

SECTION **AV**

AUDIO, VISUAL & NAVIGATION SYSTEM

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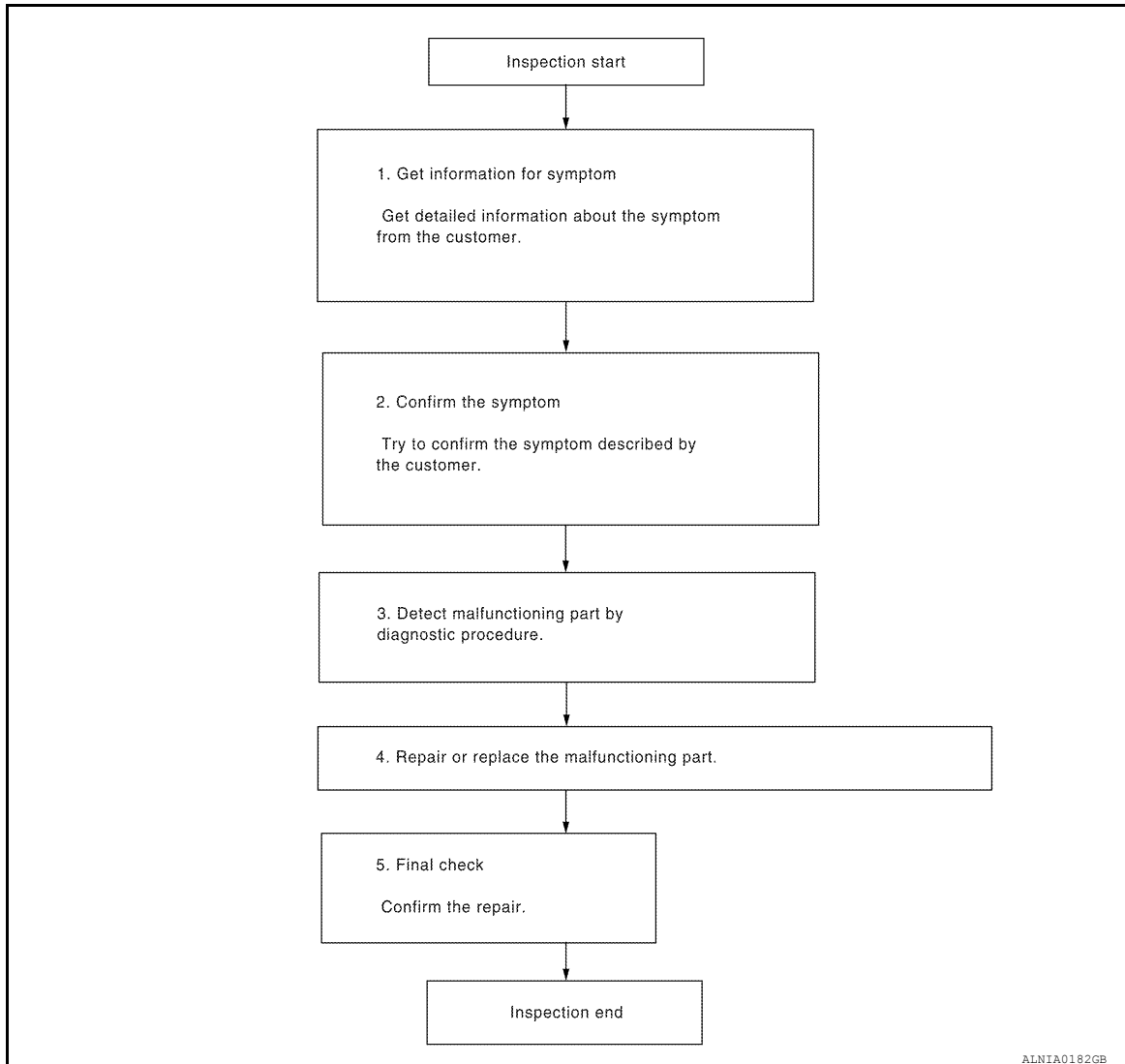
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:000000007361831

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

A

B

C

D

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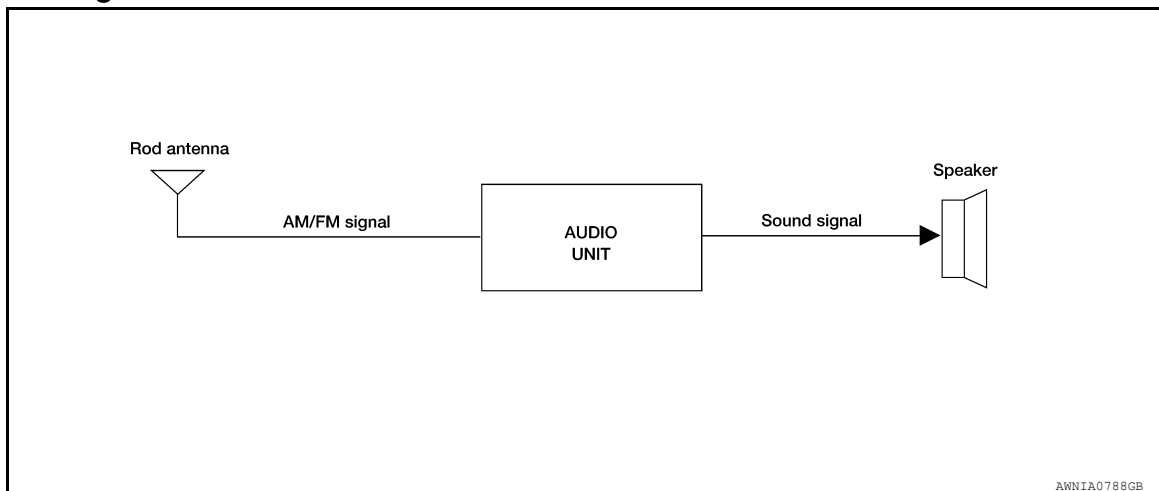
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SYSTEM DESCRIPTION

AUDIO SYSTEM

System Diagram



System Description

INFOID:000000007361833

AUDIO SYSTEM

The audio system consists of the following components

- Audio unit
- Rod antenna
- Front door speakers
- Front tweeters
- Rear door speakers

When the audio system is on, radio signals are received by the rod antenna. The audio unit then sends audio signals to the front door speakers, front tweeters and rear door speakers.

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

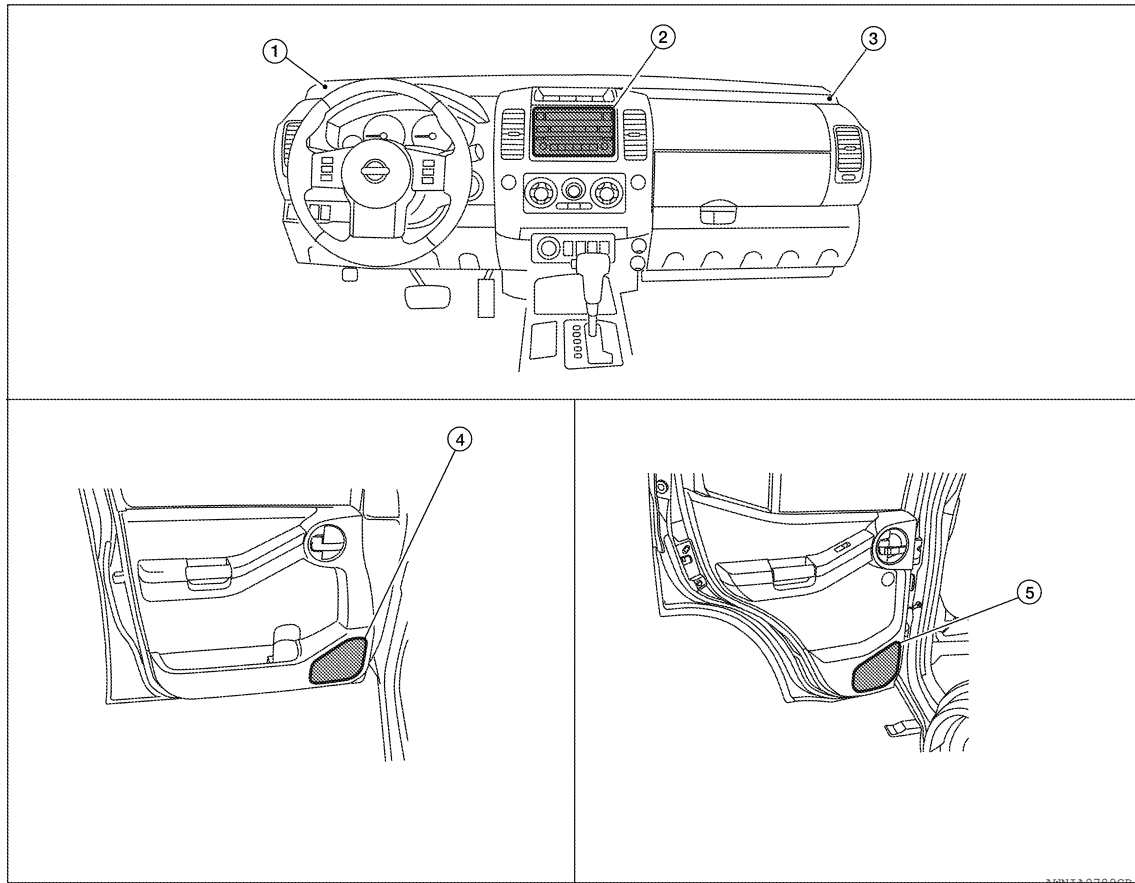
AUDIO SYSTEM

< SYSTEM DESCRIPTION >

[BASE AUDIO]

Component Parts Location

INFOID:000000007361834



- | | | |
|--|--|--------------------------|
| 1. Front tweeter LH M109 | 2. Audio unit M43 | 3. Front tweeter RH M111 |
| 4. Front door speaker
LH D12
RH D112 | 5. Rear door speaker
LH D207
RH D307 | |

Component Description

INFOID:000000007361835

Part name	Description
Audio unit	Controls audio system functions
Front door speakers	• Outputs audio signal from audio unit • Outputs high, mid and low range sounds
Front tweeters	• Outputs audio signal from audio unit • Outputs high range sounds
Rear door speakers	• Outputs audio signal from audio unit • Outputs high, mid and low range sounds

DTC/CIRCUIT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT AUDIO UNIT

AUDIO UNIT : Diagnosis Procedure

INFOID:000000007361836

Regarding Wiring Diagram information, refer to [AV-17, "Wiring Diagram"](#).

1.CHECK FUSES

Check that the following fuses of the audio unit are not are not blown.

Unit	Terminals	Signal name	Fuse No.
Audio unit	19	Battery power	29
	7	Ignition switch ACC or ON	4

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 M43.
2. Check voltage between the audio unit connector M43 ground.

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

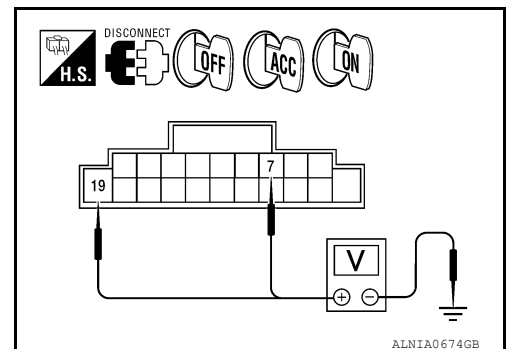
3.GROUND CIRCUIT CHECK

Inspect audio unit case ground.

Does case ground pass inspection?

YES >> Inspection end.

NO >> Repair audio unit case ground.



FRONT DOOR SPEAKER

< DTC/CIRCUIT DIAGNOSIS >

[BASE AUDIO]

FRONT DOOR SPEAKER

Description

INFOID:000000007361837

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

Diagnosis Procedure

INFOID:000000007361838

Regarding Wiring Diagram information, refer to [AV-17, "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 and suspect speaker connector.
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	D12	1	Yes
	3		2	
	11	D112	1	
	12		2	

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

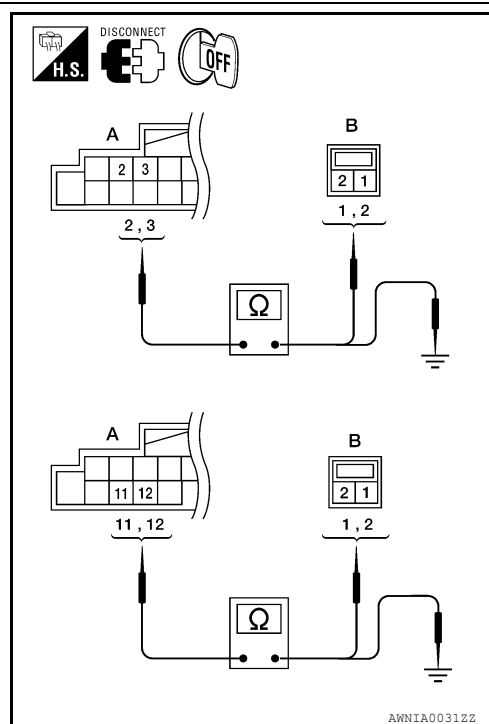
A		—	Continuity
Connector	Terminal		
M43	2	Ground	No
	3		
	11		
	12		

Are continuity results as specified?

YES >> GO TO 3

NO >> Repair harness or connector.

3.FRONT SPEAKER SIGNAL CHECK

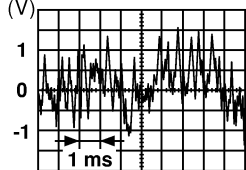


FRONT DOOR SPEAKER

< DTC/CIRCUIT DIAGNOSIS >

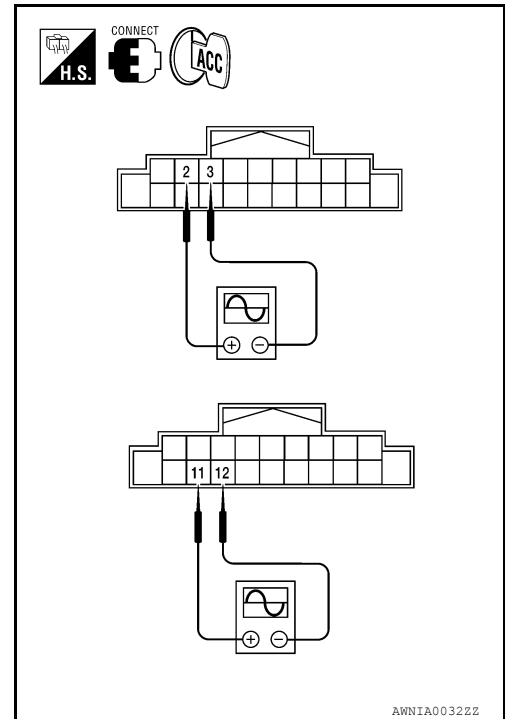
[BASE AUDIO]

1. Connect audio unit connector M43 and front speaker connector.
2. Turn ignition switch to ACC.
3. Push audio unit "POWER" switch.
4. Check the signal between audio unit harness connector M43 terminals with CONSULT or oscilloscope.

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

Is the audio signal voltage as specified?

- YES >> Replace speaker. Refer to [AV-31, "Removal and Installation"](#).
- NO >> Replace audio unit. Refer to [AV-28, "Removal and Installation \(Type 1\)"](#).



FRONT TWEETER

< DTC/CIRCUIT DIAGNOSIS >

[BASE AUDIO]

FRONT TWEETER

Description

INFOID:000000007361839

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

Diagnosis Procedure

INFOID:000000007361840

Regarding Wiring Diagram information, refer to [AV-17, "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 and suspect front tweeter connector.
2. Check continuity between audio unit harness connector M43 (A) and suspect front tweeter harness connector (B).

A		B		Continuity
Connector	Terminal	Connector	Terminal	
M43	2	M109	1	Yes
	3		2	
	11	M111	1	
	12		2	

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

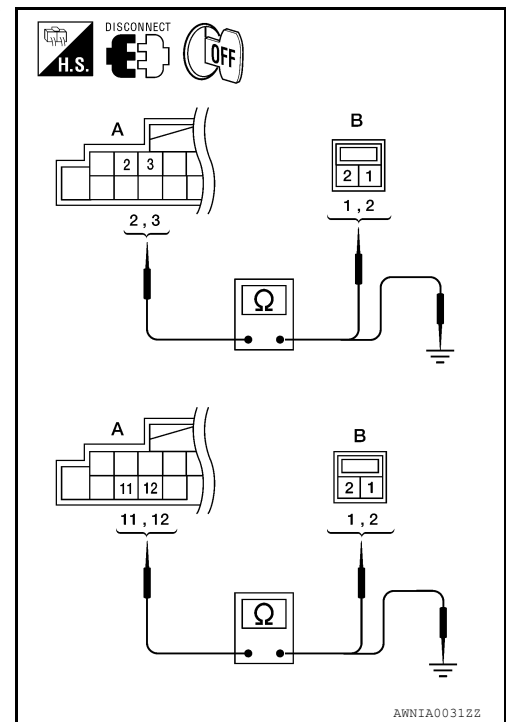
A		—	Continuity
Connector	Terminal		
M43	2	Ground	No
	3		
	11		
	12		

Are the continuity results as specified?

YES >> GO TO 3

NO >> Repair harness or connector.

3.FRONT TWEETER SIGNAL CHECK



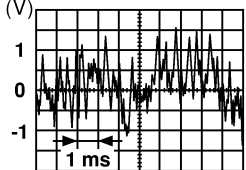
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FRONT TWEETER

[BASE AUDIO]

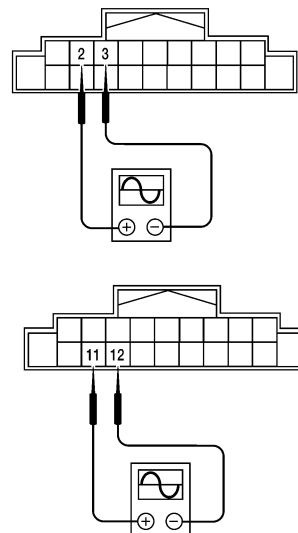
< DTC/CIRCUIT DIAGNOSIS >

1. Connect audio unit connector M43 and front tweeter connector.
2. Turn ignition switch to ACC.
3. Push audio unit "POWER" switch.
4. Check the signal between audio unit harness connector M43 terminals with CONSULT or oscilloscope.

Con- nector	(+)		Condition	Reference signal
	Terminal	Terminal		
M43	2	3	Receive audio sig- nal	 SKIA0177E
	11	12		

Is the audio signal voltage as specified?

- YES >> Replace the suspect front tweeter. Refer to [AV-30, "Removal and Installation"](#).
- NO >> Replace audio unit. Refer to [AV-28, "Removal and Installation \(Type 1\)"](#).



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REAR DOOR SPEAKER

< DTC/CIRCUIT DIAGNOSIS >

[BASE AUDIO]

REAR DOOR SPEAKER

Description

INFOID:000000007361841

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

Diagnosis Procedure

INFOID:000000007361842

Regarding Wiring Diagram information, refer to [AV-17, "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 and suspect rear door speaker connector.
2. Check continuity between audio unit harness connector M43 (A) and suspect rear door speaker harness connector (B).

A		B		Continuity
Connector	Terminal	Connector	Terminal	
M43	4	D207	1	Yes
	5		2	
	13	D307	1	
	14		2	

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

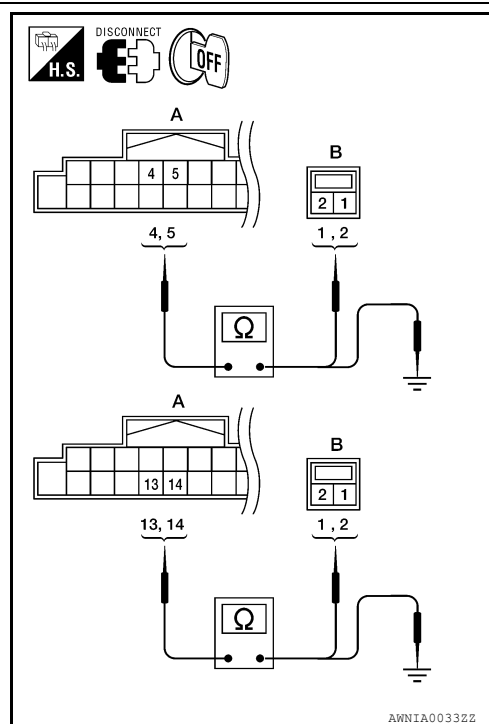
A		—	Continuity
Connector	Terminal		
M43	4	Ground	No
	5		
	13		
	14		

Are the continuity results as specified?

YES >> GO TO 3

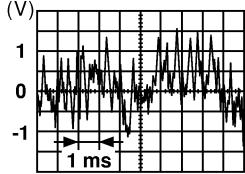
NO >> Repair harness or connector.

3.REAR DOOR SPEAKER SIGNAL CHECK



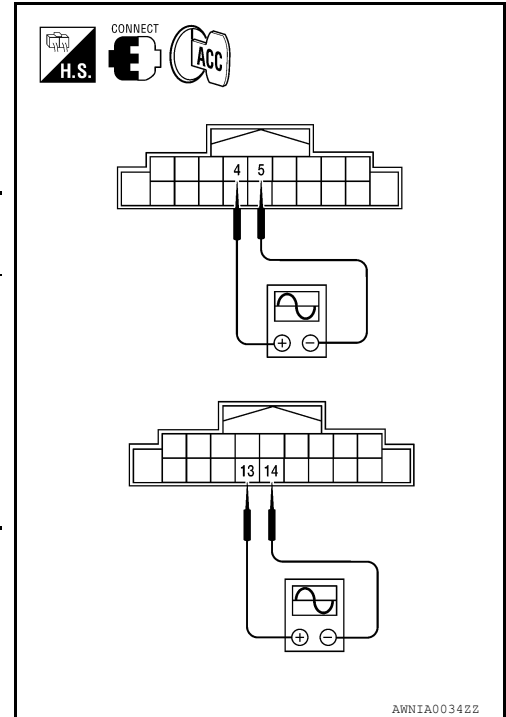
[BASE AUDIO]

1. Connect audio unit connector and rear door speaker connector.
2. Turn ignition switch to ACC.
3. Push audio unit "POWER" switch.
4. Check the signal between audio unit harness connector M43 terminals with CONSULT or oscilloscope.

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

Is the audio signal voltage as specified?

- YES >> Replace the suspect rear door speaker. Refer to [AV-32. "Removal and Installation"](#).
- NO >> Replace audio unit. Refer to [AV-28. "Removal and Installation \(Type 1\)"](#).



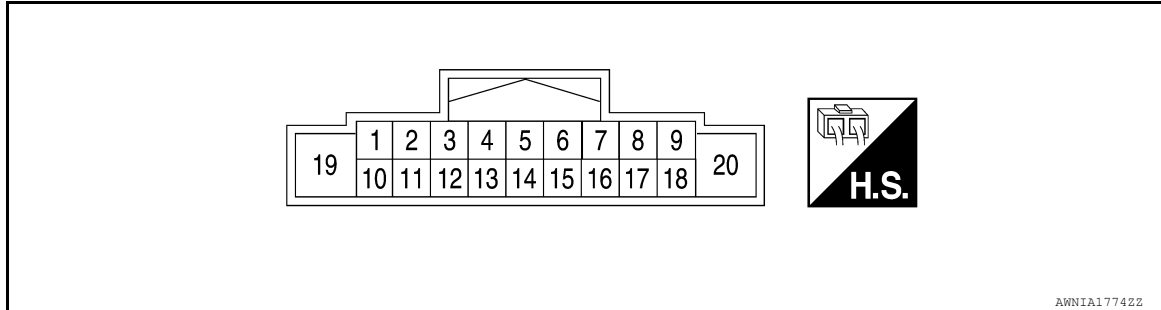
ECU DIAGNOSIS INFORMATION

AUDIO UNIT

Reference Value

INFOID:000000007361843

TERMINAL LAYOUT



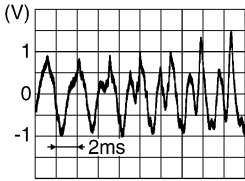
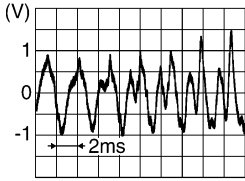
PHYSICAL VALUES

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
2 (BR)	3 (L)	Sound signal front door speaker and front tweeter LH	Output	Ignition switch ON	Audio output	
4 (G)	5 (B)	Sound signal rear door speaker LH	Output	Ignition switch ON	Audio output	
7 (G/B)	Ground	ACC power supply	Input	Ignition switch ACC or ON	—	Battery voltage
8 (GR)	Ground	ILL control	Input	Ignition switch ACC or ON	—	0V
9 (R)	Ground	Light switch	Input	Ignition switch ACC or ON	—	Battery voltage

AUDIO UNIT

< ECU DIAGNOSIS INFORMATION >

[BASE AUDIO]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
11 (LG)	12 (R)	Sound signal front door speaker and front tweeter RH	Output	Ignition switch ON	Audio output	 SKIB3609E
13 (GR)	14 (O)	Sound signal rear door speaker RH	Output	Ignition switch ON	Audio output	 SKIB3609E
19 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage

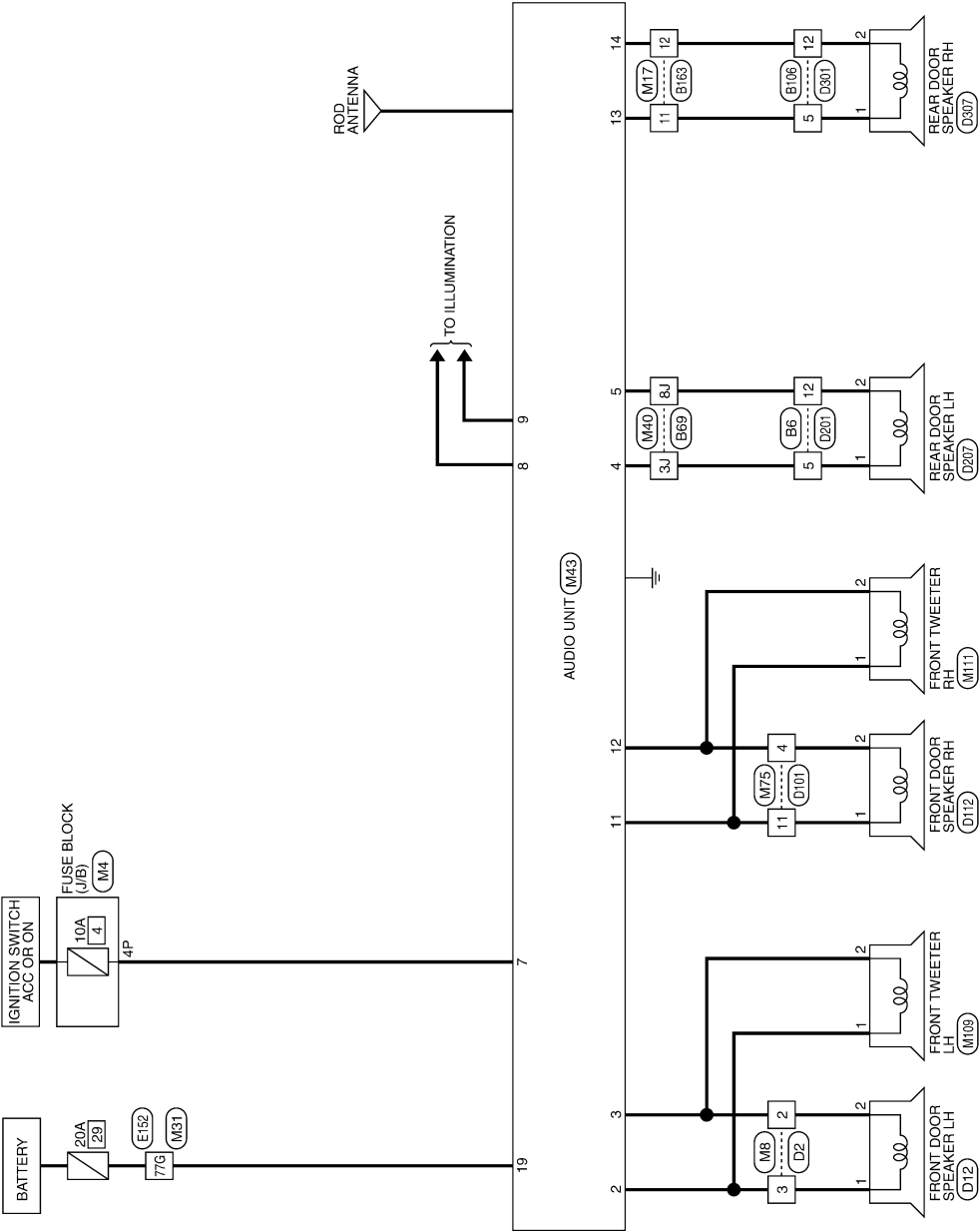
WIRING DIAGRAM

BASE AUDIO SYSTEM

Wiring Diagram

INFOID:000000007361844

BASE AUDIO SYSTEM



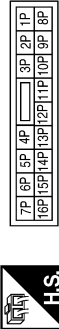
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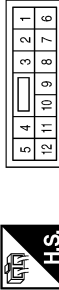
BASE AUDIO SYSTEM CONNECTORS

Connector No.	M4
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



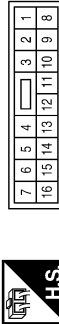
Terminal No.	Color of Wire	Signal Name
4P	G/B	—

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



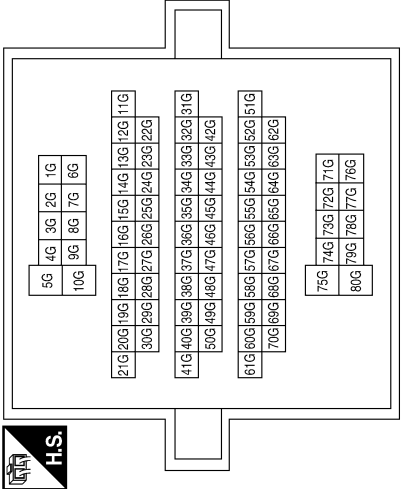
Terminal No.	Color of Wire	Signal Name
2	L	—
3	BR	—

Connector No.	M17
Connector Name	WIRE TO WIRE
Connector Color	WHITE



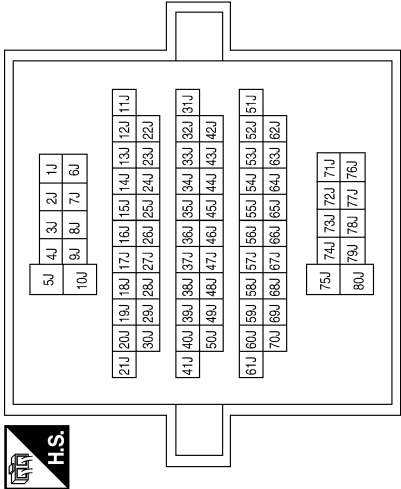
Terminal No.	Color of Wire	Signal Name
11	GR	—
12	O	—

Connector No.	M31
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
77G	Y	—

Connector No.	M40
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
3J	G	—
8J	B	—

BASE AUDIO SYSTEM

< WIRING DIAGRAM >

[BASE AUDIO]

Connector No.	M75
Connector Name	WIRE TO WIRE
Connector Color	WHITE



5	4	3	2	1
12	11	10	9	8
7	6			

Terminal No.	Color of Wire	Signal Name
4	R	—
11	LG	—

Terminal No.	Color of Wire	Signal Name
9	R	LIGHT SW
10	—	—
11	LG	FR SP RH (+)
12	R	FR SP RH (-)
13	GR	RR SP RH (+)
14	O	RR SP RH (-)
15	—	—
16	—	—
17	—	—
18	—	—
19	Y	BAT
20	—	—

Connector No.	M43
Connector Name	AUDIO UNIT (WITH BASE AUDIO SYSTEM)
Connector Color	WHITE



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

Terminal No.	Color of Wire	Signal Name
1	—	—
2	BR	FR SP LH (+)
3	L	FR SP LH (-)
4	G	RR SP LH (+)
5	B	RR SP LH (-)
6	—	—
7	G/B	ACC
8	GR	ILL CONT

Connector No.	M111
Connector Name	FRONT TWEETER RH
Connector Color	BROWN



2	1
---	---

Terminal No.	Color of Wire	Signal Name
1	W	—
2	L	— (WITH BASE AUDIO SYSTEM)

Connector No.	M109
Connector Name	FRONT TWEETER LH
Connector Color	BROWN



2	1
---	---

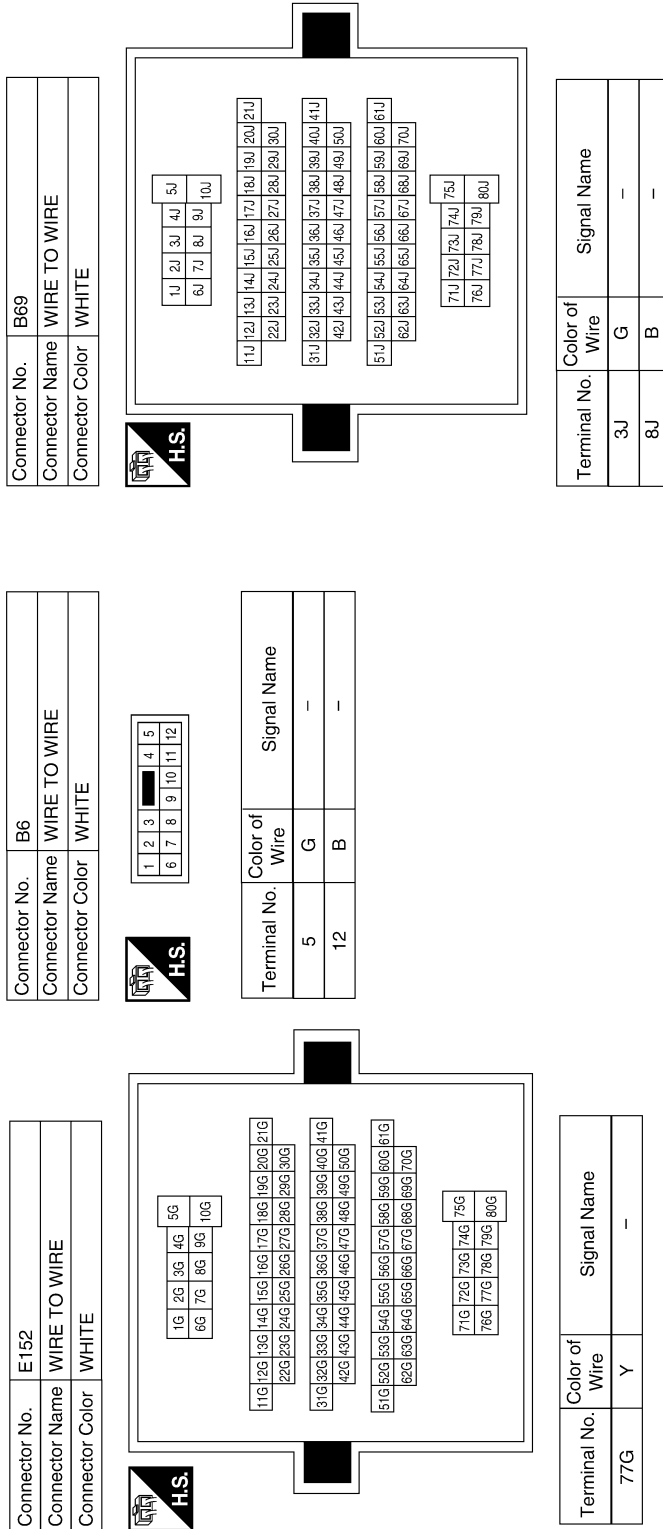
Terminal No.	Color of Wire	Signal Name
1	G	— (WITH BASE AUDIO SYSTEM)
2	L	— (WITH BASE AUDIO SYSTEM)

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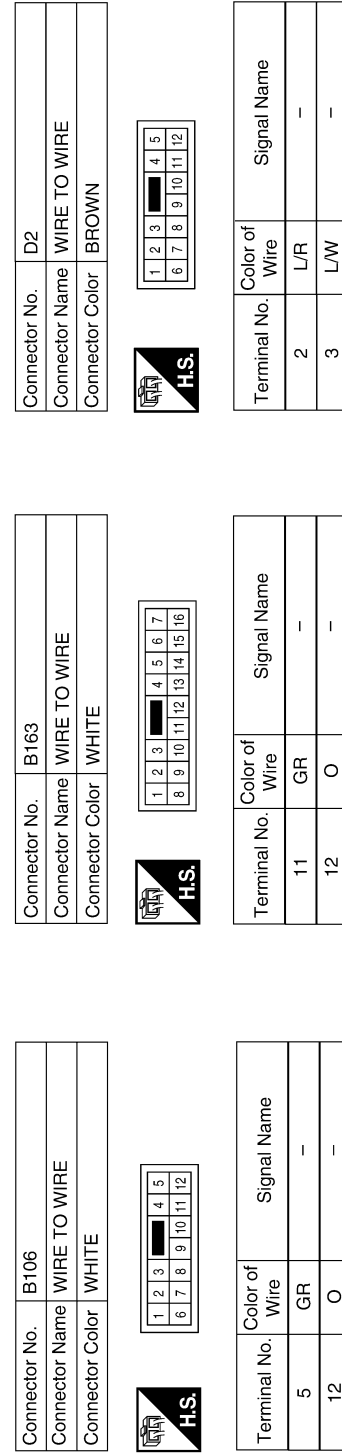
BASE AUDIO SYSTEM

< WIRING DIAGRAM >

[BASE AUDIO]



Terminal No.	Color of Wire	Signal Name
3J	G	—
8J	B	—



ABNIA0557GB

BASE AUDIO SYSTEM

< WIRING DIAGRAM >

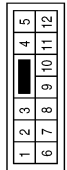
[BASE AUDIO]

Connector No.	D112
Connector Name	FRONT DOOR SPEAKER RH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	W/B	–
2	L/B	–

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



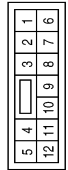
Terminal No.	Color of Wire	Signal Name
4	L/B	–
11	W/B	–

Connector No.	D12
Connector Name	FRONT DOOR SPEAKER LH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	L/W	–
2	L/R	–

Connector No.	D301
Connector Name	WIRE TO WIRE
Connector Color	WHITE



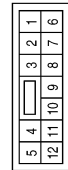
Terminal No.	Color of Wire	Signal Name
5	L	–
12	O	–

Connector No.	D207
Connector Name	REAR DOOR SPEAKER LH
Connector Color	WHITE



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

Connector No.	D201
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
5	L	–
12	O	–

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ABNIA2716GB

Connector No.	D307
Connector Name	REAR DOOR SPEAKER RH
Connector Color	WHITE



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

ABNIA2717GB

SYMPTOM DIAGNOSIS

AUDIO SYSTEM

Symptom Table

INFOID:000000007361845

AUDIO SYSTEM

Symptom	Possible cause	Reference page
Inoperative	- Audio unit power supply and ground circuit - Audio unit	AV-8 AV-29
All speakers do not sound	- Speaker circuit shorted to ground - Audio unit	AV-17 AV-29
One or several speakers do not sound	- Front door speaker - Front tweeter - Rear door speaker	AV-9 AV-11 AV-13
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	AV-29
CD cannot be ejected		
The CD cannot be played		
The sound skips, stops suddenly, or is distorted		

NORMAL OPERATING CONDITION

Description

INFOID:000000007361846

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:000000007361847

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

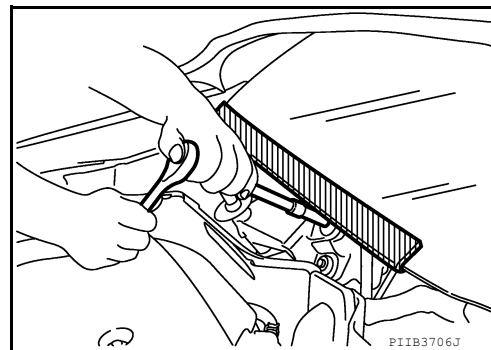
WARNING:

- 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.

Precaution for Procedure without Cowl Top Cover

INFOID:000000007837616

When performing the procedure after removing cowl top cover, cover the lower end of windshield with urethane, etc.



Precaution for Work

INFOID:000000007361848

- 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.

PRECAUTIONS

< PRECAUTION >

[BASE AUDIO]

-
- 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.

PREPARATION

< PREPARATION >

[BASE AUDIO]

PREPARATION

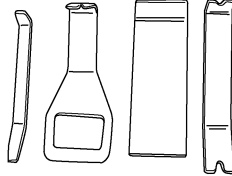
PREPARATION

Special Service Tool

INFOID:0000000007361849

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



AWJIA04832Z

Commercial Service Tools

INFOID:0000000007361850

Tool name	Description
Power tool	Loosening bolts, nuts and screws



PIIB1407E

AV

REMOVAL AND INSTALLATION

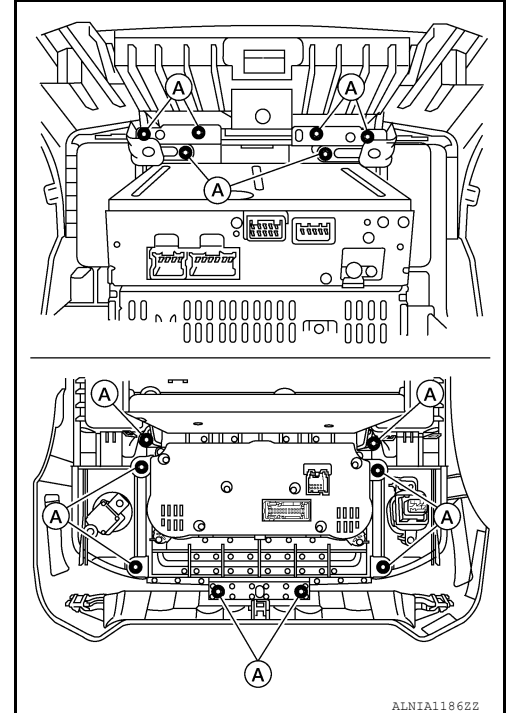
AUDIO UNIT

Removal and Installation (Type 1)

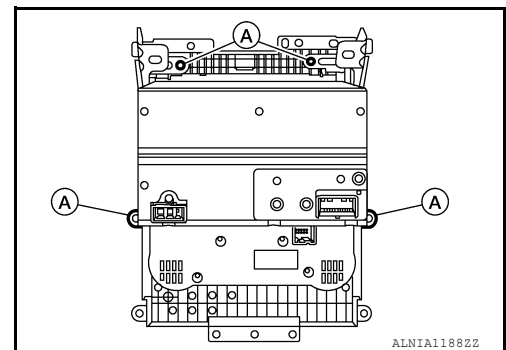
INFOID:000000007361851

REMOVAL

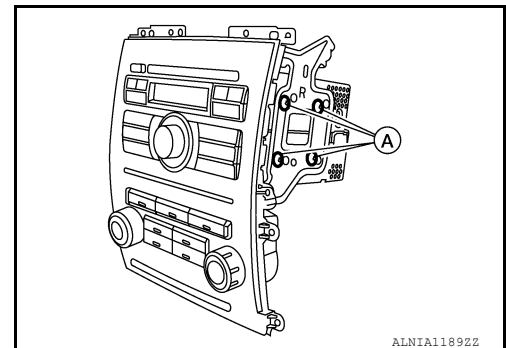
1. Remove the cluster lid C. Refer to [IP-15. "Removal and Installation"](#).
2. Remove the RH and LH ventilator grilles. Refer to [VTL-21. "Removal and Installation"](#).
3. Remove the audio unit assembly screws (A).



4. Remove the audio unit bracket screws (A).



5. Remove the audio unit RH/LH bracket screws (A), using power tool and remove the audio unit brackets.

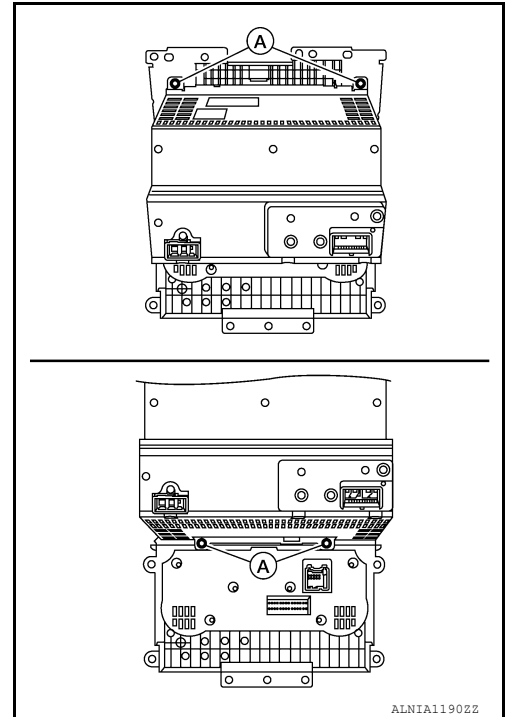


AUDIO UNIT

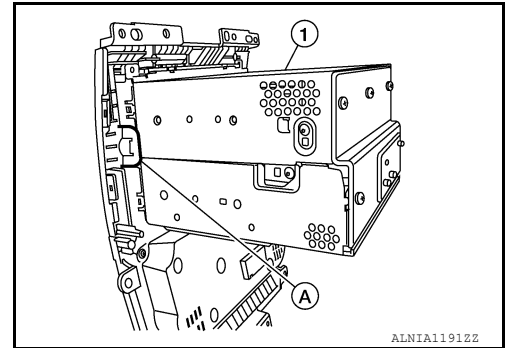
< REMOVAL AND INSTALLATION >

[BASE AUDIO]

- Remove the audio unit screws (A), using power tool.



- Release the audio unit tab (A) and remove the audio unit (1).



INSTALLATION

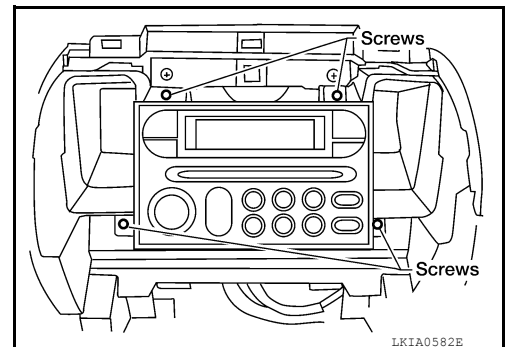
Installation is in the reverse order of removal.

Removal and Installation (Type 2)

INFOID:000000007361852

REMOVAL

- Remove the cluster lid C. Refer to [IP-15, "Removal and Installation"](#).
- Remove the audio unit screws, using power tool.
- Pull out the audio unit from the instrument panel and disconnect the audio unit connectors.



INSTALLATION

Installation is in the reverse order of removal.

FRONT TWEETER

Removal and Installation

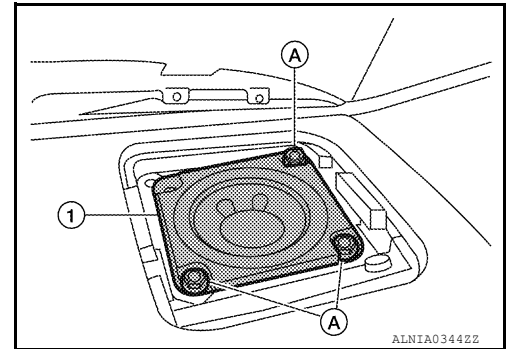
INFOID:000000007361853

REMOVAL

CAUTION:

Use a suitable tool to prevent damage to the front tweeter speaker grille trim and the instrument panel.

1. Remove the front tweeter grille.
2. Remove the front tweeter screws (A).
3. Pull out the front tweeter speaker (1) and disconnect front tweeter connector, then remove the front tweeter speaker (1).



INSTALLATION

Installation is in the reverse order of removal.

FRONT DOOR SPEAKER

< REMOVAL AND INSTALLATION >

[BASE AUDIO]

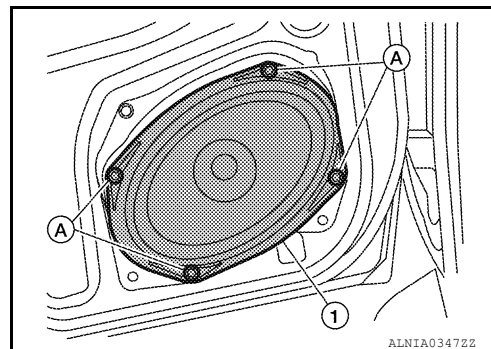
FRONT DOOR SPEAKER

Removal and Installation

INFOID:000000007361854

REMOVAL

1. Remove the front door finisher. Refer to [INT-14, "Removal and Installation"](#).
2. Remove the front door speaker screws (A).
3. Pull out the front door speaker (1), and 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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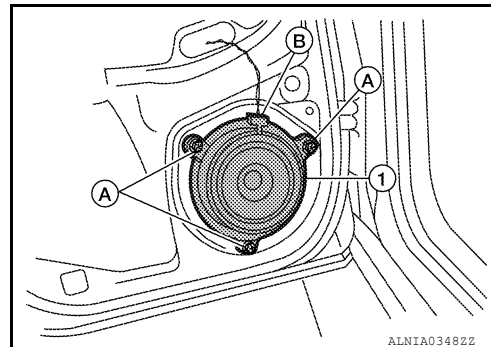
REAR DOOR SPEAKER

Removal and Installation

INFOID:000000007361855

REMOVAL

1. Remove the rear door finisher. Refer to [INT-14, "Removal and Installation"](#).
2. Remove the rear door speaker screws (A).
3. Disconnect the rear door speaker connector (B) and remove rear door speaker (1).



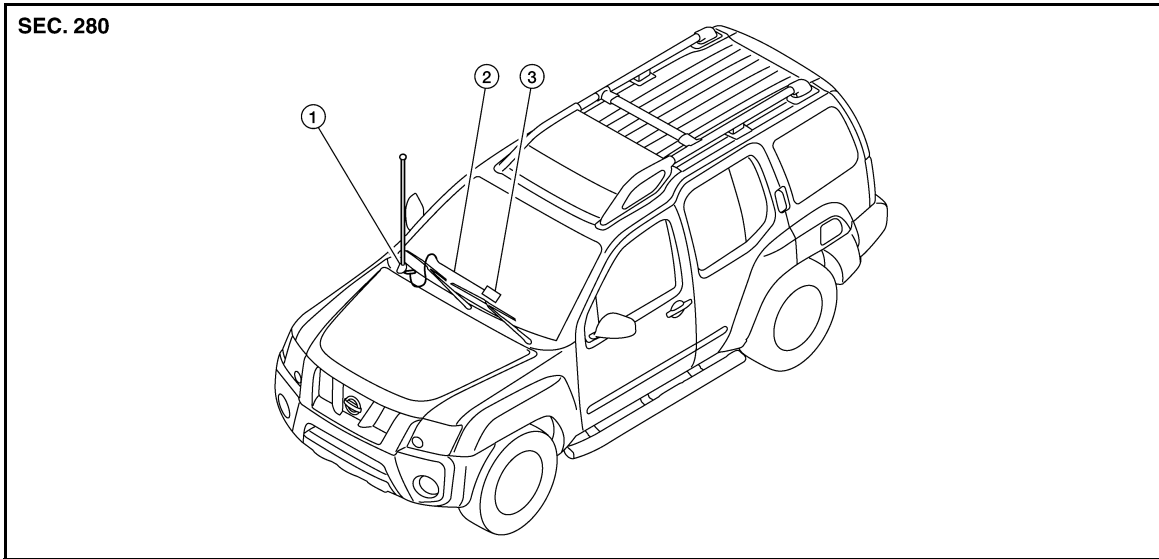
INSTALLATION

Installation is in the reverse order of removal.

AUDIO ANTENNA

Location of Audio Antenna System Component

INFOID:000000007361856



1. Audio antenna

2. Antenna feeder

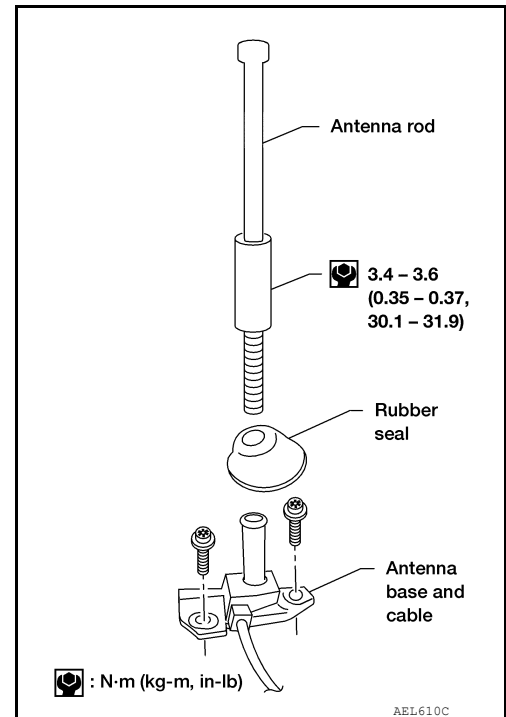
3. Audio unit

Removal and Installation

INFOID:000000007361857

REMOVAL

1. Remove lower glove box. Refer to [IP-20, "Removal and Installation"](#).
2. Remove audio unit. Refer to [AV-28, "Removal and Installation \(Type 1\)"](#) or [AV-29, "Removal and Installation \(Type 2\)"](#).
3. Disconnect audio antenna cable from antenna feeder.
4. Remove antenna rod.
5. Remove rubber seal.
6. Remove cowl top. Refer to [EXT-20, "Removal and Installation"](#).
7. Remove front fender protector. Refer to [EXT-22, "Removal and Installation"](#).
8. Remove antenna base bolts.
9. Remove antenna base and cable.



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

AUDIO ANTENNA

< REMOVAL AND INSTALLATION >

[BASE AUDIO]

Always properly tighten the antenna rod during installation or the antenna rod may bend or break during vehicle operation.

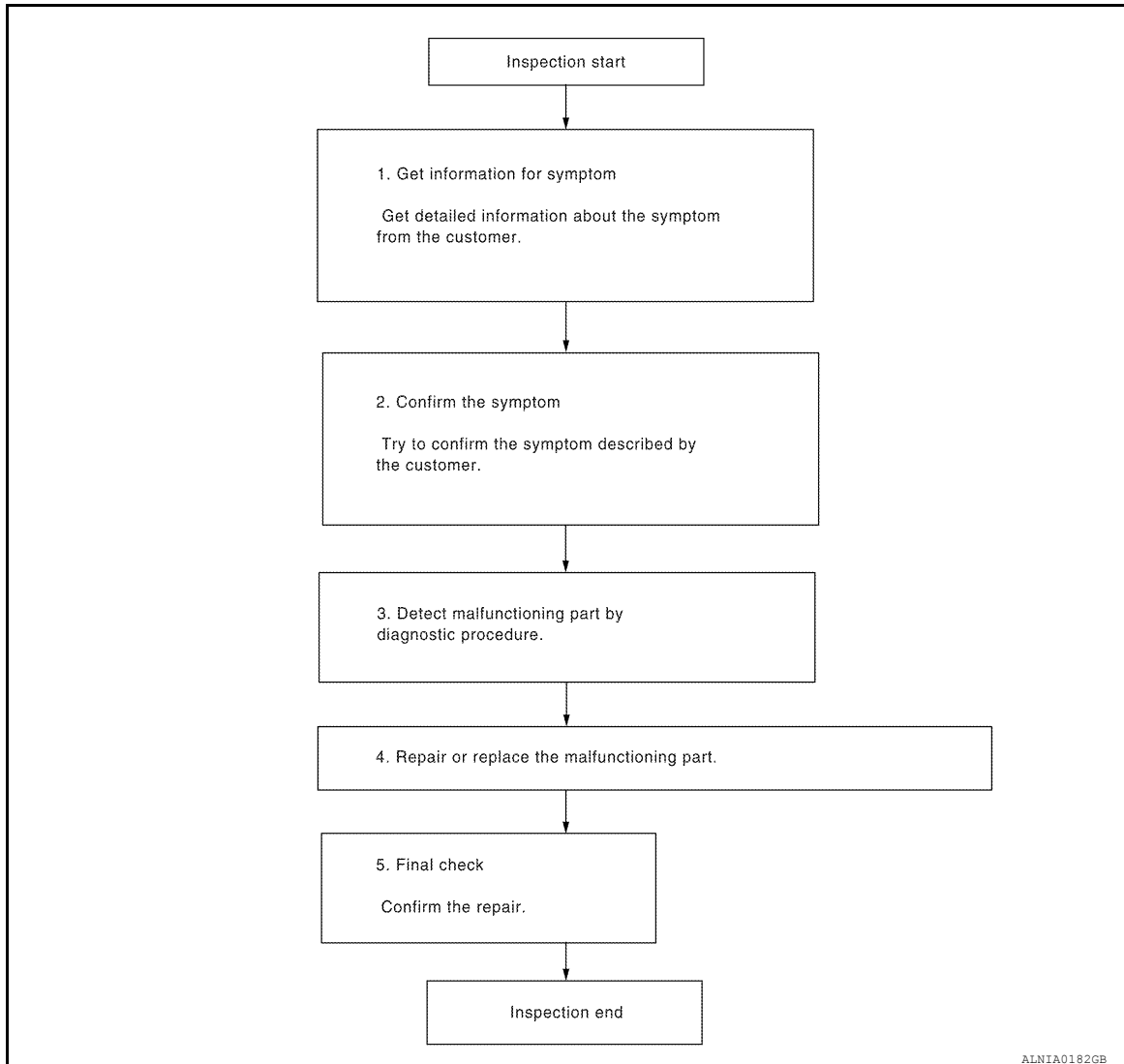
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:000000007361858

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 >

[PREMIUM 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.

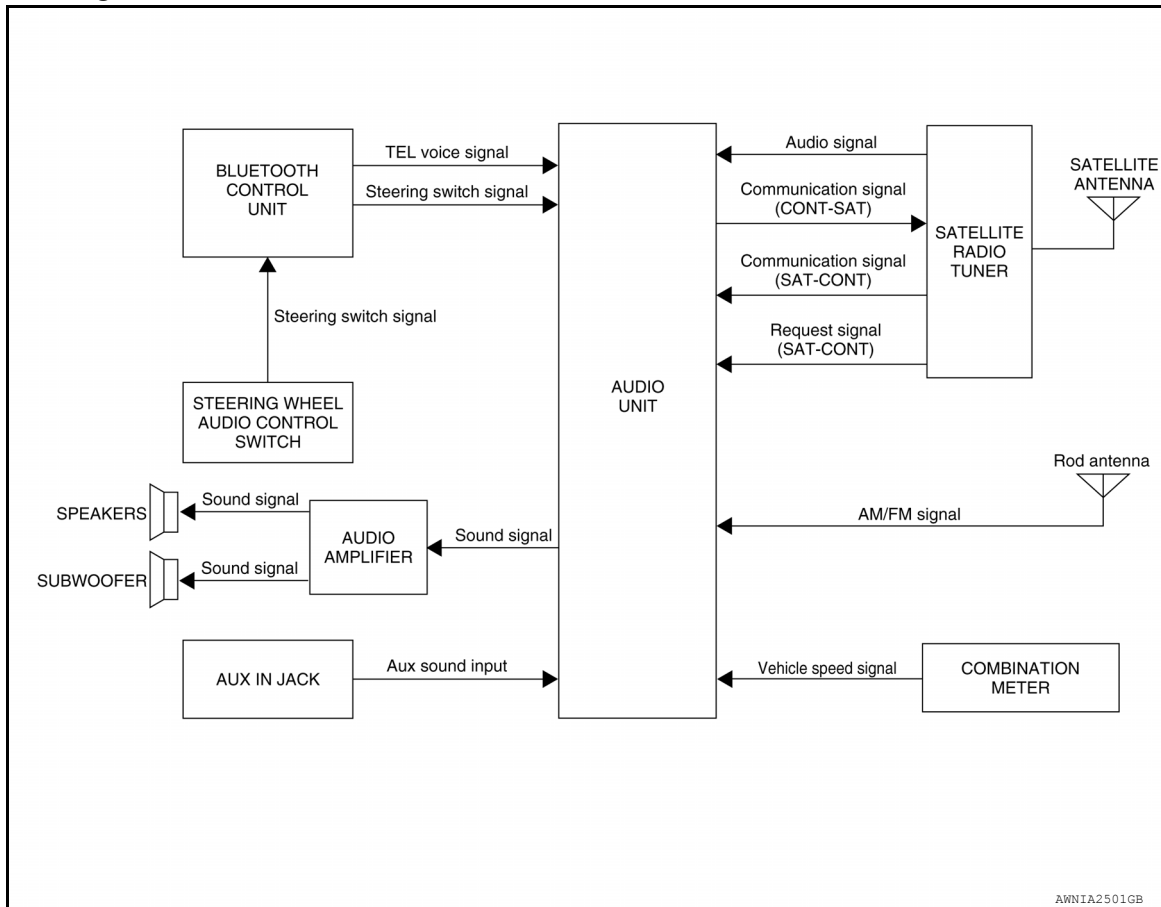
Was the repair confirmed?

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

SYSTEM DESCRIPTION

AUDIO SYSTEM

System Diagram



System Description

INFOID:000000007361860

AUDIO SYSTEM

The audio system consists of the following components

- Audio unit
- Audio amplifier
- Rod antenna
- Steering wheel audio control switch
- Front door speakers
- Front tweeters
- Rear door speakers
- Rear tweeters
- Subwoofer

When the audio system is on, radio signals are received by the rod antenna. The audio unit then sends audio signals to the audio amplifier. The audio amplifier amplifies the audio signals before sending them to the front door speakers, front tweeters, rear door speakers, rear tweeters and the subwoofer.

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

SATELLITE RADIO SYSTEM

The satellite radio system consists of the following components

- Satellite antenna
- Satellite radio tuner

When the satellite radio system is on, radio signals are supplied to the satellite radio tuner from the satellite antenna. The satellite radio tuner then sends audio signals to the audio unit.

Refer to Owner's Manual for satellite radio system operating instructions.

AUDIO SYSTEM

< SYSTEM DESCRIPTION >

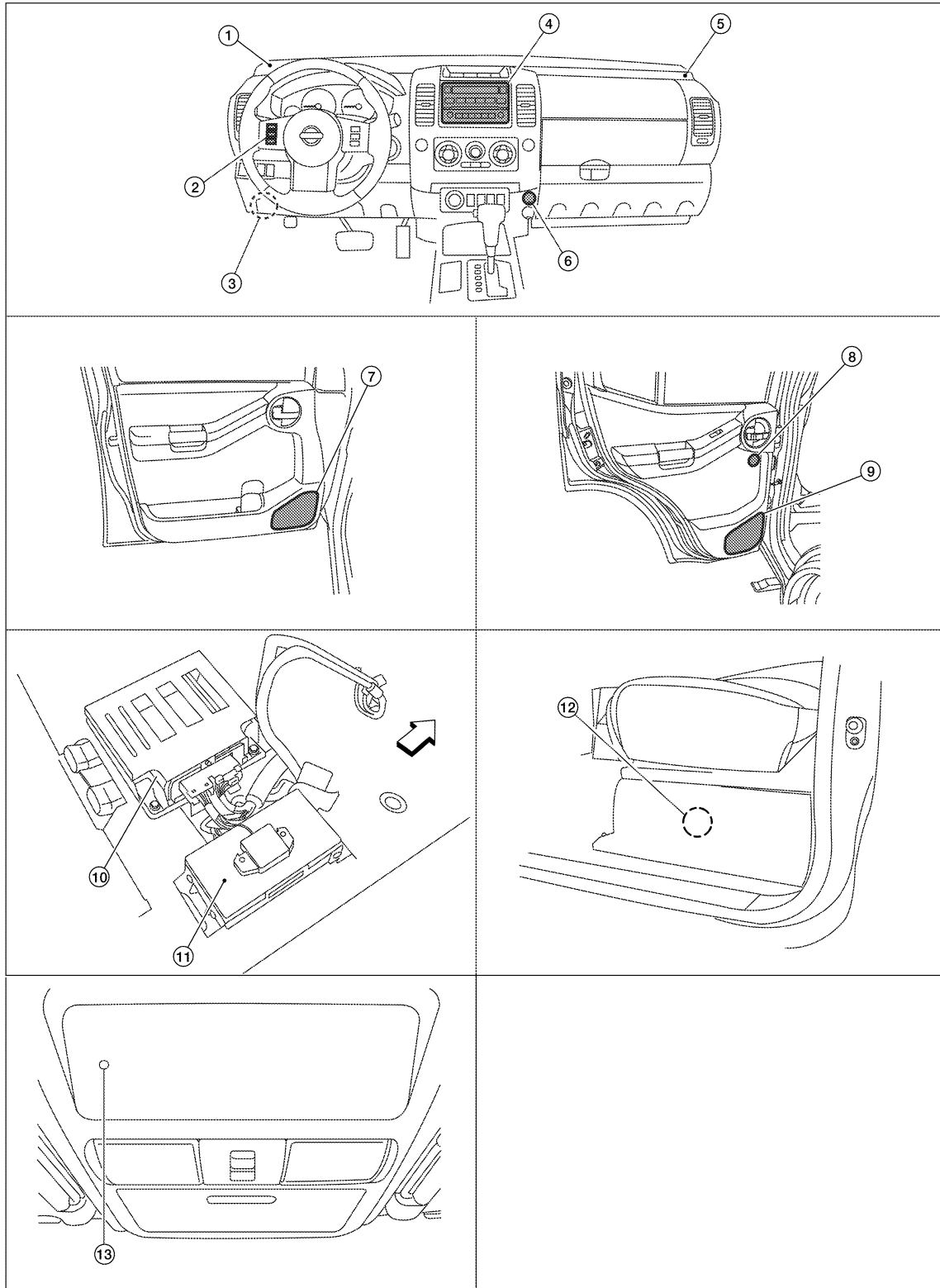
[PREMIUM AUDIO]

SPEED SENSITIVE VOLUME SYSTEM

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

Component Parts Location

INFOID:000000007361861



AWNIA2027ZZ

AUDIO SYSTEM

< SYSTEM DESCRIPTION >

[PREMIUM AUDIO]

↩:FRONT

- | | | |
|--|--|--|
| 1. Front tweeter LH M109 | 2. Steering wheel audio control switch | 3. Satellite radio tuner M41, M129 |
| 4. Audio unit M42, M44, M45, M46 | 5. Front tweeter RH M111 | 6. Aux in jack M85 |
| 7. Front door speaker
LH D12
RH D112 | 8. Rear door tweeter
LH D208
RH D308 | 9. Rear door speaker
LH D207
RH D307 |
| 10. Audio amplifier B158, B159 (view under passenger front seat) | 11. Bluetooth control unit B141, B142 | 12. Subwoofer B72 (under driver's seat) |
| 13. Microphone R8 | | |

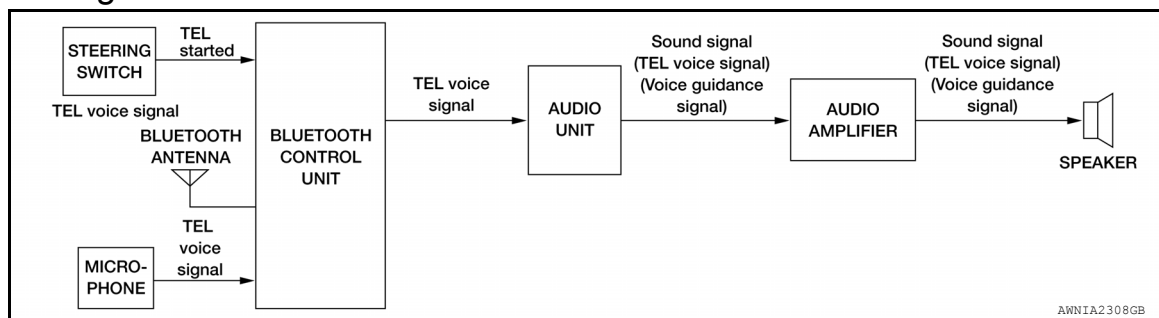
Component Description

INFOID:000000007361862

Part name	Description
Audio unit	Controls audio system and satellite radio system functions
Rod antenna	Audio signal (AM/FM) is received and output to Audio unit
Audio amplifier	Receives power (amp ON) and audio signals from Audio unit and outputs audio signals to each speaker
Steering wheel audio control switch	- Start a voice recognition session - Answer and end telephone calls - Adjust the volume level
Front door speakers	- Outputs audio signal from audio amplifier - Outputs high, mid and low range sounds
Front tweeters	- Outputs audio signal from audio amplifier - Outputs high range sounds
Rear door speakers	- Outputs audio signal from audio amplifier - Outputs high, mid and low range sounds
Rear door tweeters	- Outputs audio signal from audio amplifier - Outputs high range sounds
Subwoofer	- Outputs audio signal from audio amplifier - Outputs low range sounds
Satellite radio tuner	- Receives radio signals from satellite antenna - Sends audio signals to audio unit
Satellite antenna	Audio signal (satellite radio) is received and output to audio unit

HANDS-FREE PHONE SYSTEM

System Diagram



System Description

INFOID:000000007361864

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

NOTE:

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

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

BLUETOOTH CONTROL UNIT

When the ignition switch is turned to ACC or ON, the Bluetooth control unit will power up. During power up, the Bluetooth control unit is initialized and performs various self checks. Initialization may take up to 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 SWITCH

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

The following functions can be performed using the steering wheel audio control switch:

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

MICROPHONE

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

AUDIO UNIT

The audio unit receives signals from the Bluetooth control unit and sends audio signals to the audio amplifier then on to the speakers.

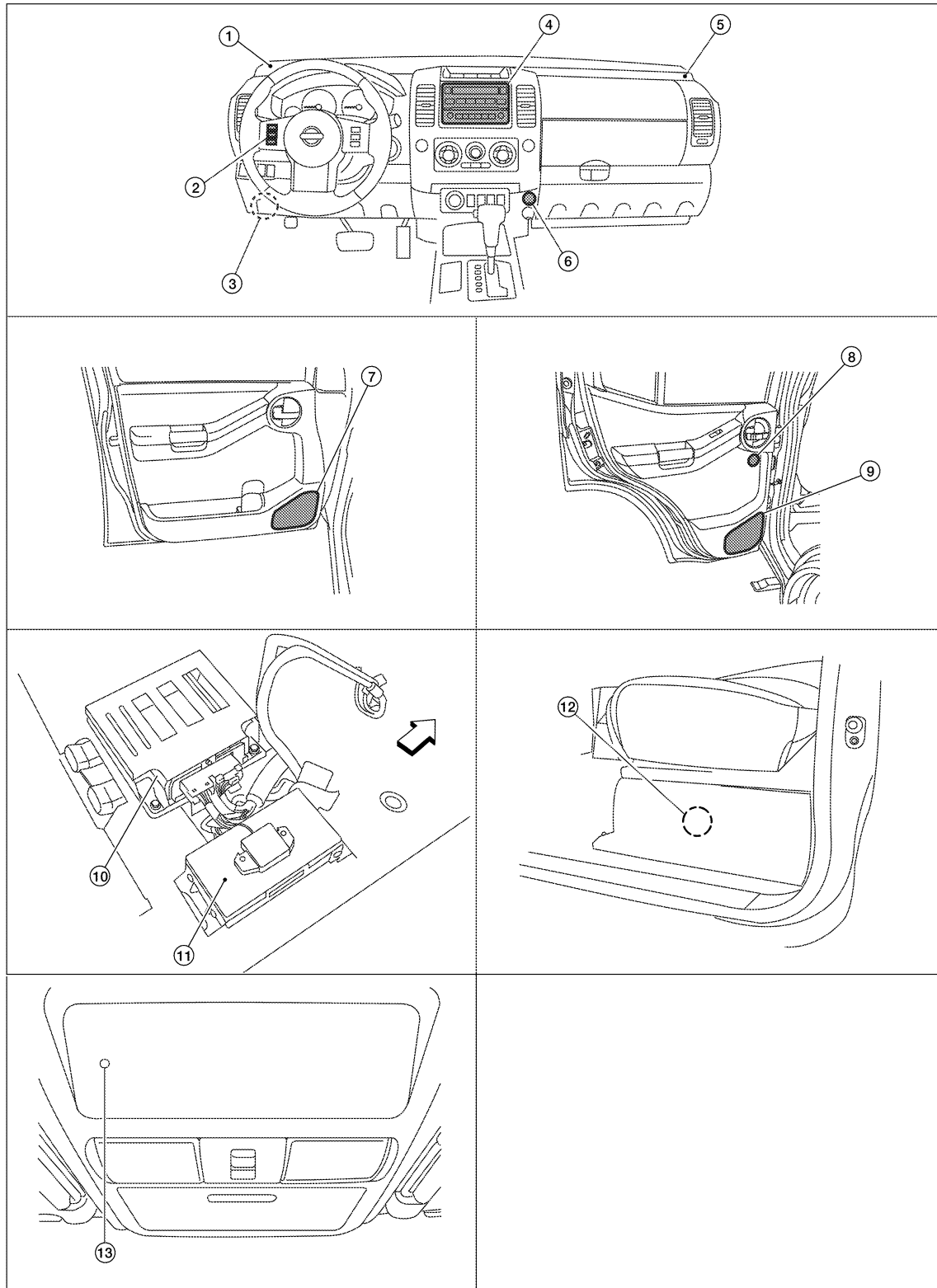
HANDS-FREE PHONE SYSTEM

< SYSTEM DESCRIPTION >

[PREMIUM AUDIO]

Component Parts Location

INFOID:000000007361865



←:FRONT

- | | | |
|--|--|--|
| 1. Front tweeter LH M109 | 2. Steering wheel audio control switch | 3. Satellite radio tuner M41, M129 |
| 4. Audio unit M42, M44, M45, M46 | 5. Front tweeter RH M111 | 6. Aux in jack M85 |
| 7. Front door speaker
LH D12
RH D112 | 8. Rear door tweeter
LH D208
RH D308 | 9. Rear door speaker
LH D207
RH D307 |

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HANDS-FREE PHONE SYSTEM

[PREMIUM AUDIO]

< SYSTEM DESCRIPTION >

10. Audio amplifier B158, B159 (view under passenger front seat) 11. Bluetooth control unit B141, B142 12. Subwoofer B72 (under driver's seat)
13. Microphone R8

Component Description

INFOID:000000007361866

Part name	Description
Audio unit	• Receives telephone voice signal from Bluetooth control unit • Sends telephone voice and voice guidance signals to the speakers
Audio amplifier	• Receives audio signals from the audio unit • Outputs amplified audio signals to the speakers
Front door speakers	Receives telephone voice and voice guidance signals from the audio amplifier
Front tweeters	
Steering wheel audio control switch	• Start a voice recognition session • Answer and end telephone calls • Adjust the volume level
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

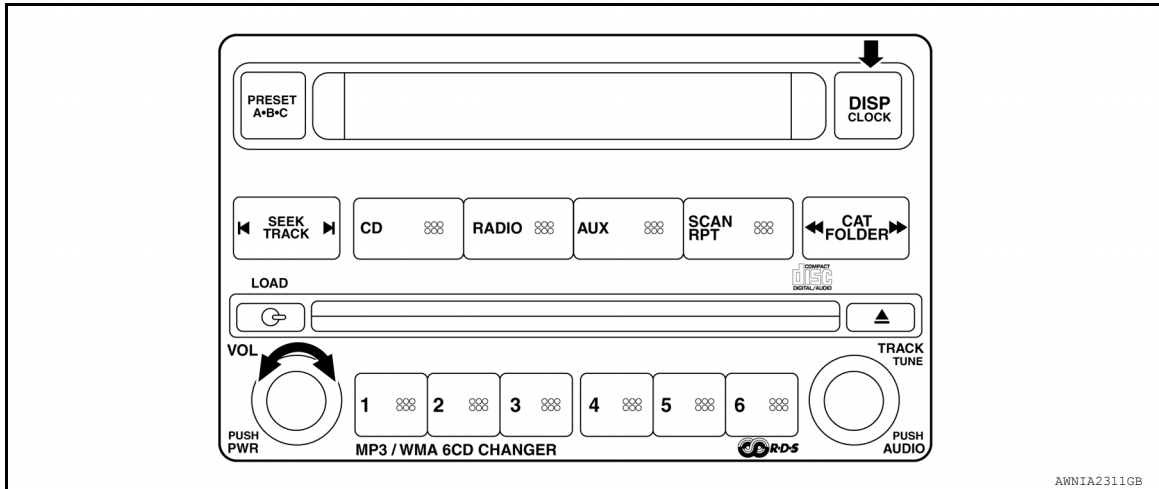
DIAGNOSIS SYSTEM (AUDIO UNIT)

Component Function Check

INFOID:000000007361867

STARTING THE SELF-DIAGNOSIS MODE

1. Turn ignition switch from OFF to ACC.
2. Press and hold the "DISP/CLOCK" switch and turn the volume control dial clockwise or counterclockwise for 30 clicks or more.



Then the self-diagnosis operates. A single beep indicates self-diagnosis mode is active.

3. Initially, all display segments will be illuminated.
4. Press each switch. When each switch is pressed, its name and communication code will be displayed

NOTE:

CD player LOAD and EJECT buttons are not included in this test and will not change the display when pressed.

DIAGNOSIS FUNCTION

- It can check for continuity of the switches by sounding the beep when each audio unit switch and steering wheel audio control switch is pressed.
- It can check for continuity of harness between audio unit switch and steering wheel audio control switch.

EXITING THE SELF-DIAGNOSIS MODE

Turn ignition switch OFF. Then the self-diagnosis ends.

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DIAGNOSIS SYSTEM (BLUETOOTH CONTROL UNIT)

Diagnosis Description

INFOID:000000007361868

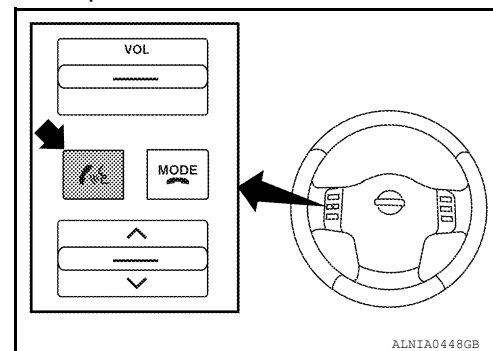
The Bluetooth control unit has two diagnostic checks. The first diagnostic check is performed automatically every ignition cycle during control unit initialization. The second diagnostic check is performed by the technician using the steering wheel audio control switch prior to trouble diagnosis.

BLUETOOTH CONTROL UNIT (AUTOMATIC INITIALIZATION) CHECK

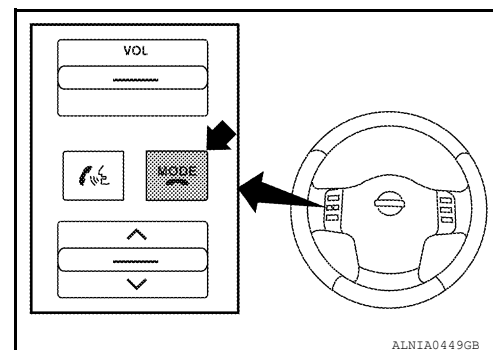
- Internal control unit failure
- Bluetooth antenna connection open or shorted
- Steering wheel audio control switch[SEND(📞)/END(MODE)] stuck closed
- Vehicle speed pulse count
- Microphone connection test (with playback to operator)
- Bluetooth inquiry check

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 switch  button for at least 5 seconds. The Bluetooth system will begin to play a verbal prompt.



4. While the prompt is playing, press and hold the steering wheel audio control switch  button until you hear the “Diagnostics mode” prompt. The Bluetooth system will sound a 5 second beep.
5. While the beep is sounding, press and hold the steering wheel audio control switch  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-44, "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-44, "Work Flow"](#).
8. Self-diagnosis mode is complete when the voice prompt says “All diagnostic functions completed”.



Work Flow

INFOID:000000007361869

Failure Message	Action
"Internal failure"	Replace Bluetooth control unit. Refer to AV-111, "Removal and Installation" .
"Bluetooth antenna open"	1. Inspect harness connection. 2. Replace Bluetooth antenna. Refer to AV-111, "Removal and Installation".
"Bluetooth antenna shorted"	
"Phone/Send for Hands Free System is stuck"	Check steering wheel audio control switch. Refer to AV-66, "Description" .
"Phone/End for the Hands Free System is stuck"	
"Microphone test" (failed interactive test)	1. Inspect harness between Bluetooth control unit and microphone. 2. Replace microphone. Refer to AV-113, "Removal and Installation".

DTC/CIRCUIT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT

AUDIO UNIT

AUDIO UNIT : Diagnosis Procedure

INFOID:000000007361870

Regarding Wiring Diagram information, refer to [AV-85, "Wiring Diagram"](#).

1.CHECK FUSES

Check that the following fuses of the audio unit are not are not blown.

Unit	Terminals	Signal name	Fuse No.
Audio unit	6	Battery power	29
	10	Ignition switch ACC or ON	4

Are the fuses OK?

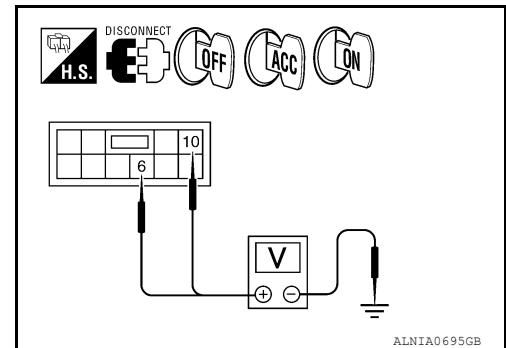
YES >> GO TO 2

NO >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse. Refer to [GL-40, "Circuit Inspection"](#).

2.POWER SUPPLY CIRCUIT CHECK

1. Disconnect audio unit connector M46.
2. Check voltage between the audio unit connector M46 and ground.

(+)		(-)	OFF	ACC	ON
Connector	Terminal				
M46	6	Ground	Battery voltage	Battery voltage	Battery voltage
	10	Ground	0V	Battery voltage	Battery voltage



Are the voltage results as specified?

YES >> GO TO 3

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

3.GROUND CIRCUIT CHECK

Inspect audio unit case ground.

Does case ground pass inspection?

YES >> Inspection End.

NO >> Repair audio unit case ground.

SATELLITE RADIO TUNER

SATELLITE RADIO TUNER : Diagnosis Procedure

INFOID:000000007361871

Regarding Wiring Diagram information, refer to [AV-85, "Wiring Diagram"](#).

1.CHECK FUSES

Check that the following fuses of the satellite radio tuner are not blown.

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO]

Unit	Terminals	Signal name	Fuse No.
Satellite radio tuner	32	Battery power	17
	36	Ignition switch ACC or ON	4

Are the fuses OK?

YES >> GO TO 2

NO >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse. Refer to [GL-40, "Circuit Inspection"](#).

2. POWER SUPPLY CIRCUIT CHECK

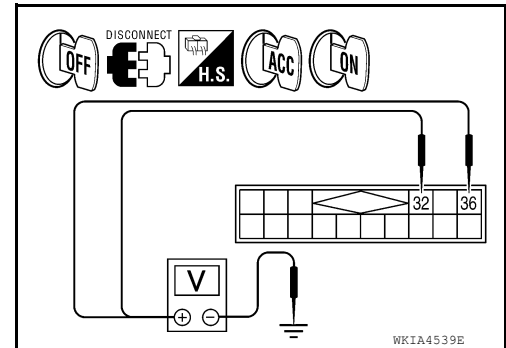
1. Turn ignition switch OFF.
2. Disconnect satellite radio tuner connector M41.
3. Check voltage between the satellite radio tuner and ground.

(+)		(-)	OFF	ACC	ON
Connector	Terminal				
M41	32	Ground	Battery voltage	Battery voltage	Battery voltage
	36		0V	Battery voltage	Battery voltage

Are the voltage readings as specified?

YES >> GO TO 3

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



3. GROUND CIRCUIT CHECK

Inspect satellite radio tuner case ground.

Does case ground pass inspection?

YES >> Inspection End.

NO >> Repair satellite radio tuner case ground.

AUDIO AMP

AUDIO AMP : Diagnosis Procedure

INFOID:000000007361872

Regarding Wiring Diagram information, refer to [AV-85, "Wiring Diagram"](#).

1. CHECK FUSE

Check that the audio amplifier fuses are not blown.

Unit	Terminal	Signal name	Fuse No.
Audio amplifier	1	Battery power	17
	17		

Are the fuses OK?

YES >> GO TO 2

NO >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse. Refer to [GL-40, "Circuit Inspection"](#).

2. CHECK POWER SUPPLY CIRCUIT

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO]

1. Turn ignition switch OFF.
2. Disconnect audio amplifier connector.
3. Check voltage between audio amplifier harness connector B158 and ground.

(+)		(-)	Voltage (approx.)
Connector	Terminal		
B158	1	Ground	Battery voltage
	17		

Is battery voltage present?

YES >> GO TO 3

NO >> Repair harness or connector.

3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect audio amplifier connector.
3. Check continuity between audio amplifier harness connector B158 and ground.

(+)		(-)	Continuity
Connector	Terminal		
B158	4	Ground	Yes
	20		

Does continuity exist?

YES >> Inspection End.

NO >> Repair harness or connector.

BLUETOOTH CONTROL UNIT

BLUETOOTH CONTROL UNIT : Diagnosis Procedure

INFOID:000000007361873

Regarding Wiring Diagram information, refer to [AV-85, "Wiring Diagram"](#).

1.CHECK FUSE

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

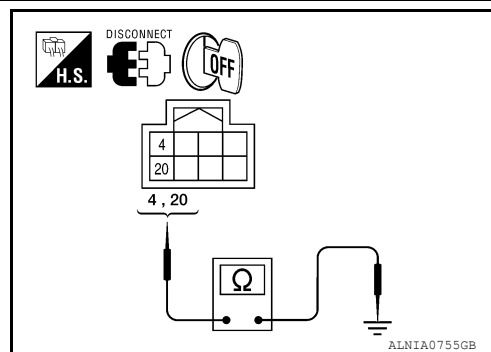
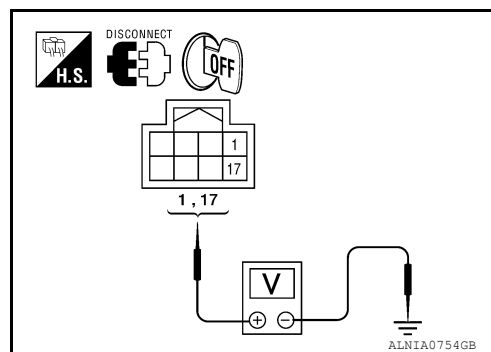
Unit	Terminal	Signal name	Fuse No.
Bluetooth control unit	1	Battery power	29
	2	Ignition switch ACC or ON	4
	3	Ignition switch ON or START	12

Is inspection result OK?

YES >> GO TO 2.

NO >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse. Refer to [GL-40, "Circuit Inspection"](#).

2.CHECK POWER SUPPLY CIRCUIT



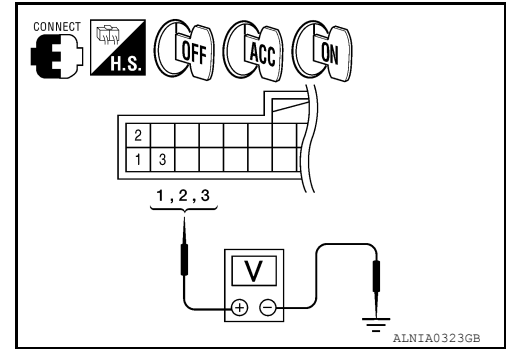
POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO]

Check voltage between Bluetooth control unit harness connector B141 and ground.

(+)		(-)	OFF	ON	ACC
Connector	Terminal				
B141	1	Ground	Battery voltage	Battery voltage	Battery voltage
	2		0V	Battery voltage	Battery voltage
	3		0V	Battery voltage	0V



Is battery voltage present as specified?

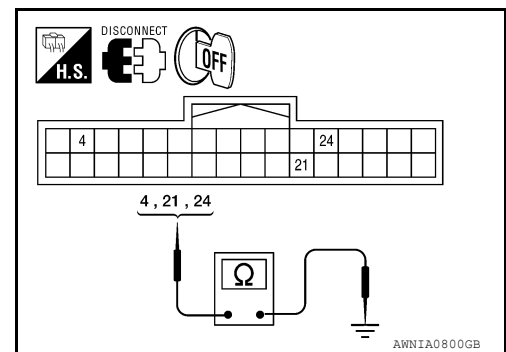
YES >> GO TO 3.

NO >> Repair harness or connector.

3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect Bluetooth control unit connector.
3. Check continuity between Bluetooth control unit harness connector B141 and ground.

Connector	Terminal	—	Continuity
B141	4	Ground	Yes
	21		
	24		



Are continuity results as specified?

YES >> Inspection End.

NO >> Repair harness or connector.

MICROPHONE

MICROPHONE : Diagnosis Procedure

INFOID:000000007361874

Regarding Wiring Diagram information, refer to [AV-85. "Wiring Diagram"](#).

1.CHECK POWER SUPPLY CIRCUIT (MICROPHONE SIDE)

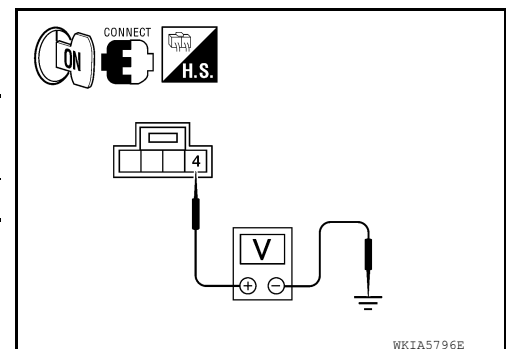
1. Turn ignition switch ON.
2. Check voltage between microphone harness connector R8 terminal 4 and ground.

(+)		(-)	Value (Approx.)
Connector	Terminal		
R8	4	Ground	5V

Is approximately 5V present?

YES >> GO TO 3

NO >> GO TO 2



2.CHECK POWER SUPPLY CIRCUIT (CONTINUITY)

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO]

1. Turn ignition switch OFF.
2. Disconnect microphone and Bluetooth control unit harness connectors.
3. Check continuity between microphone harness connector R8 (A) terminal 4 and Bluetooth control unit harness connector B141 (B) terminal 29.

A		B		Continuity
Connector	Terminal	Connector	Terminal	
R8	4	B141	29	Yes

4. Check continuity between microphone harness connector R8 (A) terminal 4 and ground.

A		—	Continuity
Connector	Terminal		
R8	4	Ground	No

Are the continuity test results as specified?

- YES >> Replace the Bluetooth control unit. Refer to [AV-111, "Removal and Installation"](#).
 NO >> Repair harness or connector.

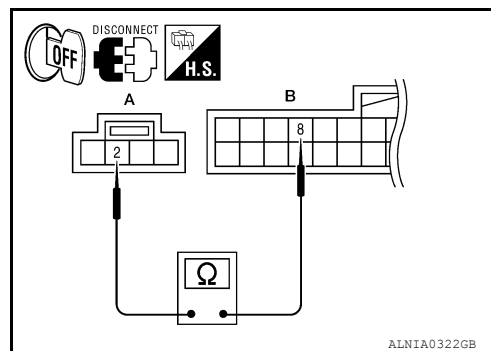
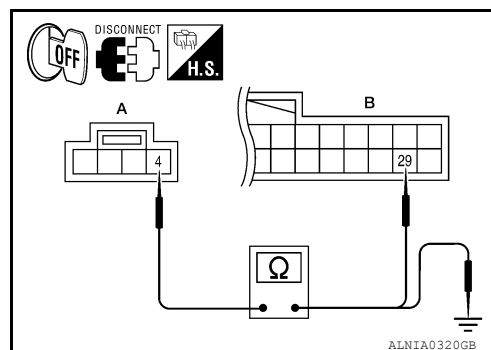
3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect microphone harness connector R8 and Bluetooth control unit harness connector B141.
3. Check continuity between microphone harness connector R8 (A) terminal 2 and Bluetooth control unit harness connector B141 (B) terminal 8.

A		B		Continuity
Connector	Terminal	Connector	Terminal	
R8	2	B141	8	Yes

Does continuity exist?

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



FRONT DOOR SPEAKER

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO]

FRONT DOOR SPEAKER

Description

INFOID:000000007361875

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

Diagnosis Procedure

INFOID:000000007361876

Regarding Wiring Diagram information, refer to [AV-85, "Wiring Diagram"](#).

1.CONNECTOR CHECK

Check the audio unit, audio amplifier 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.SPEAKER HARNESS CHECK

1. Disconnect audio amplifier connector B159 and suspect speaker connector.
2. Check continuity between audio amplifier harness connector B159 (A) and suspect speaker harness connector (B).

A		B		Continuity
Connector	Terminal	Connector	Terminal	
B159	15	D12	1	Yes
	31		2	
	16	D112	1	
	32		2	

3. Check continuity between audio amplifier harness connector B159 (A) and ground.

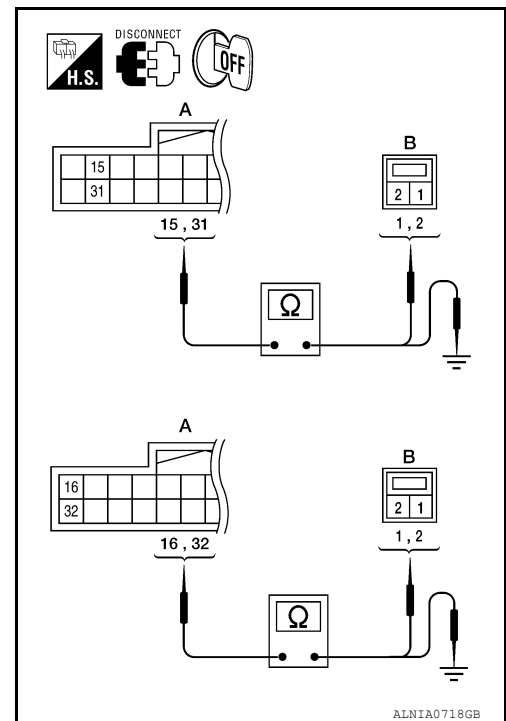
A		—	Continuity
Connector	Terminal		
B159	15	Ground	No
	31		
	16		
	32		

Are continuity test results as specified?

YES >> GO TO 3.

NO >> Repair harness or connector.

3.FRONT DOOR SPEAKER SIGNAL CHECK

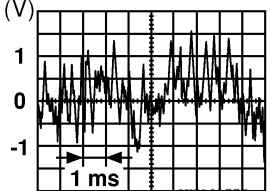


FRONT DOOR SPEAKER

[PREMIUM AUDIO]

< DTC/CIRCUIT DIAGNOSIS >

1. Connect audio amplifier connector B159 and suspect speaker connector.
2. Turn ignition switch to ACC.
3. Push audio unit "POWER" switch.
4. Check the signal between audio amplifier harness connector B159 terminals with CONSULT or oscilloscope.

Connector	Terminal		Condition	Reference signal
	(+)	(-)		
B159	15	31	Receive audio signal	
	16	32		

Is audio signal voltage as specified?

YES >> Replace suspect speaker. Refer to [AV-107. "Removal and Installation"](#).

NO >> GO TO 4.

4.AUDIO UNIT TO AUDIO AMPLIFIER HARNESS CHECK

1. Disconnect audio unit connector M46 and audio amplifier connector B159.
2. Check continuity between audio unit harness connector M46 (A) and audio amplifier harness connector B159 (B).

A		B		Continuity
Connector	Terminal	Connector	Terminal	
M46	1	B159	6	Yes
	2		22	
	3		5	
	4		21	

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

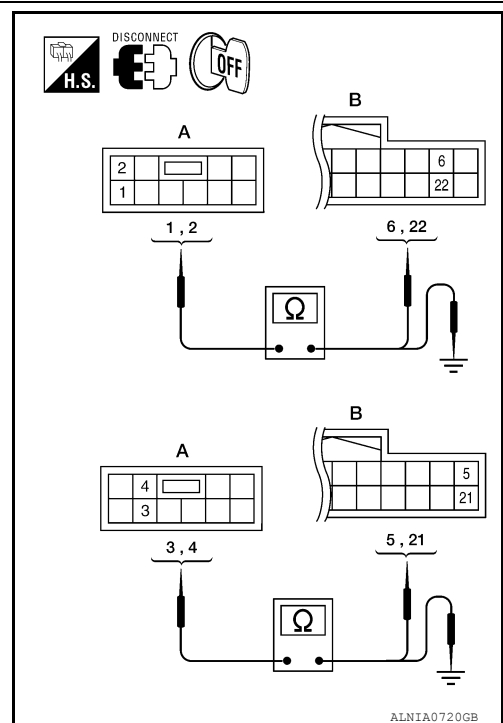
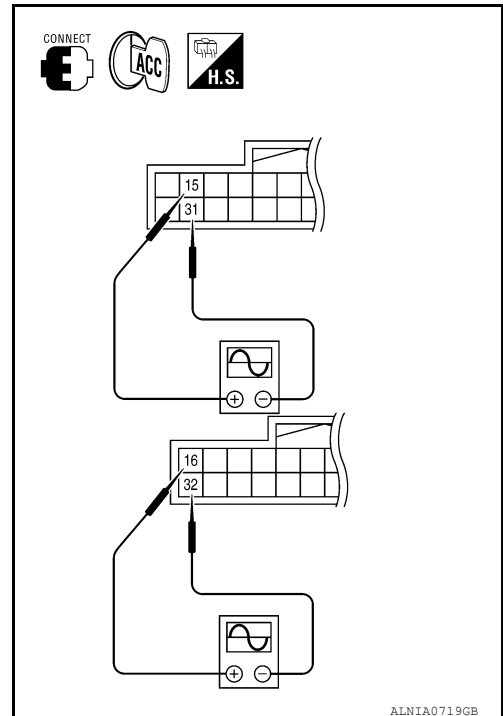
A		—	Continuity
Connector	Terminal		
M46	1	Ground	No
	2		
	3		
	4		

Are continuity test results as specified?

YES >> GO TO 5.

NO >> Repair harness or connector.

5.AUDIO AMPLIFIER SIGNAL CHECK

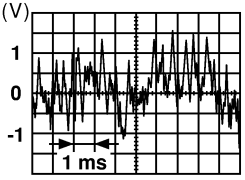


FRONT DOOR SPEAKER

[PREMIUM AUDIO]

< DTC/CIRCUIT DIAGNOSIS >

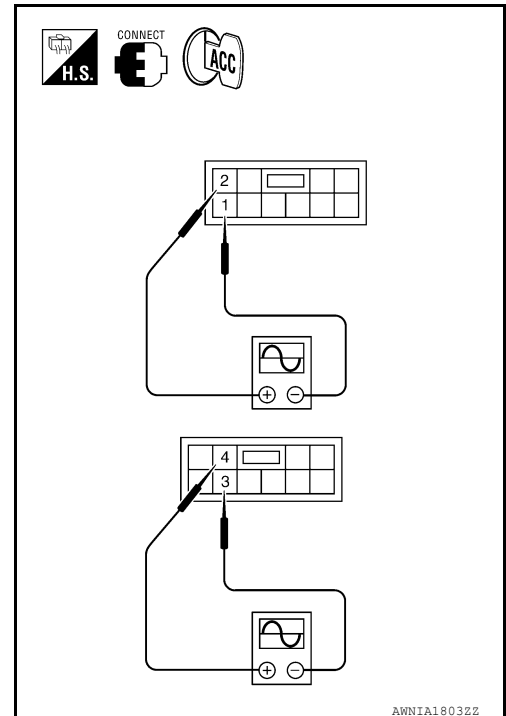
1. Connect audio unit connector and audio amplifier connector.
2. Turn ignition switch ACC.
3. Push audio unit "POWER" switch.
4. Check the signal between audio unit harness connector M46 terminals with CONSULT or oscilloscope.

Connector	Terminals		Condition	Reference signal
	(+)	(-)		
M46	2	1	Receive audio signal	 SKIA0177E
	4	3		

Are the audio signal voltage readings as specified?

YES >> Replace audio amplifier. Refer to [AV-105, "Removal and Installation"](#).

NO >> Replace audio unit. Refer to [AV-104, "Removal and Installation"](#).



FRONT TWEETER

Description

INFOID:000000007361877

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

Diagnosis Procedure

INFOID:000000007361878

Regarding Wiring Diagram information, refer to [AV-85, "Wiring Diagram"](#).

1.CONNECTOR CHECK

Check the audio unit, audio amplifier 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 amplifier connector B159 and suspect tweeter connector.
2. Check continuity between audio amplifier harness connector B159 (A) and suspect tweeter harness connector (B).

A		B		Continuity
Connector	Terminal	Connector	Terminal	
B159	14	M109	1	Yes
	30		2	
	13	M111	1	
	29		2	

3. Check continuity between audio amplifier harness connector B159 (A) and ground.

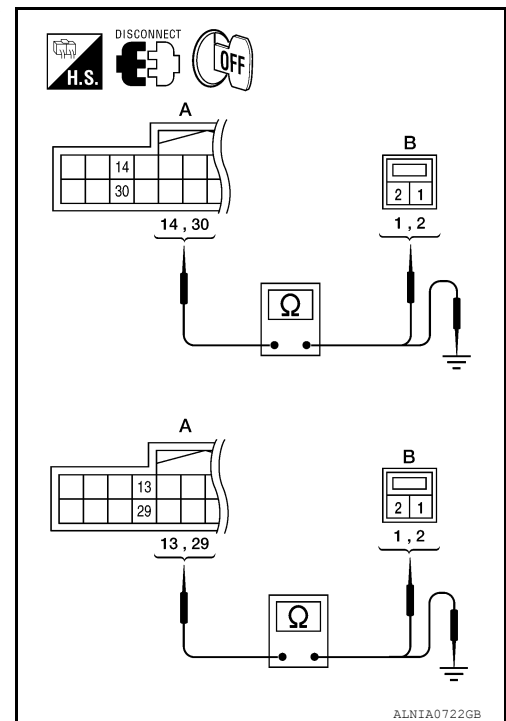
A		—	Continuity
Connector	Terminal		
B159	14	Ground	No
	30		
	13		
	29		

Are continuity test results as specified?

YES >> GO TO 3

NO >> Repair harness or connector.

3.FRONT TWEETER SIGNAL CHECK

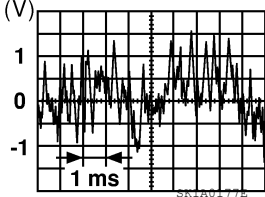


FRONT TWEETER

[PREMIUM AUDIO]

< DTC/CIRCUIT DIAGNOSIS >

1. Connect audio amplifier connector B159 and suspect tweeter connector.
2. Turn ignition switch to ACC.
3. Push audio unit "POWER" switch.
4. Check the signal between audio amplifier harness connector B159 terminals with CONSULT or oscilloscope.

Connector	Terminal		Condition	Reference signal
	(+)	(-)		
B159	14	30	Receive audio signal	
	13	29		

Is audio signal voltage as specified?

YES >> Replace suspect tweeter. Refer to [AV-106. "Removal and Installation"](#).

NO >> GO TO 4

4. AUDIO UNIT AND AUDIO AMPLIFIER HARNESS CHECK

1. Disconnect audio unit connector M46 and audio amplifier connector B159.
2. Check continuity between audio unit harness connector M46 (A) and audio amplifier harness connector B159 (B).

A		B		Continuity
Connector	Terminal	Connector	Terminal	
M46	1	B159	6	Yes
	2		22	
	3		5	
	4		21	

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

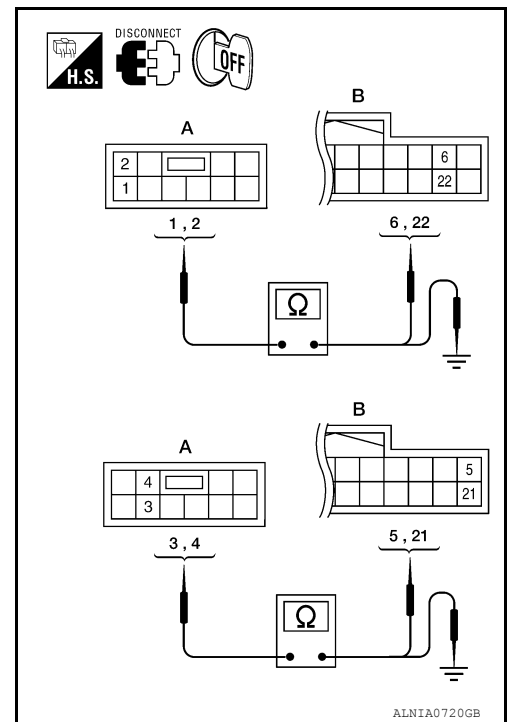
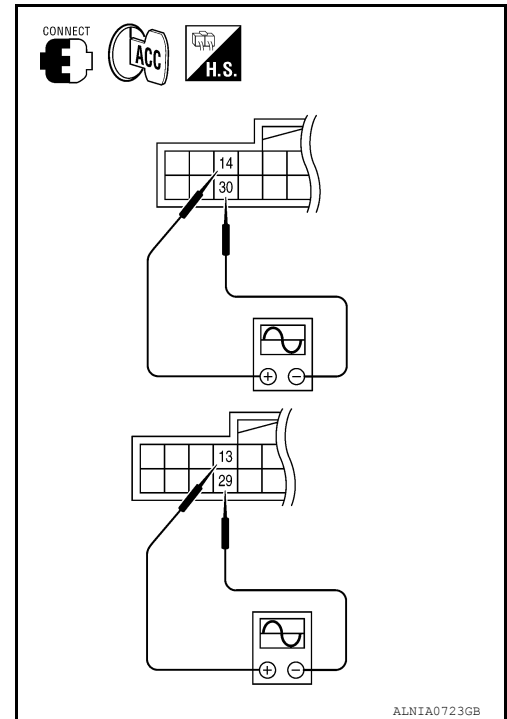
A		—	Continuity
Connector	Terminal		
M46	1	Ground	No
	2		
	3		
	4		

Are continuity test results as specified?

YES >> GO TO 5

NO >> Repair harness or connector.

5. AUDIO AMPLIFIER SIGNAL CHECK

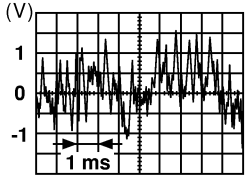


FRONT TWEETER

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO]

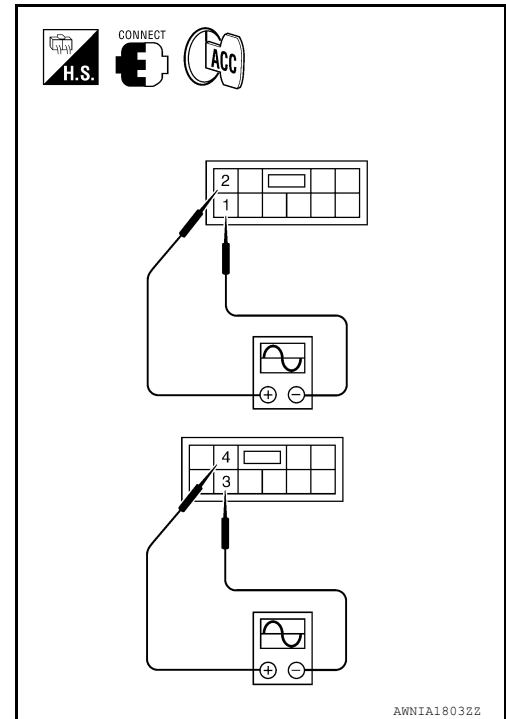
1. Connect audio unit connector and audio amplifier connector.
2. Turn ignition switch ACC.
3. Push audio unit "POWER" switch.
4. Check the signal between audio unit harness connector M46 terminals with CONSULT or oscilloscope.

Connector	Terminals		Condition	Reference signal
	(+)	(-)		
M46	2	1	Receive audio signal	
	4	3		

Are the audio signal voltage readings as specified?

YES >> Replace audio amplifier. Refer to [AV-105, "Removal and Installation"](#).

NO >> Replace audio unit. Refer to [AV-104, "Removal and Installation"](#).



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REAR DOOR SPEAKER

Description

INFOID:000000007361879

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

Diagnosis Procedure

INFOID:000000007361880

Regarding Wiring Diagram information, refer to [AV-85, "Wiring Diagram"](#).

1.CONNECTOR CHECK

Check the audio unit, audio amplifier 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.SPEAKER HARNESS CHECK

1. Disconnect audio amplifier connectors B159 and suspect speaker connector.
2. Check continuity between audio amplifier harness connectors B159 (A) and suspect speaker harness connector (B).

A		B		Continuity
Connector	Terminal	Connector	Terminal	
B159	11	D207	1	Yes
	27		2	
	12	D307	1	
	28		2	

3. Check continuity between audio amplifier harness connectors B159 (A) and ground.

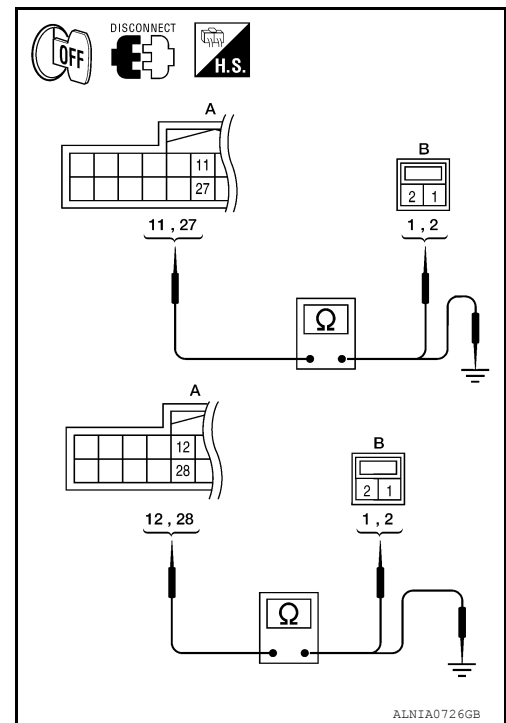
Connector	Terminal	-	Continuity
B159	11	Ground	No
	27		
	12		
	28		

Are the continuity test results as specified?

YES >> GO TO 3

NO >> Repair harness or connector.

3.SPEAKER SIGNAL CHECK

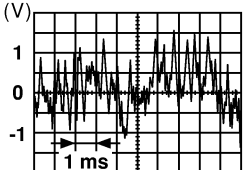


REAR DOOR SPEAKER

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO]

1. Connect audio amplifier connectors and suspect speaker connector.
2. Turn ignition switch to ACC.
3. Push audio unit "POWER" switch.
4. Check the signal between audio amplifier harness connectors B159 terminals with CONSULT or oscilloscope.

Connector	Terminals		Condition	Reference signal
	(+)	(-)		
B159	11	27	Receive audio signal	 SKIA0177E
	12	28		

Are audio signal voltage readings as specified?

YES >> Replace suspect speaker. Refer to [AV-108. "Removal and Installation - Rear Door Speaker"](#).

NO >> GO TO 4

4.AUDIO UNIT AND AUDIO AMPLIFIER HARNESS CHECK

1. Disconnect audio unit connector M44 and audio amplifier connector B159.
2. Check continuity between audio unit harness connector M44 (A) and audio amplifier harness connector B159 (B).

A		B		Continuity
Connector	Terminal	Connector	Terminal	
M44	13	B159	8	Yes
	14		24	
	15		7	
	16		23	

3. Check continuity between audio unit harness connector M44 (A) and ground.

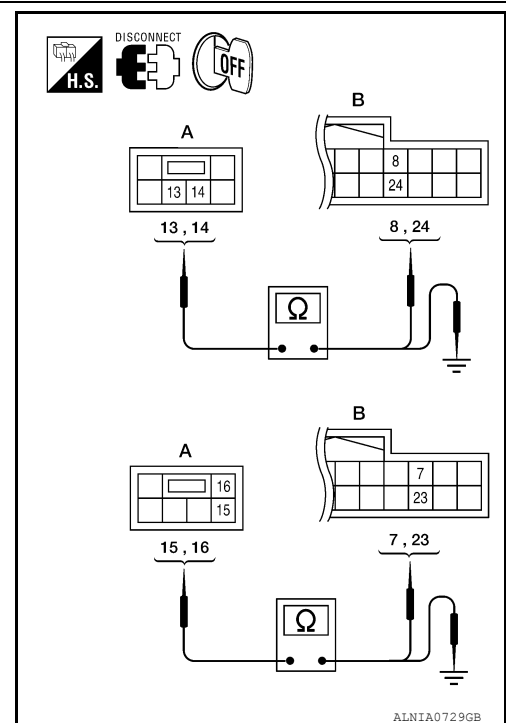
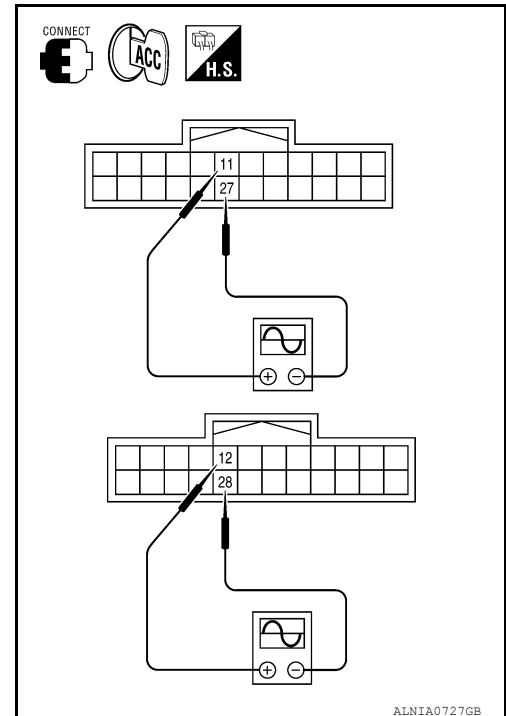
A		—	Continuity
Connector	Terminal		
M44	13	Ground	No
	14		
	15		
	16		

Are the continuity test results as specified?

YES >> GO TO 5

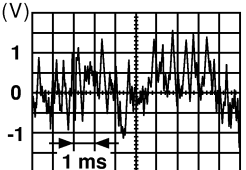
NO >> Repair harness or connector.

5.AUDIO AMPLIFIER SIGNAL CHECK



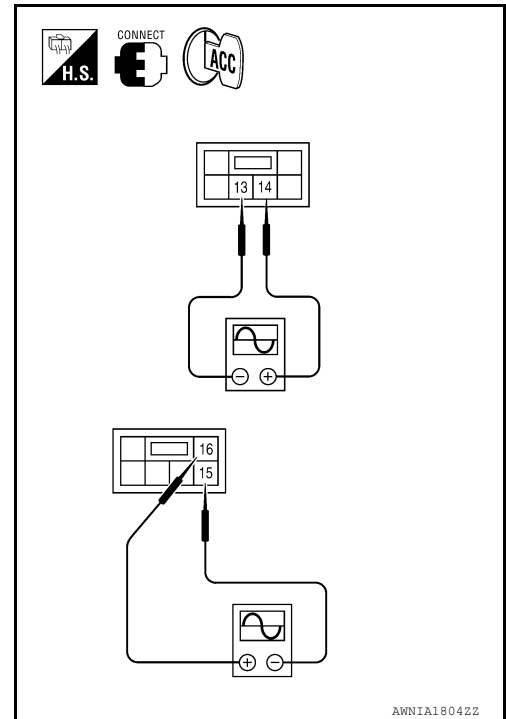
[PREMIUM AUDIO]

1. Connect audio unit connector M44 and audio amplifier connector B159.
2. Turn ignition switch to ACC.
3. Push audio unit "POWER" switch.
4. Check the signal between audio unit harness connector M44 terminals with CONSULT or oscilloscope.

Connector	Terminals		Condition	Reference signal
	(+)	(-)		
M44	14	13	Receive audio signal	 SKIA0177E
	16	15		

Is the audio signal voltage reading as specified?

- YES >> Replace audio amplifier. Refer to [AV-105, "Removal and Installation"](#).
- NO >> Replace audio unit. Refer to [AV-104, "Removal and Installation"](#).



REAR DOOR TWEETER

Description

INFOID:000000007361881

The audio unit sends audio signals to the audio amplifier. The audio amplifier amplifies the audio signals before sending them to the rear door tweeters using the audio signal circuits.

Diagnosis Procedure

INFOID:000000007361882

Regarding Wiring Diagram information, refer to [AV-85, "Wiring Diagram"](#).

1.CONNECTOR CHECK

Check the audio unit, audio amplifier 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.SPEAKER HARNESS CHECK

1. Disconnect audio amplifier connectors B159 and suspect speaker connector.
2. Check continuity between audio amplifier harness connectors B159 (A) and suspect speaker harness connector (B).

A		B		Continuity
Connector	Terminal	Connector	Terminal	
B159	11	D208	1	Yes
	27		2	
	12	D308	1	
	28		2	

3. Check continuity between audio amplifier harness connectors B159 (A) and ground.

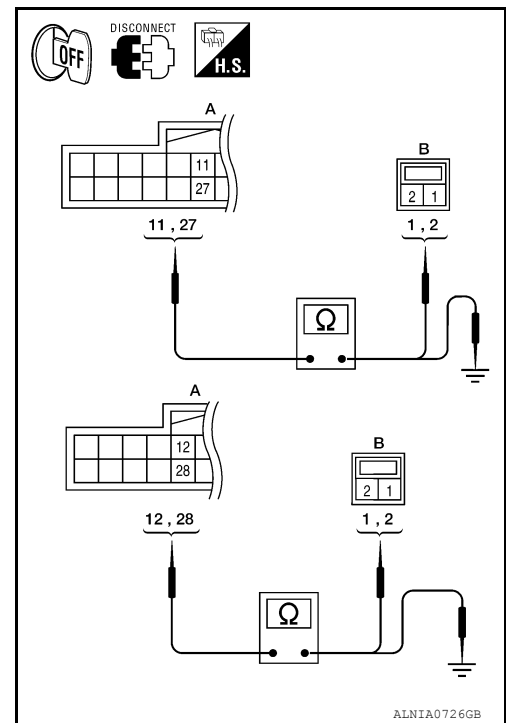
Connector	Terminal	-	Continuity
B159	11	Ground	No
	27		
	12		
	28		

Are the continuity test results as specified?

YES >> GO TO 3

NO >> Repair harness or connector.

3.SPEAKER SIGNAL CHECK

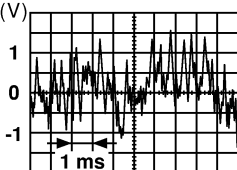


REAR DOOR TWEETER

[PREMIUM AUDIO]

< DTC/CIRCUIT DIAGNOSIS >

1. Connect audio amplifier connectors and suspect speaker connector.
2. Turn ignition switch to ACC.
3. Push audio unit "POWER" switch.
4. Check the signal between audio amplifier harness connectors B159 terminals with CONSULT or oscilloscope.

Connector	Terminals		Condition	Reference signal
	(+)	(-)		
B159	11	27	Receive audio signal	
	12	28		

Are audio signal voltage readings as specified?

YES >> Replace suspect speaker. Refer to [AV-108, "Removal and Installation - Rear Tweeter"](#).

NO >> GO TO 4

4. AUDIO UNIT AND AUDIO AMPLIFIER HARNESS CHECK

1. Disconnect audio unit connector M44 and audio amplifier connector B159.
2. Check continuity between audio unit harness connector M44 (A) and audio amplifier harness connector B159 (B).

A		B		Continuity
Connector	Terminal	Connector	Terminal	
M44	13	B159	8	Yes
	14		24	
	15		7	
	16		23	

3. Check continuity between audio unit harness connector M44 (A) and ground.

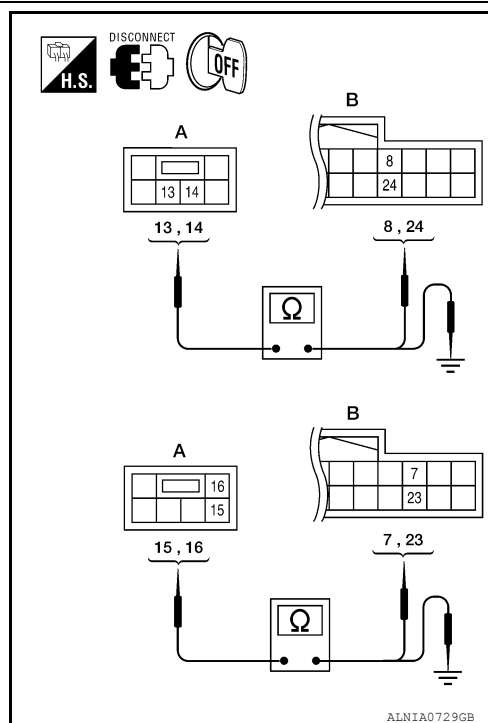
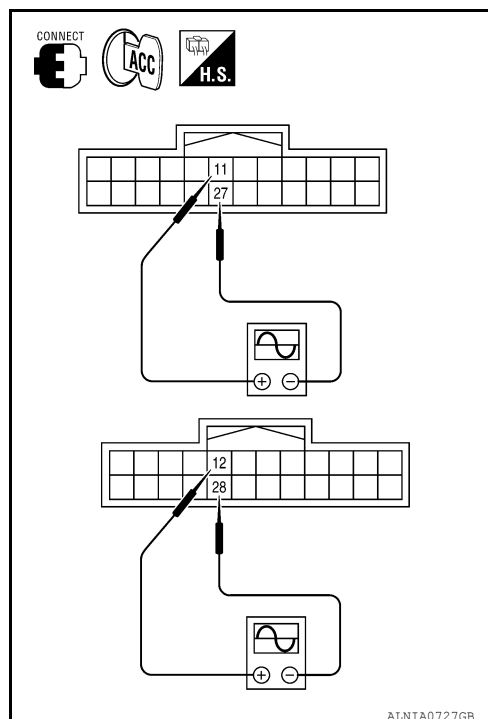
A		—	Continuity
Connector	Terminal		
M44	13	Ground	No
	14		
	15		
	16		

Are the continuity test results as specified?

YES >> GO TO 5

NO >> Repair harness or connector.

5. AUDIO AMPLIFIER SIGNAL CHECK

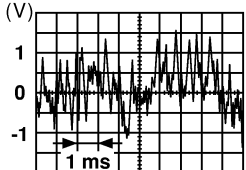


REAR DOOR TWEETER

< DTC/CIRCUIT DIAGNOSIS >

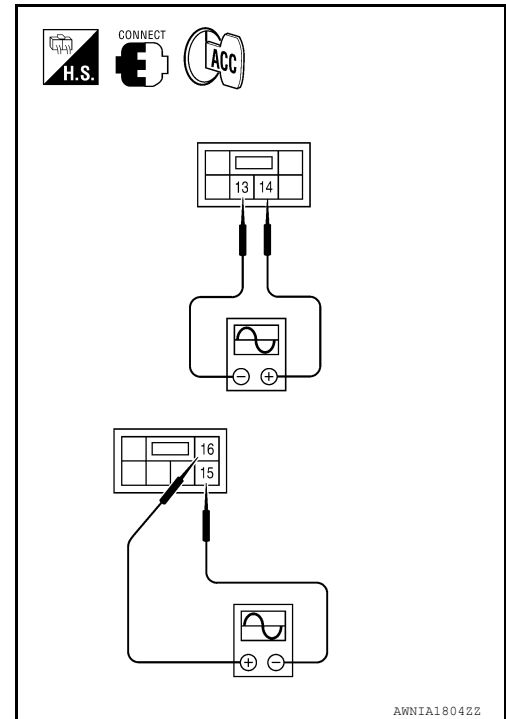
[PREMIUM AUDIO]

1. Connect audio unit connector M44 and audio amplifier connector B159.
2. Turn ignition switch to ACC.
3. Push audio unit "POWER" switch.
4. Check the signal between audio unit harness connector M44 terminals with CONSULT or oscilloscope.

Connector	Terminals		Condition	Reference signal
	(+)	(-)		
M44	14	13	Receive audio signal	 SKIA0177E
	16	15		

Is the audio signal voltage reading as specified?

- YES >> Replace audio amplifier. Refer to [AV-105, "Removal and Installation"](#).
- NO >> Replace audio unit. Refer to [AV-104, "Removal and Installation"](#).



SUBWOOFER

Description

INFOID:000000007361883

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

Diagnosis Procedure

INFOID:000000007361884

Regarding Wiring Diagram information, refer to [AV-85, "Wiring Diagram"](#).

1.CONNECTOR CHECK

Check the audio unit, audio amplifier and subwoofer connectors for the following:

- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

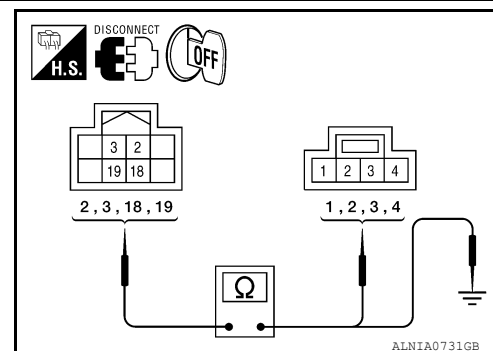
YES >> GO TO 2.

NO >> Repair the terminal and connector.

2.SPEAKER HARNESS CHECK

1. Disconnect audio amplifier connector B158 and subwoofer connector B72.
2. Check continuity between audio amplifier harness connector B158 (A) and subwoofer harness connector B72 (B).

A		B		Continuity
Connector	Terminal	Connector	Terminal	
B158	2	B72	1	Yes
	3		3	
	18		2	
	19		4	



3. Check continuity between audio amplifier harness connector B158 (A) and ground.

A		—	Continuity
Connector	Terminal		
B158	2	Ground	No
	3		
	18		
	19		

Are the continuity test results as specified?

YES >> GO TO 3

NO >> Repair harness or connector.

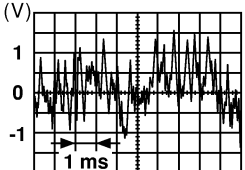
3.SPEAKER SIGNAL CHECK

SUBWOOFER

[PREMIUM AUDIO]

< DTC/CIRCUIT DIAGNOSIS >

1. Connect audio amplifier connector B158 and subwoofer connector B72.
2. Turn ignition switch to ACC.
3. Push audio unit "POWER" switch.
4. Check the signal between audio amplifier harness connector B158 terminals with CONSULT or oscilloscope.

Connector	Terminals		Condition	Reference signal
	(+)	(-)		
B158	2	18	Receive audio signal	
	3	19		

SKIA0177E

Is the audio signal voltage as specified?

YES >> Replace subwoofer. Refer to [AV-110, "Removal and Installation"](#).

NO >> GO TO 4

4. AUDIO UNIT AND AUDIO AMPLIFIER HARNESS CHECK

1. Disconnect audio unit connector M44 and audio amplifier connector B159.
2. Check continuity between audio unit harness connector M44 (A) and audio amplifier harness connector B159 (B).

A		B		Continuity
Connector	Terminal	Connector	Terminal	
M44	13	B159	8	Yes
	14		24	
	15		7	
	16		23	

3. Check continuity between audio unit harness connector M44 (A) and ground.

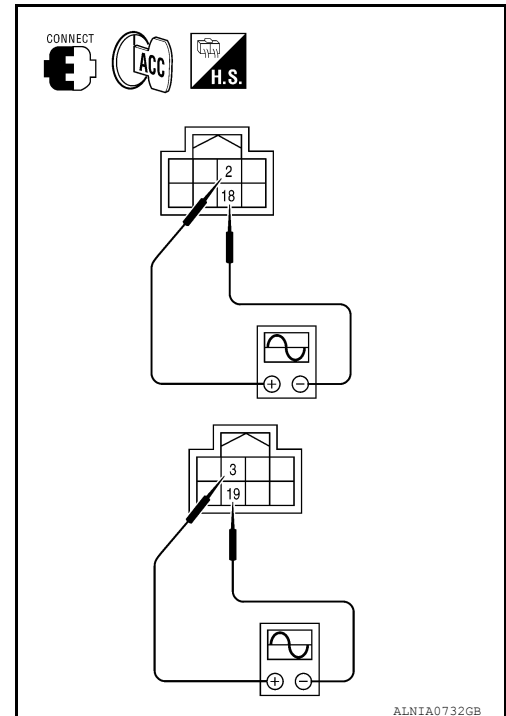
A		—	Continuity
Connector	Terminal		
M44	13	Ground	No
	14		
	15		
	16		

Are the continuity test results as specified?

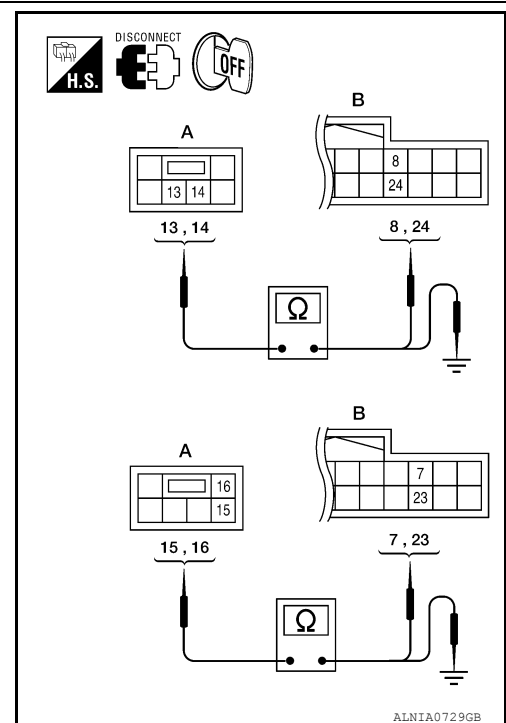
YES >> GO TO 5

NO >> Repair harness or connector.

5. AUDIO AMPLIFIER SIGNAL CHECK



ALNIA0732GB



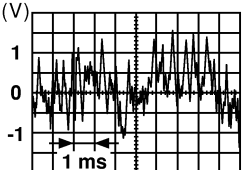
ALNIA0729GB

SUBWOOFER

[PREMIUM AUDIO]

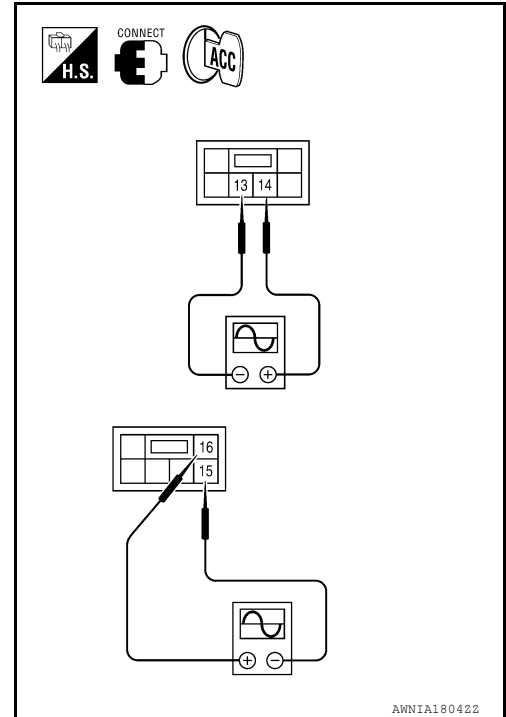
< DTC/CIRCUIT DIAGNOSIS >

1. Connect audio unit connector M44 and audio amplifier connector B159.
2. Turn ignition switch to ACC.
3. Push audio unit "POWER" switch.
4. Check the signal between audio unit harness connector M44 terminals with CONSULT or oscilloscope.

Connector	Terminals		Condition	Reference signal
	(+)	(-)		
M44	14	13	Receive audio signal	 SKIA0177E
	16	15		

Is the audio signal voltage reading as specified?

- YES >> Replace audio amplifier. Refer to [AV-105, "Removal and Installation"](#).
- NO >> Replace audio unit. Refer to [AV-104, "Removal and Installation"](#).



AMP ON SIGNAL CIRCUIT

Description

INFOID:000000007361885

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

Diagnosis Procedure

INFOID:000000007361886

Regarding Wiring Diagram information, refer to [AV-85, "Wiring Diagram"](#).

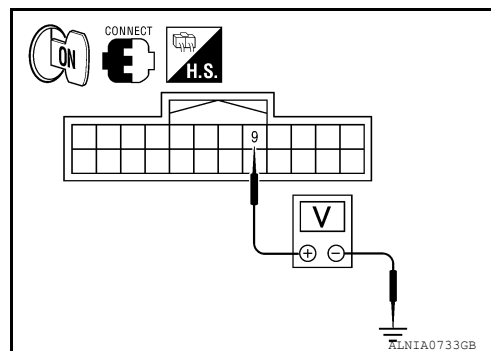
1.CHECK AMP ON SIGNAL

1. Turn audio system ON.
2. Check voltage between audio amplifier harness connector B159 terminal 9 and ground.

9 - Ground : More than 6.5V

Is battery voltage present?

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



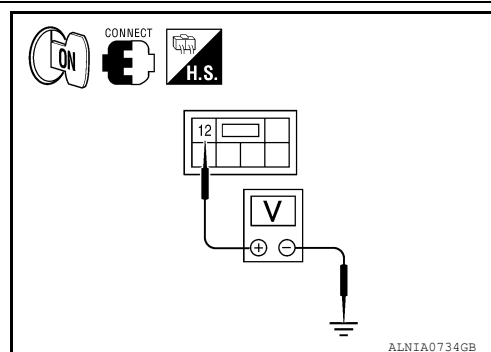
2.CHECK AMP ON SIGNAL (AUDIO UNIT)

Check voltage between audio unit harness connector M44 terminal 12 and ground.

12 - Ground : More than 6.5V

Is battery voltage present?

- YES >> Repair harness or connector.
NO >> Replace audio unit. Refer to [AV-104, "Removal and Installation"](#).



STEERING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO]

STEERING SWITCH

Description

INFOID:000000007361887

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

Diagnosis Procedure

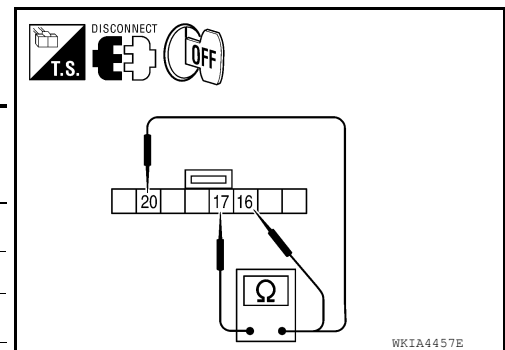
INFOID:000000007361888

Regarding Wiring Diagram information, refer to [AV-85, "Wiring Diagram"](#).

1. CHECK STEERING WHEEL AUDIO CONTROL SWITCH RESISTANCE

1. Turn ignition switch OFF.
2. Disconnect steering wheel audio control switch connector M102.
3. Check resistance between steering switch connector terminals.

Terminal		Signal name	Condition	Resistance (Ω) (Approx.)
16	17	Seek (down)	Depress ▽ button	165
		Volume (down)	Depress VOL down button	652
		Mode/end	Depress  button	0
20	17	Seek (up)	Depress △ button	165
		Volume (up)	Depress VOL up button	652
		Phone/send	Depress  button	0



Do the steering wheel audio control switch buttons check OK?

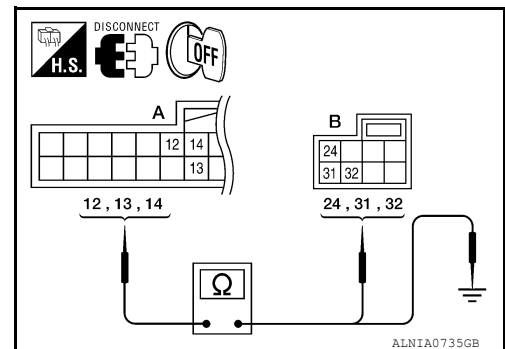
YES >> GO TO 2

NO >> Replace steering wheel audio control switch. Refer to [AV-109, "Removal and Installation"](#).

2. CHECK HARNESS BETWEEN SPIRAL CABLE AND BLUETOOTH CONTROL UNIT

1. Disconnect Bluetooth control unit harness connector B141 and spiral cable harness connector M30.
2. Check continuity between Bluetooth control unit harness connector B141 (A) and spiral cable harness connector M30 (B).

A		B		Continuity
Connector	Terminal	Connector	Terminal	
B141	12	M30	24	Yes
	13		32	
	14		31	



3. Check continuity between Bluetooth control unit connector B141 (A) and ground.

A		—	Continuity
Connector	Terminal		
B141	12	Ground	No
	13		
	14		

Are the continuity results as specified?

STEERING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

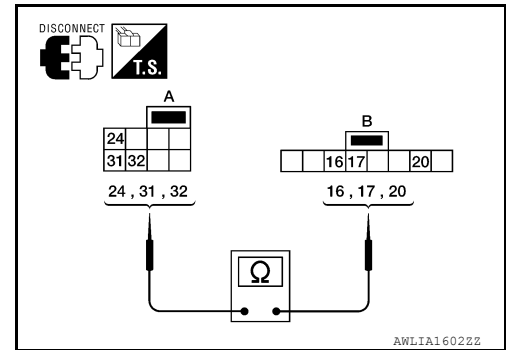
[PREMIUM AUDIO]

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

3. SPIRAL CABLE CHECK

1. Disconnect spiral cable connector M102.
2. Check continuity between spiral cable harness connector M30 (A) and M102 (B).

A		B		Continuity
Connector	Terminal	Connector	Terminal	
M30	24	M102	20	Yes
	31		17	
	32		16	



Does the spiral cable check OK?

- YES >> GO TO 4
NO >> Replace spiral cable. Refer to [SR-6. "Removal and Installation"](#).

4. CHECK HARNESS BETWEEN BLUETOOTH CONTROL UNIT AND AUDIO UNIT

1. Disconnect audio unit connector M45.
2. Check continuity between Bluetooth control unit harness connector B141 and audio unit harness connector M45.

Connector	Terminal	Connector	Terminal	Continuity
B141	17	M45	69	Yes
	18		70	
	19		71	

3. Check continuity between Bluetooth control unit connector B141 and ground.

Connector	Terminal	—	Continuity
B141	17	Ground	No
	18		
	19		

Are the continuity results as specified?

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

5. CHECK AUDIO UNIT VOLTAGE

1. Connect audio unit harness connector M45 and Bluetooth control unit harness connector B141.
2. Turn ignition switch ON.
3. Check voltage between audio unit harness connector M45 terminals.

(+) Audio unit		(-) Audio unit		Voltage (Approx.)
Connector	Terminal	Connector	Terminal	
M45	69	M45	71	5V
	70			

Are the continuity results as specified?

- YES >> Replace Bluetooth control unit. Refer to [AV-111. "Removal and Installation"](#).
NO >> Replace audio unit. Refer to [AV-104. "Removal and Installation"](#).

COMMUNICATION SIGNAL CIRCUIT SATELLITE RADIO TUNER

SATELLITE RADIO TUNER : Description

INFOID:000000007361889

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

SATELLITE RADIO TUNER : Diagnosis Procedure

INFOID:000000007361890

Regarding Wiring Diagram information, refer to [AV-85, "Wiring Diagram"](#).

1.CHECK HARNESS - REQ1

1. Turn ignition switch OFF.
2. Disconnect satellite radio tuner connector M41 and audio unit connector M42.
3. Check continuity between satellite radio tuner harness connector M41 (A) terminal 28 and audio unit harness connector M42 (B) terminal 48.

A		B		Continuity
Connector	Terminal	Connector	Terminal	
M41	28	M42	48	Yes

4. Check continuity between satellite radio tuner harness connector M41 (A) terminal 28 and ground.

A		—	Continuity
Connector	Terminal		
M41	28	Ground	No

Are continuity results as specified?

YES >> GO TO 2

NO >> Repair harness or connector.

2.CHECK HARNESS - TXD

1. Check continuity between satellite radio tuner harness connector M41 (A) terminal 29 and audio unit harness connector M42 (B) terminal 49.

A		B		Continuity
Connector	Terminal	Connector	Terminal	
M41	29	M42	49	Yes

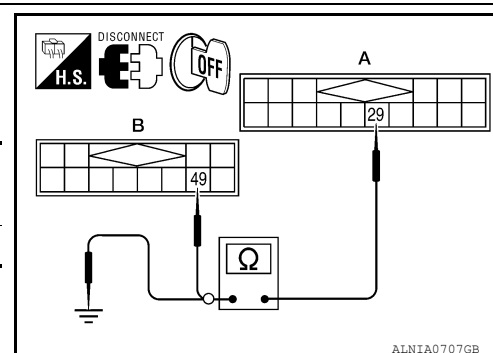
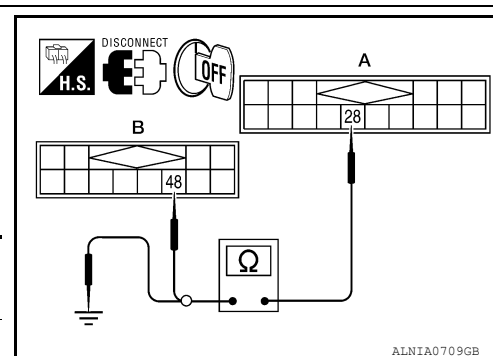
2. Check continuity between satellite radio tuner harness connector M41 (A) terminal 29 and ground.

A		—	Continuity
Connector	Terminal		
M41	29	Ground	No

Are continuity results as specified?

YES >> GO TO 3

NO >> Repair harness or connector.



COMMUNICATION SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO]

3.CHECK HARNESS - RXD

1. Check continuity between satellite radio tuner harness connector M41 (A) terminal 30 and audio unit harness connector M42 (B) terminal 50.

A		B		Continuity
Connector	Terminal	Connector	Terminal	
M41	30	M42	50	Yes

2. Check continuity between satellite radio tuner harness connector M41 (A) terminal 30 and ground.

A		—	Continuity
Connector	Terminal		
M41	30	Ground	No

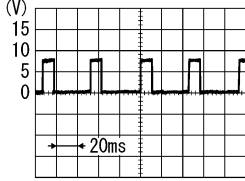
Are continuity results as specified?

YES >> GO TO 4

NO >> Repair harness or connector.

4.CHECK REQ1 SIGNAL

1. Connect satellite radio tuner connector and audio unit connector.
2. Turn ignition switch to ACC
3. Check signal between satellite radio tuner harness connector M41 terminal 28 and ground with CONSULT or oscilloscope.

(+) Reference signal		(-)	Reference signal
Connector	Terminal		
M41	28	Ground	 SKIB3825E

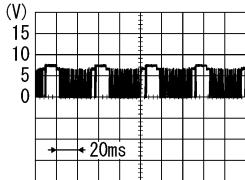
Are voltage readings as specified?

YES >> GO TO 5

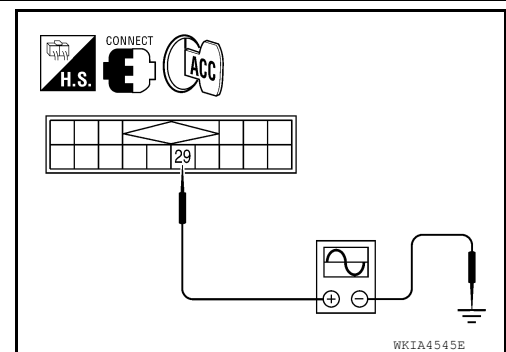
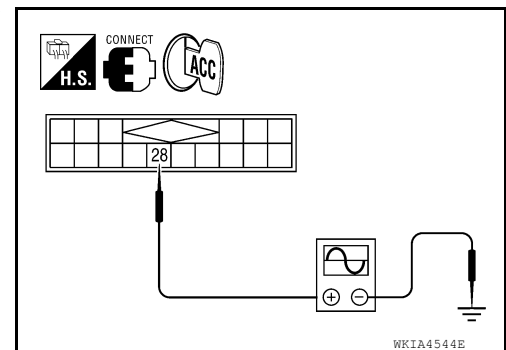
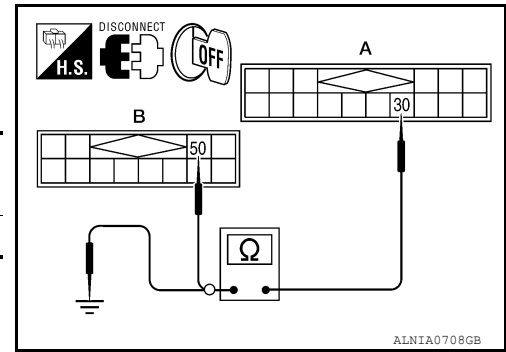
NO >> Replace audio unit. Refer to [AV-104. "Removal and Installation"](#).

5.CHECK TXD SIGNAL

Check signal between satellite radio tuner harness connector M41 terminal 29 and ground with CONSULT or oscilloscope.

(+) Reference signal		(-)	Reference signal
Connector	Terminal		
M41	29	Ground	 SKIB3824E

Are the voltage readings as specified?



COMMUNICATION SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

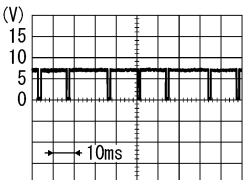
[PREMIUM AUDIO]

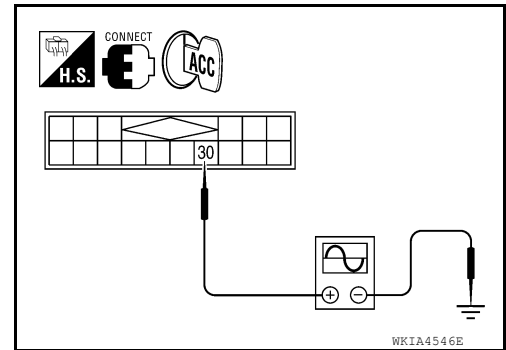
YES >> GO TO 6

NO >> Replace satellite radio tuner. Refer to [AV-118, "Removal and Installation"](#).

6. CHECK RXD SIGNAL

Check signal between satellite radio tuner harness connector M41 terminal 30 and ground with CONSULT or oscilloscope.

(+)		(-)	Reference signal
Connector	Terminal		
M41	30	Ground	 SKIB3826E



Are the voltage readings as specified?

YES >> Replace satellite radio tuner. Refer to [AV-118, "Removal and Installation"](#).

NO >> Replace audio unit. Refer to [AV-104, "Removal and Installation"](#).

SOUND SIGNAL CIRCUIT SATELLITE RADIO TUNER

SATELLITE RADIO TUNER : Description

INFOID:000000007361891

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

SATELLITE RADIO TUNER : Diagnosis Procedure

INFOID:000000007361892

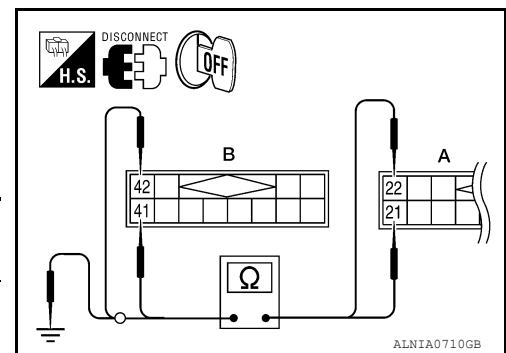
Regarding Wiring Diagram information, refer to [AV-85, "Wiring Diagram"](#).

LEFT CHANNEL

1.CHECK HARNESS

1. Turn ignition switch OFF.
2. Disconnect satellite radio tuner connector M41 and audio unit connector M42.
3. Check continuity between satellite radio tuner connector M41 (A) and audio unit connector M42 (B).

A		B		Continuity
Connector	Terminal	Connector	Terminal	
M41	21	M42	41	Yes
	22		42	



4. Check continuity between satellite radio tuner connector M41 (A) and ground.

A		—	Continuity
Connector	Terminal		
M41	21	Ground	No
	22		

Are continuity results as specified?

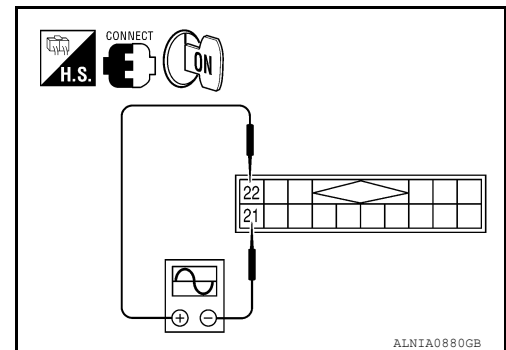
YES >> GO TO 2

NO >> Repair harness or connector.

2.CHECK LEFT CHANNEL AUDIO SIGNAL

1. Connect satellite radio tuner and audio unit.
2. Turn ignition switch ON.
3. Check signal between satellite radio tuner connector M41 terminals 21 and 22 with CONSULT or oscilloscope.

(+) Terminal		(-) Terminal	Reference signal
Connector	Terminal	Terminal	
M41	22	21	



Are voltage readings as specified?

YES >> Replace audio unit. Refer to [AV-104, "Removal and Installation"](#).

SOUND SIGNAL CIRCUIT

[PREMIUM AUDIO]

< DTC/CIRCUIT DIAGNOSIS >

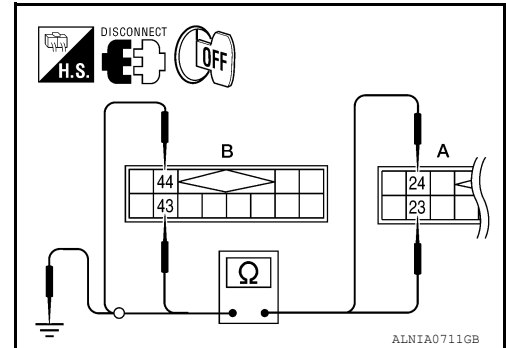
NO >> Replace satellite radio tuner. Refer to [AV-118. "Removal and Installation"](#).

RIGHT CHANNEL

1.CHECK HARNESS

1. Turn ignition switch OFF.
2. Disconnect satellite radio tuner connector M41 and audio unit connector M42.
3. Check continuity between satellite radio tuner M41 (A) and audio unit M42 (B).

A		B		Continuity
Connector	Terminal	Connector	Terminal	
M41	23	M42	43	Yes
	24		44	



4. Check continuity between satellite radio tuner connector M41 (A) and ground.

A		—	Continuity
Connector	Terminal		
M41	23	Ground	No
	24		

Are continuity results as specified?

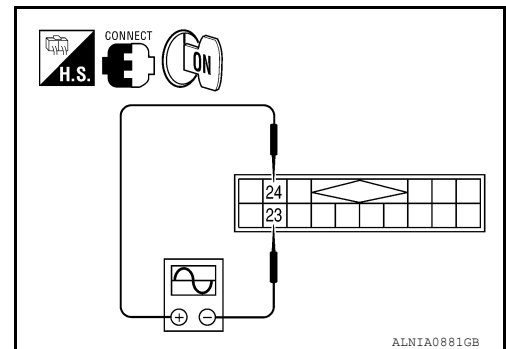
YES >> GO TO 2

NO >> Repair harness or connector.

2.CHECK RIGHT CHANNEL AUDIO SIGNAL

1. Connect satellite radio tuner and audio unit.
2. Turn ignition switch ON.
3. Check signal between satellite radio tuner connector M41 terminals 23 and 24 with CONSULT or oscilloscope.

(+) Terminal		(-) Terminal	Reference signal
Connector	Terminal	Terminal	
M41	24	23	



Are voltage readings as specified?

YES >> Replace audio unit. Refer to [AV-104. "Removal and Installation"](#).

NO >> Replace satellite radio tuner. Refer to [AV-118. "Removal and Installation"](#).

MICROPHONE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO]

MICROPHONE SIGNAL CIRCUIT

Description

INFOID:000000007361893

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

Diagnosis Procedure

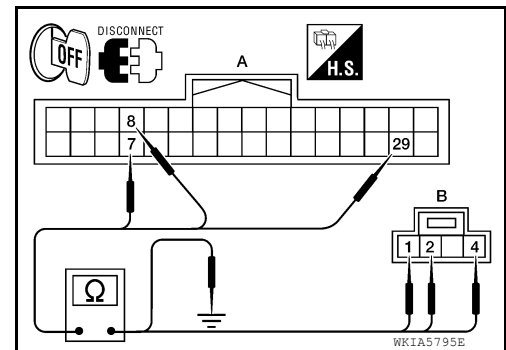
INFOID:000000007361894

Regarding Wiring Diagram information, refer to [AV-85, "Wiring Diagram"](#).

1.CHECK HARNESS BETWEEN BLUETOOTH CONTROL UNIT AND MICROPHONE

1. Turn ignition switch OFF.
2. Disconnect Bluetooth control unit connector B141 and microphone connector R8.
3. Check continuity between Bluetooth control unit harness connector B141 (A) and microphone harness connector R8 (B).

A		B		Continuity
Connector	Terminal	Connector	Terminal	
B141	7	R8	1	Yes
	8		2	
	29		4	



4. Check continuity between Bluetooth control unit harness connector B141 (A) and ground.

A		—	Continuity
Connector	Terminal		
B141	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 B141 and microphone connector R8.
2. Turn ignition switch ON.
3. Check voltage between microphone harness connector R8 terminal 4 and ground.

4 - Ground

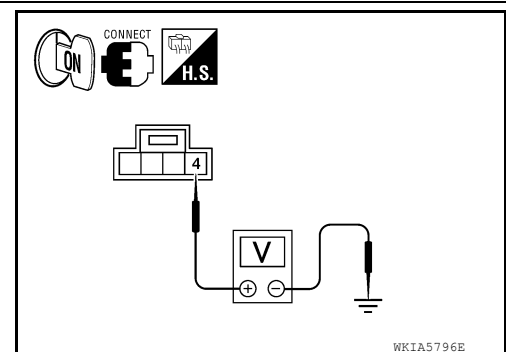
: Approx. 5V

Is voltage reading approx. 5 volts?

YES >> GO TO 3

NO >> Replace Bluetooth control unit. Refer to [AV-111, "Removal and Installation"](#).

3.CHECK MICROPHONE SIGNAL

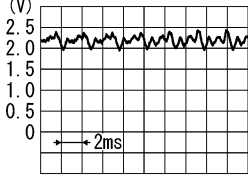


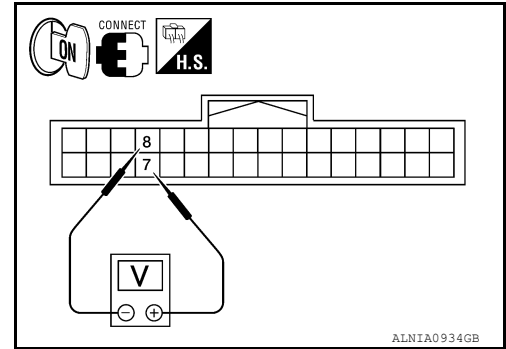
MICROPHONE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO]

Check signal between Bluetooth control unit harness connector B141 terminals 7 and 8 with CONSULT or and oscilloscope.

Connector	(+)	(-)	Reference signal
	Terminal	Terminal	
B141	7	8	While speaking into MIC  PKIB5037J



Are voltage readings as specified?

- YES >> Replace Bluetooth control unit. Refer to [AV-111, "Removal and Installation"](#).
- NO >> Replace microphone. Refer to [AV-113, "Removal and Installation"](#).

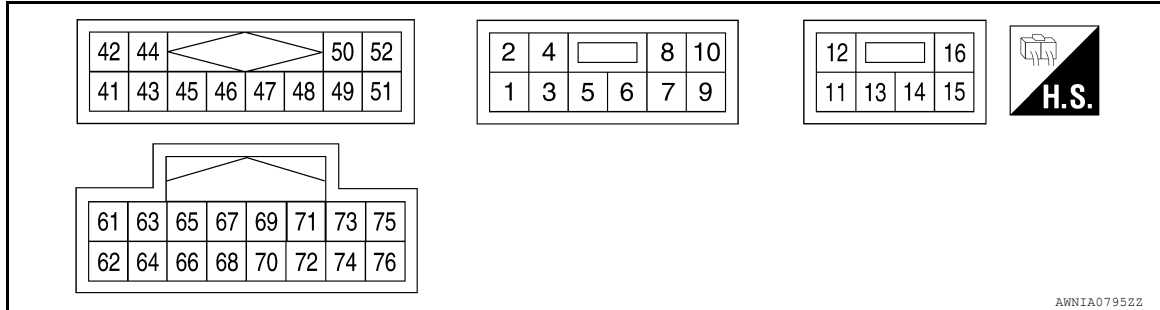
ECU DIAGNOSIS INFORMATION

AUDIO UNIT

Reference Value

INFOID:000000007361895

TERMINAL LAYOUT



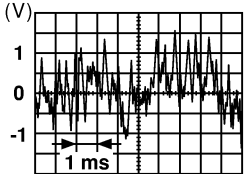
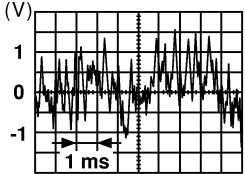
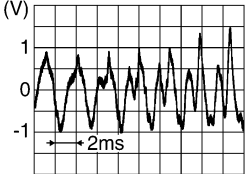
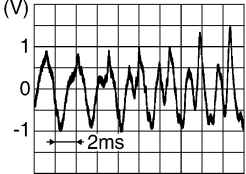
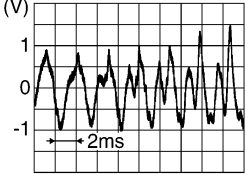
PHYSICAL VALUES

Terminal (Wire color)		Item	Signal input/ output	Condition		Reference value (Approx.)
+	-					
2 (W)	1 (B)	Audio sound signal front LH	Output	Ignition switch ON	Receive audio sig- nal	 SKIA0177E
4 (Y)	3 (BR)	Audio sound signal front RH	Output	Ignition switch ON	Receive audio sig- nal	 SKIA0177E
6 (Y)	Ground	Battery power	Input	-	-	Battery voltage
7 (GR)	Ground	Illumination control signal	Input	Ignition switch ON	Illumination control switch is operated by lighting switch in 1st position.	Changes between 0 and 12V
8 (R)	Ground	Illumination signal	Input	OFF	Lighting switch is in 1st position.	Battery voltage
					Lighting switch is OFF.	0V
10 (G/B)	Ground	ACC signal	Input	Ignition switch ON	-	Battery voltage
12 (G/W)	Ground	Amp ON signal	Output	Ignition switch ON	-	Battery voltage

AUDIO UNIT

< ECU DIAGNOSIS INFORMATION >

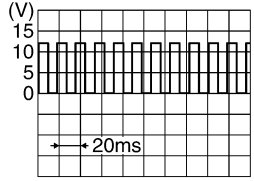
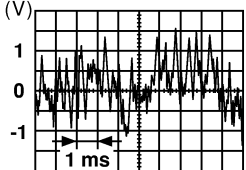
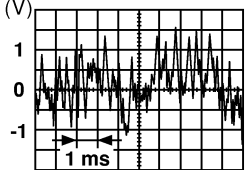
[PREMIUM AUDIO]

Terminal (Wire color)		Item	Signal input/ output	Condition		Reference value (Approx.)
+	-					
14 (BR)	13 (B/R)	Audio sound signal rear LH	Output	Ignition switch ON	Receive audio sig- nal	 SKIA0177E
16 (L)	15 (B/W)	Audio sound signal rear RH	Output	Ignition switch ON	Receive audio sig- nal	 SKIA0177E
42 (R)	41 (G)	Satellite radio au- dio signal LH	Input	Ignition switch ON	Satellite radio tuner operating	 SKIB3609E
44 (B)	43 (W)	Satellite radio au- dio signal RH	Input	Ignition switch ON	Satellite radio tuner operating	 SKIB3609E
48 (O)	-	REQ (SAT→ audio unit)	Input	Ignition switch ON	-	-
49 (P)	-	RX (SAT→ audio unit)	Input	Ignition switch ON	-	-
50 (L)	-	TX (audio unit→- SAT)	Input	Ignition switch ON	-	-
62 (W)	61 (B)	Telephone signal input	Input	Ignition switch ACC/ON	Bluetooth control unit sends audio signal	 SKIB3609E
63 (R)	-	Mute control	-	-	-	-
67	-	Shield	-	Ignition switch ON	-	0V

AUDIO UNIT

< ECU DIAGNOSIS INFORMATION >

[PREMIUM AUDIO]

Terminal (Wire color)		Item	Signal input/ output	Condition		Reference value (Approx.)
+	-					
69 (V)	71 (O)	Steering switch signal A	Input	Ignition switch ON	Pressing 	0V
					Pressing 	0.75
					Pressing VOL up button	2V
					Except for above	5V
70 (LG)	71 (O)	Steering switch signal B	Input	Ignition switch ON	Pressing  switch	0V
					Pressing 	0.75V
					Pressing VOL down button	2V
					Except for above	5 V
73 (SB)	Ground	Vehicle speed signal (8-pulse)	Input	Ignition switch ON	When vehicle speed is approx. 25 MPH (40 km/h)	 PKIA1935E
74 (W)	Ground	Auxiliary audio input RH (+)	Input	Ignition switch ON	Receive audio signal (AUX input)	 SKIA0177E
75 (B)	Ground	Auxiliary audio input LH (+)	Input	Ignition switch ON	Receive audio signal (AUX input)	 SKIA0177E
76 (B)	-	Shield	-	-	-	0V

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SATELLITE RADIO TUNER

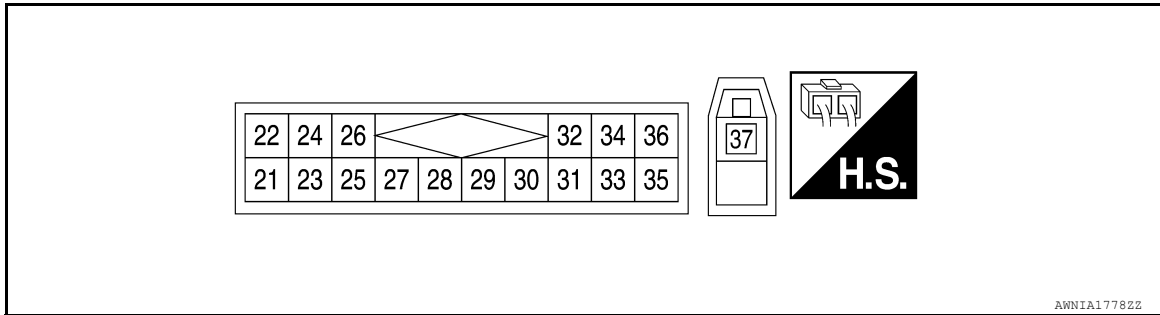
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[PREMIUM AUDIO]

SATELLITE RADIO TUNER

Reference Value

INFOID:000000007361896



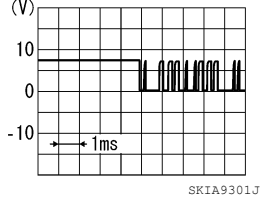
PHYSICAL VALUES

Terminal		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/Output			
22 (R)	21 (G)	Satellite radio sound signal LH	Output	Ignition switch ON	When satellite radio mode is selected	SKIB3609E
24 (B)	23 (W)	Satellite radio sound signal RH	Output	Ignition switch ON	When satellite radio mode is selected	SKIB3609E
28 (O)	Ground	Request signal (SAT→CONT)	Output	Ignition switch ON	When satellite radio mode is selected	SKIA9299J
29 (P)	Ground	Communication signal (SAT→CONT)	Output	Ignition switch ON	When satellite radio mode is selected	SKIA9300J

SATELLITE RADIO TUNER

< ECU DIAGNOSIS INFORMATION >

[PREMIUM AUDIO]

Terminal		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
30 (L)	Ground	Communication signal (CONT→SAT)	Input	Ignition switch ON	When satellite radio mode is selected	
32 (R/B)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
36 (G/B)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
37	—	Satellite antenna	Input	—	—	—

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AUDIO AMP

< ECU DIAGNOSIS INFORMATION >

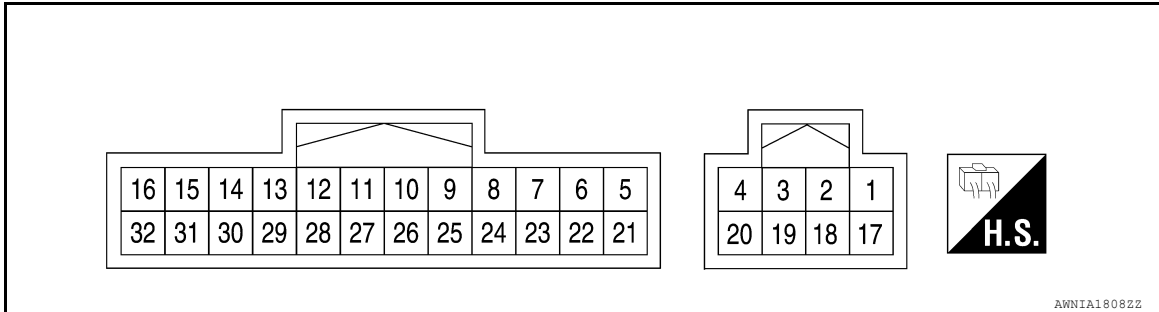
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AUDIO AMP

Reference Value

INFOID:000000007361897

TERMINAL LAYOUT



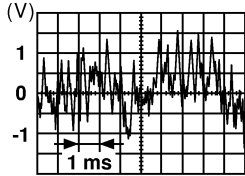
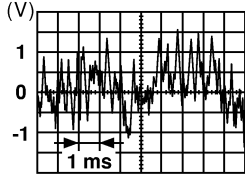
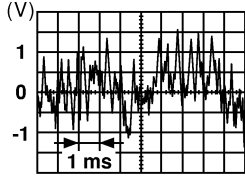
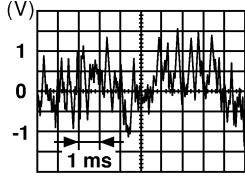
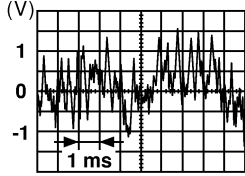
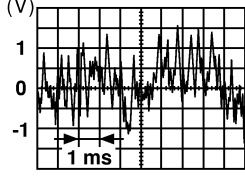
PHYSICAL VALUES

Terminal (wire color)		Item	Signal input/ output	Condition		Reference value (Approx.)
+	-					
1 (Y)	Ground	Battery	Input	-	-	Battery voltage
2 (W)	18 (G)	Subwoofer	Output	Ignition switch ON	Receive audio sig- nal	
3 (O)	19 (BR)	Subwoofer	Output	Ignition switch ON	Receive audio sig- nal	
4 (B)	Ground	Ground	-	Ignition switch ON	-	-
9 (G/W)	Ground	Amp. ON signal	Input	Ignition switch ON	-	More than 6.5V
11 (G)	27 (B)	Rear door speak- er LH and rear door tweeter LH	Output	Ignition switch ON	Receive audio sig- nal	

AUDIO AMP

< ECU DIAGNOSIS INFORMATION >

[PREMIUM AUDIO]

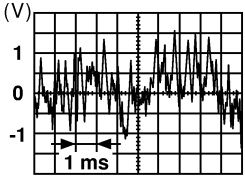
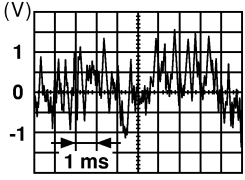
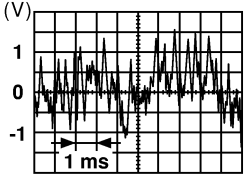
Terminal (wire color)		Item	Signal input/ output	Condition		Reference value (Approx.)
+	-					
12 (GR)	28 (O)	Rear door speaker RH and rear door tweeter RH	Output	Ignition switch ON	Receive audio signal	 SKIA0177E
13 (W)	29 (P)	Front door tweeter RH	Output	Ignition switch ON	Receive audio signal	 SKIA0177E
14 (Y)	30 (GR)	Front tweeter LH	Output	Ignition switch ON	Receive audio signal	 SKIA0177E
15 (BR)	31 (L)	Front door speaker LH	Output	Ignition switch ON	Receive audio signal	 SKIA0177E
16 (LG)	32 (R)	Front door speaker RH	Output	Ignition switch ON	Receive audio signal	 SKIA0177E
17 (R/B)	Ground	Battery	Input	-	-	Battery voltage
20 (B)	Ground	Ground	-	Ignition switch ON	-	-
21 (Y)	5 (BR)	Audio sound signal front RH	Input	Ignition switch ON	Receive audio signal	 SKIA0177E

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AUDIO AMP

< ECU DIAGNOSIS INFORMATION >

[PREMIUM AUDIO]

Terminal (wire color)		Item	Signal input/ output	Condition		Reference value (Approx.)
+	-					
22 (W)	6 (B)	Audio sound sig- nal front LH	Input	Ignition switch ON	Receive audio sig- nal	 SKIA0177E
23 (L)	7 (B/W)	Audio sound sig- nal rear RH	Input	Ignition switch ON	Receive audio sig- nal	 SKIA0177E
24 (BR)	8 (B/R)	Audio sound sig- nal rear LH	Input	Ignition switch ON	Receive audio sig- nal	 SKIA0177E

BLUETOOTH CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

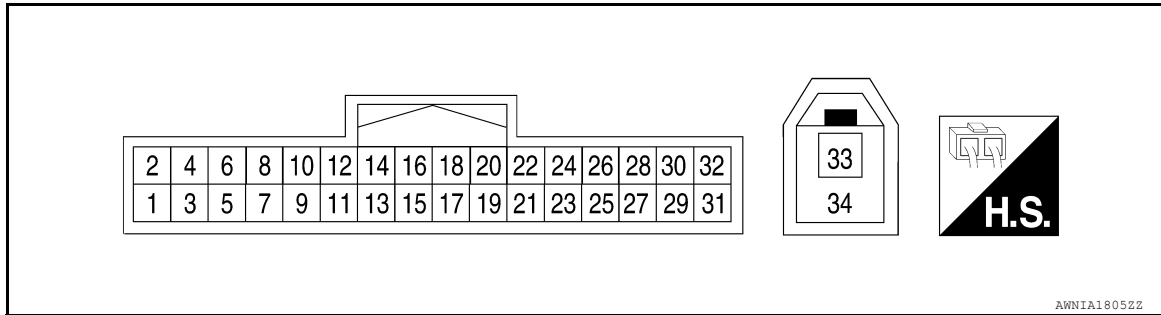
[PREMIUM AUDIO]

BLUETOOTH CONTROL UNIT

Reference Value

INFOID:000000007361898

TERMINAL LAYOUT



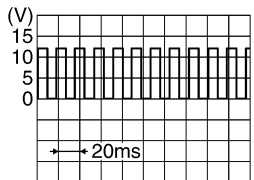
PHYSICAL VALUES

Terminal (wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/ output			
1 (R/B)	Ground	Battery power	Input	-	-	Battery voltage
2 (G/Y)	Ground	ACC power	Input	Ignition switch ACC/ON	-	Battery voltage
3 (W/G)	Ground	IGN power	Input	Ignition switch ON/ START	-	Battery voltage
4 (B)	Ground	Ground	-	Ignition switch ON	-	0V
6	-	Shield	-	-	-	-
7 (G)	8 (L)	MIC in signal	Input	-	-	-
9 (W)	10 (B)	Audio out	Output	Ignition switch ACC/ON	Bluetooth control unit sends audio signal	SKIB3609E
11 (R)	-	Mute control	-	-	-	-
12 (BR)	14 (G)	Steering switch sig- nal A	Input	Ignition switch ON	Pressing	0V
					Pressing	0.75
					Pressing VOL up button	2V
					Except for above	5V

BLUETOOTH CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[PREMIUM AUDIO]

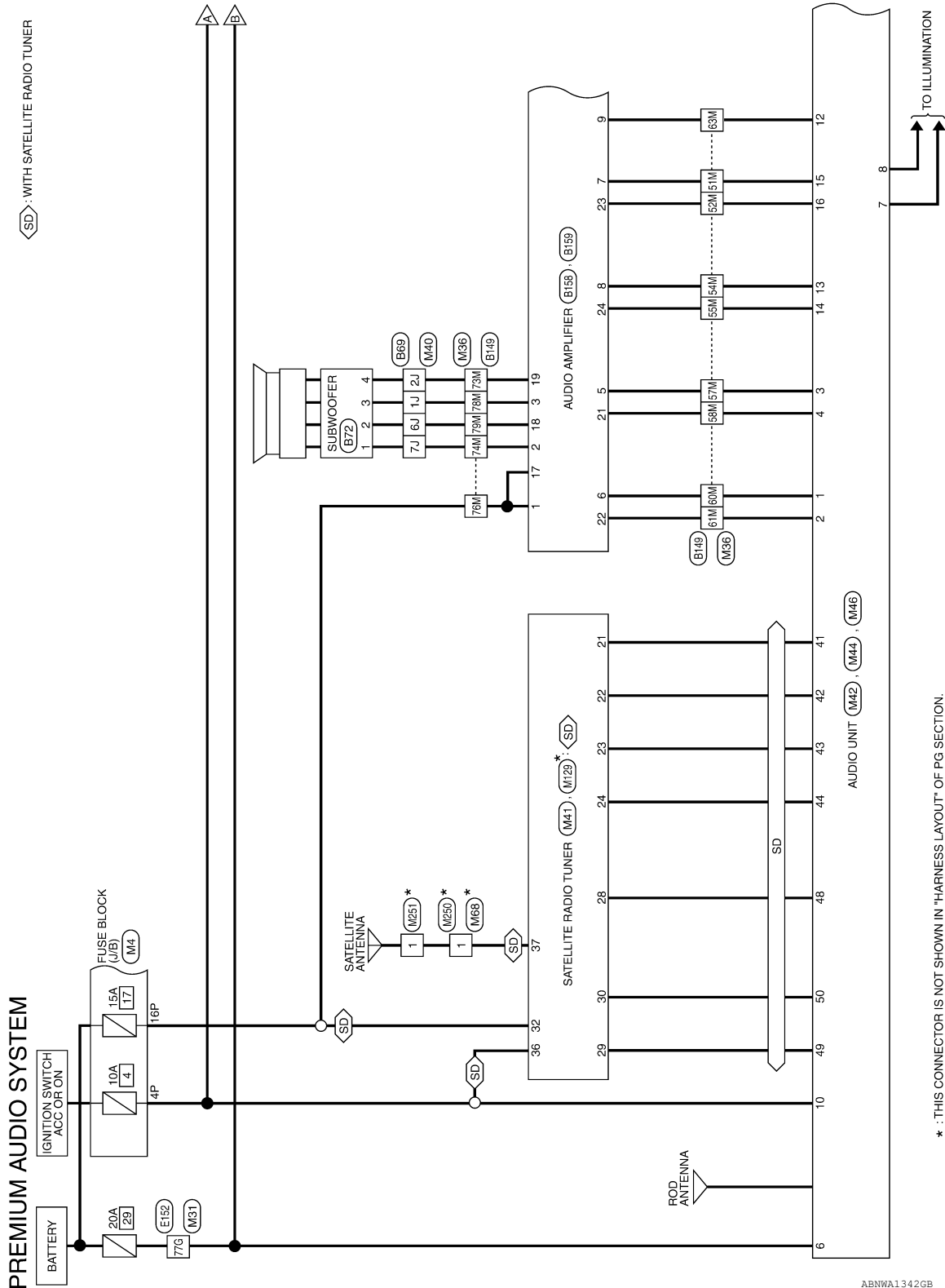
Terminal (wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ output			
13 (L)	14 (G)	Steering switch signal B	Input	Ignition switch ON	Pressing  button	0V
					Pressing  button	0.75V
					Pressing VOL down button	2V
					Except for above	5 V
17 (V)	19 (O)	Steering switch signal A	Output	Ignition switch ON	Pressing  button	0V
					Pressing  button	0.75
					Pressing VOL up button	2V
					Except for above	5V
18 (LG)	19 (O)	Steering switch signal B	Output	Ignition switch ON	Pressing  button	0V
					Pressing  button	0.75V
					Pressing VOL down button	2V
					Except for above	5V
21 (B)	Ground	Ground	–	–	–	0V
24 (B)	Ground	Ground	–	–	–	0V
28 (SB)	Ground	Vehicle speed signal (8-pulse)	Input	Ignition switch ON	When vehicle speed is approx. 25 MPH (40 km/h)	 PKIA1935E
29 (Y)	Ground	Microphone power	Output	Ignition switch ON	–	5V

WIRING DIAGRAM

PREMIUM AUDIO SYSTEM

Wiring Diagram

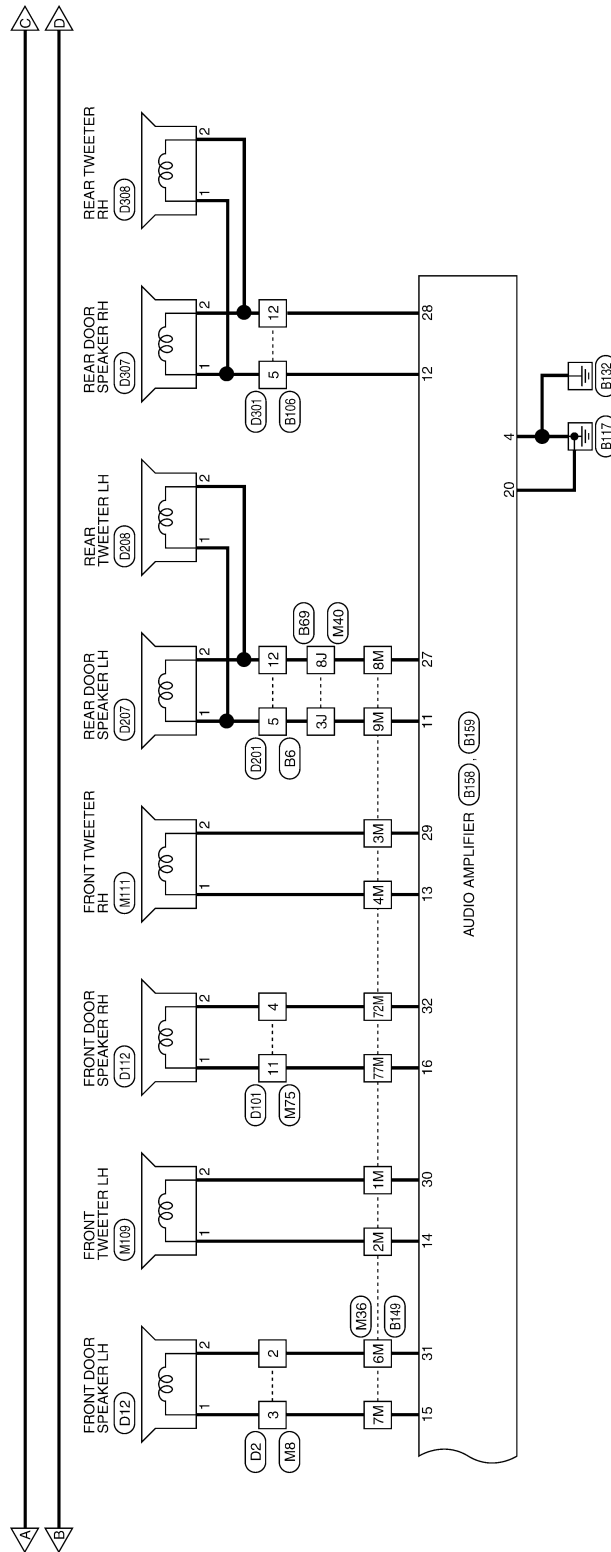
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PREMIUM AUDIO SYSTEM

< WIRING DIAGRAM >

[PREMIUM AUDIO]

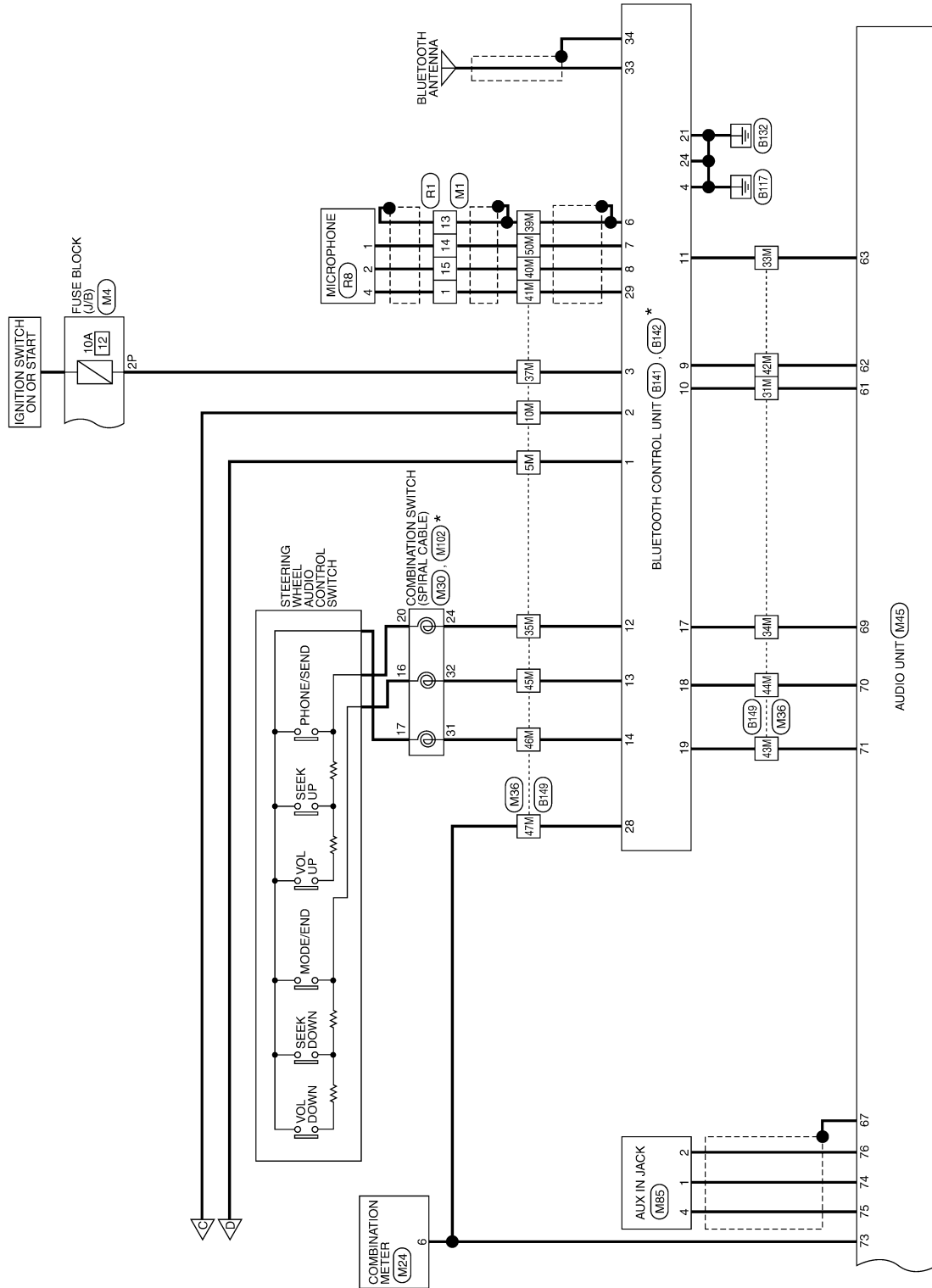


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PREMIUM AUDIO SYSTEM

< WIRING DIAGRAM >

[PREMIUM AUDIO]



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

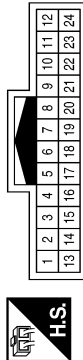
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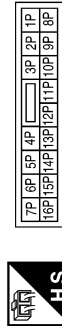
PREMIUM AUDIO SYSTEM CONNECTORS

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



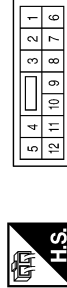
Terminal No.	Color of Wire	Signal Name
1	Y	-
13	SHIELD	-
14	G	-
15	L	-

Connector No.	M4
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



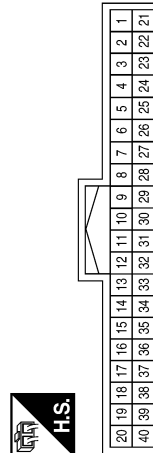
Terminal No.	Color of Wire	Signal Name
2P	W/G	-
4P	G/B	-
16P	R/B	-

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



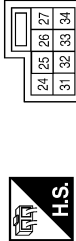
Terminal No.	Color of Wire	Signal Name
2	L	-
3	BR	-

Connector No.	M24
Connector Name	COMBINATION METER
Connector Color	WHITE



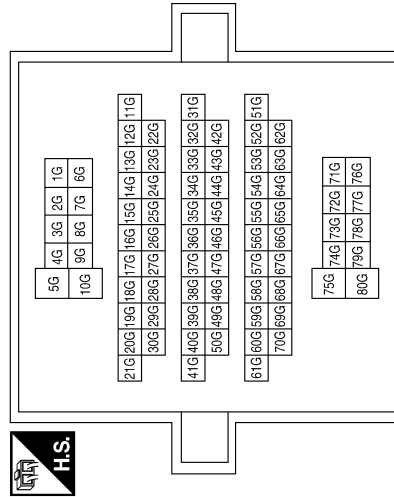
Terminal No.	Color of Wire	Signal Name
6	SB	SPEED OUT 8

Connector No.	M30
Connector Name	COMBINATION SWITCH
Connector Color	GRAY

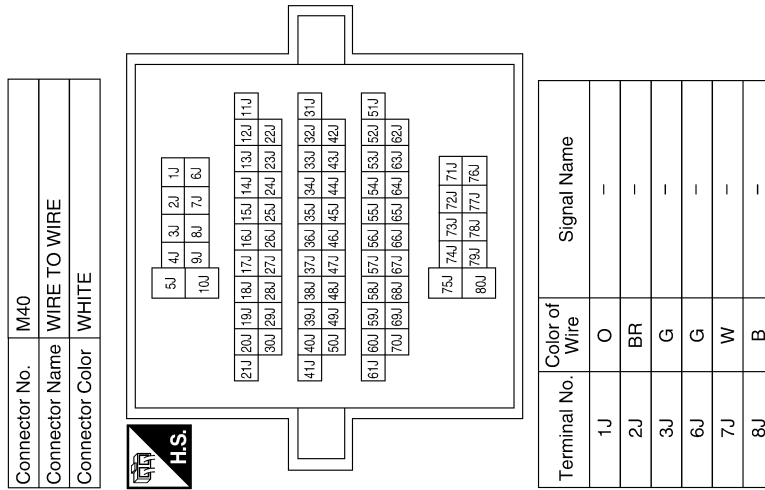


Terminal No.	Color of Wire	Signal Name
24	BR	STRG SW A (UP)
31	G	STRG SW GND
32	L	STRG SW B (DOWN)

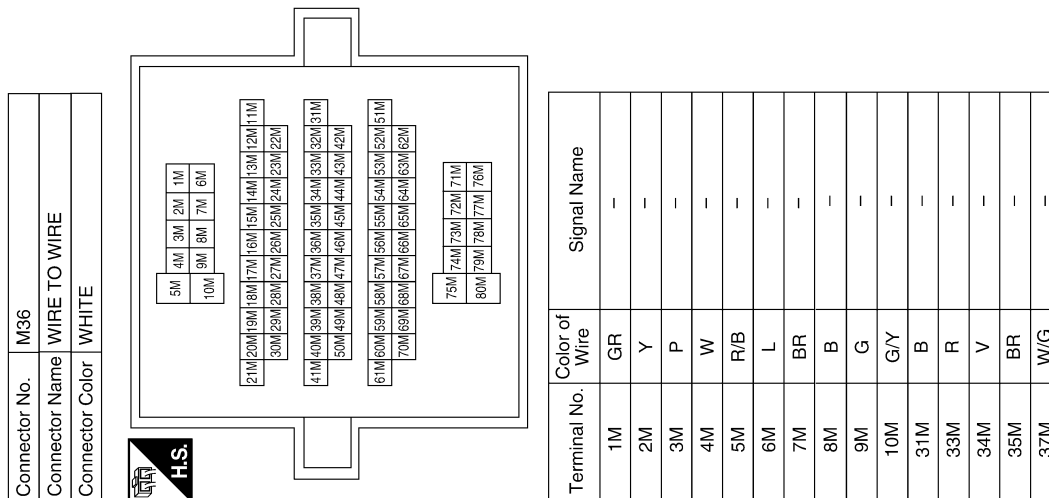
Connector No.	M31
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
77G	Y	-



Terminal No.	Color of Wire	Signal Name
39M	SHIELD	-
40M	L	-
41M	Y	-
42M	W	-
43M	O	-
44M	LG	-
45M	L	-
46M	G	-
47M	SB	-
50M	G	-
51M	B/W	-
52M	L	-
54M	B/R	-
55M	BR	-
57M	BR	-
58M	Y	-
60M	B	-
61M	W	-
63M	G/W	-
72M	R	-
73M	BR	-
74M	W	-
76M	R/B	-
77M	LG	-
78M	O	-
79M	G	-



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PREMIUM AUDIO SYSTEM

< WIRING DIAGRAM >

[PREMIUM AUDIO]

Connector No.	M44
Connector Name	AUDIO UNIT (WITH PREMIUM AUDIO SYSTEM)
Connector Color	WHITE



12	16
11	13 14 15

Terminal No.	Color of Wire	Signal Name
11	—	—
12	G/W	AMP ON/OFF SIG
13	B/R	RRSP LH (-)
14	BR	RRSP LH (+)
15	B/W	RRSP RH (-)
16	L	RRSP RH (+)

Connector No.	M42
Connector Name	AUDIO UNIT (WITH PREMIUM AUDIO SYSTEM)
Connector Color	WHITE



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

Terminal No.	Color of Wire	Signal Name
41	G	L (-)
42	R	L (+)
43	W	R (-)
44	B	R (+)
45	—	—
46	—	—
47	—	—
48	O	REQ
49	P	RX
50	L	TX
51	—	—
52	—	—

Connector No.	M41
Connector Name	SATELLITE RADIO TUNER
Connector Color	WHITE



22 24 26	32 34 36
21 23 25 27 28 29 30 31 33 35	

Terminal No.	Color of Wire	Signal Name
21	G	SAT LCH (-)
22	R	SAT LCH (+)
23	W	SAT RCH (-)
24	B	SAT RCH (+)
25	—	—
26	—	—
27	—	—
28	O	REQ1
29	P	TXD
30	L	RXD
31	—	—
32	R/B	BACKUP
33	—	—
34	—	—
35	—	—
36	G/B	ACC

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PREMIUM AUDIO SYSTEM

< WIRING DIAGRAM >

[PREMIUM AUDIO]

Connector No.	M46
Connector Name	AUDIO UNIT (WITH PREMIUM AUDIO SYSTEM)
Connector Color	WHITE



2	4	8	10
1	3	5	6
7	9		

Terminal No.	Color of Wire	Signal Name
1	B	FRSP LH (-)
2	W	FRSP LH (+)
3	BR	FRSP RH (-)
4	Y	FRSP RH (+)
5	-	-
6	Y	BAT (BACK UP)
7	GR	ILL CONT
8	R	LIGHT SW
9	-	-
10	G/B	ACC

Terminal No.	Color of Wire	Signal Name
66	-	-
67	SHIELD	SHIELD
68	-	-
69	V	REMOTE_A_SWC
70	LG	REMOTE_B_SWC
71	O	REMOTE_GND_SWC
72	-	-
73	SB	SPEED SIGNAL
74	W	AUX_R+
75	B	AUX_L+
76	R	AUX_GND

Connector No.	M45
Connector Name	AUDIO UNIT (WITH PREMIUM AUDIO SYSTEM)
Connector Color	WHITE



61	63	65	67	69	71	73	75
62	64	66	68	70	72	74	76

Terminal No.	Color of Wire	Signal Name
61	B	TEL_SIG_INPUT (-)
62	W	TEL_SIG_INPUT (+)
63	R	TEL_SIG_ON_TRIG
64	-	-
65	-	-

Connector No.	M85
Connector Name	AUX IN JACK
Connector Color	WHITE



4	3	2	1
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Terminal No.	Color of Wire	Signal Name
1	W	R+
2	R	COMMON
4	B	L+

Connector No.	M75
Connector Name	WIRE TO WIRE
Connector Color	WHITE



5	4	3	2	1
12	11	10	9	8
7	6			

Terminal No.	Color of Wire	Signal Name
4	R	-
11	LG	-

Connector No.	M68
Connector Name	WIRE TO WIRE
Connector Color	VIOLET



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Terminal No.	Color of Wire	Signal Name
1	-	-

ABNIA3360GB

PREMIUM AUDIO SYSTEM

< WIRING DIAGRAM >

[PREMIUM AUDIO]

Connector No.	M102
Connector Name	COMBINATION SWITCH
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
16	L	—
17	BR	—
20	W	—

Connector No.	M109
Connector Name	FRONT TWEETER LH
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
1	Y	— (WITH PREMIUM AUDIO SYSTEM)
2	GR	— (WITH PREMIUM AUDIO SYSTEM)

Connector No.	M111
Connector Name	FRONT TWEETER RH
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
1	W	—
2	P	— (WITH PREMIUM AUDIO SYSTEM)

Connector No.	M129
Connector Name	SATELLITE RADIO TUNER
Connector Color	VIOLET



Terminal No.	Color of Wire	Signal Name
37	—	—

Connector No.	M250
Connector Name	WIRE TO WIRE
Connector Color	VIOLET



Terminal No.	Color of Wire	Signal Name
1	—	—

Connector No.	M251
Connector Name	SATELLITE ANTENNA
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
1	—	—

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PREMIUM AUDIO SYSTEM

< WIRING DIAGRAM >

[PREMIUM AUDIO]

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

1	2	3	4	5
6	7	8	9	10
11	12			



Terminal No.	Color of Wire	Signal Name
5	G	-
12	B	-

Terminal No.	Color of Wire	Signal Name
77G	Y	-

Connector No.	E152
Connector Name	WIRE TO WIRE
Connector Color	WHITE

1G	2G	3G	4G	5G
6G	7G	8G	9G	10G



11G	12G	13G	14G	15G	16G	17G	18G	19G	20G	21G
22G	23G	24G	25G	26G	27G	28G	29G	30G		
31G	32G	33G	34G	35G	36G	37G	38G	39G	40G	41G
42G	43G	44G	45G	46G	47G	48G	49G	50G		
51G	52G	53G	54G	55G	56G	57G	58G	59G	60G	61G
62G	63G	64G	65G	66G	67G	68G	69G	70G		

71G	72G	73G	74G	75G
76G	77G	78G	79G	80G

Connector No.	B72
Connector Name	SUBWOOFER
Connector Color	WHITE

1	2	3	4
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Terminal No.	Color of Wire	Signal Name
1	W	REAR LEFT (+)
2	G	REAR LEFT (-)
3	O	REAR RIGHT (+)
4	BR	REAR RIGHT (-)

Terminal No.	Color of Wire	Signal Name
1J	O	-
2J	BR	-
3J	G	-
6J	G	-
7J	W	-
8J	B	-

Connector No.	B69
Connector Name	WIRE TO WIRE
Connector Color	WHITE

1J	2J	3J	4J	5J
6J	7J	8J	9J	10J



11J	12J	13J	14J	15J	16J	17J	18J	19J	20J	21J
22J	23J	24J	25J	26J	27J	28J	29J	30J		
31J	32J	33J	34J	35J	36J	37J	38J	39J	40J	41J
42J	43J	44J	45J	46J	47J	48J	49J	50J		
51J	52J	53J	54J	55J	56J	57J	58J	59J	60J	61J
62J	63J	64J	65J	66J	67J	68J	69J	70J		

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PREMIUM AUDIO SYSTEM

< WIRING DIAGRAM >

[PREMIUM AUDIO]

Terminal No.	Color of Wire	Signal Name
12	BR	LAD IN1
13	L	LAD IN2
14	G	LAD IN GND
15	-	-
16	-	-
17	V	LAD OUT1
18	LG	LAD OUT2
19	O	LAD OUT GND
20	-	-
21	B	CONT 2
22	-	-
23	-	-
24	B	CONT 5
25	-	-
26	-	-
27	-	-
28	SB	SPEED SIGNAL
29	Y	MIC PWR
30	-	-
31	-	-
32	-	-

Connector No.	B141
Connector Name	BLUETOOTH CONTROL UNIT
Connector Color	WHITE



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

Terminal No.	Color of Wire	Signal Name
1	R/B	BATT
2	G/Y	ACC
3	W/G	IGN
4	B	GND
5	-	-
6	SHIELD	MIC_SHIELD
7	G	MIC_IN+
8	L	MIC_IN-
9	W	AUDIO_OUT+
10	B	AUDIO_OUT-
11	R	MUTE_CONTROL

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

1	2	3	4	5
6	7	8	9	10
11	12			



Terminal No.	Color of Wire	Signal Name
5	GR	-
12	O	-

Connector No.	B142
Connector Name	BLUETOOTH CONTROL UNIT
Connector Color	BLACK



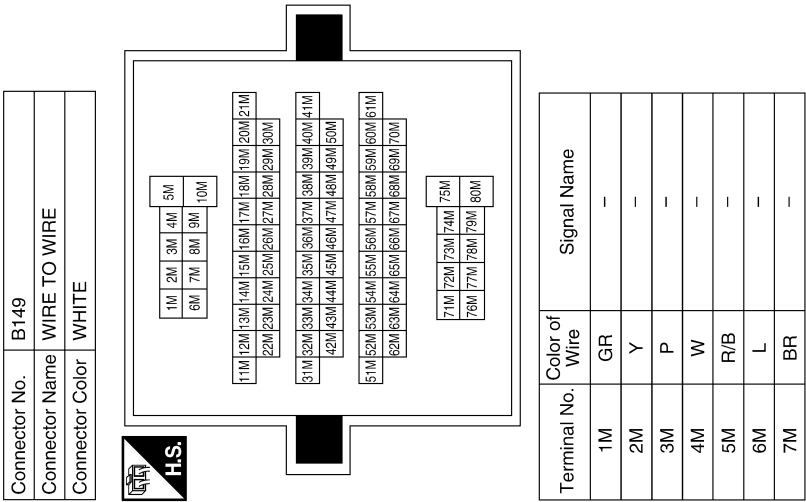
33	34
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Terminal No.	Color of Wire	Signal Name
33	B	BT ANTENNA
34	SHIELD	BT ANTENNA SHIELD

ABNIA2724GB

Terminal No.	Color of Wire	Signal Name
52M	L	-
54M	B/R	-
55M	BR	-
57M	BR	-
58M	Y	-
60M	B	-
61M	W	-
63M	G/W	-
72M	R	-
73M	BR	-
74M	W	-
76M	R/B	-
77M	LG	-
78M	O	-
79M	G	-

Terminal No.	Color of Wire	Signal Name
8M	B	-
9M	G	-
10M	G/Y	-
31M	B	-
33M	R	-
34M	V	-
35M	BR	-
37M	W/G	-
39M	SHIELD	-
40M	L	-
41M	Y	-
42M	W	-
43M	O	-
44M	LG	-
45M	L	-
46M	G	-
47M	SB	-
50M	G	-
51M	B/W	-



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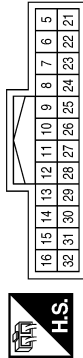
PREMIUM AUDIO SYSTEM

< WIRING DIAGRAM >

[PREMIUM AUDIO]

Terminal No.	Color of Wire	Signal Name
13	W	FR TW (+)
14	Y	FR TW (+)
15	BR	FRSP LH OUT (+)
16	LG	FRSP RH OUT (+)
21	Y	FRSP RH (+) IN
22	W	FRSP LH (+) IN
23	L	RRSP RH (+) IN
24	BR	RRSP LH (+) IN
25	-	-
26	-	-
27	B	RRSP LH OUT (-)
28	O	RRSP RH OUT (-)
29	P	FR TW (-)
30	GR	FR TW (-)
31	L	FRSP LH OUT (-)
32	R	FRSP RH OUT (-)

Connector No.	B159
Connector Name	AUDIO AMPLIFIER
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
5	BR	FRSP RH (-) IN
6	B	FRSP LH (-) IN
7	B/W	RRSP RH (-) IN
8	B/R	RRSP LH (-) IN
9	G/W	AMP ON/OFF SIGNAL
10	-	-
11	G	RRSP LH OUT (+)
12	GR	RRSP RH OUT (+)

Connector No.	B158
Connector Name	AUDIO AMPLIFIER
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	Y	BAT
2	W	WOOFER(+1)
3	O	WOOFER(+2)
4	B	GND
17	R/B	BAT
18	G	WOOFER(-1)
19	BR	WOOFER(-2)
20	B	GND

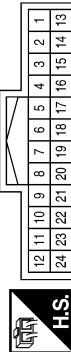
Connector No.	D2
Connector Name	WIRE TO WIRE
Connector Color	BROWN



Connector No.	R8
Connector Name	MICROPHONE
Connector Color	WHITE



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



Terminal No.	Color of Wire	Signal Name
2	L/R	-
3	L/W	-

Terminal No.	Color of Wire	Signal Name
1	G	MIC OUT +
2	L	MIC OUT -
4	Y	MIC POWER

Terminal No.	Color of Wire	Signal Name
1	Y	-
13	SHIELD	-
14	G	-
15	L	-

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PREMIUM AUDIO SYSTEM

< WIRING DIAGRAM >

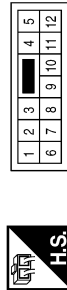
[PREMIUM AUDIO]

Connector No.	D112
Connector Name	FRONT DOOR SPEAKER RH
Connector Color	WHITE



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

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



Terminal No.	Color of Wire	Signal Name
4	L/B	-
11	W/B	-

Connector No.	D12
Connector Name	FRONT DOOR SPEAKER LH
Connector Color	WHITE



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

Connector No.	D208
Connector Name	REAR TWEETER LH
Connector Color	BROWN



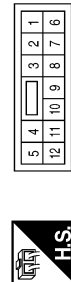
Terminal No.	Color of Wire	Signal Name
1	L	-
2	O	-

Connector No.	D207
Connector Name	REAR DOOR SPEAKER LH
Connector Color	WHITE



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

Connector No.	D201
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
5	L	-
12	O	-

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PREMIUM AUDIO SYSTEM

< WIRING DIAGRAM >

[PREMIUM AUDIO]

Connector No.	D308
Connector Name	REAR TWEETER RH
Connector Color	BROWN



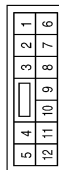
Terminal No.	Color of Wire	Signal Name
1	L	—
2	O	—

Connector No.	D307
Connector Name	REAR DOOR SPEAKER RH
Connector Color	WHITE



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

Connector No.	D301
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
5	L	—
12	O	—

ABNIA2728GB

SYMPTOM DIAGNOSIS

AUDIO SYSTEM

Symptom Table

INFOID:000000007361900

AUDIO SYSTEM

Symptom	Possible cause	Reference page
Inoperative	- Audio unit power supply and ground circuit - Audio unit	AV-45 AV-43
Steering switch does not operate	- Steering switch - Audio unit	AV-66 AV-43
All speakers do not sound	- Speaker circuit shorted to ground - Audio unit - Audio amplifier ON signal - Audio amplifier power supply and ground circuit - Audio amplifier	AV-85 AV-43 AV-65 AV-46 AV-105
One or several speakers do not sound	- Front door speaker - Front tweeter - Rear door speaker - Rear door tweeter - Subwoofer	AV-50 AV-53 AV-56 AV-59 AV-62
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	AV-43
CD cannot be ejected		
The CD cannot be played		
The sound skips, stops suddenly, or is distorted		

SATELLITE RADIO

Symptom	Possible cause	Reference page
Inoperative	- Satellite radio tuner power supply and ground circuit - Satellite radio tuner communication circuit - Satellite radio tuner	AV-45 AV-68 AV-118
Right or left channel does not sound	- Satellite radio tuner right channel audio signal circuit - Satellite radio tuner left channel audio signal circuit - Satellite radio tuner	AV-71 AV-118

HANDS-FREE PHONE

Symptom	Possible cause	Reference page
Inoperative	- Bluetooth control unit power supply and ground circuit - Bluetooth control unit	AV-47 AV-44
Steering switch does not operate	- Steering switch - Bluetooth control unit	AV-66 AV-44
Voice activated control does not activate	- Microphone - Steering switch - Bluetooth control unit	AV-48 AV-66 AV-44

NORMAL OPERATING CONDITION

Description

INFOID:000000007361901

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.		• 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:000000007361902

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

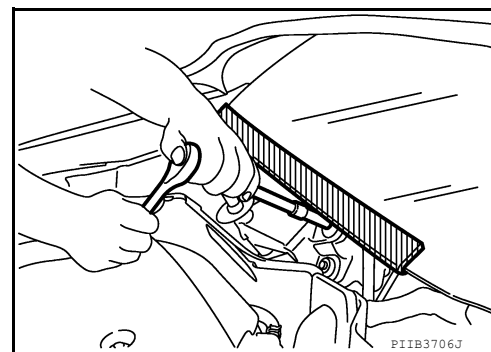
WARNING:

- 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.

Precaution for Procedure without Cowl Top Cover

INFOID:000000007837615

When performing the procedure after removing cowl top cover, cover the lower end of windshield with urethane, etc.



Precaution for Work

INFOID:000000007361903

- 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.

PRECAUTIONS

< PRECAUTION >

[PREMIUM AUDIO]

-
- 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.

PREPARATION

< PREPARATION >

[PREMIUM AUDIO]

PREPARATION

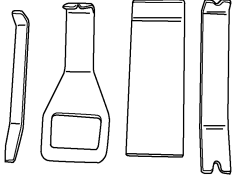
PREPARATION

Special Service Tool

INFOID:0000000007361904

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



AWJIA04832Z

Commercial Service Tools

INFOID:0000000007361905

Tool name	Description
Power tool	Loosening bolts, nuts and screws



PIIB1407E

AV

REMOVAL AND INSTALLATION

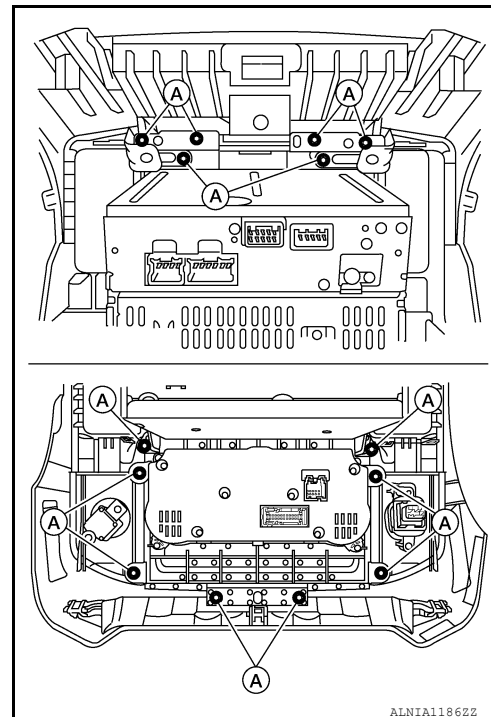
AUDIO UNIT

Removal and Installation

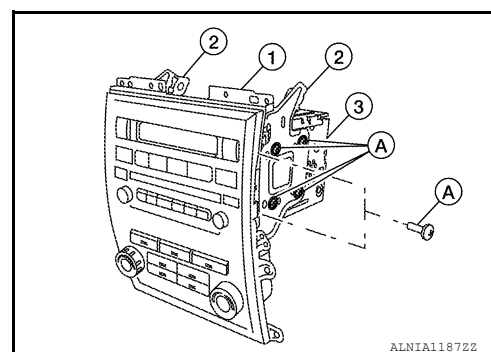
INFOID:000000007361906

REMOVAL

1. Remove the cluster lid C. Refer to [IP-15. "Removal and Installation"](#).
2. Remove the RH and LH ventilator grilles. Refer to [VTL-21. "Removal and Installation"](#).
3. Remove the audio unit assembly screws (A), then remove the audio unit assembly, from cluster lid C.



4. Remove the audio unit screws (A), using power tool.
5. Remove the audio unit brackets (2), then pull out the audio unit (3) from the audio control panel (1).



INSTALLATION

Installation is in the reverse order of removal.

AUDIO AMP

Removal and Installation

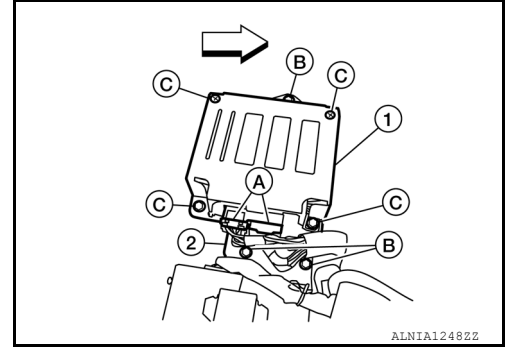
INFOID:000000007361907

REMOVAL

NOTE:

It is not necessary to remove the RH front seat from the vehicle.

1. Remove the RH front seat bolts, disconnect the RH front seat harness connectors. Refer to [SE-17, "Removal and Installation"](#).
2. Position the RH front seat assembly as necessary to access the audio amp (1) and remove the audio amp kick shield screws (C).
↶: Vehicle front
3. Disconnect the audio amp harness connectors (A) and remove the audio amp (1) from the bracket (2).
4. Remove the audio amp bracket screws (B) and remove audio amp bracket (2).



INSTALLATION

Installation is in the reverse order of removal.

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FRONT TWEETER

Removal and Installation

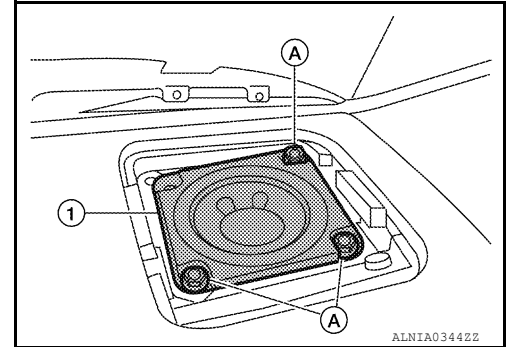
INFOID:000000007361908

REMOVAL

CAUTION:

Use a suitable tool to prevent damage to the front tweeter speaker grille trim and the instrument panel.

1. Remove the front tweeter grille.
2. Remove the front tweeter screws (A).
3. Pull out the front tweeter speaker (1) and disconnect front tweeter connector, then remove the front tweeter speaker (1).



INSTALLATION

Installation is in the reverse order of removal.

FRONT DOOR SPEAKER

< REMOVAL AND INSTALLATION >

[PREMIUM AUDIO]

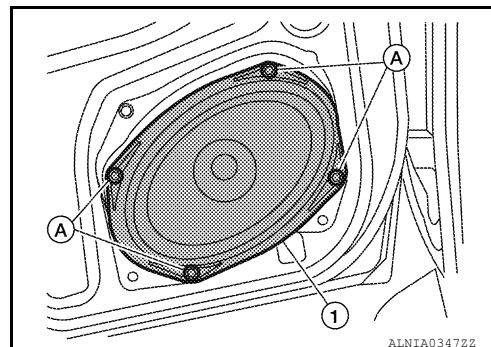
FRONT DOOR SPEAKER

Removal and Installation

INFOID:000000007361909

REMOVAL

1. Remove the front door finisher. Refer to [INT-14, "Removal and Installation"](#).
2. Remove the front door speaker screws (A).
3. Pull out the front door speaker (1), and 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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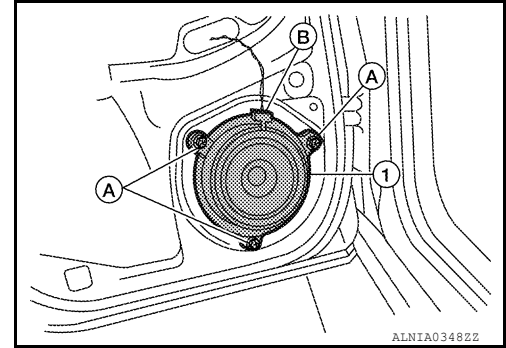
REAR DOOR SPEAKER

Removal and Installation - Rear Door Speaker

INFOID:000000007361910

REMOVAL

1. Remove the rear door finisher. Refer to [INT-14, "Removal and Installation"](#).
2. Remove the rear door speaker screws (A).
3. Disconnect the rear door speaker connector (B) and remove rear door speaker (1).



INSTALLATION

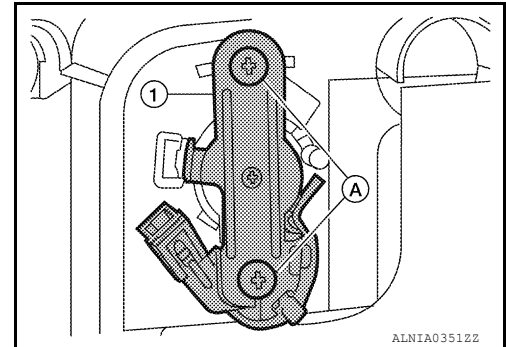
Installation is in the reverse order of removal.

Removal and Installation - Rear Tweeter

INFOID:000000007361911

REMOVAL

1. Remove rear door finisher. Refer to [INT-14, "Removal and Installation"](#).
2. Remove the rear tweeter screws (A) and remove the rear tweeter (1).



INSTALLATION

Installation is in the reverse order of removal.

STEERING SWITCH

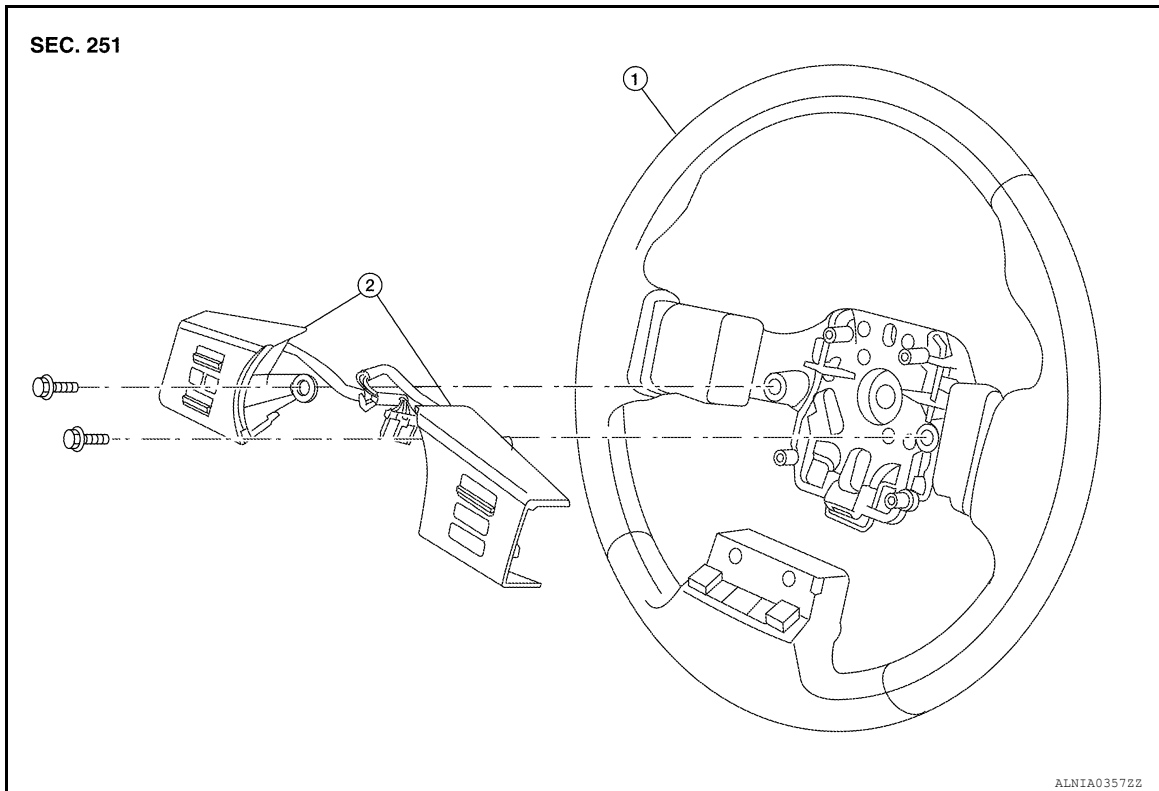
< REMOVAL AND INSTALLATION >

[PREMIUM AUDIO]

STEERING SWITCH

Removal and Installation

INFOID:000000007361912



1. Steering wheel

2. Steering wheel audio control switches

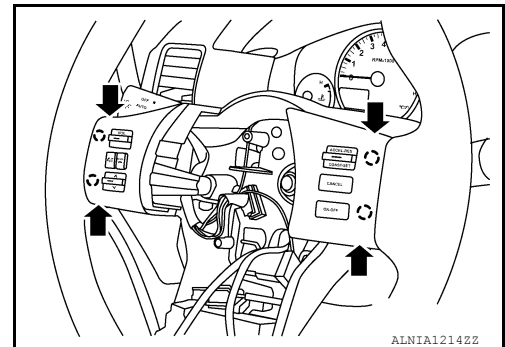
REMOVAL

1. Remove the driver air bag module. Refer to [SR-4, "Removal and Installation"](#).
2. Remove the steering wheel audio control switch assembly screws.
3. Disconnect the steering wheel audio control switches connector.
4. Remove the steering wheel audio control switches by pulling on steering wheel audio control switches to release the pawls.

CAUTION:

Do not tilt steering wheel audio control switches during removal or damage may occur to the pawls.

○: Pawl



INSTALLATION

Installation is in the reverse order of removal.

SUBWOOFER

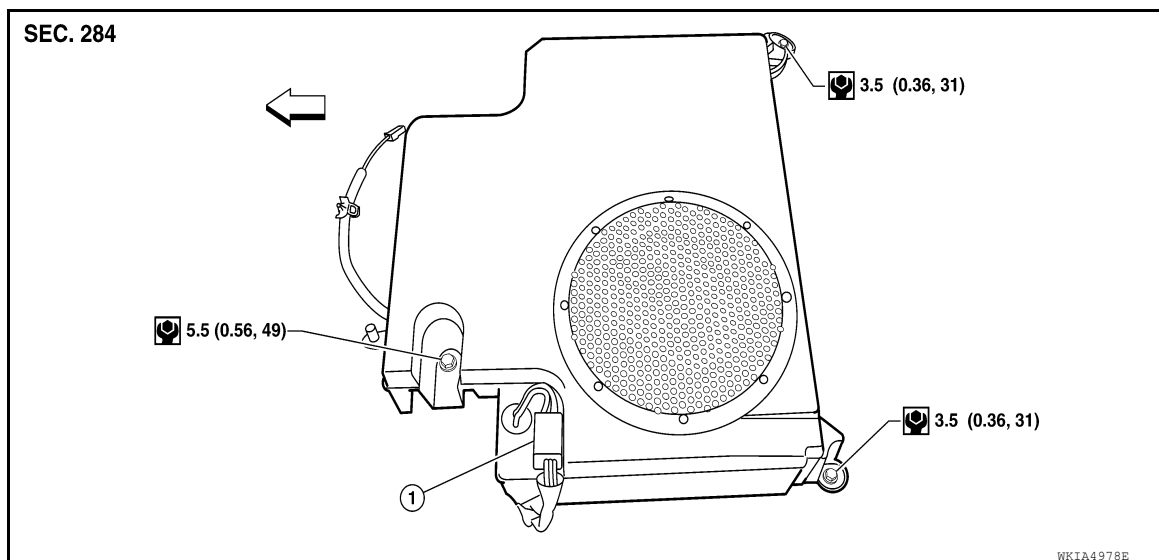
< REMOVAL AND INSTALLATION >

[PREMIUM AUDIO]

SUBWOOFER

Removal and Installation

INFOID:000000007361913



1. Subwoofer connector

← Vehicle front

REMOVAL

1. Remove the LH front seat. Refer to [SE-17, "Removal and Installation"](#).
2. Remove subwoofer bolts.
3. Disconnect the subwoofer connector and remove the subwoofer.

INSTALLATION

Installation is in the reverse order of removal.

BLUETOOTH CONTROL UNIT

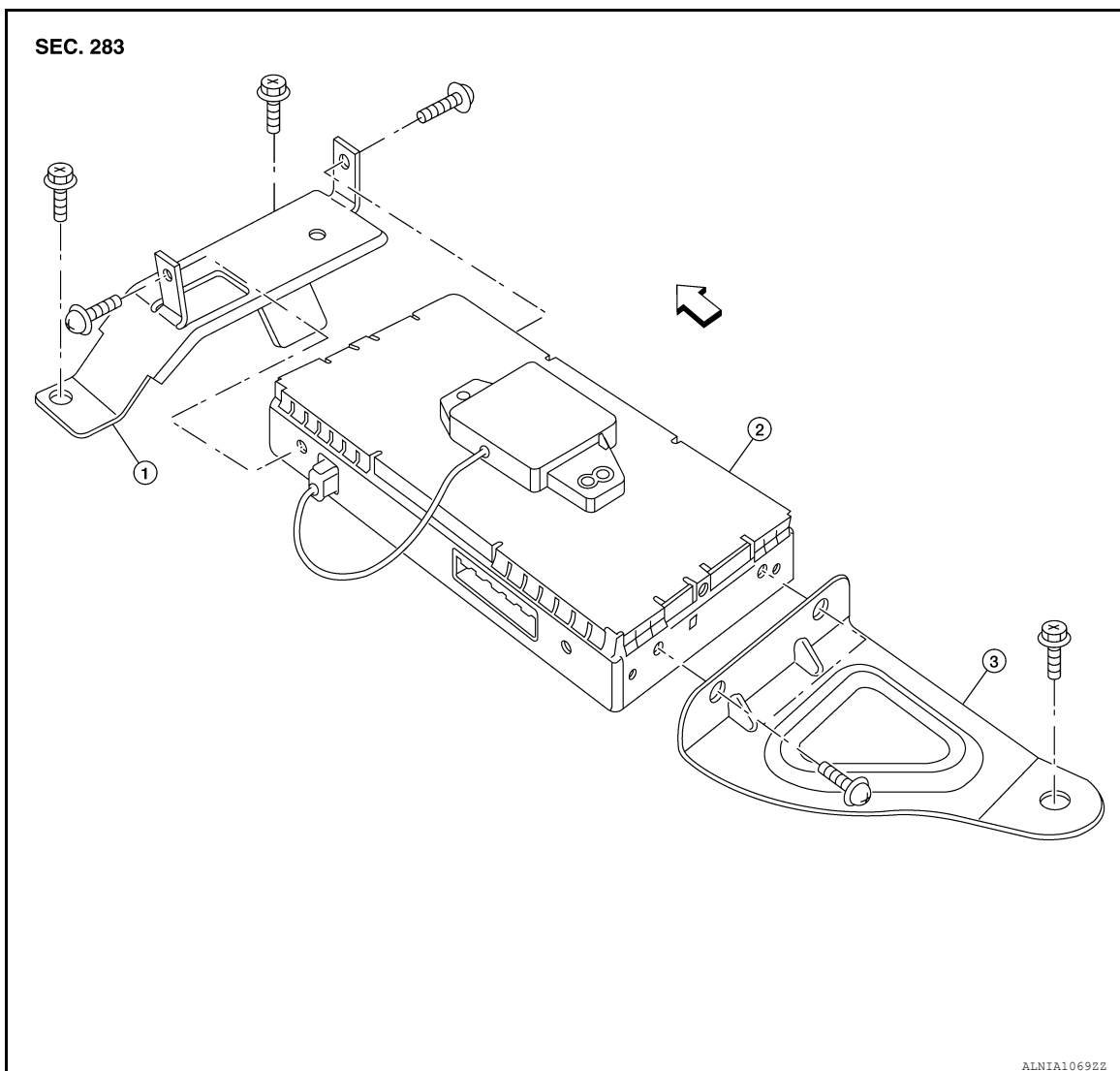
< REMOVAL AND INSTALLATION >

[PREMIUM AUDIO]

BLUETOOTH CONTROL UNIT

Removal and Installation

INFOID:000000007361914

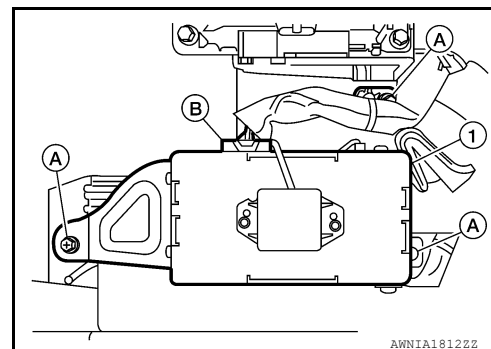


1. Bluetooth control unit front bracket 2. Bluetooth control unit/antenna 3. Bluetooth control unit rear bracket

↩ Vehicle front

REMOVAL

1. Remove the RH front seat bolts, disconnect the RH front seat harness connectors. Refer to [SE-17, "Removal and Installation"](#).
2. Disconnect the Bluetooth control unit harness connector (B).
3. Remove the Bluetooth control unit screws (A), then remove the Bluetooth control unit assembly (1).
4. Remove the Bluetooth control unit bracket screws and remove the Bluetooth control unit front and rear brackets.



INSTALLATION

Installation is in the reverse order of removal.

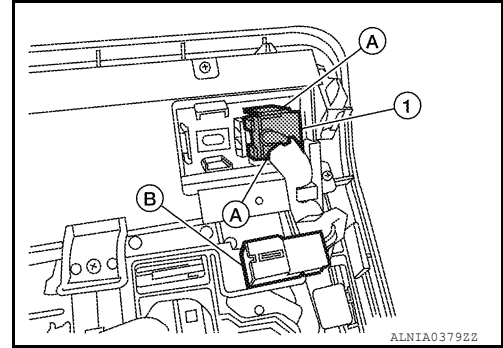
MICROPHONE

Removal and Installation

INFOID:000000007361915

REMOVAL

1. Remove the front room/map lamp assembly. Refer to [INL-58. "Removal and Installation"](#).
2. Detach the Bluetooth microphone (1) from the front room/map lamp assembly tabs (A).
3. Disconnect the Bluetooth microphone connector (B) and remove the Bluetooth microphone (1).



INSTALLATION

Installation is in the reverse order of removal.

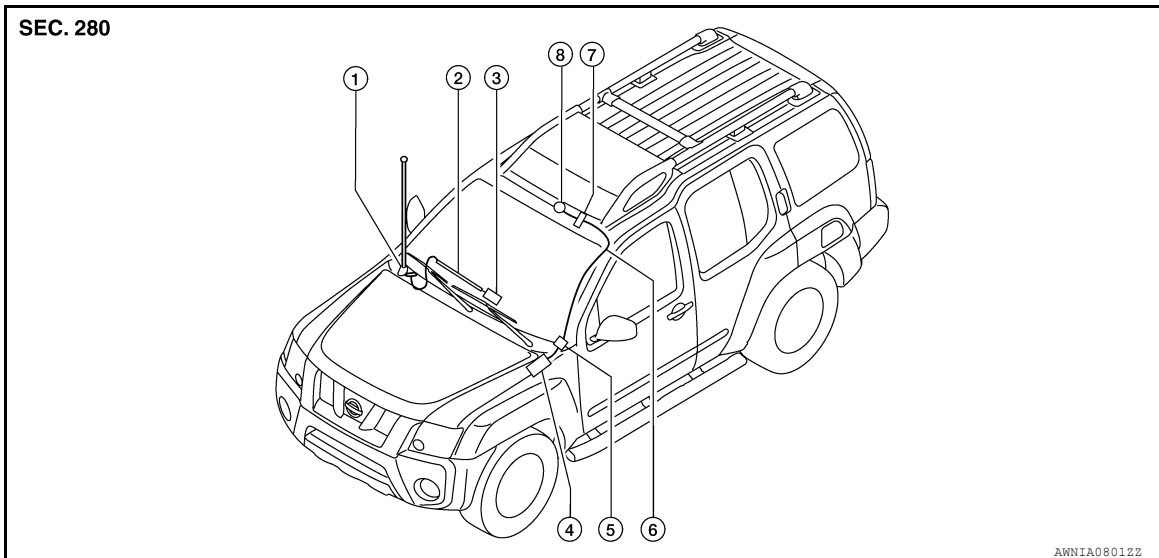
A
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AV

AUDIO ANTENNA

Location of Antenna

INFOID:000000007361916



- | | | |
|-------------------------------|--------------------------------|-----------------------------|
| 1. Audio antenna | 2. Antenna feeder | 3. Audio unit |
| 4. Satellite radio tuner M129 | 5. Harness connector M250, M68 | 6. Satellite antenna feeder |
| 7. Harness connector M251 | 8. Satellite antenna | |

Removal and Installation

INFOID:000000007361917

REMOVAL

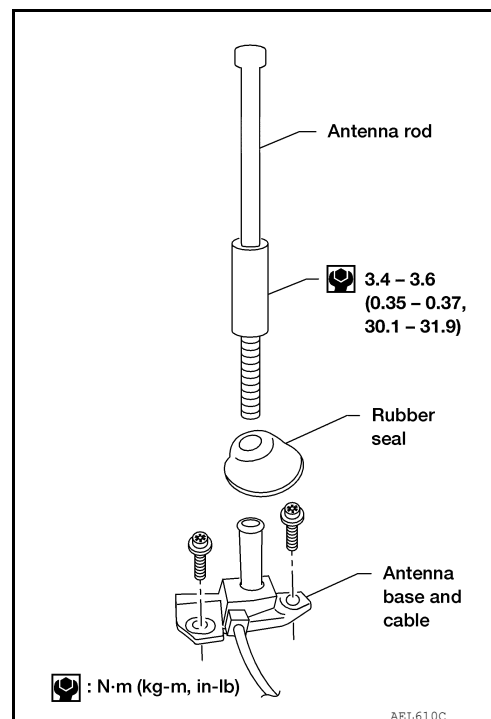
1. Remove instrument lower panel RH and lower glove box assembly. Refer to [IP-20, "Removal and Installation"](#).
2. Remove audio unit. Refer to [AV-104, "Removal and Installation"](#).
3. Disconnect audio antenna cable from antenna feeder.

AUDIO ANTENNA

< REMOVAL AND INSTALLATION >

[PREMIUM AUDIO]

4. Remove antenna rod.
5. Remove rubber seal.
6. Remove cowl top. Refer to [EXT-20. "Removal and Installation"](#).
7. Remove RH front fender protector. Refer to [EXT-22. "Removal and Installation"](#).
8. Remove antenna base bolts.
9. Remove antenna base and cable.



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

Always properly tighten the antenna rod during installation or the antenna rod may bend or break during vehicle operation.

AUXILIARY INPUT JACK

Removal and Installation

INFOID:000000007361918

Removal

1. Remove the instrument lower panel RH and lower glove box. Refer to [IP-20, "Removal and Installation"](#).
2. Remove the auxiliary input jack.

Installation

Installation is in the reverse order of removal.

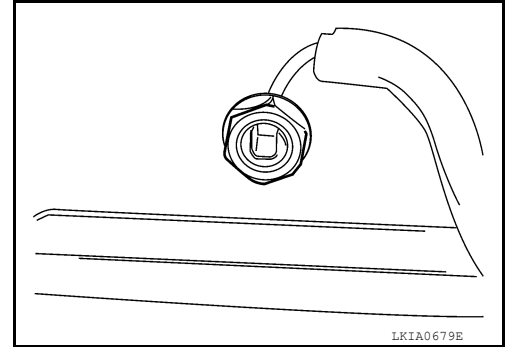
SATELLITE RADIO ANTENNA

Removal and Installation

INFOID:000000007361919

REMOVAL

1. Remove the front cover. Refer to [EXT-26, "Removal and Installation"](#).
2. Remove the front room/map lamp assembly. Refer to [INL-58, "Removal and Installation"](#).
3. Disconnect the satellite radio antenna connector.
4. Remove the satellite radio antenna nut.
5. Remove the satellite radio antenna.



INSTALLATION

Installation is in the reverse order of removal.

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AV

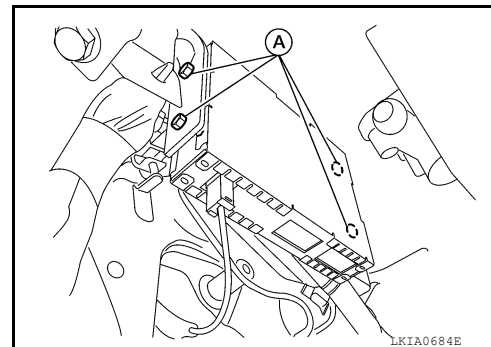
SATELLITE RADIO TUNER

Removal and Installation

INFOID:000000007361920

REMOVAL

1. Disconnect the battery negative terminal.
2. Disconnect the satellite radio tuner connectors.
3. Remove the satellite radio tuner screws (A), and remove satellite radio tuner.
4. Remove satellite radio tuner bracket screws and remove the satellite radio tuner brackets.



INSTALLATION

Installation is in the reverse order of removal.