead>
<tbody>
<tr>
<td>M133</td>
<td>19</td>
<td>Ground</td>
<td>Battery voltage</td>
<td>Battery voltage</td>
<td>Battery voltage</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>Ground</td>
<td>0V</td>
<td>Battery voltage</td>
<td>Battery voltage</td>
</tr>
</tbody>
</table>

Are the voltage results as specified?

YES >> GO TO 3.

NO >> • Check connector housings for disconnected or loose terminals.
• Repair harness or connector.

3. GROUND CIRCUIT CHECK

Inspect audio unit case ground.

Does case ground pass inspection?

YES >> Inspection End.

NO >> Repair audio unit case ground.

SUBWOOFER AMP

SUBWOOFER AMP : Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-49, "Wiring Diagram".

1. CHECK FUSE

Check for blown fuses.
POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

2. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect subwoofer amp connector.
3. Check voltage between subwoofer amp harness connector and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Voltage (approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>B21</td>
<td>9</td>
<td>Battery voltage</td>
</tr>
</tbody>
</table>

Is battery voltage present?
YES >> GO TO 3.
NO >> Check harness between subwoofer amp and fuse.

3. CHECK GROUND CIRCUIT

Check continuity between subwoofer amp harness connector and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>B21</td>
<td>7</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Does continuity exist?
YES >> Inspection End.
NO >> Repair harness or connector.

DISPLAY UNIT

DISPLAY UNIT : Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-49, "Wiring Diagram".

1. CHECK FUSES

Check that the following fuses are not blown.

<table>
<thead>
<tr>
<th>Unit</th>
<th>Terminals</th>
<th>Signal name</th>
<th>Fuse No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display unit</td>
<td>9</td>
<td>Battery power</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>Ignition switch ACC or ON</td>
<td>17</td>
</tr>
</tbody>
</table>

Are the fuses OK?
YES >> GO TO 2.
NO >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse.

2. POWER SUPPLY CIRCUIT CHECK
1. Turn ignition switch OFF.
2. Disconnect display unit connector.
3. Check voltage between the display unit and ground.

Are the voltage results as specified?
YES >> GO TO 3.
NO >> • Check connector housings for disconnected or loose terminals.
    • Repair harness or connector.

3. GROUND CIRCUIT CHECK
1. Turn ignition switch OFF.
2. Check continuity between display unit harness connector and ground.

Regarding Wiring Diagram information, refer to AV-49, "Wiring Diagram".

1. CHECK FUSE
Check that the following fuses of the Bluetooth control unit are not blown.

Are the fuses OK?
YES >> GO TO 2.
NO >> Be sure to eliminate cause of malfunction before installing new fuse.

2. CHECK POWER SUPPLY CIRCUIT
< COMPONENT DIAGNOSIS >

Check voltage between Bluetooth control unit harness connector and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Ignition switch position</th>
<th>Value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>B126</td>
<td>1</td>
<td>OFF</td>
<td>Battery voltage</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>ACC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>ON</td>
<td></td>
</tr>
</tbody>
</table>

Are the voltage results as specified?
YES >> GO TO 3.
NO >> Check harness between Bluetooth control unit and fuse.

3. CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect Bluetooth control unit connector B126.
3. Check continuity between Bluetooth control unit harness connector and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>B126</td>
<td>4</td>
<td>Ground</td>
</tr>
<tr>
<td></td>
<td>23</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Does continuity exist?
YES >> Inspection End.
NO >> Repair harness or connector.

MICROPHONE

MICROPHONE : Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-49, "Wiring Diagram".

1. CHECK POWER SUPPLY CIRCUIT (MICROPHONE SIDE)

Check voltage between microphone harness connector and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Ignition switch position</th>
<th>Value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>R7</td>
<td>4</td>
<td>Ground</td>
<td>5V</td>
</tr>
</tbody>
</table>

Is proper voltage present?
YES >> GO TO 3.
NO >> GO TO 2.

2. CHECK POWER SUPPLY CIRCUIT (CONTINUITY)
1. Turn ignition switch OFF.
2. Disconnect Bluetooth control unit and microphone connectors.
3. Check continuity between microphone harness connector R7 (A) terminal 4 and Bluetooth control unit harness connector B126 (B) terminal 29.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>R7</td>
<td>4</td>
<td>B126</td>
</tr>
</tbody>
</table>

4. Check continuity between microphone harness connector R7 (A) terminal 4 and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>R7</td>
<td>4</td>
<td>Ground</td>
</tr>
</tbody>
</table>

Are continuity results as specified?

YES >> Replace the Bluetooth control unit. Refer to AV-85, "Removal and Installation".
NO >> Repair harness or connector.

3. CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect Bluetooth control unit and microphone connectors.
3. Check continuity between Bluetooth control unit harness connector B126 (A) terminal 8 and microphone harness connector R7 (B) terminal 2.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>B126</td>
<td>8</td>
<td>R7</td>
</tr>
</tbody>
</table>

Is continuity present?

YES >> Inspection End.
NO >> Repair harness or connector.
FRONT DOOR SPEAKER

Description

The audio unit sends audio signals to the front door speakers using the front door speaker circuits.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-49, "Wiring Diagram".

1. HARNESS CHECK

1. Disconnect audio unit connector M133 (A) and suspect speaker connector (B).
2. Check continuity between audio unit harness connector M133 (A) terminal and suspect speaker harness connector (B) terminal.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M133</td>
<td>2</td>
<td>D3</td>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>D103</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>12</td>
<td></td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

3. Check continuity between audio unit harness connector M133 (A) terminal and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M133</td>
<td>Ground</td>
<td>No</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Are continuity results as specified?

YES >> GO TO 2.
NO >> • Check connector housings for disconnected or loose terminals.
     • Repair harness or connector.

2. FRONT DOOR SPEAKER SIGNAL CHECK

1. Connect audio unit connector and front speaker connector.
2. Turn ignition switch to ACC.
4. Check the signal between audio unit harness connector terminals with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>3</td>
<td>Receive audio signal</td>
<td></td>
</tr>
</tbody>
</table>

M133

Is the inspection result normal?

YES >> Replace speaker. Refer to AV-74, "Removal and Installation".

NO >> Replace audio unit. Refer to AV-70, "Removal and Installation".
TWEETER

Description

The audio unit sends audio signals to the tweeters using the front door speaker circuits.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-49, "Wiring Diagram".

1. HARNESS CHECK

1. Disconnect audio unit connector M133 (A) and suspect tweeter connector (B).
2. Check continuity between audio unit harness connector M133 (A) and suspect tweeter harness connector (B).

<table>
<thead>
<tr>
<th>A Connector</th>
<th>B Connector</th>
<th>Terminal</th>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M133</td>
<td>M143</td>
<td>2</td>
<td>1</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>M144</td>
<td>3, 11, 12</td>
<td>1, 2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. Check continuity between audio unit harness connector M133 (A) and ground.

<table>
<thead>
<tr>
<th>A Connector</th>
<th>—</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M133</td>
<td>2</td>
<td>Ground</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td></td>
</tr>
<tr>
<td></td>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>

Are the continuity results as specified?

YES >> GO TO 2.
NO >> • Check connector housings for disconnected or loose terminals.
• Repair harness or connector.

2. TWEETER SIGNAL CHECK
1. Connect audio unit connector and tweeter connector.
2. Turn ignition switch to ACC.
4. Check the signal between audio unit harness connector terminals with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Terminal</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>M133</td>
<td>2</td>
<td>3</td>
<td>Receive audio signal</td>
<td></td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>12</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Is the audio signal voltage as specified?

YES >> Replace tweeter. Refer to AV-73, "Removal and Installation".

NO >> Replace audio unit. Refer to AV-70, "Removal and Installation".
REAR DOOR SPEAKER

Description

The audio unit sends audio signals to the rear door speakers using the rear door speaker circuits.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-49, "Wiring Diagram".

1. HARNESS CHECK

1. Disconnect audio unit connector M133 (A) and suspect speaker connector.
2. Check continuity between audio unit harness connector M133 (A) and suspect speaker harness connector (B).

<table>
<thead>
<tr>
<th>A</th>
<th>Connector</th>
<th>Terminal</th>
<th>B</th>
<th>Connector</th>
<th>Terminal</th>
</tr>
</thead>
<tbody>
<tr>
<td>M133</td>
<td>4</td>
<td>D209</td>
<td>1</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td></td>
<td>2</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>13</td>
<td>D309</td>
<td>1</td>
<td>13</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>14</td>
<td></td>
<td>2</td>
<td>14</td>
<td>2</td>
</tr>
</tbody>
</table>

3. Check continuity between audio unit harness connector M133 (A) and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>Connector</th>
<th>Terminal</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M133</td>
<td>4</td>
<td></td>
<td>Ground</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td></td>
<td></td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>13</td>
<td></td>
<td></td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>14</td>
<td></td>
<td></td>
<td>No</td>
</tr>
</tbody>
</table>

Are the continuity results as specified?

YES  >> GO TO 2.
NO   >> • Check connector housings for disconnected or loose terminals.
      • Repair harness or connector.

2. REAR DOOR SPEAKER SIGNAL CHECK
1. Connect audio unit connector and rear door speaker connector.
2. Turn ignition switch to ACC.
4. Check the signal between audio unit harness connector terminals with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Terminal</td>
<td></td>
</tr>
<tr>
<td>M133</td>
<td>4</td>
<td>5</td>
<td>Receive audio signal</td>
</tr>
<tr>
<td></td>
<td>13</td>
<td>14</td>
<td></td>
</tr>
</tbody>
</table>

Is the audio signal voltage as specified?
YES >> Replace rear door speaker. Refer to AV-75, "Removal and Installation".
NO >> Replace audio unit. Refer to AV-70, "Removal and Installation".
SUBWOOFER

Description

The audio unit sends audio signals to the subwoofer amp. The subwoofer amp. amplifies the audio signals before sending them to the subwoofers using the audio signal circuits.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-49, "Wiring Diagram".

1. HARNESS CHECK

1. Disconnect subwoofer amp. connector B21 and suspect subwoofer connector.
2. Check continuity between subwoofer amp. harness connector B21 (A) and suspect subwoofer harness connector (B).

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>B21</td>
<td>6</td>
<td>B16</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>B17</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

3. Check continuity between subwoofer harness connector B21 (A) and ground.

<table>
<thead>
<tr>
<th>A</th>
<th></th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td></td>
</tr>
<tr>
<td>B21</td>
<td>6</td>
<td>Ground</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>10</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

Are the continuity test results as specified?
YES   >> GO TO 2.
NO    >> Check connector housings for disconnected or loose terminals.
      • Repair harness or connector.

2. REAR SUBWOOFER SIGNAL CHECK
1. Connect subwoofer amp. connector B21 and suspect subwoofer connector.
2. Turn ignition switch to ACC.
4. Check the signal between subwoofer amp. harness connector B21 terminals with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminals</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>B21</td>
<td>6 5</td>
<td>Receive audio signal</td>
<td>(V)</td>
</tr>
</tbody>
</table>

Is the audio signal voltage as specified?

**YES** >> Replace suspect subwoofer. Refer to AV-76, “Removal and Installation”.

**NO** >> GO TO 3.

3. HARNESS CHECK

1. Disconnect audio unit connector M133 and subwoofer speaker amp. connector B21.
2. Check continuity between audio unit harness connector M133 (A) and subwoofer amp. harness connector B21 (B).

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>M133</td>
<td>4</td>
<td>B21</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>13</td>
<td></td>
</tr>
<tr>
<td></td>
<td>14</td>
<td></td>
</tr>
</tbody>
</table>

3. Check continuity between audio unit harness connector M133 (A) terminal and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>—</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Ground</td>
</tr>
<tr>
<td>M133</td>
<td>4</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>13</td>
<td></td>
</tr>
<tr>
<td></td>
<td>14</td>
<td></td>
</tr>
</tbody>
</table>

Are continuity test results as specified?

**YES** >> GO TO 4.

**NO** >> • Check connector housings for disconnected or loose terminals.
• Repair harness or connector.

4. SUBWOOFER SIGNAL CHECK
< COMPONENT DIAGNOSIS >

1. Connect audio unit connector M133 and subwoofer amp. connector B21.
2. Turn ignition switch to ACC.
3. Push "POWER" switch.
4. Check the signal between audio unit harness connector M133 terminals with CONSULT-III or oscilloscope.

**Connector** | **Terminals** | **Condition** | **Reference signal**
--- | --- | --- | ---
M133 | 4 5 | Receive audio signal | ![Reference signal graph] (SKIA017E)

Is the audio signal voltage as specified?

**YES** >> Replace subwoofer Refer to [AV-76, "Removal and Installation"].
**NO** >> Replace audio unit. Refer to [AV-70, "Removal and Installation"].
Description

When one of the steering wheel audio control switches is pushed, the resistance in steering switch circuit changes depending on which button is pushed.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-49, "Wiring Diagram".

1. **CHECK STEERING SWITCH RESISTANCE**

1. Disconnect steering switch connector M88.
2. Check resistance between steering switch connector terminals.

<table>
<thead>
<tr>
<th>Terminal</th>
<th>Signal name</th>
<th>Condition</th>
<th>Resistance (Ω) (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>Source</td>
<td>Depress SOURCE switch.</td>
<td>680</td>
</tr>
<tr>
<td>17</td>
<td>Phone/Send</td>
<td>Depress switch.</td>
<td>220</td>
</tr>
<tr>
<td></td>
<td>Volume (up)</td>
<td>Depress volume UP switch.</td>
<td>110</td>
</tr>
<tr>
<td></td>
<td>Volume (down)</td>
<td>Depress volume DOWN switch.</td>
<td>0</td>
</tr>
<tr>
<td>14</td>
<td>Seek (down)</td>
<td>Depress switch.</td>
<td>220</td>
</tr>
<tr>
<td></td>
<td>Seek (up)</td>
<td>Depress switch.</td>
<td>110</td>
</tr>
<tr>
<td></td>
<td>Phone/End</td>
<td>Depress switch.</td>
<td>0</td>
</tr>
</tbody>
</table>

Do the steering switches check OK?

YES  >> GO TO 2.
NO   >> Replace steering switch. Refer to AV-78, "Removal and Installation".

2. **CHECK HARNESS**

1. Turn ignition switch OFF.
2. Disconnect audio unit connector M133 and spiral cable connector M30.
3. Check continuity between audio unit harness connector M133 (A) and spiral cable harness connector M30 (B).

<table>
<thead>
<tr>
<th>A</th>
<th>Terminal</th>
<th>B</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M133</td>
<td>6</td>
<td>M30</td>
<td>24</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>16</td>
<td></td>
<td>31</td>
<td></td>
</tr>
<tr>
<td></td>
<td>15</td>
<td></td>
<td>33</td>
<td></td>
</tr>
</tbody>
</table>

4. Check continuity between audio unit connector M133 (A) and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M133</td>
<td>6</td>
<td>Ground</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td></td>
</tr>
<tr>
<td></td>
<td>16</td>
<td></td>
</tr>
</tbody>
</table>

Are the continuity results as specified?
< COMPONENT DIAGNOSIS >

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3. SPIRAL CABLE CHECK

1. Disconnect spiral cable connector M88.
2. Check continuity between spiral cable harness connector M30 (A) and M88 (B).

<table>
<thead>
<tr>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Connector</th>
<th>Terminal</th>
</tr>
</thead>
<tbody>
<tr>
<td>M30</td>
<td>24</td>
<td>M88</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>31</td>
<td></td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>33</td>
<td></td>
<td>17</td>
</tr>
</tbody>
</table>

Does the spiral cable check OK?

YES >> Inspection End.

NO >> Replace spiral cable. Refer to SR-8, "Removal and Installation".
Description

Voice signals are transmitted from the microphone to the Bluetooth control unit using the microphone signal circuits.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-49, "Wiring Diagram".

1. CHECK HARNESS BETWEEN BLUETOOTH CONTROL UNIT AND MICROPHONE

1. Turn ignition switch OFF.
2. Disconnect Bluetooth control unit connector and microphone connector.
3. Check continuity between Bluetooth control unit harness connector B126 (A) and microphone harness connector R7 (B).

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>B126</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>8</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

4. Check continuity between Bluetooth control unit harness connector B126 (A) and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>B126</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Ground</td>
<td>No</td>
</tr>
<tr>
<td>29</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Are the continuity test results as specified?

YES >> GO TO 2.
NO >> Repair harness or connector.

2. CHECK MICROPHONE POWER SUPPLY

1. Connect Bluetooth control unit connector and microphone connector.
2. Turn ignition switch ON.
3. Check voltage between microphone harness connector R7 terminal 4 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Voltage (approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>R7</td>
<td>4</td>
<td>5V</td>
</tr>
</tbody>
</table>

Is voltage reading approx. 5 volts?

YES >> GO TO 3.
NO >> Replace Bluetooth control unit. Refer to AV-85, "Removal and Installation".

3. CHECK MICROPHONE SIGNAL

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Check signal between Bluetooth control unit harness connector B126 terminals 7 and 8.

<table>
<thead>
<tr>
<th>Connector</th>
<th>(+)</th>
<th>(-)</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>B126</td>
<td>7</td>
<td>8</td>
<td>While talking into microphone</td>
</tr>
</tbody>
</table>

Are voltage readings as specified?

YES >> Replace Bluetooth control unit. Refer to AV-85, "Removal and Installation".

NO >> Replace microphone. Refer to AV-83, "Removal and Installation".
### Reference Value

#### TERMINAL LAYOUT

![Terminal Layout Diagram]

#### PHYSICAL VALUES

<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Item</th>
<th>Signal input/output</th>
<th>Condition</th>
<th>Reference value (approx)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>–</td>
<td></td>
<td>Ignition switch</td>
<td>Operation</td>
</tr>
<tr>
<td>2 (L)</td>
<td>3</td>
<td>Audio sound signal front LH</td>
<td>Output</td>
<td>ON</td>
</tr>
<tr>
<td>4 (LG)</td>
<td>5</td>
<td>Audio sound signal rear LH</td>
<td>Output</td>
<td>ON</td>
</tr>
<tr>
<td>6 (W/G)</td>
<td>Ground</td>
<td>Steering switch signal A</td>
<td>Input</td>
<td>ON</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 (V/Y)</td>
<td>Ground</td>
<td>ACC signal</td>
<td>Input</td>
<td>ON</td>
</tr>
<tr>
<td>9 (R/L)</td>
<td>8</td>
<td>ILL signal</td>
<td>Input</td>
<td>ON</td>
</tr>
<tr>
<td>11 (BR)</td>
<td>12</td>
<td>Audio sound signal front RH</td>
<td>Output</td>
<td>ON</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Item</th>
<th>Signal input/output</th>
<th>Condition</th>
<th>Operation</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>–</td>
<td>-</td>
<td>Ignition switch</td>
<td>Operation</td>
</tr>
<tr>
<td>13 (O) 14 (B/P)</td>
<td>Audio sound signal rear RH</td>
<td>Output</td>
<td>ON</td>
<td>Receive audio signal</td>
</tr>
<tr>
<td>15 (L/B)</td>
<td>Remote control ground</td>
<td>Input</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>16 (GR/L)</td>
<td>Steering switch signal B</td>
<td>Input</td>
<td>ON</td>
<td>Depress SOURCE switch. 680Ω</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Depress switch. 220Ω</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Depress volume UP switch. 110Ω</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Depress volume DOWN switch. 0Ω</td>
</tr>
<tr>
<td>19 (Y/R)</td>
<td>Battery power</td>
<td>Input</td>
<td>–</td>
<td>– Battery voltage</td>
</tr>
<tr>
<td>21 (G) 22 (R)</td>
<td>Multimedia CAN</td>
<td>Input</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>23 (W/B)</td>
<td>Steering switch signal A</td>
<td>Output</td>
<td>ON</td>
<td>Depress ▼ switch. 220Ω</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Depress △ switch. 110Ω</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Depress switch. 0Ω</td>
</tr>
<tr>
<td>24 (GR/R)</td>
<td>Steering switch signal B</td>
<td>Output</td>
<td>ON</td>
<td>Depress SOURCE switch. 680Ω</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Depress switch. 220Ω</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Depress volume UP switch. 110Ω</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Depress volume DOWN switch. 0Ω</td>
</tr>
<tr>
<td>26</td>
<td>Shield</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>27 (BR) 28 (Y)</td>
<td>Tel Voice signal</td>
<td>Input</td>
<td>ON</td>
<td>With Bluetooth transmitting tel-voice signals to the audio unit.</td>
</tr>
<tr>
<td>29 (G/O)</td>
<td>Telephone ON</td>
<td>Output</td>
<td>ON</td>
<td>–</td>
</tr>
<tr>
<td>30 (LG/B)</td>
<td>Shield</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
</tbody>
</table>
### Audio Unit

#### Base Audio

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<table>
<thead>
<tr>
<th>Connector No.</th>
<th>Connector Name</th>
<th>Connector Color</th>
<th>Terminal No.</th>
<th>Color of Wire</th>
<th>Signal Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>80J</td>
<td>MF</td>
<td>WHITE</td>
<td>1</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>81J</td>
<td>B1Y</td>
<td>L</td>
<td>2</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>82J</td>
<td>B1U</td>
<td>G</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>83J</td>
<td>BWP</td>
<td>L</td>
<td>4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Connector No.</th>
<th>Connector Name</th>
<th>Connector Color</th>
<th>Terminal No.</th>
<th>Color of Wire</th>
<th>Signal Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>M10</td>
<td>Wire to Wire</td>
<td>WHITE</td>
<td>5</td>
<td>O</td>
<td></td>
</tr>
<tr>
<td>M11</td>
<td>Wire to Wire</td>
<td>WHITE</td>
<td>6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Connector No.</th>
<th>Connector Name</th>
<th>Connector Color</th>
<th>Terminal No.</th>
<th>Color of Wire</th>
<th>Signal Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>M8</td>
<td>Wire to Wire</td>
<td>WHITE</td>
<td>7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ABNIA1560GB
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[BASE AUDIO]

AUDIO UNIT

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ABINAA1562GB
### Audio Unit

**Connector No.** B9  **Connector Name.** Wire to Wire  **Connector Color.** WHITE

<table>
<thead>
<tr>
<th>Terminal No.</th>
<th>Wire Color</th>
<th>Signal Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>LG</td>
<td>10</td>
</tr>
</tbody>
</table>

**Connector No.** B17  **Connector Name.** SUBWOOFER RH  **Connector Color.** WHITE

<table>
<thead>
<tr>
<th>Terminal No.</th>
<th>Wire Color</th>
<th>Signal Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>W</td>
<td>2</td>
</tr>
</tbody>
</table>

**Connector No.** B4  **Connector Name.** Fuse Block (JB)  **Connector Color.** BROWN

<table>
<thead>
<tr>
<th>Terminal No.</th>
<th>Wire Color</th>
<th>Signal Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>G</td>
<td>ST</td>
</tr>
</tbody>
</table>

**Connector No.** B16  **Connector Name.** SUBWOOFER LH  **Connector Color.** WHITE

<table>
<thead>
<tr>
<th>Terminal No.</th>
<th>Wire Color</th>
<th>Signal Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Y</td>
<td>2</td>
</tr>
</tbody>
</table>

**Connector No.** B3  **Connector Name.** Joint Connector-B02  **Connector Color.** WHITE

<table>
<thead>
<tr>
<th>Terminal No.</th>
<th>Wire Color</th>
<th>Signal Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>LG</td>
<td>3</td>
</tr>
</tbody>
</table>

**Connector No.** B13  **Connector Name.** Joint Connector-B03  **Connector Color.** WHITE

<table>
<thead>
<tr>
<th>Terminal No.</th>
<th>Wire Color</th>
<th>Signal Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>O</td>
<td>3</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Terminal No.</th>
<th>Color of Wire</th>
<th>Signal Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>P</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>V</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>GR</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>O</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Terminal No.</th>
<th>Color of Wire</th>
<th>Signal Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>SHEIELD</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>SHEILD</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Connector No.</th>
<th>Connector Name</th>
<th>Connector Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>B101</td>
<td>WIRE TO WIRE</td>
<td>WHITE</td>
</tr>
<tr>
<td>B104</td>
<td>WIRE TO WIRE</td>
<td>WHITE</td>
</tr>
<tr>
<td>B122</td>
<td>JOINT CONNECTOR-B21</td>
<td>WHITE</td>
</tr>
<tr>
<td>B123</td>
<td>JOINT CONNECTOR-B21</td>
<td>WHITE</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Terminal No.</th>
<th>Color of Wire</th>
<th>Signal Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>SHIELD</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>BR</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>SHIELD</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>BR</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>SB</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>L</td>
<td></td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Connector No.</th>
<th>Connector Name</th>
<th>Connector Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>B122</td>
<td>JOINT CONNECTOR-B21</td>
<td>WHITE</td>
</tr>
<tr>
<td>B123</td>
<td>JOINT CONNECTOR-B21</td>
<td>WHITE</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Terminal No.</th>
<th>Color of Wire</th>
<th>Signal Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>LG</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>O</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Connector No.</th>
<th>Connector Name</th>
<th>Connector Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>B21</td>
<td>SUBWOOFER AMP.</td>
<td>WHITE</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Terminal No.</th>
<th>Color of Wire</th>
<th>Signal Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>O</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>LG</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>P</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>V</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>BR</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>W</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Connector No.</th>
<th>Connector Name</th>
<th>Connector Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>B102</td>
<td>WIRE TO WIRE</td>
<td>WHITE</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Terminal No.</th>
<th>Color of Wire</th>
<th>Signal Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>P</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>G</td>
<td></td>
</tr>
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</table>

Revision: November 2009

AV-57

2010 Maxima
### Base Audio System

#### Audio Unit

<table>
<thead>
<tr>
<th>Terminal No</th>
<th>Color of Wire</th>
<th>Signal Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>P</td>
<td>LADDER R2</td>
</tr>
<tr>
<td>14</td>
<td>R</td>
<td>LADDER GND</td>
</tr>
<tr>
<td>15</td>
<td>16</td>
<td>17</td>
</tr>
<tr>
<td>18</td>
<td>19</td>
<td>20</td>
</tr>
<tr>
<td>21</td>
<td>22</td>
<td>23</td>
</tr>
<tr>
<td>24</td>
<td>25</td>
<td>26</td>
</tr>
<tr>
<td>27</td>
<td>28</td>
<td>29</td>
</tr>
<tr>
<td>30</td>
<td>31</td>
<td>32</td>
</tr>
</tbody>
</table>

#### Bluetooth Control Unit

<table>
<thead>
<tr>
<th>Terminal No</th>
<th>Color of Wire</th>
<th>Signal Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>L</td>
<td>WIRE TO WIRE</td>
</tr>
<tr>
<td>2</td>
<td>GR</td>
<td>WIRE TO WIRE</td>
</tr>
<tr>
<td>3</td>
<td>O</td>
<td>WIRE TO WIRE</td>
</tr>
<tr>
<td>4</td>
<td>B</td>
<td>WIRE TO WIRE</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
<td>WIRE TO WIRE</td>
</tr>
<tr>
<td>7</td>
<td>L</td>
<td>WIRE TO WIRE</td>
</tr>
<tr>
<td>8</td>
<td>BR</td>
<td>WIRE TO WIRE</td>
</tr>
<tr>
<td>9</td>
<td>Y</td>
<td>WIRE TO WIRE</td>
</tr>
<tr>
<td>10</td>
<td>SB</td>
<td>WIRE TO WIRE</td>
</tr>
<tr>
<td>11</td>
<td>12</td>
<td>WIRE TO WIRE</td>
</tr>
</tbody>
</table>

#### Audio System

<table>
<thead>
<tr>
<th>Terminal No</th>
<th>Color of Wire</th>
<th>Signal Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>35</td>
<td>L</td>
<td>CAN H1</td>
</tr>
<tr>
<td>36</td>
<td>P</td>
<td>CAN L1</td>
</tr>
<tr>
<td>37</td>
<td>SHIELD</td>
<td>CAN SHIELD 1</td>
</tr>
<tr>
<td>38</td>
<td>SHIELD</td>
<td>CAN SHIELD 2</td>
</tr>
<tr>
<td>39</td>
<td>G</td>
<td>CAN H2</td>
</tr>
<tr>
<td>40</td>
<td>41</td>
<td>42</td>
</tr>
</tbody>
</table>

#### Mute Control

<table>
<thead>
<tr>
<th>Terminal No</th>
<th>Color of Wire</th>
<th>Signal Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>33</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>34</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## AUDIO UNIT

### < ECU DIAGNOSIS >

#### [BASE AUDIO]

**Connector No:** D399  
**Connector Name:** REAR DOOR SPEAKER RH (WITH BASE AUDIO)  
**Connector Color:** WHITE

<table>
<thead>
<tr>
<th>Terminal No.</th>
<th>Color of Wire</th>
<th>Signal Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>LG</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>

**Connector No:** D306  
**Connector Name:** WIRE TO WIRE  
**Connector Color:** WHITE

<table>
<thead>
<tr>
<th>Terminal No.</th>
<th>Color of Wire</th>
<th>Signal Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>LG</td>
<td>0</td>
</tr>
</tbody>
</table>

**Connector No:** D209  
**Connector Name:** REAR DOOR SPEAKER LH (WITH BASE AUDIO)  
**Connector Color:** WHITE

<table>
<thead>
<tr>
<th>Terminal No.</th>
<th>Color of Wire</th>
<th>Signal Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>LG</td>
<td>0</td>
</tr>
</tbody>
</table>

Revision: November 2009

AV-60

2010 Maxima
### TERMINAL LAYOUT

![Terminal Layout Diagram]

### PHYSICAL VALUES

<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Description</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ (-)</td>
<td>Signal name</td>
<td>Input/Output</td>
<td>Ignition switch</td>
</tr>
<tr>
<td>1 (G)</td>
<td>Ground</td>
<td>M-CAN L</td>
<td>—</td>
</tr>
<tr>
<td>2 (R)</td>
<td>Ground</td>
<td>M-CAN H</td>
<td>—</td>
</tr>
<tr>
<td>3 (B)</td>
<td>Ground</td>
<td>Ground</td>
<td>Input ACC</td>
</tr>
<tr>
<td>8 (V/Y)</td>
<td>Ground</td>
<td>ACC power</td>
<td>Input ACC</td>
</tr>
<tr>
<td>9 (Y/R)</td>
<td>Ground</td>
<td>Battery power</td>
<td>Input OFF</td>
</tr>
<tr>
<td>10 (R/L)</td>
<td>11 (R/Y)</td>
<td>Illumination</td>
<td>Input</td>
</tr>
</tbody>
</table>
## TERMINAL LAYOUT

![Terminal Layout Diagram]

## PHYSICAL VALUES

<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Item</th>
<th>Signal input/output</th>
<th>Condition</th>
<th>Voltage (approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>–</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+2 (LG)</td>
<td>1 (O) Audio signal LH</td>
<td>Input</td>
<td>ON</td>
<td>![Voltage Graph]</td>
</tr>
<tr>
<td>+4 (L)</td>
<td>3 (P) Audio signal RH</td>
<td>Input</td>
<td>ON</td>
<td>![Voltage Graph]</td>
</tr>
<tr>
<td>+5 (V)</td>
<td>6 (Y) Subwoofer audio signal LH</td>
<td>Output</td>
<td>ON</td>
<td>![Voltage Graph]</td>
</tr>
<tr>
<td>+7 (B)</td>
<td>Ground</td>
<td>Ground</td>
<td>Input</td>
<td>ON</td>
</tr>
<tr>
<td>+9 (G)</td>
<td>Ground</td>
<td>ACC power supply</td>
<td>Input</td>
<td>ACC</td>
</tr>
<tr>
<td>+10 (W)</td>
<td>8 (BR) Subwoofer audio signal RH</td>
<td>Output</td>
<td>ON</td>
<td>Receive audio signal</td>
</tr>
</tbody>
</table>
### Reference Value

**INFOID:0000000005460016**

**TERMINAL LAYOUT**

![Terminal Layout Diagram](image)

**PHYSICAL VALUES**

<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Item</th>
<th>Signal input/output</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td></td>
<td></td>
<td>Ignition switch</td>
<td>Operation</td>
</tr>
<tr>
<td>1 (V)</td>
<td>Ground</td>
<td>Battery power</td>
<td>Input</td>
<td>–</td>
</tr>
<tr>
<td>2 (GR)</td>
<td>Ground</td>
<td>ACC power</td>
<td>Input</td>
<td>ACC/ON</td>
</tr>
<tr>
<td>3 (O)</td>
<td>Ground</td>
<td>IGN power</td>
<td>Input</td>
<td>ON/START</td>
</tr>
<tr>
<td>4 (B)</td>
<td>Ground</td>
<td>Ground</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>7 (L)</td>
<td>8</td>
<td>Mic-in signal</td>
<td>Input</td>
<td>–</td>
</tr>
<tr>
<td>9 (BR)</td>
<td>10 (Y)</td>
<td>Audio out</td>
<td>Output</td>
<td>ACC/ON</td>
</tr>
<tr>
<td>11 (SB)</td>
<td>–</td>
<td>Mute</td>
<td>Output</td>
<td>–</td>
</tr>
<tr>
<td>12 (L)</td>
<td>Ground</td>
<td>Remote control switch 1</td>
<td>Input</td>
<td>ACC/ON</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
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<td></td>
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</tbody>
</table>
# BLUETOOTH CONTROL UNIT

**< ECU DIAGNOSIS >**

### [BASE AUDIO]

<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Item</th>
<th>Signal input/output</th>
<th>Condition</th>
<th>Operation</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td></td>
<td></td>
<td>Press SOURCE switch</td>
<td>0 V</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Press switch</td>
<td>0.7 V</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Press VOL UP switch</td>
<td>1.3 V</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Press VOL DOWN switch</td>
<td>2 V</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Except for above.</td>
<td>3.3 V</td>
<td></td>
</tr>
<tr>
<td>13 (P)</td>
<td>Ground</td>
<td>Remote control switch 2</td>
<td>ACC/ON</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14 (R)</td>
<td>-</td>
<td>Remote control ground</td>
<td>Input</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>23 (B)</td>
<td>Gnd</td>
<td>Ground</td>
<td>-</td>
<td>-</td>
<td>0V</td>
</tr>
<tr>
<td>28 (BR)</td>
<td>–</td>
<td>Vehicle speed signal (8-pulse)</td>
<td>Input</td>
<td>ON When vehicle speed is approx. 40 km/h (25 MPH)</td>
<td></td>
</tr>
<tr>
<td>29 (R)</td>
<td>Ground</td>
<td>Microphone power</td>
<td>Output</td>
<td>-</td>
<td>5V</td>
</tr>
<tr>
<td>33 (B)</td>
<td>–</td>
<td>Antenna</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>34 (B)</td>
<td>–</td>
<td>Antenna</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>35 (L)</td>
<td>–</td>
<td>M-CAN H1</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>36 (P)</td>
<td>–</td>
<td>M-CAN L1</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>–</td>
<td>Shield</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>38</td>
<td>–</td>
<td>Shield</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>40 (G)</td>
<td>–</td>
<td>M-CAN H2</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>42 (R)</td>
<td>–</td>
<td>M-CAN L2</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>
### AUDIO SYSTEM

#### SYMPTOM DIAGNOSIS

**AUDIO SYSTEM**

**Symptom Table**

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible cause</th>
<th>Reference page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inoperative</td>
<td>• Audio unit power circuit&lt;br&gt;• Audio unit</td>
<td>• AV-29&lt;br&gt;• AV-70</td>
</tr>
<tr>
<td>Steering wheel audio control switches do not operate</td>
<td>• Steering wheel audio control switches&lt;br&gt;• Audio unit</td>
<td>• AV-43&lt;br&gt;• AV-70</td>
</tr>
<tr>
<td>All speakers do not sound</td>
<td>• Audio unit&lt;br&gt;• Audio unit power circuit</td>
<td>• AV-70&lt;br&gt;• AV-29</td>
</tr>
<tr>
<td>One or several speakers do not sound</td>
<td>• Front door speaker&lt;br&gt;• Tweeter&lt;br&gt;• Rear door speaker&lt;br&gt;• Subwoofer</td>
<td>• AV-34&lt;br&gt;• AV-36&lt;br&gt;• AV-38&lt;br&gt;• AV-40</td>
</tr>
</tbody>
</table>

### CD

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible cause</th>
<th>Reference page</th>
</tr>
</thead>
<tbody>
<tr>
<td>CD cannot be inserted.</td>
<td>Audio unit</td>
<td>AV-70</td>
</tr>
<tr>
<td>CD cannot be ejected.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The CD cannot be played.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The sound skips, stops suddenly, or is distorted.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### HANDS-FREE PHONE

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible cause</th>
<th>Reference page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inoperative</td>
<td>• Bluetooth control unit power and ground circuit&lt;br&gt;• Bluetooth control unit</td>
<td>• AV-31&lt;br&gt;• AV-85</td>
</tr>
<tr>
<td>Steering wheel audio control switches do not operate</td>
<td>• Steering wheel audio control switches&lt;br&gt;• Audio unit&lt;br&gt;• Bluetooth control unit</td>
<td>• AV-43&lt;br&gt;• AV-70&lt;br&gt;• AV-85</td>
</tr>
<tr>
<td>Voice activated control does not operate</td>
<td>• Microphone&lt;br&gt;• Steering wheel audio control switches&lt;br&gt;• Bluetooth control unit</td>
<td>• AV-45&lt;br&gt;• AV-43&lt;br&gt;• AV-85</td>
</tr>
</tbody>
</table>
Description

The majority of the audio concerns are the result of outside causes (bad CD, electromagnetic interference, etc.).

NOISE

The following noise results from variations in field strength, such as fading noise and multi-path noise, or external noise from trains and other sources. It is not a malfunction.

- Fading noise: This noise occurs because of variations in the field strength in a narrow range due to mountains or buildings blocking the signal.
- Multi-path noise: This noise results from the waves sent directly from the broadcast station arriving at the antenna at a different time from the waves which reflect off mountains or buildings.

The vehicle itself can be a source of noise, if noise prevention parts or electrical equipment are malfunctioning. Check if noise is caused and/or changed by engine speed, ignition switch turned to each position, and operation of each piece of electrical equipment, and determine the cause.

NOTE:
The source of the noise can be found easily by listening to the noise while removing the fuses of electrical components, one by one.

Type of Noise and Possible Cause

<table>
<thead>
<tr>
<th>Occurrence condition</th>
<th>Possible cause</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occurs only when engine is ON.</td>
<td>A continuous growling noise occurs. The speed of the noise varies with changes in the engine speed.</td>
</tr>
<tr>
<td>The occurrence of the noise is linked with the operation of the fuel pump.</td>
<td>• Fuel pump condenser</td>
</tr>
<tr>
<td>Noise only occurs when various electrical components are operating.</td>
<td>A cracking or snapping sound occurs with the operation of various switches.</td>
</tr>
<tr>
<td></td>
<td>The noise occurs when various motors are operating.</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>The noise occurs constantly, not just under certain conditions.</td>
<td>• Rear defogger coil malfunction</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>A cracking or snapping sound occurs while the vehicle is being driven, especially when it is vibrating excessively.</td>
<td>• Ground wire of body parts</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
PRECAUTIONS

PRECAUTIONS

Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the SR and SB section of this Service Manual.

WARNING:
• To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
• Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SR section.
• Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

WARNING:
• When working near the Airbag Diagnosis Sensor Unit or other Airbag System sensors with the Ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
• When using air or electric power tools or hammers, always switch the Ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

Precautions Necessary for Steering Wheel Rotation after Battery Disconnect (Early Production, With Electronic Steering Column Lock)

NOTE:
• Before removing and installing any control units, first turn the push-button ignition switch to the LOCK position, then disconnect both battery cables.
• After finishing work, confirm that all control unit connectors are connected properly, then re-connect both battery cables.
• Always use CONSULT-III to perform self-diagnosis as a part of each function inspection after finishing work. If a DTC is detected, perform trouble diagnosis according to self-diagnosis results.

This vehicle is equipped with a push-button ignition switch and a steering lock unit. If the battery is disconnected or discharged, the steering wheel will lock and cannot be turned. If turning the steering wheel is required with the battery disconnected or discharged, follow the procedure below before starting the repair operation.

OPERATION PROCEDURE

1. Connect both battery cables.
   NOTE:
   Supply power using jumper cables if battery is discharged.
2. Carry the Intelligent Key or insert it to the key slot and turn the push-button ignition switch to ACC position. (At this time, the steering lock will be released.)
3. Disconnect both battery cables. The steering lock will remain released with both battery cables disconnected and the steering wheel can be turned.
4. Perform the necessary repair operation.
5. When the repair work is completed, re-connect both battery cables. With the brake pedal released, turn the push-button ignition switch from ACC position to ON position, then to LOCK position. (The steering wheel will lock when the push-button ignition switch is turned to LOCK position.)

6. Perform self-diagnosis check of all control units using CONSULT-III.
## Commercial Service Tools

<table>
<thead>
<tr>
<th>Tool name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power tool</td>
<td>Loosening bolts and nuts</td>
</tr>
</tbody>
</table>

PBID0191E
ON-VEHICLE REPAIR
AUDIO UNIT
Removal and Installation

Base Audio

REMVAL
1. Disconnect the battery negative terminal.
2. Remove the cluster lid D. Refer to IP-12, "Removal and Installation".
3. Remove the cluster lid C lower finisher (1).
   • Pawl
   • Clip

1. Audio unit brackets LH/RH
2. A/C auto amp.
3. Cluster lid C lower
4. Audio unit

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4. Remove the audio unit screws (A) and the cluster lid C screws (B).

5. Pull out the audio unit, disconnect the connectors and remove the audio unit.

INSTALLATION
Installation is in the reverse order of removal.
MONOCHROME DISPLAY

1. Audio display unit
2. Audio/A/C display unit bracket
3. A/C display unit
4. Front cover

REMOVAL
1. Disconnect the battery negative terminal.
2. Remove the cluster lid D. Refer to IP-12, "Removal and Installation".
3. Remove the audio/A/C display unit bracket screws (A), then pull out the audio/A/C display unit assembly (1). Disconnect the audio display unit connectors and remove the audio display unit (1).

4. Remove the front cover, then disconnect the audio display unit connectors and remove the audio display unit from the audio/A/C display unit brackets.

INSTALLATION
Installation is in the reverse order of removal.
Removal and Installation

REMOVAL
1. Remove front tweeter speaker grille. Refer to IP-12, "Removal and Installation".
2. Remove the front tweeter speaker screws (A), then pull out front tweeter speaker (1). Disconnect the front tweeter speaker connector and remove the front tweeter speaker (1).

INSTALLATION
Installation is in the reverse order of removal.
FRONT DOOR SPEAKER

Removal and Installation

REMOVAL
1. Remove the front door finisher. Refer to INT-18, "Removal and Installation".
2. Remove the front door speaker screws (A), then disconnect the front door speaker connector and remove the front door speaker (1).
3. Remove the front door speaker spacer screws (B) and remove the front door speaker spacer (2).

INSTALLATION
Installation is in the reverse order of removal.
REAR DOOR SPEAKER

Removal and Installation

REMOVAL
1. Remove the rear door finisher. Refer to INT-21, "Removal and Installation".
2. Remove the rear door speaker screws (A), then disconnect the rear door speaker connector (B) and remove the rear door speaker (1).

INSTALLATION
Installation is in the reverse order of removal.
Removal and Installation

1. Remove the rear parcel shelf finisher. Refer to INT-26, "Removal and Installation".
2. Remove the subwoofer screws, then pull out the subwoofer, disconnect the subwoofer connector and remove the subwoofer.

Installation
Installation is in the reverse order of removal.
NOTE:
If removing the subwoofer amp. bracket, it is necessary to remove the parcel shelf finisher. The subwoofer amp. can be removed without removing the subwoofer amp. bracket.

REMOVAL
1. Disconnect the battery negative terminal.
2. Remove the trunk upper finisher. Refer to INT-35, "Exploded View".
3. Remove the subwoofer amp. screws, then disconnect the subwoofer amp. connectors and remove the subwoofer amp.

INSTALLATION
Installation is in the reverse order of removal.
STEERING SWITCH

Removal and Installation

REMOVAL
1. Remove the driver airbag module. Refer to SR-5, "Removal and Installation".
2. Remove the steering wheel switch assembly screws (A), then detach the steering wheel switch harness clips (B) and remove the steering wheel switches (1).

INSTALLATION
Installation is in the reverse order of removal.
### Location of Antenna

1. Audio unit  
2. Audio unit antenna feeder  
3. In-line connectors M103, M501  
4. Antenna amp.  
5. Window antenna

### Window Antenna Repair

#### ELEMENT CHECK

1. Attach probe circuit tester (ohm setting) to antenna terminal on each side.

- When measuring continuity, wrap tin foil around the top of probe. Then, press the foil against the wire with your finger.
2. If an element is broken, no continuity will exist.

3. To locate a break, move probe along element. Tester indication will change abruptly when probe passes the broken point.

REPAIR EQUIPMENT
- Conductive silver composition (DuPont No. 4817 or equivalent)
- Ruler 30 cm (11.8 in) long
- Drawing pen
- Heat gun
- Alcohol
- Cloth

REPAIRING PROCEDURE
1. Wipe broken heat wire and its surrounding area clean with a cloth dampened in alcohol.

2. Apply a small amount of conductive silver composition to tip of drawing pen.
   **NOTE:**
   Shake silver composition container before use.

3. Place ruler on glass along broken line. Deposit conductive silver composition on break with drawing pen. Slightly overlap existing heat wire on both sides [preferably 5 mm (0.20 in)] of the break.
4. After repair has been completed, check repaired wire for continuity. This check should be conducted 10 minutes after silver composition is deposited. Do not touch repaired area while test is being conducted.

5. Apply a constant stream of hot air directly to the repaired area for approximately 20 minutes with a heat gun. A minimum distance of 3 cm (1.2 in) should be kept between repaired area and hot air outlet. If a heat gun is not available, let the repaired area dry for 24 hours.
Removal and Installation

REMOVAL
1. Remove the rear pillar finisher RH. Refer to INT-23, "Exploded View".
2. Detach the antenna amp. harness clip (A), disconnect the antenna amp. connectors (B), remove the antenna amp. screw (C) and remove the antenna amp. (1).

INSTALLATION
Installation is in the reverse order of removal.
Removal and Installation

REMOVAL
1. Remove the map lamp assembly. Refer to INL-97, "Removal and Installation".
2. Detach the microphone connector (A).
3. Remove the map lamp covers (1), then remove the map lamp assembly cover (2).
4. Release the microphone tabs (A), then remove the microphone (1).

INSTALLATION
Installation is in the reverse order of removal.
Removal and Installation

REMOVAL
1. Remove the rear parcel shelf. Refer to INT-26, "Removal and Installation".
2. Remove the Bluetooth antenna screw (A), detach the Bluetooth antenna harness clip (B).
3. Fold down the rear seat, if equipped or open the trunk lid, then detach the Bluetooth antenna harness clip (C), disconnect the Bluetooth antenna harness connector (D) and remove the Bluetooth antenna (1).

INSTALLATION
Installation is in the reverse order of removal.
Removal and Installation

REMOVAL
1. Disconnect the battery negative terminal.
2. Remove the trunk upper finisher. Refer to INT-35, "Exploded View".
3. Remove the parcel shelf finisher. Refer to INT-26, "Removal and Installation".
4. From inside the passenger compartment, remove the Bluetooth control unit bracket screws.
5. From inside the trunk, disconnect the Bluetooth control unit connectors (B) and remove the Bluetooth control unit and bracket assembly.
6. Remove the Bluetooth control unit bracket screws (A) to remove the Bluetooth control unit from the Bluetooth control unit brackets.

INSTALLATION
Installation is in the reverse order of removal.
OVERALL SEQUENCE

1. Get information for symptom
   Get detailed information about the symptom from the customer.

2. Confirm the symptom
   Try to confirm the symptom described by the customer.

3. Detect malfunctioning part by diagnostic procedure.

4. Repair or replace the malfunctioning part.

5. Final check
   Confirm the repair.

Inspection end

DETAILED FLOW
1. GET INFORMATION FOR SYMPTOM
Get detailed information from the customer about the symptom (the condition and the environment when the incident/malfunction occurred).

   >> GO TO 2.

2. CONFIRM THE SYMPTOM
Try to confirm the symptom described by the customer. Verify relation between the symptom and the condition when the symptom is detected.

   >> GO TO 3.

3. DETECT MALFUNCTIONING PART BY DIAGNOSTIC PROCEDURE
Inspect according to Diagnostic Procedure of the system.
< BASIC INSPECTION >

Is malfunctioning part detected?

YES  >> GO TO 4.
NO   >> GO TO 2.

4. REPAIR OR REPLACE THE MALFUNCTIONING PART

1. Repair or replace the malfunctioning part.
2. Reconnect parts or connectors disconnected during Diagnostic Procedure.

   >> GO TO 5.

5. FINAL CHECK

Refer to confirmed symptom in step 2, and make sure that the symptom is not detected.

Has the symptom been repaired?

YES  >> Inspection End.
NO   >> GO TO 2.
System Description

AUDIO SYSTEM
The audio system consists of the following components
• Audio unit
• Display unit
• Bluetooth control unit
• Window antenna
• BOSE speaker amp.
• Steering wheel audio control switches
• Front door speakers
• Tweeters
• Center speaker
• Rear door speakers
• Rear subwoofers

When the audio system is on, radio signals are received by the window antenna. The audio unit then sends audio signals to the BOSE speaker amp. The Bose speaker amp. sends the audio signals to the front door speakers, tweeters, center speaker, rear door speakers and rear subwoofers.

Refer to Owner's Manual for audio system operating instructions.

SATellite RADIO SYSTEM
The satellite radio system consists of the following components
• Roof antenna (satellite)
< FUNCTION DIAGNOSIS >

- Satellite radio tuner
When the satellite radio system is on, radio signals are supplied to the satellite radio tuner from the satellite antenna. The satellite radio tuner then sends audio signals to the audio unit. Refer to Owner's Manual for satellite radio system operating instructions.

SPEED SENSITIVE VOLUME SYSTEM
Volume level of this system goes up and down automatically in proportion to the vehicle speed. The control level can be selected by the customer. Refer to Owner's Manual for operating instructions.

Component Parts Location

INFOID:0000000005460039

1. Tweeter LH M51
2. Center speaker M130
3. Display unit M109
4. Tweeter RH M52
5. Audio unit M132, M135, M138
6. Steering wheel audio control switches
7. Front door speaker
   LH D3
   Rh D103
8. Rear door speaker
   LH D202
   RH D302
9. Rear subwoofer
   LH B106
   Rh B107
10. Bluetooth control unit
    B125, B130, B131
11. Satellite radio tuner (if equipped) B111
12. BOSE speaker amp. B109, B110
13. Microphone R7
## Component Description

<table>
<thead>
<tr>
<th>Part name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audio unit</td>
<td>Controls audio system and satellite radio system functions</td>
</tr>
<tr>
<td>Bluetooth control unit</td>
<td>• Receives display signals from the audio unit.</td>
</tr>
<tr>
<td></td>
<td>• Outputs display signals to the display unit.</td>
</tr>
<tr>
<td>Display unit</td>
<td>• Receives display signals from the Bluetooth control unit (with Bluetooth) or from the audio unit.</td>
</tr>
<tr>
<td></td>
<td>• Displays audio system information.</td>
</tr>
<tr>
<td>BOSE speaker amp.</td>
<td>Receives power (amp ON) and audio signals from audio unit, and outputs audio signals to each speaker.</td>
</tr>
<tr>
<td>Steering wheel audio control switches</td>
<td>• Each audio operation can be operated</td>
</tr>
<tr>
<td></td>
<td>• Steering switch signal (operation signal) is output to audio unit</td>
</tr>
<tr>
<td>Front door speakers</td>
<td>• Outputs audio signal from BOSE speaker amp.</td>
</tr>
<tr>
<td></td>
<td>• Outputs high, mid and low range sounds</td>
</tr>
<tr>
<td>Center speaker</td>
<td>• Outputs audio signal from BOSE speaker amp.</td>
</tr>
<tr>
<td></td>
<td>• Outputs high, mid and low range sounds</td>
</tr>
<tr>
<td>Tweeters</td>
<td>• Outputs audio signal from BOSE speaker amp.</td>
</tr>
<tr>
<td></td>
<td>• Outputs high range sounds</td>
</tr>
<tr>
<td>Rear door speakers</td>
<td>• Outputs audio signal from BOSE speaker amp.</td>
</tr>
<tr>
<td></td>
<td>• Outputs high, mid and low range sounds</td>
</tr>
<tr>
<td>Rear subwoofers</td>
<td>• Outputs audio signal from BOSE speaker amp.</td>
</tr>
<tr>
<td></td>
<td>• Outputs low range sounds</td>
</tr>
<tr>
<td>Satellite radio tuner (if equipped)</td>
<td>• Receives radio signals from satellite antenna</td>
</tr>
<tr>
<td></td>
<td>• Sends audio signals to audio unit</td>
</tr>
<tr>
<td>Satellite antenna (if equipped)</td>
<td>Audio signal (satellite radio) is received and output to audio unit.</td>
</tr>
</tbody>
</table>
System Description

Refer to the Owner's Manual for Bluetooth telephone system operating instructions.

**NOTE:**
Cellular telephones must have their wireless connection set up (paired) before using the Bluetooth telephone system.

Bluetooth telephone system allows users who have a Bluetooth cellular telephone to make a wireless connection between their cellular telephone and the Bluetooth control unit. Hands-free cellular telephone calls can be sent and received. Some Bluetooth cellular telephones may not be recognized by the Bluetooth control unit. When a cellular telephone or the Bluetooth control unit is replaced, the telephone must be paired with the Bluetooth control unit. Different cellular telephones may have different pairing procedures. Refer to the cellular telephone operating manual.

**BLUETOOTH CONTROL UNIT**
When the ignition switch is turned to ACC or ON, the Bluetooth control unit will power up. During power up, the Bluetooth control unit is initialized and performs various self-checks. Initialization may take up to 20 seconds. If a phone is present in the vehicle and paired with the Bluetooth control unit, Nissan Voice Recognition will then become active. Bluetooth telephone functions can be turned off using the Nissan Voice Recognition system.

**STEERING WHEEL AUDIO CONTROL SWITCHES**
When buttons on the steering wheel audio control switch are pushed, the resistance in steering wheel audio control switch circuit changes, depending on which button is pushed. The Bluetooth control unit uses this signal to perform various functions while navigating through the voice recognition system. The following functions can be performed using the steering wheel audio control switch:

- Initiate self-diagnosis of the Bluetooth telephone system
- Start a voice recognition session
- Answer and end telephone calls
- Adjust the volume of calls

**MICROPHONE**
The microphone is located in the roof console assembly. The microphone sends a signal to the Bluetooth control unit. The microphone can be actively tested during self-diagnosis.

**AUDIO UNIT**
The audio unit receives signals from the Bluetooth control unit and sends audio signals to the speakers.
HANDS-FREE PHONE SYSTEM
[BOSE W/ MONOCHROME DISPLAY]
Component Parts Location

1. Tweeter LH M51
2. Center speaker M130
3. Display unit M109
4. Tweeter RH M52
5. Audio unit M132, M135, M138
6. Steering wheel audio control switches
7. Front door speaker
   LH D3
   RH D103
8. Rear door speaker
   LH D202
   RH D302
9. Rear subwoofer
   LH B106
   RH B107
10. Bluetooth control unit
    B125, B130, B131
11. Satellite radio tuner (if equipped) B111
12. BOSE speaker amp. B109, B110
13. Microphone R7

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## Component Description

<table>
<thead>
<tr>
<th>Part name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audio unit</td>
<td>- Receives telephone voice signal from Bluetooth control unit</td>
</tr>
<tr>
<td></td>
<td>- Sends telephone voice and voice guidance signals to BOSE speaker amp.</td>
</tr>
<tr>
<td>BOSE speaker amp.</td>
<td>Inputs power (amp ON) and sound signal from audio unit, and outputs sound</td>
</tr>
<tr>
<td></td>
<td>signal to each speaker.</td>
</tr>
<tr>
<td>Door speaker</td>
<td>Receives telephone voice and voice guidance signals from BOSE speaker amp.</td>
</tr>
<tr>
<td>Front tweeter</td>
<td></td>
</tr>
<tr>
<td>Center speaker</td>
<td></td>
</tr>
<tr>
<td>Steering wheel audio control switches</td>
<td>- Start a voice recognition session</td>
</tr>
<tr>
<td></td>
<td>- Answer and end telephone calls</td>
</tr>
<tr>
<td></td>
<td>- Adjust the volume level</td>
</tr>
<tr>
<td>Microphone</td>
<td>Sends voice signals to Bluetooth control unit</td>
</tr>
<tr>
<td>Bluetooth control unit</td>
<td>Controls hands-free phone functions</td>
</tr>
<tr>
<td>Bluetooth antenna</td>
<td>Sends telephone voice signal to Bluetooth control unit</td>
</tr>
</tbody>
</table>
Self-diagnosis mode can perform the following items.

- Versions display
- Channel check diagnosis
- Key check diagnosis
- AV communication diagnosis

**VERSIONS DISPLAY FUNCTION**

1. Turn ignition switch ON.
2. Turn the audio unit off.
3. While pressing “1” button, turn volume control dial clockwise or counterclockwise for 30 clicks or more.
4. Diagnosis default screen of audio display unit is displayed.
   **NOTE:**
   Diagnosis default screen = All icons and segments of the audio display unit are turned on.
5. Pressing the AUDIO switch briefly displays the version display mode. Pressing the AUDIO switch briefly switches to each version display. Pressing and holding the AUDIO switch when displaying each software version returns to the diagnosis default screen.

<table>
<thead>
<tr>
<th>Version display item</th>
<th>Mode</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Software V#####</td>
<td>Audio unit software version is displayed.</td>
</tr>
<tr>
<td></td>
<td>Hardware V#####</td>
<td>Audio unit hardware version is displayed.</td>
</tr>
<tr>
<td></td>
<td>CD Mech V#####</td>
<td>Audio unit CD mechanism version is displayed.</td>
</tr>
<tr>
<td></td>
<td>EEPROM V#####</td>
<td>Audio unit EEPROM version is displayed.</td>
</tr>
<tr>
<td></td>
<td>Disp SW V#####</td>
<td>Display unit software version is displayed.</td>
</tr>
<tr>
<td></td>
<td>Disp HW V#####</td>
<td>Display unit hardware version is displayed.</td>
</tr>
<tr>
<td></td>
<td>SDARS V#####</td>
<td>Audio unit SDARS version is displayed.</td>
</tr>
</tbody>
</table>

**NOTE:**
“VFFFFFF” is displayed when SDARS is not available.

6. Self-diagnosis mode is canceled when the ignition switch is turned OFF.

**CHANNEL CHECK DIAGNOSIS FUNCTION**

1. Turn ignition switch ON.
2. Turn the audio unit off.
3. While pressing the “1” button, turn the volume control dial clockwise or counterclockwise for 30 clicks or more.

4. The diagnosis default screen of audio display unit is displayed. 
   **NOTE:**
   Diagnosis default screen = All icons and segments of the audio display unit are turned on.

5. Turning the TUNE/FOLDER dial clockwise displays the channel check mode. Pressing and holding the AUDIO switch during each channel check or waiting approximately 1 second after finishing all channel checks returns to the diagnosis default screen.

<table>
<thead>
<tr>
<th>Channel check item</th>
<th>Mode</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Channel check</td>
<td>Channel Check</td>
<td>Connection of a speaker can be confirmed by test tone.</td>
</tr>
<tr>
<td></td>
<td>Front Right</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Front Left</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rear Right</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rear Left</td>
<td></td>
</tr>
</tbody>
</table>

6. Self-diagnosis mode is canceled when the ignition switch is turned OFF.

**KEY CHECK DIAGNOSIS FUNCTION**

1. Turn ignition switch ON.
2. Turn the audio unit off.
3. While pressing the “1” button, turn the volume control dial clockwise or counterclockwise for 30 clicks or more.

4. The diagnosis default screen of audio display unit is displayed. 
   **NOTE:**
   Diagnosis default screen = All icons and segments of the audio display unit are turned on.

5. Turning the TUNE/FOLDER dial counterclockwise displays the key check mode, and the pressed switch name is shown. Pressing and holding the AUDIO switch during the key check mode returns to the diagnosis default screen.
### DIAGNOSIS SYSTEM (AUDI UNIT)

**[BOSE W/ MONOCHROME DISPLAY]**

#### Key check item (audio unit)

<table>
<thead>
<tr>
<th>Mode</th>
<th>Display item</th>
<th>Switch name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Preset button “1”</td>
<td>switch</td>
</tr>
<tr>
<td>2</td>
<td>Preset button “2”</td>
<td>switch</td>
</tr>
<tr>
<td>3</td>
<td>Preset button “3”</td>
<td>switch</td>
</tr>
<tr>
<td>4</td>
<td>Preset button “4”</td>
<td>switch</td>
</tr>
<tr>
<td>5</td>
<td>Preset button “5”</td>
<td>switch</td>
</tr>
<tr>
<td>6</td>
<td>Preset button “6”</td>
<td>switch</td>
</tr>
<tr>
<td></td>
<td>POWER</td>
<td>ON-OFF switch</td>
</tr>
<tr>
<td></td>
<td>VOLUME up</td>
<td>VOL up switch</td>
</tr>
<tr>
<td></td>
<td>VOLUME down</td>
<td>VOL down switch</td>
</tr>
<tr>
<td></td>
<td>AM-FM</td>
<td>AM-FM switch</td>
</tr>
<tr>
<td></td>
<td>DISC</td>
<td>DISC switch</td>
</tr>
<tr>
<td></td>
<td>AUX</td>
<td>AUX switch</td>
</tr>
<tr>
<td></td>
<td>AUDIO</td>
<td>AUDIO switch</td>
</tr>
<tr>
<td></td>
<td>TUNE/FOLDER up</td>
<td>TUNE/FOLDER up switch</td>
</tr>
<tr>
<td></td>
<td>TUNE/FOLDER down</td>
<td>TUNE/FOLDER up switch</td>
</tr>
<tr>
<td></td>
<td>DISP CLOCK</td>
<td>DISP CLOCK switch</td>
</tr>
<tr>
<td></td>
<td>SCAN</td>
<td>SCAN switch</td>
</tr>
<tr>
<td></td>
<td>RPT/RDM</td>
<td>RPT RDM switch</td>
</tr>
<tr>
<td></td>
<td>SEEK/TRACK up</td>
<td>SEEK CAT switch</td>
</tr>
<tr>
<td></td>
<td>SEEK/TRACK down</td>
<td>TRACK switch</td>
</tr>
<tr>
<td></td>
<td>LOAD</td>
<td>LOAD switch</td>
</tr>
<tr>
<td></td>
<td>EJECT</td>
<td>EJECT switch</td>
</tr>
</tbody>
</table>

#### Key check item (steering switch)

<table>
<thead>
<tr>
<th>Mode</th>
<th>Display item</th>
<th>Switch name</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>STR SOURCE</td>
<td>SOURCE switch</td>
</tr>
<tr>
<td></td>
<td>STR VOL UP</td>
<td>VOL up switch</td>
</tr>
<tr>
<td></td>
<td>STR VOL DOWN</td>
<td>VOL down switch</td>
</tr>
<tr>
<td></td>
<td>STR UP</td>
<td>MENU up switch</td>
</tr>
<tr>
<td></td>
<td>STR DOWN</td>
<td>MENU down switch</td>
</tr>
<tr>
<td></td>
<td>STR TEL END</td>
<td>switch</td>
</tr>
<tr>
<td></td>
<td>STR TEL SEND</td>
<td>switch</td>
</tr>
</tbody>
</table>

6. Self-diagnosis mode is canceled when the ignition switch is turned OFF.

**AV COMMUNICATION DIAGNOSIS FUNCTION**

1. Turn ignition switch ON.
2. Turn the audio unit off.
3. While pressing the “6” button, turn the volume control dial clockwise or counterclockwise for 30 clicks or more.
4. Returns to diagnosis default screen and displays “AV DIAGNOSIS”.

5. Pressing the AUDIO switch briefly displays the AV communication diagnosis mode. Pressing the AUDIO switch briefly again switches to each AV communication display.

### AV communication diagnosis item

<table>
<thead>
<tr>
<th>Display item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRANSMIT</td>
<td>The communication condition and error counter from the audio unit to the audio display unit are displayed.</td>
</tr>
<tr>
<td>DISP</td>
<td>The communication condition and error counter from the audio display unit to the audio unit.</td>
</tr>
<tr>
<td>DISP MPDT</td>
<td>The communication condition and error counter from the audio unit to the Bluetooth control unit.</td>
</tr>
<tr>
<td>BTHF MPDT</td>
<td>This is displayed on models without Bluetooth.</td>
</tr>
<tr>
<td>NO HISTORY BTHF</td>
<td>The error record can be deleted.</td>
</tr>
<tr>
<td>AV TROUBLE DEL.</td>
<td>Does not delete error record.</td>
</tr>
<tr>
<td>RECORD DEL–NO?</td>
<td>Deletes error record.</td>
</tr>
</tbody>
</table>

6. Pressing the SEEK up switch displays the confirmation screen of “delete error record”. Press the SEEK down switch if returning from RECORD DEL YES? to RECORD DEL NO? The item is automatically determined approximately 6 seconds after it is displayed. Then the display returns to AV TROUBLE DEL display item.

7. Self-diagnosis mode is canceled when the ignition switch is turned OFF.
DIAGNOSIS SYSTEM (BLUETOOTH CONTROL UNIT)

< FUNCTION DIAGNOSIS > [BOSE W/ MONOCHROME DISPLAY]

DIAGNOSIS SYSTEM (BLUETOOTH CONTROL UNIT)

Diagnosis Description

The Bluetooth control unit has two diagnostic checks. The first diagnostic check is performed automatically every ignition cycle during control unit initialization. The second diagnostic check is performed by the technician using the steering wheel audio control switches prior to trouble diagnosis.

BLUETOOTH CONTROL UNIT INITIALIZATION CHECKS

- Internal control unit failure
- Bluetooth antenna connection open or shorted
- Steering wheel audio control switches (SEND/END) stuck closed
- Vehicle speed pulse count
- Microphone connection test (with playback to operator)
- Bluetooth inquiry check

OPERATION PROCEDURE

1. Turn ignition switch to ACC or ON.
2. Wait for the Bluetooth system to complete initialization. This may take up to 20 seconds.
3. Press and hold the steering wheel audio control switch SEND button for at least 5 seconds. The Bluetooth system will begin to play a verbal prompt.
4. While the prompt is playing, press and hold the steering wheel audio control switch END button until you hear the “Diagnostics mode” prompt. The Bluetooth system will sound a 5-second beep.
5. While the beep is sounding, press and hold the steering wheel audio control switch END button again until you hear prompts.
6. The Bluetooth system has now entered into the diagnostic mode. Results of the diagnostic checks will be verbalized to the technician. Refer to AV-98, "Work Flow".
7. After the failure records are reported, an interactive microphone test will be performed. Follow the voice prompt. If the microphone test fails, refer to AV-98, "Work Flow".

Work Flow

<table>
<thead>
<tr>
<th>Failure Message</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Internal failure&quot;</td>
<td>Replace Bluetooth control unit. Refer to AV-85, &quot;Removal and Installation&quot;.</td>
</tr>
<tr>
<td>&quot;Bluetooth antenna open&quot;</td>
<td>1. Inspect harness connection.</td>
</tr>
<tr>
<td>&quot;Bluetooth antenna shorted&quot;</td>
<td>2. Replace Bluetooth antenna. Refer to AV-84, &quot;Removal and Installation&quot;.</td>
</tr>
<tr>
<td>&quot;Phone/Send for Hands Free System is stuck&quot;</td>
<td>Check steering wheel audio control switches. Refer to AV-78, &quot;Removal and Installation&quot;.</td>
</tr>
<tr>
<td>&quot;Phone/End for the Hands Free System is stuck&quot;</td>
<td></td>
</tr>
<tr>
<td>&quot;Microphone test&quot; (failed interactive test)</td>
<td>1. Inspect harness between Bluetooth control unit and microphone.</td>
</tr>
<tr>
<td></td>
<td>2. Replace microphone. Refer to AV-83, &quot;Removal and Installation&quot;.</td>
</tr>
</tbody>
</table>

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POWER SUPPLY AND GROUND CIRCUIT
< COMPONENT DIAGNOSIS >
[BOSE W/ MONOCHROME DISPLAY]

COMPONENT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT

AUDIO UNIT

AUDIO UNIT : Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-133, "Wiring Diagram".

1. CHECK FUSES

Check that the following fuses are not blown.

<table>
<thead>
<tr>
<th>Unit</th>
<th>Terminals</th>
<th>Signal name</th>
<th>Fuse No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audio unit</td>
<td>19</td>
<td>Battery power</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>Ignition switch ACC or ON</td>
<td>17</td>
</tr>
</tbody>
</table>

Are the fuses OK?
YES >> GO TO 2.
NO >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse.

2. POWER SUPPLY CIRCUIT CHECK

1. Disconnect audio unit connector M132.
2. Check voltage between the audio unit connector M132 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>OFF</th>
<th>ACC</th>
<th>ON</th>
</tr>
</thead>
<tbody>
<tr>
<td>M132&lt;br&gt;Connector</td>
<td>Terminal</td>
<td>Battery voltage</td>
<td>Battery voltage</td>
<td>Battery voltage</td>
</tr>
<tr>
<td>19</td>
<td>Ground</td>
<td>Battery voltage</td>
<td>Battery voltage</td>
<td>Battery voltage</td>
</tr>
<tr>
<td>7</td>
<td>Ground</td>
<td>0V</td>
<td>Battery voltage</td>
<td>Battery voltage</td>
</tr>
</tbody>
</table>

Are the voltage results as specified?
YES >> GO TO 3.
NO >> • Check connector housings for disconnected or loose terminals.
     • Repair harness or connector.

3. GROUND CIRCUIT CHECK

Inspect audio unit case ground.

Does case ground pass inspection?
YES >> Inspection End.
NO >> Repair audio unit case ground.

DISPLAY UNIT

DISPLAY UNIT : Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-133, "Wiring Diagram".

1. CHECK FUSES

Check that the following fuses are not blown.
POWER SUPPLY AND GROUND CIRCUIT
[BOSE W/ MONOCHROME DISPLAY]

< COMPONENT DIAGNOSIS >

1. CHECK FUSE

Check for blown fuses.

<table>
<thead>
<tr>
<th>Unit</th>
<th>Terminals</th>
<th>Signal name</th>
<th>Fuse No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display unit</td>
<td>9</td>
<td>Battery power</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>Ignition switch ACC or ON</td>
<td>17</td>
</tr>
</tbody>
</table>

Are the fuses OK?
YES >> GO TO 2.
NO >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse.

2. POWER SUPPLY CIRCUIT CHECK

1. Turn ignition switch OFF.
2. Disconnect display unit connector.
3. Check voltage between the display unit and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>OFF</th>
<th>ACC</th>
<th>ON</th>
</tr>
</thead>
<tbody>
<tr>
<td>M109</td>
<td>9</td>
<td>Ground</td>
<td>Battery voltage</td>
<td>Battery voltage</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>Ground</td>
<td>0V</td>
<td>Battery voltage</td>
</tr>
</tbody>
</table>

Are the voltage results as specified?
YES >> GO TO 3.
NO >> • Check connector housings for disconnected or loose terminals.
• Repair harness or connector.

3. GROUND CIRCUIT CHECK

1. Turn ignition switch OFF.
2. Check continuity between display unit harness connector and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>—</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M109</td>
<td>3</td>
<td>Ground</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Is the inspection result normal?
YES >> Inspection End.
NO >> Repair harness or connector.

BOSE SPEAKER AMP

BOSE SPEAKER AMP : Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-133, "Wiring Diagram".

1. CHECK FUSE

Check for blown fuses.

<table>
<thead>
<tr>
<th>Unit</th>
<th>Terminals</th>
<th>Signal name</th>
<th>Fuse No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOSE speaker amp.</td>
<td>10</td>
<td>Battery power</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>Battery power</td>
<td>26</td>
</tr>
</tbody>
</table>

Are the fuses OK?
YES >> GO TO 2.
NO >> Be sure to eliminate cause of malfunction before installing new fuse.
2. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BOSE speaker amp connector.
3. Check voltage between BOSE speaker amp harness connector and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>Terminal</th>
<th>(-)</th>
<th>Voltage (approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>B110</td>
<td>10</td>
<td></td>
<td>Ground Battery voltage</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Is battery voltage present?
YES >> GO TO 3.
NO >> Check harness between BOSE speaker amp and fuse.

3. CHECK GROUND CIRCUIT

Check continuity between BOSE speaker amp harness connector and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>Terminal</th>
<th>(-)</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>B110</td>
<td>7</td>
<td></td>
<td>Ground Yes</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Does continuity exist?
YES >> Inspection End.
NO >> Repair harness or connector.

SATELLITE RADIO TUNER

SATELLITE RADIO TUNER : Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-133, "Wiring Diagram".

1. CHECK FUSES

Check that the following fuses are not blown.

<table>
<thead>
<tr>
<th>Unit</th>
<th>Terminals</th>
<th>Signal name</th>
<th>Fuse No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satellite radio tuner (factory installed)</td>
<td>32</td>
<td>Battery power</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>36</td>
<td>Ignition switch ACC or ON</td>
<td>17</td>
</tr>
</tbody>
</table>

Are the fuses OK?
YES >> GO TO 2.
NO >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse.

2. POWER SUPPLY CIRCUIT CHECK

1. Turn ignition switch OFF.
2. Disconnect satellite radio tuner (factory installed) connector B111.
3. Check voltage between the satellite radio tuner (factory installed) and ground.
POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE W/ MONOCHROME DISPLAY]

Are the voltage results as specified?

YES >> GO TO 3.

NO >> • Check connector housings for disconnected or loose terminals.
   • Repair harness or connector.

3. GROUND CIRCUIT CHECK

1. Turn ignition switch OFF.
2. Check continuity between satellite radio tuner (factory installed) connector and ground.

Is inspection result OK?

YES >> Inspection End.

NO >> Repair harness or connector.

BLUETOOTH CONTROL UNIT

BLUETOOTH CONTROL UNIT : Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-133, "Wiring Diagram".

1. CHECK FUSE

Check that the following fuses of the Bluetooth control unit are not blown.

<table>
<thead>
<tr>
<th>Power source</th>
<th>Fuse No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battery</td>
<td>24</td>
</tr>
<tr>
<td>Ignition switch ACC or ON</td>
<td>17</td>
</tr>
<tr>
<td>Ignition switch ON or START</td>
<td>3</td>
</tr>
</tbody>
</table>

Are the fuses OK?

YES >> GO TO 2.

NO >> Be sure to eliminate cause of malfunction before installing new fuse.

2. CHECK POWER SUPPLY CIRCUIT

Check voltage between Bluetooth control unit harness connector and ground.

<table>
<thead>
<tr>
<th>(+) Connector Terminal</th>
<th>(-) Ignition switch position Value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>B131</td>
<td>OFF Battery voltage</td>
</tr>
<tr>
<td></td>
<td>ACC Battery voltage</td>
</tr>
<tr>
<td></td>
<td>ON  Battery voltage</td>
</tr>
</tbody>
</table>
POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE W/ MONOCHROME DISPLAY]

YES >> GO TO 3.
NO  >> Check harness between Bluetooth control unit and fuse.

3. CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect Bluetooth control unit connector B131.
3. Check continuity between Bluetooth control unit harness connector and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>B131</td>
<td>4</td>
<td>Ground</td>
</tr>
<tr>
<td></td>
<td>23</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Does continuity exist?
YES  >> Inspection End.
NO   >> Repair harness or connector.

MICROPHONE

MICROPHONE : Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-133, "Wiring Diagram".

1. CHECK POWER SUPPLY CIRCUIT (MICROPHONE SIDE)

Check voltage between microphone harness connector and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Ignition switch position</th>
<th>Value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>R7</td>
<td>4</td>
<td>Ground</td>
<td>ON</td>
</tr>
</tbody>
</table>

Is proper voltage present?
YES  >> GO TO 3.
NO   >> GO TO 2.

2. CHECK POWER SUPPLY CIRCUIT (CONTINUITY)

1. Turn ignition switch OFF.
2. Disconnect Bluetooth control unit and microphone connectors.
3. Check continuity between microphone harness connector R7 (A) terminal 4 and Bluetooth control unit harness connector B131 (B) terminal 29.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>R7</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>B131</td>
<td>29</td>
</tr>
</tbody>
</table>

4. Check continuity between microphone harness connector R7 (A) terminal 4 and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>—</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>R7</td>
<td>4</td>
<td>Ground</td>
</tr>
</tbody>
</table>

Are continuity results as specified?
YES  >> Replace the Bluetooth control unit. Refer to AV-85, "Removal and Installation".

AV-103

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POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >
[BOSE W/ MONOCHROME DISPLAY]

NO  >> Repair harness or connector.

3. CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect Bluetooth control unit and microphone connectors.
3. Check continuity between Bluetooth control unit harness connector B131 (A) terminal 8 and microphone harness connector R7 (B) terminal 2.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>B131</td>
<td>8</td>
<td>R7</td>
</tr>
</tbody>
</table>

Is continuity present?

YES  >> Inspection End.
NO   >> Repair harness or connector.
FRONT DOOR SPEAKER

< COMPONENT DIAGNOSIS >

FRONT DOOR SPEAKER

Description

The audio unit sends audio signals to the BOSE speaker amp. The BOSE speaker amp. amplifies the audio signals before sending them to the front door speakers using the audio signal circuits.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-133, "Wiring Diagram".

1. HARNESS CHECK

1. Disconnect BOSE speaker amp. connector B109 and suspect speaker connector.
2. Check continuity between BOSE speaker amp. harness connector B109 (A) and suspect speaker harness connector (B).

<table>
<thead>
<tr>
<th>A</th>
<th>Connector</th>
<th>Terminal</th>
<th>B</th>
<th>Connector</th>
<th>Terminal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B109</td>
<td>18</td>
<td>D3</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>19</td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>31</td>
<td>D103</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>32</td>
<td></td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

3. Check continuity between BOSE speaker amp. harness connector B109 (A) and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>Connector</th>
<th>Terminal</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B109</td>
<td>18</td>
<td>Ground</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>19</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>31</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>32</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Are continuity test results as specified?

YES >> GO TO 2.
NO >> • Check connector housings for disconnected or loose terminals.
     • Repair harness or connector.

2. FRONT DOOR SPEAKER SIGNAL CHECK
FRONT DOOR SPEAKER

< COMPONENT DIAGNOSIS >

[BOSE W/ MONOCHROME DISPLAY]

1. Connect BOSE speaker amp. connector B109 and suspect speaker connector.
2. Turn ignition switch to ACC.
4. Check the signal between BOSE speaker amp. harness connector B109 terminals with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>B109</td>
<td>(+) 18</td>
<td>(-) 19</td>
<td>Receive audio signal</td>
</tr>
<tr>
<td></td>
<td>(+) 31</td>
<td>(-) 32</td>
<td></td>
</tr>
</tbody>
</table>

Is audio signal voltage as specified?

YES >> Replace suspect speaker. Refer to AV-166, "Removal and Installation".

NO >> GO TO 3.

3. HARNESS CHECK

1. Disconnect audio unit connector M132 and BOSE speaker amp. connector B109.
2. Check continuity between audio unit harness connector M132 (A) and BOSE speaker amp. harness connector B109 (B).

<table>
<thead>
<tr>
<th>A Connector</th>
<th>Terminal</th>
<th>B Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M132</td>
<td>2</td>
<td>B109</td>
<td>35</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td></td>
<td>36</td>
<td></td>
</tr>
<tr>
<td></td>
<td>11</td>
<td></td>
<td>33</td>
<td></td>
</tr>
<tr>
<td></td>
<td>12</td>
<td></td>
<td>34</td>
<td></td>
</tr>
</tbody>
</table>

3. Check continuity between audio unit harness connector M132 (A) and ground.

<table>
<thead>
<tr>
<th>A Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M132</td>
<td>2</td>
<td>Ground</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>11</td>
<td></td>
</tr>
<tr>
<td></td>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>

Are continuity test results as specified?

YES >> GO TO 4.

NO >> • Check connector housings for disconnected or loose terminals.
• Repair harness or connector.

4. FRONT DOOR SPEAKER SIGNAL CHECK
1. Connect audio unit connector and BOSE speaker amp. connector.
2. Turn ignition switch ACC.
4. Check the signal between audio unit harness connector terminals with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminals</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>M132</td>
<td>2 3</td>
<td>11 12</td>
<td>Receive audio signal</td>
</tr>
</tbody>
</table>

Are the audio signal voltage readings as specified?

YES >> Replace BOSE speaker amp. Refer to AV-169, "Removal and Installation".
NO >> Replace audio unit. Refer to AV-161, "Removal and Installation".
TWEETER

Description

The audio unit sends audio signals to the BOSE speaker amp. The BOSE speaker amp. amplifies the audio signals before sending them to the tweeters using the audio signal circuits.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-133, "Wiring Diagram".

1. HARNESS CHECK

1. Disconnect BOSE speaker amp. connector B110 and suspect tweeter connector.
2. Check continuity between BOSE speaker amp. harness connector B110 (A) and suspect tweeter harness connector (B).

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terminal</td>
<td>Connector</td>
<td>Terminal</td>
</tr>
<tr>
<td>1</td>
<td>M51</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>M52</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

3. Check continuity between BOSE speaker amp. harness connector B110 (A) and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>—</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Ground</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

Are continuity test results as specified?

YES >> GO TO 2.

NO >> • Check connector housings for disconnected or loose terminals.
   • Repair harness or connector.

2. TWEETER SIGNAL CHECK
TWEETER

1. Connect BOSE speaker amp. connector B110 and suspect tweeter connector.
2. Turn ignition switch to ACC.
4. Check the signal between BOSE speaker amp. harness connector B110 terminals with CONSULT-III or oscilloscope.

Are the audio signal voltage readings as specified?
YES >> Replace suspect tweeter. Refer to AV-164, "Removal and Installation".
NO >> GO TO 3.

3. HARNESS CHECK

1. Disconnect audio unit connector M132 and BOSE speaker amp. connector B109.
2. Check continuity between audio unit harness connector M132 (A) and BOSE speaker amp. harness connector B109 (B).

<table>
<thead>
<tr>
<th>Connector</th>
<th>A: M132 Terminal</th>
<th>B: B109 Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td></td>
<td>35</td>
<td>Yes</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>36</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td></td>
<td>33</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
<td>34</td>
<td></td>
</tr>
</tbody>
</table>

3. Check continuity between audio unit harness connector M132 (A) and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M132</td>
<td>2</td>
<td>Ground</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>11</td>
<td></td>
</tr>
<tr>
<td></td>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>

Are continuity test results as specified?
YES >> GO TO 4.
NO >> • Check connector housings for disconnected or loose terminals.
• Repair harness or connector.

4. TWEETER SIGNAL CHECK
1. Connect audio unit connector and BOSE speaker amp. connector.
2. Turn ignition switch ACC.
4. Check the signal between audio unit harness connector terminals with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal 1 (+)</th>
<th>Terminal 2 (-)</th>
<th>Condition</th>
<th>Reference signal (V)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M132</td>
<td>2</td>
<td>3</td>
<td>Receive audio signal</td>
<td><img src="ALNA0171ZZ" alt="Signal Graph" /></td>
</tr>
</tbody>
</table>

Are the audio signal voltage readings as specified?

**YES** >> Replace BOSE speaker amp. Refer to AV-169, "Removal and Installation".

**NO** >> Replace audio unit. Refer to AV-161, "Removal and Installation".
CENTER SPEAKER

< COMPONENT DIAGNOSIS >

CENTER SPEAKER

Description

The audio unit sends audio signals to the BOSE speaker amp. The BOSE speaker amp. amplifies the audio signals before sending them to the center speaker using the audio signal circuits.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-133, "Wiring Diagram".

1. HARNESS CHECK

1. Disconnect BOSE speaker amp. connector B109 and center speaker connector M130.
2. Check continuity between BOSE speaker amp. harness connector B109 (A) and center speaker harness connector M130 (B).

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>B109</td>
<td>29</td>
<td>M130</td>
</tr>
<tr>
<td></td>
<td>30</td>
<td></td>
</tr>
</tbody>
</table>

3. Check continuity between BOSE speaker amp. harness connector B109 (A) and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>—</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td></td>
</tr>
<tr>
<td>B109</td>
<td>29</td>
<td>Ground</td>
</tr>
<tr>
<td></td>
<td>30</td>
<td></td>
</tr>
</tbody>
</table>

Are continuity test results as specified?

YES >> GO TO 2.
NO >> • Check connector housings for disconnected or loose terminals.
      • Repair harness or connector.

2. CENTER SPEAKER SIGNAL CHECK

1. Connect BOSE speaker amp. connector B109 and center speaker connector.
2. Turn ignition switch to ACC.
4. Check the signal between BOSE speaker amp. harness connector B109 terminals with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminals (+) (-)</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>B109</td>
<td>29 30</td>
<td>Receive audio signal</td>
<td>(V)</td>
</tr>
</tbody>
</table>

Is the audio signal voltage reading as specified?
< COMPONENT DIAGNOSIS >  [BOSE W/ MONOCHROME DISPLAY]

3. HARNESS CHECK

1. Disconnect audio unit connector M132 and BOSE speaker amp. connector B109.
2. Check continuity between audio unit harness connector M132 (A) and BOSE speaker amp. harness connector B109 (B).

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M132</td>
<td>2</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>34</td>
</tr>
</tbody>
</table>

3. Check continuity between audio unit harness connector M132 (A) and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>—</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M132</td>
<td>2</td>
<td>Ground</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>11</td>
<td></td>
</tr>
<tr>
<td></td>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>

Are continuity test results as specified?

YES >> GO TO 4.
NO  >> • Check connector housings for disconnected or loose terminals.
     • Repair harness or connector.

4. CENTER SPEAKER SIGNAL CHECK

1. Connect audio unit connector and BOSE speaker amp. connector.
2. Turn ignition switch ACC.
4. Check the signal between audio unit harness connector terminals with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminals</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>M132</td>
<td>(+) 2 (−) 3</td>
<td>Receive audio signal</td>
<td></td>
</tr>
</tbody>
</table>

Are the audio signal voltage readings as specified?

YES  >> Replace BOSE speaker amp. Refer to AV-169, "Removal and Installation".
NO   >> Replace audio unit. Refer to AV-161, "Removal and Installation".
REAR DOOR SPEAKER

Description

The audio unit sends audio signals to the BOSE speaker amp. The BOSE speaker amp. amplifies the audio signals before sending them to the rear door speakers using the audio signal circuits.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-133, "Wiring Diagram".

1. HARNESS CHECK

1. Disconnect BOSE speaker amp. connectors B109, B110 and suspect speaker connector.
2. Check continuity between BOSE speaker amp. harness connectors B109 (A) and B110 (B) and suspect speaker harness connector (C).

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: B109</td>
<td>15</td>
<td>C: D202</td>
<td>2</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>28</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>B: B110</td>
<td>9</td>
<td>C: D302</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>14</td>
<td></td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

3. Check continuity between BOSE speaker amp. harness connectors B109 (A) and B110 (B) and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: B109</td>
<td>15</td>
<td>Ground</td>
</tr>
<tr>
<td></td>
<td>28</td>
<td></td>
</tr>
<tr>
<td>B: B110</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td></td>
<td>14</td>
<td></td>
</tr>
</tbody>
</table>

Are the continuity test results as specified?

YES >> GO TO 2.
NO >> • Check connector housings for disconnected or loose terminals.
  • Repair harness or connector.

2. REAR DOOR SPEAKER SIGNAL CHECK
1. Connect BOSE speaker amp. connectors and suspect speaker connector.
2. Turn ignition switch to ACC.
4. Check the signal between BOSE speaker amp. harness connectors B109 (A) and B110 (B) terminals with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminals</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: B109</td>
<td>28 15</td>
<td>Receive audio signal</td>
<td>(V)</td>
</tr>
<tr>
<td>B: B110</td>
<td>14 9</td>
<td>Receive audio signal</td>
<td></td>
</tr>
</tbody>
</table>

Are audio signal voltage readings as specified?

YES >> Replace suspect speaker. Refer to AV-167, "Removal and Installation".

NO >> GO TO 3.

3. HARNESS CHECK

1. Disconnect audio unit connector M132 and BOSE speaker amp. connector B109.
2. Check continuity between audio unit harness connector M132 (A) and BOSE speaker amp. harness connector B109 (B).

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>M132</td>
<td>4</td>
<td>B109</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>13</td>
<td></td>
</tr>
<tr>
<td></td>
<td>14</td>
<td></td>
</tr>
</tbody>
</table>

3. Check continuity between audio unit harness connector M132 (A) and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>—</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Ground</td>
</tr>
<tr>
<td>M132</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>13</td>
<td></td>
</tr>
<tr>
<td></td>
<td>14</td>
<td></td>
</tr>
</tbody>
</table>

Are the continuity test results as specified?

YES >> GO TO 4.

NO >> • Check connector housings for disconnected or loose terminals.
    • Repair harness or connector.

4. REAR DOOR SPEAKER SIGNAL CHECK
2. Turn ignition switch to ACC.
4. Check the signal between audio unit harness connector terminals with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminals</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>M132</td>
<td>(+) 4</td>
<td>(-) 5</td>
<td>Receive audio signal</td>
</tr>
<tr>
<td></td>
<td>(+) 13</td>
<td>(-) 14</td>
<td></td>
</tr>
</tbody>
</table>

Is the audio signal voltage reading as specified?

YES >> Replace BOSE speaker amp. Refer to AV-169, "Removal and Installation".

NO >> Replace audio unit. Refer to AV-161, "Removal and Installation".
SUBWOOFER

Description

The audio unit sends audio signals to the BOSE speaker amp. The BOSE speaker amp. amplifies the audio signals before sending them to the subwoofers using the audio signal circuits.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-133, "Wiring Diagram".

1. HARNESS CHECK

1. Disconnect BOSE speaker amp. connector B110 and suspect rear subwoofer connector.
2. Check continuity between BOSE speaker amp. harness connector B110 (A) and suspect rear subwoofer harness connector (B).

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>B110</td>
<td>13</td>
<td>B106</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>B107</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

3. Check continuity between BOSE speaker amp. harness connector B110 (A) and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Ground</td>
</tr>
<tr>
<td>B110</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

Are the continuity test results as specified?

YES  >> GO TO 2.
NO   >> • Check connector housings for disconnected or loose terminals.
      • Repair harness or connector.

2. REAR SUBWOOFER SIGNAL CHECK
1. Connect BOSE speaker amp. connector B110 and suspect rear subwoofer connector.
2. Turn ignition switch to ACC.
4. Check the signal between BOSE speaker amp. harness connector B110 terminals with CONSULT-III or oscilloscope.

Is the audio signal voltage as specified?
YES >> Replace suspect rear subwoofer. Refer to AV-168, "Removal and Installation".
NO >> GO TO 3.

3. HARNESS CHECK
1. Disconnect audio unit connector M132 and BOSE speaker amp. connector B109.
2. Check continuity between audio unit harness connector M132 (A) and BOSE speaker amp. harness connector B109 (B).

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M132</td>
<td>4</td>
<td>B109</td>
<td>24</td>
<td>Yes</td>
</tr>
<tr>
<td>5</td>
<td>23</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>26</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>25</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. Check continuity between audio unit harness connector M132 (A) terminal and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M132</td>
<td>4</td>
<td>Ground</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Are continuity test results as specified?
YES >> GO TO 4.
NO >> • Check connector housings for disconnected or loose terminals.
     • Repair harness or connector.

4. REAR SUBWOOFER SIGNAL CHECK
2. Turn ignition switch to ACC.
4. Check the signal between audio unit harness connector terminals with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminals</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(+)</td>
<td>(-)</td>
<td></td>
</tr>
<tr>
<td>M132</td>
<td>4</td>
<td>5</td>
<td>Receive audio signal</td>
</tr>
<tr>
<td></td>
<td>13</td>
<td>14</td>
<td>(V)</td>
</tr>
</tbody>
</table>

Is the audio signal voltage as specified?

YES  >> Replace BOSE speaker amp. Refer to AV-169, "Removal and Installation".
NO   >> Replace audio unit. Refer to AV-161, "Removal and Installation".

Revision: November 2009
AV-118  2010 Maxima
AMP ON SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

AMP ON SIGNAL CIRCUIT

Description

When the audio system is turned on, a voltage signal is supplied from the audio unit to the BOSE speaker amp. When this signal is received, the BOSE speaker amp. will turn on.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-133, "Wiring Diagram".

1. CHECK AMP ON SIGNAL (BOSE SPEAKER AMP)

1. Turn audio system ON.
2. Check voltage between BOSE speaker amp. harness connector B109 terminal 20 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Voltage (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>B109</td>
<td>20</td>
<td>Ground</td>
</tr>
</tbody>
</table>

Is inspection result normal?
YES >> Inspection End.
NO  >> GO TO 2.

2. CHECK AMP ON SIGNAL (AUDIO UNIT)

Check voltage between audio unit harness connector M132 terminal 1 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Voltage (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M132</td>
<td>1</td>
<td>Ground</td>
</tr>
</tbody>
</table>

Is inspection result normal?
YES >> Repair harness or connector.
NO  >> Replace audio unit. Refer to AV-161, "Removal and Installation".
STEERING SWITCH

Description

When one of the steering wheel audio control switches is pushed, the resistance in the steering wheel audio control switch circuit changes, depending on which button is pushed.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-49, "Wiring Diagram".

1. CHECK STEERING SWITCH RESISTANCE

1. Disconnect steering switch connector M88.
2. Check resistance between steering switch connector terminals.

<table>
<thead>
<tr>
<th>Terminal</th>
<th>Signal name</th>
<th>Condition</th>
<th>Resistance (Ω) (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>Source</td>
<td>Depress SOURCE switch.</td>
<td>680</td>
</tr>
<tr>
<td>17</td>
<td>Phone/Send</td>
<td>Depress switch.</td>
<td>220</td>
</tr>
<tr>
<td>14</td>
<td>Volume (up)</td>
<td>Depress volume UP switch.</td>
<td>110</td>
</tr>
<tr>
<td>14</td>
<td>Volume (down)</td>
<td>Depress volume DOWN switch.</td>
<td>0</td>
</tr>
<tr>
<td>14</td>
<td>Seek (down)</td>
<td>Depress switch.</td>
<td>220</td>
</tr>
<tr>
<td>14</td>
<td>Seek (up)</td>
<td>Depress switch.</td>
<td>110</td>
</tr>
<tr>
<td>14</td>
<td>Phone/End</td>
<td>Depress switch.</td>
<td>0</td>
</tr>
</tbody>
</table>

Do the steering switches check OK?

YES  >> GO TO 2.
NO   >> Replace steering switch. Refer to AV-78, "Removal and Installation".

2. CHECK HARNESS

1. Turn ignition switch OFF.
2. Disconnect audio unit connector M132 and spiral cable connector M30.
3. Check continuity between audio unit harness connector M132 (A) and spiral cable harness connector M30 (B).

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Connector</th>
<th>Terminal</th>
</tr>
</thead>
<tbody>
<tr>
<td>M132</td>
<td>6</td>
<td>M30</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>16</td>
<td></td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td></td>
<td>33</td>
</tr>
</tbody>
</table>

Yes

4. Check continuity between audio unit connector M133 (A) and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M132</td>
<td>6</td>
<td>Ground</td>
</tr>
<tr>
<td></td>
<td>15, 16</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>16</td>
<td></td>
</tr>
</tbody>
</table>
Are the continuity results as specified?

YES >> GO TO 3.
NO >> Repair harness.

3. SPIRAL CABLE CHECK

1. Disconnect spiral cable connector M88.
2. Check continuity between spiral cable harness connector M30 (A) and M88 (B).

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M30</td>
<td>24</td>
<td>M88</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td></td>
<td>31</td>
<td></td>
<td>15</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>33</td>
<td></td>
<td>17</td>
<td></td>
</tr>
</tbody>
</table>

Does the spiral cable check OK?

YES >> Inspection End.
NO >> Replace spiral cable. Refer to SR-8, "Removal and Installation".
COMMUNICATION SIGNAL CIRCUIT

SATELLITE RADIO TUNER

SATELLITE RADIO TUNER : Description

Communication signals are exchanged between the audio unit and satellite radio tuner using the communication circuits.

SATELLITE RADIO TUNER : Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-133, "Wiring Diagram".

1. CHECK HARNESS - 1

1. Turn ignition switch OFF.
2. Disconnect satellite radio tuner (factory installed) connector B111 and audio unit connector M138.
3. Check continuity between satellite radio tuner (factory installed) harness connector B111 (A) terminal 28 and audio unit harness connector M138 (B) terminal 38.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>B111</td>
<td>28</td>
<td>M138</td>
</tr>
</tbody>
</table>

4. Check continuity between satellite radio tuner (factory installed) harness connector B111 (A) terminal 28 and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
</tr>
<tr>
<td>B111</td>
<td>28</td>
</tr>
<tr>
<td>Ground</td>
<td>No</td>
</tr>
</tbody>
</table>

Are continuity results as specified?
YES >> GO TO 2.
NO >> Repair harness or connector.

2. CHECK HARNESS - 2

1. Check continuity between satellite radio tuner (factory installed) harness connector B111 (A) terminal 29 and audio unit harness connector M138 (B) terminal 39.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>B111</td>
<td>29</td>
<td>M138</td>
</tr>
</tbody>
</table>

2. Check continuity between satellite radio tuner (factory installed) harness connector B111 (A) terminal 29 and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
</tr>
<tr>
<td>B111</td>
<td>29</td>
</tr>
<tr>
<td>Ground</td>
<td>No</td>
</tr>
</tbody>
</table>

Are continuity results as specified?
YES >> GO TO 3.
NO >> Repair harness or connector.
COMMUNICATION SIGNAL CIRCUIT
< COMPONENT DIAGNOSIS >
[BOSE W/ MONOCHROME DISPLAY]

3. CHECK HARNESS - 3

1. Check continuity between satellite radio tuner (factory installed) harness connector B111 (A) terminal 30 and audio unit harness connector M138 (B) terminal 40.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>B111</td>
<td>30</td>
<td>M138</td>
</tr>
</tbody>
</table>

2. Check continuity between satellite radio tuner (factory installed) harness connector B111 (A) terminal 30 and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
</tr>
<tr>
<td>B111</td>
<td>30</td>
</tr>
</tbody>
</table>

Are continuity results as specified?

YES >> GO TO 4.
NO >> Repair harness or connector.

4. CHECK REQ1 SIGNAL

1. Connect satellite radio tuner (factory installed) connector and audio unit connector.
2. Turn ignition switch to ACC.
3. Check signal between satellite radio tuner (factory installed) harness connector B111 terminal 28 and ground with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>(+) Connector</th>
<th>Terminal</th>
<th>(-) Connector</th>
<th>Terminal</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>B111</td>
<td>28</td>
<td>Ground</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Are voltage readings as specified?

YES >> GO TO 5.
NO >> Replace audio unit. Refer to AV-161, "Removal and Installation".

5. CHECK TXD SIGNAL

Check signal between satellite radio tuner (factory installed) harness connector B111 terminal 29 and ground with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>(+) Connector</th>
<th>Terminal</th>
<th>(-) Connector</th>
<th>Terminal</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>B111</td>
<td>29</td>
<td>Ground</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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COMMUNICATION SIGNAL CIRCUIT
[BOSE W/ MONOCHROME DISPLAY]

Are the voltage readings as specified?
YES  >> GO TO 6.
NO   >> Replace satellite radio tuner. Refer to AV-170, "Removal and Installation".

6. CHECK RXD SIGNAL

Check signal between satellite radio tuner (factory installed) harness connector B111 terminal 30 and ground with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>(+)</th>
<th>Terminal</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>B111</td>
<td>30</td>
<td>Ground</td>
</tr>
</tbody>
</table>

Are the voltage readings as specified?
YES  >> Replace satellite radio tuner. Refer to AV-170, "Removal and Installation".
NO   >> Replace audio unit. Refer to AV-161, "Removal and Installation".
SATELLITE RADIO TUNER : Description

Left and right channel audio signals are supplied from the satellite radio tuner to the audio unit through the sound signal circuits.

SATELLITE RADIO TUNER : Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-133, "Wiring Diagram".

**LEFT CHANNEL**

1. **CHECK HARNESS**

   1. Turn ignition switch OFF.
   2. Disconnect satellite radio tuner (factory installed) connector B111 and audio unit connector M138.
   3. Check continuity between satellite radio tuner (factory installed) connector B111 (A) and audio unit connector M138 (B).

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>B111</td>
<td>21</td>
<td>M138</td>
</tr>
<tr>
<td></td>
<td>22</td>
<td></td>
</tr>
</tbody>
</table>

4. Check continuity between satellite radio tuner (factory installed) connector B111 (A) and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>B111</td>
<td>21</td>
<td>Ground</td>
</tr>
<tr>
<td></td>
<td>22</td>
<td>No</td>
</tr>
</tbody>
</table>

Are continuity results as specified?

**YES**  >> GO TO 2.

**NO**   >> Repair harness or connector.

2. **CHECK LEFT CHANNEL AUDIO SIGNAL**

1. Connect satellite radio tuner (factory installed) and audio unit.
2. Turn ignition switch ON.
3. Check signal between satellite radio tuner (factory installed) connector B111 terminals 21 and 22 with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Terminal</td>
</tr>
<tr>
<td>B111</td>
<td>22</td>
<td>21</td>
</tr>
</tbody>
</table>

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2010 Maxima
SOUND SIGNAL CIRCUIT
< COMPONENT DIAGNOSIS > [BOSE W/ MONOCHROME DISPLAY]

Are voltage readings as specified?
YES  >> Replace audio unit. Refer to AV-161, "Removal and Installation".
NO   >> Replace satellite radio tuner. Refer to AV-170, "Removal and Installation".

RIGHT CHANNEL
1. CHECK HARNESS

1. Turn ignition switch OFF.
2. Disconnect satellite radio tuner (factory installed) connector B111 and audio unit connector M138.
3. Check continuity between satellite radio tuner (factory installed) B111 (A) and audio unit M138 (B).

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>B111</td>
<td>23</td>
<td>M138</td>
</tr>
<tr>
<td>24</td>
<td>34</td>
<td></td>
</tr>
</tbody>
</table>

4. Check continuity between satellite radio tuner (factory installed) connector B111 (A) and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>—</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Ground</td>
</tr>
<tr>
<td>B111</td>
<td>23</td>
<td>No</td>
</tr>
<tr>
<td>24</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Are continuity results as specified?
YES  >> GO TO 2.
NO   >> Repair harness or connector.

2. CHECK RIGHT CHANNEL AUDIO SIGNAL

1. Connect satellite radio tuner (factory installed) and audio unit.
2. Turn ignition switch ON.
3. Check signal between satellite radio tuner (factory installed) connector B111 terminals 23 and 24 with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>B111</td>
<td>24</td>
<td>23</td>
</tr>
</tbody>
</table>

Are voltage readings as specified?
YES  >> Replace audio unit. Refer to AV-161, "Removal and Installation".
NO   >> Replace satellite radio tuner. Refer to AV-170, "Removal and Installation".

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AV-126
2010 Maxima
MICROPHONE SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

MICROPHONE SIGNAL CIRCUIT

Description

Voice signals are transmitted from the microphone to the Bluetooth control unit using the microphone signal circuits.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-133, "Wiring Diagram".

1. CHECK HARNESS BETWEEN BLUETOOTH CONTROL UNIT AND MICROPHONE

1. Turn ignition switch OFF.
2. Disconnect Bluetooth control unit connector and microphone connector.
3. Check continuity between Bluetooth control unit harness connector B131 (A) and microphone harness connector R7 (B).

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>B131</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>29</td>
<td>4</td>
</tr>
</tbody>
</table>

4. Check continuity between Bluetooth control unit harness connector B131 (A) and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>B131</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>Ground</td>
</tr>
<tr>
<td></td>
<td>29</td>
<td></td>
</tr>
</tbody>
</table>

Are the continuity test results as specified?

YES >> GO TO 2.
NO >> Repair harness or connector.

2. CHECK MICROPHONE POWER SUPPLY

1. Connect Bluetooth control unit connector and microphone connector.
2. Turn ignition switch ON.
3. Check voltage between microphone harness connector R7 terminal 4 and ground.

<table>
<thead>
<tr>
<th>(+) Connector</th>
<th>Terminal</th>
<th>(-) Voltage (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>R7</td>
<td>4</td>
<td>Ground 5V</td>
</tr>
</tbody>
</table>

Is voltage reading approx. 5 volts?

YES >> GO TO 3.
NO >> Replace Bluetooth control unit. Refer to AV-179, "Removal and Installation".

3. CHECK MICROPHONE SIGNAL
Check signal between Bluetooth control unit harness connector B131 terminals 7 and 8.

<table>
<thead>
<tr>
<th>Connector</th>
<th>(+)</th>
<th>(-)</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>B131</td>
<td>7</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

While talking into microphone

Are voltage readings as specified?

YES  >> Replace Bluetooth control unit. Refer to AV-179, "Removal and Installation".
NO   >> Replace microphone. Refer to AV-177, "Removal and Installation".
## ECU DIAGNOSIS

### AUDIO UNIT

#### Reference Value

### TERMINAL LAYOUT

![TERMINAL LAYOUT Diagram]

### PHYSICAL VALUES

<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Item</th>
<th>Signal input/output</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>–</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 (B/P)</td>
<td>Ground</td>
<td>Amp ON</td>
<td>Output</td>
<td>ON</td>
</tr>
<tr>
<td>2 (G) 3 (R)</td>
<td>Audio signal front LH</td>
<td>Output</td>
<td>ON</td>
<td>Receive audio signal</td>
</tr>
<tr>
<td>4 (W/R) 5 (B/R)</td>
<td>Audio signal rear LH</td>
<td>Output</td>
<td>ON</td>
<td>Receive audio signal</td>
</tr>
<tr>
<td>6 (W/G)</td>
<td>Ground</td>
<td>Steering switch signal A</td>
<td>Input</td>
<td>Depress (\downarrow) switch. 220Ω</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Depress (\triangle) switch. 110Ω</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Depress switch. 0Ω</td>
</tr>
<tr>
<td>7 (V/Y)</td>
<td>Ground</td>
<td>ACC power</td>
<td>Input</td>
<td>Ignition switch ACC or ON</td>
</tr>
<tr>
<td>9 (R/L) 8 (R/Y)</td>
<td>ILL signal</td>
<td>Input</td>
<td>ON</td>
<td>Parking lamps ON</td>
</tr>
<tr>
<td>10 (B)</td>
<td>Shield</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
</tbody>
</table>
### AUDIO UNIT

#### [BOSE W/ MONOCHROME DISPLAY]

<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Item</th>
<th>Signal input/output</th>
<th>Condition</th>
<th>Ignition switch</th>
<th>Operation</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11 (B) 12 (W)</td>
<td>Audio signal front RH</td>
<td>Output</td>
<td>ON</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13 (V) 14 (P)</td>
<td>Audio sound signal rear RH</td>
<td>Output</td>
<td>ON</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 (L/B)</td>
<td>Steering switch ground</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>16 (GR/L)</td>
<td>Ground</td>
<td>Input</td>
<td>ON</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 (V/W)</td>
<td>Ground</td>
<td>Speed signal</td>
<td>Input</td>
<td>ON</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19 (Y/R)</td>
<td>Ground</td>
<td>Battery power</td>
<td>Input</td>
<td>–</td>
<td>–</td>
<td>Battery voltage</td>
</tr>
<tr>
<td>20 (B)</td>
<td>Shield</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>21 (G) 22 (R)</td>
<td>Multimedia CAN</td>
<td>Input</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>23 (W/B)</td>
<td>Ground</td>
<td>Steering switch signal A</td>
<td>Output</td>
<td>ON</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Reference value (Approx.):**
- Depress SOURCE switch: 680Ω
- Depress switch: 220Ω
- Depress volume UP switch: 110Ω
- Depress volume DOWN switch: 0Ω
- When vehicle speed is approx 40 km/hr (25 mph): 20 ms
- Depress \( \nabla \) switch: 220Ω
- Depress \( \Delta \) switch: 110Ω
- Depress switch: 0Ω

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AV-130

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<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Item</th>
<th>Signal input/output</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>24 (GR/R)</td>
<td>Ground</td>
<td>Output</td>
<td>ON</td>
<td>680Ω</td>
</tr>
<tr>
<td></td>
<td>Steering switch signal B</td>
<td></td>
<td></td>
<td>220Ω</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>110Ω</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0Ω</td>
</tr>
<tr>
<td>26</td>
<td>Shield</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>27 (BR)</td>
<td>28 (Y)</td>
<td>Tel Voice signal</td>
<td>ON</td>
<td>With Bluetooth transmitting tel-voice signals to the audio unit.</td>
</tr>
<tr>
<td>29 (G/O)</td>
<td>Ground</td>
<td>Telephone ON</td>
<td>ON</td>
<td>-</td>
</tr>
<tr>
<td>30 (LG/B)</td>
<td>Shield</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>32 (Y/L)</td>
<td>31 (W/L)</td>
<td>Satellite radio sound signal LH</td>
<td>ON</td>
<td>When satellite mode is selected</td>
</tr>
<tr>
<td>34 (BR/L)</td>
<td>33 (Y/G)</td>
<td>Satellite radio sound signal RH</td>
<td>ON</td>
<td>When satellite mode is selected</td>
</tr>
<tr>
<td>35</td>
<td>Shield</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>36</td>
<td>Shield</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>38 (R)</td>
<td>Ground</td>
<td>Request signal (SAT-CONT)</td>
<td>ON</td>
<td>When satellite mode is selected</td>
</tr>
</tbody>
</table>
## AUDIO UNIT

### [BOSE W/ MONOCHROME DISPLAY]

<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Item</th>
<th>Signal input/output</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>–</td>
<td>Item</td>
<td>Ignition switch</td>
<td>Operation</td>
</tr>
<tr>
<td>39 (B)</td>
<td>Ground</td>
<td>Communication signal (SAT-CONT)</td>
<td>Input</td>
<td>ON</td>
</tr>
<tr>
<td>40 (G)</td>
<td>Ground</td>
<td>Communication signal (CONT-SAT)</td>
<td>Input</td>
<td>ON</td>
</tr>
</tbody>
</table>

![Graph](SKIA9300J)

![Graph](SKIA9301J)
BOSE AUDIO SYSTEM CONNECTORS - WITH MONOCHROME DISPLAY
### Connector M11: WIRE TO WIRE
- **Terminal No.**: 9, 10, 11, 12, 13, 14, 15
- **Color of Wire**: B, BR, G, BR, Q.B
- **Signal Name**: --

### Connector M30: SPIRAL CABLE
- **Terminal No.**: 24, 31, 33
- **Color of Wire**: W, G, R, B, L/B, B/P, V/W
- **Signal Name**: AUDIO STRG SW, REMOTE A, AUDIO STRG SW, AUDIO STRG SW, AUDIO STRG SW, AUDIO STRG SW, 9PR OUT

### Connector M9: WIRE TO WIRE
- **Terminal No.**: 1, 2, 4, 5, 6, 7
- **Color of Wire**: LG, B/Y, LO, GR, BR, W
- **Signal Name**: --

### Connector M14: WIRE TO WIRE
- **Terminal No.**: 7, 8
- **Color of Wire**: BR, B/R
- **Signal Name**: --
### ECU Diagnosis: Bose with Monochrome Display

#### Audio Unit

<table>
<thead>
<tr>
<th>Connector No.</th>
<th>Connector Name</th>
<th>Signal Name</th>
<th>Wire Color</th>
<th>Terminal No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>M92</td>
<td>Tweeter LH (with Bose Audio System)</td>
<td>L</td>
<td>Brown</td>
<td>1, 2</td>
</tr>
<tr>
<td>M91</td>
<td>Tweeter RH (with Bose Audio System)</td>
<td>R</td>
<td>Brown</td>
<td>3, 4</td>
</tr>
<tr>
<td>M90</td>
<td>Wire to wire</td>
<td>G</td>
<td>Brown</td>
<td>5, 6</td>
</tr>
<tr>
<td>M93</td>
<td>Wire to wire</td>
<td>B</td>
<td>Gray</td>
<td>7, 8</td>
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---

**Revision:** November 2009

**Model:** 2010 Maxima

---

**Identification:** ABN1A15720GB
### AUDIO UNIT

#### < ECU DIAGNOSIS >

**[BOSE W/ MONOCHROME DISPLAY]**

<table>
<thead>
<tr>
<th>Connector No.</th>
<th>Signal Name</th>
<th>Color of Wire</th>
<th>Terminal No.</th>
<th>Connector Color</th>
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</thead>
<tbody>
<tr>
<td>M1-35</td>
<td></td>
<td></td>
<td></td>
<td>WHT/CRE</td>
</tr>
<tr>
<td>M1-35</td>
<td></td>
<td></td>
<td></td>
<td>WHT/CRE</td>
</tr>
<tr>
<td>M1-32</td>
<td></td>
<td></td>
<td></td>
<td>WHT/CRE</td>
</tr>
<tr>
<td>M1-38</td>
<td></td>
<td></td>
<td></td>
<td>WHT/CRE</td>
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</tbody>
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<table>
<thead>
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<th>Signal Name</th>
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<th>Terminal No.</th>
<th>Connector Color</th>
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<tbody>
<tr>
<td>M001</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td>GRAY</td>
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<table>
<thead>
<tr>
<th>Connector No.</th>
<th>Signal Name</th>
<th>Color of Wire</th>
<th>Terminal No.</th>
<th>Connector Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>M001</td>
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</tr>
<tr>
<td>M001</td>
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**Revision: November 2009**

**2010 Maxima**
### Audio Unit

**ECU Diagnosis**

**Bose W/ Monochrome Display**

<table>
<thead>
<tr>
<th>Terminal No.</th>
<th>Color of Wire</th>
<th>Signal Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>LG</td>
<td>Front Door Left+ Output</td>
</tr>
<tr>
<td>2</td>
<td>V</td>
<td>Front Door Left- Output</td>
</tr>
<tr>
<td>3</td>
<td>W</td>
<td>Front Door Right- Output</td>
</tr>
<tr>
<td>4</td>
<td>G</td>
<td>Front Door Right+ Output</td>
</tr>
<tr>
<td>5</td>
<td>BR</td>
<td>Front Door Center+ Output</td>
</tr>
<tr>
<td>6</td>
<td>BR</td>
<td>Rear Door Left+ Output</td>
</tr>
<tr>
<td>7</td>
<td>B</td>
<td>Rear Door Left- Output</td>
</tr>
<tr>
<td>8</td>
<td>BR</td>
<td>Rear Door Right+ Output</td>
</tr>
<tr>
<td>9</td>
<td>B</td>
<td>Rear Door Right- Output</td>
</tr>
<tr>
<td>10</td>
<td>BR</td>
<td>Rear Door Center+ Output</td>
</tr>
<tr>
<td>11</td>
<td>L</td>
<td>LH Woofer+ Output</td>
</tr>
<tr>
<td>12</td>
<td>B</td>
<td>RH Woofer+ Output</td>
</tr>
<tr>
<td>13</td>
<td>L</td>
<td>RH Door Left+ Output</td>
</tr>
<tr>
<td>14</td>
<td>LG</td>
<td>RH Door Left- Output</td>
</tr>
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**Connector B107**

- **Connector Name**: REAR SUBWOOFER RH
- **Connector Color**: WHITE

**Connector B106**

- **Connector Name**: REAR SUBWOOFER LH
- **Connector Color**: WHITE

**Connector B110**

- **Connector Name**: Bose Speaker Amp.
- **Connector Color**: BROWN

---

*Revision: November 2009
2010 Maxima*
### AUDIO UNIT

< ECU DIAGNOSIS >

[BOSE W/ MONOCHROME DISPLAY]

#### SATELLITE RADIO TUNER CONNECTOR B111

<table>
<thead>
<tr>
<th>Connector No.</th>
<th>Name</th>
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<th>Color of Wire</th>
<th>Terminal No.</th>
<th>Connector Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>B111</td>
<td>SATELLITE RADIO TUNER</td>
<td>SAT LCH (-)</td>
<td>W</td>
<td>21</td>
<td>WHITE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SAT LCH (+)</td>
<td>V</td>
<td>22</td>
<td>WHITE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SAT RCH (-)</td>
<td>B</td>
<td>23</td>
<td>WHITE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SAT RCH (+)</td>
<td>R</td>
<td>24</td>
<td>WHITE</td>
</tr>
</tbody>
</table>

#### BLUETOOTH CONTROL UNIT CONNECTOR B125

<table>
<thead>
<tr>
<th>Connector No.</th>
<th>Name</th>
<th>Signal Name</th>
<th>Color of Wire</th>
<th>Terminal No.</th>
<th>Connector Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>B125</td>
<td>BLUETOOTH CONTROL UNIT</td>
<td>CAN H1</td>
<td>L</td>
<td>35</td>
<td>WHITE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CAN L1</td>
<td>P</td>
<td>36</td>
<td>WHITE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CAN SHIELD 1</td>
<td>SHIELD</td>
<td>37</td>
<td>WHITE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CAN SHIELD 2</td>
<td>SHIELD</td>
<td>38</td>
<td>WHITE</td>
</tr>
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<td></td>
<td>CAN H2</td>
<td>G</td>
<td>39</td>
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<tr>
<td></td>
<td></td>
<td>CAN L2</td>
<td>R</td>
<td>41</td>
<td>WHITE</td>
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#### BLUETOOTH CONTROL UNIT CONNECTOR B130

<table>
<thead>
<tr>
<th>Connector No.</th>
<th>Name</th>
<th>Signal Name</th>
<th>Color of Wire</th>
<th>Terminal No.</th>
<th>Connector Color</th>
</tr>
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<tbody>
<tr>
<td>B130</td>
<td>BLUETOOTH CONTROL UNIT</td>
<td>HARN EARTH</td>
<td>B</td>
<td>33</td>
<td>BLACK</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BAT</td>
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<td>34</td>
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<tr>
<td></td>
<td></td>
<td>ACC</td>
<td>G</td>
<td>35</td>
<td>BLACK</td>
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</table>

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2010 Maxima
### Audio Unit

**Connector Name:** BLUETOOTH CONTROL UNIT (WITH BOSE AUDIO SYSTEM)

<table>
<thead>
<tr>
<th>Terminal No.</th>
<th>Color of Wire</th>
<th>Signal Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>V</td>
<td>+B</td>
</tr>
<tr>
<td>2</td>
<td>GR</td>
<td>ACC</td>
</tr>
<tr>
<td>3</td>
<td>O</td>
<td>IGN</td>
</tr>
<tr>
<td>4</td>
<td>B</td>
<td>GND</td>
</tr>
<tr>
<td>5</td>
<td>L</td>
<td>MIC IN +</td>
</tr>
<tr>
<td>6</td>
<td>SHIELD</td>
<td>MIC IN -</td>
</tr>
<tr>
<td>7</td>
<td>BR</td>
<td>AUDIO OUT (+)</td>
</tr>
<tr>
<td>8</td>
<td>Y</td>
<td>AUDIO OUT (-)</td>
</tr>
<tr>
<td>9</td>
<td>SB</td>
<td>MUTE CONTROL (WITH MONOCHROME DISPLAY)</td>
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**Connector Name:** WIRE TO WIRE

<table>
<thead>
<tr>
<th>Terminal No.</th>
<th>Color of Wire</th>
<th>Signal Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>L</td>
<td>LADDER IN1 (WITH MONOCHROME DISPLAY)</td>
</tr>
<tr>
<td>13</td>
<td>P</td>
<td>LADDER IN2 (WITH MONOCHROME DISPLAY)</td>
</tr>
<tr>
<td>14</td>
<td>R</td>
<td>LADDER GND (WITH MONOCHROME DISPLAY)</td>
</tr>
<tr>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td></td>
<td></td>
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<td>20</td>
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<tr>
<td>21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>B</td>
<td>CONT4 (WITH MONOCHROME DISPLAY)</td>
</tr>
<tr>
<td>24</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>26</td>
<td></td>
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<td>27</td>
<td></td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>BR</td>
<td>SPEED</td>
</tr>
<tr>
<td>29</td>
<td>R</td>
<td>MIC POWER</td>
</tr>
<tr>
<td>30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>31</td>
<td></td>
<td></td>
</tr>
<tr>
<td>32</td>
<td></td>
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</table>

**Connector Name:** MICROPHONE

<table>
<thead>
<tr>
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<th>Color of Wire</th>
<th>Signal Name</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>L</td>
<td>MIC SIG</td>
</tr>
<tr>
<td>2</td>
<td>SHIELD</td>
<td>MIC GEN</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>R</td>
<td>MIC VCC</td>
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</table>

**Connector Name:** WIRE TO WIRE

<table>
<thead>
<tr>
<th>Terminal No.</th>
<th>Color of Wire</th>
<th>Signal Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>LG</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>O</td>
<td></td>
</tr>
</tbody>
</table>

**Connector Name:** WIRE TO WIRE

<table>
<thead>
<tr>
<th>Terminal No.</th>
<th>Color of Wire</th>
<th>Signal Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>O</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>LG</td>
<td></td>
</tr>
</tbody>
</table>

---

**Revision:** November 2009

**Model:** 2010 Maxima
### Stereo Unit<br>

#### Front Door Speaker (Right Side)
- **Connector**: D103
- **Color**: WHITE
- **Terminal**: 1 LG 2 O

#### Rear Door Speaker (Right Side)
- **Connector**: D302
- **Color**: BROWN
- **Terminal**: 1 LG 2 O

#### Front Door Speaker (Left Side)
- **Connector**: D101
- **Color**: WHITE
- **Terminal**: 7 LG 8 O

#### Rear Door Speaker (Left Side)
- **Connector**: D302
- **Color**: BROWN
- **Terminal**: 1 LG 2 O

#### Wire to Wire
- **Connector**: D1201
- **Color**: WHITE
- **Terminal**: 1 LG 2 O

---

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<table>
<thead>
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<th>Connector No.</th>
<th>Connector Name</th>
<th>Connector Color</th>
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</thead>
<tbody>
<tr>
<td>D966</td>
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<tr>
<th>Terminal No.</th>
<th>Color of Wire</th>
<th>Signal Name</th>
</tr>
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<tbody>
<tr>
<td>9</td>
<td>LG</td>
<td>_</td>
</tr>
<tr>
<td>10</td>
<td>O</td>
<td>_</td>
</tr>
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</table>

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AV-147
### PHYSICAL VALUES

<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Description</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ (–)</td>
<td>Signal name</td>
<td>Input/Output</td>
<td>Ignition switch</td>
</tr>
<tr>
<td>1 (G)</td>
<td>Ground M-CAN L</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>2 (R)</td>
<td>Ground M-CAN H</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>3 (B)</td>
<td>Ground</td>
<td>Input ACC</td>
<td>—</td>
</tr>
<tr>
<td>8 (V/Y)</td>
<td>Ground ACC power</td>
<td>Input ACC</td>
<td>—</td>
</tr>
<tr>
<td>9 (Y/R)</td>
<td>Ground Battery power</td>
<td>Input OFF</td>
<td>—</td>
</tr>
<tr>
<td>10 (R/L) 11 (R/Y)</td>
<td>Illumination</td>
<td>Input</td>
<td>—</td>
</tr>
</tbody>
</table>
BOSE SPEAKER AMP

< ECU DIAGNOSIS >

BOSE SPEAKER AMP

Reference Values

TERMINAL LAYOUT

![Terminal Layout Diagram]

PHYSICAL VALUES

<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Description</th>
<th>Condition</th>
<th>Reference value</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>Signal name</td>
<td>Input/Output</td>
<td></td>
</tr>
<tr>
<td>1 (LG) 2 (V)</td>
<td>Sound signal front tweeter LH</td>
<td>Output</td>
<td></td>
</tr>
<tr>
<td>4 (G) 3 (W)</td>
<td>Sound signal front tweeter RH</td>
<td>Output</td>
<td></td>
</tr>
<tr>
<td>5 (R) 6 (BR)</td>
<td>Sound signal rear subwoofer RH</td>
<td>Output</td>
<td></td>
</tr>
<tr>
<td>7 (B)</td>
<td>Ground</td>
<td>Ignition switch ON</td>
<td>0 V</td>
</tr>
<tr>
<td>10 (SB)</td>
<td>Battery power supply</td>
<td>Ignition switch OFF</td>
<td>Battery voltage</td>
</tr>
<tr>
<td>11 (GR)</td>
<td>Battery power supply</td>
<td>Ignition switch OFF</td>
<td>Battery voltage</td>
</tr>
<tr>
<td>12 (B)</td>
<td>Ground</td>
<td>Ignition switch ON</td>
<td>0 V</td>
</tr>
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</table>
## BOSE SPEAKER AMP

**BOSE W/ MONOCHROME DISPLAY**

<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Description</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>Signal name</td>
<td>Input/Output</td>
<td></td>
</tr>
<tr>
<td>13 (L) 14 (LG) 18 (W) 20 (SB) 24 (GR) 26 (BR) 28 (G)</td>
<td>Sound signal rear subwoofer LH Sound signal rear door speaker RH Sound signal front door speaker LH</td>
<td>Output</td>
<td>Sound output.</td>
</tr>
<tr>
<td>23 (L) 25 (Y) 15 (L)</td>
<td>Sound signal rear LH Sound signal rear RH Sound signal rear door speaker LH</td>
<td>Input</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>Ignition switch</td>
<td></td>
<td></td>
<td>Sound output.</td>
</tr>
<tr>
<td>ON</td>
<td></td>
<td></td>
<td>Battery voltage</td>
</tr>
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<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Description</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>Signal name</td>
<td>Input/Output</td>
<td></td>
</tr>
<tr>
<td>13 (L) 14 (LG) 18 (W) 20 (SB) 24 (GR) 26 (BR) 28 (G)</td>
<td>Sound signal rear subwoofer LH Sound signal rear door speaker RH Sound signal front door speaker LH</td>
<td>Output</td>
<td>Sound output.</td>
</tr>
<tr>
<td>23 (L) 25 (Y) 15 (L)</td>
<td>Sound signal rear LH Sound signal rear RH Sound signal rear door speaker LH</td>
<td>Input</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>Ignition switch</td>
<td></td>
<td></td>
<td>Sound output.</td>
</tr>
<tr>
<td>ON</td>
<td></td>
<td></td>
<td>Battery voltage</td>
</tr>
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<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Description</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
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</thead>
<tbody>
<tr>
<td>+</td>
<td>Signal name</td>
<td>Input/Output</td>
<td></td>
</tr>
<tr>
<td>29 (V) 30 (P)</td>
<td>Sound signal center speaker</td>
<td>Output</td>
<td>Sound output.</td>
</tr>
<tr>
<td>31 (R) 32 (BR)</td>
<td>Sound signal front door speaker RH</td>
<td>Output</td>
<td>Sound output.</td>
</tr>
<tr>
<td>33 (LG) 34 (V)</td>
<td>Sound signal front RH</td>
<td>Input</td>
<td>Sound output.</td>
</tr>
<tr>
<td>35 (W) 36 (B)</td>
<td>Sound signal front LH</td>
<td>Input</td>
<td>Sound output.</td>
</tr>
</tbody>
</table>

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AV-151

2010 Maxima
**PHYSICAL VALUES**

<table>
<thead>
<tr>
<th>Terminal</th>
<th>Description</th>
<th>Input/Output</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ 22 (W)</td>
<td>Satellite radio sound signal LH</td>
<td>Output</td>
<td>Ignition switch ON</td>
<td>When satellite radio mode is selected</td>
</tr>
<tr>
<td>– 21 (BR)</td>
<td></td>
<td></td>
<td></td>
<td><a href="#">Graph</a></td>
</tr>
<tr>
<td>23 (Y)</td>
<td>Satellite radio sound signal RH</td>
<td>Output</td>
<td>Ignition switch ON</td>
<td>When satellite radio mode is selected</td>
</tr>
<tr>
<td>24 (B)</td>
<td></td>
<td></td>
<td></td>
<td><a href="#">Graph</a></td>
</tr>
<tr>
<td>28 (R)</td>
<td>Request signal (SAT→CONT)</td>
<td>Output</td>
<td>Ignition switch ON</td>
<td>When satellite radio mode is selected</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td><a href="#">Graph</a></td>
</tr>
<tr>
<td>29 (V)</td>
<td>Communication signal (SAT→CONT)</td>
<td>Output</td>
<td>Ignition switch ON</td>
<td>When satellite radio mode is selected</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td><a href="#">Graph</a></td>
</tr>
</tbody>
</table>
### Terminal Description

<table>
<thead>
<tr>
<th>Terminal</th>
<th>Description</th>
<th>Condition</th>
<th>Reference Value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>—</td>
<td>Input/Output</td>
<td>When satellite radio mode is selected</td>
</tr>
<tr>
<td>30 (L)</td>
<td>Ground</td>
<td>Input</td>
<td>—</td>
</tr>
<tr>
<td>32 (P)</td>
<td>Ground</td>
<td>Input</td>
<td>—</td>
</tr>
<tr>
<td>35 (B)</td>
<td>Ground</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>36 (GR)</td>
<td>Ground</td>
<td>Input</td>
<td>—</td>
</tr>
</tbody>
</table>
## PHYSICAL VALUES

<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Description</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ –</td>
<td>Signal name</td>
<td>Input/Output</td>
<td></td>
</tr>
<tr>
<td>1 (V) Ground</td>
<td>Battery power supply</td>
<td>Input</td>
<td>Ignition switch OFF</td>
</tr>
<tr>
<td>2 (GR) Ground</td>
<td>ACC power supply</td>
<td>Input</td>
<td>Ignition switch ACC</td>
</tr>
<tr>
<td>3 (O) Ground</td>
<td>Ignition signal</td>
<td>Input</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>4 (B) Ground</td>
<td>ground</td>
<td>—</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>7 (L) Ground</td>
<td>Microphone signal</td>
<td>Input</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>8</td>
<td>Shield</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>9 (BR) 10 (Y) TEL voice signal</td>
<td>Output</td>
<td>Ignition switch ON</td>
<td>During voice guide output with the switch pressed</td>
</tr>
<tr>
<td>11 (SB) Mute control</td>
<td>—</td>
<td>—</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>Terminal (Wire color)</td>
<td>Description</td>
<td>Condition</td>
<td>Reference value (Approx.)</td>
</tr>
<tr>
<td>----------------------</td>
<td>-------------</td>
<td>-----------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>+</td>
<td>-</td>
<td>Signal name</td>
<td>Input/Output</td>
</tr>
<tr>
<td>12 (L) Ground</td>
<td>Steering switch signal A</td>
<td>Output ON</td>
<td>Press SEEK UP switch Approx. 0.75V</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Press VOL UP switch Approx. 2.0V</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Except for above Approx. 5.0V</td>
</tr>
<tr>
<td>13 (P) Ground</td>
<td>Steering switch signal B</td>
<td>Output ON</td>
<td>Press SEEK DOWN switch Approx. 0.75V</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Press VOL DOWN switch Approx. 2.0V</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Except for above Approx. 5.0V</td>
</tr>
<tr>
<td>14 (R) -</td>
<td>Shield</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>23 (B) Ground</td>
<td>Ground</td>
<td>Input</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0V</td>
</tr>
<tr>
<td>28 (BR) Ground</td>
<td>Vehicle speed signal (8-pulse)</td>
<td>Input Ignition switch ON</td>
<td>When vehicle speed is approx. 40 km/h (25MPH)</td>
</tr>
<tr>
<td>29 (R) Ground</td>
<td>Microphone power</td>
<td>Output Ignition switch ON</td>
<td>—</td>
</tr>
<tr>
<td>33 (B) —</td>
<td>TEL antenna</td>
<td>Input</td>
<td>—</td>
</tr>
<tr>
<td>34 (B) —</td>
<td>Shield</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>35 (L) —</td>
<td>AV communication signal (H)</td>
<td>Input/Output</td>
<td>—</td>
</tr>
<tr>
<td>36 (P) —</td>
<td>AV communication signal (L)</td>
<td>Input/Output</td>
<td>—</td>
</tr>
<tr>
<td>37 — Shield</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>38 — Shield</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>40 (G) —</td>
<td>AV communication signal (H)2</td>
<td>Input/Output</td>
<td>—</td>
</tr>
<tr>
<td>42 (L) —</td>
<td>AV communication signal (L)2</td>
<td>Input/Output</td>
<td>—</td>
</tr>
</tbody>
</table>
# Audio System Symptom Diagnosis

## Audio System

### Symptom Table

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible Cause</th>
<th>Reference page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inoperative</td>
<td>• Audio unit power supply and ground circuit • Audio unit</td>
<td>AV-99, AV-161, &quot;Removal and Installation&quot;</td>
</tr>
<tr>
<td>Steering wheel audio control switches do not operate</td>
<td>• Steering wheel audio control switches • Audio unit</td>
<td>AV-120, AV-161, &quot;Removal and Installation&quot;</td>
</tr>
<tr>
<td>All speakers do not sound</td>
<td>• Audio unit • Audio unit power supply and ground circuit • BOSE speaker amp. ON signal • BOSE speaker amp.</td>
<td>AV-161, &quot;Removal and Installation&quot; AV-99 AV-119 AV-169</td>
</tr>
<tr>
<td>One or several speakers do not sound</td>
<td>• Front door speaker • Tweeter • Center speaker • Rear door speaker • Rear subwoofer</td>
<td>AV-105 AV-108 AV-111 AV-113 AV-116</td>
</tr>
</tbody>
</table>

### CD

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible cause</th>
<th>Reference page</th>
</tr>
</thead>
<tbody>
<tr>
<td>CD cannot be inserted.</td>
<td>Audio unit</td>
<td>AV-161, &quot;Removal and Installation&quot;</td>
</tr>
<tr>
<td>CD cannot be ejected.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The CD cannot be played.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The sound skips, stops suddenly, or is distorted.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Satellite Radio

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible cause</th>
<th>Reference page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inoperative</td>
<td>• Satellite radio tuner power or ground circuit • Satellite radio tuner • Satellite radio tuner communication circuit</td>
<td>AV-101 AV-122 AV-170</td>
</tr>
<tr>
<td>Right or left channel does not sound</td>
<td>• Satellite radio tuner right channel audio signal circuit • Satellite radio tuner • Satellite radio tuner left channel audio signal circuit</td>
<td>AV-125 AV-125 AV-170</td>
</tr>
</tbody>
</table>

### Hands-Free Phone

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible cause</th>
<th>Reference page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inoperative</td>
<td>• Bluetooth control unit power and ground circuit • Bluetooth control unit</td>
<td>AV-102 AV-179</td>
</tr>
<tr>
<td>Steering wheel audio control switches do not operate</td>
<td>• Steering wheel audio control switches • audio unit • Bluetooth control unit</td>
<td>AV-120 AV-161, &quot;Removal and Installation&quot; AV-179</td>
</tr>
<tr>
<td>Voice activated control does not operate</td>
<td>• Microphone • Steering wheel audio control switches • Bluetooth control unit</td>
<td>AV-127 AV-179</td>
</tr>
</tbody>
</table>
NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[BOSE W/ MONOCROME DISPLAY]

NORMAL OPERATING CONDITION

Description

The majority of the audio concerns are the result of outside causes (bad CD, electromagnetic interference, etc.).

NOISE

The following noise results from variations in field strength, such as fading noise and multi-path noise, or external noise from trains and other sources. It is not a malfunction.

- Fading noise: This noise occurs because of variations in the field strength in a narrow range due to mountains or buildings blocking the signal.
- Multi-path noise: This noise results from the waves sent directly from the broadcast station arriving at the antenna at a different time from the waves which reflect off mountains or buildings.

The vehicle itself can be a source of noise, if noise prevention parts or electrical equipment are malfunctioning. Check if noise is caused and/or changed by engine speed, ignition switch turned to each position, and operation of each piece of electrical equipment, and determine the cause.

NOTE:
The source of the noise can be found easily by listening to the noise while removing the fuses of electrical components, one by one.

Type of Noise and Possible Cause

<table>
<thead>
<tr>
<th>Occurrence condition</th>
<th>Possible cause</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occurs only when engine is ON.</td>
<td>• Ignition components</td>
</tr>
<tr>
<td>A continuous growling noise occurs. The speed of the noise varies with changes in the engine speed.</td>
<td></td>
</tr>
<tr>
<td>The occurrence of the noise is linked with the operation of the fuel pump.</td>
<td>• Fuel pump condenser</td>
</tr>
<tr>
<td>A cracking or snapping sound occurs with the operation of various switches.</td>
<td>• Relay malfunction, audio unit malfunction</td>
</tr>
<tr>
<td>The noise occurs when various motors are operating.</td>
<td>• Motor case ground</td>
</tr>
<tr>
<td>• Motor</td>
<td></td>
</tr>
<tr>
<td>The noise occurs constantly, not just under certain conditions.</td>
<td>• Rear defogger coil malfunction</td>
</tr>
<tr>
<td>• Open circuit in printed heater</td>
<td>• Poor ground of antenna feeder line</td>
</tr>
<tr>
<td>A cracking or snapping sound occurs while the vehicle is being driven, especially when it is vibrating excessively.</td>
<td>• Ground wire of body parts</td>
</tr>
<tr>
<td>• Ground due to improper part installation</td>
<td>• Wiring connections or a short circuit</td>
</tr>
</tbody>
</table>
The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the SR and SB section of this Service Manual.

**WARNING:**
- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SR section.
- Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

**PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS**

**WARNING:**
- When working near the Airbag Diagnosis Sensor Unit or other Airbag System sensors with the Ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the Ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

**Precautions Necessary for Steering Wheel Rotation after Battery Disconnect (Early Production, With Electronic Steering Column Lock)**

**NOTE:**
- Before removing and installing any control units, first turn the push-button ignition switch to the LOCK position, then disconnect both battery cables.
- After finishing work, confirm that all control unit connectors are connected properly, then re-connect both battery cables.
- Always use CONSULT-III to perform self-diagnosis as a part of each function inspection after finishing work.
  - If a DTC is detected, perform trouble diagnosis according to self-diagnosis results.
- This vehicle is equipped with a push-button ignition switch and a steering lock unit.
- If the battery is disconnected or discharged, the steering wheel will lock and cannot be turned.
- If turning the steering wheel is required with the battery disconnected or discharged, follow the procedure below before starting the repair operation.

**OPERATION PROCEDURE**

1. Connect both battery cables.
   **NOTE:**
   Supply power using jumper cables if battery is discharged.
2. Carry the Intelligent Key or insert it to the key slot and turn the push-button ignition switch to ACC position. (At this time, the steering lock will be released.)
3. Disconnect both battery cables. The steering lock will remain released with both battery cables disconnected and the steering wheel can be turned.
4. Perform the necessary repair operation.
5. When the repair work is completed, re-connect both battery cables. With the brake pedal released, turn the push-button ignition switch from ACC position to ON position, then to LOCK position. (The steering wheel will lock when the push-button ignition switch is turned to LOCK position.)

6. Perform self-diagnosis check of all control units using CONSULT-III.
## Commercial Service Tools

<table>
<thead>
<tr>
<th>Tool name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power tool</td>
<td>Loosening bolts and nuts</td>
</tr>
</tbody>
</table>

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AV-160  
2010 Maxima
1. Disconnect the battery negative terminal.
2. Remove the cluster lid D. Refer to IP-12, "Removal and Installation".
3. Remove the cluster lid C lower finisher (1).
   • Pawl
   • Clip

REMoval
1. Disconnect the battery negative terminal.
2. Remove the cluster lid D. Refer to IP-12, "Removal and Installation".
3. Remove the cluster lid C lower finisher (1).
   • Pawl
   • Clip
4. Remove the audio unit screws (A) and the cluster lid C screws (B).

5. Pull out the audio unit, disconnect the connectors and remove the audio unit.

INSTALLATION
Installation is in the reverse order of removal.
Removal and Installation

**Monochrome Display**

1. Disconnect the battery negative terminal.
2. Remove the cluster lid D. Refer to IP-12, "Removal and Installation".
3. Remove the audio/A/C display unit bracket screws (A), then pull out the audio/A/C display unit assembly (1). Disconnect the audio display unit connectors and remove the audio display unit (1).
4. Remove the front cover, then disconnect the audio display unit connectors and remove the audio display unit from the audio/A/C display unit brackets.

**INSTALLATION**

Installation is in the reverse order of removal.
FRONT TWEETER

Removal and Installation

REMOVAL
1. Remove the front tweeter speaker grille. Refer to IP-12, "Removal and Installation".
2. Remove the front tweeter speaker screws (A), then pull out the front tweeter speaker (1), disconnect the front tweeter speaker connector and remove the front tweeter speaker (1).

INSTALLATION
Installation is in the reverse order of removal.
CENTER SPEAKER

Removal and Installation

REMOVAL
1. Remove the center speaker grille. Refer to IP-12, "Removal and Installation".
2. Remove the center speaker screws (A), then pull out the center speaker (1), then disconnect the center speaker connector and remove the center speaker (1).

INSTALLATION
Installation is in the reverse order of removal.
Removal and Installation

REMOVAL
1. Remove the front door finisher. Refer to INT-18, "Removal and Installation".
2. Remove the front door speaker screws (A), then disconnect the front door speaker connector and remove the front door speaker (1).
3. Remove the front door speaker spacer screws (B) and remove the front door speaker spacer (2).

INSTALLATION
Installation is in the reverse order of removal.
REAR DOOR SPEAKER

Removal and Installation

REMOVAL

1. Remove the rear door finisher. Refer to INT-21, “Removal and Installation”.
2. Remove the rear door speaker screws (A), then disconnect the rear door speaker connector (B) and remove the rear door speaker (1).

INSTALLATION

Installation is in the reverse order of removal.
1. Remove the rear parcel shelf finisher. Refer to INT-26, "Removal and Installation".
2. Remove the subwoofer screws, then pull out the subwoofer, disconnect the subwoofer connector and remove the subwoofer.

INSTALLATION
Installation is in the reverse order of removal.
BOSE SPEAKER AMP

Removal and Installation

1. Disconnect the battery negative terminal.
2. Remove the rear parcel shelf. Refer to INT-26, "Removal and Installation".
3. Remove the Bose speaker amp. screws.
4. Remove the trunk upper finisher. Refer to INT-35, "Exploded View".
5. Disconnect the Bose speaker amp. connectors and remove the Bose speaker amp.

INSTALLATION

Installation is in the reverse order of removal.
SATELLITE RADIO TUNER

Removal and Installation

REMOVAL
1. Disconnect the battery negative terminal.
2. Remove the trunk upper finisher. Refer to INT-35, "Exploded View".
3. Remove the parcel shelf finisher. Refer to INT-26, "Removal and Installation".
4. From inside the passenger compartment, remove the bracket screws and lower the assembly for access.
5. Remove the satellite radio tuner unit screws (A), disconnect the satellite tuner harness connectors (B) and remove the satellite radio tuner (1).

INSTALLATION
Installation is in the reverse order of removal.
SATELLITE RADIO ANTENNA

Removal and Installation

REMOVAL
1. Lower the headliner at the rear. Refer to INT-32, "Exploded View".
2. Disconnect the satellite radio antenna connector (A), then remove the satellite radio antenna nut (B) and remove the satellite radio antenna (1).

INSTALLATION
Installation is in the reverse order of removal.
STEERING SWITCH

Removal and Installation

REMOVAL

1. Remove the driver airbag module. Refer to SR-5, "Removal and Installation".
2. Remove the steering wheel switch assembly screws (A), then detach the steering wheel switch harness clips (B) and remove the steering wheel switches (1).

INSTALLATION

Installation is in the reverse order of removal.
AUDIO ANTENNA

< ON-VEHICLE REPAIR >

AUDIO ANTENNA

[BOSE W/ MONOCHROME DISPLAY]

Location of Antenna

Window Antenna Repair

ELEMENT CHECK

1. Attach probe circuit tester (ohm setting) to antenna terminal on each side.

• When measuring continuity, wrap tin foil around the top of probe. Then, press the foil against the wire with your finger.
2. If an element is broken, no continuity will exist.

3. To locate a break, move probe along element. Tester indication will change abruptly when probe passes the broken point.

REPAIR EQUIPMENT
- Conductive silver composition (DuPont No. 4817 or equivalent)
- Ruler 30 cm (11.8 in) long
- Drawing pen
- Heat gun
- Alcohol
- Cloth

REPAIRING PROCEDURE
1. Wipe broken heat wire and its surrounding area clean with a cloth dampened in alcohol.
2. Apply a small amount of conductive silver composition to tip of drawing pen.
   NOTE: Shake silver composition container before use.
3. Place ruler on glass along broken line. Deposit conductive silver composition on break with drawing pen. Slightly overlap existing heat wire on both sides (preferably 5 mm (0.20 in)) of the break.
4. After repair has been completed, check repaired wire for continuity. This check should be conducted 10 minutes after silver composition is deposited. Do not touch repaired area while test is being conducted.

5. Apply a constant stream of hot air directly to the repaired area for approximately 20 minutes with a heat gun. A minimum distance of 3 cm (1.2 in) should be kept between repaired area and hot air outlet. If a heat gun is not available, let the repaired area dry for 24 hours.
Antenna Amp.

Removal and Installation

**Removal**
1. Remove the rear pillar finisher RH. Refer to INT-23, "Exploded View".
2. Detach the antenna amp. harness clip (A), disconnect the antenna amp. connectors (B), remove the antenna amp. screw (C) and remove the antenna amp. (1).

**Installation**
Installation is in the reverse order of removal.
Removal and Installation

REMOVAL
1. Remove the map lamp assembly. Refer to INL-97, "Removal and Installation".
2. Detach the microphone connector (A).
3. Remove the map lamp covers (1), then remove the map lamp assembly cover (2).
4. Release the microphone tabs (A), then remove the microphone (1).

INSTALLATION
Installation is in the reverse order of removal.
Removal and Installation

REMOVAL
1. Remove the rear parcel shelf. Refer to INT-26, "Removal and Installation".
2. Remove the Bluetooth antenna screw (A), detach the Bluetooth antenna harness clip (B).
3. Fold down the rear seat, if equipped or open the trunk lid, then detach the Bluetooth antenna harness clip (C), disconnect the Bluetooth antenna harness connector (D) and remove the Bluetooth antenna (1).

INSTALLATION
Installation is in the reverse order of removal.
BLUETOOTH CONTROL UNIT

< ON-VEHICLE REPAIR >

BLUETOOTH CONTROL UNIT

Removal and Installation

REMOVAL

1. Disconnect the battery negative terminal.
2. Remove the trunk upper finisher. Refer to INT-35, "Exploded View".
3. Remove the parcel shelf finisher. Refer to INT-26, "Removal and Installation".
4. From inside the passenger compartment, remove the bracket screws and lower the assembly for access.
5. Remove the Bluetooth control unit screws (A), disconnect the Bluetooth control unit connectors (B) and remove the Bluetooth control unit (1).

INSTALLATION

Installation is in the reverse order of removal.
OVERALL SEQUENCE

1. CHECK SYMPTOM

Check the malfunction symptoms by performing the following items.

- Interview the customer to obtain the malfunction information (conditions and environment when the malfunction occurred).
- Check the symptom.

>> GO TO 2

2. SELF-DIAGNOSIS (CONSULT-III)

1. Connect CONSULT-III and perform “SELF-DIAGNOSIS” for “MULTI AV”.

   NOTE:
   Skip to step 4 of the diagnosis procedure if “MULTI AV” is not displayed.

2. Check if any DTC No. is displayed in the self-diagnosis results.
DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION > [BOSE W/ COLOR DISPLAY]

Is any DTC No. displayed?
YES >> GO TO 3
NO >> GO TO 4

3. CHECK SELF-DIAGNOSIS RESULTS (CONSULT-III)

1. Check the DTC No. indicated in the self-diagnosis results.
2. Perform the relevant diagnosis referring to the DTC No. list. Refer to AV-304, "DTC Index".

NOTE:
Start with the diagnosis for the CAN communication system if “CAN COMM CIRCUIT [U1000] or CONTROL UNIT (CAN) [U1010]” is displayed.

>> GO TO 5

4. PERFORM DIAGNOSIS BY SYMPTOM

Perform the relevant diagnosis referring to the diagnosis chart by symptom. Refer to AV-316, "Symptom Table".

>> GO TO 5

5. REPAIR OR REPLACE MALFUNCTIONING PARTS

Repair or replace the identified malfunctioning parts.

NOTE:
Erase the stored self-diagnosis results after repairing or replacing the relevant components if any DTC No. has been indicated in the self-diagnosis results.

>> GO TO 6

6. CHECK AFTER REPAIR

1. Perform self-diagnosis for “MULTI AV” with CONSULT-III after repairing or replacing the malfunctioning parts.
2. Check if any DTC No. is displayed in the self-diagnosis results.

Is any DTC No. displayed?
YES >> GO TO 3
NO >> GO TO 7

7. FINAL CHECK

Perform the operation check to confirm that the malfunction symptom is solved or that any other symptoms are present.

Are any symptoms present?
YES >> GO TO 4
NO >> Inspection End.
< BASIC INSPECTION >

REAR VIEW MONITOR POSSIBLE ROUTE LINE CENTER POSITION ADJUSTMENT

REAR VIEW MONITOR POSSIBLE ROUTE LINE CENTER POSITION ADJUSTMENT : Description

Adjust the center position of the possible route line of the rear view monitor if it is shifted.

REAR VIEW MONITOR POSSIBLE ROUTE LINE CENTER POSITION ADJUSTMENT : Special Repair Requirement

1. STEERING OPERATION

Steer the steering wheel to the leftmost and rightmost positions.

>> GO TO 2

2. DRIVING

Drive the vehicle straight ahead 100 m (328.1 ft) or more at a speed of 30 km/h (18.6 MPH) or more.

>> END

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description

BEFORE REPLACEMENT

When replacing AV control unit, save or print current vehicle specification with CONSULT-III configuration before replacement.

AFTER REPLACEMENT

CAUTION:
When replacing AV control unit, you must perform “WRITE CONFIGURATION” with CONSULT-III.

• Complete the procedure of “WRITE CONFIGURATION” in order.
• If you set incorrect “WRITE CONFIGURATION”, incidents might occur.
• Configuration is different for each vehicle model. Confirm configuration of each vehicle model.

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement

1. SAVING VEHICLE SPECIFICATION

CONSULT-III Configuration
Perform “READ CONFIGURATION” to save or print current vehicle specification. Refer to AV-183, "CONFIGURATION (AV CONTROL UNIT) : Description”.

NOTE:
If “READ CONFIGURATION” cannot be used, use the “WRITE CONFIGURATION - Manual selection”.

>> GO TO 2.

2. REPLACE AV CONTROL UNIT

Replace AV control unit. Refer to AV-322, "Removal and Installation”.

>> GO TO 3.

3. WRITING VEHICLE SPECIFICATION

CONSULT-III Configuration
Perform "WRITE CONFIGURATION - Config file" or "WRITE CONFIGURATION - Manual selection" to write vehicle specification. Refer to AV-183, "CONFIGURATION (AV CONTROL UNIT) : Special Repair Requirement".

>> GO TO 4.

4. OPERATION CHECK

Check that the operation of the AV control unit and camera images (fixed guide lines and predictive course lines) are normal.

>> WORK END

CONFIGURATION (AV CONTROL UNIT)

CONFIGURATION (AV CONTROL UNIT) : Description

• Since vehicle specifications are not included in the AV control unit after replacement, it is required to write vehicle specifications with CONSULT-III.
• Configuration has three functions as follows.

<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>READ CONFIGURATION</td>
<td>• Reads the vehicle configuration of current AV control unit.</td>
</tr>
<tr>
<td></td>
<td>• Saves the read vehicle configuration.</td>
</tr>
<tr>
<td>WRITE CONFIGURATION-Config file</td>
<td>Writes the vehicle configuration with saved data.</td>
</tr>
</tbody>
</table>

CONFIGURATION (AV CONTROL UNIT) : Special Repair Requirement

1. WRITING MODE SELECTION

CONSULT-III Configuration
Select "CONFIGURATION" of AV control unit.

When writing saved data>>GO TO 2.
When writing manually>>GO TO 3.

2. PERFORM "WRITE CONFIGURATION-CONFIG FILE"

CONSULT-III Configuration
Perform "WRITE CONFIGURATION-Config file".

>> WORK END

3. PERFORM "WRITE CONFIGURATION-MANUAL SELECTION"

CONSULT-III Configuration
Select "WRITE CONFIGURATION-Manual selection" to write vehicle specifications into the AV control unit. For data to write, refer to AV-183, "CONFIGURATION (AV CONTROL UNIT) : Configuration List".

>> GO TO 4.

4. OPERATION CHECK

Check that the operation of the AV control unit and camera images (fixed guide lines and predictive course lines) are normal.

>> WORK END

CONFIGURATION (AV CONTROL UNIT) : Configuration List

CAUTION:
### MANUAL SETTING ITEM

<table>
<thead>
<tr>
<th>Items</th>
<th>Setting value</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>STEERING</td>
<td>LHD</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>RHD</td>
<td>—</td>
</tr>
<tr>
<td>GRADE</td>
<td>MODE 1</td>
<td>BASE</td>
</tr>
<tr>
<td></td>
<td>MODE 2</td>
<td>OTHER</td>
</tr>
<tr>
<td>ENGINE TYPE</td>
<td>NORMAL</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>HYBRID</td>
<td>—</td>
</tr>
<tr>
<td>BODY TYPE</td>
<td>NORMAL</td>
<td>NORMAL</td>
</tr>
<tr>
<td></td>
<td>CONV</td>
<td>CONVERTIBLE</td>
</tr>
<tr>
<td>CAMERA SYSTEM</td>
<td>NONE/AVM</td>
<td>NONE or AVM</td>
</tr>
<tr>
<td></td>
<td>REAR</td>
<td>REAR CAMERA</td>
</tr>
<tr>
<td></td>
<td>REAR + SIDE</td>
<td>REAR + SIDE CAMERA</td>
</tr>
<tr>
<td>4WAS</td>
<td>WITHOUT</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>WITH</td>
<td>—</td>
</tr>
<tr>
<td>SOUND SYSTEM</td>
<td>BASE</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>BOSE</td>
<td>—</td>
</tr>
<tr>
<td>ANTENNA TYPE</td>
<td>ROD TYPE</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>LONG TYPE</td>
<td>—</td>
</tr>
<tr>
<td>DUAL-ZONE AUTO TEMP</td>
<td>WITHOUT</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>WITH</td>
<td>—</td>
</tr>
<tr>
<td>DVD PLAY FUNCTION</td>
<td>WITHOUT</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>WITH</td>
<td>—</td>
</tr>
</tbody>
</table>
## < BASIC INSPECTION >

### [BOSE W/ COLOR DISPLAY]

<table>
<thead>
<tr>
<th>BODY TYPE</th>
<th>MANUAL SETTING ITEM</th>
<th>Setting value</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>SED 2DR</td>
<td>SEDAN 2 DOOR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SED 4DR 1</td>
<td>SEDAN 4 DOOR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SED 4DR 2</td>
<td>SEDAN 4 DOOR (WIDE)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H/B 2DR</td>
<td>H/B 2 DOOR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H/B 4DR</td>
<td>H/B 4 DOOR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COUPE 2DR</td>
<td>COUPE 2 DOOR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COUPE T</td>
<td>COUPE T BAR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WGN 4DR 2</td>
<td>49H WAGON 4 DOOR</td>
<td>Wagon 4 door (WIDE)</td>
<td></td>
</tr>
<tr>
<td>H/T 2DR 1</td>
<td>H/T 2 DOOR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H/T 2DR 2</td>
<td>H/T 2 DOOR (HIGH-ROOF)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H/T 4DR 1</td>
<td>H/T 4 DOOR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H/T 4DR 2</td>
<td>H/T 4 DOOR (WIDE)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WGN 2DR</td>
<td>WAGON 2 DOOR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WGN 4DR 1</td>
<td>WAGON 4 DOOR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WGN 4DR 3</td>
<td>WAGON 4 DOOR (HIGH-ROOF)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WGN 4DR 4</td>
<td>56H WAGON 4 DOOR</td>
<td>Wagon 4 door (WIDE)</td>
<td></td>
</tr>
<tr>
<td>VAN 2DR</td>
<td>VAN 2 DOOR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VAN 4DR 1</td>
<td>VAN 4 DOOR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VAN 4DR 2</td>
<td>VAN 4 DOOR (HIGH-ROOF)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CONV</td>
<td>CONVERTIBLE</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The audio system consists of the following components:
- AV control unit
- Display unit
- BOSE speaker amp.
- Window antenna
- Steering wheel audio control switches
- A/C and AV switch assembly
- Front door speakers
- Tweeters
- Center speaker
- Rear door speakers
- Rear subwoofer

When the audio system is on, radio signals are received by the window antenna. The AV control unit then sends audio signals to the BOSE speaker amp. The BOSE speaker amp. amplifies the audio signals before sending them to the front door speakers, tweeters, center speaker, rear door speakers and rear subwoofers. Refer to Owner's Manual for audio system operating instructions.

SATELLITE RADIO SYSTEM
The satellite radio system consists of the following components:
- Satellite antenna
- Satellite radio tuner

When the satellite radio system is on, radio signals are supplied to the satellite radio tuner from the satellite antenna. The satellite radio tuner then sends audio signals to the AV control unit. Refer to Owner's Manual for satellite radio system operating instructions.

SPEED SENSITIVE VOLUME SYSTEM
Volume level of this system goes up and down automatically in proportion to the vehicle speed. The control level can be selected by the customer. Refer to Owner's Manual for operating instructions.
1. Tweeter LH M51  
2. Center speaker M130  
3. Tweeter RH M52  
4. AV control unit M152, M153, M154, M155, M156, M157, M158, M159 (located behind A/C and AV switch assembly)  
5. Display unit M141  
6. A/C and AV switch assembly M98
<table>
<thead>
<tr>
<th>Component Description</th>
<th>Part name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AV control unit</td>
<td>Controls audio system and satellite radio system functions</td>
</tr>
<tr>
<td></td>
<td>Display unit</td>
<td>Displays all audio and climate control related information</td>
</tr>
<tr>
<td></td>
<td>BOSE speaker amp.</td>
<td>Receives power (amp ON) and audio signals from AV control unit and outputs audio signals to each speaker.</td>
</tr>
</tbody>
</table>
|                       | Steering wheel audio control switches | • Audio operation can be operated  
• Steering switch signal is output to AV control unit                                     |
|                       | Front door speakers  | • Outputs audio signal from BOSE speaker amp.  
• Outputs high, mid and low range sounds                                                                                           |
|                       | Tweeters             | • Outputs audio signal from BOSE speaker amp.  
• Outputs high range sounds                                                                                                          |
|                       | Center speaker       | • Outputs audio signal from BOSE speaker amp.  
• Outputs high range sounds                                                                                                          |
|                       | Rear door speakers   | • Outputs audio signal from BOSE speaker amp.  
• Outputs high, mid and low range sounds                                                                                           |
|                       | Rear subwoofer       | • Outputs audio signal from BOSE speaker amp.  
• Outputs low range sounds                                                                                                          |
|                       | Satellite radio tuner| • Receives radio signals from satellite antenna  
• Sends audio signals to AV control unit                                                                                           |
|                       | Satellite antenna    | Audio signal (satellite radio) is received and output to AV control unit.                                                                      |
When the shift selector is in the R position, the display shows a view to the rear of the vehicle. Lines which indicate the vehicle clearance and distances are also displayed.
1. Tweeter LH M51
2. Center speaker M130
3. Tweeter RH M52
4. AV control unit M152, M153, M154, M155, M156, M157, M158, M159 (located behind A/C and AV switch assembly)
5. Display unit M141
6. A/C and AV switch assembly M98
### Component Description

<table>
<thead>
<tr>
<th>Part name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AV control unit</td>
<td>• Sends camera ON signal to the rear view camera</td>
</tr>
<tr>
<td></td>
<td>• Receives camera image signal from the rear view camera</td>
</tr>
<tr>
<td></td>
<td>• Sends image signal to the display unit</td>
</tr>
<tr>
<td>Rear view camera</td>
<td>• Receives camera ON signal from the AV control unit</td>
</tr>
<tr>
<td></td>
<td>• Sends image signal to the AV control unit</td>
</tr>
<tr>
<td>Steering angle sensor</td>
<td>Sends steering angle information to the AV control unit via CAN communication</td>
</tr>
</tbody>
</table>

INFOID:0000000005530145

< FUNCTION DIAGNOSIS >

<table>
<thead>
<tr>
<th>Component Description</th>
<th>Part name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.</td>
<td>Steering angle sensor M53</td>
<td>(located in steering column behind spiral cable)</td>
</tr>
<tr>
<td>8.</td>
<td>Steering wheel audio control switches</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>USB interface M211 (view in center console)</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Aux jack M209</td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>Rear subwoofers (view under rear parcel shelf)</td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>Satellite radio tuner B111</td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>Bluetooth control unit B128, B130, B131</td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td>BOSE speaker amp B109, B110</td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>Microphone R7</td>
<td></td>
</tr>
<tr>
<td>16.</td>
<td>Rear view camera T101</td>
<td></td>
</tr>
<tr>
<td>17.</td>
<td>Front door speaker</td>
<td></td>
</tr>
<tr>
<td>18.</td>
<td>Rear door speaker</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LH D3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RH D103</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LH D202</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RH D302</td>
<td></td>
</tr>
</tbody>
</table>

Revision: November 2009
System Description

Refer to the Owner's Manual for Bluetooth telephone system operating instructions.

NOTE:
Cellular telephones must have their wireless connection set up (paired) before using the Bluetooth telephone system.

Bluetooth telephone system allows users who have a Bluetooth cellular telephone to make a wireless connection between their cellular telephone and the Bluetooth control unit. Hands-free cellular telephone calls can be sent and received. Some Bluetooth cellular telephones may not be recognized by the Bluetooth control unit. When a cellular telephone or the Bluetooth control unit is replaced, the telephone must be paired with the Bluetooth control unit. Different cellular telephones may have different pairing procedures. Refer to the cellular telephone operating manual.

BLUE TOOTH CONTROL UNIT

When the ignition switch is turned to ACC or ON, the Bluetooth control unit will power up. During power up, the Bluetooth control unit is initialized and performs various self-checks. Initialization may take up to 20 seconds. If a phone is present in the vehicle and paired with the Bluetooth control unit, Nissan Voice Recognition will then become active. Bluetooth telephone functions can be turned off using the Nissan Voice Recognition system.

STEERING WHEEL AUDIO CONTROL SWITCHES

When buttons on the steering wheel audio control switch are pushed, the resistance in steering wheel audio control switch circuit changes, depending on which button is pushed. The Bluetooth control unit uses this signal to perform various functions while navigating through the voice recognition system. The following functions can be performed using the steering wheel audio control switch:

• Initiate self-diagnosis of the Bluetooth telephone system
• Start a voice recognition session
• Answer and end telephone calls
• Adjust the volume of calls

MICROPHONE

The microphone is located in the roof console assembly. The microphone sends a signal to the Bluetooth control unit. The microphone can be actively tested during self-diagnosis.

AV CONTROL UNIT

The AV control unit receives signals from the Bluetooth control unit and sends audio signals to the BOSE speaker amp. then on to the speakers.
HANDS-FREE PHONE SYSTEM

Component Parts Location

1. Tweeter LH M51
2. Center speaker M130
3. Tweeter RH M52
4. AV control unit M152, M153, M154, M155, M156, M157, M158, M159 (located behind A/C and AV switch assembly)
5. Display unit M141
6. A/C and AV switch assembly M98

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### Component Description

<table>
<thead>
<tr>
<th>Part name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AV control unit</td>
<td>• Receives telephone voice signal from Bluetooth control unit</td>
</tr>
<tr>
<td></td>
<td>• Sends telephone voice and voice guidance signals to the speakers</td>
</tr>
<tr>
<td>BOSE speaker amp.</td>
<td>• Receives audio signals from the AV control unit</td>
</tr>
<tr>
<td></td>
<td>• Outputs amplified audio signals to the speakers.</td>
</tr>
<tr>
<td>Front door speaker</td>
<td>Receives telephone voice and voice guidance signals from the AV control unit</td>
</tr>
<tr>
<td>Front tweeter</td>
<td></td>
</tr>
<tr>
<td>Center speaker</td>
<td></td>
</tr>
<tr>
<td>Steering wheel audio control switches</td>
<td>• Start a voice recognition session</td>
</tr>
<tr>
<td></td>
<td>• Answer and end telephone calls</td>
</tr>
<tr>
<td></td>
<td>• Adjust the volume level</td>
</tr>
<tr>
<td>Microphone</td>
<td>Sends voice signals to Bluetooth control unit</td>
</tr>
<tr>
<td>Bluetooth control unit</td>
<td>Controls hands-free phone functions</td>
</tr>
<tr>
<td>Bluetooth antenna</td>
<td>Sends telephone voice signal to Bluetooth control unit</td>
</tr>
</tbody>
</table>

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MULTIFUNCTION SWITCH AND PRESET SWITCH SELF-DIAGNOSIS FUNCTION

The ON/OFF operation (continuity) of each switch in the multifunction switch and preset switch can be checked.

Self-Diagnosis Mode

• Press the BACK switch and the \( \Rightarrow \) switch of the 8-direction switches within 10 seconds after turning the ignition switch from OFF to ACC and hold them for 3 seconds or more. Then the buzzer sounds, all indicators of the preset switch illuminate, and the self-diagnosis mode starts.

• The continuity of each switch at the ON position can be checked by pressing the switch. The buzzer sounds if the switch is normal.

NOTE:
The disk eject switch cannot be checked.

Finishing Self-diagnosis Mode

Self-diagnosis mode is canceled when the ignition switch is turned OFF.

MULTI AV SYSTEM ON BOARD DIAGNOSIS FUNCTION

• The AV control unit diagnosis function starts up with multifunction switch operation and the AV control unit performs a diagnosis for each unit in the system during the on board diagnosis.

• Perform a CONSULT-III diagnosis if the on board diagnosis does not start, e.g., if the screen does not display anything, the multifunction switch does not function, etc.

ON BOARD DIAGNOSIS

Description

• The trouble diagnosis function has a self-diagnosis mode for conducting trouble diagnosis automatically and a confirmation/adjustment mode for operating manually.

• Self-diagnosis mode performs the AV control unit diagnosis and the connection diagnosis between each of the units that make up the system, and it indicates the results to the display.

• The confirmation/adjustment mode allows the technician to check, modify or adjust the vehicle signals and set values, as well as to monitor the system error records and system communication status. The checking, modifying or adjusting generally requires human intervention and judgment (the system cannot make judgment automatically).

On Board Diagnosis Item

<table>
<thead>
<tr>
<th>Mode</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Diagnosis</td>
<td>• AV control unit diagnosis</td>
</tr>
<tr>
<td></td>
<td>• Perform the connection diagnosis between each of the units.</td>
</tr>
</tbody>
</table>
### DIAGNOSIS SYSTEM (AV CONTROL UNIT)

#### FUNCTION DIAGNOSIS

<table>
<thead>
<tr>
<th>Mode</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display Diagnosis</td>
<td>The confirmation of the tint with the color spectrum bar display and shading of color with the gradation bar display can be performed.</td>
</tr>
<tr>
<td>Vehicle Signals</td>
<td>Diagnosis of signals can be performed for vehicle speed, parking brake, lights, ignition switch, and reverse.</td>
</tr>
<tr>
<td>Speaker Test</td>
<td>The connection of a speaker can be confirmed by test tone.</td>
</tr>
<tr>
<td>Error History (Detailed)</td>
<td>System malfunctions and the frequency when occurring in the past are displayed. When the malfunctioning item is selected, the time and place that the selected malfunction last occurred are displayed.</td>
</tr>
<tr>
<td>Camera Cont.</td>
<td>The signal connected to camera control unit can be checked and the guiding line position that overlaps rear view camera image can be adjusted.</td>
</tr>
<tr>
<td>Vehicle CAN Diagnosis</td>
<td>The transmitting/receiving of CAN communication can be monitored.</td>
</tr>
<tr>
<td>AV COMM Diagnosis</td>
<td>The communication condition of each unit of MULTI AV system can be monitored.</td>
</tr>
<tr>
<td>Delete Unit Connection Log</td>
<td>Erase the connection history of unit and error history</td>
</tr>
<tr>
<td>Initialize Settings</td>
<td>Initializes the AV control unit memory.</td>
</tr>
</tbody>
</table>

#### STARTING PROCEDURE

1. Start the engine.
2. Turn the audio system OFF.
3. While pressing the SETTING button, turn the volume control dial clockwise or counterclockwise for 40 clicks or more. (When the self-diagnosis mode is started, a short beep will be heard.)
   - Shifting from current screen to previous screen is performed by pressing the BACK button.

4. The trouble diagnosis initial screen is displayed, and then the items of “Self Diagnosis” and “Confirmation/Adjustment” can be selected.

#### SELF-DIAGNOSIS MODE

1. Start the self-diagnosis function and select “Self-diagnosis”.

   **NOTE:**
   Because the start condition of diagnosis function is a switch operation, the on board diagnosis function cannot start up if any malfunction is detected in the AV communication circuit between AV control unit and multifunction switch.
   - Self-diagnosis subdivision screen is displayed, and the self-diagnosis mode starts.
   - The bar graph visible on the center of the self-diagnosis subdivision screen indicates progress of the trouble diagnosis.
2. Diagnosis results are displayed after the self-diagnosis is completed. The unit names and the connection lines are color-coded according to the diagnostic results.

### Diagnosis results

<table>
<thead>
<tr>
<th>Connection line</th>
<th>Normal</th>
<th>Connection malfunction</th>
<th>Unit malfunction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connection line</td>
<td>Green</td>
<td>Green</td>
<td>Red</td>
</tr>
</tbody>
</table>

#### NOTE:
- Only the control unit (AV control unit) is displayed in red.
- Replace AV control unit if “Self-Diagnosis did not run because of a control unit malfunction” is indicated. The symptom is AV control unit internal error.
- If multiple errors occur at the same time for a single unit, the screen switch colors are determined according to the following order of priority: red > gray.
- The comments of the self-diagnosis results can be viewed with a component in the diagnosis result screen.

### SELF-DIAGNOSIS RESULTS

Check the applicable display at the following table, and then repair the malfunctioning parts.

#### NOTE:
Because the start condition of diagnosis function is a switch operation, the on board diagnosis function cannot be started up if any malfunction is detected in the AV communication circuit between AV control unit and multifunction switch.

### Self-diagnosis Result Chart

<table>
<thead>
<tr>
<th>Diagnosis results</th>
<th>Detection logic</th>
<th>Possible malfunction location / Action to take</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Malfunction is detected in AV control unit power supply and ground circuits.</td>
<td>Check AV control unit power supply and ground circuits. When detecting no malfunction in those components, replace AV control unit.</td>
</tr>
</tbody>
</table>

#### NOTE:
When a control unit malfunction is detected (red in unit display), connection malfunctions with other connection units may be displayed.
“Self-Diagnosis did not run because of a control unit malfunction”
### Diagnosis System (AV Control Unit)

#### Function Diagnosis

**Diagnosis results**

<table>
<thead>
<tr>
<th>Diagnosis results</th>
<th>Detection logic</th>
<th>Possible malfunction location / Action to take</th>
</tr>
</thead>
</table>
| ![Diagram 1](image1) | When either one of the following items are detected:  
  - serial communication circuits between AV control unit and front display unit are malfunctioning.  
  - serial communication signal between AV control unit and front display unit is malfunctioning. | Serial communication circuits between AV control unit and front display unit. |
| ![Diagram 2](image2) | When any one of the following items is detected:  
  - satellite radio tuner power supply and ground circuits are malfunctioning.  
  - serial communication circuits between AV control unit and satellite radio tuner are malfunctioning.  
  - serial communication or request signal between AV control unit and satellite radio tuner is malfunctioning.  
  - request signal circuit between AV control unit and satellite radio tuner is malfunctioning. | Satellite radio tuner power supply and ground circuits.  
  Serial communication circuits between AV control unit and satellite radio tuner.  
  Request signal circuit between AV control unit and satellite radio tuner. |
| ![Diagram 3](image3) | When any one of the following items is detected:  
  - Bluetooth control unit power supply and ground circuits are malfunctioning.  
  - AV communication circuits between camera control unit and Bluetooth control unit are malfunctioning.  
  - AV communication circuits between multifunction switch and camera control unit are malfunctioning. (without DVD player models)  
  - AV communication circuits between DVD player and camera control unit are malfunctioning. (with DVD player models)  
  - AV communication signal between AV control unit and Bluetooth control unit is malfunctioning. | Bluetooth control unit power supply and ground circuits.  
  AV communication circuits between camera control unit and Bluetooth control unit.  
  AV communication circuits between multifunction switch and camera control unit. (without DVD player models)  
  AV communication circuits between DVD player and camera control unit. (with DVD player models)  
  AV communication circuits between multifunction switch and Bluetooth control unit. (without rear view camera) |

**NOTE:**

The number of units that are displayed on the on board self-diagnosis display according to equipment.

**CONFIRMATION/ADJUSTMENT MODE**

1. Start the diagnosis function and select “Confirmation/Adjustment”. The confirmation/adjustment mode indicates where each item can be checked or adjusted.
2. Select each switch on the “Confirmation/Adjustment Mode” screen to display the relevant trouble diagnosis screen. Press the RETURN switch to return to the initial Confirmation/Adjustment Mode screen.

Display Diagnosis

The tint of the color bar indication is as per the following list if RGB image signal error is detected.

<table>
<thead>
<tr>
<th>Signal Error</th>
<th>Tint Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>R (red) error</td>
<td>Light blue (Cyan) tint</td>
</tr>
<tr>
<td>G (green) error</td>
<td>Purple (Magenta) tint</td>
</tr>
<tr>
<td>B (blue) error</td>
<td>Yellow tint</td>
</tr>
</tbody>
</table>

Vehicle Signals

A comparison check can be made of each actual vehicle signal and the signals recognized by the system.

<table>
<thead>
<tr>
<th>Diagnosis Item</th>
<th>Display</th>
<th>Vehicle status</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicle speed</td>
<td>ON</td>
<td>Vehicle speed &gt; 0 km/h (0 MPH)</td>
<td>Changes in indication may be delayed. This is normal.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Vehicle speed = 0 km/h (0 MPH)</td>
<td></td>
</tr>
<tr>
<td>Parking brake</td>
<td>ON</td>
<td>Parking brake is applied.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OFF</td>
<td>Parking brake is released.</td>
<td></td>
</tr>
</tbody>
</table>
### Diagnosis System (AV Control Unit)

#### Speaker Test
- Select “SPEAKER DIAGNOSIS” to display the Speaker Diagnosis screen.
- Press “START and NEXT” to generate a test tone in a speaker.
- Press “Start” to generate a test tone in the next speaker.
- Press “End” to stop the test tones.

**NOTE:**
- The frequency of test tone emitted from each speaker is as follows.

<table>
<thead>
<tr>
<th>Speaker Type</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tweeter</td>
<td>3 kHz</td>
</tr>
<tr>
<td>Front speaker</td>
<td>300 Hz</td>
</tr>
<tr>
<td>Rear speaker</td>
<td>1 kHz</td>
</tr>
</tbody>
</table>

### Climate Control
- On-board self-diagnosis is not supported. Only CONSULT-III is supported.
- Refer to AV-205, "CONSULT-III Function (MULTI AV)."

### Error History
- The self-diagnosis results are judged depending on whether any error occurs from when “Self-diagnosis” is selected until the self-diagnosis results are displayed.
- However, the diagnosis results are judged normal if an error has occurred before the ignition switch is turned ON and then no error has occurred until the self-diagnosis start. Check the "Error Record" to detect any error that may have occurred before the self-diagnosis start because of this situation.

**Count up method A**
- The counter resets to 0 if an error occurs when IGN switch is turned ON. The counter increases by 1 if the condition is normal at the next IGN ON cycle.
- The counter upper limit is 39. Any counts exceeding 39 are ignored. The counter can be reset (no error record display) with the “Delete log” switch or CONSULT-III.

**Count up method B**
- The counter increases by 1 if an error occurs when IGN switch is ON. The counter will not decrease even if the condition is normal at the next IGN ON cycle.
- The counter upper limit is 50. Any counts exceeding 50 are ignored. The counter can be reset (no error record display) with the “Delete log” switch or CONSULT-III.

<table>
<thead>
<tr>
<th>Display type of occurrence frequency</th>
<th>Error history display item</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count up method A</td>
<td>CAN communication line, control unit (CAN), AV communication line, control unit (AV communication)</td>
</tr>
<tr>
<td>Count up method B</td>
<td>Other than the above</td>
</tr>
</tbody>
</table>
### Error Item

Some error items may be displayed simultaneously according to the cause. If some error items are displayed simultaneously, the detection of the cause can be performed by the combination of display items.

<table>
<thead>
<tr>
<th>Error Item</th>
<th>Description</th>
<th>Possible malfunction factor/Action to take</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAN COMM CIRCUIT</td>
<td>CAN communication malfunction is detected.</td>
<td>Perform diagnosis with CONSULT-III, and then repair the malfunctioning parts according to the diagnosis results. Refer to <a href="AV-205">AV-205, &quot;CONSULT-III Function (MULTI AV)&quot;.</a></td>
</tr>
<tr>
<td>CONTROL UNIT (CAN)</td>
<td>CAN initial diagnosis malfunction is detected.</td>
<td>Replace the AV control unit.</td>
</tr>
<tr>
<td>CONTROL UNIT (AV)</td>
<td>AV communication circuit initial diagnosis malfunction is detected.</td>
<td></td>
</tr>
<tr>
<td>FLASH-ROM Error Of Control Unit</td>
<td>AV control unit malfunction is detected.</td>
<td></td>
</tr>
<tr>
<td>CAN Controller Memory Error</td>
<td>When one of the following items is detected:</td>
<td>• Front display unit power supply and ground circuits are malfunctioning.</td>
</tr>
<tr>
<td></td>
<td>• serial communication circuits between AV control unit and front display unit are malfunctioning.</td>
<td>• Serial communication circuits between AV control unit and front display unit.</td>
</tr>
<tr>
<td>Front Display Connection Error</td>
<td></td>
<td>• serial communication signal between AV control unit and front display unit is malfunctioning.</td>
</tr>
</tbody>
</table>
< FUNCTION DIAGNOSIS >

**Diagnosis System (AV Control Unit)**

**[BOSE w/ Color Display]**

### Error Item | Description | Possible malfunction factor/Action to take
--- | --- | ---

**SAT Connection Error**

When any one of the following items is detected:

- Satellite radio tuner power supply and ground circuits are malfunctioning.
- Serial communication circuits between AV control unit and satellite radio tuner are malfunctioning.
- Serial communication or request signal between AV control unit and satellite radio tuner is malfunctioning.
- Request signal circuit between AV control unit and satellite radio tuner is malfunctioning.

### AV COMM CIRCUIT

**Switches Connection Error**

When any one of the following items is detected:

- Multifunction switch power supply and ground circuits are malfunctioning.
- AV communication circuits between AV control unit and multifunction switch are malfunctioning.
- AV communication signal between AV control unit and multifunction switch is malfunctioning.

---

Camera Cont.

The two functions of “Connection Confirmation” and “Adjust Offset of Rear View Camera” are available.

**Connection Confirmation**

The vehicle speed sensor, parking brake, park lights, ignition switch and reverse sensor can be inspected.

---

**Diagnosis item**

<table>
<thead>
<tr>
<th>Display</th>
<th>Vehicle status</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Steer. Angle Sensor</strong></td>
<td>ON When steering the vehicle with ignition switch ON (remains ON until connection mode is stopped when it is turned ON).</td>
</tr>
<tr>
<td>OFF • Ignition switch at ACC. • No steering with ignition switch ON.</td>
<td>— Malfunction detected in camera connection recognition signal.</td>
</tr>
<tr>
<td><strong>Reverse Sensor</strong></td>
<td>ON Selector lever is in “R” with ignition switch ON.</td>
</tr>
<tr>
<td>OFF • Ignition switch at ACC. • Selector lever is in position other than “R” with ignition switch ON.</td>
<td>— Malfunction detected in camera-connection recognition signal.</td>
</tr>
<tr>
<td><strong>Vehicle Speed Sensor</strong></td>
<td>ON Vehicle speed is more than 0 km/h (0 MPH) with ignition switch ON.</td>
</tr>
<tr>
<td>OFF • Ignition switch at ACC. • Vehicle speed is 0 km/h (0 MPH) with ignition switch ON.</td>
<td>— Malfunction detected in camera connection recognition signal.</td>
</tr>
<tr>
<td><strong>Side view Switch</strong></td>
<td>— Not used.</td>
</tr>
</tbody>
</table>

**ADJUST OFFSET OF REAR VIEW CAMERA**
Use this mode to adjust the guide line display position of the rear-view monitor if necessary after removing the rear view monitor camera.

Vehicle CAN Diagnosis
- CAN communication status and error counter is displayed.
- The error counter displays “OK” if any malfunction was not detected in the past and displays “0” if a malfunction is detected. It increases by 1 if the status is normal at the next ignition switch ON cycle. The upper limit of the counter is 39.
- The error counter is erased if reset.

<table>
<thead>
<tr>
<th>Items</th>
<th>Display (Current)</th>
<th>Malfunction counter (Past)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tx (HVAC)</td>
<td>OK / UNKWN</td>
<td>OK / 0 - 39</td>
</tr>
<tr>
<td>Rx (ECM)</td>
<td>OK / UNKWN</td>
<td>OK / 0 - 39</td>
</tr>
<tr>
<td>Rx (Cluster)</td>
<td>OK / UNKWN</td>
<td>OK / 0 - 39</td>
</tr>
<tr>
<td>Rx (HVAC)</td>
<td>OK / UNKWN</td>
<td>OK / 0 - 39</td>
</tr>
<tr>
<td>Rx (USM)</td>
<td>OK / UNKWN</td>
<td>OK / 0 - 39</td>
</tr>
<tr>
<td>Rx (STRG)</td>
<td>OK / UNKWN</td>
<td>OK / 0 - 39</td>
</tr>
</tbody>
</table>

AV COMM Diagnosis
- Displays the communication status between AV control unit (master unit) and each unit.
- The error counter displays “OK” if any malfunction was not detected in the past and displays “0” if a malfunction is detected. It increases by 1 if the condition is normal at the next ignition switch ON cycle. The upper limit of the counter is 39.
- If it resets, the error counter is erased.

<table>
<thead>
<tr>
<th>Items</th>
<th>Status (Current)</th>
<th>Counter (Past)</th>
</tr>
</thead>
<tbody>
<tr>
<td>C Tx(ITM-SW)</td>
<td>OK / UNKWN</td>
<td>OK / 0 - 39</td>
</tr>
<tr>
<td>C Rx(Primary SW-ITM)</td>
<td>OK / UNKWN</td>
<td>OK / 0 - 39</td>
</tr>
<tr>
<td>C Rx(BTHF-ITM)</td>
<td>OK / UNKWN</td>
<td>OK / 0 - 39</td>
</tr>
</tbody>
</table>

Delete Unit Connection Log
Deletes any unit connection records and error records from the AV control unit memory. (Clear the records of the unit that has been removed.)

Initialize Settings

Revision: November 2009
**CONSULT-III Function (MULTI AV)**

**APPLICATION ITEMS**
CONSULT-III performs the following functions via the communication with the AV control unit.

<table>
<thead>
<tr>
<th>Diagnosis mode</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ecu Identification</td>
<td>The part number of AV control unit can be checked.</td>
</tr>
<tr>
<td>Self Diagnostic Result</td>
<td>Performs a diagnosis on the AV control unit and a connection diagnosis for the communication circuit of the Multi AV system, and displays the current and past malfunctions collectively.</td>
</tr>
<tr>
<td>Data Monitor</td>
<td>The diagnosis of vehicle signal that is input to the AV control unit can be performed.</td>
</tr>
</tbody>
</table>
| Configuration           | • Read and save the vehicle specification.  
                          | • Write the vehicle specification when replacing AV control unit.          |

**AV Communication**
When “AV communication” of “CAN Diag Support Monitor” is selected, the following function will be performed.

<table>
<thead>
<tr>
<th>AV communication</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AV&amp;NAVI C/U</td>
<td>Displays the communication status from AV control unit to each unit as well as the error counter.</td>
</tr>
<tr>
<td>AUDIO</td>
<td>Displays the AV control unit communication status and the error counter.</td>
</tr>
</tbody>
</table>

**ECU IDENTIFICATION**
The part number of AV control unit is displayed.

**SELF DIAGNOSIS RESULT**
- In CONSULT-III self-diagnosis, self-diagnosis results and error history are displayed collectively.  
- The current malfunction indicates “CRNT”. The past malfunction indicates “PAST”.  
- The timing is displayed as “0” if any of the error codes [U1000], [U1010], [U1300] and [U1310] is detected.  
  The counter increases by 1 if the condition is normal at the next ignition switch ON cycle.

Self-diagnosis Results Display Item

<table>
<thead>
<tr>
<th>Error item</th>
<th>Description</th>
<th>Possible malfunction factor/Action to take</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAN COMM CIRCUIT [U1000]</td>
<td>CAN communication malfunction is detected.</td>
<td>Perform diagnosis with CONSULT-III, and then repair the malfunctioning parts according to the diagnosis results. Refer to AV-540, &quot;Diagnosis Procedure&quot;.</td>
</tr>
<tr>
<td>CONTROL UNIT (CAN) [U1010]</td>
<td>CAN initial diagnosis malfunction is detected.</td>
<td></td>
</tr>
<tr>
<td>CONTROL UNIT (AV) [U1310]</td>
<td>AV communication circuit initial diagnosis malfunction is detected.</td>
<td>Replace the AV control unit if the malfunction occurs constantly.</td>
</tr>
<tr>
<td>Cont Unit [U1200]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAN CONT [U1216]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SUB CPU CONN [U1228]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>iPod CERTIFICATION [U1229]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Built-in AUDIO CONN [U122E]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Revision: November 2009
< FUNCTION DIAGNOSIS >

DATA MONITOR

ALL SIGNALS
• Displays the status of the following vehicle signals inputted into the AV control unit.
• For each signal, actual signal can be compared with the condition recognized on the system.

<table>
<thead>
<tr>
<th>Display Item</th>
<th>Display</th>
<th>Vehicle status</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>VHCL SPD SIG</td>
<td>On</td>
<td>Vehicle speed &gt;0 km/h (0 MPH)</td>
<td>Changes in indication may be delayed. This is normal.</td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>Vehicle speed =0 km/h (0 MPH)</td>
<td></td>
</tr>
<tr>
<td>PKB SIG</td>
<td>On</td>
<td>Parking brake is applied.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>Parking brake is released.</td>
<td></td>
</tr>
</tbody>
</table>

AV COMM CIRCUIT [U1300]  SWITCH CONN [U1240]
| When either one of the following items are detected: | | | |
| • Multifunction switch power supply and ground circuits are malfunctioning. | | | |
| • AV communication circuits between AV control unit and multifunction switch are malfunctioning. | | | |
| • Multimedia switch power supply and ground circuits. | | | |
| • AV communication circuits between AV control unit and AV display unit. | | | |

Revision: November 2009
**DISPLAY SYSTEM (AV CONTROL UNIT)**

**[BOSE W/ COLOR DISPLAY]**

**< FUNCTION DIAGNOSIS >**

**AV-207**

---

**SELECTION FROM MENU**

Allows the technician to select which vehicle signals should be displayed and displays the status of the selected vehicle signals.

<table>
<thead>
<tr>
<th>Item to be selected</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VHCL SPD SIG</td>
<td>The same as when “ALL SIGNALS” is selected.</td>
</tr>
<tr>
<td>PKB SIG</td>
<td></td>
</tr>
<tr>
<td>ILLUM SIG</td>
<td></td>
</tr>
<tr>
<td>IGN SIG</td>
<td></td>
</tr>
<tr>
<td>REV SIG</td>
<td></td>
</tr>
</tbody>
</table>

**CONFIGURATION**

Configuration has three functions as follows.

<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
</table>
| READ CONFIGURATION              | • Reads the vehicle configuration of current AV control unit.  
                                | • Saves the read vehicle configuration. |
| WRITE CONFIGURATION-Config file | Writes the vehicle configuration with saved data. |

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Revision: November 2009

AV-207

2010 Maxima
DIAGNOSIS SYSTEM (BLUETOOTH CONTROL UNIT)

< FUNCTION DIAGNOSIS >

[BOSE W/ COLOR DISPLAY]

DIAGNOSIS SYSTEM (BLUETOOTH CONTROL UNIT)

Diagnosis Description

The Bluetooth control unit has two diagnostic checks. The first diagnostic check is performed automatically every ignition cycle during control unit initialization. The second diagnostic check is performed by the technician using the steering wheel audio control switches prior to trouble diagnosis.

BLUETOOTH CONTROL UNIT INITIALIZATION CHECKS

- Internal control unit failure
- Bluetooth antenna connection open or shorted
- Steering wheel audio control switches (SEND/END) stuck closed
- Vehicle speed pulse count
- Microphone connection test (with playback to operator)
- Bluetooth inquiry check

OPERATION PROCEDURE

1. Turn ignition switch to ACC or ON.
2. Wait for the Bluetooth system to complete initialization. This may take up to 20 seconds.
3. Press and hold the steering wheel audio control switch SEND button for at least 5 seconds. The Bluetooth system will begin to play a verbal prompt.

4. While the prompt is playing, press and hold the steering wheel audio control switch END button until you hear the “Diagnostics mode” prompt. The Bluetooth system will sound a 5-second beep.
5. While the beep is sounding, press and hold the steering wheel audio control switch END button again until you hear prompts.
6. The Bluetooth system has now entered into the diagnostic mode. Results of the diagnostic checks will be verbalized to the technician. Refer to AV-208, “Work Flow”.
7. After the failure records are reported, an interactive microphone test will be performed. Follow the voice prompt. If the microphone test fails, refer to AV-208, “Work Flow”.

Work Flow

<table>
<thead>
<tr>
<th>Failure Message</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Internal failure”</td>
<td>Replace Bluetooth control unit. Refer to AV-85, “Removal and Installation”.</td>
</tr>
<tr>
<td>“Bluetooth antenna open”</td>
<td>1. Inspect harness connection.</td>
</tr>
<tr>
<td>“Bluetooth antenna shorted”</td>
<td>2. Replace Bluetooth antenna. Refer to AV-84, “Removal and Installation”.</td>
</tr>
<tr>
<td>“Phone/SEND for Hands Free System is stuck”</td>
<td>Check steering wheel audio control switches. Refer to AV-78, “Removal and Installation”.</td>
</tr>
<tr>
<td>“Phone/END for the Hands Free System is stuck”</td>
<td></td>
</tr>
<tr>
<td>“Microphone test” (failed interactive test)</td>
<td>1. Inspect harness between Bluetooth control unit and microphone.</td>
</tr>
<tr>
<td></td>
<td>2. Replace microphone. Refer to AV-83, “Removal and Installation”.</td>
</tr>
</tbody>
</table>
Description

CAN (Controller Area Network) is a serial communication line for real time application. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Many electronic control units are equipped on a vehicle and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN-H, CAN-L) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.

DTC Logic

DTC DETECTION LOGIC

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>Diagnostic item is detected when ...</th>
<th>Probable malfunction location</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1000</td>
<td>CAN COMM CIRCUIT</td>
<td>When AV control unit is not transmitting or receiving CAN communication signal for 2 seconds or more.</td>
<td>CAN communication system.</td>
</tr>
</tbody>
</table>

Diagnosis Procedure

1. PERFORM SELF DIAGNOSTIC

1. Turn ignition switch ON and wait for 2 seconds or more.
2. Check “Self Diagnostic Result” of “AV Control Unit”.
Is "CAN COMM CIRCUIT" displayed?

YES  >> Refer to “LAN system”. Refer to LAN-16, "Trouble Diagnosis Flow Chart".
NO   >> Refer to GI section. Refer to GI-39, "Intermittent Incident".
U1010 CONTROL UNIT (CAN)

Description

Initial diagnosis of AV control unit.

DTC Logic

DTC DETECTION LOGIC

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>Diagnostic item is detected when ...</th>
<th>Probable malfunction location</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1010</td>
<td>CONTROL UNIT (CAN)</td>
<td>CAN initial diagnosis malfunction is detected.</td>
<td>AV control unit.</td>
</tr>
</tbody>
</table>

Diagnosis Procedure

1. REPLACE AV CONTROL UNIT

When DTC U1010 is detected, replace AV control unit. Refer to AV-322, "Removal and Installation".

>> Inspection End.
U1200 AV CONTROL UNIT

Description

Replace the AV control unit if this DTC is displayed. Refer to AV-322, "Removal and Installation".

<table>
<thead>
<tr>
<th>Part name</th>
<th>Description</th>
</tr>
</thead>
</table>
| AV CONTROL UNIT       | • It is the master unit of the MULTI AV system and it is connected to each control unit by means of communication. It operates each system according to communication signals from the AV control unit.  
                        • AV control unit includes audio function and vehicle information function.  
                        • It is connected to ECM and combination meter via CAN communication to obtain necessary information for the vehicle information function.  
                        • It inputs the automatic brightness ON/OFF signals that are required for the display dimming control.  
                        • It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).          |

DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC Detection Condition</th>
<th>Action to take</th>
</tr>
</thead>
</table>
| U1200   | Control Unit  
               FLASH-ROM [U1200] | An internal malfunction is detected in AV control unit (FLASH-ROM).                                          | Replace AV control unit. Refer to AV-322, "Removal and Installation". |
U1216 AV CONTROL UNIT

Description

Replace the AV control unit if this DTC is displayed. Refer to AV-322, "Removal and Installation".

<table>
<thead>
<tr>
<th>Part name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AV CONTROL UNIT</td>
<td>• It is the master unit of the MULTI AV system and it is connected to each control unit by means of communication. It operates each system according to communication signals from the AV control unit.</td>
</tr>
<tr>
<td></td>
<td>• AV control unit includes audio function and vehicle information function.</td>
</tr>
<tr>
<td></td>
<td>• It is connected to ECM and combination meter via CAN communication to obtain necessary information for the vehicle information function.</td>
</tr>
<tr>
<td></td>
<td>• It inputs the automatic brightness ON/OFF signals that are required for the display dimming control.</td>
</tr>
<tr>
<td></td>
<td>• It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).</td>
</tr>
</tbody>
</table>

DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC Detection Condition</th>
<th>Action to take</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1216</td>
<td>CAN CONT [U1216]</td>
<td>Internal malfunction of AV control unit (CAN controller) is detected.</td>
<td>Replace AV control unit. Refer to AV-322, &quot;Removal and Installation&quot;.</td>
</tr>
</tbody>
</table>
U1218 AV CONTROL UNIT

< COMPONENT DIAGNOSIS >

[BOSE W/ COLOR DISPLAY]

U1218 AV CONTROL UNIT

DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
</table>
| U1218 | HDD CONN [U1218]                | AV control unit malfunction is detected.                                                | • If the music box function has no malfunctions, then there is a possibility of the detection of a temporary malfunction.  
• Replace the AV control unit if the malfunction occurs constantly. Refer to AV-322, "Removal and Installation". |

Diagnosis Procedure

1. CHECK MUSIC BOX FUNCTION

Is music box function normal?

YES  >> Malfunction may be detected intermittently.
NO   >> Replace AV control unit. Refer to AV-322, "Removal and Installation".

Revision: November 2009
### U1219 AV CONTROL UNIT

#### Diagnosis Procedure

1. **CHECK MUSIC BOX FUNCTION**

   Is music box function normal?

   | YES  | >> Malfunction may be detected intermittently. |
   | NO   | >> Replace AV control unit. Refer to AV-322, "Removal and Installation". |

---

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
</table>
| U1219| HDD READ [U1219]               | AV control unit malfunction is detected. | • If the music box function has no malfunctions, then there is a possibility of the detection of a temporary malfunction.  
• Replace the AV control unit if the malfunction occurs constantly. Refer to AV-322, "Removal and Installation". |
# DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
</table>
| U121A HDD WRITE [U121A] | AV control unit malfunction is detected. | • If the music box function has no malfunctions, then there is a possibility of the detection of a temporary malfunction.  
• Replace the AV control unit if the malfunction occurs constantly. Refer to AV-322, “Removal and Installation”. |

## Diagnosis Procedure

### 1. CHECK MUSIC BOX FUNCTION

Is music box function normal?

- **YES** >> Malfunction may be detected intermittently.  
- **NO** >> Replace AV control unit. Refer to AV-824, “Removal and Installation”.
U121B AV CONTROL UNIT

< COMPONENT DIAGNOSIS >

U121B AV CONTROL UNIT

DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
</table>
| U121B   | HDD COMM [U121B]                | AV control unit malfunction is detected. | • If the music box function has no malfunctions, then there is a possibility of the detection of a temporary malfunction.  
  • Replace the AV control unit if the malfunction occurs constantly. Refer to AV-322, "Removal and Installation". |

Diagnosis Procedure

1. CHECK MUSIC BOX FUNCTION

Is music box function normal?

YES   >> Malfunction may be detected intermittently.

NO    >> Replace AV control unit. Refer to AV-322, "Removal and Installation".
U121C AV CONTROL UNIT

< COMPONENT DIAGNOSIS >

U121C AV CONTROL UNIT

DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
</table>
| U121C | HDD ACCESS [U121C]             | AV control unit malfunction is detected. | • If the music box function has no malfunctions, then there is a possibility of the detection of a temporary malfunction.  
• Replace the AV control unit if the malfunction occurs constantly. Refer to AV-322, "Removal and Installation". |

Diagnosis Procedure

1. CHECK MUSIC BOX FUNCTION

Is music box function normal?

YES >> Malfunction may be detected intermittently.
NO  >> Replace AV control unit. Refer to AV-322, "Removal and Installation".
**U121D AV CONTROL UNIT**  
**< COMPONENT DIAGNOSIS >**  
**[BOSE W/ COLOR DISPLAY]**

### U121D AV CONTROL UNIT

**DTC Logic**

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
</table>
| U121D | DSP CONN [U121D]                | AV control unit malfunction is detected. | • If a disc can be played, then there is a possibility of the detection of a temporary malfunction.  
• Replace the AV control unit if the malfunction occurs constantly. Refer to AV-322, "Removal and Installation". |

**Diagnosis Procedure**

1. **CHECK PLAYBACK OF A DISK (CD)**

   **Can a disk (CD) be played?**
   - YES  >> Malfunction may be detected intermittently.
   - NO   >> Replace AV control unit. Refer to AV-322, "Removal and Installation".
U121E AV CONTROL UNIT

DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
</table>
| U121E | DSP COMM [U121E] | AV control unit malfunction is detected. | - If a disc can be played, then there is a possibility of the detection of a temporary malfunction.  
- Replace the AV control unit if the malfunction occurs constantly. Refer to AV-322, "Removal and Installation". |

Diagnosis Procedure

1. CHECK PLAYBACK OF A DISK (CD)

Can a disk (CD) be played?
- YES >> Malfunction may be detected intermittently.
- NO >> Replace AV control unit. Refer to AV-322, "Removal and Installation".
U1225 AV CONTROL UNIT

DTC Logic

DTC DETECTION LOGIC

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1225</td>
<td>USB CONTROLLER [U1225]</td>
<td>USB connection malfunction is detected.</td>
<td>Check that the connection to the USB connector is normal.</td>
</tr>
</tbody>
</table>
< COMPONENT DIAGNOSIS >

U1227 AV CONTROL UNIT

DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
</table>
| U1227 | DVD COMM [U1227]                | AV control unit malfunction is detected. | • If DVD can be played, then there is a possibility of the detection of a temporary malfunction.  
• Replace the AV control unit if the malfunction occurs constantly. Refer to AV-322, "Removal and Installation". |

Diagnosis Procedure

1. CHECK PLAYBACK OF A DISK (DVD)

Can a disc (DVD) be played?

YES  >> Malfunction may be detected intermittently.
NO   >> Replace AV control unit. Refer to AV-322, "Removal and Installation".
## U1228 AV CONTROL UNIT

### DTC Logic

#### DTC DETECTION LOGIC

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1228</td>
<td>SUB CPU CONN [U1228]</td>
<td>AV control unit malfunction is detected</td>
<td>Replace the AV control unit if the malfunction occurs constantly. Refer to AV-322, &quot;Removal and Installation&quot;.</td>
</tr>
</tbody>
</table>
### U1229 AV CONTROL UNIT

**DTC Logic**

**INFOID:** 0000000005530192

#### DTC DETECTION LOGIC

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1229</td>
<td>iPod CERTIFICATION [U1229]</td>
<td>AV control unit malfunction is detected.</td>
<td>Replace the AV control unit if the malfunction occurs constantly. Refer to <a href="AV-322">AV-322, &quot;Removal and Installation&quot;</a>.</td>
</tr>
</tbody>
</table>
DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Action to take</th>
</tr>
</thead>
<tbody>
<tr>
<td>U122A</td>
<td>CONFIG UNFINISH [U122A]</td>
<td>The writing of configuration data is incomplete.</td>
<td>Write configuration data with “MULTI AV” of CONSULT-III.</td>
</tr>
</tbody>
</table>

Diagnosis Procedure

1. PERFORM THE SELF-DIAGNOSIS

When U122A is detected, write configuration data with “MULTI AV” of CONSULT-III.

>> Write configuration data with “MULTI AV” of CONSULT-III. Refer to AV-681, "CONFIGURATION (AV CONTROL UNIT) : Special Repair Requirement".
### DTC DETECTION LOGIC

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U122E</td>
<td>Built-in AUDIO CONN [U122E]</td>
<td>AV control unit malfunction is detected.</td>
<td>Replace the AV control unit if the malfunction occurs constantly. Refer to AV-322, &quot;Removal and Installation&quot;.</td>
</tr>
</tbody>
</table>
DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1232</td>
<td>ST ANGLE SEN CALIB [1232]</td>
<td>Predictive course line center position adjustment of the steering angle sensor is incomplete.</td>
<td>Adjust the predictive course line center position of the steering angle sensor.</td>
</tr>
</tbody>
</table>

Diagnosis Procedure

1. ADJUST THE PREDICTIVE COURSE LINE CENTER POSITION OF THE STEERING ANGLE SENSOR

When U1232 is detected, adjust the predictive course line center position of the steering angle sensor.

>> Adjusts the steering angle sensor neutral position on ABS actuator and electrical unit (control unit) side. Refer to BRC-8, "ADJUSTMENT OF STEERING ANGLE SENSOR NEUTRAL POSITION : Special Repair Requirement".
U1243 DISPLAY UNIT

Description

<table>
<thead>
<tr>
<th>Part name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DISPLAY UNIT</td>
<td>• Display image is controlled by the serial communication from AV control unit. • Inputs the RGB image signal (RGB, RGB area and RGB synchronizing) from AV control unit and the auxiliary image signal from the auxiliary input jacks. • Outputs the synchronizing signals (HP and VP) to the AV control unit.</td>
</tr>
</tbody>
</table>

DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC Detection Condition</th>
<th>Possible causes</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1243</td>
<td>FRONT DISP CONN [U1243]</td>
<td>• Display unit power supply and ground circuit malfunction is detected. • Malfunction is detected on communication circuit between display unit and AV control unit. • Malfunction is detected on communication signal between display unit and AV control unit.</td>
<td>• Display unit power supply and ground circuit. • Communication circuit between display unit and AV control unit.</td>
</tr>
</tbody>
</table>

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-281, "Wiring Diagram".

1. CHECK DISPLAY UNIT POWER SUPPLY AND GROUND CIRCUIT

Check display unit power supply and ground circuit. Refer to AV-235, "DISPLAY UNIT : Diagnosis Procedure".

Is inspection result OK?

YES >> GO TO 2.

NO >> Repair malfunctioning parts.

2. CHECK CONTINUITY OF COMMUNICATION CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect display unit connector and AV control unit connector.
3. Check continuity between display unit harness connector M141 (A) terminals 11, 22 and AV control unit harness connector M154 (B) terminals 56, 44.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M141</td>
<td>11</td>
<td>M154</td>
<td>56</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>22</td>
<td></td>
<td>44</td>
<td></td>
</tr>
</tbody>
</table>

4. Check continuity between display unit harness connector M141 (A) terminals 11, 22 and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M141</td>
<td>11</td>
<td>Ground</td>
</tr>
<tr>
<td></td>
<td>22</td>
<td></td>
</tr>
</tbody>
</table>

Are continuity results as specified?

YES >> GO TO 3.
3. CHECK COMMUNICATION SIGNAL

1. Connect display unit connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check signal between display unit harness connector M141 terminal 11 and ground with an oscilloscope or CONSULT-III.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>M141</td>
<td>11</td>
<td>Ground</td>
</tr>
</tbody>
</table>

Are voltage readings as specified?

YES >> GO TO 4.
NO >> Replace AV control unit. Refer to AV-322, "Removal and Installation".

4. CHECK COMMUNICATION SIGNAL

Check signal between display unit harness connector M141 terminal 22 and ground with an oscilloscope or CONSULT-III.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>M141</td>
<td>22</td>
<td>Ground</td>
</tr>
</tbody>
</table>

Are voltage readings as specified?

YES >> Inspection End.
NO >> Replace display unit. Refer to AV-325, "Removal and Installation".
# U1263 USB

## DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1263</td>
<td>USB OVERCURRENT [U1263]</td>
<td>Detection of over current in USB interface.</td>
<td>Check USB harness between the AV control unit and USB interface.</td>
</tr>
</tbody>
</table>

## Diagnosis Procedure

1. **CHECK USB HARNESS**

   Visually check USB harness.

   **Is the inspection result normal?**
   - **YES**  >> Replace AV control unit. Refer to AV-322, "Removal and Installation".
   - **NO**   >> Replace USB harness.
U1255 SATELLITE RADIO TUNER

Description

<table>
<thead>
<tr>
<th>Part name</th>
<th>Description</th>
</tr>
</thead>
</table>
| SATELLITE RADIO TUNER | • Inputs the satellite radio signal from satellite radio antenna and outputs the sound signal to the AV control unit.  
|                       | • It is controlled with the AV control unit and serial communication (communication signal and request signal). |

DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC Detection Condition</th>
<th>Possible causes</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1255</td>
<td>SAT CONN [U1255]</td>
<td>When either one of the following items are detected:</td>
<td>• Satellite radio tuner power supply and ground circuits.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• satellite radio tuner power supply and ground circuits are malfunctioning.</td>
<td>• Serial communication circuits between AV control unit and satellite radio tuner are malfunctioning.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• serial communication circuits between AV control unit and satellite radio tuner are malfunctioning.</td>
<td>• Serial communication or request signal between AV control unit and satellite radio tuner is malfunctioning.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• serial communication or request signal between AV control unit and satellite radio tuner is malfunctioning.</td>
<td>• Request signal circuit between AV control unit and satellite radio tuner.</td>
</tr>
</tbody>
</table>

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-281, "Wiring Diagram".

1. CHECK SATELLITE RADIO TUNER POWER SUPPLY AND GROUND CIRCUIT

Check satellite radio tuner power supply and ground circuit. Refer to AV-238, "SATellite RAdio TUNER : Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair malfunctioning parts.

2. CHECK CONTINUITY COMMUNICATION CIRCUIT AND REQUEST SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M153 and satellite radio tuner connector B111.
3. Check continuity between AV control unit harness connector M153 (A) and satellite radio tuner harness connector B111 (B).

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminals</td>
<td></td>
</tr>
<tr>
<td>M153</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td></td>
<td>29</td>
<td></td>
</tr>
<tr>
<td></td>
<td>30</td>
<td></td>
</tr>
<tr>
<td></td>
<td>B111</td>
<td></td>
</tr>
<tr>
<td></td>
<td>28</td>
<td></td>
</tr>
<tr>
<td></td>
<td>29</td>
<td></td>
</tr>
<tr>
<td></td>
<td>30</td>
<td>Yes</td>
</tr>
</tbody>
</table>

4. Check continuity between AV control unit harness connector M153 (A) and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminals</td>
</tr>
</tbody>
</table>

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2010 Maxima

AV-230
Component Diagnosis

U1255 SATELLITE RADIO TUNER

< COMPONENT DIAGNOSIS >

AV-231

1. Connect AV control unit connector.
2. Turn ignition switch ON.
3. Check voltage between AV control unit harness connector M153 and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Voltage (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M153</td>
<td>28</td>
<td>7.0V</td>
</tr>
<tr>
<td></td>
<td>29</td>
<td></td>
</tr>
<tr>
<td></td>
<td>30</td>
<td></td>
</tr>
</tbody>
</table>

Is the inspection result normal?
YES >> GO TO 4.
NO >> Replace AV control unit. Refer to AV-322, "Removal and Installation".

4. CHECK SATELLITE RADIO TUNER

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector.
3. Connect satellite radio tuner.
4. Turn ignition switch ON.
5. Check voltage between satellite radio tuner harness connector terminal ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Voltage (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>B111</td>
<td>30</td>
<td>7.0V</td>
</tr>
</tbody>
</table>

Is the inspection result normal?
YES >> Inspection End.
NO >> Replace satellite radio tuner. Refer to AV-335, "Removal and Installation".

Revision: November 2009

2010 Maxima
U1300 AV COMM CIRCUIT

Description

U1300 is indicated when a communication signal malfunction occurs. U1300 is indicated along with DTCs that identify components connected to the AV control unit through communication lines. Determine the possible malfunction cause from the table below.

SELF-DIAGNOSIS RESULTS DISPLAY ITEM

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC Detection Condition</th>
<th>Possible causes</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1300</td>
<td>AV COMM CIRCUIT [U1300]</td>
<td>When either one of the following items are detected: • A/C and AV switch assembly power supply and ground circuits are malfunctioning. • AV communication circuits between AV control unit and A/C and AV switch assembly are malfunctioning. • AV communication signal between AV control unit and A/C and AV switch assembly is malfunctioning.</td>
<td>• A/C and AV switch assembly power supply and ground circuits. • AV communication circuits between AV control unit and A/C and AV switch assembly.</td>
</tr>
<tr>
<td>U1240</td>
<td>SWITCH CONN [U1240]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
U1310 AV CONTROL UNIT

Description

Replace the AV control unit if this DTC is displayed. Refer to AV-234, "AV CONTROL UNIT : Diagnosis Procedure".

<table>
<thead>
<tr>
<th>Part name</th>
<th>Description</th>
</tr>
</thead>
</table>
| AV CONTROL UNIT | • It is the master unit of the MULTI AV system and it is connected to each control unit by means of communication. It operates each system according to communication signals from the AV control unit.  
• AV control unit includes audio function and vehicle information function.  
• It is connected to ECM and combination meter via CAN communication to obtain necessary information for the vehicle information function.  
• It inputs the automatic brightness ON/OFF signals that are required for the display dimming control.  
• It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake). |

DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC Detection Condition</th>
<th>Action to take</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1310</td>
<td>CONTROL UNIT (AV) [U1310]</td>
<td>An initial diagnosis error is detected in AV communication circuit.</td>
<td>Replace AV control unit. Refer to AV-322, &quot;Removal and Installation&quot;.</td>
</tr>
</tbody>
</table>
POWER SUPPLY AND GROUND CIRCUIT

AV CONTROL UNIT

AV CONTROL UNIT: Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-281, "Wiring Diagram".

1. CHECK FUSES

Check that the following fuses of the AV control unit are not blown.

<table>
<thead>
<tr>
<th>Unit</th>
<th>Terminals</th>
<th>Signal name</th>
<th>Fuse No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>AV control unit</td>
<td>19</td>
<td>Battery power</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>Ignition switch ACC or ON</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>104</td>
<td>Ignition switch ON or START</td>
<td>3</td>
</tr>
</tbody>
</table>

Are the fuses OK?
YES >> GO TO 2.
NO  >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse.

2. POWER SUPPLY CIRCUIT CHECK

1. Disconnect AV control unit connectors M152 and M156.
2. Check voltage between the AV control unit connectors M152 and M156 and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>(+)</th>
<th>(-)</th>
<th>OFF</th>
<th>ACC</th>
<th>ON</th>
</tr>
</thead>
<tbody>
<tr>
<td>M152</td>
<td>7</td>
<td>Ground</td>
<td>0V</td>
<td>Battery voltage</td>
<td>Battery voltage</td>
<td></td>
</tr>
<tr>
<td></td>
<td>19</td>
<td>Ground</td>
<td>Battery voltage</td>
<td>Battery voltage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M156</td>
<td>104</td>
<td>Ground</td>
<td>0V</td>
<td>0V</td>
<td>Battery voltage</td>
<td></td>
</tr>
</tbody>
</table>

Are the voltage results as specified?
YES >> GO TO 3.
NO  >> • Check connector housings for disconnected or loose terminals.
      • Repair harness or connector.

3. GROUND CIRCUIT CHECK
POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

1. Turn ignition switch OFF.
2. Check continuity between AV control unit harness connector and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>—</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M152</td>
<td>20</td>
<td>Ground</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Are the inspection results OK?
YES >> Inspection End.
NO >> Repair AV control unit ground.

DISPLAY UNIT

DISPLAY UNIT : Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-281, "Wiring Diagram".

1. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch to ACC.
2. Check voltage between display unit harness connector M141 and ground.

<table>
<thead>
<tr>
<th>(+) Connector</th>
<th>Terminal</th>
<th>(-)</th>
<th>Value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M141</td>
<td>2</td>
<td>Ground</td>
<td>9V</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Does specified voltage exist?
YES >> GO TO 3.
NO >> GO TO 2.

2. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect the display unit connector M141 and the AV control unit connector M154.
3. Check continuity between the display unit harness connector M141 (A) and the AV control unit connector M154 (B).

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>M141</td>
<td>2</td>
<td>M154</td>
</tr>
<tr>
<td>3</td>
<td>47</td>
<td></td>
</tr>
</tbody>
</table>

4. Check continuity between the display unit harness connector M141 (A) and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>—</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>—</td>
</tr>
<tr>
<td>M141</td>
<td>2</td>
<td>Ground</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Are continuity results as specified?
YES >> Check AV control unit power and ground supply. Refer to AV-234, "AV CONTROL UNIT : Diagnosis Procedure".
NO >> Repair harness or connector.
3. CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect display unit connector.
3. Check continuity between display unit harness connector and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M141</td>
<td>1</td>
<td>Ground</td>
</tr>
</tbody>
</table>

Does continuity exist?
YES >> Inspection End.
NO >> Repair harness or connector.

A/C AND AV SWITCH ASSEMBLY

A/C AND AV SWITCH ASSEMBLY : Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-613, "Wiring Diagram".

1. CHECK FUSE

Check that the fuse of the AC and AV switch assembly is not blown.

<table>
<thead>
<tr>
<th>Unit</th>
<th>Terminal</th>
<th>Signal name</th>
<th>Fuse No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A/C and AV switch assembly</td>
<td>3</td>
<td>Ignition switch ACC or ON</td>
<td>17</td>
</tr>
</tbody>
</table>

Is the fuse OK?
YES >> GO TO 2.
NO >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse.

2. POWER SUPPLY CIRCUIT CHECK

1. Disconnect A/C and AV switch assembly connector M98.
2. Check voltage between the A/C and AV switch assembly connector M98 and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>OFF</th>
<th>ACC</th>
<th>ON</th>
</tr>
</thead>
<tbody>
<tr>
<td>M98</td>
<td>3</td>
<td>0V</td>
<td>Battery voltage</td>
<td>Battery voltage</td>
</tr>
</tbody>
</table>

Are the voltage results as specified?
YES >> GO TO 3.
NO >> Check connector housings for disconnected or loose terminals.
- Repair harness or connector.
POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

1. Turn ignition switch OFF.
2. Check continuity between A/C and AV switch assembly harness connector M98 and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>—</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M98</td>
<td>1</td>
<td>Ground</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Are the continuity results as specified?
YES >> Inspection End.
NO >> Repair harness or ground.

BOSE SPEAKER AMP

BOSE SPEAKER AMP : Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-613, "Wiring Diagram".

1. CHECK FUSE

Check that the BOSE speaker amp. fuse is not blown.

<table>
<thead>
<tr>
<th>Unit</th>
<th>Terminal</th>
<th>Signal name</th>
<th>Fuse No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOSE speaker amp.</td>
<td>11</td>
<td>Battery power</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td></td>
<td>25</td>
</tr>
</tbody>
</table>

Are the fuses OK?
YES >> GO TO 2.
NO >> Be sure to eliminate cause of malfunction before installing new fuse.

2. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BOSE speaker amp. connector.
3. Check voltage between BOSE speaker amp. harness connector B110 terminal 10, 11 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Voltage (approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>B110</td>
<td>10</td>
<td>Ground Battery voltage</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td></td>
</tr>
</tbody>
</table>

Is battery voltage present?
YES >> GO TO 3.
NO >> Check harness between BOSE speaker amp. and fuse.

3. CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BOSE speaker amp. connector.
3. Check continuity between BOSE speaker amp. harness connector B110 terminal 7,12 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>B110</td>
<td>7</td>
<td>Ground</td>
</tr>
</tbody>
</table>

Does continuity exist?

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POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >
[BOSE W/ COLOR DISPLAY]

YES  >> Inspection End.
NO   >> Repair harness or connector.

SATELLITE RADIO TUNER

SATELLITE RADIO TUNER : Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-613, "Wiring Diagram".

1. CHECK FUSES

Check that the following fuses of the satellite radio tuner (factory installed) are not blown.

<table>
<thead>
<tr>
<th>Unit</th>
<th>Terminals</th>
<th>Signal name</th>
<th>Fuse No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satellite radio tuner (factory installed)</td>
<td>32</td>
<td>Battery power</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>36</td>
<td>Ignition switch ACC or ON</td>
<td>17</td>
</tr>
</tbody>
</table>

Are the fuses OK?
YES  >> GO TO 2.
NO   >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse.

2. POWER SUPPLY CIRCUIT CHECK

1. Turn ignition switch OFF.
2. Disconnect satellite radio tuner (factory installed) connector B111.
3. Check voltage between the satellite radio tuner (factory installed) and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>OFF</th>
<th>ACC</th>
<th>ON</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector Terminal</td>
<td>Battery voltage</td>
<td>Battery voltage</td>
<td>Battery voltage</td>
<td></td>
</tr>
<tr>
<td>B111</td>
<td>32</td>
<td>Ground</td>
<td>36</td>
<td>0V</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Battery voltage</td>
</tr>
</tbody>
</table>

Are the voltage readings as specified?
YES  >> GO TO 3.
NO   >> • Check connector housings for disconnected or loose terminals.
       • Repair harness or connector.

3. GROUND CIRCUIT CHECK

1. Turn ignition switch OFF.
2. Check continuity between satellite radio tuner (factory installed) harness connector and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>B111</td>
<td>35</td>
<td>Ground</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Yes</td>
</tr>
</tbody>
</table>

Does continuity exist?
YES  >> Inspection End.
NO   >> Repair satellite radio tuner (factory installed) harness or connector.

REAR VIEW CAMERA

REAR VIEW CAMERA : Diagnosis Procedure
POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE W/ COLOR DISPLAY]

Regarding Wiring Diagram information, refer to AV-281, "Wiring Diagram".

1. CHECK POWER SUPPLY CIRCUIT (REAR VIEW CAMERA SIDE)

1. Turn ignition switch ON.
2. Shift transmission into Reverse.
3. Check voltage between rear view camera harness connector T101 and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>(-)</th>
<th>Transmission position</th>
<th>Value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>T101</td>
<td>1</td>
<td>Ground</td>
<td>Reverse</td>
<td>6V</td>
</tr>
</tbody>
</table>

Is voltage reading approximately 6 volts?
YES >> GO TO 4.
NO >> GO TO 2.

2. CHECK POWER SUPPLY CIRCUIT (CONTINUITY)

1. Turn ignition switch OFF.
2. Disconnect rear view camera and AV control unit connectors.
3. Check continuity between rear view camera harness connector T101 (A) terminal 1 and AV control unit harness connector M155 (B) terminal 70.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>T101</td>
<td>1</td>
<td>M155</td>
</tr>
</tbody>
</table>

4. Check continuity between rear view camera harness connector T101 (A) terminal 1 and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
</tr>
<tr>
<td>T101</td>
<td>1</td>
</tr>
</tbody>
</table>

Are continuity test results as specified?
YES >> GO TO 3.
NO >> Repair harness or connector.

3. CHECK POWER SUPPLY CIRCUIT (AV CONTROL UNIT SIDE)

1. Connect rear view camera harness connector.
2. Turn ignition switch ON.
3. Check voltage between AV control unit harness connector M155 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Transmission position</th>
<th>Value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M155</td>
<td>70</td>
<td>Ground</td>
<td>Reverse</td>
</tr>
</tbody>
</table>

Is voltage reading approximately 6 volts?
YES >> Inspection End.
NO >> Replace AV control unit. Refer to AV-322, "Removal and Installation".

4. CHECK GROUND CIRCUIT
< COMPONENT DIAGNOSIS >

POWER SUPPLY AND GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect rear view camera harness connector.
3. Check continuity between rear view camera harness connector T101 terminal 2 and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>—</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>T101</td>
<td>2</td>
<td>Ground</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Does continuity exist?

YES >> Inspection End.
NO >> Repair harness or connector.

BLUETOOTH CONTROL UNIT

BLUETOOTH CONTROL UNIT : Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-281, "Wiring Diagram".

1. CHECK FUSE

Check that the following fuses of the Bluetooth control unit are not blown.

<table>
<thead>
<tr>
<th>Power source</th>
<th>Fuse No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battery</td>
<td>24</td>
</tr>
<tr>
<td>Ignition switch ACC or ON</td>
<td>17</td>
</tr>
<tr>
<td>Ignition switch ON or START</td>
<td>3</td>
</tr>
</tbody>
</table>

Is inspection result OK?

YES >> GO TO 2.
NO >> Be sure to eliminate cause of malfunction before installing new fuse.

2. CHECK POWER SUPPLY CIRCUIT

Check voltage between Bluetooth control unit harness connector B131 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Ignition switch position</th>
<th>Value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B131</td>
<td>1</td>
<td>OFF</td>
<td>Battery voltage</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>ACC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>ON</td>
<td></td>
</tr>
</tbody>
</table>

Is battery voltage present as specified?

YES >> GO TO 3.
NO >> Check harness between Bluetooth control unit and fuse.

3. CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect Bluetooth control unit connector.
3. Check continuity between Bluetooth control unit harness connector B131 and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>—</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>B131</td>
<td>4</td>
<td>Ground</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Are continuity results as specified?

YES >> Inspection End.
NO >> Repair harness or connector.
Regarding Wiring Diagram information, refer to AV-613, "Wiring Diagram".

1. **CHECK POWER SUPPLY CIRCUIT (MICROPHONE SIDE)**
   1. Turn ignition switch ON.
   2. Check voltage between microphone harness connector R7 terminal 4 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>R7</td>
<td>4</td>
<td>Ground</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5V</td>
</tr>
</tbody>
</table>

   Is approximately 5V present?
   YES >> GO TO 4.
   NO >> GO TO 2.

2. **CHECK POWER SUPPLY CIRCUIT (CONTINUITY)**
   1. Turn ignition switch OFF.
   2. Disconnect microphone and Bluetooth control unit harness connectors.
   3. Check continuity between microphone harness connector R7 (A) terminal 4 and Bluetooth control unit harness connector B131 (B) terminal 29.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>R7</td>
<td>4</td>
<td>B131</td>
</tr>
<tr>
<td>4</td>
<td>29</td>
<td>Yes</td>
</tr>
</tbody>
</table>

4. Check continuity between microphone harness connector R7 (A) terminal 4 and ground.

<table>
<thead>
<tr>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>R7</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>Ground</td>
</tr>
</tbody>
</table>

   Are the continuity test results as specified?
   YES >> GO TO 3.
   NO >> Repair harness or connector.

3. **CHECK POWER SUPPLY CIRCUIT (BLUETOOTH CONTROL UNIT SIDE)**
   1. Connect Bluetooth control unit harness connector.
   2. Turn ignition switch to ACC.
   3. Check voltage between Bluetooth control unit harness connector B131 terminal 29 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>B131</td>
<td>29</td>
<td>Ground</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5V</td>
</tr>
</tbody>
</table>

   Is approximately 5V present?
   YES >> Go to 4.
POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS > [BOSE W/ COLOR DISPLAY]

NO  >> Replace Bluetooth control unit. Refer to AV-677, "Removal and Installation".

4. CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect microphone harness connector R7 and Bluetooth control unit harness connector B131.
3. Check continuity between microphone harness connector R7 (A) terminal 2 and Bluetooth control unit harness connector B131 (B) terminal 8.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>R7</td>
<td>2</td>
<td>B131</td>
<td>8</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Does continuity exist?

YES  >> Inspection End.
NO   >> Repair harness or connector.
RGB (R: RED) SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

RGB (R: RED) SIGNAL CIRCUIT

Description

Transmit the image displayed with AV control unit with RGB signal to the display unit.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-281, "Wiring Diagram".

1. CHECK CONTINUITY RGB (R: RED) SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect display unit connector M141 and AV control unit connector M154.
3. Check continuity between display unit harness connector M141 (A) terminal 17 and AV control unit harness connector M154 (B) terminal 40.

<table>
<thead>
<tr>
<th>A Connector</th>
<th>Terminal</th>
<th>B Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M141</td>
<td>17</td>
<td>M154</td>
<td>40</td>
<td>Yes</td>
</tr>
</tbody>
</table>

4. Check continuity between display unit harness connector M141 (A) terminal 17 and ground.

<table>
<thead>
<tr>
<th>A Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M141</td>
<td>17</td>
<td>No</td>
</tr>
</tbody>
</table>

Are the continuity results as specified?

YES  >> GO TO 2.
NO   >> Repair harness or connector.

2. CHECK RGB (R: RED) SIGNAL

1. Connect display unit connector M141 and AV control unit connector M154.
2. Turn ignition switch ON.
3. Check signal between display unit harness connector M141 terminal 17 and ground.

<table>
<thead>
<tr>
<th>(+) Connector</th>
<th>Terminal</th>
<th>(-) Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>M141</td>
<td>17</td>
<td>Ground</td>
<td>Receive audio signal</td>
</tr>
</tbody>
</table>

Are the voltage readings as specified?

YES  >> Replace display unit. Refer to AV-325, "Removal and Installation".
NO   >> Replace AV control unit. Refer to AV-322, "Removal and Installation".

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AV-243 2010 Maxima
RGB (G: GREEN) SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >
[BOSE W/ COLOR DISPLAY]

Description

Transmit the image displayed with AV control unit with RGB signal to the display unit.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-281, "Wiring Diagram".

1. CHECK CONTINUITY RGB (G: GREEN) SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect display unit connector M141 and AV control unit connector M154.
3. Check continuity between display unit harness connector M141 (A) terminal 6 and AV control unit harness connector M154 (B) terminal 39.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
</tr>
<tr>
<td>M141</td>
<td>6</td>
</tr>
</tbody>
</table>

4. Check continuity between display unit harness connector M141 (A) terminal 6 and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>—</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Ground</td>
</tr>
<tr>
<td>M141</td>
<td>6</td>
<td>No</td>
</tr>
</tbody>
</table>

Are the continuity results as specified?

YES >> GO TO 2.
NO >> Repair harness or connector.

2. CHECK RGB (G: GREEN) SIGNAL

1. Connect display unit connector M141 and AV control unit connector M154.
2. Turn ignition switch ON.
3. Check signal between display unit harness connector M141 terminal 6 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>M141</td>
<td>6</td>
<td>Ground</td>
<td>Receive audio signal</td>
</tr>
</tbody>
</table>

Are voltage readings as specified?

YES >> Replace display unit. Refer to AV-325, "Removal and Installation".
NO >> Replace AV control unit. Refer to AV-322, "Removal and Installation".
RGB (B: BLUE) SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

RGB (B: BLUE) SIGNAL CIRCUIT

Description

Transmit the image displayed with AV control unit with RGB signal to the display unit.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-281, "Wiring Diagram".

1. CHECK CONTINUITY RGB (B: BLUE) SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect display unit connector M141 and AV control unit connector M154.
3. Check continuity between display unit harness connector M141 (A) terminal 18 and AV control unit harness connector M154 (B) terminal 38.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M141</td>
<td>18</td>
<td>M154</td>
<td>38</td>
<td>Yes</td>
</tr>
</tbody>
</table>

4. Check continuity between display unit harness connector M141 (A) terminal 18 and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M141</td>
<td>18</td>
<td>No</td>
</tr>
</tbody>
</table>

Are continuity results as specified?

YES >> GO TO 2.
NO >> Repair harness or connector.

2. CHECK RGB (B: BLUE) SIGNAL

1. Connect display unit connector M141 and AV control unit connector M154.
2. Turn ignition switch ON.
3. Check signal between display unit harness connector M141 terminal 18 and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>M141</td>
<td>18</td>
<td>Ground</td>
<td>Receive audio signal</td>
</tr>
</tbody>
</table>

Are voltage readings as specified?

YES >> Replace display unit. Refer to AV-325, "Removal and Installation".
NO >> Replace AV control unit. Refer to AV-322, "Removal and Installation".
Description

Transmit the RGB synchronizing signal to the display unit so as to synchronize the RGB image displayed with AV control unit.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-281, "Wiring Diagram".

1. CHECK CONTINUITY RGB SYNCHRONIZING SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect display unit connector M141 and AV control unit connector M154.
3. Check continuity between display unit harness connector M141 (A) terminal 19 and AV control unit harness connector M154 (B) terminal 41.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>M141</td>
<td>19</td>
<td>M154</td>
</tr>
</tbody>
</table>

4. Check continuity between display unit harness connector M141 (A) terminal 19 and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Ground</td>
</tr>
<tr>
<td>M141</td>
<td>19</td>
<td>Ground</td>
</tr>
</tbody>
</table>

Are continuity results as specified?

YES >> GO TO 2.
NO >> Repair harness or connector.

2. CHECK RGB SYNCHRONIZING SIGNAL

1. Connect display unit connector M141 and AV control unit connector M154.
2. Turn ignition switch ON.
3. Check signal between display unit harness connector M141 terminal 19 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Ground</td>
<td>Receive audio signal</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>M141</th>
<th>19</th>
<th>Ground</th>
<th>(V)</th>
</tr>
</thead>
</table>

Are voltage readings as specified?

YES >> Replace display unit. Refer to AV-325, "Removal and Installation".
NO >> Replace AV control unit. Refer to AV-322, "Removal and Installation".
Description

Transmits the display area of RGB image displayed by AV control unit with RGB area (YS) signal to display unit.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-281, "Wiring Diagram".

1. CHECK CONTINUITY RGB AREA (YS) SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect display unit connector M141 and AV control unit connector M154.
3. Check continuity between display unit harness connector M141 (A) terminal 9 and AV control unit harness connector M154 (B) terminal 43.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>M141</td>
<td>9</td>
<td>M154</td>
</tr>
</tbody>
</table>

4. Check continuity between display unit harness connector M141 (A) terminal 9 and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Ground</td>
</tr>
<tr>
<td>M141</td>
<td>9</td>
<td>No</td>
</tr>
</tbody>
</table>

Are continuity results as specified?

YES >> GO TO 2.
NO >> Repair harness or connector.

2. CHECK RGB SYNCHRONIZING SIGNAL

1. Connect display unit connector M141 and AV control unit connector M154.
2. Turn ignition switch ON.
3. Check signal between display unit harness connector M141 terminal 9 and ground.

<table>
<thead>
<tr>
<th>(+) Connector</th>
<th>Terminal</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>M141</td>
<td>9</td>
<td>Ground</td>
<td>Receive audio signal</td>
</tr>
</tbody>
</table>

Are voltage readings as specified?

YES >> Replace display unit. Refer to AV-325, "Removal and Installation".
NO >> Replace AV control unit. Refer to AV-322, "Removal and Installation".
HORIZONTAL SYNCHRONIZING (HP) SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

HORIZONTAL SYNCHRONIZING (HP) SIGNAL CIRCUIT

Description

In composite image (AUX image, camera image), transmit the vertical synchronizing (VP) signal and horizontal synchronizing (HP) signal from display unit to AV control unit so as to synchronize the RGB images displayed with AV control unit such as the image quality adjusting menu, etc.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-281, "Wiring Diagram".

1. CHECK CONTINUITY HORIZONTAL SYNCHRONIZING (HP) SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect display unit connector M141 and AV control unit connector M154.
3. Check continuity between display unit harness connector M141 (A) terminal 8 and AV control unit harness connector M154 (B) terminal 45.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M141</td>
<td>8</td>
<td>M154</td>
<td>45</td>
<td>Yes</td>
</tr>
</tbody>
</table>

4. Check continuity between display unit harness connector M141 (A) terminal 8 and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M141</td>
<td>8</td>
<td>Ground</td>
</tr>
</tbody>
</table>

Are continuity results as specified?

YES >> GO TO 2.
NO >> Repair harness or connector.

2. CHECK HORIZONTAL SYNCHRONIZING (HP) SIGNAL

1. Connect display unit connector M141 and AV control unit connector M154.
2. Turn ignition switch ON.
3. Check signal between display unit harness connector M141 terminal 8 and ground.

<table>
<thead>
<tr>
<th>(+) Connector</th>
<th>Terminal</th>
<th>(-) Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>M141</td>
<td>8</td>
<td>Ground</td>
<td>Receive audio signal</td>
</tr>
</tbody>
</table>

Are voltage readings as specified?

YES >> Replace AV control unit. Refer to AV-322, "Removal and Installation".
NO >> Replace display unit. Refer to AV-325, "Removal and Installation".

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VERTICAL SYNCHRONIZING (VP) SIGNAL CIRCUIT

Description

In composite image (AUX image, camera image), transmit the vertical synchronizing (VP) signal and horizontal synchronizing (HP) signal from display unit to AV control unit so as to synchronize the RGB images displayed with AV control unit, such as the image quality adjusting menu, etc.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-281, "Wiring Diagram".

1. CHECK CONTINUITY VERTICAL SYNCHRONIZING (VP) SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect display unit connector M141 and AV control unit connector M154.
3. Check continuity between display unit harness connector M141 (A) terminal 20 and AV control unit harness connector M154 (B) terminal 57.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M141</td>
<td>20</td>
<td>M154</td>
<td>57</td>
<td>Yes</td>
</tr>
</tbody>
</table>

4. Check continuity between display unit harness connector M141 (A) terminal 20 and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M141</td>
<td>20</td>
<td>Ground</td>
</tr>
</tbody>
</table>

Are continuity results as specified?
YES >> GO TO 2.
NO >> Repair harness or connector.

2. CHECK VERTICAL SYNCHRONIZING (VP) SIGNAL

1. Connect display unit connector M141 and AV control unit connector M154.
2. Turn ignition switch ON.
3. Check signal between display unit harness connector M141 terminal 20 and ground.

<table>
<thead>
<tr>
<th>(+) Connector</th>
<th>Terminal</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>M141</td>
<td>20</td>
<td>Ground</td>
<td>Receive audio signal</td>
</tr>
</tbody>
</table>

Are voltage readings as specified?
YES >> Replace AV control unit. Refer to AV-322, "Removal and Installation".
NO >> Replace display unit. Refer to AV-325, "Removal and Installation".

Revision: November 2009
FRONT DOOR SPEAKER

Description

The AV control unit sends audio signals to the BOSE speaker amp. The BOSE speaker amp. amplifies the audio signals before sending them to the front door speakers using the audio signal circuits.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-281, "Wiring Diagram".

1. HARNESS CHECK

1. Disconnect BOSE speaker amp. connector B109 and suspect speaker connector.
2. Check continuity between BOSE speaker amp. harness connector B109 (A) and suspect speaker harness connector (B).

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>B109</td>
<td>18</td>
<td>D3</td>
</tr>
<tr>
<td></td>
<td>19</td>
<td></td>
</tr>
<tr>
<td></td>
<td>31</td>
<td>D103</td>
</tr>
<tr>
<td></td>
<td>32</td>
<td></td>
</tr>
</tbody>
</table>

3. Check continuity between BOSE speaker amp. harness connector B109 (A) and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Ground</td>
</tr>
<tr>
<td>B109</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td></td>
<td>19</td>
<td></td>
</tr>
<tr>
<td></td>
<td>31</td>
<td></td>
</tr>
<tr>
<td></td>
<td>32</td>
<td></td>
</tr>
</tbody>
</table>

Are continuity test results as specified?

YES >> GO TO 2.
NO >> • Check connector housings for disconnected or loose terminals.
• Repair harness or connector.

2. FRONT DOOR SPEAKER SIGNAL CHECK
FRONT DOOR SPEAKER

< COMPONENT DIAGNOSIS >

1. Connect BOSE speaker amp. connector B109 and suspect speaker connector.
2. Turn ignition switch to ACC.
4. Check the signal between BOSE speaker amp. harness connector B109 terminals with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>B109</td>
<td>18</td>
<td>19</td>
<td>Receive audio signal</td>
</tr>
</tbody>
</table>

Is audio signal voltage as specified?

YES >> Replace suspect speaker. Refer to AV-331, "Removal and Installation".

NO >> GO TO 3.

3. HARNESS CHECK

2. Check continuity between AV control unit harness connector M157 (A) and BOSE speaker amp. harness connector B109 (B).

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>CONNECTOR</td>
</tr>
<tr>
<td>M157</td>
<td>113</td>
<td>B109 35</td>
</tr>
<tr>
<td>119</td>
<td>109</td>
<td>33</td>
</tr>
<tr>
<td>115</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. Check continuity between AV control unit harness connector M157 (A) and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Reference signal</td>
</tr>
<tr>
<td>M157</td>
<td>113</td>
<td>Ground</td>
</tr>
<tr>
<td>119</td>
<td>109</td>
<td>No</td>
</tr>
<tr>
<td>115</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Are continuity test results as specified?

YES >> GO TO 4.

NO >> • Check connector housings for disconnected or loose terminals.

4. FRONT DOOR SPEAKER SIGNAL CHECK
FRONT DOOR SPEAKER

< COMPONENT DIAGNOSIS >

1. Connect AV control unit connector and BOSE speaker amp. connector.
2. Turn ignition switch to ACC.
4. Check the signal between AV control unit harness connector terminals with CONSULT-III or oscilloscope.

Are the audio signal voltage readings as specified?

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminals</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>M157</td>
<td>(+) 113</td>
<td>(-) 119</td>
<td>Receive audio signal</td>
</tr>
<tr>
<td></td>
<td>(+) 109</td>
<td>(-) 115</td>
<td></td>
</tr>
</tbody>
</table>

YES >> Replace BOSE speaker amp. Refer to AV-334, "Removal and Installation".

NO >> Replace AV control unit. Refer to AV-322, "Removal and Installation".

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AV-252

2010 Maxima
< COMPONENT DIAGNOSIS >

TWEETER

[BOSE W/ COLOR DISPLAY]

TWEETER

Description

The AV control unit sends audio signals to the BOSE speaker amp. The BOSE speaker amp. amplifies the audio signals before sending them to the tweeters using the audio signal circuits.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-281, "Wiring Diagram".

1. HARNESS CHECK

1. Disconnect BOSE speaker amp. connector B110 and suspect tweeter connector.
2. Check continuity between BOSE speaker amp. harness connector B110 (A) and suspect tweeter harness connector (B).

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>B110</td>
<td>1</td>
<td>M51</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>M52</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

3. Check continuity between BOSE speaker amp. harness connector B110 (A) and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
</tr>
<tr>
<td>B110</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

Are continuity test results as specified?

YES >> GO TO 2.

NO >> • Check connector housings for disconnected or loose terminals.
    • Repair harness or connector.

2. TWEETER SIGNAL CHECK
1. Connect BOSE speaker amp. connector B110 and suspect tweeter connector.
2. Turn ignition switch to ACC.
4. Check the signal between BOSE speaker amp. harness connector B110 terminals with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminals</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>B110</td>
<td>(+) 1 2 (-) 4 3</td>
<td>Receive audio signal</td>
<td>([Graph])</td>
</tr>
</tbody>
</table>

Are the audio signal voltage readings as specified?

YES >> Replace suspect tweeter. Refer to AV-164, "Removal and Installation".
NO >> GO TO 3.

3. HARNESS CHECK

2. Check continuity between AV control unit harness connector M157 (A) and BOSE speaker amp. harness connector B109 (B).

<table>
<thead>
<tr>
<th>A</th>
<th>Terminal</th>
<th>B</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M157</td>
<td>113</td>
<td>B109</td>
<td>35</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>119</td>
<td></td>
<td>36</td>
<td></td>
</tr>
<tr>
<td></td>
<td>109</td>
<td></td>
<td>33</td>
<td></td>
</tr>
<tr>
<td></td>
<td>115</td>
<td></td>
<td>34</td>
<td></td>
</tr>
</tbody>
</table>

3. Check continuity between AV control unit harness connector M157 (A) and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M157</td>
<td>113</td>
<td>Ground</td>
</tr>
<tr>
<td></td>
<td>119</td>
<td></td>
</tr>
<tr>
<td></td>
<td>109</td>
<td></td>
</tr>
<tr>
<td></td>
<td>115</td>
<td></td>
</tr>
</tbody>
</table>

Are continuity test results as specified?

YES >> GO TO 4.
NO >> • Check connector housings for disconnected or loose terminals.
• Repair harness or connector.
TWEETER

< COMPONENT DIAGNOSIS >

1. Connect AV control unit connector and BOSE speaker amp. connector.
2. Turn ignition switch to ACC.
4. Check the signal between AV control unit harness connector terminals with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminals (+)</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>M157</td>
<td>113 119 109 115</td>
<td>Receive audio signal</td>
<td>(V)</td>
</tr>
</tbody>
</table>

Are the audio signal voltage readings as specified?

YES >> Replace BOSE speaker amp. Refer to AV-169, "Removal and Installation".

NO >> Replace AV control unit. Refer to AV-322, "Removal and Installation".

Revision: November 2009

2010 Maxima
CENTER SPEAKER

< COMPONENT DIAGNOSIS >

[BOSE W/ COLOR DISPLAY]

CENTER SPEAKER

Description

The AV control unit sends audio signals to the BOSE speaker amp. The BOSE speaker amp. amplifies the audio signals before sending them to the center speaker using the audio signal circuits.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-281, "Wiring Diagram".

1. HARNESS CHECK

1. Disconnect BOSE speaker amp. connector B109 and center speaker connector M130.
2. Check continuity between BOSE speaker amp. harness connector B109 (A) and center speaker harness connector M130 (B).

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>B109</td>
<td>29</td>
<td>M130</td>
</tr>
<tr>
<td></td>
<td>30</td>
<td></td>
</tr>
</tbody>
</table>

3. Check continuity between BOSE speaker amp. harness connector B109 (A) and ground.

<table>
<thead>
<tr>
<th>A</th>
<th></th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>—</td>
</tr>
<tr>
<td>B109</td>
<td>29</td>
<td>Ground</td>
</tr>
<tr>
<td></td>
<td>30</td>
<td>—</td>
</tr>
</tbody>
</table>

Are continuity test results as specified?
YES >> GO TO 2.
NO >> • Check connector housings for disconnected or loose terminals.
• Repair harness or connector.

2. CENTER SPEAKER SIGNAL CHECK

1. Connect BOSE speaker amp. connector B109 and center speaker connector.
2. Turn ignition switch to ACC.
4. Check the signal between BOSE speaker amp. harness connector B109 terminals with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminals (+)</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>B109</td>
<td>29</td>
<td>Receive audio signal</td>
<td>(V)</td>
</tr>
<tr>
<td></td>
<td>30</td>
<td></td>
<td>SKIA0177E</td>
</tr>
</tbody>
</table>

Is the audio signal voltage reading as specified?
3. HARNESS CHECK

2. Check continuity between AV control unit harness connector M157 (A) and BOSE speaker amp. harness connector B109 (B).

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M157</td>
<td>113</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>119</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td>109</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>115</td>
<td>34</td>
</tr>
</tbody>
</table>

3. Check continuity between AV control unit harness connector M157 (A) and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M157</td>
<td>113</td>
<td>Ground</td>
</tr>
<tr>
<td></td>
<td>119</td>
<td></td>
</tr>
<tr>
<td></td>
<td>109</td>
<td></td>
</tr>
<tr>
<td></td>
<td>115</td>
<td></td>
</tr>
</tbody>
</table>

Are continuity test results as specified?

YES >> GO TO 4.

NO >> • Check connector housings for disconnected or loose terminals.
• Repair harness or connector.

4. CENTER SPEAKER SIGNAL CHECK

1. Connect AV control unit connector and BOSE speaker amp. connector.
2. Turn ignition switch to ACC.
4. Check the signal between AV control unit harness connector terminals with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminals</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>M157</td>
<td>113, 119</td>
<td>Receive audio signal</td>
<td>![Oscilloscope graph]</td>
</tr>
<tr>
<td></td>
<td>109, 115</td>
<td>(V)</td>
<td></td>
</tr>
</tbody>
</table>

Are the audio signal voltage readings as specified?

YES >> Replace BOSE speaker amp. Refer to AV-169, "Removal and Installation".

NO >> Replace AV control unit. Refer to AV-322, "Removal and Installation".
REAR DOOR SPEAKER

Description

The AV control unit sends audio signals to the BOSE speaker amp. The BOSE speaker amp. amplifies the audio signals before sending them to the rear door speakers using the audio signal circuits.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-281, "Wiring Diagram".

1. HARNESS CHECK

1. Disconnect BOSE speaker amp. connectors B109, B110 and suspect speaker connector.
2. Check continuity between BOSE speaker amp. harness connectors B109 (A) and B110 (B) and suspect speaker harness connector (C).

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: B109</td>
<td>15</td>
<td>C: D202</td>
<td>2</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>28</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>B: B110</td>
<td>9</td>
<td>C: D302</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>14</td>
<td></td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

3. Check continuity between BOSE speaker amp. harness connectors B109 (A) and B110 (B) and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: B109</td>
<td>15</td>
<td>Ground</td>
</tr>
<tr>
<td></td>
<td>28</td>
<td>No</td>
</tr>
<tr>
<td>B: B110</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td></td>
<td>14</td>
<td></td>
</tr>
</tbody>
</table>

Are the continuity test results as specified?

YES  >> GO TO 2.
NO   >> • Check connector housings for disconnected or loose terminals.
      • Repair harness or connector.

2. REAR DOOR SPEAKER SIGNAL CHECK
1. Connect BOSE speaker amp. connectors and suspect speaker connector.
2. Turn ignition switch to ACC.
4. Check the signal between BOSE speaker amp. harness connectors B109 (A) and B110 (B) terminals with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminals</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: B109</td>
<td>28, 15</td>
<td>Receive audio signal</td>
<td>(V)</td>
</tr>
<tr>
<td>B: B110</td>
<td>14, 9</td>
<td>Receive audio signal</td>
<td></td>
</tr>
</tbody>
</table>

Are audio signal voltage readings as specified?
YES >> Replace suspect speaker. Refer to AV-332, "Removal and Installation".
NO >> GO TO 3.

3. HARNESS CHECK
2. Check continuity between AV control unit harness connector M157 (A) and BOSE speaker amp. harness connector B109 (B).

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>M157</td>
<td>112</td>
<td>B109</td>
</tr>
<tr>
<td></td>
<td>118</td>
<td></td>
</tr>
<tr>
<td></td>
<td>108</td>
<td></td>
</tr>
<tr>
<td></td>
<td>114</td>
<td></td>
</tr>
</tbody>
</table>

3. Check continuity between AV control unit harness connector M157 (A) and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>—</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td></td>
</tr>
<tr>
<td>M157</td>
<td>112</td>
<td>Ground</td>
</tr>
<tr>
<td></td>
<td>118</td>
<td></td>
</tr>
<tr>
<td></td>
<td>108</td>
<td></td>
</tr>
<tr>
<td></td>
<td>114</td>
<td></td>
</tr>
</tbody>
</table>

Are the continuity test results as specified?
YES >> GO TO 4.
NO >> • Check connector housings for disconnected or loose terminals.
    • Repair harness or connector.

4. REAR DOOR SPEAKER SIGNAL CHECK
2. Turn ignition switch to ACC.
4. Check the signal between AV control unit harness connector terminals with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminals</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>M157</td>
<td>(+)</td>
<td>112 118</td>
<td>Receive audio signal</td>
</tr>
<tr>
<td></td>
<td>(-)</td>
<td>108 114</td>
<td></td>
</tr>
</tbody>
</table>

Is the audio signal voltage reading as specified?

YES >> Replace BOSE speaker amp. Refer to AV-334, "Removal and Installation".

NO >> Replace AV control unit. Refer to AV-322, "Removal and Installation".
Description

The AV control unit sends audio signals to the BOSE speaker amp. The BOSE speaker amp. amplifies the audio signals before sending them to the subwoofers using the audio signal circuits.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-281, "Wiring Diagram".

1. HARNESS CHECK

1. Disconnect BOSE speaker amp. connector B110 and suspect rear subwoofer connector.
2. Check continuity between BOSE speaker amp. harness connector B110 (A) and suspect rear subwoofer harness connector (B).

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>B110</td>
<td>13</td>
<td>B106</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>B106</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>B107</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>B107</td>
</tr>
</tbody>
</table>

3. Check continuity between BOSE speaker amp. harness connector B110 (A) and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>—</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Ground</td>
</tr>
<tr>
<td>B110</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

Are the continuity test results as specified?

YES  >> GO TO 2.
NO   >> • Check connector housings for disconnected or loose terminals.
      • Repair harness or connector.

2. REAR SUBWOOFER SIGNAL CHECK
1. Connect BOSE speaker amp. connector B110 and suspect rear subwoofer connector.
2. Turn ignition switch to ACC.
4. Check the signal between BOSE speaker amp. harness connector B110 terminals with CONSULT-III or oscilloscope.

Is the audio signal voltage as specified?
YES >> Replace suspect rear subwoofer. Refer to AV-168, "Removal and Installation".
NO >> GO TO 3.

3. HARNESS CHECK
2. Check continuity between AV control unit harness connector M157 (A) and BOSE speaker amp. harness connector B109 (B).

Are continuity test results as specified?
YES >> GO TO 4.
NO >> • Check connector housings for disconnected or loose terminals.
    • Repair harness or connector.

4. REAR SUBWOOFER SIGNAL CHECK
2. Turn ignition switch to ACC.
4. Check the signal between AV control unit harness connector terminals with CONSULT-III or oscilloscope.

Is the audio signal voltage as specified?

YES  >> Replace BOSE speaker amp. Refer to AV-169, "Removal and Installation".

NO    >> Replace AV control unit. Refer to AV-322, "Removal and Installation".

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminals</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(+)</td>
<td>(-)</td>
<td></td>
</tr>
<tr>
<td>M157</td>
<td>112 118</td>
<td>Receive audio signal</td>
<td>(V)</td>
</tr>
<tr>
<td></td>
<td>108 114</td>
<td></td>
<td>±1 V</td>
</tr>
</tbody>
</table>

SK4A617E

Revision: November 2009
2010 Maxima
AMP ON SIGNAL CIRCUIT

When the audio system is turned on, a voltage signal is supplied from the AV control unit to the BOSE speaker amp. When this signal is received, the BOSE speaker amp. will turn on.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-281, "Wiring Diagram".

1. CHECK AMP ON SIGNAL (BOSE SPEAKER AMP)

1. Turn audio system ON.
2. Check voltage between BOSE speaker amp. harness connector B109 terminal 20 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>Terminal</th>
<th>(-)</th>
<th>Voltage (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>B109</td>
<td>20</td>
<td>Ground</td>
<td>Battery voltage</td>
</tr>
</tbody>
</table>

Is inspection result normal?
YES >> Inspection End.
NO >> GO TO 2.

2. CHECK AMP ON SIGNAL (AV CONTROL UNIT)

Check voltage between AV control unit harness connector M157 terminal 110 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>Terminal</th>
<th>(-)</th>
<th>Voltage (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M157</td>
<td>110</td>
<td>Ground</td>
<td>Battery voltage</td>
</tr>
</tbody>
</table>

Is inspection result normal?
YES >> Repair harness or connector.
NO >> Replace AV control unit. Refer to AV-322, "Removal and Installation".
Description

When one of the steering wheel audio control switches is pushed, the resistance in the steering wheel audio control switch circuit changes, depending on which button is pushed.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-281, "Wiring Diagram".

1. CHECK STEERING WHEEL AUDIO CONTROL SWITCH RESISTANCE

   1. Turn ignition switch OFF.
   2. Disconnect steering wheel audio control switch connector M88.
   3. Check resistance between steering switch connector terminals.

<table>
<thead>
<tr>
<th>Terminal</th>
<th>Signal name</th>
<th>Condition</th>
<th>Resistance (Ω) (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>Enter</td>
<td>Depress ENTER switch.</td>
<td>2023</td>
</tr>
<tr>
<td>17</td>
<td>Voice recognition</td>
<td>Depress switch.</td>
<td>723</td>
</tr>
<tr>
<td></td>
<td>Menu (down)</td>
<td>Depress switch.</td>
<td>321</td>
</tr>
<tr>
<td></td>
<td>Menu (up)</td>
<td>Depress switch.</td>
<td>121</td>
</tr>
<tr>
<td></td>
<td>Source</td>
<td>Depress SOURCE switch.</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Menu back</td>
<td>Depress the back switch.</td>
<td>723</td>
</tr>
<tr>
<td></td>
<td>Phone</td>
<td>Depress switch.</td>
<td>321</td>
</tr>
<tr>
<td>15</td>
<td>Volume (up)</td>
<td>Depress VOL up switch.</td>
<td>121</td>
</tr>
<tr>
<td></td>
<td>Volume (down)</td>
<td>Depress VOL down switch.</td>
<td>0</td>
</tr>
</tbody>
</table>

Do the steering wheel audio control switches check OK?

YES  >> GO TO 2.
NO   >> Replace steering wheel audio control switch. Refer to AV-337, "Removal and Installation".

2. CHECK HARNESS

   1. Disconnect AV control unit connector M152 and spiral cable connector M30.
   2. Check continuity between AV control unit harness connector M152 (A) and spiral cable harness connector M30 (B).

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>M152</td>
<td>6</td>
<td>M30</td>
</tr>
<tr>
<td>15</td>
<td>15</td>
<td>33</td>
</tr>
<tr>
<td>16</td>
<td>31</td>
<td></td>
</tr>
</tbody>
</table>

3. Check continuity between AV control unit connector M152 (A) and ground.
Are the continuity results as specified?
YES >> GO TO 3.
NO >> Repair harness.

3. SPIRAL CABLE CHECK
1. Disconnect spiral cable connector M88.
2. Check continuity between spiral cable harness connector M30 (A) and M88 (B).

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Continuity</td>
</tr>
<tr>
<td>M30</td>
<td>24</td>
<td>14</td>
</tr>
<tr>
<td>M30</td>
<td>31</td>
<td>15</td>
</tr>
<tr>
<td>M30</td>
<td>33</td>
<td>17</td>
</tr>
</tbody>
</table>

Does the spiral cable check OK?
YES >> Inspection End.
NO >> Replace spiral cable. Refer to SR-8, "Removal and Installation".
COMMUNICATION SIGNAL CIRCUIT

COMMUNICATION SIGNAL CIRCUIT
SATELLITE RADIO TUNER

SATELLITE RADIO TUNER : Description

Communication signals are exchanged between the AV control unit and satellite radio tuner using the communication circuits.

SATELLITE RADIO TUNER : Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-281, "Wiring Diagram".

1. CHECK HARNESS - 1

1. Turn ignition switch OFF.
2. Disconnect satellite radio tuner (factory installed) connector B111 and AV control unit connector M153.
3. Check continuity between satellite radio tuner (factory installed) harness connector B111 (A) terminal 28 and AV control unit harness connector M153 (B) terminal 28.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>B111</td>
<td>28</td>
<td>M153</td>
</tr>
</tbody>
</table>

4. Check continuity between satellite radio tuner (factory installed) harness connector B111 (A) terminal 28 and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>—</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Ground</td>
</tr>
<tr>
<td>B111</td>
<td>28</td>
<td>No</td>
</tr>
</tbody>
</table>

Are continuity results as specified?
YES >> GO TO 2.
NO >> Repair harness or connector.

2. CHECK HARNESS - 2

1. Check continuity between satellite radio tuner (factory installed) harness connector B111 (A) terminal 29 and AV control unit harness connector M153 (B) terminal 29.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>B111</td>
<td>29</td>
<td>M153</td>
</tr>
</tbody>
</table>

2. Check continuity between satellite radio tuner (factory installed) harness connector B111 (A) terminal 29 and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>—</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Ground</td>
</tr>
<tr>
<td>B111</td>
<td>29</td>
<td>No</td>
</tr>
</tbody>
</table>

Are continuity results as specified?
YES >> GO TO 3.
NO >> Repair harness or connector.
3. CHECK HARNESS - 3

1. Check continuity between satellite radio tuner (factory installed) harness connector B111 (A) terminal 30 and AV control unit harness connector M153 (B) terminal 30.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Connector</th>
<th>Terminal</th>
</tr>
</thead>
<tbody>
<tr>
<td>B111</td>
<td>30</td>
<td>M153</td>
<td>30</td>
</tr>
</tbody>
</table>

Are continuity results as specified?
YES >> GO TO 4.
NO >> Repair harness or connector.

2. Check continuity between satellite radio tuner (factory installed) harness connector B111 (A) terminal 30 and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
</tr>
</thead>
<tbody>
<tr>
<td>B111</td>
<td>30</td>
</tr>
</tbody>
</table>

Are continuity results as specified?
YES >> GO TO 4.
NO >> Repair harness or connector.

4. CHECK REQ1 SIGNAL

1. Connect satellite radio tuner (factory installed) connector and AV control unit connector.
2. Turn ignition switch to ACC.
3. Check signal between satellite radio tuner (factory installed) harness connector B111 terminal 28 and ground with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
</tr>
</thead>
<tbody>
<tr>
<td>B111</td>
<td>28</td>
</tr>
</tbody>
</table>

Are voltage readings as specified?
YES >> GO TO 5.
NO >> Replace AV control unit. Refer to AV-322, "Removal and Installation".

5. CHECK TXD SIGNAL

Check signal between satellite radio tuner (factory installed) harness connector B111 terminal 29 and ground with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
</tr>
</thead>
<tbody>
<tr>
<td>B111</td>
<td>29</td>
</tr>
</tbody>
</table>
COMMUNICATION SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE W/ COLOR DISPLAY]

Are the voltage readings as specified?

YES >> GO TO 6.
NO >> Replace satellite radio tuner. Refer to AV-335, "Removal and Installation".

6. CHECK RXD SIGNAL

Check signal between satellite radio tuner (factory installed) harness connector B111 terminal 30 and ground with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>(-)</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>B111</td>
<td>30</td>
<td>Ground</td>
<td><img src="WKIA4546E" alt="Diagram" /></td>
</tr>
</tbody>
</table>

Are the voltage readings as specified?

YES >> Replace satellite radio tuner. Refer to AV-335, "Removal and Installation".
NO >> Replace AV control unit. Refer to AV-322, "Removal and Installation".
SATELLITE RADIO TUNER: Description

Left and right channel audio signals are supplied from the satellite radio tuner to the AV control unit through the sound signal circuits.

SATELLITE RADIO TUNER: Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-281, "Wiring Diagram".

LEFT CHANNEL

1. CHECK HARNESS

1. Turn ignition switch OFF.
2. Disconnect satellite radio tuner (factory installed) connector B111 and AV control unit connector M153.
3. Check continuity between satellite radio tuner (factory installed) connector B111 (A) and AV control unit connector M153 (B).

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>B111</td>
<td>21</td>
<td>M153</td>
</tr>
<tr>
<td></td>
<td>22</td>
<td></td>
</tr>
</tbody>
</table>

4. Check continuity between satellite radio tuner (factory installed) connector B111 (A) and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>—</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>—</td>
</tr>
<tr>
<td>B111</td>
<td>21</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>22</td>
<td>—</td>
</tr>
</tbody>
</table>

Are continuity results as specified?
YES >> GO TO 2.
NO >> Repair harness or connector.

2. CHECK LEFT CHANNEL AUDIO SIGNAL

1. Connect satellite radio tuner (factory installed) and AV control unit.
2. Turn ignition switch ON.
3. Check signal between satellite radio tuner (factory installed) connector B111 terminals 21 and 22 with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td></td>
</tr>
<tr>
<td>B111</td>
<td>22</td>
<td>21</td>
</tr>
</tbody>
</table>

Are voltage readings as specified?
YES >> Replace AV control unit. Refer to AV-322, "Removal and Installation".

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AV-270
SOUND SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

NO >> Replace satellite radio tuner. Refer to AV-335, "Removal and Installation".

RIGHT CHANNEL

1. CHECK HARNESS

1. Turn ignition switch OFF.
2. Disconnect satellite radio tuner (factory installed) connector B111 and AV control unit connector M153.
3. Check continuity between satellite radio tuner (factory installed) B111 (A) and AV control unit M153 (B).

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>B111</td>
<td>Terminal</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>M153</td>
<td>Terminal</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. Check continuity between satellite radio tuner (factory installed) connector B111 (A) and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>B111</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td></td>
<td>24</td>
<td>Ground</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
</tr>
</tbody>
</table>

Are continuity results as specified?

YES  >> GO TO 2.
NO   >> Repair harness or connector.

2. CHECK RIGHT CHANNEL AUDIO SIGNAL

1. Connect satellite radio tuner (factory installed) and AV control unit.
2. Turn ignition switch ON.
3. Check signal between satellite radio tuner (factory installed) connector B111 terminals 23 and 24 with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>B111</td>
<td>Terminal</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>23</td>
<td></td>
</tr>
</tbody>
</table>

Are voltage readings as specified?

YES  >> Replace AV control unit. Refer to AV-322, "Removal and Installation".
NO   >> Replace satellite radio tuner. Refer to AV-335, "Removal and Installation".

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AV-271

2010 Maxima
MICROPHONE SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >
[BOSE W/ COLOR DISPLAY]

MICROPHONE SIGNAL CIRCUIT

Description

Voice signals are transmitted from the microphone to the Bluetooth control unit using the microphone signal circuits.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-613, "Wiring Diagram".

1. CHECK HARNESS BETWEEN BLUETOOTH CONTROL UNIT AND MICROPHONE

1. Turn ignition switch OFF.
2. Disconnect Bluetooth control unit connector and microphone connector.
3. Check continuity between Bluetooth control unit harness connector B131 (A) and microphone harness connector R7 (B).

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>8</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

4. Check continuity between Bluetooth control unit harness connector B131 (A) and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>Terminal</th>
<th>Connectivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>Ground</td>
<td>No</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>29</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Are the continuity test results as specified?

YES  >> GO TO 2.
NO   >> Repair harness or connector.

2. CHECK MICROPHONE POWER SUPPLY

1. Connect Bluetooth control unit connector and microphone connector.
2. Turn ignition switch ON.
3. Check voltage between microphone harness connector R7 terminal 4 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Voltage (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>R7</td>
<td>4</td>
<td>5V</td>
</tr>
</tbody>
</table>

Is voltage reading approx. 5 volts?

YES  >> GO TO 3.
NO   >> Replace Bluetooth control unit. Refer to AV-677, "Removal and Installation".

3. CHECK MICROPHONE SIGNAL

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AV-272 2010 Maxima
Check signal between Bluetooth control unit harness connector B131 terminals 7 and 8.

<table>
<thead>
<tr>
<th>Connector</th>
<th>(+)</th>
<th>(-)</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>B131</td>
<td>7</td>
<td>8</td>
<td>While talking into microphone</td>
</tr>
</tbody>
</table>

Are voltage readings as specified?

YES >> Replace Bluetooth control unit. Refer to AV-677, "Removal and Installation".
NO >> Replace microphone. Refer to AV-675, "Removal and Installation".
## VALUES ON THE DIAGNOSIS TOOL

### CONSULT-III data monitor item

<table>
<thead>
<tr>
<th>Display Item</th>
<th>Display</th>
<th>Vehicle status</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>VHCL SPD SIG</td>
<td>ON</td>
<td>Vehicle speed &gt;0 km/h (0 MPH)</td>
<td>Changes in indication may be delayed. This is normal.</td>
</tr>
<tr>
<td></td>
<td>OFF</td>
<td>Vehicle speed =0 km/h (0 MPH)</td>
<td></td>
</tr>
<tr>
<td>PKB SIG</td>
<td>ON</td>
<td>Parking brake is applied.</td>
<td>Changes in indication may be delayed. This is normal.</td>
</tr>
<tr>
<td></td>
<td>OFF</td>
<td>Parking brake is released.</td>
<td></td>
</tr>
<tr>
<td>ILLUM SIG</td>
<td>ON</td>
<td>Block the light beam from the auto light optical sensor when the light SW is ON.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OFF</td>
<td>Expose the auto light optical sensor to light when the light SW is OFF or ON.</td>
<td></td>
</tr>
<tr>
<td>IGN SIG</td>
<td>ON</td>
<td>Ignition switch ON</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OFF</td>
<td>Ignition switch in ACC position</td>
<td></td>
</tr>
<tr>
<td>REV SIG</td>
<td>ON</td>
<td>Selector lever in R position</td>
<td>Changes in indication may be delayed. This is normal.</td>
</tr>
<tr>
<td></td>
<td>OFF</td>
<td>Selector lever in any position other than R</td>
<td></td>
</tr>
</tbody>
</table>

## TERMINAL LAYOUT

![Terminal Layout Diagram](image)

## PHYSICAL VALUES

<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Description</th>
<th>Input/Output</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ – Signal name</td>
<td></td>
<td></td>
<td>Depress ENTER switch.</td>
<td>2023Ω</td>
</tr>
<tr>
<td>6 (W/G) 15 (L/B)</td>
<td>Steering switch signal A</td>
<td>Input</td>
<td>Ignition switch OFF</td>
<td>723Ω</td>
</tr>
<tr>
<td>7 (V/Y)</td>
<td>ACC power supply</td>
<td>Input</td>
<td>Ignition switch ACC</td>
<td>321Ω</td>
</tr>
</tbody>
</table>

Reference: November 2009

2010 Maxima
## AV CONTROL UNIT

### < ECU DIAGNOSIS >

**[BOSE W/ COLOR DISPLAY]**

<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Description</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>–</td>
<td>Input/Output</td>
<td>Lighting switch is OFF. 0V</td>
</tr>
<tr>
<td>9 (R/L) Ground</td>
<td>Illumination signal</td>
<td>Input OFF</td>
<td>Lighting switch is ON. Battery voltage</td>
</tr>
<tr>
<td>16 (GR/L) 15 (L/B)</td>
<td>Steering switch signal B</td>
<td>Input Ignition switch ON</td>
<td>Depress the back switch. 723Ω</td>
</tr>
<tr>
<td>19 (Y/R) Ground</td>
<td>Battery power supply</td>
<td>Input Ignition switch OFF</td>
<td>— Battery voltage</td>
</tr>
<tr>
<td>20 (B) Ground</td>
<td>Ground</td>
<td>— Ignition switch ON</td>
<td>— 0V</td>
</tr>
<tr>
<td>22 (Y/L) 21 (W/L)</td>
<td>Satellite radio sound signal LH</td>
<td>Input Ignition switch ON</td>
<td>When satellite radio mode is selected</td>
</tr>
<tr>
<td>24 (BR/L) 23 (Y/G)</td>
<td>Satellite radio sound signal RH</td>
<td>Input Ignition switch ON</td>
<td>When satellite radio mode is selected</td>
</tr>
<tr>
<td>25</td>
<td>Shield</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>26</td>
<td>Shield</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>28 (R) Ground</td>
<td>Request signal (SAT→CONT)</td>
<td>Input Ignition switch ON</td>
<td>When satellite radio mode is selected</td>
</tr>
<tr>
<td>29 (B) Ground</td>
<td>Communication signal (SAT→CONT)</td>
<td>Input Ignition switch ON</td>
<td>When satellite radio mode is selected</td>
</tr>
<tr>
<td>Terminal (Wire color)</td>
<td>Description</td>
<td>Condition</td>
<td>Reference value (Approx.)</td>
</tr>
<tr>
<td>----------------------</td>
<td>-------------------------------------</td>
<td>-------------------------------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>+</td>
<td>—</td>
<td>Input/Output</td>
<td></td>
</tr>
<tr>
<td>30 (G)</td>
<td>Ground Communication signal (CONT]-&gt;SAT)</td>
<td>Output Ignition switch ON</td>
<td>When satellite radio mode is selected</td>
</tr>
<tr>
<td>34 (B)</td>
<td>Antenna main</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>35 (B)</td>
<td>Antenna power</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>36 (W)</td>
<td>Ground AUX image signal</td>
<td>Output Ignition switch ON</td>
<td>When AUX mode is selected</td>
</tr>
<tr>
<td>37 (B)</td>
<td>Ground AUX image ground</td>
<td>Ignition switch ON</td>
<td>0V</td>
</tr>
<tr>
<td>38 (W)</td>
<td>Ground RGB signal (B: blue)</td>
<td>Output Ignition switch ON</td>
<td>Start confirmation/adjustment mode, and then display color bar by selecting “Color Spectrum Bar” on DISPLAY DIAGNOSIS screen.</td>
</tr>
<tr>
<td>39 (R)</td>
<td>Ground RGB signal (G: green)</td>
<td>Output Ignition switch ON</td>
<td>Start confirmation/adjustment mode, and then display color bar by selecting “Color Spectrum Bar” on DISPLAY DIAGNOSIS screen.</td>
</tr>
<tr>
<td>40 (B)</td>
<td>Ground RGB signal (R: red)</td>
<td>Output Ignition switch ON</td>
<td>Start confirmation/adjustment mode, and then display color bar by selecting “Color Spectrum Bar” on DISPLAY DIAGNOSIS screen.</td>
</tr>
</tbody>
</table>
## AV CONTROL UNIT

### < ECU DIAGNOSIS >

#### [BOSE W/ COLOR DISPLAY]

<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Description</th>
<th>Input/Output</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>Signal name</td>
<td>Input/Output</td>
<td>Ignition switch ON</td>
<td>— (V)</td>
</tr>
<tr>
<td>41 (G) Ground</td>
<td>RGB synchronizing signal</td>
<td>Output</td>
<td>—</td>
<td>— (V)</td>
</tr>
<tr>
<td>42</td>
<td>RGB synchronizing ground</td>
<td>—</td>
<td>—</td>
<td>0V</td>
</tr>
<tr>
<td>43 (B) Ground</td>
<td>RGB area (YS) signal</td>
<td>Output</td>
<td>Ignition switch ON</td>
<td>5V</td>
</tr>
<tr>
<td>44 (BR) Ground</td>
<td>Communication signal (DISP → CONT)</td>
<td>Input</td>
<td>Ignition switch ON</td>
<td>When adjusting display-brightness</td>
</tr>
<tr>
<td>45 (R) Ground</td>
<td>Horizontal synchronizing (HP) signal</td>
<td>Input</td>
<td>Ignition switch ON</td>
<td>— (V)</td>
</tr>
<tr>
<td>46 (LG) Ground</td>
<td>Signal ground</td>
<td>—</td>
<td>Ignition switch</td>
<td>—</td>
</tr>
<tr>
<td>47 (O) Ground</td>
<td>Signal VCC</td>
<td>Output</td>
<td>Ignition switch ACC</td>
<td>9V</td>
</tr>
<tr>
<td>49</td>
<td>Shield</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>50</td>
<td>Shield</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>55</td>
<td>Shield</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>56 (Y) Ground</td>
<td>Communication signal (CONT → DISP)</td>
<td>Output</td>
<td>Ignition switch ON</td>
<td>When adjusting display-brightness</td>
</tr>
</tbody>
</table>

### Terminal (Wire color) Description

- **SKIB3603E**: PKIB4948J
- **PKIB5039J**: SKIB3601E
- **PKIB5039J**: PKIB5039J

**Revision**: November 2009

**AV-277**

2010 Maxima
<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Description</th>
<th>Input/Output</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>Signal name</td>
<td>Input</td>
<td>Ignition switch On</td>
<td>—</td>
</tr>
<tr>
<td>57 (W)</td>
<td>Vertical synchronizing (VP) signal</td>
<td>Input</td>
<td>Ignition switch On</td>
<td>—</td>
</tr>
<tr>
<td>58 (BR)</td>
<td>Inverter ground</td>
<td>—</td>
<td>Ignition switch ON</td>
<td>0V</td>
</tr>
<tr>
<td>59 (Y)</td>
<td>Inverter VCC</td>
<td>Output</td>
<td>Ignition switch ACC</td>
<td>9V</td>
</tr>
<tr>
<td>65 (W)</td>
<td>Rear view camera video in (+)</td>
<td>Input</td>
<td>Ignition switch ON</td>
<td>With rear view camera ON</td>
</tr>
<tr>
<td>66 (LG) 74 (V)</td>
<td>Aux image signal</td>
<td>Input</td>
<td>Ignition switch ON</td>
<td>When aux mode is selected</td>
</tr>
<tr>
<td>70 (L)</td>
<td>RV_CAM_SIG</td>
<td>Output</td>
<td>Ignition switch ACC</td>
<td>Shift selector is in R position</td>
</tr>
<tr>
<td>71 (V/G)</td>
<td>RV_CAM_GND</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>72</td>
<td>Shield</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>73</td>
<td>Shield</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>80 (BR) 79 (Y)</td>
<td>TEL voice audio signal</td>
<td>Input</td>
<td>Ignition switch ON</td>
<td>Start confirmation/adjustment mode, and then Voice Microphone Test by selecting “Voice Microphone Test” on Handsfree Microphone screen.</td>
</tr>
<tr>
<td>81</td>
<td>Shield</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>85 (BR)</td>
<td>Ground</td>
<td>—</td>
<td>Ignition switch ON</td>
<td>—</td>
</tr>
<tr>
<td>86 (L)</td>
<td>CAN–H</td>
<td>Input/Output</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>87 (P)</td>
<td>CAN–L</td>
<td>Input/Output</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>
# AV CONTROL UNIT

## < ECU DIAGNOSIS >

### [BOSE W/ COLOR DISPLAY]

<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Description</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>—</td>
<td>Signal name</td>
<td>Input/Output</td>
</tr>
<tr>
<td>88 (L)</td>
<td>AV communication signal 1 (H)</td>
<td>Input/Output</td>
<td>—</td>
</tr>
<tr>
<td>89 (P)</td>
<td>AV communication signal 1 (L)</td>
<td>Input/Output</td>
<td>—</td>
</tr>
<tr>
<td>90 (R)</td>
<td>AV communication signal 2 (H)</td>
<td>Input/Output</td>
<td>—</td>
</tr>
<tr>
<td>91 (G)</td>
<td>AV communication signal 2 (L)</td>
<td>Input/Output</td>
<td>—</td>
</tr>
<tr>
<td>95 (B)</td>
<td>97 (R)</td>
<td>AUX audio signal RH</td>
<td>Input</td>
</tr>
<tr>
<td>96 (W)</td>
<td>97 (R)</td>
<td>AUX audio signal LH</td>
<td>Input</td>
</tr>
<tr>
<td>103 (SB)</td>
<td>Ground</td>
<td>CD eject signal</td>
<td>Input</td>
</tr>
<tr>
<td>104 (G)</td>
<td>Ground</td>
<td>Ignition signal</td>
<td>Input</td>
</tr>
<tr>
<td>105 (P/B)</td>
<td>Ground</td>
<td>Reverse signal</td>
<td>Input</td>
</tr>
<tr>
<td>106 (G/R)</td>
<td>Ground</td>
<td>Parking brake signal</td>
<td>Input</td>
</tr>
<tr>
<td>107 (V/W)</td>
<td>Ground</td>
<td>Vehicle speed signal (8-pulse)</td>
<td>Input</td>
</tr>
<tr>
<td>108 (V)</td>
<td>114 (LG)</td>
<td>Rear RH pre-amp. sound signal</td>
<td>Output</td>
</tr>
</tbody>
</table>
### AV CONTROL UNIT

**ECU DIAGNOSIS**

<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Description</th>
<th>Input/Output</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>109 (B) 115 (W)</td>
<td>Front RH pre-amp. sound signal</td>
<td>Output</td>
<td>Ignition switch ON</td>
<td>Audio output</td>
</tr>
<tr>
<td>110 (B/P)</td>
<td>Ground Amp. ON signal</td>
<td>Output</td>
<td>Ignition switch ON</td>
<td>Battery voltage</td>
</tr>
<tr>
<td>111</td>
<td>Shield</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>112 (W/R) 118 (W/L)</td>
<td>Rear LH pre-amp. sound signal</td>
<td>Output</td>
<td>Ignition switch ON</td>
<td></td>
</tr>
<tr>
<td>113 (G) 119 (R)</td>
<td>Front LH pre-amp. sound signal</td>
<td>Output</td>
<td>Ignition switch ON</td>
<td></td>
</tr>
<tr>
<td>120 (B)</td>
<td>USB ground</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>121 (W)</td>
<td>USB D-</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>122 (R)</td>
<td>V BUS signal</td>
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</tr>
<tr>
<td>123 (G)</td>
<td>USB D+</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

**Revision:** November 2009

*2010 Maxima*
## BOSE Audio System Connectors - With Color Display Without NAVI Without Rear Controls

### ECU Diagnosis

#### AV Control Unit

**Connector No.** M1  
**Connector Name:** WIRE TO WIRE  
**Connector Color:** WHITE

<table>
<thead>
<tr>
<th>Terminal No.</th>
<th>Color of Wire</th>
<th>Signal Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>13G</td>
<td>G</td>
<td>–</td>
</tr>
<tr>
<td>24G</td>
<td>G/R</td>
<td>–</td>
</tr>
<tr>
<td>53G</td>
<td>B/R</td>
<td>–</td>
</tr>
<tr>
<td>54G</td>
<td>BR</td>
<td>–</td>
</tr>
<tr>
<td>64G</td>
<td>Y/R</td>
<td>–</td>
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</table>

#### Connector No. M2

**Connector Name:** WIRE TO WIRE  
**Connector Color:** WHITE

<table>
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<th>Color of Wire</th>
<th>Signal Name</th>
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<tbody>
<tr>
<td>4</td>
<td>R</td>
<td>–</td>
</tr>
<tr>
<td>5</td>
<td>L</td>
<td>–</td>
</tr>
<tr>
<td>6</td>
<td>SHIELD</td>
<td>–</td>
</tr>
<tr>
<td>8</td>
<td>BR</td>
<td>–</td>
</tr>
<tr>
<td>9</td>
<td>SHIELD</td>
<td>–</td>
</tr>
<tr>
<td>10</td>
<td>Y</td>
<td>–</td>
</tr>
<tr>
<td>13</td>
<td>V/W</td>
<td>–</td>
</tr>
<tr>
<td>21</td>
<td>Y/R</td>
<td>–</td>
</tr>
<tr>
<td>22</td>
<td>V/Y</td>
<td>–</td>
</tr>
<tr>
<td>23</td>
<td>G</td>
<td>–</td>
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#### Connector No. M3

**Connector Name:** FUSE BLOCK (J/B)  
**Connector Color:** WHITE

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</tr>
</thead>
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<tr>
<td>2N</td>
<td>G</td>
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#### Connector No. M5

**Connector Name:** FUSE BLOCK (J/B)  
**Connector Color:** WHITE

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<tbody>
<tr>
<td>4M</td>
<td>V/Y</td>
<td>–</td>
</tr>
<tr>
<td>12M</td>
<td>O</td>
<td>–</td>
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**AV CONTROL UNIT**

*< ECU DIAGNOSIS >*

**[BOSE W/ COLOR DISPLAY]**

<table>
<thead>
<tr>
<th>Connector No.</th>
<th>Connector Name (TWEEZER LH [WITH BOSE AUDIO SYSTEM])</th>
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</thead>
<tbody>
<tr>
<td>M51</td>
<td>TWEEZER LH [WITH BOSE AUDIO SYSTEM]</td>
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<tr>
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<td>BROWN</td>
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<table>
<thead>
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<th>Terminal No.</th>
<th>Color of Wire</th>
<th>Signal Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>LG</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>BY</td>
<td>-</td>
</tr>
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<table>
<thead>
<tr>
<th>Connector No.</th>
<th>Connector Name (TWEEZER RH [WITH BOSE AUDIO SYSTEM])</th>
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</thead>
<tbody>
<tr>
<td>M52</td>
<td>TWEEZER RH [WITH BOSE AUDIO SYSTEM]</td>
</tr>
<tr>
<td>Connector Color</td>
<td>BROWN</td>
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<table>
<thead>
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<th>Terminal No.</th>
<th>Color of Wire</th>
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<tbody>
<tr>
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<td>GRAY</td>
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<table>
<thead>
<tr>
<th>Connector No.</th>
<th>Connector Name (AC AND AV SWITCH ASSEMBLY)</th>
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<tbody>
<tr>
<td>M98</td>
<td>AC AND AV SWITCH ASSEMBLY</td>
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<table>
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<th>Terminal No.</th>
<th>Color of Wire</th>
<th>Signal Name</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>B</td>
<td>GND</td>
</tr>
<tr>
<td>3</td>
<td>VY</td>
<td>ACC</td>
</tr>
<tr>
<td>4</td>
<td>RL</td>
<td>IL</td>
</tr>
<tr>
<td>5</td>
<td>RY</td>
<td>CAN_H</td>
</tr>
<tr>
<td>6</td>
<td>L</td>
<td>CAN_L</td>
</tr>
<tr>
<td>7</td>
<td>BR</td>
<td>SW_GND</td>
</tr>
<tr>
<td>8</td>
<td>PF</td>
<td>CD(DVD) EJECT</td>
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<table>
<thead>
<tr>
<th>Connector No.</th>
<th>Connector Name (SPIRAL CABLE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M98</td>
<td>SPIRAL CABLE</td>
</tr>
<tr>
<td>Connector Color</td>
<td>GRAY</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Terminal No.</th>
<th>Color of Wire</th>
<th>Signal Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>15</td>
<td>REMOTE A</td>
</tr>
<tr>
<td>15</td>
<td>16</td>
<td>REMOTE B</td>
</tr>
<tr>
<td>16</td>
<td>17</td>
<td>GND</td>
</tr>
</tbody>
</table>

**Revision: November 2009**

2010 Maxima
### AV Control Unit (Without Navi and Rear Controls) - Diagram and Table

#### Connector M152
- **Connector Name:** AV Control Unit (Without Navi and Rear Controls)
- **Connector Color:** WHITE

<table>
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<th>Color of Wire</th>
<th>Signal Name</th>
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</thead>
<tbody>
<tr>
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<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3</td>
<td>-</td>
<td>-</td>
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<tr>
<td>4</td>
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<tr>
<td>5</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>6</td>
<td>W/G</td>
<td>STRG SW A</td>
</tr>
<tr>
<td>7</td>
<td>V/Y</td>
<td>ACC</td>
</tr>
<tr>
<td>8</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>9</td>
<td>R/L</td>
<td>ILL</td>
</tr>
<tr>
<td>10</td>
<td>-</td>
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<td>11</td>
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<tr>
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#### Connector M153
- **Connector Name:** AV Control Unit (Without Navi and Rear Controls)
- **Connector Color:** WHITE

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<th>Terminal No.</th>
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<th>Signal Name</th>
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</tr>
<tr>
<td>14</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>15</td>
<td>L/B</td>
<td>STRG SW GND</td>
</tr>
<tr>
<td>16</td>
<td>GR/L</td>
<td>STRG SW B</td>
</tr>
<tr>
<td>17</td>
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</tr>
<tr>
<td>18</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>19</td>
<td>Y/R</td>
<td>BAT</td>
</tr>
<tr>
<td>20</td>
<td>B</td>
<td>GND</td>
</tr>
</tbody>
</table>

#### Connector M154
- **Connector Name:** AV Control Unit (Without Navi and Rear Controls)
- **Connector Color:** WHITE

<table>
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<th>Terminal No.</th>
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<th>Signal Name</th>
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<tbody>
<tr>
<td>21</td>
<td>W/L</td>
<td>NBUS LH-</td>
</tr>
<tr>
<td>22</td>
<td>Y/L</td>
<td>NBUS LH+</td>
</tr>
<tr>
<td>23</td>
<td>Y/G</td>
<td>NBUS RH-</td>
</tr>
<tr>
<td>24</td>
<td>BR/L</td>
<td>NBUS RH+</td>
</tr>
<tr>
<td>25</td>
<td>SHIELD</td>
<td>DATA GND</td>
</tr>
<tr>
<td>26</td>
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<td>-</td>
</tr>
<tr>
<td>27</td>
<td>-</td>
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</tr>
<tr>
<td>28</td>
<td>R</td>
<td>REQI(TO HU)</td>
</tr>
<tr>
<td>29</td>
<td>B</td>
<td>RX(TO HU)</td>
</tr>
<tr>
<td>30</td>
<td>G</td>
<td>TX(FROM HU)</td>
</tr>
<tr>
<td>31</td>
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<tbody>
<tr>
<td>42</td>
<td>SHIELD</td>
<td>RGB SYNC GND</td>
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<tr>
<td>43</td>
<td>B</td>
<td>YS</td>
</tr>
<tr>
<td>44</td>
<td>BR</td>
<td>DISP IT</td>
</tr>
<tr>
<td>45</td>
<td>R</td>
<td>HP</td>
</tr>
<tr>
<td>46</td>
<td>LG</td>
<td>SIG GND</td>
</tr>
<tr>
<td>47</td>
<td>O</td>
<td>SIG VCC</td>
</tr>
<tr>
<td>48</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>49</td>
<td>SHIELD</td>
<td>COMP OUT SHIELD</td>
</tr>
<tr>
<td>50</td>
<td>SHIELD</td>
<td>RGB GND</td>
</tr>
<tr>
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#### Terminal No. | Color of Wire | Signal Name |
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<td>SHIELD</td>
<td>SHIELD</td>
</tr>
<tr>
<td>56</td>
<td>Y</td>
<td>IT DISP</td>
</tr>
<tr>
<td>57</td>
<td>W</td>
<td>VP</td>
</tr>
<tr>
<td>58</td>
<td>BR</td>
<td>INV GND</td>
</tr>
<tr>
<td>59</td>
<td>Y</td>
<td>INV VCC</td>
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## AV CONTROL UNIT

**< ECU DIAGNOSIS >**

**[BOSE W/ COLOR DISPLAY]**

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<th>Color of Wire</th>
<th>Signal Name</th>
<th>Signal Name</th>
</tr>
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<tbody>
<tr>
<td>69</td>
<td>L</td>
<td>RV CAM SIG</td>
<td>C</td>
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<tr>
<td>70</td>
<td>L</td>
<td>CAM GND</td>
<td>D</td>
</tr>
<tr>
<td>71</td>
<td>V/G</td>
<td>COMP2 IN SHIELD</td>
<td>E</td>
</tr>
<tr>
<td>72</td>
<td>SHIELD</td>
<td>COMP1 IN SHIELD</td>
<td>F</td>
</tr>
<tr>
<td>73</td>
<td>V</td>
<td>COMP1 IN</td>
<td></td>
</tr>
<tr>
<td>74</td>
<td>V</td>
<td></td>
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<th>Signal Name</th>
<th>Signal Name</th>
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<tr>
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<td>SHEILD</td>
<td>VOICE SHIELD</td>
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</tr>
<tr>
<td>82</td>
<td>-</td>
<td>B</td>
<td>D</td>
</tr>
<tr>
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<td>W</td>
<td>E</td>
</tr>
<tr>
<td>84</td>
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<td>F</td>
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<td>R</td>
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<table>
<thead>
<tr>
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<th>Signal Name</th>
<th>Signal Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>94</td>
<td>-</td>
<td>AUX AUDIO RH</td>
<td>C</td>
</tr>
<tr>
<td>95</td>
<td>-</td>
<td>AUX AUDIO LH</td>
<td>D</td>
</tr>
<tr>
<td>96</td>
<td>-</td>
<td>AUX GND</td>
<td>E</td>
</tr>
<tr>
<td>97</td>
<td>-</td>
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<td></td>
</tr>
<tr>
<td>102</td>
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<td>CNV/DVD EJECT</td>
<td>C</td>
</tr>
<tr>
<td>103</td>
<td>-</td>
<td>SB</td>
<td>D</td>
</tr>
<tr>
<td>104</td>
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<td>G</td>
<td>E</td>
</tr>
<tr>
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<tr>
<td>106</td>
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<td></td>
</tr>
<tr>
<td>107</td>
<td>-</td>
<td>V/W</td>
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</table>

Revision: November 2009

AV-293

2010 Maxima
### AV CONTROL UNIT

#### < ECU DIAGNOSIS >

**AV-294**

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<tr>
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<th>Connector Name</th>
<th>Connector Color</th>
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<tbody>
<tr>
<td>M159</td>
<td>AV CONTROL UNIT AND REAR CONTROLS</td>
<td>GREEN</td>
</tr>
<tr>
<td>M158</td>
<td>AV CONTROL UNIT AND REAR CONTROLS</td>
<td>GRAY</td>
</tr>
<tr>
<td>M157</td>
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#### Signal Name and Color of Wire

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<th>Signal Name</th>
</tr>
</thead>
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<td>RR, PRE</td>
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<tr>
<td>109</td>
<td>B</td>
<td>AM/PRE</td>
</tr>
<tr>
<td>110</td>
<td>G</td>
<td>SHIELD</td>
</tr>
<tr>
<td>111</td>
<td>W</td>
<td>RR, PRE</td>
</tr>
<tr>
<td>112</td>
<td>LG</td>
<td>RR, PRE</td>
</tr>
<tr>
<td>113</td>
<td>W/L</td>
<td>RR, PRE</td>
</tr>
<tr>
<td>114</td>
<td>R</td>
<td>RR, PRE</td>
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<tr>
<td>115</td>
<td>B</td>
<td>RR, PRE</td>
</tr>
<tr>
<td>116</td>
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<td>RR, PRE</td>
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<tr>
<td>117</td>
<td>-</td>
<td>RR, PRE</td>
</tr>
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<td>RR, PRE</td>
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<tr>
<td>119</td>
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<td>RR, PRE</td>
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#### Signal Name and Color of Wire

<table>
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<th>Color of Wire</th>
<th>Signal Name</th>
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<tbody>
<tr>
<td>21</td>
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<td>AUX IN JACK</td>
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<tr>
<td>22</td>
<td>LG</td>
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<tr>
<td>23</td>
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#### Signal Name and Color of Wire

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<th>Signal Name</th>
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<tr>
<td>9</td>
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<td>WIRE TO WIRE</td>
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<td>W</td>
<td>-</td>
</tr>
<tr>
<td>11</td>
<td>R</td>
<td>-</td>
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<td>12</td>
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**2010 Maxima**
### AV CONTROL UNIT

#### < ECU DIAGNOSIS >

**[BOSE W/ COLOR DISPLAY]**

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<th>Connector No.</th>
<th>Connector Name</th>
<th>Connector Color</th>
<th>Terminal No.</th>
<th>Color of Wire</th>
<th>Signal Name</th>
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<tbody>
<tr>
<td>M501</td>
<td>WIRE TO WIRE</td>
<td>GRAY</td>
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<td>B</td>
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<td>R</td>
<td>VBUS</td>
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<td>USB+</td>
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<td>USB GND</td>
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### AV CONTROL UNIT

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#### Terminal No. | Color of Wire | Signal Name
---|---|---
5  | V | |
7  | V | |
8  | V | |
9  | V | |

#### Terminal No. | Color of Wire | Signal Name
---|---|---
21 | V | |
22 | GT | |
23 | O | |

---

<table>
<thead>
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<th>Connector Name</th>
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#### Terminal No. | Color of Wire | Signal Name
---|---|---
15 | V | |

#### Terminal No. | Color of Wire | Signal Name
---|---|---
4  | R | |
5  | L | |
6  | SHIELD | |
9  | SHIELD | |
10 | Y | |
13 | BR | |

---

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### AV CONTROL UNIT

#### < ECU DIAGNOSIS >

<table>
<thead>
<tr>
<th>Connector No.</th>
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<td>Connector Wire Color</td>
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#### [BOSE W/ COLOR DISPLAY]

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### Image of AV SUBWOOFER RH and LH Connectors

#### Connector B107

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#### Connector B108

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<tr>
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### AV Control Unit

#### Connector B110: Bose Speaker Amp.

<table>
<thead>
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<th>Terminal No.</th>
<th>Color of Wire</th>
<th>Signal Name (With Color Display)</th>
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<tbody>
<tr>
<td>25</td>
<td>LG</td>
<td>RR RH-IN (With Color Display)</td>
</tr>
<tr>
<td>26</td>
<td>V</td>
<td>RR RH-IN (With Color Display)</td>
</tr>
<tr>
<td>28</td>
<td>LG</td>
<td>RR DOOR LH+ OUT</td>
</tr>
<tr>
<td>30</td>
<td>R</td>
<td>INST CTROL WDOOR+ OUT</td>
</tr>
<tr>
<td>29</td>
<td>P</td>
<td>INST CTROL WDOOR+ OUT</td>
</tr>
<tr>
<td>33</td>
<td>BR</td>
<td>FR DOOR RH+ OUT</td>
</tr>
</tbody>
</table>

#### Connector B111: Satellite Radio Tuner or Pre-Wiring for Satellite Radio Tuner

<table>
<thead>
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<th>Terminal No.</th>
<th>Color of Wire</th>
<th>Signal Name (With Color Display)</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>L</td>
<td>RR LH-IN (With Color Display)</td>
</tr>
<tr>
<td>18</td>
<td>W</td>
<td>RR DOOR LH- OUT</td>
</tr>
<tr>
<td>19</td>
<td>W</td>
<td>RR DOOR LH- OUT</td>
</tr>
<tr>
<td>20</td>
<td>SB</td>
<td>AMP ON</td>
</tr>
<tr>
<td>23</td>
<td>Y</td>
<td>RR LH-IN (With Color Display)</td>
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#### Electrical Connections

<table>
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<th>Color of Wire</th>
<th>Signal Name (With Color Display)</th>
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<td>LG</td>
<td>FR TWFR LH- OUT</td>
</tr>
<tr>
<td>2</td>
<td>V</td>
<td>FR TWFR LH- OUT</td>
</tr>
<tr>
<td>3</td>
<td>W</td>
<td>FR TWFR LH- OUT</td>
</tr>
<tr>
<td>4</td>
<td>R</td>
<td>FR TWFR RH- OUT</td>
</tr>
<tr>
<td>5</td>
<td>BR</td>
<td>RH WOOFER- OUT</td>
</tr>
<tr>
<td>6</td>
<td>BR</td>
<td>RH WOOFER- OUT</td>
</tr>
<tr>
<td>7</td>
<td>GR</td>
<td>RH WOOFER- OUT</td>
</tr>
<tr>
<td>8</td>
<td>GR</td>
<td>LH WOOFER- OUT</td>
</tr>
<tr>
<td>9</td>
<td>O</td>
<td>RR DOOR RH- OUT</td>
</tr>
<tr>
<td>10</td>
<td>SB</td>
<td>BAT</td>
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<tr>
<td>11</td>
<td>BAT</td>
<td>BAT</td>
</tr>
<tr>
<td>12</td>
<td>B</td>
<td>B independence</td>
</tr>
<tr>
<td>13</td>
<td>L</td>
<td>LH WOOFER+ OUT</td>
</tr>
<tr>
<td>14</td>
<td>LG</td>
<td>RR DOOR RH+ OUT</td>
</tr>
<tr>
<td>21</td>
<td>BR</td>
<td>SAT LCH (-)</td>
</tr>
<tr>
<td>22</td>
<td>W</td>
<td>SAT LCH (+)</td>
</tr>
<tr>
<td>23</td>
<td>Y</td>
<td>SAT RICH (-)</td>
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<tr>
<td>24</td>
<td>R</td>
<td>SAT RICH (+)</td>
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<tr>
<td>29</td>
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<td>RXO (COMB &gt; SAT)</td>
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<td>HARN EARTH</td>
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<tr>
<td>36</td>
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### AV CONTROL UNIT

**< ECU DIAGNOSIS >**

**[BOSE W/ COLOR DISPLAY]**

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<td>BLUETOOTH CONTROL UNIT</td>
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<td>Terminal No.</td>
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<td>Signal Name</td>
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<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Connector Name</td>
<td>BLUETOOTH CONTROL UNIT (MITOJ DASH/NO REAR CONTROL)</td>
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<tr>
<td>Terminal No.</td>
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<td>Color of Wire</td>
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<td>Signal Name</td>
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<table>
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<tbody>
<tr>
<td>Connector Name</td>
<td>BLUETOOTH CONTROL UNIT (WITH BOSE AUDIO SYSTEM)</td>
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<td>Terminal No.</td>
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<tr>
<td>Color of Wire</td>
<td>V</td>
</tr>
<tr>
<td>Signal Name</td>
<td>-</td>
</tr>
</tbody>
</table>

| Terminal No. | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| Color of Wire | - | SHIELD | Y | AUDIO OUT (+) | - | - | - | - | - | - | - | - |
| Signal Name | - | MIC IN | - | - | - | - | - | - | - | - | - | - |

| Terminal No. | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| Color of Wire | - | - | - | - | - | - | - | - | - |
| Signal Name | AUDIO OUT (+) | AUDIO OUT (-) | - | - | - | - | - | - | - |

| Terminal No. | 28 | 29 |
| Color of Wire | R | - |
| Signal Name | SPEED | MIC POWER |

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[Image]
### AV CONTROL UNIT

**< ECU DIAGNOSIS >**

**[BOSE W/ COLOR DISPLAY]**

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<th>Connector Name</th>
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<th>Connector Color</th>
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<td>B136</td>
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<td>WIRE TO WIRE</td>
<td>WHITE</td>
</tr>
<tr>
<td>B134</td>
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<td>WIRE TO WIRE</td>
<td>WHITE</td>
</tr>
<tr>
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<td>WIRE TO WIRE</td>
<td>WHITE</td>
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#### Connector B139

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<tr>
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<td>B</td>
<td>SHIELD</td>
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<td>SHIELD</td>
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<td>3</td>
<td>R</td>
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</tr>
<tr>
<td>4</td>
<td>G</td>
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</tr>
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<td>5</td>
<td>P</td>
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#### Connector B134

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<th>Signal Name</th>
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<tbody>
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<th>Signal Name</th>
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<tbody>
<tr>
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<td>CAMERA ON</td>
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<td>W</td>
<td>GND</td>
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<tr>
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<td>B</td>
<td>COMP+</td>
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<td>4</td>
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AV-302
## DTC Index

### Self-diagnosis results display item
**AV CONTROL UNIT**

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display item</th>
<th>Refer to</th>
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<tbody>
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<td>U1000</td>
<td>CAN COMM CIRCUIT [U1000]</td>
<td>AV-209, &quot;Diagnosis Procedure&quot;</td>
</tr>
<tr>
<td>U1010</td>
<td>CONTROL UNIT (CAN) [U1010]</td>
<td>AV-210, &quot;DTC Logic&quot;</td>
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<tr>
<td>U1200</td>
<td>Cont Unit [U1200]</td>
<td>AV-211, &quot;DTC Logic&quot;</td>
</tr>
<tr>
<td>U1216</td>
<td>CAN CONT [U1216]</td>
<td>AV-212, &quot;DTC Logic&quot;</td>
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<td>HDD CONN [U1218]</td>
<td>AV-213, &quot;Diagnosis Procedure&quot;</td>
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<tr>
<td>U1219</td>
<td>HDD READ [U1219]</td>
<td>AV-214, &quot;Diagnosis Procedure&quot;</td>
</tr>
<tr>
<td>U121A</td>
<td>HDD WRITE [U121A]</td>
<td>AV-215, &quot;Diagnosis Procedure&quot;</td>
</tr>
<tr>
<td>U121B</td>
<td>HDD COMM [U121B]</td>
<td>AV-216, &quot;Diagnosis Procedure&quot;</td>
</tr>
<tr>
<td>U121C</td>
<td>HDD ACCESS [U121C]</td>
<td>AV-217, &quot;Diagnosis Procedure&quot;</td>
</tr>
<tr>
<td>U121D</td>
<td>DSP CONN [U121D]</td>
<td>AV-218, &quot;Diagnosis Procedure&quot;</td>
</tr>
<tr>
<td>U121E</td>
<td>DSP COMM [U121E]</td>
<td>AV-219, &quot;Diagnosis Procedure&quot;</td>
</tr>
<tr>
<td>U1225</td>
<td>USB CONTROLLER [U1225]</td>
<td>AV-220, &quot;DTC Logic&quot;</td>
</tr>
<tr>
<td>U1227</td>
<td>DVD COMM [U1227]</td>
<td>AV-221, &quot;Diagnosis Procedure&quot;</td>
</tr>
<tr>
<td>U1228</td>
<td>SUB CPU CONN [U1228]</td>
<td>AV-222, &quot;DTC Logic&quot;</td>
</tr>
<tr>
<td>U1229</td>
<td>iPod CERTIFICATION [U1229]</td>
<td>AV-223, &quot;DTC Logic&quot;</td>
</tr>
<tr>
<td>U122A</td>
<td>CONFIG UNFINISH [U122A]</td>
<td>AV-224, &quot;Diagnosis Procedure&quot;</td>
</tr>
<tr>
<td>U122E</td>
<td>Built-in AUDIO CONN [U122E]</td>
<td>AV-225, &quot;DTC Logic&quot;</td>
</tr>
<tr>
<td>U1232</td>
<td>ST ANGLE SEN CALIB [U1232]</td>
<td>AV-226, &quot;Diagnosis Procedure&quot;</td>
</tr>
<tr>
<td>U1243</td>
<td>FRONT DISP CONN [U1243]</td>
<td>AV-227, &quot;Diagnosis Procedure&quot;</td>
</tr>
<tr>
<td>U1255</td>
<td>SATELLITE TUNER [U1255]</td>
<td>AV-230, &quot;Description&quot;</td>
</tr>
<tr>
<td>U1263</td>
<td>USB OVERCURRENT [U1263]</td>
<td>AV-229, &quot;Diagnosis Procedure&quot;</td>
</tr>
<tr>
<td>U1300</td>
<td>CONTROL UNIT (AV) [U1300]</td>
<td>AV-233, &quot;DTC Logic&quot;</td>
</tr>
<tr>
<td>U1240</td>
<td>• AV COMM CIRCUIT [U1240]</td>
<td>AV-232, &quot;Description&quot;</td>
</tr>
<tr>
<td></td>
<td>• SWITCH CONN [U1240]</td>
<td></td>
</tr>
</tbody>
</table>

**U1000 CAN COMM CIRCUIT** [U1000]

**U1225 USB CONTROLLER** [U1225]

**U1227 DVD COMM** [U1227]

**U1300 CONTROL UNIT (AV)** [U1300]

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AV-305

2010 Maxima
## Reference Value

### TERMINAL LAYOUT

![Terminal Layout Diagram](image)

### PHYSICAL VALUES

<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Description</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>—</td>
<td>Signal name</td>
<td></td>
</tr>
<tr>
<td>1 (B)</td>
<td>Ground</td>
<td>Input</td>
<td>0V</td>
</tr>
<tr>
<td>2 (Y)</td>
<td>Ground Inverter VCC</td>
<td>Input</td>
<td>9V</td>
</tr>
<tr>
<td>3 (O)</td>
<td>Ground Signal VCC</td>
<td>Input</td>
<td>9V</td>
</tr>
<tr>
<td>4 (B)</td>
<td>Ground AUX image ground</td>
<td>Input</td>
<td>0V</td>
</tr>
<tr>
<td>5</td>
<td>—</td>
<td>Shield</td>
<td></td>
</tr>
<tr>
<td>6 (R)</td>
<td>Ground RGB signal (G: green)</td>
<td>Input</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>—</td>
<td>Shield</td>
<td></td>
</tr>
<tr>
<td>8 (R)</td>
<td>Ground Horizontal synchronizing (HP) signal</td>
<td>Output</td>
<td></td>
</tr>
</tbody>
</table>

*Start confirmation/adjustment mode, and then display color bar by selecting “Color Spectrum Bar” on DISPLAY DIAGNOSIS screen.*
<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Description</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>-</td>
<td>Input Ignition switch ON</td>
<td>At RGB image displayed</td>
</tr>
<tr>
<td>9 (B)</td>
<td>Ground RGB area (YS) signal</td>
<td>Input Ignition switch ON</td>
<td>At rear view camera image displayed</td>
</tr>
<tr>
<td>11 (Y)</td>
<td>Ground Communication signal (CONT→DISP)</td>
<td>Input Ignition switch ON</td>
<td>When adjusting display-brightness</td>
</tr>
<tr>
<td>13 (BR)</td>
<td>Ground Inverter ground</td>
<td>Input Ignition switch ON</td>
<td></td>
</tr>
<tr>
<td>14 (LG)</td>
<td>Ground Signal ground</td>
<td>Input Ignition switch ON</td>
<td></td>
</tr>
<tr>
<td>15 (W)</td>
<td>Ground AUX image signal</td>
<td>Input Ignition switch ON</td>
<td>When AUX mode is selected</td>
</tr>
<tr>
<td>17 (B)</td>
<td>Ground RGB signal (R: red)</td>
<td>Input Ignition switch ON</td>
<td>Start confirmation/adjustment mode, and then display color bar by selecting “Color Spectrum Bar” on DISPLAY DIAGNOSIS screen.</td>
</tr>
<tr>
<td>18 (W)</td>
<td>Ground RGB signal (B: blue)</td>
<td>Input Ignition switch ON</td>
<td>Start confirmation/adjustment mode, and then display color bar by selecting “Color Spectrum Bar” on DISPLAY DIAGNOSIS screen.</td>
</tr>
</tbody>
</table>
## DISPLAY UNIT

### < ECU DIAGNOSIS >

**[BOSE W/ COLOR DISPLAY]**

### Terminal (Wire color) | Description | Input/Output | Condition | Reference value (Approx.)
---|---|---|---|---
+ | — | Signal name | | |
19 (G) | Ground | RGB synchronizing signal | Input | Ignition switch ON | — |
20 (W) | Ground | Vertical synchronizing (VP) signal | Output | Ignition switch On | — |
21 | — | Shield | — | — | — |
22 (BR) | Ground | Communication signal (DISP→CONT) | Output | Ignition switch ON | When adjusting display-brightness |
23 | — | Shield | — | — | — |
### PHYSICAL VALUES

<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Description</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>Signal name</td>
<td>Input/Output</td>
<td></td>
</tr>
<tr>
<td>1 (LG) 2 (V)</td>
<td>Audio signal tweeter LH</td>
<td>Output</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>4 (G) 3 (W)</td>
<td>Audio signal tweeter RH</td>
<td>Output</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>5 (R) 6 (BR)</td>
<td>Audio signal subwoofer RH</td>
<td>Output</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>7 (B)</td>
<td>Ground</td>
<td>—</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>10 (SB)</td>
<td>Battery power supply</td>
<td>Input</td>
<td>Ignition switch OFF</td>
</tr>
<tr>
<td>11 (GR)</td>
<td>Battery power supply</td>
<td>Input</td>
<td>Ignition switch OFF</td>
</tr>
<tr>
<td>12 (B)</td>
<td>Ground</td>
<td>—</td>
<td>Ignition switch ON</td>
</tr>
</tbody>
</table>
## BOSE SPEAKER AMP
### [BOSE W/ COLOR DISPLAY]

<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Description</th>
<th>Input/Output</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 (L) 8 (P)</td>
<td>Audio signal subwoofer LH</td>
<td>Output</td>
<td>Ignition switch ON</td>
<td>Audio output</td>
</tr>
<tr>
<td>14 (LG) 9 (O)</td>
<td>Audio signal rear door RH</td>
<td>Input</td>
<td>Ignition switch ON</td>
<td>Audio input</td>
</tr>
<tr>
<td>20 (SB) Ground</td>
<td>Amp. ON signal</td>
<td>Input</td>
<td>Ignition switch ACC</td>
<td>— Battery voltage</td>
</tr>
<tr>
<td>24 (BR) 23 (Y)</td>
<td>Audio signal rear LH</td>
<td>Input</td>
<td>Ignition switch ON</td>
<td>Audio input</td>
</tr>
<tr>
<td>26 (V) 25 (LG)</td>
<td>Audio signal rear RH</td>
<td>Input</td>
<td>Ignition switch ON</td>
<td>Audio input</td>
</tr>
<tr>
<td>28 (G) 15 (L)</td>
<td>Audio signal rear door LH</td>
<td>Output</td>
<td>Ignition switch ON</td>
<td>Audio output</td>
</tr>
<tr>
<td>29 (V) 30 (P)</td>
<td>Audio signal center speaker</td>
<td>Output</td>
<td>Ignition switch ON</td>
<td>Audio output</td>
</tr>
</tbody>
</table>
## BOSE SPEAKER AMP

### < ECU DIAGNOSIS >

<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Description</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ –</td>
<td>Signal name</td>
<td>Input/Output</td>
<td></td>
</tr>
<tr>
<td>33 (W/L) 34 (GR/V)</td>
<td>Audio signal front RH</td>
<td>Input</td>
<td></td>
</tr>
<tr>
<td>35 (W/R) 36 (B/R)</td>
<td>Audio signal front LH</td>
<td>Input</td>
<td></td>
</tr>
</tbody>
</table>

**Graphs:**

- **SKIB3609E**

---

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AV-311

2010 Maxima
### PHYSICAL VALUES

<table>
<thead>
<tr>
<th>Terminal</th>
<th>Description</th>
<th>Input/Output</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ 22 (W)</td>
<td>Satellite radio sound signal LH</td>
<td>Output</td>
<td>Ignition switch ON</td>
<td>When satellite radio mode is selected</td>
</tr>
<tr>
<td>− 21 (BR)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23 (Y)</td>
<td>Satellite radio sound signal RH</td>
<td>Output</td>
<td>Ignition switch ON</td>
<td>When satellite radio mode is selected</td>
</tr>
<tr>
<td>24 (B)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28 (R)</td>
<td>Request signal (SAT→CONT)</td>
<td>Output</td>
<td>Ignition switch ON</td>
<td>When satellite radio mode is selected</td>
</tr>
<tr>
<td>29 (V)</td>
<td>Communication signal (SAT→CONT)</td>
<td>Output</td>
<td>Ignition switch ON</td>
<td>When satellite radio mode is selected</td>
</tr>
</tbody>
</table>
### Terminal Description

<table>
<thead>
<tr>
<th>Terminal</th>
<th>Description</th>
<th>Input</th>
<th>Output</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 (L)</td>
<td>Ground Communication signal (CONT→SAT)</td>
<td>Input</td>
<td></td>
<td>When satellite radio mode is selected</td>
<td></td>
</tr>
<tr>
<td>32 (P)</td>
<td>Ground Battery power supply</td>
<td>Input</td>
<td></td>
<td>Ignition switch OFF</td>
<td>Battery voltage</td>
</tr>
<tr>
<td>35 (B)</td>
<td>Shield</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>36 (GR)</td>
<td>Ground ACC power supply</td>
<td>Input</td>
<td></td>
<td>Ignition switch ACC</td>
<td>Battery voltage</td>
</tr>
</tbody>
</table>
## PHYSICAL VALUES

<table>
<thead>
<tr>
<th>Terminal (wire color)</th>
<th>Description</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>Signal name</td>
<td>Input</td>
<td>Battery voltage</td>
</tr>
<tr>
<td>1 (V)</td>
<td>Ground Battery power</td>
<td>Input</td>
<td>Battery voltage</td>
</tr>
<tr>
<td>2 (GR)</td>
<td>Ground ACC power</td>
<td>Input Ignition switch ACC/ON</td>
<td>Battery voltage</td>
</tr>
<tr>
<td>3 (O)</td>
<td>Ground IGN power</td>
<td>Input Ignition switch ON/START</td>
<td>Battery voltage</td>
</tr>
<tr>
<td>4 (B)</td>
<td>Ground Ground</td>
<td>Ignition switch ON</td>
<td>0V</td>
</tr>
<tr>
<td>7 (L)</td>
<td>8 MIC in signal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 (BR)</td>
<td>10 (Y) Audio out</td>
<td>Output</td>
<td>Bluetooth control unit sends audio signal</td>
</tr>
<tr>
<td>28 (BR)</td>
<td>Ground Vehicle speed signal (8-pulse)</td>
<td>Input Ignition switch ON</td>
<td>When vehicle speed is approx. 40 km/h (25 MPH)</td>
</tr>
<tr>
<td>29 (R)</td>
<td>Ground Microphone power</td>
<td>Output Ignition switch ON</td>
<td>5V</td>
</tr>
<tr>
<td>33 (B)</td>
<td>Bluetooth antenna</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## BLUETOOTH CONTROL UNIT

### [BOSE W/ COLOR DISPLAY]

<table>
<thead>
<tr>
<th>Terminal (wire color)</th>
<th>Description</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>Signal name Input/output</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>34 (B)</td>
<td>Bluetooth antenna</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>35 (L)</td>
<td>M-CAN1 (+)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>36 (P)</td>
<td>M-CAN1 (-)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>37</td>
<td>Shield</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>40 (R)</td>
<td>M-CAN2 (-)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>42 (G)</td>
<td>M-CAN2 (-)</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

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AV-315

2010 Maxima
## SYMPTOM DIAGNOSIS

### AUDIO SYSTEM

#### Symptom Table

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible cause</th>
<th>Reference page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inoperative</td>
<td>• AV control unit power circuit&lt;br&gt;• AV control unit</td>
<td>• AV-234, &quot;AV CONTROL UNIT : Diagnosis Procedure&quot;&lt;br&gt;• AV-322</td>
</tr>
<tr>
<td>Steering switch does not operate</td>
<td>• Steering switch&lt;br&gt;• AV control unit</td>
<td>• AV-322</td>
</tr>
<tr>
<td>All speakers do not sound</td>
<td>• AV control unit&lt;br&gt;• AV control unit power circuit&lt;br&gt;• BOSE speaker amp. ON signal&lt;br&gt;• BOSE speaker amp. power/ground circuit&lt;br&gt;• BOSE speaker amp.</td>
<td>• AV-264, &quot;Diagnosis Procedure&quot;&lt;br&gt;• AV-237, &quot;BOSE SPEAKER AMP : Diagnosis Procedure&quot;&lt;br&gt;• AV-334, &quot;Removal and Installation&quot;</td>
</tr>
<tr>
<td>One or several speakers do not sound</td>
<td>• Front door speaker&lt;br&gt;• Tweeter&lt;br&gt;• Center speaker&lt;br&gt;• Rear door speaker&lt;br&gt;• Subwoofer</td>
<td>• AV-250, &quot;Diagnosis Procedure&quot;&lt;br&gt;• AV-253, &quot;Diagnosis Procedure&quot;&lt;br&gt;• AV-256, &quot;Diagnosis Procedure&quot;&lt;br&gt;• AV-258, &quot;Diagnosis Procedure&quot;&lt;br&gt;• AV-261, &quot;Diagnosis Procedure&quot;</td>
</tr>
</tbody>
</table>

#### CD

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible cause</th>
<th>Reference page</th>
</tr>
</thead>
<tbody>
<tr>
<td>CD cannot be inserted.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CD cannot be ejected.</td>
<td>AV control unit</td>
<td>AV-322</td>
</tr>
<tr>
<td>The CD cannot be played.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The sound skips, stops suddenly, or is distorted.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### SATELLITE RADIO

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible cause</th>
<th>Reference page</th>
</tr>
</thead>
<tbody>
<tr>
<td>CD cannot be inserted.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CD cannot be ejected.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The CD cannot be played.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The sound skips, stops suddenly, or is distorted.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### AUDIO SYSTEM

**< SYMPTOM DIAGNOSIS >**

#### BOSE W/ COLOR DISPLAY

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible cause</th>
<th>Reference page</th>
</tr>
</thead>
</table>
| Inoperative                              | • Satellite radio tuner power or ground circuit  
                                         | • Satellite radio tuner communication circuit  
                                         | • Satellite radio tuner                                                                  | • AV-238, "SATEL-LITE RADIO TUNER : Diagnosis Procedure" |
|                                          |                                                                              |                                                                                 | • AV-267, "SATEL-LITE RADIO TUNER : Diagnosis Procedure" |
|                                          |                                                                              |                                                                                 | • AV-335, "Removal and Installation" |
| Right or left channel does not sound     | • Satellite radio tuner right channel audio signal circuit  
                                         | • Satellite radio tuner left channel audio signal circuit  
                                         | • Satellite radio tuner                                                                  | • AV-270, "SATEL-LITE RADIO TUNER : Diagnosis Procedure" |
|                                          |                                                                              |                                                                                 | • AV-270, "SATEL-LITE RADIO TUNER : Diagnosis Procedure" |
|                                          |                                                                              |                                                                                 | • AV-335, "Removal and Installation" |

#### HANDS-FREE PHONE

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible cause</th>
<th>Reference page</th>
</tr>
</thead>
</table>
| Inoperative                             | • Bluetooth control unit power and ground circuit  
                                         | • Bluetooth control unit                                                                  | • AV-240, "BLUE-TOOTH CONTROL UNIT : Diagnosis Procedure" |
|                                         |                                                                              |                                                                                 | • AV-344 |
| Steering switch does not operate        | • Steering switch  
                                         | • Bluetooth control unit                                                                  | • AV-337 |
|                                         |                                                                              |                                                                                 | • AV-344 |
| Voice activated control does not operate| • Microphone  
                                         | • Steering switch  
                                         | • Bluetooth control unit                                                                  | • AV-342 |
|                                         |                                                                              |                                                                                 | • AV-337 |
|                                         |                                                                              |                                                                                 | • AV-344 |

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AV-317

2010 Maxima
The majority of the audio concerns are the result of outside causes (bad CD, electromagnetic interference, etc.).

**NOISE**

The following noise results from variations in field strength, such as fading noise and multi-path noise, or external noise from trains and other sources. It is not a malfunction.

- **Fading noise:** This noise occurs because of variations in the field strength in a narrow range due to mountains or buildings blocking the signal.
- **Multi-path noise:** This noise results from the waves sent directly from the broadcast station arriving at the antenna at a different time from the waves which reflect off mountains or buildings.

The vehicle itself can be a source of noise if noise prevention parts or electrical equipment is malfunctioning. Check if noise is caused and/or changed by engine speed, ignition switch turned to each position, and operation of each piece of electrical equipment, and determine the cause.

**NOTE:**
The source of the noise can be found easily by listening to the noise while removing the fuses of electrical components, one by one.

**Type of Noise and Possible Cause**

<table>
<thead>
<tr>
<th>Occurrence condition</th>
<th>Possible cause</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occurs only when engine is ON.</td>
<td>• Ignition components</td>
</tr>
<tr>
<td>A continuous growling noise occurs. The speed of the noise varies with changes in the engine speed.</td>
<td></td>
</tr>
<tr>
<td>The occurrence of the noise is linked with the operation of the fuel pump.</td>
<td>• Fuel pump condenser</td>
</tr>
<tr>
<td>Noise only occurs when various electrical components are operating.</td>
<td>• Relay malfunction, AV control unit malfunc-</td>
</tr>
<tr>
<td>A cracking or snapping sound occurs with the operation of various switches.</td>
<td>tion</td>
</tr>
<tr>
<td>The noise occurs when various motors are operating.</td>
<td>• Motor case ground</td>
</tr>
<tr>
<td></td>
<td>• Motor</td>
</tr>
<tr>
<td>The noise occurs constantly, not just under certain conditions.</td>
<td>• Rear defogger coil malfunction</td>
</tr>
<tr>
<td></td>
<td>• Open circuit in printed heater</td>
</tr>
<tr>
<td></td>
<td>• Poor ground of antenna feeder line</td>
</tr>
<tr>
<td>A cracking or snapping sound occurs while the vehicle is being driven, especially when it is vibrating excessively.</td>
<td>• Ground wire of body parts</td>
</tr>
<tr>
<td></td>
<td>• Ground due to improper part installation</td>
</tr>
<tr>
<td></td>
<td>• Wiring connections or a short circuit</td>
</tr>
</tbody>
</table>
PRECAUTIONS

PRECAUTION

Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the SR and SB section of this Service Manual.

WARNING:
- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SR section.
- Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

WARNING:
- When working near the Airbag Diagnosis Sensor Unit or other Airbag System sensors with the Ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the Ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

Precautions Necessary for Steering Wheel Rotation after Battery Disconnect (Early Production, With Electronic Steering Column Lock)

NOTE:
- Before removing and installing any control units, first turn the push-button ignition switch to the LOCK position, then disconnect both battery cables.
- After finishing work, confirm that all control unit connectors are connected properly, then re-connect both battery cables.
- Always use CONSULT-III to perform self-diagnosis as a part of each function inspection after finishing work. If a DTC is detected, perform trouble diagnosis according to self-diagnosis results.

This vehicle is equipped with a push-button ignition switch and a steering lock unit. If the battery is disconnected or discharged, the steering wheel will lock and cannot be turned. If turning the steering wheel is required with the battery disconnected or discharged, follow the procedure below before starting the repair operation.

OPERATION PROCEDURE

1. Connect both battery cables.
   NOTE:
   Supply power using jumper cables if battery is discharged.
2. Carry the Intelligent Key or insert it to the key slot and turn the push-button ignition switch to ACC position.
   (At this time, the steering lock will be released.)
3. Disconnect both battery cables. The steering lock will remain released with both battery cables disconnected and the steering wheel can be turned.
4. Perform the necessary repair operation.
5. When the repair work is completed, re-connect both battery cables. With the brake pedal released, turn the push-button ignition switch from ACC position to ON position, then to LOCK position. (The steering wheel will lock when the push-button ignition switch is turned to LOCK position.)

6. Perform self-diagnosis check of all control units using CONSULT-III.
## Commercial Service Tools

<table>
<thead>
<tr>
<th>Tool name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power tool</td>
<td>Loosening bolts and nuts</td>
</tr>
</tbody>
</table>

![Power tool](PBID0191E)
**AV CONTROL UNIT**

**ON-VEHICLE REPAIR**

**AV CONTROL UNIT**

Removal and Installation

1. Disconnect the battery negative terminal.
2. Remove the cluster lid D. Refer to IP-12, "Removal and Installation".
3. Remove the cluster lid C. Refer to IP-11, "Exploded View".
4. Remove the audio unit screws (A), then pull out the audio unit (1), disconnect the audio unit connectors and remove the audio unit (1).

**AUDIO UNIT**

Removal

1. Disconnect the battery negative terminal.
2. Remove the cluster lid D. Refer to IP-12, "Removal and Installation".
3. Remove the cluster lid C. Refer to IP-11, "Exploded View".
4. Remove the audio unit screws (A), then pull out the audio unit (1), disconnect the audio unit connectors and remove the audio unit (1).

Installation

Revision: November 2009
Installation is in the reverse order of removal.

A/C AND AV SWITCH ASSEMBLY

Removal
1. Disconnect the battery negative terminal.
2. Remove the cluster lid D. Refer to IP-12, "Removal and Installation".
3. Remove the cluster lid C. Refer to IP-11, "Exploded View".
4. Remove the A/C and AV switch assembly screws (A), then pull out the A/C and AV switch assembly (1) from cluster lid C.

Installation
Installation is in the reverse order of removal.
MULTIFUNCTION SWITCH

< ON-VEHICLE REPAIR >

MULTIFUNCTION SWITCH

Removal and Installation

INFOID:0000000005522943

REMOVAL

1. Remove cluster lid D. Refer to IP-11, "Exploded View".
2. Remove the four multifunction switch screws (A) and remove the multifunction switch (2) from cluster lid D (1).
   • ▪ metal clip

INSTALLATION

Installation is in the reverse order of removal.
Removal and Installation

1. Remove the cluster lid D. Refer to IP-12, "Removal and Installation".
2. Remove the audio display unit bracket screws (A), then pull out the audio display unit and bracket assembly (1), disconnect the audio display unit connectors and remove the audio display unit and bracket assembly (1).
3. Remove the audio display unit screws on the sides and remove the audio display unit from the audio display unit brackets.

INSTALLATION

Installation is in the reverse order of removal.
Removal and Installation

REMOVAL
1. Remove the center console assembly. Refer to IP-16, "Removal and Installation".
2. Push the pawl from the back of the center console to remove the USB connector (1).

INSTALLATION
Installation is in the reverse order of removal.
AUXILIARY INPUT JACKS

Removal and Installation

REMOVAL
1. Remove the center console. Refer to IP-16, "Removal and Installation".
2. Remove the center console bin box.
3. Remove the auxiliary input jacks screws (A), then remove the auxiliary input jacks (1).

INSTALLATION
Installation is in the reverse order of removal.
Removal and Installation

REMOVAL
1. Remove front tweeter speaker grille. Refer to IP-12, "Removal and Installation".
2. Remove the front tweeter speaker screws (A), then pull out the front tweeter speaker (1), disconnect the front tweeter speaker connector and remove the front tweeter speaker (1).

INSTALLATION
Installation is in the reverse order of removal.
Removal and Installation

REMOVAL
1. Remove the center speaker grille. Refer to IP-12, "Removal and Installation".
2. Remove the center speaker screws (A), then pull out the center speaker (1), then disconnect the center speaker connector and remove the center speaker (1).

INSTALLATION
Installation is in the reverse order of removal.
FRONT DOOR SPEAKER

Removal and Installation

REMOVAL
1. Remove the front door finisher. Refer to INT-18, "Removal and Installation".
2. Remove the front door speaker screws (A), then disconnect the front door speaker connector and remove the front door speaker (1).
3. Remove the front door speaker spacer screws (B) and remove the front door speaker spacer (2).

INSTALLATION
Installation is in the reverse order of removal.
REAR DOOR SPEAKER

Removal and Installation

REMOVAL
1. Remove the rear door finisher. Refer to INT-21, "Removal and Installation".
2. Remove the rear door speaker screws (A), then disconnect the rear door speaker connector (B) and remove the rear door speaker (1).

INSTALLATION
Installation is in the reverse order of removal.
Removal and Installation

REMOVAL
1. Remove the rear parcel shelf finisher. Refer to INT-26, "Removal and Installation".
2. Remove the subwoofer screws, then pull out the subwoofer, disconnect the subwoofer connector and remove the subwoofer.

INSTALLATION
Installation is in the reverse order of removal.
1. Bose speaker amp. A. Screws

REMOVAL
1. Disconnect the battery negative terminal.
2. Remove the rear parcel shelf. Refer to INT-26, "Removal and Installation".
3. Remove the Bose speaker amp. screws.
4. Remove the trunk upper finisher. Refer to INT-35, "Exploded View".
5. Disconnect the Bose speaker amp. connectors and remove the Bose speaker amp.

INSTALLATION
Installation is in the reverse order of removal.
SATELLITE RADIO TUNER

Removal and Installation

REMOVAL
1. Disconnect the battery negative terminal.
2. Remove the trunk upper finisher. Refer to INT-35, "Exploded View".
3. Remove the parcel shelf finisher. Refer to INT-26, "Removal and Installation".
4. From inside the passenger compartment, remove the bracket screws and lower the assembly for access.
5. Remove the satellite radio tuner unit screws (A), disconnect the satellite tuner harness connectors (B) and remove the satellite radio tuner (1).

INSTALLATION
Installation is in the reverse order of removal.
SATELLITE RADIO ANTENNA

Removal and Installation

REMOVAL

1. Lower the headliner at the rear. Refer to INT-32, "Exploded View".

2. Disconnect the satellite radio antenna connector (A), then remove the satellite radio antenna nut (B) and remove the satellite radio antenna (1).

INSTALLATION

Installation is in the reverse order of removal.
STEERING SWITCH

Removal and Installation

REMOVAL
1. Remove the driver airbag module. Refer to SR-5, "Removal and Installation".
2. Remove the steering wheel switch assembly screws (A), then detach the steering wheel switch harness clips (B) and remove the steering wheel switches (1).

INSTALLATION
Installation is in the reverse order of removal.
Audio Antenna

Location of Antenna

Window Antenna Repair

Element Check

1. Attach probe circuit tester (ohm setting) to antenna terminal on each side.

- When measuring continuity, wrap tin foil around the top of probe. Then, press the foil against the wire with your finger.
2. If an element is broken, no continuity will exist.

3. To locate a break, move probe along element. Tester indication will change abruptly when probe passes the broken point.

**REPAIR EQUIPMENT**
- Conductive silver composition (DuPont No. 4817 or equivalent)
- Ruler 30 cm (11.8 in) long
- Drawing pen
- Heat gun
- Alcohol
- Cloth

**REPAIRING PROCEDURE**
1. Wipe broken heat wire and its surrounding area clean with a cloth dampened in alcohol.
2. Apply a small amount of conductive silver composition to tip of drawing pen.
   **NOTE:** Shake silver composition container before use.
3. Place ruler on glass along broken line. Deposit conductive silver composition on break with drawing pen. Slightly overlap existing heat wire on both sides [preferably 5 mm (0.20 in)] of the break.
4. After repair has been completed, check repaired wire for continuity. This check should be conducted 10 minutes after silver composition is deposited. Do not touch repaired area while test is being conducted.

5. Apply a constant stream of hot air directly to the repaired area for approximately 20 minutes with a heat gun. A minimum distance of 3 cm (1.2 in) should be kept between repaired area and hot air outlet. If a heat gun is not available, let the repaired area dry for 24 hours.
Removal and Installation

REMOVAL
1. Remove the rear pillar finisher RH. Refer to INT-23, "Exploded View".
2. Detach the antenna amp. harness clip (A), disconnect the antenna amp. connectors (B), remove the antenna amp. screw (C) and remove the antenna amp. (1).

INSTALLATION
Installation is in the reverse order of removal.
Removal and Installation

REMOVAL
1. Remove the map lamp assembly. Refer to INL-97, "Removal and Installation".
2. Detach the microphone connector (A).
3. Remove the map lamp covers (1), then remove the map lamp assembly cover (2).
4. Release the microphone tabs (A), then remove the microphone (1).

INSTALLATION
Installation is in the reverse order of removal.
Removal and Installation

REMOVAL
1. Remove the rear parcel shelf. Refer to INT-26, "Removal and Installation".
2. Remove the Bluetooth antenna screw (A), detach the Bluetooth antenna harness clip (B).
3. Fold down the rear seat, if equipped or open the trunk lid, then detach the Bluetooth antenna harness clip (C), disconnect the Bluetooth antenna harness connector (D) and remove the Bluetooth antenna (1).

INSTALLATION
Installation is in the reverse order of removal.
BLUETOOTH CONTROL UNIT

Removal and Installation

REMOVAL

1. Disconnect the battery negative terminal.
2. Remove the trunk upper finisher. Refer to INT-35, "Exploded View".
3. Remove the parcel shelf finisher. Refer to INT-26, "Removal and Installation".
4. From inside the passenger compartment, remove the bracket screws and lower the assembly for access.
5. Remove the Bluetooth control unit screws (A), disconnect the Bluetooth control unit connectors (B) and remove the Bluetooth control unit (1).

INSTALLATION

Installation is in the reverse order of removal.
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

OVERALL SEQUENCE

1. CHECK SYMPTOM

Check the malfunction symptoms by performing the following items.

- Interview the customer to obtain the malfunction information (conditions and environment when the malfunction occurred).
- Check the symptom.

>> GO TO 2.

2. SELF-DIAGNOSIS (CONSULT-III)

1. Connect CONSULT-III and perform "SELF-DIAGNOSIS" for "MULTI AV".

   NOTE:
   Skip to step 4 of the diagnosis procedure if "MULTI AV" is not displayed.

2. Check if any DTC No. is displayed in the self-diagnosis results.
DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[BOSE W/ COLOR DISPLAY W/ NAVI]

Is any DTC No. displayed?

YES  >> GO TO 3.
NO    >> GO TO 4.

3. CHECK SELF-DIAGNOSIS RESULTS (CONSULT-III)

1. Check the DTC No. indicated in the self-diagnosis results.
2. Perform the relevant diagnosis referring to the DTC No. list. Refer to AV-467, "DTC Index".

NOTE:
Start with the diagnosis for the CAN communication system if "CAN COMM CIRCUIT [U1000] or CONTROL UNIT (CAN) [U1010]" is displayed.

>> GO TO 5.

4. PERFORM DIAGNOSIS BY SYMPTOM

Perform the relevant diagnosis referring to the diagnosis chart by symptom. Refer to AV-474, "Symptom Table".

>> GO TO 5.

5. REPAIR OR REPLACE MALFUNCTIONING PARTS

Repair or replace the identified malfunctioning parts.

NOTE:
Erase the stored self-diagnosis results after repairing or replacing the relevant components if any DTC No. has been indicated in the self-diagnosis results.

>> GO TO 6.

6. CHECK AFTER REPAIR

1. Perform self-diagnosis for "MULTI AV" with CONSULT-III after repairing or replacing the malfunctioning parts.
2. Check if any DTC No. is displayed in the self-diagnosis results.

Is any DTC No. displayed?

YES  >> GO TO 3.
NO    >> GO TO 7.

7. FINAL CHECK

Perform the operation check to confirm that the malfunction symptom is solved or that any other symptoms are present.

Are any symptoms present?

YES  >> GO TO 4.
NO    >> Inspection End.
INSTRUCTION AND ADJUSTMENT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description

BASIC INSPECTION

BISO W/ COLOR DISPLAY W/ NAVI

BEFORE REPLACEMENT
When replacing AV control unit, save or print current vehicle specification with CONSULT-III configuration before replacement.

AFTER REPLACEMENT

CAUTION:
When replacing AV control unit, you must perform “WRITE CONFIGURATION” with CONSULT-III.
• Complete the procedure of “WRITE CONFIGURATION” in order.
• If you set incorrect “WRITE CONFIGURATION”, incidents might occur.
• Configuration is different for each vehicle model. Confirm configuration of each vehicle model.

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement

1. SAVING VEHICLE SPECIFICATION

CONSULT-III Configuration
Perform “READ CONFIGURATION” to save or print current vehicle specification. Refer to AV-347, "CONFIGURATION (AV CONTROL UNIT) : Description".

NOTE:
If “READ CONFIGURATION” can not be used, use the “WRITE CONFIGURATION - Manual selection”.

>> GO TO 2.

2. REPLACE AV CONTROL UNIT

Replace AV control unit. Refer to AV-487, "Removal and Installation".

>> GO TO 3.

3. WRITING VEHICLE SPECIFICATION

CONSULT-III Configuration
Perform “WRITE CONFIGURATION - Config file” or “WRITE CONFIGURATION - Manual selection” to write vehicle specification. Refer to AV-348, "CONFIGURATION (AV CONTROL UNIT) : Special Repair Requirement".

>> GO TO 4.

4. OPERATION CHECK

Check that the operation of the AV control unit and camera images (fixed guide lines and predictive course lines) are normal.

>> WORK END

CONFIGURATION (AV CONTROL UNIT)

CONFIGURATION (AV CONTROL UNIT) : Description

• Since vehicle specifications are not included in the AV control unit after replacement, it is required to write vehicle specifications with CONSULT-III.
• Configuration has three functions as follows.
**BASIC INSPECTION**

**[BOSE W/ COLOR DISPLAY W/ NAVI]**

### INSPECTION AND ADJUSTMENT

#### CONFIGURATION (AV CONTROL UNIT) : Special Repair Requirement

1. **WRITING MODE SELECTION**

   **CONSULT-III Configuration**
   Select “CONFIGURATION” of AV control unit.

   When writing saved data >> GO TO 2.
   When writing manually >> GO TO 3.

2. **PERFORM “WRITE CONFIGURATION-CONFIG FILE”**

   **CONSULT-III Configuration**
   Perform “WRITE CONFIGURATION-Config file”.

   >> WORK END

3. **PERFORM “WRITE CONFIGURATION-MANUAL SELECTION”**

   **CONSULT-III Configuration**
   Select “WRITE CONFIGURATION-Manual selection” to write vehicle specifications into the AV control unit.
   For data to write, refer to **AV-348, "CONFIGURATION (AV CONTROL UNIT) : Configuration List"**.

   >> GO TO 4.

4. **OPERATION CHECK**

   Check that the operation of the AV control unit and camera images (fixed guide lines and predictive course lines) are normal.

   >> WORK END

#### CONFIGURATION (AV CONTROL UNIT) : Configuration List

**CAUTION:**
Check vehicle specifications before servicing.

<table>
<thead>
<tr>
<th>MANUAL SETTING ITEM</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Items</td>
<td>Setting value</td>
</tr>
<tr>
<td>STEERING</td>
<td>LHD</td>
</tr>
<tr>
<td></td>
<td>RHD</td>
</tr>
<tr>
<td>GRADE</td>
<td>MODE 1 - BASE</td>
</tr>
<tr>
<td></td>
<td>MODE 2 - OTHER</td>
</tr>
<tr>
<td>ENGINE TYPE</td>
<td>NORMAL -</td>
</tr>
<tr>
<td></td>
<td>HYBRID -</td>
</tr>
<tr>
<td>BODY TYPE</td>
<td>NORMAL - NORMAL</td>
</tr>
<tr>
<td></td>
<td>CONV - CONVERTIBLE</td>
</tr>
<tr>
<td>CAMERA SYSTEM</td>
<td>NONE/AVM - NONE or AVM</td>
</tr>
<tr>
<td></td>
<td>REAR - REAR CAMERA</td>
</tr>
<tr>
<td></td>
<td>REAR + SIDE - REAR + SIDE CAMERA</td>
</tr>
</tbody>
</table>

**Revision: November 2009**

**AV-348**

2010 Maxima
### BASIC INSPECTION

**[BOSE W/ COLOR DISPLAY W/ NAVI]**

<table>
<thead>
<tr>
<th>Items</th>
<th>Setting value</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>4WAS</td>
<td>WITHOUT</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>WITH</td>
<td>—</td>
</tr>
<tr>
<td>SOUND SYSTEM</td>
<td>BASE</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>BOSE</td>
<td>—</td>
</tr>
<tr>
<td>ANTENNA TYPE</td>
<td>ROD TYPE</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>LONG TYPE</td>
<td>—</td>
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<tr>
<td>DUAL-ZONE AUTO TEMP</td>
<td>WITHOUT</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>WITH</td>
<td>—</td>
</tr>
<tr>
<td>DVD PLAY FUNCTION</td>
<td>WITHOUT</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>WITH</td>
<td>—</td>
</tr>
</tbody>
</table>

**BODY TYPE**

- SED 2DR
- SED 4DR 1
- SED 4DR 2
- SED 4DR (WIDE)
- H/B 2DR
- H/B 4DR
- COUPE 2DR
- COUPE T
- COUPE T BAR
- WGN 4DR 2
- 49H WAGON 4 DOOR (WIDE)
- H/T 2DR 1
- H/T 2DR 2
- H/T 2DR (HIGH-ROOF)
- H/T 4DR 1
- H/T 4DR 2
- H/T 4DR (WIDE)
- WGN 2DR
- WAGON 2 DOOR
- WGN 4DR 1
- WAGON 4 DOOR
- WGN 4DR 3
- WAGON 4 DOOR (HIGH-ROOF)
- WGN 4DR 4
- 56H WAGON 4 DOOR (WIDE)
- VAN 2DR
- VAN 4DR 1
- VAN 4 DOOR
- VAN 4DR 2
- VAN 4 DOOR (HIGH-ROOF)
- CONV
- CONVERTIBLE
FUNCTION DIAGNOSIS

AUDIO SYSTEM

System Description

INFOID:0000000005522983

Revision: November 2009

AV-350

2010 Maxima
The audio system consists of the following components:
- AV control unit
- Display unit
- BOSE speaker amp.
- Window antenna
- Steering wheel audio control switches
- A/C and AV switch assembly
- Front door speakers
- Tweeters
- Center speaker
- Rear door speakers
- Rear subwoofer

When the audio system is on, radio signals are received by the window antenna. The AV control unit then sends audio signals to the BOSE speaker amp. The BOSE speaker amp. amplifies the audio signals before sending them to the front door speakers, tweeters, center speaker, rear door speakers and the rear subwoofers.

Refer to Owner's Manual for audio system operating instructions.

SATELLITE RADIO SYSTEM
The satellite radio system consists of the following components:
- Satellite antenna
- AV control unit

When the satellite radio system is on, radio signals are supplied to the AV control unit from the satellite antenna. The AV control unit then sends audio signals to the BOSE speaker amp.

Refer to Owner's Manual for satellite radio system operating instructions.

SPEED SENSITIVE VOLUME SYSTEM
Volume level of this system goes up and down automatically in proportion to the vehicle speed. The control level can be selected by the customer. Refer to Owner's Manual for operating instructions.
1. Tweeter LH M51
2. Center speaker M130
3. Tweeter RH M52
4. AV control unit M160, M161, M162, M163, M164, M165, M166, M167, M168 (located behind A/C and AV switch assembly)
5. Display unit M142, M151
6. A/C and AV switch assembly M98
### Component Description

<table>
<thead>
<tr>
<th>Part name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AV control unit</td>
<td>Controls audio system, NAVI functions and satellite radio system functions.</td>
</tr>
<tr>
<td>Display unit</td>
<td>Displays all audio and climate control related information.</td>
</tr>
<tr>
<td>BOSE speaker amp.</td>
<td>Receives power (amp ON) and audio signals from AV control unit and outputs audio signals to each speaker.</td>
</tr>
</tbody>
</table>
| Steering wheel audio control switches | • Audio operation can be operated.  
• Steering switch signal is output to AV control unit. |
| Front door speakers           | • Outputs audio signal from BOSE speaker amp.  
• Outputs high, mid and low range sounds. |
| Tweeters                      | • Outputs audio signal from BOSE speaker amp.  
• Outputs high range sounds. |
| Center speaker                | • Outputs audio signal from BOSE speaker amp.  
• Outputs high range sounds. |
| Rear door speakers            | • Outputs audio signal from BOSE speaker amp.  
• Outputs high, mid and low range sounds. |
| Rear subwoofers               | • Outputs audio signal from BOSE speaker amp.  
• Outputs low range sounds. |
| Satellite antenna             | Audio signal (satellite radio) is received and output to AV control unit.    |
The navigation system periodically calculates the vehicle's current position according to the following three signals: Travel distance of the vehicle as determined by the vehicle speed sensor, turning angle of the vehicle as determined by the gyroscope (angular velocity sensor), and the direction of vehicle travel as determined by the GPS antenna (GPS information).

The current position of the vehicle is then identified by comparing the calculated vehicle position with map data read from the map data, which is stored in the hard disk drive (HDD)(map-matching), and indicated on the screen with a current-location mark.

By comparing the vehicle position detection results found by the GPS and by map-matching, more accurate vehicle position data can be used.

The current vehicle position will be calculated by detecting the distance the vehicle moved from the previous calculation point and its direction.

**TRAVEL DISTANCE**
Travel distance calculations are based on the vehicle speed input signal. Therefore, the calculation may become incorrect as the tires wear down. To prevent this, an automatic distance fine adjustment function has been adopted.

**TRAVEL DIRECTION**
Change in the travel direction of the vehicle is calculated by a gyroscope (angular velocity sensor) and a GPS antenna (GPS information). As the gyroscope and GPS antenna have both merit and demerit, input signals from them are prioritized in each situation. However, this order of priority may change in accordance with more detailed travel conditions so that the travel direction is detected more accurately.
**NAVIGATION SYSTEM**

< FUNCTION DIAGNOSIS >

**[BOSE W/ COLOR DISPLAY W/ NAVI]**

<table>
<thead>
<tr>
<th>Type</th>
<th>Advantage</th>
<th>Disadvantage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gyroscope (angular velocity sensor)</td>
<td>• Can detect the vehicle’s turning angle quite accurately.</td>
<td>• Direction errors may accumulate when the vehicle is driven for long distances without stopping.</td>
</tr>
<tr>
<td>GPS antenna (GPS information)</td>
<td>• Can detect the vehicle’s travel direction (North/South/East/West).</td>
<td>• Correct direction cannot be detected when the vehicle speed is low.</td>
</tr>
</tbody>
</table>

**MAP–MATCHING**

Map–matching is a function that repositions the vehicle on the road map when a new location is judged to be the most accurate. This is done by comparing the current vehicle position, calculated by the method described in the position detection principle, with the road map data around the vehicle, read from the map data stored on the HDD.

Therefore, the vehicle position may not be corrected after the vehicle is driven over a certain distance or time in which GPS information is hard to receive. In this case, the current-location mark on the display must be corrected manually.

**CAUTION:**

The road map data is based on data stored on the HDD.

- In map–matching, alternative routes to reach the destination will be shown and prioritized, after the road on which the vehicle is currently driven has been judged and the current-location mark has been repositioned.
  - If there is an error in distance and/or direction, the alternative routes will be shown in different order of priority, and the wrong road can be avoided.
  - If two roads are running in parallel, they are of the same priority. Therefore, the current-location mark may appear on either of them alternately, depending on maneuvering of the steering wheel and configuration of the road.

- Map–matching does not function correctly when the road on which the vehicle is driving is new and not recorded on the HDD, or when the road pattern stored in the map data and the actual road pattern are different due to repair.
  - When driving on a road not present in the map, the map–matching function may find another road and position the current-location mark on it. Then, when the correct road is detected, the current-location mark may leap to it.

- Effective range for comparing the vehicle position and travel direction calculated by the distance and direction with the road data read from the HDD is limited. Therefore, when there is an excessive gap between the current vehicle position and the position on the map, correction by map–matching is not possible.

**GPS (GLOBAL POSITIONING SYSTEM)**

GPS (Global Positioning System) has been developed and controlled by the US Department of Defense. The system utilizes GPS satellite (NAVSTAR), sending out radio waves while flying on an orbit around the earth at the height of approx. 21,000 km (13,000 mi).

The GPS receiver calculates the vehicle’s position in three dimensions (latitude/longitude/altitude) according to the time lag of the radio waves received from four or more GPS satellites (three-dimensional positioning). If radio waves were received only from three GPS satellites, the GPS receiver calculates the vehicle’s position in two dimensions (latitude/longitude), utilizing the altitude data calculated previously by using radio waves from four or more GPS satellites (two-dimensional positioning).
Accuracy of the GPS will deteriorate under the following conditions:

- In two-dimensional positioning, the GPS accuracy will deteriorate when the altitude of the vehicle position changes.
- There may be an error of approximately 10 m (30 ft.) in position detected by three-dimensional positioning, which is more accurate than two-dimensional positioning. The accuracy can be even lower depending on the arrangement of the GPS satellites utilized for the positioning.
- Position detection is not possible when the vehicle is in an area where radio waves from the GPS satellite do not reach, such as in a tunnel, parking lot in a building, and under an elevated highway. Radio waves from the GPS satellites may not be received when some object is located over the GPS antenna.
- Position correction by GPS is not available while the vehicle is stopped.
1. Tweeter LH M51
2. Center speaker M130
3. Tweeter RH M52
4. AV control unit M160, M161, M162, M163, M164, M165, M166, M167, M168 (located behind A/C and AV switch assembly)
5. Display unit M142, M151
6. A/C and AV switch assembly M98
### Component Description

<table>
<thead>
<tr>
<th>Part name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AV control unit</td>
<td>• Controls each operation of the navigation system</td>
</tr>
<tr>
<td></td>
<td>• HDD is built in</td>
</tr>
<tr>
<td></td>
<td>• Voice guidance signal is output to BOSE speaker amp.</td>
</tr>
<tr>
<td>BOSE speaker amp.</td>
<td>Voice guidance signal is input from AV control unit, and it is output to speakers.</td>
</tr>
<tr>
<td>Tweeter</td>
<td>Voice guidance signal from BOSE speaker amp. is output.</td>
</tr>
<tr>
<td>Steering wheel audio control switches</td>
<td>• Each operation of navigation system can be performed</td>
</tr>
<tr>
<td></td>
<td>• Switch operating signal is output to AV control unit</td>
</tr>
<tr>
<td>Microphone</td>
<td>Sends voice signals to AV control unit</td>
</tr>
<tr>
<td>GPS antenna</td>
<td>GPS signal is received and is output to AV control unit.</td>
</tr>
</tbody>
</table>
System Description

When the shift selector is in the R position, the display unit shows a view to the rear of the vehicle. Lines which indicate the vehicle clearance and distances are also displayed.
REAR VIEW MONITOR SYSTEM

Component Parts Location

1. Tweeter LH M51
2. Center speaker M130
3. Tweeter RH M52
4. AV control unit M160, M161, M162, M163, M164, M165, M166, M167, M168 (located behind A/C and AV switch assembly)
5. Display unit M142, M151
6. A/C and AV switch assembly M98
## Component Description

<table>
<thead>
<tr>
<th>Part name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AV control unit</td>
<td>- Receives reverse signal from back-up lamp relay</td>
</tr>
<tr>
<td></td>
<td>- Receives steering angle sensor signal</td>
</tr>
<tr>
<td></td>
<td>- Sends camera ON signal to rear view camera</td>
</tr>
<tr>
<td>Rear view camera</td>
<td>- Receives camera ON signal from the AV control unit</td>
</tr>
<tr>
<td></td>
<td>- Sends image signal to the display unit</td>
</tr>
<tr>
<td>Steering angle sensor</td>
<td>Sends steering angle information to the AV control unit via CAN communication</td>
</tr>
</tbody>
</table>

### Component List

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.</td>
<td>Steering angle sensor M53 (located in steering column behind spiral cable)</td>
</tr>
<tr>
<td>8.</td>
<td>Steering wheel audio control switches</td>
</tr>
<tr>
<td>9.</td>
<td>USB interface M211 (view in center console)</td>
</tr>
<tr>
<td>10.</td>
<td>Aux in jack M209</td>
</tr>
<tr>
<td>11.</td>
<td>Microphone R7</td>
</tr>
<tr>
<td>12.</td>
<td>Rear view camera T101</td>
</tr>
<tr>
<td>13.</td>
<td>Front door speaker LH D3</td>
</tr>
<tr>
<td></td>
<td>RH D103</td>
</tr>
<tr>
<td>14.</td>
<td>Rear door speaker LH D202</td>
</tr>
<tr>
<td></td>
<td>RH D302</td>
</tr>
<tr>
<td>15.</td>
<td>Rear subwoofers (view under rear parcel shelf)</td>
</tr>
<tr>
<td></td>
<td>LH B106</td>
</tr>
<tr>
<td></td>
<td>RH B107</td>
</tr>
<tr>
<td>16.</td>
<td>BOSE speaker amp B109, B110</td>
</tr>
</tbody>
</table>
System Description

Refer to the Owner's Manual for Bluetooth telephone system operating instructions.

NOTE:
Cellular telephones must have their wireless connection set up (paired) before using the Bluetooth telephone system.

Bluetooth telephone system allows users who have a Bluetooth equipped cellular telephone to make a wireless connection between their cellular telephone and the AV control unit. Hands-free cellular telephone calls can be sent and received. Personal memos can be created using the Nissan Voice Recognition system. Some Bluetooth cellular telephones may not be recognized by the AV control unit. When a cellular telephone or the AV control unit is replaced, the telephone must be paired with the AV control unit. Different cellular telephones may have different pairing procedures. Refer to the cellular telephone operating manual and the vehicle Owner’s Manual for more information.

AV CONTROL UNIT
When the ignition switch is turned to ACC or ON, the AV control unit will power up. During power up, the Bluetooth feature is initialized and performs various self-checks. Initialization may take up to 10 seconds. If a phone is present in the vehicle and paired with the AV control unit, Nissan Voice Recognition will then become active. Bluetooth telephone functions can be turned off using the Nissan Voice Recognition system.

STEERING WHEEL AUDIO CONTROL SWITCHES
When buttons on the steering wheel audio control switch are pushed, the resistance in steering wheel audio control switch circuit changes depending on which button is pushed. The AV control unit uses this signal to perform various functions while navigating through the voice recognition system.
The following functions can be performed using the steering wheel audio control switch:
• Initiate self-diagnosis of the Bluetooth telephone system
• Start a voice recognition session
• Answer and end telephone calls
• Adjust the volume of calls
• Record memos

MICROPHONE
The microphone is located in the roof console assembly. The microphone sends a signal to the AV control unit. The microphone can be actively tested during self-diagnosis.
Component Parts Location

1. Tweeter LH M51
2. Center speaker M130
3. Tweeter RH M52
4. AV control unit M160, M161, M162, M163, M164, M165, M166, M167, M168 (located behind A/C and AV switch assembly)
5. Display unit M142, M151
6. A/C and AV switch assembly M98

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Revision: November 2009

AV-363
<FUNCTION DIAGNOSIS>

HANDS-FREE PHONE SYSTEM
[BOSE W/ COLOR DISPLAY W/ NAVI]

<table>
<thead>
<tr>
<th>Component Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steering angle sensor M53 (located in steering column behind spiral cable)</td>
<td>Sends telephone voice and voice guidance signals to the speakers</td>
</tr>
<tr>
<td>Steering wheel audio control switches</td>
<td>Receives audio signals from the AV control unit</td>
</tr>
<tr>
<td>Microphone R7</td>
<td>Receives telephone voice signal from antenna and microphone</td>
</tr>
<tr>
<td>Front door speaker</td>
<td>Sends telephone voice signal to AV control unit</td>
</tr>
<tr>
<td>Auxiliary input jack M209</td>
<td>Sends telephone voice signal to AV control unit</td>
</tr>
<tr>
<td>Front door speaker LH D3 RH D103</td>
<td>Receives telephone voice and voice guidance signals from the AV control unit through the BOSE speaker amp.</td>
</tr>
<tr>
<td>Rear door speaker LH D202 RH D302</td>
<td>Receives audio signals to the speakers</td>
</tr>
<tr>
<td>Rear view camera T101</td>
<td>Receives audio signals from the AV control unit</td>
</tr>
<tr>
<td>Rear subwoofers (view under rear parcel shelf) LH B106 RH B107</td>
<td>Receives audio signals from the AV control unit</td>
</tr>
<tr>
<td>BOSE speaker amp. B109, B110</td>
<td>Sends telephone voice signal to AV control unit</td>
</tr>
</tbody>
</table>

Component Description

<table>
<thead>
<tr>
<th>Part name</th>
<th>Description</th>
</tr>
</thead>
</table>
| AV control unit | • Receives telephone voice signal from antenna and microphone  
• Sends telephone voice and voice guidance signals to the speakers |
| BOSE speaker amp. | • Receives audio signals from the AV control unit  
• Outputs amplified audio signals to the speakers. |
| Front door speaker | Receives telephone voice and voice guidance signals from the AV control unit through the BOSE speaker amp. |
| Front tweeter | Receives audio signals from the AV control unit |
| Center speaker | Receives audio signals from the AV control unit |
| Steering wheel audio control switches | • Start a voice recognition session  
• Answer and end telephone calls  
• Adjust the volume level |
| Microphone | Sends voice signals to AV control unit |
| Bluetooth antenna | Sends telephone voice signal to AV control unit |
DIAGNOSIS SYSTEM (AV CONTROL UNIT)

FUNCTION DIAGNOSIS

Description

- The AV control unit diagnosis function starts up with multifunction switch operation and the AV control unit performs a diagnosis for each unit in the system during the on board diagnosis.
- Perform a CONSULT-III diagnosis if the on board diagnosis does not start, e.g., the screen does not display anything, the multifunction switch does not function, etc.

On Board Diagnosis Function

MULTIFUNCTION SWITCH AND PRESET SWITCH SELF-DIAGNOSIS FUNCTION

The ON/OFF operation (continuity) of each switch in the multifunction switch and preset switch can be checked.

Self-diagnosis Mode

- Press the “BACK” switch and the “UP” switch of the 8-direction switches within 10 seconds after turning the ignition switch from OFF to ACC and hold them for 3 seconds or more. Then the buzzer sounds, all indicators of the preset switch illuminate, and the self-diagnosis mode starts.
- The continuity of each switch at the ON position can be checked by pressing the switch. The buzzer sounds if the switch is normal.

NOTE:
The disk eject switch cannot be checked.

Finishing Self-diagnosis Mode

Self-diagnosis mode is canceled when turning the ignition switch OFF.

ON BOARD DIAGNOSIS

Description

- The trouble diagnosis function has a self-diagnosis mode for conducting trouble diagnosis automatically and a confirmation/adjustment mode for operating manually.
- The self-diagnosis mode performs diagnoses on the AV control unit, connections between system components as well as connections between AV control unit and GPS antenna. Then it displays the diagnosis results on the display.
- The confirmation/adjustment mode allows the technician to check, modify or adjust the vehicle signals and set values, as well as to monitor the system error records and system communication status. The checking, modifying or adjusting generally require human intervention and judgment (the system cannot make judgment automatically).

On Board Diagnosis Item

<table>
<thead>
<tr>
<th>Mode</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self Diagnosis</td>
<td>• AV control unit diagnosis.</td>
</tr>
<tr>
<td></td>
<td>• Diagnoses the connections across system components, between AV control unit and GPS antenna.</td>
</tr>
</tbody>
</table>
# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

## FUNCTION DIAGNOSIS

### Confirmation/Adjustment

<table>
<thead>
<tr>
<th>Mode</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display Diagnosis</td>
<td>The following check functions are available: color tone check by color bar display, light and shade check by gray scale display, touch panel calibration and response check, and color tone check by white display.</td>
</tr>
<tr>
<td>Vehicle Signals</td>
<td>Diagnosis of signals can be performed for vehicle speed, parking brake, lights, ignition, reverse, side view switch and room lamp.</td>
</tr>
<tr>
<td>Speaker Test</td>
<td>The connection of a speaker can be confirmed by test tone.</td>
</tr>
<tr>
<td>Navigation</td>
<td></td>
</tr>
<tr>
<td>Steering Angle Adjustment</td>
<td>When there is a difference between the actual turning angle and the vehicle mark turning angle, it can be adjusted.</td>
</tr>
<tr>
<td>Speed Calibration</td>
<td>When there is a difference between the current location mark and the actual location, it can be adjusted.</td>
</tr>
<tr>
<td>XM Subscription Status</td>
<td>The XM NavTraffic subscription status can be checked.</td>
</tr>
<tr>
<td>Error History</td>
<td>The system malfunction and the frequency when occurring in the past are displayed. When the malfunctioning item is selected, the time and place that the selected malfunction last occurred are displayed.</td>
</tr>
<tr>
<td>Synchronize FES Clock</td>
<td></td>
</tr>
<tr>
<td>Vehicle CAN Diagnosis</td>
<td>The transmitting/receiving of CAN communication can be monitored.</td>
</tr>
<tr>
<td>AV COMM Diagnosis</td>
<td>The communication condition of each unit of Multi AV system can be monitored.</td>
</tr>
<tr>
<td>Hands-free Phone</td>
<td>The received volume adjustment of hands-free phone, microphone speaker check, and erase memory can be performed.</td>
</tr>
<tr>
<td>Camera</td>
<td>The four functions of “Correct Draw Line” “Alter/Confirm Configuration”, “Reset Configuration” and “Camera Syst Type” are available.</td>
</tr>
<tr>
<td>XM NavTraffic</td>
<td>Change Channel</td>
</tr>
<tr>
<td>XM NavWeather</td>
<td>• Any necessary channels required to receive traffic information from the satellite radio system can be set.</td>
</tr>
<tr>
<td>XM CGS</td>
<td>Change Application ID</td>
</tr>
<tr>
<td>Diag</td>
<td>• Any application ID’s required to receive traffic information from the satellite radio system can be set.</td>
</tr>
<tr>
<td>Delete Unit Connection Log</td>
<td>Erase the connection history of unit and error history.</td>
</tr>
<tr>
<td>Initialize Settings</td>
<td>Initializes the AV control unit memory.</td>
</tr>
<tr>
<td>Version Information</td>
<td>Version information of the AV control unit is displayed.</td>
</tr>
</tbody>
</table>

### STARTING PROCEDURE

1. Start the engine.
2. Turn the audio system OFF.
3. While pressing the “SETTING” button, turn the volume control dial clockwise or counterclockwise for 40 clicks or more. (When the self-diagnosis mode is started, a short beep will be heard.)
   - Shifting from current screen to previous screen is performed by pressing “BACK” button.
< FUNCTION DIAGNOSIS >

4. The trouble diagnosis initial screen is displayed, and then the items of “Self Diagnosis” and “Confirmation/Adjustment” can be selected.

SELF-DIAGNOSIS MODE

1. Start the self-diagnosis function and select “Self Diagnosis”.
   - Self-diagnosis subdivision screen is displayed, and the self-diagnosis mode starts.
   - The bar graph visible on the center of the self-diagnosis subdivision screen indicates progress of the trouble diagnosis.

2. Diagnosis results are displayed after the self-diagnosis is completed. The unit names and the connection lines are color-coded according to the diagnostic results.

<table>
<thead>
<tr>
<th>Diagnosis results</th>
<th>Unit</th>
<th>Connection line</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>Green</td>
<td>Green</td>
</tr>
<tr>
<td>Connection malfunction</td>
<td>Gray</td>
<td>Yellow</td>
</tr>
<tr>
<td>Unit malfunction Note</td>
<td>Red</td>
<td>Green</td>
</tr>
</tbody>
</table>

NOTE:
- Control unit (AV control unit) and amplifier (BOSE amp.) are displayed in red.
  - Replace AV control unit if “Self-Diagnosis did not run because of a control unit malfunction” is indicated. The symptom is AV control unit internal error.
  - If multiple errors occur at the same time for a single unit, the screen switch colors are determined according to the following order of priority: red > gray.

- The comments of the self-diagnosis results can be viewed with a component in the diagnosis result screen.

Detection Range of Self-diagnosis Mode
- The self-diagnosis mode allows the technician to diagnose the connection in the communication line between AV control unit and each unit and the internal operation of the AV control unit.
- Because the start condition of diagnosis function is a switch operation, the on board diagnosis function cannot be started up if any malfunction is detected in the communication circuit between AV control unit and multifunction switch.

SELF-DIAGNOSIS RESULTS
Check the applicable display at the following table, and then repair the malfunctioning parts.

Only Unit Part Is Displayed In Red.
A Connecting Cable Between Units Is Displayed In Yellow.

<table>
<thead>
<tr>
<th>Screen switch</th>
<th>Description</th>
<th>Possible malfunction location / Action to take</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control unit</td>
<td>Malfunction is detected in AV control unit power supply and ground circuits.</td>
<td>Check AV control unit power supply and ground circuits. When detecting no malfunction in those components, replace AV control unit.</td>
</tr>
</tbody>
</table>

### CONFIRMATION/ADJUSTMENT MODE

1. Start the diagnosis function and select “Confirmation/Adjustment”. The confirmation/adjustment mode indicates where each item can be checked or adjusted.

2. Select each switch on the “Confirmation/Adjustment Mode” screen to display the relevant trouble diagnosis screen. Press the “Back” switch to return to the initial Confirmation/Adjustment Mode screen.
Display Diagnosis

Vehicle Signals
A comparison check can be made of each actual vehicle signal and the signals recognized by the system.
DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< FUNCTION DIAGNOSIS >
[BOSE W/ COLOR DISPLAY W/ NAVI]

<table>
<thead>
<tr>
<th>Diagnosis item</th>
<th>Display</th>
<th>Vehicle status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicle speed</td>
<td>ON</td>
<td>Vehicle speed &gt; 0 km/h (0 MPH)</td>
</tr>
<tr>
<td></td>
<td>OFF</td>
<td>Vehicle speed = 0 km/h (0 MPH)</td>
</tr>
<tr>
<td>Parking brake</td>
<td>ON</td>
<td>Parking brake is applied.</td>
</tr>
<tr>
<td></td>
<td>OFF</td>
<td>Parking brake is released.</td>
</tr>
<tr>
<td>Lights</td>
<td>ON</td>
<td>Light switch ON</td>
</tr>
<tr>
<td></td>
<td>OFF</td>
<td>Light switch OFF</td>
</tr>
<tr>
<td>Ignition</td>
<td>ON</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td></td>
<td>OFF</td>
<td>Ignition switch in ACC position</td>
</tr>
<tr>
<td>Reverse</td>
<td>ON</td>
<td>Shift the selector lever to &quot;R&quot; position</td>
</tr>
<tr>
<td></td>
<td>OFF</td>
<td>Shift the selector lever other than &quot;R&quot; position</td>
</tr>
</tbody>
</table>

[Table continues...]

Speaker Test
Select “SPEAKER DIAGNOSIS” to display the Speaker Diagnosis screen. Press “Start” to generate a test tone in a speaker. Press “Start” to generate a test tone in the next speaker. Press “Stop” to stop the test tones.

Navigation
STEERING ANGLE ADJUSTMENT
The steering angle output value detected with the gyroscope is adjusted.

SPEED CALIBRATION
During normal driving, distance error caused by tire wear and tire pressure change is automatically adjusted for by the automatic distance correction function. This function, on the other hand, is for immediate adjustment, in cases such as driving with tire chain fitted on tires.
Error History
The self-diagnosis results are judged depending on whether any error occurs from when “Self-diagnosis” is selected until the self-diagnosis results are displayed.

However, the diagnosis results are judged normal if an error has occurred before the ignition switch is turned ON and then no error has occurred until the self-diagnosis start. Check the “Error Record” to detect any error that may have occurred before the self-diagnosis start because of this situation.

The error record displays the time and place of the most recent occurrence of that error. However, take note of the following points:

- If there is a malfunction with the GPS antenna circuit board in the AV control unit, the correct date and time of occurrence may not be able to be displayed.
- Place of the error occurrence is represented by the position of the current location mark at the time an error occurred. If current location mark has deviated from the correct position, then the place of the error occurrence cannot be located correctly.
- The frequency of occurrence is displayed in a count up manner. The actual count up method differs depending on the error item.

Count up method A
- The counter resets to 0 if an error occurs when ignition switch is turned ON. The counter increases by 1 if the condition is normal at a next ignition ON cycle.
- The counter upper limit is 39. Any counts exceeding 39 are ignored. The counter can be reset (no error record display) with the “Delete log” switch or CONSULT-III.

Count up method B
- The counter increases by 1 if an error occurs when ignition switch is ON. The counter will not decrease even if the condition is normal at the next ignition ON cycle.
- The counter upper limit is 50. Any counts exceeding 50 are ignored. The counter can be reset (no error record display) with the “Delete log” switch or CONSULT-III.

<table>
<thead>
<tr>
<th>Display type of occurrence frequency</th>
<th>Error history display item</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count up method A</td>
<td>CAN communication line, control unit (CAN), AV communication line, control unit (AV)</td>
</tr>
<tr>
<td>Count up method B</td>
<td>Other than the above</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Error Item</th>
<th>Description</th>
<th>Possible malfunction factor/Action to take</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAN COMM CIRCUIT</td>
<td>CAN communication malfunction is detected.</td>
<td>Perform diagnosis with CONSULT-III, and then repair the malfunctioning parts according to the diagnosis results. Refer to AV-376, &quot;CONSULT - III Function (MULTI AV)&quot;.</td>
</tr>
</tbody>
</table>
## DIAGNOSIS SYSTEM (AV CONTROL UNIT)

### FUNCTION DIAGNOSIS

#### [BOSE W/ COLOR DISPLAY W/ NAVI]

<table>
<thead>
<tr>
<th>Error item</th>
<th>Description</th>
<th>Possible malfunction factor/Action to take</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONTROL UNIT (CAN)</td>
<td>CAN initial diagnosis malfunction is detected.</td>
<td></td>
</tr>
<tr>
<td>CONTROL UNIT (AV)</td>
<td>AV communication circuit initial diagnosis malfunction is detected.</td>
<td></td>
</tr>
<tr>
<td>FLASH-ROM Error Of Control Unit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Connection Of Gyro</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Connection of G Sensor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAN Controller Memory Error</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bluetooth Module Connection Error</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sub CPU Connection Error</td>
<td></td>
<td></td>
</tr>
<tr>
<td>iPod authentication chip error</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Audio connection error</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DSP Connection Error</td>
<td>AV control unit malfunction is detected.</td>
<td></td>
</tr>
<tr>
<td>DSP Communication Error</td>
<td>AV control unit malfunction is detected.</td>
<td></td>
</tr>
<tr>
<td>HDD Connection Error</td>
<td>AV control unit malfunction is detected.</td>
<td></td>
</tr>
<tr>
<td>HDD Read Error</td>
<td>AV control unit malfunction is detected.</td>
<td></td>
</tr>
<tr>
<td>HDD Write Error</td>
<td>AV control unit malfunction is detected.</td>
<td></td>
</tr>
<tr>
<td>HDD Communication Error</td>
<td>AV control unit malfunction is detected.</td>
<td></td>
</tr>
<tr>
<td>HDD Access Error</td>
<td>AV control unit malfunction is detected.</td>
<td></td>
</tr>
<tr>
<td>GPS Communication Error</td>
<td>GPS malfunction is detected.</td>
<td></td>
</tr>
<tr>
<td>GPS ROM Error</td>
<td>GPS malfunction is detected.</td>
<td></td>
</tr>
<tr>
<td>GPS RAM Error</td>
<td>GPS malfunction is detected.</td>
<td></td>
</tr>
<tr>
<td>GPS RTC Error</td>
<td>GPS malfunction is detected.</td>
<td></td>
</tr>
<tr>
<td>Unfinished configuration</td>
<td>The writing of configuration data is incomplete.</td>
<td>Write configuration data with CONSULT-III.</td>
</tr>
<tr>
<td>USB Controller Communication Error</td>
<td>USB connection malfunction is detected.</td>
<td>Check that the connection to the USB connector is normal.</td>
</tr>
<tr>
<td>DVD Mechanism Communication Error</td>
<td>AV control unit malfunction is detected.</td>
<td>If DVD can be played, then there is a possibility of the detection of a temporary malfunction. Replace the AV control unit if the malfunction occurs constantly.</td>
</tr>
<tr>
<td>Front Display Connection Error</td>
<td>When either one of the following items is detected:</td>
<td>Display unit power supply and ground circuits. Communication circuits between AV control unit and display unit.</td>
</tr>
<tr>
<td>USB electric current Error</td>
<td>Detection of over current in USB interface.</td>
<td>Check USB harness between the AV control unit and USB interface.</td>
</tr>
</tbody>
</table>
**DIAGNOSIS SYSTEM (AV CONTROL UNIT)**

**BOSE W/ COLOR DISPLAY W/ NAVI**

### < FUNCTION DIAGNOSIS >

**Vehicle CAN Diagnosis**
- CAN communication status and error counter is displayed.
- The error counter displays “OK” if any malfunction was not detected in the past and displays “0” if a malfunction is detected. It increases by 1 if the condition is normal at the next ignition switch ON cycle. The upper limit of the counter is 39.
- The error counter is erased if “Reset” is pressed.

<table>
<thead>
<tr>
<th>Error item</th>
<th>Description</th>
<th>Possible malfunction factor/Action to take</th>
</tr>
</thead>
<tbody>
<tr>
<td>GPS Antenna Error</td>
<td>GPS antenna connection malfunction is detected.</td>
<td>Check the connection of the GPS antenna connector.</td>
</tr>
<tr>
<td></td>
<td><strong>AV COMM CIRCUIT</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Switches Connection Error</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Multifunction switch power supply and ground circuits are malfunctioning.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• AV communication circuits between AV control unit and multifunction switch are malfunctioning.</td>
<td></td>
</tr>
</tbody>
</table>

### Vehicle CAN Diagnosis

#### CAN COMM Diagnosis
- Displays the communication status between AV control unit (master unit) and each unit.
- The error counter displays “OK” if any malfunction was not detected in the past and displays “0” if a malfunction is detected. It increases by 1 if the condition is normal at the next ignition switch ON cycle. The upper limit of the counter is 39.
- The error counter is erased if “Reset” is pressed.

#### Hands-Free Phone

- GPS Antenna Error
  - GPS antenna connection malfunction is detected.

#### System Diagnostic Menu

**Vehicle CAN Dia.**
- **Signal**
  - Tx(HVAC) OK / ??? OK / 0 – 39
  - Rx(ECM) OK / ??? OK / 0 – 39
  - Rx(Cluster) OK / ??? OK / 0 – 39
  - Rx(HVAC) OK / ??? OK / 0 – 39
  - Rx(USM) OK / ??? OK / 0 – 39
  - Rx(STRG) OK / ??? OK / 0 – 39

**AV COMM Diag.**
- **Signal**
  - C Tx(ITM–PrimarySW) OK / ??? OK / 0 – 39
  - C Rx(PrimarySW–ITM) OK / ??? OK / 0 – 39

**NOTE:**
- “???” indicates UNKWN

**Hands-Free Phone**
- GPS Antenna Error
  - GPS antenna connection malfunction is detected.

**NOTE:**
- “???” indicates UNKWN
The hands-free phone reception volume adjustment and microphone and speaker test functions are also available.

Camera
The four functions of “Correct Draw Line of Rear View Camera”, “Alter/Confirm Configuration”, “Reset Configuration” and “Camera Syst Type” are available.

Correct Draw Line of Rear View Camera
• Use this mode to adjust the guide line display position of the rear-view monitor if necessary after removing the rear view monitor camera.

Alter/Confirm Configuration
• Configuration stored in the AV control unit can be checked and modified.

<table>
<thead>
<tr>
<th>Setting item</th>
<th>Setting</th>
<th>Setting item</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pred. Course Lines</td>
<td>Without</td>
<td>Wheelbase</td>
<td>0.0000000</td>
</tr>
<tr>
<td>Rear Coeff. K</td>
<td>0.0000000</td>
<td>Total Length</td>
<td>0.0000000</td>
</tr>
<tr>
<td>Rear Coeff. F</td>
<td>0.0000000</td>
<td>Steering Gear Ratio</td>
<td>0.0000000</td>
</tr>
<tr>
<td>Rear Coeff. P1</td>
<td>0.0000000</td>
<td>Side Coeff. K</td>
<td>0.0000000</td>
</tr>
<tr>
<td>Rear Coeff. P2</td>
<td>0.0000000</td>
<td>Side Coeff. F</td>
<td>0.0000000</td>
</tr>
<tr>
<td>Rear Coeff. C1</td>
<td>0.0000000</td>
<td>Side Coeff. P1</td>
<td>0.0000000</td>
</tr>
<tr>
<td>Rear Coeff. C2</td>
<td>0.0000000</td>
<td>Side Coeff. P2</td>
<td>0.0000000</td>
</tr>
<tr>
<td>Rear Coeff. D1</td>
<td>0.0000000</td>
<td>Side Coeff. C1</td>
<td>0.0000000</td>
</tr>
<tr>
<td>Rear Coeff. D2</td>
<td>0.0000000</td>
<td>Side Coeff. C2</td>
<td>0.0000000</td>
</tr>
<tr>
<td>Car Width</td>
<td>0.0000000</td>
<td>Side Coeff. D1</td>
<td>0.0000000</td>
</tr>
<tr>
<td>Rear Offset</td>
<td>0.0000000</td>
<td>Side Coeff. D2</td>
<td>0.0000000</td>
</tr>
<tr>
<td>Rear Height</td>
<td>0.0000000</td>
<td>Side Offset</td>
<td>0.0000000</td>
</tr>
</tbody>
</table>
Reset Configuration
• Configuration stored in the AV control unit can be initialized.

Camera Syst Type
• Type of camera system is selectable.

XM
• Change Channel
  - Any necessary channels required to receive traffic information from the satellite radio system can be set.
• Change Application ID
  - Any application ID's required to receive traffic information from the satellite radio system can be set.

Delete Unit Connection Log
< FUNCTION DIAGNOSIS >

Deletes any unit connection records and error records from the AV control unit memory. (Clear the records of the unit that has been removed.)

Initialize Settings
“Erase All Customer Data” and “Reset Factory Configuration” are possible.

CAUTION:
• Never perform Reset Factory Configuration except when configuration is unsuccessful.
• Factory Configuration Initialize requires configuration. For details, refer to AV-365, "Description".

Version Information
Version information of the AV control unit is displayed.

CONSULT - III Function (MULTI AV)

APPLICATION ITEMS
CONSULT-III performs the following functions via the communication with the AV control unit.

<table>
<thead>
<tr>
<th>Diagnosis mode</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ecu Identification</td>
<td>The part number of AV control unit can be checked.</td>
</tr>
<tr>
<td>Self Diagnostic Result</td>
<td>Performs a diagnosis on the AV control unit and a connection diagnosis for the communication circuit of the Multi AV system, and displays the current and past malfunctions collectively.</td>
</tr>
<tr>
<td>Data Monitor</td>
<td>The diagnosis of vehicle signal that is input to the AV control unit can be performed.</td>
</tr>
<tr>
<td>Configuration</td>
<td>• Read and save the vehicle specification. • Write the vehicle specification when replacing AV control unit.</td>
</tr>
</tbody>
</table>

AV Communication
When “AV communication” of “CAN Diag Support Monitor” is selected, the following function will be performed.

<table>
<thead>
<tr>
<th>AV communication</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AV&amp;NAVI C/U</td>
<td>Displays the communication status from AV control unit to each unit as well as the error counter.</td>
</tr>
<tr>
<td>AUDIO</td>
<td>Displays the AV control unit communication status and the error counter.</td>
</tr>
</tbody>
</table>

ECU IDENTIFICATION
**DIAGNOSIS SYSTEM (AV CONTROL UNIT)**

**SELF DIAGNOSIS RESULT**
- In CONSULT-III self-diagnosis, self-diagnosis results and error history are displayed collectively.
- The current malfunction indicates "CRNT". The past malfunction indicates "PAST".
- The timing is displayed as "0" if any of the error codes [U1000], [U1010], [U1300] and [U1310] is detected. The counter increases by 1 if the condition is normal at the next ignition switch ON cycle.

Self-diagnosis Results Display Item

<table>
<thead>
<tr>
<th>Error item</th>
<th>Description</th>
<th>Possible malfunction factor/Action to take</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAN COMM CIRCUIT [U1000]</td>
<td>CAN communication malfunction is detected.</td>
<td>Perform diagnosis with CONSULT-III, and then repair the malfunctioning parts according to the diagnosis results. Refer to AV-380, &quot;Diagnosis Procedure&quot;</td>
</tr>
<tr>
<td>CONTROL UNIT (CAN) [U1010]</td>
<td>CAN initial diagnosis malfunction is detected.</td>
<td>Replace the AV control unit if the malfunction occurs constantly.</td>
</tr>
<tr>
<td>CONTROL UNIT (AV) [U1310]</td>
<td>AV communication circuit initial diagnosis malfunction is detected.</td>
<td></td>
</tr>
<tr>
<td>Cont Unit [U1200]</td>
<td>AV control unit malfunction is detected.</td>
<td></td>
</tr>
<tr>
<td>GYRO NO CONN [U1201]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G-SENSOR NO CONN [U1202]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAN CONT [U1216]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BLUETOOTH MODULE [U1217]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SUB CPU CONN [U1228]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>iPod CERTIFICATION [U1229]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Built-in AUDIO CONN [U122E]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| HDD CONN [U1218]            | AV control unit malfunction is detected.                          | • If the music box function has no malfunctions, then there is a possibility of the detection of a temporary malfunction.  
  • Replace the AV control unit if the malfunction occurs constantly. |
| HDD READ [U1219]            |                                                                 |                                                                                 |
| HDD WRITE [U121A]           |                                                                 |                                                                                 |
| HDD COMM [U121B]            |                                                                 |                                                                                 |
| HDD ACCESS [U121C]          |                                                                 |                                                                                 |
| GPS COMM [U1204]            | GPS malfunction is detected.                                     | An intermittent error caused by strong radio interference may be detected unless any symptom (GPS reception error, etc.) occurs.  
  Replace the AV control unit if the malfunction occurs constantly. |
| GPS ROM [U1205]             |                                                                 |                                                                                 |
| GPS RAM [U1206]             |                                                                 |                                                                                 |
| GPS RTC [U1207]             |                                                                 |                                                                                 |
| USB CONTROLLER [U1225]      | USB connection malfunction is detected.                           | Check that the connection to the USB connector is normal.                       |
| DSP CONT [U121D]            |                                                                 | • If a disc can be played, then there is a possibility of the detection of a temporary malfunction.  
  • Replace the AV control unit if the malfunction occurs constantly. |
| DSP COMM [U121E]            | AV control unit malfunction is detected.                          |                                                                                 |
| DVD COMM [U1227]            | AV control unit malfunction is detected.                          | • If DVD can be played, then there is a possibility of the detection of a temporary malfunction.  
  • Replace the AV control unit if the malfunction occurs constantly. |
| CONFIG UNFINISH [U122A]     | The writing of configuration data is incomplete.                   | Write configuration data with CONSULT-III.                                     |
| ST ANGLE SEN CALIB [U1232]  | Predictive course line center position adjustment of the steering angle sensor is incomplete. | Adjust the predictive course line center position of the steering angle sensor. |
## FUNCTION DIAGNOSIS

### DIAGNOSIS SYSTEM (AV CONTROL UNIT)

#### [BOSE W/ COLOR DISPLAY W/ NAVI]

<table>
<thead>
<tr>
<th>Error item</th>
<th>Description</th>
<th>Possible malfunction factor/Action to take</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRONT DISP CONN [U1243]</td>
<td>When either one of the following items are detected:</td>
<td>• Display unit power supply and ground circuits malfunction is detected.</td>
</tr>
<tr>
<td></td>
<td>• Display unit power supply and ground circuits malfunction is detected.</td>
<td>• Communication circuits between AV control unit and display unit.</td>
</tr>
<tr>
<td></td>
<td>• Communication circuits between AV control unit and display unit.</td>
<td></td>
</tr>
<tr>
<td>GPS ANTENNA CONN [U1244]</td>
<td>GPS antenna connection malfunction is detected.</td>
<td>Check the connection of the GPS antenna connector.</td>
</tr>
<tr>
<td>USB OVERCURRENT [U1263]</td>
<td>Detection of over current in USB connector.</td>
<td>Check USB harness between the AV control unit and USB connector.</td>
</tr>
<tr>
<td>• AV COMM CIRCUIT [U1300]</td>
<td>When either one of the following items are detected:</td>
<td>• Multifunction switch power supply and ground circuits are malfunctioning.</td>
</tr>
<tr>
<td>• SWITCH CONN [U1240]</td>
<td>• Multifunction switch power supply and ground circuits are malfunctioning.</td>
<td>• AV communication circuits between AV control unit and multifunction switch are malfunctioning.</td>
</tr>
</tbody>
</table>

### DATA MONITOR

#### ALL SIGNALS
- Displays the status of the following vehicle signals inputted into the AV control unit.
- For each signal, actual signal can be compared with the condition recognized on the system.

<table>
<thead>
<tr>
<th>Display Item</th>
<th>Display</th>
<th>Vehicle status</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>VHCL SPD SIG</td>
<td>On</td>
<td>Vehicle speed &gt;0 km/h (0 MPH)</td>
<td>Changes in indication may be delayed. This is normal.</td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>Vehicle speed =0 km/h (0 MPH)</td>
<td></td>
</tr>
<tr>
<td>PKB SIG</td>
<td>On</td>
<td>Parking brake is applied.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>Parking brake is released.</td>
<td></td>
</tr>
<tr>
<td>ILLUM SIG</td>
<td>On</td>
<td>Block the light beam from the auto light optical sensor when the light SW is ON.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>Expose the auto light optical sensor to light when the light SW is OFF or ON.</td>
<td></td>
</tr>
<tr>
<td>IGN SIG</td>
<td>On</td>
<td>Ignition switch ON</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>Ignition switch in ACC position</td>
<td></td>
</tr>
<tr>
<td>REV SIG</td>
<td>On</td>
<td>Selector lever in R position</td>
<td>Changes in indication may be delayed. This is normal.</td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>Selector lever in any position other than R</td>
<td></td>
</tr>
<tr>
<td>SIDE VIEW SW</td>
<td>Off</td>
<td>This item is displayed, but cannot be monitored.</td>
<td></td>
</tr>
<tr>
<td>ROOM LAMP</td>
<td>Off</td>
<td>This item is displayed, but not used.</td>
<td></td>
</tr>
</tbody>
</table>

### SELECTION FROM MENU

Allows the technician to select which vehicle signals should be displayed and displays the status of the selected vehicle signals.
### Item to be selected

<table>
<thead>
<tr>
<th>Item to be selected</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VHCL SPD SIG</td>
<td>The same as when “ALL SIGNALS” is selected.</td>
</tr>
<tr>
<td>PKB SIG</td>
<td></td>
</tr>
<tr>
<td>ILLUM SIG</td>
<td></td>
</tr>
<tr>
<td>IGN SIG</td>
<td></td>
</tr>
<tr>
<td>REV SIG</td>
<td></td>
</tr>
<tr>
<td>SIDE VIEW SW</td>
<td></td>
</tr>
<tr>
<td>ROOM LAMP</td>
<td></td>
</tr>
</tbody>
</table>

### CONFIGURATION

Configuration has three functions as follows.

<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>READ CONFIGURATION</td>
<td>• Reads the vehicle configuration of current AV control unit.</td>
</tr>
<tr>
<td>WRITE CONFIGURATION-Config file</td>
<td>Writes the vehicle configuration with saved data.</td>
</tr>
</tbody>
</table>
**U1000 CAN COMM CIRCUIT**

** COMPONENT DIAGNOSIS **

**U1000 CAN COMM CIRCUIT**

**Description**

CAN (Controller Area Network) is a serial communication line for real time application. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Many electronic control units are equipped onto a vehicle and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN-H, CAN-L) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.

**DTC Logic**

**DTC DETECTION LOGIC**

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Probable malfunction location</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1000</td>
<td>CAN COMM CIRCUIT [U1000]</td>
<td>AV control unit is not transmitting or receiving CAN communication signal for 2 seconds or more.</td>
<td>CAN communication system.</td>
</tr>
</tbody>
</table>

**Diagnosis Procedure**

1. PERFORM SELF DIAGNOSTIC

1. Turn ignition switch ON and wait for 2 seconds or more.
2. Check “Self Diagnostic Result” of “AV Control Unit”.
   Is “CAN COMM CIRCUIT” displayed?
   YES >> Refer to LAN system. Refer to LAN-16, "Trouble Diagnosis Flow Chart".
   NO  >> Refer to GI section. Refer to GI-39, "Intermittent Incident".
<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Probable malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1010</td>
<td>CONTROL UNIT (CAN) [U1010]</td>
<td>CAN initial diagnosis malfunction is detected.</td>
<td>Replace the AV control unit if the malfunction occurs constantly. Refer to AV-487, “Removal and Installation”.</td>
</tr>
</tbody>
</table>
### DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1200</td>
<td>Cont Unit [U1200]</td>
<td>AV control unit malfunction is detected.</td>
<td>Replace the AV control unit if the malfunction occurs constantly. Refer to AV-487, &quot;Removal and Installation&quot;.</td>
</tr>
</tbody>
</table>
## U1201 AV CONTROL UNIT

### [BOSE W/ COLOR DISPLAY W/ NAVI]

## U1201 AV CONTROL UNIT

### DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1201</td>
<td>GYRO NO CONN [U1201]</td>
<td>AV control unit malfunction is detected.</td>
<td>Replace the AV control unit if the malfunction occurs constantly. Refer to AV-487, &quot;Removal and Installation&quot;.</td>
</tr>
</tbody>
</table>

INFOID:0000000005523007

Revision: November 2009

2010 Maxima
## Component Diagnosis

### U1202 AV Control Unit

#### DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1202</td>
<td>G-SENSOR NO CONN [U1202]</td>
<td>AV control unit malfunction is detected.</td>
<td>Replace the AV control unit if the malfunction occurs constantly. Refer to AV-487, &quot;Removal and Installation&quot;.</td>
</tr>
</tbody>
</table>
U1204 AV CONTROL UNIT

DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1204</td>
<td>GPS CONN [U1204]</td>
<td>GPS malfunction is detected.</td>
<td>An intermittent error caused by strong radio interference may be detected unless any symptom (GPS reception error, etc.) occurs. Replace the AV control unit if the malfunction occurs constantly. Refer to AV-487, &quot;Removal and Installation&quot;.</td>
</tr>
</tbody>
</table>

Diagnosis Procedure

1. PERFORM THE SELF-DIAGNOSIS

1. Delete the "self-diagnosis" results of "MULTI AV". Turn ignition switch OFF.
2. Turn ignition switch ON. Perform the self-diagnosis again.
3. Check that the DTC is detected again.

Is any DTC detected?

YES >> Replace AV control unit. Refer to AV-487, "Removal and Installation".

NO >> An intermittent error caused by strong radio interference may be detected unless any symptom (GPS reception error, etc.) occurs.
U1205 AV CONTROL UNIT

< COMPONENT DIAGNOSIS >

U1205 AV CONTROL UNIT

DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1205</td>
<td>GPS ROM [U1205]</td>
<td>GPS malfunction is detected.</td>
<td>An intermittent error caused by strong radio interference may be detected unless any symptom (GPS reception error, etc.) occurs. Replace the AV control unit if the malfunction occurs constantly. Refer to AV-487, &quot;Removal and Installation&quot;.</td>
</tr>
</tbody>
</table>

Diagnosis Procedure

1. PERFORM THE SELF-DIAGNOSIS

   1. Delete the "self-diagnosis" results of "MULTI AV". Turn ignition switch OFF.
   2. Turn ignition switch ON. Perform the self-diagnosis again.
   3. Check that the DTC is detected again.

   Is any DTC detected?

   YES >> Replace AV control unit. Refer to AV-487, "Removal and Installation".
   NO  >> An intermittent error caused by strong radio interference may be detected unless any symptom (GPS reception error, etc.) occurs.
U1206 AV CONTROL UNIT

DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1206</td>
<td>GPS RAM [U1206]</td>
<td>GPS malfunction is detected.</td>
<td>An intermittent error caused by strong radio interference may be detected unless any symptom (GPS reception error, etc.) occurs. Replace the AV control unit if the malfunction occurs constantly. Refer to AV-487, &quot;Removal and Installation&quot;.</td>
</tr>
</tbody>
</table>

Diagnosis Procedure

1. PERFORM THE SELF-DIAGNOSIS

1. Delete the "self-diagnosis" results of "MULTI AV". Turn ignition switch OFF.
2. Turn ignition switch ON. Perform the self-diagnosis again.
3. Check that the DTC is detected again.

Is any DTC detected?

YES  >> Replace AV control unit. Refer to AV-487, "Removal and Installation".

NO   >> An intermittent error caused by strong radio interference may be detected unless any symptom (GPS reception error, etc.) occurs.
U1207 AV CONTROL UNIT

DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1207</td>
<td>GPS RTC [U1207]</td>
<td>GPS malfunction is detected.</td>
<td>An intermittent error caused by strong radio interference may be detected unless any symptom (GPS reception error, etc.) occurs. Replace the AV control unit if the malfunction occurs constantly. Refer to AV-487, &quot;Removal and Installation&quot;.</td>
</tr>
</tbody>
</table>

Diagnosis Procedure

1. PERFORM THE SELF-DIAGNOSIS

1. Delete the "self-diagnosis" results of "MULTI AV". Turn ignition switch OFF.
2. Turn ignition switch ON. Perform the self-diagnosis again.
3. Check that the DTC is detected again.

Is any DTC detected?

YES >> Replace AV control unit. Refer to AV-487, "Removal and Installation".
NO >> An intermittent error caused by strong radio interference may be detected unless any symptom (GPS reception error, etc.) occurs.
## DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1216</td>
<td>CAN CONT [U1216]</td>
<td>AV control unit malfunction is detected.</td>
<td>Replace the AV control unit if the malfunction occurs constantly. Refer to AV-487, &quot;Removal and Installation&quot;.</td>
</tr>
</tbody>
</table>
### U1217 AV CONTROL UNIT

**< COMPONENT DIAGNOSIS > [BOSE W/ COLOR DISPLAY W/ NAVI]**

#### U1217 AV CONTROL UNIT

**DTC Logic**

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1217</td>
<td>BLUETOOTH MODULE [U1217]</td>
<td>AV control unit malfunction is detected.</td>
<td>Replace the AV control unit if the malfunction occurs constantly. Refer to AV-487, &quot;Removal and Installation&quot;.</td>
</tr>
</tbody>
</table>

*INFOID:0000000005523018*
U1218 AV CONTROL UNIT

< COMPONENT DIAGNOSIS >

[BOSE W/ COLOR DISPLAY W/ NAVI]

U1218 AV CONTROL UNIT

DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
</table>
| U1218 | HDD CONN [U1218] | AV control unit malfunction is detected. | • If the music box function has no malfunctions, then there is a possibility of the detection of a temporary malfunction.  
• Replace the AV control unit if the malfunction occurs constantly. Refer to AV-487, "Removal and Installation". |

Diagnosis Procedure

1. CHECK MUSIC BOX FUNCTION

Is music box function normal?

YES >> Malfunction may be detected intermittently.

NO  >> Replace AV control unit. Refer to AV-487, "Removal and Installation".

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U1219 AV CONTROL UNIT

DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
</table>
| U1219 | HDD READ [U1219]              | AV control unit malfunction is detected. | • If the music box function has no malfunctions, then there is a possibility of the detection of a temporary malfunction.  
• Replace the AV control unit if the malfunction occurs constantly. Refer to AV-487, "Removal and Installation". |

Diagnosis Procedure

1. CHECK MUSIC BOX FUNCTION

Is music box function normal?

YES  >> Malfunction may be detected intermittently.  
NO   >> Replace AV control unit. Refer to AV-487, "Removal and Installation".
U121A AV CONTROL UNIT

DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U121A</td>
<td>HDD WRITE [U121A]</td>
<td>AV control unit malfunction is detected.</td>
<td>• If the music box function has no malfunctions, then there is a possibility of the detection of a temporary malfunction. • Replace the AV control unit if the malfunction occurs constantly. Refer to AV-487, &quot;Removal and Installation&quot;.</td>
</tr>
</tbody>
</table>

Diagnosis Procedure

1. CHECK MUSIC BOX FUNCTION

Is music box function normal?

YES >> Malfunction may be detected intermittently.
NO >> Replace AV control unit. Refer to AV-487, "Removal and Installation".
**U121B AV CONTROL UNIT**

**DTC Logic**

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
</table>
| U121B | HDD COMM [U121B]               | AV control unit malfunction is detected. | • If the music box function has no malfunctions, then there is a possibility of the detection of a temporary malfunction.  
• Replace the AV control unit if the malfunction occurs constantly. Refer to AV-487, "Removal and Installation". |

**Diagnosis Procedure**

1. **CHECK MUSIC BOX FUNCTION**

Is music box function normal?

| YES  | >> Malfunction may be detected intermittently. |
| NO   | >> Replace AV control unit. Refer to AV-487, "Removal and Installation". |
U121C AV CONTROL UNIT

DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
</table>
| U121C | HDD ACCESS [U121C] | AV control unit malfunction is detected. | • If the music box function has no malfunctions, then there is a possibility of the detection of a temporary malfunction.  
• Replace the AV control unit if the malfunction occurs constantly. Refer to AV-487, "Removal and Installation". |

Diagnosis Procedure

1. CHECK MUSIC BOX FUNCTION

Is music box function normal?

YES  >> Malfunction may be detected intermittently.
NO   >> Replace AV control unit. Refer to AV-487, "Removal and Installation".
**U121D AV CONTROL UNIT**

< COMPONENT DIAGNOSIS >

**[BOSE W/ COLOR DISPLAY W/ NAVI]**

**U121D AV CONTROL UNIT**

**DTC Logic**

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
</table>
| U121D | DSP CONN [U121D] | AV control unit malfunction is detected. | • If a disc can be played, then there is a possibility of the detection of a temporary malfunction.  
• Replace the AV control unit if the malfunction occurs constantly. Refer to AV-487, "Removal and Installation". |

**Diagnosis Procedure**

1. **CHECK PLAYBACK OF A DISK (CD)**

Can a disk (CD) be played?

- **YES**  
  >> Malfunction may be detected intermittently.

- **NO**  
  >> Replace AV control unit. Refer to AV-487, "Removal and Installation".
DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
</table>
| U121E | DSP COMM [U121E]                | AV control unit malfunction is detected. | • If a disc can be played, then there is a possibility of the detection of a temporary malfunction.  
• Replace the AV control unit if the malfunction occurs constantly. Refer to AV-487, "Removal and Installation". |

Diagnosis Procedure

1. CHECK PLAYBACK OF A DISK (CD)

Can a disk (CD) be played?

YES  >> Malfunction may be detected intermittently.
NO   >> Replace AV control unit. Refer to AV-487, "Removal and Installation".
## DTC Detection Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1225</td>
<td>USB CONTROLLER [U1225]</td>
<td>USB connection malfunction is detected.</td>
<td>Check that the connection to the USB connector is normal.</td>
</tr>
</tbody>
</table>
U1227 AV CONTROL UNIT

DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
</table>
| U1227| DVD COMM [U1227]               | AV control unit malfunction is detected. | • If DVD can be played, then there is a possibility of the detection of a temporary malfunction.  
• Replace the AV control unit if the malfunction occurs constantly. Refer to AV-487, "Removal and Installation". |

Diagnosis Procedure

1. CHECK PLAYBACK OF A DISK (DVD)

Can a disc (DVD) be played?

YES  >> Malfunction may be detected intermittently.
NO   >> Replace AV control unit. Refer to AV-487, "Removal and Installation".
### U1228 AV CONTROL UNIT

#### COMPONENT DIAGNOSIS

### U1228 AV CONTROL UNIT

#### DTC Logic

**INFOID:0000000005523036**

## DTC DETECTION LOGIC

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1228</td>
<td>SUB CPU CONN [U1228]</td>
<td>AV control unit malfunction is detected.</td>
<td>Replace the AV control unit if the malfunction occurs constantly. Refer to AV-487, &quot;Removal and Installation&quot;.</td>
</tr>
</tbody>
</table>
U1229 AV CONTROL UNIT

DTC Logic

### DTC DETECTION LOGIC

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1229</td>
<td>iPod CERTIFICATION [U1229]</td>
<td>AV control unit malfunction is detected.</td>
<td>Replace the AV control unit if the malfunction occurs constantly. Refer to AV-487, &quot;Removal and Installation&quot;.</td>
</tr>
</tbody>
</table>

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DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Action to take</th>
</tr>
</thead>
<tbody>
<tr>
<td>U122A</td>
<td>CONFIG UNFINISH [U122A]</td>
<td>The writing of configuration data is incomplete.</td>
<td>Write configuration data with “MULTI AV” of CONSULT-III.</td>
</tr>
</tbody>
</table>

Diagnosis Procedure

1. PERFORM THE SELF-DIAGNOSIS

When U122A is detected, write configuration data with “MULTI AV” of CONSULT-III.

>> Write configuration data with “MULTI AV” of CONSULT-III. Refer to AV-348, "CONFIGURATION (AV CONTROL UNIT) : Special Repair Requirement".
**U122E AV CONTROL UNIT**

**DTC Logic**

**DTC DETECTION LOGIC**

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U122E</td>
<td>Built-in AUDIO conn [U122E]</td>
<td>AV control unit malfunction is detected.</td>
<td>Replace the AV control unit if the malfunction occurs constantly. Refer to AV-487, &quot;Removal and Installation&quot;.</td>
</tr>
</tbody>
</table>
U1232 STEERING ANGLE SENSOR

DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1232</td>
<td>ST ANGLE SEN CALIB [1232]</td>
<td>Predictive course line center position adjustment of the steering angle sensor is incomplete.</td>
<td>Adjust the predictive course line center position of the steering angle sensor.</td>
</tr>
</tbody>
</table>

Diagnosis Procedure

1. **ADJUST THE PREDICTIVE COURSE LINE CENTER POSITION OF THE STEERING ANGLE SENSOR**

   When U1232 is detected, adjust the predictive course line center position of the steering angle sensor.

   >> Adjusts the steering angle sensor neutral position on ABS actuator and electrical unit (control unit) side. Refer to BRC-8, "ADJUSTMENT OF STEERING ANGLE SENSOR NEUTRAL POSITION : Special Repair Requirement".
U1243 DISPLAY UNIT

< COMPONENT DIAGNOSIS >

U1243 DISPLAY UNIT [BOSE W/ COLOR DISPLAY W/ NAVI]

DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1243</td>
<td>FRONT DISP CONN [U1243]</td>
<td>When either one of the following items are detected:</td>
<td>• Display unit power supply and ground circuit.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• display unit power supply and ground circuit malfunction is detected.</td>
<td>• Communication circuit between AV control unit and display unit.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• communication circuit between AV control unit and display unit.</td>
<td></td>
</tr>
</tbody>
</table>

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-447, "Wiring Diagram".

1. CHECK DISPLAY UNIT POWER SUPPLY AND GROUND CIRCUIT

Check display unit power supply and ground circuit. Refer to AV-412, "DISPLAY UNIT : Diagnosis Procedure".

Is inspection result OK?

YES >> GO TO 2.

NO >> Repair malfunctioning parts.

2. CHECK CONTINUITY OF COMMUNICATION CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect display unit connector M142 and AV control unit connector M163.
3. Check continuity between display unit harness connector M142 (A) terminals 9, 10 and AV control unit harness connector M163 (B) terminals 45 and 61.

4. Check continuity between display unit harness connector M142 (A) terminals 9, 10 and ground.

Are continuity results as specified?

YES >> GO TO 3.

NO >> Repair harness or connector.

3. CHECK COMMUNICATION SIGNAL

1. Connect display unit connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check signal between display unit harness connector M142 terminal 9 and ground with an oscilloscope or CONSULT-III.

<table>
<thead>
<tr>
<th>(+)</th>
<th>Connector</th>
<th>Terminal</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M142</td>
<td>9</td>
<td>Ground</td>
</tr>
</tbody>
</table>

Are voltage readings as specified?
- YES >> GO TO 4.
- NO >> Replace AV control unit. Refer to AV-487, "Removal and Installation".

4. CHECK COMMUNICATION SIGNAL

Check signal between display unit harness connector M142 terminal 10 and ground with an oscilloscope or CONSULT-III.

<table>
<thead>
<tr>
<th>(+)</th>
<th>Connector</th>
<th>Terminal</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M142</td>
<td>10</td>
<td>Ground</td>
</tr>
</tbody>
</table>

Are voltage readings as specified?
- YES >> Inspection End.
- NO >> Replace display unit. Refer to AV-490, "Removal and Installation".
U1244 GPS ANTENNA

DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1244</td>
<td>GPS ANTENNA CONN [U1244]</td>
<td>GPS antenna connection malfunction is detected.</td>
<td>Check the connection of the GPS antenna connector.</td>
</tr>
</tbody>
</table>

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-447, "Wiring Diagram".

1. GPS ANTENNA CHECK
Inspect GPS antenna and antenna feeder for damage or poor connection.

   Is the GPS antenna and feeder clean and undamaged?
   YES >> GO TO 2.
   NO >> Repair or replace malfunctioning parts.

2. CHECK AV CONTROL UNIT VOLTAGE

   1. Turn ignition switch ON.
   2. Check voltage between AV control unit connector M165 terminal 105 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Voltage (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M165</td>
<td>105</td>
<td>Ground</td>
</tr>
</tbody>
</table>

   Is the voltage reading as specified?
   YES >> Replace GPS antenna. Refer to AV-501, "Removal and Installation".
   NO >> Replace AV control unit. Refer to AV-487, "Removal and Installation".
U1263 USB

< COMPONENT DIAGNOSIS >

[BOSE W/ COLOR DISPLAY W/ NAVI]

U1263 USB

DTC Logic

Diagnosis Procedure

1. CHECK USB HARNESS

Visually check USB harness.

Is the inspection result normal?

YES  >> Replace AV control unit. Refer to AV-487, "Removal and Installation".

NO   >> Replace USB harness.

---

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1263 USB OVERCURRENT [U1263]</td>
<td>Detection of over current in USB interface.</td>
<td>Check USB harness between the AV control unit and USB interface.</td>
<td></td>
</tr>
</tbody>
</table>

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U1300 AV COMM CIRCUIT

Description

U1300 is indicated when malfunction occurs in communication signal of multi AV system. Indicated simultaneously, without fail, with the malfunction of control units connected to AV control unit with communication line. Determine the possible malfunction cause from the table below.

SELF-DIAGNOSIS RESULTS DISPLAY ITEM

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1300</td>
<td>• AV COMM CIRCUIT [U1300]</td>
<td>When either one of the following items are detected:</td>
<td>• Multifunction switch power supply and ground circuits are malfunctioning.</td>
</tr>
<tr>
<td></td>
<td>• SWITCH CONN [U1240]</td>
<td>• AV communication circuits between AV control unit and multifunction switch are malfunctioning.</td>
<td>• AV communication circuits between AV control unit and multifunction switch.</td>
</tr>
<tr>
<td>U1240</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1310</td>
<td>CONTROL UNIT (AV) [U1310]</td>
<td>An initial diagnosis error is detected in AV communication circuit.</td>
<td>Replace AV control unit. If the malfunction occurs constantly. Refer to AV-487, &quot;Removal and Installation&quot;.</td>
</tr>
</tbody>
</table>
POWER SUPPLY AND GROUND CIRCUIT

AV CONTROL UNIT

AV CONTROL UNIT: Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-447, "Wiring Diagram".

1. CHECK FUSES

Check that the following AV control unit fuses are not blown.

<table>
<thead>
<tr>
<th>Unit</th>
<th>Terminals</th>
<th>Signal name</th>
<th>Fuse No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>AV control unit</td>
<td>19</td>
<td>Battery power</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>Ignition switch ACC or ON</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>52</td>
<td>Ignition switch ON or START</td>
<td>3</td>
</tr>
</tbody>
</table>

Are the fuses OK?

YES >> GO TO 2.

NO >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse.

2. POWER SUPPLY CIRCUIT CHECK

1. Disconnect AV control unit connectors M160 and M163.
2. Check voltage between the AV control unit connectors M160 and M163 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>OFF</th>
<th>ACC</th>
<th>ON</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M160</td>
<td>7</td>
<td>Ground</td>
<td>0V</td>
<td>Battery voltage</td>
</tr>
<tr>
<td></td>
<td>19</td>
<td>Ground</td>
<td></td>
<td>Battery voltage</td>
</tr>
<tr>
<td>M163</td>
<td>52</td>
<td>Ground</td>
<td>0V</td>
<td>Battery voltage</td>
</tr>
</tbody>
</table>

Are the voltage results as specified?

YES >> GO TO 3.

NO >> • Check connector housings for disconnected or loose terminals.
      • Repair harness or connector.

3. GROUND CIRCUIT CHECK
< COMPONENT DIAGNOSIS >

1. Turn ignition switch OFF.
2. Check continuity between AV control unit harness connector M160 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M160</td>
<td>20</td>
<td>Ground</td>
</tr>
</tbody>
</table>

Are the continuity results as specified?
YES >> Inspection End.
NO >> Repair AV control unit ground.

DISPLAY UNIT

DISPLAY UNIT : Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-447, "Wiring Diagram".

1. CHECK FUSES

Check that the following display unit fuses are not blown.

<table>
<thead>
<tr>
<th>Unit</th>
<th>Terminals</th>
<th>Signal name</th>
<th>Fuse No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display Unit</td>
<td>11</td>
<td>Battery power</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>23</td>
<td>Ignition switch ACC or ON</td>
<td>17</td>
</tr>
</tbody>
</table>

Are the fuses OK?
YES >> GO TO 2.
NO >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse.

2. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch to ACC.
2. Check voltage between display unit harness connector M142 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>OFF</th>
<th>ACC</th>
<th>ON</th>
</tr>
</thead>
<tbody>
<tr>
<td>M142</td>
<td>11</td>
<td>Ground</td>
<td>Battery voltage</td>
<td>Battery voltage</td>
</tr>
<tr>
<td></td>
<td>23</td>
<td>0V</td>
<td>Battery voltage</td>
<td>Battery voltage</td>
</tr>
</tbody>
</table>

Does specified voltage exist?
YES >> GO TO 3.
NO >> • Check connector housings for disconnected or loose terminals.
  • Repair harness or connector.

3. CHECK GROUND CIRCUIT
POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

1. Turn ignition switch OFF.
2. Disconnect display unit connector.
3. Check continuity between display unit harness connector M142 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M142</td>
<td>12</td>
<td>Ground</td>
</tr>
</tbody>
</table>

Does continuity exist?
- YES >> Inspection End.
- NO >> Repair harness or connector.

A/C AND AV SWITCH ASSEMBLY

A/C AND AV SWITCH ASSEMBLY : Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-447, "Wiring Diagram".

1. CHECK FUSE

Check that the A/C and AV switch assembly fuse is not blown.

<table>
<thead>
<tr>
<th>Unit</th>
<th>Terminal</th>
<th>Signal name</th>
<th>Fuse No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A/C and AV switch assembly</td>
<td>3</td>
<td>Ignition switch ACC or ON</td>
<td>17</td>
</tr>
</tbody>
</table>

Is the fuse OK?
- YES >> GO TO 2.
- NO >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse.

2. POWER SUPPLY CIRCUIT CHECK

1. Disconnect A/C and AV switch assembly connector M98.
2. Check voltage between the A/C and AV switch assembly connector M98 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>OFF</th>
<th>ACC</th>
<th>ON</th>
</tr>
</thead>
<tbody>
<tr>
<td>M98</td>
<td>3</td>
<td>Ground</td>
<td>0V</td>
<td>Battery voltage</td>
</tr>
</tbody>
</table>

Are the voltage results as specified?
- YES >> GO TO 3.
- NO >> • Check connector housings for disconnected or loose terminals.
  • Repair harness or connector.

3. GROUND CIRCUIT CHECK

1. Turn ignition switch OFF.
2. Check continuity between A/C and AV switch assembly harness connector M98 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M98</td>
<td>1</td>
<td>Ground</td>
</tr>
</tbody>
</table>

Are the continuity results as specified?
- YES >> Inspection End.
- NO >> Repair A/C and AV switch assembly ground.
POWER SUPPLY AND GROUND CIRCUIT
< COMPONENT DIAGNOSIS >
[BOSE W/ COLOR DISPLAY W/ NAVI]

BOSE SPEAKER AMP

BOSE SPEAKER AMP : Diagnosis Procedure

INFOID:0000000005523054

Regarding Wiring Diagram information, refer to AV-447, "Wiring Diagram".

1. CHECK FUSE

Check that the BOSE speaker amp. fuse is not blown.

<table>
<thead>
<tr>
<th>Unit</th>
<th>Terminal</th>
<th>Signal name</th>
<th>Fuse No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOSE speaker amp.</td>
<td>11</td>
<td>Battery power</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td></td>
<td>25</td>
</tr>
</tbody>
</table>

Are the fuses OK?
YES >> GO TO 2.
NO >> Be sure to eliminate cause of malfunction before installing new fuse.

2. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BOSE speaker amp. connector.
3. Check voltage between BOSE speaker amp. harness connector B110 terminal 10, 11 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Voltage (approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>B110</td>
<td>10</td>
<td>Ground Battery voltage</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td></td>
</tr>
</tbody>
</table>

Is battery voltage present?
YES >> GO TO 3.
NO >> Check harness between BOSE speaker amp. and fuse.

3. CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BOSE speaker amp. connector.
3. Check continuity between BOSE speaker amp. harness connector B110 terminal 7,12 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>B110</td>
<td>7</td>
<td>Ground Yes</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>

Does continuity exist?
YES >> Inspection End.
NO >> Repair harness or connector.

REAR VIEW CAMERA

REAR VIEW CAMERA : Diagnosis Procedure

INFOID:0000000005523055

Regarding Wiring Diagram information, refer to AV-447, "Wiring Diagram".

Revision: November 2009

2010 Maxima
1. **CHECK POWER SUPPLY CIRCUIT (REAR VIEW CAMERA SIDE)**

1. Turn ignition switch ON.
2. Shift transmission into Reverse.
3. Check voltage between rear view camera harness connector T101 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Transmission position</th>
<th>Value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>T101</td>
<td>1</td>
<td>Ground</td>
<td>Reverse</td>
</tr>
</tbody>
</table>

Is voltage reading approximately 6 volts?

- **YES** >> GO TO 4.
- **NO** >> GO TO 2.

2. **CHECK POWER SUPPLY CIRCUIT (CONTINUITY)**

1. Turn ignition switch OFF.
2. Disconnect rear view camera and AV control unit connectors.
3. Check continuity between rear view camera harness connector T101 (A) terminal 1 and AV control unit harness connector M164 (B) terminal 68.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>T101</td>
<td>1</td>
<td>M164</td>
</tr>
</tbody>
</table>

4. Check continuity between rear view camera harness connector T101 (A) terminal 1 and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>T101</td>
<td>1</td>
<td>Ground</td>
</tr>
</tbody>
</table>

Are continuity test results as specified?

- **YES** >> GO TO 3.
- **NO** >> Repair harness or connector.

3. **CHECK POWER SUPPLY CIRCUIT (AV CONTROL UNIT SIDE)**

1. Connect rear view camera control unit harness connector.
2. Turn ignition switch ON.
3. Check voltage between AV control unit harness connector M164 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Transmission position</th>
<th>Value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M164</td>
<td>68</td>
<td>Ground</td>
<td>Reverse</td>
</tr>
</tbody>
</table>

Is voltage reading approximately 6 volts?

- **YES** >> Inspection End.
- **NO** >> Replace AV control unit. Refer to AV-487, "Removal and Installation".

4. **CHECK GROUND CIRCUIT**
< COMPONENT DIAGNOSIS >

1. Turn ignition switch OFF.
2. Disconnect rear view camera harness connector.
3. Check continuity between rear view camera harness connector T101 terminal 2 and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>T101</td>
<td>2</td>
<td>Ground</td>
</tr>
</tbody>
</table>

Does continuity exist?
- YES >> Inspection End.
- NO  >> Repair harness or connector.

MICROPHONE

MICROPHONE : Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-447, "Wiring Diagram".

1. CHECK POWER SUPPLY CIRCUIT

Check voltage between microphone harness connector R7 terminal 4 and ground.

<table>
<thead>
<tr>
<th>(+) Connector</th>
<th>Terminal</th>
<th>(-) Value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>R7</td>
<td>4</td>
<td>Ground 5V</td>
</tr>
</tbody>
</table>

Is approximately 5V present?
- YES >> GO TO 3.
- NO  >> GO TO 2.

2. CHECK POWER SUPPLY CIRCUIT (CONTINUITY)

1. Turn ignition switch OFF.
2. Disconnect microphone and AV control unit harness connectors.
3. Check continuity between microphone harness connector R7 (A) terminal 4 and AV control unit harness connector M163 (B) terminal 44.

<table>
<thead>
<tr>
<th>A Connector</th>
<th>Terminal</th>
<th>B Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>R7</td>
<td>4</td>
<td>M163</td>
<td>44</td>
<td>Yes</td>
</tr>
</tbody>
</table>

4. Check continuity between microphone harness connector R7 (A) terminal 4 and ground.

<table>
<thead>
<tr>
<th>A Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>R7</td>
<td>4</td>
<td>Ground</td>
</tr>
</tbody>
</table>

Are the continuity test results as specified?
- YES >> Replace the AV control unit. Refer to AV-487, "Removal and Installation".
- NO  >> Repair harness or connector.

3. CHECK GROUND CIRCUIT
1. Turn ignition switch OFF.
2. Disconnect microphone harness connector R7 and AV control unit harness connector M163.
3. Check continuity between microphone harness connector R7 (A) terminal 2 and AV control unit harness connector M163 (B) terminal 43.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>R7</td>
<td>2</td>
<td>M163</td>
<td>43</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Does continuity exist?
YES  >> Inspection End.
NO   >> Repair harness or connector.
RGB DIGITAL IMAGE SIGNAL CIRCUIT

Description

Transmit the image displayed with AV control unit with RGB digital image signal to the display unit.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-487, "Removal and Installation".

1. CHECK CONTINUITY RGB DIGITAL IMAGE SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect display unit connector M151 and AV control unit connector M161.
3. Check continuity between display unit harness connector M151 (A) terminals 27, 28 and AV control unit harness connector M161 (B) terminals 23 and 24.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>M151</td>
<td>27</td>
<td>M161</td>
</tr>
<tr>
<td></td>
<td>28</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

4. Check continuity between display unit harness connector M151 (A) terminals 27, 28 and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Ground</td>
</tr>
<tr>
<td>M151</td>
<td>27</td>
<td></td>
</tr>
<tr>
<td></td>
<td>28</td>
<td>No</td>
</tr>
</tbody>
</table>

Are continuity results as specified?

YES >> GO TO 2.
NO >> Repair harness or connector.

2. CHECK RGB DIGITAL IMAGE SIGNAL

1. Connect display unit connector M151 and AV control unit connector M161.
2. Turn ignition switch ON.
3. Check voltage between display unit harness connector M151 terminals 27, 28 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Condition</th>
<th>Voltage (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Ground</td>
<td>Not connected connector</td>
</tr>
<tr>
<td>M151</td>
<td>27</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>28</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Are voltage readings as specified?

YES >> Replace display unit. Refer to AV-490, "Removal and Installation".
NO >> Replace AV control unit. Refer to AV-487, "Removal and Installation".

Revision: November 2009

AV-418 2010 Maxima
COMPOSITE IMAGE SIGNAL CIRCUIT

Description

AV control unit transmits the playback DVD image signal and AUX image signal to the display unit.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-447, "Wiring Diagram".

1. CHECK CONTINUITY COMPOSITE IMAGE SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M163 and display unit connector M142.
3. Check continuity between AV control unit connector M163 (A) terminal 40 and display unit connector M142 (B) terminal 18.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>M163</td>
<td>40</td>
<td>M142</td>
</tr>
</tbody>
</table>

4. Check continuity between AV control unit connector M163 (A) terminal 40 and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
</tr>
<tr>
<td>M163</td>
<td>40</td>
</tr>
<tr>
<td>Ground</td>
<td>No</td>
</tr>
</tbody>
</table>

Are continuity results as specified?

YES >> GO TO 2.
NO >> Repair harness or connector.

2. CHECK AUX COMPOSITE SIGNAL

1. Connect AV control unit connector M163 and display unit connector M142.
2. Turn ignition switch ON.
3. Check signal between AV control unit harness connector M163 terminal 40 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>At DVD image is displayed!</td>
<td><img src="AV-419" alt="Reference signal" /></td>
</tr>
<tr>
<td>M163</td>
<td>40</td>
<td>Ground</td>
<td><img src="AV-419" alt="Reference signal" /></td>
</tr>
</tbody>
</table>

Are voltage readings as specified?

YES >> Replace display unit. Refer to AV-490, "Removal and Installation".
NO >> Replace AV control unit. Refer to AV-487, "Removal and Installation".
AUX IMAGE SIGNAL CIRCUIT

Description

- Transmits the image signal of AUX device from auxiliary input jacks to AV control unit.
- AV control unit transmits the image signal that is input to the display unit.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-447, "Wiring Diagram".

1. CHECK CONTINUITY AUX IMAGE SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect auxiliary input jack connector M209 and AV control unit connector M164.
3. Check continuity between auxiliary input jack harness connector M209 (A) terminal 8 and AV control unit harness connector M164 (B) terminal 76.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>M209</td>
<td>8</td>
<td>M164</td>
</tr>
</tbody>
</table>

4. Check continuity between auxiliary input jack harness connector M209 (A) terminal 8 and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
</tr>
<tr>
<td>M209</td>
<td>8</td>
</tr>
</tbody>
</table>

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair harness or connector.

2. CHECK AUX IMAGE SIGNAL

1. Connect auxiliary input jack connector M209 and AV control unit connector M164.
2. Turn ignition switch ON.
3. Check signal between auxiliary input jack connector M209 terminal 8 and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>M209</td>
<td>8</td>
<td>Ground</td>
<td>Receive audio signal</td>
</tr>
</tbody>
</table>

Is the inspection result normal?

YES >> Replace AV control unit. Refer to AV-487, "Removal and Installation".
NO >> Check that there is no malfunction in the external device.
DISK EJECT SIGNAL CIRCUIT

Description

The eject signal is output to AV control unit when the eject switch of A/C and AV switch assembly is pressed.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-447, "Wiring Diagram".

1. CHECK CONTINUITY DISK EJECT SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect A/C and AV switch assembly connector M98 and AV control unit connector M164.
3. Check continuity between A/C and AV switch assembly connector M98 (A) terminal 14 and AV control unit harness connector M164 (B) terminal 82.

4. Check continuity between A/C and AV switch assembly connector M98 (A) terminal 14 and ground.

<table>
<thead>
<tr>
<th>Connector Terminal</th>
<th>Connector Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M98 14</td>
<td>M164 82</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Are continuity results as specified?

YES  >> GO TO 2.
NO   >> Repair harness or connector.

2. CHECK AV CONTROL UNIT VOLTAGE

1. Connect A/C and AV switch assembly connector M98 and AV control unit connector M164.
2. Turn ignition switch ON.
3. Check voltage between AV control unit harness connector M164 terminal 82 and ground.

<table>
<thead>
<tr>
<th>(+) Connector Terminal</th>
<th>(-) Condition</th>
<th>Voltage (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M164 82</td>
<td>Pressing the eject switch</td>
<td>0 V</td>
</tr>
<tr>
<td></td>
<td>Except for above</td>
<td>5.0 V</td>
</tr>
</tbody>
</table>

Are voltage readings as specified?

YES  >> Replace A/C and AV switch assembly. Refer to AV-489, "Removal and Installation".
NO   >> Replace AV control unit. Refer to AV-487, "Removal and Installation".
Voice signals are transmitted from the microphone to the AV control unit using the microphone signal circuits.

**Diagnosis Procedure**

Regarding Wiring Diagram information, refer to AV-447, "Wiring Diagram".

1. **CHECK HARNESS BETWEEN AV CONTROL UNIT AND MICROPHONE**
   1. Turn ignition switch OFF.
   2. Disconnect AV control unit connector and microphone connector.
   3. Check continuity between AV control unit harness connector M163 (A) and microphone harness connector R7 (B).

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>M163</td>
<td>59</td>
<td>R7</td>
</tr>
<tr>
<td></td>
<td>43</td>
<td></td>
</tr>
<tr>
<td></td>
<td>44</td>
<td></td>
</tr>
</tbody>
</table>

4. Check continuity between AV control unit harness connector M163 (A) and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td></td>
</tr>
<tr>
<td>M163</td>
<td>44</td>
<td></td>
</tr>
<tr>
<td></td>
<td>43</td>
<td>Ground</td>
</tr>
<tr>
<td></td>
<td>59</td>
<td></td>
</tr>
</tbody>
</table>

Are the continuity test results as specified?

YES  >> GO TO 2.
NO   >> Repair harness or connector.

2. **CHECK MICROPHONE POWER SUPPLY**
   1. Connect AV control unit connector and microphone connector.
   2. Turn ignition switch ON.
   3. Check voltage between microphone harness connector R7 terminal 4 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Voltage (approx)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Ground</td>
</tr>
<tr>
<td>R7</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

Is voltage reading approx. 5 volts?

YES  >> GO TO 3.
NO   >> Replace AV control unit. Refer to AV-487, "Removal and Installation".

3. **CHECK MICROPHONE SIGNAL**
Check signal between AV control unit harness connector M163 terminals 43 and 59.

<table>
<thead>
<tr>
<th>Connector</th>
<th>(+) Terminal</th>
<th>(-) Terminal</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>M163</td>
<td>59</td>
<td>43</td>
<td>While speaking into MIC</td>
</tr>
</tbody>
</table>

**Are voltage readings as specified?**

- **YES**  >> Replace AV control unit. Refer to AV-487, "Removal and Installation".
- **NO**    >> Replace microphone. Refer to AV-507, "Removal and Installation".
AMP ON SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS > [BOSE W/ COLOR DISPLAY W/ NAVI]

AMP ON SIGNAL CIRCUIT

Description

When the audio system is turned on, a voltage signal is supplied from the AV control unit to the BOSE speaker amp. When this signal is received, the BOSE speaker amp. will turn on.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-447, "Wiring Diagram".

1. CHECK AMP ON SIGNAL (BOSE SPEAKER AMP)

1. Turn audio system ON.
2. Check voltage between BOSE speaker amp. harness connector B109 terminal 20 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>Terminal</th>
<th>(-)</th>
<th>Voltage (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>B109</td>
<td>20</td>
<td>Ground</td>
<td>Battery voltage</td>
</tr>
</tbody>
</table>

Is inspection result normal?
YES >> Inspection End.
NO  >> GO TO 2.

2. CHECK AMP ON SIGNAL (AV CONTROL UNIT)

Check voltage between AV control unit harness connector M160 terminal 1 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>Terminal</th>
<th>(-)</th>
<th>Voltage (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M160</td>
<td>1</td>
<td>Ground</td>
<td>Battery voltage</td>
</tr>
</tbody>
</table>

Is inspection result normal?
YES >> Repair harness or connector.
NO  >> Replace AV control unit. Refer to AV-487, "Removal and Installation".
Description

The AV control unit sends audio signals to the BOSE speaker amp. The BOSE speaker amp. amplifies the audio signals before sending them to the front door speakers using the audio signal circuits.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-447, "Wiring Diagram".

1. HARNESS CHECK

1. Disconnect BOSE speaker amp. connector B109 and suspect speaker connector.
2. Check continuity between BOSE speaker amp. harness connector B109 (A) and suspect speaker harness connector (B).

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>B109</td>
<td>18</td>
<td>D3</td>
</tr>
<tr>
<td></td>
<td>19</td>
<td></td>
</tr>
<tr>
<td></td>
<td>31</td>
<td>D103</td>
</tr>
<tr>
<td></td>
<td>32</td>
<td></td>
</tr>
</tbody>
</table>

3. Check continuity between BOSE speaker amp. harness connector B109 (A) and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
</tr>
<tr>
<td>B109</td>
<td>Ground</td>
</tr>
<tr>
<td></td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>32</td>
</tr>
</tbody>
</table>

Are continuity test results as specified?

YES  >> GO TO 2.
NO   >> • Check connector housings for disconnected or loose terminals.
      • Repair harness or connector.

2. FRONT DOOR SPEAKER SIGNAL CHECK
FRONT DOOR SPEAKER

< COMPONENT DIAGNOSIS >

[BOSE W/ COLOR DISPLAY W/ NAVI]

1. Connect BOSE speaker amp. connector B109 and suspect speaker connector.
2. Turn ignition switch to ACC.
4. Check the signal between BOSE speaker amp. harness connector B109 terminals with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>B109</td>
<td>18</td>
<td>(+)</td>
<td>Receive audio signal</td>
</tr>
<tr>
<td></td>
<td>19</td>
<td>(-)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>31</td>
<td>(V)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>32</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Is audio signal voltage as specified?
YES >> Replace suspect speaker. Refer to AV-496, "Removal and Installation".
NO >> GO TO 3.

3. HARNESS CHECK

1. Disconnect AV control unit connector M160 and BOSE speaker amp. connector B109.
2. Check continuity between AV control unit harness connector M160 (A) and BOSE speaker amp. harness connector B109 (B).

<table>
<thead>
<tr>
<th>A</th>
<th>Terminal</th>
<th>B</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M160</td>
<td>2</td>
<td>B109</td>
<td>35</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td></td>
<td>36</td>
<td></td>
</tr>
<tr>
<td></td>
<td>11</td>
<td></td>
<td>33</td>
<td></td>
</tr>
<tr>
<td></td>
<td>12</td>
<td></td>
<td>34</td>
<td></td>
</tr>
</tbody>
</table>

3. Check continuity between AV control unit harness connector M160 (A) and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>Terminal</th>
<th>—</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M160</td>
<td>2</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>11</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>Ground</td>
<td></td>
</tr>
</tbody>
</table>

Are continuity test results as specified?
YES >> GO TO 4.
NO >> • Check connector housings for disconnected or loose terminals.
   • Repair harness or connector.

4. FRONT DOOR SPEAKER SIGNAL CHECK

Revision: November 2009
AV-426 2010 Maxima
1. Connect AV control unit connector and BOSE speaker amp. connector.
2. Turn ignition switch ACC.
4. Check the signal between AV control unit harness connector terminals with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminals</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>M160</td>
<td>2 3</td>
<td>Receive audio signal</td>
<td>(V)</td>
</tr>
<tr>
<td></td>
<td>11 12</td>
<td></td>
<td>1 ms</td>
</tr>
</tbody>
</table>

Are the audio signal voltage readings as specified?

YES >> Replace BOSE speaker amp. Refer to AV-499, "Removal and Installation".

NO >> Replace AV control unit. Refer to AV-487, "Removal and Installation".
Description

The AV control unit sends audio signals to the BOSE speaker amp. The BOSE speaker amp. amplifies the audio signals before sending them to the tweeters using the audio signal circuits.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-447, "Wiring Diagram".

1. HARNESS CHECK

1. Disconnect BOSE speaker amp. connector B110 and suspect tweeter connector.
2. Check continuity between BOSE speaker amp. harness connector B110 (A) and suspect tweeter harness connector (B).

<table>
<thead>
<tr>
<th>A Connector</th>
<th>Terminal</th>
<th>B Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>B110</td>
<td>1</td>
<td>M51</td>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>M52</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td></td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

3. Check continuity between BOSE speaker amp. harness connector B110 (A) and ground.

<table>
<thead>
<tr>
<th>A Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>B110</td>
<td>1</td>
<td>Ground</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

Are continuity test results as specified?

YES >> GO TO 2.
NO >> * Check connector housings for disconnected or loose terminals.
    * Repair harness or connector.

2. TWEETER SIGNAL CHECK
1. Connect BOSE speaker amp. connector B110 and suspect tweeter connector.
2. Turn ignition switch to ACC.
4. Check the signal between BOSE speaker amp. harness connector B110 terminals with CONSULT-III or oscilloscope.

Are the audio signal voltage readings as specified?
YES >> Replace suspect tweeter. Refer to AV-494, "Removal and Installation".
NO >> GO TO 3.

3. HARNESS CHECK

1. Disconnect AV control unit connector M160 and BOSE speaker amp. connector B109.
2. Check continuity between AV control unit harness connector M160 (A) and BOSE speaker amp. harness connector B109 (B).

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M160</td>
<td>2</td>
<td>B109</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td></td>
<td>36</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td></td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td></td>
<td>34</td>
</tr>
</tbody>
</table>

3. Check continuity between AV control unit harness connector M160 (A) and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>A</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M160</td>
<td>2</td>
<td></td>
<td>Ground</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>12</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Are continuity test results as specified?
YES >> GO TO 4.
NO >> • Check connector housings for disconnected or loose terminals.
      • Repair harness or connector.

4. TWEETER SIGNAL CHECK
1. Connect AV control unit connector and BOSE speaker amp. connector.
2. Turn ignition switch ACC.
4. Check the signal between AV control unit harness connector terminals with CONSULT-III or oscilloscope.

Are the audio signal voltage readings as specified?

YES >> Replace BOSE speaker amp. Refer to AV-499, "Removal and Installation".

NO >> Replace AV control unit. Refer to AV-487, "Removal and Installation".
Description

The AV control unit sends audio signals to the BOSE speaker amp. The BOSE speaker amp. amplifies the audio signals before sending them to the center speaker using the audio signal circuits.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-447, "Wiring Diagram".

1. HARNESS CHECK

1. Disconnect BOSE speaker amp. connector B109 and center speaker connector M130.
2. Check continuity between BOSE speaker amp. harness connector B109 (A) and center speaker harness connector M130 (B).

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>B109</td>
<td>29</td>
<td>M130</td>
</tr>
<tr>
<td>30</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

3. Check continuity between BOSE speaker amp. harness connector B109 (A) and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>—</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Ground</td>
</tr>
<tr>
<td>B109</td>
<td>29</td>
<td>No</td>
</tr>
<tr>
<td>30</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Are continuity test results as specified?
YES >> GO TO 2.
NO >> • Check connector housings for disconnected or loose terminals.
• Repair harness or connector.

2. CENTER SPEAKER SIGNAL CHECK

1. Connect BOSE speaker amp. connector B109 and center speaker connector.
2. Turn ignition switch to ACC.
4. Check the signal between BOSE speaker amp. harness connector B109 terminals with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminals</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>B109</td>
<td>(+) 29 (+) 30</td>
<td>Receive audio signal</td>
<td>(V)</td>
</tr>
</tbody>
</table>

Is the audio signal voltage reading as specified?
CENTER SPEAKER

< COMPONENT DIAGNOSIS >

[BOSE W/ COLOR DISPLAY W/ NAVI]

YES >> Replace center speaker. Refer to AV-495, "Removal and Installation".

NO >> GO TO 3.

3. HARNESS CHECK

1. Disconnect AV control unit connector M160 and BOSE speaker amp. connector B109.
2. Check continuity between AV control unit harness connector M160 (A) and BOSE speaker amp. harness connector B109 (B).

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Connector</th>
<th>Terminal</th>
</tr>
</thead>
<tbody>
<tr>
<td>M160</td>
<td>2</td>
<td>B109</td>
<td>35</td>
</tr>
<tr>
<td>M160</td>
<td>3</td>
<td>B109</td>
<td>36</td>
</tr>
<tr>
<td>M160</td>
<td>11</td>
<td>B109</td>
<td>33</td>
</tr>
<tr>
<td>M160</td>
<td>12</td>
<td>B109</td>
<td>34</td>
</tr>
</tbody>
</table>

3. Check continuity between AV control unit harness connector M160 (A) and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M160</td>
<td>2</td>
<td>—</td>
</tr>
<tr>
<td>M160</td>
<td>3</td>
<td>Ground</td>
</tr>
<tr>
<td>M160</td>
<td>11</td>
<td>—</td>
</tr>
<tr>
<td>M160</td>
<td>12</td>
<td>—</td>
</tr>
</tbody>
</table>

Are continuity test results as specified?

YES >> GO TO 4.

NO >> • Check connector housings for disconnected or loose terminals.
    • Repair harness or connector.

4. CENTER SPEAKER SIGNAL CHECK

1. Connect AV control unit connector and BOSE speaker amp. connector.
2. Turn ignition switch ACC.
4. Check the signal between AV control unit harness connector terminals with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminals</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>M160</td>
<td>2 (+) 3 (-)</td>
<td>Receive audio signal</td>
<td><img src="image" alt="Signal waveform" /></td>
</tr>
</tbody>
</table>

Are the audio signal voltage readings as specified?

YES >> Replace BOSE speaker amp. Refer to AV-499, "Removal and Installation".

NO >> Replace AV control unit. Refer to AV-487, "Removal and Installation".

Revision: November 2009

AV-432
2010 Maxima
REAR DOOR SPEAKER

< COMPONENT DIAGNOSIS >

[BOSE W/ COLOR DISPLAY W/ NAVI]

Description

The AV control unit sends audio signals to the BOSE speaker amp. The BOSE speaker amp. amplifies the audio signals before sending them to the rear door speakers using the audio signal circuits.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-447, "Wiring Diagram".

1. HARNESS CHECK

1. Disconnect BOSE speaker amp. connectors B109, B110 and suspect speaker connector.
2. Check continuity between BOSE speaker amp. harness connectors B109 (A) and B110 (B) and suspect speaker harness connector (C).

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: B109</td>
<td>15</td>
<td>C: D202</td>
<td>2</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>28</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>B: B110</td>
<td>9</td>
<td>C: D302</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>14</td>
<td></td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

3. Check continuity between BOSE speaker amp. harness connectors B109 (A) and B110 (B) and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: B109</td>
<td>15</td>
<td>Ground</td>
</tr>
<tr>
<td></td>
<td>28</td>
<td></td>
</tr>
<tr>
<td>B: B110</td>
<td>9</td>
<td>Ground</td>
</tr>
<tr>
<td></td>
<td>14</td>
<td></td>
</tr>
</tbody>
</table>

Are the continuity test results as specified?

YES  >> GO TO 2.
NO   >> • Check connector housings for disconnected or loose terminals.
      • Repair harness or connector.

2. REAR DOOR SPEAKER SIGNAL CHECK
< COMPONENT DIAGNOSIS >

**REAR DOOR SPEAKER**

1. Connect BOSE speaker amp. connectors and suspect speaker connector.
2. Turn ignition switch to ACC.
4. Check the signal between BOSE speaker amp. harness connectors B109 (A) and B110 (B) terminals with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminals</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: B109</td>
<td>28 15</td>
<td>Receive audio signal</td>
<td>(V)</td>
</tr>
<tr>
<td>B: B110</td>
<td>14 9</td>
<td>See graph SK020177E</td>
<td></td>
</tr>
</tbody>
</table>

Are audio signal voltage readings as specified?

**YES** >> Replace suspect speaker. Refer to AV-497, "Removal and Installation".

**NO** >> GO TO 3.

**3. HARNESS CHECK**

1. Disconnect AV control unit connector M160 and BOSE speaker amp. connector B109.
2. Check continuity between AV control unit harness connector M160 (A) and BOSE speaker amp. harness connector B109 (B).

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>M160</td>
<td>4</td>
<td>B109</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>13</td>
<td></td>
</tr>
<tr>
<td></td>
<td>14</td>
<td></td>
</tr>
</tbody>
</table>

3. Check continuity between AV control unit harness connector M160 (A) and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>Ground</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td></td>
</tr>
<tr>
<td>M160</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>13</td>
<td></td>
</tr>
<tr>
<td></td>
<td>14</td>
<td></td>
</tr>
</tbody>
</table>

Are the continuity test results as specified?

**YES** >> GO TO 4.

**NO** >> • Check connector housings for disconnected or loose terminals.
• Repair harness or connector.

**4. REAR DOOR SPEAKER SIGNAL CHECK**
2. Turn ignition switch to ACC.
4. Check the signal between AV control unit harness connector terminals with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminals</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>M160</td>
<td>4 5</td>
<td>Receive audio signal</td>
<td>(V)</td>
</tr>
<tr>
<td></td>
<td>13 14</td>
<td></td>
<td>(-1, 1 ms)</td>
</tr>
</tbody>
</table>

Is the audio signal voltage reading as specified?

YES >> Replace BOSE speaker amp. Refer to AV-499, “Removal and Installation”.
NO >> Replace AV control unit. Refer to AV-487, “Removal and Installation”.
Description

The AV control unit sends audio signals to the BOSE speaker amp. The BOSE speaker amp. amplifies the audio signals before sending them to the subwoofers using the audio signal circuits.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-447, "Wiring Diagram".

1. HARNESS CHECK

1. Disconnect BOSE speaker amp. connector B110 and suspect rear subwoofer connector.
2. Check continuity between BOSE speaker amp. harness connector B110 (A) and suspect rear subwoofer harness connector (B).

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>B110</td>
<td>13</td>
<td>B106</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>B107</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

3. Check continuity between BOSE speaker amp. harness connector B110 (A) and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
</tr>
<tr>
<td>B110</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>6</td>
</tr>
</tbody>
</table>

Are the continuity test results as specified?

YES  >> GO TO 2.
NO   >> • Check connector housings for disconnected or loose terminals.
      • Repair harness or connector.

2. REAR SUBWOOFER SIGNAL CHECK
1. Connect BOSE speaker amp. connector B110 and suspect rear subwoofer connector.
2. Turn ignition switch to ACC.
4. Check the signal between BOSE speaker amp. harness connector B110 terminals with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>Terminal</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>(+)</td>
<td>Receive audio signal</td>
</tr>
<tr>
<td>8</td>
<td>(-)</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Is the audio signal voltage as specified?
YES  >> Replace suspect rear subwoofer. Refer to AV-498, "Removal and Installation".
NO   >> GO TO 3.

3. HARNESS CHECK

1. Disconnect AV control unit connector M160 and BOSE speaker amp. connector B109.
2. Check continuity between AV control unit harness connector M160 (A) and BOSE speaker amp. harness connector B109 (B).

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Connector</th>
<th>Terminal</th>
</tr>
</thead>
<tbody>
<tr>
<td>M160</td>
<td>4</td>
<td>B109</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td></td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>13</td>
<td></td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>14</td>
<td></td>
<td>25</td>
</tr>
</tbody>
</table>

Are continuity test results as specified?
YES  >> GO TO 4.
NO   >> • Check connector housings for disconnected or loose terminals.
       • Repair harness or connector.

4. REAR SUBWOOFER SIGNAL CHECK
2. Turn ignition switch to ACC.
4. Check the signal between AV control unit harness connector terminals with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminals</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>M160</td>
<td>4 5</td>
<td>Receive audio signal</td>
<td><img src="image" alt="Graph" /></td>
</tr>
</tbody>
</table>

Is the audio signal voltage as specified?

YES  >> Replace BOSE speaker amp. Refer to AV-499, "Removal and Installation".
NO   >> Replace AV control unit. Refer to AV-487, "Removal and Installation".
Description

When one of the steering wheel audio control switches is pushed, the resistance in the steering wheel audio control switch circuit changes, depending on which button is pushed.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-447, "Wiring Diagram".

1. CHECK STEERING WHEEL AUDIO CONTROL SWITCH RESISTANCE

1. Turn ignition switch OFF.
2. Disconnect steering wheel audio control switch connector M88.
3. Check resistance between steering switch connector terminals.

<table>
<thead>
<tr>
<th>Terminal</th>
<th>Signal name</th>
<th>Condition</th>
<th>Resistance (Ω) (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>Enter</td>
<td>Depress ENTER switch.</td>
<td>2023</td>
</tr>
<tr>
<td>17</td>
<td>Voice recognition</td>
<td>Depress switch.</td>
<td>723</td>
</tr>
<tr>
<td>17</td>
<td>Menu (down)</td>
<td>Depress switch.</td>
<td>321</td>
</tr>
<tr>
<td>17</td>
<td>Menu (up)</td>
<td>Depress switch.</td>
<td>121</td>
</tr>
<tr>
<td>17</td>
<td>Source</td>
<td>Depress SOURCE switch.</td>
<td>0</td>
</tr>
<tr>
<td>15</td>
<td>Menu back</td>
<td>Depress switch.</td>
<td>723</td>
</tr>
<tr>
<td>15</td>
<td>Phone</td>
<td>Depress switch.</td>
<td>321</td>
</tr>
<tr>
<td>15</td>
<td>Volume (up)</td>
<td>Depress VOL up switch.</td>
<td>121</td>
</tr>
<tr>
<td>15</td>
<td>Volume (down)</td>
<td>Depress VOL down switch.</td>
<td>0</td>
</tr>
</tbody>
</table>

Do the steering wheel audio control switches check OK?

YES  >> GO TO 2.
NO   >> Replace steering wheel audio control switch. Refer to AV-502, "Removal and Installation".

2. CHECK HARNESS

1. Disconnect AV control unit connector M160 and spiral cable connector M30.
2. Check continuity between AV control unit harness connector M160 (A) and spiral cable harness connector M30 (B).

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>M160</td>
<td>16</td>
<td>M30</td>
</tr>
<tr>
<td>M160</td>
<td>15</td>
<td>M30</td>
</tr>
<tr>
<td>M160</td>
<td>6</td>
<td>M30</td>
</tr>
</tbody>
</table>

3. Check continuity between AV switch connector M160 (A) and ground.
STEERING SWITCH

< COMPONENT DIAGNOSIS >

[BOSE W/ COLOR DISPLAY W/ NAVI]

Are the continuity results as specified?
YES >> GO TO 3.
NO >> Repair harness.

3. SPIRAL CABLE CHECK

1. Disconnect spiral cable connector M88.
2. Check continuity between spiral cable harness connector M30 (A) and M88 (B).

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M160</td>
<td>6</td>
<td>Ground</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>16</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>A</th>
<th>Connector</th>
<th>Terminal</th>
</tr>
</thead>
<tbody>
<tr>
<td>M30</td>
<td>24</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>31</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>33</td>
<td>17</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B</th>
<th>Connector</th>
<th>Terminal</th>
</tr>
</thead>
<tbody>
<tr>
<td>M88</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td></td>
<td>15</td>
<td></td>
</tr>
<tr>
<td></td>
<td>17</td>
<td></td>
</tr>
</tbody>
</table>

Does the spiral cable check OK?
YES >> Inspection End.
NO >> Replace spiral cable. Refer to SR-8, "Removal and Installation".

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AV-440

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ECU DIAGNOSIS
AV CONTROL UNIT

Reference Value

VALUES ON THE DIAGNOSIS TOOL

<table>
<thead>
<tr>
<th>Display Item</th>
<th>Display</th>
<th>Vehicle status</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>VHCL SPD SIG</td>
<td>ON</td>
<td>Vehicle speed &gt;0 km/h (0 MPH)</td>
<td>Changes in indication may be delayed. This is normal.</td>
</tr>
<tr>
<td></td>
<td>OFF</td>
<td>Vehicle speed =0 km/h (0 MPH)</td>
<td></td>
</tr>
<tr>
<td>PKB SIG</td>
<td>ON</td>
<td>Parking brake is applied.</td>
<td>Changes in indication may be delayed. This is normal.</td>
</tr>
<tr>
<td></td>
<td>OFF</td>
<td>Parking brake is released.</td>
<td></td>
</tr>
<tr>
<td>ILLUM SIG</td>
<td>ON</td>
<td>Block the light beam from the auto light optical sensor when the light SW is ON.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OFF</td>
<td>Expose the auto light optical sensor to light when the light SW is OFF or ON.</td>
<td></td>
</tr>
<tr>
<td>IGN SIG</td>
<td>ON</td>
<td>Ignition switch ON</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OFF</td>
<td>Ignition switch in ACC position</td>
<td></td>
</tr>
<tr>
<td>REV SIG</td>
<td>ON</td>
<td>Selector lever in R position</td>
<td>Changes in indication may be delayed. This is normal.</td>
</tr>
<tr>
<td></td>
<td>OFF</td>
<td>Selector lever in any position other than R</td>
<td></td>
</tr>
</tbody>
</table>

TERMINAL LAYOUT

PHYSICAL VALUES
<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Description</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>Signal name</td>
<td>Input/Output</td>
<td>—</td>
</tr>
<tr>
<td>1 (B/P) Ground</td>
<td>Amp. ON signal</td>
<td>Output</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>2 (G)</td>
<td>Pre-amp. audio signal front LH</td>
<td>Output</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>3 (R)</td>
<td>Pre-amp. audio signal front LH</td>
<td>Output</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>4 (W/R) Ground</td>
<td>Pre-amp. audio signal rear LH</td>
<td>Output</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>5 (W/L)</td>
<td>Pre-amp. audio signal rear LH</td>
<td>Output</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>6 (W/G) Steering switch signal A</td>
<td>Input</td>
<td>Ignition switch OFF</td>
<td></td>
</tr>
<tr>
<td>7 (V/Y) Ground</td>
<td>ACC power supply</td>
<td>Input</td>
<td>Ignition switch ACC</td>
</tr>
<tr>
<td>9 (R/L) Ground</td>
<td>Illumination signal</td>
<td>Input</td>
<td>OFF</td>
</tr>
<tr>
<td>10</td>
<td>Shield</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>11 (B) Pre-amp. audio signal front RH</td>
<td>Output</td>
<td>Ignition switch ON</td>
<td>Audio output</td>
</tr>
<tr>
<td>12 (W)</td>
<td>Pre-amp. audio signal front RH</td>
<td>Output</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>13 (V) Audio signal rear RH</td>
<td>Output</td>
<td>Ignition switch ON</td>
<td>Audio output</td>
</tr>
<tr>
<td>14 (LG)</td>
<td>Audio signal rear RH</td>
<td>Output</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>15 (L/B) Ground</td>
<td>Steering switch signal ground</td>
<td>—</td>
<td>Ignition switch ON</td>
</tr>
</tbody>
</table>
### AV CONTROL UNIT

#### < ECU DIAGNOSIS >

<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Description</th>
<th>Input/Output</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16 (GR/L) 15 (L/B)</td>
<td>Steering switch signal B</td>
<td>Input</td>
<td>Ignition switch ON</td>
<td>Depress the back switch. 723Ω</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Depress switch. 321Ω</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Depress VOL up switch. 121Ω</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Depress VOL down switch. 0Ω</td>
</tr>
<tr>
<td>19 (Y/R)</td>
<td>Battery power supply</td>
<td>Input</td>
<td>Ignition switch OFF</td>
<td>Battery voltage</td>
</tr>
<tr>
<td>20 (B)</td>
<td>Ground</td>
<td>—</td>
<td>Ignition switch ON</td>
<td>—</td>
</tr>
<tr>
<td>23 (R)</td>
<td>RGB digital image signal (+)</td>
<td>Output</td>
<td>Ignition switch ON</td>
<td>Not connected connector. 1.3 V</td>
</tr>
<tr>
<td>24 (W)</td>
<td>RGB digital image signal (−)</td>
<td>Output</td>
<td>Ignition switch ON</td>
<td>Not connected connector. 1.3 V</td>
</tr>
<tr>
<td>25 (B)</td>
<td>USB ground</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>26 (W)</td>
<td>USB D−</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>27 (R)</td>
<td>V BUS signal</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>28 (G)</td>
<td>USB D+</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>37 (G/R)</td>
<td>Parking brake signal</td>
<td>Input</td>
<td>Ignition switch ON</td>
<td>Parking brake is ON. 5.0 V</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Parking brake is OFF. 0 V</td>
</tr>
<tr>
<td>39 (W)</td>
<td>Composite image ground</td>
<td>—</td>
<td>Ignition switch ON</td>
<td>— 0 V</td>
</tr>
<tr>
<td>40 (R)</td>
<td>Composite image signal</td>
<td>Output</td>
<td>Ignition switch ON</td>
<td>At DVD image is displayed.</td>
</tr>
<tr>
<td>43</td>
<td>Shield</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>44 (R)</td>
<td>Microphone VCC</td>
<td>Output</td>
<td>Ignition switch ON</td>
<td>— 5.0 V</td>
</tr>
<tr>
<td>45 (Y)</td>
<td>Communication signal (CONT→DISP)</td>
<td>Output</td>
<td>Ignition switch ON</td>
<td>When adjusting display brightness.</td>
</tr>
<tr>
<td>46 (P)</td>
<td>CAN–L</td>
<td>Input/Output</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

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## AV CONTROL UNIT

### < ECU DIAGNOSIS >

#### [BOSE W/ COLOR DISPLAY W/ NAVI]

<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Description</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>47 (P)</td>
<td>AV communication signal (L)</td>
<td>Input/Output</td>
<td>—</td>
</tr>
<tr>
<td>48 (P)</td>
<td>AV communication signal (L)</td>
<td>Input/Output</td>
<td>—</td>
</tr>
<tr>
<td>51 (R/L)</td>
<td>Ground Illumination signal</td>
<td>Input</td>
<td>Ignition switch OFF</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>52 (G)</td>
<td>Ground Ignition signal</td>
<td>Input</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>53 (P/B)</td>
<td>Ground Reverse signal</td>
<td>Input</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Other than R position</td>
</tr>
<tr>
<td>54 (V/W)</td>
<td>Ground Vehicle speed signal (8-pulse)</td>
<td>Input</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>55</td>
<td>— Shield</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>56 (B)</td>
<td>Ground Composite synchronizing signal</td>
<td>Output</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>59 (L)</td>
<td>Ground Microphone signal</td>
<td>Input</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>60</td>
<td>— Shield</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>61 (BR)</td>
<td>Ground Communication signal (DISP→CONT)</td>
<td>Input</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>62 (L)</td>
<td>— CAN–H</td>
<td>Input/Output</td>
<td>—</td>
</tr>
<tr>
<td>63 (L)</td>
<td>AV communication signal (H)</td>
<td>Input/Output</td>
<td>—</td>
</tr>
</tbody>
</table>

**NOTE:** Maximum voltage may be 12.0 V due to specifications (connected units).

---

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<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Description</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>Signal name</td>
<td>Input/Output</td>
<td>—</td>
</tr>
<tr>
<td>64 (L)</td>
<td>AV communication signal (H)</td>
<td>Input/Output</td>
<td>—</td>
</tr>
<tr>
<td>67 (W)</td>
<td>Ground Rear view camera ground</td>
<td>Ignition switch ON</td>
<td>—</td>
</tr>
<tr>
<td>68 (R)</td>
<td>Ground Camera ON signal</td>
<td>Output Ignition switch ON</td>
<td>R position. 6.0 V</td>
</tr>
<tr>
<td>75 (V)</td>
<td>Ground AUX image signal ground</td>
<td>Ignition switch ON</td>
<td>—</td>
</tr>
<tr>
<td>76 (V)</td>
<td>75 (LG) AUX image signal</td>
<td>Input Ignition switch ON</td>
<td>At AUX image is displayed.</td>
</tr>
<tr>
<td>77</td>
<td>— Shield</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>81 (BR)</td>
<td>Ground Switch ground</td>
<td>Ignition switch ON</td>
<td>—</td>
</tr>
<tr>
<td>82 (SB)</td>
<td>81 (BR) Disk eject signal</td>
<td>Input Ignition switch ON</td>
<td>Pressing the eject switch. 0 V</td>
</tr>
<tr>
<td>105 (B)</td>
<td>— GPS antenna signal</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>106</td>
<td>— Shield</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>108 (B)</td>
<td>— Amplified window antenna signal</td>
<td>Input —</td>
<td>—</td>
</tr>
<tr>
<td>109 (B)</td>
<td>Ground Antenna amp. ON signal</td>
<td>Output Ignition switch ACC</td>
<td>—</td>
</tr>
<tr>
<td>110 (B)</td>
<td>— Satellite antenna signal</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>111 (B)</td>
<td>— Shield</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>115 (W)</td>
<td>130 (R) AUX sound signal LH</td>
<td>Input Ignition switch ON</td>
<td>When AUX mode is selected.</td>
</tr>
</tbody>
</table>
### Terminal (Wire color)  
<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Description</th>
<th>Input/Output</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>Signal name</td>
<td>Input/Output</td>
<td></td>
<td></td>
</tr>
<tr>
<td>128</td>
<td>Shield</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>129 (B) 130 (R)</td>
<td>AUX sound signal RH</td>
<td>Input</td>
<td>Ignition switch ON</td>
<td></td>
</tr>
</tbody>
</table>

*When AUX mode is selected.*

![Graph](skib3606e.png)
AV CONTROL UNIT

< ECU DIAGNOSIS >

[BOSE W/ COLOR DISPLAY W/ NAVI]
**AV CONTROL UNIT**

### AV-453

**ECU DIAGNOSIS**

BOSE W/ COLOR DISPLAY W/ NAVI

<table>
<thead>
<tr>
<th>Connector No.</th>
<th>M9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector Name</td>
<td>WIRE TO WIRE</td>
</tr>
<tr>
<td>Connector Color</td>
<td>BROWN</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Terminal No.</th>
<th>Color of Wire</th>
<th>Signal Name</th>
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<tbody>
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<td>5</td>
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<td>11</td>
<td>B/R</td>
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<td>12</td>
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</tr>
<tr>
<td>13</td>
<td>B/Y</td>
<td>--</td>
</tr>
<tr>
<td>14</td>
<td>B/P</td>
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<td>DATA LINK CONNECTOR</td>
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<th>Signal Name</th>
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<tbody>
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<td>R</td>
<td>M CAN H</td>
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<tr>
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<th>Color of Wire</th>
<th>Signal Name</th>
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</thead>
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<tr>
<td>26</td>
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<td>PKB</td>
</tr>
<tr>
<td>31</td>
<td>V/W</td>
<td>8P/R OUT</td>
</tr>
</tbody>
</table>

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*Revision: November 2009*

2010 Maxima
## AV CONTROL UNIT

### Connector M52
- **Connector Name**: TWEETER RH (WITH BOSE AUDIO SYSTEM)
- **Connector Color**: BROWN
- **Terminal No.**: 1
- **Color of Wire**: LG
- **Signal Name**: -
- **Terminal No.**: 2
- **Color of Wire**: CRY
- **Signal Name**: -

### Connector M51
- **Connector Name**: TWEETER LH (WITH BOSE AUDIO SYSTEM)
- **Connector Color**: BROWN
- **Terminal No.**: 1
- **Color of Wire**: LG
- **Signal Name**: -
- **Terminal No.**: 2
- **Color of Wire**: CRY
- **Signal Name**: -

### Connector M98
- **Connector Name**: SPIRAL CABLE
- **Connector Color**: GRAY
- **Terminal No.**: 14
- **Color of Wire**: W
- **Signal Name**: -
- **Terminal No.**: 15
- **Color of Wire**: L
- **Signal Name**: -
- **Terminal No.**: 17
- **Color of Wire**: BR
- **Signal Name**: -

### Connector M98
- **Connector Name**: SPIRAL CABLE
- **Connector Color**: GRAY
- **Terminal No.**: 25
- **Color of Wire**: SHIELD
- **Signal Name**: -
- **Terminal No.**: 26
- **Color of Wire**: SHIELD
- **Signal Name**: -
- **Terminal No.**: 23
- **Color of Wire**: B
- **Signal Name**: -

### Connector M98
- **Connector Name**: SPIRAL CABLE
- **Connector Color**: GRAY
- **Terminal No.**: 30
- **Color of Wire**: B
- **Signal Name**: -
- **Terminal No.**: 31
- **Color of Wire**: R
- **Signal Name**: -
- **Terminal No.**: 32
- **Color of Wire**: V
- **Signal Name**: -

### Connector M98
- **Connector Name**: WIRE TO WIRE
- **Connector Color**: WHITE
- **Terminal No.**: 9
- **Color of Wire**: B
- **Signal Name**: -
- **Terminal No.**: 10
- **Color of Wire**: W
- **Signal Name**: -
- **Terminal No.**: 11
- **Color of Wire**: R
- **Signal Name**: -
- **Terminal No.**: 12
- **Color of Wire**: SHIELD
- **Signal Name**: -

### Connector M98
- **Connector Name**: WIRE TO WIRE
- **Connector Color**: WHITE
- **Terminal No.**: 13
- **Color of Wire**: B
- **Signal Name**: -
- **Terminal No.**: 14
- **Color of Wire**: W
- **Signal Name**: -
- **Terminal No.**: 15
- **Color of Wire**: R
- **Signal Name**: -
- **Terminal No.**: 16
- **Color of Wire**: SHIELD
- **Signal Name**: -

---

Revision: November 2009

AV-454

2010 Maxima
### AV CONTROL UNIT

**ECU DIAGNOSIS**  
**[BOSE W/ COLOR DISPLAY W/ NAVI]**

#### Terminal No. | Color of Wire  | Signal Name
---|---|---
9| R/L| ILL
10| SHIELD| SHIELD
11| B| FR RH PRE-
12| W| FR RH PRE-
13| V| RR RH PRE-
14| LG| RR RH PRE-
15| LB| STRG SW GND
16| GR/L| STRG SW B
17| -| -
18| -| BAT
19| -| GND
20| B| -

#### Connector No. | Connector Name | Connector Color
---|---|---
M160 | AV CONTROL UNIT (WITH NAVI) | WHITE

#### Terminal No. | Color of Wire | Signal Name
---|---|---
1 | BXP | AMP ON
2 | G | FR LH PRE+
3 | R | BR LH PRE+
4 | WIR | RR LH PRE+
5 | WIL | RR LH PRE+
6 | WIG | STRG SW A
7 | VY | ACC
8 | -| -

#### Connector No. | Connector Name | Connector Color
---|---|---
M162 | AV CONTROL UNIT (WITH NAVI) | PINK

#### Connector No. | Connector Name | Connector Color
---|---|---
M151 | DISPLAY UNIT (WITH NAVI) | GREEN

#### Connector No. | Connector Name | Connector Color
---|---|---
M161 | AV CONTROL UNIT (WITH NAVI) | GREEN

---

**Revision: November 2009**  
**AV-456**  
**2010 Maxima**
## AV CONTROL UNIT

### [BOSE W/ COLOR DISPLAY W/ NAVI]

<table>
<thead>
<tr>
<th>Color of Wire</th>
<th>Terminal No.</th>
<th>Signal Name</th>
</tr>
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<tbody>
<tr>
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<td>IGN</td>
</tr>
<tr>
<td>P/B</td>
<td>53</td>
<td>REVERSE SIG</td>
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<tr>
<td>V/W</td>
<td>54</td>
<td>SPEED SP</td>
</tr>
<tr>
<td>SHIELD</td>
<td>55</td>
<td>NAVI COMP1 SHIELD</td>
</tr>
<tr>
<td>NAVI COMP1 SYNC</td>
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<tr>
<td>L</td>
<td>57</td>
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<td>58</td>
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<tr>
<td>SHIELD</td>
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<tr>
<td>DISP-1</td>
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<td>CAN-H</td>
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<td>L</td>
<td>62</td>
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<td>L</td>
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<tr>
<td>Y</td>
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<td>P</td>
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<td>MIC-GND</td>
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<td>MIC-VCC</td>
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<td>CAN-L</td>
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<th>Terminal No.</th>
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</thead>
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<td>V</td>
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<td>V</td>
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<td>SHIELD</td>
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<td>M/CAN L TRM</td>
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<td>AV CONTROL UNIT (WITH NAVI WITHOUT REAR CONTROLS)</td>
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<tr>
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</table>

### H.S.

- AB91A1653GB

---

Revision: November 2009

AV-457

2010 Maxima
### AV CONTROL UNIT

#### Connector M167
- **Color of Wire**: Green
- **Terminal No.**: 25, 26, 27, 28
- **Signal Name**: USB GND, USB D-, V BUS, USB D+

#### Connector M166
- **Color of Wire**: Gray
- **Terminal No.**: 108, 109
- **Signal Name**: ANT MAIN, ANT +B

#### Connector M165
- **Color of Wire**: Gray
- **Terminal No.**: 105, 106
- **Signal Name**: GPS ANT, SHIELD

#### Connector M168
- **Color of Wire**: White
- **Terminal No.**: 112, 113, 114, 115, 116
- **Signal Name**: SHIELD, Aux AUDIO LH+, Aux Audio RH+
### AV CONTROL UNIT

#### ECU DIAGNOSIS

### BOSE W/ COLOR DISPLAY W/ NAVI

<table>
<thead>
<tr>
<th>Connector No.</th>
<th>Connector Name</th>
<th>Connector Color</th>
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<tbody>
<tr>
<td>M299</td>
<td>AUX IN JACK</td>
<td>WHITE</td>
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<tr>
<td>M300</td>
<td>USB INTERFACE</td>
<td>WHITE</td>
</tr>
<tr>
<td>M501</td>
<td>ANTENNA AMP</td>
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#### Connector Details

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<th>Signal Name</th>
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<td>AUX AUDIO RH+</td>
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<tr>
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<td>R</td>
<td>AUX AUDIO LH+</td>
</tr>
<tr>
<td>3</td>
<td>W</td>
<td>COMP OUT-</td>
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<td>G</td>
<td>COMP OUT-</td>
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#### Wire to Wire Table

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<th>Color of Wire</th>
<th>Signal Name</th>
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<tr>
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<tr>
<td>2</td>
<td>B</td>
<td>V</td>
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#### Wire to Wire Table

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<th>Terminal No.</th>
<th>Color of Wire</th>
<th>Signal Name</th>
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# AV CONTROL UNIT

## < ECU DIAGNOSIS >

### [BOSE W/ COLOR DISPLAY W/ NAVI]

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<tr>
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<td>JUNCTION BLOCK</td>
<td>BROWN</td>
<td>S1</td>
<td>LG</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>S2</td>
<td>O</td>
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<th>Signal Name</th>
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<tr>
<td>E35</td>
<td>PARKING BRAKE SWITCH</td>
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<th>Signal Name</th>
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<tbody>
<tr>
<td>F15</td>
<td>TRANSMISSION CONTROL MODULE</td>
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<td>RES LAMP RLY</td>
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<th>Connector Color</th>
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<th>Color of Wire</th>
<th>Signal Name</th>
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Revision: November 2009

AV-461

2010 Maxima
# AV CONTROL UNIT

**< ECU DIAGNOSIS >**

**[BOSE W/ COLOR DISPLAY W/ NAVI]**

## Connector Name: B103
### Wire to Wire

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</tr>
<tr>
<td>3</td>
<td>-</td>
<td>-</td>
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<tr>
<td>8</td>
<td>-</td>
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<tr>
<td>9</td>
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<td>-</td>
</tr>
<tr>
<td>10</td>
<td>R</td>
<td>-</td>
</tr>
<tr>
<td>11</td>
<td>BR</td>
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<tr>
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## Connector Name: B107
### Rear Subwoofer RH

<table>
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<th>Color of Wire</th>
<th>Signal Name</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
<tr>
<td>2</td>
<td>BR</td>
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## Connector Name: B102
### Wire to Wire

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<tr>
<td>18</td>
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</tr>
<tr>
<td>19</td>
<td>SHIELD</td>
<td>-</td>
</tr>
<tr>
<td>20</td>
<td>GYAV</td>
<td>-</td>
</tr>
<tr>
<td>21</td>
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<td>BR</td>
<td>-</td>
</tr>
<tr>
<td>23</td>
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## Connector Name: B106
### Rear Subwoofer LH

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<td>-</td>
</tr>
<tr>
<td>2</td>
<td>P</td>
<td>-</td>
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</tbody>
</table>

---

Revision: November 2009

AV-463

2010 Maxima
### AV CONTROL UNIT

**< ECU DIAGNOSIS > [BOSE W/ COLOR DISPLAY W/ NAVI]**

<table>
<thead>
<tr>
<th>Connector No.</th>
<th>Connector Name</th>
<th>Connector Color</th>
<th>Terminal No.</th>
<th>Color of Wire</th>
<th>Signal Name</th>
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<tbody>
<tr>
<td>T101</td>
<td>REAR VIEW CAMERA</td>
<td>WHITE</td>
<td>1</td>
<td>R</td>
<td>CAMER AN</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>W</td>
<td>GND</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>B</td>
<td>COMP+</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4</td>
<td>GR</td>
<td>COMP-</td>
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<td></td>
<td></td>
<td>2</td>
<td>W</td>
<td>WIRE TO WIRE</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>B</td>
<td>WIRE TO WIRE</td>
</tr>
<tr>
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<td>4</td>
<td>SHIELD</td>
<td>WIRE TO WIRE</td>
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<tr>
<td>B139</td>
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<td>WHITE</td>
<td>1</td>
<td>L</td>
<td>MICROPHONE</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>V/G</td>
<td>MICROPHONE</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>W</td>
<td>MICROPHONE</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4</td>
<td>SHIELD</td>
<td>MICROPHONE</td>
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<tr>
<th>Connector No.</th>
<th>Connector Name</th>
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<th>Color of Wire</th>
<th>Signal Name</th>
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<tr>
<td>R1</td>
<td>WIRE TO WIRE</td>
<td>WHITE</td>
<td>1</td>
<td>L</td>
<td>SHIELD</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>R</td>
<td>SHIELD</td>
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</table>

**Revision: November 2009**

AV-465

2010 Maxima
## AV CONTROL UNIT

### Connector No. D103
- **Connector Name:** FRONT DOOR SPEAKER RH
- **Connector Color:** WHITE

<table>
<thead>
<tr>
<th>Terminal No.</th>
<th>Color of Wire</th>
<th>Signal Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>LG</td>
<td>O</td>
</tr>
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</table>

### Connector No. D101
- **Connector Name:** WIRE TO WIRE
- **Connector Color:** WHITE

<table>
<thead>
<tr>
<th>Terminal No.</th>
<th>Color of Wire</th>
<th>Signal Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>LG</td>
<td>O</td>
</tr>
</tbody>
</table>

### Connector No. D3
- **Connector Name:** FRONT DOOR SPEAKER LH
- **Connector Color:** WHITE

<table>
<thead>
<tr>
<th>Terminal No.</th>
<th>Color of Wire</th>
<th>Signal Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>LG</td>
<td>O</td>
</tr>
</tbody>
</table>

### Connector No. D903
- **Connector Name:** REAR DOOR SPEAKER RH (WITH BOSE AUDIO SYSTEM)
- **Connector Color:** BROWN

<table>
<thead>
<tr>
<th>Terminal No.</th>
<th>Color of Wire</th>
<th>Signal Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>LG</td>
<td>O</td>
</tr>
</tbody>
</table>

### Connector No. D901
- **Connector Name:** WIRE TO WIRE
- **Connector Color:** WHITE

<table>
<thead>
<tr>
<th>Terminal No.</th>
<th>Color of Wire</th>
<th>Signal Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>LG</td>
<td>O</td>
</tr>
</tbody>
</table>

### Connector No. D903
- **Connector Name:** REAR DOOR SPEAKER LH (WITH BOSE AUDIO SYSTEM)
- **Connector Color:** BROWN

<table>
<thead>
<tr>
<th>Terminal No.</th>
<th>Color of Wire</th>
<th>Signal Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>LG</td>
<td>O</td>
</tr>
</tbody>
</table>
DTC Index

SELF-DIAGNOSIS RESULTS DISPLAY ITEM
**AV CONTROL UNIT**

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display item</th>
<th>Refer to</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1000</td>
<td>CAN COMM CIRCUIT [U1000]</td>
<td>AV-380, &quot;Diagnosis Procedure&quot;</td>
</tr>
<tr>
<td>U1010</td>
<td>CONTROL UNIT (CAN) [1010]</td>
<td>AV-381, &quot;DTC Logic&quot;</td>
</tr>
<tr>
<td>U1200</td>
<td>Cont Unit [U1200]</td>
<td>AV-382, &quot;DTC Logic&quot;</td>
</tr>
<tr>
<td>U1201</td>
<td>GYRO NO CONN [U1201]</td>
<td>AV-383, &quot;DTC Logic&quot;</td>
</tr>
<tr>
<td>U1202</td>
<td>G-SENSOR NO CONN [U1202]</td>
<td>AV-384, &quot;DTC Logic&quot;</td>
</tr>
<tr>
<td>U1204</td>
<td>GPS COMM [U1204]</td>
<td>AV-385, &quot;Diagnosis Procedure&quot;</td>
</tr>
<tr>
<td>U1205</td>
<td>GPS ROM [U1205]</td>
<td>AV-386, &quot;Diagnosis Procedure&quot;</td>
</tr>
<tr>
<td>U1206</td>
<td>GPS RAM [U1206]</td>
<td>AV-387, &quot;Diagnosis Procedure&quot;</td>
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<tr>
<td>U1207</td>
<td>GPS RTC [U1207]</td>
<td>AV-388, &quot;Diagnosis Procedure&quot;</td>
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<tr>
<td>U1216</td>
<td>CAN CONT [U1216]</td>
<td>AV-389, &quot;DTC Logic&quot;</td>
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<tr>
<td>U1217</td>
<td>BLUETOOTH MODULE [U1217]</td>
<td>AV-390, &quot;DTC Logic&quot;</td>
</tr>
<tr>
<td>U1218</td>
<td>HDDCONN [U1218]</td>
<td>AV-391, &quot;Diagnosis Procedure&quot;</td>
</tr>
<tr>
<td>U1219</td>
<td>HDD READ [U1219]</td>
<td>AV-392, &quot;Diagnosis Procedure&quot;</td>
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<td>U121A</td>
<td>HDD WRITE [U121A]</td>
<td>AV-393, &quot;Diagnosis Procedure&quot;</td>
</tr>
<tr>
<td>U121B</td>
<td>HDD COMM [U121B]</td>
<td>AV-394, &quot;Diagnosis Procedure&quot;</td>
</tr>
<tr>
<td>U121C</td>
<td>HDD ACCESS [U121C]</td>
<td>AV-395, &quot;Diagnosis Procedure&quot;</td>
</tr>
<tr>
<td>U121D</td>
<td>DSP COMM [U121D]</td>
<td>AV-396, &quot;Diagnosis Procedure&quot;</td>
</tr>
<tr>
<td>U121E</td>
<td>DSP COMM [U121E]</td>
<td>AV-397, &quot;Diagnosis Procedure&quot;</td>
</tr>
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<td>U1225</td>
<td>USB CONTROLLER [U1225]</td>
<td>AV-398, &quot;DTC Logic&quot;</td>
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<td>U1227</td>
<td>DVD COMM [U1227]</td>
<td>AV-399, &quot;Diagnosis Procedure&quot;</td>
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<tr>
<td>U1228</td>
<td>SUB CPU CONN [U1228]</td>
<td>AV-400, &quot;DTC Logic&quot;</td>
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<td>U1229</td>
<td>iPod CERTIFICATION [U1229]</td>
<td>AV-401, &quot;DTC Logic&quot;</td>
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<tr>
<td>U122A</td>
<td>CONFIG UNFINISH [U122A]</td>
<td>AV-402, &quot;Diagnosis Procedure&quot;</td>
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<tr>
<td>U122E</td>
<td>Built-in AUDIO CONN [U122E]</td>
<td>AV-403, &quot;DTC Logic&quot;</td>
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<tr>
<td>U1232</td>
<td>ST ANGLE SEN CALIB [1232]</td>
<td>AV-404, &quot;Diagnosis Procedure&quot;</td>
</tr>
<tr>
<td>U1243</td>
<td>FRONT DISP CONN [U1243]</td>
<td>AV-405, &quot;Diagnosis Procedure&quot;</td>
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<td>U1244</td>
<td>GPS ANTENNA CONN [U1244]</td>
<td>AV-407, &quot;Diagnosis Procedure&quot;</td>
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<td>U1263</td>
<td>USB OVERCURRENT [U1263]</td>
<td>AV-408, &quot;Diagnosis Procedure&quot;</td>
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<tr>
<td>U1310</td>
<td>CONTROL UNIT (AV) [U1310]</td>
<td>AV-410, &quot;DTC Logic&quot;</td>
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<tr>
<td>U1300</td>
<td>AV COMM CIRCUIT [U1300]</td>
<td>AV-409, &quot;Description&quot;</td>
</tr>
<tr>
<td>U1240</td>
<td>SWITCH CONN [U1240]</td>
<td>AV-409, &quot;Description&quot;</td>
</tr>
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</table>
## TERMINAL LAYOUT

![Terminal Layout Diagram]

### PHYSICAL VALUES

<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Description</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ –</td>
<td>Signal name</td>
<td>Input/Output</td>
<td></td>
</tr>
<tr>
<td>6 –</td>
<td>Shield</td>
<td>Ignition switch ON</td>
<td>At rear view camera image is displayed.</td>
</tr>
<tr>
<td>7 –</td>
<td>Shield</td>
<td>Ignition switch ON</td>
<td></td>
</tr>
<tr>
<td>8 (B)</td>
<td>Ground</td>
<td>Input Ignition switch ON</td>
<td></td>
</tr>
<tr>
<td>9 (BR)</td>
<td>Communication signal (DISP→CONT)</td>
<td>Output Ignition switch ON</td>
<td>When adjusting display-brightness.</td>
</tr>
<tr>
<td>10 (Y)</td>
<td>Communication signal (CONT→DISP)</td>
<td>Input Ignition switch ON</td>
<td>When adjusting display-brightness.</td>
</tr>
<tr>
<td>11 (Y/R)</td>
<td>Battery power supply</td>
<td>Input Ignition switch OFF</td>
<td>—</td>
</tr>
<tr>
<td>12 (B)</td>
<td>Ground</td>
<td>Ignition switch ON</td>
<td>—</td>
</tr>
<tr>
<td>Terminal (Wire color)</td>
<td>Description</td>
<td>Input/Output</td>
<td>Condition</td>
</tr>
<tr>
<td>----------------------</td>
<td>-----------------------</td>
<td>--------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td>+</td>
<td>Signal name</td>
<td>Input</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>18 (R)</td>
<td>Ground Composite image signal</td>
<td>Input</td>
<td>At DVD image is displayed.</td>
</tr>
<tr>
<td>19 (W)</td>
<td>Ground Composite image ground</td>
<td>Ignition switch ON</td>
<td>—</td>
</tr>
<tr>
<td>20 (B)</td>
<td>Ground Composite synchronizing signal</td>
<td>Ignition switch ON</td>
<td>—</td>
</tr>
<tr>
<td>22</td>
<td>Shield</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>23 (V/Y)</td>
<td>Ground ACC power supply</td>
<td>Ignition switch ACC</td>
<td>—</td>
</tr>
<tr>
<td>27 (R)</td>
<td>RGB digital image signal (+)</td>
<td>Input</td>
<td>—</td>
</tr>
<tr>
<td>28 (W)</td>
<td>RGB digital image signal (-)</td>
<td>Input</td>
<td>—</td>
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</table>
## Reference Value

### TERMINAL LAYOUT

![Terminal Layout Diagram]

### PHYSICAL VALUES

<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Description</th>
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<th>Reference value (Approx.)</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+ –</td>
<td>Signal name</td>
<td>Input/Output</td>
<td></td>
</tr>
<tr>
<td>1 (LG) 2 (V)</td>
<td>Audio signal tweeter LH</td>
<td>Output</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>4 (G) 3 (W)</td>
<td>Audio signal tweeter RH</td>
<td>Output</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>5 (R) 6 (BR)</td>
<td>Audio signal subwoofer LH</td>
<td>Output</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>7 (B)</td>
<td>Ground</td>
<td>—</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>10 (SB)</td>
<td>Battery power supply</td>
<td>Input</td>
<td>Ignition switch OFF</td>
</tr>
<tr>
<td>11 (GR)</td>
<td>Battery power supply</td>
<td>Input</td>
<td>Ignition switch OFF</td>
</tr>
<tr>
<td>12 (B)</td>
<td>Ground</td>
<td>—</td>
<td>Ignition switch ON</td>
</tr>
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</table>

**Reference Value**

INFOID:0000000005524530

**Revision:** November 2009

**2010 Maxima**
<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Description</th>
<th>Input/Output</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>–</td>
<td>Signal name</td>
<td>Input</td>
<td>-1 (V)</td>
</tr>
<tr>
<td>13 (L)</td>
<td>8 (P)</td>
<td>Audio signal subwoofer LH</td>
<td>Output</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>14 (LG)</td>
<td>9 (O)</td>
<td>Audio signal rear door speaker RH</td>
<td>Output</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>18 (W)</td>
<td>19 (B)</td>
<td>Audio signal front door speaker LH</td>
<td>Output</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>20 (SB)</td>
<td>Ground</td>
<td>Amp. ON signal</td>
<td>Input</td>
<td>Ignition switch ACC</td>
</tr>
<tr>
<td>24 (BR)</td>
<td>23 (Y)</td>
<td>Audio signal rear LH</td>
<td>Input</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>26 (V)</td>
<td>25 (LG)</td>
<td>Audio signal rear RH</td>
<td>Input</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>28 (G)</td>
<td>15 (L)</td>
<td>Audio signal rear door speaker LH</td>
<td>Output</td>
<td>Ignition switch ON</td>
</tr>
</tbody>
</table>
### BOSE SPEAKER AMP

**[BOSE W/ COLOR DISPLAY W/ NAVI]**

#### ECU DIAGNOSIS

<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Description</th>
<th>Input/Output</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
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<tbody>
<tr>
<td>+ –</td>
<td>Audio signal center speaker</td>
<td>Output</td>
<td>Ignition switch ON</td>
<td>Audio output</td>
</tr>
<tr>
<td>29 (V) 30 (P)</td>
<td>Audio signal front door speaker RH</td>
<td>Output</td>
<td>Ignition switch ON</td>
<td>Audio output</td>
</tr>
<tr>
<td>31 (R) 32 (BR)</td>
<td>Audio signal front RH</td>
<td>Input</td>
<td>Ignition switch ON</td>
<td>Audio input</td>
</tr>
<tr>
<td>33 (W/L) 34 (GR/V)</td>
<td>Audio signal rear LH</td>
<td>Input</td>
<td>Ignition switch ON</td>
<td>Audio input</td>
</tr>
</tbody>
</table>
### RELATED TO NAVIGATION

#### Trouble Diagnosis Chart by Symptom

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Check items</th>
<th>Probable malfunction location</th>
</tr>
</thead>
</table>
| Multifunction switch and preset switch operation does not work. | • All switches cannot be operated.  
• “MULTI AV” is displayed on system selection screen when the CONSULT-III is started. | • Multifunction switch power supply and ground circuit.  
Refer to AV-439, "Diagnosis Procedure".  
• AV communication circuit between AV control unit and multifunction switch.  
Perform CONSULT-III self-diagnosis. Refer to AV-376, "CONSULT - III Function (MULTI AV)". |
| Fuel economy display is abnormal. | There is malfunction in the CONSULT-III self-diagnosis result. | Perform detected DTC self-diagnosis.  
Refer to AV-376, "CONSULT - III Function (MULTI AV)". |
| There is no malfunction in the self-diagnosis results. | Ignition signal circuit malfunction.  
Refer to PCS-65, "Diagnosis Procedure". |
| Start of the AV control unit takes time. | — | Room lamp timer control circuit malfunction. |
| Guide sound is not heard or too low. | On the setting display select “system sound (guide sound volume, etc.),” and confirm that guide sound is ON. | Voice guidance signal circuit malfunction. |

### RELATED TO HANDS-FREE PHONE

- Check that the cellular phone is the corresponding type (Bluetooth™ enabled) and Bluetooth™ turns ON.
- Malfunction may occur due to the version change of the phone type, etc. even though it is the corresponding type. The cell phone must support at least hands-free profile V1.0 and object push V1.0. Refer to cell phone instruction manual.
- When customers contact concerning Bluetooth™ compatible cell phone malfunction for the first time, always suggest customers to update cellular phone software if possible.
- Check that customer cellular phone is compatible on the published list. The dealer should contact its RBU/NSC for the list.
- Take note of any exceptions that the list may detail, i.e. no ringing tone or no phonebook transfer etc. If the customer phone is not listed then its full function cannot be guaranteed. NISSAN should not replace the AV control unit if the cell phone does not appear on the list or the cell phone is operating as described on the list e.g. no ringing tone, no phonebook transfer etc.
- Take note of any exceptions to other phones made by the same manufacturer as the customers. Any exceptions on one model by a specific manufacturer may be common to all models made by that manufacturer.

### Simple Check for Bluetooth™ Communication

If cellular phone and AV control unit cannot be connected with Bluetooth™ communication, following procedure allows the technician to judge which device has malfunction.

1. Turn ON cellular phone, not connecting Bluetooth™ communication.
2. Start CONSULT-III, then start Windows®.
4. When operated Bluetooth™ registration by cellular phone, check if CONSULT-III* would be displayed on the device name. (If other Bluetooth™ device is located near cellular phone, a name of the device would be displayed also.)

**NOTE:**
*:Displayed device name is “NISSAN-**********”.

- If no device name is displayed, cellular phone is malfunctioning. Repair the cellular phone first, then perform diagnosis.
- If CONSULT-III is displayed on device name, cellular phone is normal*. Perform diagnosis as per the following table.

*: There is no 100% guarantee that cellular phone operates all functions on AV control unit. Different phone manufacturers implement Bluetooth™ in different ways. Phones on Supported Phone List are tested and any minor exceptions are listed.

### Trouble Diagnosis Chart by Symptom

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Check items</th>
<th>Probable malfunction location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does not recognize cellular phone connection. (no connection is displayed on the display at the guide.)</td>
<td>Repeat the registration of cellular phone. AV control unit malfunction. Replace AV control unit. Refer to AV-487, &quot;Removal and Installation&quot;.</td>
<td></td>
</tr>
<tr>
<td>Hands-free phone cannot be established.</td>
<td>• Hands-free phone operation can be made, but the communication cannot be established. • Hands-free phone operation can be performed, however, voice between each other cannot be heard during the conversation.</td>
<td>AV control unit malfunction. Replace AV control unit. Refer to AV-487, &quot;Removal and Installation&quot;.</td>
</tr>
<tr>
<td>The other party's voice cannot be heard by hands-free phone.</td>
<td>Check the &quot;microphone speaker&quot; in Inspection &amp; Adjustment Mode if sound is heard.</td>
<td>AV control unit malfunction. Replace AV control unit. Refer to AV-487, &quot;Removal and Installation&quot;.</td>
</tr>
<tr>
<td>Originating sound is not heard by the other party with hands-free phone communication.</td>
<td>Sound operation function is normal. Sound operation function does not work.</td>
<td>Microphone signal circuit malfunction. Refer to AV-422, &quot;Diagnosis Procedure&quot;.</td>
</tr>
<tr>
<td>The system cannot be operated.</td>
<td>• The retractable hard top is fully closed. • The voice recognition cannot be controlled.</td>
<td>Roof status signal circuit malfunction.</td>
</tr>
<tr>
<td></td>
<td>• The retractable hard top is fully closed. • The voice recognition can be controlled. • Steering switch’s &quot;VOL UP&quot;, &quot;VOL DOWN&quot;, &quot; “ switch works, but “ “ it does not work.</td>
<td>Steering switch malfunction.</td>
</tr>
<tr>
<td></td>
<td>• The retractable hard top is fully closed. • The voice recognition can be controlled. • Steering switch’s &quot; “ , &quot;VOL UP&quot;, &quot;VOL DOWN&quot;, &quot; “ switches do not work.</td>
<td>Steering switch signal B circuit malfunction. Refer to AV-439, &quot;Diagnosis Procedure&quot;.</td>
</tr>
<tr>
<td></td>
<td>All steering switches do not work.</td>
<td>Steering switch ground circuit malfunction. Refer to AV-439, &quot;Diagnosis Procedure&quot;.</td>
</tr>
</tbody>
</table>

### RELATED TO RGB IMAGE

**Trouble Diagnosis Chart by Symptom**

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Check items</th>
<th>Probable malfunction location</th>
</tr>
</thead>
<tbody>
<tr>
<td>RGB image is not shown.</td>
<td>—</td>
<td>RGB digital image signal circuit malfunction.</td>
</tr>
</tbody>
</table>
## SYMPTOM DIAGNOSIS

### RELATED TO VOICE CONTROL

Trouble Diagnosis Chart by Symptom

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Check items</th>
<th>Probable malfunction location</th>
</tr>
</thead>
<tbody>
<tr>
<td>The voice cannot be controlled even if the voice control screen is displayed.</td>
<td>Voice sounds at “Voice Microphone Test” of Confirmation/Adjustment mode.</td>
<td>AV control unit malfunction. Replace AV control unit. Refer to AV-487, &quot;Removal and Installation&quot;.</td>
</tr>
<tr>
<td></td>
<td>Voice does not sound at “Voice Microphone Test” of Confirmation/Adjustment mode.</td>
<td>Microphone circuit malfunction. Refer to AV-422, &quot;Diagnosis Procedure&quot;.</td>
</tr>
<tr>
<td>The voice cannot be controlled (Voice control screen is not displayed).</td>
<td>• Steering switch’s “SOURCE”, “MENU UP”, “MENU DOWN”, “ENTER” switch works, but “ ” does not work.</td>
<td>Steering switch malfunction.</td>
</tr>
<tr>
<td></td>
<td>• Hands-free phone system can be operated.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Steering switch’s “SOURCE”, “MENU UP”, “MENU DOWN”, “ ”, “ENTER” switches do not work.</td>
<td>Steering switch signal A circuit malfunction. Refer to AV-439, &quot;Diagnosis Procedure&quot;.</td>
</tr>
<tr>
<td></td>
<td>All steering switches do not work.</td>
<td>Steering switch ground circuit malfunction. Refer to AV-439, &quot;Diagnosis Procedure&quot;.</td>
</tr>
</tbody>
</table>

### RELATED TO AUDIO

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Check items</th>
<th>Possible malfunction location / Action to take</th>
</tr>
</thead>
<tbody>
<tr>
<td>The CD cannot be removed.</td>
<td>—</td>
<td>Disk eject signal circuit malfunction between AV control unit and preset switch. Refer to AV-421, &quot;Diagnosis Procedure&quot;.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No sound from all speakers.</td>
<td>• Amp. ON signal circuit.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• BOSE amp. power supply and ground circuit.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Refer to AV-414, &quot;BOSE SPEAKER AMP : Diagnosis Procedure&quot;.</td>
<td></td>
</tr>
<tr>
<td>Audio sound is not heard.</td>
<td>There is no sound from the woofer.</td>
<td>• Woofer amp. power supply and ground circuit.</td>
</tr>
<tr>
<td></td>
<td>Refer to AV-414, &quot;BOSE SPEAKER AMP : Diagnosis Procedure&quot;.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Sound signal woofer circuit between BOSE amp. and woofer.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Woofer amp. ON signal circuit between BOSE amp. and woofer.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>There is sound only from specific places (RH front, RH rear, LH front and LH rear).</td>
<td>Sound signal circuit of suspect system.</td>
</tr>
<tr>
<td>There is malfunction in the CONSULT-III self-diagnosis result.</td>
<td>Perform CONSULT-III self-diagnosis. Refer to AV-376, &quot;CONSULT - III Function (MULTI AV)&quot;</td>
<td></td>
</tr>
<tr>
<td>Satellite radio is not received.</td>
<td>There is no malfunction in the CONSULT-III self-diagnosis result.</td>
<td>Perform the following inspection procedure.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1. Check satellite radio antenna mounting nut for looseness.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Visually check for satellite radio antenna feeder.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Replace the satellite radio antenna. Refer to AV-500, &quot;Removal and Installation&quot;.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. Replace the AV control unit. Refer to AV-487, &quot;Removal and Installation&quot;.</td>
</tr>
<tr>
<td>AM/FM radio is not received.</td>
<td>Other audio sounds are normal.</td>
<td>• Antenna amp. ON signal circuit.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Antenna feeder.</td>
</tr>
</tbody>
</table>

### RELATED TO USB

**NOTE:** Check that there is no malfunction of USB equipment main body before performing a diagnosis.

Trouble Diagnosis Chart by Symptom
### RELATED TO DVD MODE

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Check items</th>
<th>Probable malfunction location</th>
</tr>
</thead>
<tbody>
<tr>
<td>The DVD cannot be removed.</td>
<td>—</td>
<td>Disk eject signal circuit malfunction between AV control unit and preset switch. Refer to AV-421, &quot;Diagnosis Procedure&quot;.</td>
</tr>
<tr>
<td>DVD image is not displayed.</td>
<td>—</td>
<td>Perform CONSULT-III self-diagnosis. Refer to AV-376, &quot;CONSULT - III Function (MULTI AV)&quot;: When detecting no malfunction in those components, the following items are a possible cause. • Composite image signal circuits malfunction. Refer to AV-419, &quot;Diagnosis Procedure&quot;.</td>
</tr>
<tr>
<td>Audio sound is not heard.</td>
<td>No sound from all speakers.</td>
<td>Perform CONSULT-III self-diagnosis. Refer to AV-376, &quot;CONSULT - III Function (MULTI AV)&quot;.</td>
</tr>
<tr>
<td>Audio sound is not heard.</td>
<td>Sound is heard only from specific places.</td>
<td>Perform CONSULT-III self-diagnosis. Refer to AV-376, &quot;CONSULT - III Function (MULTI AV)&quot;.</td>
</tr>
</tbody>
</table>

### RELATED TO STEERING SWITCH

**Trouble Diagnosis Chart by Symptom**

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Probable malfunction location</th>
</tr>
</thead>
<tbody>
<tr>
<td>None of the steering switch operations work.</td>
<td>Steering switch ground circuit malfunction. Refer to AV-439, &quot;Diagnosis Procedure&quot;.</td>
</tr>
<tr>
<td>Only specified switch cannot be operated.</td>
<td>Steering switch malfunction.</td>
</tr>
<tr>
<td>Steering switch's &quot;SOURCE&quot;, &quot;MENU UP&quot;, &quot;MENU DOWN&quot;, &quot;&quot;, &quot;ENTER&quot; switches do not work.</td>
<td>Steering switch signal A circuit malfunction. Refer to AV-439, &quot;Diagnosis Procedure&quot;.</td>
</tr>
<tr>
<td>Steering switch's &quot;&quot;, &quot;VOL UP&quot;, &quot;VOL DOWN&quot;, &quot;&quot; switches do not work.</td>
<td>Steering switch signal B circuit malfunction. Refer to AV-439, &quot;Diagnosis Procedure&quot;.</td>
</tr>
</tbody>
</table>

### RELATED TO AUXILIARY INPUT

**NOTE:**
Check that there is no malfunction of AUX equipment main body before performing a diagnosis.

**Trouble diagnosis chart by symptom**

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Check items</th>
<th>Probable malfunction location</th>
</tr>
</thead>
<tbody>
<tr>
<td>No voice sound is heard when AUX mode is selected.</td>
<td>Voice sound is heard when other modes are selected.</td>
<td>AUX sound signal circuit.</td>
</tr>
<tr>
<td>Image is not displayed when AUX mode is selected.</td>
<td>DVD image is displayed.</td>
<td>AUX image signal circuit malfunction. Refer to AV-420, &quot;Diagnosis Procedure&quot;.</td>
</tr>
<tr>
<td>Image is not displayed when AUX mode is selected.</td>
<td>DVD image is not displayed.</td>
<td>Composite image signal circuit malfunction. Refer to AV-419, &quot;Diagnosis Procedure&quot;.</td>
</tr>
</tbody>
</table>
NORMAL OPERATING CONDITION

DESCRIPTION

NOTE:
For Navigation system operation information, refer to Navigation system Owner's Manual.

BASIC OPERATIONS

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible cause</th>
<th>Possible solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>No image is displayed.</td>
<td>The brightness is at the lowest setting.</td>
<td>Adjust the brightness of the display.</td>
</tr>
<tr>
<td></td>
<td>The systems in the video mode.</td>
<td>Press “DISC-AUX” to change the mode.</td>
</tr>
<tr>
<td></td>
<td>The display is turned off.</td>
<td>Press “*/“” to turn on the display.</td>
</tr>
<tr>
<td></td>
<td>The interior of the vehicle becomes a little less than 80°C (176°F) or high temperature, and the protection of the display acts, and a display is turned off.</td>
<td>Wait until the interior of the vehicle has cooled down.</td>
</tr>
<tr>
<td>Screen not clear.</td>
<td>Contrast setting is not appropriate.</td>
<td>Adjust the contrast of the display.</td>
</tr>
<tr>
<td>No voice guidance is available.</td>
<td>The volume is not set correctly, or it is turned off.</td>
<td>Adjust the volume of voice guidance.</td>
</tr>
<tr>
<td>Or the volume is too high or too low.</td>
<td>Voice guidance is not provided for certain streets (roads displayed in gray).</td>
<td>This is not a malfunction.</td>
</tr>
<tr>
<td>No map is displayed on the screen.</td>
<td>A screen other than map screen is displayed.</td>
<td>Press “MAP”.</td>
</tr>
<tr>
<td>The screen is too dim. The movement is slow.</td>
<td>The temperature in the interior of the vehicle is high.</td>
<td>Wait until the interior of the vehicle has cooled down.</td>
</tr>
<tr>
<td>Some pixels in the display are darker or brighter than others.</td>
<td>This condition is an inherent characteristic of liquid crystal displays.</td>
<td>This is not a malfunction.</td>
</tr>
<tr>
<td>Some menu items cannot be selected.</td>
<td>Some menu items become unavailable while the vehicle is driven.</td>
<td>Park the vehicle in a safe location, and then operate the navigation system.</td>
</tr>
</tbody>
</table>

NOTE:
Locations stored in the Address Book and other memory functions may be lost if the vehicle’s battery is disconnected or becomes discharged. If this occurs, service the vehicle’s battery as necessary and re-enter the information in the Address Book.

RELATED TO VOICE RECOGNITION

Related to Basic Operation

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible cause</th>
<th>Possible solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>The interior of the vehicle is too noisy.</td>
<td>Close the windows or have other occupants quiet.</td>
<td></td>
</tr>
<tr>
<td>The volume of your voice is too low.</td>
<td>Speak louder.</td>
<td></td>
</tr>
<tr>
<td>The volume if your voice is too loud.</td>
<td>Speak softer.</td>
<td></td>
</tr>
<tr>
<td>Your pronunciation is unclear.</td>
<td>Speak clearly.</td>
<td></td>
</tr>
<tr>
<td>You are speaking before the voice recognition is ready.</td>
<td>Press and release “ ” switch on the steering switch, and speak a command after the tone sounds.</td>
<td></td>
</tr>
<tr>
<td>8 seconds or more have passed after you pressed and released “ ” switch on the steering switch.</td>
<td>Make sure to speak a command within 8 seconds after you press and release “ ” switch on the steering switch.</td>
<td></td>
</tr>
<tr>
<td>Only a limited range of voice commands is usable for each screen.</td>
<td>Use a correct voice command appropriate for the current screen.</td>
<td></td>
</tr>
<tr>
<td>The fan of the air conditioner is too loud.</td>
<td>Lower the fan speed as necessary as voice commands can be recognized more easily.</td>
<td></td>
</tr>
</tbody>
</table>

Related to Item Choice
The system should respond correctly to all voice commands without difficulty. If problems are encountered, follow the solutions given in this guide for the appropriate error.

Revision: November 2009
NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

Where the solutions are listed by number, try each solution in turn, starting with number one, until the problem is resolved.

<table>
<thead>
<tr>
<th>Symptom/ error message</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Displays “COMMAND NOT RECOGNIZED” or the system fails to interpret the command correctly.</td>
<td>1. Ensure that the command format is valid.</td>
</tr>
<tr>
<td></td>
<td>2. Speak clearly without pausing between words and at a level appropriate to the ambient noise level.</td>
</tr>
<tr>
<td></td>
<td>3. Ensure that the ambient noise level is not excessive, for example, windows open or defrost on.</td>
</tr>
<tr>
<td></td>
<td><strong>NOTE:</strong> If it is too noisy to use the phone, it is likely that voice commands will not be recognized.</td>
</tr>
<tr>
<td></td>
<td>4. If optional words of the command have been omitted, then command should be tried with these in place.</td>
</tr>
<tr>
<td>The system consistently selects the wrong voicetag</td>
<td>1. Ensure that the voicetag requested matches what was originally stored. This can be confirmed by giving the “Addressbook” Directory or Phone Directory command.</td>
</tr>
<tr>
<td></td>
<td>2. Replace one of the voicetags being confused with a different voicetag.</td>
</tr>
</tbody>
</table>

Related to Telephone
The system should respond correctly to all voice commands without difficulty. If problems are encountered, try the following solutions.
Where the solutions are listed by number, try each solution in turn, starting with number 1, until the problem is resolved.

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>System fails to interpret the command correctly.</td>
<td>1. Ensure that the command is valid.</td>
</tr>
<tr>
<td></td>
<td>2. Ensure that the command is spoken after the tone.</td>
</tr>
<tr>
<td></td>
<td>3. Speak clearly without pausing between words and at level appropriate to the ambient noise level in the vehicle.</td>
</tr>
<tr>
<td></td>
<td>4. Ensure that the ambient noise level is not excessive (for example, windows open or defroster on).</td>
</tr>
<tr>
<td></td>
<td><strong>NOTE:</strong> If it is too noisy to use the phone, it is likely that the voice commands will not be recognized.</td>
</tr>
<tr>
<td></td>
<td>5. If more than one command was said at a time, try saying the commands separately.</td>
</tr>
<tr>
<td></td>
<td>6. If the system consistently fails to recognize commands, the voice training procedure should be carried out to improve the recognition response for the speaker. See “Speaker adaptation (SA) mode” earlier in this section. Refer to “OWNER’S MANUAL”.</td>
</tr>
<tr>
<td>The system consistently selects the wrong voicetag</td>
<td>1. Ensure that the phone book entry name requested matches what was originally stored. This can be confirmed by using the “List Names” command.</td>
</tr>
<tr>
<td></td>
<td>2. Replace one of the names being confused with a new name.</td>
</tr>
</tbody>
</table>

RELATED TO AUDIO
• The majority of the audio malfunctions are the result of outside causes (bad CD/cassette, electromagnetic interference, etc.). Check the symptoms below to diagnose the malfunction.
• The vehicle itself can be a source of noise if noise prevention parts or electrical equipment is malfunctioning. Check if noise is caused and/or changed by engine speed, ignition switch turned to each position, and operation of each piece of electrical equipment, and then determine the cause.

**NOTE:**
• CD-R is not guaranteed to play because they can contain compressed audio (MP3, WMA, AAC, M4A) or could be incorrectly mastered by the customer on a computer.
• Check if the CDs carry the Compact Disc Logo. If not, the disc is not mastered to the “red book” Compact Disc Standard and may not play.
## SYMPTOM DIAGNOSIS

### NORMAL OPERATING CONDITION

**SYMPTOM**

**CAUSE AND COUNTER MEASURE**

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible cause</th>
<th>Possible solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cannot play</td>
<td>Check if the CD was inserted correctly.</td>
<td>This is not a malfunction.</td>
</tr>
<tr>
<td></td>
<td>Check if the CD is scratched or dirty.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Check if there is condensation inside the player, and if there is, wait until the condensation is gone (about 1 hour) before using the player.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>If there is a temperature increase error, the player will play correctly after it returns to the normal temperature.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>If there is a mixture of music CD files (CD-DA data) and MP3/WMA/AAC/M4A files on a CD, only the music CD files (CD-DA data) will be played.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Files with extensions other than &quot;.MP3&quot;, &quot;.WMA&quot;, &quot;.AAC&quot;, &quot;.M4A&quot; &quot;,.mp3&quot;, &quot;.wma&quot;, &quot;.aac&quot; or &quot;.m4a&quot; cannot be played. In addition, the character codes and number of characters for folder names and file names should be in compliance with the specifications.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Check if the disc or the file is generated in an irregular format. This may occur depending on the variation or the setting of MP3/WMA/AAC/M4A writing applications or other text editing applications.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Check if the finalization process, such as session close and disc close, is done for the disc.</td>
<td></td>
</tr>
<tr>
<td>Poor sound quality</td>
<td>Check if the CD is scratched or dirty.</td>
<td>This is not a malfunction.</td>
</tr>
<tr>
<td></td>
<td>It takes a relatively long time before the music starts playing.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>If there are many folder or file levels on the MP3/WMA/AAC/M4A CD, or if it is a multisession disc, some time may be required before the music starts playing.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The writing software and hardware combination might not match, or the writing speed, writing depth, writing width might not match the specifications. Try using the slowest writing speed.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Skipping may occur with large quantities if data such as for high bit rate data.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>When a non-MP3/WMA/AAC file has been given an extension of &quot;.MP3&quot;, &quot;.WMA&quot;, &quot;.AAC&quot;, &quot;.M4A&quot; &quot;,.mp3&quot;, &quot;.wma&quot;, &quot;.aac&quot; or &quot;.m4a&quot; or when play is prohibited by copyright protection, the player will skip to the next song.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The playback order is the order in which the files were written by the software, so the files might not play in the desired order.</td>
<td></td>
</tr>
<tr>
<td>Music cuts off or skips</td>
<td>The songs do not play back in the desired order.</td>
<td></td>
</tr>
<tr>
<td>Move immediately to the next song when playing</td>
<td>Noise resulting from variations in field strength, such as fading noise and multi-path noise, or external noise from trains and other sources, is not a malfunction.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Check if the disc or the file is generated in an irregular format. This may occur depending on the variation or the setting of MP3/WMA/AAC/M4A writing applications or other text editing applications.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Check if the finalization process, such as session close and disc close, is done for the disc.</td>
<td></td>
</tr>
<tr>
<td>The songs do not play back in the desired order.</td>
<td>Noise resulting from variations in field strength, such as fading noise and multi-path noise, or external noise from trains and other sources, is not a malfunction.</td>
<td></td>
</tr>
</tbody>
</table>

**NOTE:**

- **Fading noise:** This noise occurs because of variations in the field strength in a narrow range due to mountains or buildings blocking the signal.
- **Multi-path noise:** This noise results from a time difference between the broadcast waves directly from the station arriving at the antenna and the waves reflected by mountains or buildings.

### RELATED TO DVD

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible cause</th>
<th>Possible solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not working as operated</td>
<td>Some operations may be rejected or may not function as intended because of the manufacturer's intent, depending on DVD.</td>
<td>This is not a malfunction.</td>
</tr>
<tr>
<td>Operation not accepted</td>
<td>If a requested operation is prohibited, then a message is displayed on the screen. (Message display depends on DVD.)</td>
<td>This is not a malfunction.</td>
</tr>
<tr>
<td>DVD can not be played</td>
<td>Check that the DVD is inserted in the right place.</td>
<td>Upturn the DVD (facing the title upward).</td>
</tr>
<tr>
<td></td>
<td>Check if there is condensation inside the player.</td>
<td>wait until the condensation is gone (about 1 hour) before using the player.</td>
</tr>
<tr>
<td></td>
<td>DVD menu is displayed.</td>
<td>Select item to touch “ENTER”</td>
</tr>
<tr>
<td></td>
<td>Insertion of a DVD with a different region code.</td>
<td>DVDs with a different region code can not be played. Check DVD.</td>
</tr>
<tr>
<td></td>
<td>Some DVD softwares may not be played because not all DVD softwares fully comply in the standard.</td>
<td>This is not a malfunction.</td>
</tr>
</tbody>
</table>

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AV-480

2010 Maxima
< SYMPTOM DIAGNOSIS >

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible cause</th>
<th>Possible solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interruption during playback or flicker in the display</td>
<td>Check that the DVD has no scratches and dirt.</td>
<td>Errors may not be corrected depending on the size of scratches.</td>
</tr>
<tr>
<td>Low sound quality</td>
<td>In the process of fast-forward or fast-reverse.</td>
<td>Wipe and clean the dirt on the disc.</td>
</tr>
<tr>
<td>Distortion in picture</td>
<td>Subtitle setting is OFF.</td>
<td>This is not a malfunction.</td>
</tr>
<tr>
<td>Subtitles not shown</td>
<td>Subtitle is not included in the software.</td>
<td>Set subtitle.</td>
</tr>
<tr>
<td>Not played in set language</td>
<td>If a language is not included in the DVD, then the DVD is played in a recommended language.</td>
<td>Check DVD.</td>
</tr>
<tr>
<td>Not played with set subtitle</td>
<td>If a set subtitle is not included in the DVD, then the DVD is played with a recommended subtitle.</td>
<td>Check DVD.</td>
</tr>
<tr>
<td>Subtitle and language not selectable (not played with set subtitle or in set language)</td>
<td>The DVD is not multilanguage-capable.</td>
<td>The inclusion of the number of languages depends on DVD. Languages may be selectable on the Menu screen. Check DVD.</td>
</tr>
<tr>
<td></td>
<td>The DVD has a priority language or setting.</td>
<td>If the DVD has a priority language or settings, then settings changed with this device are not reflected.</td>
</tr>
<tr>
<td>Angle unchangeable</td>
<td>Plural angles are not recorded in the software.</td>
<td>Check if the DVD is multi-angle-capable.</td>
</tr>
<tr>
<td>Unusual screen display</td>
<td>Display mode to the output aspect ratio for the DVD software is inappropriate.</td>
<td>Switch to the appropriate display mode.</td>
</tr>
<tr>
<td>Playback time is indicated, but no sound comes out.</td>
<td>Playback of Mix mode Truck 1. (Mix mode: Format including Truck 1 with data other than music and Trucks from Truck 2 with music data.)</td>
<td>Play music data included in trucks from Truck 2.</td>
</tr>
</tbody>
</table>

RELATED TO VEHICLE ICON

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible cause</th>
<th>Possible solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Names of roads differ between Plan View and Birdview™.</td>
<td>This is because the quantity of the displayed information is reduced so that the screen does not become too crowded. There is also a chance that names of the roads may be displayed multiple times, and the names appearing on the screen may be different because of a processing procedure.</td>
<td>This is not a malfunction.</td>
</tr>
<tr>
<td>The vehicle icon is not displayed in the correct position.</td>
<td>The vehicle was transported after the ignition switch was pressed off, for example, by a ferry or car transporter.</td>
<td>Drive the vehicle for a while on a road where GPS signals can be received.</td>
</tr>
<tr>
<td></td>
<td>The position and direction of the vehicle icon may be incorrect depending on the driving environments and the levels of positioning accuracy of the navigation system.</td>
<td>This is not a malfunction. Drive the vehicle for a while to automatically correct the position and direction of the vehicle icon.</td>
</tr>
<tr>
<td>When the vehicle is traveling on a new road, the vehicle icon is located on another road nearby.</td>
<td>Because the new road is not stored in the map data, the system automatically places the vehicle icon on the nearest road available.</td>
<td>Updated road information will be included in the next version of the map data.</td>
</tr>
<tr>
<td>The screen does not switch to the night screen even after turning on the headlights.</td>
<td>The daytime screen was set the last time the headlights were turned on.</td>
<td>Set the screen to the night screen mode using &lt;Day/Night&gt; when you turn on the headlights.</td>
</tr>
<tr>
<td>The map does not scroll even when the vehicle is moving.</td>
<td>The current location map screen is not displayed.</td>
<td>Press “MAP”.</td>
</tr>
<tr>
<td>The vehicle icon is not displayed.</td>
<td>The current location map screen is not displayed.</td>
<td>Press “MAP”.</td>
</tr>
</tbody>
</table>
### Related to Route Calculation and Visual Guidance

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible cause</th>
<th>Possible solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>The location of the vehicle icon is misaligned from the actual position.</td>
<td>When using tire chains or replacing the tires, speed calculations based on the speed sensor may be incorrect.</td>
<td>Drive the vehicle for a while [at approximately 30 km/h (19 MPH) for about 30 minutes] to automatically correct the vehicle icon position. If this does not correct the vehicle icon position, contact a NISSAN/INFINITI dealer.</td>
</tr>
<tr>
<td>The map data has a mistake or is incomplete (the vehicle icon position is always misaligned in the same area).</td>
<td></td>
<td>Updated road information will be included in the next version of the map data.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible cause</th>
<th>Possible solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waypoints are not included in the auto reroute calculation.</td>
<td>Waypoints that you have already passed are not included in the auto reroute calculation.</td>
<td>If you want to go to that waypoint again, you need to edit the route.</td>
</tr>
<tr>
<td>Route information is not displayed.</td>
<td>Route calculation has not yet been performed.</td>
<td>Set the destination and perform route calculation.</td>
</tr>
<tr>
<td>The auto reroute calculation (or detour calculation) suggests the same route as the one previously suggested.</td>
<td>Route calculations took priority conditions into consideration, but the same route was calculated.</td>
<td>This is not a malfunction.</td>
</tr>
<tr>
<td>A waypoint cannot be added.</td>
<td>Five waypoints are already set on the route, including ones that you have already passed.</td>
<td>A maximum of 5 waypoints can be set on the route. If you want to go to 6 or more waypoints, perform route calculations multiple times as necessary.</td>
</tr>
<tr>
<td>The suggested route is not displayed.</td>
<td>Roads near the destination cannot be calculated.</td>
<td>Reset the destination to a main or ordinary road, and recalculate the route.</td>
</tr>
<tr>
<td>The starting point and destination are too close.</td>
<td>The starting point and destination are too far away.</td>
<td>Divide your trip by selecting one or two intermediate destinations, and perform route calculations multiple times.</td>
</tr>
<tr>
<td>There are time restricted roads (by the day of the week, by time) near the current vehicle location or destination.</td>
<td></td>
<td>Set [Use Time Restricted Roads] to off.</td>
</tr>
<tr>
<td>The part of the route that you have already passed is deleted.</td>
<td>A route is managed by sections between waypoints. If you passed the first waypoint, the section between the starting point and the waypoint is deleted. (It may not be deleted depending on the area.)</td>
<td>This is not a malfunction.</td>
</tr>
<tr>
<td>An indirect route is suggested.</td>
<td>If there are restrictions (such as one-way streets) on roads close to the starting point or destination, the system may suggest an indirect route.</td>
<td>Adjust the location of the starting of the starting point or destination.</td>
</tr>
<tr>
<td>The system may suggest an indirect route because route calculation does not take into consideration some areas such as narrow streets (gray roads.)</td>
<td></td>
<td>Reset the destination to a main or ordinary road, and recalculate the route.</td>
</tr>
<tr>
<td>The landmark information does not correspond to the actual information.</td>
<td>This may be caused by insufficient or incorrect map data.</td>
<td>Updated information will be included in the next version of the data.</td>
</tr>
<tr>
<td>The suggested route does not exactly connect to the starting point, waypoints, or destination.</td>
<td>There is no data for route calculation closes to these locations.</td>
<td>Set the starting point, waypoints and destination on a main road, and perform route calculation.</td>
</tr>
</tbody>
</table>

### Related to Voice Guidance

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible cause</th>
<th>Possible solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>The location of the vehicle icon is misaligned from the actual position.</td>
<td>When using tire chains or replacing the tires, speed calculations based on the speed sensor may be incorrect.</td>
<td>Drive the vehicle for a while [at approximately 30 km/h (19 MPH) for about 30 minutes] to automatically correct the vehicle icon position. If this does not correct the vehicle icon position, contact a NISSAN/INFINITI dealer.</td>
</tr>
<tr>
<td>The map data has a mistake or is incomplete (the vehicle icon position is always misaligned in the same area).</td>
<td></td>
<td>Updated road information will be included in the next version of the map data.</td>
</tr>
</tbody>
</table>

Revision: November 2009
### < SYMPTOM DIAGNOSIS >

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible cause</th>
<th>Possible solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voice guidance is not available</td>
<td>Voice guidance is only available at certain intersections marked with? In some case, voice guidance is not available even when the vehicle should make a turn.</td>
<td>This is not a malfunction.</td>
</tr>
<tr>
<td></td>
<td>The vehicle has deviated from the suggested route.</td>
<td>Go back to the suggested route or request route calculation again</td>
</tr>
<tr>
<td></td>
<td>Voice guide is set to off.</td>
<td>Turn on voice guidance.</td>
</tr>
<tr>
<td></td>
<td>Route guidance is set to off.</td>
<td>Turn on voice guidance.</td>
</tr>
<tr>
<td>The guidance contact does not correspond to the actual condition.</td>
<td>The contact of voice guidance may vary, depending on the types of intersections at which turn are made.</td>
<td>Follow all traffic rules and regulations.</td>
</tr>
</tbody>
</table>

### RELATED TO TRAFFIC INFORMATION

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible cause</th>
<th>Possible solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>The traffic information is not displayed</td>
<td>The traffic information is not set to on.</td>
<td>Set the traffic information to on.</td>
</tr>
<tr>
<td></td>
<td>You are in an area where traffic information is not available</td>
<td>Scroll to an area where traffic information is available</td>
</tr>
<tr>
<td></td>
<td>You have not subscribed to XM NavTraffic or, your subscription to XM NavTraffic has expired.</td>
<td>Check your subscription status of XM NavTraffic.</td>
</tr>
<tr>
<td></td>
<td>The map scale is set at a level where the display of icons is impossible.</td>
<td>Check that the map scale is set at a level in which the display of icons is possible.</td>
</tr>
<tr>
<td>With the automatic detour route search ON, no detour route is set to avoid congested areas.</td>
<td>There is no faster route compared to the current route, based on the road network and traffic information.</td>
<td>The automatic detour search is not intended for avoiding traffic jams. It searches for the fastest route taking into consideration such things as traffic jams.</td>
</tr>
<tr>
<td>The route does not avoid road section with traffic information stating it is closed due to road construction.</td>
<td>The navigation system is designed not to avoid this event because the actual period of closure may differ from the declared roadwork period.</td>
<td>Observe the actual road condition and follow the instructions on road for detour when necessary. If the road closure is for certain, use detour function and set the detour distance to avoid the closed road section.</td>
</tr>
<tr>
<td>Traffic information displayed differs from information from other media (e.g. radio).</td>
<td>Other media may use different information sources.</td>
<td>Observe the actual road conditions and regulations. Always observe safe driving practices and follow all traffic regulations.</td>
</tr>
</tbody>
</table>
Precautions for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the SR and SB section of this Service Manual.

**WARNING:**
- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SR section.
- Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

**PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS**

**WARNING:**
- When working near the Airbag Diagnosis Sensor Unit or other Airbag System sensors with the Ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the Ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

Precautions Necessary for Steering Wheel Rotation after Battery Disconnect (Early Production, With Electronic Steering Column Lock)

**NOTE:**
- Before removing and installing any control units, first turn the push-button ignition switch to the LOCK position, then disconnect both battery cables.
- After finishing work, confirm that all control unit connectors are connected properly, then re-connect both battery cables.
- Always use CONSULT-III to perform self-diagnosis as a part of each function inspection after finishing work. If a DTC is detected, perform trouble diagnosis according to self-diagnosis results.

This vehicle is equipped with a push-button ignition switch and a steering lock unit. If the battery is disconnected or discharged, the steering wheel will lock and cannot be turned. If turning the steering wheel is required with the battery disconnected or discharged, follow the procedure below before starting the repair operation.

**OPERATION PROCEDURE**
1. Connect both battery cables.
   **NOTE:**
   - Supply power using jumper cables if battery is discharged.
2. Carry the Intelligent Key or insert it to the key slot and turn the push-button ignition switch to ACC position. (At this time, the steering lock will be released.)
3. Disconnect both battery cables. The steering lock will remain released with both battery cables disconnected and the steering wheel can be turned.
4. Perform the necessary repair operation.
5. When the repair work is completed, re-connect both battery cables. With the brake pedal released, turn the push-button ignition switch from ACC position to ON position, then to LOCK position. (The steering wheel will lock when the push-button ignition switch is turned to LOCK position.)

6. Perform self-diagnosis check of all control units using CONSULT-III.

Precaution for Trouble Diagnosis

AV COMMUNICATION SYSTEM
• Do not apply voltage of 7.0 V or higher to the measurement terminals.
• Use the tester with its open terminal voltage being 7.0 V or less.
• Be sure to turn ignition switch OFF and disconnect the battery cable from the negative terminal before checking the circuit.

Precaution for Harness Repair

AV COMMUNICATION SYSTEM
• Solder the repaired parts, and wrap with tape. [Frays of twisted line must be within 110 mm (4.33 in).]

• Do not perform bypass wire connections for the repair parts. (The spliced wire will become separated and the characteristics of twisted line will be lost.)
<table>
<thead>
<tr>
<th>Tool name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power tool</td>
<td>Loosening bolts and nuts</td>
</tr>
</tbody>
</table>

PBIC0191E
ON-VEHICLE REPAIR
AV CONTROL UNIT
Removal and Installation

1. Disconnect the battery negative terminal.
2. Remove the cluster lid D. Refer to IP-12, "Removal and Installation".
3. Remove the cluster lid C. Refer to IP-11, "Exploded View".
4. Remove the audio unit screws (A), then pull out the audio unit (1), disconnect the audio unit connectors and remove the audio unit (1).

Installation
AV CONTROL UNIT

< ON-VEHICLE REPAIR >

[BOSE W/ COLOR DISPLAY W/ NAVI]

Installation is in the reverse order of removal.

A/C AND AV SWITCH ASSEMBLY

Removal
1. Disconnect the battery negative terminal.
2. Remove the cluster lid D. Refer to IP-12, "Removal and Installation".
3. Remove the cluster lid C. Refer to IP-11, "Exploded View".
4. Remove the A/C and AV switch assembly screws (A), then pull out the A/C and AV switch assembly (1) from cluster lid C.

Installation
Installation is in the reverse order of removal.
MULTIFUNCTION SWITCH

Removal and Installation

REMOVAL
1. Remove cluster lid D. Refer to IP-11, "Exploded View".
2. Remove the four multifunction switch screws (A) and remove the multifunction switch (2) from cluster lid D (1).
   • metal clip

INSTALLATION
Installation is in the reverse order of removal.
Removal and Installation

1. Audio display unit bracket
2. Audio display unit
3. Cluster lid D
4. Multifunction switch
   A. Audio display unit bracket screws
   B. Audio display unit screws

Metal Clip

REMOVAL

1. Remove the cluster lid D. Refer to IP-12, "Removal and Installation".
2. Remove the audio display unit bracket screws (A), then pull out the audio display unit and bracket assembly (1), disconnect the audio display unit connectors and remove the audio display unit and bracket assembly (1).
3. Remove the audio display unit screws on the sides and remove the audio display unit from the audio display unit brackets.

INSTALLATION
Installation is in the reverse order of removal.
USB CONNECTOR

Removal and Installation

REMOVAL
1. Remove the center console assembly. Refer to IP-16, "Removal and Installation".
2. Push the pawl from the back of the center console to remove the USB connector (1).

INSTALLATION
Installation is in the reverse order of removal.
AUXILIARY INPUT JACKS

Removal and Installation

REMOVAL
1. Remove the center console. Refer to IP-16, "Removal and Installation".
2. Remove the center console bin box.
3. Remove the auxiliary input jacks screws (A), then remove the auxiliary input jacks (1).

INSTALLATION
Installation is in the reverse order of removal.
FRONT TWEETER

Removal and Installation

REMOVAL
1. Remove front tweeter speaker grille. Refer to IP-12, "Removal and Installation".
2. Remove the front tweeter speaker screws (A), then pull out the front tweeter speaker (1), disconnect the front tweeter speaker connector and remove the front tweeter speaker (1).

INSTALLATION
Installation is in the reverse order of removal.
Removal and Installation

REMOVAL
1. Remove the center speaker grille. Refer to IP-12, "Removal and Installation".
2. Remove the center speaker screws (A), then pull out the center speaker (1), then disconnect the center speaker connector and remove the center speaker (1).

INSTALLATION
Installation is in the reverse order of removal.
FRONT DOOR SPEAKER

Removal and Installation

REMOVAL

1. Remove the front door finisher. Refer to INT-18, "Removal and Installation".
2. Remove the front door speaker screws (A), then disconnect the front door speaker connector and remove the front door speaker (1).
3. Remove the front door speaker spacer screws (B) and remove the front door speaker spacer (2).

INSTALLATION

Installation is in the reverse order of removal.
REAR DOOR SPEAKER

Removal and Installation

REMOVAL
1. Remove the rear door finisher. Refer to INT-21, "Removal and Installation".
2. Remove the rear door speaker screws (A), then disconnect the rear door speaker connector (B) and remove the rear door speaker (1).

INSTALLATION
Installation is in the reverse order of removal.
Removal and Installation

1. Remove the rear parcel shelf finisher. Refer to INT-26, "Removal and Installation".
2. Remove the subwoofer screws, then pull out the subwoofer, disconnect the subwoofer connector and remove the subwoofer.

INSTALLATION
Installation is in the reverse order of removal.
BOSE SPEAKER AMP

Removal and Installation

1. Bose speaker amp.  A. Screws

REMOVAL
1. Disconnect the battery negative terminal.
2. Remove the rear parcel shelf. Refer to INT-26, "Removal and Installation".
3. Remove the Bose speaker amp. screws.
4. Remove the trunk upper finisher. Refer to INT-35, "Exploded View".
5. Disconnect the Bose speaker amp. connectors and remove the Bose speaker amp.

INSTALLATION
Installation is in the reverse order of removal.
SATellite radio antenna

removal and installation

removal

1. lower the headliner at the rear. refer to int-32, "exploded view".
2. disconnect the satellite radio antenna connector (a), then remove the satellite radio antenna nut (b) and remove the satellite radio antenna (1).

installation

installation is in the reverse order of removal.
GPS ANTENNA

Removal and Installation

REMOVAL
1. Remove cluster lid A. Refer to IP-11, "Exploded View".
2. Remove the audio unit. Refer to AV-487, "Removal and Installation".
3. Remove the GPS antenna screw (A).
   • GPS antenna (1)
4. Detach the GPS antenna cable clip (A), then fish the GPS antenna connector and harness (1), through the cluster lid A instrument panel opening and remove the GPS antenna.

INSTALLATION
Installation is in the reverse order of removal.
STEERING SWITCH

Removal and Installation

REMOVAL
1. Remove the driver airbag module. Refer to SR-5, "Removal and Installation".
2. Remove the steering wheel switch assembly screws (A), then detach the steering wheel switch harness clips (B) and remove the steering wheel switches (1).

INSTALLATION
Installation is in the reverse order of removal.
Location of Antenna

Window Antenna Repair

ELEMENT CHECK

1. Attach probe circuit tester (ohm setting) to antenna terminal on each side.

- When measuring continuity, wrap tin foil around the top of probe. Then, press the foil against the wire with your finger.
2. If an element is broken, no continuity will exist.

3. To locate a break, move probe along element. Tester indication will change abruptly when probe passes the broken point.

REPAIR EQUIPMENT
- Conductive silver composition (DuPont No. 4817 or equivalent)
- Ruler 30 cm (11.8 in) long
- Drawing pen
- Heat gun
- Alcohol
- Cloth

REPAIRING PROCEDURE
1. Wipe broken heat wire and its surrounding area clean with a cloth dampened in alcohol.
2. Apply a small amount of conductive silver composition to tip of drawing pen.
   NOTE: Shake silver composition container before use.
3. Place ruler on glass along broken line. Deposit conductive silver composition on break with drawing pen. Slightly overlap existing heat wire on both sides [preferably 5 mm (0.20 in)] of the break.
4. After repair has been completed, check repaired wire for continuity. This check should be conducted 10 minutes after silver composition is deposited. Do not touch repaired area while test is being conducted.

5. Apply a constant stream of hot air directly to the repaired area for approximately 20 minutes with a heat gun. A minimum distance of 3 cm (1.2 in) should be kept between repaired area and hot air outlet. If a heat gun is not available, let the repaired area dry for 24 hours.
Removal and Installation

REMOVAL
1. Remove the rear pillar finisher RH. Refer to INT-23, "Exploded View".
2. Detach the antenna amp. harness clip (A), disconnect the antenna amp. connectors (B), remove the antenna amp. screw (C) and remove the antenna amp. (1).

INSTALLATION
Installation is in the reverse order of removal.
Removal and Installation

REMOVAL
1. Remove the map lamp assembly. Refer to INL-97, "Removal and Installation".
2. Detach the microphone connector (A).
3. Remove the map lamp covers (1), then remove the map lamp assembly cover (2).
4. Release the microphone tabs (A), then remove the microphone (1).

INSTALLATION
Installation is in the reverse order of removal.
REAR VIEW CAMERA

Removal and Installation

REMOVAL
1. Remove the license plate finisher. Refer to EXL-177, "Removal and Installation".
2. Remove trunk lid finisher. Refer to INT-35, "Exploded View".
3. Disconnect the rear view camera connector (B), press the rear view camera tab (A) and remove the rear view camera (1).

INSTALLATION
Installation is in the reverse order of removal.

Adjustment

REAR VIEW CAMERA
For adjustment on the rear view camera, refer to DLK-9, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement".
< BASIC INSPECTION >

DIAGNOSIS AND REPAIR WORKFLOW

BASIC INSPECTION

OVERALL SEQUENCE

1. CHECK SYMPTOM

Check the malfunction symptoms by performing the following items.

- Interview the customer to obtain the malfunction information (conditions and environment when the malfunction occurred).
- Check the symptom.

>> GO TO 2

2. SELF-DIAGNOSIS (CONSULT-III)

1. Connect CONSULT-III and perform “SELF-DIAGNOSIS” for “MULTI AV”.

   NOTE:
   - Skip to step 4 of the diagnosis procedure if “MULTI AV” is not displayed.

2. Check if any DTC No. is displayed in the self-diagnosis results.
DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[BOSE W/ COLOR W/ RR CTL]

Is any DTC No. displayed?

YES  >> GO TO 3
NO   >> GO TO 4

3. CHECK SELF-DIAGNOSIS RESULTS (CONSULT-III)

1. Check the DTC No. indicated in the self-diagnosis results.
2. Perform the relevant diagnosis referring to the DTC No. list. Refer to AV-637, "DTC Index".

NOTE:
Start with the diagnosis for the CAN communication system if "CAN COMM CIRCUIT [U1000] or CONTROL UNIT (CAN) [U1010]" is displayed.

>> GO TO 5

4. PERFORM DIAGNOSIS BY SYMPTOM

Perform the relevant diagnosis referring to the diagnosis chart by symptom. Refer to AV-649, "Symptom Table".

>> GO TO 5

5. REPAIR OR REPLACE MALFUNCTIONING PARTS

Repair or replace the identified malfunctioning parts.

NOTE:
Erase the stored self-diagnosis results after repairing or replacing the relevant components if any DTC No. has been indicated in the self-diagnosis results.

>> GO TO 6

6. CHECK AFTER REPAIR

1. Perform self-diagnosis for "MULTI AV" with CONSULT-III after repairing or replacing the malfunctioning parts.
2. Check if any DTC No. is displayed in the self-diagnosis results.

Is any DTC No. displayed?

YES  >> GO TO 3
NO   >> GO TO 7

7. FINAL CHECK

Perform the operation check to confirm that the malfunction symptom is solved or that any other symptoms are present.

Are any symptoms present?

YES  >> GO TO 4
NO   >> Inspection End.
INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

INSPECTION AND ADJUSTMENT

REAR VIEW MONITOR POSSIBLE ROUTE LINE CENTER POSITION ADJUSTMENT

REAR VIEW MONITOR POSSIBLE ROUTE LINE CENTER POSITION ADJUSTMENT : Description

INFOID:0000000005528990

Adjust the center position of the possible route line of the rear view monitor if it is shifted.

REAR VIEW MONITOR POSSIBLE ROUTE LINE CENTER POSITION ADJUSTMENT : Special Repair Requirement

INFOID:0000000005528991

1. STEERING OPERATION

Steer the steering wheel to the leftmost and rightmost positions.

>> GO TO 2

2. DRIVING

Drive the vehicle straight ahead 100 m (328.1 ft) or more at a speed of 30 km/h (18.6 MPH) or more.

>> END

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description

INFOID:0000000005589328

BEFORE REPLACEMENT

When replacing AV control unit, save or print current vehicle specification with CONSULT-III configuration before replacement.

AFTER REPLACEMENT

CAUTION:

When replacing AV control unit, you must perform “WRITE CONFIGURATION” with CONSULT-III.

• Complete the procedure of “WRITE CONFIGURATION” in order.
• If you set incorrect “WRITE CONFIGURATION”, incidents might occur.
• Configuration is different for each vehicle model. Confirm configuration of each vehicle model.

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement

INFOID:0000000005589329

1. SAVING VEHICLE SPECIFICATION

CONSULT-III Configuration

Perform “READ CONFIGURATION” to save or print current vehicle specification. Refer to AV-512, "CONFIGURATION (AV CONTROL UNIT) : Description".

NOTE:

If “READ CONFIGURATION” can not be used, use the “WRITE CONFIGURATION - Manual selection”.

>> GO TO 2.

2. REPLACE AV CONTROL UNIT

Replace AV control unit. Refer to AV-654, "Removal and Installation".

>> GO TO 3.

3. WRITING VEHICLE SPECIFICATION

CONSULT-III Configuration

Revision: November 2009
Perform “WRITE CONFIGURATION - Config file” or “WRITE CONFIGURATION - Manual selection” to write vehicle specification. Refer to AV-512, "CONFIGURATION (AV CONTROL UNIT) : Special Repair Requirement".

>> GO TO 4.

4. OPERATION CHECK

Check that the operation of the AV control unit and camera images (fixed guide lines and predictive course lines) are normal.

>> WORK END

CONFIGURATION (AV CONTROL UNIT)

CONFIGURATION (AV CONTROL UNIT) : Description

• Since vehicle specifications are not included in the AV control unit after replacement, it is required to write vehicle specifications with CONSULT-III.
• Configuration has three functions as follows.

<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>READ CONFIGURATION</td>
<td>• Reads the vehicle configuration of current AV control unit.</td>
</tr>
<tr>
<td>WRITE CONFIGURATION-Config file</td>
<td>Writes the vehicle configuration with saved data.</td>
</tr>
</tbody>
</table>

CONFIGURATION (AV CONTROL UNIT) : Special Repair Requirement

1. WRITING MODE SELECTION

CONSULT-III Configuration
Select “CONFIGURATION” of AV control unit.

When writing saved data>>GO TO 2.
When writing manually>>GO TO 3.

2. PERFORM “WRITE CONFIGURATION-CONFIG FILE”

CONSULT-III Configuration
Perform “WRITE CONFIGURATION-Config file”.

>> WORK END

3. PERFORM “WRITE CONFIGURATION-MANUAL SELECTION”

CONSULT-III Configuration
Select “WRITE CONFIGURATION-Manual selection” to write vehicle specifications into the AV control unit.
For data to write, refer to AV-512, "CONFIGURATION (AV CONTROL UNIT) : Configuration List".

>> GO TO 4.

4. OPERATION CHECK

Check that the operation of the AV control unit and camera images (fixed guide lines and predictive course lines) are normal.

>> WORK END

CONFIGURATION (AV CONTROL UNIT) : Configuration List

CAUTION:
Check vehicle specifications before servicing.

<table>
<thead>
<tr>
<th>MANUAL SETTING ITEM</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Items</td>
<td>Setting value</td>
</tr>
<tr>
<td>STEERING</td>
<td></td>
</tr>
<tr>
<td>LHD</td>
<td>—</td>
</tr>
<tr>
<td>RHD</td>
<td>—</td>
</tr>
<tr>
<td>GRADE</td>
<td></td>
</tr>
<tr>
<td>MODE 1</td>
<td>BASE</td>
</tr>
<tr>
<td>MODE 2</td>
<td>OTHER</td>
</tr>
<tr>
<td>ENGINE TYPE</td>
<td></td>
</tr>
<tr>
<td>NORMAL</td>
<td>—</td>
</tr>
<tr>
<td>HYBRID</td>
<td>—</td>
</tr>
<tr>
<td>BODY TYPE</td>
<td></td>
</tr>
<tr>
<td>NORMAL</td>
<td>NORMAL</td>
</tr>
<tr>
<td>CONVERTIBLE</td>
<td></td>
</tr>
<tr>
<td>CAMERA SYSTEM</td>
<td></td>
</tr>
<tr>
<td>NONE/AVM</td>
<td>NONE or AVM</td>
</tr>
<tr>
<td>REAR</td>
<td>REAR CAMERA</td>
</tr>
<tr>
<td>REAR + SIDE</td>
<td>REAR + SIDE CAMERA</td>
</tr>
<tr>
<td>4WAS</td>
<td></td>
</tr>
<tr>
<td>WITHOUT</td>
<td>—</td>
</tr>
<tr>
<td>WITH</td>
<td>—</td>
</tr>
<tr>
<td>SOUND SYSTEM</td>
<td></td>
</tr>
<tr>
<td>BASE</td>
<td>—</td>
</tr>
<tr>
<td>BOSE</td>
<td>—</td>
</tr>
<tr>
<td>ANTENNA TYPE</td>
<td></td>
</tr>
<tr>
<td>ROD TYPE</td>
<td>—</td>
</tr>
<tr>
<td>LONG TYPE</td>
<td>—</td>
</tr>
<tr>
<td>DUAL-ZONE AUTO TEMP</td>
<td></td>
</tr>
<tr>
<td>WITHOUT</td>
<td>—</td>
</tr>
<tr>
<td>WITH</td>
<td>—</td>
</tr>
<tr>
<td>DVD PLAY FUNCTION</td>
<td></td>
</tr>
<tr>
<td>WITHOUT</td>
<td>—</td>
</tr>
<tr>
<td>WITH</td>
<td>—</td>
</tr>
</tbody>
</table>
**INSPECTION AND ADJUSTMENT**

*BASIC INSPECTION*  
*BOSE W/ COLOR W/ RR CTL*

<table>
<thead>
<tr>
<th>Items</th>
<th>Setting value</th>
</tr>
</thead>
<tbody>
<tr>
<td>SED 2DR</td>
<td>SEDAN 2 DOOR</td>
</tr>
<tr>
<td>SED 4DR 1</td>
<td>SEDAN 4 DOOR</td>
</tr>
<tr>
<td>SED 4DR 2</td>
<td>SEDAN 4 DOOR (WIDE)</td>
</tr>
<tr>
<td>H/B 2DR</td>
<td>H/B 2 DOOR</td>
</tr>
<tr>
<td>H/B 4DR</td>
<td>H/B 4 DOOR</td>
</tr>
<tr>
<td>COUPE 2DR</td>
<td>COUPE 2 DOOR</td>
</tr>
<tr>
<td>COUPE T</td>
<td>COUPE T BAR</td>
</tr>
<tr>
<td>WGN 4DR 2</td>
<td>49H WAGON 4 DOOR (WIDE)</td>
</tr>
<tr>
<td>H/T 2DR 1</td>
<td>H/T 2 DOOR</td>
</tr>
<tr>
<td>H/T 2DR 2</td>
<td>H/T 2 DOOR (HIGH-ROOF)</td>
</tr>
<tr>
<td>H/T 4DR 1</td>
<td>H/T 4 DOOR</td>
</tr>
<tr>
<td>H/T 4DR 2</td>
<td>H/T 4 DOOR (WIDE)</td>
</tr>
<tr>
<td>WGN 2DR</td>
<td>WAGON 2 DOOR</td>
</tr>
<tr>
<td>WGN 4DR 1</td>
<td>WAGON 4 DOOR</td>
</tr>
<tr>
<td>WGN 4DR 3</td>
<td>WAGON 4 DOOR (HIGH-ROOF)</td>
</tr>
<tr>
<td>WGN 4DR 4</td>
<td>56H WAGON 4 DOOR (WIDE)</td>
</tr>
<tr>
<td>VAN 2DR</td>
<td>VAN 2 DOOR</td>
</tr>
<tr>
<td>VAN 4DR 1</td>
<td>VAN 4 DOOR</td>
</tr>
<tr>
<td>VAN 4DR 2</td>
<td>VAN 4 DOOR (HIGH-ROOF)</td>
</tr>
<tr>
<td>CONV</td>
<td>CONVERTIBLE</td>
</tr>
</tbody>
</table>

**BODY TYPE**

Revision: November 2009

AV-514

2010 Maxima
FUNCTION DIAGNOSIS

System Description

AUDIO SYSTEM

Revision: November 2009  
AV-515  
2010 Maxima
< FUNCTION DIAGNOSIS >

The audio system consists of the following components
• AV control unit
• Display unit
• BOSE speaker amp.
• Window antenna
• Steering wheel audio control switches
• A/C and AV switch assembly
• Rear control switch
• Front door speakers
• Tweeters
• Center speaker
• Rear door speakers
• Rear subwoofer

When the audio system is on, radio signals are received by the window antenna. The AV control unit then sends audio signals to the BOSE speaker amp. The BOSE speaker amp. amplifies the audio signals before sending them to the front door speakers, tweeters, center speaker, rear door speakers and rear subwoofers. Refer to Owner's Manual for audio system operating instructions.

SATELLITE RADIO SYSTEM
The satellite radio system consists of the following components
• Satellite antenna
• Satellite radio tuner

When the satellite radio system is on, radio signals are supplied to the satellite radio tuner from the satellite antenna. The satellite radio tuner then sends audio signals to the AV control unit. Refer to Owner's Manual for satellite radio system operating instructions.

SPEED SENSITIVE VOLUME SYSTEM
Volume level of this system goes up and down automatically in proportion to the vehicle speed. The control level can be selected by the customer. Refer to Owner's Manual for operating instructions.
AV-518

Component Description

<table>
<thead>
<tr>
<th>Part name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AV control unit</td>
<td>Controls audio system and satellite radio system functions</td>
</tr>
<tr>
<td>Display unit</td>
<td>Displays all audio and climate control related information</td>
</tr>
<tr>
<td>BOSE speaker amp.</td>
<td>Receives power (amp ON) and audio signals from AV control unit and outputs audio signals to each speaker.</td>
</tr>
</tbody>
</table>
| Steering wheel audio control switches | • Audio operation can be operated  
• Steering switch signal is output to AV control unit |
| Front door speakers           | • Outputs audio signal from BOSE speaker amp.  
• Outputs high, mid and low range sounds |
| Tweeters                      | • Outputs audio signal from BOSE speaker amp.  
• Outputs high range sounds |

Revision: November 2009

2010 Maxima
**AUDIO SYSTEM**

< FUNCTION DIAGNOSIS >

**[BOSE W/ COLOR W/ RR CTL]**

<table>
<thead>
<tr>
<th>Part name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center speaker</td>
<td>• Outputs audio signal from BOSE speaker amp.</td>
</tr>
<tr>
<td></td>
<td>• Outputs high range sounds</td>
</tr>
<tr>
<td>Rear door speakers</td>
<td>• Outputs audio signal from BOSE speaker amp.</td>
</tr>
<tr>
<td></td>
<td>• Outputs high, mid and low range sounds</td>
</tr>
<tr>
<td>Rear subwoofer</td>
<td>• Outputs audio signal from BOSE speaker amp.</td>
</tr>
<tr>
<td></td>
<td>• Outputs low range sounds</td>
</tr>
<tr>
<td>Satellite radio tuner</td>
<td>• Receives radio signals from satellite antenna</td>
</tr>
<tr>
<td></td>
<td>• Sends audio signals to AV control unit</td>
</tr>
<tr>
<td>Satellite antenna</td>
<td>Audio signal (satellite radio) is received and output to AV control unit.</td>
</tr>
</tbody>
</table>
System Description

When the shift selector is in the R position, the display shows a view to the rear of the vehicle. Lines which indicate the vehicle clearance and distances are also displayed.
Component Description

<table>
<thead>
<tr>
<th>Part name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AV control unit</td>
<td>• Sends camera ON signal to the rear view camera</td>
</tr>
<tr>
<td></td>
<td>• Receives camera image signal from the rear view camera</td>
</tr>
<tr>
<td></td>
<td>• Sends image signal to the display unit</td>
</tr>
<tr>
<td>Rear view camera</td>
<td>• Receives camera ON signal from the AV control unit</td>
</tr>
<tr>
<td></td>
<td>• Sends image signal to the AV control unit</td>
</tr>
<tr>
<td>Steering angle sensor</td>
<td>Sends steering angle information to the AV control unit via CAN communication</td>
</tr>
</tbody>
</table>

AV control unit
- Sends camera ON signal to the rear view camera
- Receives camera image signal from the rear view camera
- Sends image signal to the display unit

Rear view camera
- Receives camera ON signal from the AV control unit
- Sends image signal to the AV control unit
System Description

Refer to the Owner's Manual for Bluetooth telephone system operating instructions.

**NOTE:**
Cellular telephones must have their wireless connection set up (paired) before using the Bluetooth telephone system.

Bluetooth telephone system allows users who have a Bluetooth cellular telephone to make a wireless connection between their cellular telephone and the Bluetooth control unit. Hands-free cellular telephone calls can be sent and received. Some Bluetooth cellular telephones may not be recognized by the Bluetooth control unit. When a cellular telephone or the Bluetooth control unit is replaced, the telephone must be paired with the Bluetooth control unit. Different cellular telephones may have different pairing procedures. Refer to the cellular telephone operating manual.

**BLUETOOTH CONTROL UNIT**
When the ignition switch is turned to ACC or ON, the Bluetooth control unit will power up. During power up, the Bluetooth control unit is initialized and performs various self-checks. Initialization may take up to 20 seconds. If a phone is present in the vehicle and paired with the Bluetooth control unit, Nissan Voice Recognition will then become active. Bluetooth telephone functions can be turned off using the Nissan Voice Recognition system.

**STEERING WHEEL AUDIO CONTROL SWITCHES**
When buttons on the steering wheel audio control switch are pushed, the resistance in steering wheel audio control switch circuit changes, depending on which button is pushed. The Bluetooth control unit uses this signal to perform various functions while navigating through the voice recognition system.

The following functions can be performed using the steering wheel audio control switch:
- Initiate self-diagnosis of the Bluetooth telephone system
- Start a voice recognition session
- Answer and end telephone calls
- Adjust the volume of calls

**MICROPHONE**
The microphone is located in the roof console assembly. The microphone sends a signal to the Bluetooth control unit. The microphone can be actively tested during self-diagnosis.

**AV CONTROL UNIT**
The AV control unit receives signals from the Bluetooth control unit and sends audio signals to the BOSE speaker amp. then on to the speakers.
HANDS-FREE PHONE SYSTEM

< FUNCTION DIAGNOSIS >

[BOSE W/ COLOR W/ RR CTL]

Component Description

<table>
<thead>
<tr>
<th>Part name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AV control unit</td>
<td>• Receives telephone voice signal from Bluetooth control unit</td>
</tr>
<tr>
<td></td>
<td>• Sends telephone voice and voice guidance signals to the speakers</td>
</tr>
<tr>
<td>BOSE speaker amp.</td>
<td>• Receives audio signals from the AV control unit</td>
</tr>
<tr>
<td></td>
<td>• Outputs amplified audio signals to the speakers.</td>
</tr>
<tr>
<td>Front door speaker</td>
<td>• Receives telephone voice and voice guidance signals from the AV control unit</td>
</tr>
<tr>
<td>Front tweeter</td>
<td>• Start a voice recognition session</td>
</tr>
<tr>
<td>Center speaker</td>
<td>• Answer and end telephone calls</td>
</tr>
<tr>
<td></td>
<td>• Adjust the volume level</td>
</tr>
<tr>
<td>Steering wheel audio control switches</td>
<td>• Start a voice recognition session</td>
</tr>
<tr>
<td></td>
<td>• Answer and end telephone calls</td>
</tr>
<tr>
<td></td>
<td>• Adjust the volume level</td>
</tr>
</tbody>
</table>

AVWNA1958ZZ

Revision: November 2009
### HANDS-FREE PHONE SYSTEM

**FUNCTION DIAGNOSIS**

**[BOSE W/ COLOR W/ RR CTL]**

<table>
<thead>
<tr>
<th>Part name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microphone</td>
<td>Sends voice signals to Bluetooth control unit</td>
</tr>
<tr>
<td>Bluetooth control unit</td>
<td>Controls hands-free phone functions</td>
</tr>
<tr>
<td>Bluetooth antenna</td>
<td>Sends telephone voice signal to Bluetooth control unit</td>
</tr>
</tbody>
</table>

Revision: November 2009

AV-526

2010 Maxima
MULTIFUNCTION SWITCH AND PRESET SWITCH SELF-DIAGNOSIS FUNCTION
The ON/OFF operation (continuity) of each switch in the multifunction switch and preset switch can be checked.

Self-Diagnosis Mode
- Press the BACK switch and the \( \uparrow \) switch of the 8-direction switches within 10 seconds after turning the ignition switch from OFF to ACC and hold them for 3 seconds or more. Then the buzzer sounds, all indicators of the preset switch illuminate, and the self-diagnosis mode starts.
- The continuity of each switch at the ON position can be checked by pressing the switch. The buzzer sounds if the switch is normal. **NOTE:**
  The disk eject switch cannot be checked.

Finishing Self-diagnosis Mode
Self-diagnosis mode is canceled when the ignition switch is turned OFF.

MULTI AV SYSTEM ON BOARD DIAGNOSIS FUNCTION
- The AV control unit diagnosis function starts up with multifunction switch operation and the AV control unit performs a diagnosis for each unit in the system during the on board diagnosis.
- Perform a CONSULT-III diagnosis if the on board diagnosis does not start, e.g., if the screen does not display anything, the multifunction switch does not function, etc.

ON BOARD DIAGNOSIS

Description
- The trouble diagnosis function has a self-diagnosis mode for conducting trouble diagnosis automatically and a confirmation/adjustment mode for operating manually.
- Self-diagnosis mode performs the AV control unit diagnosis and the connection diagnosis between each of the units that make up the system, and it indicates the results to the display.
- The confirmation/adjustment mode allows the technician to check, modify or adjust the vehicle signals and set values, as well as to monitor the system error records and system communication status. The checking, modifying or adjusting generally requires human intervention and judgment (the system cannot make judgment automatically).

On Board Diagnosis Item

<table>
<thead>
<tr>
<th>Mode</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Diagnosis</td>
<td>• AV control unit diagnosis</td>
</tr>
<tr>
<td></td>
<td>• Perform the connection diagnosis between each of the units.</td>
</tr>
</tbody>
</table>

Revision: November 2009
STARTING PROCEDURE
1. Start the engine.
2. Turn the audio system OFF.
3. While pressing the SETTING button, turn the volume control dial clockwise or counterclockwise for 40 clicks or more. (When the self-diagnosis mode is started, a short beep will be heard.)
   • Shifting from current screen to previous screen is performed by pressing the BACK button.

4. The trouble diagnosis initial screen is displayed, and then the items of “Self Diagnosis” and “Confirmation/Adjustment” can be selected.

SELF-DIAGNOSIS MODE
1. Start the self-diagnosis function and select “Self-diagnosis”.

   NOTE:
   Because the start condition of diagnosis function is a switch operation, the on board diagnosis function cannot start up if any malfunction is detected in the AV communication circuit between AV control unit and multifunction switch.
   - Self-diagnosis subdivision screen is displayed, and the self-diagnosis mode starts.
   - The bar graph visible on the center of the self-diagnosis subdivision screen indicates progress of the trouble diagnosis.
2. Diagnosis results are displayed after the self-diagnosis is completed. The unit names and the connection lines are color-coded according to the diagnostic results.

<table>
<thead>
<tr>
<th>Diagnosis results</th>
<th>Unit</th>
<th>Connection line</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>Green</td>
<td>Green</td>
</tr>
<tr>
<td>Connection malfunction</td>
<td>Gray</td>
<td>Yellow</td>
</tr>
<tr>
<td>Unit malfunction Note</td>
<td>Red</td>
<td>Green</td>
</tr>
</tbody>
</table>

**NOTE:**
- Only the control unit (AV control unit) is displayed in red.
- Replace AV control unit if “Self-Diagnosis did not run because of a control unit malfunction” is indicated. The symptom is AV control unit internal error.
- If multiple errors occur at the same time for a single unit, the screen switch colors are determined according to the following order of priority: red > gray.
- The comments of the self-diagnosis results can be viewed with a component in the diagnosis result screen.

SELF-DIAGNOSIS RESULTS

Check the applicable display at the following table, and then repair the malfunctioning parts.

**NOTE:**
Because the start condition of diagnosis function is a switch operation, the on board diagnosis function cannot be started up if any malfunction is detected in the AV communication circuit between AV control unit and multifunction switch.

Self-diagnosis Result Chart

<table>
<thead>
<tr>
<th>Diagnosis results</th>
<th>Detection logic</th>
<th>Possible malfunction location / Action to take</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Malfunction is detected in AV control unit power supply and ground circuits.</td>
<td>Check AV control unit power supply and ground circuits. When detecting no malfunction in those components, replace AV control unit.</td>
</tr>
</tbody>
</table>

**NOTE:**
When a control unit malfunction is detected (red in unit display), connection malfunctions with other connection unit may be displayed.
“Self-Diagnosis did not run because of a control unit malfunction”
### CONFIRMATION/ADJUSTMENT MODE

1. Start the diagnosis function and select “Confirmation/Adjustment”. The confirmation/adjustment mode indicates where each item can be checked or adjusted.

### NOTE:
The number of units that are displayed on the on board self-diagnosis display according to equipment.

---

<table>
<thead>
<tr>
<th>Diagnosis results</th>
<th>Detection logic</th>
<th>Possible malfunction location / Action to take</th>
</tr>
</thead>
</table>
| ![Diagram](AWNIA1963G.png) | When either one of the following items are detected:  
• serial communication circuits between AV control unit and front display unit are malfunctioning.  
• serial communication signal between AV control unit and front display unit is malfunctioning. | Serial communication circuits between AV control unit and front display unit. |
| ![Diagram](AWNIA1964G.png) | When any one of the following items is detected:  
• satellite radio tuner power supply and ground circuits are malfunctioning.  
• serial communication circuits between AV control unit and satellite radio tuner are malfunctioning.  
• serial communication or request signal between AV control unit and satellite radio tuner is malfunctioning.  
• request signal circuit between AV control unit and satellite radio tuner is malfunctioning. | Satellite radio tuner power supply and ground circuits.  
Serial communication circuits between AV control unit and satellite radio tuner.  
Request signal circuit between AV control unit and satellite radio tuner. |
| ![Diagram](AWNIA1960G.png) | When any one of the following items is detected:  
• Bluetooth control unit power supply and ground circuits are malfunctioning.  
• AV communication circuits between camera control unit and Bluetooth control unit are malfunctioning.  
• AV communication circuits between multifunction switch and camera control unit and Bluetooth control unit. (without DVD player models)  
• AV communication circuits between Bluetooth control unit power supply and ground circuits.  
• AV communication circuits between camera control unit and Bluetooth control unit.  
• AV communication circuits between multifunction switch and Bluetooth control unit. (without rear view camera)  
• AV communication circuits between DVD player and camera control unit. (with DVD player models)  
• AV communication circuits between multifunction switch and Bluetooth control unit. (without rear view camera)  
• AV communication signal between AV control unit and Bluetooth control unit is malfunctioning. | Bluetooth control unit power supply and ground circuits.  
AV communication circuits between camera control unit and Bluetooth control unit.  
AV communication circuits between multifunction switch and camera control unit. (without DVD player models)  
AV communication circuits between DVD player and camera control unit. (with DVD player models)  
AV communication circuits between multifunction switch and Bluetooth control unit. (without rear view camera)  
AV communication signal between AV control unit and Bluetooth control unit is malfunctioning. |
2. Select each switch on the “Confirmation/Adjustment Mode” screen to display the relevant trouble diagnosis screen. Press the RETURN switch to return to the initial Confirmation/Adjustment Mode screen.

Display Diagnosis

The tint of the color bar indication is as per the following list if RGB image signal error is detected.

- **R (red) signal error**: Light blue (Cyan) tint
- **G (green) signal error**: Purple (Magenta) tint
- **B (blue) signal error**: Yellow tint

Vehicle Signals
A comparison check can be made of each actual vehicle signal and the signals recognized by the system.

<table>
<thead>
<tr>
<th>Diagnosis item</th>
<th>Display</th>
<th>Vehicle status</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicle speed</td>
<td>ON</td>
<td>Vehicle speed &gt; 0 km/h (0 MPH)</td>
<td>Changes in indication may be delayed. This is normal.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Vehicle speed = 0 km/h (0 MPH)</td>
<td></td>
</tr>
<tr>
<td>Parking brake</td>
<td>ON</td>
<td>Parking brake is applied.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OFF</td>
<td>Parking brake is released.</td>
<td></td>
</tr>
</tbody>
</table>
FUNCTION DIAGNOSIS

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

Speaker Test
Select “SPEAKER DIAGNOSIS” to display the Speaker Diagnosis screen. Press “START and NEXT” to generate a test tone in a speaker. Press “Start” to generate a test tone in the next speaker. Press “End” to stop the test tones.

NOTE:
The frequency of test tone emitted from each speaker is as follows.

- **Tweeter**: 3 kHz
- **Front speaker**: 300 Hz
- **Rear speaker**: 1 kHz

Climate Control
On-board self-diagnosis is not supported. Only CONSULT-III is supported. Refer to AV-536, “CONSULT-III Function (MULTI AV)”. 

Error History
The self-diagnosis results are judged depending on whether any error occurs from when “Self-diagnosis” is selected until the self-diagnosis results are displayed. However, the diagnosis results are judged normal if an error has occurred before the ignition switch is turned ON and then no error has occurred until the self-diagnosis start. Check the “Error Record” to detect any error that may have occurred before the self-diagnosis start because of this situation.

Count up method A
- The counter resets to 0 if an error occurs when IGN switch is turned ON. The counter increases by 1 if the condition is normal at the next IGN ON cycle.
- The counter upper limit is 39. Any counts exceeding 39 are ignored. The counter can be reset (no error record display) with the “Delete log” switch or CONSULT-III.

Count up method B
- The counter increases by 1 if an error occurs when IGN switch is ON. The counter will not decrease even if the condition is normal at the next IGN ON cycle.
- The counter upper limit is 50. Any counts exceeding 50 are ignored. The counter can be reset (no error record display) with the “Delete log” switch or CONSULT-III.

<table>
<thead>
<tr>
<th>Display type of occurrence frequency</th>
<th>Error history display item</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count up method A</td>
<td>CAN communication line, control unit (CAN), AV communication line, control unit (AV communication)</td>
</tr>
<tr>
<td>Count up method B</td>
<td>Other than the above</td>
</tr>
</tbody>
</table>
### Error Item

Some error items may be displayed simultaneously according to the cause. If some error items are displayed simultaneously, the detection of the cause can be performed by the combination of display items.

<table>
<thead>
<tr>
<th>Error Item</th>
<th>Description</th>
<th>Possible malfunction factor/Action to take</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAN COMM CIRCUIT</td>
<td>CAN communication malfunction is detected.</td>
<td>Perform diagnosis with CONSULT-III, and then repair the malfunctioning parts according to the diagnosis results. Refer to AV-536, &quot;CONSULT-III Function (MULTI AV)&quot;.</td>
</tr>
<tr>
<td>CONTROL UNIT (CAN)</td>
<td>CAN initial diagnosis malfunction is detected.</td>
<td>Replace the AV control unit.</td>
</tr>
<tr>
<td>CONTROL UNIT (AV)</td>
<td>AV communication circuit initial diagnosis malfunction is detected.</td>
<td></td>
</tr>
<tr>
<td>FLASH-ROM Error Of Control Unit</td>
<td>AV control unit malfunction is detected.</td>
<td></td>
</tr>
<tr>
<td>CAN Controller Memory Error</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Front Display Connection Error    | When one of the following items is detected:         | • Front display unit power supply and ground circuits.  
                                           • serial communication circuits between AV control unit and front display unit are malfunctioning.  
                                           • serial communication signal between AV control unit and front display unit is malfunctioning. |
Camera Cont.
The two functions of “Connection Confirmation” and “Adjust Offset of Rear View Camera” are available.
CONNECTION CONFIRMATION
The vehicle speed sensor, parking brake, park lights, ignition switch and reverse sensor can be inspected.

### Error item Description Possible malfunction factor/Action to take

#### SAT Connection Error

- When any one of the following items is detected:
  - satellite radio tuner power supply and ground circuits are malfunctioning.
  - serial communication circuits between AV control unit and satellite radio tuner are malfunctioning.
  - serial communication or request signal between AV control unit and satellite radio tuner is malfunctioning.
  - request signal circuit between AV control unit and satellite radio tuner is malfunctioning.

- Satellite radio tuner power supply and ground circuits.
- Serial communication circuits between AV control unit and satellite radio tuner.
- Request signal circuit between AV control unit and satellite radio tuner.

#### AV COMM CIRCUIT
- When any one of the following items is detected:
  - multifunction switch power supply and ground circuits are malfunctioning.
  - AV communication circuits between AV control unit and multifunction switch are malfunctioning.
  - AV communication signal between AV control unit and multifunction switch is malfunctioning.

- Multifunction switch power supply and ground circuits.
- AV communication circuits between AV control unit and multifunction switch.

#### Switches Connection Error

- When any one of the following items is detected:
  - multifunction switch power supply and ground circuits are malfunctioning.
  - AV communication circuits between AV control unit and multifunction switch are malfunctioning.
  - AV communication signal between AV control unit and multifunction switch is malfunctioning.

- Multifunction switch power supply and ground circuits.
- AV communication circuits between AV control unit and multifunction switch.

---

### Diagnosis item Display Vehicle status

#### Steer. Angle Sensor

- **ON**
  - When steering the vehicle with ignition switch ON (remains ON until connection mode is stopped when it is turned ON).

- **OFF**
  - Ignition switch at ACC.
  - No steering with ignition switch ON.

  — Malfunction detected in camera connection recognition signal.

#### Reverse Sensor

- **ON**
  - Selector lever is in "R" with ignition switch ON.

- **OFF**
  - Ignition switch at ACC.
  - Selector lever is in position other than "R" with ignition switch ON.

  — Malfunction detected in camera-connection recognition signal.

#### Vehicle Speed Sensor

- **ON**
  - Vehicle speed is more than 0 km/h (0 MPH) with ignition switch ON.

- **OFF**
  - Ignition switch at ACC.
  - Vehicle speed is 0 km/h (0 MPH) with ignition switch ON.

  — Malfunction detected in camera connection recognition signal.

#### Side view Switch

- **ON**
  - Not used.

---

**ADJUST OFFSET OF REAR VIEW CAMERA**
< FUNCTION DIAGNOSIS >

Use this mode to adjust the guide line display position of the rear-view monitor if necessary after removing the rear view monitor camera.

Vehicle CAN Diagnosis
- CAN communication status and error counter is displayed.
- The error counter displays “OK” if any malfunction was not detected in the past and displays “0” if a malfunction is detected. It increases by 1 if the status is normal at the next ignition switch ON cycle. The upper limit of the counter is 39.
- The error counter is erased if reset.

<table>
<thead>
<tr>
<th>Items</th>
<th>Display (Current)</th>
<th>Malfunction counter (Past)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tx (HVAC)</td>
<td>OK / UNKWN</td>
<td>OK / 0 - 39</td>
</tr>
<tr>
<td>Rx (ECM)</td>
<td>OK / UNKWN</td>
<td>OK / 0 - 39</td>
</tr>
<tr>
<td>Rx (Cluster)</td>
<td>OK / UNKWN</td>
<td>OK / 0 - 39</td>
</tr>
<tr>
<td>Rx (HVAC)</td>
<td>OK / UNKWN</td>
<td>OK / 0 - 39</td>
</tr>
<tr>
<td>Rx (USM)</td>
<td>OK / UNKWN</td>
<td>OK / 0 - 39</td>
</tr>
<tr>
<td>Rx (STRG)</td>
<td>OK / UNKWN</td>
<td>OK / 0 - 39</td>
</tr>
</tbody>
</table>

AV COMM Diagnosis
- Displays the communication status between AV control unit (master unit) and each unit.
- The error counter displays “OK” if any malfunction was not detected in the past and displays “0” if a malfunction is detected. It increases by 1 if the condition is normal at the next ignition switch ON cycle. The upper limit of the counter is 39.
- If it resets, the error counter is erased.

<table>
<thead>
<tr>
<th>Items</th>
<th>Status (Current)</th>
<th>Counter (Past)</th>
</tr>
</thead>
<tbody>
<tr>
<td>C Tx(ITM-SW)</td>
<td>OK / UNKWN</td>
<td>OK / 0 - 39</td>
</tr>
<tr>
<td>C Rx(PrimarySW-ITM)</td>
<td>OK / UNKWN</td>
<td>OK / 0 - 39</td>
</tr>
<tr>
<td>C Rx(RrSeatSW-ITM)</td>
<td>OK / UNKWN</td>
<td>OK / 0 - 39</td>
</tr>
<tr>
<td>C Rx(BTHF-ITM)</td>
<td>OK / UNKWN</td>
<td>OK / 0 - 39</td>
</tr>
</tbody>
</table>

Delete Unit Connection Log
Deletes any unit connection records and error records from the AV control unit memory. (Clear the records of the unit that has been removed.)
< FUNCTION DIAGNOSIS > [BOSE W/ COLOR W/ RR CTL]

Initialize Settings
“Erase All Customer Data” and “Reset Factory Configuration” are possible.

CAUTION:
• Never perform Reset Factory Configuration except when configuration is unsuccessful.
• Factory Configuration Initialize requires configuration. For details, refer to AV-365, "Description".

CONSULT-III Function (MULTI AV)

APPLICATION ITEMS
CONSULT-III performs the following functions via the communication with the AV control unit.

<table>
<thead>
<tr>
<th>Diagnosis mode</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ecu Identification</td>
<td>The part number of AV control unit can be checked.</td>
</tr>
<tr>
<td>Self Diagnostic Result</td>
<td>Performs a diagnosis on the AV control unit and a connection diagnosis for the communication circuit of the Multi AV system, and displays the current and past malfunctions collectively.</td>
</tr>
<tr>
<td>Data Monitor</td>
<td>The diagnosis of vehicle signal that is input to the AV control unit can be performed.</td>
</tr>
<tr>
<td>Configuration</td>
<td>• Read and save the vehicle specification.</td>
</tr>
<tr>
<td></td>
<td>• Write the vehicle specification when replacing AV control unit.</td>
</tr>
</tbody>
</table>

AV Communication
When “AV communication” of “CAN Diag Support Monitor” is selected, the following function will be performed.

<table>
<thead>
<tr>
<th>AV communication</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AV&amp;NAVI C/U</td>
<td>Displays the communication status from AV control unit to each unit as well as the error counter.</td>
</tr>
<tr>
<td>AUDIO</td>
<td>Displays the AV control unit communication status and the error counter.</td>
</tr>
</tbody>
</table>

ECU IDENTIFICATION
The part number of AV control unit is displayed.

SELF DIAGNOSIS RESULT
• In CONSULT-III self-diagnosis, self-diagnosis results and error history are displayed collectively.
• The current malfunction indicates “CRNT”. The past malfunction indicates “PAST”.
• The timing is displayed as “0” if any of the error codes [U1000], [U1010], [U1300] and [U1310] is detected. The counter increases by 1 if the condition is normal at the next ignition switch ON cycle.

Self-diagnosis Results Display Item

<table>
<thead>
<tr>
<th>Error item</th>
<th>Description</th>
<th>Possible malfunction factor/Action to take</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAN COMM CIRCUIT [U1000]</td>
<td>CAN communication malfunction is detected.</td>
<td>Perform diagnosis with CONSULT-III, and then repair the malfunctioning parts according to the diagnosis results. Refer to AV-540, &quot;Diagnosis Procedure&quot;.</td>
</tr>
</tbody>
</table>
## DIAGNOSIS SYSTEM (AV CONTROL UNIT)

### < FUNCTION DIAGNOSIS >

<table>
<thead>
<tr>
<th>Error item</th>
<th>Description</th>
<th>Possible malfunction factor/Action to take</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONTROL UNIT (CAN) [U1010]</td>
<td>CAN initial diagnosis malfunction is detected.</td>
<td></td>
</tr>
<tr>
<td>CONTROL UNIT (AV) [U1310]</td>
<td>AV communication circuit initial diagnosis</td>
<td>Replace the AV control if the malfunction</td>
</tr>
<tr>
<td>Can Unit [U1200]</td>
<td>malfunction is detected.</td>
<td>occurs constantly.</td>
</tr>
<tr>
<td>CAN CONT [U1216]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SUB CPU CONN [U1228]</td>
<td>AV control unit malfunction is detected.</td>
<td></td>
</tr>
<tr>
<td>iPod CERTIFICATION [U1229]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Built-in AUDIO CONN [U122E]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDD CONN [U1218]</td>
<td>AV control unit malfunction is detected.</td>
<td></td>
</tr>
<tr>
<td>HDD READ [U1219]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDD WRITE [U121A]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDD COMM [U121B]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDD ACCESS [U121C]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>USB CONTROLLER [U1225]</td>
<td>USB connection malfunction is detected.</td>
<td>Check that the connection to the USB connector is normal.</td>
</tr>
<tr>
<td>DSP CONT [U121D]</td>
<td>AV control unit malfunction is detected.</td>
<td>If a disc can be played, then there is a possibility of the detection of a temporary malfunction. Replace the AV control if the malfunction occurs constantly.</td>
</tr>
<tr>
<td>DSP COMM [U121E]</td>
<td>AV control unit malfunction is detected.</td>
<td>If the music box function has no malfunctions, then there is a possibility of the detection of a temporary malfunction. Replace the AV control if the malfunction occurs constantly.</td>
</tr>
<tr>
<td>DVD COMM [U1227]</td>
<td>AV control unit malfunction is detected.</td>
<td>If DVD can be played, then there is a possibility of the detection of a temporary malfunction. Replace the AV control if the malfunction occurs constantly.</td>
</tr>
<tr>
<td>CONFIG UNFINISH [U122A]</td>
<td>The writing of configuration data is incomplete.</td>
<td>Write configuration data with CONSULT-III.</td>
</tr>
<tr>
<td>ST ANGLE SEN CALIB [U1232]</td>
<td>Predictive course line center position adjustment of the steering angle sensor is incomplete.</td>
<td>Adjust the predictive course line center position of the steering angle sensor.</td>
</tr>
<tr>
<td>FRONT DISP CONN [U1243]</td>
<td>When either one of the following items are detected:</td>
<td>• Display unit power supply and ground circuits malfunction is detected. Replace the satellite radio tuner if the malfunction occurs constantly.</td>
</tr>
<tr>
<td></td>
<td>• Display unit power supply and ground circuits malfunction is detected.</td>
<td>• Communication circuits between AV control unit and display unit.</td>
</tr>
<tr>
<td></td>
<td>• Communication circuits between AV control unit and display unit.</td>
<td></td>
</tr>
<tr>
<td>SAT CONT [U1255]</td>
<td>Satellite radio tuner malfunction is detected.</td>
<td>Replace the satellite radio tuner if the malfunction occurs constantly.</td>
</tr>
<tr>
<td>USB OVERCURRENT [U1263]</td>
<td>Detection of over current in USB connector.</td>
<td>Check USB harness between the AV control unit and USB connector.</td>
</tr>
<tr>
<td>• AV COMM CIRCUIT [U1300]</td>
<td>When either one of the following items are detected:</td>
<td>• Multifunction switch power supply and ground circuits. Replace the AV control unit and multifunction switch.</td>
</tr>
<tr>
<td>• SWITCH CONN [U1240]</td>
<td>• Multifunction switch power supply and ground circuits are malfunctioning.</td>
<td>• AV communication circuits between AV control unit and multifunction switch.</td>
</tr>
</tbody>
</table>

### DATA MONITOR

**ALL SIGNALS**
- Displays the status of the following vehicle signals inputted into the AV control unit.
- For each signal, actual signal can be compared with the condition recognized on the system.
< FUNCTION DIAGNOSIS >

DIAGNOSIS SYSTEM (AV CONTROL UNIT)  [BOSE W/ COLOR W/ RR CTL]

<table>
<thead>
<tr>
<th>Display Item</th>
<th>Display</th>
<th>Vehicle status</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>VHCL SPD SIG</td>
<td>On</td>
<td>Vehicle speed &gt;0 km/h (0 MPH)</td>
<td>Changes in indication may be delayed. This is normal.</td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>Vehicle speed =0 km/h (0 MPH)</td>
<td></td>
</tr>
<tr>
<td>PKB SIG</td>
<td>On</td>
<td>Parking brake is applied.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>Parking brake is released.</td>
<td></td>
</tr>
<tr>
<td>ILLUM SIG</td>
<td>On</td>
<td>Block the light beam from the auto light optical sensor when the light SW is ON.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>Expose the auto light optical sensor to light when the light SW is OFF or ON.</td>
<td></td>
</tr>
<tr>
<td>IGN SIG</td>
<td>On</td>
<td>Ignition switch ON</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>Ignition switch in ACC position</td>
<td></td>
</tr>
<tr>
<td>REV SIG</td>
<td>On</td>
<td>Selector lever in R position</td>
<td>Changes in indication may be delayed. This is normal.</td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>Selector lever in any position other than R</td>
<td></td>
</tr>
</tbody>
</table>

**SELECTION FROM MENU**

Allows the technician to select which vehicle signals should be displayed and displays the status of the selected vehicle signals.

<table>
<thead>
<tr>
<th>Item to be selected</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VHCL SPD SIG</td>
<td>The same as when &quot;ALL SIGNALS&quot; is selected.</td>
</tr>
<tr>
<td>PKB SIG</td>
<td></td>
</tr>
<tr>
<td>ILLUM SIG</td>
<td></td>
</tr>
<tr>
<td>IGN SIG</td>
<td></td>
</tr>
<tr>
<td>REV SIG</td>
<td></td>
</tr>
</tbody>
</table>

**CONFIGURATION**

Configuration has three functions as follows.

<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
</table>
| READ CONFIGURATION          | • Reads the vehicle configuration of current AV control unit.  
                              • Saves the read vehicle configuration. |
| WRITE CONFIGURATION-Config file | Writes the vehicle configuration with saved data. |
DIAGNOSIS SYSTEM (BLUETOOTH CONTROL UNIT)

Diagnosis Description

The Bluetooth control unit has two diagnostic checks. The first diagnostic check is performed automatically every ignition cycle during control unit initialization. The second diagnostic check is performed by the technician using the steering wheel audio control switches prior to trouble diagnosis.

BLUETOOTH CONTROL UNIT INITIALIZATION CHECKS

- Internal control unit failure
- Bluetooth antenna connection open or shorted
- Steering wheel audio control switches (SEND/END) stuck closed
- Vehicle speed pulse count
- Microphone connection test (with playback to operator)
- Bluetooth inquiry check

OPERATION PROCEDURE

1. Turn ignition switch to ACC or ON.
2. Wait for the Bluetooth system to complete initialization. This may take up to 20 seconds.
3. Press and hold the steering wheel audio control switch SEND button for at least 5 seconds. The Bluetooth system will begin to play a verbal prompt.

4. While the prompt is playing, press and hold the steering wheel audio control switch END button until you hear the “Diagnostics mode” prompt. The Bluetooth system will sound a 5-second beep.
5. While the beep is sounding, press and hold the steering wheel audio control switch END button again until you hear prompts.
6. The Bluetooth system has now entered into the diagnostic mode. Results of the diagnostic checks will be verbalized to the technician. Refer to AV-539, "Work Flow".
7. After the failure records are reported, an interactive microphone test will be performed. Follow the voice prompt. If the microphone test fails, refer to AV-539, "Work Flow".

Work Flow

<table>
<thead>
<tr>
<th>Failure Message</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Internal failure&quot;</td>
<td>Replace Bluetooth control unit. Refer to AV-85, &quot;Removal and Installation&quot;.</td>
</tr>
<tr>
<td>&quot;Bluetooth antenna open&quot;</td>
<td>1. Inspect harness connection.</td>
</tr>
<tr>
<td></td>
<td>2. Replace Bluetooth antenna. Refer to AV-84, &quot;Removal and Installation&quot;.</td>
</tr>
<tr>
<td>&quot;Bluetooth antenna shorted&quot;</td>
<td></td>
</tr>
<tr>
<td>&quot;Phone/Send for Hands Free System is stuck&quot;</td>
<td>Check steering wheel audio control switches. Refer to AV-78, &quot;Removal and Installation&quot;.</td>
</tr>
<tr>
<td>&quot;Phone/End for the Hands Free System is stuck&quot;</td>
<td></td>
</tr>
<tr>
<td>&quot;Microphone test&quot; (failed interactive test)</td>
<td>1. Inspect harness between Bluetooth control unit and microphone.</td>
</tr>
<tr>
<td></td>
<td>2. Replace microphone. Refer to AV-83, &quot;Removal and Installation&quot;.</td>
</tr>
</tbody>
</table>

Revision: November 2009
CAN (Controller Area Network) is a serial communication line for real time application. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Many electronic control units are equipped on a vehicle and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN-H, CAN-L) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.

DTC Logic

DTC DETECTION LOGIC

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>Diagnostic item is detected when...</th>
<th>Probable malfunction location</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1000</td>
<td>CAN COMM CIRCUIT</td>
<td>When AV control unit is not transmitting or receiving CAN communication signal for 2 seconds or more.</td>
<td>CAN communication system.</td>
</tr>
</tbody>
</table>

Diagnosis Procedure

1. **PERFORM SELF DIAGNOSTIC**

1. Turn ignition switch ON and wait for 2 seconds or more.
2. Check “Self Diagnostic Result” of “AV Control Unit”.

Is “CAN COMM CIRCUIT” displayed?

YES >> Refer to “LAN system”. Refer to LAN-16, "Trouble Diagnosis Flow Chart".
NO >> Refer to GI section. Refer to GI-39, "Intermittent Incident".
U1010 CONTROL UNIT (CAN)

< COMPONENT DIAGNOSIS >

[BOSE W/ COLOR W/ RR CTL]

U1010 CONTROL UNIT (CAN)

Description

Initial diagnosis of AV control unit.

DTC Logic

DTC DETECTION LOGIC

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>Diagnostic item is detected when ...</th>
<th>Probable malfunction location</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1010 CONTROL UNIT (CAN)</td>
<td>CAN initial diagnosis malfunction is detected.</td>
<td>AV control unit.</td>
<td></td>
</tr>
</tbody>
</table>

Diagnosis Procedure

1. REPLACE AV CONTROL UNIT

When DTC U1010 is detected, replace AV control unit. Refer to AV-322, "Removal and Installation".

>> Inspection End.
U1200 AV CONTROL UNIT

Description

Replace the AV control unit if this DTC is displayed. Refer to AV-322, "Removal and Installation".

<table>
<thead>
<tr>
<th>Part name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AV CONTROL UNIT</td>
<td>• It is the master unit of the MULTI AV system and it is connected to each control unit by means of communication. It operates each system according to communication signals from the AV control unit.</td>
</tr>
<tr>
<td></td>
<td>• AV control unit includes audio function and vehicle information function.</td>
</tr>
<tr>
<td></td>
<td>• It is connected to ECM and combination meter via CAN communication to obtain necessary information for the vehicle information function.</td>
</tr>
<tr>
<td></td>
<td>• It inputs the automatic brightness ON/OFF signals that are required for the display dimming control.</td>
</tr>
<tr>
<td></td>
<td>• It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).</td>
</tr>
</tbody>
</table>

DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC Detection Condition</th>
<th>Action to take</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1200</td>
<td>Control Unit FLASH- ROM [U1200]</td>
<td>An internal malfunction is detected in AV control unit (FLASH-ROM).</td>
<td>Replace AV control unit. Refer to AV-322, &quot;Removal and Installation&quot;.</td>
</tr>
</tbody>
</table>
Replace the AV control unit if this DTC is displayed. Refer to AV-322, "Removal and Installation".

### Part name Description

**AV CONTROL UNIT**
- It is the master unit of the MULTI AV system and it is connected to each control unit by means of communication. It operates each system according to communication signals from the AV control unit.
- AV control unit includes audio function and vehicle information function.
- It is connected to ECM and combination meter via CAN communication to obtain necessary information for the vehicle information function.
- It inputs the automatic brightness ON/OFF signals that are required for the display dimming control.
- It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).

### DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC Detection Condition</th>
<th>Action to take</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1216</td>
<td>CAN CONT [U1216]</td>
<td>Internal malfunction of AV control unit (CAN controller) is detected.</td>
<td>Replace AV control unit. Refer to AV-322, &quot;Removal and Installation&quot;.</td>
</tr>
</tbody>
</table>
U1218 AV CONTROL UNIT

< COMPONENT DIAGNOSIS >
[BOSE W/ COLOR W/ RR CTL]

U1218 AV CONTROL UNIT

DTC Logic

INFOID:0000000005530063

DTC Logic

INFOID:0000000005530064

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
</table>
| U1218 | HDD CONN [U1218]                | AV control unit malfunction is detected. | • If the music box function has no malfunctions, then there is a possibility of the detection of a temporary malfunction.  
• Replace the AV control unit if the malfunction occurs constantly. Refer to AV-654, "Removal and Installation". |

Diagnosis Procedure

1. CHECK MUSIC BOX FUNCTION

Is music box function normal?

YES >> Malfunction may be detected intermittently.

NO >> Replace AV control unit. Refer to AV-654, "Removal and Installation".
DIAGNOSIS procedure

1. CHECK MUSIC BOX FUNCTION

Is music box function normal?

YES >> Malfunction may be detected intermittently.
NO  >> Replace AV control unit. Refer to AV-654, "Removal and Installation".
DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
</table>
| U121A | HDD WRITE [U121A]               | AV control unit malfunction is detected. | • If the music box function has no malfunctions, then there is a possibility of the detection of a temporary malfunction.  
• Replace the AV control unit if the malfunction occurs constantly. Refer to AV-654, "Removal and Installation". |

Diagnosis Procedure

1. CHECK MUSIC BOX FUNCTION

Is music box function normal?

YES  >> Malfunction may be detected intermittently.  
NO   >> Replace AV control unit. Refer to AV-654, "Removal and Installation".
DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
</table>
| U121B HDD COMM [U121B] | AV control unit malfunction is detected. | • If the music box function has no malfunctions, then there is a possibility of the detection of a temporary malfunction. • Replace the AV control unit if the malfunction occurs constantly. Refer to AV-654, “Removal and Installation”.

Diagnosis Procedure

1. CHECK MUSIC BOX FUNCTION

Is music box function normal?

YES >> Malfunction may be detected intermittently.

NO >> Replace AV control unit. Refer to AV-654, “Removal and Installation”.

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U121C AV CONTROL UNIT

< COMPONENT DIAGNOSIS >

[BOSE W/ COLOR W/ RR CTL]

U121C AV CONTROL UNIT

DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U121C</td>
<td>HDD ACCESS [U121C]</td>
<td>AV control unit malfunction is detected.</td>
<td>• If the music box function has no malfunctions, then there is a possibility of the detection of a temporary malfunction.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Replace the AV control unit if the malfunction occurs constantly. Refer to AV-654, &quot;Removal and Installation&quot;.</td>
</tr>
</tbody>
</table>

Diagnosis Procedure

1. CHECK MUSIC BOX FUNCTION

Is music box function normal?

YES  >> Malfunction may be detected intermittently.
NO   >> Replace AV control unit. Refer to AV-654, "Removal and Installation".
U121D AV CONTROL UNIT

DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
</table>
| U121D| DSP CONN [U121D]               | AV control unit malfunction is detected. | • If a disc can be played, then there is a possibility of the detection of a temporary malfunction.  
• Replace the AV control unit if the malfunction occurs constantly. Refer to AV-654, "Removal and Installation". |

**Diagnosis Procedure**

1. **CHECK PLAYBACK OF A DISK (CD)**

Can a disk (CD) be played?
- YES >> Malfunction may be detected intermittently.
- NO >> Replace AV control unit. Refer to AV-654, "Removal and Installation".
U121E AV CONTROL UNIT

< COMPONENT DIAGNOSIS >

[BOSE W/ COLOR W/ RR CTL]

U121E AV CONTROL UNIT

DTC Logic

---

### Diagnosis Procedure

1. **CHECK PLAYBACK OF A DISK (CD)**

Can a disk (CD) be played?

- **YES**
  - Malfunction may be detected intermittently.
- **NO**
  - Replace AV control unit. Refer to AV-654, "Removal and Installation".

---

### DTC Display contents of CONSULT-III

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
</table>
| U121E | DSP COMM [U121E] | AV control unit malfunction is detected. | • If a disc can be played, then there is a possibility of the detection of a temporary malfunction.  
• Replace the AV control unit if the malfunction occurs constantly. Refer to AV-654, "Removal and Installation". |

---

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AV-550
## DTC Logic

### DTC DETECTION LOGIC

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1225</td>
<td>USB CONTROLLER [U1225]</td>
<td>USB connection malfunction is detected.</td>
<td>Check that the connection to the USB connector is normal.</td>
</tr>
</tbody>
</table>
DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
</table>
| U1227 | DVD COMM [U1227]              | AV control unit malfunction is detected. | • If DVD can be played, then there is a possibility of the detection of a temporary malfunction.  
• Replace the AV control unit if the malfunction occurs constantly. Refer to AV-654, "Removal and Installation". |

Diagnosis Procedure

1. CHECK PLAYBACK OF A DISK (DVD)

Can a disc (DVD) be played?

YES >> Malfunction may be detected intermittently.
NO  >> Replace AV control unit. Refer to AV-654, "Removal and Installation".
U1228 AV CONTROL UNIT

< COMPONENT DIAGNOSIS >

U1228 AV CONTROL UNIT

DTC Logic

DTC DETECTION LOGIC

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1228</td>
<td>SUB CPU CONN [U1228]</td>
<td>AV control unit malfunction is detected.</td>
<td>Replace the AV control unit if the malfunction occurs constantly. Refer to AV-654, &quot;Removal and Installation&quot;.</td>
</tr>
</tbody>
</table>

INFOID:00000000000000000080

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AV-553

2010 Maxima
### DTC DETECTION LOGIC

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1229</td>
<td>iPod CERTIFICATION [U1229]</td>
<td>AV control unit malfunction is detected.</td>
<td>Replace the AV control unit if the malfunction occurs constantly. Refer to AV-654, &quot;Removal and Installation&quot;.</td>
</tr>
</tbody>
</table>
### DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Action to take</th>
</tr>
</thead>
<tbody>
<tr>
<td>U122A</td>
<td>CONFIG UNFINISH [U122A]</td>
<td>The writing of configuration data is incomplete.</td>
<td>Write configuration data with “MULTI AV” of CONSULT-III.</td>
</tr>
</tbody>
</table>

## Diagnosis Procedure

1. **PERFORM THE SELF-DIAGNOSIS**

When U122A is detected, write configuration data with “MULTI AV” of CONSULT-III.

>> Write configuration data with “MULTI AV” of CONSULT-III. Refer to AV-681, “CONFIGURATION (AV CONTROL UNIT) : Special Repair Requirement”.

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AV-555

2010 Maxima
### DTC DETECTION LOGIC

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U122E</td>
<td>Built-in AUDIO CONN [U122E]</td>
<td>AV control unit malfunction is detected.</td>
<td>Replace the AV control unit if the malfunction occurs constantly. Refer to AV-654, &quot;Removal and Installation&quot;.</td>
</tr>
</tbody>
</table>

Replace the AV control unit if the malfunction occurs constantly. Refer to AV-654, "Removal and Installation".
U1232 STEERING ANGLE SENSOR

DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1232</td>
<td>ST ANGLE SEN CALIB [1232]</td>
<td>Predictive course line center position adjustment of the steering angle sensor is incomplete.</td>
<td>Adjust the predictive course line center position of the steering angle sensor.</td>
</tr>
</tbody>
</table>

Diagnosis Procedure

1. ADJUST THE PREDICTIVE COURSE LINE CENTER POSITION OF THE STEERING ANGLE SENSOR

When U1232 is detected, adjust the predictive course line center position of the steering angle sensor.

>>& Adjust the steering angle sensor neutral position on ABS actuator and electrical unit (control unit) side. Refer to BRC-8, "ADJUSTMENT OF STEERING ANGLE SENSOR NEUTRAL POSITION: Special Repair Requirement".
**U1243 DISPLAY UNIT**

**Description**

<table>
<thead>
<tr>
<th>Part name</th>
<th>Description</th>
</tr>
</thead>
</table>
| DISPLAY UNIT | • Display image is controlled by the serial communication from AV control unit.  
• Inputs the RGB image signal (RGB, RGB area and RGB synchronizing) from AV control unit and the auxiliary image signal from the auxiliary input jacks.  
• Outputs the synchronizing signals (HP and VP) to the AV control unit. |

**DTC Logic**

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC Detection Condition</th>
<th>Possible causes</th>
</tr>
</thead>
</table>
| U1243 | FRONT DISP CONN [U1243]         | • Display unit power supply and ground circuit malfunction is detected.  
• Malfunction is detected on communication circuit between display unit and AV control unit.  
• Malfunction is detected on communication signal between display unit and AV control unit. | • Display unit power supply and ground circuit.  
• Communication circuit between display unit and AV control unit. |

**Diagnosis Procedure**

Regarding Wiring Diagram information, refer to AV-613, "Wiring Diagram".

1. **CHECK DISPLAY UNIT POWER SUPPLY AND GROUND CIRCUIT**

   Check display unit power supply and ground circuit. Refer to AV-566, "DISPLAY UNIT : Diagnosis Procedure".

   Is inspection result OK?

   YES  >> GO TO 2.  
   NO   >> Repair malfunctioning parts.

2. **CHECK CONTINUITY OF COMMUNICATION CIRCUIT**

   1. Turn ignition switch OFF.  
   2. Disconnect display unit connector and AV control unit connector.  
   3. Check continuity between display unit harness connector M141 (A) terminals 11, 22 and AV control unit harness connector M44 (B) terminals 56, 44.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>M141</td>
<td>11</td>
<td>M44</td>
</tr>
<tr>
<td></td>
<td>22</td>
<td></td>
</tr>
</tbody>
</table>

   4. Check continuity between display unit harness connector M141 (A) terminals 11, 22 and ground.

<table>
<thead>
<tr>
<th>A</th>
<th></th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td></td>
</tr>
<tr>
<td>M141</td>
<td>11</td>
<td>Ground</td>
</tr>
<tr>
<td></td>
<td>22</td>
<td></td>
</tr>
</tbody>
</table>

   Are continuity results as specified?

   YES  >> GO TO 3.
### U1243 DISPLAY UNIT

**[BOSE W/ COLOR W/ RR CTL]**

**< COMPONENT DIAGNOSIS >**

**3. CHECK COMMUNICATION SIGNAL**

1. Connect display unit connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check signal between display unit harness connector M141 terminal 11 and ground with an oscilloscope or CONSULT-III.

<table>
<thead>
<tr>
<th>(+)</th>
<th>Terminal</th>
<th>(-)</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M141</td>
<td>11</td>
<td>Ground</td>
<td></td>
</tr>
</tbody>
</table>

Are voltage readings as specified?

- **YES**  >> GO TO 4.
- **NO**   >> Replace AV control unit. Refer to AV-322, "Removal and Installation".

**4. CHECK COMMUNICATION SIGNAL**

Check signal between display unit harness connector M141 terminal 22 and ground with an oscilloscope or CONSULT-III.

<table>
<thead>
<tr>
<th>(+)</th>
<th>Terminal</th>
<th>(-)</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M141</td>
<td>22</td>
<td>Ground</td>
<td></td>
</tr>
</tbody>
</table>

Are voltage readings as specified?

- **YES**  >> Inspection End.
- **NO**   >> Replace display unit. Refer to AV-325, "Removal and Installation".

---

**Reference**

- ALNIA0311GB
- ALNIA0312GB
U1263 USB

DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1263</td>
<td>USB OVERCURRENT [U1263]</td>
<td>Detection of over current in USB interface.</td>
<td>Check USB harness between the AV control unit and USB interface.</td>
</tr>
</tbody>
</table>

**Diagnosis Procedure**

1. **CHECK USB HARNESS**

Visually check USB harness.

*Is the inspection result normal?*

- **YES**  >> Replace AV control unit. Refer to AV-654, "Removal and Installation".
- **NO**   >> Replace USB harness.
U1255 SATELLITE RADIO TUNER

< COMPONENT DIAGNOSIS >

U1255 SATELLITE RADIO TUNER

Description

<table>
<thead>
<tr>
<th>Part name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SATELLITE RADIO TUNER</td>
<td>• Inputs the satellite radio signal from satellite radio antenna and outputs</td>
</tr>
<tr>
<td></td>
<td>the sound signal to the AV control unit.</td>
</tr>
<tr>
<td></td>
<td>• It is controlled with the AV control unit and serial communication (com-</td>
</tr>
<tr>
<td></td>
<td>munication signal and request signal).</td>
</tr>
</tbody>
</table>

DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC Detection Condition</th>
<th>Possible causes</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1255</td>
<td>SAT CONN [U1255]</td>
<td>When either one of the following items are detected:</td>
<td>• Satellite radio tuner power supply and ground circuits.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• satellite radio tuner power supply and ground circuits are malfunctioning.</td>
<td>• Serial communication circuits between AV control unit and satellite radio</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• serial communication circuits between AV control unit and satellite radio tuner are</td>
<td>tuner are malfunctioning.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>malfunctioning.</td>
<td>• Serial communication circuits between AV control unit and satellite radio</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• serial communication or request signal between AV control unit and satellite radio</td>
<td>tuner are malfunctioning.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>tuner is malfunctioning.</td>
<td>• Request signal circuit between AV control unit and satellite radio tuner is</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• request signal circuit between AV control unit and satellite radio tuner is</td>
<td>malfunctioning.</td>
</tr>
</tbody>
</table>

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-613, "Wiring Diagram".

1. CHECK SATELLITE RADIO TUNER POWER SUPPLY AND GROUND CIRCUIT

Check satellite radio tuner power supply and ground circuit. Refer to AV-569, “SATELLITE RADIO TUNER: Diagnosis Procedure”.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair malfunctioning parts.

2. CHECK CONTINUITY COMMUNICATION CIRCUIT AND REQUEST SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M43 and satellite radio tuner connector B111.
3. Check continuity between AV control unit harness connector M43 (A) and satellite radio tuner harness connector B111 (B).

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminals</td>
<td>Connector</td>
</tr>
<tr>
<td>M43 28</td>
<td>B111 28</td>
<td>Yes</td>
</tr>
<tr>
<td>29</td>
<td>29</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>30</td>
<td></td>
</tr>
</tbody>
</table>

4. Check continuity between AV control unit harness connector M43 (A) and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminals</td>
</tr>
<tr>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>
Is the inspection result normal?
YES >> GO TO 3.
NO >> Repair harness or connector.

3. CHECK AV CONTROL UNIT VOLTAGE

1. Connect AV control unit connector.
2. Turn ignition switch ON.
3. Check voltage between AV control unit harness connector M43 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>Connectors</th>
<th>Voltage (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M43</td>
<td>28</td>
<td>Ground 7.0V</td>
</tr>
<tr>
<td></td>
<td>29</td>
<td></td>
</tr>
<tr>
<td></td>
<td>30</td>
<td></td>
</tr>
</tbody>
</table>

Is the inspection result normal?
YES >> GO TO 4.
NO >> Replace AV control unit. Refer to AV-322, "Removal and Installation".

4. CHECK SATELLITE RADIO TUNER

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector.
3. Connect satellite radio tuner.
4. Turn ignition switch ON.
5. Check voltage between satellite radio tuner harness connector terminal ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>Connectors</th>
<th>Terminal</th>
<th>Voltage (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>B111</td>
<td>Ground</td>
<td>7.0V</td>
</tr>
</tbody>
</table>

Is the inspection result normal?
YES >> Inspection End.
NO >> Replace satellite radio tuner. Refer to AV-335, "Removal and Installation".
U1300 AV COMM CIRCUIT

Description

U1300 is indicated when a communication signal malfunction occurs. U1300 is indicated along with DTCs that identify components connected to the AV control unit through communication lines. Determine the possible malfunction cause from the table below.

### SELF-DIAGNOSIS RESULTS DISPLAY ITEM

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC Detection Condition</th>
<th>Possible causes</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1300</td>
<td>AV COMM CIRCUIT [U1300]</td>
<td>When either one of the following items are detected:</td>
<td>• A/C and AV switch assembly power supply and ground circuits are malfunctioning.</td>
</tr>
<tr>
<td>U1240</td>
<td>SWITCH Conn [U1240]</td>
<td>• AV communication circuits between AV control unit and A/C and AV switch assembly are malfunctioning.</td>
<td>• AV communication signal between AV control unit and A/C and AV switch assembly is malfunctioning.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• AV communication signal between AV control unit and A/C and AV switch assembly is malfunctioning.</td>
<td>• A/C and AV switch assembly power supply and ground circuits.</td>
</tr>
</tbody>
</table>

*Revision: November 2009*
Replace the AV control unit if this DTC is displayed. Refer to AV-565, "AV CONTROL UNIT : Diagnosis Procedure".

<table>
<thead>
<tr>
<th>Part name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AV CONTROL UNIT</td>
<td>• It is the master unit of the MULTI AV system and it is connected to each control unit by means of communication. It operates each system according to communication signals from the AV control unit.</td>
</tr>
<tr>
<td></td>
<td>• AV control unit includes audio function and vehicle information function.</td>
</tr>
<tr>
<td></td>
<td>• It is connected to ECM and combination meter via CAN communication to obtain necessary information for the vehicle information function.</td>
</tr>
<tr>
<td></td>
<td>• It inputs the automatic brightness ON/OFF signals that are required for the display dimming control.</td>
</tr>
<tr>
<td></td>
<td>• It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).</td>
</tr>
</tbody>
</table>

**DTC Logic**

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC Detection Condition</th>
<th>Action to take</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1310</td>
<td>CONTROL UNIT (AV) [U1310]</td>
<td>An initial diagnosis error is detected in AV communication circuit.</td>
<td>Replace AV control unit. Refer to AV-322, &quot;Removal and Installation&quot;</td>
</tr>
</tbody>
</table>
POWER SUPPLY AND GROUND CIRCUIT

AV CONTROL UNIT

AV CONTROL UNIT : Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-613, "Wiring Diagram".

1. CHECK FUSES

Check that the following fuses of the AV control unit are not blown.

<table>
<thead>
<tr>
<th>Unit</th>
<th>Terminals</th>
<th>Signal name</th>
<th>Fuse No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>AV control unit</td>
<td>19</td>
<td>Battery power</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>Ignition switch ACC or ON</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>104</td>
<td>Ignition switch ON or START</td>
<td>3</td>
</tr>
</tbody>
</table>

Are the fuses OK?

YES >> GO TO 2.
NO  >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse.

2. POWER SUPPLY CIRCUIT CHECK

1. Disconnect AV control unit connectors M42 and M46.
2. Check voltage between the AV control unit connectors M42 and M46 and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>(+)</th>
<th>(-)</th>
<th>OFF</th>
<th>ACC</th>
<th>ON</th>
</tr>
</thead>
<tbody>
<tr>
<td>M42</td>
<td>7</td>
<td></td>
<td>Ground</td>
<td>0V</td>
<td>Battery voltage</td>
<td>Battery voltage</td>
</tr>
<tr>
<td></td>
<td>19</td>
<td></td>
<td>Ground</td>
<td>Battery voltage</td>
<td>Battery voltage</td>
<td>Battery voltage</td>
</tr>
<tr>
<td>M46</td>
<td>104</td>
<td></td>
<td>Ground</td>
<td>0V</td>
<td>0V</td>
<td>Battery voltage</td>
</tr>
</tbody>
</table>

Are the voltage results as specified?

YES >> GO TO 3.
NO  >> • Check connector housings for disconnected or loose terminals.
      • Repair harness or connector.

3. GROUND CIRCUIT CHECK
POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE W/ COLOR W/ RR CTL]

1. Turn ignition switch OFF.
2. Check continuity between AV control unit harness connector and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>——</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M42</td>
<td>20</td>
<td>Ground</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Are the inspection results OK?
YES >> Inspection End.
NO >> Repair AV control unit ground.

DISPLAY UNIT

DISPLAY UNIT : Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-613, "Wiring Diagram".

1. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch to ACC.
2. Check voltage between display unit harness connector M141 and ground.

<table>
<thead>
<tr>
<th>(+) Connector</th>
<th>Terminal</th>
<th>(-) Value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M141</td>
<td>2</td>
<td>Ground 9V</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

Does specified voltage exist?
YES >> GO TO 3.
NO >> GO TO 2.

2. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect the display unit connector M141 and the AV control unit connector M44.
3. Check continuity between the display unit harness connector M141 (A) and the AV control unit connector M44 (B).

<table>
<thead>
<tr>
<th>A Connector</th>
<th>Terminal</th>
<th>B Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M141</td>
<td>2</td>
<td>M44</td>
<td>59</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td></td>
<td>47</td>
<td></td>
</tr>
</tbody>
</table>

4. Check continuity between the display unit harness connector M141 (A) and ground.

<table>
<thead>
<tr>
<th>A Connector</th>
<th>Terminal</th>
<th>——</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M141</td>
<td>2</td>
<td>Ground</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Are continuity results as specified?
YES >> Check AV control unit power and ground supply. Refer to AV-565, "AV CONTROL UNIT : Diagnosis Procedure".
NO >> Repair harness or connector.
3. CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect display unit connector.
3. Check continuity between display unit harness connector and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Signal name</th>
<th>Fuse No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>M141</td>
<td>1 Ground</td>
<td>Ignition switch ACC or ON</td>
<td>17</td>
</tr>
</tbody>
</table>

Is the fuse OK?
YES >> GO TO 2.
NO >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse.

2. POWER SUPPLY CIRCUIT CHECK

1. Disconnect A/C and AV switch assembly connector M98.
2. Check voltage between the A/C and AV switch assembly con-
necter M98 and ground.

<table>
<thead>
<tr>
<th>(+) Connector</th>
<th>Terminal</th>
<th>OFF</th>
<th>ACC</th>
<th>ON</th>
</tr>
</thead>
<tbody>
<tr>
<td>M98</td>
<td>3 Ground</td>
<td>0V</td>
<td>Battery voltage</td>
<td>Battery voltage</td>
</tr>
</tbody>
</table>

Are the voltage results as specified?
YES >> GO TO 3.
NO >> • Check connector housings for disconnected or loose terminals.
   • Repair harness or connector.

3. GROUND CIRCUIT CHECK
POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE W/ COLOR W/ RR CTL]

1. Turn ignition switch OFF.
2. Check continuity between A/C and AV switch assembly harness connector M98 and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M98</td>
<td>1</td>
<td>Ground</td>
</tr>
</tbody>
</table>

Are the continuity results as specified?
YES >> Inspection End.
NO  >> Repair harness or ground.

BOSE SPEAKER AMP

BOSE SPEAKER AMP : Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-613, "Wiring Diagram".

1. CHECK FUSE

Check that the BOSE speaker amp. fuse is not blown.

<table>
<thead>
<tr>
<th>Unit</th>
<th>Terminal</th>
<th>Signal name</th>
<th>Fuse No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOSE speaker amp.</td>
<td>11</td>
<td>Battery power</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td></td>
<td>25</td>
</tr>
</tbody>
</table>

Are the fuses OK?
YES  >> GO TO 2.
NO   >> Be sure to eliminate cause of malfunction before installing new fuse.

2. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BOSE speaker amp. connector.
3. Check voltage between BOSE speaker amp. harness connector B110 terminal 10, 11 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>Terminal</th>
<th>Voltage (approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>B110</td>
<td>10</td>
<td>Ground</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>Battery voltage</td>
</tr>
</tbody>
</table>

Is battery voltage present?
YES  >> GO TO 3.
NO   >> Check harness between BOSE speaker amp. and fuse.

3. CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BOSE speaker amp. connector.
3. Check continuity between BOSE speaker amp. harness connector B110 terminal 7,12 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>B110</td>
<td>7</td>
<td>Ground</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>

Does continuity exist?

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POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE W/ COLOR W/ RR CTL]

YES >> Inspection End.

NO >> Repair harness or connector.

SATELLITE RADIO TUNER

SATELLITE RADIO TUNER : Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-613, "Wiring Diagram".

1. CHECK FUSES

Check that the following fuses of the satellite radio tuner (factory installed) are not blown.

<table>
<thead>
<tr>
<th>Unit</th>
<th>Terminals</th>
<th>Signal name</th>
<th>Fuse No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satellite radio tuner (factory installed)</td>
<td>32</td>
<td>Battery power</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>36</td>
<td>Ignition switch ACC or ON</td>
<td>17</td>
</tr>
</tbody>
</table>

Are the fuses OK?

YES >> GO TO 2.

NO >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse.

2. POWER SUPPLY CIRCUIT CHECK

1. Turn ignition switch OFF.
2. Disconnect satellite radio tuner (factory installed) connector B111.
3. Check voltage between the satellite radio tuner (factory installed) and ground.

<table>
<thead>
<tr>
<th>(+) Connector Terminal</th>
<th>(-) Ground Terminal</th>
<th>OFF Voltage</th>
<th>ACC Voltage</th>
<th>ON Voltage</th>
</tr>
</thead>
<tbody>
<tr>
<td>B111</td>
<td>32</td>
<td>Battery</td>
<td>Battery</td>
<td>Battery</td>
</tr>
<tr>
<td></td>
<td>36</td>
<td>0V</td>
<td>Battery</td>
<td>Battery</td>
</tr>
</tbody>
</table>

Are the voltage readings as specified?

YES >> GO TO 3.

NO >> • Check connector housings for disconnected or loose terminals.
• Repair harness or connector.

3. GROUND CIRCUIT CHECK

1. Turn ignition switch OFF.
2. Check continuity between satellite radio tuner (factory installed) harness connector and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>B111</td>
<td>35</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Does continuity exist?

YES >> Inspection End.

NO >> Repair satellite radio tuner (factory installed) harness or connector.

REAR VIEW CAMERA

REAR VIEW CAMERA : Diagnosis Procedure
1. **CHECK POWER SUPPLY CIRCUIT (REAR VIEW CAMERA SIDE)**

1. Turn ignition switch ON.
2. Shift transmission into Reverse.
3. Check voltage between rear view camera harness connector T101 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Transmission position</th>
<th>Value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>T101 1</td>
<td>Ground</td>
<td>Reverse</td>
<td>6V</td>
</tr>
</tbody>
</table>

Is voltage reading approximately 6 volts?

**YES** >> GO TO 4.

**NO** >> GO TO 2.

2. **CHECK POWER SUPPLY CIRCUIT (CONTINUITY)**

1. Turn ignition switch OFF.
2. Disconnect rear view camera and AV control unit connectors.
3. Check continuity between rear view camera harness connector T101 (A) terminal 1 and AV control unit harness connector M45 (B) terminal 70.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>T101 1</td>
<td>M45 70</td>
<td>Yes</td>
</tr>
</tbody>
</table>

4. Check continuity between rear view camera harness connector T101 (A) terminal 1 and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>—</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>T101</td>
<td>1</td>
<td>Ground</td>
</tr>
</tbody>
</table>

Are continuity test results as specified?

**YES** >> GO TO 3.

**NO** >> Repair harness or connector.

3. **CHECK POWER SUPPLY CIRCUIT (AV CONTROL UNIT SIDE)**

1. Connect rear view camera harness connector.
2. Turn ignition switch ON.
3. Check voltage between AV control unit harness connector M45 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Transmission position</th>
<th>Value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M45 70</td>
<td>Ground</td>
<td>Reverse</td>
<td>6V</td>
</tr>
</tbody>
</table>

Is voltage reading approximately 6 volts?

**YES** >> Inspection End.

**NO** >> Replace AV control unit. Refer to AV-654, "Removal and Installation".

4. **CHECK GROUND CIRCUIT**
POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

1. Turn ignition switch OFF.
2. Disconnect rear view camera harness connector.
3. Check continuity between rear view camera harness connector T101 terminal 2 and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>—</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>T101</td>
<td>2</td>
<td>Ground</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Does continuity exist?
YES >> Inspection End.
NO >> Repair harness or connector.

BLUETOOTH CONTROL UNIT

BLUETOOTH CONTROL UNIT : Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-613, "Wiring Diagram".

1. CHECK FUSE

Check that the following fuses of the Bluetooth control unit are not blown.

<table>
<thead>
<tr>
<th>Power source</th>
<th>Fuse No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battery</td>
<td>24</td>
</tr>
<tr>
<td>Ignition switch ACC or ON</td>
<td>17</td>
</tr>
<tr>
<td>Ignition switch ON or START</td>
<td>3</td>
</tr>
</tbody>
</table>

Is inspection result OK?
YES >> GO TO 2.
NO >> Be sure to eliminate cause of malfunction before installing new fuse.

2. CHECK POWER SUPPLY CIRCUIT

Check voltage between Bluetooth control unit harness connector B131 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>Ignition switch position</th>
<th>Value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>B131</td>
<td>1</td>
<td>OFF</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>ACC</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>ON</td>
</tr>
</tbody>
</table>

Is battery voltage present as specified?
YES >> GO TO 3.
NO >> Check harness between Bluetooth control unit and fuse.

3. CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect Bluetooth control unit connector.
3. Check continuity between Bluetooth control unit harness connector B131 and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>—</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>B131</td>
<td>4</td>
<td>Ground</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Are continuity results as specified?
YES >> Inspection End.
NO >> Repair harness or connector.

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REAR CONTROL SWITCH

REAR CONTROL SWITCH : Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-447, "Wiring Diagram".

1. CHECK FUSE

Check that the rear control switch fuse is not blown.

<table>
<thead>
<tr>
<th>Unit</th>
<th>Terminal</th>
<th>Signal name</th>
<th>Fuse No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rear control switch</td>
<td>1</td>
<td>ACC or ON</td>
<td>17</td>
</tr>
</tbody>
</table>

Is the fuse OK?
YES >> GO TO 2.
NO >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse.

2. POWER SUPPLY CIRCUIT CHECK

1. Disconnect rear control switch connector B402.
2. Check voltage between the rear audio remote control unit connector B402 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>Terminal</th>
<th>(-)</th>
<th>Voltage (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>B402</td>
<td>1</td>
<td>Ground</td>
<td>Battery voltage</td>
</tr>
</tbody>
</table>

Are the voltage results as specified?
YES >> GO TO 3.
NO >> Check connector housings for disconnected or loose terminals.
• Repair harness or connector.

3. GROUND CIRCUIT CHECK

1. Turn ignition switch OFF.
2. Check continuity between rear control switch harness connector B402 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>Terminal</th>
<th>(-)</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>B402</td>
<td>4</td>
<td>Ground</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Are the continuity results as specified?
YES >> Inspection End.
NO >> Repair harness or connector.

MICROPHONE

MICROPHONE : Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-613, "Wiring Diagram".

1. CHECK POWER SUPPLY CIRCUIT (MICROPHONE SIDE)
1. Turn ignition switch ON.
2. Check voltage between microphone harness connector R7 terminal 4 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>R7</td>
<td>4</td>
<td>Ground</td>
</tr>
</tbody>
</table>

Is approximately 5V present?
YES >> GO TO 4.
NO >> GO TO 2.

2. CHECK POWER SUPPLY CIRCUIT (CONTINUITY)

1. Turn ignition switch OFF.
2. Disconnect microphone and Bluetooth control unit harness connectors.
3. Check continuity between microphone harness connector R7 (A) terminal 4 and Bluetooth control unit harness connector B131 (B) terminal 29.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>R7 4</td>
<td>B131 29</td>
<td>Yes</td>
</tr>
</tbody>
</table>

4. Check continuity between microphone harness connector R7 (A) terminal 4 and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>R7 4</td>
<td>Ground</td>
<td>No</td>
</tr>
</tbody>
</table>

Are the continuity test results as specified?
YES >> GO TO 3.
NO >> Repair harness or connector.

3. CHECK POWER SUPPLY CIRCUIT (BLUETOOTH CONTROL UNIT SIDE)

1. Connect Bluetooth control unit harness connector.
2. Turn ignition switch to ACC.
3. Check voltage between Bluetooth control unit harness connector B131 terminal 29 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>B131</td>
<td>29</td>
<td>Ground</td>
</tr>
</tbody>
</table>

Is approximately 5V present?
YES >> Go to 4.
NO >> Replace Bluetooth control unit. Refer to AV-677, "Removal and Installation".

4. CHECK GROUND CIRCUIT
< COMPONENT DIAGNOSIS > [BOSE W/ COLOR W/ RR CTL]

1. Turn ignition switch OFF.
2. Disconnect microphone harness connector R7 and Bluetooth control unit harness connector B131.
3. Check continuity between microphone harness connector R7 (A) terminal 2 and Bluetooth control unit harness connector B131 (B) terminal 8.

<table>
<thead>
<tr>
<th>A</th>
<th>Terminal</th>
<th>B</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>R7</td>
<td>2</td>
<td>B131</td>
<td>8</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Does continuity exist?
YES  >> Inspection End.
NO   >> Repair harness or connector.
Description

Transmit the image displayed with AV control unit with RGB signal to the display unit.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-613, "Wiring Diagram".

1. CHECK CONTINUITY RGB (R: RED) SIGNAL CIRCUIT

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>M141</td>
<td>17</td>
<td>M44</td>
</tr>
</tbody>
</table>

Are the continuity results as specified?

YES >> GO TO 2.

NO >> Repair harness or connector.

2. CHECK RGB (R: RED) SIGNAL

<table>
<thead>
<tr>
<th>(+) Connector</th>
<th>(-) Terminal</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>M141</td>
<td>17</td>
<td>Ground</td>
<td>Receive audio sig</td>
</tr>
</tbody>
</table>

Are the voltage readings as specified?

YES >> Replace display unit. Refer to AV-325, "Removal and Installation".

NO >> Replace AV control unit. Refer to AV-322, "Removal and Installation".

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RGB (G: GREEN) SIGNAL CIRCUIT

Description

Transmit the image displayed with AV control unit with RGB signal to the display unit.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-613, "Wiring Diagram".

1. CHECK CONTINUITY RGB (G: GREEN) SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect display unit connector M141 and AV control unit connector M44.
3. Check continuity between display unit harness connector M141 (A) terminal 6 and AV control unit harness connector M44 (B) terminal 39.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M141</td>
<td>6</td>
<td>M44</td>
<td>39</td>
<td>Yes</td>
</tr>
</tbody>
</table>

4. Check continuity between display unit harness connector M141 (A) terminal 6 and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M141</td>
<td>6</td>
<td>Ground</td>
</tr>
</tbody>
</table>

Are the continuity results as specified?

YES  >> GO TO 2.
NO   >> Repair harness or connector.

2. CHECK RGB (G: GREEN) SIGNAL

1. Connect display unit connector M141 and AV control unit connector M44.
2. Turn ignition switch ON.
3. Check signal between display unit harness connector M141 terminal 6 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>M141</td>
<td>6</td>
<td>Ground</td>
<td>Receive audio signal</td>
</tr>
</tbody>
</table>

Are voltage readings as specified?

YES  >> Replace display unit. Refer to AV-325, "Removal and Installation".
NO   >> Replace AV control unit. Refer to AV-322, "Removal and Installation".
RGB (B: BLUE) SIGNAL CIRCUIT

Description

Transmit the image displayed with AV control unit with RGB signal to the display unit.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-613, "Wiring Diagram".

1. CHECK CONTINUITY RGB (B: BLUE) SIGNAL CIRCUIT

   1. Turn ignition switch OFF.
   2. Disconnect display unit connector M141 and AV control unit connector M44.
   3. Check continuity between display unit harness connector M141 (A) terminal 18 and AV control unit harness connector M44 (B) terminal 38.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>M141</td>
<td>18</td>
</tr>
<tr>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

4. Check continuity between display unit harness connector M141 (A) terminal 18 and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M141</td>
<td>18</td>
<td>Ground</td>
</tr>
</tbody>
</table>

   Are continuity results as specified?
   YES  >> GO TO 2.
   NO    >> Repair harness or connector.

2. CHECK RGB (B: BLUE) SIGNAL

   1. Connect display unit connector M141 and AV control unit connector M44.
   2. Turn ignition switch ON.
   3. Check signal between display unit harness connector M141 terminal 18 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>Terminal</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>M141</td>
<td>18</td>
<td>Ground</td>
<td>Receive audio signal</td>
</tr>
</tbody>
</table>

   Are voltage readings as specified?
   YES  >> Replace display unit. Refer to AV-325, "Removal and Installation".
   NO    >> Replace AV control unit. Refer to AV-322, "Removal and Installation".
RGB SYNCHRONIZING SIGNAL CIRCUIT

Description

Transmit the RGB synchronizing signal to the display unit so as to synchronize the RGB image displayed with AV control unit.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-613, "Wiring Diagram".

1. CHECK CONTINUITY RGB SYNCHRONIZING SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect display unit connector M141 and AV control unit connector M44.
3. Check continuity between display unit harness connector M141 (A) terminal 19 and AV control unit harness connector M44 (B) terminal 41.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>M141</td>
<td>19</td>
<td>M44</td>
</tr>
</tbody>
</table>

4. Check continuity between display unit harness connector M141 (A) terminal 19 and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>—</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>—</td>
</tr>
<tr>
<td>M141</td>
<td>19</td>
<td>Ground</td>
</tr>
</tbody>
</table>

Are continuity results as specified?

YES >> GO TO 2.
NO >> Repair harness or connector.

2. CHECK RGB SYNCHRONIZING SIGNAL

1. Connect display unit connector M141 and AV control unit connector M44.
2. Turn ignition switch ON.
3. Check signal between display unit harness connector M141 terminal 19 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M141</td>
<td>19</td>
<td>Ground</td>
<td>Receive audio signal</td>
</tr>
</tbody>
</table>

Are voltage readings as specified?

YES >> Replace display unit. Refer to AV-325, "Removal and Installation".
NO >> Replace AV control unit. Refer to AV-322, "Removal and Installation".
**Description**

Transmits the display area of RGB image displayed by AV control unit with RGB area (YS) signal to display unit.

**Diagnosis Procedure**

Regarding Wiring Diagram information, refer to AV-613, "Wiring Diagram".

1. **CHECK CONTINUITY RGB AREA (YS) SIGNAL CIRCUIT**

1. Turn ignition switch OFF.
2. Disconnect display unit connector M141 and AV control unit connector M44.
3. Check continuity between display unit harness connector M141 (A) terminal 9 and AV control unit harness connector M44 (B) terminal 43.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M141</td>
<td>9</td>
<td>M44</td>
</tr>
<tr>
<td></td>
<td></td>
<td>43</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Yes</td>
</tr>
</tbody>
</table>

4. Check continuity between display unit harness connector M141 (A) terminal 9 and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M141</td>
<td>9</td>
<td>Ground</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
</tr>
</tbody>
</table>

Are continuity results as specified?

YES >> GO TO 2.
NO >> Repair harness or connector.

2. **CHECK RGB SYNCHRONIZING SIGNAL**

1. Connect display unit connector M141 and AV control unit connector M44.
2. Turn ignition switch ON.
3. Check signal between display unit harness connector M141 terminal 9 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>M141</td>
<td>9</td>
<td>Ground</td>
<td>Receive audio signal</td>
</tr>
</tbody>
</table>

Are voltage readings as specified?

YES >> Replace display unit. Refer to AV-325, "Removal and Installation".
NO >> Replace AV control unit. Refer to AV-322, "Removal and Installation".
HORIZONTAL SYNCHRONIZING (HP) SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE W/ COLOR W/ RR CTL]

HORIZONTAL SYNCHRONIZING (HP) SIGNAL CIRCUIT

Description

In composite image (AUX image, camera image), transmit the vertical synchronizing (VP) signal and horizontal synchronizing (HP) signal from display unit to AV control unit so as to synchronize the RGB images displayed with AV control unit such as the image quality adjusting menu, etc.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-613, "Wiring Diagram".

1. CHECK CONTINUITY HORIZONTAL SYNCHRONIZING (HP) SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect display unit connector M141 and AV control unit connector M44.
3. Check continuity between display unit harness connector M141 (A) terminal 8 and AV control unit harness connector M44 (B) terminal 45.
4. Check continuity between display unit harness connector M141 (A) terminal 8 and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>M141</td>
<td>8</td>
<td>M44</td>
</tr>
</tbody>
</table>

Are continuity results as specified?

YES  >> GO TO 2.
NO   >> Repair harness or connector.

2. CHECK HORIZONTAL SYNCHRONIZING (HP) SIGNAL

1. Connect display unit connector M141 and AV control unit connector M44.
2. Turn ignition switch ON.
3. Check signal between display unit harness connector M141 terminal 8 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M141</td>
<td>8</td>
<td>Ground</td>
<td>Audio signal</td>
</tr>
</tbody>
</table>

Are voltage readings as specified?

YES  >> Replace AV control unit. Refer to AV-322, "Removal and Installation".
NO   >> Replace display unit. Refer to AV-325, "Removal and Installation".

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AV-580

2010 Maxima
VERTICAL SYNCHRONIZING (VP) SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >
[BOSE W/ COLOR W/ RR CTL]

VERTICAL SYNCHRONIZING (VP) SIGNAL CIRCUIT

Description

In composite image (AUX image, camera image), transmit the vertical synchronizing (VP) signal and horizontal synchronizing (HP) signal from display unit to AV control unit so as to synchronize the RGB images displayed with AV control unit, such as the image quality adjusting menu, etc.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-613, "Wiring Diagram".

1. CHECK CONTINUITY VERTICAL SYNCHRONIZING (VP) SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect display unit connector M141 and AV control unit connector M44.
3. Check continuity between display unit harness connector M141 (A) terminal 20 and AV control unit harness connector M44 (B) terminal 57.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M141</td>
<td>20</td>
<td>M44</td>
<td>57</td>
<td>Yes</td>
</tr>
</tbody>
</table>

4. Check continuity between display unit harness connector M141 (A) terminal 20 and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M141</td>
<td>20</td>
<td>No</td>
</tr>
</tbody>
</table>

Are continuity results as specified?

YES  >> GO TO 2.
NO   >> Repair harness or connector.

2. CHECK VERTICAL SYNCHRONIZING (VP) SIGNAL

1. Connect display unit connector M141 and AV control unit connector M44.
2. Turn ignition switch ON.
3. Check signal between display unit harness connector M141 terminal 20 and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>M141</td>
<td>20</td>
<td>Ground</td>
<td>Receive audio signal</td>
</tr>
</tbody>
</table>

Are voltage readings as specified?

YES  >> Replace AV control unit. Refer to AV-322, "Removal and Installation".
NO   >> Replace display unit. Refer to AV-325, "Removal and Installation".

Revision: November 2009
FRONT DOOR SPEAKER

< COMPONENT DIAGNOSIS >

FRONT DOOR SPEAKER

Description

The AV control unit sends audio signals to the BOSE speaker amp. The BOSE speaker amp. amplifies the audio signals before sending them to the front door speakers using the audio signal circuits.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-613, "Wiring Diagram".

1. HARNESS CHECK

1. Disconnect BOSE speaker amp. connector B109 and suspect speaker connector.
2. Check continuity between BOSE speaker amp. harness connector B109 (A) and suspect speaker harness connector (B).

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>B109</td>
<td>18</td>
<td>D3</td>
</tr>
<tr>
<td></td>
<td>19</td>
<td></td>
</tr>
<tr>
<td></td>
<td>31</td>
<td>D103</td>
</tr>
<tr>
<td></td>
<td>32</td>
<td></td>
</tr>
</tbody>
</table>

3. Check continuity between BOSE speaker amp. harness connector B109 (A) and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td></td>
</tr>
<tr>
<td>B109</td>
<td>18</td>
<td>Ground</td>
</tr>
<tr>
<td></td>
<td>19</td>
<td></td>
</tr>
<tr>
<td></td>
<td>31</td>
<td></td>
</tr>
<tr>
<td></td>
<td>32</td>
<td></td>
</tr>
</tbody>
</table>

Are continuity test results as specified?

YES >> GO TO 2.
NO  >> * Check connector housings for disconnected or loose terminals.
    * Repair harness or connector.

2. FRONT DOOR SPEAKER SIGNAL CHECK
1. Connect BOSE speaker amp. connector B109 and suspect speaker connector.
2. Turn ignition switch to ACC.
4. Check the signal between BOSE speaker amp. harness connector B109 terminals with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>B109</td>
<td>18 19</td>
<td>Receive audio signal</td>
<td></td>
</tr>
</tbody>
</table>

Is audio signal voltage as specified?
YES >> Replace suspect speaker. Refer to AV-331, "Removal and Installation".
NO >> GO TO 3.

3. HARNESS CHECK

1. Disconnect AV control unit connector M47 and BOSE speaker amp. connector B109.
2. Check continuity between AV control unit harness connector M47 (A) and BOSE speaker amp. harness connector B109 (B).

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>M47</td>
<td>113</td>
<td>B109</td>
</tr>
<tr>
<td></td>
<td>119</td>
<td></td>
</tr>
<tr>
<td></td>
<td>109</td>
<td></td>
</tr>
<tr>
<td></td>
<td>115</td>
<td></td>
</tr>
</tbody>
</table>

3. Check continuity between AV control unit harness connector M47 (A) and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>—</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td></td>
</tr>
<tr>
<td>M47</td>
<td>113</td>
<td>Ground</td>
</tr>
<tr>
<td></td>
<td>119</td>
<td></td>
</tr>
<tr>
<td></td>
<td>109</td>
<td></td>
</tr>
<tr>
<td></td>
<td>115</td>
<td></td>
</tr>
</tbody>
</table>

Are continuity test results as specified?
YES >> GO TO 4.
NO >> • Check connector housings for disconnected or loose terminals.
      • Repair harness or connector.

4. FRONT DOOR SPEAKER SIGNAL CHECK
FRONT DOOR SPEAKER

< COMPONENT DIAGNOSIS >

[BOSE W/ COLOR W/ RR CTL]

1. Connect AV control unit connector and BOSE speaker amp. connector.
2. Turn ignition switch to ACC.
4. Check the signal between AV control unit harness connector terminals with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminals</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>M47</td>
<td>(+) 113</td>
<td>(-) 119</td>
<td>Receive audio signal</td>
</tr>
<tr>
<td></td>
<td>(+) 109</td>
<td>(-) 115</td>
<td>(V)</td>
</tr>
</tbody>
</table>

Are the audio signal voltage readings as specified?
YES >> Replace BOSE speaker amp. Refer to AV-334, "Removal and Installation".
NO >> Replace AV control unit. Refer to AV-322, "Removal and Installation".
TWEETER

< COMPONENT DIAGNOSIS >

TWEETER

Description

The AV control unit sends audio signals to the BOSE speaker amp. The BOSE speaker amp. amplifies the audio signals before sending them to the tweeters using the audio signal circuits.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-613, "Wiring Diagram".

1. HARNESS CHECK

1. Disconnect BOSE speaker amp. connector B110 and suspect tweeter connector.
2. Check continuity between BOSE speaker amp. harness connector B110 (A) and suspect tweeter harness connector (B).

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>B110</td>
<td>1</td>
<td>M51</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>M52</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

3. Check continuity between BOSE speaker amp. harness connector B110 (A) and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
</tr>
<tr>
<td>B110</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

Are continuity test results as specified?

YES  >> GO TO 2.
NO   >> • Check connector housings for disconnected or loose terminals.
      • Repair harness or connector.

2. TWEETER SIGNAL CHECK
1. Connect BOSE speaker amp. connector B110 and suspect tweeter connector.
2. Turn ignition switch to ACC.
4. Check the signal between BOSE speaker amp. harness connector B110 terminals with CONSULT-III or oscilloscope.

**Are the audio signal voltage readings as specified?**

**YES** >> Replace suspect tweeter. Refer to AV-164, "Removal and Installation".

**NO** >> GO TO 3.

**3. HARNESS CHECK**

1. Disconnect AV control unit connector M47 and BOSE speaker amp. connector B109.
2. Check continuity between AV control unit harness connector M47 (A) and BOSE speaker amp. harness connector B109 (B).

**Are continuity test results as specified?**

**YES** >> GO TO 4.

**NO** >> • Check connector housings for disconnected or loose terminals.
 • Repair harness or connector.

**4. TWEETER SIGNAL CHECK**
1. Connect AV control unit connector and BOSE speaker amp. connector.
2. Turn ignition switch to ACC.
4. Check the signal between AV control unit harness connector terminals with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminals</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>M47</td>
<td>(+) 113 (-) 119</td>
<td>Receive audio signal</td>
<td><img src="image" alt="Reference signal graph" /></td>
</tr>
<tr>
<td>M47</td>
<td>(+) 109 (-) 115</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Are the audio signal voltage readings as specified?

**YES** >> Replace BOSE speaker amp. Refer to AV-169, "Removal and Installation".

**NO** >> Replace AV control unit. Refer to AV-654, "Removal and Installation".
CENTER SPEAKER

< COMPONENT DIAGNOSIS >

[BOSE W/ COLOR W/ RR CTL]

CENTER SPEAKER

Description

The AV control unit sends audio signals to the BOSE speaker amp. The BOSE speaker amp. amplifies the audio signals before sending them to the center speaker using the audio signal circuits.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-613, "Wiring Diagram".

1. HARNESS CHECK

   1. Disconnect BOSE speaker amp. connector B109 and center speaker connector M130.
   2. Check continuity between BOSE speaker amp. harness connector B109 (A) and center speaker harness connector M130 (B).

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>B109</td>
<td>29</td>
<td>M130</td>
</tr>
<tr>
<td></td>
<td>30</td>
<td></td>
</tr>
</tbody>
</table>

3. Check continuity between BOSE speaker amp. harness connector B109 (A) and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>—</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td></td>
</tr>
<tr>
<td>B109</td>
<td>29</td>
<td>Ground</td>
</tr>
<tr>
<td></td>
<td>30</td>
<td></td>
</tr>
</tbody>
</table>

Are continuity test results as specified?

YES >> GO TO 2.
NO >> • Check connector housings for disconnected or loose terminals.
   • Repair harness or connector.

2. CENTER SPEAKER SIGNAL CHECK

   1. Connect BOSE speaker amp. connector B109 and center speaker connector.
   2. Turn ignition switch to ACC.
   4. Check the signal between BOSE speaker amp. harness connector B109 terminals with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminals</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>B109</td>
<td>(+) 29</td>
<td>Receive audio signal</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(-) 30</td>
<td>voltage</td>
<td>(V)</td>
</tr>
</tbody>
</table>

Is the audio signal voltage reading as specified?

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<COMPONENT DIAGNOSIS>

**CENTER SPEAKER**

[BOSE W/ COLOR W/ RR CTL]

**YES** ➔ Replace center speaker. Refer to AV-165, "Removal and Installation".

**NO** ➔ GO TO 3.

3. **HARNESS CHECK**

1. Disconnect AV control unit connector M47 and BOSE speaker amp. connector B109.

2. Check continuity between AV control unit harness connector M47 (A) and BOSE speaker amp. harness connector B109 (B).

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M47</td>
<td>113</td>
<td>B109</td>
<td>35</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>119</td>
<td></td>
<td>36</td>
<td></td>
</tr>
<tr>
<td></td>
<td>109</td>
<td></td>
<td>33</td>
<td></td>
</tr>
<tr>
<td></td>
<td>115</td>
<td></td>
<td>34</td>
<td></td>
</tr>
</tbody>
</table>

3. Check continuity between AV control unit harness connector M47 (A) and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M47</td>
<td>113</td>
<td>Ground</td>
</tr>
<tr>
<td></td>
<td>119</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>109</td>
<td></td>
</tr>
<tr>
<td></td>
<td>115</td>
<td></td>
</tr>
</tbody>
</table>

Are continuity test results as specified?

**YES** ➔ GO TO 4.

**NO** ➔
- Check connector housings for disconnected or loose terminals.
- Repair harness or connector.

4. **CENTER SPEAKER SIGNAL CHECK**

1. Connect AV control unit connector and BOSE speaker amp. connector.

2. Turn ignition switch to ACC.


4. Check the signal between AV control unit harness connector terminals with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminals</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>M47</td>
<td>(+) 113 (+) 119</td>
<td>Receive audio signal</td>
<td>(V)</td>
</tr>
</tbody>
</table>

Are the audio signal voltage readings as specified?

**YES** ➔ Replace BOSE speaker amp. Refer to AV-169, "Removal and Installation".

**NO** ➔ Replace AV control unit. Refer to AV-654, "Removal and Installation".

Revision: November 2009

AV-589

2010 Maxima
REAR DOOR SPEAKER

Description

The AV control unit sends audio signals to the BOSE speaker amp. The BOSE speaker amp. amplifies the audio signals before sending them to the rear door speakers using the audio signal circuits.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-613, "Wiring Diagram".

1. HARNESS CHECK

1. Disconnect BOSE speaker amp. connectors B109, B110 and suspect speaker connector.
2. Check continuity between BOSE speaker amp. harness connectors B109 (A) and B110 (B) and suspect speaker harness connector (C).

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: B109</td>
<td>15</td>
<td>C: D202</td>
<td>2</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>28</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>B: B110</td>
<td>9</td>
<td>C: D302</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>14</td>
<td></td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

3. Check continuity between BOSE speaker amp. harness connectors B109 (A) and B110 (B) and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: B109</td>
<td>15</td>
<td>Ground</td>
</tr>
<tr>
<td></td>
<td>28</td>
<td>No</td>
</tr>
<tr>
<td>B: B110</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td></td>
<td>14</td>
<td></td>
</tr>
</tbody>
</table>

Are the continuity test results as specified?

YES >> GO TO 2.
NO >> • Check connector housings for disconnected or loose terminals.
    • Repair harness or connector.

2. REAR DOOR SPEAKER SIGNAL CHECK
1. Connect BOSE speaker amp. connectors and suspect speaker connector.
2. Turn ignition switch to ACC.
4. Check the signal between BOSE speaker amp. harness connectors B109 (A) and B110 (B) terminals with CONSULT-III or oscilloscope.

### Component Diagnosis

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminals</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: B109</td>
<td>(+) 28</td>
<td>(-) 15</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Receive audio signal</td>
<td></td>
</tr>
<tr>
<td>B: B110</td>
<td>(+) 14</td>
<td>(-) 9</td>
<td></td>
</tr>
</tbody>
</table>

Are audio signal voltage readings as specified?

YES >> Replace suspect speaker. Refer to AV-332, “Removal and Installation”.

NO >> GO TO 3.

### Harness Check

1. Disconnect AV control unit connector M47 and BOSE speaker amp. connector B109.
2. Check continuity between AV control unit harness connector M47 (A) and BOSE speaker amp. harness connector B109 (B).

<table>
<thead>
<tr>
<th>A: M47</th>
<th>Terminal</th>
<th>B: M109</th>
<th>Terminal</th>
</tr>
</thead>
<tbody>
<tr>
<td>112</td>
<td>24</td>
<td>23</td>
<td>24</td>
</tr>
<tr>
<td>118</td>
<td>23</td>
<td>26</td>
<td>25</td>
</tr>
<tr>
<td>108</td>
<td>26</td>
<td></td>
<td></td>
</tr>
<tr>
<td>114</td>
<td>25</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. Check continuity between AV control unit harness connector M47 (A) and ground.

<table>
<thead>
<tr>
<th>A: M47</th>
<th>Terminal</th>
<th>—</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>112</td>
<td></td>
<td>—</td>
<td>Yes</td>
</tr>
<tr>
<td>118</td>
<td></td>
<td>—</td>
<td>No</td>
</tr>
<tr>
<td>108</td>
<td></td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>114</td>
<td></td>
<td>—</td>
<td></td>
</tr>
</tbody>
</table>

Are the continuity test results as specified?

YES >> GO TO 4.
NO >> • Check connector housings for disconnected or loose terminals.
   • Repair harness or connector.

### Rear Door Speaker Signal Check
REAR DOOR SPEAKER

< COMPONENT DIAGNOSIS >

2. Turn ignition switch to ACC.
4. Check the signal between AV control unit harness connector terminals with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminals</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(+)</td>
<td>(-)</td>
<td></td>
</tr>
<tr>
<td>M47</td>
<td>112 118</td>
<td>Receive audio signal</td>
<td></td>
</tr>
<tr>
<td></td>
<td>108 114</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Is the audio signal voltage reading as specified?

YES >> Replace BOSE speaker amp. Refer to AV-334, "Removal and Installation".

NO >> Replace AV control unit. Refer to AV-322, "Removal and Installation".
The AV control unit sends audio signals to the BOSE speaker amp. The BOSE speaker amp. amplifies the audio signals before sending them to the subwoofers using the audio signal circuits.

**Diagnosis Procedure**

Regarding Wiring Diagram information, refer to AV-613, "Wiring Diagram".

### 1. HARNESS CHECK

1. Disconnect BOSE speaker amp. connector B110 and suspect rear subwoofer connector.
2. Check continuity between BOSE speaker amp. harness connector B110 (A) and suspect rear subwoofer harness connector (B).

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>B110</td>
<td>13</td>
<td>B106</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>B107</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

3. Check continuity between BOSE speaker amp. harness connector B110 (A) and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td></td>
</tr>
<tr>
<td>B110</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

*Are the continuity test results as specified?*

**YES**  >> GO TO 2.

**NO**  >> *Check connector housings for disconnected or loose terminals.*

*Repair harness or connector.*

### 2. REAR SUBWOOFER SIGNAL CHECK
1. Connect BOSE speaker amp. connector B110 and suspect rear subwoofer connector.
2. Turn ignition switch to ACC.
4. Check the signal between BOSE speaker amp. harness connector B110 terminals with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminals</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>B110</td>
<td>13 8</td>
<td>Receive audio signal</td>
<td>(V)</td>
</tr>
<tr>
<td></td>
<td>5 6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Is the audio signal voltage as specified?
YES >> Replace suspect rear subwoofer. Refer to AV-168, "Removal and Installation".
NO >> GO TO 3.

3. HARNESS CHECK
1. Disconnect AV control unit connector M47 and BOSE speaker amp. connector B109.
2. Check continuity between AV control unit harness connector M47 (A) and BOSE speaker amp. harness connector B109 (B).

<table>
<thead>
<tr>
<th>A Connector</th>
<th>Terminal</th>
<th>B Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M47</td>
<td>112</td>
<td>B109</td>
<td>24</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>118</td>
<td></td>
<td>23</td>
<td></td>
</tr>
<tr>
<td></td>
<td>108</td>
<td></td>
<td>26</td>
<td></td>
</tr>
<tr>
<td></td>
<td>114</td>
<td></td>
<td>25</td>
<td></td>
</tr>
</tbody>
</table>

3. Check continuity between AV control unit harness connector M47 (A) terminal and ground.

<table>
<thead>
<tr>
<th>A Connector</th>
<th>Terminal</th>
<th>Ground</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M47</td>
<td>112</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>118</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>108</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>114</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Are continuity test results as specified?
YES >> GO TO 4.
NO  >> • Check connector housings for disconnected or loose terminals.
     • Repair harness or connector.

4. REAR SUBWOOFER SIGNAL CHECK
< COMPONENT DIAGNOSIS >

2. Turn ignition switch to ACC.
4. Check the signal between AV control unit harness connector terminals with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminals</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>M47</td>
<td>112 118</td>
<td>Receive audio signal</td>
<td>(V)</td>
</tr>
<tr>
<td></td>
<td>108 114</td>
<td>(V) 1 ms</td>
<td></td>
</tr>
</tbody>
</table>

Is the audio signal voltage as specified?

YES >> Replace BOSE speaker amp. Refer to AV-169, "Removal and Installation".
NO  >> Replace AV control unit. Refer to AV-654, "Removal and Installation".
AMP ON SIGNAL CIRCUIT

Description

When the audio system is turned on, a voltage signal is supplied from the AV control unit to the BOSE speaker amp. When this signal is received, the BOSE speaker amp. will turn on.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-613, "Wiring Diagram".

1. CHECK AMP ON SIGNAL (BOSE SPEAKER AMP)

1. Turn audio system ON.
2. Check voltage between BOSE speaker amp. harness connector B109 terminal 20 and ground.

<table>
<thead>
<tr>
<th>(+) Connector</th>
<th>Terminal</th>
<th>(-)</th>
<th>Voltage (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>B109</td>
<td>20</td>
<td>Ground</td>
<td>Battery voltage</td>
</tr>
</tbody>
</table>

Is inspection result normal?
YES >> Inspection End.
NO >> GO TO 2.

2. CHECK AMP ON SIGNAL (AV CONTROL UNIT)

Check voltage between AV control unit harness connector M47 terminal 110 and ground.

<table>
<thead>
<tr>
<th>(+) Connector</th>
<th>Terminal</th>
<th>(-)</th>
<th>Voltage (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M47</td>
<td>110</td>
<td>Ground</td>
<td>Battery voltage</td>
</tr>
</tbody>
</table>

Is inspection result normal?
YES >> Repair harness or connector.
NO >> Replace AV control unit. Refer to AV-654, "Removal and Installation".
STEERING SWITCH

Description

When one of the steering wheel audio control switches is pushed, the resistance in the steering wheel audio control switch circuit changes, depending on which button is pushed.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-613, "Wiring Diagram".

1. CHECK STEERING WHEEL AUDIO CONTROL SWITCH RESISTANCE

1. Turn ignition switch OFF.
2. Disconnect steering wheel audio control switch connector M88.
3. Check resistance between steering switch connector terminals.

<table>
<thead>
<tr>
<th>Terminal</th>
<th>Signal name</th>
<th>Condition</th>
<th>Resistance (Ω) (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>Enter</td>
<td>Depress ENTER switch.</td>
<td>2023</td>
</tr>
<tr>
<td>17</td>
<td>Voice recognition</td>
<td>Depress switch.</td>
<td>723</td>
</tr>
<tr>
<td>17</td>
<td>Menu (down)</td>
<td>Depress switch.</td>
<td>321</td>
</tr>
<tr>
<td>17</td>
<td>Menu (up)</td>
<td>Depress switch.</td>
<td>121</td>
</tr>
<tr>
<td>15</td>
<td>Source</td>
<td>Depress SOURCE switch.</td>
<td>0</td>
</tr>
<tr>
<td>15</td>
<td>Menu back</td>
<td>Depress the back switch.</td>
<td>723</td>
</tr>
<tr>
<td>15</td>
<td>Phone</td>
<td>Depress switch.</td>
<td>321</td>
</tr>
<tr>
<td>15</td>
<td>Volume (up)</td>
<td>Depress VOL up switch.</td>
<td>121</td>
</tr>
<tr>
<td>15</td>
<td>Volume (down)</td>
<td>Depress VOL down switch.</td>
<td>0</td>
</tr>
</tbody>
</table>

Do the steering wheel audio control switches check OK?

YES  >> GO TO 2.
NO   >> Replace steering wheel audio control switch. Refer to AV-669, "Removal and Installation".

2. CHECK HARNESS

1. Disconnect AV control unit connector M42 and spiral cable connector M30.
2. Check continuity between AV control unit harness connector M42 (A) and spiral cable harness connector M30 (B).

<table>
<thead>
<tr>
<th>A Connector</th>
<th>Terminal</th>
<th>B Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M42 6</td>
<td>M30 24</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>M42 15</td>
<td>M30 33</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M42 16</td>
<td>M30 31</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. Check continuity between AV switch connector M42 (A) and ground.
Are the continuity results as specified?
YES >> GO TO 3.
NO >> Repair harness.

3. SPIRAL CABLE CHECK

1. Disconnect spiral cable connector M88.
2. Check continuity between spiral cable harness connector M30 (A) and M88 (B).

Does the spiral cable check OK?
YES >> Inspection End.
NO >> Replace spiral cable. Refer to SR-8, "Removal and Installation".
SATELLITE RADIO TUNER : Description

Communication signals are exchanged between the AV control unit and satellite radio tuner using the communication circuits.

SATELLITE RADIO TUNER : Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-613, "Wiring Diagram".

1. CHECK HARNESS - 1

1. Turn ignition switch OFF.
2. Disconnect satellite radio tuner (factory installed) connector B111 and AV control unit connector M43.
3. Check continuity between satellite radio tuner (factory installed) harness connector B111 (A) terminal 28 and AV control unit harness connector M43 (B) terminal 28.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>B111</td>
<td>28</td>
<td>M43</td>
</tr>
</tbody>
</table>

4. Check continuity between satellite radio tuner (factory installed) harness connector B111 (A) terminal 28 and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>Connector Terminal</th>
</tr>
</thead>
<tbody>
<tr>
<td>B111</td>
<td>28</td>
</tr>
</tbody>
</table>

Are continuity results as specified?
YES >> GO TO 2.
NO >> Repair harness or connector.

2. CHECK HARNESS - 2

1. Check continuity between satellite radio tuner (factory installed) harness connector B111 (A) terminal 29 and AV control unit harness connector M43 (B) terminal 29.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>B111</td>
<td>29</td>
<td>M43</td>
</tr>
</tbody>
</table>

2. Check continuity between satellite radio tuner (factory installed) harness connector B111 (A) terminal 29 and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>Connector Terminal</th>
</tr>
</thead>
<tbody>
<tr>
<td>B111</td>
<td>29</td>
</tr>
</tbody>
</table>

Are continuity results as specified?
YES >> GO TO 3.
NO >> Repair harness or connector.
3. CHECK HARNESS - 3

1. Check continuity between satellite radio tuner (factory installed) harness connector B111 (A) terminal 30 and AV control unit harness connector M43 (B) terminal 30.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>B111</td>
<td>30</td>
<td>M43</td>
<td>30</td>
<td>Yes</td>
</tr>
</tbody>
</table>

2. Check continuity between satellite radio tuner (factory installed) harness connector B111 (A) terminal 30 and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>B111</td>
<td>30</td>
<td>No</td>
</tr>
</tbody>
</table>

Are continuity results as specified?
YES >> GO TO 4.
NO >> Repair harness or connector.

4. CHECK REQ1 SIGNAL

1. Connect satellite radio tuner (factory installed) connector and AV control unit connector.
2. Turn ignition switch to ACC.
3. Check signal between satellite radio tuner (factory installed) harness connector B111 terminal 28 and ground with CONSULT-III or oscilloscope.

Are voltage readings as specified?
YES >> GO TO 5.
NO >> Replace AV control unit. Refer to AV-322, "Removal and Installation".

5. CHECK TXD SIGNAL

Check signal between satellite radio tuner (factory installed) harness connector B111 terminal 29 and ground with CONSULT-III or oscilloscope.
**COMMUNICATION SIGNAL CIRCUIT**

< COMPONENT DIAGNOSIS >

**[BOSE W/ COLOR W/ RR CTL]**

**Are the voltage readings as specified?**

YES  >> GO TO 6.
NO   >> Replace satellite radio tuner. Refer to AV-335, "Removal and Installation".

6. **CHECK RXD SIGNAL**

Check signal between satellite radio tuner (factory installed) harness connector B111 terminal 30 and ground with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>B111</td>
<td>30</td>
<td>Ground</td>
</tr>
</tbody>
</table>

Are the voltage readings as specified?

YES  >> Replace satellite radio tuner. Refer to AV-335, "Removal and Installation".
NO   >> Replace AV control unit. Refer to AV-322, "Removal and Installation".

Revision: November 2009

AV-601 2010 Maxima
SOUND SIGNAL CIRCUIT

SATELLITE RADIO TUNER

SATELLITE RADIO TUNER : Description

Left and right channel audio signals are supplied from the satellite radio tuner to the AV control unit through the sound signal circuits.

SATELLITE RADIO TUNER : Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-613, "Wiring Diagram".

LEFT CHANNEL

1. CHECK HARNESS

1. Turn ignition switch OFF.
2. Disconnect satellite radio tuner (factory installed) connector B111 and AV control unit connector M43.
3. Check continuity between satellite radio tuner (factory installed) connector B111 (A) and AV control unit connector M43 (B).

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>B111</td>
<td>21</td>
<td>M43</td>
</tr>
<tr>
<td></td>
<td>22</td>
<td></td>
</tr>
</tbody>
</table>

4. Check continuity between satellite radio tuner (factory installed) connector B111 (A) and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>—</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Ground</td>
</tr>
<tr>
<td>B111</td>
<td>21</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>22</td>
<td></td>
</tr>
</tbody>
</table>

Are continuity results as specified?

YES  >> GO TO 2.
NO   >> Repair harness or connector.

2. CHECK LEFT CHANNEL AUDIO SIGNAL

1. Connect satellite radio tuner (factory installed) and AV control unit.
2. Turn ignition switch ON.
3. Check signal between satellite radio tuner (factory installed) connector B111 terminals 21 and 22 with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td></td>
</tr>
<tr>
<td>B111</td>
<td>22</td>
<td>21</td>
</tr>
</tbody>
</table>

Are voltage readings as specified?

YES  >> Replace AV control unit. Refer to AV-322, "Removal and Installation".

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AV-602
SOUND SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE W/ COLOR W/ RR CTL]

NO >> Replace satellite radio tuner. Refer to AV-335, "Removal and Installation".

RIGHT CHANNEL

1. CHECK HARNESS

1. Turn ignition switch OFF.
2. Disconnect satellite radio tuner (factory installed) connector B111 and AV control unit connector M43.
3. Check continuity between satellite radio tuner (factory installed) B111 (A) and AV control unit M43 (B).

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
</tr>
<tr>
<td>B111</td>
<td>23</td>
</tr>
<tr>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>Continuity</td>
<td>Yes</td>
</tr>
</tbody>
</table>

4. Check continuity between satellite radio tuner (factory installed) connector B111 (A) and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Ground</td>
</tr>
<tr>
<td>B111</td>
<td>23</td>
<td>No</td>
</tr>
<tr>
<td>24</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Are continuity results as specified?

YES >> GO TO 2.
NO >> Repair harness or connector.

2. CHECK RIGHT CHANNEL AUDIO SIGNAL

1. Connect satellite radio tuner (factory installed) and AV control unit.
2. Turn ignition switch ON.
3. Check signal between satellite radio tuner (factory installed) connector B111 terminals 23 and 24 with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
</tr>
<tr>
<td>B111</td>
<td>24</td>
</tr>
</tbody>
</table>

Are voltage readings as specified?

YES >> Replace AV control unit. Refer to AV-322, "Removal and Installation".
NO >> Replace satellite radio tuner. Refer to AV-335, "Removal and Installation".
MICROPHONE SIGNAL CIRCUIT

Description

Voice signals are transmitted from the microphone to the Bluetooth control unit using the microphone signal circuits.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-613, "Wiring Diagram".

1. CHECK HARNESS BETWEEN BLUETOOTH CONTROL UNIT AND MICROPHONE

1. Turn ignition switch OFF.
2. Disconnect Bluetooth control unit connector and microphone connector.
3. Check continuity between Bluetooth control unit harness connector B131 (A) and microphone harness connector R7 (B).

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>B131</td>
<td>7</td>
<td>R7</td>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>29</td>
<td></td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

4. Check continuity between Bluetooth control unit harness connector B131 (A) and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>B131</td>
<td>7</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>Ground</td>
</tr>
<tr>
<td></td>
<td>29</td>
<td></td>
</tr>
</tbody>
</table>

Are the continuity test results as specified?

YES >> GO TO 2.
NO >> Repair harness or connector.

2. CHECK MICROPHONE POWER SUPPLY

1. Connect Bluetooth control unit connector and microphone connector.
2. Turn ignition switch ON.
3. Check voltage between microphone harness connector R7 terminal 4 and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Voltage (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>R7</td>
<td>4</td>
<td>5V</td>
</tr>
</tbody>
</table>

Is voltage reading approx. 5 volts?

YES >> GO TO 3.
NO >> Replace Bluetooth control unit. Refer to AV-677, "Removal and Installation".

3. CHECK MICROPHONE SIGNAL
MICROPHONE SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS > [BOSE W/ COLOR W/ RR CTL]

Check signal between Bluetooth control unit harness connector B131 terminals 7 and 8.

<table>
<thead>
<tr>
<th>Connector</th>
<th>(+)</th>
<th>(-)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terminal</td>
<td>7</td>
<td>8</td>
</tr>
</tbody>
</table>

Reference signal
While talking into microphone

Are voltage readings as specified?

YES  >> Replace Bluetooth control unit. Refer to AV-677, "Removal and Installation".
NO   >> Replace microphone. Refer to AV-675, "Removal and Installation".


**VALUES ON THE DIAGNOSIS TOOL**

<table>
<thead>
<tr>
<th>Display Item</th>
<th>Display</th>
<th>Vehicle status</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>VHCL SPD SIG</td>
<td>ON</td>
<td>Vehicle speed &gt;0 km/h (0 MPH)</td>
<td>Changes in indication may be delayed. This is normal.</td>
</tr>
<tr>
<td></td>
<td>OFF</td>
<td>Vehicle speed =0 km/h (0 MPH)</td>
<td></td>
</tr>
<tr>
<td>PKB SIG</td>
<td>ON</td>
<td>Parking brake is applied.</td>
<td>Changes in indication may be delayed. This is normal.</td>
</tr>
<tr>
<td></td>
<td>OFF</td>
<td>Parking brake is released.</td>
<td></td>
</tr>
<tr>
<td>ILLUM SIG</td>
<td>ON</td>
<td>Block the light beam from the auto light optical sensor when the light SW is ON .</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OFF</td>
<td>Expose the auto light optical sensor to light when the light SW is OFF or ON.</td>
<td></td>
</tr>
<tr>
<td>IGN SIG</td>
<td>ON</td>
<td>Ignition switch ON</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OFF</td>
<td>Ignition switch in ACC position</td>
<td></td>
</tr>
<tr>
<td>REV SIG</td>
<td>ON</td>
<td>Selector lever in R position</td>
<td>Changes in indication may be delayed. This is normal.</td>
</tr>
<tr>
<td></td>
<td>OFF</td>
<td>Selector lever in any position other than R</td>
<td></td>
</tr>
</tbody>
</table>

**TERMINAL LAYOUT**

<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Description</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ -</td>
<td>Signal name</td>
<td>Input/Output</td>
<td>Depress ENTER switch. 2023Ω</td>
</tr>
<tr>
<td>6 (W/G) 15 (L/B)</td>
<td>Steering switch signal A</td>
<td>Input Ignition switch OFF</td>
<td>Depress switch 723Ω</td>
</tr>
<tr>
<td>7 (V/Y) Ground</td>
<td>ACC power supply</td>
<td>Input Ignition switch ACC</td>
<td>Battery voltage 0Ω</td>
</tr>
</tbody>
</table>

**PHYSICAL VALUES**

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AV-606

2010 Maxima
## AV CONTROL UNIT

### < ECU DIAGNOSIS >

#### [BOSE W/ COLOR W/ RR CTL]

<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Description</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>Signal name</td>
<td>Input/Output</td>
<td></td>
</tr>
<tr>
<td>9 (R/L) Ground</td>
<td>Illumination signal</td>
<td>Input</td>
<td>OFF</td>
</tr>
<tr>
<td>16 (GR/L) 15 (L/B)</td>
<td>Steering switch signal B</td>
<td>Input</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>19 (Y/R) Ground</td>
<td>Battery power supply</td>
<td>Input</td>
<td>Ignition switch OFF</td>
</tr>
<tr>
<td>20 (B) Ground</td>
<td>Ground</td>
<td>—</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>22 (Y/L) 21 (W/L)</td>
<td>Satellite radio sound signal LH</td>
<td>Input</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>24 (BR/L) 23 (Y/G)</td>
<td>Satellite radio sound signal RH</td>
<td>Input</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>25</td>
<td>Shield</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>26</td>
<td>Shield</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>28 (R) Ground</td>
<td>Request signal (SAT→CONT)</td>
<td>Input</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>29 (B) Ground</td>
<td>Communication signal (SAT→CONT)</td>
<td>Input</td>
<td>Ignition switch ON</td>
</tr>
</tbody>
</table>
### AV CONTROL UNIT

#### < ECU DIAGNOSIS >

<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Description</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>—</td>
<td>Signal name Input/Output</td>
<td>](V)</td>
</tr>
<tr>
<td>30 (G)</td>
<td>Ground</td>
<td>Communication signal (CONT→SAT)</td>
<td>Output</td>
</tr>
<tr>
<td>34 (B)</td>
<td>—</td>
<td>Antenna main</td>
<td>—</td>
</tr>
<tr>
<td>35 (B)</td>
<td>—</td>
<td>Antenna power</td>
<td>—</td>
</tr>
<tr>
<td>36 (W)</td>
<td>Ground</td>
<td>AUX image signal</td>
<td>Output</td>
</tr>
<tr>
<td>37 (B)</td>
<td>Ground</td>
<td>AUX image ground</td>
<td>—</td>
</tr>
<tr>
<td>38 (W)</td>
<td>Ground</td>
<td>RGB signal (B: blue)</td>
<td>Output</td>
</tr>
<tr>
<td>39 (R)</td>
<td>Ground</td>
<td>RGB signal (G: green)</td>
<td>Output</td>
</tr>
<tr>
<td>40 (B)</td>
<td>Ground</td>
<td>RGB signal (R: red)</td>
<td>Output</td>
</tr>
</tbody>
</table>

---

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### AV CONTROL UNIT

**< ECU DIAGNOSIS >**

#### [BOSE W/ COLOR W/ RR CTL]

<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Description</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ (G) Ground</td>
<td>RGB synchronizing signal</td>
<td>Output, Ignition switch ON</td>
<td>—</td>
</tr>
<tr>
<td>41</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>42</td>
<td>RGB synchronizing ground</td>
<td>—, Ignition switch ON</td>
<td>0V</td>
</tr>
<tr>
<td>43 (B) Ground</td>
<td>RGB area (YS) signal</td>
<td>Output, Ignition switch ON</td>
<td>RGB image, 5V</td>
</tr>
<tr>
<td>44 (BR) Ground</td>
<td>Communication signal (DISP→CONT)</td>
<td>Input, Ignition switch ON</td>
<td>When adjusting display-brightness</td>
</tr>
<tr>
<td>45 (R) Ground</td>
<td>Horizontal synchronizing (HP) signal</td>
<td>Input, Ignition switch ON</td>
<td>—</td>
</tr>
<tr>
<td>46 (LG) Ground</td>
<td>Signal ground</td>
<td>—, Ignition switch ON</td>
<td>0V</td>
</tr>
<tr>
<td>47 (O) Ground</td>
<td>Signal VCC</td>
<td>Output, Ignition switch ACC</td>
<td>9V</td>
</tr>
<tr>
<td>49</td>
<td>Shield</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>50</td>
<td>Shield</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>55</td>
<td>Shield</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>56 (Y) Ground</td>
<td>Communication signal (CONT→DISP)</td>
<td>Output, Ignition switch ON</td>
<td>When adjusting display-brightness</td>
</tr>
</tbody>
</table>

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### AV CONTROL UNIT

<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Description</th>
<th>Input/Output</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ (W)</td>
<td>Vertical synchronizing (VP) signal</td>
<td>Input</td>
<td>Ignition switch On</td>
<td></td>
</tr>
<tr>
<td>57</td>
<td>Ground</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>58</td>
<td>Inverter ground</td>
<td></td>
<td>Ignition switch ON</td>
<td>0V</td>
</tr>
<tr>
<td>59</td>
<td>Inverter VCC</td>
<td>Output</td>
<td>Ignition switch ACC</td>
<td>9V</td>
</tr>
<tr>
<td>65</td>
<td>Rear view camera video in (+)</td>
<td>Input</td>
<td>Ignition switch ON With rear view camera ON</td>
<td></td>
</tr>
<tr>
<td>66</td>
<td>Aux image signal</td>
<td>Input</td>
<td>Ignition switch ON When aux mode is selected</td>
<td></td>
</tr>
<tr>
<td>70</td>
<td>RV_CAM_SIG</td>
<td>Output</td>
<td>Ignition switch ACC Shift selector is in R position</td>
<td>6V</td>
</tr>
<tr>
<td>71</td>
<td>RV_CAM_GND</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>72</td>
<td>Shield</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>73</td>
<td>Shield</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>80</td>
<td>TEL voice audio signal</td>
<td>Input</td>
<td>Ignition switch ON Start confirmation/adjust-ment mode, and then Voice Microphone Test by selecting &quot;Voice Microphone Test&quot; on Handsfree Microphone screen.</td>
<td></td>
</tr>
<tr>
<td>81</td>
<td>Shield</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>85</td>
<td>Ground</td>
<td></td>
<td>Ignition switch ON</td>
<td>0V</td>
</tr>
<tr>
<td>86</td>
<td>CAN–H</td>
<td>Input/Output</td>
<td></td>
<td></td>
</tr>
<tr>
<td>87</td>
<td>CAN–L</td>
<td>Input/Output</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### AV CONTROL UNIT

*< ECU DIAGNOSIS > [BOSE W/ COLOR W/ RR CTL]*

<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Description</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>—</td>
<td>Input/Output</td>
<td>—</td>
</tr>
<tr>
<td>88 (L)</td>
<td>AV communication signal 1</td>
<td>Input/Output</td>
<td>—</td>
</tr>
<tr>
<td>89 (P)</td>
<td>AV communication signal 1</td>
<td>Input/Output</td>
<td>—</td>
</tr>
<tr>
<td>90 (R)</td>
<td>AV communication signal 2</td>
<td>Input/Output</td>
<td>—</td>
</tr>
<tr>
<td>91 (G)</td>
<td>AV communication signal 2</td>
<td>Input/Output</td>
<td>—</td>
</tr>
<tr>
<td>95 (B)</td>
<td>AUX audio signal RH</td>
<td>Input</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>97 (R)</td>
<td>AUX audio signal LH</td>
<td>Input</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>103 (SB)</td>
<td>Ground</td>
<td>Input</td>
<td>—</td>
</tr>
<tr>
<td>104 (G)</td>
<td>Ignition signal</td>
<td>Input</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>105 (P/B)</td>
<td>Reverse signal</td>
<td>Input</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>106 (G/R)</td>
<td>Parking brake signal</td>
<td>Input</td>
<td>Parking brake ON</td>
</tr>
<tr>
<td>107 (V/W)</td>
<td>Vehicle speed signal (8-pulse)</td>
<td>Input</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>108 (V)</td>
<td>Rear RH pre-amp. sound signal</td>
<td>Output</td>
<td>Ignition switch ON</td>
</tr>
</tbody>
</table>

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## AV CONTROL UNIT

### < ECU DIAGNOSIS >

#### [BOSE W/ COLOR W/ RR CTL]

<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Description</th>
<th>Input/Output</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>109 (B) 115 (W)</td>
<td>Front RH pre-amp. sound signal</td>
<td>Output</td>
<td>Ignition switch ON</td>
<td>Audio output</td>
</tr>
<tr>
<td>110 (B/P) Ground</td>
<td>Amp. ON signal</td>
<td>Output</td>
<td>Ignition switch ON</td>
<td>Battery voltage</td>
</tr>
<tr>
<td>111</td>
<td>Shield</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>112 (W/R) 118 (W/L)</td>
<td>Rear LH pre-amp. sound signal</td>
<td>Output</td>
<td>Ignition switch ON</td>
<td>Audio output</td>
</tr>
<tr>
<td>113 (G) 119 (R)</td>
<td>Front LH pre-amp. sound signal</td>
<td>Output</td>
<td>Ignition switch ON</td>
<td>Audio output</td>
</tr>
<tr>
<td>120 (B) — USB ground</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>121 (W) — USB D-</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>122 (R) — V BUS signal</td>
<td>—</td>
<td>—</td>
<td>—</td>
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</tr>
<tr>
<td>123 (G) — USB D+</td>
<td>—</td>
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AV CONTROL UNIT

< ECU DIAGNOSIS >

[BOSE W/ COLOR W/ RR CTL]
### AV Control Unit

#### Connector M42
- **Connector Name:** AV CONTROL UNIT (WITHOUT NAVI WITH REAR CONTROLS)
- **Connector Color:** WHITE

<table>
<thead>
<tr>
<th>Terminal No.</th>
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</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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<tr>
<td>5</td>
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</tr>
<tr>
<td>6</td>
<td>W/G</td>
<td>STRG SW A</td>
</tr>
<tr>
<td>7</td>
<td>V/Y</td>
<td>ACC</td>
</tr>
<tr>
<td>8</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>9</td>
<td>R/L</td>
<td>ILL</td>
</tr>
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<td>14</td>
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<td>15</td>
<td>L/B</td>
<td>STRG SW GND</td>
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<td>16</td>
<td>GR/L</td>
<td>STRG SW B</td>
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<td>17</td>
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<td>GND</td>
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#### Connector M43
- **Connector Name:** AV CONTROL UNIT (WITHOUT NAVI WITH REAR CONTROLS)
- **Connector Color:** WHITE

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<tr>
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<td>Y/L</td>
<td>NBUS LH+</td>
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<tr>
<td>23</td>
<td>Y/G</td>
<td>NBUS RH-</td>
</tr>
<tr>
<td>24</td>
<td>BR/L</td>
<td>NBUS RH+</td>
</tr>
<tr>
<td>25</td>
<td>SHIELD</td>
<td>NBUS SHIELD</td>
</tr>
<tr>
<td>26</td>
<td>SHIELD</td>
<td>DATA GND</td>
</tr>
<tr>
<td>27</td>
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</tr>
<tr>
<td>28</td>
<td>R</td>
<td>REQ(TO HU)</td>
</tr>
<tr>
<td>29</td>
<td>B</td>
<td>RX(TO HU)</td>
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<tr>
<td>30</td>
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<td>TX(FROM HU)</td>
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#### Connector M44
- **Connector Name:** AV CONTROL UNIT (WITHOUT NAVI WITH REAR CONTROLS)
- **Connector Color:** WHITE

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<tr>
<td>36</td>
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<td>COMP OUT+</td>
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<tr>
<td>37</td>
<td>B</td>
<td>COMP OUT-</td>
</tr>
<tr>
<td>38</td>
<td>W</td>
<td>B</td>
</tr>
<tr>
<td>39</td>
<td>R</td>
<td>G</td>
</tr>
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<td>40</td>
<td>B</td>
<td>R</td>
</tr>
<tr>
<td>41</td>
<td>G</td>
<td>RGB SYNC</td>
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<tr>
<td>42</td>
<td>SHIELD</td>
<td>RGB SYNC GND</td>
</tr>
<tr>
<td>43</td>
<td>B</td>
<td>YS</td>
</tr>
<tr>
<td>44</td>
<td>BR</td>
<td>DISP IT</td>
</tr>
<tr>
<td>45</td>
<td>R</td>
<td>HP</td>
</tr>
<tr>
<td>46</td>
<td>LG</td>
<td>SIG GND</td>
</tr>
<tr>
<td>47</td>
<td>O</td>
<td>SIG VCC</td>
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<td>48</td>
<td>SHIELD</td>
<td>COMP OUT SHIELD</td>
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<tr>
<td>49</td>
<td>SHIELD</td>
<td>RGB GND</td>
</tr>
<tr>
<td>50</td>
<td>SHIELD</td>
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<tr>
<td>51</td>
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<table>
<thead>
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<th>Color of Wire</th>
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<tr>
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<td>SHIELD</td>
</tr>
<tr>
<td>56</td>
<td>Y</td>
<td>IT DISP</td>
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<tr>
<td>57</td>
<td>W</td>
<td>VP</td>
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<tr>
<td>58</td>
<td>BR</td>
<td>INV GND</td>
</tr>
<tr>
<td>59</td>
<td>Y</td>
<td>INV VCC</td>
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### AV Control Unit (AV-623)

**Connector No.: M45**
- **Connector Name:** AV Control Unit
- **Connector Color:** White

<table>
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<td>63</td>
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<tr>
<td>64</td>
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</tr>
<tr>
<td>65</td>
<td>W</td>
<td>COMP2 IN+</td>
</tr>
<tr>
<td>66</td>
<td>LG</td>
<td>COMP1 IN+</td>
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<tr>
<td>67</td>
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<td>68</td>
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**Connector No.: M46**
- **Connector Name:** AV Control Unit
- **Connector Color:** White

<table>
<thead>
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<th>Terminal No.</th>
<th>Color of Wire</th>
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<tr>
<td>81</td>
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<td>83</td>
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<td>84</td>
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<tr>
<td>85</td>
<td>BR</td>
<td>SW GND</td>
</tr>
<tr>
<td>86</td>
<td>L</td>
<td>CAN-H</td>
</tr>
<tr>
<td>87</td>
<td>P</td>
<td>CAN-L</td>
</tr>
<tr>
<td>88</td>
<td>L</td>
<td>M-CAN H</td>
</tr>
<tr>
<td>89</td>
<td>P</td>
<td>M-CAN L</td>
</tr>
<tr>
<td>90</td>
<td>R</td>
<td>M-CAN2 H</td>
</tr>
<tr>
<td>91</td>
<td>G</td>
<td>M-CAN2 L</td>
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<tr>
<td>93</td>
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### ECU Diagnosis

- **ECU Diagram: AV-623**

- **Terminal No.:**
  - 69: L
  - 70: RV CAM SIG
  - 71: V/G
  - 72: CAM GND
  - 73: COMP2 GND
  - 74: SHIELD
  - 75: COMP1 IN SHIELD

- **Color of Wire:**
  - 69: -
  - 70: L
  - 71: V/G
  - 72: CAM GND
  - 73: COMP2 GND
  - 74: SHIELD
  - 75: COMP1 IN SHIELD

- **Signal Name:**
  - 69: -
  - 70: RV CAM SIG
  - 71: CAM GND
  - 72: COMP2 GND
  - 73: SHIELD
  - 74: COMP1 IN SHIELD
  - 75: -
### AV CONTROL UNIT

**ECU DIAGNOSIS**

**BOSE W/ COLOR W/ RR CTL**

<table>
<thead>
<tr>
<th>Connector No.</th>
<th>M51</th>
<th>TWEEPER LH (WITH BOSE AUDIO SYSTEM)</th>
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<tbody>
<tr>
<td>Connector Name</td>
<td>M51</td>
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<tr>
<td>Connector Color</td>
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<tr>
<td><strong>Color of Wire</strong></td>
<td><strong>Signal Name</strong></td>
<td><strong>Terminal No.</strong></td>
</tr>
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<tr>
<td>2</td>
<td>BY</td>
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<table>
<thead>
<tr>
<th>Connector No.</th>
<th>M48</th>
<th>AV CONTROL UNIT (WITHOUT NAVI WITH REAR CONTROLS)</th>
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<tbody>
<tr>
<td>Connector Name</td>
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<tr>
<td>Connector Color</td>
<td>GRAY</td>
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<td><strong>Color of Wire</strong></td>
<td><strong>Signal Name</strong></td>
<td><strong>Terminal No.</strong></td>
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<tr>
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<thead>
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<th>Connector No.</th>
<th>M85</th>
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<td>Connector Color</td>
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<td><strong>Color of Wire</strong></td>
<td><strong>Signal Name</strong></td>
<td><strong>Terminal No.</strong></td>
</tr>
<tr>
<td>9</td>
<td>B</td>
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</tr>
<tr>
<td>11</td>
<td>W</td>
<td>12</td>
</tr>
<tr>
<td>21</td>
<td>R</td>
<td>22</td>
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<tr>
<td>23</td>
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<table>
<thead>
<tr>
<th>Connector No.</th>
<th>M62</th>
<th>TWEEPER RH (WITH BOSE AUDIO SYSTEM)</th>
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<tr>
<td>Connector Name</td>
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<tr>
<td>Connector Color</td>
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<td><strong>Color of Wire</strong></td>
<td><strong>Signal Name</strong></td>
<td><strong>Terminal No.</strong></td>
</tr>
<tr>
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2010 Maxima
### AV CONTROL UNIT

**ECU DIAGNOSIS**

**BOSE W/ COLOR W/ RR CTL**

#### AV CONTROL UNIT

<table>
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<td>M141</td>
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#### Terminal No. Table

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<td>BPP</td>
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</tr>
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</tr>
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<td>W</td>
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#### Terminal No. Table (continued)

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<td>SHIELD</td>
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<td>6</td>
<td>R</td>
<td>COMP IN SHIELD</td>
</tr>
<tr>
<td>7</td>
<td>Y</td>
<td>RGB</td>
</tr>
<tr>
<td>8</td>
<td>BS</td>
<td>RGB</td>
</tr>
<tr>
<td>9</td>
<td>Y</td>
<td>SHIELD</td>
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<td>B</td>
<td>HP</td>
</tr>
<tr>
<td>11</td>
<td>B</td>
<td>IT Disp</td>
</tr>
<tr>
<td>12</td>
<td>R</td>
<td>INV GND</td>
</tr>
<tr>
<td>13</td>
<td>B</td>
<td>RGB</td>
</tr>
<tr>
<td>14</td>
<td>R</td>
<td>SIG GND</td>
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<td>W</td>
<td>COMP IN+</td>
</tr>
<tr>
<td>16</td>
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2010 Maxima
AV CONTROL UNIT

< ECU DIAGNOSIS >

[BOSE W/ COLOR W/ RR CTL]
### AV CONTROL UNIT

#### [BOSE W/ COLOR W/ RR CTL]

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#### Connector No.: B101
- Name: WIRE TO WIRE
- Color: WHITE

#### Connector No.: B102
- Name: WIRE TO WIRE
- Color: WHITE

#### Connector No.: B103
- Name: WIRE TO WIRE
- Color: WHITE

#### Connector No.: B104
- Name: REAR SUBWOOFER LH
- Color: WHITE

#### Connector No.: B105
- Name: REAR SUBWOOFER RH
- Color: WHITE

### Revision: November 2009
2010 Maxima
### AV CONTROL UNIT

**ECU Diagnosis**

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<td>LG</td>
<td>RR RH-IN (WITH COLOR DISPLAY)</td>
</tr>
<tr>
<td>26</td>
<td>V</td>
<td>RR RH-IN (WITH COLOR DISPLAY)</td>
</tr>
<tr>
<td>28</td>
<td>G</td>
<td>RR DOOR LH+ OUT</td>
</tr>
<tr>
<td>29</td>
<td>V</td>
<td>INST CTR TWDR+ OUT</td>
</tr>
<tr>
<td>30</td>
<td>P</td>
<td>INST CTR TWDR- OUT</td>
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<td>31</td>
<td>R</td>
<td>FR DOOR RH- OUT</td>
</tr>
<tr>
<td>32</td>
<td>BR</td>
<td>FR DOOR RH+ OUT</td>
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<td>WIL</td>
<td>FR RH-IN (WITH COLOR DISPLAY)</td>
</tr>
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<td>GRV</td>
<td>FR RH-IN (WITH COLOR DISPLAY)</td>
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<td>WIR</td>
<td>FR LH-IN (WITH COLOR DISPLAY)</td>
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<tr>
<td>36</td>
<td>B/R</td>
<td>FR LH-IN (WITH COLOR DISPLAY)</td>
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**BOSE W/ COLOR W/ RR CTL**

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**Terminal No.**

<table>
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<th>Signal Name</th>
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<td>DND</td>
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<td>B</td>
<td>LH WOOFER+ OUT</td>
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<td>9</td>
<td>O</td>
<td>RR DOOR RH- OUT</td>
</tr>
<tr>
<td>10</td>
<td>SB</td>
<td>BAT</td>
</tr>
<tr>
<td>11</td>
<td>GR</td>
<td>BAT</td>
</tr>
<tr>
<td>12</td>
<td>B</td>
<td>LH WOOFER+ OUT</td>
</tr>
<tr>
<td>13</td>
<td>LG</td>
<td>RR DOOR RH+ OUT</td>
</tr>
</tbody>
</table>

**AV CONTROL UNIT**

Revision: November 2009
### AV CONTROL UNIT

**< ECU DIAGNOSIS >**

### [BOSE W/ COLOR W/ RR CTL]

<table>
<thead>
<tr>
<th>Connector No.</th>
<th>Connector Name</th>
<th>Color Code</th>
<th>Terminal No.</th>
<th>Signal Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>R1</td>
<td>WIRE TO WIRE</td>
<td>WHITE</td>
<td>1</td>
<td>L</td>
</tr>
<tr>
<td>D3</td>
<td>FRONT DOOR SPEAKER L+</td>
<td>WHITE</td>
<td>1</td>
<td>LG</td>
</tr>
<tr>
<td>T101</td>
<td>REAR VIEW CAMERA</td>
<td>WHITE</td>
<td>1</td>
<td>R</td>
</tr>
<tr>
<td>D1</td>
<td>WIRE TO WIRE</td>
<td>WHITE</td>
<td>1</td>
<td>GR</td>
</tr>
<tr>
<td>T100</td>
<td>WIRE TO WIRE</td>
<td>WHITE</td>
<td>11</td>
<td>O</td>
</tr>
<tr>
<td>R7</td>
<td>MICROPHONE</td>
<td>WHITE</td>
<td>1</td>
<td>R</td>
</tr>
</tbody>
</table>

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DTC Index

Self-diagnosis results display item
<table>
<thead>
<tr>
<th>DTC</th>
<th>Display item</th>
<th>Refer to</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1000</td>
<td>CAN COMM CIRCUIT [U1000]</td>
<td>AV-540, &quot;Diagnosis Procedure&quot;</td>
</tr>
<tr>
<td>U1010</td>
<td>CONTROL UNIT (CAN) [1010]</td>
<td>AV-541, &quot;DTC Logic&quot;</td>
</tr>
<tr>
<td>U1200</td>
<td>Cont Unit [U1200]</td>
<td>AV-542, &quot;DTC Logic&quot;</td>
</tr>
<tr>
<td>U1216</td>
<td>CAN CONT [U1216]</td>
<td>AV-543, &quot;DTC Logic&quot;</td>
</tr>
<tr>
<td>U1218</td>
<td>HDD CONN [U1218]</td>
<td>AV-544, &quot;Diagnosis Procedure&quot;</td>
</tr>
<tr>
<td>U1219</td>
<td>HDD READ [U1219]</td>
<td>AV-545, &quot;Diagnosis Procedure&quot;</td>
</tr>
<tr>
<td>U121A</td>
<td>HDD WRITE [U121A]</td>
<td>AV-546, &quot;Diagnosis Procedure&quot;</td>
</tr>
<tr>
<td>U121B</td>
<td>HDD COMM [U121B]</td>
<td>AV-547, &quot;Diagnosis Procedure&quot;</td>
</tr>
<tr>
<td>U121C</td>
<td>HDD ACCESS [U121C]</td>
<td>AV-548, &quot;Diagnosis Procedure&quot;</td>
</tr>
<tr>
<td>U121D</td>
<td>DSP CONN [U121D]</td>
<td>AV-549, &quot;Diagnosis Procedure&quot;</td>
</tr>
<tr>
<td>U121E</td>
<td>DSP COMM [U121E]</td>
<td>AV-550, &quot;Diagnosis Procedure&quot;</td>
</tr>
<tr>
<td>U1225</td>
<td>USB CONTROLLER [U1225]</td>
<td>AV-551, &quot;DTC Logic&quot;</td>
</tr>
<tr>
<td>U1227</td>
<td>DVD COMM [U1227]</td>
<td>AV-552, &quot;Diagnosis Procedure&quot;</td>
</tr>
<tr>
<td>U1228</td>
<td>SUB CPU CONN [U1228]</td>
<td>AV-553, &quot;DTC Logic&quot;</td>
</tr>
<tr>
<td>U1229</td>
<td>iPod CERTIFICATION [U1229]</td>
<td>AV-554, &quot;DTC Logic&quot;</td>
</tr>
<tr>
<td>U122A</td>
<td>CONFIG UNFINISH [U122A]</td>
<td>AV-555, &quot;Diagnosis Procedure&quot;</td>
</tr>
<tr>
<td>U122E</td>
<td>Built-in AUDIO CONN [U122E]</td>
<td>AV-556, &quot;DTC Logic&quot;</td>
</tr>
<tr>
<td>U1232</td>
<td>ST ANGLE SEN CALIB [1232]</td>
<td>AV-557, &quot;Diagnosis Procedure&quot;</td>
</tr>
<tr>
<td>U1243</td>
<td>FRONT DISP CONN [U1243]</td>
<td>AV-558, &quot;Diagnosis Procedure&quot;</td>
</tr>
<tr>
<td>U1255</td>
<td>SATELLITE TUNER [U1255]</td>
<td>AV-563, &quot;Description&quot;</td>
</tr>
<tr>
<td>U1263</td>
<td>USB OVERCURRENT [U1263]</td>
<td>AV-560, &quot;Diagnosis Procedure&quot;</td>
</tr>
<tr>
<td>U1310</td>
<td>CONTROL UNIT (AV) [U1310]</td>
<td>AV-564, &quot;DTC Logic&quot;</td>
</tr>
<tr>
<td>U1300</td>
<td>• AV COMM CIRCUIT [U1300]</td>
<td>AV-563, &quot;Description&quot;</td>
</tr>
<tr>
<td>U1240</td>
<td>• SWITCH CONN [U1240]</td>
<td>AV-563, &quot;Description&quot;</td>
</tr>
</tbody>
</table>
## DISPLAY UNIT

**Reference Value**

### TERMINAL LAYOUT

![Terminal Layout Diagram]

### PHYSICAL VALUES

<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Description</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ –</td>
<td>Signal name</td>
<td>Input/Output</td>
<td></td>
</tr>
<tr>
<td>1 (B) Ground</td>
<td>Ground</td>
<td>Ignition switch ON</td>
<td>0V</td>
</tr>
<tr>
<td>2 (Y) Ground</td>
<td>Inverter VCC</td>
<td>Ignition switch ACC</td>
<td>9V</td>
</tr>
<tr>
<td>3 (O) Ground</td>
<td>Signal VCC</td>
<td>Ignition switch ACC</td>
<td>9V</td>
</tr>
<tr>
<td>4 (B) Ground</td>
<td>AUX image ground</td>
<td>Ignition switch ON</td>
<td>0V</td>
</tr>
<tr>
<td>5 –</td>
<td>Shield</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>6 (R) Ground</td>
<td>RGB signal (G: green)</td>
<td>Ignition switch ON</td>
<td>Start confirmation/adjustment mode, and then display color bar by selecting “Color Spectrum Bar” on DISPLAY DIAGNOSIS screen.</td>
</tr>
<tr>
<td>7 –</td>
<td>Shield</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>8 (R) Ground</td>
<td>Horizontal synchronizing (HP) signal</td>
<td>Ignition switch ON</td>
<td>—</td>
</tr>
</tbody>
</table>

**AVNIA1727ZZ**

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### DISPLAY UNIT

**< ECU DIAGNOSIS >**

**[BOSE W/ COLOR W/ RR CTL]**

<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Description</th>
<th>Input/Output</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>–</td>
<td>Signal name</td>
<td>Ignition switch ON at RGB image displayed</td>
<td>5V</td>
</tr>
<tr>
<td>9 (B)</td>
<td>Ground</td>
<td>RGB area (YS) signal</td>
<td>Ignition switch ON at rear view camera image displayed</td>
<td></td>
</tr>
<tr>
<td>11 (Y)</td>
<td>Ground</td>
<td>Communication signal (CONT→DISP)</td>
<td>Ignition switch ON When adjusting display-brightness</td>
<td></td>
</tr>
<tr>
<td>13 (BR)</td>
<td>Ground</td>
<td>Inverter ground</td>
<td>Ignition switch ON</td>
<td>0V</td>
</tr>
<tr>
<td>14 (LG)</td>
<td>Ground</td>
<td>Signal ground</td>
<td>Ignition switch ON</td>
<td>0V</td>
</tr>
<tr>
<td>15 (W)</td>
<td>Ground</td>
<td>AUX image signal</td>
<td>Ignition switch ON When AUX mode is selected</td>
<td></td>
</tr>
<tr>
<td>17 (B)</td>
<td>Ground</td>
<td>RGB signal (R: red)</td>
<td>Ignition switch ON Start confirmation/adjustment mode, and then display color bar by selecting “Color Spectrum Bar” on DISPLAY DIAGNOSIS screen.</td>
<td></td>
</tr>
<tr>
<td>18 (W)</td>
<td>Ground</td>
<td>RGB signal (B: blue)</td>
<td>Ignition switch ON Start confirmation/adjustment mode, and then display color bar by selecting “Color Spectrum Bar” on DISPLAY DIAGNOSIS screen.</td>
<td></td>
</tr>
</tbody>
</table>
## DISPLAY UNIT

**ECU DIAGNOSIS**

### [BOSE W/ COLOR W/ RR CTL]

<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Description</th>
<th>Input/Output</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>–</td>
<td>Signal name</td>
<td>Input</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>19 (G)</td>
<td>Ground</td>
<td>RGB synchronizing signal</td>
<td>Input</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>20 (W)</td>
<td>Ground</td>
<td>Vertical synchronizing (VP) signal</td>
<td>Output</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>21</td>
<td>—</td>
<td>Shield</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>22 (BR)</td>
<td>Ground</td>
<td>Communication signal (DISP→CONT)</td>
<td>Output</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>23</td>
<td>—</td>
<td>Shield</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

---

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**AV-641**

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## Reference Value

### TERMINAL LAYOUT

![Terminal Layout Diagram]

### PHYSICAL VALUES

<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Description</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ –</td>
<td>Signal name</td>
<td>Input/Output</td>
<td>—</td>
</tr>
<tr>
<td>1 LG 2 V</td>
<td>Audio signal tweeter LH</td>
<td>Output</td>
<td>Ignition switch ON Audio output</td>
</tr>
<tr>
<td>4 G 3 W</td>
<td>Audio signal tweeter RH</td>
<td>Output</td>
<td>Ignition switch ON Audio output</td>
</tr>
<tr>
<td>5 R 6 BR</td>
<td>Audio signal subwoofer RH</td>
<td>Output</td>
<td>Ignition switch ON Audio output</td>
</tr>
<tr>
<td>7 B</td>
<td>Ground</td>
<td>—</td>
<td>Ignition switch ON — 0V</td>
</tr>
<tr>
<td>10 SB</td>
<td>Battery power supply</td>
<td>Input</td>
<td>Ignition switch OFF Battery voltage</td>
</tr>
<tr>
<td>11 GR</td>
<td>Battery power supply</td>
<td>Input</td>
<td>Ignition switch OFF Battery voltage</td>
</tr>
<tr>
<td>12 B</td>
<td>Ground</td>
<td>—</td>
<td>Ignition switch ON 0V</td>
</tr>
</tbody>
</table>

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AV-642

2010 Maxima
## BOSE SPEAKER AMP

### < ECU DIAGNOSIS > [BOSE W/ COLOR W/ RR CTL]

<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Description</th>
<th>Input/Output</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ (L) 13</td>
<td>Audio signal subwoofer LH</td>
<td>Output</td>
<td>Ignition switch ON</td>
<td>Audio output</td>
</tr>
<tr>
<td>- (P) 9</td>
<td>Audio signal rear door RH</td>
<td>Input</td>
<td>Ignition switch ON</td>
<td>Audio input</td>
</tr>
<tr>
<td>Ground 20 (SB)</td>
<td>Amp. ON signal</td>
<td>Input</td>
<td>Ignition switch ACC</td>
<td>— Battery voltage</td>
</tr>
<tr>
<td>23 (Y) 24 (BR)</td>
<td>Audio signal rear LH</td>
<td>Input</td>
<td>Ignition switch ON</td>
<td>Audio input</td>
</tr>
<tr>
<td>25 (LG) 26 (V)</td>
<td>Audio signal rear RH</td>
<td>Input</td>
<td>Ignition switch ON</td>
<td>Audio input</td>
</tr>
<tr>
<td>15 (L) 28 (G)</td>
<td>Audio signal rear door LH</td>
<td>Output</td>
<td>Ignition switch ON</td>
<td>Audio output</td>
</tr>
<tr>
<td>30 (P) 29 (V)</td>
<td>Audio signal center speaker</td>
<td>Output</td>
<td>Ignition switch ON</td>
<td>Audio output</td>
</tr>
</tbody>
</table>
## BOSE SPEAKER AMP

< ECU DIAGNOSIS >

[BOSE W/ COLOR W/ RR CTL]

<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Description</th>
<th>Input/Output</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>–</td>
<td>Input</td>
<td>Ignition switch ON</td>
<td>Audio input</td>
</tr>
<tr>
<td>33 (W/L) 34 (GR/V)</td>
<td>Audio signal front RH</td>
<td>Input</td>
<td></td>
<td></td>
</tr>
<tr>
<td>35 (W/R) 36 (B/R)</td>
<td>Audio signal front LH</td>
<td>Input</td>
<td>Ignition switch ON</td>
<td>Audio input</td>
</tr>
</tbody>
</table>

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2010 Maxima
# SATELLITE RADIO TUNER

## Reference Value

### PHYSICAL VALUES

<table>
<thead>
<tr>
<th>Terminal</th>
<th>Description</th>
<th>Input/Output</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ 22 (W)</td>
<td>Satellite radio sound signal LH</td>
<td>Output</td>
<td>Ignition switch ON When satellite radio mode is selected</td>
<td><img src="skib3609e.png" alt="Graph" /></td>
</tr>
<tr>
<td>21 (BR)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23 (Y)</td>
<td>Satellite radio sound signal RH</td>
<td>Output</td>
<td>Ignition switch ON When satellite radio mode is selected</td>
<td><img src="skib3609e.png" alt="Graph" /></td>
</tr>
<tr>
<td>24 (B)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ground</td>
<td>Request signal (SAT→CONT)</td>
<td>Output</td>
<td>Ignition switch ON When satellite radio mode is selected</td>
<td><img src="skja8299u.png" alt="Graph" /></td>
</tr>
<tr>
<td>28 (R)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ground</td>
<td>Communication signal (SAT→CONT)</td>
<td>Output</td>
<td>Ignition switch ON When satellite radio mode is selected</td>
<td><img src="skja9300u.png" alt="Graph" /></td>
</tr>
<tr>
<td>29 (V)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

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2010 Maxima
# SATELLITE RADIO TUNER

< ECU DIAGNOSIS >

[BOSE W/ COLOR W/ RR CTL]

<table>
<thead>
<tr>
<th>Terminal</th>
<th>Description</th>
<th>Input/Output</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 (L)</td>
<td>Ground Communication signal (CONT→SAT)</td>
<td>Input</td>
<td>When satellite radio mode is selected</td>
<td></td>
</tr>
<tr>
<td>32 (P)</td>
<td>Ground Battery power supply</td>
<td>Input</td>
<td>Ignition switch OFF</td>
<td>Battery voltage</td>
</tr>
<tr>
<td>35 (B)</td>
<td>Shield</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>36 (GR)</td>
<td>Ground ACC power supply</td>
<td>Input</td>
<td>Ignition switch ACC</td>
<td>Battery voltage</td>
</tr>
</tbody>
</table>

**Terminal Description:***
- **Terminal:** The position of the terminal.
- **Description:** The function or type of signal associated with the terminal.
- **Input/Output:** Indicates whether the terminal is for input or output.
- **Condition:** Describes the condition under which the signal is active.
- **Reference value (Approx.):** The approximate reference value for the signal.
### Reference Value

#### TERMINAL LAYOUT

![Terminal Layout Diagram]

#### PHYSICAL VALUES

<table>
<thead>
<tr>
<th>Terminal (wire color)</th>
<th>Description</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>Signal name</td>
<td>Input/output</td>
<td>– – Battery voltage</td>
</tr>
<tr>
<td>1 (V) Ground</td>
<td>Battery power</td>
<td>Input</td>
<td>– – Battery voltage</td>
</tr>
<tr>
<td>2 (GR) Ground</td>
<td>ACC power</td>
<td>Input</td>
<td>Ignition switch ACC/ON – Battery voltage</td>
</tr>
<tr>
<td>3 (O) Ground</td>
<td>IGN power</td>
<td>Input</td>
<td>Ignition switch ON/START – Battery voltage</td>
</tr>
<tr>
<td>4 (B) Ground</td>
<td>Ground</td>
<td>–</td>
<td>Ignition switch ON – 0V</td>
</tr>
<tr>
<td>7 (L) 8 MIC in signal</td>
<td>Input</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>9 (BR) 10 (Y) Audio out</td>
<td>Output</td>
<td>Ignition switch ACC/ON</td>
<td>Bluetooth control unit sends audio signal</td>
</tr>
<tr>
<td>28 (BR) Ground</td>
<td>Vehicle speed signal (8-pulse)</td>
<td>Input</td>
<td>Ignition switch ON When vehicle speed is approx. 40 km/h (25 MPH)</td>
</tr>
<tr>
<td>29 (R) Ground</td>
<td>Microphone power</td>
<td>Output</td>
<td>Ignition switch ON – 5V</td>
</tr>
<tr>
<td>33 (B) Bluetooth antenna</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Terminal (wire color)</td>
<td>Description</td>
<td>Input/output</td>
<td>Condition</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-----------------------</td>
<td>--------------</td>
<td>-----------</td>
</tr>
<tr>
<td>34 (B)</td>
<td>Bluetooth antenna</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>35 (L)</td>
<td>M-CAN1 (+)</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>36 (P)</td>
<td>M-CAN1 (-)</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>37</td>
<td>Shield</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>40 (R)</td>
<td>M-CAN2 (+)</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>42 (G)</td>
<td>M-CAN2 (-)</td>
<td>–</td>
<td>–</td>
</tr>
</tbody>
</table>
### Audio System

#### Symptom Table

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible cause</th>
<th>Reference page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inoperative</td>
<td>• AV control unit power circuit, AV control unit</td>
<td>AV-565, AV-322</td>
</tr>
<tr>
<td>Steering switch does not operate</td>
<td>• Steering switch, AV control unit</td>
<td>AV-597, AV-322</td>
</tr>
<tr>
<td>All speakers do not sound</td>
<td>• AV control unit, AV control unit power circuit, BOSE speaker amp. ON signal, BOSE speaker amp. power/ground circuit, BOSE speaker amp.</td>
<td>AV-322, AV-565, AV-596, AV-568, AV-334</td>
</tr>
<tr>
<td>One or several speakers do not sound</td>
<td>• Front door speaker, Tweeter, Center speaker, Rear door speaker, Subwoofer</td>
<td>AV-582, AV-585, AV-588, AV-590, AV-593</td>
</tr>
</tbody>
</table>

### CD

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible cause</th>
<th>Reference page</th>
</tr>
</thead>
<tbody>
<tr>
<td>CD cannot be inserted.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CD cannot be ejected.</td>
<td>AV control unit</td>
<td>AV-322</td>
</tr>
<tr>
<td>The CD cannot be played.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The sound skips, stops suddenly, or is distorted.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Satellite Radio

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible cause</th>
<th>Reference page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inoperative</td>
<td>• Satellite radio tuner power or ground circuit, Satellite radio tuner communication circuit, Satellite radio tuner</td>
<td>AV-569, AV-599, AV-335</td>
</tr>
<tr>
<td>Right or left channel does not sound</td>
<td>• Satellite radio tuner right channel audio signal circuit, Satellite radio tuner left channel audio signal circuit, Satellite radio tuner</td>
<td>AV-602, AV-602, AV-335</td>
</tr>
</tbody>
</table>

### Hands-Free Phone

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible cause</th>
<th>Reference page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inoperative</td>
<td>• Bluetooth control unit power and ground circuit, Bluetooth control unit</td>
<td>AV-571, AV-344</td>
</tr>
<tr>
<td>Steering switch does not operate</td>
<td>• Steering switch, Bluetooth control unit</td>
<td>AV-337, AV-344</td>
</tr>
<tr>
<td>Voice activated control does not operate</td>
<td>• Microphone, Steering switch, Bluetooth control unit</td>
<td>AV-342, AV-337, AV-344</td>
</tr>
</tbody>
</table>
NORMAL OPERATING CONDITION

Description

The majority of the audio concerns are the result of outside causes (bad CD, electromagnetic interference, etc.).

NOISE

The following noise results from variations in field strength, such as fading noise and multi-path noise, or external noise from trains and other sources. It is not a malfunction.

- Fading noise: This noise occurs because of variations in the field strength in a narrow range due to mountains or buildings blocking the signal.
- Multi-path noise: This noise results from the waves sent directly from the broadcast station arriving at the antenna at a different time from the waves which reflect off mountains or buildings.

The vehicle itself can be a source of noise if noise prevention parts or electrical equipment is malfunctioning. Check if noise is caused and/or changed by engine speed, ignition switch turned to each position, and operation of each piece of electrical equipment, and determine the cause.

NOTE:
The source of the noise can be found easily by listening to the noise while removing the fuses of electrical components, one by one.

Type of Noise and Possible Cause

<table>
<thead>
<tr>
<th>Occurrence condition</th>
<th>Possible cause</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occurs only when engine is ON.</td>
<td>• Ignition components</td>
</tr>
<tr>
<td>A continuous growling noise occurs. The speed of the noise varies with changes in</td>
<td></td>
</tr>
<tr>
<td>the engine speed.</td>
<td></td>
</tr>
<tr>
<td>The occurrence of the noise is linked with the operation of the fuel pump.</td>
<td>• Fuel pump condenser</td>
</tr>
<tr>
<td>Noise only occurs when various electrical components are operating.</td>
<td>• Relay malfunction, AV control unit malfunction</td>
</tr>
<tr>
<td>A cracking or snapping sound occurs with the operation of various switches.</td>
<td>• Motor case ground</td>
</tr>
<tr>
<td>The noise occurs when various motors are operating.</td>
<td>• Motor</td>
</tr>
<tr>
<td>The noise occurs constantly, not just under certain conditions.</td>
<td>• Rear defogger coil malfunction</td>
</tr>
<tr>
<td>A cracking or snapping sound occurs while the vehicle is being driven, especially</td>
<td>• Open circuit in printed heater</td>
</tr>
<tr>
<td>when it is vibrating excessively.</td>
<td>• Poor ground of antenna feeder line</td>
</tr>
<tr>
<td></td>
<td>• Ground wire of body parts</td>
</tr>
<tr>
<td></td>
<td>• Ground due to improper part installation</td>
</tr>
<tr>
<td></td>
<td>• Wiring connections or a short circuit</td>
</tr>
</tbody>
</table>
PRECAUTIONS

PRECAUTION

PRECAUTIONS

Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the SR and SB section of this Service Manual.

WARNING:

• To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.

• Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SR section.

• Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

WARNING:

• When working near the Airbag Diagnosis Sensor Unit or other Airbag System sensors with the Ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.

• When using air or electric power tools or hammers, always switch the Ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

Precautions Necessary for Steering Wheel Rotation after Battery Disconnect (Early Production, With Electronic Steering Column Lock)

NOTE:

• Before removing and installing any control units, first turn the push-button ignition switch to the LOCK position, then disconnect both battery cables.

• After finishing work, confirm that all control unit connectors are connected properly, then re-connect both battery cables.

• Always use CONSULT-III to perform self-diagnosis as a part of each function inspection after finishing work. If a DTC is detected, perform trouble diagnosis according to self-diagnosis results.

This vehicle is equipped with a push-button ignition switch and a steering lock unit.

If the battery is disconnected or discharged, the steering wheel will lock and cannot be turned. If turning the steering wheel is required with the battery disconnected or discharged, follow the procedure below before starting the repair operation.

OPERATION PROCEDURE

1. Connect both battery cables.

   NOTE:
   Supply power using jumper cables if battery is discharged.

2. Carry the Intelligent Key or insert it to the key slot and turn the push-button ignition switch to ACC position.
   (At this time, the steering lock will be released.)

3. Disconnect both battery cables. The steering lock will remain released with both battery cables disconnected and the steering wheel can be turned.

4. Perform the necessary repair operation.
5. When the repair work is completed, re-connect both battery cables. With the brake pedal released, turn the push-button ignition switch from ACC position to ON position, then to LOCK position. (The steering wheel will lock when the push-button ignition switch is turned to LOCK position.)

6. Perform self-diagnosis check of all control units using CONSULT-III.

Precaution for Trouble Diagnosis

AV COMMUNICATION SYSTEM
• Do not apply voltage of 7.0 V or higher to the measurement terminals.
• Use the tester with its open terminal voltage being 7.0 V or less.
• Be sure to turn ignition switch OFF and disconnect the battery cable from the negative terminal before checking the circuit.

Precaution for Harness Repair

AV COMMUNICATION SYSTEM
• Solder the repaired parts, and wrap with tape. [Frays of twisted line must be within 110 mm (4.33 in).]

• Do not perform bypass wire connections for the repair parts. (The spliced wire will become separated and the characteristics of twisted line will be lost.)
### Commercial Service Tools

<table>
<thead>
<tr>
<th>Tool name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power tool</td>
<td>Loosening bolts and nuts</td>
</tr>
</tbody>
</table>
ON-VEHICLE REPAIR
AV CONTROL UNIT
Removal and Installation

1. Disconnect the battery negative terminal.
2. Remove the cluster lid D. Refer to IP-12, "Removal and Installation".
3. Remove the cluster lid C. Refer to IP-11, "Exploded View".
4. Remove the audio unit screws (A), then pull out the audio unit (1), disconnect the audio unit connectors and remove the audio unit (1).

AUDIO UNIT

Removal
1. Disconnect the battery negative terminal.
2. Remove the cluster lid D. Refer to IP-12, "Removal and Installation".
3. Remove the cluster lid C. Refer to IP-11, "Exploded View".
4. Remove the audio unit screws (A), then pull out the audio unit (1), disconnect the audio unit connectors and remove the audio unit (1).
< ON-VEHICLE REPAIR >

A/C AND AV SWITCH ASSEMBLY

Removal

1. Disconnect the battery negative terminal.
2. Remove the cluster lid D. Refer to IP-12, "Removal and Installation".
3. Remove the cluster lid C. Refer to IP-11, "Exploded View".
4. Remove the A/C and AV switch assembly screws (A), then pull out the A/C and AV switch assembly (1) from cluster lid C.

Installation

Installation is in the reverse order of removal.
MULTIFUNCTION SWITCH

Removal and Installation

REMOVAL
1. Remove cluster lid D. Refer to IP-11, "Exploded View".
2. Remove the four multifunction switch screws (A) and remove the multifunction switch (2) from cluster lid D (1).
   • metal clip

INSTALLATION
Installation is in the reverse order of removal.
Removal and Installation

1. Remove the cluster lid D. Refer to IP-12, "Removal and Installation".
2. Remove the audio display unit bracket screws (A), then pull out the audio display unit and bracket assembly (1), disconnect the audio display unit connectors and remove the audio display unit and bracket assembly (1).
3. Remove the audio display unit screws on the sides and remove the audio display unit from the audio display unit brackets.

INSTALLATION
Installation is in the reverse order of removal.
Removal and Installation

REMOVAL
1. Remove the center console assembly. Refer to IP-16, "Removal and Installation".
2. Push the pawl from the back of the center console to remove the USB connector (1).

INSTALLATION
Installation is in the reverse order of removal.
AUXILIARY INPUT JACKS

Removal and Installation

REMOVAL
1. Remove the center console. Refer to IP-16, "Removal and Installation".
2. Remove the center console bin box.
3. Remove the auxiliary input jacks screws (A), then remove the auxiliary input jacks (1).

INSTALLATION
Installation is in the reverse order of removal.
FRONT TWEETER

Removal and Installation

REMOVAL
1. Remove front tweeter speaker grille. Refer to IP-12, "Removal and Installation".
2. Remove the front tweeter speaker screws (A), then pull out the front tweeter speaker (1), disconnect the front tweeter speaker connector and remove the front tweeter speaker (1).

INSTALLATION
Installation is in the reverse order of removal.
REMVAL
1. Remove the center speaker grille. Refer to IP-12, "Removal and Installation".
2. Remove the center speaker screws (A), then pull out the center speaker (1), then disconnect the center speaker connector and remove the center speaker (1).

INSTALLATION
Installation is in the reverse order of removal.
FRONT DOOR SPEAKER

Removal and Installation

REMOVAL
1. Remove the front door finisher. Refer to INT-18, "Removal and Installation".
2. Remove the front door speaker screws (A), then disconnect the front door speaker connector and remove the front door speaker (1).
3. Remove the front door speaker spacer screws (B) and remove the front door speaker spacer (2).

INSTALLATION
Installation is in the reverse order of removal.
REAR DOOR SPEAKER

Removal and Installation

REMOVAL
1. Remove the rear door finisher. Refer to INT-21, "Removal and Installation".

2. Remove the rear door speaker screws (A), then disconnect the rear door speaker connector (B) and remove the rear door speaker (1).

INSTALLATION
Installation is in the reverse order of removal.
Removal and Installation

1. Remove the rear parcel shelf finisher. Refer to INT-26, "Removal and Installation".
2. Remove the subwoofer screws, then pull out the subwoofer, disconnect the subwoofer connector and remove the subwoofer.

Installation is in the reverse order of removal.
BOSE SPEAKER AMP

Removal and Installation

1. Disconnect the battery negative terminal.
2. Remove the rear parcel shelf. Refer to INT-26, "Removal and Installation".
3. Remove the Bose speaker amp. screws.
4. Remove the trunk upper finisher. Refer to INT-35, "Exploded View".
5. Disconnect the Bose speaker amp. connectors and remove the Bose speaker amp.

INSTALLATION

Installation is in the reverse order of removal.
SATELLITE RADIO TUNER

Removal and Installation

REMOVAL
1. Disconnect the battery negative terminal.
2. Remove the trunk upper finisher. Refer to INT-35, "Exploded View".
3. Remove the parcel shelf finisher. Refer to INT-26, "Removal and Installation".
4. From inside the passenger compartment, remove the bracket screws and lower the assembly for access.
5. Remove the satellite radio tuner unit screws (A), disconnect the satellite tuner harness connectors (B) and remove the satellite radio tuner (1).

INSTALLATION
Installation is in the reverse order of removal.
SATellite radio antenna

Removal and Installation

Removal
1. Lower the headliner at the rear. Refer to INT-32, "Exploded View".
2. Disconnect the satellite radio antenna connector (A), then remove the satellite radio antenna nut (B) and remove the satellite radio antenna (1).

Installation
Installation is in the reverse order of removal.
Removal and Installation

REMOVAL
1. Remove the driver airbag module. Refer to SR-5, "Removal and Installation".
2. Remove the steering wheel switch assembly screws (A), then detach the steering wheel switch harness clips (B) and remove the steering wheel switches (1).

INSTALLATION
Installation is in the reverse order of removal.
Window Antenna Repair

ELEMENT CHECK

1. Attach probe circuit tester (ohm setting) to antenna terminal on each side.

• When measuring continuity, wrap tin foil around the top of probe. Then, press the foil against the wire with your finger.
2. If an element is broken, no continuity will exist.

3. To locate a break, move probe along element. Tester indication will change abruptly when probe passes the broken point.

REPAIR EQUIPMENT
- Conductive silver composition (DuPont No. 4817 or equivalent)
- Ruler 30 cm (11.8 in) long
- Drawing pen
- Heat gun
- Alcohol
- Cloth

REPAIRING PROCEDURE
1. Wipe broken heat wire and its surrounding area clean with a cloth dampened in alcohol.
2. Apply a small amount of conductive silver composition to tip of drawing pen.
   **NOTE:** Shake silver composition container before use.
3. Place ruler on glass along broken line. Deposit conductive silver composition on break with drawing pen. Slightly overlap existing heat wire on both sides [preferably 5 mm (0.20 in)] of the break.
4. After repair has been completed, check repaired wire for continuity. This check should be conducted 10 minutes after silver composition is deposited. Do not touch repaired area while test is being conducted.

5. Apply a constant stream of hot air directly to the repaired area for approximately 20 minutes with a heat gun. A minimum distance of 3 cm (1.2 in) should be kept between repaired area and hot air outlet. If a heat gun is not available, let the repaired area dry for 24 hours.
Removal and Installation

REMOVAL
1. Remove the rear pillar finisher RH. Refer to INT-23, "Exploded View".
2. Detach the antenna amp. harness clip (A), disconnect the antenna amp. connectors (B), remove the antenna amp. screw (C) and remove the antenna amp. (1).

INSTALLATION
Installation is in the reverse order of removal.
REAR AUDIO REMOTE CONTROL UNIT

Removal and Installation

REMOVAL

1. Carefully remove the rear audio remote control unit finisher (1) from the rear center arm rest.
   • Metal clip
   **CAUTION:**
   Wrap removal tool with clean shop cloth to prevent damage to the rear audio remote control finisher.

2. Detach the rear audio remote control unit (1), then disconnect the rear audio remote control unit connector and remove the rear audio remote control unit (1).

INSTALLATION

Installation is in the reverse order of removal.
Removal and Installation

REMOVAL
1. Remove the map lamp assembly. Refer to INL-97, "Removal and Installation".
2. Detach the microphone connector (A).
3. Remove the map lamp covers (1), then remove the map lamp assembly cover (2).
4. Release the microphone tabs (A), then remove the microphone (1).

INSTALLATION
Installation is in the reverse order of removal.
Removal and Installation

REMOVAL
1. Remove the rear parcel shelf. Refer to INT-26, "Removal and Installation".
2. Remove the Bluetooth antenna screw (A), detach the Bluetooth antenna harness clip (B).
3. Fold down the rear seat, if equipped or open the trunk lid, then detach the Bluetooth antenna harness clip (C), disconnect the Bluetooth antenna harness connector (D) and remove the Bluetooth antenna (1).

INSTALLATION
Installation is in the reverse order of removal.
BLUETOOTH CONTROL UNIT

Removal and Installation

REMOVAL
1. Disconnect the battery negative terminal.
2. Remove the trunk upper finisher. Refer to INT-35, "Exploded View".
3. Remove the parcel shelf finisher. Refer to INT-26, "Removal and Installation".
4. From inside the passenger compartment, remove the bracket screws and lower the assembly for access.
5. Remove the Bluetooth control unit screws (A), disconnect the Bluetooth control unit connectors (B) and remove the Bluetooth control unit (1).

INSTALLATION
Installation is in the reverse order of removal.
DIAGNOSIS AND REPAIR WORKFLOW
[BOSE W/ COLOR W/ NAVI W/ RR CTL]

BASIC INSPECTION

OVERALL SEQUENCE

START

INTERVIEW (SYMPTOMS CONFIRMATION)

DIAGNOSIS (CONSULT-III) (Reference 1)

Normal result is displayed.

“MULTI AV” is not displayed.

TROUBLE DIAGNOSIS FOR SELF-DIAGNOSTIC ITEMS

Note: (Reference 1)

CONFIRM ALL MALFUNCTIONS ARE ERASED

Yes

Check again that the interviewed symptom is solved using “Symptom Table”.

No

TROUBLE DIAGNOSIS FOR SYMPTOMS

(Reference 2)

MALFUNCTIONING PART REPAIR

Erase DTC from memory.

REPAIRED PART CONFIRMATION

END

NOTE:

Skip to step 4 of the diagnosis procedure if “MULTI AV” is not displayed.

Detailed Flow

1. CHECK SYMPTOM

Check the malfunction symptoms by performing the following items.

• Interview the customer to obtain the malfunction information (conditions and environment when the malfunction occurred).

• Check the symptom.

>> GO TO 2.

2. SELF-DIAGNOSIS (CONSULT-III)

1. Connect CONSULT-III and perform “SELF-DIAGNOSIS” for “MULTI AV”.

NOTE:

Skip to step 4 of the diagnosis procedure if “MULTI AV” is not displayed.

2. Check if any DTC No. is displayed in the self-diagnosis results.
< BASIC INSPECTION >

Is any DTC No. displayed?
YES  >> GO TO 3.
NO    >> GO TO 4.

3. CHECK SELF-DIAGNOSIS RESULTS (CONSULT-III)

1. Check the DTC No. indicated in the self-diagnosis results.
2. Perform the relevant diagnosis referring to the DTC No. list. Refer to AV-804, "DTC Index".

NOTE:
Start with the diagnosis for the CAN communication system if “CAN COMM CIRCUIT [U1000] or CONTROL UNIT (CAN) [U1010]” is displayed.

>> GO TO 5.

4. PERFORM DIAGNOSIS BY SYMPTOM

Perform the relevant diagnosis referring to the diagnosis chart by symptom. Refer to AV-811, "Symptom Table".

>> GO TO 5.

5. REPAIR OR REPLACE MALFUNCTIONING PARTS

Repair or replace the identified malfunctioning parts.

NOTE:
Erase the stored self-diagnosis results after repairing or replacing the relevant components if any DTC No. has been indicated in the self-diagnosis results.

>> GO TO 6.

6. CHECK AFTER REPAIR

1. Perform self-diagnosis for “MULTI AV” with CONSULT-III after repairing or replacing the malfunctioning parts.
2. Check if any DTC No. is displayed in the self-diagnosis results.

Is any DTC No. displayed?
YES  >> GO TO 3.
NO    >> GO TO 7.

7. FINAL CHECK

Perform the operation check to confirm that the malfunction symptom is solved or that any other symptoms are present.

Are any symptoms present?
YES  >> GO TO 4.
NO    >> Inspection End.
INSTRUCTION AND ADJUSTMENT

< BASIC INSPECTION >

[BOSE W/ COLOR W/ NAVI W/ RR CTL]

INSTRUCTION AND ADJUSTMENT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description

INFOID:0000000005522895

BEFORE REPLACEMENT
When replacing AV control unit, save or print current vehicle specification with CONSULT-III configuration before replacement.

AFTER REPLACEMENT

CAUTION:
When replacing AV control unit, you must perform “WRITE CONFIGURATION” with CONSULT-III.
- Complete the procedure of "WRITE CONFIGURATION" in order.
- If you set incorrect “WRITE CONFIGURATION”, incidents might occur.
- Configuration is different for each vehicle model. Confirm configuration of each vehicle model.

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement

INFOID:0000000005522896

1. SAVING VEHICLE SPECIFICATION

CONSULT-III Configuration
Perform "READ CONFIGURATION" to save or print current vehicle specification. Refer to AV-680, "CONFIGURATION (AV CONTROL UNIT) : Description".

NOTE:
If "READ CONFIGURATION" can not be used, use the "WRITE CONFIGURATION - Manual selection".

>> GO TO 2.

2. REPLACE AV CONTROL UNIT

Replace AV control unit. Refer to AV-824, "Removal and Installation".

>> GO TO 3.

3. WRITING VEHICLE SPECIFICATION

CONSULT-III Configuration
Perform “WRITE CONFIGURATION - Config file” or “WRITE CONFIGURATION - Manual selection” to write vehicle specification. Refer to AV-681, "CONFIGURATION (AV CONTROL UNIT) : Special Repair Requirement".

>> GO TO 4.

4. OPERATION CHECK

Check that the operation of the AV control unit and camera images (fixed guide lines and predictive course lines) are normal.

>> WORK END

CONFIGURATION (AV CONTROL UNIT)

CONFIGURATION (AV CONTROL UNIT) : Description

INFOID:0000000005522892

- Since vehicle specifications are not included in the AV control unit after replacement, it is required to write vehicle specifications with CONSULT-III.
- Configuration has three functions as follows.
< BASIC INSPECTION >

**AV-681**

**INSPECTION AND ADJUSTMENT**

**[BOSE W/ COLOR W/ NAVI W/RR CTL]**

<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>READ CONFIGURATION</td>
<td>• Reads the vehicle configuration of current AV control unit. • Saves the read vehicle configuration.</td>
</tr>
<tr>
<td>WRITE CONFIGURATION-Config file</td>
<td>Writes the vehicle configuration with saved data.</td>
</tr>
</tbody>
</table>

**CONFIGURATION (AV CONTROL UNIT) : Special Repair Requirement**

1. **WRITING MODE SELECTION**

CONSORT-III Configuration
Select “CONFIGURATION” of AV control unit.

When writing saved data>>GO TO 2.
When writing manually>>GO TO 3.

2. **PERFORM “WRITE CONFIGURATION-CONFIG FILE”**

CONSORT-III Configuration
Perform “WRITE CONFIGURATION-Config file”.

>> WORK END

3. **PERFORM “WRITE CONFIGURATION-MANUAL SELECTION”**

CONSORT-III Configuration
Select “WRITE CONFIGURATION-Manual selection” to write vehicle specifications into the AV control unit.
For data to write, refer to AV-681, "CONFIGURATION (AV CONTROL UNIT) : Configuration List".

>> GO TO 4.

4. **OPERATION CHECK**

Check that the operation of the AV control unit and camera images (fixed guide lines and predictive course lines) are normal.

>> WORK END

**CONFIGURATION (AV CONTROL UNIT) : Configuration List**

**CAUTION:**
Check vehicle specifications before servicing.

<table>
<thead>
<tr>
<th>MANUAL SETTING ITEM</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Items</strong></td>
<td><strong>Setting value</strong></td>
</tr>
<tr>
<td>STEERING</td>
<td>LHD —</td>
</tr>
<tr>
<td></td>
<td>RHD —</td>
</tr>
<tr>
<td>GRADE</td>
<td>MODE 1 BASE</td>
</tr>
<tr>
<td></td>
<td>MODE 2 OTHER</td>
</tr>
<tr>
<td>ENGINE TYPE</td>
<td>NORMAL —</td>
</tr>
<tr>
<td></td>
<td>HYBRID —</td>
</tr>
<tr>
<td>BODY TYPE</td>
<td>NORMAL NORMAL</td>
</tr>
<tr>
<td></td>
<td>CONV CONVERTIBLE</td>
</tr>
<tr>
<td>CAMERA SYSTEM</td>
<td>NONE/AVM NONE or AVM</td>
</tr>
<tr>
<td></td>
<td>REAR REAR CAMERA</td>
</tr>
<tr>
<td></td>
<td>REAR + SIDE REAR + SIDE CAMERA</td>
</tr>
</tbody>
</table>

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2010 Maxima
<table>
<thead>
<tr>
<th>MANUAL SETTING ITEM</th>
<th>Setting value</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>4WAS</td>
<td>WITHOUT</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>WITH</td>
<td>—</td>
</tr>
<tr>
<td>SOUND SYSTEM</td>
<td>BASE</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>BOSE</td>
<td>—</td>
</tr>
<tr>
<td>ANTENNA TYPE</td>
<td>ROD TYPE</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>LONG TYPE</td>
<td>—</td>
</tr>
<tr>
<td>DUAL-ZONE AUTO TEMP</td>
<td>WITHOUT</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>WITH</td>
<td>—</td>
</tr>
<tr>
<td>DVD PLAY FUNCTION</td>
<td>WITHOUT</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>WITH</td>
<td>—</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>BODY TYPE</th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>SED 2DR</td>
<td>SEDAN 2 DOOR</td>
<td></td>
</tr>
<tr>
<td>SED 4DR 1</td>
<td>SEDAN 4 DOOR</td>
<td></td>
</tr>
<tr>
<td>SED 4DR 2</td>
<td>SEDAN 4 DOOR (WIDE)</td>
<td></td>
</tr>
<tr>
<td>H/B 2DR</td>
<td>H/B 2 DOOR</td>
<td></td>
</tr>
<tr>
<td>H/B 4DR</td>
<td>H/B 4 DOOR</td>
<td></td>
</tr>
<tr>
<td>COUPE 2DR</td>
<td>COUPE 2 DOOR</td>
<td></td>
</tr>
<tr>
<td>COUPE T</td>
<td>COUPE T BAR</td>
<td></td>
</tr>
<tr>
<td>WGN 4DR 2</td>
<td>49H WAGON 4 DOOR (WIDE)</td>
<td></td>
</tr>
<tr>
<td>H/T 2DR 1</td>
<td>H/T 2 DOOR</td>
<td></td>
</tr>
<tr>
<td>H/T 2DR 2</td>
<td>H/T 2 DOOR (HIGH-ROOF)</td>
<td></td>
</tr>
<tr>
<td>H/T 4DR 1</td>
<td>H/T 4 DOOR</td>
<td></td>
</tr>
<tr>
<td>H/T 4DR 2</td>
<td>H/T 4 DOOR (WIDE)</td>
<td></td>
</tr>
<tr>
<td>WGN 2DR</td>
<td>WAGON 2 DOOR</td>
<td></td>
</tr>
<tr>
<td>WGN 4DR 1</td>
<td>WAGON 4 DOOR</td>
<td></td>
</tr>
<tr>
<td>WGN 4DR 3</td>
<td>WAGON 4 DOOR (HIGH-ROOF)</td>
<td></td>
</tr>
<tr>
<td>WGN 4DR 4</td>
<td>56H WAGON 4 DOOR (WIDE)</td>
<td></td>
</tr>
<tr>
<td>VAN 2DR</td>
<td>VAN 2 DOOR</td>
<td></td>
</tr>
<tr>
<td>VAN 4DR 1</td>
<td>VAN 4 DOOR</td>
<td></td>
</tr>
<tr>
<td>VAN 4DR 2</td>
<td>VAN 4 DOOR (HIGH-ROOF)</td>
<td></td>
</tr>
<tr>
<td>CONV</td>
<td>CONVERTIBLE</td>
<td></td>
</tr>
</tbody>
</table>
 AUDIO SYSTEM

FUNCTION DIAGNOSIS

AUDIO SYSTEM

System Diagram

FUNCTION DIAGNOSIS

AUDIO SYSTEM

System Description

AUDIO SYSTEM

Revision: November 2009

AV-683

2010 Maxima
The audio system consists of the following components
• AV control unit
• Display unit
• BOSE speaker amp.
• Window antenna
• Steering wheel audio control switches
• A/C and AV switch assembly
• Rear control switch
• Front door speakers
• Tweeters
• Center speaker
• Rear door speakers
• Rear subwoofer

When the audio system is on, radio signals are received by the window antenna. The AV control unit then sends audio signals to the BOSE speaker amp. The BOSE speaker amp. amplifies the audio signals before sending them to the front door speakers, tweeters, center speaker, rear door speakers and the rear subwoofers.

Refer to Owner's Manual for audio system operating instructions.

SATELLITE RADIO SYSTEM
The satellite radio system consists of the following components
• Satellite antenna
• AV control unit

When the satellite radio system is on, radio signals are supplied to the AV control unit from the satellite antenna. The AV control unit then sends audio signals to the BOSE speaker amp.

Refer to Owner's Manual for satellite radio system operating instructions.

SPEED SENSITIVE VOLUME SYSTEM
Volume level of this system goes up and down automatically in proportion to the vehicle speed. The control level can be selected by the customer. Refer to Owner's Manual for operating instructions.
Component Description

<table>
<thead>
<tr>
<th>Part name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AV control unit</td>
<td>Controls audio system, NAVI functions and satellite radio system functions.</td>
</tr>
<tr>
<td>Display unit</td>
<td>Displays all audio and climate control related information.</td>
</tr>
<tr>
<td>BOSE speaker amp.</td>
<td>Receives power (amp ON) and audio signals from AV control unit and outputs</td>
</tr>
<tr>
<td></td>
<td>audio signals to each speaker.</td>
</tr>
<tr>
<td>Steering wheel audio control</td>
<td>• Audio operation can be operated.</td>
</tr>
<tr>
<td>switches</td>
<td>• Steering switch signal is output to AV control unit.</td>
</tr>
<tr>
<td>Front door speakers</td>
<td>• Outputs audio signal from BOSE speaker amp.</td>
</tr>
<tr>
<td></td>
<td>• Outputs high, mid and low range sounds.</td>
</tr>
<tr>
<td>Tweeters</td>
<td>• Outputs audio signal from BOSE speaker amp.</td>
</tr>
<tr>
<td></td>
<td>• Outputs high range sounds.</td>
</tr>
<tr>
<td>Part name</td>
<td>Description</td>
</tr>
<tr>
<td>------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Center speaker</td>
<td>• Outputs audio signal from BOSE speaker amp.</td>
</tr>
<tr>
<td></td>
<td>• Outputs high range sounds.</td>
</tr>
<tr>
<td>Rear door speakers</td>
<td>• Outputs audio signal from BOSE speaker amp.</td>
</tr>
<tr>
<td></td>
<td>• Outputs high, mid and low range sounds.</td>
</tr>
<tr>
<td>Rear subwoofers</td>
<td>• Outputs audio signal from BOSE speaker amp.</td>
</tr>
<tr>
<td></td>
<td>• Outputs low range sounds.</td>
</tr>
<tr>
<td>Satellite antenna</td>
<td>Audio signal (satellite radio) is received and output to AV control unit.</td>
</tr>
</tbody>
</table>
System Description

**NOTE:**
Refer to NAVI System Owner's Manual for system operation.

The navigation system periodically calculates the vehicle's current position according to the following three signals: Travel distance of the vehicle as determined by the vehicle speed sensor, turning angle of the vehicle as determined by the gyroscope (angular velocity sensor), and the direction of vehicle travel as determined by the GPS antenna (GPS information).

The current position of the vehicle is then identified by comparing the calculated vehicle position with map data read from the map data, which is stored in the hard disk drive (HDD) (map-matching), and indicated on the screen with a current-location mark.

By comparing the vehicle position detection results found by the GPS and by map-matching, more accurate vehicle position data can be used.

The current vehicle position will be calculated by detecting the distance the vehicle moved from the previous calculation point and its direction.

**TRAVEL DISTANCE**
Travel distance calculations are based on the vehicle speed input signal. Therefore, the calculation may become incorrect as the tires wear down. To prevent this, an automatic distance fine adjustment function has been adopted.

**TRAVEL DIRECTION**
Change in the travel direction of the vehicle is calculated by a gyroscope (angular velocity sensor) and a GPS antenna (GPS information). As the gyroscope and GPS antenna have both merit and demerit, input signals from them are prioritized in each situation. However, this order of priority may change in accordance with more detailed travel conditions so that the travel direction is detected more accurately.
MAP–MATCHING

Map–matching is a function that repositions the vehicle on the road map when a new location is judged to be the most accurate. This is done by comparing the current vehicle position, calculated by the method described in the position detection principle, with the road map data around the vehicle, read from the map data stored on the HDD.

Therefore, the vehicle position may not be corrected after the vehicle is driven over a certain distance or time in which GPS information is hard to receive. In this case, the current-location mark on the display must be corrected manually.

CAUTION:

- The road map data is based on data stored on the HDD.
  - In map-matching, alternative routes to reach the destination will be shown and prioritized, after the road on which the vehicle is currently driven has been judged and the current-location mark has been repositioned.
    - If there is an error in distance and/or direction, the alternative routes will be shown in different order of priority, and the wrong road can be avoided.
    - If two roads are running in parallel, they are of the same priority. Therefore, the current-location mark may appear on either of them alternately, depending on maneuvering of the steering wheel and configuration of the road.

- Map-matching does not function correctly when the road on which the vehicle is driving is new and not recorded on the HDD, or when the road pattern stored in the map data and the actual road pattern are different due to repair.
  - When driving on a road not present in the map, the map-matching function may find another road and position the current-location mark on it. Then, when the correct road is detected, the current-location mark may leap to it.

- Effective range for comparing the vehicle position and travel direction calculated by the distance and direction with the road data read from the HDD is limited. Therefore, when there is an excessive gap between the current vehicle position and the position on the map, correction by map-matching is not possible.

GPS (GLOBAL POSITIONING SYSTEM)

GPS (Global Positioning System) has been developed and controlled by the US Department of Defense. The system utilizes GPS satellite (NAVSTAR), sending out radio waves while flying on an orbit around the earth at the height of approx. 21,000 km (13,000 mi).

The GPS receiver calculates the vehicle’s position in three dimensions (latitude/longitude/altitude) according to the time lag of the radio waves received from four or more GPS satellites (three-dimensional positioning). If radio waves were received only from three GPS satellites, the GPS receiver calculates the vehicle’s position in two dimensions (latitude/longitude), utilizing the altitude data calculated previously by using radio waves from four or more GPS satellites (two-dimensional positioning).
< FUNCTION DIAGNOSIS >

Accuracy of the GPS will deteriorate under the following conditions.

- In two-dimensional positioning, the GPS accuracy will deteriorate when the altitude of the vehicle position changes.
- There may be an error of approximately 10 m (30 ft.) in position detected by three-dimensional positioning, which is more accurate than two-dimensional positioning. The accuracy can be even lower depending on the arrangement of the GPS satellites utilized for the positioning.
- Position detection is not possible when the vehicle is in an area where radio waves from the GPS satellite do not reach, such as in a tunnel, parking lot in a building, and under an elevated highway. Radio waves from the GPS satellites may not be received when some object is located over the GPS antenna.
- Position correction by GPS is not available while the vehicle is stopped.
### Component Description

<table>
<thead>
<tr>
<th>Part name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AV control unit</td>
<td>• Controls each operation of the navigation system</td>
</tr>
<tr>
<td></td>
<td>• HDD is built in</td>
</tr>
<tr>
<td></td>
<td>• Voice guidance signal is output to BOSE speaker amp.</td>
</tr>
<tr>
<td>BOSE speaker amp.</td>
<td>Voice guidance signal is input from AV control unit, and it is output to speakers.</td>
</tr>
<tr>
<td>Tweeter</td>
<td>Voice guidance signal from BOSE speaker amp. is output.</td>
</tr>
<tr>
<td>Steering wheel audio control switches</td>
<td>• Each operation of navigation system can be performed</td>
</tr>
<tr>
<td></td>
<td>• Switch operating signal is output to AV control unit</td>
</tr>
<tr>
<td>Microphone</td>
<td>Sends voice signals to AV control unit</td>
</tr>
<tr>
<td>GPS antenna</td>
<td>GPS signal is received and is output to AV control unit.</td>
</tr>
</tbody>
</table>

Revision: November 2009

AV-692

2010 Maxima
When the shift selector is in the R position, the display unit shows a view to the rear of the vehicle. Lines which indicate the vehicle clearance and distances are also displayed.
**Component Description**

<table>
<thead>
<tr>
<th>Part name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AV control unit</td>
<td>• Receives reverse signal from back-up lamp relay</td>
</tr>
<tr>
<td></td>
<td>• Receives steering angle sensor signal</td>
</tr>
<tr>
<td></td>
<td>• Sends camera ON signal to rear view camera</td>
</tr>
<tr>
<td>Rear view camera</td>
<td>• Receives camera ON signal from the AV control unit</td>
</tr>
<tr>
<td></td>
<td>• Sends image signal to the display unit</td>
</tr>
<tr>
<td>Steering angle sensor</td>
<td>Sends steering angle information to the AV control unit via CAN communication</td>
</tr>
</tbody>
</table>

**Component Description**

1. Tweeter LH M51
2. Center speaker M130
3. Tweeter RH M52
4. AV control unit M131, M134, M136, M137, M139, M145, M146, M148, M149 (located behind A/C and AV switch assembly)
5. Display unit M142, M151
6. A/C and AV switch assembly M98
7. Steering angle sensor M53 (located in steering column behind spiral cable)
8. Steering wheel audio control switches
9. USB interface M211 (view in center console)
10. Aux in jack M209
11. Rear control cancel switch M89
12. Rear control switch B402, B403, B404
13. Front door speaker LH D3 RH D103
14. Rear door speaker LH D202 RH D302
15. Rear subwoofers (view under rear parcel shelf) LH B106 RH B107
16. BOSE speaker amp B109, B110
17. Microphone R7
18. Rear view camera T101

**AV control unit**

- Receives reverse signal from back-up lamp relay
- Receives steering angle sensor signal
- Sends camera ON signal to rear view camera

**Rear view camera**

- Receives camera ON signal from the AV control unit
- Sends image signal to the display unit

**Steering angle sensor**

Sends steering angle information to the AV control unit via CAN communication

Revision: November 2009

AV-695

2010 Maxima
HANDS-FREE PHONE SYSTEM

System Diagram

System Description

Refer to the Owner's Manual for Bluetooth telephone system operating instructions.

NOTE:
Cellular telephones must have their wireless connection set up (paired) before using the Bluetooth telephone system.

Bluetooth telephone system allows users who have a Bluetooth equipped cellular telephone to make a wireless connection between their cellular telephone and the AV control unit. Hands-free cellular telephone calls can be sent and received. Personal memos can be created using the Nissan Voice Recognition system. Some Bluetooth cellular telephones may not be recognized by the AV control unit. When a cellular telephone or the AV control unit is replaced, the telephone must be paired with the AV control unit. Different cellular telephones may have different pairing procedures. Refer to the cellular telephone operating manual and the vehicle Owner’s Manual for more information.

AV CONTROL UNIT

When the ignition switch is turned to ACC or ON, the AV control unit will power up. During power up, the Bluetooth feature is initialized and performs various self-checks. Initialization may take up to 10 seconds. If a phone is present in the vehicle and paired with the AV control unit, Nissan Voice Recognition will then become active. Bluetooth telephone functions can be turned off using the Nissan Voice Recognition system.

STEERING WHEEL AUDIO CONTROL SWITCHES

When buttons on the steering wheel audio control switch are pushed, the resistance in steering wheel audio control switch circuit changes depending on which button is pushed. The AV control unit uses this signal to perform various functions while navigating through the voice recognition system.

The following functions can be performed using the steering wheel audio control switch:
• Initiate self-diagnosis of the Bluetooth telephone system
• Start a voice recognition session
• Answer and end telephone calls
• Adjust the volume of calls
• Record memos

MICROPHONE

The microphone is located in the roof console assembly. The microphone sends a signal to the AV control unit. The microphone can be actively tested during self-diagnosis.
### Component Description

<table>
<thead>
<tr>
<th>Part name</th>
<th>Description</th>
</tr>
</thead>
</table>
| **AV control unit**              | • Receives telephone voice signal from antenna and microphone  
                           | • Sends telephone voice and voice guidance signals to the speakers                           |
| **BOSE speaker amp.**            | • Receives audio signals from the AV control unit  
                           | • Outputs amplified audio signals to the speakers.                                           |
| **Front door speaker**           | Receives telephone voice and voice guidance signals from the AV control unit through the BOSE speaker amp. |
| **Front tweeter**                |                                                                                              |
| **Center speaker**               |                                                                                              |
| **Steering wheel audio control switches** | • Start a voice recognition session  
                           | • Answer and end telephone calls  
<pre><code>                       | • Adjust the volume level                                                                    |
</code></pre>
<table>
<thead>
<tr>
<th>Part name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microphone</td>
<td>Sends voice signals to AV control unit</td>
</tr>
<tr>
<td>Bluetooth antenna</td>
<td>Sends telephone voice signal to AV control unit</td>
</tr>
</tbody>
</table>
DIAGNOSIS SYSTEM (AV CONTROL UNIT)

Description

- The AV control unit diagnosis function starts up with multifunction switch operation and the AV control unit performs a diagnosis for each unit in the system during the on board diagnosis.
- Perform a CONSULT-III diagnosis if the on board diagnosis does not start, e.g., the screen does not display anything, the multifunction switch does not function, etc.

On Board Diagnosis Function

MULTIFUNCTION SWITCH AND PRESET SWITCH SELF-DIAGNOSIS FUNCTION

The ON/OFF operation (continuity) of each switch in the multifunction switch and preset switch can be checked.

Self-diagnosis Mode

- Press the “BACK” switch and the “UP” switch of the 8-direction switches within 10 seconds after turning the ignition switch from OFF to ACC and hold them for 3 seconds or more. Then the buzzer sounds, all indicators of the preset switch illuminate, and the self-diagnosis mode starts.
- The continuity of each switch at the ON position can be checked by pressing the switch. The buzzer sounds if the switch is normal.

NOTE:
The disk eject switch cannot be checked.

Finishing Self-diagnosis Mode

Self-diagnosis mode is canceled when turning the ignition switch OFF.

ON BOARD DIAGNOSIS

Description

- The trouble diagnosis function has a self-diagnosis mode for conducting trouble diagnosis automatically and a confirmation/adjustment mode for operating manually.
- The self-diagnosis mode performs diagnoses on the AV control unit, connections between system components as well as connections between AV control unit and GPS antenna. Then it displays the diagnosis results on the display.
- The confirmation/adjustment mode allows the technician to check, modify or adjust the vehicle signals and set values, as well as to monitor the system error records and system communication status. The checking, modifying or adjusting generally require human intervention and judgment (the system cannot make judgment automatically).

On Board Diagnosis Item

<table>
<thead>
<tr>
<th>Mode</th>
<th>Description</th>
</tr>
</thead>
</table>
| Self Diagnosis  | • AV control unit diagnosis.  
                  • Diagnoses the connections across system components, between AV control unit and GPS antenna. |
STARTING PROCEDURE

1. Start the engine.
2. Turn the audio system OFF.
3. While pressing the “SETTING” button, turn the volume control dial clockwise or counterclockwise for 40 clicks or more. (When the self-diagnosis mode is started, a short beep will be heard.)
   • Shifting from current screen to previous screen is performed by pressing “BACK” button.
4. The trouble diagnosis initial screen is displayed, and then the items of “Self Diagnosis” and “Confirmation/Adjustment” can be selected.

SELF-DIAGNOSIS MODE

1. Start the self-diagnosis function and select “Self Diagnosis”.
   - Self-diagnosis subdivision screen is displayed, and the self-diagnosis mode starts.
   - The bar graph visible on the center of the self-diagnosis subdivision screen indicates progress of the trouble diagnosis.

2. Diagnosis results are displayed after the self-diagnosis is completed. The unit names and the connection lines are color-coded according to the diagnostic results.

<table>
<thead>
<tr>
<th>Diagnosis results</th>
<th>Unit</th>
<th>Connection line</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>Green</td>
<td>Green</td>
</tr>
<tr>
<td>Connection malfunction</td>
<td>Gray</td>
<td>Yellow</td>
</tr>
<tr>
<td>Unit malfunction Note</td>
<td>Red</td>
<td>Green</td>
</tr>
</tbody>
</table>

NOTE:
Control unit (AV control unit) and amplifier (BOSE amp.) are displayed in red.
- Replace AV control unit if “Self-Diagnosis did not run because of a control unit malfunction” is indicated. The symptom is AV control unit internal error.
- If multiple errors occur at the same time for a single unit, the screen switch colors are determined according to the following order of priority: red > gray.

- The comments of the self-diagnosis results can be viewed with a component in the diagnosis result screen.

Detection Range of Self-diagnosis Mode
- The self-diagnosis mode allows the technician to diagnose the connection in the communication line between AV control unit and each unit and the internal operation of the AV control unit.
- Because the start condition of diagnosis function is a switch operation, the on board diagnosis function cannot be started up if any malfunction is detected in the communication circuit between AV control unit and multifunction switch.

SELF-DIAGNOSIS RESULTS
Check the applicable display at the following table, and then repair the malfunctioning parts.

Only Unit Part Is Displayed In Red.
< FUNCTION DIAGNOSIS >

<table>
<thead>
<tr>
<th>Screen switch</th>
<th>Description</th>
<th>Possible malfunction location / Action to take</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control unit</td>
<td>Malfunction is detected in AV control unit power supply and ground circuits.</td>
<td>Check AV control unit power supply and ground circuits. When detecting no malfunction in those components, replace AV control unit.</td>
</tr>
</tbody>
</table>

A Connecting Cable Between Units Is Displayed In Yellow.

<table>
<thead>
<tr>
<th>Area with yellow connection lines</th>
<th>Description</th>
<th>Possible malfunction location / Action to take</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control unit ⇔ Front Display</td>
<td>Malfunction is detected in serial communication circuits between AV control unit and front display unit.</td>
<td>Serial communication circuits between AV control unit and front display unit.</td>
</tr>
<tr>
<td>Control unit ⇔ GPS Antenna</td>
<td>GPS antenna connection malfunctions detected.</td>
<td>GPS antenna</td>
</tr>
</tbody>
</table>

CONFIRMATION/ADJUSTMENT MODE

1. Start the diagnosis function and select “Confirmation/Adjustment”. The confirmation/adjustment mode indicates where each item can be checked or adjusted.

2. Select each switch on the “Confirmation/Adjustment Mode” screen to display the relevant trouble diagnosis screen. Press the “Back” switch to return to the initial Confirmation/Adjustment Mode screen.
Vehicle Signals
A comparison check can be made of each actual vehicle signal and the signals recognized by the system.

System Diagnostic Menu

<table>
<thead>
<tr>
<th>Menu Item</th>
<th>State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicle speed</td>
<td>OFF</td>
</tr>
<tr>
<td>Parking brake</td>
<td>ON</td>
</tr>
<tr>
<td>Lights</td>
<td>OFF</td>
</tr>
<tr>
<td>Ignition</td>
<td>ON</td>
</tr>
<tr>
<td>Reverse</td>
<td>OFF</td>
</tr>
<tr>
<td>Side view Switch</td>
<td></td>
</tr>
<tr>
<td>Room Lamp</td>
<td>OFF</td>
</tr>
</tbody>
</table>

AV-704

Revision: November 2009

2010 Maxima
Speaker Test
Select “SPEAKER DIAGNOSIS” to display the Speaker Diagnosis screen. Press “Start” to generate a test tone in a speaker. Press “Start” to generate a test tone in the next speaker. Press “Stop” to stop the test tones.

Navigation
STEERING ANGLE ADJUSTMENT
The steering angle output value detected with the gyroscope is adjusted.

SPEED CALIBRATION
During normal driving, distance error caused by tire wear and tire pressure change is automatically adjusted for by the automatic distance correction function. This function, on the other hand, is for immediate adjustment, in cases such as driving with tire chain fitted on tires.
< FUNCTION DIAGNOSIS >  
[BOSE W/ COLOR W/ NAVI W/RR CTL]  

DIAGNOSIS SYSTEM (AV CONTROL UNIT)  

Error History  
The self-diagnosis results are judged depending on whether any error occurs from when “Self-diagnosis” is selected until the self-diagnosis results are displayed. 
However, the diagnosis results are judged normal if an error has occurred before the ignition switch is turned ON and then no error has occurred until the self-diagnosis start. Check the “Error Record” to detect any error that may have occurred before the self-diagnosis start because of this situation. 
The error record displays the time and place of the most recent occurrence of that error. However, take note of the following points.  
- If there is a malfunction with the GPS antenna circuit board in the AV control unit, the correct date and time of occurrence may not be able to be displayed.  
- Place of the error occurrence is represented by the position of the current location mark at the time an error occurred. If current location mark has deviated from the correct position, then the place of the error occurrence cannot be located correctly.  
- The frequency of occurrence is displayed in a count up manner. The actual count up method differs depending on the error item.  

Count up method A  
The counter resets to 0 if an error occurs when ignition switch is turned ON. The counter increases by 1 if the condition is normal at a next ignition ON cycle.  
The counter upper limit is 39. Any counts exceeding 39 are ignored. The counter can be reset (no error record display) with the “Delete log” switch or CONSULT-III.  

Count up method B  
The counter increases by 1 if an error occurs when ignition switch is ON. The counter will not decrease even if the condition is normal at the next ignition ON cycle.  
The counter upper limit is 50. Any counts exceeding 50 are ignored. The counter can be reset (no error record display) with the “Delete log” switch or CONSULT-III.  

<table>
<thead>
<tr>
<th>Display type of occurrence frequency</th>
<th>Error history display item</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count up method A</td>
<td>CAN communication line, control unit (CAN), AV communication line, control unit (AV)</td>
</tr>
<tr>
<td>Count up method B</td>
<td>Other than the above</td>
</tr>
</tbody>
</table>

![Diagnosis Menu Error History](image)

Error item  
Some error items may be displayed simultaneously according to the cause. If some error items are displayed simultaneously, the detection of the cause can be performed by the combination of display items.  

<table>
<thead>
<tr>
<th>Error item</th>
<th>Description</th>
<th>Possible malfunction factor/Action to take</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAN COMM CIRCUIT</td>
<td>CAN communication malfunction is detected.</td>
<td>Perform diagnosis with CONSULT-III, and then repair the malfunctioning parts according to the diagnosis results. Refer to AV-711, &quot;CONSULT-III Function (MULTI AV)&quot;.</td>
</tr>
</tbody>
</table>
### DIAGNOSIS SYSTEM (AV CONTROL UNIT)

#### [BOSE W/ COLOR W/ NAVI W/RR CTL]

<table>
<thead>
<tr>
<th>Error item</th>
<th>Description</th>
<th>Possible malfunction factor/Action to take</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONTROL UNIT (CAN)</td>
<td>CAN initial diagnosis malfunction is detected.</td>
<td></td>
</tr>
<tr>
<td>CONTROL UNIT (AV)</td>
<td>AV communication circuit initial diagnosis</td>
<td>Replace the AV control unit if the malfunction occurs constantly.</td>
</tr>
<tr>
<td>Flash-ROM Error Of Control Unit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Connection Of Gyro</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Connection of G Sensor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAN Controller Memory Error</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bluetooth Module Connection Error</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sub CPU Connection Error</td>
<td></td>
<td></td>
</tr>
<tr>
<td>iPod authentication chip error</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Audio connection error</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DSP Connection Error</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DSP Communication Error</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDD Connection Error</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDD Read Error</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDD Write Error</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDD Communication Error</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDD Access Error</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GPS Communication Error</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GPS ROM Error</td>
<td></td>
<td>An intermittent error caused by strong radio interference may be detected unless any symptom (GPS reception error, etc.) occurs. Replace the AV control unit if the malfunction occurs constantly.</td>
</tr>
<tr>
<td>GPS RAM Error</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GPS RTC Error</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unfinished configuration</td>
<td>The writing of configuration data is incomplete.</td>
<td>Write configuration data with CONSULT-III.</td>
</tr>
<tr>
<td>USB Controller Communication Error</td>
<td>USB connection malfunction is detected.</td>
<td>Check that the connection to the USB connector is normal.</td>
</tr>
<tr>
<td>DVD Mechanism Communication Error</td>
<td>AV control unit malfunction is detected.</td>
<td>If DVD can be played, then there is a possibility of the detection of a temporary malfunction.</td>
</tr>
<tr>
<td>Front Display Connection Error</td>
<td>When either one of the following items is detected:</td>
<td>Display unit power supply and ground circuits malfunction is detected.</td>
</tr>
<tr>
<td>USB electric current Error</td>
<td>Detection of over current in USB interface.</td>
<td>Check USB harness between the AV control unit and USB interface.</td>
</tr>
</tbody>
</table>
**Vehicle CAN Diagnosis**

- CAN communication status and error counter is displayed.
- The error counter displays “OK” if any malfunction was not detected in the past and displays “0” if a malfunction is detected. It increases by 1 if the condition is normal at the next ignition switch ON cycle. The upper limit of the counter is 39.
- The error counter is erased if “Reset” is pressed.

<table>
<thead>
<tr>
<th>Items</th>
<th>Status (Current)</th>
<th>Malfunction counter (Past)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tx(HVAC)</td>
<td>OK / ???</td>
<td>OK / 0 – 39</td>
</tr>
<tr>
<td>Rx(ECM)</td>
<td>OK / ???</td>
<td>OK / 0 – 39</td>
</tr>
<tr>
<td>Rx(Cluster)</td>
<td>OK / ???</td>
<td>OK / 0 – 39</td>
</tr>
<tr>
<td>Rx(HVAC)</td>
<td>OK / ???</td>
<td>OK / 0 – 39</td>
</tr>
<tr>
<td>Rx(USM)</td>
<td>OK / ???</td>
<td>OK / 0 – 39</td>
</tr>
<tr>
<td>Rx(STRG)</td>
<td>OK / ???</td>
<td>OK / 0 – 39</td>
</tr>
</tbody>
</table>

**NOTE:**

“???” indicates UNKWN

**AV COMM Diagnosis**

- Displays the communication status between AV control unit (master unit) and each unit.
- The error counter displays “OK” if any malfunction was not detected in the past and displays “0” if a malfunction is detected. It increases by 1 if the condition is normal at the next ignition switch ON cycle. The upper limit of the counter is 39.
- The error counter is erased if “Reset” is pressed.

<table>
<thead>
<tr>
<th>Items</th>
<th>Status (Current)</th>
<th>Counter (Past)</th>
</tr>
</thead>
<tbody>
<tr>
<td>C Tx(ITM–PrimarySW)</td>
<td>OK / ???</td>
<td>OK / 0 – 39</td>
</tr>
<tr>
<td>C Rx(PrimarySW–ITM)</td>
<td>OK / ???</td>
<td>OK / 0 – 39</td>
</tr>
<tr>
<td>C Rx(RrSeatSW–ITM)</td>
<td>OK / ???</td>
<td>OK / 0 – 39</td>
</tr>
</tbody>
</table>

**NOTE:**

“???” indicates UNKWN

**Hands-Free Phone**
The hands-free phone reception volume adjustment and microphone and speaker test functions are also available.

Camera
The four functions of “Correct Draw Line of Rear View Camera”, “Alter/Confirm Configuration”, “Reset Configuration” and “Camera Syst Type” are available.

Correct Draw Line of Rear View Camera
• Use this mode to adjust the guide line display position of the rear-view monitor if necessary after removing the rear view monitor camera.

Alter/Confirm Configuration
• Configuration stored in the AV control unit can be checked and modified.

<table>
<thead>
<tr>
<th>Setting item</th>
<th>Setting</th>
<th>Setting item</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predi. Course Lines</td>
<td>Without</td>
<td>Wheelbase</td>
<td>0.00000000</td>
</tr>
<tr>
<td>Rear Coeff. K</td>
<td>0.00000000</td>
<td>Total Length</td>
<td>0.00000000</td>
</tr>
<tr>
<td>Rear Coeff. F</td>
<td>0.00000000</td>
<td>Steering Gear Ratio</td>
<td>0.00000000</td>
</tr>
<tr>
<td>Rear Coeff. P1</td>
<td>0.00000000</td>
<td>Side Coeff. K</td>
<td>0.00000000</td>
</tr>
<tr>
<td>Rear Coeff. P2</td>
<td>0.00000000</td>
<td>Side Coeff. F</td>
<td>0.00000000</td>
</tr>
<tr>
<td>Rear Coeff. C1</td>
<td>0.00000000</td>
<td>Side Coeff. P1</td>
<td>0.00000000</td>
</tr>
<tr>
<td>Rear Coeff. C2</td>
<td>0.00000000</td>
<td>Side Coeff. P2</td>
<td>0.00000000</td>
</tr>
<tr>
<td>Rear Coeff. D1</td>
<td>0.00000000</td>
<td>Side Coeff. C1</td>
<td>0.00000000</td>
</tr>
<tr>
<td>Rear Coeff. D2</td>
<td>0.00000000</td>
<td>Side Coeff. C2</td>
<td>0.00000000</td>
</tr>
<tr>
<td>Car Width</td>
<td>0.00000000</td>
<td>Side Coeff. D1</td>
<td>0.00000000</td>
</tr>
<tr>
<td>Rear Offset</td>
<td>0.00000000</td>
<td>Side Coeff. D2</td>
<td>0.00000000</td>
</tr>
<tr>
<td>Rear Height</td>
<td>0.00000000</td>
<td>Side Offset</td>
<td>0.00000000</td>
</tr>
</tbody>
</table>
< FUNCTION DIAGNOSIS >

[BOSE W/ COLOR W/ NAVI W/RR CTL]

- **Reset Configuration**
  - Configuration stored in the AV control unit can be initialized.

- **Camera Syst Type**
  - Type of camera system is selectable.

- **XM**
  - Change Channel
    - Any necessary channels required to receive traffic information from the satellite radio system can be set.
  - Change Application ID
    - Any application ID's required to receive traffic information from the satellite radio system can be set.

- **Delete Unit Connection Log**
Deletes any unit connection records and error records from the AV control unit memory. (Clear the records of the unit that has been removed.)

Initialize Settings
“Erase All Customer Data” and “Reset Factory Configuration” are possible.

**CAUTION:**
- Never perform Reset Factory Configuration except when configuration is unsuccessful.
- Factory Configuration Initialize requires configuration. For details, refer to AV-365, "Description".

Version Information
Version information of the AV control unit is displayed.

**CONSULT - III Function (MULTI AV)**

**APPLICATION ITEMS**
CONSULT-III performs the following functions via the communication with the AV control unit.

<table>
<thead>
<tr>
<th>Diagnosis mode</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ecu Identification</td>
<td>The part number of AV control unit can be checked.</td>
</tr>
<tr>
<td>Self Diagnostic Result</td>
<td>Performs a diagnosis on the AV control unit and a connection diagnosis for the communication circuit of the Multi AV system, and displays the current and past malfunctions collectively.</td>
</tr>
<tr>
<td>Data Monitor</td>
<td>The diagnosis of vehicle signal that is input to the AV control unit can be performed.</td>
</tr>
<tr>
<td>Configuration</td>
<td>• Read and save the vehicle specification.</td>
</tr>
<tr>
<td></td>
<td>• Write the vehicle specification when replacing AV control unit.</td>
</tr>
</tbody>
</table>

**AV Communication**
When “AV communication” of “CAN Diag Support Monitor” is selected, the following function will be performed.

<table>
<thead>
<tr>
<th>AV communication</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AV&amp;NAVI C/U</td>
<td>Displays the communication status from AV control unit to each unit as well as the error counter.</td>
</tr>
<tr>
<td>AUDIO</td>
<td>Displays the AV control unit communication status and the error counter.</td>
</tr>
</tbody>
</table>

**ECU IDENTIFICATION**

Revision: November 2009
**SELF DIAGNOSIS RESULT**

- In CONSULT-III self-diagnosis, self-diagnosis results and error history are displayed collectively.
- The current malfunction indicates “CRNT”. The past malfunction indicates “PAST”.
- The timing is displayed as “0” if any of the error codes [U1000], [U1010], [U1300] and [U1310] is detected. The counter increases by 1 if the condition is normal at the next ignition switch ON cycle.

### Self-diagnosis Results Display Item

<table>
<thead>
<tr>
<th>Error item Display Item</th>
<th>Description</th>
<th>Possible malfunction factor/Action to take</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAN COMM CIRCUIT [U1000]</td>
<td>CAN communication malfunction is detected.</td>
<td>Perform diagnosis with CONSULT-III, and then repair the malfunctioning parts according to the diagnosis results. Refer to AV-715, “Diagnosis Procedure”</td>
</tr>
<tr>
<td>CONTROL UNIT (CAN) [U1010]</td>
<td>CAN initial diagnosis malfunction is detected.</td>
<td></td>
</tr>
<tr>
<td>CONTROL UNIT (AV) [U1310]</td>
<td>AV communication circuit initial diagnosis malfunction is detected.</td>
<td>Replace the AV control unit if the malfunction occurs constantly.</td>
</tr>
<tr>
<td>Cont Unit [U1200]</td>
<td>AV control unit malfunction is detected.</td>
<td></td>
</tr>
<tr>
<td>GYRO NO CONN [U1201]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G-SENSOR NO CONN [U1202]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAN CONT [U1216]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BLUETOOTH MODULE [U1217]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SUB CPU CONNECT [U1228]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>iPod CERTIFICATION [U1229]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Built-in AUDIO CONNECT [U122E]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDD CONNECT [U1218]</td>
<td>AV control unit malfunction is detected.</td>
<td>• If the music box function has no malfunctions, then there is a possibility of the detection of a temporary malfunction. • Replace the AV control unit if the malfunction occurs constantly.</td>
</tr>
<tr>
<td>HDD READ [U1219]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDD WRITE [U121A]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDD COMM [U121B]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDD ACCESS [U121C]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GPS COMM [U1204]</td>
<td>GPS malfunction is detected.</td>
<td>An intermittent error caused by strong radio interference may be detected unless any symptom (GPS reception error, etc.) occurs. Replace the AV control unit if the malfunction occurs constantly.</td>
</tr>
<tr>
<td>GPS ROM [U1205]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GPS RAM [U1206]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GPS RTC [U1207]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>USB CONTROLLER [U1225]</td>
<td>USB connection malfunction is detected.</td>
<td>Check that the connection to the USB connector is normal.</td>
</tr>
<tr>
<td>DSP CONNECT [U121D]</td>
<td>AV control unit malfunction is detected.</td>
<td>• If a disc can be played, then there is a possibility of the detection of a temporary malfunction. • Replace the AV control unit if the malfunction occurs constantly.</td>
</tr>
<tr>
<td>DSP COMM [U121E]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DVD COMM [U1227]</td>
<td>AV control unit malfunction is detected.</td>
<td>• If DVD can be played, then there is a possibility of the detection of a temporary malfunction. • Replace the AV control unit if the malfunction occurs constantly.</td>
</tr>
<tr>
<td>ST ANGLE SEN CALIB [U1232]</td>
<td>Predictive course line center position adjustment of the steering angle sensor is incomplete.</td>
<td>Adjust the predictive course line center position of the steering angle sensor.</td>
</tr>
<tr>
<td>CONFIG UNFINISH [U122A]</td>
<td>The writing of configuration data is incomplete.</td>
<td>Write configuration data with CONSULT-III.</td>
</tr>
</tbody>
</table>
<FUNCTION DIAGNOSIS>

AV DIAGNOSIS SYSTEM (AV CONTROL UNIT)
[BOSE W/ COLOR W/ NAVI W/ RR CTL]

<table>
<thead>
<tr>
<th>Error item</th>
<th>Description</th>
<th>Possible malfunction factor/Action to take</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRONT DISP CONN [U1243]</td>
<td>When either one of the following items are detected:</td>
<td>• Display unit power supply and ground circuits.</td>
</tr>
<tr>
<td></td>
<td>• Display unit power supply and ground circuits malfunction is detected.</td>
<td>• Communication circuits between AV control unit and display unit.</td>
</tr>
<tr>
<td></td>
<td>• Communication circuits between AV control unit and display unit.</td>
<td></td>
</tr>
<tr>
<td>GPS ANTENNA CONN [U1244]</td>
<td>GPS antenna connection malfunction is detected.</td>
<td>Check the connection of the GPS antenna connector.</td>
</tr>
<tr>
<td>USB OVERCURRENT [U1263]</td>
<td>Detection of over current in USB connector.</td>
<td>Check USB harness between the AV control unit and USB connector.</td>
</tr>
<tr>
<td>• AV COMM CIRCUIT [U1300]</td>
<td>When either one of the following items are detected:</td>
<td>• Multifunction switch power supply and ground circuits.</td>
</tr>
<tr>
<td>• SWITCH CONN [U1240]</td>
<td>• Multifunction switch power supply and ground circuits are malfunctioning.</td>
<td>• AV communication circuits between AV control unit and multifunction switch.</td>
</tr>
<tr>
<td></td>
<td>• AV communication circuits between AV control unit and multifunction switch are malfunctioning.</td>
<td></td>
</tr>
</tbody>
</table>

DATA MONITOR

ALL SIGNALS
- Displays the status of the following vehicle signals inputted into the AV control unit.
- For each signal, actual signal can be compared with the condition recognized on the system.

<table>
<thead>
<tr>
<th>Display Item</th>
<th>Display</th>
<th>Vehicle status</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>VHCL SPD SIG</td>
<td>On</td>
<td>Vehicle speed &gt;0 km/h (0 MPH)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>Vehicle speed =0 km/h (0 MPH)</td>
<td></td>
</tr>
<tr>
<td>PKB SIG</td>
<td>On</td>
<td>Parking brake is applied.</td>
<td>Changes in indication may be delayed. This is normal.</td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>Parking brake is released.</td>
<td></td>
</tr>
<tr>
<td>ILLUM SIG</td>
<td>On</td>
<td>Block the light beam from the auto light optical sensor when the light SW is ON.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>Expose the auto light optical sensor to light when the light SW is OFF or ON.</td>
<td></td>
</tr>
<tr>
<td>IGN SIG</td>
<td>On</td>
<td>Ignition switch ON</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>Ignition switch in ACC position</td>
<td></td>
</tr>
<tr>
<td>REV SIG</td>
<td>On</td>
<td>Selector switch in R position</td>
<td>Changes in indication may be delayed. This is normal.</td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>Selector switch in any position other than R</td>
<td></td>
</tr>
<tr>
<td>SIDE VIEW SW</td>
<td>Off</td>
<td>This item is displayed, but cannot be monitored.</td>
<td></td>
</tr>
<tr>
<td>ROOM LAMP</td>
<td>Off</td>
<td>This item is displayed, but not used.</td>
<td></td>
</tr>
</tbody>
</table>

SELECTION FROM MENU
Allows the technician to select which vehicle signals should be displayed and displays the status of the selected vehicle signals.
< FUNCTION DIAGNOSIS >

[BOSE W/ COLOR W/ NAVI W/ RR CTL]

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

Configuration has three functions as follows.

### Item to be selected

<table>
<thead>
<tr>
<th>Item to be selected</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VHCL SPD SIG</td>
<td>The same as when &quot;ALL SIGNALS&quot; is selected.</td>
</tr>
<tr>
<td>PKB SIG</td>
<td></td>
</tr>
<tr>
<td>ILLUM SIG</td>
<td></td>
</tr>
<tr>
<td>IGN SIG</td>
<td></td>
</tr>
<tr>
<td>REV SIG</td>
<td></td>
</tr>
<tr>
<td>SIDE VIEW SW</td>
<td></td>
</tr>
<tr>
<td>ROOM LAMP</td>
<td></td>
</tr>
</tbody>
</table>

**CONFIGURATION**

Configuration has three functions as follows.

<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
</table>
| READ CONFIGURATION           | • Reads the vehicle configuration of current AV control unit.  
|                              | • Saves the read vehicle configuration.           |
| WRITE CONFIGURATION-Config file | Writes the vehicle configuration with saved data. |

Revision: November 2009

2010 Maxima
U1000 CAN COMM CIRCUIT

< COMPONENT DIAGNOSIS >
[BOSE W/ COLOR W/ NAVI W/ RR CTL]

COMPONENT DIAGNOSIS
U1000 CAN COMM CIRCUIT

Description

CAN (Controller Area Network) is a serial communication line for real time application. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Many electronic control units are equipped onto a vehicle and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN-H, CAN-L) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.

DTC Logic

DTC DETECTION LOGIC

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Probable malfunction location</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1000</td>
<td>CAN COMM CIRCUIT [U1000]</td>
<td>AV control unit is not transmitting or receiving CAN communication signal for 2 seconds or more.</td>
<td>CAN communication system.</td>
</tr>
</tbody>
</table>

Diagnosis Procedure

1. PERFORM SELF DIAGNOSTIC

1. Turn ignition switch ON and wait for 2 seconds or more.
2. Check “Self Diagnostic Result” of “AV Control Unit”.
   Is “CAN COMM CIRCUIT” displayed?
   YES  >> Refer to LAN system. Refer to LAN-16, "Trouble Diagnosis Flow Chart".
   NO    >> Refer to GI section. Refer to GI-39, "Intermittent Incident".
DTC Logic

DTC DETECTION LOGIC

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Probable malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1010 CONTROL UNIT (CAN) [U1010]</td>
<td>CAN initial diagnosis malfunction is detected.</td>
<td>Replace the AV control unit if the malfunction occurs constantly. Refer to AV-824, &quot;Removal and Installation&quot;.</td>
<td></td>
</tr>
</tbody>
</table>
# DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1200</td>
<td>Cont Unit [U1200]</td>
<td>AV control unit malfunction is detected.</td>
<td>Replace the AV control unit if the malfunction occurs constantly. Refer to AV-824, &quot;Removal and Installation&quot;.</td>
</tr>
</tbody>
</table>
### DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1201</td>
<td>GYRO NO CONN [U1201]</td>
<td>AV control unit malfunction is detected.</td>
<td>Replace the AV control unit if the malfunction occurs constantly. Refer to AV-824, &quot;Removal and Installation&quot;.</td>
</tr>
</tbody>
</table>
### DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1202</td>
<td>G-SENSOR NO CONN [U1202]</td>
<td>AV control unit malfunction is detected.</td>
<td>Replace the AV control unit if the malfunction occurs constantly. Refer to AV-824, &quot;Removal and Installation&quot;.</td>
</tr>
</tbody>
</table>
U1204 AV CONTROL UNIT

< COMPONENT DIAGNOSIS >

[BOSE W/ COLOR W/ NAVI W/RR CTL]

U1204 AV CONTROL UNIT

DTC Logic

### DTC Display contents of CONSULT-III DTC detection condition Possible malfunction factor

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1204</td>
<td>GPS CONN [U1204]</td>
<td>GPS malfunction is detected.</td>
<td>An intermittent error caused by strong radio interference may be detected unless any symptom (GPS reception error, etc.) occurs. Replace the AV control unit if the malfunction occurs constantly. Refer to AV-824, &quot;Removal and Installation&quot;.</td>
</tr>
</tbody>
</table>

### Diagnosis Procedure

**1. PERFORM THE SELF-DIAGNOSIS**

1. Delete the "self-diagnosis" results of “MULTI AV”. Turn ignition switch OFF.
2. Turn ignition switch ON. Perform the self-diagnosis again.
3. Check that the DTC is detected again.

Is any DTC detected?

**YES**

>> Replace AV control unit. Refer to AV-824, "Removal and Installation".

**NO**

>> An intermittent error caused by strong radio interference may be detected unless any symptom (GPS reception error, etc.) occurs.
U1205 AV CONTROL UNIT

< COMPONENT DIAGNOSIS >

U1205 AV CONTROL UNIT

DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1205</td>
<td>GPS ROM [U1205]</td>
<td>GPS malfunction is detected.</td>
<td>An intermittent error caused by strong radio interference may be detected unless any symptom (GPS reception error, etc.) occurs. Replace the AV control unit if the malfunction occurs constantly. Refer to AV-824, &quot;Removal and Installation&quot;.</td>
</tr>
</tbody>
</table>

Diagnosis Procedure

1. PERFORM THE SELF-DIAGNOSIS

1. Delete the "self-diagnosis" results of "MULTI AV". Turn ignition switch OFF.
2. Turn ignition switch ON. Perform the self-diagnosis again.
3. Check that the DTC is detected again.

Is any DTC detected?

YES >> Replace AV control unit. Refer to AV-824, "Removal and Installation".

NO  >> An intermittent error caused by strong radio interference may be detected unless any symptom (GPS reception error, etc.) occurs.
U1206 AV CONTROL UNIT

< COMPONENT DIAGNOSIS >
[BOSE W/ COLOR W/ NAVI W/RR CTL]

U1206 AV CONTROL UNIT

DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1206</td>
<td>GPS RAM [U1206]</td>
<td>GPS malfunction is detected.</td>
<td>An intermittent error caused by strong radio interference may be detected unless any symptom (GPS reception error, etc.) occurs. Replace the AV control unit if the malfunction occurs constantly. Refer to AV-824, &quot;Removal and Installation&quot;.</td>
</tr>
</tbody>
</table>

Diagnosis Procedure

1. PERFORM THE SELF-DIAGNOSIS

   1. Delete the "self-diagnosis" results of "MULTI AV". Turn ignition switch OFF.
   2. Turn ignition switch ON. Perform the self-diagnosis again.
   3. Check that the DTC is detected again.

   Is any DTC detected?

   YES  >> Replace AV control unit. Refer to AV-824, "Removal and Installation".
   NO   >> An intermittent error caused by strong radio interference may be detected unless any symptom (GPS reception error, etc.) occurs.
U1207 AV CONTROL UNIT

< COMPONENT DIAGNOSIS >

[BOSE W/ COLOR W/ NAVI W/ RR CTL]

U1207 AV CONTROL UNIT

DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1207</td>
<td>GPS RTC [U1207]</td>
<td>GPS malfunction is detected.</td>
<td>An intermittent error caused by strong radio interference may be detected unless any symptom (GPS reception error, etc.) occurs. Replace the AV control unit if the malfunction occurs constantly. Refer to AV-824, &quot;Removal and Installation&quot;.</td>
</tr>
</tbody>
</table>

Diagnosis Procedure

1. PERFORM THE SELF-DIAGNOSIS

   1. Delete the "self-diagnosis" results of "MULTI AV". Turn ignition switch OFF.
   2. Turn ignition switch ON. Perform the self-diagnosis again.
   3. Check that the DTC is detected again.

   Is any DTC detected?

   YES  >> Replace AV control unit. Refer to AV-824, "Removal and Installation".
   NO   >> An intermittent error caused by strong radio interference may be detected unless any symptom (GPS reception error, etc.) occurs.
### U1216 AV CONTROL UNIT

#### DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1216</td>
<td>CAN CONT [U1216]</td>
<td>AV control unit malfunction is detected.</td>
<td>Replace the AV control unit if the malfunction occurs constantly. Refer to AV-824, &quot;Removal and Installation&quot;.</td>
</tr>
<tr>
<td>DTC</td>
<td>Display contents of CONSULT-III</td>
<td>DTC detection condition</td>
<td>Possible malfunction factor</td>
</tr>
<tr>
<td>-------</td>
<td>---------------------------------</td>
<td>--------------------------</td>
<td>----------------------------</td>
</tr>
<tr>
<td>U1217</td>
<td>BLUETOOTH MODULE [U1217]</td>
<td>AV control unit malfunction is detected.</td>
<td>Replace the AV control unit if the malfunction occurs constantly. Refer to AV-824, &quot;Removal and Installation&quot;.</td>
</tr>
</tbody>
</table>
U1218 AV CONTROL UNIT

< COMPONENT DIAGNOSIS >

[BOSE W/ COLOR W/ NAVI W/RR CTL]

U1218 AV CONTROL UNIT

DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
</table>
| U1218 | HDD CONN [U1218]               | AV control unit malfunction is detected.    | • If the music box function has no malfunctions, then there is a possibility of the detection of a temporary malfunction.  
• Replace the AV control unit if the malfunction occurs constantly. Refer to AV-824, "Removal and Installation". |

Diagnosis Procedure

1. CHECK MUSIC BOX FUNCTION

Is music box function normal?

YES  >> Malfunction may be detected intermittently.
NO   >> Replace AV control unit. Refer to AV-824, "Removal and Installation".
U1219 AV CONTROL UNIT

< COMPONENT DIAGNOSIS >

[BOSE W/ COLOR W/ NAVI W/RR CTL]

U1219 AV CONTROL UNIT

DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1219</td>
<td>HDD READ [U1219]</td>
<td>AV control unit malfunction is detected.</td>
<td>• If the music box function has no malfunctions, then there is a possibility of the detection of a temporary malfunction. • Replace the AV control unit if the malfunction occurs constantly. Refer to AV-824, &quot;Removal and Installation&quot;.</td>
</tr>
</tbody>
</table>

Diagnosis Procedure

1. CHECK MUSIC BOX FUNCTION

Is music box function normal?

YES  >> Malfunction may be detected intermittently.
NO   >> Replace AV control unit. Refer to AV-824, "Removal and Installation".

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2010 Maxima
U121A AV CONTROL UNIT

[BOSE W/ COLOR W/ NAVI W/RR CTL]

DTC Logic

Diagnosis Procedure

1. CHECK MUSIC BOX FUNCTION

Is music box function normal?

YES  >> Malfunction may be detected intermittently.
NO   >> Replace AV control unit. Refer to AV-824, "Removal and Installation".

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
</table>
| U121A | HDD WRITE [U121A]               | AV control unit malfunction is detected. | • If the music box function has no malfunctions, then there is a possibility of the detection of a temporary malfunction.  
• Replace the AV control unit if the malfunction occurs constantly. Refer to AV-824, "Removal and Installation". |
DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
</table>
| U121B | HDD COMM [U121B]               | AV control unit malfunction is detected. | • If the music box function has no malfunctions, then there is a possibility of the detection of a temporary malfunction.  
• Replace the AV control unit if the malfunction occurs constantly. Refer to AV-824, “Removal and Installation”. |

Diagnosis Procedure

1. CHECK MUSIC BOX FUNCTION

Is music box function normal?

YES  >> Malfunction may be detected intermittently.
NO   >> Replace AV control unit. Refer to AV-824, “Removal and Installation”. 
DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
</table>
| U121C | HDD ACCESS [U121C] | AV control unit malfunction is detected. | • If the music box function has no malfunctions, then there is a possibility of the detection of a temporary malfunction.  
• Replace the AV control unit if the malfunction occurs constantly. Refer to AV-824, "Removal and Installation". |

Diagnosis Procedure

1. CHECK MUSIC BOX FUNCTION

Is music box function normal?

YES  >> Malfunction may be detected intermittently.
NO   >> Replace AV control unit. Refer to AV-824, "Removal and Installation".
U121D AV CONTROL UNIT

< COMPONENT DIAGNOSIS >

U121D AV CONTROL UNIT

DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U121D</td>
<td>DSP CONN [U121D]</td>
<td>AV control unit malfunction is detected.</td>
<td>• If a disc can be played, then there is a possibility of the detection of a temporary malfunction. • Replace the AV control unit if the malfunction occurs constantly. Refer to AV-824, &quot;Removal and Installation&quot;.</td>
</tr>
</tbody>
</table>

Diagnosis Procedure

1. CHECK PLAYBACK OF A DISK (CD)

Can a disk (CD) be played?

YES  >> Malfunction may be detected intermittently.

NO   >> Replace AV control unit. Refer to AV-824, "Removal and Installation".
U121E AV CONTROL UNIT

DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
</table>
| U121E | DSP COMM [U121E] | AV control unit malfunction is detected. | • If a disc can be played, then there is a possibility of the detection of a temporary malfunction.  
• Replace the AV control unit if the malfunction occurs constantly. Refer to AV-824, "Removal and Installation". |

Diagnosis Procedure

1. CHECK PLAYBACK OF A DISK (CD)

Can a disk (CD) be played?

YES  >> Malfunction may be detected intermittently.
NO   >> Replace AV control unit. Refer to AV-824, "Removal and Installation".
## U1225 AV CONTROL UNIT

### DTC Logic

**DTC DETECTION LOGIC**

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1225</td>
<td>USB CONTROLLER [U1225]</td>
<td>USB connection malfunction is detected.</td>
<td>Check that the connection to the USB connector is normal.</td>
</tr>
</tbody>
</table>
U1227 AV CONTROL UNIT

< COMPONENT DIAGNOSIS >

[BOSE W/ COLOR W/ NAVI W/RR CTL]

U1227 AV CONTROL UNIT

DTC Logic

DTC Display contents of CONSULT-III DTC detection condition Possible malfunction factor

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1227</td>
<td>DVD COMM [U1227]</td>
<td>AV control unit malfunction is detected.</td>
<td>• If DVD can be played, then there is a possibility of the detection of a temporary malfunction.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Replace the AV control unit if the malfunction occurs constantly. Refer to AV-824, &quot;Removal and Installation&quot;.</td>
</tr>
</tbody>
</table>

Diagnosis Procedure

1. CHECK PLAYBACK OF A DISK (DVD)

Can a disc (DVD) be played?

YES  >> Malfunction may be detected intermittently.
NO   >> Replace AV control unit. Refer to AV-824, "Removal and Installation".
U1228 AV CONTROL UNIT

DTC Logic

DTC DETECTION LOGIC

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1228</td>
<td>SUB CPU CONN [U1228]</td>
<td>AV control unit malfunction is detected.</td>
<td>Replace the AV control unit if the malfunction occurs constantly. Refer to AV-824, &quot;Removal and Installation&quot;.</td>
</tr>
</tbody>
</table>
### DTC DETECTION LOGIC

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1229</td>
<td>iPod CERTIFICATION [U1229]</td>
<td>AV control unit malfunction is detected.</td>
<td>Replace the AV control unit if the malfunction occurs constantly. Refer to AV-824, &quot;Removal and Installation&quot;.</td>
</tr>
</tbody>
</table>
U122A AV CONTROL UNIT

DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Action to take</th>
</tr>
</thead>
<tbody>
<tr>
<td>U122A</td>
<td>CONFIG UNFINISH [U122A]</td>
<td>The writing of configuration data is incomplete.</td>
<td>Write configuration data with “MULTI AV” of CONSULT-III.</td>
</tr>
</tbody>
</table>

Diagnosis Procedure

1. PERFORM THE SELF-DIAGNOSIS

When U122A is detected, write configuration data with “MULTI AV” of CONSULT-III.

   >> Write configuration data with “MULTI AV” of CONSULT-III. Refer to AV-681, “CONFIGURATION (AV CONTROL UNIT) : Special Repair Requirement”.

Revision: November 2009
## DTC Detection Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U122E</td>
<td>Built-in AUDIO CONN [U122E]</td>
<td>AV control unit malfunction is detected.</td>
<td>Replace the AV control unit if the malfunction occurs constantly. Refer to AV-824, &quot;Removal and Installation&quot;.</td>
</tr>
</tbody>
</table>

Revision: November 2009
U1232 STEERING ANGLE SENSOR

< COMPONENT DIAGNOSIS >

U1232 STEERING ANGLE SENSOR

**DTC Logic**

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1232</td>
<td>ST ANGLE SEN CALIB [1232]</td>
<td>Predictive course line center position adjustment of the steering angle sensor is incomplete.</td>
<td>Adjust the predictive course line center position of the steering angle sensor.</td>
</tr>
</tbody>
</table>

**Diagnosis Procedure**

1. **ADJUST THE PREDICTIVE COURSE LINE CENTER POSITION OF THE STEERING ANGLE SENSOR**

When U1232 is detected, adjust the predictive course line center position of the steering angle sensor.

>> Adjust the steering angle sensor neutral position on ABS actuator and electrical unit (control unit) side. Refer to BRC-8, "ADJUSTMENT OF STEERING ANGLE SENSOR NEUTRAL POSITION : Special Repair Requirement".
U1243 DISPLAY UNIT

< COMPONENT DIAGNOSIS >

[BOSE W/ COLOR W/ NAVI W/RR CTL]

U1243 DISPLAY UNIT

DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
</table>
| U1243 | FRONT DISP CONN [U1243] | When either one of the following items are detected:  
• display unit power supply and ground circuit malfunction is detected.  
• communication circuit between AV control unit and display unit. | • Display unit power supply and ground circuit.  
• Communication circuit between AV control unit and display unit. |

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-782, "Wiring Diagram".

1. CHECK DISPLAY UNIT POWER SUPPLY AND GROUND CIRCUIT

Check display unit power supply and ground circuit. Refer to AV-747, "DISPLAY UNIT : Diagnosis Procedure".

Is inspection result OK?

YES >> GO TO 2.

NO >> Repair malfunctioning parts.

2. CHECK CONTINUITY OF COMMUNICATION CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect display unit connector M142 and AV control unit connector M137.
3. Check continuity between display unit harness connector M142 (A) terminals 9, 10 and AV control unit harness connector M137 (B) terminals 45 and 61.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>M142</td>
<td>9</td>
<td>M137</td>
</tr>
<tr>
<td>M142</td>
<td>10</td>
<td>M137</td>
</tr>
</tbody>
</table>

4. Check continuity between display unit harness connector M142 (A) terminals 9, 10 and ground.

<table>
<thead>
<tr>
<th>A</th>
<th></th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Ground</td>
</tr>
<tr>
<td>M142</td>
<td>9</td>
<td>No</td>
</tr>
<tr>
<td>M142</td>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>

Are continuity results as specified?

YES >> GO TO 3.

NO >> Repair harness or connector.

3. CHECK COMMUNICATION SIGNAL

1. Connect display unit connector and AV control unit connector.
2. Turn ignition switch ON.
U1243 DISPLAY UNIT

< COMPONENT DIAGNOSIS >

3. Check signal between display unit harness connector M142 terminal 9 and ground with an oscilloscope or CONSULT-III.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>M142</td>
<td>9</td>
<td>Ground</td>
</tr>
</tbody>
</table>

Are voltage readings as specified?

YES >> GO TO 4.
NO >> Replace AV control unit. Refer to AV-322, "Removal and Installation".

4. CHECK COMMUNICATION SIGNAL

Check signal between display unit harness connector M142 terminal 10 and ground with an oscilloscope or CONSULT-III.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>M142</td>
<td>10</td>
<td>Ground</td>
</tr>
</tbody>
</table>

Are voltage readings as specified?

YES >> Inspection End.
NO >> Replace display unit. Refer to AV-827, "Removal and Installation".
U1244 GPS ANTENNA

DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1244</td>
<td>GPS ANTENNA CONN [U1244]</td>
<td>GPS antenna connection malfunction is detected.</td>
<td>Check the connection of the GPS antenna connector.</td>
</tr>
</tbody>
</table>

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-447, "Wiring Diagram".

1. GPS ANTENNA CHECK

Inspect GPS antenna and antenna feeder for damage or poor connection.

Is the GPS antenna and feeder clean and undamaged?

- YES >> GO TO 2.
- NO >> Repair or replace malfunctioning parts.

2. CHECK AV CONTROL UNIT VOLTAGE

1. Turn ignition switch ON.
2. Check voltage between AV control unit connector M145 terminal 105 and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Voltage (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M145</td>
<td>105</td>
<td>Ground</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5V</td>
</tr>
</tbody>
</table>

Is the voltage reading as specified?

- YES >> Replace GPS antenna. Refer to AV-501, "Removal and Installation".
- NO >> Replace AV control unit. Refer to AV-487, "Removal and Installation".

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AV-742

2010 Maxima
U1263 USB

DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1263 USB</td>
<td>USB OVERCURRENT [U1263]</td>
<td>Detection of over current in USB interface.</td>
<td>Check USB harness between the AV control unit and USB interface.</td>
</tr>
</tbody>
</table>

Diagnosis Procedure

1. CHECK USB HARNESS

Visually check USB harness.

Is the inspection result normal?

YES  >> Replace AV control unit. Refer to AV-824, “Removal and Installation”.

NO   >> Replace USB harness.
U1300 AV COMM CIRCUIT

Description

U1300 is indicated when malfunction occurs in communication signal of multi AV system. Indicated simultaneously, without fail, with the malfunction of control units connected to AV control unit with communication line. Determine the possible malfunction cause from the table below.

SELF-DIAGNOSIS RESULTS DISPLAY ITEM

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1300</td>
<td>• AV COMM CIRCUIT [U1300]</td>
<td>When either one of the following items are detected:</td>
<td>• Multifunction switch power supply and ground circuits are malfunctioning.</td>
</tr>
<tr>
<td>U1240</td>
<td>• SWITCH CONN [U1240]</td>
<td>• AV communication circuits between AV control unit and multifunction switch are malfunctioning.</td>
<td>• AV communication circuits between AV control unit and multifunction switch.</td>
</tr>
</tbody>
</table>
### U1310 AV CONTROL UNIT

#### DTC Logic

<table>
<thead>
<tr>
<th>DTC</th>
<th>Display contents of CONSULT-III</th>
<th>DTC detection condition</th>
<th>Possible malfunction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1310</td>
<td>CONTROL UNIT (AV) [U1310]</td>
<td>An initial diagnosis error is detected in AV communication circuit.</td>
<td>Replace AV control unit. If the malfunction occurs constantly. Refer to AV-824, &quot;Removal and Installation&quot;.</td>
</tr>
</tbody>
</table>
POWER SUPPLY AND GROUND CIRCUIT
[BOSE W/ COLOR W/ NAVI W/RR CTL]

POWER SUPPLY AND GROUND CIRCUIT
AV CONTROL UNIT

AV CONTROL UNIT : Diagnosis Procedure

INFOID:0000000005522945

Regarding Wiring Diagram information, refer to AV-447, "Wiring Diagram".

1. CHECK FUSES

Check that the following AV control unit fuses are not blown.

<table>
<thead>
<tr>
<th>Unit</th>
<th>Terminals</th>
<th>Signal name</th>
<th>Fuse No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>AV control unit</td>
<td></td>
<td>Battery power</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>19</td>
<td>Ignition switch ACC or ON</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>52</td>
<td>Ignition switch ON or START</td>
<td>3</td>
</tr>
</tbody>
</table>

Are the fuses OK?
YES >> GO TO 2.
NO >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse.

2. POWER SUPPLY CIRCUIT CHECK

1. Disconnect AV control unit connectors M131 and M137.
2. Check voltage between the AV control unit connectors M131 and M137 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>OFF</th>
<th>ACC</th>
<th>ON</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>0V</td>
<td>Battery voltage</td>
<td>Battery voltage</td>
</tr>
<tr>
<td>M131</td>
<td>7</td>
<td>Ground</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>19</td>
<td>Ground</td>
<td>Battery voltage</td>
<td>Battery voltage</td>
</tr>
<tr>
<td>M137</td>
<td>52</td>
<td>Ground</td>
<td>0V</td>
<td>Battery voltage</td>
</tr>
</tbody>
</table>

Are the voltage results as specified?
YES >> GO TO 3.
NO >> • Check connector housings for disconnected or loose terminals.
• Repair harness or connector.

3. GROUND CIRCUIT CHECK
< COMPONENT DIAGNOSIS >

[BOSE W/ COLOR W/ NAVI W/RR CTL]

1. Turn ignition switch OFF.
2. Check continuity between AV control unit harness connector M131 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M131</td>
<td>20</td>
<td>Ground</td>
</tr>
</tbody>
</table>

Are the continuity results as specified?
YES >> Inspection End.
NO  >> Repair AV control unit ground.

DISPLAY UNIT

DISPLAY UNIT : Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-447, "Wiring Diagram".

1. CHECK FUSES

Check that the following display unit fuses are not blown.

<table>
<thead>
<tr>
<th>Unit</th>
<th>Terminals</th>
<th>Signal name</th>
<th>Fuse No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display Unit</td>
<td>11</td>
<td>Battery power</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>23</td>
<td>Ignition switch ACC or ON</td>
<td>17</td>
</tr>
</tbody>
</table>

Are the fuses OK?
YES >> GO TO 2.
NO  >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse.

2. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch to ACC.
2. Check voltage between display unit harness connector M142 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>OFF</th>
<th>ACC</th>
<th>ON</th>
</tr>
</thead>
<tbody>
<tr>
<td>M142</td>
<td>11</td>
<td>Battery</td>
<td>Battery</td>
<td>Battery</td>
</tr>
<tr>
<td></td>
<td></td>
<td>voltage</td>
<td>voltage</td>
<td>voltage</td>
</tr>
<tr>
<td></td>
<td>23</td>
<td>0V</td>
<td>Battery</td>
<td>Battery</td>
</tr>
<tr>
<td></td>
<td></td>
<td>voltage</td>
<td>voltage</td>
<td>voltage</td>
</tr>
</tbody>
</table>

Does specified voltage exist?
YES >> GO TO 3.
NO  >> • Check connector housings for disconnected or loose terminals.
     • Repair harness or connector.

3. CHECK GROUND CIRCUIT
< COMPONENT DIAGNOSIS >

1. Turn ignition switch OFF.
2. Disconnect display unit connector.
3. Check continuity between display unit harness connector M142 and ground.

### Power Supply and Ground Circuit

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M142</td>
<td>12</td>
<td>Ground</td>
</tr>
</tbody>
</table>

Does continuity exist?

- **YES** >> Inspection End.
- **NO** >> Repair harness or connector.

### A/C and AV Switch Assembly

**A/C and AV Switch Assembly : Diagnosis Procedure**

Regarding Wiring Diagram information, refer to **AV-447, "Wiring Diagram"**.

1. **CHECK FUSE**

   Check that the A/C and AV switch assembly fuse is not blown.

<table>
<thead>
<tr>
<th>Unit</th>
<th>Terminal</th>
<th>Signal name</th>
<th>Fuse No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A/C and AV switch</td>
<td>3</td>
<td>Ignition switch ACC or ON</td>
<td>17</td>
</tr>
</tbody>
</table>

Is the fuse OK?

- **YES** >> GO TO 2.
- **NO** >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse.

2. **POWER SUPPLY CIRCUIT CHECK**

   1. Disconnect A/C and AV switch assembly connector M98.
   2. Check voltage between the A/C and AV switch assembly connector M98 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>OFF</th>
<th>ACC</th>
<th>ON</th>
</tr>
</thead>
<tbody>
<tr>
<td>M98</td>
<td>3</td>
<td>Ground</td>
<td>0V</td>
<td>Battery voltage</td>
</tr>
</tbody>
</table>

Are the voltage results as specified?

- **YES** >> GO TO 3.
- **NO** >> • Check connector housings for disconnected or loose terminals.
  - Repair harness or connector.

3. **GROUND CIRCUIT CHECK**

   1. Turn ignition switch OFF.
   2. Check continuity between A/C and AV switch assembly harness connector M98 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M98</td>
<td>1</td>
<td>Ground</td>
</tr>
</tbody>
</table>

Are the continuity results as specified?

- **YES** >> Inspection End.
- **NO** >> Repair A/C and AV switch assembly ground.
POWER SUPPLY AND GROUND CIRCUIT
< COMPONENT DIAGNOSIS > [BOSE W/ COLOR W/ NAVI W/RR CTL]

BOSE SPEAKER AMP

BOSE SPEAKER AMP : Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-447, "Wiring Diagram".

1. CHECK FUSE

Check that the BOSE speaker amp. fuse is not blown.

<table>
<thead>
<tr>
<th>Unit</th>
<th>Terminal</th>
<th>Signal name</th>
<th>Fuse No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOSE speaker amp.</td>
<td>11</td>
<td>Battery power</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td></td>
<td>25</td>
</tr>
</tbody>
</table>

Are the fuses OK?
YES ➔ GO TO 2.
NO ➔ Be sure to eliminate cause of malfunction before installing new fuse.

2. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BOSE speaker amp. connector.
3. Check voltage between BOSE speaker amp. harness connector B110 terminal 10, 11 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Voltage (approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>B110</td>
<td>10</td>
<td>Ground</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>Battery voltage</td>
</tr>
</tbody>
</table>

Is battery voltage present?
YES ➔ GO TO 3.
NO ➔ Check harness between BOSE speaker amp. and fuse.

3. CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BOSE speaker amp. connector.
3. Check continuity between BOSE speaker amp. harness connector B110 terminal 7, 12 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>B110</td>
<td>7</td>
<td>Ground</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Does continuity exist?
YES ➔ Inspection End.
NO ➔ Repair harness or connector.

REAR VIEW CAMERA

REAR VIEW CAMERA : Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-447, "Wiring Diagram".
1. CHECK POWER SUPPLY CIRCUIT (REAR VIEW CAMERA SIDE)

1. Turn ignition switch ON.
2. Shift transmission into Reverse.
3. Check voltage between rear view camera harness connector T101 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Transmission position</th>
<th>Value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>T101</td>
<td>1</td>
<td>Ground</td>
<td>Reverse</td>
</tr>
</tbody>
</table>

Is voltage reading approximately 6 volts?

YES >> GO TO 4.
NO >> GO TO 2.

2. CHECK POWER SUPPLY CIRCUIT (CONTINUITY)

1. Turn ignition switch OFF.
2. Disconnect rear view camera and AV control unit connectors.
3. Check continuity between rear view camera harness connector T101 (A) terminal 1 and AV control unit harness connector M139 (B) terminal 68.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>T101</td>
<td>1</td>
<td>M139</td>
</tr>
</tbody>
</table>

4. Check continuity between rear view camera harness connector T101 (A) terminal 1 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Transmission position</th>
<th>Value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M139</td>
<td>68</td>
<td>Ground</td>
<td>Reverse</td>
</tr>
</tbody>
</table>

Are continuity test results as specified?

YES >> GO TO 3.
NO >> Repair harness or connector.

3. CHECK POWER SUPPLY CIRCUIT (AV CONTROL UNIT SIDE)

1. Connect rear view camera control unit harness connector.
2. Turn ignition switch ON.
3. Check voltage between AV control unit harness connector M139 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Transmission position</th>
<th>Value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M139</td>
<td>68</td>
<td>Ground</td>
<td>Reverse</td>
</tr>
</tbody>
</table>

Is voltage reading approximately 6 volts?

YES >> Inspection End.
NO >> Replace AV control unit. Refer to AV-824, "Removal and Installation".

4. CHECK GROUND CIRCUIT
POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

1. Turn ignition switch OFF.
2. Disconnect rear view camera harness connector.
3. Check continuity between rear view camera harness connector T101 terminal 2 and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>—</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>T101</td>
<td>2</td>
<td>Ground</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Does continuity exist?
YES >> Inspection End.
NO >> Repair harness or connector.

REAR CONTROL SWITCH

REAR CONTROL SWITCH : Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-447, "Wiring Diagram".

1. CHECK FUSE

Check that the rear control switch fuse is not blown.

<table>
<thead>
<tr>
<th>Unit</th>
<th>Terminal</th>
<th>Signal name</th>
<th>Fuse No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rear control switch</td>
<td>1</td>
<td>ACC or ON</td>
<td>17</td>
</tr>
</tbody>
</table>

Is the fuse OK?
YES >> GO TO 2.
NO >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse.

2. POWER SUPPLY CIRCUIT CHECK

1. Disconnect rear control switch connector B402.
2. Check voltage between the rear audio remote control unit connector B402 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>Terminal</th>
<th>(-)</th>
<th>Voltage (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>B402</td>
<td>1</td>
<td>Ground</td>
<td>Battery voltage</td>
</tr>
</tbody>
</table>

Are the voltage results as specified?
YES >> GO TO 3.
NO >> • Check connector housings for disconnected or loose terminals.
      • Repair harness or connector.

3. GROUND CIRCUIT CHECK

1. Turn ignition switch OFF.
2. Check continuity between rear control switch harness connector B402 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>Terminal</th>
<th>(-)</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>B402</td>
<td>4</td>
<td>Ground</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Are the continuity results as specified?
YES >> Inspection End.
NO >> Repair harness or connector.

MICROPHONE

Revision: November 2009

AV-751

2010 Maxima
POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >
[BOSE W/ COLOR W/ NAVI W/RR CTL]

MICROPHONE : Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-447, "Wiring Diagram".

1. CHECK POWER SUPPLY CIRCUIT

Check voltage between microphone harness connector R7 terminal 4 and ground.

<table>
<thead>
<tr>
<th>(+) Connector</th>
<th>Terminal</th>
<th>(-)</th>
<th>Value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>R7</td>
<td>4</td>
<td>Ground</td>
<td>5V</td>
</tr>
</tbody>
</table>

Is approximately 5V present?

YES >> GO TO 3.
NO >> GO TO 2.

2. CHECK POWER SUPPLY CIRCUIT (CONTINUITY)

1. Turn ignition switch OFF.
2. Disconnect microphone and AV control unit harness connectors.
3. Check continuity between microphone harness connector R7 (A) terminal 4 and AV control unit harness connector M137 (B) terminal 44.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>R7</td>
<td>4</td>
<td>M137</td>
</tr>
</tbody>
</table>

4. Check continuity between microphone harness connector R7 (A) terminal 4 and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>—</td>
</tr>
<tr>
<td>R7</td>
<td>4</td>
<td>Ground</td>
</tr>
</tbody>
</table>

Are the continuity test results as specified?

YES >> Replace the AV control unit. Refer to AV-487, "Removal and Installation".
NO >> Repair harness or connector.

3. CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect microphone harness connector R7 and AV control unit harness connector M137.
3. Check continuity between microphone harness connector R7 (A) terminal 2 and AV control unit harness connector M137 (B) terminal 43.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>R7</td>
<td>2</td>
<td>M137</td>
</tr>
</tbody>
</table>

Does continuity exist?

YES >> Inspection End.
NO >> Repair harness or connector.

Revision: November 2009

AV-752 2010 Maxima
RGB DIGITAL IMAGE SIGNAL CIRCUIT

Description

Transmit the image displayed with AV control unit with RGB digital image signal to the display unit.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-782, "Wiring Diagram".

1. CHECK CONTINUITY RGB DIGITAL IMAGE SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect display unit connector M151 and AV control unit connector M134.
3. Check continuity between display unit harness connector M151 (A) terminals 27, 28 and AV control unit harness connector M134 (B) terminals 23 and 24.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M151</td>
<td>27</td>
<td>M134</td>
</tr>
<tr>
<td>M151</td>
<td>28</td>
<td>M134</td>
</tr>
</tbody>
</table>
4. Check continuity between display unit harness connector M151 (A) terminals 27, 28 and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M151</td>
<td>27</td>
<td>Ground</td>
</tr>
<tr>
<td>M151</td>
<td>28</td>
<td>Ground</td>
</tr>
</tbody>
</table>

Are continuity results as specified?

YES >> GO TO 2.
NO >> Repair harness or connector.

2. CHECK RGB DIGITAL IMAGE SIGNAL

1. Connect display unit connector M151 and AV control unit connector M134.
2. Turn ignition switch ON.
3. Check voltage between display unit harness connector M151 terminals 27, 28 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Condition</th>
<th>Voltage (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M151</td>
<td>27</td>
<td>Ground</td>
<td>Not connected connector</td>
</tr>
<tr>
<td>M151</td>
<td>28</td>
<td>Ground</td>
<td>Connected connector</td>
</tr>
</tbody>
</table>

Are voltage readings as specified?

YES >> Replace display unit. Refer to AV-827, "Removal and Installation".
NO >> Replace AV control unit. Refer to AV-824, "Removal and Installation".

Revision: November 2009

AV-753 2010 Maxima
COMPOSITE IMAGE SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >
[BOSE W/ COLOR W/ NAVI W/RR CTL]

COMPOSITE IMAGE SIGNAL CIRCUIT

Description

AV control unit transmits the playback DVD image signal and AUX image signal to the display unit.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-782, "Wiring Diagram".

1. CHECK CONTINUITY COMPOSITE IMAGE SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M137 and display unit connector M142.
3. Check continuity between AV control unit connector M137 (A) terminal 40 and display unit connector M142 (B) terminal 18.
   
<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M137</td>
<td>40</td>
<td>M142</td>
<td>18</td>
<td>Yes</td>
</tr>
</tbody>
</table>

4. Check continuity between AV control unit connector M137 (A) terminal 40 and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M137</td>
<td>40</td>
<td>Ground</td>
</tr>
</tbody>
</table>

Are continuity results as specified?

YES >> GO TO 2.
NO >> Repair harness or connector.

2. CHECK AUX COMPOSITE SIGNAL

1. Connect AV control unit connector M137 and display unit connector M142.
2. Turn ignition switch ON.
3. Check signal between AV control unit harness connector M137 terminal 40 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>M137</td>
<td>40</td>
<td>Ground</td>
<td>At DVD image is displayed</td>
</tr>
</tbody>
</table>

Are voltage readings as specified?

YES >> Replace display unit. Refer to AV-827, "Removal and Installation".
NO >> Replace AV control unit. Refer to AV-824, "Removal and Installation".
AUX IMAGE SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE W/ COLOR W/ NAVI W/RR CTL]

AUX IMAGE SIGNAL CIRCUIT

Description

• Transmits the image signal of AUX device from auxiliary input jacks to AV control unit.
• AV control unit transmits the image signal that is input to the display unit.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-782, "Wiring Diagram".

1. CHECK CONTINUITY AUX IMAGE SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect auxiliary input jack connector M209 and AV control unit connector M139.
3. Check continuity between auxiliary input jack harness connector M209 (A) terminal 8 and AV control unit harness connector M139 (B) terminal 76.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>M209</td>
<td>8</td>
<td>M139</td>
</tr>
</tbody>
</table>

4. Check continuity between auxiliary input jack harness connector M209 (A) terminal 8 and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>—</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Ground</td>
</tr>
<tr>
<td>M209</td>
<td>8</td>
<td>No</td>
</tr>
</tbody>
</table>

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair harness or connector.

2. CHECK AUX IMAGE SIGNAL

1. Connect auxiliary input jack connector M209 and AV control unit connector M139.
2. Turn ignition switch ON.
3. Check signal between auxiliary input jack connector M209 terminal 8 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M209</td>
<td>8</td>
<td>Ground</td>
<td>Receive audio signal</td>
</tr>
</tbody>
</table>

Is the inspection result normal?

YES >> Replace AV control unit. Refer to AV-824, "Removal and Installation".
NO >> Check that there is no malfunction in the external device.
DISK EJECT SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

DISK EJECT SIGNAL CIRCUIT

Description

The eject signal is output to AV control unit when the eject switch of A/C and AV switch assembly is pressed.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-782, "Wiring Diagram".

1. CHECK CONTINUITY DISK EJECT SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect A/C and AV switch assembly connector M98 and AV control unit connector M139.
3. Check continuity between A/C and AV switch assembly connector M98 (A) terminal 14 and AV control unit harness connector M139 (B) terminal 82.

4. Check continuity between A/C and AV switch assembly connector M98 (A) terminal 14 and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>M98</td>
<td>14</td>
<td>M139</td>
</tr>
</tbody>
</table>

Are continuity results as specified?

YES >> GO TO 2.
NO >> Repair harness or connector.

2. CHECK AV CONTROL UNIT VOLTAGE

1. Connect A/C and AV switch assembly connector M98 and AV control unit connector M139.
2. Turn ignition switch ON.
3. Check voltage between AV control unit harness connector M139 terminal 82 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Condition</th>
<th>Voltage (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M139</td>
<td>82</td>
<td>Ground</td>
<td>0 V</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pressing the eject switch</td>
<td>0 V</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Except for above</td>
<td>5.0 V</td>
</tr>
</tbody>
</table>

Are voltage readings as specified?

YES >> Replace A/C and AV switch assembly. Refer to AV-826, "Removal and Installation".
NO >> Replace AV control unit. Refer to AV-824, "Removal and Installation".
Voice signals are transmitted from the microphone to the AV control unit using the microphone signal circuits.

### Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-782, "Wiring Diagram".

#### 1. CHECK HARNESS BETWEEN AV CONTROL UNIT AND MICROPHONE

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector and microphone connector.
3. Check continuity between AV control unit harness connector M137 (A) and microphone harness connector R7 (B).

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>M137</td>
<td>59</td>
<td>R7</td>
</tr>
<tr>
<td></td>
<td>43</td>
<td>2</td>
</tr>
</tbody>
</table>

4. Check continuity between AV control unit harness connector M137 (A) and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
</tr>
<tr>
<td>M137</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>43</td>
</tr>
<tr>
<td></td>
<td>59</td>
</tr>
</tbody>
</table>

Are the continuity test results as specified?

YES  >> GO TO 2.
NO   >> Repair harness or connector.

#### 2. CHECK MICROPHONE POWER SUPPLY

1. Connect AV control unit connector and microphone connector.
2. Turn ignition switch ON.
3. Check voltage between microphone harness connector R7 terminal 4 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>Terminal</th>
<th>(-)</th>
<th>Voltage (approx)</th>
</tr>
</thead>
<tbody>
<tr>
<td>R7</td>
<td>4</td>
<td>Ground</td>
<td>5V</td>
</tr>
</tbody>
</table>

Is voltage reading approx. 5 volts?

YES  >> GO TO 3.
NO   >> Replace AV control unit. Refer to AV-824, "Removal and Installation".

#### 3. CHECK MICROPHONE SIGNAL
Check signal between AV control unit harness connector M137 terminals 43 and 59.

<table>
<thead>
<tr>
<th>Connector</th>
<th>(+)</th>
<th>(-)</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>M137</td>
<td>59</td>
<td>43</td>
<td>While speaking into MIC</td>
</tr>
</tbody>
</table>

Are voltage readings as specified?

YES  >> Replace AV control unit. Refer to AV-824, "Removal and Installation".
NO   >> Replace microphone. Refer to AV-845, "Removal and Installation".
AMP ON SIGNAL CIRCUIT

Description

When the audio system is turned on, a voltage signal is supplied from the AV control unit to the BOSE speaker amp. When this signal is received, the BOSE speaker amp. will turn on.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-782, "Wiring Diagram".

1. CHECK AMP ON SIGNAL (BOSE SPEAKER AMP)

   1. Turn audio system ON.
   2. Check voltage between BOSE speaker amp. harness connector B109 terminal 20 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Voltage (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>B109</td>
<td>20</td>
<td>Ground</td>
</tr>
<tr>
<td>20</td>
<td></td>
<td>Battery voltage</td>
</tr>
</tbody>
</table>

   Is inspection result normal?
   YES >> Inspection End.
   NO >> GO TO 2.

2. CHECK AMP ON SIGNAL (AV CONTROL UNIT)

   Check voltage between AV control unit harness connector M131 terminal 1 and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Voltage (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M131</td>
<td>1</td>
<td>Ground</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td>Battery voltage</td>
</tr>
</tbody>
</table>

   Is inspection result normal?
   YES >> Repair harness or connector.
   NO >> Replace AV control unit. Refer to AV-824, "Removal and Installation".
FRONT DOOR SPEAKER

Description

The AV control unit sends audio signals to the BOSE speaker amp. The BOSE speaker amp. amplifies the audio signals before sending them to the front door speakers using the audio signal circuits.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-782, "Wiring Diagram".

1. HARNESS CHECK

1. Disconnect BOSE speaker amp. connector B109 and suspect speaker connector.
2. Check continuity between BOSE speaker amp. harness connector B109 (A) and suspect speaker harness connector (B).

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>B109</td>
<td>18</td>
<td>D3</td>
</tr>
<tr>
<td></td>
<td>19</td>
<td></td>
</tr>
<tr>
<td></td>
<td>31</td>
<td>D103</td>
</tr>
<tr>
<td></td>
<td>32</td>
<td></td>
</tr>
</tbody>
</table>

3. Check continuity between BOSE speaker amp. harness connector B109 (A) and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>Terminal</th>
<th>B</th>
<th>Ground</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B109</td>
<td>18</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>19</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>31</td>
<td>Ground</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>32</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Are continuity test results as specified?

YES >> GO TO 2.
NO >> • Check connector housings for disconnected or loose terminals.
    • Repair harness or connector.

2. FRONT DOOR SPEAKER SIGNAL CHECK
1. Connect BOSE speaker amp. connector B109 and suspect speaker connector.
2. Turn ignition switch to ACC.
4. Check the signal between BOSE speaker amp. harness connector B109 terminals with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>B109</td>
<td>18</td>
<td>19</td>
<td>Receive audio signal</td>
</tr>
</tbody>
</table>

Is audio signal voltage as specified?
YES >> Replace suspect speaker. Refer to AV-833, "Removal and Installation".
NO >> GO TO 3.

3. HARNESS CHECK

1. Disconnect AV control unit connector M131 and BOSE speaker amp. connector B109.
2. Check continuity between AV control unit harness connector M131 (A) and BOSE speaker amp. harness connector B109 (B).

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>M131</td>
<td>2</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>34</td>
</tr>
</tbody>
</table>

3. Check continuity between AV control unit harness connector M131 (A) and ground.

<table>
<thead>
<tr>
<th>A</th>
<th></th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td></td>
</tr>
<tr>
<td>M131</td>
<td>2</td>
<td>Ground</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>11</td>
<td></td>
</tr>
<tr>
<td></td>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>

Are continuity test results as specified?
YES >> GO TO 4.
NO >> Check connector housings for disconnected or loose terminals.
     Repair harness or connector.

4. FRONT DOOR SPEAKER SIGNAL CHECK
FRONT DOOR SPEAKER

< COMPONENT DIAGNOSIS >

[BOSE W/ COLOR W/ NAVI W/RR CTL]

1. Connect AV control unit connector and BOSE speaker amp. connector.
2. Turn ignition switch ACC.
4. Check the signal between AV control unit harness connector terminals with CONSULT-III or oscilloscope.

Are the audio signal voltage readings as specified?

YES >> Replace BOSE speaker amp. Refer to AV-836, "Removal and Installation".
NO >> Replace AV control unit. Refer to AV-824, "Removal and Installation".

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminals (+)</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>M131</td>
<td>2 3</td>
<td>Receive audio signal</td>
<td>ALNIA0171ZZ SKIA0177E</td>
</tr>
<tr>
<td></td>
<td>11 12</td>
<td>(V)</td>
<td>1 ms</td>
</tr>
</tbody>
</table>

Revision: November 2009
2010 Maxima
Description

The AV control unit sends audio signals to the BOSE speaker amp. The BOSE speaker amp. amplifies the audio signals before sending them to the tweeters using the audio signal circuits.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-782, "Wiring Diagram".

1. HARNESS CHECK

1. Disconnect BOSE speaker amp. connector B110 and suspect tweeter connector.
2. Check continuity between BOSE speaker amp. harness connector B110 (A) and suspect tweeter harness connector (B).

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
<td>Terminal</td>
</tr>
<tr>
<td>B110</td>
<td>1</td>
<td>M51</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>M52</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>

3. Check continuity between BOSE speaker amp. harness connector B110 (A) and ground.

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Ground</td>
</tr>
<tr>
<td>B110</td>
<td>1</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

Are continuity test results as specified?

YES >> GO TO 2.
NO >> • Check connector housings for disconnected or loose terminals.
     • Repair harness or connector.

2. TWEETER SIGNAL CHECK
1. Connect BOSE speaker amp. connector B110 and suspect tweeter connector.
2. Turn ignition switch to ACC.
4. Check the signal between BOSE speaker amp. harness connector B110 terminals with CONSULT-III or oscilloscope.

Are the audio signal voltage readings as specified?
YES  >> Replace suspect tweeter. Refer to AV-164, "Removal and Installation".
NO   >> GO TO 3.

3. HARNESS CHECK

1. Disconnect AV control unit connector M131 and BOSE speaker amp. connector B109.
2. Check continuity between AV control unit harness connector M131 (A) and BOSE speaker amp. harness connector B109 (B).

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M131</td>
<td>2</td>
<td>B109</td>
<td>35</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td></td>
<td>36</td>
<td></td>
</tr>
<tr>
<td></td>
<td>11</td>
<td></td>
<td>33</td>
<td></td>
</tr>
<tr>
<td></td>
<td>12</td>
<td></td>
<td>34</td>
<td></td>
</tr>
</tbody>
</table>

3. Check continuity between AV control unit harness connector M131 (A) and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M131</td>
<td>2</td>
<td>Ground</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>11</td>
<td></td>
</tr>
<tr>
<td></td>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>

Are continuity test results as specified?
YES  >> GO TO 4.
NO   >> • Check connector housings for disconnected or loose terminals.
        • Repair harness or connector.

4. TWEETER SIGNAL CHECK
1. Connect AV control unit connector and BOSE speaker amp. connector.
2. Turn ignition switch ACC.
4. Check the signal between AV control unit harness connector terminals with CONSULT-III or oscilloscope.

Are the audio signal voltage readings as specified?

YES >> Replace BOSE speaker amp. Refer to AV-169, "Removal and Installation".
NO >> Replace AV control unit. Refer to AV-824, "Removal and Installation".

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminals</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>M131</td>
<td>2 3</td>
<td>11 12</td>
<td>Receive audio signal</td>
</tr>
</tbody>
</table>

![Diagram of connector terminals]
CENTER SPEAKER

< COMPONENT DIAGNOSIS >

[BOSE W/ COLOR W/ NAVI W/RR CTL]

CENTER SPEAKER

Description

The AV control unit sends audio signals to the BOSE speaker amp. The BOSE speaker amp. amplifies the audio signals before sending them to the center speaker using the audio signal circuits.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-782, "Wiring Diagram".

1. HARNESS CHECK

1. Disconnect BOSE speaker amp. connector B109 and center speaker connector M130.
2. Check continuity between BOSE speaker amp. harness connector B109 (A) and center speaker harness connector M130 (B).

<table>
<thead>
<tr>
<th>A</th>
<th>Connector</th>
<th>Terminal</th>
<th>B</th>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>B109</td>
<td>29</td>
<td>M130</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>2</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. Check continuity between BOSE speaker amp. harness connector B109 (A) and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>B109</td>
<td>29</td>
<td>Ground</td>
<td>No</td>
</tr>
<tr>
<td>30</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Are continuity test results as specified?

YES >> GO TO 2.
NO >> • Check connector housings for disconnected or loose terminals.
     • Repair harness or connector.

2. CENTER SPEAKER SIGNAL CHECK

1. Connect BOSE speaker amp. connector B109 and center speaker connector.
2. Turn ignition switch to ACC.
4. Check the signal between BOSE speaker amp. harness connector B109 terminals with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminals (+)</th>
<th>(-)</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>B109</td>
<td>29 30</td>
<td></td>
<td>Receive audio signal</td>
<td>(V)</td>
</tr>
</tbody>
</table>

Is the audio signal voltage reading as specified?
3. CENTER SPEAKER SIGNAL CHECK

1. Connect AV control unit connector and BOSE speaker amp. connector.
2. Turn ignition switch ACC.
4. Check the signal between AV control unit harness connector terminals with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminals</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>M131</td>
<td>(+) 2</td>
<td>(−) 3</td>
<td>Receive audio signal</td>
</tr>
</tbody>
</table>

Are the audio signal voltage readings as specified?

YES >> Replace BOSE speaker amp. Refer to AV-169, "Removal and Installation".
NO >> Replace AV control unit. Refer to AV-824, "Removal and Installation".
REAR DOOR SPEAKER

Description

The AV control unit sends audio signals to the BOSE speaker amp. The BOSE speaker amp. amplifies the audio signals before sending them to the rear door speakers using the audio signal circuits.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-782, "Wiring Diagram".

1. HARNESS CHECK

1. Disconnect BOSE speaker amp. connectors B109, B110 and suspect speaker connector.
2. Check continuity between BOSE speaker amp. harness connectors B109 (A) and B110 (B) and suspect speaker harness connector (C).

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: B109</td>
<td>15</td>
<td>C: D202</td>
<td>2</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>28</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>B: B110</td>
<td>9</td>
<td>C: D302</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>14</td>
<td></td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

3. Check continuity between BOSE speaker amp. harness connectors B109 (A) and B110 (B) and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: B109</td>
<td>15</td>
<td>Ground</td>
</tr>
<tr>
<td></td>
<td>28</td>
<td>No</td>
</tr>
<tr>
<td>B: B110</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td></td>
<td>14</td>
<td></td>
</tr>
</tbody>
</table>

Are the continuity test results as specified?

YES >> GO TO 2.
NO >> • Check connector housings for disconnected or loose terminals.
     • Repair harness or connector.

2. REAR DOOR SPEAKER SIGNAL CHECK
1. Connect BOSE speaker amp. connectors and suspect speaker connector.
2. Turn ignition switch to ACC.
4. Check the signal between BOSE speaker amp. harness connectors B109 (A) and B110 (B) terminals with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminals</th>
<th>Condition</th>
<th>Reference Signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: B109</td>
<td>28 15</td>
<td>Receive audio signal</td>
<td></td>
</tr>
<tr>
<td>B: B110</td>
<td>14 9</td>
<td></td>
<td>(V)</td>
</tr>
</tbody>
</table>

Are audio signal voltage readings as specified?
YES >> Replace suspect speaker. Refer to AV-834, "Removal and Installation".
NO >> GO TO 3.

3. HARNESS CHECK

1. Disconnect AV control unit connector M131 and BOSE speaker amp. connector B109.
2. Check continuity between AV control unit harness connector M131 (A) and BOSE speaker amp. harness connector B109 (B).

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>M131</td>
<td>4</td>
<td>B109</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>13</td>
<td></td>
</tr>
<tr>
<td></td>
<td>14</td>
<td></td>
</tr>
</tbody>
</table>

3. Check continuity between AV control unit harness connector M131 (A) and ground.

<table>
<thead>
<tr>
<th>A</th>
<th>—</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Ground</td>
</tr>
<tr>
<td>M131</td>
<td>4</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>13</td>
<td></td>
</tr>
<tr>
<td></td>
<td>14</td>
<td></td>
</tr>
</tbody>
</table>

Are the continuity test results as specified?
YES >> GO TO 4.
NO >> • Check connector housings for disconnected or loose terminals.  
     • Repair harness or connector.
2. Turn ignition switch to ACC.
4. Check the signal between AV control unit harness connector terminals with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminals</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>M131</td>
<td>4</td>
<td>Receive audio signal</td>
<td>SWA0177E</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>13</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>14</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Is the audio signal voltage reading as specified?

YES >> Replace BOSE speaker amp. Refer to AV-836, "Removal and Installation".
NO  >> Replace AV control unit. Refer to AV-824, "Removal and Installation".
Description

The AV control unit sends audio signals to the BOSE speaker amp. The BOSE speaker amp. amplifies the audio signals before sending them to the subwoofers using the audio signal circuits.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-782, "Wiring Diagram".

1. HARNESS CHECK

1. Disconnect BOSE speaker amp. connector B110 and suspect rear subwoofer connector.
2. Check continuity between BOSE speaker amp. harness connector B110 (A) and suspect rear subwoofer harness connector (B).

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>B110</td>
<td>13</td>
<td>B106</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>B107</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

3. Check continuity between BOSE speaker amp. harness connector B110 (A) and ground.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>B110</td>
<td>13</td>
<td>Ground</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

Are the continuity test results as specified?
YES  >> GO TO 2.
NO  >> • Check connector housings for disconnected or loose terminals.
    • Repair harness or connector.

2. REAR SUBWOOFER SIGNAL CHECK
1. Connect BOSE speaker amp. connector B110 and suspect rear subwoofer connector.
2. Turn ignition switch to ACC.
4. Check the signal between BOSE speaker amp. harness connector B110 terminals with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminals</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>B110</td>
<td>13 8 5 6</td>
<td>Receive audio signal</td>
<td>(V) [1 \ms]</td>
</tr>
</tbody>
</table>

Is the audio signal voltage as specified?

YES >> Replace suspect rear subwoofer. Refer to AV-168, "Removal and Installation".

NO >> GO TO 3.

3. HARNESS CHECK

1. Disconnect AV control unit connector M131 and BOSE speaker amp. connector B109.
2. Check continuity between AV control unit harness connector M131 (A) and BOSE speaker amp. harness connector B109 (B).

<table>
<thead>
<tr>
<th>A Connector</th>
<th>Terminal</th>
<th>B Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M131</td>
<td>4</td>
<td>B109</td>
<td>24</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td></td>
<td>23</td>
<td></td>
</tr>
<tr>
<td></td>
<td>13</td>
<td></td>
<td>26</td>
<td></td>
</tr>
<tr>
<td></td>
<td>14</td>
<td></td>
<td>25</td>
<td></td>
</tr>
</tbody>
</table>

3. Check continuity between AV control unit harness connector M131 (A) terminal and ground.

<table>
<thead>
<tr>
<th>A Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M131</td>
<td>4</td>
<td>Ground</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>13</td>
<td></td>
</tr>
<tr>
<td></td>
<td>14</td>
<td></td>
</tr>
</tbody>
</table>

Are continuity test results as specified?

YES >> GO TO 4.

NO >> • Check connector housings for disconnected or loose terminals.
   • Repair harness or connector.

4. REAR SUBWOOFER SIGNAL CHECK
2. Turn ignition switch to ACC.
4. Check the signal between AV control unit harness connector terminals with CONSULT-III or oscilloscope.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminals</th>
<th>Condition</th>
<th>Reference signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>M131</td>
<td>4 5</td>
<td>13 14</td>
<td>Audio signal</td>
</tr>
</tbody>
</table>

Is the audio signal voltage as specified?

YES >> Replace BOSE speaker amp. Refer to AV-169, "Removal and Installation."

NO >> Replace AV control unit. Refer to AV-824, "Removal and Installation."
STEERING SWITCH

< COMPONENT DIAGNOSIS >

STEERING SWITCH

Description

When one of the steering wheel audio control switches is pushed, the resistance in the steering wheel audio control switch circuit changes, depending on which button is pushed.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to AV-782, "Wiring Diagram".

1. CHECK STEERING WHEEL AUDIO CONTROL SWITCH RESISTANCE

1. Turn ignition switch OFF.
2. Disconnect steering wheel audio control switch connector M88.
3. Check resistance between steering switch connector terminals.

<table>
<thead>
<tr>
<th>Terminal</th>
<th>Signal name</th>
<th>Condition</th>
<th>Resistance (Ω) (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>14 17</td>
<td>Enter</td>
<td>Depress ENTER switch.</td>
<td>2023</td>
</tr>
<tr>
<td></td>
<td>Voice recognition</td>
<td>Depress switch.</td>
<td>723</td>
</tr>
<tr>
<td></td>
<td>Menu (down)</td>
<td>Depress switch.</td>
<td>321</td>
</tr>
<tr>
<td></td>
<td>Menu (up)</td>
<td>Depress switch.</td>
<td>121</td>
</tr>
<tr>
<td></td>
<td>Source</td>
<td>Depress switch.</td>
<td>0</td>
</tr>
<tr>
<td>15 17</td>
<td>Menu back</td>
<td>Depress the back switch.</td>
<td>723</td>
</tr>
<tr>
<td></td>
<td>Phone</td>
<td>Depress switch.</td>
<td>321</td>
</tr>
<tr>
<td></td>
<td>Volume (up)</td>
<td>Depress switch.</td>
<td>121</td>
</tr>
<tr>
<td></td>
<td>Volume (down)</td>
<td>Depress switch.</td>
<td>0</td>
</tr>
</tbody>
</table>

Do the steering wheel audio control switches check OK?

YES  >> GO TO 2.
NO   >> Replace steering wheel audio control switch. Refer to AV-839, "Removal and Installation".

2. CHECK HARNESS

1. Disconnect AV control unit connector M131 and spiral cable connector M30.
2. Check continuity between AV control unit harness connector M131 (A) and spiral cable harness connector M30 (B).

<table>
<thead>
<tr>
<th>A Connector</th>
<th>Terminal</th>
<th>B Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>M131</td>
<td>24</td>
<td>M30</td>
<td>Yes</td>
</tr>
<tr>
<td>15</td>
<td></td>
<td>33</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td></td>
<td>31</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. Check continuity between AV switch connector M131 (A) and ground.

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Are the continuity results as specified?
YES >> GO TO 3.
NO >> Repair harness.

3. SPIRAL CABLE CHECK

1. Disconnect spiral cable connector M88.
2. Check continuity between spiral cable harness connector M30 (A) and M88 (B).

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>M30</td>
<td>24</td>
<td>M88</td>
</tr>
<tr>
<td></td>
<td>31</td>
<td></td>
</tr>
<tr>
<td></td>
<td>33</td>
<td></td>
</tr>
</tbody>
</table>

Does the spiral cable check OK?
YES >> Inspection End.
NO >> Replace spiral cable. Refer to SR-8, "Removal and Installation".
AV CONTROL UNIT

< ECU DIAGNOSIS >

ECU DIAGNOSIS

AV CONTROL UNIT

Reference Value

VALUES ON THE DIAGNOSIS TOOL

CONSULT-III data monitor item

<table>
<thead>
<tr>
<th>Display Item</th>
<th>Display</th>
<th>Vehicle status</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>VHCL SPD SIG</td>
<td>ON</td>
<td>Vehicle speed &gt;0 km/h (0 MPH)</td>
<td>Changes in indication may be delayed. This is normal.</td>
</tr>
<tr>
<td></td>
<td>OFF</td>
<td>Vehicle speed =0 km/h (0 MPH)</td>
<td></td>
</tr>
<tr>
<td>PKB SIG</td>
<td>ON</td>
<td>Parking brake is applied.</td>
<td>Changes in indication may be delayed. This is normal.</td>
</tr>
<tr>
<td></td>
<td>OFF</td>
<td>Parking brake is released.</td>
<td></td>
</tr>
<tr>
<td>ILLUM SIG</td>
<td>ON</td>
<td>Block the light beam from the auto light optical sensor when the light SW is ON.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OFF</td>
<td>Expose the auto light optical sensor to light when the light SW is OFF or ON.</td>
<td></td>
</tr>
<tr>
<td>IGN SIG</td>
<td>ON</td>
<td>Ignition switch ON</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OFF</td>
<td>Ignition switch in ACC position</td>
<td></td>
</tr>
<tr>
<td>REV SIG</td>
<td>ON</td>
<td>Selector lever in R position</td>
<td>Changes in indication may be delayed. This is normal.</td>
</tr>
<tr>
<td></td>
<td>OFF</td>
<td>Selector lever in any position other than R</td>
<td></td>
</tr>
</tbody>
</table>

TERMINAL LAYOUT

PHYSICAL VALUES
## AV CONTROL UNIT

### ECU DIAGNOSIS

**[BOSE W/ COLOR W/ NAVI W/RR CTL]**

<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Description</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>Signal name</td>
<td>Input/Output</td>
<td></td>
</tr>
<tr>
<td>1 (B/P) Ground</td>
<td>Amp. ON signal</td>
<td>Output Ignition switch ON</td>
<td>— Battery voltage</td>
</tr>
<tr>
<td>2 (G) 3 (R) Pre-amp. audio signal front LH</td>
<td>Output Ignition switch ON</td>
<td>Audio output</td>
<td></td>
</tr>
<tr>
<td>4 (W/R) 5 (W/L) Pre-amp. audio signal rear LH</td>
<td>Output Ignition switch ON</td>
<td>Audio output</td>
<td></td>
</tr>
<tr>
<td>6 (W/G) 15 (L/B) Steering switch signal A</td>
<td>Input Ignition switch OFF</td>
<td>— Battery voltage</td>
<td></td>
</tr>
<tr>
<td>7 (V/Y) Ground</td>
<td>ACC power supply</td>
<td>Input Ignition switch ACC</td>
<td>— Battery voltage</td>
</tr>
<tr>
<td>9 (R/L) Ground</td>
<td>Illumination signal</td>
<td>OFF Lighting switch is OFF</td>
<td>0V Battery voltage</td>
</tr>
<tr>
<td>10</td>
<td>Shield</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>11 (B) 12 (W) Pre-amp. audio signal front RH</td>
<td>Output Ignition switch ON</td>
<td>Audio output</td>
<td></td>
</tr>
<tr>
<td>13 (V) 14 (LG) Audio signal rear RH</td>
<td>Output Ignition switch ON</td>
<td>Audio output</td>
<td></td>
</tr>
<tr>
<td>15 (L/B) Ground</td>
<td>Steering switch signal ground</td>
<td>— Ignition switch ON</td>
<td>0V</td>
</tr>
</tbody>
</table>

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### AV CONTROL UNIT

#### [BOSE W/ COLOR W/ NAVI W/RR CTL]

<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Description</th>
<th>Input/Output</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>–</td>
<td>Signal name</td>
<td>Input</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td></td>
<td>15 (L/B)</td>
<td>Steering switch signal B</td>
<td>Input</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td></td>
<td>19 (Y/R)</td>
<td>Battery power supply</td>
<td>Input</td>
<td>Ignition switch OFF</td>
</tr>
<tr>
<td></td>
<td>20 (B)</td>
<td>Ground</td>
<td>—</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td></td>
<td>23 (R)</td>
<td>RGB digital image signal (+)</td>
<td>Output</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td></td>
<td>24 (W)</td>
<td>RGB digital image signal (−)</td>
<td>Output</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td></td>
<td>25 (B)</td>
<td>USB ground</td>
<td>—</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td></td>
<td>26 (W)</td>
<td>USB D−</td>
<td>—</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td></td>
<td>27 (R)</td>
<td>V BUS signal</td>
<td>—</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td></td>
<td>28 (G)</td>
<td>USB D+</td>
<td>—</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td></td>
<td>37 (G/R)</td>
<td>Parking brake signal</td>
<td>Input</td>
<td>Parking brake is ON.</td>
</tr>
<tr>
<td></td>
<td>39 (W)</td>
<td>Composite image ground</td>
<td>—</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td></td>
<td>40 (R)</td>
<td>Composite image signal</td>
<td>Output</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td></td>
<td>43</td>
<td>Shield</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>44 (R)</td>
<td>Microphone VCC</td>
<td>Output</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td></td>
<td>45 (Y)</td>
<td>Communication signal (CONT→DISP)</td>
<td>Output</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td></td>
<td>46 (P)</td>
<td>CAN–L</td>
<td>Input/Output</td>
<td>—</td>
</tr>
</tbody>
</table>

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## AV CONTROL UNIT

< ECU DIAGNOSIS >

### [BOSE W/ COLOR W/ NAVI W/RR CTL]

<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Description</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>—</td>
<td>Input/Output</td>
<td>—</td>
</tr>
<tr>
<td>(P) 47</td>
<td>AV communication signal (L)</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>(P) 48</td>
<td>AV communication signal (L)</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>(R/L) 51</td>
<td>Ground Illumination signal</td>
<td>Input</td>
<td>Ignition switch OFF</td>
</tr>
<tr>
<td>(G) 52</td>
<td>Ground Ignition signal</td>
<td>Input</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>(P/B) 53</td>
<td>Ground Reverse signal</td>
<td>Input</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>(V/W) 54</td>
<td>Ground Vehicle speed signal (8-pulse)</td>
<td>Input</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>(L) 55</td>
<td>— Shield</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>(B) 56</td>
<td>Ground Composite synchronizing signal</td>
<td>Output</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>(L) 59</td>
<td>Ground Microphone signal</td>
<td>Input</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>(L) 60</td>
<td>— Shield</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>(BR) 61</td>
<td>Ground Communication signal (DISP → CONT)</td>
<td>Input</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>(L) 62</td>
<td>— CAN–H</td>
<td>Input/Output</td>
<td>—</td>
</tr>
<tr>
<td>(L) 63</td>
<td>AV communication signal (H)</td>
<td>Input/Output</td>
<td>—</td>
</tr>
</tbody>
</table>

### NOTE:
Maximum voltage may be 12.0 V due to specifications (connected units).
### AV CONTROL UNIT

**ECU DIAGNOSIS**

**[BOSE W/ COLOR W/ NAVI W/RR CTL]**

<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Description</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>—</td>
<td>Input/Output</td>
<td>—</td>
</tr>
<tr>
<td>64 (L)</td>
<td>AV communication signal (H)</td>
<td>Input/Output</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>67 (W)</td>
<td>Ground Rear view camera ground</td>
<td>Output</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>68 (R)</td>
<td>Ground Camera ON signal</td>
<td>Output</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>75 (V)</td>
<td>Ground AUX image signal ground</td>
<td>Input</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>76 (V) 75 (LG)</td>
<td>AUX image signal</td>
<td>Input</td>
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<td>82 (SB) 81 (BR)</td>
<td>Disk eject signal</td>
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<td>115 (W) 130 (R)</td>
<td>AUX sound signal LH</td>
<td>Input</td>
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*Revision: November 2009 2010 Maxima*
### Terminal (Wire color) | Description | Input/Output | Condition | Reference value (Approx.)
--- | --- | --- | --- | ---
+ | Signal name | | | |
128 | Shield | | | |
129 (B) | 130 (R) | AUX sound signal RH | Input | Ignition switch ON When AUX mode is selected. |

![Waveform Chart](SKIB3609E)
### AV CONTROL UNIT

#### [BOSE W/ COLOR W/ NAVI W/ RR CTL]

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<tr>
<th>Connector No.</th>
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Revision: November 2009

AV-789

2010 Maxima
### AV CONTROL UNIT

**ECU DIAGNOSIS**

**BOSE W/ COLOR W/ NAVI W/RR CTL**

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AV CONTROL UNIT

[BOSE W/ COLOR W/ NAVI W/RR CTL]

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#### [BOSE W/ COLOR W/ NAVI W/RR CTL]

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### AV CONTROL UNIT

**< ECU DIAGNOSIS >**

**[BOSE W/ COLOR W/ NAVI W/RR CTL]**

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**ECU DIAGNOSIS**

**[BOSE W/ COLOR W/ NAVI W/RR CTL]**

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ABNIA16120GB
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**[BOSE W/ COLOR W/ NAVI W/RR CTL]**

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**AV CONTROL UNIT**

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### Connector B122
- **Connector No.**: B122
- **Connector Name**: JOINT CONNECTOR-B21
- **Connector Color**: WHITE

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### Connector B121
- **Connector No.**: B121
- **Connector Name**: WIRE TO WIRE
- **Connector Color**: GRAY

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### Connector B136
- **Connector No.**: B136
- **Connector Name**: WIRE TO WIRE
- **Connector Color**: WHITE

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<td>Y</td>
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### Connector B124
- **Connector No.**: B124
- **Connector Name**: WIRE TO WIRE
- **Connector Color**: WHITE

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Revision: November 2009

AV-801

2010 Maxima
AV CONTROL UNIT

< ECU DIAGNOSIS >

[BOSE W/ COLOR W/ NAVI W/ RR CTL]

Revision: November 2009

AV-802

2010 Maxima
### AV Control Unit

#### ECU Diagnosis

**AV-803**

**[BOSE W/ COLOR W/ NAVI W/ RR CTL]**

<table>
<thead>
<tr>
<th>Connector No.</th>
<th>Connector Name</th>
<th>Connector Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>R1</td>
<td>WIRE TO WIRE</td>
<td>WHITE</td>
</tr>
<tr>
<td>D3</td>
<td>FRONT DOOR SPEAKER LH</td>
<td>WHITE</td>
</tr>
<tr>
<td>T101</td>
<td>REAR VIEW CAMERA</td>
<td>WHITE</td>
</tr>
<tr>
<td>D1</td>
<td>WIRE TO WIRE</td>
<td>WHITE</td>
</tr>
<tr>
<td>D7</td>
<td>MICROPHONE</td>
<td>WHITE</td>
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<table>
<thead>
<tr>
<th>Terminal No.</th>
<th>Color of Wire</th>
<th>Signal Name</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>R</td>
<td>CAMERA ON</td>
</tr>
<tr>
<td>2</td>
<td>W</td>
<td>GND</td>
</tr>
<tr>
<td>3</td>
<td>B</td>
<td>COMP+</td>
</tr>
<tr>
<td>4</td>
<td>SHIELD</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>L</td>
<td>LG</td>
</tr>
<tr>
<td>11</td>
<td>O</td>
<td>GR</td>
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</table>

**Revision: November 2009**

2010 Maxima
## DTC Index

### SELF-DIAGNOSIS RESULTS DISPLAY ITEM

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<th>Connector No.</th>
<th>Connector Name</th>
<th>Connector Color</th>
<th>Terminal No.</th>
<th>Color of Wire</th>
<th>Signal Name</th>
<th>Signal Name</th>
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<tbody>
<tr>
<td>D001</td>
<td>WIRE TO WIRE</td>
<td>WHITE</td>
<td>9</td>
<td>LG</td>
<td>0</td>
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<tr>
<td>D103</td>
<td>FRONT DOOR SPEAKER RH</td>
<td>WHITE</td>
<td>1</td>
<td>LG</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>D101</td>
<td>WIRE TO WIRE</td>
<td>WHITE</td>
<td>7</td>
<td>LG</td>
<td>8</td>
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<tr>
<td>D002</td>
<td>REAR DOOR SPEAKER LH</td>
<td>BROWN</td>
<td>1</td>
<td>LG</td>
<td>2</td>
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<tr>
<td>DTC</td>
<td>Display Item</td>
<td>Refer to</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>-------</td>
<td>--------------------------------------------------------------------</td>
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<tr>
<td>U1000</td>
<td>CAN COMM CIRCUIT [U1000]</td>
<td>AV-715, &quot;Diagnosis Procedure&quot;</td>
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<td>U1010</td>
<td>CONTROL UNIT (CAN) [1010]</td>
<td>AV-716, &quot;DTC Logic&quot;</td>
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<td>U1200</td>
<td>Cont Unit [U1200]</td>
<td>AV-717, &quot;DTC Logic&quot;</td>
<td></td>
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<tr>
<td>U1201</td>
<td>GYRO NO CONN [U1201]</td>
<td>AV-718, &quot;DTC Logic&quot;</td>
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<tr>
<td>U1202</td>
<td>G-SENSOR NO CONN [U1202]</td>
<td>AV-719, &quot;DTC Logic&quot;</td>
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<td>U1204</td>
<td>GPS COMM [U1204]</td>
<td>AV-720, &quot;Diagnosis Procedure&quot;</td>
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<td>U1205</td>
<td>GPS ROM [U1205]</td>
<td>AV-721, &quot;Diagnosis Procedure&quot;</td>
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<td>GPS RAM [U1206]</td>
<td>AV-722, &quot;Diagnosis Procedure&quot;</td>
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<td>GPS RTC [U1207]</td>
<td>AV-723, &quot;Diagnosis Procedure&quot;</td>
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<td>U1216</td>
<td>CAN CONT [U1216]</td>
<td>AV-724, &quot;DTC Logic&quot;</td>
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<td>U1217</td>
<td>BLUETOOTH MODULE [U1217]</td>
<td>AV-725, &quot;DTC Logic&quot;</td>
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<td>U1218</td>
<td>HDD CONN [U1218]</td>
<td>AV-726, &quot;Diagnosis Procedure&quot;</td>
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<td>U1219</td>
<td>HDD READ [U1219]</td>
<td>AV-727, &quot;Diagnosis Procedure&quot;</td>
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<td>U121A</td>
<td>HDD WRITE [U121A]</td>
<td>AV-728, &quot;Diagnosis Procedure&quot;</td>
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<td>U121B</td>
<td>HDD COMM [U121B]</td>
<td>AV-729, &quot;Diagnosis Procedure&quot;</td>
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<td>U121C</td>
<td>HDD ACCESS [U121C]</td>
<td>AV-730, &quot;Diagnosis Procedure&quot;</td>
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<tr>
<td>U121D</td>
<td>DSP COMM [U121D]</td>
<td>AV-731, &quot;Diagnosis Procedure&quot;</td>
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<td>U121E</td>
<td>DSP COMM [U121E]</td>
<td>AV-732, &quot;Diagnosis Procedure&quot;</td>
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<td>U1225</td>
<td>USB CONTROLLER [U1225]</td>
<td>AV-733, &quot;DTC Logic&quot;</td>
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<td>U1227</td>
<td>DVD COMM [U1227]</td>
<td>AV-734, &quot;Diagnosis Procedure&quot;</td>
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<td>U1228</td>
<td>SUB CPU CONN [U1228]</td>
<td>AV-735, &quot;DTC Logic&quot;</td>
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<td>U1229</td>
<td>iPod CERTIFICATION [U1229]</td>
<td>AV-736, &quot;DTC Logic&quot;</td>
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<td>U122A</td>
<td>CONFIG UNFINISH [U122A]</td>
<td>AV-737, &quot;Diagnosis Procedure&quot;</td>
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<td>U122E</td>
<td>Built-in AUDIO CONN [U122E]</td>
<td>AV-738, &quot;DTC Logic&quot;</td>
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<td>U1232</td>
<td>ST ANGLE SEN CALIB [1232]</td>
<td>AV-739, &quot;Diagnosis Procedure&quot;</td>
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<td>U1243</td>
<td>FRONT DISP CONN [U1243]</td>
<td>AV-740, &quot;Diagnosis Procedure&quot;</td>
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<td>U1244</td>
<td>GPS ANTENNA CONN [U1244]</td>
<td>AV-742, &quot;Diagnosis Procedure&quot;</td>
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<td>U1263</td>
<td>USB OVERCURRENT [U1263]</td>
<td>AV-743, &quot;Diagnosis Procedure&quot;</td>
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<td>U1310</td>
<td>CONTROL UNIT (AV) [U1310]</td>
<td>AV-745, &quot;DTC Logic&quot;</td>
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<td>U1300</td>
<td>• AV COMM CIRCUIT [U1300]</td>
<td>AV-744, &quot;Description&quot;</td>
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<td>U1240</td>
<td>• SWITCH CONN [U1240]</td>
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</table>
### PHYSICAL VALUES

<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Description</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ –</td>
<td>Signal name</td>
<td>Input/Output</td>
<td></td>
</tr>
<tr>
<td>6 –</td>
<td>Shield</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>7 –</td>
<td>Shield</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>8 (B) Ground</td>
<td>Rear view camera image signal</td>
<td>Input</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>9 (BR) Ground</td>
<td>Communication signal (DISP→CONT)</td>
<td>Output</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>10 (Y) Ground</td>
<td>Communication signal (CONT→DISP)</td>
<td>Input</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>11 (Y/R) Ground</td>
<td>Battery power supply</td>
<td>Input</td>
<td>Ignition switch OFF</td>
</tr>
<tr>
<td>12 (B) Ground</td>
<td>Ground</td>
<td>—</td>
<td>Ignition switch ON</td>
</tr>
</tbody>
</table>
### ECU Diagnosis

**DISPLAY UNIT**

#### [BOSE W/ COLOR W/ NAVI W/ RR CTL]

<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Description</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>Signal name</td>
<td>Input</td>
<td></td>
</tr>
<tr>
<td>18 (R)</td>
<td>Ground Composite image signal</td>
<td>Ignition switch ON</td>
<td>At DVD image is displayed.</td>
</tr>
<tr>
<td>19 (W)</td>
<td>Ground Composite image ground</td>
<td>Ignition switch ON</td>
<td>—</td>
</tr>
<tr>
<td>20 (B)</td>
<td>Ground Composite synchronizing signal</td>
<td>Ignition switch ON</td>
<td>—</td>
</tr>
<tr>
<td>22</td>
<td>Shield</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>23 (V/Y)</td>
<td>Ground ACC power supply</td>
<td>Ignition switch ACC</td>
<td>—</td>
</tr>
<tr>
<td>27 (R)</td>
<td>RGB digital image signal (+)</td>
<td>Input</td>
<td>—</td>
</tr>
<tr>
<td>28 (W)</td>
<td>RGB digital image signal (-)</td>
<td>Input</td>
<td>—</td>
</tr>
</tbody>
</table>
## TERMINAL LAYOUT

![Terminal Layout Diagram]

## PHYSICAL VALUES

<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Description</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+  –</td>
<td>Signal name</td>
<td>Input/Output</td>
<td></td>
</tr>
<tr>
<td>1 (LG) 2 (V)</td>
<td>Audio signal tweeter LH</td>
<td>Output</td>
<td>Audio output</td>
</tr>
<tr>
<td>4 (G) 3 (W)</td>
<td>Audio signal tweeter RH</td>
<td>Output</td>
<td>Audio output</td>
</tr>
<tr>
<td>5 (R) 6 (BR)</td>
<td>Audio signal subwoofer LH</td>
<td>Output</td>
<td>Audio output</td>
</tr>
<tr>
<td>7 (B)</td>
<td>Ground</td>
<td>—</td>
<td>Ignition switch ON</td>
</tr>
<tr>
<td>10 (SB)</td>
<td>Battery power supply</td>
<td>Input</td>
<td>Ignition switch OFF</td>
</tr>
<tr>
<td>11 (GR)</td>
<td>Battery power supply</td>
<td>Input</td>
<td>Ignition switch OFF</td>
</tr>
<tr>
<td>12 (B)</td>
<td>Ground</td>
<td>—</td>
<td>Ignition switch ON</td>
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</table>

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AV-808 2010 Maxima
### BOSE SPEAKER AMP

#### BOSE W/ COLOR W/ NAVI W/RR CTL

**Table:**

<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Description</th>
<th>Input/Output</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>Signal name</td>
<td>Input/Output</td>
<td>Ignition switch ON</td>
<td>Audio output</td>
</tr>
<tr>
<td>13 (L) 8 (P)</td>
<td>Audio signal subwoofer LH</td>
<td>Output</td>
<td>Audio output</td>
<td></td>
</tr>
<tr>
<td>14 (LG) 9 (O)</td>
<td>Audio signal rear door speaker RH</td>
<td>Output</td>
<td>Audio output</td>
<td></td>
</tr>
<tr>
<td>18 (W) 19 (B)</td>
<td>Audio signal front door speaker LH</td>
<td>Output</td>
<td>Audio output</td>
<td></td>
</tr>
<tr>
<td>20 (SB)</td>
<td>Ground</td>
<td>Input</td>
<td>Ignition switch ACC</td>
<td>—</td>
</tr>
<tr>
<td>24 (BR) 23 (Y)</td>
<td>Audio signal rear LH</td>
<td>Input</td>
<td>Audio input</td>
<td></td>
</tr>
<tr>
<td>26 (V) 25 (LG)</td>
<td>Audio signal rear RH</td>
<td>Input</td>
<td>Audio input</td>
<td></td>
</tr>
<tr>
<td>28 (G) 15 (L)</td>
<td>Audio signal rear door speaker LH</td>
<td>Output</td>
<td>Audio output</td>
<td></td>
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</tbody>
</table>

**Diagram:**

- [Diagram of Reference Value](skib3609e)

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**AV-809**

**2010 Maxima**
<table>
<thead>
<tr>
<th>Terminal (Wire color)</th>
<th>Description</th>
<th>Input/Output</th>
<th>Condition</th>
<th>Reference value (Approx.)</th>
</tr>
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<tbody>
<tr>
<td>+</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29 (V) 30 (P)</td>
<td>Audio signal center speaker</td>
<td>Output</td>
<td>Ignition switch ON</td>
<td>2ms</td>
</tr>
<tr>
<td>31 (R) 32 (BR)</td>
<td>Audio signal front door speaker RH</td>
<td>Output</td>
<td>Ignition switch ON</td>
<td>2ms</td>
</tr>
<tr>
<td>33 (W/L) 34 (GR/V)</td>
<td>Audio signal front RH</td>
<td>Input</td>
<td>Ignition switch ON</td>
<td>2ms</td>
</tr>
<tr>
<td>35 (W/R) 36 (B/R)</td>
<td>Audio signal rear LH</td>
<td>Input</td>
<td>Ignition switch ON</td>
<td>2ms</td>
</tr>
</tbody>
</table>
MULTI AV SYSTEM SYMPTOMS

SYMPTOM DIAGNOSIS
MULTI AV SYSTEM SYMPTOMS

Symptom Table

RELATED TO NAVIGATION
Trouble Diagnosis Chart by Symptom

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Check items</th>
<th>Probable malfunction location</th>
</tr>
</thead>
</table>
| Multifunction switch and preset switch operation does not work. | • All switches cannot be operated.  
• “MULTI AV” is displayed on system selection screen when the CONSULT-III is started. | • Multifunction switch power supply and ground circuit. Refer to AV-774, "Diagnosis Procedure".  
• AV communication circuit between AV control unit and multifunction switch. Perform CONSULT-III self-diagnosis. Refer to AV-711, "CONSULT-III Function (MULTI AV)". |
| Fuel economy display is abnormal.     | There is malfunction in the CONSULT-III self-diagnosis result.               | Perform detected DTC self-diagnosis. Refer to AV-711, "CONSULT-III Function (MULTI AV)".        |
| Start of the AV control unit takes time. | There is no malfunction in the self-diagnosis results.                      | Ignition signal circuit malfunction. Refer to PCS-65, "Diagnosis Procedure".                    |
| Guide sound is not heard or too low.  | On the setting display select "system sound (guide sound volume, etc.)," and confirm that guide sound is ON. | Voice guidance signal circuit malfunction.                                                     |

RELATED TO HANDS-FREE PHONE

• Check that the cellular phone is the corresponding type (Bluetooth™ enabled) and Bluetooth™ turns ON.
• Malfunction may occur due to the version change of the phone type, etc. even though it is the corresponding type. The cell phone must support at least hands-free profile V1.0 and object push V1.0. Refer to cell phone instruction manual.
• When customers contact concerning Bluetooth™ compatible cell phone malfunction for the first time, always suggest customers to update cellular phone software if possible.
• Check that customer cellular phone is compatible on the published list. The dealer should contact its RBU/NSC for the list.
• Take note of any exceptions that the list may detail, i.e. no ringing tone or no phonebook transfer etc. If the customer phone is not listed then its full function cannot be guaranteed. NISSAN should not replace the AV control unit if the cell phone does not appear on the list or the cell phone is operating as described on the list e.g. no ringing tone, no phonebook transfer etc.
• Take note of any exceptions to other phones made by the same manufacturer as the customers. Any exceptions on one model by a specific manufacturer may be common to all models made by that manufacturer.

Simple Check for Bluetooth™ Communication

If cellular phone and AV control unit cannot be connected with Bluetooth™ communication, following procedure allows the technician to judge which device has malfunction.

1. Turn ON cellular phone, not connecting Bluetooth™ communication.
2. Start CONSULT-III, then start Windows®.
MULTI AV SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[BOSE W/ COLOR W/ NAVI W/RR CTL]

4. When operated Bluetooth™ registration by cellular phone, check if CONSULT-III* would be displayed on the device name.

(If other Bluetooth™ device is located near cellular phone, a name of the device would be displayed also.)

NOTE:

*:Displayed device name is “NISSAN-***********”.

• If no device name is displayed, cellular phone is malfunctioning. Repair the cellular phone first, then perform diagnosis.

• If CONSULT-III is displayed on device name, cellular phone is normal*. Perform diagnosis as per the following table.

*: There is no 100% guarantee that cellular phone operates all functions on AV control unit. Different phone manufacturers implement Bluetooth™ in different ways. Phones on Supported Phone List are tested and any minor exceptions are listed.

Trouble Diagnosis Chart by Symptom

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Check items</th>
<th>Probable malfunction location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does not recognize cellular phone connection. (no connection is displayed on the display at the guide.)</td>
<td>Repeat the registration of cellular phone.</td>
<td>AV control unit malfunction. Replace AV control unit. Refer to AV-824, &quot;Removal and Installation&quot;.</td>
</tr>
<tr>
<td>Hands-free phone cannot be established.</td>
<td>• Hands-free phone operation can be made, but the communication cannot be established. • Hands-free phone operation can be performed, however, voice between each other cannot be heard during the conversation.</td>
<td>AV control unit malfunction. Replace AV control unit. Refer to AV-824, &quot;Removal and Installation&quot;.</td>
</tr>
<tr>
<td>The other party's voice cannot be heard by hands-free phone.</td>
<td>Check the “microphone speaker” in Inspection &amp; Adjustment Mode if sound is heard.</td>
<td>AV control unit malfunction. Replace AV control unit. Refer to AV-824, &quot;Removal and Installation&quot;.</td>
</tr>
<tr>
<td>Originating sound is not heard by the other party with hands-free phone communication.</td>
<td>Sound operation function is normal. Sound operation function does not work.</td>
<td>Microphone signal circuit malfunction. Refer to AV-757, &quot;Diagnosis Procedure&quot;.</td>
</tr>
<tr>
<td>The retractable hard top is not fully closed. The voice recognition cannot be controlled.</td>
<td>• The retractable hard top is fully closed. • The voice recognition can be controlled.</td>
<td>Roof status signal circuit malfunction. Steering switch malfunction. Steering switch signal B circuit malfunction. Refer to AV-774, &quot;Diagnosis Procedure&quot;.</td>
</tr>
<tr>
<td>All steering switches do not work.</td>
<td></td>
<td>Steering switch ground circuit malfunction. Refer to AV-774, &quot;Diagnosis Procedure&quot;.</td>
</tr>
</tbody>
</table>

RELATED TO RGB IMAGE

Trouble Diagnosis Chart by Symptom

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Check items</th>
<th>Probable malfunction location</th>
</tr>
</thead>
<tbody>
<tr>
<td>RGB image is not shown.</td>
<td>—</td>
<td>RGB digital image signal circuit malfunction.</td>
</tr>
</tbody>
</table>

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AV-812 2010 Maxima
## MULTI AV SYSTEM SYMPTOMS

### RELATED TO VOICE CONTROL

#### Trouble Diagnosis Chart by Symptom

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Check items</th>
<th>Probable malfunction location</th>
</tr>
</thead>
<tbody>
<tr>
<td>The voice cannot be controlled even if the voice control screen is displayed.</td>
<td>Voice sounds at &quot;Voice Microphone Test&quot; of Confirmation/Adjustment mode.</td>
<td>AV control unit malfunction. Replace AV control unit. Refer to AV-824, &quot;Removal and Installation&quot;.</td>
</tr>
<tr>
<td></td>
<td>Voice does not sound at &quot;Voice Microphone Test&quot; of Confirmation/Adjustment mode.</td>
<td>Microphone circuit malfunction. Refer to AV-757, &quot;Diagnosis Procedure&quot;.</td>
</tr>
<tr>
<td>The voice cannot be controlled (Voice control screen is not displayed).</td>
<td>• Steering switch's &quot;SOURCE&quot;, &quot;MENU UP&quot;, &quot;MENU DOWN&quot;, &quot;ENTER&quot; switch works, but &quot;vox&quot; does not work.</td>
<td>Steering switch malfunction.</td>
</tr>
<tr>
<td></td>
<td>• Hands-free phone system can be operated.</td>
<td>First.</td>
</tr>
<tr>
<td></td>
<td>Steering switch's &quot;SOURCE&quot;, &quot;MENU UP&quot;, &quot;MENU DOWN&quot;, &quot;vox&quot;, &quot;ENTER&quot; switches do not work.</td>
<td>Steering switch signal A circuit malfunction. Refer to AV-774, &quot;Diagnosis Procedure&quot;.</td>
</tr>
<tr>
<td></td>
<td>All steering switches do not work.</td>
<td>Steering switch ground circuit malfunction. Refer to AV-774, &quot;Diagnosis Procedure&quot;.</td>
</tr>
</tbody>
</table>

### RELATED TO AUDIO

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Check items</th>
<th>Possible malfunction location / Action to take</th>
</tr>
</thead>
<tbody>
<tr>
<td>The CD cannot be removed.</td>
<td>—</td>
<td>Disk eject signal circuit malfunction between AV control unit and preset switch. Refer to AV-756, &quot;Diagnosis Procedure&quot;.</td>
</tr>
<tr>
<td>No sound from all speakers.</td>
<td>• Amp. ON signal circuit. • BOSE amp. power supply and ground circuit.</td>
<td>First.</td>
</tr>
<tr>
<td></td>
<td>Refer to AV-749, &quot;BOSE SPEAKER AMP : Diagnosis Procedure&quot;.</td>
<td>Second.</td>
</tr>
<tr>
<td>There is no sound from the woofer.</td>
<td>• Woof. ON signal circuit. • Bo. signal woofer circuit between Bo. amp. and woofer.</td>
<td>First.</td>
</tr>
<tr>
<td></td>
<td>Refer to AV-749, &quot;BOSE SPEAKER AMP : Diagnosis Procedure&quot;.</td>
<td>Second.</td>
</tr>
<tr>
<td>There is sound only from specific places (RH front, RH rear, LH front and LH rear).</td>
<td>• Sound signal circuit of suspect system.</td>
<td>First.</td>
</tr>
<tr>
<td>There is malfunction in the CONSULT-III self-diagnosis result.</td>
<td>Perform CONSULT-III self-diagnosis. Refer to AV-711, &quot;CONSULT - III Function (MULTI AV)&quot;.</td>
<td>First.</td>
</tr>
<tr>
<td>Satellite radio is not received.</td>
<td>There is no malfunction in the CONSULT-III self-diagnosis result.</td>
<td>Perform the following inspection procedure.</td>
</tr>
<tr>
<td></td>
<td>Perform the following inspection procedure.</td>
<td>1. Check satellite radio antenna mounting nut for looseness.</td>
</tr>
<tr>
<td></td>
<td>2. Visually check for satellite radio antenna feeder.</td>
<td>2. Visually check for satellite radio antenna feeder.</td>
</tr>
<tr>
<td></td>
<td>3. Replace the satellite radio antenna. Refer to AV-837, &quot;Removal and Installation&quot;.</td>
<td>3. Replace the satellite radio antenna. Refer to AV-837, &quot;Removal and Installation&quot;.</td>
</tr>
<tr>
<td></td>
<td>4. Replace the AV control unit. Refer to AV-842, &quot;Removal and Installation&quot;.</td>
<td>4. Replace the AV control unit. Refer to AV-842, &quot;Removal and Installation&quot;.</td>
</tr>
<tr>
<td>AM/FM radio is not received.</td>
<td>Other audio sounds are normal.</td>
<td>• Antenna amp. ON signal circuit.</td>
</tr>
<tr>
<td></td>
<td>• Antenna feeder.</td>
<td>First.</td>
</tr>
</tbody>
</table>

### RELATED TO USB

**NOTE:**
Check that there is no malfunction of USB equipment main body before performing a diagnosis.

### Trouble Diagnosis Chart by Symptom

---

**Revision:** November 2009

**AV-813**  
**2010 Maxima**
### RELATED TO DVD MODE

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Check items</th>
<th>Possible malfunction location / Action to take</th>
</tr>
</thead>
</table>
| iPod® or USB memory can not be recognized. | — | • USB harness malfunction.  
  • USB connector malfunction. |

**NOTE:** iPod® is a trademark of Apple inc., registered in the U.S. and other countries.

### RELATED TO STEERING SWITCH

**Trouble Diagnosis Chart by Symptom**

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Probable malfunction location</th>
</tr>
</thead>
</table>
| None of the steering switch operations work. | Steering switch ground circuit malfunction.  
  Refer to AV-774, "Diagnosis Procedure". |
| Only specified switch cannot be operated. | Steering switch malfunction. |
  Refer to AV-774, "Diagnosis Procedure". |
| Steering switch's "↑", "↓", "VOL UP", "VOL DOWN", "¬" switches do not work. | Steering switch signal B circuit malfunction.  
  Refer to AV-774, "Diagnosis Procedure". |

### RELATED TO AUXILIARY INPUT

**NOTE:** Check that there is no malfunction of AUX equipment main body before performing a diagnosis.

**Trouble diagnosis chart by symptom**

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Check items</th>
<th>Probable malfunction location</th>
</tr>
</thead>
<tbody>
<tr>
<td>No voice sound is heard when AUX mode is selected.</td>
<td>Voice sound is heard when other modes are selected.</td>
<td>AUX sound signal circuit.</td>
</tr>
</tbody>
</table>
| Image is not displayed when AUX mode is selected. | DVD image is displayed. | AUX image signal circuit malfunction.  
  Refer to AV-755, "Diagnosis Procedure". |
| | DVD image is not displayed. | Composite image signal circuit malfunction.  
  Refer to AV-754, "Diagnosis Procedure". |
## NORMAL OPERATING CONDITION

###< SYMPTOM DIAGNOSIS >

**NORMAL OPERATING CONDITION**

**Description**

**NOTE:**
For Navigation system operation information, refer to Navigation system Owner's Manual.

### BASIC OPERATIONS

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible cause</th>
<th>Possible solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>No image is displayed.</td>
<td>The brightness is at the lowest setting.</td>
<td>Adjust the brightness of the display.</td>
</tr>
<tr>
<td></td>
<td>The systems in the video mode.</td>
<td>Press &quot;DISC-AUX&quot; to change the mode.</td>
</tr>
<tr>
<td></td>
<td>The display is turned off.</td>
<td>Press &quot;ipment acts, and a display is turned off.</td>
</tr>
<tr>
<td></td>
<td>The interior of the vehicle becomes a little less than 80°C (176°F) or high temperature, and the protection of the display acts, and a display is turned off.</td>
<td>Wait until the interior of the vehicle has cooled down.</td>
</tr>
<tr>
<td>Screen not clear.</td>
<td>Contrast setting is not appropriate.</td>
<td>Adjust the contrast of the display.</td>
</tr>
<tr>
<td>No voice guidance is available.</td>
<td>The volume is not set correctly, or it is turned off.</td>
<td>Adjust the volume of voice guidance.</td>
</tr>
<tr>
<td>The volume is too high or too low.</td>
<td>Voice guidance is not provided for certain streets (roads displayed in gray).</td>
<td>This is not a malfunction.</td>
</tr>
<tr>
<td>No map is displayed on the screen.</td>
<td>A screen other than map screen is displayed.</td>
<td>Press &quot;MAP&quot;.</td>
</tr>
<tr>
<td></td>
<td>The temperature in the interior of the vehicle is high.</td>
<td>Wait until the interior of the vehicle has cooled down.</td>
</tr>
<tr>
<td>Some pixels in the display are darker or brighter than others.</td>
<td>This condition is an inherent characteristic of liquid crystal displays.</td>
<td>This is not a malfunction.</td>
</tr>
<tr>
<td>Some menu items cannot be selected.</td>
<td>Some menu items become unavailable while the vehicle is driven.</td>
<td>Park the vehicle in a safe location, and then operate the navigation system.</td>
</tr>
</tbody>
</table>

**NOTE:**
Locations stored in the Address Book and other memory functions may be lost if the vehicle's battery is disconnected or becomes discharged. If this occurs, service the vehicle's battery as necessary and re-enter the information in the Address Book.

### RELATED TO VOICE RECOGNITION

**Related to Basic Operation**

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible cause</th>
<th>Possible solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>The system does not recognize your command. or The system recognizes your command incorrectly</td>
<td>The interior of the vehicle is too noisy.</td>
<td>Close the windows or have other occupants quiet.</td>
</tr>
<tr>
<td></td>
<td>The volume of your voice is too low.</td>
<td>Speak louder.</td>
</tr>
<tr>
<td></td>
<td>The volume if your voice is too loud.</td>
<td>Speak softer.</td>
</tr>
<tr>
<td></td>
<td>Your pronunciation is unclear.</td>
<td>Speak clearly.</td>
</tr>
<tr>
<td></td>
<td>You are speaking before the voice recognition is ready</td>
<td>Press and release &quot; &quot; switch on the steering switch, and speak a command after the tone sounds.</td>
</tr>
<tr>
<td></td>
<td>8 seconds or more have passed after you pressed and released &quot; &quot; switch on the steering switch.</td>
<td>Make sure to speak a command within 8 seconds after you press and release &quot; &quot; switch on the steering switch.</td>
</tr>
<tr>
<td></td>
<td>Only a limited range of voice commands is usable for each screen.</td>
<td>Use a correct voice command appropriate for the current screen.</td>
</tr>
<tr>
<td></td>
<td>The fan of the air conditioner is too loud.</td>
<td>Lower the fan speed as necessary as voice commands can be recognized more easily.</td>
</tr>
</tbody>
</table>

**Related to Item Choice**
The system should respond correctly to all voice commands without difficulty. If problems are encountered, follow the solutions given in this guide for the appropriate error.

Revision: November 2009
NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[BOSE W/ COLOR W/ NAVI W/RR CTL]

Where the solutions are listed by number, try each solution in turn, starting with number one, until the problem is resolved.

<table>
<thead>
<tr>
<th>Symptom/ error message</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Displays “COMMAND NOT RECOGNIZED” or the system fails to interpret the command correctly.</td>
<td>1. Ensure that the command format is valid.</td>
</tr>
<tr>
<td></td>
<td>2. Speak clearly without pausing between words and at a level appropriate to the ambient noise level.</td>
</tr>
<tr>
<td></td>
<td>3. Ensure that the ambient noise level is not excessive, for example, windows open or defrost on.</td>
</tr>
<tr>
<td></td>
<td><strong>NOTE:</strong> If it is too noisy to use the phone, it is likely that voice commands will not be recognized.</td>
</tr>
<tr>
<td></td>
<td>4. If optional words of the command have been omitted, then command should be tried with these in place.</td>
</tr>
</tbody>
</table>

The system consistently selects the wrong voicetag | 1. Ensure that the voicetag requested matches what was originally stored. This can be confirmed by giving the “Addressbook” Directory or Phone Directory command. |
| | 2. Replace one of the voicetags being confused with a different voicetag. |

Related to Telephone

The system should respond correctly to all voice commands without difficulty. If problems are encountered, try the following solutions.

Where the solutions are listed by number, try each solution in turn, starting with number 1, until the problem is resolved.

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>System fails to interpret the command correctly.</td>
<td>1. Ensure that the command is valid.</td>
</tr>
<tr>
<td></td>
<td>2. Ensure that the command is spoken after the tone.</td>
</tr>
<tr>
<td></td>
<td>3. Speak clearly without pausing between words and at level appropriate to the ambient noise level in the vehicle.</td>
</tr>
<tr>
<td></td>
<td>4. Ensure that the ambient noise level is not excessive (for example, windows open or defroster on).</td>
</tr>
<tr>
<td></td>
<td><strong>NOTE:</strong> If it is too noisy to use the phone, it is likely that the voice commands will not be recognized.</td>
</tr>
<tr>
<td></td>
<td>5. If more than one command was said at a time, try saying the commands separately.</td>
</tr>
<tr>
<td></td>
<td>6. If the system consistently fails to recognize commands, the voice training procedure should be carried out to improve the recognition response for the speaker. See “Speaker adaptation (SA) mode” earlier in this section. Refer to “OWNER’S MANUAL”.</td>
</tr>
</tbody>
</table>

The system consistently selects the wrong voicetag | 1. Ensure that the phone book entry name requested matches what was originally stored. This can be confirmed by using the “List Names” command. |
| | 2. Replace one of the names being confused with a new name. |

RELATED TO AUDIO

- The majority of the audio malfunctions are the result of outside causes (bad CD/cassette, electromagnetic interference, etc.). Check the symptoms below to diagnose the malfunction.
- The vehicle itself can be a source of noise if noise prevention parts or electrical equipment is malfunctioning. Check if noise is caused and/or changed by engine speed, ignition switch turned to each position, and operation of each piece of electrical equipment, and then determine the cause.

**NOTE:**

- CD-R is not guaranteed to play because they can contain compressed audio (MP3, WMA, AAC, M4A) or could be incorrectly mastered by the customer on a computer.
- Check if the CDs carry the Compact Disc Logo. If not, the disc is not mastered to the “red book” Compact Disc Standard and may not play.
Noise resulting from variations in field strength, such as fading noise and multi-path noise, or external noise from trains and other sources, is not a malfunction.

**NOTE:**
- Fading noise: This noise occurs because of variations in the field strength in a narrow range due to mountains or buildings blocking the signal.
- Multi-path noise: This noise results from a time difference between the broadcast waves directly from the station arriving at the antenna and the waves reflected by mountains or buildings.

**RELATED TO DVD**

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible cause</th>
<th>Possible solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not working as operated</td>
<td>Some operations may be rejected or may not function as intended because of the manufacturer’s intent, depending on DVD.</td>
<td>This is not a malfunction.</td>
</tr>
<tr>
<td>Operation not accepted</td>
<td>If a requested operation is prohibited, then a message is displayed on the screen. (Message display depends on DVD.)</td>
<td>This is not a malfunction.</td>
</tr>
<tr>
<td>DVD can not be played</td>
<td>Check that the DVD is inserted in the right place.</td>
<td>Upturn the DVD (facing the title upward).</td>
</tr>
<tr>
<td></td>
<td>Check if there is condensation inside the player.</td>
<td>wait until the condensation is gone (about 1 hour) before using the player.</td>
</tr>
<tr>
<td></td>
<td>DVD menu is displayed.</td>
<td>Select item to touch “ENTER”</td>
</tr>
<tr>
<td></td>
<td>Insertion of a DVD with a different region code.</td>
<td>DVDs with a different region code can not be played. Check DVD.</td>
</tr>
<tr>
<td></td>
<td>Some DVD softwares may not be played because not all DVD softwares fully comply in the standard.</td>
<td>This is not a malfunction.</td>
</tr>
</tbody>
</table>
< SYMPTOM DIAGNOSIS >

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible cause</th>
<th>Possible solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interruption during playback or flicker in the display</td>
<td>Check that the DVD has no scratches and dirt.</td>
<td>Errors may not be corrected depending on the size of scratches.</td>
</tr>
<tr>
<td>Low sound quality</td>
<td>In the process of fast-forward or fast-reverse.</td>
<td>Wipe and clean the dirt on the disc.</td>
</tr>
<tr>
<td>Distortion in picture</td>
<td>Subtitle setting is OFF.</td>
<td>This is not a malfunction.</td>
</tr>
<tr>
<td>Subtitles not shown</td>
<td>Subtitle is not included in the software.</td>
<td>Set subtitle.</td>
</tr>
<tr>
<td>Not played in set language</td>
<td>If a language is not included in the DVD, then the DVD is played in a recommended language.</td>
<td>Check DVD.</td>
</tr>
<tr>
<td>Not played with set subtitle</td>
<td>If a set subtitle is not included in the DVD, then the DVD is played with a recommended subtitle.</td>
<td>Check DVD.</td>
</tr>
<tr>
<td>Subtitle and language not selectable (not played with set subtitle or in set language)</td>
<td>The DVD is not multilanguage-capable.</td>
<td>The inclusion of the number of languages depends on DVD. Languages may be selectable on the Menu screen. Check DVD.</td>
</tr>
<tr>
<td>Angle unchangeable</td>
<td>Plural angles are not recorded in the software.</td>
<td>Check if the DVD is multi-angle-capable.</td>
</tr>
<tr>
<td>Unusual screen display</td>
<td>Display mode to the output aspect ratio for the DVD software is inappropriate.</td>
<td>Switch to the appropriate display mode.</td>
</tr>
<tr>
<td>Playback time is indicated, but no sound comes out.</td>
<td>Playback of Mix mode Truck 1. (Mix mode: Format including Truck 1 with data other than music and Trucks from Truck 2 with music data.)</td>
<td>Play music data included in trucks from Truck 2.</td>
</tr>
</tbody>
</table>

**RELATED TO VEHICLE ICON**

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible cause</th>
<th>Possible solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Names of roads differ between Plan View and Birdview™</td>
<td>This is because the quantity of the displayed information is reduced so that the screen does not become too crowded. There is also a chance that names of the roads may be displayed multiple times, and the names appearing on the screen may be different because of a processing procedure.</td>
<td>This is not a malfunction.</td>
</tr>
<tr>
<td>The vehicle icon is not displayed in the correct position.</td>
<td>The vehicle was transported after the ignition switch was pressed off, for example, by a ferry or car transporter.</td>
<td>Drive the vehicle for a while on a road where GPS signals can be received.</td>
</tr>
<tr>
<td>The position and direction of the vehicle icon may be incorrect depending on the driving environments and the levels of positioning accuracy of the navigation system.</td>
<td>This is not a malfunction. Drive the vehicle for a while to automatically correct the position and direction of the vehicle icon.</td>
<td></td>
</tr>
<tr>
<td>When the vehicle is traveling on a new road, the vehicle icon is located on another road nearby.</td>
<td>Because the new road is not stored in the map data, the system automatically places the vehicle icon on the nearest road available.</td>
<td>Updated road information will be included in the next version of the map data.</td>
</tr>
<tr>
<td>The daytime screen was set the last time the headlights were turned on.</td>
<td>Set the screen to the night screen mode using &lt;Day/Night&gt; when you turn on the headlights.</td>
<td></td>
</tr>
<tr>
<td>The current location map screen is not displayed.</td>
<td>Press “MAP”.</td>
<td></td>
</tr>
<tr>
<td>The current location map screen is not displayed.</td>
<td>Press “MAP”.</td>
<td></td>
</tr>
</tbody>
</table>

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AV-818

2010 Maxima
NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible cause</th>
<th>Possible solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>The location of the vehicle icon is misaligned from the actual position.</td>
<td>When using tire chains or replacing the tires, speed calculations based on the speed sensor may be incorrect.</td>
<td>Drive the vehicle for a while [at approximately 30 km/h (19 MPH) for about 30 minutes] to automatically correct the vehicle icon position. If this does not correct the vehicle icon position, contact a NISSAN/ INFINITI dealer.</td>
</tr>
<tr>
<td></td>
<td>The map data has a mistake or is incomplete (the vehicle icon position is always misaligned in the same area).</td>
<td>Updated road information will be included in the next version of the map data.</td>
</tr>
</tbody>
</table>

RELATED TO ROUTE CALCULATION AND VISUAL GUIDANCE

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible cause</th>
<th>Possible solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waypoints are not included in the auto reroute calculation.</td>
<td>Waypoints that you have already passed are not included in the auto reroute calculation.</td>
<td>If you want to go to that waypoint again, you need to edit the route.</td>
</tr>
<tr>
<td>Route information is not displayed.</td>
<td>Route calculation has not yet been performed.</td>
<td>Set the destination and perform route calculation.</td>
</tr>
<tr>
<td></td>
<td>You are not driving on the suggested route.</td>
<td>Drive on the suggested route.</td>
</tr>
<tr>
<td></td>
<td>Route guidance is set to off.</td>
<td>Turn on route guidance.</td>
</tr>
<tr>
<td></td>
<td>Route information is not provided for certain types of roads (roads displayed in gray).</td>
<td>This is not a malfunction.</td>
</tr>
<tr>
<td>The auto reroute calculation (or detour calculation) suggests the same route as the one previously suggested.</td>
<td>Route calculations took priority conditions into consideration, but the same route was calculated.</td>
<td>This is not a malfunction.</td>
</tr>
<tr>
<td>A waypoint cannot be added.</td>
<td>Five waypoints are already set on the route, including ones that you have already passed.</td>
<td>A maximum of 5 waypoints can be set on the route. If you want to go to 6 or more waypoints, perform route calculations multiple times as necessary.</td>
</tr>
<tr>
<td>The suggested route is not displayed.</td>
<td>Roads near the destination cannot be calculated.</td>
<td>Reset the destination to a main or ordinary road, and recalculate the route.</td>
</tr>
<tr>
<td></td>
<td>The starting point and destination are too close.</td>
<td>Set a more distant destination.</td>
</tr>
<tr>
<td></td>
<td>The starting point and destination are too far away.</td>
<td>Divide your trip by selecting one or two intermediate destinations, and perform route calculations multiple times.</td>
</tr>
<tr>
<td></td>
<td>There are time restricted roads (by the day of the week, by time) near the current vehicle location or destination.</td>
<td>Set [Use Time Restricted Roads] to off.</td>
</tr>
<tr>
<td>The part of the route that you have already passed is deleted.</td>
<td>A route is managed by sections between waypoints. If you passed the first waypoint, the section between the starting point and the waypoint is deleted. (It may not be deleted depending on the area.)</td>
<td>This is not a malfunction.</td>
</tr>
<tr>
<td>An indirect route is suggested.</td>
<td>If there are restrictions (such as one-way streets) on roads close to the starting point or destination, the system may suggest an indirect route.</td>
<td>Adjust the location of the starting of the starting point or destination.</td>
</tr>
<tr>
<td></td>
<td>The system may suggest an indirect route because route calculation does not take into consideration some areas such as narrow streets (gray roads.)</td>
<td>Reset the destination to a main or ordinary road, and recalculate the route.</td>
</tr>
<tr>
<td>The landmark information does not correspond to the actual information.</td>
<td>This may be caused by insufficient or incorrect map data.</td>
<td>Updated information will be included in the next version of the data.</td>
</tr>
<tr>
<td>The suggested route does not exactly connect to the starting point, waypoints, or destination.</td>
<td>There is no data for route calculation closes to these locations.</td>
<td>Set the starting point, waypoints and destination on a main road, and perform route calculation.</td>
</tr>
</tbody>
</table>

RELATED TO VOICE GUIDANCE

Revision: November 2009
### NORMAL OPERATING CONDITION

#### < SYMPTOM DIAGNOSIS >

**[BOSE W/ COLOR W/ NAVI W/RR CTL]**

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible cause</th>
<th>Possible solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voice guidance is not available</td>
<td>Voice guidance is only available at certain intersections marked with? In some case, voice guidance is not available even when the vehicle should make a turn.</td>
<td>This is not a malfunction.</td>
</tr>
<tr>
<td></td>
<td>The vehicle has deviated from the suggested route.</td>
<td>Go back to the suggested route or request route calculation again.</td>
</tr>
<tr>
<td></td>
<td>Voice guide is set to off.</td>
<td>Turn on voice guidance.</td>
</tr>
<tr>
<td></td>
<td>Route guidance is set to off.</td>
<td>Turn on voice guidance.</td>
</tr>
<tr>
<td>The guidance contact does not correspond to the actual condition.</td>
<td>The contact of voice guidance may vary, depending on the types of intersections at which turn are made.</td>
<td>Follow all traffic rules and regulations.</td>
</tr>
</tbody>
</table>

#### RELATED TO TRAFFIC INFORMATION

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible cause</th>
<th>Possible solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>The traffic information is not displayed</td>
<td>The traffic information is not set to on.</td>
<td>Set the traffic information to on.</td>
</tr>
<tr>
<td></td>
<td>You are in an area where traffic information is not available</td>
<td>Scroll to an area where traffic information is available</td>
</tr>
<tr>
<td></td>
<td>You have not subscribed to XM NavTraffic or, your subscription to XM NavTraffic has expired.</td>
<td>Check your subscription status of XM NavTraffic.</td>
</tr>
<tr>
<td></td>
<td>The map scale is set at a level where the display of icons is impossible.</td>
<td>Check that the map scale is set at a level in which the display of icons is possible.</td>
</tr>
<tr>
<td>With the automatic detour route search ON, no detour route is set to avoid congested areas.</td>
<td>There is no faster route compared to the current route, based on the road network and traffic information.</td>
<td>The automatic detour search is not intended for avoiding traffic jams. It searches for the fastest route taking into consideration such things as traffic jams.</td>
</tr>
<tr>
<td>The route does not avoid road section with traffic information stating it is closed due to road construction.</td>
<td>The navigation system is designed not to avoid this event because the actual period of closure may differ from the declared roadwork period.</td>
<td>Observe the actual road condition and follow the instructions on road for detour when necessary. If the road closure is for certain, use detour function and set the detour distance to avoid the closed road section.</td>
</tr>
<tr>
<td>Traffic information displayed differs from information from other media (e.g. radio).</td>
<td>Other media may use different information sources.</td>
<td>Observe the actual road conditions and regulations. Always observe safe driving practices and follow all traffic regulations.</td>
</tr>
</tbody>
</table>

Revision: November 2009

AV-820

2010 Maxima
Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the SR and SB section of this Service Manual.

WARNING:
• To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
• Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SR section.
• Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

WARNING:
• When working near the Airbag Diagnosis Sensor Unit or other Airbag System sensors with the Ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
• When using air or electric power tools or hammers, always switch the Ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

Precautions Necessary for Steering Wheel Rotation after Battery Disconnect (Early Production, With Electronic Steering Column Lock)

NOTE:
• Before removing and installing any control units, first turn the push-button ignition switch to the LOCK position, then disconnect both battery cables.
• After finishing work, confirm that all control unit connectors are connected properly, then re-connect both battery cables.
• Always use CONSULT-III to perform self-diagnosis as a part of each function inspection after finishing work. If a DTC is detected, perform trouble diagnosis according to self-diagnosis results.
• This vehicle is equipped with a push-button ignition switch and a steering lock unit. If the battery is disconnected or discharged, the steering wheel will lock and cannot be turned.
• If turning the steering wheel is required with the battery disconnected or discharged, follow the procedure below before starting the repair operation.

OPERATION PROCEDURE
1. Connect both battery cables.
   NOTE:
   Supply power using jumper cables if battery is discharged.
2. Carry the Intelligent Key or insert it to the key slot and turn the push-button ignition switch to ACC position.
   (At this time, the steering lock will be released.)
3. Disconnect both battery cables. The steering lock will remain released with both battery cables disconnected and the steering wheel can be turned.
4. Perform the necessary repair operation.
5. When the repair work is completed, re-connect both battery cables. With the brake pedal released, turn the push-button ignition switch from ACC position to ON position, then to LOCK position. (The steering wheel will lock when the push-button ignition switch is turned to LOCK position.)

6. Perform self-diagnosis check of all control units using CONSULT-III.

Precaution for Trouble Diagnosis

AV COMMUNICATION SYSTEM
• Do not apply voltage of 7.0 V or higher to the measurement terminals.
• Use the tester with its open terminal voltage being 7.0 V or less.
• Be sure to turn ignition switch OFF and disconnect the battery cable from the negative terminal before checking the circuit.

Precaution for Harness Repair

AV COMMUNICATION SYSTEM
• Solder the repaired parts, and wrap with tape. [Frays of twisted line must be within 110 mm (4.33 in).]

• Do not perform bypass wire connections for the repair parts. (The spliced wire will become separated and the characteristics of twisted line will be lost.)
# Commercial Service Tools

<table>
<thead>
<tr>
<th>Tool name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power tool</td>
<td>Loosening bolts and nuts</td>
</tr>
</tbody>
</table>

![Power tool image](PBID0191E)
ON-VEHICLE REPAIR
AV CONTROL UNIT
Removal and Installation

1. Audio unit
2. Audio unit bracket LH
3. Audio unit bracket RH
4. A/C auto amp.
5. Cluster lid C (with A/C and AV switch assembly attached)

AUDIO UNIT

Removal
1. Disconnect the battery negative terminal.
2. Remove the cluster lid D. Refer to IP-12, "Removal and Installation".
3. Remove the cluster lid C. Refer to IP-11, "Exploded View".
4. Remove the audio unit screws (A), then pull out the audio unit (1), disconnect the audio unit connectors and remove the audio unit (1).

Installation

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AV-824
AV CONTROL UNIT

< ON-VEHICLE REPAIR >

A/C AND AV SWITCH ASSEMBLY

Removal
1. Disconnect the battery negative terminal.
2. Remove the cluster lid D. Refer to IP-12, "Removal and Installation".
3. Remove the cluster lid C. Refer to IP-11, "Exploded View".
4. Remove the A/C and AV switch assembly screws (A), then pull out the A/C and AV switch assembly (1) from cluster lid C.

Installation
Installation is in the reverse order of removal.
MULTIFUNCTION SWITCH

REMoval

1. Remove cluster lid D. Refer to IP-11, "Exploded View".
2. Remove the four multifunction switch screws (A) and remove the multifunction switch (2) from cluster lid D (1).
   • metal clip

Installation

Installation is in the reverse order of removal.
Removal and Installation

1. Remove the cluster lid D. Refer to IP-12, "Removal and Installation".

2. Remove the audio display unit bracket screws (A), then pull out the audio display unit and bracket assembly (1), disconnect the audio display unit connectors and remove the audio display unit and bracket assembly (1).
3. Remove the audio display unit screws on the sides and remove the audio display unit from the audio display unit brackets.

INSTALLATION
Installation is in the reverse order of removal.
Removal and Installation

REMOVAL
1. Remove the center console assembly. Refer to IP-16, "Removal and Installation".
2. Push the pawl from the back of the center console to remove the USB connector (1).

INSTALLATION
Installation is in the reverse order of removal.
AUXILIARY INPUT JACKS

Removal and Installation

REMOVAL
1. Remove the center console. Refer to IP-16, "Removal and Installation".
2. Remove the center console bin box.
3. Remove the auxiliary input jacks screws (A), then remove the auxiliary input jacks (1).

INSTALLATION
Installation is in the reverse order of removal.
FRONT TWEETER

Removal and Installation

REMOVAL
1. Remove front tweeter speaker grille. Refer to IP-12, "Removal and Installation".
2. Remove the front tweeter speaker screws (A), then pull out the front tweeter speaker (1), disconnect the front tweeter speaker connector and remove the front tweeter speaker (1).

INSTALLATION
Installation is in the reverse order of removal.
CENTER SPEAKER

Removal and Installation

REMOVAL
1. Remove the center speaker grille. Refer to IP-12, "Removal and Installation".
2. Remove the center speaker screws (A), then pull out the center speaker (1), then disconnect the center speaker connector and remove the center speaker (1).

INSTALLATION
Installation is in the reverse order of removal.
FRONT DOOR SPEAKER

Removal and Installation

REMOVAL
1. Remove the front door finisher. Refer to INT-18, "Removal and Installation".
2. Remove the front door speaker screws (A), then disconnect the front door speaker connector and remove the front door speaker (1).
3. Remove the front door speaker spacer screws (B) and remove the front door speaker spacer (2).

INSTALLATION
Installation is in the reverse order of removal.
REAR DOOR SPEAKER

Removal and Installation

REMOVAL

1. Remove the rear door finisher. Refer to INT-21, "Removal and Installation".

2. Remove the rear door speaker screws (A), then disconnect the rear door speaker connector (B) and remove the rear door speaker (1).

INSTALLATION

Installation is in the reverse order of removal.
Removal and Installation

1. Remove the rear parcel shelf finisher. Refer to INT-26, "Removal and Installation".
2. Remove the subwoofer screws, then pull out the subwoofer, disconnect the subwoofer connector and remove the subwoofer.

INSTALLATION
Installation is in the reverse order of removal.
BOSE SPEAKER AMP

Removal and Installation

INFOID:0000000005522963

1. Bose speaker amp.  A. Screws

REMOVAL
1. Disconnect the battery negative terminal.
2. Remove the rear parcel shelf. Refer to INT-26, "Removal and Installation".
3. Remove the Bose speaker amp. screws.
4. Remove the trunk upper finisher. Refer to INT-35, "Exploded View".
5. Disconnect the Bose speaker amp. connectors and remove the Bose speaker amp.

INSTALLATION
Installation is in the reverse order of removal.
SATellite Radio Antenna

Removal and Installation

Removal

1. Lower the headliner at the rear. Refer to INT-32, "Exploded View".
2. Disconnect the satellite radio antenna connector (A), then remove the satellite radio antenna nut (B) and remove the satellite radio antenna (1).

Installation

Installation is in the reverse order of removal.
GPS ANTENNA

< ON-VEHICLE REPAIR >

GPS ANTENNA

Removal and Installation

INFOID:0000000005522965

REMOVAL

1. Remove cluster lid A. Refer to IP-11, "Exploded View".
2. Remove the audio unit. Refer to AV-824, "Removal and Installation".
3. Remove the GPS antenna screw (A).
   • GPS antenna (1)

4. Detach the GPS antenna cable clip (A), then fish the GPS antenna connector and harness (1), through the cluster lid A instrument panel opening and remove the GPS antenna.

INSTALLATION

Installation is in the reverse order of removal.
Removal and Installation

REMOVAL
1. Remove the driver airbag module. Refer to SR-5, "Removal and Installation".
2. Remove the steering wheel switch assembly screws (A), then detach the steering wheel switch harness clips (B) and remove the steering wheel switches (1).

INSTALLATION
Installation is in the reverse order of removal.
Location of Antenna

1. AV control unit  
2. AV control unit antenna feeder  
3. In-line connectors M103, M501  
4. Antenna amp.  
5. Window antenna  
6. Satellite radio antenna feeder  
7. Satellite radio antenna

Window Antenna Repair

ELEMENT CHECK

1. Attach probe circuit tester (ohm setting) to antenna terminal on each side.

- When measuring continuity, wrap tin foil around the top of probe. Then, press the foil against the wire with your finger.
2. If an element is broken, no continuity will exist.

3. To locate a break, move probe along element. Tester indication will change abruptly when probe passes the broken point.

**REPAIR EQUIPMENT**
- Conductive silver composition (DuPont No. 4817 or equivalent)
- Ruler 30 cm (11.8 in) long
- Drawing pen
- Heat gun
- Alcohol
- Cloth

**REPAIRING PROCEDURE**
1. Wipe broken heat wire and its surrounding area clean with a cloth dampened in alcohol.
2. Apply a small amount of conductive silver composition to tip of drawing pen.  
   **NOTE:**  
   Shake silver composition container before use.
3. Place ruler on glass along broken line. Deposit conductive silver composition on break with drawing pen. Slightly overlap existing heat wire on both sides [preferably 5 mm (0.20 in)] of the break.
4. After repair has been completed, check repaired wire for continuity. This check should be conducted 10 minutes after silver composition is deposited. Do not touch repaired area while test is being conducted.

5. Apply a constant stream of hot air directly to the repaired area for approximately 20 minutes with a heat gun. A minimum distance of 3 cm (1.2 in) should be kept between repaired area and hot air outlet. If a heat gun is not available, let the repaired area dry for 24 hours.
Removal and Installation

REMOVAL
1. Remove the rear pillar finisher RH. Refer to INT-23, "Exploded View".
2. Detach the antenna amp. harness clip (A), disconnect the antenna amp. connectors (B), remove the antenna amp. screw (C) and remove the antenna amp. (1).

INSTALLATION
Installation is in the reverse order of removal.
REAR AUDIO REMOTE CONTROL UNIT

Removal and Installation

REMOVAL

1. Carefully remove the rear audio remote control unit finisher (1) from the rear center arm rest.
   • Metal clip
   CAUTION:
   Wrap removal tool with clean shop cloth to prevent damage to the rear audio remote control finisher.

2. Detach the rear audio remote control unit (1), then disconnect the rear audio remote control unit connector and remove the rear audio remote control unit (1).

INSTALLATION

Installation is in the reverse order of removal.
Removal and Installation

REMOVAL
1. Remove the map lamp assembly. Refer to INL-97, "Removal and Installation".
2. Detach the microphone connector (A).
3. Remove the map lamp covers (1), then remove the map lamp assembly cover (2).
4. Release the microphone tabs (A), then remove the microphone (1).

INSTALLATION
Installation is in the reverse order of removal.
REAR VIEW CAMERA

Removal and Installation

REMOVAL
1. Remove the license plate finisher. Refer to EXL-177, "Removal and Installation".
2. Remove trunk lid finisher. Refer to INT-35, "Exploded View".
3. Disconnect the rear view camera connector (B), press the rear view camera tab (A) and remove the rear view camera (1).

INSTALLATION
Installation is in the reverse order of removal.

Adjustment

REAR VIEW CAMERA
For adjustment on the rear view camera, refer to DLK-9, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement".