

# SECTION AV

## AUDIO, VISUAL & NAVIGATION SYSTEM

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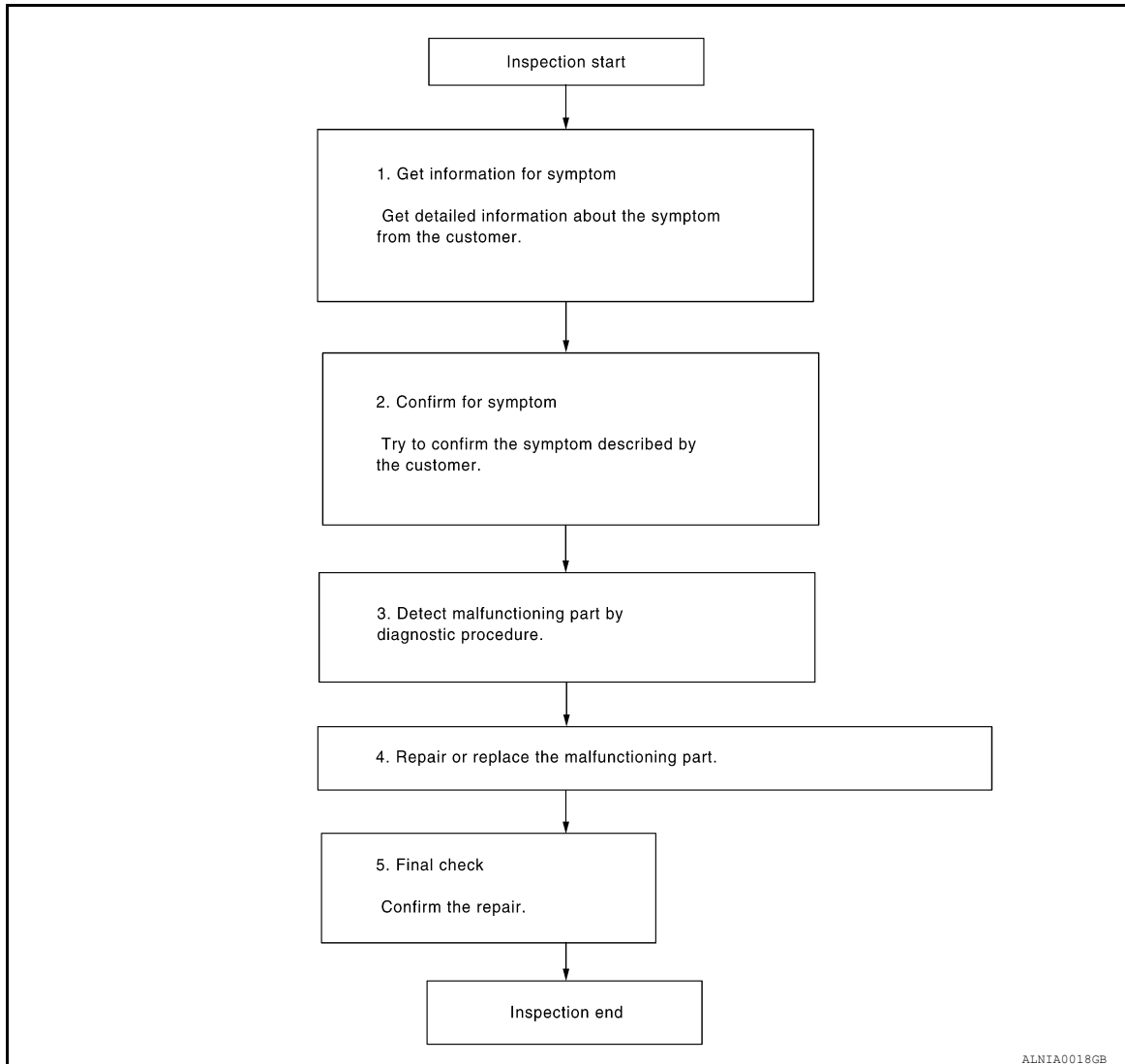
## BASIC INSPECTION

### DIAGNOSIS AND REPAIR WORKFLOW

#### Work Flow

INFOID:000000006389933

#### OVERALL SEQUENCE



#### 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.

## DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[BASE AUDIO]

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

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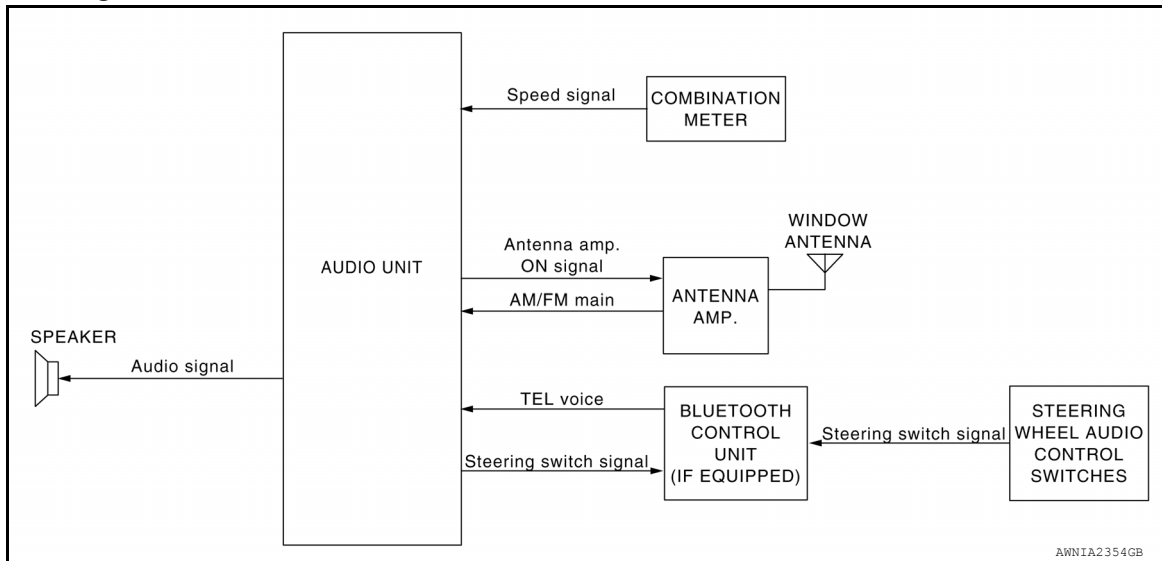
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## SYSTEM DESCRIPTION

### AUDIO SYSTEM

#### System Diagram



#### System Description

INFOID:000000006389935

**NOTE:**

Base audio system applies to sedan vehicle only.

#### AUDIO SYSTEM

The audio system consists of the following components

- Audio unit
- Window antenna
- Antenna amp.
- Steering wheel audio control switches (with Bluetooth)
- Front door speakers
- Tweeters
- Rear speakers

When the audio system is on, radio signals are received by the window antenna. These signals are amplified by the antenna amp. before reaching the audio unit. The audio unit then sends audio signals to the front door speakers, front tweeters and rear speakers.

Refer to Owner's Manual for audio 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.

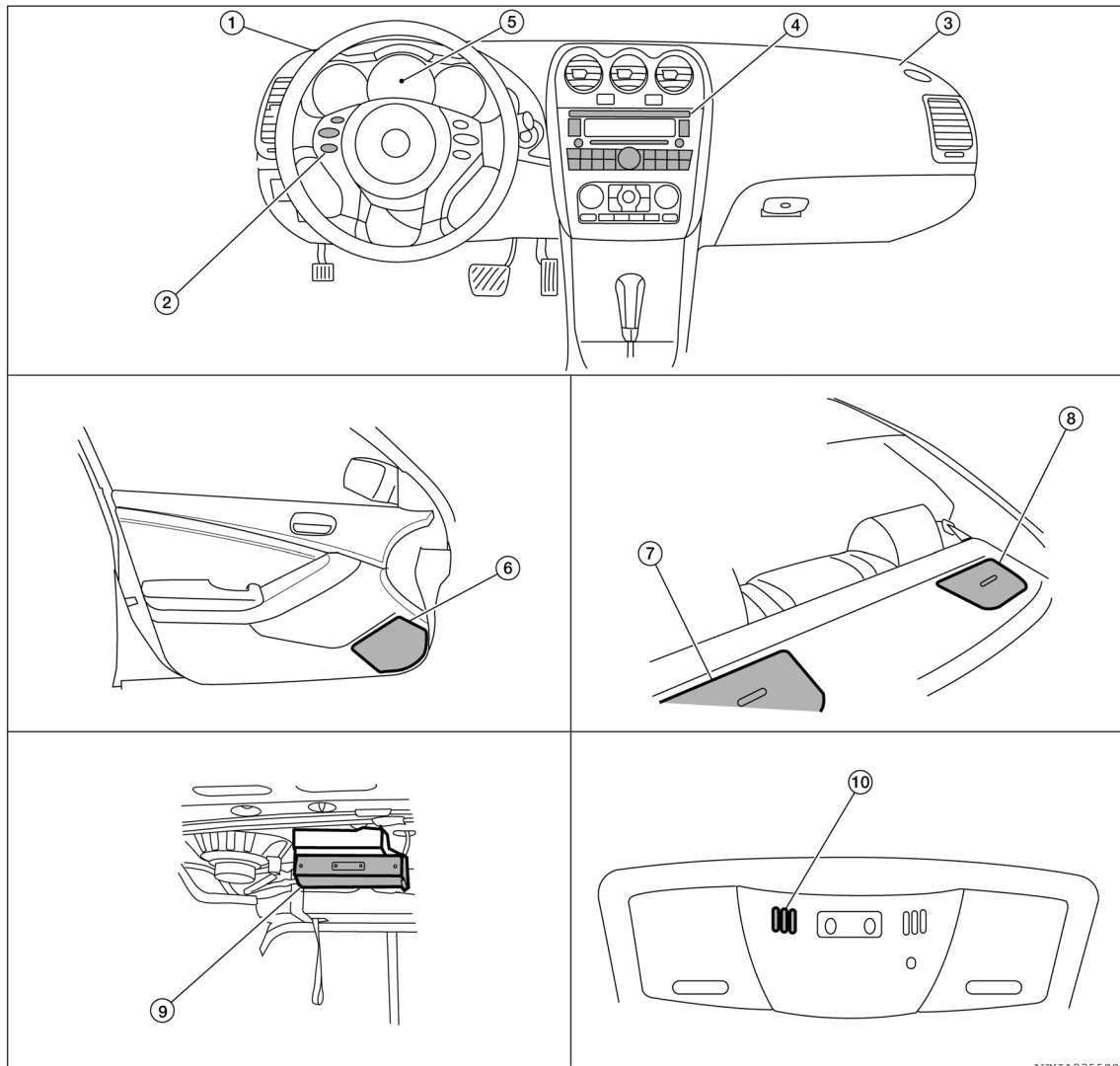
# AUDIO SYSTEM

< SYSTEM DESCRIPTION >

[BASE AUDIO]

## Component Parts Location

INFOID:000000006389936



- |                                    |   |   |
|------------------------------------|---|---|
| 1. Tweeter LH M51                  | 2. Steering wheel audio control switches (with bluetooth) | 3. Tweeter RH M52                                     |
| 4. Audio unit M43, M44, M45, M81   | 5. Combination meter M24                                  | 6. Front door speaker LH D3 RH D103                   |
| 7. Rear speaker LH B26             | 8. Rear speaker RH B44                                    | 9. Bluetooth control unit B126, B132 (with Bluetooth) |
| 10. Microphone R7 (with Bluetooth) |   |   |

## Component Description

INFOID:000000006389937

Part name	Description
Audio unit	Controls audio system and satellite radio system functions
Steering wheel audio control switches (with Bluetooth)	<ul style="list-style-type: none"> <li>Each audio operation can be operated</li> <li>Steering wheel audio control switch signal (operation signal) is output to Bluetooth control unit</li> </ul>
Front door speakers	<ul style="list-style-type: none"> <li>Outputs audio signal from audio unit</li> <li>Outputs high, mid and low range sounds</li> </ul>

## AUDIO SYSTEM

< SYSTEM DESCRIPTION >

[BASE AUDIO]

Part name	Description
Tweeters	<ul style="list-style-type: none"><li>• Outputs audio signal from audio unit</li><li>• Outputs high range sounds</li></ul>
Rear speakers	<ul style="list-style-type: none"><li>• Outputs audio signal from audio unit</li><li>• Outputs high, mid and low range sounds</li></ul>
Antenna amp.	<ul style="list-style-type: none"><li>• Radio signal received by glass antenna is amplified and sent to audio unit</li><li>• Power (antenna amp ON signal) is supplied from audio unit</li></ul>



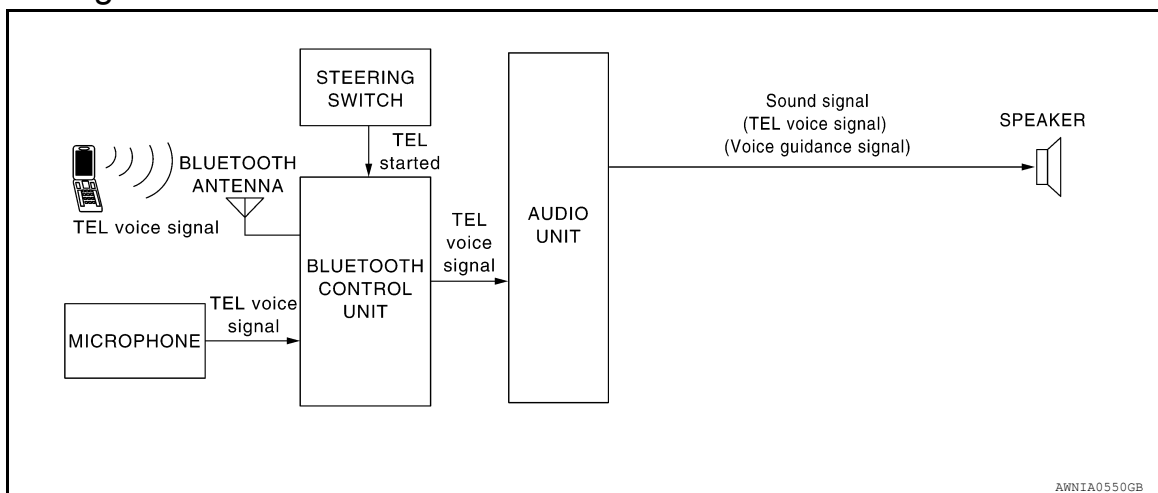
# HANDS-FREE PHONE SYSTEM

< SYSTEM DESCRIPTION >

[BASE AUDIO]

## HANDS-FREE PHONE SYSTEM

### System Diagram



### System Description

INFOID:000000006389939

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.

#### 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
- Record memos

#### 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.

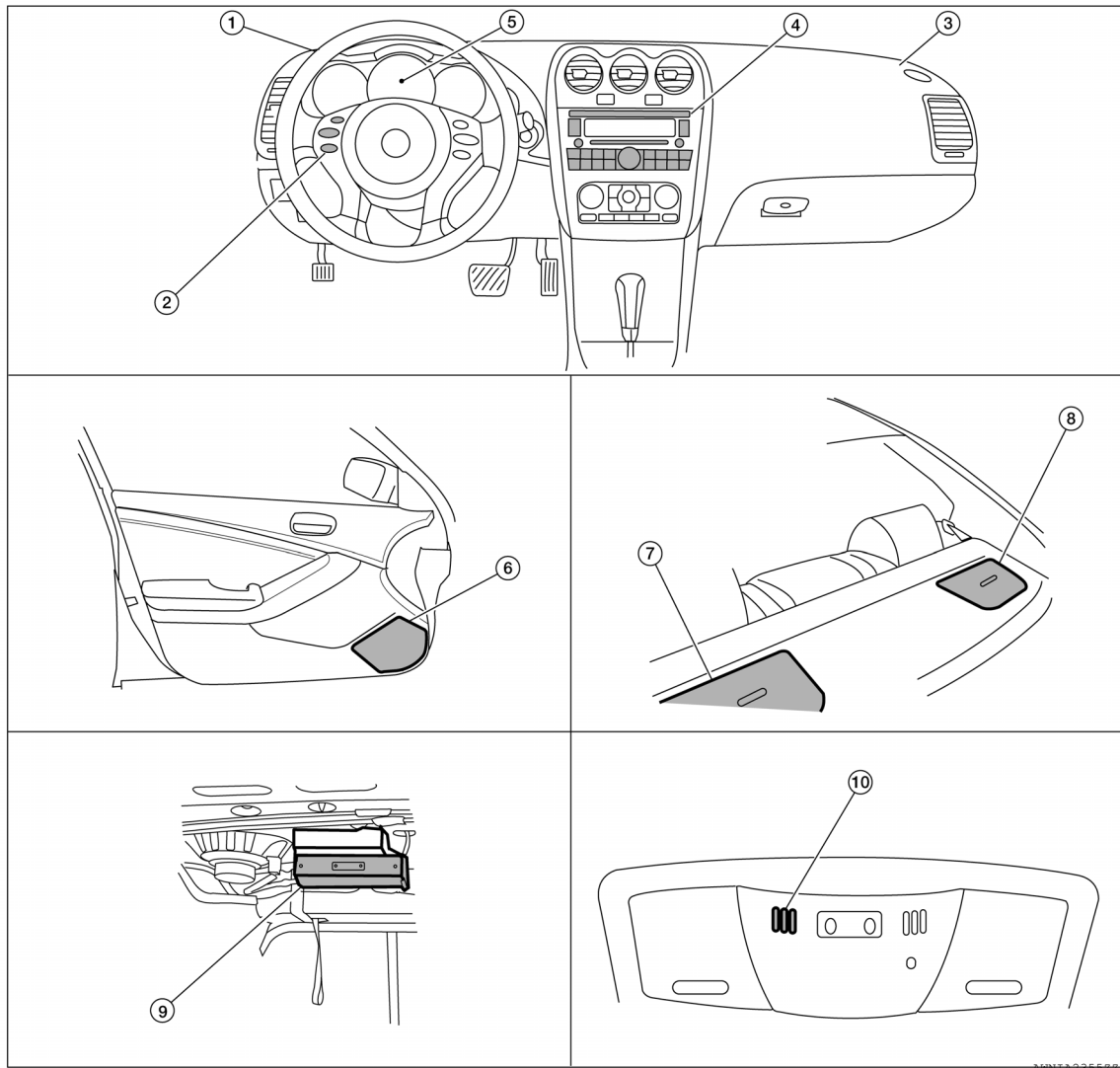
# HANDS-FREE PHONE SYSTEM

< SYSTEM DESCRIPTION >

[BASE AUDIO]

## Component Parts Location

INFOID:000000006928541



- |                                    |   |   |
|------------------------------------|---|---|
| 1. Tweeter LH M51                  | 2. Steering wheel audio control switches (with bluetooth) | 3. Tweeter RH M52                                     |
| 4. Audio unit M43, M44, M45, M81   | 5. Combination meter M24                                  | 6. Front door speaker LH D3, RH D103                  |
| 7. Rear speaker LH B26             | 8. Rear speaker RH B44                                    | 9. Bluetooth control unit B126, B132 (with Bluetooth) |
| 10. Microphone R7 (with Bluetooth) |   |   |

## Component Description

INFOID:000000006389941

Part name	Description
Audio unit	<ul style="list-style-type: none"> <li>Receives telephone voice signal from Bluetooth control unit</li> <li>Sends telephone voice and voice guidance signals to speakers.</li> </ul>
Front door speaker	Receives telephone voice and voice guidance signals from audio unit.
Tweeter	
Steering wheel audio control switches	<ul style="list-style-type: none"> <li>Start a voice recognition session</li> <li>Answer and end telephone calls</li> <li>Adjust the volume level</li> </ul>

## HANDS-FREE PHONE SYSTEM

< SYSTEM DESCRIPTION >

[BASE AUDIO]

Part name	Description
Microphone	Sends voice signals to Bluetooth control unit
Bluetooth control unit	Controls hands-free phone functions
Bluetooth antenna	Sends telephone voice signal to bluetooth control unit

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## DIAGNOSIS SYSTEM (AUDIO UNIT)

### Diagnosis Description

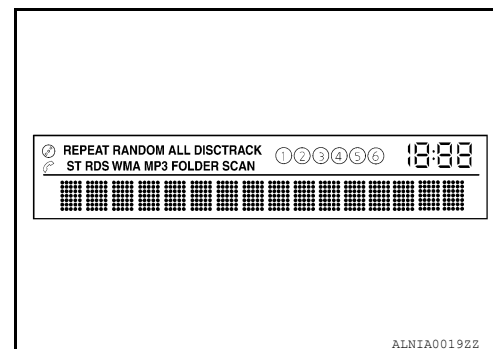
INFOID:000000006389942

Self-diagnosis mode can check the following items.

- Audio unit hardware/software versions
- Continuity of each speaker channel
- Continuity of each audio unit switch

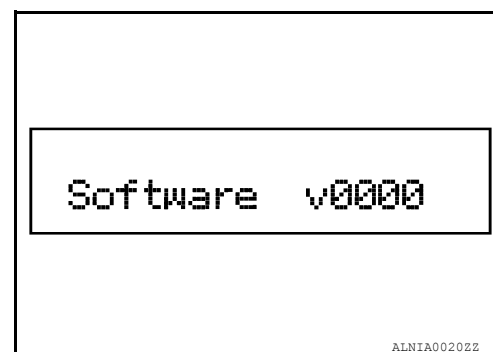
### OPERATION PROCEDURE

1. Turn ignition switch to the ACC position.
2. Turn the audio unit off.
3. While pressing the “AUDIO” button, turn the volume control dial clockwise or counterclockwise 30 clicks or more. When the self-diagnosis mode is started, a short beep will be heard.
4. Initially, all display segments will be illuminated.



### Version Check

1. Press the “AUDIO” switch to enter version diagnostics. “Software” (audio software version) is displayed.



2. Press the “AUDIO” switch again to display the “Hardware” (audio hardware version).



## DIAGNOSIS SYSTEM (AUDIO UNIT)

### < SYSTEM DESCRIPTION >

[BASE AUDIO]

3. Press the "AUDIO" switch again to display the "CD Mech" (CD mechanism version).



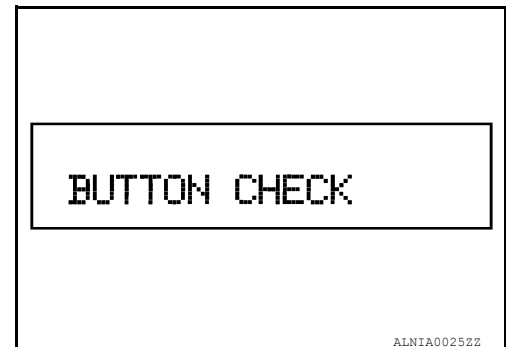
#### Channel Check Diagnostics

When all segments are illuminated, press the "TUNE" up switch to enter channel check diagnostics. The self-diagnostic function will then send a tone to each channel (FL, RL, RR, FR) for 1 second.



#### Button Check Diagnostics

When all segments are illuminated, press the "TUNE" down switch to enter button check diagnostics. When each audio unit switch is pressed, a tone will sound and the switch name will be displayed.



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## DIAGNOSIS SYSTEM (BLUETOOTH CONTROL UNIT)

### Diagnosis Description

INFOID:000000006389943

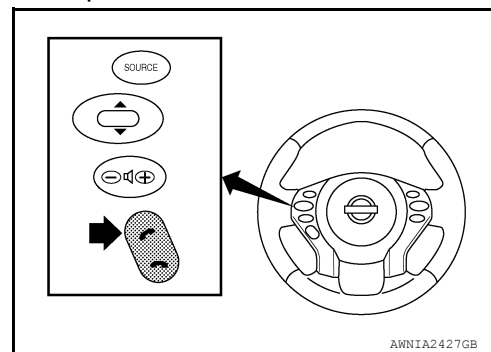
The Bluetooth control unit has two diagnostic checks. The first diagnostic check is performed automatically every ignition cycle during control unit initialization. The second diagnostic check is performed by the technician using the steering wheel audio control switches prior to trouble diagnosis.

### BLUETOOTH CONTROL UNIT INITIALIZATION CHECKS

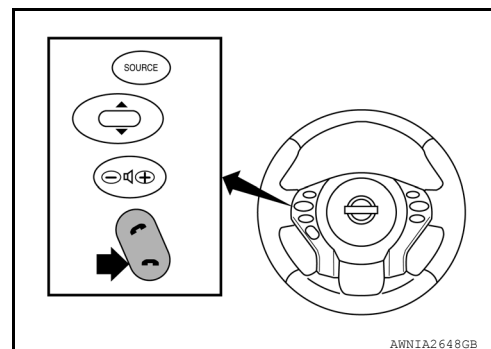
- Internal control unit failure
- Bluetooth antenna connection open or shorted
- Steering wheel audio control switches [☎ (PHONE/SEND), ☎ (PHONE/END)] stuck closed
- Vehicle speed pulse count
- Microphone connection test (with playback to operator)
- Bluetooth inquiry check

### 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 switches ☎ (PHONE/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 switches ☎ (PHONE/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 switches ☎ (PHONE/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-18, "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-18, "Work Flow"](#).
8. Self-diagnosis mode is complete when the voice prompt says "All diagnostic functions completed".



### Work Flow

INFOID:000000006389944

Failure Message	Action
"Internal failure"	Replace Bluetooth control unit. Refer to <a href="#">AV-62, "Removal and Installation"</a> .
"Bluetooth antenna open"	<ol style="list-style-type: none"> <li>1. Inspect harness connection.</li> <li>2. Replace Bluetooth antenna. Refer to <a href="#">AV-61, "Removal and Installation"</a>.</li> </ol>
"Bluetooth antenna shorted"	
"Phone/Send for Hands Free System is stuck"	Check steering wheel audio control switches. Refer to <a href="#">AV-28, "Diagnosis Procedure"</a> .
"Phone/End for the Hands Free System is stuck"	
"Microphone test" (failed interactive test)	<ol style="list-style-type: none"> <li>1. Inspect harness between Bluetooth control unit and microphone.</li> <li>2. Replace microphone. Refer to <a href="#">AV-60, "Removal and Installation"</a>.</li> </ol>

**DTC/CIRCUIT DIAGNOSIS****POWER SUPPLY AND GROUND CIRCUIT  
AUDIO UNIT****AUDIO UNIT : Diagnosis Procedure**

INFOID:000000006389945

Regarding Wiring Diagram information, refer to [AV-36, "Wiring Diagram"](#).

**1.CHECK FUSES**

Check that the following fuses are not blown.

Unit	Terminals	Signal name	Fuse No.
Audio unit	19	Battery power	24
	7	Ignition switch ACC or ON	19

**Is there a blown fuse?**

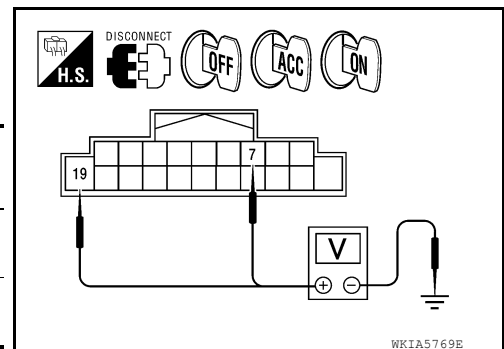
YES >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse.

NO >> GO TO 2

**2.POWER SUPPLY CIRCUIT CHECK**

1. Disconnect audio unit connector M43.
2. Check voltage between the audio unit connector M43 and ground.

(+)		(-)	OFF	ACC	ON
Connector	Terminal				
M43	19	Ground	Battery voltage	Battery voltage	Battery voltage
	7	Ground	0V	Battery voltage	Battery voltage

**Are 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**

Inspect audio unit case ground.

**Does case ground exist?**

YES >> Inspection End.

NO >> Repair audio unit case ground.

**BLUETOOTH CONTROL UNIT****BLUETOOTH CONTROL UNIT : Diagnosis Procedure**

INFOID:000000006389946

Regarding Wiring Diagram information, refer to [AV-36, "Wiring Diagram"](#).

**1.CHECK FUSE**

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

# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[BASE AUDIO]

Unit	Terminals	Signal name	Fuse No.
Bluetooth control unit	1	Battery power	24
	2	Ignition switch ACC or ON	19
	3	Ignition switch ON or START	3

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.

(+)		(-)	Ignition switch position	Value (Approx.)
Connector	Terminal			
B126	1	Ground	OFF	Battery voltage
	2		ACC	
	3		ON	

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.

(+)		(-)	Continuity
Connector	Terminal		
B126	4	Ground	Yes

Does continuity exist?

YES >> Inspection End.

NO >> Repair harness or connector.

## MICROPHONE

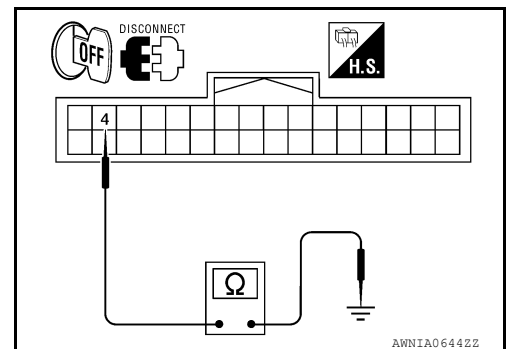
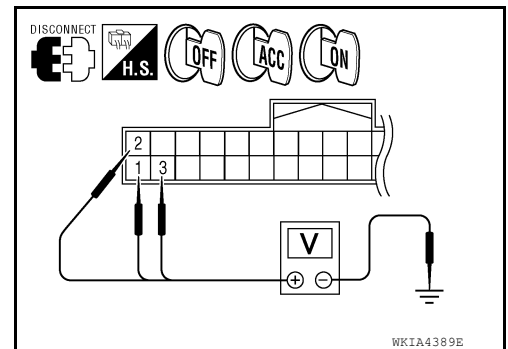
### MICROPHONE : Diagnosis Procedure

INFOID:000000006389948

Regarding Wiring Diagram information, refer to [AV-36, "Wiring Diagram"](#).

## 1.CHECK POWER SUPPLY CIRCUIT (MICROPHONE SIDE)

1. Turn ignition switch ON.





# POWER SUPPLY AND GROUND CIRCUIT

## < DTC/CIRCUIT DIAGNOSIS >

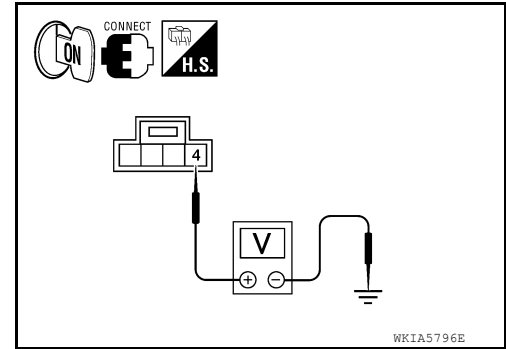
[BASE AUDIO]

- Check voltage between microphone harness connector R7 terminal 4 and ground.

Connector	Terminal	—	Ignition switch position	Value (Approx.)
R7	4	Ground	ON	5V

Is approximately 5V present?

- YES >> GO TO 3  
NO >> GO TO 2



## 2.CHECK POWER SUPPLY CIRCUIT (CONTINUITY)

- Turn ignition switch OFF.
- Disconnect microphone and Bluetooth control unit harness connectors.
- Check continuity between microphone harness connector R7 (A) terminal 4 and Bluetooth control unit harness connector B126 (B) terminal 29.

A		B		Continuity
Connector	Terminal	Connector	Terminal	
R7	4	B126	29	Yes

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

A		—	Continuity
Connector	Terminal		
R7	4	Ground	No

Are the continuity results as specified?

- YES >> Replace the Bluetooth control unit. Refer to [AV-62. "Removal and Installation"](#).  
NO >> Repair harness or connector.

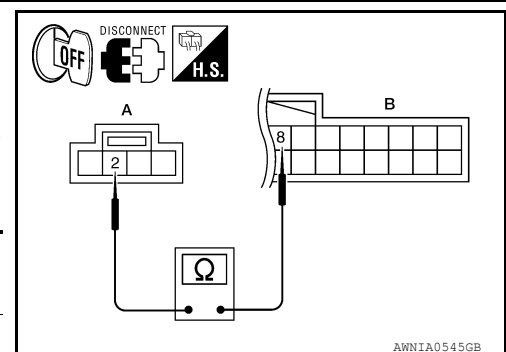
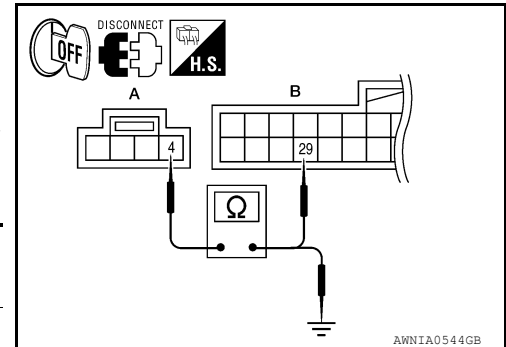
## 3.CHECK GROUND CIRCUIT

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

A		B		Continuity
Connector	Terminal	Connector	Terminal	
R7	2	B126	8	Yes

Does continuity exist?

- YES >> Inspection End.  
NO >> Repair harness or connector.



# FRONT DOOR SPEAKER

< DTC/CIRCUIT DIAGNOSIS >

[BASE AUDIO]

## FRONT DOOR SPEAKER

### Description

INFOID:000000006389949

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

### Diagnosis Procedure

INFOID:000000006389950

Regarding Wiring Diagram information, refer to [AV-36, "Wiring Diagram"](#).

## 1.CONNECTOR CHECK

Check the audio unit and speaker connectors for the following:

- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair the terminal and connector.

## 2.HARNESS CHECK

1. Disconnect audio unit connector M43 (A) and suspect speaker connector (B).
2. Check continuity between audio unit harness connector M43 (A) terminal and suspect speaker harness connector (B) terminal.

A		B		Continuity
Connector	Terminal	Connector	Terminal	
M43	2	D3	1	Yes
	3		2	
	11	D103	1	
	12		2	

3. Check continuity between audio unit harness connector M43 (A) terminal and ground.

A		—	Continuity
Connector	Terminal		
M43	2	Ground	No
	3		
	11		
	12		

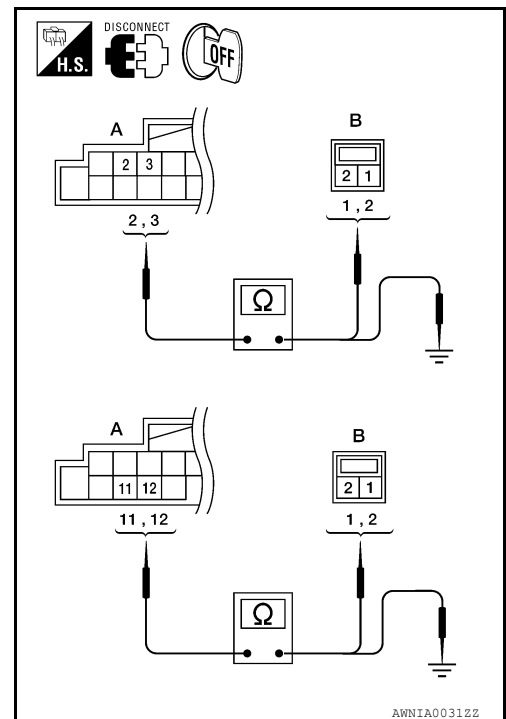
Are continuity results as specified?

YES >> GO TO 3

NO >> Repair harness or connector.

## 3.FRONT SPEAKER SIGNAL CHECK

1. Connect audio unit connector and front speaker connector.
2. Turn ignition switch to ACC.
3. Push audio unit "POWER" switch.

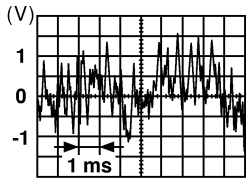


# FRONT DOOR SPEAKER

## < DTC/CIRCUIT DIAGNOSIS >

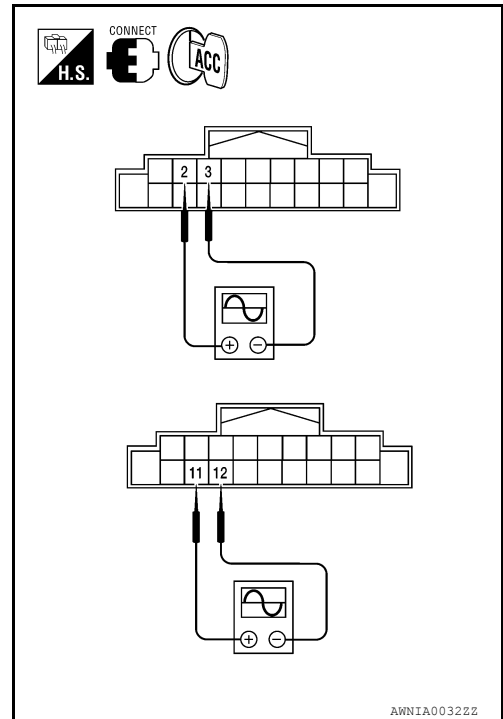
[BASE AUDIO]

- Check the signal between audio unit harness connector terminals with CONSULT or oscilloscope.

(+) (+)		(-) (-)	Condition	Reference signal
Connector	Terminal	Terminal		
M43	2	3	Receive audio signal	
	11	12		

Are voltage readings as specified?

- YES >> Replace speaker. Refer to [AV-53, "Removal and Installation"](#).
- NO >> Replace audio unit. Refer to [AV-51, "Removal and Installation"](#).



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## TWEETER

### Description

INFOID:000000006389951

The audio unit sends audio signals to the tweeters using the tweeter circuits.

### Diagnosis Procedure

INFOID:000000006389952

Regarding Wiring Diagram information, refer to [AV-36, "Wiring Diagram"](#).

### 1.CONNECTOR CHECK

Check the audio unit and speaker connectors for the following:

- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair the terminal and connector.

### 2.HARNESS CHECK

1. Disconnect audio unit connector M43 (A) and suspect tweeter connector (B).
2. Check continuity between audio unit harness connector M43 (A) and suspect tweeter harness connector (B).

A		B		Continuity
Connector	Terminal	Connector	Terminal	
M43	2	M51	1	Yes
	3		2	
	11	M52	1	
	12		2	

3. Check continuity between audio unit harness connector M43 (A) and ground.

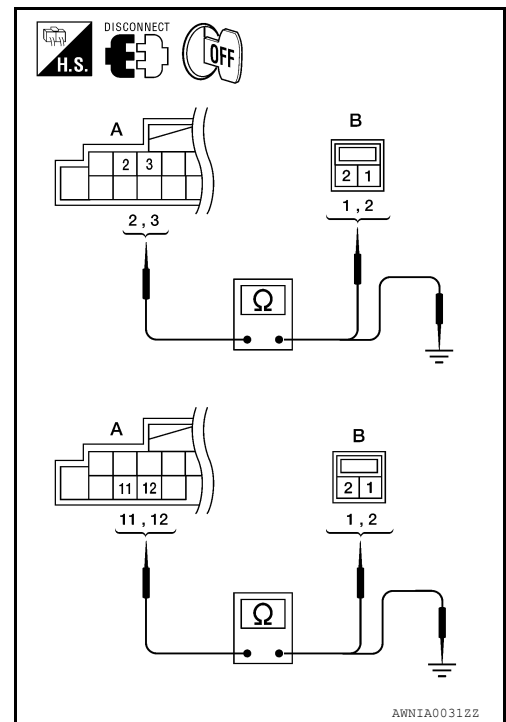
A		—	Continuity
Connector	Terminal		
M43	2	Ground	No
	3		
	11		
	12		

Are continuity results as specified?

YES >> GO TO 3

NO >> Repair harness or connector.

### 3.TWEETER SIGNAL CHECK



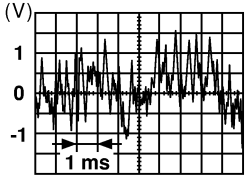
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# TWEETER

## < DTC/CIRCUIT DIAGNOSIS >

[BASE AUDIO]

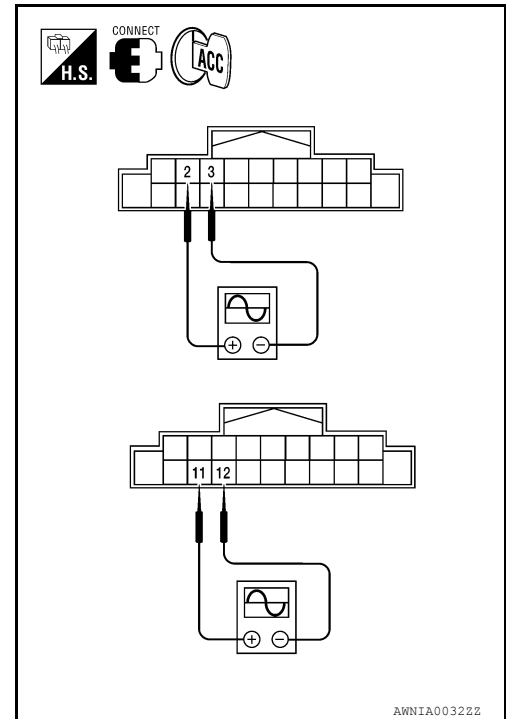
1. Connect audio unit connector and tweeter connector.
2. Turn ignition switch to ACC.
3. Push audio unit "POWER" switch.
4. Check the signal between audio unit harness connector terminals with CONSULT or oscilloscope.

(+) Connector		(-) Terminal	Condition	Reference signal
Connector	Terminal	Terminal		
M43	2	3	Receive audio signal	 SKIA0177E
	11	12		

Are voltage readings as specified?

YES >> Replace tweeter. Refer to [AV-53, "Removal and Installation"](#).

NO >> Replace audio unit. Refer to [AV-51, "Removal and Installation"](#).



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## REAR SPEAKER

### Description

INFOID:000000006389953

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

### Diagnosis Procedure

INFOID:000000006389954

Regarding Wiring Diagram information, refer to [AV-36, "Wiring Diagram"](#).

### 1.CONNECTOR CHECK

Check the audio unit and speaker connectors for the following:

- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair the terminal and connector.

### 2.HARNESS CHECK

1. Disconnect audio unit connector M43 (A) and suspect speaker connector.
2. Check continuity between audio unit harness connector M43 (A) and suspect speaker harness connector (B).

A		B		Continuity
Connector	Terminal	Connector	Terminal	
M43	4	B26	1	Yes
	5		2	
	13	B44	1	
	14		2	

3. Check continuity between audio unit harness connector M43 (A) and ground.

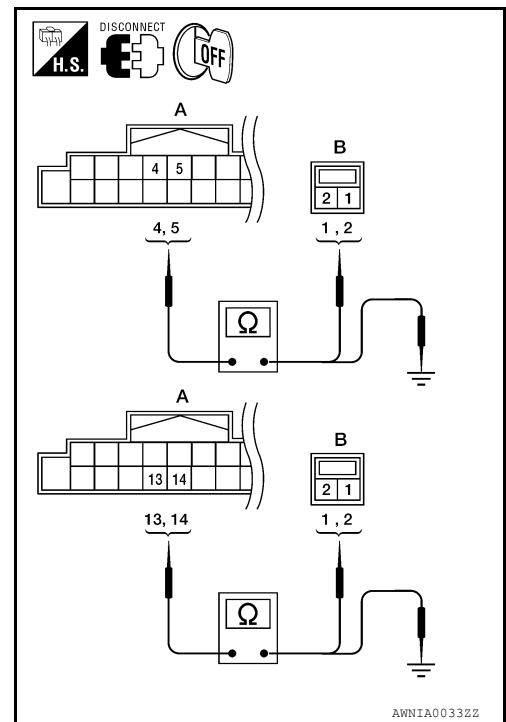
A		—	Continuity
Connector	Terminal		
M43	4	Ground	No
	5		
	13		
	14		

Are continuity results as specified?

YES >> GO TO 3

NO >> Repair harness or connector.

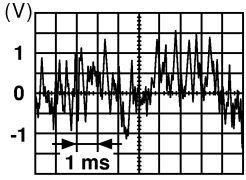
### 3.REAR SPEAKER SIGNAL CHECK



REAR SPEAKER

< DTC/CIRCUIT DIAGNOSIS >

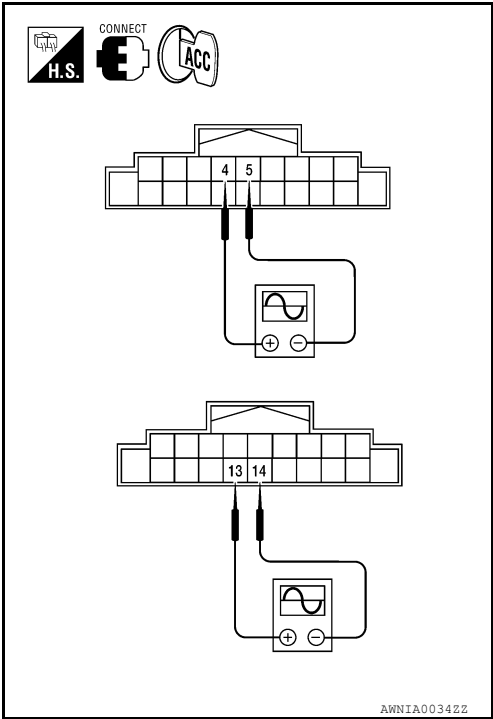
- 1. Connect audio unit connector and rear speaker connector.
- 2. Turn ignition switch to ACC.
- 3. Push audio unit "POWER" switch.
- 4. Check the signal between audio unit harness connector terminals with CONSULT or oscilloscope.

(+) Connector		(-) Terminal	Condition	Reference signal
Terminal		Terminal		
M43	4	5	Receive audio signal	
	13	14		

Are voltage readings as specified?

- YES >> Replace rear speaker. Refer to [AV-54. "Removal and Installation"](#).
- NO >> Replace audio unit. Refer to [AV-51. "Removal and Installation"](#).

[BASE AUDIO]



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# STEERING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[BASE AUDIO]

## STEERING SWITCH

### Description

INFOID:000000006389955

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

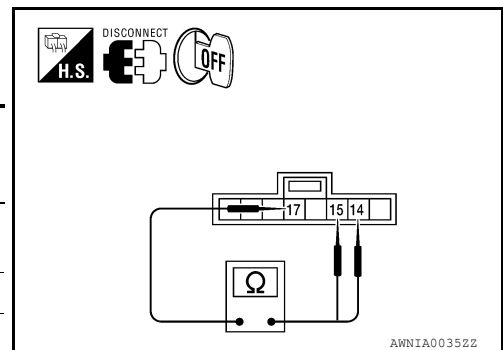
INFOID:000000006389956

Regarding Wiring Diagram information, refer to [AV-36, "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.

Terminal		Signal name	Condition	Resistance (Ω) (Approx.)
15	17	Volume (down)	Depress VOL DOWN switch.	1
		Volume (up)	Depress VOL UP switch.	110
		Phone/send	Depress  switch.	330
		Source	Depress source switch.	1010
14	17	Seek (down)	Depress  switch.	330
		Seek (up)	Depress  switch.	110
		Phone/end	Depress  switch.	1



Do the steering wheel audio control switches check OK?

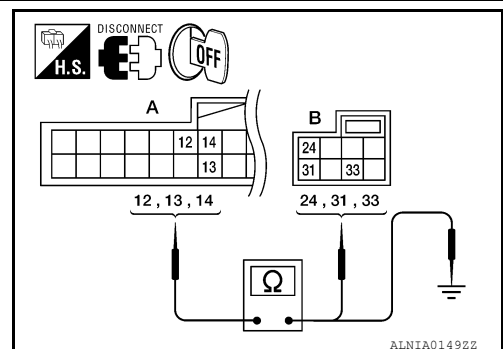
YES >> GO TO 2

NO >> Replace steering wheel audio control switch. Refer to [AV-55, "Removal and Installation"](#).

### 2. CHECK HARNESS

1. Disconnect Bluetooth control unit connector B126 and spiral cable connector M30.
2. Check continuity between Bluetooth control unit harness connector B126 (A) and spiral cable harness connector M30 (B).

A		B		Continuity
Connector	Terminal	Connector	Terminal	
B126	12	M30	24	Yes
	13		31	
	14		33	



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



# STEERING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[BASE AUDIO]

A		—	Continuity
Connector	Terminal		
B126	12	Ground	No
	13		
	14		

Are continuity results as specified?

YES >> GO TO 3

NO >> Repair harness.

## 3. SPIRAL CABLE CHECK

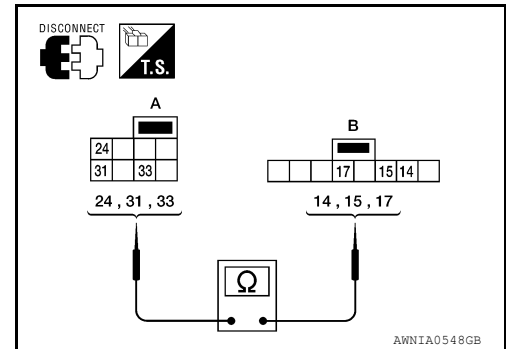
1. Disconnect spiral cable connector M88.
2. Check continuity between spiral cable harness connector M30 (A) and M88 (B).

A		B		Continuity
Connector	Terminal	Connector	Terminal	
M30	24	M88	14	Yes
	31		15	
	33		17	

Does continuity exist?

YES >> Inspection End.

NO >> Replace spiral cable. Refer to [SR-8. "Removal and Installation"](#).



# MICROPHONE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[BASE AUDIO]

## MICROPHONE SIGNAL CIRCUIT

### Description

INFOID:000000006389957

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

### Diagnosis Procedure

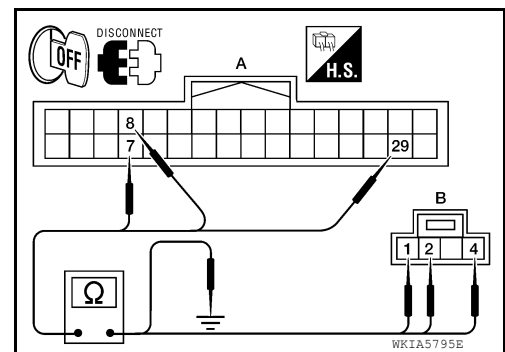
INFOID:000000006389958

Regarding Wiring Diagram information, refer to [AV-36, "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).

A		B		Continuity
Connector	Terminal	Connector	Terminal	
B126	7	R7	1	Yes
	8		2	
	29		4	



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

A		—	Continuity
Connector	Terminal		
B126	7	Ground	No
	8		
	29		

Are continuity 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.

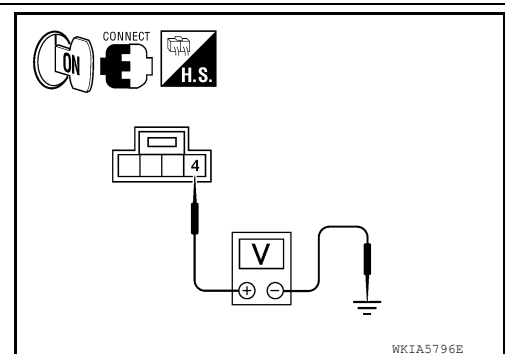
(+)		(-)	Voltage (approx.)
Connector	Terminal		
R7	4	Ground	5V

Was approx. 5V present?

YES >> GO TO 3

NO >> Replace Bluetooth control unit. Refer to [AV-62, "Removal and Installation"](#).

### 3.CHECK MICROPHONE SIGNAL

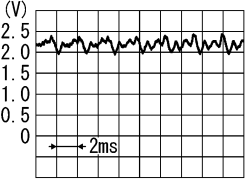


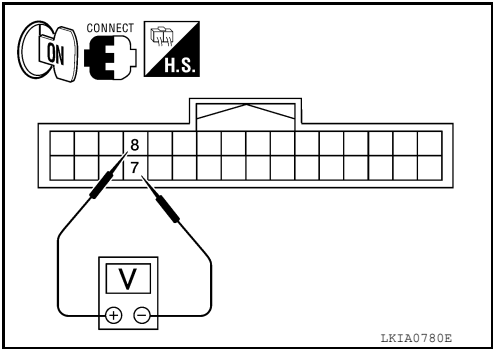
MICROPHONE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[BASE AUDIO]

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

(+)		(-)	Condition	Value (approx.)
Connector	Terminal			
B126	7	8	While speaking into MIC	



Were voltage readings as specified?

- YES >> Replace Bluetooth control unit. Refer to [AV-62, "Removal and Installation"](#).
- NO >> Replace microphone. Refer to [AV-60, "Removal and Installation"](#).

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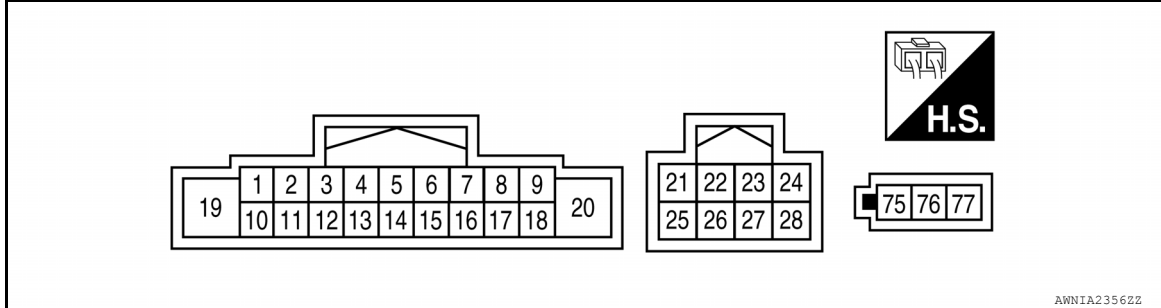
## ECU DIAGNOSIS INFORMATION

### AUDIO UNIT

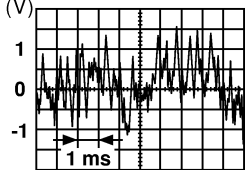
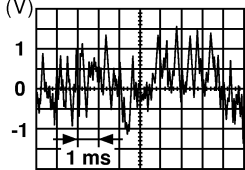

#### Reference Value

INFOID:000000006389959

#### TERMINAL LAYOUT



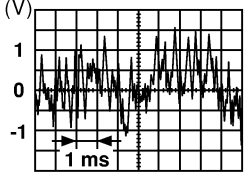
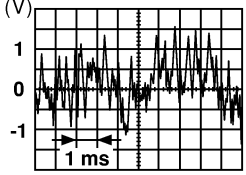

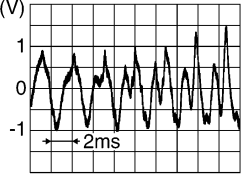
#### PHYSICAL VALUES

Terminal (Wire color)		Item	Signal input/ output	Condition		Reference value
+	-			Ignition switch	Operation	
2 (W)	3 (B)	Audio sound signal front LH	Output	ON	Receive audio sig- nal	 <small>SKIA0177E</small>
4 (O/B)	5 (W/R)	Audio sound signal rear LH	Output	ON	Receive audio sig- nal	 <small>SKIA0177E</small>
6 (W/G) *1	Ground	Steering switch	Input	ON	Pressing  switch	Approx. 0 V
					Press SEEK UP switch	Approx. 0.7V
					Press SEEK DOWN switch	Approx. 1.3 V
					Except for above	Approx. 3.3 V
7 (V/Y)	Ground	ACC signal	Input	ON	Ignition switch ACC or ON	Battery voltage
9 (R/L)	Ground	ILL signal	Input	ON	Headlamps ON	Battery voltage

# AUDIO UNIT

< ECU DIAGNOSIS INFORMATION >

[BASE AUDIO]

Terminal (Wire color)		Item	Signal input/ output	Condition		Reference value
+	-			Ignition switch	Operation	
11 (G/W)	12 (BR)	Audio sound signal front RH	Output	ON	Receive audio sig- nal	 SKIA0177E
13 (L)	14 (B/W)	Audio sound signal rear RH	Output	ON	Receive audio sig- nal	 SKIA0177E
15 (L/B) *1	-	Remote con- trol ground	Input	-	-	-
16 (GR/L) *1	Ground	Steering switch	Input	ON	Press VOL DOWN switch	Approx. 0 V
					Press VOL UP switch	Approx. 0.7 V
					Press  switch	Approx. 1.3 V
					Press source switch	Approx. 2.0 V
					Except for above	Approx. 3.3 V
19 (Y/R)	Ground	Battery power	Input	-	-	Battery voltage
25 *1	-	Shield	-	-	-	-
26 (BR) *1	27 (Y) *1	Voice signal	Input	ON	With Bluetooth op- erating	 SKIB3609E
28 (R/W) *1	Ground	Tel ON signal	Input	-	With Bluetooth op- erating	-
75 (B)	Ground	Amp power supply	Output	ON	Audio system ON	Battery voltage
76 (B)	Ground	Main antenna	Input	ON	Audio system ON	-

\*1 With Bluetooth

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# BLUETOOTH CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

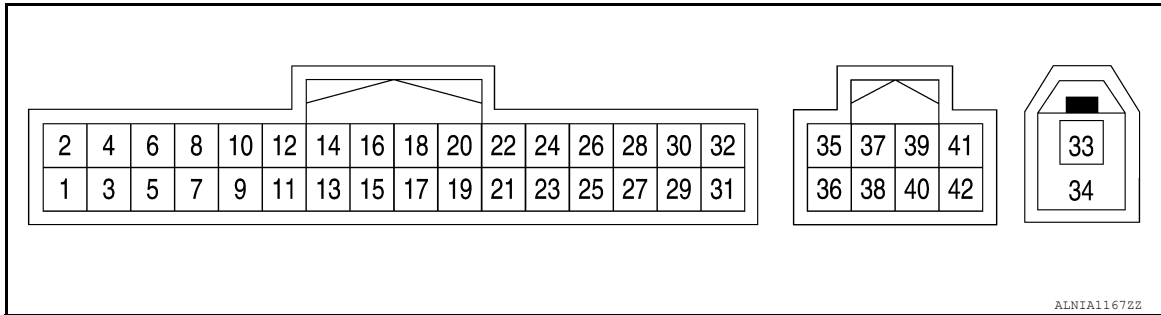
[BASE AUDIO]

## BLUETOOTH CONTROL UNIT

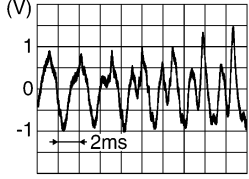

### Reference Value

INFOID:000000006389960

### TERMINAL LAYOUT






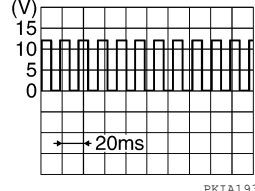
### PHYSICAL VALUES

Terminal (Wire color)		Item	Signal input/ output	Condition		Reference value (Approx.)
+	-			Ignition switch	Operation	
1 (V)	Ground	Battery power	Input	-	-	Battery voltage
2 (G)	Ground	ACC power	Input	ACC/ON	-	Battery voltage
3 (O)	Ground	IGN power	Input	ON/ START	-	Battery voltage
4 (B)	-	Ground	-	-	-	-
6	-	Shield	-	-	-	-
7 (B/R)	8 (R/B)	Mic-in signal	Input	-	-	-
9 (BR)	10 (Y)	Audio out	Output	ACC/ON	Bluetooth control unit sends audio sig- nal	 SKIB3609E
11 (SB)	-	Mute	Output	-	-	-
12 (W)	Ground	Remote con- trol switch 1	Input	ACC/ON	Pressing  switch	0 V
					Press SEEK UP switch	0.7 V
					Press SEEK DOWN switch	1.3 V
					Except for above	3.3 V

# BLUETOOTH CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[BASE AUDIO]

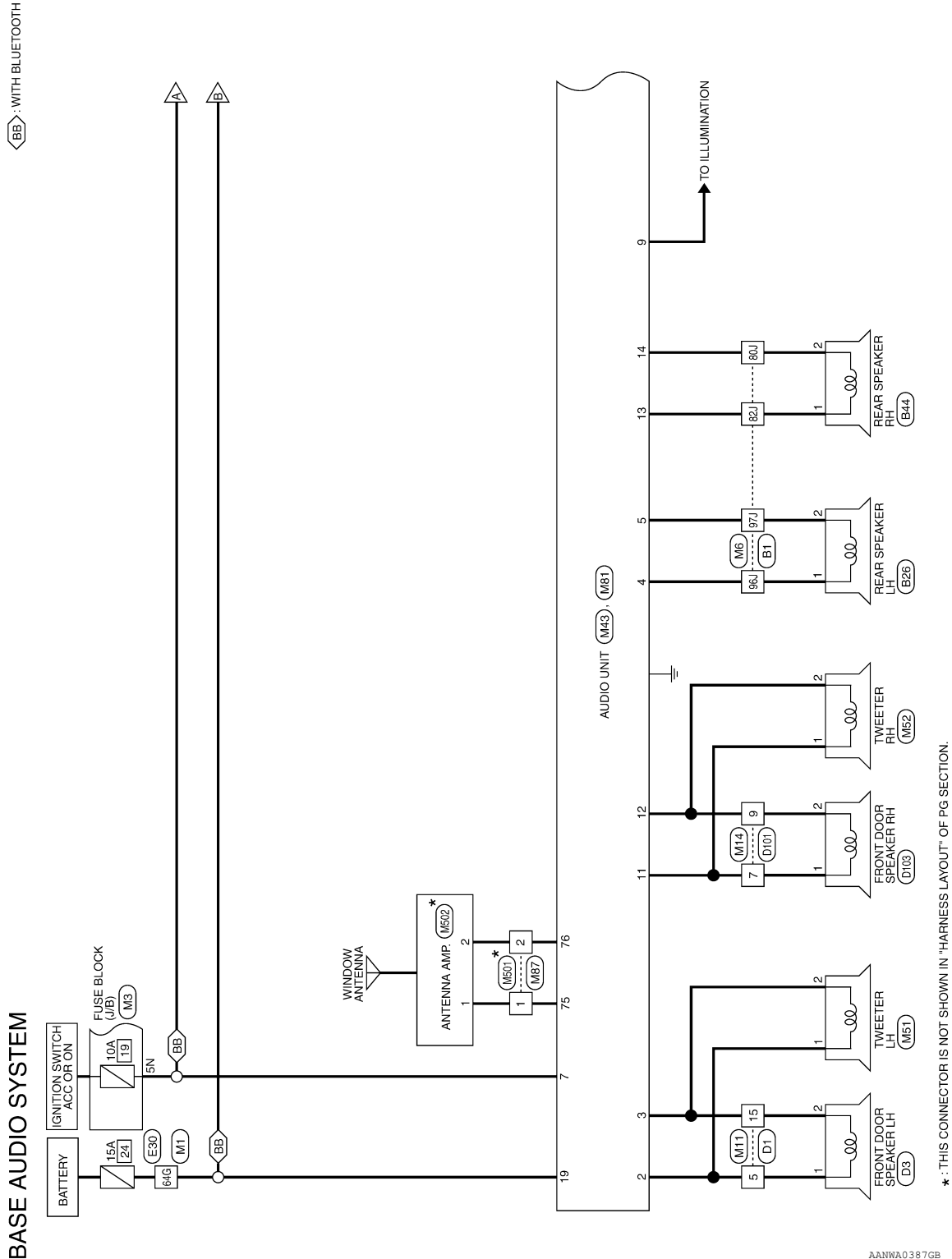
Terminal (Wire color)		Item	Signal input/ output	Condition		Reference value (Approx.)
+	-			Ignition switch	Operation	
13 (GR/L)	Ground	Remote con- trol switch 2	Input	ACC/ON	Press VOL DOWN switch	0 V
					Press VOL UP switch	0.7 V
					Press  switch	1.3 V
					Press SOURCE switch	2.0 V
					Except for above	3.3 V
14 (L/W)	-	Remote con- trol ground	Input	-	-	-
17 (W/G)	Ground	Steering switch 1	Output	ACC/ON	Pressing  switch.	0 V
					Press SEEK UP switch.	0.7 V
					Press SEEK DOWN switch.	1.3 V
					Except for above.	3.3 V
18 (G)	Ground	Steering switch 2	Output	ACC/ON	Press VOL DOWN switch	0 V
					Press VOL UP switch.	0.7 V
					Press  switch	1.3 V
					Press SOURCE switch.	2.0 V
					Except for above.	3.3 V
19 (L/B)	Ground	Steering switch ground	Output	-	-	-
24 (B)	-	Ground	-	-	-	-
28 (P)	-	Vehicle speed signal (8- pulse)	Input	ON	When vehicle speed is approx. 40 km/h (25 MPH)	 PKIA1935E
29 (R/L)	Ground	Microphone power	Output	-	-	-
33 (B)	-	Bluetooth an- tenna	-	-	-	-
34	-	Shield	-	-	-	-

## WIRING DIAGRAM

### BASE AUDIO SYSTEM

#### Wiring Diagram

INFOID:000000006389961



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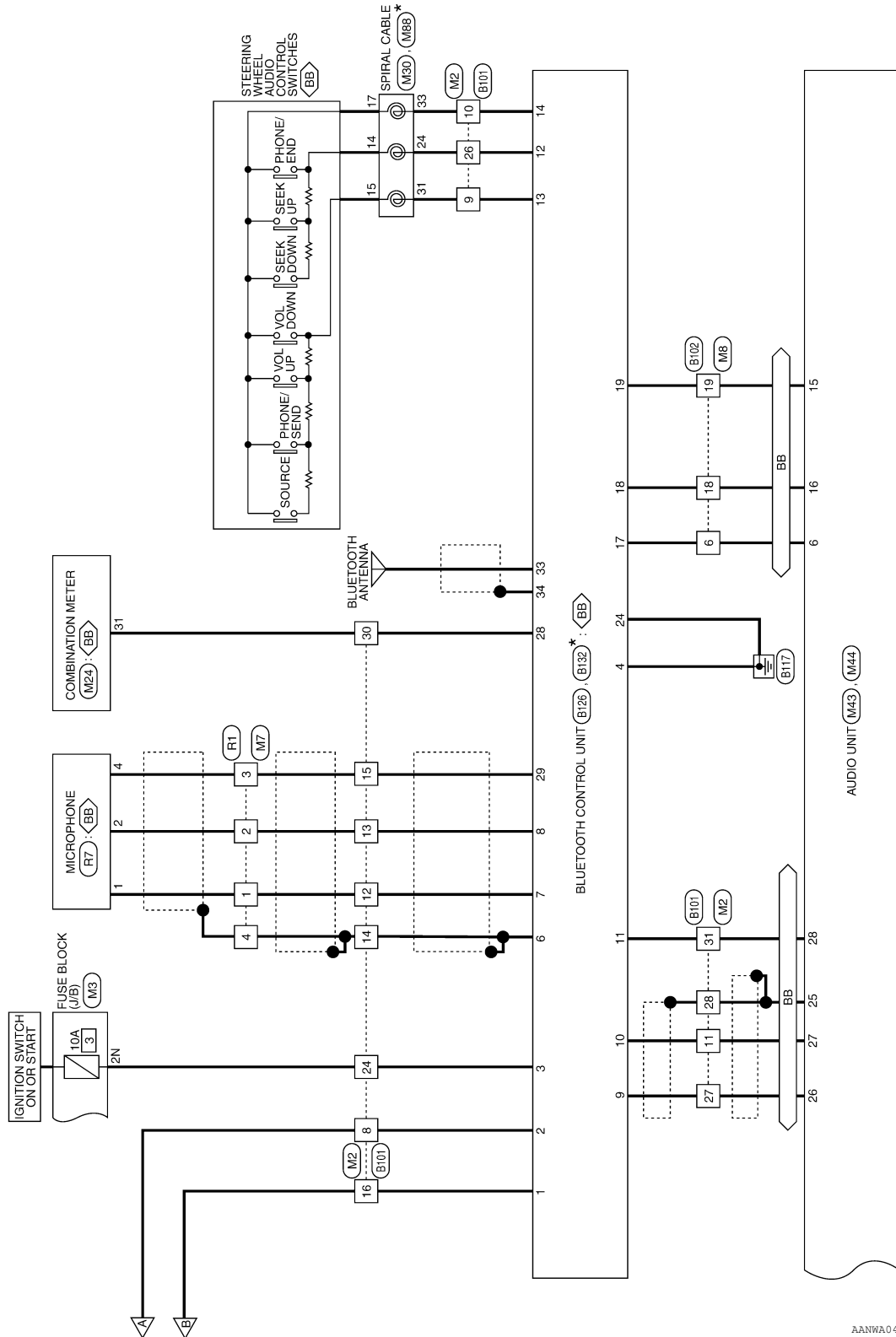


# BASE AUDIO SYSTEM

< WIRING DIAGRAM >

[BASE AUDIO]

◁ BB ▷ : WITH BLUETOOTH



★: THIS CONNECTOR IS NOT SHOWN IN "HARNES LAYOUT" OF PG SECTION.

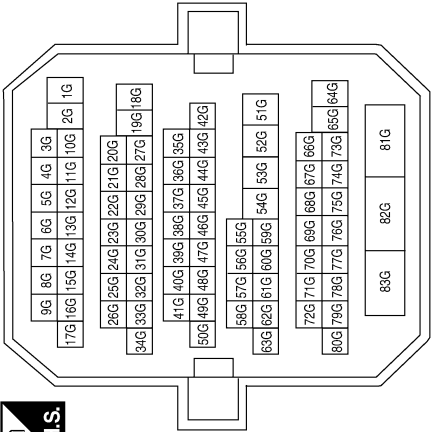
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BASE AUDIO SYSTEM CONNECTORS

Connector No.	M1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Connector No.	M2
Connector Name	WIRE TO WIRE
Connector Color	WHITE

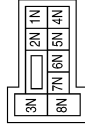


Terminal No.	Color of Wire	Signal Name
8	V/Y	-
9	GR/L	-
10	L/B	-
11	Y	-

Terminal No.	Color of Wire	Signal Name
12	B/R	-
13	R/B	-
14	SHIELD	-
15	R/L	-
16	Y/R	-
24	G	-
26	W/G	-
27	BR	-
28	SHIELD	-
30	V/W	-
31	R/W	-

Terminal No.	Color of Wire	Signal Name
64G	Y/R	-

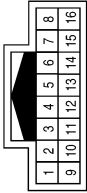
Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2N	G	-
5N	V/Y	-

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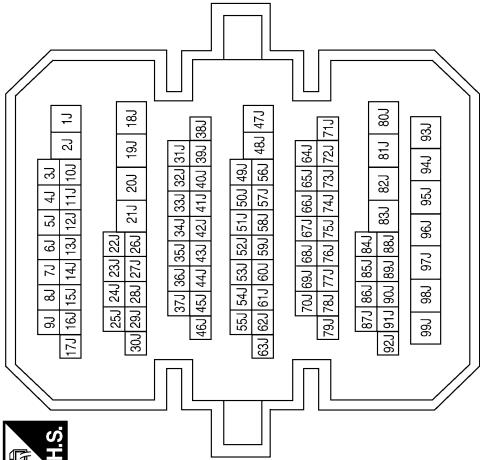
Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Color	WHITE



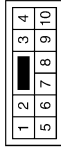
Terminal No.	Color of Wire	Signal Name
1	B/R	-
2	R/B	-
3	R/L	-
4	SHIELD	-

Terminal No.	Color of Wire	Signal Name
80J	B/W	-
82J	L	-
96J	O/B	-
97J	W/R	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Color	WHITE

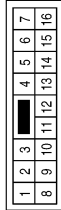


Connector No.	M14
Connector Name	WIRE TO WIRE
Connector Color	WHITE



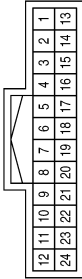
Terminal No.	Color of Wire	Signal Name
7	G/W	-
9	BR	-

Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
5	W	-
15	B	-

Connector No.	M8
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
6	W/G	-
18	GR/L	-
19	L/B	-

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# BASE AUDIO SYSTEM

< WIRING DIAGRAM >

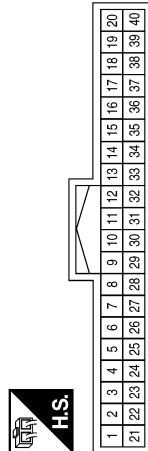
[BASE AUDIO]

Connector No.	M30
Connector Name	SPIRAL CABLE
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
24	W/G	AUDIO_STRG_SW_REMOTE_A
31	GR/L	AUDIO_STRG_SW_REMOTE_B
33	L/B	AUDIO_STRG_SW_GND

Connector No.	M24
Connector Name	COMBINATION METER
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
31	V/W	8P/R OUT

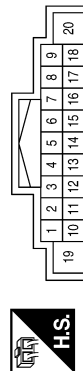
Connector No.	M44
Connector Name	AUDIO UNIT
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
21	-	-
22	-	-
23	-	-
24	-	-
25	SHIELD	TEL SHIELD
26	BR	TEL I/F+
27	Y	TEL I/F-
28	R/W	TEL ON

Terminal No.	Color of Wire	Signal Name
6	W/G	STRG_SW_A
7	V/Y	ACC
8	-	-
9	R/L	TAIL/ILL_RLY
10	-	-
11	G/W	FR SP RH (+)
12	BR	FR SP RH (-)
13	L	RR SP RH (+)
14	B/W	RR SP RH (-)
15	L/B	STRG_SW_GND
16	GR/L	STRG_SW_B
17	-	-
18	-	-
19	Y/R	BAT
20	-	-

Connector No.	M43
Connector Name	AUDIO UNIT
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	-	-
2	W	FR SP LH (+)
3	B	FR SP LH (-)
4	O/B	RR SP LH (+)
5	W/R	RR SP LH (-)

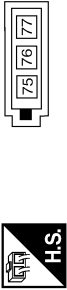
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BASE AUDIO SYSTEM

< WIRING DIAGRAM >

[BASE AUDIO]

Connector No.	M81
Connector Name	AUDIO UNIT
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
75	B	AMP SUPPLY
76	B	MAIN ANTENNA
77	-	-

Connector No.	M52
Connector Name	TWEETER RH
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
1	G/W	-
2	BR	-

Connector No.	M51
Connector Name	TWEETER LH
Connector Color	BROWN



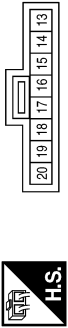
Terminal No.	Color of Wire	Signal Name
1	W	-
2	B	-

Connector No.	M501
Connector Name	WIRE TO WIRE
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
1	B	-
2	B	-

Connector No.	M88
Connector Name	SPIRAL CABLE
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
14	W	REMOTE A
15	L	REMOTE B
17	BR	GND

Connector No.	M87
Connector Name	WIRE TO WIRE
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
1	B	-
2	B	-

AANIA0432GB

A  
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J  
K  
L  
M  
O  
P

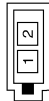
AV

BASE AUDIO SYSTEM

< WIRING DIAGRAM >

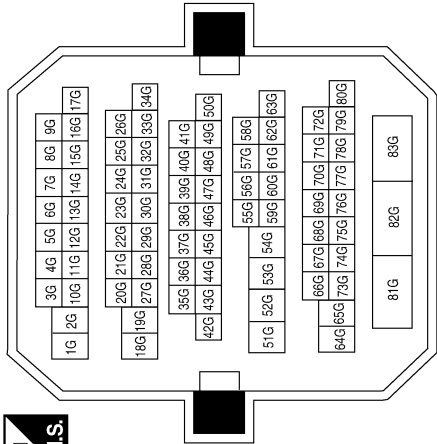
[BASE AUDIO]

Connector No.	M502
Connector Name	ANTENNA AMP.
Connector Color	GRAY



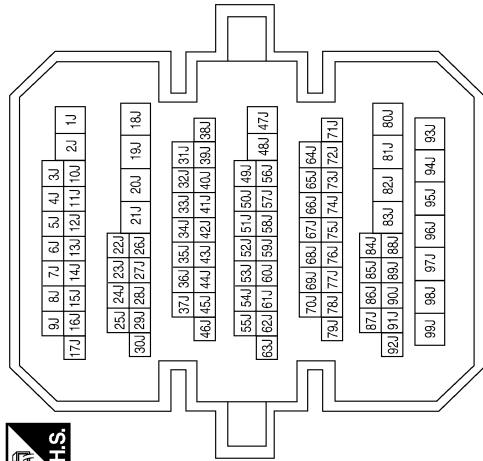
Terminal No.	Color of Wire	Signal Name
1	B	—
2	B	—

Connector No.	E30
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
64G	V	—

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
80J	BR	—
82J	P	—
96J	BR	—
97J	LG	—

Connector No.	B44
Connector Name	REAR SPEAKER RH
Connector Color	WHITE



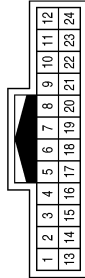
Terminal No.	Color of Wire	Signal Name
1	BR	-
2	P	-

Connector No.	B26
Connector Name	REAR SPEAKER LH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	BR	-
2	LG	-

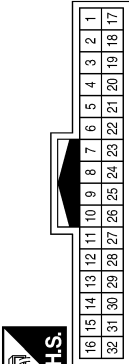
Connector No.	B102
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
6	W/G	-
18	G	-
19	L/B	-

Terminal No.	Color of Wire	Signal Name
11	Y	-
12	B/R	-
13	R/B	-
14	SHIELD	-
15	B/L	-
16	V	-
24	O	-
26	W	-
27	BR	-
28	SHIELD	-
30	P	-
31	SB	-

Connector No.	B101
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
8	G	-
9	GR/L	-
10	L/W	-

AANIA0477GB

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P

AV

# BASE AUDIO SYSTEM

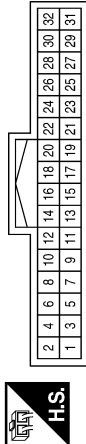
< WIRING DIAGRAM >

[BASE AUDIO]

Terminal No.	Color of Wire	Signal Name
22	-	-
23	-	-
24	B	CONT 5
25	-	-
26	-	-
27	-	-
28	P	SPEED SIGNAL
29	R/L	MIC_POWER
30	-	-
31	-	-
32	-	-

Terminal No.	Color of Wire	Signal Name
10	Y	AUDIO_OUT(-)
11	SB	MUTE_CONTROL
12	W	LADDER_T2_IN_A
13	GR/L	LADDER_T2_IN_B
14	LW	LAD_GND
15	-	-
16	-	-
17	W/G	LADDER_T2_OUT_A
18	G	LADDER_T2_OUT_B
19	L/B	LAD GND
20	-	-
21	-	-

Connector No.	B126
Connector Name	BLUETOOTH CONTROL UNIT
Connector Color	WHITE

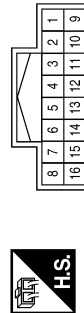


Terminal No.	Color of Wire	Signal Name
1	V	BAT
2	G	ACC
3	O	IGN
4	B	GND
5	-	-
6	SHIELD	MIC SHIELD
7	B/R	MIC_IN_+
8	R/B	MIC_IN_-
9	BR	AUDIO_OUT(+)

Connector No.	R7
Connector Name	MICROPHONE
Connector Color	WHITE



Connector No.	R1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	W	SIG
2	R	GND
4	B	VCC

Connector No.	B132
Connector Name	BLUETOOTH CONTROL UNIT
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
33	B	BT ANTENNA
34	SHIELD	BT ANTENNA SHIELD

AANIA0478GB



BASE AUDIO SYSTEM

< WIRING DIAGRAM >

[BASE AUDIO]

Connector No.	D101
Connector Name	WIRE TO WIRE
Connector Color	WHITE



4	3	2	1
10	9	8	7
6	5		

Terminal No.	Color of Wire	Signal Name
7	L	—
9	LG	—

Connector No.	D3
Connector Name	FRONT DOOR SPEAKER LH
Connector Color	WHITE



2	1
---	---

Terminal No.	Color of Wire	Signal Name
1	O	—
2	LG	—

Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



7	6	5	4	3	2	1
16	15	14	13	12	11	10
9	8					

Terminal No.	Color of Wire	Signal Name
5	O	—
15	LG	—

Connector No.	D103
Connector Name	FRONT DOOR SPEAKER RH
Connector Color	WHITE



2	1
---	---

Terminal No.	Color of Wire	Signal Name
1	L	—
2	LG	—

AANIA0479GB

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P

AV

## SYMPTOM DIAGNOSIS

### AUDIO SYSTEM

#### Symptom Table

INFOID:000000006389962

#### Audio Unit

Symptom	Possible cause	Reference page
Inoperative	<ul style="list-style-type: none"> <li>Audio unit power circuit</li> <li>Audio unit</li> </ul>	<ul style="list-style-type: none"> <li><a href="#">AV-19</a></li> <li><a href="#">AV-51</a></li> </ul>
Steering wheel audio control switches ( with bluetooth) do not operate	<ul style="list-style-type: none"> <li>Steering wheel audio control switches</li> <li>Audio unit</li> </ul>	<ul style="list-style-type: none"> <li><a href="#">AV-55</a></li> <li><a href="#">AV-51</a></li> </ul>
All speakers do not sound	<ul style="list-style-type: none"> <li>Speaker circuit shorted to ground</li> <li>Audio unit power circuit</li> <li>Audio unit</li> </ul>	<ul style="list-style-type: none"> <li><a href="#">AV-36</a></li> <li><a href="#">AV-19</a></li> <li><a href="#">AV-51</a></li> </ul>
One or several speakers do not sound	<ul style="list-style-type: none"> <li>Front door speaker</li> <li>Tweeter</li> <li>Rear speaker</li> </ul>	<ul style="list-style-type: none"> <li><a href="#">AV-22</a></li> <li><a href="#">AV-24</a></li> <li><a href="#">AV-26</a></li> </ul>
Buzz/rattle sound from speaker	The majority of buzz/rattle sounds are not indicative of an issue with the speaker, usually something nearby the speaker is causing the buzz/rattle.	Refer to "SQUEAK AND RATTLE TROUBLE DIAGNOSIS" in the appropriate interior trim section.

#### HANDS-FREE PHONE

Symptom	Possible cause	Reference page
Inoperative	<ul style="list-style-type: none"> <li>Bluetooth control unit power and ground circuit</li> <li>Bluetooth control unit</li> </ul>	<ul style="list-style-type: none"> <li><a href="#">AV-19</a></li> <li><a href="#">AV-18</a></li> </ul>
Steering wheel audio control switches do not operate	<ul style="list-style-type: none"> <li>Steering wheel audio control switches</li> <li>Bluetooth control unit</li> </ul>	<ul style="list-style-type: none"> <li><a href="#">AV-28</a></li> <li><a href="#">AV-18</a></li> </ul>
Voice activated control does not operate	<ul style="list-style-type: none"> <li>Microphone</li> <li>Steering wheel audio control switches</li> <li>Bluetooth control unit</li> </ul>	<ul style="list-style-type: none"> <li><a href="#">AV-30</a></li> <li><a href="#">AV-28</a></li> <li><a href="#">AV-18</a></li> </ul>

## NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[BASE AUDIO]

### NORMAL OPERATING CONDITION

#### Description

INFOID:000000006389963

The majority of the audio troubles 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

Occurrence condition		Possible cause
Occurs only when engine is ON.	A continuous growling noise occurs. The speed of the noise varies with changes in the engine speed.	• Ignition components
	A whistling noise occurs while the engine speed is high. A booming noise occurs while the engine is running and the lighting switch is ON.	• Generator
The occurrence of the noise is linked with the operation of the fuel pump.		• Fuel pump condenser
Noise only occurs when various electrical components are operating.	A cracking or snapping sound occurs with the operation of various switches.	• Relay malfunction, audio unit malfunction
	The noise occurs when various motors are operating.	• Motor case ground • Motor
The noise occurs constantly, not just under certain conditions.		• Rear defogger coil malfunction • Open circuit in printed heater • Poor ground of antenna amplifier or antenna feeder line
A cracking or snapping sound occurs while the vehicle is being driven, especially when it is vibrating excessively.		• Ground wire of body parts • Ground due to improper part installation • Wiring connections or a short circuit

## PRECAUTION

### PRECAUTIONS

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

INFOID:000000006389964

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.

#### Necessary for Steering Wheel Rotation After Battery Disconnect

INFOID:000000006389965

#### **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 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.)

# PRECAUTIONS

< PRECAUTION >

[BASE AUDIO]

6. Perform self-diagnosis check of all control units using CONSULT.

## Precaution for Work

INFOID:000000006920749

- When removing or disassembling each component, be careful not to damage or deform it. If a component may be subject to interference, be sure to protect it with a shop cloth.
- When removing (disengaging) components with a screwdriver or similar tool, be sure to wrap the component with a shop cloth or vinyl tape to protect it.
- Protect the removed parts with a shop cloth and prevent them from being dropped.
- Replace a deformed or damaged clip.
- If a part is specified as a non-reusable part, always replace it with new one.
- Be sure to tighten bolts and nuts securely to the specified torque.
- After installation is complete, be sure to check that each part works properly.
- Follow the steps below to clean components.
- Water soluble dirt: Dip a soft cloth into lukewarm water, and wring the water out of the cloth to wipe the dirty area.  
Then rub with a soft and dry cloth.
- Oily dirt: Dip a soft cloth into lukewarm water with mild detergent (concentration: within 2 to 3%), and wipe the dirty area.  
Then dip a cloth into fresh water, and wring the water out of the cloth to wipe the detergent off. Then rub with a soft and dry cloth.
- Do not use organic solvent such as thinner, benzene, alcohol, or gasoline.
- For genuine leather seats, use a genuine leather seat cleaner.

## Precaution for Trouble Diagnosis

INFOID:000000006389966

### AV COMMUNICATION SYSTEM

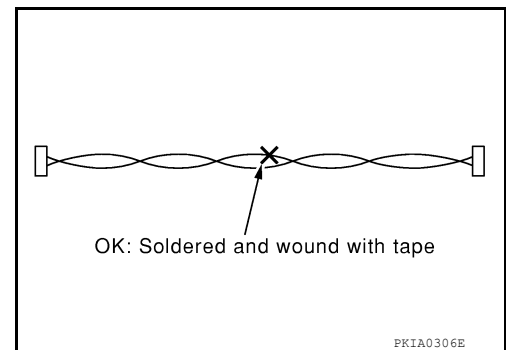
- Do not apply voltage of 7.0 V or higher to the measurement terminals.
- Use the tester with its open terminal voltage being 7.0 V or less.
- Be sure to turn ignition switch OFF and disconnect the battery cable from the negative terminal before checking the circuit.

## Precaution for Harness Repair

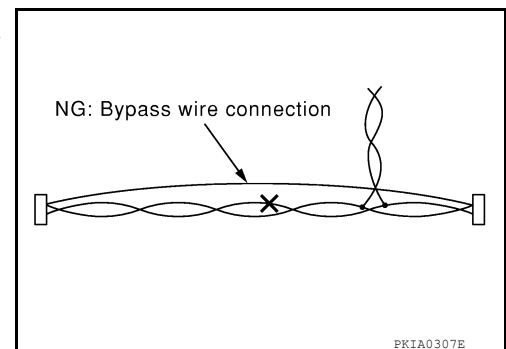
INFOID:000000006389967

### 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.)



# PREPARATION

< PREPARATION >

[BASE AUDIO]

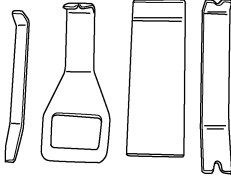
## PREPARATION

### PREPARATION

#### Special Service Tools


INFOID:000000006389968

The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here.

Tool number (Kent-Moore No.) Tool name	Description
<p>— (J-46534) Trim Tool Set</p>  <p>AWJIA0483ZZ</p>	Removing trim components

#### Commercial Service Tools

INFOID:000000006389969

Tool name	Description
<p>Power tool</p>  <p>PIIB1407E</p>	Loosening nuts, screws and bolts

## REMOVAL AND INSTALLATION

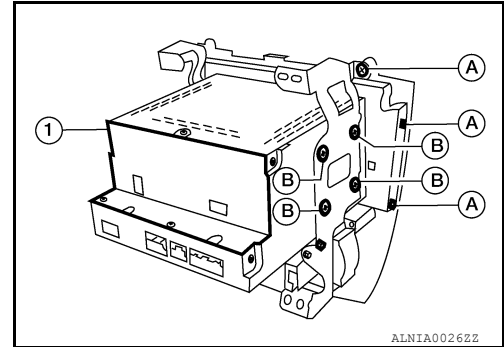
### AUDIO UNIT

#### Removal and Installation

INFOID:000000006389970

#### REMOVAL

1. Disconnect the negative battery terminal.
2. Remove the cluster lid C. Refer to [JP-17, "Removal and Installation"](#).
3. Remove the cluster lid C screws (A), then remove the audio unit (1).
4. Remove the audio unit bracket screws (B), then remove the front air control unit screws and remove the audio unit brackets.



#### INSTALLATION

Installation is in the reverse order of removal.

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AV

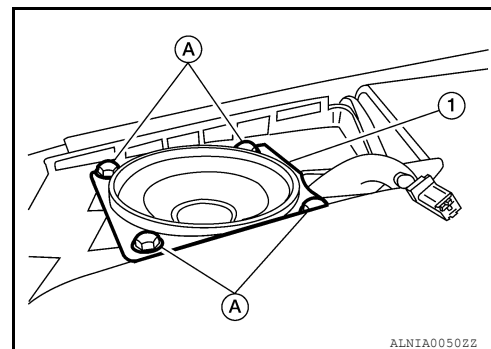
## TWEETER

### Removal and Installation

INFOID:000000006389972

#### REMOVAL

1. Remove the front pillar finisher. Refer to [INT-18. "Removal and Installation"](#).
2. Remove tweeter speaker grille, using a suitable tool.
3. Remove the tweeter speaker screws (A).
4. Pull out the tweeter speaker (1), disconnect the tweeter speaker connector and remove the tweeter speaker.



#### INSTALLATION

Installation is in the reverse order of removal.



# FRONT DOOR SPEAKER

< REMOVAL AND INSTALLATION >

[BASE AUDIO]

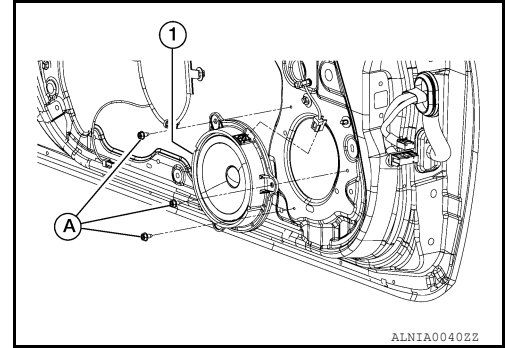
## FRONT DOOR SPEAKER

### Removal and Installation

INFOID:000000006389973

#### REMOVAL

1. Remove the front door finisher. Refer to [INT-13. "Removal and Installation"](#).
2. Remove the front door speaker screws (A).
3. Disconnect the front door speaker connector and remove the front door speaker (1).



#### INSTALLATION

Installation is in the reverse order of removal.

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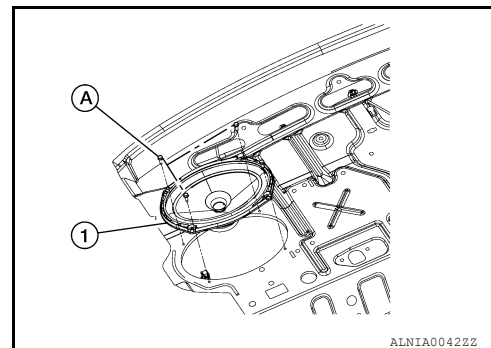
## REAR SPEAKER

### Removal and Installation

INFOID:000000006389975

#### REMOVAL

1. Remove the rear parcel shelf finisher. Refer to [INT-22. "Removal and Installation - Rear Parcel Shelf Finisher"](#).
2. Remove the rear speaker screws (A).
3. Disconnect the rear speaker and remove the rear speaker (1).



#### INSTALLATION

Installation is in the reverse order of removal.

# STEERING SWITCH

< REMOVAL AND INSTALLATION >

[BASE AUDIO]

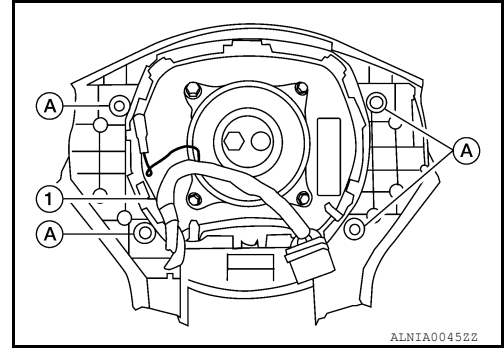
## STEERING SWITCH

### Removal and Installation

INFOID:000000006389976

#### REMOVAL

1. Remove the driver airbag module. Refer to [SR-5. "Removal and Installation"](#).
2. Remove the steering wheel audio control switches screws (A), then remove the steering wheel audio control switches (1).



#### INSTALLATION

Installation is in the reverse order of removal.

A  
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AV

## ANTENNA AMP.

### Removal and Installation

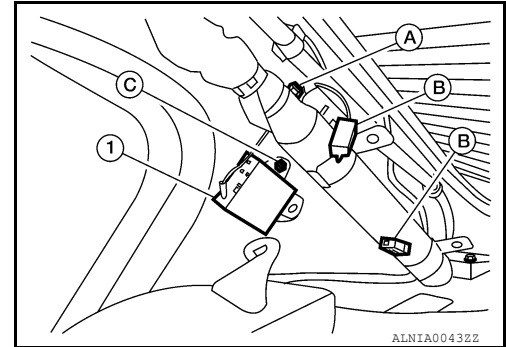
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#### REMOVAL

**CAUTION:**

- Before servicing, turn ignition switch OFF, disconnect both battery terminals and wait at least three minutes.

1. Disconnect the negative and positive battery terminals, then wait at least three minutes.
2. Remove the rear pillar finisher RH. Refer to [INT-18, "Removal and Installation"](#).
3. Partially remove the side curtain air bag module RH to gain access to the antenna amp. (1). Refer to [SR-12, "Removal and Installation"](#).
4. Detach the antenna amp. harness clip (A).
5. Disconnect the antenna amp. connectors (B).
6. Remove the antenna amp. screw (C) and remove the antenna amp. (1).



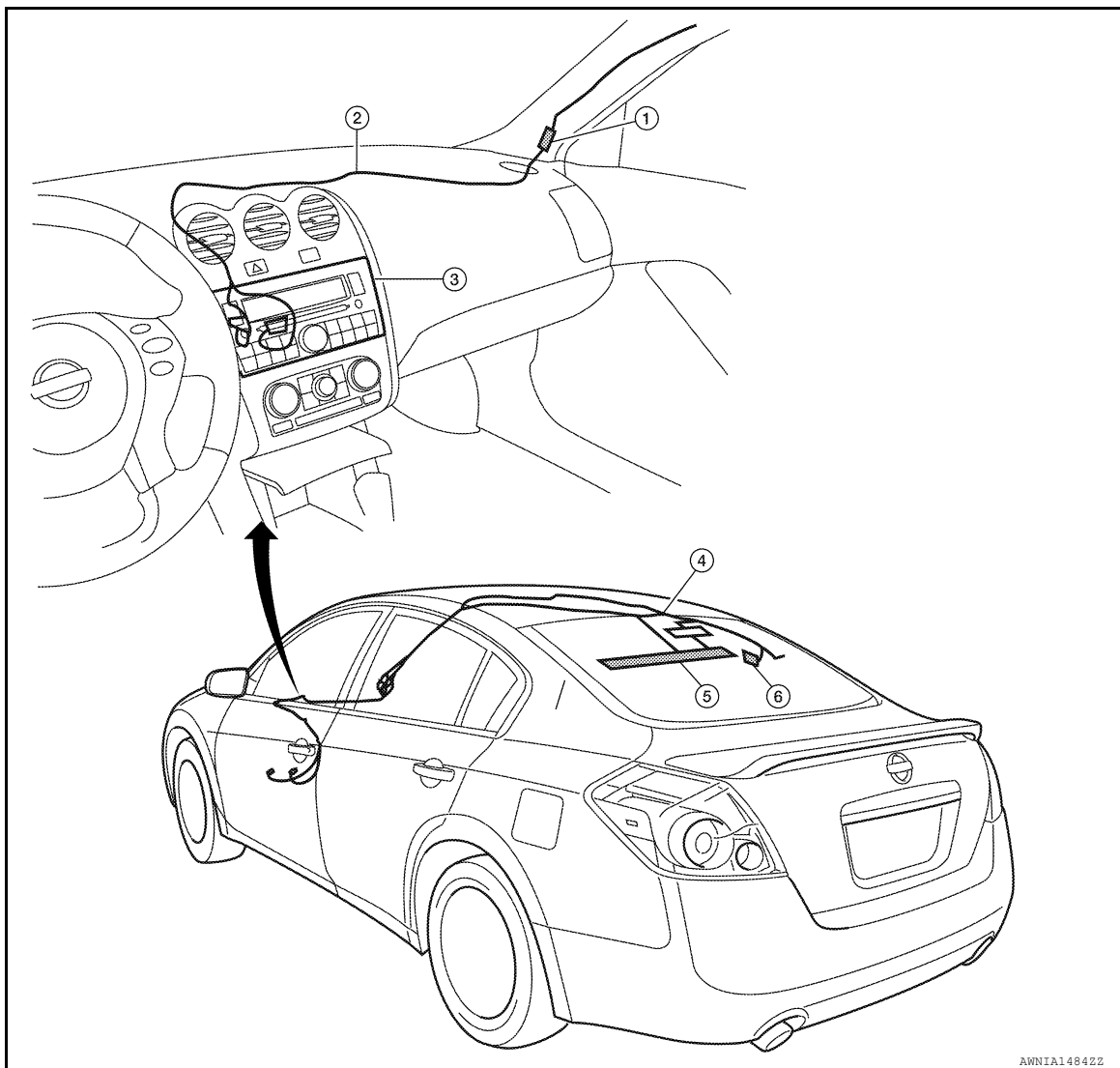
#### INSTALLATION

Installation is in the reverse order of removal.

## AUDIO ANTENNA

### Location of Antenna

INFOID:000000006389978



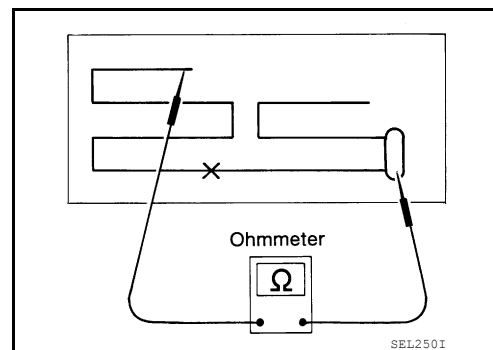
- |                                 |                       |                                  |
|---------------------------------|-----------------------|----------------------------------|
| 1. In-line connectors M87, M501 | 2. Audio unit harness | 3. Audio unit M43, M44, M45, M81 |
| 4. Audio antenna feeder         | 5. Window Antenna     | 6. Antenna amp. M502             |

### Window Antenna Repair

INFOID:000000006389979

#### ELEMENT CHECK

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

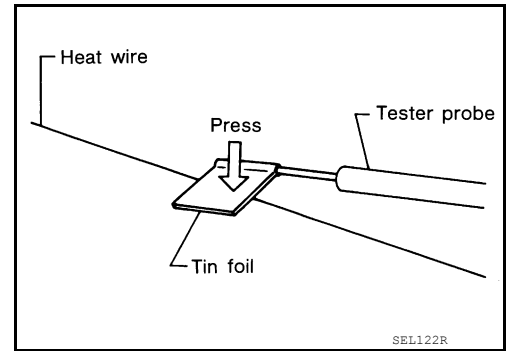


# AUDIO ANTENNA

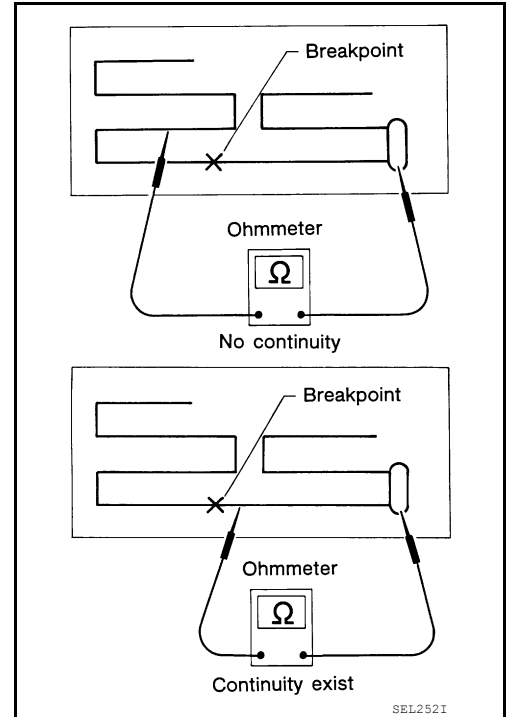
## < REMOVAL AND INSTALLATION >

[BASE AUDIO]

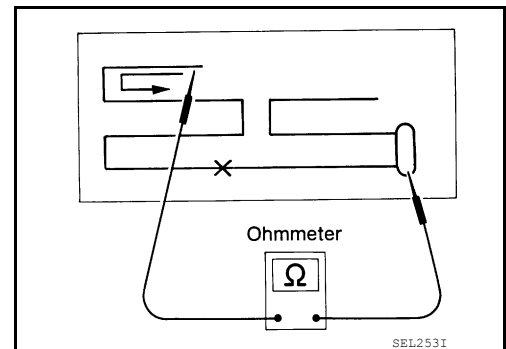
- When measuring continuity, wrap tin foil around the top of probe. Then, press the foil against the wire with your finger.



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

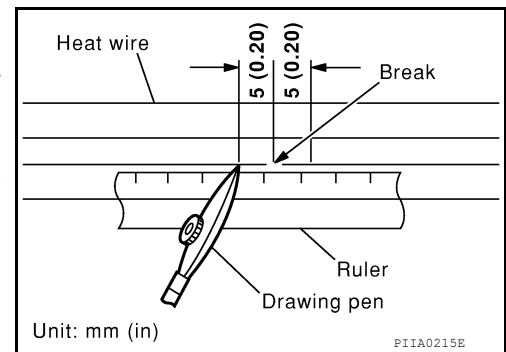
## REPAIRING PROCEDURE

# AUDIO ANTENNA

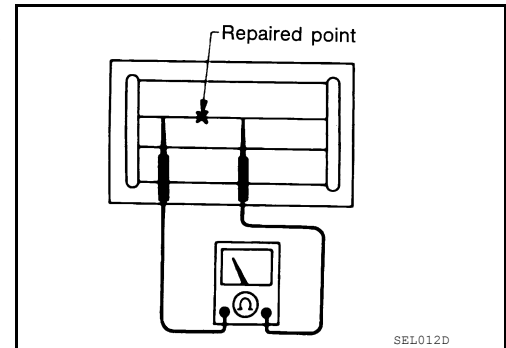
## < REMOVAL AND INSTALLATION >

[BASE AUDIO]

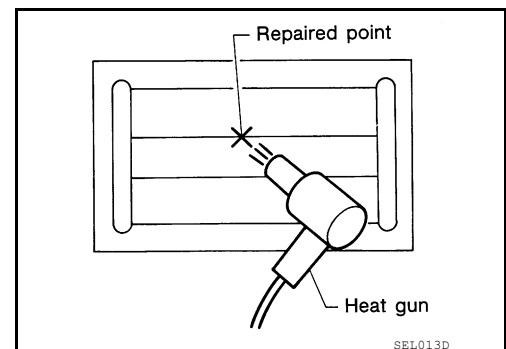
1. Wipe broken heat wire and its surrounding area clean with a cloth dampened in alcohol.
2. Apply a small amount of conductive silver composition to tip of drawing pen. Shake silver composition container before use.
3. Place ruler on glass along broken line. Deposit conductive silver composition on 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.



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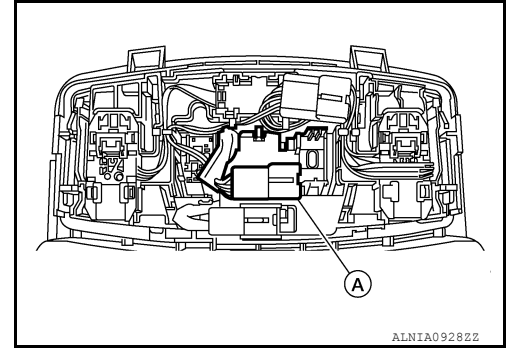
## MICROPHONE

## Removal and Installation

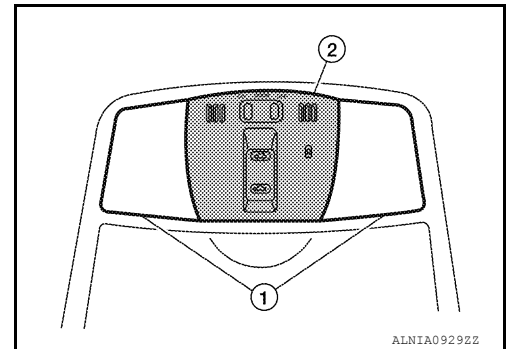
INFOID:000000006389980

## REMOVAL

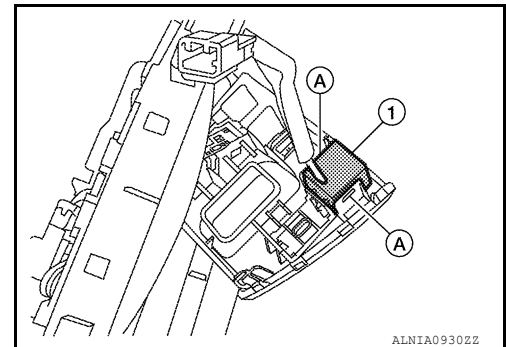
1. Remove the front room/map lamp assembly. Refer to [INT-27, "Exploded View"](#).
2. Detach the microphone connector (A).



3. Remove the front room/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.



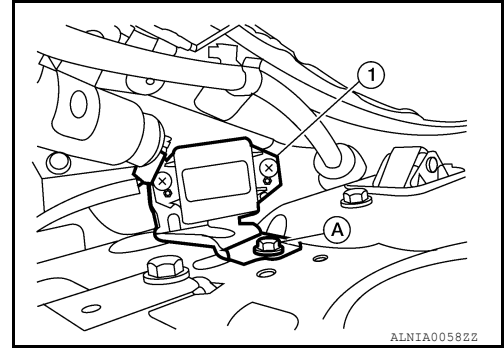
## TEL ANTENNA

## Removal and Installation

INFOID:000000006934936

## REMOVAL

1. Remove the rear parcel shelf. Refer to [INT-22, "Removal and Installation - Rear Parcel Shelf Finisher"](#).
2. Remove the Bluetooth antenna screw (A).
3. Fold down the rear seat back.
4. Disconnect the Bluetooth antenna connector and remove the Bluetooth antenna (1).



## INSTALLATION

Installation is in the reverse order of removal.

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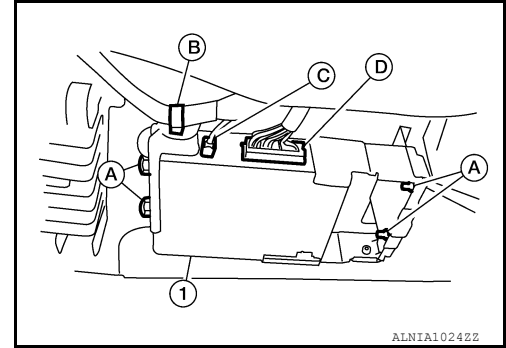
## BLUETOOTH CONTROL UNIT

### Removal and Installation

INFOID:000000006389982

#### REMOVAL

1. Disconnect the negative battery terminal.
2. Remove the Bluetooth control unit screws (A).
3. Detach the Bluetooth control unit connector harness clip (B).
4. Disconnect the Bluetooth antenna connector (C).
5. Disconnect the Bluetooth control unit connector (D) and remove the Bluetooth control unit (1).



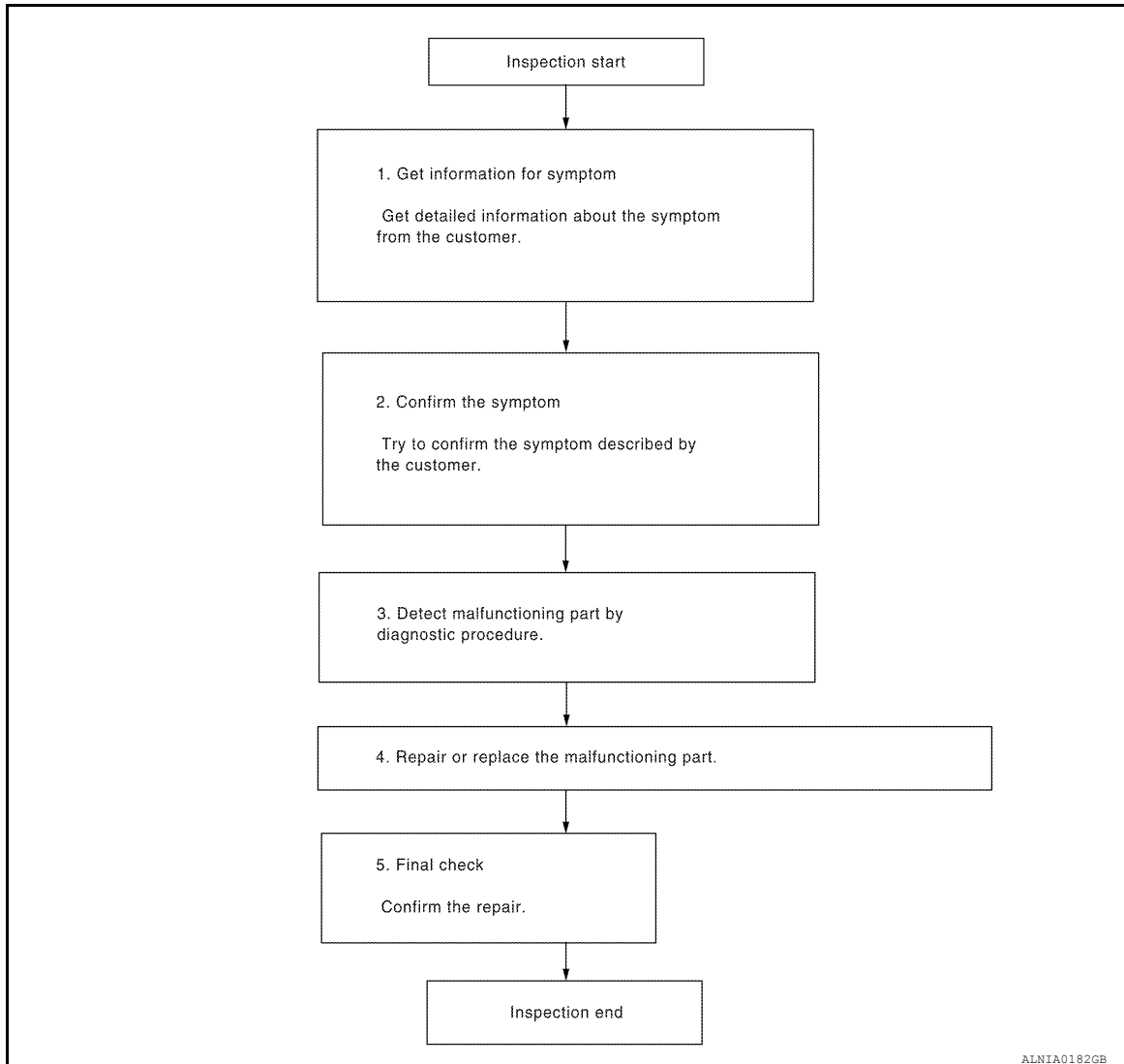
6. To remove the Bluetooth control unit bracket, remove the rear parcel shelf. Refer to [INT-22. "Removal and Installation - Rear Parcel Shelf Finisher"](#).
7. Remove the Bluetooth control unit bracket.

#### INSTALLATION

Installation is in the reverse order of removal.

**BASIC INSPECTION****DIAGNOSIS AND REPAIR WORKFLOW****Work Flow**

INFOID:000000006389983

**OVERALL SEQUENCE****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).

&gt;&gt; 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.

&gt;&gt; GO TO 3

**3.DETECT MALFUNCTIONING PART BY DIAGNOSTIC PROCEDURE**

Inspect according to Diagnostic Procedure of the system.

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## DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[BOSE AUDIO WITHOUT NAVIGATION]

---

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.

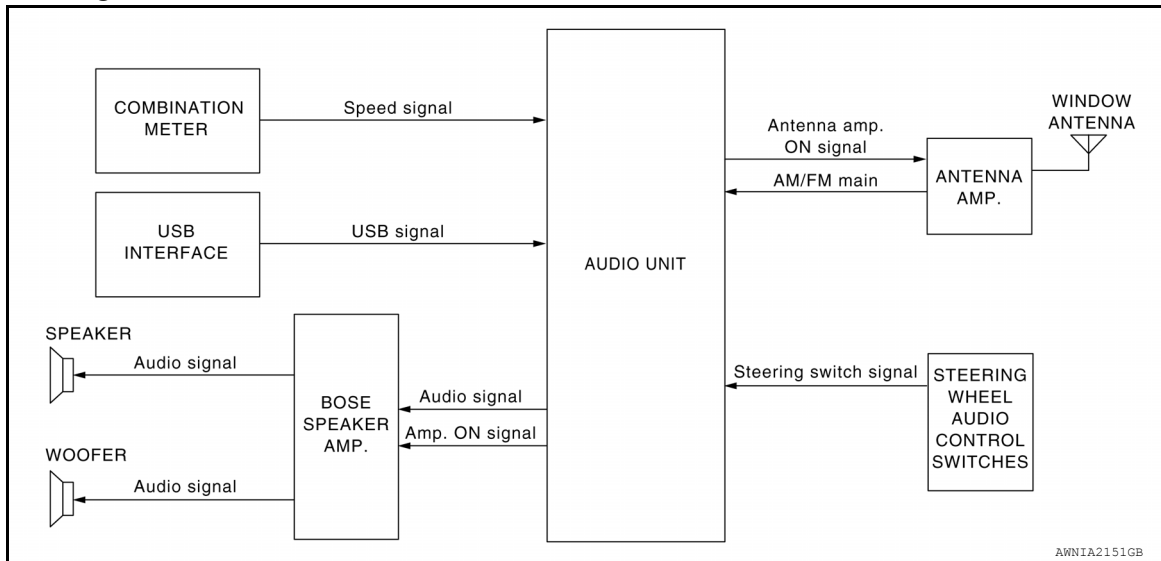
Was the repair confirmed?

- YES    >> Inspection End.  
NO     >> GO TO 2

## SYSTEM DESCRIPTION

### AUDIO SYSTEM (COUPE)

#### System Diagram



#### System Description

INFOID:0000000006389985

#### AUDIO SYSTEM

The audio system consists of the following components

- Audio unit
- BOSE speaker amp.
- Window antenna
- Steering wheel audio control switches
- Door speakers
- Front tweeters
- Center speaker
- Rear tweeters
- 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. amplifies the audio signals before sending them to the door speakers, front tweeters, center speaker, rear tweeters and rear subwoofers.

Refer to Owner's Manual for audio 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

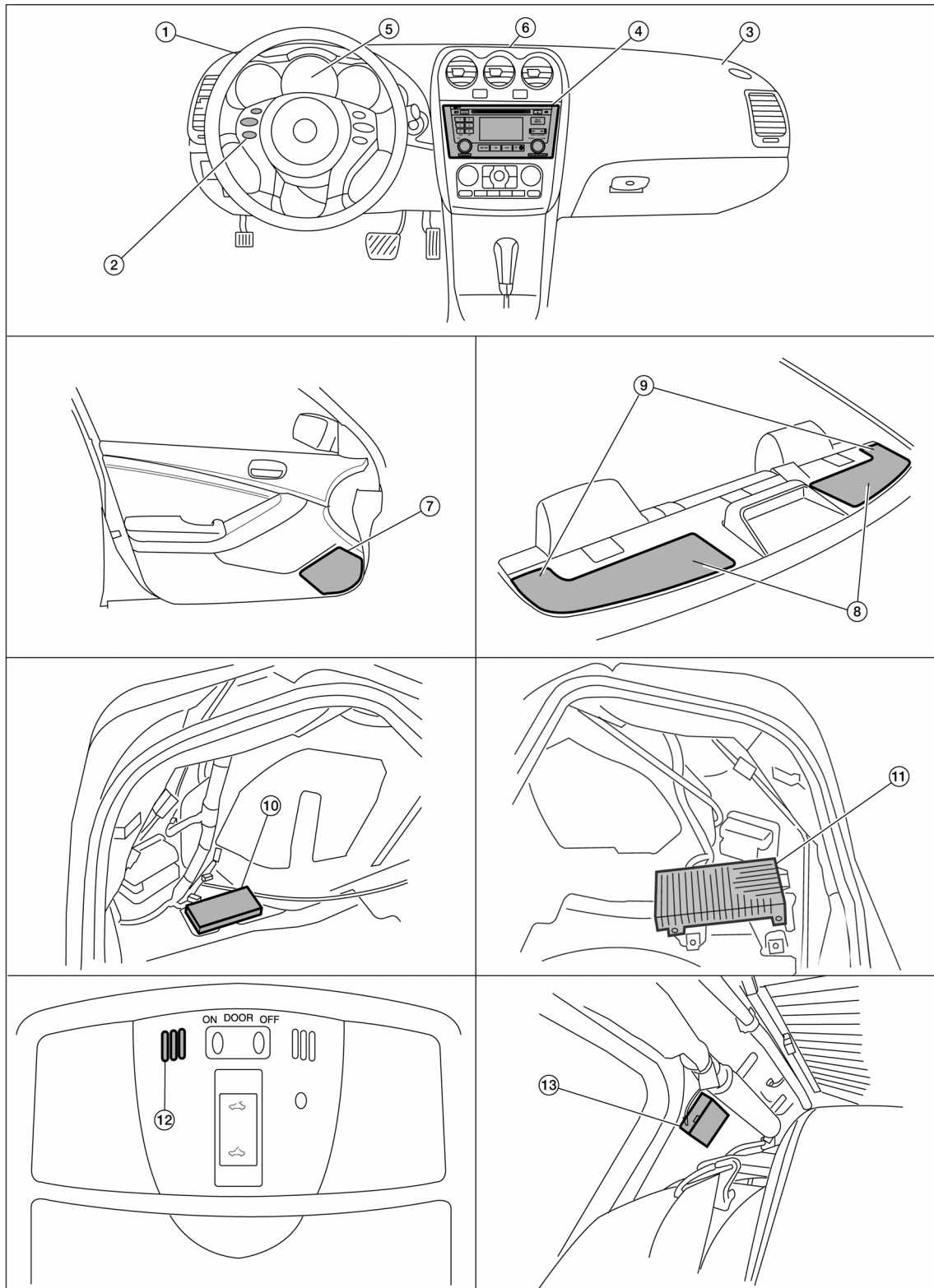
# AUDIO SYSTEM (COUPE)

< SYSTEM DESCRIPTION >

[BOSE AUDIO WITHOUT NAVIGATION]

## Component Parts Location

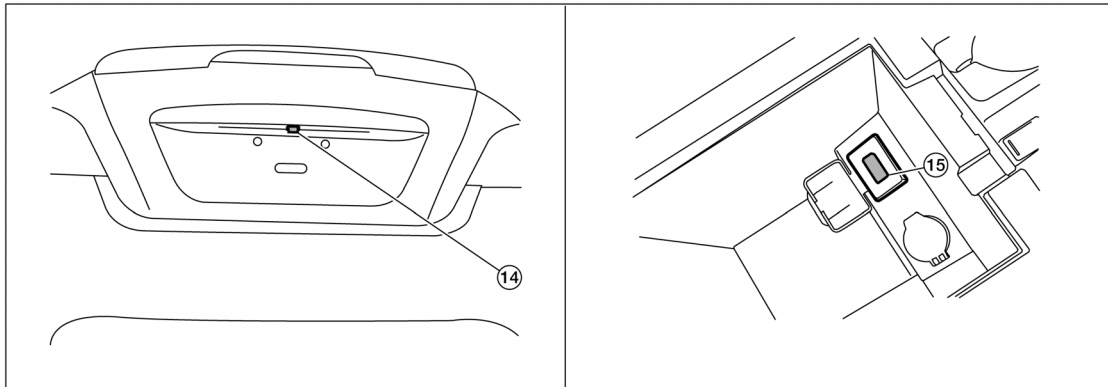
INFOID:000000006389986



# AUDIO SYSTEM (COUPE)

< SYSTEM DESCRIPTION >

[BOSE AUDIO WITHOUT NAVIGATION]



AWNIA2170ZZ

- |  |   |                                      |
|--|---|--------------------------------------|
| 1. Front tweeter LH M51  | 2. Steering wheel audio control switches  | 3. Front tweeter RH M52              |
| 4. Audio unit M44, M45, M46, M81, M96  | 5. Combination meter M24  | 6. Center speaker M151               |
| 7. Door speaker<br>LH D3<br>RH D103  | 8. Rear subwoofer<br>LH B25<br>RH B47   | 9. Rear tweeter<br>LH B16<br>RH B100 |
| 10. Bluetooth control unit B55, B56, B63<br>(viewed with trunk carpet and LH floor spacer removed) | 11. BOSE speaker amp B121, B122<br>(view with trunk carpet and RH floor spacer removed) | 12. Microphone R7                    |
| 13. Antenna AMP. M502  | 14. Rear view camera T7   | 15. USB interface M211               |

## Component Description

INFOID:000000006389987

Part name	Description
Audio unit	Controls audio system and satellite radio system functions
BOSE speaker amp.	Receives power (amp ON) and audio signals from audio unit, and outputs audio signals to each speaker.
Steering wheel audio control switches	<ul style="list-style-type: none"> <li>Each audio operation can be operated</li> <li>Steering switch signal (operation signal) is output to audio unit</li> </ul>
Door speakers	<ul style="list-style-type: none"> <li>Outputs audio signal from BOSE speaker amp.</li> <li>Outputs high, mid and low range sounds</li> </ul>
Front tweeters	<ul style="list-style-type: none"> <li>Outputs audio signal from BOSE speaker amp.</li> <li>Outputs high range sounds</li> </ul>
Center speaker	<ul style="list-style-type: none"> <li>Outputs audio signal from BOSE speaker amp.</li> <li>Outputs high range sounds</li> </ul>
Rear tweeters	<ul style="list-style-type: none"> <li>Outputs audio signal from BOSE speaker amp.</li> <li>Outputs high range sounds</li> </ul>
Rear subwoofers	<ul style="list-style-type: none"> <li>Outputs audio signal from BOSE speaker amp.</li> <li>Outputs low range sounds</li> </ul>

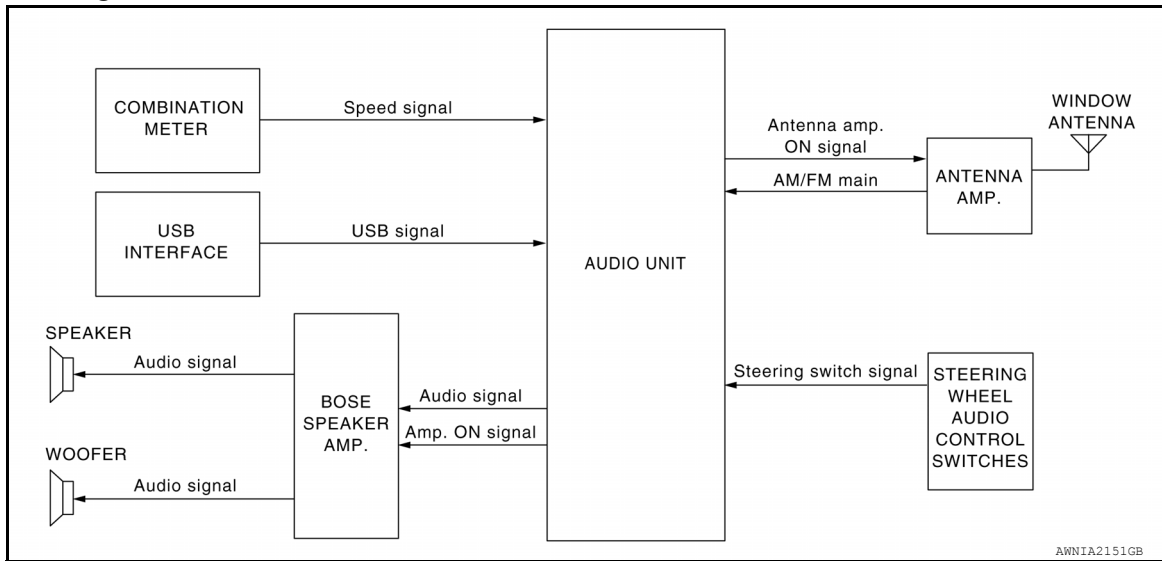
## AUDIO SYSTEM (SEDAN)

< SYSTEM DESCRIPTION >

[BOSE AUDIO WITHOUT NAVIGATION]

### AUDIO SYSTEM (SEDAN)

#### System Diagram



INFOID:000000006389988

#### System Description

INFOID:000000006389989

##### AUDIO SYSTEM

The audio system consists of the following components

- Audio 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 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.

##### 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.



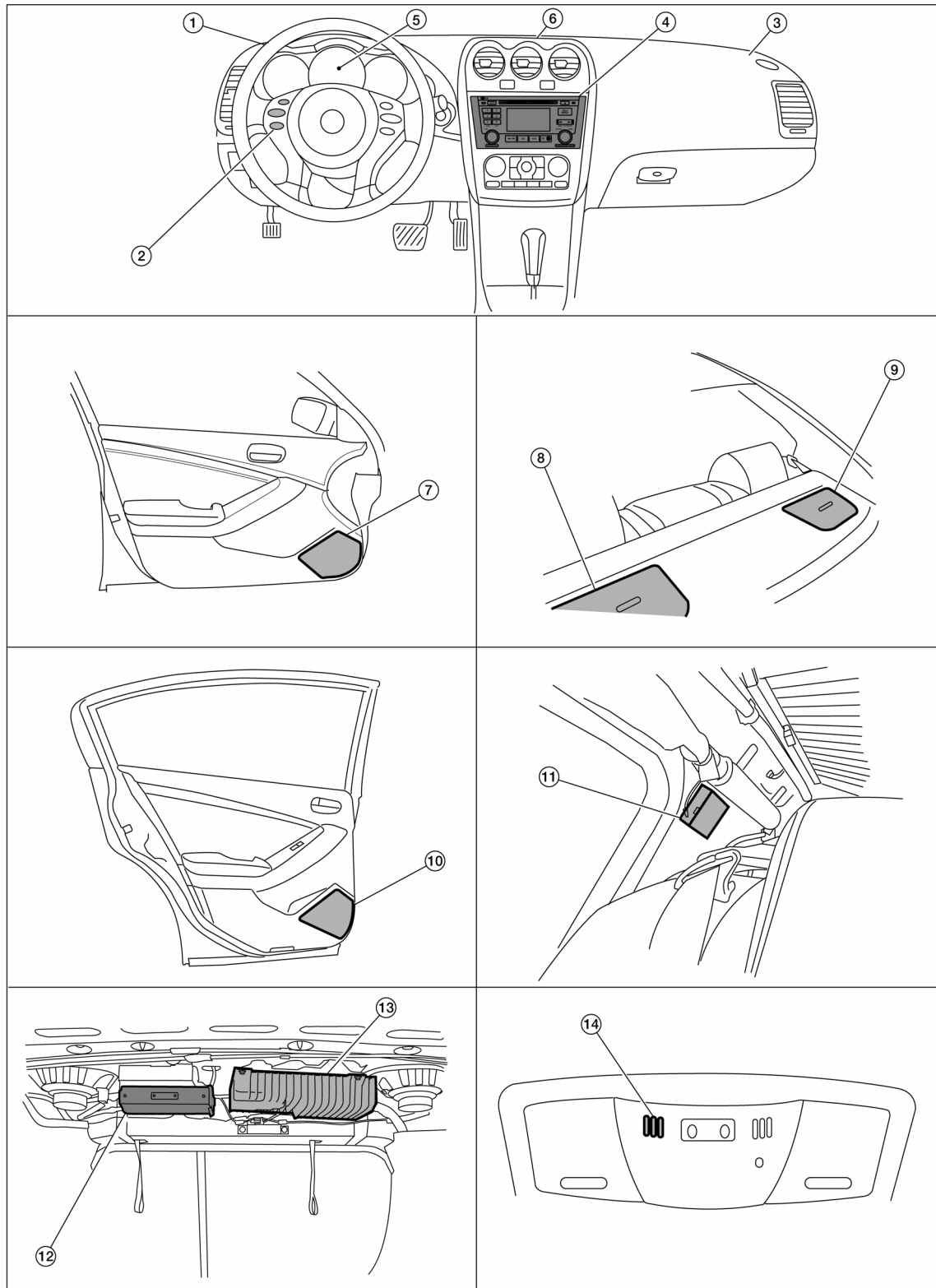
# AUDIO SYSTEM (SEDAN)

< SYSTEM DESCRIPTION >

[BOSE AUDIO WITHOUT NAVIGATION]

## Component Parts Location

INFOID:000000006389990



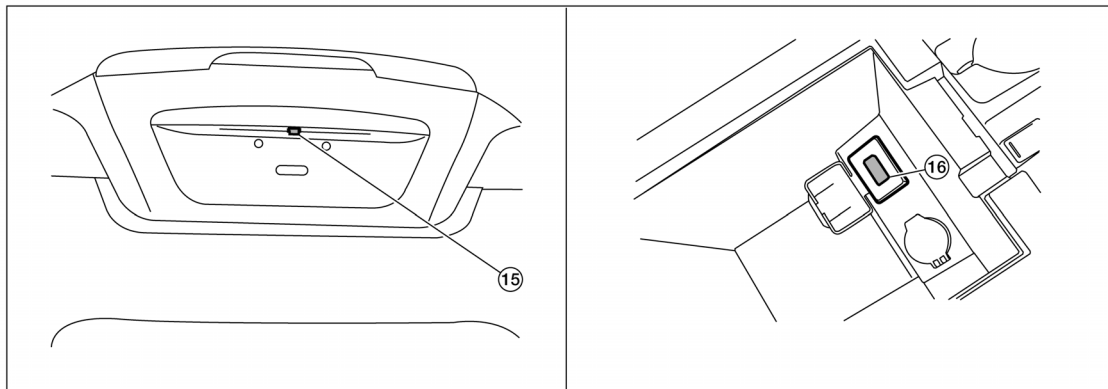
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# AUDIO SYSTEM (SEDAN)

< SYSTEM DESCRIPTION >

[BOSE AUDIO WITHOUT NAVIGATION]



AWNIA21682Z

- |  |  |   |
|--|--|---|
| 1. Tweeter LH M51                          | 2. Steering wheel audio control switches | 3. Tweeter RH M52                           |
| 4. Audio unit M43, M44, M45, M47, M81, M96 | 5. Center speaker M151                   | 6. Combination meter M24                    |
| 7. Front door speaker LH D3 RH D103        | 8. Rear subwoofer LH B120                | 9. Rear subwoofer RH B124                   |
| 10. Rear door speaker LH D202 RH D302      | 11. Antenna amp. M502                    | 12. Bluetooth control unit B125, B126, B132 |
| 13. BOSE speaker amp. B121, B122           | 14. Microphone R7                        | 15. Rear view camera B35                    |
| 16. USB interface M211                     |  |   |

## Component Description

INFOID:000000006389991

Part name	Description
Audio unit	Controls audio system functions
BOSE speaker amp.	Receives power (amp ON) and audio signals from audio unit, and outputs audio signals to each speaker.
Steering wheel audio control switches	<ul style="list-style-type: none"> <li>Each audio operation can be operated</li> <li>Steering switch signal (operation signal) is output to audio unit</li> </ul>
Front door speakers	<ul style="list-style-type: none"> <li>Outputs audio signal from BOSE speaker amp.</li> <li>Outputs high, mid and low range sounds</li> </ul>
Tweeters	<ul style="list-style-type: none"> <li>Outputs audio signal from BOSE speaker amp.</li> <li>Outputs high range sounds</li> </ul>
Center speaker	<ul style="list-style-type: none"> <li>Outputs audio signal from BOSE speaker amp.</li> <li>Outputs high range sounds</li> </ul>
Rear door speakers	<ul style="list-style-type: none"> <li>Outputs audio signal from BOSE speaker amp.</li> <li>Outputs high range sounds</li> </ul>
Rear subwoofers	<ul style="list-style-type: none"> <li>Outputs audio signal from BOSE speaker amp.</li> <li>Outputs low range sounds</li> </ul>

REAR VIEW MONITOR SYSTEM

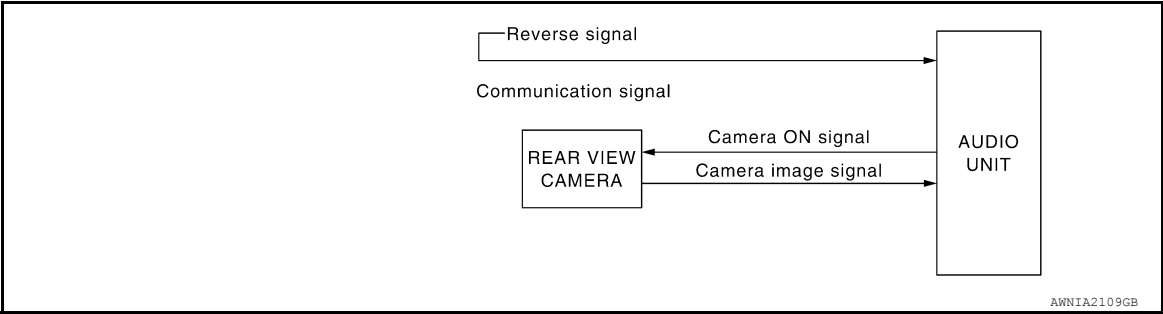
< SYSTEM DESCRIPTION >

[BOSE AUDIO WITHOUT NAVIGATION]

REAR VIEW MONITOR SYSTEM

System Diagram

INFOID:0000000006389992



System Description

INFOID:0000000006389993

When the shift selector is in the R position, the audio unit shows a view to the rear of the vehicle. Lines which indicate the vehicle clearance and distances are also displayed.

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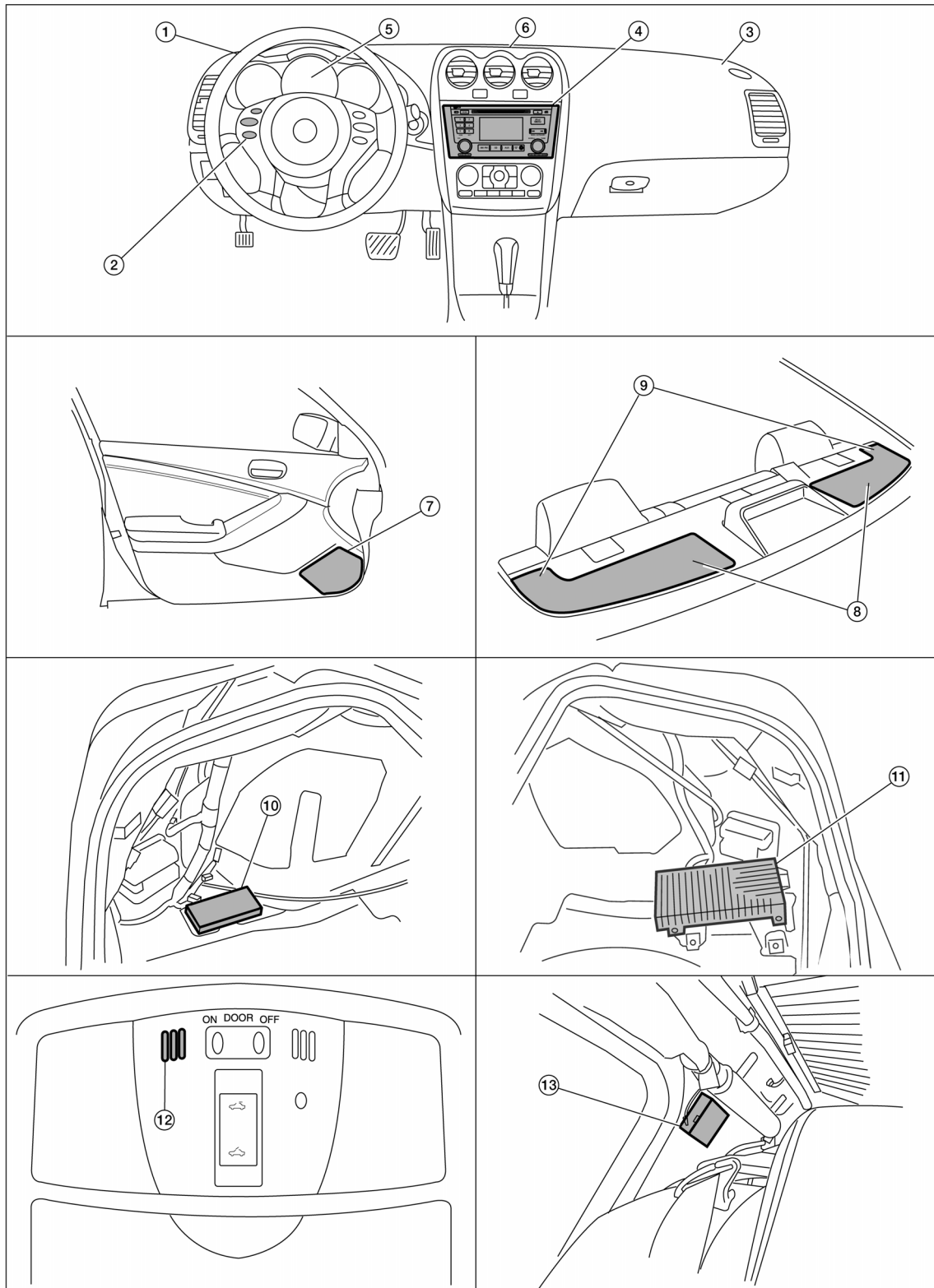
# REAR VIEW MONITOR SYSTEM

< SYSTEM DESCRIPTION >

[BOSE AUDIO WITHOUT NAVIGATION]

## Component Parts Location (Coupe)

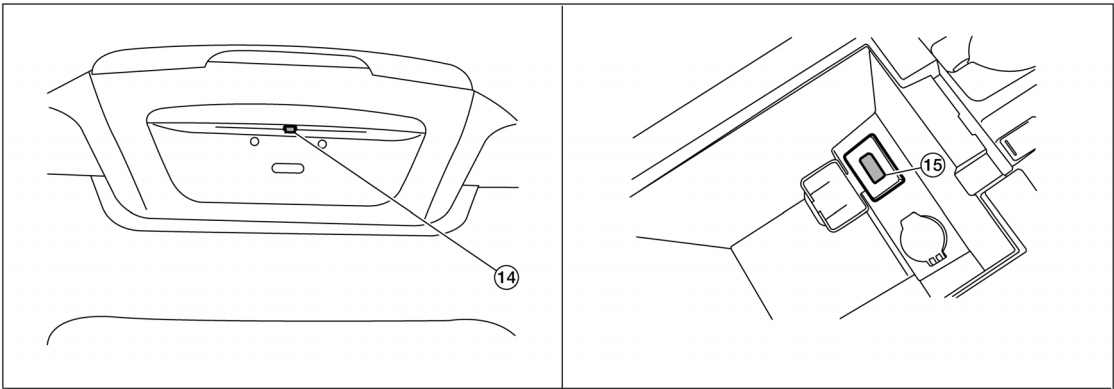
INFOID:000000006389994



# REAR VIEW MONITOR SYSTEM

< SYSTEM DESCRIPTION >

[BOSE AUDIO WITHOUT NAVIGATION]



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- |   |  |                                      |
|---|--|--------------------------------------|
| 1. Front tweeter LH M51   | 2. Steering wheel audio control switches   | 3. Front tweeter RH M52              |
| 4. Audio unit M44, M45, M46, M81, M96   | 5. Combination meter M24   | 6. Center speaker M151               |
| 7. Door speaker<br>LH D3<br>RH D103   | 8. Rear subwoofer<br>LH B25<br>RH B47  | 9. Rear tweeter<br>LH B16<br>RH B100 |
| 10. Bluetooth control unit B55, B56, B63<br>(viewed with trunk carpet and LH<br>floor spacer removed) | 11. BOSE speaker amp B121, B122<br>(view with trunk carpet and RH floor<br>spacer removed) | 12. Microphone R7                    |
| 13. Antenna AMP. M502   | 14. Rear view camera T7  | 15. USB interface M211               |

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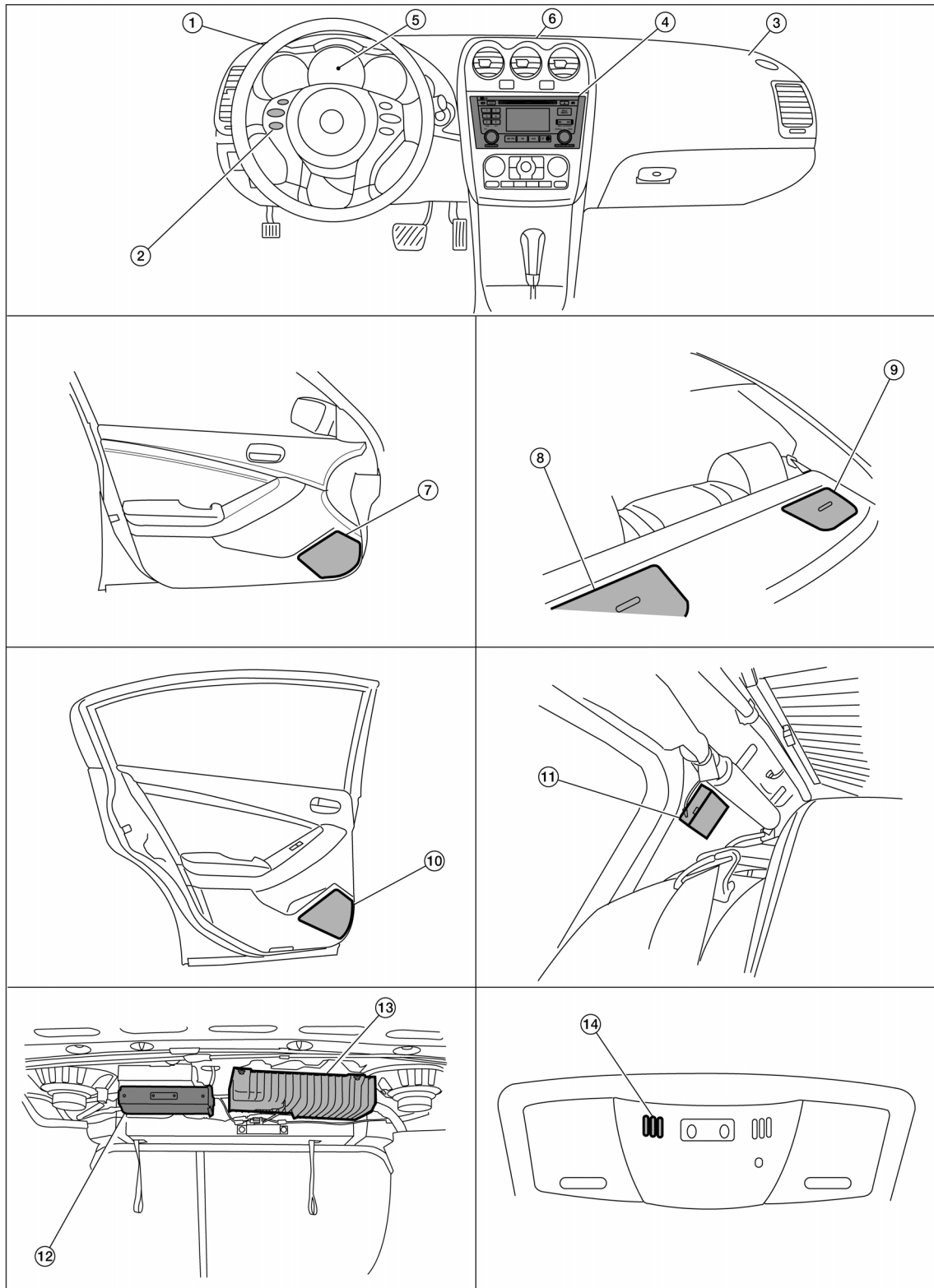
# REAR VIEW MONITOR SYSTEM

< SYSTEM DESCRIPTION >

[BOSE AUDIO WITHOUT NAVIGATION]

## Component Parts Location (Sedan)

INFOID:000000006389995

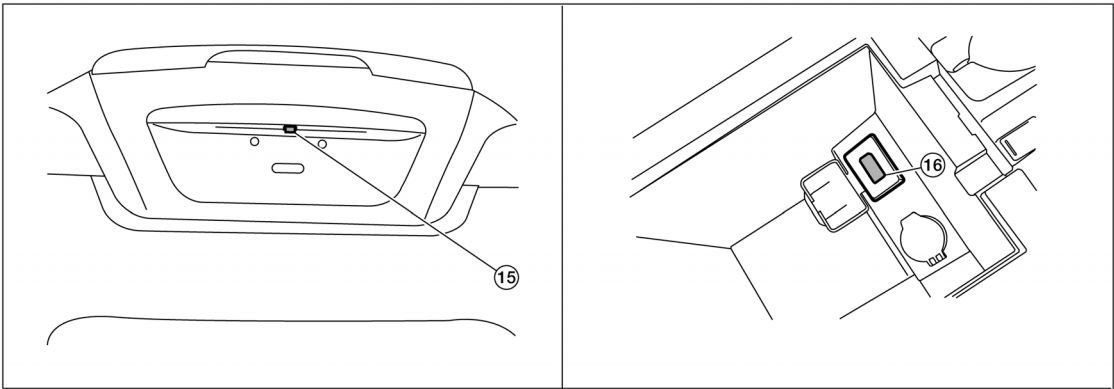


AWN1A216722

# REAR VIEW MONITOR SYSTEM

< SYSTEM DESCRIPTION >

[BOSE AUDIO WITHOUT NAVIGATION]



AWNIA21682Z

- |  |  |   |
|--|--|---|
| 1. Tweeter LH M51                          | 2. Steering wheel audio control switches | 3. Tweeter RH M52                           |
| 4. Audio unit M43, M44, M45, M47, M81, M96 | 5. Center speaker M151                   | 6. Combination meter M24                    |
| 7. Front door speaker LH D3 RH D103        | 8. Rear subwoofer LH B120                | 9. Rear subwoofer RH B124                   |
| 10. Rear door speaker LH D202 RH D302      | 11. Antenna amp. M502                    | 12. Bluetooth control unit B125, B126, B132 |
| 13. BOSE speaker amp. B121, B122           | 14. Microphone R7                        | 15. Rear view camera B35                    |
| 16. USB interface M211                     |  |   |

## Component Description

INFOID:000000006389996

Part name	Description
Audio unit	<ul style="list-style-type: none"><li>• Sends camera ON signal to the rear view camera</li><li>• Receives camera image signal from the rear view camera</li><li>• Displays camera image</li></ul>
Rear view camera	<ul style="list-style-type: none"><li>• Receives camera ON signal from the audio unit</li><li>• Sends image signal to the audio unit</li></ul>

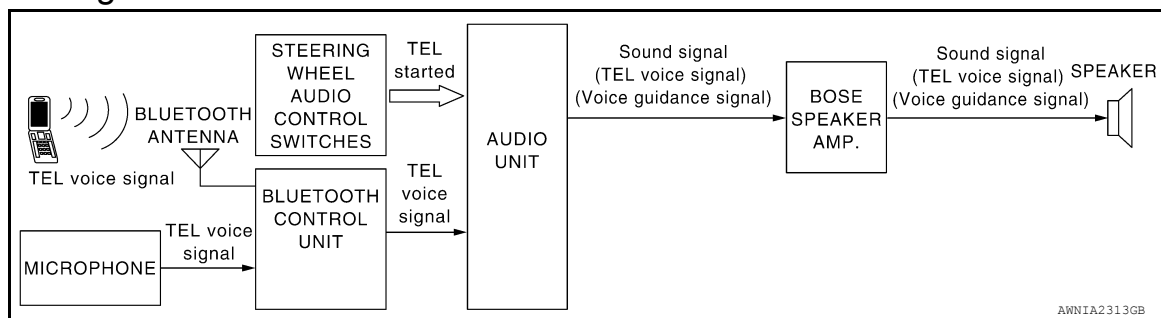
# HANDS FREE PHONE SYSTEM (COUPE)

< SYSTEM DESCRIPTION >

[BOSE AUDIO WITHOUT NAVIGATION]

## HANDS FREE PHONE SYSTEM (COUPE)

### System Diagram



### System Description

INFOID:000000006931282

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. Personal memos can be created using the Nissan Voice Recognition system. 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 10 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 a switch on the steering wheel audio control switches is pushed, resistance in the steering switch circuit changes depending on which switch 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 switches:

- 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 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.



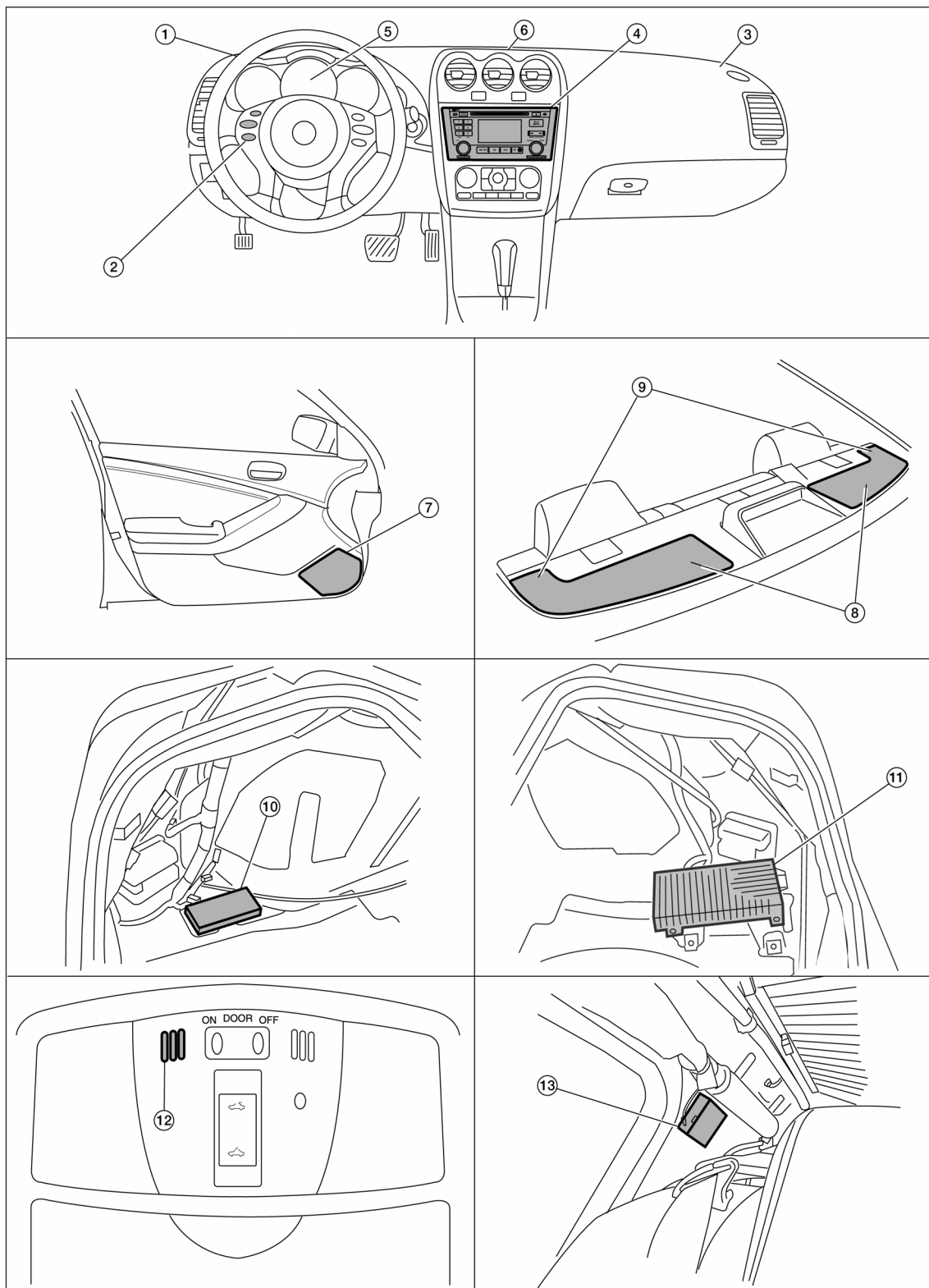
# HANDS FREE PHONE SYSTEM (COUPE)

< SYSTEM DESCRIPTION >

[BOSE AUDIO WITHOUT NAVIGATION]

## Component Parts Location

INFOID:000000006389999

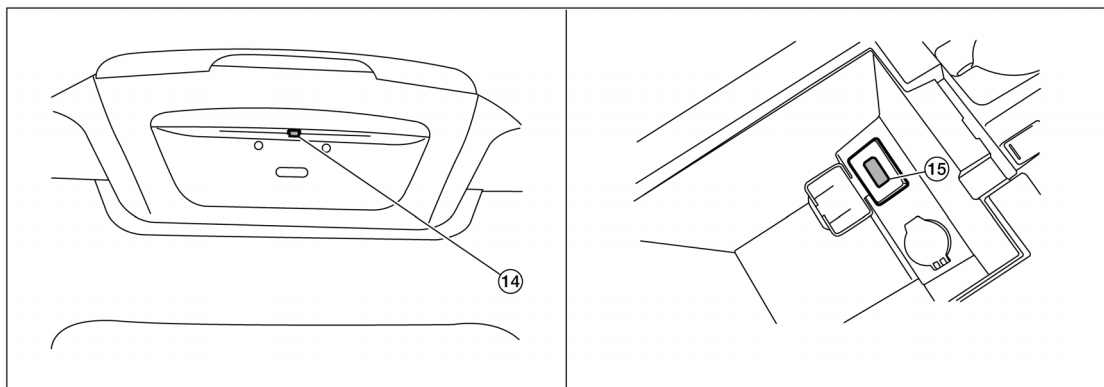


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# HANDS FREE PHONE SYSTEM (COUPE)

< SYSTEM DESCRIPTION >

[BOSE AUDIO WITHOUT NAVIGATION]



AWNIA2170ZZ

- |  |   |                                      |
|--|---|--------------------------------------|
| 1. Front tweeter LH M51  | 2. Steering wheel audio control switches  | 3. Front tweeter RH M52              |
| 4. Audio unit M44, M45, M46, M81, M96  | 5. Combination meter M24  | 6. Center speaker M151               |
| 7. Door speaker<br>LH D3<br>RH D103  | 8. Rear subwoofer<br>LH B25<br>RH B47   | 9. Rear tweeter<br>LH B16<br>RH B100 |
| 10. Bluetooth control unit B55, B56, B63<br>(viewed with trunk carpet and LH floor spacer removed) | 11. BOSE speaker amp B121, B122<br>(view with trunk carpet and RH floor spacer removed) | 12. Microphone R7                    |
| 13. Antenna AMP. M502  | 14. Rear view camera T7   | 15. USB interface M211               |

## Component Description

INFOID:000000006390000

Part name	Description
Audio unit	<ul style="list-style-type: none"> <li>Receives telephone voice signal from Bluetooth control unit</li> <li>Sends telephone voice and voice guidance signals to BOSE speaker amp.</li> </ul>
BOSE speaker amp.	Inputs power (amp ON) and sound signal from audio unit, and outputs sound signal to each speaker.
Door speaker	Receives telephone voice and voice guidance signals from BOSE speaker amp.
Front tweeter	
Center speaker	
Steering wheel audio control switches	<ul style="list-style-type: none"> <li>Start a voice recognition session</li> <li>Answer and end telephone calls</li> <li>Adjust the volume level</li> </ul>
Microphone	Sends voice signals to Bluetooth control unit
Bluetooth control unit	Controls hands-free phone functions
Bluetooth antenna	Sends telephone voice signal to bluetooth control unit

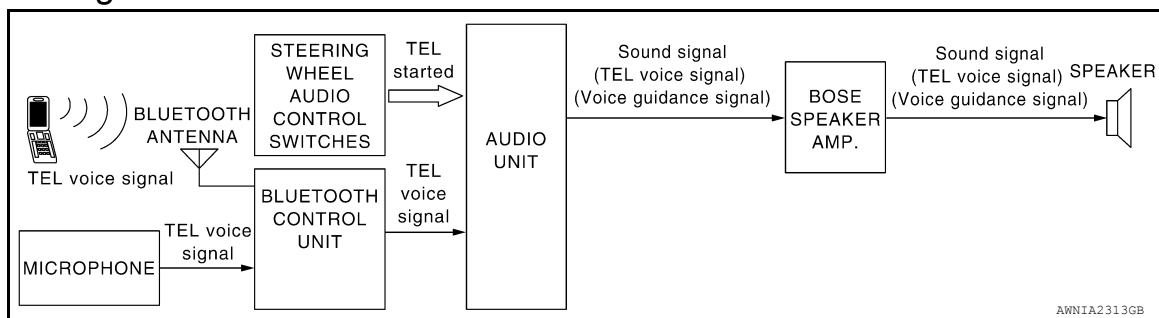
# HANDS FREE PHONE SYSTEM (SEDAN)

< SYSTEM DESCRIPTION >

[BOSE AUDIO WITHOUT NAVIGATION]

## HANDS FREE PHONE SYSTEM (SEDAN)

### System Diagram



### System Description

INFOID:000000006931284

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. Personal memos can be created using the Nissan Voice Recognition system. 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 10 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 a switch on the steering wheel audio control switches is pushed, resistance in the steering switch circuit changes depending on which switch 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 switches:

- 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 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.

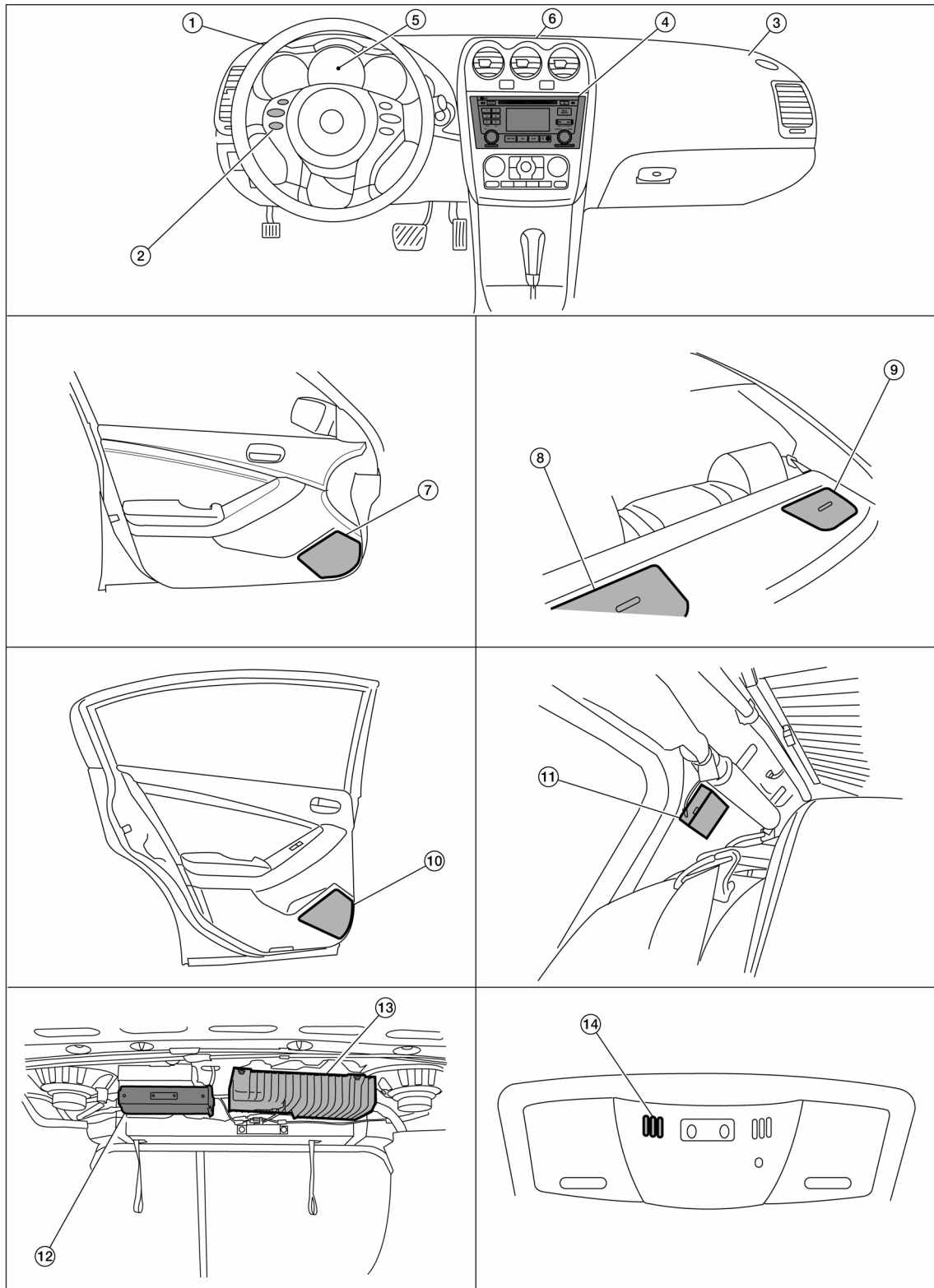
# HANDS FREE PHONE SYSTEM (SEDAN)

< SYSTEM DESCRIPTION >

[BOSE AUDIO WITHOUT NAVIGATION]

## Component Parts Location

INFOID:000000006390003

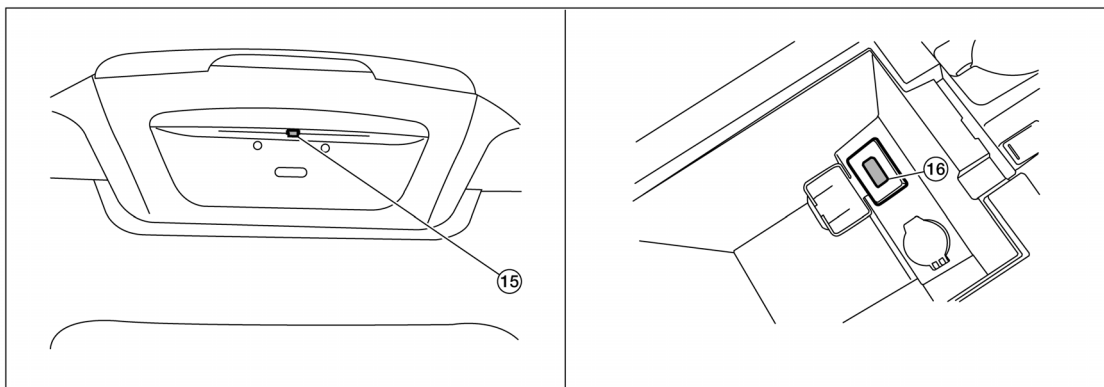


AWN1A216722

# HANDS FREE PHONE SYSTEM (SEDAN)

< SYSTEM DESCRIPTION >

[BOSE AUDIO WITHOUT NAVIGATION]



AWNIA21682Z

- |   |  |   |
|---|--|---|
| 1. Tweeter LH M51                           | 2. Steering wheel audio control switches | 3. Tweeter RH M52                           |
| 4. Audio unit M43, M44, M45, M47, M81, M96  | 5. Center speaker M151                   | 6. Combination meter M24                    |
| 7. Front door speaker<br>LH D3<br>RH D103   | 8. Rear subwoofer LH B120                | 9. Rear subwoofer RH B124                   |
| 10. Rear door speaker<br>LH D202<br>RH D302 | 11. Antenna amp. M502                    | 12. Bluetooth control unit B125, B126, B132 |
| 13. BOSE speaker amp. B121, B122            | 14. Microphone R7                        | 15. Rear view camera B35                    |
| 16. USB interface M211                      |  |   |

## Component Description

INFOID:000000006390004

Part name	Description
Audio unit	<ul style="list-style-type: none"> <li>Receives telephone voice signal from Bluetooth control unit</li> <li>Sends telephone voice and voice guidance signals to BOSE speaker amp.</li> </ul>
BOSE speaker amp.	Inputs power (amp ON) and sound signal from audio unit, and outputs sound signal to each speaker.
Front door speaker	Receives telephone voice and voice guidance signals from BOSE speaker amp.
Tweeter	
Center speaker	
Steering wheel audio control switches	<ul style="list-style-type: none"> <li>Start a voice recognition session</li> <li>Answer and end telephone calls</li> <li>Adjust the volume level</li> </ul>
Microphone	Sends voice signals to Bluetooth control unit
Bluetooth control unit	Controls hands-free phone functions
Bluetooth antenna	Sends telephone voice signal to bluetooth control unit

# DIAGNOSIS SYSTEM (AUDIO UNIT)

< SYSTEM DESCRIPTION >

[BOSE AUDIO WITHOUT NAVIGATION]

## DIAGNOSIS SYSTEM (AUDIO UNIT)

### Diagnosis Description

INFOID:000000006390005

### ON BOARD DIAGNOSIS

#### Description

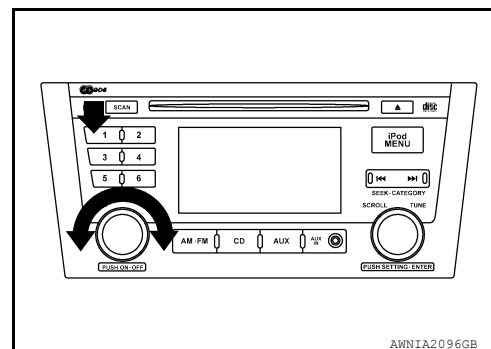
- The trouble diagnosis function has a self-diagnosis mode for conducting trouble diagnosis automatically and a confirmation/adjustment mode for operating manually.
- Self-diagnosis mode performs the audio unit diagnosis and the connection diagnosis between each of the units that make up the system, 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

Mode		Description
Self-Diagnosis		<ul style="list-style-type: none"> <li>• audio unit diagnosis</li> <li>• Perform the connection diagnosis between each of the units.</li> </ul>
Confirmation/ Adjustment	Display Diagnosis	The confirmation of the tint with the color spectrum bar display and shading of color with the gradation bar display can be performed.
	Vehicle Signals	Diagnosis of signals can be performed for vehicle speed, lights, reverse and EQ pin.
	Speaker Test	The connection of a speaker can be confirmed by test tone.
	Error History (Detailed)	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.
	Camera System	The guiding line position that overlaps rear view camera image can be adjusted.
	AV COMM Diagnosis	The communication condition of each unit can be monitored.
	Delete Unit Connection Log	Erase the connection history of unit and error history
	Initialize Settings	Initializes the audio unit memory.

### STARTING PROCEDURE

1. Start the engine.
2. Turn the audio system OFF.
3. While pressing the number 1 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.)
  - Use the SCROLL TUNE dial to go up and down the menu screen.
  - Push the enter button to select an item on the menu screen.
  - Push the IPOD MENU button to go back from screen to screen.

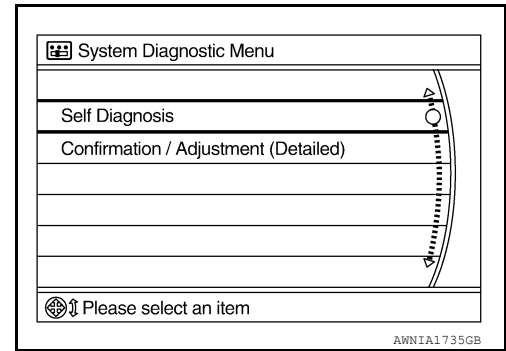


# DIAGNOSIS SYSTEM (AUDIO UNIT)

[BOSE AUDIO WITHOUT NAVIGATION]

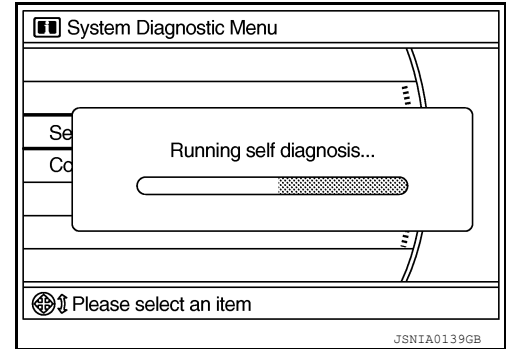
## < SYSTEM DESCRIPTION >

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



## SELF-DIAGNOSIS MODE

- 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.

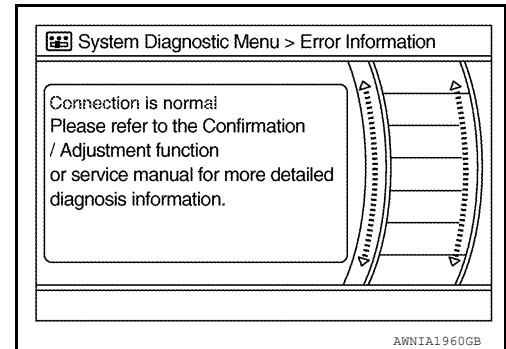
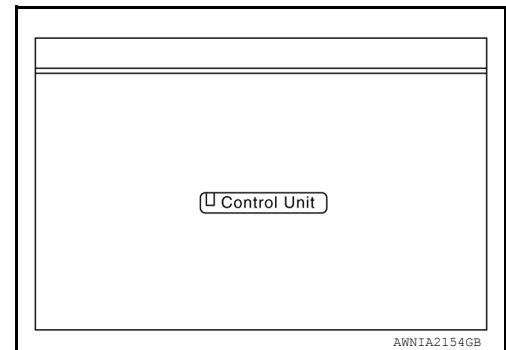


- Diagnosis results are displayed after the self-diagnosis is completed. The unit names and the connection lines are color-coded according to the diagnostic results.

Diagnosis results	Unit
Normal	Green
Connection malfunction	Gray
Unit malfunction <sup>Note</sup>	Red

### NOTE:

- Only the control unit (audio unit) is displayed in red.
- Replace audio unit if "Self-Diagnosis did not run because of a control unit malfunction" is indicated. The symptom is audio 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

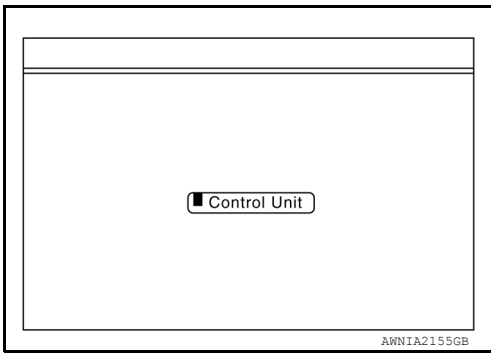
Check the applicable display at the following table, and then repair the malfunctioning parts.

Self-diagnosis Result Chart

# DIAGNOSIS SYSTEM (AUDIO UNIT)

< SYSTEM DESCRIPTION >

[BOSE AUDIO WITHOUT NAVIGATION]

Diagnosis results	Detection logic	Possible malfunction location / Action to take
 <p>Control Unit</p> <p>AWNIA2155GB</p>	<p>Malfunction is detected in audio unit power supply and ground circuits.</p>	<p>Check audio unit power supply and ground circuits. When detecting no malfunction in those components, replace audio unit.</p>

## NOTE:

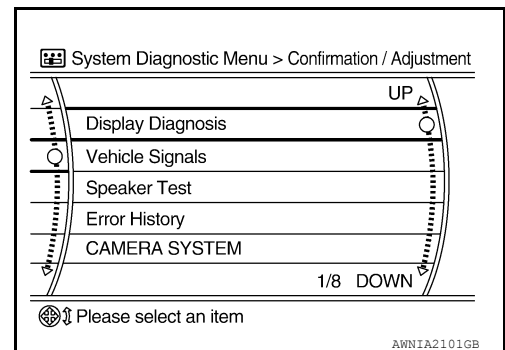
When a control unit malfunction is detected (red in unit display), connection malfunctions with other connection unit may be displayed.  
 "Self-Diagnosis did not run because of a control unit malfunction"

## NOTE:

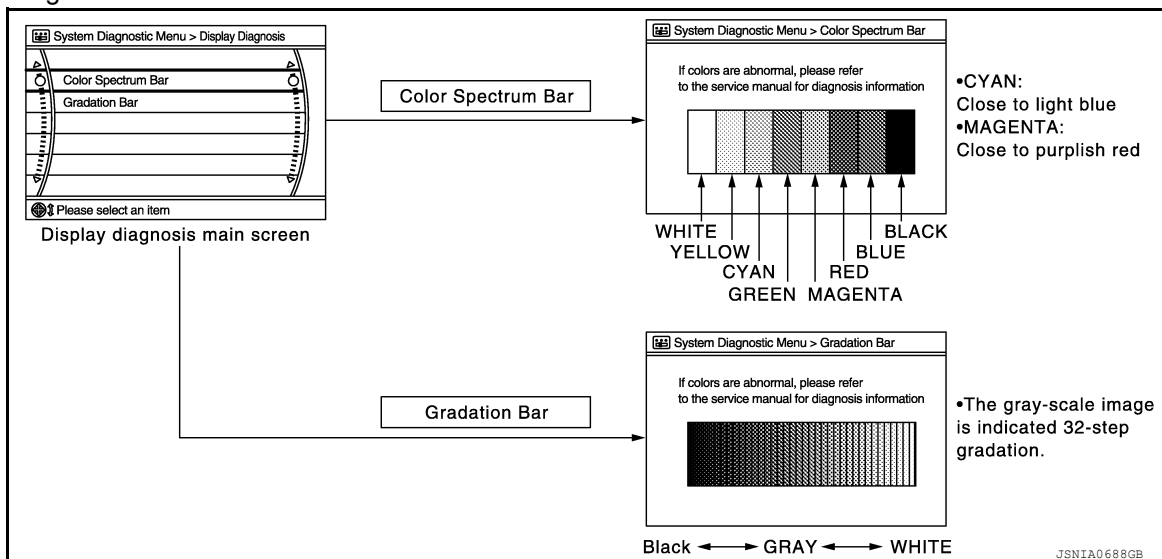
The number of units that are displayed on the on board self-diagnosis display according to equipment.

## 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.



# DIAGNOSIS SYSTEM (AUDIO UNIT)

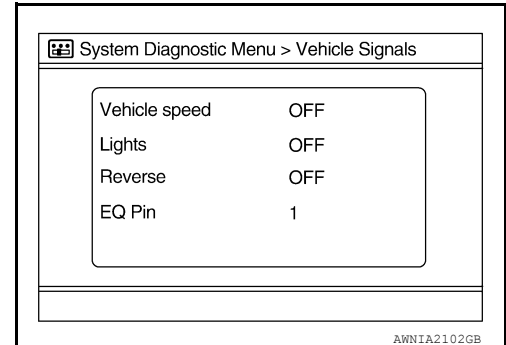
< SYSTEM DESCRIPTION >

[BOSE AUDIO WITHOUT NAVIGATION]

**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.



Diagnosis item	Display	Vehicle status	Remarks
Vehicle speed	ON	Vehicle speed > 0 km/h (0 MPH)	Changes in indication may be delayed. This is normal.
		Vehicle speed = 0 km/h (0 MPH)	
Lights	ON	Light switch ON	—
	OFF	Light switch OFF	
Reverse	ON	Shift the selector lever to the “R” position	Changes in indication may be delayed. This is normal.
	OFF	Shift the selector lever to a position other than the “R” position	
EQ pin	1	—	—

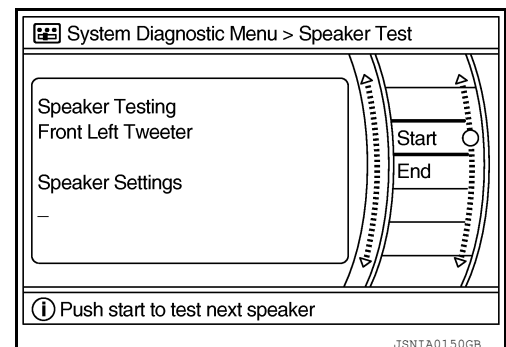
## Speaker Test

Select “SPEAKER TEST” to display the Speaker Testing 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



## 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.

### 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.

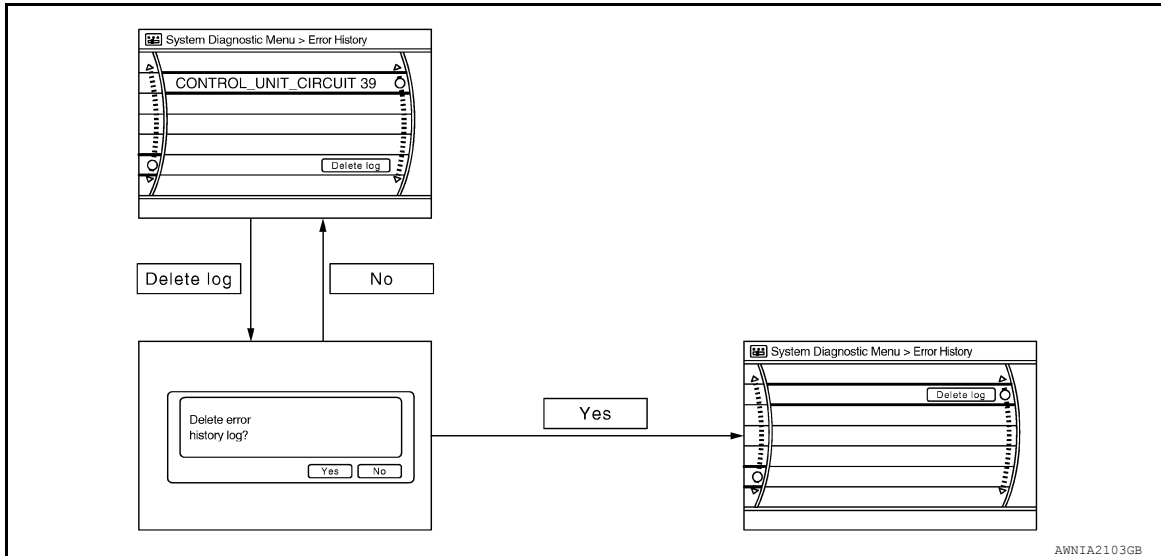
# DIAGNOSIS SYSTEM (AUDIO UNIT)

[BOSE AUDIO WITHOUT NAVIGATION]

## < SYSTEM DESCRIPTION >

- 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.

Display type of occurrence frequency	Error history display item
Count up method A	AV communication line, control unit (AV communication)
Count up method B	Other than the above



### 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.

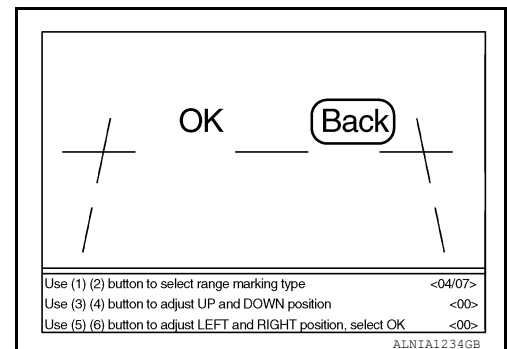
Error item	Description	Possible malfunction factor/Action to take
CONTROL UNIT (AV)	AV communication circuit initial diagnosis malfunction is detected.	
FLASH-ROM Error Of Control Unit	audio unit malfunction is detected.	

### Camera System

The function of "Adjust Offset of Rear View Camera" is available.

### 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.



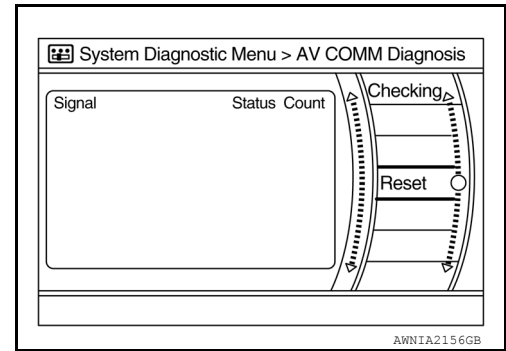
### AV COMM Diagnosis

# DIAGNOSIS SYSTEM (AUDIO UNIT)

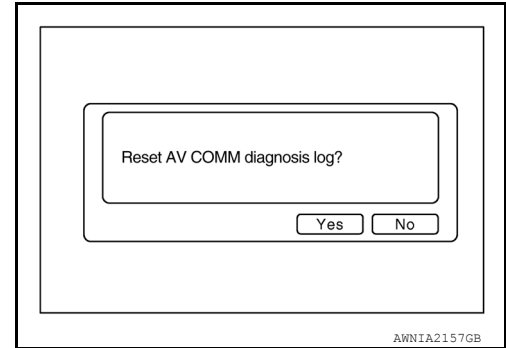
[BOSE AUDIO WITHOUT NAVIGATION]

## < SYSTEM DESCRIPTION >

- Displays the communication status between audio 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.

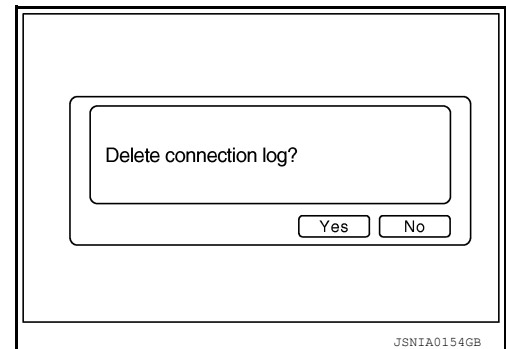


- Select reset to reset the AV COMM diagnosis log.



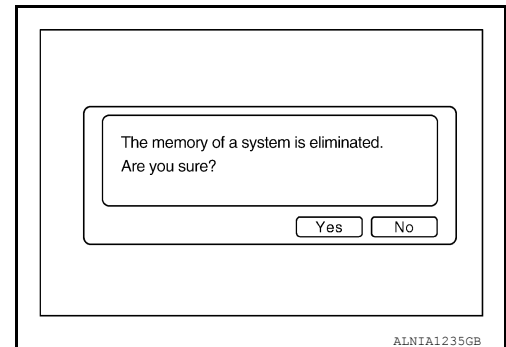
### Delete Unit Connection Log

Deletes any unit connection records and error records from the audio unit memory. (Clear the records of the unit that has been removed.)



### Initialize Settings

Eliminates the memory settings of audio system.



# DIAGNOSIS SYSTEM (BLUETOOTH CONTROL UNIT)

< SYSTEM DESCRIPTION >

[BOSE AUDIO WITHOUT NAVIGATION]

## DIAGNOSIS SYSTEM (BLUETOOTH CONTROL UNIT)

### Diagnosis Description

INFOID:000000006931285

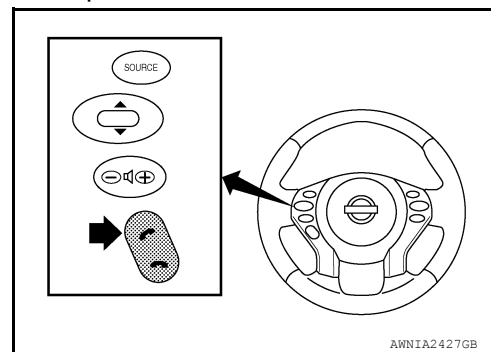
The Bluetooth control unit has two diagnostic checks. The first diagnostic check is performed automatically every ignition cycle during control unit initialization. The second diagnostic check is performed by the technician using the steering wheel audio control switches prior to trouble diagnosis.

#### BLUETOOTH CONTROL UNIT (AUTOMATIC INITIALIZATION) CHECK

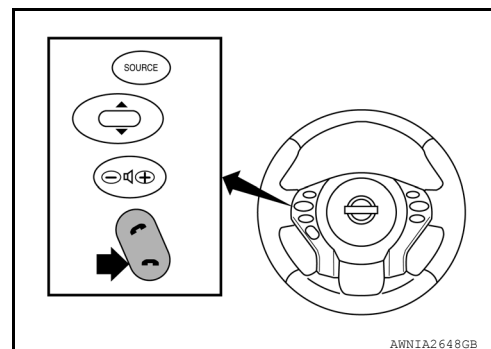
- Internal control unit failure
- Bluetooth antenna connection open or shorted
- Steering wheel audio control switches [☎ (PHONE/SEND), ⏻ (PHONE/END)] stuck closed
- Vehicle speed pulse count
- Microphone connection test (with playback to operator)
- Bluetooth inquiry check

#### BLUETOOTH CONTROL UNIT (STEERING WHEEL AUDIO CONTROL SWITCH) CHECK

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 switches ☎ (PHONE/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 switches ⏻ (PHONE/END) button switch 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 switches ⏻ (PHONE/END) switch 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-88, "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-88, "Work Flow"](#).
8. Self-diagnosis mode is complete when the voice prompt says "All diagnostic functions completed".



### Work Flow

INFOID:000000006390007

Failure Message	Action
"Internal failure"	Replace Bluetooth control unit. For coupe, refer to <a href="#">AV-217, "Removal and Installation - Coupe"</a> . For sedan, refer to <a href="#">AV-217, "Removal and Installation - Sedan"</a> .
"Bluetooth antenna open"	1. Inspect harness connection.
"Bluetooth antenna shorted"	2. Replace Bluetooth antenna. For coupe, refer to <a href="#">AV-216, "Removal and Installation - Coupe"</a> . For sedan, refer to <a href="#">AV-216, "Removal and Installation - Sedan"</a> .

## DIAGNOSIS SYSTEM (BLUETOOTH CONTROL UNIT)

< SYSTEM DESCRIPTION >

[BOSE AUDIO WITHOUT NAVIGATION]

Failure Message	Action
"Phone/Send for Hands Free System is stuck"	Check steering wheel audio control switches. Refer to <a href="#">AV-130. "Diagnosis Procedure"</a> .
"Phone/End for the Hands Free System is stuck"	
"Microphone test" (failed interactive test)	<ol style="list-style-type: none"><li>1. Inspect harness between Bluetooth control unit and microphone.</li><li>2. Replace microphone. Refer to <a href="#">AV-215. "Removal and Installation"</a>.</li></ol>

A

B

C

D

E

F

G

H

I

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M

AV

O

P

# POWER SUPPLY AND GROUND CIRCUIT (COUPE)

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

## DTC/CIRCUIT DIAGNOSIS

### POWER SUPPLY AND GROUND CIRCUIT (COUPE)

#### AUDIO UNIT

#### AUDIO UNIT : Diagnosis Procedure

INFOID:000000006390008

Regarding Wiring Diagram information, refer to [AV-152, "COUPE : Wiring Diagram - Coupe Without Navigation System"](#).

### 1.CHECK FUSES

Check that the following fuses are not blown.

Unit	Terminals	Signal name	Fuse No.
Audio unit	19	Battery power	24
	7	Ignition switch ACC or ON	19

Are the fuses OK?

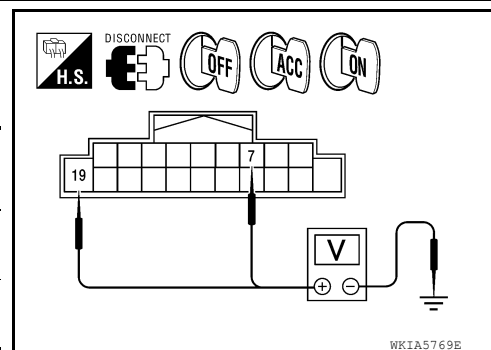
YES >> GO TO 2

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 M44.
2. Check voltage between the audio unit connector M44 and ground.

(+)		(-)	OFF	ACC	ON
Connector	Terminal				
M44	19	Ground	Battery voltage	Battery voltage	Battery voltage
	7	Ground	0V	Battery voltage	Battery voltage



Are the voltage results as specified?

YES >> GO TO 3

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

### 3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect audio unit connectors M44 and M45.
3. Check continuity between audio unit harness connectors M44, M45 and ground.

(+)		(-)	Continuity
Connector	Terminal		
M44	20	Ground	Yes
M45	27		
	40		
	48		

Does continuity exist?

YES >> Inspection End.

NO >> Repair harness or connector.

### BOSE SPEAKER AMP

# POWER SUPPLY AND GROUND CIRCUIT (COUPE)

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

## BOSE SPEAKER AMP : Diagnosis Procedure

INFOID:000000006390009

Regarding Wiring Diagram information, refer to [AV-152, "COUPE : Wiring Diagram - Coupe Without Navigation System"](#).

### 1.CHECK FUSE

Check for blown fuses.

Unit	Terminals	Signal name	Fuse No.
BOSE speaker amp.	50	Battery power	25
	51		26

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.

(+)		(-)	Voltage (approx.)
Connector	Terminal		
B122	50	Ground	Battery voltage
	51		

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 and ground.

(+)		(-)	Continuity
Connector	Terminal		
B122	47	Ground	Yes
	52		

Does continuity exist?

YES >> Inspection End.

NO >> Repair harness or connector.

## REAR VIEW CAMERA

## REAR VIEW CAMERA : Diagnosis Procedure

INFOID:000000006931286

Regarding Wiring Diagram information, refer to [AV-152, "COUPE : Wiring Diagram - Coupe Without Navigation System"](#).

# POWER SUPPLY AND GROUND CIRCUIT (COUPE)

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

## 1. CHECK POWER SUPPLY CIRCUIT (REAR VIEW CAMERA SIDE)

### NOTE:

**Apply parking brakes before proceeding.**

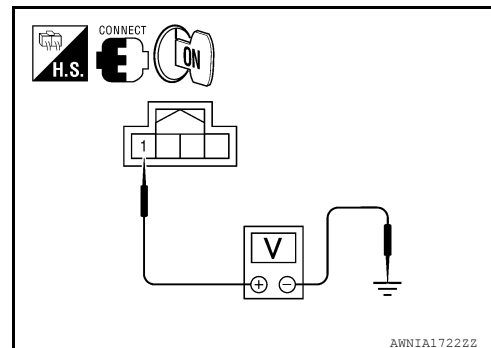
1. Turn ignition switch ON.
2. Shift transmission into Reverse.
3. Check voltage between rear view camera harness connector T7 and ground.

(+)		(-)	Transmission position	Value (Approx.)
Connector	Terminal			
T7	1	Ground	Reverse	6V

Is voltage reading approximately 6 volts?

YES >> GO TO 4.

NO >> GO TO 2.

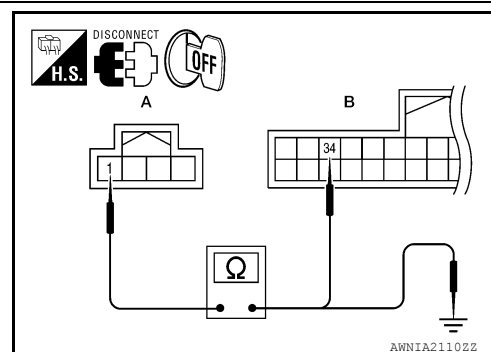


## 2. CHECK POWER SUPPLY CIRCUIT (CONTINUITY)

1. Turn ignition switch OFF.
2. Disconnect rear view camera and audio unit connectors.
3. Check continuity between rear view camera harness connector T7 (A) terminal 1 and audio unit harness connector M133 (B) terminal 34.

A		B		Continuity
Connector	Terminal	Connector	Terminal	
T7	1	M45	34	Yes

4. Check continuity between rear view camera harness connector T7 (A) terminal 1 and ground.



A		—	Continuity
Connector	Terminal		
T7	1	Ground	No

Are continuity test results as specified?

YES >> GO TO 3.

NO >> Repair harness or connector.

## 3. CHECK REVERSE POSITION INPUT SIGNAL

1. Connect audio unit connector.
2. Turn ignition switch ON.
3. Shift transmission into reverse.
4. Check voltage between audio unit harness connector M45 terminal 50 and ground.

(+)		(-)	Transmission position	Value (Approx.)
Connector	Terminal			
M45	50	Ground	Reverse	12V

Is voltage reading approximately 12 volts?

YES >> Replace audio unit. Refer to [AV-197, "Removal and Installation"](#).

NO >> Check harness for open or short between audio unit and back-up lamp relay (with VQ35DE and CVT), transmission range switch (with QR25DE and CVT) or back-up lamp switch (with M/T).

## 4. CHECK GROUND CIRCUIT



# POWER SUPPLY AND GROUND CIRCUIT (COUPE)

[BOSE AUDIO WITHOUT NAVIGATION]

## < DTC/CIRCUIT DIAGNOSIS >

1. Turn ignition switch OFF.
2. Disconnect rear view camera connector.
3. Check continuity between rear view camera harness connector T7 terminal 2 and ground.

Connector	Terminal	—	Continuity
T7	2	Ground	Yes

### Does continuity exist?

YES >> Inspection End.

NO >> Repair harness or connector.

## BLUETOOTH CONTROL UNIT

### BLUETOOTH CONTROL UNIT : Diagnosis Procedure

INFOID:000000006390011

Regarding Wiring Diagram information, refer to [AV-152, "COUPE : Wiring Diagram - Coupe Without Navigation System"](#).

## 1.CHECK FUSE

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

Power source	Fuse No.
Battery	24
Ignition switch ACC or ON	19
Ignition switch ON or START	3

### 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.

(+)		(-)	Ignition switch position	Value (Approx.)
Connector	Terminal			
B55	1	Ground	OFF	Battery voltage
	2		ACC	
	3		ON	

### Are the voltage results as specified?

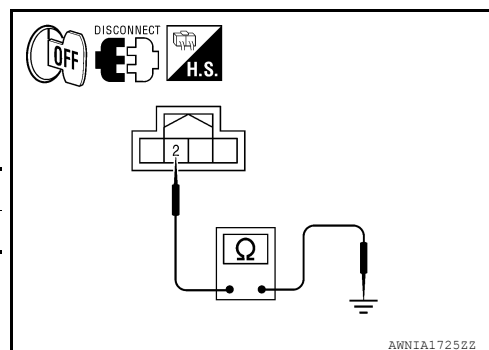
YES >> GO TO 3

NO >> Check harness between Bluetooth control unit and fuse.

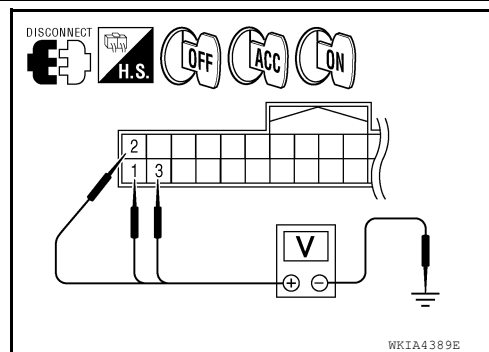
## 3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect Bluetooth control unit connector B55.
3. Check continuity between Bluetooth control unit harness connector and ground.

(+)		(-)	Continuity
Connector	Terminal		
B55	4	Ground	Yes
	22		



AWNIA17252Z



WKIA4389E

# POWER SUPPLY AND GROUND CIRCUIT (COUPE)

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

Does continuity exist?

YES >> Inspection End.

NO >> Repair harness or connector.

## MICROPHONE

### MICROPHONE : Diagnosis Procedure

INFOID:000000006390012

Regarding Wiring Diagram information, refer to [AV-152. "COUPE : Wiring Diagram - Coupe Without Navigation System"](#).

### 1.CHECK POWER SUPPLY CIRCUIT (MICROPHONE SIDE)

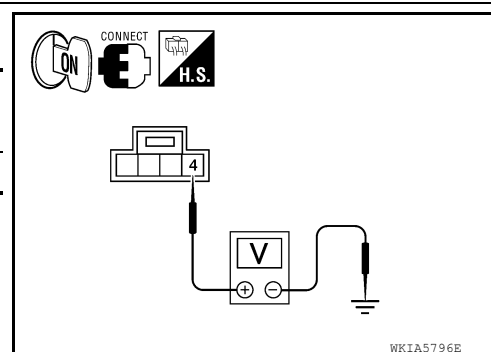
Check voltage between microphone harness connector and ground.

(+)		(-)	Ignition switch position	Value (Approx.)
Connector	Terminal			
R7	4	Ground	ON	5V

Is proper voltage present?

YES >> GO TO 4

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 B55 (B) terminal 29.

Signal name	Continuity
Microphone VCC signal	Continuity should exist.

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

Signal name	Continuity
Microphone VCC signal	Continuity should not exist.

Are continuity results as specified?

YES >> GO TO 3

NO >> Repair harness or connector.

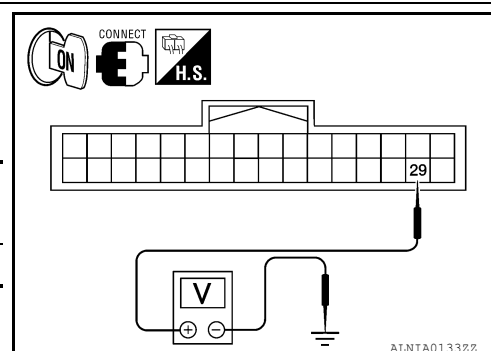
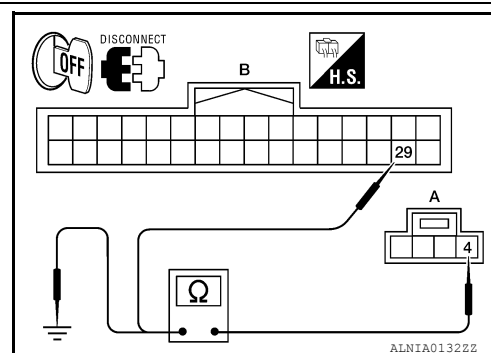
### 3.CHECK POWER SUPPLY CIRCUIT (BLUETOOTH CONTROL UNIT SIDE)

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

(+)		(-)	Ignition switch position	Value (Approx.)
Connector	Terminal			
B55	29	Ground	ON	5V

Is proper voltage present?

YES >> Inspection End.



## POWER SUPPLY AND GROUND CIRCUIT (COUPE)

[BOSE AUDIO WITHOUT NAVIGATION]

< DTC/CIRCUIT DIAGNOSIS >

NO >> Replace Bluetooth control unit. Refer to [AV-217. "Removal and Installation - Coupe"](#).

### 4.CHECK GROUND CIRCUIT

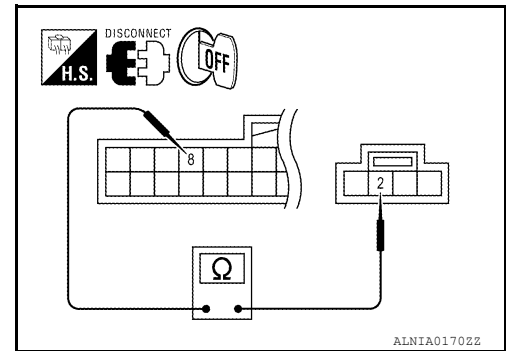
1. Turn ignition switch OFF.
2. Disconnect Bluetooth control unit and microphone connectors.
3. Check continuity between microphone harness connector R7 terminal 2 and Bluetooth control unit harness connector B55 terminal 8.

Signal name	Continuity
Microphone ground	Continuity should exist.

Is continuity present?

YES >> Inspection End.

NO >> Repair harness or connector.



# POWER SUPPLY AND GROUND CIRCUIT (SEDAN)

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

## POWER SUPPLY AND GROUND CIRCUIT (SEDAN)

### AUDIO UNIT

#### AUDIO UNIT : Diagnosis Procedure

INFOID:000000006390013

Regarding Wiring Diagram information, refer to [AV-171, "SEDAN : Wiring Diagram - Sedan Without Navigation System"](#).

### 1.CHECK FUSES

Check that the following fuses are not blown.

Unit	Terminals	Signal name	Fuse No.
Audio unit	19	Battery power	24
	7	Ignition switch ACC or ON	19

Are the fuses OK?

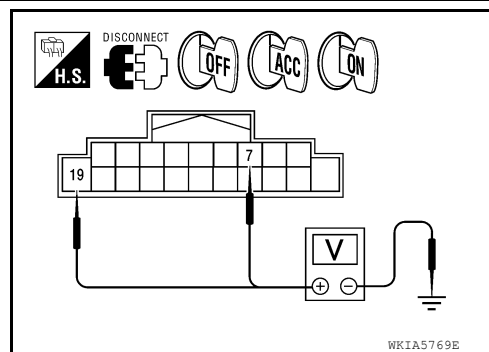
YES >> GO TO 2

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 M44.
2. Check voltage between the audio unit connector M44 and ground.

(+)		(-)	OFF	ACC	ON
Connector	Terminal				
M44	19	Ground	Battery voltage	Battery voltage	Battery voltage
	7	Ground	0V	Battery voltage	Battery voltage



Are the voltage results as specified?

YES >> GO TO 3

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

### 3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect audio unit connectors M44 and M45.
3. Check continuity between audio unit harness connectors M44, M45 and ground.

(+) Connector		Terminal	(-)	Continuity
M44		20	Ground	Yes
M45		27		
		40		

Does continuity exist?

YES >> Inspection End.

NO >> Repair harness or connector.

### BOSE SPEAKER AMP

# POWER SUPPLY AND GROUND CIRCUIT (SEDAN)

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

## BOSE SPEAKER AMP : Diagnosis Procedure

INFOID:000000006390014

Regarding Wiring Diagram information, refer to [AV-171, "SEDAN : Wiring Diagram - Sedan Without Navigation System"](#).

### 1.CHECK FUSE

Check for blown fuses.

Unit	Terminals	Signal name	Fuse No.
BOSE speaker amp.	50	Battery power	25
	51		26

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.

(+)		(-)	Voltage (approx.)
Connector	Terminal		
B122	50	Ground	Battery voltage
	51		

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 and ground.

(+)		(-)	Continuity
Connector	Terminal		
B122	47	Ground	Yes
	52		

Does continuity exist?

YES >> INSPECTION END.

NO >> Repair harness or connector.

## REAR VIEW CAMERA

## REAR VIEW CAMERA : Diagnosis Procedure

INFOID:000000006931287

Regarding Wiring Diagram information, refer to [AV-171, "SEDAN : Wiring Diagram - Sedan Without Navigation System"](#).

# POWER SUPPLY AND GROUND CIRCUIT (SEDAN)

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

## 1. CHECK POWER SUPPLY CIRCUIT (REAR VIEW CAMERA SIDE)

### NOTE:

**Apply parking brakes before proceeding.**

1. Turn ignition switch ON.
2. Shift transmission into Reverse.
3. Check voltage between rear view camera harness connector B35 and ground.

(+) Connector		Terminal	(-)	Transmission position	Value (Approx.)
B35		1	Ground	Reverse	6V

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 audio unit connectors.
3. Check continuity between rear view camera harness connector B35 terminal 1 and audio unit harness connector M45 terminal 34.

Connector	Terminal	Connector	Terminal	Continuity
B35	1	M45	34	Yes

4. Check continuity between rear view camera harness connector B35 terminal 1 and ground.

Connector	Terminal	—	Continuity
B35	1	Ground	No

Are continuity test results as specified?

YES >> GO TO 3.

NO >> Repair harness or connector.

## 3. CHECK REVERSE POSITION INPUT SIGNAL

1. Connect audio unit connector.
2. Turn ignition switch ON.
3. Shift transmission into reverse.
4. Check voltage between audio unit harness connector M45 terminal 50 and ground.

(+) Connector		Terminal	(-)	Transmission position	Value (Approx.)
M45		50	Ground	Reverse	12V

Is voltage reading approximately 12 volts?

YES >> Replace audio unit. Refer to [AV-197, "Removal and Installation"](#).

NO >> Check harness for open or short between audio unit and back-up lamp relay (with VQ35DE and CVT), transmission range switch (with QR25DE and CVT) or back-up lamp switch (with M/T).

## 4. CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect rear view camera connector.
3. Check continuity between rear view camera harness connector B35 terminal 2 and ground.

Connector	Terminal	—	Continuity
B35	2	Ground	Yes

Does continuity exist?

# POWER SUPPLY AND GROUND CIRCUIT (SEDAN)

[BOSE AUDIO WITHOUT NAVIGATION]

## < DTC/CIRCUIT DIAGNOSIS >

YES >> Inspection End.  
NO >> Repair harness or connector.

## BLUETOOTH CONTROL UNIT

### BLUETOOTH CONTROL UNIT : Diagnosis Procedure

INFOID:000000006390016

Regarding Wiring Diagram information, refer to [AV-171, "SEDAN : Wiring Diagram - Sedan Without Navigation System"](#).

### 1.CHECK FUSE

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

Power source	Fuse No.
Battery	24
Ignition switch ACC or ON	19
Ignition switch ON or START	3

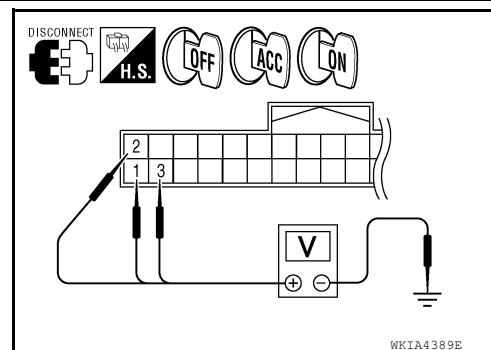
Are the fuses OK?

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.

(+)		(-)	Ignition switch position	Value (Approx.)
Connector	Terminal			
B126	1	Ground	OFF	Battery voltage
	2		ACC	
	3		ON	



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.

(+)		(-)	Continuity
Connector	Terminal		
B126	4	Ground	Yes
	22		
	23		

Does continuity exist?

YES >> Inspection End.  
NO >> Repair harness or connector.

## MICROPHONE

### MICROPHONE : Diagnosis Procedure

INFOID:000000006390017

# POWER SUPPLY AND GROUND CIRCUIT (SEDAN)

[BOSE AUDIO WITHOUT NAVIGATION]

< DTC/CIRCUIT DIAGNOSIS >

Regarding Wiring Diagram information, refer to [AV-171, "SEDAN : Wiring Diagram - Sedan Without Navigation System"](#).

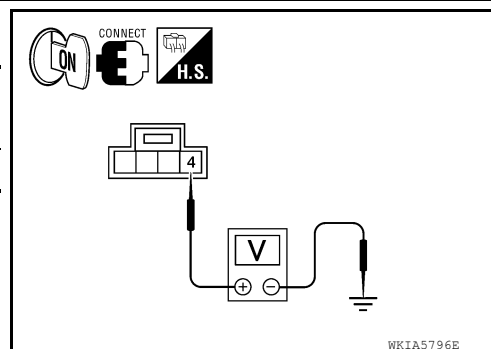
## 1.CHECK POWER SUPPLY CIRCUIT (MICROPHONE SIDE)

Check voltage between microphone harness connector and ground.

(+)		(-)	Ignition switch position	Value (Approx.)
Connector	Terminal			
R7	4	Ground	ON	5V

Is proper voltage present?

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



## 2.CHECK POWER SUPPLY CIRCUIT (CONTINUITY)

- Turn ignition switch OFF.
- Disconnect Bluetooth control unit and microphone connectors.
- Check continuity between microphone harness connector R7 (A) terminal 4 and Bluetooth control unit harness connector B126 (B) terminal 29.

Signal name	Continuity
Microphone VCC signal	Continuity should exist.

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

Signal name	Continuity
Microphone VCC signal	Continuity should not exist.

Are continuity results as specified?

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

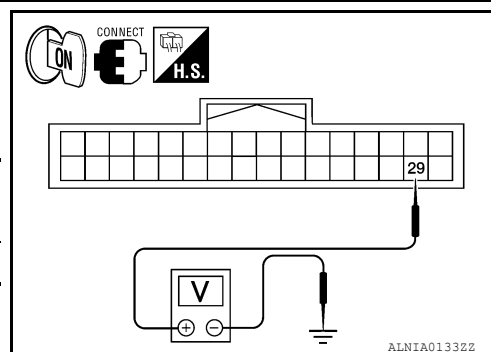
## 3.CHECK POWER SUPPLY CIRCUIT (BLUETOOTH CONTROL UNIT SIDE)

- Connect Bluetooth control unit connector.
- Turn ignition switch ON.
- Check voltage between Bluetooth control unit harness connector and ground.

(+)		(-)	Ignition switch position	Value (Approx.)
Connector	Terminal			
B126	29	Ground	ON	5V

Is proper voltage present?

YES >> Inspection End.  
NO >> Replace Bluetooth control unit. Refer to [AV-217, "Removal and Installation - Sedan"](#).



## 4.CHECK GROUND CIRCUIT



# POWER SUPPLY AND GROUND CIRCUIT (SEDAN)

[BOSE AUDIO WITHOUT NAVIGATION]

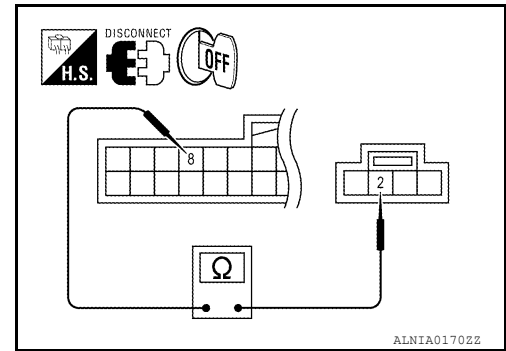
## < DTC/CIRCUIT DIAGNOSIS >

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

Signal name	Continuity
Microphone ground	Continuity should exist.

### Is continuity present?

- YES >> Inspection End.  
 NO >> Repair harness or connector.



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# DOOR SPEAKER (COUPE)

[BOSE AUDIO WITHOUT NAVIGATION]

< DTC/CIRCUIT DIAGNOSIS >

## DOOR SPEAKER (COUPE)

### Description

INFOID:000000006390018

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

### Diagnosis Procedure

INFOID:000000006390019

Regarding Wiring Diagram information, refer to [AV-152, "COUPE : Wiring Diagram - Coupe Without Navigation System"](#).

### 1.CONNECTOR CHECK

Check the audio unit, BOSE speaker amp. and speaker connectors for the following:

- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair the terminal and connector.

### 2.HARNESS CHECK

1. Disconnect BOSE speaker amp. connector B121 and suspect speaker connector.
2. Check continuity between BOSE speaker amp. harness connector B121 (A) and suspect speaker harness connector (B).

A		B		Continuity
Connector	Terminal	Connector	Terminal	
B121	58	D3	1	Yes
	59		2	
	71	D103	1	
	72		2	

3. Check continuity between BOSE speaker amp. harness connector B121 (A) and ground.

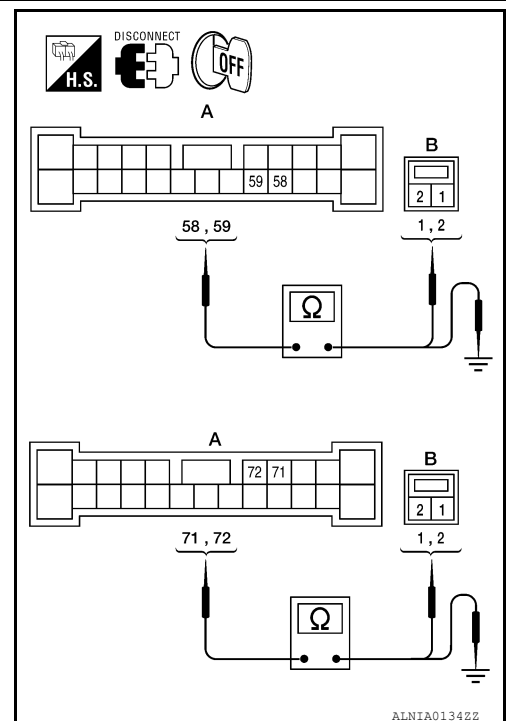
A		B	Continuity
Connector	Terminal		
B121	58	Ground	No
	59		
	71		
	72		

Are continuity test results as specified?

YES >> GO TO 3

NO >> Repair harness or connector.

### 3.DOOR SPEAKER SIGNAL CHECK

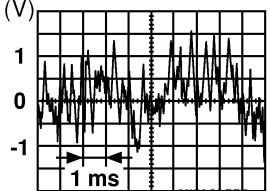


# DOOR SPEAKER (COUPE)

[BOSE AUDIO WITHOUT NAVIGATION]

## < DTC/CIRCUIT DIAGNOSIS >

1. Connect BOSE speaker amp. connector B121 and suspect speaker connector.
2. Turn ignition switch to ACC.
3. Push audio unit "POWER" switch.
4. Check the signal between BOSE speaker amp. harness connector B121 terminals with CONSULT or oscilloscope.

Connector	Terminal		Condition	Reference signal
	(+)	(-)		
B121	58	59	Receive audio signal	
	71	72		

Is audio signal voltage as specified?

YES >> Replace suspect speaker. Refer to [AV-203. "Removal and Installation"](#).

NO >> GO TO 4

## 4. HARNESS CHECK

1. Disconnect audio unit connector M46 and BOSE speaker amp. connector B121.
2. Check continuity between audio unit harness connector M46 and BOSE speaker amp. harness connector B121.

Connector	Terminal	Connector	Terminal	Continuity
M46	53	B121	76	Yes
	57		74	
	59		75	
	63		73	

3. Check continuity between audio unit harness connector M46 and ground.

Connector	Terminal	—	Continuity
M46	53	Ground	No
	57		
	59		
	63		

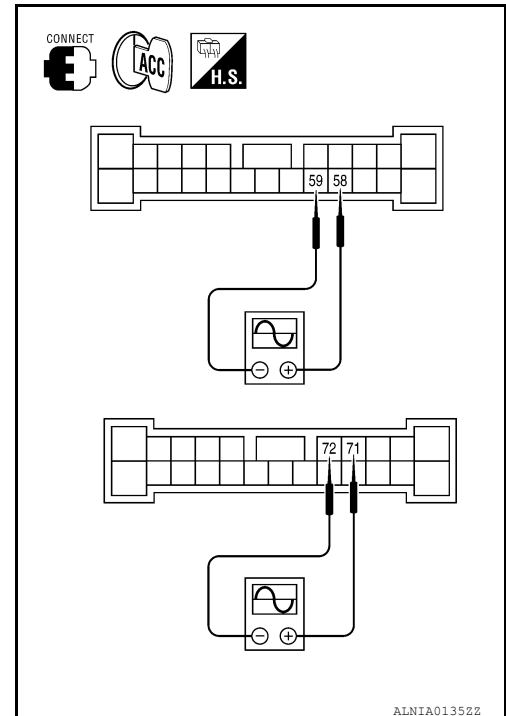
Are continuity test results as specified?

YES >> GO TO 5

NO >> Repair harness or connector.

## 5. DOOR SPEAKER SIGNAL CHECK

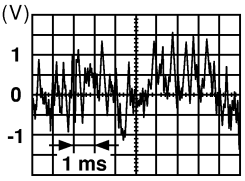
1. Connect audio unit connector and BOSE speaker amp. connector.
2. Turn ignition switch ACC.
3. Push audio unit "POWER" switch.
4. Check the signal between audio unit harness connector terminals with CONSULT or oscilloscope.



## DOOR SPEAKER (COUPE)

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

Connector	Terminals		Condition	Reference signal
	(+)	(-)		
M46	59	53	Receive audio signal	
	63	57		

SKIA0177E

Are the audio signal voltage readings as specified?

- YES >> Replace BOSE speaker amp. Refer to [AV-199, "Removal and Installation - Coupe"](#).  
NO >> Replace audio unit. Refer to [AV-197, "Removal and Installation"](#).

# FRONT DOOR SPEAKER (SEDAN)

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

## FRONT DOOR SPEAKER (SEDAN)

### Description

INFOID:000000006390020

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

INFOID:000000006390021

Regarding Wiring Diagram information, refer to [AV-171, "SEDAN : Wiring Diagram - Sedan Without Navigation System"](#).

### 1.CONNECTOR CHECK

Check the audio unit, BOSE speaker amp. and speaker connectors for the following:

- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair the terminal and connector.

### 2.HARNESS CHECK

1. Disconnect BOSE speaker amp. connector B121 and suspect speaker connector.
2. Check continuity between BOSE speaker amp. harness connector B121 (A) and suspect speaker harness connector (B).

A		B		Continuity
Connector	Terminal	Connector	Terminal	
B121	58	D3	1	Yes
	59		2	
	71	D103	1	
	72		2	

3. Check continuity between BOSE speaker amp. harness connector B121 (A) and ground.

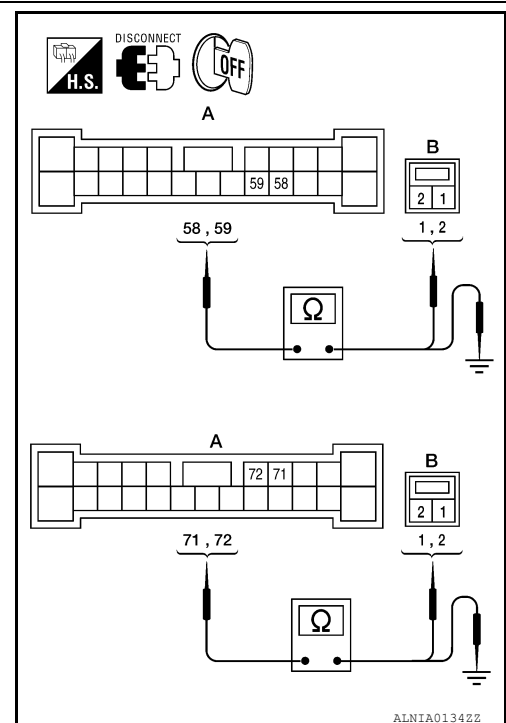
A		B	Continuity
Connector	Terminal		
B121	58	Ground	No
	59		
	71		
	72		

Are continuity test results as specified?

YES >> GO TO 3

NO >> Repair harness or connector.

### 3.FRONT DOOR SPEAKER SIGNAL CHECK

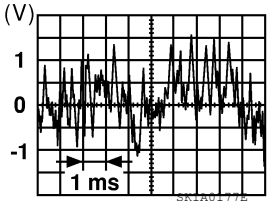


## FRONT DOOR SPEAKER (SEDAN)

[BOSE AUDIO WITHOUT NAVIGATION]

### < DTC/CIRCUIT DIAGNOSIS >

1. Connect BOSE speaker amp. connector B121 and suspect speaker connector.
2. Turn ignition switch to ACC.
3. Push audio unit "POWER" switch.
4. Check the signal between BOSE speaker amp. harness connector B121 terminals with CONSULT or oscilloscope.

Connector	Terminal		Condition	Reference signal
	(+)	(-)		
B121	58	59	Receive audio signal	
	71	72		

Is audio signal voltage as specified?

YES >> Replace suspect speaker. Refer to [AV-203. "Removal and Installation"](#).

NO >> GO TO 4

### 4. HARNESS CHECK

1. Disconnect audio unit connector M46 and BOSE speaker amp. connector B121.
2. Check continuity between audio unit harness connector M46 and BOSE speaker amp. harness connector B121.

Connector	Terminal	Connector	Terminal	Continuity
M46	53	B121	76	Yes
	57		74	
	59		75	
	63		73	

3. Check continuity between audio unit harness connector M46 and ground.

Connector	Terminal	—	Continuity
M46	53	Ground	No
	57		
	59		
	63		

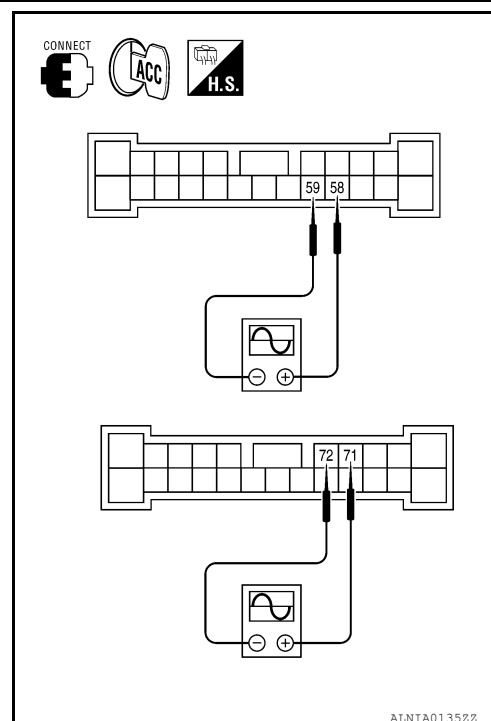
Are continuity test results as specified?

YES >> GO TO 5

NO >> Repair harness or connector.

### 5. FRONT DOOR SPEAKER SIGNAL CHECK

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

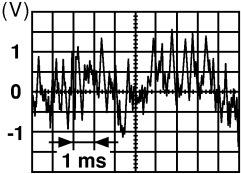


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# FRONT DOOR SPEAKER (SEDAN)

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

Connector	Terminals		Condition	Reference signal
	(+)	(-)		
M46	59	53	Receive audio signal	
	63	57		

SKIA0177E

Are the audio signal voltage readings as specified?

- YES >> Replace BOSE speaker amp. Refer to [AV-199, "Removal and Installation - Sedan"](#).
- NO >> Replace audio unit. Refer to [AV-197, "Removal and Installation"](#).

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AV

# FRONT TWEETER (COUPE)

[BOSE AUDIO WITHOUT NAVIGATION]

< DTC/CIRCUIT DIAGNOSIS >

## FRONT TWEETER (COUPE)

### Description

INFOID:000000006390022

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 tweeters using the audio signal circuits.

### Diagnosis Procedure

INFOID:000000006390023

Regarding Wiring Diagram information, refer to [AV-152, "COUPE : Wiring Diagram - Coupe Without Navigation System"](#).

### 1.CONNECTOR CHECK

Check the audio unit, BOSE speaker amp. and speaker connectors for the following:

- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair the terminal and connector.

### 2.HARNESS CHECK

1. Disconnect BOSE speaker amp. connector B122 and suspect tweeter connector.
2. Check continuity between BOSE speaker amp. harness connector B122 (A) and suspect tweeter harness connector (B).

A		B		Continuity
Connector	Terminal	Connector	Terminal	
B122	41	M51	1	Yes
	42		2	
	44	M52	1	
	43		2	

3. Check continuity between BOSE speaker amp. harness connector B122 (A) and ground.

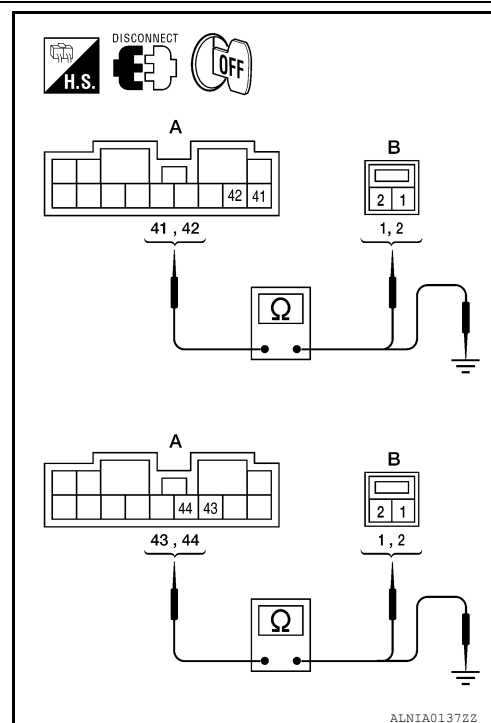
A		—	Continuity
Connector	Terminal		
B122	41	Ground	No
	42		
	44		
	43		

Are continuity test results as specified?

YES >> GO TO 3

NO >> Repair harness or connector.

### 3.FRONT TWEETER SIGNAL CHECK



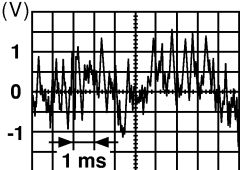


# FRONT TWEETER (COUPE)

[BOSE AUDIO WITHOUT NAVIGATION]

## < DTC/CIRCUIT DIAGNOSIS >

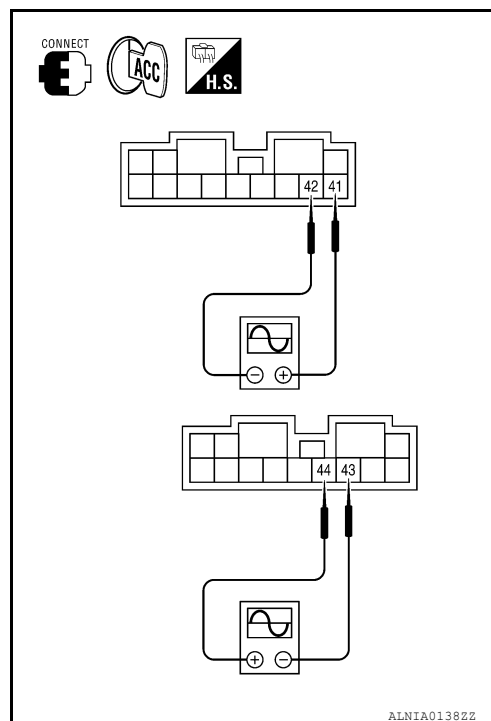
1. Connect BOSE speaker amp. connector B122 and suspect tweeter connector.
2. Turn ignition switch to ACC.
3. Push audio unit "POWER" switch.
4. Check the signal between BOSE speaker amp. harness connector B122 terminals with CONSULT or oscilloscope.

Connector	Terminals		Condition	Reference signal
	(+)	(-)		
B122	41	42	Receive audio signal	 <p>SKIA0177E</p>
	44	43		

Are the audio signal voltage readings as specified?

YES >> Replace suspect tweeter. Refer to [AV-201, "Removal and Installation"](#).

NO >> GO TO 4



## 4. HARNESS CHECK

1. Disconnect audio unit connector M46 and BOSE speaker amp. connector B121.
2. Check continuity between audio unit harness connector M46 and BOSE speaker amp. harness connector B121.

Connector	Terminal	Connector	Terminal	Continuity
M46	53	B121	76	Yes
	57		74	
	59		75	
	63		73	

3. Check continuity between audio unit harness connector M46 and ground.

Connector	Terminal	—	Continuity
M46	53	Ground	No
	57		
	59		
	63		

Are continuity test results as specified?

YES >> GO TO 5

NO >> Repair harness or connector.

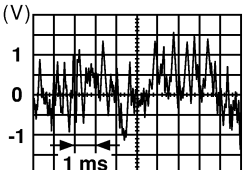
## 5. DOOR SPEAKER SIGNAL CHECK

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

# FRONT TWEETER (COUPE)

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

Connector	Terminals		Condition	Reference signal
	(+)	(-)		
M46	59	53	Receive audio signal	
	63	57		

SKIA0177E

Are the audio signal voltage readings as specified?

- YES >> Replace BOSE speaker amp. Refer to [AV-199, "Removal and Installation - Coupe"](#).  
 NO >> Replace audio unit. Refer to [AV-197, "Removal and Installation"](#).

# TWEETER (SEDAN)

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

## TWEETER (SEDAN)

### Description

INFOID:000000006390024

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 tweeters using the audio signal circuits.

### Diagnosis Procedure

INFOID:000000006390025

Regarding Wiring Diagram information, refer to [AV-171, "SEDAN : Wiring Diagram - Sedan Without Navigation System"](#).

### 1.CONNECTOR CHECK

Check the audio unit, BOSE speaker amp. and speaker connectors for the following:

- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair the terminal and connector.

### 2.HARNESS CHECK

1. Disconnect BOSE speaker amp. connector B122 and suspect tweeter connector.
2. Check continuity between BOSE speaker amp. harness connector B122 (A) and suspect tweeter harness connector (B).

A		B		Continuity
Connector	Terminal	Connector	Terminal	
B122	41	M51	1	Yes
	42		2	
	44	M52	1	
	43		2	

3. Check continuity between BOSE speaker amp. harness connector B122 (A) and ground.

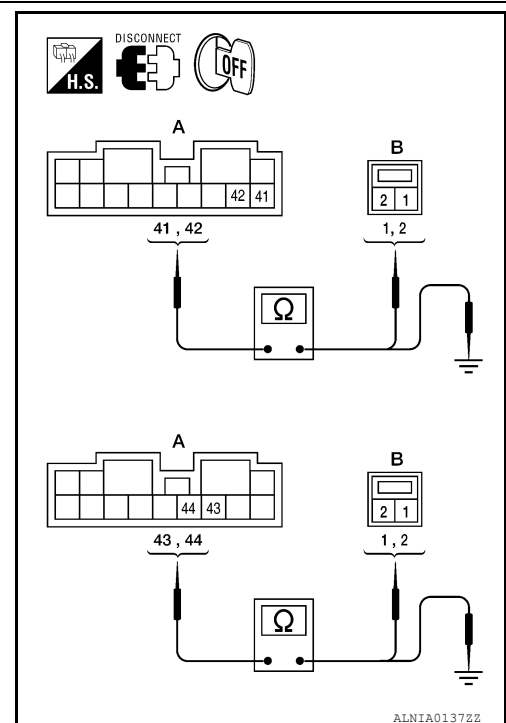
A		—	Continuity
Connector	Terminal		
B122	41	Ground	No
	42		
	44		
	43		

Are continuity test results as specified?

YES >> GO TO 3

NO >> Repair harness or connector.

### 3.TWEETER SIGNAL CHECK

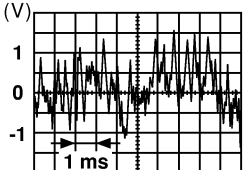


## TWEETER (SEDAN)

[BOSE AUDIO WITHOUT NAVIGATION]

### < DTC/CIRCUIT DIAGNOSIS >

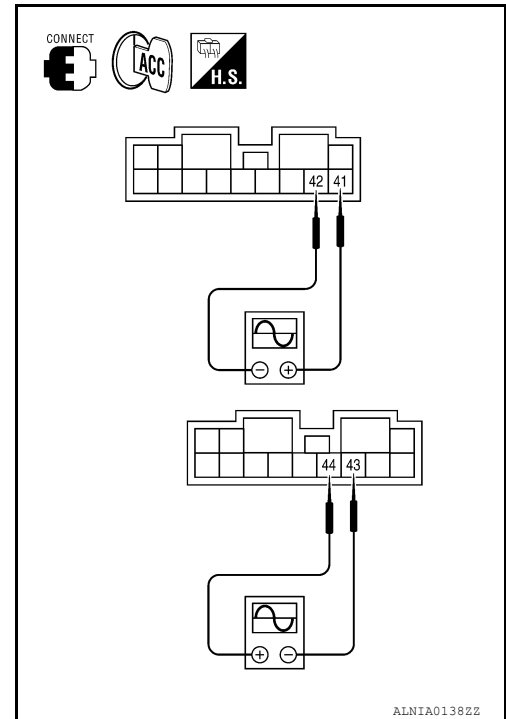
1. Connect BOSE speaker amp. connector B122 and suspect tweeter connector.
2. Turn ignition switch to ACC.
3. Push audio unit "POWER" switch.
4. Check the signal between BOSE speaker amp. harness connector B122 terminals with CONSULT or oscilloscope.

Connector	Terminals		Condition	Reference signal
	(+)	(-)		
B122	41	42	Receive audio signal	 SKIA0177E
	44	43		

Are the audio signal voltage readings as specified?

YES >> Replace suspect tweeter. Refer to [AV-201, "Removal and Installation"](#).

NO >> GO TO 4



### 4. HARNESS CHECK

1. Disconnect audio unit connector M46 and BOSE speaker amp. connector B121.
2. Check continuity between audio unit harness connector M46 and BOSE speaker amp. harness connector B121.

Connector	Terminal	Connector	Terminal	Continuity
M46	53	B121	76	Yes
	57		74	
	59		75	
	63		73	

3. Check continuity between audio unit harness connector M46 and ground.

Connector	Terminal	—	Continuity
M46	53	Ground	No
	57		
	59		
	63		

Are continuity test results as specified?

YES >> GO TO 5

NO >> Repair harness or connector.

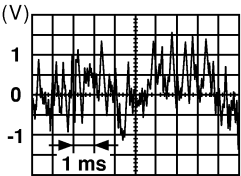
### 5. TWEETER SIGNAL CHECK

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

# TWEETER (SEDAN)

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

Connector	Terminals		Condition	Reference signal
	(+)	(-)		
M46	59	53	Receive audio signal	
	63	57		

SKIA0177E

Are the audio signal voltage readings as specified?

- YES >> Replace BOSE speaker amp. Refer to [AV-199, "Removal and Installation - Sedan"](#).
- NO >> Replace audio unit. Refer to [AV-197, "Removal and Installation"](#).

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AV

# CENTER SPEAKER

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

## CENTER SPEAKER

### Description

INFOID:000000006390026

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

INFOID:000000006390027

Regarding Wiring Diagram information, refer to [AV-152, "COUPE : Wiring Diagram - Coupe Without Navigation System"](#) or [AV-171, "SEDAN : Wiring Diagram - Sedan Without Navigation System"](#).

### 1.CONNECTOR CHECK

Check the audio unit, BOSE speaker amp. and speaker connectors for the following:

- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair the terminal and connector.

### 2.HARNESS CHECK

1. Disconnect BOSE speaker amp. connector B121 and center speaker connector M151.
2. Check continuity between BOSE speaker amp. harness connector B121 (A) and center speaker harness connector M151 (B).

A		B		Continuity
Connector	Terminal	Connector	Terminal	
B121	69	M151	1	Yes
	70		2	

3. Check continuity between BOSE speaker amp. harness connector B121 (A) and ground.

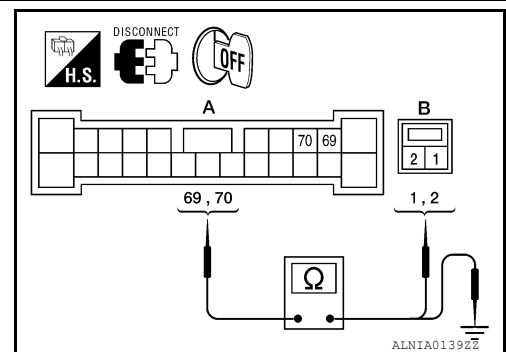
A		—	Continuity
Connector	Terminal		
B121	69	Ground	No
	70		

Are continuity test results as specified?

YES >> GO TO 3

NO >> Repair harness or connector.

### 3.CENTER SPEAKER SIGNAL CHECK

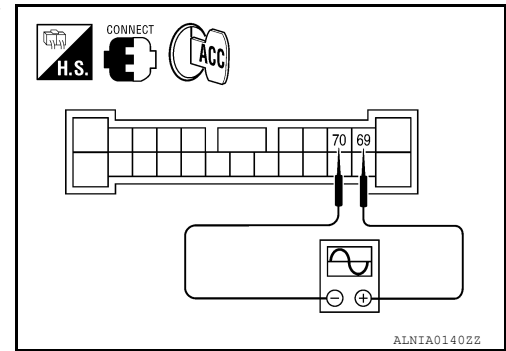


# CENTER SPEAKER

[BOSE AUDIO WITHOUT NAVIGATION]

## < DTC/CIRCUIT DIAGNOSIS >

1. Connect BOSE speaker amp. connector B121 and center speaker connector.
2. Turn ignition switch to ACC.
3. Push audio unit "POWER" switch.
4. Check the signal between BOSE speaker amp. harness connector B121 terminals with CONSULT or oscilloscope.



Connector	Terminals		Condition	Reference signal
	(+)	(-)		
B121	69	70	Receive audio signal	

Is the audio signal voltage reading as specified?

- YES >> Replace center speaker. Refer to [AV-202, "Removal and Installation"](#).  
 NO >> GO TO 4

## 4.HARNES CHECK

1. Disconnect audio unit connector M46 and BOSE speaker amp. connector B121.
2. Check continuity between audio unit harness connector M46 and BOSE speaker amp. harness connector B121.

Connector	Terminal	Connector	Terminal	Continuity
M46	53	B121	76	Yes
	57		74	
	59		75	
	632		73	

3. Check continuity between audio unit harness connector M46 and ground.

Connector	Terminal	—	Continuity
M46	53	Ground	No
	57		
	59		
	63		

Are continuity test results as specified?

- YES >> GO TO 5  
 NO >> Repair harness or connector.

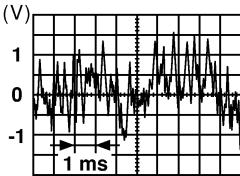
## 5.CENTER SPEAKER SIGNAL CHECK

1. Connect audio unit connector and BOSE speaker amp. connector.
2. Turn ignition switch ACC.
3. Push audio unit "POWER" switch.
4. Check the signal between audio unit harness connector M46 terminals with CONSULT or oscilloscope.

## CENTER SPEAKER

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

Connector	Terminals		Condition	Reference signal
	(+)	(-)		
M46	59	53	Receive audio signal	
	63	57		

Are the audio signal voltage readings as specified?

- YES >> Replace BOSE speaker amp. Refer to [AV-199. "Removal and Installation - Coupe"](#) or [AV-199. "Removal and Installation - Sedan"](#).
- NO >> Replace audio unit. Refer to [AV-197. "Removal and Installation"](#).



# REAR TWEETER (COUPE)

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

## REAR TWEETER (COUPE)

### Description

INFOID:000000006390028

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 tweeters using the audio signal circuits.

### Diagnosis Procedure

INFOID:000000006390029

Regarding Wiring Diagram information, refer to [AV-152, "COUPE : Wiring Diagram - Coupe Without Navigation System"](#).

### 1.CONNECTOR CHECK

Check the audio unit, BOSE speaker amp. and speaker connectors for the following:

- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair the terminal and connector.

### 2.HARNESS CHECK

1. Disconnect BOSE speaker amp. connectors B121, B122 and suspect tweeter connector.
2. Check continuity between BOSE speaker amp. harness connectors B121 (A) and B122 (B) and suspect tweeter harness connector (C).

Connector	Terminal	Connector	Terminal	Continuity
A: B121	55	C: B16	2	Yes
	68		1	
B: B122	49	C: B100	2	
	54		1	

3. Check continuity between BOSE speaker amp. harness connectors B121 (A) and B122 (B) and ground.

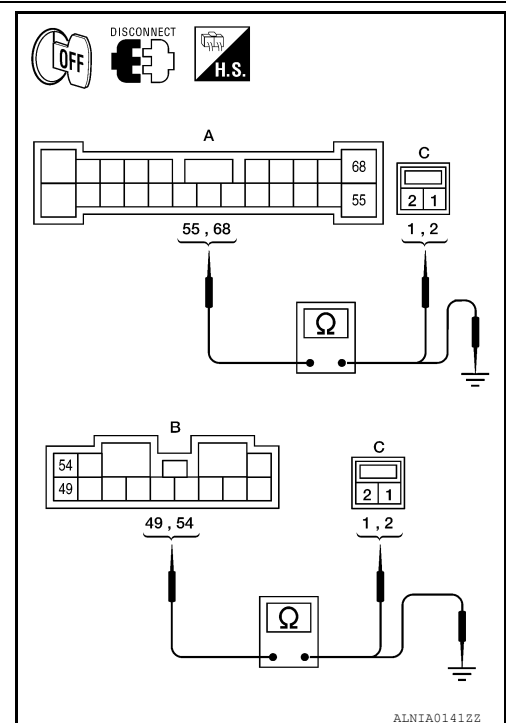
Connector	Terminal	-	Continuity
A: B121	55	Ground	No
	68		
B: B122	49		
	54		

Are the continuity test results as specified?

YES >> GO TO 3

NO >> Repair harness or connector.

### 3.REAR TWEETER SIGNAL CHECK

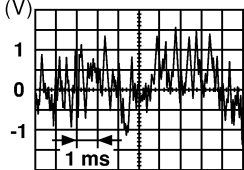


## REAR TWEETER (COUPE)

[BOSE AUDIO WITHOUT NAVIGATION]

### < DTC/CIRCUIT DIAGNOSIS >

1. Connect BOSE speaker amp. connectors and suspect tweeter connector.
2. Turn ignition switch to ACC.
3. Push audio unit "POWER" switch.
4. Check the signal between BOSE speaker amp. harness connectors B121 (A) and B122 (B) terminals with CONSULT or oscilloscope.

Connector	Terminals		Condition	Reference signal
	(+)	(-)		
A: B121	68	55	Receive audio signal	
B: B122	54	49		

SKIA0177E

Are audio signal voltage readings as specified?

YES >> Replace suspect tweeter. Refer to [AV-205. "Removal and Installation - Coupe"](#).

NO >> GO TO 4

### 4. HARNESS CHECK

1. Disconnect audio unit connector M46 and BOSE speaker amp. connector B121.
2. Check continuity between audio unit harness connector M46 and BOSE speaker amp. harness connector B121.

Connector	Terminal	Connector	Terminal	Continuity
M46	54	B121	63	Yes
	58		65	
	60		64	
	64		66	

3. Check continuity between audio unit harness connector M46 and ground.

Connector	Terminal	—	Continuity
M46	54	Ground	No
	58		
	60		
	64		

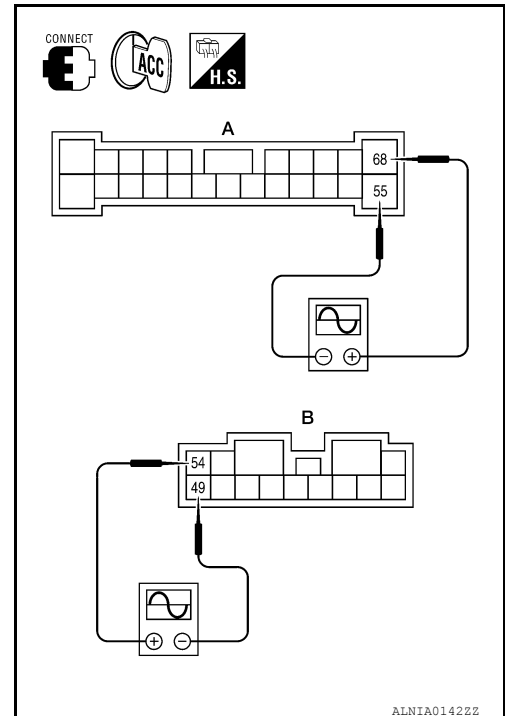
Are the continuity test results as specified?

YES >> GO TO 5

NO >> Repair harness or connector.

### 5. REAR TWEETER SIGNAL CHECK

1. Connect audio unit connector M46 and BOSE speaker amp. connector B121.
2. Turn ignition switch to ACC.
3. Push audio unit "POWER" switch.
4. Check the signal between audio unit harness connector M46 terminals with CONSULT or oscilloscope.

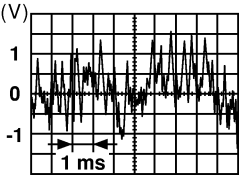


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REAR TWEETER (COUPE)

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

Connector	Terminals		Condition	Reference signal
	(+)	(-)		
M46	60	54	Receive audio signal	
	64	58		

Is the audio signal voltage reading as specified?

- YES
- >> Replace BOSE speaker amp. Refer to [AV-199, "Removal and Installation - Coupe"](#).
- NO
- >> Replace audio unit. Refer to [AV-197, "Removal and Installation"](#).

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# REAR DOOR SPEAKER (SEDAN)

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

## REAR DOOR SPEAKER (SEDAN)

### Description

INFOID:000000006390030

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

INFOID:000000006390031

Regarding Wiring Diagram information, refer to [AV-171, "SEDAN : Wiring Diagram - Sedan Without Navigation System"](#).

### 1.CONNECTOR CHECK

Check the audio unit, BOSE speaker amp. and speaker connectors for the following:

- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair the terminal and connector.

### 2.HARNESS CHECK

1. Disconnect BOSE speaker amp. connectors B121, B122 and suspect speaker connector.
2. Check continuity between BOSE speaker amp. harness connectors B121 (A) and B122 (B) and suspect speaker harness connector (C).

Connector	Terminal	Connector	Terminal	Continuity
A: B121	55	C: D202	2	Yes
	68		1	
B: B122	49	C: D302	2	
	54		1	

3. Check continuity between BOSE speaker amp. harness connectors B121 (A) and B122 (B) and ground.

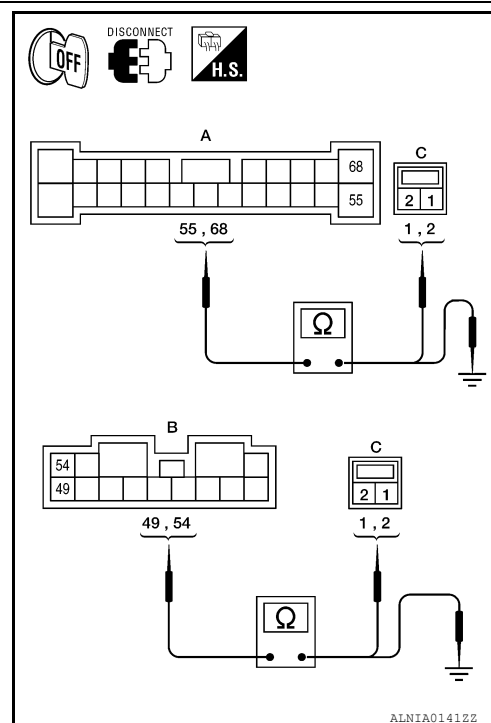
Connector	Terminal	-	Continuity
A: B121	55	Ground	No
	68		
B: B122	49		
	54		

Are the continuity test results as specified?

YES >> GO TO 3

NO >> Repair harness or connector.

### 3.REAR DOOR SPEAKER SIGNAL CHECK

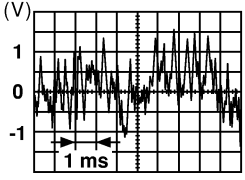


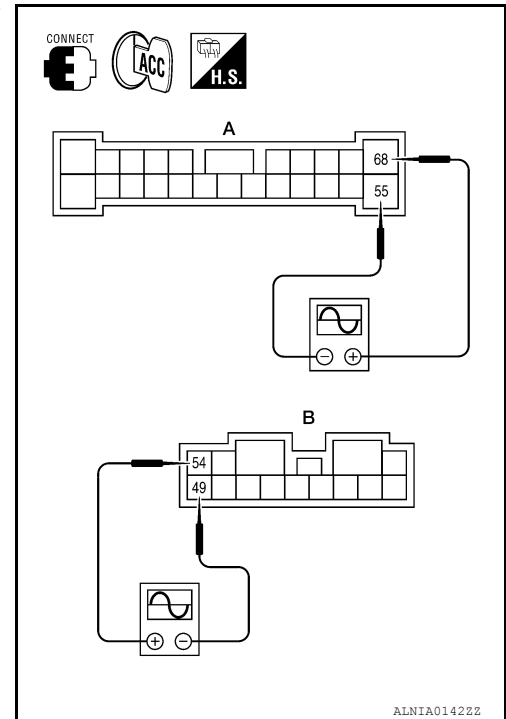
## REAR DOOR SPEAKER (SEDAN)

[BOSE AUDIO WITHOUT NAVIGATION]

### < DTC/CIRCUIT DIAGNOSIS >

1. Connect BOSE speaker amp. connectors and suspect speaker connector.
2. Turn ignition switch to ACC.
3. Push audio unit "POWER" switch.
4. Check the signal between BOSE speaker amp. harness connectors B121 (A) and B122 (B) terminals with CONSULT or oscilloscope.

Connector	Terminals		Condition	Reference signal
	(+)	(-)		
A: B121	68	55	Receive audio signal	 SKIA0177E
B: B122	54	49		



Are audio signal voltage readings as specified?

- YES >> Replace suspect speaker. Refer to [AV-204, "Removal and Installation - Sedan"](#).
- NO >> GO TO 4

### 4. HARNESS CHECK

1. Disconnect audio unit connector M46 and BOSE speaker amp. connector B121.
2. Check continuity between audio unit harness connector M46 and BOSE speaker amp. harness connector B121.

Connector	Terminal	Connector	Terminal	Continuity
M46	54	B121	63	Yes
	58		65	
	60		64	
	64		66	

3. Check continuity between audio unit harness connector M46 and ground.

Connector	Terminal	—	Continuity
M46	54	Ground	No
	58		
	60		
	64		

Are the continuity test results as specified?

- YES >> GO TO 5
- NO >> Repair harness or connector.

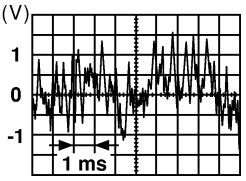
### 5. REAR DOOR SPEAKER SIGNAL CHECK

1. Connect audio unit connector M46 and BOSE speaker amp. connector B121.
2. Turn ignition switch to ACC.
3. Push audio unit "POWER" switch.
4. Check the signal between audio unit harness connector M46 terminals with CONSULT or oscilloscope.

## REAR DOOR SPEAKER (SEDAN)

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

Connector	Terminals		Condition	Reference signal
	(+)	(-)		
M46	60	54	Receive audio signal	
	64	58		

SKIA0177E

Is the audio signal voltage reading as specified?

- YES >> Replace BOSE speaker amp. Refer to [AV-199, "Removal and Installation - Sedan"](#).  
NO >> Replace audio unit. Refer to [AV-197, "Removal and Installation"](#).

# SUBWOOFER (COUPE)

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

## SUBWOOFER (COUPE)

### Description

INFOID:000000006390032

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

INFOID:000000006390033

Regarding Wiring Diagram information, refer to [AV-152, "COUPE : Wiring Diagram - Coupe Without Navigation System"](#).

### 1.CONNECTOR CHECK

Check the audio unit, BOSE speaker amp. and speaker connectors for the following:

- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair the terminal and connector.

### 2.HARNESS CHECK

1. Disconnect BOSE speaker amp. connector B122 and suspect rear subwoofer connector.
2. Check continuity between BOSE speaker amp. harness connector B122 (A) and suspect rear subwoofer harness connector (B).

A		B		Continuity
Connector	Terminal	Connector	Terminal	
B122	53	B25	1	Yes
	48		2	
	45	B47	1	
	46		2	

3. Check continuity between BOSE speaker amp. harness connector B122 (A) and ground.

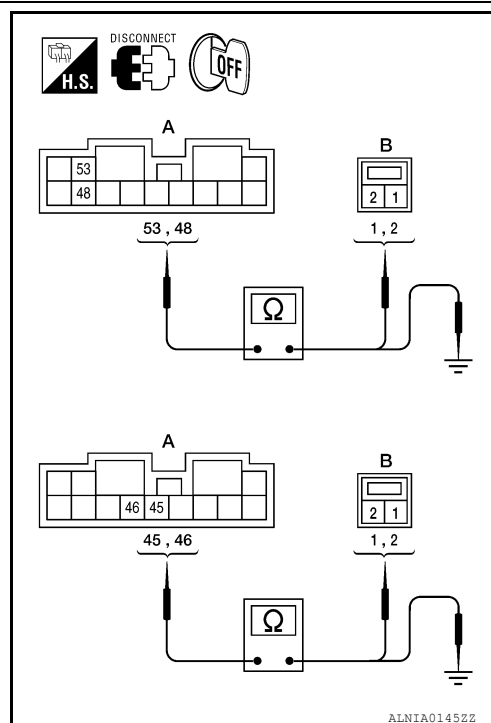
A		—	Continuity
Connector	Terminal		
B122	53	Ground	No
	48		
	45		
	46		

Are the continuity test results as specified?

YES >> GO TO 3

NO >> Repair harness or connector.

### 3.REAR SUBWOOFER SIGNAL CHECK

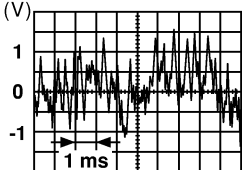


## SUBWOOFER (COUPE)

[BOSE AUDIO WITHOUT NAVIGATION]

### < DTC/CIRCUIT DIAGNOSIS >

1. Connect BOSE speaker amp. connector B122 and suspect rear subwoofer connector.
2. Turn ignition switch to ACC.
3. Push audio unit "POWER" switch.
4. Check the signal between BOSE speaker amp. harness connector B122 terminals with CONSULT or oscilloscope.

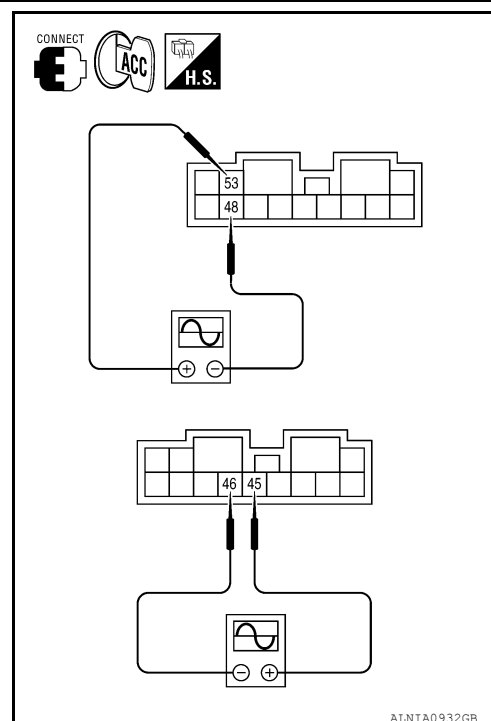
Connector	Terminals		Condition	Reference signal
	(+)	(-)		
B122	53	48	Receive audio signal	
	45	46		

SKIA0177E

Is the audio signal voltage as specified?

YES >> Replace suspect rear subwoofer. Refer to [AV-206](#).  
"Removal and Installation".

NO >> GO TO 4



### 4. HARNESS CHECK

1. Disconnect audio unit connector M46 and BOSE speaker amp. connector B121.
2. Check continuity between audio unit harness connector M46 and BOSE speaker amp. harness connector B121.

Connector	Terminal	Connector	Terminal	Continuity
M46	54	B121	63	Yes
	58		65	
	60		64	
	64		66	

3. Check continuity between audio unit harness connector M46 and ground.

Connector	Terminal	—	Continuity
M46	54	Ground	No
	58		
	60		
	64		

Are the continuity test results as specified?

YES >> GO TO 5

NO >> Repair harness or connector.

### 5. REAR SUBWOOFER SIGNAL CHECK

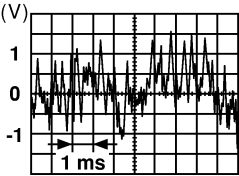
1. Connect audio unit connector M46 and BOSE speaker amp. connector B121.
2. Turn ignition switch to ACC.
3. Push audio unit "POWER" switch.
4. Check the signal between audio unit harness connector M46 terminals with CONSULT or oscilloscope.



SUBWOOFER (COUPE)

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

Connector	Terminals		Condition	Reference signal
	(+)	(-)		
M46	60	54	Receive audio signal	
	64	58		

Is the audio signal voltage reading as specified?

- YES
- >> Replace BOSE speaker amp. Refer to [AV-199, "Removal and Installation - Coupe"](#).
- NO
- >> Replace audio unit. Refer to [AV-197, "Removal and Installation"](#).

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AV

# SUBWOOFER (SEDAN)

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

## SUBWOOFER (SEDAN)

### Description

INFOID:000000006390034

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

INFOID:000000006390035

Regarding Wiring Diagram information, refer to [AV-171, "SEDAN : Wiring Diagram - Sedan Without Navigation System"](#).

## 1.CONNECTOR CHECK

Check the audio unit, BOSE speaker amp. and speaker connectors for the following:

- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair the terminal and connector.

## 2.HARNESS CHECK

1. Disconnect BOSE speaker amp. connector B122 and suspect rear subwoofer connector.
2. Check continuity between BOSE speaker amp. harness connector B122 (A) and suspect rear subwoofer harness connector (B).

A		B		Continuity
Connector	Terminal	Connector	Terminal	
B122	53	B120	1	Yes
	48		2	
	45	B124	1	
	46		2	

3. Check continuity between BOSE speaker amp. harness connector B122 (A) and ground.

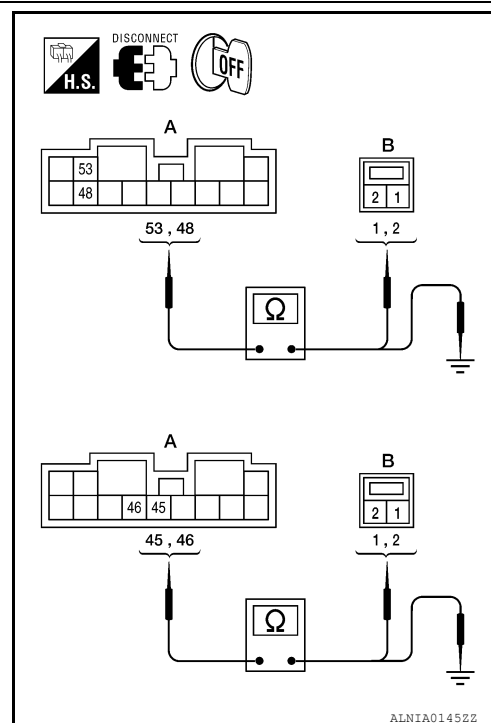
A		—	Continuity
Connector	Terminal		
B122	53	Ground	No
	48		
	45		
	46		

Are the continuity test results as specified?

YES >> GO TO 3

NO >> Repair harness or connector.

## 3.REAR SUBWOOFER SIGNAL CHECK

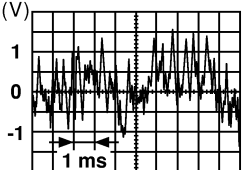


# SUBWOOFER (SEDAN)

[BOSE AUDIO WITHOUT NAVIGATION]

## < DTC/CIRCUIT DIAGNOSIS >

1. Connect BOSE speaker amp. connector B122 and suspect rear subwoofer connector.
2. Turn ignition switch to ACC.
3. Push audio unit "POWER" switch.
4. Check the signal between BOSE speaker amp. harness connector B122 terminals with CONSULT or oscilloscope.

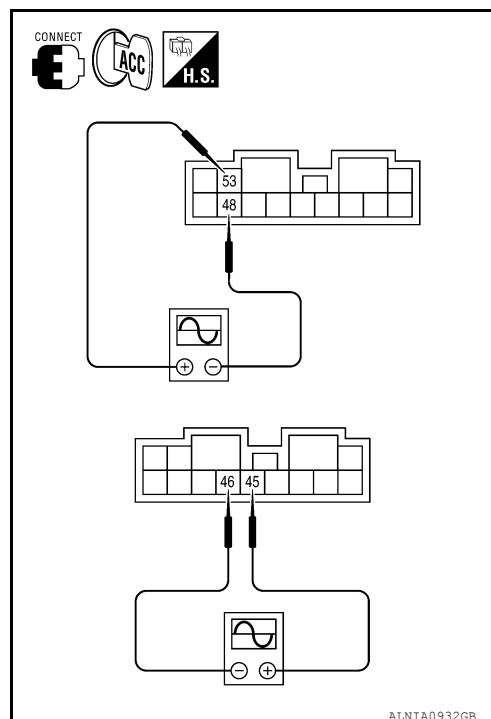
Connector	Terminals		Condition	Reference signal
	(+)	(-)		
B122	53	48	Receive audio signal	
	45	46		

SKIA0177E

Is the audio signal voltage as specified?

YES >> Replace suspect rear subwoofer. Refer to [AV-206](#), "[Removal and Installation](#)".

NO >> GO TO 4



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## 4. HARNESS CHECK

1. Disconnect audio unit connector M46 and BOSE speaker amp. connector B121.
2. Check continuity between audio unit harness connector M46 and BOSE speaker amp. harness connector B121.

Connector	Terminal	Connector	Terminal	Continuity
M46	54	B121	63	Yes
	58		65	
	60		64	
	64		66	

3. Check continuity between audio unit harness connector M46 and ground.

Connector	Terminal	—	Continuity
M46	54	Ground	No
	58		
	60		
	64		

Are continuity test results as specified?

YES >> GO TO 5

NO >> Repair harness or connector.

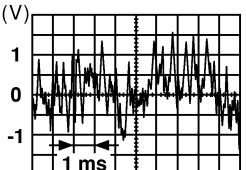
## 5. REAR SUBWOOFER SIGNAL CHECK

1. Connect audio unit connector M46 and BOSE speaker amp. connector B121.
2. Turn ignition switch to ACC.
3. Push audio unit "POWER" switch.
4. Check the signal between audio unit harness connector M46 terminals with CONSULT or oscilloscope.

# SUBWOOFER (SEDAN)

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

Connector	Terminals		Condition	Reference signal
	(+)	(-)		
M46	60	54	Receive audio signal	
	64	58		

SKIA0177E

Is the audio signal voltage as specified?

- YES >> Replace BOSE speaker amp. Refer to [AV-199, "Removal and Installation - Sedan"](#).  
 NO >> Replace audio unit. Refer to [AV-197, "Removal and Installation"](#).

# AMP ON SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

## AMP ON SIGNAL CIRCUIT

### Description

INFOID:000000006390036

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

INFOID:000000006390037

Regarding Wiring Diagram information, refer to [AV-152, "COUPE : Wiring Diagram - Coupe Without Navigation System"](#) or [AV-171, "SEDAN : Wiring Diagram - Sedan Without Navigation System"](#).

### 1.CHECK AMP ON SIGNAL (BOSE SPEAKER AMP)

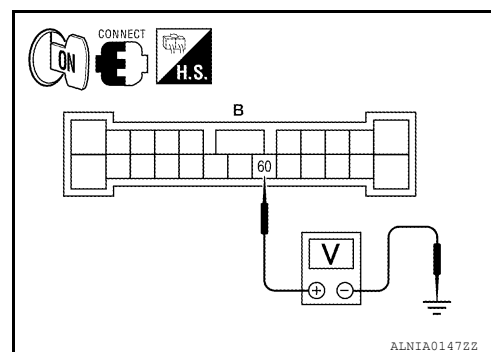
1. Turn audio system ON.
2. Check voltage between BOSE speaker amp. harness connector B121 terminal 60 and ground.

**60 - Ground**

**: More than approx. 6.5V**

Is voltage greater than 6.5V?

- YES >> Inspection End.  
NO >> GO TO 2



### 2.CHECK AMP ON SIGNAL (AUDIO UNIT)

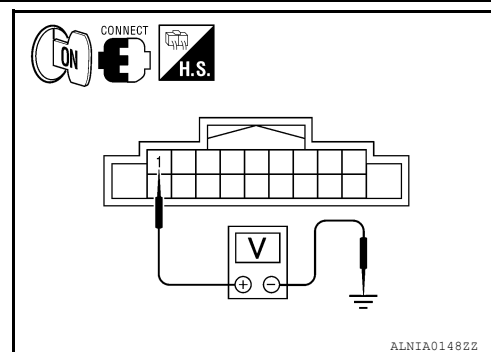
Check voltage between audio unit harness connector M44 terminal 1 and ground.

**1 - Ground**

**: More than approx. 6.5V**

Is voltage greater than 6.5V?

- YES >> Repair harness or connector.  
NO >> Replace audio unit. Refer to [AV-197, "Removal and Installation"](#).



# STEERING SWITCH (COUPE)

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

## STEERING SWITCH (COUPE)

### Description

INFOID:000000006390038

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

### Diagnosis Procedure

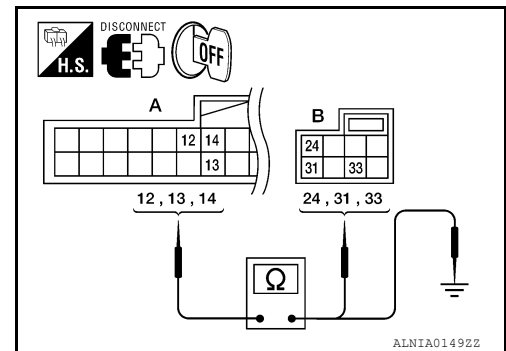
INFOID:000000006390039

Regarding Wiring Diagram information, refer to [AV-152, "COUPE : Wiring Diagram - Coupe Without Navigation System"](#).

### 1.CHECK HARNESS

1. Turn ignition switch OFF.
2. Disconnect Bluetooth control unit connector B55 and spiral cable connector M30.
3. Check continuity between Bluetooth control unit connector B55 (A) terminals and spiral cable connector M30 (B) terminals.

A		B		Continuity
Connector	Terminal	Connector	Terminal	
B55	12	M30	24	Yes
	13		31	
	14		33	



4. Check continuity between Bluetooth control unit B55 (A) and ground.

A		-	Continuity
Connector	Terminal		
B55	12	Ground	No
	13		
	14		

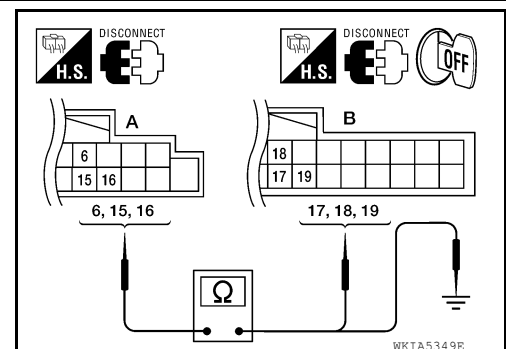
Are the continuity test results as specified?

- YES >> GO TO 2  
NO >> Repair harness.

### 2.CHECK HARNESS

1. Disconnect audio unit connector.
2. Check continuity between audio unit connector M44 (A) terminals and Bluetooth control unit connector B55 (B) terminals.

A		B		Continuity
Connector	Terminal	Connector	Terminal	
M44	6	B55	17	Yes
	15		19	
	16		18	



Are the continuity test results as specified?

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

### 3.SPIRAL CABLE CHECK

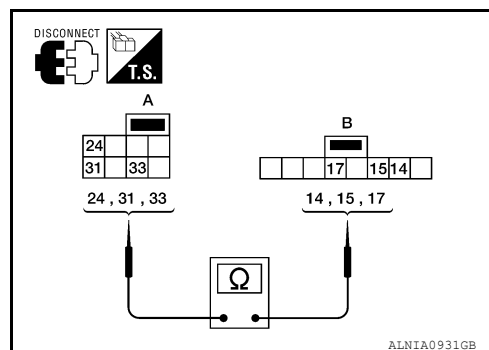
# STEERING SWITCH (COUPE)

[BOSE AUDIO WITHOUT NAVIGATION]

## < DTC/CIRCUIT DIAGNOSIS >

1. Disconnect spiral cable connector M88.
2. Check continuity between spiral cable harness connector M30 and M88.

A		B		Continuity
Connector	Terminal	Connector	Terminal	
M30	24	M88	14	Yes
	31		15	
	33		17	



Are the continuity test results as specified?

YES >> GO TO 4

NO >> Replace spiral cable. Refer to [SR-8, "Removal and Installation"](#).

## 4.CHECK STEERING SWITCH

Check steering switch. Refer to [AV-131, "Component Inspection"](#).

Does the steering switch pass inspection?

YES >> Replace Bluetooth control unit. Refer to [AV-217, "Removal and Installation - Coupe"](#)

NO >> Replace steering switch. Refer to [AV-207, "Removal and Installation"](#).

## Component Inspection

INFOID:000000006390040

Measure the resistance between the steering switch connector terminals 14 to 17 and 15 to 17.

Standard

### Between terminals 14 and 17

**switch ON** : 0  $\Omega$

**SEEK UP switch ON** : 108 – 112  $\Omega$

**SEEK DOWN switch ON** : 323 – 337  $\Omega$

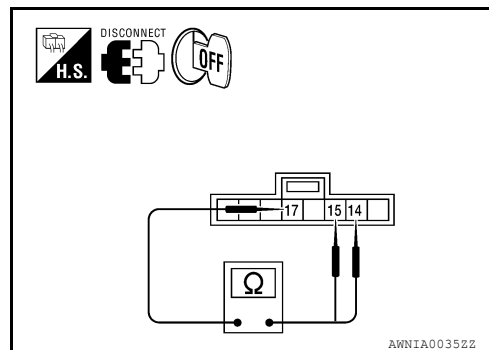
### Between terminals 15 and 17

**VOL DOWN switch ON** : 0  $\Omega$

**VOL UP switch ON** : 108 – 112  $\Omega$

**switch ON** : 323 – 337  $\Omega$

**SOURCE switch ON** : 990 – 1030  $\Omega$



# STEERING SWITCH (SEDAN)

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

## STEERING SWITCH (SEDAN)

### Description

INFOID:000000006390041

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

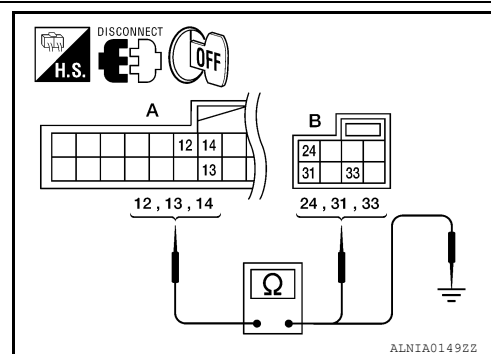
INFOID:000000006390042

Regarding Wiring Diagram information, refer to [AV-171, "SEDAN : Wiring Diagram - Sedan Without Navigation System"](#).

### 1.CHECK HARNESS

1. Turn ignition switch OFF.
2. Disconnect Bluetooth control unit connector B126 and spiral cable connector M30.
3. Check continuity between Bluetooth control unit connector B126 (A) terminals and spiral cable connector M30 (B) terminals.

A		B		Continuity
Connector	Terminal	Connector	Terminal	
B126	12	M30	24	Yes
	13		31	
	14		33	



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

A		-	Continuity
Connector	Terminal		
B126	12	Ground	No
	13		
	14		

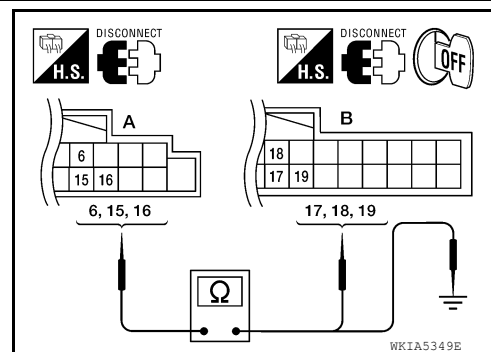
Are the continuity test results as specified?

- YES >> GO TO 2  
NO >> Repair harness.

### 2.CHECK HARNESS

1. Disconnect audio unit connector.
2. Check continuity between audio unit connector M44 (A) terminals and Bluetooth control unit connector B126 (B) terminals.

A		B		Continuity
Connector	Terminal	Connector	Terminal	
M44	6	B126	17	Yes
	15		19	
	16		18	



Are the continuity test results as specified?

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

### 3.SPIRAL CABLE CHECK



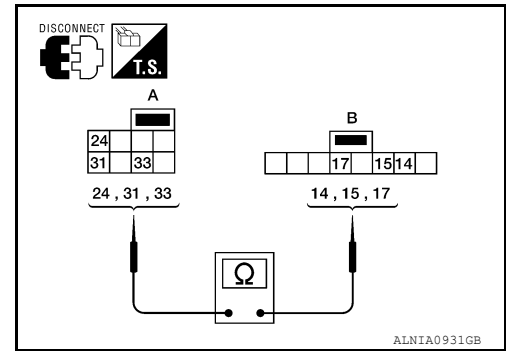
# STEERING SWITCH (SEDAN)

[BOSE AUDIO WITHOUT NAVIGATION]

## < DTC/CIRCUIT DIAGNOSIS >

1. Disconnect spiral cable connector M88.
2. Check continuity between spiral cable harness connector M30 and M88.

A		B		Continuity
Connector	Terminal	Connector	Terminal	
M30	24	M88	14	Yes
	31		15	
	33		17	



Are the continuity test results as specified?

YES >> GO TO 4

NO >> Replace spiral cable. Refer to [SR-8, "Removal and Installation"](#).

## 4.CHECK STEERING SWITCH

Check steering switch. Refer to [AV-133, "Component Inspection"](#).

Does the steering switch pass inspection?

YES >> Replace Bluetooth control unit. Refer to [AV-217, "Removal and Installation - Sedan"](#)

NO >> Replace steering switch. Refer to [AV-207, "Removal and Installation"](#).

## Component Inspection

INFOID:000000006390043

Measure the resistance between the steering switch connector terminals 14 to 17 and 15 to 17.

Standard

### Between terminals 14 and 17

switch ON : 0 Ω

SEEK UP switch ON : 108 – 112 Ω

SEEK DOWN switch ON : 323 – 337 Ω

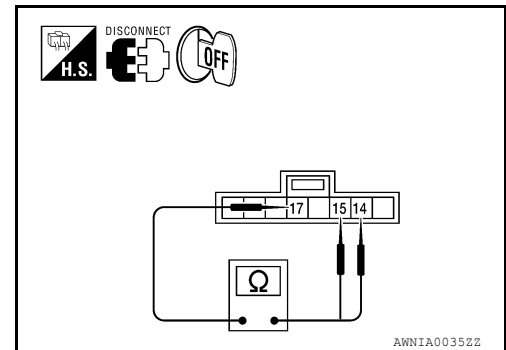
### Between terminals 15 and 17

VOL DOWN switch ON : 0 Ω

VOL UP switch ON : 108 – 112 Ω

switch ON : 323 – 337 Ω

SOURCE switch ON : 990 – 1030 Ω



# MICROPHONE SIGNAL CIRCUIT (COUPE)

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

## MICROPHONE SIGNAL CIRCUIT (COUPE)

### Description

INFOID:000000006390044

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

### Diagnosis Procedure

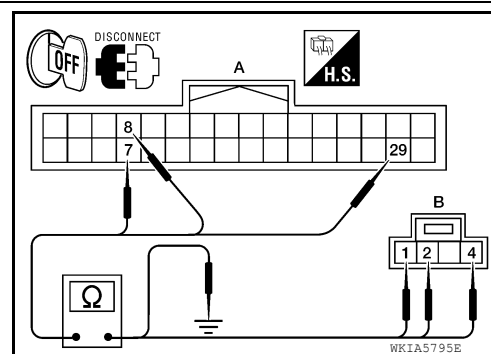
INFOID:000000006390045

Regarding Wiring Diagram information, refer to [AV-152, "COUPE : Wiring Diagram - Coupe Without Navigation System"](#).

### 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 B55 (A) and microphone harness connector R7 (B).

A		B		Continuity
Connector	Terminal	Connector	Terminal	
B55	7	R7	1	Yes
	8		2	
	29		4	



4. Check continuity between Bluetooth control unit harness connector B55 (A) and ground.

A		—	Continuity
Connector	Terminal		
B55	7	Ground	No
	8		
	29		

Are the continuity test results as specified?

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

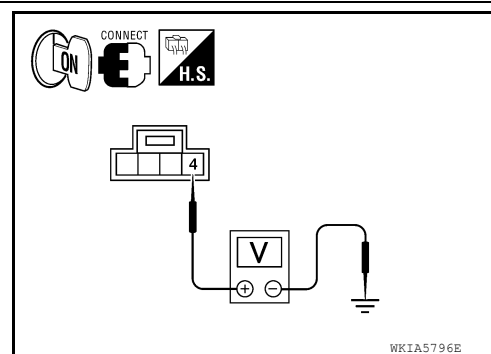
### 2.CHECK MICROPHONE POWER SUPPLY

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.

**4 - Ground : Approx. 5V**

Is voltage reading approx. 5 volts?

- YES >> GO TO 3  
NO >> Replace Bluetooth control unit. Refer to [AV-217, "Removal and Installation - Coupe"](#).



### 3.CHECK MICROPHONE SIGNAL

## MICROPHONE SIGNAL CIRCUIT (COUPE)

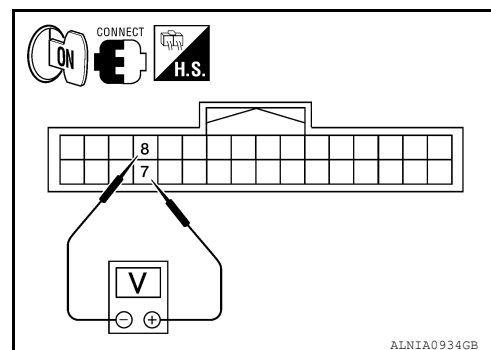
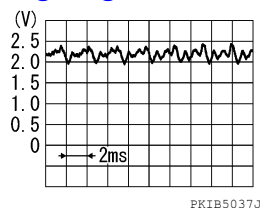
< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

Check signal between Bluetooth control unit harness connector B55 terminals 7 and 8.

7 - 8:

When giving a voice



Are voltage readings as specified?

- YES >> Replace Bluetooth control unit. Refer to [AV-217. "Removal and Installation - Coupe"](#).  
NO >> Replace microphone. Refer to [AV-215. "Removal and Installation"](#).

# MICROPHONE SIGNAL CIRCUIT (SEDAN)

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

## MICROPHONE SIGNAL CIRCUIT (SEDAN)

### Description

INFOID:000000006390046

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

### Diagnosis Procedure

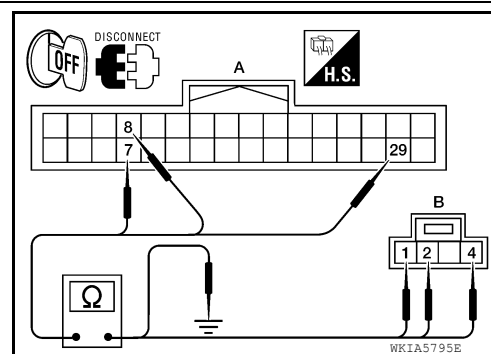
INFOID:000000006390047

Regarding Wiring Diagram information, refer to [AV-171, "SEDAN : Wiring Diagram - Sedan Without Navigation System"](#).

### 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).

A		B		Continuity
Connector	Terminal	Connector	Terminal	
B126	7	R7	1	Yes
	8		2	
	29		4	



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

A		—	Continuity
Connector	Terminal		
B126	7	Ground	No
	8		
	29		

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.

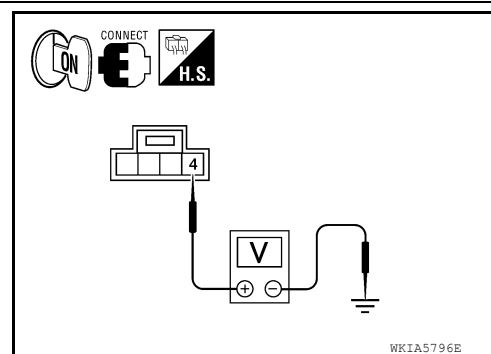
**4 - Ground**

**: Approx. 5V**

Is voltage reading approx. 5 volts?

YES >> GO TO 3

NO >> Replace Bluetooth control unit. Refer to [AV-217, "Removal and Installation - Sedan"](#).



### 3.CHECK MICROPHONE SIGNAL

# MICROPHONE SIGNAL CIRCUIT (SEDAN)

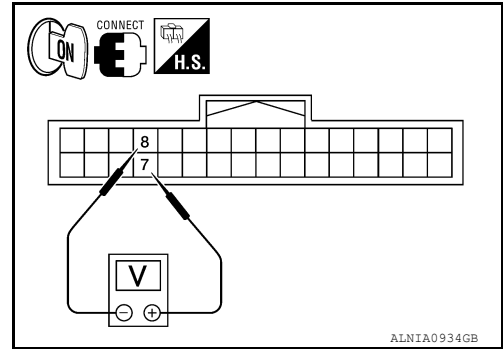
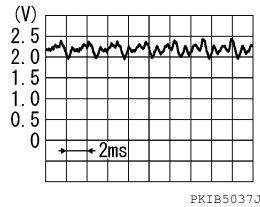
< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

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

7 - 8:

When giving a voice



Are voltage readings as specified?

- YES >> Replace Bluetooth control unit. Refer to [AV-217. "Removal and Installation - Sedan"](#).
- NO >> Replace microphone. Refer to [AV-215. "Removal and Installation"](#).

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
O  
P

AV

# REAR VIEW CAMERA IMAGE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

## REAR VIEW CAMERA IMAGE SIGNAL CIRCUIT

### Description

INFOID:000000006931305

Rear view camera signals are transmitted from the rear view camera to the audio unit using the camera signal circuits.

### Diagnosis Procedure - Coupe

INFOID:000000006931306

Regarding Wiring Diagram information, refer to [AV-152, "COUPE : Wiring Diagram - Coupe Without Navigation System"](#).

#### 1.CHECK CAMERA IMAGE SIGNAL CIRCUIT CONTINUITY

##### NOTE:

**Apply parking brakes before proceeding.**

1. Turn ignition switch OFF.
2. Disconnect audio unit connector M45 and rear view camera connector T7.
3. Check continuity between audio unit harness connector M45 terminals 35, 36 and rear view camera harness connector T7 terminals 3 and 4.

**35 - 3** : Continuity should exist.

**36 - 4** : Continuity should exist.

4. Check continuity between audio unit harness connector M45 terminals 35, 36 and ground.

**35, 36 - Ground** : Continuity should not exist.

Is inspection result OK?

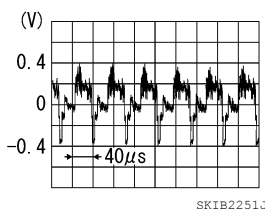
YES >> GO TO 2

NO >> Repair harness or connector.

#### 2.CHECK CAMERA IMAGE SIGNAL

1. Connect audio unit connector M45 and rear view camera connector T7.
2. Turn ignition switch ON.
3. Shift transmission into reverse.
4. Check signal between audio unit harness connector M45 terminals 35 and 36.

**35 - 36** :



Is inspection result OK?

YES >> Replace audio unit. Refer to [AV-197, "Removal and Installation"](#).

NO >> Replace rear view camera. Refer to [AV-218, "Removal and Installation"](#).

### Diagnosis Procedure - Sedan

INFOID:000000006931307

Regarding Wiring Diagram information, refer to [AV-171, "SEDAN : Wiring Diagram - Sedan Without Navigation System"](#).

#### 1.CHECK CAMERA IMAGE SIGNAL CIRCUIT CONTINUITY

# REAR VIEW CAMERA IMAGE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

## NOTE:

Apply parking brakes before proceeding.

1. Turn ignition switch OFF.
2. Disconnect audio unit connector M45 and rear view camera connector B35.
3. Check continuity between audio unit harness connector M45 terminals 35, 36 and rear view camera harness connector B35 terminals 3 and 4.

**35 - 3** : Continuity should exist.

**36 - 4** : Continuity should exist.

4. Check continuity between audio unit harness connector M45 terminals 35, 36 and ground.

**35, 36 - Ground** : Continuity should not exist.

Is inspection result OK?

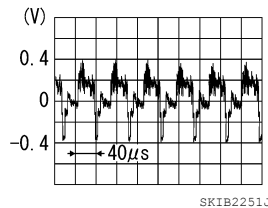
YES >> GO TO 2

NO >> Repair harness or connector.

## 2.CHECK CAMERA IMAGE SIGNAL

1. Connect audio unit connector M45 and rear view camera connector B35.
2. Turn ignition switch ON.
3. Shift transmission into reverse.
4. Check signal between audio unit harness connector M45 terminals 35 and 36.

**35 - 36** :



Is inspection result OK?

YES >> Replace audio unit. Refer to [AV-197, "Removal and Installation"](#).

NO >> Replace rear view camera. Refer to [AV-218, "Removal and Installation"](#).

AV

# AUDIO UNIT (COUPE)

< ECU DIAGNOSIS INFORMATION >

[BOSE AUDIO WITHOUT NAVIGATION]

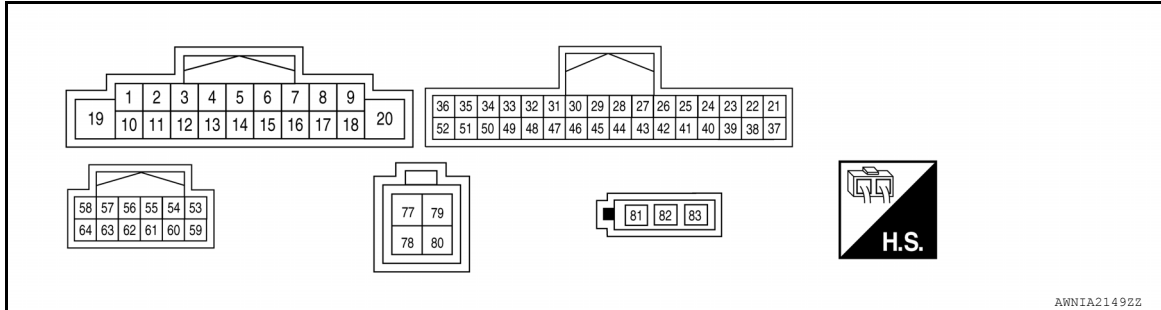
## ECU DIAGNOSIS INFORMATION

### AUDIO UNIT (COUPE)

Reference Value

INFOID:000000006390048

#### TERMINAL LAYOUT



#### PHYSICAL VALUES

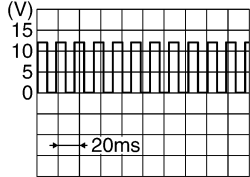
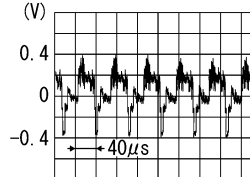
Terminal (Wire color)		Item	Signal in- put/out- put	Condition		Reference value
+	-			Ignition switch	Operation	
1 (B/P)	Ground	Amp. ON sig- nal	Output	ON	-	More than approx. 6.5V
6 (W/G)	Ground	Remote con- trol A	Input	ON	Press  switch.	0 V
					Press SEEK UP switch.	0.7 V
					Press SEEK DOWN switch.	1.3 V
					Except for above.	3.3 V
7 (V/Y)	Ground	ACC signal	Input	ON	Ignition switch ACC or ON	Battery voltage
8 (R/Y)	-	Illumination control ground	Input	-	-	-
9 (R/L)	Ground	Illumination signal	Input	OFF	Lighting switch is OFF	0V
					Lighting switch is ON	Battery voltage
15 (L/B)	-	Remote con- trol ground	Input	-	-	-
16 (GR/L)	Ground	Remote con- trol B	Input	ON	Press VOL DOWN switch	0 V
					Press VOL UP switch.	0.7 V
					Press  switch.	1.3 V
					Press SOURCE switch.	2.0 V
					Except for above.	3.3 V



# AUDIO UNIT (COUPE)

< ECU DIAGNOSIS INFORMATION >

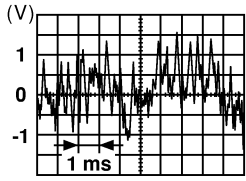
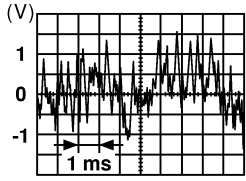
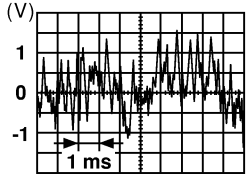
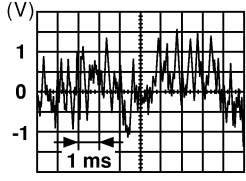
[BOSE AUDIO WITHOUT NAVIGATION]

Terminal (Wire color)		Item	Signal input/output	Condition		Reference value
+	-			Ignition switch	Operation	
18 (V/W)	Ground	Vehicle speed signal (8-pulse)	Input	ON	When vehicle speed is approx. 40 km/h (25 MPH)	 PKIA1935E
19 (Y/R)	Ground	Battery power	Input	-	-	Battery voltage
20 (B)	-	Ground	-	-	-	-
25 (BR)	24 (Y)	Telephone audio in	-	-	-	-
26	-	Tel. Shield	-	-	-	Approx. 0V
27 (B)	-	Ground	-	-	-	-
28 (B/R)	-	M-CAN A+	-	-	-	-
29 (BR)	-	M-CAN A-	-	-	-	-
30	-	Shield	-	-	-	Approx. 0V
31 (B/R)	-	M-CAN B+	-	-	-	-
32 (W/R)	-	M-CAN B-	-	-	-	-
33 (B) *1	Ground	RV_CAM_GND	-	-	-	-
34 (GR) *1	Ground	RV_CAM_SIG	Output	Ignition switch ACC	Shift selector is in R position	6V
35 (Y) *1	Ground	Rear view camera video in (+)	Input	Ignition switch ON	With rear view camera ON	 SKIB2251J
36 *1	-	Shield	-	-	-	-
40 (B)	-	Ground	-	-	-	-
41 (R/W)	Ground	Telephone ON signal	Input	ON	-	-
48 (B)	-	Ground	-	-	-	-
50 (P/B)	Ground	Reverse signal	Input	Ignition switch ON	R position	Battery voltage
					Other than R position	0V

# AUDIO UNIT (COUPE)

< ECU DIAGNOSIS INFORMATION >

[BOSE AUDIO WITHOUT NAVIGATION]

Terminal (Wire color)		Item	Signal in- put/out- put	Condition		Reference value
+	—			Ignition switch	Operation	
55	—	Shield	—	—	—	Approx. 0V
59 (G)	53 (R)	Audio sound signal front LH	Output	ON	Receive audio sig- nal	 SKIA0177E
60 (GR/V)	54 (W/L)	Audio sound signal rear LH	Output	ON	Receive audio sig- nal	 SKIA0177E
61	—	Shield	—	—	—	Approx. 0V
63 (B)	57 (W)	Audio sound signal front RH	Output	ON	Receive audio sig- nal	 SKIA0177E
64 (V)	58 (LG)	Audio sound signal rear RH	Output	ON	Receive audio sig- nal	 SKIA0177E
77 (B)	—	USB ground	—	—	—	—
78 (W)	—	USB D-	—	—	—	—
79 (R)	—	V BUS signal	—	—	—	—
80 (G)	—	USB D+	—	—	—	—
81 (B)	Ground	Antenna amp power supply	Output	ON	Turn audio unit ON	Battery voltage
82 (B)	Ground	Main antenna	Input	ON	Turn audio unit ON	—

\*1 With rear view camera

# AUDIO UNIT (SEDAN)

< ECU DIAGNOSIS INFORMATION >

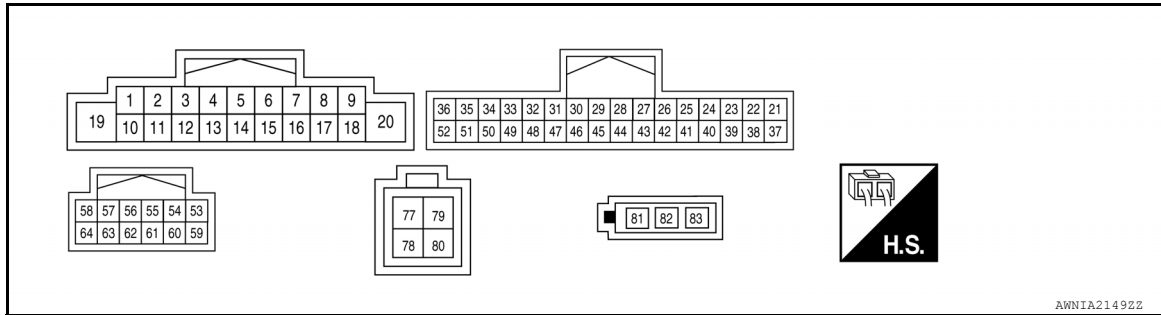
[BOSE AUDIO WITHOUT NAVIGATION]

## AUDIO UNIT (SEDAN)

### Reference Value

INFOID:000000006390049

### TERMINAL LAYOUT



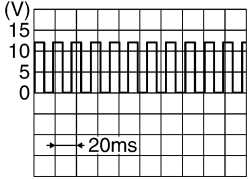
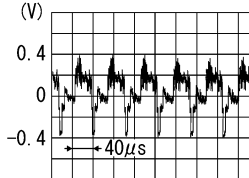
### PHYSICAL VALUES

Terminal (Wire color)		Item	Signal in- put/out- put	Condition		Reference value
+	-			Ignition switch	Operation	
1 (B/P)	Ground	Amp. ON sig- nal	Output	ON	-	More than approx. 6.5V
6 (W/G)	Ground	Remote con- trol A	Input	ON	Press  switch.	0 V
					Press SEEK UP switch.	0.7 V
					Press SEEK DOWN switch.	1.3 V
					Except for above.	3.3 V
7 (V/Y)	Ground	ACC signal	Input	ON	Ignition switch ACC or ON	Battery voltage
8 (R/Y)	-	Illumination control ground	Input	-	-	-
9 (R/L)	Ground	Illumination signal	Input	OFF	Lighting switch is OFF	0V
					Lighting switch is ON	Battery voltage
15 (L/B)	-	Remote con- trol ground	Input	-	-	-
16 (GR/L)	Ground	Remote con- trol B	Input	ON	Press VOL DOWN switch	0 V
					Press VOL UP switch.	0.7 V
					Press  switch.	1.3 V
					Press SOURCE switch.	2.0 V
					Except for above.	3.3 V

# AUDIO UNIT (SEDAN)

< ECU DIAGNOSIS INFORMATION >

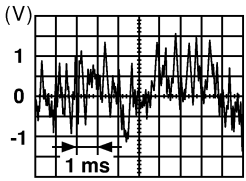
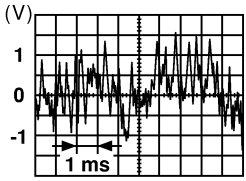
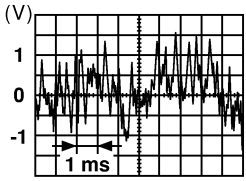
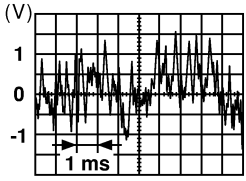
[BOSE AUDIO WITHOUT NAVIGATION]

Terminal (Wire color)		Item	Signal in- put/out- put	Condition		Reference value
+	-			Ignition switch	Operation	
18 (V/W)	Ground	Vehicle speed signal (8- pulse)	Input	ON	When vehicle speed is approx. 40 km/h (25 MPH)	 PKIA1935E
19 (Y/R)	Ground	Battery power	Input	-	-	Battery voltage
20 (B)	-	Ground	-	-	-	-
25 (BR)	24 (Y)	Telephone au- dio in	-	-	-	-
26	-	Tel. Shield	-	-	-	Approx. 0V
27 (B)	-	Ground	-	-	-	-
28 (B/R)	-	M-CAN A+	-	-	-	-
29 (BR)	-	M-CAN A-	-	-	-	-
30	-	Shield	-	-	-	Approx. 0V
31 (B/R)	-	M-CAN B+	-	-	-	-
32 (W/R)	-	M-CAN B-	-	-	-	-
33 (B)	Ground	RV_CAM_GN D	—	—	—	—
34 (GR)	Ground	RV_CAM_SIG	Output	Ignition switch ACC	Shift selector is in R position	6V
35 (Y)	Ground	Rear view camera video in (+)	Input	Ignition switch ON	With rear view camera ON	 SKIB2251J
36	—	Shield	—	—	—	—
40 (B)	—	Ground	—	—	—	—
41 (R/W)	Ground	Telephone ON signal	Input	ON	-	-
50 (P/B)	Ground	Reverse sig- nal	Input	Ignition switch ON	R position	Battery voltage
					Other than R posi- tion	0V

# AUDIO UNIT (SEDAN)

< ECU DIAGNOSIS INFORMATION >

[BOSE AUDIO WITHOUT NAVIGATION]

Terminal (Wire color)		Item	Signal in- put/out- put	Condition		Reference value
+	-			Ignition switch	Operation	
59 (G)	53 (R)	Audio sound signal front LH	Output	ON	Receive audio sig- nal	 SKIA0177E
60 (GR)	54 (R)	Audio sound signal rear LH	Output	ON	Receive audio sig- nal	 SKIA0177E
63 (B)	57 (W)	Audio sound signal front RH	Output	ON	Receive audio sig- nal	 SKIA0177E
64 (V)	58 (LG)	Audio sound signal rear RH	Output	ON	Receive audio sig- nal	 SKIA0177E
77 (B)	—	USB ground	—	—	—	—
78 (W)	—	USB D-	—	—	—	—
79 (R)	—	V BUS signal	—	—	—	—
80 (G)	—	USB D+	—	—	—	—
81 (B)	Ground	Antenna amp power supply	Output	ON	Turn audio unit ON	Battery voltage
82 (B)	Ground	Main antenna	Input	ON	Turn audio unit ON	—

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# BOSE SPEAKER AMP

< ECU DIAGNOSIS INFORMATION >

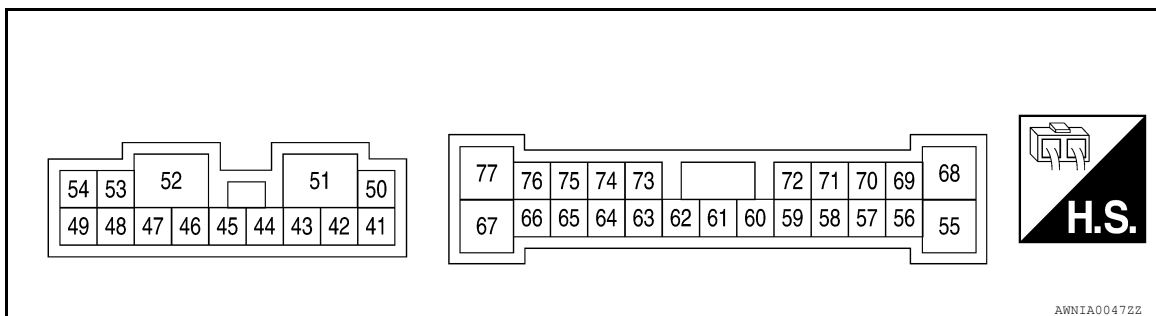
[BOSE AUDIO WITHOUT NAVIGATION]

## BOSE SPEAKER AMP

### Reference Value

INFOID:000000006390050

### TERMINAL LAYOUT



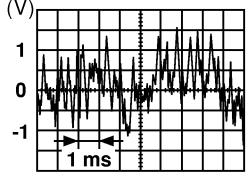
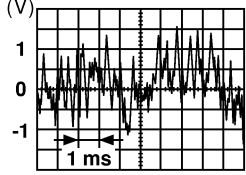
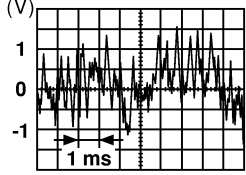
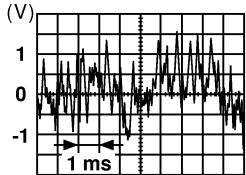
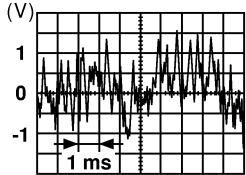
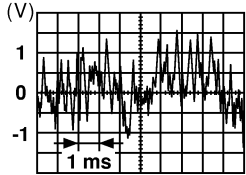
### PHYSICAL VALUES

Terminal (wire color)		Item	Signal input/output	Condition		Reference value
+	-			Ignition switch	Operation	
41 (L) *1 (LG) *2	42 (R) *1 (V) *2	Front tweeter LH	Output	ON	Receive audio signal	 SKIA0177E
44 (BR)	43 (GR)	Front tweeter RH	Output	ON	Receive audio signal	 SKIA0177E
45 (O)	46 (SB)	Subwoofer RH	Output	ON	Receive audio signal	 SKIA0177E
47 (B)	Ground	Ground	-	ON	-	-
50 (SB)	Ground	Battery	Input	-	-	Battery voltage
51 (G)						
52 (B)	Ground	Ground	-	ON	-	-

# BOSE SPEAKER AMP

< ECU DIAGNOSIS INFORMATION >

[BOSE AUDIO WITHOUT NAVIGATION]

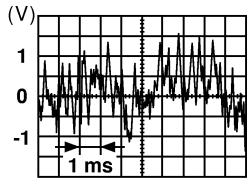
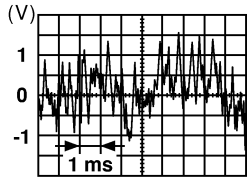
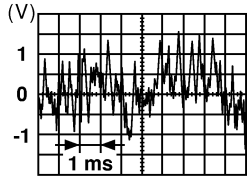
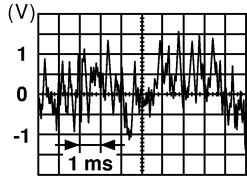
Terminal (wire color)		Item	Signal in- put/out- put	Condition		Reference value
+	-			Ignition switch	Operation	
53 (W)	48 (G) *1 (L) *2	Subwoofer LH	Output	ON	Receive audio sig- nal	 SKIA0177E
54 (V)	49 (P)	Rear tweeter RH	Output	ON	Receive audio sig- nal	 SKIA0177E
58 (W)	59 (B)	Door speaker LH	Output	ON	Receive audio sig- nal	 SKIA0177E
60 (G)	Ground	Amp. ON signal	Input	ON	-	More than approx. 6.5V
64 (BR)	63 (Y)	Audio sound sig- nal rear LH	Input	ON	Receive audio sig- nal	 SKIA0177E
66 (LG)	65 (V)	Audio sound sig- nal rear RH	Input	ON	Receive audio sig- nal	 SKIA0177E
68 (L)	55 (R)	Rear tweeter LH	Output	ON	Receive audio sig- nal	 SKIA0177E

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# BOSE SPEAKER AMP

< ECU DIAGNOSIS INFORMATION >

[BOSE AUDIO WITHOUT NAVIGATION]

Terminal (wire color)		Item	Signal in- put/out- put	Condition		Reference value
+	-			Ignition switch	Operation	
69 (P)	70 (V)	Center speaker	Output	ON	Receive audio sig- nal	 SKIA0177E
71 (O)	72 (SB)	Door speaker RH	Output	ON	Receive audio sig- nal	 SKIA0177E
73 (W/L) *1 (GR) *2	74 (GR/V) *1 (L) *2	Audio sound sig- nal front RH	Input	ON	Receive audio sig- nal	 SKIA0177E
75 (W/R)	76 (B/R)	Audio sound sig- nal front LH	Input	ON	Receive audio sig- nal	 SKIA0177E

\*1 With coupe

\*2 With sedan



# BLUETOOTH CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

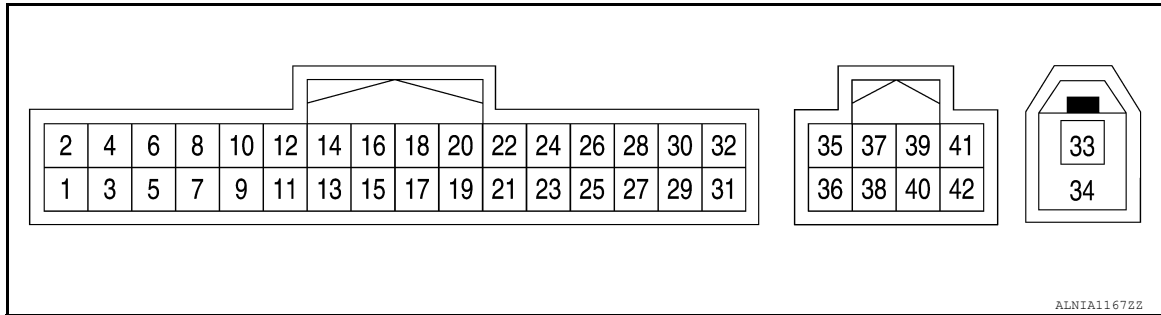
[BOSE AUDIO WITHOUT NAVIGATION]

## BLUETOOTH CONTROL UNIT

### Reference Value

INFOID:000000006390051

### TERMINAL LAYOUT






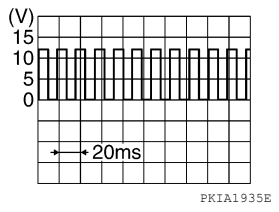
### PHYSICAL VALUES

Terminal (Wire color)		Item	Signal input/ output	Condition		Reference value (Approx.)
+	-			Ignition switch	Operation	
1 (V)	Ground	Battery power	Input	-	-	Battery voltage
2 (W) *1 (G) *2	Ground	ACC power	Input	ACC/ON	-	Battery voltage
3 (O)	Ground	IGN power	Input	ON/ START	-	Battery voltage
4 (B)	-	Ground	-	-	-	-
6	-	Shield	-	-	-	-
7 (B) *1 (B/R) *2	8 (R/B)	Mic-in signal	Input	-	-	-
9 (BR)	10 (Y)	Audio out	Output	ACC/ON	Bluetooth control unit sends audio sig- nal	<p>SKIB3609E</p>
11 (SB)	-	Mute	Output	-	-	-
12 (W) *1 (W/G) *2	Ground	Remote con- trol switch 1	Input	ACC/ON	Press  switch	0 V
					Press SEEK UP switch	0.7 V
					Press SEEK DOWN switch	1.3 V
					Except for above	3.3 V

# BLUETOOTH CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[BOSE AUDIO WITHOUT NAVIGATION]

Terminal (Wire color)		Item	Signal input/ output	Condition		Reference value (Approx.)
+	-			Ignition switch	Operation	
13 (GR/L)	Ground	Remote con- trol switch 2	Input	ACC/ON	Press VOL DOWN switch	0 V
					Press VOL UP switch	0.7 V
					Press  switch	1.3 V
					Press SOURCE switch	2 V
					Except for above	3.3 V
14 (L/B)	-	Remote con- trol ground	Input	-	-	-
17 (W/G)	Ground	Steering switch 1	Output	ACC/ON	Pressing  switch	0 V
					Press SEEK UP switch	0.7 V
					Press SEEK DOWN switch	1.3 V
					Except for above	3.3 V
18 (GR/L)	Ground	Steering switch 2	Output	ACC/ON	Press VOL DOWN switch	0 V
					Press VOL UP switch	0.7 V
					Press  switch	1.3 V
					Press SOURCE switch	2.0 V
					Except for above	3.3 V
19 (L/B)	Ground	Steering switch ground	Output	-	-	-
22 (B) *2	-	Ground	-	-	-	-
23 (B) *2	-	Ground	-	-	-	-
28 (G) *1 (P) *2	-	Vehicle speed signal (8- pulse)	Input	ON	When vehicle speed is approx. 40 km/h (25 MPH)	
29 (R/L)	Ground	Microphone power	Output	-	-	-
33 (B)	-	Bluetooth an- tenna	-	-	-	-
34	-	Shield	-	-	-	-
35 (L)	-	M-CAN (+)	-	-	-	-
36 (P)	-	M-CAN (-)	-	-	-	-
37	-	Shield ground	-	-	-	-

# BLUETOOTH CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[BOSE AUDIO WITHOUT NAVIGATION]

\*1: With coupe

\*2: With sedan

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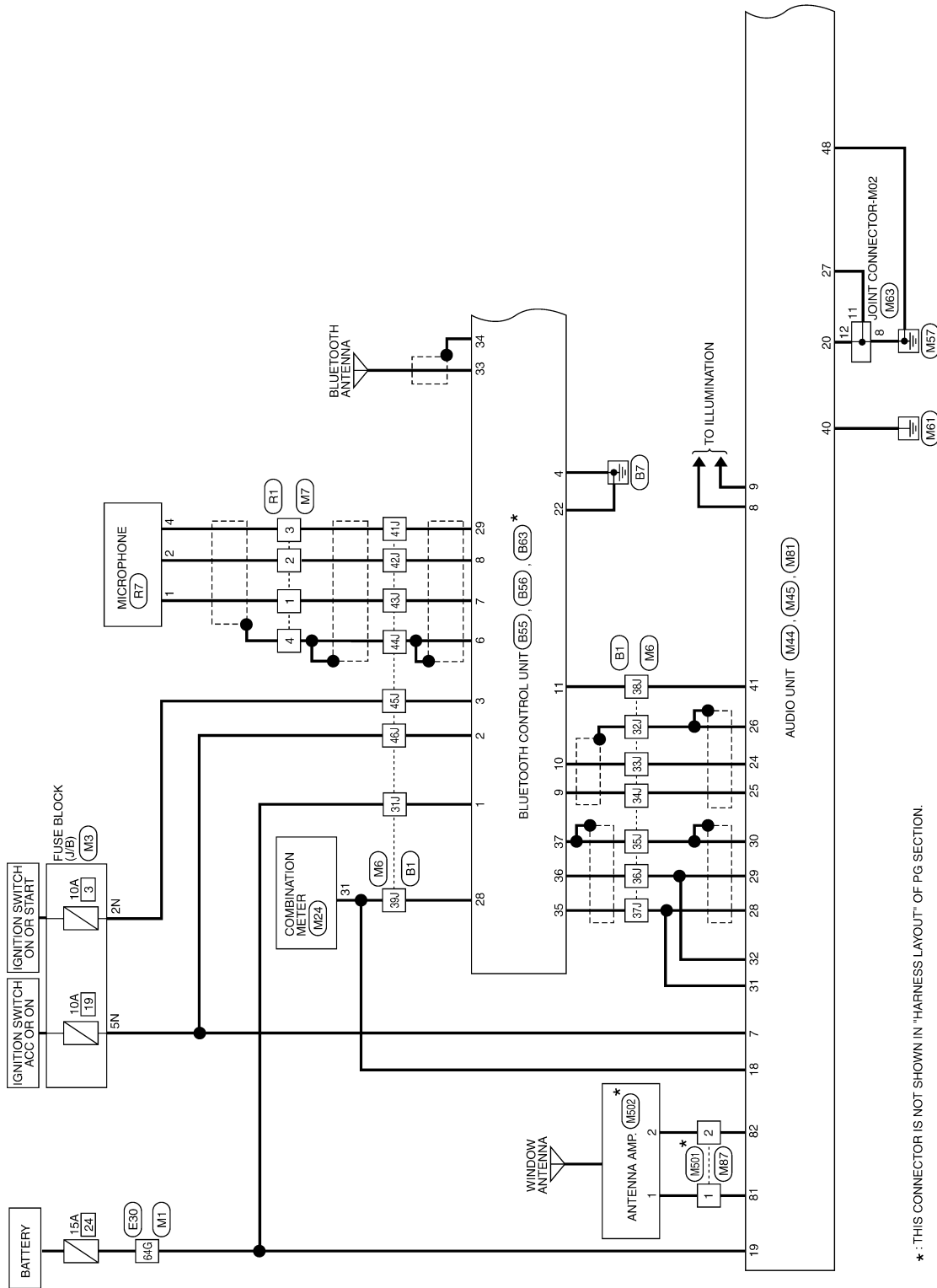
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**[BOSE AUDIO WITHOUT NAVIGATION]**

## WIRING DIAGRAM

## COUPE : Wiring Diagram - Coupe Without Navigation System

BOSE AUDIO SYSTEM - WITHOUT NAVIGATION SYSTEM



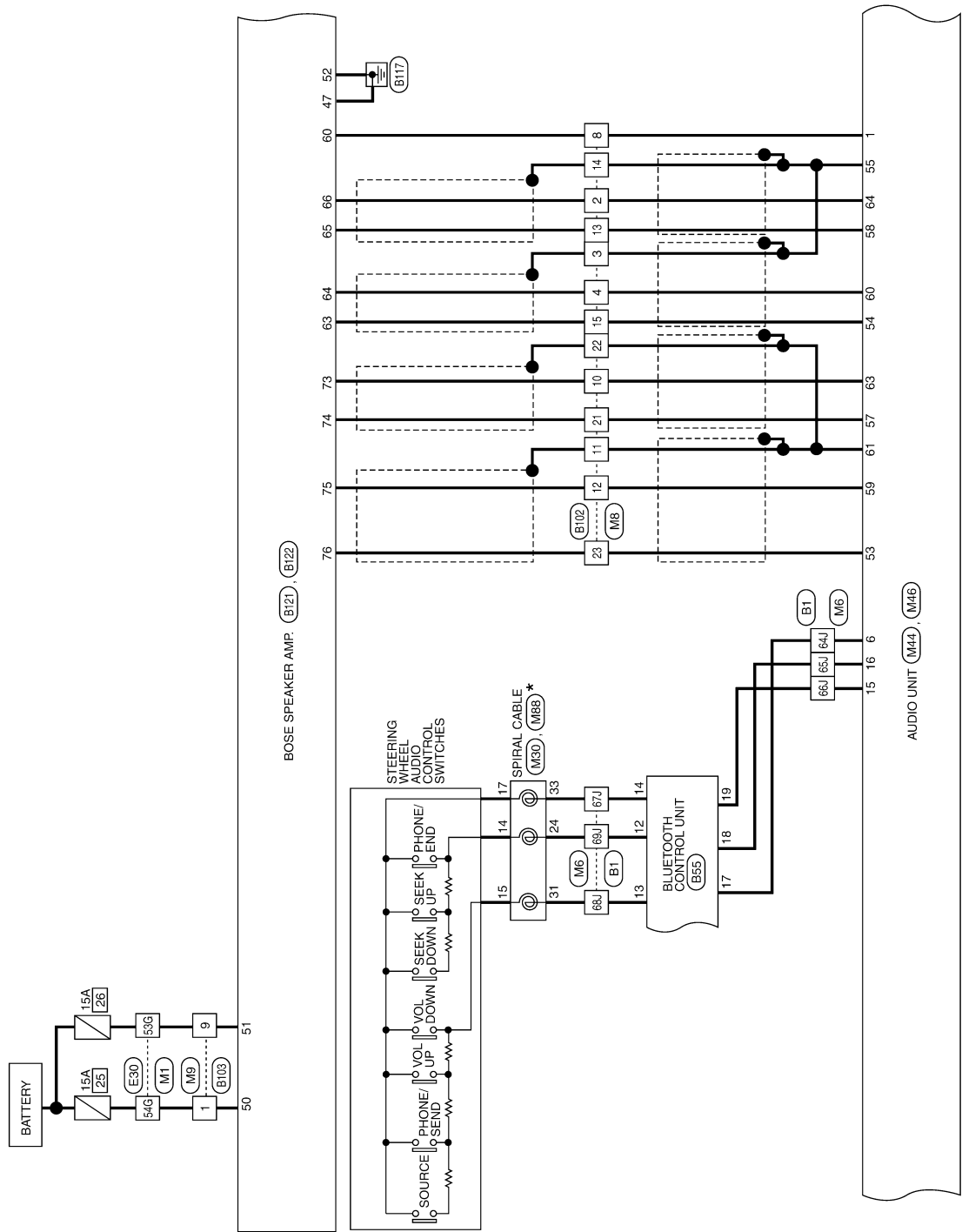
\* : THIS CONNECTOR IS NOT SHOWN IN "HARNES LAYOUT" OF PG SECTION.

AANWA0388GB

BOSE AUDIO SYSTEM

< WIRING DIAGRAM >

[BOSE AUDIO WITHOUT NAVIGATION]



\* : THIS CONNECTOR IS NOT SHOWN IN "HARNES LAYOUT" OF PG SECTION.

AANWA0389GB

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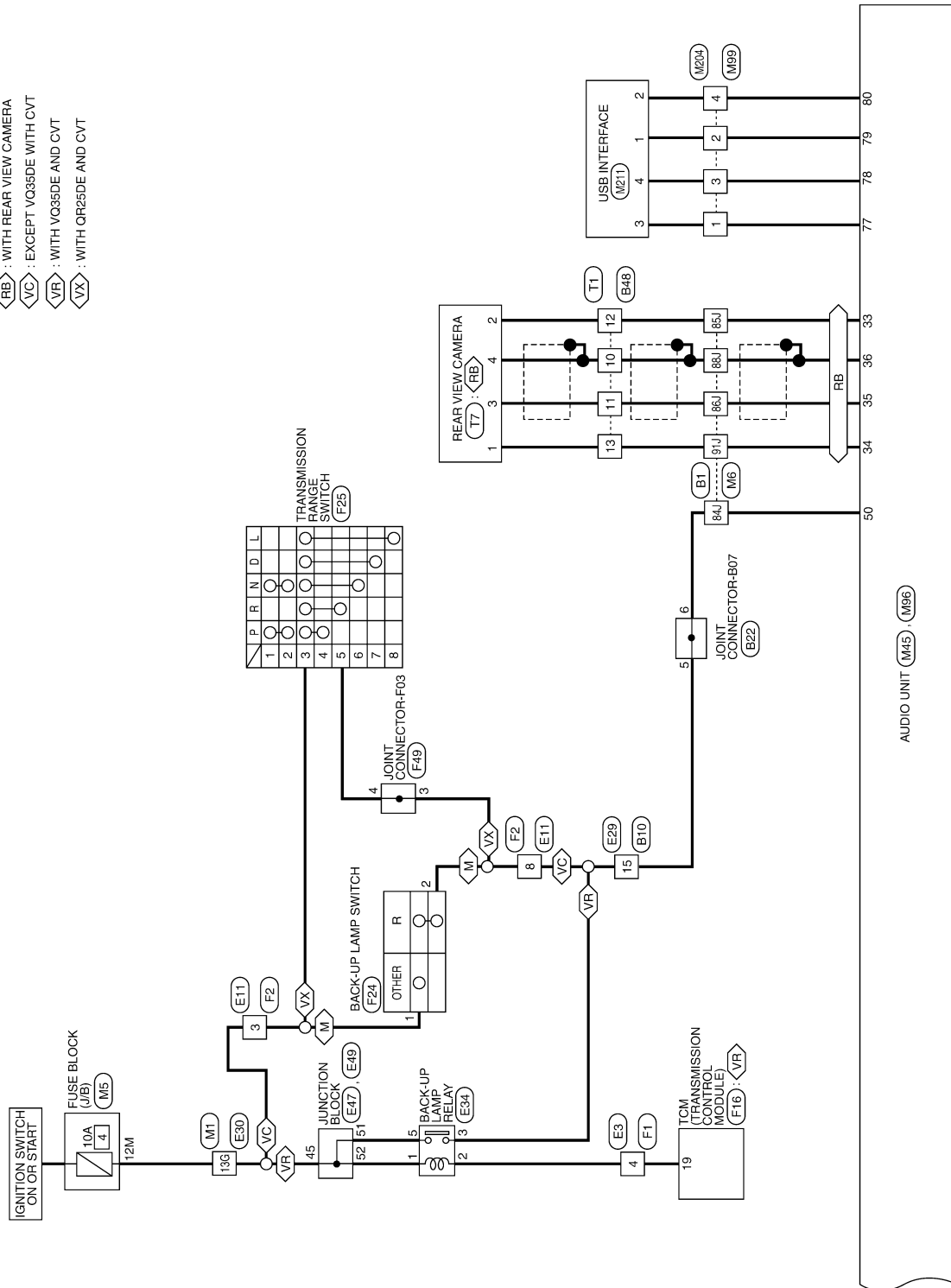
AV

# BOSE AUDIO SYSTEM

[BOSE AUDIO WITHOUT NAVIGATION]

< WIRING DIAGRAM >

- : WITH M/T
- : WITH REAR VIEW CAMERA
- : EXCEPT VQ35DE WITH CVT
- : WITH VQ35DE AND CVT
- : WITH QR25DE AND CVT

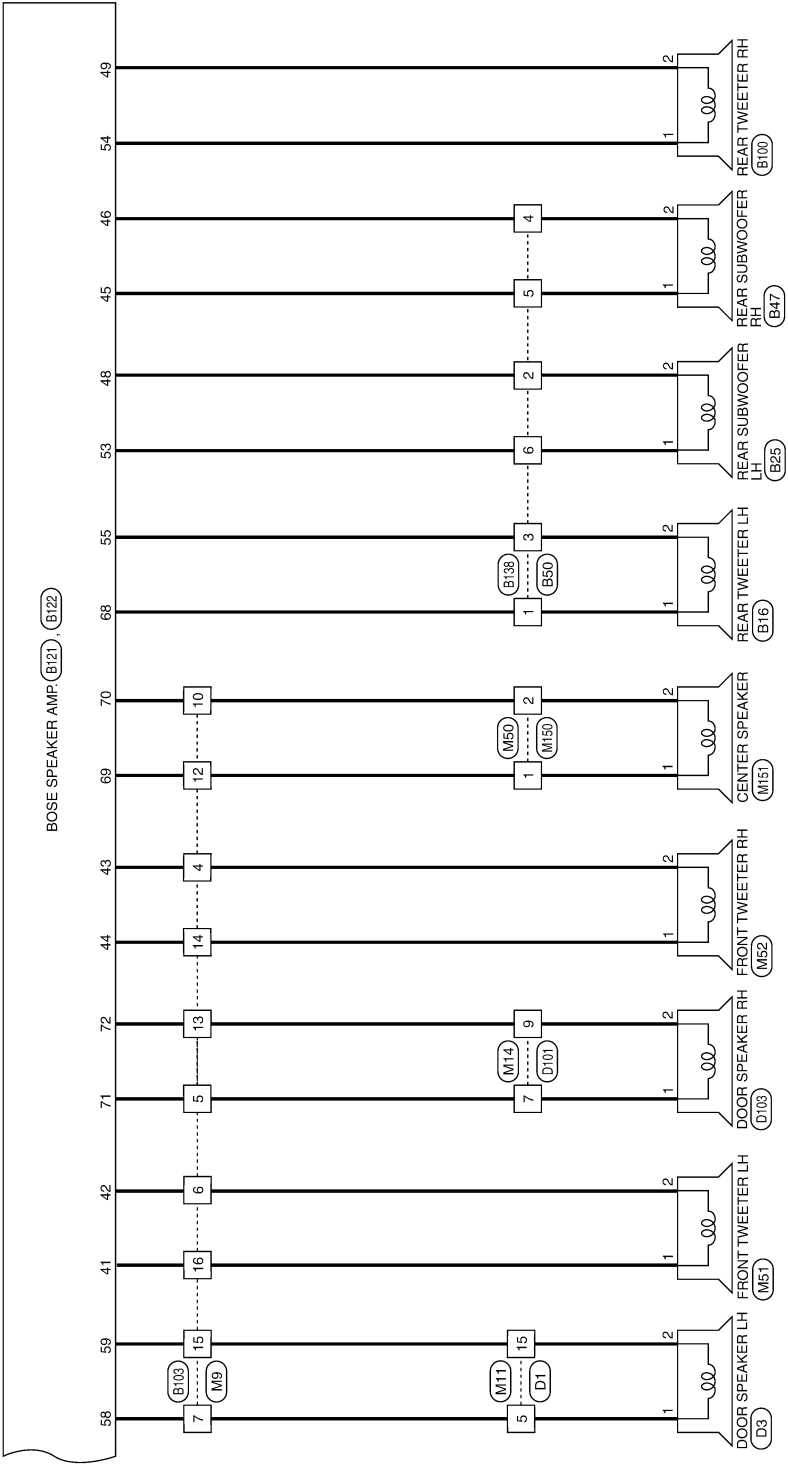


AANWA0390GB

BOSE AUDIO SYSTEM

< WIRING DIAGRAM >

[BOSE AUDIO WITHOUT NAVIGATION]



ABNWA0724GB

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< WIRING DIAGRAM >

BOSE AUDIO SYSTEM CONNECTORS - WITHOUT NAVIGATION SYSTEM

Connector No.  
M1

Connector Name  
WIRE TO WIRE

Connector Color  
WHITE

H.S.

9G 8G 7G 6G 5G 4G 3G

17G 16G 15G 14G 13G 12G 11G 10G 2G 1G

26G 25G 24G 23G 22G 21G 20G

34G 33G 32G 31G 30G 29G 28G 27G 19G 18G

41G 40G 39G 38G 37G 36G 35G

50G 49G 48G 47G 46G 45G 44G 43G 42G

58G 57G 56G 55G

63G 62G 61G 60G 59G 54G 53G 52G 51G

72G 71G 70G 69G 68G 67G 66G

80G 79G 78G 77G 76G 75G 74G 73G 65G 64G

83G 82G 81G

Terminal No.

Color of Wire

Signal Name

13G

O

-

53G

B/R

-

54G

BR

-

64G

Y/R

-

H.S.

3M 2N 1N

8N 7N 6N 5N 4N

Connector No.  
M3

Connector Name  
FUSE BLOCK (J/B)

Connector Color  
WHITE

H.S.

3M 2N 1N

8N 7N 6N 5N 4N

Terminal No.

Color of Wire

Signal Name

2N

G

-

5N

V/Y

-

Connector No.  
M5

Connector Name  
FUSE BLOCK (J/B)

Connector Color  
WHITE

H.S.

5M 4M 3M 2M 1M

12M 11M 10M 9M 8M 7M 6M

Terminal No.

Color of Wire

Signal Name

12M

O

-

ABNIA2165GB

Revision: June 2012

AV-156

2011 Altima GCC



BOSE AUDIO SYSTEM

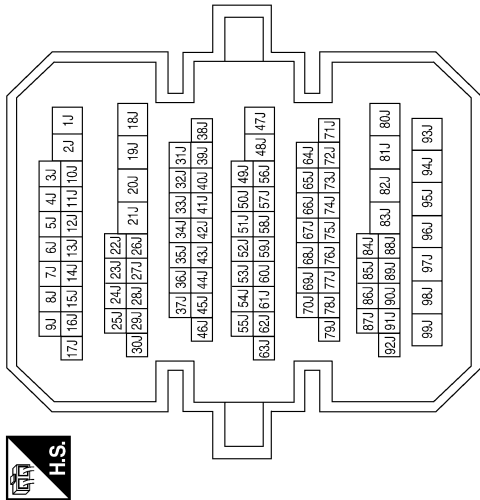
< WIRING DIAGRAM >

[BOSE AUDIO WITHOUT NAVIGATION]

Terminal No.	Color of Wire	Signal Name
43J	B/R	-
44J	SHIELD	-
45J	G	-
46J	V/Y	-
64J	W/G	-
65J	GR/L	-
66J	L/B	-
67J	L/B	-
68J	GR/L	-
69J	W/G	-
84J	P/B	-
85J	B	-
86J	Y	-
88J	SHIELD	-
91J	GR	-

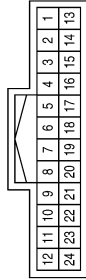
Terminal No.	Color of Wire	Signal Name
31J	Y/R	-
32J	SHIELD	-
33J	Y	-
34J	BR	-
35J	SHIELD	-
36J	BR	-
37J	B/R	-
38J	R/W	-
39J	V/W	-
41J	R/L	-
42J	R/B	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
12	G	-
13	LG	-
14	SHIELD	-
15	W/L	-
21	W	-
22	SHIELD	-
23	R	-

Connector No.	M8
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	V	-
3	SHIELD	-
4	GR/V	-
8	B/P	-
10	B	-
11	SHIELD	-

Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	B/R	-
2	R/B	-
3	R/L	-
4	SHIELD	-

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# BOSE AUDIO SYSTEM

< WIRING DIAGRAM >

[BOSE AUDIO WITHOUT NAVIGATION]

Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Color	WHITE

1	2	3	4	5	6	7		
8	9	10	11	12	13	14	15	16



Terminal No.	Color of Wire	Signal Name
5	W	-
15	B	-

Terminal No.	Color of Wire	Signal Name
1	BR	-
4	GR/L	-
5	G/W	-
6	B/Y	-
7	W	-
9	B/R	-
10	O/B	-
12	B/P	-
13	BR	-
14	L/O	-
15	B	-
16	LG	-

Connector No.	M9
Connector Name	WIRE TO WIRE
Connector Color	BROWN

7	6	5	4	3	2	1		
16	15	14	13	12	11	10	9	8



Connector No.	M30
Connector Name	SPIRAL CABLE
Connector Color	GRAY

24	25	26	27
31	32	33	34



Terminal No.	Color of Wire	Signal Name
24	W/G	AUDIO_STRG_SW_REMOTE_A
31	GR/L	AUDIO_STRG_SW_REMOTE_B
33	L/B	AUDIO_STRG_SW_GND

Connector No.	M24
Connector Name	COMBINATION METER
Connector Color	WHITE

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40



Terminal No.	Color of Wire	Signal Name
31	V/W	8P/R OUT

Connector No.	M14
Connector Name	WIRE TO WIRE
Connector Color	WHITE

1	2	3	4		
5	6	7	8	9	10



Terminal No.	Color of Wire	Signal Name
7	G/W	-
9	BR	-

ABNIA2167GB

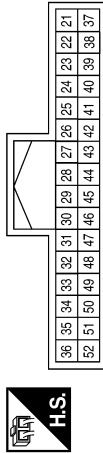
# BOSE AUDIO SYSTEM

< WIRING DIAGRAM >

[BOSE AUDIO WITHOUT NAVIGATION]

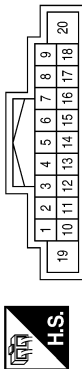
Terminal No.	Color of Wire	Signal Name
44	-	-
45	-	-
46	-	-
47	-	-
48	B	GND
49	-	-
50	P/B	REVERSE SGN
51	-	-
52	-	-

Connector No.	M45
Connector Name	AUDIO UNIT
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
21	-	-
22	-	-
23	-	-
24	Y	TEL I/F -
25	BR	TEL I/F +
26	SHIELD	TEL SHIELD
27	B	GND
28	B/R	MCAN A+
29	BR	MCAN A-
30	SHIELD	MULTIMEDIA CAN SHIELD
31	B/R	MCAN B+
32	W/R	MCAN B-
33	B	GND
34	GR	CAMERA ON
35	Y	COMP+
36	SHIELD	COMP-
37	-	-
38	-	-
39	-	-
40	B	TEL GND
41	R/W	TEL ON
42	-	-
43	-	-

Connector No.	M44
Connector Name	AUDIO UNIT
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	B/P	AMP ON
2	-	-
3	-	-
4	-	-
5	-	-
6	W/G	STRG SW A
7	V/Y	ACC
8	R/Y	ILL CONT OUT
9	R/L	TAIL/ILL RLY
10	-	-
11	-	-
12	-	-
13	-	-
14	-	-
15	L/B	STRG SW GND
16	GR/L	STRG SW B
17	-	-
18	V/W	SPEED SIGNAL
19	Y/R	BAT
20	B	GND

AANIA0435GB

A  
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# BOSE AUDIO SYSTEM

< WIRING DIAGRAM >

[BOSE AUDIO WITHOUT NAVIGATION]

Connector No.	M51
Connector Name	FRONT TWEETER LH
Connector Color	BROWN



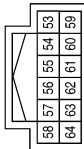
Terminal No.	Color of Wire	Signal Name
1	LG	-
2	B/Y	-

Connector No.	M50
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	B/P	-
2	O/B	-

Connector No.	M46
Connector Name	AUDIO UNIT
Connector Color	WHITE



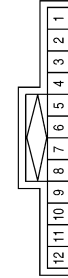
Terminal No.	Color of Wire	Signal Name
53	R	FR SP LH (-)
54	W/L	RR SP LH (-)
55	SHIELD	-
56	-	-
57	W	FR SP RH (-)
58	LG	RR SP RH (-)
59	G	FR SP LH (+)
60	GR/V	RR SP LH (+)
61	SHIELD	-
62	-	-
63	B	FR SP RH (+)
64	V	RR SP RH (+)

Connector No.	M81
Connector Name	AUDIO UNIT
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
81	B	AMP SUPPLY
82	B	MAIN ANTENNA
83	-	-

Connector No.	M63
Connector Name	JOINT CONNECTOR-M02
Connector Color	BLUE



Terminal No.	Color of Wire	Signal Name
8	B	-
11	B	-
12	B	-

Connector No.	M52
Connector Name	FRONT TWEETER RH
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
1	L/O	-
2	GR/L	-

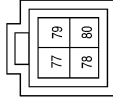
ABNIA2169GB

# BOSE AUDIO SYSTEM

< WIRING DIAGRAM >

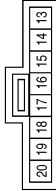
[BOSE AUDIO WITHOUT NAVIGATION]

Connector No.	M96
Connector Name	AUDIO UNIT
Connector Color	GREEN



Terminal No.	Color of Wire	Signal Name
77	B	USB GND
78	W	USB D-
79	R	V BUS
80	G	USB D+

Connector No.	M88
Connector Name	SPIRAL CABLE
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
14	W	REMOTE A
15	L	REMOTE B
17	BR	GND

Connector No.	M87
Connector Name	WIRE TO WIRE
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
1	B	-
2	B	-

Connector No.	M151
Connector Name	CENTER SPEAKER
Connector Color	BROWN



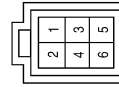
Terminal No.	Color of Wire	Signal Name
1	B/P	-
2	O/B	-

Connector No.	M150
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	B/P	-
2	O/B	-

Connector No.	M99
Connector Name	WIRE TO WIRE
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
1	B	-
2	R	-
3	W	-
4	G	-

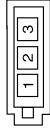
ABNIA2170GB

# BOSE AUDIO SYSTEM

[BOSE AUDIO WITHOUT NAVIGATION]

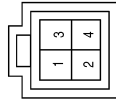
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Connector No.	M501
Connector Name	WIRE TO WIRE
Connector Color	GRAY



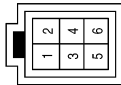
Terminal No.	Color of Wire	Signal Name
1	B	-
2	B	-

Connector No.	M211
Connector Name	USB INTERFACE
Connector Color	GREEN



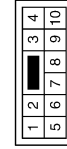
Terminal No.	Color of Wire	Signal Name
1	R	V BUS
2	G	USB (D+)
3	B	USB GND
4	W	USB (D-)

Connector No.	M204
Connector Name	WIRE TO WIRE
Connector Color	GRAY



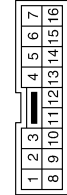
Terminal No.	Color of Wire	Signal Name
1	B	-
2	R	-
3	W	-
4	G	-

Connector No.	E11
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
3	BR	-
8	W	-

Connector No.	E3
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
4	R	-

Connector No.	M502
Connector Name	ANTENNA AMP.
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
1	B	-
2	B	-

ABNIA2171GB

# BOSE AUDIO SYSTEM

< WIRING DIAGRAM >

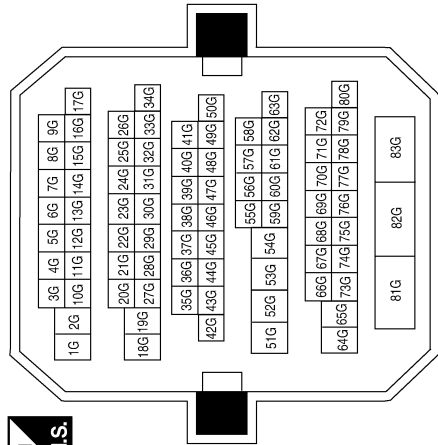
[BOSE AUDIO WITHOUT NAVIGATION]

Connector No.	E34
Connector Name	BACK-UP LAMP RELAY
Connector Color	BLUE



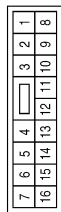
Terminal No.	Color of Wire	Signal Name
1	O	-
2	R	-
3	W	-
5	LG	-

Connector No.	E30
Connector Name	WIRE TO WIRE
Connector Color	WHITE



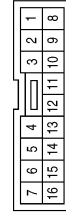
Terminal No.	Color of Wire	Signal Name
13G	BR	-
53G	GR	-
54G	BR	-
64G	V	-

Connector No.	E29
Connector Name	WIRE TO WIRE
Connector Color	WHITE



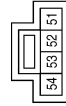
Terminal No.	Color of Wire	Signal Name
15	W	-

Connector No.	F1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



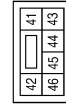
Terminal No.	Color of Wire	Signal Name
4	G/B	-

Connector No.	E49
Connector Name	JUNCTION BLOCK
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
51	LG	-
52	O	-

Connector No.	E47
Connector Name	JUNCTION BLOCK
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
45	BR	-

ABNIA2172GB

A B C D E F G H I J K L M O P

AV

# BOSE AUDIO SYSTEM

[BOSE AUDIO WITHOUT NAVIGATION]

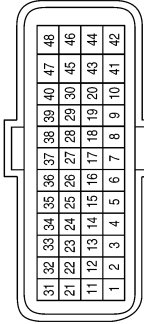
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Connector No.	F24
Connector Name	BACK-UP LAMP SWITCH
Connector Color	BLACK



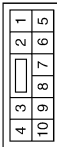
Terminal No.	Color of Wire	Signal Name
1	O	-
2	R	-

Connector No.	F16
Connector Name	TCM (TRANSMISSION CONTROL MODULE)
Connector Color	BLACK



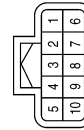
Terminal No.	Color of Wire	Signal Name
19	G	REV LAMP RLY

Connector No.	F2
Connector Name	WIRE TO WIRE
Connector Color	WHITE



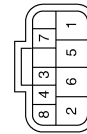
Terminal No.	Color of Wire	Signal Name
3	O	-
8	R	-

Connector No.	F49
Connector Name	JOINT CONNECTOR-F03
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
3	R	-
4	R	-

Connector No.	F25
Connector Name	TRANSMISSION RANGE SWITCH
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
3	O	IGN
5	R	R_OUTPUT

AANIA0436GB



BOSE AUDIO SYSTEM

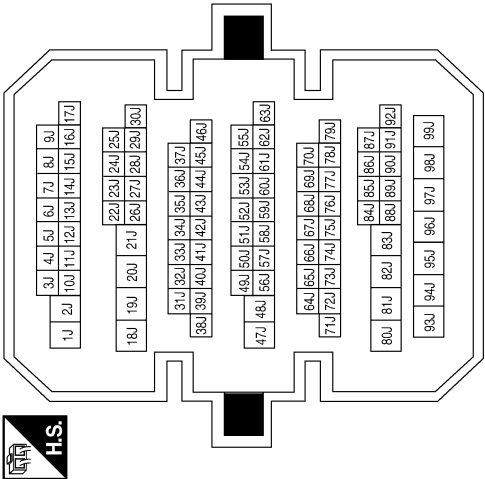
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[BOSE AUDIO WITHOUT NAVIGATION]

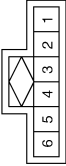
Terminal No.	Color of Wire	Signal Name
43J	B	-
44J	SHIELD	-
45J	O	-
46J	W	-
64J	W/G	-
65J	GR/L	-
66J	L/B	-
67J	L/B	-
68J	GR/L	-
69J	W/G	-
84J	V	-
85J	B	-
86J	Y	-
88J	SHIELD	-
91J	L	-

Terminal No.	Color of Wire	Signal Name
31J	V	-
32J	SHIELD	-
33J	Y	-
34J	BR	-
35J	SHIELD	-
36J	P	-
37J	L	-
38J	SB	-
39J	G	-
41J	R/L	-
42J	R/B	-

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Connector No.	B22
Connector Name	JOINT CONNECTOR-B07
Connector Color	GRAY



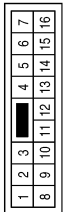
Terminal No.	Color of Wire	Signal Name
5	V	-
6	V	-

Connector No.	B16
Connector Name	REAR TWEETER LH
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
1	G	-
2	R	-

Connector No.	B10
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
15	V	-

AANIA0437GB

A  
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J  
K  
L  
M  
N  
O  
P

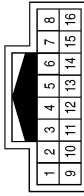
AV

# BOSE AUDIO SYSTEM

[BOSE AUDIO WITHOUT NAVIGATION]

< WIRING DIAGRAM >

Connector No.	B48
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
10	SHIELD	-
11	Y	-
12	B	-
13	L	-

Connector No.	B47
Connector Name	REAR SUBWOOFER RH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	BR	-
2	P	-

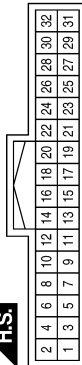
Connector No.	B25
Connector Name	REAR SUBWOOFER LH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	O	-
2	SB	-

Terminal No.	Color of Wire	Signal Name
13	GR/L	LADDER_T2_IN_B
14	L/B	LAD_GND
15	-	-
16	-	-
17	W/G	LADDER_T2_OUT_A
18	GR/L	LADDER_T2_OUT_A
19	L/B	LAD_GND
20	-	-
21	-	-
22	-	-
23	-	-
24	-	-
25	-	-
26	-	-
27	-	-
28	G	SPEED SIGNAL
29	R/L	MIC_POWER
30	-	-
31	-	-
32	-	-

Connector No.	B55
Connector Name	BLUETOOTH CONTROL UNIT
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	V	BAT
2	W	ACC
3	O	IGN
4	B	GND
5	-	-
6	SHIELD	MIC SHIELD
7	B	MIC_IN_+
8	R/B	MIC_IN_-
9	BR	AUDIO_OUT(+)
10	Y	AUDIO_OUT(-)
11	SB	MUTE_CONTROL
12	W	LADDER_T2_IN_A

Connector No.	B50
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	G	-
2	SB	-
3	R	-
4	P	-
5	BR	-
6	O	-

AANIA0438GB

# BOSE AUDIO SYSTEM

[BOSE AUDIO WITHOUT NAVIGATION]

< WIRING DIAGRAM >

Connector No.	B100
Connector Name	REAR TWEETER RH
Connector Color	BROWN



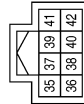
Terminal No.	Color of Wire	Signal Name
1	V	-
2	P	-

Connector No.	B63
Connector Name	BLUETOOTH CONTROL UNIT
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
33	B	BT ANTENNA
34	SHIELD	BT ANTENNA SHIELD

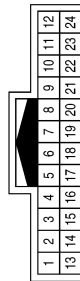
Connector No.	B56
Connector Name	BLUETOOTH CONTROL UNIT
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
35	L	M-CAN +_1
36	P	M-CAN -_2
37	SHIELD	M-CAN_SHIELD_1
39	-	-
40	-	-
41	-	-
42	-	-

Terminal No.	Color of Wire	Signal Name
2	LG	-
3	SHIELD	-
4	BR	-
8	G	-
10	W/L	-
11	SHIELD	-
12	W/R	-
13	V	-
14	SHIELD	-
15	Y	-
21	GRV	-
22	SHIELD	-
23	B/R	-

Connector No.	B102
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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# BOSE AUDIO SYSTEM

< WIRING DIAGRAM >

[BOSE AUDIO WITHOUT NAVIGATION]

Connector No.	B122
Connector Name	BOSE SPEAKER AMP.
Connector Color	BROWN



54	53	52	51	50
49	48	47	46	45
44	43	42	41	

Connector No.	B121
Connector Name	BOSE SPEAKER AMP.
Connector Color	BROWN



77	76	75	74	73		72	71	70	69	68
67	66	65	64	63	62	61	60	59	58	57
56	55									

Connector No.	B103
Connector Name	WIRE TO WIRE
Connector Color	BROWN



1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16					

Terminal No.	Color of Wire	Signal Name
41	L	FR TWDR LH + OUT
42	R	FR TWDR LH - OUT
43	GR	FR TWDR RH - OUT
44	BR	FR TWDR RH + OUT
45	O	RH WOOFER + OUT
46	SB	RH WOOFER - OUT
47	B	GND
48	G	LH WOOFER - OUT
49	P	RR DOOR RH - OUT
50	SB	BAT
51	G	BAT
52	B	GND
53	W	LH WOOFER + OUT
54	V	RR DOOR RH + OUT

Terminal No.	Color of Wire	Signal Name
55	R	RR DOOR LH - OUT
56	-	-
57	-	-
58	W	FR DOOR LH + OUT
59	B	FR DOOR LH - OUT
60	G	AMP ON
61	-	-
62	-	-
63	Y	RR LH - IN
64	BR	RR LH + IN
65	V	RR RH - IN
66	LG	RR RH + IN
67	-	-
68	L	RR DOOR LH + OUT
69	P	INST CTR TWDR + OUT
70	V	INST CTR TWDR - OUT
71	O	FR DOOR RH + OUT
72	SB	FR DOOR RH - OUT
73	W/L	FR RH + IN
74	GR/V	FR RH - IN
75	W/R	FR LH + IN
76	B/R	FR LH - IN
77	-	-

Terminal No.	Color of Wire	Signal Name
1	SB	-
4	GR	-
5	O	-
6	R	-
7	W	-
9	G	-
10	V	-
12	P	-
13	SB	-
14	BR	-
15	B	-
16	L	-

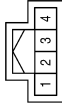
ABNIA2177GB

# BOSE AUDIO SYSTEM

< WIRING DIAGRAM >

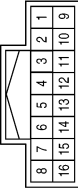
[BOSE AUDIO WITHOUT NAVIGATION]

Connector No.	T7
Connector Name	REAR VIEW CAMERA
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	R	CAMERA ON
2	B	GND
3	W	COMP +
4	GR	COMP -

Connector No.	T1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



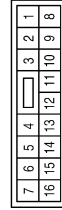
Terminal No.	Color of Wire	Signal Name
1	GR	-
2	W	-
3	B	-
4	R	-

Connector No.	B138
Connector Name	WIRE TO WIRE
Connector Color	WHITE



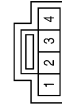
Terminal No.	Color of Wire	Signal Name
1	L	-
2	G	-
3	R	-
4	SB	-
5	O	-
6	W	-

Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



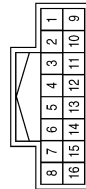
Terminal No.	Color of Wire	Signal Name
5	O	-
15	LG	-

Connector No.	R7
Connector Name	MICROPHONE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	W	SIG
2	B	GND
4	R	VCC

Connector No.	R1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	W	-
2	R	-
3	B	-
4	SHIELD	-

AANIA0439GB

# BOSE AUDIO SYSTEM

< WIRING DIAGRAM >

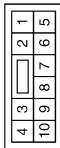
[BOSE AUDIO WITHOUT NAVIGATION]

Connector No.	D103
Connector Name	DOOR SPEAKER RH
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
1	L	-
2	LG	-

Connector No.	D101
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
7	L	-
9	LG	-

Connector No.	D3
Connector Name	DOOR SPEAKER LH
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
1	O	-
2	LG	-

ABNIA2179GB

SEDAN

# BOSE AUDIO SYSTEM

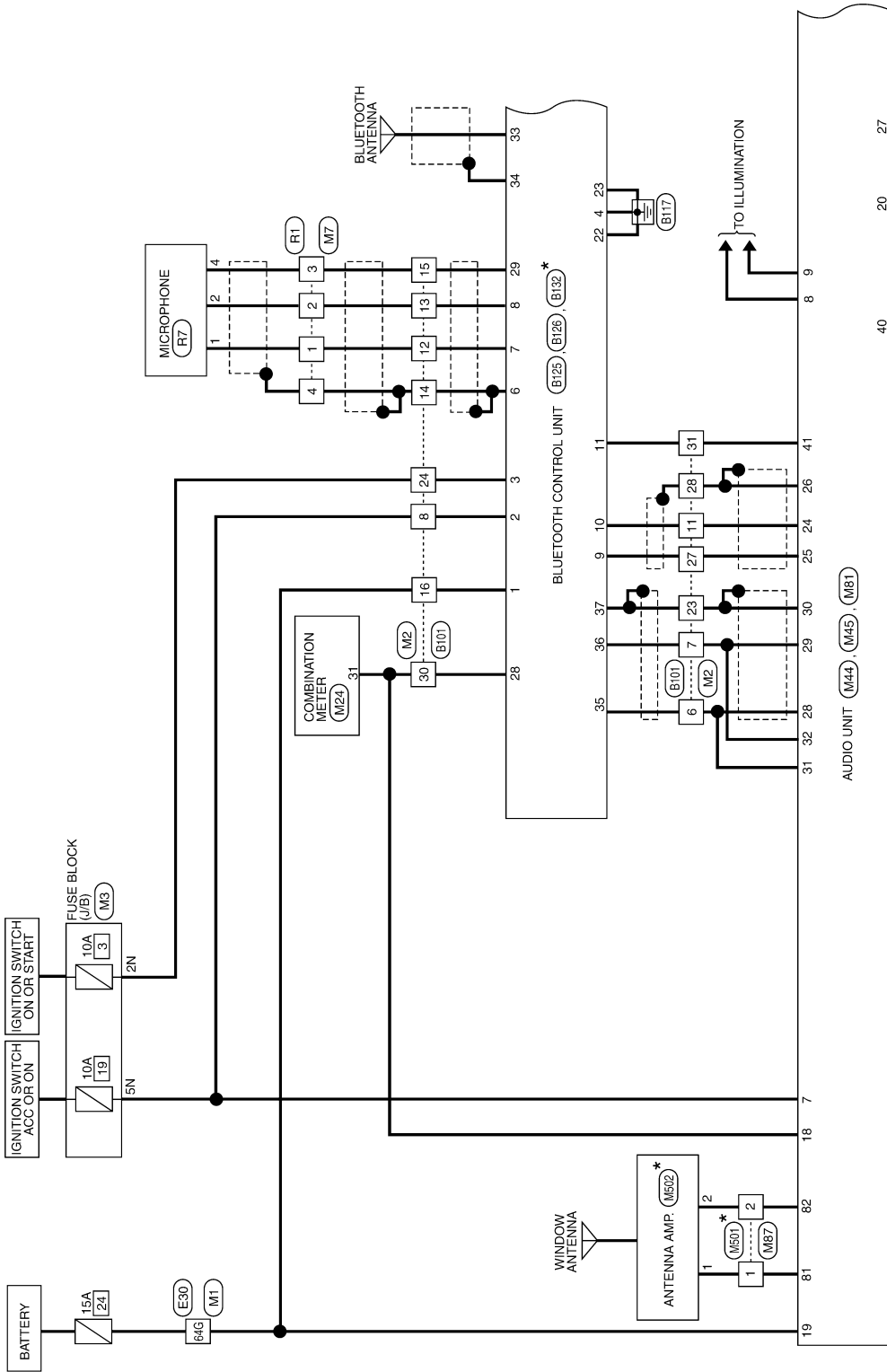
[BOSE AUDIO WITHOUT NAVIGATION]

< WIRING DIAGRAM >

## SEDAN : Wiring Diagram - Sedan Without Navigation System

INFOID:000000006390053

### BOSE AUDIO SYSTEM - WITHOUT NAVIGATION SYSTEM



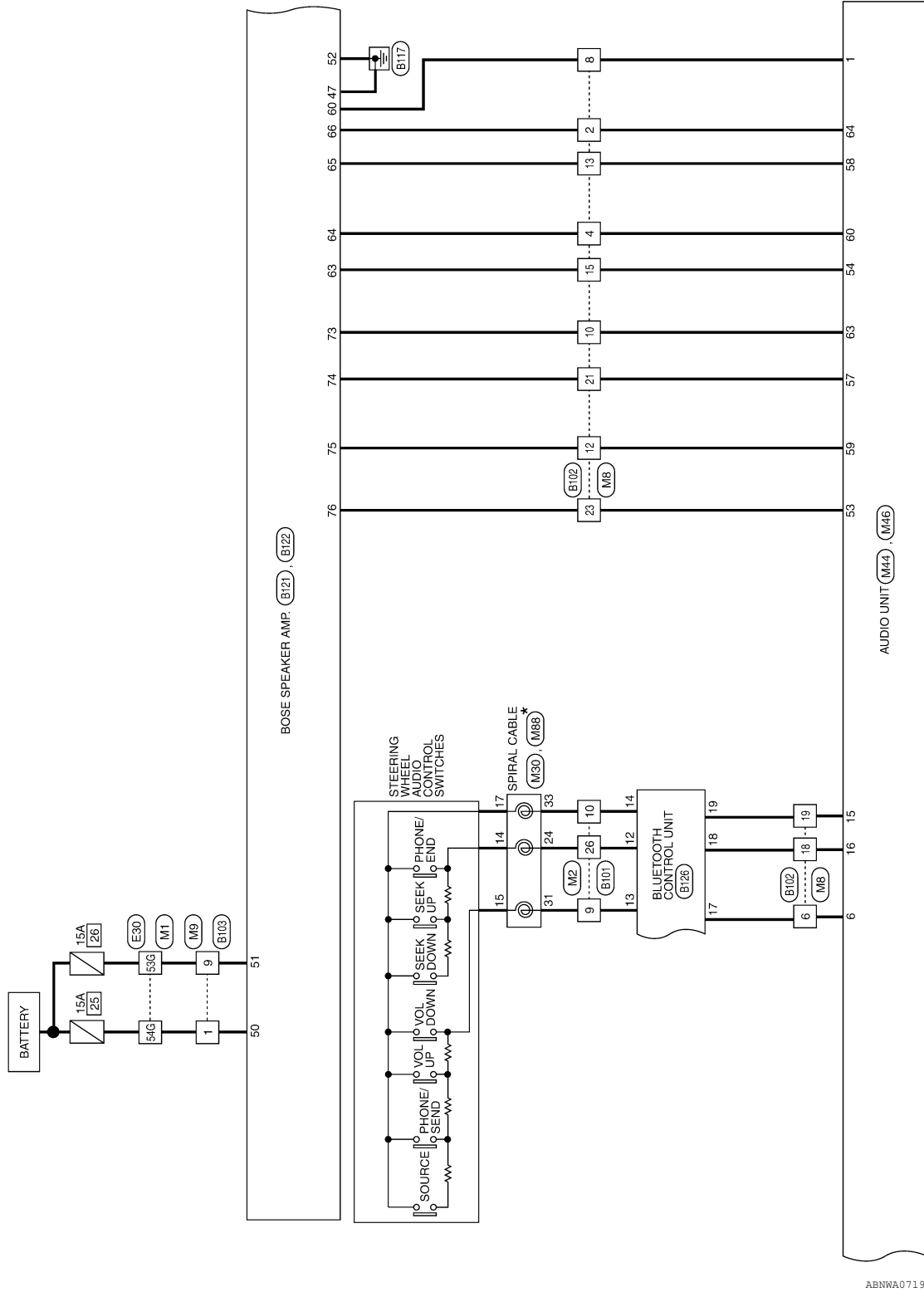
\* : THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT" OF PG SECTION.

ABNWA0718GB

# BOSE AUDIO SYSTEM

[BOSE AUDIO WITHOUT NAVIGATION]

< WIRING DIAGRAM >



\*: THIS CONNECTOR IS NOT SHOWN IN "HARNES LAYOUT" OF PG SECTION.

ABNWA0719GB

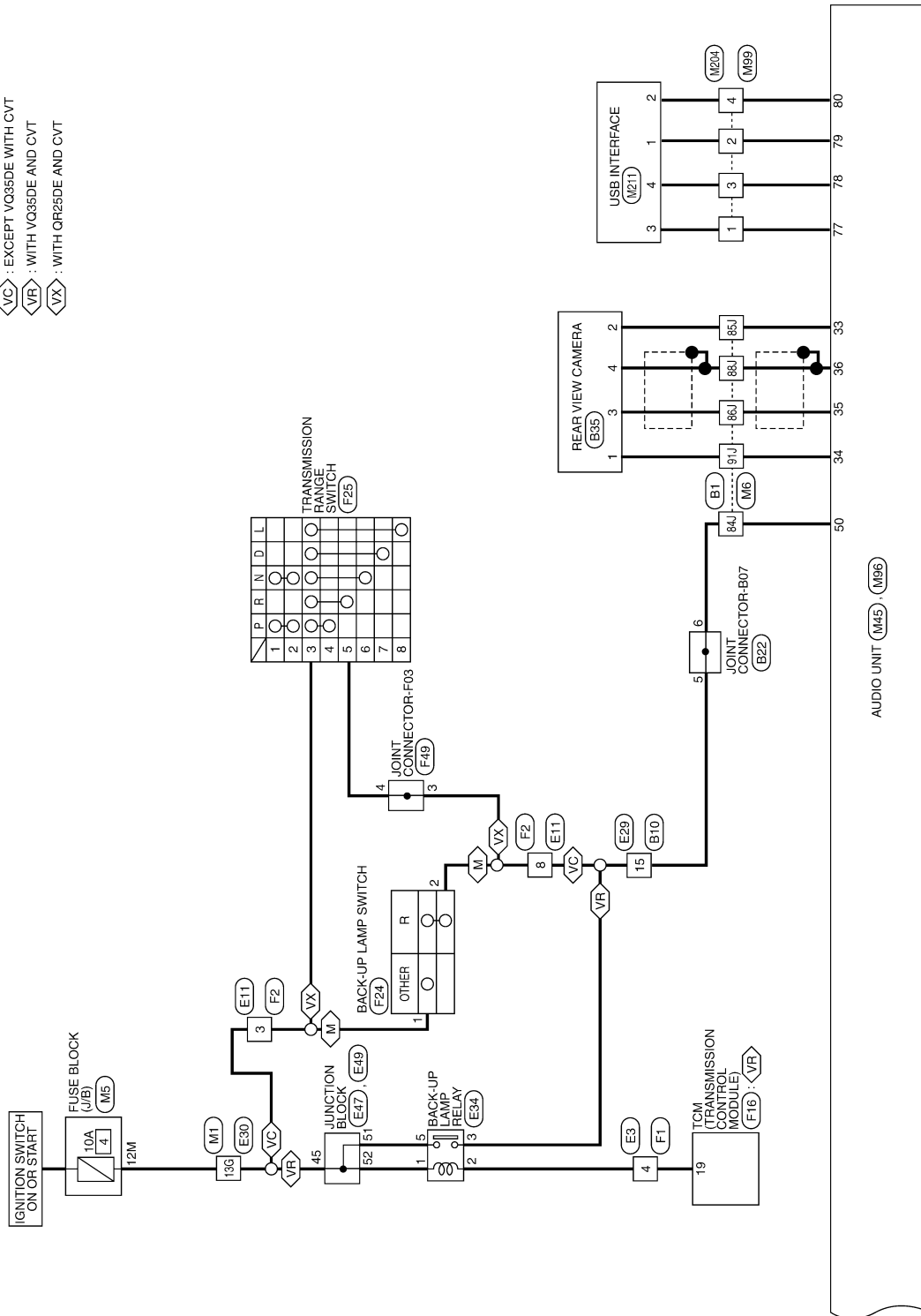


# BOSE AUDIO SYSTEM

[BOSE AUDIO WITHOUT NAVIGATION]

< WIRING DIAGRAM >

- M : WITH M/T
- VC : EXCEPT VQ35DE WITH CVT
- VR : WITH VQ35DE AND CVT
- VX : WITH QR25DE AND CVT



AANWA0396GB

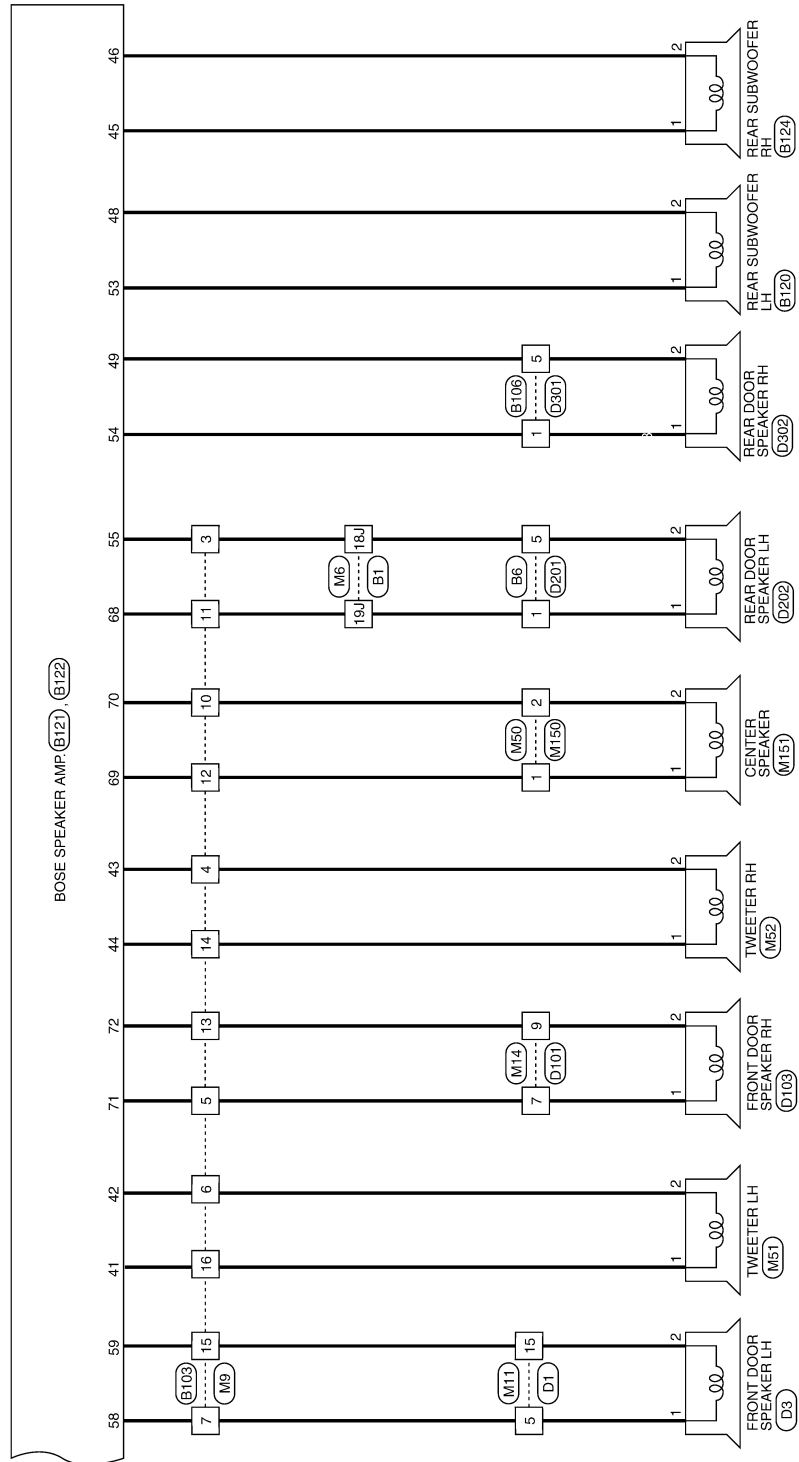
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AV

# BOSE AUDIO SYSTEM

[BOSE AUDIO WITHOUT NAVIGATION]

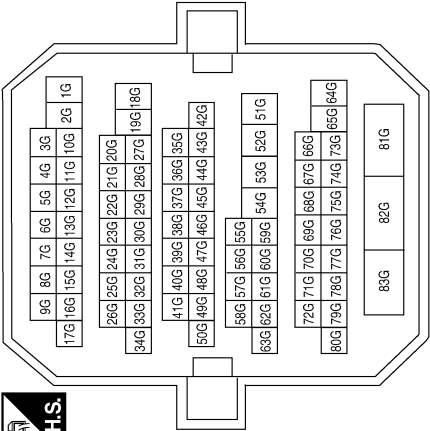
< WIRING DIAGRAM >



ALNWA0024GB

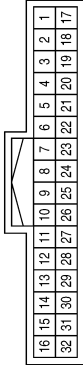
BOSE AUDIO SYSTEM CONNECTORS - WITHOUT NAVIGATION SYSTEM

Connector No.	M1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
13G	O	-
53G	B/R	-
54G	BR	-
64G	Y/R	-

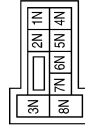
Connector No.	M2
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
6	B/R	-
7	BR	-
8	V/Y	-
9	GR/L	-
10	L/B	-
11	Y	-
12	B/R	-
13	R/B	-
14	SHIELD	-
15	R/L	-
16	Y/R	-
23	SHIELD	-
24	G	-

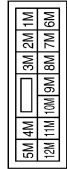
Terminal No.	Color of Wire	Signal Name
26	W/G	-
27	BR	-
28	SHIELD	-
30	V/W	-
31	R/W	-

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2N	G	-
5N	V/Y	-

Connector No.	M5
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



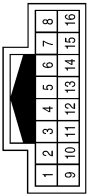
Terminal No.	Color of Wire	Signal Name
12M	O	-

BOSE AUDIO SYSTEM

< WIRING DIAGRAM >

[BOSE AUDIO WITHOUT NAVIGATION]

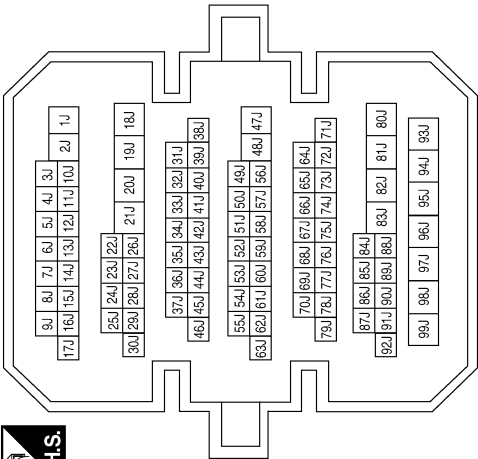
Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Color	WHITE



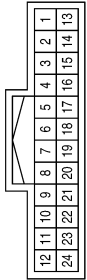
Terminal No.	Color of Wire	Signal Name
1	B/R	-
2	R/B	-
3	R/L	-
4	SHIELD	-

Terminal No.	Color of Wire	Signal Name
18J	W/R	-
19J	O/B	-
84J	P/B	-
85J	B	-
86J	Y	-
88J	SHIELD	-
91J	GR	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Connector No.	M8
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	V	-
4	GR	-

Terminal No.	Color of Wire	Signal Name
6	W/G	-
8	B/P	-
10	B	-
12	G	-
13	LG	-
15	R	-
18	GR/L	-
19	L/B	-
21	W	-
23	R	-

Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Color	WHITE

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16					



Terminal No.	Color of Wire	Signal Name
5	W	-
15	B	-

Terminal No.	Color of Wire	Signal Name
1	BR	-
3	W/R	-
4	GR/L	-
5	G/W	-
6	B/Y	-
7	W	-
9	B/R	-
10	O/B	-
11	O/B	-
12	B/P	-
13	BR	-
14	L/O	-
15	B	-
16	LG	-

Connector No.	M9
Connector Name	WIRE TO WIRE
Connector Color	BROWN

7	6	5	4	3	2	1
16	15	14	13	12	11	10
9	8					



Connector No.	M30
Connector Name	SPIRAL CABLE
Connector Color	GRAY

24	25	26	27
31	32	33	34



Terminal No.	Color of Wire	Signal Name
24	O/B	AUDIO_STRG_SW_REMOTE_A
31	GR/L	AUDIO_STRG_SW_REMOTE_B
33	L/B	AUDIO_STRG_SW_GND

Connector No.	M24
Connector Name	COMBINATION METER
Connector Color	WHITE

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40



Terminal No.	Color of Wire	Signal Name
31	W/R	8P/R OUT

Connector No.	M14
Connector Name	WIRE TO WIRE
Connector Color	WHITE

1	2	3	4
5	6	7	8
9	10		



Terminal No.	Color of Wire	Signal Name
7	G/W	-
9	BR	-

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# BOSE AUDIO SYSTEM

< WIRING DIAGRAM >

[BOSE AUDIO WITHOUT NAVIGATION]

Terminal No.	Color of Wire	Signal Name
33	B	GND
34	GR	CAMERA ON
35	Y	COMP+
36	SHIELD	COMP-
37	-	-
38	-	-
39	-	-
40	B	TEL GND
41	R/W	TEL ON
42	-	-
43	-	-
44	-	-
45	-	-
46	-	-
47	-	-
48	-	-
49	-	-
50	P/B	REVERSE SGN
51	-	-
52	-	-

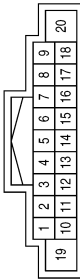
Connector No.	M45
Connector Name	AUDIO UNIT
Connector Color	WHITE



38	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21
52	51	50	49	48	47	46	45	44	43	42	41	40	39	38	37

Terminal No.	Color of Wire	Signal Name
21	-	-
22	-	-
23	-	-
24	Y	TEL I/F -
25	BR	TEL I/F +
26	SHIELD	TEL SHIELD
27	B	GND
28	B/R	MCAN A+
29	BR	MCAN A-
30	SHIELD	MULTIMEDIA CAN SHIELD
31	B/R	MCAN B+
32	W/R	MCAN B-

Connector No.	M44
Connector Name	AUDIO UNIT
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	B/P	AMP ON
2	-	-
3	-	-
4	-	-
5	-	-
6	W/G	STRG SW A
7	V/Y	ACC
8	R/Y	ILL CONT OUT
9	R/L	TAIL/ILL RLY
10	-	-
11	-	-
12	-	-
13	-	-
14	-	-
15	L/B	STRG SW GND
16	GR/L	STRG SW B
17	-	-
18	V/W	SPEED SIGNAL
19	Y/R	BAT
20	B	GND

ABNIA2152GB

# BOSE AUDIO SYSTEM

< WIRING DIAGRAM >

[BOSE AUDIO WITHOUT NAVIGATION]

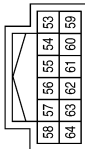
Connector No.	M50
Connector Name	WIRE TO WIRE
Connector Color	WHITE



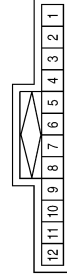
Terminal No.	Color of Wire	Signal Name
1	B/P	—
2	O/B	—

Terminal No.	Color of Wire	Signal Name
53	R	FR SP LH (-)
54	R	RR SP LH (-)
55	—	—
56	—	—
57	W	FR SP RH (-)
58	LG	RR SP RH (-)
59	G	FR SP LH (+)
60	GR	RR SP LH (+)
61	—	—
62	—	—
63	B	FR SP RH (+)
64	V	RR SP RH (+)

Connector No.	M46
Connector Name	AUDIO UNIT
Connector Color	WHITE



Connector No.	M63
Connector Name	JOINT CONNECTOR-M02
Connector Color	BLUE



Terminal No.	Color of Wire	Signal Name
8	B	—
11	B	—
12	B	—

Connector No.	M52
Connector Name	TWEETER RH
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
1	L/O	—
2	GR/L	—

Connector No.	M51
Connector Name	TWEETER LH
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
1	LG	—
2	B/Y	—

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# BOSE AUDIO SYSTEM

[BOSE AUDIO WITHOUT NAVIGATION]

< WIRING DIAGRAM >

Connector No.	M88
Connector Name	SPIRAL CABLE
Connector Color	GRAY



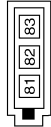
Terminal No.	Color of Wire	Signal Name
14	W	REMOTE A
15	L	REMOTE B
17	BR	GND

Connector No.	M87
Connector Name	WIRE TO WIRE
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
1	B	-
2	B	-

Connector No.	M81
Connector Name	AUDIO UNIT
Connector Color	GRAY



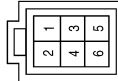
Terminal No.	Color of Wire	Signal Name
81	B	AMP SUPPLY
82	B	MAIN ANTENNA
83	-	-

Connector No.	M150
Connector Name	WIRE TO WIRE
Connector Color	WHITE



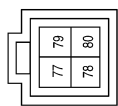
Terminal No.	Color of Wire	Signal Name
1	B/P	-
2	O/B	-

Connector No.	M99
Connector Name	WIRE TO WIRE
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
1	B	-
2	R	-
3	W	-
4	G	-

Connector No.	M96
Connector Name	AUDIO UNIT
Connector Color	GREEN



Terminal No.	Color of Wire	Signal Name
77	B	USB GND
78	W	USB D-
79	R	V BUS
80	G	USB D+

ABNIA2154GB

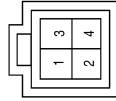


# BOSE AUDIO SYSTEM

< WIRING DIAGRAM >

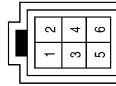
[BOSE AUDIO WITHOUT NAVIGATION]

Connector No.	M211
Connector Name	USB INTERFACE
Connector Color	GREEN



Terminal No.	Color of Wire	Signal Name
1	R	V BUS
2	G	USB (D+)
3	B	USB GND
4	W	USB (D-)

Connector No.	M204
Connector Name	WIRE TO WIRE
Connector Color	GRAY



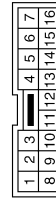
Terminal No.	Color of Wire	Signal Name
1	B	-
2	R	-
3	W	-
4	G	-

Connector No.	M151
Connector Name	CENTER SPEAKER
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
1	B/P	-
2	O/B	-

Connector No.	E3
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
4	R	-

Connector No.	M502
Connector Name	ANTENNA AMP.
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
1	B	-
2	B	-

Connector No.	M501
Connector Name	WIRE TO WIRE
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
1	B	-
2	B	-

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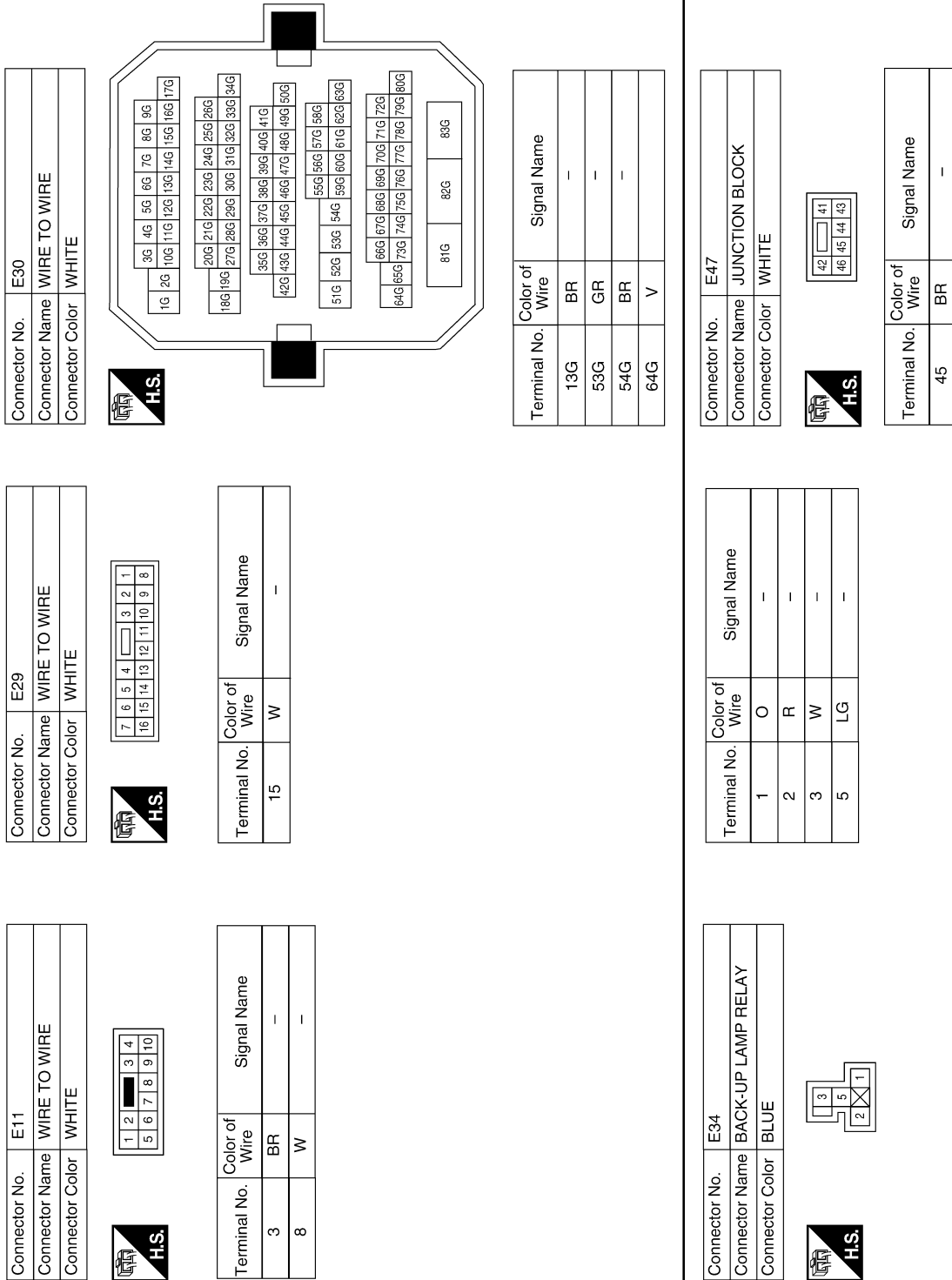
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# BOSE AUDIO SYSTEM

< WIRING DIAGRAM >

[BOSE AUDIO WITHOUT NAVIGATION]



ABNIA2156GB

# BOSE AUDIO SYSTEM

< WIRING DIAGRAM >

[BOSE AUDIO WITHOUT NAVIGATION]

Connector No.	F2
Connector Name	WIRE TO WIRE
Connector Color	WHITE



4	3	2	1
10	9	8	7
6	5		

Terminal No.	Color of Wire	Signal Name
3	O	-
8	R	-

Connector No.	F1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



7	6	5	4	3	2	1
16	15	14	13	12	11	10
9	8					

Terminal No.	Color of Wire	Signal Name
4	G	-

Connector No.	E49
Connector Name	JUNCTION BLOCK
Connector Color	BROWN



54	53	52	51
----	----	----	----

Terminal No.	Color of Wire	Signal Name
51	LG	-
52	O	-

Connector No.	F25
Connector Name	TRANSMISSION RANGE SWITCH
Connector Color	BLACK



8	4	3	7
2	6	5	1

Connector No.	F24
Connector Name	BACK-UP LAMP SWITCH
Connector Color	BLACK



2	1
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Connector No.	F16
Connector Name	TCM (TRANSMISSION CONTROL MODULE)
Connector Color	BLACK



31	32	33	34	35	36	37	38	39	40	47	48
21	22	23	24	25	26	27	28	29	30	45	46
11	12	13	14	15	16	17	18	19	20	43	44
1	2	3	4	5	6	7	8	9	10	41	42

Terminal No.	Color of Wire	Signal Name
3	O	IGN
5	R	R_OUTPUT

Terminal No.	Color of Wire	Signal Name
1	O	-
2	R	-

Terminal No.	Color of Wire	Signal Name
19	G	REV LAMP RLY

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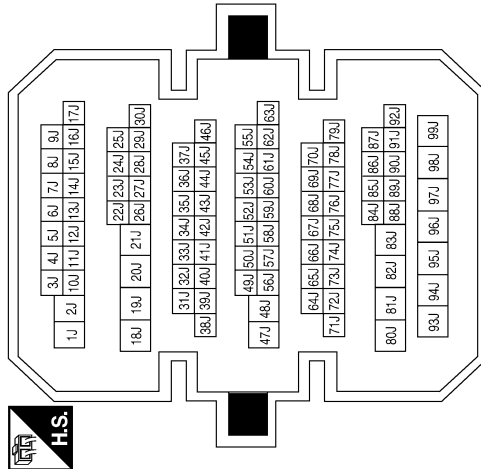
# BOSE AUDIO SYSTEM

< WIRING DIAGRAM >

[BOSE AUDIO WITHOUT NAVIGATION]

Terminal No.	Color of Wire	Signal Name
18J	O	—
19J	LG	—
84J	V	—
85J	B	—
86J	Y	—
88J	SHIELD	—
91J	L	—

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Color	WHITE

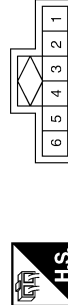


Connector No.	F49
Connector Name	JOINT CONNECTOR-F03
Connector Color	BLACK



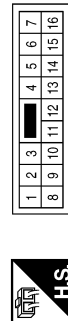
Terminal No.	Color of Wire	Signal Name
3	R	—
4	R	—

Connector No.	B22
Connector Name	JOINT CONNECTOR-B07
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
5	V	—
6	V	—

Connector No.	B10
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
15	V	—

Connector No.	B6
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	LG	—
5	O	—

Terminal No.	Color of Wire	Signal Name
14	SHIELD	-
15	R/L	-
16	V	-
23	SHIELD	-
24	O	-
26	W/G	-
27	BR	-
28	SHIELD	-
30	P	-
31	SB	-

Connector No.	B101
Connector Name	WIRE TO WIRE
Connector Color	WHITE



16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17

Terminal No.	Color of Wire	Signal Name
6	L	-
7	P	-
8	G	-
9	GR/L	-
10	L/B	-
11	Y	-
12	B/R	-
13	R/B	-

Connector No.	B35
Connector Name	REAR VIEW CAMERA
Connector Color	WHITE



1	2	3	4
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Terminal No.	Color of Wire	Signal Name
1	L	CAMERA ON
2	B	GND
3	Y	COMP+
4	SHIELD	COMP-

Terminal No.	Color of Wire	Signal Name
13	V	-
15	Y	-
18	GR/L	-
19	L/B	-
21	L	-
23	B/R	-

Connector No.	B102
Connector Name	WIRE TO WIRE
Connector Color	WHITE



1	2	3	4	5	6	7	8	9	10	11	12
13	14	15	16	17	18	19	20	21	22	23	24

Terminal No.	Color of Wire	Signal Name
2	LG	-
4	BR	-
6	W/G	-
8	G	-
10	GR	-
12	W/R	-

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# BOSE AUDIO SYSTEM

[BOSE AUDIO WITHOUT NAVIGATION]

< WIRING DIAGRAM >

Connector No.	B106
Connector Name	WIRE TO WIRE
Connector Color	WHITE



1	2	3
4	5	6
7	8	

Terminal No.	Color of Wire	Signal Name
1	V	-
5	P	-

Terminal No.	Color of Wire	Signal Name
7	W	-
9	G	-
10	V	-
11	L	-
12	P	-
13	SB	-
14	BR	-
15	B	-
16	LG	-

Connector No.	B103
Connector Name	WIRE TO WIRE
Connector Color	BROWN



1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16					

Terminal No.	Color of Wire	Signal Name
1	SB	-
3	R	-
4	GR	-
5	O	-
6	V	-

Terminal No.	Color of Wire	Signal Name
65	V	RR RH - IN
66	LG	RR RH + IN
67	-	-
68	L	RR DOOR LH + OUT
69	P	INST CTR TWDR + OUT
70	V	INST CTR TWDR - OUT
71	O	FR DOOR RH + OUT
72	SB	FR DOOR RH - OUT
73	GR	FR RH + IN
74	L	FR RH - IN
75	W/R	FR LH + IN
76	B/R	FR LH - IN
77	-	-

Connector No.	B121
Connector Name	BOSE SPEAKER AMP.
Connector Color	BROWN



77	76	75	74	73		72	71	70	69	68
67	66	65	64	63	62	61	60	59	58	57
										56
										55

Terminal No.	Color of Wire	Signal Name
55	R	RR DOOR LH - OUT
56	-	-
57	-	-
58	W	FR DOOR LH + OUT
59	B	FR DOOR LH - OUT
60	G	AMP ON
61	-	-
62	-	-
63	Y	RR LH - IN
64	BR	RR LH + IN

Connector No.	B120
Connector Name	REAR SUBWOOFER LH
Connector Color	WHITE



2	1
---	---

Terminal No.	Color of Wire	Signal Name
1	W	-
2	L	-

AANIA0459GB

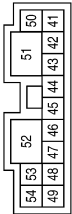
Connector No.	B124
Connector Name	REAR SUBWOOFER RH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	O	-
2	SB	-

Terminal No.	Color of Wire	Signal Name
44	BR	FR TWDR RH + OUT
45	O	RH WOOFER + OUT
46	SB	RH WOOFER - OUT
47	B	GND
48	L	LH WOOFER - OUT
49	P	RR DOOR RH - OUT
50	SB	BAT
51	G	BAT
52	B	GND
53	W	LH WOOFER + OUT
54	V	RR DOOR RH + OUT

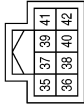
Connector No.	B122
Connector Name	BOSE SPEAKER AMP.
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
41	LG	FR TWDR LH + OUT
42	V	FR TWDR LH - OUT
43	GR	FR TWDR RH - OUT

Terminal No.	Color of Wire	Signal Name
35	L	M-CAN +_1
36	P	M-CAN -_2
37	SHIELD	M-CAN_SHIELD_1
39	-	-
40	-	-
41	-	-
42	-	-

Connector No.	B125
Connector Name	BLUETOOTH CONTROL UNIT
Connector Color	WHITE



ABNIA2161GB

A  
B  
C  
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AV

# BOSE AUDIO SYSTEM

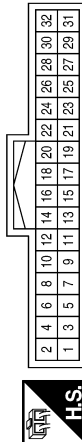
< WIRING DIAGRAM >

[BOSE AUDIO WITHOUT NAVIGATION]

Terminal No.	Color of Wire	Signal Name
20	-	-
21	-	-
22	B	CONT 3
23	B	CONT 4
24	-	-
25	-	-
26	-	-
27	-	-
28	P	SPEED SIGNAL
29	R/L	MIC_POWER
30	-	-
31	-	-
32	-	-

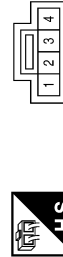
Terminal No.	Color of Wire	Signal Name
7	B/R	MIC_IN_+
8	R/B	MIC_IN_-
9	BR	AUDIO_OUT(+)
10	Y	AUDIO_OUT(-)
11	SB	MUTE_CONTROL
12	W/G	LADDER_T2_IN_A
13	GR/L	LADDER_T2_IN_B
14	L/B	LAD_GND
15	-	-
16	-	-
17	W/G	LADDER_T2_OUT_A
18	GR/L	LADDER_T2_OUT_B
19	L/B	LAD_GND

Connector No.	B126
Connector Name	BLUETOOTH CONTROL UNIT
Connector Color	WHITE

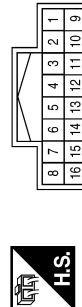


Terminal No.	Color of Wire	Signal Name
1	V	BAT
2	G	ACC
3	O	IGN
4	B	GND
5	-	-
6	SHIELD	MIC SHIELD

Connector No.	R7
Connector Name	MICROPHONE
Connector Color	WHITE



Connector No.	R1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Connector No.	B132
Connector Name	BLUETOOTH CONTROL UNIT
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	W	SIG
2	B	GND
4	R	VCC

Terminal No.	Color of Wire	Signal Name
1	W	-
2	B	-
3	R	-
4	SHIELD	-

Terminal No.	Color of Wire	Signal Name
33	B	BT ANTENNA
34	SHIELD	BT ANTENNA SHIELD

ABN1A2915GB



# BOSE AUDIO SYSTEM

< WIRING DIAGRAM >

[BOSE AUDIO WITHOUT NAVIGATION]

Connector No.	D101
Connector Name	WIRE TO WIRE
Connector Color	WHITE



4	3	2	1
10	9	8	7
6	5		

Terminal No.	Color of Wire	Signal Name
7	L	-
9	LG	-

Connector No.	D3
Connector Name	FRONT DOOR SPEAKER LH
Connector Color	BROWN



2	1
---	---

Terminal No.	Color of Wire	Signal Name
1	O	-
2	LG	-

Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



7	6	5	4	3	2	1
16	15	14	13	12	11	10
9	8					

Terminal No.	Color of Wire	Signal Name
5	O	-
15	LG	-

Connector No.	D202
Connector Name	REAR DOOR SPEAKER LH
Connector Color	BROWN



2	1
---	---

Terminal No.	Color of Wire	Signal Name
1	O	-
2	L	-

Connector No.	D201
Connector Name	WIRE TO WIRE
Connector Color	WHITE



3	2	1
8	7	6
5	4	

Terminal No.	Color of Wire	Signal Name
1	O	-
5	L	-

Connector No.	D103
Connector Name	FRONT DOOR SPEAKER RH
Connector Color	BROWN



2	1
---	---

Terminal No.	Color of Wire	Signal Name
1	L	-
2	LG	-

ABNIA2163GB

BOSE AUDIO SYSTEM

< WIRING DIAGRAM >

[BOSE AUDIO WITHOUT NAVIGATION]

Connector No.	D302
Connector Name	REAR DOOR SPEAKER RH
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
1	L	-
2	W	-

Connector No.	D301
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	L	-
5	W	-

ABNIA2164GB

# AUDIO SYSTEM (COUPE)

< SYMPTOM DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

## SYMPTOM DIAGNOSIS

### AUDIO SYSTEM (COUPE)

#### Symptom Table

INFOID:000000006390054

#### AUDIO SYSTEM

Symptom	Possible cause	Reference page
Inoperative	<ul style="list-style-type: none"><li>Audio unit power circuit</li><li>Audio unit</li></ul>	<ul style="list-style-type: none"><li><a href="#">AV-90</a></li><li><a href="#">AV-197</a></li></ul>
Steering wheel audio control switches do not operate	<ul style="list-style-type: none"><li>Steering wheel audio control switches</li><li>Audio unit</li></ul>	<ul style="list-style-type: none"><li><a href="#">AV-130</a></li><li><a href="#">AV-197</a></li></ul>
All speakers do not sound	<ul style="list-style-type: none"><li>Speaker circuit shorted to ground</li><li>Audio unit</li><li>Audio unit power circuit</li><li>BOSE speaker amp. ON signal</li><li>BOSE speaker amp. ground circuit</li><li>BOSE speaker amp.</li></ul>	<ul style="list-style-type: none"><li><a href="#">AV-152</a></li><li><a href="#">AV-197</a></li><li><a href="#">AV-90</a></li><li><a href="#">AV-129</a></li><li><a href="#">AV-91</a></li><li><a href="#">AV-199</a></li></ul>
One or several speakers do not sound	<ul style="list-style-type: none"><li>Door speaker</li><li>Front tweeter</li><li>Center speaker</li><li>Rear tweeter</li><li>Subwoofer</li></ul>	<ul style="list-style-type: none"><li><a href="#">AV-102</a></li><li><a href="#">AV-108</a></li><li><a href="#">AV-114</a></li><li><a href="#">AV-117</a></li><li><a href="#">AV-123</a></li></ul>
Buzz/rattle sound from speaker	The majority of buzz/rattle sounds are not indicative of an issue with the speaker, usually something nearby the speaker is causing the buzz/rattle.	Refer to "SQUEAK AND RATTLE TROUBLE DIAGNOSIS" in the appropriate interior trim section.

#### CD

Symptom	Possible cause	Reference page
CD cannot be inserted	Audio unit	<a href="#">AV-197</a>
CD cannot be ejected		
The CD cannot be played		
The sound skips, stops suddenly, or is distorted		

#### HANDS-FREE PHONE

Symptom	Possible cause	Reference page
Inoperative	<ul style="list-style-type: none"><li>Bluetooth control unit power and ground circuit</li><li>Bluetooth control unit</li></ul>	<ul style="list-style-type: none"><li><a href="#">AV-99</a></li><li><a href="#">AV-217</a></li></ul>
Steering wheel audio control switches do not operate	<ul style="list-style-type: none"><li>Steering wheel audio control switches</li><li>Bluetooth control unit</li></ul>	<ul style="list-style-type: none"><li><a href="#">AV-130</a></li><li><a href="#">AV-217</a></li></ul>
Voice activated control does not operate	<ul style="list-style-type: none"><li>Microphone</li><li>Steering wheel audio control switches</li><li>Bluetooth control unit</li></ul>	<ul style="list-style-type: none"><li><a href="#">AV-134</a></li><li><a href="#">AV-130</a></li><li><a href="#">AV-217</a></li></ul>

#### REAR VIEW CAMERA

Symptom	Possible cause	Reference page
Rear view camera does not operate	<ul style="list-style-type: none"><li>Rear view camera power and ground circuit</li><li>Rear view camera image signal circuit</li><li>Rear view camera</li></ul>	<ul style="list-style-type: none"><li><a href="#">AV-91</a></li><li><a href="#">AV-138</a></li><li><a href="#">AV-218</a></li></ul>

## AUDIO SYSTEM (SEDAN)

< SYMPTOM DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

### AUDIO SYSTEM (SEDAN)

#### Symptom Table

INFOID:000000006390055

#### AUDIO SYSTEM

Symptom	Possible cause	Reference page
Inoperative	<ul style="list-style-type: none"><li>Audio unit power circuit</li><li>Audio unit</li></ul>	<ul style="list-style-type: none"><li><a href="#">AV-96</a></li><li><a href="#">AV-197</a></li></ul>
Steering wheel audio control switches do not operate	<ul style="list-style-type: none"><li>Steering wheel audio control switches</li><li>Audio unit</li></ul>	<ul style="list-style-type: none"><li><a href="#">AV-132</a></li><li><a href="#">AV-197</a></li></ul>
All speakers do not sound	<ul style="list-style-type: none"><li>Speaker circuit shorted to ground</li><li>Audio unit</li><li>Audio unit power circuit</li><li>BOSE speaker amp. ON signal</li><li>BOSE speaker amp. ground circuit</li><li>BOSE speaker amp.</li></ul>	<ul style="list-style-type: none"><li><a href="#">AV-171</a></li><li><a href="#">AV-197</a></li><li><a href="#">AV-96</a></li><li><a href="#">AV-129</a></li><li><a href="#">AV-97</a></li><li><a href="#">AV-199</a></li></ul>
One or several speakers do not sound	<ul style="list-style-type: none"><li>Front door speaker</li><li>Tweeter</li><li>Center speaker</li><li>Rear door speaker</li><li>Subwoofer</li></ul>	<ul style="list-style-type: none"><li><a href="#">AV-105</a></li><li><a href="#">AV-111</a></li><li><a href="#">AV-114</a></li><li><a href="#">AV-120</a></li><li><a href="#">AV-123</a></li></ul>
Buzz/rattle sound from speaker	The majority of buzz/rattle sounds are not indicative of an issue with the speaker, usually something nearby the speaker is causing the buzz/rattle.	Refer to "SQUEAK AND RATTLE TROUBLE DIAGNOSIS" in the appropriate interior trim section.

#### CD

Symptom	Possible cause	Reference page
CD cannot be inserted	Audio unit	<a href="#">AV-197</a>
CD cannot be ejected		
The CD cannot be played		
The sound skips, stops suddenly, or is distorted		

#### HANDS-FREE PHONE

Symptom	Possible cause	Reference page
Inoperative	<ul style="list-style-type: none"><li>Bluetooth control unit power and ground circuit</li><li>Bluetooth control unit</li></ul>	<ul style="list-style-type: none"><li><a href="#">AV-99</a></li><li><a href="#">AV-217</a></li></ul>
Steering wheel audio control switches do not operate	<ul style="list-style-type: none"><li>Steering wheel audio control switches</li><li>Bluetooth control unit</li></ul>	<ul style="list-style-type: none"><li><a href="#">AV-132</a></li><li><a href="#">AV-217</a></li></ul>
Voice activated control does not operate	<ul style="list-style-type: none"><li>Microphone</li><li>Steering wheel audio control switches</li><li>Bluetooth control unit</li></ul>	<ul style="list-style-type: none"><li><a href="#">AV-134</a></li><li><a href="#">AV-132</a></li><li><a href="#">AV-217</a></li></ul>

#### REAR VIEW CAMERA

Symptom	Possible cause	Reference page
Rear view camera does not operate	<ul style="list-style-type: none"><li>Rear view camera power and ground circuit</li><li>Rear view camera image signal circuit</li><li>Rear view camera</li></ul>	<ul style="list-style-type: none"><li><a href="#">AV-97</a></li><li><a href="#">AV-138</a></li><li><a href="#">AV-218</a></li></ul>

## NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

### NORMAL OPERATING CONDITION

#### Description

INFOID:000000006390056

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

Occurrence condition		Possible cause
Occurs only when engine is ON.	A continuous growling noise occurs. The speed of the noise varies with changes in the engine speed.	• Ignition components
The occurrence of the noise is linked with the operation of the fuel pump.		• Fuel pump condenser
Noise only occurs when various electrical components are operating.	A cracking or snapping sound occurs with the operation of various switches.	• Relay malfunction, audio unit malfunction
	The noise occurs when various motors are operating.	• Motor case ground • Motor
The noise occurs constantly, not just under certain conditions.		• Rear defogger coil malfunction • Open circuit in printed heater • Poor ground of antenna feeder line
A cracking or snapping sound occurs while the vehicle is being driven, especially when it is vibrating excessively.		• Ground wire of body parts • Ground due to improper part installation • Wiring connections or a short circuit

## PRECAUTION

### PRECAUTIONS

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

INFOID:000000006390057

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.

#### Necessary for Steering Wheel Rotation After Battery Disconnect

INFOID:000000006390058

#### **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 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.)

## PRECAUTIONS

< PRECAUTION >

[BOSE AUDIO WITHOUT NAVIGATION]

6. Perform self-diagnosis check of all control units using CONSULT.

### Precaution for Work

INFOID:000000006921805

- When removing or disassembling each component, be careful not to damage or deform it. If a component may be subject to interference, be sure to protect it with a shop cloth.
- When removing (disengaging) components with a screwdriver or similar tool, be sure to wrap the component with a shop cloth or vinyl tape to protect it.
- Protect the removed parts with a shop cloth and prevent them from being dropped.
- Replace a deformed or damaged clip.
- If a part is specified as a non-reusable part, always replace it with new one.
- Be sure to tighten bolts and nuts securely to the specified torque.
- After installation is complete, be sure to check that each part works properly.
- Follow the steps below to clean components.
- Water soluble dirt: Dip a soft cloth into lukewarm water, and wring the water out of the cloth to wipe the dirty area.  
Then rub with a soft and dry cloth.
- Oily dirt: Dip a soft cloth into lukewarm water with mild detergent (concentration: within 2 to 3%), and wipe the dirty area.  
Then dip a cloth into fresh water, and wring the water out of the cloth to wipe the detergent off. Then rub with a soft and dry cloth.
- Do not use organic solvent such as thinner, benzene, alcohol, or gasoline.
- For genuine leather seats, use a genuine leather seat cleaner.

### Precaution for Trouble Diagnosis

INFOID:000000006390059

#### AV COMMUNICATION SYSTEM

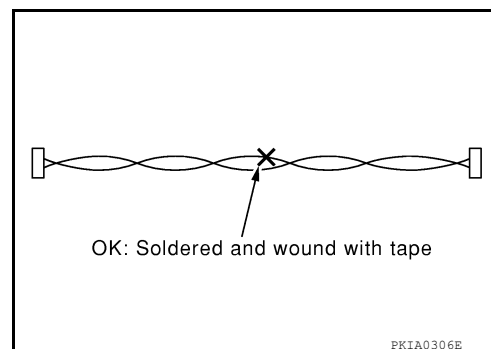
- Do not apply voltage of 7.0 V or higher to the measurement terminals.
- Use the tester with its open terminal voltage being 7.0 V or less.
- Be sure to turn ignition switch OFF and disconnect the battery cable from the negative terminal before checking the circuit.

### Precaution for Harness Repair

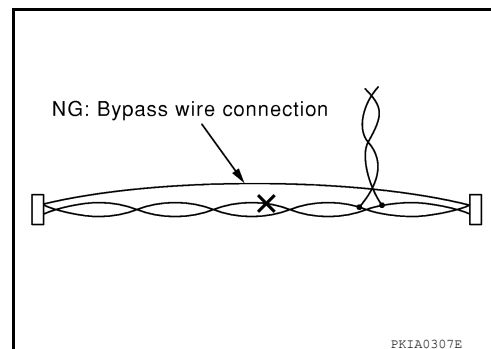
INFOID:000000006390060

#### 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.)



## PREPARATION

< PREPARATION >

[BOSE AUDIO WITHOUT NAVIGATION]

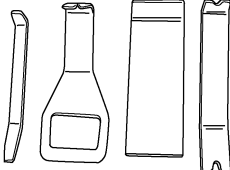
## PREPARATION

### PREPARATION

#### Special Service Tools


INFOID:000000006390061

The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here.

Tool number (Kent-Moore No.) Tool name	Description
— (J-46534) Trim Tool Set	Removing trim components
 AWJIA0483ZZ	

#### Commercial Service Tools

INFOID:000000006390062

Tool name	Description
Power tool	Loosening nuts, screws and bolts
 PIIB1407E	



## REMOVAL AND INSTALLATION

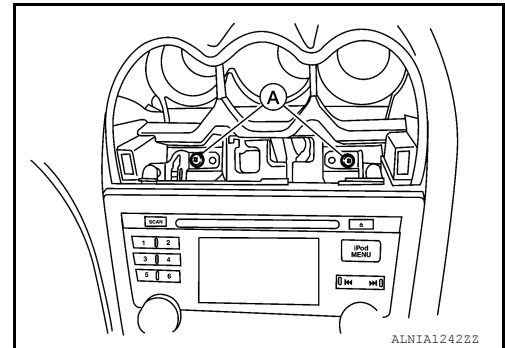
### AUDIO UNIT

#### Removal and Installation

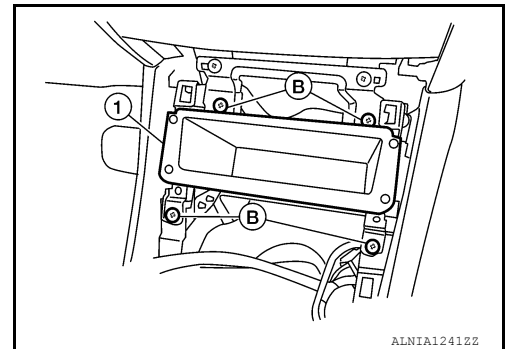
INFOID:000000006390063

#### REMOVAL

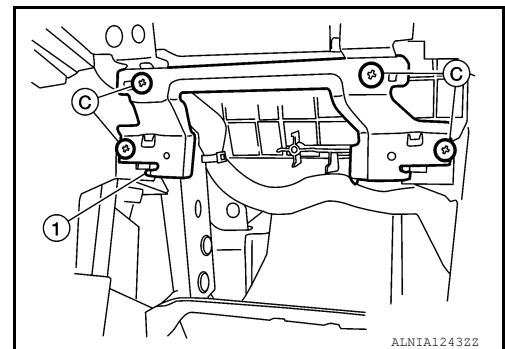
1. Disconnect the negative battery terminal.
2. Remove the center ventilator grilles. Refer to [VTL-25. "CENTER VENTILATOR GRILLES : Removal and Installation"](#).
3. Remove the audio unit upper screws (A).



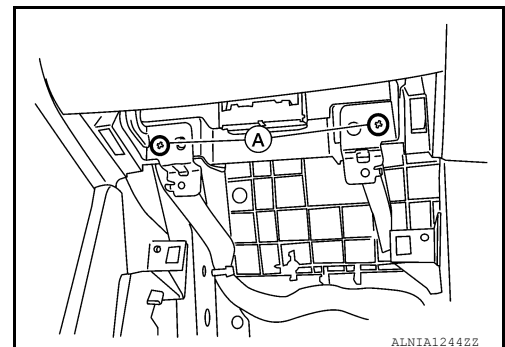
4. Remove the storage bin finisher. Refer to [IP-11. "Exploded View"](#).
5. Remove the storage bin screws (B), then remove the storage bin (1).



6. Remove the storage bin bracket screws (C), then remove the storage bin bracket (1).



7. Remove the audio unit lower screws (A).

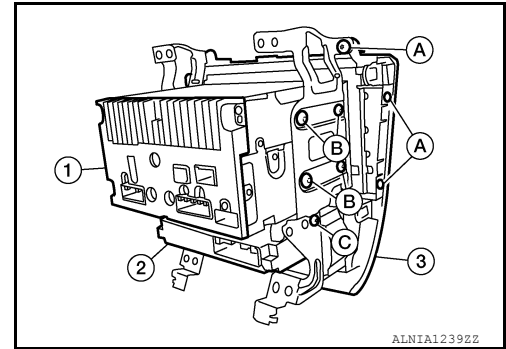


## AUDIO UNIT

### < REMOVAL AND INSTALLATION >

### [BOSE AUDIO WITHOUT NAVIGATION]

8. Pull out the audio unit assembly, disconnect the audio unit connectors.
9. Disconnect the front air control unit connector.
10. Remove the cluster lid C screws (A), then remove the audio unit screws (B), then the front air control screw (C) and the audio unit (1).
  - Front air control (2)
  - Cluster lid C (3)



11. Remove the audio unit brackets.

### INSTALLATION

Installation is in the reverse order of removal.

## BOSE SPEAKER AMP

< REMOVAL AND INSTALLATION >

[BOSE AUDIO WITHOUT NAVIGATION]

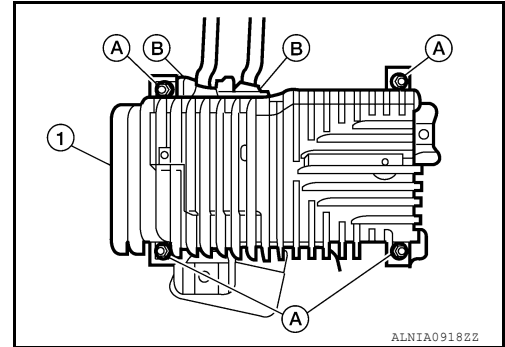
### BOSE SPEAKER AMP

#### Removal and Installation - Coupe

INFOID:000000006390064

##### REMOVAL

1. Remove the trunk floor carpet and spare tire cover. Refer to [INT-54, "Removal and Installation"](#).
2. Remove the RH trunk floor spacer.
3. Remove the Bose speaker amp. screws (A).
4. Disconnect the Bose speaker amp. connectors (B) and remove the Bose speaker amp. (1).



##### INSTALLATION

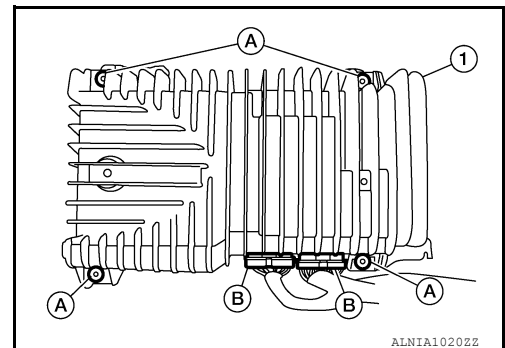
Installation is in the reverse order of removal.

#### Removal and Installation - Sedan

INFOID:000000006390065

##### REMOVAL

1. Open the trunk lid.
2. Remove the Bose speaker amp. screws (A).
3. Disconnect the Bose speaker amp. connectors (B).
4. Remove the Bose speaker amp. (1) from underneath the rear panel shelf.



##### INSTALLATION

Installation is in the reverse order of removal.

A  
B  
C  
D  
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L  
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P

AV

## USB CONNECTOR

< REMOVAL AND INSTALLATION >

[BOSE AUDIO WITHOUT NAVIGATION]

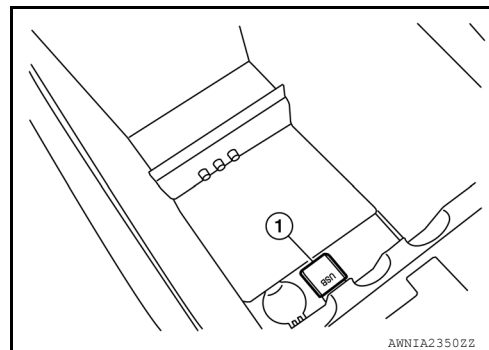
### USB CONNECTOR

#### Removal and Installation

INFOID:000000006390066

##### Removal

1. Remove the center console assembly. Refer to [IP-14, "Removal and Installation"](#).
2. Push the pawl from the back of the center console to remove the USB interface (1).



##### Installation

Installation is in the reverse order of removal.

## FRONT TWEETER

< REMOVAL AND INSTALLATION >

[BOSE AUDIO WITHOUT NAVIGATION]

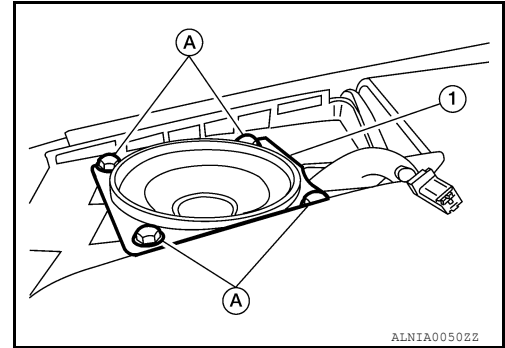
### FRONT TWEETER

#### Removal and Installation

INFOID:000000006390067

#### REMOVAL

1. Remove the front pillar finisher. Refer to [INT-44, "Removal and Installation"](#) (coupe) and [INT-44, "Removal and Installation"](#) (sedan).
2. Remove tweeter speaker grille, using a suitable tool.
3. Remove the tweeter speaker screws (A).
4. Pull out the tweeter speaker (1) disconnect the tweeter speaker connector and remove the tweeter speaker.



#### INSTALLATION

Installation is in the reverse order of removal.

A  
B  
C  
D  
E  
F  
G  
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P

AV

## CENTER SPEAKER

< REMOVAL AND INSTALLATION >

[BOSE AUDIO WITHOUT NAVIGATION]

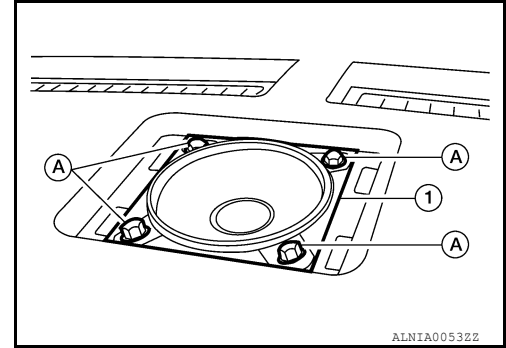
### CENTER SPEAKER

#### Removal and Installation

INFOID:000000006390068

#### REMOVAL

1. Remove the center speaker grille, using a suitable tool.
2. Remove the center speaker screws (A).
3. Pull out the center speaker (1), then disconnect the center speaker connector and remove the center speaker.



#### INSTALLATION

Installation is in the reverse order of removal.

# FRONT DOOR SPEAKER

< REMOVAL AND INSTALLATION >

[BOSE AUDIO WITHOUT NAVIGATION]

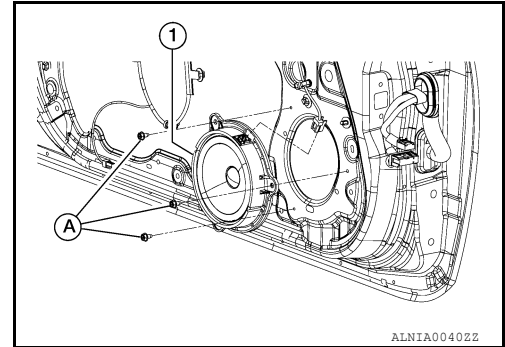
## FRONT DOOR SPEAKER

### Removal and Installation

INFOID:000000006390069

#### REMOVAL

1. Remove the front door finisher. Refer to [INT-41. "Removal and Installation"](#) (coupe) and [INT-13. "Removal and Installation"](#) (sedan).
2. Remove the front door speaker screws (A).
3. Disconnect the front door speaker connector and remove the front door speaker (1).



#### INSTALLATION

Installation is in the reverse order of removal.

A  
B  
C  
D  
E  
F  
G  
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J  
K  
L  
M  
O  
P

AV

## REAR DOOR SPEAKER

< REMOVAL AND INSTALLATION >

[BOSE AUDIO WITHOUT NAVIGATION]

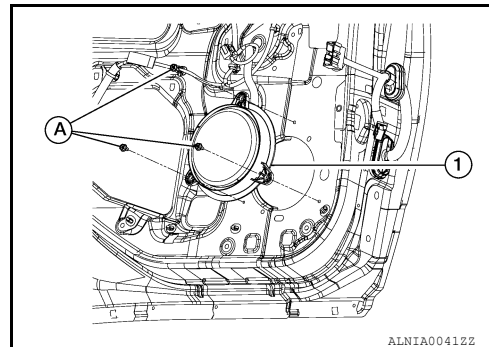
### REAR DOOR SPEAKER

#### Removal and Installation - Sedan

INFOID:000000006390070

#### REMOVAL

1. Remove the rear door finisher. Refer to [INT-13. "Removal and Installation"](#).
2. Remove the rear door speaker screws (A).
3. Disconnect the rear door speaker connector and remove the rear door speaker (1).



#### INSTALLATION

Installation is in the reverse order of removal.



## REAR TWEETER

< REMOVAL AND INSTALLATION >

[BOSE AUDIO WITHOUT NAVIGATION]

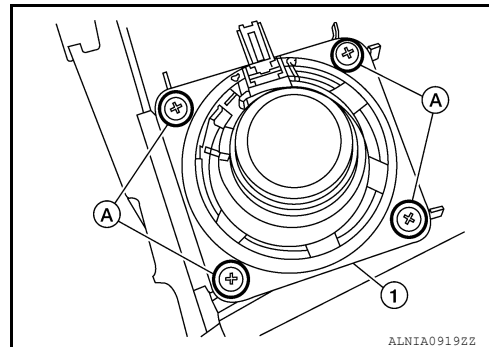
### REAR TWEETER

#### Removal and Installation - Coupe

INFOID:000000006390071

#### REMOVAL

1. Remove the rear parcel shelf finisher. Refer to [INT-46, "Removal and Installation"](#).
2. Remove the rear tweeter speaker screws (A) and remove the rear tweeter speaker (1).



#### INSTALLATION

Installation is in the reverse order of removal.

A  
B  
C  
D  
E  
F  
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M  
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P

AV

# SUBWOOFER

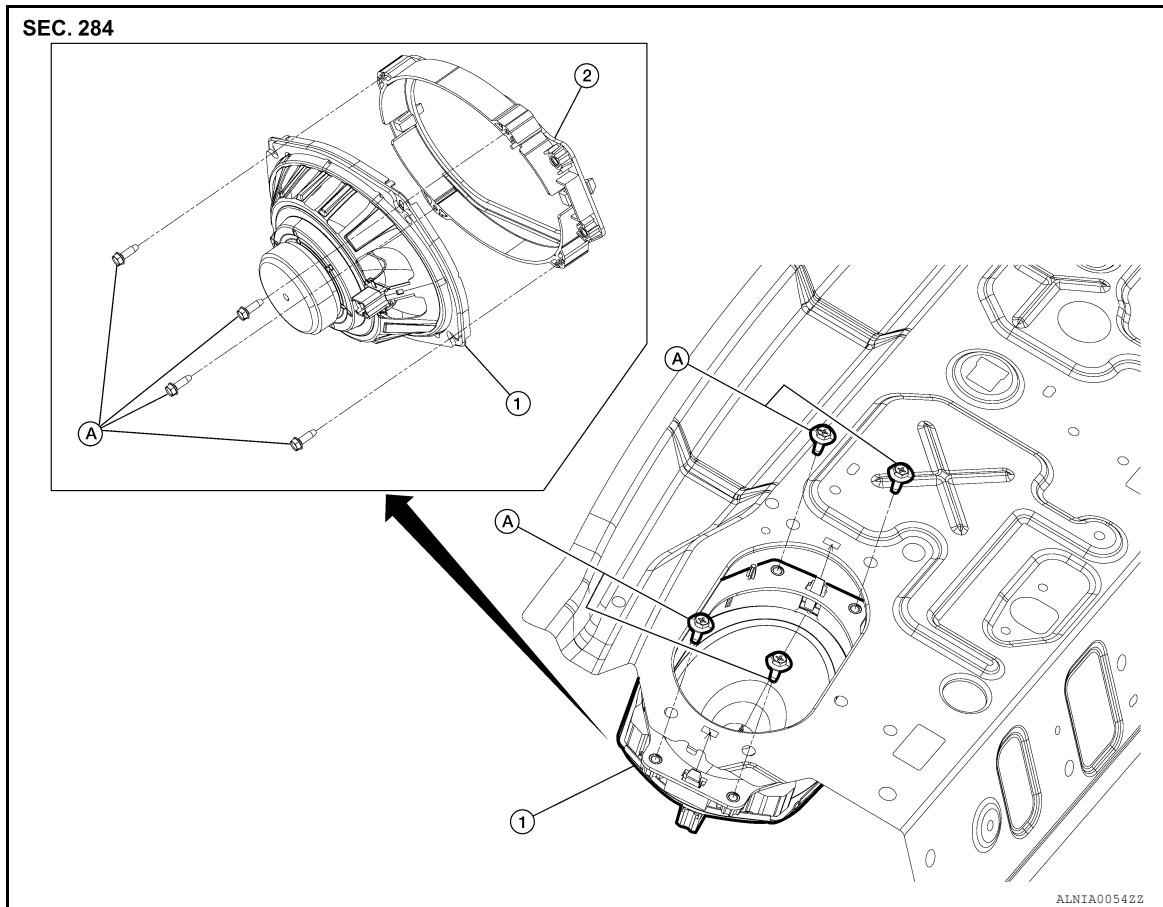
< REMOVAL AND INSTALLATION >

[BOSE AUDIO WITHOUT NAVIGATION]

## SUBWOOFER

### Components

INFOID:000000006390072



1. Subwoofer speaker

2. Spacer

A. Screws

### Removal and Installation

INFOID:000000006390073

#### REMOVAL

1. Remove the rear parcel shelf finisher. Refer to [INT-46. "Removal and Installation"](#) (coupe) and [INT-22. "Removal and Installation - Rear Parcel Shelf Finisher"](#) (sedan).
2. Remove the upper trunk finisher. Refer to [INT-54. "Removal and Installation"](#) (coupe) and [INT-31. "Removal and Installation"](#) (sedan).
3. Remove the subwoofer speaker screws from the top, disconnect the subwoofer speaker harness connector and remove the subwoofer speaker and spacer assembly.
4. Remove the spacer screws and remove the subwoofer speaker from the spacer.

#### INSTALLATION

Installation is in the reverse order of removal.

# STEERING SWITCH

< REMOVAL AND INSTALLATION >

[BOSE AUDIO WITHOUT NAVIGATION]

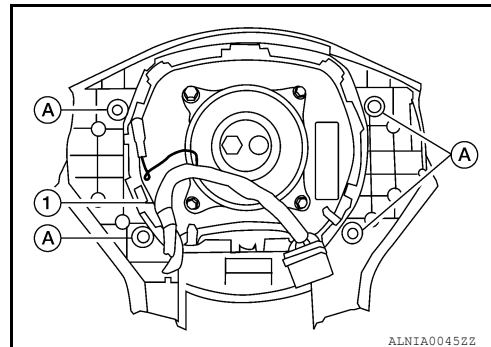
## STEERING SWITCH

### Removal and Installation

INFOID:000000006933517

#### REMOVAL

1. Remove the driver airbag module. Refer to [SR-5. "Removal and Installation"](#).
2. Remove the steering wheel audio control switches screws (A), then remove the steering wheel audio control switches (1).



#### INSTALLATION

Installation is in the reverse order of removal.

A

B

C

D

E

F

G

H

I

J

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L

M

AV

O

P

## AUDIO ANTENNA (COUPE)

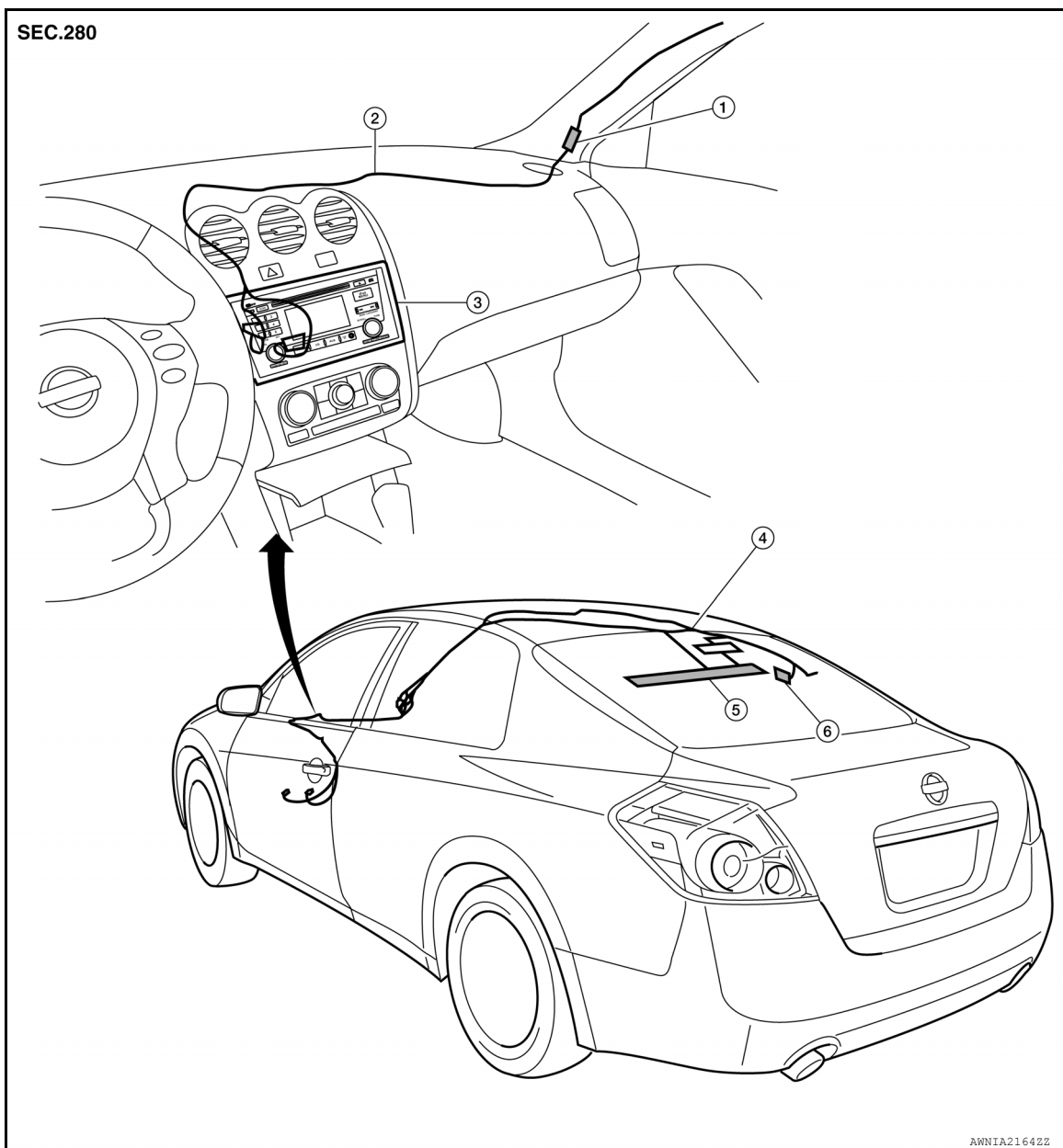
< REMOVAL AND INSTALLATION >

[BOSE AUDIO WITHOUT NAVIGATION]

### AUDIO ANTENNA (COUPE)

#### Location of Antenna

INFOID:000000006390075



- |                                 |                       |                 |
|---------------------------------|-----------------------|-----------------|
| 1. In-line connectors M87, M501 | 2. Audio unit harness | 3. Audio unit   |
| 4. Audio antenna feeder         | 5. Window Antenna     | 6. Antenna amp. |

#### Window Antenna Repair

INFOID:000000006390076

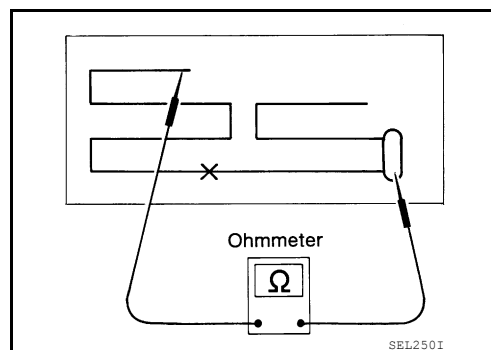
#### ELEMENT CHECK

## AUDIO ANTENNA (COUPE)

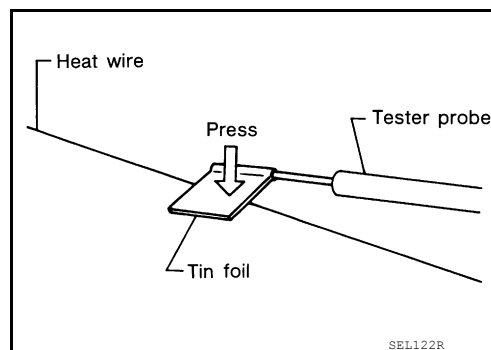
### < REMOVAL AND INSTALLATION >

### [BOSE AUDIO WITHOUT NAVIGATION]

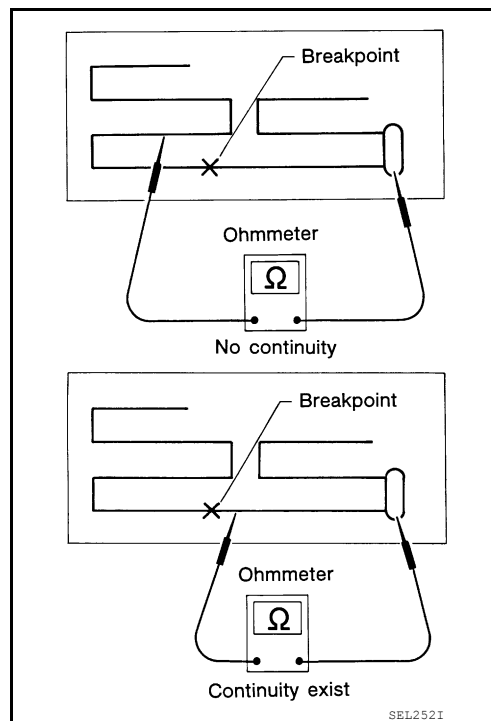
1. Attach probe circuit tester (ohm setting) to antenna terminal on each side.



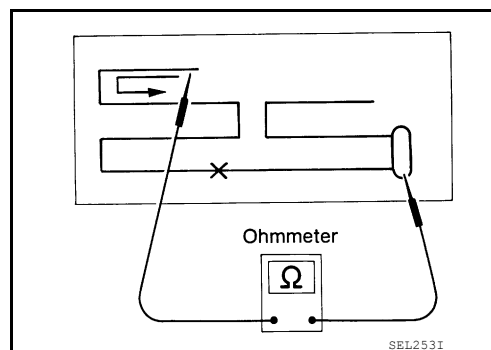
- When measuring continuity, wrap tin foil around the top of probe. Then, press the foil against the wire with your finger.



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.



## AUDIO ANTENNA (COUPE)

< REMOVAL AND INSTALLATION >

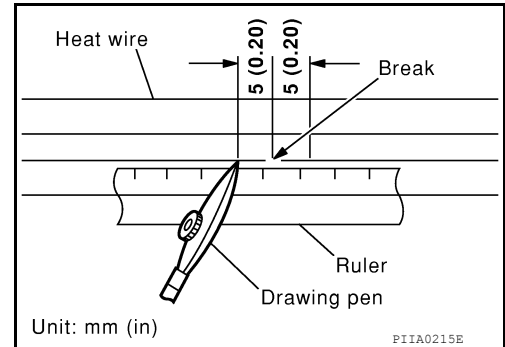
[BOSE AUDIO WITHOUT NAVIGATION]

### REPAIR EQUIPMENT

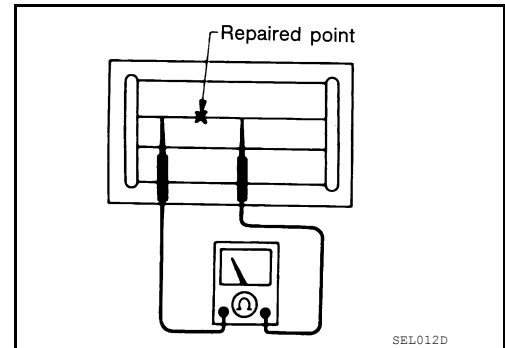
- Conductive silver composition (DuPont No. 4817 or equivalent)
- Ruler 30 cm (11.8 in) long
- Drawing pen
- Heat gun
- Alcohol
- Cloth

### REPAIRING PROCEDURE

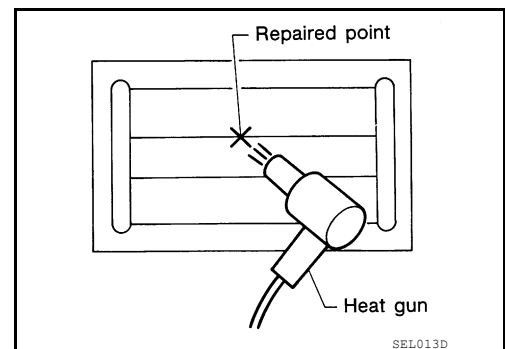
1. Wipe broken heat wire and its surrounding area clean with a cloth dampened in alcohol.
2. Apply a small amount of conductive silver composition to tip of drawing pen. Shake silver composition container before use.
3. Place ruler on glass along broken line. Deposit conductive silver composition on 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.



## AUDIO ANTENNA (SEDAN)

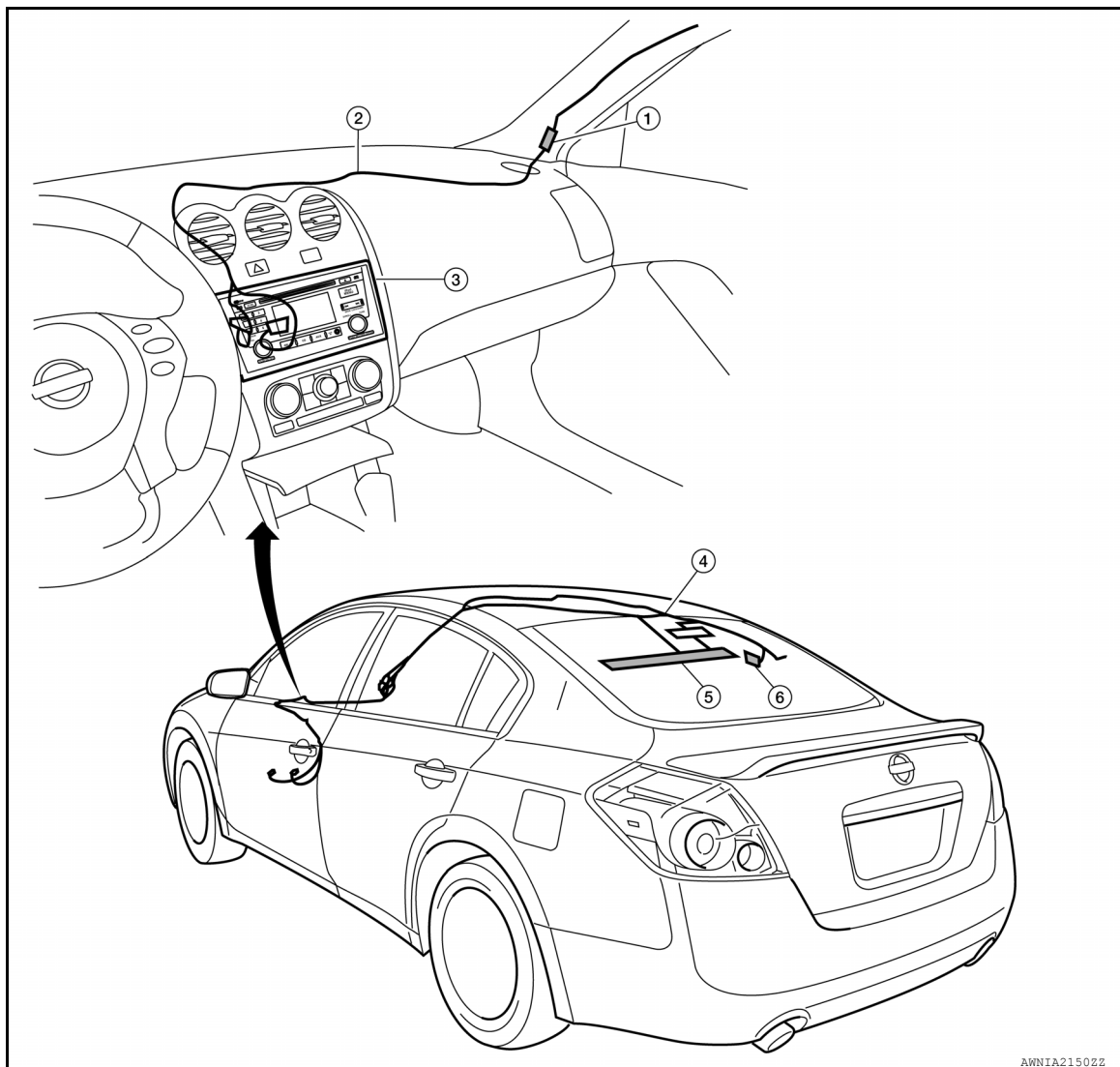
< REMOVAL AND INSTALLATION >

[BOSE AUDIO WITHOUT NAVIGATION]

### AUDIO ANTENNA (SEDAN)

#### Location of Antenna

INFOID:000000006390077



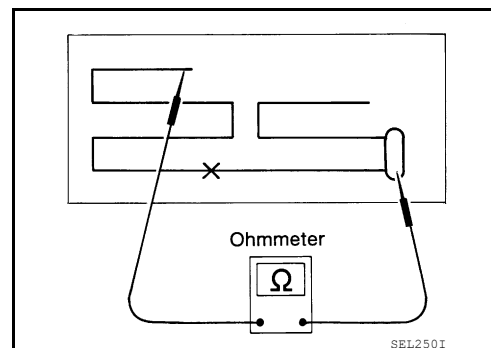
- |                                 |                       |                 |
|---------------------------------|-----------------------|-----------------|
| 1. In-line connectors M87, M501 | 2. Audio unit harness | 3. Audio unit   |
| 4. Audio antenna feeder         | 5. Window Antenna     | 6. Antenna amp. |

#### Window Antenna Repair

INFOID:000000006390078

#### ELEMENT CHECK

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

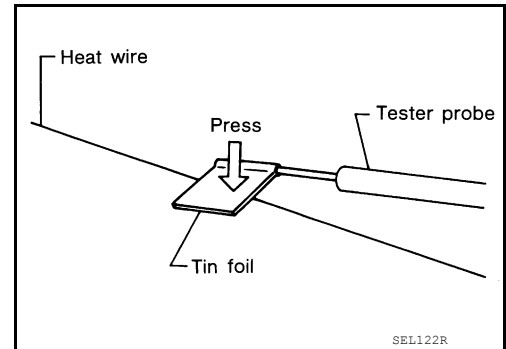


## AUDIO ANTENNA (SEDAN)

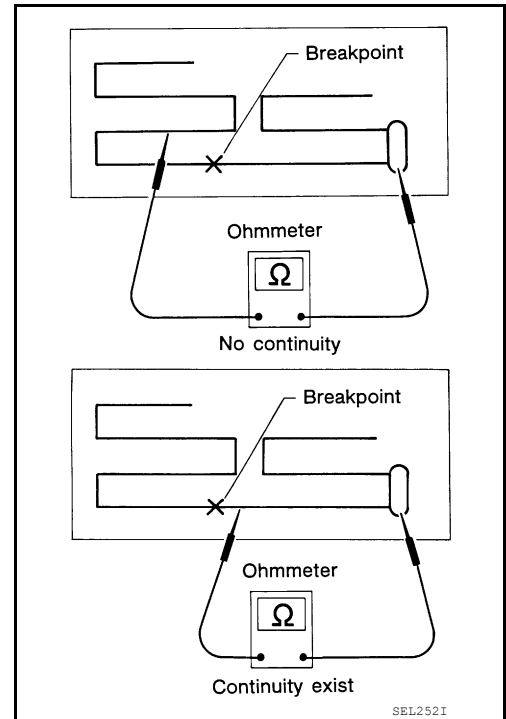
### < REMOVAL AND INSTALLATION >

### [BOSE AUDIO WITHOUT NAVIGATION]

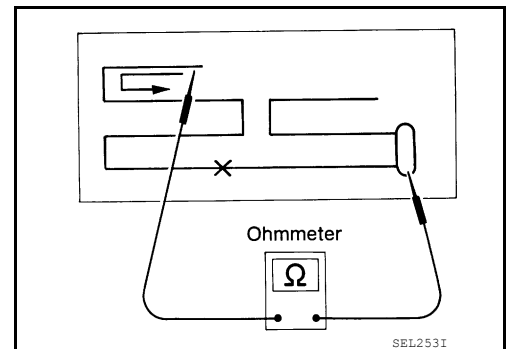
- When measuring continuity, wrap tin foil around the top of probe. Then, press the foil against the wire with your finger.



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

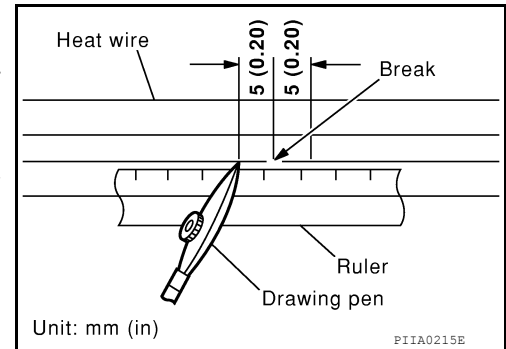


## AUDIO ANTENNA (SEDAN)

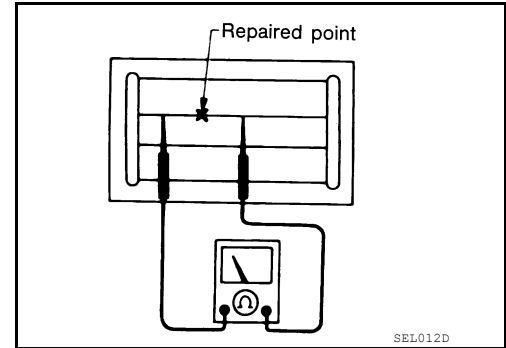
### < REMOVAL AND INSTALLATION >

### [BOSE AUDIO WITHOUT NAVIGATION]

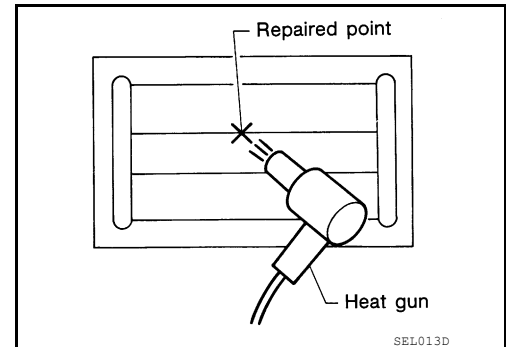
1. Wipe broken heat wire and its surrounding area clean with a cloth dampened in alcohol.
2. Apply a small amount of conductive silver composition to tip of drawing pen. Shake silver composition container before use.
3. Place ruler on glass along broken line. Deposit conductive silver composition on 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 >

[BOSE AUDIO WITHOUT NAVIGATION]

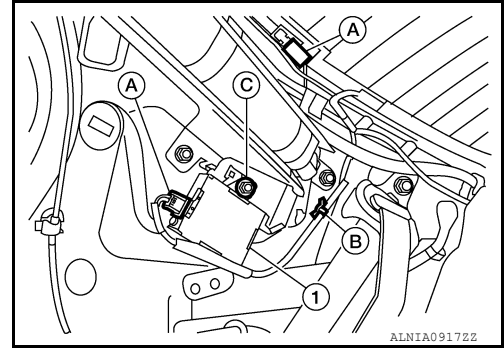
### ANTENNA AMP.

#### Removal and Installation - Coupe

INFOID:000000006390079

##### REMOVAL

1. Remove the rear pillar finisher RH. Refer to [INT-44. "Removal and Installation"](#).
2. Detach the antenna amp. harness clip (B).
3. Disconnect the antenna amp. connectors (A).
4. Remove the antenna amp. screw (C) and remove the antenna amp. (1).



##### INSTALLATION

Installation is in the reverse order of removal.

#### Removal and Installation - Sedan

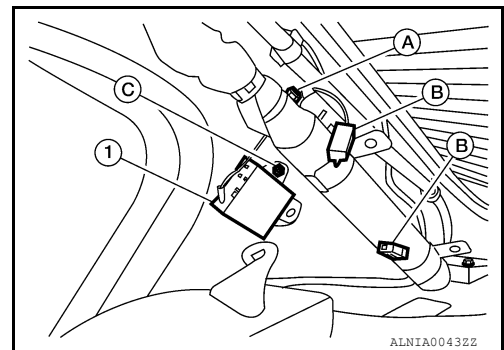
INFOID:000000006390080

##### REMOVAL

###### CAUTION:

- Before servicing, turn ignition switch OFF, disconnect both battery terminals and wait at least three minutes.

1. Disconnect the negative and positive battery terminals, then wait at least three minutes.
2. Remove the rear pillar finisher RH. Refer to [INT-18. "Removal and Installation"](#).
3. Partially remove the side curtain air bag module RH to gain access to the antenna amp. (1). Refer to [SR-12. "Removal and Installation"](#).
4. Detach the antenna amp. harness clip (A).
5. Disconnect the antenna amp. connectors (B).
6. Remove the antenna amp. screw (C) and remove the antenna amp. (1).



##### INSTALLATION

Installation is in the reverse order of removal.

# MICROPHONE

< REMOVAL AND INSTALLATION >

[BOSE AUDIO WITHOUT NAVIGATION]

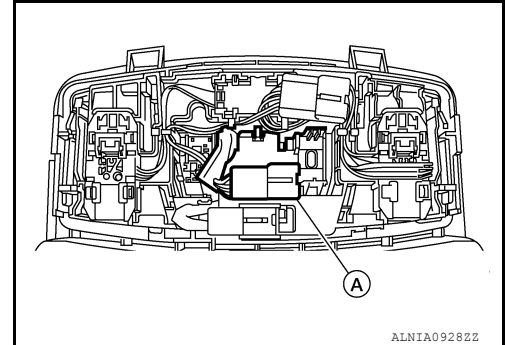
## MICROPHONE

### Removal and Installation

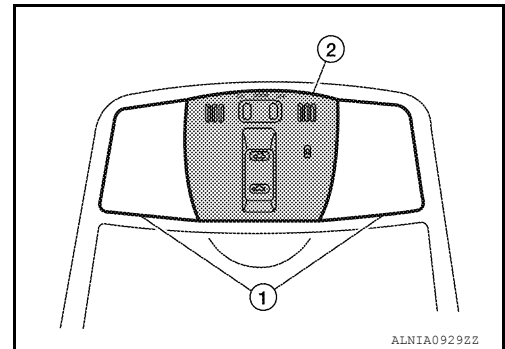
INFOID:000000006390081

#### REMOVAL

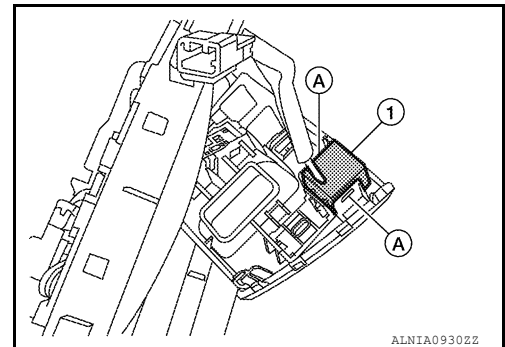
1. Remove the front room/map lamp assembly. Refer to [INT-27, "Exploded View"](#).
2. Detach the microphone connector (A).



3. Remove the front room/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.

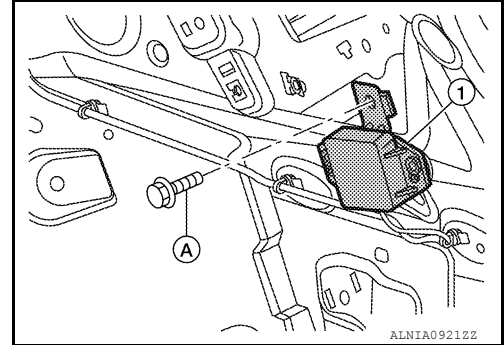
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**TEL ANTENNA****Removal and Installation - Coupe**

INFOID:000000006934939

**REMOVAL**

1. Remove the rear pillar LH. Refer to [INT-44, "Removal and Installation"](#).
2. Remove the rear parcel shelf. Refer to [INT-46, "Removal and Installation"](#).
3. Remove the Bluetooth antenna screw (A).
4. Detach the Bluetooth antenna harness clips.
5. Disconnect the Bluetooth antenna connector and remove the Bluetooth antenna (1).

**INSTALLATION**

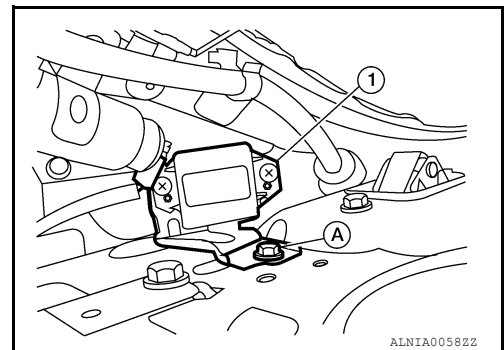
Installation is in the reverse order of removal.

**Removal and Installation - Sedan**

INFOID:000000006934941

**REMOVAL**

1. Remove the rear parcel shelf. Refer to [INT-22, "Removal and Installation - Rear Parcel Shelf Finisher"](#).
2. Remove the Bluetooth antenna screw (A).
3. Fold down the rear seat back.
4. Disconnect the Bluetooth antenna connector and remove the Bluetooth antenna (1).

**INSTALLATION**

Installation is in the reverse order of removal.

# BLUETOOTH CONTROL UNIT

< REMOVAL AND INSTALLATION >

[BOSE AUDIO WITHOUT NAVIGATION]

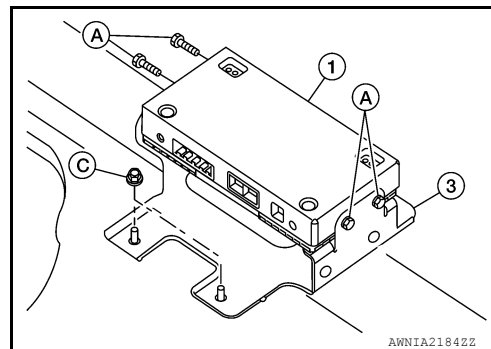
## BLUETOOTH CONTROL UNIT

### Removal and Installation - Coupe

INFOID:000000006390084

#### REMOVAL

1. Disconnect the battery negative terminal.
2. Remove the trunk floor carpet and spare tire cover. Refer to [INT-54, "Removal and Installation"](#).
3. Remove the LH trunk floor spacer.
4. Remove the Bluetooth control unit screws (A), disconnect the Bluetooth control unit connectors and remove the Bluetooth control unit (1).



#### INSTALLATION

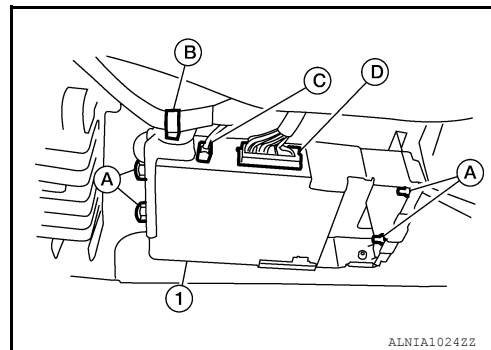
Installation is in the reverse order of removal.

### Removal and Installation - Sedan

INFOID:000000006394940

#### REMOVAL

1. Disconnect the negative battery terminal.
2. Remove the Bluetooth control unit screws (A).
3. Detach the Bluetooth control unit connector harness clip (B).
4. Disconnect the Bluetooth antenna connector (C).
5. Disconnect the Bluetooth control unit connector (D) and remove the Bluetooth control unit (1).



6. To remove the Bluetooth control unit bracket, remove the rear parcel shelf. Refer to [INT-22, "Removal and Installation - Rear Parcel Shelf Finisher"](#).
7. Remove the Bluetooth control unit bracket.

#### INSTALLATION

Installation is in the reverse order of removal.

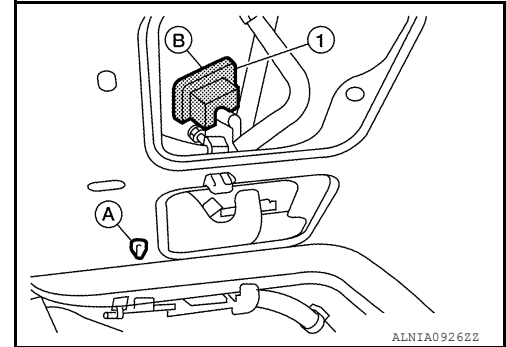
## REAR VIEW CAMERA

### Removal and Installation

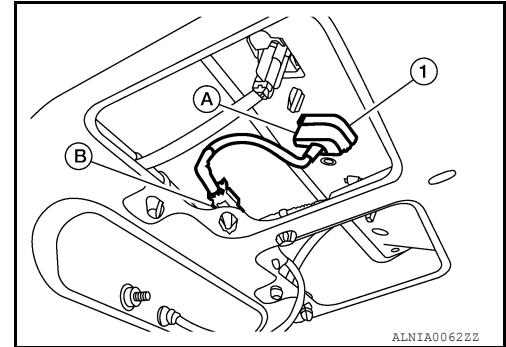
INFOID:000000006390086

#### REMOVAL

1. Remove the license plate finisher. Refer to [EXT-26, "Removal and Installation"](#) (coupe) and [EXT-52, "Removal and Installation"](#) (sedan).
2. Remove the rear view camera by performing the following:
  - For coupe models, release the clip (A), then pull out the rear view camera connector, disconnect the rear view camera connector, press the rear view camera tab (B) and remove the rear view camera (1).



- For sedan models, 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.

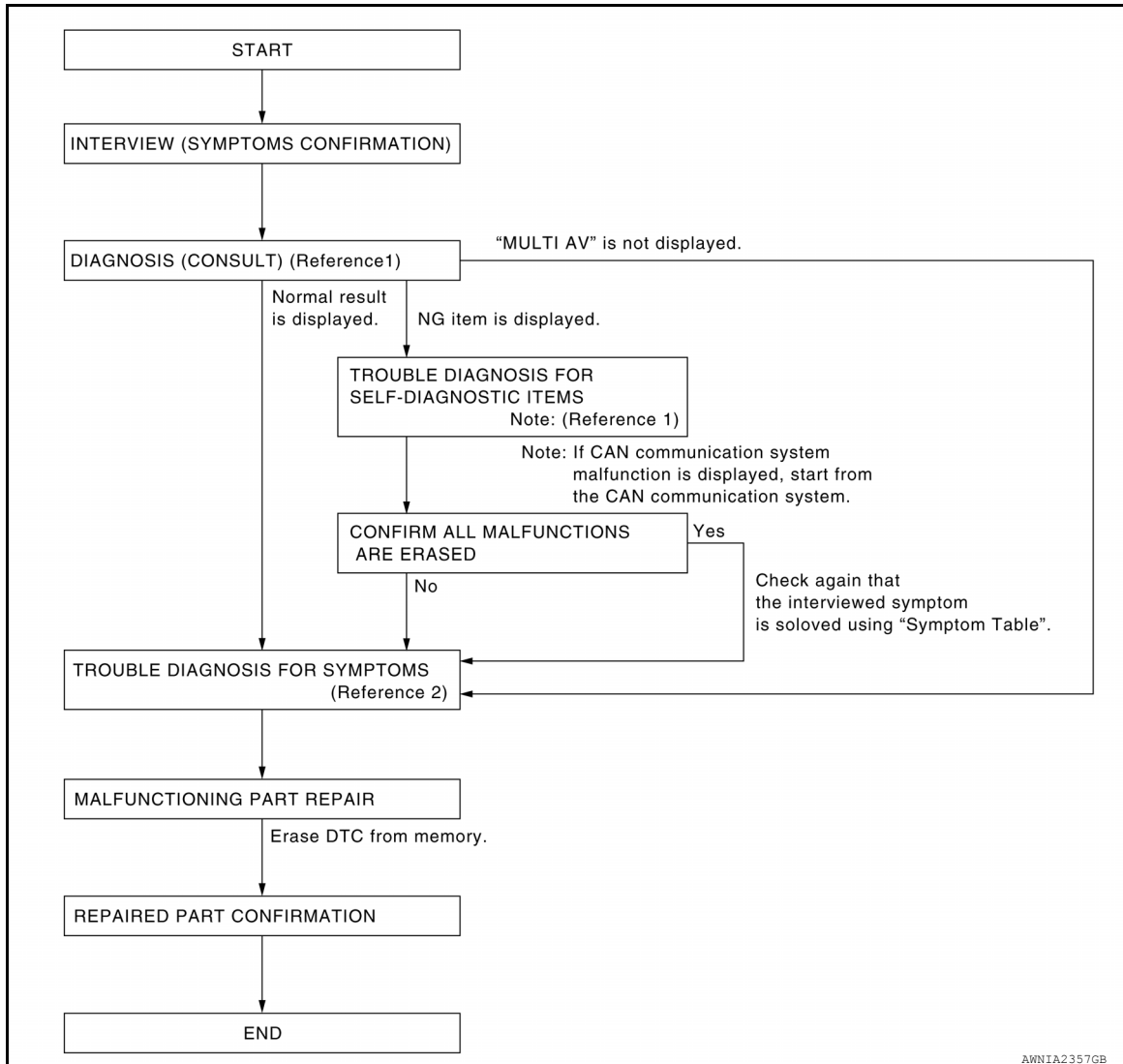
## BASIC INSPECTION

### DIAGNOSIS AND REPAIR WORKFLOW

#### Work Flow

INFOID:000000006390088

#### OVERALL SEQUENCE



- Reference 1... Refer to [AV-270, "CONSULT Function \(MULTI AV\)"](#).
- Reference 2... Refer to [AV-397, "Symptom Table"](#).

#### 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)

1. Connect CONSULT 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 AUDIO WITH NAVIGATION]

Is any DTC No. displayed?

YES >> GO TO 3

NO >> GO TO 4

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

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-348, "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-397, "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 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

## ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

## ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description

INFOID:000000006390089

## BEFORE REPLACEMENT

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

## AFTER REPLACEMENT

**CAUTION:**

When replacing AV control unit, you must perform "WRITE CONFIGURATION" with CONSULT.

- 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:000000006390090

## 1. SAVING VEHICLE SPECIFICATION

## Ⓢ-CONSULT Configuration

Perform "READ CONFIGURATION" to save current vehicle specification. Refer to [AV-221, "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-410, "Removal and Installation"](#).

>> GO TO 3.

## 3. WRITING VEHICLE SPECIFICATION

## Ⓢ-CONSULT Configuration

Perform "WRITE CONFIGURATION - Config file" or "WRITE CONFIGURATION - Manual selection" to write vehicle specification. Refer to [AV-222, "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:000000006390091

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

# INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

[BOSE AUDIO WITH NAVIGATION]

Function	Description
READ CONFIGURATION	<ul style="list-style-type: none"> <li>Reads the vehicle configuration of current AV control unit.</li> <li>Saves the read vehicle configuration.</li> </ul>
WRITE CONFIGURATION-Manual selection	Writes the vehicle configuration with manual selection.
WRITE CONFIGURATION-Config file	Writes the vehicle configuration with saved data.

## CONFIGURATION (AV CONTROL UNIT) : Special Repair Requirement

INFOID:000000006390092

### 1.WRITING MODE SELECTION

CONSULT 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 Configuration

Perform "WRITE CONFIGURATION-Config file".

>> WORK END

### 3.PERFORM "WRITE CONFIGURATION-MANUAL SELECTION"

CONSULT Configuration

Select "WRITE CONFIGURATION-Manual selection" to write vehicle specifications into the AV control unit.  
For data to write, refer to [AV-222. "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

INFOID:000000006390093

### CAUTION:

Check vehicle specifications before servicing.

MANUAL SETTING ITEM		Note
Items	Setting value	
STEERING	LHD	—
	RHD	—
GRADE	MODE 1	BASE
	MODE 2	OTHER
ENGINE TYPE	NORMAL	—
	HYBRID	—
BODY TYPE	NORMAL	NORMAL
	CONV	CONVERTIBLE
CAMERA SYSTEM	NONE/AVM	NONE or AVM
	REAR	REAR CAMERA
	REAR + SIDE	REAR + SIDE CAMERA

# INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

[BOSE AUDIO WITH NAVIGATION]

MANUAL SETTING ITEM		Note
Items	Setting value	
4WAS	WITHOUT	—
	WITH	—
SOUND SYSTEM	BASE	—
	BOSE	—
ANTENNA TYPE	ROD TYPE	—
	LONG TYPE	—
DUAL-ZONE AUTO TEMP	WITHOUT	—
	WITH	—
DVD PLAY FUNCTION	WITHOUT	—
	WITH	—
BODY TYPE	SED 2DR	SEDAN 2 DOOR
	SED 4DR 1	SEDAN 4 DOOR
	SED 4DR 2	SEDAN 4 DOOR (WIDE)
	H/B 2DR	H/B 2 DOOR
	H/B 4DR	H/B 4 DOOR
	COUPE 2DR	COUPE 2 DOOR
	COUPE T	COUPE T BAR
	WGN 4DR 2	49H WAGON 4 DOOR (WIDE)
	H/T 2DR 1	H/T 2 DOOR
	H/T 2DR 2	H/T 2 DOOR (HIGH-ROOF)
	H/T 4DR 1	H/T 4 DOOR
	H/T 4DR 2	H/T 4 DOOR (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 2 DOOR
	VAN 4DR 1	VAN 4 DOOR
	VAN 4DR 2	VAN 4 DOOR (HIGH-ROOF)
	CONV	CONVERTIBLE

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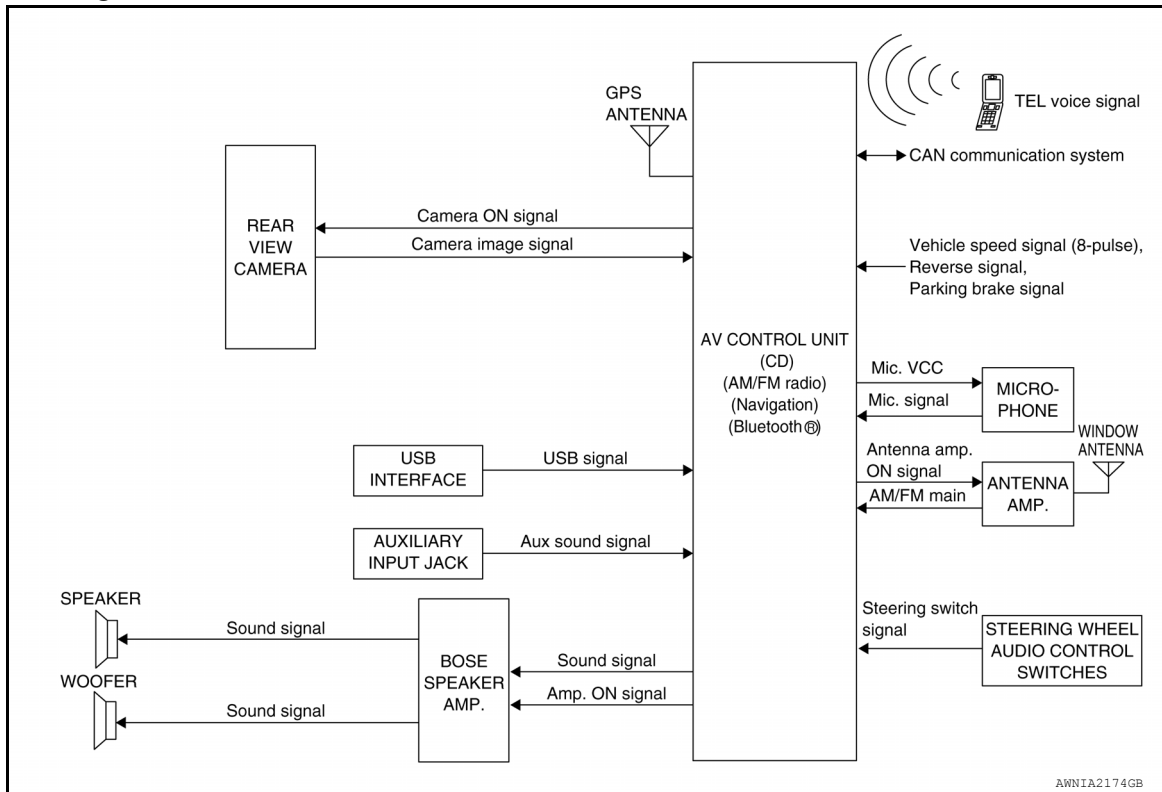
O

P

## SYSTEM DESCRIPTION

### MULTI AV SYSTEM (COUPE)

#### System Diagram



#### System Description

INFOID:000000006390095

The multi AV system consists of the following systems.

- Navigation system
- Audio system
- Rear view monitor
- Hands-free phone system

Refer to the following table for multi AV system descriptions.

System	Reference page
Navigation system	<a href="#">AV-233</a>
Audio system	<a href="#">AV-249</a>
Rear view monitor system	<a href="#">AV-243</a>
Hands-free phone system	<a href="#">AV-255</a>

#### VOICE RECOGNITION

The multi AV system uses voice recognition to control functions of the following systems:

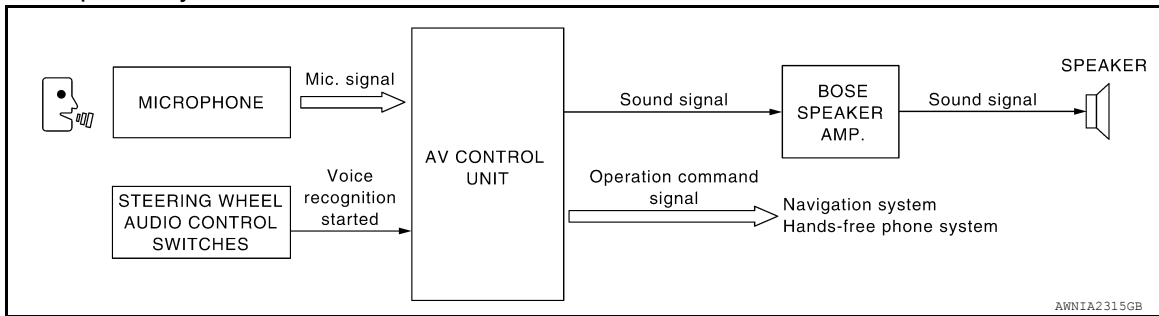
- Navigation system

# MULTI AV SYSTEM (COUPE)

## < SYSTEM DESCRIPTION >

## [BOSE AUDIO WITH NAVIGATION]

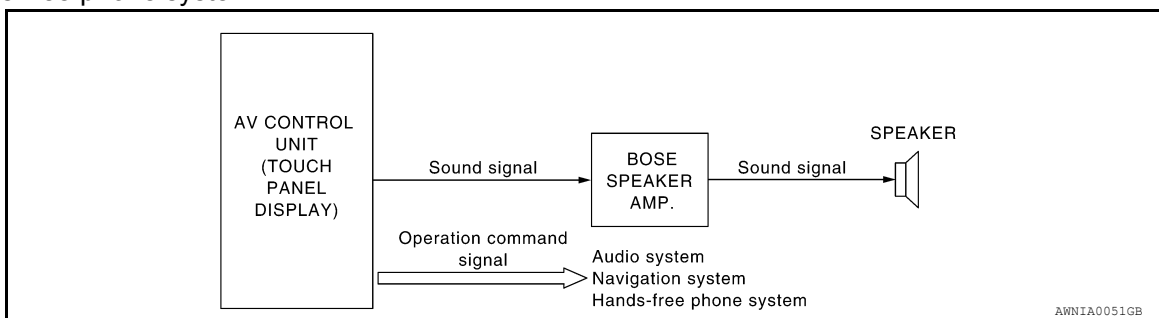
- Hands-free phone system



## TOUCH PANEL

The multi AV system uses a touch panel display to control functions of the following systems:

- Audio system
- Navigation system
- Hands-free phone system



AV

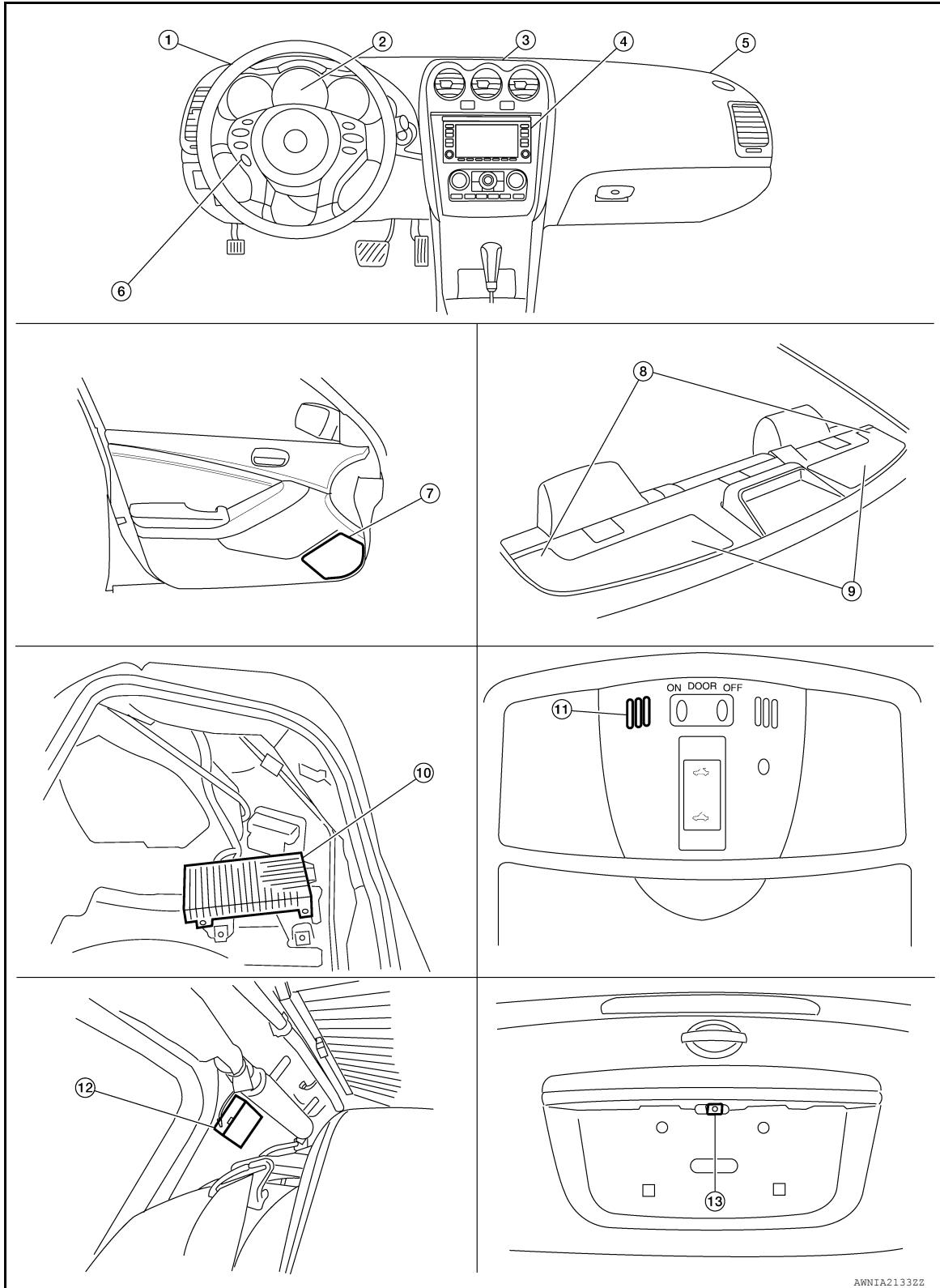
# MULTI AV SYSTEM (COUPE)

< SYSTEM DESCRIPTION >

[BOSE AUDIO WITH NAVIGATION]

## Component Parts Location

INFOID:000000006390096

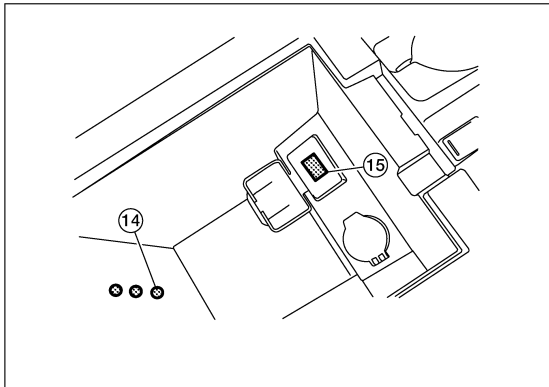


AWNIA21332Z

# MULTI AV SYSTEM (COUPE)

< SYSTEM DESCRIPTION >

[BOSE AUDIO WITH NAVIGATION]



AWNIA2134ZZ

- |   |  |   |
|---|--|---|
| 1. Front tweeter LH M51   | 2. Combination meter M24                   | 3. Center speaker M151  |
| 4. AV control unit M90, M98, M100, M101, M102, M103, M104                             | 5. Front tweeter RH M52                    | 6. Steering wheel audio control switches                          |
| 7. Door speaker<br>LH D3<br>RH D103   | 8. Rear tweeter<br>LH B16<br>RH B100       | 9. Rear subwoofer<br>LH B25<br>RH B47                             |
| 10. BOSE speaker amp. B121, B122 (view with trunk carpet and RH floor spacer removed) | 11. Microphone R7                          | 12. Antenna amp. M502 (view with rear pillar finisher RH removed) |
| 13. Rear view camera T7   | 14. Aux Jack M212 (view in center console) | 15. USB interface M211 (view in center console)                   |

## Component Description

INFOID:000000006390097

Part name	Description
AV control unit	<ul style="list-style-type: none"> <li>Integrates DVD-ROM drive allowing map data to be stored</li> <li>The AV control unit includes the navigation, audio, hands-free phone and display functions</li> </ul>
BOSE speaker amp.	Receives power (amp ON) and audio signals from AV control unit, and outputs audio signals to each speaker.
Door speaker	<ul style="list-style-type: none"> <li>Outputs audio signal from BOSE speaker amp.</li> <li>Outputs high, mid and low range sounds</li> </ul>
Front tweeter	<ul style="list-style-type: none"> <li>Outputs audio signal from BOSE speaker amp.</li> <li>Outputs high range sound</li> </ul>
Center speaker	<ul style="list-style-type: none"> <li>Outputs audio signal from BOSE speaker amp.</li> <li>Outputs high, mid and low range sounds</li> </ul>
Rear tweeter	<ul style="list-style-type: none"> <li>Outputs audio signal from BOSE speaker amp.</li> <li>Outputs high range sounds</li> </ul>
Rear subwoofer	<ul style="list-style-type: none"> <li>Outputs audio signal from BOSE speaker amp.</li> <li>Outputs low range sound</li> </ul>
Rear view camera	<ul style="list-style-type: none"> <li>Receives camera ON signal from AV control unit</li> <li>Sends image signal to AV control unit</li> </ul>
Steering wheel audio control switches	<ul style="list-style-type: none"> <li>Operations for audio, hands-free phone and navigation are possible</li> <li>Steering switch signal (operation signal) is output to AV control unit</li> </ul>
Microphone	Voice signals are received and sent to AV control unit.
GPS antenna	GPS signal is received and sent to AV control unit.
Antenna amp.	<ul style="list-style-type: none"> <li>Radio signal received by glass antenna is amplified and sent to AV control unit</li> <li>Power (antenna amp ON signal) is supplied from AV control unit.</li> </ul>

# MULTI AV SYSTEM (SEDAN)

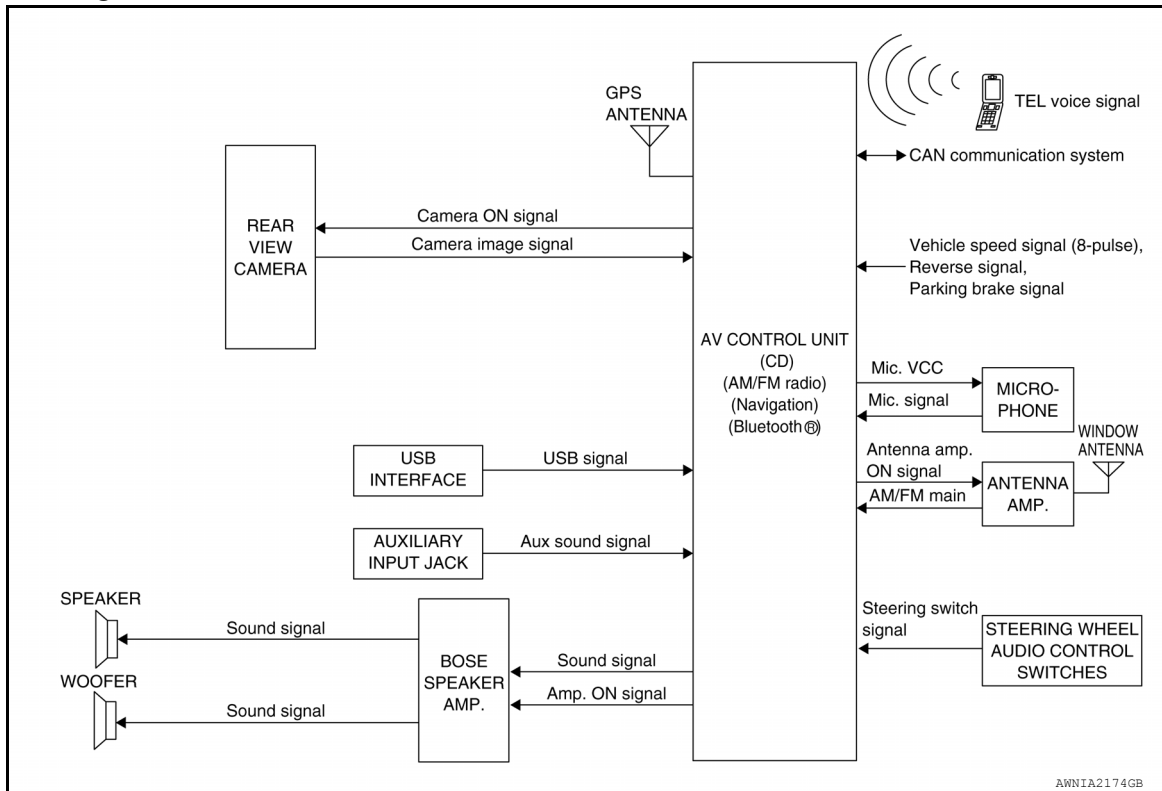
< SYSTEM DESCRIPTION >

[BOSE AUDIO WITH NAVIGATION]

## MULTI AV SYSTEM (SEDAN)

### System Diagram

INFOID:000000006390098



### System Description

INFOID:000000006390099

The multi AV system consists of the following systems.

- Navigation system
- Audio system
- Rear view monitor
- Hands-free phone system

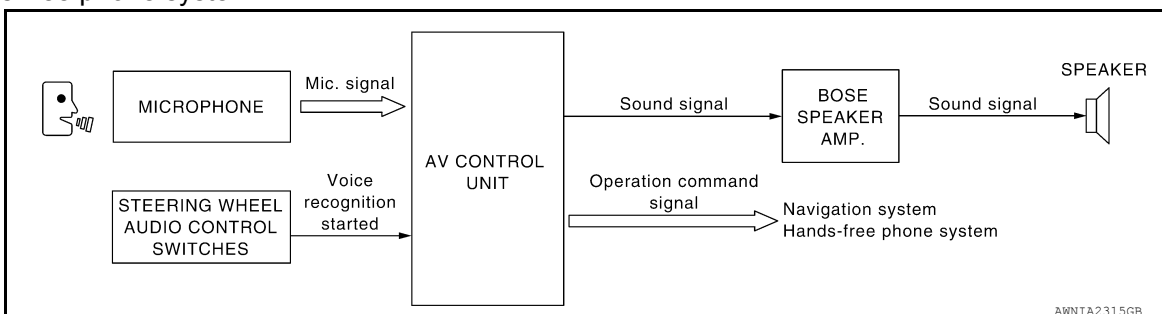
Refer to the following table for multi AV system descriptions.

System	Reference page
Navigation system	<a href="#">AV-238</a>
Audio system	<a href="#">AV-252</a>
Rear view monitor system	<a href="#">AV-243</a>
Hands-free phone system	<a href="#">AV-258</a>

### VOICE RECOGNITION

The multi AV system uses voice recognition to control functions of the following systems:

- Navigation system
- Hands-free phone system





# MULTI AV SYSTEM (SEDAN)

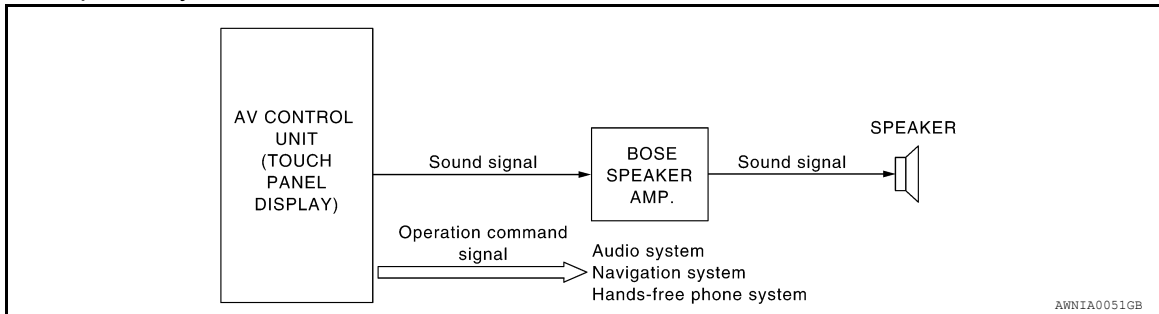
< SYSTEM DESCRIPTION >

[BOSE AUDIO WITH NAVIGATION]

## TOUCH PANEL

The multi AV system uses a touch panel display to control functions of the following systems:

- Audio system
- Navigation system
- Hands-free phone system



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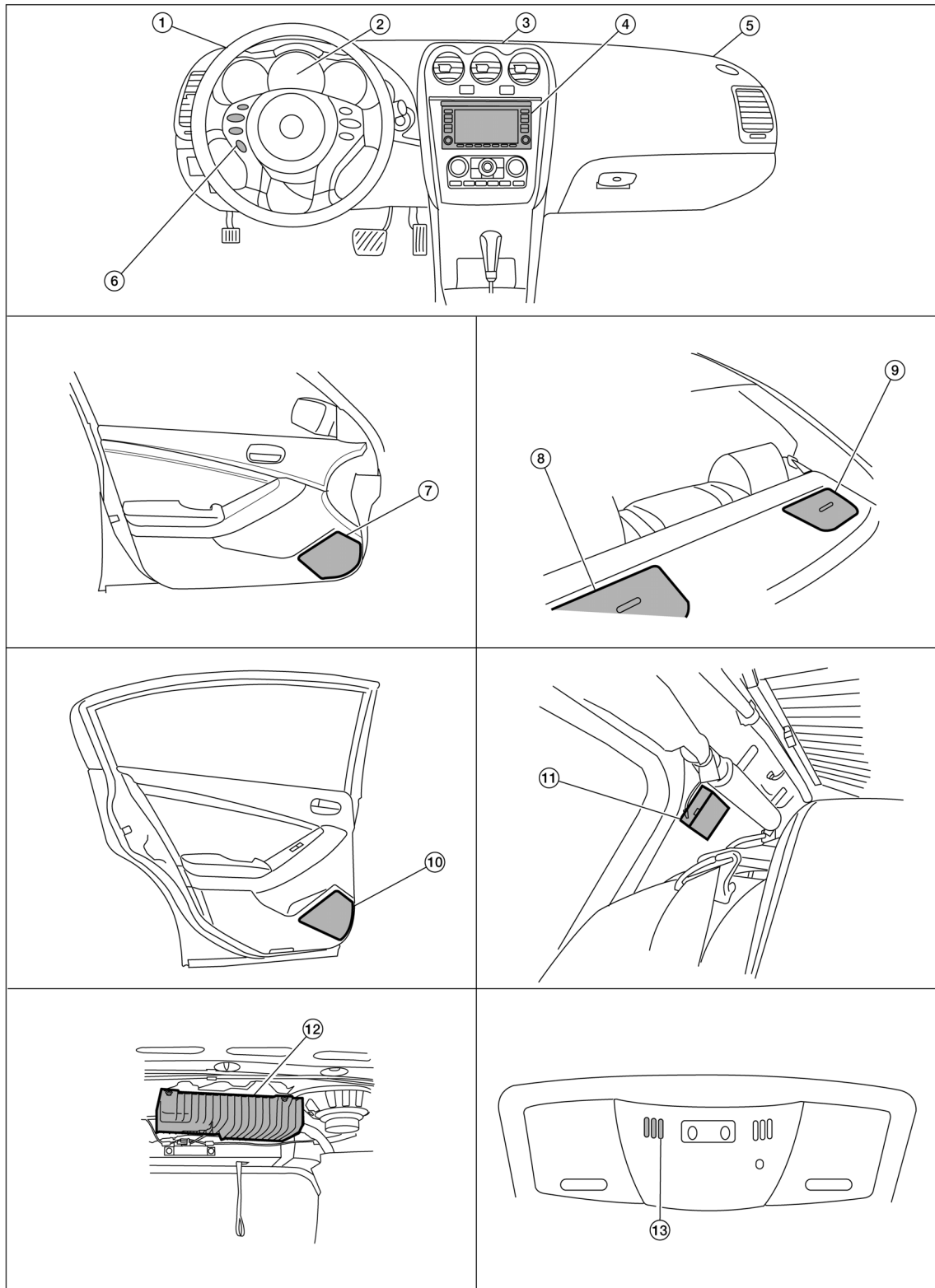
# MULTI AV SYSTEM (SEDAN)

< SYSTEM DESCRIPTION >

[BOSE AUDIO WITH NAVIGATION]

## Component Parts Location

INFOID:000000006390100

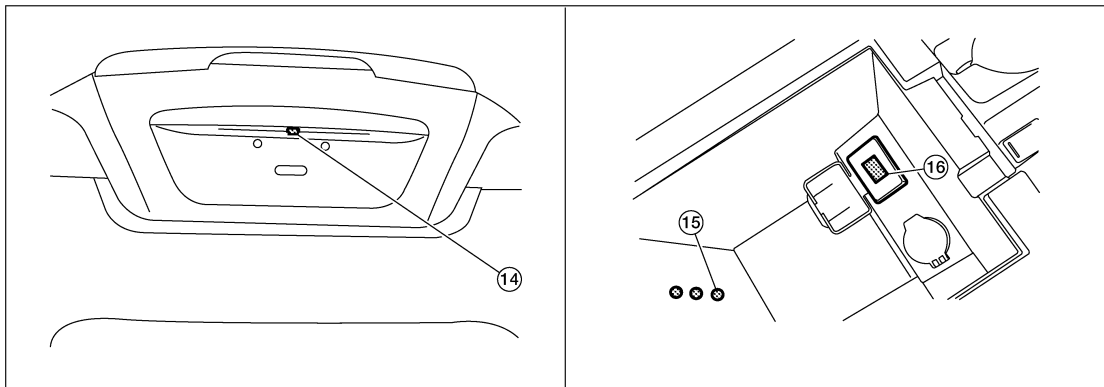


AWN1A21352Z

# MULTI AV SYSTEM (SEDAN)

< SYSTEM DESCRIPTION >

[BOSE AUDIO WITH NAVIGATION]



AWNIA2136ZZ

- |   |  |  |
|---|--|--|
| 1. Tweeter LH M51   | 2. Combination meter M24   | 3. Center speaker M151                     |
| 4. AV control unit M90, M98, M100, M101, M102, M103, M104 | 5. Tweeter RH M52  | 6. Steering wheel audio control switches   |
| 7. Front door speaker<br>LH D3<br>RH D103                 | 8. Rear subwoofer LH B120  | 9. Rear subwoofer RH B124                  |
| 10. Rear door speaker<br>LH D202<br>RH D302               | 11. Antenna amp M502 (view with rear pillar finisher RH removed) | 12. BOSE speaker amp. B121, B122           |
| 13. Microphone R7   | 14. Rear view camera B35   | 15. AUX jack M212 (view in center console) |
| 16. USB interface M211 (view in center console)           |  |  |

## Component Description

INFOID:000000006390101

Part name	Description
AV control unit	<ul style="list-style-type: none"> <li>Integrates DVD-ROM drive allowing map data to be stored</li> <li>The AV control unit includes the navigation, audio, hands-free phone and display functions</li> </ul>
BOSE speaker amp.	Receives power (amp ON) and audio signals from AV control unit, and outputs audio signals to each speaker.
Front door speaker	<ul style="list-style-type: none"> <li>Outputs audio signal from BOSE speaker amp.</li> <li>Outputs high, mid and low range sounds</li> </ul>
Tweeter	<ul style="list-style-type: none"> <li>Outputs audio signal from BOSE speaker amp.</li> <li>Outputs high range sound</li> </ul>
Center speaker	<ul style="list-style-type: none"> <li>Outputs audio signal from BOSE speaker amp.</li> <li>Outputs high, mid and low range sounds</li> </ul>
Rear door speaker	<ul style="list-style-type: none"> <li>Outputs audio signal from BOSE speaker amp.</li> <li>Outputs high, mid and low range sounds</li> </ul>
Rear subwoofer	<ul style="list-style-type: none"> <li>Outputs audio signal from BOSE speaker amp.</li> <li>Outputs low range sound</li> </ul>
Rear view camera	<ul style="list-style-type: none"> <li>Receives camera ON signal from the AV control unit</li> <li>Sends image signal to the AV control unit</li> </ul>
Steering wheel audio control switches	<ul style="list-style-type: none"> <li>Operations for audio, hands-free phone and navigation are possible</li> <li>Steering switch signal (operation signal) is output to AV control unit</li> </ul>
Microphone	Voice signals are received and sent to AV control unit.

## MULTI AV SYSTEM (SEDAN)

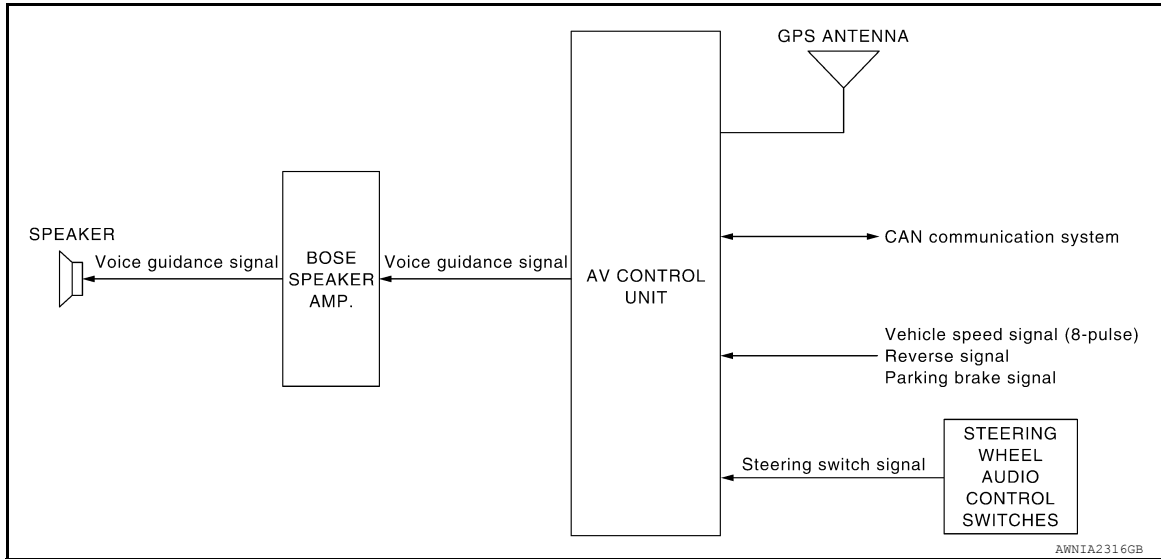
< SYSTEM DESCRIPTION >

[BOSE AUDIO WITH NAVIGATION]

Part name	Description
GPS antenna	GPS signal is received and sent to AV control unit.
Antenna amp.	<ul style="list-style-type: none"><li>• Radio signal received by glass antenna is amplified and sent to AV control unit</li><li>• Power (antenna amp ON signal) is supplied from AV control unit</li></ul>

## NAVIGATION SYSTEM (COUPE)

### System Diagram



### System Description

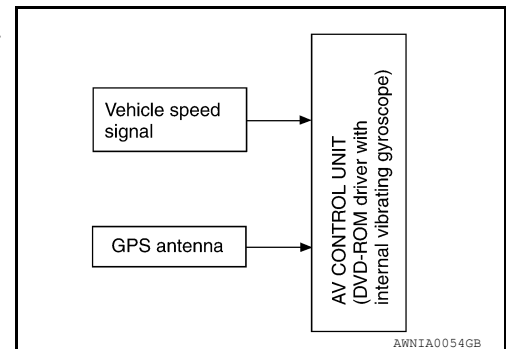
INFOID:000000006390103

#### NOTE:

Refer to NAVI System Owner's Manual for system operation.

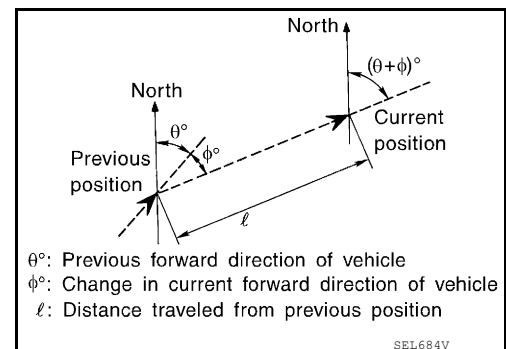
The navigation system periodically calculates the vehicle's current position according to the following three signals: Travel distance of the vehicle as determined by the vehicle speed sensor, turning angle of the vehicle as determined by the gyroscope (angular velocity sensor), and the direction of 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 DVD-ROM, which is stored in the DVD-ROM drive (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

# NAVIGATION SYSTEM (COUPE)

[BOSE AUDIO WITH NAVIGATION]

## < SYSTEM DESCRIPTION >

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.

Type	Advantage	Disadvantage
Gyroscope (angular velocity sensor)	<ul style="list-style-type: none"> <li>Can detect the vehicle's turning angle quite accurately.</li> </ul>	<ul style="list-style-type: none"> <li>Direction errors may accumulate when the vehicle is driven for long distances without stopping.</li> </ul>
GPS antenna (GPS information)	<ul style="list-style-type: none"> <li>Can detect the vehicle's travel direction (North/South/East/West).</li> </ul>	<ul style="list-style-type: none"> <li>Correct direction cannot be detected when the vehicle speed is low.</li> </ul>

## 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 DVD-ROM stored in the DVD-ROM drive.

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.

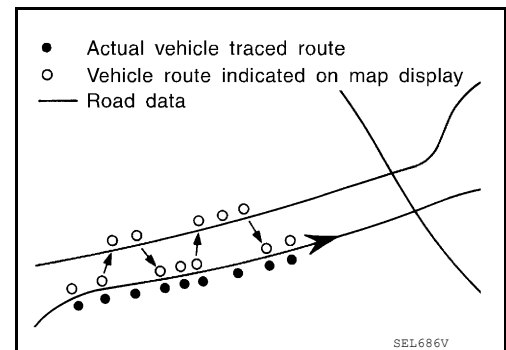
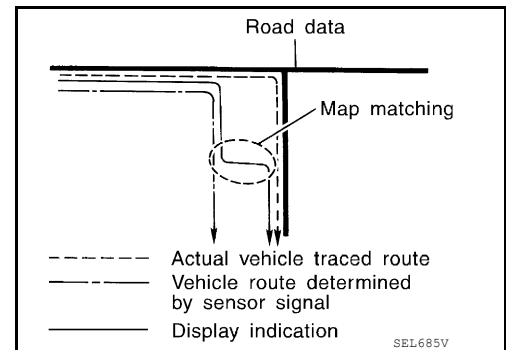
### CAUTION:

**The road map data is based on data stored in the map DVD-ROM.**

- 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.

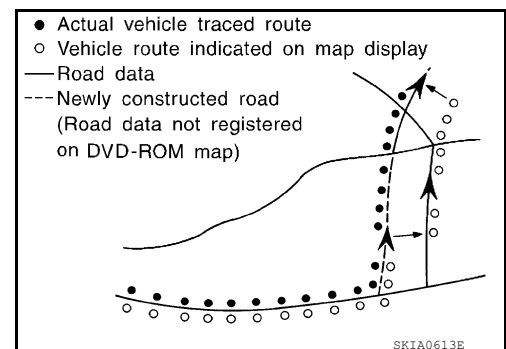
If two roads are running in parallel, they are of the same priority. Therefore, the current-location mark may appear on either of them alternately, depending on maneuvering of the steering wheel and configuration of the road.



- Map-matching does not function correctly when the road on which the vehicle is driving is new and not recorded in the map DVD-ROM, 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 map DVD-ROM 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.



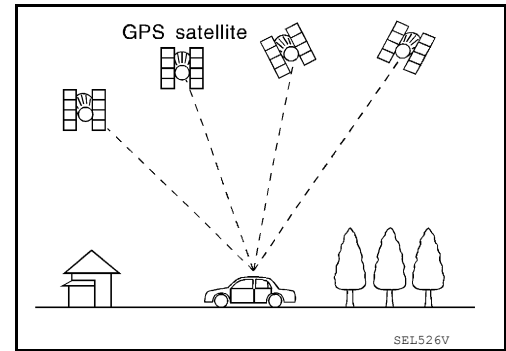
## GPS (GLOBAL POSITIONING SYSTEM)

# NAVIGATION SYSTEM (COUPE)

## < SYSTEM DESCRIPTION >

## [BOSE AUDIO WITH NAVIGATION]

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 miles). 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.

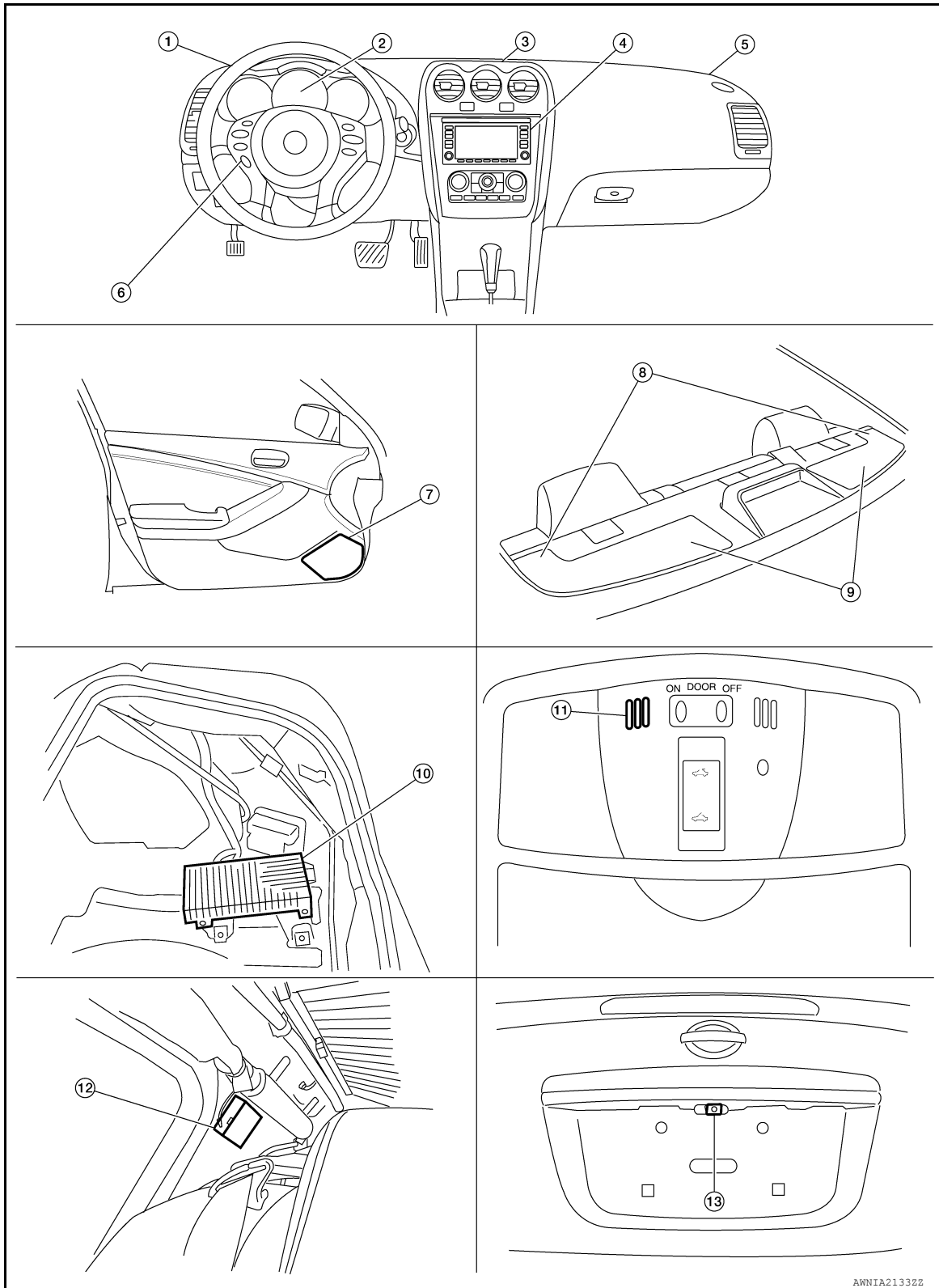
# NAVIGATION SYSTEM (COUPE)

< SYSTEM DESCRIPTION >

[BOSE AUDIO WITH NAVIGATION]

## Component Parts Location

INFOID:000000006390104



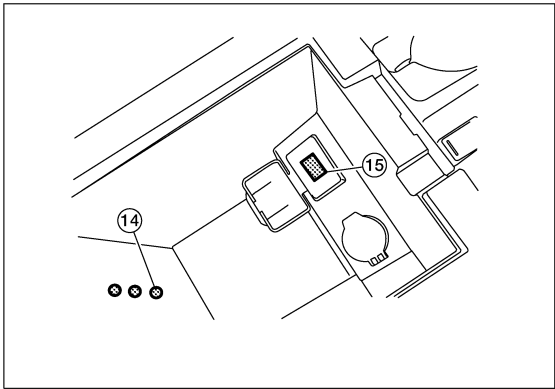
AWNIA21332Z



NAVIGATION SYSTEM (COUPE)

< SYSTEM DESCRIPTION >

[BOSE AUDIO WITH NAVIGATION]



AWNIA2134ZZ

1. Front tweeter LH M51

4. AV control unit M90, M98, M100, M101, M102, M103, M104

7. Door speaker  
LH D3  
RH D103

10. BOSE speaker amp. B121, B122 (view with trunk carpet and RH floor spacer removed)

13. Rear view camera T7
2. Combination meter M24

5. Front tweeter RH M52

8. Rear tweeter  
LH B16  
RH B100

11. Microphone R7

14. Aux Jack M212 (view in center console)
3. Center speaker M151

6. Steering wheel audio control switches

9. Rear subwoofer  
LH B25  
RH B47

12. Antenna amp. M502 (view with rear pillar finisher RH removed)

15. USB interface M211 (view in center console)

Component Description

INFOID:000000006390105

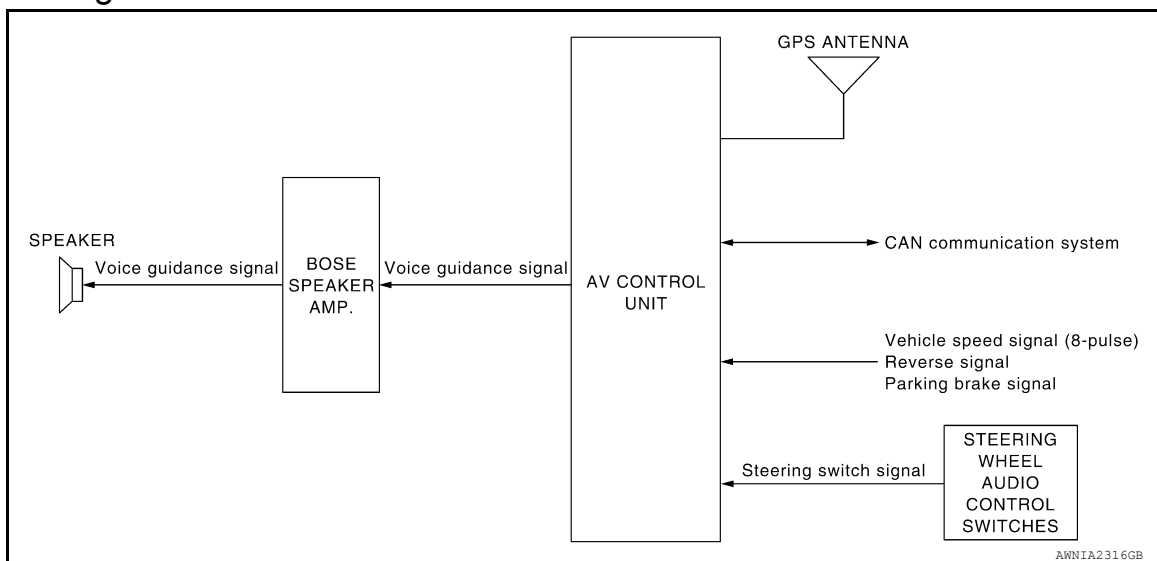
Part name	Description
AV control unit	<div><div>• Controls each operation of the navigation system</div><div>• DVD-ROM drive is built in</div><div>• Voice guidance signal is output to BOSE speaker amp.</div></div>
BOSE speaker amp.	Voice guidance signal is input from AV control unit, and it is output to speakers.
Front tweeter	Voice guidance signal from BOSE speaker amp. is output.
Steering wheel audio control switches	<div><div>• Each operation of navigation system can be performed</div><div>• Switch operating signal is output to AV control unit</div></div>
Microphone	Sends voice signals to AV control unit
GPS antenna	GPS signal is received and is output to AV control unit.

AV

## NAVIGATION SYSTEM (SEDAN)

### System Diagram

INFOID:000000006931342



### System Description

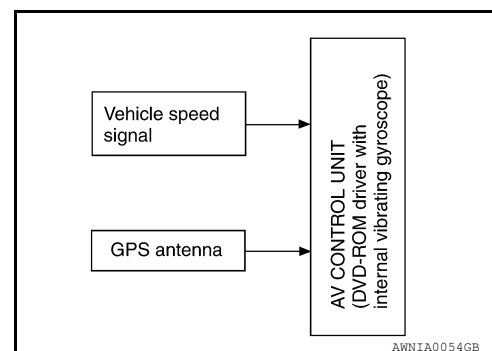
INFOID:000000006390107

#### NOTE:

Refer to NAVI System Owner's Manual for system operation.

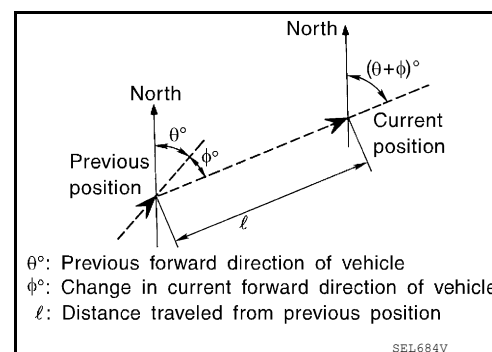
The navigation system periodically calculates the vehicle's current position according to the following three signals: Travel distance of the vehicle as determined by the vehicle speed sensor, turning angle of the vehicle as determined by the gyroscope (angular velocity sensor), and the direction of 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 DVD-ROM, which is stored in the DVD-ROM drive (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

< SYSTEM DESCRIPTION >

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.

Type	Advantage	Disadvantage
Gyroscope (angular velocity sensor)	<ul style="list-style-type: none"><li>Can detect the vehicle's turning angle quite accurately.</li></ul>	<ul style="list-style-type: none"><li>Direction errors may accumulate when the vehicle is driven for long distances without stopping.</li></ul>
GPS antenna (GPS information)	<ul style="list-style-type: none"><li>Can detect the vehicle's travel direction (North/South/East/West).</li></ul>	<ul style="list-style-type: none"><li>Correct direction cannot be detected when the vehicle speed is low.</li></ul>

MAP-MATCHING

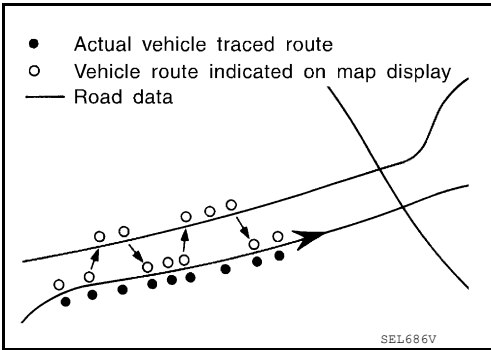
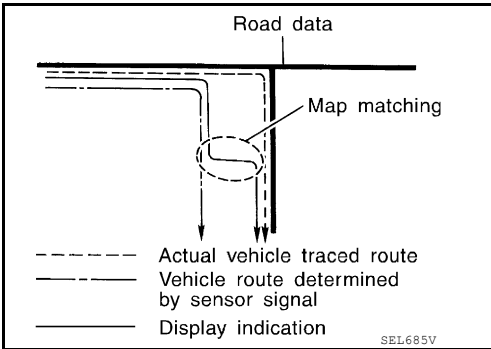
Map-matching is a function that repositions the vehicle on the road map when a new location is judged to be the most accurate. This is done by comparing the current vehicle position, calculated by the method described in the position detection principle, with the road map data around the vehicle, read from the map DVD-ROM stored in the DVD-ROM drive.

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.

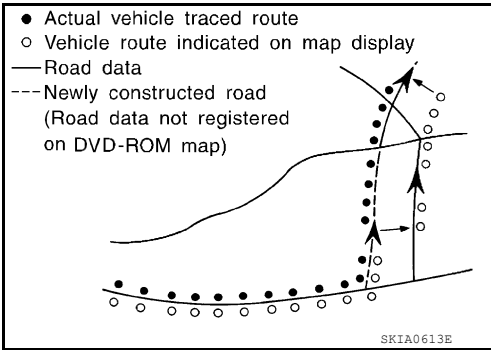
CAUTION:

The road map data is based on data stored in the map DVD-ROM.

- 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 in the map DVD-ROM, 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 map DVD-ROM 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.



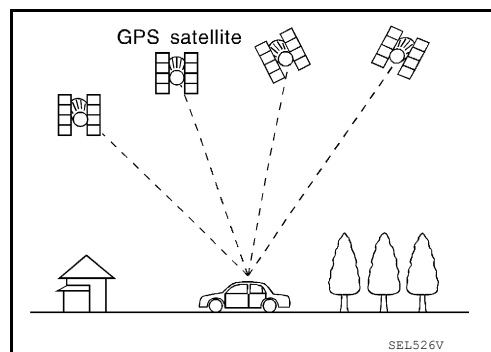
GPS (GLOBAL POSITIONING SYSTEM)

## NAVIGATION SYSTEM (SEDAN)

### < SYSTEM DESCRIPTION >

### [BOSE AUDIO WITH NAVIGATION]

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 miles). 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.

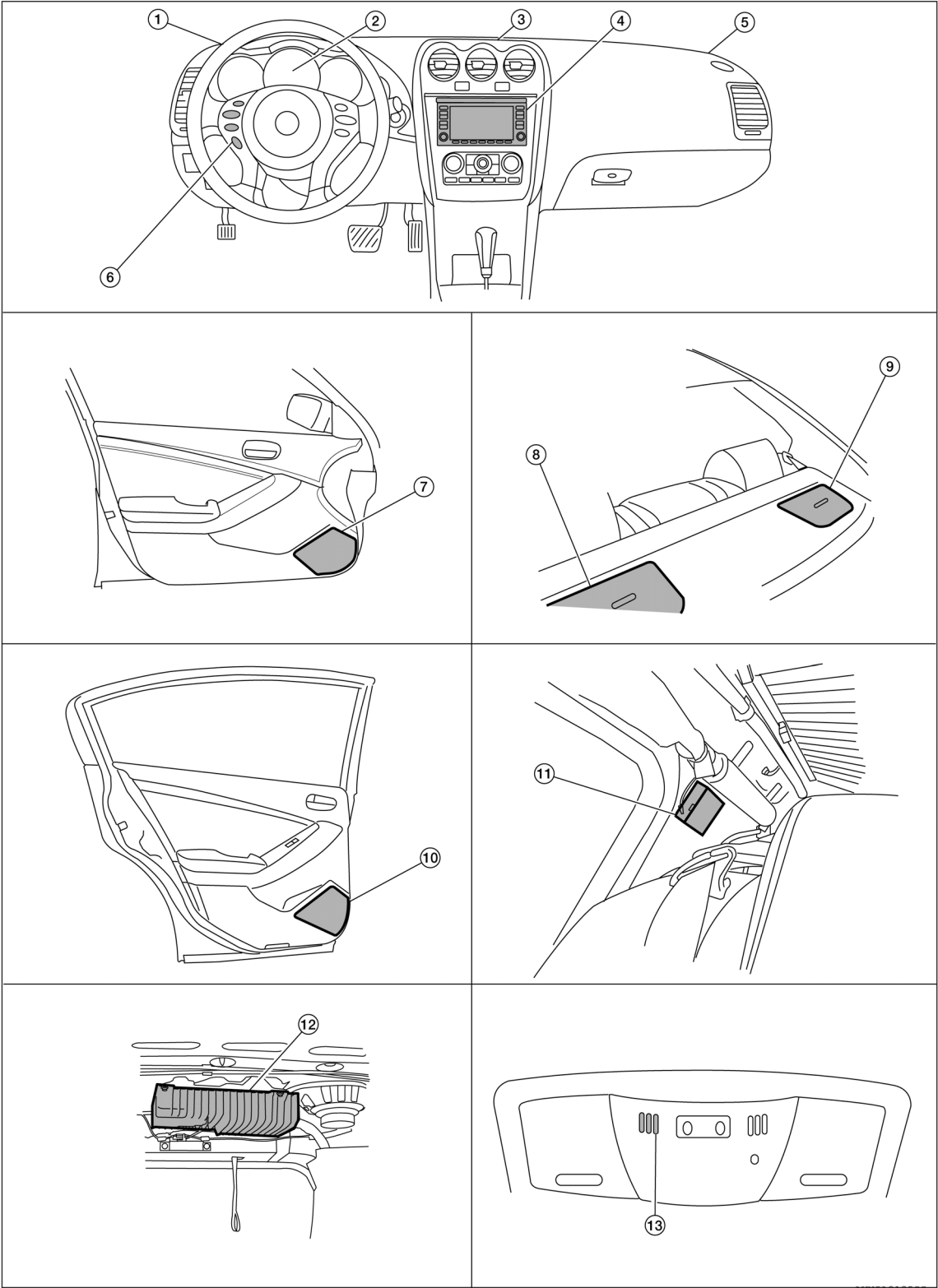
NAVIGATION SYSTEM (SEDAN)

< SYSTEM DESCRIPTION >

[BOSE AUDIO WITH NAVIGATION]

Component Parts Location

INFOID:000000006390108



AMN1A21352Z

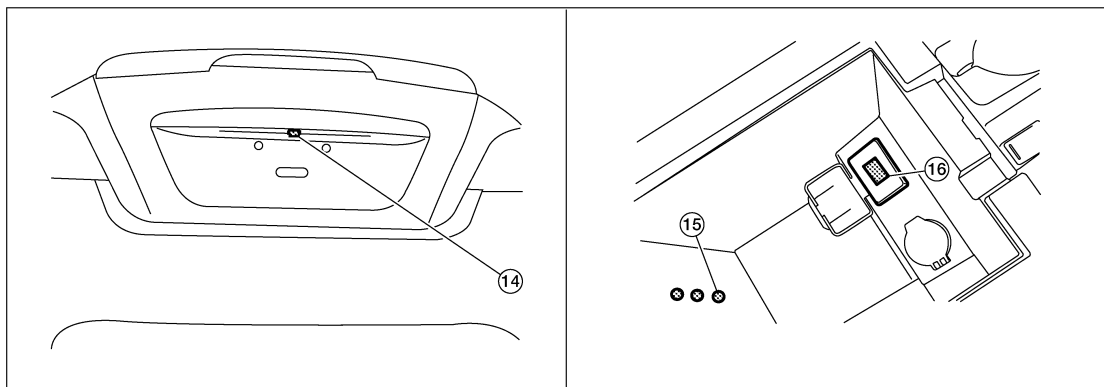
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AV

# NAVIGATION SYSTEM (SEDAN)

< SYSTEM DESCRIPTION >

[BOSE AUDIO WITH NAVIGATION]



AWNIA2136ZZ

- |   |  |  |
|---|--|--|
| 1. Tweeter LH M51   | 2. Combination meter M24   | 3. Center speaker M151                     |
| 4. AV control unit M90, M98, M100, M101, M102, M103, M104 | 5. Tweeter RH M52  | 6. Steering wheel audio control switches   |
| 7. Front door speaker<br>LH D3<br>RH D103                 | 8. Rear subwoofer LH B120  | 9. Rear subwoofer RH B124                  |
| 10. Rear door speaker<br>LH D202<br>RH D302               | 11. Antenna amp M502 (view with rear pillar finisher RH removed) | 12. BOSE speaker amp. B121, B122           |
| 13. Microphone R7   | 14. Rear view camera B35   | 15. AUX jack M212 (view in center console) |
| 16. USB interface M211 (view in center console)           |  |  |

## Component Description

INFOID:000000006390109

Part name	Description
AV control unit	<ul style="list-style-type: none"> <li>Controls each operation of the navigation system</li> <li>DVD-ROM drive is built in</li> <li>Voice guidance signal is output to BOSE speaker amp.</li> </ul>
BOSE speaker amp.	Voice guidance signal is input from AV control unit, and it is output to speakers.
Tweeter	Voice guidance signal from BOSE speaker amp. is output.
Steering wheel audio control switches	<ul style="list-style-type: none"> <li>Each operation of navigation system can be performed</li> <li>Switch operating signal is output to AV control unit</li> </ul>
Microphone	Sends voice signals to AV control unit
GPS antenna	GPS signal is received and is output to AV control unit.

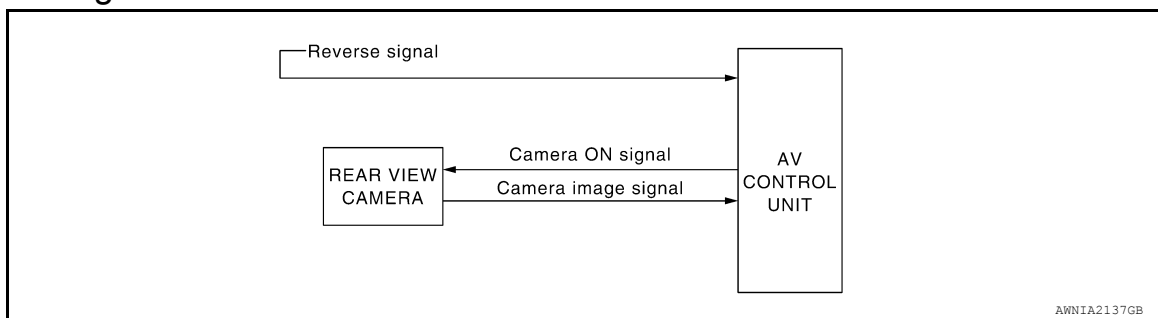
# REAR VIEW MONITOR SYSTEM (COUPE)

< SYSTEM DESCRIPTION >

[BOSE AUDIO WITH NAVIGATION]

## REAR VIEW MONITOR SYSTEM (COUPE)

### System Diagram



### System Description

INFOID:0000000006390111

When the selector is in the R position, the AV control unit shows a view to the rear of the vehicle. Lines which indicate the vehicle clearance and distances are also displayed.

#### AV COMMUNICATION LINE

The rear view camera is connected to the AV control unit using an AV communication line. This line is used to transmit and receive data.

AV

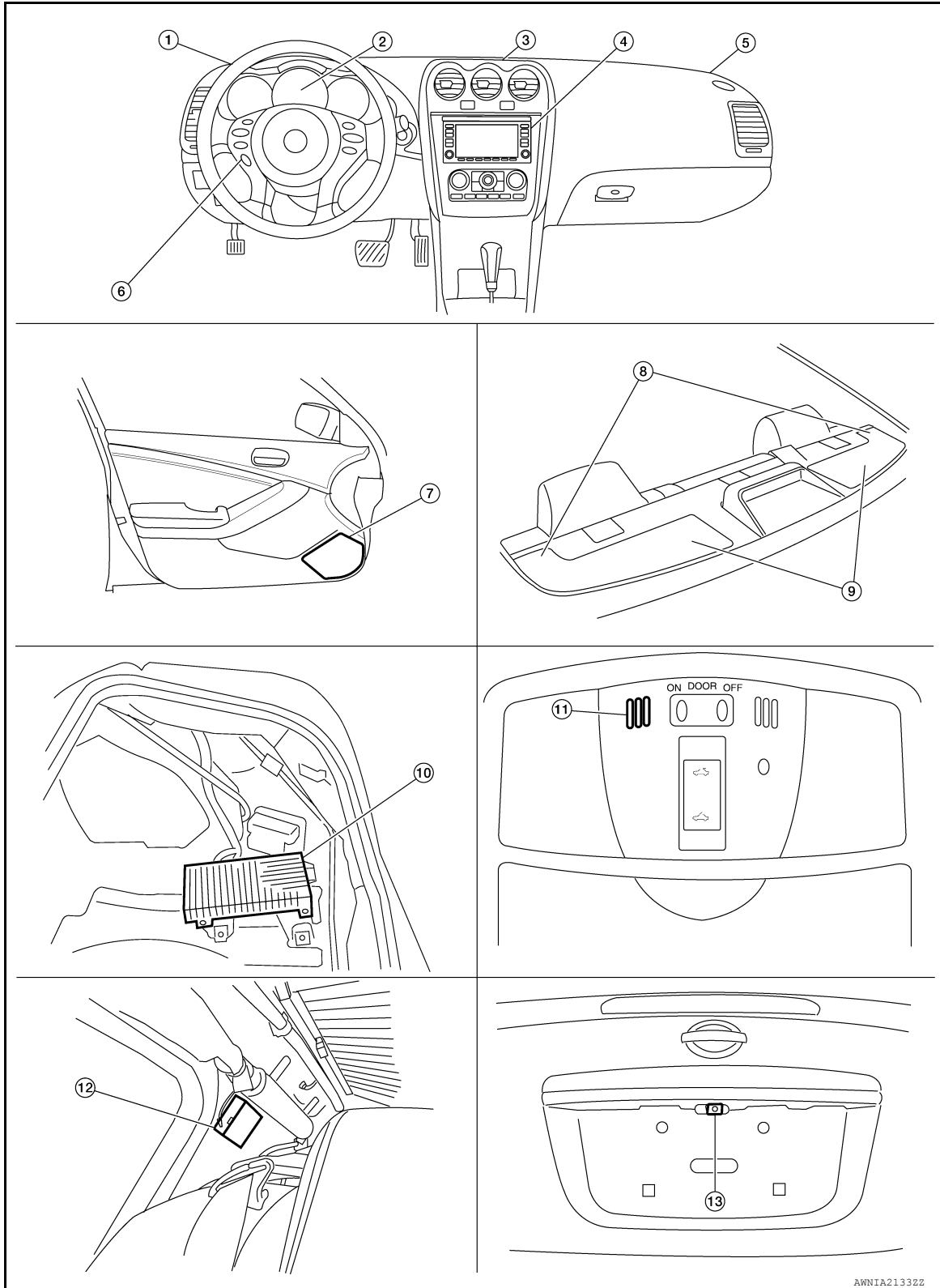
# REAR VIEW MONITOR SYSTEM (COUPE)

< SYSTEM DESCRIPTION >

[BOSE AUDIO WITH NAVIGATION]

## Component Parts Location

INFOID:000000006390112



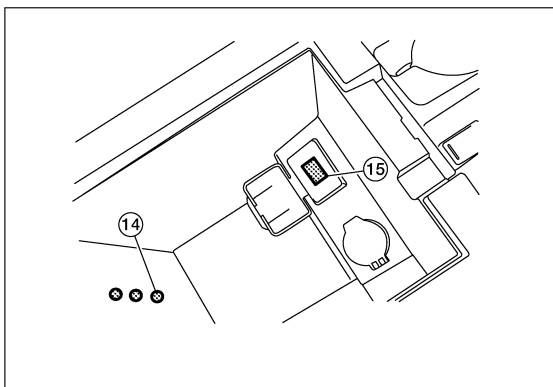
AWNIA21332Z



# REAR VIEW MONITOR SYSTEM (COUPE)

< SYSTEM DESCRIPTION >

[BOSE AUDIO WITH NAVIGATION]



AWNIA2134ZZ

- |   |  |   |
|---|--|---|
| 1. Front tweeter LH M51   | 2. Combination meter M24                   | 3. Center speaker M151  |
| 4. AV control unit M90, M98, M100, M101, M102, M103, M104                             | 5. Front tweeter RH M52                    | 6. Steering wheel audio control switches                          |
| 7. Door speaker<br>LH D3<br>RH D103   | 8. Rear tweeter<br>LH B16<br>RH B100       | 9. Rear subwoofer<br>LH B25<br>RH B47                             |
| 10. BOSE speaker amp. B121, B122 (view with trunk carpet and RH floor spacer removed) | 11. Microphone R7                          | 12. Antenna amp. M502 (view with rear pillar finisher RH removed) |
| 13. Rear view camera T7   | 14. Aux Jack M212 (view in center console) | 15. USB interface M211 (view in center console)                   |

## Component Description

INFOID:000000006390113

Part name	Description
AV control unit	<ul style="list-style-type: none"> <li>Sends camera ON signal to rear view camera</li> <li>Receives image signal from rear view camera</li> </ul>
Rear view camera	<ul style="list-style-type: none"> <li>Receives camera ON signal from AV control unit</li> <li>Sends image signal to the AV control unit</li> </ul>

# REAR VIEW MONITOR SYSTEM (SEDAN)

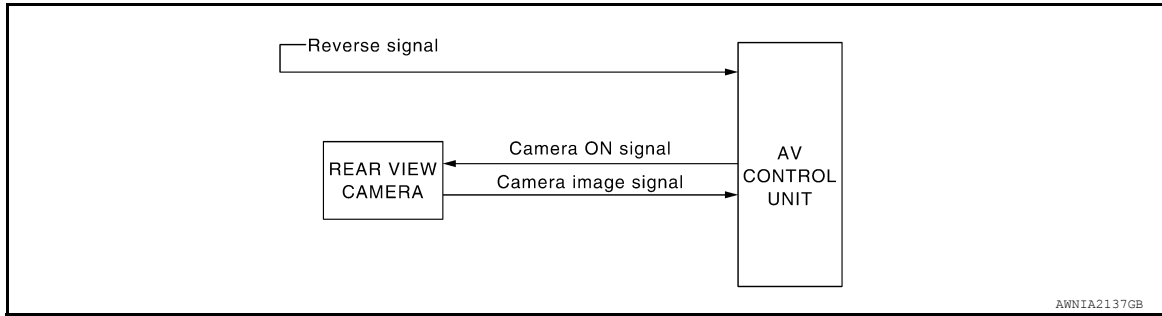
< SYSTEM DESCRIPTION >

[BOSE AUDIO WITH NAVIGATION]

## REAR VIEW MONITOR SYSTEM (SEDAN)

### System Diagram

INFOID:000000006390114



AWNIA2137GB

### System Description

INFOID:000000006390115

When the selector is in the R position, the AV control unit shows a view to the rear of the vehicle. Lines which indicate the vehicle clearance and distances are also displayed.

#### AV COMMUNICATION LINE

The rear view camera is connected to the AV control unit using an AV communication line. This line is used to transmit and receive data.

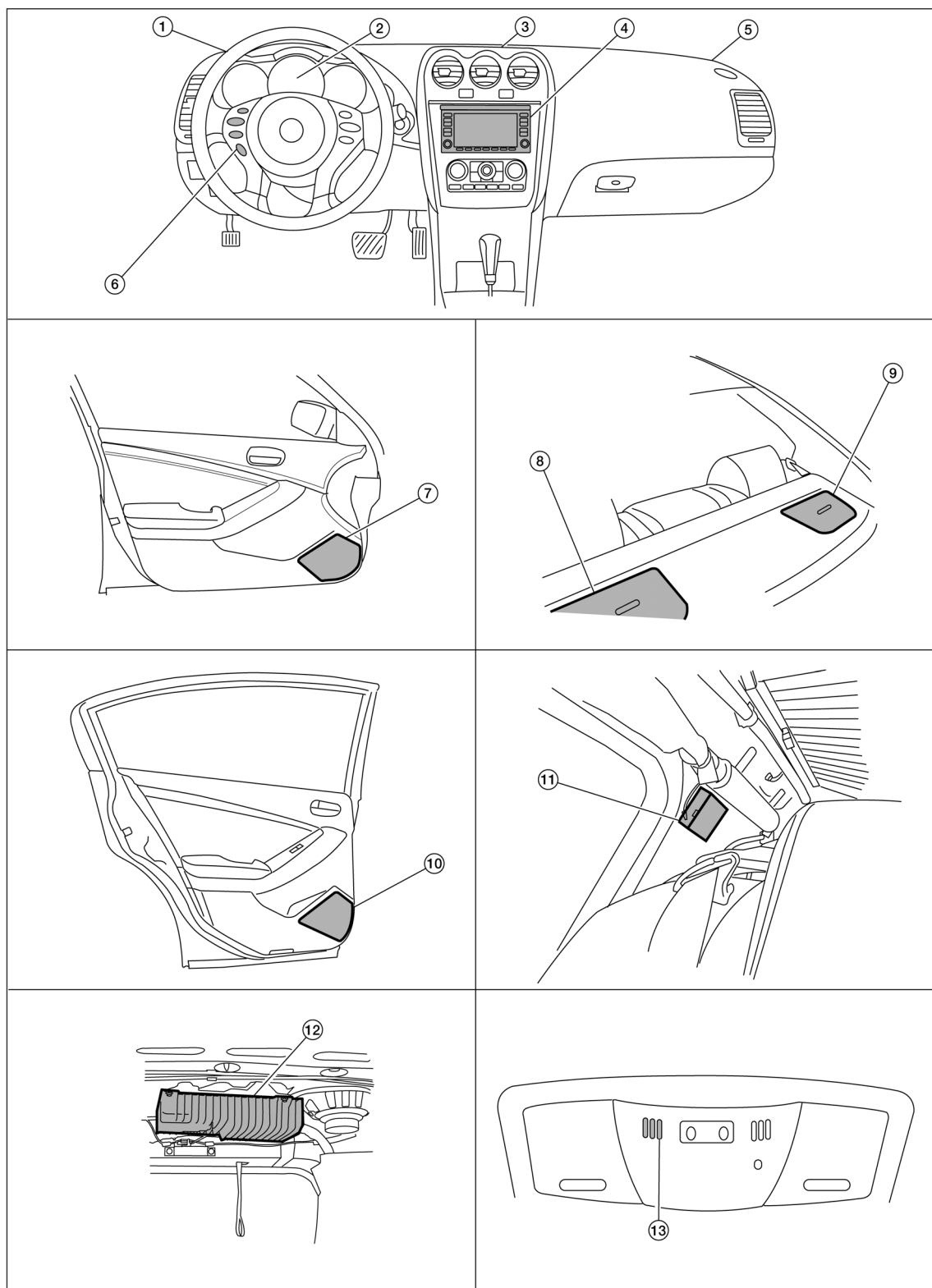
# REAR VIEW MONITOR SYSTEM (SEDAN)

< SYSTEM DESCRIPTION >

[BOSE AUDIO WITH NAVIGATION]

## Component Parts Location

INFOID:000000006390116



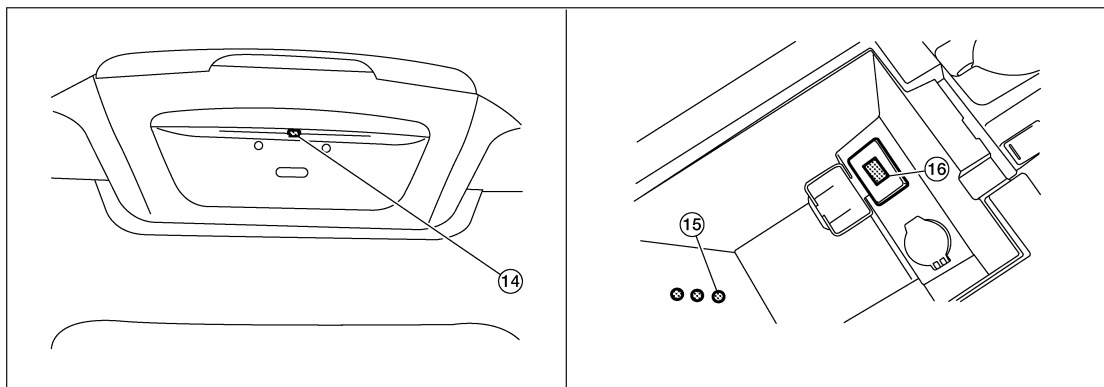
AMN1A2135ZZ

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# REAR VIEW MONITOR SYSTEM (SEDAN)

< SYSTEM DESCRIPTION >

[BOSE AUDIO WITH NAVIGATION]



AWNIA21362Z

- |   |  |  |
|---|--|--|
| 1. Tweeter LH M51   | 2. Combination meter M24   | 3. Center speaker M151                     |
| 4. AV control unit M90, M98, M100, M101, M102, M103, M104 | 5. Tweeter RH M52  | 6. Steering wheel audio control switches   |
| 7. Front door speaker<br>LH D3<br>RH D103                 | 8. Rear subwoofer LH B120  | 9. Rear subwoofer RH B124                  |
| 10. Rear door speaker<br>LH D202<br>RH D302               | 11. Antenna amp M502 (view with rear pillar finisher RH removed) | 12. BOSE speaker amp. B121, B122           |
| 13. Microphone R7   | 14. Rear view camera B35   | 15. AUX jack M212 (view in center console) |
| 16. USB interface M211 (view in center console)           |  |  |

## Component Description

INFOID:000000006390117

Part name	Description
AV control unit	<ul style="list-style-type: none"> <li>Sends camera ON signal to rear view camera</li> <li>Receives image signal from rear view camera</li> </ul>
Rear view camera	<ul style="list-style-type: none"> <li>Receives camera ON signal from AV control unit</li> <li>Sends image signal to the AV control unit</li> </ul>

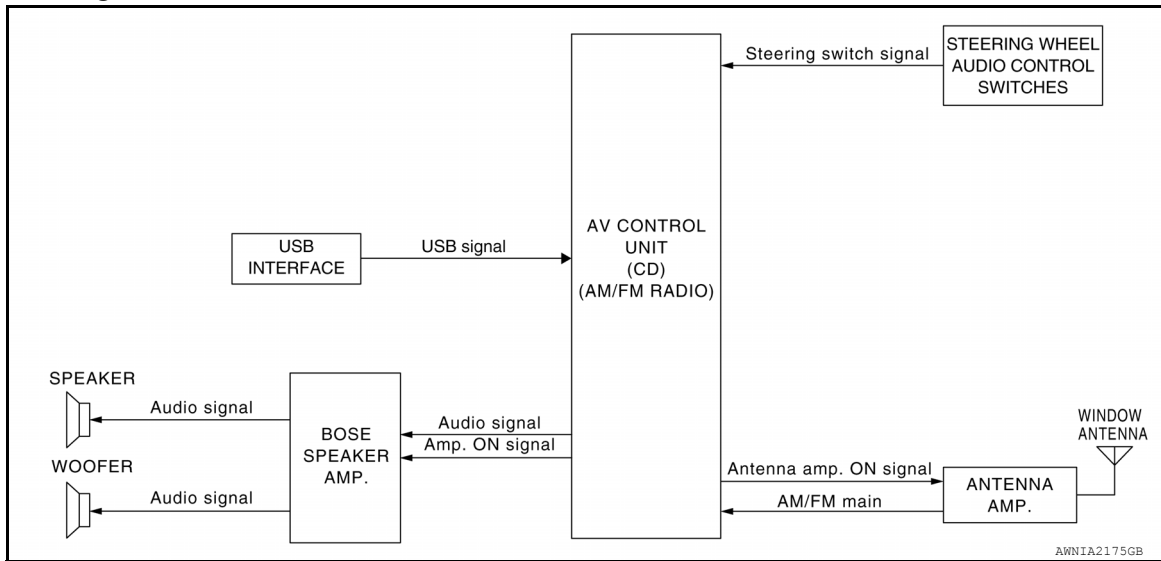
# AUDIO SYSTEM (COUPE)

< SYSTEM DESCRIPTION >

[BOSE AUDIO WITH NAVIGATION]

## AUDIO SYSTEM (COUPE)

### System Diagram



### System Description

INFOID:000000006390119

#### AUDIO SYSTEM

The audio system consists of the following components

- AV control unit
- BOSE speaker amp.
- Window antenna
- Steering wheel audio control switches
- Door speakers
- Front tweeters
- Center speaker
- Rear tweeters
- 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. amplifies the audio signals before sending them to the door speakers, front tweeters, center speaker, rear tweeters and subwoofers.

Refer to Owner's Manual for audio 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

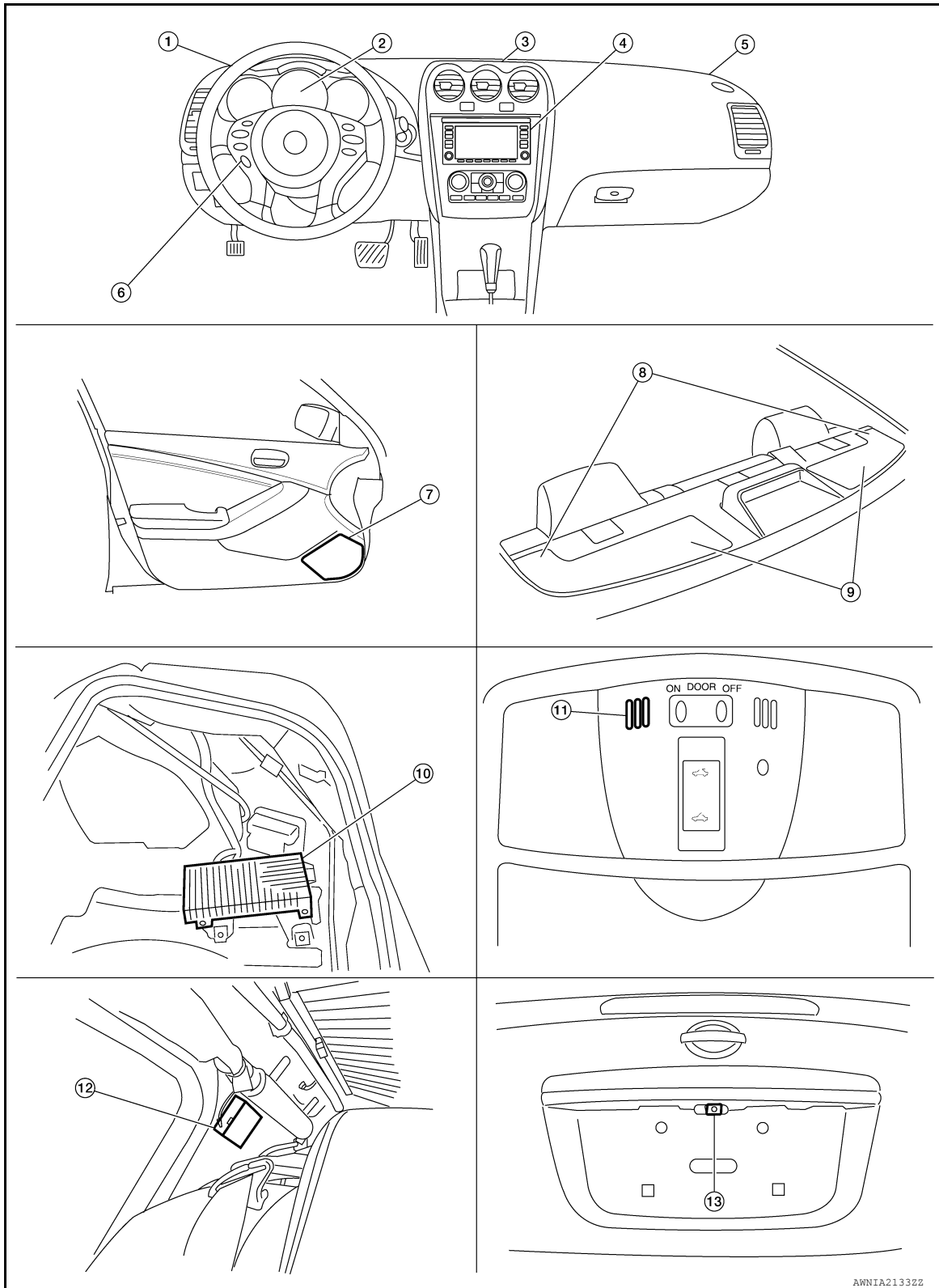
# AUDIO SYSTEM (COUPE)

< SYSTEM DESCRIPTION >

[BOSE AUDIO WITH NAVIGATION]

## Component Parts Location

INFOID:000000006390120

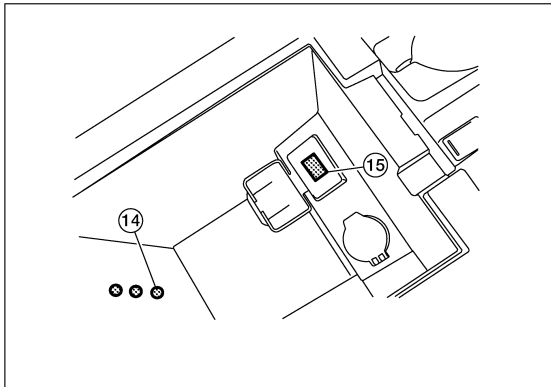


AWNIA21332Z

# AUDIO SYSTEM (COUPE)

< SYSTEM DESCRIPTION >

[BOSE AUDIO WITH NAVIGATION]



AWNIA2134ZZ

- |   |  |   |
|---|--|---|
| 1. Front tweeter LH M51   | 2. Combination meter M24                   | 3. Center speaker M151  |
| 4. AV control unit M90, M98, M100, M101, M102, M103, M104                             | 5. Front tweeter RH M52                    | 6. Steering wheel audio control switches                          |
| 7. Door speaker<br>LH D3<br>RH D103   | 8. Rear tweeter<br>LH B16<br>RH B100       | 9. Rear subwoofer<br>LH B25<br>RH B47                             |
| 10. BOSE speaker amp. B121, B122 (view with trunk carpet and RH floor spacer removed) | 11. Microphone R7                          | 12. Antenna amp. M502 (view with rear pillar finisher RH removed) |
| 13. Rear view camera T7   | 14. Aux Jack M212 (view in center console) | 15. USB interface M211 (view in center console)                   |

## Component Description

INFOID:000000006390121

Part name	Description
AV control unit	<ul style="list-style-type: none"><li>Controls audio system and satellite radio system functions</li><li>Audio information is displayed on display screen</li></ul>
BOSE speaker amp.	Receives power (amp ON) and audio signals from AV control unit, and outputs audio signals to each speaker.
Door speaker	<ul style="list-style-type: none"><li>Outputs audio signal from BOSE speaker amp.</li><li>Outputs high, mid and low range sounds</li></ul>
Front tweeter	<ul style="list-style-type: none"><li>Outputs audio signal from BOSE speaker amp.</li><li>Outputs high range sound</li></ul>
Center speaker	<ul style="list-style-type: none"><li>Outputs audio signal from BOSE speaker amp.</li><li>Outputs high, mid and low range sounds</li></ul>
Rear tweeter	<ul style="list-style-type: none"><li>Outputs audio signal from BOSE speaker amp.</li><li>Outputs high range sounds</li></ul>
Subwoofer	<ul style="list-style-type: none"><li>Outputs audio signal from BOSE speaker amp.</li><li>Outputs low range sound</li></ul>
Steering wheel audio control switches	<ul style="list-style-type: none"><li>Each audio operation can be operated</li><li>Steering switch signal (operation signal) is output to AV control unit</li></ul>

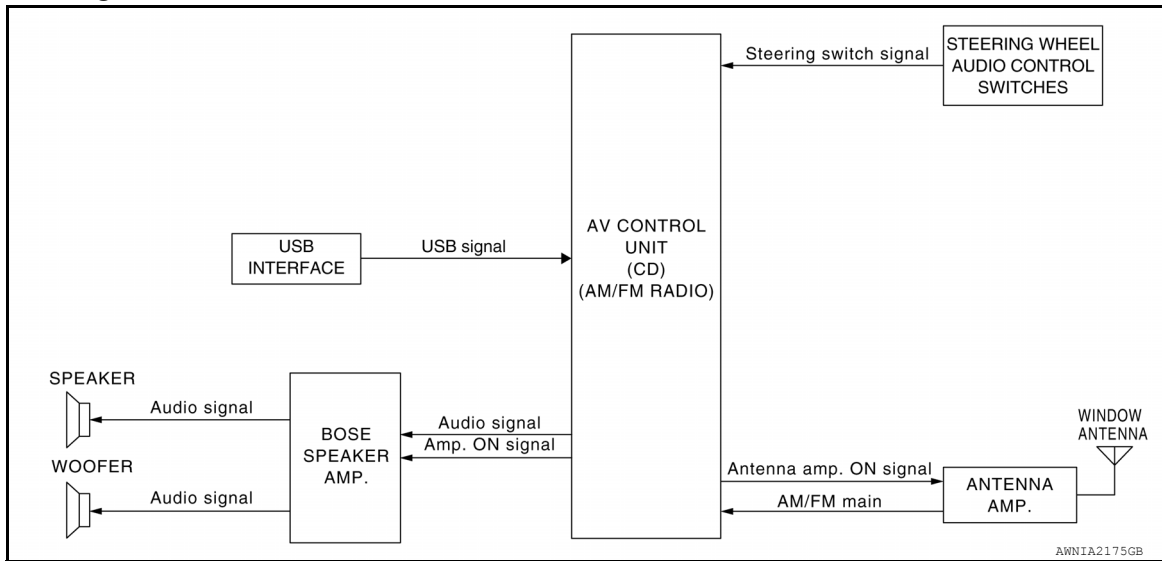
# AUDIO SYSTEM (SEDAN)

< SYSTEM DESCRIPTION >

[BOSE AUDIO WITH NAVIGATION]

## AUDIO SYSTEM (SEDAN)

### System Diagram



### System Description

INFOID:000000006390123

#### AUDIO SYSTEM

The audio system consists of the following components

- AV control unit
- BOSE speaker amp.
- Window antenna
- Antenna amp.
- Steering wheel audio control switches
- Front door speakers
- Tweeters
- Center speaker
- Rear door speakers
- Subwoofers

When the audio system is on, radio signals are received by the window antenna. These signals are amplified by the antenna amp. before reaching the audio unit. The audio 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 subwoofers.

Refer to Owner's Manual for audio 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.



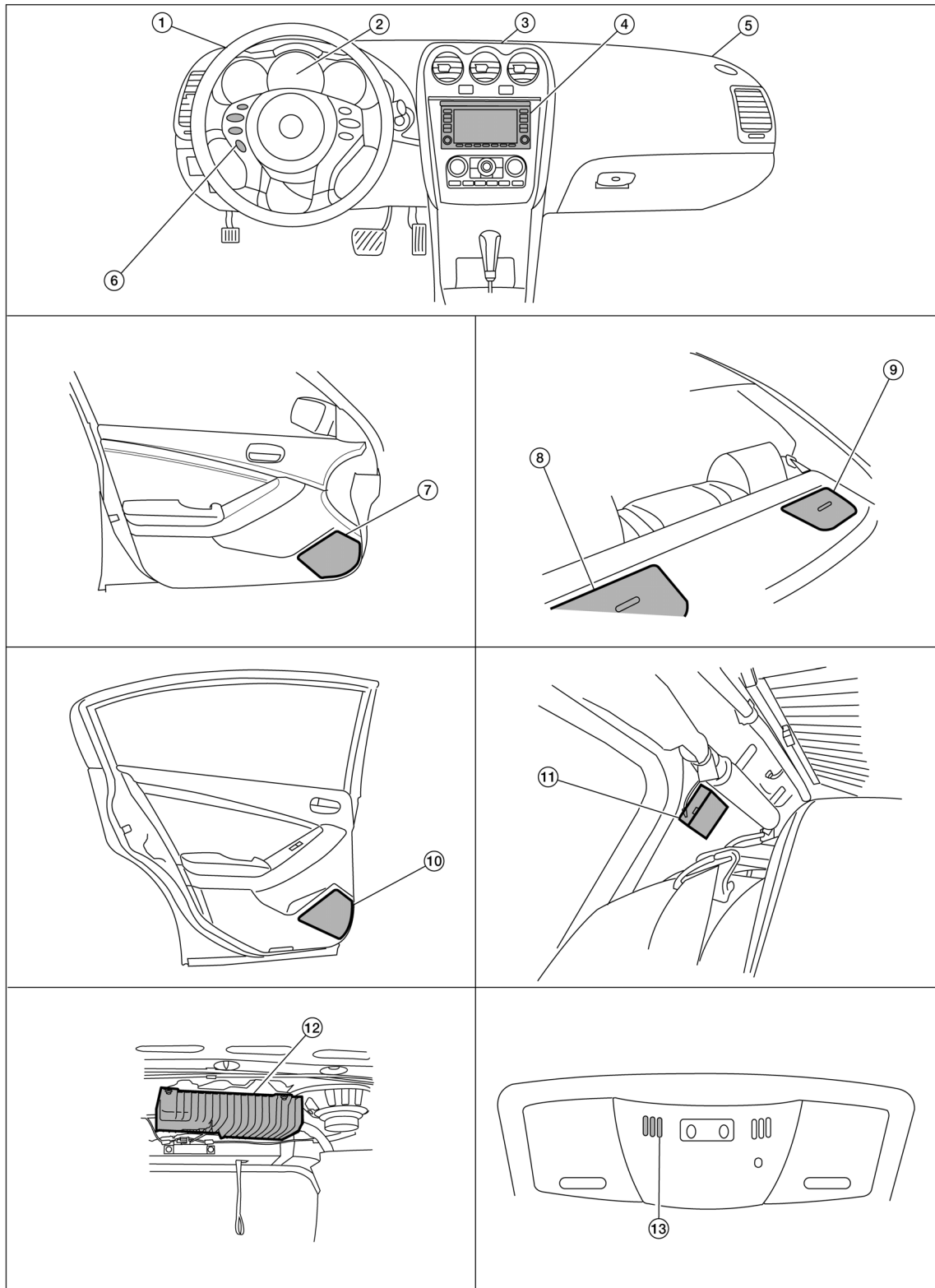
# AUDIO SYSTEM (SEDAN)

< SYSTEM DESCRIPTION >

[BOSE AUDIO WITH NAVIGATION]

## Component Parts Location

INFOID:000000006390124



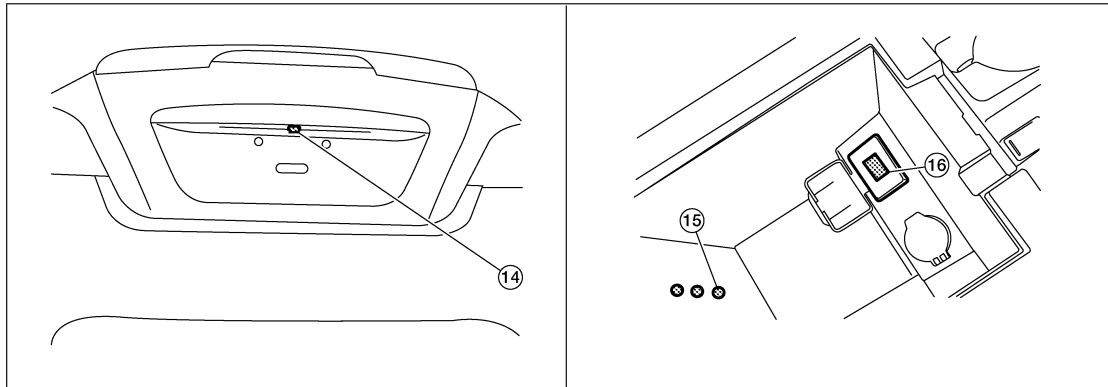
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# AUDIO SYSTEM (SEDAN)

< SYSTEM DESCRIPTION >

[BOSE AUDIO WITH NAVIGATION]



AWNIA21362Z

- |   |  |  |
|---|--|--|
| 1. Tweeter LH M51   | 2. Combination meter M24   | 3. Center speaker M151                     |
| 4. AV control unit M90, M98, M100, M101, M102, M103, M104 | 5. Tweeter RH M52  | 6. Steering wheel audio control switches   |
| 7. Front door speaker<br>LH D3<br>RH D103                 | 8. Rear subwoofer LH B120  | 9. Rear subwoofer RH B124                  |
| 10. Rear door speaker<br>LH D202<br>RH D302               | 11. Antenna amp M502 (view with rear pillar finisher RH removed) | 12. BOSE speaker amp. B121, B122           |
| 13. Microphone R7   | 14. Rear view camera B35   | 15. AUX jack M212 (view in center console) |
| 16. USB interface M211 (view in center console)           |  |  |

## Component Description

INFOID:0000000006390125

Part name	Description
AV control unit	<ul style="list-style-type: none"> <li>Controls audio system and satellite radio system functions</li> <li>Audio information is displayed on display screen</li> </ul>
BOSE speaker amp.	Receives power (amp ON) and audio signals from AV control unit, and outputs audio signals to each speaker.
Front door speaker	<ul style="list-style-type: none"> <li>Outputs audio signal from BOSE speaker amp.</li> <li>Outputs high, mid and low range sounds</li> </ul>
Tweeter	<ul style="list-style-type: none"> <li>Outputs audio signal from BOSE speaker amp.</li> <li>Outputs high range sound</li> </ul>
Center speaker	<ul style="list-style-type: none"> <li>Outputs audio signal from BOSE speaker amp.</li> <li>Outputs high, mid and low range sounds</li> </ul>
Rear door speaker	<ul style="list-style-type: none"> <li>Outputs audio signal from BOSE speaker amp.</li> <li>Outputs high, mid and low range sounds</li> </ul>
Subwoofer	<ul style="list-style-type: none"> <li>Outputs audio signal from BOSE speaker amp.</li> <li>Outputs low range sound</li> </ul>
Steering wheel audio control switches	<ul style="list-style-type: none"> <li>Each audio operation can be operated</li> <li>Steering switch signal (operation signal) is output to AV control unit</li> </ul>
Antenna amp.	<ul style="list-style-type: none"> <li>Radio signal received by window antenna is amplified and sent to AV control unit</li> <li>Power (antenna amp ON signal) is supplied from AV control unit</li> </ul>

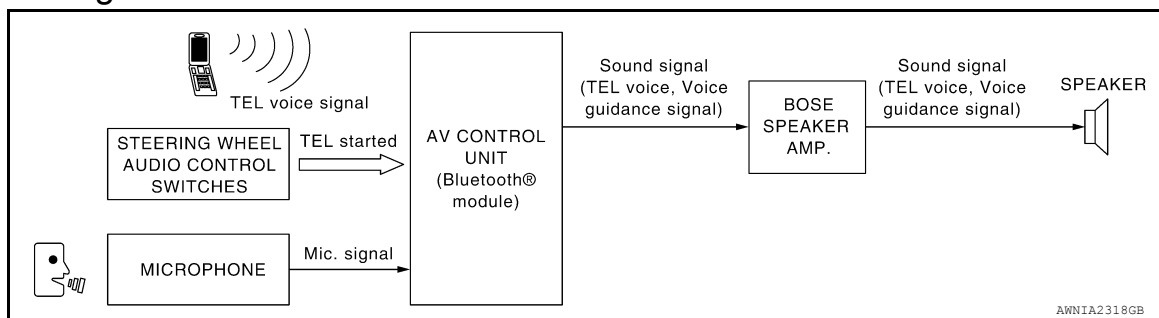
# HANDS FREE PHONE SYSTEM (COUPE)

< SYSTEM DESCRIPTION >

[BOSE AUDIO WITH NAVIGATION]

## HANDS FREE PHONE SYSTEM (COUPE)

### 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 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. 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.

#### AV CONTROL UNIT

When the ignition switch is turned to ACC or ON, the AV control unit will power up. During power up, the AV control unit 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 a switch on the steering wheel audio control switches is pushed, the resistance in steering switch circuit changes depending on which switch 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 switches:

- 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 AV control unit. The microphone can be actively tested during self-diagnosis.

AV

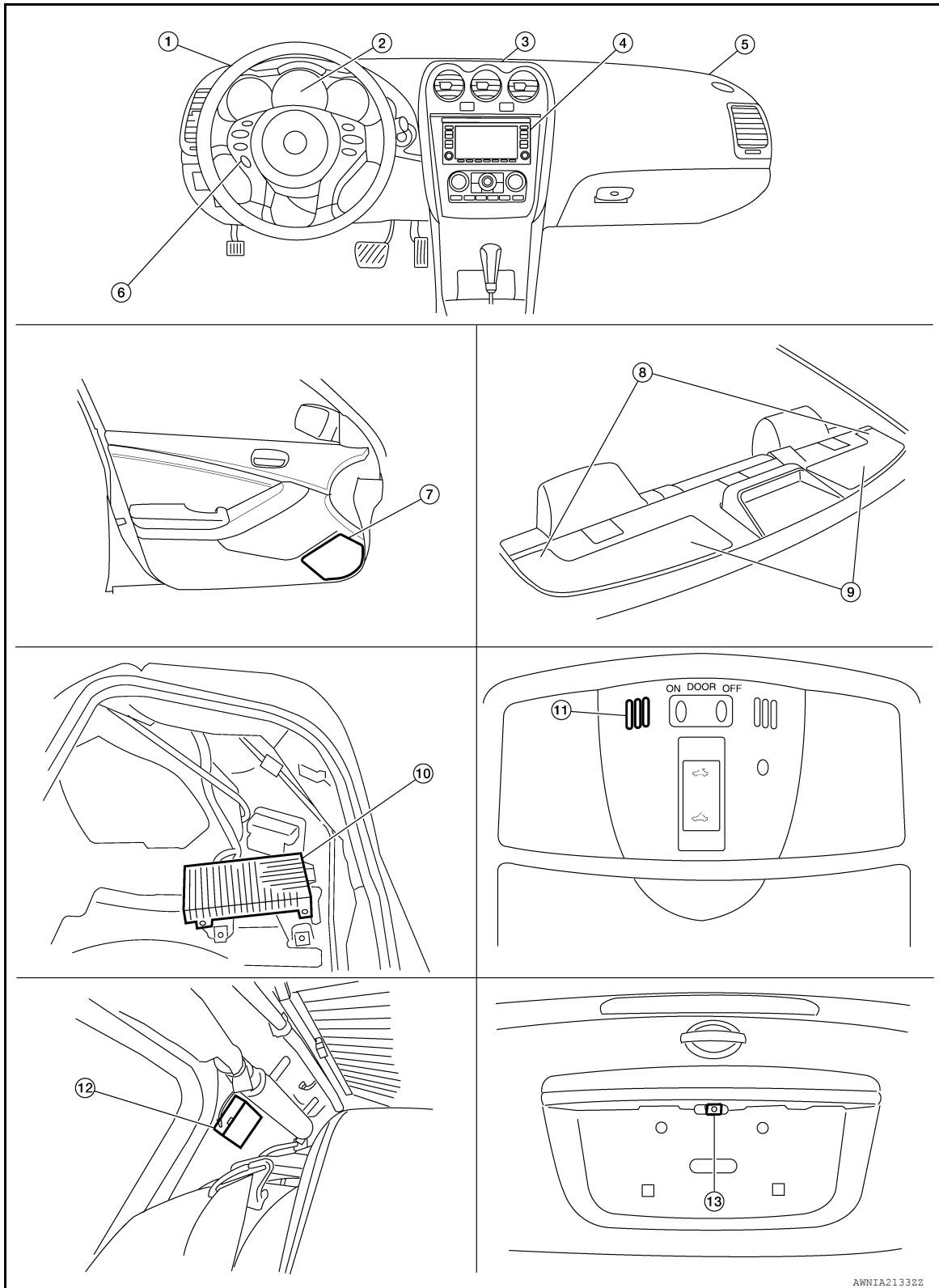
# HANDS FREE PHONE SYSTEM (COUPE)

< SYSTEM DESCRIPTION >

[BOSE AUDIO WITH NAVIGATION]

## Component Parts Location

INFOID:000000006390128

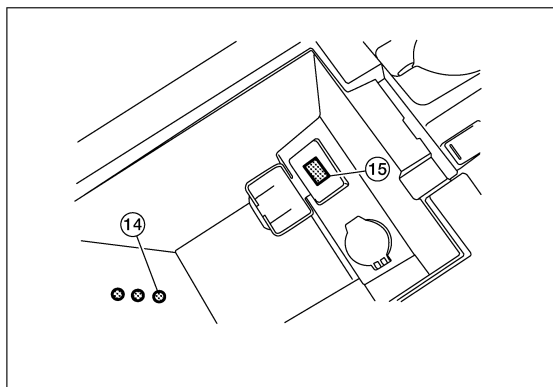


AWNIA21332Z

# HANDS FREE PHONE SYSTEM (COUPE)

< SYSTEM DESCRIPTION >

[BOSE AUDIO WITH NAVIGATION]



AWNIA2134ZZ

- |   |  |   |
|---|--|---|
| 1. Front tweeter LH M51   | 2. Combination meter M24                   | 3. Center speaker M151  |
| 4. AV control unit M90, M98, M100, M101, M102, M103, M104                             | 5. Front tweeter RH M52                    | 6. Steering wheel audio control switches                          |
| 7. Door speaker<br>LH D3<br>RH D103   | 8. Rear tweeter<br>LH B16<br>RH B100       | 9. Rear subwoofer<br>LH B25<br>RH B47                             |
| 10. BOSE speaker amp. B121, B122 (view with trunk carpet and RH floor spacer removed) | 11. Microphone R7                          | 12. Antenna amp. M502 (view with rear pillar finisher RH removed) |
| 13. Rear view camera T7   | 14. Aux Jack M212 (view in center console) | 15. USB interface M211 (view in center console)                   |

## Component Description

INFOID:000000006390129

Part name	Description
AV control unit	<ul style="list-style-type: none"> <li>Controls hands-free phone functions</li> <li>Displays hands-free phone information on display screen</li> </ul>
BOSE speaker amp.	Inputs power (amp ON) and sound signal from AV control unit, and outputs sound signal to each speaker.
Door speaker	Receives telephone voice and voice guidance signals from the BOSE speaker amp.
Front tweeter	
Center speaker	
Steering wheel audio control switches	<ul style="list-style-type: none"> <li>Start a voice recognition session</li> <li>Answer and end telephone calls</li> <li>Adjust the volume level</li> </ul>
Microphone	Sends voice signals to AV control unit

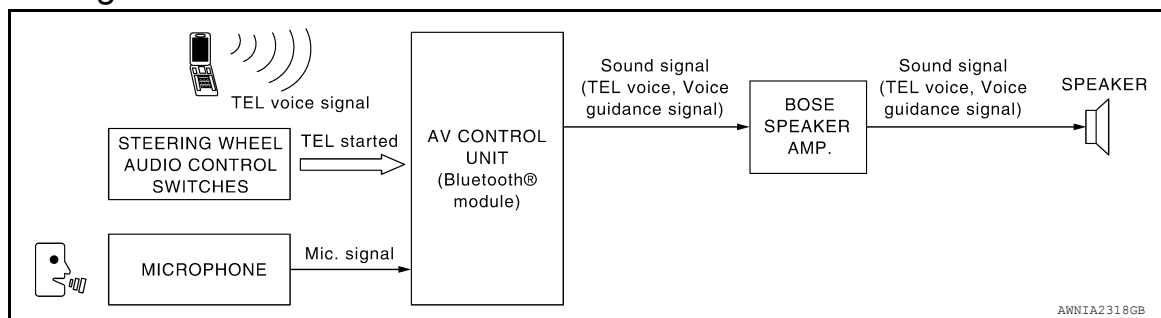
# HANDS FREE PHONE SYSTEM (SEDAN)

< SYSTEM DESCRIPTION >

[BOSE AUDIO WITH NAVIGATION]

## HANDS FREE PHONE SYSTEM (SEDAN)

### System Diagram



### System Description

INFOID:000000006931347

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 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.

#### AV CONTROL UNIT

When the ignition switch is turned to ACC or ON, the AV control unit will power up. During power up, the AV control unit 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 and the Bluetooth ON indicator will remain on. Bluetooth telephone functions can be turned off using the Nissan Voice Recognition system.

#### STEERING WHEEL AUDIO CONTROL SWITCHES

When a switch on the steering wheel audio control switches is pushed, the resistance in steering switch circuit changes depending on which switch 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 switches:

- 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 AV control unit. The microphone can be actively tested during self-diagnosis.

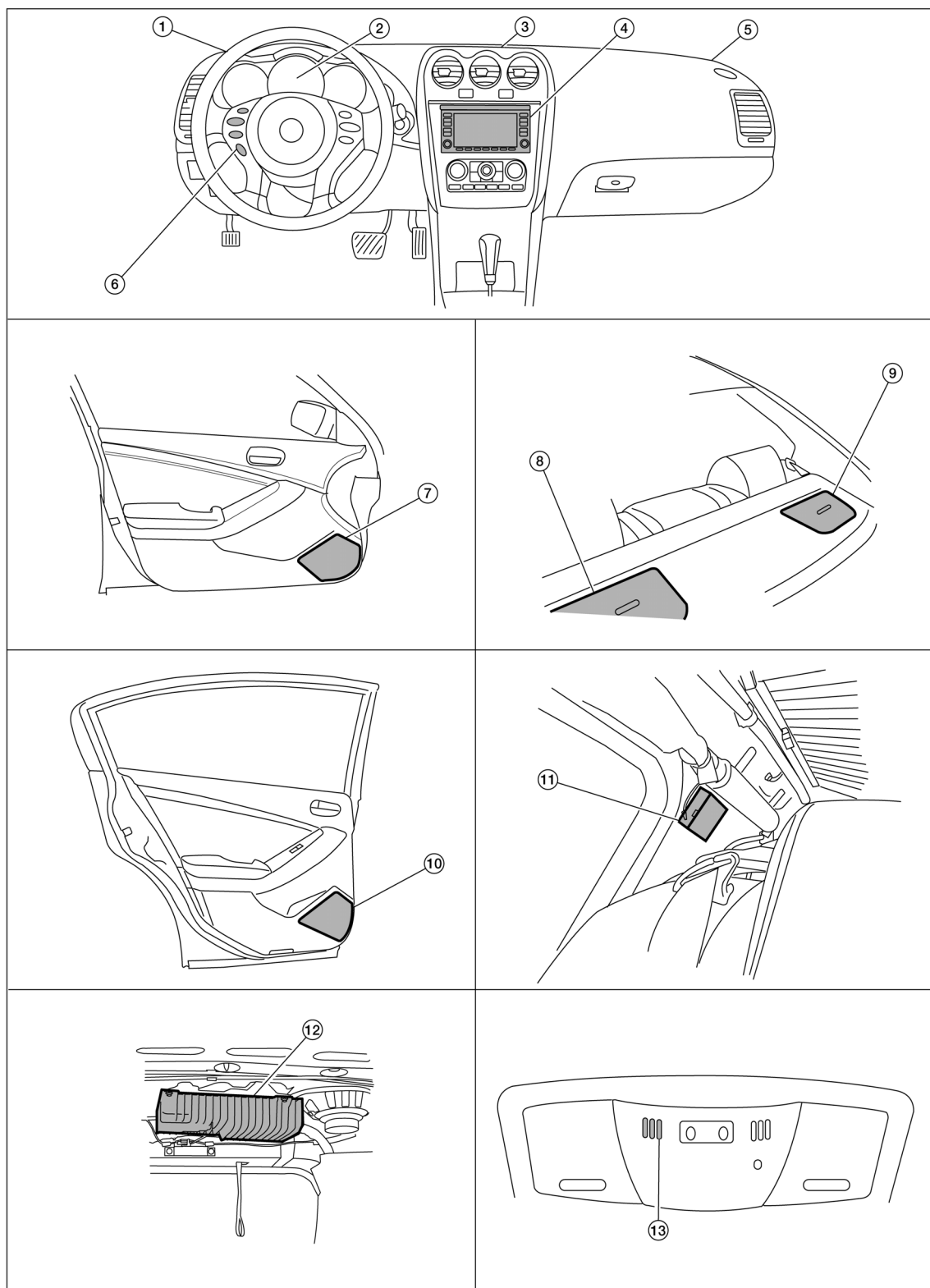
# HANDS FREE PHONE SYSTEM (SEDAN)

< SYSTEM DESCRIPTION >

[BOSE AUDIO WITH NAVIGATION]

## Component Parts Location

INFOID:000000006390132



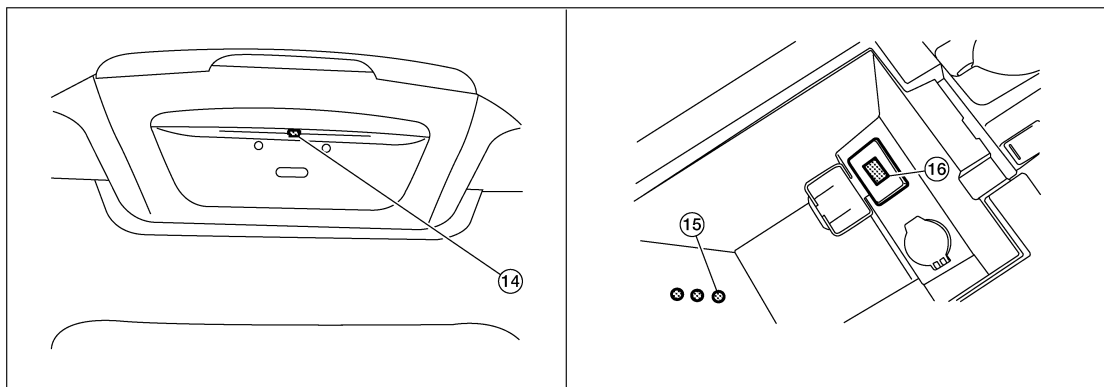
AMN1A21352Z

A  
B  
C  
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O  
P

# HANDS FREE PHONE SYSTEM (SEDAN)

< SYSTEM DESCRIPTION >

[BOSE AUDIO WITH NAVIGATION]



AWNIA21362Z

- |   |  |  |
|---|--|--|
| 1. Tweeter LH M51   | 2. Combination meter M24   | 3. Center speaker M151                     |
| 4. AV control unit M90, M98, M100, M101, M102, M103, M104 | 5. Tweeter RH M52  | 6. Steering wheel audio control switches   |
| 7. Front door speaker<br>LH D3<br>RH D103                 | 8. Rear subwoofer LH B120  | 9. Rear subwoofer RH B124                  |
| 10. Rear door speaker<br>LH D202<br>RH D302               | 11. Antenna amp M502 (view with rear pillar finisher RH removed) | 12. BOSE speaker amp. B121, B122           |
| 13. Microphone R7   | 14. Rear view camera B35   | 15. AUX jack M212 (view in center console) |
| 16. USB interface M211 (view in center console)           |  |  |

## Component Description

INFOID:000000006390133

Part name	Description
AV control unit	<ul style="list-style-type: none"> <li>Controls hands-free phone functions</li> <li>Displays hands-free phone information on display screen</li> </ul>
BOSE speaker amp.	Inputs power (amp ON) and sound signal from AV control unit, and outputs sound signal to each speaker.
Front door speaker	<ul style="list-style-type: none"> <li>Outputs audio signal from BOSE speaker amp.</li> <li>Outputs high, mid and low range sounds</li> </ul>
Tweeter	<ul style="list-style-type: none"> <li>Outputs audio signal from BOSE speaker amp.</li> <li>Outputs high range sound</li> </ul>
Center speaker	<ul style="list-style-type: none"> <li>Outputs audio signal from BOSE speaker amp.</li> <li>Outputs high, mid and low range sounds</li> </ul>
Steering wheel audio control switches	<ul style="list-style-type: none"> <li>Start a voice recognition session</li> <li>Answer and end telephone calls</li> <li>Adjust the volume level</li> </ul>
Microphone	Sends voice signals to AV control unit



# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< SYSTEM DESCRIPTION >

[BOSE AUDIO WITH NAVIGATION]

## DIAGNOSIS SYSTEM (AV CONTROL UNIT)

### Description

INFOID:000000006390134

- The AV control unit diagnosis function starts up performs a diagnosis for each unit in the system during the on board diagnosis.
- Perform a CONSULT diagnosis if the on board diagnosis does not start, e.g., or if the screen does not display anything, etc.

### On Board Diagnosis Function

INFOID:000000006390135

#### 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

Mode		Description
Self Diagnosis		<ul style="list-style-type: none"><li>• AV control unit diagnosis.</li><li>• Diagnoses the connections across system components, between AV control unit and GPS antenna.</li></ul>
Confirmation/ Adjustment	Display Diagnosis	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.
	Vehicle Signals	Diagnosis of signals can be performed for vehicle speed, parking brake, lights, ignition, reverse, side view switch and room lamp.
	Speaker Test	The connection of a speaker can be confirmed by test tone.
	Navigation	Steering Angle Adjustment When there is a difference between the actual turning angle and the vehicle mark turning angle, it can be adjusted.
		Speed Calibration When there is a difference between the current location mark and the actual location, it can be adjusted.
	Error History	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.
	Synchronize FES Clock	—
	Vehicle CAN Diagnosis	The transmitting/receiving of CAN communication can be monitored.
	AV COMM Diagnosis	The communication condition of each unit of Multi AV system can be monitored.
	Hands-free Phone	The received volume adjustment of hands-free phone, microphone speaker check, and erase memory can be performed.
	Camera	The four functions of "Correct Draw Line""Alter/Confirm Configuration", "Reset Configuration" and "Camera Syst Type" are available.
	Delete Unit Connection Log	Erase the connection history of unit and error history.
	Initialize Settings	Initializes the AV control unit memory.
	Version Information	Version information of the AV control unit is displayed.

### STARTING PROCEDURE

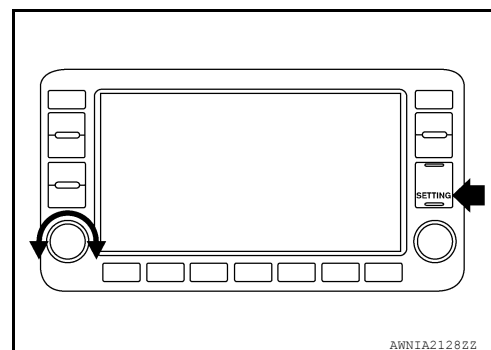
1. Start the engine.
2. Turn the audio system OFF.

# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

[BOSE AUDIO WITH NAVIGATION]

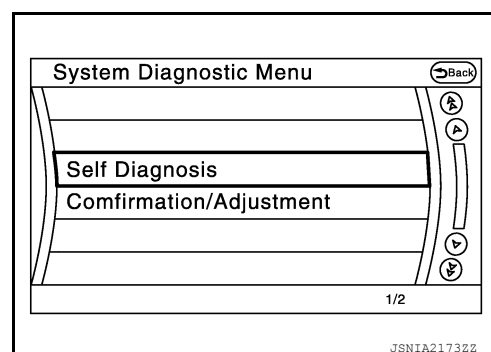
## < SYSTEM DESCRIPTION >

- 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.)



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

## SELF-DIAGNOSIS MODE



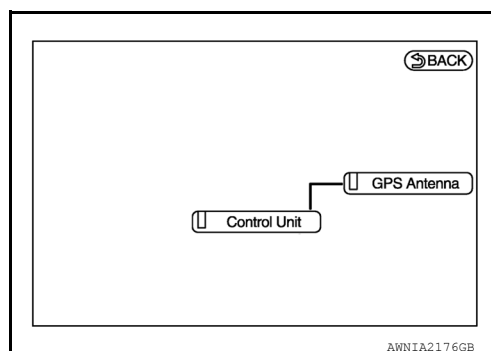
- Start the self-diagnosis function and select “Self Diagnosis”.
  - Self-diagnosis subdivision screen is displayed, and the self-diagnosis mode starts.
  - The bar graph visible on the center of the self-diagnosis subdivision screen indicates progress of the trouble diagnosis.
- Diagnosis results are displayed after the self-diagnosis is completed. The unit names and the connection lines are color-coded according to the diagnostic results.

Diagnosis results	Unit	Connection line
Normal	Green	Green
Connection malfunction	Gray	Yellow
Unit malfunction <sup>Note</sup>	Red	Green

### 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.

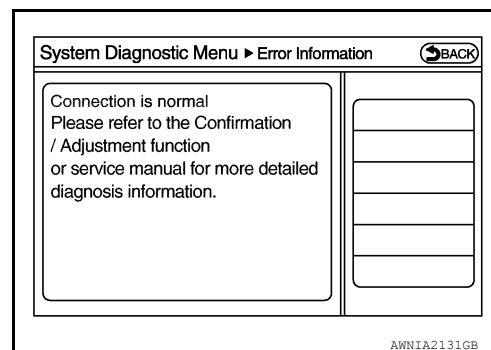


# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

## < SYSTEM DESCRIPTION >

## [BOSE AUDIO WITH NAVIGATION]

- 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.

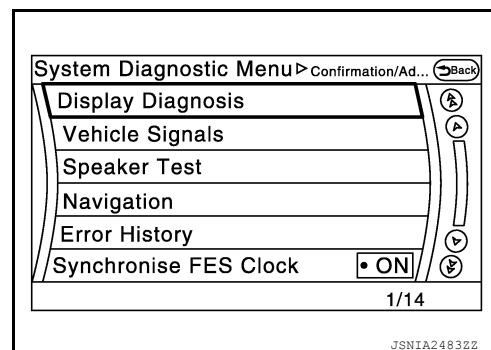
Screen switch	Description	Possible malfunction location / Action to take
Control unit	Malfunction is detected in AV control unit power supply and ground circuits.	Check AV control unit power supply and ground circuits. When detecting no malfunction in those components, replace AV control unit.

A Connecting Cable Between Units Is Displayed In Yellow.

Area with yellow connection lines	Description	Possible malfunction location / Action to take
Control unit ↔ Front Display	Malfunction is detected in serial communication circuits between AV control unit and front display unit.	Serial communication circuits between AV control unit and front display unit.
Control unit ↔ GPS Antenna	GPS antenna connection malfunctions detected.	GPS antenna

### 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.

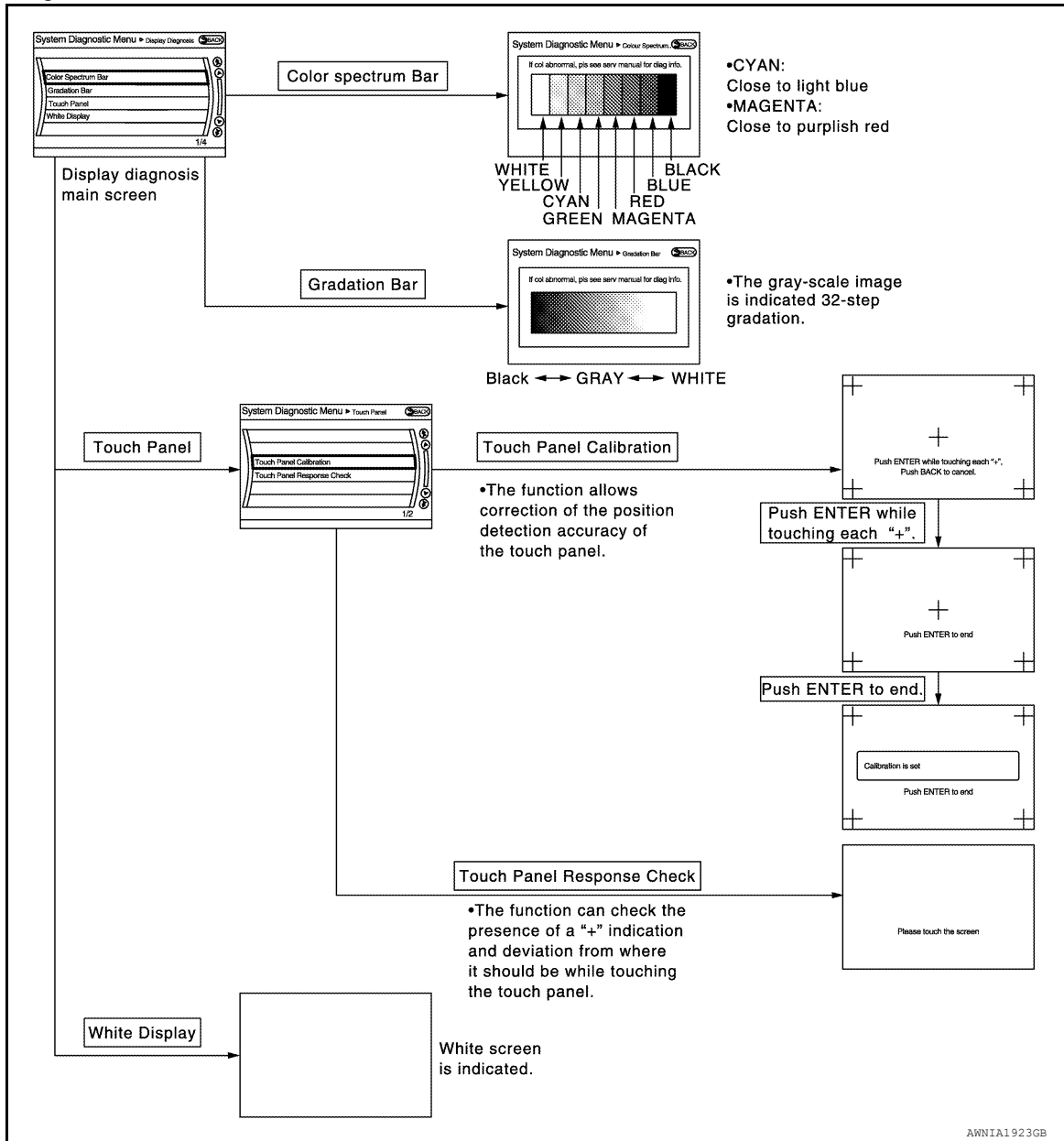


# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< SYSTEM DESCRIPTION >

[BOSE AUDIO WITH NAVIGATION]

## Display Diagnosis



## Vehicle Signals

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

System Diagnostic Menu ▶ Vehicle Signals	
Vehicle speed	OFF
Parking brake	ON
Lights	OFF
Ignition	ON
Reverse	OFF
Side view Switch	-
Room Lamp	OFF

JSNIA21772Z

# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

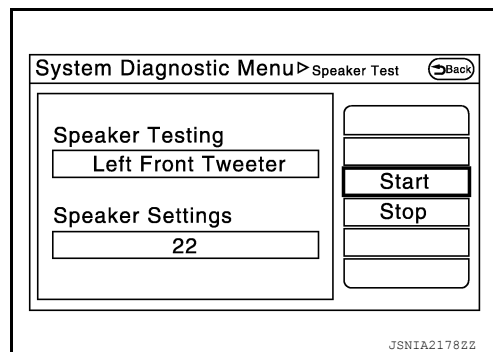
< SYSTEM DESCRIPTION >

[BOSE AUDIO WITH NAVIGATION]

Diagnosis item	Display	Vehicle status	Remarks
Vehicle speed	ON	Vehicle speed > 0 km/h (0 MPH)	Changes in indication may be delayed. This is normal.
	OFF	Vehicle speed = 0 km/h (0 MPH)	
Parking brake	ON	Parking brake is applied.	
	OFF	Parking brake is released.	
Lights	ON	Light switch ON	—
	OFF	Light switch OFF	
Ignition	ON	Ignition switch ON	—
	OFF	Ignition switch in ACC position	
Reverse	ON	Shift the selector lever to "R" position	Changes in indication may be delayed. This is normal.
	OFF	Shift the selector lever other than "R" position	
Side view Switch	—	—	This item is displayed, but cannot be monitored.
Room Lamp	OFF	—	This item is displayed, but not used.

## Speaker Test

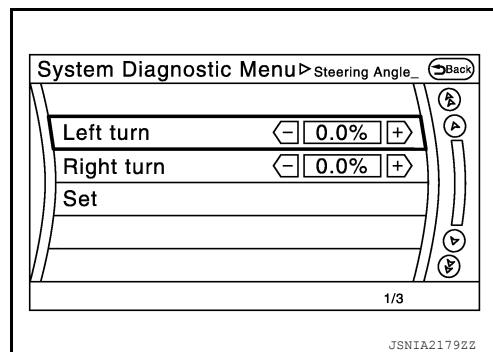
Select "SPEAKER DIAGNOSIS" to display the Speaker Diagnosis screen. Press "Start" to generate a test tone in a speaker. Press "Start" to generate a test tone in the next speaker. Press "Stop" to stop the test tones.



## Navigation

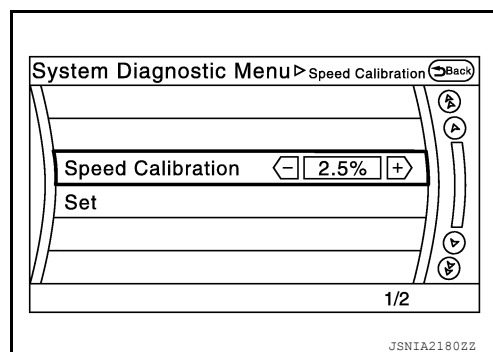
### STEERING ANGLE ADJUSTMENT

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.



# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

[BOSE AUDIO WITH NAVIGATION]

## < SYSTEM DESCRIPTION >

### 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.

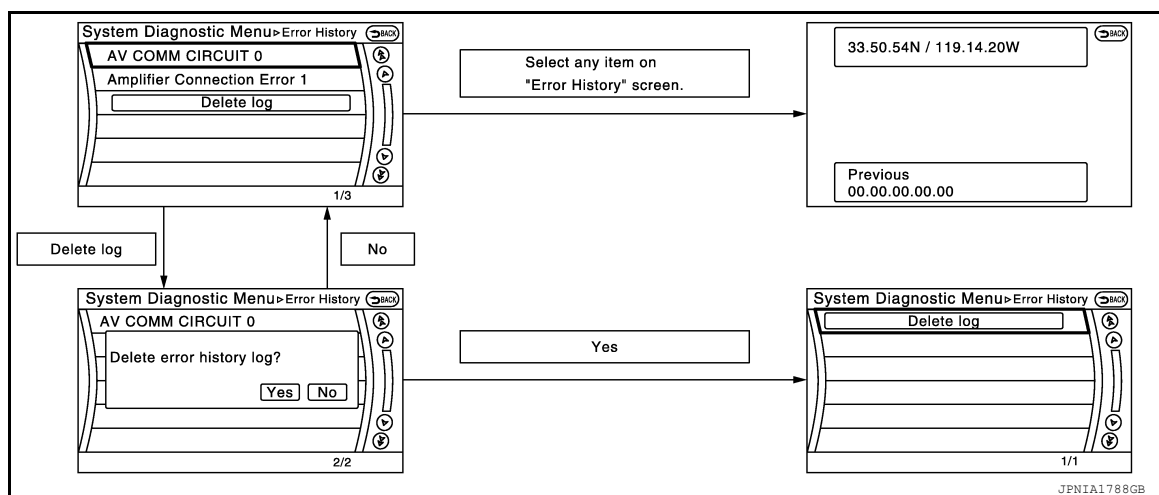
### Count up method A

- 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.

### 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.

Display type of occurrence frequency	Error history display item
Count up method A	CAN communication line, control unit (CAN), AV communication line, control unit (AV)
Count up method B	Other than the above



### 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

Error item	Description	Possible malfunction factor/Action to take
CAN COMM CIRCUIT	CAN communication malfunction is detected.	Perform diagnosis with CONSULT, and then repair the malfunctioning parts according to the diagnosis results. Refer to <a href="#">AV-270, "CONSULT Function (MULTI AV)"</a> .

# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

## < SYSTEM DESCRIPTION >

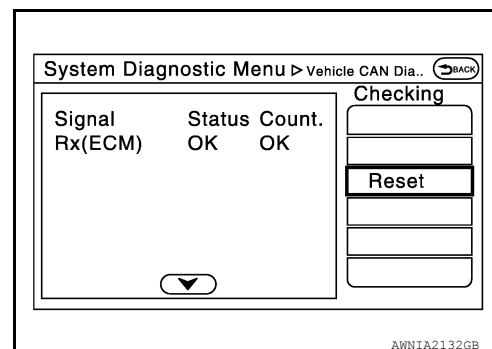
## [BOSE AUDIO WITH NAVIGATION]

Error item	Description	Possible malfunction factor/Action to take
CONTROL UNIT (CAN)	CAN initial diagnosis malfunction is detected.	Replace the AV control unit if the malfunction occurs constantly.
CONTROL UNIT (AV)	AV communication circuit initial diagnosis malfunction is detected.	
FLASH-ROM Error Of Control Unit	AV control unit malfunction is detected.	
Connection Of Gyro		
Connection of G Sensor		
CAN Controller Memory Error		
Bluetooth Module Connection Error		
Sub CPU Connection Error		
iPod authentication chip error		
Audio connection error		
DSP Connection Error	AV control unit malfunction is detected.	<ul style="list-style-type: none"><li>• If a disc can be played, then there is a possibility of the detection of a temporary malfunction.</li><li>• Replace the AV control unit if the malfunction occurs constantly.</li></ul>
DSP Communication Error		
HDD Connection Error	AV control unit malfunction is detected.	<ul style="list-style-type: none"><li>• If the music box function has no malfunctions, then there is a possibility of the detection of a temporary malfunction.</li><li>• Replace the AV control unit if the malfunction occurs constantly.</li></ul>
HDD Read Error		
HDD Write Error		
HDD Communication Error		
HDD Access Error		
GPS Communication Error	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 Error		
GPS RAM Error		
GPS RTC Error		
Unfinished configuration	The writing of configuration data is incomplete.	Write configuration data with CONSULT.
USB Controller Communication Error	USB connection malfunction is detected.	Check that the connection to the USB connector is normal.
DVD Mechanism Communication Error	AV control unit malfunction is detected.	<ul style="list-style-type: none"><li>• If DVD can be played, then there is a possibility of the detection of a temporary malfunction.</li><li>• Replace the AV control unit if the malfunction occurs constantly.</li></ul>
USB electric current Error	Detection of over current in USB interface.	Check USB harness between the AV control unit and USB interface.
GPS Antenna Error	GPS antenna connection malfunction is detected.	Check the connection of the GPS antenna connector.

### 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.

Items	Display (Current)	Malfunction counter (Past)
Rx(ECM)	OK / ???	OK / 0 – 39



# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< SYSTEM DESCRIPTION >

[BOSE AUDIO WITH NAVIGATION]

## NOTE:

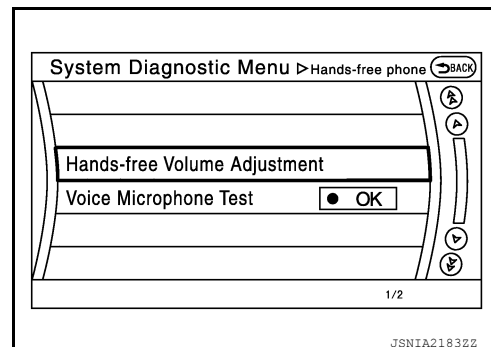
“???” indicates UNKWN

## 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.

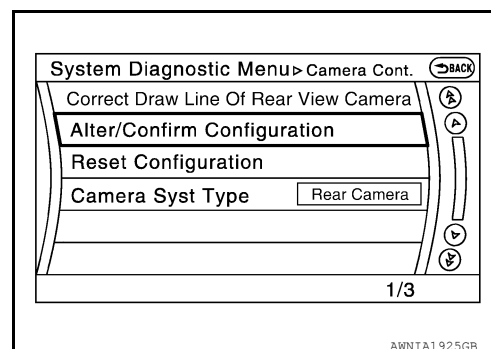
## Hands-Free Phone

The hands-free phone reception volume adjustment and microphone and speaker test functions are also available.



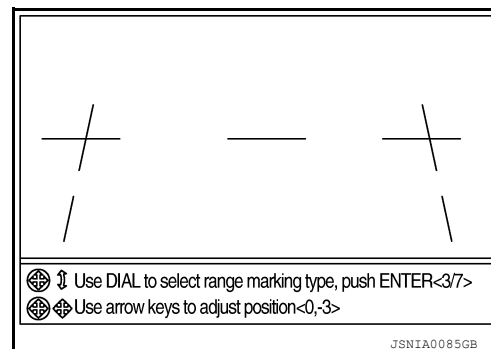
## Camera

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.

### Configuration list

Setting item	Setting	Setting item	Setting
Predi. Course Lines	Without	Wheelbase	0.0000000
Rear Coeff. K	0.0000000	Total Length	0.0000000
Rear Coeff. F	0.0000000	Steering Gear Ratio	0.0000000
Rear Coeff. P1	0.0000000	Side Coeff. K	0.0000000



# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

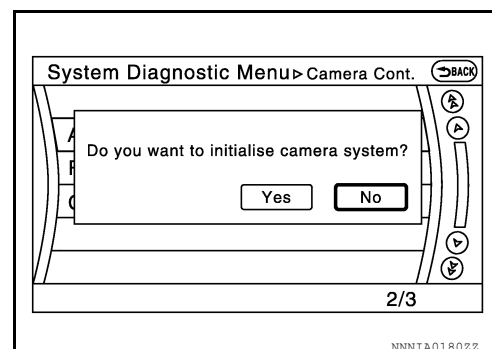
## < SYSTEM DESCRIPTION >

## [BOSE AUDIO WITH NAVIGATION]

Setting item	Setting	Setting item	Setting
Rear Coeff. P2	0.0000000	Side Coeff. F	0.0000000
Rear Coeff. C1	0.0000000	Side Coeff. P1	0.0000000
Rear Coeff. C2	0.0000000	Side Coeff. P2	0.0000000
Rear Coeff. D1	0.0000000	Side Coeff. C1	0.0000000
Rear Coeff. D2	0.0000000	Side Coeff. C2	0.0000000
Car Width	0.0000000	Side Coeff. D1	0.0000000
Rear Offset	0.0000000	Side Coeff. D2	0.0000000
Rear Height	0.0000000	Side Offset	0.0000000
Rear L/R Angle	0.0000000	Overall Height	0.0000000
Rear Up/Dn Angle	0.0000000	Side L/R Angle	0.0000000
Rear Roll Angle	0.0000000	Side Up/Dn Angle	0.0000000
Bumper Rear Dist.	0.0000000	Side Roll Angle	0.0000000
Bumper Rear Ax Dist	0.0000000	Side Front End Dist	0.0000000
Steer. Max Angle	0.0000000	Total Width	0.0000000
Min. Turning Red.	0.0000000	—	—

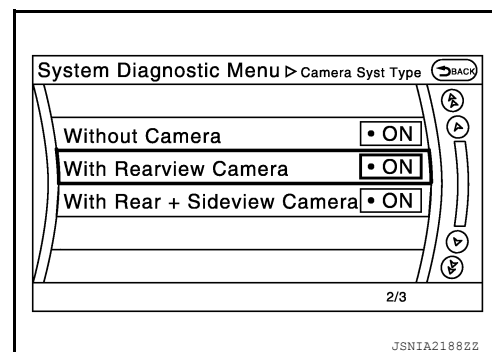
### Reset Configuration

- Configuration stored in the AV control unit can be initialized.



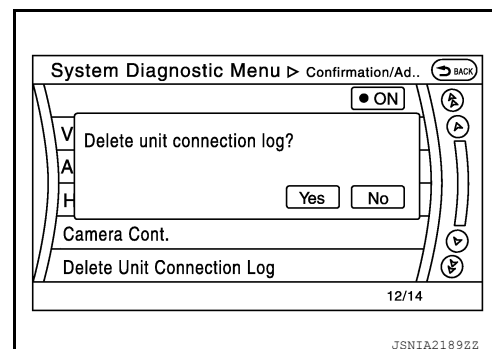
### Camera Syst Type

- Type of camera system is selectable.



### 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.)



# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

## < SYSTEM DESCRIPTION >

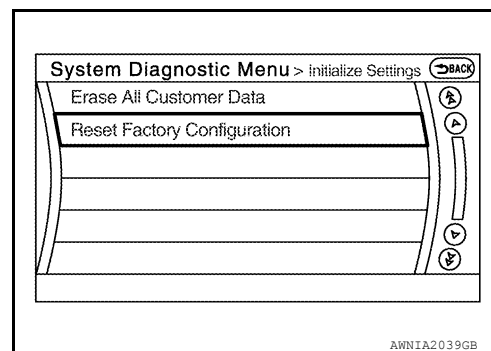
[BOSE AUDIO WITH NAVIGATION]

### Initialize Settings

“Erase All Customer Data” and “Reset Factory Configuration” are possible.

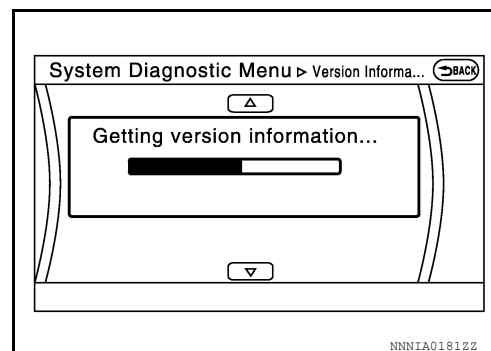
#### CAUTION:

- **Never perform Reset Factory Configuration except when configuration is unsuccessful.**
- **Factory Configuration Initialize requires configuration. For details, refer to [AV-261. "Description"](#).**



### Version Information

Version information of the AV control unit is displayed.



## CONSULT Function (MULTI AV)

INFOID:000000006390136

### APPLICATION ITEMS

CONSULT performs the following functions via the communication with the AV control unit.

Diagnosis mode	Description
Ecu Identification	The part number of AV control unit can be checked.
Self Diagnostic Result	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.
Data Monitor	The diagnosis of vehicle signal that is input to the AV control unit can be performed.
Configuration	<ul style="list-style-type: none"> <li>• Read and save the vehicle specification.</li> <li>• Write the vehicle specification when replacing AV control unit.</li> </ul>

### AV Communication

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

AV communication	AV&NAVI C/U	Displays the communication status from AV control unit to each unit as well as the error counter.
	AUDIO	Displays the AV control unit communication status and the error counter.

### ECU IDENTIFICATION

The part number of AV control unit is displayed.

### SELF DIAGNOSIS RESULT

- In CONSULT 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

# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< SYSTEM DESCRIPTION >

[BOSE AUDIO WITH NAVIGATION]

Error item	Description	Possible malfunction factor/Action to take
CAN COMM CIRCUIT [U1000]	CAN communication malfunction is detected.	Perform diagnosis with CONSULT, and then repair the malfunctioning parts according to the diagnosis results. Refer to <a href="#">AV-273, "Diagnosis Procedure"</a>
CONTROL UNIT (CAN) [U1010]	CAN initial diagnosis malfunction is detected.	Replace the AV control unit if the malfunction occurs constantly.
CONTROL UNIT (AV) [U1310]	AV communication circuit initial diagnosis malfunction is detected.	
Cont Unit [U1200]	AV control unit malfunction is detected.	
GYRO NO CONN [U1201]		
G-SENSOR NO CONN [U1202]		
CAN CONT [U1216]		
BLUETOOTH MODULE [U1217]		
SUB CPU CONN [U1228]		
iPod CERTIFICATION [U1229]		
Built-in AUDIO CONN [U122E]		
HDD CONN [U1218]	AV control unit malfunction is detected.	<ul style="list-style-type: none"><li>• If the music box function has no malfunctions, then there is a possibility of the detection of a temporary malfunction.</li><li>• Replace the AV control unit if the malfunction occurs constantly.</li></ul>
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 CONN [U121D]	AV control unit malfunction is detected.	<ul style="list-style-type: none"><li>• If a disc can be played, then there is a possibility of the detection of a temporary malfunction.</li><li>• Replace the AV control unit if the malfunction occurs constantly.</li></ul>
DSP COMM [U121E]		
DVD COMM [U1227]	AV control unit malfunction is detected.	<ul style="list-style-type: none"><li>• If DVD can be played, then there is a possibility of the detection of a temporary malfunction.</li><li>• Replace the AV control unit if the malfunction occurs constantly.</li></ul>
CONFIG UNFINISH [U122A]	The writing of configuration data is incomplete.	Write configuration data with CONSULT.
GPS ANTENNA CONN [U1244]	GPS antenna connection malfunction is detected.	Check the connection of the GPS antenna connector.
USB OVERCURRENT [U1263]	Detection of over current in USB connector.	Check USB harness between the AV control unit and USB connector.

## 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.

# DIAGNOSIS SYSTEM (AV CONTROL UNIT)

## < SYSTEM DESCRIPTION >

[BOSE AUDIO WITH NAVIGATION]

Display Item	Display	Vehicle status	Remarks
VHCL SPD SIG	On	Vehicle speed >0 km/h (0 MPH)	Changes in indication may be delayed. This is normal.
	Off	Vehicle speed =0 km/h (0 MPH)	
PKB SIG	On	Parking brake is applied.	
	Off	Parking brake is released.	
ILLUM SIG	On	Block the light beam from the auto light optical sensor when the light SW is ON.	—
	Off	Expose the auto light optical sensor to light when the light SW is OFF or ON.	
IGN SIG	On	Ignition switch ON	
	Off	Ignition switch in ACC position	
REV SIG	On	Selector lever in R position	Changes in indication may be delayed. This is normal.
	Off	Selector lever in any position other than R	
SIDE VIEW SW	Off	This item is displayed, but cannot be monitored.	—
ROOM LAMP	Off	This item is displayed, but not used.	—

### 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	Description
VHCL SPD SIG	The same as when "ALL SIGNALS" is selected.
PKB SIG	
ILLUM SIG	
IGN SIG	
REV SIG	
SIDE VIEW SW	
ROOM LAMP	

### CONFIGURATION

Configuration has three functions as follows.

Function	Description
READ CONFIGURATION	<ul style="list-style-type: none"> <li>• Reads the vehicle configuration of current AV control unit.</li> <li>• Saves the read vehicle configuration.</li> </ul>
WRITE CONFIGURATION-Manual selection	Writes the vehicle configuration with manual selection.
WRITE CONFIGURATION-Config file	Writes the vehicle configuration with saved data.

# U1000 CAN COMM CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

## DTC/CIRCUIT DIAGNOSIS

### U1000 CAN COMM CIRCUIT

#### Description

INFOID:0000000006390137

Refer to [AV-224, "System Description"](#).

#### DTC Logic

INFOID:0000000006390138

#### DTC DETECTION LOGIC

DTC	CONSULT display	Detection condition
U1000	CAN COMM CIRCUIT [U1000]	When AV control unit is not transmitting or receiving CAN communication signals for 2 seconds or more.

#### Diagnosis Procedure

INFOID:0000000006390139

Symptom: Displays "CAN COMM CIRCUIT [U1000]" as a self-diagnosis result of AV control unit.

#### 1.CHECK CAN COMMUNICATION

Select "SELF-DIAG RESULTS" mode for "MULTI AV" with CONSULT.

>> Go to "LAN system". Refer to [LAN-15, "Trouble Diagnosis Flow Chart"](#).

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AV

## U1010 CONTROL UNIT (CAN)

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

### U1010 CONTROL UNIT (CAN)

#### Description

INFOID:000000006390140

Refer to [AV-224, "System Description"](#).

#### DTC Logic

INFOID:000000006390141

#### DTC DETECTION LOGIC

DTC	CONSULT display	Detection condition
U1010	CONTROL UNIT (CAN) [U1010]	When a malfunction is detected during initial diagnosis for CAN controller of each control unit.

#### Diagnosis Procedure

INFOID:000000006390142

Symptom: Displays "CONTROL UNIT (CAN) [U1010]" as a self-diagnosis result of AV control unit.

#### 1. CHECK CAN COMMUNICATION

Select "SELF-DIAG RESULTS" mode for "MULTI AV" with CONSULT.

>> Go to "LAN system". Refer to [LAN-15, "Trouble Diagnosis Flow Chart"](#).

U1200 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

U1200 AV CONTROL UNIT

Description

INFOID:000000006390143

Refer to [AV-224, "System Description"](#).

DTC Logic

INFOID:000000006390144

DTC DETECTION LOGIC

DTC	CONSULT display	Detection condition	Action to take
U1200	Cont Unit FLASH-ROM [U1200]	An internal malfunction is detected in AV control unit (FLASH-ROM).	Replace AV control unit. Refer to <a href="#">AV-410, "Removal and Installation"</a> .

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AV

## U1201 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

### U1201 AV CONTROL UNIT

#### Description

INFOID:000000006390145

Refer to [AV-224, "System Description"](#).

#### DTC Logic

INFOID:000000006390146

#### DTC DETECTION LOGIC

DTC	CONSULT display	Detection condition	Action to take
U1201	GYRO NO CONN [U1201]	An internal malfunction is detected in AV control unit (gyrocompass disconnection).	Replace AV control unit. Refer to <a href="#">AV-410, "Removal and Installation"</a> .



## U1202 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

### U1202 AV CONTROL UNIT

#### DTC Logic

INFOID:000000006390147

DTC	Display contents of CONSULT	DTC detection condition	Possible malfunction factor
U1202	G-SENSOR NO CONN [U1202]	AV control unit malfunction is detected.	Replace the AV control unit if the malfunction occurs constantly. Refer to <a href="#">AV-410. "Removal and Installation"</a> .

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## U1204 GPS COMM

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

### U1204 GPS COMM

#### Description

INFOID:000000006390148

Refer to [AV-224, "System Description"](#).

#### DTC Logic

INFOID:000000006390149

#### DTC DETECTION LOGIC

DTC	CONSULT display	Detection condition	Action to take
U1204	GPS COMM [U1204]	An internal malfunction is detected in AV control unit (GPS malfunction).	Replace AV control unit. Refer to <a href="#">AV-410, "Removal and Installation"</a> .

## U1205 GPS ROM

### Description

INFOID:000000006390150

Refer to [AV-224, "System Description"](#).

### DTC Logic

INFOID:000000006390151

### DTC DETECTION LOGIC

DTC	CONSULT display	Detection condition	Action to take
U1205	GPS ROM [U1205]	An internal malfunction is detected in AV control unit (GPS malfunction).	Replace AV control unit. Refer to <a href="#">AV-410, "Removal and Installation"</a> .

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AV

## U1206 GPS RAM

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

### U1206 GPS RAM

#### Description

INFOID:000000006390152

Refer to [AV-224, "System Description"](#).

#### DTC Logic

INFOID:000000006390153

#### DTC DETECTION LOGIC

DTC	CONSULT display	Detection condition	Action to take
U1206	GPS RAM [U1206]	An internal malfunction is detected in AV control unit (GPS malfunction).	Replace AV control unit. Refer to <a href="#">AV-410, "Removal and Installation"</a> .

## U1207 GPS RTC

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

### U1207 GPS RTC

#### Description

INFOID:000000006390154

Refer to [AV-224, "System Description"](#).

#### DTC Logic

INFOID:000000006390155

#### DTC DETECTION LOGIC

DTC	CONSULT display	Detection condition	Action to take
U1207	GPS RTC [U1207]	An internal malfunction is detected in AV control unit (GPS malfunction).	Replace AV control unit. Refer to <a href="#">AV-410, "Removal and Installation"</a> .

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## U1216 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

### U1216 AV CONTROL UNIT

#### Description

INFOID:000000006390156

Refer to [AV-224, "System Description"](#).

#### DTC Logic

INFOID:000000006390157

#### DTC DETECTION LOGIC

DTC	CONSULT display	Detection condition	Action to take
U1216	CAN CONT [U1216]	An internal malfunction is detected in AV control unit (CAN controller).	Replace AV control unit. Refer to <a href="#">AV-410, "Removal and Installation"</a> .

U1217 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

U1217 AV CONTROL UNIT

Description

INFOID:000000006390158

Refer to [AV-224, "System Description"](#).

DTC Logic

INFOID:000000006390159

DTC DETECTION LOGIC

DTC	CONSULT display	Detection condition	Action to take
U1217	BLUETOOTH CONN [U1217]	An internal malfunction is detected in AV control unit.	Replace AV control unit. Refer to <a href="#">AV-410, "Removal and Installation"</a> .

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AV

# U1218 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

## U1218 AV CONTROL UNIT

### DTC Logic

INFOID:000000006390160

DTC	Display contents of CONSULT	DTC detection condition	Possible malfunction factor
U1218	HDD CONN [U1218]	AV control unit malfunction is detected.	<ul style="list-style-type: none"><li>• If the music box function has no malfunctions, then there is a possibility of the detection of a temporary malfunction.</li><li>• Replace the AV control unit if the malfunction occurs constantly. Refer to <a href="#">AV-410, "Removal and Installation"</a>.</li></ul>

### Diagnosis Procedure

INFOID:000000006390161

#### 1.CHECK MUSIC BOX FUNCTION

##### Is music box function normal?

- YES >> Malfunction may be detected intermittently.  
NO >> Replace AV control unit. Refer to [AV-410, "Removal and Installation"](#).



# U1219 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

## U1219 AV CONTROL UNIT

### DTC Logic

INFOID:000000006390162

DTC	Display contents of CONSULT	DTC detection condition	Possible malfunction factor
U1219	HDD READ [U1219]	AV control unit malfunction is detected.	<ul style="list-style-type: none"><li>• If the music box function has no malfunctions, then there is a possibility of the detection of a temporary malfunction.</li><li>• Replace the AV control unit if the malfunction occurs constantly. Refer to <a href="#">AV-410, "Removal and Installation"</a>.</li></ul>

### Diagnosis Procedure

INFOID:000000006390163

#### 1.CHECK MUSIC BOX FUNCTION

##### Is music box function normal?

- YES >> Malfunction may be detected intermittently.  
NO >> Replace AV control unit. Refer to [AV-410, "Removal and Installation"](#).

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AV

## U121A AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

### U121A AV CONTROL UNIT

#### DTC Logic

INFOID:000000006390164

DTC	Display contents of CONSULT	DTC detection condition	Possible malfunction factor
U121A	HDD WRITE [U121A]	AV control unit malfunction is detected.	<ul style="list-style-type: none"><li>• If the music box function has no malfunctions, then there is a possibility of the detection of a temporary malfunction.</li><li>• Replace the AV control unit if the malfunction occurs constantly. Refer to <a href="#">AV-410, "Removal and Installation"</a>.</li></ul>

#### Diagnosis Procedure

INFOID:000000006390165

#### 1. CHECK MUSIC BOX FUNCTION

##### Is music box function normal?

YES >> Malfunction may be detected intermittently.

NO >> Replace AV control unit. Refer to [AV-410, "Removal and Installation"](#).

# U121B AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

## U121B AV CONTROL UNIT

### DTC Logic

INFOID:000000006390166

DTC	Display contents of CONSULT	DTC detection condition	Possible malfunction factor
U121B	HDD COMM [U121B]	AV control unit malfunction is detected.	<ul style="list-style-type: none"><li>• If the music box function has no malfunctions, then there is a possibility of the detection of a temporary malfunction.</li><li>• Replace the AV control unit if the malfunction occurs constantly. Refer to <a href="#">AV-410, "Removal and Installation"</a>.</li></ul>

### Diagnosis Procedure

INFOID:000000006390167

#### 1.CHECK MUSIC BOX FUNCTION

##### Is music box function normal?

- YES >> Malfunction may be detected intermittently.  
NO >> Replace AV control unit. Refer to [AV-410, "Removal and Installation"](#).

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AV

## U121C AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

### U121C AV CONTROL UNIT

#### DTC Logic

INFOID:000000006390168

DTC	Display contents of CONSULT	DTC detection condition	Possible malfunction factor
U121C	HDD ACCESS [U121C]	AV control unit malfunction is detected.	<ul style="list-style-type: none"><li>• If the music box function has no malfunctions, then there is a possibility of the detection of a temporary malfunction.</li><li>• Replace the AV control unit if the malfunction occurs constantly. Refer to <a href="#">AV-410, "Removal and Installation"</a>.</li></ul>

#### Diagnosis Procedure

INFOID:000000006390169

#### 1.CHECK MUSIC BOX FUNCTION

##### Is music box function normal?

YES >> Malfunction may be detected intermittently.

NO >> Replace AV control unit. Refer to [AV-410, "Removal and Installation"](#).

# U121D AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

## U121D AV CONTROL UNIT

### DTC Logic

INFOID:000000006390170

DTC	Display contents of CONSULT	DTC detection condition	Possible malfunction factor
U121D	DSP CONN [U121D]	AV control unit malfunction is detected.	<ul style="list-style-type: none"><li>• If a disc can be played, then there is a possibility of the detection of a temporary malfunction.</li><li>• Replace the AV control unit if the malfunction occurs constantly. Refer to <a href="#">AV-410, "Removal and Installation"</a>.</li></ul>

### Diagnosis Procedure

INFOID:000000006390171

#### 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-410, "Removal and Installation"](#).

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AV

## U121E AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

### U121E AV CONTROL UNIT

#### DTC Logic

INFOID:000000006390172

DTC	Display contents of CONSULT	DTC detection condition	Possible malfunction factor
U121E	DSP COMM [U121E]	AV control unit malfunction is detected.	<ul style="list-style-type: none"><li>• If a disc can be played, then there is a possibility of the detection of a temporary malfunction.</li><li>• Replace the AV control unit if the malfunction occurs constantly. Refer to <a href="#">AV-410, "Removal and Installation"</a>.</li></ul>

#### Diagnosis Procedure

INFOID:000000006390173

#### 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-410, "Removal and Installation"](#).

U1225 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

U1225 AV CONTROL UNIT

DTC Logic

INFOID:000000006390174

DTC DETECTION LOGIC

DTC	Display contents of CONSULT	DTC detection condition	Possible malfunction factor
U1225	USB CONTROLLER [U1225]	USB connection malfunction is detected.	Check that the connection to the USB connector is normal.

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AV

## U1227 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

### U1227 AV CONTROL UNIT

#### DTC Logic

INFOID:000000006390175

DTC	Display contents of CONSULT	DTC detection condition	Possible malfunction factor
U1227	DVD COMM [U1227]	AV control unit malfunction is detected.	<ul style="list-style-type: none"><li>• If DVD can be played, then there is a possibility of the detection of a temporary malfunction.</li><li>• Replace the AV control unit if the malfunction occurs constantly. Refer to <a href="#">AV-410, "Removal and Installation"</a>.</li></ul>

#### Diagnosis Procedure

INFOID:000000006390176

#### 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-410, "Removal and Installation"](#).



U1228 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

U1228 AV CONTROL UNIT

DTC Logic

INFOID:000000006390177

DTC DETECTION LOGIC

DTC	Display contents of CONSULT	DTC detection condition	Possible malfunction factor
U1228	SUB CPU CONN [U1228]	AV control unit malfunction is detected.	Replace the AV control unit if the malfunction occurs constantly. Refer to <a href="#">AV-410, "Removal and Installation"</a> .

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AV

## U1229 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

### U1229 AV CONTROL UNIT

#### DTC Logic

INFOID:000000006390178

#### DTC DETECTION LOGIC

DTC	Display contents of CONSULT	DTC detection condition	Possible malfunction factor
U1229	iPod CERTIFICATION [U1229]	AV control unit malfunction is detected.	Replace the AV control unit if the malfunction occurs constantly. Refer to <a href="#">AV-410, "Removal and Installation"</a> .

# U122A AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

## U122A AV CONTROL UNIT

### DTC Logic

INFOID:000000006390179

DTC	Display contents of CONSULT	DTC detection condition	Action to take
U122A	CONFIG UNFINISH [U122A]	The writing of configuration data is incomplete.	Write configuration data with "MULTI AV" of CONSULT.

### Diagnosis Procedure

INFOID:000000006390180

#### 1.PERFORM THE SELF-DIAGNOSIS

When U122A is detected, write configuration data with "MULTI AV" of CONSULT.

>> Write configuration data with "MULTI AV" of CONSULT. Refer to [AV-222, "CONFIGURATION \(AV CONTROL UNIT\) : Special Repair Requirement"](#).

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AV

## U122E AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

### U122E AV CONTROL UNIT

#### DTC Logic

INFOID:000000006390181

#### DTC DETECTION LOGIC

DTC	Display contents of CONSULT	DTC detection condition	Possible malfunction factor
U122E	Built-in AUDIO CONN [U122E]	AV control unit malfunction is detected.	Replace the AV control unit if the malfunction occurs constantly. Refer to <a href="#">AV-410, "Removal and Installation"</a> .

# U1244 GPS ANTENNA

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

## U1244 GPS ANTENNA

### Description

INFOID:000000006390182

Refer to [AV-224. "System Description"](#).

### DTC Logic

INFOID:000000006390183

### DTC DETECTION LOGIC

DTC	CONSULT display	Detection condition
U1244	GPS ANTENNA CONN [U1244]	GPS antenna connection malfunction is detected.

### Diagnosis Procedure

INFOID:000000006390184

Regarding Wiring Diagram information, refer to [AV-152. "COUPE : Wiring Diagram - Coupe Without Navigation System"](#) or [AV-171. "SEDAN : Wiring Diagram - Sedan Without Navigation System"](#).

### 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

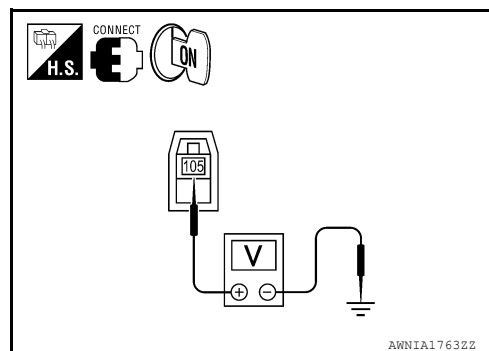
- Turn ignition switch ON.
- Check voltage between AV control unit connector M90 terminal 105 and ground.

**73 - Ground : Approx. 5V**

Is the voltage reading as specified?

YES >> Replace GPS antenna. Refer to [AV-420. "Removal and Installation"](#).

NO >> Replace AV control unit. Refer to [AV-410. "Removal and Installation"](#).



## U1263 USB

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

### U1263 USB

#### DTC Logic

INFOID:000000006390185

DTC	Display contents of CONSULT	DTC detection condition	Possible malfunction factor
U1263	USB OVERCURRENT [U1263]	Detection of over current in USB interface.	Check USB harness between the AV control unit and USB interface.

#### Diagnosis Procedure

INFOID:000000006390186

#### 1.CHECK USB HARNESS

Visually check USB harness.

Is the inspection result normal?

- YES >> Replace AV control unit. Refer to [AV-410, "Removal and Installation"](#).  
NO >> Replace USB harness.

## U1310 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

### U1310 AV CONTROL UNIT

#### DTC Logic

INFOID:000000006390187

DTC	Display contents of CONSULT	DTC detection condition	Possible malfunction factor
U1310	CONTROL UNIT (AV) [U1310]	An initial diagnosis error is detected in AV communication circuit.	Replace AV control unit. If the malfunction occurs constantly. Refer to <a href="#">AV-410. "Removal and Installation"</a> .

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# POWER SUPPLY AND GROUND CIRCUIT (COUPE)

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

## POWER SUPPLY AND GROUND CIRCUIT (COUPE)

### AV CONTROL UNIT

#### AV CONTROL UNIT : Diagnosis Procedure

INFOID:000000006390188

Regarding Wiring Diagram information, refer to [AV-357. "COUPE : Wiring Diagram - Coupe With Navigation System"](#).

### 1.CHECK FUSES

Check that the following AV control unit fuses are not blown.

Unit	Terminals	Signal name	Fuse No.
AV control unit	19	Battery power	24
	7	Ignition switch ACC or ON	19
	52	Ignition switch ON or START	3

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

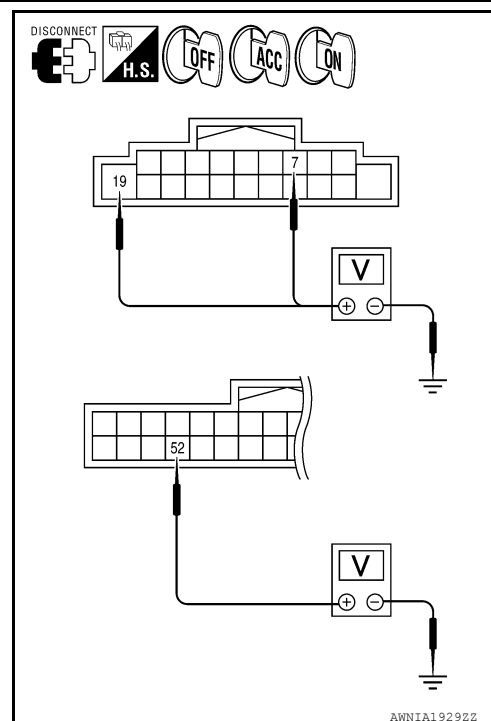
1. Disconnect AV control unit connectors M100 and M102.
2. Check voltage between the AV control unit connectors M100 and M102 and ground.

(+)		(-)	OFF	ACC	ON
Connector	Terminal				
M100	7	Ground	0V	Battery voltage	Battery voltage
	19	Ground	Battery voltage	Battery voltage	Battery voltage
M102	52	Ground	0V	0V	Battery voltage

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 (COUPE)

[BOSE AUDIO WITH NAVIGATION]

## < DTC/CIRCUIT DIAGNOSIS >

1. Turn ignition switch OFF.
2. Check continuity between AV control unit harness connector M100 and ground.

(+)		(-)	Continuity
Connector	Terminal		
M100	20	Ground	Yes

Are the continuity results as specified?

YES >> Inspection End.

NO >> Repair AV control unit ground.

## BOSE SPEAKER AMP

### BOSE SPEAKER AMP : Diagnosis Procedure

INFOID:000000006390189

Regarding Wiring Diagram information, refer to [AV-357. "COUPE : Wiring Diagram - Coupe With Navigation System"](#).

## 1.CHECK FUSE

Check that the following fuses of the BOSE speaker amp. are not blown.

Unit	Terminals	Signal name	Fuse No.
BOSE speaker amp.	50	Battery power	25
	51		26

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.

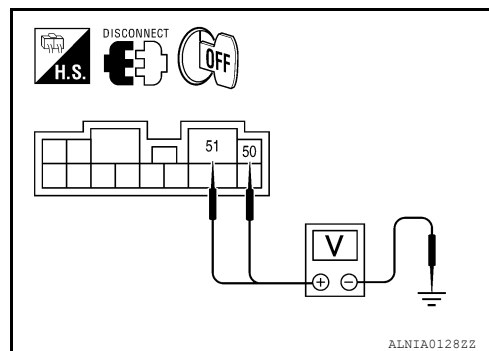
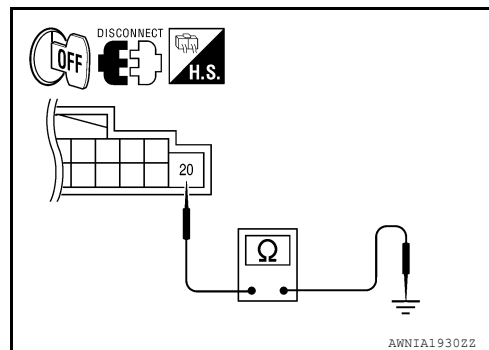
(+)		(-)	Voltage (approx.)
Connector	Terminal		
B122	50	Ground	Battery voltage
	51		

Are the voltage readings as specified?

YES >> GO TO 3

NO >> Check harness between BOSE speaker amp. and fuse.

## 3.CHECK GROUND CIRCUIT



# POWER SUPPLY AND GROUND CIRCUIT (COUPE)

[BOSE AUDIO WITH NAVIGATION]

## < DTC/CIRCUIT DIAGNOSIS >

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

Connector	Terminal	—	Continuity
B122	47	Ground	Yes
	52		

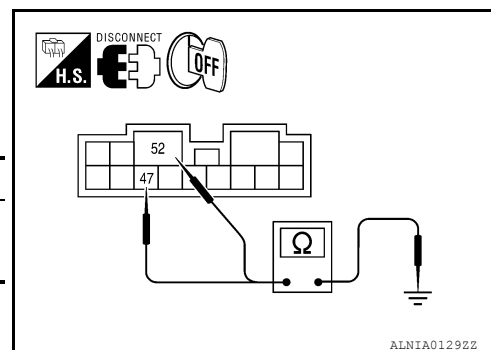
Are continuity test results as specified?

YES >> Inspection End.

NO >> Repair harness or connector.

## REAR VIEW CAMERA

### REAR VIEW CAMERA : Diagnosis Procedure



INFOID:000000006931348

Regarding Wiring Diagram information, refer to [AV-357. "COUPE : Wiring Diagram - Coupe With Navigation System"](#).

## 1.CHECK POWER SUPPLY CIRCUIT (REAR VIEW CAMERA SIDE)

### NOTE:

**Apply parking brakes before proceeding.**

1. Turn ignition switch ON.
2. Shift transmission into Reverse.
3. Check voltage between rear view camera harness connector T7 and ground.

(+)		(-)	Transmission position	Value (Approx.)
Connector	Terminal			
T7	1	Ground	Reverse	6V

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 T7 terminal 1 and AV control unit harness connector M103 terminal 68.

Connector	Terminal	Connector	Terminal	Continuity
T7	1	M103	68	Yes

4. Check continuity between rear view camera harness connector T7 terminal 1 and ground.

Connector	Terminal	—	Continuity
T7	1	Ground	No

Are continuity test results as specified?

YES >> GO TO 3.

NO >> Repair harness or connector.

## 3.CHECK REVERSE POSITION INPUT SIGNAL

1. Connect AV control unit connector.
2. Turn ignition switch ON.
3. Shift transmission into reverse.

# POWER SUPPLY AND GROUND CIRCUIT (COUPE)

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

4. Check voltage between AV control unit harness connector M102 terminal 53 and ground.

(+)		(-)	Transmission position	Value (Approx.)
Connector	Terminal			
M102	53	Ground	Reverse	12V

Is voltage reading approximately 12 volts?

- YES >> Replace AV control unit. Refer to [AV-410, "Removal and Installation"](#).  
NO >> Check harness for open or short between AV control unit and back-up lamp relay (with VQ35DE and CVT), transmission range switch (with QR25DE and CVT) or back-up lamp switch (with M/T).

## 4.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect rear view camera connector.
3. Check continuity between rear view camera harness connector T7 terminal 2 and ground.

Connector	Terminal	—	Continuity
T7	2	Ground	Yes

Does continuity exist?

- YES >> Inspection End.  
NO >> Repair harness or connector.

## MICROPHONE

### MICROPHONE : Diagnosis Procedure

INFOID:000000006390191

Regarding Wiring Diagram information, refer to [AV-357, "COUPE : Wiring Diagram - Coupe With Navigation System"](#).

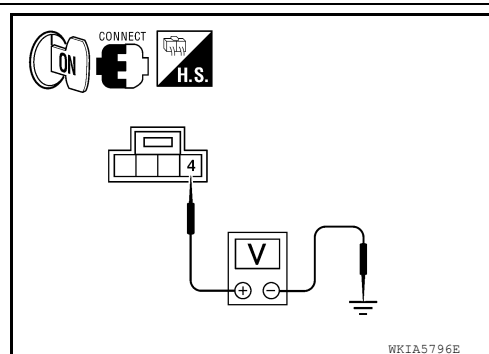
## 1.CHECK POWER SUPPLY CIRCUIT

Check voltage between microphone harness connector R7 terminal 4 and ground.

(+)		(-)	Value (Approx.)
Connector	Terminal		
R7	4	Ground	5V

Is approximately 5V present?

- YES >> GO TO 3.  
NO >> GO TO 2.

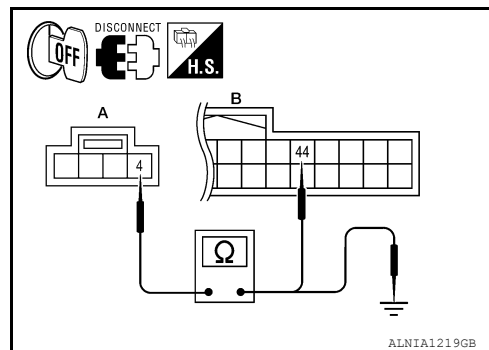


## 2.CHECK POWER SUPPLY CIRCUIT (CONTINUITY)

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 M102 (B) terminal 44.

A		B		Continuity
Connector	Terminal	Connector	Terminal	
R7	4	M102	44	Yes

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



# POWER SUPPLY AND GROUND CIRCUIT (COUPE)

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

A		—	Continuity
Connector	Terminal		
R7	4	Ground	No

Are the continuity test results as specified?

YES >> Replace the AV control unit. Refer to [AV-410. "Removal and Installation"](#).

NO >> Repair harness or connector.

## 3.CHECK GROUND CIRCUIT

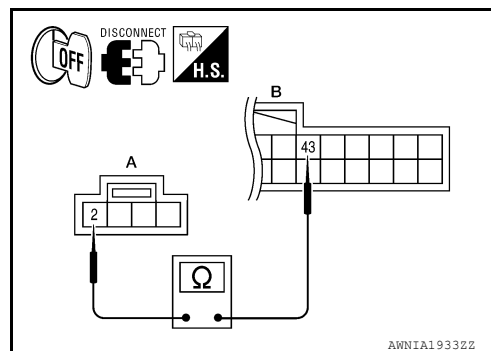
1. Turn ignition switch OFF.
2. Disconnect microphone harness connector R7 and AV control unit harness connector M102.
3. Check continuity between microphone harness connector R7 (A) terminal 2 and AV control unit harness connector M102 (B) terminal 43.

A		B		Continuity
Connector	Terminal	Connector	Terminal	
R7	2	M102	43	Yes

Does continuity exist?

YES >> Inspection End.

NO >> Repair harness or connector.



# POWER SUPPLY AND GROUND CIRCUIT (SEDAN)

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

## POWER SUPPLY AND GROUND CIRCUIT (SEDAN)

### AV CONTROL UNIT

#### AV CONTROL UNIT : Diagnosis Procedure

INFOID:000000006390192

Regarding Wiring Diagram information, refer to [AV-377, "SEDAN : Wiring Diagram - Sedan With Navigation System"](#).

### 1.CHECK FUSES

Check that the following AV control unit fuses are not blown.

Unit	Terminals	Signal name	Fuse No.
AV control unit	19	Battery power	24
	7	Ignition switch ACC or ON	19
	52	Ignition switch ON or START	3

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

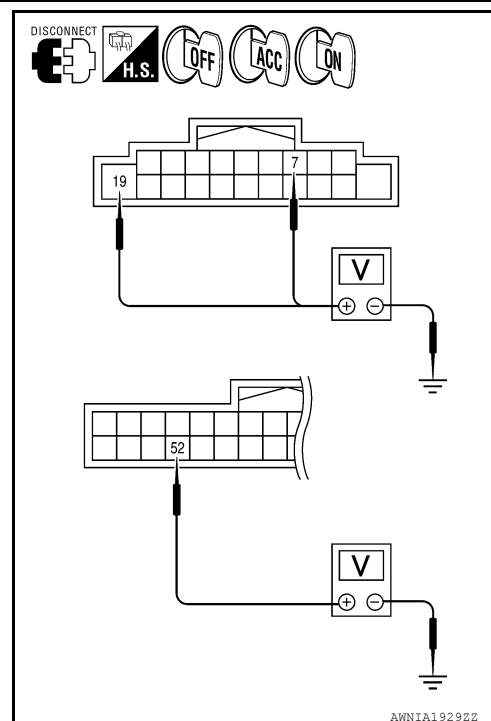
1. Disconnect AV control unit connectors M100 and M102.
2. Check voltage between the AV control unit connectors M100 and M102 and ground.

(+)		(-)	OFF	ACC	ON
Connector	Terminal				
M100	7	Ground	0V	Battery voltage	Battery voltage
	19	Ground	Battery voltage	Battery voltage	Battery voltage
M102	52	Ground	0V	0V	Battery voltage

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 (SEDAN)

[BOSE AUDIO WITH NAVIGATION]

## < DTC/CIRCUIT DIAGNOSIS >

1. Turn ignition switch OFF.
2. Check continuity between AV control unit harness connector M100 and ground.

(+)		(-)	Continuity
Connector	Terminal		
M100	20	Ground	Yes

Are the continuity results as specified?

- YES >> Inspection End.  
NO >> Repair AV control unit ground.

## BOSE SPEAKER AMP

### BOSE SPEAKER AMP : Diagnosis Procedure

INFOID:000000006390193

Regarding Wiring Diagram information, refer to [AV-377, "SEDAN : Wiring Diagram - Sedan With Navigation System"](#).

## 1.CHECK FUSE

Check that the following fuses of the BOSE speaker amp. are not blown.

Unit	Terminals	Signal name	Fuse No.
BOSE speaker amp.	50	Battery power	25
	51		26

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

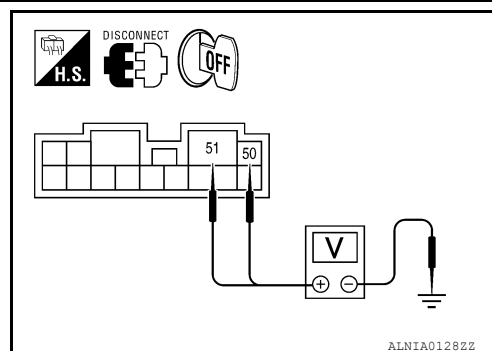
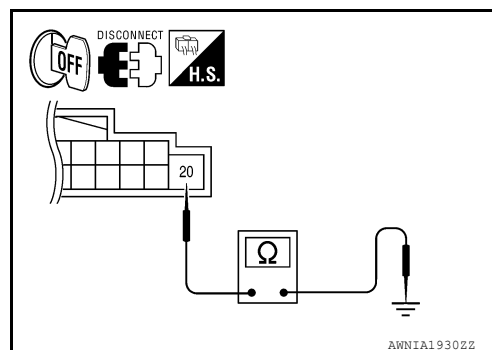
1. Turn ignition switch OFF.
2. Disconnect BOSE speaker amp connector.
3. Check voltage between BOSE speaker amp harness connector and ground.

(+)		(-)	Voltage (approx.)
Connector	Terminal		
B122	50	Ground	Battery voltage
	51		

Are the voltage readings as specified?

- YES >> GO TO 3  
NO >> Check harness between BOSE speaker amp. and fuse.

## 3.CHECK GROUND CIRCUIT



# POWER SUPPLY AND GROUND CIRCUIT (SEDAN)

[BOSE AUDIO WITH NAVIGATION]

## < DTC/CIRCUIT DIAGNOSIS >

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

Connector	Terminal	—	Continuity
B122	47	Ground	Yes
	52		

Are continuity test results as specified?

YES >> Inspection End.

NO >> Repair harness or connector.

## REAR VIEW CAMERA

### REAR VIEW CAMERA : Diagnosis Procedure

INFOID:000000006931349

Regarding Wiring Diagram information, refer to [AV-377, "SEDAN : Wiring Diagram - Sedan With Navigation System"](#).

## 1.CHECK POWER SUPPLY CIRCUIT (REAR VIEW CAMERA SIDE)

### NOTE:

Apply parking brakes before proceeding.

1. Turn ignition switch ON.
2. Shift transmission into Reverse.
3. Check voltage between rear view camera harness connector B35 and ground.

(+)		(-)	Transmission position	Value (Approx.)
Connector	Terminal			
B35	1	Ground	Reverse	6V

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 B35 terminal 1 and AV control unit harness connector M103 terminal 68.

Connector	Terminal	Connector	Terminal	Continuity
B35	1	M103	68	Yes

4. Check continuity between rear view camera harness connector B35 terminal 1 and ground.

Connector	Terminal	—	Continuity
B35	1	Ground	No

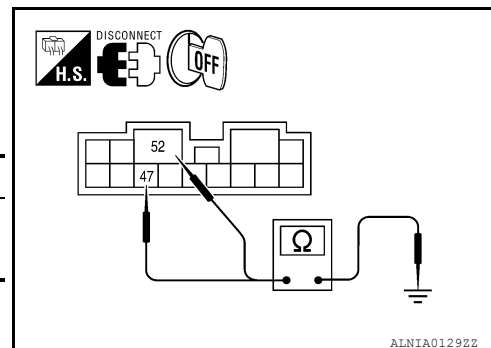
Are continuity test results as specified?

YES >> GO TO 3.

NO >> Repair harness or connector.

## 3.CHECK REVERSE POSITION INPUT SIGNAL

1. Connect AV control unit connector.
2. Turn ignition switch ON.
3. Shift transmission into reverse.



# POWER SUPPLY AND GROUND CIRCUIT (SEDAN)

[BOSE AUDIO WITH NAVIGATION]

< DTC/CIRCUIT DIAGNOSIS >

4. Check voltage between AV control unit harness connector M102 terminal 53 and ground.

(+)		(-)	Transmission position	Value (Approx.)
Connector	Terminal			
M102	53	Ground	Reverse	12V

Is voltage reading approximately 12 volts?

YES >> Replace AV control unit. Refer to [AV-410, "Removal and Installation"](#).

NO >> Check harness for open or short between AV control unit and back-up lamp relay (with VQ35DE and CVT), transmission range switch (with QR25DE and CVT) or back-up lamp switch (with M/T).

## 4.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect rear view camera connector.
3. Check continuity between rear view camera harness connector B35 terminal 2 and ground.

Connector	Terminal	—	Continuity
B35	2	Ground	Yes

Does continuity exist?

YES >> Inspection End.

NO >> Repair harness or connector.

## MICROPHONE

### MICROPHONE : Diagnosis Procedure

INFOID:000000006390195

Regarding Wiring Diagram information, refer to [AV-377, "SEDAN : Wiring Diagram - Sedan With Navigation System"](#).

## 1.CHECK POWER SUPPLY CIRCUIT

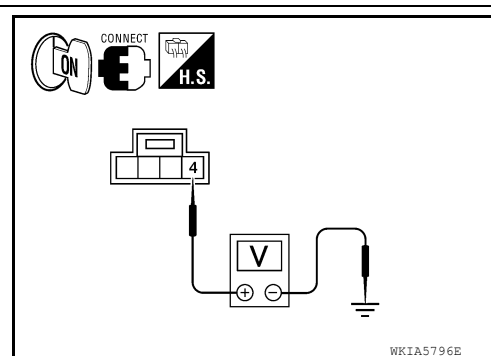
Check voltage between microphone harness connector R7 terminal 4 and ground.

(+)		(-)	Value (Approx.)
Connector	Terminal		
R7	4	Ground	5V

Is approximately 5V present?

YES >> GO TO 3.

NO >> GO TO 2.

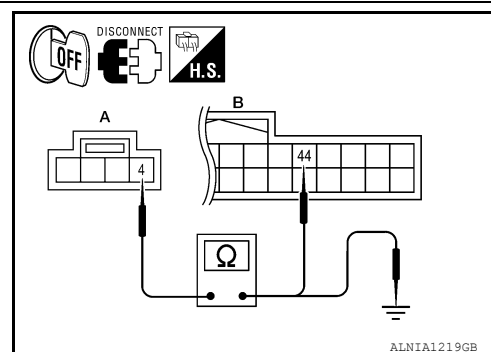


## 2.CHECK POWER SUPPLY CIRCUIT (CONTINUITY)

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 M102 (B) terminal 44.

A		B		Continuity
Connector	Terminal	Connector	Terminal	
R7	4	M102	44	Yes

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





# POWER SUPPLY AND GROUND CIRCUIT (SEDAN)

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

A		—	Continuity
Connector	Terminal		
R7	4	Ground	No

Are the continuity test results as specified?

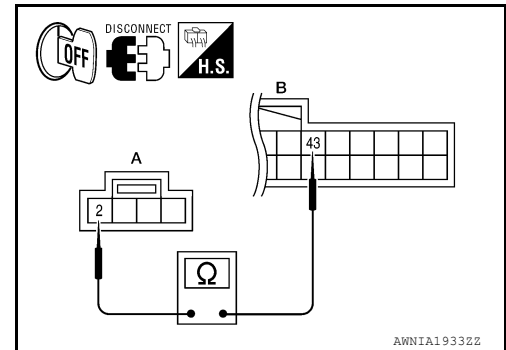
YES >> Replace the AV control unit. Refer to [AV-410. "Removal and Installation"](#).

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 M102.
3. Check continuity between microphone harness connector R7 (A) terminal 2 and AV control unit harness connector M102 (B) terminal 43.

A		B		Continuity
Connector	Terminal	Connector	Terminal	
R7	2	M102	43	Yes



Does continuity exist?

YES >> Inspection End.

NO >> Repair harness or connector.

AV

# DOOR SPEAKER (COUPE)

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

## DOOR SPEAKER (COUPE)

### Description

INFOID:000000006390196

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 door speakers using the audio signal circuits.

### Diagnosis Procedure

INFOID:000000006390197

Regarding Wiring Diagram information, refer to [AV-357, "COUPE : Wiring Diagram - Coupe With Navigation System"](#).

### 1.CONNECTOR CHECK

Check the AV control unit, BOSE speaker amp. and speaker connectors for the following:

- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair the terminal and connector.

### 2.HARNESS CHECK

1. Disconnect BOSE speaker amp. connector B121 and suspect speaker connector.
2. Check continuity between BOSE speaker amp. harness connector B121 (A) and suspect speaker harness connector (B).

A		B		Continuity
Connector	Terminal	Connector	Terminal	
B121	58	D3	1	Yes
	59		2	
	71	D103	1	
	72		2	

3. Check continuity between BOSE speaker amp. harness connector B121 (A) and ground.

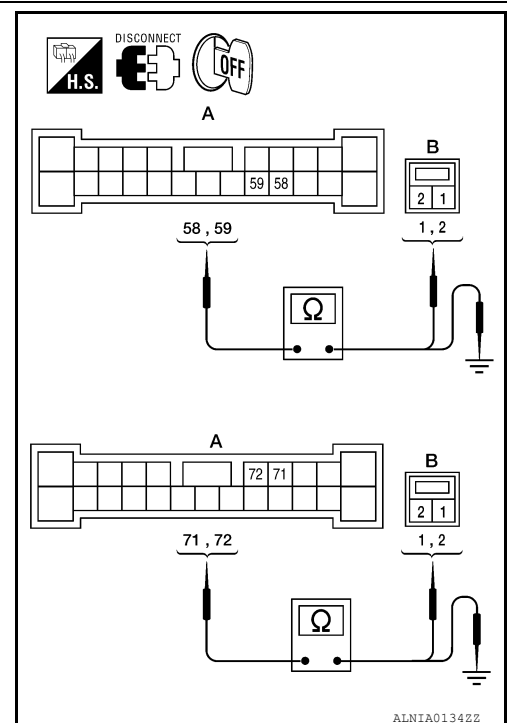
A		—	Continuity
Connector	Terminal		
B121	58	Ground	No
	59		
	71		
	72		

Are continuity test results as specified?

YES >> GO TO 3

NO >> Repair harness or connector.

### 3.DOOR SPEAKER SIGNAL CHECK

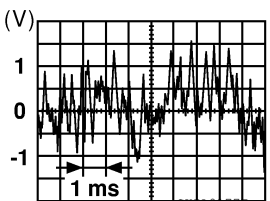


# DOOR SPEAKER (COUPE)

[BOSE AUDIO WITH NAVIGATION]

## < DTC/CIRCUIT DIAGNOSIS >

1. Connect BOSE speaker amp. connector B121 and suspect speaker connector.
2. Turn ignition switch to ACC.
3. Push AV control unit "POWER" switch.
4. Check the signal between BOSE speaker amp. harness connector B121 terminals with CONSULT or oscilloscope.

Connector	Terminal		Condition	Reference signal
	(+)	(-)		
B121	58	59	Receive audio signal	
	71	72		

Is audio signal voltage as specified?

YES >> Replace suspect speaker. Refer to [AV-416. "Removal and Installation"](#).

NO >> GO TO 4

## 4. HARNESS CHECK

1. Disconnect AV control unit connector M100 and BOSE speaker amp. connector B121.
2. Check continuity between audio unit harness connector M100 (A) and BOSE speaker amp. harness connector B121 (B).

A		B		Continuity
Connector	Terminal	Connector	Terminal	
M100	2	B121	75	Yes
	3		76	
	11		73	
	12		74	

3. Check continuity between AV control unit harness connector M100 (A) and ground.

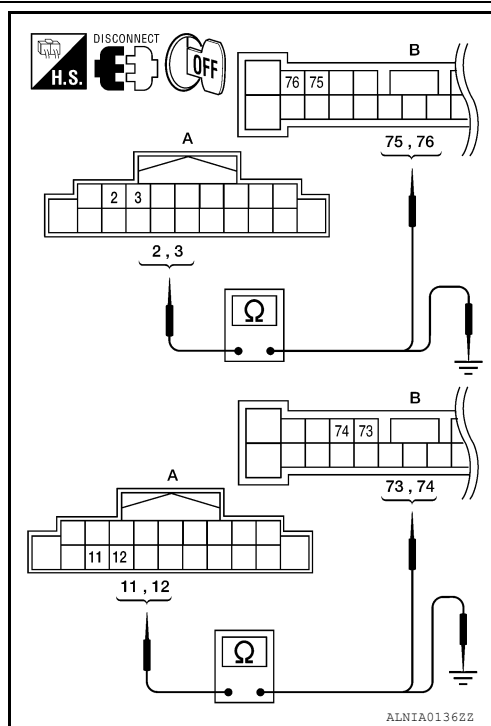
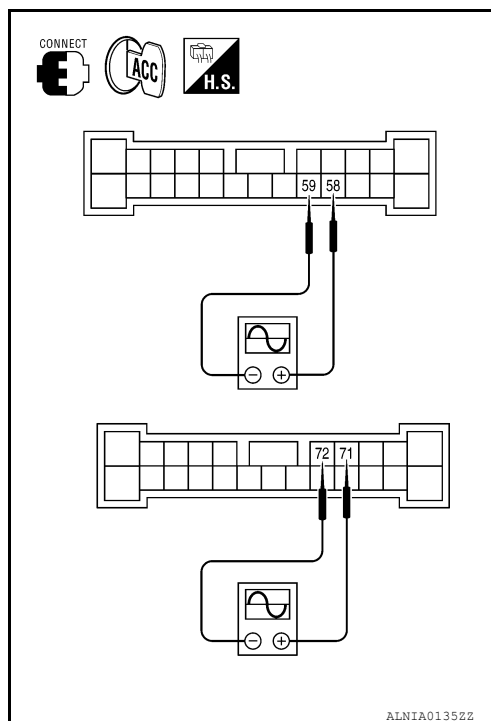
A		—	Continuity
Connector	Terminal		
M100	2	Ground	No
	3		
	11		
	12		

Are continuity test results as specified?

YES >> GO TO 5

NO >> Repair harness or connector.

## 5. DOOR SPEAKER SIGNAL CHECK

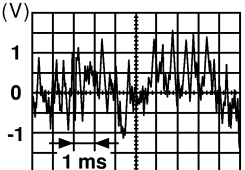


# DOOR SPEAKER (COUPE)

[BOSE AUDIO WITH NAVIGATION]

## < DTC/CIRCUIT DIAGNOSIS >

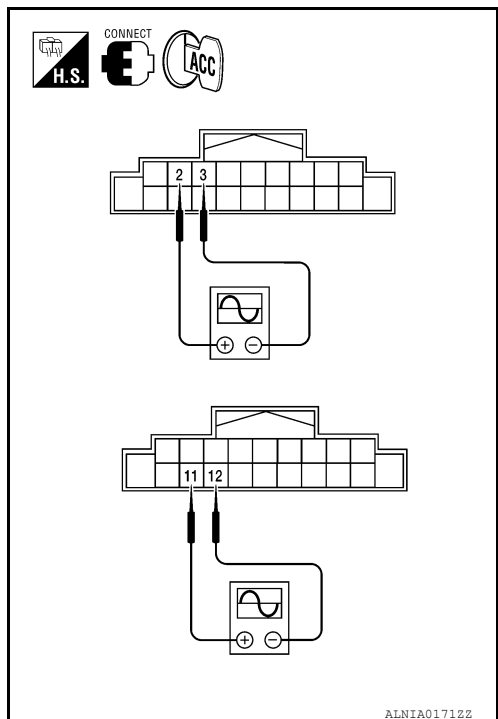
1. Connect AV control unit connector and BOSE speaker amp. connector.
2. Turn ignition switch to ACC.
3. Push AV control unit "POWER" switch.
4. Check the signal between AV control unit harness connector terminals with CONSULT or oscilloscope.

Connector	Terminals		Condition	Reference signal
	(+)	(-)		
M100	2	3	Receive audio signal	
	11	12		

SKIA0177E

Are the audio signal voltage readings as specified?

- YES >> Replace BOSE speaker amp. Refer to [AV-411, "Removal and Installation - Coupe"](#).
- NO >> Replace AV control unit. Refer to [AV-410, "Removal and Installation"](#).



# FRONT DOOR SPEAKER (SEDAN)

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

## FRONT DOOR SPEAKER (SEDAN)

### Description

INFOID:000000006390198

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

INFOID:000000006390199

Regarding Wiring Diagram information, refer to [AV-377, "SEDAN : Wiring Diagram - Sedan With Navigation System"](#).

### 1.CONNECTOR CHECK

Check the AV control unit, BOSE speaker amp. and speaker connectors for the following:

- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair the terminal and connector.

### 2.HARNESS CHECK

1. Disconnect BOSE speaker amp. connector B121 and suspect speaker connector.
2. Check continuity between BOSE speaker amp. harness connector B121 (A) and suspect speaker harness connector (B).

A		B		Continuity
Connector	Terminal	Connector	Terminal	
B121	58	D3	1	Yes
	59		2	
	71	D103	1	
	72		2	

3. Check continuity between BOSE speaker amp. harness connector B121 (A) and ground.

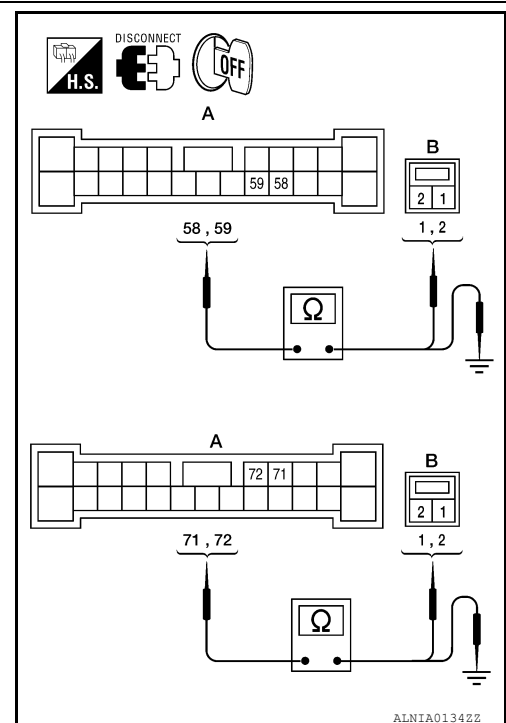
A		—	Continuity
Connector	Terminal		
B121	58	Ground	No
	59		
	71		
	72		

Are continuity test results as specified?

YES >> GO TO 3

NO >> Repair harness or connector.

### 3.FRONT DOOR SPEAKER SIGNAL CHECK



ALNIA01342Z

# FRONT DOOR SPEAKER (SEDAN)

[BOSE AUDIO WITH NAVIGATION]

## < DTC/CIRCUIT DIAGNOSIS >

1. Connect BOSE speaker amp. connector B121 and suspect speaker connector.
2. Turn ignition switch to ACC.
3. Push AV control unit "POWER" switch.
4. Check the signal between BOSE speaker amp. harness connector B121 terminals with CONSULT or oscilloscope.

Connector	Terminal		Condition	Reference signal
	(+)	(-)		
B121	58	59	Receive audio signal	
	71	72		

Is audio signal voltage as specified?

YES >> Replace suspect speaker. Refer to [AV-416. "Removal and Installation"](#).

NO >> GO TO 4

## 4. HARNESS CHECK

1. Disconnect AV control unit connector M100 and BOSE speaker amp. connector B121.
2. Check continuity between audio unit harness connector M100 (A) and BOSE speaker amp. harness connector B121 (B).

A		B		Continuity
Connector	Terminal	Connector	Terminal	
M100	2	B121	75	Yes
	3		76	
	11		73	
	12		74	

3. Check continuity between AV control unit harness connector M100 (A) and ground.

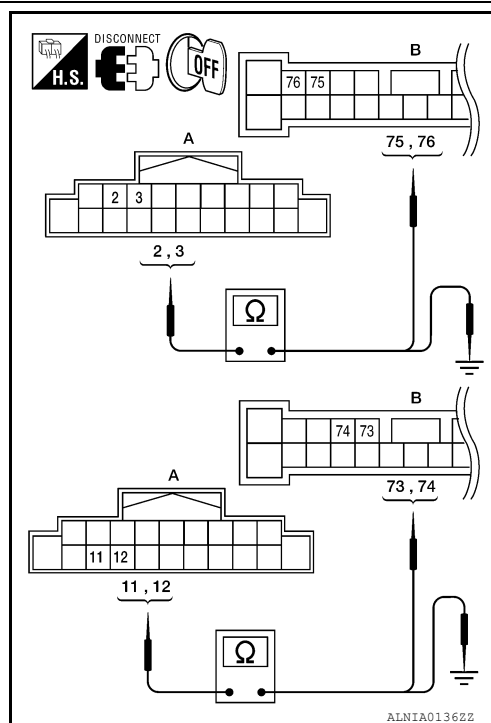
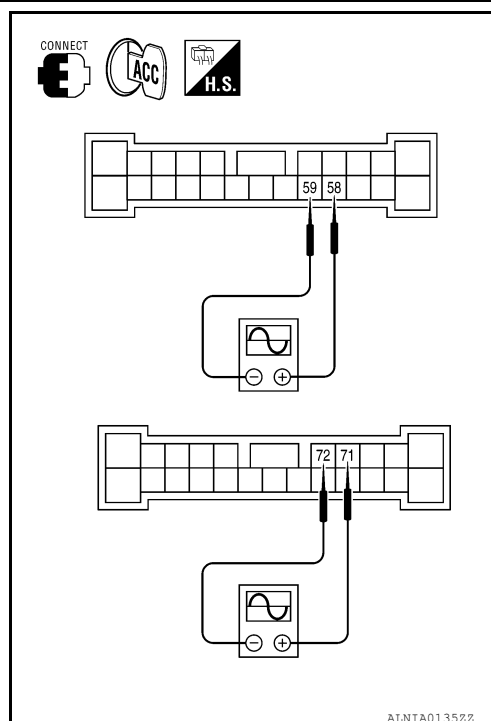
A		—	Continuity
Connector	Terminal		
M100	2	Ground	No
	3		
	11		
	12		

Are continuity test results as specified?

YES >> GO TO 5

NO >> Repair harness or connector.

## 5. FRONT DOOR SPEAKER SIGNAL CHECK

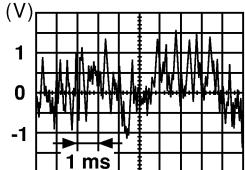


# FRONT DOOR SPEAKER (SEDAN)

[BOSE AUDIO WITH NAVIGATION]

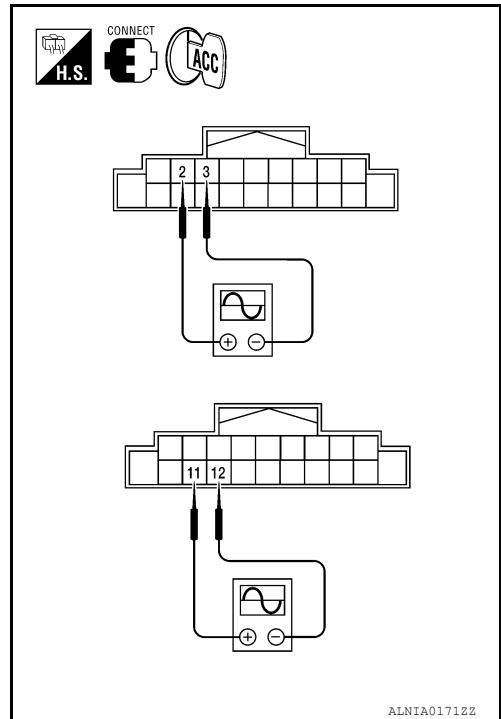
## < DTC/CIRCUIT DIAGNOSIS >

1. Connect AV control unit connector and BOSE speaker amp. connector.
2. Turn ignition switch to ACC.
3. Push AV control unit "POWER" switch.
4. Check the signal between AV control unit harness connector terminals with CONSULT or oscilloscope.

Connector	Terminals		Condition	Reference signal
	(+)	(-)		
M100	2	3	Receive audio signal	
	11	12		

Are the audio signal voltage readings as specified?

- YES >> Replace BOSE speaker amp. Refer to [AV-411, "Removal and Installation - Sedan"](#).
- NO >> Replace AV control unit. Refer to [AV-410, "Removal and Installation"](#).



A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
O  
P

AV

# FRONT TWEETER (COUPE)

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

## FRONT TWEETER (COUPE)

### Description

INFOID:000000006390200

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 tweeters using the audio signal circuits.

### Diagnosis Procedure

INFOID:000000006390201

Regarding Wiring Diagram information, refer to [AV-377, "SEDAN : Wiring Diagram - Sedan With Navigation System"](#).

### 1.CONNECTOR CHECK

Check the AV control unit, BOSE speaker amp. and speaker connectors for the following:

- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair the terminal and connector.

### 2.HARNESS CHECK

1. Disconnect BOSE speaker amp. connector B122 and suspect tweeter connector.
2. Check continuity between BOSE speaker amp. harness connector B122 (A) and suspect tweeter harness connector (B).

A		B		Continuity
Connector	Terminal	Connector	Terminal	
B122	41	M51	1	Yes
	42		2	
	44	M52	1	
	43		2	

3. Check continuity between BOSE speaker amp. harness connector B122 (A) and ground.

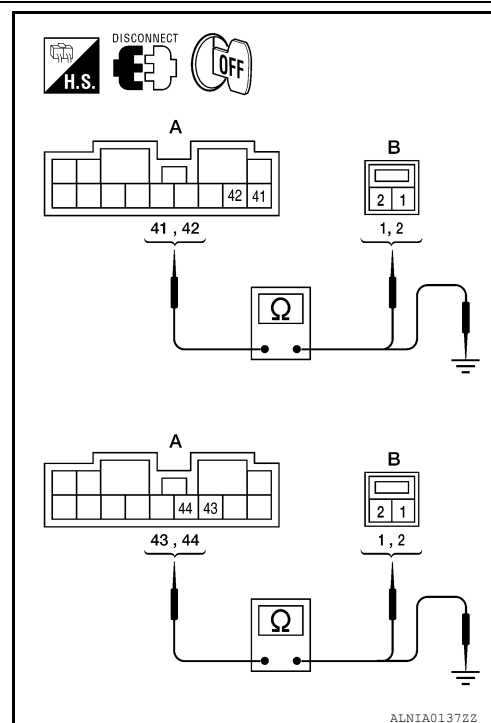
A		—	Continuity
Connector	Terminal		
B122	41	Ground	No
	42		
	44		
	43		

Are continuity test results as specified?

YES >> GO TO 3

NO >> Repair harness or connector.

### 3.FRONT TWEETER SIGNAL CHECK



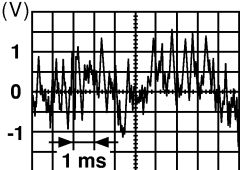


# FRONT TWEETER (COUPE)

[BOSE AUDIO WITH NAVIGATION]

## < DTC/CIRCUIT DIAGNOSIS >

1. Connect BOSE speaker amp. connector B122 and suspect tweeter connector.
2. Turn ignition switch to ACC.
3. Push AV control unit "POWER" switch.
4. Check the signal between BOSE speaker amp. harness connector B122 terminals with CONSULT or oscilloscope.

Connector	Terminals		Condition	Reference signal
	(+)	(-)		
B122	41	42	Receive audio signal	 SKIA0177E
	44	43		

Are voltage readings as specified?

YES >> Replace suspect tweeter. Refer to [AV-414, "Removal and Installation"](#).

NO >> GO TO 4

## 4. HARNESS CHECK

1. Disconnect AV control unit connector M100 and BOSE speaker amp. connector B121.
2. Check continuity between AV control unit harness connector (A) M100 and BOSE speaker amp. harness connector B121 (B).

A		B		Continuity
Connector	Terminal	Connector	Terminal	
M100	2	B121	75	Yes
	3		76	
	11		73	
	12		74	

3. Check continuity between AV control unit harness connector B121 (A) and ground.

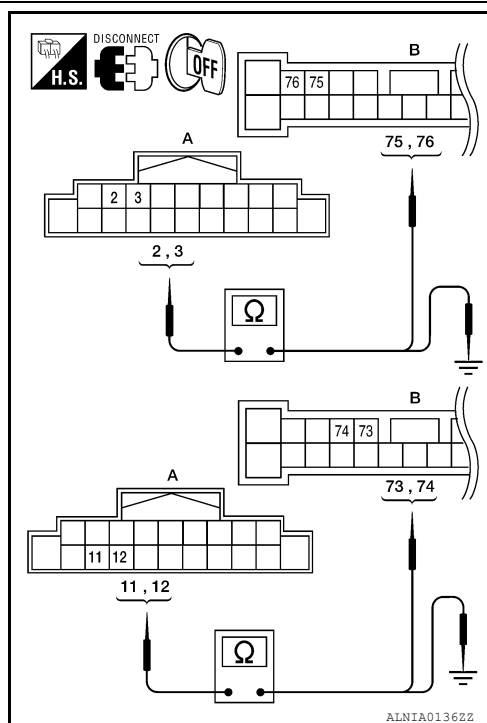
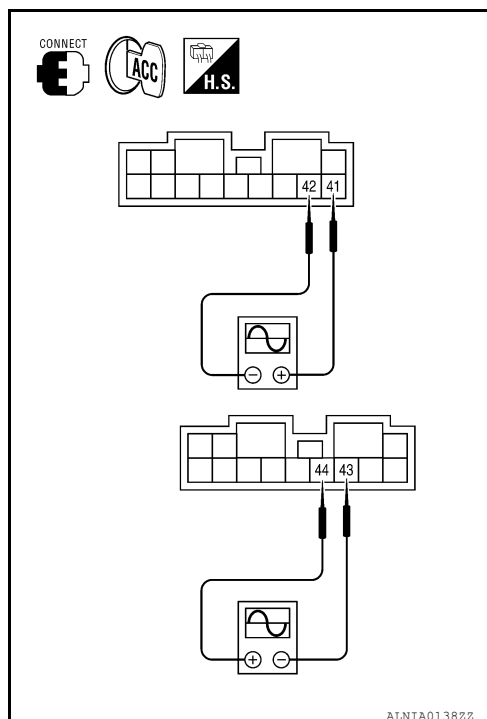
A		—	Continuity
Connector	Terminal		
M100	2	Ground	No
	3		
	11		
	12		

Are continuity test results as specified?

YES >> GO TO 5

NO >> Repair harness or connector.

## 5. FRONT TWEETER SIGNAL CHECK

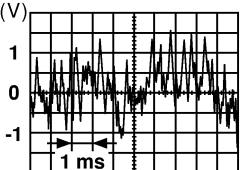


# FRONT TWEETER (COUPE)

[BOSE AUDIO WITH NAVIGATION]

## < DTC/CIRCUIT DIAGNOSIS >

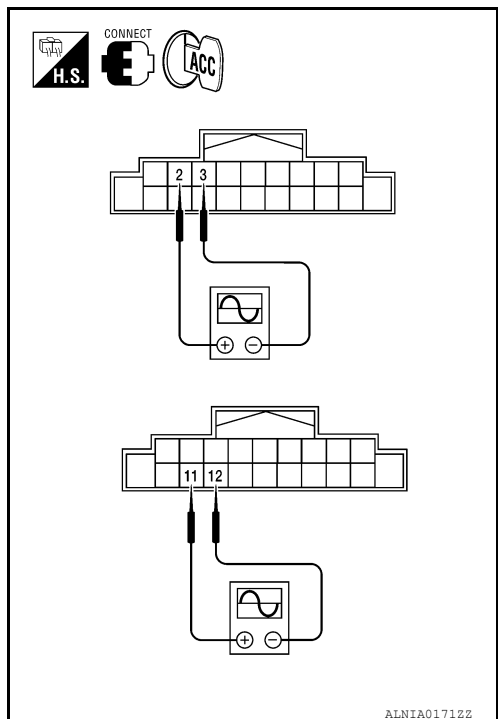
1. Connect AV control unit connector and BOSE speaker amp. connector.
2. Turn ignition switch to ACC.
3. Push AV control unit "POWER" switch.
4. Check the signal between AV control unit harness connector terminals with CONSULT or oscilloscope.

Connector	Terminals		Condition	Reference signal
	(+)	(-)		
M100	2	3	Receive audio signal	
	11	12		

SKIA0177E

## Are voltage readings as specified?

- YES >> Replace BOSE speaker amp. Refer to [AV-411, "Removal and Installation - Coupe"](#).
- NO >> Replace AV control unit. Refer to [AV-410, "Removal and Installation"](#).



## TWEETER (SEDAN)

## Description

INFOID:000000006390202

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

INFOID:000000006390203

Regarding Wiring Diagram information, refer to [AV-377, "SEDAN : Wiring Diagram - Sedan With Navigation System"](#).

## 1.CONNECTOR CHECK

Check the AV control unit, BOSE speaker amp. and speaker connectors for the following:

- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair the terminal and connector.

## 2.HARNESS CHECK

1. Disconnect BOSE speaker amp. connector B122 and suspect tweeter connector.
2. Check continuity between BOSE speaker amp. harness connector B122 (A) and suspect tweeter harness connector (B).

Terminals				Continuity
A		B		
Connector	Terminal	Connector	Terminal	
B122	41	M51	1	Yes
	42		2	
	44	M52	1	
	43		2	

3. Check continuity between BOSE speaker amp. harness connector B122 (A) and ground.

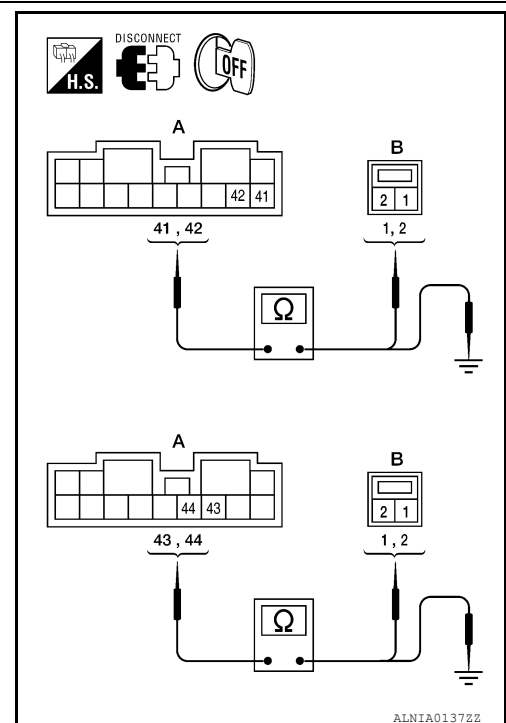
Terminals			Continuity
A		—	
Connector	Terminal		
B122	41	Ground	No
	42		
	44		
	43		

Are continuity test results as specified?

YES >> GO TO 3

NO >> Repair harness or connector.

## 3.TWEETER SIGNAL CHECK

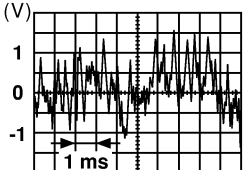


## TWEETER (SEDAN)

[BOSE AUDIO WITH NAVIGATION]

### < DTC/CIRCUIT DIAGNOSIS >

1. Connect BOSE speaker amp. connector B122 and suspect tweeter connector.
2. Turn ignition switch to ACC.
3. Push AV control unit "POWER" switch.
4. Check the signal between BOSE speaker amp. harness connector B122 terminals with CONSULT or oscilloscope.

Connector	Terminals		Condition	Reference signal
	(+)	(-)		
B122	41	42	Receive audio signal	
	44	43		

SKIA0177E

### Are voltage readings as specified?

YES >> Replace suspect tweeter. Refer to [AV-414, "Removal and Installation"](#).

NO >> GO TO 4

## 4. HARNESS CHECK

1. Disconnect AV control unit connector M100 and BOSE speaker amp. connector B121.
2. Check continuity between AV control unit harness connector (A) M100 and BOSE speaker amp. harness connector B121 (B).

Terminals				Continuity
A		B		
Connector	Terminal	Connector	Terminal	
M100	2	B121	75	Yes
	3		76	
	11		73	
	12		74	

3. Check continuity between AV control unit harness connector B121 (A) and ground.

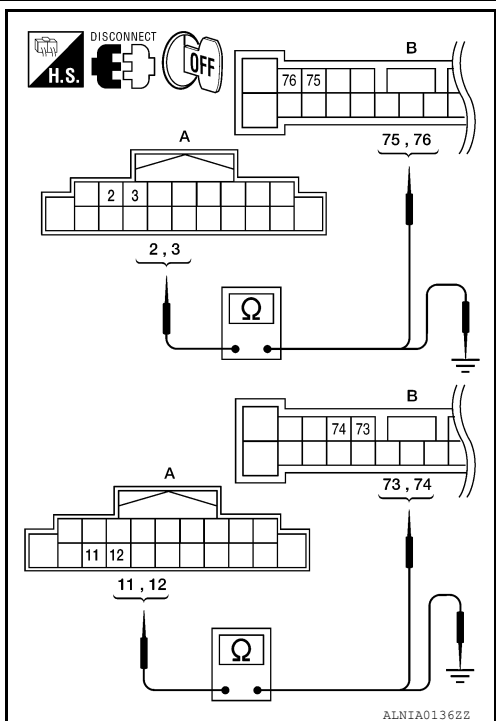
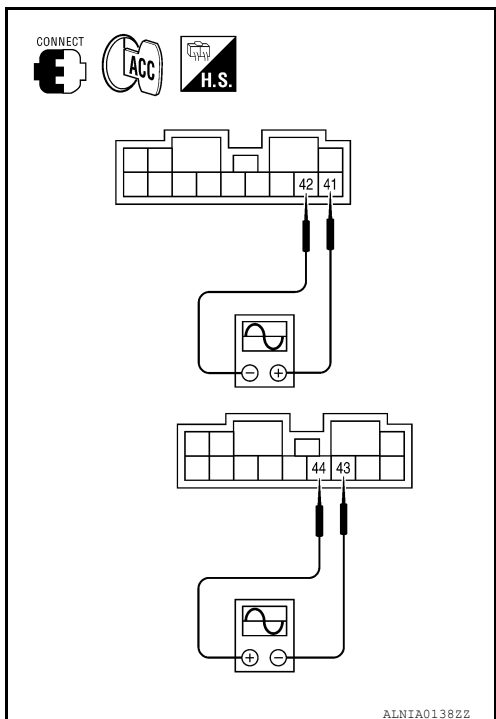
Terminals			Continuity
A		—	
Connector	Terminal		
M100	2	Ground	No
	3		
	11		
	12		

### Are continuity test results as specified?

YES >> GO TO 5

NO >> Repair harness or connector.

## 5. TWEETER SIGNAL CHECK

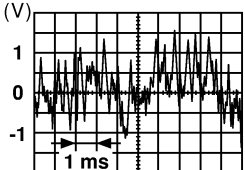


## TWEETER (SEDAN)

### < DTC/CIRCUIT DIAGNOSIS >

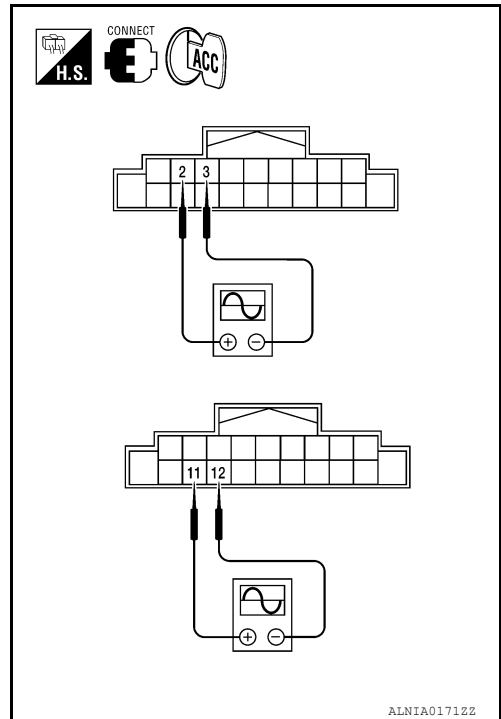
### [BOSE AUDIO WITH NAVIGATION]

1. Connect AV control unit connector and BOSE speaker amp. connector.
2. Turn ignition switch to ACC.
3. Push AV control unit "POWER" switch.
4. Check the signal between AV control unit harness connector terminals with CONSULT or oscilloscope.

Connector	Terminals		Condition	Reference signal
	(+)	(-)		
M100	2	3	Receive audio signal	 SKIA0177E
	11	12		

#### Are voltage readings as specified?

- YES >> Replace BOSE speaker amp. Refer to [AV-411, "Removal and Installation - Sedan"](#).
- NO >> Replace AV control unit. Refer to [AV-410, "Removal and Installation"](#).



# CENTER SPEAKER

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

## CENTER SPEAKER

### Description

INFOID:000000006390204

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

INFOID:000000006390205

Regarding Wiring Diagram information, refer to [AV-357, "COUPE : Wiring Diagram - Coupe With Navigation System"](#) or [AV-377, "SEDAN : Wiring Diagram - Sedan With Navigation System"](#).

### 1.CONNECTOR CHECK

Check the AV control unit, BOSE speaker amp. and speaker connectors for the following:

- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair the terminal and connector.

### 2.HARNESS CHECK

1. Disconnect BOSE speaker amp. connector B121 and center speaker connector M151.
2. Check continuity between BOSE speaker amp. harness connector B121 (A) and center speaker harness connector M151 (B).

A		B		Continuity
Connector	Terminal	Connector	Terminal	
B121	69	M151	1	Yes
	70		2	

3. Check continuity between BOSE speaker amp. harness connector B121 (A) and ground.

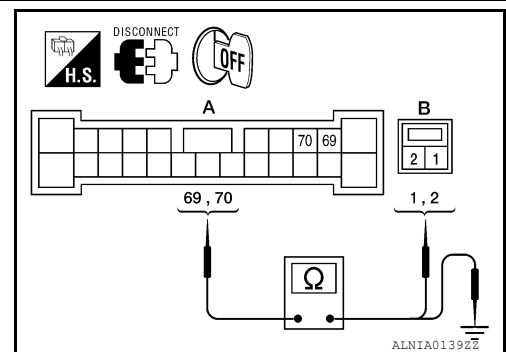
A		—	Continuity
Connector	Terminal		
B121	69	Ground	No
	70		

Are continuity test results as specified?

YES >> GO TO 3

NO >> Repair harness or connector.

### 3.CENTER SPEAKER SIGNAL CHECK

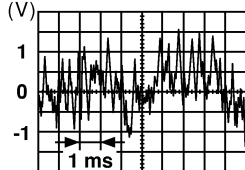


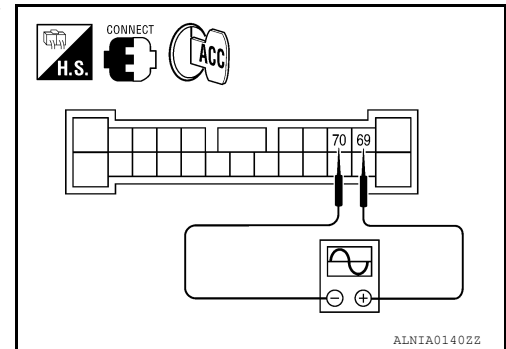
# CENTER SPEAKER

## < DTC/CIRCUIT DIAGNOSIS >

## [BOSE AUDIO WITH NAVIGATION]

1. Connect BOSE speaker amp. connector B121 and center speaker connector.
2. Turn ignition switch to ACC.
3. Push AV control unit "POWER" switch.
4. Check the signal between BOSE speaker amp. harness connector B121 terminals with CONSULT or oscilloscope.

Connector	Terminals		Condition	Reference signal
	(+)	(-)		
B121	69	70	Receive audio signal	 SKIA0177E



Is the audio signal voltage reading as specified?

- YES >> Replace center speaker. Refer to [AV-415. "Removal and Installation"](#).  
 NO >> GO TO 4

## 4.HARNES CHECK

1. Disconnect AV control unit connector M100 and BOSE speaker amp. connector B121.
2. Check continuity between AV control unit harness connector M100 (A) and BOSE speaker amp. harness connector B121 (B).

A		B		Continuity
Connector	Terminal	Connector	Terminal	
M100	2	B121	75	Yes
	3		76	
	11		73	
	12		74	

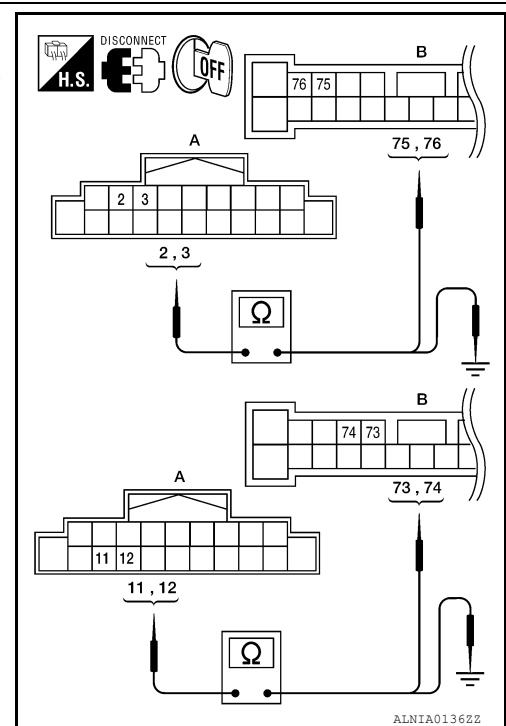
3. Check continuity between AV control unit harness connector M100 (A) and ground.

A		—	Continuity
Connector	Terminal		
M100	2	Ground	No
	3		
	11		
	12		

Are continuity test results as specified?

- YES >> GO TO 5  
 NO >> Repair harness or connector.

## 5.CENTER SPEAKER SIGNAL CHECK

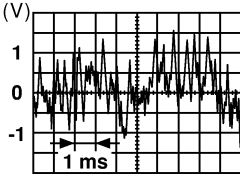


# CENTER SPEAKER

[BOSE AUDIO WITH NAVIGATION]

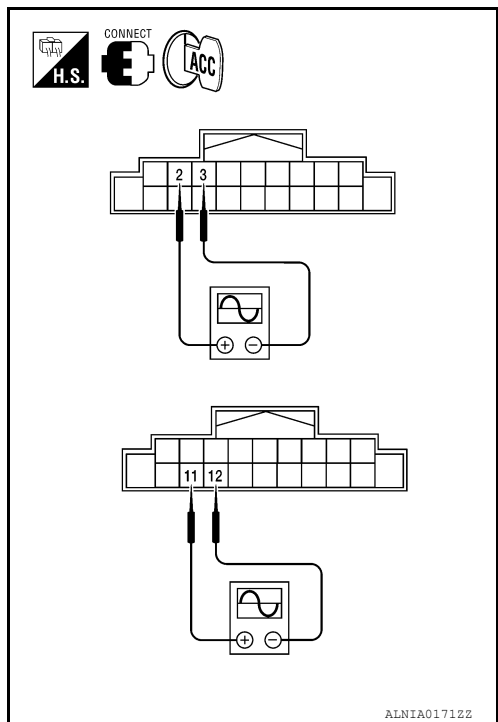
## < DTC/CIRCUIT DIAGNOSIS >

1. Connect AV control unit connector and BOSE speaker amp. connector.
2. Turn ignition switch ACC.
3. Push AV control unit "POWER" switch.
4. Check the signal between AV control unit harness connector M100 terminals with CONSULT or oscilloscope.

Connector	Terminals		Condition	Reference signal
	(+)	(-)		
M100	2	3	Receive audio signal	 <p>SKIA0177E</p>
	11	12		

Are the audio signal voltage readings as specified?

- YES >> Replace BOSE speaker amp. Refer to [AV-411. "Removal and Installation - Coupe"](#) or [AV-411. "Removal and Installation - Sedan"](#).
- NO >> Replace AV control unit. Refer to [AV-410. "Removal and Installation"](#).





# REAR TWEETER (COUPE)

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

## REAR TWEETER (COUPE)

### Description

INFOID:000000006390206

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 tweeters using the audio signal circuits.

### Diagnosis Procedure

INFOID:000000006390207

Regarding Wiring Diagram information, refer to [AV-357, "COUPE : Wiring Diagram - Coupe With Navigation System"](#).

### 1.CONNECTOR CHECK

Check the AV control unit, BOSE speaker amp. and speaker connectors for the following:

- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair the terminal and connector.

### 2.HARNESS CHECK

1. Disconnect BOSE speaker amp. connectors B121, B122 and suspect tweeter connector.
2. Check continuity between BOSE speaker amp. harness connectors B121 (A) and B122 (B) and suspect tweeter harness connector (C).

Connector	Terminal	Connector	Terminal	Continuity
A: B121	55	C: B16	2	Yes
	68		1	
B: B122	49	C: B100	2	
	54		1	

3. Check continuity between BOSE speaker amp. harness connectors B121 (A) and B122 (B) and ground.

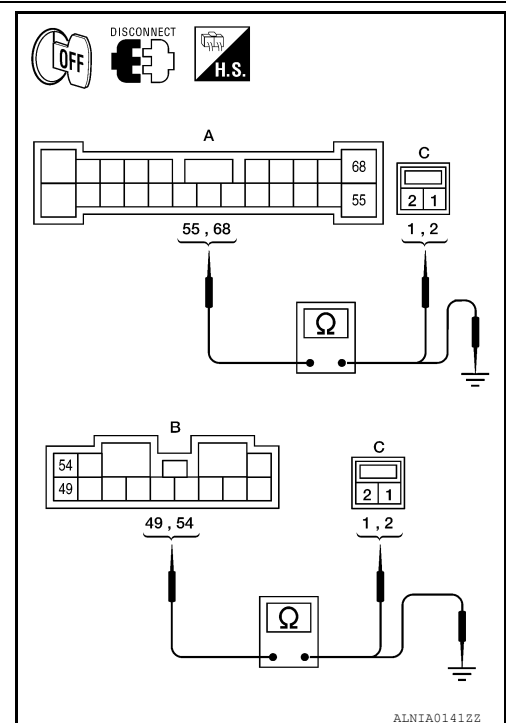
Connector	Terminal	—	Continuity
A: B121	68	Ground	No
	55		
B: B122	49		
	54		

Are the continuity test results as specified?

YES >> GO TO 3

NO >> Repair harness or connector.

### 3.REAR TWEETER SIGNAL CHECK

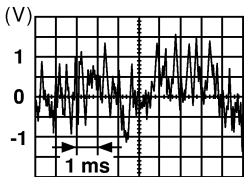


## REAR TWEETER (COUPE)

[BOSE AUDIO WITH NAVIGATION]

### < DTC/CIRCUIT DIAGNOSIS >

1. Connect BOSE speaker amp. connectors B121, B122 and suspect tweeter connector.
2. Turn ignition switch to ACC.
3. Push AV control unit "POWER" switch.
4. Check the signal between BOSE speaker amp. harness connectors (A) B121 and (B) B122 terminals with CONSULT or oscilloscope.

Connector	Terminals		Condition	Reference signal
	(+)	(-)		
A: B121	68	55	Receive audio signal	
B: B122	54	49		

SKIA0177E

Is the audio signal voltage readings as specified?

- YES >> Replace suspect tweeter. Refer to [AV-418. "Removal and Installation - Coupe"](#).
- NO >> GO TO 4.

### 4. HARNESS CHECK

1. Disconnect AV control unit connector M100 and BOSE speaker amp. connector B121.
2. Check continuity between AV control unit harness connector M100 (A) and BOSE speaker amp. harness connector B121 (B).

A		B		Continuity
Connector	Terminal	Connector	Terminal	
M100	4	B121	64	Yes
	5		63	
	13		66	
	14		65	

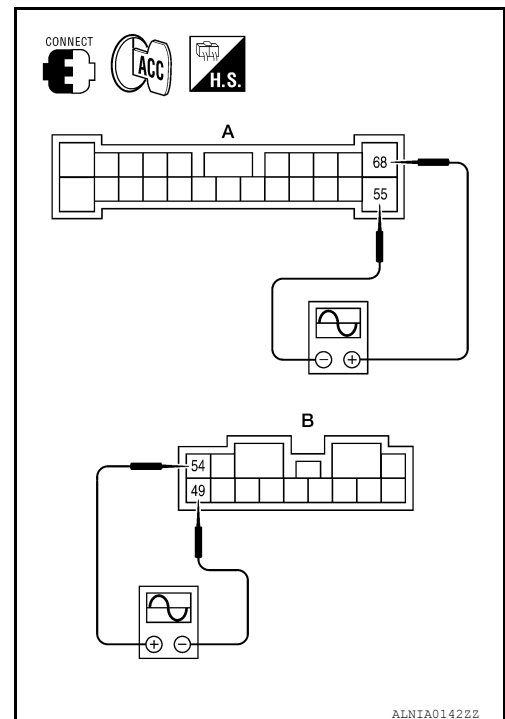
3. Check continuity between AV control unit harness connector M100 (A) and ground.

A		—	Continuity
Connector	Terminal		
M100	4	Ground	No
	5		
	13		
	14		

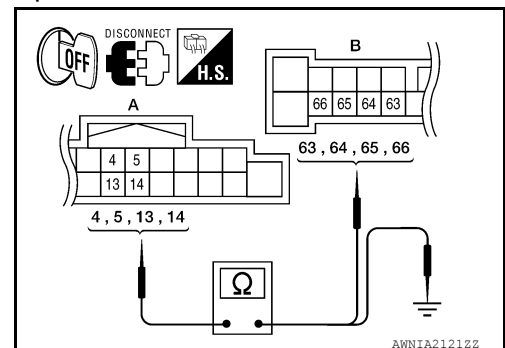
Are continuity test results as specified?

- YES >> GO TO 5
- NO >> Repair harness or connector.

### 5. REAR TWEETER SIGNAL CHECK



ALNIA01422Z



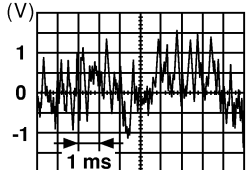
AWINIA21212Z

## REAR TWEETER (COUPE)

### < DTC/CIRCUIT DIAGNOSIS >

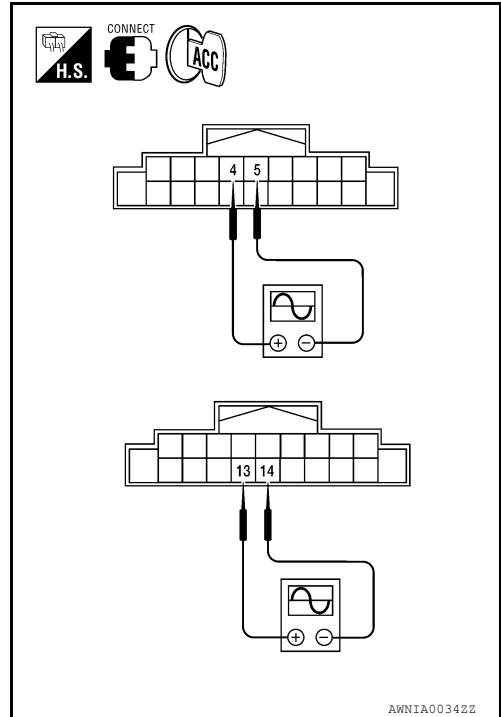
### [BOSE AUDIO WITH NAVIGATION]

1. Connect AV control unit connector M100 and BOSE speaker amp. connector B121.
2. Turn ignition switch to ACC.
3. Push AV control unit "POWER" switch.
4. Check the signal between AV control unit harness connector M100 terminals with CONSULT or oscilloscope.

Connector	Terminals		Condition	Reference signal
	(+)	(-)		
M100	4	5	Receive audio signal	
	13	14		

Are the audio signal voltage readings as specified?

- YES >> Replace BOSE speaker amp. Refer to [AV-411, "Removal and Installation - Coupe"](#).
- NO >> Replace AV control unit. Refer to [AV-410, "Removal and Installation"](#).



A  
B  
C  
D  
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F  
G  
H  
I  
J  
K  
L  
M  
AV  
O  
P

# REAR DOOR SPEAKER (SEDAN)

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

## REAR DOOR SPEAKER (SEDAN)

### Description

INFOID:000000006390208

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

INFOID:000000006390209

Regarding Wiring Diagram information, refer to [AV-377, "SEDAN : Wiring Diagram - Sedan With Navigation System"](#).

### 1.CONNECTOR CHECK

Check the AV control unit, BOSE speaker amp. and speaker connectors for the following:

- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair the terminal and connector.

### 2.HARNESS CHECK

1. Disconnect BOSE speaker amp. connectors B121, B122 and suspect speaker connector.
2. Check continuity between BOSE speaker amp. harness connectors B121 (A) and B122 (B) and suspect speaker harness connector (C).

Connector	Terminal	Connector	Terminal	Continuity
A: B121	55	C: D202	2	Yes
	68		1	
B: B122	49	C: D302	2	
	54		1	

3. Check continuity between BOSE speaker amp. harness connectors B121 (A) and B122 (B) and ground.

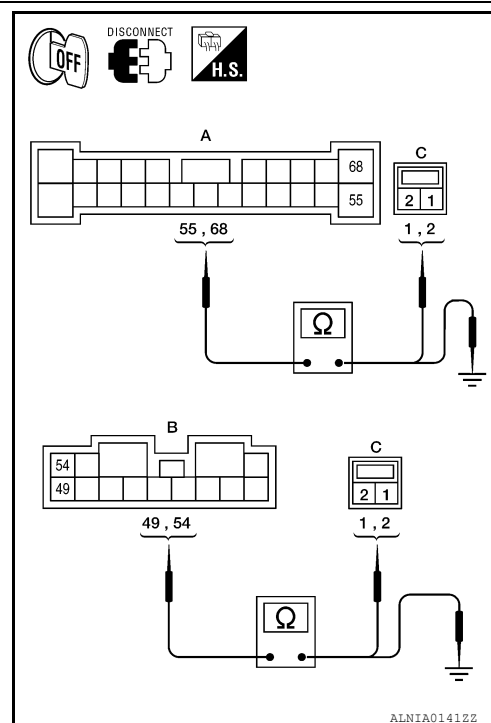
Connector	Terminal	—	Continuity
A: B121	68	Ground	No
	55		
B: B122	49		
	54		

Are the continuity test results as specified?

YES >> GO TO 3

NO >> Repair harness or connector.

### 3.REAR DOOR SPEAKER SIGNAL CHECK

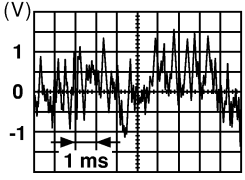


## REAR DOOR SPEAKER (SEDAN)

[BOSE AUDIO WITH NAVIGATION]

### < DTC/CIRCUIT DIAGNOSIS >

1. Connect BOSE speaker amp. connectors B121, B122 and suspect speaker connector.
2. Turn ignition switch to ACC.
3. Push AV control unit "POWER" switch.
4. Check the signal between BOSE speaker amp. harness connectors (A) B121 and (B) B122 terminals with CONSULT or oscilloscope.

Connector	Terminals		Condition	Reference signal
	(+)	(-)		
A: B121	68	55	Receive audio signal	
B: B122	54	49		

SKIA0177E

Is the audio signal voltage readings as specified?

- YES >> Replace suspect speaker. Refer to [AV-417, "Removal and Installation - Sedan"](#).
- NO >> GO TO 4.

### 4. HARNESS CHECK

1. Disconnect AV control unit connector M100 and BOSE speaker amp. connector B121.
2. Check continuity between AV control unit harness connector M100 (A) and BOSE speaker amp. harness connector B121 (B).

A		B		Continuity
Connector	Terminal	Connector	Terminal	
M100	4	B121	64	Yes
	5		63	
	13		66	
	14		65	

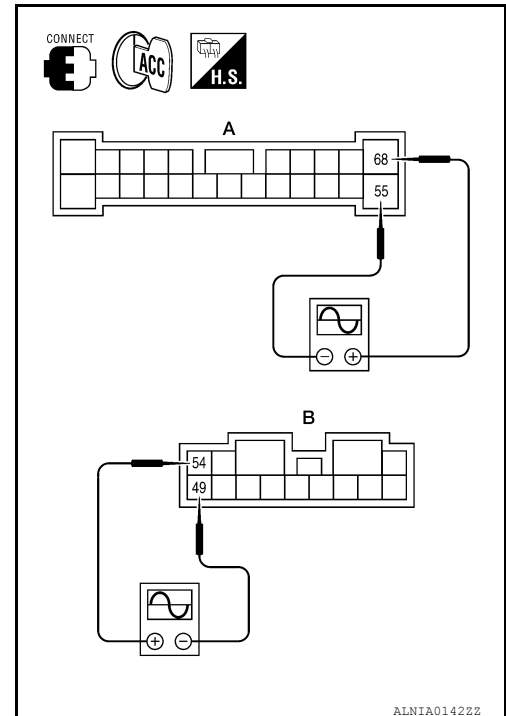
3. Check continuity between AV control unit harness connector M100 (A) and ground.

A		—	Continuity
Connector	Terminal		
M100	4	Ground	No
	5		
	13		
	14		

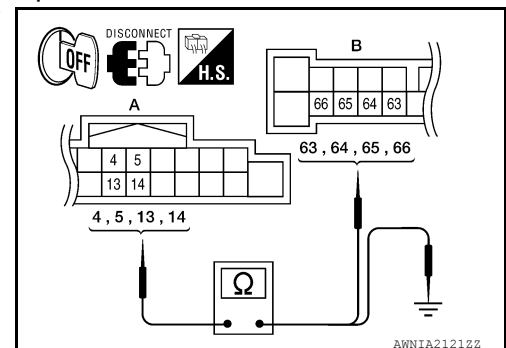
Are continuity test results as specified?

- YES >> GO TO 5
- NO >> Repair harness or connector.

### 5. REAR DOOR SPEAKER SIGNAL CHECK



ALNIA01422Z



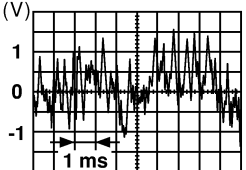
AWNIA2121ZZ

## REAR DOOR SPEAKER (SEDAN)

[BOSE AUDIO WITH NAVIGATION]

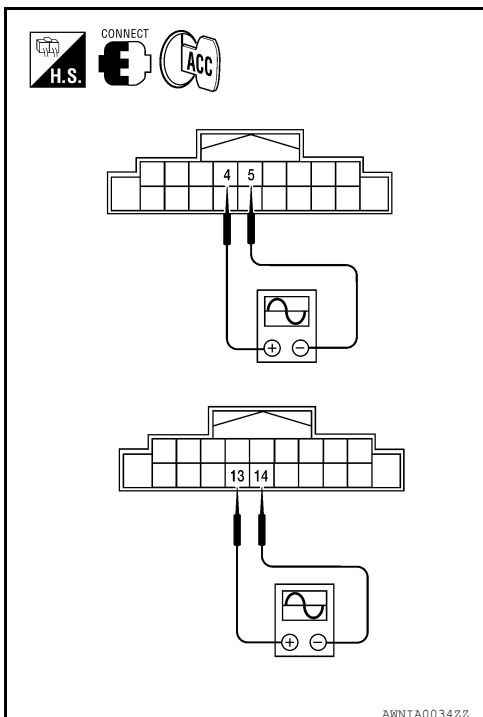
### < DTC/CIRCUIT DIAGNOSIS >

1. Connect AV control unit connector M100 and BOSE speaker amp. connector B121.
2. Turn ignition switch to ACC.
3. Push AV control unit "POWER" switch.
4. Check the signal between AV control unit harness connector M100 terminals with CONSULT or oscilloscope.

Connector	Terminals		Condition	Reference signal
	(+)	(-)		
M100	4	5	Receive audio signal	 <p>SKIA0177E</p>
	13	14		

Are the audio signal voltage readings as specified?

- YES >> Replace BOSE speaker amp. Refer to [AV-411, "Removal and Installation - Sedan"](#).
- NO >> Replace AV control unit. Refer to [AV-410, "Removal and Installation"](#).



# SUBWOOFER (COUPE)

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

## SUBWOOFER (COUPE)

### Description

INFOID:000000006390210

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

INFOID:000000006390211

Regarding Wiring Diagram information, refer to [AV-357, "COUPE : Wiring Diagram - Coupe With Navigation System"](#).

### 1.CONNECTOR CHECK

Check the AV control unit, BOSE speaker amp. and speaker connectors for the following:

- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair the terminal and connector.

### 2.HARNESS CHECK

1. Disconnect BOSE speaker amp. connector B122 and suspect rear subwoofer connector.
2. Check continuity between BOSE speaker amp. harness connector B122 (A) and suspect rear subwoofer harness connector (B).

A		B		Continuity
Connector	Terminal	Connector	Terminal	
B122	53	B25	1	Yes
	48		2	
	45	B47	1	
	46		2	

3. Check continuity between BOSE speaker amp. harness connector B122 (A) and ground.

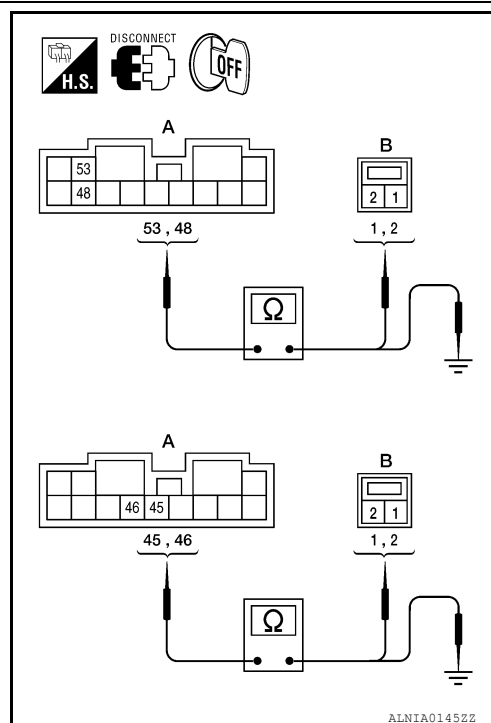
A		—	Continuity
Connector	Terminal		
B122	53	Ground	No
	48		
	45		
	46		

Are the continuity test results as specified?

YES >> GO TO 3

NO >> Repair harness or connector.

### 3.REAR SUBWOOFER SIGNAL CHECK

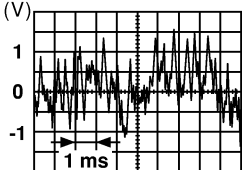


## SUBWOOFER (COUPE)

### < DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

1. Connect BOSE speaker amp. connector B122 and suspect rear subwoofer connector.
2. Turn ignition switch to ACC.
3. Push AV control unit "POWER" switch.
4. Check the signal between BOSE speaker amp. harness connector B122 terminals with CONSULT or oscilloscope.

Connector	Terminals		Condition	Reference signal
	(+)	(-)		
B122	53	48	Receive audio signal	
	45	46		

SKIA0177E

Is the audio signal voltage as specified?

YES >> Replace suspect rear subwoofer. Refer to [AV-419, "Removal and Installation"](#).

NO >> GO TO 4

### 4. HARNESS CHECK

1. Disconnect AV control unit connector M100 and BOSE speaker amp. connector B121.
2. Check continuity between AV control unit harness connector M100 (A) and BOSE speaker amp. harness connector B121 (B).

A		B.		Continuity
Connector	Terminal	Connector	Terminal	
M100	4	B121	64	Yes
	5		63	
	13		66	
	14		65	

3. Check continuity between AV control unit harness connector M100 (A) and ground.

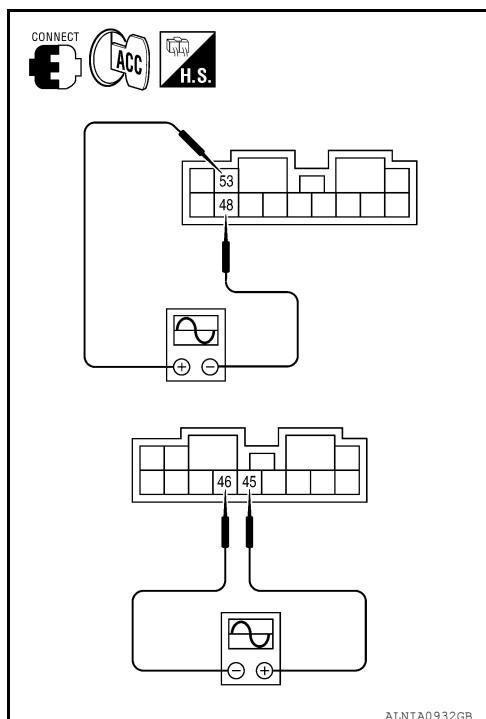
A		—	Continuity
Connector	Terminal		
M100	4	Ground	No
	5		
	13		
	14		

Are continuity test results as specified?

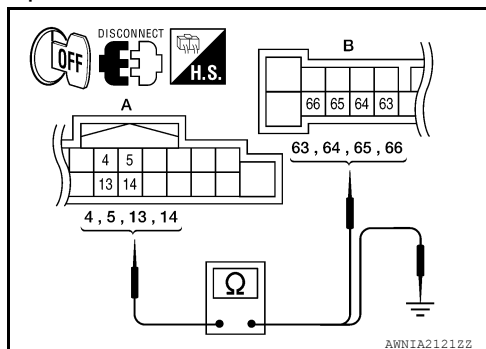
YES >> GO TO 5

NO >> Repair harness or connector.

### 5. REAR SUBWOOFER SIGNAL CHECK



ALNIA0932GB



AWNIA2121Z2

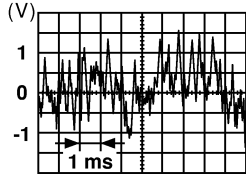


# SUBWOOFER (COUPE)

## < DTC/CIRCUIT DIAGNOSIS >

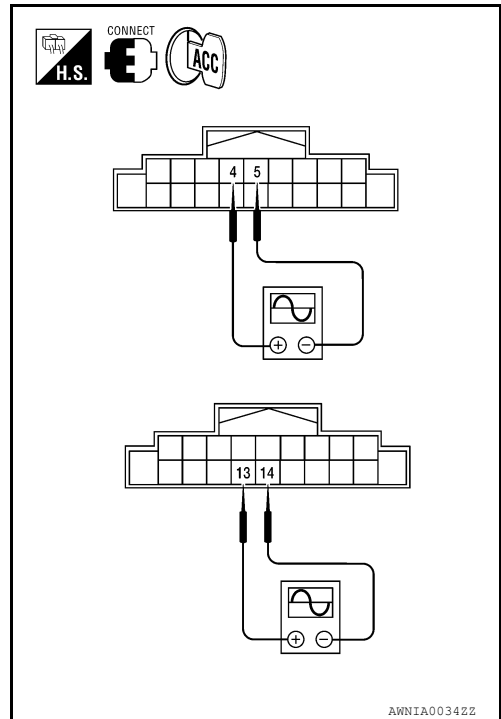
## [BOSE AUDIO WITH NAVIGATION]

1. Connect AV control unit connector M100 and BOSE speaker amp. connector B121.
2. Turn ignition switch to ACC.
3. Push AV control unit "POWER" switch.
4. Check the signal between AV control unit harness connector M100 terminals with CONSULT or oscilloscope.

Connector	Terminals		Condition	Reference signal
	(+)	(-)		
M100	4	5	Receive audio signal	 <p>SKIA0177E</p>
	13	14		

Are the audio signal voltage readings as specified?

- YES >> Replace BOSE speaker amp. Refer to [AV-411, "Removal and Installation - Coupe"](#).
- NO >> Replace AV control unit. Refer to [AV-410, "Removal and Installation"](#).



# SUBWOOFER (SEDAN)

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

## SUBWOOFER (SEDAN)

### Description

INFOID:000000006390212

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

INFOID:000000006390213

Regarding Wiring Diagram information, refer to [AV-377, "SEDAN : Wiring Diagram - Sedan With Navigation System"](#).

## 1.CONNECTOR CHECK

Check the AV control unit, BOSE speaker amp. and speaker connectors for the following:

- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair the terminal and connector.

## 2.HARNESS CHECK

1. Disconnect BOSE speaker amp. connector B122 and suspect rear subwoofer connector.
2. Check continuity between BOSE speaker amp. harness connector B122 (A) and suspect rear subwoofer harness connector (B).

A		B		Continuity
Connector	Terminal	Connector	Terminal	
B122	53	B120	1	Yes
	48		2	
	45	B124	1	
	46		2	

3. Check continuity between BOSE speaker amp. harness connector B122 (A) and ground.

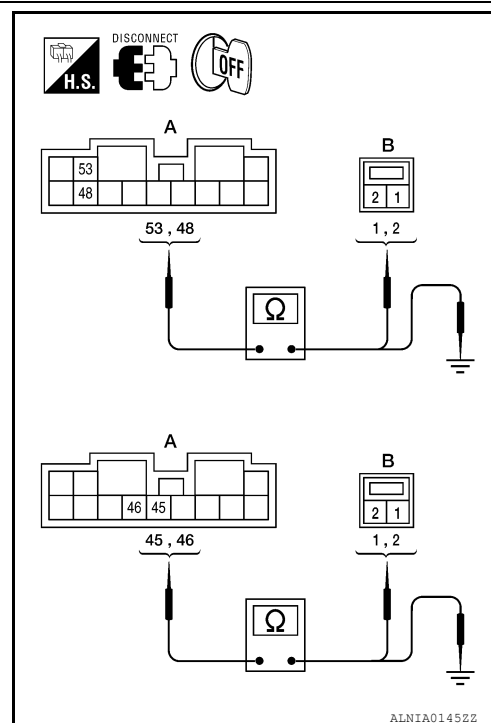
A		—	Continuity
Connector	Terminal		
B122	53	Ground	No
	48		
	45		
	46		

Are the continuity test results as specified?

YES >> GO TO 3

NO >> Repair harness or connector.

## 3.REAR SUBWOOFER SIGNAL CHECK

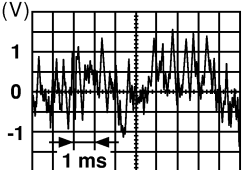


# SUBWOOFER (SEDAN)

[BOSE AUDIO WITH NAVIGATION]

## < DTC/CIRCUIT DIAGNOSIS >

1. Connect BOSE speaker amp. connector B122 and suspect rear subwoofer connector.
2. Turn ignition switch to ACC.
3. Push AV control unit "POWER" switch.
4. Check the signal between BOSE speaker amp. harness connector B122 terminals with CONSULT or oscilloscope.

Connector	Terminals		Condition	Reference signal
	(+)	(-)		
B122	53	48	Receive audio signal	
	45	46		

SKIA0177E

Is the audio signal voltage as specified?

YES >> Replace suspect rear subwoofer. Refer to [AV-419](#), "Removal and Installation".

NO >> GO TO 4

## 4. HARNESS CHECK

1. Disconnect AV control unit connector M100 and BOSE speaker amp. connector B121.
2. Check continuity between AV control unit harness connector M100 (A) and BOSE speaker amp. harness connector B121 (B).

A		B.		Continuity
Connector	Terminal	Connector	Terminal	
M100	4	B121	64	Yes
	5		63	
	13		66	
	14		65	

3. Check continuity between AV control unit harness connector M100 (A) and ground.

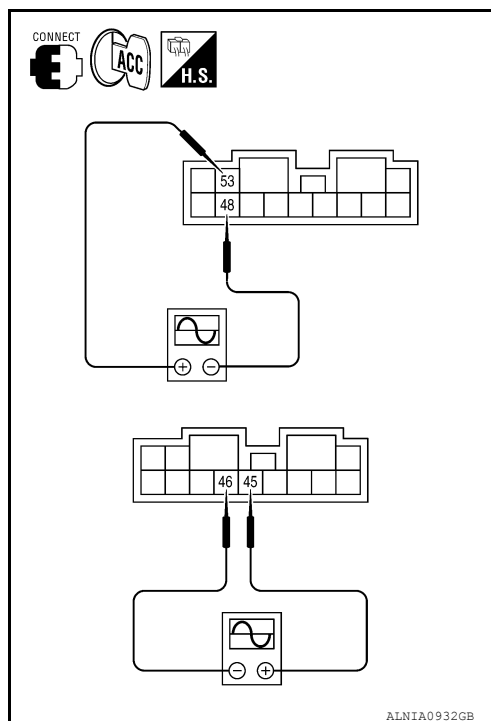
A		—	Continuity
Connector	Terminal		
M100	4	Ground	No
	5		
	13		
	14		

Are continuity test results as specified?

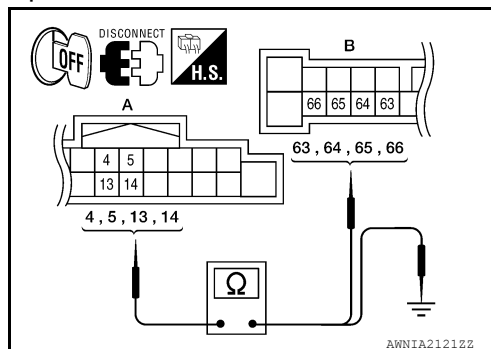
YES >> GO TO 5

NO >> Repair harness or connector.

## 5. REAR SUBWOOFER SIGNAL CHECK



ALNIA0932GB



AWNIA2121ZZ

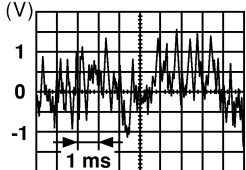
AV

## SUBWOOFER (SEDAN)

### < DTC/CIRCUIT DIAGNOSIS >

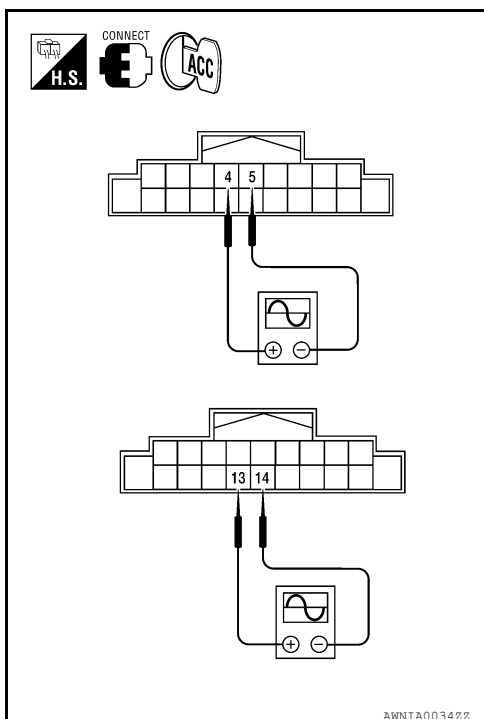
### [BOSE AUDIO WITH NAVIGATION]

1. Connect AV control unit connector M100 and BOSE speaker amp. connector B121.
2. Turn ignition switch to ACC.
3. Push AV control unit "POWER" switch.
4. Check the signal between AV control unit harness connector M100 terminals with CONSULT or oscilloscope.

Connector	Terminals		Condition	Reference signal
	(+)	(-)		
M100	4	5	Receive audio signal	 SKIA0177E
	13	14		

Are the audio signal voltage readings as specified?

- YES >> Replace BOSE speaker amp. Refer to [AV-411, "Removal and Installation - Sedan"](#).
- NO >> Replace AV control unit. Refer to [AV-410, "Removal and Installation"](#).



# STEERING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

## STEERING SWITCH

### Description

INFOID:000000006390214

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

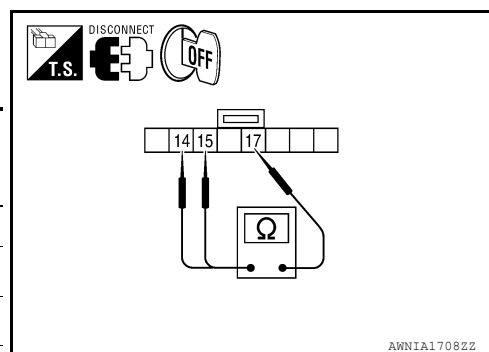
INFOID:000000006390215

Regarding Wiring Diagram information, refer to [AV-357, "COUPE : Wiring Diagram - Coupe With Navigation System"](#) or [AV-377, "SEDAN : Wiring Diagram - Sedan With Navigation System"](#).

## 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.

Terminal	Signal name	Condition	Resistance (Ω) (Approx.)
14	Enter	Depress ENTER switch.	2003-2043
	Phone/send	Depress  switch.	716-730
	Menu (down)	Depress  switch.	318-324
	Menu (up)	Depress  switch.	120-122
	Source	Depress SOURCE switch.	0
15	Menu back	Depress the back switch.	716-730
	Phone/end	Depress  switch.	318-324
	Volume (up)	Depress VOL up switch.	120-122
	Volume (down)	Depress VOL down switch.	0



Do the steering wheel audio control switches check OK?

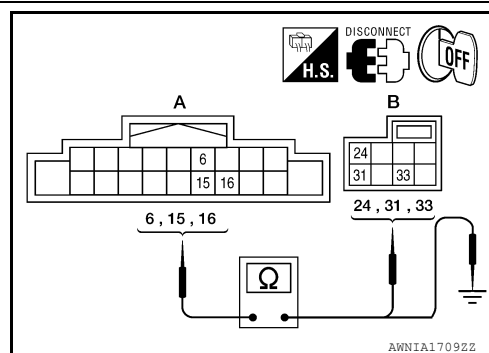
YES >> GO TO 2.

NO >> Replace steering wheel audio control switch. Refer to [AV-421, "Removal and Installation"](#).

## 2.CHECK HARNESS

1. Disconnect AV control unit connector M100 and spiral cable connector M30.
2. Check continuity between AV control unit harness connector M100 (A) and spiral cable harness connector M30 (B).

A		B		Continuity
Connector	Terminal	Connector	Terminal	
M100	6	M30	24	Yes
	15		33	
	16		31	



3. Check continuity between AV switch connector M100 (A) and ground.

# STEERING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

A		—	Continuity
Connector	Terminal		
M100	6	Ground	No
	15		
	16		

Are the continuity results as specified?

YES >> GO TO 3.

NO >> Repair harness.

## 3. SPIRAL CABLE CHECK

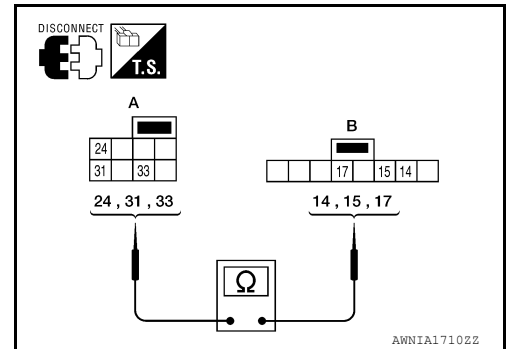
1. Disconnect spiral cable connector M88.
2. Check continuity between spiral cable harness connector M30 (A) and M88 (B).

A		B		Continuity
Connector	Terminal	Connector	Terminal	
M30	24	M88	14	Yes
	31		15	
	33		17	

Does the spiral cable check OK?

YES >> Inspection End.

NO >> Replace spiral cable. Refer to [SR-8. "Removal and Installation"](#).



# AMP ON SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

## AMP ON SIGNAL CIRCUIT

### Description

INFOID:000000006390216

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

INFOID:000000006390217

Regarding Wiring Diagram information, refer to [AV-357, "COUPE : Wiring Diagram - Coupe With Navigation System"](#) or [AV-377, "SEDAN : Wiring Diagram - Sedan With Navigation System"](#).

### 1.CHECK AMP ON SIGNAL (BOSE SPEAKER AMP)

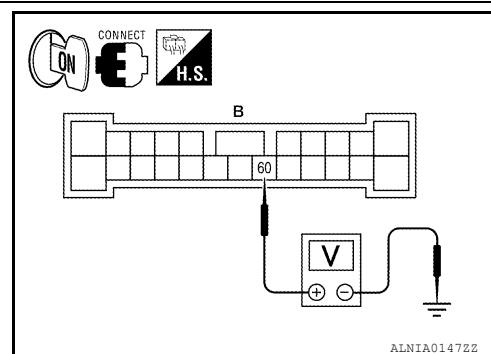
1. Turn audio system ON.
2. Check voltage between BOSE speaker amp. harness connector B121 terminal 60 and ground.

**60 - Ground**

**: More than approx. 6.5V**

Is voltage greater than 6.5V?

- YES >> INSPECTION END.  
NO >> GO TO 2



### 2.CHECK AMP ON SIGNAL (AV CONTROL UNIT)

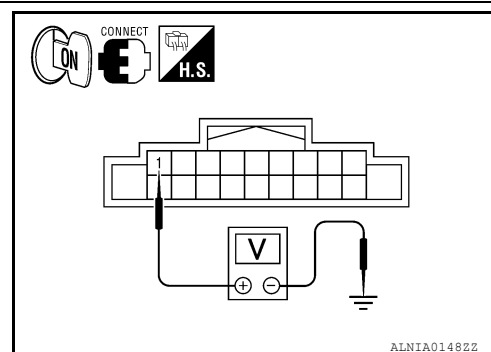
Check voltage between AV control unit harness connector M100 terminal 1 and ground.

**1 - Ground**

**: More than approx. 6.5V**

Is voltage approximately 6.5 volts?

- YES >> Repair harness or connector.  
NO >> Replace AV control unit. Refer to [AV-410, "Removal and Installation"](#).



# AUX IMAGE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

## AUX IMAGE SIGNAL CIRCUIT

### Description

INFOID:000000006390218

- 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

INFOID:000000006390219

Regarding Wiring Diagram information, refer to [AV-357, "COUPE : Wiring Diagram - Coupe With Navigation System"](#) or [AV-377, "SEDAN : Wiring Diagram - Sedan With Navigation System"](#).

### 1.CHECK CONTINUITY AUX IMAGE SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect auxiliary input jack connector M212 and AV control unit connector M103.
3. Check continuity between auxiliary input jack harness connector M212 (A) terminal 8 and AV control unit harness connector M103 (B) terminal 76.

A		B		Continuity
Connector	Terminal	Connector	Terminal	
M212	8	M103	76	Yes

4. Check continuity between auxiliary input jack harness connector M212 (A) terminal 8 and ground.

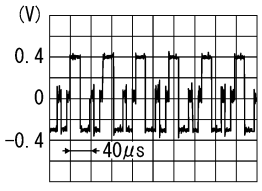
A		—	Continuity
Connector	Terminal		
M212	8	Ground	No

Is the inspection result normal?

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

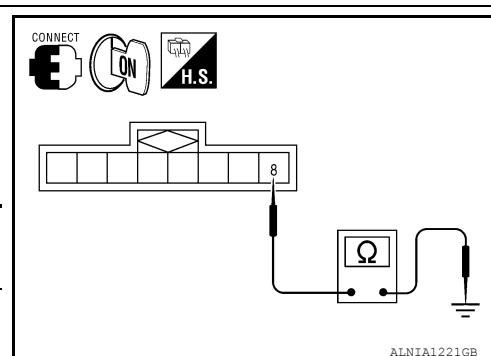
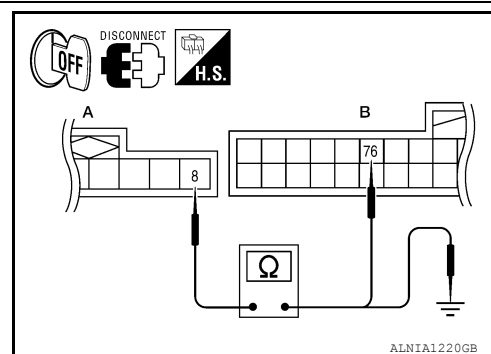
### 2.CHECK AUX IMAGE SIGNAL

1. Connect auxiliary input jack connector M212 and AV control unit connector M103.
2. Turn ignition switch ON.
3. Check signal between auxiliary input jack connector M212 terminal 8 and ground.

(+) (V)		(-)	Condition	Reference signal
Connector	Terminal			
M212	8	Ground	Receive audio signal	 <p>SKIB2236J</p>

Is the inspection result normal?

- YES >> Replace AV control unit. Refer to [AV-410, "Removal and Installation"](#).  
NO >> Check that there is no malfunction in the external device.





# MICROPHONE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

## MICROPHONE SIGNAL CIRCUIT

### Description

INFOID:000000006390220

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

### Diagnosis Procedure

INFOID:000000006390221

Regarding Wiring Diagram information, refer to [AV-357, "COUPE : Wiring Diagram - Coupe With Navigation System"](#) or [AV-377, "SEDAN : Wiring Diagram - Sedan With Navigation System"](#).

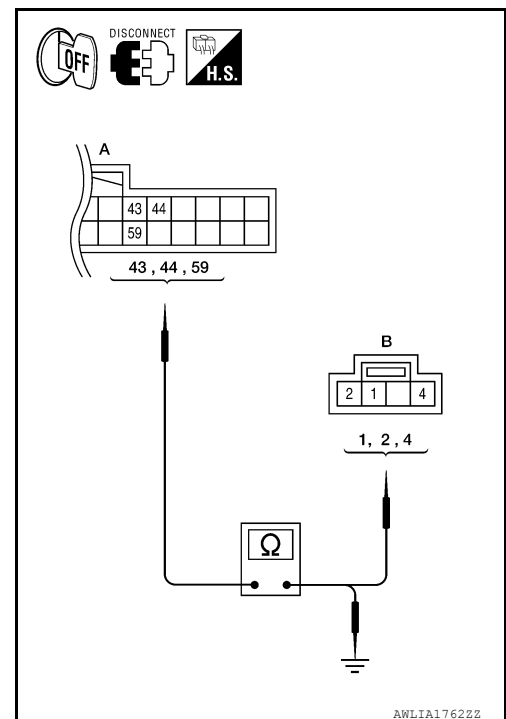
### 1.CHECK HARNESS BETWEEN AV CONTROL UNIT AND MICROPHONE

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector and microphone connector.
3. Check continuity between AV control unit harness connector M102 (A) and microphone harness connector R7 (B).

A		B		Continuity
Connector	Terminal	Connector	Terminal	
M102	59	R7	1	Yes
	43		2	
	44		4	

4. Check continuity between AV control unit harness connector M102 (A) and ground.

A		—	Continuity
Connector	Terminal		
M102	44	Ground	No
	43		
	59		



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.

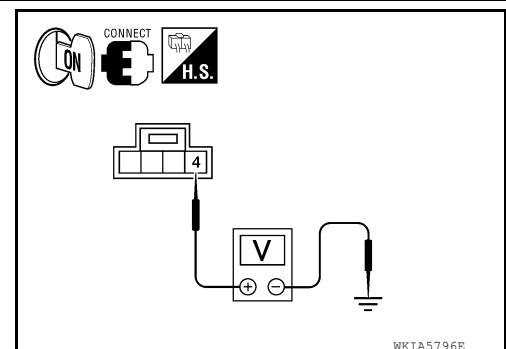
(+) (V)		(-)	Voltage (approx)
Connector	Terminal		
R7	4	Ground	5V

Is voltage reading approx. 5 volts?

YES >> GO TO 3.

NO >> Replace AV control unit. Refer to [AV-410, "Removal and Installation"](#).

### 3.CHECK MICROPHONE SIGNAL

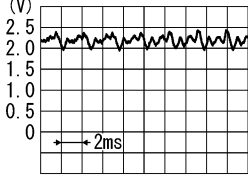


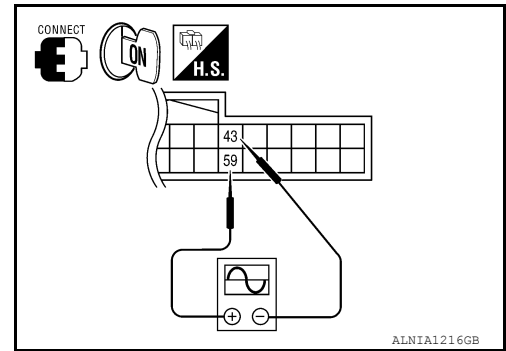
# MICROPHONE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

Check signal between AV control unit harness connector M102 terminals 43 and 59.

Connector	(+)	(-)	Reference signal
	Terminal	Terminal	
M102	59	43	<p>While speaking into MIC</p>  <p>PKIB5037J</p>



Are voltage readings as specified?

- YES >> Replace AV control unit. Refer to [AV-410, "Removal and Installation"](#).  
 NO >> Replace microphone. Refer to [AV-429, "Removal and Installation"](#).

# CAMERA IMAGE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

## CAMERA IMAGE SIGNAL CIRCUIT

### Description

INFOID:000000006390222

Rear view camera images are transmitted to the AV control unit using the camera image signal circuits.

### Diagnosis Procedure

INFOID:000000006390223

Regarding Wiring Diagram information, refer to [AV-357, "COUPE : Wiring Diagram - Coupe With Navigation System"](#) or [AV-377, "SEDAN : Wiring Diagram - Sedan With Navigation System"](#).

### 1. CHECK CAMERA IMAGE SIGNAL CIRCUIT CONTINUITY

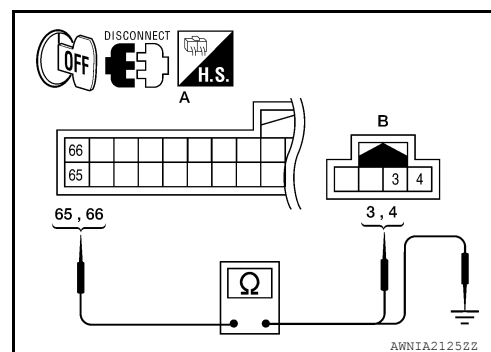
1. Turn ignition switch OFF.
2. Disconnect AV control unit connector and rear view camera connector.
3. Check continuity between AV control unit harness connector M103 (A) terminals 65, 66 and rear view camera harness connector B35 (sedan) or T7 (coupe) (B) terminals 3, 4.

**65 - 4** : Continuity should exist.

**66 - 3** : Continuity should exist.

4. Check continuity between AV control unit harness connector M103 (A) terminals 9, 10 and ground.

**65, 66 - Ground** : Continuity should not exist.



Is inspection result OK?

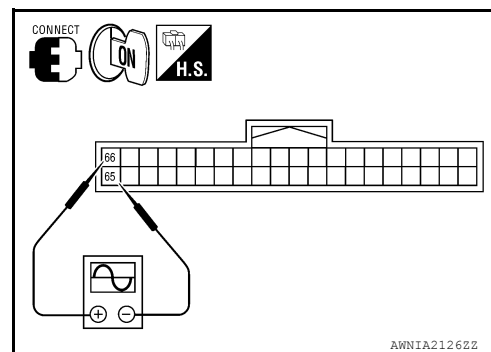
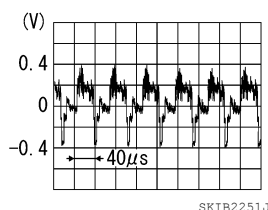
YES >> GO TO 2

NO >> Repair harness or connector.

### 2. CHECK CAMERA IMAGE SIGNAL

1. Connect AV control unit connector and rear view camera connector.
2. Turn ignition switch ON.
3. Check signal between AV control unit harness connector M103 terminals 65 and 66.

**65 - 66** :



Is inspection result OK?

YES >> Replace AV control unit. Refer to [AV-410, "Removal and Installation"](#).

NO >> Replace rear view camera. Refer to [AV-430, "Removal and Installation"](#).

# AV CONTROL UNIT (COUPE)

< ECU DIAGNOSIS INFORMATION >

[BOSE AUDIO WITH NAVIGATION]

## ECU DIAGNOSIS INFORMATION

### AV CONTROL UNIT (COUPE)

#### Reference Value

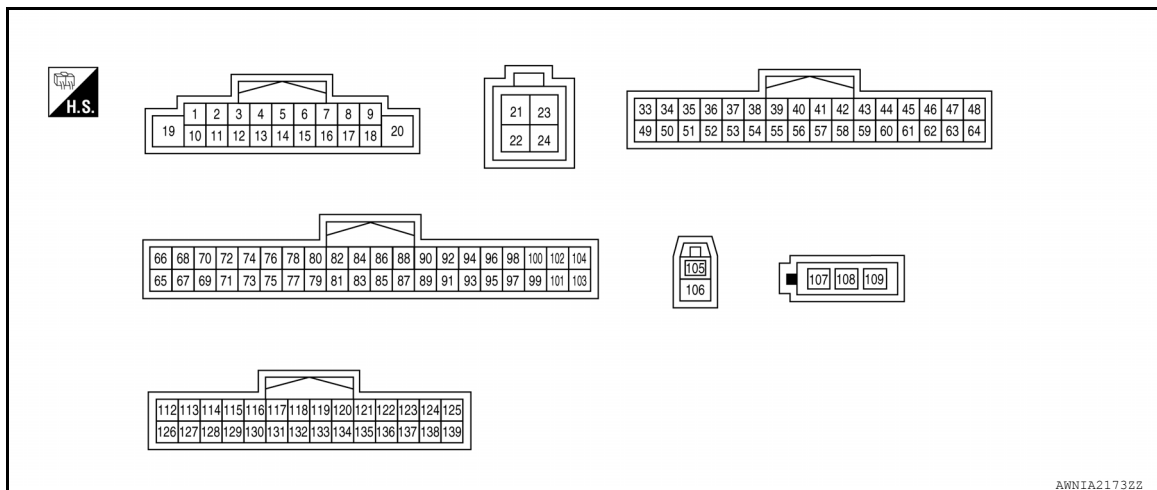
INFOID:000000006390226

#### VALUES ON THE DIAGNOSIS TOOL

CONSULT data monitor item

Display Item	Display	Vehicle status	Remarks
VHCL SPD SIG	ON	Vehicle speed >0 km/h (0 MPH)	Changes in indication may be delayed. This is normal.
	OFF	Vehicle speed =0 km/h (0 MPH)	
PKB SIG	ON	Parking brake is applied.	Changes in indication may be delayed. This is normal.
	OFF	Parking brake is released.	
ILLUM SIG	ON	Block the light beam from the auto light optical sensor when the light SW is ON.	—
	OFF	Expose the auto light optical sensor to light when the light SW is OFF or ON.	
IGN SIG	ON	Ignition switch ON	—
	OFF	Ignition switch in ACC position	
REV SIG	ON	Selector lever in R position	Changes in indication may be delayed. This is normal.
	OFF	Selector lever in any position other than R	

#### TERMINAL LAYOUT

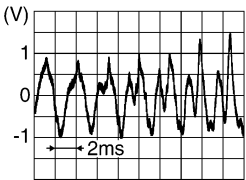
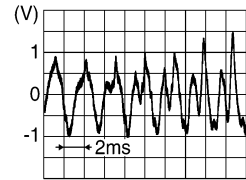

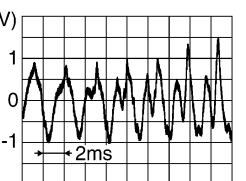
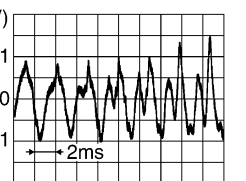


#### PHYSICAL VALUES

# AV CONTROL UNIT (COUPE)

< ECU DIAGNOSIS INFORMATION >

[BOSE AUDIO WITH NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
1 (B/P)	Ground	Amp. ON signal	Output	Ignition switch ON	—	Battery voltage
2 (G)	3 (R)	Pre-amp. audio signal front LH	Output	Ignition switch ON	Audio output	 SKIB3609E
4 (GR/V)	5 (V)	Pre-amp. audio signal rear LH	Output	Ignition switch ON	Audio output	 SKIB3609E
6 (W/G)	15 (L/B)	Steering switch signal A	Input	Ignition switch OFF	Depress SOURCE switch.	0V
					Depress $\Delta$ switch.	1.0V
					Depress $\nabla$ switch.	2.0V
					Depress  switch.	3.0V
					Depress ENTER switch.	4.0V
					Except for above.	5.0V
7 (V/Y)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
9 (R/L)	8 (R/Y)	Illumination signal	Input	OFF	Lighting switch is OFF	0V
					Lighting switch is ON	Battery voltage
10	—	Shield	—	—	—	—
11 (B)	12 (W)	Pre-amp. audio signal front RH	Output	Ignition switch ON	Audio output	 SKIB3609E
13 (V)	14 (LG)	Audio signal rear RH	Output	Ignition switch ON	Audio output	 SKIB3609E
15 (L/B)	Ground	Steering switch signal ground	—	Ignition switch ON	—	0V


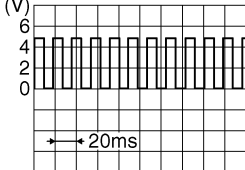
A  
B  
C  
D  
E  
F  
G  
H  
I  
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AV

# AV CONTROL UNIT (COUPE)

< ECU DIAGNOSIS INFORMATION >

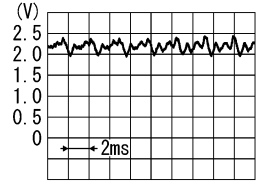
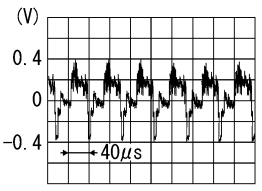
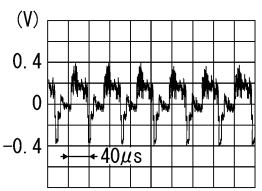
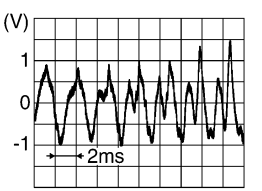
[BOSE AUDIO WITH NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
16 (GR/L)	15 (L/B)	Steering switch signal B	Input	Ignition switch ON	Depress VOL down switch.	0V
					Depress VOL up switch.	1.0V
					Depress  switch.	2.0V
					Depress the back switch.	3.0V
					Except for the above.	5.0V
19 (Y/R)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
20 (B)	Ground	Ground	—	Ignition switch ON	—	0V
21 (B)	—	USB ground	—	—	—	—
22 (W)	—	USB D—	—	—	—	—
23 (R)	—	V BUS signal	—	—	—	—
24 (G)	—	USB D+	—	—	—	—
37 (G/R)	Ground	Parking brake signal	Input	Ignition switch ON	Parking brake is ON.	5.0 V
					Parking brake is OFF.	0 V
44 (R)	43 (B)	Microphone VCC	Output	Ignition switch ON	—	5.0 V
46 (P)	—	CAN—L	Input/ Output	—	—	—
51 (R/L)	8 (R/Y)	Illumination signal	Input	Ignition switch OFF	Lighting switch is OFF.	0 V
					Lighting switch is ON.	12.0 V
52 (G)	Ground	Ignition signal	Input	Ignition switch ON	—	Battery voltage
53 (P/B)	Ground	Reverse signal	Input	Ignition switch ON	R position	12.0 V
					Other than R position	0 V
54 (V/W)	Ground	Vehicle speed signal (8-pulse)	Input	Ignition switch ON	When vehicle speed is approx. 40 km/h (25 MPH)	<p><b>NOTE:</b> Maximum voltage may be 12.0 V due to specifications (connected units).</p>  <p>SKIA6649J</p>

# AV CONTROL UNIT (COUPE)

< ECU DIAGNOSIS INFORMATION >

[BOSE AUDIO WITH NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
59 (B/R)	Ground	Microphone signal	Input	Ignition switch ON	Give a voice	 PKIB5037J
62 (L)	—	CAN-H	Input/ Output	—	—	—
65	—	Shield	—	—	—	—
66 (Y)	Ground	Camera image signal	Input	Ignition switch ON	Camera image is displayed.	 SKIB2251J
67 (B)	Ground	Rear view camera ground	—	Ignition switch ON	—	0 V
68 (GR)	Ground	Camera ON signal	Output	Ignition switch ON	R position.	6.0 V
					Other than R position.	0 V
76 (L)	75 (P)	AUX image signal	Input	Ignition switch ON	At AUX image is displayed.	 SKIB2251J
77	—	Shield	—	—	—	—
105 (B)	—	GPS antenna signal	—	—	—	—
106	—	Shield	—	—	—	—
107 (B)	—	Amplified window antenna signal	Input	—	—	—
108 (B)	Ground	Antenna amp. ON signal	Output	Ignition switch ACC	—	Battery voltage
115 (W)	130 (B)	AUX sound signal LH	Input	Ignition switch ON	When AUX mode is select- ed.	 SKIB3609E

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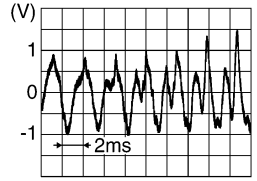
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# AV CONTROL UNIT (COUPE)

< ECU DIAGNOSIS INFORMATION >

[BOSE AUDIO WITH NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
128	—	Shield	—	—	—	—
129 (R)	130 (B)	AUX sound signal RH	Input	Ignition switch ON	When AUX mode is select- ed.	 <p>(V)</p> <p>2ms</p> <p>SKIB3609E</p>

## DTC Index

INFOID:000000006390227

## SELF-DIAGNOSIS RESULTS DISPLAY ITEM

DTC	Display item	Refer to
U1000	CAN COMM CIRCUIT [U1000]	<a href="#">AV-273</a>
U1010	CONTROL UNIT (CAN) [1010]	<a href="#">AV-274</a>
U1200	Cont Unit [U1200]	<a href="#">AV-275</a>
U1201	GYRO NO CONN [U1201]	<a href="#">AV-276</a>
U1202	G-SENSOR NO CONN [U1202]	<a href="#">AV-277</a>
U1204	GPS COMM [U1204]	<a href="#">AV-278</a>
U1205	GPS ROM [U1205]	<a href="#">AV-279</a>
U1206	GPS RAM [U1206]	<a href="#">AV-280</a>
U1207	GPS RTC [U1207]	<a href="#">AV-281</a>
U1216	CAN CONT [U1216]	<a href="#">AV-282</a>
U1217	BLUETOOTH MODULE [U1217]	<a href="#">AV-283</a>
U1218	HDD CONN [U1218]	<a href="#">AV-284</a>
U1219	HDD READ [U1219]	<a href="#">AV-285</a>
U121A	HDD WRITE [U121A]	<a href="#">AV-286</a>
U121B	HDD COMM [U121B]	<a href="#">AV-287</a>
U121C	HDD ACCESS [U121C]	<a href="#">AV-288</a>
U121D	DSP CONN [U121D]	<a href="#">AV-289</a>
U121E	DSP COMM [U121E]	<a href="#">AV-290</a>
U1225	USB CONTROLLER [U1225]	<a href="#">AV-291</a>
U1227	DVD COMM [U1227]	<a href="#">AV-292</a>
U1228	SUB CPU CONN [U1228]	<a href="#">AV-293</a>
U1229	iPod CERTIFICATION [U1229]	<a href="#">AV-294</a>
U122A	CONFIG UNFINISH [U122A]	<a href="#">AV-295</a>
U122E	Built-in AUDIO CONN [U122E]	<a href="#">AV-296</a>
U1244	GPS ANTENNA CONN [U1244]	<a href="#">AV-297</a>
U1263	USB OVERCURRENT [U1263]	<a href="#">AV-298</a>
U1310	CONTROL UNIT (AV) [U1310]	<a href="#">AV-299</a>



# AV CONTROL UNIT (SEDAN)

< ECU DIAGNOSIS INFORMATION >

[BOSE AUDIO WITH NAVIGATION]

## AV CONTROL UNIT (SEDAN)

### Reference Value

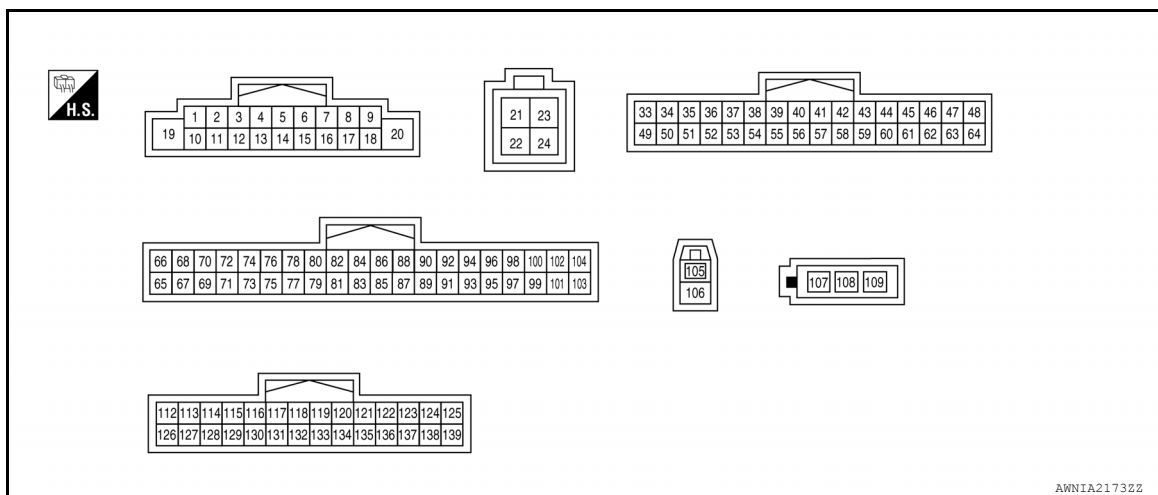
INFOID:000000006390228

### VALUES ON THE DIAGNOSIS TOOL

CONSULT data monitor item

Display Item	Dis-play	Vehicle status	Remarks
VHCL SPD SIG	ON	Vehicle speed >0 km/h (0 MPH)	Changes in indication may be delayed. This is normal.
	OFF	Vehicle speed =0 km/h (0 MPH)	
PKB SIG	ON	Parking brake is applied.	Changes in indication may be delayed. This is normal.
	OFF	Parking brake is released.	
ILLUM SIG	ON	Block the light beam from the auto light optical sensor when the light SW is ON.	—
	OFF	Expose the auto light optical sensor to light when the light SW is OFF or ON.	
IGN SIG	ON	Ignition switch ON	—
	OFF	Ignition switch in ACC position	
REV SIG	ON	Selector lever in R position	Changes in indication may be delayed. This is normal.
	OFF	Selector lever in any position other than R	

### TERMINAL LAYOUT



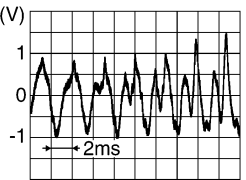
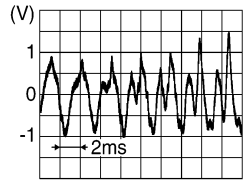

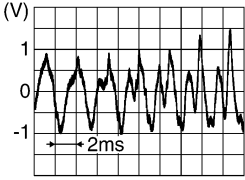
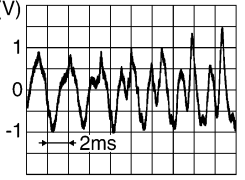
### PHYSICAL VALUES

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# AV CONTROL UNIT (SEDAN)

< ECU DIAGNOSIS INFORMATION >


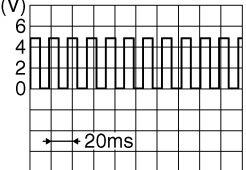
[BOSE AUDIO WITH NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
1 (B/P)	Ground	Amp. ON signal	Output	Ignition switch ON	—	Battery voltage
2 (G)	3 (R)	Pre-amp. audio signal front LH	Output	Ignition switch ON	Audio output	 SKIB3609E
4 (GR)	5 (V)	Pre-amp. audio signal rear LH	Output	Ignition switch ON	Audio output	 SKIB3609E
6 (W/G)	15 (L/B)	Steering switch signal A	Input	Ignition switch OFF	Depress SOURCE switch.	0V
					Depress $\Delta$ switch.	1.0V
					Depress $\nabla$ switch.	2.0V
					Depress  switch.	3.0V
					Depress ENTER switch.	4.0V
					Except for above.	5.0V
7 (V/Y)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
9 (R/L)	8 (R/Y)	Illumination signal	Input	OFF	Lighting switch is OFF	0V
					Lighting switch is ON	Battery voltage
10	—	Shield	—	—	—	—
11 (B)	12 (W)	Pre-amp. audio signal front RH	Output	Ignition switch ON	Audio output	 SKIB3609E
13 (V)	14 (LG)	Audio signal rear RH	Output	Ignition switch ON	Audio output	 SKIB3609E
15 (L/B)	Ground	Steering switch signal ground	—	Ignition switch ON	—	0V

# AV CONTROL UNIT (SEDAN)

< ECU DIAGNOSIS INFORMATION >

[BOSE AUDIO WITH NAVIGATION]

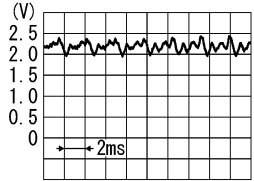
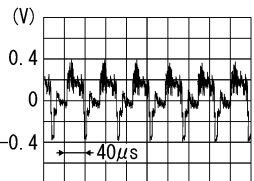
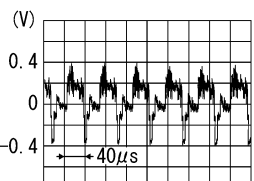
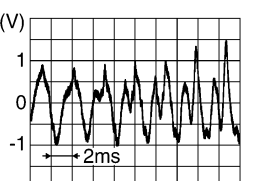
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
16 (GR/L)	15 (L/B)	Steering switch signal B	Input	Ignition switch ON	Depress VOL down switch.	0V
					Depress VOL up switch.	1.0V
					Depress  switch.	2.0V
					Depress the back switch.	3.0V
					Except for the above.	5.0V
19 (Y/R)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
20 (B)	Ground	Ground	—	Ignition switch ON	—	0V
21 (B)	—	USB ground	—	—	—	—
22 (W)	—	USB D—	—	—	—	—
23 (R)	—	V BUS signal	—	—	—	—
24 (G)	—	USB D+	—	—	—	—
37 (G/R)	Ground	Parking brake signal	Input	Ignition switch ON	Parking brake is ON.	5.0 V
					Parking brake is OFF.	0 V
44 (R)	43 (B)	Microphone VCC	Output	Ignition switch ON	—	5.0 V
46 (P)	—	CAN—L	Input/ Output	—	—	—
51 (R/L)	8 (R/Y)	Illumination signal	Input	Ignition switch OFF	Lighting switch is OFF.	0 V
					Lighting switch is ON.	12.0 V
52 (G)	Ground	Ignition signal	Input	Ignition switch ON	—	Battery voltage
53 (P/B)	Ground	Reverse signal	Input	Ignition switch ON	R position	12.0 V
					Other than R position	0 V
54 (V/W)	Ground	Vehicle speed signal (8-pulse)	Input	Ignition switch ON	When vehicle speed is approx. 40 km/h (25 MPH)	<b>NOTE:</b> Maximum voltage may be 12.0 V due to specifications (connected units). 

SKIA6649J

# AV CONTROL UNIT (SEDAN)

< ECU DIAGNOSIS INFORMATION >

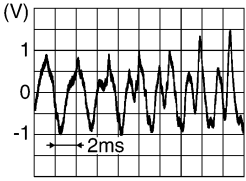
[BOSE AUDIO WITH NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
59 (B/R)	Ground	Microphone signal	Input	Ignition switch ON	Give a voice	 PKIB5037J
62 (L)	—	CAN—H	Input/ Output	—	—	—
65	—	Shield	—	—	—	—
66 (Y)	Ground	Camera image signal	Input	Ignition switch ON	Camera image is displayed.	 SKIB2251J
67 (B)	Ground	Rear view camera ground	—	Ignition switch ON	—	0 V
68 (GR)	Ground	Camera ON signal	Output	Ignition switch ON	R position.	6.0 V
					Other than R position.	0 V
76 (L)	75 (P)	AUX image signal	Input	Ignition switch ON	At AUX image is displayed.	 SKIB2251J
77	—	Shield	—	—	—	—
105 (B)	—	GPS antenna signal	—	—	—	—
106	—	Shield	—	—	—	—
107 (B)	—	Amplified window antenna signal	Input	—	—	—
108 (B)	Ground	Antenna amp. ON signal	Output	Ignition switch ACC	—	Battery voltage
115 (W)	130 (B)	AUX sound signal LH	Input	Ignition switch ON	When AUX mode is selected.	 SKIB3609E

# AV CONTROL UNIT (SEDAN)

< ECU DIAGNOSIS INFORMATION >

[BOSE AUDIO WITH NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
128	—	Shield	—	—	—	—
129 (R)	130 (B)	AUX sound signal RH	Input	Ignition switch ON	When AUX mode is select- ed.	 <small>SKIB3609E</small>

## DTC Index

INFOID:0000000006390229

## SELF-DIAGNOSIS RESULTS DISPLAY ITEM

DTC	Display item	Refer to
U1000	CAN COMM CIRCUIT [U1000]	<a href="#">AV-273</a>
U1010	CONTROL UNIT (CAN) [1010]	<a href="#">AV-274</a>
U1200	Cont Unit [U1200]	<a href="#">AV-275</a>
U1201	GYRO NO CONN [U1201]	<a href="#">AV-276</a>
U1202	G-SENSOR NO CONN [U1202]	<a href="#">AV-277</a>
U1204	GPS COMM [U1204]	<a href="#">AV-278</a>
U1205	GPS ROM [U1205]	<a href="#">AV-279</a>
U1206	GPS RAM [U1206]	<a href="#">AV-280</a>
U1207	GPS RTC [U1207]	<a href="#">AV-281</a>
U1216	CAN CONT [U1216]	<a href="#">AV-282</a>
U1217	BLUETOOTH MODULE [U1217]	<a href="#">AV-283</a>
U1218	HDD CONN [U1218]	<a href="#">AV-284</a>
U1219	HDD READ [U1219]	<a href="#">AV-285</a>
U121A	HDD WRITE [U121A]	<a href="#">AV-286</a>
U121B	HDD COMM [U121B]	<a href="#">AV-287</a>
U121C	HDD ACCESS [U121C]	<a href="#">AV-288</a>
U121D	DSP CONN [U121D]	<a href="#">AV-289</a>
U121E	DSP COMM [U121E]	<a href="#">AV-290</a>
U1225	USB CONTROLLER [U1225]	<a href="#">AV-291</a>
U1227	DVD COMM [U1227]	<a href="#">AV-292</a>
U1228	SUB CPU CONN [U1228]	<a href="#">AV-293</a>
U1229	iPod CERTIFICATION [U1229]	<a href="#">AV-294</a>
U122A	CONFIG UNFINISH [U122A]	<a href="#">AV-295</a>
U122E	Built-in AUDIO CONN [U122E]	<a href="#">AV-297</a>
U1244	GPS ANTENNA CONN [U1244]	<a href="#">AV-297</a>
U1263	USB OVERCURRENT [U1263]	<a href="#">AV-298</a>
U1310	CONTROL UNIT (AV) [U1310]	<a href="#">AV-299</a>

# BOSE SPEAKER AMP

< ECU DIAGNOSIS INFORMATION >

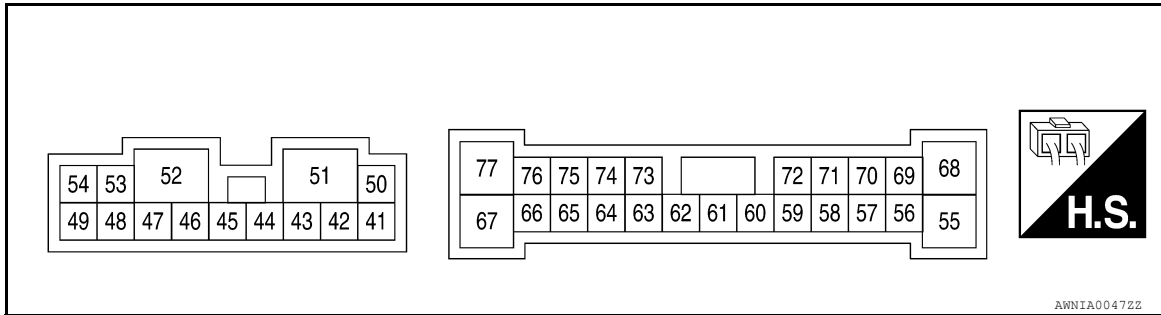
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## BOSE SPEAKER AMP

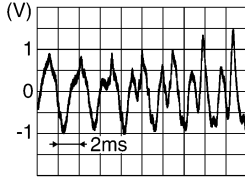
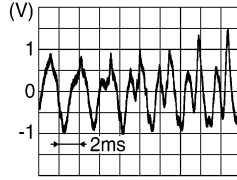
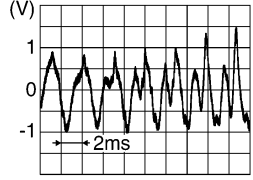
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### TERMINAL LAYOUT



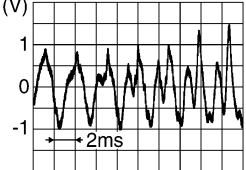
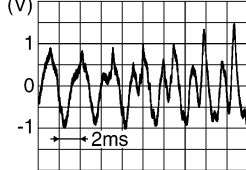
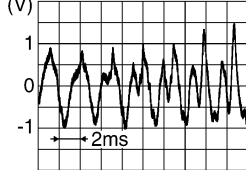
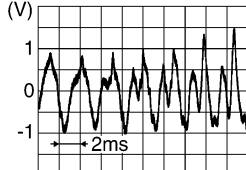
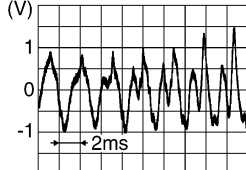
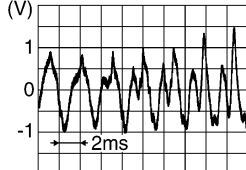
### PHYSICAL VALUES

Terminal (Wire color)		Description		Condition	Reference value (Approx.)
+	-	Signal name	Input/Output		
41 (LG)	42 (V)	Sound signal front tweeter LH	Output	Ignition switch ON	 SKIB3609E
44 (BR)	43 (GR)	Sound signal front tweeter RH	Output	Ignition switch ON	 SKIB3609E
45 (O)	46 (SB)	Sound signal subwoofer RH	Output	Ignition switch ON	 SKIB3609E
47 (B)	Ground	GND	—	Ignition switch ON	0V
50 (SB)	Ground	Battery power supply	Input	Ignition switch OFF	Battery voltage
51 (G)	Ground	Battery power supply	Input	Ignition switch OFF	Battery voltage
52 (B)	Ground	GND	—	Ignition switch ON	0V

# BOSE SPEAKER AMP

< ECU DIAGNOSIS INFORMATION >

[BOSE AUDIO WITH NAVIGATION]

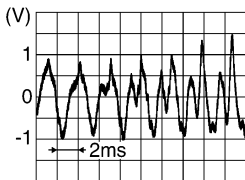
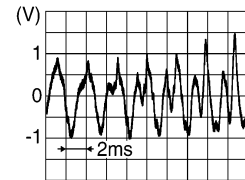
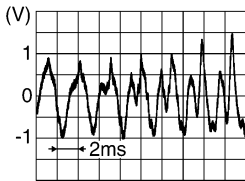
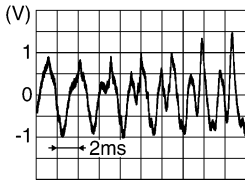
Terminal (Wire color)		Description		Condition	Reference value (Approx.)
+	-	Signal name	Input/Output		
53 (W)	48 (L)	Sound signal subwoofer LH	Output	Ignition switch ON	
54 (V)	49 (P)	Sound signal rear tweeter RH	Output	Ignition switch ON	
58 (W)	59 (B)	Sound signal door speaker LH	Output	Ignition switch ON	
60 (G)	Ground	Amp. ON signal	Input	Ignition switch ACC	Battery voltage
64 (BR)	63 (Y)	Sound signal rear LH	Input	Ignition switch ON	
66 (LG)	65 (V)	Sound signal rear RH	Input	Ignition switch ON	
68 (L)	55 (R)	Sound signal rear tweeter LH	Output	Ignition switch ON	

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# BOSE SPEAKER AMP

< ECU DIAGNOSIS INFORMATION >

[BOSE AUDIO WITH NAVIGATION]

Terminal (Wire color)		Description		Condition	Reference value (Approx.)
+	-	Signal name	Input/Output		
69 (P)	70 (V)	Sound signal center speaker	Output	Ignition switch ON	 <small>SKIB3609E</small>
71 (O)	72 (SB)	Sound signal door speaker RH	Output	Ignition switch ON	 <small>SKIB3609E</small>
73 (W/L) *1 (GR) *2	74 (GR/V) *1 (L) *2	Sound signal front RH	Input	Ignition switch ON	 <small>SKIB3609E</small>
75 (W/R)	76 (B/R)	Sound signal front LH	Input	Ignition switch ON	 <small>SKIB3609E</small>

\*1 Coupe

\*1 Sedan

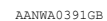


**[BOSE AUDIO WITH NAVIGATION]**

## WIRING DIAGRAM

## COUPE : Wiring Diagram - Coupe With Navigation System

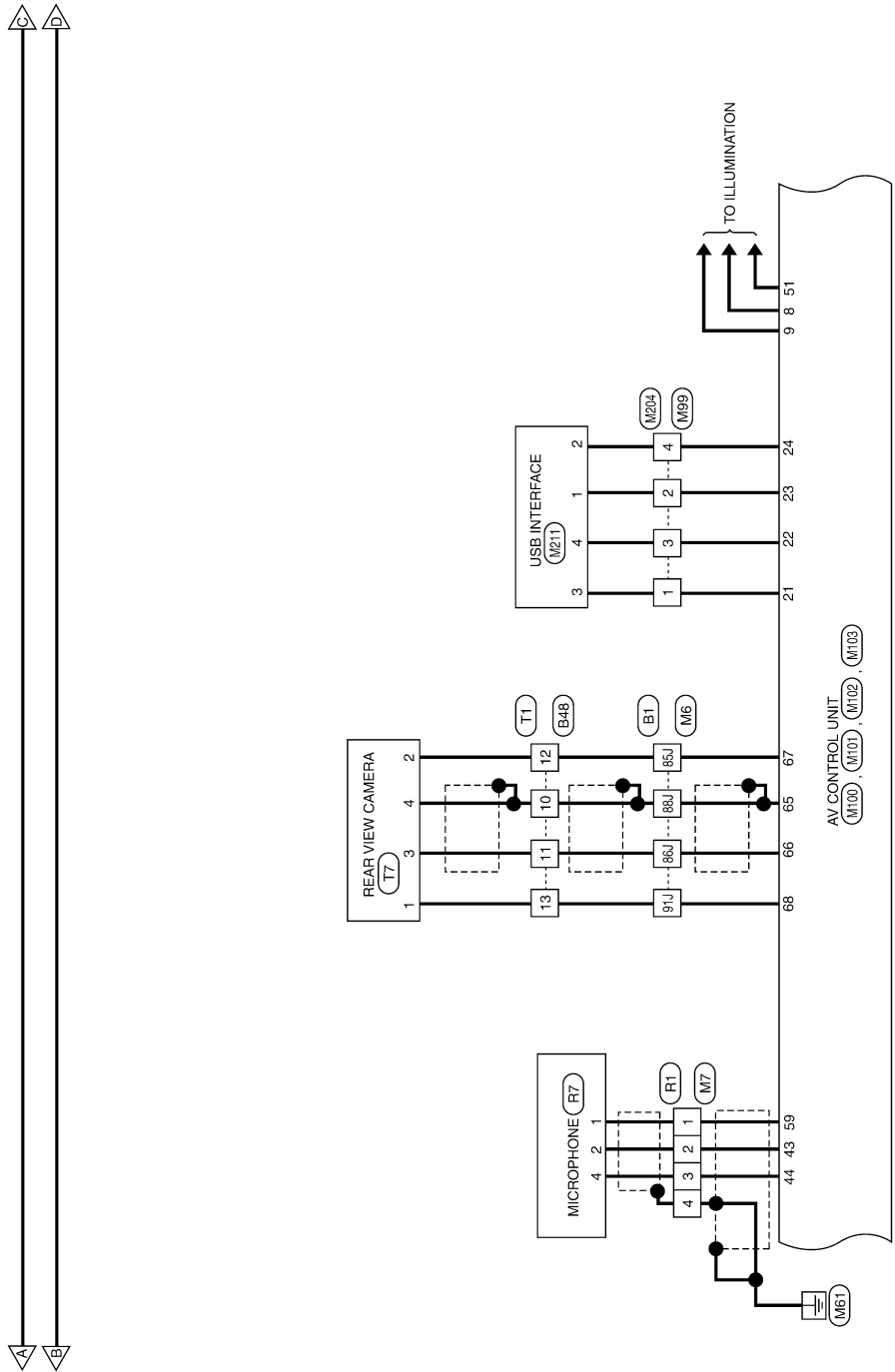
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BOSE AUDIO SYSTEM

< WIRING DIAGRAM >

[BOSE AUDIO WITH NAVIGATION]

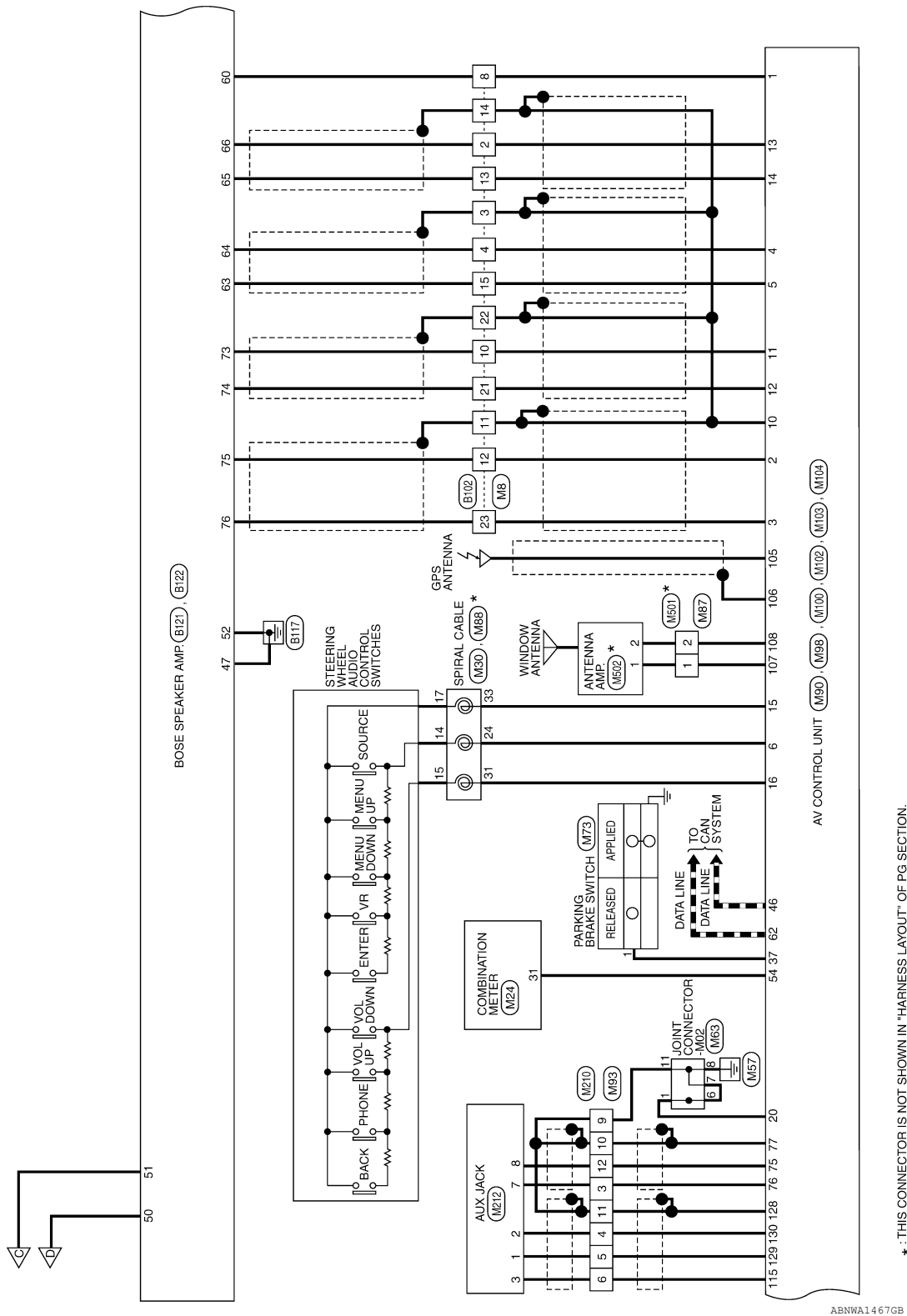


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# BOSE AUDIO SYSTEM

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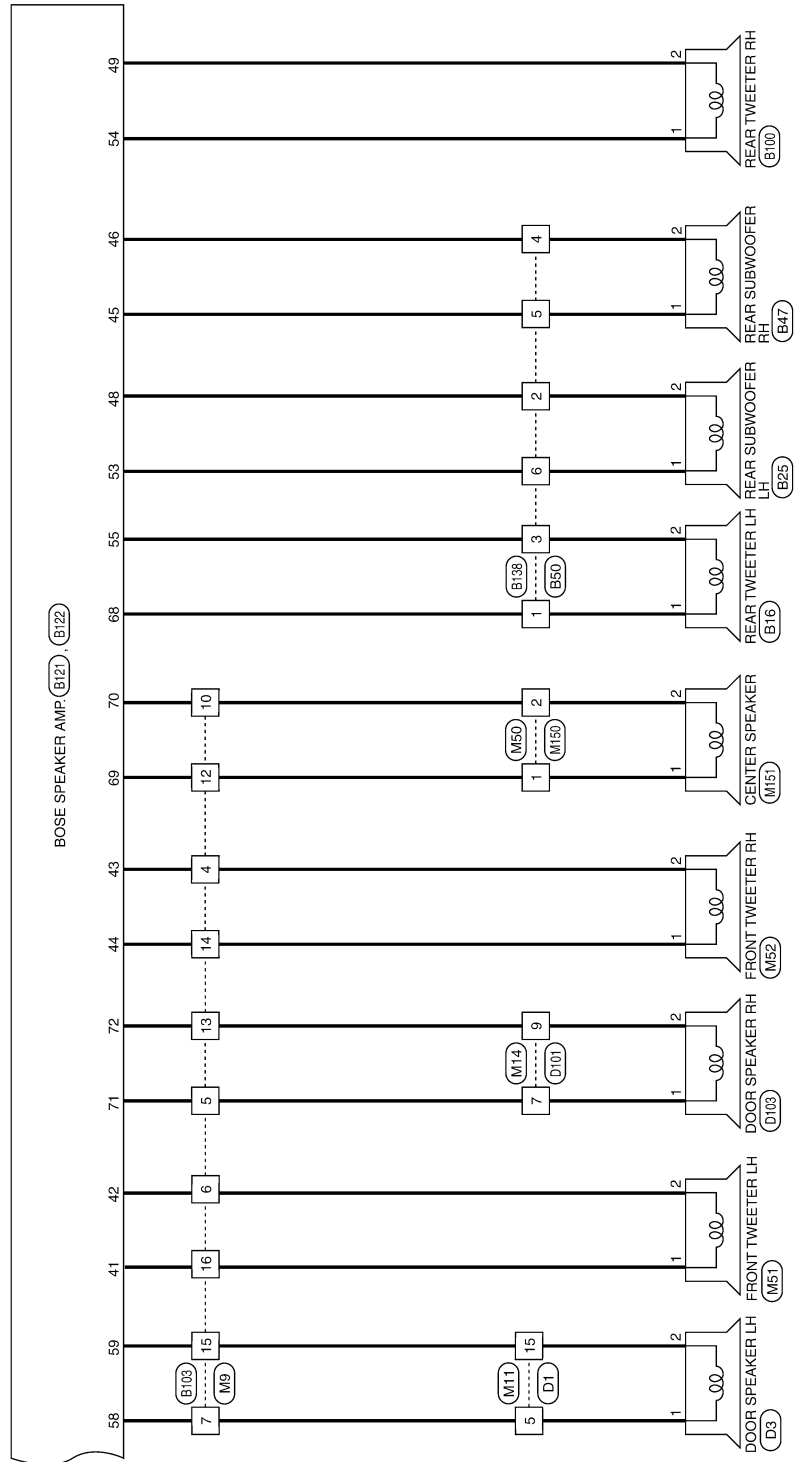
[BOSE AUDIO WITH NAVIGATION]



# BOSE AUDIO SYSTEM

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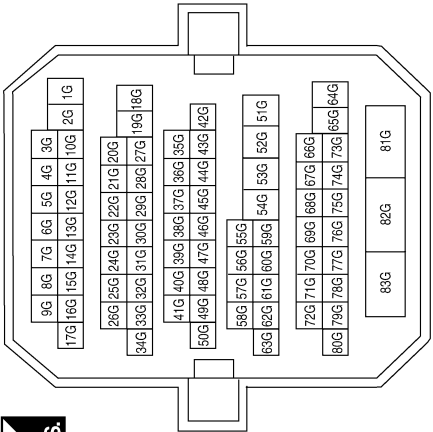
[BOSE AUDIO WITH NAVIGATION]



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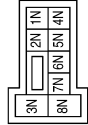
BOSE AUDIO SYSTEM CONNECTORS - WITH NAVIGATION SYSTEM

Connector No.	M1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



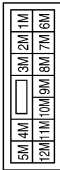
Terminal No.	Color of Wire	Signal Name
13G	O	-
53G	B/R	-
54G	BR	-
64G	Y/R	-

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



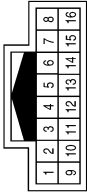
Terminal No.	Color of Wire	Signal Name
2N	G	-
5N	V/Y	-

Connector No.	M5
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
12M	O	-

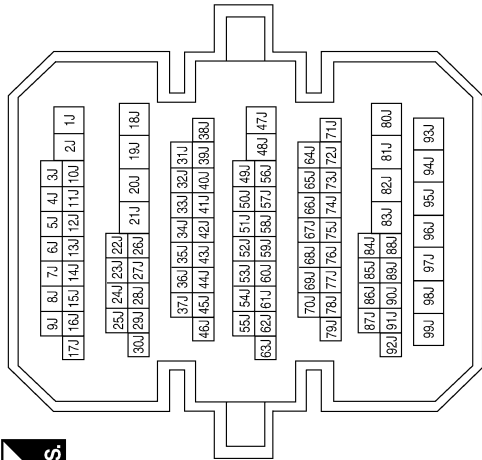
Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	B/R	-
2	B	-
3	R	-
4	SHIELD	-

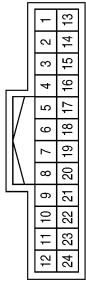
Terminal No.	Color of Wire	Signal Name
84J	P/B	-
85J	B	-
86J	Y	-
88J	SHIELD	-
91J	GR	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	V	-
3	SHIELD	-
4	GR/V	-
8	B/P	-
10	B	-
11	SHIELD	-
12	G	-
13	LG	-
14	SHIELD	-
15	V	-
21	W	-
22	SHIELD	-
23	R	-

Connector No.	M8
Connector Name	WIRE TO WIRE
Connector Color	WHITE



# BOSE AUDIO SYSTEM

< WIRING DIAGRAM >

[BOSE AUDIO WITH NAVIGATION]

Connector No.	M14
Connector Name	WIRE TO WIRE
Connector Color	WHITE

1	2	3	4
5	6	7	8
9	10		



Terminal No.	Color of Wire	Signal Name
7	GW	-
9	BR	-

Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Color	WHITE

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16					



Terminal No.	Color of Wire	Signal Name
5	W	-
15	B	-

Connector No.	M9
Connector Name	WIRE TO WIRE
Connector Color	BROWN

7	6	5	4	3	2	1
16	15	14	13	12	11	10
9	8					



Terminal No.	Color of Wire	Signal Name
1	BR	-
4	GR/L	-
5	G/W	-
6	B/Y	-
7	W	-
9	B/R	-
10	O/B	-
12	B/P	-
13	BR	-
14	L/O	-
15	B	-
16	LG	-

Connector No.	M50
Connector Name	WIRE TO WIRE
Connector Color	WHITE

1	2
---	---



Terminal No.	Color of Wire	Signal Name
1	B/P	-
2	O/B	-

Connector No.	M30
Connector Name	SPIRAL CABLE
Connector Color	GRAY

24	25	26	27
31	32	33	34



Terminal No.	Color of Wire	Signal Name
24	W/G	AUDIO_STRG_SW_REMOTE_A
31	GR/L	AUDIO_STRG_SW_REMOTE_B
33	L/B	AUDIO_STRG_SW_GND

Connector No.	M24
Connector Name	COMBINATION METER
Connector Color	WHITE



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

Terminal No.	Color of Wire	Signal Name
31	V/W	8P/R OUT

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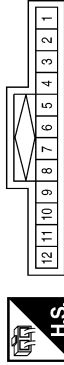
AV

# BOSE AUDIO SYSTEM

< WIRING DIAGRAM >

[BOSE AUDIO WITH NAVIGATION]

Connector No.	M63
Connector Name	JOINT CONNECTOR-M02
Connector Color	BLUE



Terminal No.	Color of Wire	Signal Name
1	B	-
6	B	-
7	B	-
10	B	-
11	B	-

Connector No.	M52
Connector Name	FRONT TWEETER RH
Connector Color	BROWN



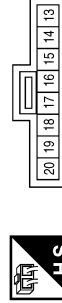
Terminal No.	Color of Wire	Signal Name
1	L/O	-
2	GR/L	-

Connector No.	M51
Connector Name	FRONT TWEETER LH
Connector Color	BROWN



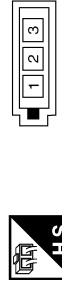
Terminal No.	Color of Wire	Signal Name
1	LG	-
2	B/Y	-

Connector No.	M88
Connector Name	SPIRAL CABLE
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
14	W	REMOTE A
15	L	REMOTE B
17	BR	GND

Connector No.	M87
Connector Name	WIRE TO WIRE
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
1	B	-
2	B	-

Connector No.	M73
Connector Name	PARKING BRAKE SWITCH
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	G/R	-

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# BOSE AUDIO SYSTEM

< WIRING DIAGRAM >

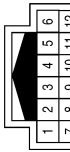
[BOSE AUDIO WITH NAVIGATION]

Connector No.	M98
Connector Name	AV CONTROL UNIT
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
107	B	AMP SUPPLY
108	B	MAIN ANTENNA
109	—	—

Connector No.	M93
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
3	L	—
4	B	—
5	R	—
6	W	—
9	B	—
10	SHIELD	—
11	SHIELD	—
12	P	—

Connector No.	M90
Connector Name	AV CONTROL UNIT
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
105	B	—
106	B	—

Terminal No.	Color of Wire	Signal Name
7	V/Y	ACC
8	R/Y	ILL CONT
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	L/B	STRG SW GND
16	GR/L	STRG SW B
17	—	—
18	—	—
19	Y/R	+B
20	B	GND

Connector No.	M100
Connector Name	AV CONTROL UNIT
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	B/P	AMP ON
2	G	FR LH PRE+
3	R	FR LH PRE-
4	GR/V	RR LH PRE+
5	V	RR LH PRE-
6	W/G	STRG SW A

Connector No.	M99
Connector Name	WIRE TO WIRE
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
1	B	—
2	R	—
3	W	—
4	G	—

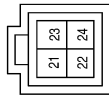
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# BOSE AUDIO SYSTEM

< WIRING DIAGRAM >

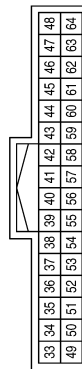
[BOSE AUDIO WITH NAVIGATION]

Connector No.	M101
Connector Name	AV CONTROL UNIT
Connector Color	GREEN



Terminal No.	Color of Wire	Signal Name
21	B	USB GRN
22	W	USB D-
23	R	V-BUS
24	G	USB D+

Connector No.	M102
Connector Name	AV CONTROL UNIT
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
33	-	-
34	-	-
35	-	-
36	-	-
37	G/R	PKB SIG
38	-	-

Terminal No.	Color of Wire	Signal Name
39	-	-
40	-	-
41	-	-
42	-	-
43	B	MIC GND
44	R	MIC +B
45	-	-
46	P	CAN-L
47	-	-
48	-	-
49	-	-
50	-	-
51	R/L	MR OUTPUT

Terminal No.	Color of Wire	Signal Name
52	G	IGN
53	P/B	REVERSE SIG
54	V/W	SPEED
55	-	-
56	-	-
57	-	-
58	-	-
59	B/R	MIC SIG
60	-	-
61	-	-
62	L	CAN-H
63	-	-
64	-	-

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# BOSE AUDIO SYSTEM

< WIRING DIAGRAM >

[BOSE AUDIO WITH NAVIGATION]

Terminal No.	Color of Wire	Signal Name
85	-	-
86	-	-
87	-	-
88	-	-
89	-	-
90	-	-
91	-	-
92	-	-

Terminal No.	Color of Wire	Signal Name
70	-	-
71	-	-
72	-	-
73	-	-
74	-	-
75	P	AUX VIDEO-
76	L	AUX VIDEO+
77	SHIELD	VIDEO SHIELD
78	-	-
79	-	-
80	-	-
81	-	-
82	-	-
83	-	-
84	-	-

Connector No.	M103
Connector Name	AV CONTROL UNIT
Connector Color	WHITE



66	68	70	72	74	76	78	80	82	84	86	88	90	92	94	96	98	100	102	104
65	67	69	71	73	75	77	79	81	83	85	87	89	91	93	95	97	99	101	103

Terminal No.	Color of Wire	Signal Name
65	SHIELD	R CAMERA SHIELD
66	Y	R CAMERA COMP
67	B	CAMERA GND
68	GR	CAMERA V+
69	-	-

Terminal No.	Color of Wire	Signal Name
131	-	-
132	-	-
133	-	-
134	-	-
135	-	-
136	-	-
137	-	-
138	-	-
139	-	-

Terminal No.	Color of Wire	Signal Name
117	-	-
118	-	-
119	-	-
120	-	-
121	-	-
122	-	-
123	-	-
124	-	-
125	-	-
126	-	-
127	-	-
128	SHIELD	AUX SHIELD
129	R	AUX AUDIO RH
130	B	AUX AUDIO-

Connector No.	M104
Connector Name	AV CONTROL UNIT
Connector Color	WHITE



112	113	114	115	116	117	118	119	120	121	122	123	124	125
126	127	128	129	130	131	132	133	134	135	136	137	138	139

Terminal No.	Color of Wire	Signal Name
112	-	-
113	-	-
114	-	-
115	W	AUX AUDIO LH
116	-	-

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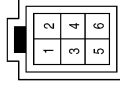
AV

# BOSE AUDIO SYSTEM

< WIRING DIAGRAM >

[BOSE AUDIO WITH NAVIGATION]

Connector No.	M204
Connector Name	WIRE TO WIRE
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
1	B	-
2	R	-
3	W	-
4	G	-

Connector No.	M151
Connector Name	CENTER SPEAKER
Connector Color	BROWN



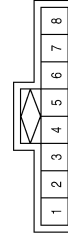
Terminal No.	Color of Wire	Signal Name
1	B/P	-
2	O/B	-

Connector No.	M150
Connector Name	WIRE TO WIRE
Connector Color	WHITE



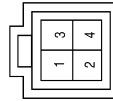
Terminal No.	Color of Wire	Signal Name
1	B/P	-
2	O/B	-

Connector No.	M212
Connector Name	AUX JACK
Connector Color	WHITE



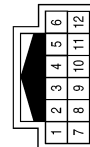
Terminal No.	Color of Wire	Signal Name
1	R/B	AUX AUDIO RH
2	R/L	AUX AUDIO
3	B/R	AUX AUDIO LH
7	L	AUX VIDEO+
8	B/W	AUX VIDEO-

Connector No.	M211
Connector Name	USB INTERFACE
Connector Color	GREEN



Terminal No.	Color of Wire	Signal Name
1	R	V BUS
2	G	USB (D+)
3	B	USB GND
4	W	USB (D-)

Connector No.	M210
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
3	L	-
4	R/L	-
5	R/B	-
6	B/R	-
9	GR	-
10	B	-
11	SHIELD	-
12	B/W	-

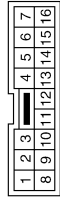
ABNIA2203GB

# BOSE AUDIO SYSTEM

< WIRING DIAGRAM >

[BOSE AUDIO WITH NAVIGATION]

Connector No.	E3
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
4	R	-

Connector No.	M502
Connector Name	ANTENNA AMP.
Connector Color	GRAY



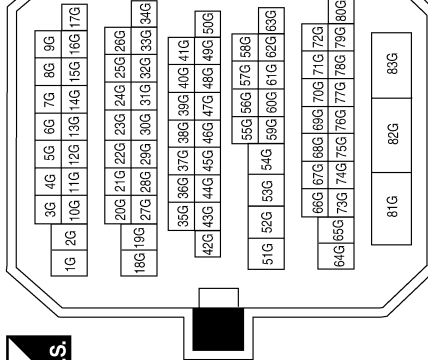
Terminal No.	Color of Wire	Signal Name
1	B	-
2	B	-

Connector No.	M501
Connector Name	WIRE TO WIRE
Connector Color	GRAY



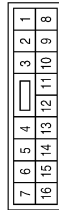
Terminal No.	Color of Wire	Signal Name
1	B	-
2	B	-

Connector No.	E30
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
13G	BR	-
53G	GR	-
54G	BR	-
64G	V	-

Connector No.	E29
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
15	W	-

Connector No.	E11
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
3	BR	-
8	W	-

ABNIA2204GB

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P

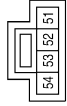
AV

# BOSE AUDIO SYSTEM

< WIRING DIAGRAM >

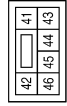
[BOSE AUDIO WITH NAVIGATION]

Connector No.	E49
Connector Name	JUNCTION BLOCK
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
51	LG	—
52	O	—

Connector No.	E47
Connector Name	JUNCTION BLOCK
Connector Color	WHITE



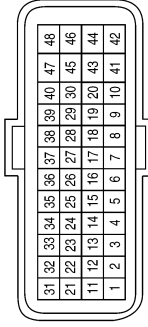
Terminal No.	Color of Wire	Signal Name
45	BR	—

Connector No.	E34
Connector Name	BACK-UP LAMP RELAY
Connector Color	BLUE



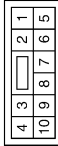
Terminal No.	Color of Wire	Signal Name
1	O	—
2	R	—
3	W	—
5	LG	—

Connector No.	F16
Connector Name	TCM (TRANSMISSION CONTROL MODULE)
Connector Color	BLACK



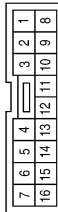
Terminal No.	Color of Wire	Signal Name
19	G	REV LAMP RLY

Connector No.	F2
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
3	O	—
8	R	—

Connector No.	F1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
4	G	—

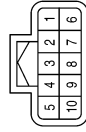
ABNIA2205GB

# BOSE AUDIO SYSTEM

< WIRING DIAGRAM >

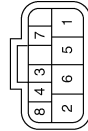
[BOSE AUDIO WITH NAVIGATION]

Connector No.	F49
Connector Name	JOINT CONNECTOR-F03
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
3	R	-
4	R	-

Connector No.	F25
Connector Name	TRANSMISSION RANGE SWITCH
Connector Color	BLACK



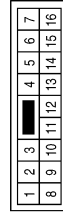
Terminal No.	Color of Wire	Signal Name
3	O	IGN
5	R	R_OUTPUT

Connector No.	F24
Connector Name	BACK-UP LAMP SWITCH
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	O	-
2	R	-

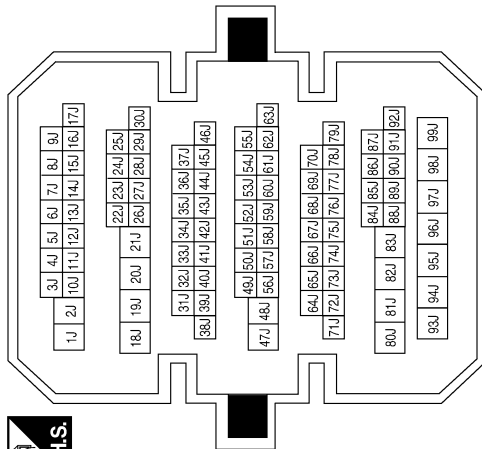
Connector No.	B10
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
15	V	-

Terminal No.	Color of Wire	Signal Name
84J	V	-
85J	B	-
86J	Y	-
88J	SHIELD	-
91J	L	-

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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# BOSE AUDIO SYSTEM

< WIRING DIAGRAM >

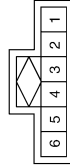
[BOSE AUDIO WITH NAVIGATION]

Connector No.	B25
Connector Name	REAR SUBWOOFER LH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	O	-
2	SB	-

Connector No.	B22
Connector Name	JOINT CONNECTOR-B07
Connector Color	GRAY



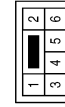
Terminal No.	Color of Wire	Signal Name
5	V	-
6	V	-

Connector No.	B16
Connector Name	REAR TWEETER LH
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
1	G	-
2	R	-

Connector No.	B50
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	G	-
2	SB	-
3	R	-
4	P	-
5	BR	-
6	O	-

Connector No.	B48
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
10	SHIELD	-
11	Y	-
12	B	-
13	L	-

Connector No.	B47
Connector Name	REAR SUBWOOFER RH
Connector Color	WHITE



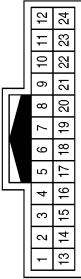
Terminal No.	Color of Wire	Signal Name
1	BR	-
2	P	-

AANIA0445GB



Terminal No.	Color of Wire	Signal Name
12	W/R	-
13	V	-
14	SHIELD	-
15	Y	-
21	GR/V	-
22	SHIELD	-
23	B/R	-

Connector No.	B102
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	LG	-
3	SHIELD	-
4	BR	-
8	G	-
10	W/L	-
11	SHIELD	-

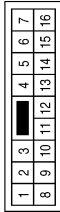
Connector No.	B100
Connector Name	REAR TWEETER RH
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
1	V	-
2	P	-

Terminal No.	Color of Wire	Signal Name
13	SB	-
14	BR	-
15	B	-
16	LG	-

Connector No.	B103
Connector Name	WIRE TO WIRE
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
1	SB	-
4	GR	-
5	O	-
6	V	-
7	W	-
9	G	-
10	V	-
12	P	-

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# BOSE AUDIO SYSTEM

< WIRING DIAGRAM >

[BOSE AUDIO WITH NAVIGATION]

Terminal No.	Color of Wire	Signal Name
69	P	INST CTR TWDR + OUT
70	V	INST CTR TWDR - OUT
71	O	FR DOOR RH + OUT
72	SB	FR DOOR RH - OUT
73	W/L	FR RH + IN
74	GR/V	FR RH - IN
75	W/R	FR LH + IN
76	B/R	FR LH - IN
77	—	—

Terminal No.	Color of Wire	Signal Name
59	B	FR TWDR LH - OUT
60	G	AMP ON
61	—	—
62	—	—
63	Y	RR LH - IN
64	BR	RR LH + IN
65	V	RR RH - IN
66	LG	RR RH + IN
67	—	—
68	L	TWTR RR PSHELF LH + OUT

Connector No.	B121
Connector Name	BOSE SPEAKER AMP.
Connector Color	BROWN

77	76	75	74	73		72	71	70	69	68		
67	66	65	64	63	62	61	60	59	58	57	56	55



Terminal No.	Color of Wire	Signal Name
55	R	TWTR RR PSHELF LH - OUT
56	—	—
57	—	—
58	W	RR TWDR LH + OUT

Connector No.	B138
Connector Name	WIRE TO WIRE
Connector Color	WHITE

2	1
6	5
4	3



Terminal No.	Color of Wire	Signal Name
1	L	—
2	L	—
3	R	—
4	SB	—
5	O	—
6	W	—

Terminal No.	Color of Wire	Signal Name
44	BR	FR TWDR RH + OUT
45	O	RH WOOFER + OUT
46	SB	RH WOOFER - OUT
47	B	GND
48	L	LH WOOFER - OUT
49	P	TWTR RR PSHELF RH-OUT
50	SB	BAT
51	G	BAT
52	B	GND
53	W	LH WOOFER +OUT
54	V	TWTR RR PSHELF RH +OUT

Connector No.	B122
Connector Name	BOSE SPEAKER AMP.
Connector Color	BROWN

54	53	52		51		50		
49	48	47	46	45	44	43	42	41



Terminal No.	Color of Wire	Signal Name
41	LG	FR TWDR LH + OUT
42	V	FR TWDR LH - OUT
43	GR	FR TWDR RH - OUT

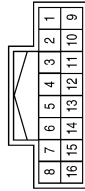
AANIA0447GB

# BOSE AUDIO SYSTEM

< WIRING DIAGRAM >

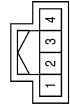
[BOSE AUDIO WITH NAVIGATION]

Connector No.	R1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



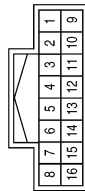
Terminal No.	Color of Wire	Signal Name
1	B/R	-
2	R/B	-
3	R/L	-
4	SHIELD	-

Connector No.	T7
Connector Name	REAR VIEW CAMERA
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	R	CAMERA ON
2	B	GND
3	W	COMP+
4	GR	COMP-

Connector No.	T1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



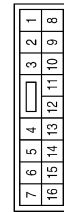
Terminal No.	Color of Wire	Signal Name
10	GR	-
11	W	-
12	B	-
13	R	-

Connector No.	D3
Connector Name	DOOR SPEAKER LH
Connector Color	BROWN



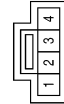
Terminal No.	Color of Wire	Signal Name
1	O	-
2	LG	-

Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
5	O	-
15	LG	-



Connector No.	R7
Connector Name	MICROPHONE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	B/R	SIG
2	R/B	GND
4	R/L	VCC

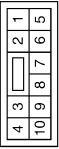

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Connector No.	D103
Connector Name	DOOR SPEAKER RH
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
1	L	-
2	LG	-

Connector No.	D101
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
7	L	-
9	LG	-

SEDAN

ABNIA2211GB

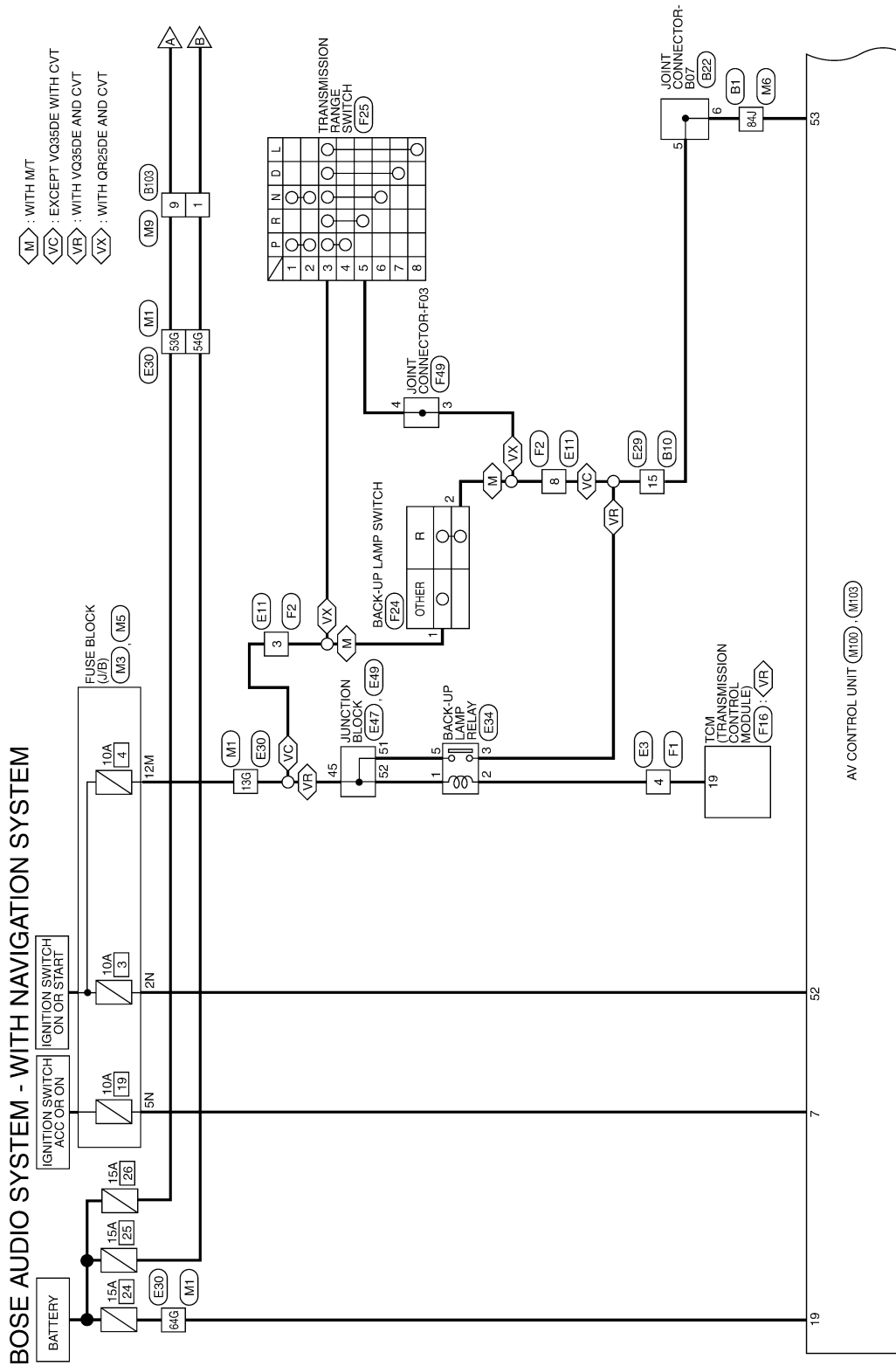
# BOSE AUDIO SYSTEM

< WIRING DIAGRAM >

[BOSE AUDIO WITH NAVIGATION]

## SEDAN : Wiring Diagram - Sedan With Navigation System

INFOID:000000006390232



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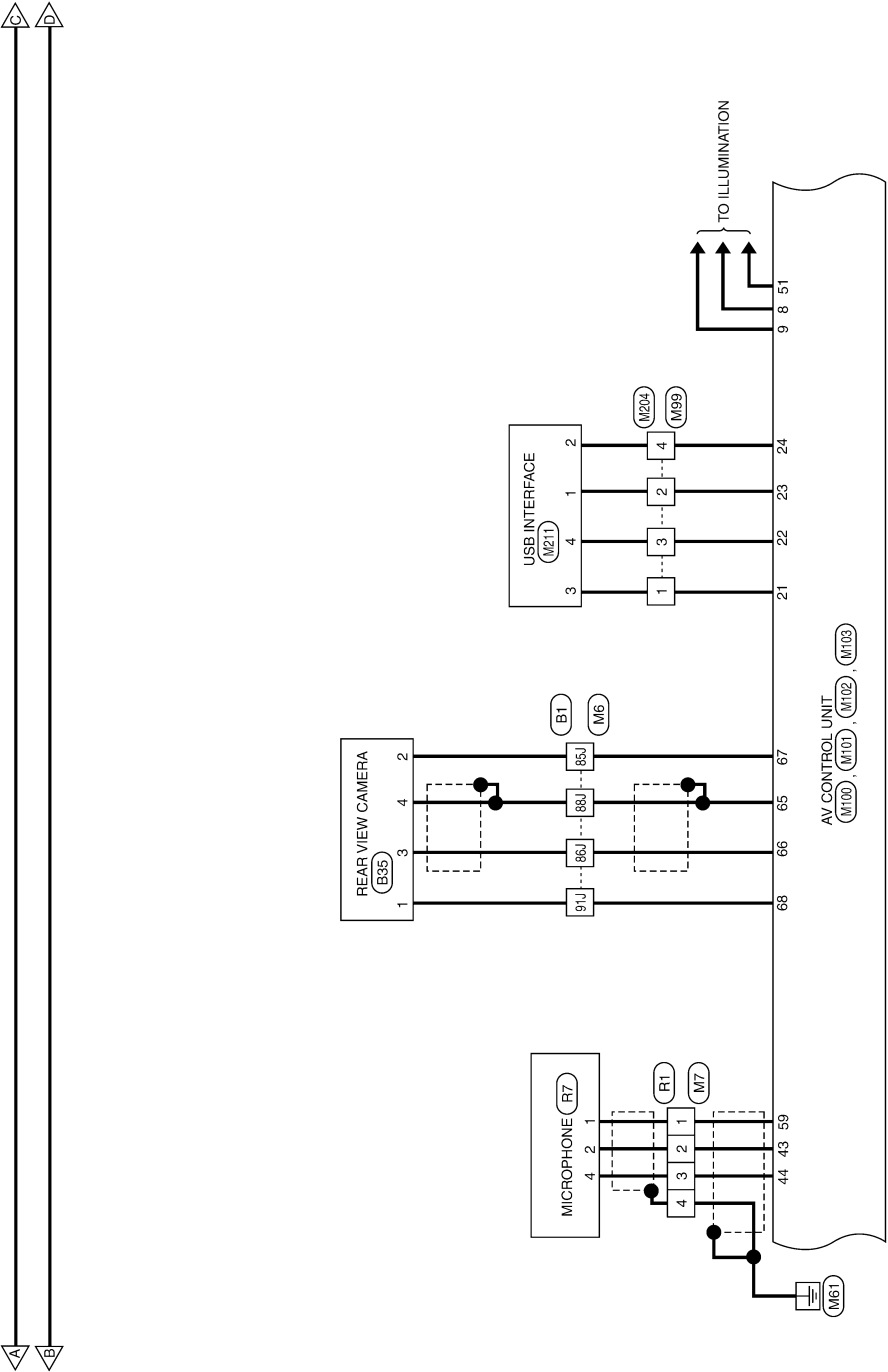
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BOSE AUDIO SYSTEM

< WIRING DIAGRAM >

[BOSE AUDIO WITH NAVIGATION]



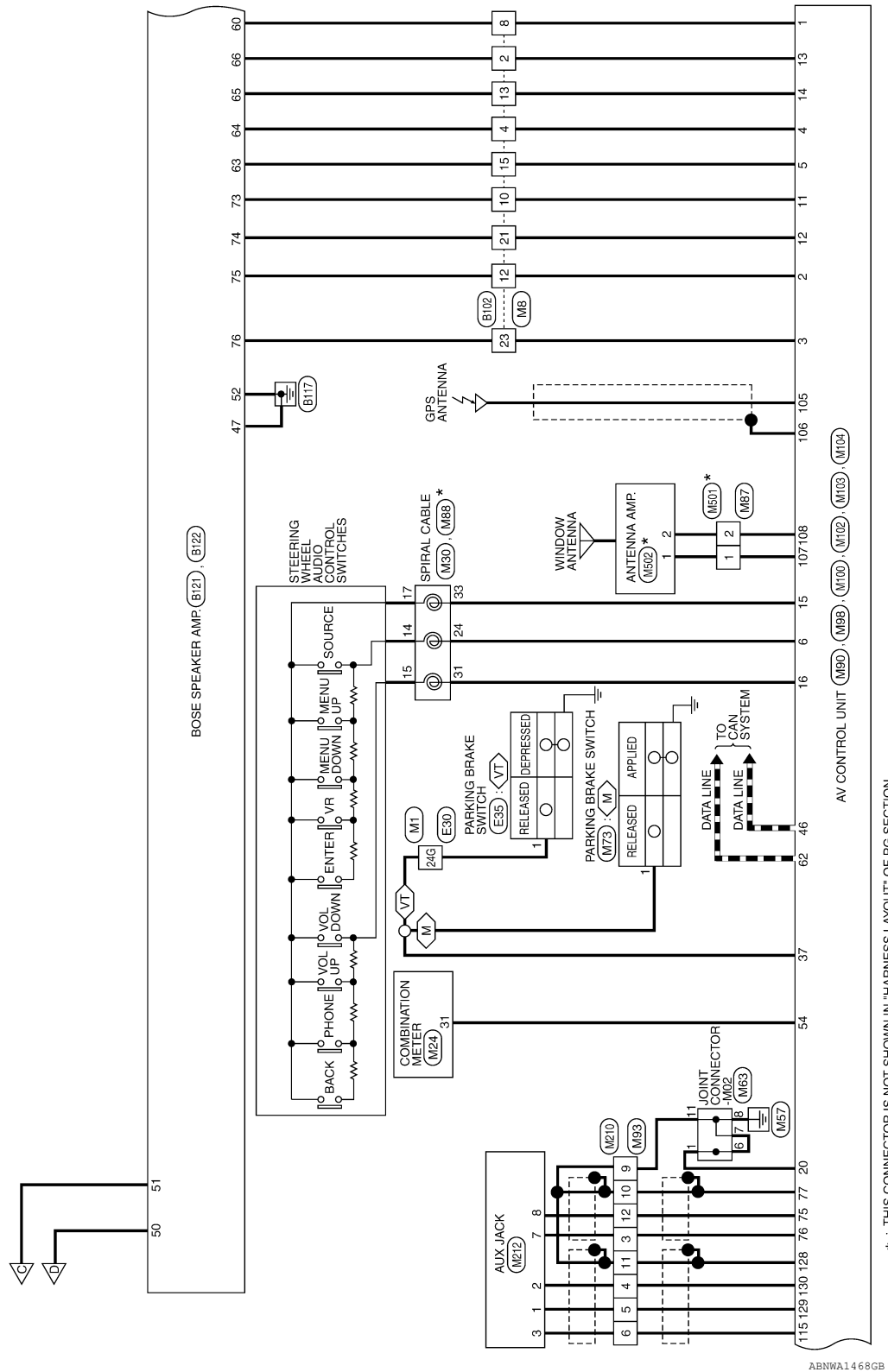
AANWA0395GB

# BOSE AUDIO SYSTEM

[BOSE AUDIO WITH NAVIGATION]

< WIRING DIAGRAM >

(M) : WITH M/T  
(VT) : WITH CVT



\* : THIS CONNECTOR IS NOT SHOWN IN "HARNES LAYOUT" OF PG SECTION.

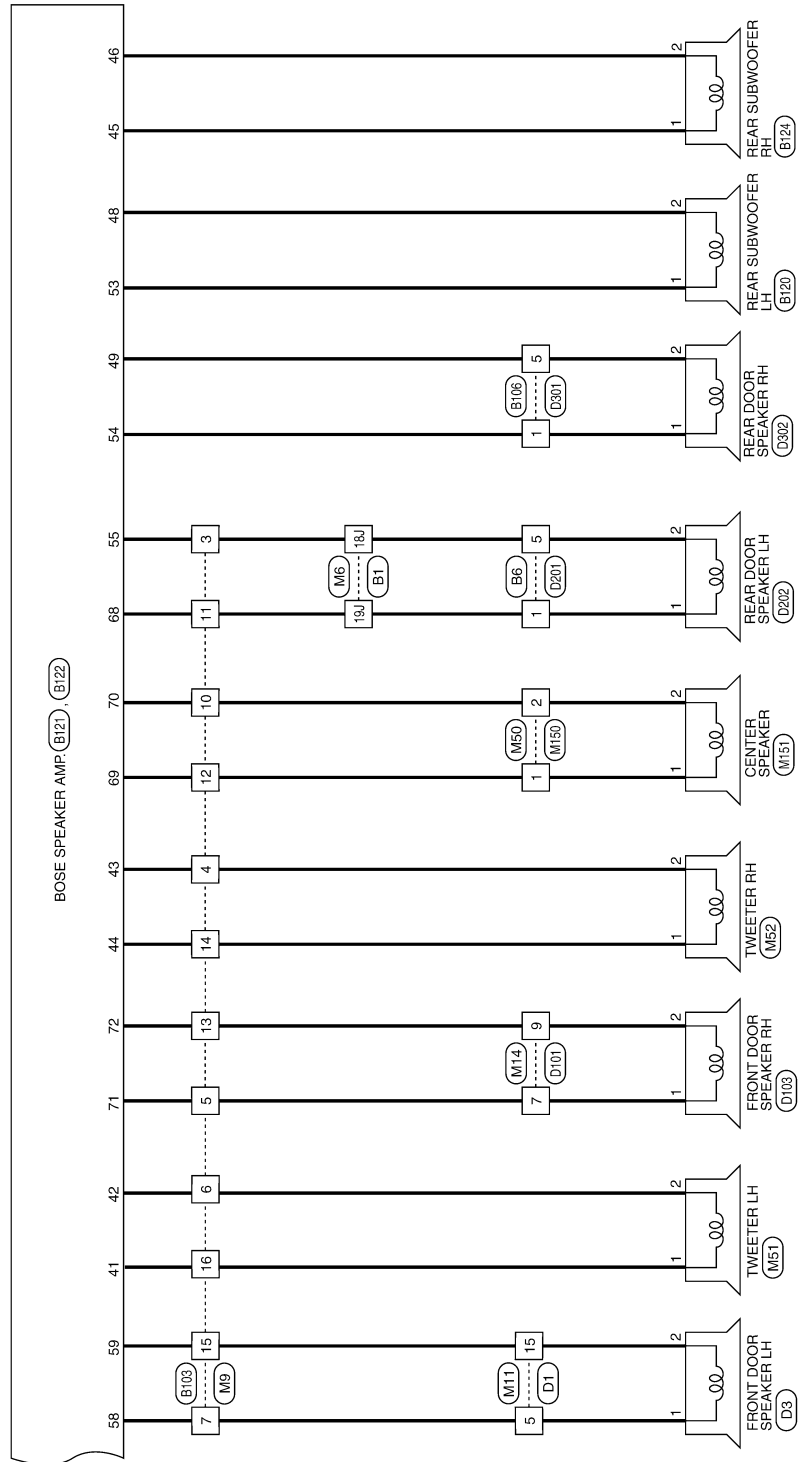
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# BOSE AUDIO SYSTEM

< WIRING DIAGRAM >

[BOSE AUDIO WITH NAVIGATION]

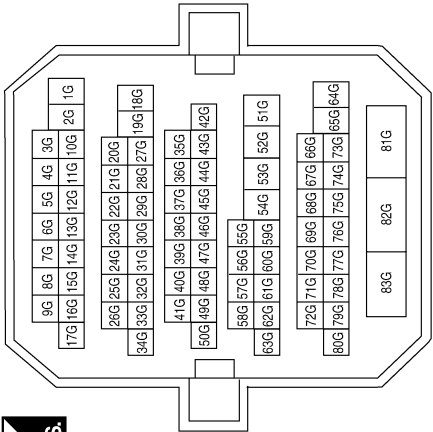


ABNWA0728GB



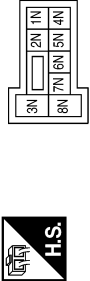
BOSE AUDIO SYSTEM CONNECTORS - WITH NAVIGATION SYSTEM

Connector No.	M1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
13G	O	-
24G	G/R	-
53G	B/R	-
54G	BR	-
64G	Y/R	-

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2N	G	-
5N	V/Y	-

Connector No.	M5
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



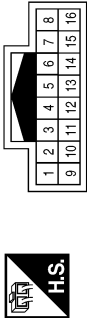
Terminal No.	Color of Wire	Signal Name
12M	O	-

BOSE AUDIO SYSTEM

< WIRING DIAGRAM >

[BOSE AUDIO WITH NAVIGATION]

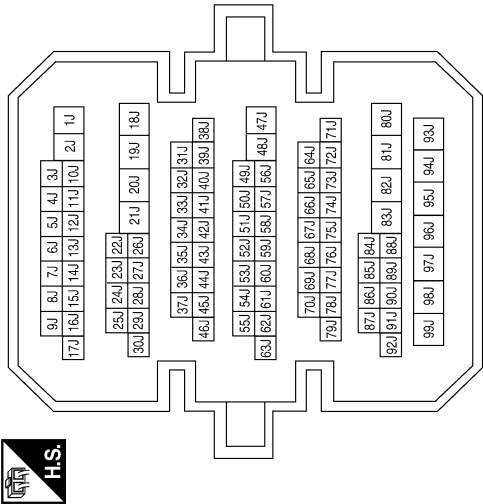
Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Color	WHITE



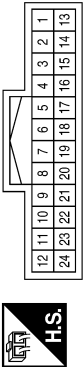
Terminal No.	Color of Wire	Signal Name
1	B/R	-
2	B	-
3	R	-
4	SHIELD	-

Terminal No.	Color of Wire	Signal Name
18J	BR/B	-
19J	R/G	-
84J	P/B	-
85J	B	-
86J	Y	-
88J	SHIELD	-
91J	GR	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Connector No.	M8
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	V	-
4	GR	-
8	B/P	-
10	B	-
12	G	-
13	LG	-
15	R	-
21	W	-
23	R	-

# BOSE AUDIO SYSTEM

< WIRING DIAGRAM >

[BOSE AUDIO WITH NAVIGATION]

Connector No.	M14
Connector Name	WIRE TO WIRE
Connector Color	WHITE



1	2	3	4
5	6	7	8
9	10		

Terminal No.	Color of Wire	Signal Name
7	G/W	-
9	BR	-

Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Color	WHITE



1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16					

Terminal No.	Color of Wire	Signal Name
5	W	-
15	B	-

Connector No.	M9
Connector Name	WIRE TO WIRE
Connector Color	BROWN



7	6	5	4	3	2	1
16	15	14	13	12	11	10
9	8					

Terminal No.	Color of Wire	Signal Name
1	BR	-
3	BR	-
3	BR/B	-
4	GR/L	-
5	G/W	-
6	B/Y	-
7	W	-
9	B/R	-
10	O/B	-
11	R/G	-
12	B/P	-
13	BR	-
14	L/O	-
15	B	-
16	LG	-

Connector No.	M50
Connector Name	WIRE TO WIRE
Connector Color	WHITE



1	2
---	---

Terminal No.	Color of Wire	Signal Name
1	B/P	-
2	O/B	-

Connector No.	M30
Connector Name	SPIRAL CABLE
Connector Color	GRAY



24	25	26	27
31	32	33	34

Terminal No.	Color of Wire	Signal Name
24	W/G	AUDIO STRG SW REMOTE A
31	GR/L	AUDIO STRG SW REMOTE B
33	L/B	AUDIO STRG SW GND

Connector No.	M24
Connector Name	COMBINATION METER
Connector Color	WHITE



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

Terminal No.	Color of Wire	Signal Name
31	V/W	8P/R OUT

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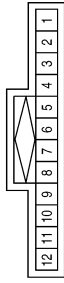
AV

# BOSE AUDIO SYSTEM

< WIRING DIAGRAM >

[BOSE AUDIO WITH NAVIGATION]

Connector No.	M63
Connector Name	JOINT CONNECTOR-M02
Connector Color	BLUE



Terminal No.	Color of Wire	Signal Name
1	B	-
6	B	-
7	B	-
8	B	-
11	B	-

Connector No.	M52
Connector Name	TWEETER RH
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
1	L/O	-
2	GR/L	-

Connector No.	M51
Connector Name	TWEETER LH
Connector Color	BROWN



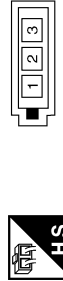
Terminal No.	Color of Wire	Signal Name
1	LG	-
2	B/Y	-

Connector No.	M88
Connector Name	SPIRAL CABLE
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
14	W	REMOTE A
15	L	REMOTE B
17	BR	GND

Connector No.	M87
Connector Name	WIRE TO WIRE
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
1	B	-
2	B	-

Connector No.	M73
Connector Name	PARKING BRAKE SWITCH (WITH M/T)
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	G/R	-

ABNIA3661GB

# BOSE AUDIO SYSTEM

< WIRING DIAGRAM >

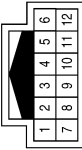
[BOSE AUDIO WITH NAVIGATION]

Connector No.	M98
Connector Name	AV CONTROL UNIT
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
107	B	AMP SUPPLY
108	B	MAIN ANTENNA
109	—	—

Connector No.	M93
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
3	L	—
4	B	—
5	R	—
6	W	—
9	B	—
10	SHIELD	—
11	SHIELD	—
12	P	—

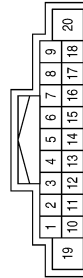
Connector No.	M90
Connector Name	AV CONTROL UNIT
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
105	B	—
106	B	—

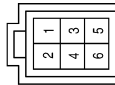
Terminal No.	Color of Wire	Signal Name
7	V/Y	ACC
8	R/Y	ILL CONT
9	R/L	ILL
10	—	—
11	B	FR RH PRE+
12	W	FR RH PRE-
13	V	RR RH PRE+
14	LG	RR RH PRE-
15	L/B	STRG SW GND
16	GR/L	STRG SW B
17	—	—
18	—	—
19	Y/R	+B
20	B	GND

Connector No.	M100
Connector Name	AV CONTROL UNIT
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	B/P	AMP ON
2	G	FR LH PRE+
3	R	FR LH PRE-
4	GR	RR LH PRE+
5	R	RR LH PRE-
6	W/G	STRG SW A

Connector No.	M99
Connector Name	WIRE TO WIRE
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
1	B	—
2	R	—
3	W	—
4	G	—

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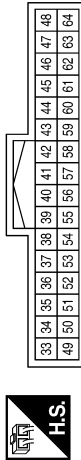
# BOSE AUDIO SYSTEM

< WIRING DIAGRAM >

[BOSE AUDIO WITH NAVIGATION]

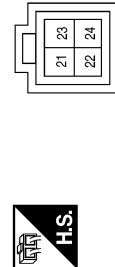
Terminal No.	Color of Wire	Signal Name
45	-	-
46	P	CAN-L
47	-	-
48	-	-
49	-	-
50	-	-
51	R/L	MR OUTPUT
52	G	IGN
53	P/B	REVERSE SIG
54	V/W	SPEED
55	-	-
56	-	-
57	-	-
58	-	-
59	B/R	MIC SIG
60	-	-
61	-	-
62	L	CAN-H
63	-	-
64	-	-

Connector No.	M102
Connector Name	AV CONTROL UNIT
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
33	-	-
34	-	-
35	-	-
36	-	-
37	G/R	PKB SIG
38	-	-
39	-	-
40	-	-
41	-	-
42	-	-
43	B	MIC GND
44	R	MIC +B

Connector No.	M101
Connector Name	AV CONTROL UNIT
Connector Color	GREEN

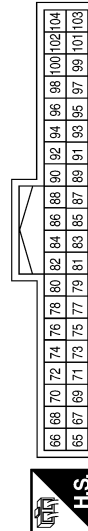


Terminal No.	Color of Wire	Signal Name
21	B	USB GRN
22	W	USB D-
23	R	V-BUS
24	G	USB D+

Terminal No.	Color of Wire	Signal Name
81	-	-
82	-	-
83	-	-
84	-	-
85	-	-
86	-	-
87	-	-
88	-	-
89	-	-
90	-	-
91	-	-
92	-	-

Terminal No.	Color of Wire	Signal Name
70	-	-
71	-	-
72	-	-
73	-	-
74	-	-
75	P	AUX VIDEO-
76	L	AUX VIDEO+
77	SHIELD	VIDEO SHIELD
78	-	-
79	-	-
80	-	-

Connector No.	M103
Connector Name	AV CONTROL UNIT
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
65	SHIELD	R CAMERA SHIELD
66	Y	R CAMERA COMP
67	B	CAMERA GND
68	GR	CAMERA V+
69	-	-

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# BOSE AUDIO SYSTEM

< WIRING DIAGRAM >

[BOSE AUDIO WITH NAVIGATION]

Terminal No.	Color of Wire	Signal Name
131	-	-
132	-	-
133	-	-
134	-	-
135	-	-
136	-	-
137	-	-
138	-	-
139	-	-

Terminal No.	Color of Wire	Signal Name
117	-	-
118	-	-
119	-	-
120	-	-
121	-	-
122	-	-
123	-	-
124	-	-
125	-	-
126	-	-
127	-	-
128	SHIELD	AUX SHIELD
129	R	AUX AUDIO RH
130	B	AUX AUDIO-

Connector No.	M104
Connector Name	AV CONTROL UNIT
Connector Color	WHITE

112 113 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39
---



Terminal No.	Color of Wire	Signal Name
112	-	-
113	-	-
114	-	-
115	W	AUX AUDIO LH
116	-	-

Connector No.	M204
Connector Name	WIRE TO WIRE
Connector Color	GRAY



1	2	3	4	5	6
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Connector No.	M151
Connector Name	CENTER SPEAKER
Connector Color	BROWN



2	1
---	---

Connector No.	M150
Connector Name	WIRE TO WIRE
Connector Color	WHITE



2	1
---	---

Terminal No.	Color of Wire	Signal Name
1	B	-
2	R	-
3	W	-
4	G	-

Terminal No.	Color of Wire	Signal Name
1	B/P	-
2	O/B	-

Terminal No.	Color of Wire	Signal Name
1	B/P	-
2	O/B	-

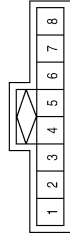
ABNIA2187GB

# BOSE AUDIO SYSTEM

< WIRING DIAGRAM >

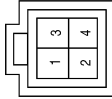
[BOSE AUDIO WITH NAVIGATION]

Connector No.	M212
Connector Name	AUX JACK
Connector Color	WHITE



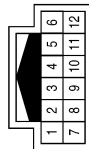
Terminal No.	Color of Wire	Signal Name
1	W	AUX AUDIO RH
2	R	AUX AUDIO-
3	B	AUX AUDIO LH
7	L	AUX VIDEO+
8	BW	AUX VIDEO-

Connector No.	M211
Connector Name	USB INTERFACE
Connector Color	GREEN



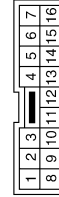
Terminal No.	Color of Wire	Signal Name
1	R	V BUS
2	G	USB (D+)
3	B	USB GND
4	W	USB (D-)

Connector No.	M210
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
3	L	-
4	R	-
5	W	-
6	B	-
9	GR	-
10	B	-
11	SHIELD	-
12	B/W	-

Connector No.	E3
Connector Name	WIRE TO WIRE
Connector Color	WHITE



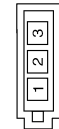
Terminal No.	Color of Wire	Signal Name
4	R	-

Connector No.	M502
Connector Name	ANTENNA AMP.
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
1	B	-
2	B	-

Connector No.	M501
Connector Name	WIRE TO WIRE
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
1	B	-
2	B	-

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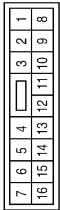


BOSE AUDIO SYSTEM

< WIRING DIAGRAM >

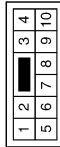
[BOSE AUDIO WITH NAVIGATION]

Connector No.	E29
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	15	Color of Wire	W	Signal Name	-
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Connector No.	E11
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	3	Color of Wire	BR	Signal Name	-
8	W	-	-	-	-

Connector No.	E35
Connector Name	PARKING BRAKE SWITCH (WITH CVT)
Connector Color	BLACK



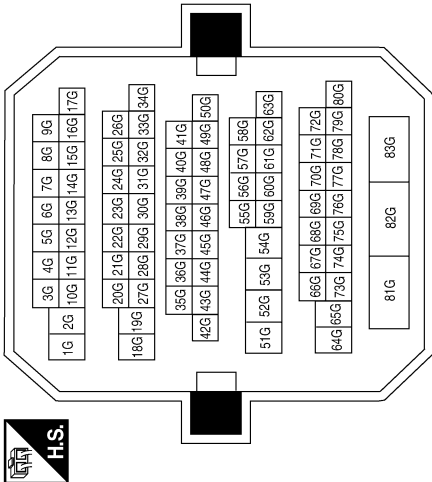
Terminal No.	1	Color of Wire	P	Signal Name	-
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Connector No.	E34
Connector Name	BACK-UP LAMP RELAY
Connector Color	BLUE



Terminal No.	1	Color of Wire	O	Signal Name	-
2	R	-	-	-	-
3	W	-	-	-	-
5	LG	-	-	-	-

Connector No.	E30
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	13G	Color of Wire	BR	Signal Name	-
53G	GR	-	-	-	-
54G	BR	-	-	-	-
64G	V	-	-	-	-

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AV

# BOSE AUDIO SYSTEM

< WIRING DIAGRAM >

[BOSE AUDIO WITH NAVIGATION]

Connector No.	F1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



7	6	5	4	3	2	1
16	15	14	13	12	11	10
9	8					

Terminal No.	Color of Wire	Signal Name
4	G	—

Connector No.	E49
Connector Name	JUNCTION BLOCK
Connector Color	BROWN



54	53	52	51
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Terminal No.	Color of Wire	Signal Name
51	LG	—
52	O	—

Connector No.	E47
Connector Name	JUNCTION BLOCK
Connector Color	WHITE



42	41
46	45
44	43

Terminal No.	Color of Wire	Signal Name
45	BR	—

Connector No.	F24
Connector Name	BACK-UP LAMP SWITCH
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	O	—
2	R	—

Connector No.	F16
Connector Name	TCM (TRANSMISSION CONTROL MODULE)
Connector Color	BLACK



31	32	33	34	35	36	37	38	39	40	47	48
21	22	23	24	25	26	27	28	29	30	45	46
11	12	13	14	15	16	17	18	19	20	43	44
1	2	3	4	5	6	7	8	9	10	41	42

Terminal No.	Color of Wire	Signal Name
19	G	REV LAMP RLY

Connector No.	F2
Connector Name	WIRE TO WIRE
Connector Color	WHITE



4	3	2	1
10	9	8	7
6	5		

Terminal No.	Color of Wire	Signal Name
3	O	—
8	R	—

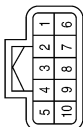

ABNIA2190GB

BOSE AUDIO SYSTEM

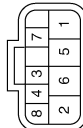

< WIRING DIAGRAM >

[BOSE AUDIO WITH NAVIGATION]

Connector No.	F49
Connector Name	JOINT CONNECTOR-F03
Connector Color	BLACK



Connector No.	F25
Connector Name	TRANSMISSION RANGE SWITCH
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
3	R	—
4	R	—

Terminal No.	Color of Wire	Signal Name
3	O	IGN
5	R	R OUTPUT

Connector No.	B6
Connector Name	WIRE TO WIRE
Connector Color	WHITE

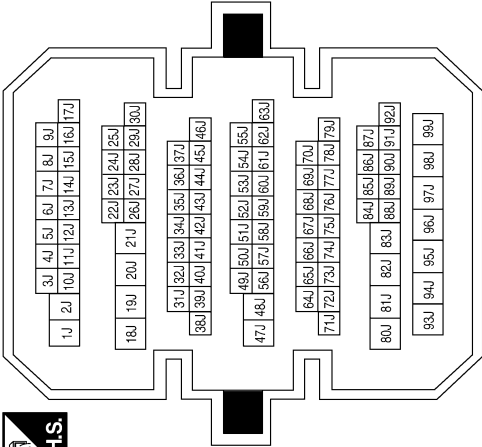
1	2	3
4	5	6
7	8	



Terminal No.	Color of Wire	Signal Name
1	LG	—
5	O	—

Terminal No.	Color of Wire	Signal Name
18J	O	—
19J	LG	—
84J	V	—
85J	B	—
86J	Y	—
88J	SHIELD	—
91J	L	—

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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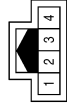
AV

# BOSE AUDIO SYSTEM

< WIRING DIAGRAM >

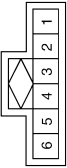
[BOSE AUDIO WITH NAVIGATION]

Connector No.	B35
Connector Name	REAR VIEW CAMERA
Connector Color	WHITE



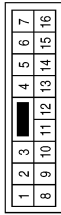
Terminal No.	Color of Wire	Signal Name
1	L	CAMERA ON
2	B	GND
3	Y	COMP +
4	SHIELD	COMP -

Connector No.	B22
Connector Name	JOINT CONNECTOR-B07
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
5	V	-
6	V	-

Connector No.	B10
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
15	V	-

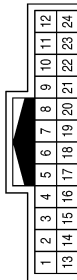
Terminal No.	Color of Wire	Signal Name
13	SB	-
14	BR	-
15	B	-
16	LG	-

Connector No.	B103
Connector Name	WIRE TO WIRE
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
1	SB	-
3	R	-
4	GR	-
5	O	-
6	V	-
7	V	-
9	G	-
10	V	-
11	L	-
12	P	-

Connector No.	B102
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	LG	-
4	BR	-
8	G	-
10	GR	-
12	W/R	-
13	V	-
15	Y	-
21	L	-
23	B/R	-

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BOSE AUDIO SYSTEM

< WIRING DIAGRAM >

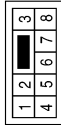
[BOSE AUDIO WITH NAVIGATION]

Connector No.	B120
Connector Name	REAR SUBWOOFER LH
Connector Color	WHITE



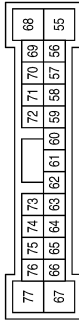
Terminal No.	Color of Wire	Signal Name
1	W	-
2	L	-

Connector No.	B106
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	V	-
5	P	-

Connector No.	B121
Connector Name	BOSE SPEAKER AMP.
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
55	R	TWTR RR PSHELF LH - OUT
56	-	-
57	-	-
58	W	RR TWDR LH + OUT

Terminal No.	Color of Wire	Signal Name
59	B	FR TWDR LH - OUT
60	G	AMP ON
61	-	-
62	-	-
63	Y	RR LH - IN
64	BR	RR LH + IN
65	V	RR RH - IN
66	LG	RR RH + IN
67	-	-
68	L	TWTR RR PSHELF LH + OUT

Terminal No.	Color of Wire	Signal Name
69	P	INST CTR TWDR + OUT
70	V	INST CTR TWDR - OUT
71	O	FR DOOR RH + OUT
72	SB	FR DOOR RH - OUT
73	GR	FR RH + IN
74	L	FR RH - IN
75	W/R	FR LH + IN
76	B/R	FR LH - IN
77	-	-

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AV

# BOSE AUDIO SYSTEM

< WIRING DIAGRAM >

[BOSE AUDIO WITH NAVIGATION]

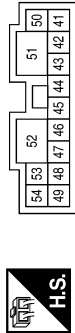
Connector No.	B124
Connector Name	REAR SUBWOOFER RH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	O	—
2	SB	—

Terminal No.	Color of Wire	Signal Name
44	BR	FR TWDR RH + OUT
45	O	RH WOOFER + OUT
46	SB	RH WOOFER - OUT
47	B	GND
48	L	LH WOOFER - OUT
49	P	TWTR RR PSHELF RH-OUT
50	SB	BAT
51	G	BAT
52	B	GND
53	W	LH WOOFER +OUT
54	V	TWTR RR PSHELF RH +OUT

Connector No.	B122
Connector Name	BOSE SPEAKER AMP.
Connector Color	BROWN



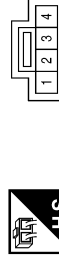
Terminal No.	Color of Wire	Signal Name
41	LG	FR TWDR LH + OUT
42	V	FR TWDR LH - OUT
43	GR	FR TWDR RH - OUT

Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



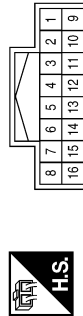
Terminal No.	Color of Wire	Signal Name
5	O	—
15	LG	—

Connector No.	R7
Connector Name	MICROPHONE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	B/R	SIG
2	R/B	GND
4	R/L	VCC

Connector No.	R1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	B/R	—
2	R/B	—
3	R/L	—
4	SHIELD	—

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# BOSE AUDIO SYSTEM

< WIRING DIAGRAM >

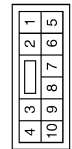
[BOSE AUDIO WITH NAVIGATION]

Connector No.	D103
Connector Name	FRONT DOOR SPEAKER RH
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
1	L	-
2	LG	-

Connector No.	D101
Connector Name	WIRE TO WIRE
Connector Color	WHITE



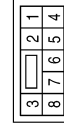
Terminal No.	Color of Wire	Signal Name
7	L	-
9	LG	-

Connector No.	D3
Connector Name	FRONT DOOR SPEAKER LH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	O	-
2	LG	-

Connector No.	D301
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	L	-
5	W	-

Connector No.	D202
Connector Name	REAR DOOR SPEAKER LH
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
1	O	-
2	L	-

Connector No.	D201
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	O	-
5	L	-

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BOSE AUDIO SYSTEM

< WIRING DIAGRAM >

[BOSE AUDIO WITH NAVIGATION]

Connector No.	D302
Connector Name	REAR DOOR SPEAKER RH
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
1	L	-
2	W	-

ABNIA2196GB



# MULTI AV SYSTEM (COUPE)

< SYMPTOM DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

## SYMPTOM DIAGNOSIS

### MULTI AV SYSTEM (COUPE)

#### Symptom Table

INFOID:000000006390233

#### NAVIGATION SYSTEM

Symptom	Possible cause	Reference page
Inoperative	<ul style="list-style-type: none"><li>• AV control unit power and ground circuit</li><li>• AV control unit</li></ul>	<ul style="list-style-type: none"><li>• <a href="#">AV-300</a></li><li>• <a href="#">AV-410</a></li></ul>
Steering wheel audio control switches do not operate	<ul style="list-style-type: none"><li>• Steering wheel audio control switches</li><li>• AV control unit</li></ul>	<ul style="list-style-type: none"><li>• <a href="#">AV-337</a></li><li>• <a href="#">AV-410</a></li></ul>
Voice activated control does not operate	<ul style="list-style-type: none"><li>• Microphone</li><li>• Steering wheel audio control switches</li><li>• AV control unit</li></ul>	<ul style="list-style-type: none"><li>• <a href="#">AV-341</a></li><li>• <a href="#">AV-337</a></li><li>• <a href="#">AV-410</a></li></ul>

#### HANDS-FREE PHONE SYSTEM

Symptom	Possible cause	Reference page
Inoperative	<ul style="list-style-type: none"><li>• AV control unit power and ground circuit</li><li>• AV control unit</li></ul>	<ul style="list-style-type: none"><li>• <a href="#">AV-300</a></li><li>• <a href="#">AV-410</a></li></ul>
Steering wheel audio control switches do not operate	<ul style="list-style-type: none"><li>• Steering wheel audio control switches</li><li>• AV control unit</li></ul>	<ul style="list-style-type: none"><li>• <a href="#">AV-337</a></li><li>• <a href="#">AV-410</a></li></ul>
Voice activated control does not operate	<ul style="list-style-type: none"><li>• Microphone</li><li>• Steering wheel audio control switches</li><li>• AV control unit</li></ul>	<ul style="list-style-type: none"><li>• <a href="#">AV-341</a></li><li>• <a href="#">AV-410</a></li><li>• <a href="#">AV-282</a></li></ul>

#### REAR VIEW MONITOR

Symptom	Possible cause	Reference page
Inoperative	<ul style="list-style-type: none"><li>• Rear view camera power and ground circuit</li><li>• Camera image signal circuit</li><li>• Rear view camera</li></ul>	<ul style="list-style-type: none"><li>• <a href="#">AV-302</a></li><li>• <a href="#">AV-343</a></li><li>• <a href="#">AV-430</a></li></ul>

#### AUDIO SYSTEM

Symptom	Possible cause	Reference page
Inoperative	<ul style="list-style-type: none"><li>• AV control unit power and ground circuit</li><li>• AV control unit</li></ul>	<ul style="list-style-type: none"><li>• <a href="#">AV-300</a></li><li>• <a href="#">AV-410</a></li></ul>
Steering wheel audio control switches do not operate	<ul style="list-style-type: none"><li>• Steering wheel audio control switches</li><li>• AV control unit</li></ul>	<ul style="list-style-type: none"><li>• <a href="#">AV-337</a></li><li>• <a href="#">AV-410</a></li></ul>
All speakers do not sound	<ul style="list-style-type: none"><li>• Speaker circuit shorted to ground</li><li>• AV control unit power and ground circuit</li><li>• BOSE speaker amp. ON signal</li><li>• BOSE speaker amp. power and ground circuit</li><li>• BOSE speaker amp.</li><li>• AV control unit</li></ul>	<ul style="list-style-type: none"><li>• <a href="#">AV-357</a></li><li>• <a href="#">AV-300</a></li><li>• <a href="#">AV-339</a></li><li>• <a href="#">AV-301</a></li><li>• <a href="#">AV-411</a></li><li>• <a href="#">AV-282</a></li></ul>
One or several speakers do not sound	<ul style="list-style-type: none"><li>• Door speaker</li><li>• Front tweeter</li><li>• Center speaker</li><li>• Rear tweeter</li><li>• Subwoofer</li></ul>	<ul style="list-style-type: none"><li>• <a href="#">AV-310</a></li><li>• <a href="#">AV-316</a></li><li>• <a href="#">AV-322</a></li><li>• <a href="#">AV-325</a></li><li>• <a href="#">AV-331</a></li></ul>
Buzz/rattle sound from speaker	The majority of buzz/rattle sounds are not indicative of an issue with the speaker, usually something nearby the speaker is causing the buzz/rattle.	Refer to "SQUEAK AND RATTLE TROUBLE DIAGNOSIS" in the appropriate interior trim section.

# MULTI AV SYSTEM (SEDAN)

< SYMPTOM DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

## MULTI AV SYSTEM (SEDAN)

### Symptom Table

INFOID:000000006390234

#### NAVIGATION SYSTEM

Symptom	Possible cause	Reference page
Inoperative	<ul style="list-style-type: none"><li>• AV control unit power and ground circuit</li><li>• AV control unit</li></ul>	<ul style="list-style-type: none"><li>• <a href="#">AV-305</a></li><li>• <a href="#">AV-410</a></li></ul>
Steering wheel audio control switches do not operate	<ul style="list-style-type: none"><li>• Steering wheel audio control switches</li><li>• AV control unit</li></ul>	<ul style="list-style-type: none"><li>• <a href="#">AV-337</a></li><li>• <a href="#">AV-410</a></li></ul>
Voice activated control does not operate	<ul style="list-style-type: none"><li>• Microphone</li><li>• Steering wheel audio control switches</li><li>• AV control unit</li></ul>	<ul style="list-style-type: none"><li>• <a href="#">AV-341</a></li><li>• <a href="#">AV-337</a></li><li>• <a href="#">AV-410</a></li></ul>

#### HANDS-FREE PHONE SYSTEM

Symptom	Possible cause	Reference page
Inoperative	<ul style="list-style-type: none"><li>• AV control unit power and ground circuit</li><li>• AV control unit</li></ul>	<ul style="list-style-type: none"><li>• <a href="#">AV-305</a></li><li>• <a href="#">AV-410</a></li></ul>
Steering wheel audio control switches do not operate	<ul style="list-style-type: none"><li>• Steering wheel audio control switches</li><li>• AV control unit</li></ul>	<ul style="list-style-type: none"><li>• <a href="#">AV-337</a></li><li>• <a href="#">AV-410</a></li></ul>
Voice activated control does not operate	<ul style="list-style-type: none"><li>• Microphone</li><li>• Steering wheel audio control switches</li><li>• AV control unit</li></ul>	<ul style="list-style-type: none"><li>• <a href="#">AV-341</a></li><li>• <a href="#">AV-337</a></li><li>• <a href="#">AV-410</a></li></ul>

#### REAR VIEW MONITOR

Symptom	Possible cause	Reference page
Inoperative	<ul style="list-style-type: none"><li>• Rear view camera power and ground circuit</li><li>• Camera image signal circuit</li><li>• Rear view camera</li></ul>	<ul style="list-style-type: none"><li>• <a href="#">AV-307</a></li><li>• <a href="#">AV-343</a></li><li>• <a href="#">AV-430</a></li></ul>

#### AUDIO SYSTEM

Symptom	Possible cause	Reference page
Inoperative	<ul style="list-style-type: none"><li>• AV control unit power and ground circuit</li><li>• AV control unit</li></ul>	<ul style="list-style-type: none"><li>• <a href="#">AV-305</a></li><li>• <a href="#">AV-410</a></li></ul>
Steering wheel audio control switches do not operate	<ul style="list-style-type: none"><li>• Steering wheel audio control switches</li><li>• AV control unit</li></ul>	<ul style="list-style-type: none"><li>• <a href="#">AV-337</a></li><li>• <a href="#">AV-410</a></li></ul>
All speakers do not sound	<ul style="list-style-type: none"><li>• Speaker circuit shorted to ground</li><li>• AV control unit power and ground circuit</li><li>• BOSE speaker amp. ON signal</li><li>• BOSE speaker amp. power and ground circuit</li><li>• BOSE speaker amp.</li><li>• AV control unit</li></ul>	<ul style="list-style-type: none"><li>• <a href="#">AV-377</a></li><li>• <a href="#">AV-305</a></li><li>• <a href="#">AV-339</a></li><li>• <a href="#">AV-301</a></li><li>• <a href="#">AV-411</a></li><li>• <a href="#">AV-410</a></li></ul>
One or several speakers do not sound	<ul style="list-style-type: none"><li>• Front door speaker</li><li>• Tweeter</li><li>• Center speaker</li><li>• Rear door speaker</li><li>• Subwoofer</li></ul>	<ul style="list-style-type: none"><li>• <a href="#">AV-313</a></li><li>• <a href="#">AV-319</a></li><li>• <a href="#">AV-322</a></li><li>• <a href="#">AV-328</a></li><li>• <a href="#">AV-334</a></li></ul>
Buzz/rattle sound from speaker	The majority of buzz/rattle sounds are not indicative of an issue with the speaker, usually something nearby the speaker is causing the buzz/rattle.	Refer to "SQUEAK AND RATTLE TROUBLE DIAGNOSIS" in the appropriate interior trim section.

## NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

### NORMAL OPERATING CONDITION

#### Description

INFOID:000000006390235

#### AUDIO SYSTEM

The majority of the audio troubles 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

Occurrence condition		Possible cause
Occurs only when engine is ON.	A continuous growling noise occurs. The speed of the noise varies with changes in the engine speed.	• Ignition components
The occurrence of the noise is linked with the operation of the fuel pump.		• Fuel pump condenser
Noise only occurs when various electrical components are operating.	A cracking or snapping sound occurs with the operation of various switches.	• Relay malfunction, audio unit malfunction
	The noise occurs when various motors are operating.	• Motor case ground • Motor
The noise occurs constantly, not just under certain conditions.		• Rear defogger coil malfunction • Open circuit in printed heater • Poor ground of antenna feeder line
A cracking or snapping sound occurs while the vehicle is being driven, especially when it is vibrating excessively.		• Ground wire of body parts • Ground due to improper part installation • Wiring connections or a short circuit

#### NAVIGATION SYSTEM

##### Basic Operation

Symptom	Cause	Remedy
No image is shown.	Display brightness adjustment is set fully to DARK side.	Adjust the display brightness.
No guide sound is heard. Audio guide volume is too low or too high.	Volume control is set to OFF, MIN or MAX.	Adjust the audio guide volume.
	Audio guidance is not available while the vehicle is driving on a dark pink route.	System is not malfunctioning.
Screen is too dark. Motion of the image is too slow.	Temperature inside the vehicle is low.	Wait until the temperature inside the vehicle reaches the proper temperature.
Small black or bright spots appear on the screen.	Symptom peculiar to a liquid crystal display (display unit).	System is not malfunction.

##### Vehicle Mark

# NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

Symptom	Cause	Remedy
Map screen and BIRDVIEW™ Name of the place vary with the screen.	Some thinning of the character data is done to prevent the display becoming to complex. In some cases and in some locations, the display contents may differ. The same place name, street name, etc. may not be displayed every time on account of the data processing.	System is not malfunctioning.
Vehicle mark is not positioned correctly.	Vehicle is transferred by ferry or by towing after its ignition switch is turned to OFF.	Drive the vehicle for a while in the GPS satellite signal receiving condition.
Screen will not switch to nighttime mode after the lighting switch is turned ON.	The daytime screen is selected by the "SWITCH SCREENS" when the last time the screen dimming setting is done. Switching between daytime/nighttime screen may be inhibited by the automatic illumination adjustment function.	Perform screen dimming and select the nighttime screen by "SWITCH SCREENS".
Map screen will not scroll in accordance with the vehicle travel.	Current location is not displayed.	Press "MAP" button to display the current location.
Vehicle mark will not be shown.	Current location is not displayed.	Press "MAP" button to display the current location.
Accuracy indicator (GPS satellite mark) on the map screen stays gray.	GPS satellite signal is intercepted because the vehicle is in or behind a building.	Move the vehicle out to an open space.
	GPS satellite signal cannot be received because an obstacle is placed on top of the instrument panel.	Do not place anything on top of the meter display (instrument panel).
	GPS satellites are not visible from current location.	Wait until GPS satellites are visible by moving the vehicle.
Vehicle location accuracy is low.	Accuracy indicator (GPS satellite mark) on the map screen stays gray.	Current location is not determined.
	Vehicle speed setting by the vehicle speed pulse has been deviated (advanced or retarded) from the actual vehicle speed because tire chain is fitted or the system has been used on another vehicle.	Drive the vehicle for a while [for approx. 30 minutes at approx. 30 km/h (19 MPH)] and the deviation will be automatically adjusted. If advancement or retard still occur, perform the distance adjustment by CONFIRMATION/ADJUSTMENT mode of diagnosis function.
	Map data has error or omission. (Vehicle mark is always deviated to the same position.)	As a rule, an updated map DVD-ROM will be released once a year.

## Destination, Passing Points and Menu Items Cannot be Selected/Set

Symptom	Cause	Remedy
Destination cannot be set.	Destination to be set is on an expressway.	Set the destination on an ordinary road.
Passing point is not searched when re-searching the route.	The vehicle has already passed the passing point, or the system judged so.	To include the passing points that have been passed into the route again, set the route again.
Route information will not be displayed.	Route searching has not been done.	Set the destination and perform route searching.
	Vehicle mark is not on the recommended route.	Drive on the recommended route.
	Route guide is turned OFF.	Turn route guide ON.
	Route information is not available on the dark pink route.	System is not malfunctioning.
After the route searching, no guide sign will appear as the vehicle goes near the entrance/exit to the toll road.	Vehicle mark is not on the recommended route. (On the display, only guide signs related to the recommended route will be shown.)	Drive on the recommended route.

# NORMAL OPERATING CONDITION

## < SYMPTOM DIAGNOSIS >

## [BOSE AUDIO WITH NAVIGATION]

Symptom	Cause	Remedy
Automatic route searching is not possible.	Vehicle is driving on a highway (gray route), or no recommended route is available.	Drive on a road to be searched. Or re-search the route manually. In this case, however, the whole route will be searched.
Performed automatic detour search (or detour search). However, the result is the same as that of the previous search.	Performed search with every conditions considered. However, the result is the same as that of the previous search.	System is not malfunctioning.
Passing points cannot be set.	More than five passing points were set.	Passing points can be set up to five. To stop at more than five points, perform sharing in several steps.
When setting the route, the starting point cannot be selected.	The current vehicle location is always set as the starting point of a route.	System is not malfunctioning.
Some menu items cannot be selected.	The vehicle is being driven.	Stop the vehicle at a safe place and then operate the system.

### Voice Guide

Symptom	Cause	Remedy
Voice guide will not operate.	Note: Voice guide is only available at intersections that satisfy certain conditions (indicated by ● on the map). Therefore, guidance may not be given even when the route on the map changes direction.	System is not malfunctioning.
	The vehicle is not on the recommended route.	Return to the recommended route or re-search the route.
	Voice guide is turned OFF.	Turn voice guide ON.
	Route guide is turned OFF.	Turn route guide ON.
Voice guide does not match the actual road pattern.	Voice guide may vary with the direction to which the vehicle is turn and the connection of the road to other roads.	Drive in conformity to the actual traffic rules.

### Route Search

Symptom	Cause	Remedy
No route is shown.	No road to be searched is found around the destination.	Find wider road (orange road or wider) nearby and reset the destination and passing points onto it. Take care of the traveling direction when there are separate up and down roads.
	Starting point and the destination are too close.	Set the destination at more distant point.
	Conditional traffic regulation (day of the week/ time of the day) is set at the area around the current location or the destination.	Turn the time-regulating search conditions OFF. Turn "Avoid regulation time" in the search conditions OFF.
Indicated route is intermittent.	In some areas, highways (gray routes) are not used for the search <sup>(Note)</sup> Therefore, the route to the current location or the passing points may be intermittent.	System is not malfunctioning.
When the vehicle has passed the recommended route, it is deleted from the screen.	A recommended route is controlled by each section. When the vehicle has passed the passing point 1, then the map data from the starting point up to the passing point 1 will be deleted. (The data may remain undeleted in some area.)	System is not malfunctioning.

# NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

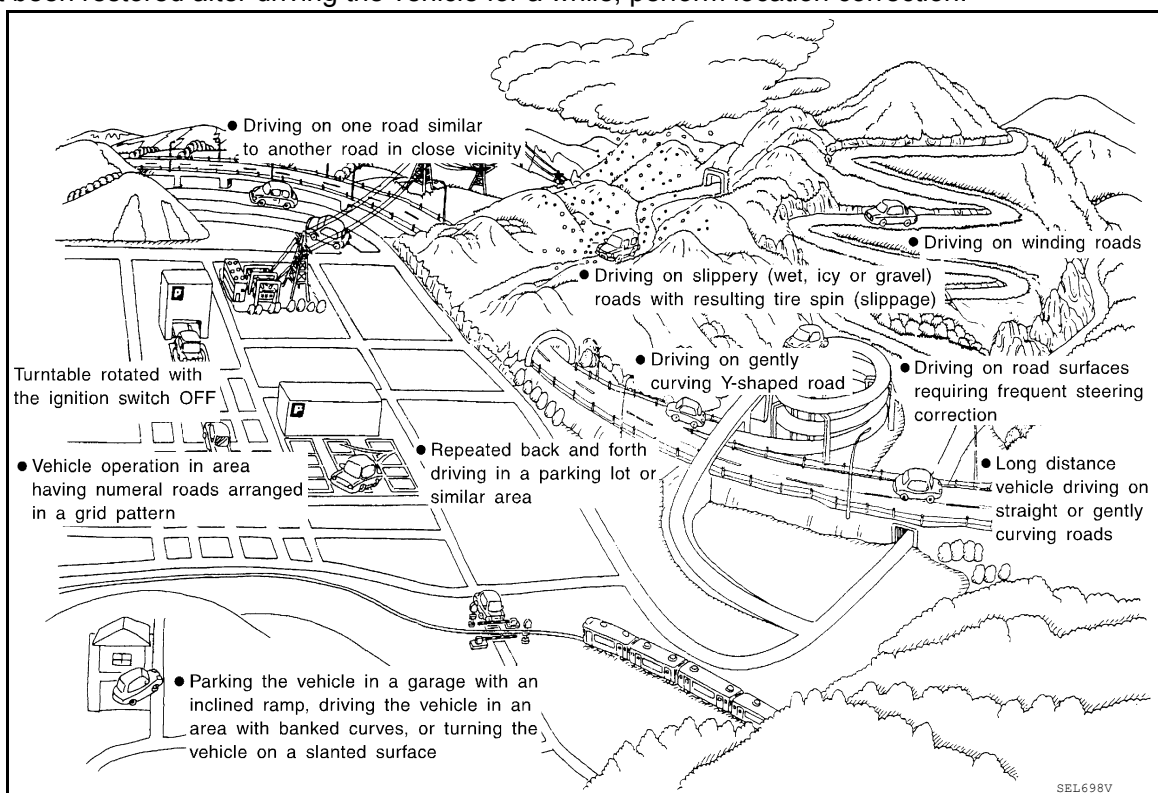
Symptom	Cause	Remedy
Detouring route is recommended.	In some areas, highways (gray routes) are not used for the search. (Note). Therefore, detour route may be recommended.	Set the route closer to the basic route (gray route).
	A detour route may be shown when some traffic regulation (one-way traffic, etc.) is set at the area around the starting point or the destination.	Slightly move the starting point or the destination, or set the passing point on the route of your choice.
	In the area where highways (gray routes) are used for the search, left turn has priority around the current location and the destination (passing points). For this reason, the recommended route may be detouring.	System is not malfunctioning.
Landmarks on the map do not match the actual ones.	This can be happen due to omission or error in the map data.	As a rule, an updated map DVD-ROM will be released once a year. Wait until the latest map has become available.
Recommended route is far from the starting point, passing points, and destination.	Starting point, passing points, and destination of the route guide were set far from the desired points because route searching data around these area were not stored.	Reset the destination onto the road nearby. If this road is one of the highways (gray routes), an ordinary road nearby may be displayed as the recommended route.

## NOTE:

Except for the ordinance-designated cities. (Malfunctioning areas may be changed in the updated map disc.)

## Examples of Current-Location Mark Displacement

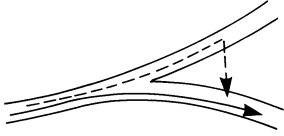
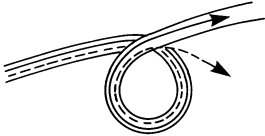
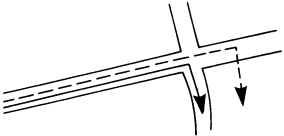
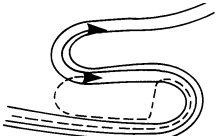
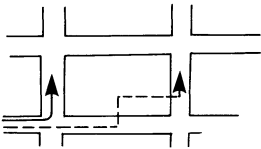
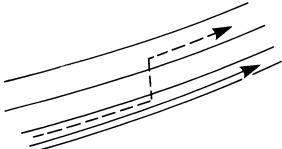
Vehicle's travel amount is calculated by reading its travel distance and turning angle. Therefore, if the vehicle is driven in the following manner, an error will occur in the vehicle's current location display. If correct location has not been restored after driving the vehicle for a while, perform location correction.



# NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

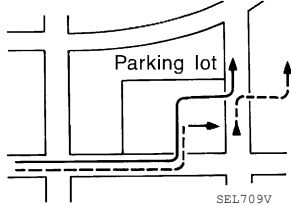
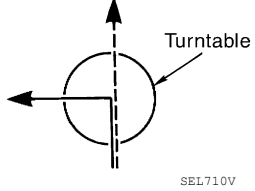
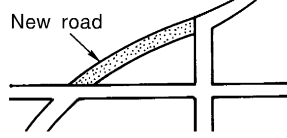
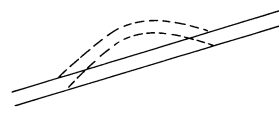
Cause (condition)    -: While driving    ooo: Display		Driving condition	Remarks (correction, etc.)
Road configuration	<b>Y-intersections</b>  ELK0192D	At a Y intersection or similar gradual division of roads, an error in the direction of travel deduced by the sensor may result in the current-location mark appearing on the wrong road.	
	<b>Spiral roads</b>  ELK0193D	When driving on a large, continuous spiral road (such as loop bridge), turning angle error is accumulated and the vehicle mark may deviate from the correct location.	
	<b>Straight roads</b>  ELK0194D	When driving on a long, straight road and slow curve without stopping, map-matching does not work effectively enough and distance errors may accumulate. As a result, the vehicle mark may deviate from the correct location when the vehicle is turned at a corner.	If after travelling about 10 km (6 miles) the correct location has not been restored, perform location correction and, if necessary, direction correction.
	<b>Zigzag roads</b>  ELK0195D	When driving on a zigzag road, the map may be matched to other roads in the similar direction nearby at every turn, and the vehicle mark may deviate from the correct location.	
	<b>Roads laid out in a grid pattern</b>  ELK0196D	When driving where roads are laid out in a grid pattern, or where many roads are running in the similar direction nearby, the map may be matched to them by mistake and the vehicle mark may deviate from the correct location.	
	<b>Parallel roads</b>  ELK0197D	When two roads are running in parallel (such as highway and sideways), the map may be matched to the other road by mistake and the vehicle mark may deviate from the correct location.	

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# NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

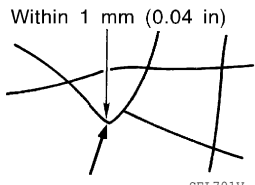
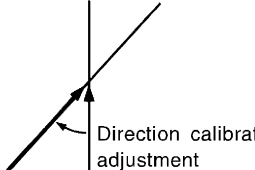
Cause (condition)    -: While driving    ooo: Display		Driving condition	Remarks (correction, etc.)
Place	In a parking lot  SEL709V	When driving in a parking lot, or other location where there are no roads on the map, matching may place the vehicle mark on a nearby road. When the vehicle returns to the road, the vehicle mark may have deviated from the correct location. When driving in circle or turning the steering wheel repeatedly, direction errors accumulate, and the vehicle mark may deviate from the correct location.	If after travelling about 10 km (6 miles) the correct location has not been restored, perform location correction and, if necessary, direction correction.
	Turntable  SEL710V	When the ignition switch is OFF, the navigation system cannot get the signal from the gyroscope (angular speed sensor). Therefore, the displayed direction may be wrong and the correct road may not be easily returned to after rotating the vehicle on a turntable with the ignition OFF.	
	Slippery roads	On snow, wet roads, gravel, or other roads where tires may slip easily, accumulated mileage errors may cause the vehicle mark to deviate from the correct road.	
	Slopes	When parking in sloped garages, when travelling on banked roads, or in other cases where the vehicle turns when tilted, an error in the turning angle will occur, and the vehicle mark may deviate from the road.	
Map data	Road not displayed on the map screen  SEL699V	When driving on new roads or other roads not displayed on the map screen, map matching does not function correctly and matches the location to a nearby road. When the vehicle returns to a road which is on the map, the vehicle mark may deviate from the correct road.	
	Different road pattern (Changed due to repair)  ELK0201D	If the road pattern stored in the map data and the actual road pattern are different, map matching does not function correctly and matches the location to a nearby road. The vehicle mark may deviate from the correct road.	
Vehicle	Use of tire chains	When tire chains are used, the mileage is not correctly detected, and the vehicle mark may deviate from the correct road.	Drive the vehicle for a while. If the distance still deviates, adjust it by using the distance adjustment function. (If the tire chain is removed, recover the original value.)



# NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

Cause (condition)    -: While driving    ooo: Display		Driving condition	Remarks (correction, etc.)
Precautions for driving	Just after the engine is started	If the vehicle is driven just after the engine is started when the gyroscope (angular speed sensor) correction is not completed, the vehicle can lose its direction and may have deviated from the correct location.	Wait for a short while before driving after starting the engine.
	Continuous driving without stopping	When driving long distances without stopping, direction errors may accumulate, and the current-location mark may deviate from the correct road.	Stop and adjust the orientation.
	Abusive driving	Spinning the wheels or engaging in other kinds of abusive driving may result in the system being unable perform correct detection, and may cause the vehicle mark to deviate from the correct road.	If after travelling about 10 km (6 miles) the correct location has not been restored, perform location correction and, if necessary, direction correction.
How to correct location	Position correction accuracy  SEL701V	If the accuracy of location settings is poor, accuracy may be reduced when the correct road cannot be found, particularly in places where there are many roads.	Enter in the road displayed on the screen with an accuracy of approx. 1mm. Caution: Whenever possible, use detailed map for the correction.
	Direction when location is corrected  SEL702V	If the accuracy of location settings during correction is poor, accuracy may be reduced afterwards.	Perform direction correction.

## Location Correction by Map-Matching is Slow

- The map-matching function needs to refer to the data of the surrounding area. It is necessary to drive some distance for the function to work.
- Because map-matching operates on this principle, when there are many roads running in similar directions in the surrounding area, no matching determination may be made. The location may not be corrected until some special feature is found.

## Name of Road is Not Displayed

The current road name may not be displayed if there are no road names displayed on the map screen.

## Contents of Display Differ for Birdview™ and the (Flat) Map Screen

Difference of the BIRDVIEW™ screen from the flat map screen are as follows.

- The current place name displays names which are primarily in the direction of vehicle travel.
- The amount of time before the vehicle travel or turn angle is updated on the screen is longer than for the (flat) map display.
- The conditions for display of place names, roads, and other data are different for nearby areas and for more distant areas.
- Some thinning of the character data is done to prevent the display becoming too complex. In some cases and in some locations, the display contents may differ.
- The same place name, street name, etc. may be displayed multiple times.

## Vehicle Mark Shows a Position Which is Completely Wrong

In the following cases, the vehicle mark may appear on completely different position in the map depending on the GPS satellite signal receiving conditions. In this case, perform location correction and direction correction.

- When location correction has not been done
- If the receiving conditions of the GPS satellite signal is poor, if the vehicle mark becomes out of place, it may move to a completely different location and not come back if location correction is not done. The position will be corrected if the GPS signal can be received.
- When the vehicle has traveled by ferry, or when the vehicle has been being towed

## NORMAL OPERATING CONDITION

### < SYMPTOM DIAGNOSIS >

### [BOSE AUDIO WITH NAVIGATION]

- Because calculation of the current location cannot be done when traveling with the ignition off, for example when traveling by ferry or when being towed, the location before travel is displayed. If the precise location can be detected with GPS, the location will be corrected.

#### Vehicle Mark Jumps

In the following cases, the vehicle mark may appear to jump as a result of automatic correction of the current location.

- When map matching has been done
- If the current location and the vehicle mark are different when map matching is done, the vehicle mark may seem to jump. At this time, the location may be “corrected” to the wrong road or to a location which is not on a road.
- When GPS location correction has been done
- If the current location and the vehicle mark are different when the location is corrected using GPS measurements, the vehicle mark may seem to jump. At this time, the location may be “corrected” to a location which is not on a road.

#### Vehicle Mark is in a River or Sea

The navigation system moves the vehicle mark with no distinction between land and rivers or sea. If the vehicle mark is somehow out of place, it may appear that the vehicle is driving in a river or the sea.

#### Vehicle Mark Automatically Rotates

The system wrongly memorizes the rotating status as stopping when the ignition switch is turned ON with the turntable rotating. That causes the vehicle mark to rotate when the vehicle is stopped.

#### When Driving on Same Road, Sometimes Vehicle Mark is in Right Place and Sometimes it is in Wrong Place

The conditions of the GPS antenna (GPS data) and gyroscope (angular speed sensor) change gradually. Depending on the road traveled and the operation of the steering wheel, the location detection results will be different. Therefore, even on a road on which the location has never been wrong, conditions may cause the vehicle mark to deviate.

## PRECAUTION

## PRECAUTIONS

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

INFOID:000000006390236

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.

## Necessary for Steering Wheel Rotation After Battery Disconnect

INFOID:000000006390237

**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 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.)

## PRECAUTIONS

< PRECAUTION >

[BOSE AUDIO WITH NAVIGATION]

6. Perform self-diagnosis check of all control units using CONSULT.

### Precaution for Work

INFOID:000000006921809

- When removing or disassembling each component, be careful not to damage or deform it. If a component may be subject to interference, be sure to protect it with a shop cloth.
- When removing (disengaging) components with a screwdriver or similar tool, be sure to wrap the component with a shop cloth or vinyl tape to protect it.
- Protect the removed parts with a shop cloth and prevent them from being dropped.
- Replace a deformed or damaged clip.
- If a part is specified as a non-reusable part, always replace it with new one.
- Be sure to tighten bolts and nuts securely to the specified torque.
- After installation is complete, be sure to check that each part works properly.
- Follow the steps below to clean components.
- Water soluble dirt: Dip a soft cloth into lukewarm water, and wring the water out of the cloth to wipe the dirty area.  
Then rub with a soft and dry cloth.
- Oily dirt: Dip a soft cloth into lukewarm water with mild detergent (concentration: within 2 to 3%), and wipe the dirty area.  
Then dip a cloth into fresh water, and wring the water out of the cloth to wipe the detergent off. Then rub with a soft and dry cloth.
- Do not use organic solvent such as thinner, benzene, alcohol, or gasoline.
- For genuine leather seats, use a genuine leather seat cleaner.

### Precaution for Trouble Diagnosis

INFOID:000000006390238

#### AV COMMUNICATION SYSTEM

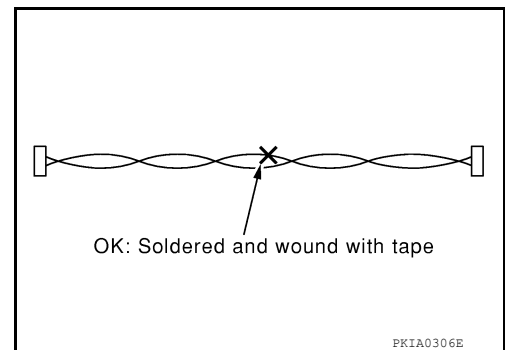
- Do not apply voltage of 7.0 V or higher to the measurement terminals.
- Use the tester with its open terminal voltage being 7.0 V or less.
- Be sure to turn ignition switch OFF and disconnect the battery cable from the negative terminal before checking the circuit.

### Precaution for Harness Repair

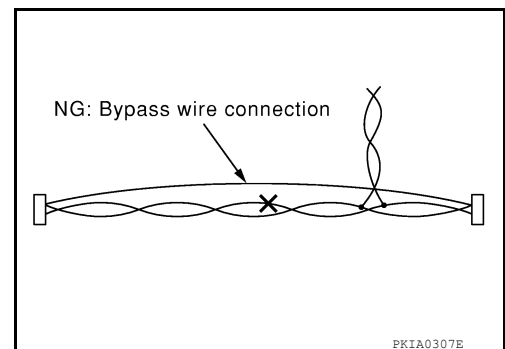
INFOID:000000006390239

#### 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.)



# PREPARATION

< PREPARATION >

[BOSE AUDIO WITH NAVIGATION]

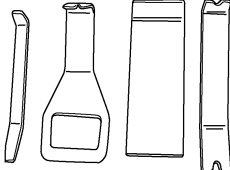
## PREPARATION

### PREPARATION

#### Special Service Tools


INFOID:0000000006390240

The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here.

Tool number (Kent-Moore No.) Tool name	Description
— (J-46534) Trim Tool Set	Removing trim components
 AWJIA0483ZZ	

#### Commercial Service Tools

INFOID:0000000006390241

Tool name	Description
Power tool	Loosening nuts, screws and bolts
 PIIB1407E	

A  
B  
C  
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E  
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AV

## REMOVAL AND INSTALLATION

### AV CONTROL UNIT

#### Removal and Installation

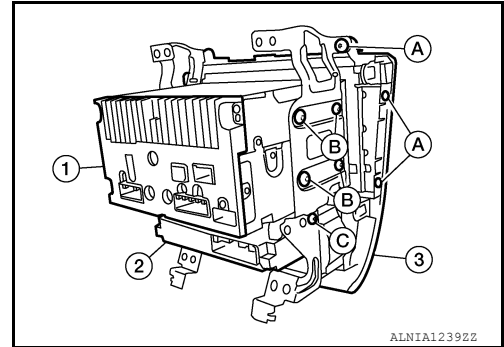
INFOID:000000006390242

#### REMOVAL

##### CAUTION:

Before replacing AV control unit, perform "READ CONFIGURATION" to save current vehicle specification. Refer to [AV-221, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).

1. Disconnect the negative battery terminal.
2. Remove the cluster lid C. Refer to [IP-17, "Removal and Installation"](#).
3. Remove the following screws from each side:
  - Cluster lid C screws (A)
  - AV control unit screws (B)
  - Front air control screws (C)
4. Remove the AV control unit (1) and front air control (2) from cluster lid C (3).



ALN1A1239ZZ

#### INSTALLATION

##### CAUTION:

- When replacing AV control unit, perform "WRITE CONFIGURATION". Refer to [AV-221, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).

Installation is in the reverse order of removal.

# BOSE SPEAKER AMP

< REMOVAL AND INSTALLATION >

[BOSE AUDIO WITH NAVIGATION]

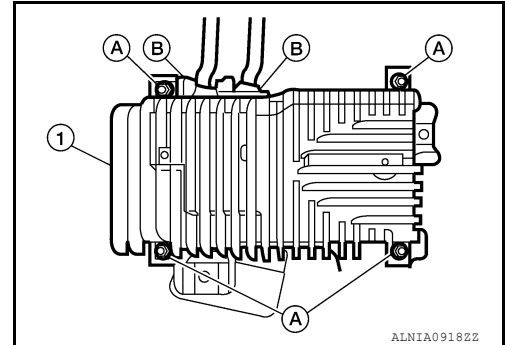
## BOSE SPEAKER AMP

### Removal and Installation - Coupe

INFOID:000000006921810

#### REMOVAL

1. Remove the trunk floor carpet and spare tire cover. Refer to [INT-54, "Removal and Installation"](#).
2. Remove the RH trunk floor spacer.
3. Remove the Bose speaker amp. screws (A).
4. Disconnect the Bose speaker amp. connectors (B) and remove the Bose speaker amp. (1).



#### INSTALLATION

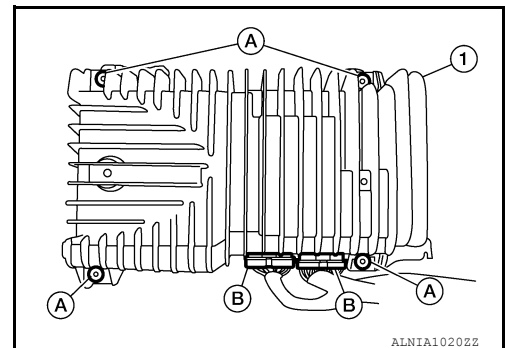
Installation is in the reverse order of removal.

### Removal and Installation - Sedan

INFOID:000000006921811

#### REMOVAL

1. Open the trunk lid.
2. Remove the Bose speaker amp. screws (A).
3. Disconnect the Bose speaker amp. connectors (B).
4. Remove the Bose speaker amp. (1) from underneath the rear panel shelf.



#### INSTALLATION

Installation is in the reverse order of removal.

A  
B  
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J  
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L  
M  
O  
P

AV

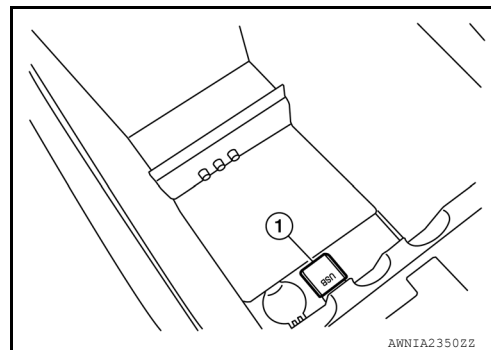
## USB CONNECTOR

### Removal and Installation

INFOID:000000006390245

#### Removal

1. Remove the center console assembly. Refer to [IP-14, "Removal and Installation"](#).
2. Push the pawl from the back of the center console to remove the USB interface (1).



#### Installation

Installation is in the reverse order of removal.



## AUXILIARY INPUT JACKS

< REMOVAL AND INSTALLATION >

[BOSE AUDIO WITH NAVIGATION]

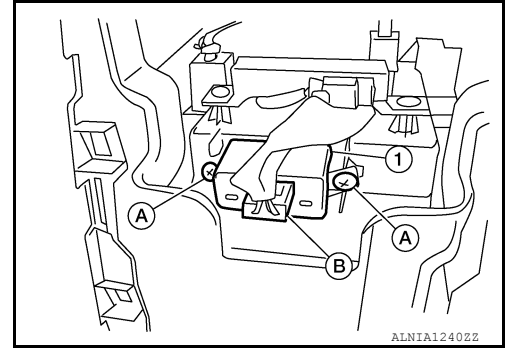
### AUXILIARY INPUT JACKS

#### Removal and Installation

INFOID:000000006390246

#### REMOVAL

1. Remove the center console. Refer to [IP-14, "Removal and Installation"](#).
2. Disconnect the auxiliary input jacks connector (B).
3. Remove the auxiliary input jacks screws (A).
4. Remove the auxiliary input jacks (1).



#### INSTALLATION

Installation is in the reverse order of removal.

A  
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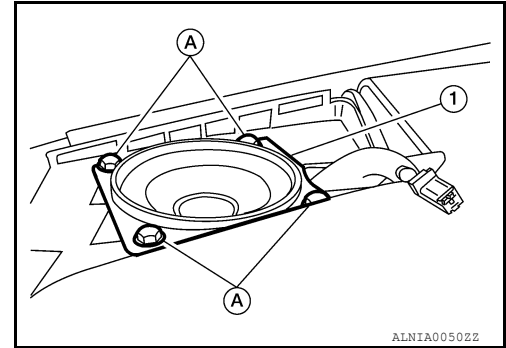
AV

**FRONT TWEETER****Removal and Installation**

INFOID:000000006921812

**REMOVAL**

1. Remove the front pillar finisher. Refer to [INT-44. "Removal and Installation"](#) (coupe) and [INT-44. "Removal and Installation"](#) (sedan).
2. Remove tweeter speaker grille, using a suitable tool.
3. Remove the tweeter speaker screws (A).
4. Pull out the tweeter speaker (1) disconnect the tweeter speaker connector and remove the tweeter speaker.

**INSTALLATION**

Installation is in the reverse order of removal.

## CENTER SPEAKER

< REMOVAL AND INSTALLATION >

[BOSE AUDIO WITH NAVIGATION]

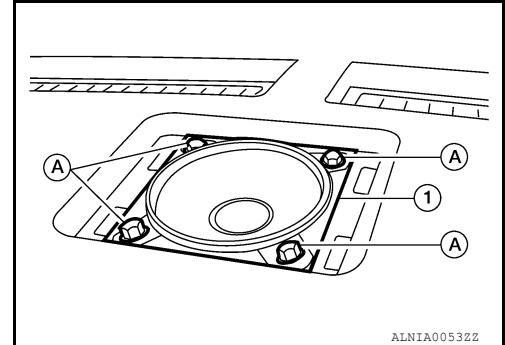
### CENTER SPEAKER

#### Removal and Installation

INFOID:000000006921818

#### REMOVAL

1. Remove the center speaker grille, using a suitable tool.
2. Remove the center speaker screws (A).
3. Pull out the center speaker (1), then disconnect the center speaker connector and remove the center speaker.



#### INSTALLATION

Installation is in the reverse order of removal.

A

B

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AV

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## FRONT DOOR SPEAKER

< REMOVAL AND INSTALLATION >

[BOSE AUDIO WITH NAVIGATION]

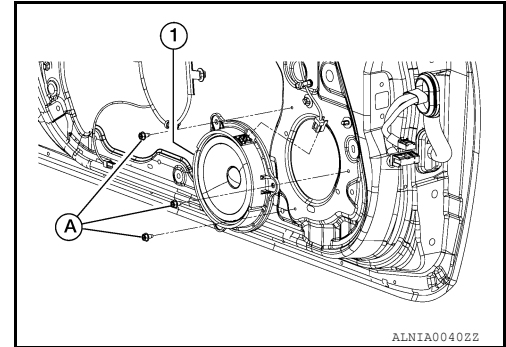
### FRONT DOOR SPEAKER

#### Removal and Installation

INFOID:000000006921819

#### REMOVAL

1. Remove the front door finisher. Refer to [INT-41. "Removal and Installation"](#) (coupe) and [INT-13. "Removal and Installation"](#) (sedan).
2. Remove the front door speaker screws (A).
3. Disconnect the front door speaker connector and remove the front door speaker (1).



#### INSTALLATION

Installation is in the reverse order of removal.

## REAR DOOR SPEAKER

< REMOVAL AND INSTALLATION >

[BOSE AUDIO WITH NAVIGATION]

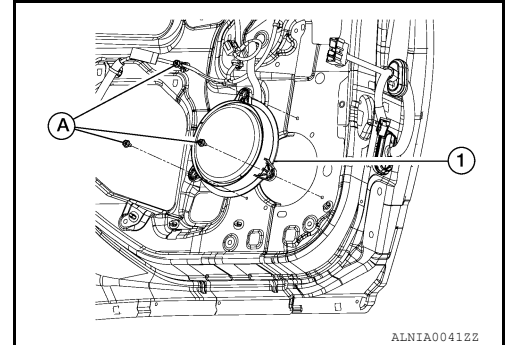
### REAR DOOR SPEAKER

#### Removal and Installation - Sedan

INFOID:000000006921820

#### REMOVAL

1. Remove the rear door finisher. Refer to [INT-13. "Removal and Installation"](#).
2. Remove the rear door speaker screws (A).
3. Disconnect the rear door speaker connector and remove the rear door speaker (1).



#### INSTALLATION

Installation is in the reverse order of removal.

A  
B  
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AV

## REAR TWEETER

< REMOVAL AND INSTALLATION >

[BOSE AUDIO WITH NAVIGATION]

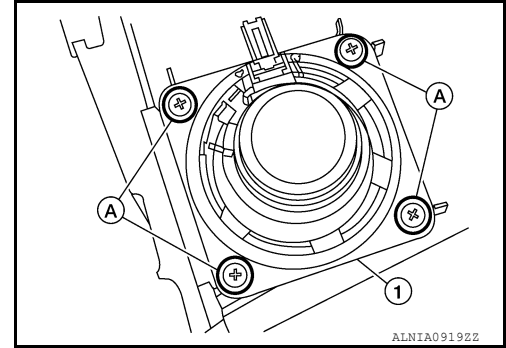
### REAR TWEETER

#### Removal and Installation - Coupe

INFOID:000000006390251

#### REMOVAL

1. Remove the rear parcel shelf finisher. Refer to [INT-46, "Removal and Installation"](#).
2. Remove the rear tweeter speaker screws (A) and remove the rear tweeter speaker (1).



#### INSTALLATION

Installation is in the reverse order of removal.

# SUBWOOFER

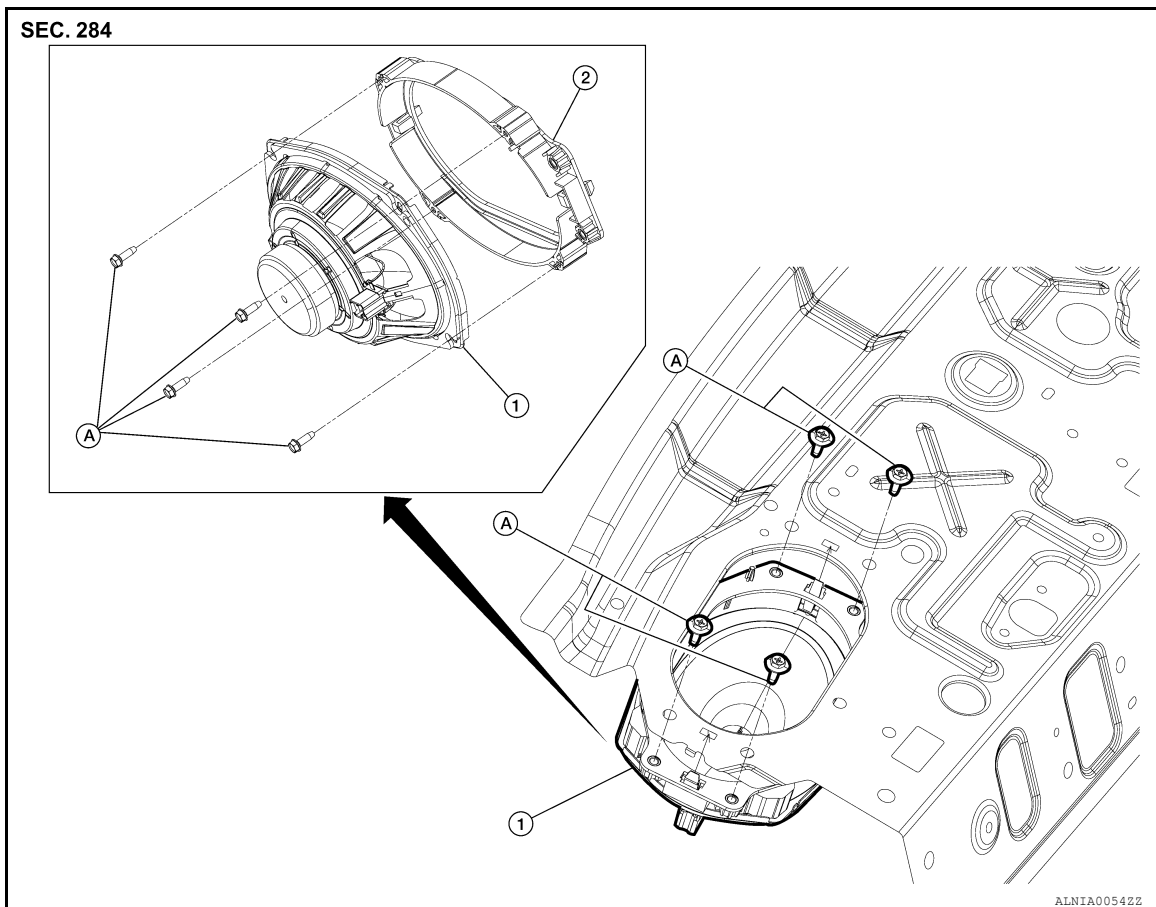
< REMOVAL AND INSTALLATION >

[BOSE AUDIO WITH NAVIGATION]

## SUBWOOFER

### Components

INFOID:000000006390252



### Removal and Installation

INFOID:000000006390253

#### REMOVAL

1. Remove the rear parcel shelf finisher. Refer to [INT-46. "Removal and Installation"](#) (coupe) and [INT-22. "Removal and Installation - Rear Parcel Shelf Finisher"](#) (sedan).
2. Remove the upper trunk finisher. Refer to [INT-54. "Removal and Installation"](#) (coupe) and [INT-31. "Removal and Installation"](#) (sedan).
3. Remove the subwoofer speaker screws from the top, disconnect the subwoofer speaker harness connector and remove the subwoofer speaker and spacer assembly.
4. Remove the spacer screws and remove the subwoofer speaker from the spacer.

#### INSTALLATION

Installation is in the reverse order of removal.

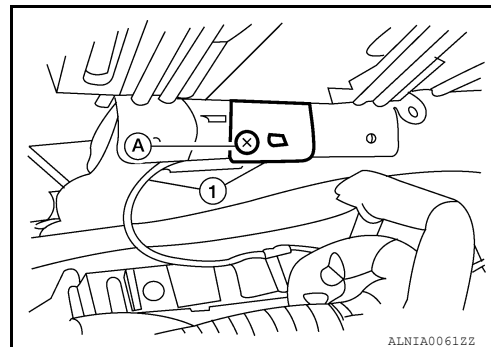
## GPS ANTENNA

### Removal and Installation

INFOID:000000006390254

#### REMOVAL

1. Remove the combination meter. Refer to [IP-11, "Exploded View"](#).
2. Remove the AV control unit. Refer to [AV-410, "Removal and Installation"](#).
3. Remove the GPS antenna screw (A).
4. Fish the GPS antenna connector and harness (1), through the combination meter instrument panel opening and remove the GPS antenna.



#### INSTALLATION

Installation is in the reverse order of removal.



# STEERING SWITCH

< REMOVAL AND INSTALLATION >

[BOSE AUDIO WITH NAVIGATION]

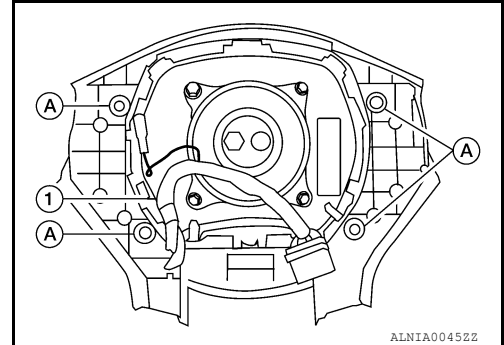
## STEERING SWITCH

### Removal and Installation

INFOID:000000006933543

#### REMOVAL

1. Remove the driver airbag module. Refer to [SR-5. "Removal and Installation"](#).
2. Remove the steering wheel audio control switches screws (A), then remove the steering wheel audio control switches (1).



#### INSTALLATION

Installation is in the reverse order of removal.

A  
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AV

## AUDIO ANTENNA (COUPE)

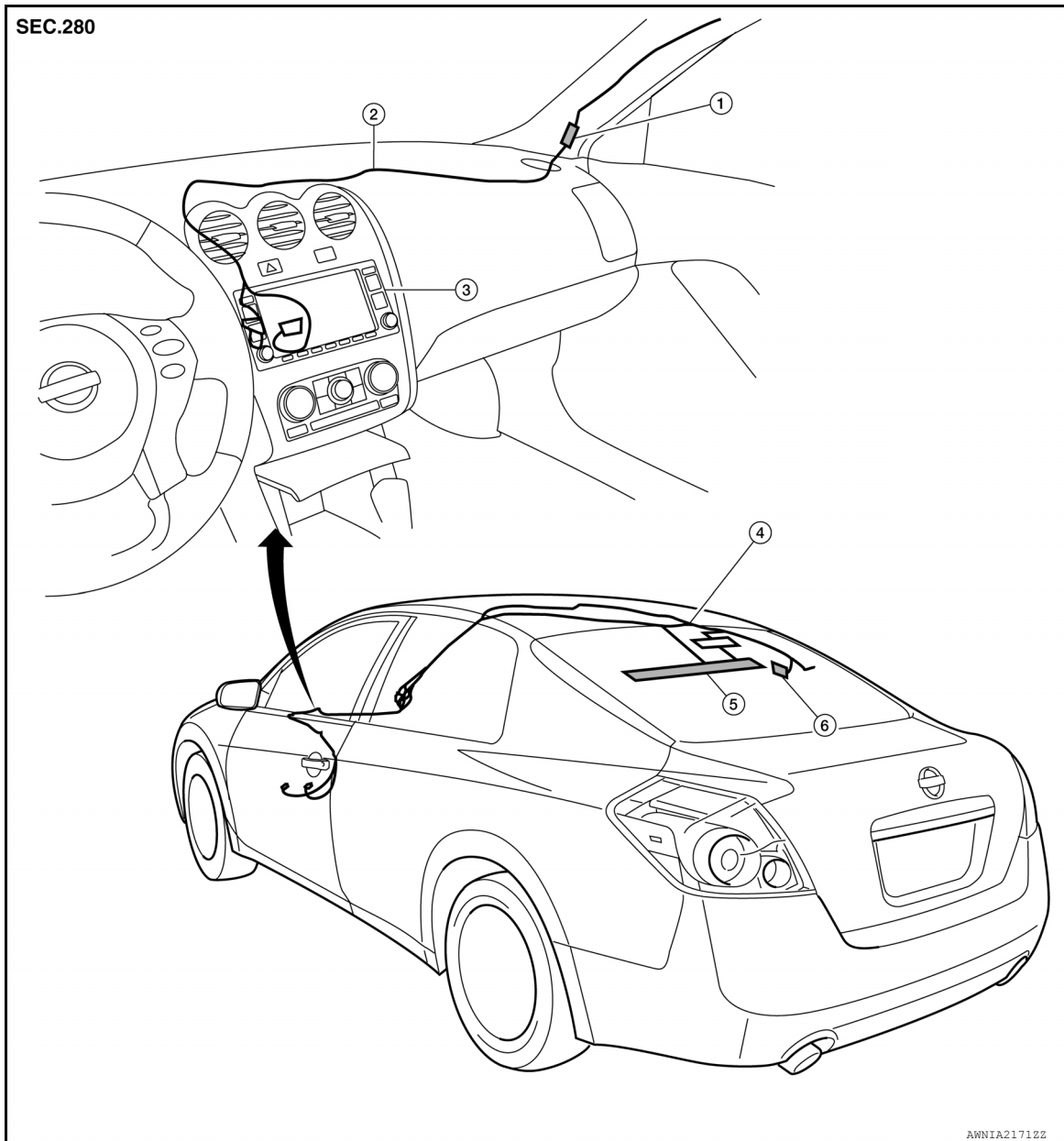
< REMOVAL AND INSTALLATION >

[BOSE AUDIO WITH NAVIGATION]

### AUDIO ANTENNA (COUPE)

#### Location of Antenna

INFOID:000000006390256



#### Window Antenna Repair

INFOID:000000006390257

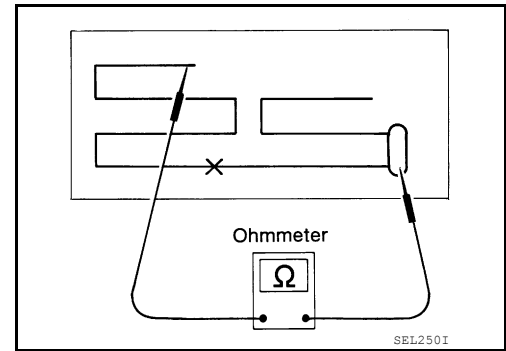
#### ELEMENT CHECK

## AUDIO ANTENNA (COUPE)

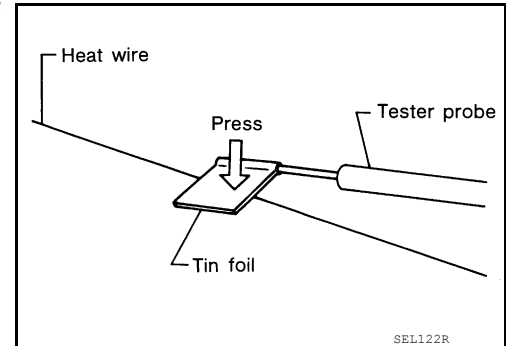
### < REMOVAL AND INSTALLATION >

### [BOSE AUDIO WITH NAVIGATION]

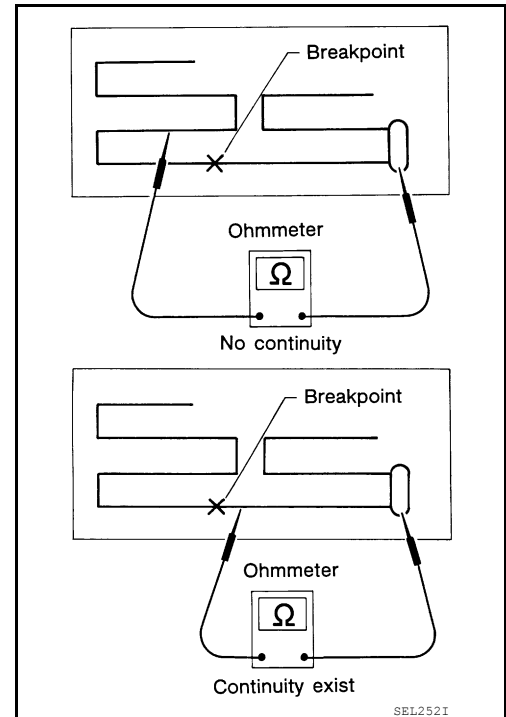
1. Attach probe circuit tester (ohm setting) to antenna terminal on each side.



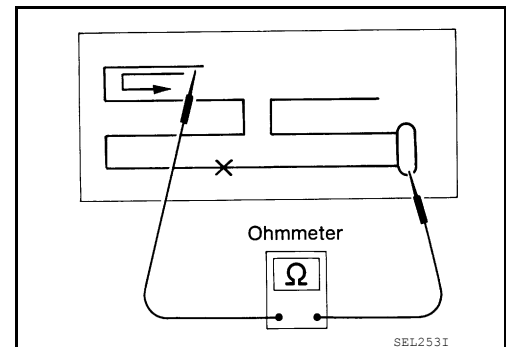
- When measuring continuity, wrap tin foil around the top of probe. Then, press the foil against the wire with your finger.



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.



## AUDIO ANTENNA (COUPE)

< REMOVAL AND INSTALLATION >

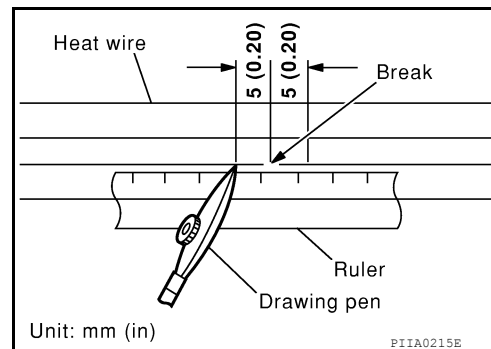
[BOSE AUDIO WITH NAVIGATION]

### REPAIR EQUIPMENT

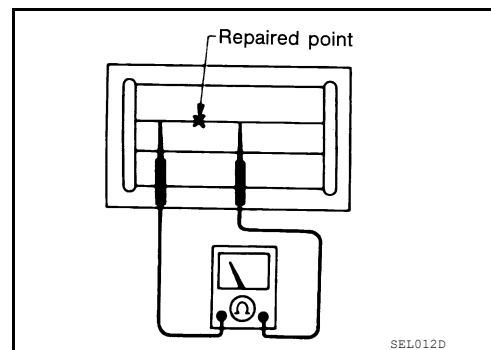
- Conductive silver composition (DuPont No. 4817 or equivalent)
- Ruler 30 cm (11.8 in) long
- Drawing pen
- Heat gun
- Alcohol
- Cloth

### REPAIRING PROCEDURE

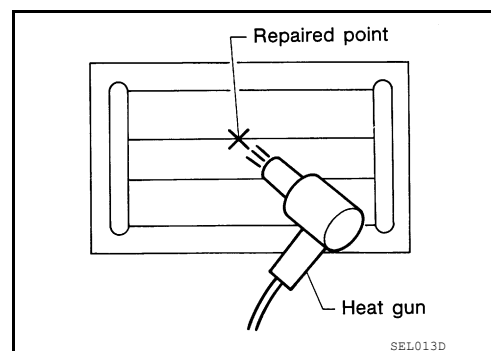
1. Wipe broken heat wire and its surrounding area clean with a cloth dampened in alcohol.
2. Apply a small amount of conductive silver composition to tip of drawing pen. Shake silver composition container before use.
3. Place ruler on glass along broken line. Deposit conductive silver composition on 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.



## AUDIO ANTENNA (SEDAN)

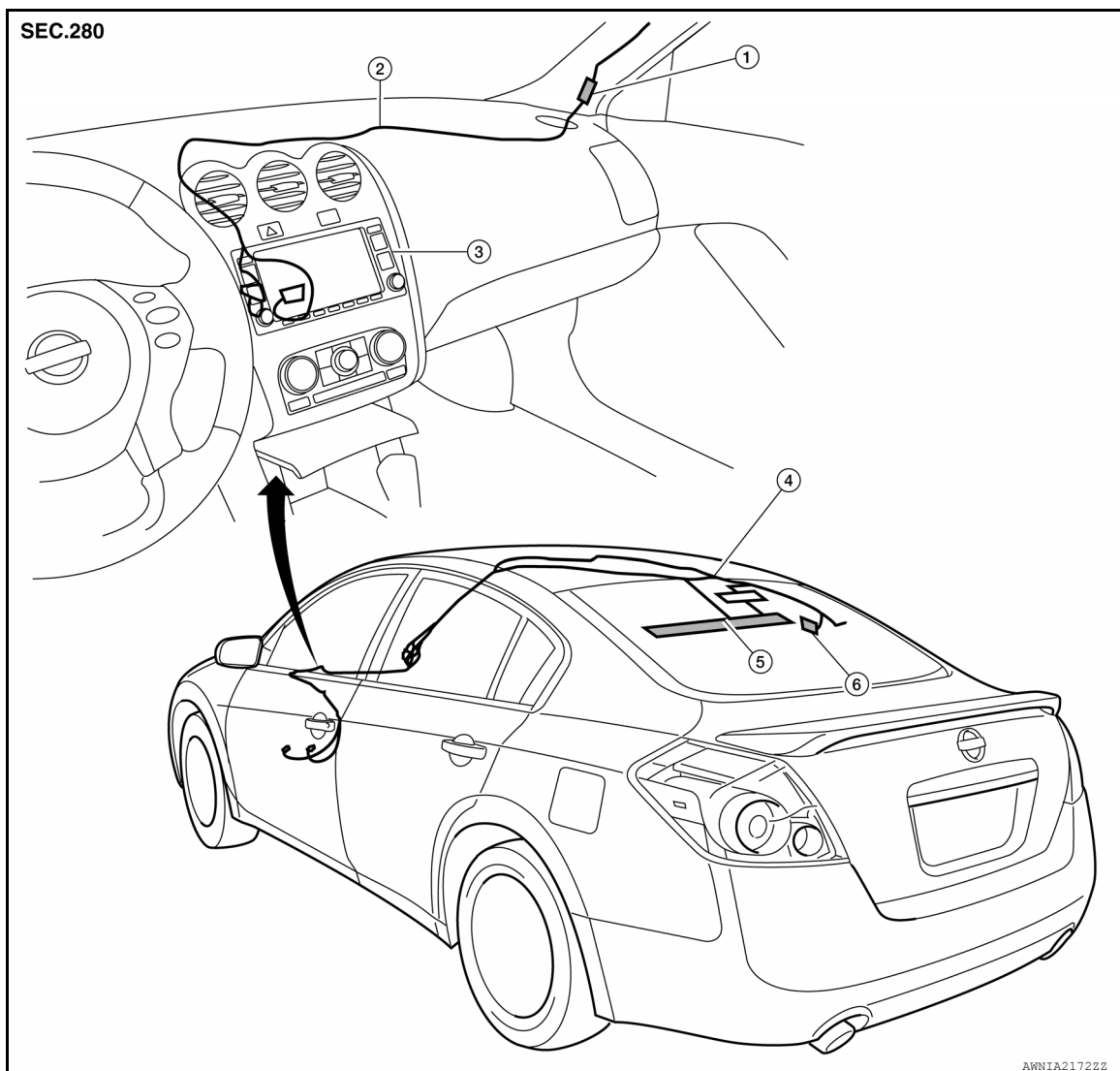
< REMOVAL AND INSTALLATION >

[BOSE AUDIO WITH NAVIGATION]

### AUDIO ANTENNA (SEDAN)

#### Location of Antenna

INFOID:000000006390258

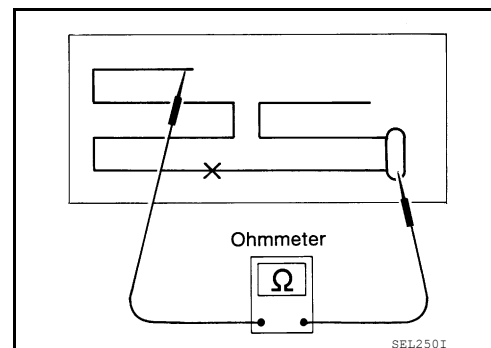


#### Window Antenna Repair

INFOID:000000006390259

#### ELEMENT CHECK

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

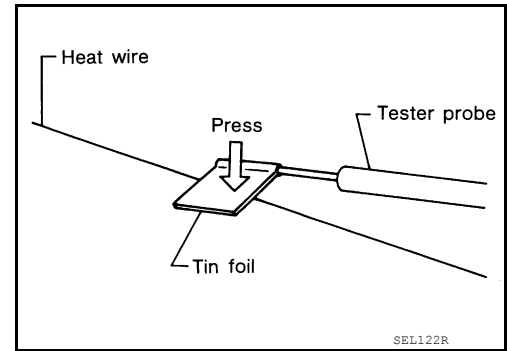


## AUDIO ANTENNA (SEDAN)

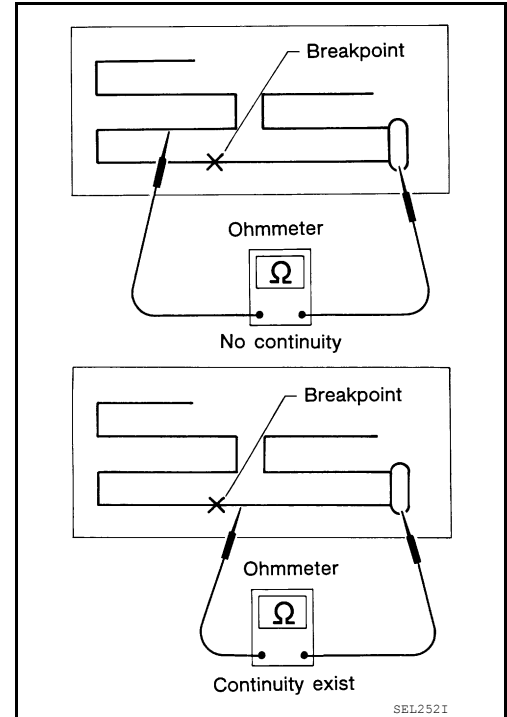
### < REMOVAL AND INSTALLATION >

### [BOSE AUDIO WITH NAVIGATION]

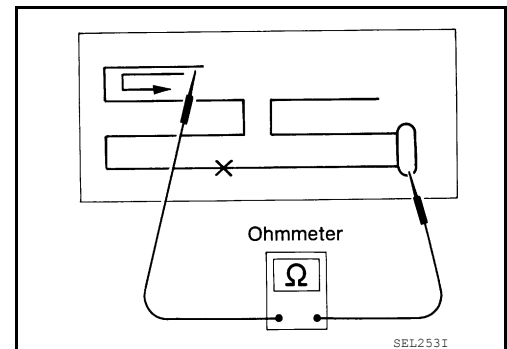
- When measuring continuity, wrap tin foil around the top of probe. Then, press the foil against the wire with your finger.



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

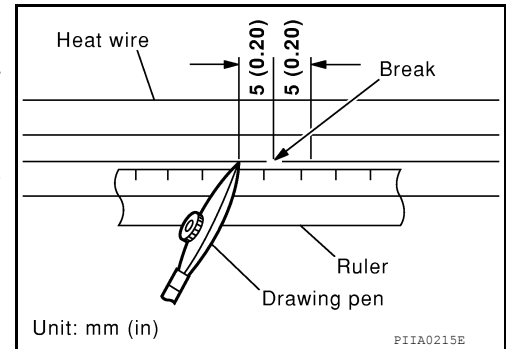
### REPAIRING PROCEDURE

## AUDIO ANTENNA (SEDAN)

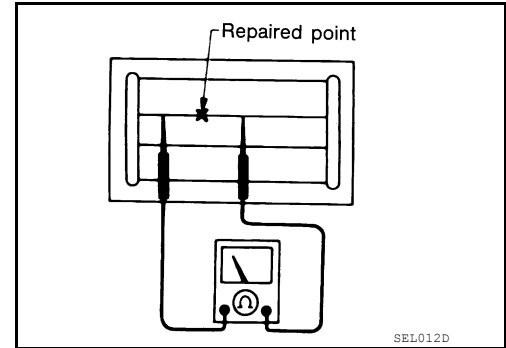
### < REMOVAL AND INSTALLATION >

### [BOSE AUDIO WITH NAVIGATION]

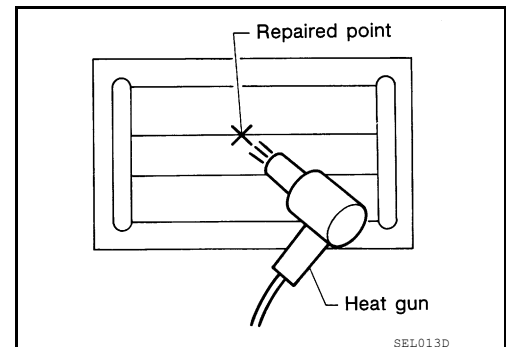
1. Wipe broken heat wire and its surrounding area clean with a cloth dampened in alcohol.
2. Apply a small amount of conductive silver composition to tip of drawing pen. Shake silver composition container before use.
3. Place ruler on glass along broken line. Deposit conductive silver composition on 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 >

[BOSE AUDIO WITH NAVIGATION]

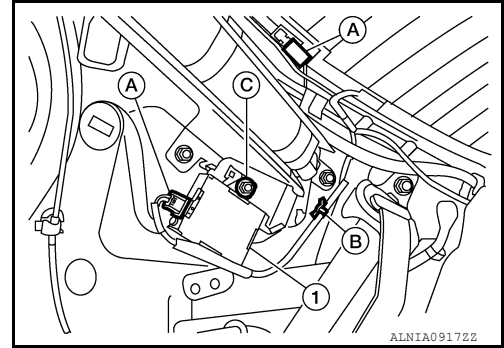
### ANTENNA AMP.

#### Removal and Installation - Coupe

INFOID:000000006921823

##### REMOVAL

1. Remove the rear pillar finisher RH. Refer to [INT-44. "Removal and Installation"](#).
2. Detach the antenna amp. harness clip (B).
3. Disconnect the antenna amp. connectors (A).
4. Remove the antenna amp. screw (C) and remove the antenna amp. (1).



##### INSTALLATION

Installation is in the reverse order of removal.

#### Removal and Installation - Sedan

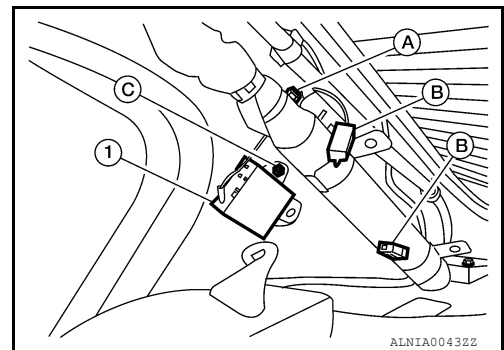
INFOID:000000006921824

##### REMOVAL

###### CAUTION:

- Before servicing, turn ignition switch OFF, disconnect both battery terminals and wait at least three minutes.

1. Disconnect the negative and positive battery terminals, then wait at least three minutes.
2. Remove the rear pillar finisher RH. Refer to [INT-18. "Removal and Installation"](#).
3. Partially remove the side curtain air bag module RH to gain access to the antenna amp. (1). Refer to [SR-12. "Removal and Installation"](#).
4. Detach the antenna amp. harness clip (A).
5. Disconnect the antenna amp. connectors (B).
6. Remove the antenna amp. screw (C) and remove the antenna amp. (1).



##### INSTALLATION

Installation is in the reverse order of removal.



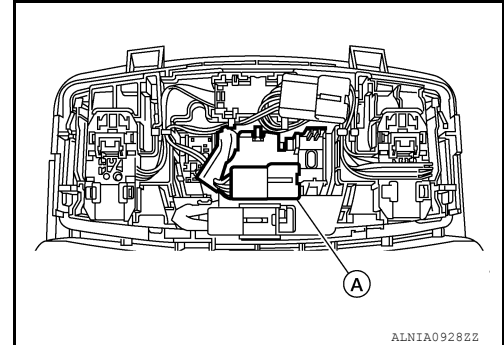
## MICROPHONE

## Removal and Installation

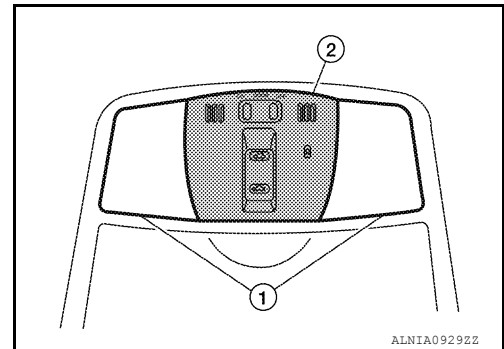
INFOID:000000006390262

## REMOVAL

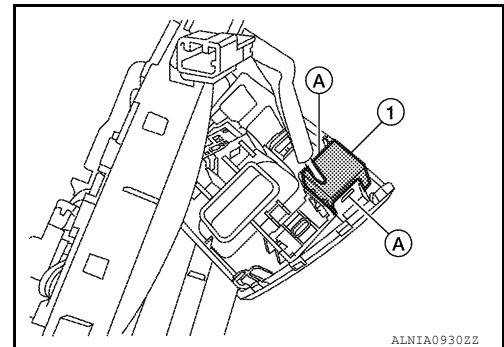
1. Remove the front room/map lamp assembly. Refer to [INT-27, "Exploded View"](#).
2. Detach the microphone connector (A).



3. Remove the front room/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.

A  
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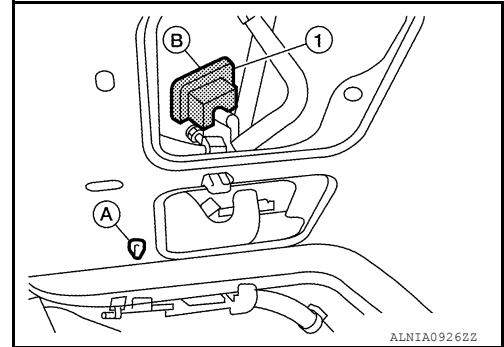
## REAR VIEW CAMERA

### Removal and Installation

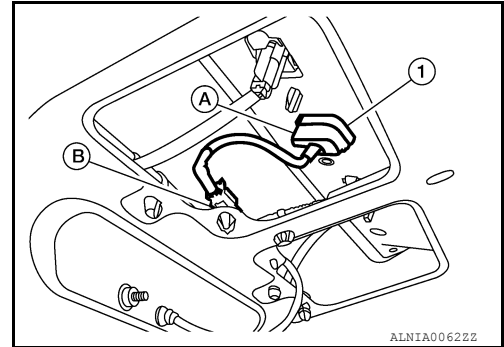
INFOID:000000006390263

#### REMOVAL

1. Remove the license plate finisher. Refer to [EXT-26, "Removal and Installation"](#) (coupe) and [EXT-52, "Removal and Installation"](#) (sedan).
2. Remove the rear view camera by performing the following:
  - For coupe models, release the clip (A), then pull out the rear view camera connector, disconnect the rear view camera connector, press the rear view camera tab (B) and remove the rear view camera (1).



- For sedan models, 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.