

SECTION AV

AUDIO, VISUAL & NAVIGATION SYSTEM

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FRONT AUXILIARY INPUT JACKS	601	VIDEO DISTRIBUTOR	607	
Removal and Installation	601	Removal and Installation	607	B
MICROPHONE	602	REAR AUXILIARY INPUT JACKS	608	
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AV

PRECAUTION

PRECAUTIONS

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

INFOID:000000008966033

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. 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.

Cautions in Removing Battery Terminal and AV Control Unit (Models with AV Control Unit)

INFOID:000000008510557

CAUTION:

Remove battery terminal and AV control unit 30 seconds or more after turning the ignition switch OFF.

NOTE:

After the ignition switch is turned OFF, the AV control unit continues operating for approximately 30 seconds. Therefore, data corruption may occur if battery voltage is cut off within 30 seconds.

Precaution for Trouble Diagnosis

INFOID:000000008510558

AV COMMUNICATION SYSTEM

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

Precaution for Harness Repair

INFOID:000000008510559

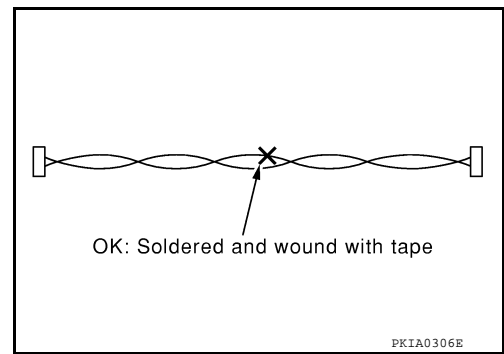
AV COMMUNICATION SYSTEM

PRECAUTIONS

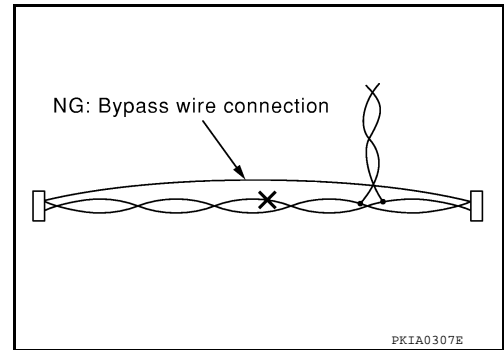
< PRECAUTION >

[BASE AUDIO]

- Solder the repaired parts, and wrap with tape. [Frays of twisted line must be within 110 mm (4.33 in).]



- Do not perform bypass wire connections for the repair parts. (The spliced wire will become separated and the characteristics of twisted line will be lost.)



Precaution for Work

INFOID:000000008950048

- 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 a new one.
- Be sure to tighten bolts and nuts securely to the specified torque.
- After installation is complete, be sure to check that each part works properly.
- Follow the steps below to clean components:
 - Water soluble dirt:
 - Dip a soft cloth into lukewarm water, wring the water out of the cloth and wipe the dirty area.
 - Then rub with a soft, 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, wring the water out of the cloth and wipe the detergent off.
 - Then rub with a soft, 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]

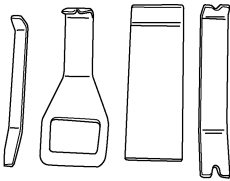
PREPARATION

PREPARATION

Special Service Tool

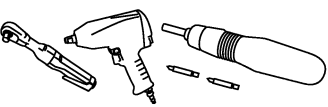
INFOID:000000008510561

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  AWJIA0483ZZ	Removing trim components

Commercial Service Tools

INFOID:000000008510562

(Kent-Moore No.) Tool name	Description
(—) Power tools  PIIB1407E	Loosening nuts, screws and bolts

COMPONENT PARTS

< SYSTEM DESCRIPTION >

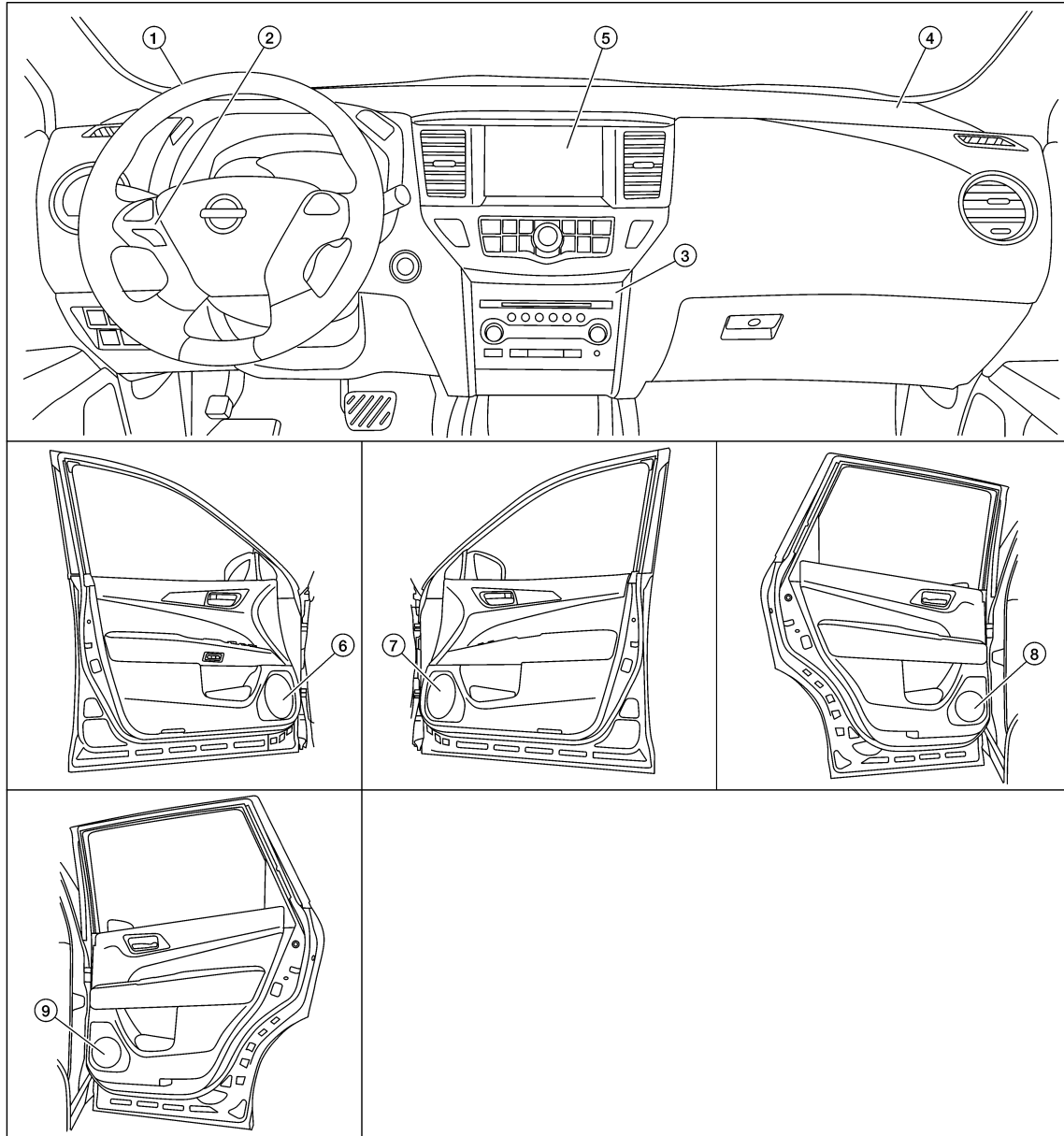
[BASE AUDIO]

SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

INFOID:000000008510563



ALNIA14412Z

- | | | |
|--------------------------------|-------------------------|--------------------------|
| 1. Instrument panel tweeter LH | 2. Steering switches | 3. Audio unit |
| 4. Instrument panel tweeter RH | 5. Display unit | 6. Front door speaker LH |
| 7. Front door speaker RH | 8. Rear door speaker LH | 9. Rear door speaker RH |

Component Description

INFOID:000000008510564

Part name	Description
Audio unit	Controls audio and AUX IN functions.
Display unit	Display image is controlled by audio unit via serial communication.
Front door speaker	Outputs low and mid range sounds.

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COMPONENT PARTS

< SYSTEM DESCRIPTION >

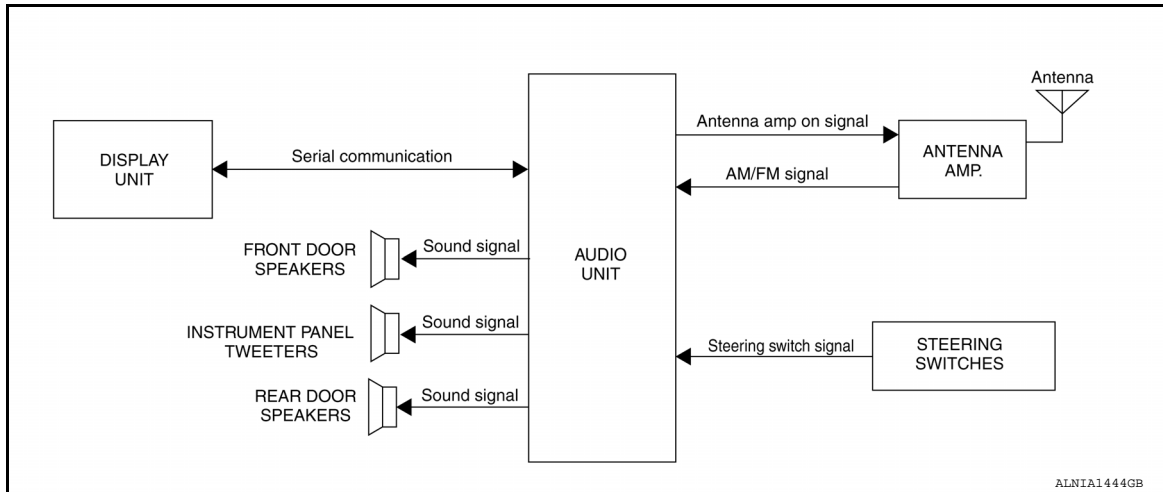
[BASE AUDIO]

Part name	Description
Instrument panel tweeter	Outputs high range sounds.
Rear door speaker	Outputs low, mid and high range sounds.
Steering switch	<ul style="list-style-type: none">• Operations for audio are possible.• Steering switch signal (operation signal) is output to audio unit.
Antenna amp.	<ul style="list-style-type: none">• Radio signal received by antenna base is amplified and transmitted to audio unit.• Power (antenna amp. ON signal) is supplied from audio unit.

SYSTEM
AUDIO SYSTEM

AUDIO SYSTEM : System Diagram

INFOID:000000008510565



AUDIO SYSTEM : System Description

INFOID:000000008510566

AUDIO SYSTEM

The audio system consists of the following components

- Audio unit
- Display unit
- Steering switches
- Front door speakers
- Instrument panel tweeters
- Rear door speakers
- Antenna

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

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

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AUDIO UNIT

< ECU DIAGNOSIS INFORMATION >

[BASE AUDIO]

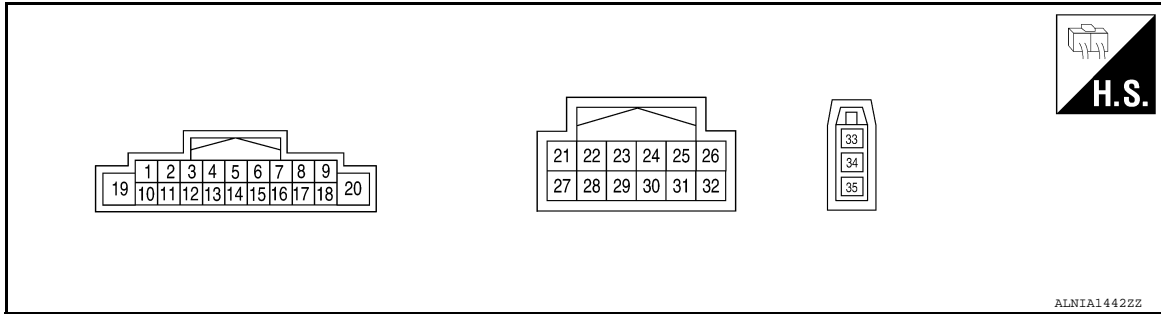
ECU DIAGNOSIS INFORMATION

AUDIO UNIT

Reference Value

INFOID:000000008510572

TERMINAL LAYOUT



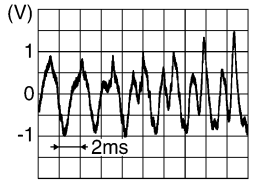
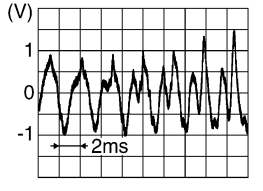



PHYSICAL VALUES

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
2 (SB)	3 (V)	Sound signal front door speaker and instrument panel tweeter LH	Output	Ignition switch ON	Audio output	<p>SKIB3609E</p>
4 (BR)	5 (Y)	Sound signal rear door speaker LH	Output	Ignition switch ON	Audio output	<p>SKIB3609E</p>
6 (Y)	15 (G)	Steering switch signal A	Input	Ignition switch ON	Press SOURCE switch	0V
					Press Δ switch	1.0V
					Press ∇ switch	2.0V
					Press ENTER switch	4.0V
					Except above	5.0V
7 (P)	Ground	ACC power supply	Input	Ignition switch ACC		Battery voltage
9 (R)	8 (P)	Illumination control signal	Input	Ignition switch ON	Headlamps ON	Battery voltage

AUDIO UNIT

< ECU DIAGNOSIS INFORMATION >

[BASE AUDIO]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
11 (BR)	12 (Y)	Sound signal front door speaker and instrument panel tweeter RH	Output	Ignition switch ON	Audio output	 <small>SKIB3609E</small>
13 (L)	14 (SB)	Sound signal rear door speaker RH	Output	Ignition switch ON	Audio output	 <small>SKIB3609E</small>
16 (BR)	15 (G)	Steering switch signal B	Input	Ignition switch ON	Press  switch Press  switch Press  switch Press DISP switch Except above	0V 1.0V 3.0V 4.0V 5.0V
19 (Y)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
21 (LG)	—	AV communication signal (L)	Input/ Output	—	—	—
22 (SB)	—	AV communication signal (H)	Input/ Output	—	—	—
33 (B)	—	AM - FM main	Input	—	—	—
34 (B)	—	Antenna amp. ON signal	Output	Ignition switch ON		Battery voltage
35 (B)	—	FM sub	Input	—	—	—

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DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

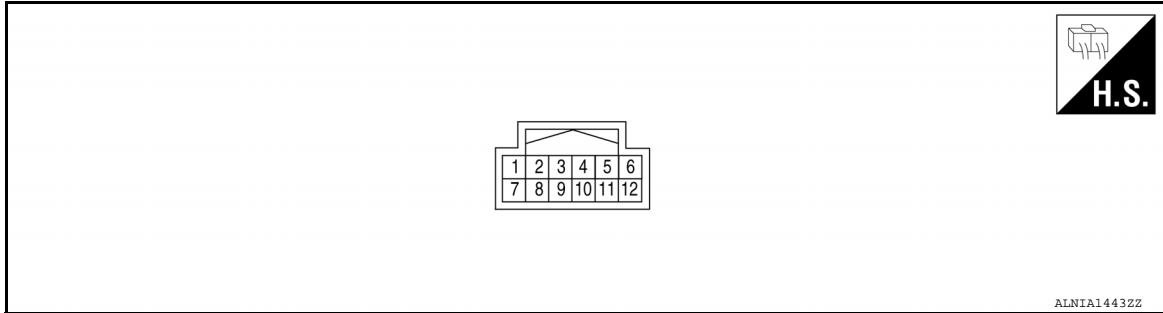
[BASE AUDIO]

DISPLAY UNIT

Reference Value

INFOID:000000008510574

TERMINAL LAYOUT



PHYSICAL VALUES

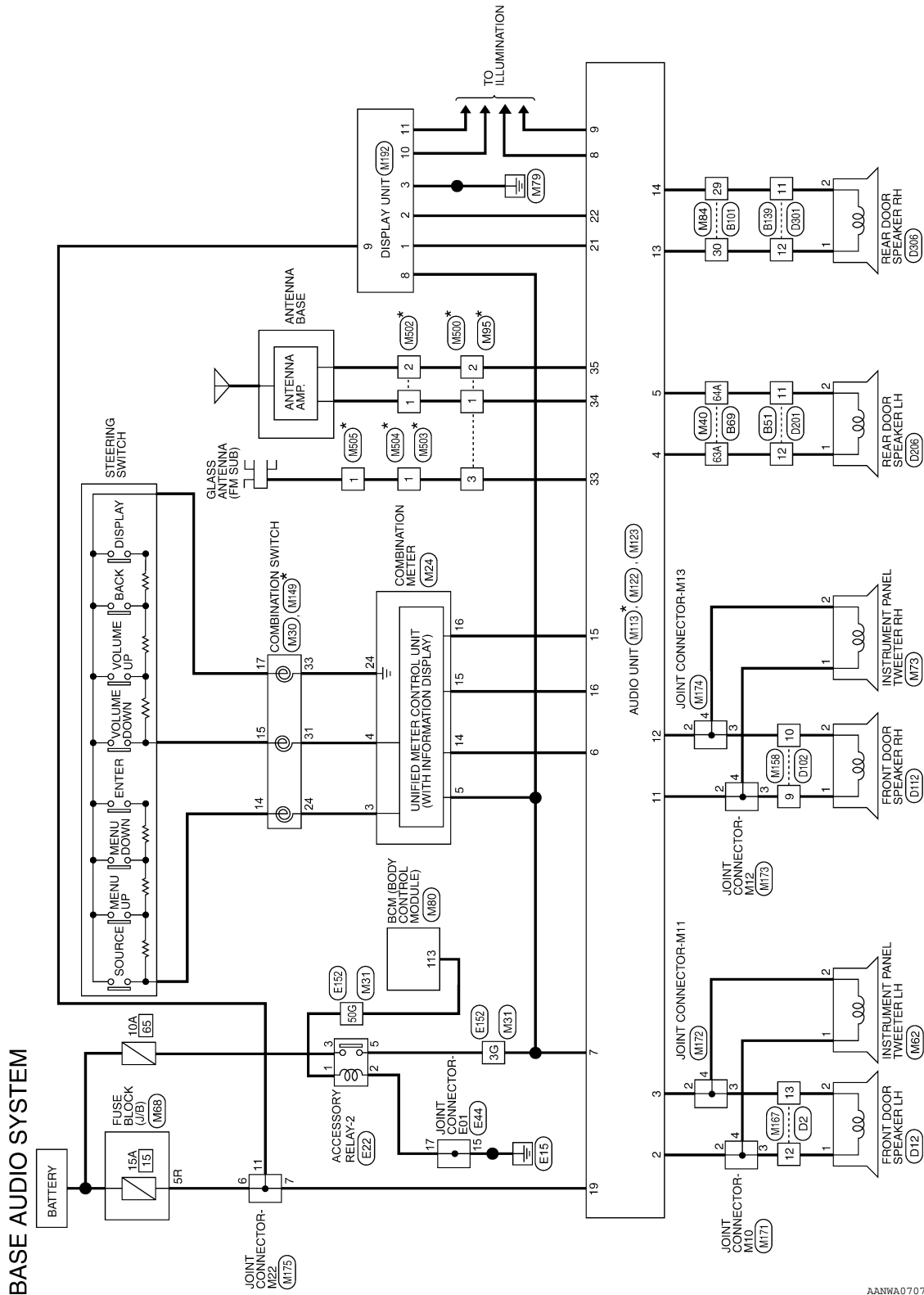
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/ Output			
1 (LG)	—	AV communication signal (L)	Input/ Output	—	—	—
2 (SB)	—	AV communication signal (H)	Input/ Output	—	—	—
3 (B)	Ground	Ground	—	Ignition switch ON	—	0V
8 (P)	Ground	ACC power supply	Input	Ignition switch ACC		Battery voltage
9 (Y)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
10 (R)	11 (B)	Illumination control signal	Input	Ignition switch ON	Headlamps ON	Battery voltage

WIRING DIAGRAM

BASE AUDIO

Wiring Diagram

INFOID:000000008510577



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

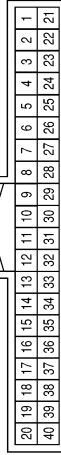
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BASE AUDIO SYSTEM CONNECTORS

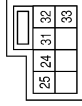
Connector No.	M24
Connector Name	COMBINATION METER
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
3	P	STRG SW INPUT1
4	BG	STRG SW INPUT 2
5	P	ACC

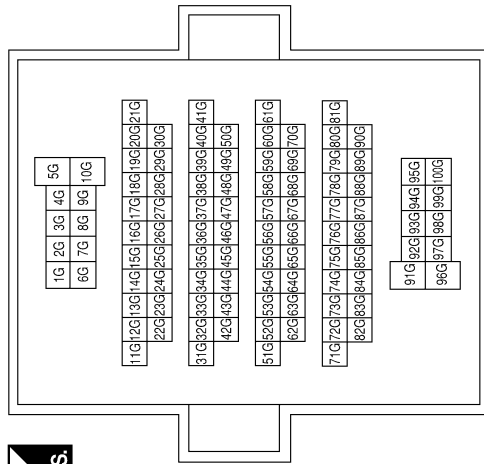
Terminal No.	Color of Wire	Signal Name
14	Y	STRG SW OUTPUT1 (WITH BASE AUDIO)
15	BR	STRG SW OUTPUT2 (WITH BASE AUDIO)
16	G	STRG SW OUTPUT GND (WITH BASE AUDIO)
24	R	STRG SW GND

Connector No.	M30
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
24	P	-
31	BG	-
33	R	-

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



Terminal No.	Color of Wire	Signal Name
3G	P	-
50G	L	-

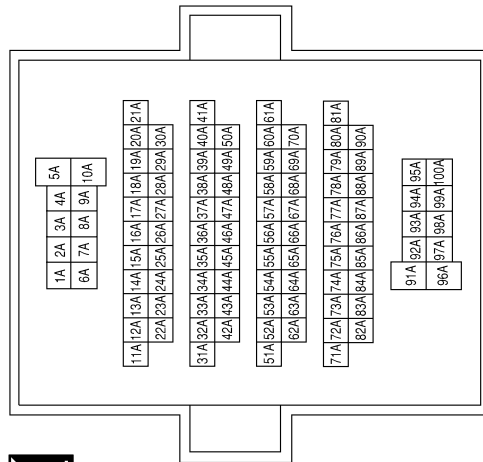
Connector No.	M62
Connector Name	INSTRUMENT PANEL TWEETER LH
Connector Color	BRWON



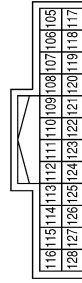
Terminal No.	Color of Wire	Signal Name
1	SB	– (WITHOUT BOSE AUDIO SYSTEM)
2	V	– (WITHOUT BOSE AUDIO SYSTEM)

Terminal No.	Color of Wire	Signal Name
63A	BR	–
64A	Y	–

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



Connector No.	M80
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
113	L	ACC RELAY OUT

Connector No.	M73
Connector Name	INSTRUMENT PANEL TWEETER RH
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
1	BR	– (WITHOUT BOSE AUDIO SYSTEM)
2	Y	– (WITHOUT BOSE AUDIO SYSTEM)

Connector No.	M68
Connector Name	FUSE BLOCK (J/B)
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
5R	Y	–

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



BASE AUDIO

< WIRING DIAGRAM >

[BASE AUDIO]

Connector No.	M119
Connector Name	AUDIO UNIT
Connector Color	GRAY



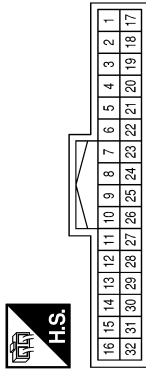
Terminal No.	Color of Wire	Signal Name
33	B	ANT MAIN
34	B	ANT +B
35	B	ANT SUB

Connector No.	M95
Connector Name	WIRE TO WIRE
Connector Color	GRAY



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

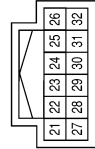
Connector No.	M84
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
29	SB	-
30	L	-

Terminal No.	Color of Wire	Signal Name
26	-	-
27	-	-
28	-	-
29	-	-
30	-	-
31	-	-
32	-	-

Connector No.	M122
Connector Name	AUDIO UNIT
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
21	LG	MCAN-L
22	SB	MCAN-H
23	-	-
24	-	-
25	-	-

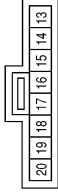
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BASE AUDIO

< WIRING DIAGRAM >

[BASE AUDIO]

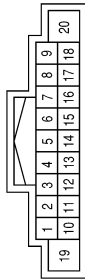
Connector No.	M149
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
14	B	-
15	GR	-
17	BR	-

Terminal No.	Color of Wire	Signal Name
7	P	ACC
8	B	ILL(-)
9	R	ILL(+)
10	-	-
11	BR	FR RH SP+
12	Y	FR RH SP-
13	L	RR RH SP+
14	SB	RR RH SP-
15	G	STRG SW GND
16	BR	STRG SW B
17	-	-
18	-	-
19	Y	+B
20	-	-

Connector No.	M123
Connector Name	AUDIO UNIT
Connector Color	WHITE



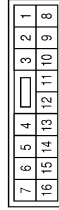
Terminal No.	Color of Wire	Signal Name
1	-	-
2	SB	FRLH SP+
3	V	FR LH SP-
4	BR	RR LH SP+
5	Y	RR LH SP-
6	Y	STRG SW A

Connector No.	M171
Connector Name	JOINT CONNECTOR-M10
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	SB	- (WITHOUT BOSE AUDIO SYSTEM)
3	SB	- (WITHOUT BOSE AUDIO SYSTEM)
4	SB	- (WITHOUT BOSE AUDIO SYSTEM)

Connector No.	M167
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
12	SB	-
13	V	-

Connector No.	M158
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
9	BR	- (WITHOUT BOSE AUDIO SYSTEM)
10	Y	- (WITHOUT BOSE AUDIO SYSTEM)

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BASE AUDIO

< WIRING DIAGRAM >

[BASE AUDIO]

Connector No.	M172
Connector Name	JOINT CONNECTOR-M11
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	V	-(WITHOUT BOSE AUDIO SYSTEM)
3	V	-(WITHOUT BOSE AUDIO SYSTEM)
4	V	-(WITHOUT BOSE AUDIO SYSTEM)

Connector No.	M173
Connector Name	JOINT CONNECTOR-M12
Connector Color	WHITE



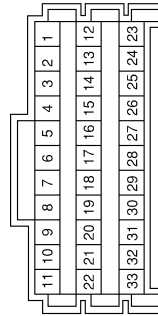
Terminal No.	Color of Wire	Signal Name
2	BR	-(WITHOUT BOSE AUDIO SYSTEM)
3	BR	-(WITHOUT BOSE AUDIO SYSTEM)
4	BR	-(WITHOUT BOSE AUDIO SYSTEM)

Connector No.	M174
Connector Name	JOINT CONNECTOR-M13
Connector Color	WHITE



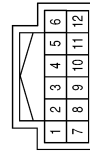
Terminal No.	Color of Wire	Signal Name
2	Y	-(WITHOUT BOSE AUDIO SYSTEM)
3	Y	-(WITHOUT BOSE AUDIO SYSTEM)
4	Y	-(WITHOUT BOSE AUDIO SYSTEM)

Connector No.	M175
Connector Name	JOINT CONNECTOR-M22
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
6	Y	-
7	Y	-
11	Y	-

Connector No.	M192
Connector Name	DISPLAY UNIT (WITH BASE AUDIO SYSTEM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	LG	MCAN-L
2	SB	MCAN-H
3	B	GND
4	-	-
5	-	-
6	-	-
7	-	-

Terminal No.	Color of Wire	Signal Name
8	P	ACC
9	Y	(+)B
10	R	ILL+
11	B	ILL-
12	-	-

BASE AUDIO

< WIRING DIAGRAM >

[BASE AUDIO]

Connector No.	M503
Connector Name	WIRE TO WIRE
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
1	B	-

Connector No.	M502
Connector Name	ANTENNA BASE
Connector Color	GRAY



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

Connector No.	M500
Connector Name	WIRE TO WIRE
Connector Color	GRAY



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

Connector No.	E22
Connector Name	ACCESSORY RELAY-2
Connector Color	BLUE



Terminal No.	Color of Wire	Signal Name
1	G	-
2	B	-
3	R	-
5	P	-

Connector No.	M505
Connector Name	GLASS ANTENNA (FM SUB)
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
1	B	-

Connector No.	M504
Connector Name	WIRE TO WIRE
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
1	B	-

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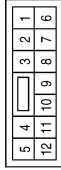
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BASE AUDIO

< WIRING DIAGRAM >

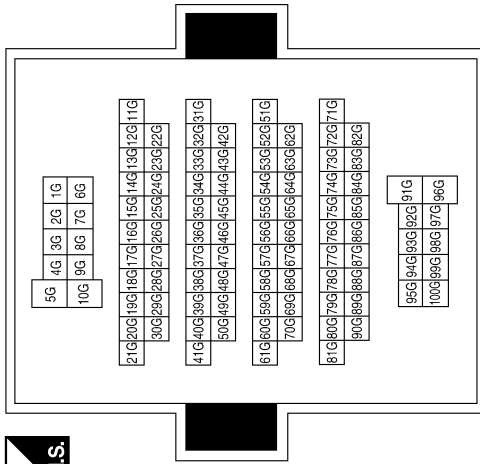
[BASE AUDIO]

Connector No.	B51
Connector Name	WIRE TO WIRE
Connector Color	WHITE



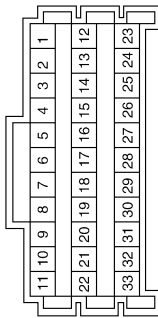
Terminal No.	Color of Wire	Signal Name
11	R	-
12	P	-

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



Terminal No.	Color of Wire	Signal Name
3G	P	-
50G	G	-

Connector No.	E44
Connector Name	JOINT CONNECTOR-E01
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
15	GR	-
17	B	-

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BASE AUDIO

< WIRING DIAGRAM >

[BASE AUDIO]

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

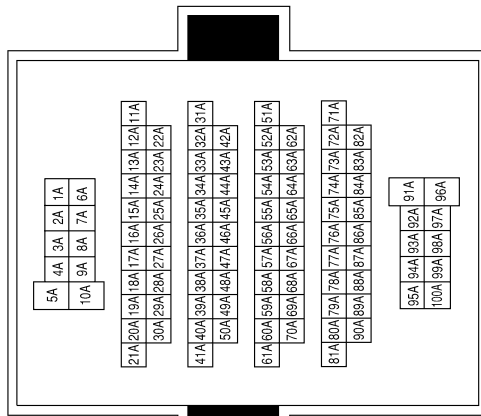


1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32

Terminal No.	Color of Wire	Signal Name
29	SB	-
30	LG	-

Terminal No.	Color of Wire	Signal Name
63A	P	-
64A	R	-

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



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



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

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



Terminal No.	Color of Wire	Signal Name
12	G	-
13	W	-

Connector No.	B139
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
11	SB	-(EXCEPT BOSE AUDIO SYSTEM)
12	LG	-(EXCEPT BOSE AUDIO SYSTEM)

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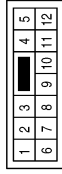


BASE AUDIO

< WIRING DIAGRAM >

[BASE AUDIO]

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



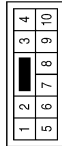
Terminal No.	Color of Wire	Signal Name
11	Y	-
12	LG	-

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



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

Connector No.	D102
Connector Name	WIRE TO WIRE
Connector Color	WHITE



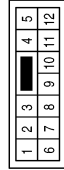
Terminal No.	Color of Wire	Signal Name
9	G	-
10	W	-

Connector No.	D306
Connector Name	REAR DOOR SPEAKER RH
Connector Color	WHITE



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

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



Terminal No.	Color of Wire	Signal Name
11	G	-
12	W	-

Connector No.	D206
Connector Name	REAR DOOR SPEAKER LH
Connector Color	WHITE



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

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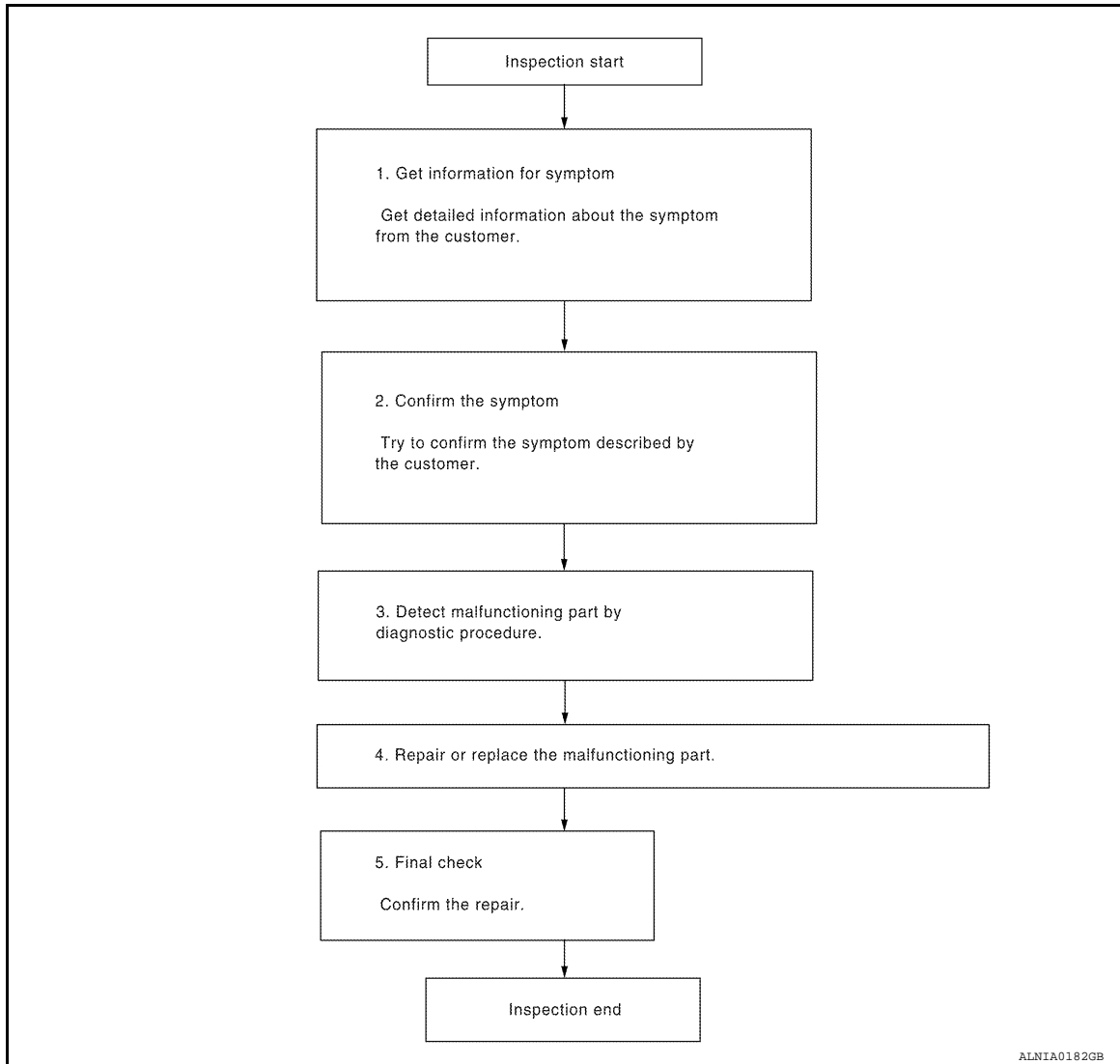
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:000000008510578

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.

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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

DTC/CIRCUIT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT AUDIO UNIT

AUDIO UNIT : Diagnosis Procedure

INFOID:000000008510597

Regarding Wiring Diagram information, refer to [AV-21, "Wiring Diagram"](#).

1.CHECK FUSE

Check that the following fuses are not blown.

Terminal No.	Signal name	Fuse No.
19	Battery power supply	15 (15A)
7	ACC power supply	65 (10A)

Are the fuses blown?

- YES >> Replace the blown fuse after repairing the affected circuit.
- NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect audio unit connector M123.
3. Check voltage between audio unit connector and ground.

Audio unit		Ground	Condition	Voltage (Approx.)
Connector	Terminal			
M123	19	—	Ignition switch: OFF	Battery voltage
	7		Ignition switch: ACC	

Is the inspection result normal?

- YES >> Inspection End.
- NO >> Repair or replace harness or connectors.

DISPLAY UNIT

DISPLAY UNIT : Diagnosis Procedure

INFOID:000000008510598

Regarding Wiring Diagram information, refer to [AV-21, "Wiring Diagram"](#).

1.CHECK FUSE

Check that the following fuses are not blown.

Terminal No.	Signal name	Fuse No.
9	Battery power supply	15 (15A)
8	ACC power supply	65 (10A)

Are the fuses blown?

- YES >> Replace the blown fuse after repairing the affected circuit.
- NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.

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POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[BASE AUDIO]

2. Disconnect display unit connector M192.
3. Check voltage between display unit connector and ground.

Display unit		Ground	Condition	Voltage (Approx.)
Connector	Terminal			
M192	9	—	Ignition switch: OFF	Battery voltage
	8		Ignition switch: ACC	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connectors.

3. CHECK GROUND CIRCUIT

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

Display unit		Ground	Continuity
Connector	Terminal		
M192	3	—	Yes

Is the inspection result normal?

YES >> Inspection End.

NO >> Repair or replace harness or connectors.

FRONT DOOR SPEAKER

< DTC/CIRCUIT DIAGNOSIS >

[BASE AUDIO]

FRONT DOOR SPEAKER

Diagnosis Procedure

INFOID:000000008510602

Regarding Wiring Diagram information, refer to [AV-21. "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 terminals or connectors.

2. CHECK FRONT DOOR SPEAKER SIGNAL CIRCUIT CONTINUITY

1. Disconnect audio unit connector M123 and suspect front door speaker connector.
2. Check continuity between audio unit connector M123 and suspect front door speaker connector.

Audio unit		Front door speaker		Continuity
Connector	Terminal	Connector	Terminal	
M123	2	D12 (LH)	1	Yes
	3		2	
	11	D112 (RH)	1	
	12		2	

3. Check continuity between audio unit connector M123 and ground.

Audio unit		Ground	Continuity
Connector	Terminal		
M123	2	—	No
	3		
	11		
	12		

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness or connectors.

3. CHECK FRONT DOOR SPEAKER SIGNAL

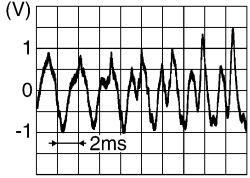
1. Connect audio unit connector M123 and suspect front door speaker connector.
2. Turn ignition switch to ACC.
3. Push audio unit POWER switch.
4. Check the signal between the terminals of audio unit connector M123.

Audio unit connector M123		Condition	Reference value
(+)	(-)		
Terminal	Terminal		

FRONT DOOR SPEAKER

< DTC/CIRCUIT DIAGNOSIS >

[BASE AUDIO]

2	3		
11	12	Audio signal output	

Is the inspection result normal?

- YES >> Replace front door speaker. Refer to [AV-49. "Removal and Installation"](#).
- NO >> Replace audio unit. Refer to [AV-46. "Removal and Installation"](#).

INSTRUMENT PANEL SPEAKER/TWEETER

< DTC/CIRCUIT DIAGNOSIS >

[BASE AUDIO]

INSTRUMENT PANEL SPEAKER/TWEETER

Diagnosis Procedure

INFOID:000000008510603

Regarding Wiring Diagram information, refer to [AV-21. "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 terminals or connectors.

2. CHECK INSTRUMENT PANEL TWEETER SIGNAL CIRCUIT CONTINUITY

1. Disconnect audio unit connector M123 and suspect instrument panel tweeter connector.
2. Check continuity between audio unit connector M123 and suspect instrument panel tweeter connector.

Audio unit		Instrument panel tweeter		Continuity
Connector	Terminal	Connector	Terminal	
M123	2	M62 (LH)	1	Yes
	3		2	
	11	M73 (RH)	1	
	12		2	

3. Check continuity between audio unit connector M123 and ground.

Audio unit		Ground	Continuity
Connector	Terminal		
M123	2	—	No
	3		
	11		
	12		

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness or connectors.

3. CHECK INSTRUMENT PANEL TWEETER SIGNAL

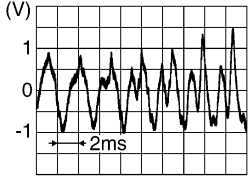
1. Connect audio unit connector M123 and suspect instrument panel tweeter connector.
2. Turn ignition switch to ACC.
3. Push audio unit POWER switch.
4. Check the signal between the terminals of audio unit connector M123.

Audio unit connector M123		Condition	Reference value
(+)	(-)		
Terminal	Terminal		

INSTRUMENT PANEL SPEAKER/TWEETER

< DTC/CIRCUIT DIAGNOSIS >

[BASE AUDIO]

2	3		
11	12	Audio signal output	

Is the inspection result normal?

- YES >> Replace instrument panel tweeter. Refer to [AV-50. "Removal and Installation"](#).
- NO >> Replace audio unit. Refer to [AV-46. "Removal and Installation"](#).

REAR DOOR SPEAKER

< DTC/CIRCUIT DIAGNOSIS >

[BASE AUDIO]

REAR DOOR SPEAKER

Diagnosis Procedure

INFOID:000000008510604

Regarding Wiring Diagram information, refer to [AV-21. "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 terminals or connectors.

2. CHECK REAR DOOR SPEAKER SIGNAL CIRCUIT CONTINUITY

1. Disconnect audio unit connector M123 and suspect rear door speaker connector.
2. Check continuity between audio unit connector M123 and suspect rear door speaker connector.

Audio unit		Rear door speaker		Continuity
Connector	Terminal	Connector	Terminal	
M123	4	D206 (LH)	1	Yes
	5		2	
	13	D306 (RH)	1	
	14		2	

3. Check continuity between audio unit connector M123 and ground.

Audio unit		Ground	Continuity
Connector	Terminal		
M123	4	—	No
	5		
	13		
	14		

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness or connectors.

3. CHECK REAR DOOR SPEAKER SIGNAL

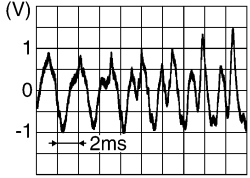
1. Connect audio unit connector M123 and suspect rear door speaker connector.
2. Turn ignition switch to ACC.
3. Push audio unit POWER switch.
4. Check the signal between the terminals of audio unit connector M123.

Audio unit connector M123		Condition	Reference value
(+)	(-)		
Terminal	Terminal		

REAR DOOR SPEAKER

< DTC/CIRCUIT DIAGNOSIS >

[BASE AUDIO]

4	5		
13	14	Audio signal output	

Is the inspection result normal?

- YES >> Replace rear door speaker. Refer to [AV-51. "Removal and Installation"](#).
- NO >> Replace audio unit. Refer to [AV-46. "Removal and Installation"](#).

STEERING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[BASE AUDIO]

STEERING SWITCH




Diagnosis Procedure

INFOID:000000008510621

Regarding Wiring Diagram information, refer to [AV-21. "Wiring Diagram"](#).

1. CHECK STEERING WHEEL AUDIO CONTROL SWITCH RESISTANCE

1. Turn ignition switch OFF.
2. Disconnect combination switch connector M149.
3. Check the resistance between the terminals of combination switch connector M149.

Combination switch connector M149		Condition	Resistance Ω (Approx.)
Terminal	Terminal		
14	17	Depress SOURCE switch.	1
		Depress Δ switch.	121
		Depress ∇ switch.	321
		Depress ENTER switch.	2023
15	17	Depress -  switch.	1
		Depress  + switch.	121
		Depress  switch.	723
		Depress DISP switch.	2023

Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace steering switch. Refer to [AV-47. "Removal and Installation"](#).

2. CHECK HARNESS BETWEEN COMBINATION SWITCH AND COMBINATION METER

1. Disconnect combination meter connector M24 and combination switch connector M30.
2. Check continuity between combination meter connector M24 and combination switch connector M30.

Combination meter		Combination switch		Continuity
Connector	Terminal	Connector	Terminal	
M24	3	M30	24	Yes
	24		33	
	4		31	

3. Check continuity between combination meter connector M24 and ground.

Combination meter		Ground	Continuity
Connector	Terminal		
M24	3	—	No
	24		
	4		

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connectors.

3. CHECK COMBINATION SWITCH

STEERING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[BASE AUDIO]

Check continuity between combination switch connectors M30 and M149.

Combination switch				Continuity
Connector	Terminal	Connector	Terminal	
M30	24	M149	14	Yes
	31		15	
	33		17	

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace spiral cable. Refer to [SR-15, "Removal and Installation"](#).

4. CHECK HARNESS BETWEEN COMBINATION METER AND AUDIO UNIT

1. Disconnect audio unit connector M123.
2. Check continuity between combination meter connector M24 and audio unit connector M123.

Combination meter		Audio unit		Continuity
Connector	Terminal	Connector	Terminal	
M24	14	M123	6	Yes
	15		16	
	16		15	

3. Check continuity between combination meter connector M24 and ground.

Combination meter		Ground	Continuity
Connector	Terminal		
M24	14	—	No
	15		
	16		

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness or connectors.

5. CHECK AUDIO UNIT VOLTAGE

1. Connect combination meter connector M24 and audio unit connector M123.
2. Turn ignition switch ON.
3. Check the voltage between the terminals of audio unit connector M123.

Audio unit M123		Voltage (Approx.)
(+)	(-)	
Terminal	Terminal	
6	15	5.0 V
16		

Is the inspection result normal?

YES >> Replace combination meter. Refer to [MWI-82, "Removal and Installation"](#).

NO >> Replace audio unit. Refer to [AV-46, "Removal and Installation"](#).

SYMPTOM DIAGNOSIS

AUDIO SYSTEM

Symptom Table

INFOID:000000008954053

RELATED TO AUDIO

Symptoms	Check items	Probable malfunction location
The disk cannot be removed.	Audio unit	Malfunction in audio unit. Refer to AV-46, "Removal and Installation" .
No sound comes out or the level of the sound is low.	No sound from all speakers.	<ul style="list-style-type: none"> • Speaker circuit shorted to ground. Refer to AV-21, "Wiring Diagram". • Audio unit power supply and ground circuits malfunction. Refer to AV-33, "AUDIO UNIT : Diagnosis Procedure".
	Only a certain speaker (instrument panel tweeter LH, instrument panel tweeter RH, front door speaker LH, front door speaker RH, rear door speaker LH, rear door speaker RH) does not output sound.	<ul style="list-style-type: none"> • Poor connector connection of speaker. • Sound signal circuit malfunction between audio unit and speaker. Refer to: <ul style="list-style-type: none"> - AV-37, "Diagnosis Procedure" (instrument panel tweeter). - AV-35, "Diagnosis Procedure" (front door speaker). - AV-39, "Diagnosis Procedure" (rear door speaker). • Malfunction in speaker. Refer to: <ul style="list-style-type: none"> - AV-50, "Removal and Installation" (instrument panel tweeter). - AV-49, "Removal and Installation" (front door speaker). - AV-51, "Removal and Installation" (rear door speaker). • Malfunction in audio unit. Refer to AV-46, "Removal and Installation".

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AUDIO SYSTEM

< SYMPTOM DIAGNOSIS >

[BASE AUDIO]

Symptoms	Check items	Probable malfunction location
Noise is mixed with audio.	Noise comes out from all speakers.	Malfunction in audio unit. Refer to AV-46, "Removal and Installation" .
	Noise comes out only from a certain speaker (instrument panel tweeter LH, instrument panel tweeter RH, front door speaker LH, front door speaker RH, rear door speaker LH, rear door speaker RH).	<ul style="list-style-type: none"> • Poor connector connection of speaker. • Sound signal circuit malfunction between audio unit and speaker. Refer to: <ul style="list-style-type: none"> - AV-37, "Diagnosis Procedure" (instrument panel tweeter). - AV-35, "Diagnosis Procedure" (front door speaker). - AV-39, "Diagnosis Procedure" (rear door speaker). • Malfunction in speaker. • Poor Installation of speaker (e.g. backlash and looseness). Refer to: <ul style="list-style-type: none"> - AV-50, "Removal and Installation" (instrument panel tweeter). - AV-49, "Removal and Installation" (front door speaker). - AV-51, "Removal and Installation" (rear door speaker). • Malfunction in audio unit. Refer to AV-46, "Removal and Installation".
	Noise is mixed with radio only (when the vehicle hits a bump or while driving over bad roads)	Poor connector connection of antenna or antenna feeder. Refer to AV-52, "Location of Antennas" .
No radio reception or poor reception.	<ul style="list-style-type: none"> • Other audio sounds are normal. • Any radio station cannot be received or poor reception is caused even after moving to a service area with good reception (e.g. a place with clear view and no obstacles generating external noises). 	<ul style="list-style-type: none"> • Antenna amp. ON signal circuit malfunction. Refer to AV-18, "Reference Value". • Poor connector connection of antenna or antenna feeder. Refer to AV-52, "Location of Antennas".
Buzz/rattle sound from speaker	The majority of buzz/rattle sounds are not indicative of an issue with the speaker, usually something nearby the speaker is causing the buzz/rattle.	Refer to "SQUEAK AND RATTLE TROUBLE DIAGNOSIS" in the appropriate interior trim section.

NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[BASE AUDIO]

NORMAL OPERATING CONDITION

Description

INFOID:000000008954054

RELATED TO NOISE

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

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

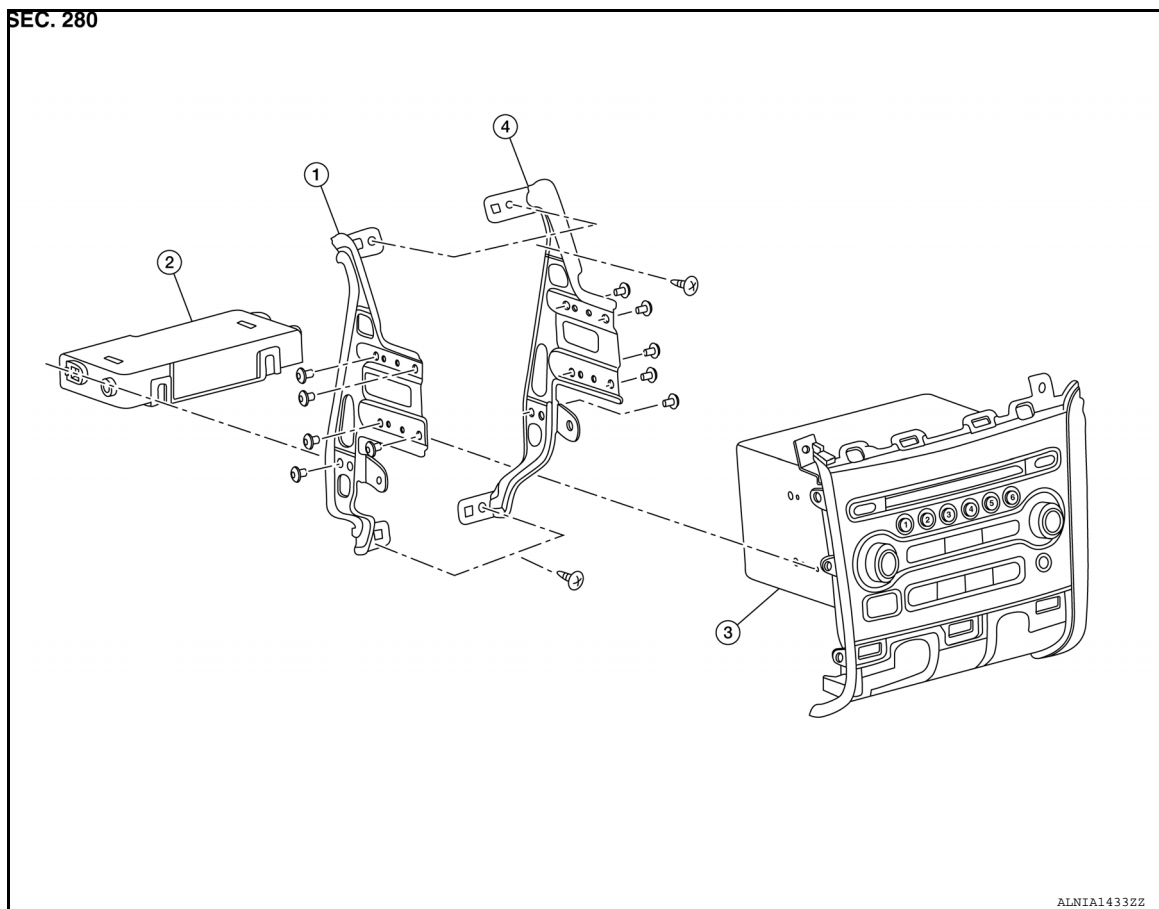
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REMOVAL AND INSTALLATION

AUDIO UNIT

Exploded View

INFOID:000000008510625



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|----------------------------|------------------|---------------|
| 1. Audio unit bracket (LH) | 2. A/C auto amp. | 3. Audio unit |
| 4. Audio unit bracket (RH) | | |

Removal and Installation

INFOID:000000008510626

REMOVAL

1. Disconnect the negative battery terminal. Refer to [PG-89, "Removal and Installation"](#).
2. Remove cluster lid C. Refer to [IP-22, "Removal and Installation - Cluster Lid C"](#).
3. Remove the screws, then pull out the audio unit.
4. Disconnect the harness connectors from the audio unit and remove.

INSTALLATION

Installation is in the reverse order of removal.

STEERING SWITCH

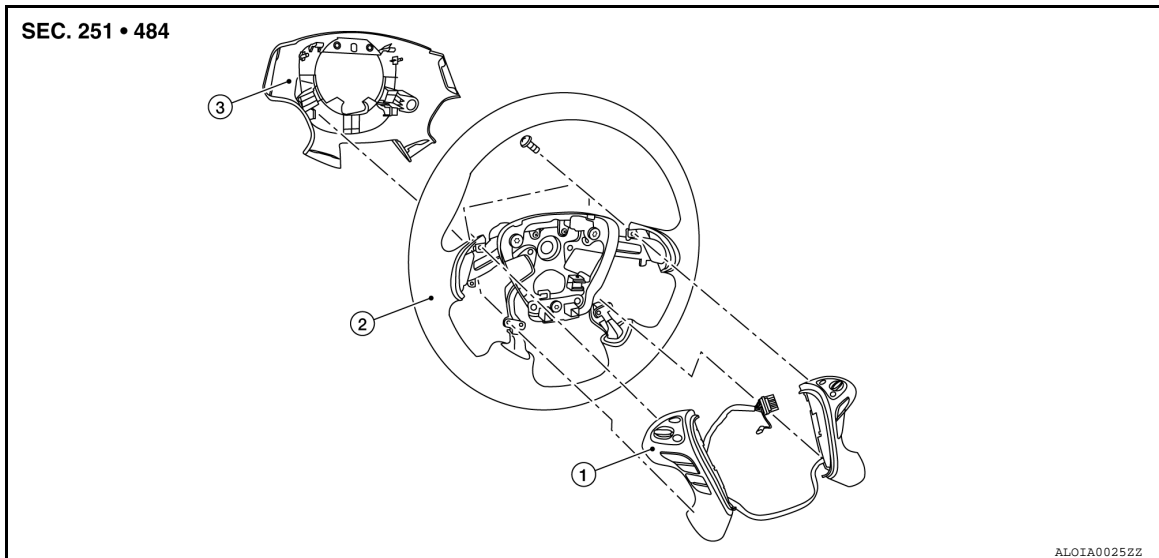
< REMOVAL AND INSTALLATION >

[BASE AUDIO]

STEERING SWITCH

Exploded View

INFOID:000000008945549



1. Steering switches

2. Steering wheel

3. Steering wheel rear finisher

Removal and Installation

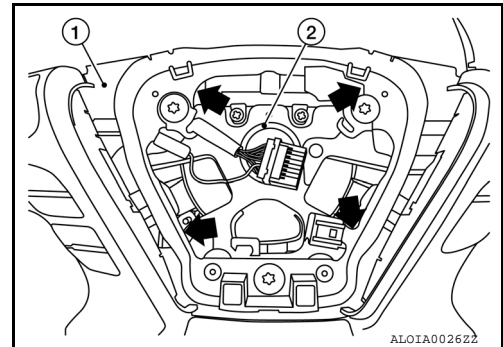
INFOID:000000008945550

REMOVAL

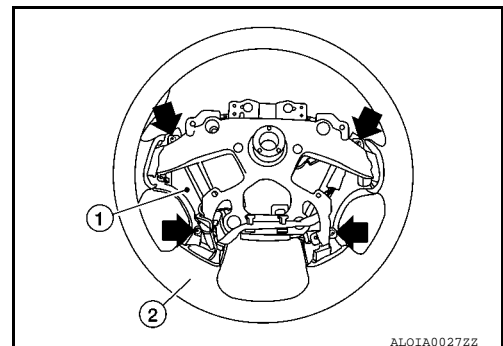
NOTE:

The steering switches are serviced as an assembly.

1. Remove steering wheel. Refer to [ST-44, "Removal and Installation"](#).
2. Release pawls (←) and remove steering wheel rear finisher (1) from steering wheel (2).



3. Remove steering switches assembly screws (←).
4. Remove steering switches assembly (1) from steering wheel (2).



INSTALLATION

Installation is in the reverse order of removal.

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DISPLAY UNIT

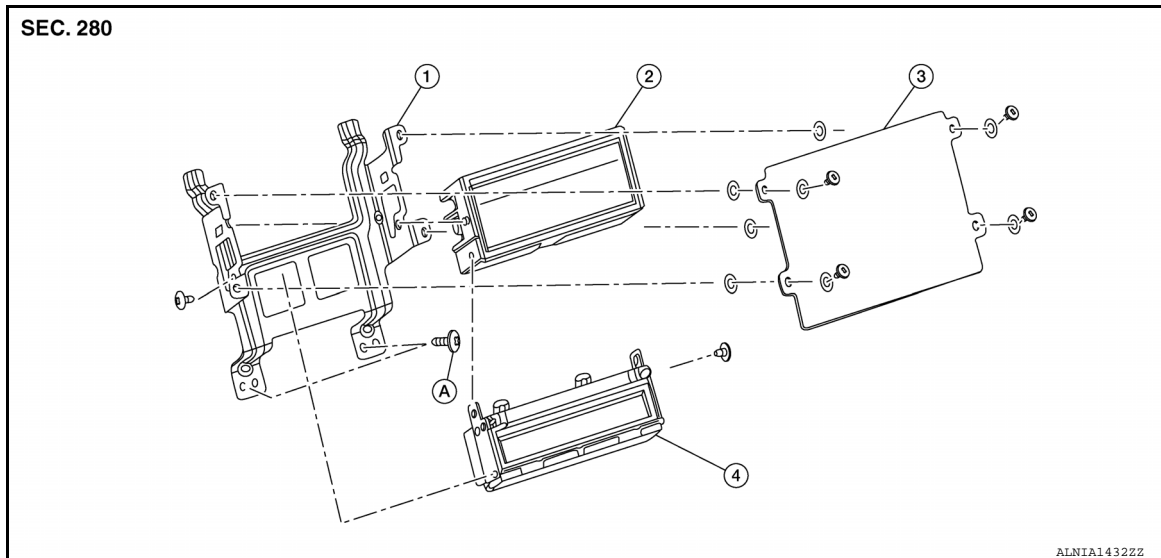
< REMOVAL AND INSTALLATION >

[BASE AUDIO]

DISPLAY UNIT

Exploded View

INFOID:000000008510629



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|-------------------------|-----------------|----------------|
| 1. Display unit bracket | 2. Display unit | 3. Front cover |
| 4. A/C display unit | A. Screw | |

Removal and Installation

INFOID:000000008510630

REMOVAL

1. Remove cluster lid D. Refer to [IP-24, "Removal and Installation"](#).
2. Remove the display unit screws, then pull out the display unit and bracket assembly.
3. Disconnect the harness connector from the display unit and remove.
4. Remove the display unit bracket screws, then remove the display unit and A/C display unit from the display unit bracket.

INSTALLATION

Installation is in the reverse order of removal.

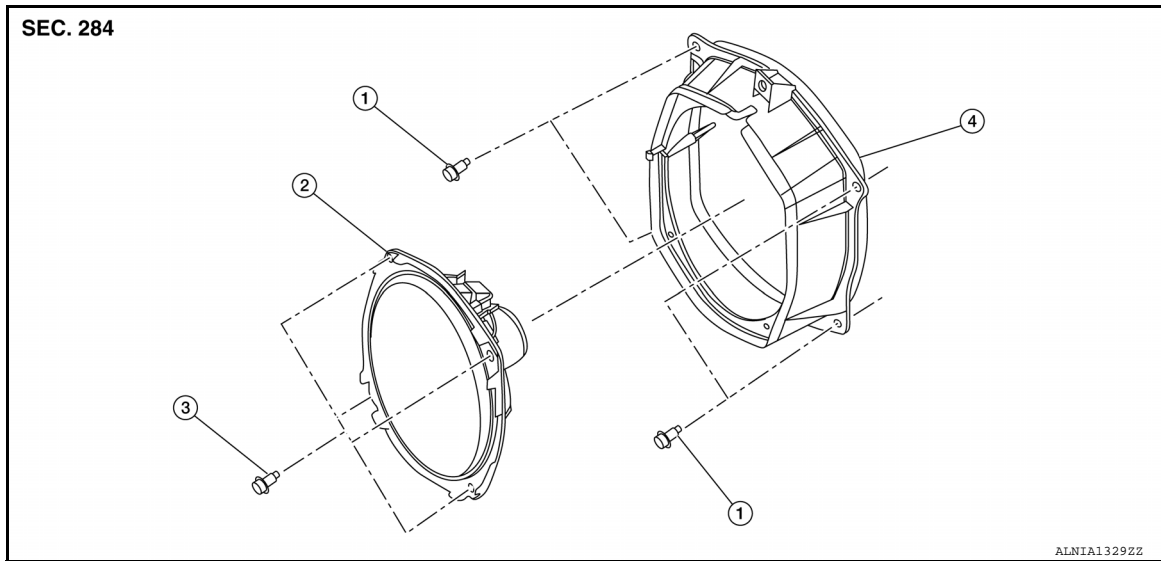
FRONT DOOR SPEAKER

< REMOVAL AND INSTALLATION >

[BASE AUDIO]

FRONT DOOR SPEAKER

Exploded View



1. Speaker bracket bolt
2. Front door speaker
3. Speaker bolt
4. Speaker bracket

Removal and Installation

INFOID:000000008510632

REMOVAL

1. Remove the front door finisher. Refer to [INT-15, "Removal and Installation"](#).
2. Remove the front door speaker bolts.
3. Pull out the front door speaker from the speaker bracket.
4. Disconnect the harness connector from front door speaker and remove.
5. Remove the speaker bracket bolts and the speaker bracket from front door.

INSTALLATION

Installation is in the reverse order of removal.

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INSTRUMENT PANEL SPEAKER/TWEETER

< REMOVAL AND INSTALLATION >

[BASE AUDIO]

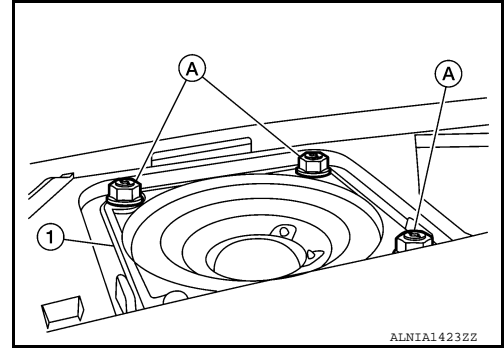
INSTRUMENT PANEL SPEAKER/TWEETER

Removal and Installation

INFOID:000000008510633

REMOVAL

1. Remove instrument panel tweeter grille. Refer to [IP-14. "Exploded View"](#).
2. Remove the bolts (A), then pull out the instrument panel tweeter (1).
3. Disconnect the harness connector from the instrument panel tweeter (1) and remove.



INSTALLATION

Installation is in the reverse order of removal.

REAR DOOR SPEAKER

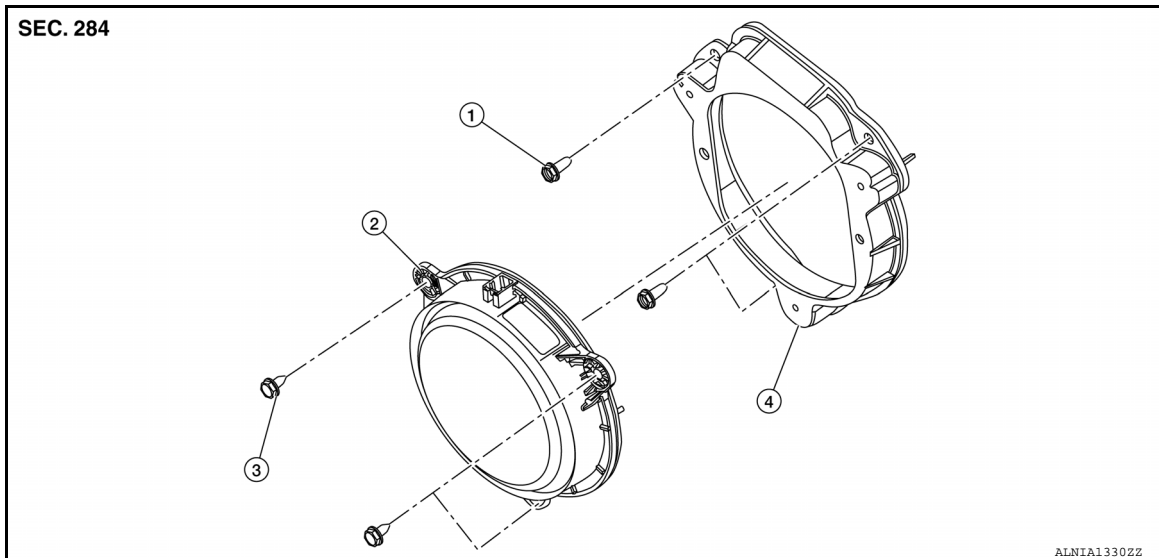
< REMOVAL AND INSTALLATION >

[BASE AUDIO]

REAR DOOR SPEAKER

Exploded View

INFOID:000000008510634



- 1. Speaker bracket bolt
- 2. Rear door speaker
- 3. Speaker bolt
- 4. Speaker bracket

Removal and Installation

INFOID:000000008510635

REMOVAL

1. Remove the rear door finisher. Refer to [INT-16, "Removal and Installation"](#).
2. Remove the rear door speaker bolts.
3. Disconnect the harness connector from the rear door speaker and remove.
4. Remove the speaker bracket bolts and the speaker bracket from the rear door.

INSTALLATION

Installation is in the reverse order of removal.

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AUDIO ANTENNA

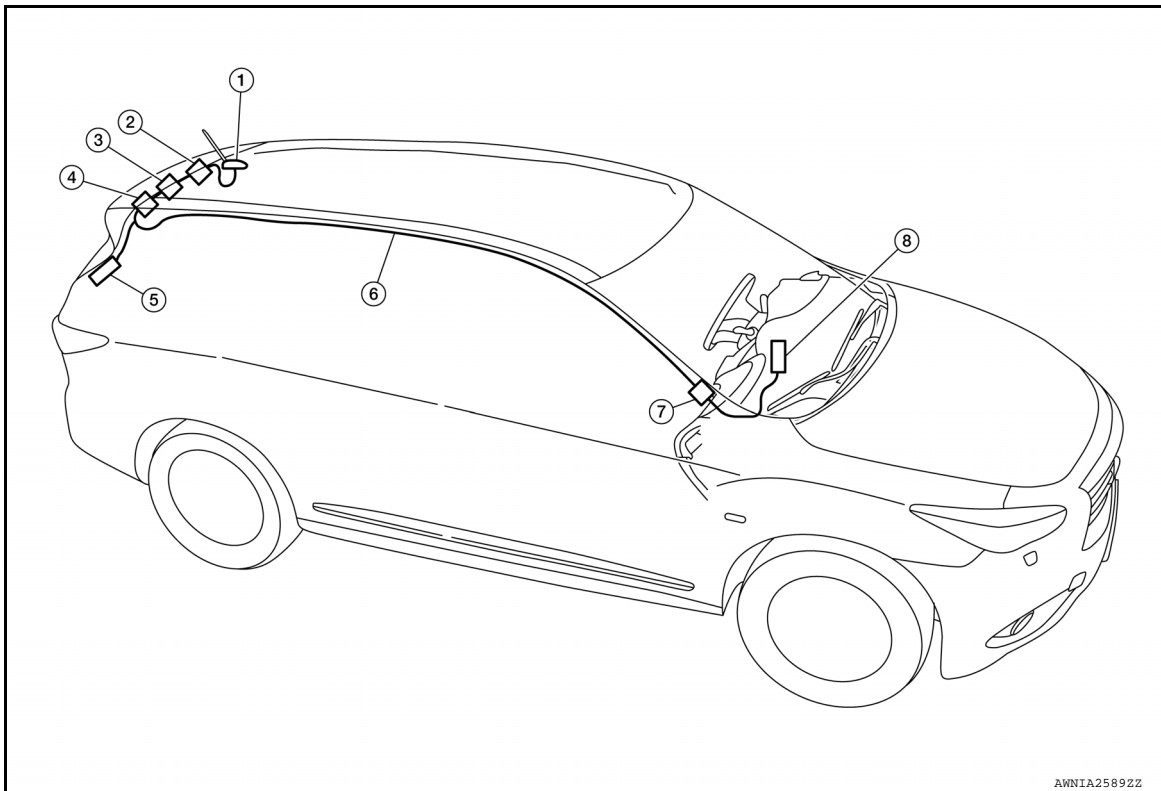
< REMOVAL AND INSTALLATION >

[BASE AUDIO]

AUDIO ANTENNA

Location of Antennas

INFOID:000000008510644



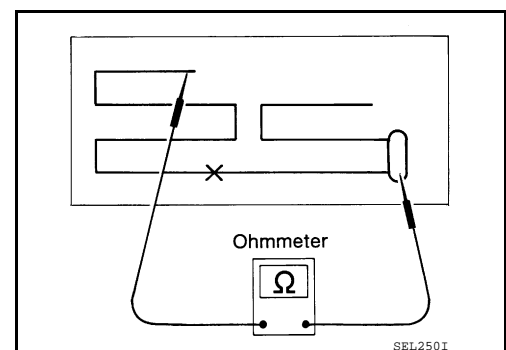
- | | | |
|---|--------------------|-------------------|
| 1. Antenna base (antenna and antenna amp) | 2. M502 | 3. M501 |
| 4. M503, M504 | 5. M505 | 6. Antenna Feeder |
| 7. M95, M500 | 8. Audio unit M113 | |

Window Antenna Repair

INFOID:000000008510645

ELEMENT CHECK

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

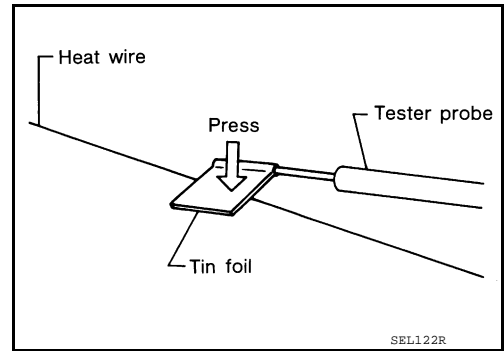


AUDIO ANTENNA

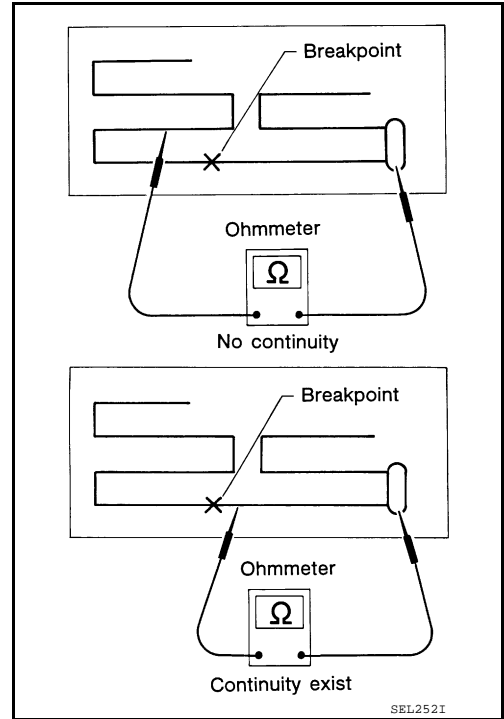
< REMOVAL AND INSTALLATION >

[BASE AUDIO]

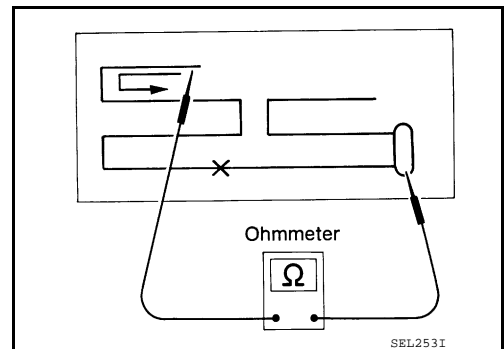
- When measuring continuity, wrap tin foil around the top of probe. Then, press the foil against the wire with your finger.



2. If an element is broken, no continuity will exist.



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



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PRECAUTION

PRECAUTIONS

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

INFOID:000000008966037

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. 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.

Cautions in Removing Battery Terminal and AV Control Unit (Models with AV Control Unit)

INFOID:000000008510647

CAUTION:

Remove battery terminal and AV control unit 30 seconds or more after turning the ignition switch OFF.

NOTE:

After the ignition switch is turned OFF, the AV control unit continues operating for approximately 30 seconds. Therefore, data corruption may occur if battery voltage is cut off within 30 seconds.

Precaution for Trouble Diagnosis

INFOID:000000008510648

AV COMMUNICATION SYSTEM

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

Precaution for Harness Repair

INFOID:000000008510649

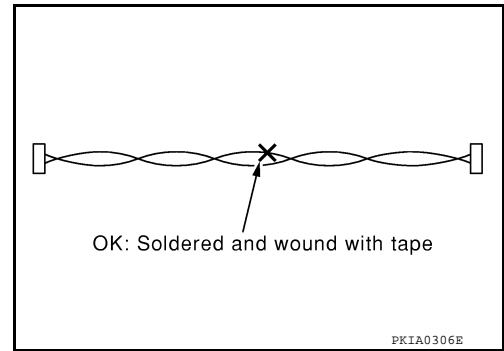
AV COMMUNICATION SYSTEM

PRECAUTIONS

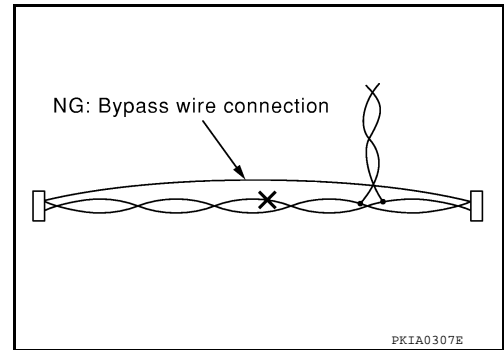
[MID AUDIO WITHOUT BOSE]

< PRECAUTION >

- Solder the repaired parts, and wrap with tape. [Frays of twisted line must be within 110 mm (4.33 in).]



- Do not perform bypass wire connections for the repair parts. (The spliced wire will become separated and the characteristics of twisted line will be lost.)



Precaution for Work

INFOID:000000008951957

- 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 a new one.
- Be sure to tighten bolts and nuts securely to the specified torque.
- After installation is complete, be sure to check that each part works properly.
- Follow the steps below to clean components:
 - Water soluble dirt:
 - Dip a soft cloth into lukewarm water, wring the water out of the cloth and wipe the dirty area.
 - Then rub with a soft, 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, wring the water out of the cloth and wipe the detergent off.
 - Then rub with a soft, 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 >

[MID AUDIO WITHOUT BOSE]

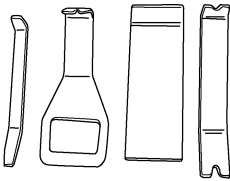
PREPARATION

PREPARATION

Special Service Tool

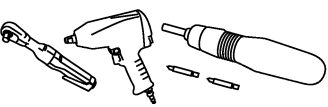
INFOID:000000008510651

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

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

Commercial Service Tools

INFOID:000000008510652

(Kent-Moore No.) Tool name	Description
<p>(—) Power tools</p>  <p>PIIB1407E</p>	Loosening nuts, screws and bolts

COMPONENT PARTS

< SYSTEM DESCRIPTION >

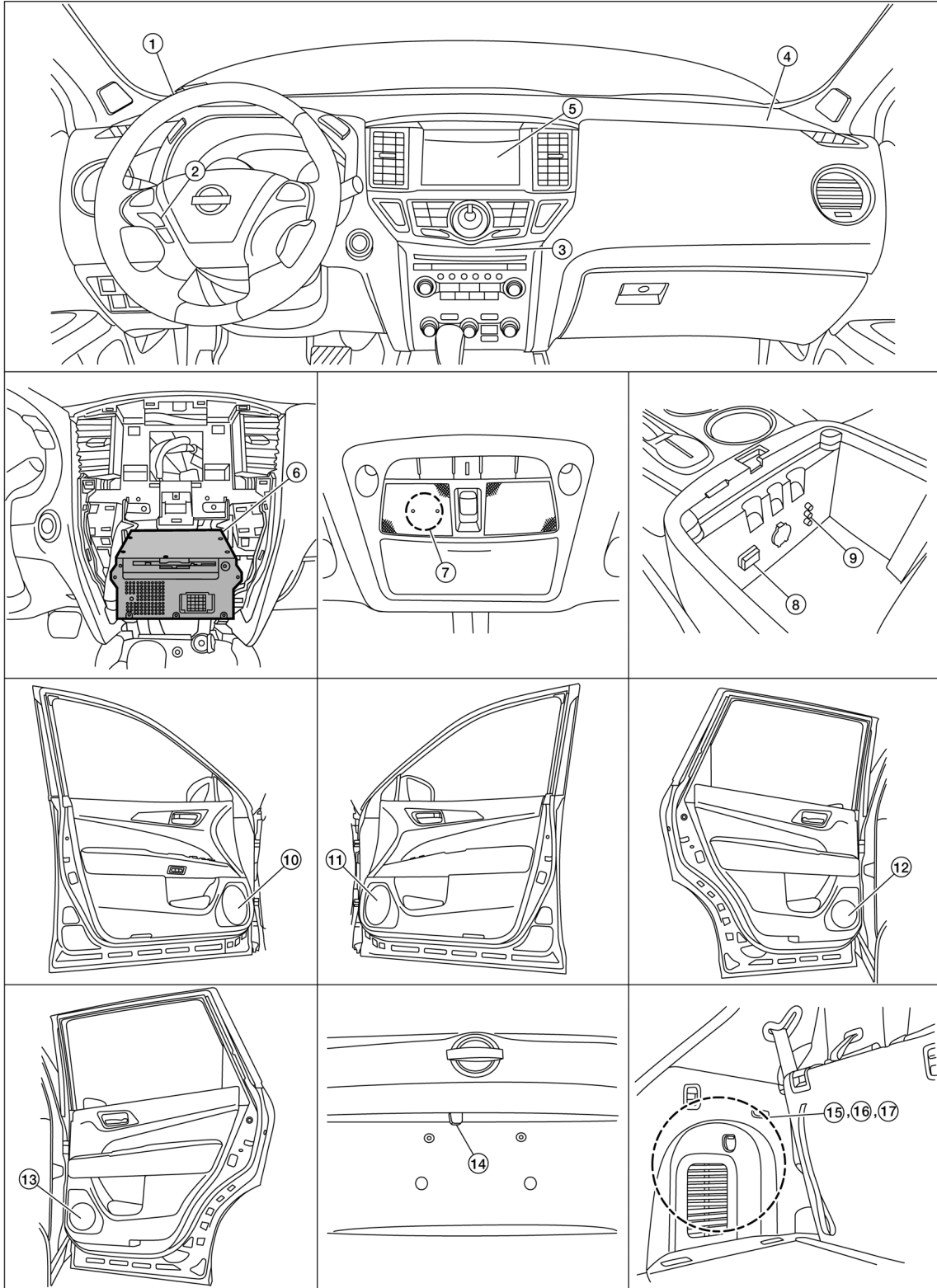
[MID AUDIO WITHOUT BOSE]

SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

INFOID:000000008954133



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COMPONENT PARTS

< SYSTEM DESCRIPTION >

[MID AUDIO WITHOUT BOSE]

- | | | |
|--------------------------------|---------------------------|---|
| 1. Instrument panel tweeter LH | 2. Steering switch | 3. A/C and AV switch assembly |
| 4. Instrument panel tweeter RH | 5. Display unit | 6. AV control unit (view with center stack removed) |
| 7. Microphone | 8. USB interface | 9. Front auxiliary input jacks |
| 10. Front door speaker LH | 11. Front door speaker RH | 12. Rear door speaker LH |
| 13. Rear door speaker RH | 14. Rear view camera | 15. Bluetooth® control unit |
| 16. Satellite radio tuner | 17. Bluetooth® antenna | |

Component Description

INFOID:000000008954134

Part name	Description
AV control unit	<ul style="list-style-type: none"> • Master unit of MULTI AV system. • AV control unit includes audio, USB connection and vehicle status functions. • Connected to MULTI AV system control units via AV communication. • Connected to other vehicle control units via CAN communication to obtain necessary information for vehicle information function. • Inputs signals for driving status recognition (vehicle speed, reverse and parking brake). • TEL voice signal and voice guidance signal are input from Bluetooth® control unit. • Camera image signal is received and transmitted to display unit.
Display unit	<ul style="list-style-type: none"> • Display image is controlled by AV control unit via serial communication. • Receives power (signal VCC and inverter VCC) from AV control unit. • RGB image signals (RGB image, RGB area and RGB synchronizing) are input from AV control unit. • Composite image signals are input from AV control unit. • Synchronizing signals (HP, VP) are output to AV control unit.
Front door speaker	Outputs low and mid range sounds.
Instrument panel tweeter	Outputs high range sounds.
Rear door speaker	Outputs low, mid and high range sounds.
A/C and AV switch assembly	<ul style="list-style-type: none"> • Operation panels are equipped with switches for audio and air conditioner operations. • Operation signal is transmitted via AV communication to AV control unit. • Disk eject operation signal is performed via hardwire.
Rear view camera	<ul style="list-style-type: none"> • Camera power supply is input from AV control unit. • Vehicle rear view image is transmitted to display unit via AV control unit.
Steering switch	<ul style="list-style-type: none"> • Operations for audio, hands-free phone and voice recognition are possible. • Steering switch signal (operation signal) is output to AV control unit.
Microphone	<ul style="list-style-type: none"> • Used for hands-free phone and voice recognition operation. • Microphone signal is transmitted to Bluetooth® control unit. • Power (Microphone VCC) is supplied from Bluetooth® control unit.
Antenna amp.	<ul style="list-style-type: none"> • Radio signal received by window antenna is amplified and transmitted to AV control unit. • Power (antenna amp. ON signal) is supplied from AV control unit.
Satellite radio tuner	<ul style="list-style-type: none"> • Inputs satellite radio signal from satellite radio antenna and outputs sound signal to AV control unit. • Controlled via serial communication (communication signal and request signal) by AV control unit.
Satellite radio antenna	Satellite radio signal is received and transmitted to satellite radio tuner.
Bluetooth® control unit	<ul style="list-style-type: none"> • Inputs TEL voice signal from Bluetooth® antenna and outputs it to AV control unit. • Controlled via AV communication by AV control unit.
Bluetooth® antenna	Receives TEL voice signal and outputs it to Bluetooth® control unit.
USB connector	USB sound and data input signals are transmitted to AV control unit.

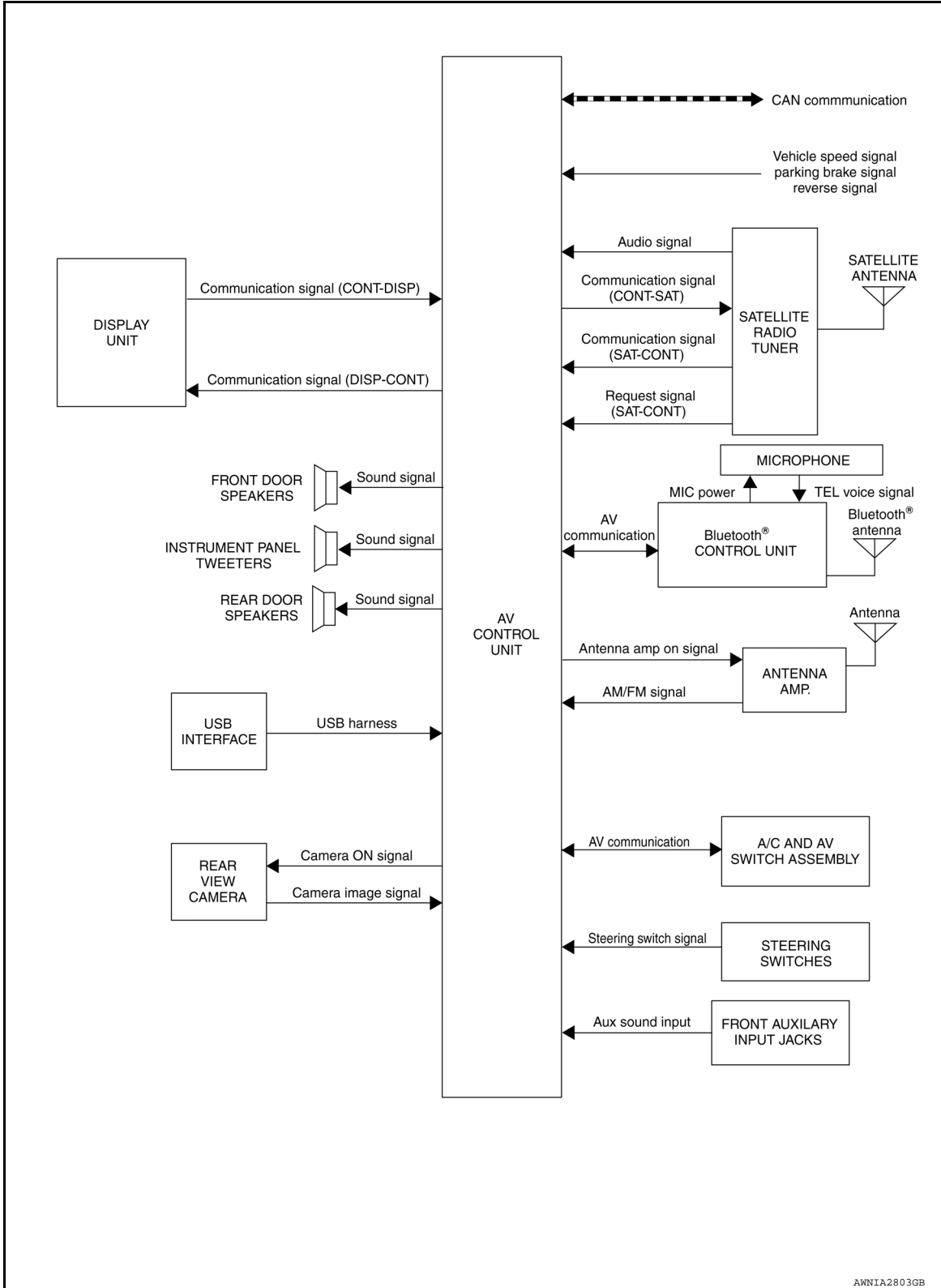
SYSTEM

< SYSTEM DESCRIPTION >

[MID AUDIO WITHOUT BOSE]

SYSTEM MULTI AV SYSTEM MULTI AV SYSTEM : System Diagram

INFOID:000000008954135



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AV

MULTI AV SYSTEM : System Description

INFOID:000000008954136

AUDIO SYSTEM

The audio system consists of the following components

- AV control unit
- A/C and AV switch assembly
- Display unit
- Steering switches
- Front door speakers
- Instrument panel tweeters
- Rear door speakers
- Antenna

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

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

SATELLITE RADIO SYSTEM

The satellite radio system consists of the following components

- Satellite antenna
- Satellite radio tuner

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

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

HANDS-FREE PHONE SYSTEM

System Operation

NOTE:

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

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

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

Bluetooth® Control Unit

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

Steering Wheel Audio Control Switches

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

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

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

Microphone

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

AV Control Unit

The AV control unit receives signals from the Bluetooth® control unit and sends audio signals to the speakers.

REAR VIEW CAMERA SYSTEM

SYSTEM

< SYSTEM DESCRIPTION >

[MID AUDIO WITHOUT BOSE]

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

A

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.

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DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< SYSTEM DESCRIPTION >

[MID AUDIO WITHOUT BOSE]

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

Description

INFOID:000000008954137

The AV control unit on board diagnosis includes the following functions:

- A/C and AV switch assembly self diagnosis that checks the ON/OFF operation (continuity) of each switch in the A/C and AV switch assembly.

NOTE:

The hazard switch and disk eject switch are not included in this operation check.

- AV control unit on board diagnosis performs the following functions listed in the table below:

Mode		Description
Self Diagnosis		<ul style="list-style-type: none"> • AV control unit diagnosis. • Diagnoses the connections across system components (between AV control unit and each unit).
Confirmation/ Adjustment	Display Diagnosis	<ul style="list-style-type: none"> • Color tone check using color spectrum bar display and white display. • Light and shade check by gradation bar display.
	Vehicle Signals	Diagnosis of signals can be performed for vehicle speed, parking brake, lights, ignition and reverse.
	Speaker Test	Speaker connection can be confirmed by test tone.
	Error History	<ul style="list-style-type: none"> • The system malfunction and frequency of past occurrences is displayed. • When malfunctioning item is selected, time and place that the malfunction last occurred are displayed.
	Camera Cont.	<ul style="list-style-type: none"> • Guiding line position that overlaps rear view camera image can be adjusted. • Configuration stored in the AV control unit can be checked.
	Vehicle CAN Diagnosis	Transmit/receive function of CAN communication can be monitored.
	AV COMM Diagnosis	Communication condition of each unit of Multi AV system can be monitored.
	Delete Unit Connection Log	Erase connection history of unit and error history.
	Initialize Settings	Initializes the AV control unit memory.

Perform CONSULT diagnosis if the AV control unit on board diagnosis does not start, the screen does not display anything, or the A/C and AV switch assembly self diagnosis does not function.

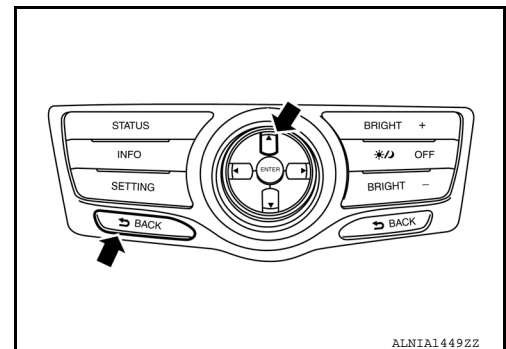
On Board Diagnosis Function

INFOID:000000008954138

METHOD OF STARTING

A/C and AV Switch Assembly Self Diagnosis

- Press the BACK and UP switches within 10 seconds after turning the ignition switch from OFF to ACC and hold them for 3 seconds or more.
- The buzzer sounds, all indicators of the switches illuminate, and the self-diagnosis mode begins.
- The ON position continuity of each switch can be checked by pressing the switch. The buzzer sounds if continuity is present.
- The self diagnosis mode is canceled when the ignition switch is turned OFF.



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AV Control Unit Self Diagnosis

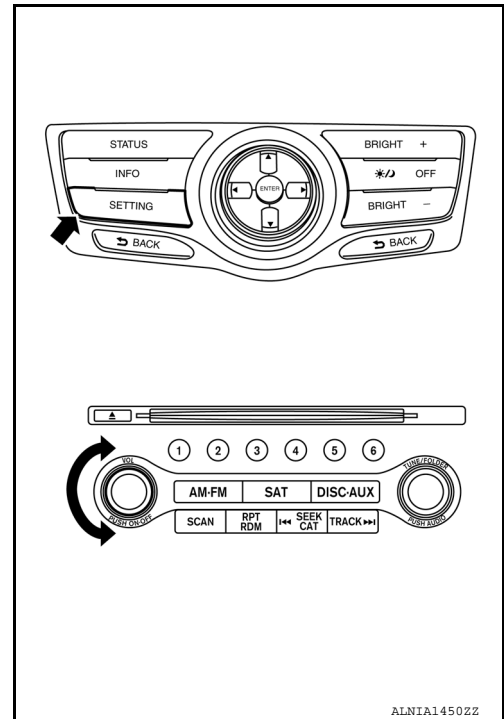
1. Turn the ignition ON.
2. Turn the audio system OFF.

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

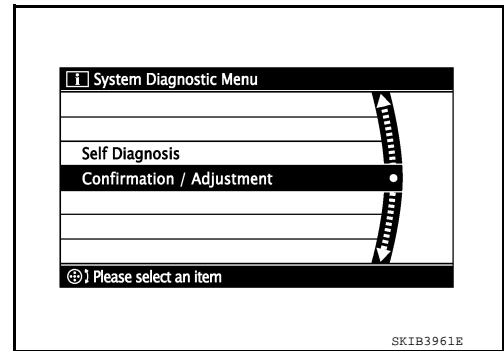
[MID AUDIO WITHOUT BOSE]

< SYSTEM DESCRIPTION >

- While pressing the SETTING button, turn the volume control dial clockwise or counterclockwise for 40 clicks or more. When self-diagnosis mode begins, a short beep will be heard. Shifting from current screen to previous screen is performed by pressing BACK button.



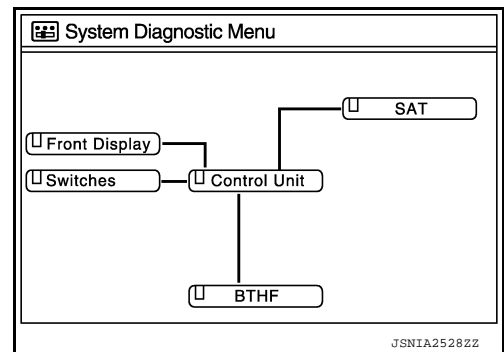
- The trouble diagnosis initial screen is displayed, and Self Diagnosis or Confirmation/Adjustment can be selected.



SELF DIAGNOSIS MODE

AV Control Unit Self Diagnosis

- Select Self Diagnosis.
- Self diagnosis screen is displayed. The bar graph visible in center of screen indicates progress of self diagnosis.
- Diagnosis results are displayed after self diagnosis is completed. Unit names and connection lines are color coded according to diagnostic results. Control Unit (AV control unit) is displayed in red.



Diagnosis results	Unit	Connection line
Normal	Green	Green
Connection malfunction	Gray	Yellow
Unit malfunction ¹	Red	Green

1: Control Unit (AV control unit) is displayed in red.

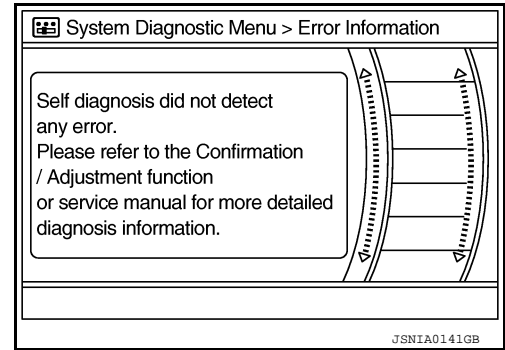
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DIAGNOSIS SYSTEM (AV CONTROL UNIT)

[MID AUDIO WITHOUT BOSE]

< SYSTEM DESCRIPTION >

- Replace AV control unit if Self Diagnosis did not run because control unit malfunction is indicated. The symptom is AV control unit internal error. Refer to [AV-186, "Removal and Installation"](#).
 - If multiple errors occur at the same time for a single unit, the screen switch colors are determined according to the following order of priority: red > gray.
4. Comments of self diagnosis results can be viewed in the diagnosis result screen.



AV Control Unit Self Diagnosis Results

Only Unit Part Is Displayed In Red		
Screen switch	Description	Possible cause
Control unit	Malfunction is detected in AV control unit power supply or ground circuit.	<ul style="list-style-type: none"> • AV control unit power supply or ground circuits. Refer to AV-143, "AV CONTROL UNIT : Diagnosis Procedure". • If no malfunction is detected in AV control unit power supply and ground circuits, replace AV control unit. Refer to AV-186, "Removal and Installation".

A Connecting Cable Between Units Is Displayed In Yellow		
Area with yellow connection lines	Description	Possible cause
Control unit ↔ Front Display	Malfunction is detected in serial communication circuits between AV control unit and display unit.	Serial communication circuits between AV control unit and display unit. Refer to AV-135, "Diagnosis Procedure" .
Control unit ↔ SAT	When any of the following is detected: <ul style="list-style-type: none"> • satellite radio tuner power supply or ground circuit malfunction. • communication circuit malfunction between AV control unit and satellite radio tuner. • request signal circuit malfunction between AV control unit and satellite radio tuner. 	<ul style="list-style-type: none"> • Satellite radio tuner power supply or ground circuits. Refer to AV-145, "SATELLITE RADIO TUNER : Diagnosis Procedure". • Communication circuit between AV control unit and satellite radio tuner. Refer to AV-137, "Diagnosis Procedure". • Request signal circuit between AV control unit and satellite radio tuner. Refer to AV-137, "Diagnosis Procedure".
Control unit ↔ BTHF	When any of the following is detected: <ul style="list-style-type: none"> • Bluetooth® control unit power supply or ground circuit malfunction. • AV communication circuit malfunction between AV control unit and Bluetooth® control unit. 	<ul style="list-style-type: none"> • Bluetooth® control unit power supply or ground circuits. Refer to AV-146, "BLUETOOTH® CONTROL UNIT : Diagnosis Procedure". • AV communication circuits between AV control unit and Bluetooth® control unit.

AV Control Unit Confirmation/Adjustment

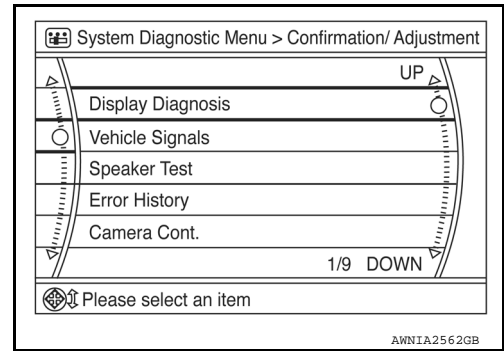
1. Select Confirmation/Adjustment.

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

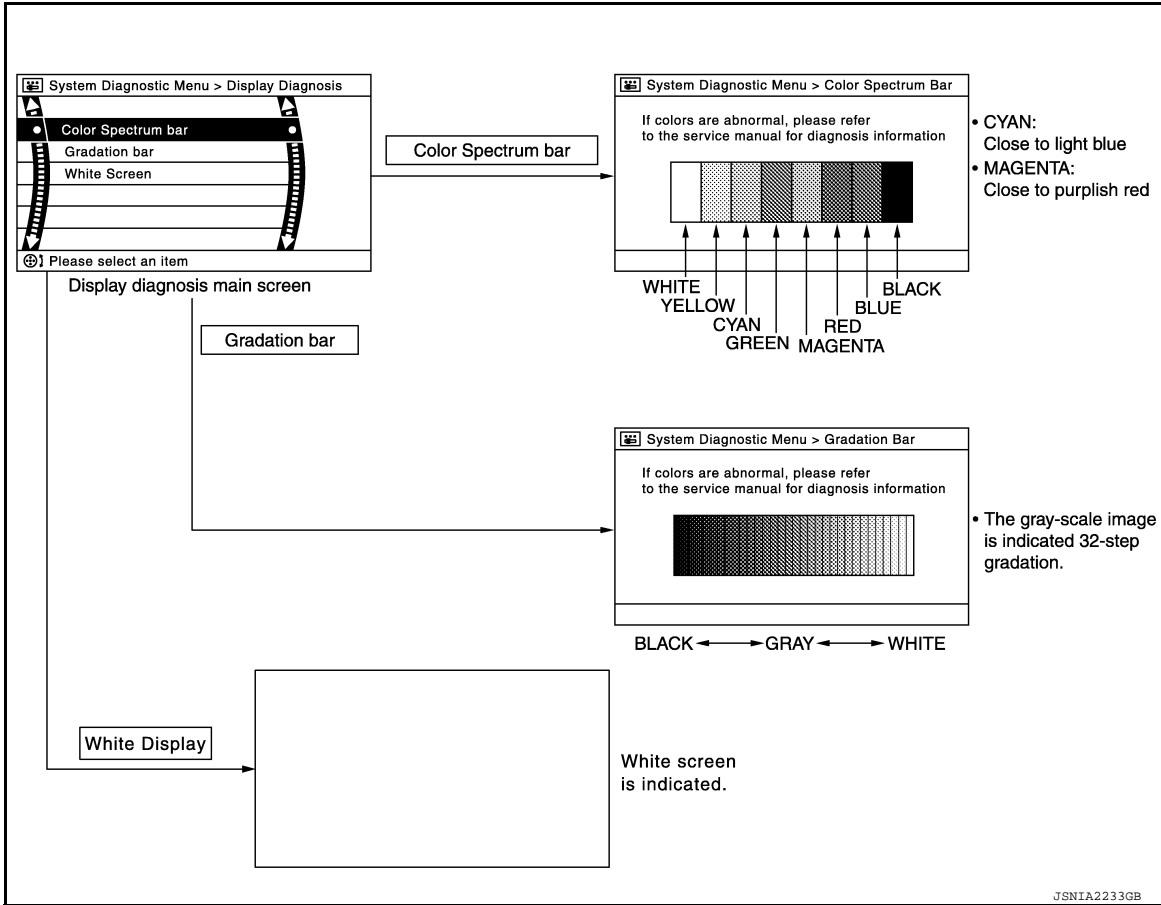
[MID AUDIO WITHOUT BOSE]

< SYSTEM DESCRIPTION >

- Select each switch on the Confirmation/Adjustment screen to display the relevant trouble diagnosis screen. Press the BACK switch to return to the initial Confirmation/Adjustment screen.

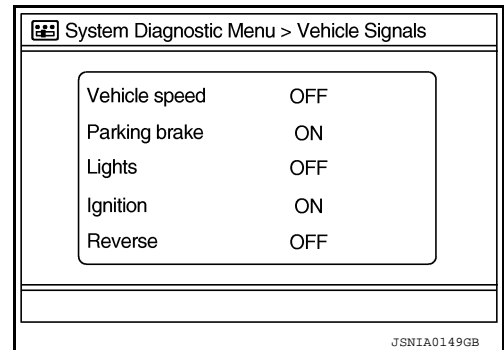


Display Diagnosis



Vehicle Signals

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



Speaker Test

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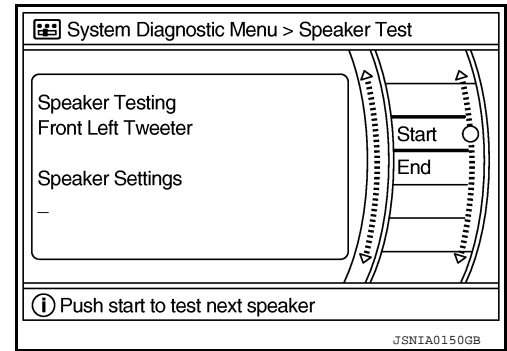
AV

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

[MID AUDIO WITHOUT BOSE]

< SYSTEM DESCRIPTION >

Select Speaker Test to display the Speaker Diagnosis screen. Press Start to generate a test tone in a speaker. Press Start again to generate a test tone in the next speaker. Press End to stop the test tones.



Error History

The self diagnosis results are judged depending on whether any error occurs from when Self diagnosis is selected until the self diagnosis results are displayed.

However, the diagnosis results are judged normal if an error has occurred before the ignition switch is turned ON and then no error has occurred until the self diagnosis start. Check the Error Record to detect any error that may have occurred before the self diagnosis start because of this situation.

The frequency of occurrence is displayed in a count up manner. The actual count up method differs depending on the error item.

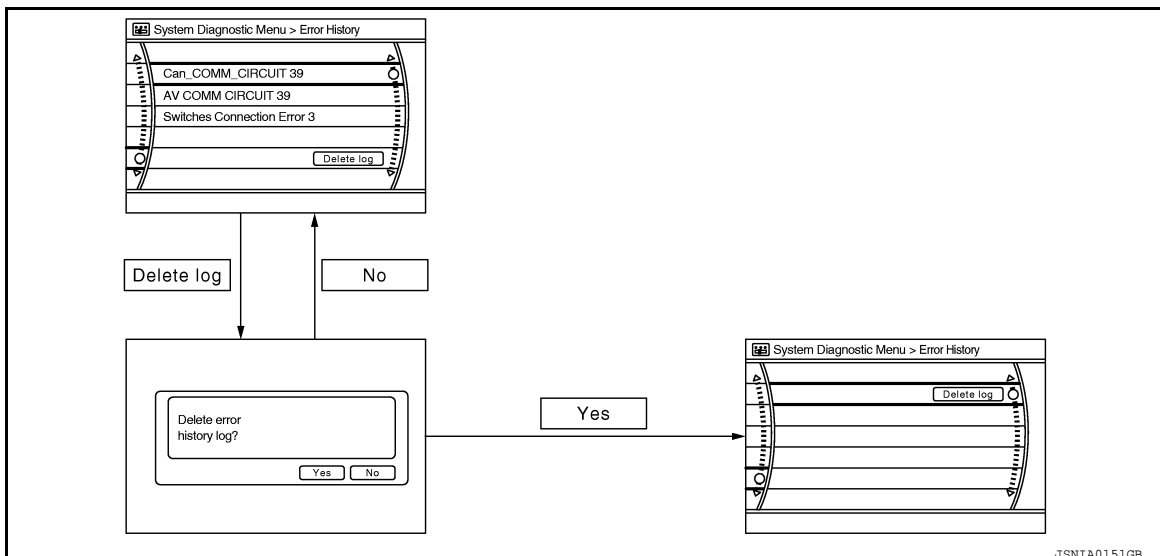
Count up method A

- The counter resets to 0 if an error occurs when ignition switch is turned ON. The counter increases by 1 if the condition is normal at a next ignition ON cycle.
- The counter upper limit is 39. Any counts exceeding 39 are ignored. The counter can be reset (no error record display) with the "Delete log" switch or CONSULT.

Count up method B

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

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



Error item

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

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

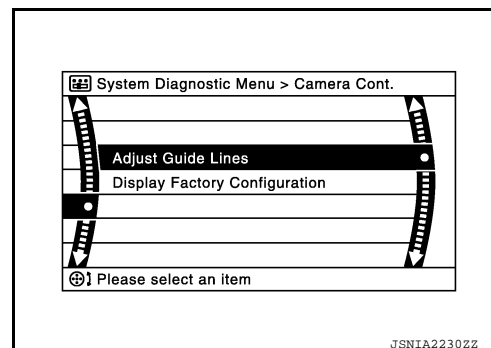
< SYSTEM DESCRIPTION >

[MID AUDIO WITHOUT BOSE]

Error item	Description	Possible cause
CAN COMM CIRCUIT	CAN communication malfunction is detected.	Perform diagnosis with CONSULT, then repair the malfunctioning components according to diagnosis results. Refer to AV-69, "CONSULT Function"
CONTROL UNIT (CAN)	CAN initial diagnosis malfunction is detected.	Replace the AV control unit if the malfunction occurs constantly. Refer to AV-186, "Removal and Installation" .
CONTROL UNIT (AV)	AV communication circuit initial diagnosis malfunction is detected.	
FLASH-ROM Error Of Control Unit CAN Controller Memory Error	AV control unit malfunction is detected.	
Display Connection Error	When any of the following is detected: <ul style="list-style-type: none"> display unit power supply or ground circuits malfunction. communication circuit malfunction between AV control unit and display unit. 	<ul style="list-style-type: none"> Display unit power supply or ground circuits. Refer to AV-143, "DISPLAY UNIT : Diagnosis Procedure". Communication circuits between AV control unit and display unit. Refer to AV-135, "Diagnosis Procedure".
XM Connection Error	When any of the following is detected: <ul style="list-style-type: none"> satellite radio tuner power supply or ground circuit malfunction. communication circuit malfunction between AV control unit and satellite radio tuner. request signal circuit malfunction between AV control unit and satellite radio tuner. 	<ul style="list-style-type: none"> Satellite radio tuner power supply or ground circuits. Refer to AV-145, "SATELLITE RADIO TUNER : Diagnosis Procedure". Communication circuit between AV control unit and satellite radio tuner. Refer to AV-137, "Diagnosis Procedure". Request signal circuit between AV control unit and satellite radio tuner. Refer to AV-137, "Diagnosis Procedure".
<ul style="list-style-type: none"> AV COMM CIRCUIT Switches Connection Error 	When any of the following is detected: <ul style="list-style-type: none"> A/C and AV switch assembly power supply or ground circuit malfunction. AV communication circuit malfunction between AV control unit and A/C and AV switch assembly. 	<ul style="list-style-type: none"> A/C and AV switch assembly power supply or ground circuits. Refer to AV-147, "A/C AND AV SWITCH ASSEMBLY : Diagnosis Procedure". AV communication circuits between AV control unit and A/C and AV switch assembly.
<ul style="list-style-type: none"> AV COMM CIRCUIT BTHF Unit Connection Error 	When any of the following is detected: <ul style="list-style-type: none"> Bluetooth® control unit power supply or ground circuit malfunction. AV communication circuit malfunction between AV control unit and Bluetooth® control unit. 	<ul style="list-style-type: none"> Bluetooth® control unit power supply or ground circuits. Refer to AV-146, "BLUETOOTH® CONTROL UNIT : Diagnosis Procedure". AV communication circuits between AV control unit and Bluetooth® control unit.
<ul style="list-style-type: none"> AV COMM CIRCUIT Switches Connection Error BTHF Unit Connection Error 	AV communication circuit malfunction between AV control unit and A/C and AV switch assembly.	AV communication circuits between AV control unit and A/C and AV switch assembly.

Camera Cont.

The two functions of “Correct Draw Line of Rear view Cam”, “Confirm Configuration” are available.



Adjust Offset of Rear view Camera

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

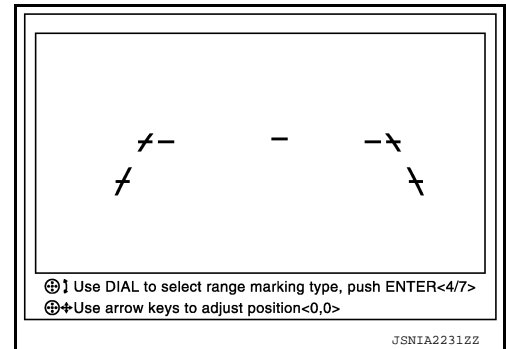
[MID AUDIO WITHOUT BOSE]

< SYSTEM DESCRIPTION >

- Use this mode to adjust the guide line display position of the rear view monitor if necessary after removing the rear view monitor camera.

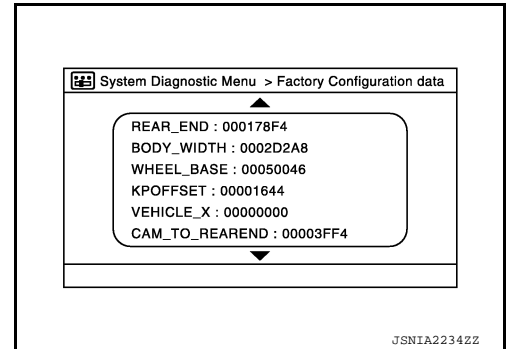
CAUTION:

After the adjustment, never perform other operations for one minute.



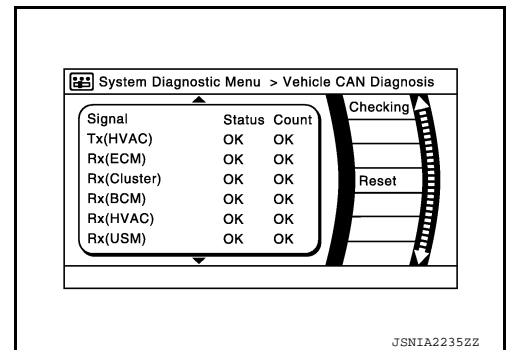
Factory Configuration Confirmation

- Configuration stored in the AV control unit can be checked.



Vehicle CAN Diagnosis

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



Items	Display (Current)	Malfunction counter (Past)
Tx(HVAC)	OK / ???	OK / 0 - 39
Rx(ECM)	OK / ???	OK / 0 - 39
Rx(Cluster)	OK / ???	OK / 0 - 39
Rx(BCM)	OK / ???	OK / 0 - 39
Rx(HVAC)	OK / ???	OK / 0 - 39
Rx(USM)	OK / ???	OK / 0 - 39
Rx(VDC)	OK / ???	OK / 0 - 39
Rx(STRG)	OK / ???	OK / 0 - 39

NOTE:

"???" indicates UNKWN.

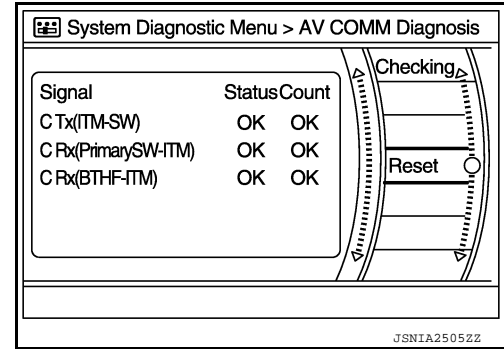
AV COMM Diagnosis

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

[MID AUDIO WITHOUT BOSE]

< SYSTEM DESCRIPTION >

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



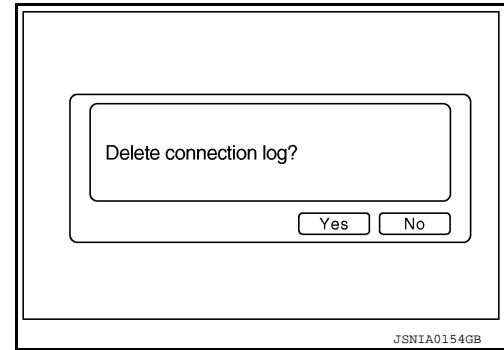
Items	Status (Current)	Counter (Past)
C Tx(ITM-SW)	OK / ???	OK / 0 – 39
C Rx(PrimarySW-ITM)	OK / ???	OK / 0 – 39
C Rx(BTHF-ITM)	OK / ???	OK / 0 – 39

NOTE:

“???” indicates UNKWN.

Delete Unit Connection Log

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

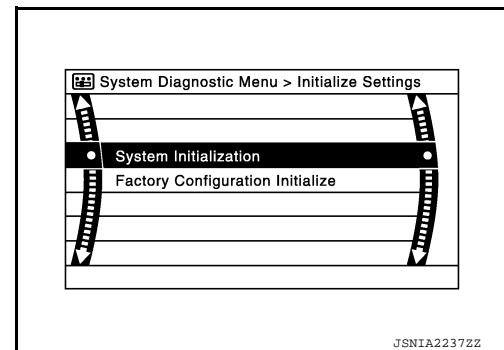


Initialize Settings

“User Data Initialization” and “Accessory Number Initialization” are possible.

CAUTION:

- **Never perform Accessory Number Initialization except when configuration is unsuccessful.**
- **Accessory Number Initialization requires configuration. For details, refer to [AV-116, "CONFIGURATION \(AV CONTROL UNIT\) : Description"](#).**



CONSULT Function

CONSULT FUNCTIONS

CONSULT performs the following functions via communication with the AV control unit.

Direct Diagnostic Mode	Description
Ecu Identification	The AV control unit part number is displayed.
Self Diagnostic Result	The AV control unit self diagnostic results are displayed.
Data Monitor	The AV control unit input/output data is displayed in real time.
Work support	The settings for AV control unit functions can be changed.
Configuration	<ul style="list-style-type: none"> • The vehicle specification can be read and saved. • The vehicle specification can be written when replacing AV control unit.
CAN Diag Support Mntr	<ul style="list-style-type: none"> • The result of transmit/receive diagnosis of AV communication is displayed. • The result of transmit/receive diagnosis of CAN communication is displayed.

ECU IDENTIFICATION

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DIAGNOSIS SYSTEM (AV CONTROL UNIT)

[MID AUDIO WITHOUT BOSE]

< SYSTEM DESCRIPTION >

The part number of AV control unit is displayed.

SELF DIAGNOSTIC RESULT

Refer to [AV-78, "DTC Index"](#).

DATA MONITOR

Monitor Item [Unit]	Description
VHCL SPD SIG [On/Off]	<ul style="list-style-type: none">On: vehicle speed > 0 km/h (0 MPH).Off: vehicle speed = 0 km/h (0 MPH).
PKB SIG [On/Off]	<ul style="list-style-type: none">On: parking brake applied.Off: parking brake released.
ILLUM SIG [On/Off]	<ul style="list-style-type: none">On: optical sensor signal is received.Off: optical sensor signal is not received.
IGN SIG [On/Off]	<ul style="list-style-type: none">On: ignition switch ON.Off: ignition switch ACC.
REV SIG [On/Off]	<ul style="list-style-type: none">On: selector lever in R position.Off: selector lever in any position other than R.

CONFIGURATION

Refer to [AV-116, "CONFIGURATION \(AV CONTROL UNIT\) : Description"](#).

CAN DIAG SUPPORT MNTR

Refer to [LAN-17, "CAN Diagnostic Support Monitor"](#).

DIAGNOSIS SYSTEM (BLUETOOTH® CONTROL UNIT)

< SYSTEM DESCRIPTION >

[MID AUDIO WITHOUT BOSE]




DIAGNOSIS SYSTEM (BLUETOOTH® CONTROL UNIT)

Diagnosis Description



INFOID:000000008954140

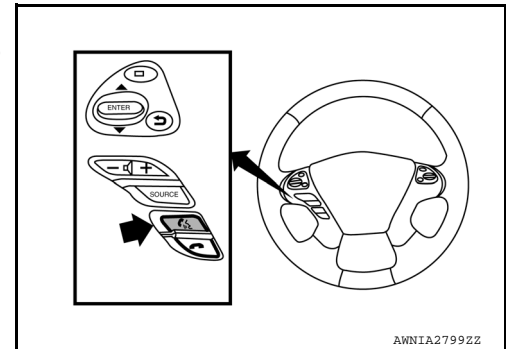
The Bluetooth® control unit has two diagnostic checks. The first diagnostic check is performed automatically every ignition cycle during control unit initialization. The second diagnostic check is performed by the technician using the steering wheel audio control switches prior to trouble diagnosis.



Bluetooth® CONTROL UNIT INITIALIZATION CHECKS

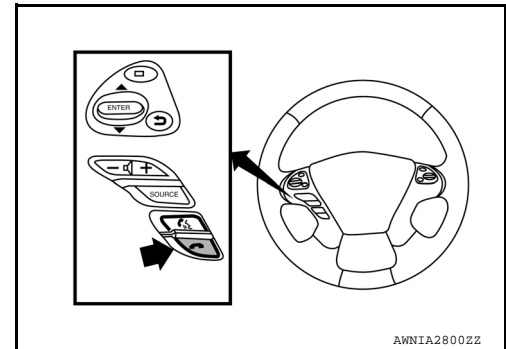
- Internal control unit failure
- Bluetooth® antenna connection open or shorted
- Steering wheel audio control switches   (PHONE/SEND),  (PHONE/END) stuck closed
- Vehicle speed pulse count
- Microphone connection test (with playback to operator)
- Bluetooth® inquiry check

OPERATION PROCEDURE

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



4. While the prompt is playing, press and hold the steering wheel audio control switch  (PHONE/END) button until you hear the “Diagnostics mode” prompt. The Bluetooth® system will sound a 5-second beep.
5. While the beep is sounding, press and hold the steering wheel audio control switch  (PHONE/END) button again until you hear prompts.
6. The Bluetooth® system has now entered into the diagnostic mode. Results of the diagnostic checks will be verbalized to the technician. Refer to [AV-71, "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-71, "Work Flow"](#).



Work Flow

INFOID:000000008954141

Failure Message	Action
“Internal failure”	Replace Bluetooth® control unit. Refer to AV-196, "Removal and Installation" .
“Bluetooth® antenna open”	1. Inspect harness connection. 2. Replace Bluetooth® antenna. Refer to AV-196, "Removal and Installation" .
“Bluetooth® antenna shorted”	
“Phone/Send for Hands Free System is stuck”	Check steering wheel audio control switches. Refer to AV-177, "Diagnosis Procedure" .
“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-197, "Removal and Installation" .

AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[MID AUDIO WITHOUT BOSE]

ECU DIAGNOSIS INFORMATION

AV CONTROL UNIT

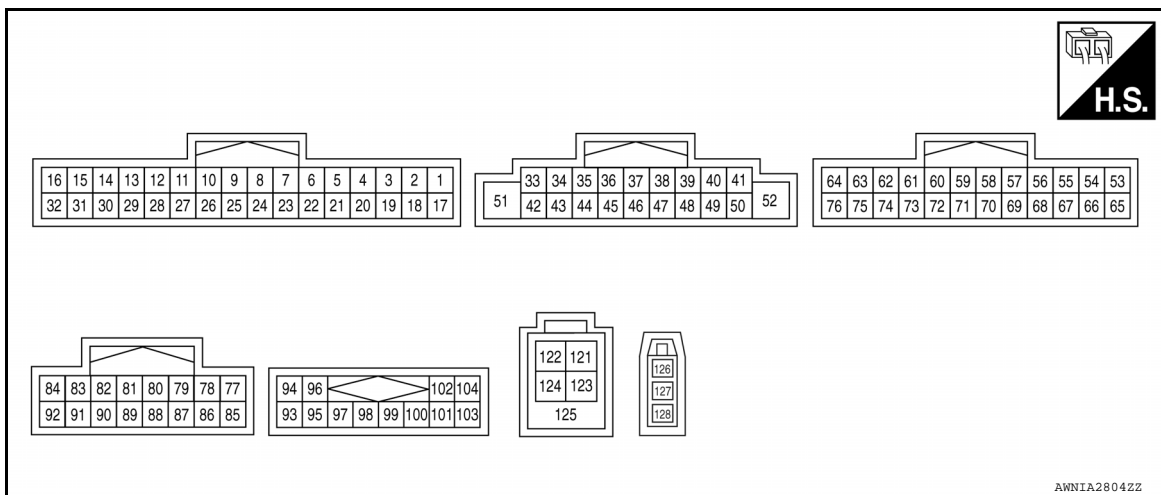
Reference Value

INFOID:000000008954142

VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition	Value/Status
VHCL SPD SIG	Vehicle speed = 0 km/h (0 MPH).	Off
	Vehicle speed > 0 km/h (0 MPH).	On
PKB SIG	Parking brake released.	Off
	Parking brake applied.	On
ILLUM SIG	Optical sensor signal is not received.	Off
	Optical sensor signal is received.	On
IGN SIG	Ignition switch OFF or ACC.	Off
	Ignition switch ON.	On
REV SIG	Selector lever in any position other than R.	Off
	Selector lever in R position.	On

TERMINAL LAYOUT



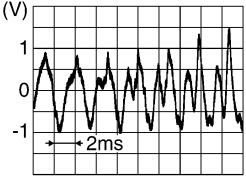
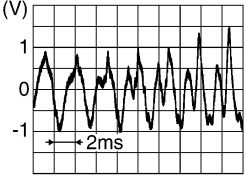
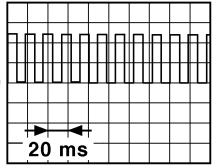
PHYSICAL VALUES

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
5 (W)	4 (B)	Bluetooth® voice signal	Input	Ignition switch ON	During voice guide output with switch pressed.	
6	—	Shield	—	—	—	—
10 (V)	Ground	Eject ground	—	Ignition switch ON		0 V

AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[MID AUDIO WITHOUT BOSE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
11 (L)	—	CAN-H	Input/ Output	—	—	—
12 (P)	—	CAN-L	Input/ Output	—	—	—
13 (SB)	—	AV communication signal (H)	Input/ Output	—	—	—
14 (LG)	—	AV communication signal (L)	Input/ Output	—	—	—
15 (SB)	—	AV communication signal (H)	Input/ Output	—	—	—
16 (LG)	—	AV communication signal (L)	Input/ Output	—	—	—
20 (W)	22 (B)	AUX sound signal RH	Input	Ignition switch ON	AUX mode selected.	
21 (R)	22 (B)	AUX sound signal LH	Input	Ignition switch ON	AUX mode selected.	
25	—	Shield	—	—	—	—
28 (Y)	Ground	CD (DVD) eject signal	Input	Ignition switch ON	Pressing eject switch.	0 V
					Except above.	5.0 V
29 (LG)	Ground	Ignition signal	Input	Ignition switch ON		Battery voltage
30 (R)	Ground	Reverse signal	Input	Ignition switch ON	Selector lever in R position.	Battery voltage
					Selector lever in any posi- tion other than R.	0 V
31 (G)	Ground	Parking brake signal	Input	Ignition switch ON	Parking brake applied.	4.5 V
					Parking brake released.	0 V
32 (GR)	Ground	Vehicle speed signal	Input	Ignition switch ON	Vehicle speed approx. 40 km/h (25 MPH)	<p>NOTE: The maximum voltage varies de- pending on the specification (destination unit).</p> 

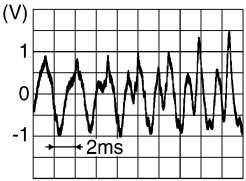
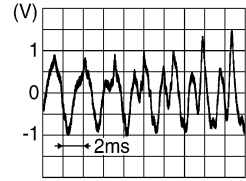
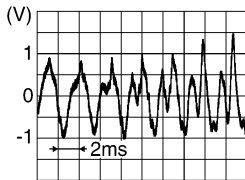
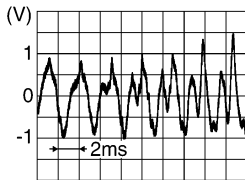
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AV CONTROL UNIT

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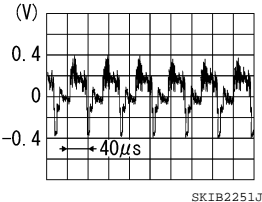
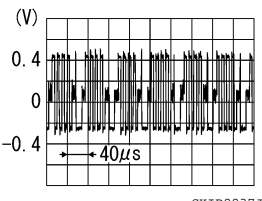
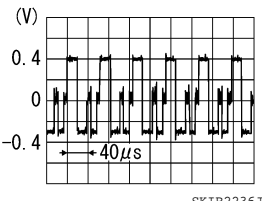
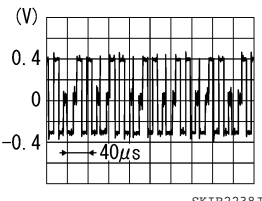
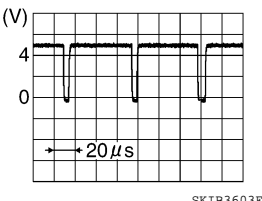
[MID AUDIO WITHOUT BOSE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
34 (SB)	35 (V)	Sound signal front door speaker and instrument panel tweeter LH	Output	Ignition switch ON	Audio output	 <small>SKIB3609E</small>
36 (BR)	37 (Y)	Sound signal rear door speaker LH	Output	Ignition switch ON	Audio output	 <small>SKIB3609E</small>
38 (G)	47 (B)	Steering switch signal A	Input	Ignition switch ON	Press SOURCE switch	0V
					Press Δ switch	1.0V
					Press ∇ switch	2.0V
					Press switch	3.0V
					Press ENTER switch	4.0V
					Except above	5.0V
39 (P)	Ground	ACC power supply	Input	Ignition switch ACC		Battery voltage
41 (R)	Ground	Illumination signal	Input	Ignition switch OFF	Lighting switch OFF	0 V
					Lighting switch ON	Battery voltage
43 (BR)	44 (Y)	Sound signal front door speaker and instrument panel tweeter RH	Output	Ignition switch ON	Audio output	 <small>SKIB3609E</small>
45 (L)	46 (SB)	Sound signal rear door speaker RH	Output	Ignition switch ON	Audio output	 <small>SKIB3609E</small>
48 (W)	47 (B)	Steering switch signal B	Input	Ignition switch ON	Press switch	0V
					Press switch	1.0V
					Press switch	2.0V
					Press switch	3.0V
					Press DISP switch	4.0V
					Except above	5.0V

AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

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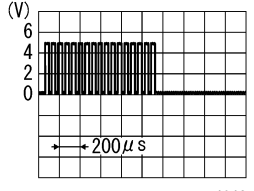
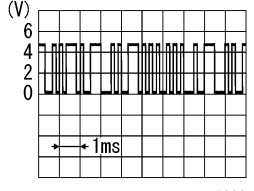
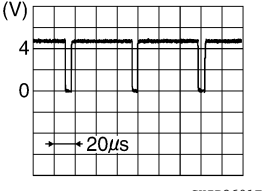
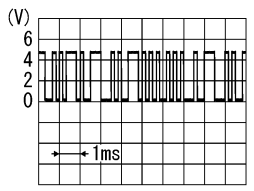
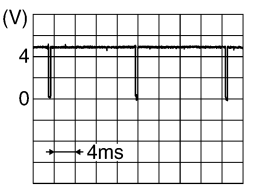
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
51 (Y)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
52 (B)	Ground	Ground	—	Ignition switch ON		0 V
53 (B)	Ground	Composite image signal	Output	Ignition switch ON	Camera image or AUX image displayed	
54 (W)	Ground	Composite image signal ground	—	Ignition switch ON		0 V
55 (W)	Ground	RGB signal (B: blue)	Output	Ignition switch ON	Begin Confirmation/Adjustment mode, then select "Color Spectrum Bar"	
56 (B)	Ground	RGB signal (G: green)	Output	Ignition switch ON	Begin Confirmation/Adjustment mode, then select "Color Spectrum Bar"	
57 (R)	Ground	RGB signal (R: red)	Output	Ignition switch ON	Begin Confirmation/Adjustment mode, then select "Color Spectrum Bar"	
58 (B)	Ground	RGB synchronizing signal	Output	Ignition switch ON		
59	—	Shield (RGB SYN GND)	—	—	—	—

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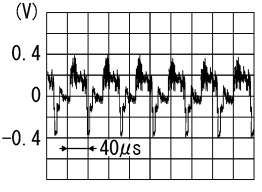
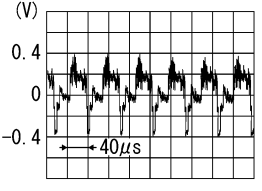
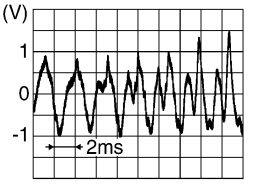
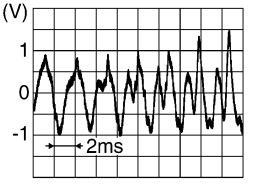
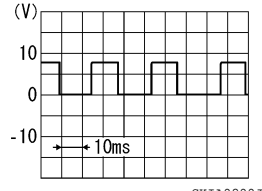
[MID AUDIO WITHOUT BOSE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
60 (W)	Ground	RGB area (YS) signal	Output	Ignition switch ON	RGB image displayed	5.0 V
					AUX image displayed	 <p style="text-align: right; font-size: small;">PKIB4948J</p>
61 (B)	Ground	Communication signal (DISP→CONT)	Input	Ignition switch ON	Adjusting display bright- ness	 <p style="text-align: right; font-size: small;">PKIB5039J</p>
62 (G)	Ground	Horizontal synchronizing (HP) signal	Input	Ignition switch ON		 <p style="text-align: right; font-size: small;">SKIB3601E</p>
63 (B)	Ground	Signal ground	—	Ignition switch OFF		0 V
64 (V)	Ground	Signal VCC	Output	Ignition switch ACC		9.0 V
66	—	Shield	—	—	—	—
67	—	Shield	—	—	—	—
72	—	Shield	—	—	—	—
73 (W)	Ground	Communication signal (CONT→DISP)	Output	Ignition switch ON	Adjusting display bright- ness	 <p style="text-align: right; font-size: small;">PKIB5039J</p>
74 (R)	Ground	Vertical synchronizing (VP) signal	Input	Ignition switch ON		 <p style="text-align: right; font-size: small;">SKIB3598E</p>
75 (LG)	Ground	Inverter ground	—	Ignition switch OFF		0 V
76 (L)	Ground	Inverter VCC	Output	Ignition switch ACC		9.0 V

AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[MID AUDIO WITHOUT BOSE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
82 (B)	Ground	Camera image signal	Input	Ignition switch ON	Camera image displayed	 <small>SKIB2251J</small>
83 (W)	Ground	AUX image signal	Input	Ignition switch ON	AUX image displayed	 <small>SKIB2251J</small>
87 (R)	Ground	Camera power supply	Output	Ignition switch ON	Selector lever in "R" posi- tion	6.0 V
88 (W)	Ground	Camera ground	—	Ignition switch ON		0 V
89	—	Shield	—	—	—	—
90	—	Shield	—	—	—	—
91 (B)	Ground	AUX image signal ground	—	Ignition switch ON		0 V
94 (B)	93 (W)	Satellite radio sound signal LH	Input	Ignition switch ON	Satellite radio mode select- ed	 <small>SKIB3609E</small>
96 (G)	95 (R)	Satellite radio sound signal RH	Input	Ignition switch ON	Satellite radio mode select- ed	 <small>SKIB3609E</small>
97	—	Shield	—	—	—	—
98	—	Shield	—	—	—	—
100 (W)	Ground	Request signal (SAT→CONT)	Input	Ignition switch ON	Satellite radio mode select- ed	 <small>SKIA9299J</small>

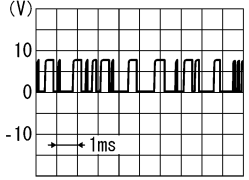
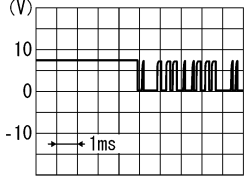
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AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[MID AUDIO WITHOUT BOSE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output	Ignition switch ON		
101 (B)	Ground	Communication signal (SAT→CONT)	Input	Ignition switch ON	Satellite radio mode select- ed	 SKIA9300J
102 (R)	Ground	Communication signal (CONT→SAT)	Output	Ignition switch ON	Satellite radio mode select- ed	 SKIA9301J
121 (G)	—	V BUS signal	—	—	—	—
122 (W)	—	USB ground	—	—	—	—
123 (R)	—	USB D+ signal	—	—	—	—
124 (L)	—	USB D- signal	—	—	—	—
125	—	Shield	—	—	—	—
126 (B)	—	Antenna amp. ON signal	Output	Ignition switch ON		Battery voltage
127 (B)	—	AM - FM main	Input	—	—	—
128 (B)	—	FM sub	Input	—	—	—

DTC Index

INFOID:000000008954143

CONSULT Display	Reference Page
U1000: CAN COMM CIRCUIT	AV-118, "DTC Logic"
U1010: CONTROL UNIT	AV-119, "DTC Logic"
U1200: CONT UNIT	AV-120, "DTC Logic"
U1216: CAN CONT	AV-121, "DTC Logic"
U1218: HDD CONN	AV-122, "DTC Logic"
U1219: HDD READ	AV-123, "DTC Logic"
U121A: HDD WRITE	AV-124, "DTC Logic"
U121B: HDD COMM	AV-125, "DTC Logic"
U121C: HDD ACCESS	AV-126, "DTC Logic"
U121D: DSP CONN	AV-127, "DTC Logic"
U121E: DSP COMM	AV-128, "DTC Logic"
U1225: USB CONTROLLER	AV-129, "DTC Logic"

AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[MID AUDIO WITHOUT BOSE]

CONSULT Display	Reference Page
U1227: DVD COMM	AV-130, "DTC Logic"
U1228: SUB CPU CONN	AV-131, "DTC Logic"
U1229: iPod CERTIFICATION	AV-132, "DTC Logic"
U122A: CONFIG UNFINISH	AV-133, "DTC Logic"
U122E: Built-in AUDIO CONN	AV-134, "DTC Logic"
U1240: SWITCH CONN	AV-141, "Description"
U1243: FRONT DISP CONN	AV-135, "DTC Logic"
U1255: SAT CONN	AV-137, "DTC Logic"
U1256: HAND FREE CONN	AV-141, "Description"
U1263: USB OVERCURRENT	AV-139, "DTC Logic"
U1264: ANTENNA AMP TERMINAL (OPEN or SHORT)	AV-140, "DTC Logic"
U1300: AV COMM CIRCUIT	AV-141, "Description"
U1310: CONTROL UNIT	AV-142, "DTC Logic"

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DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

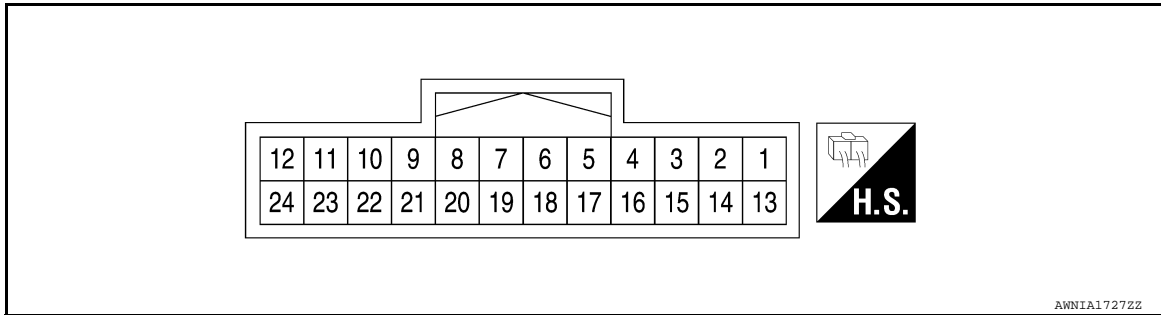
[MID AUDIO WITHOUT BOSE]

DISPLAY UNIT

Reference Value

INFOID:000000008954144

TERMINAL LAYOUT



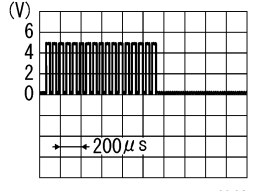
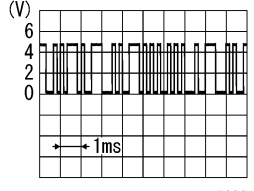
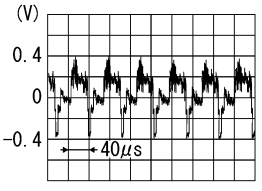
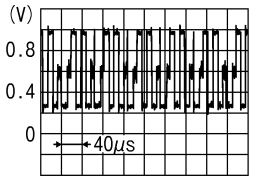
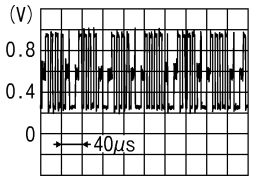
PHYSICAL VALUES

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/ Output			
1 (B)	Ground	Ground	—	Ignition switch ON	—	0V
2 (L)	Ground	Inverter VCC	Input	Ignition switch ACC	—	9V
3 (V)	Ground	Signal VCC	Input	Ignition switch ACC	—	9V
4 (W)	Ground	Composite image ground	—	Ignition switch ON	—	0V
5	—	Shield	—	—	—	—
6 (B)	Ground	RGB signal (G: green)	Input	Ignition switch ON	Start Confirmation/Adjust- ment mode, and then dis- play color bar by selecting "Color Spectrum Bar" on Display Diagnosis screen.	<p style="text-align: right; font-size: small;">JSN1A1030ZZ</p>
7	—	Shield (RGB GND)	—	—	—	—
8 (G)	Ground	Horizontal synchronizing (HP) signal	Output	Ignition switch ON	—	<p style="text-align: right; font-size: small;">SKIB3601E</p>

DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[MID AUDIO WITHOUT BOSE]

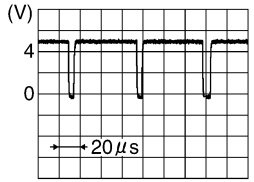
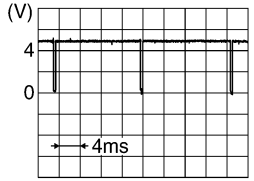
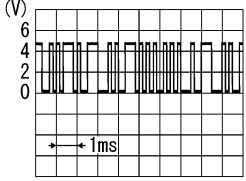
Terminal (Wire color)		Description		Condition	Reference value (Approx.)
+	-	Signal name	Input/ Output		
9 (W)	Ground	RGB area (YS) signal	Input	Ignition switch ON	At RGB image is displayed. 5V
				Ignition switch ON	At DVD image is displayed. 
11 (W)	Ground	Communication signal (CONT→DISP)	Input	Ignition switch ON	When adjusting display brightness. 
13 (LG)	Ground	Inverter ground	—	Ignition switch ON	— 0V
14 (B)	Ground	Signal ground	—	Ignition switch ON	— 0V
15 (B)	Ground	Composite image signal	Input	Ignition switch ON	At rear view camera image is displayed. 
17 (R)	Ground	RGB signal (R: red)	Input	Ignition switch ON	Start Confirmation/Adjustment mode, and then display color bar by selecting "Color Spectrum Bar" on Display Diagnosis screen. 
18 (W)	Ground	RGB signal (B: blue)	Input	Ignition switch ON	Start Confirmation/Adjustment mode, and then display color bar by selecting "Color Spectrum Bar" on Display Diagnosis screen. 

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< ECU DIAGNOSIS INFORMATION >

[MID AUDIO WITHOUT BOSE]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/ Output			
19 (B)	Ground	RGB synchronizing signal	Input	Ignition switch ON	—	 <p>SKIB3603E</p>
20 (R)	Ground	Vertical synchronizing (VP) signal	Output	Ignition switch On	—	 <p>SKIB3598E</p>
21	—	Shield	—	—	—	—
22 (B)	Ground	Communication signal (DISP→CONT)	Output	Ignition switch ON	When adjusting display brightness.	 <p>PKIB5039J</p>
23	—	Shield	—	—	—	—

SATELLITE RADIO TUNER

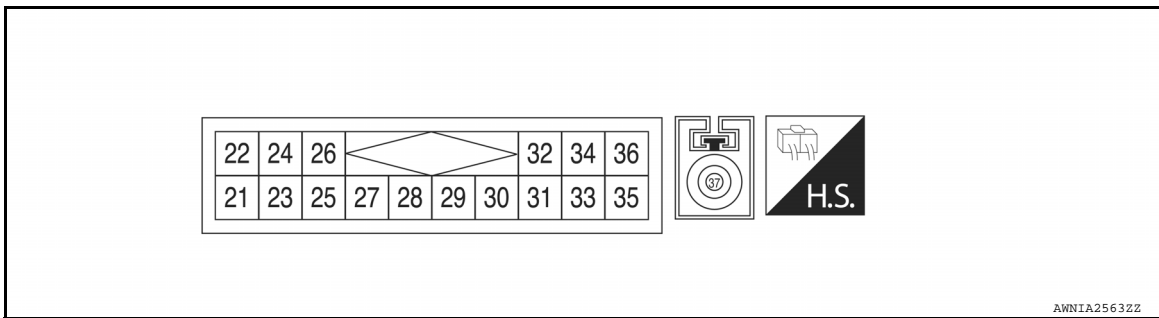
< ECU DIAGNOSIS INFORMATION >

[MID AUDIO WITHOUT BOSE]

SATELLITE RADIO TUNER

Reference Value

INFOID:000000008954145



PHYSICAL VALUES

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

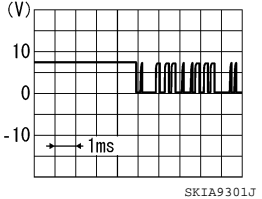
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SATELLITE RADIO TUNER

< ECU DIAGNOSIS INFORMATION >

[MID AUDIO WITHOUT BOSE]

Terminal		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/ Output			
30 (B)	Ground	Communication signal (CONT→SAT)	Input	Ignition switch ON	When satellite radio mode is selected	 <p style="text-align: right; font-size: small;">SKIA9301J</p>
32 (SB)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
35 (GR)	Ground	Ground	—	Ignition switch ON	—	0V
36 (BG)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
37 (B)	—	Satellite antenna	—	—	—	—

BLUETOOTH® CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

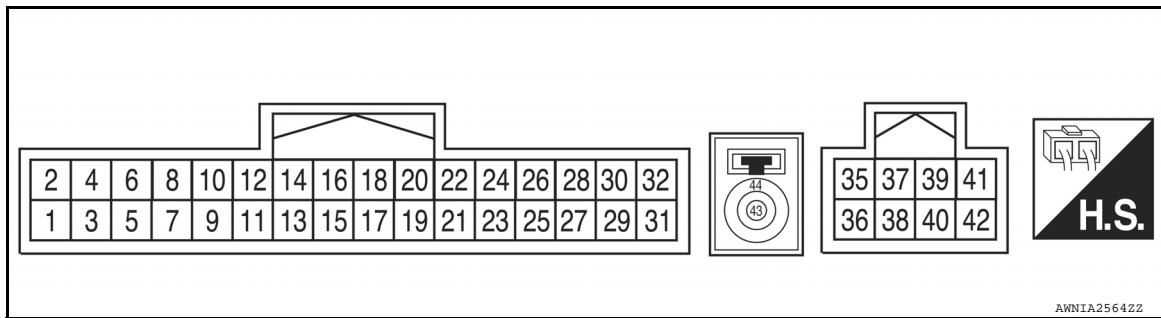
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BLUETOOTH® CONTROL UNIT

Reference Value

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TERMINAL LAYOUT



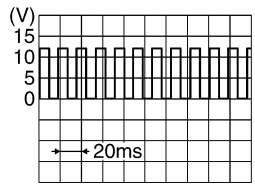
PHYSICAL VALUES

Terminal (wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/output			
1 (Y)	Ground	Battery power	Input	-	-	Battery voltage
2 (R)	Ground	ACC power	Input	Ignition switch ACC/ON	-	Battery voltage
3 (P)	Ground	IGN power	Input	Ignition switch ON/ START	-	Battery voltage
4 (B)	Ground	Ground	-	Ignition switch ON	-	0V
5	-	Shield	-	-	-	-
7 (B)	8	MIC in signal	Input	-	-	-
9 (W)	10 (B)	Audio out	Output	Ignition switch ACC/ON	Bluetooth® control unit sends audio signal	<p>SKIB3609E</p>
20 (B)	Ground	Ground	-	Ignition switch ON	-	0V
22 (B)	Ground	Ground	-	Ignition switch ON	-	0V
24 (B)	Ground	Ground	-	Ignition switch ON	-	0V
27 (B)	Ground	Ground	-	Ignition switch ON	-	0V

BLUETOOTH® CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[MID AUDIO WITHOUT BOSE]

Terminal (wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/out- put			
28 (V)	Ground	Vehicle speed signal (8-pulse)	Input	Ignition switch ON	When vehicle speed is approx. 40 km/h (25 MPH)	 <p style="text-align: right; font-size: small;">PKIA1935B</p>
29 (W)	Ground	Microphone power	Output	Ignition switch ON	-	5V
35 (SB)	-	M-CAN1 (H)	-	-	-	-
36 (LG)	-	M-CAN1 (L)	-	-	-	-
43 (B)	-	Bluetooth® antenna	-	-	-	-
44	-	Shield	-	-	-	-

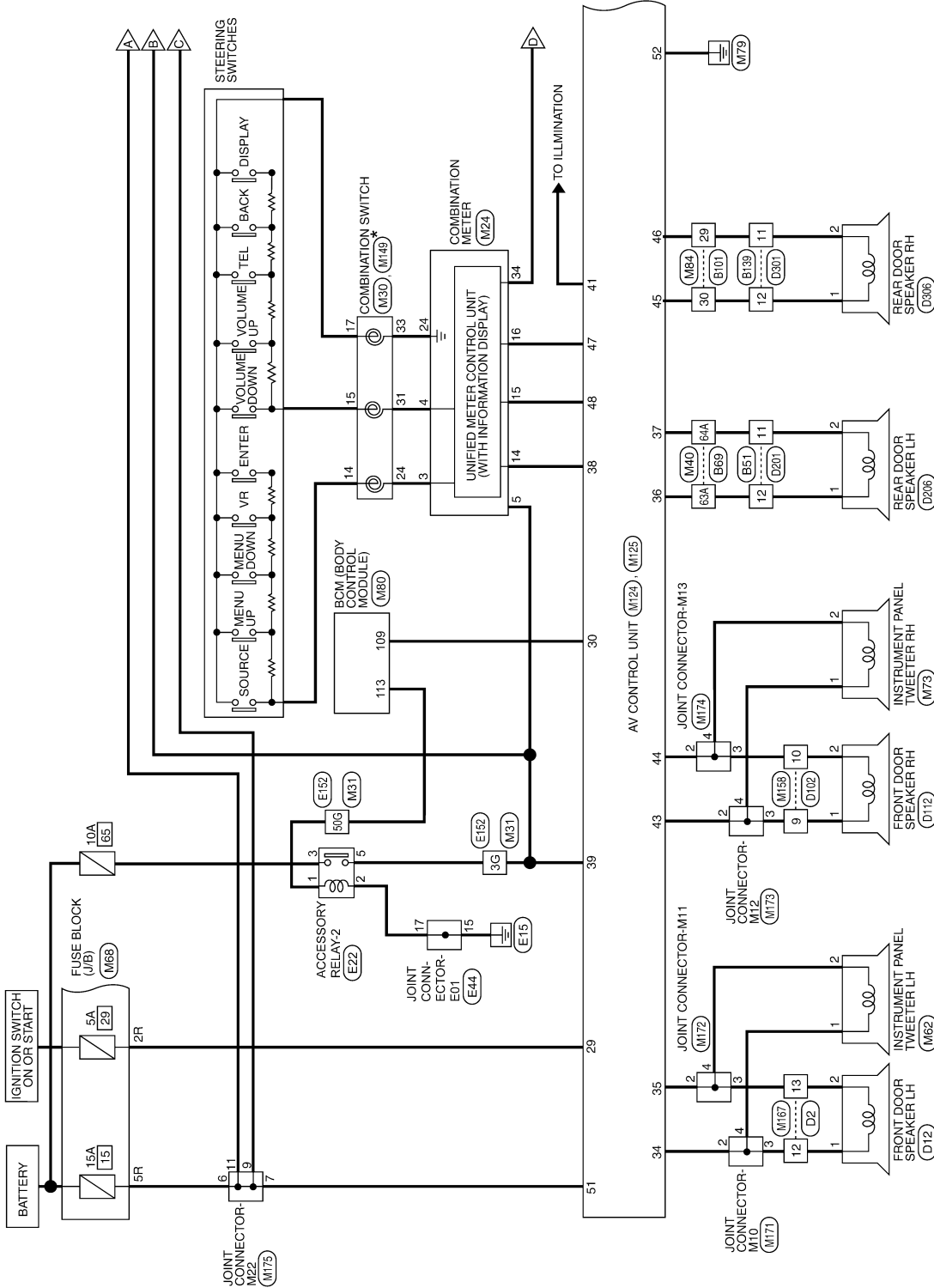
WIRING DIAGRAM

MID AUDIO SYSTEM

Wiring Diagram

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MID AUDIO SYSTEM - WITHOUT BOSE AUDIO SYSTEM



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

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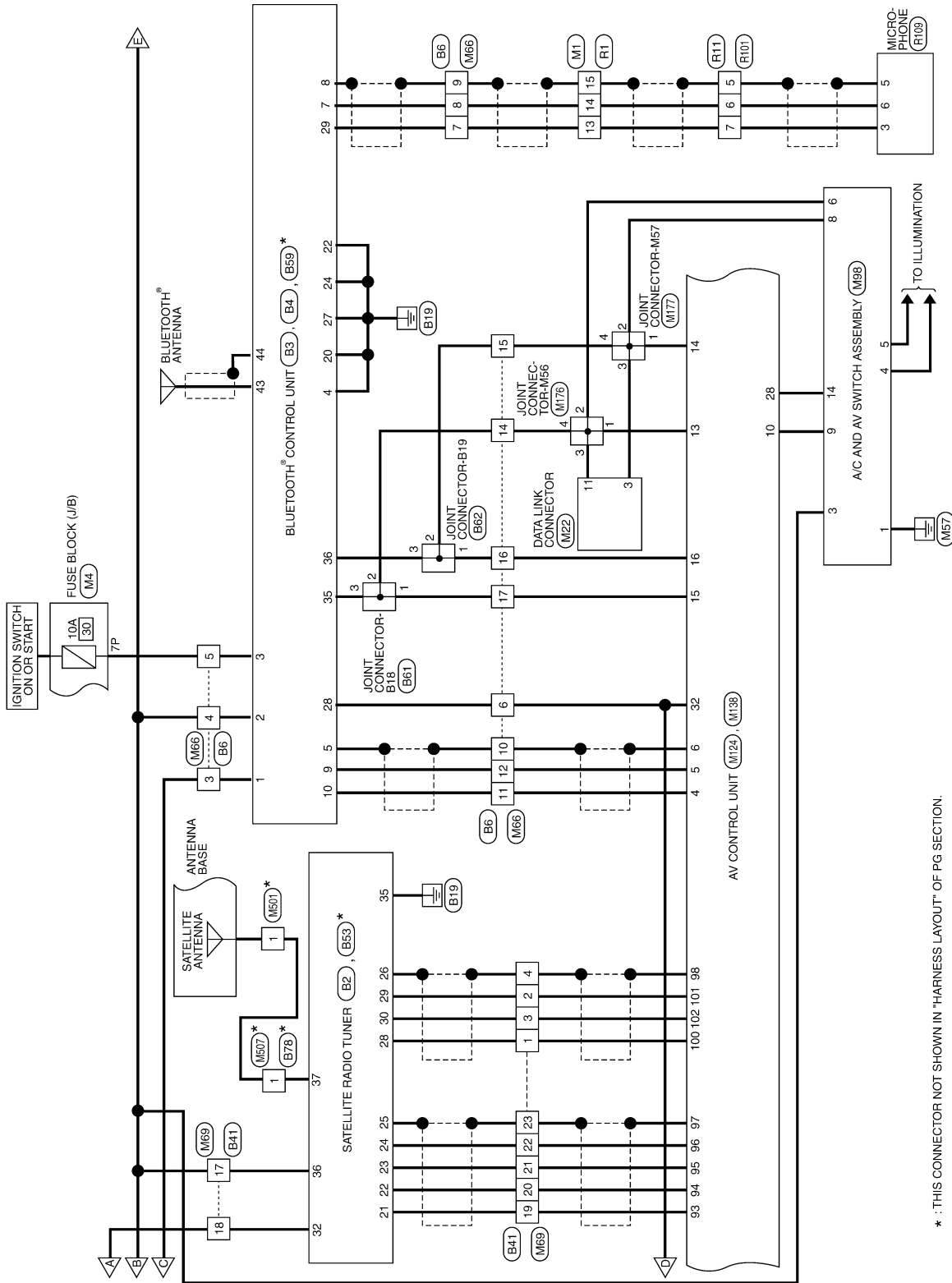
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MID AUDIO SYSTEM

< WIRING DIAGRAM >

[MID AUDIO WITHOUT BOSE]



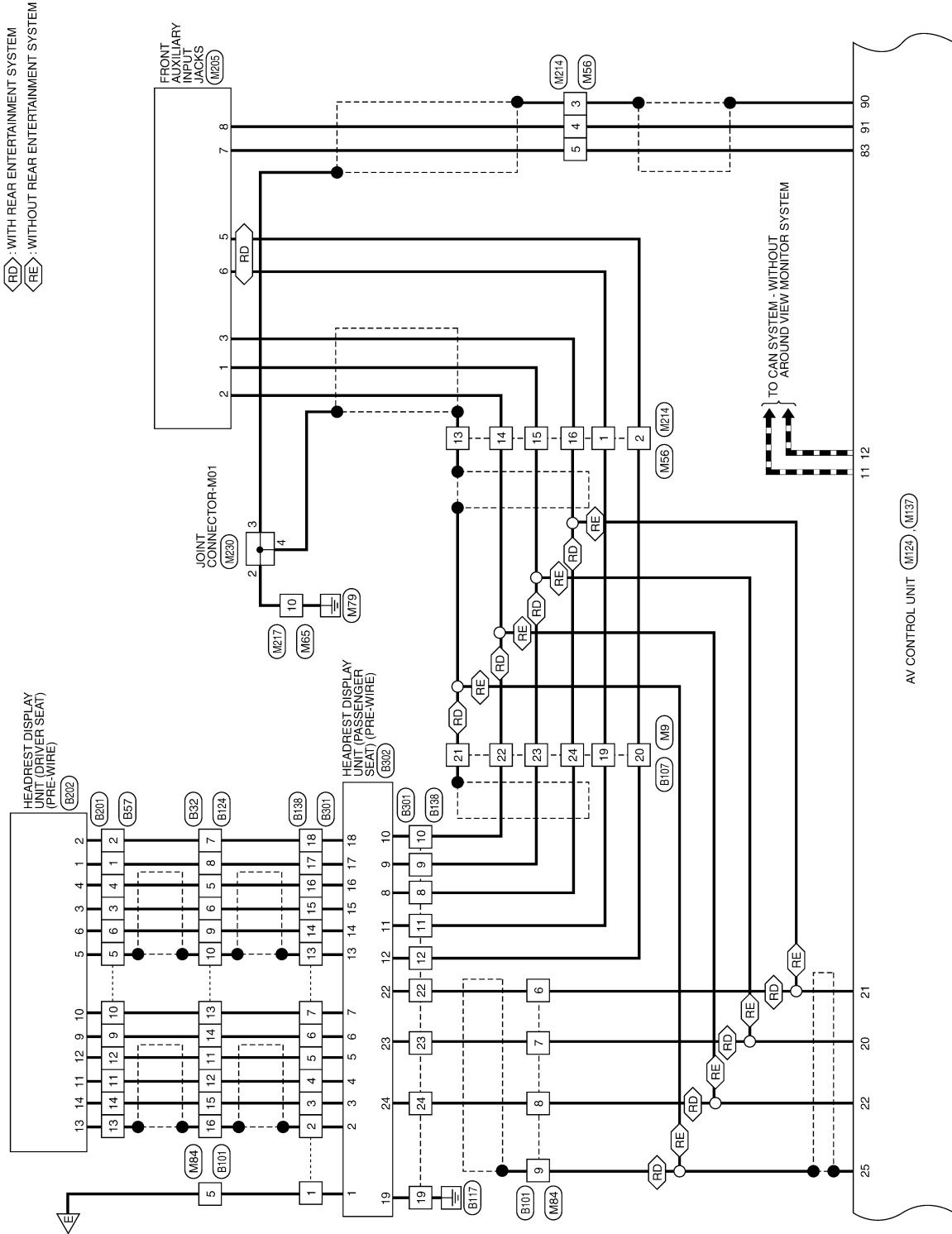
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MID AUDIO SYSTEM

< WIRING DIAGRAM >

[MID AUDIO WITHOUT BOSE]



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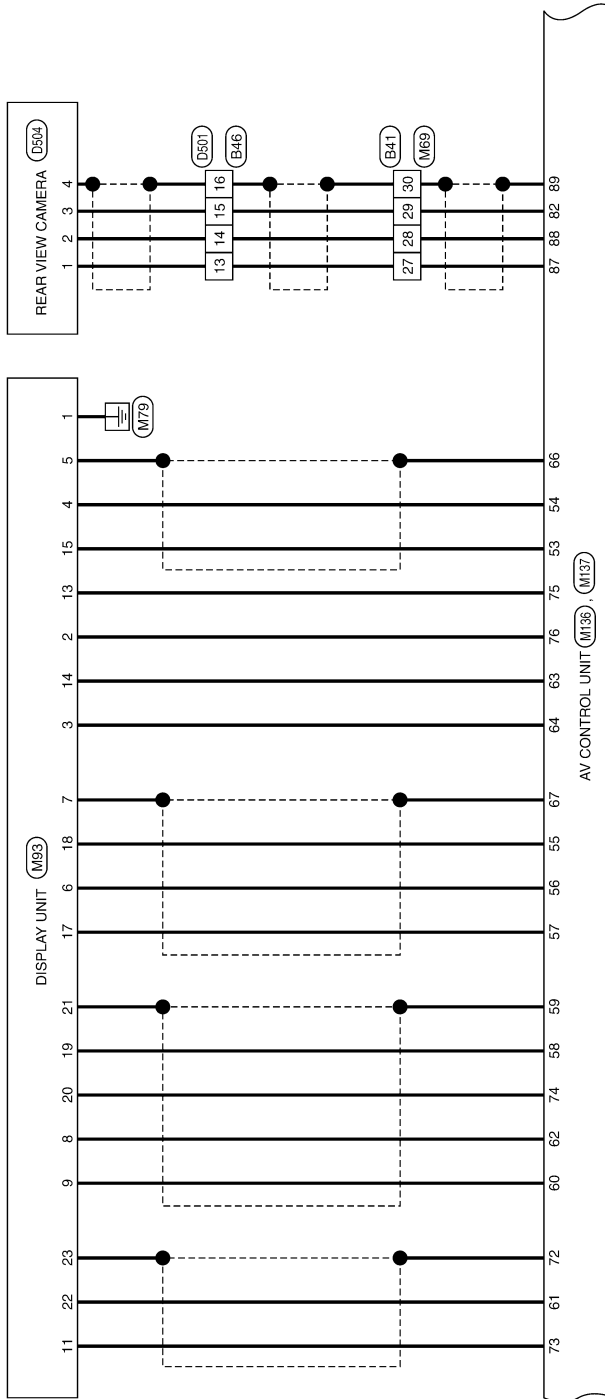
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MID AUDIO SYSTEM

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[MID AUDIO WITHOUT BOSE]

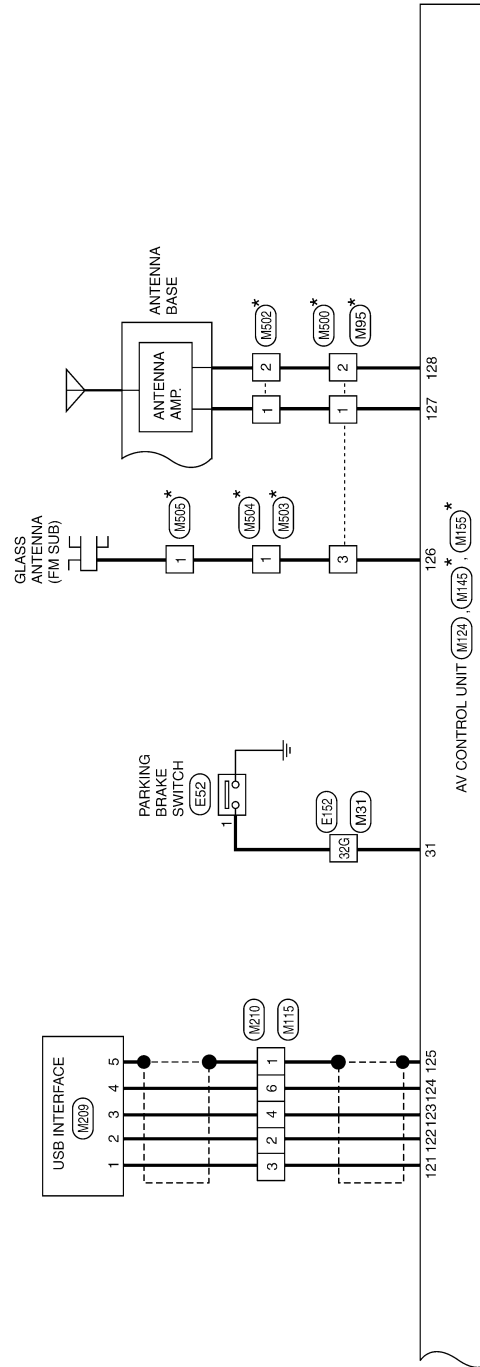


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[MID AUDIO WITHOUT BOSE]



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

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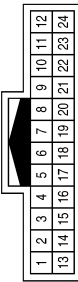
MID AUDIO SYSTEM

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[MID AUDIO WITHOUT BOSE]

MID AUDIO SYSTEM CONNECTORS - WITHOUT BOSE AUDIO SYSTEM

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



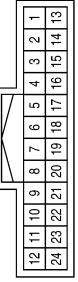
Terminal No.	Color of Wire	Signal Name
13	W	-
14	B	-
15	SHIELD	-

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



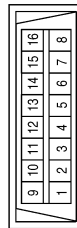
Terminal No.	Color of Wire	Signal Name
7P	LG	-

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



Terminal No.	Color of Wire	Signal Name
19	P	-
20	G	-
21	SHIELD	-
22	B	-
23	R	-
24	W	-

Connector No.	M22
Connector Name	DATA LINK CONNECTOR
Connector Color	WHITE



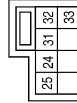
Terminal No.	Color of Wire	Signal Name
3	LG	-
11	SB	-

Connector No.	M24
Connector Name	COMBINATION METER
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
3	P	STRG SW INPUT 1
4	BG	STRG SW INPUT 2
5	P	ACC
14	G	STRG SW OUTPUT 1 (EXCEPT BASE AUDIO)
15	W	STRG SW OUTPUT 2 (EXCEPT BASE AUDIO)
16	B	STRG SW OUTPUT GND (EXCEPT BASE AUDIO)
24	R	STRG SW GND
34	GR	SPEED 8 P/R

Connector No.	M30
Connector Name	COMBINATION SWITCH
Connector Color	GRAY



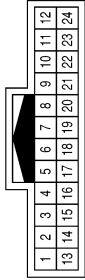
Terminal No.	Color of Wire	Signal Name
24	P	-
31	BG	-
33	R	-

MID AUDIO SYSTEM

< WIRING DIAGRAM >

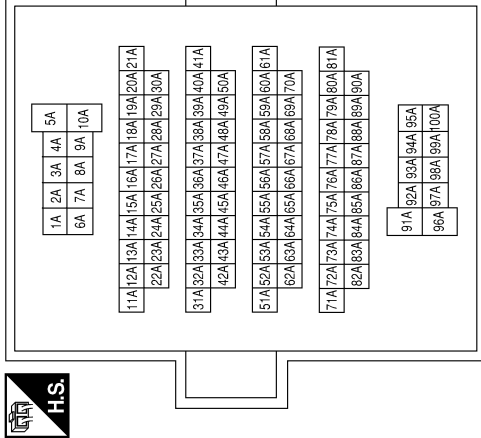
[MID AUDIO WITHOUT BOSE]

Connector No.	M56
Connector Name	WIRE TO WIRE
Connector Color	WHITE



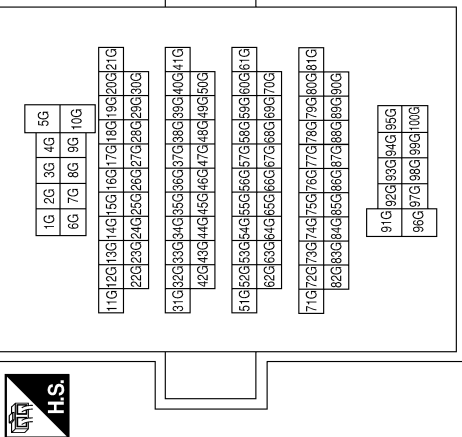
Terminal No.	Color of Wire	Signal Name
1	P	-
2	G	-
3	SHIELD	-
4	B	-
5	W	-
13	SHIELD	-
14	B	-
15	R	-
16	W	-

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



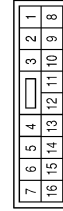
Terminal No.	Color of Wire	Signal Name
63A	BR	-
64A	Y	-

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



Terminal No.	Color of Wire	Signal Name
3G	P	-
32G	G	-
50G	L	-

Connector No.	M65
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
10	B	-

Connector No.	M62
Connector Name	INSTRUMENT PANEL TWEETER LH
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
1	SB	- (WITHOUT BOSE AUDIO SYSTEM)
2	V	- (WITHOUT BOSE AUDIO SYSTEM)

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[MID AUDIO WITHOUT BOSE]

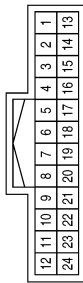
Connector No.	M68
Connector Name	FUSE BLOCK (J/B)
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
2R	LG	-
5R	Y	-

Terminal No.	Color of Wire	Signal Name
9	SHIELD	-
10	SHIELD	-
11	B	-
12	W	-
14	SB	-
15	LG	-
16	LG	-
17	SB	-

Connector No.	M66
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
3	Y	-
4	P	-
5	LG	-
6	GR	-
7	W	-
8	B	-

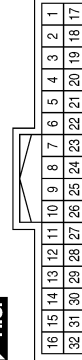
Connector No.	M73
Connector Name	INSTRUMENT PANEL TWEETER RH
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
1	BR	-(WITHOUT BOSE AUDIO SYSTEM)
2	Y	-(WITHOUT BOSE AUDIO SYSTEM)

Terminal No.	Color of Wire	Signal Name
18	Y	-
19	W	-
20	B	-
21	R	-
22	G	-
23	SHIELD	-
27	R	-
28	B	-
29	W	-
30	SHIELD	-

Connector No.	M69
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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

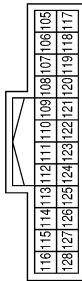
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MID AUDIO SYSTEM

< WIRING DIAGRAM >

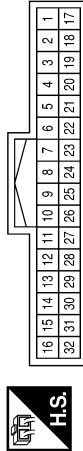
[MID AUDIO WITHOUT BOSE]

Connector No.	M80
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
109	R	REVERSE SIGNAL
113	L	ACC RELAY OUT

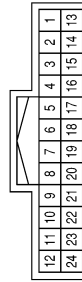
Connector No.	M84
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
5	P	-
6	W	-(WITHOUT REAR ENTERTAINMENT SYSTEM)
7	R	-(WITHOUT REAR ENTERTAINMENT SYSTEM)

Terminal No.	Color of Wire	Signal Name
8	B	-(WITHOUT REAR ENTERTAINMENT SYSTEM)
9	SHIELD	-
29	SB	-
30	L	-

Connector No.	M93
Connector Name	DISPLAY UNIT(WITH MID AUDIO SYSTEM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	B	GND
2	L	INV VCC
3	V	SIG VCC
4	W	COMP GND
5	SHIELD	COMP SHIELD
6	B	G
7	SHIELD	RGB GND
8	G	HP

Terminal No.	Color of Wire	Signal Name
9	W	YS
10	-	-
11	W	UART IN
12	-	-
13	LG	INV GND
14	B	SIG GND
15	B	COMP
16	-	-
17	R	R
18	W	B
19	B	RGB SYNC
20	R	VP
21	SHIELD	SYNC GND
22	B	UART OUT
23	SHIELD	UART GND
24	-	-

Connector No.	M95
Connector Name	WIRE TO WIRE
Connector Color	GRAY



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

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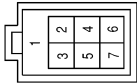
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MID AUDIO SYSTEM

< WIRING DIAGRAM >

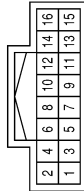
[MID AUDIO WITHOUT BOSE]

Connector No.	M115
Connector Name	WIRE TO WIRE
Connector Color	GRAY



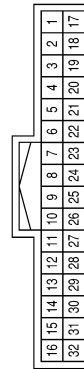
Terminal No.	Color of Wire	Signal Name
1	SHIELD	-
2	R	-
3	L	-
4	G	-
6	W	-

Connector No.	M98
Connector Name	A/C AND AV SWITCH ASSEMBLY
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	B	GND
3	P	ACC
4	R	ILL
5	B	ILL CONT
6	SB	M CAN-H
8	LG	M CAN-L
9	V	EJECT GND
14	Y	CD/(DVD)EJECT

Connector No.	M124
Connector Name	AV CONTROL UNIT (WITH MID AUDIO SYSTEM - WITHOUT BOSE AUDIO SYSTEM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	-	-
2	-	-
3	-	-
4	B	TEL VOICE-
5	W	TEL VOICE+

Terminal No.	Color of Wire	Signal Name
6	SHIELD	VOICE SHIELD
7	-	-
8	-	-
9	-	-
10	V	EJECT GND
11	L	CAN-H
12	P	CAN-L
13	SB	M CAN-H
14	LG	M CAN-L
15	SB	M CAN-H TRM
16	LG	M CAN-L TRM
17	-	-
18	-	-
19	-	-

Terminal No.	Color of Wire	Signal Name
20	W	AUX AUDIO RH+
21	R	AUX AUDIO LH+
22	B	AUX AUDIO-
23	-	-
24	-	-
25	SHIELD	AUDIO BUS SHIELD
26	-	-
27	-	-
28	Y	CD (DVD) EJECT
29	LG	IGN
30	R	REVERSE SIG
31	G	PKB SIG
32	GR	SPEED 8P

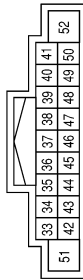
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MID AUDIO SYSTEM

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[MID AUDIO WITHOUT BOSE]

Connector No.	M125
Connector Name	AV CONTROL UNIT
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
33	-	-
34	SB	FR LH SP+

Terminal No.	Color of Wire	Signal Name
35	V	FR LH SP-
36	BR	RR LH SP+
37	Y	RR LH SP-
38	G	STRG SW A
39	P	ACC
40	-	-
41	R	ILL
42	-	-
43	BR	FR RH SP+

Terminal No.	Color of Wire	Signal Name
44	Y	FR LH SP-
45	L	RR LH SP+
46	SB	RR LH SP-
47	B	STRG SW GND
48	W	STRG SW B
49	-	-
50	-	-
51	Y	(+)B
52	B	GND

Connector No.	M136
Connector Name	AV CONTROL UNIT (WITH MID AUDIO SYSTEM - WITHOUT BOSE AUDIO SYSTEM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
53	B	COMP OUT+
54	W	COMP OUT
55	W	B
56	B	G
57	R	R

Terminal No.	Color of Wire	Signal Name
58	B	RGB SYNC
59	SHIELD	RGB SYN GND
60	W	YS
61	B	DISP IT
62	G	HP
63	B	SIG GND
64	V	SIG VCC
65	-	-
66	SHIELD	COM OUT SHIELD
67	SHIELD	RGB GND
68	-	-
69	-	-

Terminal No.	Color of Wire	Signal Name
70	-	-
71	-	-
72	SHIELD	DISP SHIELD
73	W	IT DISP
74	R	VP
75	LG	INV GND
76	L	INV VCC

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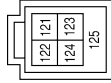
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MID AUDIO SYSTEM

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[MID AUDIO WITHOUT BOSE]

Connector No.	M145
Connector Name	AV CONTROL UNIT (WITH MID AUDIO SYSTEM - WITHOUT BOSE AUDIO SYSTEM)
Connector Color	BLUE



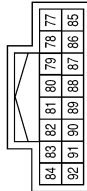
Terminal No.	Color of Wire	Signal Name
121	G	VBUS
122	W	USB GND
123	R	USB D+
124	L	USB D-
125	SHIELD	SHIELD

Connector No.	M138
Connector Name	AV CONTROL UNIT (WITH MID AUDIO SYSTEM - WITHOUT BOSE AUDIO SYSTEM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
93	W	N-BUS LH-
94	B	N-BUS LH+
95	R	N-BUS RH-
96	G	N-BUS RH+
97	SHIELD	N-BUS SHIELDS
98	SHIELD	DATA GND
99	-	-
100	W	REQ1
101	B	RX
102	R	TX
103	-	-
104	-	-

Connector No.	M137
Connector Name	AV CONTROL UNIT (WITH MID AUDIO SYSTEM - WITHOUT BOSE AUDIO SYSTEM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
77	-	-
78	-	-
79	-	-
80	-	-
81	-	-
82	B	COMP2 IN+
83	W	COMP1 IN+
84	-	-
85	-	-
86	-	-
87	R	CAM 6.2V
88	W	CAM GND
89	SHIELD	COMP2 IN SHIELD
90	SHIELD	COMP1 IN SHIELD
91	B	COMP1 IN-
92	-	-

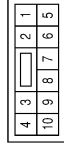
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MID AUDIO SYSTEM

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[MID AUDIO WITHOUT BOSE]

Connector No.	M158
Connector Name	WIRE TO WIRE
Connector Color	WHITE



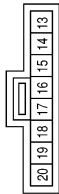
Terminal No.	Color of Wire	Signal Name
9	BR	-(WITHOUT BOSE AUDIO SYSTEM)
10	Y	-(WITHOUT BOSE AUDIO SYSTEM)

Connector No.	M155
Connector Name	AV CONTROL UNIT
Connector Color	GRAY



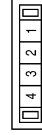
Terminal No.	Color of Wire	Signal Name
126	B	ANT MAIN
127	B	ANT +B
128	B	ANT SUB

Connector No.	M149
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
14	B	-
15	GR	-
17	BR	-

Connector No.	M172
Connector Name	JOINT CONNECTOR-M11
Connector Color	WHITE



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

Connector No.	M171
Connector Name	JOINT CONNECTOR-M10
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	SB	-
3	SB	-
4	SB	-

Connector No.	M167
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
12	SB	-(WITHOUT BOSE AUDIO SYSTEM)
13	V	-(WITHOUT BOSE AUDIO SYSTEM)

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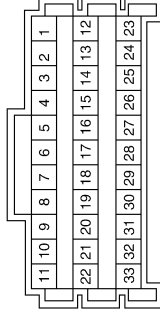
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MID AUDIO SYSTEM

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[MID AUDIO WITHOUT BOSE]

Connector No.	M175
Connector Name	JOINT CONNECTOR-M22
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
6	Y	-
7	Y	-
9	Y	-
11	Y	-

Connector No.	M174
Connector Name	JOINT CONNECTOR-M13
Connector Color	WHITE



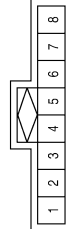
Terminal No.	Color of Wire	Signal Name
2	Y	-
3	Y	-
4	Y	-

Connector No.	M173
Connector Name	JOINT CONNECTOR-M12
Connector Color	WHITE



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

Connector No.	M205
Connector Name	FRONT AUXILIARY INPUT JACKS
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	R	AUX AUDIO RH+
2	B	AUX AUDIO GND
3	W	AUX AUDIO LH+
4	-	-
5	G	PLUGIN DETECT
6	P	PLUGIN GND
7	W	AUX VIDEO+
8	B	AUX VIDEO-

Connector No.	M177
Connector Name	JOINT CONNECTOR-M57
Connector Color	WHITE



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

Connector No.	M176
Connector Name	JOINT CONNECTOR-M56
Connector Color	WHITE



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

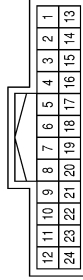
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MID AUDIO SYSTEM

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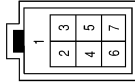
[MID AUDIO WITHOUT BOSE]

Connector No.	M214
Connector Name	WIRE TO WIRE
Connector Color	WHITE



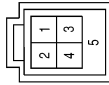
Terminal No.	Color of Wire	Signal Name
1	P	-
2	G	-
3	SHIELD	-
4	B	-
5	W	-
13	SHIELD	-
14	B	-
15	R	-
16	W	-

Connector No.	M210
Connector Name	WIRE TO WIRE
Connector Color	GRAY



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

Connector No.	M209
Connector Name	USB INTERFACE
Connector Color	GREEN



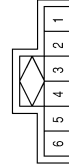
Terminal No.	Color of Wire	Signal Name
1	L	-
2	R	-
3	G	-
4	W	-
5	SHIELD	-

Connector No.	M500
Connector Name	WIRE TO WIRE
Connector Color	GRAY



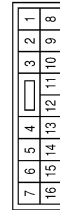
Terminal No.	Color of Wire	Signal Name
1	B	-
2	B	-
3	B	-

Connector No.	M230
Connector Name	JOINT CONNECTOR-M01
Connector Color	GRAY



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

Connector No.	M217
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
10	B	-

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MID AUDIO SYSTEM

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[MID AUDIO WITHOUT BOSE]

Connector No.	M503
Connector Name	WIRE TO WIRE
Connector Color	GRAY



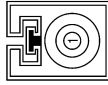
Terminal No.	Color of Wire	Signal Name
1	B	-

Connector No.	M502
Connector Name	ANTENNA BASE
Connector Color	GRAY



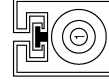
Terminal No.	Color of Wire	Signal Name
1	B	-
2	B	-

Connector No.	M501
Connector Name	ANTENNA BASE
Connector Color	GREEN



Terminal No.	Color of Wire	Signal Name
1	B	-

Connector No.	M507
Connector Name	WIRE TO WIRE
Connector Color	GREEN



Terminal No.	Color of Wire	Signal Name
1	B	-

Connector No.	M505
Connector Name	GLASS ANTENNA (FM SUB)
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
1	B	-

Connector No.	M504
Connector Name	WIRE TO WIRE
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
1	B	-

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MID AUDIO SYSTEM

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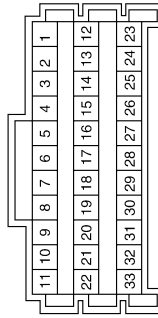
[MID AUDIO WITHOUT BOSE]

Connector No.	E52
Connector Name	PARKING BRAKE SWITCH
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	LG	-

Connector No.	E44
Connector Name	JOINT CONNECTOR-E01
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
15	GR	-
17	B	-

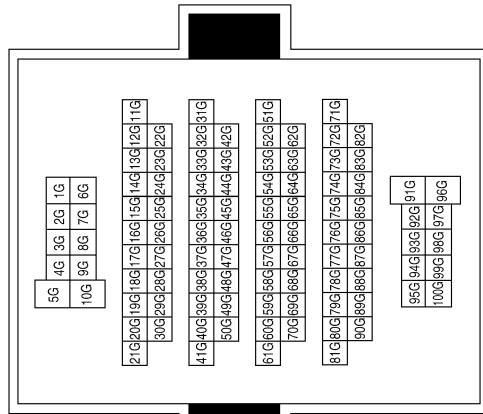
Connector No.	E22
Connector Name	ACCESSORY RELAY-2
Connector Color	BLUE



Terminal No.	Color of Wire	Signal Name
1	G	-
2	B	-
3	R	-
5	P	-

Terminal No.	Color of Wire	Signal Name
3G	P	-
32G	LG	-
50G	G	-

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



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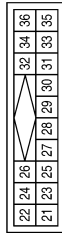
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[MID AUDIO WITHOUT BOSE]

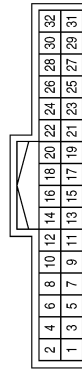
Connector No.	B2
Connector Name	SATELLITE RADIO TUNER
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
21	W	SAT LCH (-)
22	B	SAT LCH (+)
23	R	SAT RCH (-)
24	G	SAT RCH (+)
25	SHIELD	GND (SIG)
26	SHIELD	DATA GND

Terminal No.	Color of Wire	Signal Name
27	-	-
28	W	REQ1 (SAT-COMBI)
29	R	TXD (SAT-COMBI)
30	B	RXD (COMBI-SAT)
31	-	-
32	SB	BAT
33	-	-
34	-	-
35	GR	GND
36	BG	ACC

Connector No.	B3
Connector Name	BLUETOOTH CONTROL UNIT
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	Y	BAT
2	R	ACC
3	P	IGN
4	B	GND
5	SHIELD	AUDIO SHIELD
6	-	-
7	B	MIC IN +(SIG)
8	SHIELD	MIC IN- (GND)

Terminal No.	Color of Wire	Signal Name
9	W	AUDIO OUT+
10	B	AUDIO OUT-
11	-	-
12	-	-
13	-	-
14	-	-
15	-	-
16	-	-
17	-	-
18	-	-
19	-	-
20	B	CONT1

Terminal No.	Color of Wire	Signal Name
21	-	-
22	B	CONT3
23	-	-
24	B	CONT5
25	-	-
26	-	-
27	B	CONT6
28	V	SPEED SIGNAL
29	W	MIC POWER (VCC)
30	-	-
31	-	-
32	-	-

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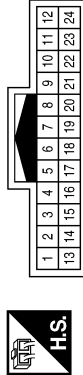
MID AUDIO SYSTEM

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[MID AUDIO WITHOUT BOSE]

Terminal No.	Color of Wire	Signal Name
7	W	-(WITHOUT REAR ENTERTAINMENT SYSTEM)
8	B	-(WITHOUT REAR ENTERTAINMENT SYSTEM)
9	SHIELD	-(WITHOUT REAR ENTERTAINMENT SYSTEM)
10	SHIELD	-
11	B	-(WITHOUT REAR ENTERTAINMENT SYSTEM)
12	W	-
14	SB	-
15	LG	-
16	LG	-
17	SB	-

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



Terminal No.	Color of Wire	Signal Name
3	Y	-(WITHOUT REAR ENTERTAINMENT SYSTEM)
4	R	-(WITHOUT REAR ENTERTAINMENT SYSTEM)
5	P	-(WITHOUT REAR ENTERTAINMENT SYSTEM)
6	V	-(WITHOUT REAR ENTERTAINMENT SYSTEM)

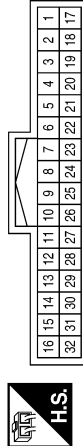
Terminal No.	Color of Wire	Signal Name
13	B	-
14	R	-
15	W	-
16	SHIELD	-

Connector No.	B4
Connector Name	BLUETOOTH CONTROL UNIT
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
35	SB	M CAN-H
36	LG	M CAN-L
37	-	-
38	-	-
39	-	-
40	-	-
41	-	-
42	-	-

Connector No.	B32
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
5	G	-
6	R	-
7	B	-
8	R	-
9	W	-
10	SHIELD	-
11	B	-
12	L	-

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[MID AUDIO WITHOUT BOSE]

Connector No.	B46
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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

Terminal No.	Color of Wire	Signal Name
13	R	-
14	B	-
15	W	-
16	SHIELD	-

Terminal No.	Color of Wire	Signal Name
21	R	-
22	G	-
23	SHIELD	-
27	R	-
28	B	-
29	W	-
30	SHIELD	-

Connector No.	B41
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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

Terminal No.	Color of Wire	Signal Name
1	W	-
2	R	-
3	B	-
4	SHIELD	-
17	BG	-
18	SB	-
19	W	-
20	B	-

Connector No.	B57
Connector Name	WIRE TO WIRE
Connector Color	



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

Connector No.	B53
Connector Name	SATELLITE ANTENNA
Connector Color	GREEN



Terminal No.	Color of Wire	Signal Name
37	B	-

Connector No.	B51
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
11	R	-
12	P	-

AANIA1189GB

MID AUDIO SYSTEM

< WIRING DIAGRAM >

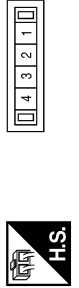
[MID AUDIO WITHOUT BOSE]

Connector No.	B59
Connector Name	BLUETOOTH CONTROL UNIT
Connector Color	BROWN



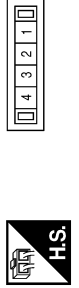
Terminal No.	Color of Wire	Signal Name
43	B	-
44	SHIELD	-

Connector No.	B61
Connector Name	JOINT CONNECTOR-B18
Connector Color	WHITE



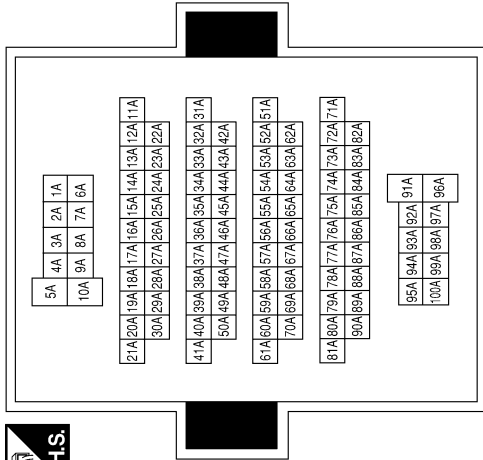
Terminal No.	Color of Wire	Signal Name
1	SB	-
2	SB	-
3	SB	-

Connector No.	B62
Connector Name	JOINT CONNECTOR-B19
Connector Color	WHITE



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

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

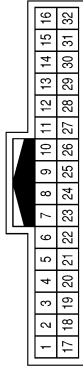


Connector No.	B78
Connector Name	WIRE TO WIRE
Connector Color	GREEN



Terminal No.	Color of Wire	Signal Name
1	B	-

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



Terminal No.	Color of Wire	Signal Name
5	V	-
6	W	-
7	R	-
8	B	-
9	SHIELD	-
29	SB	-
30	LG	-

Terminal No.	Color of Wire	Signal Name
63A	P	-
64A	R	-

AANIA1190GB

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MID AUDIO SYSTEM

< WIRING DIAGRAM >

[MID AUDIO WITHOUT BOSE]

Terminal No.	Color of Wire	Signal Name
11	B	-
12	L	-
13	B	-
14	R	-
15	W	-
16	SHIELD	-

Connector No.	B124
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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

Terminal No.	Color of Wire	Signal Name
5	G	-
6	R	-
7	B	-
8	R	-
9	W	-
10	SHIELD	-

Connector No.	B107
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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

Terminal No.	Color of Wire	Signal Name
19	V	-
20	Y	-
21	SHIELD	-
22	B	-
23	R	-
24	W	-

Connector No.	B139
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
10	B	-
11	V	-
12	Y	-
13	SHIELD	-
14	W	-
15	R	-
16	B	-
17	R	-
18	G	-
19	B	-
22	W	-
23	R	-
24	B	-

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



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

Terminal No.	Color of Wire	Signal Name
1	V	-
2	SHIELD	-
3	W	-
4	R	-
5	B	-
6	L	-
7	B	-
8	W	-
9	R	-

Terminal No.	Color of Wire	Signal Name
11	SB	-
12	LG	-

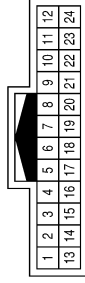
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MID AUDIO SYSTEM

< WIRING DIAGRAM >

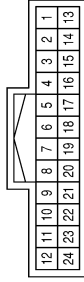
[MID AUDIO WITHOUT BOSE]

Connector No.	B301
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	-	-
2	-	-
3	-	-
4	-	-
6	-	-
7	-	-
9	-	-
10	-	-
12	-	-
13	-	-
14	-	-
15	-	-
16	-	-
17	-	-
19	-	-
21	-	-
22	-	-
24	-	-

Connector No.	B202
Connector Name	HEADREST DISPLAY UNIT (DRIVER SEAT)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-
8	-	-
9	-	-
10	-	-
11	-	-
12	-	-
13	-	-
14	-	-
15	-	-
16	-	-
17	-	-
18	-	-
19	-	-
20	-	-
21	-	-
22	-	-
23	-	-
24	-	-

Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	-	-
2	-	-
3	-	-
4	-	-
6	-	-
7	-	-
9	-	-
10	-	-
12	-	-
13	-	-
14	-	-
15	-	-
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17	-	-
19	-	-
21	-	-
22	-	-
24	-	-

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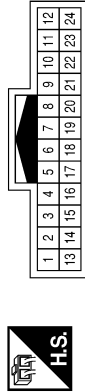
AV

MID AUDIO SYSTEM

< WIRING DIAGRAM >

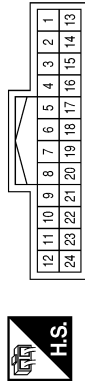
[MID AUDIO WITHOUT BOSE]

Connector No.	R11
Connector Name	WIRE TO WIRE
Connector Color	WHITE



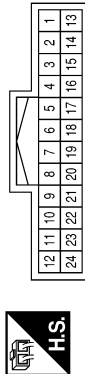
Terminal No.	Color of Wire	Signal Name
5	SHIELD	-
6	B	-
7	W	-

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



Terminal No.	Color of Wire	Signal Name
13	W	-
14	B	-
15	SHIELD	-

Connector No.	B302
Connector Name	HEADREST DISPLAY UNIT (PASSENGER SEAT)
Connector Color	



Terminal No.	Color of Wire	Signal Name
1	B	REAR 1 HP LH-
2	R	REAR 1 HP LRH-
3	LG	REAR 1 HP SHIELD
4	G	REAR 1 COMP -
5	GR	-
6	Y	CONT GND
7	W	AUX REQ. OUT
8	BR	-
9	R	M-CAN 2 L
10	L	M-CAN 2 H
11	SB	-
12	G	GND
13	W	REAR 1 HP LH+
14	G	REAR 1 HP RH+
15	P	REAR 1 COMP SHIELD
16	Y	REAR 1 COMP+
17	V	AV GND
18	-	-
19	G	ACC DET. IN
20	-	-
21	LG	M-CAN 1 L
22	P	M-CAN 1 H
23	-	-
24	W	BAT

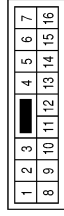
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MID AUDIO SYSTEM

< WIRING DIAGRAM >

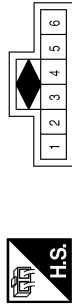
[MID AUDIO WITHOUT BOSE]

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



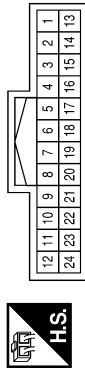
Terminal No.	Color of Wire	Signal Name
12	G	-
13	W	-

Connector No.	R109
Connector Name	MICROPHONE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
3	GR	-
5	SHIELD	-
6	R	-

Connector No.	R101
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
5	SHIELD	-
6	R	-
7	GR	-

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



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

Connector No.	D102
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
9	G	-
10	W	-

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



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

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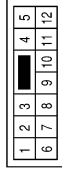
AV

MID AUDIO SYSTEM

< WIRING DIAGRAM >

[MID AUDIO WITHOUT BOSE]

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



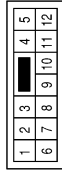
Terminal No.	Color of Wire	Signal Name
11	G	-
12	W	-

Connector No.	D206
Connector Name	REAR DOOR SPEAKER LH
Connector Color	WHITE



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

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



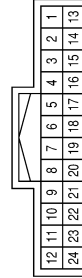
Terminal No.	Color of Wire	Signal Name
11	Y	-
12	LG	-

Connector No.	D504
Connector Name	REAR VIEW CAMERA
Connector Color	WHITE



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

Connector No.	D501
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
13	W	-
14	B	-
15	R	-
16	SHIELD	-

Connector No.	D306
Connector Name	REAR DOOR SPEAKER RH
Connector Color	WHITE



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

AANIA1195GB

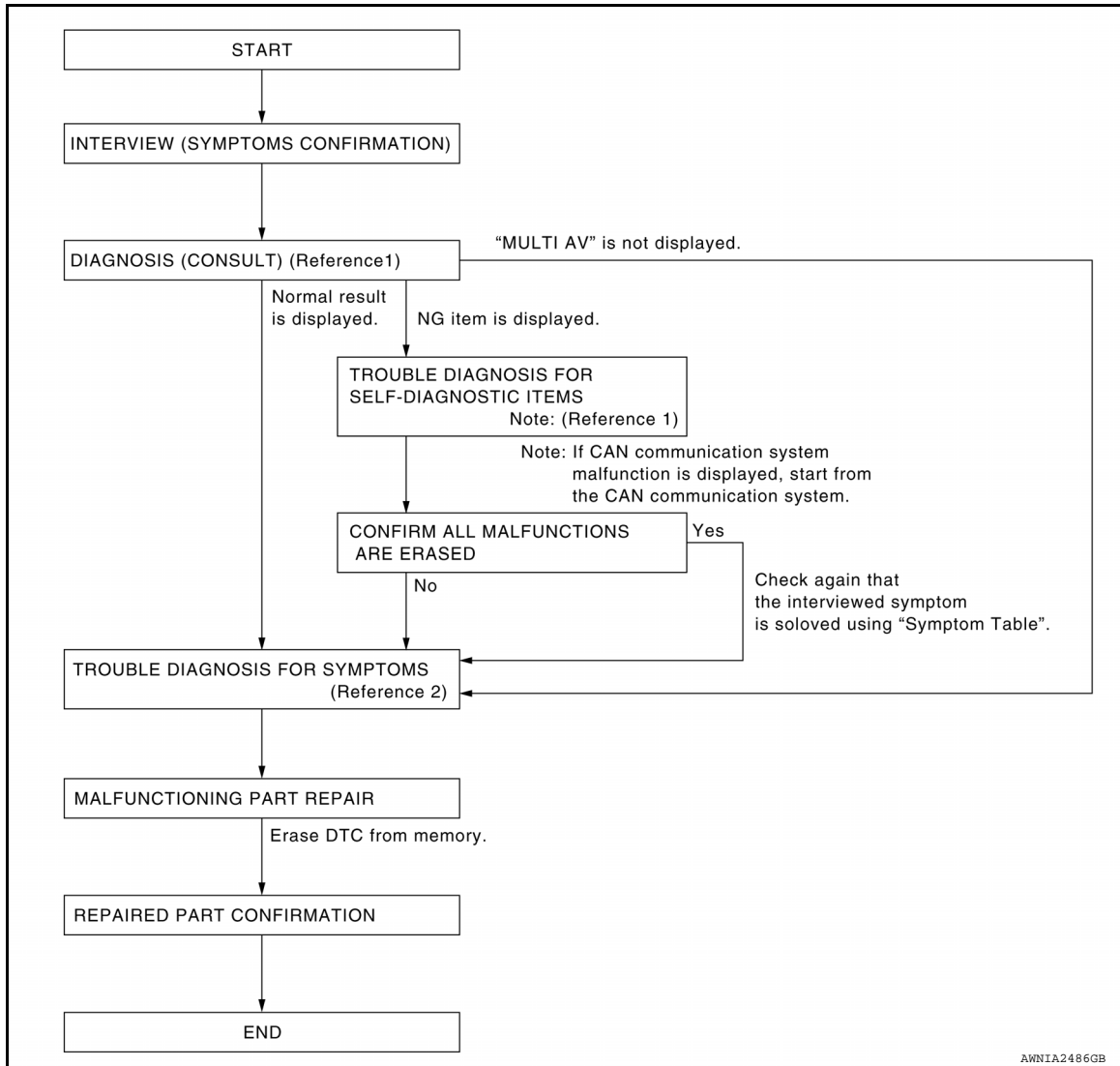
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:000000008954147

OVERALL SEQUENCE



Reference 1: Refer to [AV-69. "CONSULT Function"](#).

Reference 2: Refer to [AV-180. "Symptom Table"](#).

DETAILED FLOW

1. CHECK SYMPTOM

Check the malfunction symptoms by performing the following items:

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

>> GO TO 2

2. SELF-DIAGNOSIS (CONSULT)

1. Connect CONSULT and perform "SELF-DIAGNOSIS" for "MULTI AV".

NOTE:

Skip to step 4 of the diagnosis procedure if "MULTI AV" is not displayed.

2. Check if any DTC No. is displayed in the self-diagnosis results.

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DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[MID AUDIO WITHOUT BOSE]

Is any DTC No. displayed?

YES >> GO TO 3

NO >> GO TO 4

3. CHECK SELF-DIAGNOSIS RESULTS (CONSULT)

1. Check the DTC No. indicated in the self-diagnosis results.
2. Perform the relevant diagnosis referring to the DTC No. list. Refer to [AV-78, "DTC Index"](#).

NOTE:

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

>> GO TO 5

4. PERFORM DIAGNOSIS BY SYMPTOM

Perform the relevant diagnosis referring to the diagnosis chart by symptom. Refer to [AV-180, "Symptom Table"](#).

>> GO TO 5

5. REPAIR OR REPLACE MALFUNCTIONING PARTS

Repair or replace the identified malfunctioning parts.

NOTE:

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

>> GO TO 6

6. CHECK AFTER REPAIR

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

Is any DTC No. displayed?

YES >> GO TO 3

NO >> GO TO 7

7. FINAL CHECK

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

Are any symptoms present?

YES >> GO TO 4

NO >> Inspection End.

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

[MID AUDIO WITHOUT BOSE]

INSPECTION AND ADJUSTMENT

ADDITIONAL SERVICE WHEN REPLACING AV CONTROL UNIT

ADDITIONAL SERVICE WHEN REPLACING AV CONTROL UNIT : Description

INFOID:000000008954148

BEFORE REPLACEMENT

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

NOTE:

If "Before Replace ECU" cannot be used, use the "After Replace ECU" or "Manual Configuration" after replacing AV control unit.

AFTER REPLACEMENT

CAUTION:

When replacing AV control unit, you must perform "After Replace ECU" with CONSULT.

- Complete the procedure of "After Replace ECU" in order.
- If you set incorrect "After Replace ECU", incidents might occur.
- Configuration is different for each vehicle model. Confirm configuration of each vehicle model.

ADDITIONAL SERVICE WHEN REPLACING AV CONTROL UNIT : Work Procedure

INFOID:000000008954149

1. SAVING VEHICLE SPECIFICATION

CONSULT

Enter "Re/Programming, Configuration" and perform "Before Replace ECU" to save or print current vehicle specification.

NOTE:

If "Before Replace ECU" cannot be used, use the "After Replace ECU" or "Manual Configuration" after replacing AV control unit.

>> GO TO 2.

2. REPLACE AV CONTROL UNIT

Replace AV control unit. Refer to [AV-186, "Removal and Installation"](#).

>> GO TO 3.

3. WRITING VEHICLE SPECIFICATION

CONSULT

1. Enter "Re/Programming, Configuration".
2. If "Before Replace ECU" operation was performed, automatically an "Operation Log Selection" screen will be displayed. Select the applicable file from the "Saved Data List" and press "Confirm" to write vehicle specification. Refer to [AV-116, "CONFIGURATION \(AV CONTROL UNIT\) : Work Procedure"](#).
3. If "Before Replace ECU" operation was not performed, select "After Replace ECU" or "Manual Configuration" to write vehicle specification. Refer to [AV-116, "CONFIGURATION \(AV CONTROL UNIT\) : Work Procedure"](#).

>> GO TO 4.

4. OPERATION CHECK

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

>> Work End.

CONFIGURATION (AV CONTROL UNIT)

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INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

[MID AUDIO WITHOUT BOSE]

CONFIGURATION (AV CONTROL UNIT) : Description

INFOID:000000008954150

Vehicle specification needs to be written with CONSULT because it is not written after replacing AV control unit.

Configuration has three functions as follows:

Function	Description
"Before Replace ECU"	<ul style="list-style-type: none">• Reads the vehicle configuration of current AV control unit.• Saves the read vehicle configuration.
"After Replace ECU"	Writes the vehicle configuration with manual selection.
"Select Saved Data List"	Writes the vehicle configuration with saved data.

CAUTION:

- When replacing AV control unit, you must perform "Select Saved Data List" or "After Replace ECU" with CONSULT.
- Complete the procedure of "Select Saved Data List" or "After Replace ECU" in order.
- If you set incorrect "Select Saved Data List" or "After Replace ECU", incidents might occur.
- Configuration is different for each vehicle model. Confirm configuration of each vehicle model.
- Never perform "Select Saved Data List" or "After Replace ECU" except for new AV control unit.

CONFIGURATION (AV CONTROL UNIT) : Work Procedure

INFOID:000000008954151

1. WRITING MODE SELECTION

CONSULT

Select "Reprogramming, Configuration" of AV control unit.

When writing saved data >> GO TO 2.

When writing manually >> GO TO 3.

2. PERFORM "SAVED DATA LIST"

CONSULT

Automatically "Operation Log Selection" window will display if "Before Replace ECU" was performed. Select applicable file from the "Save Data List" and press "Confirm".

>> Work End.

3. PERFORM "AFTER REPLACE ECU" OR "MANUAL CONFIGURATION"

CONSULT

1. Select "After Replace ECU" or "Manual Configuration".
2. Identify the correct model and configuration list. Refer to [AV-117. "CONFIGURATION \(AV CONTROL UNIT\) : Configuration List"](#).
3. Confirm and/or change setting value for each item.

CAUTION:

Thoroughly read and understand the vehicle specification. ECU control may not operate normally if the setting is not correct.

4. Select "Next".

CAUTION:

Make sure to select "Next", confirm each setting value and press "OK" even if the indicated configuration of brand new AV control unit is same as the desirable configuration. If not, configuration which is set automatically by selecting vehicle model can not be memorized.

5. When "Completed", select "End".

>> GO TO 4.

4. OPERATION CHECK

Confirm that each function controlled by AV control unit operates normally.

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

[MID AUDIO WITHOUT BOSE]

>> Work End.

CONFIGURATION (AV CONTROL UNIT) : Configuration List

INFOID:000000008954152

CAUTION:

Thoroughly read and understand the vehicle specification. Incorrect settings may result in abnormal control of ECU.

MANUAL SETTING ITEM	
Items	Setting value
CAMERA SYSTEM	NONE/AVM ⇔ REAR CAMERA
SOUND SYSTEM	BASE ⇔ BOSE

⇔: Items which confirm vehicle specifications

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AV

U1000 CAN COMM CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

DTC/CIRCUIT DIAGNOSIS

U1000 CAN COMM CIRCUIT

DTC Logic

INFOID:000000008954153

DTC DETECTION LOGIC

CONSULT Display	DTC Detection Condition	Possible Cause
CAN COMM CIRCUIT [U1000]	AV control unit is not transmitting or receiving CAN communication signal for 2 seconds or more.	CAN communication system.

Diagnosis Procedure

INFOID:000000008954154

1. PERFORM SELF DIAGNOSTIC RESULT

1. Turn ignition switch ON and wait for 2 seconds or more.
2. Perform Self Diagnostic Result for MULTI AV.

Is CAN COMM CIRCUIT displayed?

- YES >> Refer to [LAN-20, "Trouble Diagnosis Flow Chart"](#).
NO >> Refer to [GI-49, "Intermittent Incident"](#).

U1010 CONTROL UNIT (CAN)

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

U1010 CONTROL UNIT (CAN)

DTC Logic

INFOID:000000008954155

DTC DETECTION LOGIC

CONSULT Display	DTC Detection Condition	Possible Cause
CONTROL UNIT (CAN) [U1010]	CAN initial diagnosis malfunction is detected.	Replace the AV control unit if the malfunction occurs constantly. Refer to AV-186, "Removal and Installation" .

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U1200 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

U1200 AV CONTROL UNIT

DTC Logic

INFOID:000000008954156

CONSULT Display	DTC Detection Condition	Possible Cause
CONT UNIT [U1200]	AV control unit malfunction is detected.	Replace the AV control unit if the malfunction occurs constantly. Refer to AV-186, "Removal and Installation" .

U1216 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

U1216 AV CONTROL UNIT

DTC Logic

INFOID:000000008954157

CONSULT Display	DTC Detection Condition	Possible Cause
CAN CONT [U1216]	AV control unit malfunction is detected.	Replace the AV control unit if the malfunction occurs constantly. Refer to AV-186, "Removal and Installation" .

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U1218 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

U1218 AV CONTROL UNIT

DTC Logic

INFOID:000000008954327

CONSULT Display	DTC Detection Condition	Possible Cause
HDD CONN [U1218]	AV control unit malfunction is detected.	If the hard disk drive (HDD) is functioning normally, there is a possibility of an intermittent malfunction. Replace AV control unit if malfunction occurs constantly. Refer to AV-186, "Removal and Installation" .

U1219 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

U1219 AV CONTROL UNIT

DTC Logic

INFOID:000000008954328

CONSULT Display	DTC Detection Condition	Possible Cause
HDD READ [U1219]	AV control unit malfunction is detected.	If the hard disk drive (HDD) is functioning normally, there is a possibility of an intermittent malfunction. Replace AV control unit if malfunction occurs constantly. Refer to AV-186, "Removal and Installation" .

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U121A AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

U121A AV CONTROL UNIT

DTC Logic

INFOID:000000008954329

CONSULT Display	DTC Detection Condition	Possible Cause
HDD WRITE [U121A]	AV control unit malfunction is detected.	If the hard disk drive (HDD) is functioning normally, there is a possibility of an intermittent malfunction. Replace AV control unit if malfunction occurs constantly. Refer to AV-186, "Removal and Installation" .

U121B AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

U121B AV CONTROL UNIT

DTC Logic

INFOID:000000008954330

CONSULT Display	DTC Detection Condition	Possible Cause
HDD COMM [U121B]	AV control unit malfunction is detected.	If the hard disk drive (HDD) is functioning normally, there is a possibility of an intermittent malfunction. Replace AV control unit if malfunction occurs constantly. Refer to AV-186. "Removal and Installation" .

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AV

U121C AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

U121C AV CONTROL UNIT

DTC Logic

INFOID:000000008954331

CONSULT Display	DTC Detection Condition	Possible Cause
HDD ACCESS [U121C]	AV control unit malfunction is detected.	If the hard disk drive (HDD) is functioning normally, there is a possibility of an intermittent malfunction. Replace AV control unit if malfunction occurs constantly. Refer to AV-186, "Removal and Installation" .

U121D AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

U121D AV CONTROL UNIT

DTC Logic

INFOID:000000008954332

CONSULT Display	DTC Detection Condition	Possible Cause
DSP CONN [U121D]	AV control unit malfunction is detected.	An intermittent error causing disc player malfunction may be detected. Replace AV control unit if malfunction occurs constantly. Refer to AV-186, "Removal and Installation" .

Diagnosis Procedure

INFOID:000000008954333

1. CHECK CD PLAYBACK

Check the CD playback operation of the AV control unit. Refer to Owner's Manual for audio system operating instructions.

Is the CD playback function of the AV control unit operating normally?

YES >> Refer to [GI-49, "Intermittent Incident"](#).

NO >> Replace AV control unit. Refer to [AV-186, "Removal and Installation"](#).

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AV

U121E AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

U121E AV CONTROL UNIT

DTC Logic

INFOID:000000008954334

CONSULT Display	DTC Detection Condition	Possible Cause
DSP COMM [U121E]	AV control unit malfunction is detected.	An intermittent error causing disc player malfunction may be detected. Replace AV control unit if malfunction occurs constantly. Refer to AV-186, "Removal and Installation" .

Diagnosis Procedure

INFOID:000000008954335

1. CHECK CD PLAYBACK

Check the CD playback operation of the AV control unit. Refer to Owner's Manual for audio system operating instructions.

Is the CD playback function of the AV control unit operating normally?

YES >> Refer to [GI-49, "Intermittent Incident"](#).

NO >> Replace AV control unit. Refer to [AV-186, "Removal and Installation"](#).

U1225 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

U1225 AV CONTROL UNIT

DTC Logic

INFOID:000000008954336

CONSULT Display	DTC Detection Condition	Possible Cause
USB CONTROLLER [U1225]	USB connection malfunction is detected.	Check that connection to USB connector is normal.

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U1227 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

U1227 AV CONTROL UNIT

DTC Logic

INFOID:000000008954337

CONSULT Display	DTC Detection Condition	Possible Cause
DVD COMM [U1227]	AV control unit malfunction is detected.	An intermittent error causing disc player malfunction may be detected. Replace AV control unit if malfunction occurs constantly. Refer to AV-186, "Removal and Installation" .

Diagnosis Procedure

INFOID:000000008954338

1. CHECK DVD PLAYBACK

Check the DVD playback operation of the AV control unit. Refer to Owner's Manual for audio system operating instructions.

Is the DVD playback function of the AV control unit operating normally?

YES >> Refer to [GI-49, "Intermittent Incident"](#).

NO >> Replace AV control unit. Refer to [AV-186, "Removal and Installation"](#).

U1228 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

U1228 AV CONTROL UNIT

DTC Logic

INFOID:000000008954339

CONSULT Display	DTC Detection Condition	Possible Cause
SUB CPU CONN [U1228]	AV control unit malfunction is detected.	Replace AV control unit if malfunction occurs constantly. Refer to AV-186. "Removal and Installation" .

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U1229 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

U1229 AV CONTROL UNIT

DTC Logic

INFOID:000000008954340

CONSULT Display	DTC Detection Condition	Possible Cause
iPod CERTIFICATION [U1229]	AV control unit malfunction is detected.	Replace AV control unit if malfunction occurs constantly. Refer to AV-186. "Removal and Installation" .

U122A AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

U122A AV CONTROL UNIT

DTC Logic

INFOID:000000008954341

CONSULT Display	DTC Detection Condition	Possible Cause
CONFIG UNFINISH [U122A]	Configuration data is incomplete.	Write configuration data. Refer to AV-116, "CONFIGURATION (AV CONTROL UNIT) : Work Procedure" .

Diagnosis Procedure

INFOID:000000008954342

1. PERFORM CONFIGURATION

When U122A is detected, configuration data must be written.

>> Write configuration data with CONSULT. Refer to [AV-116, "CONFIGURATION \(AV CONTROL UNIT\) : Work Procedure"](#).

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U122E AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

U122E AV CONTROL UNIT

DTC Logic

INFOID:000000008954343

CONSULT Display	DTC Detection Condition	Possible Cause
Built-in AUDIO CONN [U122E]	AV control unit malfunction is detected.	Replace AV control unit if malfunction occurs constantly. Refer to AV-186. "Removal and Installation" .

U1243 DISPLAY UNIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

U1243 DISPLAY UNIT

DTC Logic

INFOID:000000008954160

CONSULT Display	DTC Detection Condition	Possible Cause
FRONT DISP CONN [U1243]	When any of the following is detected: <ul style="list-style-type: none"> display unit power supply or ground circuit malfunction. serial communication circuit malfunction between display unit and AV control unit. 	<ul style="list-style-type: none"> Display unit power supply and ground circuits. Serial communication circuits between display unit and AV control unit.

Diagnosis Procedure

INFOID:000000008954161

Regarding Wiring Diagram information, refer to [AV-87, "Wiring Diagram"](#).

1. CHECK DISPLAY UNIT POWER SUPPLY AND GROUND CIRCUIT

Check display unit power supply and ground circuits. Refer to [AV-143, "AV CONTROL UNIT : Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness or connectors.

2. CHECK COMMUNICATION CIRCUIT CONTINUITY

- Turn ignition switch OFF.
- Disconnect display unit connector and AV control unit connector M136.
- Check continuity between display unit connector M93 terminals 11, 22 and AV control unit connector M136 terminals 73, 61.

Display unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M93	11	M136	73	Yes
	22		61	

- Check continuity between display unit connector M93 terminals 11, 22 and ground.

Display unit		Ground	Continuity
Connector	Terminal		
M93	11	—	No
	22		

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connectors.

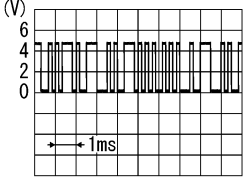
3. CHECK COMMUNICATION SIGNAL (DISP→CONT)

- Connect display unit connector and AV control unit connector M136.
- Turn ignition switch ON.
- Check signal between display unit connector M93 terminal 11 and ground.

U1243 DISPLAY UNIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

Display unit		Ground	Condition	Reference value
(+)		(-)		
Connector	Terminal			
M93	11	—	When adjusting display brightness.	 <p style="text-align: right; font-size: small;">PKIB5039J</p>

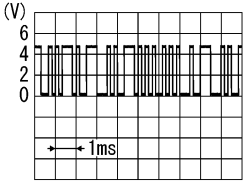
Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace AV control unit. Refer to [AV-186. "Removal and Installation"](#).

4. CHECK COMMUNICATION SIGNAL (CONT→DISP)

Check signal between display unit connector M93 terminal 22 and ground.

Display unit		Ground	Condition	Reference value
(+)		(-)		
Connector	Terminal			
M93	22	—	When adjusting display brightness.	 <p style="text-align: right; font-size: small;">PKIB5039J</p>

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace display unit. Refer to [AV-190. "Removal and Installation"](#).

U1255 SATELLITE RADIO TUNER

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

U1255 SATELLITE RADIO TUNER

DTC Logic

INFOID:000000008954162

CONSULT Display	DTC Detection Condition	Possible Cause
SAT CONN [U1255]	When any of the following is detected: <ul style="list-style-type: none"> satellite radio tuner power supply or ground circuit malfunction. communication circuit malfunction between AV control unit and satellite radio tuner. request signal circuit malfunction between AV control unit and satellite radio tuner. 	<ul style="list-style-type: none"> Satellite radio tuner power supply and ground circuits. Communication circuits between AV control unit and satellite radio tuner. Request signal circuits between AV control unit and satellite radio tuner.

Diagnosis Procedure

INFOID:000000008954163

Regarding Wiring Diagram information, refer to [AV-87. "Wiring Diagram"](#).

1. CHECK SATELLITE RADIO TUNER POWER SUPPLY AND GROUND CIRCUIT

Check satellite radio tuner power supply and ground circuit. Refer to [AV-145. "SATELLITE RADIO TUNER : Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness or connectors.

2. CHECK COMMUNICATION CIRCUIT AND REQUEST SIGNAL CIRCUIT CONTINUITY

- Turn ignition switch OFF.
- Disconnect AV control unit connector M138 and satellite radio tuner connector B2.
- Check continuity between AV control unit connector M138 terminals 100, 101, 102 and satellite radio tuner connector B2 terminals 28, 29, 30.

AV control unit		Satellite radio tuner		Continuity
Connector	Terminal	Connector	Terminal	
M138	100	B2	28	Yes
	101		29	
	102		30	

- Check continuity between AV control unit connector M138 terminals 100, 101, 102 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M138	100	Ground	No
	101		
	102		

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connectors.

3. CHECK AV CONTROL UNIT VOLTAGE

- Connect AV control unit connector M138.
- Turn ignition switch ON.
- Check voltage between AV control unit connector M138 terminals 100, 101 and ground.

U1255 SATELLITE RADIO TUNER

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

AV control unit		Ground	Voltage (Approx.)
(+) Connector		(-)	
Connector	Terminal		
M138	100	—	7.0 V
	101		

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace AV control unit. Refer to [AV-186. "Removal and Installation"](#).

4. CHECK SATELLITE RADIO TUNER VOLTAGE

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M138.
3. Connect satellite radio tuner connector B2.
4. Turn ignition switch ON.
5. Check voltage between satellite radio tuner connector B2 terminal 32 and ground.

Satellite radio tuner		Ground	Voltage (Approx.)
(+) Connector		(-)	
Connector	Terminal		
B2	32	—	7.0 V

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace satellite radio tuner. Refer to [AV-198. "Removal and Installation"](#).

U1263 USB

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

U1263 USB

DTC Logic

INFOID:000000008954344

CONSULT Display	DTC Detection Condition	Possible Cause
USB OVERCURRENT [U126]	Overcurrent in USB connector is detected.	Check USB harness between the AV control unit and USB connector.

Diagnosis Procedure

INFOID:000000008954345

1. CHECK USB INTERFACE HARNESS

Visually inspect USB interface harness.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace USB interface harness. Refer to [AV-194, "Removal and Installation"](#).

2. CHECK USB INTERFACE HARNESS CONTINUITY

Check USB interface harness continuity. Refer to [AV-139, "Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> Replace AV control unit. Refer to [AV-186, "Removal and Installation"](#).

NO >> Replace USB interface harness. Refer to [AV-194, "Removal and Installation"](#).

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U1264 ANTENNA AMP.

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

U1264 ANTENNA AMP.

DTC Logic

INFOID:000000008954346

CONSULT Display	DTC Detection Condition	Possible Cause
ANTENNA AMP TERMINAL [U1264]	Antenna amp. ON signal circuit open or short circuited.	Antenna amp. ON signal circuit between AV control unit and antenna amp.

Diagnosis Procedure

INFOID:000000008954347

Regarding Wiring Diagram information, refer to [AV-87. "Wiring Diagram"](#).

1. CHECK CONTINUITY BETWEEN AV CONTROL UNIT AND ANTENNA BASE

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M155 and antenna base connector M502.
3. Check continuity between AV control unit connector M155 and antenna base connector M502.

AV control unit		Antenna base		Continuity
Connector	Terminal	Connector	Terminal	
M155	127	M502	1	Yes

4. Check continuity between AV control unit connector M155 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M155	127	—	No

Is the inspection result normal?

- YES >> GO TO 2.
NO >> Repair or replace harness or connectors.

2. CHECK AV CONTROL UNIT VOLTAGE

1. Connect AV control unit connector M155.
2. Turn ignition switch ON.
3. Check voltage between AV control unit connector M155 and ground.

AV control unit (+)		Ground (-)	Voltage (Approx.)
Connector	Terminal		
M155	127	—	Battery voltage

Is the inspection result normal?

- YES >> Replace antenna base. Refer to [AV-202. "Removal and Installation"](#).
NO >> Replace AV control unit. Refer to [AV-186. "Removal and Installation"](#).

U1300 AV COMM CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

U1300 AV COMM CIRCUIT

Description

INFOID:000000008954164

U1300 is indicated when a malfunction occurs in the communication signal of the multi AV system. Indicated simultaneously, without fail, the malfunction of control units connected to the AV control unit through communication circuits. Determine the possible malfunction cause from the table below.

SELF-DIAGNOSIS RESULTS DISPLAY ITEM

CONSULT Display	DTC Detection Condition	Possible Cause
<ul style="list-style-type: none"> • AV COMM CIRCUIT [U1300] • SWITCH CONN [U1240] 	When any of the following is detected: <ul style="list-style-type: none"> • A/C and AV switch assembly power supply or ground circuit malfunction. • AV communication circuit malfunction between AV control unit and A/C and AV switch assembly. 	<ul style="list-style-type: none"> • A/C and AV switch assembly power supply and ground circuits. • AV communication circuits between AV control unit and A/C and AV switch assembly.
<ul style="list-style-type: none"> • AV COMM CIRCUIT [U1300] • HAND FREE CONN [U1256] 	When any of the following is detected: <ul style="list-style-type: none"> • Bluetooth® control unit power supply or ground circuit malfunction. • AV communication circuit malfunction between AV control unit and Bluetooth® control unit. 	<ul style="list-style-type: none"> • Bluetooth® control unit power supply and ground circuits. • AV communication circuits between AV control unit and Bluetooth® control unit.
<ul style="list-style-type: none"> • AV COMM CIRCUIT [U1300] • SWITCH CONN [U1240] • HAND FREE CONN [U1256] 	AV communication circuit malfunction between AV control unit and A/C and AV switch assembly.	AV communication circuits between AV control unit and A/C and AV switch assembly.

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AV

U1310 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

U1310 AV CONTROL UNIT

DTC Logic

INFOID:000000008954165

CONSULT Display	DTC Detection Condition	Possible Cause
CONTROL UNIT (AV) [U1310]	An initial diagnosis error is detected in AV communication circuit.	Replace the AV control unit if the malfunction occurs constantly. Refer to AV-186. "Removal and Installation" .

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

POWER SUPPLY AND GROUND CIRCUIT

AV CONTROL UNIT

AV CONTROL UNIT : Diagnosis Procedure

INFOID:000000008954166

Regarding Wiring Diagram information, refer to [AV-87. "Wiring Diagram"](#).

1. CHECK FUSE

Check that the following fuses are not blown.

Terminal No.	Signal name	Fuse No.
29	Ignition signal	29 (5A)
39	ACC power supply	65 (10A)
51	Battery power supply	15 (15A)

Are the fuses blown?

YES >> Replace the blown fuse after repairing the affected circuit.

NO >> GO TO 2.

2. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect AV control unit connectors M124 and M125.
3. Check voltage between AV control unit connectors and ground.

AV control unit		Ground	Condition	Voltage (Approx.)
Connector	Terminal			
M124	29	—	Ignition switch: ON	Battery voltage
M125	39		Ignition switch: ACC	
	51		Ignition switch: OFF	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connectors.

3. CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Check continuity between AV control unit connector M125 terminal 52 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M125	52	—	Yes

Is the inspection result normal?

YES >> Inspection End.

NO >> Repair or replace harness or connectors.

DISPLAY UNIT

DISPLAY UNIT : Diagnosis Procedure

INFOID:000000008954167

Regarding Wiring Diagram information, refer to [AV-87. "Wiring Diagram"](#).

1. CHECK INVERTER VCC AND SIGNAL VCC (POWER SUPPLY) CIRCUIT 1

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

Check voltage between display unit harness connector M93 terminals 2, 3 and ground.

Display unit		Ground	Condition	Voltage (Approx.)
Connector	Terminal			
M93	2	—	Ignition switch: ACC	9.0 V
	3			

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

2. CHECK INVERTER VCC AND SIGNAL VCC (POWER SUPPLY) CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M136 and display unit connector.
3. Check continuity between AV control unit connector M136 terminals 64, 76 and display unit connector M93 terminals 3, 2.

AV control unit		Display unit		Continuity
Connector	Terminal	Connector	Terminal	
M136	64	M93	3	Yes
	76		2	

4. Check continuity between AV control unit connector M136 terminals 64, 76 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M136	64	—	No
	76		

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connectors.

3. CHECK INVERTER VCC AND SIGNAL VCC (POWER SUPPLY) CIRCUIT 2

1. Connect the AV control unit connector M45.
2. Check voltage between AV control unit connector M136 terminals 64, 76 and ground.

AV control unit		Ground	Condition	Voltage (Approx.)
(+)				
Connector	Terminal	(-)		
M136	64	—	Ignition switch: ACC	9.0 V
	76			

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace AV control unit. Refer to [AV-186. "Removal and Installation"](#).

4. CHECK INVERTER GROUND AND SIGNAL GROUND CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M45 and display unit connector.
3. Check continuity between AV control unit connector M136 terminals 63, 75 and display unit connector M93 terminals 14, 13.

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

AV control unit		Display unit		Continuity
Connector	Terminal	Connector	Terminal	
M136	63	M93	14	Yes
	75		13	

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness or connectors.

5.CHECK DISPLAY UNIT GROUND CIRCUIT

Check continuity between display unit connector M93 terminal 1 and ground.

Display unit		Ground	Continuity
Connector	Terminal		
M93	1	—	Yes

Is the inspection result normal?

YES >> Inspection End.

NO >> Repair or replace harness or connectors.

SATELLITE RADIO TUNER

SATELLITE RADIO TUNER : Diagnosis Procedure

INFOID:0000000008954168

Regarding Wiring Diagram information, refer to [AV-87, "Wiring Diagram"](#).

1.CHECK FUSE

Check that the following fuses are not blown.

Terminal No.	Signal name	Fuse No.
32	Battery power supply	15 (15A)
36	ACC power supply	65 (10A)

Are the fuses blown?

YES >> Replace the blown fuse after repairing the affected circuit.

NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect satellite radio tuner connector B2.
3. Check voltage between satellite radio tuner connector B2 terminal 32, 36 and ground.

Satellite radio tuner		Ground	Condition	Voltage (Approx.)
Connector	Terminal			
B2	32	—	Ignition switch: OFF	Battery voltage
	36		Ignition switch: ACC	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connectors.

3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Check continuity between satellite radio tuner connector B2 terminal 35 and ground.

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

Satellite radio tuner		Ground	Continuity
Connector	Terminal		
B2	35	—	Yes

Is the inspection result normal?

- YES >> Inspection End.
 NO >> Repair or replace harness or connectors.

BLUETOOTH® CONTROL UNIT

BLUETOOTH® CONTROL UNIT : Diagnosis Procedure

INFOID:000000008954169

Regarding Wiring Diagram information, refer to [AV-87. "Wiring Diagram"](#).

1. CHECK FUSE

Check that the following fuses are not blown.

Terminal No.	Signal name	Fuse No.
1	Battery power supply	15 (15A)
2	ACC power supply	65 (10A)
3	Ignition signal	30 (10A)

Are the fuses blown?

- YES >> Replace the blown fuse after repairing the affected circuit.
 NO >> GO TO 2.

2. CHECK POWER SUPPLY CIRCUIT

- Turn ignition switch OFF.
- Disconnect Bluetooth® control unit connector B3.
- Check voltage between Bluetooth® control unit connector B3 and ground.

Bluetooth® control unit		Ground	Condition	Voltage (Approx.)
Connector	Terminal			
B3	1	—	Ignition switch: OFF	Battery voltage
	2		Ignition switch: ACC	
	3		Ignition switch: ON	

Is the inspection result normal?

- YES >> GO TO 3.
 NO >> Repair or replace harness or connectors.

3. CHECK GROUND CIRCUIT

- Turn ignition switch OFF.
- Check continuity between Bluetooth® control unit connector B3 and ground.

Bluetooth® control unit		Ground	Continuity
Connector	Terminal		
B3	4	—	Yes
	20		
	22		
	24		
	27		

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

Is the inspection result normal?

- YES >> Inspection End.
- NO >> Repair or replace harness or connectors.

A/C AND AV SWITCH ASSEMBLY

A/C AND AV SWITCH ASSEMBLY : Diagnosis Procedure

INFOID:000000008954170

Regarding Wiring Diagram information, refer to [AV-87. "Wiring Diagram"](#).

1.CHECK FUSE

Check that the following fuse is not blown.

Terminal No.	Signal name	Fuse No.
3	ACC power supply	65 (10A)

Is the fuse blown?

- YES >> Replace the blown fuse after repairing the affected circuit.
- NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect A/C and AV switch assembly connector.
3. Check voltage between A/C and AV switch assembly connector M98 terminal 3 and ground.

A/C and AV switch assembly		Ground	Condition	Voltage (Approx.)
Connector	Terminal			
M98	3	—	Ignition switch: ACC	Battery voltage

Is the inspection result normal?

- YES >> GO TO 3.
- NO >> Repair or replace harness or connectors.

3.CHECK CONTROL UNIT GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M124.
3. Check continuity between A/C and AV switch assembly connector M98 terminal 9 and AV control unit connector M124 terminal 10.

A/C and AV switch assembly		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M98	9	M124	10	Yes

Is the inspection result normal?

- YES >> GO TO 4.
- NO >> Repair or replace harness or connectors.

4.CHECK SWITCH GROUND CIRCUIT

Check continuity between A/C and AV switch assembly connector M98 terminal 1 and ground.

A/C and AV switch assembly		Ground	Continuity
Connector	Terminal		
M98	1	—	Yes

Is the inspection result normal?

- YES >> Inspection End.
- NO >> Repair or replace harness or connectors.

FRONT DOOR SPEAKER

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

FRONT DOOR SPEAKER

Diagnosis Procedure

INFOID:000000008954171

Regarding Wiring Diagram information, refer to [AV-87. "Wiring Diagram"](#).

1. CONNECTOR CHECK

Check the AV control 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 terminals or connectors.

2. CHECK FRONT DOOR SPEAKER SIGNAL CIRCUIT CONTINUITY

1. Disconnect AV control unit connector M125 and suspect front door speaker connector.
2. Check continuity between AV control unit connector M125 and suspect front door speaker connector.

AV control unit		Front door speaker		Continuity
Connector	Terminal	Connector	Terminal	
M125	34	D12 (LH)	1	Yes
	35		2	
	43	D112 (RH)	1	
	44		2	

3. Check continuity between AV control unit connector M125 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M125	34	—	No
	35		
	43		
	44		

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness or connectors.

3. CHECK FRONT DOOR SPEAKER SIGNAL

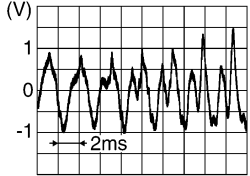
1. Connect AV control unit connector M125 and suspect front door speaker connector.
2. Turn ignition switch to ACC.
3. Push AV control unit POWER switch.
4. Check the signal between the terminals of AV control unit connector M125.

AV control unit connector M125		Condition	Reference value
(+)	(-)		
Terminal	Terminal		

FRONT DOOR SPEAKER

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

34	35	Audio signal output	
43	44		

Is the inspection result normal?

- YES >> Replace front door speaker. Refer to [AV-191. "Removal and Installation"](#).
- NO >> Replace AV control unit. Refer to [AV-186. "Removal and Installation"](#).

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AV

INSTRUMENT PANEL SPEAKER/TWEETER

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

INSTRUMENT PANEL SPEAKER/TWEETER

Diagnosis Procedure

INFOID:000000008954172

Regarding Wiring Diagram information, refer to [AV-87. "Wiring Diagram"](#).

1. CONNECTOR CHECK

Check the AV control 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 terminals or connectors.

2. CHECK INSTRUMENT PANEL TWEETER SIGNAL CIRCUIT CONTINUITY

1. Disconnect AV control unit connector M125 and suspect instrument panel tweeter connector.
2. Check continuity between AV control unit connector M125 and suspect instrument panel tweeter connector.

AV control unit		Instrument panel tweeter		Continuity
Connector	Terminal	Connector	Terminal	
M125	34	M62 (LH)	1	Yes
	35		2	
	43	M73 (RH)	1	
	44		2	

3. Check continuity between AV control unit connector M125 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M125	34	—	No
	35		
	43		
	44		

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness or connectors.

3. CHECK INSTRUMENT PANEL TWEETER SIGNAL

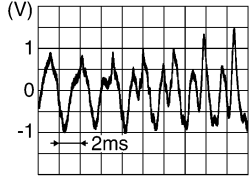
1. Connect AV control unit connector M125 and suspect instrument panel tweeter connector.
2. Turn ignition switch to ACC.
3. Push AV control unit POWER switch.
4. Check the signal between the terminals of AV control unit connector M125.

AV control unit connector M125		Condition	Reference value
(+)	(-)		
Terminal	Terminal		

INSTRUMENT PANEL SPEAKER/TWEETER

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

34	35	Audio signal output	
43	44		

Is the inspection result normal?

- YES >> Replace instrument panel tweeter. Refer to [AV-192. "Removal and Installation"](#).
- NO >> Replace AV control unit. Refer to [AV-186. "Removal and Installation"](#).

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AV

REAR DOOR SPEAKER

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

REAR DOOR SPEAKER

Diagnosis Procedure

INFOID:000000008954173

Regarding Wiring Diagram information, refer to [AV-87. "Wiring Diagram"](#).

1. CONNECTOR CHECK

Check the AV control 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 terminals or connectors.

2. CHECK REAR DOOR SPEAKER SIGNAL CIRCUIT CONTINUITY

1. Disconnect AV control unit connector M125 and suspect rear door speaker connector.
2. Check continuity between AV control unit connector M125 and suspect rear door speaker connector.

AV control unit		Rear door speaker		Continuity
Connector	Terminal	Connector	Terminal	
M125	36	D206 (LH)	1	Yes
	37		2	
	45	D306 (RH)	1	
	46		2	

3. Check continuity between AV control unit connector M125 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M125	36	—	No
	37		
	45		
	46		

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness or connectors.

3. CHECK REAR DOOR SPEAKER SIGNAL

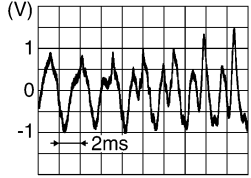
1. Connect AV control unit connector M125 and suspect rear door speaker connector.
2. Turn ignition switch to ACC.
3. Push AV control unit POWER switch.
4. Check the signal between the terminals of AV control unit connector M125.

AV control unit connector M125		Condition	Reference value
(+)	(-)		
Terminal	Terminal		

REAR DOOR SPEAKER

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

36	37		
45	46	Audio signal output	

Is the inspection result normal?

- YES >> Replace rear door speaker. Refer to [AV-193. "Removal and Installation"](#).
- NO >> Replace AV control unit. Refer to [AV-186. "Removal and Installation"](#).

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AV

FRONT AUXILIARY INPUT JACK AUDIO SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

FRONT AUXILIARY INPUT JACK AUDIO SIGNAL CIRCUIT

Diagnosis Procedure

INFOID:000000008954174

Regarding Wiring Diagram information, refer to [AV-87. "Wiring Diagram"](#).

1. CHECK AUX SOUND SIGNAL CIRCUIT CONTINUITY 1

1. Turn ignition switch OFF.
2. Disconnect front auxiliary input jacks connector M205 and front seat RH connector B302.
3. Check continuity between front auxiliary input jacks connector M205 terminals 1, 3 and front seat RH connector B302 terminals 8, 9.

Front auxiliary input jacks		Front seat RH		Continuity
Connector	Terminal	Connector	Terminal	
M205	1	B302	9	Yes
	3		8	

4. Check continuity between front auxiliary input jacks connector M205 terminals 1, 3 and ground.

Front auxiliary input jacks		Ground	Continuity
Connector	Terminal		
M205	1	—	No
	3		

Is inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness or connectors.

2. CHECK AUX SOUND SIGNAL CIRCUIT CONTINUITY 2

1. Disconnect AV control unit connector M124.
2. Check continuity between AV control unit connector M124 terminals 20, 21 and front seat RH connector B302 terminals 22, 23.

AV control unit		Front seat RH		Continuity
Connector	Terminal	Connector	Terminal	
M124	20	B302	23	Yes
	21		22	

3. Check continuity between AV control unit connector M124 terminals 20, 21 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M124	20	—	No
	21		

Is inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connectors.

3. CHECK AUX SOUND SIGNAL GROUND CIRCUIT CONTINUITY 1

Check continuity between front auxiliary input jacks connector M205 terminal 2 and front seat RH connector B302 terminal 10.

FRONT AUXILIARY INPUT JACK AUDIO SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

Front auxiliary input jacks		Front seat RH		Continuity
Connector	Terminal	Connector	Terminal	
M205	2	B302	10	Yes

Is inspection result normal?

- YES >> GO TO 4.
- NO >> Repair or replace harness or connectors.

4. CHECK AUX SOUND SIGNAL GROUND CIRCUIT CONTINUITY 2

Check continuity between AV control unit connector M124 terminal 22 and front seat RH connector B302 terminal 24.

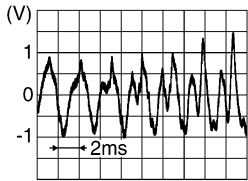
AV control unit		Front seat RH		Continuity
Connector	Terminal	Connector	Terminal	
M124	22	B302	24	Yes

Is inspection result normal?

- YES >> GO TO 5.
- NO >> Repair or replace harness or connectors.

5. CHECK AUX SOUND SIGNAL

1. Connect AV control unit connector M124 and front seat RH connector B302.
2. Turn ignition switch to ACC.
3. Select AUX mode.
4. Check the signal between the terminals of AV control unit connector M124.

AV control unit connector M124		Condition	Reference value
(+)	(-)		
Terminal	Terminal		
20	21		
22	25	AUX mode selected	

Is the inspection result normal?

- YES >> Replace front auxiliary input jacks. Refer to [AV-195, "Removal and Installation"](#).
- NO >> Replace AV control unit. Refer to [AV-186, "Removal and Installation"](#).

AV

SATELLITE AUDIO SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

SATELLITE AUDIO SIGNAL CIRCUIT

Diagnosis Procedure

INFOID:000000008954175

Regarding Wiring Diagram information, refer to [AV-87. "Wiring Diagram"](#).

1. CHECK SATELLITE SOUND SIGNAL CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M138 and satellite radio tuner connector B2.
3. Check continuity between AV control unit connector M138 and satellite radio tuner connector B2.

AV control unit		Satellite radio tuner		Continuity
Connector	Terminal	Connector	Terminal	
M138	94	B2	22	Yes
	96		24	

4. Check continuity between AV control unit connector M138 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M138	94		No
	96		

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness or connectors.

2. CHECK SATELLITE SOUND SIGNAL GROUND CIRCUIT CONTINUITY

Check continuity between AV control unit connector M138 and satellite radio tuner connector B2.

AV control unit		Satellite radio tuner		Continuity
Connector	Terminal	Connector	Terminal	
M138	93	B2	21	Yes
	95		23	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connectors.

3. CHECK SATELLITE SOUND SIGNAL

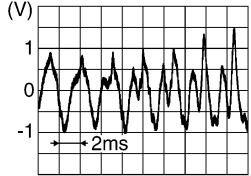
1. Connect AV control unit connector M138 and satellite radio tuner connector B2.
2. Turn ignition switch to ACC.
3. Select satellite radio mode.
4. Check the signal between the terminals of AV control unit connector M138.

AV control unit connector M138		Condition	Reference value
(+)	(-)		
Terminal	Terminal		

SATELLITE AUDIO SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

94	93	Satellite radio mode selected	
96	95		

Is the inspection result normal?

- YES >> Replace satellite radio tuner. Refer to [AV-198. "Removal and Installation"](#).
- NO >> Replace AV control unit. Refer to [AV-186. "Removal and Installation"](#).

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AV

BLUETOOTH® VOICE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

BLUETOOTH® VOICE SIGNAL CIRCUIT

Diagnosis Procedure

INFOID:000000008954176

Regarding Wiring Diagram information, refer to [AV-87. "Wiring Diagram"](#).

1. CHECK BLUETOOTH® VOICE SIGNAL CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M124 and Bluetooth® control unit connector B3.
3. Check continuity between AV control unit connector M124 terminal 5 and Bluetooth® control unit connector B3 terminal 9.

AV control unit		Bluetooth® control unit		Continuity
Connector	Terminal	Connector	Terminal	
M124	5	B3	9	Yes

4. Check continuity between AV control unit connector M124 terminal 5 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M124	5	—	No

Is inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness or connectors.

2. CHECK BLUETOOTH® VOICE SIGNAL GROUND CIRCUIT CONTINUITY

Check continuity between AV control unit connector M124 terminal 4 and Bluetooth® control unit connector B3 terminal 10.


AV control unit		Bluetooth® control unit		Continuity
Connector	Terminal	Connector	Terminal	
M124	4	B3	10	Yes

Is inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connectors.


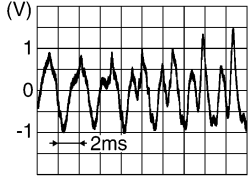
3. CHECK BLUETOOTH® VOICE SIGNAL

1. Connect AV control unit connector M124 and Bluetooth® control unit connector B3.
2. Turn ignition switch to ACC.
3. Press  switch.
4. Check the signal between the terminals of AV control unit connector M124.

BLUETOOTH® VOICE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

AV control unit connector M124		Condition	Reference value
(+)	(-)		
Terminal	Terminal		
5	4	During voice guide output with  switch pressed.	

Is the inspection result normal?

- YES >> Replace Bluetooth® control unit. Refer to [AV-196. "Removal and Installation"](#).
- NO >> Replace AV control unit. Refer to [AV-186. "Removal and Installation"](#).

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AV

RGB (R: RED) SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

RGB (R: RED) SIGNAL CIRCUIT

Diagnosis Procedure

INFOID:000000008954177

Regarding Wiring Diagram information, refer to [AV-87. "Wiring Diagram"](#).

1. CHECK RGB (R: RED) SIGNAL CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M136 and display unit connector.
3. Check continuity between AV control unit connector M136 terminal 57 and display unit connector M93 terminal 17.

AV control unit		Display unit		Continuity
Connector	Terminal	Connector	Terminal	
M136	57	M93	17	Yes

4. Check continuity between AV control unit connector M136 terminal 57 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M136	57		No

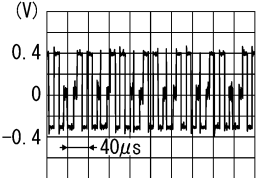
Is inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness or connectors.

2. CHECK RGB (R: RED) SIGNAL

1. Connect AV control unit connector M136 and display unit connector.
2. Turn ignition switch ON.
3. Check signal between display unit connector M93 terminal 17 and ground.

Display unit (+)		Ground (-)	Condition	Reference value
Connector	Terminal			
M93	17	—	"Color Spectrum Bar" on DISPLAY DIAGNOSIS screen.	 <p style="text-align: right; font-size: small;">SKIB2238J</p>

Is inspection result normal?

YES >> Replace display unit. Refer to [AV-190. "Removal and Installation"](#).

NO >> Replace AV control unit. Refer to [AV-186. "Removal and Installation"](#).

RGB (G: GREEN) SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

RGB (G: GREEN) SIGNAL CIRCUIT

Diagnosis Procedure

INFOID:000000008954178

Regarding Wiring Diagram information, refer to [AV-87. "Wiring Diagram"](#).

1. CHECK RGB (G: GREEN) SIGNAL CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M136 and display unit connector.
3. Check continuity between AV control unit connector M136 terminal 56 and display unit connector M93 terminal 6.

AV control unit		Display unit		Continuity
Connector	Terminal	Connector	Terminal	
M136	56	M93	6	Yes

4. Check continuity between AV control unit connector M136 terminal 56 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M136	56		No

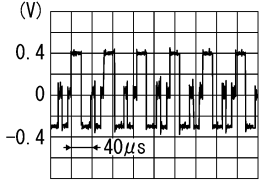
Is inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness or connectors.

2. CHECK RGB (G: GREEN) SIGNAL

1. Connect AV control unit connector M136 and display unit connector.
2. Turn ignition switch ON.
3. Check signal between display unit connector M93 terminal 6 and ground.

Display unit (+)		Ground (-)	Condition	Reference value
Connector	Terminal			
M93	6	—	"Color Spectrum Bar" on DISPLAY DIAGNOSIS screen.	 <p>SKIB2236J</p>

Is inspection result normal?

YES >> Replace display unit. Refer to [AV-190. "Removal and Installation"](#).

NO >> Replace AV control unit. Refer to [AV-186. "Removal and Installation"](#).

RGB (B: BLUE) SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

RGB (B: BLUE) SIGNAL CIRCUIT

Diagnosis Procedure

INFOID:000000008954179

Regarding Wiring Diagram information, refer to [AV-87, "Wiring Diagram"](#).

1. CHECK RGB (B: BLUE) SIGNAL CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M136 and display unit connector.
3. Check continuity between AV control unit connector M136 terminal 55 and display unit connector M93 terminal 18.

AV control unit		Display unit		Continuity
Connector	Terminal	Connector	Terminal	
M136	55	M93	18	Yes

4. Check continuity between AV control unit connector M136 terminal 55 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M136	55		No

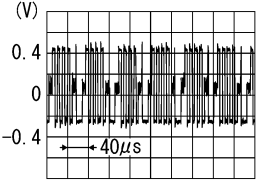
Is inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness or connectors.

2. CHECK RGB (B: BLUE) SIGNAL

1. Connect AV control unit connector M136 and display unit connector.
2. Turn ignition switch ON.
3. Check signal between display unit connector M93 terminal 18 and ground.

Display unit (+)		Ground (-)	Condition	Reference value
Connector	Terminal			
M93	18	—	"Color Spectrum Bar" on DISPLAY DIAGNOSIS screen.	 <p>SKIB2237J</p>

Is inspection result normal?

YES >> Replace display unit. Refer to [AV-190, "Removal and Installation"](#).

NO >> Replace AV control unit. Refer to [AV-186, "Removal and Installation"](#).

RGB SYNCHRONIZING SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

RGB SYNCHRONIZING SIGNAL CIRCUIT

Diagnosis Procedure

INFOID:000000008954180

Regarding Wiring Diagram information, refer to [AV-87. "Wiring Diagram"](#).

1. CHECK RGB SYNCHRONIZING SIGNAL CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M136 and display unit connector.
3. Check continuity between AV control unit connector M136 terminal 58 and display unit connector M93 terminal 19.

AV control unit		Display unit		Continuity
Connector	Terminal	Connector	Terminal	
M136	58	M93	19	Yes

4. Check continuity between AV control unit connector M136 terminal 58 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M136	58		No

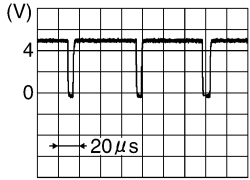
Is inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness or connectors.

2. CHECK RGB SYNCHRONIZING SIGNAL

1. Connect AV control unit connector M136 and display unit connector.
2. Turn ignition switch ON.
3. Check signal between display unit connector M93 terminal 19 and ground.

Display unit (+)		Ground (-)	Reference value
Connector	Terminal		
M93	19	—	 <p>SKIB3603E</p>

Is inspection result normal?

YES >> Replace display unit. Refer to [AV-190. "Removal and Installation"](#).

NO >> Replace AV control unit. Refer to [AV-186. "Removal and Installation"](#).

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RGB AREA (YS) SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

RGB AREA (YS) SIGNAL CIRCUIT

Diagnosis Procedure

INFOID:000000008954181

Regarding Wiring Diagram information, refer to [AV-87, "Wiring Diagram"](#).

1. CHECK RGB AREA (YS) SIGNAL CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M136 and display unit connector.
3. Check continuity between AV control unit connector M136 terminal 60 and display unit connector M93 terminal 9.

AV control unit		Display unit		Continuity
Connector	Terminal	Connector	Terminal	
M136	60	M93	9	Yes

4. Check continuity between AV control unit connector M136 terminal 60 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M136	60		No

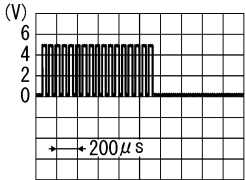
Is inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness or connectors.

2. CHECK RGB AREA (YS) SIGNAL

1. Connect AV control unit connector M136 and display unit connector.
2. Turn ignition switch ON.
3. Check signal between display unit connector M93 terminal 9 and ground.

Display unit (+)		Ground (-)	Condition	Reference value
Connector	Terminal			
M93	9	—	RGB image displayed.	5.0 V
			AUX image displayed.	 <p style="text-align: right; font-size: small;">PKIB4948J</p>

Is inspection result normal?

YES >> Replace display unit. Refer to [AV-190, "Removal and Installation"](#).

NO >> Replace AV control unit. Refer to [AV-186, "Removal and Installation"](#).

HORIZONTAL SYNCHRONIZING (HP) SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

HORIZONTAL SYNCHRONIZING (HP) SIGNAL CIRCUIT

Diagnosis Procedure

INFOID:000000008954182

Regarding Wiring Diagram information, refer to [AV-87. "Wiring Diagram"](#).

1. CHECK HORIZONTAL SYNCHRONIZING (HP) SIGNAL CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M136 and display unit connector.
3. Check continuity between AV control unit connector M136 terminal 62 and display unit connector M93 terminal 8.

AV control unit		Display unit		Continuity
Connector	Terminal	Connector	Terminal	
M136	62	M93	8	Yes

4. Check continuity between AV control unit connector M136 terminal 62 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M136	62		No

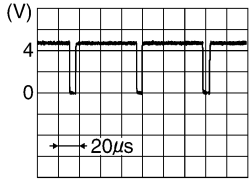
Is inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness or connectors.

2. CHECK HORIZONTAL SYNCHRONIZING (HP) SIGNAL

1. Connect AV control unit connector M136 and display unit connector.
2. Turn ignition switch ON.
3. Check signal between display unit connector M93 terminal 8 and ground.

Display unit (+)		Ground (-)	Reference value
Connector	Terminal		
M93	8	—	 <p>SKIB3601E</p>

Is inspection result normal?

YES >> Replace AV control unit. Refer to [AV-186. "Removal and Installation"](#).

NO >> Replace display unit. Refer to [AV-190. "Removal and Installation"](#).

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VERTICAL SYNCHRONIZING (VP) SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

VERTICAL SYNCHRONIZING (VP) SIGNAL CIRCUIT

Diagnosis Procedure

INFOID:000000008954183

Regarding Wiring Diagram information, refer to [AV-87. "Wiring Diagram"](#).

1. CHECK VERTICAL SYNCHRONIZING (VP) SIGNAL CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M136 and display unit connector.
3. Check continuity between AV control unit connector M136 terminal 74 and display unit connector M93 terminal 20.

AV control unit		Display unit		Continuity
Connector	Terminal	Connector	Terminal	
M136	74	M93	20	Yes

4. Check continuity between AV control unit connector M136 terminal 74 and ground.

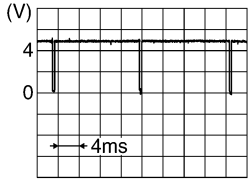
AV control unit		Ground	Continuity
Connector	Terminal		
M136	74		No

Is inspection result normal?

- YES >> GO TO 2.
 NO >> Repair or replace harness or connectors.

2. CHECK VERTICAL SYNCHRONIZING (VP) SIGNAL

1. Connect AV control unit connector M136 and display unit connector.
2. Turn ignition switch ON.
3. Check signal between display unit connector M93 terminal 20 and ground.

Display unit (+)		Ground (-)	Reference value
Connector	Terminal		
M93	20	—	

SKIB3598E

Is inspection result normal?

- YES >> Replace AV control unit. Refer to [AV-186. "Removal and Installation"](#).
 NO >> Replace display unit. Refer to [AV-190. "Removal and Installation"](#).

COMPOSITE IMAGE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

COMPOSITE IMAGE SIGNAL CIRCUIT

Diagnosis Procedure

INFOID:000000008954184

Regarding Wiring Diagram information, refer to [AV-87. "Wiring Diagram"](#).

1. CHECK COMPOSITE IMAGE SIGNAL CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M136 and display unit connector.
3. Check continuity between AV control unit connector M136 terminal 53 and display unit connector M93 terminal 15.

AV control unit		Display unit		Continuity
Connector	Terminal	Connector	Terminal	
M136	53	M93	15	Yes

4. Check continuity between AV control unit connector M136 terminal 53 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M136	53		No

Is inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness or connectors.

2. CHECK COMPOSITE IMAGE SIGNAL GROUND CIRCUIT CONTINUITY

- Check continuity between AV control unit connector M136 terminal 54 and display unit connector M93 terminal 4.

AV control unit		Display unit		Continuity
Connector	Terminal	Connector	Terminal	
M136	54	M93	4	Yes

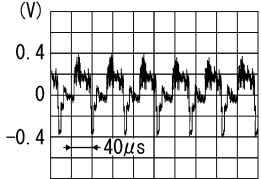
Is inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connectors.

3. CHECK COMPOSITE IMAGE SIGNAL

1. Connect AV control unit connector M136 and display unit connector.
2. Turn ignition switch ON.
3. Check signal between display unit connector M93 terminal 15 and ground.

Display unit		Ground	Condition	Reference value
(+)		(-)		
Connector	Terminal			
M93	15	—	Camera image displayed.	 <p>SKIB2251J</p>

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AV

COMPOSITE IMAGE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

Is inspection result normal?

YES >> Replace display unit. Refer to [AV-190, "Removal and Installation"](#).

NO >> Replace AV control unit. Refer to [AV-186, "Removal and Installation"](#).

AUX IMAGE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

AUX IMAGE SIGNAL CIRCUIT

Diagnosis Procedure

INFOID:000000008954185

Regarding Wiring Diagram information, refer to [AV-87. "Wiring Diagram"](#).

1. CHECK AUX IMAGE SIGNAL CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M137 and front auxiliary input jacks connector.
3. Check continuity between AV control unit connector M137 terminal 83 and front auxiliary input jacks connector M205 terminal 7.

AV control unit		Front auxiliary input jacks		Continuity
Connector	Terminal	Connector	Terminal	
M137	83	M205	7	Yes

4. Check continuity between AV control unit connector M137 terminal 83 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M137	83		No

Is inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness or connectors.

2. CHECK AUX IMAGE SIGNAL GROUND CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M137 and front auxiliary input jacks connector.
3. Check continuity between AV control unit connector M137 terminal 91 and front auxiliary input jacks connector M205 terminal 8.

AV control unit		Front auxiliary input jacks		Continuity
Connector	Terminal	Connector	Terminal	
M137	91	M205	8	Yes

Is inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connectors.

3. CHECK AUX IMAGE SIGNAL

1. Connect AV control unit connector M137 and front auxiliary input jacks connector.
2. Turn ignition switch ON.
3. Check signal between front auxiliary input jacks connector M205 terminal 7 and ground.

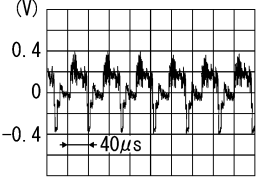
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AUX IMAGE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

Front auxiliary input jacks		Ground	Condition	Reference value
(+)		(-)		
Connector	Terminal			
M205	7	—	AUX image displayed.	 <p style="text-align: right; font-size: small;">SKIB2251J</p>

Is inspection result normal?

- YES >> Replace AV control unit. Refer to [AV-186. "Removal and Installation"](#).
- NO >> Replace front auxiliary input jacks. Refer to [AV-195. "Removal and Installation"](#).

CAMERA IMAGE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

CAMERA IMAGE SIGNAL CIRCUIT

Diagnosis Procedure

INFOID:000000008954186

Regarding Wiring Diagram information, refer to [AV-87. "Wiring Diagram"](#).

1. CHECK CAMERA POWER SUPPLY CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M137 and rear view camera connector.
3. Check continuity between AV control unit connector M137 terminal 87 and rear view camera connector D504 terminal 1.

AV control unit		Rear view camera		Continuity
Connector	Terminal	Connector	Terminal	
M137	87	D504	1	Yes

4. Check continuity between AV control unit connector M137 terminal 87 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M137	87		No

Is inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness or connectors.

2. CHECK CAMERA POWER SUPPLY VOLTAGE

1. Connect AV control unit connector M137 and rear view camera connector.
2. Turn ignition switch ON.
3. Shift the selector lever to "R".
4. Check voltage between AV control unit connector M137 terminal 87 and ground.

AV control unit		Ground	Condition	Voltage (Approx.)
(+)		(-)		
Connector	Terminal			
M137	87	—	Selector lever is in "R".	6.0 V

Is inspection result normal?

YES >> GO TO 3.

NO >> Replace AV control unit. Refer to [AV-186. "Removal and Installation"](#).

3. CHECK CAMERA IMAGE SIGNAL CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M137 and rear view camera connector.
3. Check continuity between AV control unit connector M137 terminal 82 and rear view camera connector D504 terminal 3.

AV control unit		Rear view camera		Continuity
Connector	Terminal	Connector	Terminal	
M137	82	D504	3	Yes

4. Check continuity between AV control unit connector M137 terminal 82 and ground.

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CAMERA IMAGE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

AV control unit		Ground	Continuity
Connector	Terminal		
M137	82		No

Is inspection result normal?

- YES >> GO TO 4.
- NO >> Repair or replace harness or connectors.

4. CHECK CAMERA GROUND CIRCUIT CONTINUITY

Check continuity between AV control unit connector M137 terminal 88 and rear view camera connector D504 terminal 2.

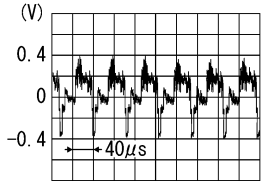
AV control unit		Rear view camera		Continuity
Connector	Terminal	Connector	Terminal	
M137	88	D504	2	Yes

Is inspection result normal?

- YES >> GO TO 5.
- NO >> Repair or replace harness or connectors.

5. CHECK CAMERA IMAGE SIGNAL

1. Connect AV control unit connector M137 and rear view camera connector.
2. Turn ignition switch ON.
3. Shift the selector lever to "R".
4. Check signal between AV control unit connector M137 terminal 82 and ground.

AV control unit		Ground	Condition	Reference value
(+)		(-)		
Connector	Terminal			
M137	82	—	Camera image displayed.	 <p style="text-align: right; font-size: small;">SKIB2251J</p>

Is inspection result normal?

- YES >> Replace AV control unit. Refer to [AV-186, "Removal and Installation"](#).
- NO >> Replace rear view camera. Refer to [AV-199, "Removal and Installation"](#).

DISK EJECT SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

DISK EJECT SIGNAL CIRCUIT

Diagnosis Procedure

INFOID:000000008954187

Regarding Wiring Diagram information, refer to [AV-87. "Wiring Diagram"](#).

1. CHECK DISK EJECT SIGNAL CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M124 and A/C and AV switch assembly connector.
3. Check continuity between AV control unit connector M124 terminal 28 and A/C and AV switch assembly connector M98 terminal 14.

AV control unit		A/C and AV switch assembly		Continuity
Connector	Terminal	Connector	Terminal	
M124	28	M98	14	Yes

4. Check continuity between AV control unit connector M124 terminal 28 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M124	28		No

Is inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness or connectors.

2. CHECK AV CONTROL UNIT VOLTAGE

1. Connect AV control unit connector M124 and A/C and AV switch assembly connector.
2. Turn ignition switch ON.
3. Check voltage between AV control unit connector M124 terminal 28 and ground.

AV control unit		Ground	Condition	Voltage (Approx.)
(+)		(-)		
Connector	Terminal			
M124	28	—	Pressing eject switch	0 V
			Except above	5.0 V

Is the inspection result normal?

YES >> Replace A/C and AV switch assembly. Refer to [AV-188. "Removal and Installation"](#).

NO >> Replace AV control unit. Refer to [AV-186. "Removal and Installation"](#).

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MICROPHONE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

MICROPHONE SIGNAL CIRCUIT

Diagnosis Procedure

INFOID:000000008954188

Regarding Wiring Diagram information, refer to [AV-87. "Wiring Diagram"](#).

1. CHECK MICROPHONE SIGNAL CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect Bluetooth® control unit connector B3 and microphone connector.
3. Check continuity between Bluetooth® control unit connector B3 terminals 7, 8, 29 and microphone connector R109 terminals 6, 5, 3.

Bluetooth® control unit		Microphone		Continuity
Connector	Terminal	Connector	Terminal	
B3	7	R109	6	Yes
	8		5	
	29		3	

4. Check continuity between Bluetooth® control unit connector B3 terminals 7, 8, 29 and ground.

Bluetooth® control unit		Ground	Continuity
Connector	Terminal		
B3	7	—	No
	8		
	29		

Is inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness or connectors.

2. CHECK MICROPHONE VCC VOLTAGE

1. Connect Bluetooth® control unit connector B3.
2. Turn ignition switch ON.
3. Check voltage between Bluetooth® control unit connector B3.

Bluetooth® control unit connector B3		Voltage (Approx.)
(+)	(-)	
Terminal	Terminal	
29	8	5.0 V

Is the inspection result normal?

YES >> GO TO 3.

NO >> Replace Bluetooth® control unit. Refer to [AV-196. "Removal and Installation"](#).

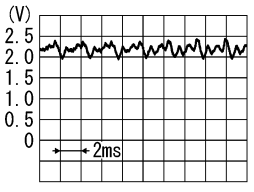
3. CHECK MICROPHONE SIGNAL

1. Connect microphone connector.
2. Check signal between Bluetooth® control unit connector B3.

MICROPHONE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

Bluetooth® control unit connector B3		Condition	Reference value
(+) Terminal	(-) Terminal		
7	8	Speak into microphone.	 <p style="text-align: right; font-size: small;">PKIB5037J</p>

Is the inspection result normal?

YES >> Replace Bluetooth® control unit. Refer to [AV-196. "Removal and Installation"](#).

NO >> Replace microphone. Refer to [AV-197. "Removal and Installation"](#).

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BLUETOOTH® CONTROL SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

BLUETOOTH® CONTROL SIGNAL CIRCUIT

Diagnosis Procedure

INFOID:000000008954189

1. CHECK CONTROL SIGNAL CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect Bluetooth® control unit connector B3.
3. Check continuity between Bluetooth® control unit connector B3 terminals 20, 24 and ground.

Bluetooth® control unit		Ground	Continuity
Connector	Terminal		
B3	20	—	Yes
	24		

Is the inspection result normal?

- YES >> Replace Bluetooth® control unit. Refer to [AV-196, "Removal and Installation"](#).
NO >> Repair or replace harness or connectors.

STEERING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

STEERING SWITCH






Diagnosis Procedure

INFOID:000000008954190

Regarding Wiring Diagram information, refer to [AV-87. "Wiring Diagram"](#).

1. CHECK STEERING WHEEL AUDIO CONTROL SWITCH RESISTANCE

1. Turn ignition switch OFF.
2. Disconnect combination switch connector M149.
3. Check the resistance between the terminals of combination switch connector M149.

Combination switch connector M149		Condition	Resistance Ω (Approx.)
Terminal	Terminal		
14	17	Depress SOURCE switch.	1
		Depress Δ switch.	121
		Depress ∇ switch.	321
		Depress  switch.	723
		Depress ENTER switch.	2023
15	17	Depress  switch.	1
		Depress  + switch.	121
		Depress  switch.	321
		Depress  switch.	723
		Depress DISP switch.	2023

Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace steering wheel audio control switch. Refer to [AV-189. "Removal and Installation"](#).

2. CHECK HARNESS BETWEEN COMBINATION SWITCH AND COMBINATION METER

1. Disconnect combination meter connector M24 and combination switch connector M30.
2. Check continuity between combination meter connector M24 and combination switch connector M30.

Combination meter		Combination switch		Continuity
Connector	Terminal	Connector	Terminal	
M24	3	M30	24	Yes
	24		33	
	4		31	

3. Check continuity between combination meter connector M24 and ground.

Combination meter		Ground	Continuity
Connector	Terminal		
M24	3	—	No
	24		
	4		

Is the inspection result normal?

STEERING SWITCH

[MID AUDIO WITHOUT BOSE]

< DTC/CIRCUIT DIAGNOSIS >

- YES >> GO TO 3.
NO >> Repair or replace harness or connectors.

3.CHECK COMBINATION SWITCH

Check continuity between combination switch connectors M30 and M149.

Combination switch				Continuity
Connector	Terminal	Connector	Terminal	
M30	24	M149	14	Yes
	31		15	
	33		17	

Is the inspection result normal?

- YES >> GO TO 4.
NO >> Replace spiral cable. Refer to [SR-15. "Removal and Installation"](#).

4.CHECK HARNESS BETWEEN COMBINATION METER AND AV CONTROL UNIT

1. Disconnect AV control unit connector M125.
2. Check continuity between combination meter connector M24 and AV control unit connector M125.

Combination meter		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M24	14	M125	38	Yes
	15		48	
	16		47	

3. Check continuity between combination meter connector M24 and ground.

Combination meter		Ground	Continuity
Connector	Terminal		
M24	14	—	No
	15		
	16		

Is the inspection result normal?

- YES >> GO TO 5.
NO >> Repair or replace harness or connectors.

5.CHECK AV CONTROL UNIT VOLTAGE

1. Connect combination meter connector M125 and AV control unit connector M125.
2. Turn ignition switch ON.
3. Check the voltage between the terminals of AV control unit connector M125.

AV control unit M125		Voltage (Approx.)
(+)	(-)	
Terminal	Terminal	
38	47	5.0 V
48		

Is the inspection result normal?

- YES >> Replace combination meter. Refer to [MWI-82. "Removal and Installation"](#).
NO >> Replace AV control unit. Refer to [AV-186. "Removal and Installation"](#).

USB CONNECTOR

Diagnosis Procedure

INFOID:000000008954191

Regarding Wiring Diagram information, refer to [AV-87. "Wiring Diagram"](#).

1. CHECK USB INTERFACE HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M145 and USB interface connector M209.
3. Check continuity between AV control unit connector M145 and USB interface connector M209.

AV control unit		USB interface		Continuity
Connector	Terminal	Connector	Terminal	
M145	121	M209	1	Yes
	122		2	
	123		3	
	124		4	
	125		5	

4. Check continuity between AV control unit connector M145 and ground.

AV control unit		—	Continuity
Connector	Terminal		
M145	121	Ground	No
	123		

Is the inspection result normal?

- YES >> Replace the USB interface. Refer to [AV-194. "Removal and Installation"](#).
 NO >> Repair or replace harness or connectors.

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SYMPTOM DIAGNOSIS

MULTI AV SYSTEM

Symptom Table

INFOID:000000008954192

RELATED TO AUDIO

Symptoms	Check items	Probable malfunction location
The disk cannot be removed.	AV control unit	Malfunction in AV control unit. Refer to AV-62. "On Board Diagnosis Function" .
No sound comes out or the level of the sound is low.	No sound from all speakers.	<ul style="list-style-type: none"> • Speaker circuit shorted to ground. Refer to AV-87. "Wiring Diagram". • AV control unit power supply and ground circuits malfunction. Refer to AV-148. "Diagnosis Procedure".
	Only a certain speaker (front door speaker LH, front door speaker RH, front tweeter LH, front tweeter RH, rear speaker LH, rear speaker RH) does not output sound.	<ul style="list-style-type: none"> • Poor connector connection of speaker. • Sound signal circuit malfunction between AV control unit and speaker. Refer to: <ul style="list-style-type: none"> - AV-148. "Diagnosis Procedure" (front door speaker). - AV-150. "Diagnosis Procedure" (front tweeter). - AV-152. "Diagnosis Procedure" (rear speaker). • Malfunction in speaker. Refer to: <ul style="list-style-type: none"> - AV-191. "Removal and Installation" (front door speaker). - AV-192. "Removal and Installation" (front tweeter). - AV-193. "Removal and Installation" (rear speaker). • Malfunction in AV control unit. Refer to AV-62. "On Board Diagnosis Function".

MULTI AV SYSTEM

< SYMPTOM DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

Symptoms	Check items	Probable malfunction location
Noise is mixed with audio.	Noise comes out from all speakers.	Malfunction in AV control unit. Refer to AV-62, "On Board Diagnosis Function" .
	Noise comes out only from a certain speaker (front door speaker LH, front door speaker RH, front speaker LH, front tweeter RH, rear tweeter LH, rear speaker RH).	<ul style="list-style-type: none"> Poor connector connection of speaker. Sound signal circuit malfunction between AV control unit and speaker. Refer to: <ul style="list-style-type: none"> AV-148, "Diagnosis Procedure" (front door speaker). AV-150, "Diagnosis Procedure" (front tweeter). AV-152, "Diagnosis Procedure" (rear speaker). Malfunction in speaker. Poor Installation of speaker (e.g. backlash and looseness). Refer to: <ul style="list-style-type: none"> AV-191, "Removal and Installation" (front door speaker). AV-192, "Removal and Installation" (front tweeter). AV-193, "Removal and Installation" (rear speaker). Malfunction in AV control unit. Refer to AV-62, "On Board Diagnosis Function".
	Noise is mixed with radio only (when the vehicle hits a bump or while driving over bad roads)	Poor connector connection of antenna or antenna feeder. Refer to AV-200, "Location of Antennas" .
No radio reception or poor reception.	<ul style="list-style-type: none"> Other audio sounds are normal. Any radio station cannot be received or poor reception is caused even after moving to a service area with good reception (e.g. a place with clear view and no obstacles generating external noises). 	<ul style="list-style-type: none"> Antenna amp. ON signal circuit malfunction. Poor connector connection of antenna or antenna feeder. Refer to AV-200, "Location of Antennas".
No satellite radio reception.	There is malfunction in the CONSULT self diagnosis result. Refer to AV-69, "CONSULT Function" .	<ul style="list-style-type: none"> Malfunction in antenna, antenna feeder or AV control unit. Perform DTC diagnosis. Refer to AV-69, "CONSULT Function". Poor continuity in antenna feeder. Poor connector connection of antenna or antenna feeder. Refer to AV-200, "Location of Antennas".
	There is no malfunction in the CONSULT self diagnosis result. Refer to AV-69, "CONSULT Function" .	<ul style="list-style-type: none"> Poor continuity in antenna feeder. Poor connector connection of antenna or antenna feeder. Loose satellite radio antenna mounting nut. Refer to AV-200, "Location of Antennas".
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.

RELATED TO HANDS-FREE PHONE

- Before performing diagnosis, confirm that the cellular phone being used by the customer is compatible with the vehicle.
- It is possible that a malfunction is occurring due to a version change of the phone even though the phone is a compatible type. This can be confirmed by changing the cellular phone to another compatible type, and check that it operates normally. It is important to determine whether the cause of the malfunction is the vehicle or the cellular phone.

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MULTI AV SYSTEM

[MID AUDIO WITHOUT BOSE]

< SYMPTOM DIAGNOSIS >

Check Compatibility

1. Make sure the customer's Bluetooth® related concern is understood.
2. Verify the customer's concern.









NOTE:
The customer's phone may be required, depending upon their concern.
3. Write down the customer's phone brand, model and service provider.

NOTE:
It is necessary to know the service provider. On occasion, a given phone may be on the approved list with one provider, but may not be on the approved list with other providers.
4. Go to "www.nissanusa.com/bluetooth/".
 - a. Using the website's search engine, find out if the customer's phone is on the approved list.
 - b. If the customer's phone is NOT on the approved list:

Stop diagnosis here. The customer needs to obtain a Bluetooth® phone that is on the approved list before any further action.
 - c. If the feature related to the customer's concern shows as "N" (not compatible):

Stop diagnosis here. If the customer still wants the feature to function, they will need to get an approved phone showing the feature as "Y" (compatible) in the "Basic Features".
 - d. If the feature related to the customer's concern shows as "Y" (compatible):

Perform diagnosis as per the following table.

Symptoms	Check items	Probable malfunction location
Does not recognize cellular phone connection (no connection is displayed on the display at the guide).	Repeat the registration of cellular phone.	
Hands-free phone cannot be established.	<ul style="list-style-type: none"> • Hands-free phone operation can be made, but the communication cannot be established. • Hands-free phone operation can be performed, however, voice between each other cannot be heard during the conversation. 	Malfunction in AV control unit. Replace AV control unit. Refer to AV-196 , "Removal and Installation".
The other party's voice cannot be heard by hands-free phone.	Check the "microphone speaker" in Inspection & Adjustment Mode if sound is heard.	
Originating sound is not heard by the other party with hands-free phone communication.	Sound operation function is normal.	
	Sound operation function does not work.	Microphone signal circuit malfunction. Refer to AV-146 , "BLUETOOTH® CONTROL UNIT : Diagnosis Procedure".
The system cannot be operated.	<ul style="list-style-type: none"> • The voice recognition can be controlled. • Steering switch's , , and  switch works, but  does not work. 	Steering switch malfunction. Replace steering switch. Refer to AV-189 , "Removal and Installation".
	Steering switch's  ,  ,  , and  switches do not work.	Steering switch signal circuit malfunction. Refer to AV-177 , "Diagnosis Procedure".
	All steering switches do not work.	Steering switch ground circuit malfunction. Refer to AV-177 , "Diagnosis Procedure".

RELATED TO NAVIGATION

MULTI AV SYSTEM

< SYMPTOM DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

Symptoms	Check items	Probable malfunction location
Navigation system is inoperative.	Navigation malfunction.	<ul style="list-style-type: none"> Malfunction in SD card. Malfunction in AV control unit. Refer to AV-62, "On Board Diagnosis Function" .
	Steering switches malfunction.	Steering switch signal circuit malfunction. Refer to AV-177, "Diagnosis Procedure" .
	Voice activated control malfunction.	Microphone signal circuit malfunction. Refer to AV-174, "Diagnosis Procedure" . Steering switch signal circuit malfunction. Refer to AV-177, "Diagnosis Procedure" .

RELATED TO REAR VIEW CAMERA

Symptoms	Check items	Probable malfunction location
Rear view camera is inoperative.	Reverse signal circuit malfunction.	Reverse signal circuit malfunction between BCM and AV control unit. Refer to AV-171, "Diagnosis Procedure" .
	Camera image signal circuit malfunction.	Camera image signal circuit malfunction between rear view camera and AV control unit. Refer to AV-171, "Diagnosis Procedure" .
	Rear view camera malfunction.	Replace rear view camera. Refer to AV-199, "Removal and Installation" .

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NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

NORMAL OPERATING CONDITION

Description

INFOID:000000008954193

RELATED TO NOISE

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

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.	<ul style="list-style-type: none"> • Ignition components
The occurrence of the noise is linked with the operation of the fuel pump.		<ul style="list-style-type: none"> • Fuel pump condenser
Noise only occurs when various electrical components are operating.	A cracking or snapping sound occurs with the operation of various switches.	<ul style="list-style-type: none"> • Relay malfunction, AV control unit malfunction
	The noise occurs when various motors are operating.	<ul style="list-style-type: none"> • Motor case ground • Motor
The noise occurs constantly, not just under certain conditions.		<ul style="list-style-type: none"> • 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.		<ul style="list-style-type: none"> • Ground wire of body parts • Ground due to improper part installation • Wiring connections or a short circuit

RELATED TO HANDS-FREE PHONE

Symptom	Cause and Counter measure
Does not recognize cellular phone connection (No connection is displayed on the display at the guide).	<p>Some Bluetooth[®] enabled cellular phones may not be recognized by the in-vehicle phone module.</p> <p>Refer to "RELATED TO HANDS-FREE PHONE (Check Compatibility)" in AV-180, "Symptom Table".</p>
Cannot use hands-free phone.	<p>Customer will not be able to use a hands-free phone under the following conditions:</p> <ul style="list-style-type: none"> • The vehicle is outside of the telephone service area. • The vehicle is in an area where it is difficult to receive radio waves; such as in a tunnel, in an underground parking garage, near a tall building or in a mountainous area. • The cellular phone is locked to prevent it from being dialed. <p>NOTE:</p> <p>While a cellular phone is connected through the Bluetooth[®] wireless connection, the battery power of the cellular phone may discharge quicker than usual. The Bluetooth[®] Hands-Free Phone System cannot charge cellular phones.</p>

NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[MID AUDIO WITHOUT BOSE]

Symptom	Cause and Counter measure
The other party's voice cannot be heard by hands-free phone.	When the radio wave condition is not ideal or ambient sound is too loud, it may be difficult to hear the other person's voice during a call.
Poor sound quality.	Do not place the cellular phone in an area surrounded by metal or far away from the in-vehicle phone module to prevent tone quality degradation and wireless connection disruption.

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AV

AV CONTROL UNIT

< REMOVAL AND INSTALLATION >

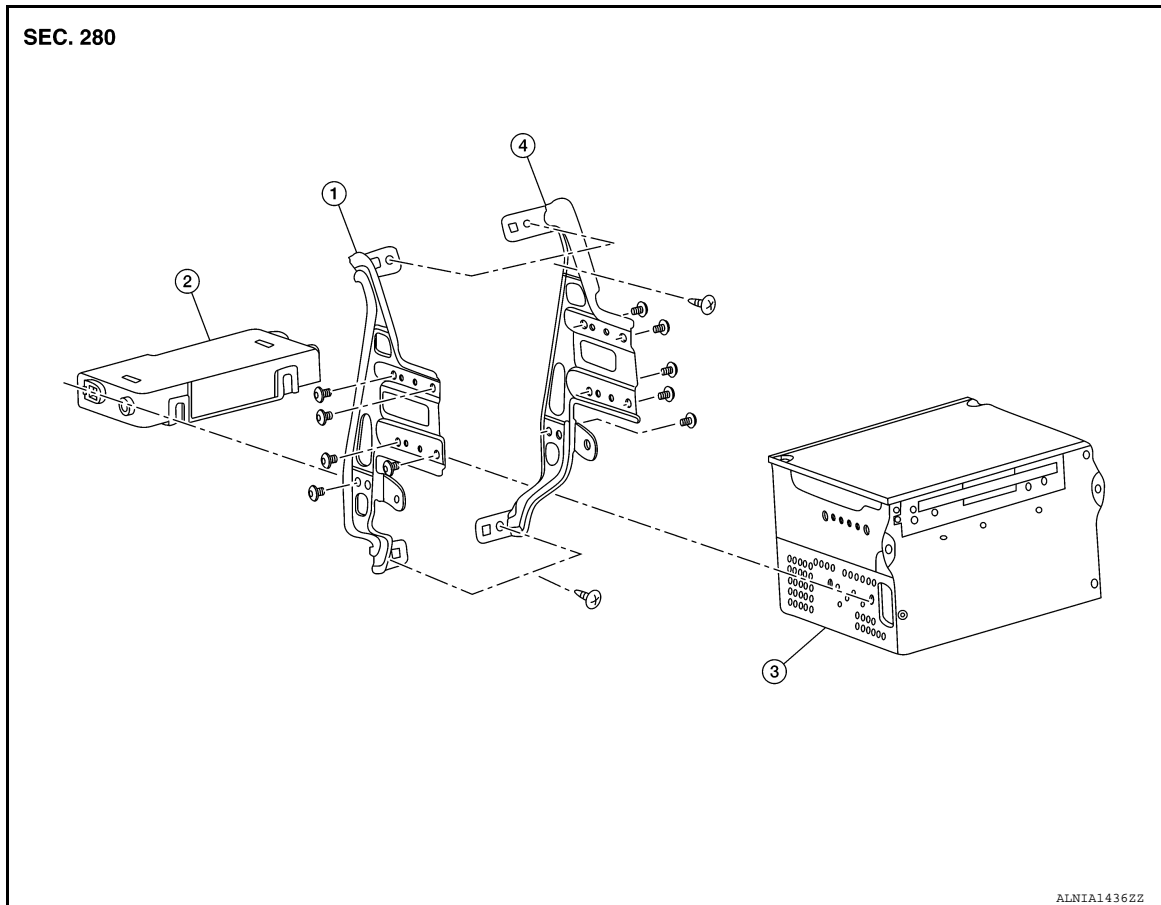
[MID AUDIO WITHOUT BOSE]

REMOVAL AND INSTALLATION

AV CONTROL UNIT

Exploded View

INFOID:000000008510827



1. AV control unit bracket (LH) 2. A/C auto amp. 3. AV control unit
4. AV control unit bracket (RH)

Removal and Installation

INFOID:000000008510828

REMOVAL

CAUTION:

- Remove battery terminal and AV control unit after a lapse of 30 seconds or more after turning the ignition switch OFF.
- Before replacing AV control unit, perform "READ CONFIGURATION" to save current vehicle specification. Refer to [AV-474, "CONFIGURATION \(AV CONTROL UNIT\) : Configuration List"](#).

NOTE:

After the ignition switch is turned OFF, the AV control unit continues operating for approximately 30 seconds. Therefore, data corruption may occur if battery voltage is cut off within 30 seconds.

1. Disconnect the negative battery terminal. Refer to [PG-89, "Removal and Installation"](#).
2. Remove cluster lid C. Refer to [JP-22, "Removal and Installation - Cluster Lid C"](#).
3. Remove the screws, then pull out the AV control unit.
4. Disconnect the harness connectors from the AV control unit and remove.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

AV CONTROL UNIT

< REMOVAL AND INSTALLATION >

[MID AUDIO WITHOUT BOSE]

- When replacing AV control unit, perform "WRITE CONFIGURATION". Refer to [AV-117, "CONFIGURATION \(AV CONTROL UNIT\) : Configuration List"](#).

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AV AND A/C SWITCH ASSEMBLY

< REMOVAL AND INSTALLATION >

[MID AUDIO WITHOUT BOSE]

AV AND A/C SWITCH ASSEMBLY

Removal and Installation

INFOID:000000008510829

REMOVAL

CAUTION:

- Remove battery terminal and AV control unit after a lapse of 30 seconds or more after turning the ignition switch OFF.
- Before replacing AV control unit, perform "READ CONFIGURATION" to save current vehicle specification. Refer to [AV-474, "CONFIGURATION \(AV CONTROL UNIT\) : Configuration List"](#).

NOTE:

After the ignition switch is turned OFF, the AV control unit continues operating for approximately 30 seconds. Therefore, data corruption may occur if battery voltage is cut off within 30 seconds.

1. Disconnect the negative battery terminal. Refer to [PG-89, "Removal and Installation"](#).
2. Remove cluster lid C lower. Refer to [JP-22, "Removal and Installation - Cluster Lid C Lower"](#).
3. Remove the AC and AV switch assembly lower screws.
4. Release upper pawls and remove AC and AV switch assembly.

INSTALLATION

Installation is in the reverse order of removal.

STEERING SWITCH

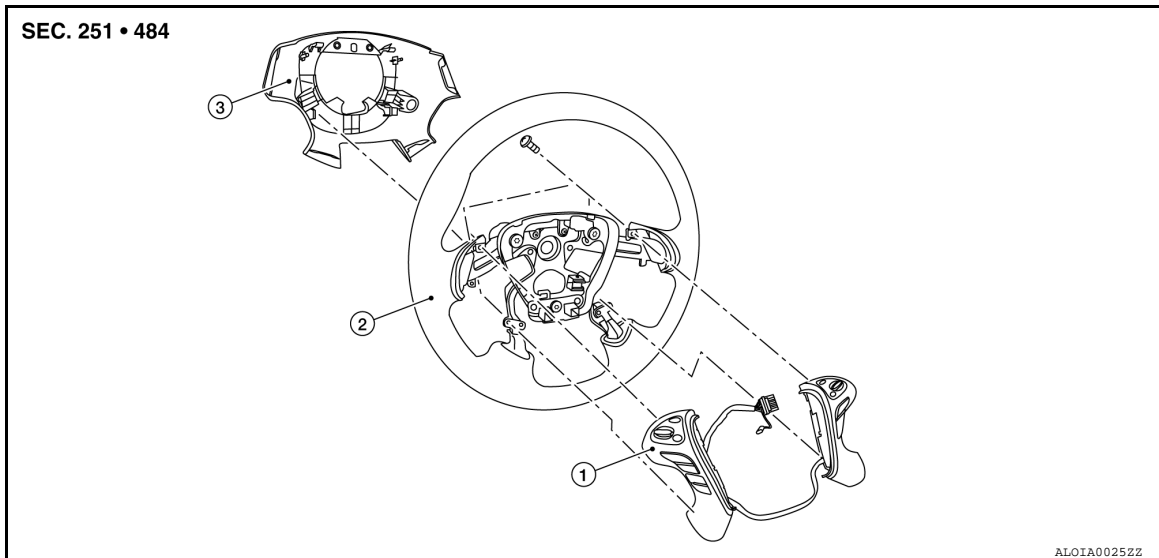
< REMOVAL AND INSTALLATION >

[MID AUDIO WITHOUT BOSE]

STEERING SWITCH

Exploded View

INFOID:000000008951976



1. Steering switches

2. Steering wheel

3. Steering wheel rear finisher

Removal and Installation

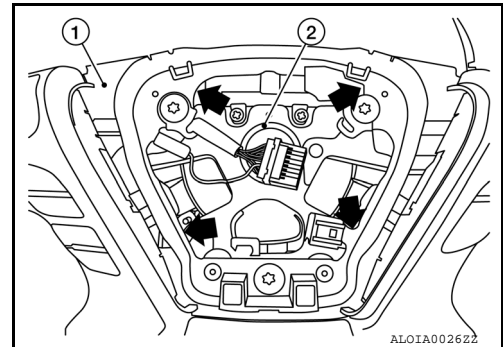
INFOID:000000008951977

REMOVAL

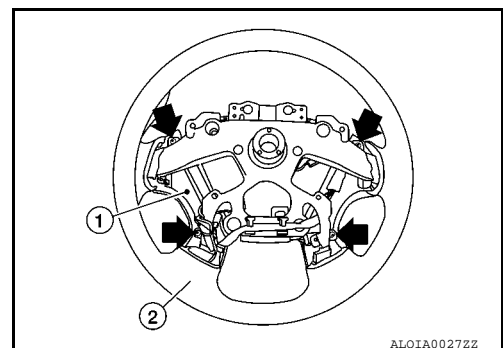
NOTE:

The steering switches are serviced as an assembly.

1. Remove steering wheel. Refer to [ST-44, "Removal and Installation"](#).
2. Release pawls (◄) and remove steering wheel rear finisher (1) from steering wheel (2).



3. Remove steering switches assembly screws (◄).
4. Remove steering switches assembly (1) from steering wheel (2).



INSTALLATION

Installation is in the reverse order of removal.

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DISPLAY UNIT

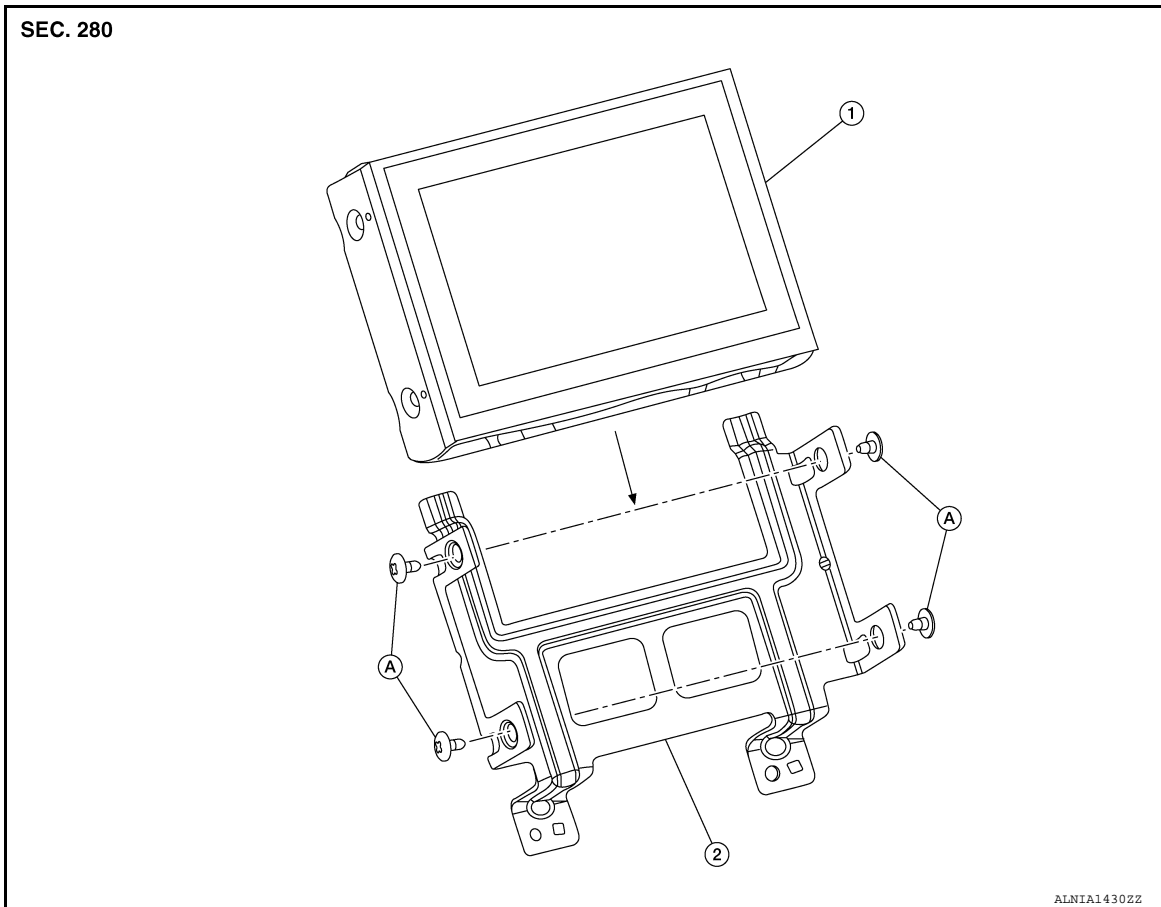
< REMOVAL AND INSTALLATION >

[MID AUDIO WITHOUT BOSE]

DISPLAY UNIT

Exploded View

INFOID:000000008510831



1. Display unit

2. Display unit bracket

A. Display unit bracket screws

Removal and Installation

INFOID:000000008510832

REMOVAL

1. Remove cluster lid D. Refer to [JP-24, "Removal and Installation"](#).
2. Remove the display unit screws, then pull out the display unit and bracket.
3. Disconnect the harness connector from the display unit and remove.
4. Remove the display unit bracket screws and the display unit from the display unit bracket.

INSTALLATION

Installation is in the reverse order of removal.

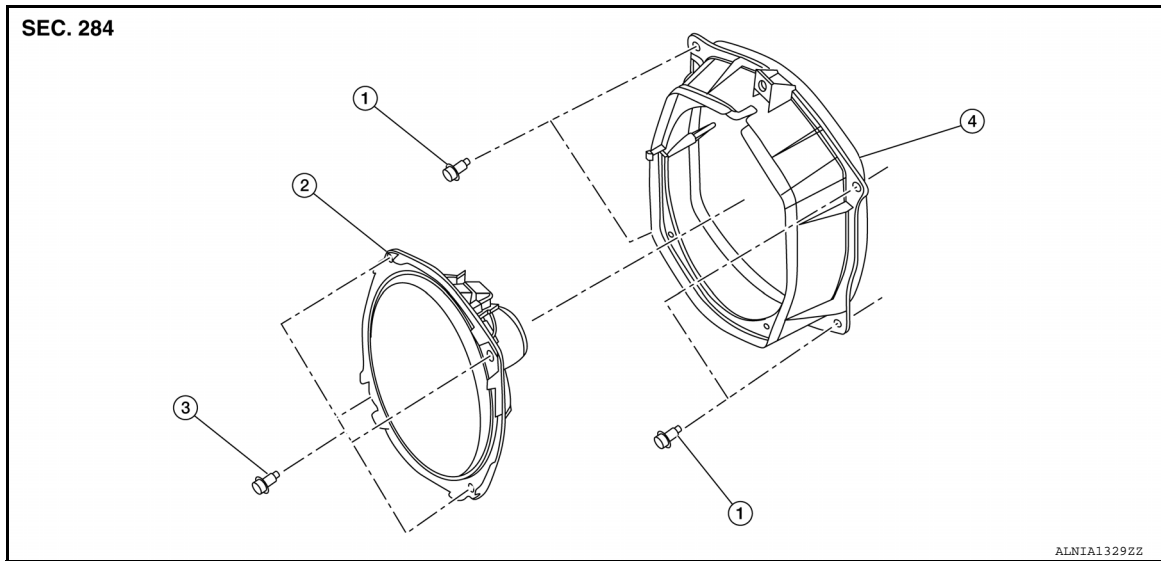
FRONT DOOR SPEAKER

< REMOVAL AND INSTALLATION >

[MID AUDIO WITHOUT BOSE]

FRONT DOOR SPEAKER

Exploded View



- 1. Speaker bracket bolt
- 2. Front door speaker
- 3. Speaker bolt
- 4. Speaker bracket

Removal and Installation

INFOID:000000008510835

REMOVAL

1. Remove the front door finisher. Refer to [INT-15, "Removal and Installation"](#).
2. Remove the front door speaker bolts.
3. Pull out the front door speaker from the speaker bracket.
4. Disconnect the harness connector from front door speaker and remove.
5. Remove the speaker bracket bolts and the speaker bracket from front door.

INSTALLATION

Installation is in the reverse order of removal.

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INSTRUMENT PANEL SPEAKER/TWEETER

< REMOVAL AND INSTALLATION >

[MID AUDIO WITHOUT BOSE]

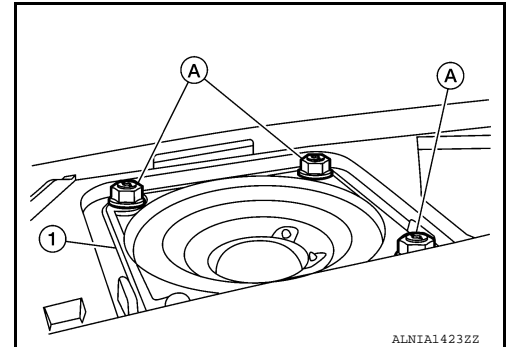
INSTRUMENT PANEL SPEAKER/TWEETER

Removal and Installation

INFOID:000000008510837

REMOVAL

1. Remove instrument panel tweeter grille. Refer to [IP-14. "Exploded View"](#).
2. Remove the bolts (A), then pull out the instrument panel tweeter (1).
3. Disconnect the harness connector from the instrument panel tweeter (1) and remove.



INSTALLATION

Installation is in the reverse order of removal.

REAR DOOR SPEAKER

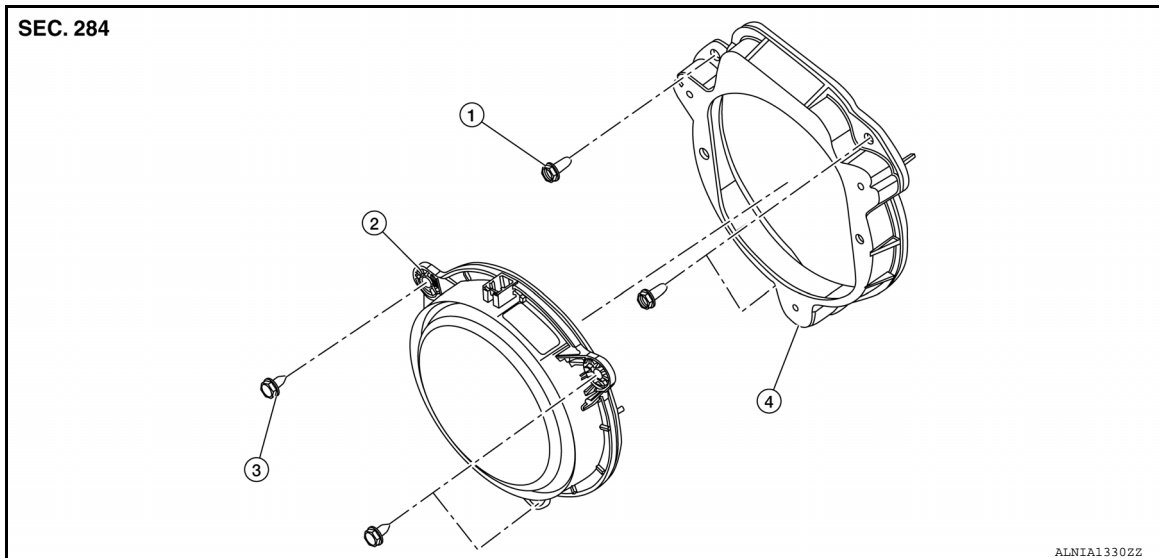
< REMOVAL AND INSTALLATION >

[MID AUDIO WITHOUT BOSE]

REAR DOOR SPEAKER

Exploded View

INFOID:000000008510839



- 1. Speaker bracket bolt
- 2. Rear door speaker
- 3. Speaker bolt
- 4. Speaker bracket

Removal and Installation

INFOID:000000008510840

REMOVAL

1. Remove rear door finisher. Refer to [INT-16, "Removal and Installation"](#).
2. Remove rear door speaker bolts.
3. Disconnect the harness connector from the rear door speaker and remove.
4. Remove the speaker bracket bolts and the speaker bracket from rear door.

INSTALLATION

Installation is in the reverse order of removal.

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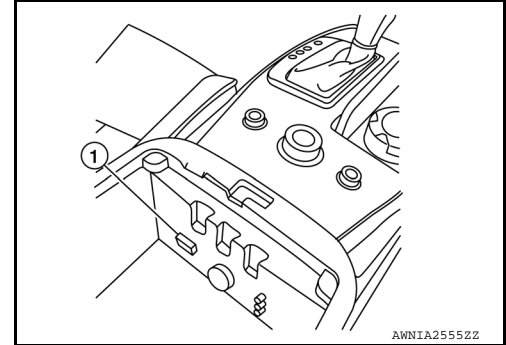
USB CONNECTOR

Removal and Installation

INFOID:000000008510844

REMOVAL

1. Remove CVT shift selector finisher. Refer to [IP-18, "Exploded View"](#).
2. Disconnect the harness connector from the USB interface.
3. Release the pawl from the back of USB interface (1), then remove USB interface (1).



INSTALLATION

Installation is in the reverse order of removal.

FRONT AUXILIARY INPUT JACKS

< REMOVAL AND INSTALLATION >

[MID AUDIO WITHOUT BOSE]

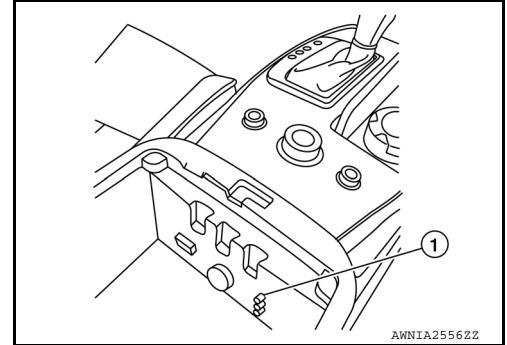
FRONT AUXILIARY INPUT JACKS

Removal and Installation

INFOID:000000009020429

REMOVAL

1. Remove CVT shift selector finisher. Refer to [IP-18. "Exploded View"](#).
2. Disconnect the harness connector from the front auxiliary input jack.
3. Remove front auxiliary input jack screws and the front auxiliary input jack (1).



INSTALLATION

Installation is in the reverse order of removal.

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BLUETOOTH CONTROL UNIT

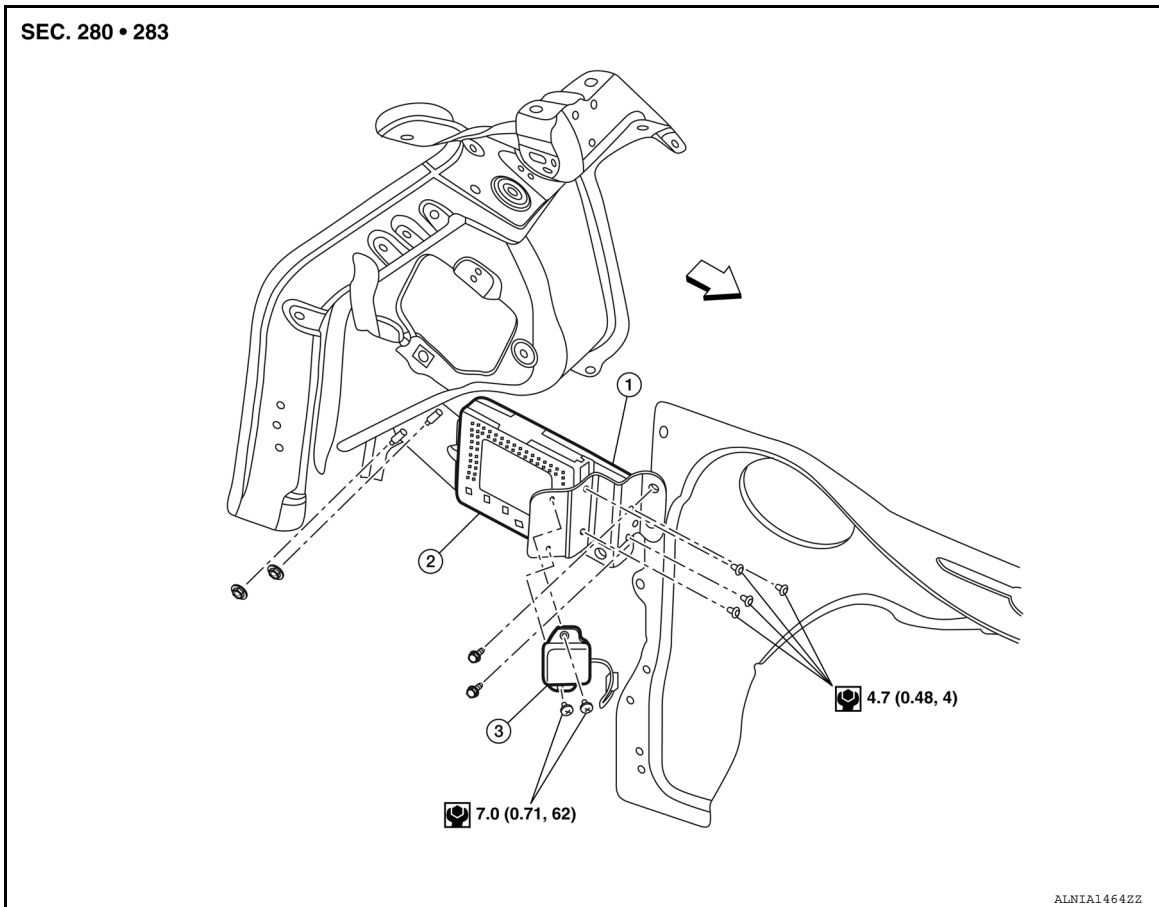
< REMOVAL AND INSTALLATION >

[MID AUDIO WITHOUT BOSE]

BLUETOOTH CONTROL UNIT

Exploded View

INFOID:000000008951971



1. Bluetooth control unit

2. Satellite radio tuner (if equipped) 3. Bluetooth antenna

⇐ Front

⇐ Front

Removal and Installation

INFOID:000000008951972

REMOVAL

1. Disconnect the negative battery terminal. Refer to [PG-89, "Removal and Installation"](#).
2. Remove satellite radio tuner. Refer to [AV-198, "Removal and Installation"](#)
3. Disconnect the harness connectors from Bluetooth control unit.
4. Remove Bluetooth control unit screws and the Bluetooth control unit.
5. Remove the Bluetooth antenna screws and the Bluetooth antenna.

INSTALLATION

Installation is in the reverse order of removal.

MICROPHONE

Removal and Installation

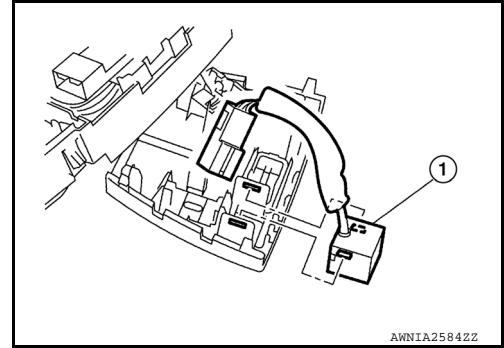
INFOID:000000008951973

REMOVAL

1. Remove the front room/map lamp assembly. Refer to [INL-57. "Removal and Installation"](#).
2. Remove the microphone (1) from the front room/map lamp assembly.

CAUTION:

Carefully handle the pawl that retains the microphone to avoid damaging.



INSTALLATION

Installation is in the reverse order of removal.

NOTE:

Make sure the microphone is firmly secure after installation.

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SATELLITE RADIO TUNER

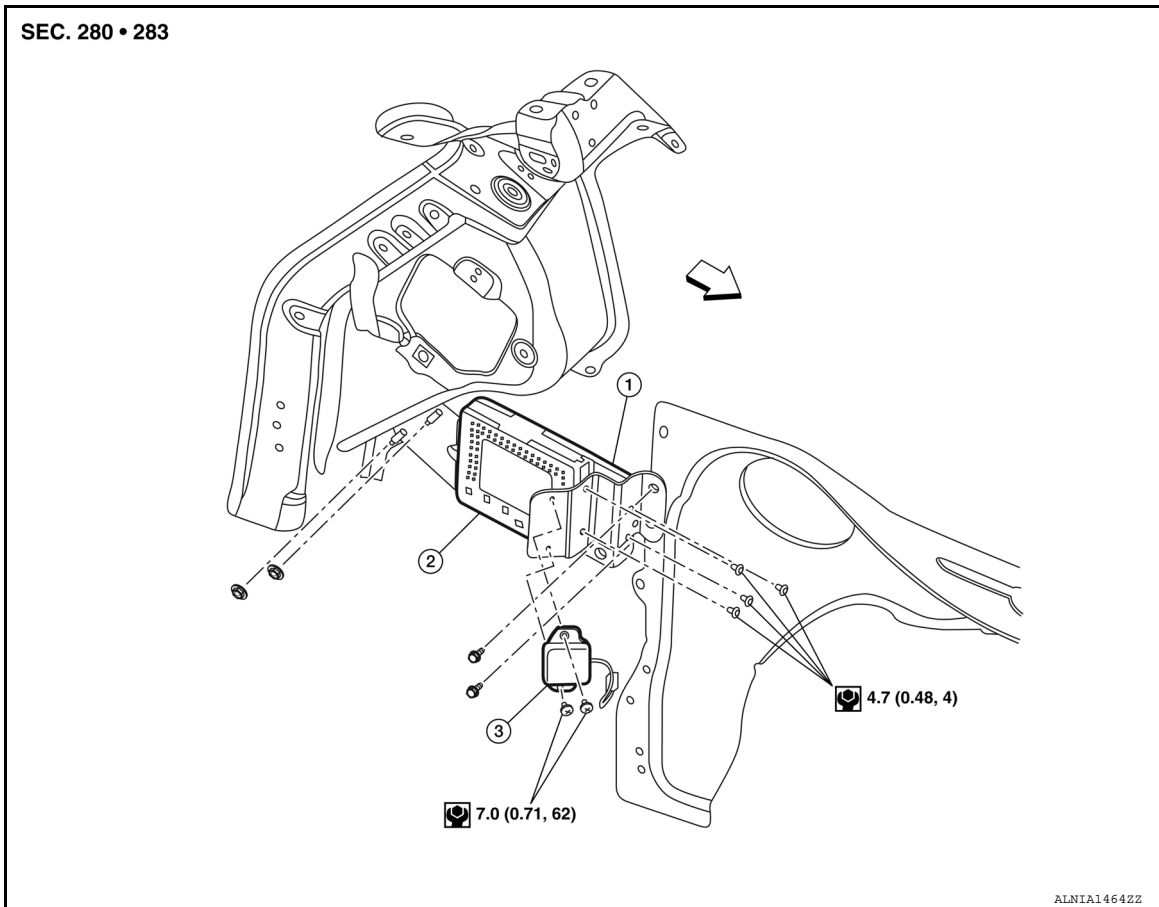
< REMOVAL AND INSTALLATION >

[MID AUDIO WITHOUT BOSE]

SATELLITE RADIO TUNER

Exploded View

INFOID:000000008951974



1. Bluetooth control unit 2. Satellite radio tuner (if equipped) 3. Bluetooth antenna

↔ Front

Removal and Installation

INFOID:000000008951975

REMOVAL

1. Disconnect the negative battery terminal. Refer to [PG-89, "Removal and Installation"](#).
2. Remove the luggage side lower finisher (LH). Refer to [INT-28, "LUGGAGE SIDE LOWER FINISHER : Removal and Installation"](#).
3. Disconnect the harness connectors from satellite radio antenna.
4. Remove the screws and the satellite radio tuner.

INSTALLATION

Installation is in the reverse order of removal.

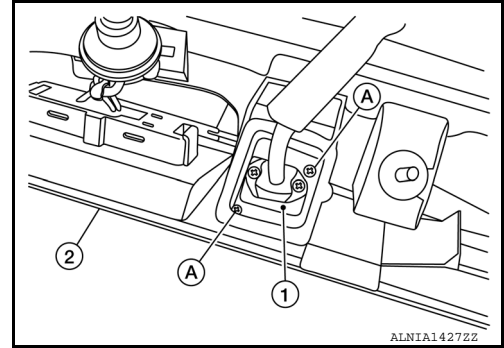
REAR CAMERA

Removal and Installation

INFOID:000000008510849

REMOVAL

1. Remove the back door outer finisher. Refer to [EXT-43. "Removal and Installation"](#).
2. Remove rear camera screws (A), then remove rear camera (1) from the back door outer finisher (2).



INSTALLATION

Installation is in the reverse order of removal.

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AUDIO ANTENNA

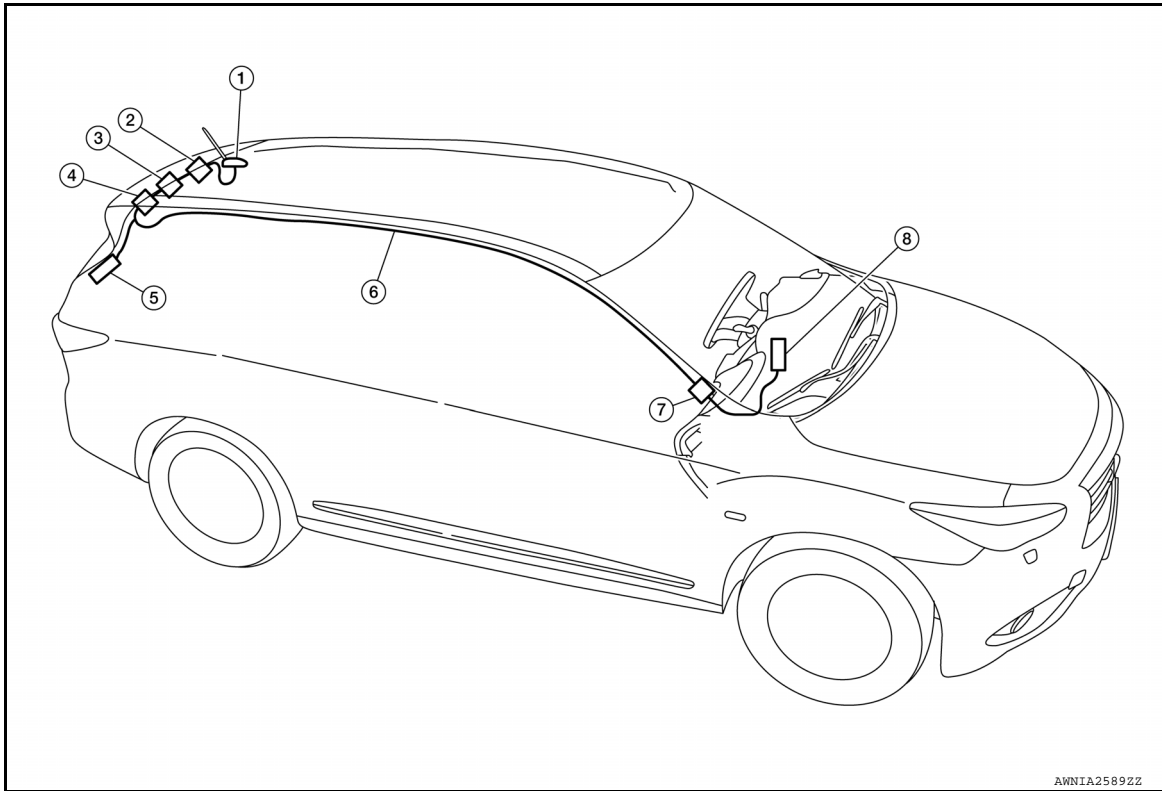
< REMOVAL AND INSTALLATION >

[MID AUDIO WITHOUT BOSE]

AUDIO ANTENNA

Location of Antennas

INFOID:000000008510857



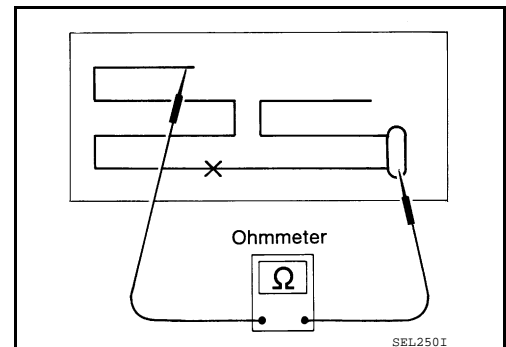
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|---|-------------------------|-------------------|
| 1. Antenna base (satellite antenna and antenna amp) | 2. M502 | 3. M501 |
| 4. M503, M504 | 5. M505 | 6. Antenna Feeder |
| 7. M95, M500 | 8. AV control unit M155 | |

Window Antenna Repair

INFOID:000000008510858

ELEMENT CHECK

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

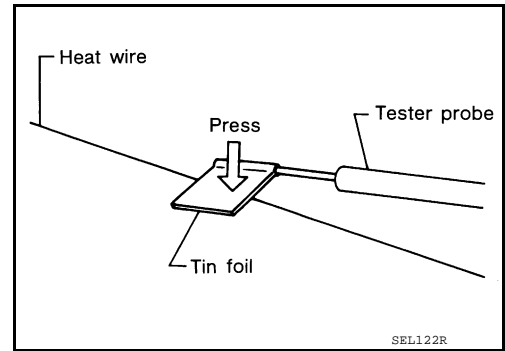


AUDIO ANTENNA

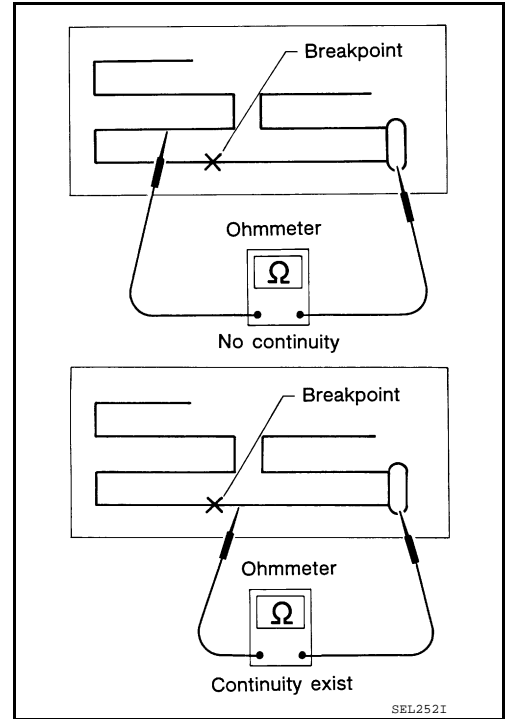
< REMOVAL AND INSTALLATION >

[MID AUDIO WITHOUT BOSE]

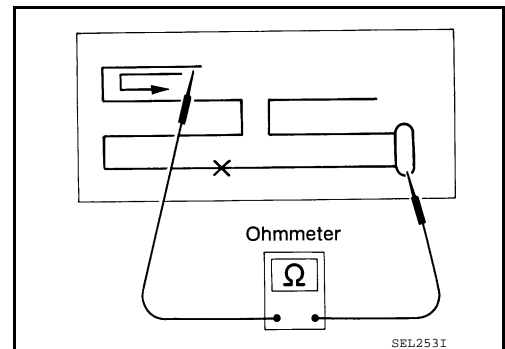
- When measuring continuity, wrap tin foil around the top of probe. Then, press the foil against the wire with your finger.



2. If an element is broken, no continuity will exist.



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



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SATELLITE RADIO ANTENNA

< REMOVAL AND INSTALLATION >

[MID AUDIO WITHOUT BOSE]

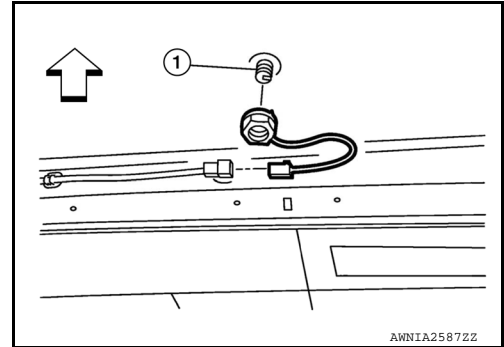
SATELLITE RADIO ANTENNA

Removal and Installation

INFOID:000000008510860

REMOVAL

1. Lower headlining (rear). Refer to [INT-24, "Removal and Installation"](#).
2. Disconnect harness connector from antenna feeder.
3. Remove nut from satellite radio antenna (1) and remove.
↳ Front



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

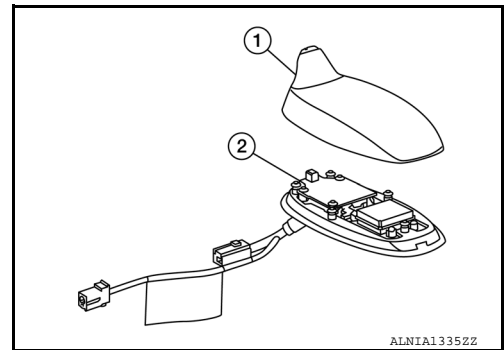
If the satellite radio antenna nut is not tightened to the specified torque, lower sensitivity of the antenna may be experienced. If the nut is tightened tighter than the specified torque, this will deform the roof panel.

Disassembly and Assembly

INFOID:000000008510861

DISASSEMBLY

Insert a suitable tool into gaps between satellite radio antenna (2) and the cover (1), then remove the cover (1) from satellite radio antenna (2).



ASSEMBLY

Assembly is in the reverse order of disassembly.

PRECAUTION

PRECAUTIONS

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

INFOID:000000008966038

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. 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.

Cautions in Removing Battery Terminal and AV Control Unit (Models with AV Control Unit)

INFOID:000000008510863

CAUTION:

Remove battery terminal and AV control unit 30 seconds or more after turning the ignition switch OFF.

NOTE:

After the ignition switch is turned OFF, the AV control unit continues operating for approximately 30 seconds. Therefore, data corruption may occur if battery voltage is cut off within 30 seconds.

Precaution for Trouble Diagnosis

INFOID:000000008510864

AV COMMUNICATION SYSTEM

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

Precaution for Harness Repair

INFOID:000000008510865

AV COMMUNICATION SYSTEM

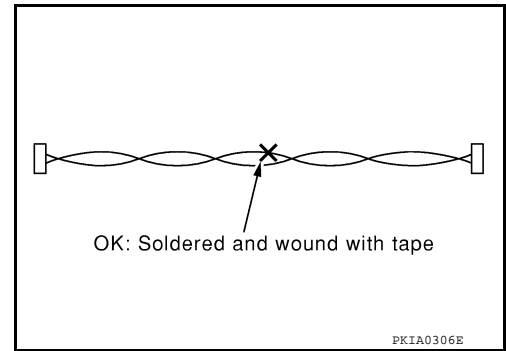
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PRECAUTIONS

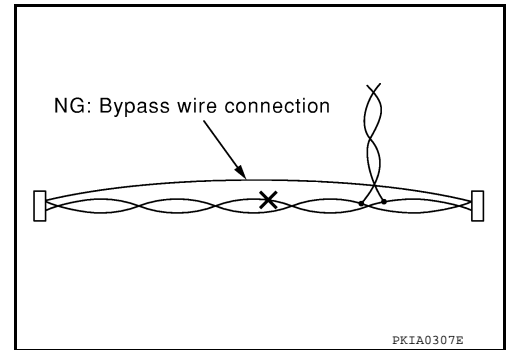
[MID AUDIO WITH BOSE]

< PRECAUTION >

- Solder the repaired parts, and wrap with tape. [Frays of twisted line must be within 110 mm (4.33 in).]



- Do not perform bypass wire connections for the repair parts. (The spliced wire will become separated and the characteristics of twisted line will be lost.)



Precaution for Work

INFOID:000000008951961

- 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 a new one.
- Be sure to tighten bolts and nuts securely to the specified torque.
- After installation is complete, be sure to check that each part works properly.
- Follow the steps below to clean components:
 - Water soluble dirt:
 - Dip a soft cloth into lukewarm water, wring the water out of the cloth and wipe the dirty area.
 - Then rub with a soft, 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, wring the water out of the cloth and wipe the detergent off.
 - Then rub with a soft, 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 >

[MID AUDIO WITH BOSE]

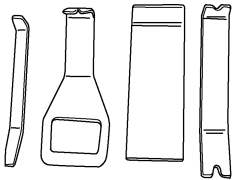
PREPARATION

PREPARATION

Special Service Tool


INFOID:000000008510867

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  AWJIA0483ZZ	Removing trim components

Commercial Service Tools

INFOID:000000008510868

(Kent-Moore No.) Tool name	Description
(—) Power tools  PIIB1407E	Loosening nuts, screws and bolts

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COMPONENT PARTS

< SYSTEM DESCRIPTION >

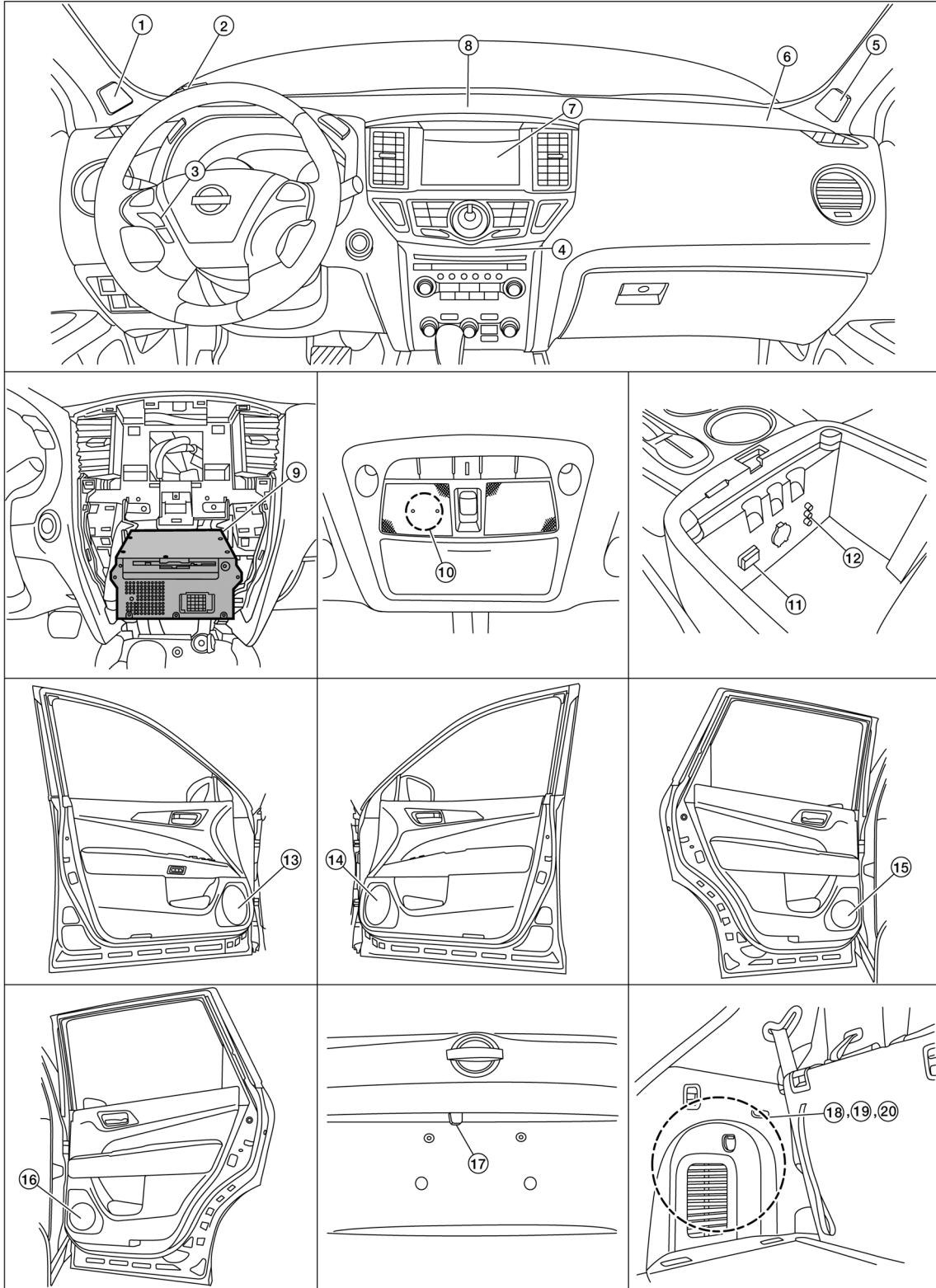
[MID AUDIO WITH BOSE]

SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

INFOID:000000008954233

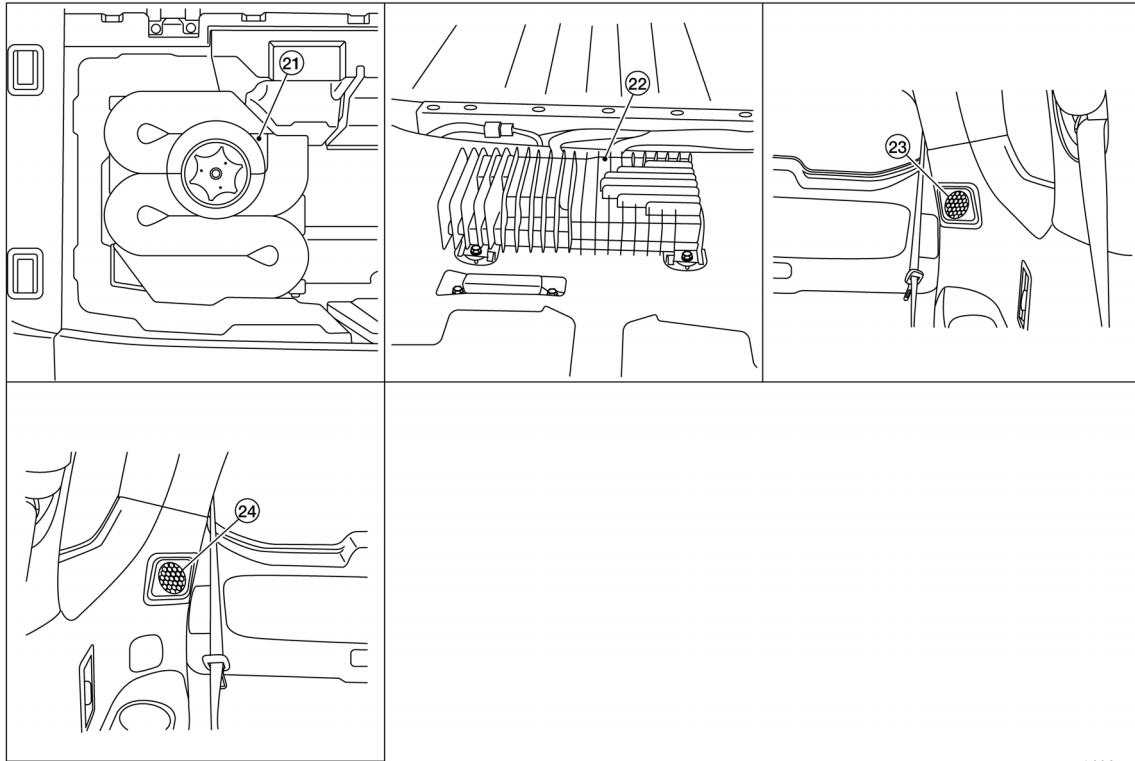


AWN1A28052Z

COMPONENT PARTS

< SYSTEM DESCRIPTION >

[MID AUDIO WITH BOSE]



ALNIA1446ZZ

- | | | |
|-------------------------------|--------------------------------|---|
| 1. Front tweeter LH | 2. Instrument panel tweeter LH | 3. Steering switch |
| 4. A/C and AV switch assembly | 5. Front tweeter RH | 6. Instrument panel tweeter RH |
| 7. Display unit | 8. Center speaker | 9. AV control unit (view with center stack removed) |
| 10. Microphone | 11. USB interface | 12. Front auxiliary input jacks |
| 13. Front door speaker LH | 14. Front door speaker RH | 15. Rear door speaker LH |
| 16. Rear door speaker RH | 17. Rear view camera | 18. Bluetooth® control unit |
| 19. Satellite radio tuner | 20. Bluetooth® antenna | 21. Subwoofer |
| 22. Bose speaker amp. | 23. Rear side speaker LH | 24. Rear side speaker RH |

Component Description

INFOID:0000000008954234

Part name	Description
AV control unit	<ul style="list-style-type: none"> • Master unit of MULTI AV system. • AV control unit includes audio, USB connection and vehicle status functions. • Connected to MULTI AV system control units via AV communication. • Connected to other vehicle control units via CAN communication to obtain necessary information for vehicle information function. • Inputs signals for driving status recognition (vehicle speed, reverse and parking brake). • TEL voice signal and voice guidance signal are input from Bluetooth® control unit. • Camera image signal is received and transmitted to display unit.
Display unit	<ul style="list-style-type: none"> • Display image is controlled by AV control unit via serial communication. • Receives power (signal VCC and inverter VCC) from AV control unit. • RGB image signals (RGB image, RGB area and RGB synchronizing) are input from AV control unit. • Composite image signals are input from AV control unit. • Synchronizing signals (HP, VP) are output to AV control unit.
Front door speaker	Outputs low and mid range sounds.
Instrument panel tweeter	Outputs high range sounds.

COMPONENT PARTS

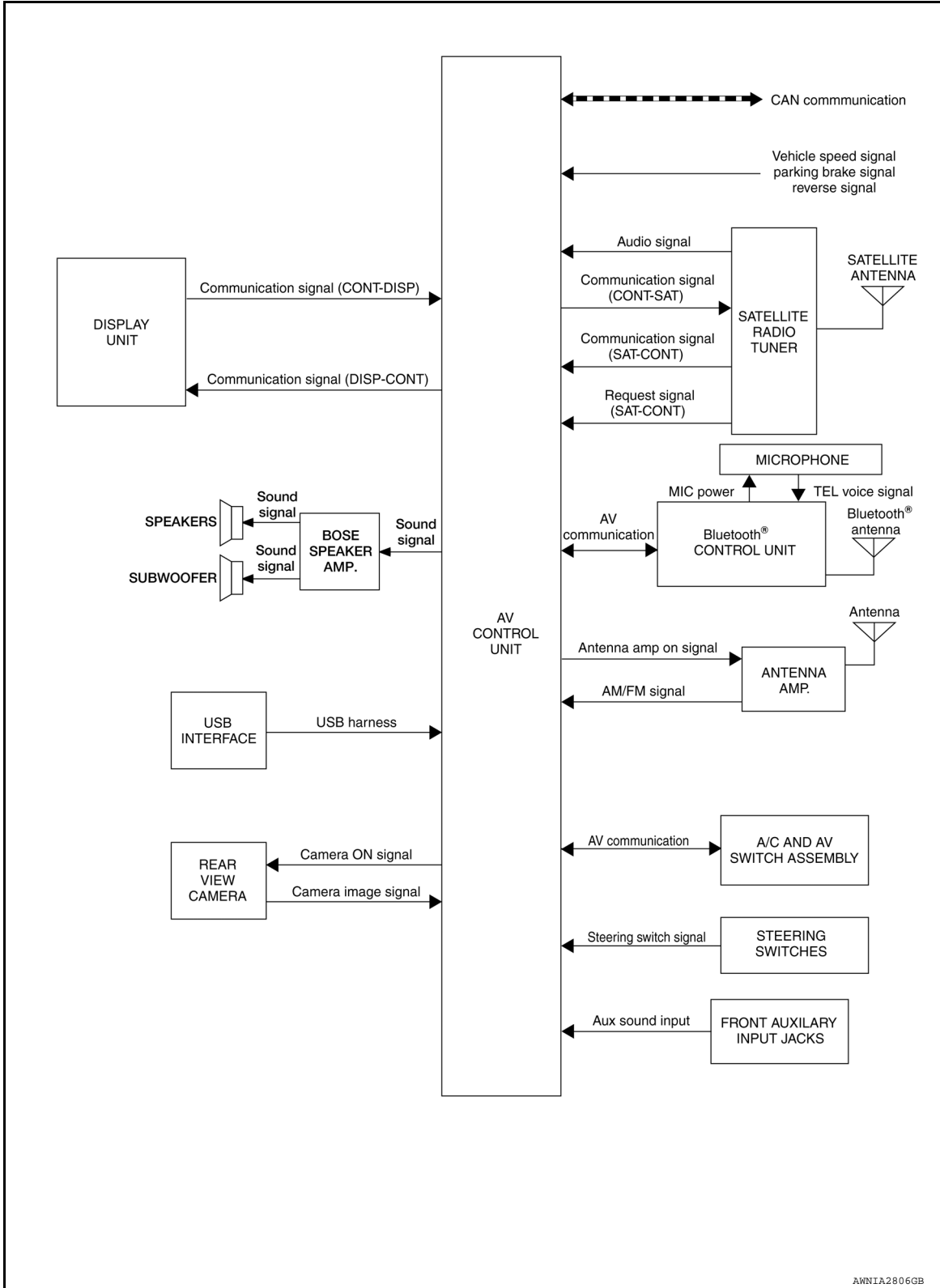
< SYSTEM DESCRIPTION >

[MID AUDIO WITH BOSE]

Part name	Description
Rear door speaker	Outputs low, mid and high range sounds.
A/C and AV switch assembly	<ul style="list-style-type: none">• Operation panels are equipped with switches for audio and air conditioner operations.• Operation signal is transmitted via AV communication to AV control unit.• Disk eject operation signal is performed via hardwire.
Rear view camera	<ul style="list-style-type: none">• Camera power supply is input from AV control unit.• Vehicle rear view image is transmitted to display unit via AV control unit.
Steering switch	<ul style="list-style-type: none">• Operations for audio, hands-free phone and voice recognition are possible.• Steering switch signal (operation signal) is output to AV control unit.
Microphone	<ul style="list-style-type: none">• Used for hands-free phone and voice recognition operation.• Microphone signal is transmitted to Bluetooth® control unit.• Power (Microphone VCC) is supplied from Bluetooth® control unit.
Antenna amp.	<ul style="list-style-type: none">• Radio signal received by window antenna is amplified and transmitted to AV control unit.• Power (antenna amp. ON signal) is supplied from AV control unit.
Satellite radio tuner	<ul style="list-style-type: none">• Inputs satellite radio signal from satellite radio antenna and outputs sound signal to AV control unit.• Controlled via serial communication (communication signal and request signal) by AV control unit.
Satellite radio antenna	Satellite radio signal is received and transmitted to satellite radio tuner.
Bluetooth® control unit	<ul style="list-style-type: none">• Inputs TEL voice signal from Bluetooth® antenna and outputs it to AV control unit.• Controlled via AV communication by AV control unit.
Bluetooth® antenna	Receives TEL voice signal and outputs it to Bluetooth® control unit.
USB connector	USB sound and data input signals are transmitted to AV control unit.

SYSTEM
MULTI AV SYSTEM
MULTI AV SYSTEM : System Diagram

INFOID:0000000008954235



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MULTI AV SYSTEM : System Description

INFOID:0000000008954236

AUDIO SYSTEM

< SYSTEM DESCRIPTION >

The audio system consists of the following components

- AV control unit
- A/C and AV switch assembly
- Display unit
- Steering switches
- Bose speaker amp.
- Instrument panel tweeters
- Center speaker
- Front tweeters
- Front door speakers
- Rear door speakers
- Rear side speakers
- Subwoofer
- Antenna

When the audio system is on, radio signals are received by the window antenna. The AV control unit then sends audio signals to the Bose speaker amp. The Bose speaker amp. amplifies the audio signals before sending them to the speakers, tweeters and 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 AV control unit.

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

HANDS-FREE PHONE SYSTEM

System Operation

NOTE:

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

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

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

Bluetooth® Control Unit

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

Steering Wheel Audio Control Switches

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

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

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

Microphone

SYSTEM

< SYSTEM DESCRIPTION >

[MID AUDIO WITH BOSE]

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.

A

AV Control Unit

The AV control unit receives signals from the Bluetooth[®] control unit and sends audio signals to the speakers.

B

REAR VIEW CAMERA SYSTEM

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

C

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.

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DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< SYSTEM DESCRIPTION >

[MID AUDIO WITH BOSE]

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

Description

INFOID:000000008954237

The AV control unit on board diagnosis includes the following functions:

- A/C and AV switch assembly self diagnosis that checks the ON/OFF operation (continuity) of each switch in the A/C and AV switch assembly.

NOTE:

The hazard switch and disk eject switch are not included in this operation check.

- AV control unit on board diagnosis performs the following functions listed in the table below:

Mode		Description
Self Diagnosis		<ul style="list-style-type: none"> • AV control unit diagnosis. • Diagnoses the connections across system components (between AV control unit and each unit).
Confirmation/ Adjustment	Display Diagnosis	<ul style="list-style-type: none"> • Color tone check using color spectrum bar display and white display. • Light and shade check by gradation bar display.
	Vehicle Signals	Diagnosis of signals can be performed for vehicle speed, parking brake, lights, ignition and reverse.
	Speaker Test	Speaker connection can be confirmed by test tone.
	Error History	<ul style="list-style-type: none"> • The system malfunction and frequency of past occurrences is displayed. • When malfunctioning item is selected, time and place that the malfunction last occurred are displayed.
	Camera Cont.	<ul style="list-style-type: none"> • Guiding line position that overlaps rear view camera image can be adjusted. • Configuration stored in the AV control unit can be checked.
	Vehicle CAN Diagnosis	Transmit/receive function of CAN communication can be monitored.
	AV COMM Diagnosis	Communication condition of each unit of Multi AV system can be monitored.
	Delete Unit Connection Log	Erase connection history of unit and error history.
	Initialize Settings	Initializes the AV control unit memory.

Perform CONSULT diagnosis if the AV control unit on board diagnosis does not start, the screen does not display anything, or the A/C and AV switch assembly self diagnosis does not function.

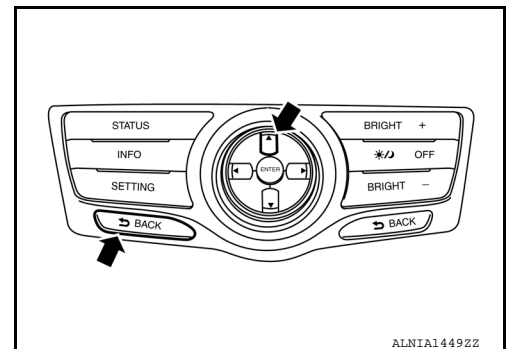
On Board Diagnosis Function

INFOID:000000008954238

METHOD OF STARTING

A/C and AV Switch Assembly Self Diagnosis

- Press the BACK and UP switches within 10 seconds after turning the ignition switch from OFF to ACC and hold them for 3 seconds or more.
- The buzzer sounds, all indicators of the switches illuminate, and the self-diagnosis mode begins.
- The ON position continuity of each switch can be checked by pressing the switch. The buzzer sounds if continuity is present.
- The self diagnosis mode is canceled when the ignition switch is turned OFF.



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AV Control Unit Self Diagnosis

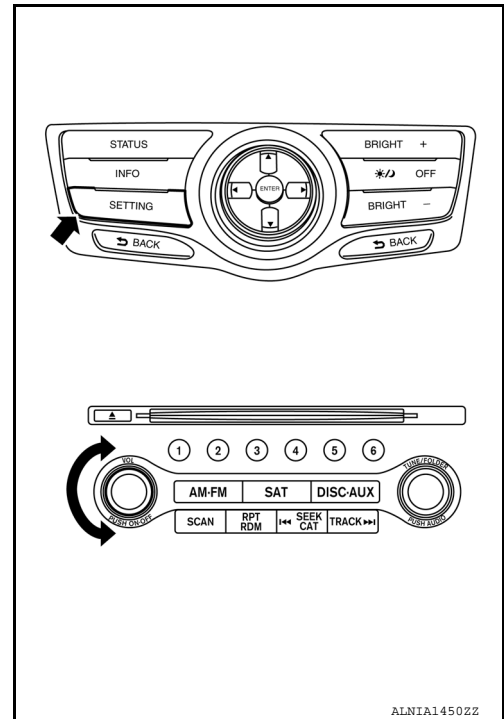
1. Turn the ignition ON.
2. Turn the audio system OFF.

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

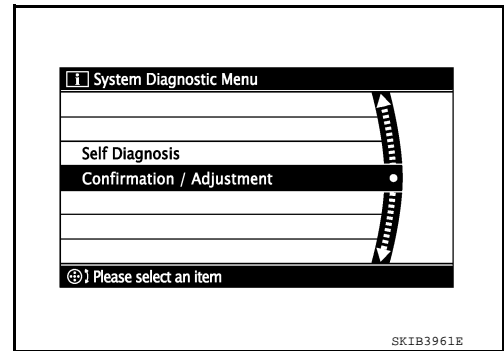
[MID AUDIO WITH BOSE]

< SYSTEM DESCRIPTION >

- While pressing the SETTING button, turn the volume control dial clockwise or counterclockwise for 40 clicks or more. When self-diagnosis mode begins, a short beep will be heard. Shifting from current screen to previous screen is performed by pressing BACK button.



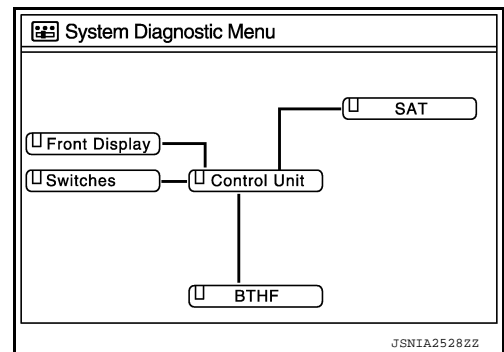
- The trouble diagnosis initial screen is displayed, and Self Diagnosis or Confirmation/Adjustment can be selected.



SELF DIAGNOSIS MODE

AV Control Unit Self Diagnosis

- Select Self Diagnosis.
- Self diagnosis screen is displayed. The bar graph visible in center of screen indicates progress of self diagnosis.
- Diagnosis results are displayed after self diagnosis is completed. Unit names and connection lines are color coded according to diagnostic results. Control Unit (AV control unit) is displayed in red.



Diagnosis results	Unit	Connection line
Normal	Green	Green
Connection malfunction	Gray	Yellow
Unit malfunction ¹	Red	Green

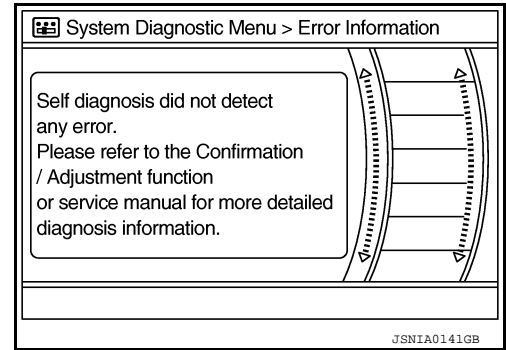
1: Control Unit (AV control unit) is displayed in red.

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

[MID AUDIO WITH BOSE]

< SYSTEM DESCRIPTION >

- Replace AV control unit if Self Diagnosis did not run because control unit malfunction is indicated. The symptom is AV control unit internal error. Refer to [AV-357, "Removal and Installation"](#).
 - If multiple errors occur at the same time for a single unit, the screen switch colors are determined according to the following order of priority: red > gray.
4. Comments of self diagnosis results can be viewed in the diagnosis result screen.



AV Control Unit Self Diagnosis Results

Only Unit Part Is Displayed In Red		
Screen switch	Description	Possible cause
Control unit	Malfunction is detected in AV control unit power supply or ground circuit.	<ul style="list-style-type: none"> • AV control unit power supply or ground circuits. Refer to AV-303, "AV CONTROL UNIT : Diagnosis Procedure". • If no malfunction is detected in AV control unit power supply and ground circuits, replace AV control unit. Refer to AV-357, "Removal and Installation".

A Connecting Cable Between Units Is Displayed In Yellow		
Area with yellow connection lines	Description	Possible cause
Control unit ↔ Front Display	Malfunction is detected in serial communication circuits between AV control unit and display unit.	Serial communication circuits between AV control unit and display unit. Refer to AV-294, "Diagnosis Procedure" .
Control unit ↔ SAT	When any of the following is detected: <ul style="list-style-type: none"> • satellite radio tuner power supply or ground circuit malfunction. • communication circuit malfunction between AV control unit and satellite radio tuner. • request signal circuit malfunction between AV control unit and satellite radio tuner. 	<ul style="list-style-type: none"> • Satellite radio tuner power supply or ground circuits. Refer to AV-306, "SATELLITE RADIO TUNER : Diagnosis Procedure". • Communication circuit between AV control unit and satellite radio tuner. Refer to AV-296, "Diagnosis Procedure". • Request signal circuit between AV control unit and satellite radio tuner. Refer to AV-296, "Diagnosis Procedure".
Control unit ↔ BTHF	When any of the following is detected: <ul style="list-style-type: none"> • Bluetooth® control unit power supply or ground circuit malfunction. • AV communication circuit malfunction between AV control unit and Bluetooth® control unit. 	<ul style="list-style-type: none"> • Bluetooth® control unit power supply or ground circuits. Refer to AV-307, "BLUETOOTH® CONTROL UNIT : Diagnosis Procedure". • AV communication circuits between AV control unit and Bluetooth® control unit.

AV Control Unit Confirmation/Adjustment

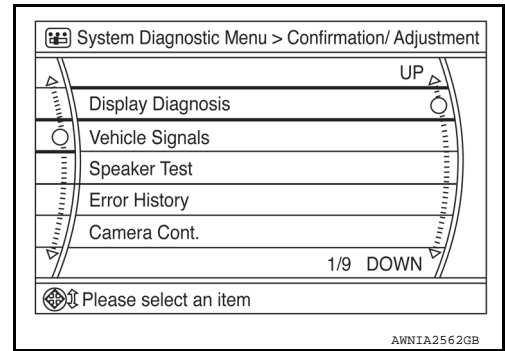
1. Select Confirmation/Adjustment.

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

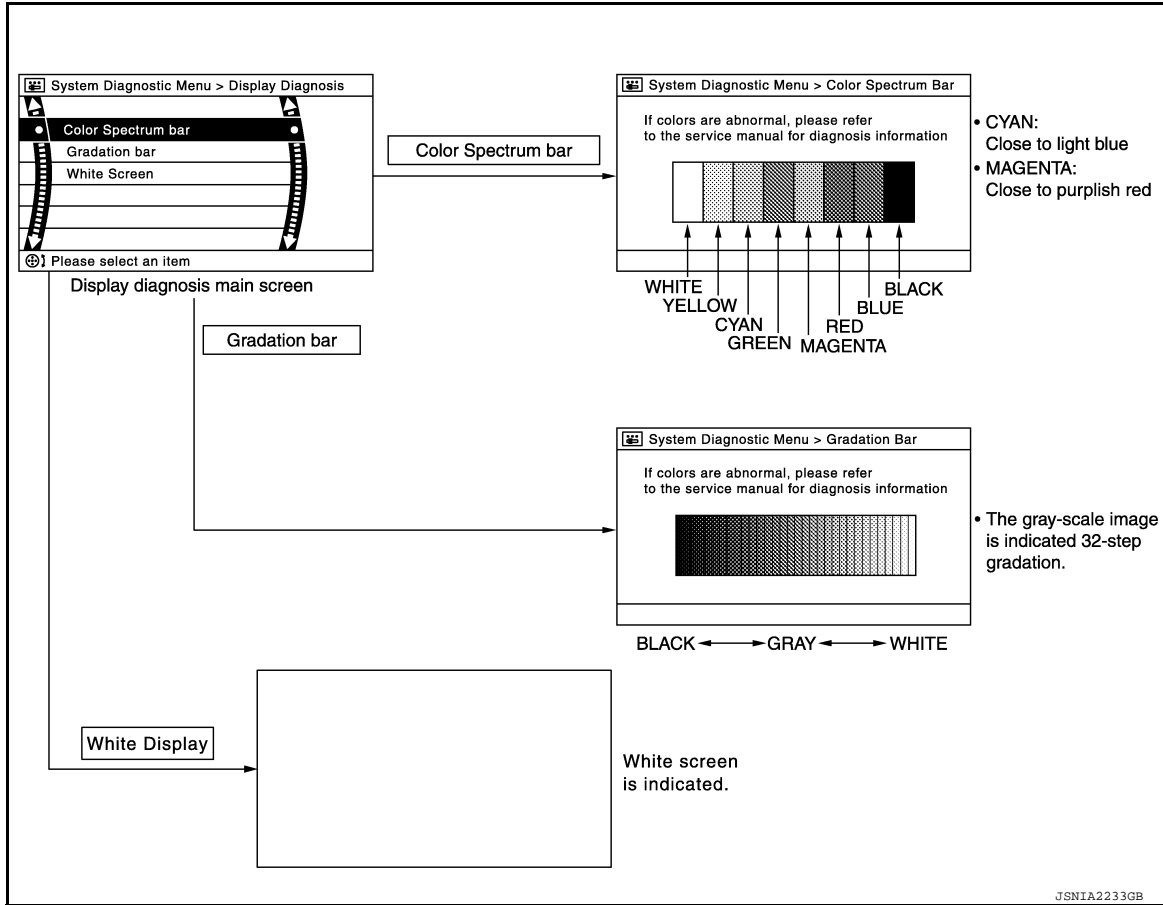
[MID AUDIO WITH BOSE]

< SYSTEM DESCRIPTION >

- Select each switch on the Confirmation/Adjustment screen to display the relevant trouble diagnosis screen. Press the BACK switch to return to the initial Confirmation/Adjustment screen.

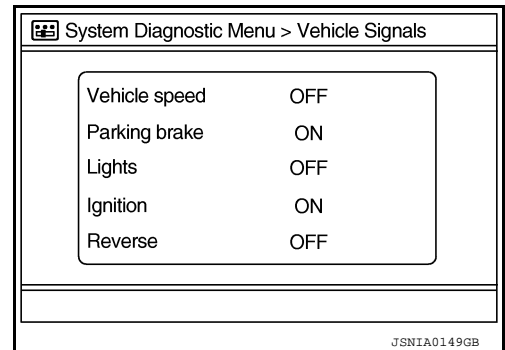


Display Diagnosis



Vehicle Signals

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



Speaker Test

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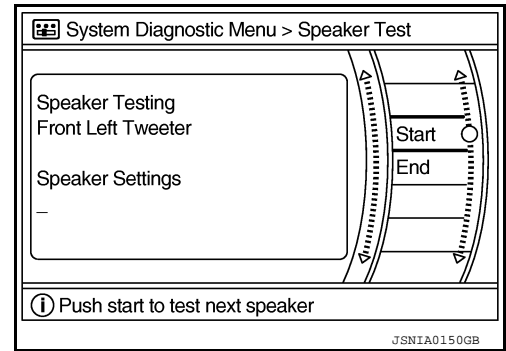
AV

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< SYSTEM DESCRIPTION >

[MID AUDIO WITH BOSE]

Select Speaker Test to display the Speaker Diagnosis screen. Press Start to generate a test tone in a speaker. Press Start again to generate a test tone in the next speaker. Press End to stop the test tones.



Error History

The self diagnosis results are judged depending on whether any error occurs from when Self diagnosis is selected until the self diagnosis results are displayed.

However, the diagnosis results are judged normal if an error has occurred before the ignition switch is turned ON and then no error has occurred until the self diagnosis start. Check the Error Record to detect any error that may have occurred before the self diagnosis start because of this situation.

The frequency of occurrence is displayed in a count up manner. The actual count up method differs depending on the error item.

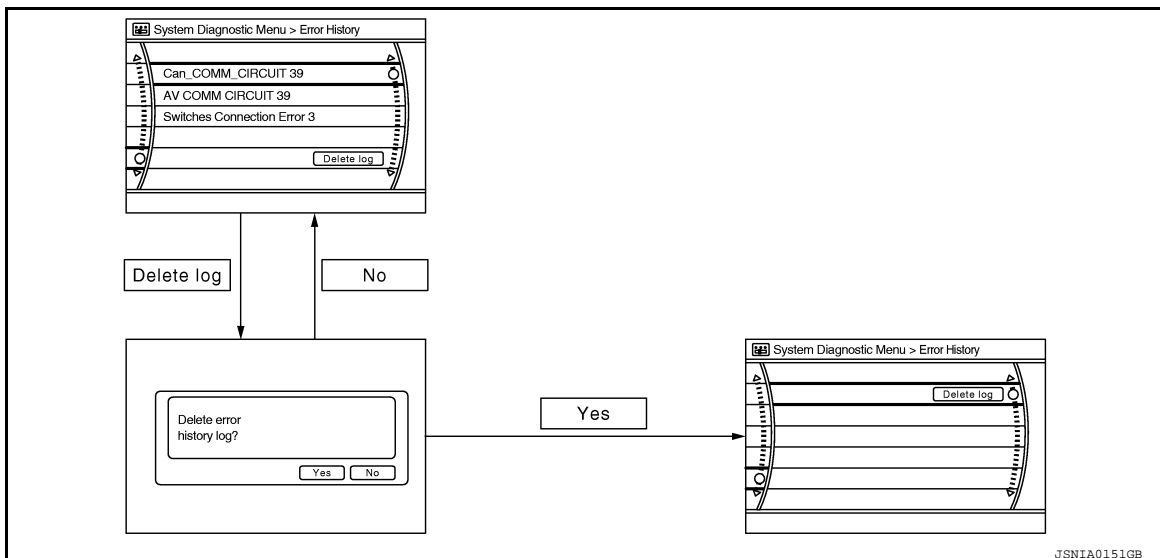
Count up method A

- The counter resets to 0 if an error occurs when ignition switch is turned ON. The counter increases by 1 if the condition is normal at a next ignition ON cycle.
- The counter upper limit is 39. Any counts exceeding 39 are ignored. The counter can be reset (no error record display) with the "Delete log" switch or CONSULT.

Count up method B

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

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



Error item

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

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

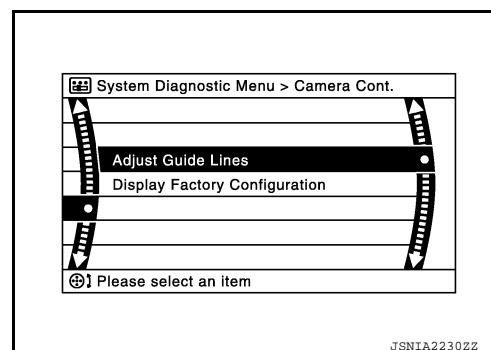
< SYSTEM DESCRIPTION >

[MID AUDIO WITH BOSE]

Error item	Description	Possible cause
CAN COMM CIRCUIT	CAN communication malfunction is detected.	Perform diagnosis with CONSULT, then repair the malfunctioning components according to diagnosis results. Refer to AV-219, "CONSULT Function" .
CONTROL UNIT (CAN)	CAN initial diagnosis malfunction is detected.	Replace the AV control unit if the malfunction occurs constantly. Refer to AV-357, "Removal and Installation" .
CONTROL UNIT (AV)	AV communication circuit initial diagnosis malfunction is detected.	
FLASH-ROM Error Of Control Unit CAN Controller Memory Error	AV control unit malfunction is detected.	
Display Connection Error	When any of the following is detected: <ul style="list-style-type: none"> display unit power supply or ground circuits malfunction. communication circuit malfunction between AV control unit and display unit. 	<ul style="list-style-type: none"> Display unit power supply or ground circuits. Refer to AV-303, "DISPLAY UNIT : Diagnosis Procedure". Communication circuits between AV control unit and display unit. Refer to AV-294, "Diagnosis Procedure".
XM Connection Error	When any of the following is detected: <ul style="list-style-type: none"> satellite radio tuner power supply or ground circuit malfunction. communication circuit malfunction between AV control unit and satellite radio tuner. request signal circuit malfunction between AV control unit and satellite radio tuner. 	<ul style="list-style-type: none"> Satellite radio tuner power supply or ground circuits. Refer to AV-306, "SATELLITE RADIO TUNER : Diagnosis Procedure". Communication circuit between AV control unit and satellite radio tuner. Refer to AV-296, "Diagnosis Procedure". Request signal circuit between AV control unit and satellite radio tuner. Refer to AV-296, "Diagnosis Procedure".
<ul style="list-style-type: none"> AV COMM CIRCUIT Switches Connection Error 	When any of the following is detected: <ul style="list-style-type: none"> A/C and AV switch assembly power supply or ground circuit malfunction. AV communication circuit malfunction between AV control unit and A/C and AV switch assembly. 	<ul style="list-style-type: none"> A/C and AV switch assembly power supply or ground circuits. Refer to AV-308, "A/C AND AV SWITCH ASSEMBLY : Diagnosis Procedure". AV communication circuits between AV control unit and A/C and AV switch assembly.
<ul style="list-style-type: none"> AV COMM CIRCUIT BTHF Unit Connection Error 	When any of the following is detected: <ul style="list-style-type: none"> Bluetooth® control unit power supply or ground circuit malfunction. AV communication circuit malfunction between AV control unit and Bluetooth® control unit. 	<ul style="list-style-type: none"> Bluetooth® control unit power supply or ground circuits. Refer to AV-307, "BLUETOOTH® CONTROL UNIT : Diagnosis Procedure". AV communication circuits between AV control unit and Bluetooth® control unit.
<ul style="list-style-type: none"> AV COMM CIRCUIT Switches Connection Error BTHF Unit Connection Error 	AV communication circuit malfunction between AV control unit and A/C and AV switch assembly.	AV communication circuits between AV control unit and A/C and AV switch assembly.

Camera Cont.

The two functions of "Correct Draw Line of Rear view Cam", "Confirm Configuration" are available.



Adjust Offset of Rear view Camera

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

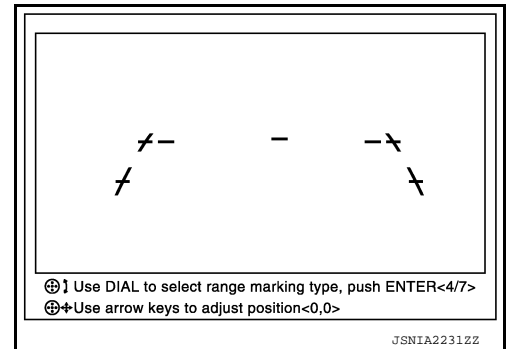
[MID AUDIO WITH BOSE]

< SYSTEM DESCRIPTION >

- Use this mode to adjust the guide line display position of the rear view monitor if necessary after removing the rear view monitor camera.

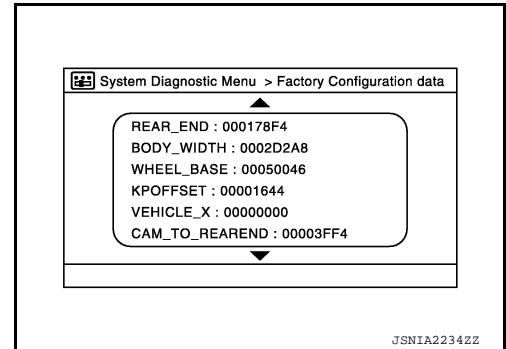
CAUTION:

After the adjustment, never perform other operations for one minute.



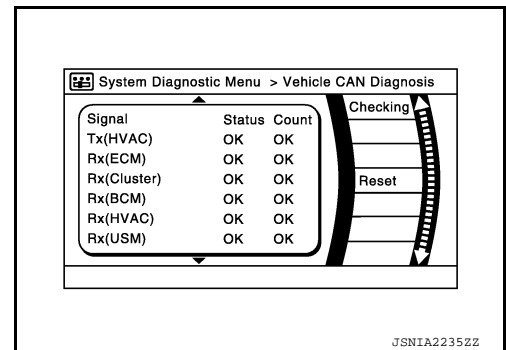
Factory Configuration Confirmation

- Configuration stored in the AV control unit can be checked.



Vehicle CAN Diagnosis

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



Items	Display (Current)	Malfunction counter (Past)
Tx(HVAC)	OK / ???	OK / 0 – 39
Rx(ECM)	OK / ???	OK / 0 – 39
Rx(Cluster)	OK / ???	OK / 0 – 39
Rx(BCM)	OK / ???	OK / 0 – 39
Rx(HVAC)	OK / ???	OK / 0 – 39
Rx(USM)	OK / ???	OK / 0 – 39
Rx(VDC)	OK / ???	OK / 0 – 39
Rx(STRG)	OK / ???	OK / 0 – 39

NOTE:

“???” indicates UNKWN.

AV COMM Diagnosis

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

[MID AUDIO WITH BOSE]

< SYSTEM DESCRIPTION >

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

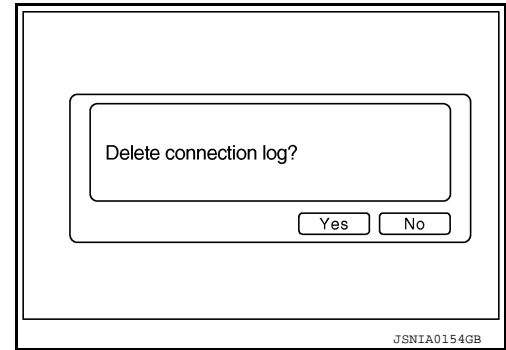
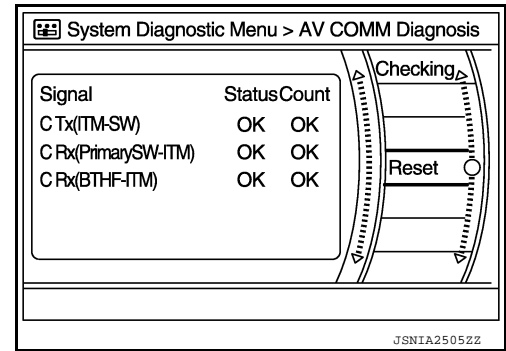
Items	Status (Current)	Counter (Past)
C Tx(ITM-SW)	OK / ???	OK / 0 – 39
C Rx(PrimarySW-ITM)	OK / ???	OK / 0 – 39
C Rx(BTHF-ITM)	OK / ???	OK / 0 – 39

NOTE:

“???” indicates UNKWN.

Delete Unit Connection Log

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

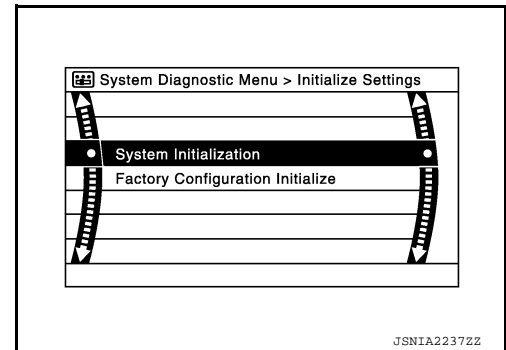


Initialize Settings

“User Data Initialization” and “Accessory Number Initialization” are possible.

CAUTION:

- **Never perform Accessory Number Initialization except when configuration is unsuccessful.**
- **Accessory Number Initialization requires configuration. For details, refer to [AV-274, "CONFIGURATION \(AV CONTROL UNIT\) : Description"](#).**



CONSULT Function

CONSULT FUNCTIONS

CONSULT performs the following functions via communication with the AV control unit.

Direct Diagnostic Mode	Description
Ecu Identification	The AV control unit part number is displayed.
Self Diagnostic Result	The AV control unit self diagnostic results are displayed.
Data Monitor	The AV control unit input/output data is displayed in real time.
Work support	The settings for AV control unit functions can be changed.
Configuration	<ul style="list-style-type: none"> • The vehicle specification can be read and saved. • The vehicle specification can be written when replacing AV control unit.
CAN Diag Support Mntr	<ul style="list-style-type: none"> • The result of transmit/receive diagnosis of AV communication is displayed. • The result of transmit/receive diagnosis of CAN communication is displayed.

ECU IDENTIFICATION

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AV

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< SYSTEM DESCRIPTION >

[MID AUDIO WITH BOSE]

The part number of AV control unit is displayed.

SELF DIAGNOSTIC RESULT

Refer to [AV-228, "DTC Index"](#).

DATA MONITOR

Monitor Item [Unit]	Description
VHCL SPD SIG [On/Off]	<ul style="list-style-type: none">On: vehicle speed > 0 km/h (0 MPH).Off: vehicle speed = 0 km/h (0 MPH).
PKB SIG [On/Off]	<ul style="list-style-type: none">On: parking brake applied.Off: parking brake released.
ILLUM SIG [On/Off]	<ul style="list-style-type: none">On: optical sensor signal is received.Off: optical sensor signal is not received.
IGN SIG [On/Off]	<ul style="list-style-type: none">On: ignition switch ON.Off: ignition switch ACC.
REV SIG [On/Off]	<ul style="list-style-type: none">On: selector lever in R position.Off: selector lever in any position other than R.

CONFIGURATION

Refer to [AV-274, "CONFIGURATION \(AV CONTROL UNIT\) : Description"](#).

CAN DIAG SUPPORT MNTR

Refer to [LAN-17, "CAN Diagnostic Support Monitor"](#).

DIAGNOSIS SYSTEM (BLUETOOTH® CONTROL UNIT)

< SYSTEM DESCRIPTION >

[MID AUDIO WITH BOSE]




DIAGNOSIS SYSTEM (BLUETOOTH® CONTROL UNIT)

Diagnosis Description



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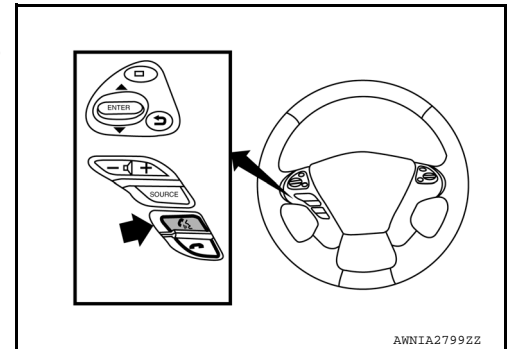
The Bluetooth® control unit has two diagnostic checks. The first diagnostic check is performed automatically every ignition cycle during control unit initialization. The second diagnostic check is performed by the technician using the steering wheel audio control switches prior to trouble diagnosis.



Bluetooth® CONTROL UNIT INITIALIZATION CHECKS

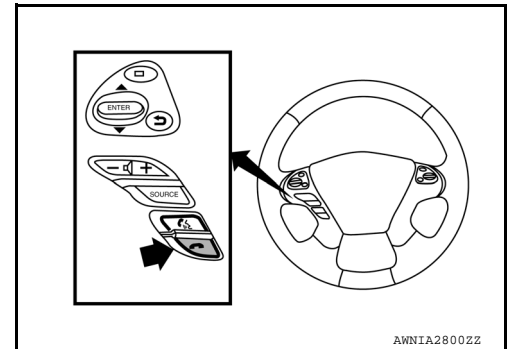
- Internal control unit failure
- Bluetooth® antenna connection open or shorted
- Steering wheel audio control switches   (PHONE/SEND),  (PHONE/END) stuck closed
- Vehicle speed pulse count
- Microphone connection test (with playback to operator)
- Bluetooth® inquiry check

OPERATION PROCEDURE

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



4. While the prompt is playing, press and hold the steering wheel audio control switch  (PHONE/END) button until you hear the “Diagnostics mode” prompt. The Bluetooth® system will sound a 5-second beep.
5. While the beep is sounding, press and hold the steering wheel audio control switch  (PHONE/END) button again until you hear prompts.
6. The Bluetooth® system has now entered into the diagnostic mode. Results of the diagnostic checks will be verbalized to the technician. Refer to [AV-221, "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-221, "Work Flow"](#).



Work Flow

INFOID:000000008954241

Failure Message	Action
“Internal failure”	Replace Bluetooth® control unit. Refer to AV-374, "Removal and Installation" .
“Bluetooth® antenna open”	1. Inspect harness connection. 2. Replace Bluetooth® antenna. Refer to AV-374, "Removal and Installation" .
“Bluetooth® antenna shorted”	
“Phone/Send for Hands Free System is stuck”	Check steering wheel audio control switches. Refer to AV-347, "Diagnosis Procedure" .
“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-375, "Removal and Installation" .

AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[MID AUDIO WITH BOSE]

ECU DIAGNOSIS INFORMATION

AV CONTROL UNIT

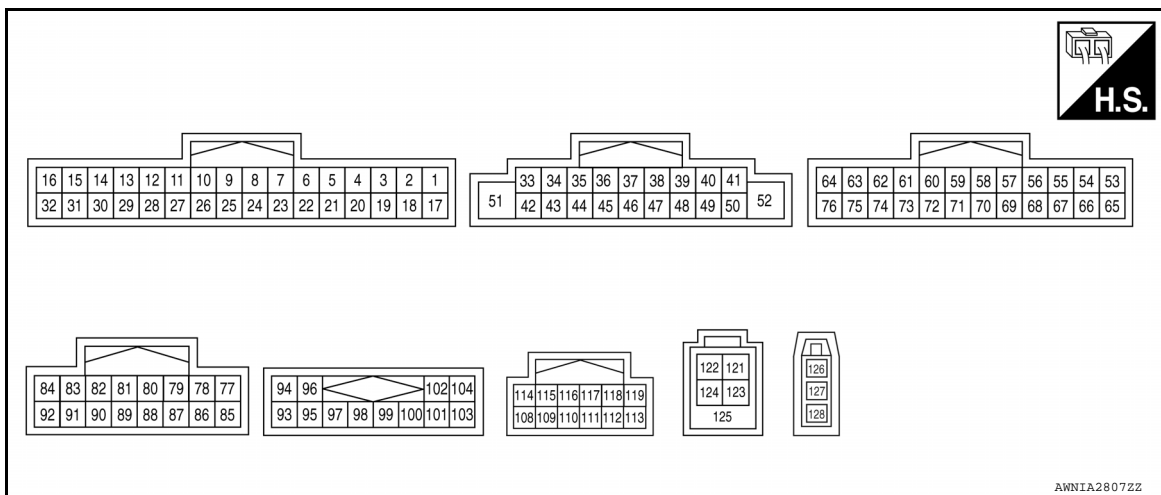
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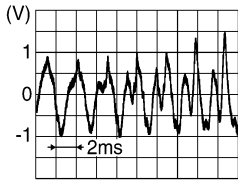
VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition	Value/Status
VHCL SPD SIG	Vehicle speed = 0 km/h (0 MPH).	Off
	Vehicle speed > 0 km/h (0 MPH).	On
PKB SIG	Parking brake released.	Off
	Parking brake applied.	On
ILLUM SIG	Optical sensor signal is not received.	Off
	Optical sensor signal is received.	On
IGN SIG	Ignition switch OFF or ACC.	Off
	Ignition switch ON.	On
REV SIG	Selector lever in any position other than R.	Off
	Selector lever in R position.	On

TERMINAL LAYOUT



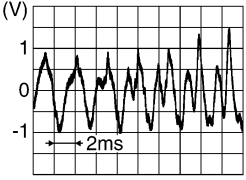
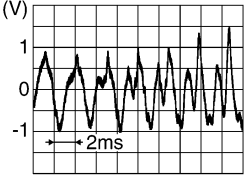
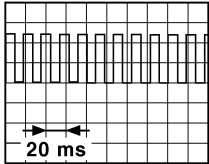
PHYSICAL VALUES

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
5 (W)	4 (B)	Bluetooth® voice signal	Input	Ignition switch ON	During voice guide output with  switch pressed.	
6	—	Shield	—	—	—	—
10 (V)	Ground	Switch ground	—	Ignition switch ON		0 V

AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[MID AUDIO WITH BOSE]






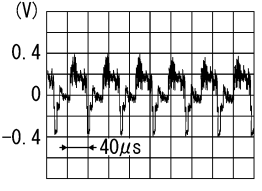
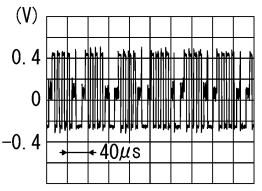
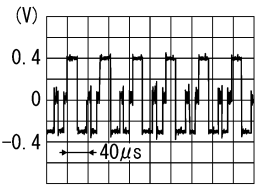
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
11 (L)	—	CAN-H	Input/ Output	—	—	—
12 (P)	—	CAN-L	Input/ Output	—	—	—
13 (SB)	—	AV communication signal (H)	Input/ Output	—	—	—
14 (LG)	—	AV communication signal (L)	Input/ Output	—	—	—
15 (SB)	—	AV communication signal (H)	Input/ Output	—	—	—
16 (LG)	—	AV communication signal (L)	Input/ Output	—	—	—
20 (W)	22 (B)	AUX sound signal RH	Input	Ignition switch ON	AUX mode selected.	
21 (R)	22 (B)	AUX sound signal LH	Input	Ignition switch ON	AUX mode selected.	
25	—	Shield	—	—	—	—
28 (Y)	Ground	Disk eject signal	Input	Ignition switch ON	Pressing eject switch.	0 V
					Except above.	5.0 V
29 (LG)	Ground	Ignition signal	Input	Ignition switch ON		Battery voltage
30 (R)	Ground	Reverse signal	Input	Ignition switch ON	Selector lever in R position.	Battery voltage
					Selector lever in any position other than R.	0 V
31 (G)	Ground	Parking brake signal	Input	Ignition switch ON	Parking brake applied.	4.5 V
					Parking brake released.	0 V
32 (GR)	Ground	Vehicle speed signal	Input	Ignition switch ON	Vehicle speed approx. 40 km/h (25 MPH)	<p>NOTE: The maximum voltage varies depending on the specification (destination unit).</p> 

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AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[MID AUDIO WITH BOSE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
38 (G)	47 (B)	Steering switch signal A	Input	Ignition switch ON	Press SOURCE switch	0V
					Press Δ switch	1.0V
					Press ∇ switch	2.0V
					Press  switch	3.0V
					Press ENTER switch	4.0V
					Except above	5.0V
39 (P)	Ground	ACC power supply	Input	Ignition switch ACC		Battery voltage
41 (R)	Ground	Illumination signal	Input	Ignition switch OFF	Lighting switch OFF	0 V
					Lighting switch ON	Battery voltage
48 (W)	47 (B)	Steering switch signal B	Input	Ignition switch ON	Press  switch	0V
					Press  switch	1.0V
					Press  switch	2.0V
					Press  switch	3.0V
					Press DISP switch	4.0V
					Except above	5.0V
51 (Y)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
52 (B)	Ground	Ground	—	Ignition switch ON		0 V
53 (B)	Ground	Composite image signal	Output	Ignition switch ON	Camera image or AUX im- age displayed	 <small>SKIB2251J</small>
54 (W)	Ground	Composite image signal ground	—	Ignition switch ON		0 V
55 (W)	Ground	RGB signal (B: blue)	Output	Ignition switch ON	Begin Confirmation/Adjust- ment mode, then select "Color Spectrum Bar"	 <small>SKIB2237J</small>
56 (B)	Ground	RGB signal (G: green)	Output	Ignition switch ON	Begin Confirmation/Adjust- ment mode, then select "Color Spectrum Bar"	 <small>SKIB2236J</small>

AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[MID AUDIO WITH BOSE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
57 (R)	Ground	RGB signal (R: red)	Output	Ignition switch ON	Begin Confirmation/Adjust- ment mode, then select "Color Spectrum Bar"	 SKIB2238J
58 (B)	Ground	RGB synchronizing signal	Output	Ignition switch ON		 SKIB3603E
59	—	Shield	—	—	—	—
60 (W)	Ground	RGB area (YS) signal	Output	Ignition switch ON	RGB image displayed	5.0 V
					AUX image displayed	 PKIB4948J
61 (B)	Ground	Communication signal (DISP→CONT)	Input	Ignition switch ON	Adjusting display bright- ness	 PKIB5039J
62 (G)	Ground	Horizontal synchronizing (HP) signal	Input	Ignition switch ON		 SKIB3601E
63 (B)	Ground	Signal ground	—	Ignition switch OFF		0 V
64 (V)	Ground	Signal VCC	Output	Ignition switch ACC		9.0 V
66	—	Shield	—	—	—	—
67	—	Shield	—	—	—	—
72	—	Shield	—	—	—	—

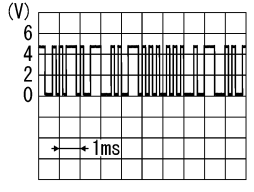
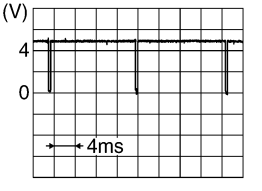
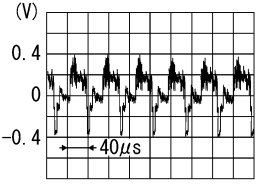
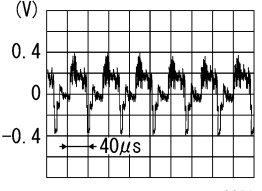
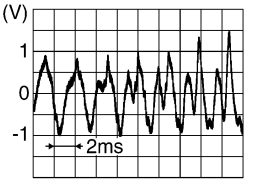
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AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

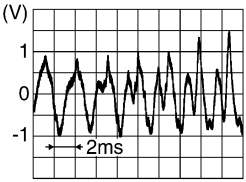
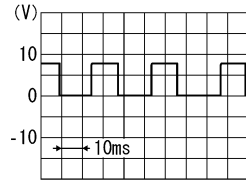
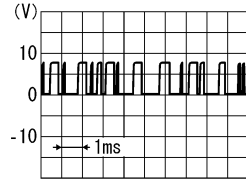
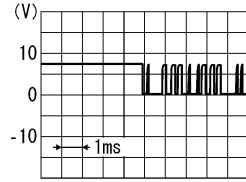
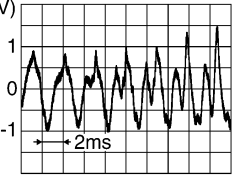
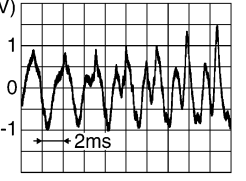
[MID AUDIO WITH BOSE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
73 (W)	Ground	Communication signal (CONT→DISP)	Output	Ignition switch ON	Adjusting display bright- ness	 <p style="text-align: right; font-size: small;">PKIB5039J</p>
74 (R)	Ground	Vertical synchronizing (VP) signal	Input	Ignition switch ON		 <p style="text-align: right; font-size: small;">SKIB3598E</p>
75 (LG)	Ground	Inverter ground	—	Ignition switch OFF		0 V
76 (L)	Ground	Inverter VCC	Output	Ignition switch ACC		9.0 V
82 (B)	Ground	Camera image signal	Input	Ignition switch ON	Camera image displayed	 <p style="text-align: right; font-size: small;">SKIB2251J</p>
83 (W)	Ground	AUX image signal	Input	Ignition switch ON	AUX image displayed	 <p style="text-align: right; font-size: small;">SKIB2251J</p>
87 (R)	Ground	Camera power supply	Output	Ignition switch ON	Selector lever in "R" posi- tion	6.0 V
88 (W)	Ground	Camera ground	—	Ignition switch ON		0 V
89	—	Shield	—	—	—	—
90	—	Shield	—	—	—	—
91 (B)	Ground	AUX image signal ground	—	Ignition switch ON		0 V
94 (B)	93 (W)	Satellite radio sound signal LH	Input	Ignition switch ON	Satellite radio mode select- ed	 <p style="text-align: right; font-size: small;">SKIB3609E</p>

AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[MID AUDIO WITH BOSE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
96 (G)	95 (R)	Satellite radio sound signal RH	Input	Ignition switch ON	Satellite radio mode select- ed	 <small>SKIB3609E</small>
97	—	Shield	—	—	—	—
98	—	Shield	—	—	—	—
100 (W)	Ground	Request signal (SAT→CONT)	Input	Ignition switch ON	Satellite radio mode select- ed	 <small>SKIA9299J</small>
101 (R)	Ground	Communication signal (SAT→CONT)	Input	Ignition switch ON	Satellite radio mode select- ed	 <small>SKIA9300J</small>
102 (B)	Ground	Communication signal (CONT→SAT)	Output	Ignition switch ON	Satellite radio mode select- ed	 <small>SKIA9301J</small>
108 (B)	114 (W)	Sound signal rear door speaker RH	Output	Ignition switch ON	Audio output	 <small>SKIB3609E</small>
109 (W)	115 (B)	Sound signal front door speaker and instrument panel tweeter RH	Output	Ignition switch ON	Audio output	 <small>SKIB3609E</small>
110 (SB)	Ground	Bose amp. ON signal	Output	Ignition switch ACC	—	Battery voltage

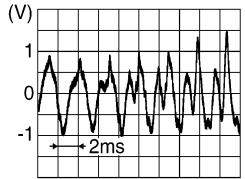
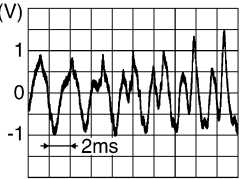
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AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[MID AUDIO WITH BOSE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
111 (BR)	—	Shield	—	—	—	—
112 (B)	118 (W)	Sound signal rear door speaker LH	Output	Ignition switch ON	Audio output	 <small>SKIB3609E</small>
113 (B)	119 (W)	Sound signal front door speaker and instrument panel tweeter LH	Output	Ignition switch ON	Audio output	 <small>SKIB3609E</small>
121 (G)	—	V BUS signal	—	—	—	—
122 (W)	—	USB ground	—	—	—	—
123 (R)	—	USB D+ signal	—	—	—	—
124 (L)	—	USB D- signal	—	—	—	—
125	—	Shield	—	—	—	—
126 (B)	—	FM sub	Input	—	—	—
127 (B)	—	Antenna amp. ON signal	Output	Ignition switch ON		Battery voltage
128 (B)	—	AM - FM main	Input	—	—	—

DTC Index

INFOID:000000008954243

CONSULT Display	Reference Page
U1000: CAN COMM CIRCUIT	AV-276, "DTC Logic"
U1010: CONTROL UNIT	AV-277, "DTC Logic"
U1200: CONT UNIT	AV-278, "DTC Logic"
U1216: CAN CONT	AV-279, "DTC Logic"
U1218: HDD CONN	AV-280, "DTC Logic"
U1219: HDD READ	AV-281, "DTC Logic"
U121A: HDD WRITE	AV-282, "DTC Logic"
U121B: HDD COMM	AV-283, "DTC Logic"
U121C: HDD ACCESS	AV-284, "DTC Logic"
U121D: DSP CONN	AV-285, "DTC Logic"
U121E: DSP COMM	AV-286, "DTC Logic"

AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[MID AUDIO WITH BOSE]

CONSULT Display	Reference Page
U1225: USB CONTROLLER	AV-287, "DTC Logic"
U1227: DVD COMM	AV-288, "DTC Logic"
U1228: SUB CPU CONN	AV-289, "DTC Logic"
U1229: iPod CERTIFICATION	AV-290, "DTC Logic"
U122A: CONFIG UNFINISH	AV-291, "DTC Logic"
U122E: Built-in AUDIO CONN	AV-292, "DTC Logic"
U1231: AMP TEMP	AV-293, "DTC Logic"
U1240: SWITCH CONN	AV-301, "Description"
U1243: FRONT DISP CONN	AV-294, "DTC Logic"
U1255: SAT CONN	AV-296, "DTC Logic"
U1256: HAND FREE CONN	AV-301, "Description"
U1263: USB OVERCURRENT	AV-513, "DTC Logic"
U1264: ANTENNA AMP TERMINAL	AV-514, "DTC Logic"
U1265: AMP ON TERMINAL	AV-300, "DTC Logic"
U1300: AV COMM CIRCUIT	AV-301, "Description"
U1310: CONTROL UNIT	AV-302, "DTC Logic"

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DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

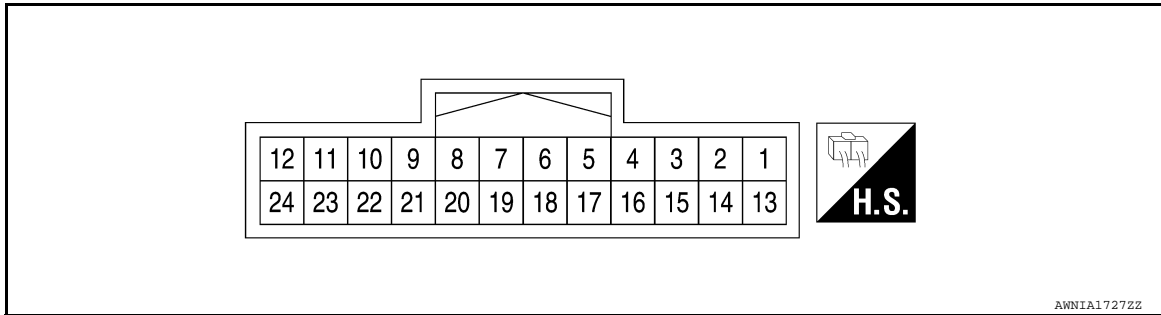
[MID AUDIO WITH BOSE]

DISPLAY UNIT

Reference Value

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TERMINAL LAYOUT



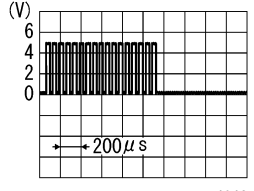
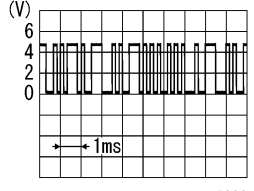
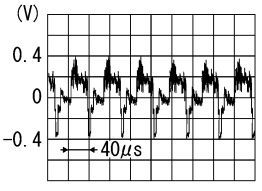
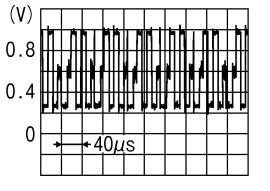
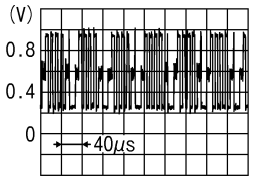
PHYSICAL VALUES

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/ Output			
1 (B)	Ground	Ground	—	Ignition switch ON	—	0V
2 (L)	Ground	Inverter VCC	Input	Ignition switch ACC	—	9V
3 (V)	Ground	Signal VCC	Input	Ignition switch ACC	—	9V
4 (W)	Ground	Composite image ground	—	Ignition switch ON	—	0V
5	—	Shield	—	—	—	—
6 (B)	Ground	RGB signal (G: green)	Input	Ignition switch ON	Start Confirmation/Adjust- ment mode, and then dis- play color bar by selecting "Color Spectrum Bar" on Display Diagnosis screen.	<p style="text-align: right; font-size: small;">JSN1A1030ZZ</p>
7	—	Shield	—	—	—	—
8 (G)	Ground	Horizontal synchronizing (HP) signal	Output	Ignition switch ON	—	<p style="text-align: right; font-size: small;">SKIB3601E</p>

DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[MID AUDIO WITH BOSE]

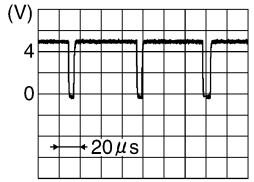
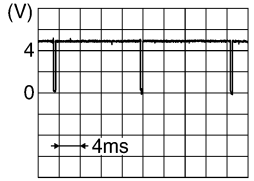
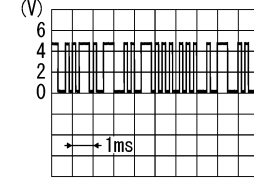
Terminal (Wire color)		Description		Condition	Reference value (Approx.)
+	-	Signal name	Input/ Output		
9 (W)	Ground	RGB area (YS) signal	Input	Ignition switch ON	At RGB image is displayed. 5V
				Ignition switch ON	At DVD image is displayed. 
11 (W)	Ground	Communication signal (CONT→DISP)	Input	Ignition switch ON	When adjusting display brightness. 
13 (LG)	Ground	Inverter ground	—	Ignition switch ON	— 0V
14 (B)	Ground	Signal ground	—	Ignition switch ON	— 0V
15 (B)	Ground	Composite image signal	Input	Ignition switch ON	At rear view camera image is displayed. 
17 (R)	Ground	RGB signal (R: red)	Input	Ignition switch ON	Start Confirmation/Adjustment mode, and then display color bar by selecting "Color Spectrum Bar" on Display Diagnosis screen. 
18 (W)	Ground	RGB signal (B: blue)	Input	Ignition switch ON	Start Confirmation/Adjustment mode, and then display color bar by selecting "Color Spectrum Bar" on Display Diagnosis screen. 

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DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[MID AUDIO WITH BOSE]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/ Output			
19 (B)	Ground	RGB synchronizing signal	Input	Ignition switch ON	—	 <p style="text-align: right; font-size: small;">SKIB3603E</p>
20 (R)	Ground	Vertical synchronizing (VP) signal	Output	Ignition switch On	—	 <p style="text-align: right; font-size: small;">SKIB3598E</p>
21	—	Shield	—	—	—	—
22 (B)	Ground	Communication signal (DISP→CONT)	Output	Ignition switch ON	When adjusting display brightness.	 <p style="text-align: right; font-size: small;">PKIB5039J</p>
23	—	Shield	—	—	—	—

BOSE AMP.

< ECU DIAGNOSIS INFORMATION >

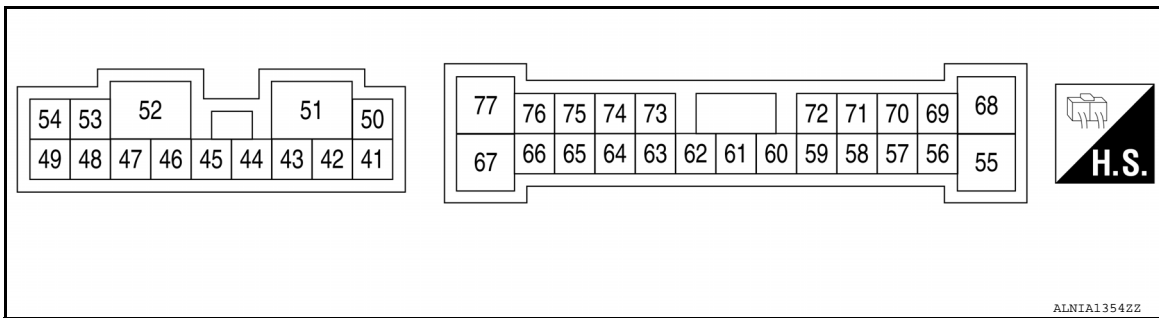
[MID AUDIO WITH BOSE]

BOSE AMP.

Reference Value

INFOID:000000008954293

TERMINAL LAYOUT



PHYSICAL VALUES

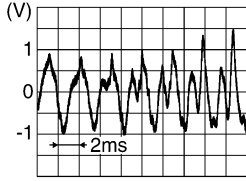
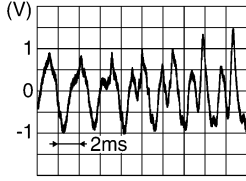
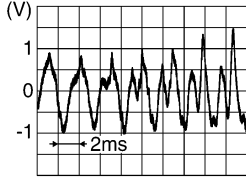
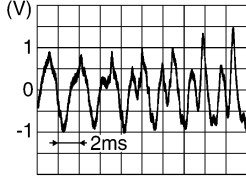
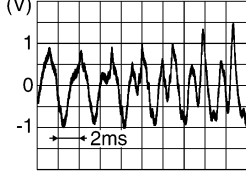
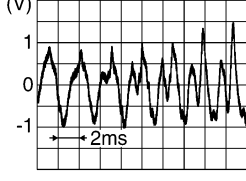
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/Output			
41 (R)	42 (G)	Sound signal tweeter LH	Output	Ignition switch ON	Sound output	 SKIB3609E
44 (G)	43 (G)	Sound signal rear speaker RH	Output	Ignition switch ON	Sound output	 SKIB3609E
45 (G)	46 (W)	Sound signal tweeter RH	Output	Ignition switch ON	Sound output	 SKIB3609E
47 (B)	—	Ground	—	Ignition switch ON	—	0 V
50 (LG)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
51 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
52 (B)	—	Ground	—	Ignition switch ON	—	0 V

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BOSE AMP.

< ECU DIAGNOSIS INFORMATION >

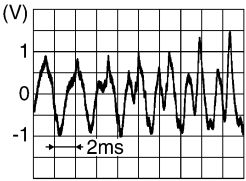
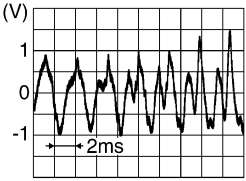
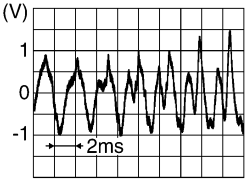
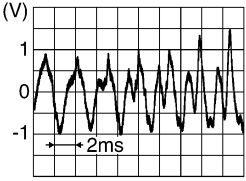
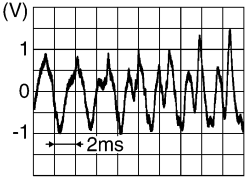
[MID AUDIO WITH BOSE]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/ Output			
53 (W)	48 (G)	Sound signal rear speaker LH	Output	Ignition switch ON	Sound output	 <p style="text-align: right; font-size: small;">SKIB3609E</p>
54 (G)	49 (W)	Sound signal rear door speaker RH	Output	Ignition switch ON	Sound output	 <p style="text-align: right; font-size: small;">SKIB3609E</p>
57 (W)	56 (B)	Sound signal woofer	Output	Ignition switch ON	Sound output	 <p style="text-align: right; font-size: small;">SKIB3609E</p>
58 (G)	59 (R)	Sound signal front door speaker LH	Output	Ignition switch ON	Sound output	 <p style="text-align: right; font-size: small;">SKIB3609E</p>
60 (W)	Ground	BOSE amp. ON signal	Input	Ignition switch ON	—	Battery voltage
61	—	Shield	—	—	—	—
62 (W)	—	—	—	—	—	—
64 (B)	63 (W)	Sound signal rear LH	Input	Ignition switch ON	Sound output	 <p style="text-align: right; font-size: small;">SKIB3609E</p>
66 (B)	65 (W)	Sound signal rear RH	Input	Ignition switch ON	Sound output	 <p style="text-align: right; font-size: small;">SKIB3609E</p>

BOSE AMP.

< ECU DIAGNOSIS INFORMATION >

[MID AUDIO WITH BOSE]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/ Output			
68 (P)	55 (R)	Sound signal rear door speaker LH	Output	Ignition switch ON	Sound output	 <p style="text-align: right; font-size: small;">SKIB3609E</p>
69 (P)	70 (R)	Sound signal center speaker	Output	Ignition switch ON	Sound output	 <p style="text-align: right; font-size: small;">SKIB3609E</p>
71 (R)	72 (P)	Sound signal front door speaker RH	Output	Ignition switch ON	Sound output	 <p style="text-align: right; font-size: small;">SKIB3609E</p>
73 (B)	74 (W)	Sound signal front RH	Input	Ignition switch ON	Sound output	 <p style="text-align: right; font-size: small;">SKIB3609E</p>
75 (B)	76 (W)	Sound signal front LH	Input	Ignition switch ON	Sound output	 <p style="text-align: right; font-size: small;">SKIB3609E</p>

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SATELLITE RADIO TUNER

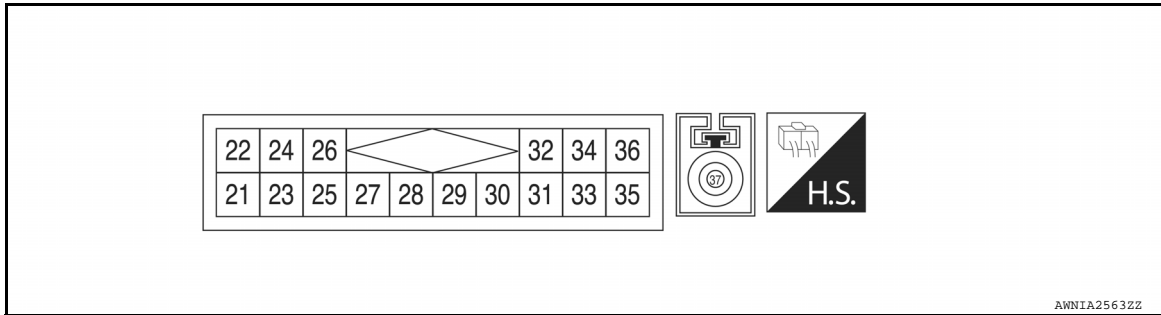
< ECU DIAGNOSIS INFORMATION >

[MID AUDIO WITH BOSE]

SATELLITE RADIO TUNER

Reference Value

INFOID:000000008954245



PHYSICAL VALUES

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

SATELLITE RADIO TUNER

< ECU DIAGNOSIS INFORMATION >

[MID AUDIO WITH BOSE]

Terminal		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/Output			
30 (B)	Ground	Communication signal (CONT→SAT)	Input	Ignition switch ON	When satellite radio mode is selected	
32 (SB)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
35 (GR)	Ground	Ground	—	Ignition switch ON	—	0V
36 (BG)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
37 (B)	—	Satellite antenna	—	—	—	—

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BLUETOOTH® CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

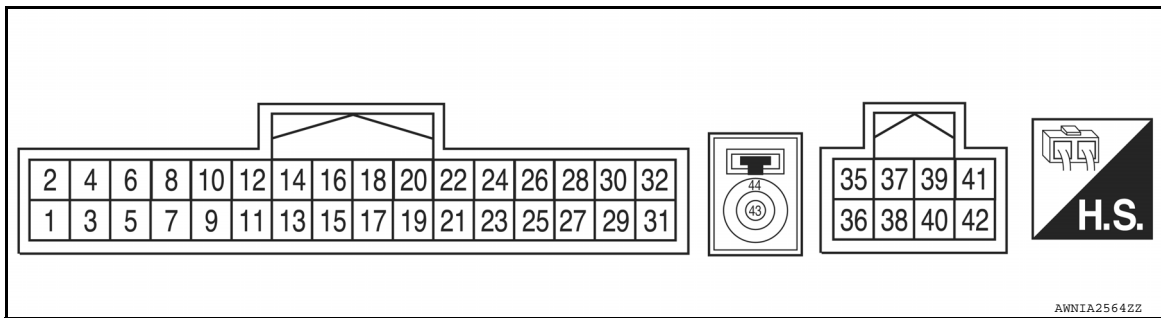
[MID AUDIO WITH BOSE]

BLUETOOTH® CONTROL UNIT

Reference Value

INFOID:000000008954246

TERMINAL LAYOUT



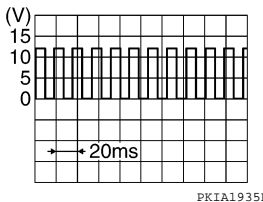
PHYSICAL VALUES

Terminal (wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/output			
1 (Y)	Ground	Battery power	Input	-	-	Battery voltage
2 (R)	Ground	ACC power	Input	Ignition switch ACC/ON	-	Battery voltage
3 (P)	Ground	IGN power	Input	Ignition switch ON/ START	-	Battery voltage
4 (B)	Ground	Ground	-	Ignition switch ON	-	0V
5	-	Shield	-	-	-	-
7 (B)	8	MIC in signal	Input	-	-	-
9 (W)	10 (B)	Audio out	Output	Ignition switch ACC/ON	Bluetooth® control unit sends audio signal	<p>SKIB3609E</p>
20 (B)	Ground	Ground	-	Ignition switch ON	-	0V
22 (B)	Ground	Ground	-	Ignition switch ON	-	0V
24 (B)	Ground	Ground	-	Ignition switch ON	-	0V
27 (B)	Ground	Ground	-	Ignition switch ON	-	0V

BLUETOOTH® CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[MID AUDIO WITH BOSE]

Terminal (wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/out- put			
28 (V)	Ground	Vehicle speed signal (8-pulse)	Input	Ignition switch ON	When vehicle speed is approx. 40 km/h (25 MPH)	
29 (W)	Ground	Microphone power	Output	Ignition switch ON	-	5V
35 (SB)	-	M-CAN1 (+)	-	-	-	-
36 (LG)	-	M-CAN1 (-)	-	-	-	-
43 (B)	-	Bluetooth® antenna	-	-	-	-
44	-	Shield	-	-	-	-

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MID AUDIO SYSTEM

< WIRING DIAGRAM >

[MID AUDIO WITH BOSE]

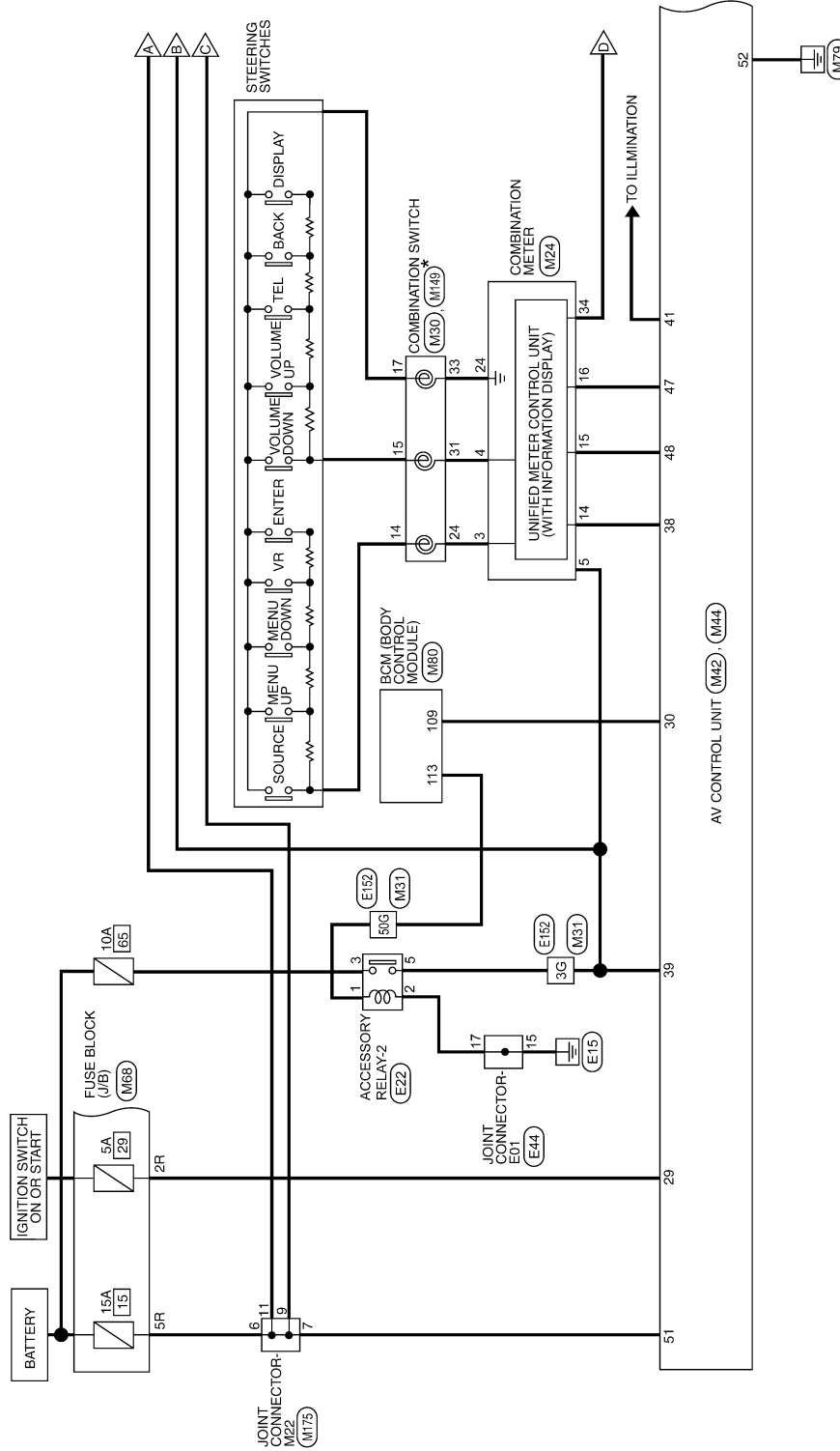
WIRING DIAGRAM

MID AUDIO SYSTEM

Wiring Diagram

INFOID:000000008510891

MID AUDIO SYSTEM - WITH BOSE AUDIO SYSTEM

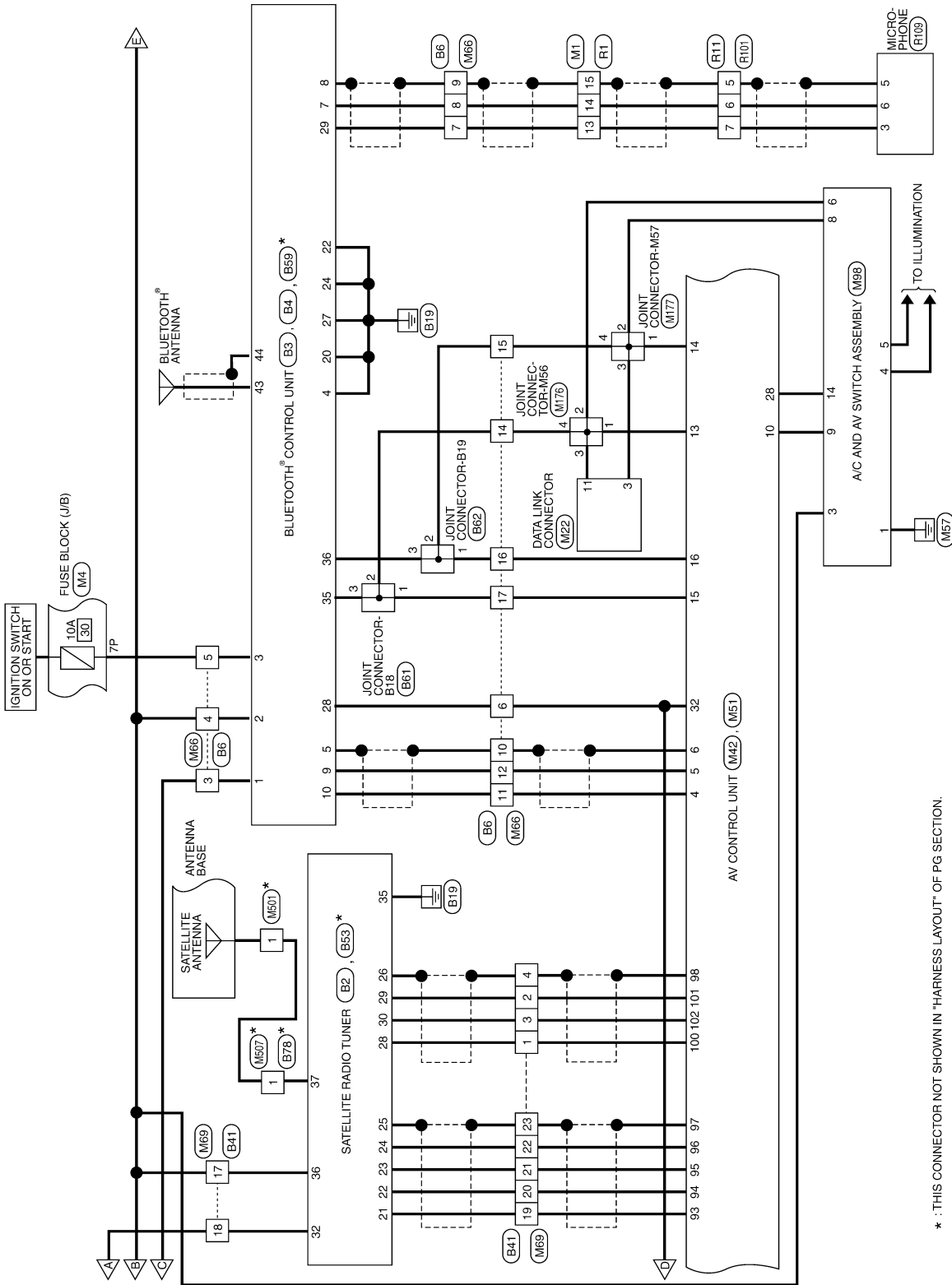


AANWA0713GB

MID AUDIO SYSTEM

[MID AUDIO WITH BOSE]

< WIRING DIAGRAM >



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

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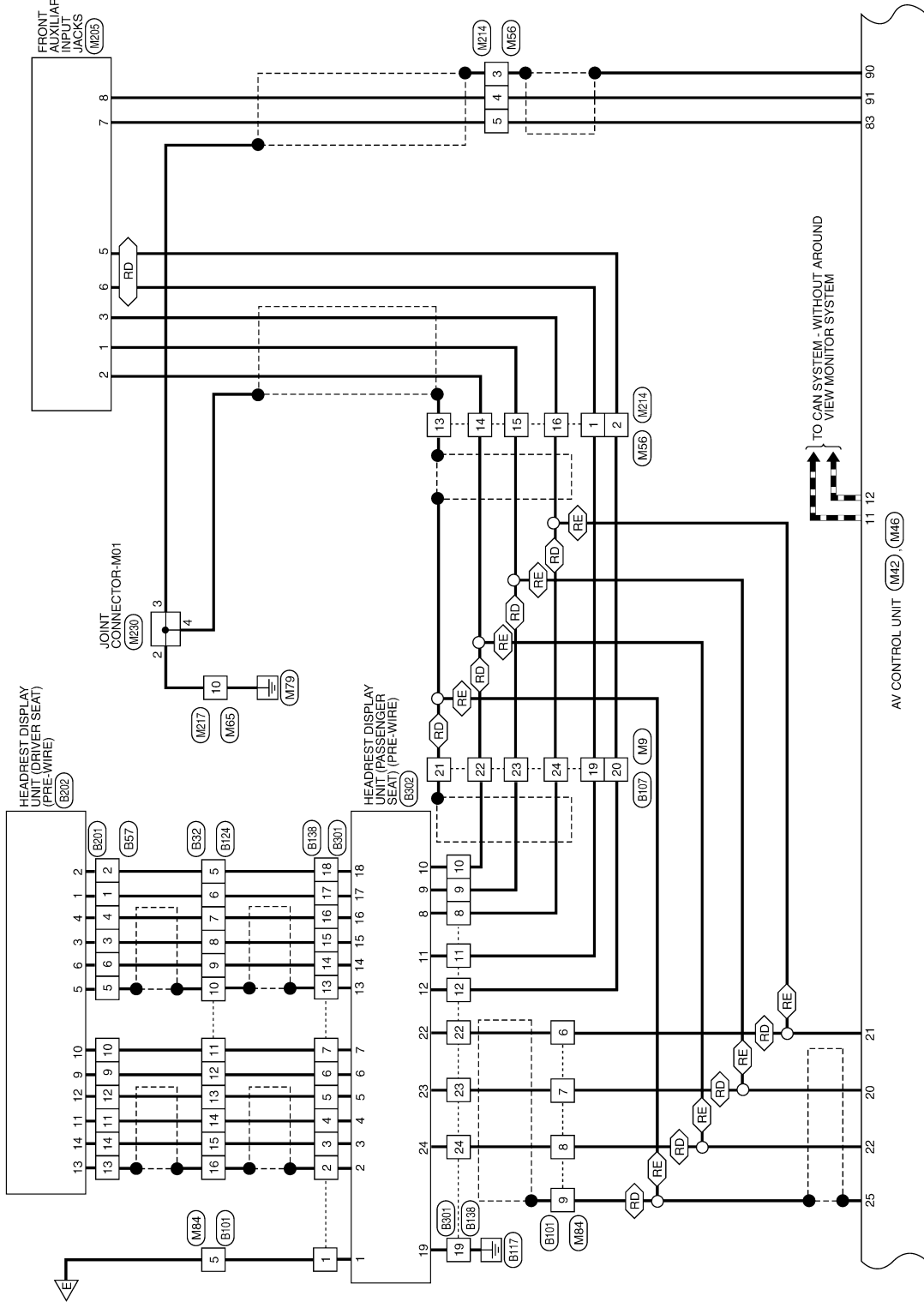
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MID AUDIO SYSTEM

[MID AUDIO WITH BOSE]

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◁ RD ▷ : WITH REAR ENTERTAINMENT SYSTEM
 ▷ RE ▷ : WITHOUT REAR ENTERTAINMENT SYSTEM

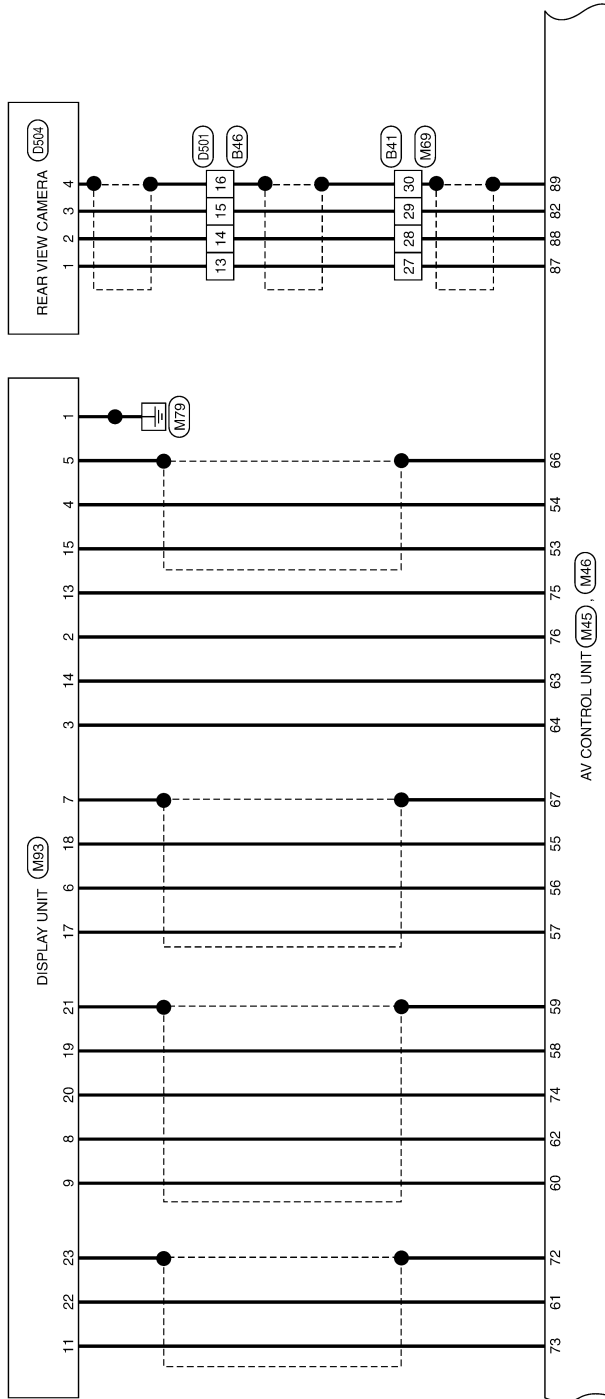


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MID AUDIO SYSTEM

< WIRING DIAGRAM >

[MID AUDIO WITH BOSE]



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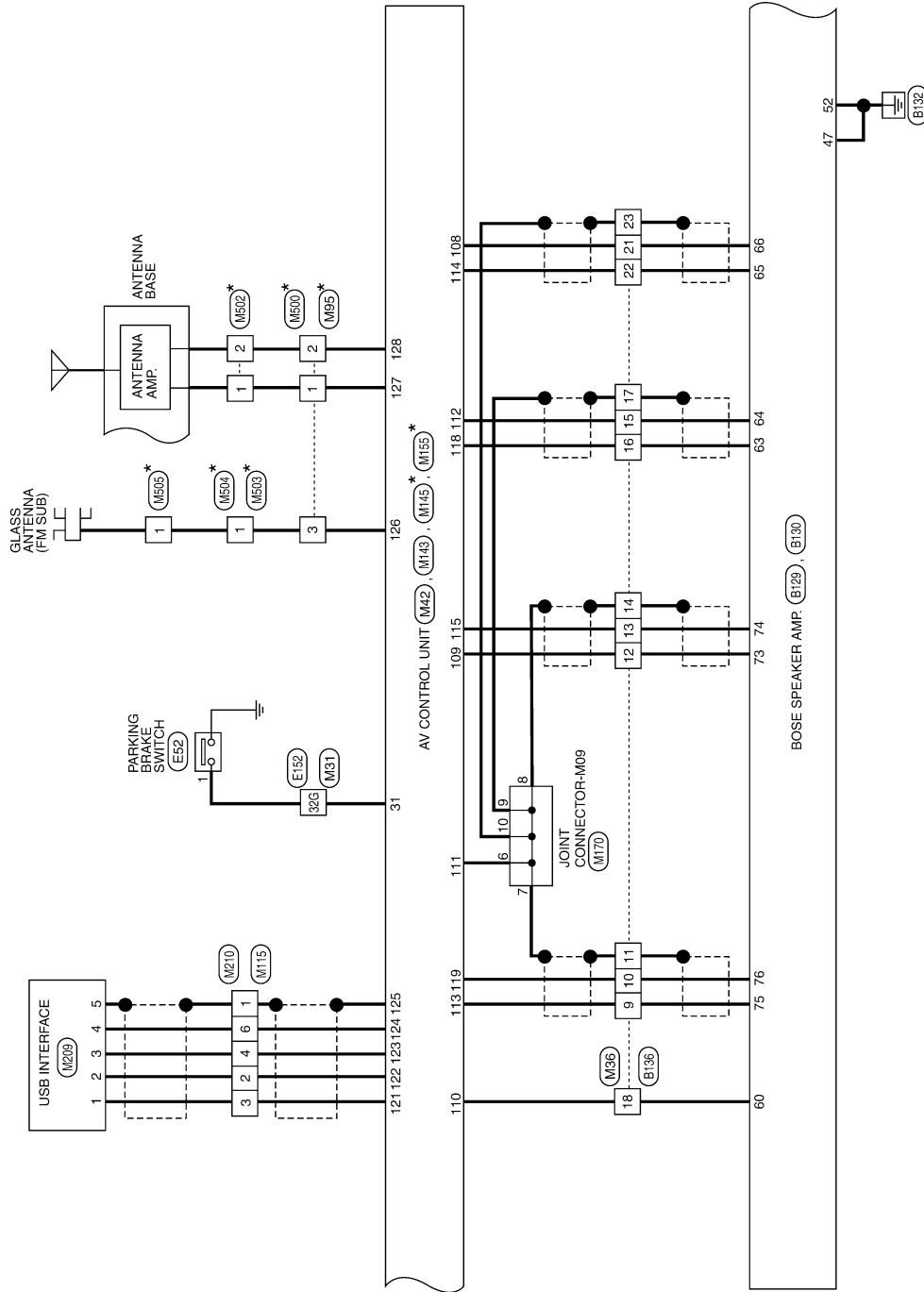
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AANWA0716GB

MID AUDIO SYSTEM

< WIRING DIAGRAM >

[MID AUDIO WITH BOSE]



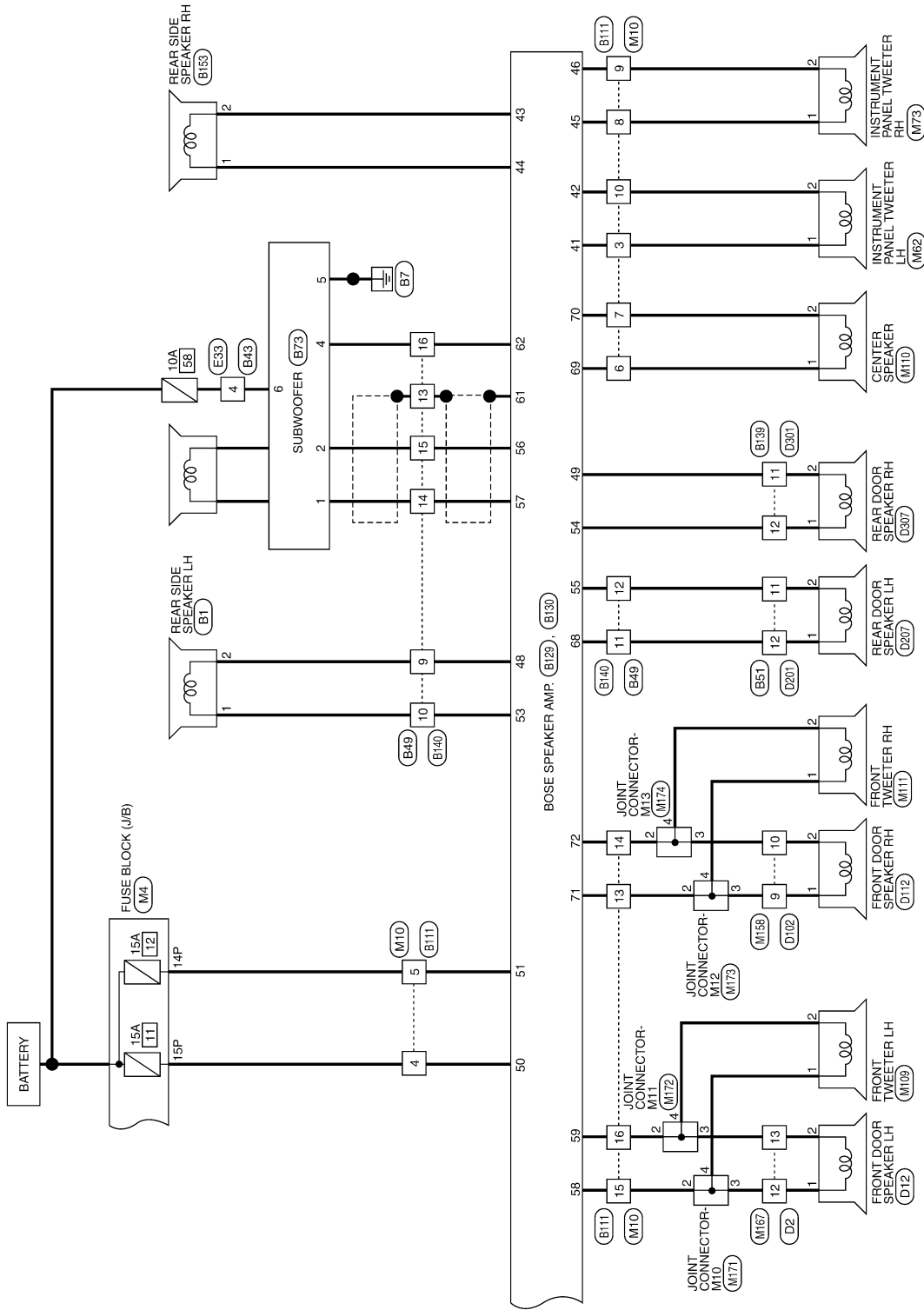
* : THIS CONNECTOR IS NOT SHOWN IN "HARNES LAYOUT" OF Pg SECTION.

AANWA0717GB

MID AUDIO SYSTEM

[MID AUDIO WITH BOSE]

< WIRING DIAGRAM >



AANWA0718GB

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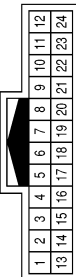
MID AUDIO SYSTEM

< WIRING DIAGRAM >

[MID AUDIO WITH BOSE]

MID AUDIO SYSTEM CONNECTORS - WITH BOSE AUDIO SYSTEM

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



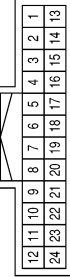
Terminal No.	Color of Wire	Signal Name
13	W	-
14	B	-
15	SHIELD	-

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



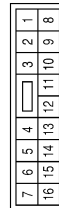
Terminal No.	Color of Wire	Signal Name
7P	LG	-
14P	Y	-
15P	L	-

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



Terminal No.	Color of Wire	Signal Name
19	P	-
20	G	-
21	SHIELD	-
22	B	-
23	R	-
24	W	-

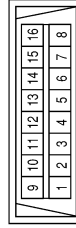
Connector No.	M10
Connector Name	WIRE TO WIRE
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
3	G	-
4	L	-
5	Y	-
6	G	-
7	W	-
8	G	-
9	W	-
10	W	-

Terminal No.	Color of Wire	Signal Name
13	G	-
14	W	-
15	P	-
16	W	-

Connector No.	M22
Connector Name	DATA LINK CONNECTOR
Connector Color	WHITE



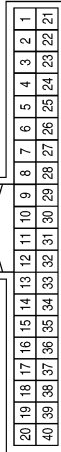
Terminal No.	Color of Wire	Signal Name
3	LG	-
11	SB	-

MID AUDIO SYSTEM

< WIRING DIAGRAM >

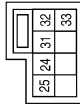
[MID AUDIO WITH BOSE]

Connector No.	M24
Connector Name	COMBINATION METER
Connector Color	WHITE



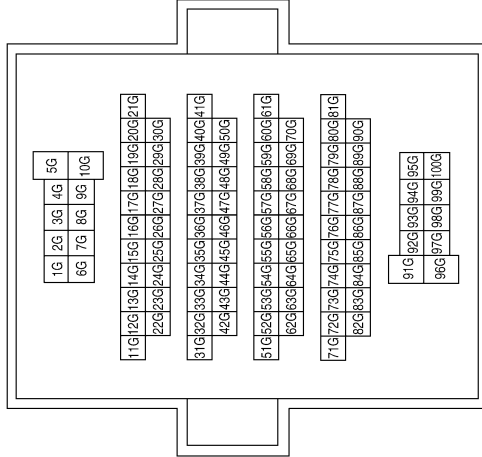
Terminal No.	Color of Wire	Signal Name
3	P	STRG SW INPUT 1
4	BG	STRG SW INPUT 2
5	P	ACC
14	G	STRG SW OUTPUT 1 (EXCEPT BASE AUDIO)
15	W	STRG SW OUTPUT 2 (EXCEPT BASE AUDIO)
16	B	STRG SW OUTPUT GND (EXCEPT BASE AUDIO)
24	R	STRG SW GND
34	GR	SPEED 8 P./R

Connector No.	M30
Connector Name	COMBINATION SWITCH
Connector Color	GRAY



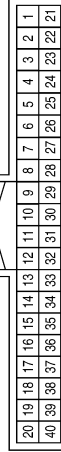
Terminal No.	Color of Wire	Signal Name
24	P	-
31	BG	-
33	R	-

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



Terminal No.	Color of Wire	Signal Name
3G	P	-
32G	G	-
50G	L	-

Connector No.	M36
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
9	B	-
10	W	-
11	SHIELD	-
12	W	-
13	B	-
14	SHIELD	-
15	B	-

Terminal No.	Color of Wire	Signal Name
16	W	-
17	SHIELD	-
18	SB	-
21	B	-
22	W	-
23	SHIELD	-

AANIA1197GB

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

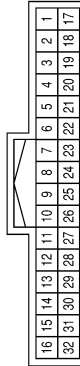
AV

MID AUDIO SYSTEM

< WIRING DIAGRAM >

[MID AUDIO WITH BOSE]

Connector No.	M42
Connector Name	AV CONTROL UNIT (WITH MID AUDIO SYSTEM - WITH BOSE AUDIO SYSTEM)
Connector Color	WHITE

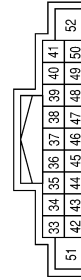


Terminal No.	Color of Wire	Signal Name
1	-	-
2	-	-
3	-	-
4	B	TEL VOICE-
5	W	TEL VOICE+

Terminal No.	Color of Wire	Signal Name
6	SHIELD	VOICE SHIELD
7	-	-
8	-	-
9	-	-
10	V	EJECT GND
11	L	CAN-H
12	P	CAN-L
13	SB	M CAN-H
14	LG	M CAN-L
15	SB	M CAN-H TRM
16	LG	M CAN-L TRM
17	-	-
18	-	-
19	-	-

Terminal No.	Color of Wire	Signal Name
20	W	AUX AUDIO RH+
21	R	AUX AUDIO LH+
22	B	AUX AUDIO-
23	-	-
24	-	-
25	SHIELD	AUDIO BUS SHIELD
26	-	-
27	-	-
28	Y	CD (DVD) EJECT
29	LG	IGN
30	R	REVERSE SIG
31	G	PKB SIG
32	GR	SPEED 8P

Connector No.	M44
Connector Name	AV CONTROL UNIT (WITH MID AUDIO SYSTEM - WITH BOSE AUDIO SYSTEM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
33	-	-
34	-	-

Terminal No.	Color of Wire	Signal Name
35	-	-
36	-	-
37	-	-
38	G	STRG SW A
39	P	ACC
40	-	-
41	R	ILL
42	-	-
43	-	-

Terminal No.	Color of Wire	Signal Name
44	-	-
45	-	-
46	-	-
47	B	STRG SW GND
48	W	STRG SW B
49	-	-
50	-	-
51	Y	(+)B
52	B	GND

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MID AUDIO SYSTEM

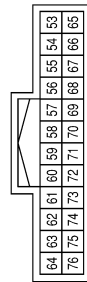
< WIRING DIAGRAM >

[MID AUDIO WITH BOSE]

Terminal No.	Color of Wire	Signal Name
70	-	-
71	-	-
72	SHIELD	DISP SHIELD
73	W	IT DISP
74	R	VP
75	LG	INV GND
76	L	INV VCC

Terminal No.	Color of Wire	Signal Name
58	B	RGB SYNC
59	SHIELD	RGB SYN GND
60	W	YS
61	B	DISP IT
62	G	HP
63	B	SIG GND
64	V	SIG VCC
65	-	-
66	SHIELD	COM OUT SHIELD
67	SHIELD	RGB GND
68	-	-
69	-	-

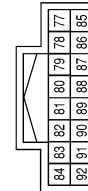
Connector No.	M45
Connector Name	AV CONTROL UNIT (WITH MID AUDIO SYSTEM - WITH BOSE AUDIO SYSTEM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
53	B	COMP OUT+
54	W	COMP OUT-
55	W	B
56	B	G
57	R	R

Terminal No.	Color of Wire	Signal Name
82	B	COMP2 IN+
83	W	COMP1 IN+
84	-	-
85	-	-
86	-	-
87	R	CAM 6.2V
88	W	CAM GND
89	SHIELD	COMP2 IN SHIELD
90	SHIELD	COMP1 IN SHIELD
91	B	COMP1 IN-
92	-	-

Connector No.	M46
Connector Name	AV CONTROL UNIT (WITH MID AUDIO SYSTEM - WITH BOSE AUDIO SYSTEM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
77	-	-
78	-	-
79	-	-
80	-	-
81	-	-

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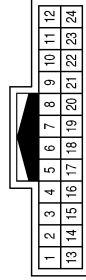
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MID AUDIO SYSTEM

< WIRING DIAGRAM >

[MID AUDIO WITH BOSE]

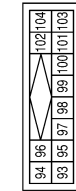
Connector No.	M56
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	P	-
2	G	-
3	SHIELD	-
4	B	-
5	W	-
13	SHIELD	-
14	B	-
15	R	-
16	W	-

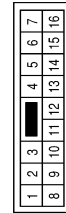
Terminal No.	Color of Wire	Signal Name
97	SHIELD	N-BUS SHIELD
98	SHIELD	DATA GND
99	-	-
100	W	REQ1
101	R	TX
102	B	RX
103	-	-
104	-	-

Connector No.	M51
Connector Name	AV CONTROL UNIT (WITH MID AUDIO SYSTEM - WITH BOSE AUDIO SYSTEM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
93	W	N-BUS LH-
94	B	N-BUS LH+
95	R	N-BUS RH-
96	G	N-BUS RH+

Connector No.	M56
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
10	B	-

Connector No.	M62
Connector Name	INSTRUMENT PANEL TWEETER LH
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
1	G	-(WITH BOSE AUDIO SYSTEM)
2	W	-(WITH BOSE AUDIO SYSTEM)

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MID AUDIO SYSTEM

< WIRING DIAGRAM >

[MID AUDIO WITH BOSE]

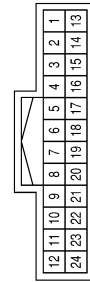
Connector No.	M68
Connector Name	FUSE BLOCK (J/B)
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
2R	LG	-
5R	Y	-

Terminal No.	Color of Wire	Signal Name
6	GR	-
7	W	-
8	B	-
9	SHIELD	-
10	SHIELD	-
11	B	-
12	W	-
14	SB	-
15	LG	-
16	LG	-
17	SB	-

Connector No.	M66
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
3	Y	-
4	P	-
5	LG	-

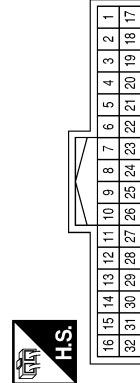
Connector No.	M73
Connector Name	INSTRUMENT PANEL TWEETER RH
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
1	G	-(WITH BOSE AUDIO SYSTEM)
2	W	-(WITH BOSE AUDIO SYSTEM)

Terminal No.	Color of Wire	Signal Name
18	Y	-
19	W	-
20	B	-
21	R	-
22	G	-
23	SHIELD	-
27	R	-
28	B	-
29	W	-
30	SHIELD	-

Connector No.	M69
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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

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MID AUDIO SYSTEM

< WIRING DIAGRAM >

[MID AUDIO WITH BOSE]

Connector No.	M84
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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

Terminal No.	Color of Wire	Signal Name
5	P	-
6	W	-
7	R	-
8	B	-

Connector No.	M80
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	BLACK



116	115	114	113	112	111	110	109	108	107	106	105
128	127	126	125	124	123	122	121	120	119	118	117

Terminal No.	Color of Wire	Signal Name
109	R	REVERSE SIGNAL
113	L	ACC RELAY OUT

Connector No.	M95
Connector Name	WIRE TO WIRE
Connector Color	GRAY



1	2	3
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Terminal No.	Color of Wire	Signal Name
1	B	-
2	B	-
3	B	-

Terminal No.	Color of Wire	Signal Name
9	W	YS
10	-	-
11	W	UART IN
12	-	-
13	LG	INV GND
14	B	SIG GND
15	B	COMP
16	-	-
17	R	R
18	W	B
19	B	RGB SYNC
20	R	VP
21	SHIELD	SYNC GND
22	B	UART OUT
23	SHIELD	UART GND
24	-	-

Connector No.	M93
Connector Name	DISPLAY UNIT (WITH MID AUDIO SYSTEM)
Connector Color	WHITE



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

Terminal No.	Color of Wire	Signal Name
1	B	GND
2	L	INV VCC
3	V	SIG VCC
4	W	COMP GND
5	SHIELD	COMP SHIELD
6	B	G
7	SHIELD	RGB GND
8	G	HP

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MID AUDIO SYSTEM

< WIRING DIAGRAM >

[MID AUDIO WITH BOSE]

Connector No.	M110
Connector Name	CENTER SPEAKER
Connector Color	BROWN



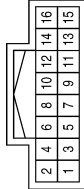
Terminal No.	Color of Wire	Signal Name
1	G	-
2	W	-

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



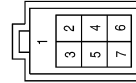
Terminal No.	Color of Wire	Signal Name
1	P	-
2	W	-

Connector No.	M98
Connector Name	A/C AND AV SWITCH ASSEMBLY
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	B	GND
3	P	ACC
4	R	ILL
5	B	ILL CONT
6	SB	M CAN-H
8	LG	M CAN-L
9	V	EJECT GND
14	Y	CD (DVD) EJECT

Connector No.	M115
Connector Name	WIRE TO WIRE
Connector Color	GRAY



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

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



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

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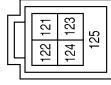
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MID AUDIO SYSTEM

< WIRING DIAGRAM >

[MID AUDIO WITH BOSE]

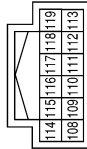
Connector No.	M145
Connector Name	AV CONTROL UNIT
Connector Color	BLUE



Terminal No.	Color of Wire	Signal Name
121	G	VBUS
122	W	USB GND
123	R	USB D+
124	L	USB D-
125	SHIELD	SHIELD

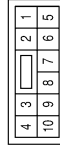
Terminal No.	Color of Wire	Signal Name
113	B	FR LH PRE+
114	W	RR RH PRE-
115	B	FR LH PRE-
116	-	-
117	-	-
118	W	RR LH PRE
119	W	FR LH PRE

Connector No.	M143
Connector Name	AV CONTROL UNIT (WITH MID AUDIO SYSTEM - WITH BOSE AUDIO SYSTEM)
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
108	B	RR RH PRE+
109	W	FR RH PRE+
110	SB	AMP ON
111	BR	SHIELD
112	B	RR LH PRE+

Connector No.	M158
Connector Name	WIRE TO WIRE
Connector Color	WHITE



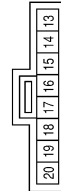
Terminal No.	Color of Wire	Signal Name
9	G	- (WITH BOSE AUDIO SYSTEM)
10	W	- (WITH BOSE AUDIO SYSTEM)

Connector No.	M155
Connector Name	AV CONTROL UNIT
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
126	B	ANT MAIN
127	B	ANT +B
128	B	ANT SUB

Connector No.	M149
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
14	B	-
15	GR	-
17	BR	-

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MID AUDIO SYSTEM

< WIRING DIAGRAM >

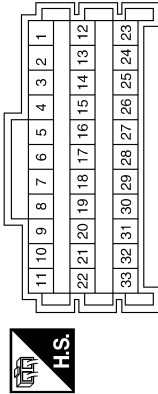
[MID AUDIO WITH BOSE]

Connector No.	M171
Connector Name	JOINT CONNECTOR-M10
Connector Color	WHITE



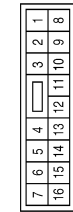
Terminal No.	Color of Wire	Signal Name
2	P	-
3	P	-
4	P	-

Connector No.	M170
Connector Name	JOINT CONNECTOR-M09
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
6	BR	-
7	SHIELD	-
8	SHIELD	-
9	SHIELD	-
10	SHIELD	-

Connector No.	M167
Connector Name	WIRE TO WIRE
Connector Color	WHITE



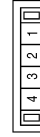
Terminal No.	Color of Wire	Signal Name
12	G	-(WITH BOSE AUDIO SYSTEM)
13	W	-(WITH BOSE AUDIO SYSTEM)

Connector No.	M174
Connector Name	JOINT CONNECTOR-M13
Connector Color	WHITE



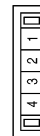
Terminal No.	Color of Wire	Signal Name
2	W	-
3	W	-
4	W	-

Connector No.	M173
Connector Name	JOINT CONNECTOR-M12
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	G	-
3	G	-
4	G	-

Connector No.	M172
Connector Name	JOINT CONNECTOR-M11
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	W	-
3	W	-
4	W	-

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MID AUDIO SYSTEM

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[MID AUDIO WITH BOSE]

Connector No.	M177
Connector Name	JOINT CONNECTOR-M57
Connector Color	WHITE



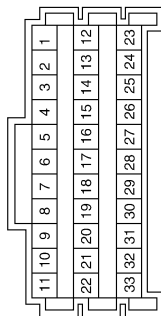
Terminal No.	Color of Wire	Signal Name
1	LG	-
2	LG	-
3	LG	-
4	LG	-

Connector No.	M176
Connector Name	JOINT CONNECTOR-M56
Connector Color	WHITE



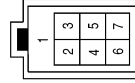
Terminal No.	Color of Wire	Signal Name
1	SB	-
2	SB	-
3	SB	-
4	SB	-

Connector No.	M175
Connector Name	JOINT CONNECTOR-M22
Connector Color	WHITE



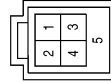
Terminal No.	Color of Wire	Signal Name
6	Y	-
7	Y	-
9	Y	-
11	Y	-

Connector No.	M210
Connector Name	WIRE TO WIRE
Connector Color	GRAY



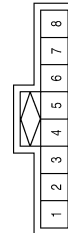
Terminal No.	Color of Wire	Signal Name
1	SHIELD	-
2	R	-
3	L	-
4	G	-
6	W	-

Connector No.	M209
Connector Name	USB INTERFACE
Connector Color	WHITE



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

Connector No.	M205
Connector Name	FRONT AUXILIARY INPUT JACKS
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	R	AUX AUDIO RH+
2	B	AUX AUDIO GND
3	W	AUX AUDIO LH+
4	-	-
5	G	PLUGIN DETECT
6	P	PLUGIN GND
7	W	AUX VIDEO+
8	B	AUX VIDEO-

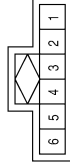
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MID AUDIO SYSTEM

< WIRING DIAGRAM >

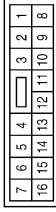
[MID AUDIO WITH BOSE]

Connector No.	M230
Connector Name	JOINT CONNECTOR-M01
Connector Color	WHITE



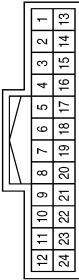
Terminal No.	Color of Wire	Signal Name
2	B	-
3	SHIELD	-
4	SHIELD	-

Connector No.	M217
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
10	B	-

Connector No.	M214
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	P	-
2	G	-
3	SHIELD	-
4	B	-
5	W	-
13	SHIELD	-
14	B	-
15	R	-
16	W	-

Connector No.	M502
Connector Name	ANTENNA BASE
Connector Color	GRAY



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

Connector No.	M501
Connector Name	ANTENNA BASE
Connector Color	GREEN



Terminal No.	Color of Wire	Signal Name
1	B	-

Connector No.	M500
Connector Name	WIRE TO WIRE
Connector Color	GRAY



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

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< WIRING DIAGRAM >

[MID AUDIO WITH BOSE]

Connector No.	M505
Connector Name	GLASS ANTENNA (FM SUB)
Connector Color	GRAY



Terminal No.	1	Color of Wire	B	Signal Name	-
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Connector No.	M504
Connector Name	WIRE TO WIRE
Connector Color	GRAY



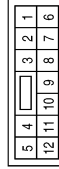
Terminal No.	1	Color of Wire	B	Signal Name	-
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Connector No.	M503
Connector Name	WIRE TO WIRE
Connector Color	GRAY



Terminal No.	1	Color of Wire	B	Signal Name	-
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Connector No.	E33
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	4	Color of Wire	P	Signal Name	-
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Connector No.	E22
Connector Name	ACCESSORY RELAY-2
Connector Color	BLUE



Terminal No.	1	Color of Wire	G	Signal Name	-
2		B		-	
3		R		-	
5		P		-	

Connector No.	M507
Connector Name	WIRE TO WIRE
Connector Color	GREEN



Terminal No.	1	Color of Wire	B	Signal Name	-
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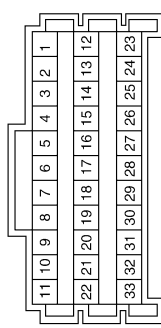
AANIA1208GB

MID AUDIO SYSTEM

< WIRING DIAGRAM >

[MID AUDIO WITH BOSE]

Connector No.	E52
Connector Name	PARKING BRAKE SWITCH
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	LG	-

Connector No.	E44
Connector Name	JOINT CONNECTOR-E01
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
15	GR	-
17	B	-

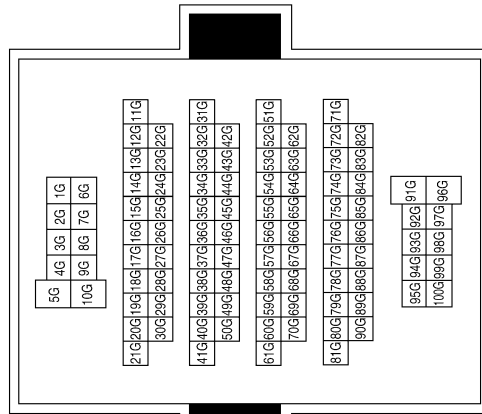
Connector No.	B1
Connector Name	REAR SIDE SPEAKER LH
Connector Color	BROWN



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

Terminal No.	Color of Wire	Signal Name
3G	P	-
32G	LG	-
50G	G	-

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



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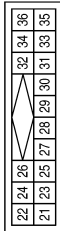
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MID AUDIO SYSTEM

< WIRING DIAGRAM >

[MID AUDIO WITH BOSE]

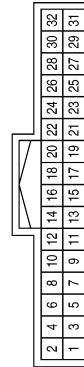
Connector No.	B2
Connector Name	SATELLIT RADIO TUNER
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
21	W	SAT LCH (-)
22	B	SAT LCH (+)
23	R	SAT RCH (-)
24	G	SAT RCH (+)
25	SHIELD	GND (SIG)
26	SHIELD	DATA GND
27	-	-
28	W	REQ1 (SAT-COMBI)

Terminal No.	Color of Wire	Signal Name
29	R	TXD (SAT-COMBI)
30	B	RXD (COMBI-SAT)
31	-	-
32	SB	BAT
33	-	-
34	-	-
35	GR	GND
36	BG	ACC

Connector No.	B3
Connector Name	BLUETOOTH CONTROL UNIT
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	Y	BAT
2	R	ACC
3	P	IGN
4	B	GND
5	SHIELD	AUDIO SHIELD
6	-	-

Terminal No.	Color of Wire	Signal Name
7	B	MIC IN +(SIG)
8	SHIELD	MIC IN-(GND)
9	W	AUDIO OUT+
10	B	AUDIO OUT-
11	-	-
12	-	-
13	-	-
14	-	-
15	-	-
16	-	-
17	-	-
18	-	-
19	-	-

Terminal No.	Color of Wire	Signal Name
20	B	CONT1
21	-	-
22	B	CONT3
23	-	-
24	B	CONT5
25	-	-
26	-	-
27	B	CONT6
28	V	SPEED SIGNAL
29	W	MIC POWER (VCC)
30	-	-
31	-	-
32	-	-

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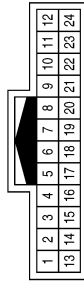
MID AUDIO SYSTEM

< WIRING DIAGRAM >

[MID AUDIO WITH BOSE]

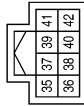
Terminal No.	Color of Wire	Signal Name
7	W	-(WITHOUT REAR ENTERTAINMENT SYSTEM)
8	B	-(WITHOUT REAR ENTERTAINMENT SYSTEM)
9	SHIELD	-(WITHOUT REAR ENTERTAINMENT SYSTEM)
10	SHIELD	-
11	B	-(WITHOUT REAR ENTERTAINMENT SYSTEM)
12	W	-
14	SB	-
15	LG	-
16	LG	-
17	SB	-

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



Terminal No.	Color of Wire	Signal Name
3	Y	-(WITHOUT REAR ENTERTAINMENT SYSTEM)
4	R	-(WITHOUT REAR ENTERTAINMENT SYSTEM)
5	P	-(WITHOUT REAR ENTERTAINMENT SYSTEM)
6	V	-(WITHOUT REAR ENTERTAINMENT SYSTEM)

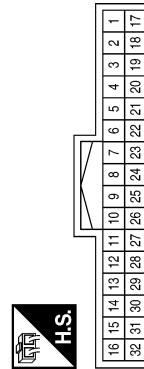
Connector No.	B4
Connector Name	BLUETOOTH CONTROL UNIT
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
35	SB	M CAN-H
36	LG	M CAN-L
37	-	-
38	-	-
39	-	-
40	-	-
41	-	-
42	-	-

Terminal No.	Color of Wire	Signal Name
10	SHIELD	-
11	B	-
12	L	-
13	B	-
14	R	-
15	W	-
16	SHIELD	-

Connector No.	B32
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
5	G	-
6	R	-
7	B	-
8	R	-
9	W	-

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MID AUDIO SYSTEM

< WIRING DIAGRAM >

[MID AUDIO WITH BOSE]

Connector No.	B41
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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

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

Terminal No.	Color of Wire	Signal Name
18	SB	-
19	W	-
20	B	-
21	R	-
22	G	-
23	SHIELD	-
27	R	-
28	B	-
29	W	-
30	SHIELD	-

Connector No.	B43
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	G	-

Connector No.	B46
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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

Terminal No.	Color of Wire	Signal Name
13	R	-
14	B	-
15	W	-
16	SHIELD	-

Connector No.	B49
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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

Terminal No.	Color of Wire	Signal Name
9	G	-
10	W	-
11	P	-
12	R	-
13	SHIELD	-
14	B	-
15	W	-
16	W	-

Connector No.	B51
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
11	R	-
12	P	-

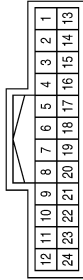
MID AUDIO SYSTEM

< WIRING DIAGRAM >

[MID AUDIO WITH BOSE]

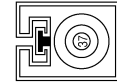
Terminal No.	Color of Wire	Signal Name
6	W	-
9	L	-
10	B	-
11	R	-
12	B	-
13	SHIELD	-
14	W	-

Connector No.	B57
Connector Name	WIRE TO WIRE
Connector Color	GRAY



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

Connector No.	B53
Connector Name	SATELLITE ANTENNA
Connector Color	GREEN



Terminal No.	Color of Wire	Signal Name
37	B	-

Connector No.	B62
Connector Name	JOINT CONNECTOR-B19
Connector Color	WHITE



Connector No.	B61
Connector Name	JOINT CONNECTOR-B18
Connector Color	WHITE



Connector No.	B59
Connector Name	BLUETOOTH CONTROL UNIT
Connector Color	GRAY



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

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

Terminal No.	Color of Wire	Signal Name
43	B	-
44	SHIELD	-

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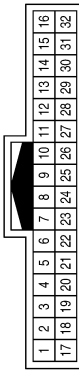
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MID AUDIO SYSTEM

< WIRING DIAGRAM >

[MID AUDIO WITH BOSE]

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



Terminal No.	Color of Wire	Signal Name
5	V	-
6	W	-
7	R	-
8	B	-
9	SHIELD	-

Connector No.	B78
Connector Name	WIRE TO WIRE
Connector Color	GREEN




Terminal No.	Color of Wire	Signal Name
1	B	-

Connector No.	B73
Connector Name	SUBWOOFER
Connector Color	GRAY

Terminal No.	Color of Wire	Signal Name
1	B	-
2	W	-
4	W	-
5	B	-
6	G	-

Connector No.	B124
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
5	G	-
6	R	-
7	B	-
8	R	-
9	W	-
10	SHIELD	-
11	B	-
12	L	-
13	B	-
14	R	-
15	W	-
16	SHIELD	-

Connector No.	B111
Connector Name	WIRE TO WIRE
Connector Color	WHITE




Terminal No.	Color of Wire	Signal Name
3	R	-
4	LG	-
5	Y	-
6	P	-
7	R	-
8	G	-
9	W	-
10	G	-
13	W	-
14	P	-
15	G	-
16	R	-

Connector No.	B107
Connector Name	WIRE TO WIRE
Connector Color	WHITE




Terminal No.	Color of Wire	Signal Name
19	V	-
20	Y	-
21	SHIELD	-
22	B	-
23	R	-
24	W	-

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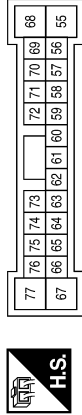
MID AUDIO SYSTEM

< WIRING DIAGRAM >

[MID AUDIO WITH BOSE]

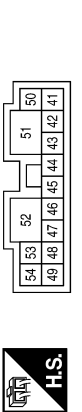
Terminal No.	Color of Wire	Signal Name
66	B	-
67	-	-
68	P	-
69	P	-
70	R	-
71	R	-
72	P	-
73	B	-
74	W	-
75	B	-
76	W	-
77	-	-

Connector No.	B130
Connector Name	BOSE SPEAKER AMP.
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
55	R	-
56	B	-
57	W	-
58	G	-
59	R	-
60	W	-
61	SHIELD	-
62	W	-
63	W	-
64	B	-
65	W	-

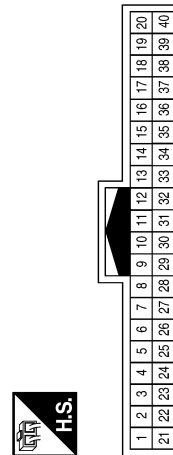
Connector No.	B129
Connector Name	BOSE SPEAKER AMP.
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
41	R	-
42	G	-
43	G	-
44	W	-
45	G	-
46	W	-
47	B	-
48	G	-
49	W	-
50	LG	-
51	Y	-
52	B	-
53	W	-
54	G	-

Terminal No.	Color of Wire	Signal Name
15	B	-
16	W	-
17	SHIELD	-
18	W	-
21	B	-
22	W	-
23	SHIELD	-

Connector No.	B136
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
9	B	-
10	W	-
11	SHIELD	-
12	B	-
13	W	-
14	SHIELD	-

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MID AUDIO SYSTEM

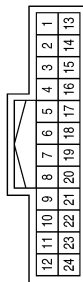
< WIRING DIAGRAM >

[MID AUDIO WITH BOSE]

Terminal No.	Color of Wire	Signal Name
19	B	-
22	W	-
23	R	-
24	B	-

Terminal No.	Color of Wire	Signal Name
7	B	-
8	W	-
9	R	-
10	B	-
11	V	-
12	Y	-
13	SHIELD	-
14	W	-
15	R	-
16	B	-
17	R	-
18	G	-

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

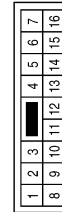


Terminal No.	Color of Wire	Signal Name
1	V	-
2	SHIELD	-
3	W	-
4	R	-
5	B	-
6	L	-

Connector No.	B153
Connector Name	REAR SIDE SPEAKER RH
Connector Color	BROWN



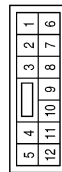
Connector No.	B140
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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

Terminal No.	Color of Wire	Signal Name
9	R	-
10	B	-
11	V	-
12	Y	-
13	SHIELD	-
14	W	-
15	R	-
16	B	-

Terminal No.	Color of Wire	Signal Name
11	W	-
12	G	-



Connector No.	B139
Connector Name	WIRE TO WIRE
Connector Color	WHITE

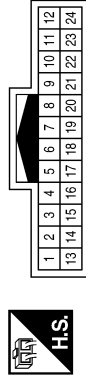
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MID AUDIO SYSTEM

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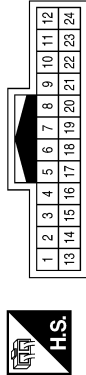
[MID AUDIO WITH BOSE]

Connector No.	B301
Connector Name	WIRE TO WIRE
Connector Color	WHITE



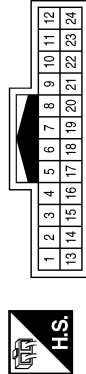
Terminal No.	Color of Wire	Signal Name
1	B	-
2	R	-
3	LG	-
4	G	-
6	Y	-
7	W	-
9	R	-
10	L	-
12	G	-
13	W	-
14	G	-
15	P	-
16	Y	-
17	V	-
19	G	-
21	LG	-
22	P	-
24	W	-

Connector No.	B202
Connector Name	HEADREST DISPLAY UNIT (DRIVER SEAT)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	B	REAR 1 HP LH-
2	R	REAR 1 HP LRH-
3	LG	REAR 1 HP SHIELD
4	G	REAR 1 COMP-
5	GR	-
6	Y	CONT GND
7	W	AUX REQ. OUT
8	BR	-
9	R	M-CAN 2 L
10	L	M-CAN 2 H
11	SB	-
12	G	GND
13	W	REAR 1 HP LH+
14	G	REAR 1 HP RH+
15	P	REAR 1 COMP SHIELD
16	Y	REAR 1 COMP+
17	V	AV GND
18	-	-
19	G	ACC DET. IN
20	-	-
21	LG	M-CAN 1 L
22	P	M-CAN 1 H
23	-	-
24	W	BAT

Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	B	-
2	R	-
3	LG	-
4	G	-
6	Y	-
7	W	-
9	R	-
10	L	-
12	G	-
13	W	-
14	G	-
15	P	-
16	Y	-
17	V	-
19	G	-
21	LG	-
22	P	-
24	W	-

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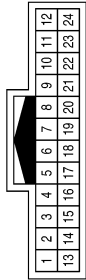
< WIRING DIAGRAM >

[MID AUDIO WITH BOSE]

Terminal No.	Color of Wire	Signal Name
18	-	-
19	G	ACC DET. IN
20	-	-
21	LG	M-CAN 1 L
22	P	M-CAN 1 H
23	-	-
24	W	BAT

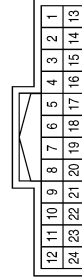
Terminal No.	Color of Wire	Signal Name
6	Y	CONT GND
7	W	AUX REQ. OUT
8	BR	-
9	R	M-CAN 2 L
10	L	M-CAN 2 H
11	SB	-
12	G	GND
13	W	REAR 1 HP LH+
14	G	REAR 1 HP RH+
15	P	REAR 1 COMP SHIELD
16	Y	REAR 1 COMP+
17	V	AV GND

Connector No.	B302
Connector Name	HEADREST DISPLAY UNIT (PASSENGER SEAT)
Connector Color	

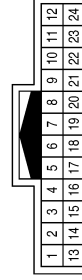


Terminal No.	Color of Wire	Signal Name
1	B	REAR 1 HP LH-
2	R	REAR 1 HP LRH-
3	LG	REAR 1 HP SHIELD
4	G	REAR 1 COMP -
5	GR	-

Connector No.	R101
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Connector No.	R11
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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



Terminal No.	Color of Wire	Signal Name
5	SHIELD	-
6	L	-
7	R	-

Terminal No.	Color of Wire	Signal Name
5	SHIELD	-
6	B	-
7	W	-

Terminal No.	Color of Wire	Signal Name
13	W	-
14	B	-
15	SHIELD	-

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MID AUDIO SYSTEM

< WIRING DIAGRAM >

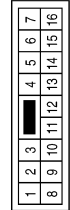
[MID AUDIO WITH BOSE]

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



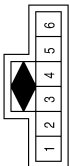
Terminal No.	Color of Wire	Signal Name
1	G	-
2	W	-

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



Terminal No.	Color of Wire	Signal Name
12	G	-
13	W	-

Connector No.	R109
Connector Name	MICROPHONE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
3	R	-
5	SHIELD	-
6	L	-

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



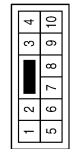
Terminal No.	Color of Wire	Signal Name
11	Y	-
12	LG	-

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



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

Connector No.	D102
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
9	G	-
10	W	-

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MID AUDIO SYSTEM

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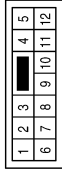
[MID AUDIO WITH BOSE]

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



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

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



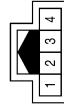
Terminal No.	Color of Wire	Signal Name
11	G	-
12	W	-

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



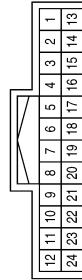
Terminal No.	Color of Wire	Signal Name
1	LG	-
2	Y	-

Connector No.	D504
Connector Name	REAR VIEW CAMERA
Connector Color	WHITE



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

Connector No.	D501
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
13	W	-
14	B	-
15	R	-
16	SHIELD	-

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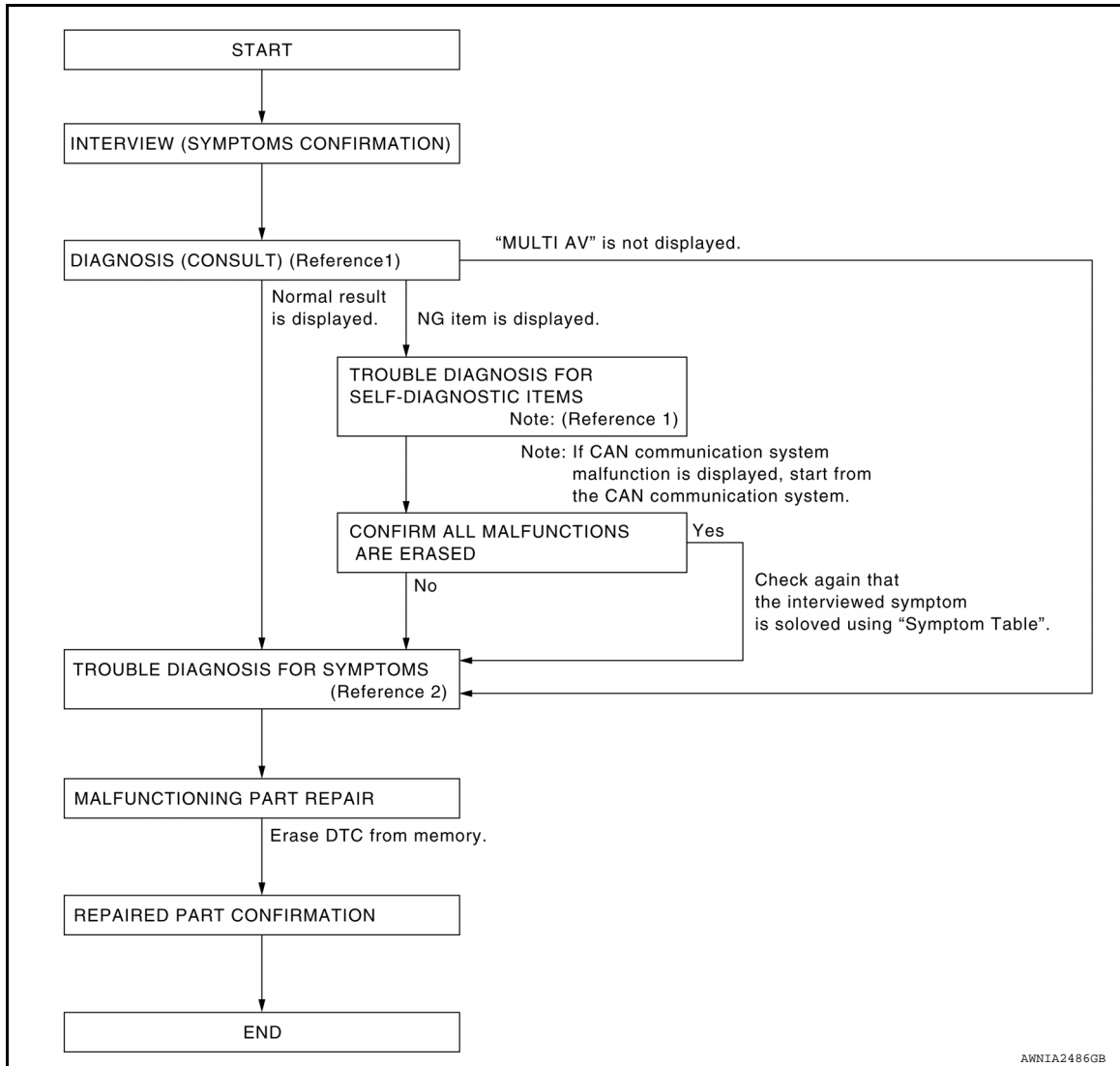
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:000000008954247

OVERALL SEQUENCE



Reference 1: Refer to [AV-219. "CONSULT Function"](#).

Reference 2: Refer to [AV-350. "Symptom Table"](#).

DETAILED FLOW

1. CHECK SYMPTOM

Check the malfunction symptoms by performing the following items:

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

>> GO TO 2

2. SELF-DIAGNOSIS (CONSULT)

1. Connect CONSULT and perform "SELF-DIAGNOSIS" for "MULTI AV".

NOTE:

Skip to step 4 of the diagnosis procedure if "MULTI AV" is not displayed.

2. Check if any DTC No. is displayed in the self-diagnosis results.

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DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[MID AUDIO WITH BOSE]

Is any DTC No. displayed?

YES >> GO TO 3

NO >> GO TO 4

3. CHECK SELF-DIAGNOSIS RESULTS (CONSULT)

1. Check the DTC No. indicated in the self-diagnosis results.
2. Perform the relevant diagnosis referring to the DTC No. list. Refer to [AV-228, "DTC Index"](#).

NOTE:

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

>> GO TO 5

4. PERFORM DIAGNOSIS BY SYMPTOM

Perform the relevant diagnosis referring to the diagnosis chart by symptom. Refer to [AV-350, "Symptom Table"](#).

>> GO TO 5

5. REPAIR OR REPLACE MALFUNCTIONING PARTS

Repair or replace the identified malfunctioning parts.

NOTE:

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

>> GO TO 6

6. CHECK AFTER REPAIR

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

Is any DTC No. displayed?

YES >> GO TO 3

NO >> GO TO 7

7. FINAL CHECK

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

Are any symptoms present?

YES >> GO TO 4

NO >> Inspection End.

INSPECTION AND ADJUSTMENT

ADDITIONAL SERVICE WHEN REPLACING AV CONTROL UNIT

ADDITIONAL SERVICE WHEN REPLACING AV CONTROL UNIT : Description

INFOID:000000008954248

BEFORE REPLACEMENT

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

NOTE:

If "Before Replace ECU" cannot be used, use the "After Replace ECU" or "Manual Configuration" after replacing AV control unit.

AFTER REPLACEMENT

CAUTION:

When replacing AV control unit, you must perform "After Replace ECU" with CONSULT.

- Complete the procedure of "After Replace ECU" in order.
- If you set incorrect "After Replace ECU", incidents might occur.
- Configuration is different for each vehicle model. Confirm configuration of each vehicle model.

ADDITIONAL SERVICE WHEN REPLACING AV CONTROL UNIT : Work Procedure

INFOID:000000008954249

1. SAVING VEHICLE SPECIFICATION

④-CONSULT

Enter "Re/Programming, Configuration" and perform "Before Replace ECU" to save or print current vehicle specification.

NOTE:

If "Before Replace ECU" cannot be used, use the "After Replace ECU" or "Manual Configuration" after replacing AV control unit.

>> GO TO 2.

2. REPLACE AV CONTROL UNIT

Replace AV control unit. Refer to [AV-357, "Removal and Installation"](#).

>> GO TO 3.

3. WRITING VEHICLE SPECIFICATION

④CONSULT

1. Enter "Re/Programming, Configuration".
2. If "Before Replace ECU" operation was performed, automatically an "Operation Log Selection" screen will be displayed. Select the applicable file from the "Saved Data List" and press "Confirm" to write vehicle specification. Refer to [AV-274, "CONFIGURATION \(AV CONTROL UNIT\) : Work Procedure"](#).
3. If "Before Replace ECU" operation was not performed, select "After Replace ECU" or "Manual Configuration" to write vehicle specification. Refer to [AV-274, "CONFIGURATION \(AV CONTROL UNIT\) : Work Procedure"](#).

>> GO TO 4.

4. OPERATION CHECK

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

>> Work End.

CONFIGURATION (AV CONTROL UNIT)

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

[MID AUDIO WITH BOSE]

CONFIGURATION (AV CONTROL UNIT) : Description

INFOID:000000008954250

Vehicle specification needs to be written with CONSULT because it is not written after replacing AV control unit.

Configuration has three functions as follows:

Function	Description
"Before Replace ECU"	<ul style="list-style-type: none">• Reads the vehicle configuration of current AV control unit.• Saves the read vehicle configuration.
"After Replace ECU"	Writes the vehicle configuration with manual selection.
"Select Saved Data List"	Writes the vehicle configuration with saved data.

CAUTION:

- When replacing AV control unit, you must perform "Select Saved Data List" or "After Replace ECU" with CONSULT.
- Complete the procedure of "Select Saved Data List" or "After Replace ECU" in order.
- If you set incorrect "Select Saved Data List" or "After Replace ECU", incidents might occur.
- Configuration is different for each vehicle model. Confirm configuration of each vehicle model.
- Never perform "Select Saved Data List" or "After Replace ECU" except for new AV control unit.

CONFIGURATION (AV CONTROL UNIT) : Work Procedure

INFOID:000000008954251

1. WRITING MODE SELECTION

CONSULT

Select "Reprogramming, Configuration" of AV control unit.

When writing saved data >> GO TO 2.

When writing manually >> GO TO 3.

2. PERFORM "SAVED DATA LIST"

CONSULT

Automatically "Operation Log Selection" window will display if "Before Replace ECU" was performed. Select applicable file from the "Save Data List" and press "Confirm".

>> Work End.

3. PERFORM "AFTER REPLACE ECU" OR "MANUAL CONFIGURATION"

CONSULT

1. Select "After Replace ECU" or "Manual Configuration".
2. Identify the correct model and configuration list. Refer to [AV-275. "CONFIGURATION \(AV CONTROL UNIT\) : Configuration List"](#).
3. Confirm and/or change setting value for each item.

CAUTION:

Thoroughly read and understand the vehicle specification. ECU control may not operate normally if the setting is not correct.

4. Select "Next".

CAUTION:

Make sure to select "Next", confirm each setting value and press "OK" even if the indicated configuration of brand new AV control unit is same as the desirable configuration. If not, configuration which is set automatically by selecting vehicle model can not be memorized.

5. When "Completed", select "End".

>> GO TO 4.

4. OPERATION CHECK

Confirm that each function controlled by AV control unit operates normally.

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

[MID AUDIO WITH BOSE]

>> Work End.

CONFIGURATION (AV CONTROL UNIT) : Configuration List

INFOID:000000008954252

CAUTION:

Thoroughly read and understand the vehicle specification. Incorrect settings may result in abnormal control of ECU.

MANUAL SETTING ITEM	
Items	Setting value
CAMERA SYSTEM	NONE/AVM ⇔ REAR CAMERA
SOUND SYSTEM	BASE ⇔ BOSE

⇔: Items which confirm vehicle specifications

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AV

U1000 CAN COMM CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

DTC/CIRCUIT DIAGNOSIS

U1000 CAN COMM CIRCUIT

DTC Logic

INFOID:000000008954253

DTC DETECTION LOGIC

CONSULT Display	DTC Detection Condition	Possible Cause
CAN COMM CIRCUIT [U1000]	AV control unit is not transmitting or receiving CAN communication signal for 2 seconds or more.	CAN communication system.

Diagnosis Procedure

INFOID:000000008954254

1. PERFORM SELF DIAGNOSTIC RESULT

1. Turn ignition switch ON and wait for 2 seconds or more.
2. Perform Self Diagnostic Result for MULTI AV.

Is CAN COMM CIRCUIT displayed?

- YES >> Refer to [LAN-20, "Trouble Diagnosis Flow Chart"](#).
- NO >> Refer to [GI-49, "Intermittent Incident"](#).

U1010 CONTROL UNIT (CAN)

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

U1010 CONTROL UNIT (CAN)

DTC Logic

INFOID:000000008954255

DTC DETECTION LOGIC

CONSULT Display	DTC Detection Condition	Possible Cause
CONTROL UNIT (CAN) [U1010]	CAN initial diagnosis malfunction is detected.	Replace the AV control unit if the malfunction occurs constantly. Refer to AV-357, "Removal and Installation" .

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AV

U1200 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

U1200 AV CONTROL UNIT

DTC Logic

INFOID:000000008954256

CONSULT Display	DTC Detection Condition	Possible Cause
CONT UNIT [U1200]	AV control unit malfunction is detected.	Replace the AV control unit if the malfunction occurs constantly. Refer to AV-357, "Removal and Installation" .

U1216 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

U1216 AV CONTROL UNIT

DTC Logic

INFOID:000000008954257

CONSULT Display	DTC Detection Condition	Possible Cause
CAN CONT [U1216]	AV control unit malfunction is detected.	Replace the AV control unit if the malfunction occurs constantly. Refer to AV-357 , "Removal and Installation".

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AV

U1218 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

U1218 AV CONTROL UNIT

DTC Logic

INFOID:000000008954294

CONSULT Display	DTC Detection Condition	Possible Cause
HDD CONN [U1218]	AV control unit malfunction is detected.	If the hard disk drive (HDD) is functioning normally, there is a possibility of an intermittent malfunction. Replace AV control unit if malfunction occurs constantly. Refer to AV-357, "Removal and Installation" .

U1219 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

U1219 AV CONTROL UNIT

DTC Logic

INFOID:000000008954295

CONSULT Display	DTC Detection Condition	Possible Cause
HDD READ [U1219]	AV control unit malfunction is detected.	If the hard disk drive (HDD) is functioning normally, there is a possibility of an intermittent malfunction. Replace AV control unit if malfunction occurs constantly. Refer to AV-357, "Removal and Installation" .

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AV

U121A AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

U121A AV CONTROL UNIT

DTC Logic

INFOID:000000008954296

CONSULT Display	DTC Detection Condition	Possible Cause
HDD WRITE [U121A]	AV control unit malfunction is detected.	If the hard disk drive (HDD) is functioning normally, there is a possibility of an intermittent malfunction. Replace AV control unit if malfunction occurs constantly. Refer to AV-357, "Removal and Installation" .

U121B AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

U121B AV CONTROL UNIT

DTC Logic

INFOID:000000008954297

CONSULT Display	DTC Detection Condition	Possible Cause
HDD COMM [U121B]	AV control unit malfunction is detected.	If the hard disk drive (HDD) is functioning normally, there is a possibility of an intermittent malfunction. Replace AV control unit if malfunction occurs constantly. Refer to AV-357, "Removal and Installation" .

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AV

U121C AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

U121C AV CONTROL UNIT

DTC Logic

INFOID:000000008954298

CONSULT Display	DTC Detection Condition	Possible Cause
HDD ACCESS [U121C]	AV control unit malfunction is detected.	If the hard disk drive (HDD) is functioning normally, there is a possibility of an intermittent malfunction. Replace AV control unit if malfunction occurs constantly. Refer to AV-357, "Removal and Installation" .

U121D AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

U121D AV CONTROL UNIT

DTC Logic

INFOID:000000008954299

CONSULT Display	DTC Detection Condition	Possible Cause
DSP CONN [U121D]	AV control unit malfunction is detected.	An intermittent error causing disc player malfunction may be detected. Replace AV control unit if malfunction occurs constantly. Refer to AV-357, "Removal and Installation" .

Diagnosis Procedure

INFOID:000000008954300

1. CHECK CD PLAYBACK

Check the CD playback operation of the AV control unit. Refer to Owner's Manual for audio system operating instructions.

Is the CD playback function of the AV control unit operating normally?

YES >> Refer to [GI-49, "Intermittent Incident"](#).

NO >> Replace AV control unit. Refer to [AV-357, "Removal and Installation"](#).

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AV

U121E AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

U121E AV CONTROL UNIT

DTC Logic

INFOID:000000008954301

CONSULT Display	DTC Detection Condition	Possible Cause
DSP COMM [U121E]	AV control unit malfunction is detected.	An intermittent error causing disc player malfunction may be detected. Replace AV control unit if malfunction occurs constantly. Refer to AV-357, "Removal and Installation" .

Diagnosis Procedure

INFOID:000000008954302

1. CHECK CD PLAYBACK

Check the CD playback operation of the AV control unit. Refer to Owner's Manual for audio system operating instructions.

Is the CD playback function of the AV control unit operating normally?

YES >> Refer to [GI-49, "Intermittent Incident"](#).

NO >> Replace AV control unit. Refer to [AV-357, "Removal and Installation"](#).

U1225 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

U1225 AV CONTROL UNIT

DTC Logic

INFOID:000000008954303

CONSULT Display	DTC Detection Condition	Possible Cause
USB CONTROLLER [U1225]	USB connection malfunction is detected.	Check that connection to USB connector is normal.

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U1227 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

U1227 AV CONTROL UNIT

DTC Logic

INFOID:000000008954304

CONSULT Display	DTC Detection Condition	Possible Cause
DVD COMM [U1227]	AV control unit malfunction is detected.	An intermittent error causing disc player malfunction may be detected. Replace AV control unit if malfunction occurs constantly. Refer to AV-357, "Removal and Installation" .

Diagnosis Procedure

INFOID:000000008954305

1. CHECK DVD PLAYBACK

Check the DVD playback operation of the AV control unit. Refer to Owner's Manual for audio system operating instructions.

Is the DVD playback function of the AV control unit operating normally?

YES >> Refer to [GI-49, "Intermittent Incident"](#).

NO >> Replace AV control unit. Refer to [AV-357, "Removal and Installation"](#).

U1228 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

U1228 AV CONTROL UNIT

DTC Logic

INFOID:000000008954306

CONSULT Display	DTC Detection Condition	Possible Cause
SUB CPU CONN [U1228]	AV control unit malfunction is detected.	Replace AV control unit if malfunction occurs constantly. Refer to AV-357, "Removal and Installation" .

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AV

U1229 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

U1229 AV CONTROL UNIT

DTC Logic

INFOID:000000008954307

CONSULT Display	DTC Detection Condition	Possible Cause
iPod CERTIFICATION [U1229]	AV control unit malfunction is detected.	Replace AV control unit if malfunction occurs constantly. Refer to AV-357, "Removal and Installation" .

U122A AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

U122A AV CONTROL UNIT

DTC Logic

INFOID:000000008954308

CONSULT Display	DTC Detection Condition	Possible Cause
CONFIG UNFINISH [U122A]	Configuration data is incomplete.	Write configuration data. Refer to AV-274, "CONFIGURATION (AV CONTROL UNIT) : Work Procedure" .

Diagnosis Procedure

INFOID:000000008954309

1.PERFORM CONFIGURATION

When U122A is detected, configuration data must be written.

>> Write configuration data with CONSULT. Refer to [AV-274, "CONFIGURATION \(AV CONTROL UNIT\) : Work Procedure"](#).

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AV

U122E AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

U122E AV CONTROL UNIT

DTC Logic

INFOID:000000008954310

CONSULT Display	DTC Detection Condition	Possible Cause
Built-in AUDIO CONN [U122E]	AV control unit malfunction is detected.	Replace AV control unit if malfunction occurs constantly. Refer to AV-357, "Removal and Installation" .

U1231 BOSE AMP.

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

U1231 BOSE AMP.

DTC Logic

INFOID:000000008954311

CONSULT Display	DTC Detection Condition	Possible Cause
AMP TEMP [U1231]	BOSE speaker amp. malfunction is detected.	Replace BOSE speaker amp. if malfunction occurs constantly. Refer to AV-364, "Removal and Installation" .

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U1243 DISPLAY UNIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

U1243 DISPLAY UNIT

DTC Logic

INFOID:000000008954260

CONSULT Display	DTC Detection Condition	Possible Cause
FRONT DISP CONN [U1243]	When any of the following is detected: <ul style="list-style-type: none">display unit power supply or ground circuit malfunction.serial communication circuit malfunction between display unit and AV control unit.	<ul style="list-style-type: none">Display unit power supply and ground circuits.Serial communication circuits between display unit and AV control unit.

Diagnosis Procedure

INFOID:000000008954261

Regarding Wiring Diagram information, refer to [AV-240. "Wiring Diagram"](#).

1. CHECK DISPLAY UNIT POWER SUPPLY AND GROUND CIRCUIT

Check display unit power supply and ground circuits. Refer to [AV-303. "DISPLAY UNIT : Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness or connectors.

2. CHECK COMMUNICATION CIRCUIT CONTINUITY

- Turn ignition switch OFF.
- Disconnect display unit connector and AV control unit connector M45.
- Check continuity between display unit connector M93 terminals 11, 22 and AV control unit connector M45 terminals 73, 61.

Display unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M93	11	M45	73	Yes
	22		61	

- Check continuity between display unit connector M93 terminals 11, 22 and ground.

Display unit		Ground	Continuity
Connector	Terminal		
M93	11	—	No
	12		

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connectors.

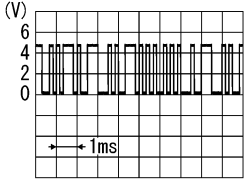
3. CHECK COMMUNICATION SIGNAL (DISP→CONT)

- Connect display unit connector and AV control unit connector M45.
- Turn ignition switch ON.
- Check signal between display unit connector M93 terminal 11 and ground.

U1243 DISPLAY UNIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

Display unit		Ground	Condition	Reference value
(+)		(-)		
Connector	Terminal			
M93	11	—	When adjusting display brightness.	 <p>PKIB5039J</p>

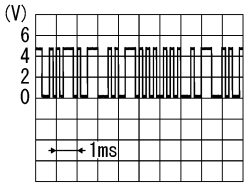
Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace AV control unit. Refer to [AV-357. "Removal and Installation"](#).

4. CHECK COMMUNICATION SIGNAL (CONT→DISP)

Check signal between display unit connector M93 terminal 22 and ground.

Display unit		Ground	Condition	Reference value
(+)		(-)		
Connector	Terminal			
M93	22	—	When adjusting display brightness.	 <p>PKIB5039J</p>

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace display unit. Refer to [AV-361. "Removal and Installation"](#).

AV

U1255 SATELLITE RADIO TUNER

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

U1255 SATELLITE RADIO TUNER

DTC Logic

INFOID:000000008954262

CONSULT Display	DTC Detection Condition	Possible Cause
SAT CONN [U1255]	When any of the following is detected: <ul style="list-style-type: none"> satellite radio tuner power supply or ground circuit malfunction. communication circuit malfunction between AV control unit and satellite radio tuner. request signal circuit malfunction between AV control unit and satellite radio tuner. 	<ul style="list-style-type: none"> Satellite radio tuner power supply and ground circuits. Communication circuits between AV control unit and satellite radio tuner. Request signal circuits between AV control unit and satellite radio tuner.

Diagnosis Procedure

INFOID:000000008954263

Regarding Wiring Diagram information, refer to [AV-240. "Wiring Diagram"](#).

1. CHECK SATELLITE RADIO TUNER POWER SUPPLY AND GROUND CIRCUIT

Check satellite radio tuner power supply and ground circuit. Refer to [AV-306. "SATELLITE RADIO TUNER : Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness or connectors.

2. CHECK COMMUNICATION CIRCUIT AND REQUEST SIGNAL CIRCUIT CONTINUITY

- Turn ignition switch OFF.
- Disconnect AV control unit connector M51 and satellite radio tuner connector B2.
- Check continuity between AV control unit connector M51 terminals 100, 101, 102 and satellite radio tuner connector B2 terminals 28, 29, 30.

AV control unit		Satellite radio tuner		Continuity
Connector	Terminal	Connector	Terminal	
M51	100	B2	28	Yes
	101		29	
	102		30	

- Check continuity between AV control unit connector M51 terminals 100, 101, 102 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M51	100	Ground	No
	101		
	102		

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connectors.

3. CHECK AV CONTROL UNIT VOLTAGE

- Connect AV control unit connector M51.
- Turn ignition switch ON.
- Check voltage between AV control unit connector M51 terminals 100, 101 and ground.

U1255 SATELLITE RADIO TUNER

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

AV control unit		Ground	Voltage (Approx.)
(+) Connector		(-)	
Connector	Terminal		
M51	100	—	7.0 V
	101		

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace AV control unit. Refer to [AV-357, "Removal and Installation"](#).

4. CHECK SATELLITE RADIO TUNER VOLTAGE

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M51.
3. Connect satellite radio tuner connector B2.
4. Turn ignition switch ON.
5. Check voltage between satellite radio tuner connector B2 terminal 30 and ground.

Satellite radio tuner		Ground	Voltage (Approx.)
(+) Connector		(-)	
Connector	Terminals		
B2	30	—	7.0 V

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace satellite radio tuner. Refer to [AV-376, "Removal and Installation"](#).

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AV

U1263 USB

DTC Logic

INFOID:000000008954312

CONSULT Display	DTC Detection Condition	Possible Cause
USB OVERCURRENT [U126]	Overcurrent in USB connector is detected.	Check USB harness between the AV control unit and USB connector.

Diagnosis Procedure

INFOID:000000008954313

1. CHECK USB INTERFACE HARNESS

Visually inspect USB interface harness.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace USB interface harness. Refer to [AV-372, "Removal and Installation"](#).

2. CHECK USB INTERFACE HARNESS CONTINUITY

Check USB interface harness continuity. Refer to [AV-298, "Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> Replace AV control unit. Refer to [AV-357, "Removal and Installation"](#).

NO >> Replace USB interface harness. Refer to [AV-372, "Removal and Installation"](#).

U1264 ANTENNA AMP.

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

U1264 ANTENNA AMP.

DTC Logic

INFOID:000000008954314

CONSULT Display	DTC Detection Condition	Possible Cause
ANTENNA AMP TERMINAL [U1264]	Antenna amp. ON signal circuit open or short circuited.	Antenna amp. ON signal circuit between AV control unit and antenna amp.

Diagnosis Procedure

INFOID:000000008954315

Regarding Wiring Diagram information, refer to [AV-240, "Wiring Diagram"](#).

1. CHECK CONTINUITY BETWEEN AV CONTROL UNIT AND ANTENNA BASE

- Turn ignition switch OFF.
- Disconnect AV control unit connector M155 and antenna base connector M502.
- Check continuity between AV control unit connector M155 and antenna base connector M502.

AV control unit		Antenna base		Continuity
Connector	Terminal	Connector	Terminal	
M155	127	M502	1	Yes

- Check continuity between AV control unit connector M155 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M155	127	—	No

Is the inspection result normal?

- YES >> GO TO 2.
 NO >> Repair or replace harness or connectors.

2. CHECK AV CONTROL UNIT VOLTAGE

- Connect AV control unit connector M155.
- Turn ignition switch ON.
- Check voltage between AV control unit connector M155 and ground.

AV control unit (+)		Ground (-)	Voltage (Approx.)
Connector	Terminal		
M155	127	—	Battery voltage

Is the inspection result normal?

- YES >> Replace antenna base. Refer to [AV-380, "Removal and Installation"](#).
 NO >> Replace AV control unit. Refer to [AV-357, "Removal and Installation"](#).

U1265 BOSE AMP.

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

U1265 BOSE AMP.

DTC Logic

INFOID:000000008954316

CONSULT Display	DTC Detection Condition	Possible Cause
AMP ON TERMINAL [U1265]	BOSE amp. ON signal circuit open or short circuited.	BOSE amp. ON signal circuit between AV control unit and BOSE speaker amp.

Diagnosis Procedure

INFOID:000000008954317

Regarding Wiring Diagram information, refer to [AV-240. "Wiring Diagram"](#).

1. CHECK CONTINUITY BETWEEN AV CONTROL UNIT AND BOSE SPEAKER AMP.

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M143 and Bose speaker amp. connector B130.
3. Check continuity between AV control unit connector M143 and Bose speaker amp. connector M130.

AV control unit		Bose speaker amp.		Continuity
Connector	Terminal	Connector	Terminal	
M143	110	B130	60	Yes

4. Check continuity between AV control unit connector M122 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M143	110	—	No

Is the inspection result normal?

- YES >> GO TO 2.
 NO >> Repair or replace harness or connectors.

2. CHECK AV CONTROL UNIT VOLTAGE

1. Connect AV control unit connector M143.
2. Turn ignition switch ON.
3. Check voltage between AV control unit connector M143 and ground.

AV control unit		Ground	Voltage (Approx.)
(+)			
Connector	Terminal	(-)	
M143	110	—	Battery voltage

Is the inspection result normal?

- YES >> Replace Bose speaker amp. Refer to [AV-364. "Removal and Installation"](#).
 NO >> Replace AV control unit. Refer to [AV-357. "Removal and Installation"](#).

U1300 AV COMM CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

U1300 AV COMM CIRCUIT

Description

INFOID:000000008954264

U1300 is indicated when a malfunction occurs in the communication signal of the multi AV system. Indicated simultaneously, without fail, the malfunction of control units connected to the AV control unit through communication circuits. Determine the possible malfunction cause from the table below.

SELF-DIAGNOSIS RESULTS DISPLAY ITEM

CONSULT Display	DTC Detection Condition	Possible Cause
<ul style="list-style-type: none"> • AV COMM CIRCUIT [U1300] • SWITCH CONN [U1240] 	When any of the following is detected: <ul style="list-style-type: none"> • A/C and AV switch assembly power supply or ground circuit malfunction. • AV communication circuit malfunction between AV control unit and A/C and AV switch assembly. 	<ul style="list-style-type: none"> • A/C and AV switch assembly power supply and ground circuits. • AV communication circuits between AV control unit and A/C and AV switch assembly.
<ul style="list-style-type: none"> • AV COMM CIRCUIT [U1300] • HAND FREE CONN [U1256] 	When any of the following is detected: <ul style="list-style-type: none"> • Bluetooth® control unit power supply or ground circuit malfunction. • AV communication circuit malfunction between AV control unit and Bluetooth® control unit. 	<ul style="list-style-type: none"> • Bluetooth® control unit power supply and ground circuits. • AV communication circuits between AV control unit and Bluetooth® control unit.
<ul style="list-style-type: none"> • AV COMM CIRCUIT [U1300] • SWITCH CONN [U1240] • HAND FREE CONN [U1256] 	AV communication circuit malfunction between AV control unit and A/C and AV switch assembly.	AV communication circuits between AV control unit and A/C and AV switch assembly.

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U1310 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

U1310 AV CONTROL UNIT

DTC Logic

INFOID:000000008954265

CONSULT Display	DTC Detection Condition	Possible Cause
CONTROL UNIT (AV) [U1310]	An initial diagnosis error is detected in AV communication circuit.	Replace the AV control unit if the malfunction occurs constantly. Refer to AV-357, "Removal and Installation" .

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

POWER SUPPLY AND GROUND CIRCUIT

AV CONTROL UNIT

AV CONTROL UNIT : Diagnosis Procedure

INFOID:000000008954266

Regarding Wiring Diagram information, refer to [AV-240. "Wiring Diagram"](#).

1.CHECK FUSE

Check that the following fuses are not blown.

Terminal No.	Signal name	Fuse No.
29	Ignition signal	29 (5A)
39	ACC power supply	65 (10A)
51	Battery power supply	15 (15A)

Are the fuses blown?

YES >> Replace the blown fuse after repairing the affected circuit.

NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect AV control unit connectors M42 and M44.
3. Check voltage between AV control unit connectors and ground.

AV control unit		Ground	Condition	Voltage (Approx.)
Connector	Terminal			
M42	29	—	Ignition switch: ON	Battery voltage
M44	39		Ignition switch: ACC	
	51		Ignition switch: OFF	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connectors.

3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Check continuity between AV control unit connector M44 terminal 52 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M44	52	—	Yes

Is the inspection result normal?

YES >> Inspection End.

NO >> Repair or replace harness or connectors.

DISPLAY UNIT

DISPLAY UNIT : Diagnosis Procedure

INFOID:000000008954267

Regarding Wiring Diagram information, refer to [AV-240. "Wiring Diagram"](#).

1.CHECK INVERTER VCC AND SIGNAL VCC (POWER SUPPLY) CIRCUIT 1

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

Check voltage between display unit harness connector M93 terminals 2, 3 and ground.

Display unit		Ground	Condition	Voltage (Approx.)
Connector	Terminal			
M93	2	—	Ignition switch: ACC	9.0 V
	3			

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

2.CHECK INVERTER VCC AND SIGNAL VCC (POWER SUPPLY) CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M45 and display unit connector.
3. Check continuity between AV control unit connector M45 terminals 64, 76 and display unit connector M93 terminals 3, 2.

AV control unit		Display unit		Continuity
Connector	Terminal	Connector	Terminal	
M45	64	M93	3	Yes
	76		2	

4. Check continuity between AV control unit connector M45 terminals 64, 76 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M45	64	—	No
	76		

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connectors.

3.CHECK INVERTER VCC AND SIGNAL VCC (POWER SUPPLY) CIRCUIT 2

1. Connect the AV control unit connector M45.
2. Check voltage between AV control unit connector M45 terminals 64, 76 and ground.

AV control unit		Ground	Condition	Voltage (Approx.)
(+)				
Connector	Terminal	(-)		
M45	64	—	Ignition switch: ACC	9.0 V
	76			

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace AV control unit. Refer to [AV-357. "Removal and Installation"](#).

4.CHECK INVERTER GROUND AND SIGNAL GROUND CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M45 and display unit connector.
3. Check continuity between AV control unit connector M45 terminals 63, 75 and display unit connector M93 terminals 14, 13.

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

AV control unit		Display unit		Continuity
Connector	Terminal	Connector	Terminal	
M45	63	M93	14	Yes
	75		13	

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness or connectors.

5.CHECK DISPLAY UNIT GROUND CIRCUIT

Check continuity between display unit connector M93 terminal 1 and ground.

Display unit		Ground	Continuity
Connector	Terminal		
M93	1	—	Yes

Is the inspection result normal?

YES >> Inspection End.

NO >> Repair or replace harness or connectors.

BOSE AMP.

BOSE AMP. : Diagnosis Procedure

INFOID:0000000008954318

Regarding Wiring Diagram information, refer to [AV-240, "Wiring Diagram"](#).

1.CHECK FUSE

Check that the following fuses are not blown.

Terminal No.	Signal name	Fuse No.
50	Battery power supply	11 (15A)
51		12 (15A)

Are the fuses blown?

YES >> Replace the blown fuse after repairing the affected circuit.

NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT

1. Disconnect BOSE speaker amp. connector B129.
2. Check voltage between BOSE speaker amp. connector B129 and ground.

BOSE speaker amp.		Ground	Voltage (Approx.)
Connector	Terminal		
B129	50	—	Battery voltage
	51		

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connectors.

3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Check continuity between BOSE speaker amp. connector B129 and ground.

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POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

BOSE speaker amp.		Ground	Continuity
Connector	Terminal		
B129	47	—	Yes
	52		

Is the inspection result normal?

- YES >> Inspection End.
NO >> Repair or replace harness or connectors.

SUBWOOFER

SUBWOOFER : Diagnosis Procedure

INFOID:000000008954319

Regarding Wiring Diagram information, refer to [AV-240, "Wiring Diagram"](#).

1.CHECK FUSE

Check that the following fuses are not blown.

Terminal No.	Signal name	Fuse No.
6	Battery power supply	58 (10A)

Are the fuses blown?

- YES >> Replace the blown fuse after repairing the affected circuit.
NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT

1. Disconnect subwoofer connector.
2. Check voltage between subwoofer connector B73 and ground.

Subwoofer		Ground	Voltage (Approx.)
Connector	Terminal		
B73	6	—	Battery voltage

Is the inspection result normal?

- YES >> GO TO 3.
NO >> Repair or replace harness or connectors.

3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Check continuity between subwoofer connector B73 and ground.

Subwoofer		Ground	Continuity
Connector	Terminal		
B73	5	—	Yes

Is the inspection result normal?

- YES >> Inspection End.
NO >> Repair or replace harness or connectors.

SATELLITE RADIO TUNER

SATELLITE RADIO TUNER : Diagnosis Procedure

INFOID:000000008954268

Regarding Wiring Diagram information, refer to [AV-240, "Wiring Diagram"](#).

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

1.CHECK FUSE

Check that the following fuses are not blown.

Terminal No.	Signal name	Fuse No.
32	Battery power supply	15 (15A)
36	ACC power supply	65 (10A)

Are the fuses blown?

- YES >> Replace the blown fuse after repairing the affected circuit.
NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect satellite radio tuner connector B2.
3. Check voltage between satellite radio tuner connector B2 terminal 32, 36 and ground.

Satellite radio tuner		Ground	Condition	Voltage (Approx.)
Connector	Terminal			
B2	32	—	Ignition switch: OFF	Battery voltage
	36		Ignition switch: ACC	

Is the inspection result normal?

- YES >> GO TO 3.
NO >> Repair or replace harness or connectors.

3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Check continuity between satellite radio tuner connector B2 terminal 35 and ground.

Satellite radio tuner		Ground	Continuity
Connector	Terminal		
B2	35	—	Yes

Is the inspection result normal?

- YES >> Inspection End.
NO >> Repair or replace harness or connectors.

BLUETOOTH® CONTROL UNIT

BLUETOOTH® CONTROL UNIT : Diagnosis Procedure

INFOID:0000000008954269

Regarding Wiring Diagram information, refer to [AV-240, "Wiring Diagram"](#).

1.CHECK FUSE

Check that the following fuses are not blown.

Terminal No.	Signal name	Fuse No.
1	Battery power supply	15 (15A)
2	ACC power supply	65 (10A)
3	Ignition signal	30 (10A)

Are the fuses blown?

- YES >> Replace the blown fuse after repairing the affected circuit.
NO >> GO TO 2.

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POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

2. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect Bluetooth® control unit connector B3.
3. Check voltage between Bluetooth® control unit connector B3 and ground.

Bluetooth® control unit		Ground	Condition	Voltage (Approx.)
Connector	Terminal			
B3	1	—	Ignition switch: OFF	Battery voltage
	2		Ignition switch: ACC	
	3		Ignition switch: ON	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connectors.

3. CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Check continuity between Bluetooth® control unit connector B3 and ground.

Bluetooth® control unit		Ground	Continuity
Connector	Terminal		
B3	4	—	Yes
	20		
	22		
	24		
	27		

Is the inspection result normal?

YES >> Inspection End.

NO >> Repair or replace harness or connectors.

A/C AND AV SWITCH ASSEMBLY

A/C AND AV SWITCH ASSEMBLY : Diagnosis Procedure

INFOID:000000008954270

Regarding Wiring Diagram information, refer to [AV-240, "Wiring Diagram"](#).

1. CHECK FUSE

Check that the following fuse is not blown.

Terminal No.	Signal name	Fuse No.
3	ACC power supply	65 (10A)

Is the fuse blown?

YES >> Replace the blown fuse after repairing the affected circuit.

NO >> GO TO 2.

2. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect A/C and AV switch assembly connector.
3. Check voltage between A/C and AV switch assembly connector M98 terminal 3 and ground.

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

A/C and AV switch assembly		Ground	Condition	Voltage (Approx.)
Connector	Terminal			
M98	3	—	Ignition switch: ACC	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connectors.

3. CHECK CONTROL UNIT GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M42.
3. Check continuity between A/C and AV switch assembly connector M98 terminal 9 and AV control unit connector M42 terminal 10.

A/C and AV switch assembly		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M98	9	M42	10	Yes

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness or connectors.

4. CHECK SWITCH GROUND CIRCUIT

Check continuity between A/C and AV switch assembly connector M98 terminal 1 and ground.

A/C and AV switch assembly		Ground	Continuity
Connector	Terminal		
M98	1	—	Yes

Is the inspection result normal?

YES >> Inspection End.

NO >> Repair or replace harness or connectors.

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AV

CENTER SPEAKER

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

CENTER SPEAKER

Diagnosis Procedure

INFOID:000000008954320

Regarding Wiring Diagram information, refer to [AV-240. "Wiring Diagram"](#).

1. CONNECTOR CHECK

Check the BOSE speaker amp. and speaker connectors for the following:

- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair the terminals or connectors.

2. CHECK CENTER SPEAKER SIGNAL CIRCUIT CONTINUITY

1. Disconnect BOSE speaker amp. connector B130 and center speaker connector.
2. Check continuity between BOSE speaker amp. connector B130 and center speaker connector.

BOSE speaker amp.		Center speaker		Continuity
Connector	Terminal	Connector	Terminal	
B130	69	M110	1	Yes
	70		2	

3. Check continuity between BOSE speaker amp. connector B130 and ground.

BOSE speaker amp.		Ground	Continuity
Connector	Terminal		
B130	69	—	No
	70		

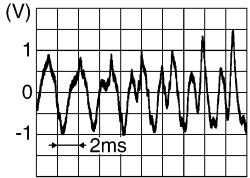
Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness or connectors.

3. CHECK CENTER SPEAKER SIGNAL

1. Connect BOSE speaker amp. connector B130 and center speaker connector.
2. Turn ignition switch to ACC.
3. Push AV control unit POWER switch.
4. Check signal between BOSE speaker amp. connector B130 and ground.

BOSE speaker amp. connector B130		Condition	Reference value
(+) Terminal	(-) Terminal		
69	70	Audio signal output	

Is the inspection result normal?

CENTER SPEAKER

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

-
- YES >> Replace center speaker. Refer to [AV-368, "Removal and Installation"](#).
 - NO >> Replace BOSE speaker amp. Refer to [AV-364, "Removal and Installation"](#).

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INSTRUMENT PANEL SPEAKER/TWEETER

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

INSTRUMENT PANEL SPEAKER/TWEETER

Diagnosis Procedure

INFOID:000000008954322

Regarding Wiring Diagram information, refer to [AV-240. "Wiring Diagram"](#).

1. CONNECTOR CHECK

Check the BOSE speaker amp. and speaker connectors for the following:

- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair the terminals or connectors.

2. CHECK INSTRUMENT PANEL TWEETER SIGNAL CIRCUIT CONTINUITY

1. Disconnect BOSE speaker amp. connector B129 and suspect instrument panel tweeter connector.
2. Check continuity between BOSE speaker amp. connector B129 and suspect instrument panel tweeter connector.

BOSE speaker amp.		Instrument panel tweeter		Continuity
Connector	Terminal	Connector	Terminal	
B129	41	M62 (LH)	1	Yes
	42		2	
	45	M73 (RH)	1	
	46		2	

3. Check continuity between BOSE speaker amp. connector B122 and ground.

BOSE speaker amp.		Ground	Continuity
Connector	Terminal		
B129	41	—	No
	42		
	45		
	46		

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness or connectors.

3. CHECK INSTRUMENT PANEL TWEETER SIGNAL

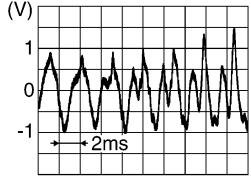
1. Connect BOSE speaker amp. connector B129 and suspect instrument panel tweeter connector.
2. Turn ignition switch to ACC.
3. Push AV control unit POWER switch.
4. Check signal between BOSE speaker amp. connector B129 and ground.

BOSE speaker amp.		Condition	Reference value
(+)	(-)		
Terminal	Terminal		

INSTRUMENT PANEL SPEAKER/TWEETER

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

41	42	Audio signal output	
45	46		

Is the inspection result normal?

- YES >> Replace instrument panel tweeter. Refer to [AV-367. "Removal and Installation"](#).
- NO >> Replace BOSE speaker amp. Refer to [AV-364. "Removal and Installation"](#).

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FRONT TWEETER

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

FRONT TWEETER

Diagnosis Procedure

INFOID:000000008954321

Regarding Wiring Diagram information, refer to [AV-240. "Wiring Diagram"](#).

1. CONNECTOR CHECK

Check the BOSE speaker amp. and speaker connectors for the following:

- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair the terminals or connectors.

2. CHECK FRONT TWEETER SIGNAL CIRCUIT CONTINUITY

1. Disconnect BOSE speaker amp. connector B130 and suspect front tweeter connector.
2. Check continuity between BOSE speaker amp. connector B130 and suspect front door speaker connector.

BOSE speaker amp.		Front tweeter		Continuity
Connector	Terminal	Connector	Terminal	
B130	58	M109 (LH)	1	Yes
	59		2	
	71	M111 (RH)	1	
	72		2	

3. Check continuity between BOSE speaker amp. connector B130 and ground.

BOSE speaker amp.		Ground	Continuity
Connector	Terminal		
B130	58	—	No
	59		
	71		
	72		

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness or connectors.

3. CHECK FRONT TWEETER SIGNAL

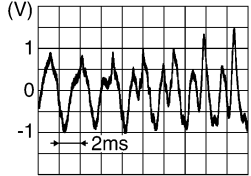
1. Connect BOSE speaker amp. connector B130 and suspect front tweeter connector.
2. Turn ignition switch to ACC.
3. Push AV control unit POWER switch.
4. Check the signal between the terminals of BOSE speaker amp. connector B130.

BOSE speaker amp. connector B130		Condition	Reference value
(+)	(-)		
Terminal	Terminal		

FRONT TWEETER

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

58	59	Audio signal output	
71	72		

Is the inspection result normal?

- YES >> Replace front tweeter. Refer to [AV-366. "Removal and Installation"](#).
- NO >> Replace BOSE speaker amp. Refer to [AV-364. "Removal and Installation"](#).

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AV

FRONT DOOR SPEAKER

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

FRONT DOOR SPEAKER

Diagnosis Procedure

INFOID:000000008954271

Regarding Wiring Diagram information, refer to [AV-240. "Wiring Diagram"](#).

1. CONNECTOR CHECK

Check the BOSE speaker amp. and speaker connectors for the following:

- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair the terminals or connectors.

2. CHECK FRONT DOOR SPEAKER SIGNAL CIRCUIT CONTINUITY

1. Disconnect BOSE speaker amp. connector B130 and suspect front door speaker connector.
2. Check continuity between BOSE speaker amp. connector B130 and suspect front door speaker connector.

BOSE speaker amp.		Front door speaker		Continuity
Connector	Terminal	Connector	Terminal	
B130	58	D12 (LH)	1	Yes
	59		2	
	71	D112 (RH)	1	
	72		2	

3. Check continuity between BOSE speaker amp. connector B130 and ground.

BOSE speaker amp.		Ground	Continuity
Connector	Terminal		
B130	58	—	No
	59		
	71		
	72		

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness or connectors.

3. CHECK FRONT DOOR SPEAKER SIGNAL

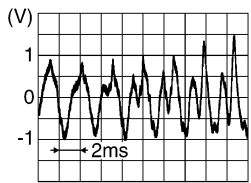
1. Connect BOSE speaker amp. connector B130 and suspect front door speaker connector.
2. Turn ignition switch to ACC.
3. Push AV control unit POWER switch.
4. Check the signal between the terminals of BOSE speaker amp. connector B130.

BOSE speaker amp. connector B130		Condition	Reference value
(+)	(-)		
Terminal	Terminal		

FRONT DOOR SPEAKER

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

58	59	Audio signal output	
71	72		

Is the inspection result normal?

- YES >> Replace front door speaker. Refer to [AV-365. "Removal and Installation"](#).
- NO >> Replace BOSE speaker amp. Refer to [AV-364. "Removal and Installation"](#).

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AV

REAR DOOR SPEAKER

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

REAR DOOR SPEAKER

Diagnosis Procedure

INFOID:000000008954273

Regarding Wiring Diagram information, refer to [AV-240. "Wiring Diagram"](#).

1. CONNECTOR CHECK

Check the BOSE speaker amp. and speaker connectors for the following:

- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair the terminals or connectors.

2. CHECK REAR DOOR SPEAKER SIGNAL CIRCUIT CONTINUITY

1. Disconnect BOSE speaker amp. connectors and suspect rear door speaker connector.
2. Check continuity between BOSE speaker amp. connectors and suspect rear door speaker connector.

BOSE speaker amp.		Rear door speaker		Continuity
Connector	Terminal	Connector	Terminal	
B130	68	D207 (LH)	1	Yes
	55		2	
B129	54	D307 (RH)	1	
	49		2	

3. Check continuity between BOSE speaker amp. connectors and ground.

BOSE speaker amp.		Ground	Continuity
Connector	Terminal		
B130	68	—	No
	55		
B129	54		
	49		

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness or connectors.

3. CHECK REAR DOOR SPEAKER SIGNAL

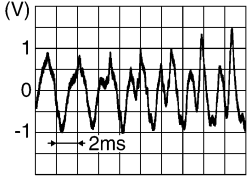
1. Connect BOSE speaker amp. connectors and suspect rear door speaker connector.
2. Turn ignition switch to ACC.
3. Push AV control unit POWER switch.
4. Check the signal between the terminals of BOSE speaker amp. connectors.

BOSE speaker amp.			Condition	Reference value
Connector	(+)	(-)		
	Terminal	Terminal		

REAR DOOR SPEAKER

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

B130	68	55	Audio signal output	
B129	54	49		

Is the inspection result normal?

- YES >> Replace rear door speaker. Refer to [AV-369. "Removal and Installation"](#).
- NO >> Replace BOSE speaker amp. Refer to [AV-364. "Removal and Installation"](#).

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AV

REAR SPEAKER

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

REAR SPEAKER

Diagnosis Procedure

INFOID:000000008954323

Regarding Wiring Diagram information, refer to [AV-240. "Wiring Diagram"](#).

1. CONNECTOR CHECK

Check the BOSE speaker amp. and speaker connectors for the following:

- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair the terminals or connectors.

2. CHECK REAR SIDE SPEAKER SIGNAL CIRCUIT CONTINUITY

1. Disconnect BOSE speaker amp. connector B129 and suspect rear side speaker connector.
2. Check continuity between BOSE speaker amp. connector B129 and suspect rear side speaker connector.

BOSE speaker amp.		Rear side speaker		Continuity
Connector	Terminal	Connector	Terminal	
B129	53	B1 (LH)	1	Yes
	48		2	
	44	B153 (RH)	1	
	43		2	

3. Check continuity between BOSE speaker amp. connector B129 and ground.

BOSE speaker amp.		Ground	Continuity
Connector	Terminal		
B129	43	—	No
	44		
	48		
	53		

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness or connectors.

3. CHECK REAR SIDE SPEAKER SIGNAL

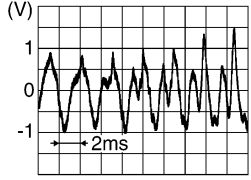
1. Connect BOSE speaker amp. connector B129 and suspect rear side speaker connector.
2. Turn ignition switch to ACC.
3. Push AV control unit POWER switch.
4. Check the signal between the terminals of BOSE speaker amp. connector B129.

BOSE speaker amp. connector B129		Condition	Reference value
(+)	(-)		
Terminal	Terminal		

REAR SPEAKER

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

48	53	Audio signal output	
43	44		

Is the inspection result normal?

- YES >> Replace rear side speaker. Refer to [AV-370. "Removal and Installation"](#).
- NO >> Replace BOSE speaker amp. Refer to [AV-364. "Removal and Installation"](#).

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AV

SUBWOOFER

Diagnosis Procedure

INFOID:000000008954324

Regarding Wiring Diagram information, refer to [AV-240. "Wiring Diagram"](#).

1. CONNECTOR CHECK

Check the BOSE speaker amp. 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. VERIFY SUBWOOFER POWER SUPPLY AND GROUND

Check subwoofer power supply and ground. Refer to [AV-306. "SUBWOOFER : Diagnosis Procedure"](#).

Is the inspection result normal?

- YES >> GO TO 3.
 NO >> Repair or replace harness or connectors.

3. CHECK SUBWOOFER SIGNAL CIRCUIT CONTINUITY

1. Disconnect BOSE speaker amp. connector B130 and subwoofer connector.
2. Check continuity between BOSE speaker amp. connector B130 and subwoofer connector.

BOSE speaker amp.		Subwoofer		Continuity
Connector	Terminal	Connector	Terminal	
B130	57	B73	1	Yes
	56		2	

3. Check continuity between BOSE speaker amp. connector B130 and ground.

BOSE speaker amp.		Ground	Continuity
Connector	Terminal		
B130	56	—	No
	57		

Is the inspection result normal?

- YES >> GO TO 3
 NO >> Repair or replace harness or connectors.

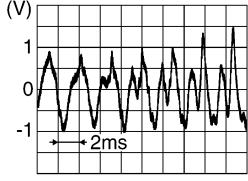
4. CHECK SUBWOOFER SIGNAL

1. Connect BOSE speaker amp. connector B130 and subwoofer connector.
2. Turn ignition switch to ACC.
3. Push AV control unit POWER switch.
4. Check the signal between the terminals of BOSE speaker amp. connector B130.

SUBWOOFER

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

BOSE speaker amp. connector B130		Condition	Reference value
(+)	(-)		
Terminal	Terminal		
57	56	Audio signal output	

Is the inspection result normal?

- YES >> Replace subwoofer. Refer to [AV-371, "Removal and Installation"](#).
- NO >> Replace BOSE speaker amp. Refer to [AV-364, "Removal and Installation"](#).

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FRONT AUXILIARY INPUT JACK AUDIO SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

FRONT AUXILIARY INPUT JACK AUDIO SIGNAL CIRCUIT

Diagnosis Procedure

INFOID:000000008954274

Regarding Wiring Diagram information, refer to [AV-240. "Wiring Diagram"](#).

1. CHECK AUX SOUND SIGNAL CIRCUIT CONTINUITY 1

1. Turn ignition switch OFF.
2. Disconnect front auxiliary input jacks connector M205 and front seat RH connector B302.
3. Check continuity between front auxiliary input jacks connector M205 terminals 1, 3 and front seat RH connector B302 terminals 9, 8.

Front auxiliary input jacks		Front seat RH		Continuity
Connector	Terminal	Connector	Terminal	
M205	1	B302	9	Yes
	3		8	

4. Check continuity between front auxiliary input jacks connector M205 terminals 1, 3 and ground.

Front auxiliary input jacks		Ground	Continuity
Connector	Terminal		
M205	1	—	No
	3		

Is inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness or connectors.

2. CHECK AUX SOUND SIGNAL CIRCUIT CONTINUITY 2

1. Disconnect AV control unit connector M42.
2. Check continuity between AV control unit connector M42 terminals 20, 21 and front seat RH connector B302 terminals 23, 22.

AV control unit		Front seat RH		Continuity
Connector	Terminal	Connector	Terminal	
M42	20	B302	23	Yes
	21		22	

3. Check continuity between AV control unit connector M42 terminals 20, 21 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M42	20	—	No
	21		

Is inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connectors.

3. CHECK AUX SOUND SIGNAL GROUND CIRCUIT CONTINUITY 1

Check continuity between front auxiliary input jacks connector M205 terminal 2 and front seat RH connector B302 terminal 10.

FRONT AUXILIARY INPUT JACK AUDIO SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

Front auxiliary input jacks		Front seat RH		Continuity
Connector	Terminal	Connector	Terminal	
M205	2	B302	10	Yes

Is inspection result normal?

- YES >> GO TO 4.
- NO >> Repair or replace harness or connectors.

4. CHECK AUX SOUND SIGNAL GROUND CIRCUIT CONTINUITY 2

Check continuity between AV control unit connector M42 terminal 22 and front seat RH connector B302 terminal 24.

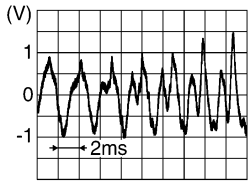
AV control unit		Front seat RH		Continuity
Connector	Terminal	Connector	Terminal	
M42	22	B302	24	Yes

Is inspection result normal?

- YES >> GO TO 5.
- NO >> Repair or replace harness or connectors.

5. CHECK AUX SOUND SIGNAL

1. Connect AV control unit connector M42 and front seat RH connector B302.
2. Turn ignition switch to ACC.
3. Select AUX mode.
4. Check the signal between the terminals of AV control unit connector M42.

AV control unit connector M42		Condition	Reference value
(+)	(-)		
Terminal	Terminal		
20	22	AUX mode selected	
21	22		

Is the inspection result normal?

- YES >> Replace front auxiliary input jacks. Refer to [AV-373, "Removal and Installation"](#).
- NO >> Replace AV control unit. Refer to [AV-357, "Removal and Installation"](#).

AV

SATELLITE AUDIO SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

SATELLITE AUDIO SIGNAL CIRCUIT

Diagnosis Procedure

INFOID:000000008954275

Regarding Wiring Diagram information, refer to [AV-240. "Wiring Diagram"](#).

1. CHECK SATELLITE SOUND SIGNAL CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M51 and satellite radio tuner connector B2.
3. Check continuity between AV control unit connector M51 and satellite radio tuner connector B2.

AV control unit		Satellite radio tuner		Continuity
Connector	Terminal	Connector	Terminal	
M51	94	B2	22	Yes
	96		24	

4. Check continuity between AV control unit connector M51 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M51	94		No
	96		

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness or connectors.

2. CHECK SATELLITE SOUND SIGNAL GROUND CIRCUIT CONTINUITY

Check continuity between AV control unit connector M51 and satellite radio tuner connector B2.

AV control unit		Satellite radio tuner		Continuity
Connector	Terminal	Connector	Terminal	
M51	93	B2	21	Yes
	95		23	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connectors.

3. CHECK SATELLITE SOUND SIGNAL

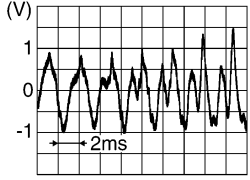
1. Connect AV control unit connector M51 and satellite radio tuner connector B2.
2. Turn ignition switch to ACC.
3. Select satellite radio mode.
4. Check the signal between the terminals of AV control unit connector M51.

AV control unit connector M51		Condition	Reference value
(+)	(-)		
Terminal	Terminal		

SATELLITE AUDIO SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

94	93	Satellite radio mode selected		A
96	95			

Is the inspection result normal?

- YES >> Replace satellite radio tuner. Refer to [AV-376. "Removal and Installation"](#).
- NO >> Replace AV control unit. Refer to [AV-357. "Removal and Installation"](#).

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BLUETOOTH® VOICE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

BLUETOOTH® VOICE SIGNAL CIRCUIT

Diagnosis Procedure

INFOID:000000008954276

Regarding Wiring Diagram information, refer to [AV-240. "Wiring Diagram"](#).

1. CHECK BLUETOOTH® VOICE SIGNAL CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M42 and Bluetooth® control unit connector B3.
3. Check continuity between AV control unit connector M42 terminal 5 and Bluetooth® control unit connector B3 terminal 9.

AV control unit		Bluetooth® control unit		Continuity
Connector	Terminal	Connector	Terminal	
M42	5	B3	9	Yes

4. Check continuity between AV control unit connector M42 terminal 5 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M42	5	—	No

Is inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness or connectors.

2. CHECK BLUETOOTH® VOICE SIGNAL GROUND CIRCUIT CONTINUITY

Check continuity between AV control unit connector M42 terminal 4 and Bluetooth® control unit connector B3 terminal 10.


AV control unit		Bluetooth® control unit		Continuity
Connector	Terminal	Connector	Terminal	
M42	4	B3	10	Yes

Is inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connectors.


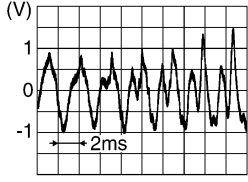
3. CHECK BLUETOOTH® VOICE SIGNAL

1. Connect AV control unit connector M42 and Bluetooth® control unit connector B3.
2. Turn ignition switch to ACC.
3. Press  switch.
4. Check the signal between the terminals of AV control unit connector M42.

BLUETOOTH® VOICE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

AV control unit connector M42		Condition	Reference value
(+)	(-)		
Terminal	Terminal		
5	4	During voice guide output with  switch pressed.	

Is the inspection result normal?

- YES >> Replace Bluetooth® control unit. Refer to [AV-374. "Removal and Installation"](#).
- NO >> Replace AV control unit. Refer to [AV-357. "Removal and Installation"](#).

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AV

RGB (R: RED) SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

RGB (R: RED) SIGNAL CIRCUIT

Diagnosis Procedure

INFOID:000000008954277

Regarding Wiring Diagram information, refer to [AV-240, "Wiring Diagram"](#).

1. CHECK RGB (R: RED) SIGNAL CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M45 and display unit connector.
3. Check continuity between AV control unit connector M45 terminal 57 and display unit connector M93 terminal 17.

AV control unit		Display unit		Continuity
Connector	Terminal	Connector	Terminal	
M45	57	M93	17	Yes

4. Check continuity between AV control unit connector M45 terminal 57 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M45	57		No

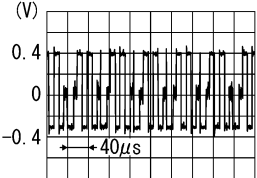
Is inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness or connectors.

2. CHECK RGB (R: RED) SIGNAL

1. Connect AV control unit connector M45 and display unit connector.
2. Turn ignition switch ON.
3. Check signal between display unit connector M93 terminal 17 and ground.

Display unit (+)		Ground (-)	Condition	Reference value
Connector	Terminal			
M93	17	—	"Color Spectrum Bar" on DISPLAY DIAGNOSIS screen.	 <p>SKIB2238J</p>

Is inspection result normal?

YES >> Replace display unit. Refer to [AV-361, "Removal and Installation"](#).

NO >> Replace AV control unit. Refer to [AV-357, "Removal and Installation"](#).

RGB (G: GREEN) SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

RGB (G: GREEN) SIGNAL CIRCUIT

Diagnosis Procedure

INFOID:000000008954278

Regarding Wiring Diagram information, refer to [AV-240. "Wiring Diagram"](#).

1. CHECK RGB (G: GREEN) SIGNAL CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M45 and display unit connector.
3. Check continuity between AV control unit connector M45 terminal 56 and display unit connector M93 terminal 6.

AV control unit		Display unit		Continuity
Connector	Terminal	Connector	Terminal	
M45	56	M93	6	Yes

4. Check continuity between AV control unit connector M45 terminal 56 and ground.

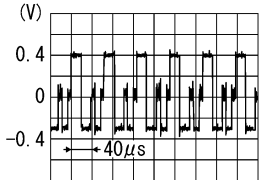
AV control unit		Ground	Continuity
Connector	Terminal		
M45	56		No

Is inspection result normal?

- YES >> GO TO 2.
 NO >> Repair or replace harness or connectors.

2. CHECK RGB (G: GREEN) SIGNAL

1. Connect AV control unit connector M45 and display unit connector.
2. Turn ignition switch ON.
3. Check signal between display unit connector M93 terminal 6 and ground.

Display unit (+)		Ground (-)	Condition	Reference value
Connector	Terminal			
M93	6	—	"Color Spectrum Bar" on DISPLAY DIAGNOSIS screen.	 <p>SKIB2236J</p>

Is inspection result normal?

- YES >> Replace display unit. Refer to [AV-361. "Removal and Installation"](#).
 NO >> Replace AV control unit. Refer to [AV-357. "Removal and Installation"](#).

RGB (B: BLUE) SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

RGB (B: BLUE) SIGNAL CIRCUIT

Diagnosis Procedure

INFOID:000000008954279

Regarding Wiring Diagram information, refer to [AV-240, "Wiring Diagram"](#).

1. CHECK RGB (B: BLUE) SIGNAL CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M45 and display unit connector.
3. Check continuity between AV control unit connector M45 terminal 55 and display unit connector M93 terminal 18.

AV control unit		Display unit		Continuity
Connector	Terminal	Connector	Terminal	
M45	55	M93	18	Yes

4. Check continuity between AV control unit connector M45 terminal 55 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M45	55		No

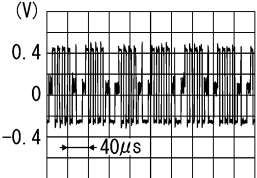
Is inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness or connectors.

2. CHECK RGB (B: BLUE) SIGNAL

1. Connect AV control unit connector M45 and display unit connector.
2. Turn ignition switch ON.
3. Check signal between display unit connector M93 terminal 18 and ground.

Display unit (+)		Ground (-)	Condition	Reference value
Connector	Terminal			
M93	18	—	"Color Spectrum Bar" on DISPLAY DIAGNOSIS screen.	 <p>(V)</p> <p>0.4</p> <p>0</p> <p>-0.4</p> <p>40µs</p> <p>SKIB2237J</p>

Is inspection result normal?

YES >> Replace display unit. Refer to [AV-361, "Removal and Installation"](#).

NO >> Replace AV control unit. Refer to [AV-357, "Removal and Installation"](#).

RGB SYNCHRONIZING SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

RGB SYNCHRONIZING SIGNAL CIRCUIT

Diagnosis Procedure

INFOID:000000008954280

Regarding Wiring Diagram information, refer to [AV-240. "Wiring Diagram"](#).

1. CHECK RGB SYNCHRONIZING SIGNAL CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M45 and display unit connector.
3. Check continuity between AV control unit connector M45 terminal 58 and display unit connector M93 terminal 19.

AV control unit		Display unit		Continuity
Connector	Terminal	Connector	Terminal	
M45	58	M93	19	Yes

4. Check continuity between AV control unit connector M45 terminal 58 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M45	58		No

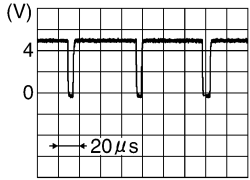
Is inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness or connectors.

2. CHECK RGB SYNCHRONIZING SIGNAL

1. Connect AV control unit connector M45 and display unit connector.
2. Turn ignition switch ON.
3. Check signal between display unit connector M93 terminal 19 and ground.

Display unit (+)		Ground (-)	Reference value
Connector	Terminal		
M93	19	—	 <p>SKIB3603E</p>

Is inspection result normal?

YES >> Replace display unit. Refer to [AV-361. "Removal and Installation"](#).

NO >> Replace AV control unit. Refer to [AV-357. "Removal and Installation"](#).

RGB AREA (YS) SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

RGB AREA (YS) SIGNAL CIRCUIT

Diagnosis Procedure

INFOID:000000008954281

Regarding Wiring Diagram information, refer to [AV-240, "Wiring Diagram"](#).

1. CHECK RGB AREA (YS) SIGNAL CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M45 and display unit connector.
3. Check continuity between AV control unit connector M45 terminal 60 and display unit connector M93 terminal 9.

AV control unit		Display unit		Continuity
Connector	Terminal	Connector	Terminal	
M45	60	M93	9	Yes

4. Check continuity between AV control unit connector M45 terminal 60 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M45	60		No

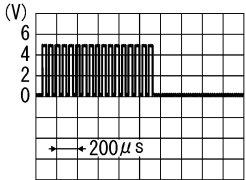
Is inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness or connectors.

2. CHECK RGB AREA (YS) SIGNAL

1. Connect AV control unit connector M45 and display unit connector.
2. Turn ignition switch ON.
3. Check voltage and signal between display unit connector M93 terminal 9 and ground.

Display unit (+)		Ground (-)	Condition	Reference value
Connector	Terminal			
M93	9	—	RGB image displayed.	5.0 V
			AUX image displayed.	 <p style="text-align: right; font-size: small;">PKIB4948J</p>

Is inspection result normal?

YES >> Replace display unit. Refer to [AV-361, "Removal and Installation"](#).

NO >> Replace AV control unit. Refer to [AV-357, "Removal and Installation"](#).

HORIZONTAL SYNCHRONIZING (HP) SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

HORIZONTAL SYNCHRONIZING (HP) SIGNAL CIRCUIT

Diagnosis Procedure

INFOID:000000008954282

Regarding Wiring Diagram information, refer to [AV-240, "Wiring Diagram"](#).

1. CHECK HORIZONTAL SYNCHRONIZING (HP) SIGNAL CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M45 and display unit connector.
3. Check continuity between AV control unit connector M45 terminal 62 and display unit connector M93 terminal 8.

AV control unit		Display unit		Continuity
Connector	Terminal	Connector	Terminal	
M45	62	M93	8	Yes

4. Check continuity between AV control unit connector M45 terminal 62 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M45	62		No

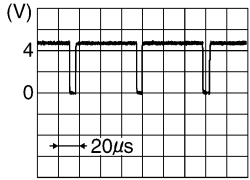
Is inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness or connectors.

2. CHECK HORIZONTAL SYNCHRONIZING (HP) SIGNAL

1. Connect AV control unit connector M45 and display unit connector.
2. Turn ignition switch ON.
3. Check signal between display unit connector M93 terminal 8 and ground.

Display unit (+)		Ground (-)	Reference value
Connector	Terminal		
M93	8	—	 <p>SKIB3601E</p>

Is inspection result normal?

YES >> Replace AV control unit. Refer to [AV-357, "Removal and Installation"](#).

NO >> Replace display unit. Refer to [AV-361, "Removal and Installation"](#).

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VERTICAL SYNCHRONIZING (VP) SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

VERTICAL SYNCHRONIZING (VP) SIGNAL CIRCUIT

Diagnosis Procedure

INFOID:000000008954283

Regarding Wiring Diagram information, refer to [AV-240. "Wiring Diagram"](#).

1. CHECK VERTICAL SYNCHRONIZING (VP) SIGNAL CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M45 and display unit connector.
3. Check continuity between AV control unit connector M45 terminal 74 and display unit connector M93 terminal 20.

AV control unit		Display unit		Continuity
Connector	Terminal	Connector	Terminal	
M45	74	M93	20	Yes

4. Check continuity between AV control unit connector M45 terminal 74 and ground.

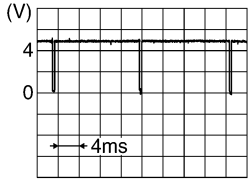
AV control unit		Ground	Continuity
Connector	Terminal		
M45	74		No

Is inspection result normal?

- YES >> GO TO 2.
 NO >> Repair or replace harness or connectors.

2. CHECK VERTICAL SYNCHRONIZING (VP) SIGNAL

1. Connect AV control unit connector M45 and display unit connector.
2. Turn ignition switch ON.
3. Check signal between display unit connector M93 terminal 20 and ground.

Display unit (+)		Ground (-)	Reference value
Connector	Terminal		
M93	20	—	 <p style="text-align: right; font-size: small;">SKIB3598E</p>

Is inspection result normal?

- YES >> Replace AV control unit. Refer to [AV-357. "Removal and Installation"](#).
 NO >> Replace display unit. Refer to [AV-361. "Removal and Installation"](#).

COMPOSITE IMAGE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

COMPOSITE IMAGE SIGNAL CIRCUIT

Diagnosis Procedure

INFOID:000000008954284

Regarding Wiring Diagram information, refer to [AV-240. "Wiring Diagram"](#).

1. CHECK COMPOSITE IMAGE SIGNAL CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M45 and display unit connector.
3. Check continuity between AV control unit connector M45 terminal 53 and display unit connector M93 terminal 15.

AV control unit		Display unit		Continuity
Connector	Terminal	Connector	Terminal	
M45	53	M93	15	Yes

4. Check continuity between AV control unit connector M45 terminal 53 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M45	53		No

Is inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness or connectors.

2. CHECK COMPOSITE IMAGE SIGNAL GROUND CIRCUIT CONTINUITY

- Check continuity between AV control unit connector M45 terminal 54 and display unit connector M93 terminal 4.

AV control unit		Display unit		Continuity
Connector	Terminal	Connector	Terminal	
M45	54	M93	4	Yes

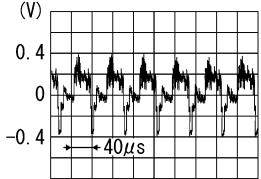
Is inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connectors.

3. CHECK COMPOSITE IMAGE SIGNAL

1. Connect AV control unit connector M45 and display unit connector.
2. Turn ignition switch ON.
3. Check signal between display unit connector M93 terminal 15 and ground.

Display unit		Ground	Condition	Reference value
(+)		(-)		
Connector	Terminal			
M93	15	—	Camera image displayed.	 <p>SKIB2251J</p>

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AV

COMPOSITE IMAGE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

Is inspection result normal?

YES >> Replace display unit. Refer to [AV-361, "Removal and Installation"](#).

NO >> Replace AV control unit. Refer to [AV-357, "Removal and Installation"](#).

AUX IMAGE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

AUX IMAGE SIGNAL CIRCUIT

Diagnosis Procedure

INFOID:000000008954285

Regarding Wiring Diagram information, refer to [AV-240. "Wiring Diagram"](#).

1. CHECK AUX IMAGE SIGNAL CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M46 and front auxiliary input jacks connector.
3. Check continuity between AV control unit connector M46 terminal 83 and front auxiliary input jacks connector M205 terminal 7.

AV control unit		Front auxiliary input jacks		Continuity
Connector	Terminal	Connector	Terminal	
M46	83	M205	7	Yes

4. Check continuity between AV control unit connector M46 terminal 83 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M46	83		No

Is inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness or connectors.

2. CHECK AUX IMAGE SIGNAL GROUND CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M46 and front auxiliary input jacks connector.
3. Check continuity between AV control unit connector M46 terminal 91 and front auxiliary input jacks connector M205 terminal 8.

AV control unit		Front auxiliary input jacks		Continuity
Connector	Terminal	Connector	Terminal	
M46	91	M205	8	Yes

Is inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connectors.

3. CHECK AUX IMAGE SIGNAL

1. Connect AV control unit connector M46 and front auxiliary input jacks connector.
2. Turn ignition switch ON.
3. Check signal between front auxiliary input jacks connector M205 terminal 7 and ground.

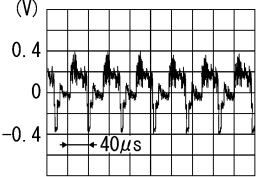
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AV

AUX IMAGE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

Front auxiliary input jacks		Ground	Condition	Reference value
(+)		(-)		
Connector	Terminal			
M205	7	—	AUX image displayed.	 <p style="text-align: right; font-size: small;">SKIB2251J</p>

Is inspection result normal?

- YES >> Replace AV control unit. Refer to [AV-357. "Removal and Installation"](#).
- NO >> Replace front auxiliary input jacks. Refer to [AV-373. "Removal and Installation"](#).

CAMERA IMAGE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

CAMERA IMAGE SIGNAL CIRCUIT

Diagnosis Procedure

INFOID:000000008954286

Regarding Wiring Diagram information, refer to [AV-240. "Wiring Diagram"](#).

1. CHECK CAMERA POWER SUPPLY CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M46 and rear view camera connector.
3. Check continuity between AV control unit connector M46 terminal 87 and rear view camera connector D504 terminal 1.

AV control unit		Rear view camera		Continuity
Connector	Terminal	Connector	Terminal	
M46	87	D504	1	Yes

4. Check continuity between AV control unit connector M46 terminal 87 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M46	87		No

Is inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness or connectors.

2. CHECK CAMERA POWER SUPPLY VOLTAGE

1. Connect AV control unit connector M46 and rear view camera connector.
2. Turn ignition switch ON.
3. Shift the selector lever to "R".
4. Check voltage between AV control unit connector M46 terminal 87 and ground.

AV control unit		Ground	Condition	Voltage (Approx.)
(+)		(-)		
Connector	Terminal			
M46	87	—	Selector lever is in "R".	6.0 V

Is inspection result normal?

YES >> GO TO 3.

NO >> Replace AV control unit. Refer to [AV-357. "Removal and Installation"](#).

3. CHECK CAMERA IMAGE SIGNAL CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M46 and rear view camera connector.
3. Check continuity between AV control unit connector M46 terminal 82 and rear view camera connector D504 terminal 3.

AV control unit		Rear view camera		Continuity
Connector	Terminal	Connector	Terminal	
M46	82	D504	3	Yes

4. Check continuity between AV control unit connector M46 terminal 82 and ground.

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CAMERA IMAGE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

AV control unit		Ground	Continuity
Connector	Terminal		
M46	82		No

Is inspection result normal?

- YES >> GO TO 4.
- NO >> Repair or replace harness or connectors.

4. CHECK CAMERA GROUND CIRCUIT CONTINUITY

Check continuity between AV control unit connector M46 terminal 88 and rear view camera connector D504 terminal 2.

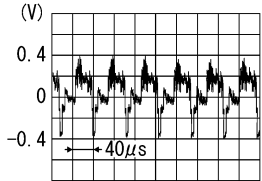
AV control unit		Rear view camera		Continuity
Connector	Terminal	Connector	Terminal	
M46	88	D504	2	Yes

Is inspection result normal?

- YES >> GO TO 5.
- NO >> Repair or replace harness or connectors.

5. CHECK CAMERA IMAGE SIGNAL

1. Connect AV control unit connector M46 and rear view camera connector.
2. Turn ignition switch ON.
3. Shift the selector lever to "R".
4. Check signal between AV control unit connector M46 terminal 82 and ground.

AV control unit		Ground	Condition	Reference value
(+)		(-)		
Connector	Terminal			
M46	82	—	Camera image displayed.	 <p style="text-align: right; font-size: small;">SKIB2251J</p>

Is inspection result normal?

- YES >> Replace AV control unit. Refer to [AV-357, "Removal and Installation"](#).
- NO >> Replace rear view camera. Refer to [AV-377, "Removal and Installation"](#).

DISK EJECT SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

DISK EJECT SIGNAL CIRCUIT

Diagnosis Procedure

INFOID:000000008954287

Regarding Wiring Diagram information, refer to [AV-240, "Wiring Diagram"](#).

1. CHECK DISK EJECT SIGNAL CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M42 and A/C and AV switch assembly connector.
3. Check continuity between AV control unit connector M42 terminal 28 and A/C and AV switch assembly connector M98 terminal 14.

AV control unit		A/C and AV switch assembly		Continuity
Connector	Terminal	Connector	Terminal	
M42	28	M98	14	Yes

4. Check continuity between AV control unit connector M42 terminal 28 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M42	28		No

Is inspection result normal?

- YES >> GO TO 2.
 NO >> Repair or replace harness or connectors.

2. CHECK AV CONTROL UNIT VOLTAGE

1. Connect AV control unit connector M42 and A/C and AV switch assembly connector.
2. Turn ignition switch ON.
3. Check voltage between AV control unit connector M42 terminal 28 and ground.

AV control unit		Ground	Condition	Voltage (Approx.)
(+)		(-)		
Connector	Terminal			
M42	28	—	Pressing eject switch	0 V
			Except above	5.0 V

Is the inspection result normal?

- YES >> Replace A/C and AV switch assembly. Refer to [AV-359, "Removal and Installation"](#).
 NO >> Replace AV control unit. Refer to [AV-357, "Removal and Installation"](#).

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AV

MICROPHONE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

MICROPHONE SIGNAL CIRCUIT

Diagnosis Procedure

INFOID:000000008954288

Regarding Wiring Diagram information, refer to [AV-240. "Wiring Diagram"](#).

1. CHECK MICROPHONE SIGNAL CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect Bluetooth® control unit connector B3 and microphone connector.
3. Check continuity between Bluetooth® control unit connector B3 terminals 7, 8, 29 and microphone connector R109 terminals 6, 5, 3.

Bluetooth® control unit		Microphone		Continuity
Connector	Terminal	Connector	Terminal	
B3	7	R109	6	Yes
	8		5	
	29		3	

4. Check continuity between Bluetooth® control unit connector B3 terminals 7, 8, 29 and ground.

Bluetooth® control unit		Ground	Continuity
Connector	Terminal		
B3	7	—	No
	8		
	29		

Is inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness or connectors.

2. CHECK MICROPHONE VCC VOLTAGE

1. Connect Bluetooth® control unit connector B3.
2. Turn ignition switch ON.
3. Check the voltage between the terminals of Bluetooth® control unit connector B3.

Bluetooth® control unit connector B3		Voltage (Approx.)
(+)	(-)	
Terminal	Terminal	
29	8	5.0 V

Is the inspection result normal?

YES >> GO TO 3.

NO >> Replace Bluetooth® control unit. Refer to [AV-374. "Removal and Installation"](#).

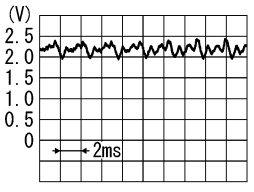
3. CHECK MICROPHONE SIGNAL

1. Connect microphone connector.
2. Check the signal between the terminals of Bluetooth® control unit connector B3.

MICROPHONE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

Bluetooth® control unit connector B3		Condition	Reference value
(+) Terminal	(-) Terminal		
7	8	Speak into microphone.	 <p style="text-align: right; font-size: small;">PKIB5037J</p>

Is the inspection result normal?

YES >> Replace Bluetooth® control unit. Refer to [AV-374. "Removal and Installation"](#).

NO >> Replace microphone. Refer to [AV-375. "Removal and Installation"](#).

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BLUETOOTH® CONTROL SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

BLUETOOTH® CONTROL SIGNAL CIRCUIT

Diagnosis Procedure

INFOID:000000008954289

1. CHECK CONTROL SIGNAL CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect Bluetooth® control unit connector B3.
3. Check continuity between Bluetooth® control unit connector B3 terminals 20, 24 and ground.

Bluetooth® control unit		Ground	Continuity
Connector	Terminal		
B3	20	—	Yes
	24		

Is the inspection result normal?

- YES >> Replace Bluetooth® control unit. Refer to [AV-374, "Removal and Installation"](#).
NO >> Repair or replace harness or connectors.

STEERING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[MID AUDIO WITH BOSE]

STEERING SWITCH






Diagnosis Procedure

INFOID:000000008954290

Regarding Wiring Diagram information, refer to [AV-240. "Wiring Diagram"](#).

1. CHECK STEERING WHEEL AUDIO CONTROL SWITCH RESISTANCE

1. Turn ignition switch OFF.
2. Disconnect combination switch connector M149.
3. Check the resistance between the terminals of combination switch connector M149.

Combination switch connector M149		Condition	Resistance Ω (Approx.)
Terminal	Terminal		
14	17	Depress SOURCE switch.	1
		Depress Δ switch.	121
		Depress ∇ switch.	321
		Depress  switch.	723
		Depress ENTER switch.	2023
15		Depress -  switch.	1
		Depress  + switch.	121
		Depress  switch.	321
		Depress  switch.	723
		Depress DISP switch.	2023

Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace steering wheel audio control switch. Refer to [AV-360. "Removal and Installation"](#).

2. CHECK HARNESS BETWEEN COMBINATION SWITCH AND COMBINATION METER

1. Disconnect combination meter connector M24 and combination switch connector M30.
2. Check continuity between combination meter connector M24 and combination switch connector M30.

Combination meter		Combination switch		Continuity
Connector	Terminal	Connector	Terminal	
M24	3	M30	24	Yes
	24		33	
	4		31	

3. Check continuity between combination meter connector M24 and ground.

Combination meter		Ground	Continuity
Connector	Terminal		
M24	3	—	No
	24		
	4		

Is the inspection result normal?

STEERING SWITCH

[MID AUDIO WITH BOSE]

< DTC/CIRCUIT DIAGNOSIS >

- YES >> GO TO 3.
 NO >> Repair or replace harness or connectors.

3.CHECK COMBINATION SWITCH

Check continuity between combination switch connectors M30 and M149.

Combination switch				Continuity
Connector	Terminal	Connector	Terminal	
M30	24	M149	14	Yes
	31		15	
	33		17	

Is the inspection result normal?

- YES >> GO TO 4.
 NO >> Replace spiral cable. Refer to [SR-15, "Removal and Installation"](#).

4.CHECK HARNESS BETWEEN COMBINATION METER AND AV CONTROL UNIT

1. Disconnect AV control unit connector M44.
2. Check continuity between combination meter connector M24 and AV control unit connector M44.

Combination meter		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M24	14	M44	38	Yes
	15		48	
	16		47	

3. Check continuity between combination meter connector M24 and ground.

Combination meter		Ground	Continuity
Connector	Terminal		
M24	14	—	No
	15		
	16		

Is the inspection result normal?

- YES >> GO TO 5.
 NO >> Repair or replace harness or connectors.

5.CHECK AV CONTROL UNIT VOLTAGE

1. Connect combination meter connector M24 and AV control unit connector M44.
2. Turn ignition switch ON.
3. Check the voltage between the terminals of AV control unit connector M44.

AV control unit M44		Voltage (Approx.)
(+)	(-)	
Terminal	Terminal	5.0 V
38	47	
48		

Is the inspection result normal?

- YES >> Replace combination meter. Refer to [MWI-82, "Removal and Installation"](#).
 NO >> Replace AV control unit. Refer to [AV-357, "Removal and Installation"](#).

USB CONNECTOR

Diagnosis Procedure

INFOID:000000008954291

Regarding Wiring Diagram information, refer to [AV-240. "Wiring Diagram"](#).

1.CHECK USB INTERFACE HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M145 and USB interface connector M209.
3. Check continuity between AV control unit connector M145 and USB interface connector M209.

AV control unit		USB interface		Continuity
Connector	Terminal	Connector	Terminal	
M145	121	M209	1	Yes
	122		2	
	123		3	
	124		4	
	125		5	

4. Check continuity between AV control unit connector M55 and ground.

AV control unit		—	Continuity
Connector	Terminal		
M145	121	Ground	No
	123		

Is the inspection result normal?

- YES >> Replace the USB interface. Refer to [AV-372. "Removal and Installation"](#).
- NO >> Repair or replace harness or connectors.

AV

SYMPTOM DIAGNOSIS

MULTI AV SYSTEM

Symptom Table

INFOID:000000008954325

RELATED TO AUDIO

Symptoms	Check items	Probable malfunction location
The disk cannot be removed.	AV control unit	Malfunction in AV control unit. Refer to AV-212. "On Board Diagnosis Function" .

MULTI AV SYSTEM

< SYMPTOM DIAGNOSIS >

[MID AUDIO WITH BOSE]

Symptoms	Check items	Probable malfunction location
	No sound from all speakers.	<ul style="list-style-type: none"> • Speaker circuit shorted to ground. Refer to AV-240, "Wiring Diagram". • Bose amp. ON signal circuit malfunction. Refer to AV-300, "Diagnosis Procedure". • Bose speaker amp. power supply and ground circuits malfunction. Refer to AV-305, "BOSE AMP. : Diagnosis Procedure".
No sound comes out or the level of the sound is low.	Only a certain speaker (front door speaker LH, front door speaker RH, front speaker LH, front speaker RH, center speaker, rear door speaker LH, rear door speaker RH, rear speaker LH, rear speaker RH) does not output sound.	<ul style="list-style-type: none"> • Poor connector connection of speaker. • Sound signal circuit malfunction between AV control unit and Bose speaker amp. Refer to: <ul style="list-style-type: none"> - AV-316, "Diagnosis Procedure" (front door speaker). - AV-314, "Diagnosis Procedure" (front tweeter). - AV-312, "Diagnosis Procedure" (instrument panel speaker/tweeter). - AV-310, "Diagnosis Procedure" (center speaker). - AV-318, "Diagnosis Procedure" (rear door speaker). - AV-320, "Diagnosis Procedure" (rear speaker). • Sound signal circuit malfunction between Bose speaker amp. and speaker. Refer to: <ul style="list-style-type: none"> - AV-316, "Diagnosis Procedure" (front door speaker). - AV-314, "Diagnosis Procedure" (front tweeter). - AV-312, "Diagnosis Procedure" (instrument panel speaker/tweeter). - AV-310, "Diagnosis Procedure" (center speaker). - AV-318, "Diagnosis Procedure" (rear door speaker). - AV-320, "Diagnosis Procedure" (rear speaker). • Malfunction in speaker. Refer to: <ul style="list-style-type: none"> - AV-316, "Diagnosis Procedure" (front door speaker). - AV-314, "Diagnosis Procedure" (front tweeter). - AV-312, "Diagnosis Procedure" (instrument panel speaker/tweeter). - AV-310, "Diagnosis Procedure" (center speaker). - AV-318, "Diagnosis Procedure" (rear door speaker). - AV-320, "Diagnosis Procedure" (rear speaker). • Malfunction in AV control unit. Refer to AV-212, "On Board Diagnosis Function". • Malfunction in Bose speaker amp. Replace Bose speaker amp. Refer to AV-364, "Removal and Installation".

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MULTI AV SYSTEM

< SYMPTOM DIAGNOSIS >

[MID AUDIO WITH BOSE]

Symptoms	Check items	Probable malfunction location
	Noise comes out from all speakers.	<ul style="list-style-type: none"> • Malfunction in AV control unit. Refer to AV-212, "On Board Diagnosis Function". • Malfunction in Bose speaker amp. Replace Bose speaker amp. Refer to AV-364, "Removal and Installation".
Noise is mixed with audio.	Noise comes out only from a certain speaker (front door speaker LH, front door speaker RH, front speaker LH, front speaker RH, center speaker, rear door speaker LH, rear door speaker RH, rear speaker LH, rear speaker RH).	<ul style="list-style-type: none"> • Poor connector connection of speaker. • Sound signal circuit malfunction between AV control unit and Bose speaker amp. Refer to: <ul style="list-style-type: none"> - AV-316, "Diagnosis Procedure" (front door speaker). - AV-314, "Diagnosis Procedure" (front tweeter). - AV-312, "Diagnosis Procedure" (instrument panel speaker/tweeter). - AV-310, "Diagnosis Procedure" (center speaker). - AV-318, "Diagnosis Procedure" (rear door speaker). - AV-320, "Diagnosis Procedure" (rear speaker). • Sound signal circuit malfunction between Bose speaker amp. and speaker. Refer to: <ul style="list-style-type: none"> - AV-316, "Diagnosis Procedure" (front door speaker). - AV-314, "Diagnosis Procedure" (front tweeter). - AV-312, "Diagnosis Procedure" (instrument panel speaker/tweeter). - AV-310, "Diagnosis Procedure" (center speaker). - AV-318, "Diagnosis Procedure" (rear door speaker). - AV-320, "Diagnosis Procedure" (rear speaker). • Malfunction in speaker. • Poor Installation of speaker (e.g. backlash and looseness). Refer to: <ul style="list-style-type: none"> - AV-316, "Diagnosis Procedure" (front door speaker). - AV-314, "Diagnosis Procedure" (front tweeter). - AV-312, "Diagnosis Procedure" (instrument panel speaker/tweeter). - AV-310, "Diagnosis Procedure" (center speaker). - AV-318, "Diagnosis Procedure" (rear door speaker). - AV-320, "Diagnosis Procedure" (rear speaker). • Malfunction in AV control unit. Refer to AV-212, "On Board Diagnosis Function". • Malfunction in Bose speaker amp. Replace Bose speaker amp. Refer to AV-364, "Removal and Installation".
	Noise is mixed with radio only (when the vehicle hits a bump or while driving over bad roads)	Poor connector connection of antenna or antenna feeder. Refer to AV-378, "Location of Antennas" .

MULTI AV SYSTEM

< SYMPTOM DIAGNOSIS >

[MID AUDIO WITH BOSE]

Symptoms	Check items	Probable malfunction location
No radio reception or poor reception.	<ul style="list-style-type: none"> Other audio sounds are normal. Any radio station cannot be received or poor reception is caused even after moving to a service area with good reception (e.g. a place with clear view and no obstacles generating external noises). 	<ul style="list-style-type: none"> Antenna amp. ON signal circuit malfunction. Refer to AV-299, "Diagnosis Procedure". Poor connector connection of antenna or antenna feeder. Refer to AV-378, "Location of Antennas".
No satellite radio reception.	<p>There is malfunction in the CONSULT self diagnosis result.</p> <p>Refer to AV-219, "CONSULT Function".</p>	<ul style="list-style-type: none"> Malfunction in antenna, antenna feeder or AV control unit. Perform DTC diagnosis. Refer to AV-219, "CONSULT Function". Poor continuity in antenna feeder. Poor connector connection of antenna or antenna feeder. Refer to AV-378, "Location of Antennas".
	<p>There is no malfunction in the CONSULT self diagnosis result.</p> <p>Refer to AV-219, "CONSULT Function".</p>	<ul style="list-style-type: none"> Poor continuity in antenna feeder. Poor connector connection of antenna or antenna feeder. Loose satellite radio antenna mounting nut. Refer to AV-378, "Location of Antennas".
Buzz/rattle sound from speaker	<p>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.</p>	<p>Refer to "SQUEAK AND RATTLE TROUBLE DIAGNOSIS" in the appropriate interior trim section.</p>

RELATED TO HANDS-FREE PHONE

- Before performing diagnosis, confirm that the cellular phone being used by the customer is compatible with the vehicle.
- It is possible that a malfunction is occurring due to a version change of the phone even though the phone is a compatible type. This can be confirmed by changing the cellular phone to another compatible type, and check that it operates normally. It is important to determine whether the cause of the malfunction is the vehicle or the cellular phone.

Check Compatibility

- Make sure the customer's Bluetooth[®] related concern is understood.
- Verify the customer's concern.

NOTE:
The customer's phone may be required, depending upon their concern.
- Write down the customer's phone brand, model and service provider.

NOTE:
It is necessary to know the service provider. On occasion, a given phone may be on the approved list with one provider, but may not be on the approved list with other providers.
- Go to "www.nissanusa.com/bluetooth/".
 - Using the website's search engine, find out if the customer's phone is on the approved list.
 - If the customer's phone is NOT on the approved list:

Stop diagnosis here. The customer needs to obtain a Bluetooth[®] phone that is on the approved list before any further action.
 - If the feature related to the customer's concern shows as "N" (not compatible):









Stop diagnosis here. If the customer still wants the feature to function, they will need to get an approved phone showing the feature as "Y" (compatible) in the "Basic Features".
 - If the feature related to the customer's concern shows as "Y" (compatible):

Perform diagnosis as per the following table.

MULTI AV SYSTEM

< SYMPTOM DIAGNOSIS >

[MID AUDIO WITH BOSE]

Symptoms	Check items	Probable malfunction location
Does not recognize cellular phone connection (no connection is displayed on the display at the guide).	Repeat the registration of cellular phone.	
Hands-free phone cannot be established.	<ul style="list-style-type: none"> Hands-free phone operation can be made, but the communication cannot be established. Hands-free phone operation can be performed, however, voice between each other cannot be heard during the conversation. 	Malfunction in AV control unit. Replace AV control unit. Refer to AV-357, "Removal and Installation" .
The other party's voice cannot be heard by hands-free phone.	Check the "microphone speaker" in Inspection & Adjustment Mode if sound is heard.	
Originating sound is not heard by the other party with hands-free phone communication.	Sound operation function is normal.	
	Sound operation function does not work.	Microphone signal circuit malfunction. Refer to AV-344, "Diagnosis Procedure" .
The system cannot be operated.	<ul style="list-style-type: none"> The voice recognition can be controlled. Steering switch's +, , and  switch works, but  does not work. 	Steering switch malfunction. Replace steering switch. Refer to AV-360, "Removal and Installation" .
	Steering switch's  ,  ,  , and  switches do not work.	Steering switch signal circuit malfunction. Refer to AV-347, "Diagnosis Procedure" .
	All steering switches do not work.	Steering switch ground circuit malfunction. Refer to AV-347, "Diagnosis Procedure" .

RELATED TO REAR VIEW CAMERA

Symptoms	Check items	Probable malfunction location
Rear view camera is inoperative.	Reverse signal circuit malfunction.	Reverse signal circuit malfunction between BCM and AV control unit. Refer to AV-341, "Diagnosis Procedure" .
	Camera image signal circuit malfunction.	Camera image signal circuit malfunction between rear view camera and AV control unit. Refer to AV-341, "Diagnosis Procedure" .
	Rear view camera malfunction.	Replace rear view camera. Refer to AV-377, "Removal and Installation" .

NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[MID AUDIO WITH BOSE]

NORMAL OPERATING CONDITION

Description

INFOID:000000008954326

RELATED TO NOISE

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

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.	<ul style="list-style-type: none"> • Ignition components
The occurrence of the noise is linked with the operation of the fuel pump.		<ul style="list-style-type: none"> • Fuel pump condenser
Noise only occurs when various electrical components are operating.	A cracking or snapping sound occurs with the operation of various switches.	<ul style="list-style-type: none"> • Relay malfunction, AV control unit malfunction
	The noise occurs when various motors are operating.	<ul style="list-style-type: none"> • Motor case ground • Motor
The noise occurs constantly, not just under certain conditions.		<ul style="list-style-type: none"> • 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.		<ul style="list-style-type: none"> • Ground wire of body parts • Ground due to improper part installation • Wiring connections or a short circuit

RELATED TO HANDS-FREE PHONE

Symptom	Cause and Counter measure
Does not recognize cellular phone connection (No connection is displayed on the display at the guide).	Some Bluetooth® enabled cellular phones may not be recognized by the in-vehicle phone module. Refer to "RELATED TO HANDS-FREE PHONE (Check Compatibility)" in AV-350, "Symptom Table" .
Cannot use hands-free phone.	Customer will not be able to use a hands-free phone under the following conditions: <ul style="list-style-type: none"> • The vehicle is outside of the telephone service area. • The vehicle is in an area where it is difficult to receive radio waves; such as in a tunnel, in an underground parking garage, near a tall building or in a mountainous area. • The cellular phone is locked to prevent it from being dialed. NOTE: While a cellular phone is connected through the Bluetooth® wireless connection, the battery power of the cellular phone may discharge quicker than usual. The Bluetooth® Hands-Free Phone System cannot charge cellular phones.

NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[MID AUDIO WITH BOSE]

Symptom	Cause and Counter measure
The other party's voice cannot be heard by hands-free phone.	When the radio wave condition is not ideal or ambient sound is too loud, it may be difficult to hear the other person's voice during a call.
Poor sound quality.	Do not place the cellular phone in an area surrounded by metal or far away from the in-vehicle phone module to prevent tone quality degradation and wireless connection disruption.

AV CONTROL UNIT

< REMOVAL AND INSTALLATION >

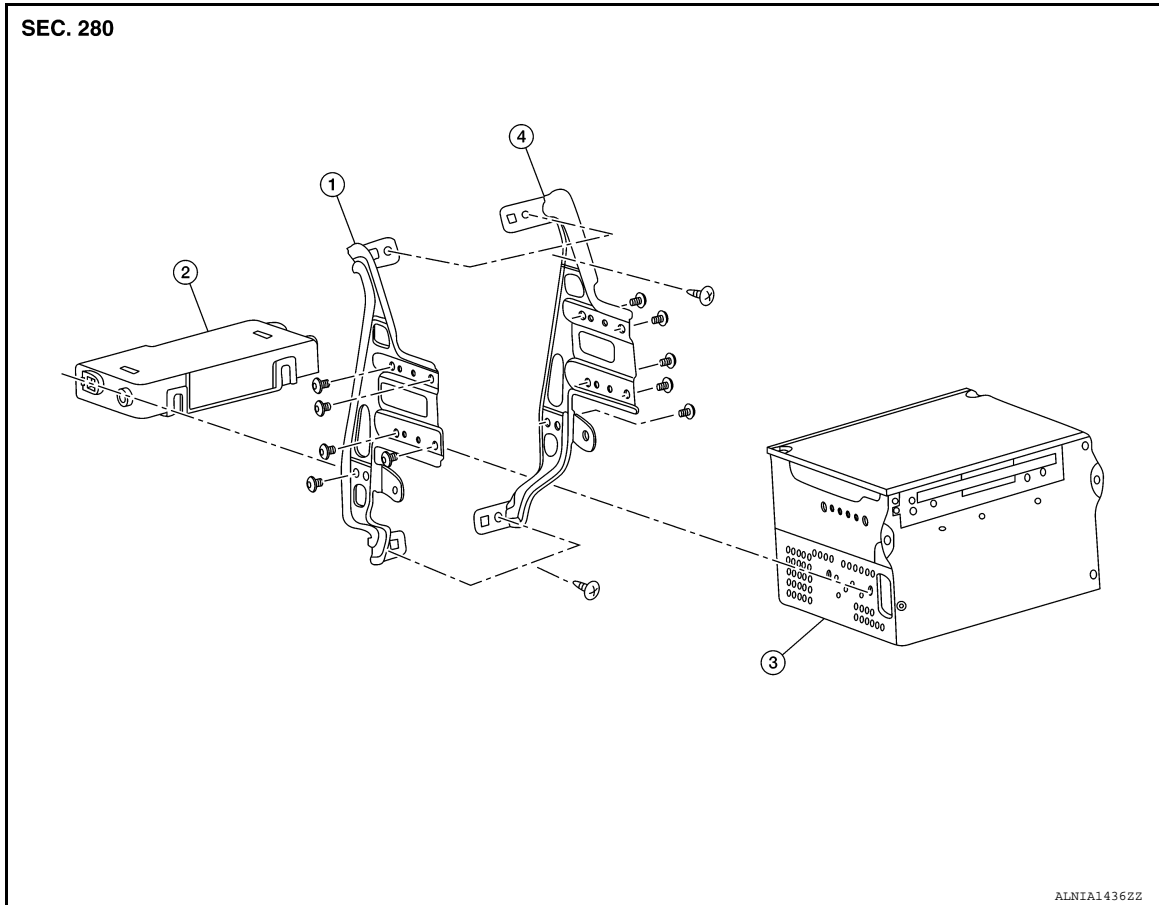
[MID AUDIO WITH BOSE]

REMOVAL AND INSTALLATION

AV CONTROL UNIT

Exploded View

INFOID:000000008511043



1. AV control unit bracket (LH) 2. A/C auto amp. 3. AV control unit
4. AV control unit bracket (RH)

Removal and Installation

INFOID:000000008511044

REMOVAL

CAUTION:

- Remove battery terminal and AV control unit after a lapse of 30 seconds or more after turning the ignition switch OFF.
- Before replacing AV control unit, perform "READ CONFIGURATION" to save current vehicle specification. Refer to [AV-474, "CONFIGURATION \(AV CONTROL UNIT\) : Configuration List"](#).

NOTE:

After the ignition switch is turned OFF, the AV control unit continues operating for approximately 30 seconds. Therefore, data corruption may occur if battery voltage is cut off within 30 seconds.

1. Disconnect the negative battery terminal. Refer to [PG-89, "Removal and Installation"](#).
2. Remove cluster lid C. Refer to [IP-22, "Removal and Installation - Cluster Lid C"](#).
3. Remove the screws, then pull out the AV control unit.
4. Disconnect the harness connectors from the AV control unit and remove.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

A

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AV

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AV CONTROL UNIT

< REMOVAL AND INSTALLATION >

[MID AUDIO WITH BOSE]

-
- When replacing AV control unit, perform "WRITE CONFIGURATION". Refer to [AV-273, "ADDITIONAL SERVICE WHEN REPLACING AV CONTROL UNIT : Work Procedure"](#).

AV AND A/C SWITCH ASSEMBLY

< REMOVAL AND INSTALLATION >

[MID AUDIO WITH BOSE]

AV AND A/C SWITCH ASSEMBLY

Removal and Installation

INFOID:000000008511045

REMOVAL

CAUTION:

- Remove battery terminal and AV control unit after a lapse of 30 seconds or more after turning the ignition switch OFF.
- Before replacing AV control unit, perform "READ CONFIGURATION" to save current vehicle specification. Refer to [AV-474, "CONFIGURATION \(AV CONTROL UNIT\) : Configuration List"](#).

NOTE:

After the ignition switch is turned OFF, the AV control unit continues operating for approximately 30 seconds. Therefore, data corruption may occur if battery voltage is cut off within 30 seconds.

1. Disconnect the negative battery terminal. Refer to [PG-89, "Removal and Installation"](#).
2. Remove cluster lid C lower. Refer to [JP-22, "Removal and Installation - Cluster Lid C Lower"](#).
3. Remove the AC and AV switch assembly lower screws.
4. Release upper pawls and remove AC and AV switch assembly.

INSTALLATION

Installation is in the reverse order of removal.

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AV

STEERING SWITCH

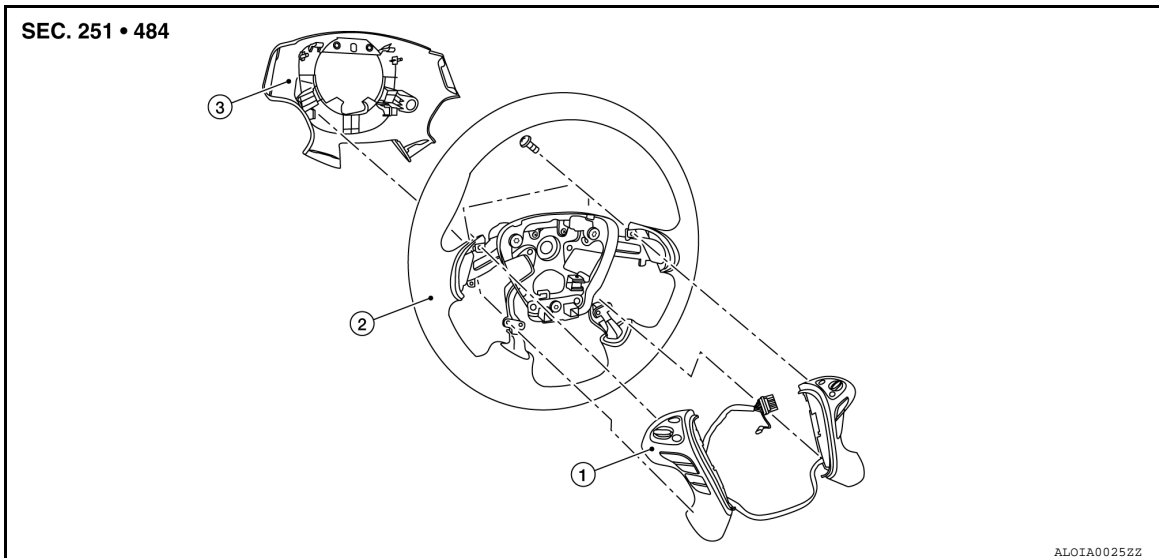
< REMOVAL AND INSTALLATION >

[MID AUDIO WITH BOSE]

STEERING SWITCH

Exploded View

INFOID:000000008951989



1. Steering switches

2. Steering wheel

3. Steering wheel rear finisher

Removal and Installation

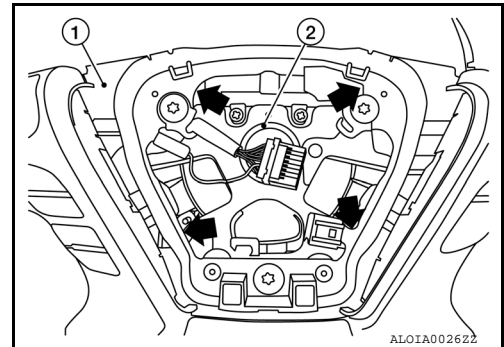
INFOID:000000008951990

REMOVAL

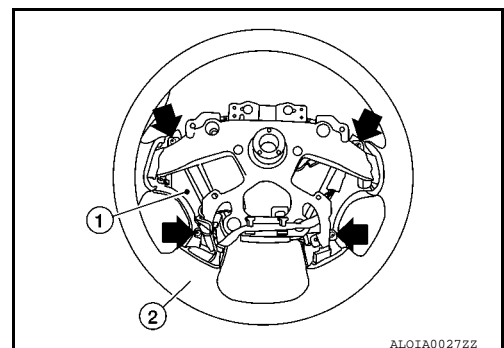
NOTE:

The steering switches are serviced as an assembly.

1. Remove steering wheel. Refer to [ST-44, "Removal and Installation"](#).
2. Release pawls (◄) and remove steering wheel rear finisher (1) from steering wheel (2).



3. Remove steering switches assembly screws (◄).
4. Remove steering switches assembly (1) from steering wheel (2).



INSTALLATION

Installation is in the reverse order of removal.

DISPLAY UNIT

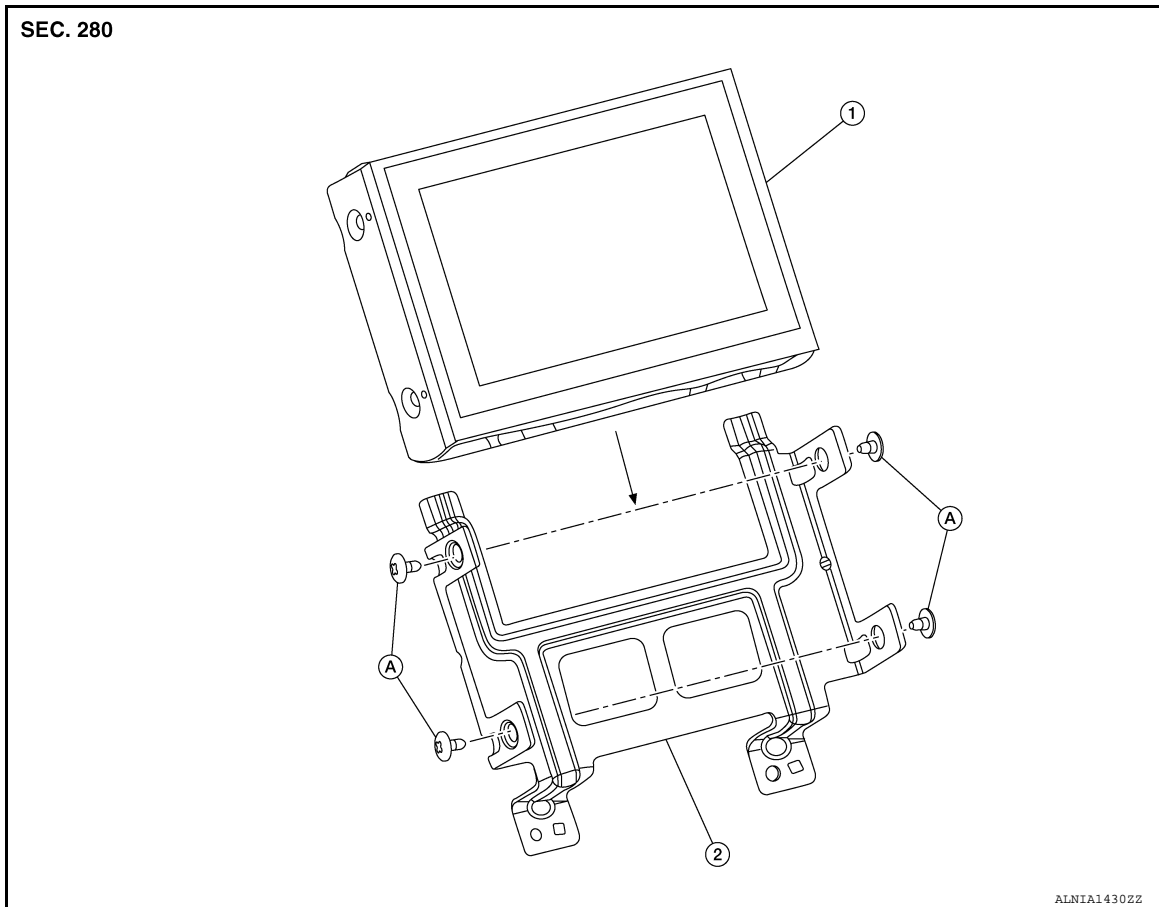
< REMOVAL AND INSTALLATION >

[MID AUDIO WITH BOSE]

DISPLAY UNIT

Exploded View

INFOID:000000008511047



1. Display unit

2. Display unit bracket

A. Display unit bracket screws

Removal and Installation

INFOID:000000008511048

REMOVAL

1. Remove cluster lid D. Refer to [IP-24. "Removal and Installation"](#).
2. Remove the display unit screws, then pull out the display unit and bracket.
3. Disconnect the harness connector from the display unit and remove.
4. Remove the display unit bracket screws and the display unit from the display unit bracket.

INSTALLATION

Installation is in the reverse order of removal.

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HEADREST DISPLAY UNIT

< REMOVAL AND INSTALLATION >

[MID AUDIO WITH BOSE]

HEADREST DISPLAY UNIT

Removal and Installation

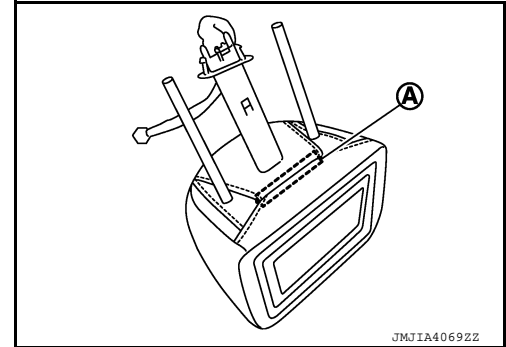
INFOID:000000008511049

REMOVAL

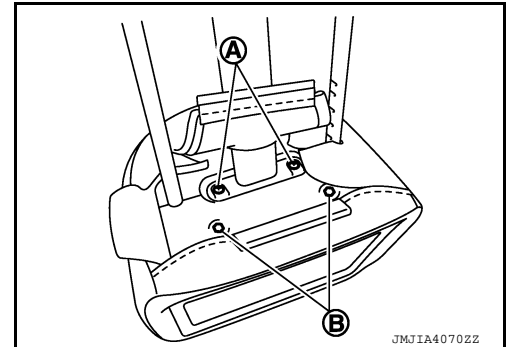
CAUTION:

- Do not press on the panel surface of display (glass area).
- Do not press or pull out the movable part of display.

1. Remove the headrest trim retainer (A).

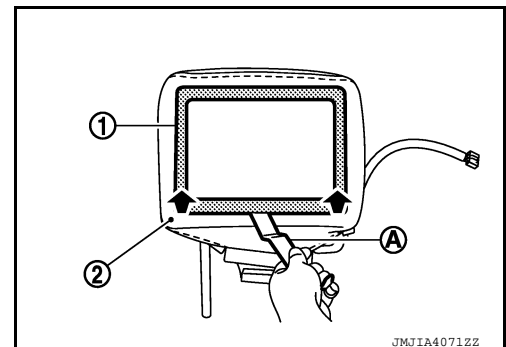


2. Remove the headrest display harness and upper tube screws (A), then remove headrest display unit bolts (B).



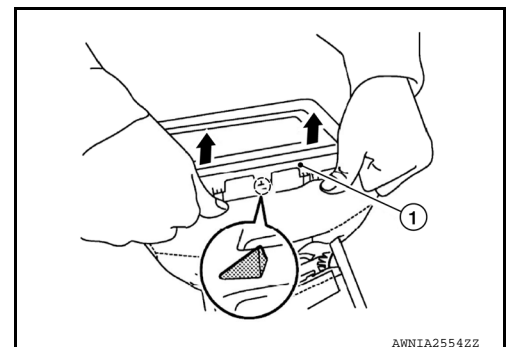
3. Remove the headrest display escutcheon and headrest display.

a. Insert a suitable tool (A) between lower side of headrest display escutcheon (1) and headrest trim (2) and pull out lower side of escutcheon.



b. Pull out headrest display escutcheon (1) to the position that pawl is visible and disengage pawl.

○: Pawl



c. Pull out lower side of headrest display escutcheon from headrest.

HEADREST DISPLAY UNIT

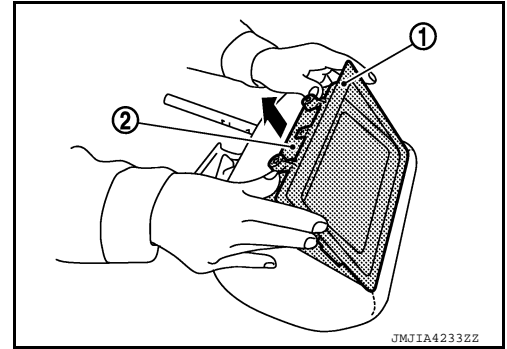
< REMOVAL AND INSTALLATION >

[MID AUDIO WITH BOSE]

CAUTION:

Be careful not to damage pawls on upper side headrest display escutcheon.

- d. Pull downward and remove headrest display escutcheon (1) and headrest display unit (2) by pulling them out and removing pins on upper side of display.



- e. Disconnect inner harness connector.
- f. Press headrest display escutcheon to the headrest display unit side. Disconnect pawls on upper side and remove headrest display escutcheon.
- 4. Remove the headrest display harness upper tube from headrest trim.

INSTALLATION

Installation is in the reverse order of removal.

A
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AV

BOSE SPEAKER AMP

< REMOVAL AND INSTALLATION >

[MID AUDIO WITH BOSE]

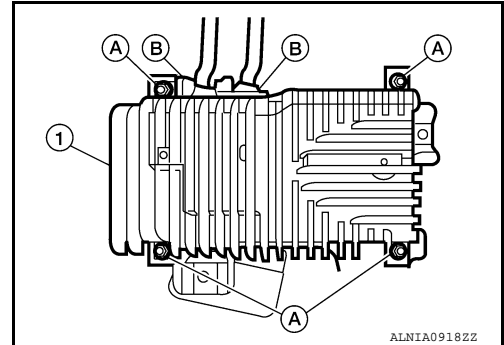
BOSE SPEAKER AMP

Removal and Installation

INFOID:000000008511050

REMOVAL

1. Disconnect the negative battery terminal. Refer to [PG-89, "Removal and Installation"](#)
2. Remove third row seat. Refer to [SE-100, "Removal and Installation"](#).
3. Remove Bose speaker amp screws (A).
4. Disconnect the harness connectors (B) from the Bose speaker amp. and remove.



INSTALLATION

Installation is in the reverse order of removal.

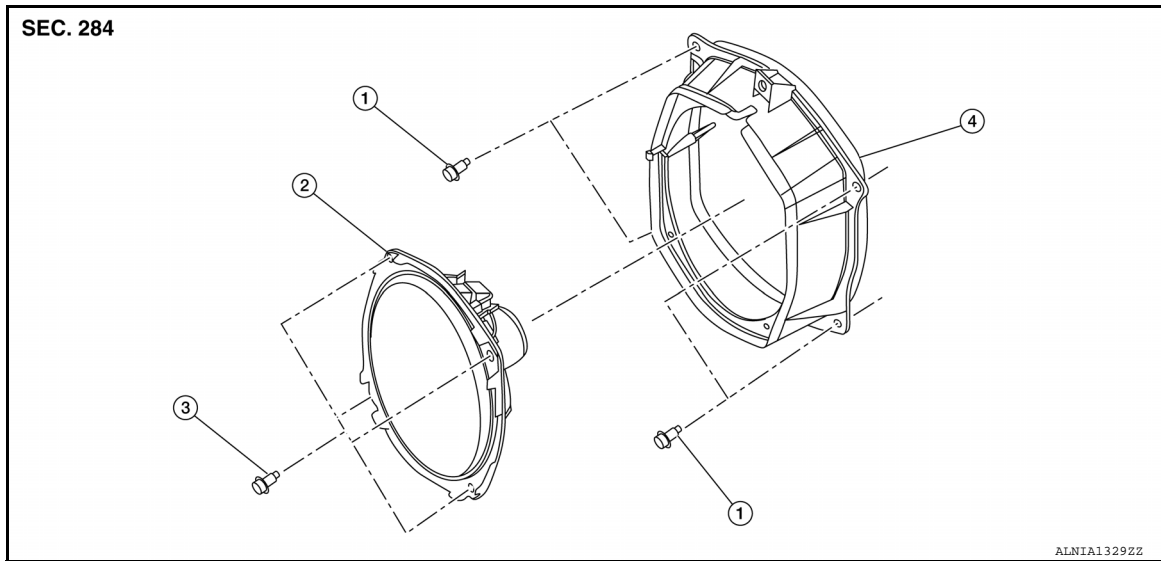
FRONT DOOR SPEAKER

< REMOVAL AND INSTALLATION >

[MID AUDIO WITH BOSE]

FRONT DOOR SPEAKER

Exploded View



1. Speaker bracket bolt
2. Front door speaker
3. Speaker bolt
4. Speaker bracket

Removal and Installation

INFOID:000000008966039

REMOVAL

1. Remove the front door finisher. Refer to [INT-15, "Removal and Installation"](#).
2. Remove the front door speaker bolts.
3. Pull out the front door speaker from the speaker bracket.
4. Disconnect the harness connector from front door speaker and remove.
5. Remove the speaker bracket bolts and remove the speaker bracket from front door.

INSTALLATION

Installation is in the reverse order of removal.

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AV

FRONT TWEETER

< REMOVAL AND INSTALLATION >

[MID AUDIO WITH BOSE]

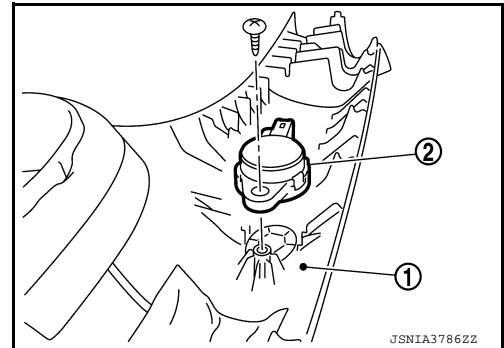
FRONT TWEETER

Removal and Installation

INFOID:000000008511053

REMOVAL

1. Remove the front pillar finisher (1). Refer to [INT-17, "FRONT PILLAR FINISHER : Removal and Installation"](#)
2. Remove the two screws and the front tweeter (2).



INSTALLATION

Installation is in the reverse order of removal.

INSTRUMENT PANEL SPEAKER/TWEETER

< REMOVAL AND INSTALLATION >

[MID AUDIO WITH BOSE]

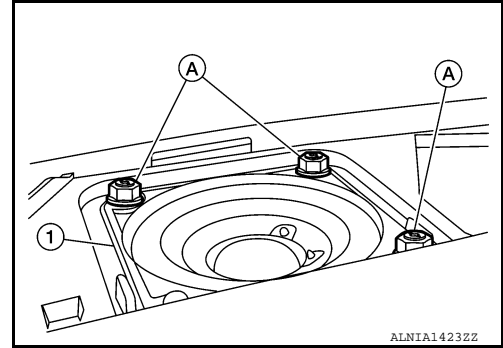
INSTRUMENT PANEL SPEAKER/TWEETER

Removal and Installation

INFOID:000000008966040

REMOVAL

1. Remove instrument panel tweeter grille. Refer to [IP-14, "Exploded View"](#).
2. Remove the bolts (A), then pull out the instrument panel tweeter (1).
3. Disconnect the harness connector from the instrument panel tweeter (1) and remove.



INSTALLATION

Installation is in the reverse order of removal.

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CENTER SPEAKER

< REMOVAL AND INSTALLATION >

[MID AUDIO WITH BOSE]

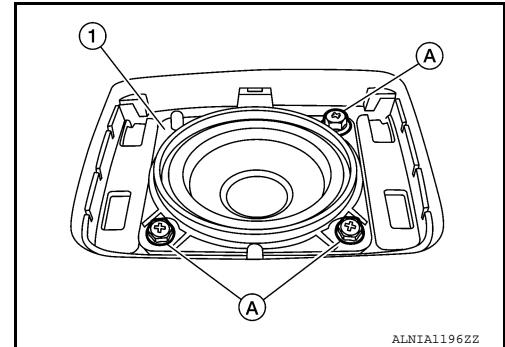
CENTER SPEAKER

Removal and Installation

INFOID:000000008511055

REMOVAL

1. Remove center speaker grille. Refer to [IP-14, "Exploded View"](#).
2. Remove the center speaker bolts (A).
3. Pull out the center speaker (1).
4. Disconnect the harness connector from the center speaker and remove.



INSTALLATION

Installation is in the reverse order of removal.

REAR DOOR SPEAKER

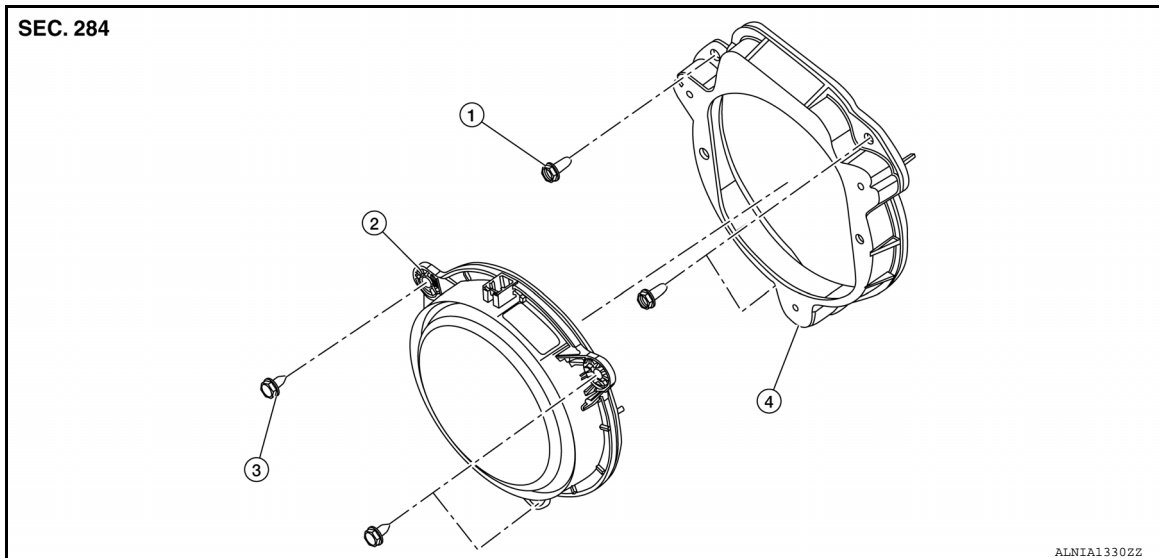
< REMOVAL AND INSTALLATION >

[MID AUDIO WITH BOSE]

REAR DOOR SPEAKER

Exploded View

INFOID:000000008966041



- 1. Speaker bracket bolt
- 2. Rear door speaker
- 3. Speaker bolt
- 4. Speaker bracket

Removal and Installation

INFOID:000000008966042

REMOVAL

1. Remove rear door finisher. Refer to [INT-16, "Removal and Installation"](#).
2. Remove rear door speaker bolts.
3. Disconnect the harness connector from the rear door speaker and remove.
4. Remove the speaker bracket bolts and the speaker bracket from rear door.

INSTALLATION

Installation is in the reverse order of removal.

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AV

REAR SPEAKERS

< REMOVAL AND INSTALLATION >

[MID AUDIO WITH BOSE]

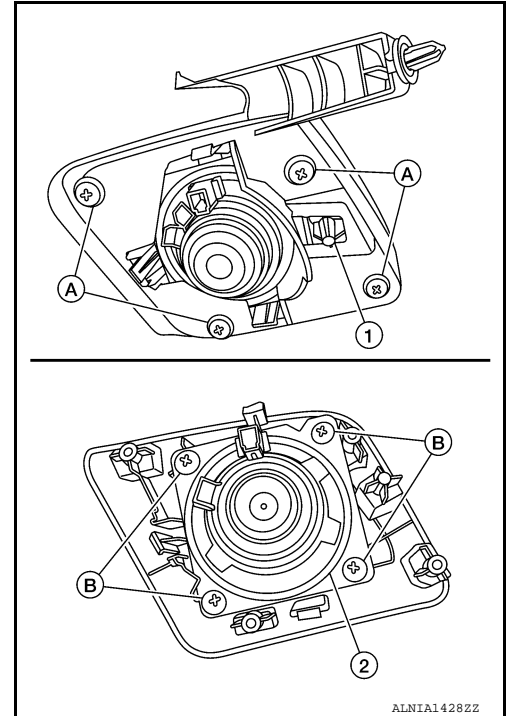
REAR SPEAKERS

Removal and Installation

INFOID:000000008511059

REMOVAL

1. Remove the luggage side lower finisher. Refer to [INT-28, "LUGGAGE SIDE LOWER FINISHER : Removal and Installation"](#).
2. Remove rear side speaker screws (A), then remove the rear side and grille assembly (1) from the luggage side lower finisher.
3. Remove the screws (B) from the rear side speaker grille, then remove the rear side speaker (2).



INSTALLATION

Installation is in the reverse order of removal.

SUBWOOFER

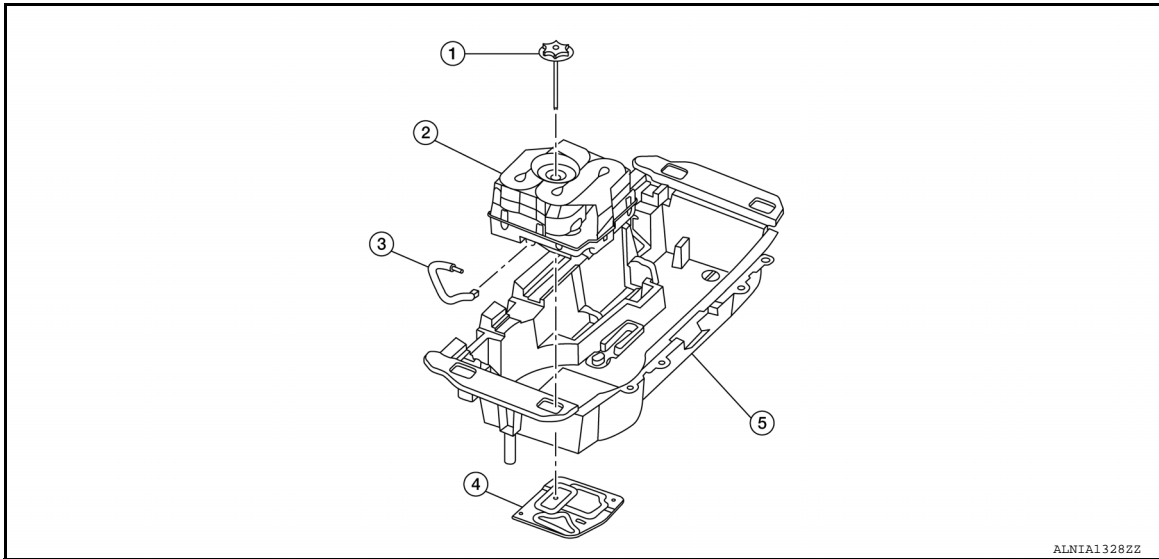
< REMOVAL AND INSTALLATION >

[MID AUDIO WITH BOSE]

SUBWOOFER

Exploded View

INFOID:000000008511060



1. Spare tire clamp
4. Bracket

2. Subwoofer
5. Rear storage box

3. Harness

Removal and Installation

INFOID:000000008511061

REMOVAL

1. Open the storage box lid.
2. Remove the spare tire clamp.
3. Lift subwoofer to disconnect the harness connector and remove.

INSTALLATION

Installation is in the reverse order of removal.

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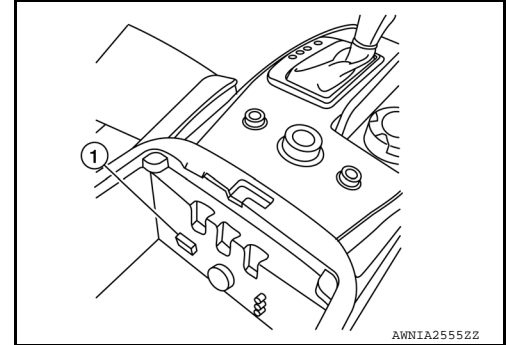
USB CONNECTOR

Removal and Installation

INFOID:000000008511062

REMOVAL

1. Remove CVT shift selector finisher. Refer to [IP-18, "Exploded View"](#).
2. Disconnect the harness connector from the USB interface.
3. Release the pawl from the back of USB interface (1), then remove USB interface (1).



INSTALLATION

Installation is in the reverse order of removal.

FRONT AUXILIARY INPUT JACKS

< REMOVAL AND INSTALLATION >

[MID AUDIO WITH BOSE]

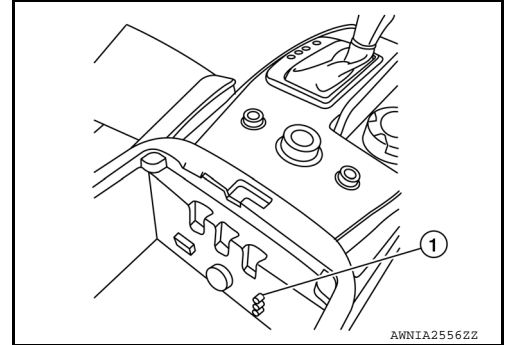
FRONT AUXILIARY INPUT JACKS

Removal and Installation

INFOID:000000008511063

REMOVAL

1. Remove CVT shift selector finisher. Refer to [IP-18. "Exploded View"](#).
2. Disconnect the harness connector from the front auxiliary input jack.
3. Remove front auxiliary input jack screws and the front auxiliary input jack (1).



INSTALLATION

Installation is in the reverse order of removal.

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AV

BLUETOOTH CONTROL UNIT

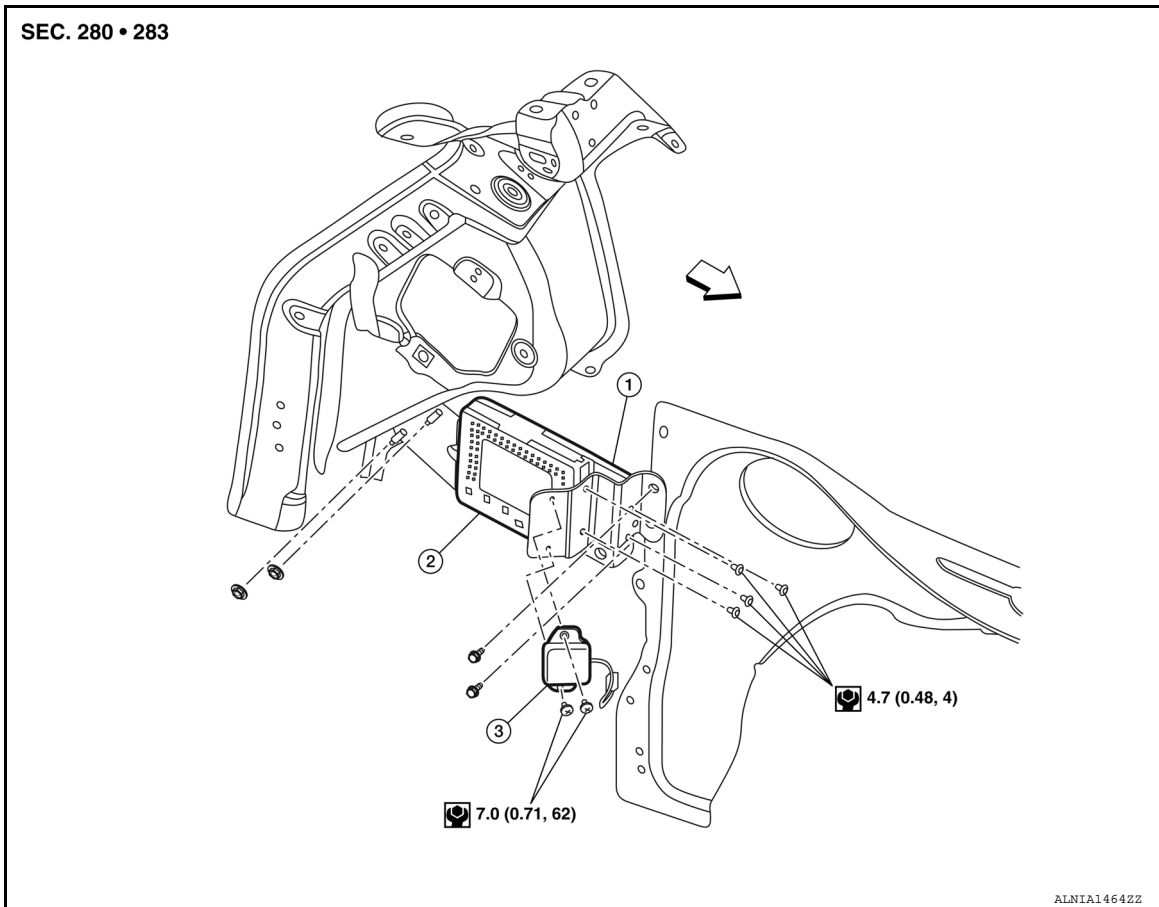
< REMOVAL AND INSTALLATION >

[MID AUDIO WITH BOSE]

BLUETOOTH CONTROL UNIT

Exploded View

INFOID:000000009014711



1. Bluetooth control unit

2. Satellite radio tuner (if equipped) 3. Bluetooth antenna

⇐ Front

⇐ Front

Removal and Installation

INFOID:000000009014712

REMOVAL

1. Disconnect the negative battery terminal. Refer to [PG-89, "Removal and Installation"](#).
2. Remove satellite radio tuner. Refer to [AV-376, "Removal and Installation"](#)
3. Disconnect the harness connectors from Bluetooth control unit.
4. Remove Bluetooth control unit screws and the Bluetooth control unit.
5. Remove the Bluetooth antenna screws and the Bluetooth antenna.

INSTALLATION

Installation is in the reverse order of removal.

MICROPHONE

Removal and Installation

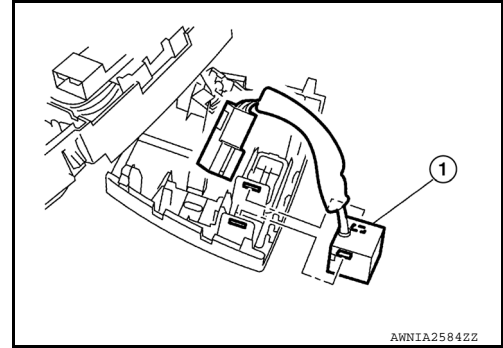
INFOID:000000008951993

REMOVAL

1. Remove the front room/map lamp assembly. Refer to [INL-57. "Removal and Installation"](#).
2. Remove the microphone (1) from the front room/map lamp assembly.

CAUTION:

Carefully handle the pawl that retains the microphone to avoid damaging.



INSTALLATION

Installation is in the reverse order of removal.

NOTE:

Make sure the microphone is firmly secure after installation.

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SATELLITE RADIO TUNER

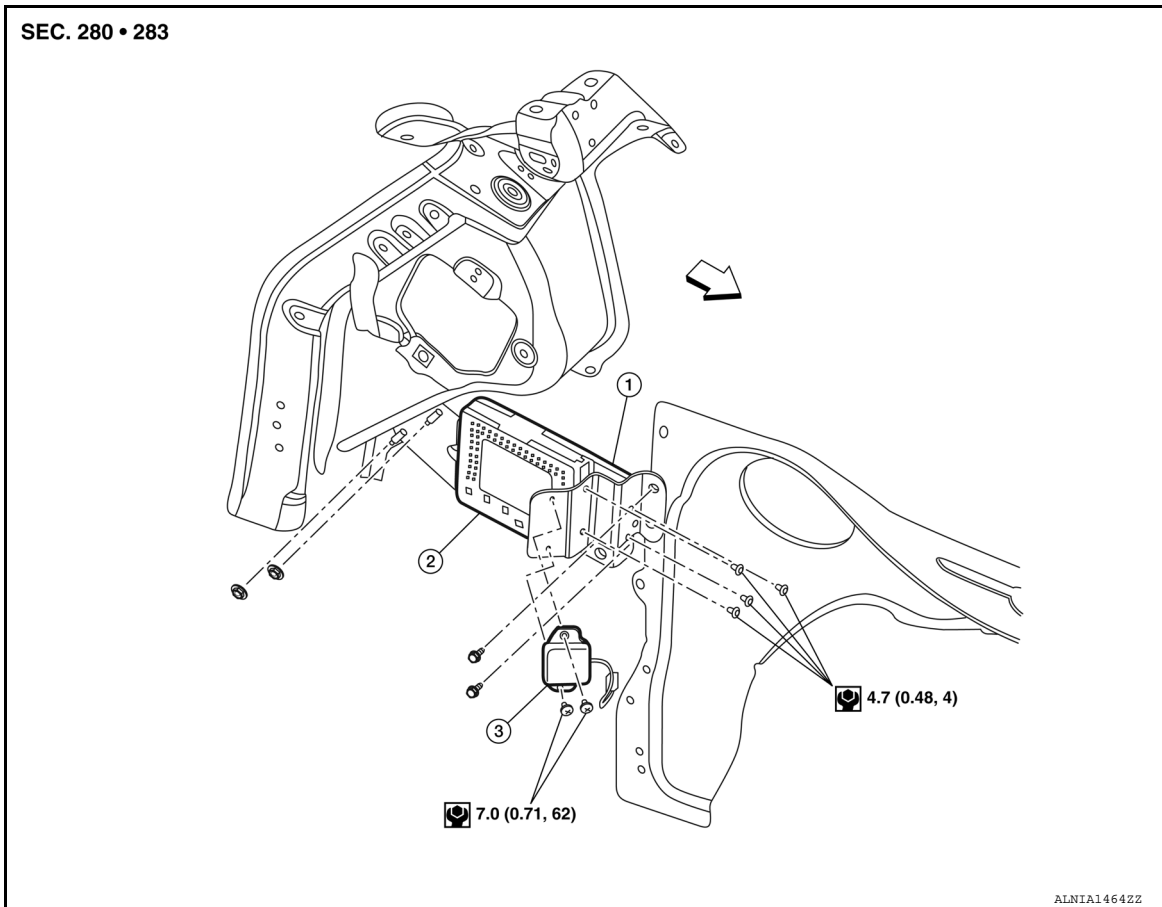
< REMOVAL AND INSTALLATION >

[MID AUDIO WITH BOSE]

SATELLITE RADIO TUNER

Exploded View

INFOID:000000009014713



1. Bluetooth control unit 2. Satellite radio tuner (if equipped) 3. Bluetooth antenna

↔ Front

Removal and Installation

INFOID:000000009014714

REMOVAL

1. Disconnect the negative battery terminal. Refer to [PG-89, "Removal and Installation"](#).
2. Remove the luggage side lower finisher (LH). Refer to [INT-28, "LUGGAGE SIDE LOWER FINISHER : Removal and Installation"](#).
3. Disconnect the harness connectors from satellite radio antenna.
4. Remove the screws and the satellite radio tuner.

INSTALLATION

Installation is in the reverse order of removal.

REAR CAMERA

< REMOVAL AND INSTALLATION >

[MID AUDIO WITH BOSE]

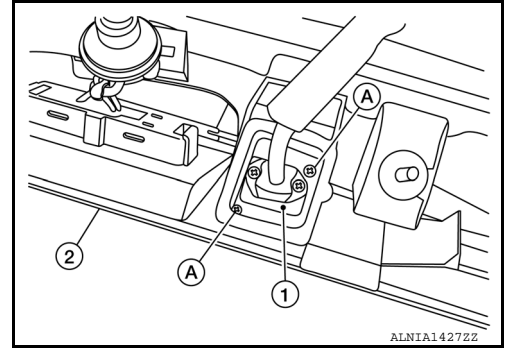
REAR CAMERA

Removal and Installation

INFOID:000000008511067

REMOVAL

1. Remove the back door outer finisher. Refer to [EXT-43. "Removal and Installation"](#).
2. Remove rear camera screws (A), then remove rear camera (1) from the back door outer finisher (2).



INSTALLATION

Installation is in the reverse order of removal.

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AUDIO ANTENNA

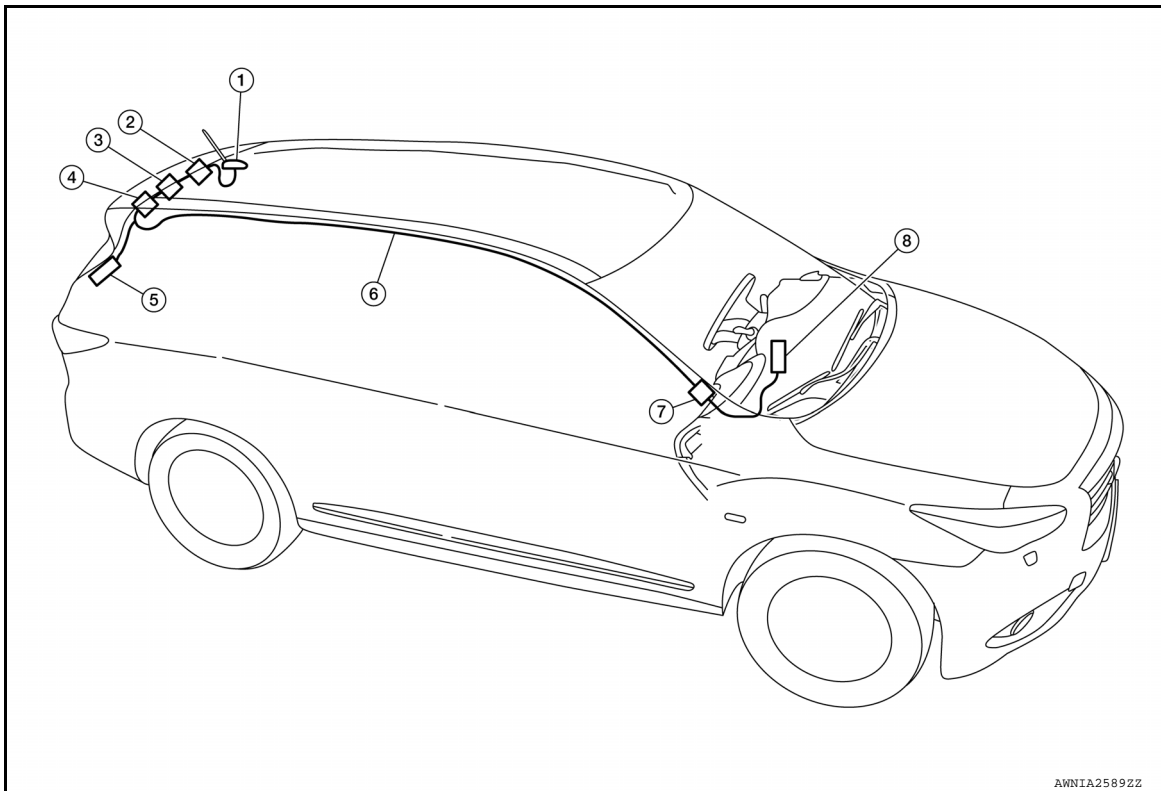
< REMOVAL AND INSTALLATION >

[MID AUDIO WITH BOSE]

AUDIO ANTENNA

Location of Antennas

INFOID:000000008511074



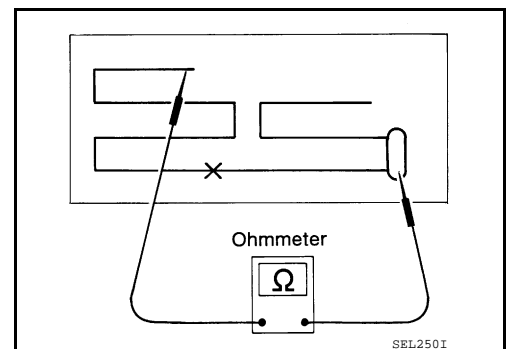
- | | | |
|---|-------------------------|-------------------|
| 1. Antenna base (satellite antenna and antenna amp) | 2. M502 | 3. M501 |
| 4. M503, M504 | 5. M505 | 6. Antenna Feeder |
| 7. M95, M500 | 8. AV control unit M155 | |

Window Antenna Repair

INFOID:000000008511075

ELEMENT CHECK

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

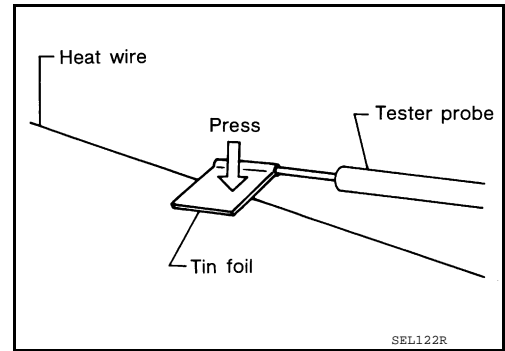


AUDIO ANTENNA

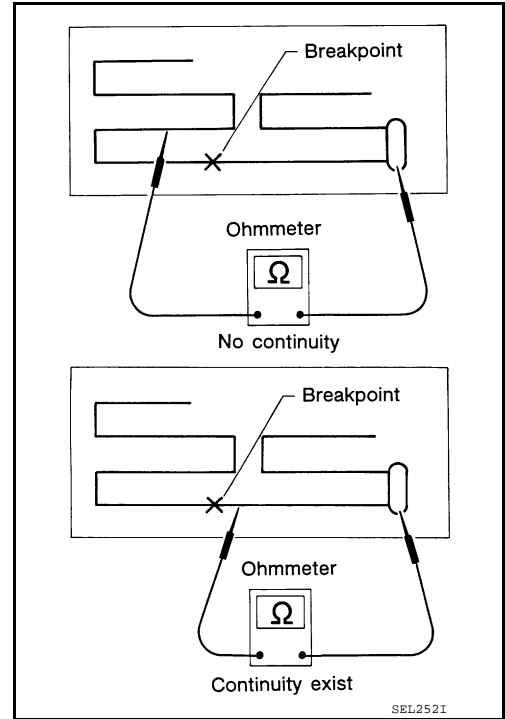
< REMOVAL AND INSTALLATION >

[MID AUDIO WITH BOSE]

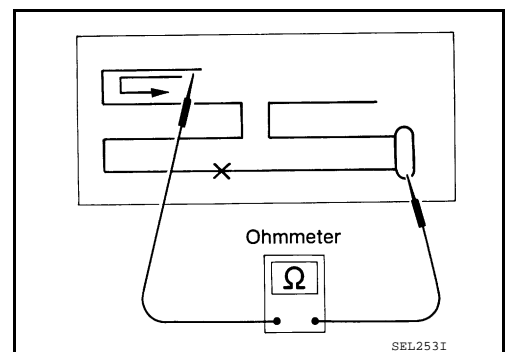
- When measuring continuity, wrap tin foil around the top of probe. Then, press the foil against the wire with your finger.



2. If an element is broken, no continuity will exist.



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



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SATELLITE RADIO ANTENNA

< REMOVAL AND INSTALLATION >

[MID AUDIO WITH BOSE]

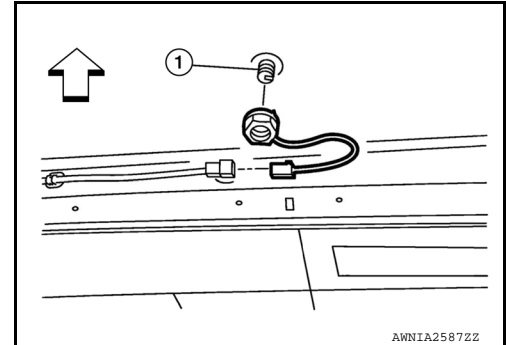
SATELLITE RADIO ANTENNA

Removal and Installation

INFOID:000000008966043

REMOVAL

1. Lower headlining (rear). Refer to [INT-24, "Removal and Installation"](#).
2. Disconnect harness connector from antenna feeder.
3. Remove nut from satellite radio antenna (1) and remove.
↳ Front



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

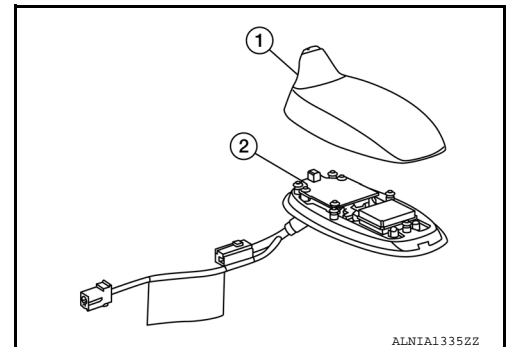
If the satellite radio antenna nut is not tightened to the specified torque, lower sensitivity of the antenna may be experienced. If the nut is tightened tighter than the specified torque, this will deform the roof panel.

Disassembly and Assembly

INFOID:000000008966044

DISASSEMBLY

Insert a suitable tool into gaps between satellite radio antenna (2) and the cover (1), then remove the cover (1) from satellite radio antenna (2).



ASSEMBLY

Assembly is in the reverse order of disassembly.

PRECAUTION

PRECAUTIONS

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

INFOID:000000008966045

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. 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.

Cautions in Removing Battery Terminal and AV Control Unit (Models with AV Control Unit)

INFOID:000000008511080

CAUTION:

Remove battery terminal and AV control unit 30 seconds or more after turning the ignition switch OFF.

NOTE:

After the ignition switch is turned OFF, the AV control unit continues operating for approximately 30 seconds. Therefore, data corruption may occur if battery voltage is cut off within 30 seconds.

Precaution for Trouble Diagnosis

INFOID:000000008511081

AV COMMUNICATION SYSTEM

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

AV

Precaution for Harness Repair

INFOID:000000008511082

AV COMMUNICATION SYSTEM

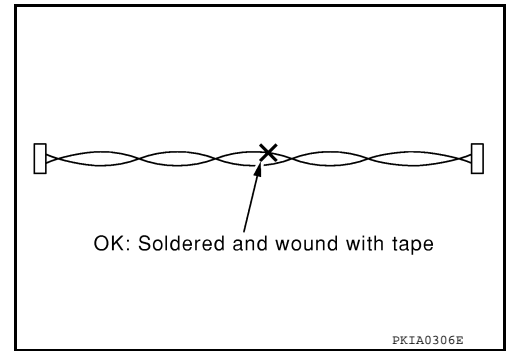
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PRECAUTIONS

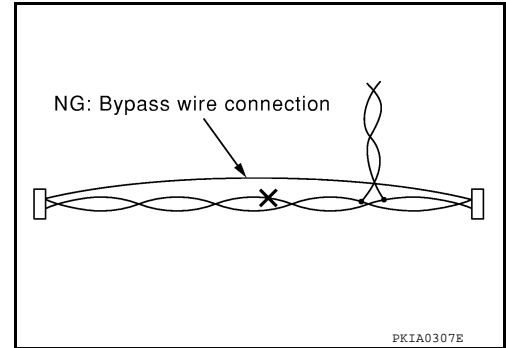
[PREMIUM AUDIO WITH NAVIGATION]

< PRECAUTION >

- Solder the repaired parts, and wrap with tape. [Frays of twisted line must be within 110 mm (4.33 in).]



- Do not perform bypass wire connections for the repair parts. (The spliced wire will become separated and the characteristics of twisted line will be lost.)



Precaution for Work

INFOID:000000008951962

- 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 a new one.
- Be sure to tighten bolts and nuts securely to the specified torque.
- After installation is complete, be sure to check that each part works properly.
- Follow the steps below to clean components:
 - Water soluble dirt:
 - Dip a soft cloth into lukewarm water, wring the water out of the cloth and wipe the dirty area.
 - Then rub with a soft, 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, wring the water out of the cloth and wipe the detergent off.
 - Then rub with a soft, 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

[PREMIUM AUDIO WITH NAVIGATION]

< PREPARATION >

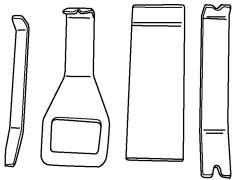
PREPARATION

PREPARATION

Special Service Tool


INFOID:000000008511084

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

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

Commercial Service Tools

INFOID:000000008511085

(Kent-Moore No.) Tool name	Description
<p>(—) Power tools</p>  <p>PIIB1407E</p>	Loosening nuts, screws and bolts

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COMPONENT PARTS

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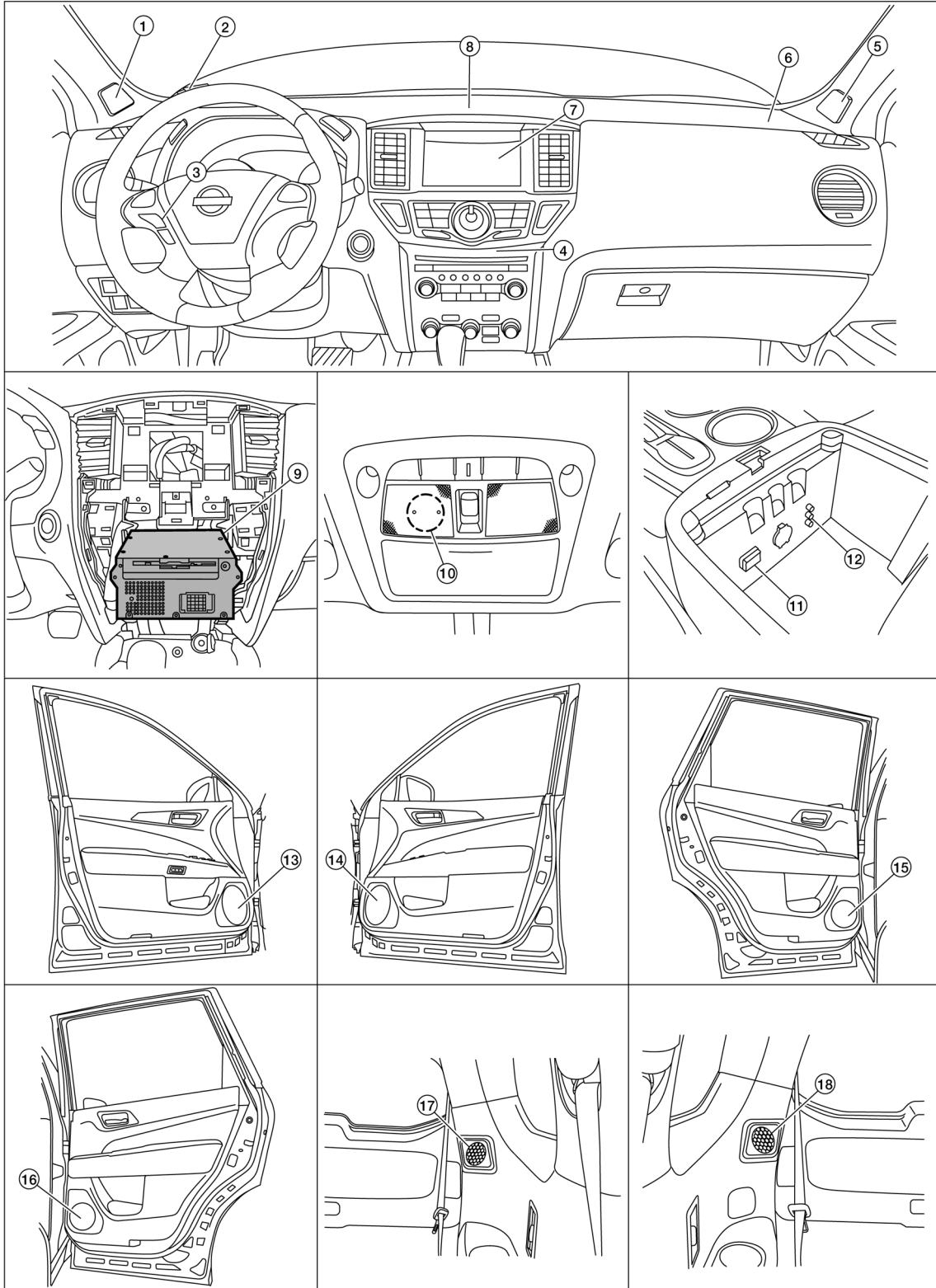
[PREMIUM AUDIO WITH NAVIGATION]

SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

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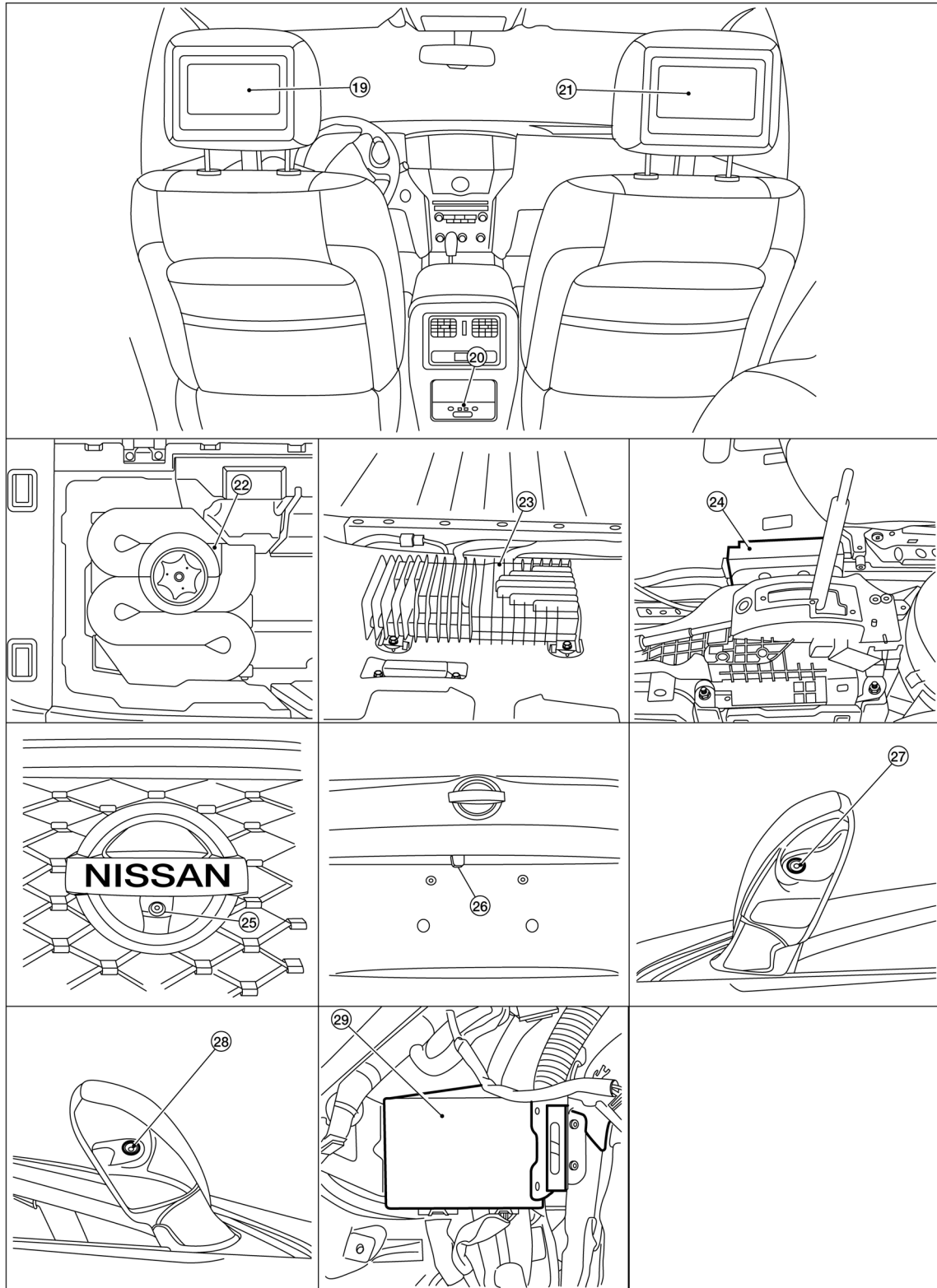


AVN1A.2808ZZ

COMPONENT PARTS

< SYSTEM DESCRIPTION >

[PREMIUM AUDIO WITH NAVIGATION]



- | | | |
|-------------------------------|--------------------------------|---|
| 1. Front tweeter LH | 2. Instrument panel tweeter LH | 3. Steering switch |
| 4. A/C and AV switch assembly | 5. Front tweeter RH | 6. Instrument panel tweeter RH |
| 7. Display unit | 8. Center speaker | 9. AV control unit (view with center stack removed) |
| 10. Microphone | 11. USB interface | 12. Front auxiliary input jacks |
| 13. Front door speaker LH | 14. Front door speaker RH | 15. Rear door speaker LH |

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COMPONENT PARTS

< SYSTEM DESCRIPTION >

[PREMIUM AUDIO WITH NAVIGATION]

- | | | |
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| 16. Rear door tweeter LH | 17. Rear side speaker LH | 18. Rear side speaker RH |
| 19. Headrest display unit (driver seat) | 20. Rear auxiliary input jacks | 21. Headrest display unit (passenger seat) |
| 22. Subwoofer | 23. Bose speaker amp. | 24. Around view monitor control unit |
| 25. Front camera | 26. Rear camera | 27. Door mirror LH (side camera) |
| 28. Door mirror RH (side camera) | 29. Video distributor | |

Component Description

INFOID:000000008954349

Part name	Description
AV control unit	<ul style="list-style-type: none"> • Master unit of MULTI AV system. • AV control unit includes audio, hands-free phone, navigation, USB connection, DVD play and vehicle status functions. • Integrates hard disk drive (HDD) allowing map data and music data to be stored. • Connected to MULTI AV system control units via AV communication. • Connected to other vehicle control units via CAN communication to obtain necessary information for vehicle function. • Receives steering angle signal via CAN communication from steering angle sensor and controls an expected course line during around view monitor operation. • Inputs signals for driving status recognition (vehicle speed, reverse and parking brake). • Composite image signal are output to front display unit. • Transmits image and sound output to video distributor and inputs image switch signal from headrest display units via AV communication. • Receives an Intelligent Key identification signal necessary for Intelligent Key interlocking function via hard wire from BCM. • Transmits Amp. ON signal and mode change signal to BOSE speaker amp. • Update of map data is performed using DVD-ROM.
Display unit	<ul style="list-style-type: none"> • Display image is controlled by AV control unit via serial communication. • Receives power from AV control unit. • Composite image signals are input from AV control unit. • Synchronizing signals are output to AV control unit. • Camera image signals are input from around view monitor control unit via video output signal. • Touch panel functions can be operated by touching display directly.
BOSE speaker amp.	Receives sound signals from AV control unit and outputs sound signals to each speaker.
Instrument panel tweeter	Outputs high range sound signals from BOSE speaker amp.
Center speaker	Outputs mid and high range sound signals from BOSE speaker amp.
Front tweeter	Outputs high range sound signals from BOSE speaker amp.
Front door speaker	Outputs low, mid and high range sound signals from BOSE speaker amp.
Rear door tweeter	Outputs high range sound signals from BOSE speaker amp.
Rear door speaker	Outputs low, mid and high range sound signals from BOSE speaker amp.
Rear side speaker	Outputs low, mid and high range sound signals from BOSE speaker amp.
Subwoofer	Outputs low range sound signals from BOSE speaker amp.
A/C and AV switch assembly	<ul style="list-style-type: none"> • Operation panels are equipped with switches for audio and air conditioner operations. • Operation signal is transmitted via AV communication to AV control unit and around view monitor. • Disk eject operation signal is performed via hardwire.
Steering switch	<ul style="list-style-type: none"> • Operations for audio, hands-free phone and voice recognition are possible. • Steering switch signal (operation signal) is output to AV control unit.
Steering angle sensor	Connected to AV control unit via CAN communication and transmits steering angle sensor signal.

COMPONENT PARTS

< SYSTEM DESCRIPTION >

[PREMIUM AUDIO WITH NAVIGATION]

Part name	Description
Video distributor	<ul style="list-style-type: none"> Receives image and sound signals from AV control unit and transmits them to headrest display units. Receives image and sound signals from rear auxiliary input jacks and transmits them to headrest display units. Transmits image and sound signals to headrest display unit and receives image switch signal from headrest display units.
Headrest display units	<ul style="list-style-type: none"> Composite image signals are input from video distributor. Receives DVD/AUX/USB sound signals from video distributor and transmits them to headphones. Transmits image switch signal to video distributor according to remote control operation. Transmits image switch signal to AV control unit via AV communication according to remote control operation.
Front auxiliary input jacks	Transmits image and sound signals to AV control unit.
Rear auxiliary input jacks	Transmits image and sound signals to video distributor and headrest display units.
Around view monitor control unit	<ul style="list-style-type: none"> Supplies power to front, rear and side cameras. Superimposes images from each camera and outputs them to display unit. Superimposes guiding line, predicted course line and sonar indicator to camera image that outputs to display unit. Performs reception/transmission of communication signals with cameras. Transmits sonar operation signal from sonar control unit via CAN communication. Receives sonar information from sonar control unit via CAN communication. Transmits data received/transmitted from sonar control unit to AV control unit via CAN communication.
Front camera	<ul style="list-style-type: none"> Inputs power supply from around view monitor control unit. Outputs image of vehicle front to around view monitor control unit. Performs reception/transmission of communication signal with around view monitor control unit.
Rear view camera	<ul style="list-style-type: none"> Inputs power supply from around view monitor control unit. Outputs image of vehicle rear to around view monitor control unit. Performs reception/transmission of communication signal with around view monitor control unit.
Side camera LH	<ul style="list-style-type: none"> Inputs power supply from around view monitor control unit. Outputs image of vehicle LH side to around view monitor control unit. Performs reception/transmission of communication signal with around view monitor control unit.
Side camera RH	<ul style="list-style-type: none"> Inputs power supply from around view monitor control unit. Outputs image of vehicle RH side to around view monitor control unit. Performs reception/transmission of communication signal with around view monitor control unit.
Microphone	<ul style="list-style-type: none"> Used for hands-free phone operations. Microphone signal is transmitted to AV control unit. Power (Microphone VCC) is supplied from AV control unit.
GPS antenna	GPS signal is received and transmitted to AV control unit.
Antenna amp.	<ul style="list-style-type: none"> Radio signal received by window antenna is amplified and transmitted to AV control unit. Power (antenna amp. ON signal) is supplied from AV control unit.
USB connector	USB sound and data input signals are transmitted to AV control unit.

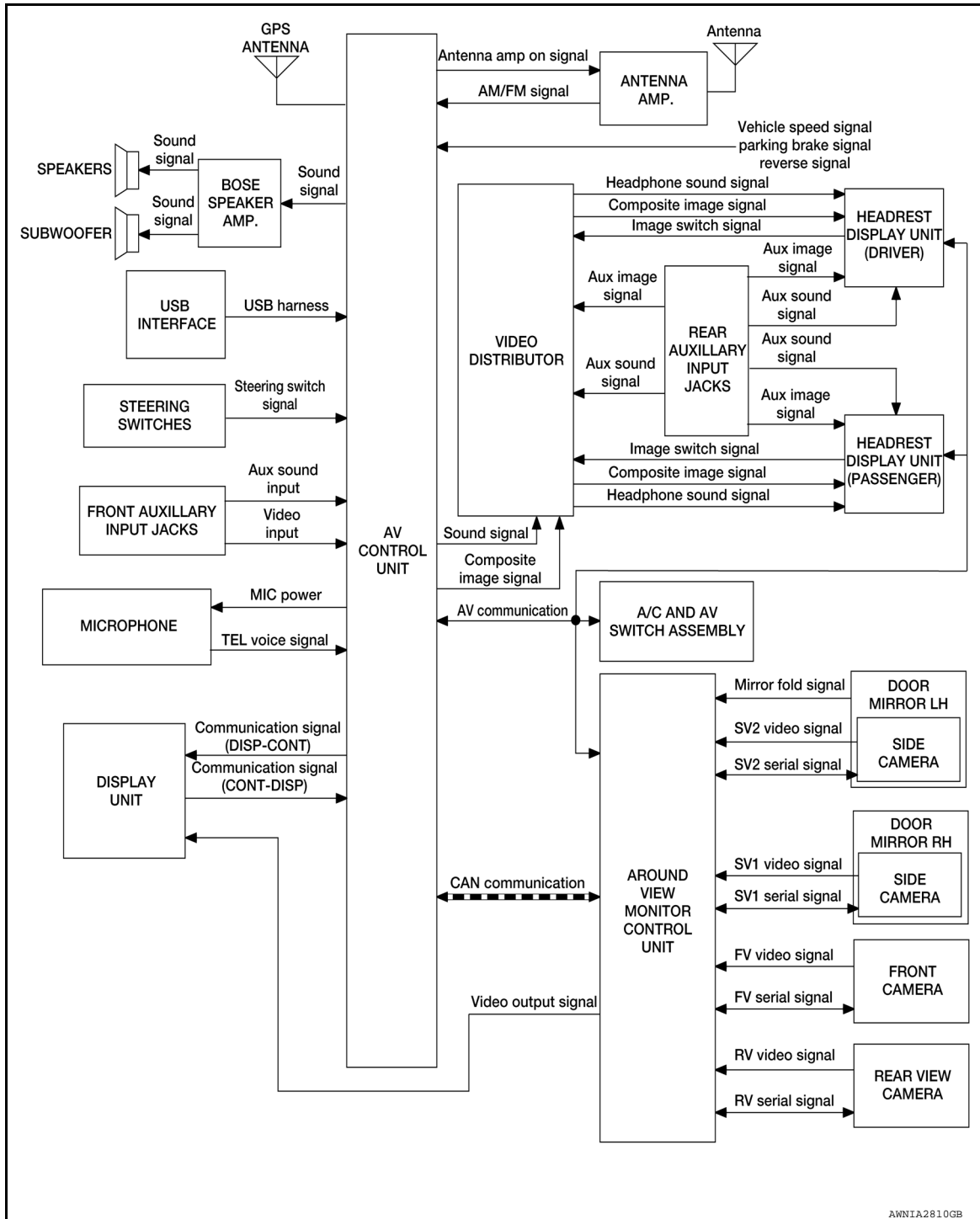
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SYSTEM

MULTI AV SYSTEM

MULTI AV SYSTEM : System Diagram

INFOID:000000008954350



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MULTI AV SYSTEM : System Description

INFOID:000000008954351

AUDIO SYSTEM

The audio system consists of the following components

- AV control unit
- A/C and AV switch assembly
- Display unit

< SYSTEM DESCRIPTION >

- Steering switches
- BOSE speaker amp.
- Center speaker
- Instrument panel tweeters
- Front tweeters
- Front door speakers
- Rear door tweeters
- Rear door speakers
- Rear side speakers
- Subwoofer
- Antenna

When the audio system is on, radio signals are received by the window antenna. The AV control unit then sends audio signals to the BOSE speaker amp. The BOSE speaker amp. amplifies the audio signals before sending them to the speakers, tweeters and subwoofer.

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

HANDS-FREE PHONE SYSTEM

System Operation

NOTE:

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

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

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

AV Control Unit

When the ignition switch is turned to ACC or ON, the AV control unit will power up. During power up, the AV control unit is initialized and performs various self-checks. Initialization may take up to 20 seconds.

Steering Wheel Audio Control Switches

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

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

- Initiate self-diagnosis of the Bluetooth® telephone system
- Answer and end telephone calls
- Adjust the volume of calls
- Record memos

Microphone

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

NAVIGATION SYSTEM

System Operation

NOTE:

Refer to NAVI System Owner's Manual for system operation.

The navigation system periodically calculates the vehicle's current position according to the following three signals: Travel distance of the vehicle as determined by the vehicle speed sensor, turning angle of the vehicle as determined by the gyroscope (angular velocity sensor), and the direction of vehicle travel as determined by the GPS antenna (GPS information).

The current position of the vehicle is then identified by comparing the calculated vehicle position with map data read from the map data, which is stored in the hard disk drive (HDD) (map-matching), and indicated on the screen with a current-location mark.

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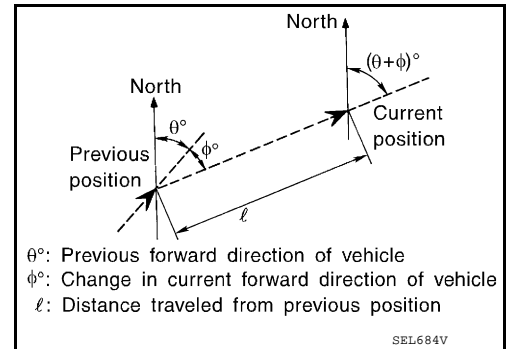
SYSTEM

< SYSTEM DESCRIPTION >

[PREMIUM AUDIO WITH NAVIGATION]

By comparing the vehicle position detection results found by the GPS and by map-matching, more accurate vehicle position data can be used.

The current vehicle position will be calculated by detecting the distance the vehicle moved from the previous calculation point and its direction.



Travel Distance

Travel distance calculations are based on the vehicle speed input signal. Therefore, the calculation may become incorrect as the tires wear down. To prevent this, an automatic distance fine adjustment function has been adopted.

Travel Direction

Change in the travel direction of the vehicle is calculated by a gyroscope (angular velocity sensor) and a GPS antenna (GPS information). As the gyroscope and GPS antenna have both merit and demerit, input signals from them are prioritized in each situation. However, this order of priority may change in accordance with more detailed travel conditions so that the travel direction is detected more accurately.

Type	Advantage	Disadvantage
Gyroscope (angular velocity sensor)	<ul style="list-style-type: none"> Can detect the vehicle's turning angle quite accurately. 	<ul style="list-style-type: none"> Direction errors may accumulate when the vehicle is driven for long distances without stopping.
GPS antenna (GPS information)	<ul style="list-style-type: none"> Can detect the vehicle's travel direction (North/South/East/West). 	<ul style="list-style-type: none"> Correct direction cannot be detected when the vehicle speed is low.

Map-Matching

Map-matching is a function that repositions the vehicle on the road map when a new location is judged to be the most accurate. This is done by comparing the current vehicle position, calculated by the method described in the position detection principle, with the road map data around the vehicle, read from the map data stored on the HDD.

Therefore, the vehicle position may not be corrected after the vehicle is driven over a certain distance or time in which GPS information is hard to receive. In this case, the current-location mark on the display must be corrected manually.

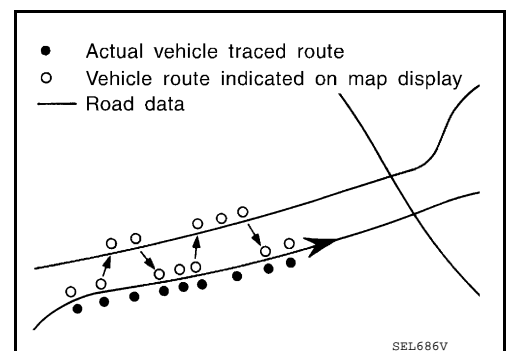
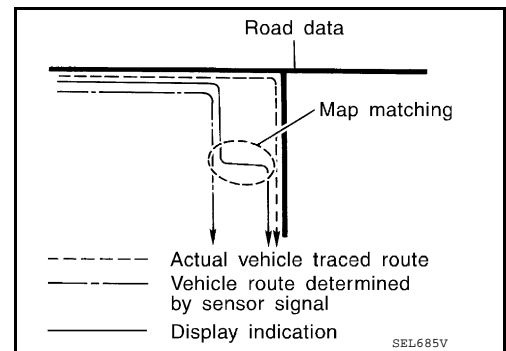
CAUTION:

The road map data is based on data stored on the HDD.

- In map-matching, alternative routes to reach the destination will be shown and prioritized, after the road on which the vehicle is currently driven has been judged and the current-location mark has been repositioned.

If there is an error in distance and/or direction, the alternative routes will be shown in different order of priority, and the wrong road can be avoided.

If two roads are running in parallel, they are of the same priority. Therefore, the current-location mark may appear on either of them alternately, depending on maneuvering of the steering wheel and configuration of the road.

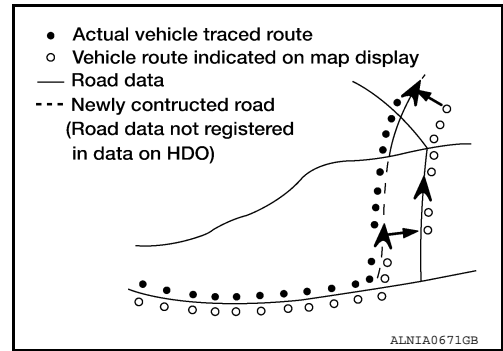


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< SYSTEM DESCRIPTION >

[PREMIUM AUDIO WITH NAVIGATION]

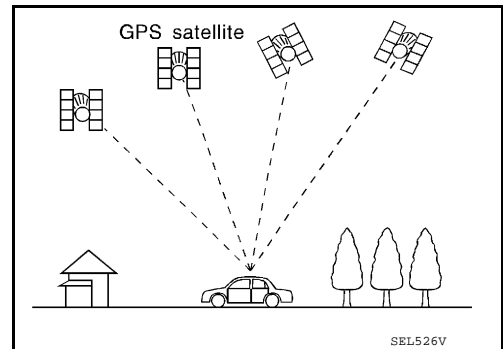
- Map-matching does not function correctly when the road on which the vehicle is driving is new and not recorded on the HDD, or when the road pattern stored in the map data and the actual road pattern are different due to repair.
When driving on a road not present in the map, the map-matching function may find another road and position the current-location mark on it. Then, when the correct road is detected, the current-location mark may leap to it.
- Effective range for comparing the vehicle position and travel direction calculated by the distance and direction with the road data read from the HDD is limited. Therefore, when there is an excessive gap between the current vehicle position and the position on the map, correction by map-matching is not possible.



GPS (Global Positioning System)

GPS (Global Positioning System) has been developed and controlled by the US Department of Defense. The system utilizes GPS satellite (NAVSTAR), sending out radio waves while flying on an orbit around the earth at the height of approx. 21,000 km (13,000 mi).

The GPS receiver calculates the vehicle's position in three dimensions (latitude/longitude/altitude) according to the time lag of the radio waves received from four or more GPS satellites (three-dimensional positioning). If radio waves were received only from three GPS satellites, the GPS receiver calculates the vehicle's position in two dimensions (latitude/longitude), utilizing the altitude data calculated previously by using radio waves from four or more GPS satellites (two-dimensional positioning).



Accuracy of the GPS will deteriorate under the following conditions.

- In two-dimensional positioning, the GPS accuracy will deteriorate when the altitude of the vehicle position changes.
- There may be an error of approximately 10 m (30 ft.) in position detected by three-dimensional positioning, which is more accurate than two-dimensional positioning. The accuracy can be even lower depending on the arrangement of the GPS satellites utilized for the positioning.
- Position detection is not possible when the vehicle is in an area where radio waves from the GPS satellite do not reach, such as in a tunnel, parking lot in a building, and under an elevated highway. Radio waves from the GPS satellites may not be received when some object is located over the GPS antenna.
- Position correction by GPS is not available while the vehicle is stopped.

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.

FRONT AUXILIARY INPUT JACKS

- Image and sound can be output from an external device connected to the front auxiliary input jacks.
- AUX image signals are transmitted to each unit as follows:
 - To the display unit via AV control unit.
 - To the headrest display units via AV control unit and video distributor.
- AUX sound signals are transmitted to each unit as follows:
 - To each speaker via AV control unit and BOSE speaker amp.
 - To video distributor via AV control unit.
- Headphone sound signals are transmitted via infrared communication between headrest display units and headphones.

REAR ENTERTAINMENT SYSTEM

- Image and sound (DVD, USB memory-stored video data and front auxiliary input) played by AV control unit can be enjoyed in rear seat using headrest display units and headphones.
- Image and sound of an external device connected to rear auxiliary input jacks for rear seat can be enjoyed in rear seat using headrest display units and headphones. Also, image and sound from rear auxiliary input jacks can be selected and played individually on each side as well as on both sides.
- Headrest display units have a self-diagnosis function. Refer to [AV-408, "On Board Diagnosis Function"](#).

NOTE:

Image signal and sound signal from rear auxiliary input jacks are not transmitted to front display unit and each speaker.

SYSTEM

< SYSTEM DESCRIPTION >

[PREMIUM AUDIO WITH NAVIGATION]

Operation Signal

- The rear entertainment system can be controlled by the rear seat remote control.
- The rear seat remote control transmits the operation signal to the remote control receiver built into headrest display units, which then transmits it to the AV control unit and video distributor.

Headphone Sound

- Sound signals output from AV control unit or rear auxiliary input jacks are transmitted to headrest display units via video distributor.
- Headphone sound signals are transmitted via infrared communication between headrest display units and headphones.

Headrest Display Units

- Composite image signals from AV control unit are transmitted to headrest display unit via video distributor.
- Image switch signals from headrest display units are transmitted to AV control unit and video distributor, according to rear seat remote control operation.
- When image switch signal is transmitted from headrest display unit to AV control unit via AV communication, image played by AV control unit (DVD, USB memory-stored video data, and front auxiliary input) switches.
- When image switch signal is transmitted from headrest display unit to video distributor, image output from AV control unit and image output from rear auxiliary input jacks switch.

AROUND VIEW MONITOR SYSTEM

- This system is equipped with wide-angle high-resolution cameras on the front and rear of the vehicle and on both right and left door mirrors. The images from front view, rear view, front-side view (RH side), and birds-eye view that shows the view from the top of the vehicle are displayed to monitor the vehicle surroundings.
- Around view monitor control unit cuts out and expands the image received from each camera to create each view.
- The sonar indicator is viewed on display (superimposed on the camera image) in combination with the camera assistance sonar system to warn of the approach of an obstacle.
- In front view and rear view, the vehicle width, distance lines and predictive course lines are superimposed and displayed. In front-side view, the vehicle distance guiding line and vehicle width guiding line are displayed.
- The Birds-Eye view converts the images from 4 cameras into the overhead view and displays the status of the vehicle. The vehicle icon and sonar indicator on the Birds-Eye view display are rendered by around view monitor control unit.

Around View Monitor Screen

- Around view monitor combines and displays the travel direction view and Birds-Eye view, Front-Side view and then displays the sonar indicator on the Birds-Eye view, Front-Side view, Rear wide view.
- AV control unit renders the Change View switch, view icon, warning message on display.

Operation Description

NOTE:

The first, second, and third camera image displayed when switched to the camera image display depends on the settings of Camera View Priority.

- Around view monitor operates by pressing the CAMERA switch on the A/C and AV switch assembly and shifting the selector lever to the R position.
- When the selector lever is in any position other than R, the screen is switched to the around view monitor by pressing the CAMERA switch.
- The screen is switched to the around view monitor by shifting the selector lever to the R position.
- The around view monitor's, Birds-Eye view, Front-side view or rear wide view (rear only) can be switched by pressing the CAMERA switch.
- The around view monitor is cancelled 3 minutes after pressing the CAMERA switch, and the display returns to the previous screen.
- ON/OFF setting of sonar indicator display on the Front-Side view screen can be performed.
- In Birds-Eye view, the invisible area is displayed on the image to specify the boundary of the 4 cameras. The invisible area is displayed in yellow in the Birds-Eye view after turning the ignition switch ON.
- The sonar operates only when the camera screen is displayed.

VEHICLE INFORMATION FUNCTION

- Status of audio, climate control system, fuel economy, maintenance and navigation are displayed.
- AV control unit displays the fuel consumption status while receiving data signal through CAN communication from ECM and combination meter.
- AV control unit is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.

INTELLIGENT KEY INTERLOCKING FUNCTION

The AV control unit recognizes a door-unlocked state of Intelligent Key according to an Intelligent Key recognition signal transmitted from BCM and saves two different types of audio settings and navigation settings.

Settings saved in the AV control unit

- Map display
- Route guidance
- Locator
- Route search
- Sound quality
- Radio preset
- Language

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DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< SYSTEM DESCRIPTION >

[PREMIUM AUDIO WITH NAVIGATION]

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

Description

INFOID:000000008954352

The AV control unit on board diagnosis includes the following functions:

- A/C and AV switch assembly self diagnosis that checks the ON/OFF operation (continuity) of each switch in the A/C and AV switch assembly.

NOTE:

The hazard switch and disk eject switch are not included in this operation check.

- AV control unit on board diagnosis performs the following functions listed in the table below:

Mode		Description	
Self Diagnosis		<ul style="list-style-type: none"> • AV control unit diagnosis. • Diagnoses the connections across system components. 	
Confirmation/ Adjustment	Display Diagnosis	The following check functions are available: color tone check by color bar display and white display, light and shade check by gray scale display and touch panel calibration response check.	
	Vehicle Signals	Diagnosis of signals can be performed for vehicle speed, parking brake, lights, ignition, reverse, side view switch and room lamp.	
	Speaker Test	The connection of a speaker can be confirmed by test tone.	
	Navigation	Steering Angle Adjustment	When there is a difference between the actual turning angle and the vehicle mark turning angle, it can be adjusted.
		Speed Calibration	When there is a difference between the current location mark and the actual location, it can be adjusted.
	Error History	The system malfunction and the frequency when occurring in the past are displayed. When the malfunctioning item is selected, the time and place that the selected malfunction last occurred are displayed.	
	Synchronize FES Clock	—	
	Vehicle CAN Diagnosis	The transmitting/receiving of CAN communication can be monitored.	
	AV COMM Diagnosis	The communication condition of each unit of Multi AV system can be monitored.	
	Hands-free Phone	The received volume adjustment of hands-free phone, microphone speaker check, and erase memory can be performed.	
	Camera cont.	Camera guidelines can be adjusted and the factory configuration can be displayed.	
	Delete Unit Connection Log	Erase the connection history of unit and error history.	
	Initialize Settings	Initializes the AV control unit memory.	
Version Information	Version information of the AV control unit is displayed.		

Perform CONSULT diagnosis if the AV control unit on board diagnosis does not start, the screen does not display anything, or the A/C and AV switch assembly self diagnosis does not function.

On Board Diagnosis Function

INFOID:000000008954353

METHOD OF STARTING

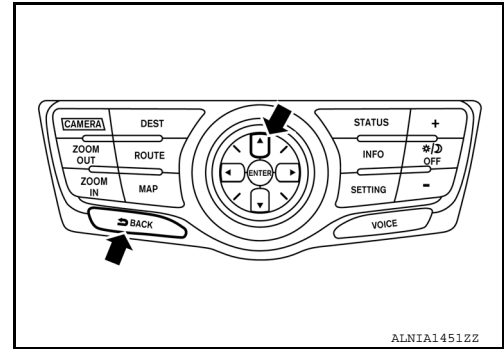
A/C and AV Switch Assembly Self Diagnosis

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

[PREMIUM AUDIO WITH NAVIGATION]

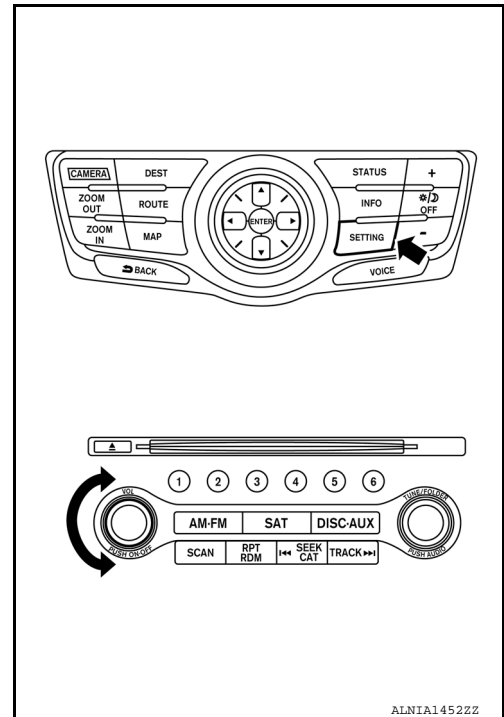
< SYSTEM DESCRIPTION >

- Press the BACK and UP switches within 10 seconds after turning the ignition switch from OFF to ACC and hold them for 3 seconds or more.
- The buzzer sounds, all indicators of the switches illuminate, and the self-diagnosis mode begins.
- The ON position continuity of each switch can be checked by pressing the switch. The buzzer sounds if continuity is present.
- The self diagnosis mode is canceled when the ignition switch is turned OFF.

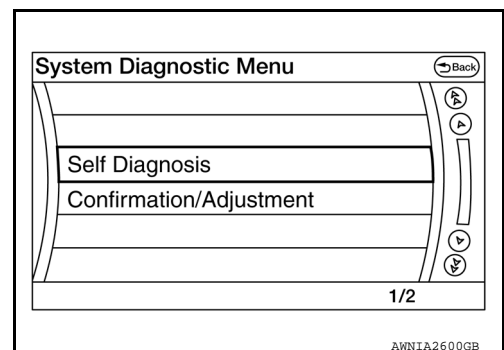


AV Control Unit Self Diagnosis

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



4. The trouble diagnosis initial screen is displayed, and Self Diagnosis or Confirmation/Adjustment can be selected.



SELF DIAGNOSIS MODE

AV Control Unit Self Diagnosis

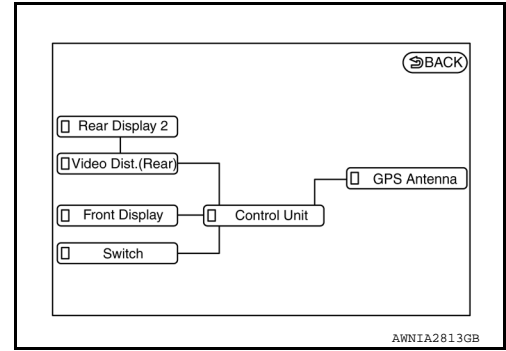
1. Select Self Diagnosis.
2. Self diagnosis screen is displayed. The bar graph visible in center of screen indicates progress of self diagnosis.

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

[PREMIUM AUDIO WITH NAVIGATION]

< SYSTEM DESCRIPTION >

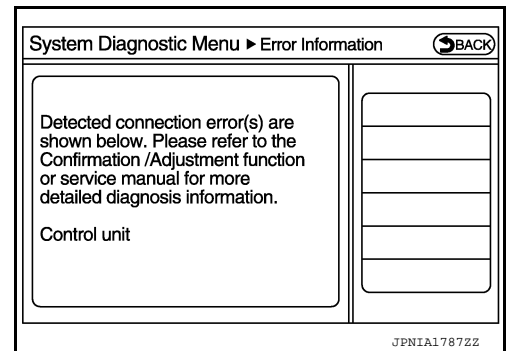
3. Diagnosis results are displayed after the self-diagnosis is completed. The unit names and the connection lines are color-coded according to the diagnostic results.



Diagnosis results	Unit	Connection line
Normal	Green	Green
Connection malfunction	Gray	Yellow
Unit malfunction ¹	Red	Green

1: Control Unit (AV control unit) is displayed in red.

- Replace AV control unit if Self Diagnosis did not run because control unit malfunction is indicated. The symptom is AV control unit internal error. Refer to [AV-585, "Removal and Installation"](#).
 - If multiple errors occur at the same time for a single unit, the screen switch colors are determined according to the following order of priority: red > gray.
4. Comments of self diagnosis results can be viewed in the diagnosis result screen.



AV Control Unit Self Diagnosis Results

Only Unit Part Is Displayed In Red		
Screen switch	Description	Possible cause
Control Unit	Malfunction is detected in AV control unit power supply and ground circuits.	<ul style="list-style-type: none"> • AV control unit power supply or ground circuit. Refer to AV-532, "AV CONTROL UNIT : Diagnosis Procedure". • If no malfunction is detected in AV control unit power supply and ground circuits, replace AV control unit. Refer to AV-585, "Removal and Installation".

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< SYSTEM DESCRIPTION >

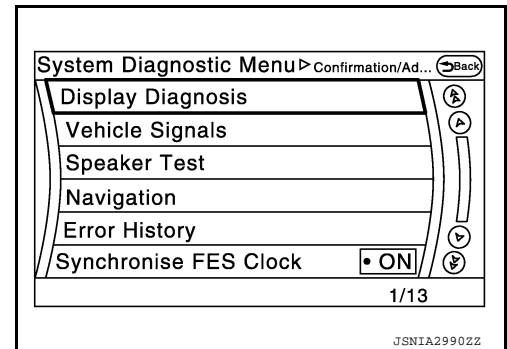
[PREMIUM AUDIO WITH NAVIGATION]

A Connecting Cable Between Units Is Displayed In Yellow

Area with yellow connection lines	Description	Possible cause
Control unit ↔ Front Display	Malfunction is detected in serial communication circuits between AV control unit and front display.	Serial communication circuits between AV control unit and front display.
Control unit ↔ Switch	When one of the following is detected: <ul style="list-style-type: none"> malfunction is detected in A/C and AV switch assembly power supply and ground circuits. malfunction is detected in AV communication circuits between AV control unit and A/C and AV switch assembly. 	<ul style="list-style-type: none"> A/C and AV switch assembly power supply or ground circuit. Refer to AV-535, "A/C AND AV SWITCH ASSEMBLY : Diagnosis Procedure". AV communication circuits between AV control unit and A/C and AV switch assembly.
Control unit ↔ GPS Antenna	GPS antenna connection malfunctions detected.	Check the connection of the GPS antenna connector.
Control unit ↔ Video Dist.(Rear) Video Dist.(Rear) ↔ Rear display 2	When one of the following is detected: <ul style="list-style-type: none"> malfunction is detected in video distributor power supply and ground circuits. malfunction is detected in headrest display unit LH power supply and ground circuits. malfunction is detected in AV communication circuits between AV control unit and headrest display unit (driver seat). 	<ul style="list-style-type: none"> Video distributor power supply or ground circuit. Refer to AV-536, "VIDEO DISTRIBUTOR : Diagnosis Procedure". Headrest display unit LH power supply or ground circuit. Refer to AV-537, "HEADREST DISPLAY UNIT : Diagnosis Procedure". AV communication circuits between AV control unit and headrest display unit (driver seat).
Video Dist.(Rear) ↔ Rear display 2	When one of the following is detected: <ul style="list-style-type: none"> malfunction is detected in headrest display unit RH power supply and ground circuits. malfunction is detected in AV communication circuits between headrest display unit (driver seat) and headrest display unit (passenger seat). 	<ul style="list-style-type: none"> Headrest display unit RH power supply or ground circuit. Refer to AV-537, "HEADREST DISPLAY UNIT : Diagnosis Procedure". AV communication circuits between headrest display unit (driver seat) and headrest display unit (passenger seat).

AV Control Unit Confirmation/Adjustment

- Select Confirmation/Adjustment.
- Select each switch on the Confirmation/Adjustment screen to display the relevant trouble diagnosis screen. Press the BACK switch to return to the initial Confirmation/Adjustment screen.

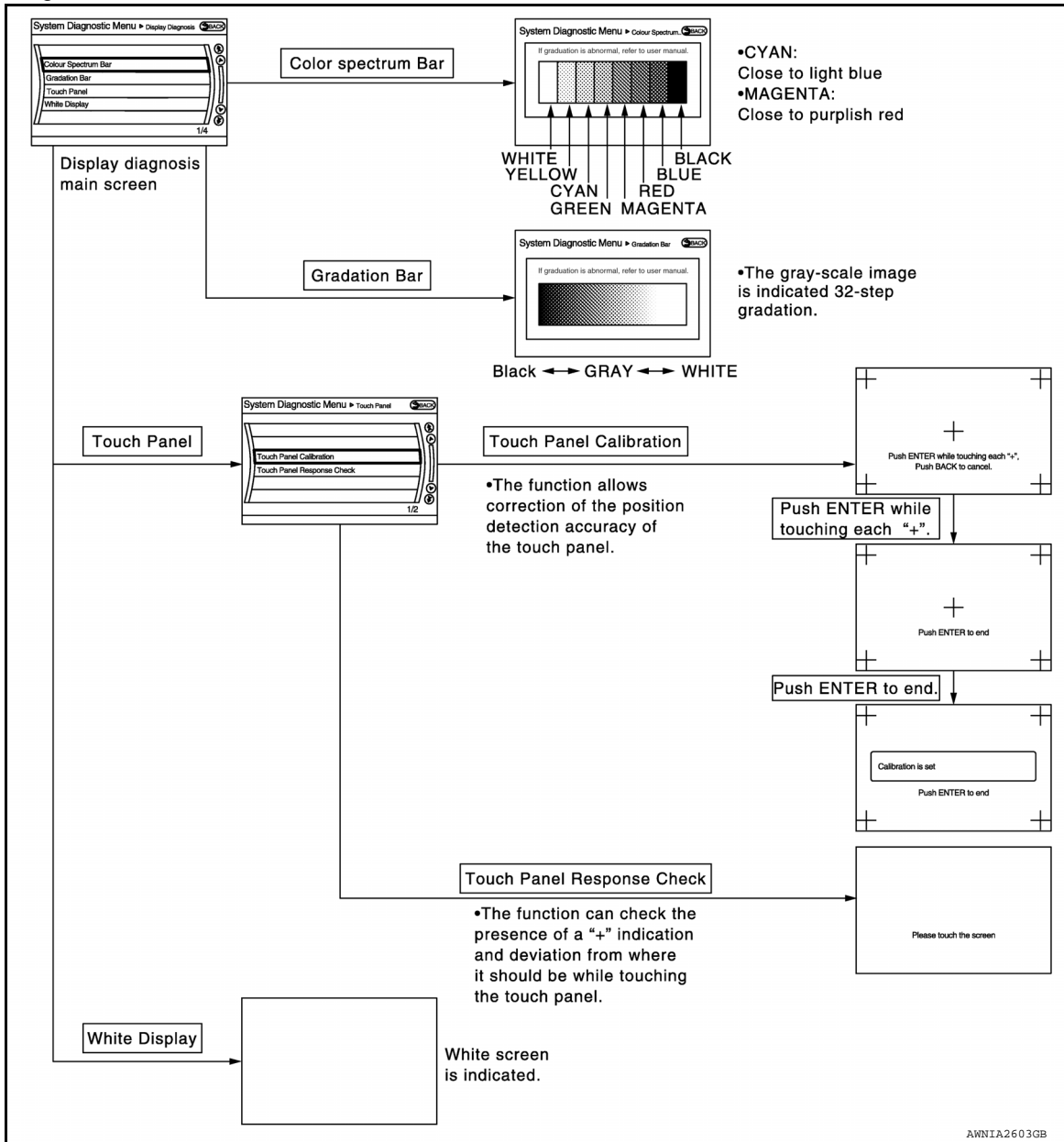


DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< SYSTEM DESCRIPTION >

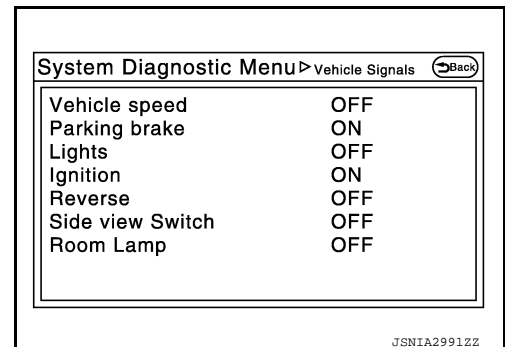
[PREMIUM AUDIO WITH NAVIGATION]

Display Diagnosis



Vehicle Signals

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



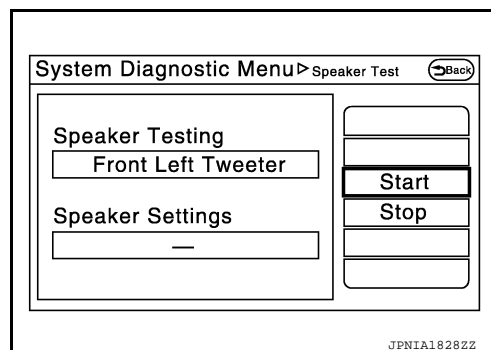
Speaker Test

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

[PREMIUM AUDIO WITH NAVIGATION]

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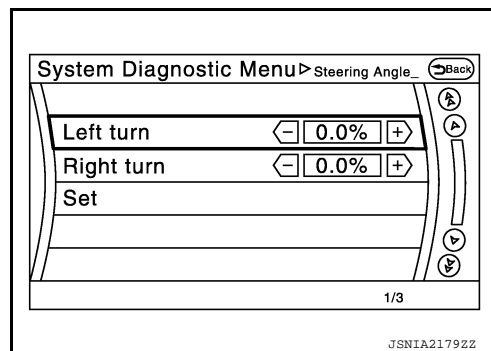
Select Speaker Test to display the Speaker Diagnosis screen. Press Start to generate a test tone in a speaker. Press Start again to generate a test tone in the next speaker. Press End to stop the test tones.



Navigation

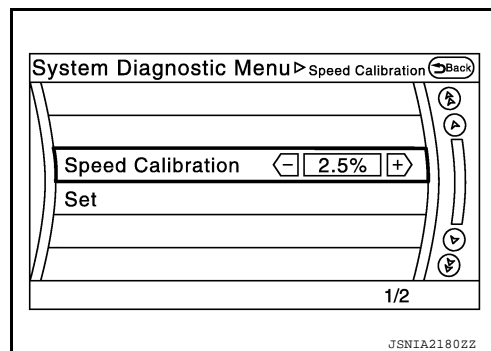
STEERING ANGLE ADJUSTMENT

The steering angle output value detected with the gyroscope is adjusted.



SPEED CALIBRATION

During normal driving, distance error caused by tire wear and tire pressure change is automatically adjusted for by the automatic distance correction function. This function, on the other hand, is for immediate adjustment, in cases such as driving with tire chain fitted on tires.



Error History

The self-diagnosis results are judged depending on whether any error occurs from when "Self-diagnosis" is selected until the self-diagnosis results are displayed.

However, the diagnosis results are judged normal if an error has occurred before the ignition switch is turned ON and then no error has occurred until the self-diagnosis start. Check the "Error Record" to detect any error that may have occurred before the self-diagnosis start because of this situation.

The error record displays the time and place of the most recent occurrence of that error. However, take note of the following points.

- If there is a malfunction with the GPS antenna circuit board in the AV control unit, the correct date and time of occurrence may not be able to be displayed.
- Place of the error occurrence is represented by the position of the current location mark at the time an error occurred. If current location mark has deviated from the correct position, then the place of the error occurrence cannot be located correctly.
- The frequency of occurrence is displayed in a count up manner. The actual count up method differs depending on the error item.

Count up method A

- The counter resets to 0 if an error occurs when ignition switch is turned ON. The counter increases by 1 if the condition is normal at a next ignition ON cycle.
- The counter upper limit is 39. Any counts exceeding 39 are ignored. The counter can be reset (no error record display) with the "Delete log" switch or CONSULT.

Count up method B

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

[PREMIUM AUDIO WITH NAVIGATION]

< SYSTEM DESCRIPTION >

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

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

Error item

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

Error item	Description	Possible malfunction factor/Action to take
CAN COMM CIRCUIT	CAN communication malfunction is detected.	Perform diagnosis with CONSULT, and then repair the malfunctioning parts according to the diagnosis results. Refer to AV-404, "CONSULT Function" .
CONTROL UNIT (CAN)	CAN initial diagnosis malfunction is detected.	Replace the AV control unit if the malfunction occurs constantly. Refer to AV-585, "Removal and Installation" .
CONTROL UNIT (AV)	AV communication circuit initial diagnosis malfunction is detected.	
FLASH-ROM Error Of Control Unit	AV control unit malfunction is detected.	
Connection Of Gyro		
Connection of G Sensor		
CAN Controller Memory Error		
Bluetooth® Module Connection Error		
Sub CPU Connection Error		
Audio connection error	AV control unit malfunction is detected.	<ul style="list-style-type: none"> • If a disc can be played, there is a possibility of an intermittent malfunction. • Replace the AV control unit if the malfunction occurs constantly. Refer to AV-585, "Removal and Installation".
DSP Connection Error		
DSP Communication Error	AV control unit malfunction is detected.	<ul style="list-style-type: none"> • If the hard disk drive (HDD) is functioning normally, there is a possibility of an intermittent malfunction. • Replace the AV control unit if the malfunction occurs constantly. Refer to AV-585, "Removal and Installation".
HDD Connection Error	AV control unit malfunction is detected.	
HDD Read Error		
HDD Write Error		
HDD Communication Error		
HDD Access Error		
GPS Communication Error	GPS malfunction is detected.	<ul style="list-style-type: none"> • An intermittent error caused by strong radio interference may be detected unless any symptom (GPS reception error, etc.) occurs. • Replace the AV control unit if the malfunction occurs constantly. Refer to AV-585, "Removal and Installation".
GPS ROM Error		
GPS RAM Error		
GPS RTC Error		
Unfinished configuration	The writing of configuration data is incomplete.	Write configuration data with CONSULT. Refer to AV-473, "CONFIGURATION (AV CONTROL UNIT) : Work Procedure" .
USB Controller Communication Error	USB connection malfunction is detected.	Check connection to USB connector is normal.

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< SYSTEM DESCRIPTION >

[PREMIUM AUDIO WITH NAVIGATION]

Error item	Description	Possible malfunction factor/Action to take
DVD Mechanism Communication Error	AV control unit malfunction is detected.	<ul style="list-style-type: none"> If DVD can be played, there is a possibility of an intermittent malfunction. Replace the AV control unit if the malfunction occurs constantly. Refer to AV-585, "Removal and Installation" .
Steer. Angle Sensor Calibration	Predictive course line center position adjustment of the steering angle sensor is incomplete.	Adjust the predictive course line center position of the steering angle sensor. Refer to AV-476, "PREDICTED COURSE LINE CENTER POSITION ADJUSTMENT : Work Procedure" .
Front Display Connection Error	When one of the following is detected: <ul style="list-style-type: none"> malfunction is detected in front display unit power supply and ground circuits. malfunction is detected in Serial communication circuits between AV control unit and front display unit. 	<ul style="list-style-type: none"> Front display unit power supply or ground circuit. Refer to AV-532, "DISPLAY UNIT : Diagnosis Procedure". Serial communication circuits between AV control unit and front display unit. Refer to AV-508, "Diagnosis Procedure".
<ul style="list-style-type: none"> AV COMM CIRCUIT 2nd Display Connection Error 	When one of the following is detected: <ul style="list-style-type: none"> malfunction is detected in video distributor power supply and ground circuits. malfunction is detected in headrest display unit (driver seat) power supply and ground circuits. malfunction is detected in AV communication circuits between AV control unit and headrest display unit (driver seat). 	<ul style="list-style-type: none"> Video distributor power supply or ground circuit. Refer to AV-536, "VIDEO DISTRIBUTOR : Diagnosis Procedure". Headrest display unit (driver seat) power supply or ground circuit. Refer to AV-537, "HEADREST DISPLAY UNIT : Diagnosis Procedure". AV communication circuits between AV control unit and headrest display unit (driver seat).
3rd Display Connection Error	When one of the following is detected: <ul style="list-style-type: none"> malfunction is detected in headrest display unit (passenger seat) power supply and ground circuits. malfunction is detected in AV communication circuits between headrest display unit (driver seat) and headrest display unit (passenger seat). 	<ul style="list-style-type: none"> Headrest display unit (passenger seat) power supply or ground circuit. Refer to AV-537, "HEADREST DISPLAY UNIT : Diagnosis Procedure". AV communication circuits between headrest display unit (driver seat) and headrest display unit (passenger seat). Refer to AV-512, "Diagnosis Procedure".
AM/FM antenna amplifier short to ground	Radio antenna amp. ON signal circuit malfunction is detected.	Radio antenna amp. ON signal circuit between AV control unit and antenna amp. Refer to AV-514, "Diagnosis Procedure" .
AM/FM antenna amplifier open		
GPS Antenna Error	GPS antenna connection malfunction is detected.	Check the connection of the GPS antenna connector.
USB electric current Error	Detection of overcurrent in USB connector.	Check USB harness between AV control unit and USB connector. Refer to AV-565, "Diagnosis Procedure" .
Front Left Tweeter: open	Malfunction is detected in sound signal circuits between BOSE speaker amp. and instrument panel tweeter LH.	Sound signal circuits between BOSE speaker amp. and instrument panel tweeter LH. Refer to AV-541, "Diagnosis Procedure" .
Front Left Tweeter: short		
Front Left Tweeter: short to ground		
Front Left Tweeter: short to battery		
Front Right Tweeter: open	Malfunction is detected in sound signal circuits between BOSE speaker amp. and instrument panel tweeter RH.	Sound signal circuits between BOSE speaker amp. and instrument panel tweeter RH. Refer to AV-541, "Diagnosis Procedure" .
Front Right Tweeter: short		
Front Right Tweeter: short to ground		
Front Right Tweeter: short to battery		

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DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< SYSTEM DESCRIPTION >

[PREMIUM AUDIO WITH NAVIGATION]

Error item	Description	Possible malfunction factor/Action to take
Left Front: open	Malfunction is detected in sound signal circuits between BOSE speaker amp. and front door speaker.	Sound signal circuits between BOSE speaker amp. and front door speaker. Refer to AV-547 . "Diagnosis Procedure".
Left Front: short		
Left Front: short to ground		
Left Front: short to battery		
Right Front: open		
Right Front: short		
Right Front: short to ground		
Right Front: short to battery	Malfunction is detected in sound signal circuits between BOSE speaker amp. and rear door speaker.	Sound signal circuits between BOSE speaker amp. and rear door speaker. Refer to AV-547 . "Diagnosis Procedure".
Left Rear: open		
Left Rear: short		
Left Rear: short to ground		
Left Rear: short to battery		
Right Rear: open		
Right Rear: short		
Right Rear: short to ground	When one of the following is detected:	<ul style="list-style-type: none"> A/C and AV switch assembly power supply or ground circuit. Refer to AV-535. "A/C AND AV SWITCH ASSEMBLY : Diagnosis Procedure". AV communication circuits between AV control unit and A/C and AV switch assembly.
<ul style="list-style-type: none"> AV COMM CIRCUIT Switches Connection Error 		
<ul style="list-style-type: none"> AV COMM CIRCUIT Switches Connection Error 2nd Display Connection Error 	Malfunction is detected in AV communication circuits between AV control unit and A/C and AV switch assembly.	AV communication circuits between AV control unit and A/C and AV switch assembly.

Vehicle CAN Diagnosis

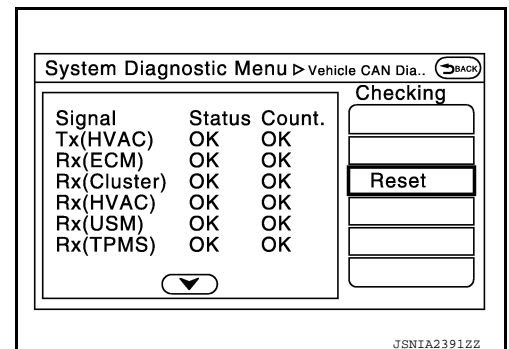
- CAN communication status and error counter is displayed.
- The error counter displays "OK" if any malfunction was not detected in the past and displays "0" if a malfunction is detected. It increases by 1 if the condition is normal at the next ignition switch ON cycle. The upper limit of the counter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

Items	Display (Current)	Malfunction counter (Past)
Tx(HVAC)	OK / ???	OK / 0 - 39
Rx(ECM)	OK / ???	OK / 0 - 39
Rx(Cluster)	OK / ???	OK / 0 - 39
Rx(HVAC)	OK / ???	OK / 0 - 39
Rx(USM)	OK / ???	OK / 0 - 39
Rx(TPMS)	OK / ???	OK / 0 - 39

NOTE:

"???" indicates UNKWN.

AV COMM Diagnosis



DIAGNOSIS SYSTEM (AV CONTROL UNIT)

[PREMIUM AUDIO WITH NAVIGATION]

< SYSTEM DESCRIPTION >

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

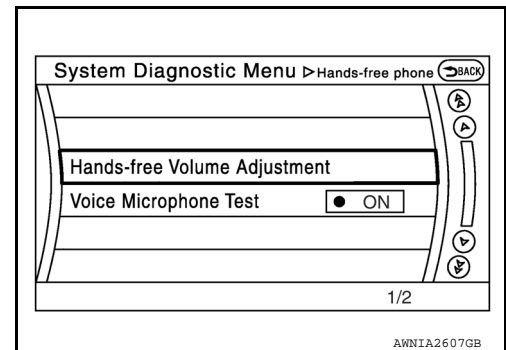
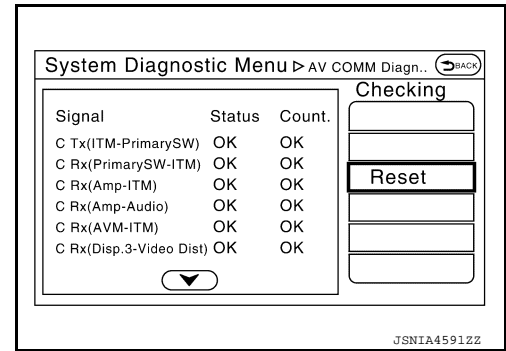
Items	Status (Current)	Counter (Past)
C Tx(ITM-PrimarySW)	OK / ???	OK / 0 – 39
C Rx(PrimarySW-ITM)	OK / ???	OK / 0 – 39
C Rx(Amp-ITM)	OK / ???	OK / 0 – 39
C Rx(Amp-Audio)	OK / ???	OK / 0 – 39
C Rx(AVM-ITM)	OK / ???	OK / 0 – 39
C Rx(Disp.3-Video Dist)	OK / ??? / –	OK / 0 – 39
C Rx(Video Dist-ITM)	OK / ???	OK / 0 – 39

NOTE:

“???” indicates UNKWN

Hands-Free Phone

The hands-free phone reception volume adjustment and microphone and speaker test functions are also available.

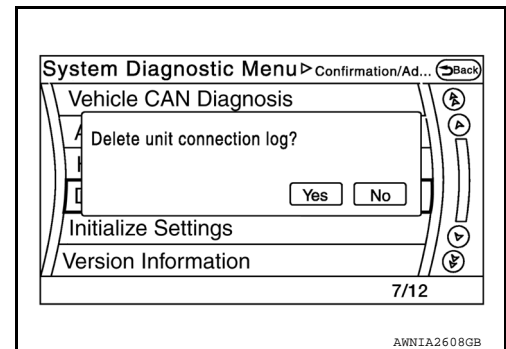


Camera Cont.

The three functions of “Alter/Confirm Configuration”, “Reset Configuration” and “Camera System Type” are available.

Delete Unit Connection Log

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



DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< SYSTEM DESCRIPTION >

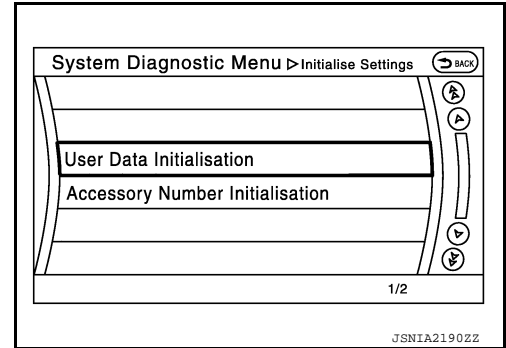
[PREMIUM AUDIO WITH NAVIGATION]

Initialize Settings

“User Data Initialization” and “Accessory Number Initialization” are possible.

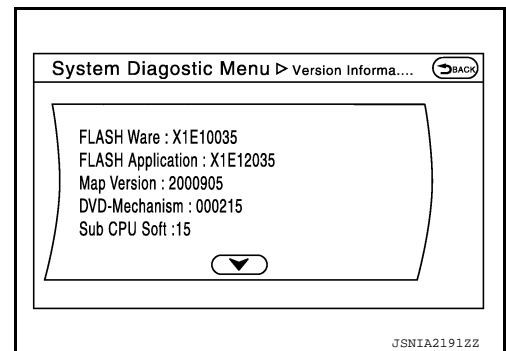
CAUTION:

- Never perform Accessory Number Initialization except when configuration is unsuccessful.
- Accessory Number Initialization requires configuration. For details, refer to [AV-473, "CONFIGURATION \(AV CONTROL UNIT\) : Description"](#).



Version Information

Version information of the AV control unit is displayed.



CONSULT Function

INFOID:000000008954354

CONSULT FUNCTIONS

CONSULT performs the following functions via communication with the AV control unit.

Direct Diagnostic Mode	Description
Ecu Identification	The AV control unit part number is displayed.
Self Diagnostic Result	The AV control unit self diagnostic results are displayed.
Data Monitor	The AV control unit input/output data is displayed in real time.
Work support	The settings for AV control unit functions can be changed.
Configuration	<ul style="list-style-type: none"> • The vehicle specification can be read and saved. • The vehicle specification can be written when replacing AV control unit.
CAN Diag Support Mntr	<ul style="list-style-type: none"> • The result of transmit/receive diagnosis of AV communication is displayed. • The result of transmit/receive diagnosis of CAN communication is displayed.

ECU IDENTIFICATION

The part number of AV control unit is displayed.

SELF DIAGNOSTIC RESULT

Refer to [AV-416, "DTC Index"](#).

DATA MONITOR

Monitor Item [Unit]	Description
VHCL SPD SIG [On/Off]	Indicates vehicle speed signal received from combination meter on CAN communication line.
PKB SIG [On/Off]	Indicates condition of park brake signal.
ILLUM SIG [On/Off]	Indicates condition of illumination signal for the A/C and AV switch assembly.

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< SYSTEM DESCRIPTION >

[PREMIUM AUDIO WITH NAVIGATION]

Monitor Item [Unit]	Description
IGN SIG [On/Off]	Indicates condition of ignition signal.
REV SIG [On/Off]	Indicates condition of reverse signal received from BCM.

WORK SUPPORT

Conditions	Description
ST ANGLE SENSOR ADJUSTMENT	Steering angle sensor neutral position adjustment can be performed. Refer to BRC-55, "Description" .

CONFIGURATION

Refer to [AV-473, "CONFIGURATION \(AV CONTROL UNIT\) : Description"](#).

CAN DIAG SUPPORT MNTR

Refer to [LAN-17, "CAN Diagnostic Support Monitor"](#).

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DIAGNOSIS SYSTEM (AROUND VIEW MONITOR CONTROL UNIT)

< SYSTEM DESCRIPTION >

[PREMIUM AUDIO WITH NAVIGATION]

DIAGNOSIS SYSTEM (AROUND VIEW MONITOR CONTROL UNIT)

CONSULT Function

INFOID:000000008954355

CONSULT FUNCTIONS

CONSULT performs the following functions via communication with the around view monitor control unit.

Direct Diagnostic Mode	Description
Ecu Identification	The around view monitor control unit part number is displayed.
Self Diagnostic Result	The around view monitor control unit self diagnostic results are displayed.
Data Monitor	The around view monitor control unit input/output data is displayed in real time.
Work support	The settings for around view monitor control unit functions can be changed.
Configuration	<ul style="list-style-type: none">The vehicle specification can be read and saved.The vehicle specification can be written when replacing around view monitor control unit.
CAN Diag Support Mntr	The result of transmit/receive diagnosis of CAN communication is displayed.

ECU IDENTIFICATION

The part number of around view monitor control unit is displayed.

SELF DIAGNOSTIC RESULT

Refer to [AV-431, "DTC Index"](#).

DATA MONITOR

Monitor Item	Description
ST ANGLE SENSOR SIGNAL [On/Off]	Indicates condition of steering angle sensor signal.
REVERSE SIGNAL [On/Off]	Indicates selector lever position.
VEHICLE SPEED SIGNAL [mph/km/h]	Indicates condition of vehicle speed signal.
CAMERA SWITCH SIGNAL [On/Off]	Indicates condition of camera switch signal.
CAMERA OFF SIGNAL [On/Off]	Indicates condition of camera OFF signal.
ST ANGLE SENSOR TYPE [Absolute]	Indicates steering angle sensor type.
STEERING GEAR RATIO TYPE [Type O]	Indicates steering gear ratio type.
STEERING POSITION [LHD/RHD]	Indicates LH or RH drive type.
REAR CAMERA IMAGE SIGNAL [OK/NG]	Indicates condition of camera image signal.
F-CAMERA IMAGE SIGNAL [OK/NG]	Indicates condition of camera image signal.
DR-SIDE CAMERA IMAGE SIG [OK/NG]	Indicates condition of camera image signal.
PA-SIDE CAMERA IMAGE SIG [OK/NG]	Indicates condition of camera image signal.

WORK SUPPORT

Support Item	Setting	Description
NON-VIEWABLE AREA REMINDER	—	ON/OFF setting of non-viewable area can be performed.
INITIALIZE CAMERA IMAGE CALIBRATION	—	Factory image calibration restoration can be performed.
STEERING ANGLE SENSOR ADJUSTMENT	—	Steering angle sensor neutral position adjustment can be performed.
CALIBRATING CAMERA IMAGE (FRONT CAMERA)	STATUS	Performs calibration of front camera.
	AXIS X	
	AXIS Y	
	ROTATE	

DIAGNOSIS SYSTEM (AROUND VIEW MONITOR CONTROL UNIT)

< SYSTEM DESCRIPTION >

[PREMIUM AUDIO WITH NAVIGATION]

Support Item	Setting	Description
CALIBRATING CAMERA IMAGE (PASS-SIDE CAMERA)	STATUS	Performs calibration of passenger side camera.
	AXIS X	
	AXIS Y	
	ROTATE	
CALIBRATING CAMERA IMAGE (DR-SIDE CAMERA)	STATUS	Performs calibration of driver side camera.
	AXIS X	
	AXIS Y	
	ROTATE	
CALIBRATING CAMERA IMAGE (REAR CAMERA)	STATUS	Performs calibration of rear camera.
	AXIS X	
	AXIS Y	
	ROTATE	
FINE TUNING OF BIRDS-EYE VIEW	STATUS	Confirmation and adjustment of difference between each camera can be performed.
	SELECT	
	AXIS X	
	AXIS Y	
	ROTATE	

CONFIGURATION

Refer to [AV-475, "CONFIGURATION \(AROUND VIEW MONITOR CONTROL UNIT\) : Description"](#).

CAN DIAG SUPPORT MNTR

Refer to [LAN-17, "CAN Diagnostic Support Monitor"](#).

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DIAGNOSIS SYSTEM (HEADREST DISPLAY UNIT)

< SYSTEM DESCRIPTION >

[PREMIUM AUDIO WITH NAVIGATION]

DIAGNOSIS SYSTEM (HEADREST DISPLAY UNIT)

Description

INFOID:000000008954357

Self-diagnosis of headrest display unit can be performed by operating rear seat remote controller.

On Board Diagnosis Function

INFOID:000000008954358

Self-diagnosis mode can check the following items.

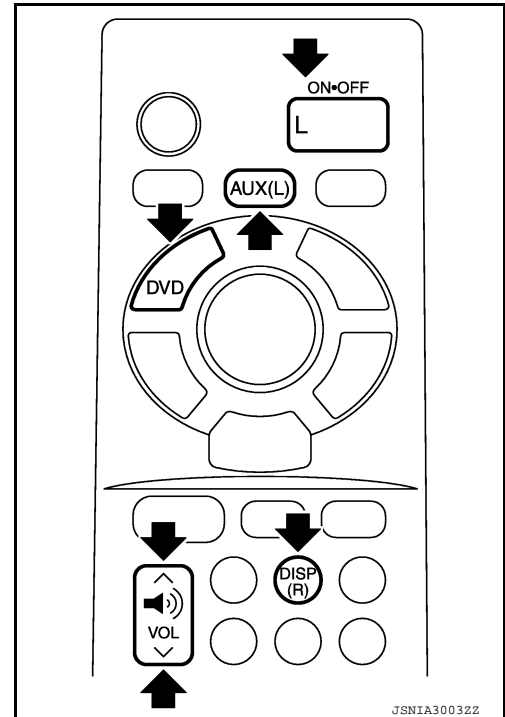
Diagnosis item	Display	Description
Display Location	Left/Right/Unknown	Installation location of headrest display unit is displayed. NOTE: If displayed location is different from the actual location or shown as "unknown", check location recognition signal circuit.
Software Ver.	*****	Software version of headrest display unit is displayed.
Hardware Ver.	*****	Hardware version of headrest display unit is displayed.
Seat Position	OK	Not used for this vehicle.

METHOD OF STARTING

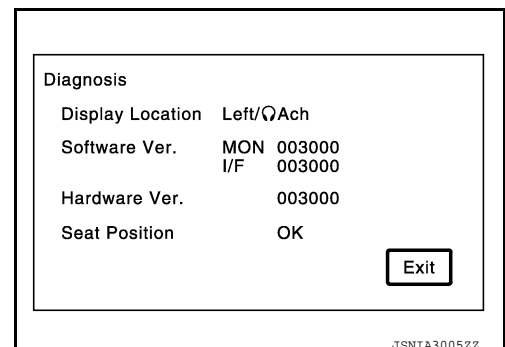
1. Turn ignition switch to the ON position.
2. Turn the headrest display unit OFF.
3. Press each switch of rear seat remote controller in the order shown below.
"AUX(L)" → "VOL DOWN" → "DISP(R)" → "VOL UP" → "DVD" → "L"

NOTE:

- Operation must be done within 20 seconds.
- Perform the operation of rear seat remote controller for headrest display unit of each side.



4. When the rear seat remote operation is performed as shown on procedure 3, self-diagnosis screen is displayed.



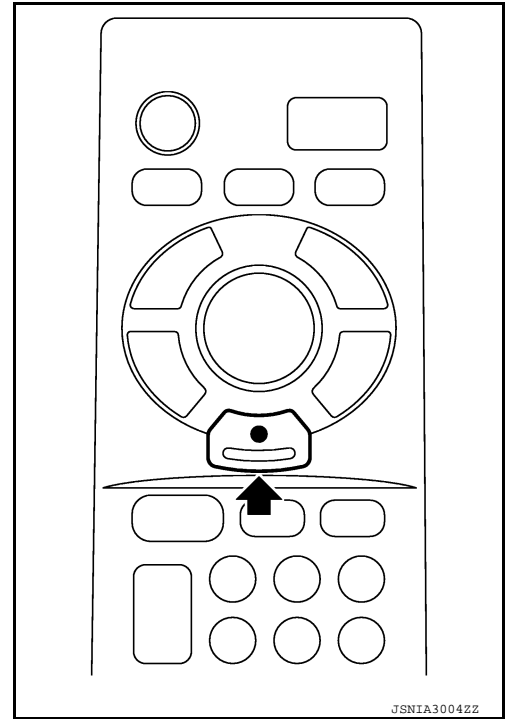
DIAGNOSIS SYSTEM (HEADREST DISPLAY UNIT)

< SYSTEM DESCRIPTION >

[PREMIUM AUDIO WITH NAVIGATION]

Finishing Self-diagnosis Mode

Self-diagnosis mode is canceled when pressing the enter switch of rear seat remote controller.



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AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[PREMIUM AUDIO WITH NAVIGATION]

ECU DIAGNOSIS INFORMATION

AV CONTROL UNIT

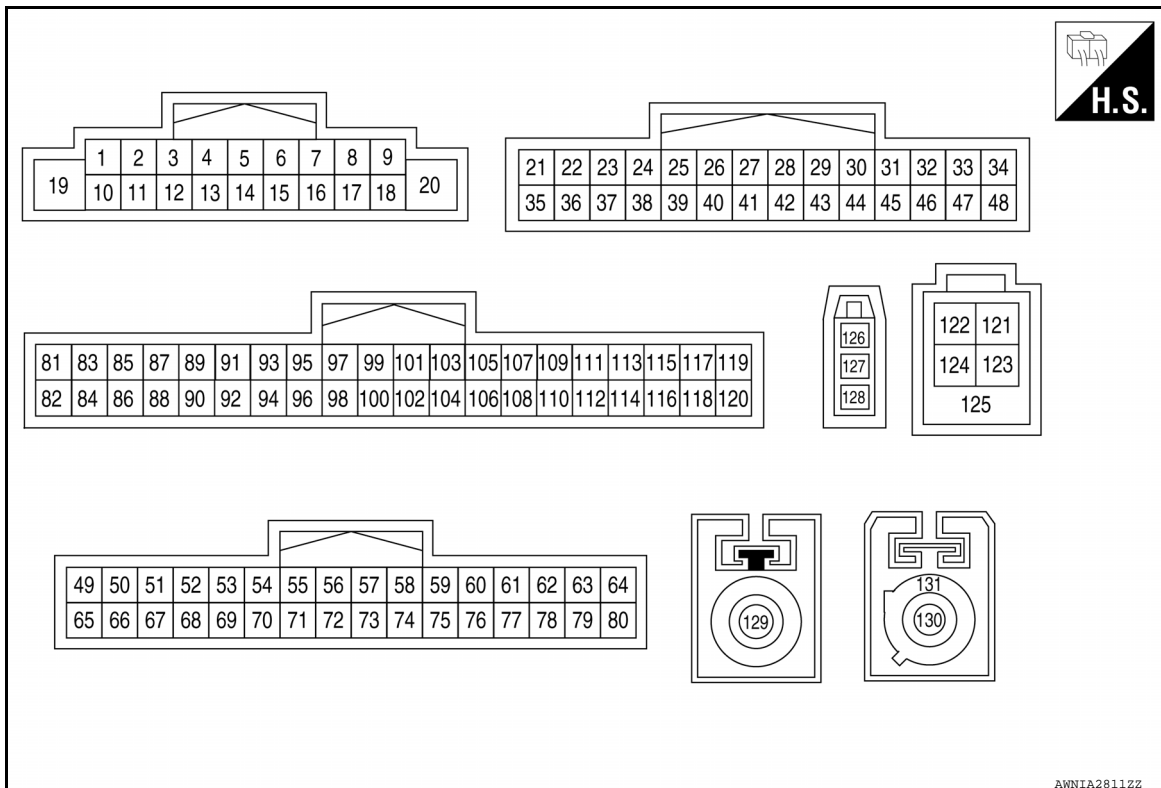
Reference Value

INFOID:000000008954359

VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition	Value/Status
VHCL SPD SIG	Vehicle speed = 0 km/h (0 MPH).	Off
	Vehicle speed > 0 km/h (0 MPH).	On
PKB SIG	Parking brake released.	Off
	Parking brake applied.	On
ILLUM SIG	Illumination signal is not received.	Off
	Illumination signal is received.	On
IGN SIG	Ignition switch OFF or ACC.	Off
	Ignition switch ON.	On
REV SIG	Selector lever in any position other than R.	Off
	Selector lever in R position.	On

TERMINAL LAYOUT

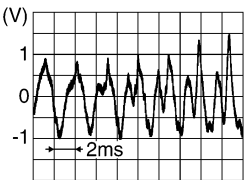
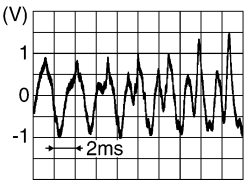

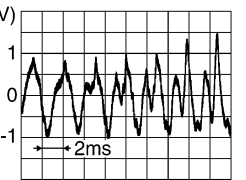
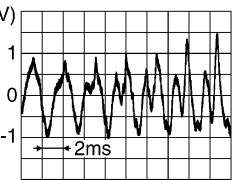


PHYSICAL VALUES

AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[PREMIUM AUDIO WITH NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/ Output			
1 (SB)	Ground	Bose Amp. ON signal	Output	Ignition switch ACC	—	Battery voltage
2 (B)	3 (W)	Sound signal front LH	Output	Ignition switch ON	Sound output	 <small>SKIB3609E</small>
4 (B)	5 (W)	Sound signal rear LH	Output	Ignition switch ON	Sound output	 <small>SKIB3609E</small>
6 (G)	15 (B)	Steering switch signal A	Input	Ignition switch ON	Keep pressing SOURCE switch. Keep pressing Δ switch. Keep pressing ∇ switch. Keep pressing  switch Keep pressing ENTER switch. Except for above.	0 V 1.0 V 2.0 V 3.0 V 4.0 V 5.0 V
7 (P)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
10 (BR)	—	Shield	—	—	—	—
11 (W)	12 (B)	Sound signal front RH	Output	Ignition switch ON	Sound output	 <small>SKIB3609E</small>
13 (B)	14 (W)	Sound signal rear RH	Output	Ignition switch ON	Sound output	 <small>SKIB3609E</small>

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AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

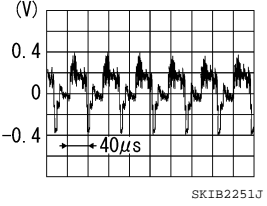
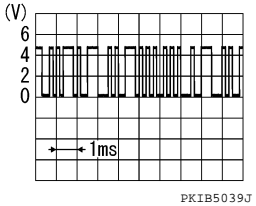
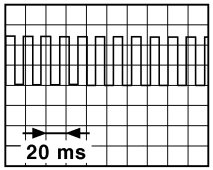
[PREMIUM AUDIO WITH NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/ Output			
16 (W)	15 (B)	Steering switch signal B	Input	Ignition switch ON	Keep pressing switch.	0 V
					Keep pressing switch.	1.0 V
					Keep pressing switch.	2.0 V
					Keep pressing switch.	3.0 V
					Keep pressing DISP switch.	4.0 V
					Except for above.	5.0 V
19 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
20 (B)	Ground	Ground	—	Ignition switch ON	—	0 V
24 (R)	39 (B)	AUX sound signal LH	Input	Ignition switch ON	When front AUX mode is selected.	 <small>SKIB3609E</small>
26 (W)	40 (R)	Sound signal LH	Output	Ignition switch ON	When DVD or USB mode is selected on headrest dis- play unit LH or RH.	 <small>SKIB3609E</small>
27 (B)	41 (G)	Sound signal RH	Output	Ignition switch ON	When DVD or USB mode is selected on headrest dis- play unit LH or RH.	 <small>SKIB3609E</small>
37	—	Shield	—	—	—	—
38 (W)	39 (B)	AUX sound signal RH	Input	Ignition switch ON	When front AUX mode is selected.	 <small>SKIB3609E</small>
42	—	Shield	—	—	—	—

AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[PREMIUM AUDIO WITH NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/ Output			
53 (G)	Ground	Parking brake signal	Input	Ignition switch ON	Parking brake is applied.	0 V
					Parking brake is released.	4.5 V
55 (W)	Ground	Composite image signal ground	—	Ignition switch ON	—	0 V
56 (B)	Ground	Composite image signal	Output	Ignition switch ON	At DVD image is displayed.	
57 (BG)	—	I-Key memory	—	—	—	—
60 (W)	Ground	Microphone VCC	Output	Ignition switch ON	—	5.0 V
61 (W)	Ground	Communication signal (CONT→DISP)	Output	Ignition switch ON	When adjusting display brightness.	
62 (P)	—	CAN-L	Input/ Output	—	—	—
63 (LG)	—	AV communication signal (L)	Input/ Output	—	—	—
64 (LG)	—	M CAN-L TRM	—	—	—	—
67 (P)	—	MR output	—	—	—	—
68 (LG)	Ground	Ignition signal	Input	Ignition switch ON	—	Battery voltage
69 (R)	Ground	Reverse signal	Input	Ignition switch ON	Selector lever is in R posi- tion.	Battery voltage
					Selector lever is in other than R position.	0 V
70 (BG)	Ground	Vehicle speed signal (8- pulse)	Input	Ignition switch ON	When vehicle speed is ap- prox. 40 km/h (25 MPH)	<p>NOTE: The maximum voltage varies de- pending on the specification (destination unit).</p> 

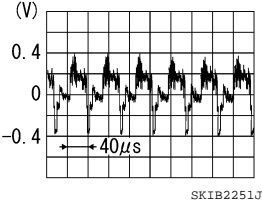
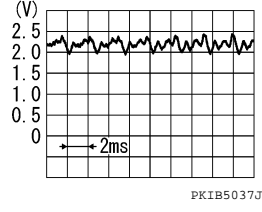
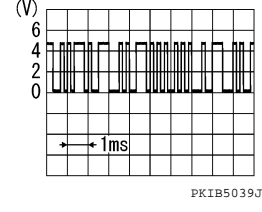
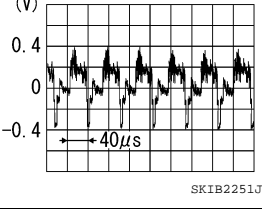
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AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

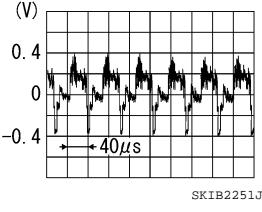
[PREMIUM AUDIO WITH NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/ Output			
71	—	Shield	—	—	—	—
72 (R)	Ground	Composite image synchronizing signal	Output	Ignition switch ON	At DVD image is displayed.	
75 (B)	59	Microphone signal	Input	Ignition switch ON	Give a voice.	
76	—	Shield	—	—	—	—
77 (B)	Ground	Communication signal (DISP→CONT)	Input	Ignition switch ON	When adjusting display brightness.	
78 (L)	—	CAN-H	Input/ Output	—	—	—
79 (SB)	—	AV communication signal (H)	Input/ Output	—	—	—
80 (SB)	—	M CAN-H TRM	—	—	—	—
91 (W)	Ground	AUX image signal	Input	Ignition switch ON	At front AUX image is displayed.	
92 (B)	Ground	AUX image signal ground	—	Ignition switch ON	—	0 V
94	—	Shield	—	—	—	—
97 (Y)	Ground	Disk eject signal	Input	Ignition switch ON	Pressing the eject switch.	0 V
					Except for above.	5.0 V
98 (V)	Ground	Switch ground	—	Ignition switch ON	—	0 V
105 (W)	Ground	Composite image signal ground	—	Ignition switch ON	—	0 V

AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[PREMIUM AUDIO WITH NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/ Output			
106	—	Shield	—	—	—	—
107 (B)	Ground	Composite image signal	Output	Ignition switch ON	When DVD, USB or front AUX image is displayed on headrest display unit LH or RH.	
121 (G)	—	V BUS signal	—	—	—	—
122 (W)	—	USB D+ signal	—	—	—	—
123 (R)	—	USB ground	—	—	—	—
124 (L)	—	USB D- signal	—	—	—	—
125	—	Shield	—	—	—	—
126 (B)	—	FM sub	Input	—	—	—
127 (B)	Ground	Antenna amp. ON signal	Input	Ignition switch ON	—	Battery voltage
128 (B)	—	AM-FM main	Input	—	—	—
129 (B)	Ground	Satellite radio antenna sig- nal	Input	Ignition switch ON	Satellite antenna discon- nected.	5.0 V
130 (B)	131	GPS antenna signal	Input	Ignition switch ON	GPS antenna disconnect- ed.	5.0 V

Fail-Safe

INFOID:000000008954360

When the ambient temperature becomes extremely low or extremely high, AV control unit displays a message and limits the function of the AV control unit.

FAIL-SAFE CONDITIONS

When the ambient temperature is -20°C (-4°F) or lower, or when it is 70°C (158°F) or higher.

Display

The following messages are displayed during fail-safe:

Fail-safe mode	Display
When HDD temperature is low	HDD system is experiencing problems due to extreme low temperature. Normal operation will resume when temperature rises.
When HDD temperature is high	HDD system is experiencing problems due to extreme high temperature. Normal operation will resume when temperature drops.

DESCRIPTION OF CONTROLS

AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[PREMIUM AUDIO WITH NAVIGATION]

Function		Fail-safe mode activated
Air conditioner	Operation	A/C and AV switch assembly can be operated.
	Display	<ul style="list-style-type: none"> • LEDs of A/C and AV switch assembly illuminate. • Temperature, mode and blower speed are displayed in a simplified mode.
Audio	Operation	Only ON/OFF and volume control operations of A/C and AV switch assembly are available.
	Display	"Fail-safe mode" is displayed.
Camera	Operation	Image tone cannot be controlled.
	Display	Cannot be superimposed. (warning display, tone control display)
Hands-free phone	Operation	Inoperative.
Navigation	Operation	Inoperative.
Self diagnosis		Displays in a simplified mode.
CONSULT diagnosis		Inoperative.

Ability Operation Mode

If HDD data can be read, "Fail-safe mode" is displayed and functions listed above can be operated.

DTC Index

INFOID:000000008954361

SELF-DIAGNOSIS RESULTS DISPLAY ITEM

CONSULT Display	Reference Page
U1000: CAN COMM CIRCUIT	AV-482, "DTC Logic"
U1010: CONTROL UNIT (CAN)	AV-483, "DTC Logic"
U1200: CONT UNIT	AV-484, "DTC Logic"
U1201: GYRO NO CONN	AV-485, "DTC Logic"
U1202: G-SENSOR NO CONN	AV-486, "DTC Logic"
U1204: GPS COMM	AV-487, "DTC Logic"
U1205: GPS ROM	AV-488, "DTC Logic"
U1206: GPS RAM	AV-489, "DTC Logic"
U1207: GPS RTC	AV-490, "DTC Logic"
U1216: CAN CONT	AV-491, "DTC Logic"
U1217: BLUETOOTH MODULE	AV-492, "DTC Logic"
U1218: HDD CONN	AV-493, "DTC Logic"
U1219: HDD READ	AV-494, "DTC Logic"
U121A: HDD WRITE	AV-495, "DTC Logic"
U121B: HDD COMM	AV-496, "DTC Logic"
U121C: HDD ACCESS	AV-497, "DTC Logic"
U121D: DSP CONN	AV-498, "DTC Logic"
U121E: DSP COMM	AV-499, "DTC Logic"
U1225: USB CONTROLLER	AV-500, "DTC Logic"
U1227: DVD COMM	AV-501, "DTC Logic"
U1228: SUB CPU CONN	AV-502, "DTC Logic"
U1229: iPod CERTIFICATION	AV-503, "DTC Logic"
U122A: CONFIG UNFINISH	AV-504, "DTC Logic"
U122E: Built-in AUDIO CONN	AV-505, "DTC Logic"
U1231: AMP TEMP	AV-506, "DTC Logic"
U1232: ST ANGLE SEN CALIB	AV-507, "DTC Logic"

AV CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[PREMIUM AUDIO WITH NAVIGATION]

CONSULT Display	Reference Page	
U1243: FRONT DISP CONN	AV-508, "DTC Logic"	A
U1244: GPS ANTENNA CONN	AV-510, "DTC Logic"	
U1258: XM ANTENNA CONN	AV-511, "DTC Logic"	B
U125A: 3RD DISP CONN	AV-512, "DTC Logic"	
U1263: USB OVERCURRENT	AV-513, "DTC Logic"	
U1264: ANTENNA AMP TERMINAL (OPEN or SHORT)	AV-514, "DTC Logic"	C
U1265: AMP ON TERMINAL (GND-SHORT or VB-SHORT)	AV-515, "DTC Logic"	
<ul style="list-style-type: none"> • U1300: AV COMM CIRCUIT • U1240: SWITCH CONN 		D
<ul style="list-style-type: none"> • U1300: AV COMM CIRCUIT • U124E: AMP CONN 		E
<ul style="list-style-type: none"> • U1300: AV COMM CIRCUIT • U1246: VIDEO DIST CONN 		F
<ul style="list-style-type: none"> • U1300: AV COMM CIRCUIT • U125B: AROUND CAMERA CONN 		G
<ul style="list-style-type: none"> • U1300: AV COMM CIRCUIT • U125C: SONAR CONN 	AV-516, "Description"	H
<ul style="list-style-type: none"> • U1300: AV COMM CIRCUIT • U1240: SWITCH CONN • U125C: SONAR CONN • U125B: AROUND CAMERA CONN • U1246: VIDEO DIST CONN 		I
<ul style="list-style-type: none"> • U1300: AV COMM CIRCUIT • U1240: SWITCH CONN • U124E: AMP CONN • U125C: SONAR CONN • U125B: AROUND CAMERA CONN • U1246: VIDEO DIST CONN 		J
U1310: CONTROL UNIT (AV)	AV-525, "DTC Logic"	
U1601: FL-DOOR WOOFER/TWEETER (OPEN, SHORT, GND-SHORT)		K
U1603: FL-DOOR WOOFER/TWEETER (VB-SHOR)		
U1609: FR-DOOR WOOFER/TWEETER (OPEN, SHORT, GND-SHORT)	AV-526, "DTC Logic"	L
U160B: FR-DOOR WOOFER/TWEETER (VB-SHOR)		M
U1627: F-INST L-TWEETER (OPEN, SHORT, GND-SHORT or VB-SHOR)		
U162F: F-INST R-TWEETER (OPEN, SHORT, GND-SHORT or VB-SHOR)	AV-527, "DTC Logic"	AV
U162A: F-INST C-SQAWK (OPEN, SHORT, GND-SHORT or VB-SHOR)	AV-528, "DTC Logic"	O
U1684: 2L-DOOR SPEAKER/TWEETER (OPEN, SHORT, GND-SHORT)		
U168C: 2R-DOOR SPEAKER/TWEETER (OPEN, SHORT, GND-SHORT)	AV-529, "DTC Logic"	P
U175D: R-LUGGAGE L-WOOFER (OPEN, SHORT, GND-SHORT or VB-SHOR)	AV-530, "DTC Logic"	
U176A: R-ROOF L-WK (OPEN, SHORT, GND-SHORT or VB-SHOR)		
U1772: R-ROOF R-WK (OPEN, SHORT, GND-SHORT or VB-SHOR)	AV-531, "DTC Logic"	

DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

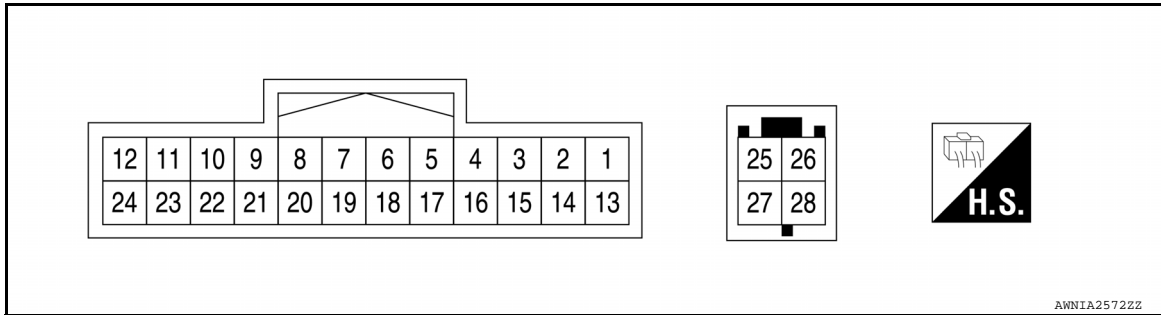
[PREMIUM AUDIO WITH NAVIGATION]

DISPLAY UNIT

Reference Value

INFOID:000000008954362

TERMINAL LAYOUT



PHYSICAL VALUES

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/ Output			
6	—	Shield	—	—	—	—
7	—	Shield	—	—	—	—
8 (B)	Ground	Camera image signal	Input	Ignition switch ON	At camera image is displayed.	<p>SKIB2251J</p>
9 (B)	Ground	Communication signal (DISP→CONT)	Output	Ignition switch ON	When adjusting display brightness.	<p>PKIB5039J</p>
10 (W)	Ground	Communication signal (CONT→DISP)	Input	Ignition switch ON	When adjusting display brightness.	<p>PKIB5039J</p>
11 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
12 (B)	Ground	Ground	—	Ignition switch ON	—	0 V

DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[PREMIUM AUDIO WITH NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/ Output			
18 (B)	Ground	Composite image signal	Input	Ignition switch ON	At DVD image is displayed.	
19 (W)	Ground	Composite image signal ground	—	Ignition switch ON	—	0 V
20 (R)	Ground	Composite image synchro- nizing signal	Input	Ignition switch ON	—	
22	—	Shield	—	—	—	—
23 (P)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage

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BOSE AMP.

< ECU DIAGNOSIS INFORMATION >

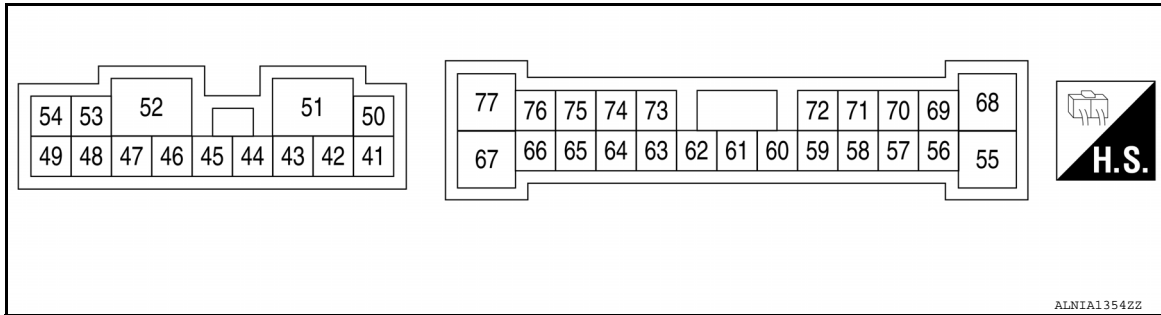
[PREMIUM AUDIO WITH NAVIGATION]

BOSE AMP.

Reference Value

INFOID:000000008954363

TERMINAL LAYOUT



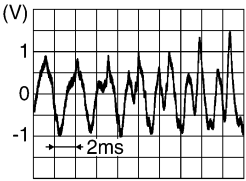
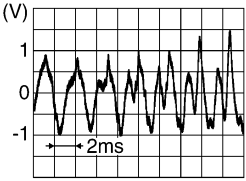
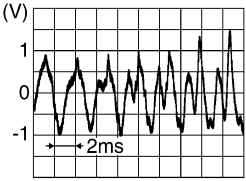
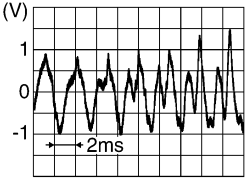
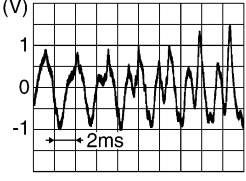
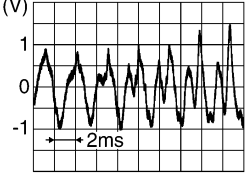
PHYSICAL VALUES

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/ Output			
41 (R)	42 (G)	Sound signal tweeter LH	Output	Ignition switch ON	Sound output	 SKIB3609E
44 (W)	43 (G)	Sound signal rear speaker RH	Output	Ignition switch ON	Sound output	 SKIB3609E
45 (G)	46 (W)	Sound signal tweeter RH	Output	Ignition switch ON	Sound output	 SKIB3609E
47 (B)	—	Ground	—	Ignition switch ON	—	0 V
50 (LG)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
51 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
52 (B)	—	Ground	—	Ignition switch ON	—	0 V

BOSE AMP.

< ECU DIAGNOSIS INFORMATION >

[PREMIUM AUDIO WITH NAVIGATION]

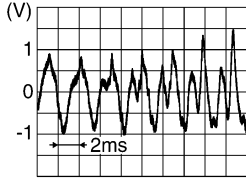
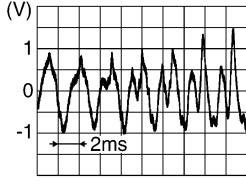
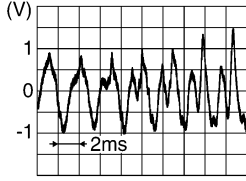
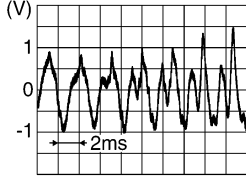
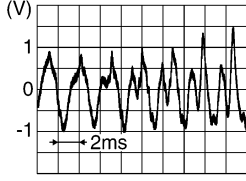
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/ Output			
53 (W)	48 (G)	Sound signal rear speaker LH	Output	Ignition switch ON	Sound output	 <p style="text-align: right; font-size: small;">SKIB3609E</p>
54 (G)	49 (W)	Sound signal rear door speaker RH	Output	Ignition switch ON	Sound output	 <p style="text-align: right; font-size: small;">SKIB3609E</p>
57 (W)	56 (B)	Sound signal woofer	Output	Ignition switch ON	Sound output	 <p style="text-align: right; font-size: small;">SKIB3609E</p>
58 (G)	59 (R)	Sound signal front door speaker LH	Output	Ignition switch ON	Sound output	 <p style="text-align: right; font-size: small;">SKIB3609E</p>
60 (W)	Ground	BOSE amp. ON signal	Input	Ignition switch ON	—	Battery voltage
61	—	Shield	—	—	—	—
62 (W)	—	—	—	—	—	—
64 (B)	63 (W)	Sound signal rear LH	Input	Ignition switch ON	Sound output	 <p style="text-align: right; font-size: small;">SKIB3609E</p>
66 (B)	65 (W)	Sound signal rear RH	Input	Ignition switch ON	Sound output	 <p style="text-align: right; font-size: small;">SKIB3609E</p>

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BOSE AMP.

< ECU DIAGNOSIS INFORMATION >

[PREMIUM AUDIO WITH NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/ Output			
68 (P)	55 (R)	Sound signal rear door speaker LH	Output	Ignition switch ON	Sound output	 <p style="text-align: right; font-size: small;">SKIB3609E</p>
69 (P)	70 (R)	Sound signal center speaker	Output	Ignition switch ON	Sound output	 <p style="text-align: right; font-size: small;">SKIB3609E</p>
71 (W)	72 (P)	Sound signal front door speaker RH	Output	Ignition switch ON	Sound output	 <p style="text-align: right; font-size: small;">SKIB3609E</p>
73 (B)	74 (W)	Sound signal front RH	Input	Ignition switch ON	Sound output	 <p style="text-align: right; font-size: small;">SKIB3609E</p>
75 (B)	76 (W)	Sound signal front LH	Input	Ignition switch ON	Sound output	 <p style="text-align: right; font-size: small;">SKIB3609E</p>

VIDEO DISTRIBUTOR

< ECU DIAGNOSIS INFORMATION >

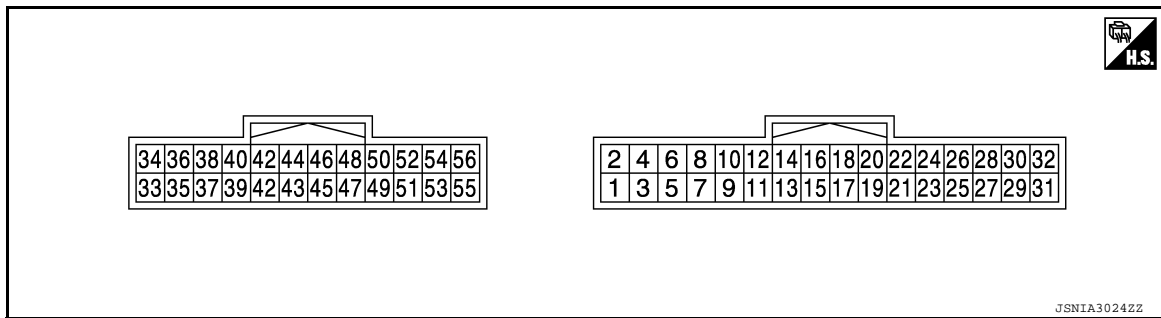
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VIDEO DISTRIBUTOR

Reference Value

INFOID:000000008954364

TERMINAL LAYOUT



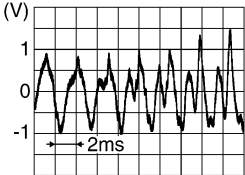
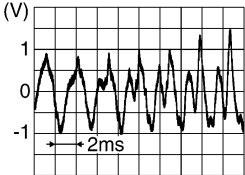
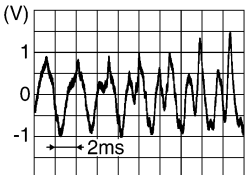
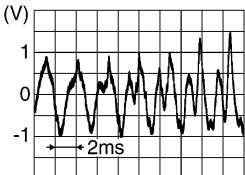
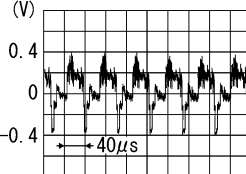
PHYSICAL VALUES

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/ Output			
1 (B)	—	Ground	—	Ignition switch ON	—	0 V
2 (V)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
3 (B)	—	Ground	—	Ignition switch ON	—	0 V
4 (W)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
5 (BR)	Ground	Cont. ground for headrest display unit RH	—	Ignition switch ON	—	0 V
6 (L)	Ground	ACC signal for headrest display unit RH	Output	Ignition switch OFF	—	3.3 V
				Ignition switch ACC	—	0 V
7 (SB)	Ground	Cont. ground for headrest display unit LH	—	Ignition switch ON	—	0 V
8 (BR)	Ground	ACC signal for headrest display unit LH	Output	Ignition switch OFF	—	3.3 V
				Ignition switch ACC	—	0 V
9 (SB)	Ground	Image switch signal for headrest display unit RH	Input	Ignition switch ON	When DVD, USB or front AUX image is displayed on headrest display unit RH.	0.5 V
					When rear AUX image is displayed on headrest dis- play unit RH.	4.5 V

VIDEO DISTRIBUTOR

< ECU DIAGNOSIS INFORMATION >

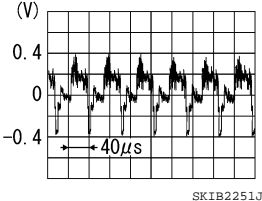
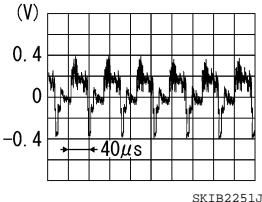
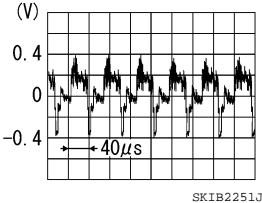
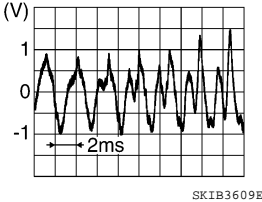
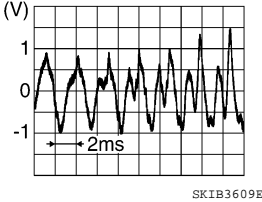
[PREMIUM AUDIO WITH NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/ Output			
10 (L)	Ground	Image switch signal for headrest display unit LH	Input	Ignition switch ON	When DVD, USB or front AUX image is displayed on headrest display unit LH.	0.5 V
					When rear AUX image is displayed on headrest display unit LH.	4.5 V
14 (R)	15 (G)	Headphone sound signal RH for headrest display unit RH	Output	Ignition switch ON	Output headphone sound from headrest display unit RH to headphone.	 <small>SKIB3609E</small>
16 (B)	17 (W)	Headphone sound signal LH for headrest display unit RH	Output	Ignition switch ON	Output headphone sound from headrest display unit RH to headphone.	 <small>SKIB3609E</small>
18 (V)	Ground	AV ground for headrest display unit RH	—	Ignition switch ON	—	0 V
19 (V)	Ground	AV ground for headrest display unit LH	—	Ignition switch ON	—	0 V
20 (B)	21 (G)	Headphone sound signal RH for headrest display unit LH	Output	Ignition switch ON	Output headphone sound from headrest display unit LH to headphone.	 <small>SKIB3609E</small>
22 (W)	23 (R)	Headphone sound signal LH for headrest display unit LH	Output	Ignition switch ON	Output headphone sound from headrest display unit LH to headphone.	 <small>SKIB3609E</small>
27 (W)	Ground	Composite image signal ground for headrest display unit RH	—	Ignition switch ON	—	0 V
28 (B)	Ground	Composite image signal for headrest display unit RH	Output	Ignition switch ON	When DVD, USB, front AUX or rear AUX image is displayed on headrest display unit RH.	 <small>SKIB2251J</small>

VIDEO DISTRIBUTOR

< ECU DIAGNOSIS INFORMATION >

[PREMIUM AUDIO WITH NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/ Output			
29	—	Shield	—	—	—	—
30	—	Shield	—	—	—	—
31 (P)	Ground	Composite image signal ground for headrest display unit LH	—	Ignition switch ON	—	0 V
32 (L)	Ground	Composite image signal for headrest display unit LH	Output	Ignition switch ON	When DVD, USB, front AUX or rear AUX image is displayed on headrest display unit LH.	
33 (W)	Ground	Composite image signal ground	—	Ignition switch ON	—	0 V
34 (B)	Ground	Composite image signal	Input	Ignition switch ON	When DVD, USB or front AUX image is displayed on headrest display unit LH or RH.	
35	—	Shield	—	—	—	—
40 (B)	39 (W)	AUX image signal	Input	Ignition switch ON	When rear AUX image is displayed on headrest display unit LH or RH.	
41	—	Shield	—	—	—	—
45 (W)	46 (R)	Sound signal LH	Input	Ignition switch ON	When DVD, USB or front AUX mode is selected on headrest display unit LH or RH.	
47 (B)	48 (G)	Sound signal RH	Input	Ignition switch ON	When DVD, USB or front AUX mode is selected on headrest display unit LH or RH.	
49	—	Shield	—	—	—	—
53	—	Shield	—	—	—	—

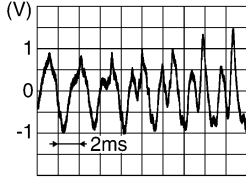
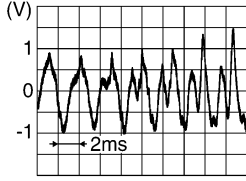
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VIDEO DISTRIBUTOR

< ECU DIAGNOSIS INFORMATION >

[PREMIUM AUDIO WITH NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/ Output			
54 (B)	56 (W)	AUX sound signal LH	Input	Ignition switch ON	When rear AUX mode is selected on headrest dis- play unit LH or RH.	
55 (R)	56 (W)	AUX sound signal RH	Input	Ignition switch ON	When rear AUX mode is selected on headrest dis- play unit LH or RH.	

HEADREST DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

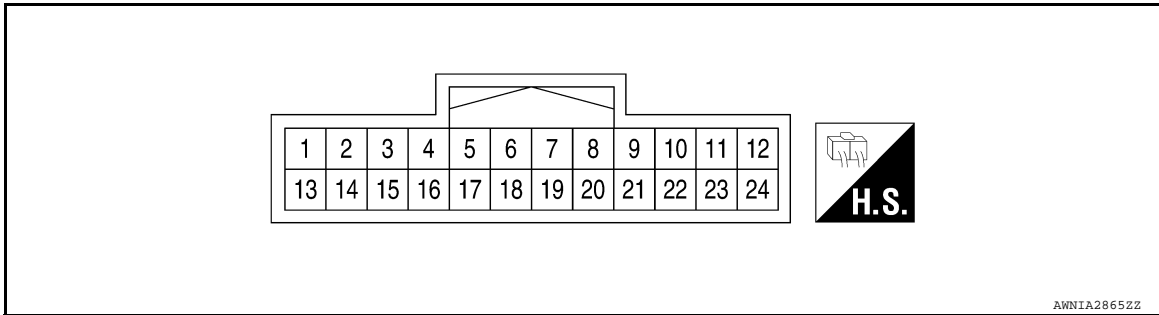
[PREMIUM AUDIO WITH NAVIGATION]

HEADREST DISPLAY UNIT

Reference Value

INFOID:000000008954365

TERMINAL LAYOUT



PHYSICAL VALUES

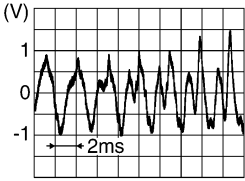
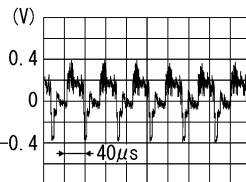
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/ Output			
3 (LG)	—	Shield	—	—	—	—
4 (G)	Ground	Composite image signal ground	—	Ignition switch ON	—	0 V
6 (Y)	Ground	Cont. ground	—	Ignition switch ON	—	0 V
7 (W)	Ground	Image switch signal	Output	Ignition switch ON	When DVD, USB or front AUX image is displayed on headrest display unit.	0.5 V
					When rear AUX image is displayed on headrest dis- play unit.	4.5 V
9 (R)	—	AV communication signal (L)	Input/ Output	—	—	—
10 (L)	—	AV communication signal (H)	Input/ Output	—	—	—
12 (G)	Ground	Ground	—	Ignition switch ON	—	0 V
13 (W)	1 (B)	Headphone sound signal LH	Input	Ignition switch ON	Headphone sound output.	

SKIB3609E

HEADREST DISPLAY UNIT

< ECU DIAGNOSIS INFORMATION >

[PREMIUM AUDIO WITH NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/ Output			
14 (G)	2 (R)	Headphone sound signal RH	Input	Ignition switch ON	Headphone sound output.	
15 (P)	—	Shield	—	—	—	—
16 (Y)	Ground	Composite image signal	Input	Ignition switch ON	When DVD, USB or front AUX image is displayed on headrest display unit.	
17 (V)	Ground	AV ground	—	Ignition switch ON	—	0 V
19 (G)	Ground	ACC signal	Input	Ignition switch OFF	—	3.3 V
				Ignition switch ACC	—	0 V
20	—	Shield	—	—	—	—
21 (LG)	—	AV communication signal (L)	Input/ Output	—	—	—
22 (P)	—	AV communication signal (H)	Input/ Output	—	—	—
24 (W)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage

AROUND VIEW MONITOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[PREMIUM AUDIO WITH NAVIGATION]

AROUND VIEW MONITOR CONTROL UNIT

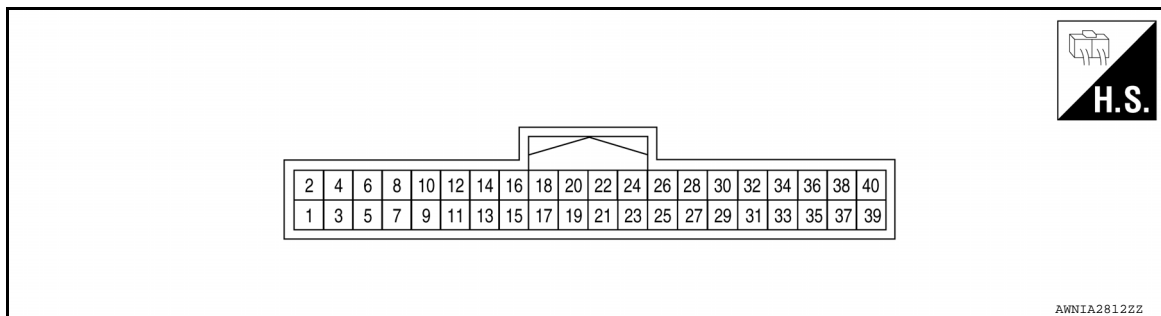
Reference Value

INFOID:000000008954366

VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition	Value/Status
CAMERA OFF SIGNAL	CAMERA switch ON.	Off
	CAMERA switch OFF.	On
CAMERA SWITCH SIGNAL	CAMERA switch OFF.	Off
	CAMERA switch ON.	On
DR-SIDE CAMERA IMAGE SIG	Side camera LH inoperative.	NG
	Side camera LH operative.	OK
F-CAMERA IMAGE SIG	Front camera inoperative.	NG
	Front camera operative.	OK
PA-SIDE CAMERA IMAGE SIG	Side camera RH inoperative.	NG
	Side camera RH operative.	OK
REAR CAMERA IMAGE SIGNAL	Rear camera LH inoperative.	NG
	Rear camera LH operative.	OK
REVERSE SIGNAL	When selector lever is in any position other than R (reverse).	Off
	When selector lever in R (reverse).	On
ST ANGLE SENSOR SIGNAL	Around view monitor control unit is not receiving steering angle sensor signal.	Off
	Around view monitor control unit is receiving steering angle sensor signal.	On
ST ANGLE SENSOR TYPE	Steering angle sensor type.	Absolute
STEERING GEAR RATIO TYPE	Steering gear ratio type.	Type O
STEERING POSITION	Left hand drive vehicle.	LHD
	Right hand drive vehicle.	RHD
VEHICLE SPEED SIGNAL	While driving, equivalent to speedometer reading	mph, km/h

TERMINAL LAYOUT



PHYSICAL VALUES

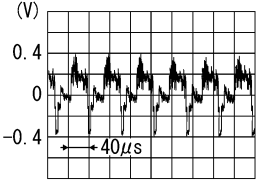
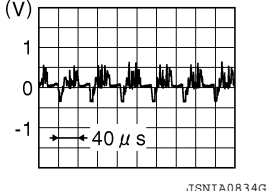
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AROUND VIEW MONITOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

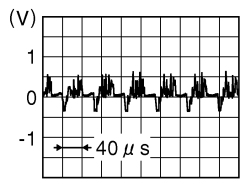
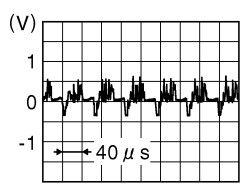
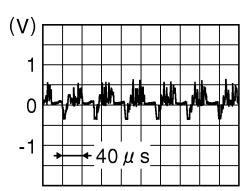
[PREMIUM AUDIO WITH NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/ Output			
1 (B)	Ground	Ground	—	Ignition switch ON	—	0 V
2 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
3 (G)	—	Signal ground	—	—	—	—
4 (LG)	Ground	Ignition signal	Input	Ignition switch ON	—	Battery voltage
5 (P)	—	Camera direct OFF	—	—	—	—
7 (BG)	—	RX	—	—	—	—
8 (LG)	Ground	Reverse signal	Input	Ignition switch ON	R position	Battery voltage
					Other than R position	0 V
10 (P)	—	V-CAN (L)	—	—	—	—
12 (L)	—	V-CAN (H)	—	—	—	—
19	—	Shield	—	—	—	—
20 (B)	—	External video output	—	—	—	—
23	—	Shield	—	—	—	—
24 (B)	Ground	Camera image signal	Output	Ignition switch ON	At camera image display	
25 (B)	Ground	Rear camera ground	—	Ignition switch ON	—	0 V
26 (W)	Ground	Rear camera power supply	Output	Ignition switch ON	“CAMERA” switch is ON or shift position is “R”.	6.0 V
28 (R)	27	Rear camera image signal	Input	Ignition switch ON	“CAMERA” switch is ON or shift position is “R”.	
29 (B)	Ground	Side camera driver side ground	—	Ignition switch ON	—	0 V

AROUND VIEW MONITOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[PREMIUM AUDIO WITH NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/ Output			
30 (W)	Ground	Side camera driver side power supply	Output	Ignition switch ON	"CAMERA" switch is ON or shift position is "R".	6.0 V
32 (R)	31	Side camera driver side image signal	Input	Ignition switch ON	"CAMERA" switch is ON or shift position is "R".	
33 (B)	Ground	Side camera passenger side ground	—	Ignition switch ON	—	0 V
34 (W)	Ground	Side camera passenger side power supply	Output	Ignition switch ON	"CAMERA" switch is ON or shift position is "R".	6.0 V
36 (R)	35	Side camera passenger side image signal	Input	Ignition switch ON	"CAMERA" switch is ON or shift position is "R".	
37 (B)	Ground	Front camera ground	—	Ignition switch ON	—	0 V
38 (R)	Ground	Front camera power supply	Output	Ignition switch ON	"CAMERA" switch is ON or shift position is "R".	6.0 V
40 (W)	39	Front camera image signal	Input	Ignition switch ON	"CAMERA" switch is ON or shift position is "R".	

DTC Index

INFOID:000000008954367

CONSULT Display	Reference Page
U1302: CAMERA SUPPLY POWER SUPPLY VOLTAGE ABNORMALITY	AV-517, "DTC Logic"
U1303: LED SUPPLY POWER SUPPLY VOLTAGE ABNORMALITY	AV-521, "DTC Logic"
U1304: NON-COMPLETION OF THE CALIBRATION	AV-523, "DTC Logic"
U1305: NON-COMPLETION OF THE WRITE CONFIGURATION	AV-524, "DTC Logic"

PREMIUM AUDIO SYSTEM

[PREMIUM AUDIO WITH NAVIGATION]

< WIRING DIAGRAM >

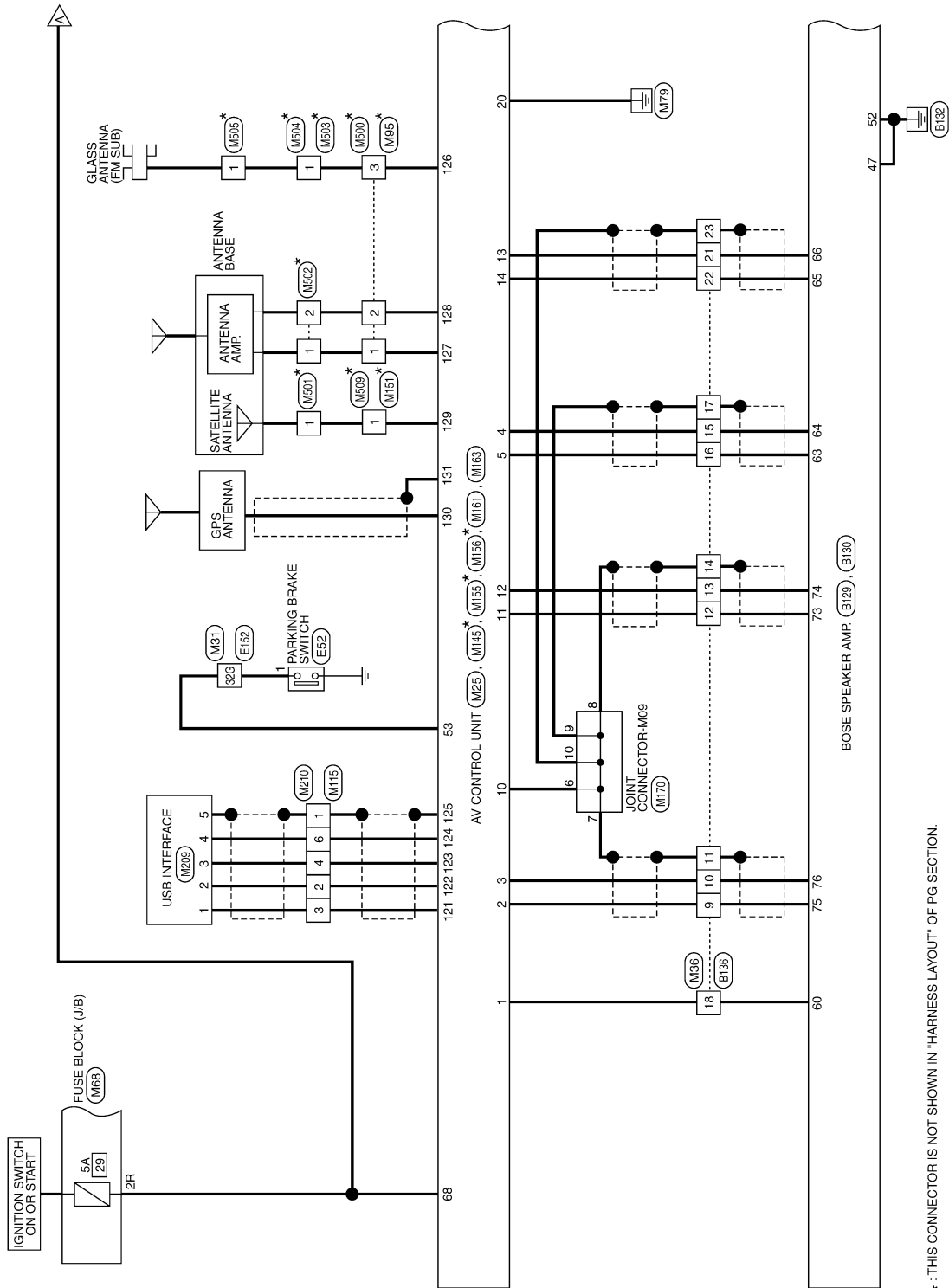
WIRING DIAGRAM

PREMIUM AUDIO SYSTEM

Wiring Diagram

INFOID:000000008511095

PREMIUM AUDIO SYSTEM - WITH NAVIGATION SYSTEM



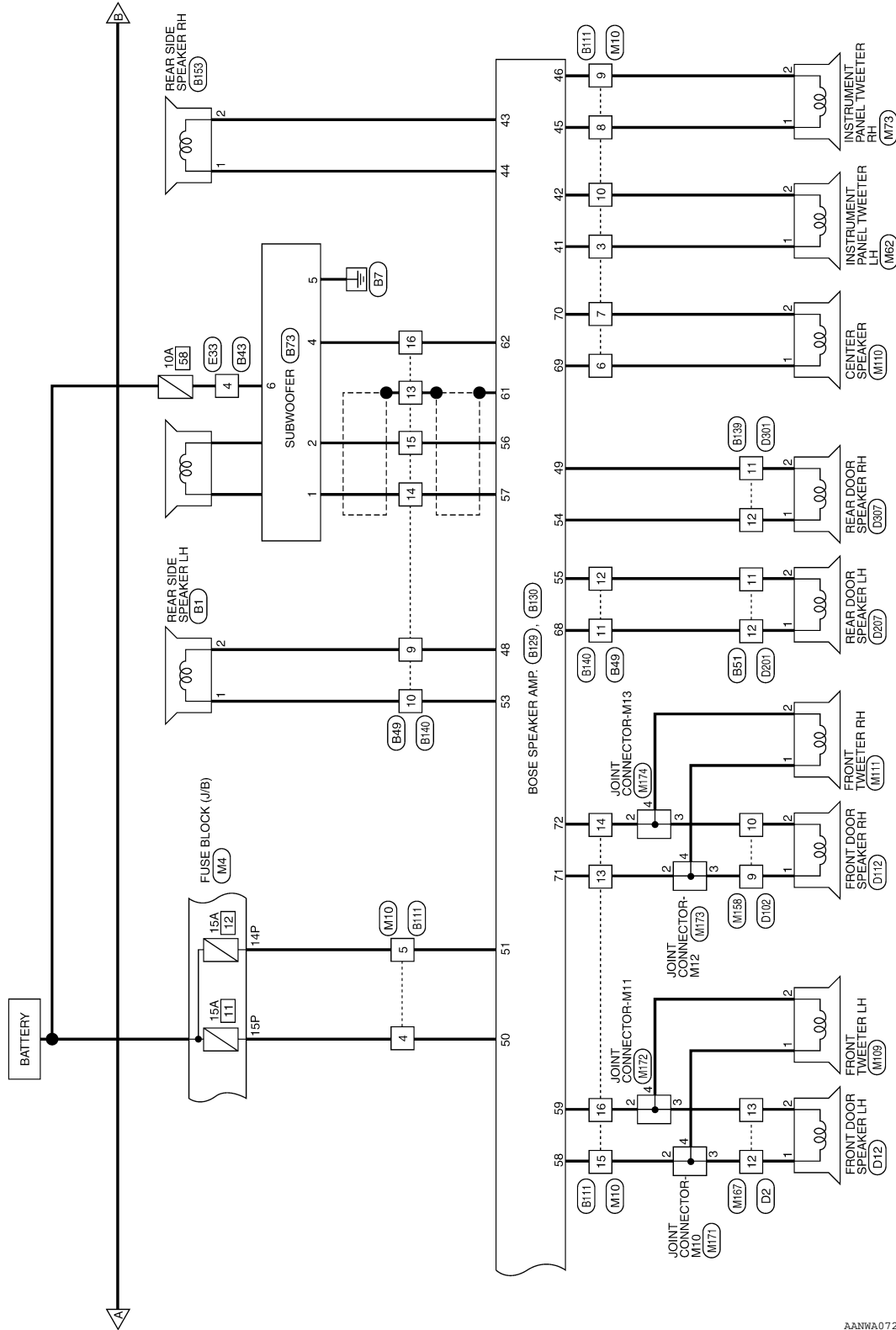
*: THIS CONNECTOR IS NOT SHOWN IN "HARNES LAYOUT" OF PG SECTION.

AANWA0719GB

PREMIUM AUDIO SYSTEM

[PREMIUM AUDIO WITH NAVIGATION]

< WIRING DIAGRAM >



AANWA0720GB

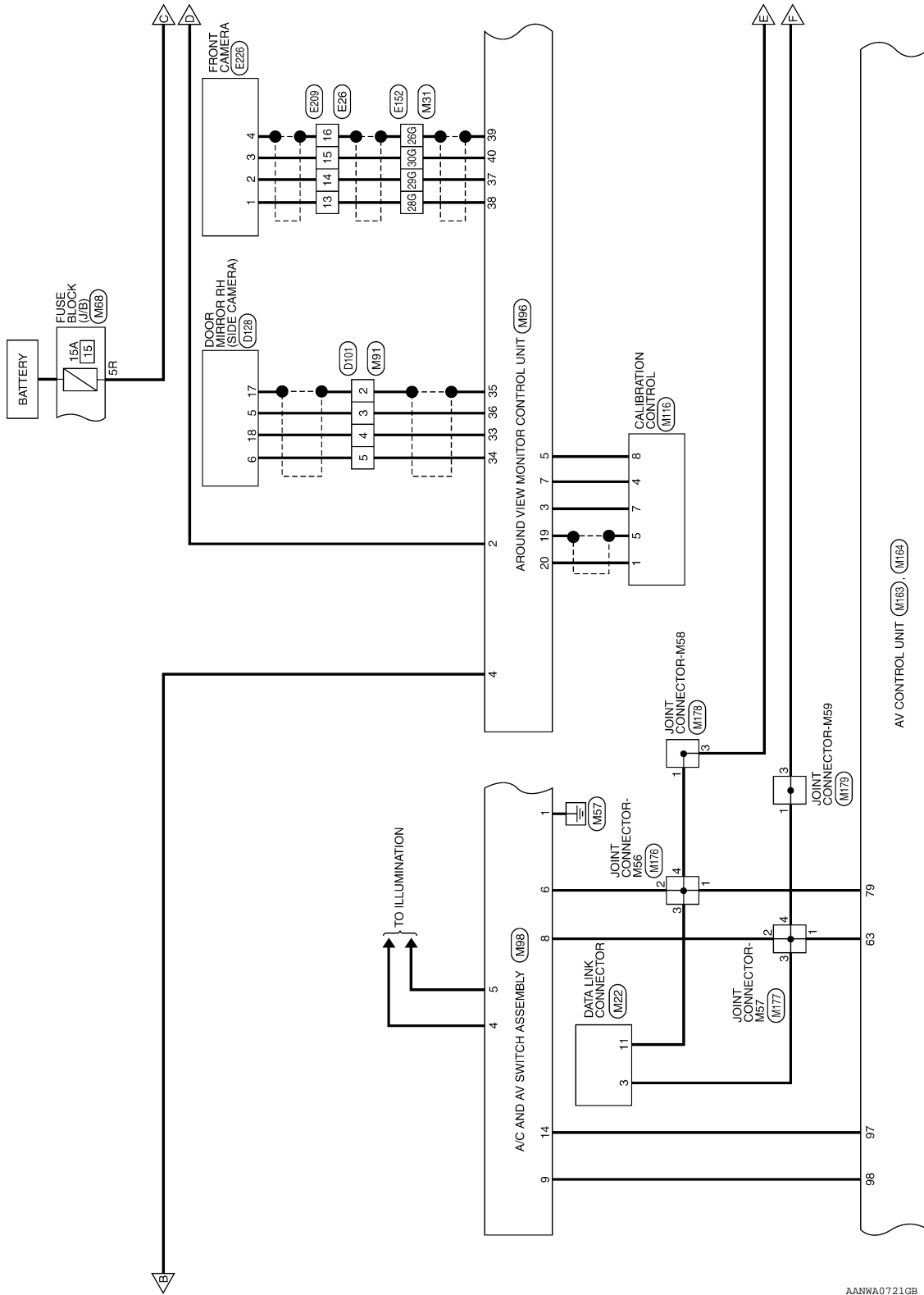
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PREMIUM AUDIO SYSTEM

[PREMIUM AUDIO WITH NAVIGATION]

< WIRING DIAGRAM >

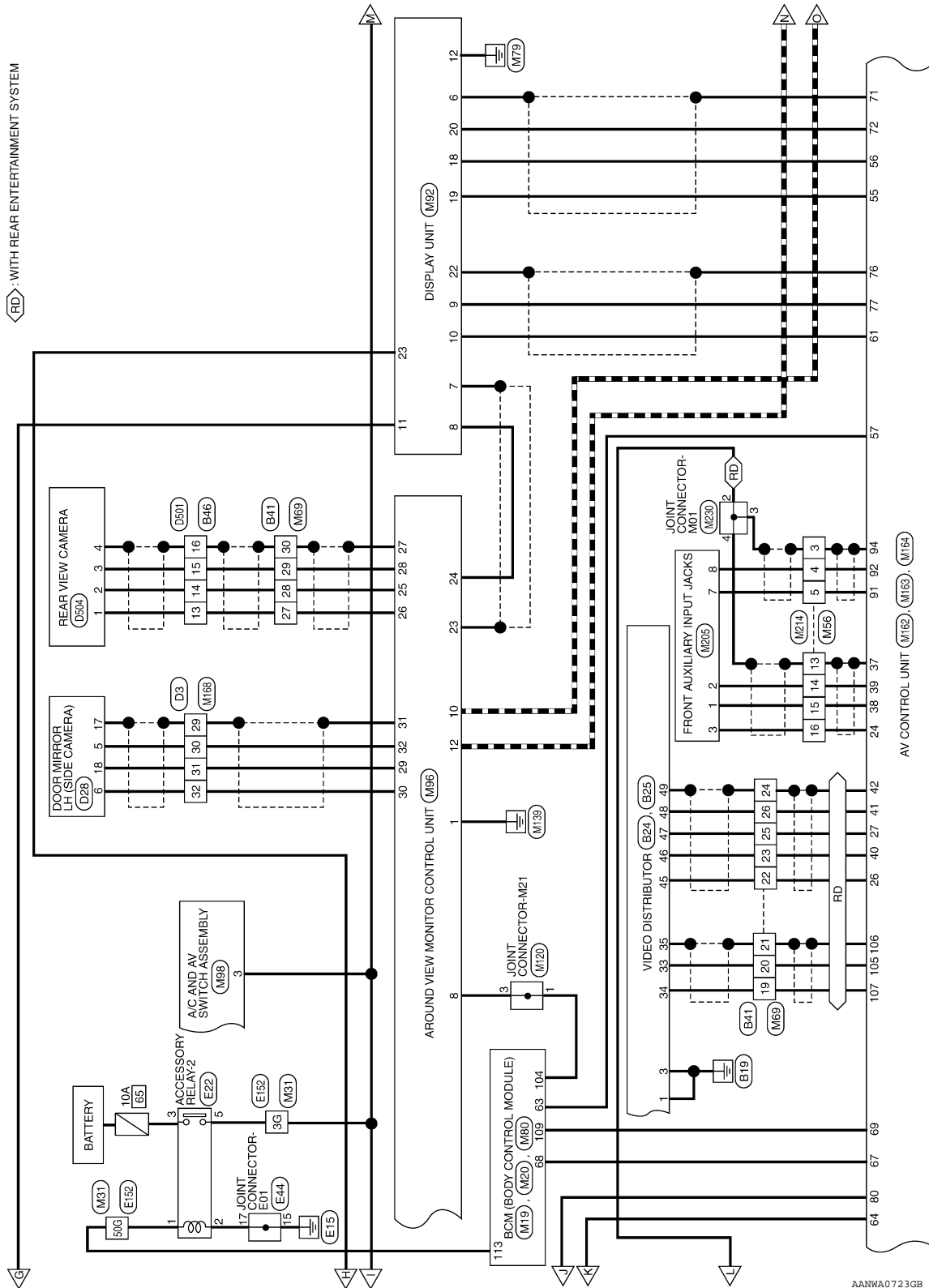


AANWA0721GB

PREMIUM AUDIO SYSTEM

[PREMIUM AUDIO WITH NAVIGATION]

< WIRING DIAGRAM >

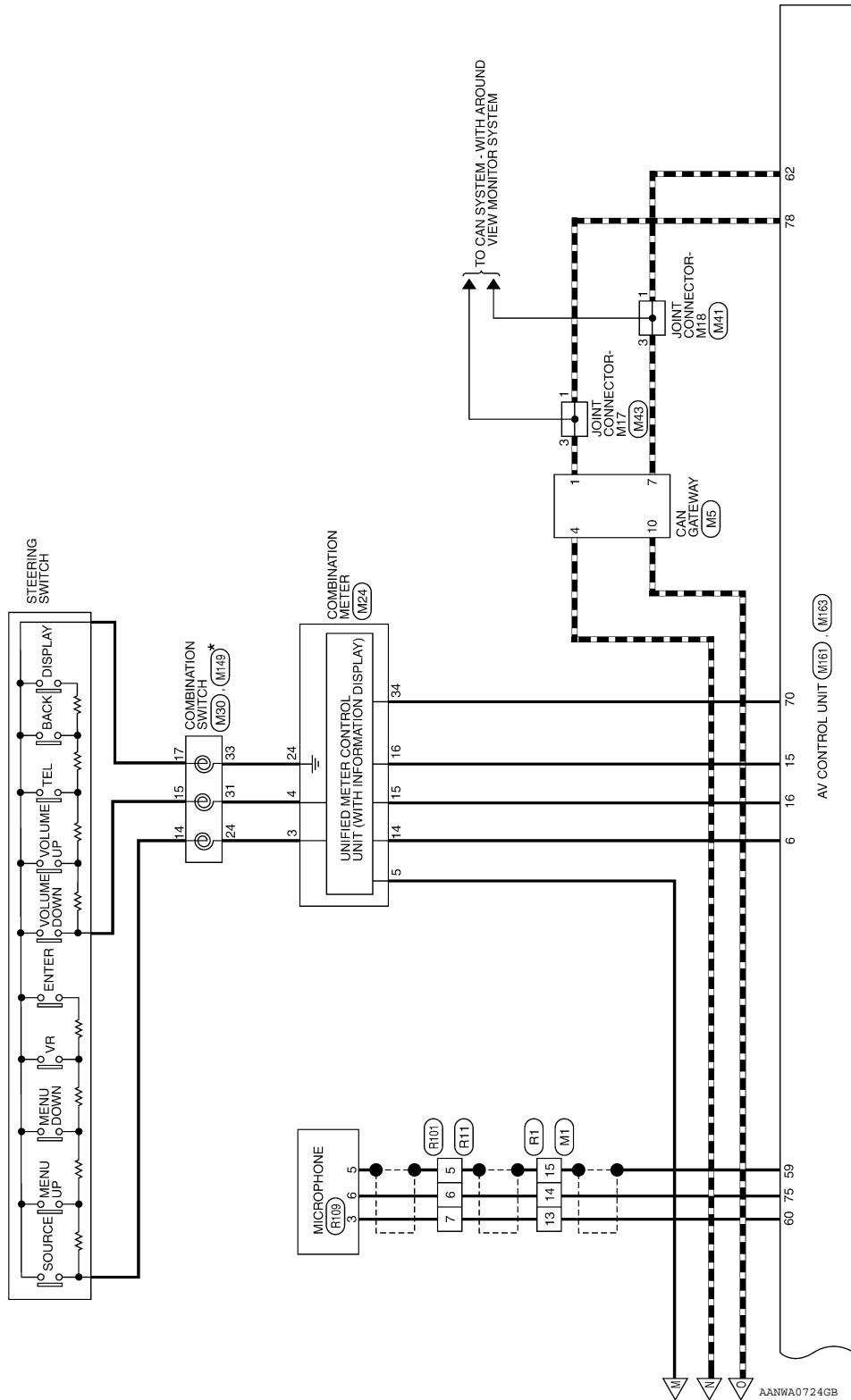


AANWA0723GB

PREMIUM AUDIO SYSTEM

[PREMIUM AUDIO WITH NAVIGATION]

< WIRING DIAGRAM >



AANWA0724GB

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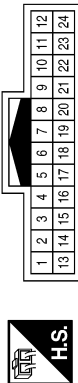
PREMIUM AUDIO SYSTEM

[PREMIUM AUDIO WITH NAVIGATION]

< WIRING DIAGRAM >

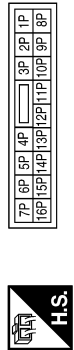
PREMIUM AUDIO SYSTEM - WITH NAVIGATION SYSTEM

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



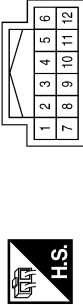
Terminal No.	Color of Wire	Signal Name
13	W	-
14	B	-
15	SHIELD	-

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



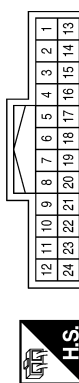
Terminal No.	Color of Wire	Signal Name
14P	Y	-
15P	L	-

Connector No.	M5
Connector Name	CAN GATEWAY
Connector Color	WHITE



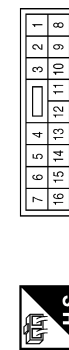
Terminal No.	Color of Wire	Signal Name
1	L	-
4	L	-
7	P	-
10	P	-

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



Terminal No.	Color of Wire	Signal Name
6	GR	-
7	V	-
8	G	-
9	R	-
10	SHIELD	-
11	W	-
12	B	-

Connector No.	M10
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
3	G	-
4	L	-
5	Y	-
6	G	-
7	W	-
8	G	-
9	W	-
10	W	-

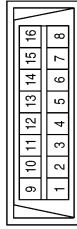
Terminal No.	Color of Wire	Signal Name
13	G	-
14	W	-
15	P	-
16	W	-

PREMIUM AUDIO SYSTEM

[PREMIUM AUDIO WITH NAVIGATION]

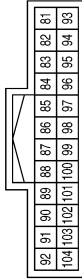
< WIRING DIAGRAM >

Connector No.	M22
Connector Name	DATA LINK CONNECTOR
Connector Color	WHITE



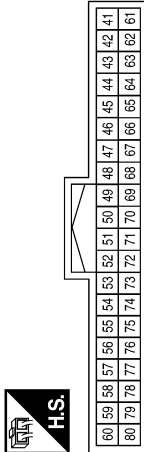
Terminal No.	Color of Wire	Signal Name
3	LG	-
11	SB	-

Connector No.	M20
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	BLACK



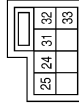
Terminal No.	Color of Wire	Signal Name
104	LG	REVERSE LAMP OUT

Connector No.	M19
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
63	BG	I-KEY LINK SIGNAL
68	P	MR OUTPUT

Connector No.	M30
Connector Name	COMBINATION SWITCH
Connector Color	GRAY



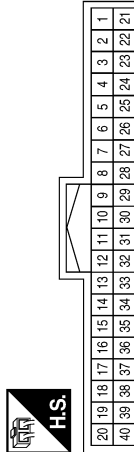
Terminal No.	Color of Wire	Signal Name
24	P	-
31	BG	-
33	R	-

Connector No.	M25
Connector Name	AV CONTROL UNIT
Connector Color	PINK



Terminal No.	Color of Wire	Signal Name
130	B	-
131	SHIELD	-

Connector No.	M24
Connector Name	COMBINATION METER
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
3	P	STRG SW INPUT 1
4	BG	STRG SW INPUT 2
5	P	ACC
14	G	STRG SW OUTPUT 1
15	W	STRG SW OUTPUT 2
16	B	STRG SW OUTPUT GND
24	R	STRG SW GND
34	GR	SPEED 8 P/R

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PREMIUM AUDIO SYSTEM

[PREMIUM AUDIO WITH NAVIGATION]

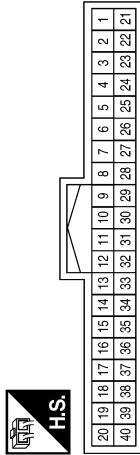
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Connector No.	M41
Connector Name	JOINT CONNECTOR-M18
Connector Color	WHITE



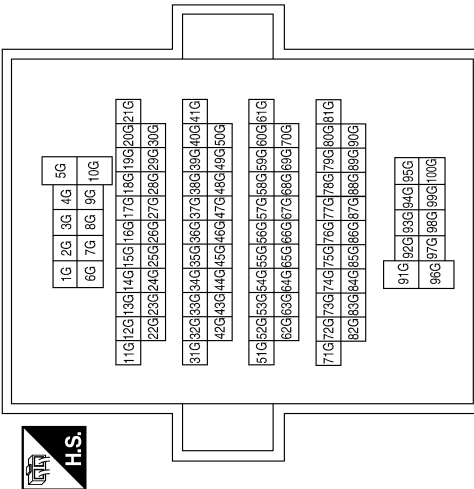
Terminal No.	Color of Wire	Signal Name
1	P	-
3	P	-

Connector No.	M36
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
9	B	-
10	W	-
11	SHIELD	-
12	W	-
13	B	-
14	SHIELD	-
15	B	-
16	W	-
17	SHIELD	-
18	SB	-
19	LG	-
20	SB	-
21	B	-
22	W	-
23	SHIELD	-

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



Terminal No.	Color of Wire	Signal Name
3G	P	-
26G	SHIELD	-
28G	R	-
29G	B	-
30G	W	-
32G	G	-
50G	L	-

AANIA1226GB

PREMIUM AUDIO SYSTEM

[PREMIUM AUDIO WITH NAVIGATION]

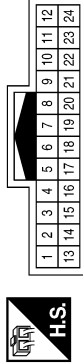
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Connector No.	M62
Connector Name	INSTRUMENT PANEL TWEETER LH
Connector Color	BROWN



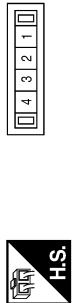
Terminal No.	Color of Wire	Signal Name
1	G	-
2	W	-

Connector No.	M56
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
3	SHIELD	-
4	B	-
5	W	-
13	SHIELD	-
14	B	-
15	R	-
16	W	-

Connector No.	M43
Connector Name	JOINT CONNECTOR-M17
Connector Color	WHITE

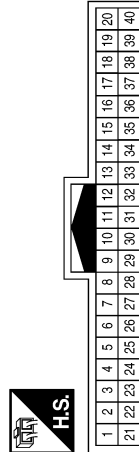


Terminal No.	Color of Wire	Signal Name
1	L	-
3	L	-

Terminal No.	Color of Wire	Signal Name
31	R	-
32	SHIELD	-
33	W	-
34	B	-
35	L	-
36	G	-
37	R	-
38	SHIELD	-
39	W	-
40	B	-

Terminal No.	Color of Wire	Signal Name
14	B	-
15	V	-
16	G	-
17	R	-
18	SHIELD	-
19	W	-
20	B	-
21	B	-
22	W	-
23	SHIELD	-
24	P	-
25	Y	-
29	L	-
30	G	-

Connector No.	M63
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	R	-
2	W	-
3	B	-
4	SHIELD	-
9	SB	-
10	G	-
11	R	-
12	SHIELD	-
13	W	-

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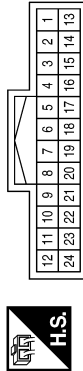
PREMIUM AUDIO SYSTEM

[PREMIUM AUDIO WITH NAVIGATION]

< WIRING DIAGRAM >

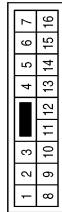
Terminal No.	Color of Wire	Signal Name
6	B	-(WITH REAR ENTER-TAINMENT SYSTEM)
7	SB	-(WITH REAR ENTER-TAINMENT SYSTEM)
8	G	-(WITH REAR ENTER-TAINMENT SYSTEM)
9	R	-(WITH REAR ENTER-TAINMENT SYSTEM)
10	SHIELD	-
11	W	-(WITH REAR ENTER-TAINMENT SYSTEM)
12	B	-(WITH REAR ENTER-TAINMENT SYSTEM)
13	Y	-
14	SB	-
15	LG	-

Connector No.	M66
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	L	-
2	G	-
3	R	-(WITH REAR ENTER-TAINMENT SYSTEM)
4	SHIELD	-(WITH REAR ENTER-TAINMENT SYSTEM)
5	W	-(WITH REAR ENTER-TAINMENT SYSTEM)

Connector No.	M65
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
10	B	-

Connector No.	M68
Connector Name	FUSE BLOCK (J/B)
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
2R	LG	-
5R	Y	-

AANIA1228GB

PREMIUM AUDIO SYSTEM

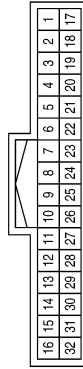
[PREMIUM AUDIO WITH NAVIGATION]

< WIRING DIAGRAM >

Terminal No.	Color of Wire	Signal Name
22	W	-
23	R	-
24	SHIELD	-
25	B	-
26	G	-
27	R	-
28	B	-
29	W	-
30	SHIELD	-

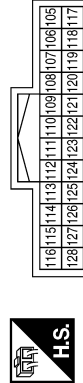
Terminal No.	Color of Wire	Signal Name
4	SHIELD	-
5	B	-
6	W	-
7	SHIELD	-
8	B	-
17	Y	-
18	P	-
19	B	-
20	W	-
21	SHIELD	-

Connector No.	M69
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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

Connector No.	M80
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	BLACK



Connector No.	M73
Connector Name	INSTRUMENT PANEL TWEETER RH
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
109	R	REVERSE SIGNAL
113	L	ACC RELAY OUT

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

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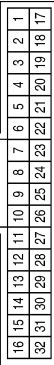
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PREMIUM AUDIO SYSTEM

[PREMIUM AUDIO WITH NAVIGATION]

< WIRING DIAGRAM >


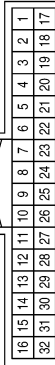
Connector No.	M91
Connector Name	WIRE TO WIRE
Connector Color	WHITE

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

Terminal No.	Color of Wire	Signal Name
6	B	-(WITH REAR ENTERTAINMENT SYSTEM)
7	W	-(WITH REAR ENTERTAINMENT SYSTEM)
8	R	-(WITH REAR ENTERTAINMENT SYSTEM)
9	SHIELD	-
10	G	-
11	L	-

Connector No.	M84
Connector Name	WIRE TO WIRE
Connector Color	WHITE






Terminal No.	Color of Wire	Signal Name
5	Y	-(WITH REAR ENTERTAINMENT SYSTEM)

Terminal No.	Color of Wire	Signal Name
16	-	-
17	-	-
18	B	FRONT COMP +
19	W	FRONT COMP -
20	R	FRONT COMP SYNC
21	-	-
22	SHIELD	SHIELD
23	P	ACC
24	-	-

Terminal No.	Color of Wire	Signal Name
5	-	-
6	SHIELD	FRONT COMP SHIELD
7	SHIELD	SHIELD
8	B	R CAMERA COMP
9	B	FRONT DISP IT
10	W	IT FRONT DISP
11	Y	BATT
12	B	GND
13	-	-
14	-	-
15	-	-

Connector No.	M92
Connector Name	DISPLAY UNIT
Connector Color	WHITE

Terminal No.	Color of Wire	Signal Name
1	-	-
2	-	-
3	-	-
4	-	-

AANIA1230GB

PREMIUM AUDIO SYSTEM

[PREMIUM AUDIO WITH NAVIGATION]

< WIRING DIAGRAM >

Connector No.	M95
Connector Name	WIRE TO WIRE
Connector Color	GRAY



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

Connector No.	M96
Connector Name	AROUND VIEW MONITOR CONTROL UNIT
Connector Color	WHITE

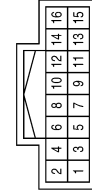


2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37	39

Terminal No.	Color of Wire	Signal Name
1	B	GND
2	Y	+B
3	G	SERIAL GND
4	LG	IGN
5	P	FX TST
6	-	-
7	BG	TX TST
8	LG	REV
9	-	-
10	P	CAN-L
11	-	-
12	L	CAN-L
13	-	-
14	-	-
15	-	-
16	-	-

Terminal No.	Color of Wire	Signal Name
17	-	-
18	-	-
19	SHIELD	VIDEO-
20	B	VIDEO+
21	-	-
22	-	-
23	SHIELD	COMP OUT-
24	B	COMP OUT+
25	B	RR CAM GND
26	W	RR CAM VCC
27	SHIELD	RR CAM COMP-
28	R	RR CAM COMP+
29	B	SIDE DR CAM GND
30	W	SIDE DR CAM VCC
31	SHIELD	SIDE DR CAM COMP-
32	R	SIDE DR CAM COMP+
33	B	SIDE AS CAM GND
34	W	SIDE AS CAM VCC
35	SHIELD	SIDE AS CAM COMP-
36	R	SIDE AS CAM COMP+
37	B	FR CAM GND
38	R	FR CAM VCC
39	SHIELD	FR CAM COMP-
40	W	FR CAM COMP+

Connector No.	M98
Connector Name	A/C AND AV SWITCH ASSEMBLY
Connector Color	WHITE



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

Terminal No.	Color of Wire	Signal Name
1	GR	GND
3	P	ACC
4	R	ILL
5	B	ILL CONT

Terminal No.	Color of Wire	Signal Name
6	SB	M CAN-H
8	LG	M CAN-L
9	V	EJECT GND
14	Y	CD(DVD)EJECT

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PREMIUM AUDIO SYSTEM

[PREMIUM AUDIO WITH NAVIGATION]

< WIRING DIAGRAM >

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



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

Connector No.	M110
Connector Name	CENTER SPEAKER
Connector Color	BROWN



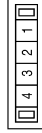
Terminal No.	Color of Wire	Signal Name
1	G	-
2	W	-

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



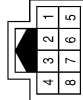
Terminal No.	Color of Wire	Signal Name
1	P	-
2	W	-

Connector No.	M120
Connector Name	JOINT CONNECTOR-M21
Connector Color	WHITE



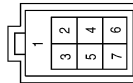
Terminal No.	Color of Wire	Signal Name
1	LG	-
3	LG	-

Connector No.	M116
Connector Name	CALIBRATION CONTROL
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	B	-
4	BG	-
5	SHIELD	-
7	G	-
8	P	-

Connector No.	M115
Connector Name	WIRE TO WIRE
Connector Color	GRAY



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

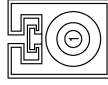
AANIA1232GB

PREMIUM AUDIO SYSTEM

[PREMIUM AUDIO WITH NAVIGATION]

< WIRING DIAGRAM >

Connector No.	M151
Connector Name	WIRE TO WIRE
Connector Color	GREEN



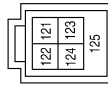
Terminal No.	Color of Wire	Signal Name
1	B	-

Connector No.	M149
Connector Name	COMBINATION SWITCH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
14	B	-
15	GR	-
17	BR	-

Connector No.	M145
Connector Name	AV CONTROL UNIT
Connector Color	BLUE



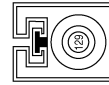
Terminal No.	Color of Wire	Signal Name
121	G	VBUS
122	W	USB GND
123	R	USB D+
124	L	USB D-
125	SHIELD	SHIELD

Connector No.	M158
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
9	G	-
10	W	-

Connector No.	M156
Connector Name	AV CONTROL UNIT
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
129	B	-

Connector No.	M155
Connector Name	AV CONTROL UNIT
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
126	B	ANT MAIN
127	B	ANT +B
128	B	ANT SUB

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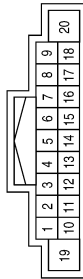
AV

PREMIUM AUDIO SYSTEM

[PREMIUM AUDIO WITH NAVIGATION]

< WIRING DIAGRAM >

Connector No.	M161
Connector Name	AV CONTROL UNIT
Connector Color	WHITE

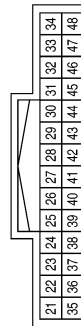


Terminal No.	Color of Wire	Signal Name
1	SB	AMP ON
2	B	FR LH PRE +

Terminal No.	Color of Wire	Signal Name
3	W	FR LH PRE -
4	B	RR LH PRE +
5	W	RR LH PRE -
6	G	STRG SW A
7	P	ACC
8	-	-
9	-	-
10	BR	SHIELD
11	W	FR RH PRE +

Terminal No.	Color of Wire	Signal Name
12	B	FR RH PRE -
13	B	RR RH PRE +
14	W	RR RH PRE -
15	B	STRG SW GND
16	W	STRG SW B
17	-	-
18	-	-
19	Y	(+)B
20	B	GND

Connector No.	M162
Connector Name	AV CONTROL UNIT
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
21	-	-
22	-	-
23	-	-
24	R	AUX AUDIO LH

Terminal No.	Color of Wire	Signal Name
25	-	-
26	W	HP 1 LH+
27	B	HP 1 RH-
28	-	-
29	-	-
30	-	-
31	-	-
32	-	-
33	-	-
34	-	-
35	-	-
36	-	-

Terminal No.	Color of Wire	Signal Name
37	SHIELD	AUX SHIELD
38	W	AUX AUDIO RH
39	B	AUX AUDIO
40	R	HP 1 LH-
41	G	HP 1 RH-
42	SHIELD	HP 1 SHIELD
43	-	-
44	-	-
45	-	-
46	-	-
47	-	-
48	-	-

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PREMIUM AUDIO SYSTEM

[PREMIUM AUDIO WITH NAVIGATION]

< WIRING DIAGRAM >

Connector No.	M163
Connector Name	AV CONTROL UNIT
Connector Color	WHITE



49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80

Terminal No.	Color of Wire	Signal Name
49	-	-
50	-	-
51	-	-
52	-	-
53	G	PKB SIG

Terminal No.	Color of Wire	Signal Name
54	-	-
55	W	NAVI COMP 1-
56	B	NAVI COMP 1+
57	BG	I-KEY MEMORY
58	-	-
59	SHIELD	PKB SIGMIC GND
60	W	MIC VCC
61	W	IT DISP
62	P	CAN-L
63	LG	M CAN-L
64	LG	M CAN-L TRM
65	-	-
66	-	-
67	P	MR OUTPUT

Terminal No.	Color of Wire	Signal Name
68	LG	IGN
69	R	REVERSE SIG
70	BG	SPEED
71	SHIELD	NAVI COMP 1 SHIELD
72	R	NAVI COMP 1 SYNC
73	-	-
74	-	-
75	B	MIC SIG
76	SHIELD	DISP SHIELD
77	B	DISP IT
78	L	CAN-H
79	SB	M CAN-H
80	SB	M CAN-H TRM

Connector No.	M164
Connector Name	AV CONTROL UNIT
Connector Color	WHITE



81	83	85	87	89	91	93	95	97	99	101	103	105	107	109	111	113	115	117	119
121	123	125	127	129	131	133	135	137	139	141	143	145	147	149	151	153	155	157	159

Terminal No.	Color of Wire	Signal Name
81	-	-
82	-	-
83	-	-
84	-	-
85	-	-
86	-	-

Terminal No.	Color of Wire	Signal Name
87	-	-
88	-	-
89	-	-
90	-	-
91	W	AUX VIDEO+
92	B	AUX VIDEO-
93	-	-
94	SHIELD	VIDEO SHIELD
95	-	-
96	-	-
97	Y	DVD EJECT
98	V	EJECT GND
99	-	-
100	-	-
101	-	-
102	-	-
103	-	-

Terminal No.	Color of Wire	Signal Name
104	-	-
105	W	NAVI COMP 2-
106	SHIELD	NAVI COMP 2 SHIELD
107	B	NAVI COMP 2+
108	-	-
109	-	-
110	-	-
111	-	-
112	-	-
113	-	-
114	-	-
115	-	-
116	-	-
117	-	-
118	-	-
119	-	-
120	-	-

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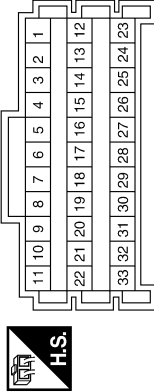
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PREMIUM AUDIO SYSTEM

[PREMIUM AUDIO WITH NAVIGATION]

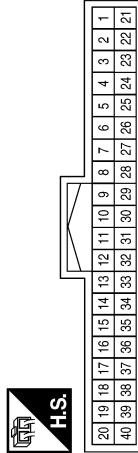
< WIRING DIAGRAM >

Connector No.	M170
Connector Name	JOINT CONNECTOR-M09
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
6	BR	-
7	SHIELD	-
8	SHIELD	-
9	SHIELD	-
10	SHIELD	-

Connector No.	M168
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
29	SHIELD	-
30	R	-
31	B	-
32	W	-

Connector No.	M167
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
12	P	-
13	W	-

Connector No.	M173
Connector Name	JOINT CONNECTOR-M12
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	G	-
3	G	-
4	G	-

Connector No.	M172
Connector Name	JOINT CONNECTOR-M11
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	W	-
3	W	-
4	W	-

Connector No.	M171
Connector Name	JOINT CONNECTOR-M10
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	P	-
3	P	-
4	P	-

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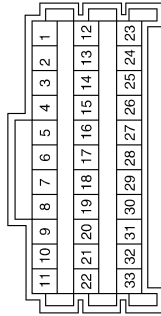
PREMIUM AUDIO SYSTEM

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< WIRING DIAGRAM >

Terminal No.	Color of Wire	Signal Name
4	Y	-
5	Y	-
6	Y	-
7	Y	-
8	Y	-
9	Y	-
29	P	-
31	P	-
32	P	-

Connector No.	M175
Connector Name	JOINT CONNECTOR-M22
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	Y	-
2	Y	-
3	Y	-

Connector No.	M174
Connector Name	JOINT CONNECTOR-M13
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	W	-
3	W	-
4	W	-

Connector No.	M178
Connector Name	JOINT CONNECTOR-M58
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	SB	-
3	SB	-

Connector No.	M177
Connector Name	JOINT CONNECTOR-M57
Connector Color	WHITE



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

Connector No.	M176
Connector Name	JOINT CONNECTOR-M56
Connector Color	WHITE



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

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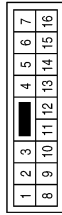
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Connector No.	M202
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
13	B	-

Connector No.	M201
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	Y	-
3	V	-

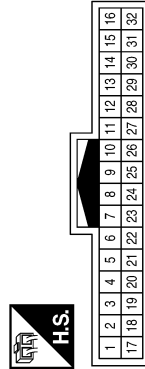
Connector No.	M179
Connector Name	JOINT CONNECTOR-M59
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	LG	-
3	LG	-

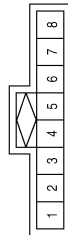
Terminal No.	Color of Wire	Signal Name
14	SHIELD	-
15	W	-
16	B	-
17	SHIELD	-
18	B	-
19	R	-
20	W	-
21	L	-
22	G	-
23	R	-
24	SHIELD	-
25	W	-
26	B	-
27	L	-
28	G	-
29	R	-
30	SHIELD	-
31	W	-
32	B	-

Connector No.	M208
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	SHIELD	-
3	B	-
4	W	-
5	SB	-
6	G	-
7	R	-
8	SHIELD	-
9	W	-
10	B	-
11	V	-
12	G	-
13	R	-

Connector No.	M205
Connector Name	FRONT AUXILIARY INPUT JACKS
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	R	AUX AUDIO RH+
2	B	AUX AUDIO GND
3	W	AUX AUDIO LH+
7	W	AUX VIDEO+
8	B	AUX VIDEO-

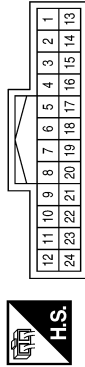
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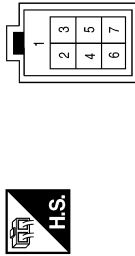
< WIRING DIAGRAM >

Connector No.	M214
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
3	SHIELD	-
4	B	-
5	W	-
13	SHIELD	-
14	B	-
15	R	-
16	W	-

Connector No.	M210
Connector Name	WIRE TO WIRE
Connector Color	GRAY



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

Connector No.	M209
Connector Name	USB INTERFACE
Connector Color	WHITE

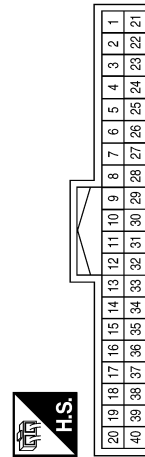


Terminal No.	Color of Wire	Signal Name
1	L	-
2	R	-
3	G	-
4	W	-
5	SHIELD	-

Terminal No.	Color of Wire	Signal Name
25	Y	-
29	L	-
30	G	-
31	R	-
32	SHIELD	-
33	W	-
34	B	-
35	L	-
36	G	-
37	R	-
38	SHIELD	-
39	W	-
40	B	-

Terminal No.	Color of Wire	Signal Name
11	R	-
12	SHIELD	-
13	W	-
14	B	-
15	V	-
16	G	-
17	R	-
18	SHIELD	-
19	W	-
20	B	-
21	W	-
22	B	-
23	SHIELD	-
24	V	-

Connector No.	M215
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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

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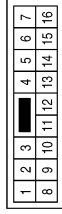


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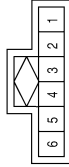
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Connector No.	M251
Connector Name	WIRE TO WIRE
Connector Color	WHITE



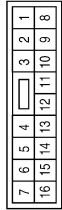
Terminal No.	Color of Wire	Signal Name
2	Y	-
3	V	-

Connector No.	M230
Connector Name	JOINT CONNECTOR-M01
Connector Color	WHITE



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

Connector No.	M217
Connector Name	WIRE TO WIRE
Connector Color	WHITE

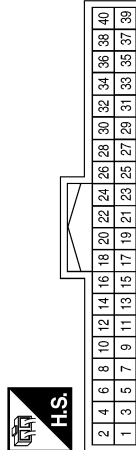


Terminal No.	Color of Wire	Signal Name
10	B	-

Terminal No.	Color of Wire	Signal Name
24	W	-
25	G	-
26	B	-
27	R	-
28	L	-
29	P	-
30	W	-
31	G	-
32	B	-
33	R	-
34	-	-
35	SHIELD	-
36	-	-
37	-	-
38	V	-
39	B	-
40	Y	-

Terminal No.	Color of Wire	Signal Name
7	-	-
8	-	-
9	SHIELD	-
10	-	-
11	R	-
12	-	-
13	G	-
14	B	-
15	V	-
16	W	-
17	R	-
18	BG	-
19	G	-
20	B	-
21	SHIELD	-
22	W	-
23	SHIELD	-

Connector No.	M254
Connector Name	REAR AUXILIARY INPUT JACKS
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	W	-
2	B	-
3	B	-
4	R	-
5	B	-
6	-	-

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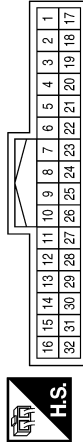
PREMIUM AUDIO SYSTEM

[PREMIUM AUDIO WITH NAVIGATION]

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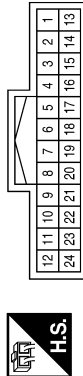
Terminal No.	Color of Wire	Signal Name
14	SHIELD	-
15	W	-
16	B	-
17	SHIELD	-
18	R	-
19	B	-
20	W	-
21	L	-
22	G	-
23	R	-
24	SHIELD	-
25	W	-
26	B	-
27	P	-
28	G	-
29	R	-
30	SHIELD	-
31	W	-
32	B	-

Connector No.	M259
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	SHIELD	-
3	B	-
4	W	-
5	BG	-
6	G	-
7	R	-
8	SHIELD	-
9	W	-
10	B	-
11	V	-
12	G	-
13	R	-

Connector No.	M257
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
13	B	-

Connector No.	M502
Connector Name	ANTENNA BASE
Connector Color	GRAY



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

Connector No.	M501
Connector Name	ANTENNA BASE
Connector Color	GREEN



Terminal No.	Color of Wire	Signal Name
1	B	-

Connector No.	M500
Connector Name	WIRE TO WIRE
Connector Color	GRAY



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

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PREMIUM AUDIO SYSTEM

[PREMIUM AUDIO WITH NAVIGATION]

< WIRING DIAGRAM >

Connector No.	M505
Connector Name	GLASS ANTENNA (FM SUB)
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
1	B	-

Connector No.	M504
Connector Name	WIRE TO WIRE
Connector Color	GRAY



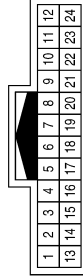
Terminal No.	Color of Wire	Signal Name
1	B	-

Connector No.	M503
Connector Name	WIRE TO WIRE
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
1	B	-

Connector No.	E26
Connector Name	WIRE TO WIRE
Connector Color	WHITE



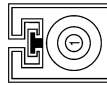
Terminal No.	Color of Wire	Signal Name
13	R	-
14	B	-
15	W	-
16	SHIELD	-

Connector No.	E22
Connector Name	ACCESSORY RELAY-2
Connector Color	BLUE



Terminal No.	Color of Wire	Signal Name
1	G	-
2	B	-
3	R	-
5	P	-

Connector No.	M509
Connector Name	WIRE TO WIRE
Connector Color	GREEN



Terminal No.	Color of Wire	Signal Name
1	B	-

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PREMIUM AUDIO SYSTEM

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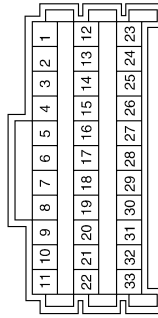
< WIRING DIAGRAM >

Connector No.	E52
Connector Name	PARKING BRAKE SWITCH
Connector Color	BLACK



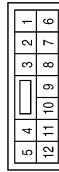
Terminal No.	Color of Wire	Signal Name
1	LG	-

Connector No.	E44
Connector Name	JOINT CONNECTOR-E01
Connector Color	WHITE



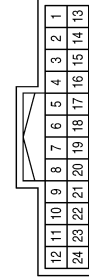
Terminal No.	Color of Wire	Signal Name
15	GR	-
17	B	-

Connector No.	E33
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
4	P	-

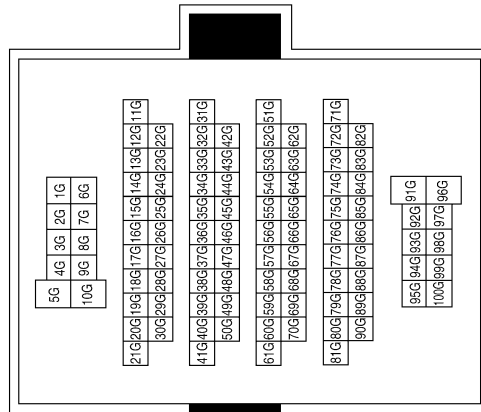
Connector No.	E209
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
13	R	-
14	B	-
15	W	-
16	SHIELD	-

Terminal No.	Color of Wire	Signal Name
3G	P	-
26G	SHIELD	-
28G	R	-
29G	B	-
30G	W	-
32G	LG	-
50G	G	-

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



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PREMIUM AUDIO SYSTEM

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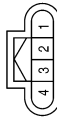
< WIRING DIAGRAM >

Connector No.	B1
Connector Name	REAR SIDE SPEAKER LH
Connector Color	BROWN



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

Connector No.	E226
Connector Name	FRONT CAMERA
Connector Color	BLACK

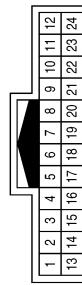


Terminal No.	Color of Wire	Signal Name
1	R	-
2	B	-
3	W	-
4	SHIELD	-

Terminal No.	Color of Wire	Signal Name
8	G	-(WITH REAR ENTERTAINMENT SYSTEM)
9	B	-(WITH REAR ENTERTAINMENT SYSTEM)
10	SHIELD	-
11	R	-(WITH REAR ENTERTAINMENT SYSTEM)
12	W	-
13	SB	-
14	SB	-
15	LG	-

Terminal No.	Color of Wire	Signal Name
4	SHIELD	-(WITH REAR ENTERTAINMENT SYSTEM)
5	W	-(WITH REAR ENTERTAINMENT SYSTEM)
6	B	-(WITH REAR ENTERTAINMENT SYSTEM)
7	V	-(WITH REAR ENTERTAINMENT SYSTEM)

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



Terminal No.	Color of Wire	Signal Name
1	P	-
2	G	-
3	R	-(WITH REAR ENTERTAINMENT SYSTEM)

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PREMIUM AUDIO SYSTEM

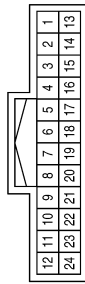
[PREMIUM AUDIO WITH NAVIGATION]

< WIRING DIAGRAM >

Terminal No.	Color of Wire	Signal Name
15	SHIELD	
16	L	-
17	P	-
19	BR	-
21	LG	-
22	SB	-
24	SB	-

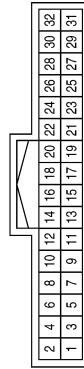
Terminal No.	Color of Wire	Signal Name
6	SB	-
7	L	-
9	LG	-
10	SB	-
12	B	-
13	B	-
14	R	-

Connector No.	B23
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	W	-
2	G	-
3	SHIELD	-
4	P	-

Connector No.	B24
Connector Name	VIDEO DISTRIBUTOR
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	B	-
2	V	-
3	B	-
4	W	-
5	BR	-
6	L	-
7	SB	-
8	BR	-
9	SB	-
10	L	-
11	-	-
12	-	-

Terminal No.	Color of Wire	Signal Name
13	-	-
14	R	-
15	G	-
16	B	-
17	W	-
18	V	-
19	V	-
20	B	-
21	G	-
22	W	-
23	R	-
24	-	-
25	-	-
26	-	-
27	W	-
28	B	-
29	SHIELD	-
30	SHIELD	-
31	P	-
32	L	-

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PREMIUM AUDIO SYSTEM

[PREMIUM AUDIO WITH NAVIGATION]

< WIRING DIAGRAM >

Terminal No.	Color of Wire	Signal Name
41	SHIELD	-
42	-	-
43	-	-
44	-	-
45	W	-
46	R	-
47	B	-
48	G	-
49	SHIELD	-
50	-	-
51	-	-
52	-	-
53	SHIELD	-
54	B	-
55	R	-
56	W	-

Connector No.	B25
Connector Name	VIDEO DISTRIBUTOR
Connector Color	WHITE




34	36	38	40	42	44	46	48	50	52	54	56
33	35	37	39	41	43	45	47	49	51	53	55

Terminal No.	Color of Wire	Signal Name
33	W	-
34	B	-
35	SHIELD	-
36	-	-
37	-	-
38	-	-
39	W	-
40	B	-

Terminal No.	Color of Wire	Signal Name
17	V	-
18	W	-
19	B	-
20	W	-
21	SHIELD	-
22	W	-
23	R	-
24	SHIELD	-
25	B	-
26	G	-
27	R	-
28	B	-
29	W	-
30	SHIELD	-


Connector No.	B41
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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

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

Connector No.	B43
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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

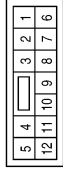
Terminal No.	Color of Wire	Signal Name
4	G	-

PREMIUM AUDIO SYSTEM

[PREMIUM AUDIO WITH NAVIGATION]

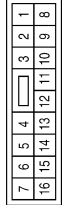
< WIRING DIAGRAM >

Connector No.	B51
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
11	R	-
12	P	-

Connector No.	B49
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
9	G	-
10	W	-
11	P	-
12	R	-
13	SHIELD	-
14	B	-
15	W	-
16	W	-

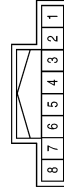
Connector No.	B46
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
13	R	-
14	B	-
15	W	-
16	SHIELD	-

Terminal No.	Color of Wire	Signal Name
5	BR	-
6	SHIELD	-
7	W	-
8	B	-
9	V	-
10	W	-
11	B	-
12	G	-
13	R	-
14	SHIELD	-

Connector No.	B75
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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

Connector No.	B73
Connector Name	SUBWOOFER
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
1	B	-
2	W	-
4	W	-
5	B	-
6	G	-

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PREMIUM AUDIO SYSTEM

[PREMIUM AUDIO WITH NAVIGATION]

< WIRING DIAGRAM >

Connector No.	B107
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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

Terminal No.	Color of Wire	Signal Name
6	B	-
7	V	-
8	G	-
9	R	-
10	SHIELD	-
11	B	-
12	W	-

Terminal No.	Color of Wire	Signal Name
6	B	-(WITH REAR ENTERTAINMENT SYSTEM)
7	W	-(WITH REAR ENTERTAINMENT SYSTEM)
8	R	-(WITH REAR ENTERTAINMENT SYSTEM)
9	SHIELD	-
10	G	-
11	SB	-

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



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

Terminal No.	Color of Wire	Signal Name
5	Y	-(WITH REAR ENTERTAINMENT SYSTEM)

Terminal No.	Color of Wire	Signal Name
7	R	-
8	G	-
9	W	-
10	G	-
13	W	-
14	P	-
15	G	-
16	R	-

Connector No.	B111
Connector Name	WIRE TO WIRE
Connector Color	BROWN



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

Terminal No.	Color of Wire	Signal Name
3	R	-
4	LG	-
5	Y	-
6	P	-


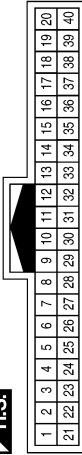
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[PREMIUM AUDIO WITH NAVIGATION]


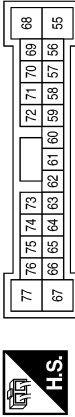
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Connector No.	B136
Connector Name	WIRE TO WIRE
Connector Color	WHITE


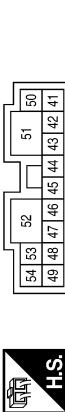
Terminal No.	Color of Wire	Signal Name
9	B	-
10	W	-
11	SHIELD	-
12	B	-
13	W	-
14	SHIELD	-
15	B	-
16	W	-
17	SHIELD	-
18	W	-
19	LG	-
20	SB	-
21	B	-
22	W	-
23	SHIELD	-

Connector No.	B130
Connector Name	BOSE SPEAKER AMP.
Connector Color	BROWN

Terminal No.	Color of Wire	Signal Name
55	R	-
56	B	-
57	W	-
58	G	-
59	R	-
60	W	-
61	SHIELD	-
62	W	-
63	W	-
64	B	-
65	W	-
66	B	-
67	-	-
68	P	-
69	P	-
70	R	-
71	W	-
72	P	-
73	B	-
74	W	-
75	B	-
76	W	-
77	-	-

Connector No.	B129
Connector Name	BOSE SPEAKER AMP.
Connector Color	BROWN

Terminal No.	Color of Wire	Signal Name
41	R	-
42	G	-
43	G	-
44	W	-
45	G	-
46	W	-
47	B	-
48	G	-
49	W	-
50	LG	-
51	Y	-
52	B	-
53	W	-
54	G	-

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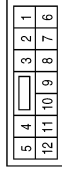
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< WIRING DIAGRAM >

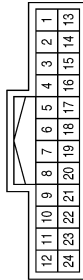
Connector No.	B139
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
11	W	-
12	G	-

Terminal No.	Color of Wire	Signal Name
9	LG	-
10	SB	-
12	B	-
13	B	-
14	R	-
15	SHIELD	-
16	O	-
17	SB	-
19	SB	-
21	LG	-
22	SB	-
24	Y	-

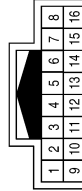
Connector No.	B137
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	W	-
2	G	-
3	SHIELD	-
4	Y	-
6	BR	-
7	L	-

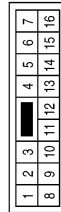
Terminal No.	Color of Wire	Signal Name
7	Y	-
8	O	-
9	V	-
10	B	-
11	W	-
12	G	-
13	R	-
14	SHIELD	-

Connector No.	B145
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	LG	-
2	SB	-
3	SB	-
4	L	-
5	BR	-
6	SHIELD	-

Connector No.	B140
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
9	G	-
10	W	-
11	P	-
12	R	-
13	SHIELD	-
14	W	-
15	B	-
16	W	-

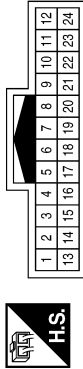
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PREMIUM AUDIO SYSTEM

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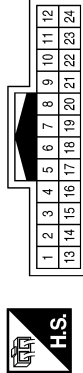
< WIRING DIAGRAM >

Connector No.	B202
Connector Name	HEADREST DISPLAY UNIT (DRIVER SEAT)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	B	REAR 1 HP LH-
2	R	REAR 1 HP RH-
3	LG	REAR 1 HP SHIELD
4	G	REAR 1 COMP -
5	-	-
6	Y	CONT GND
7	W	AUX REQ. OUT
8	-	-
9	R	M-CAN 2 L
10	L	M-CAN 2 H
11	-	-
12	G	GND
13	W	REAR 1 HP LH+
14	G	REAR 1 HP RH+
15	P	REAR 1 COMP SHIELD
16	Y	REAR 1 COMP+
17	V	AV GND
18	-	-
19	G	ACC DET. IN
20	-	-
21	LG	M-CAN 1 L
22	P	M-CAN 1 H
23	-	-
24	W	BAT

Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	B	-
2	R	-
3	LG	-
4	G	-
6	Y	-
7	W	-
9	R	-
10	L	-
12	G	-
13	W	-
14	G	-
15	P	-
16	Y	-
17	V	-
19	G	-
21	LG	-
22	P	-
24	W	-

Connector No.	B153
Connector Name	REAR SIDE SPEAKER RH
Connector Color	BROWN



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

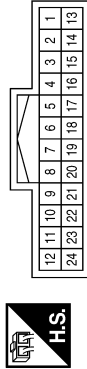
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PREMIUM AUDIO SYSTEM

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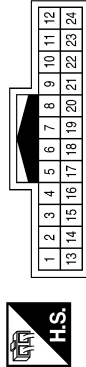
< WIRING DIAGRAM >

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



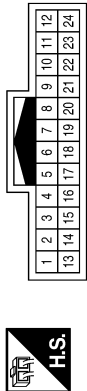
Terminal No.	Color of Wire	Signal Name
13	W	-
14	B	-
15	SHIELD	-

Connector No.	B302
Connector Name	HEADREST DISPLAY UNIT (PASSENGER SEAT)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	B	REAR 1 HP LH-
2	R	REAR 1 HP RH-
3	LG	REAR 1 HP SHIELD
4	G	REAR 1 COMP -
5	-	-
6	Y	CONT GND
7	W	AUX REQ. OUT
8	-	-
9	R	M-CAN 2 L
10	L	M-CAN 2 H
11	-	-
12	G	GND
13	W	REAR 1 HP LH+
14	G	REAR 1 HP RH+
15	P	REAR 1 COMP SHIELD
16	Y	REAR 1 COMP+
17	V	AV GND
18	-	-
19	G	ACC DET. IN
20	-	-
21	LG	M-CAN 1 L
22	P	M-CAN 1 H
23	-	-
24	W	BAT

Connector No.	B301
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	B	-
2	R	-
3	LG	-
4	G	-
6	Y	-
7	W	-
9	R	-
10	L	-
12	G	-
13	W	-
14	G	-
15	P	-
16	Y	-
17	V	-
19	G	-
21	LG	-
22	P	-
24	W	-

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PREMIUM AUDIO SYSTEM

[PREMIUM AUDIO WITH NAVIGATION]

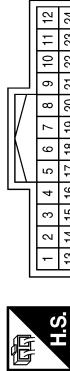
< WIRING DIAGRAM >

Connector No.	R109
Connector Name	MICROPHONE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
3	R	-
5	SHIELD	-
6	L	-

Connector No.	R101
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
5	SHIELD	-
6	L	-
7	R	-

Connector No.	R11
Connector Name	WIRE TO WIRE
Connector Color	WHITE



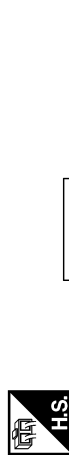
Terminal No.	Color of Wire	Signal Name
5	SHIELD	-
6	B	-
6	W	-

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



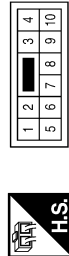
Terminal No.	Color of Wire	Signal Name
1	G	-
2	W	-

Connector No.	D3
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
29	SHIELD	-
30	R	-
31	B	-
32	W	-

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



Terminal No.	Color of Wire	Signal Name
12	G	-
13	W	-

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PREMIUM AUDIO SYSTEM

[PREMIUM AUDIO WITH NAVIGATION]

< WIRING DIAGRAM >

Connector No.	D102
Connector Name	WIRE TO WIRE
Connector Color	WHITE



1	2	3	4
5	6	7	8
9	10		

Terminal No.	Color of Wire	Signal Name
9	G	-
10	W	-

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



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

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

Connector No.	D28
Connector Name	DOOR MIRROR LH
Connector Color	WHITE



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

Terminal No.	Color of Wire	Signal Name
5	R	-
6	W	-
17	SHIELD	-
18	B	-

Connector No.	D201
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
11	Y	-
12	LG	-

Connector No.	D128
Connector Name	DOOR MIRROR RH
Connector Color	WHITE



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
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Terminal No.	Color of Wire	Signal Name
5	R	-
6	W	-
17	SHIELD	-
18	B	-

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



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

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PREMIUM AUDIO SYSTEM

[PREMIUM AUDIO WITH NAVIGATION]

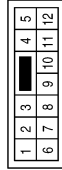
< WIRING DIAGRAM >

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



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

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



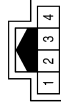
Terminal No.	Color of Wire	Signal Name
11	G	-
12	W	-

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



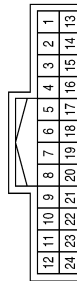
Terminal No.	Color of Wire	Signal Name
1	LG	-
2	Y	-

Connector No.	D504
Connector Name	REAR VIEW CAMERA
Connector Color	WHITE



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

Connector No.	D501
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
13	R	-
14	B	-
15	W	-
16	SHIELD	-

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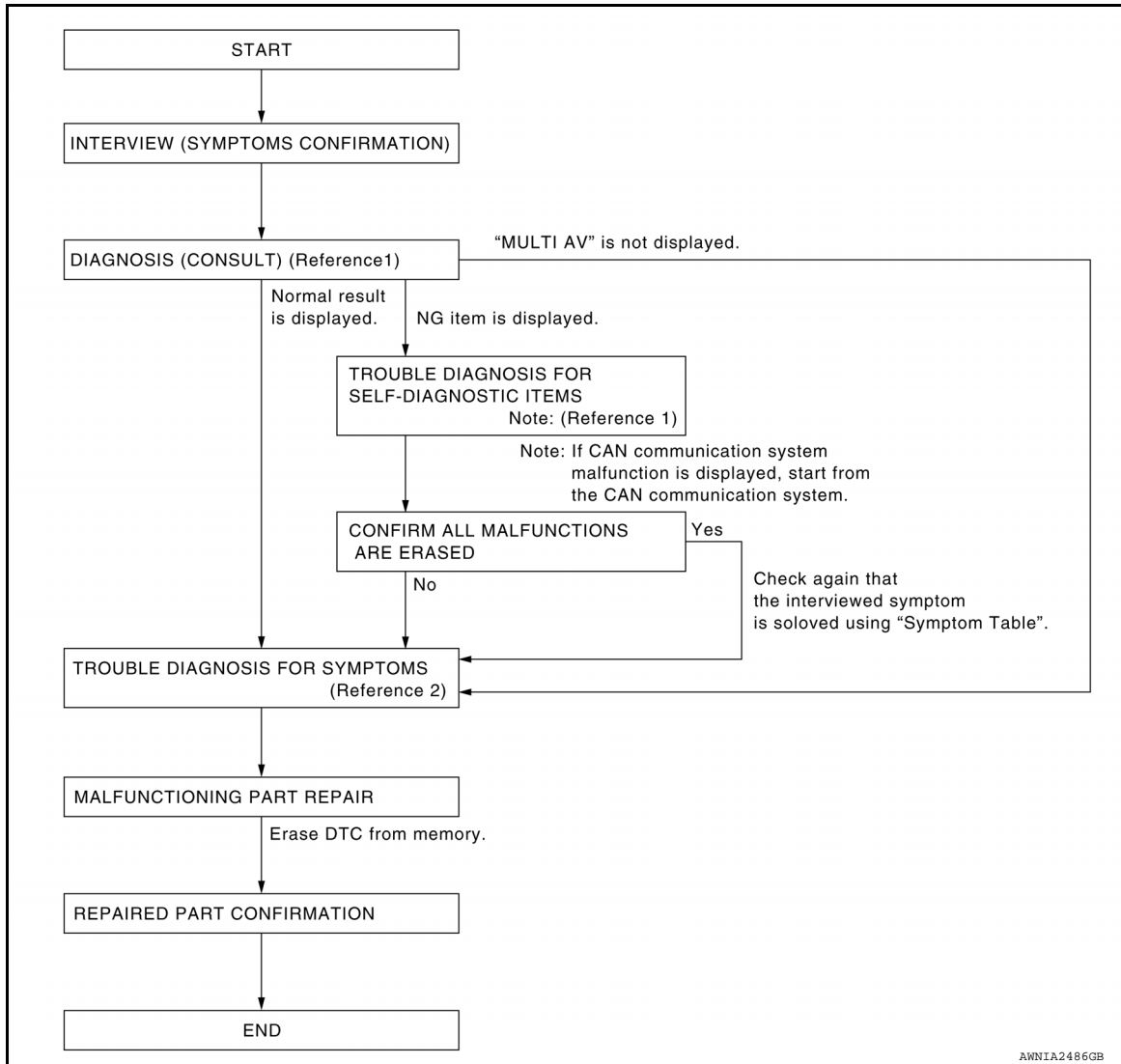
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:000000008954370

OVERALL SEQUENCE



Reference 1: Refer to [AV-404. "CONSULT Function"](#).

Reference 2: Refer to [AV-570. "Symptom Table"](#).

DETAILED FLOW

1. CHECK SYMPTOM

Check the malfunction symptoms by performing the following items.

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

>> GO TO 2

2. SELF-DIAGNOSIS (CONSULT)

1. Connect CONSULT and perform "SELF-DIAGNOSIS" for "MULTI AV".
NOTE:
Skip to step 4 of the diagnosis procedure if "MULTI AV" is not displayed.
2. Check if any DTC No. is displayed in the self-diagnosis results.

DIAGNOSIS AND REPAIR WORKFLOW

[PREMIUM AUDIO WITH NAVIGATION]

< BASIC INSPECTION >

Is any DTC No. displayed?

- YES >> GO TO 3
- NO >> GO TO 4

3. CHECK SELF-DIAGNOSIS RESULTS (CONSULT)

1. Check the DTC No. indicated in the self-diagnosis results.
2. Perform the relevant diagnosis referring to the DTC No. list. Refer to [AV-416, "DTC Index"](#).

NOTE:

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

>> GO TO 5

4. PERFORM DIAGNOSIS BY SYMPTOM

Perform the relevant diagnosis referring to the diagnosis chart by symptom. Refer to [AV-570, "Symptom Table"](#).

>> GO TO 5

5. REPAIR OR REPLACE MALFUNCTIONING PARTS

Repair or replace the identified malfunctioning parts.

NOTE:

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

>> GO TO 6

6. CHECK AFTER REPAIR

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

Is any DTC No. displayed?

- YES >> GO TO 3
- NO >> GO TO 7

7. FINAL CHECK

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

Are any symptoms present?

- YES >> GO TO 4
- NO >> Inspection End.

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AV

INSPECTION AND ADJUSTMENT**ADDITIONAL SERVICE WHEN REPLACING AV CONTROL UNIT****ADDITIONAL SERVICE WHEN REPLACING AV CONTROL UNIT : Description**

INFOID:000000008954372

BEFORE REPLACEMENT

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

NOTE:

If "Before Replace ECU" cannot be used, use the "After Replace ECU" or "Manual Configuration" after replacing AV control unit.

AFTER REPLACEMENT**CAUTION:**

When replacing AV control unit, you must perform "After Replace ECU" with CONSULT.

- Complete the procedure of "After Replace ECU" in order.
- If you set incorrect "After Replace ECU", incidents might occur.
- Configuration is different for each vehicle model. Confirm configuration of each vehicle model.

ADDITIONAL SERVICE WHEN REPLACING AV CONTROL UNIT : Work Procedure

INFOID:000000008954372

1. SAVING VEHICLE SPECIFICATION**Ⓟ CONSULT**

Enter "Re/Programming, Configuration" and perform "Before Replace ECU" to save or print current vehicle specification.

NOTE:

If "Before Replace ECU" cannot be used, use the "After Replace ECU" or "Manual Configuration" after replacing AV control unit.

>> GO TO 2.

2. REPLACE AV CONTROL UNIT

Replace AV control unit. Refer to [AV-585, "Removal and Installation"](#).

>> GO TO 3.

3. WRITING VEHICLE SPECIFICATION**Ⓟ CONSULT**

1. Enter "Re/Programming, Configuration".
2. If "Before Replace ECU" operation was performed, automatically an "Operation Log Selection" screen will be displayed. Select the applicable file from the "Saved Data List" and press "Confirm" to write vehicle specification. Refer to [AV-473, "CONFIGURATION \(AV CONTROL UNIT\) : Work Procedure"](#).
3. If "Before Replace ECU" operation was not performed, select "After Replace ECU" or "Manual Configuration" to write vehicle specification. Refer to [AV-473, "CONFIGURATION \(AV CONTROL UNIT\) : Work Procedure"](#).

>> GO TO 4.

4. OPERATION CHECK

Check that the operation of the AV control unit is normal.

>> Work End.

CONFIGURATION (AV CONTROL UNIT)

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

[PREMIUM AUDIO WITH NAVIGATION]

CONFIGURATION (AV CONTROL UNIT) : Description

INFOID:000000008954374

Vehicle specification needs to be written with CONSULT because it is not written after replacing AV control unit.

Configuration has three functions as follows:

Function	Description
"Before Replace ECU"	<ul style="list-style-type: none">• Reads the vehicle configuration of current AV control unit.• Saves the read vehicle configuration.
"After Replace ECU"	Writes the vehicle configuration with manual selection.
"Select Saved Data List"	Writes the vehicle configuration with saved data.

CAUTION:

- When replacing AV control unit, you must perform "Select Saved Data List" or "After Replace ECU" with CONSULT.
- Complete the procedure of "Select Saved Data List" or "After Replace ECU" in order.
- If you set incorrect "Select Saved Data List" or "After Replace ECU", incidents might occur.
- Configuration is different for each vehicle model. Confirm configuration of each vehicle model.
- Never perform "Select Saved Data List" or "After Replace ECU" except for new AV control unit.

CONFIGURATION (AV CONTROL UNIT) : Work Procedure

INFOID:000000008954375

1. WRITING MODE SELECTION

CONSULT

Select "Reprogramming, Configuration" of AV control unit.

When writing saved data >> GO TO 2.

When writing manually >> GO TO 3.

2. PERFORM "SAVED DATA LIST"

CONSULT

Automatically "Operation Log Selection" window will display if "Before Replace ECU" was performed. Select applicable file from the "Save Data List" and press "Confirm".

>> Work End.

3. PERFORM "AFTER REPLACE ECU" OR "MANUAL CONFIGURATION"

CONSULT

1. Select "After Replace ECU" or "Manual Configuration".
2. Identify the correct model and configuration list. Refer to [AV-474, "CONFIGURATION \(AV CONTROL UNIT\) : Configuration List"](#).
3. Confirm and/or change setting value for each item.

CAUTION:

Thoroughly read and understand the vehicle specification. ECU control may not operate normally if the setting is not correct.

4. Select "Next".

CAUTION:

Make sure to select "Next", confirm each setting value and press "OK" even if the indicated configuration of brand new AV control unit is same as the desirable configuration. If not, configuration which is set automatically by selecting vehicle model can not be memorized.

5. When "Completed", select "End".

>> GO TO 4.

4. OPERATION CHECK

Confirm that each function controlled by AV control unit operates normally.

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INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

[PREMIUM AUDIO WITH NAVIGATION]

>> Work End.

CONFIGURATION (AV CONTROL UNIT) : Configuration List

INFOID:000000008954376

CAUTION:

Thoroughly read and understand the vehicle specification. Incorrect settings may result in abnormal control of ECU.

MANUAL SETTING ITEM	
Items	Setting value
ENGINE TYPE	NORMAL ↔ HYBRID
SOUND SYSTEM	BOSE SURROUND ↔ BOSE ↔ BASE

↔: Items which confirm vehicle specifications

ADDITIONAL SERVICE WHEN REPLACING AROUND VIEW MONITOR CONTROL UNIT

ADDITIONAL SERVICE WHEN REPLACING AROUND VIEW MONITOR CONTROL UNIT : Description

INFOID:000000008954377

BEFORE REPLACEMENT

When replacing around view monitor control unit, save or print current vehicle specification with CONSULT configuration before replacement.

NOTE:

If "Before Replace ECU" cannot be used, use the "After Replace ECU" or "Manual Configuration" after replacing around view monitor control unit.

AFTER REPLACEMENT

CAUTION:

When replacing around view monitor control unit, you must perform "After Replace ECU" with CONSULT.

- Complete the procedure of "After Replace ECU" in order.
- If you set incorrect "After Replace ECU", incidents might occur.
- Configuration is different for each vehicle model. Confirm configuration of each vehicle model.

ADDITIONAL SERVICE WHEN REPLACING AROUND VIEW MONITOR CONTROL UNIT : Work Procedure

INFOID:000000008954378

1. SAVING VEHICLE SPECIFICATION

Ⓟ-CONSULT

Enter "Re/Programming, Configuration" and perform "Before Replace ECU" to save or print current vehicle specification.

NOTE:

If "Before Replace ECU" cannot be used, use the "After Replace ECU" or "Manual Configuration" after replacing around view monitor control unit.

>> GO TO 2.

2. REPLACE AROUND VIEW MONITOR CONTROL UNIT

Replace around view monitor control unit. Refer to [AV-603. "Removal and Installation"](#).

>> GO TO 3.

3. WRITING VEHICLE SPECIFICATION

ⓅCONSULT

1. Enter "Re/Programming, Configuration".
2. If "Before Replace ECU" operation was performed, automatically an "Operation Log Selection" screen will be displayed. Select the applicable file from the "Saved Data List" and press "Confirm" to write vehicle

INSPECTION AND ADJUSTMENT

[PREMIUM AUDIO WITH NAVIGATION]

< BASIC INSPECTION >

specification. Refer to [AV-475. "CONFIGURATION \(AROUND VIEW MONITOR CONTROL UNIT\) : Work Procedure"](#).

3. If "Before Replace ECU" operation was not performed, select "After Replace ECU" or "Manual Configuration" to write vehicle specification. Refer to [AV-475. "CONFIGURATION \(AROUND VIEW MONITOR CONTROL UNIT\) : Work Procedure"](#).

>> GO TO 4.

4. OPERATION CHECK

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

>> Work End.

CONFIGURATION (AROUND VIEW MONITOR CONTROL UNIT)

CONFIGURATION (AROUND VIEW MONITOR CONTROL UNIT) : Description

INFOID:000000008954379

Vehicle specification needs to be written with CONSULT because it is not written after replacing around view monitor control unit.

Configuration has three functions as follows:

Function	Description
"Before Replace ECU"	<ul style="list-style-type: none">• Reads the vehicle configuration of current around view monitor control unit.• Saves the read vehicle configuration.
"After Replace ECU"	Writes the vehicle configuration with manual selection.
"Select Saved Data List"	Writes the vehicle configuration with saved data.

CAUTION:

- **When replacing around view monitor control unit, you must perform "Select Saved Data List" or "After Replace ECU" with CONSULT.**
- **Complete the procedure of "Select Saved Data List" or "After Replace ECU" in order.**
- **If you set incorrect "Select Saved Data List" or "After Replace ECU", incidents might occur.**
- **Configuration is different for each vehicle model. Confirm configuration of each vehicle model.**
- **Never perform "Select Saved Data List" or "After Replace ECU" except for new around view monitor control unit.**

CONFIGURATION (AROUND VIEW MONITOR CONTROL UNIT) : Work Procedure

INFOID:000000008954380

1. WRITING MODE SELECTION

CONSULT

Select "Reprogramming, Configuration" of around view monitor control unit.

When writing saved data >> GO TO 2.

When writing manually >> GO TO 3.

2. PERFORM "SAVED DATA LIST"

CONSULT

Automatically "Operation Log Selection" window will display if "Before Replace ECU" was performed. Select applicable file from the "Save Data List" and press "Confirm".

>> Work End.

3. PERFORM "AFTER REPLACE ECU" OR "MANUAL CONFIGURATION"

CONSULT

1. Select "After Replace ECU" or "Manual Configuration".

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< BASIC INSPECTION >

[PREMIUM AUDIO WITH NAVIGATION]

- Identify the correct model and configuration list. Refer to [AV-476. "CONFIGURATION \(AROUND VIEW MONITOR CONTROL UNIT\) : Configuration List"](#).
- Confirm and/or change setting value for each item.
CAUTION:
Thoroughly read and understand the vehicle specification. ECU control may not operate normally if the setting is not correct.
- Select "Next".
CAUTION:
Make sure to select "Next", confirm each setting value and press "OK" even if the indicated configuration of brand new around view monitor control unit is same as the desirable configuration. If not, configuration which is set automatically by selecting vehicle model can not be memorized.
- When "Completed", select "End".

>> GO TO 4.

4. OPERATION CHECK

Confirm that each function controlled by around view monitor control unit operates normally.

>> Work End.

CONFIGURATION (AROUND VIEW MONITOR CONTROL UNIT) : Configuration List

INFOID:000000008954381

CAUTION:

Thoroughly read and understand the vehicle specification. Incorrect settings may result in abnormal control of ECU.

MANUAL SETTING ITEM	
Items	Setting value
BCI FUNCTION	WITH ↔ WITHOUT

↔: Items which confirm vehicle specifications

PREDICTED COURSE LINE CENTER POSITION ADJUSTMENT

PREDICTED COURSE LINE CENTER POSITION ADJUSTMENT : Description

INFOID:000000008954387

Adjust the center position of the predictive course line of the rear view monitor if it is shifted.

PREDICTED COURSE LINE CENTER POSITION ADJUSTMENT : Work Procedure

INFOID:000000008954388

1. DRIVING

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

>> END

CALIBRATING CAMERA IMAGE (AROUND VIEW MONITOR)

CALIBRATING CAMERA IMAGE (AROUND VIEW MONITOR) : Description

INFOID:000000008954389

- Calibration must be performed after removing/replacing the cameras, removing parts (e.g. front grille, door mirror, and others) mounted on the cameras, or replacing the Around view monitor control unit.
- The use of CONSULT is required to perform calibration or writing of calibration results to the Around view monitor control unit.
- Align the white lines on the road near the vehicle at the boundary of each camera image by this camera calibration. The white lines far from the vehicle may not be aligned at the boundary of each camera image. The farther the line, the greater the difference is.

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

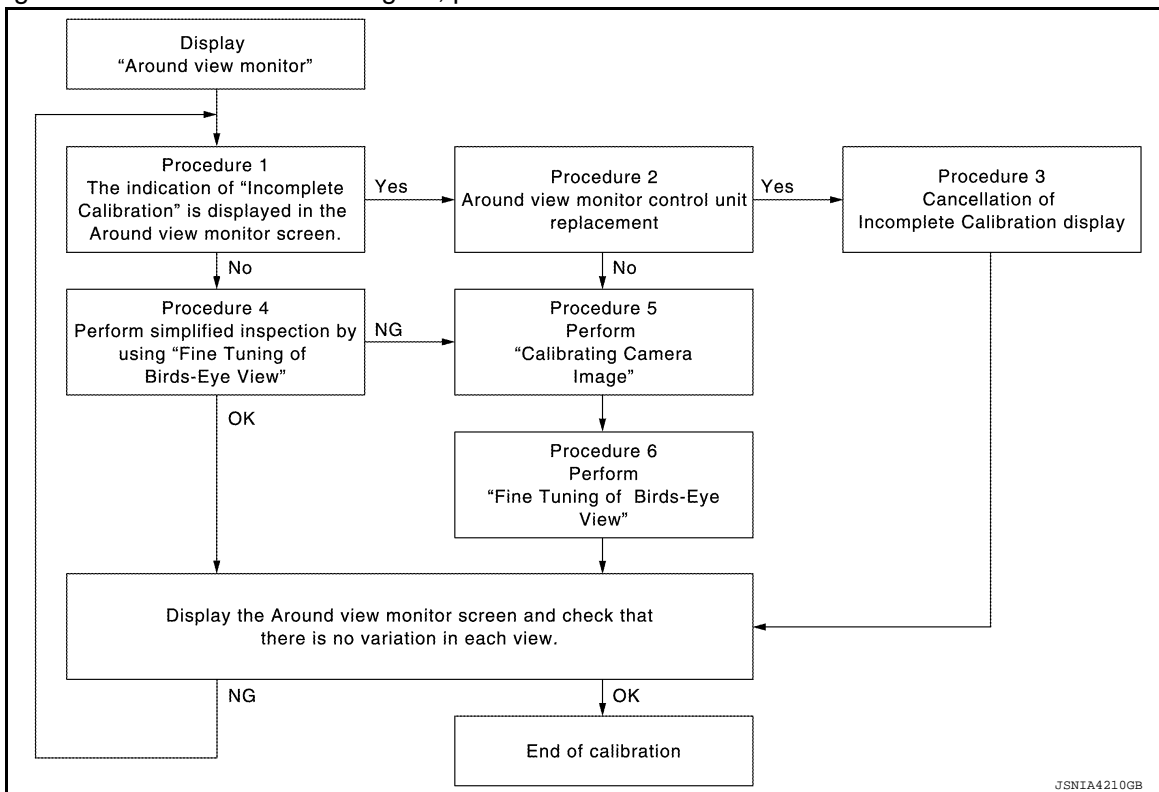
[PREMIUM AUDIO WITH NAVIGATION]

CALIBRATING CAMERA IMAGE (AROUND VIEW MONITOR) : Work Procedure


INFOID:000000008954390

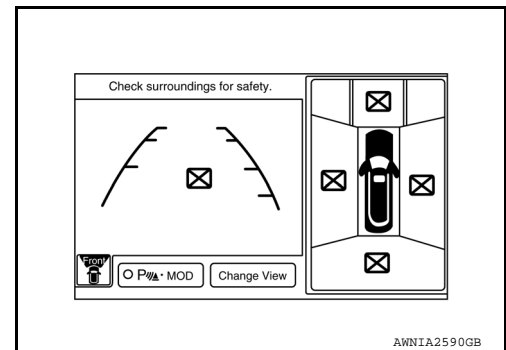
CALIBRATION FLOWCHART

Following the flowchart shown in the figure, perform the calibration.



NOTE:

View in the incomplete calibration state is indicated by  on the around view monitor.



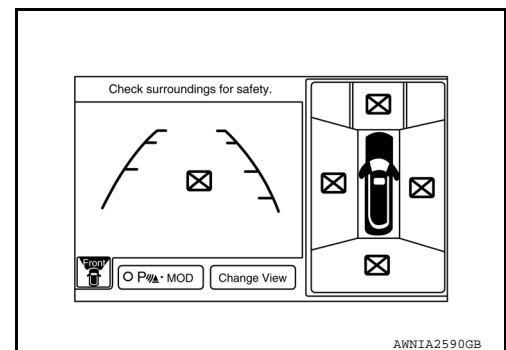
CALIBRATION PROCEDURE

1. AROUND VIEW MONITOR SCREEN CONFIRMATION

Check that there is no indication of "Incomplete calibration".

Is the "Incomplete calibration" display visible?

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



2. CHECK THAT AROUND VIEW MONITOR CONTROL UNIT IS REPLACED

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INSPECTION AND ADJUSTMENT

[PREMIUM AUDIO WITH NAVIGATION]

< BASIC INSPECTION >

Check that the around view monitor control unit is replaced.

Is the around view monitor control unit replaced?

- YES >> GO TO 3.
- NO >> GO TO 5.

3. CANCEL THE INDICATION OF INCOMPLETE CALIBRATION (PERFORM THIS ONLY AFTER REPLACING AROUND VIEW MONITOR CONTROL UNIT.)

CONSULT work support

1. On the CONSULT screen, touch “CALIBRATING CAMERA IMAGE (FRONT CAMERA)”, “CALIBRATING CAMERA IMAGE (PASS-SIDE CAMERA)”, “CALIBRATING CAMERA IMAGE (DR-SIDE CAMERA)”, or “CALIBRATING CAMERA IMAGE (REAR CAMERA)” to accept the selection.

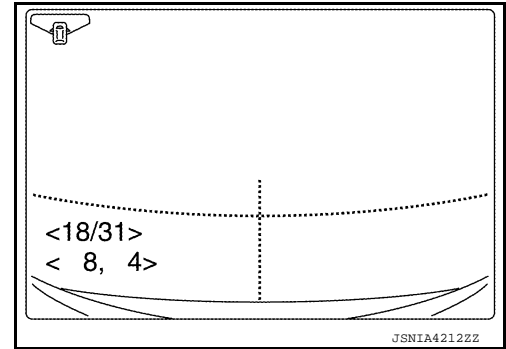
NOTE:

To cancel the indication of Incomplete calibration, select items based on the target camera.

2. On the adjustment screen of each camera, touch “APPLY” button. After this, touch “OK” button.

CAUTION:

- Never perform operations other than those mentioned above.
 - Never perform “Initialize Camera Image Calibration”.
3. Display the around view monitor screen to check that there is no errors, such as deviations among the camera images.



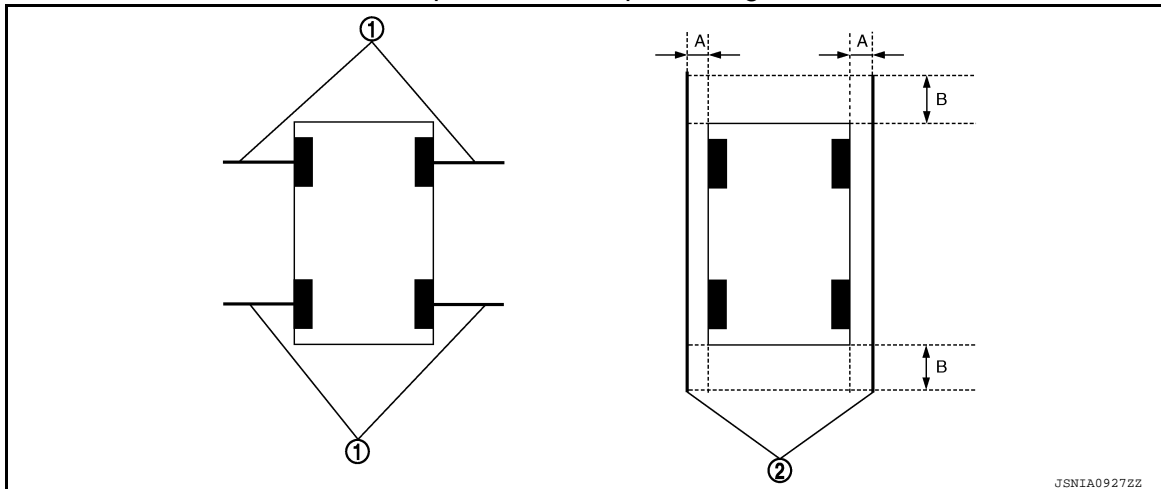
Is there a malfunction?

- YES >> Calibration end
- NO >> GO TO 1.

4. PERFORM SIMPLIFIED CONFIRMATION/ADJUSTMENT BY “FINE TUNING OF BIRDS-EYE VIEW”

1. Put target line 1 on the ground beside each axle using packing tape, etc.
2. Put target lines 2 equal to the vehicle total length + approximately 1.0 m (39.3 in) from the vehicle side (right and left) at approximately 30 cm (11.8 in) away from the vehicle (make the line as parallel with the vehicle as possible)

Preparation of simplified target line



1. Target lines 1
 2. Target lines 2
- A. Approx. 30 cm (11.8 in) B. Approx. 1.0 m (39.3 in)

CONSULT work support

Touch “FINE TUNING OF BIRDS-EYE VIEW” on the CONSULT screen.

4. On the CONSULT screen, touch “SELECT” button to select right or left camera and perform camera calibration as instructed below:
 - If the marker on the screen deviates from Target line 1, touch “AXIS X” button and “AXIS Y” button to adjust so that the marker is placed on the Target line 1.
 - If Target line 2 is misaligned among the cameras, adjust each camera image to bring Target line 2 into a straight line.

CAUTION:

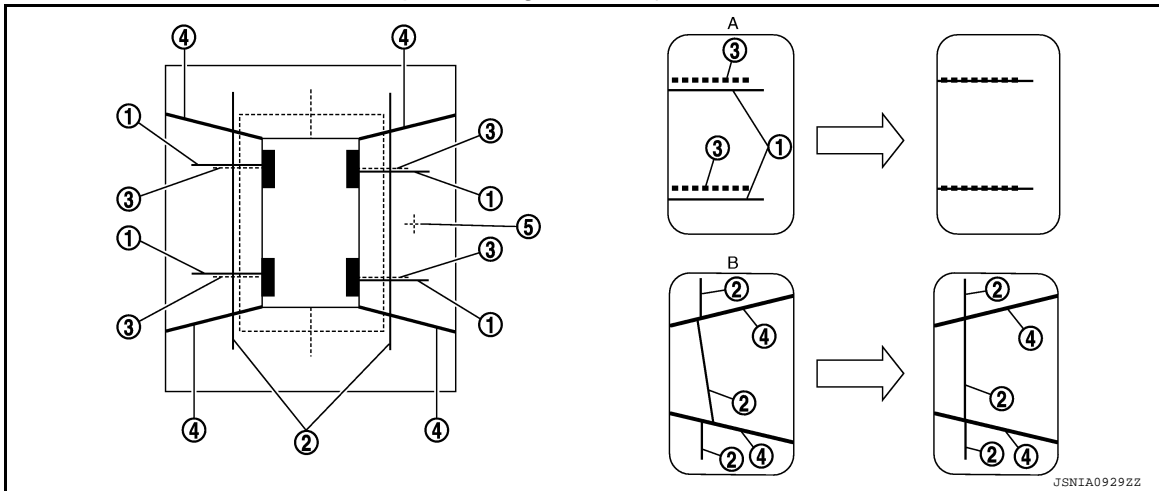
INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

[PREMIUM AUDIO WITH NAVIGATION]

Never adjust the front camera and rear camera. Only adjust the right and left cameras.

Simplified target line adjustment method



- | | | |
|---|---|-----------------------------|
| 1. Target lines 1 | 2. Target lines 2 | 3. Marker for target line 1 |
| 4. Boundary between cameras | 5. Crosshairs cursor (mark indicated the selected camera) | |
| A. Adjustment method for target lines 1 (right) | B. Adjustment method for target lines 2 (right) | |

- Adjust right and left cameras. Touch "APPLY" on the CONSULT screen to display adjustment results.
- After adjusting right and left cameras, check that the marker is properly placed on the screen and there is no deviation in Target line 1.

NOTE:

- It can be initialized to the NISSAN factory default condition with "Initialize Camera Image Calibration".
- The adjustment value is cancelled on this mode by performing "Initialize Camera Image Calibration".

Is the difference corrected?

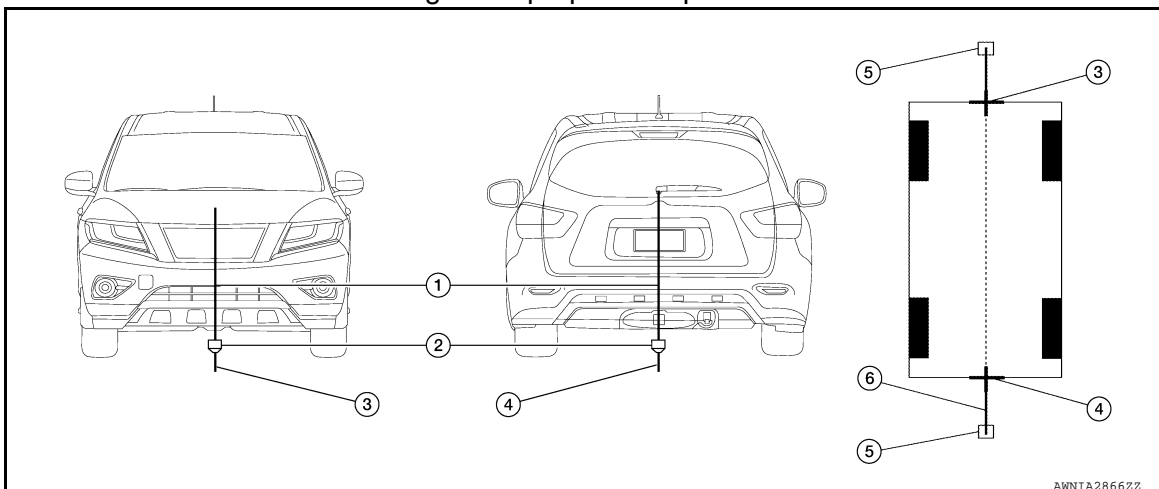
- YES >> On the CONSULT screen, touch "OK" button to complete writing to the around view monitor control unit.
- NO >> GO TO 5.

5.PERFORM "CALIBRATING CAMERA IMAGE"

Preparation of target line

- Hang a string with a weight as shown in the figure. Put the points FM0, RM0 (mark) on the ground at the center of the vehicle front end and rear end with white packing tape or a pen.
- Route the vinyl string under the vehicle, and then pull and fix it on the point approximately 1.0 m (39.9 in) to the front and rear of the vehicle through the points FM0 and RM0 using packing tape.

Target line preparation procedure 1



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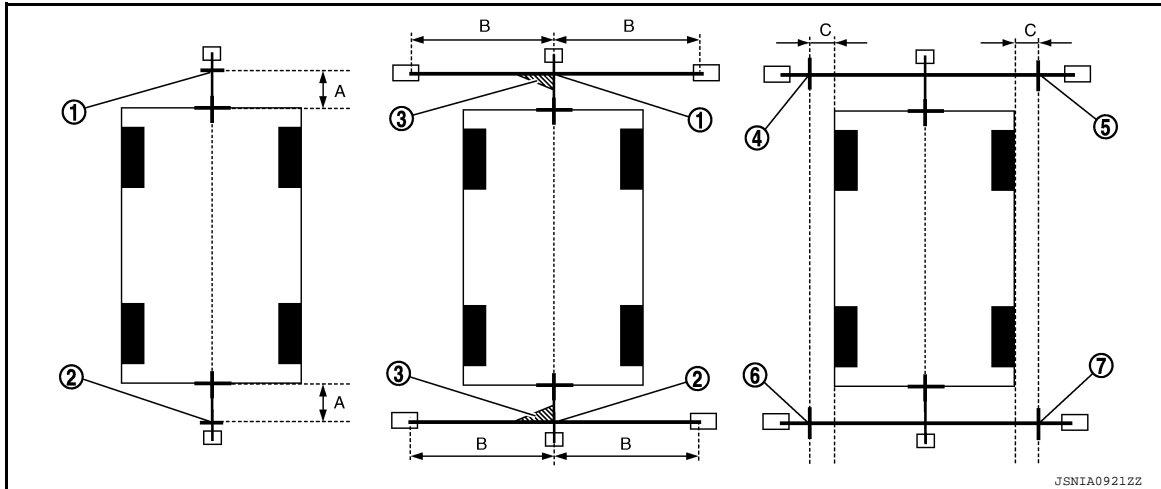
INSPECTION AND ADJUSTMENT

[PREMIUM AUDIO WITH NAVIGATION]

< BASIC INSPECTION >

1. Thread
 2. Weight
 3. Point FM0 (mark)
 4. Point RM0 (mark)
 5. Packing tape (to fix the vinyl string)
 6. Vinyl string
3. Put the points FM and RM (mark) 75 cm (29.5 in) from the points FM0 and RM0 individually.
 4. Route the vinyl string through the points FM and RM using a triangle scale, and then fix it at approximately 1.5 m (59 in) on both sides with packing tape.
 5. Put the points FL, FR, RL, and RR (mark) to both right and left [vehicle width / 2 + 30 cm (11.8 in)] from the points FM and RM.

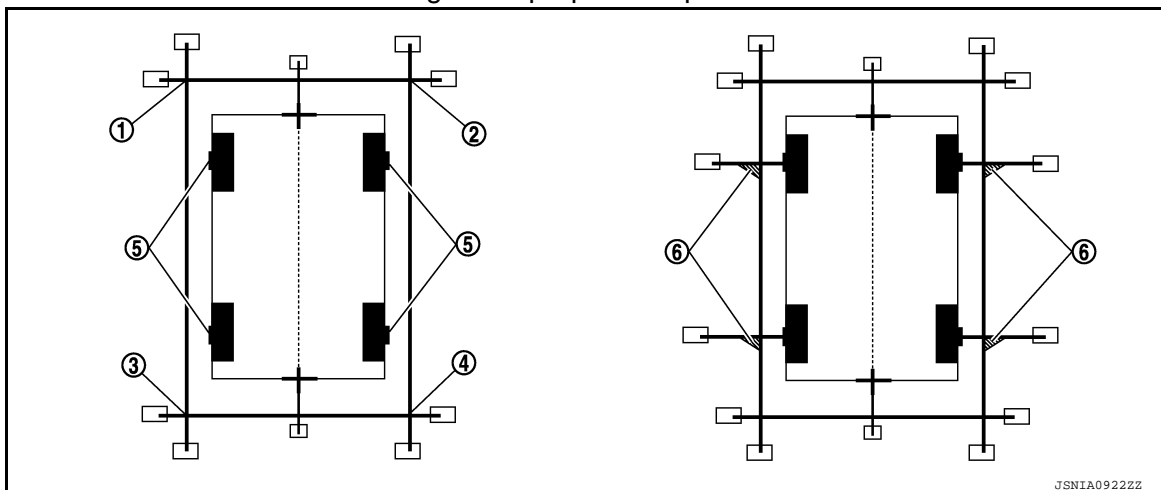
Target line preparation procedure 2



- | | | |
|--------------------|--------------------|--------------------|
| 1. Point FM | 2. Point RM | 3. Triangle scale |
| 4. Point FL (mark) | 5. Point FR (mark) | 6. Point RL (mark) |
| 7. Point RR (mark) | | |
-
- | | | |
|--------------------|--------------------------|--|
| A. 75 cm (29.5 in) | B. Approx. 1.5 m (59 in) | C. 30 cm (11.8 in)
[Vehicle width / 2 + 30 cm (11.8 in)
from the points FM and RM] |
|--------------------|--------------------------|--|

6. Draw the lines of the points FL – RL and FR – RR with vinyl string, and fix it with packing tape.
7. Put a mark on the center of each axle, draw vertical lines to the lines of the points FL – RL and FR – RR from the marks on the center of the axle using a triangle scale, and then fix the lines using packing tape.

Target line preparation procedure 3



- | | | |
|-------------|----------------------------|-------------------|
| 1. Point FL | 2. Point FR | 3. Point RL |
| 4. Point RR | 5. Center position of axle | 6. Triangle scale |

Perform “Calibrating Camera Image”

CONSULT work support

INSPECTION AND ADJUSTMENT

[PREMIUM AUDIO WITH NAVIGATION]

< BASIC INSPECTION >

1. On the CONSULT screen, touch “CALIBRATING CAMERA IMAGE (FRONT CAMERA)”, “CALIBRATING CAMERA IMAGE (PASS-SIDE CAMERA)”, “CALIBRATING CAMERA IMAGE (DR-SIDE CAMERA)”, or “CALIBRATING CAMERA IMAGE (REAR CAMERA)” to accept the selection.

NOTE:

To cancel the indication of Incomplete calibration, select items based on the target camera.

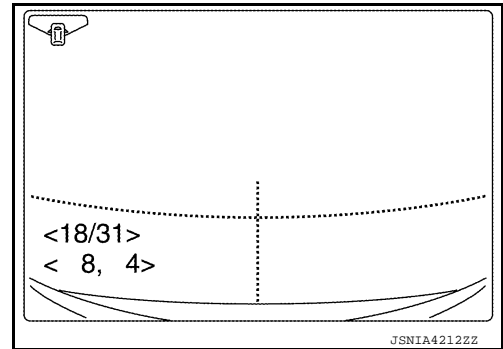
2. On the adjustment screen of each camera, adjust the parameter by touching the “AXIS X” button, “AXIS Y” button, and “ROTATE” button to place the calibration marker shown on the camera screen on the target line drawn on the ground.

Adjustment range

Rotation direction (Center dial) : 31 patterns (16 on the center)

Upper/lower direction (upper/lower switch) : -22 – 22

Left/right direction (left/right switch) : -22 – 22



3. Touch “APPLY” button on the CONSULT screen. “PRCSNG” is displayed and adjustment results are shown on the camera screen.

CAUTION:

Check that “PRCSNG” is displayed. Do never perform other operations while “PRCSNG” is displayed.

4. Touch “OK” button on the CONSULT screen. “PRCSNG” is displayed and adjustment results are written to the around view monitor control unit.

CAUTION:

Check that “PRCSNG” is displayed. Do never perform other operations while “PRCSNG” is displayed.

>> GO TO 6.

6.PERFORM “FINE TUNING OF BIRDS-EYE VIEW”

This mode is designed to align the boundary between each camera image that could not be aligned in the “Calibrating Camera Image” mode.

ⓂCONSULT work support

1. Select “FINE TUNING OF BIRDS-EYE VIEW” by touching CONSULT screen.
2. On the adjustment screen of each camera, adjust the parameter by touching the “AXIS X” button, “AXIS Y” button”, and “ROTATE” button to place the calibration marker shown on the camera screen on the target line drawn on the ground.

NOTE:

Touch “SELECT” button on the CONSULT screen to select the target camera.

3. Touch “APPLY” button on the CONSULT screen. “PRCSNG” is displayed and adjustment results are shown on the camera screen.

CAUTION:

Check that “PRCSNG” is displayed. Do never perform other operations while “PRCSNG” is displayed.

4. Touch “OK” button on the CONSULT screen. “PRCSNG” is displayed and adjustment results are written to the around view monitor control unit.

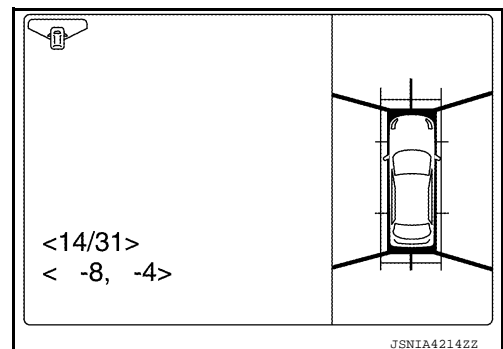
CAUTION:

- Check that “PRCSNG” is displayed. Never perform other operations while “PRCSNG” is displayed.
- After pressing the “OK” button, never press buttons other than the “BACK” button.

NOTE:

- It can be initialized to the NISSAN factory default condition with “Initialize Camera Image Calibration”.
- The adjustment value is cancelled in this mode by performing “Initialize Camera Image Calibration”.

>> Calibration end



U1000 CAN COMM CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

DTC/CIRCUIT DIAGNOSIS

U1000 CAN COMM CIRCUIT

DTC Logic

INFOID:000000008954391

DTC DETECTION LOGIC

CONSULT Display	DTC Detection Condition	Possible Cause
CAN COMM CIRCUIT [U1000]	AV control unit is not transmitting or receiving CAN communication signal for 2 seconds or more.	CAN communication system.

Diagnosis Procedure

INFOID:000000008954392

1. PERFORM SELF DIAGNOSTIC RESULT

1. Turn ignition switch ON and wait for 2 seconds or more.
2. Perform Self Diagnostic Result for MULTI AV.

Is CAN COMM CIRCUIT displayed?

- YES >> Refer to [LAN-20, "Trouble Diagnosis Flow Chart"](#).
- NO >> Refer to [GI-49, "Intermittent Incident"](#).

U1010 CONTROL UNIT (CAN)

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

U1010 CONTROL UNIT (CAN)

DTC Logic

INFOID:000000008954395

DTC DETECTION LOGIC

CONSULT Display	DTC Detection Condition	Possible Cause
CONTROL UNIT (CAN) [U1010]	CAN initial diagnosis malfunction is detected.	Replace the AV control unit if the malfunction occurs constantly. Refer to AV-585, "Removal and Installation" .

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U1200 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

U1200 AV CONTROL UNIT

DTC Logic

INFOID:000000008954397

CONSULT Display	DTC Detection Condition	Possible Cause
CONT UNIT [U1200]	AV control unit malfunction is detected.	Replace AV control unit if malfunction occurs constantly. Refer to AV-585. "Removal and Installation" .

U1201 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

U1201 AV CONTROL UNIT

DTC Logic

INFOID:000000008954398

CONSULT Display	DTC Detection Condition	Possible Cause
GYRO NO CONN [U1201]	AV control unit malfunction is detected.	Replace AV control unit if malfunction occurs constantly. Refer to AV-585. "Removal and Installation" .

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U1202 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

U1202 AV CONTROL UNIT

DTC Logic

INFOID:000000008954399

CONSULT Display	DTC Detection Condition	Possible Cause
G-SENSOR NO CONN [U1202]	AV control unit malfunction is detected.	Replace AV control unit if malfunction occurs constantly. Refer to AV-585. "Removal and Installation" .

U1204 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

U1204 AV CONTROL UNIT

DTC Logic

INFOID:000000008954400

CONSULT Display	DTC Detection Condition	Possible Cause
GPS CONN [U1204]	GPS malfunction is detected.	An intermittent error caused by strong radio interference, GPS reception error, etc. may be detected. Replace AV control unit if malfunction occurs constantly. Refer to AV-585, "Removal and Installation" .

Diagnosis Procedure

INFOID:000000008954401

1. PERFORM SELF DIAGNOSTIC RESULT

1. Perform Self Diagnostic Result for MULTI AV.
2. Erase Self Diagnostic Result. Turn ignition switch OFF.
3. Turn ignition switch ON. Perform Self Diagnostic Result again.

Is DTC U1204 detected?

- YES >> Replace AV control unit. Refer to [AV-585, "Removal and Installation"](#).
NO >> Refer to [GI-49, "Intermittent Incident"](#).

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U1205 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

U1205 AV CONTROL UNIT

DTC Logic

INFOID:000000008954402

CONSULT Display	DTC Detection Condition	Possible Cause
GPS ROM [U1205]	GPS malfunction is detected.	An intermittent error caused by strong radio interference, GPS reception error, etc. may be detected. Replace AV control unit if malfunction occurs constantly. Refer to AV-585, "Removal and Installation" .

Diagnosis Procedure

INFOID:000000008954403

1. PERFORM SELF DIAGNOSTIC RESULT

1. Perform Self Diagnostic Result for MULTI AV.
2. Erase Self Diagnostic Result. Turn ignition switch OFF.
3. Turn ignition switch ON. Perform Self Diagnostic Result again.

Is DTC U1205 detected?

- YES >> Replace AV control unit. Refer to [AV-585, "Removal and Installation"](#).
NO >> Refer to [GI-49, "Intermittent Incident"](#).

U1206 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

U1206 AV CONTROL UNIT

DTC Logic

INFOID:000000008954404

CONSULT Display	DTC Detection Condition	Possible Cause
GPS RAM [U1206]	GPS malfunction is detected.	An intermittent error caused by strong radio interference, GPS reception error, etc. may be detected. Replace AV control unit if malfunction occurs constantly. Refer to AV-585, "Removal and Installation" .

Diagnosis Procedure

INFOID:000000008954405

1. PERFORM SELF DIAGNOSTIC RESULT

1. Perform Self Diagnostic Result for MULTI AV.
2. Erase Self Diagnostic Result. Turn ignition switch OFF.
3. Turn ignition switch ON. Perform Self Diagnostic Result again.

Is DTC U1206 detected?

- YES >> Replace AV control unit. Refer to [AV-585, "Removal and Installation"](#).
NO >> Refer to [GI-49, "Intermittent Incident"](#).

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U1207 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

U1207 AV CONTROL UNIT

DTC Logic

INFOID:000000008954406

CONSULT Display	DTC Detection Condition	Possible Cause
GPS RTC [U1207]	GPS malfunction is detected.	An intermittent error caused by strong radio interference, GPS reception error, etc. may be detected. Replace AV control unit if malfunction occurs constantly. Refer to AV-585, "Removal and Installation" .

Diagnosis Procedure

INFOID:000000008954407

1. PERFORM SELF DIAGNOSTIC RESULT

1. Perform Self Diagnostic Result for MULTI AV.
2. Erase Self Diagnostic Result. Turn ignition switch OFF.
3. Turn ignition switch ON. Perform Self Diagnostic Result again.

Is DTC U1207 detected?

- YES >> Replace AV control unit. Refer to [AV-585, "Removal and Installation"](#).
NO >> Refer to [GI-49, "Intermittent Incident"](#).

U1216 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

U1216 AV CONTROL UNIT

DTC Logic

INFOID:000000008954408

CONSULT Display	DTC Detection Condition	Possible Cause
CAN CONT [U1216]	AV control unit malfunction is detected.	Replace AV control unit if malfunction occurs constantly. Refer to AV-585. "Removal and Installation" .

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U1217 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

U1217 AV CONTROL UNIT

DTC Logic

INFOID:000000008954409

CONSULT Display	DTC Detection Condition	Possible Cause
BLUETOOTH MODULE [U1217]	AV control unit malfunction is detected.	Replace AV control unit if malfunction occurs constantly. Refer to AV-585. "Removal and Installation" .

U1218 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

U1218 AV CONTROL UNIT

DTC Logic

INFOID:000000008954410

CONSULT Display	DTC Detection Condition	Possible Cause
HDD CONN [U1218]	AV control unit malfunction is detected.	If the hard disk drive (HDD) is functioning normally, there is a possibility of an intermittent malfunction. Replace AV control unit if malfunction occurs constantly. Refer to AV-585, "Removal and Installation" .

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U1219 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

U1219 AV CONTROL UNIT

DTC Logic

INFOID:000000008954411

CONSULT Display	DTC Detection Condition	Possible Cause
HDD READ [U1219]	AV control unit malfunction is detected.	If the hard disk drive (HDD) is functioning normally, there is a possibility of an intermittent malfunction. Replace AV control unit if malfunction occurs constantly. Refer to AV-585. "Removal and Installation" .

U121A AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

U121A AV CONTROL UNIT

DTC Logic

INFOID:000000008954412

CONSULT Display	DTC Detection Condition	Possible Cause
HDD WRITE [U121A]	AV control unit malfunction is detected.	If the hard disk drive (HDD) is functioning normally, there is a possibility of an intermittent malfunction. Replace AV control unit if malfunction occurs constantly. Refer to AV-585, "Removal and Installation" .

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U121B AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

U121B AV CONTROL UNIT

DTC Logic

INFOID:000000008954413

CONSULT Display	DTC Detection Condition	Possible Cause
HDD COMM [U121B]	AV control unit malfunction is detected.	If the hard disk drive (HDD) is functioning normally, there is a possibility of an intermittent malfunction. Replace AV control unit if malfunction occurs constantly. Refer to AV-585, "Removal and Installation" .

U121C AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

U121C AV CONTROL UNIT

DTC Logic

INFOID:000000008954414

CONSULT Display	DTC Detection Condition	Possible Cause
HDD ACCESS [U121C]	AV control unit malfunction is detected.	If the hard disk drive (HDD) is functioning normally, there is a possibility of an intermittent malfunction. Replace AV control unit if malfunction occurs constantly. Refer to AV-585, "Removal and Installation" .

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U121D AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

U121D AV CONTROL UNIT

DTC Logic

INFOID:000000008954415

CONSULT Display	DTC Detection Condition	Possible Cause
DSP CONN [U121D]	AV control unit malfunction is detected.	An intermittent error causing disc player malfunction may be detected. Replace AV control unit if malfunction occurs constantly. Refer to AV-585, "Removal and Installation" .

Diagnosis Procedure

INFOID:000000008954416

1. CHECK CD PLAYBACK

Check the CD playback operation of the AV control unit. Refer to Owner's Manual for audio system operating instructions.

Is the CD playback function of the AV control unit operating normally?

YES >> Refer to [GI-49, "Intermittent Incident"](#).

NO >> Replace AV control unit. Refer to [AV-585, "Removal and Installation"](#).

U121E AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

U121E AV CONTROL UNIT

DTC Logic

INFOID:000000008954417

CONSULT Display	DTC Detection Condition	Possible Cause
DSP COMM [U121E]	AV control unit malfunction is detected.	An intermittent error causing disc player malfunction may be detected. Replace AV control unit if malfunction occurs constantly. Refer to AV-585, "Removal and Installation" .

Diagnosis Procedure

INFOID:000000008954418

1. CHECK CD PLAYBACK

Check the CD playback operation of the AV control unit. Refer to Owner's Manual for audio system operating instructions.

Is the CD playback function of the AV control unit operating normally?

YES >> Refer to [GI-49, "Intermittent Incident"](#).

NO >> Replace AV control unit. Refer to [AV-585, "Removal and Installation"](#).

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U1225 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

U1225 AV CONTROL UNIT

DTC Logic

INFOID:000000008954419

CONSULT Display	DTC Detection Condition	Possible Cause
USB CONTROLLER [U1225]	USB connection malfunction is detected.	Check that connection to USB connector is normal.

U1227 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

U1227 AV CONTROL UNIT

DTC Logic

INFOID:000000008954420

CONSULT Display	DTC Detection Condition	Possible Cause
DVD COMM [U1227]	AV control unit malfunction is detected.	An intermittent error causing disc player malfunction may be detected. Replace AV control unit if malfunction occurs constantly. Refer to AV-585, "Removal and Installation" .

Diagnosis Procedure

INFOID:000000008954421

1. CHECK DVD PLAYBACK

Check the DVD playback operation of the AV control unit. Refer to Owner's Manual for audio system operating instructions.

Is the DVD playback function of the AV control unit operating normally?

YES >> Refer to [GI-49, "Intermittent Incident"](#).

NO >> Replace AV control unit. Refer to [AV-585, "Removal and Installation"](#).

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U1228 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

U1228 AV CONTROL UNIT

DTC Logic

INFOID:000000008954422

CONSULT Display	DTC Detection Condition	Possible Cause
SUB CPU CONN [U1228]	AV control unit malfunction is detected.	Replace AV control unit if malfunction occurs constantly. Refer to AV-585. "Removal and Installation" .

U1229 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

U1229 AV CONTROL UNIT

DTC Logic

INFOID:000000008954423

CONSULT Display	DTC Detection Condition	Possible Cause
iPod CERTIFICATION [U1229]	AV control unit malfunction is detected.	Replace AV control unit if malfunction occurs constantly. Refer to AV-585. "Removal and Installation" .

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U122A AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

U122A AV CONTROL UNIT

DTC Logic

INFOID:000000008954424

CONSULT Display	DTC Detection Condition	Possible Cause
CONFIG UNFINISH [U122A]	Configuration data is incomplete.	Write configuration data. Refer to AV-475. "CONFIGURATION (AROUND VIEW MONITOR CONTROL UNIT) : Work Procedure" .

Diagnosis Procedure

INFOID:000000008954425

1.PERFORM CONFIGURATION

When U122A is detected, configuration data must be written.

>> Write configuration data with CONSULT. Refer to [AV-475. "CONFIGURATION \(AROUND VIEW MONITOR CONTROL UNIT\) : Work Procedure"](#).

U122E AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

U122E AV CONTROL UNIT

DTC Logic

INFOID:000000008954426

CONSULT Display	DTC Detection Condition	Possible Cause
Built-in AUDIO CONN [U122E]	AV control unit malfunction is detected.	Replace AV control unit if malfunction occurs constantly. Refer to AV-585. "Removal and Installation" .

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U1231 BOSE AMP.

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

U1231 BOSE AMP.

DTC Logic

INFOID:000000008954427

CONSULT Display	DTC Detection Condition	Possible Cause
AMP TEMP [U1231]	BOSE speaker amp. malfunction is detected.	Replace BOSE speaker amp. if malfunction occurs constantly. Refer to AV-592. "Removal and Installation" .

U1232 STEERING ANGLE SENSOR

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

U1232 STEERING ANGLE SENSOR

DTC Logic

INFOID:000000008954428

CONSULT Display	DTC Detection Condition	Possible Cause
ST ANGLE SEN CALIB [U1232]	Predictive course line center position adjustment of steering angle sensor is incomplete.	Adjust predictive course line center position of steering angle sensor.

Diagnosis Procedure

INFOID:000000008954429

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

When U1232 is detected, the predictive course line center position of the steering angle sensor needs to be adjusted.

>> Adjust the predictive course line center position of steering angle sensor. Refer to [AV-476. "PREDICTED COURSE LINE CENTER POSITION ADJUSTMENT : Work Procedure"](#).

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U1243 DISPLAY UNIT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

U1243 DISPLAY UNIT

DTC Logic

INFOID:000000008954430

CONSULT Display	DTC Detection Condition	Possible Cause
FRONT DISP CONN [U1243]	When any of the following is detected. <ul style="list-style-type: none"> display unit power supply or ground circuit malfunction. serial communication circuit malfunction between front display unit and AV control unit. 	<ul style="list-style-type: none"> Display unit power supply and ground circuits. Serial communication circuits between front display unit and AV control unit.

Diagnosis Procedure

INFOID:000000008954431

Regarding Wiring Diagram information, refer to [AV-432, "Wiring Diagram"](#).

1. CHECK DISPLAY UNIT POWER SUPPLY AND GROUND CIRCUIT

Check display unit power supply and ground circuits. Refer to [AV-532, "DISPLAY UNIT : Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness or connectors.

2. CHECK COMMUNICATION CIRCUIT CONTINUITY

- Turn ignition switch OFF.
- Disconnect display unit connector M92 and AV control unit connector M163.
- Check continuity between display unit connector M92 terminals 9, 10 and AV control unit connector M163 terminals 77, 61.

Display unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M92	9	M163	77	Yes
	10		61	

- Check continuity between display unit connector M92 terminals 9, 10 and ground.

Display unit		Ground	Continuity
Connector	Terminal		
M92	9	—	No
	10		

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connectors.

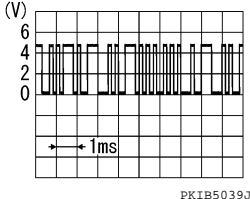
3. CHECK COMMUNICATION SIGNAL (DISP→CONT)

- Connect display unit connector M92 and AV control unit connector M163.
- Turn ignition switch ON.
- Check signal between display unit connector M92 terminal 9 and ground.

U1243 DISPLAY UNIT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

Display unit		Ground	Condition	Reference value
(+)		(-)		
Connector	Terminal			
M92	9	—	When adjusting display brightness.	 <p style="text-align: right; font-size: small;">PKIB5039J</p>

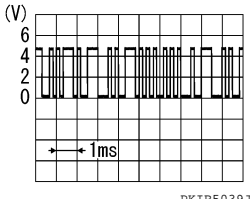
Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace AV control unit. Refer to [AV-585. "Removal and Installation"](#).

4. CHECK COMMUNICATION SIGNAL (CONT→DISP)

Check signal between display unit connector M92 terminal 10 and ground.

Display unit		Ground	Condition	Reference value
(+)		(-)		
Connector	Terminal			
M92	10	—	When adjusting display brightness.	 <p style="text-align: right; font-size: small;">PKIB5039J</p>

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace display unit. Refer to [AV-589. "Removal and Installation"](#).

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U1244 GPS ANTENNA

[PREMIUM AUDIO WITH NAVIGATION]

< DTC/CIRCUIT DIAGNOSIS >

U1244 GPS ANTENNA

DTC Logic

INFOID:000000008954432

CONSULT Display	DTC Detection Condition	Possible Cause
GPS ANTENNA CONN [U1244]	GPS antenna connection malfunction is detected.	GPS antenna disconnection.

Diagnosis Procedure

INFOID:000000008954433

Regarding Wiring Diagram information, refer to [AV-432, "Wiring Diagram"](#).

1. GPS ANTENNA INSPECTION

Visually inspect the GPS antenna and antenna feeder. Refer to [AV-611, "Removal and Installation"](#).

Is inspection result normal?

YES >> GO TO 2.

NO >> Replace malfunctioning parts.

2. CHECK AV CONTROL UNIT VOLTAGE

1. Disconnect GPS antenna connector.
2. Turn ignition switch ON.
3. Check voltage between AV control unit connector M25 and ground.

AV control unit		Ground	Voltage
(+) Connector		(-)	
M25	Terminal 130	—	5.0 V

Is inspection result normal?

YES >> Inspection End.

NO >> Replace AV control unit. Refer to [AV-585, "Removal and Installation"](#).

U1258 SATELLITE RADIO ANTENNA

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

U1258 SATELLITE RADIO ANTENNA

DTC Logic

INFOID:000000008954434

CONSULT Display	DTC Detection Condition	Possible Cause
XM ANTENNA CONN [U1258]	Satellite radio antenna connection malfunction is detected.	Satellite radio antenna disconnection.

Diagnosis Procedure

INFOID:000000008954435

Regarding Wiring Diagram information, refer to [AV-432, "Wiring Diagram"](#).

1. SATELLITE RADIO ANTENNA INSPECTION

Visually inspect the satellite radio antenna and antenna feeder. Refer to [AV-609, "Location of Antennas"](#).

Is inspection result normal?

YES >> GO TO 2.

NO >> Replace malfunctioning parts.

2. CHECK AV CONTROL UNIT VOLTAGE

1. Disconnect AV control unit connector M156.
2. Turn ignition switch ON.
3. Check voltage between AV control unit connector and ground.

AV control unit		Ground	Voltage
(+)		(-)	
Connector	Terminal		
M156	129	—	5.0 V

Is inspection result normal?

YES >> Inspection End.

NO >> Replace AV control unit. Refer to [AV-585, "Removal and Installation"](#).

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U125A HEADREST DISPLAY UNIT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

U125A HEADREST DISPLAY UNIT

DTC Logic

INFOID:000000008954436

CONSULT Display	DTC Detection Condition	Possible Cause
3RD DISP CONN [U125A]	When any of the following is detected. <ul style="list-style-type: none">headrest display unit power supply or ground circuit malfunction.AV communication circuit malfunction between headrest display units.	<ul style="list-style-type: none">Headrest display unit power supply and ground circuits.AV communication circuits between headrest display units.

Diagnosis Procedure

INFOID:000000008954437

Regarding Wiring Diagram information, refer to [AV-432, "Wiring Diagram"](#).

1. CHECK HEADREST DISPLAY UNIT POWER SUPPLY AND GROUND CIRCUIT

Check headrest display unit power supply and ground circuits. Refer to [AV-537, "HEADREST DISPLAY UNIT : Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness or connectors.

2. CHECK AV COMMUNICATION CIRCUIT CONTINUITY

- Turn ignition switch OFF.
- Disconnect headrest display unit connectors.
- Check continuity between headrest display unit (driver seat) connector B202 and headrest display unit (passenger seat) connector B302.

Headrest display unit (driver seat)		Headrest display unit (passenger seat)		Continuity
Connector	Terminal	Connector	Terminal	
B202	9	B302	21	Yes
	10		22	

- Check continuity between headrest display unit (driver seat) connector B202 and ground.

Headrest display unit (driver seat)		Ground	Continuity
Connector	Terminal		
B202	9	—	No
	10		

Is the inspection result normal?

YES >> Replace headrest display unit (passenger seat). Refer to [AV-590, "Removal and Installation"](#).

NO >> Repair or replace harness or connectors.

U1263 USB

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

U1263 USB

DTC Logic

INFOID:000000008954438

CONSULT Display	DTC Detection Condition	Possible Cause
USB OVERCURRENT [U126]	Overcurrent in USB connector is detected.	Check USB harness between the AV control unit and USB connector.

Diagnosis Procedure

INFOID:000000008954439

1. CHECK USB INTERFACE HARNESS

Visually inspect USB interface harness.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace USB interface harness. Refer to [AV-600. "Removal and Installation"](#).

2. CHECK USB INTERFACE HARNESS CONTINUITY

Check USB interface harness continuity. Refer to [AV-513. "Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> Replace AV control unit. Refer to [AV-585. "Removal and Installation"](#).

NO >> Replace USB interface harness. Refer to [AV-600. "Removal and Installation"](#).

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U1264 ANTENNA AMP.

[PREMIUM AUDIO WITH NAVIGATION]

< DTC/CIRCUIT DIAGNOSIS >

U1264 ANTENNA AMP.

DTC Logic

INFOID:000000008954440

CONSULT Display	DTC Detection Condition	Possible Cause
ANTENNA AMP TERMINAL [U1264]	Antenna amp. ON signal circuit open or short circuited.	Antenna amp. ON signal circuit between AV control unit and antenna amp.

Diagnosis Procedure

INFOID:000000008954441

Regarding Wiring Diagram information, refer to [AV-432. "Wiring Diagram"](#).

1. CHECK CONTINUITY BETWEEN AV CONTROL UNIT AND ANTENNA BASE

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M155 and antenna base connector M502.
3. Check continuity between AV control unit connector M155 and antenna base connector M502.

AV control unit		Antenna base		Continuity
Connector	Terminal	Connector	Terminal	
M155	127	M502	1	Yes

4. Check continuity between AV control unit connector M155 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M155	127	—	No

Is the inspection result normal?

- YES >> GO TO 2.
NO >> Repair or replace harness or connectors.

2. CHECK AV CONTROL UNIT VOLTAGE

1. Connect AV control unit connector M155.
2. Turn ignition switch ON.
3. Check voltage between AV control unit connector M155 and ground.

AV control unit (+)		Ground (-)	Voltage (Approx.)
Connector	Terminal		
M155	127	—	Battery voltage

Is the inspection result normal?

- YES >> Replace antenna base. Refer to [AV-612. "Removal and Installation"](#).
NO >> Replace AV control unit. Refer to [AV-585. "Removal and Installation"](#).

U1265 BOSE AMP.

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

U1265 BOSE AMP.

DTC Logic

INFOID:000000008954442

CONSULT Display	DTC Detection Condition	Possible Cause
AMP ON TERMINAL [U1265]	BOSE amp. ON signal circuit open or short circuited.	BOSE amp. ON signal circuit between AV control unit and BOSE speaker amp.

Diagnosis Procedure

INFOID:000000008954443

Regarding Wiring Diagram information, refer to [AV-432, "Wiring Diagram"](#).

1. CHECK CONTINUITY BETWEEN AV CONTROL UNIT AND BOSE SPEAKER AMP.

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M161 and Bose speaker amp. connector B130.
3. Check continuity between AV control unit connector M161 and Bose speaker amp. connector B130.

AV control unit		Bose speaker amp.		Continuity
Connector	Terminal	Connector	Terminal	
M161	1	B130	60	Yes

4. Check continuity between AV control unit connector M161 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M161	1	—	No

Is the inspection result normal?

- YES >> GO TO 2.
NO >> Repair or replace harness or connectors.

2. CHECK AV CONTROL UNIT VOLTAGE

1. Connect AV control unit connector M161.
2. Turn ignition switch ON.
3. Check voltage between AV control unit connector M161 and ground.

AV control unit		Ground	Voltage (Approx.)
(+)			
Connector	Terminal	(-)	
M161	1	—	Battery voltage

Is the inspection result normal?

- YES >> Replace Bose speaker amp. Refer to [AV-592, "Removal and Installation"](#).
NO >> Replace AV control unit. Refer to [AV-585, "Removal and Installation"](#).

U1300 AV COMM CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

U1300 AV COMM CIRCUIT

Description

INFOID:000000008954444

U1300 is indicated when a malfunction occurs in the communication signal of the multi AV system. Indicated simultaneously, without fail, the malfunction of control units connected to the AV control unit through communication circuits. Determine the possible malfunction cause from the table below.

SELF DIAGNOSTIC RESULT DISPLAY ITEM

CONSULT Display	DTC Detection Condition	Possible Cause
<ul style="list-style-type: none"> AV COMM CIRCUIT [U1300] SWITCH CONN [U1240] 	When any of the following is detected: <ul style="list-style-type: none"> A/C and AV switch assembly power supply or ground circuit malfunction. AV communication circuit malfunction between AV control unit and A/C and AV switch assembly. 	<ul style="list-style-type: none"> A/C and AV switch assembly power supply and ground circuits. Refer to AV-535, "A/C AND AV SWITCH ASSEMBLY : Diagnosis Procedure". AV communication circuits between AV control unit and A/C and AV switch assembly.
<ul style="list-style-type: none"> AV COMM CIRCUIT [U1300] AMP CONN [U124E] 	When any of the following is detected: <ul style="list-style-type: none"> BOSE speaker amp. power supply or ground circuit malfunction. AV communication circuits between AV control unit and BOSE speaker amp. are malfunctioning. 	<ul style="list-style-type: none"> BOSE speaker amp. power supply and ground circuits. Refer to AV-533, "BOSE AMP. : Diagnosis Procedure". AV communication circuits between AV control unit and BOSE speaker amp.
<ul style="list-style-type: none"> AV COMM CIRCUIT [U1300] VIDEO DIST CONN [U1246] 	When any of the following is detected: <ul style="list-style-type: none"> video distributor power supply or ground circuit malfunction. headrest display unit (driver seat) power supply or ground circuit malfunction. AV communication circuit malfunction between AV control unit and headrest display unit (driver seat). 	<ul style="list-style-type: none"> Video distributor power supply and ground circuits. Refer to AV-536, "VIDEO DISTRIBUTOR : Diagnosis Procedure". Headrest display unit (driver seat) power supply and ground circuits. Refer to AV-537, "HEADREST DISPLAY UNIT : Diagnosis Procedure". AV communication circuits between AV control unit and headrest display unit (driver seat).
<ul style="list-style-type: none"> AV COMM CIRCUIT [U1300] AROUND CAMERA CONN [U125B] 	When any of the following is detected: <ul style="list-style-type: none"> around view monitor control unit power supply or ground circuit malfunction. AV communication circuit malfunction between AV control unit and around view monitor control unit. 	<ul style="list-style-type: none"> Around view monitor control unit power supply and ground circuits. Refer to AV-537, "AROUND VIEW MONITOR CONTROL UNIT : Diagnosis Procedure". AV communication circuits between AV control unit and around view monitor control unit.
<ul style="list-style-type: none"> AV COMM CIRCUIT [U1300] SWITCH CONN [U1240] AROUND CAMERA CONN [U125B] VIDEO DIST CONN [U1246] 	AV communication circuit malfunction between AV control unit and A/C and AV switch assembly.	AV communication circuits between AV control unit and A/C and AV switch assembly.
<ul style="list-style-type: none"> AV COMM CIRCUIT [U1300] SWITCH CONN [U1240] AMP CONN [U124E] AROUND CAMERA CONN [U125B] VIDEO DIST CONN [U1246] 		

U1302 CAMERA POWER VOLT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

U1302 CAMERA POWER VOLT

DTC Logic

INFOID:000000008954445

DTC DETECTION LOGIC

CONSULT Display	DTC Detection Condition	Possible Cause
CAMERA SUPPLY POWER SUPPLY VOLTAGE ABNORMALITY [U1302]	Short in camera power circuit.	<ul style="list-style-type: none"> • Harness or connectors. • Camera. • Around view monitor control unit.

Diagnosis Procedure

INFOID:000000008954446

Regarding Wiring Diagram information, refer to [AV-432, "Wiring Diagram"](#).

1. CHECK CAMERA DATA MONITOR

Check CAMERA IMAGE SIG, CAMERA COMM STATUS and CAMERA COMM LINE for each camera in "DATA MONITOR" of "AVM".

Is "OK" displayed for all cameras?

YES >> Refer to [GI-49, "Intermittent Incident"](#).

NO-1 (Front camera)>>GO TO 2.

NO-2 (Rear camera)>>GO TO 4.

NO-3 (LH side camera)>>GO TO 6.

NO-4 (RH side camera)>>GO TO 8.

2. CHECK FRONT CAMERA POWER SUPPLY AND POWER SUPPLY GROUND CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector M96 and camera connectors.
3. Check continuity between around view monitor control unit connector M96 and front camera connector E226.

Around view monitor control unit		Front camera		Continuity
Connector	Terminal	Connector	Terminal	
M96	38	E226	1	Yes
	37		2	

4. Check continuity between around view monitor control unit connector M96 and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminal		
M96	37	—	No

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connectors.

3. CHECK AROUND VIEW MONITOR CONTROL UNIT VOLTAGE

1. Connect around view monitor control unit connector M96 and front camera connector E226.
2. Turn ignition switch ON.
3. Check the voltage between the terminals of around view monitor control unit connector M96.

U1302 CAMERA POWER VOLT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

Around view monitor control unit M97		Condition	Voltage (Approx.)
(+)	(-)		
Terminal	Terminal		
38	37	CAMERA switch is ON or shift position is R.	6.0 V

Is the inspection result normal?

YES >> Replace front camera. Refer to [AV-604, "Removal and Installation"](#).

NO >> Replace around view monitor control unit. Refer to [AV-603, "Removal and Installation"](#).

4. CHECK REAR CAMERA POWER SUPPLY AND POWER SUPPLY GROUND CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector M96 and rear camera connector D504.
3. Check continuity between around view monitor control unit connector M96 and rear camera connector D504.

Around view monitor control unit		Rear camera		Continuity
Connector	Terminal	Connector	Terminal	
M96	25	D504	2	Yes
	26		1	

4. Check continuity between around view monitor control unit connector M96 and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminal		
M96	25	—	No

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness or connectors.

5. CHECK AROUND VIEW MONITOR CONTROL UNIT VOLTAGE

1. Connect around view monitor control unit connector M96 and rear camera connector D504.
2. Turn ignition switch ON.
3. Check the voltage between the terminals of around view monitor control unit connector M96.

Around view monitor control unit M96		Condition	Voltage (Approx.)
(+)	(-)		
Terminal	Terminal		
26	25	CAMERA switch is ON or shift position is R.	6.0 V

Is the inspection result normal?

YES >> Replace rear camera. Refer to [AV-605, "Removal and Installation"](#).

NO >> Replace around view monitor control unit. Refer to [AV-603, "Removal and Installation"](#).

6. CHECK LH SIDE CAMERA POWER SUPPLY AND POWER SUPPLY GROUND CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector M96 and LH side camera connector D28.
3. Check continuity between around view monitor control unit connector M96 and LH side camera connector D28.

Around view monitor control unit		LH side camera		Continuity
Connector	Terminal	Connector	Terminal	

U1302 CAMERA POWER VOLT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

M96	30	D28	6	Yes
	29		18	

4. Check continuity between around view monitor control unit connector M96 and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminal		
M96	29	—	No

Is the inspection result normal?

YES >> GO TO 7.

NO >> Repair or replace harness or connectors.

7. CHECK AROUND VIEW MONITOR CONTROL UNIT VOLTAGE

1. Connect around view monitor control unit connector M96 and LH side camera connector D28.
2. Turn ignition switch ON.
3. Check the voltage between the terminals of around view monitor control unit connector M96.

Around view monitor control unit M96		Condition	Voltage (Approx.)
(+)	(-)		
Terminal	Terminal		
30	29	CAMERA switch is ON or shift position is R.	6.0 V

Is the inspection result normal?

YES >> Replace LH side camera. Refer to [AV-606, "Removal and Installation"](#).

NO >> Replace around view monitor control unit. Refer to [AV-603, "Removal and Installation"](#).

8. CHECK RH SIDE CAMERA POWER SUPPLY AND POWER SUPPLY GROUND CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector M96 and RH side camera connector D128.
3. Check continuity between around view monitor control unit connector M96 and RH side camera connector D128.

Around view monitor control unit		RH side camera		Continuity
Connector	Terminal	Connector	Terminal	
M96	34	D128	6	Yes
	33		18	

4. Check continuity between around view monitor control unit connector M96 and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminal		
M96	33	—	No

Is the inspection result normal?

YES >> GO TO 9.

NO >> Repair or replace harness or connectors.

9. CHECK AROUND VIEW MONITOR CONTROL UNIT VOLTAGE

1. Connect around view monitor control unit connector M96 and RH side camera connector D128.
2. Turn ignition switch ON.
3. Check the voltage between the terminals of around view monitor control unit connector M96.

U1302 CAMERA POWER VOLT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

Around view monitor control unit M96		Condition	Voltage (Approx.)
(+)	(-)		
Terminal	Terminal		
34	33	CAMERA switch is ON or shift position is R.	6.0 V

Is the inspection result normal?

YES >> Replace RH side camera. Refer to [AV-606. "Removal and Installation"](#).

NO >> Replace around view monitor control unit. Refer to [AV-603. "Removal and Installation"](#).

U1303 LED POWER SUPPLY VOLT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

U1303 LED POWER SUPPLY VOLT

DTC Logic

INFOID:000000008954447

DTC DETECTION LOGIC

CONSULT Display	DTC Detection Condition	Possible Cause
LED SUPPLY POWER SUPPLY VOLTAGE ABNORMALITY [U1303]	Short in camera power circuit.	<ul style="list-style-type: none"> • Harness or connectors. • Camera. • Around view monitor control unit.

Diagnosis Procedure

INFOID:000000008954448

Regarding Wiring Diagram information, refer to [AV-432, "Wiring Diagram"](#).

1.CHECK CAMERA DATA MONITOR

Check CAMERA IMAGE SIG, CAMERA COMM STATUS and CAMERA COMM LINE for each camera in "DATA MONITOR" of "AVM".

Is "OK" displayed for all cameras?

YES >> Refer to [GI-49, "Intermittent Incident"](#).

NO-1 (LH side camera)>>GO TO 2.

NO-2 (RH side camera)>>GO TO 4.

2.CHECK LH SIDE CAMERA POWER SUPPLY AND POWER SUPPLY GROUND CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector M96 and LH side camera connector D28.
3. Check continuity between around view monitor control unit connector M96 and LH side camera connector D28.

Around view monitor control unit		LH side camera		Continuity
Connector	Terminal	Connector	Terminal	
M96	30	D28	6	Yes
	29		18	

4. Check continuity between around view monitor control unit connector M96 and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminal		
M96	29	—	No

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connectors.

3.CHECK AROUND VIEW MONITOR CONTROL UNIT VOLTAGE

1. Connect around view monitor control unit connector M96 and LH side camera connector D6.
2. Turn ignition switch ON.
3. Check the voltage between the terminals of around view monitor control unit connector M96.

U1303 LED POWER SUPPLY VOLT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

Around view monitor control unit M96		Condition	Voltage (Approx.)
(+)	(-)		
Terminal	Terminal		
30	29	CAMERA switch is ON or shift position is R.	6.0 V

Is the inspection result normal?

YES >> Replace LH side camera. Refer to [AV-606, "Removal and Installation"](#).

NO >> Replace around view monitor control unit. Refer to [AV-603, "Removal and Installation"](#).

4. CHECK RH SIDE CAMERA POWER SUPPLY AND POWER SUPPLY GROUND CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector M96 and RH side camera connector D128.
3. Check continuity between around view monitor control unit connector M96 and RH side camera connector D128.

Around view monitor control unit		RH side camera		Continuity
Connector	Terminal	Connector	Terminal	
M96	34	D128	6	Yes
	33		18	

4. Check continuity between around view monitor control unit connector M96 and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminal		
M96	33	—	No

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness or connectors.

5. CHECK AROUND VIEW MONITOR CONTROL UNIT VOLTAGE

1. Connect around view monitor control unit connector M96 and RH side camera connector D128.
2. Turn ignition switch ON.
3. Check the voltage between around the terminals of view monitor control unit connector M96.

Around view monitor control unit M96		Condition	Voltage (Approx.)
(+)	(-)		
Terminal	Terminal		
34	33	CAMERA switch is ON or shift position is R.	6.0 V

Is the inspection result normal?

YES >> Replace RH side camera. Refer to [AV-606, "Removal and Installation"](#).

NO >> Replace around view monitor control unit. Refer to [AV-603, "Removal and Installation"](#).

U1304 CAMERA IMAGE CALIBRATION

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

U1304 CAMERA IMAGE CALIBRATION

DTC Logic

INFOID:000000008954449

DTC DETECTION LOGIC

CONSULT Display	DTC Detection Condition	Possible Cause
NON-COMPLETION OF THE CALIBRATION [U1304]	Camera calibration malfunction.	Cameras are not calibrated. Refer to AV-477, "CALIBRATING CAMERA IMAGE (AROUND VIEW MONITOR) : Work Procedure" .

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U1305 CONFIG UNFINISH

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

U1305 CONFIG UNFINISH

DTC Logic

INFOID:000000008954450

DTC DETECTION LOGIC

CONSULT Display	DTC Detection Condition	Possible Cause
NON-COMPLETION OF THE WRITE CONFIGURATION [U1305]	Around view monitor control unit configuration malfunction.	Around view monitor control unit not configured. Refer to AV-475. "CONFIGURATION (AROUND VIEW MONITOR CONTROL UNIT) : Work Procedure" .

U1310 AV CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

U1310 AV CONTROL UNIT

DTC Logic

INFOID:000000008954451

CONSULT Display	DTC Detection Condition	Possible Cause
CONTROL UNIT (AV) [U1310]	An initial diagnosis error is detected in AV communication circuit.	Replace AV control unit if malfunction occurs constantly. Refer to AV-585. "Removal and Installation" .

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U1601, U1603, U1609, U160B FRONT DOOR SPEAKER/TWEETER

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

U1601, U1603, U1609, U160B FRONT DOOR SPEAKER/TWEETER

DTC Logic

INFOID:000000008954452

DTC DETECTION LOGIC

CONSULT Display	DTC Detection Condition	Possible Cause
FL-DOOR WOOFER (OPEN, SHORT, GND- SHORT) [U1601] FL-DOOR WOOFER (VB-SHOR) [U1603]	When any of the following is detected: <ul style="list-style-type: none">• Sound signal circuit malfunction between BOSE speaker amp. and front door speaker LH.• Sound signal circuit malfunction between BOSE speaker amp. and front tweeter LH.	<ul style="list-style-type: none">• Sound signal circuits between BOSE speaker amp. and front door speaker LH. Refer to AV-545, "Diagnosis Procedure".• Sound signal circuits between BOSE speaker amp. and front tweeter LH. Refer to AV-543, "Diagnosis Procedure".
FR-DOOR WOOFER (OPEN, SHORT, GND- SHORT) [U1609] FR-DOOR WOOFER (VB-SHOR) [U160B]	When any of the following is detected: <ul style="list-style-type: none">• Sound signal circuit malfunction between BOSE speaker amp. and front door speaker RH.• Sound signal circuit malfunction between BOSE speaker amp. and front tweeter RH.	<ul style="list-style-type: none">• Sound signal circuits between BOSE speaker amp. and front door speaker RH. Refer to AV-545, "Diagnosis Procedure".• Sound signal circuits between BOSE speaker amp. and front tweeter RH. Refer to AV-543, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:000000008954453

1. PERFORM SELF DIAGNOSTIC RESULT

1. Perform Self Diagnostic Result for MULTI AV.
2. Erase Self Diagnostic Result. Turn ignition switch OFF.
3. Turn ignition switch ON. Perform Self Diagnostic Result again.

Is DTC U1601, U1603, U1609 or U160B detected?

- YES >> Refer to [AV-545, "Diagnosis Procedure"](#).
NO >> Refer to [GI-49, "Intermittent Incident"](#).

U1627, U162F TWEETER

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

U1627, U162F TWEETER

DTC Logic

INFOID:000000008954454

DTC DETECTION LOGIC

CONSULT Display	DTC Detection Condition	Possible Cause
F-INST L-TWEETER (OPEN, SHORT, GND- SHORT or VB-SHOR) [U1627]	Sound signal circuit malfunction between BOSE speaker amp. and instrument panel tweeter LH.	Sound signal circuits between BOSE speaker amp. and instrument panel tweeter LH. Refer to AV-541, "Diagnosis Procedure" .
F-INST R-TWEETER (OPEN, SHORT, GND- SHORT or VB-SHOR) [U162F]	Sound signal circuit malfunction between BOSE speaker amp. and instrument panel tweeter RH.	Sound signal circuits between BOSE speaker amp. and instrument panel tweeter RH. Refer to AV-541, "Diagnosis Procedure" .

Diagnosis Procedure

INFOID:000000008954455

1. PERFORM SELF DIAGNOSTIC RESULT

1. Perform Self Diagnostic Result for MULTI AV.
2. Erase Self Diagnostic Result. Turn ignition switch OFF.
3. Turn ignition switch ON. Perform Self Diagnostic Result again.

Is DTC U1627 or U162F detected?

- YES >> Refer to [AV-541, "Diagnosis Procedure"](#).
NO >> Refer to [GI-49, "Intermittent Incident"](#).

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U162A CENTER SPEAKER

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

U162A CENTER SPEAKER

DTC Logic

INFOID:000000008954456

DTC DETECTION LOGIC

CONSULT Display	DTC Detection Condition	Possible Cause
F-INST C-SQUAWK (OPEN, SHORT, GND- SHORT, or VB-SHORT) [U162A]	Sound signal circuit malfunction between BOSE speaker amp. and center speaker.	Sound signal circuits between BOSE speaker amp. and center speaker. Refer to AV-539, "Diagnosis Procedure" .

Diagnosis Procedure

INFOID:000000008954457

1. PERFORM SELF DIAGNOSTIC RESULT

1. Perform Self Diagnostic Result for MULTI AV.
2. Erase Self Diagnostic Result. Turn ignition switch OFF.
3. Turn ignition switch ON. Perform Self Diagnostic Result again.

Is DTC U162A detected?

- YES >> Refer to [AV-539, "Diagnosis Procedure"](#).
NO >> Refer to [GI-49, "Intermittent Incident"](#).

U1684, U1687, U168C, U168F REAR DOOR SPEAKER/TWEETER

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

U1684, U1687, U168C, U168F REAR DOOR SPEAKER/TWEETER

DTC Logic

INFOID:000000008954458

DTC DETECTION LOGIC

CONSULT Display	DTC Detection Condition	Possible Cause
2L-DOOR SPEAKER (OPEN, SHORT, GND- SHORT) [U1684]	Sound signal circuit malfunction between BOSE speaker amp. and rear door speaker LH is detected:	Sound signal circuits between BOSE speaker amp. and rear door speaker LH. Refer to AV-547, "Diagnosis Procedure" .
2R-DOOR SPEAKER (OPEN, SHORT, GND- SHORT) [U168C]	Sound signal circuit malfunction between BOSE speaker amp. and rear door speaker RH is detected:	Sound signal circuits between BOSE speaker amp. and rear door speaker RH. Refer to AV-547, "Diagnosis Procedure" .

Diagnosis Procedure

INFOID:000000008954459

1. PERFORM SELF DIAGNOSTIC RESULT

1. Perform Self Diagnostic Result for MULTI AV.
2. Erase Self Diagnostic Result. Turn ignition switch OFF.
3. Turn ignition switch ON. Perform Self Diagnostic Result again.

Is DTC U1684 or U168C detected?

- YES >> Refer to [AV-547, "Diagnosis Procedure"](#).
NO >> Refer to [GI-49, "Intermittent Incident"](#).

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U175D WOOFER

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

U175D WOOFER

DTC Logic

INFOID:000000008954460

DTC DETECTION LOGIC

CONSULT Display	DTC Detection Condition	Possible Cause
R-LUGGAGE L-WOOFER (OPEN, SHORT, GND- SHORT or VB-SHOR) [U175D]	Sound signal circuit malfunction between BOSE speaker amp. and subwoofer.	Sound signal circuits between BOSE speaker amp. and subwoofer. Refer to AV-551, "Diagnosis Procedure" .

Diagnosis Procedure

INFOID:000000008954461

1. PERFORM SELF DIAGNOSTIC RESULT

1. Perform Self Diagnostic Result for MULTI AV.
2. Erase Self Diagnostic Result. Turn ignition switch OFF.
3. Turn ignition switch ON. Perform Self Diagnostic Result again.

Is DTC U175D detected?

- YES >> Refer to [AV-551, "Diagnosis Procedure"](#).
NO >> Refer to [GI-49, "Intermittent Incident"](#).

U176A, U1772 ROOF SPEAKER

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

U176A, U1772 ROOF SPEAKER

DTC Logic

INFOID:000000008954462

DTC DETECTION LOGIC

CONSULT Display	DTC Detection Condition	Possible Cause
R-ROOF L-SQAWK (OPEN, SHORT, GND- SHORT or VB-SHOR) [U176A]	Sound signal circuit malfunction between BOSE speaker amp. and rear side speaker LH.	Sound signal circuits between BOSE speaker amp. and rear side speaker LH. Refer to AV-549, "Diagnosis Procedure" .
R-ROOF R-SQAWK (OPEN, SHORT, GND- SHORT or VB-SHOR) [U1772]	Sound signal circuit malfunction between BOSE speaker amp. and rear side speaker RH.	Sound signal circuits between BOSE speaker amp. and rear side speaker RH. Refer to AV-549, "Diagnosis Procedure" .

Diagnosis Procedure

INFOID:000000008954463

1. PERFORM SELF DIAGNOSTIC RESULT

1. Perform Self Diagnostic Result for MULTI AV.
2. Erase Self Diagnostic Result. Turn ignition switch OFF.
3. Turn ignition switch ON. Perform Self Diagnostic Result again.

Is DTC U176A or U1772 detected?

- YES >> Refer to [AV-549, "Diagnosis Procedure"](#).
NO >> Refer to [GI-49, "Intermittent Incident"](#).

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POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

POWER SUPPLY AND GROUND CIRCUIT

AV CONTROL UNIT

AV CONTROL UNIT : Diagnosis Procedure

INFOID:000000008954479

Regarding Wiring Diagram information, refer to [AV-432, "Wiring Diagram"](#).

1.CHECK FUSE

Check that the following fuses are not blown.

Terminal No.	Signal name	Fuse No.
68	Ignition signal	29 (5A)
19	Battery power supply	15 (15A)

Are the fuses blown?

YES >> Replace the blown fuse after repairing the affected circuit.

NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect AV control unit connectors M161 and M163.
3. Check voltage between AV control unit connectors and ground.

AV control unit		Ground	Condition	Voltage (Approx.)
Connector	Terminal			
M163	68	—	Ignition switch: ON	Battery voltage
M161	7		Ignition switch: ACC	
	19		Ignition switch: OFF	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connectors.

3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Check continuity between AV control unit connector M161 terminal 20 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M161	20	—	Yes

Is the inspection result normal?

YES >> Inspection End.

NO >> Repair or replace harness or connectors.

DISPLAY UNIT

DISPLAY UNIT : Diagnosis Procedure

INFOID:000000008954480

Regarding Wiring Diagram information, refer to [AV-432, "Wiring Diagram"](#).

1.CHECK FUSE

Check that the following fuses are not blown.

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

Terminal No.	Signal name	Fuse No.
11	Battery power supply	15 (15A)
23	ACC power supply	65 (10A)

Are the fuses blown?

YES >> Replace the blown fuse after repairing the affected circuit.

NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect display unit connector.
3. Check voltage between display connector M92 and ground.

Display unit		Ground	Condition	Voltage (Approx.)
Connector	Terminal			
M92	23	—	Ignition switch: ACC	Battery voltage
	11		Ignition switch: OFF	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connectors.

3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Check continuity between display unit connector M92 terminal 12 and ground.

Display unit		Ground	Continuity
Connector	Terminal		
M92	12	—	Yes

Is the inspection result normal?

YES >> Inspection End.

NO >> Repair or replace harness or connectors.

BOSE AMP.

BOSE AMP. : Diagnosis Procedure

INFOID:000000008954481

Regarding Wiring Diagram information, refer to [AV-432. "Wiring Diagram"](#).

1.CHECK FUSE

Check that the following fuses are not blown.

Terminal No.	Signal name	Fuse No.
50	Battery power supply	11 (15A)
51		12 (15A)

Are the fuses blown?

YES >> Replace the blown fuse after repairing the affected circuit.

NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT

1. Disconnect BOSE speaker amp. connector B129.
2. Check voltage between BOSE speaker amp. connector B129 and ground.

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

BOSE speaker amp.		Ground	Voltage (Approx.)
Connector	Terminal		
B129	50	—	Battery voltage
	51		

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connectors.

3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Check continuity between BOSE speaker amp. connector B129 and ground.

BOSE speaker amp.		Ground	Continuity
Connector	Terminal		
B129	47	—	Yes
	52		

Is the inspection result normal?

YES >> Inspection End.

NO >> Repair or replace harness or connectors.

SUBWOOFER

SUBWOOFER : Diagnosis Procedure

INFOID:000000008954482

Regarding Wiring Diagram information, refer to [AV-432, "Wiring Diagram"](#).

1.CHECK FUSE

Check that the following fuses are not blown.

Terminal No.	Signal name	Fuse No.
6	Battery power supply	58 (10A)

Are the fuses blown?

YES >> Replace the blown fuse after repairing the affected circuit.

NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT

1. Disconnect subwoofer connector.
2. Check voltage between subwoofer connector B73 and ground.

Subwoofer		Ground	Voltage (Approx.)
Connector	Terminal		
B73	6	—	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connectors.

3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Check continuity between subwoofer connector B73 and ground.

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

Subwoofer		Ground	Continuity
Connector	Terminal		
B73	5	—	Yes

Is the inspection result normal?

YES >> Inspection End.

NO >> Repair or replace harness or connectors.

A/C AND AV SWITCH ASSEMBLY

A/C AND AV SWITCH ASSEMBLY : Diagnosis Procedure

INFOID:000000008954483

Regarding Wiring Diagram information, refer to [AV-432. "Wiring Diagram"](#).

1. CHECK FUSE

Check that the following fuse is not blown.

Terminal No.	Signal name	Fuse No.
3	ACC power supply	65 (10A)

Is the fuse blown?

YES >> Replace the blown fuse after repairing the affected circuit.

NO >> GO TO 2.

2. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect A/C and AV switch assembly connector.
3. Check voltage between A/C and AV switch assembly connector M98 terminal 3 and ground.

A/C and AV switch assembly		Ground	Condition	Voltage (Approx.)
Connector	Terminal			
M98	3	—	Ignition switch: ACC	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connectors.

3. CHECK CONTROL UNIT GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M164.
3. Check continuity between A/C and AV switch assembly connector M98 terminal 9 and AV control unit connector M164 terminal 98.

A/C and AV switch assembly		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M98	9	M164	98	Yes

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness or connectors.

4. CHECK SWITCH GROUND CIRCUIT

Check continuity between A/C and AV switch assembly connector M98 terminal 1 and ground.

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

A/C and AV switch assembly		Ground	Continuity
Connector	Terminal		
M98	1	—	Yes

Is the inspection result normal?

- YES >> Inspection End.
NO >> Repair or replace harness or connectors.

VIDEO DISTRIBUTOR

VIDEO DISTRIBUTOR : Diagnosis Procedure

INFOID:000000008954484

Regarding Wiring Diagram information, refer to [AV-432, "Wiring Diagram"](#).

1.CHECK FUSE

Check that the following fuses are not blown.

Terminal No.	Signal name	Fuse No.
2	ACC power supply	65 (10A)
4	Battery power supply	15 (15A)

Are the fuses blown?

- YES >> Replace the blown fuse after repairing the affected circuit.
NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect video distributor connector B24.
3. Check voltage between video distributor connector B24 and ground.

Video distributor		Ground	Condition	Voltage (Approx.)
Connector	Terminal			
B24	2	—	Ignition switch: ACC	Battery voltage
	4		Ignition switch: OFF	

Is the inspection result normal?

- YES >> GO TO 3.
NO >> Repair or replace harness or connectors.

3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Check continuity between video distributor connector B24 and ground.

Video distributor		Ground	Continuity
Connector	Terminal		
B24	1	—	Yes
	3		

Is the inspection result normal?

- YES >> Inspection End.
NO >> Repair or replace harness or connectors.

HEADREST DISPLAY UNIT

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

HEADREST DISPLAY UNIT : Diagnosis Procedure

INFOID:000000008954485

Regarding Wiring Diagram information, refer to [AV-432. "Wiring Diagram"](#).

1. CHECK FUSE

Check that the following fuses are not blown.

Terminal No.	Signal name	Fuse No.
24	Battery power supply	15 (15A)

Are the fuses blown?

YES >> Replace the blown fuse after repairing the affected circuit.

NO >> GO TO 2.

2. CHECK POWER SUPPLY CIRCUIT

1. Disconnect headrest display unit connector.
2. Check voltage between headrest display unit connector and ground.

Headrest display unit		Ground	Voltage (Approx.)
Connector	Terminal		
B202 (driver seat)	24	—	Battery voltage
B302 (passenger seat)			

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connectors.

3. CHECK GROUND CIRCUIT

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

Headrest display unit		Ground	Continuity
Connector	Terminal		
B202 (driver seat)	12	—	Yes
B302 (passenger seat)			

Is the inspection result normal?

YES >> Inspection End.

NO >> Repair or replace harness or connectors.

AROUND VIEW MONITOR CONTROL UNIT

AROUND VIEW MONITOR CONTROL UNIT : Diagnosis Procedure

INFOID:000000008954486

Regarding Wiring Diagram information, refer to [AV-432. "Wiring Diagram"](#).

1. CHECK FUSE

Check that the following fuses are not blown.

Terminal No.	Signal name	Fuse No.
4	Ignition signal	29 (5A)
2	Battery power supply	15 (15A)

Are the fuses blown?

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POWER SUPPLY AND GROUND CIRCUIT

[PREMIUM AUDIO WITH NAVIGATION]

< DTC/CIRCUIT DIAGNOSIS >

YES >> Replace the blown fuse after repairing the affected circuit.

NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector M96.
3. Check voltage between around view monitor control unit connector M96 and ground.

Around view monitor control unit		Ground	Condition	Voltage (Approx.)
Connector	Terminal			
M96	3	—	Ignition switch: ON	Battery voltage
	2		Ignition switch: OFF	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connectors.

3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Check continuity between around view monitor control unit connector M96 and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminal		
M96	1	—	Yes

Is the inspection result normal?

YES >> Inspection End.

NO >> Repair or replace harness or connectors.

CENTER SPEAKER

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

CENTER SPEAKER

Diagnosis Procedure

INFOID:000000008954488

Regarding Wiring Diagram information, refer to [AV-432. "Wiring Diagram"](#).

1. CONNECTOR CHECK

Check the BOSE speaker amp. and speaker connectors for the following:

- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair the terminals or connectors.

2. CHECK CENTER SPEAKER SIGNAL CIRCUIT CONTINUITY

1. Disconnect BOSE speaker amp. connector B130 and center speaker connector.
2. Check continuity between BOSE speaker amp. connector B130 and center speaker connector.

BOSE speaker amp.		Center speaker		Continuity
Connector	Terminal	Connector	Terminal	
B130	69	M110	1	Yes
	70		2	

3. Check continuity between BOSE speaker amp. connector B130 and ground.

BOSE speaker amp.		Ground	Continuity
Connector	Terminal		
B130	69	—	No
	70		

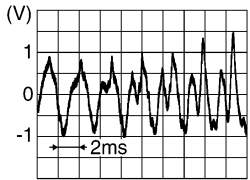
Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness or connectors.

3. CHECK CENTER SPEAKER SIGNAL

1. Connect BOSE speaker amp. connector B130 and center speaker connector.
2. Turn ignition switch to ACC.
3. Push AV control unit POWER switch.
4. Check the signal between the terminals of BOSE speaker amp. connector B130.

BOSE speaker amp. connector B130		Condition	Reference value
(+) Terminal	(-) Terminal		
69	70	Audio signal output	 <p style="text-align: right; font-size: small;">SKIB3609E</p>

Is the inspection result normal?

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CENTER SPEAKER

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

- YES >> Replace center speaker. Refer to [AV-596, "Removal and Installation"](#).
- NO >> Replace BOSE speaker amp. Refer to [AV-592, "Removal and Installation"](#).

INSTRUMENT PANEL SPEAKER/TWEETER

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

INSTRUMENT PANEL SPEAKER/TWEETER

Diagnosis Procedure

INFOID:000000008954489

Regarding Wiring Diagram information, refer to [AV-432. "Wiring Diagram"](#).

1. CONNECTOR CHECK

Check the BOSE speaker amp. and speaker connectors for the following:

- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair the terminals or connectors.

2. CHECK INSTRUMENT PANEL TWEETER SIGNAL CIRCUIT CONTINUITY

1. Disconnect BOSE speaker amp. connector B129 and suspect instrument panel tweeter connector.
2. Check continuity between BOSE speaker amp. connector B129 and suspect instrument panel tweeter connector.

BOSE speaker amp.		Instrument panel tweeter		Continuity
Connector	Terminal	Connector	Terminal	
B129	41	M62 (LH)	1	Yes
	42		2	
	45	M73 (RH)	1	
	46		2	

3. Check continuity between BOSE speaker amp. connector B129 and ground.

BOSE speaker amp.		Ground	Continuity
Connector	Terminal		
B129	41	—	No
	42		
	45		
	46		

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness or connectors.

3. CHECK INSTRUMENT PANEL TWEETER SIGNAL

1. Connect BOSE speaker amp. connector B129 and suspect instrument panel tweeter connector.
2. Turn ignition switch to ACC.
3. Push AV control unit POWER switch.
4. Check the signal between the terminals of BOSE speaker amp. connector B129.

BOSE speaker amp. connector B129		Condition	Reference value
(+)	(-)		
Terminal	Terminal		

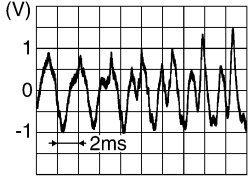
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INSTRUMENT PANEL SPEAKER/TWEETER

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

41	42	Audio signal output	
45	46		

SKIB3609E

Is the inspection result normal?

- YES >> Replace instrument panel tweeter. Refer to [AV-595. "Removal and Installation"](#).
- NO >> Replace BOSE speaker amp. Refer to [AV-592. "Removal and Installation"](#).

FRONT TWEETER

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

FRONT TWEETER

Diagnosis Procedure

INFOID:000000008954490

Regarding Wiring Diagram information, refer to [AV-432. "Wiring Diagram"](#).

1. CONNECTOR CHECK

Check the BOSE speaker amp. and speaker connectors for the following:

- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair the terminals or connectors.

2. CHECK FRONT TWEETER SIGNAL CIRCUIT CONTINUITY

1. Disconnect BOSE speaker amp. connector B130 and suspect front tweeter connector.
2. Check continuity between BOSE speaker amp. connector B130 and suspect front door speaker connector.

BOSE speaker amp.		Front tweeter		Continuity
Connector	Terminal	Connector	Terminal	
B130	58	M109 (LH)	1	Yes
	59		2	
	71	M111 (RH)	1	
	72		2	

3. Check continuity between BOSE speaker amp. connector B130 and ground.

BOSE speaker amp.		Ground	Continuity
Connector	Terminal		
B130	58	—	No
	59		
	71		
	72		

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness or connectors.

3. CHECK FRONT TWEETER SIGNAL

1. Connect BOSE speaker amp. connector B130 and suspect front tweeter connector.
2. Turn ignition switch to ACC.
3. Push AV control unit POWER switch.
4. Check the signal between the terminals of BOSE speaker amp. connector B130.

BOSE speaker amp. connector B130		Condition	Reference value
(+)	(-)		
Terminal	Terminal		

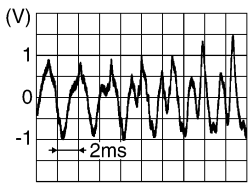
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FRONT TWEETER

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

58	59	Audio signal output	
71	72		

SKIB3609E

Is the inspection result normal?

- YES >> Replace front tweeter. Refer to [AV-594. "Removal and Installation"](#).
- NO >> Replace BOSE speaker amp. Refer to [AV-592. "Removal and Installation"](#).

FRONT DOOR SPEAKER

[PREMIUM AUDIO WITH NAVIGATION]

< DTC/CIRCUIT DIAGNOSIS >

FRONT DOOR SPEAKER

Diagnosis Procedure

INFOID:000000008954491

Regarding Wiring Diagram information, refer to [AV-432. "Wiring Diagram"](#).

1. CONNECTOR CHECK

Check the BOSE speaker amp. and speaker connectors for the following:

- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair the terminals or connectors.

2. CHECK FRONT DOOR SPEAKER SIGNAL CIRCUIT CONTINUITY

1. Disconnect BOSE speaker amp. connector B130 and suspect front door speaker connector.
2. Check continuity between BOSE speaker amp. connector B130 and suspect front door speaker connector.

BOSE speaker amp.		Front door speaker		Continuity
Connector	Terminal	Connector	Terminal	
B130	58	D12 (LH)	1	Yes
	59		2	
	71	D112 (RH)	1	
	72		2	

3. Check continuity between BOSE speaker amp. connector B130 and ground.

BOSE speaker amp.		Ground	Continuity
Connector	Terminal		
B130	58	—	No
	59		
	71		
	72		

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness or connectors.

3. CHECK FRONT DOOR SPEAKER SIGNAL

1. Connect BOSE speaker amp. connector B130 and suspect front door speaker connector.
2. Turn ignition switch to ACC.
3. Push AV control unit POWER switch.
4. Check the signal between the terminals of BOSE speaker amp. connector B130.

BOSE speaker amp. connector B130		Condition	Reference value
(+)	(-)		
Terminal	Terminal		

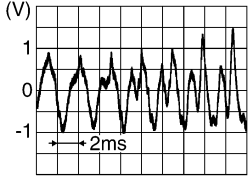
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FRONT DOOR SPEAKER

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

58	59	Audio signal output	
71	72		

SKIB3609E

Is the inspection result normal?

- YES >> Replace front door speaker. Refer to [AV-593. "Removal and Installation"](#).
- NO >> Replace BOSE speaker amp. Refer to [AV-592. "Removal and Installation"](#).

REAR DOOR SPEAKER

[PREMIUM AUDIO WITH NAVIGATION]

< DTC/CIRCUIT DIAGNOSIS >

REAR DOOR SPEAKER

Diagnosis Procedure

INFOID:000000008954493

Regarding Wiring Diagram information, refer to [AV-432. "Wiring Diagram"](#).

1. CONNECTOR CHECK

Check the BOSE speaker amp. and speaker connectors for the following:

- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair the terminals or connectors.

2. CHECK REAR DOOR SPEAKER SIGNAL CIRCUIT CONTINUITY

1. Disconnect BOSE speaker amp. connector B129 or B130 and suspect rear door speaker connector.
2. Check continuity between BOSE speaker amp. connector B129 or B130 and suspect rear door speaker connector.

BOSE speaker amp.		Rear door speaker		Continuity
Connector	Terminal	Connector	Terminal	
B130	68	D207 (LH)	1	Yes
	55		2	
B129	54	D307 (RH)	1	
	49		2	

3. Check continuity between BOSE speaker amp. connector B129 or B130 and ground.

BOSE speaker amp.		Ground	Continuity
Connector	Terminal		
B130	68	—	No
	55		
B129	54		
	49		

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness or connectors.

3. CHECK REAR DOOR SPEAKER SIGNAL

1. Connect BOSE speaker amp. connector B129 or B130 and suspect rear door speaker connector.
2. Turn ignition switch to ACC.
3. Push AV control unit POWER switch.
4. Check the signal between the terminals of BOSE speaker amp. connectors.

BOSE speaker amp.			Condition	Reference value
Connector	(+)	(-)		
		Terminal	Terminal	

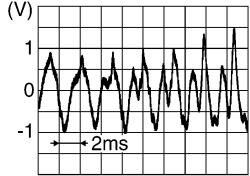
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REAR DOOR SPEAKER

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

B130	68	55	Audio signal output	
B129	54	49		

Is the inspection result normal?

- YES >> Replace rear door speaker. Refer to [AV-597. "Removal and Installation"](#).
- NO >> Replace BOSE speaker amp. Refer to [AV-592. "Removal and Installation"](#).

REAR SPEAKER

[PREMIUM AUDIO WITH NAVIGATION]

< DTC/CIRCUIT DIAGNOSIS >

REAR SPEAKER

Diagnosis Procedure

INFOID:000000008954494

Regarding Wiring Diagram information, refer to [AV-432. "Wiring Diagram"](#).

1. CONNECTOR CHECK

Check the BOSE speaker amp. and speaker connectors for the following:

- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair the terminals or connectors.

2. CHECK REAR SIDE SPEAKER SIGNAL CIRCUIT CONTINUITY

1. Disconnect BOSE speaker amp. connector B129 and suspect rear side speaker connector.
2. Check continuity between BOSE speaker amp. connector B129 and suspect rear side speaker connector.

BOSE speaker amp.		Rear side speaker		Continuity
Connector	Terminal	Connector	Terminal	
B129	53	B1 (LH)	1	Yes
	48		2	
	44	B153 (RH)	1	
	43		2	

3. Check continuity between BOSE speaker amp. connector B129 and ground.

BOSE speaker amp.		Ground	Continuity
Connector	Terminal		
B129	53	—	No
	48		
	44		
	43		

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness or connectors.

3. CHECK REAR SIDE SPEAKER SIGNAL

1. Connect BOSE speaker amp. connector B129 and suspect rear side speaker connector.
2. Turn ignition switch to ACC.
3. Push AV control unit POWER switch.
4. Check the signal between the terminals of BOSE speaker amp. connector B129.

BOSE speaker amp. connector B129		Condition	Reference value
(+)	(-)		
Terminal	Terminal		

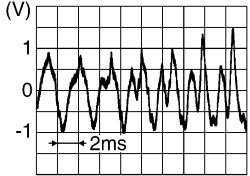
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REAR SPEAKER

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

53	48	Audio signal output	
44	43		

SKIB3609E

Is the inspection result normal?

- YES >> Replace rear side speaker. Refer to [AV-598. "Removal and Installation"](#).
- NO >> Replace BOSE speaker amp. Refer to [AV-592. "Removal and Installation"](#).

SUBWOOFER

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

SUBWOOFER

Diagnosis Procedure

INFOID:000000008954495

Regarding Wiring Diagram information, refer to [AV-432, "Wiring Diagram"](#).

1.CONNECTOR CHECK

Check the BOSE speaker amp. and subwoofer connectors for the following:

- Proper connection
- Damage
- Disconnected or looses terminals

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2.VERIFY SUBWOOFER POWER SUPPLY AND GROUND

Check subwoofer power supply and ground. Refer to [AV-534, "SUBWOOFER : Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connectors.

3.CHECK SUBWOOFER SIGNAL CIRCUIT CONTINUITY

1. Disconnect BOSE speaker amp. connector B130 and subwoofer connector.
2. Check continuity between BOSE speaker amp. connector B130 and subwoofer connector.

BOSE speaker amp.		Subwoofer		Continuity
Connector	Terminal	Connector	Terminal	
B130	57	B73	1	Yes
	56		2	

3. Check continuity between BOSE speaker amp. connector B130 and ground.

BOSE speaker amp.		Ground	Continuity
Connector	Terminal		
B130	57	—	No
	56		

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness or connectors.

4.CHECK SUBWOOFER SIGNAL

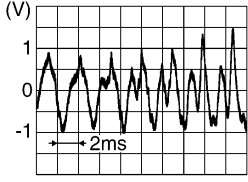
1. Connect BOSE speaker amp. connector B130 and subwoofer connector.
2. Turn ignition switch to ACC.
3. Push AV control unit POWER switch.
4. Check the signal between the terminals of BOSE speaker amp. connector B130.

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SUBWOOFER

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

BOSE speaker amp. connector B130		Condition	Reference value
(+)	(-)		
Terminal	Terminal		
57	56	Audio signal output	

Is the inspection result normal?

- YES >> Replace subwoofer. Refer to [AV-599. "Removal and Installation"](#).
- NO >> Replace BOSE speaker amp. Refer to [AV-592. "Removal and Installation"](#).

FRONT AUXILIARY INPUT JACK AUDIO SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

FRONT AUXILIARY INPUT JACK AUDIO SIGNAL CIRCUIT

Diagnosis Procedure

INFOID:000000008954496

Regarding Wiring Diagram information, refer to [AV-432. "Wiring Diagram"](#).

1. CHECK AUX SOUND SIGNAL CIRCUIT CONTINUITY

1. Turn ignition OFF.
2. Disconnect AV control unit connector M162 and front auxiliary input jacks connector.
3. Check continuity between AV control unit connector M162 and front auxiliary input jacks connector.

AV control unit		Front auxiliary input jacks		Continuity
Connector	Terminal	Connector	Terminal	
M162	24	M205	3	Yes
	38		1	

4. Check continuity between AV control unit connector M162 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M162	24	—	No
	38		

Is inspection result normal?

- YES >> GO TO 2.
 NO >> Repair or replace harness or connectors.

2. CHECK AUX SOUND SIGNAL GROUND CIRCUIT CONTINUITY

Check continuity between AV control unit connector M162 and front auxiliary input jacks connector M205.

AV control unit		Front auxiliary input jacks		Continuity
Connector	Terminal	Connector	Terminal	
M162	39	M205	2	Yes

Is inspection result normal?

- YES >> GO TO 3.
 NO >> Repair or replace harness or connectors.

3. CHECK AUX SOUND SIGNAL

1. Connect AV control unit connector M162 and front auxiliary input jacks connector.
2. Turn ignition switch to ACC.
3. Select AUX mode.
4. Check the signal between the terminals of AV control unit connector M162.

AV control unit connector M162		Condition	Reference value
(+)	(-)		
Terminal	Terminal		

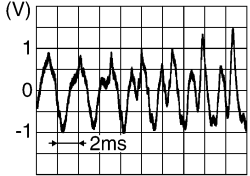
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AV

FRONT AUXILIARY INPUT JACK AUDIO SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

24	39	AUX mode selected	
38	39		

SKIB3609E

Is the inspection result normal?

- YES >> Replace front auxiliary input jacks. Refer to [AV-601. "Removal and Installation"](#).
- NO >> Replace AV control unit. Refer to [AV-585. "Removal and Installation"](#).

COMPOSITE IMAGE SIGNAL CIRCUIT (AV CONTROL UNIT TO FRONT DISPLAY UNIT)

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

COMPOSITE IMAGE SIGNAL CIRCUIT (AV CONTROL UNIT TO FRONT DISPLAY UNIT)

Diagnosis Procedure

INFOID:000000008954498

Regarding Wiring Diagram information, refer to [AV-432. "Wiring Diagram"](#).

1. CHECK COMPOSITE IMAGE SIGNAL CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M163 and display unit connector M92.
3. Check continuity between AV control unit connector M163 and display unit connector M92.

AV control unit		Display unit		Continuity
Connector	Terminal	Connector	Terminal	
M163	56	M92	18	Yes
	55		19	

4. Check continuity between AV control unit connector M163 and ground.

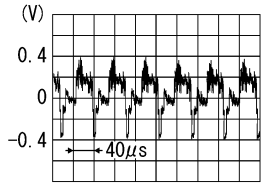
AV control unit		Ground	Continuity
Connector	Terminal		
M163	56	—	No

Is the inspection result normal?

- YES >> GO TO 2.
 NO >> Repair or replace harness or connectors.

2. CHECK COMPOSITE IMAGE SIGNAL

1. Connect AV control unit connector M163 and display unit connector M92.
2. Turn ignition switch ON.
3. Check the signal between the terminals of AV control unit connector M163.

AV control unit connector M163		Condition	Reference value
(+) Terminal	(-) Terminal		
56	55	DVD image is displayed.	

Is the inspection result normal?

- YES >> Replace display unit. Refer to [AV-589. "Removal and Installation"](#).
 NO >> Replace AV control unit. Refer to [AV-585. "Removal and Installation"](#).

COMPOSITE IMAGE SIGNAL CIRCUIT (AV CONTROL UNIT TO VIDEO DISTRIBUTOR)

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

COMPOSITE IMAGE SIGNAL CIRCUIT (AV CONTROL UNIT TO VIDEO DISTRIBUTOR)

Diagnosis Procedure

INFOID:000000008954499

Regarding Wiring Diagram information, refer to [AV-432, "Wiring Diagram"](#).

1. CHECK COMPOSITE IMAGE SIGNAL CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M164 and video distributor connector B25.
3. Check continuity between AV control unit connector M164 and video distributor connector B25.

AV control unit		Video distributor		Continuity
Connector	Terminal	Connector	Terminal	
M164	107	B25	34	Yes
	105		33	

4. Check continuity between AV control unit connector M164 and ground.

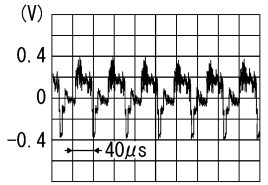
AV control unit		Ground	Continuity
Connector	Terminal		
M164	107	—	No

Is the inspection result normal?

- YES >> GO TO 2.
 NO >> Repair or replace harness or connectors.

2. CHECK COMPOSITE IMAGE SIGNAL

1. Connect AV control unit connector M164 and video distributor connector B25.
2. Turn ignition switch ON.
3. Check the signal between the terminals of video distributor connector B25.

Video distributor connector B25		Condition	Reference value
(+) Terminal	(-) Terminal		
34	33	DVD, USB or front auxiliary input jacks image is displayed on headrest display.	

Is the inspection result normal?

- YES >> Replace video distributor. Refer to [AV-607, "Removal and Installation"](#).
 NO >> Replace AV control unit. Refer to [AV-585, "Removal and Installation"](#).

COMPOSITE IMAGE SIGNAL CIRCUIT (VIDEO DISTRIBUTOR TO HEADREST DISPLAY UNIT)

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

COMPOSITE IMAGE SIGNAL CIRCUIT (VIDEO DISTRIBUTOR TO HEADREST DISPLAY UNIT)

Diagnosis Procedure

INFOID:0000000008954500

Regarding Wiring Diagram information, refer to [AV-432, "Wiring Diagram"](#).

1. CHECK COMPOSITE IMAGE SIGNAL CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect video distributor connector B24 and headrest display unit connectors.
3. Check continuity between video distributor connector B24 and headrest display unit connectors.

Video distributor		Video distributor		Continuity
Connector	Terminal	Connector	Terminal	
B24	32	B202 (driver seat)	16	Yes
	31		4	
	28	B302 (passenger seat)	16	Yes
	27		4	

4. Check continuity between video distributor connector B24 and ground.

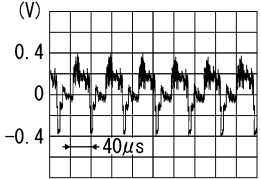
Video distributor		Ground	Continuity
Connector	Terminal		
B24	32	—	No
	28		

Is the inspection result normal?

- YES >> GO TO 2.
 NO >> Repair or replace harness or connectors.

2. CHECK COMPOSITE IMAGE SIGNAL

1. Connect video distributor connector B24 and headrest display unit connectors.
2. Turn ignition switch ON.
3. Check the signal between the terminals of headrest display unit connectors.

Headrest display unit			Condition	Reference value
Connector	(+) Terminal	(-) Terminal		
B202 (driver seat)	32	31	DVD, USB or front auxiliary input jacks image is displayed on headrest display.	 <p>(V) 0.4 0 -0.4 40µs</p> <p>SKIB2251J</p>
B302 (passenger seat)	28	27		

Is the inspection result normal?

- YES >> Replace headrest display unit. Refer to [AV-590, "Removal and Installation"](#).
 NO >> Replace video distributor. Refer to [AV-607, "Removal and Installation"](#).

AUX IMAGE SIGNAL CIRCUIT (FRONT AUXILIARY INPUT JACKS TO AV CONTROL UNIT)

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

AUX IMAGE SIGNAL CIRCUIT (FRONT AUXILIARY INPUT JACKS TO AV CONTROL UNIT)

Diagnosis Procedure

INFOID:000000008954501

Regarding Wiring Diagram information, refer to [AV-432, "Wiring Diagram"](#).

1. CHECK AUX IMAGE SIGNAL CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M163 and front auxiliary input jacks connector M205.
3. Check continuity between AV control unit connector M163 and front auxiliary input jacks connector M205.

AV control unit		Front auxiliary input jacks		Continuity
Connector	Terminal	Connector	Terminal	
M163	91	M205	7	Yes
	92		8	

4. Check continuity between AV control unit connector M163 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M163	91	—	No

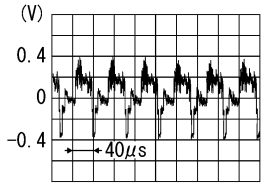
Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness or connectors.

2. CHECK AUX IMAGE SIGNAL

1. Connect AV control unit connector M163 and front auxiliary input jacks connector M205.
2. Turn ignition switch ON.
3. Check the signal between the terminals of front auxiliary input jacks connector M205.

Front auxiliary input jacks connector M205		Condition	Reference value
(+) Terminal	(-) Terminal		
7	8	Front auxiliary input jacks image is displayed.	

Is the inspection result normal?

YES >> Replace front auxiliary input jacks. Refer to [AV-601, "Removal and Installation"](#).

NO >> Replace AV control unit. Refer to [AV-585, "Removal and Installation"](#).

IMAGE SWITCH SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

IMAGE SWITCH SIGNAL CIRCUIT

Diagnosis Procedure

INFOID:000000008954502

Regarding Wiring Diagram information, refer to [AV-432. "Wiring Diagram"](#).

1. CHECK CONTINUITY IMAGE SWITCH SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect video distributor connector B24 and headrest display unit connectors.
3. Check continuity between video distributor connector B24 and headrest display unit connectors.

Video distributor		Headrest display unit		Continuity
Connector	Terminal	Connector	Terminal	
B24	10	B202 (driver seat)	7	Yes
	7		6	
	9	B302 (passenger seat)	7	
	5		6	

4. Check continuity between video distributor connector B24 and ground.

Video distributor		Ground	Continuity
Connector	Terminal		
B24	10	—	No
	9		

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness or connectors.

2. CHECK VIDEO DISTRIBUTOR VOLTAGE

1. Connect video distributor connector B24 and headrest display unit connectors.
2. Turn ignition switch ON.
3. Check the voltage between the terminals of video distributor connector B24.

Video distributor connector B24		Condition	Voltage (Approx.)
(+)	(-)		
Terminal	Terminal		
10	7	DVD, USB or front auxiliary input jacks image is displayed on headrest display.	0.5 V
		DVD, USB or rear auxiliary input jacks image is displayed on headrest display.	4.5 V
9	5	DVD, USB or front auxiliary input jacks image is displayed on headrest display.	0.5 V
		DVD, USB or rear auxiliary input jacks image is displayed on headrest display.	4.5 V

Is the inspection result normal?

YES >> Replace headrest display unit. Refer to [AV-590. "Removal and Installation"](#).

NO >> Replace video distributor. Refer to [AV-607. "Removal and Installation"](#).

DISK EJECT SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

DISK EJECT SIGNAL CIRCUIT

Diagnosis Procedure

INFOID:000000008954503

Regarding Wiring Diagram information, refer to [AV-432, "Wiring Diagram"](#).

1. CHECK DISK EJECT SIGNAL CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M164 and A/C and AV switch assembly connector.
3. Check continuity between AV control unit connector M164 terminal 97 and A/C and AV switch assembly connector M98 terminal 14.

AV control unit		A/C and AV switch assembly		Continuity
Connector	Terminal	Connector	Terminal	
M164	97	M98	14	Yes

4. Check continuity between AV control unit connector M164 terminal 97 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M164	97		No

Is inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness or connectors.

2. CHECK AV CONTROL UNIT VOLTAGE

1. Connect AV control unit connector M164 and A/C and AV switch assembly connector.
2. Turn ignition switch ON.
3. Check voltage between AV control unit connector M164 terminal 97 and ground.

AV control unit		Ground	Condition	Voltage (Approx.)
(+)		(-)		
Connector	Terminal			
M164	97	—	Pressing eject switch	0 V
			Except above	5.0 V

Is the inspection result normal?

YES >> Replace A/C and AV switch assembly. Refer to [AV-587, "Removal and Installation"](#).

NO >> Replace AV control unit. Refer to [AV-585, "Removal and Installation"](#).

MICROPHONE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

MICROPHONE SIGNAL CIRCUIT

Diagnosis Procedure

INFOID:000000008954504

Regarding Wiring Diagram information, refer to [AV-432. "Wiring Diagram"](#).

1. CHECK MICROPHONE SIGNAL CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M163 and microphone connector.
3. Check continuity between AV control unit connector M163 and microphone connector R109.

AV control unit		Microphone		Continuity
Connector	Terminal	Connector	Terminal	
M163	59	R109	5	Yes
	60		3	
	75		6	

4. Check continuity between AV control unit connector M163 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M163	59	—	No
	60		
	75		

Is inspection result normal?

- YES >> GO TO 2.
NO >> Repair or replace harness or connectors.

2. CHECK MICROPHONE VCC VOLTAGE

1. Connect AV control unit connector M163.
2. Turn ignition switch ON.
3. Check voltage between terminals of AV control unit connector M163.

AV control unit connector M163		Voltage (Approx.)
(+)	(-)	
Terminal	Terminal	
60	59	5.0 V

Is the inspection result normal?

- YES >> GO TO 3.
NO >> Replace AV control unit. Refer to [AV-585. "Removal and Installation"](#).

3. CHECK MICROPHONE SIGNAL

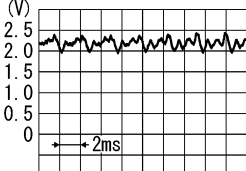
1. Connect microphone connector.
2. Check signal between terminals of AV control unit connector M163.

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MICROPHONE SIGNAL CIRCUIT

[PREMIUM AUDIO WITH NAVIGATION]

< DTC/CIRCUIT DIAGNOSIS >

AV control unit connector M163		Condition	Reference value
(+)	(-)		
Terminal	Terminal		
75	59	Speak into microphone.	 <p style="text-align: right; font-size: small;">PKIB5037J</p>

Is the inspection result normal?

- YES >> Replace AV control unit. Refer to [AV-585. "Removal and Installation"](#).
- NO >> Replace microphone. Refer to [AV-602. "Removal and Installation"](#).

STEERING SWITCH

[PREMIUM AUDIO WITH NAVIGATION]

< DTC/CIRCUIT DIAGNOSIS >

STEERING SWITCH






Diagnosis Procedure

INFOID:000000008954505

Regarding Wiring Diagram information, refer to [AV-432. "Wiring Diagram"](#).

1. CHECK STEERING WHEEL AUDIO CONTROL SWITCH RESISTANCE

1. Turn ignition switch OFF.
2. Disconnect combination switch connector M149.
3. Check the resistance between the terminals of combination switch connector M149.

Combination switch connector M149		Condition	Resistance Ω (Approx.)
Terminal	Terminal		
14	17	Depress SOURCE switch.	1
		Depress Δ switch.	121
		Depress ∇ switch.	321
		Depress  switch.	723
		Depress ENTER switch.	2023
15	17	Depress -  switch.	1
		Depress  + switch.	121
		Depress  switch.	321
		Depress  switch.	723
		Depress DISP switch.	2023

Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace steering wheel audio control switch. Refer to [AV-588. "Removal and Installation"](#).

2. CHECK HARNESS BETWEEN COMBINATION SWITCH AND COMBINATION METER

1. Disconnect combination meter connector M24 and combination switch connector M30.
2. Check continuity between combination meter connector M24 and combination switch connector M30.

Combination meter		Combination switch		Continuity
Connector	Terminal	Connector	Terminal	
M24	3	M30	24	Yes
	24		33	
	4		31	

3. Check continuity between combination meter connector M24 and ground.

Combination meter		Ground	Continuity
Connector	Terminal		
M24	3	—	No
	24		
	4		

Is the inspection result normal?

STEERING SWITCH

[PREMIUM AUDIO WITH NAVIGATION]

< DTC/CIRCUIT DIAGNOSIS >

- YES >> GO TO 3.
NO >> Repair or replace harness or connectors.

3. CHECK COMBINATION SWITCH

Check continuity between combination switch connectors M30 and M149.

Combination switch				Continuity
Connector	Terminal	Connector	Terminal	
M30	24	M149	14	Yes
	31		15	
	33		17	

Is the inspection result normal?

- YES >> GO TO 4.
NO >> Replace spiral cable. Refer to [SR-15. "Removal and Installation"](#).

4. CHECK HARNESS BETWEEN COMBINATION METER AND AV CONTROL UNIT

1. Disconnect AV control unit connector M161.
2. Check continuity between combination meter connector M24 and AV control unit connector M161.

Combination meter		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M24	14	M161	6	Yes
	15		16	
	16		15	

3. Check continuity between combination meter connector M24 and ground.

Combination meter		Ground	Continuity
Connector	Terminal		
M24	14	—	No
	15		
	16		

Is the inspection result normal?

- YES >> GO TO 5.
NO >> Repair or replace harness or connectors.

5. CHECK AV CONTROL UNIT VOLTAGE

1. Connect combination meter connector M24 and AV control unit connector M161.
2. Turn ignition switch ON.
3. Check the voltage between the terminals of AV control unit connector M161.

AV control unit M161		Voltage (Approx.)
(+)	(-)	
Terminal	Terminal	
6	15	5.0 V
16		

Is the inspection result normal?

- YES >> Replace combination meter. Refer to [MWI-82. "Removal and Installation"](#).
NO >> Replace AV control unit. Refer to [AV-585. "Removal and Installation"](#).

USB CONNECTOR

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

USB CONNECTOR

Diagnosis Procedure

INFOID:000000008954506

Regarding Wiring Diagram information, refer to [AV-432. "Wiring Diagram"](#).

1. CHECK USB INTERFACE HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M145 and USB interface connector M209.
3. Check continuity between AV control unit connector M145 and USB interface connector M209.

AV control unit		USB interface		Continuity
Connector	Terminal	Connector	Terminal	
M145	121	M209	1	Yes
	122		2	
	123		3	
	124		4	
	125		5	

4. Check continuity between AV control unit connector M145 and ground.

AV control unit		—	Continuity
Connector	Terminal		
M145	137	Ground	No
	139		

Is the inspection result normal?

- YES >> Replace the USB interface. Refer to [AV-600. "Removal and Installation"](#).
NO >> Repair or replace harness or connectors.

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AV

FRONT CAMERA IMAGE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

FRONT CAMERA IMAGE SIGNAL CIRCUIT

Diagnosis Procedure

INFOID:000000008954508

Regarding Wiring Diagram information, refer to [AV-432, "Wiring Diagram"](#).

1. CHECK FRONT CAMERA IMAGE SIGNAL CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector M96 and front camera connector E226.
3. Check continuity between around view monitor control unit connector M96 and front camera connector E226.

Around view monitor control unit		Front camera		Continuity
Connector	Terminal	Connector	Terminal	
M96	40	E226	3	Yes
	39		4	

4. Check continuity between around view monitor control unit connector M96 and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminal		
M96	40	—	No

Is inspection result normal?

- YES >> GO TO 2.
 NO >> Repair or replace harness or connectors.

2. CHECK FRONT CAMERA IMAGE SIGNAL

1. Connect around view monitor control unit connector M96 and front camera connector E226.
2. Turn ignition switch ON.
3. Check the signal between the terminals of around view monitor control unit connector M96.

Around view monitor control unit connector M96		Condition	Reference value
(+) Terminal	(-) Terminal		
40	39	CAMERA switch is ON or shift position is R.	

Is inspection result normal?

- YES >> Replace around view monitor control unit. Refer to [AV-603, "Removal and Installation"](#).
 NO >> Replace front camera. Refer to [AV-604, "Removal and Installation"](#).

REAR CAMERA IMAGE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

REAR CAMERA IMAGE SIGNAL CIRCUIT

Diagnosis Procedure

INFOID:000000008954510

Regarding Wiring Diagram information, refer to [AV-432. "Wiring Diagram"](#).

1. CHECK REAR CAMERA IMAGE SIGNAL CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector M96 and rear camera connector D511.
3. Check continuity between around view monitor control unit connector M96 and rear camera connector D511.

Around view monitor control unit		Rear camera		Continuity
Connector	Terminal	Connector	Terminal	
M96	28	D511	5	Yes
	27		1	

4. Check continuity between around view monitor control unit connector M96 and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminal		
M96	28	—	No

Is inspection result normal?

- YES >> GO TO 2.
 NO >> Repair or replace harness or connectors.

2. CHECK REAR CAMERA IMAGE SIGNAL

1. Connect around view monitor control unit connector M96 and rear camera connector D511.
2. Turn ignition switch ON.
3. Check the signal between the terminals of around view monitor control unit connector M96.

Around view monitor control unit connector M96		Condition	Reference value
(+) Terminal	(-) Terminal		
28	27	CAMERA switch is ON or shift position is R.	

Is inspection result normal?

- YES >> Replace around view monitor control unit. Refer to [AV-603. "Removal and Installation"](#).
 NO >> Replace rear camera. Refer to [AV-605. "Removal and Installation"](#).

SIDE CAMERA LH IMAGE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

SIDE CAMERA LH IMAGE SIGNAL CIRCUIT

Diagnosis Procedure

INFOID:000000008954512

Regarding Wiring Diagram information, refer to [AV-432, "Wiring Diagram"](#).

1. CHECK LH SIDE CAMERA IMAGE SIGNAL CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector M96 and LH side camera connector D20.
3. Check continuity between around view monitor control unit connector M96 and LH side camera connector D20.

Around view monitor control unit		LH side camera		Continuity
Connector	Terminal	Connector	Terminal	
M96	32	D20	5	Yes
	31		17	

4. Check continuity between around view monitor control unit connector M96 and ground.

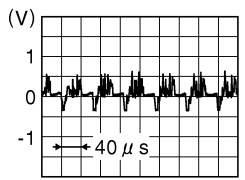
Around view monitor control unit		Ground	Continuity
Connector	Terminal		
M96	32	—	No

Is inspection result normal?

- YES >> GO TO 2.
NO >> Repair or replace harness or connectors.

2. CHECK LH SIDE CAMERA IMAGE SIGNAL

1. Connect around view monitor control unit connector M96 and LH side camera connector D20.
2. Turn ignition switch ON.
3. Check the signal between the terminals of around view monitor control unit connector M96.

Around view monitor control unit connector M96		Condition	Reference value
(+)	(-)		
Terminal	Terminal		
32	31	CAMERA switch is ON or shift position is R.	

Is inspection result normal?

- YES >> Replace around view monitor control unit. Refer to [AV-603, "Removal and Installation"](#).
NO >> Replace LH side camera. Refer to [AV-606, "Removal and Installation"](#).

SIDE CAMERA RH IMAGE SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

SIDE CAMERA RH IMAGE SIGNAL CIRCUIT

Diagnosis Procedure

INFOID:000000008954514

Regarding Wiring Diagram information, refer to [AV-432. "Wiring Diagram"](#).

1. CHECK RH SIDE CAMERA IMAGE SIGNAL CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector M96 and RH side camera connector D113.
3. Check continuity between around view monitor control unit connector M96 and fRH side camera connector D113.

Around view monitor control unit		RH side camera		Continuity
Connector	Terminal	Connector	Terminal	
M96	36	D113	5	Yes
	35		17	

4. Check continuity between around view monitor control unit connector M96 and ground.

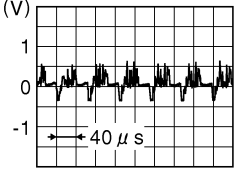
Around view monitor control unit		Ground	Continuity
Connector	Terminal		
M96	36	—	No

Is inspection result normal?

- YES >> GO TO 2.
 NO >> Repair or replace harness or connectors.

2. CHECK RH SIDE CAMERA IMAGE SIGNAL

1. Connect around view monitor control unit connector M96 and RH side camera connector D113.
2. Turn ignition switch ON.
3. Check the signal between the terminals of around view monitor control unit connector M96.

Around view monitor control unit onnector M96		Condition	Reference value
(+) Terminal	(-) Terminal		
36	35	CAMERA switch is ON or shift position is R.	

Is inspection result normal?

- YES >> Replace around view monitor control unit. Refer to [AV-603. "Removal and Installation"](#).
 NO >> Replace RH side camera. Refer to [AV-606. "Removal and Installation"](#).

SYMPTOM DIAGNOSIS

MULTI AV SYSTEM

Symptom Table

INFOID:000000008954515

RELATED TO AUDIO

Symptoms	Check items	Probable malfunction location
The disk cannot be removed.	AV control unit	Malfunction in AV control unit. Refer to AV-394, "On Board Diagnosis Function" .
No sound comes out or the level of the sound is low.	No sound from all speakers.	<ul style="list-style-type: none"> • Speaker circuit shorted to ground. Refer to AV-432, "Wiring Diagram". • Bose amp. ON signal circuit malfunction. Refer to AV-515, "Diagnosis Procedure". • Bose speaker amp. power supply and ground circuits malfunction. Refer to AV-515, "Diagnosis Procedure".
	Only a certain speaker (front door speaker LH, front door speaker RH, front tweeter LH, front tweeter RH, instrument panel tweeter LH, instrument panel tweeter RH, center speaker, rear door speaker LH, rear door speaker RH, rear side speaker LH, rear side speaker RH, subwoofer) does not output sound.	<ul style="list-style-type: none"> • Poor connector connection of speaker. • Sound signal circuit malfunction between AV control unit and Bose speaker amp. Refer to: <ul style="list-style-type: none"> - AV-545, "Diagnosis Procedure" (front door speaker). - AV-543, "Diagnosis Procedure" (front tweeter). - AV-541, "Diagnosis Procedure" (instrument panel tweeter). - AV-539, "Diagnosis Procedure" (center speaker). - AV-547, "Diagnosis Procedure" (rear door speaker). - AV-549, "Diagnosis Procedure" (rear side speaker). - AV-551, "Diagnosis Procedure" (subwoofer). • Sound signal circuit malfunction between Bose speaker amp. and speaker. Refer to: <ul style="list-style-type: none"> - AV-545, "Diagnosis Procedure" (front door speaker). - AV-543, "Diagnosis Procedure" (front tweeter). - AV-541, "Diagnosis Procedure" (instrument panel tweeter). - AV-539, "Diagnosis Procedure" (center speaker). - AV-547, "Diagnosis Procedure" (rear door speaker). - AV-549, "Diagnosis Procedure" (rear side speaker). - AV-551, "Diagnosis Procedure" (subwoofer). • Malfunction in speaker. Refer to: <ul style="list-style-type: none"> - AV-593, "Removal and Installation" (front door speaker). - AV-594, "Removal and Installation" (front tweeter). - AV-595, "Removal and Installation" (instrument panel tweeter). - AV-596, "Removal and Installation" (center speaker). - AV-597, "Removal and Installation" (rear door speaker). - AV-597, "Removal and Installation" (rear side speaker). - AV-599, "Removal and Installation" (subwoofer). • Malfunction in AV control unit. Refer to AV-394, "On Board Diagnosis Function". • Malfunction in Bose speaker amp. Replace Bose speaker amp. Refer to AV-592, "Removal and Installation".

MULTI AV SYSTEM

< SYMPTOM DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

Symptoms	Check items	Probable malfunction location	
	Noise comes out from all speakers.	<ul style="list-style-type: none"> Malfunction in AV control unit. Refer to AV-394, "On Board Diagnosis Function". Malfunction in Bose speaker amp. Replace Bose speaker amp. Refer to AV-592, "Removal and Installation". 	A B
Noise is mixed with audio.	Noise comes out only from a certain speaker (front door speaker LH, front door speaker RH, front tweeter LH, front tweeter RH, instrument panel tweeter LH, instrument panel tweeter RH, center speaker, rear door speaker LH, rear door speaker RH, rear side speaker LH, rear side speaker RH, subwoofer).	<ul style="list-style-type: none"> Poor connector connection of speaker. Sound signal circuit malfunction between AV control unit and Bose speaker amp. Refer to: <ul style="list-style-type: none"> AV-545, "Diagnosis Procedure" (front door speaker). AV-543, "Diagnosis Procedure" (front tweeter). AV-541, "Diagnosis Procedure" (instrument panel tweeter). AV-539, "Diagnosis Procedure" (center speaker). AV-547, "Diagnosis Procedure" (rear door speaker). AV-549, "Diagnosis Procedure" (rear side speaker). AV-551, "Diagnosis Procedure" (subwoofer). Sound signal circuit malfunction between Bose speaker amp. and speaker. Refer to: <ul style="list-style-type: none"> AV-545, "Diagnosis Procedure" (front door speaker). AV-543, "Diagnosis Procedure" (front tweeter). AV-541, "Diagnosis Procedure" (instrument panel tweeter). AV-539, "Diagnosis Procedure" (center speaker). AV-547, "Diagnosis Procedure" (rear door speaker). AV-549, "Diagnosis Procedure" (rear side speaker). AV-551, "Diagnosis Procedure" (subwoofer). Malfunction in speaker. <ul style="list-style-type: none"> Poor Installation of speaker (e.g. backlash and looseness). Refer to: <ul style="list-style-type: none"> AV-593, "Removal and Installation" (front door speaker). AV-594, "Removal and Installation" (front tweeter). AV-595, "Removal and Installation" (instrument panel tweeter). AV-596, "Removal and Installation" (center speaker). AV-597, "Removal and Installation" (rear door speaker). AV-598, "Removal and Installation" (rear side speaker). AV-599, "Removal and Installation" (subwoofer). Malfunction in AV control unit. Refer to AV-394, "On Board Diagnosis Function". Malfunction in Bose speaker amp. Replace Bose speaker amp. Refer to AV-592, "Removal and Installation". 	C D E F G H I J K L M AV
	Noise is mixed with radio only (when the vehicle hits a bump or while driving over bad roads)	<p>Poor connector connection of antenna or antenna feeder. Refer to AV-609, "Location of Antennas".</p>	O P
No radio reception or poor reception.	<ul style="list-style-type: none"> Other audio sounds are normal. Any radio station cannot be received or poor reception is caused even after moving to a service area with good reception (e.g. a place with clear view and no obstacles generating external noises). 	<ul style="list-style-type: none"> Antenna amp. ON signal circuit malfunction. Refer to AV-514, "Diagnosis Procedure". Poor connector connection of antenna or antenna feeder. Refer to AV-609, "Location of Antennas". 	










MULTI AV SYSTEM

< SYMPTOM DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

Symptoms	Check items	Probable malfunction location
No satellite radio reception.	There is malfunction in the CONSULT self diagnosis result. Refer to AV-404, "CONSULT Function" .	<ul style="list-style-type: none"> Malfunction in antenna, antenna feeder or AV control unit. Perform DTC diagnosis. Refer to AV-404, "CONSULT Function". Poor continuity in antenna feeder. Poor connector connection of antenna or antenna feeder. Refer to AV-609, "Location of Antennas".
	There is no malfunction in the CONSULT self diagnosis result. Refer to AV-404, "CONSULT Function" .	<ul style="list-style-type: none"> Poor continuity in antenna feeder. Poor connector connection of antenna or antenna feeder. Loose satellite radio antenna mounting nut. Refer to AV-609, "Location of Antennas".
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.

RELATED TO HANDS-FREE PHONE

Symptoms	Check items	Probable malfunction location
Does not recognize cellular phone connection (no connection is displayed on the display at the guide).	Repeat the registration of cellular phone.	Malfunction in AV control unit. Replace AV control unit. Refer to AV-585, "Removal and Installation" .
Hands-free phone cannot be established.	<ul style="list-style-type: none"> Hands-free phone operation can be made, but the communication cannot be established. Hands-free phone operation can be performed, however, voice between each other cannot be heard during the conversation. 	
The other party's voice cannot be heard by hands-free phone.	Check the "microphone speaker" in Inspection & Adjustment Mode if sound is heard.	
Originating sound is not heard by the other party with hands-free phone communication.	Sound operation function is normal.	Microphone signal circuit malfunction. Refer to AV-561, "Diagnosis Procedure" .
	Sound operation function does not work.	
The system cannot be operated.	<ul style="list-style-type: none"> The voice recognition can be controlled. Steering switch's + , - , and  switch works, but  does not work. 	Steering switch malfunction. Replace steering switch. Refer to AV-588, "Removal and Installation" .
	Steering switch's  ,  ,  + ,  - , and  switches do not work.	Steering switch signal circuit malfunction. Refer to AV-563, "Diagnosis Procedure" .
	All steering switches do not work.	Steering switch ground circuit malfunction. Refer to AV-563, "Diagnosis Procedure" .

RELATED TO NAVIGATION

MULTI AV SYSTEM

< SYMPTOM DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

Symptoms	Check items	Probable malfunction location
Navigation system is inoperative.	Navigation malfunction.	<ul style="list-style-type: none"> Malfunction in hard disk drive (HDD). Malfunction in AV control unit. Refer to AV-394, "On Board Diagnosis Function" .
	Steering switches malfunction.	Steering switch signal circuit malfunction. Refer to AV-563, "Diagnosis Procedure" .
	Voice activated control malfunction.	Microphone signal circuit malfunction. Refer to AV-561, "Diagnosis Procedure" . Steering switch signal circuit malfunction. Refer to AV-563, "Diagnosis Procedure" .

RELATED TO AROUND VIEW MONITOR

Symptoms	Check items	Probable malfunction location
Display does not switch to camera image when "CAMERA" switch is pressed or selector lever is in R (reverse).	Around view monitor control unit malfunction.	Around view monitor control unit power supply and ground circuits malfunction. Refer to AV-537, "AROUND VIEW MONITOR CONTROL UNIT : Diagnosis Procedure" .
	AV communication circuits malfunction.	AV communication circuits malfunction between around view monitor control unit and AV control unit. Refer to AV-429, "Reference Value" .
	Camera image signal circuit (output) malfunction.	Camera image signal circuit (output) malfunction between around view monitor control unit and display unit. Refer to AV-429, "Reference Value" .
Display switches to camera image when "CAMERA" switch is pressed or selector lever is in R (reverse), but all views are not displayed.	Camera image signal circuit (input) malfunction.	Camera image signal circuit (input) malfunction between camera and around view monitor control unit. Refer to: <ul style="list-style-type: none"> AV-566, "Diagnosis Procedure" (front camera). AV-567, "Diagnosis Procedure" (rear camera). AV-568, "Diagnosis Procedure" (side camera LH). AV-569, "Diagnosis Procedure" (side camera RH).
	Camera communication signal circuits malfunction.	Camera communication circuits malfunction between camera and around view monitor control unit. Refer to: <ul style="list-style-type: none"> AV-566, "Diagnosis Procedure" (front camera). AV-567, "Diagnosis Procedure" (rear camera). AV-568, "Diagnosis Procedure" (side camera LH). AV-569, "Diagnosis Procedure" (side camera RH).
Camera image is rolling.	Camera image signal circuit (output) malfunction.	Camera image signal circuit (output) malfunction between around view monitor control unit and display unit. Refer to AV-429, "Reference Value" .
Display does not switch to rear view monitor even when selector lever is in R (reverse).	Reverse signal circuit malfunction.	Reverse signal circuit between BCM and around view monitor control unit. Refer to AV-429, "Reference Value" .
Predicted course line display in front view and rear view is malfunctioning.	Steering angle sensor malfunction.	Predicted course line center position is malfunctioning. Refer to AV-476, "PREDICTED COURSE LINE CENTER POSITION ADJUSTMENT : Work Procedure" .
Front view and front of birds-eye view is not displayed.	Front camera malfunction.	Front camera power supply and ground circuits malfunction. Refer to AV-537, "AROUND VIEW MONITOR CONTROL UNIT : Diagnosis Procedure" .
	Front camera image signal circuit malfunction.	Front camera image signal circuit malfunction between front camera and around view monitor control unit. Refer to AV-566, "Diagnosis Procedure" .

MULTI AV SYSTEM

< SYMPTOM DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

Symptoms	Check items	Probable malfunction location
Rear view and rear of birds-eye view is not displayed.	Rear camera malfunction.	Rear camera power supply and ground circuits malfunction. Refer to AV-537, "AROUND VIEW MONITOR CONTROL UNIT : Diagnosis Procedure" .
	Rear camera image signal circuit malfunction.	Rear camera image signal circuit malfunction between rear camera and around view monitor control unit. Refer to AV-567, "Diagnosis Procedure" .
Front-side and driver side of birds-eye view is not displayed.	Side camera LH malfunction.	Side camera LH power supply and ground circuits malfunction. Refer to AV-537, "AROUND VIEW MONITOR CONTROL UNIT : Diagnosis Procedure" .
	Side camera LH image signal circuit malfunction.	Side camera LH image signal circuit malfunction between side camera LH and around view monitor control unit. Refer to AV-568, "Diagnosis Procedure" .
Front-side and passenger side of birds-eye view is not displayed.	Side camera RH malfunction.	Side camera RH power supply and ground circuits malfunction. Refer to AV-517, "Diagnosis Procedure" .
	Side camera RH image signal circuit malfunction.	Side camera RH image signal circuit malfunction between side camera RH and around view monitor control unit. Refer to AV-569, "Diagnosis Procedure" .
Selector lever is in a position other than R (reverse) and front, rear, front-side and Birds-Eye views are displayed even as vehicle speed increases.	Vehicle speed signal malfunction.	Vehicle speed signal malfunction between ABS actuator and electric unit (control unit) and around view monitor control unit. Refer to LAN-20, "Trouble Diagnosis Flow Chart" .

RELATED TO REAR DISPLAY (HEADREST-MOUNTED)

Perform diagnosis of the following items before starting diagnosis by symptom:

- Self diagnosis mode: refer to [AV-408, "On Board Diagnosis Function"](#).
- Power supply and ground circuit: refer to [AV-537, "HEADREST DISPLAY UNIT : Diagnosis Procedure"](#).

Symptom	Check item	Possible malfunction location/Action to take	
Video is not shown on the headrest display unit screen.	Use the touch button in front display to switch video images on the headrest display unit.	Video is shown.	Operate with the remote to see if videos can be switched.
		Video is not shown.	Replace headrest display unit. Refer to AV-590, "Removal and Installation" .
Headrest display unit inoperative with the remote.	All keys inoperative.	<ul style="list-style-type: none"> • Check battery polarity. • Replace battery. 	<ul style="list-style-type: none"> • Check with a remote from the same vehicle family. • Check infrared* of the luminescent part (LED) of the remote.
	Some keys inoperative.	<ul style="list-style-type: none"> • Check with a remote from the same vehicle family. • Check infrared* of the luminescent part (LED) of the remote. 	The function corresponding to the remote operation is not included (this is not a malfunction).
Headrest display unit screen is black.	Play a DVD.	Video is not shown.	Switch from AUX mode to DVD mode and check video.
		Screen is dark.	Adjust screen for image quality (this is not a malfunction).
		Screen is black.	Replace headrest display unit. Refer to AV-590, "Removal and Installation" .

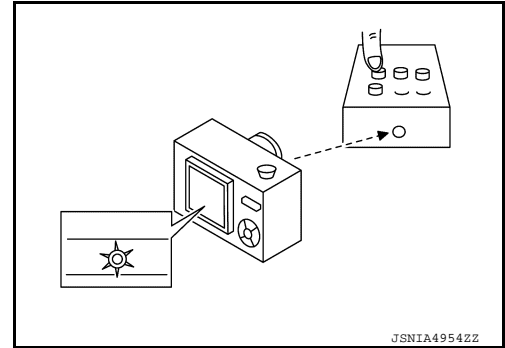
MULTI AV SYSTEM

< SYMPTOM DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

Symptom	Check item	Possible malfunction location/Action to take
Video shown on headrest display unit screen becomes distorted or rolls up/down	Adjust the color settings using the display screen menu items.	If the symptom does not change, replace headrest display unit. Refer to AV-590, "Removal and Installation" .
Headrest display unit screen is blue.	—	Replace headrest display unit. Refer to AV-590, "Removal and Installation" .

*: To check infrared, check light of the luminescent part (LED) through the lens of digital camera when operating the remote.



RELATED TO HEADPHONES (HEADREST-MOUNTED)

Symptom	Check item	Possible malfunction location/Action to take
Audio cannot be heard from headphones.	<ul style="list-style-type: none"> Turn ON the headrest display unit. Switch the slide switch on the left side of the headphones. 	Audio cannot be heard. Check power supply of headphones.
Headphones cannot be turned ON.	<ul style="list-style-type: none"> Battery polarity. Battery poor contact. Battery replacement. 	Power is ON (power indicator lamp: ON). This is not a malfunction.
		Power cannot be turned ON (power indicator lamp: OFF). Replace headphones.

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NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

NORMAL OPERATING CONDITION

Description

INFOID:000000008954516

RELATED TO NOISE

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

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.	<ul style="list-style-type: none"> • Ignition components
The occurrence of the noise is linked with the operation of the fuel pump.		<ul style="list-style-type: none"> • Fuel pump condenser
Noise only occurs when various electrical components are operating.	A cracking or snapping sound occurs with the operation of various switches.	<ul style="list-style-type: none"> • Relay malfunction, AV control unit malfunction
	The noise occurs when various motors are operating.	<ul style="list-style-type: none"> • Motor case ground • Motor
The noise occurs constantly, not just under certain conditions.		<ul style="list-style-type: none"> • 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.		<ul style="list-style-type: none"> • Ground wire of body parts • Ground due to improper part installation • Wiring connections or a short circuit

RELATED TO HANDS-FREE PHONE

Symptom	Cause and Counter measure
Does not recognize cellular phone connection (No connection is displayed on the display at the guide).	<p>Some Bluetooth[®] enabled cellular phones may not be recognized by the in-vehicle phone module.</p> <p>Refer to "RELATED TO HANDS-FREE PHONE (Check Compatibility)" in AV-570, "Symptom Table".</p>
Cannot use hands-free phone.	<p>Customer will not be able to use a hands-free phone under the following conditions:</p> <ul style="list-style-type: none"> • The vehicle is outside of the telephone service area. • The vehicle is in an area where it is difficult to receive radio waves; such as in a tunnel, in an underground parking garage, near a tall building or in a mountainous area. • The cellular phone is locked to prevent it from being dialed. <p>NOTE:</p> <p>While a cellular phone is connected through the Bluetooth[®] wireless connection, the battery power of the cellular phone may discharge quicker than usual. The Bluetooth[®] Hands-Free Phone System cannot charge cellular phones.</p>

NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

Symptom	Cause and Counter measure
The other party's voice cannot be heard by hands-free phone.	When the radio wave condition is not ideal or ambient sound is too loud, it may be difficult to hear the other person's voice during a call.
Poor sound quality.	Do not place the cellular phone in an area surrounded by metal or far away from the in-vehicle phone module to prevent tone quality degradation and wireless connection disruption.

RELATED TO NAVIGATION

Basic Operation

Symptom	Cause	Remedy
No image is shown.	Display brightness adjustment is set fully to DARK side.	Adjust the display brightness.
No guide sound is heard. Audio guide volume is too low or too high.	Volume control is set to OFF, MIN or MAX.	Adjust the audio guide volume.
	Audio guidance is not available while the vehicle is driving on a dark pink route.	System is not malfunctioning.
Screen is too dark. Motion of the image is too slow.	Temperature inside the vehicle is low.	Wait until the temperature inside the vehicle reaches the proper temperature.
Small black or bright spots appear on the screen.	Symptom peculiar to a liquid crystal display (display unit).	System is not malfunctioning.

Vehicle Mark

Symptom	Cause	Remedy
Map screen and BIRDVIEW™ Name of the place vary with the screen.	Some thinning of the character data is done to prevent the display becoming to complex. In some cases and in some locations, the display contents may differ. The same place name, street name, etc. may not be displayed every time on account of the data processing.	System is not malfunctioning.
Vehicle mark is not positioned correctly.	Vehicle is transferred by ferry or by towing after its ignition switch is turned to OFF.	Drive the vehicle for a while in the GPS satellite signal receiving condition.
Screen will not switch to nighttime mode after the lighting switch is turned ON.	The daytime screen is selected by the "SWITCH SCREENS" when the last time the screen dimming setting is done. Switching between daytime/nighttime screen may be inhibited by the automatic illumination adjustment function.	Perform screen dimming and select the nighttime screen by "SWITCH SCREENS".
Map screen will not scroll in accordance with the vehicle travel.	Current location is not displayed.	Press "MAP" button to display the current location.
Vehicle mark will not be shown.	Current location is not displayed.	Press "MAP" button to display the current location.
Accuracy indicator (GPS satellite mark) on the map screen stays gray.	GPS satellite signal is intercepted because the vehicle is in or behind a building.	Move the vehicle out to an open space.
	GPS satellite signal cannot be received because an obstacle is placed on top of the instrument panel.	Do not place anything on top of the meter display (instrument panel).
	GPS satellites are not visible from current location.	Wait until GPS satellites are visible by moving the vehicle.

NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

Symptom	Cause	Remedy
Vehicle location accuracy is low.	Accuracy indicator (GPS satellite mark) on the map screen stays gray.	Current location is not determined.
	Vehicle speed setting by the vehicle speed pulse has been deviated (advanced or retarded) from the actual vehicle speed because tire chain is fitted or the system has been used on another vehicle.	Drive the vehicle for a while [for approx. 30 minutes at approx. 30 km/h (19 MPH)] and the deviation will be automatically adjusted. If advancement or retard still occur, perform the distance adjustment by CONFIRMATION/ADJUSTMENT mode of diagnosis function.
	Map data has error or omission. (Vehicle mark is always deviated to the same position.)	As a rule, an updated map DVD-ROM will be released once a year.

Destination, Passing Points and Menu Items Cannot be Selected/Set

Symptom	Cause	Remedy
Destination cannot be set.	Destination to be set is on an expressway.	Set the destination on an ordinary road.
Passing point is not searched when re-searching the route.	The vehicle has already passed the passing point, or the system judged so.	To include the passing points that have been passed into the route again, set the route again.
Route information will not be displayed.	Route searching has not been done.	Set the destination and perform route searching.
	Vehicle mark is not on the recommended route.	Drive on the recommended route.
	Route guide is turned OFF.	Turn route guide ON.
	Route information is not available on the dark pink route.	System is not malfunctioning.
After the route searching, no guide sign will appear as the vehicle goes near the entrance/exit to the toll road.	Vehicle mark is not on the recommended route. (On the display, only guide signs related to the recommended route will be shown.)	Drive on the recommended route.
Automatic route searching is not possible.	Vehicle is driving on a highway (gray route), or no recommended route is available.	Drive on a road to be searched. Or re-search the route manually. In this case, however, the whole route will be searched.
Performed automatic detour search (or detour search). However, the result is the same as that of the previous search.	Performed search with every conditions considered. However, the result is the same as that of the previous search.	System is not malfunctioning.
Passing points cannot be set.	More than five passing points were set.	Passing points can be set up to five. To stop at more than five points, perform sharing in several steps.
When setting the route, the starting point cannot be selected.	The current vehicle location is always set as the starting point of a route.	System is not malfunctioning.
Some menu items cannot be selected.	The vehicle is being driven.	Stop the vehicle at a safe place and then operate the system.

Voice Guide

NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

Symptom	Cause	Remedy
Voice guide will not operate.	Note: Voice guide is only available at intersections that satisfy certain conditions (indicated by ● on the map). Therefore, guidance may not be given even when the route on the map changes direction.	System is not malfunctioning.
	The vehicle is not on the recommended route.	Return to the recommended route or re-search the route.
	Voice guide is turned OFF.	Turn voice guide ON.
	Route guide is turned OFF.	Turn route guide ON.
Voice guide does not match the actual road pattern.	Voice guide may vary with the direction to which the vehicle is turn and the connection of the road to other roads.	Drive in conformity to the actual traffic rules.

Route Search

Symptom	Cause	Remedy
No route is shown.	No road to be searched is found around the destination.	Find wider road (orange road or wider) nearby and reset the destination and passing points onto it. Take care of the traveling direction when there are separate up and down roads.
	Starting point and the destination are too close.	Set the destination at more distant point.
	Conditional traffic regulation (day of the week/ time of the day) is set at the area around the current location or the destination.	Turn the time-regulating search conditions OFF. Turn "Avoid regulation time" in the search conditions OFF.
Indicated route is intermittent.	In some areas, highways (gray routes) are not used for the search ^(Note) Therefore, the route to the current location or the passing points may be intermittent.	System is not malfunctioning.
When the vehicle has passed the recommended route, it is deleted from the screen.	A recommended route is controlled by each section. When the vehicle has passed the passing point 1, then the map data from the starting point up to the passing point 1 will be deleted. (The data may remain undeleted in some area.)	System is not malfunctioning.
Detouring route is recommended.	In some areas, highways (gray routes) are not used for the search. (Note). Therefore, detour route may be recommended.	Set the route closer to the basic route (gray route).
	A detour route may be shown when some traffic regulation (one-way traffic, etc.) is set at the area around the starting point or the destination.	Slightly move the starting point or the destination, or set the passing point on the route of your choice.
	In the area where highways (gray routes) are used for the search, left turn has priority around the current location and the destination (passing points). For this reason, the recommended route may be detouring.	System is not malfunctioning.
Landmarks on the map do not match the actual ones.	This can be happen due to omission or error in the map data.	As a rule, an updated map DVD-ROM will be released once a year. Wait until the latest map has become available.
Recommended route is far from the starting point, passing points, and destination.	Starting point, passing points, and destination of the route guide were set far from the desired points because route searching data around these area were not stored.	Reset the destination onto the road nearby. If this road is one of the highways (gray routes), an ordinary road nearby may be displayed as the recommended route.

NOTE:

Except for the ordinance-designated cities. (Malfunctioning areas may be changed in the updated map disc.)

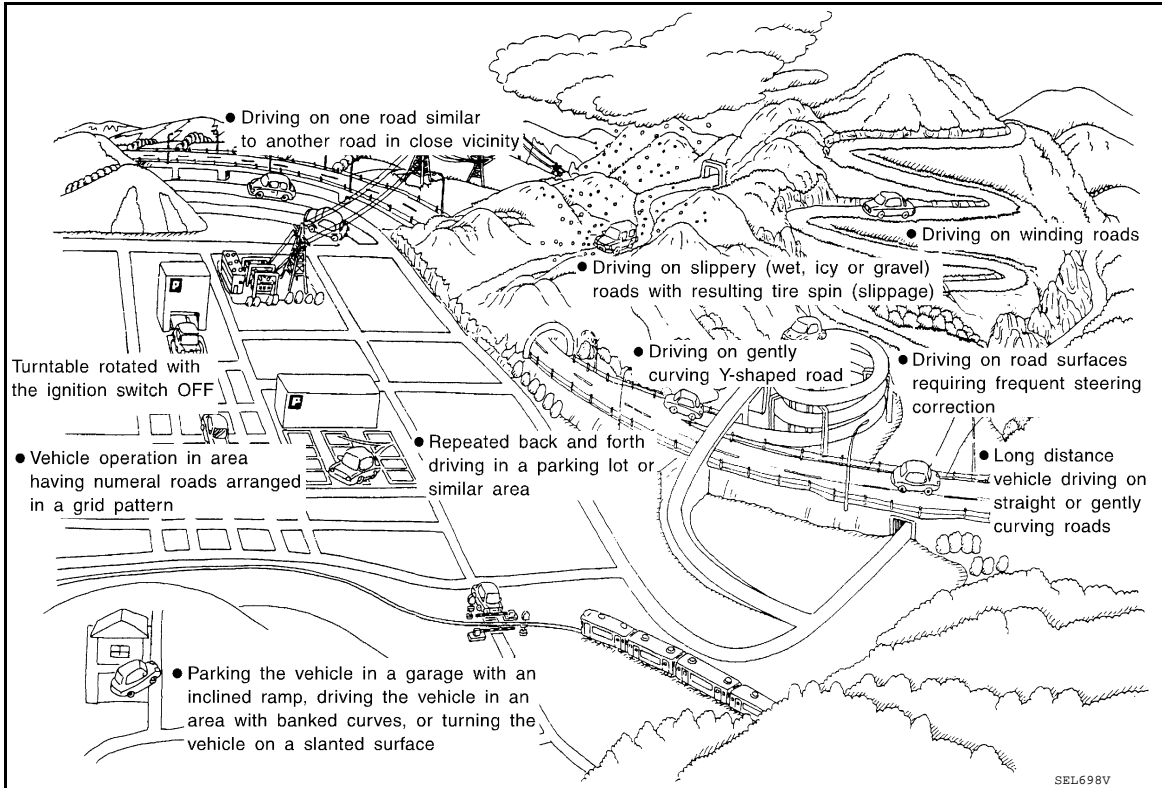
Examples of Current-Location Mark Displacement

NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

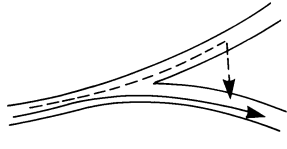
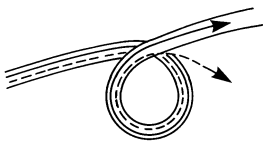
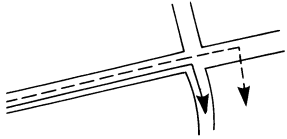
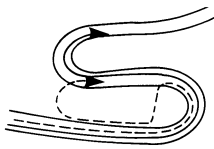
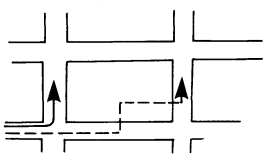
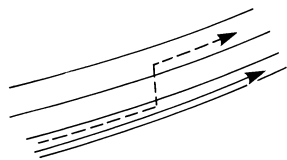
Vehicle's travel amount is calculated by reading its travel distance and turning angle. Therefore, if the vehicle is driven in the following manner, an error will occur in the vehicle's current location display. If correct location has not been restored after driving the vehicle for a while, perform location correction.



NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

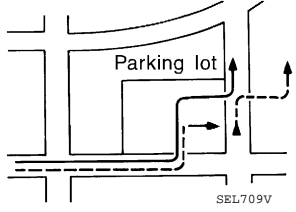
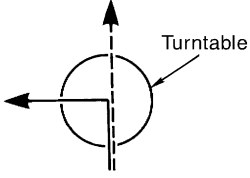
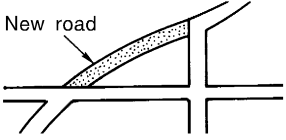
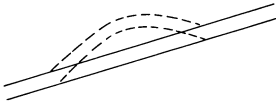
Cause (condition) –: While driving ooo: Display	Driving condition	Remarks (correction, etc.)
Y-intersections  <small>ELK0192D</small>	At a Y intersection or similar gradual division of roads, an error in the direction of travel deduced by the sensor may result in the current-location mark appearing on the wrong road.	If after travelling about 10 km (6 miles) the correct location has not been restored, perform location correction and, if necessary, direction correction.
Spiral roads  <small>ELK0193D</small>	When driving on a large, continuous spiral road (such as loop bridge), turning angle error is accumulated and the vehicle mark may deviate from the correct location.	
Straight roads  <small>ELK0194D</small>	When driving on a long, straight road and slow curve without stopping, map-matching does not work effectively enough and distance errors may accumulate. As a result, the vehicle mark may deviate from the correct location when the vehicle is turned at a corner.	
Zigzag roads  <small>ELK0195D</small>	When driving on a zigzag road, the map may be matched to other roads in the similar direction nearby at every turn, and the vehicle mark may deviate from the correct location.	
Roads laid out in a grid pattern  <small>ELK0196D</small>	When driving where roads are laid out in a grid pattern, or where many roads are running in the similar direction nearby, the map may be matched to them by mistake and the vehicle mark may deviate from the correct location.	
Parallel roads  <small>ELK0197D</small>	When two roads are running in parallel (such as highway and sideways), the map may be matched to the other road by mistake and the vehicle mark may deviate from the correct location.	

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NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

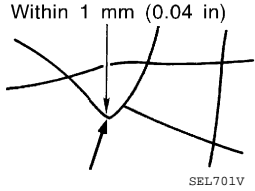
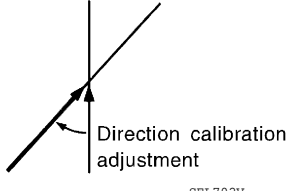
[PREMIUM AUDIO WITH NAVIGATION]

Cause (condition) -: While driving ooo: Display		Driving condition	Remarks (correction, etc.)
Place	In a parking lot  <small>SEL709V</small>	When driving in a parking lot, or other location where there are no roads on the map, matching may place the vehicle mark on a nearby road. When the vehicle returns to the road, the vehicle mark may have deviated from the correct location. When driving in circle or turning the steering wheel repeatedly, direction errors accumulate, and the vehicle mark may deviate from the correct location.	If after travelling about 10 km (6 miles) the correct location has not been restored, perform location correction and, if necessary, direction correction.
	Turntable  <small>SEL710V</small>	When the ignition switch is OFF, the navigation system cannot get the signal from the gyroscope (angular speed sensor). Therefore, the displayed direction may be wrong and the correct road may not be easily returned to after rotating the vehicle on a turntable with the ignition OFF.	
	Slippery roads	On snow, wet roads, gravel, or other roads where tires may slip easily, accumulated mileage errors may cause the vehicle mark to deviate from the correct road.	
	Slopes	When parking in sloped garages, when travelling on banked roads, or in other cases where the vehicle turns when tilted, an error in the turning angle will occur, and the vehicle mark may deviate from the road.	
Map data	Road not displayed on the map screen  <small>SEL699V</small>	When driving on new roads or other roads not displayed on the map screen, map matching does not function correctly and matches the location to a nearby road. When the vehicle returns to a road which is on the map, the vehicle mark may deviate from the correct road.	
	Different road pattern (Changed due to repair)  <small>ELK0201D</small>	If the road pattern stored in the map data and the actual road pattern are different, map matching does not function correctly and matches the location to a nearby road. The vehicle mark may deviate from the correct road.	
Vehicle	Use of tire chains	When tire chains are used, the mileage is not correctly detected, and the vehicle mark may deviate from the correct road.	Drive the vehicle for a while. If the distance still deviates, adjust it by using the distance adjustment function. (If the tire chain is removed, recover the original value.)

NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

Cause (condition)	-: While driving ooo: Display	Driving condition	Remarks (correction, etc.)
Precautions for driving	Just after the engine is started	If the vehicle is driven just after the engine is started when the gyroscope (angular speed sensor) correction is not completed, the vehicle can lose its direction and may have deviated from the correct location.	Wait for a short while before driving after starting the engine.
	Continuous driving without stopping	When driving long distances without stopping, direction errors may accumulate, and the current-location mark may deviate from the correct road.	Stop and adjust the orientation.
	Abusive driving	Spinning the wheels or engaging in other kinds of abusive driving may result in the system being unable to perform correct detection, and may cause the vehicle mark to deviate from the correct road.	If after travelling about 10 km (6 miles) the correct location has not been restored, perform location correction and, if necessary, direction correction.
How to correct location	Position correction accuracy 	If the accuracy of location settings is poor, accuracy may be reduced when the correct road cannot be found, particularly in places where there are many roads.	Enter in the road displayed on the screen with an accuracy of approx. 1mm. Caution: Whenever possible, use detailed map for the correction.
	Direction when location is corrected 	If the accuracy of location settings during correction is poor, accuracy may be reduced afterwards.	Perform direction correction.

Location Correction by Map-Matching is Slow

- The map-matching function needs to refer to the data of the surrounding area. It is necessary to drive some distance for the function to work.
- Because map-matching operates on this principle, when there are many roads running in similar directions in the surrounding area, no matching determination may be made. The location may not be corrected until some special feature is found.

Name of Road is Not Displayed

The current road name may not be displayed if there are no road names displayed on the map screen.

Contents of Display Differ for Birdview™ and the (Flat) Map Screen

Difference of the BIRDVIEW™ screen from the flat map screen are as follows.

- The current place name displays names which are primarily in the direction of vehicle travel.
- The amount of time before the vehicle travel or turn angle is updated on the screen is longer than for the (flat) map display.
- The conditions for display of place names, roads, and other data are different for nearby areas and for more distant areas.
- Some thinning of the character data is done to prevent the display becoming too complex. In some cases and in some locations, the display contents may differ.
- The same place name, street name, etc. may be displayed multiple times.

Vehicle Mark Shows a Position Which is Completely Wrong

In the following cases, the vehicle mark may appear on completely different position in the map depending on the GPS satellite signal receiving conditions. In this case, perform location correction and direction correction.

- When location correction has not been done
- If the receiving conditions of the GPS satellite signal is poor, if the vehicle mark becomes out of place, it may move to a completely different location and not come back if location correction is not done. The position will be corrected if the GPS signal can be received.
- When the vehicle has traveled by ferry, or when the vehicle has been being towed

NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[PREMIUM AUDIO WITH NAVIGATION]

- Because calculation of the current location cannot be done when traveling with the ignition off, for example when traveling by ferry or when being towed, the location before travel is displayed. If the precise location can be detected with GPS, the location will be corrected.

Vehicle Mark Jumps

In the following cases, the vehicle mark may appear to jump as a result of automatic correction of the current location.

- When map matching has been done
 - If the current location and the vehicle mark are different when map matching is done, the vehicle mark may seem to jump. At this time, the location may be “corrected” to the wrong road or to a location which is not on a road.
- When GPS location correction has been done
 - If the current location and the vehicle mark are different when the location is corrected using GPS measurements, the vehicle mark may seem to jump. At this time, the location may be “corrected” to a location which is not on a road.

Vehicle Mark is in a River or Sea

The navigation system moves the vehicle mark with no distinction between land and rivers or sea. If the vehicle mark is somehow out of place, it may appear that the vehicle is driving in a river or the sea.

Vehicle Mark Automatically Rotates

The system wrongly memorizes the rotating status as stopping when the ignition switch is turned ON with the turntable rotating. That causes the vehicle mark to rotate when the vehicle is stopped.

When Driving on Same Road, Sometimes Vehicle Mark is in Right Place and Sometimes it is in Wrong Place

The conditions of the GPS antenna (GPS data) and gyroscope (angular speed sensor) change gradually. Depending on the road traveled and the operation of the steering wheel, the location detection results will be different. Therefore, even on a road on which the location has never been wrong, conditions may cause the vehicle mark to deviate.

RELATED TO SONAR

Symptom	Possible cause
Unstable object detection	<ul style="list-style-type: none">• The vehicle is on a rough surface, such as stone or gravel.• When used in poor weather conditions, such as heavy snow/rain strong wind.• When subjected to an ultrasonic noise generated from exhaust muffler or brakes.• When left standing in the hot sun or in a cold climate.• When the surface of the sensor is frozen or covered with snow/dirt/moisture.• When a retrofitted xenon lamp, lighted license plate, or harness is close to the sensor body or sensor harness.• When subjected to loop coil noises generated from a vehicle detector placed at an intersection or coin parking area.
Object undetectable	<ul style="list-style-type: none">• Air-containing objects, such as cloth, cotton, glass wool, dust, and snow.• Thin objects, such as rope, chain and wire.• Smooth-faced objects placed in a slanting direction.• Fast-moving small animals.• A corner of an angular object. <p>NOTE: If the sensor detection part is scratched, obstacles cannot be detected.</p>

AV CONTROL UNIT

< REMOVAL AND INSTALLATION >

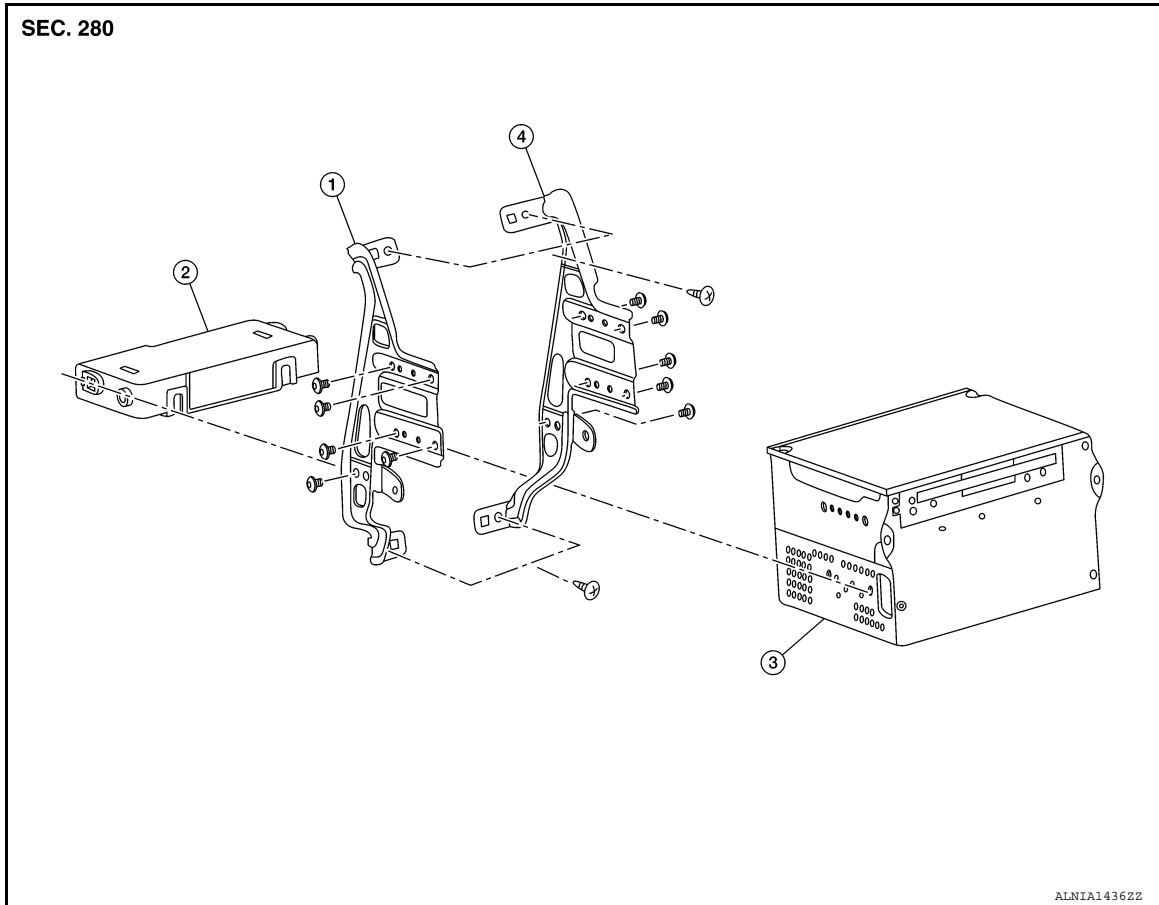
[PREMIUM AUDIO WITH NAVIGATION]

REMOVAL AND INSTALLATION

AV CONTROL UNIT

Exploded View

INFOID:000000008950004



1. AV control unit bracket LH
2. A/C auto amp.
3. AV control unit
4. AV control unit bracket RH

Removal and Installation

INFOID:000000008950005

REMOVAL

CAUTION:

- Remove battery terminal and AV control unit after a lapse of 30 seconds or more after turning the ignition switch OFF.
- Before replacing AV control unit, perform "READ CONFIGURATION" to save current vehicle specification. Refer to [AV-474, "CONFIGURATION \(AV CONTROL UNIT\) : Configuration List"](#).

NOTE:

After the ignition switch is turned OFF, the AV control unit continues operating for approximately 30 seconds. Therefore, data corruption may occur if battery voltage is cut off within 30 seconds.

1. Disconnect the negative battery terminal. Refer to [PG-89, "Removal and Installation"](#).
2. Remove cluster lid C. Refer to [IP-22, "Removal and Installation - Cluster Lid C"](#).
3. Remove the screws, then pull out the AV control unit.
4. Disconnect the harness connectors from the AV control unit and remove.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

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AV

AV CONTROL UNIT

< REMOVAL AND INSTALLATION >

[PREMIUM AUDIO WITH NAVIGATION]

- When replacing AV control unit, perform "WRITE CONFIGURATION". Refer to [AV-473, "CONFIGURATION \(AV CONTROL UNIT\) : Work Procedure"](#).

AV AND A/C SWITCH ASSEMBLY

< REMOVAL AND INSTALLATION >

[PREMIUM AUDIO WITH NAVIGATION]

AV AND A/C SWITCH ASSEMBLY

Removal and Installation

INFOID:000000008950006

REMOVAL

CAUTION:

- Remove battery terminal and AV control unit after a lapse of 30 seconds or more after turning the ignition switch OFF.
- Before replacing AV control unit, perform "READ CONFIGURATION" to save current vehicle specification. Refer to [AV-474, "CONFIGURATION \(AV CONTROL UNIT\) : Configuration List"](#).

NOTE:

After the ignition switch is turned OFF, the AV control unit continues operating for approximately 30 seconds. Therefore, data corruption may occur if battery voltage is cut off within 30 seconds.

1. Disconnect the negative battery terminal. Refer to [PG-89, "Removal and Installation"](#).
2. Remove cluster lid C lower. Refer to [JP-22, "Removal and Installation - Cluster Lid C Lower"](#).
3. Remove the AC and AV switch assembly lower screws.
4. Release upper pawls and remove AC and AV switch assembly

INSTALLATION

Installation is in the reverse order of removal.

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AV

STEERING SWITCH

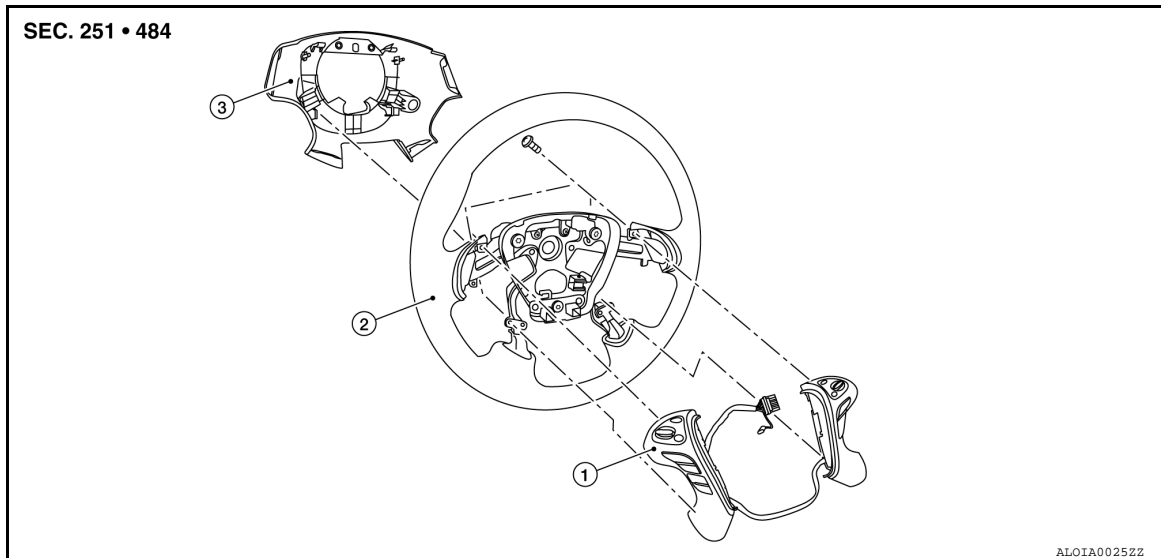
< REMOVAL AND INSTALLATION >

[PREMIUM AUDIO WITH NAVIGATION]

STEERING SWITCH

Exploded View

INFOID:000000008951997



1. Steering switches

2. Steering wheel

3. Steering wheel rear finisher

Removal and Installation

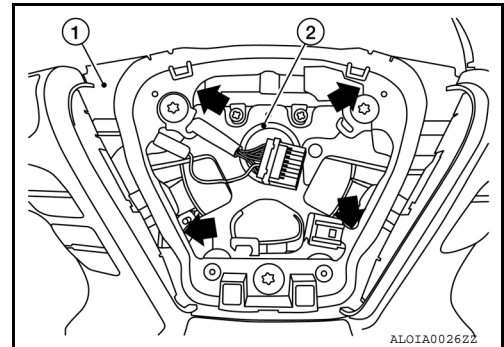
INFOID:000000008951998

REMOVAL

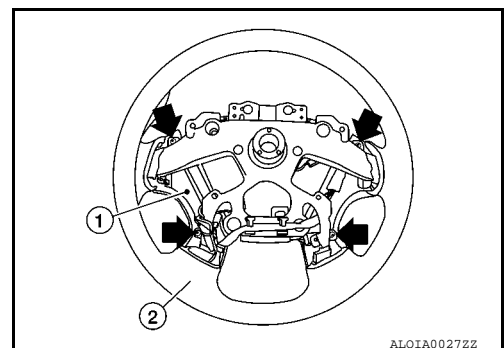
NOTE:

The steering switches are serviced as an assembly.

1. Remove steering wheel. Refer to [ST-44, "Removal and Installation"](#).
2. Release pawls (◀) and remove steering wheel rear finisher (1) from steering wheel (2).



3. Remove steering switches assembly screws (◀).
4. Remove steering switches assembly (1) from steering wheel (2).



INSTALLATION

Installation is in the reverse order of removal.

DISPLAY UNIT

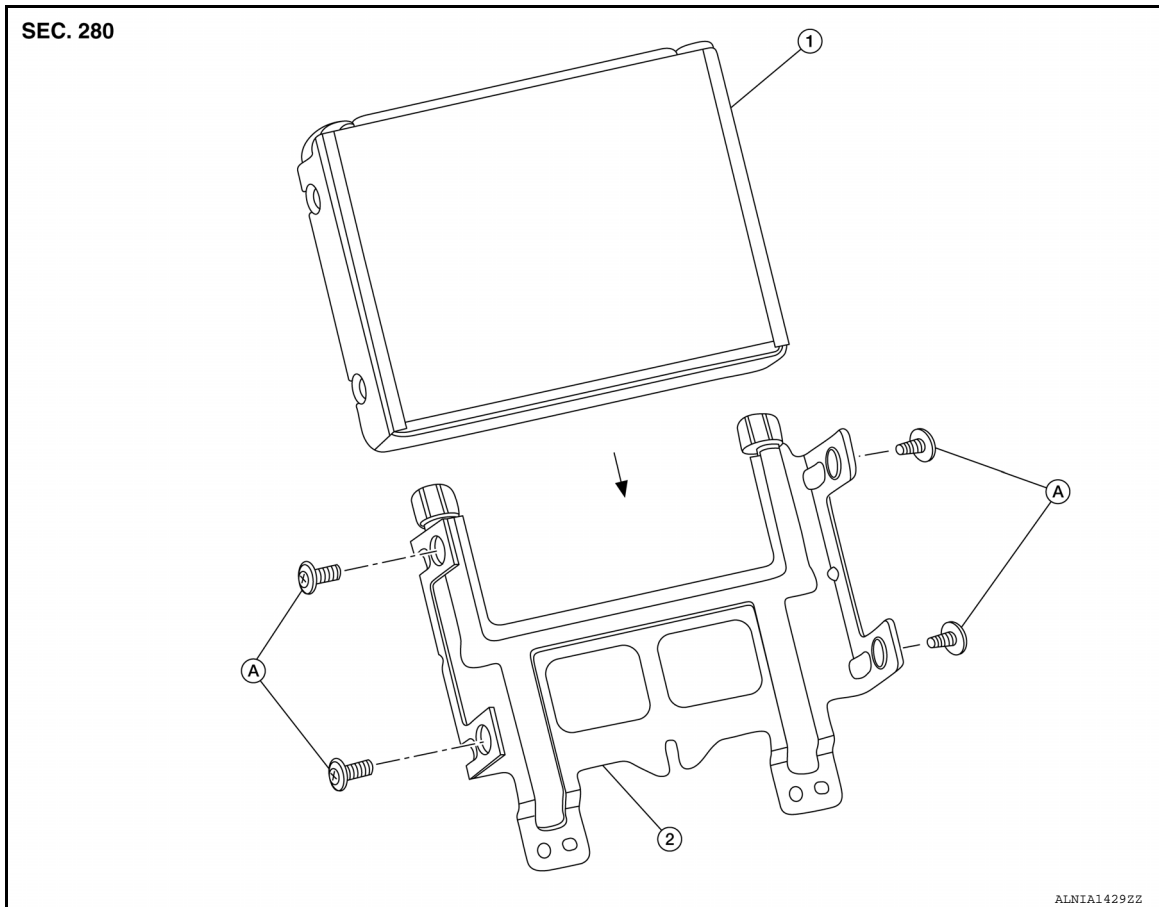
< REMOVAL AND INSTALLATION >

[PREMIUM AUDIO WITH NAVIGATION]

DISPLAY UNIT

Exploded View

INFOID:000000008950008



1. Display unit

2. Display unit bracket

A. Display unit bracket screws

Removal and Installation

INFOID:000000008950009

REMOVAL

1. Remove the cluster lid D. Refer to [IP-24. "Removal and Installation"](#).
2. Remove the display unit screws, then pull out the display unit and bracket.
3. Disconnect the harness connector from the display unit, then remove the display unit and bracket.
4. Remove the display unit brackets screws and the display unit from the display unit bracket.

INSTALLATION

Installation is in the reverse order of removal.

HEADREST DISPLAY UNIT

< REMOVAL AND INSTALLATION >

[PREMIUM AUDIO WITH NAVIGATION]

HEADREST DISPLAY UNIT

Removal and Installation

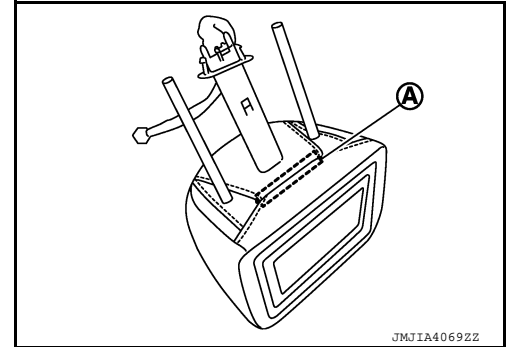
INFOID:000000008950010

REMOVAL

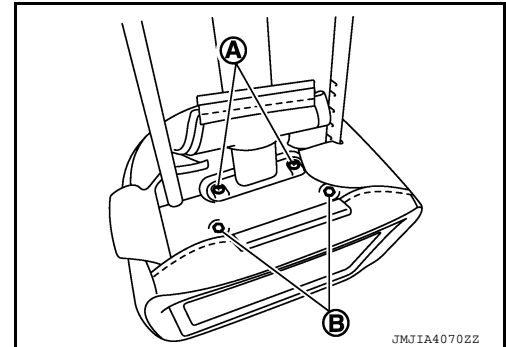
CAUTION:

- Do not press on the panel surface of display (glass area).
- Do not press or pull out the movable part of display.

1. Remove the headrest trim retainer (A).

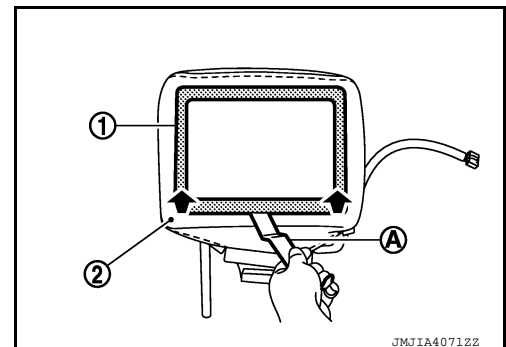


2. Remove the headrest display harness and upper tube screws (A), then remove headrest display unit bolts (B).



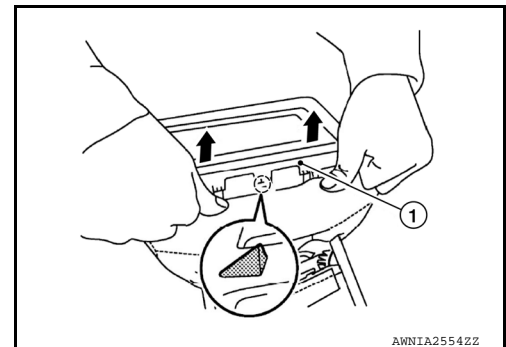
3. Remove the headrest display escutcheon and headrest display.

a. Insert a suitable tool (A) between lower side of headrest display escutcheon (1) and headrest trim (2) and pull out lower side of escutcheon.



b. Pull out headrest display escutcheon (1) to the position that pawl is visible and disengage pawl.

○: Pawl



c. Pull out lower side of headrest display escutcheon from headrest.

HEADREST DISPLAY UNIT

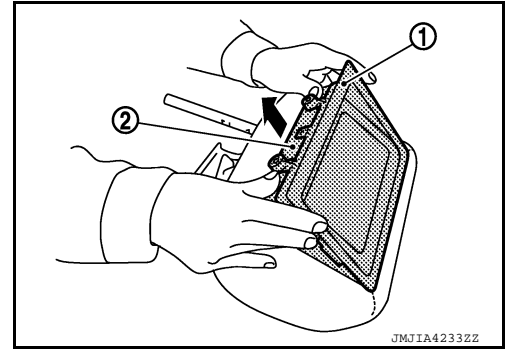
[PREMIUM AUDIO WITH NAVIGATION]

< REMOVAL AND INSTALLATION >

CAUTION:

Be careful not to damage pawls on upper side headrest display escutcheon.

- d. Pull downward and remove headrest display escutcheon (1) and headrest display unit (2) by pulling them out and removing pins on upper side of display.



- e. Disconnect inner harness connector.
- f. Press headrest display escutcheon to the headrest display unit side. Disconnect pawls on upper side and remove headrest display escutcheon.
- 4. Remove the headrest display harness upper tube from headrest trim.

INSTALLATION

Installation is in the reverse order of removal.

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AV

BOSE SPEAKER AMP

< REMOVAL AND INSTALLATION >

[PREMIUM AUDIO WITH NAVIGATION]

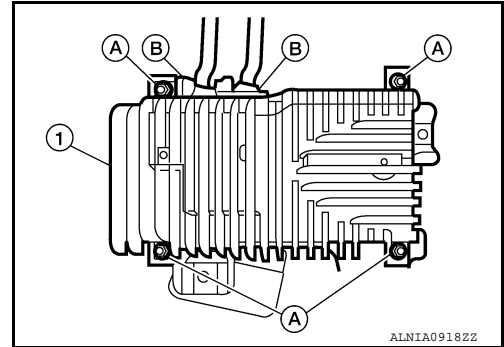
BOSE SPEAKER AMP

Removal and Installation

INFOID:000000008950011

REMOVAL

1. Disconnect the negative battery terminal. Refer to [PG-89, "Removal and Installation"](#)
2. Remove third row seat. Refer to [SE-100, "Removal and Installation"](#).
3. Remove Bose speaker amp screws (A).
4. Disconnect the harness connectors (B) from the Bose speaker amp. and remove.



INSTALLATION

Installation is in the reverse order of removal.

FRONT DOOR SPEAKER

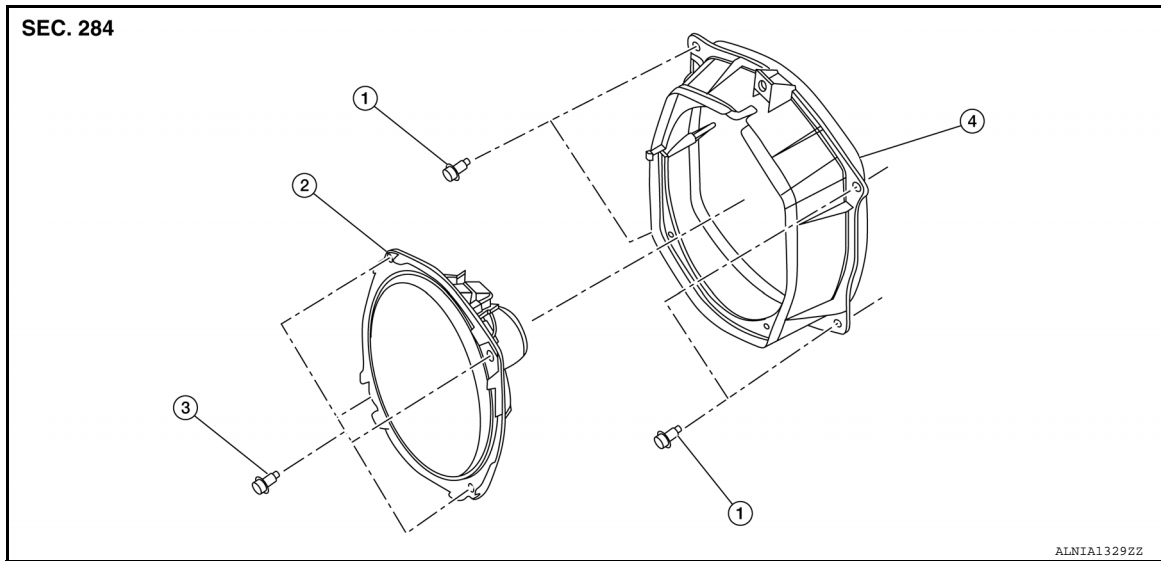
< REMOVAL AND INSTALLATION >

[PREMIUM AUDIO WITH NAVIGATION]

FRONT DOOR SPEAKER

Exploded View

INFOID:000000008950012



- 1. Speaker bracket bolt
- 2. Front door speaker
- 3. Speaker bolt
- 4. Speaker bracket

Removal and Installation

INFOID:000000008950013

REMOVAL

1. Remove the front door finisher. Refer to [INT-15, "Removal and Installation"](#).
2. Remove the front door speaker bolts.
3. Pull out the front door speaker from the speaker bracket.
4. Disconnect the harness connector from front door speaker and remove.
5. Remove speaker bracket bolts and the speaker bracket from front door.

INSTALLATION

Installation is in the reverse order of removal.

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FRONT TWEETER

< REMOVAL AND INSTALLATION >

[PREMIUM AUDIO WITH NAVIGATION]

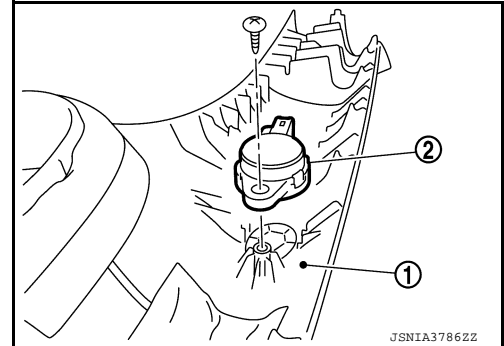
FRONT TWEETER

Removal and Installation

INFOID:000000008950014

REMOVAL

1. Remove the front pillar finisher (1). Refer to [INT-17, "FRONT PILLAR FINISHER : Removal and Installation"](#)
2. Remove the two screws and the front tweeter (2).



INSTALLATION

Installation is in the reverse order of removal.

INSTRUMENT PANEL SPEAKER/TWEETER

< REMOVAL AND INSTALLATION >

[PREMIUM AUDIO WITH NAVIGATION]

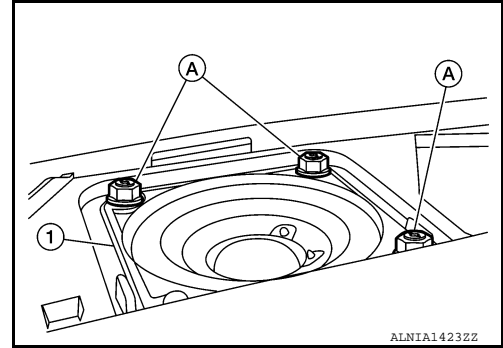
INSTRUMENT PANEL SPEAKER/TWEETER

Removal and Installation

INFOID:000000008950015

REMOVAL

1. Remove instrument panel tweeter grille. Refer to [IP-14, "Exploded View"](#).
2. Remove the bolts (A), then pull out the instrument panel tweeter (1).
3. Disconnect the harness connector from the instrument panel tweeter (1) and remove.



INSTALLATION

Installation is in the reverse order of removal.

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CENTER SPEAKER

< REMOVAL AND INSTALLATION >

[PREMIUM AUDIO WITH NAVIGATION]

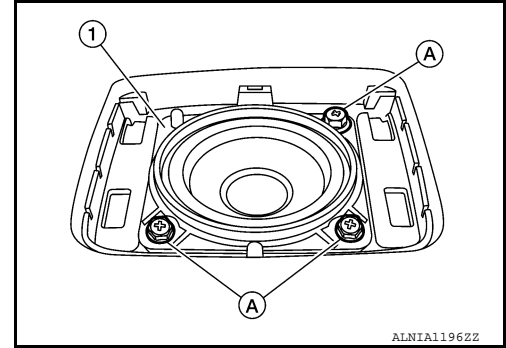
CENTER SPEAKER

Removal and Installation

INFOID:000000008950016

REMOVAL

1. Remove center speaker grille. Refer to [IP-14, "Exploded View"](#).
2. Remove the center speaker bolts (A).
3. Pull out the center speaker (1).
4. Disconnect the harness connector from the center speaker and remove.



INSTALLATION

Installation is in the reverse order of removal.

REAR DOOR SPEAKER

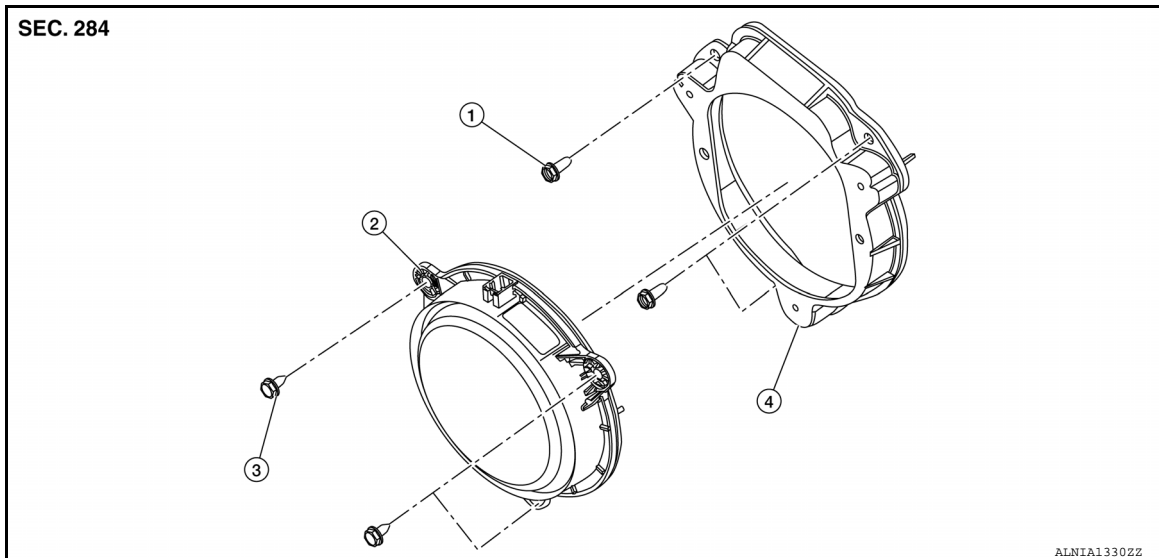
< REMOVAL AND INSTALLATION >

[PREMIUM AUDIO WITH NAVIGATION]

REAR DOOR SPEAKER

Exploded View

INFOID:000000008950017



- 1. Speaker bracket bolt
- 2. Rear door speaker
- 3. Speaker bolt
- 4. Speaker bracket

Removal and Installation

INFOID:000000008950018

REMOVAL

1. Remove rear door finisher. Refer to [INT-16, "Removal and Installation"](#).
2. Remove rear door speaker bolts.
3. Disconnect the harness connector from the rear door speaker and remove.
4. Remove speaker bracket bolts and the speaker bracket from the rear door.

INSTALLATION

Installation is in the reverse order of removal.

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REAR SPEAKERS

< REMOVAL AND INSTALLATION >

[PREMIUM AUDIO WITH NAVIGATION]

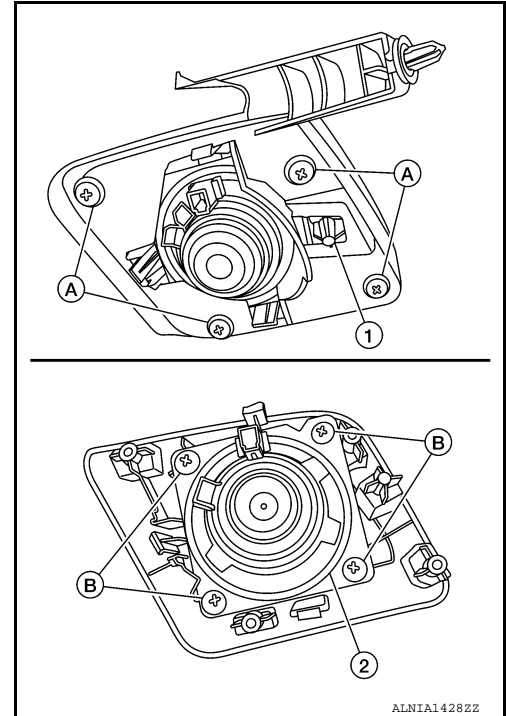
REAR SPEAKERS

Removal and Installation

INFOID:000000008950020

REMOVAL

1. Remove the luggage side lower finisher. Refer to [INT-28, "LUGGAGE SIDE LOWER FINISHER : Removal and Installation"](#).
2. Remove rear side speaker screws (A), then remove the rear side and grille assembly (1) from the luggage side lower finisher.
3. Remove the screws (B) from the rear side speaker grille, then remove the rear side speaker (2).



INSTALLATION

Installation is in the reverse order of removal.

SUBWOOFER

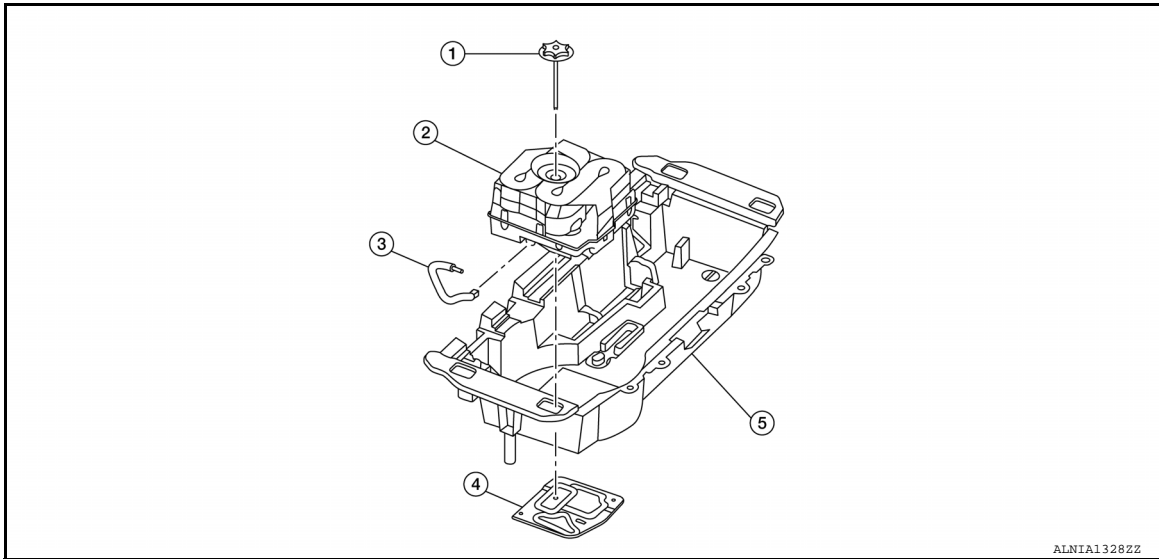
< REMOVAL AND INSTALLATION >

[PREMIUM AUDIO WITH NAVIGATION]

SUBWOOFER

Exploded View

INFOID:000000008950021



ALNIA1328ZZ

1. Spare tire clamp
4. Bracket

2. Subwoofer
5. Rear storage box

3. Harness

Removal and Installation

INFOID:000000008950022

REMOVAL

1. Open the storage box lid.
2. Remove the spare tire clamp.
3. Lift the subwoofer to disconnect the harness connector and remove.

INSTALLATION

Installation is in the reverse order of removal.

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AV

USB CONNECTOR

< REMOVAL AND INSTALLATION >

[PREMIUM AUDIO WITH NAVIGATION]

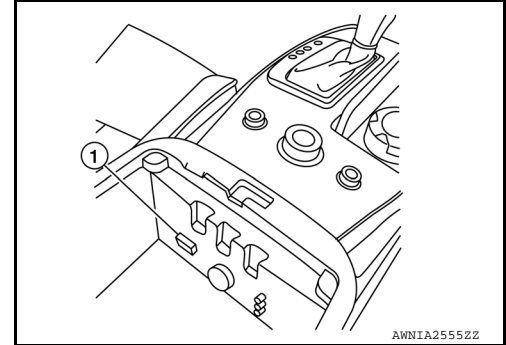
USB CONNECTOR

Removal and Installation

INFOID:000000008950023

REMOVAL

1. Remove CVT shift selector finisher. Refer to [IP-18, "Exploded View"](#).
2. Disconnect the harness connector from the USB interface.
3. Release the pawl from the back of USB interface (1), then remove USB interface (1).



INSTALLATION

Installation is in the reverse order of removal.

FRONT AUXILIARY INPUT JACKS

< REMOVAL AND INSTALLATION >

[PREMIUM AUDIO WITH NAVIGATION]

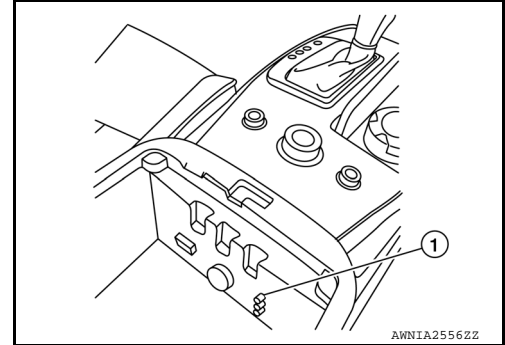
FRONT AUXILIARY INPUT JACKS

Removal and Installation

INFOID:000000008950024

REMOVAL

1. Remove CVT shift selector finisher. Refer to [IP-18. "Exploded View"](#).
2. Disconnect the harness connector from the front auxiliary input jack.
3. Remove front auxiliary input jack screws and the front auxiliary input jack (1).



INSTALLATION

Installation is in the reverse order of removal.

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MICROPHONE

< REMOVAL AND INSTALLATION >

[PREMIUM AUDIO WITH NAVIGATION]

MICROPHONE

Removal and Installation

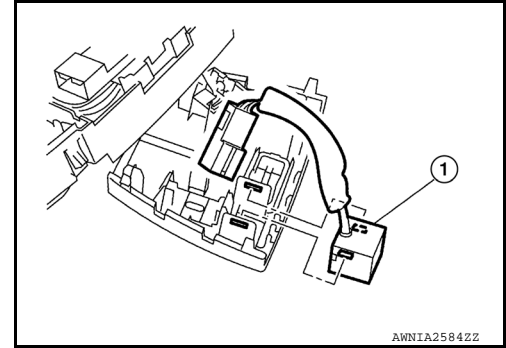
INFOID:000000008951996

REMOVAL

1. Remove the front room/map lamp assembly. Refer to [INL-57. "Removal and Installation"](#).
2. Remove the microphone (1) from the front room/map lamp assembly.

CAUTION:

Carefully handle the pawl that retains the microphone to avoid damaging.



INSTALLATION

Installation is in the reverse order of removal.

NOTE:

Make sure the microphone is firmly secure after installation.

AROUND VIEW MONITOR CONTROL UNIT

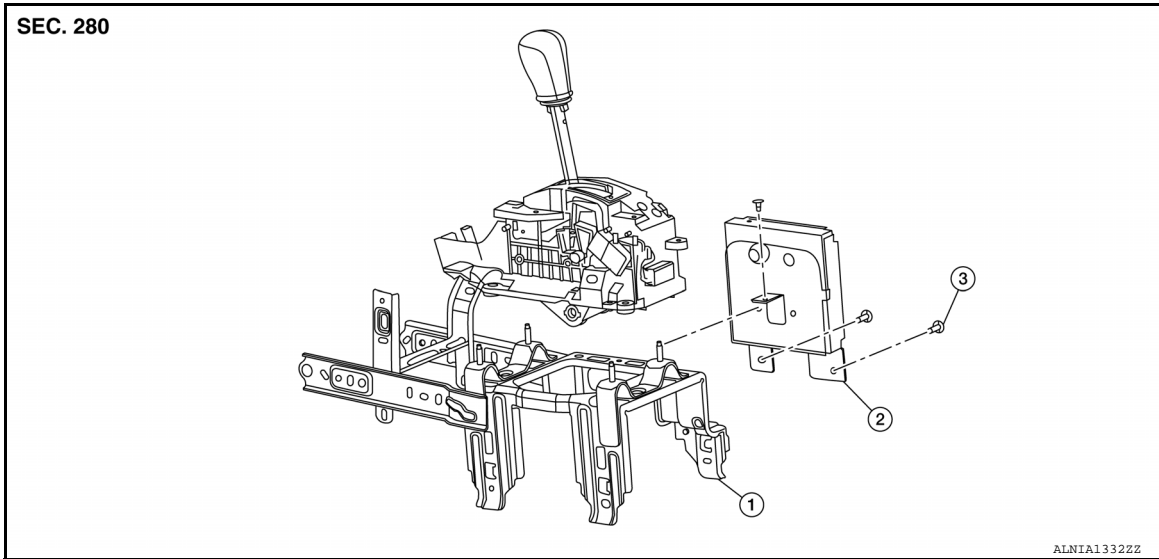
< REMOVAL AND INSTALLATION >

[PREMIUM AUDIO WITH NAVIGATION]

AROUND VIEW MONITOR CONTROL UNIT

Exploded View

INFOID:000000008950025



1. Bracket 2. Around view monitor control unit 3. Screw

Removal and Installation

INFOID:000000008950026

REMOVAL

1. Remove the center console. Refer to [IP-18, "Removal and Installation"](#).
2. Remove the around view monitor control unit screws.
3. Disconnect the harness connector from around view monitor control unit and remove.

INSTALLATION

Installation is in the reverse order of removal.

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FRONT CAMERA

< REMOVAL AND INSTALLATION >

[PREMIUM AUDIO WITH NAVIGATION]

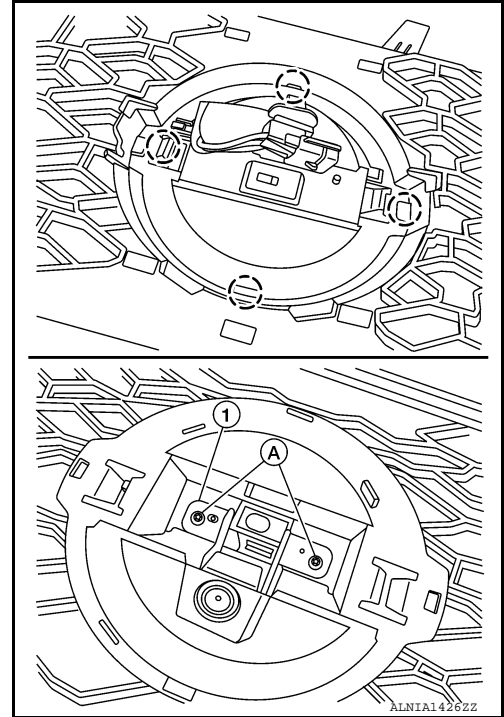
FRONT CAMERA

Removal and Installation

INFOID:000000008950027

REMOVAL

1. Remove the front grille. Refer to [EXT-23. "Removal and Installation"](#).
2. Release the emblem pawls and remove.
○: Pawl
3. Remove the front camera screws (A) and the front camera (1) from the front grille.



INSTALLATION

Installation is in the reverse order of removal.

REAR CAMERA

< REMOVAL AND INSTALLATION >

[PREMIUM AUDIO WITH NAVIGATION]

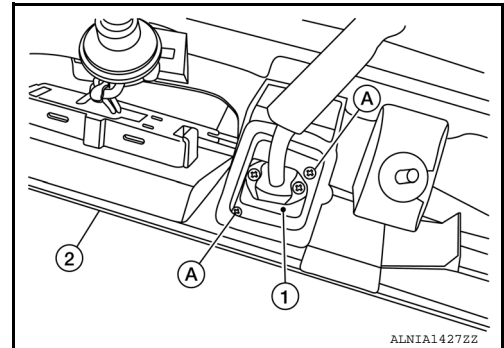
REAR CAMERA

Removal and Installation

INFOID:000000008950028

REMOVAL

1. Remove the back door outer finisher (2). Refer to [EXT-43](#), "[Removal and Installation](#)".
2. Remove the rear camera screws (A) and the rear camera (1).



INSTALLATION

Installation is in the reverse order of removal.

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AV

SIDE CAMERA

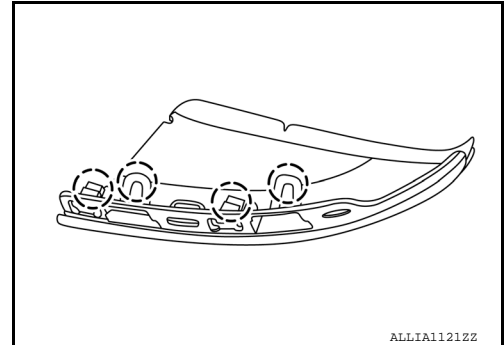
Removal and Installation

INFOID:000000008950029

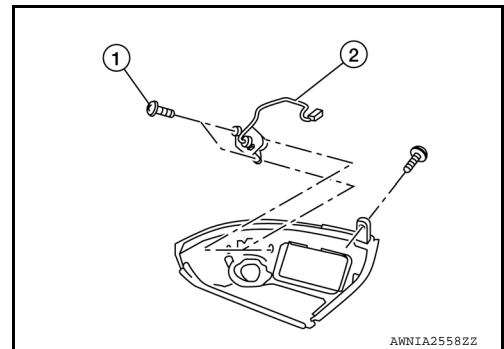
REMOVAL

1. Remove the door mirror. Refer to [MIR-17, "Removal and Installation"](#).
2. Remove the door mirror rear finisher. Refer to [MIR-19, "Removal and Installation"](#).
3. Release the side camera finisher pawls using a suitable tool, disconnect the harness connector from the side camera, then remove the side camera finisher.

○: Pawl



4. Remove the screws (1) and the side camera (2).



INSTALLATION

Installation is in the reverse order of removal.

VIDEO DISTRIBUTOR

< REMOVAL AND INSTALLATION >

[PREMIUM AUDIO WITH NAVIGATION]

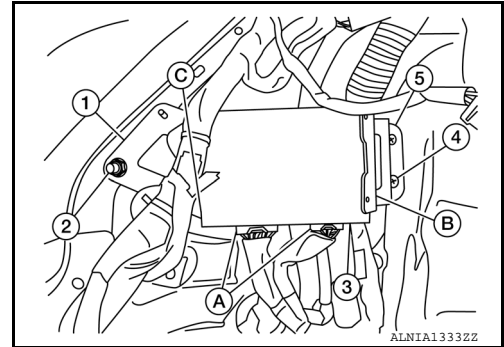
VIDEO DISTRIBUTOR

Removal and Installation

INFOID:000000008950030

REMOVAL

1. Remove the luggage side lower finisher (LH). Refer to [INT-28. "LUGGAGE SIDE LOWER FINISHER : Removal and Installation"](#).
2. Disconnect the video distributor harness connectors (A).
3. Remove the video distributor nuts (2) and bolts (4).
4. Remove the video distributor (3) and brackets (1, 5) from the vehicle as a single unit.
5. Remove screws (B, C), then remove video distributor (3).



INSTALLATION

Installation is in the reverse order of removal.

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REAR AUXILIARY INPUT JACKS

< REMOVAL AND INSTALLATION >

[PREMIUM AUDIO WITH NAVIGATION]

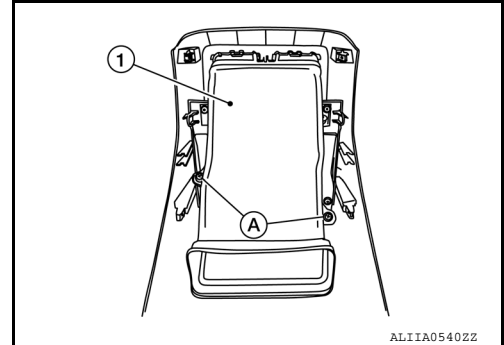
REAR AUXILIARY INPUT JACKS

Removal and Installation

INFOID:000000008950031

REMOVAL

1. Remove the center console rear finisher. Refer to [JP-18. "Exploded View"](#).
2. Remove the screws (A) from the center ventilator duct (1).



3. Remove the center ventilator duct.
4. Remove rear auxiliary input jack screws and the rear auxiliary input jack.

INSTALLATION

Installation is in the reverse order of removal.

AUDIO ANTENNA

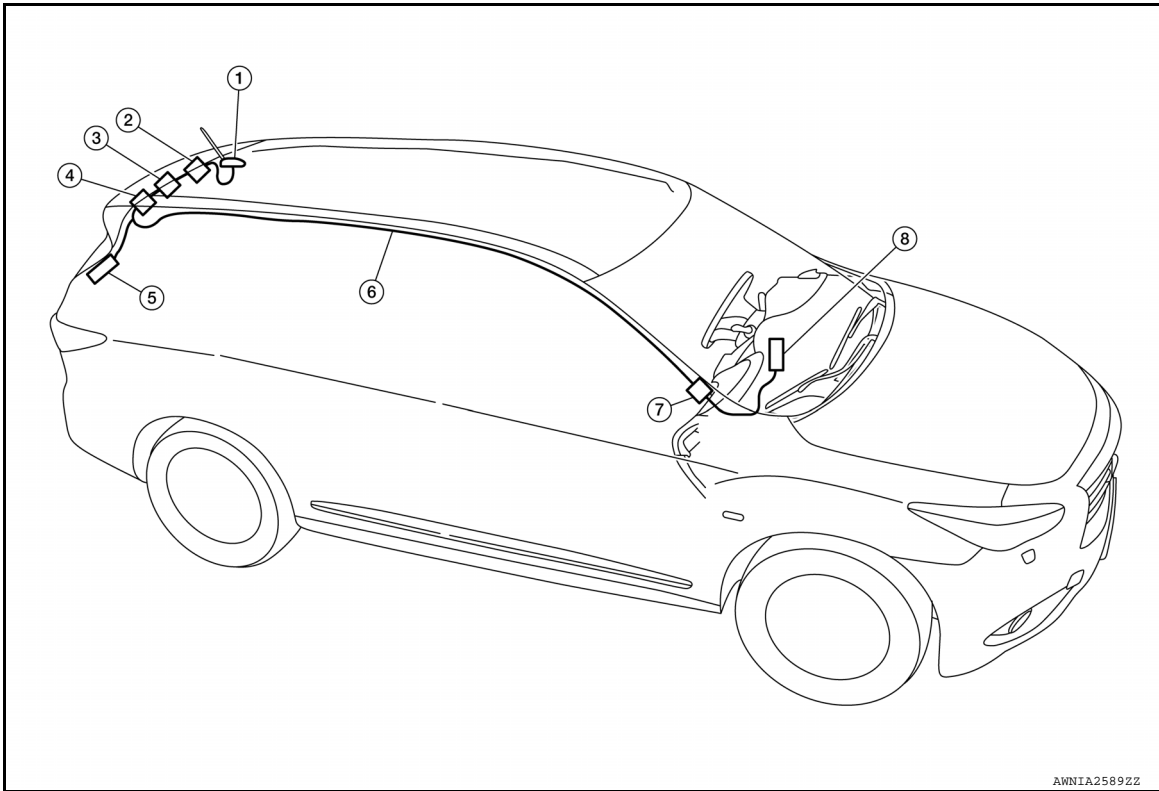
< REMOVAL AND INSTALLATION >

[PREMIUM AUDIO WITH NAVIGATION]

AUDIO ANTENNA

Location of Antennas

INFOID:000000008950035



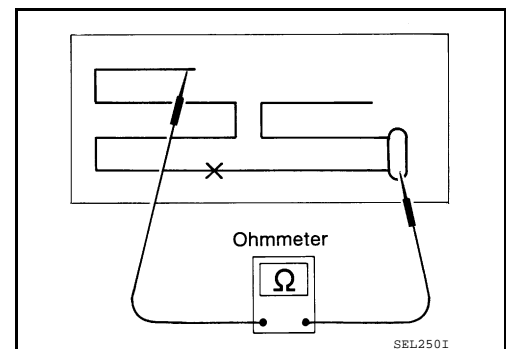
- | | | |
|---|-------------------------------|-------------------|
| 1. Antenna base (satellite antenna and antenna amp) | 2. M502 | 3. M501 |
| 4. M503, M504 | 5. M505 | 6. Antenna Feeder |
| 7. M95, M151, M500, M509 | 8. AV control unit M155, M156 | |

Window Antenna Repair

INFOID:000000008950036

ELEMENT CHECK

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



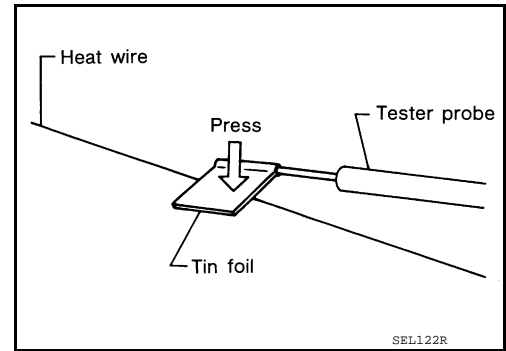
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AUDIO ANTENNA

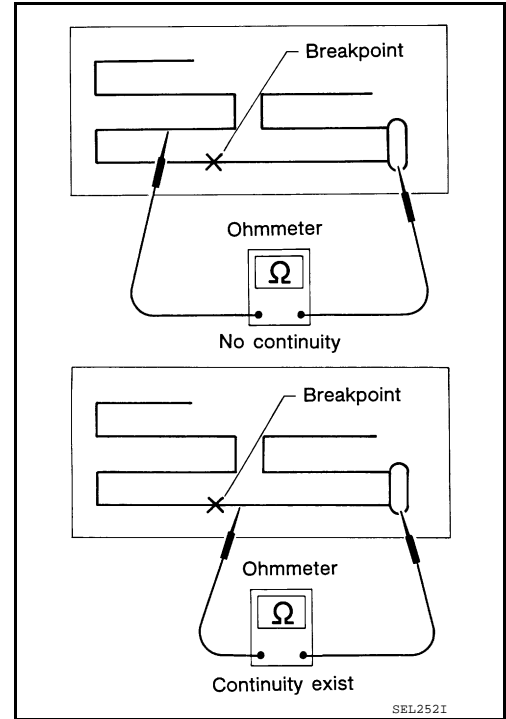
< REMOVAL AND INSTALLATION >

[PREMIUM AUDIO WITH NAVIGATION]

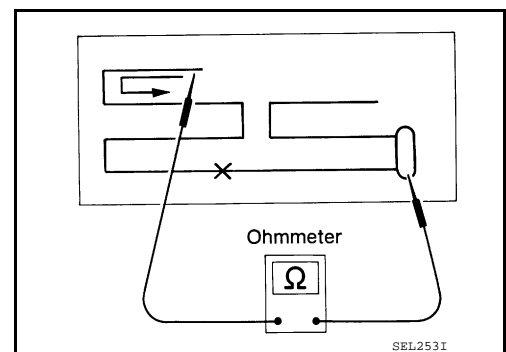
- When measuring continuity, wrap tin foil around the top of probe. Then, press the foil against the wire with your finger.



2. If an element is broken, no continuity will exist.



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



GPS ANTENNA

< REMOVAL AND INSTALLATION >

[PREMIUM AUDIO WITH NAVIGATION]

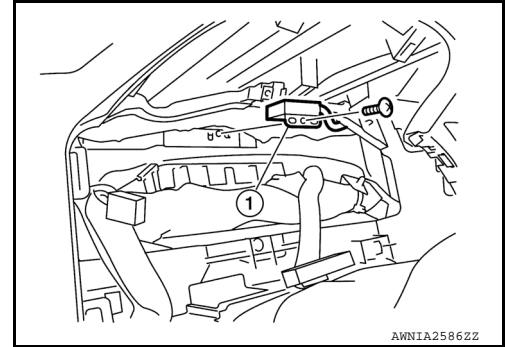
GPS ANTENNA

Removal and Installation

INFOID:000000008950037

REMOVAL

1. Remove the AV control unit. Refer to [AV-587, "Removal and Installation"](#).
2. Remove the combination meter. Refer to [MWI-82, "Removal and Installation"](#).
3. Release the harness feeder clips.
4. Remove GPS antenna screw and the GPS antenna (1).



INSTALLATION

Installation is in the reverse order of removal.

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SATELLITE RADIO ANTENNA

< REMOVAL AND INSTALLATION >

[PREMIUM AUDIO WITH NAVIGATION]

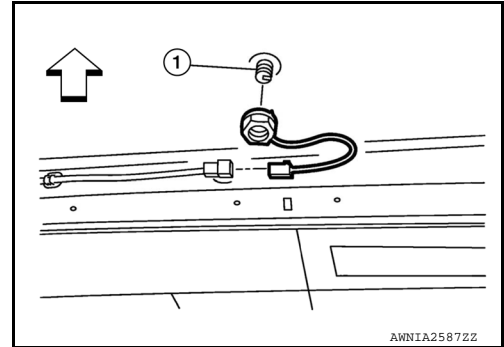
SATELLITE RADIO ANTENNA

Removal and Installation

INFOID:000000008950038

REMOVAL

1. Lower headlining (rear). Refer to [INT-24, "Removal and Installation"](#).
2. Disconnect harness connector from antenna feeder.
3. Remove nut from satellite radio antenna (1) and remove.
↳ Front



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

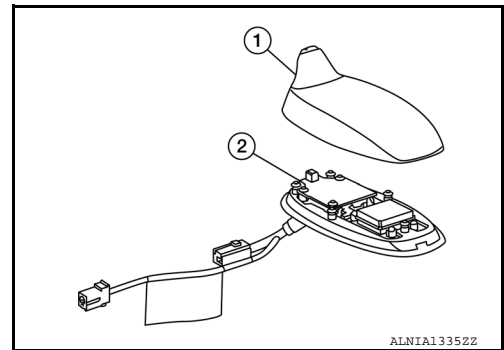
If the satellite radio antenna nut is not tightened to the specified torque, lower sensitivity of the antenna may be experienced. If the nut is tightened tighter than the specified torque, this will deform the roof panel.

Disassembly and Assembly

INFOID:000000008950039

DISASSEMBLY

Insert a suitable tool into gaps between satellite radio antenna (2) and the cover (1), then remove the cover (1) from satellite radio antenna (2).



ASSEMBLY

Assembly is in the reverse order of disassembly.