

SECTION **AV**

AUDIO, VISUAL & NAVIGATION SYSTEM

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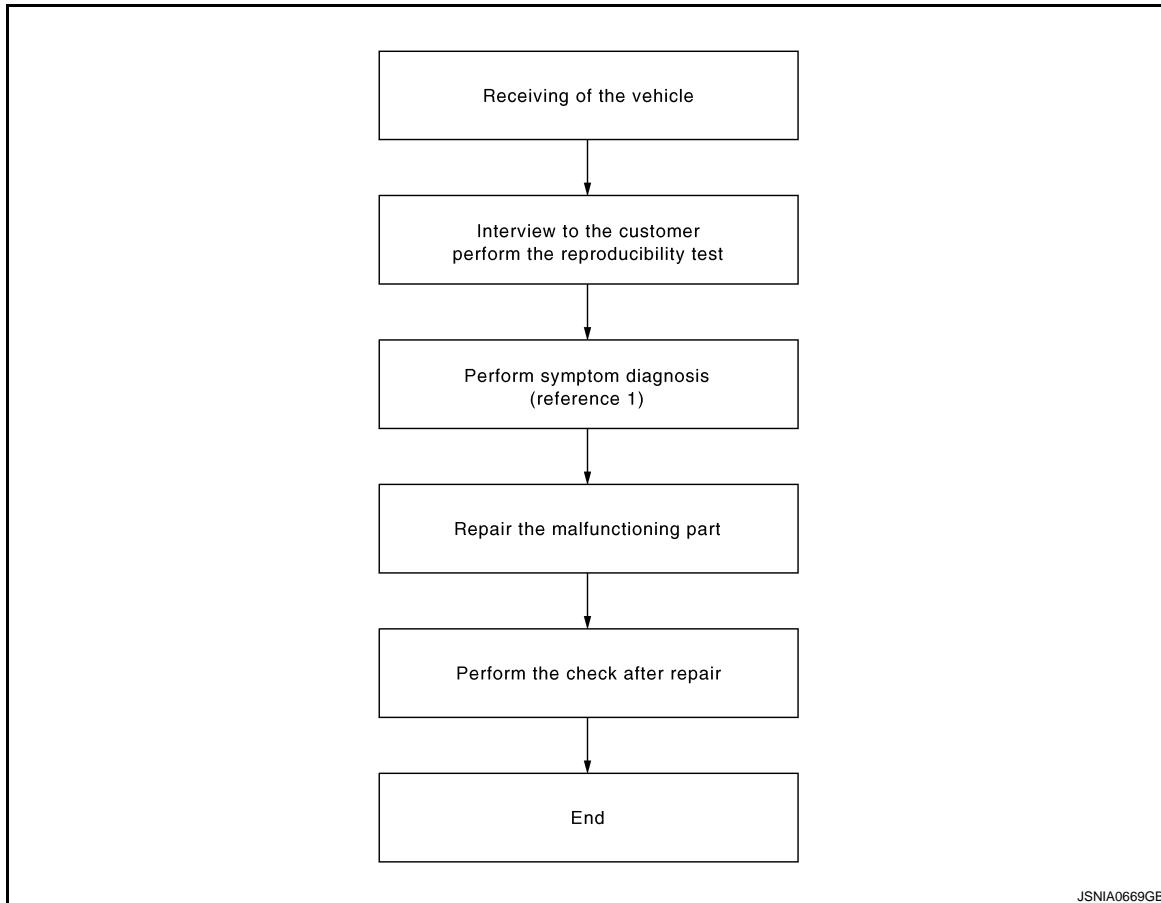
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BASIC INSPECTION**DIAGNOSIS AND REPAIR WORKFLOW****Work Flow**

INFOID:000000004497923

OVERALL SEQUENCEReference 1 ... Refer to [AV-25, "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.PERFORM DIAGNOSIS BY SYMPTOMPerform the relevant diagnosis referring to the diagnosis chart by symptom. Refer to [AV-25, "Symptom Table"](#).

>> GO TO 3.

3.REPAIR OR REPLACE MALFUNCTIONING PARTS

Repair or replace the malfunctioning parts.

>> GO TO 4.

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[BASE AUDIO]

4.FINAL CHECK

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

Is there any symptom?

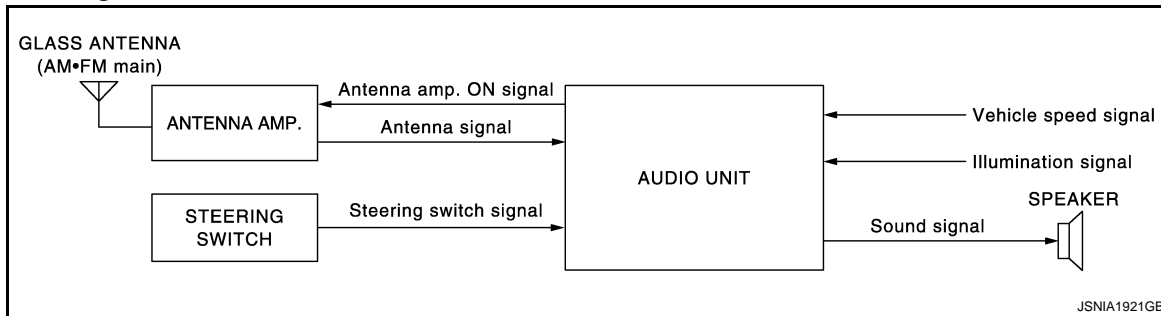
YES >> GO TO 2.

NO >> INSPECTION END

FUNCTION DIAGNOSIS

AUDIO SYSTEM

System Diagram



System Description

INFOID:0000000004497925

AUDIO SYSTEM

Audio functions

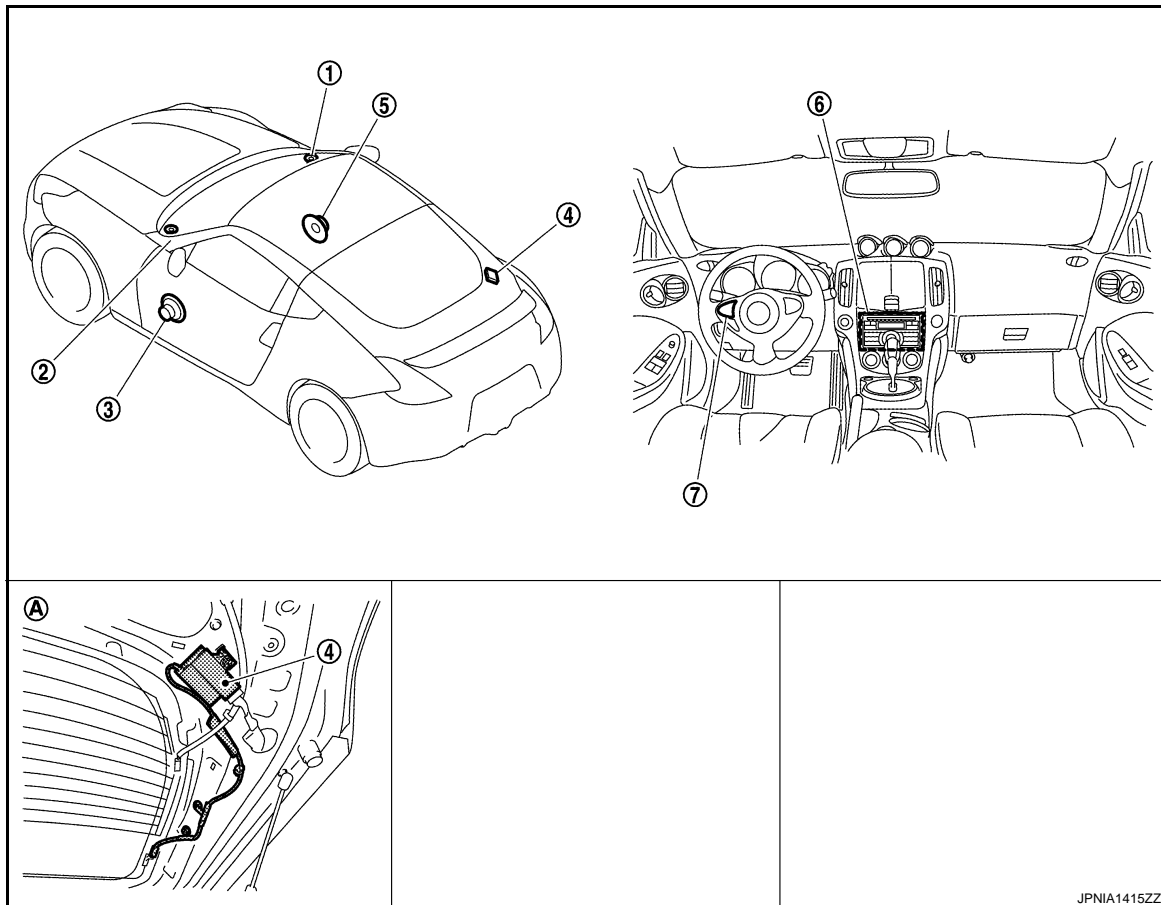
AM/FM radio

CD

- Radio signal are received by glass antenna, next it is amplified by antenna amp., and finally it is input to audio unit.
- Audio unit outputs the audio signal to each speaker.

Component Parts Location

INFOID:0000000004497926



AUDIO SYSTEM

< FUNCTION DIAGNOSIS >

[BASE AUDIO]

- | | | |
|----------------------|--------------------------|--------------------------|
| 1. Tweeter RH | 2. Tweeter LH | 3. Front door speaker LH |
| 4. Antenna amp. | 5. Front door speaker RH | 6. Audio unit |
| 7. Steering switch | | |
| A. Back door side RH | | |

Component Description

INFOID:000000004497927

Part name	Description
AUDIO UNIT	Controls audio system functions.
FRONT DOOR SPEAKER	<ul style="list-style-type: none">• Outputs sound signal from audio unit.• Outputs high, mid and low range sounds.
TWEETER	<ul style="list-style-type: none">• Outputs sound signal from audio unit.• Outputs high range sounds.
ANTENNA AMP.	<ul style="list-style-type: none">• Radio signal received by glass antenna is amplified and sent to audio unit.• Antenna amp. ON signal is supplied from audio unit.
STEERING SWITCH	<ul style="list-style-type: none">• Each audio operation can be operated.• Steering switch signal (operation signal) is output to audio unit.

DIAGNOSIS SYSTEM (AUDIO UNIT)

Diagnosis Description

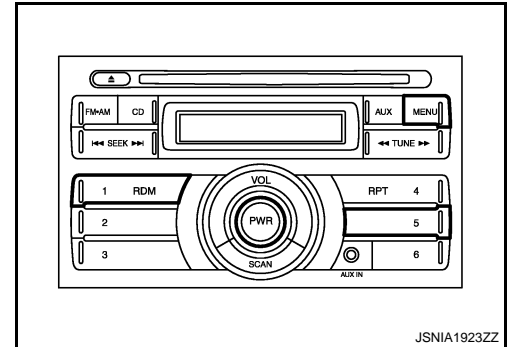
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Self-diagnosis mode can check the following items.

- Audio unit software versions

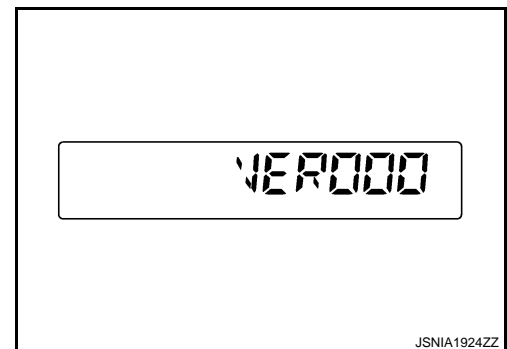
OPERATION PROCEDURE

1. Turn ignition switch to the ON position.
2. Turn the audio unit off.
3. While pressing the "MENU", "1", "5", "PWR" button, the self-diagnosis mode is started. When the self-diagnosis mode is started, a short beep will be heard.



Software Version Check

1. Press the "PWR" switch to enter version diagnostics. "Audio software version is displayed.
2. Press the "PWR" switch again to display the CD changer version is displayed. When not connect it, "FF"



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AV

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

INFOID:000000004499394

1.CHECK FUSE

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

Power source	Fuse No.
Battery	34
Ignition switch ACC or ON	19

Is inspection result OK?

YES >> GO TO 2.

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

2.CHECK AUDIO UNIT POWER SUPPLY CIRCUIT

Check voltage between the audio unit and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Voltage
Battery power supply	M81	19	OFF	Battery voltage
ACC power supply		7	ACC	Battery voltage

Is inspection result OK?

YES >> INSPECTION END

NO >> Check harness between audio unit and fuse.

STEERING SWITCH SIGNAL A CIRCUIT

< COMPONENT DIAGNOSIS >

[BASE AUDIO]

STEERING SWITCH SIGNAL A CIRCUIT

Description

INFOID:000000004499413

Transmits the steering switch signal to audio unit.

Diagnosis Procedure

INFOID:000000004499414

1.CHECK STEERING SWITCH SIGNAL A CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect audio unit connector and spiral cable connector.
3. Check continuity between audio unit harness connector and spiral cable harness connector.

Audio unit		Spiral cable		Continuity
Connector	Terminal	Connector	Terminal	
M80	6	M36	24	Existed

4. Check continuity between audio unit harness connector and ground.

Audio unit		Ground	Continuity
Connector	Terminal		
M80	6		Not existed

Is the inspection result normal?

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

2.CHECK SPIRAL CABLE

Check spiral cable.

Is the inspection result normal?

- YES >> GO TO 3.
NO >> Replace spiral cable.

3.CHECK AUDIO UNIT VOLTAGE

1. Connect audio unit connector and spiral cable connector.
2. Turn ignition switch ON.
3. Check voltage between audio unit harness connector.

(+) Audio unit		(-) Audio unit		Voltage (Approx.)
Connector	Terminal	Connector	Terminal	
M80	6	M80	15	5.0 V

Is the inspection result normal?

- YES >> GO TO 4.
NO >> Replace audio unit.

4.CHECK STEERING SWITCH

1. Turn ignition switch OFF.
2. Check steering switch. Refer to [AV-14, "Component Inspection"](#).

Is the inspection result normal?

- YES >> INSPECTION END
NO >> Replace steering switch.

STEERING SWITCH SIGNAL A CIRCUIT

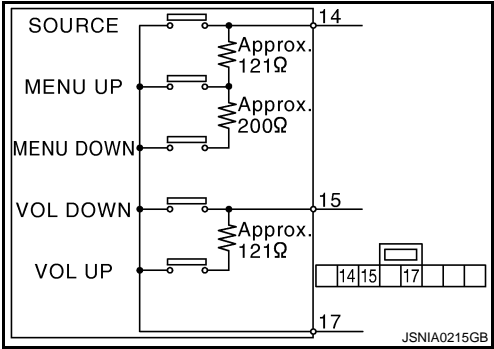
< COMPONENT DIAGNOSIS >

[BASE AUDIO]

Component Inspection

INFOID:000000004499415

Measure the resistance between the steering switch connector.



Standard

Steering switch		Condition	Resistance Ω
Terminal	Terminal		
14	17	MENU DOWN switch ON	315 – 327
		MENU UP switch ON	119 – 123
		SOURCE switch ON	0
15	17	VOL UP switch ON	119 – 123
		VOL DOWN switch ON	0

STEERING SWITCH SIGNAL B CIRCUIT

< COMPONENT DIAGNOSIS >

[BASE AUDIO]

STEERING SWITCH SIGNAL B CIRCUIT

Description

INFOID:000000004528564

Transmits the steering switch signal to audio unit.

Diagnosis Procedure

INFOID:000000004528600

1.CHECK STEERING SWITCH SIGNAL B CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect audio unit connector and spiral cable connector.
3. Check continuity between audio unit harness connector and spiral cable harness connector.

Audio unit		Spiral cable		Continuity
Connector	Terminal	Connector	Terminal	
M80	16	M36	31	Existed

4. Check continuity between audio unit harness connector and ground.

Audio unit		Ground	Continuity
Connector	Terminal		
M80	16		Not existed

Is the inspection result normal?

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

2.CHECK SPIRAL CABLE

Check spiral cable.

Is the inspection result normal?

- YES >> GO TO 3.
NO >> Replace spiral cable.

3.CHECK AUDIO UNIT VOLTAGE

1. Connect audio unit connector and spiral cable connector.
2. Turn ignition switch ON.
3. Check voltage between audio unit harness connector.

(+) Audio unit		(-) Audio unit		Voltage (Approx.)
Connector	Terminal	Connector	Terminal	
M80	16	M80	15	5.0 V

Is the inspection result normal?

- YES >> GO TO 4.
NO >> Replace audio unit.

4.CHECK STEERING SWITCH

1. Turn ignition switch OFF.
2. Check steering switch. Refer to [AV-16. "Component Inspection"](#).

Is the inspection result normal?

- YES >> INSPECTION END
NO >> Replace steering switch.

STEERING SWITCH SIGNAL B CIRCUIT

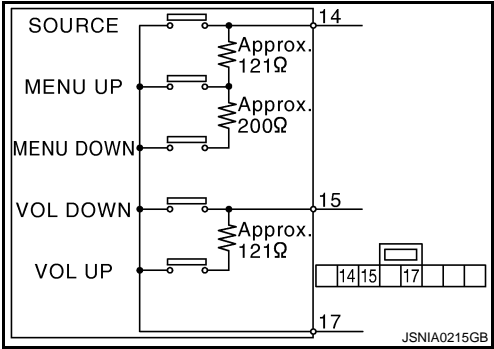
< COMPONENT DIAGNOSIS >

[BASE AUDIO]

Component Inspection

INFOID:000000004528596

Measure the resistance between the steering switch connector.



Standard

Steering switch		Condition	Resistance Ω
Terminal	Terminal		
14	17	MENU DOWN switch ON	315 – 327
		MENU UP switch ON	119 – 123
		SOURCE switch ON	0
15		VOL UP switch ON	119 – 123
		VOL DOWN switch ON	0

STEERING SWITCH SIGNAL GND CIRCUIT

< COMPONENT DIAGNOSIS >

[BASE AUDIO]

STEERING SWITCH SIGNAL GND CIRCUIT

Description

INFOID:000000004528598

Transmits the steering switch signal to audio unit.

Diagnosis Procedure

INFOID:000000004528601

1.CHECK STEERING SWITCH SIGNAL A CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect audio unit connector and spiral cable connector.
3. Check continuity between audio unit harness connector and spiral cable harness connector.

Audio unit		Spiral cable		Continuity
Connector	Terminal	Connector	Terminal	
M80	15	M36	33	Existed

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK SPIRAL CABLE

Check spiral cable.

Is the inspection result normal?

YES >> GO TO 3.

NO >> Replace spiral cable.

3.CHECK GROUND CIRCUIT

1. Connect audio unit connector and spiral cable connector.
2. Turn ignition switch ON.
3. Check continuity between audio unit harness connector.

Audio unit		Ground	Continuity
Connector	Terminal		
M80	15		Existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace audio unit.

4.CHECK STEERING SWITCH

Check steering switch. Refer to [AV-18, "Component Inspection"](#).

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace steering switch.

STEERING SWITCH SIGNAL GND CIRCUIT

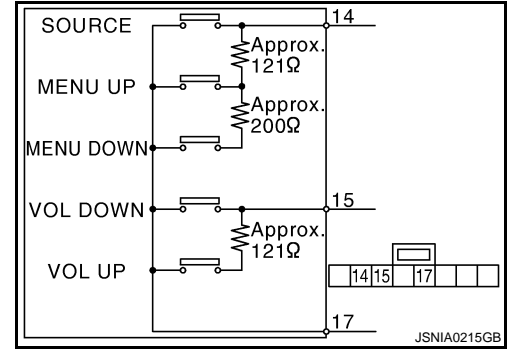
< COMPONENT DIAGNOSIS >

[BASE AUDIO]

Component Inspection

INFOID:000000004528599

Measure the resistance between the steering switch connector.



Standard

Steering switch		Condition	Resistance Ω
Terminal	Terminal		
14	17	MENU DOWN switch ON	315 – 327
		MENU UP switch ON	119 – 123
		SOURCE switch ON	0
15		VOL UP switch ON	119 – 123
		VOL DOWN switch ON	0

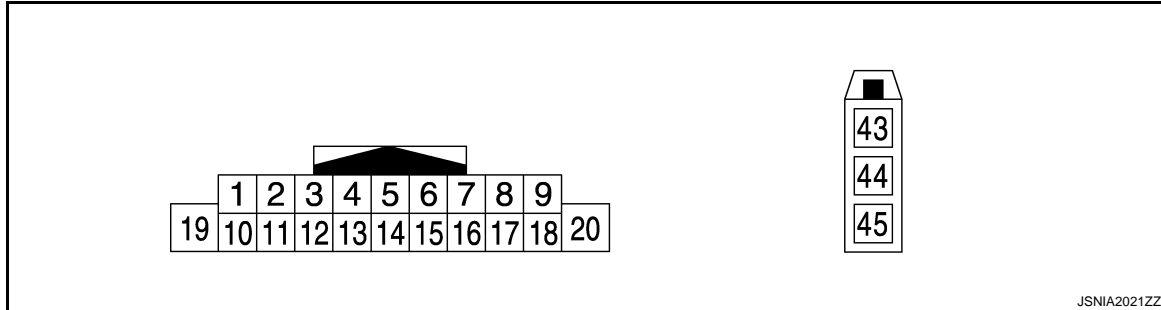
ECU DIAGNOSIS

AUDIO UNIT

Reference Value

INFOID:000000004497939

TERMINAL LAYOUT



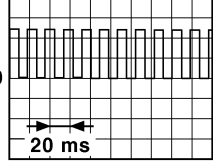
PHYSICAL VALUES

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/ Output			
2 (L)	3 (V)	Sound signal front speaker LH	Output	Ignition switch ON	Audio signal output	 SKIB3609E
6 (P)	15 (B)	Steering switch signal A	Input	Ignition switch ON	Keep pressing SOURCE switch	0 V
					Keep pressing MENU UP switch	1.0 V
					Keep pressing MENU DOWN switch	2.0V
					Except for above	5.0 V
7 (L)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
9 (R)	8 (W)	Illumination signal	Input	Ignition switch OFF	Lighting switch is OFF.	0 V
					Lighting switch is 1ST or 2ND.	12.0 V
11 (V)	12 (LG)	Sound signal front speaker RH	Output	Ignition switch ON	Audio signal output	 SKIB3609E
15 (B)	Ground	Steering switch signal ground	—	Ignition switch ON	—	0 V

AUDIO UNIT

< ECU DIAGNOSIS >

[BASE AUDIO]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
16 (L)	15 (B)	Steering switch signal B	Input	Ignition switch ON	Keep pressing VOL DOWN switch	0 V
					Keep pressing VOL UP switch	1.0 V
					Except for above	5.0 V
18 (Y)	Ground	Vehicle speed signal (8-pulse)	Input	Ignition switch ON	When vehicle speed is ap- prox. 40 km/h (25MPH)	NOTE: The maximum voltage varies de- pending on the specification (destination unit). 
19 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
43	Ground	Antenna amp. ON signal	Output	Ignition switch ON	—	12.0 V
44	—	Antenna signal	Input	—	—	—

JSNIA0012GB

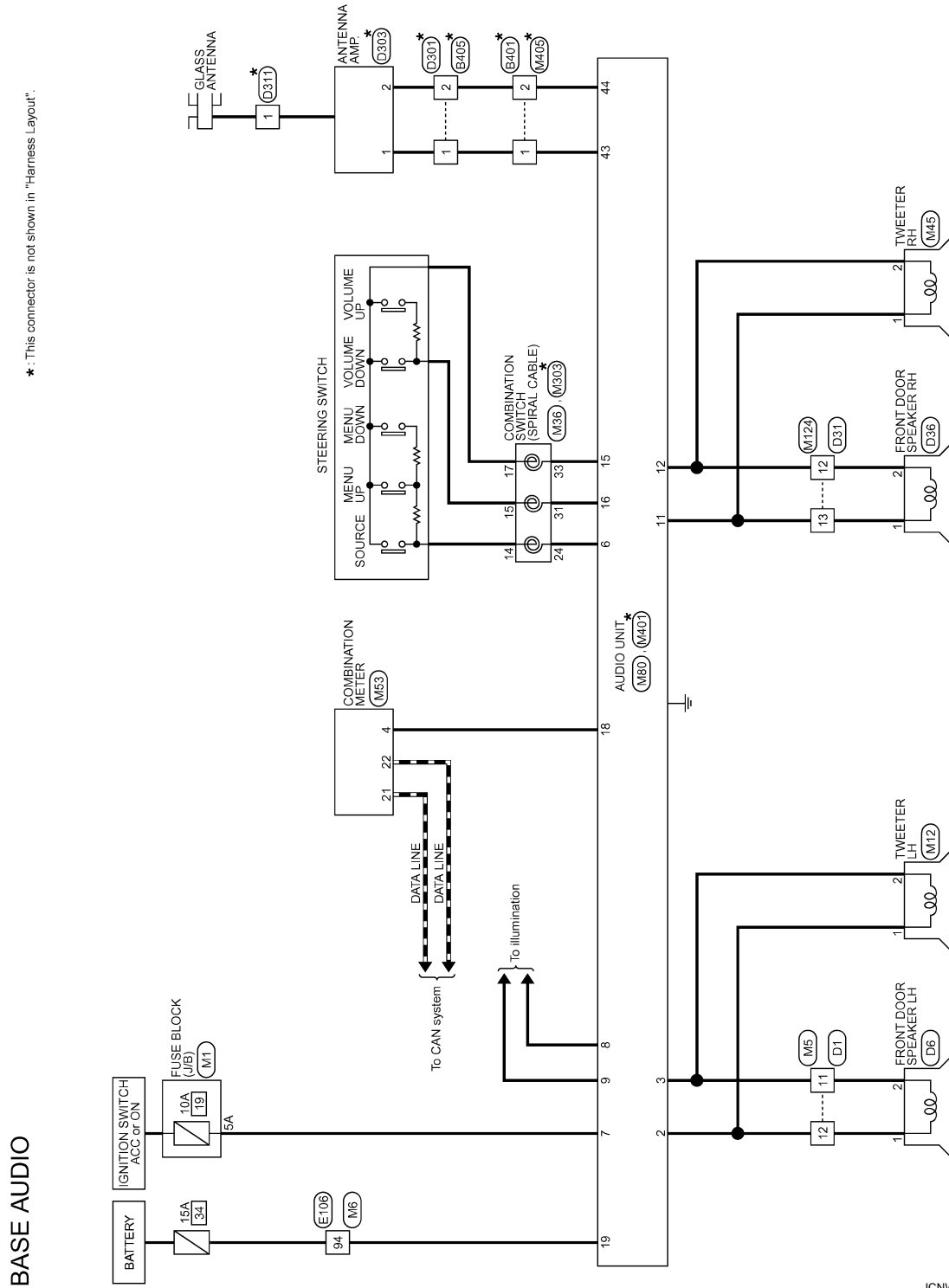
AUDIO UNIT

< ECU DIAGNOSIS >

[BASE AUDIO]

Wiring Diagram - BASE AUDIO -

INFOID:000000004497940



2008/09/12

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AV

BASE AUDIO

Connector No.	B401
Connector Name	WIRE TO WIRE
Connector Type	GT13SCN-1/1PP-HU



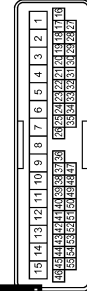
Terminal No.	Color of Wire	Signal Name [Specification]
1	—	—
2	—	—

Connector No.	B405
Connector Name	WIRE TO WIRE
Connector Type	GT13SSN-1/1PP-HU(21)



Terminal No.	Color of Wire	Signal Name [Specification]
1	—	—
2	—	—

Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



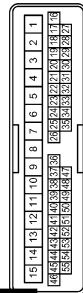
Terminal No.	Color of Wire	Signal Name [Specification]
11	V	— [Without BOSE system]
12	L	—

Connector No.	D6
Connector Name	FRONT DOOR SPEAKER LH
Connector Type	NS02FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	—
2	V	— [Without BOSE system]

Connector No.	D31
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
12	LG	— [Without BOSE system]
13	V	— [Without BOSE system]

Connector No.	D36
Connector Name	FRONT DOOR SPEAKER RH
Connector Type	NS02FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	V	— [Without BOSE system]
2	LG	— [Without BOSE system]

Connector No.	D301
Connector Name	WIRE TO WIRE
Connector Type	GT13SS-1/1S-HU(21)



Terminal No.	Color of Wire	Signal Name [Specification]
1	—	—
2	—	—

Connector No.	D303
Connector Name	ANTENNA AMP.
Connector Type	GT13SC-1/1S-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	—	ANTENNA AMP. ON SIGNAL
2	—	AM-FM MAIN

JCNWA1877GE

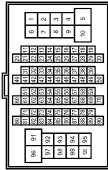
BASE AUDIO

Connector No.	D311
Connector Name	GLASS ANTENNA
Connector Type	P01FB-A



Terminal No.	1
Color of Wire	B
Signal Name [Specification]	-

Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH60FW-CS16-TM4



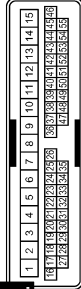
Terminal No.	94
Color of Wire	Y
Signal Name [Specification]	-

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS36FW-M2



Terminal No.	5A
Color of Wire	L
Signal Name [Specification]	-

Connector No.	M5
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-GS15



Terminal No.	11
Color of Wire	V
Signal Name [Specification]	-
Terminal No.	12
Color of Wire	L
Signal Name [Specification]	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH60MW-CS16-TM4



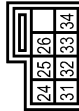
Terminal No.	94
Color of Wire	Y
Signal Name [Specification]	-

Connector No.	M12
Connector Name	TWEETER LH
Connector Type	TK02FBR



Terminal No.	1
Color of Wire	LG
Signal Name [Specification]	-
Terminal No.	2
Color of Wire	V
Signal Name [Specification]	-

Connector No.	M36
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY-IV



Terminal No.	24
Color of Wire	P
Signal Name [Specification]	-
Terminal No.	31
Color of Wire	L
Signal Name [Specification]	-
Terminal No.	33
Color of Wire	B
Signal Name [Specification]	-

Connector No.	M45
Connector Name	TWEETER RH
Connector Type	TK02FBR



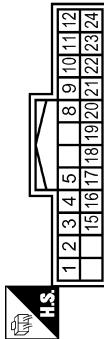
Terminal No.	1
Color of Wire	V
Signal Name [Specification]	-
Terminal No.	2
Color of Wire	LG
Signal Name [Specification]	-

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BASE AUDIO

Connector No.	M53
Connector Name	COMBINATION METER
Connector Type	TH24FW-NH



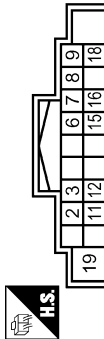
Terminal No.	Color of Wire	Signal Name [Specification]
4	Y	VEHICLE SPEED SIGNAL (3-PULSE)
21	L	CAN-H
22	P	CAN-L

Connector No.	M303
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY



Terminal No.	Color of Wire	Signal Name [Specification]
14	W	—
15	L	—
17	BR	—

Connector No.	M80
Connector Name	AUDIO UNIT
Connector Type	TH18FW-GS2



Terminal No.	Color of Wire	Signal Name [Specification]
2	L	SOUND SIGNAL FRONT SPEAKER LH (+)
3	V	SOUND SIGNAL FRONT SPEAKER LH (-)
6	P	STRG SW A
7	L	ACC
8	W	ILL (-)
9	R	ILL (+)
11	V	SOUND SIGNAL FRONT SPEAKER RH (+)
12	LG	SOUND SIGNAL FRONT SPEAKER RH (-)
15	B	STRG SW GND
16	L	STRG SW B
18	Y	SPEED SIGNAL (BP)

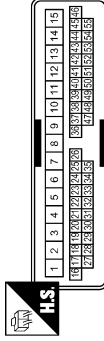
Connector No.	M401
Connector Name	AUDIO UNIT
Connector Type	GT13SH-2/1S-HU



Terminal No.	Color of Wire	Signal Name [Specification]
43	—	ANTENNA AMP. ON SIGNAL
44	—	AM-FM MAIN

19	Y	BATTERY
----	---	---------

Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-GS15



Terminal No.	Color of Wire	Signal Name [Specification]
12	LG	—
13	V	—

Connector No.	M405
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-1/1S-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	—	—
2	—	—

AUDIO SYSTEM

< SYMPTOM DIAGNOSIS >

[BASE AUDIO]

SYMPTOM DIAGNOSIS

AUDIO SYSTEM

Symptom Table

INFOID:000000004497941

AUDIO SYSTEM

Symptoms	Check items	Possible malfunction location / Action to take
Audio sound is not heard.	No sound from all speakers.	Audio unit power supply and ground circuit. Refer to AV-12, "AUDIO UNIT : Diagnosis Procedure" .
	Sound is not heard only from the specific places.	Sound signal circuit of malfunctioning system.

RELATED TO STEERING SWITCH

Symptoms	Possible malfunction location / Action to take
All steering switches are not operated.	Steering switch signal ground circuit. Refer to AV-17, "Diagnosis Procedure" .
Only specified switch cannot be operated.	Replace steering switch.
"MENU UP", "MENU DOWN" and "SOURCE" switches are not operated.	Steering switch signal A circuit. Refer to AV-13, "Diagnosis Procedure" .
"VOL UP" and "VOL DOWN" switches are not operated.	Steering switch signal B circuit. Refer to AV-15, "Diagnosis Procedure" .

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AV

NORMAL OPERATING CONDITION

Description

INFOID:000000004497942

RELATED TO AUDIO

- The majority of the audio malfunctions are the result of outside causes (bad CD, electromagnetic interference, etc.). Check the symptoms below to diagnose the malfunction.
- The vehicle itself can be a source of noise if noise prevention parts or electrical equipment is malfunctioning. Check that noise is caused and/or changed by engine speed, ignition switch turned to each position, and operation of each piece of electrical equipment. Then determine the cause.

NOTE:

Check that the CDs carry the Compact Disc Logo. If not, the disc is not mastered to the red book Compact Disc Standard and may not play.

Symptoms	Cause and Counter measure
Cannot play	Check that the CD was inserted correctly.
	Check that the CD is scratched or dirty.
	Check that there is condensation inside the player, and if there is, wait until the condensation is gone (about 1 hour) before using the player.
	The player will play correctly after it returns to the normal temperature if there is a temperature increase error.
	Check that the finalization process, such as session close and disc close, is done for the disc.
	Check that the CD is protected by copyright.
Poor sound quality	Check that the CD is scratched or dirty.
The songs do not play back in the desired order.	The playback order is the order in which the files were written by the software, so the files might not play in the desired order.

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

NOTE:

- Fading noise: This noise occurs because of variations in the field strength in a narrow range due to mountains or buildings blocking the signal.
- Multi-path noise: This noise results from a time difference between the broadcast waves directly from the station arriving at the antenna and the waves reflected by mountains or buildings.

PRECAUTION

PRECAUTIONS

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

INFOID:000000004497943

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the "SRS AIRBAG" and "SEAT BELT" 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 "SRS AIRBAG".
- Never 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

When working near the Airbag Diagnosis Sensor Unit or other Airbag System sensors while ignition switch is ON or engine is running, never use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration may activate the sensor(s), deploy the airbag(s), possibly cause serious injury. When using air or electric power tools or hammers, always turn OFF ignition switch, disconnect the battery, and wait 3 minutes or more before performing any service.

Precaution for Battery Service

INFOID:000000004747736

Before disconnecting the battery, lower both the driver and passenger windows. This will prevent any interference between the window edge and the vehicle when the door is opened/closed. During normal operation, the window slightly raises and lowers automatically to prevent any window to vehicle interference. The automatic window function will not work with the battery disconnected.

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AV

PREPARATION

< PREPARATION >

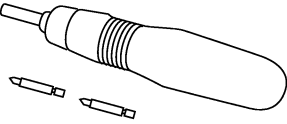
[BASE AUDIO]

PREPARATION

PREPARATION

Commercial Service Tools

INFOID:000000004497945

Tool name	Description
<p>Power tool</p>  <p>PBIC0191E</p>	<p>Loosening bolts and nuts</p>

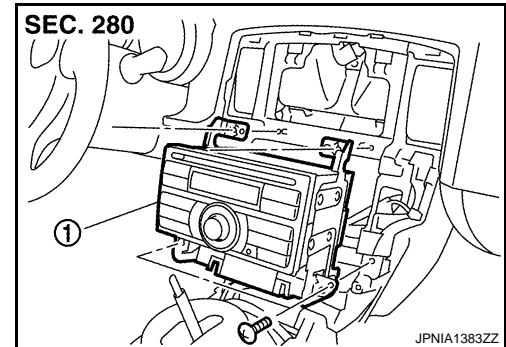
ON-VEHICLE REPAIR

AUDIO UNIT

Exploded View

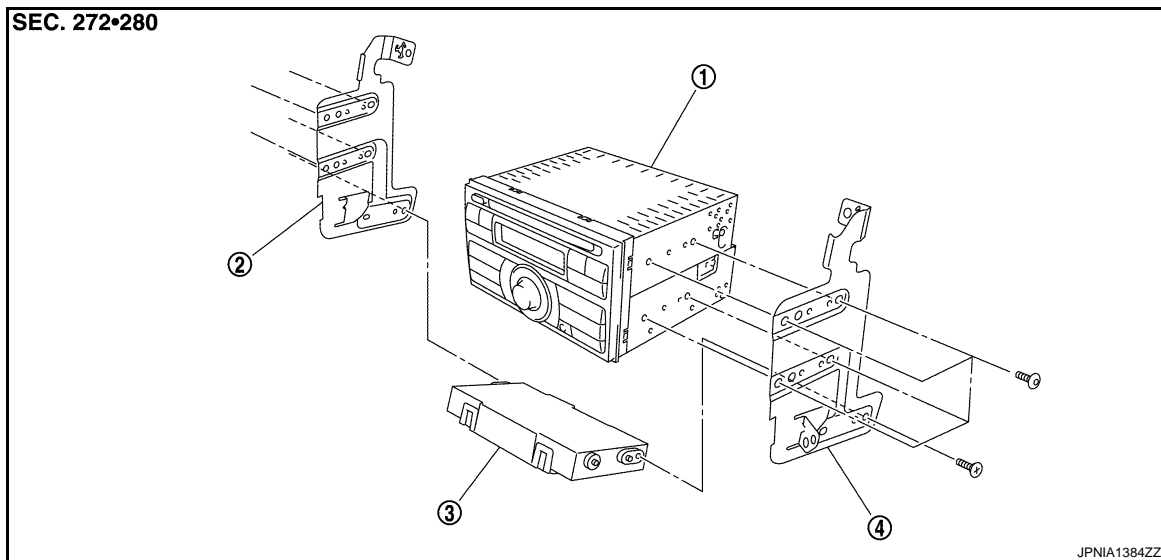
REMOVAL

INFOID:000000004497946



1. Audio unit

DISASSEMBLY



1. Audio unit
2. Bracket LH
3. A/C auto amp.
4. Bracket RH

Removal and Installation

INFOID:000000004497947

REMOVAL

1. Remove cluster lid C. Refer to [IP-11, "Exploded View"](#).
2. Remove audio unit with A/C auto amp. as a single unit from the body.
3. Remove bracket screws to remove audio unit.

INSTALLATION

Install in the reverse order of removal.

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FRONT DOOR SPEAKER

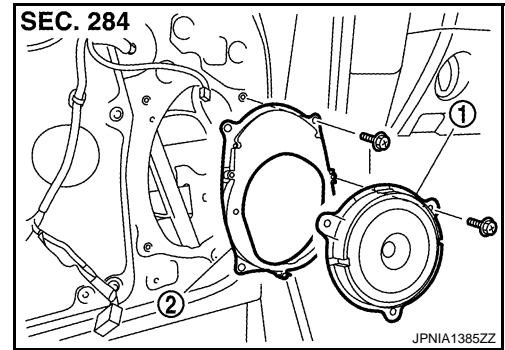
< ON-VEHICLE REPAIR >

[BASE AUDIO]

FRONT DOOR SPEAKER

Exploded View

INFOID:000000004497950



1. Front door speaker
2. Bracket

Removal and Installation

INFOID:000000004497951

REMOVAL

1. Remove front door finisher. Refer to [INT-11, "Removal and Installation"](#).
2. Remove front door speaker from bracket.

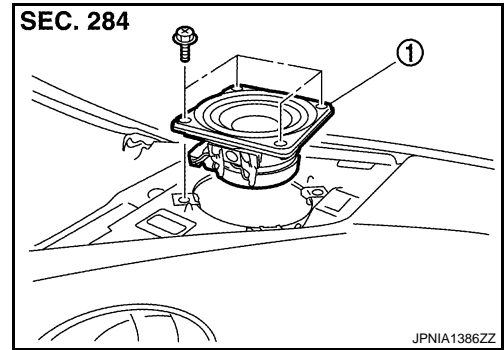
INSTALLATION

Install in the reverse order of removal.

TWEETER

Exploded View

INFOID:000000004511866



1. Tweeter

Removal and Installation

INFOID:000000004511867

REMOVAL

1. Remove speaker grille. Refer to [JP-11, "Exploded View"](#).
2. Remove tweeter screws, then lift up tweeter, disconnect connector and remove tweeter.

INSTALLATION

Install in the reverse order of removal.

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STEERING SWITCH

Exploded View

INFOID:000000004497954

Refer to [ST-12, "Exploded View"](#).

Removal and Installation

INFOID:000000004497955

REMOVAL

Refer to [ST-12, "Removal and Installation"](#).

INSTALLATION

Installation is the reverse order of removal.

ANTENNA AMP.

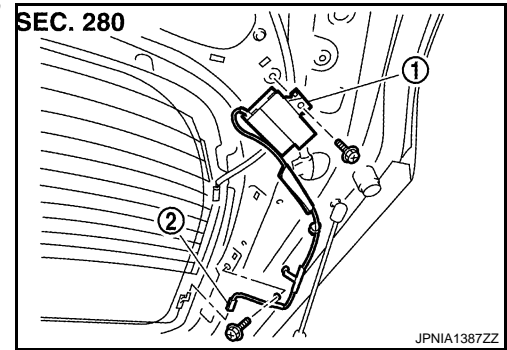
< ON-VEHICLE REPAIR >

[BASE AUDIO]

ANTENNA AMP.

Exploded View

INFOID:0000000004509150



1. Antenna amp.
2. Connector

Removal and Installation

INFOID:0000000004509151

REMOVAL

1. Remove back door finisher side. Refer to [INT-27, "Exploded View"](#).
2. Disconnect connector and remove screw, then remove antenna amp.

INSTALLATION

Install in the reverse order of removal.

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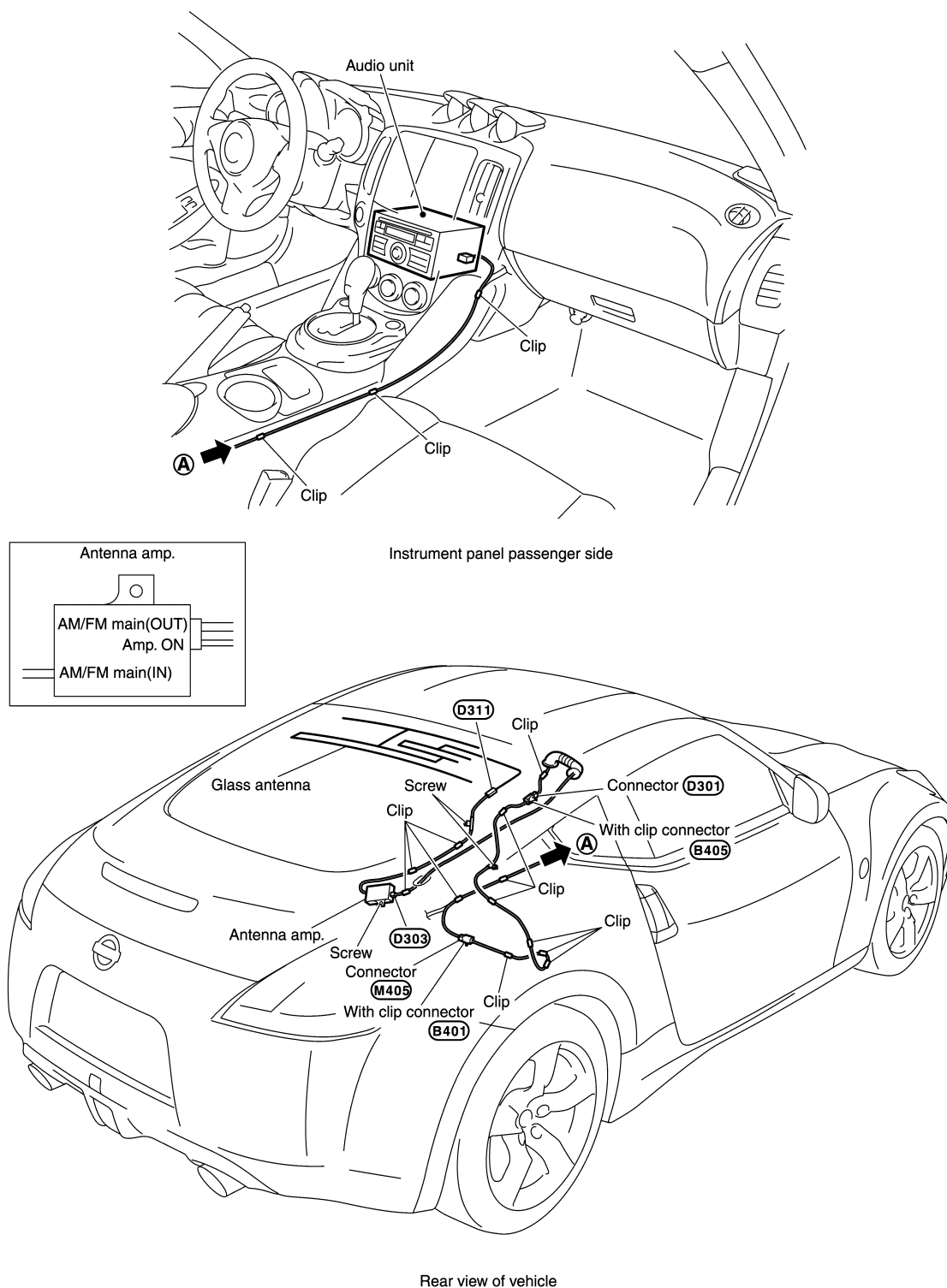
AV

ANTENNA FEEDER

Location of Antenna

INFOID:0000000004497958

SEC. 280



JPNIA1388GB

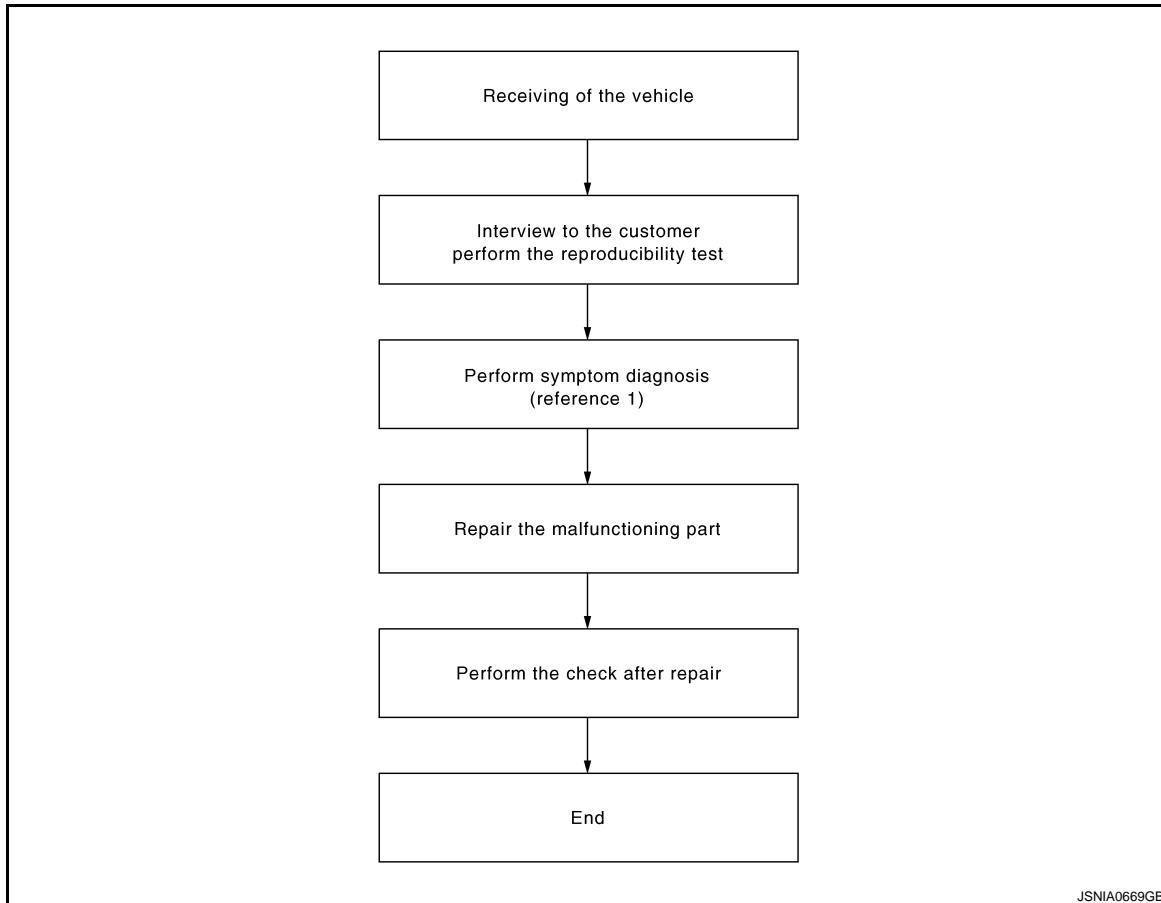
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:000000004497959

OVERALL SEQUENCE

Reference 1 ... Refer to [AV-134, "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.PERFORM DIAGNOSIS BY SYMPTOM

Perform the relevant diagnosis referring to the diagnosis chart by symptom. Refer to [AV-134, "Symptom Table"](#).

>> GO TO 3.

3.REPAIR OR REPLACE MALFUNCTIONING PARTS

Repair or replace the malfunctioning parts.

>> GO TO 4.

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[BOSE AUDIO WITHOUT NAVIGATION]

4. FINAL CHECK

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

Is there any symptom?

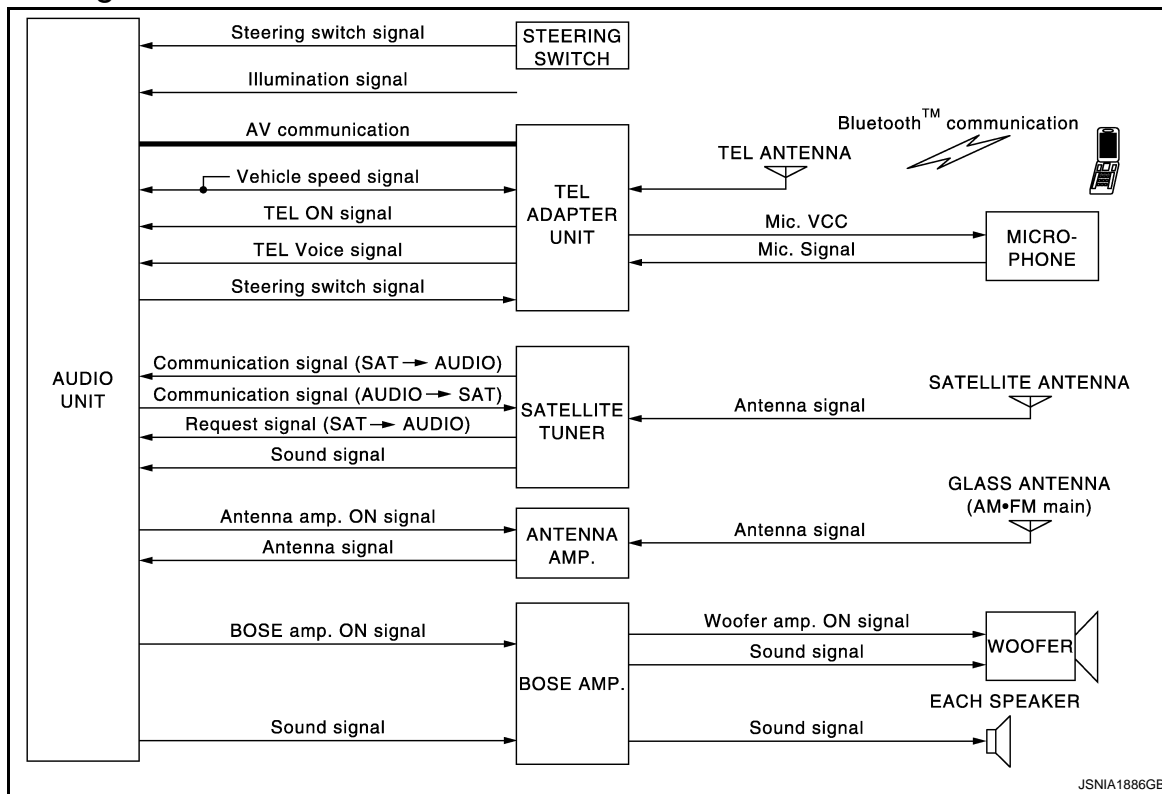
YES >> GO TO 2.

NO >> INSPECTION END

FUNCTION DIAGNOSIS

AUDIO SYSTEM

System Diagram



System Description

INFOID:0000000004497961

AUDIO SYSTEM

Audio functions

AM/FM radio
6CD

- Radio signals are received by glass antenna, next it is amplified by antenna amp., and finally it is input to audio unit.
- Audio unit outputs sound signal to BOSE amp. and BOSE amp. outputs to each speaker.

SATELLITE RADIO SYSTEM

- Radio signals are supplied to satellite radio tuner from the satellite radio antenna.
- The satellite radio tuner sends sound signal to the audio unit.
- Audio unit outputs sound signal to BOSE amp. and BOSE amp. outputs to each speaker.

SPEED SENSITIVE VOLUME

- 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.

AM FREQUENCY STEP CHANGE MODE (MODELS FOR MEXICO ONLY)

For models of Mexico, switch the AM frequency band of the radio to STEP. The switching method is as follows:

1. Turn the ignition switch ON.
2. Turn the audio unit OFF.
3. With buttons "1", "4" and "SEEK DOWN" pressed, turn ON the audio unit to change AM frequency band to STEP.

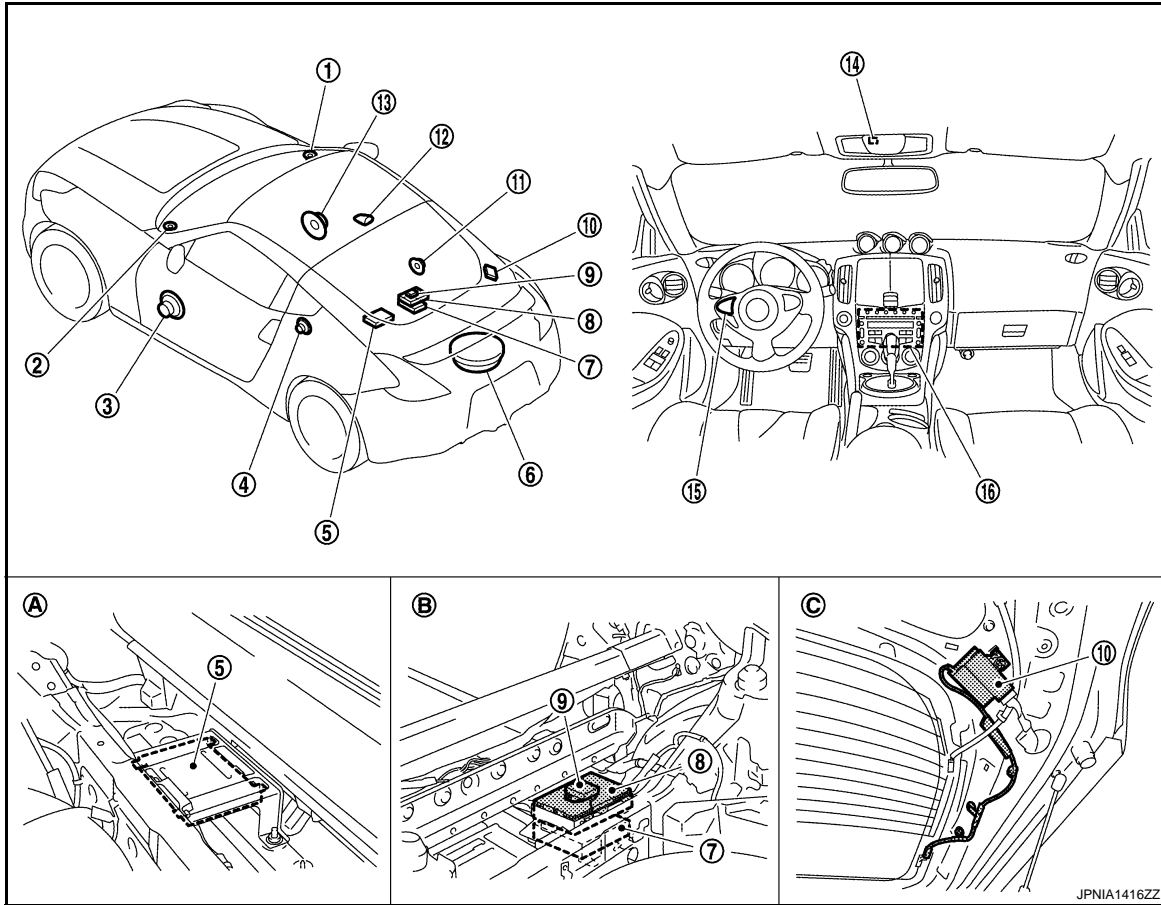
AUDIO SYSTEM

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

Component Parts Location

INFOID:000000004497962



- | | | |
|---------------------------|---------------------|-----------------------------|
| 1. Tweeter RH | 2. Tweeter LH | 3. Front door speaker LH |
| 4. Rear speaker LH | 5. BOSE amp. | 6. Woofer |
| 7. Satellite radio tuner | 8. TEL adapter unit | 9. TEL antenna |
| 10. Antenna amp. | 11. Rear speaker RH | 12. Satellite radio antenna |
| 13. Front door speaker RH | 14. Microphone | 15. Steering switch |
| 16. Audio unit | | |
| A. Luggage side LH | B. Luggage side RH | C. Back door side RH |

Component Description

INFOID:000000004497963

Part name	Description
AUDIO UNIT	Controls audio system and satellite radio system functions.
BOSE AMP.	<ul style="list-style-type: none"> Receives power (amp. ON) and sound signals from audio unit, and outputs sound signals to each speaker. Woofer amp. ON signal is output to woofer.
STEERING SWITCH	<ul style="list-style-type: none"> Each audio operation can be operated. Steering switch signal (operation signal) is output to audio unit.
FRONT DOOR SPEAKER	<ul style="list-style-type: none"> Outputs sound signal from BOSE amp. Outputs high, mid and low range sounds.
TWEETER	<ul style="list-style-type: none"> Outputs sound signal from BOSE amp. Outputs high range sounds.
REAR SPEAKER	<ul style="list-style-type: none"> Outputs sound signal from BOSE amp. Outputs high, mid and low range sounds.
WOOFER	<ul style="list-style-type: none"> Woofer amp. ON signal is input from BOSE amp. Outputs sound signal from BOSE amp. Outputs low range sounds.

AUDIO SYSTEM

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

Part name	Description
ANTENNA AMP.	<ul style="list-style-type: none">• Radio signal received by glass antenna is amplified and transmitted to audio unit.• Power (antenna amp. ON signal) is supplied from audio unit.
SATELLITE RADIO ANTENNA	Sound signal (satellite radio) is received and output to satellite radio tuner.
SATELLITE RADIO TUNER	<ul style="list-style-type: none">• Receives radio signals from satellite radio antenna.• Sends sound signals to audio unit.

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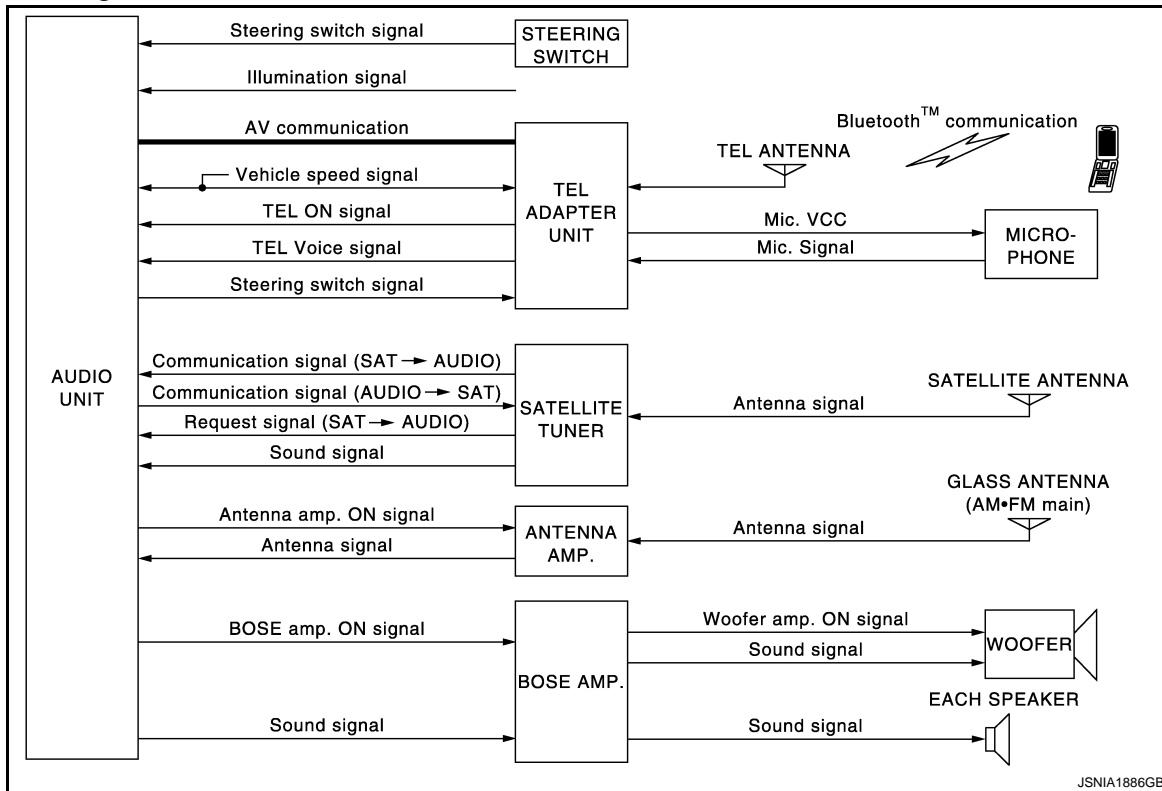
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HANDS-FREE PHONE SYSTEM

System Diagram

INFOID:000000004497964



System Description

INFOID:000000004497965

- The connection between portable telephone and TEL adapter unit is performed with Bluetooth™ communication.
- The voice guidance signal is input from the TEL adapter unit to the audio unit and output via BOSE amp. to the front speaker when operating the telephone.
- TEL adapter unit has the on board self-diagnosis function. Refer to [AV-45. "Diagnosis Description"](#).

WHEN RECEIVING A CALL

Telephone voice signal received with the portable telephone is input from TEL antenna via TEL adapter unit to audio unit with Bluetooth™ communication and output via BOSE amp. to the front speaker. The operation is performed with the steering switch or voice recognition function.

WHEN A CALL IS ORIGINATED

Speech sound (telephone voice signal) is input from the microphone to the TEL adapter unit. It is input from the TEL antenna via Bluetooth™ communication to the portable telephone. It is transmitted to the phone on the other side. The operation is performed with the steering switch or voice recognition function.

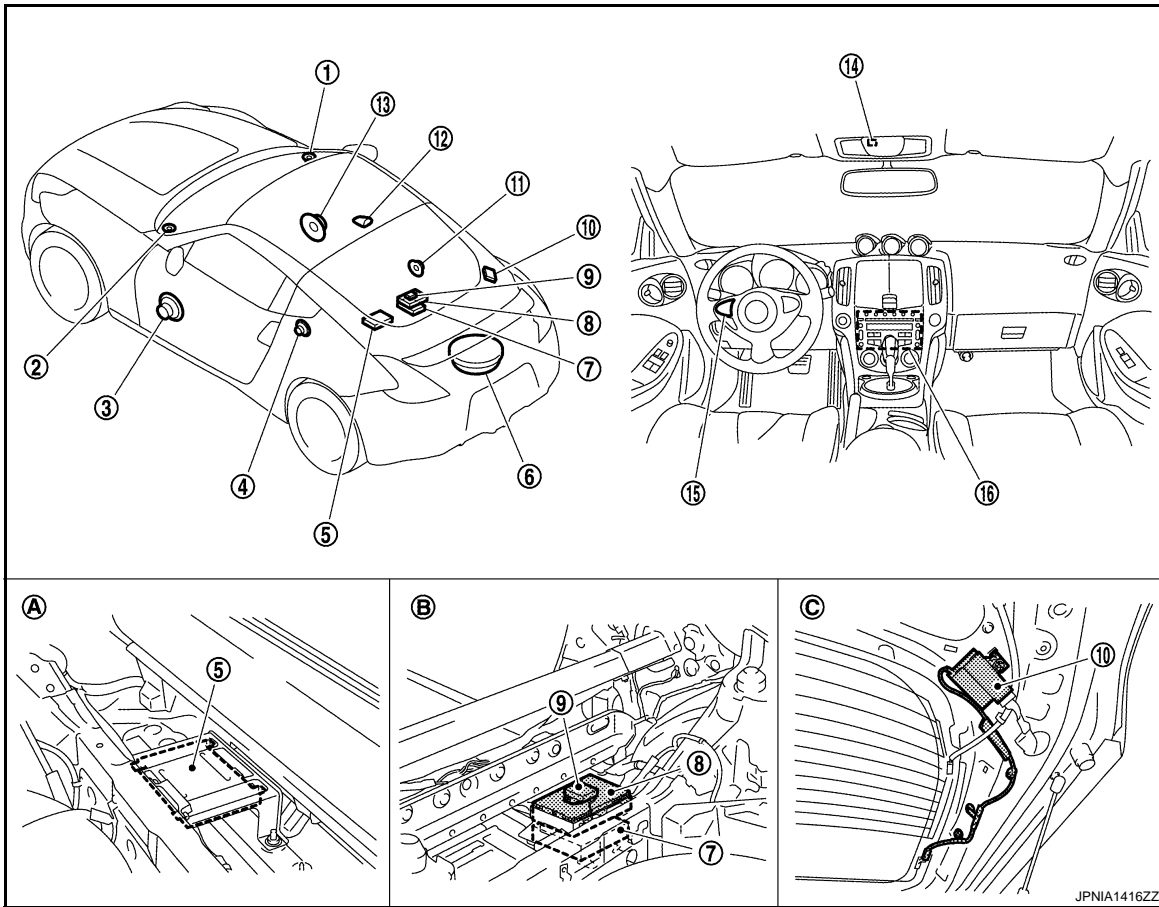
HANDS-FREE PHONE SYSTEM

[BOSE AUDIO WITHOUT NAVIGATION]

< FUNCTION DIAGNOSIS >

Component Parts Location

INFOID:000000004497966



- | | | |
|---------------------------|---------------------|-----------------------------|
| 1. Tweeter RH | 2. Tweeter LH | 3. Front door speaker LH |
| 4. Rear speaker LH | 5. BOSE amp. | 6. Woofer |
| 7. Satellite radio tuner | 8. TEL adapter unit | 9. TEL antenna |
| 10. Antenna amp. | 11. Rear speaker RH | 12. Satellite radio antenna |
| 13. Front door speaker RH | 14. Microphone | 15. Steering switch |
| 16. Audio unit | | |
| A. Luggage side LH | B. Luggage side RH | C. Back door side RH |

Component Description

INFOID:000000004497967

Part name	Description
AUDIO UNIT	<ul style="list-style-type: none"> Receives telephone voice signal from TEL adapter unit. Sends telephone voice and voice guidance signals to BOSE amp. Audio unit and TEL adapter unit exchange data by AV communication, and control audio unit display. Receives the steering switch signal (operation signal) from the steering switch.
BOSE AMP.	Inputs power (amp. ON) and sound signal from audio unit, and outputs sound signal to each speaker.
FRONT DOOR SPEAKER	Receives telephone voice and voice guidance signals from BOSE amp.
TWEETER	
STEERING SWITCH	<ul style="list-style-type: none"> The hands free phone system can be operated. Steering switch signal (operation signal) is output to TEL adapter unit through audio unit.
MICROPHONE	<ul style="list-style-type: none"> Uses when operating the hands-free phone. Outputs microphone signal (telephone voice signal) to the TEL adapter unit. The power (microphone power supply) is supplied from the TEL adapter unit.

HANDS-FREE PHONE SYSTEM

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

Part name	Description
TEL ADAPTER UNIT	<ul style="list-style-type: none">• Inputs the telephone voice signal from TEL antenna during reception and outputs into the audio unit.• Inputs the telephone voice signal from microphone during speech recognition and outputs it to the TEL antenna.
TEL ANTENNA	Connects with the portable telephone via Bluetooth™ communication and communicates the telephone voice signal.

DIAGNOSIS SYSTEM (AUDIO UNIT)

Diagnosis Description

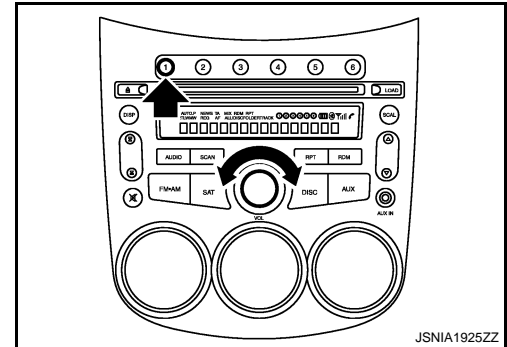
INFOID:000000004497968

Self-diagnosis mode can check the following items.

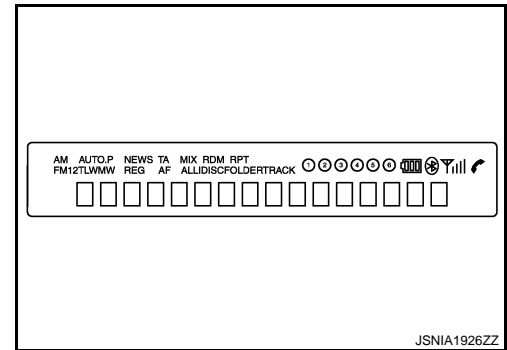
- Audio unit hardware/software versions
- Continuity of each speaker channel
- Continuity of each audio unit switch

OPERATION PROCEDURE

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

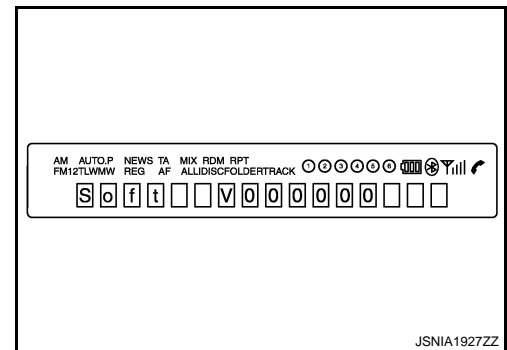


4. Initially, all display segments will be illuminated.



Version Check

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

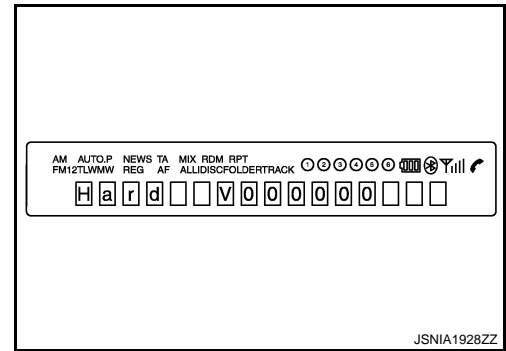


DIAGNOSIS SYSTEM (AUDIO UNIT)

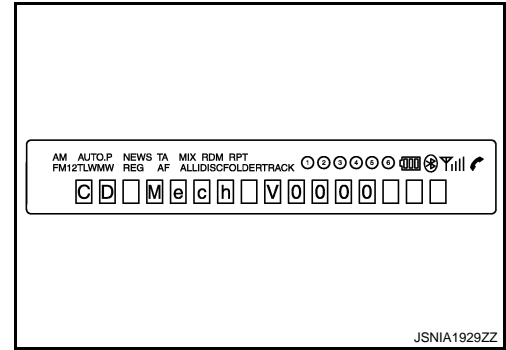
[BOSE AUDIO WITHOUT NAVIGATION]

< FUNCTION DIAGNOSIS >

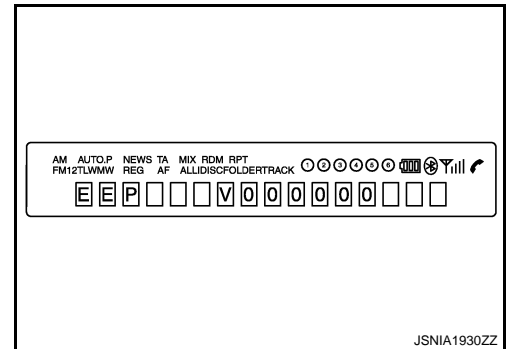
- Press the "DISP" switch again to display the "Hard" (audio hardware version).



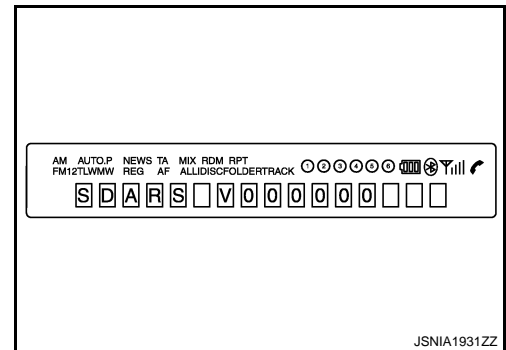
- Press the "DISP" switch again to display the "CD Mech" (CD mechanism version).



- Press the "DISP" switch again to display the "EEP" (audio unit EEPROM version).



- Press the "DISP" switch again to display the "SDARS" (satellite radio version).



DIAGNOSIS SYSTEM (TEL ADAPTER UNIT)

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

DIAGNOSIS SYSTEM (TEL ADAPTER UNIT)

Diagnosis Description

INFOID:000000004497969

HANDS FREE PHONE SYSTEM ON BOARD DIAGNOSIS

During on board diagnosis the diagnosis function of TEL adapter unit starts with the operation of the steering switch and performs the diagnosis when ignition switch ACC.

ON BOARD DIAGNOSIS ITEM

The on board diagnosis has 3 modes: the self-diagnosis mode that performs the trouble diagnosis, the speaker adaptation data deleting mode and the hands free phone system initialization mode.

CAUTION:

- Perform the diagnosis with the vehicle stopped.
- Perform STEP2 if necessary.

STEP	MODE	Description
STEP 1	Self-diagnosis	The self-diagnosis mode performs the microphone test and the diagnosis of TEL adapter unit, TEL antenna and steering unit, and then reads out the results with the sound and indicates them on the audio screen.
STEP 2	Hands free phone system initialization	Hands free phone system initialization mode can perform the initialization of hands free phone system.
	Speaker adaptation data deleting	The speaker adaptation data deleting mode can delete the speaker adaptation data.

SELF-DIAGNOSIS RESULTS

Self-diagnosis mode reads out the self-diagnosis results and indicates DTC on the audio screen.

NOTE:

- Error count is read out simultaneously when reading out the DTC name.
- The errors are read out continuously when some errors occur at the same time. The DTC displays are combined and displayed. For example, DTC 01100 is displayed when DTC 01000 and DTC 00100 are indicated at the same time.

Self-diagnosis results

DTC (Audio screen)	Failure message	Possible causes
DTC 10000	Internal failure	TEL adapter unit
DTC 01000	Bluetooth antenna open	TEL antenna
DTC 00100	Bluetooth antenna shorted	
DTC 00010	Button ladder A is stuck	Steering switch
DTC 00001	Button ladder B is stuck	
DTC 00000	There are no failure records to report	—

The Details of Error Count

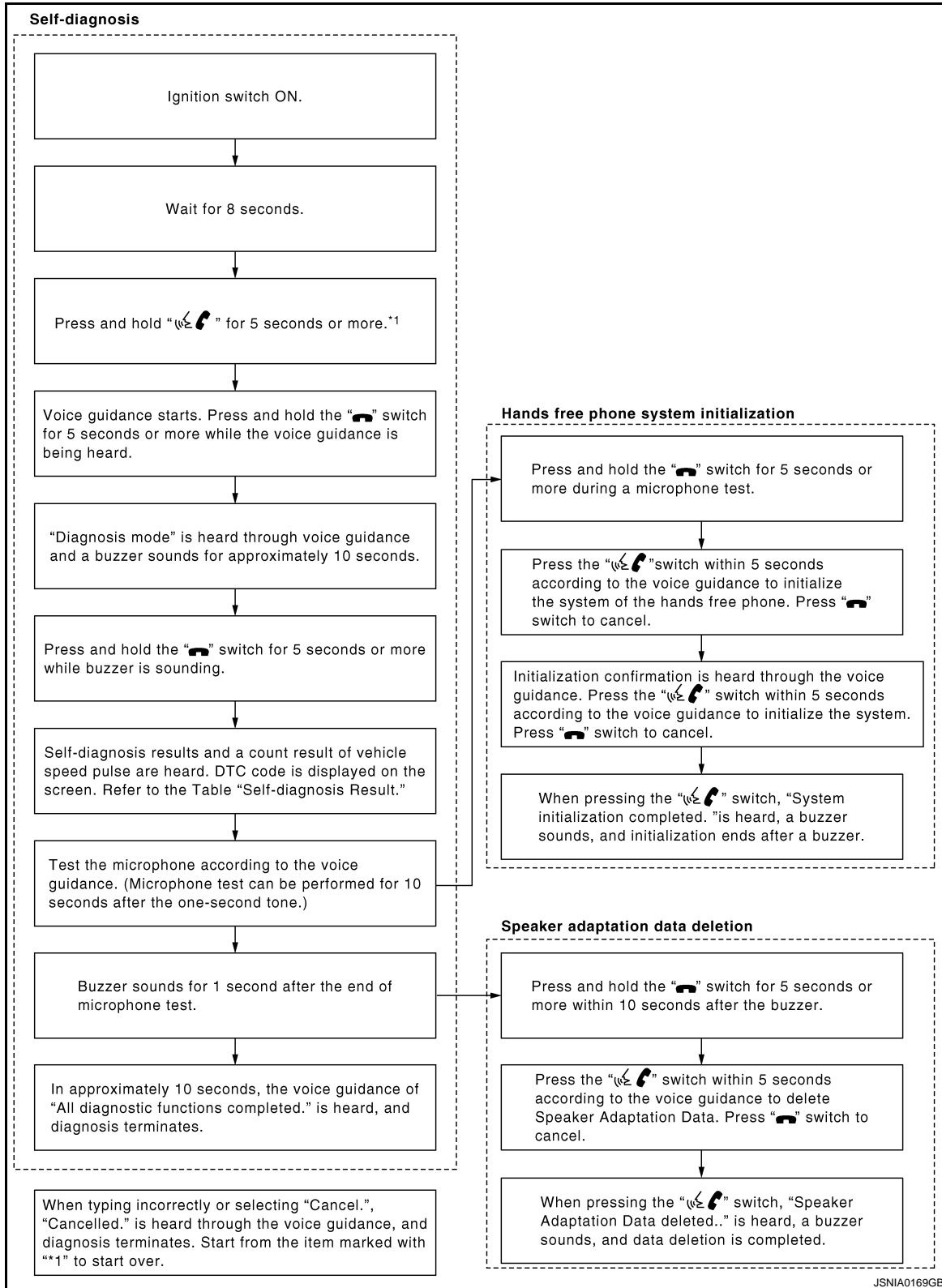
The error count guides "0" when the error occurs. The next time it counts up "1" if it is normal with the ignition switch ON. It continues the count up unless the initialization of hands free phone system is performed.

DIAGNOSIS SYSTEM (TEL ADAPTER UNIT)

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

FLOW CHART OF TROUBLE DIAGNOSIS



POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

COMPONENT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT AUDIO UNIT

AUDIO UNIT : Diagnosis Procedure

INFOID:000000004497970

1.CHECK FUSE

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

Power source	Fuse No.
Battery	34
Ignition switch ACC or ON	19

Is inspection result OK?

YES >> GO TO 2.

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

2.CHECK AUDIO UNIT POWER SUPPLY CIRCUIT

Check voltage between the audio unit and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Voltage
Battery power supply	M81	19	OFF	Battery voltage
ACC power supply		7	ACC	Battery voltage

Is inspection result OK?

YES >> INSPECTION END

NO >> Check harness between audio unit and fuse.

BOSE AMP.

BOSE AMP. : Diagnosis Procedure

INFOID:000000004497971

1.CHECK FUSE

Check that the following fuses of the BOSE amp. are not blown.

Power source	Fuse No.
Battery	8

Is inspection result OK?

YES >> GO TO 2.

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

2.CHECK POWER SUPPLY CIRCUIT

Check voltage between BOSE speaker amp harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Voltage
Battery power supply	B42	11	OFF	Battery voltage

Is inspection result OK?

YES >> GO TO 3.

NO >> Check harness between BOSE amp. and fuse.

3.CHECK GROUND CIRCUIT

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

POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

Signal name	Connector No.	Terminal No.	Ignition switch position	Continuity
Ground	B42	12	OFF	Existed

Is inspection result OK?

YES >> INSPECTION END

NO >> Repair harness or connector.

SATELLITE RADIO TUNER

SATELLITE RADIO TUNER : Diagnosis Procedure

INFOID:000000004497972

1.CHECK FUSES

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

Power source	Fuse No.
Battery	34
Ignition switch ACC or ON	19

Is inspection result OK?

YES >> GO TO 2.

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

2.CHECK POWER SUPPLY CIRCUIT

Check voltage between the satellite radio tuner and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Voltage
Battery power supply	B236	12	OFF	Battery voltage
ACC power supply		16	ACC	Battery voltage

Is inspection result OK?

YES >> INSPECTION END

NO >> Check harness between satellite radio tuner and fuse.

TEL ADAPTER UNIT

TEL ADAPTER UNIT : Diagnosis Procedure

INFOID:000000004497973

1.CHECK FUSES

Check that the following fuses of the TEL adapter unit are not blown.

Power source	Fuse No.
Battery	34
Ignition switch ACC or ON	19
Ignition switch ON or START	3

Is inspection result OK?

YES >> GO TO 2.

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

2.CHECK POWER SUPPLY CIRCUIT

Check voltage between TEL adapter unit harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Voltage
Battery power supply	B237	1	OFF	Battery voltage
ACC power supply		2	ACC	Battery voltage
Ignition signal		3	ON	Battery voltage

Is inspection result OK?

POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

YES >> GO TO 3.

NO >> Check harness between TEL adapter unit and fuse.

3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect TEL adapter unit connector.
3. Check continuity between TEL adapter unit harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Continuity
Ground	B237	4	OFF	Existed

Is inspection result OK?

YES >> INSPECTION END

NO >> Repair harness or connector.

AV

STEERING SWITCH SIGNAL A CIRCUIT (STEERING SWITCH TO AUDIO UNIT)

< COMPONENT DIAGNOSIS > [BOSE AUDIO WITHOUT NAVIGATION]

STEERING SWITCH SIGNAL A CIRCUIT (STEERING SWITCH TO AUDIO UNIT)

Description

INFOID:000000004497974

- Transmits the steering switch signal to audio unit.
- Transmits the steering switch signal to TEL adapter unit through audio unit.

Diagnosis Procedure

INFOID:000000004497975

1.CHECK STEERING SWITCH SIGNAL A CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect audio unit connector and spiral cable connector.
3. Check continuity between audio unit harness connector and spiral cable harness connector.

Audio unit		Spiral cable		Continuity
Connector	Terminal	Connector	Terminal	
M81	6	M36	24	Existed

4. Check continuity between audio unit harness connector and ground.

Audio unit		Ground	Continuity
Connector	Terminal		
M81	6		Not existed

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK SPIRAL CABLE

Check spiral cable.

Is the inspection result normal?

YES >> GO TO 3.

NO >> Replace spiral cable.

3.CHECK AUDIO UNIT VOLTAGE

1. Connect AV control unit connector and spiral cable connector.
2. Turn ignition switch ON.
3. Check voltage between audio unit harness connector.

(+) (+)		(-) (-)		Voltage (Approx.)
Audio unit		Audio unit		
Connector	Terminal	Connector	Terminal	
M81	6	M81	15	5.0 V

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace audio unit.

4.CHECK STEERING SWITCH

1. Turn ignition switch OFF.
2. Check steering switch. Refer to [AV-51. "Component Inspection"](#).

Is the inspection result normal?

YES >> INSPECTION END

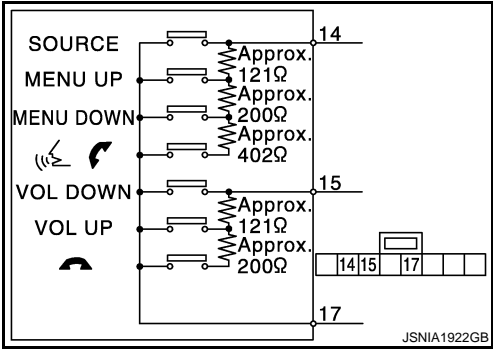
NO >> Replace steering switch.

STEERING SWITCH SIGNAL A CIRCUIT (STEERING SWITCH TO AUDIO UNIT)



< COMPONENT DIAGNOSIS > [BOSE AUDIO WITHOUT NAVIGATION]

Component Inspection

Measure the resistance between the steering switch connector.



Standard

Steering switch		Condition	Resistance Ω
Terminal	Terminal		
14	17	 switch ON	709 – 737
		MENU DOWN switch ON	315 – 327
		MENU UP switch ON	119 – 123
		SOURCE switch ON	0
15		VOL DOWN switch ON	0
		VOL UP switch ON	119 – 123
		 switch ON	315 – 327

STEERING SWITCH SIGNAL B CIRCUIT (STEERING SWITCH TO AUDIO UNIT)

< COMPONENT DIAGNOSIS > [BOSE AUDIO WITHOUT NAVIGATION]

STEERING SWITCH SIGNAL B CIRCUIT (STEERING SWITCH TO AUDIO UNIT)

Description

INFOID:000000004497977

- Transmits the steering switch signal to audio unit.
- Transmits the steering switch signal to TEL adapter unit through audio unit.

Diagnosis Procedure

INFOID:000000004497978

1.CHECK STEERING SWITCH SIGNAL A CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect audio unit connector and spiral cable connector.
3. Check continuity between audio unit harness connector and spiral cable harness connector.

Audio unit		Spiral cable		Continuity
Connector	Terminal	Connector	Terminal	
M81	16	M36	31	Existed

4. Check continuity between audio unit harness connector and ground.

Audio unit		Ground	Continuity
Connector	Terminal		
M81	16		Not existed

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK SPIRAL CABLE

Check spiral cable.

Is the inspection result normal?

YES >> GO TO 3.

NO >> Replace spiral cable.

3.CHECK AUDIO UNIT VOLTAGE

1. Connect audio unit connector and spiral cable connector.
2. Turn ignition switch ON.
3. Check voltage between audio unit harness connector.

(+) (+)		(−) (−)		Voltage (Approx.)
Audio unit		Audio unit		
Connector	Terminal	Connector	Terminal	
M81	16	M81	15	5.0 V

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace audio unit.

4.CHECK STEERING SWITCH

1. Turn ignition switch OFF.
2. Check steering switch. Refer to [AV-53. "Component Inspection"](#).

Is the inspection result normal?

YES >> INSPECTION END

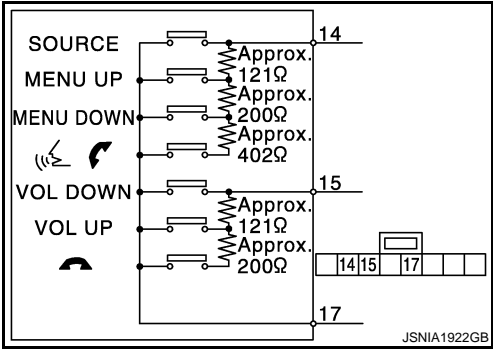
NO >> Replace steering switch.

STEERING SWITCH SIGNAL B CIRCUIT (STEERING SWITCH TO AUDIO UNIT)

< COMPONENT DIAGNOSIS > [BOSE AUDIO WITHOUT NAVIGATION]

Component Inspection

Measure the resistance between the steering switch connector.



Standard

Steering switch		Condition	Resistance Ω
Terminal	Terminal		
14	17	switch ON	709 – 737
		MENU DOWN switch ON	315 – 327
		MENU UP switch ON	119 – 123
		SOURCE switch ON	0
15	17	VOL DOWN switch ON	0
		VOL UP switch ON	119 – 123
		switch ON	315 – 327

STEERING SWITCH SIGNAL GND CIRCUIT (STEERING SWITCH TO AUDIO UNIT)

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

STEERING SWITCH SIGNAL GND CIRCUIT (STEERING SWITCH TO AUDIO UNIT)

Description

INFOID:000000004497980

- Transmits the steering switch signal to audio unit.
- Transmits the steering switch signal to TEL adapter unit through audio unit.

Diagnosis Procedure

INFOID:000000004497981

1.CHECK STEERING SWITCH SIGNAL GND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect audio unit connector and spiral cable connector.
3. Check continuity between audio unit harness connector and spiral cable harness connector.

Audio unit		Spiral cable		Continuity
Connector	Terminal	Connector	Terminal	
M81	15	M36	33	Existed

4. Connect audio unit connector.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK SPIRAL CABLE

Check spiral cable.

Is the inspection result normal?

YES >> GO TO 3.

NO >> Replace spiral cable.

3.CHECK GROUND CIRCUIT

1. Connect audio unit connector.
2. Check continuity between audio unit harness connector and ground.

Audio unit		Ground	Continuity
Connector	Terminal		
M81	15		Existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace audio unit.

4.CHECK STEERING SWITCH

Check steering switch. Refer to [AV-55. "Component Inspection"](#).

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace steering switch.

STEERING SWITCH SIGNAL GND CIRCUIT (STEERING SWITCH TO AUDIO UNIT)

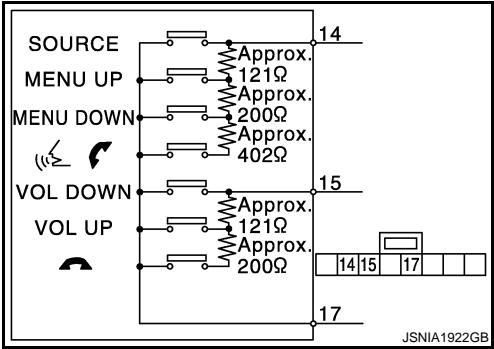
< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]




Component Inspection

INFOID:000000004507057

Measure the resistance between the steering switch connector.



Standard

Steering switch		Condition	Resistance Ω
Terminal	Terminal		
14	17	  switch ON	709 – 737
		MENU DOWN switch ON	315 – 327
		MENU UP switch ON	119 – 123
		SOURCE switch ON	0
15		VOL DOWN switch ON	0
		VOL UP switch ON	119 – 123
		 switch ON	315 – 327

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AV

STEERING SWITCH SIGNAL A CIRCUIT (TEL ADAPTER UNIT TO AUDIO UNIT)

< COMPONENT DIAGNOSIS > [BOSE AUDIO WITHOUT NAVIGATION]

STEERING SWITCH SIGNAL A CIRCUIT (TEL ADAPTER UNIT TO AUDIO UNIT)

Description

INFOID:000000004499404

- Transmits the steering switch signal to audio unit.
- Transmits the steering switch signal to TEL adapter unit through audio unit.

Diagnosis Procedure

INFOID:000000004499405

1.CHECK STEERING SWITCH SIGNAL A CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect audio unit connector and TEL adapter unit connector.
3. Check continuity between audio unit harness connector and TEL adapter unit harness connector.

Audio unit		TEL adapter unit		Continuity
Connector	Terminal	Connector	Terminal	
M82	24	B237	12	Existed

4. Check continuity between audio unit harness connector and ground.

Audio unit		Ground	Continuity
Connector	Terminal		
M82	24		Not existed

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK TEL ADAPTER UNIT POWER SUPPLY

Check TEL adapter unit power supply. Refer to [AV-48, "TEL ADAPTER UNIT : Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Replace TEL adapter unit.

3.CHECK AUDIO UNIT VOLTAGE

1. Connect audio unit connector and TEL adapter unit connector.
2. Turn ignition switch ON.
3. Check voltage between audio unit harness connector.

(+) (+)		(−) (−)		Voltage (Approx.)
Audio unit		Audio unit		
Connector	Terminal	Connector	Terminal	
M82	24	M82	30	5.0 V

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace audio unit.

4.CHECK STEERING SWITCH

1. Turn ignition switch OFF.
2. Check steering switch. Refer to [AV-57, "Component Inspection"](#).

Is the inspection result normal?

YES >> INSPECTION END

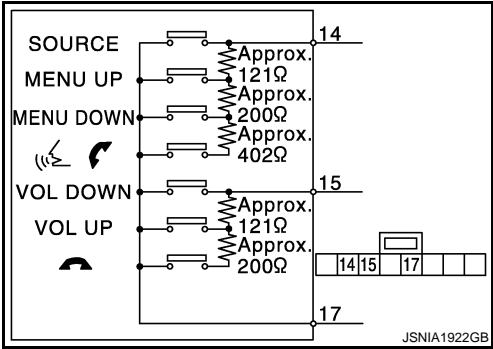
NO >> Replace steering switch.

STEERING SWITCH SIGNAL A CIRCUIT (TEL ADAPTER UNIT TO AUDIO UNIT)

< COMPONENT DIAGNOSIS > [BOSE AUDIO WITHOUT NAVIGATION]

Component Inspection

Measure the resistance between the steering switch connector.



Standard

Steering switch		Condition	Resistance Ω
Terminal	Terminal		
14	17	switch ON	709 – 737
		MENU DOWN switch ON	315 – 327
		MENU UP switch ON	119 – 123
		SOURCE switch ON	0
15	17	VOL DOWN switch ON	0
		VOL UP switch ON	119 – 123
		switch ON	315 – 327

STEERING SWITCH SIGNAL B CIRCUIT (TEL ADAPTER UNIT TO AUDIO UNIT)

< COMPONENT DIAGNOSIS > [BOSE AUDIO WITHOUT NAVIGATION]

STEERING SWITCH SIGNAL B CIRCUIT (TEL ADAPTER UNIT TO AUDIO UNIT)

Description

INFOID:000000004499407

- Transmits the steering switch signal to audio unit.
- Transmits the steering switch signal to TEL adapter unit through audio unit.

Diagnosis Procedure

INFOID:000000004499408

1.CHECK STEERING SWITCH SIGNAL B CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect audio unit connector and TEL adapter unit connector.
3. Check continuity between audio unit harness connector and TEL adapter unit harness connector.

Audio unit		TEL adapter unit		Continuity
Connector	Terminal	Connector	Terminal	
M82	29	B237	13	Existed

4. Check continuity between audio unit harness connector and ground.

Audio unit		Ground	Continuity
Connector	Terminal		
M82	29		Not existed

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK TEL ADAPTER UNIT POWER SUPPLY

Check TEL adapter unit power supply.

Is the inspection result normal?

YES >> GO TO 3.

NO >> Replace TEL adapter unit.

3.CHECK AUDIO UNIT VOLTAGE

1. Connect audio unit connector and TEL adapter unit connector.
2. Turn ignition switch ON.
3. Check voltage between audio unit harness connector.

(+) (+)		(−) (−)		Voltage (Approx.)
Audio unit		Audio unit		
Connector	Terminal	Connector	Terminal	
M82	29	M82	30	5.0 V

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace audio unit.

4.CHECK STEERING SWITCH

1. Turn ignition switch OFF.
2. Check steering switch. Refer to [AV-59. "Component Inspection"](#).

Is the inspection result normal?

YES >> INSPECTION END

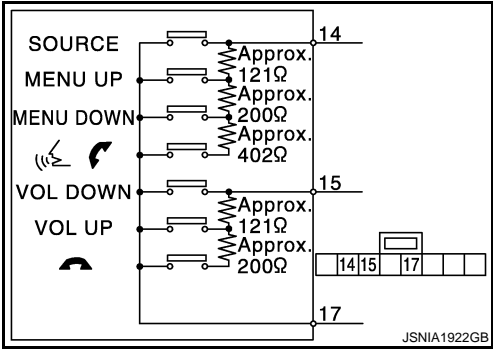
NO >> Replace steering switch.

STEERING SWITCH SIGNAL B CIRCUIT (TEL ADAPTER UNIT TO AUDIO UNIT)



< COMPONENT DIAGNOSIS > [BOSE AUDIO WITHOUT NAVIGATION]

Component Inspection

Measure the resistance between the steering switch connector.



Standard

Steering switch		Condition	Resistance Ω
Terminal	Terminal		
14	17	 switch ON	709 – 737
		MENU DOWN switch ON	315 – 327
		MENU UP switch ON	119 – 123
		SOURCE switch ON	0
15		VOL DOWN switch ON	0
		VOL UP switch ON	119 – 123
		 switch ON	315 – 327

STEERING SWITCH SIGNAL GND CIRCUIT (TEL ADAPTER UNIT TO AUDIO UNIT)

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

STEERING SWITCH SIGNAL GND CIRCUIT (TEL ADAPTER UNIT TO AUDIO UNIT)

Description

INFOID:000000004499410

- Transmits the steering switch signal to audio unit.
- Transmits the steering switch signal to TEL adapter unit through audio unit.

Diagnosis Procedure

INFOID:000000004499411

1.CHECK STEERING SWITCH SIGNAL GND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect audio unit connector and TEL adapter unit connector.
3. Check continuity between audio unit harness connector and TEL adapter unit harness connector.

Audio unit		TEL adapter unit		Continuity
Connector	Terminal	Connector	Terminal	
M82	30	B237	14	Existed

4. Connect audio unit connector.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK GROUND CIRCUIT

1. Connect audio unit connector.
2. Check continuity between audio unit harness connector and ground.

Audio unit		Ground	Continuity
Connector	Terminal		
M82	30		Existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Replace audio unit.

3.CHECK STEERING SWITCH

Check steering switch. Refer to [AV-60, "Component Inspection"](#).

Is the inspection result normal?

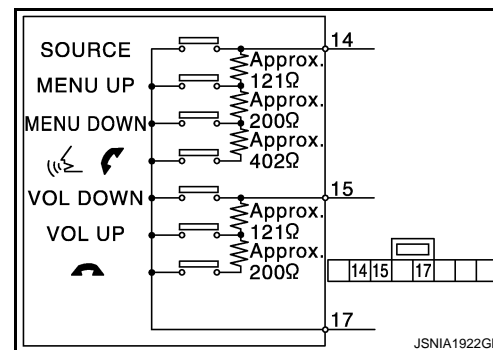
YES >> INSPECTION END

NO >> Replace steering switch.

Component Inspection

INFOID:000000004507060



Measure the resistance between the steering switch connector.



STEERING SWITCH SIGNAL GND CIRCUIT (TEL ADAPTER UNIT TO AUDIO UNIT)

< COMPONENT DIAGNOSIS > [BOSE AUDIO WITHOUT NAVIGATION]

Standard

Steering switch		Condition	Resistance Ω
Terminal	Terminal		
14	17	 switch ON	709 – 737
		MENU DOWN switch ON	315 – 327
		MENU UP switch ON	119 – 123
		SOURCE switch ON	0
15	17	VOL DOWN switch ON	0
		VOL UP switch ON	119 – 123
		 switch ON	315 – 327

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AV

COMMUNICATION SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

COMMUNICATION SIGNAL CIRCUIT

Description

INFOID:000000004497989

Satellite radio tuner and audio unit are connected with a serial communication. They transmit the operation signal from audio unit to satellite radio tuner.

Diagnosis Procedure

INFOID:000000004497990

1.CHECK CONTINUITY COMMUNICATION SIGNAL (AUDIO–SAT) CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect satellite radio tuner connector and audio unit connector.
3. Check continuity between satellite radio tuner harness connector and audio unit harness connector.

Satellite radio tuner		Audio unit		Continuity
Connector	Terminal	Connector	Terminal	
B236	9	M83	39	Existed
	10		40	Existed

4. Check continuity between satellite radio tuner harness connector and ground.

Satellite radio tuner		Ground	Continuity
Connector	Terminal		
B236	9		
	10		Not existed

Is inspection result OK?

YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK AUDIO UNIT

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

Audio unit		Ground	Voltage (Approx.)
Connector	Terminal		
M83	39		4.0 V

Is inspection result OK?

YES >> GO TO 3.

NO >> Replace audio unit.

3.CHECK SATELLITE RADIO TUNER

1. Turn ignition switch OFF.
2. Disconnect audio unit connector, and connect satellite radio tuner connector.
3. Turn ignition switch ON.
4. Check voltage between satellite radio tuner harness connector and ground.

Satellite radio tuner		Ground	Voltage (Approx)
Connector	Terminal		
M236	10		7.5 V

Is inspection result OK?

YES >> GO TO 4.

NO >> Replace satellite radio tuner.

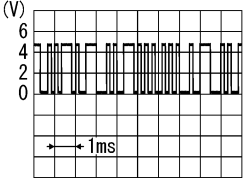
COMMUNICATION SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

4.CHECK COMMUNICATION SIGNAL (SAT-AUDIO)

1. Turn ignition switch OFF.
2. Connect audio unit connector.
3. Turn ignition switch ON.
4. Check signal between satellite radio tuner harness connector and ground.

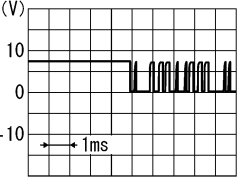
Satellite radio tuner			Condition	Reference value
Connector	Terminal			
B236	9	Ground	When satellite radio mode is selected.	

Is inspection result OK?

- YES >> GO TO 5.
 NO >> Replace satellite radio tuner.

5.CHECK COMMUNICATION SIGNAL (AUDIO-SAT)

Check signal between audio unit harness connector and ground.

Audio unit			Condition	Reference value
Connector	Terminal			
B83	40	Ground	When satellite radio mode is selected.	

Is inspection result OK?

- YES >> INSPECTION END
 NO >> Replace audio unit.

AV

REQUEST SIGNAL CIRCUIT (SAT TO AUDIO)

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

REQUEST SIGNAL CIRCUIT (SAT TO AUDIO)

Description

INFOID:000000004497991

Request signal transmits the signal to recognize the connection of satellite radio tuner from satellite radio tuner to audio unit.

Diagnosis Procedure

INFOID:000000004497992

1.CHECK CONTINUITY REQUEST SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect satellite radio tuner connector and audio unit connector.
3. Check continuity between satellite radio tuner unit harness connector and audio unit harness connector.

Satellite radio tuner		Audio unit		Continuity
Connector	Terminal	Connector	Terminal	
B236	8	M83	38	Existed

4. Check continuity between satellite radio tuner harness connector and ground.

Satellite radio tuner		Ground	Continuity
Connector	Terminal		
B236	8		Not existed

Is inspection result OK?

YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK AUDIO UNIT

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

Audio unit		Ground	Voltage (Approx.)
Connector	Terminal		
M83	38		4.0 V

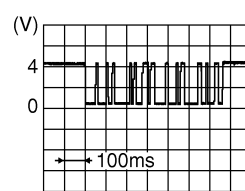
Is inspection result OK?

YES >> GO TO 3.

NO >> Replace audio unit.

3.CHECK CONTINUITY REQUEST SIGNAL

1. Turn ignition switch OFF.
2. Connect satellite radio tuner connector.
3. Turn ignition switch ON.
4. Check signal between satellite radio tuner harness connector and ground.

Satellite radio tuner		Ground	Condition	Reference value
Connector	Terminal			
B236	8		When satellite radio mode is selected.	 JSNIA0675ZZ

REQUEST SIGNAL CIRCUIT (SAT TO AUDIO)

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

Is inspection result OK?

YES >> INSPECTION END

NO >> Replace satellite radio tuner.

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BOSE AMP. ON SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

BOSE AMP. ON SIGNAL CIRCUIT

Description

INFOID:000000004497993

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

Diagnosis Procedure

INFOID:000000004497994

1.CHECK CONTINUITY AMP. ON SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect audio unit connector and BOSE amp. connector.
3. Check continuity between audio unit harness connector and BOSE amp. harness connector.

Audio unit		BOSE amp.		Continuity
Connector	Terminal	Connector	Terminal	
M81	1	B41	31	Existed

4. Check continuity between audio unit harness connector and ground.

Audio unit		Ground	Continuity
Connector	Terminal		
M81	1		Not existed

Is inspection result OK?

YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK VOLTAGE AMP. ON SIGNAL

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

Audio unit		Ground	Voltage (Approx.)
Connector	Terminal		
M81	1		12.0 V

Is inspection result OK?

YES >> Replace BOSE amp.

NO >> Replace audio unit.

WOOFER AMP. ON SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

WOOFER AMP. ON SIGNAL CIRCUIT

Description

INFOID:000000004497995

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

Diagnosis Procedure

INFOID:000000004497996

1.CHECK CONTINUITY WOOFER AMP. ON SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BOSE amp. connector and woofer connector.
3. Check continuity between BOSE amp. harness connector and woofer harness connector.

BOSE amp.		Woofer		Continuity
Connector	Terminal	Connector	Terminal	
B41	25	B43	4	Existed

4. Check continuity between BOSE amp. harness connector and ground.

BOSE amp.		Ground	Continuity
Connector	Terminal		
B41	25		Not existed

Is inspection result OK?

YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK VOLTAGE AMP. ON SIGNAL

1. Connect BOSE amp. connector
2. Turn ignition switch ON.
3. Check voltage between BOSE amp. harness connector and ground.

BOSE amp.		Ground	Voltage (Approx.)
Connector	Terminal		
B41	25		12.0 V

Is inspection result OK?

YES >> Replace woofer.

NO >> Replace BOSE amp.

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MICROPHONE SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

MICROPHONE SIGNAL CIRCUIT

Description

INFOID:000000004497997

TEL adapter unit supplies power to microphone. The microphone transmits the sound voice to the TEL adapter unit.

Diagnosis Procedure

INFOID:000000004497998

1.CHECK CONTINUITY BETWEEN TEL ADAPTER UNIT AND MICROPHONE CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect TEL adapter unit connector and microphone connector.
3. Check continuity between TEL adapter unit harness connector and microphone harness connector.

TEL adapter unit		Microphone		Continuity
Connector	Terminal	Connector	Terminal	
B237	7	R5	1	Existed
	8		2	
	29		4	

4. Check continuity between TEL adapter unit harness connector and ground.

TEL adapter unit		Ground	Continuity
Connector	Terminal		
B237	7		Not existed
	29		

Is inspection result OK?

YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK MICROPHONE POWER SUPPLY

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

TEL adapter unit		Ground	Voltage (Approx.)
Connector	Terminal		
B237	29		5.0 V

Is inspection result OK?

YES >> GO TO 3.

NO >> Replace TEL adapter unit.

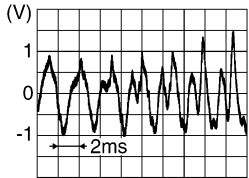
3.CHECK MICROPHONE SIGNAL

1. Turn ignition switch OFF.
2. Connect microphone connector.
3. Turn ignition switch ON.
4. Check signal between TEL adapter unit harness connector.

MICROPHONE SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

TEL adapter unit		TEL adapter unit		Condition	Reference value
Connector	Terminal	Connector	Terminal		
B237	7	B237	8	Give a voice.	

Is inspection result OK?

- YES >> INSPECTION END
- NO >> Replace microphone.

AV

TELEPHONE ON SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

TELEPHONE ON SIGNAL CIRCUIT

Description

INFOID:000000004497999

When telephone is being used. TEL adapter unit transmits telephone ON signal to audio unit.

Diagnosis Procedure

INFOID:000000004498000

1.CHECK CONTINUITY TELEPHONE ON SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect TEL adapter unit connector and audio unit connector.
3. Check continuity between TEL adapter unit harness connector and audio unit harness connector.

TEL adapter unit		Audio unit		Continuity
Connector	Terminal	Connector	Terminal	
B237	11	M82	28	Existed

4. Check continuity between TEL adapter unit harness connector and ground.

TEL adapter unit		Ground	Continuity
Connector	Terminal		
B237	11		Not existed

Is inspection result OK?

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

2.CHECK TELEPHONE ON SIGNAL

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

Audio unit		Ground	Condition	Voltage (Approx.)
Connector	Terminal			
M82	28		While using hands-free phone system	0 V
			While not using hands-free phone system	5.0 V

Is inspection result OK?

- YES >> INSPECTION END
NO >> Replace audio unit.

AUDIO UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

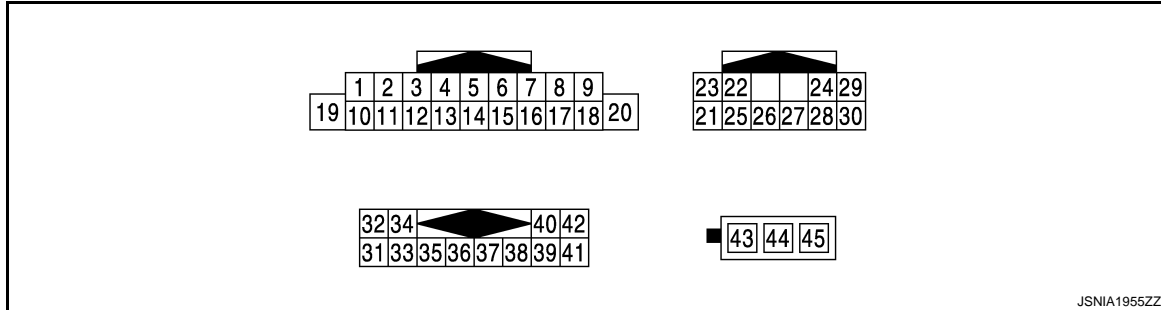
ECU DIAGNOSIS

AUDIO UNIT

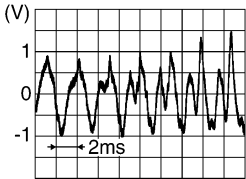
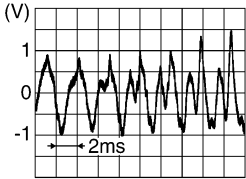

Reference Value

INFOID:000000004498001

TERMINAL LAYOUT



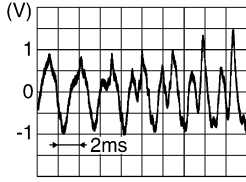
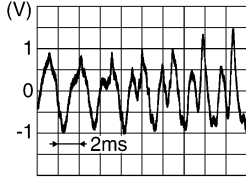

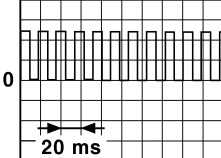
PHYSICAL VALUES

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/ Output			
1 (V)	Ground	BOSE amp. ON signal	Output	Ignition switch ON	—	12.0 V
2 (LG)	3 (V)	Sound signal front speaker LH	Output	Ignition switch ON	Sound signal output	 SKIB3609E
4 (L)	5 (R)	Sound signal rear speaker LH	Output	Ignition switch ON	Sound signal output	 SKIB3609E
6 (P)	15 (B)	Steering switch signal A	Input	Ignition switch ON	Keep pressing  switch	0 V
					Keep pressing MENU UP switch	1.25 V
					Keep pressing MENU DOWN switch	2.5 V
					Except for above	5.0 V
7 (L)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
9 (R)	8 (W)	Illumination signal	Input	Ignition switch OFF	Lighting switch is OFF.	0 V
					Lighting switch is 1ST or 2ND.	12.0 V
10	—	Shield	—	—	—	—

AUDIO UNIT

< ECU DIAGNOSIS >


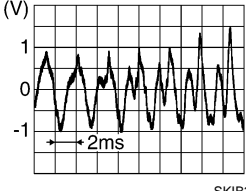

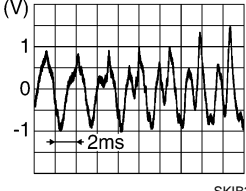
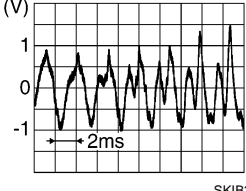
[BOSE AUDIO WITHOUT NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
11 (L)	12 (P)	Sound signal front speaker RH	Output	Ignition switch ON	Sound signal output	 SKIB3609E
13 (R)	14 (G)	Sound signal rear speaker RH	Output	Ignition switch ON	Sound signal output	 SKIB3609E
15 (B)	Ground	Steering switch signal ground	—	Ignition switch ON	—	0 V
16 (L)	15 (B)	Steering switch signal B	Input	Ignition switch ON	Keep pressing VOL DOWN switch	0 V
					Keep pressing VOL UP switch	1.25 V
					Keep pressing  switch	2.5 V
					Keep pressing SOURCE switch	3.7 V
					Except for above.	5.0 V
18 (Y)	Ground	Vehicle speed signal (8-pulse)	Input	Ignition switch ON	When vehicle speed is ap- prox. 40 km/h (25MPH)	NOTE: The maximum voltage varies de- pending on the specification (destination unit).  JSNIA0012GB
19 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
20	—	Shield	—	—	—	—
21 (R)	—	AV communication signal (H)	—	Input/ Output	—	—
22 (G)	—	AV communication signal (L)	—	Input/ Output	—	—

AUDIO UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

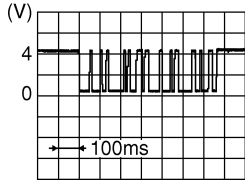
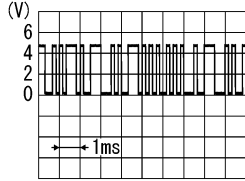
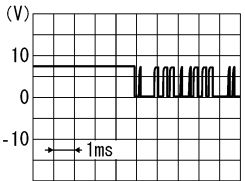
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
24 (W)	30 (B)	Steering switch signal A	Output	Ignition switch ON	Keep pressing  switch	0 V
					Keep pressing MENU UP switch	1.25 V
					Keep pressing MENU DOWN switch	2.5 V
					Except for above	5.0 V
25	—	Shield	—	—	—	—
26 (LG)	27 (V)	Sound signal (Telephone voice, tele- phone guidance)	Input	Ignition switch ON	Give a voice	
28 (O)	Ground	Telephone ON signal	Input	Ignition switch ON	While using hands-free phone system	0 V
					While not using hands-free phone system	5.0 V
29 (GR)	30 (B)	Steering switch signal B	Output	Ignition switch ON	Keep pressing VOL DOWN switch	0 V
					Keep pressing VOL UP switch	1.25 V
					Keep pressing  switch	2.5 V
					Keep pressing SOURCE switch	3.7 V
					Except for above.	5.0 V
32 (B)	31 (W)	Satellite radio sound signal LH	Input	Ignition switch ON	When satellite radio mode is selected	
34 (G)	33 (R)	Satellite radio sound signal RH	Input	Ignition switch ON	When satellite radio mode is selected	
35	—	Shield	—	—	—	—
36	—	Shield	—	—	—	—

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AUDIO UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
38 (P)	Ground	Request signal (SAT TO AUDIO)	Input	Ignition switch ON	When satellite radio mode is selected	 <p>JSNIA0675ZZ</p>
39 (G)	Ground	Communication signal (SAT-AUDIO)	Input	Ignition switch ON	When satellite radio mode is selected	 <p>PKIB5039J</p>
40 (L)	Ground	Communication signal (AUDIO-SAT)	Output	Ignition switch ON	When satellite radio mode is selected	 <p>SKIA9301J</p>
43	Ground	Antenna amp. ON signal	Output	Ignition switch ON	—	12.0 V
44	—	Antenna signal	Input	—	—	—

AUDIO UNIT

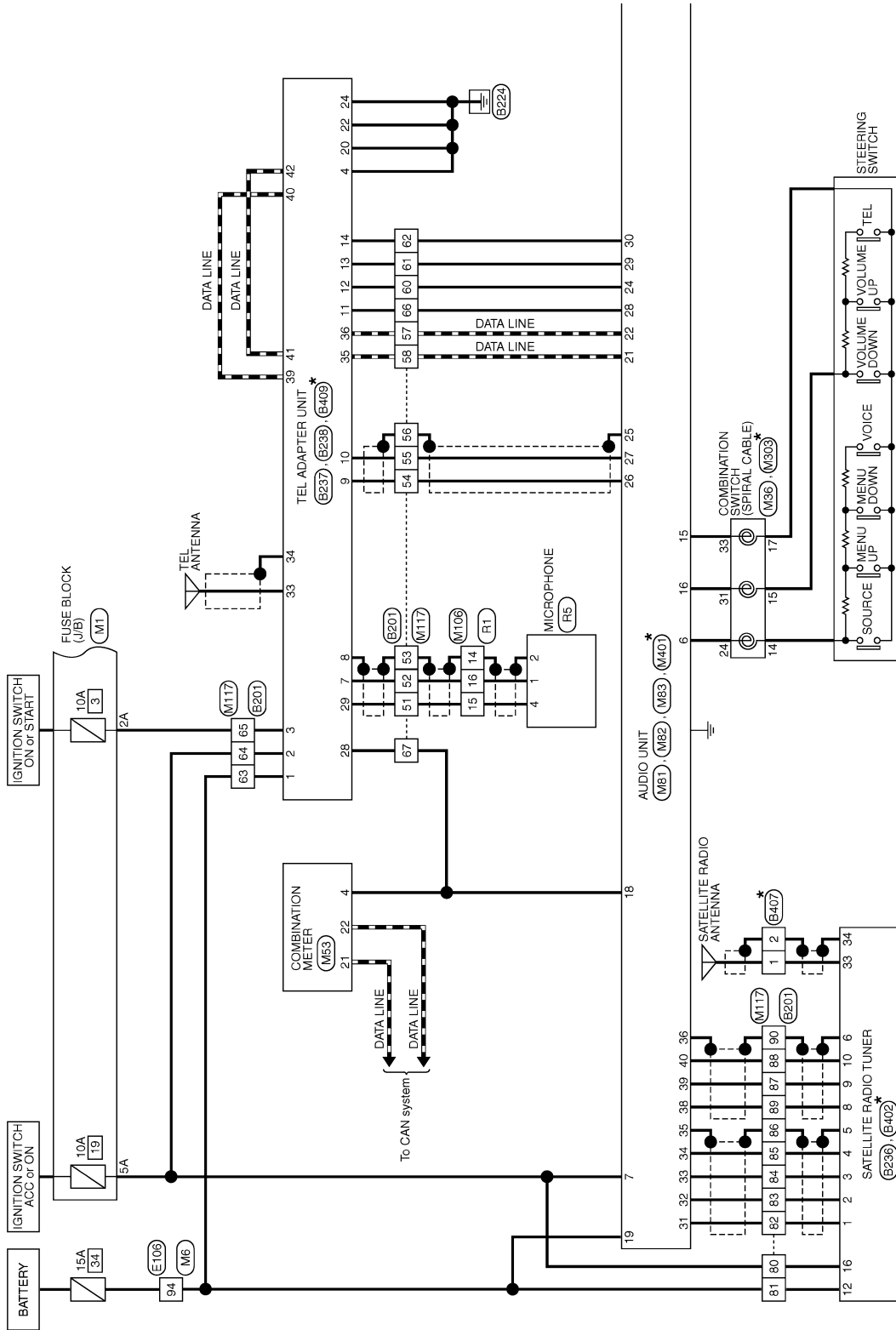
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[BOSE AUDIO WITHOUT NAVIGATION]

Wiring Diagram - BOSE AUDIO WITHOUT NAVIGATION SYSTEM -

INFOID:000000004498002

BOSE AUDIO WITHOUT NAVIGATION SYSTEM



2008/09/12

JCNWA1880GE

*: This connector is not shown in "Harness Layout".

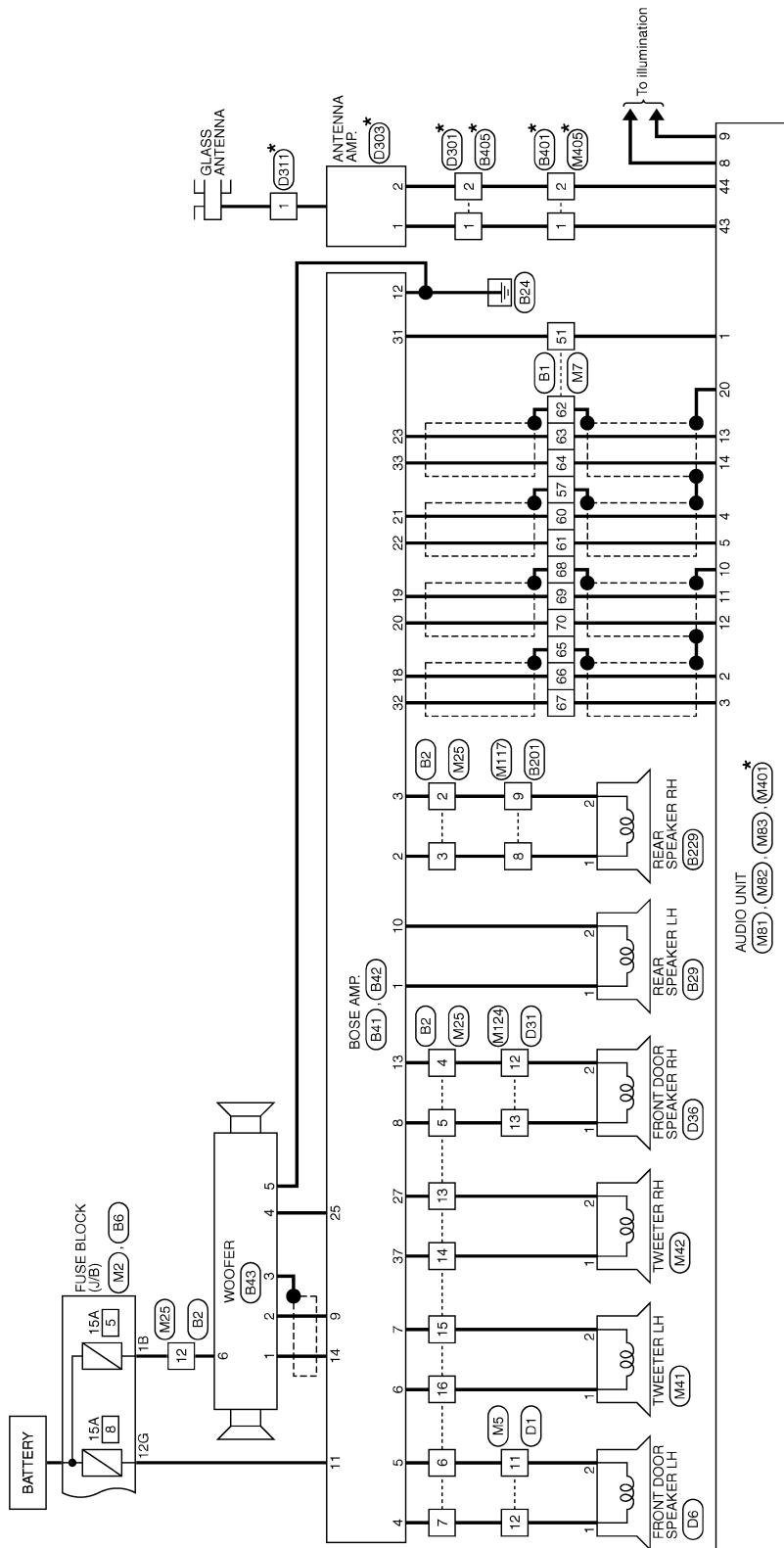
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AUDIO UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]



*: This connector is not shown in "Harness Layout".

JCNWA1881GE

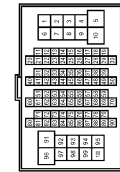
AUDIO UNIT

[BOSE AUDIO WITHOUT NAVIGATION]

< ECU DIAGNOSIS >

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B1	R	G
Connector Name	WIRE TO WIRE		
Connector Type	TH00FW-CS16-TM4		



Terminal No.	Color of Wire	Signal Name [Specification]
51	W	-
57	SHIELD	-
60	V	-
61	SB	-
62	SHIELD	-
63	BR	-
64	Y	-
65	SHIELD	-
66	P	-
67	L	-
68	SHIELD	-

Connector No.	B20
Connector Name	REAR SPEAKER LH
Connector Type	TK02FBR



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	-

69	R	-
70	G	-

Connector No.	B2
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
2	Y	-
3	LG	-
4	G	-
5	O	-
6	V	-
7	L	-
12	Y	-
13	W	-
14	B	-
15	GR	-
16	LG	-

37	B	SOUND SIGNAL TWEETER RH (+)
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Connector No.	B6
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS16FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
12G	Y	-

Connector No.	B41
Connector Name	BOSE AMP.
Connector Type	SCA19FBR-SGA4



Terminal No.	Color of Wire	Signal Name [Specification]
18	P	SOUND SIGNAL FRONT LH (+)
19	R	SOUND SIGNAL FRONT RH (+)
20	G	SOUND SIGNAL FRONT RH (-)
21	V	SOUND SIGNAL REAR LH (+)
22	SB	SOUND SIGNAL REAR LH (-)
23	BR	SOUND SIGNAL REAR RH (+)
25	GR	WOOFER AMP. ON SIGNAL
27	W	SOUND SIGNAL TWEETER RH (+)
31	W	BOSE AMP. ON SIGNAL
32	L	SOUND SIGNAL FRONT LH (-)
33	Y	SOUND SIGNAL REAR RH (-)

JCNWA1882GE

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AUDIO UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B42
Connector Name	BOSE AMP.
Connector Type	SGM12FER-SJA2



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

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	SOUND SIGNAL REAR SPEAKER LH (+)
2	LG	SOUND SIGNAL REAR SPEAKER RH (+)
3	Y	SOUND SIGNAL REAR SPEAKER RH (-)
4	L	SOUND SIGNAL FRONT SPEAKER LH (+)
5	V	SOUND SIGNAL FRONT SPEAKER LH (-)
6	LG	SOUND SIGNAL TWEETER LH (+)
7	GR	SOUND SIGNAL TWEETER LH (-)
8	O	SOUND SIGNAL FRONT DOOR RH (+)
9	SB	SOUND SIGNAL WOOFER (+)
10	P	SOUND SIGNAL REAR SPEAKER LH (-)
11	Y	BATTERY

12	B	GND
13	G	SOUND SIGNAL FRONT DOOR RH (-)
14	V	SOUND SIGNAL WOOFER (-)

Connector No.	B43
Connector Name	WOOFER
Connector Type	RS08FGY-PR



2	4	6
1	3	5

Terminal No.	Color of Wire	Signal Name [Specification]
1	V	SOUND SIGNAL WOOFER (-)
2	SB	SOUND SIGNAL WOOFER (+)
3	SHIELD	SHIELD
4	GR	WOOFER AMP. ON SIGNAL
5	B	GND
6	Y	BATTERY

Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	TH00FW-CS16-TM4



16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
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Terminal No.	Color of Wire	Signal Name [Specification]
8	LG	-
9	Y	-
51	P	-
52	L	-
53	SHIELD	-
54	BR	-
55	Y	-
56	SHIELD	-
57	G	-
58	R	-
60	W	-

Connector No.	B229
Connector Name	REAR SPEAKER RH
Connector Type	TK02FER



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

Connector No.	B236
Connector Name	SATELLITE RADIO TUNER
Connector Type	AI16FW



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

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	SATELLITE RADIO SOUND SIGNAL LH (-)
2	R	SATELLITE RADIO SOUND SIGNAL LH (+)
3	W	SATELLITE RADIO SOUND SIGNAL RH (-)
4	B	SATELLITE RADIO SOUND SIGNAL RH (+)
5	SHIELD	SHIELD
6	SHIELD	SHIELD
8	Y	REQUEST (SAT->CONT)
9	O	COMM (SAT->AUDIO)
10	BR	COMM (AUDIO->SAT)
12	SB	BATTERY
16	V	ACC

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B237
Connector Name	TEL ADAPTER UNIT
Connector Type	TH22FW-NH



2	4	8	10	12	14	20	22	24	28
1	3	7	9	11	13				29

14	LG	STRG SW GND (INPUT)
20	B	CONTROL SIGNAL
22	B	CONTROL SIGNAL
24	B	CONTROL SIGNAL
28	V	VEHICLE SPEED (8-PULSE)
29	P	MICROPHONE VCC



35	37	39	41
36	40	42	

Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	BATTERY
2	V	ACC
3	SB	IGNITION
4	B	GND
7	L	MICROPHONE SIGNAL
8	SHIELD	MICROPHONE GND
9	BR	TEL VOICE SIGNAL (+)
10	Y	TEL VOICE SIGNAL (-)
11	O	MUTE CONTROL
12	W	STRG SW A (INPUT)
13	GR	STRG SW B (INPUT)

Terminal No.	Color of Wire	Signal Name [Specification]
35	R	AV COMM (H)
36	G	AV COMM (L)
39	L	M-CAN JUMPER1
40	L	M-CAN- 2
41	Y	M-CAN JUMPER2
42	Y	M-CAN- 2

Connector No.	B238
Connector Name	TEL ADAPTER UNIT
Connector Type	TH08FW-NH



35	37	39	41
36	40	42	

Connector No.	B401
Connector Name	WIRE TO WIRE
Connector Type	GT13SON-1/IPP-HU



1	2
---	---

Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-

Connector No.	B402
Connector Name	SATELLITE RADIO TUNER
Connector Type	FAKRA CONNECTOR



33	34
----	----

Connector No.	B405
Connector Name	WIRE TO WIRE
Connector Type	GT13SSH-1/IPP-HU(21)



1	2
---	---

Connector No.	B407
Connector Name	SATELLITE RADIO ANTENNA
Connector Type	GT16C-IPP-HU(A)



1	2
---	---

Connector No.	B409
Connector Name	TEL ADAPTER UNIT
Connector Type	GT16C-IS-HU



33	34
----	----

Terminal No.	Color of Wire	Signal Name [Specification]
33	-	SATELLITE ANTENNA SIGNAL
34	SHIELD	SHIELD

Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-

Terminal No.	Color of Wire	Signal Name [Specification]
33	-	TEL ANTENNA SIGNAL
34	SHIELD	SHIELD

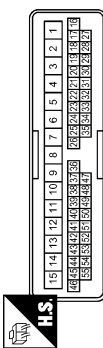
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AV

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



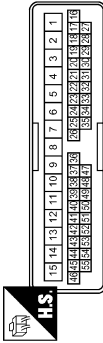
Terminal No.	Color of Wire	Signal Name [Specification]
11	P	— [With BOSE system]
12	L	—

Connector No.	D6
Connector Name	FRONT DOOR SPEAKER LH
Connector Type	NS02FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	—
2	P	— [With BOSE system]

Connector No.	D31
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



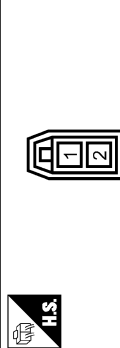
Terminal No.	Color of Wire	Signal Name [Specification]
12	P	— [With BOSE system]
13	L	— [With BOSE system]

Connector No.	D36
Connector Name	FRONT DOOR SPEAKER RH
Connector Type	NS02FW-CS



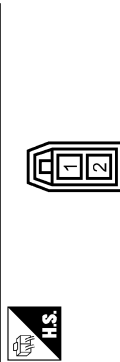
Terminal No.	Color of Wire	Signal Name [Specification]
1	L	— [With BOSE system]
2	P	— [With BOSE system]

Connector No.	D301
Connector Name	WIRE TO WIRE
Connector Type	GT13SS-1/S-HU(21)



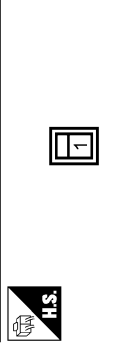
Terminal No.	Color of Wire	Signal Name [Specification]
1	—	—
2	—	—

Connector No.	D303
Connector Name	ANTENNA AMP.
Connector Type	GT13SC-1/S-HU



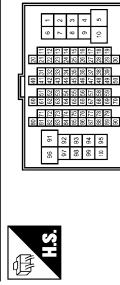
Terminal No.	Color of Wire	Signal Name [Specification]
1	—	ANTENNA AMP. ON SIGNAL
2	—	AM-FM MAIN

Connector No.	D311
Connector Name	GLASS ANTENNA
Connector Type	P01FB-A



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	—

Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
94	Y	—

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BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS06FW-M2



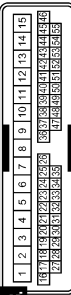
Terminal No.	Color of Wire	Signal Name [Specification]
2A	G	-
5A	L	-

Connector No.	M2
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS10FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1B	Y	-

Connector No.	M5
Connector Name	WIRE TO WIRE
Connector Type	TH40MM-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
11	V	-
12	L	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH80MM-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
94	Y	-

Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Type	TH80MM-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
51	V	-
57	SHIELD	-
60	L	-
61	R	-
62	SHIELD	-
63	R	-
64	G	-
65	SHIELD	-
66	LG	-
67	V	-
68	SHIELD	-

Connector No.	M25
Connector Name	WIRE TO WIRE
Connector Type	NS16MM-CS



Terminal No.	Color of Wire	Signal Name [Specification]
2	Y	-
3	LG	-
4	LG	-
5	V	-
6	V	-
7	L	-
12	Y	-
13	W	-
14	W	-
15	W	-
16	L	-

Connector No.	M35
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TX08FGY-1V



Terminal No.	Color of Wire	Signal Name [Specification]
24	P	-
31	L	-
33	B	-

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P

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M41
Connector Name	TWEETER LH
Connector Type	TK02FBR



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

Connector No.	M42
Connector Name	TWEETER RH
Connector Type	TK02FBR



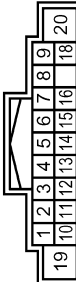
Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	W	-

Connector No.	M53
Connector Name	COMBINATION METER
Connector Type	TH12FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
4	Y	VEHICLE SPEED SIGNAL (8-PULSE)
21	L	GAN-H
22	P	GAN-L

Connector No.	M81
Connector Name	AUDIO UNIT
Connector Type	TH18FW-CS2



Terminal No.	Color of Wire	Signal Name [Specification]
1	V	BOSE AMP. ON SIGNAL
2	LG	SOUND SIGNAL FRONT SPEAKER LH (+)
3	V	SOUND SIGNAL FRONT SPEAKER LH (-)
4	L	SOUND SIGNAL REAR SPEAKER LH (+)
5	R	SOUND SIGNAL REAR SPEAKER LH (-)
6	P	STRG SW A
7	L	ACC
8	W	ILL (-)
9	R	ILL (+)
10	SHIELD	SHIELD
11	L	SOUND SIGNAL FRONT SPEAKER RH (+)

12	P	SOUND SIGNAL FRONT SPEAKER RH (-)
13	R	SOUND SIGNAL REAR SPEAKER RH (+)
14	G	SOUND SIGNAL REAR SPEAKER RH (-)
15	B	STRG SW GND
16	L	STRG SW B
18	Y	SPEED SIGNAL (8P)
19	Y	BATTERY
20	SHIELD	SHIELD

Connector No.	M82
Connector Name	AUDIO UNIT
Connector Type	TH12FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
21	R	AV COMM (H)
22	G	AV COMM (L)
24	W	STRG SW A (OUTPUT)
25	SHIELD	SHIELD
26	LG	SOUND SIGNAL TEL (+)
27	V	SOUND SIGNAL TEL (-)
28	O	TEL ON
29	GR	STRG SW B (OUTPUT)
30	B	STRG SW GND (OUTPUT)

Connector No.	M83
Connector Name	AUDIO UNIT
Connector Type	A12PW



Terminal No.	Color of Wire	Signal Name [Specification]
31	W	SATELLITE RADIO SOUND SIGNAL LH (-)
32	B	SATELLITE RADIO SOUND SIGNAL LH (+)
33	R	SATELLITE RADIO SOUND SIGNAL RH (-)
34	G	SATELLITE RADIO SOUND SIGNAL RH (+)
35	SHIELD	SHIELD
36	SHIELD	SHIELD
38	P	REQUEST SIGNAL (SAT->CONT)
39	G	COMM (SAT->AUDIO)
40	L	COMM (AUDIO->SAT)

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BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M106
Connector Name	WIRE TO WIRE
Connector Type	TH16MW-NH



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

Terminal No.	Color of Wire	Signal Name [Specification]
14	SHIELD	-
15	R	-
16	G	-

Connector No.	M117
Connector Name	WIRE TO WIRE
Connector Type	TH60MW-CS16-TM



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BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	R5
Connector Name	MICROPHONE
Connector Type	TKG4FW



Terminal No.	Color of Wire	Signal Name (Specification)
1	P	MICROPHONE SIGNAL
2	SHIELD	SHIELD
4	L	MICROPHONE VCC

JCNWA1889GE

BOSE AMP.

< ECU DIAGNOSIS >

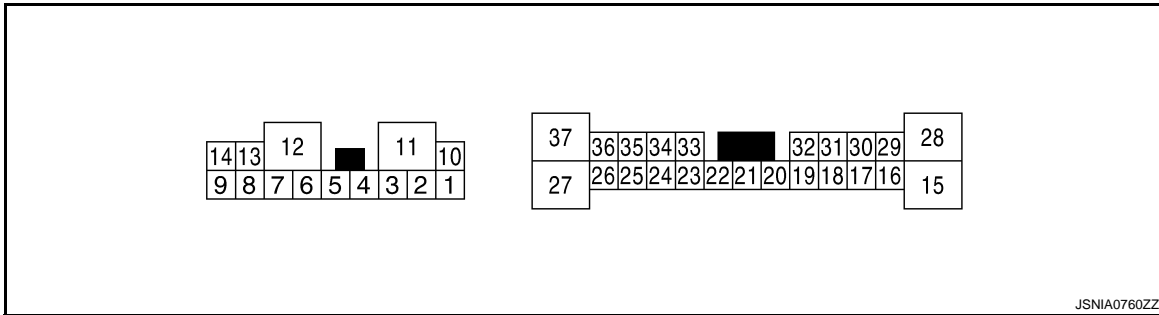
[BOSE AUDIO WITHOUT NAVIGATION]

BOSE AMP.

Reference Value

INFOID:000000004498910

TERMINAL LAYOUT



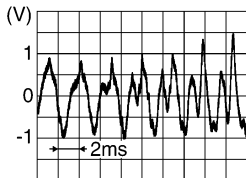
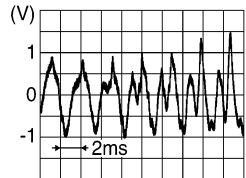
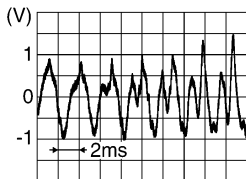
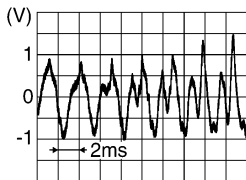
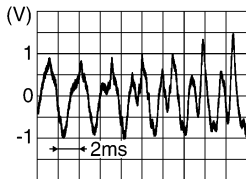
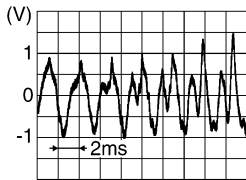
PHYSICAL VALUES

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/ Output			
1 (L)	10 (P)	Sound signal rear speaker LH	Output	Ignition switch ON	Voice output	<p>SKIB3609E</p>
2 (LG)	3 (Y)	Sound signal rear speaker RH	Output	Ignition switch ON	Voice output	<p>SKIB3609E</p>
4 (L)	5 (V)	Sound signal front door speaker LH	Output	Ignition switch ON	Voice output	<p>SKIB3609E</p>
6 (LG)	7 (GR)	Sound signal tweeter LH	Output	Ignition switch ON	Voice output	<p>SKIB3609E</p>

BOSE AMP.

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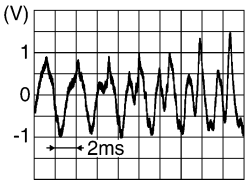
[BOSE AUDIO WITHOUT NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
8 (O)	13 (G)	Sound signal front door speaker RH	Output	Ignition switch ON	Voice output	 SKIB3609E
9 (SB)	14 (V)	Sound signal woofer	Output	Ignition switch ON	Voice output	 SKIB3609E
11 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
18 (P)	32 (L)	Sound signal front LH	Input	Ignition switch ON	Voice output	 SKIB3609E
19 (R)	20 (G)	Sound signal front RH	Input	Ignition switch ON	Voice output	 SKIB3609E
21 (V)	22 (SB)	Sound signal rear LH	Input	Ignition switch ON	Voice output	 SKIB3609E
23 (BR)	33 (Y)	Sound signal rear RH	Input	Ignition switch ON	Voice output	 SKIB3609E
25 (GR)	Ground	Woofer amp. ON signal	Output	Ignition switch ACC	—	12.0 V

BOSE AMP.

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[BOSE AUDIO WITHOUT NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
31 (W)	Ground	BOSE amp. ON signal	Input	Ignition switch ACC	—	12.0 V
27 (W)	37 (B)	Sound signal tweeter RH	Output	Ignition switch ON	Voice output	 <small>SKIB3609E</small>

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BOSE AMP.

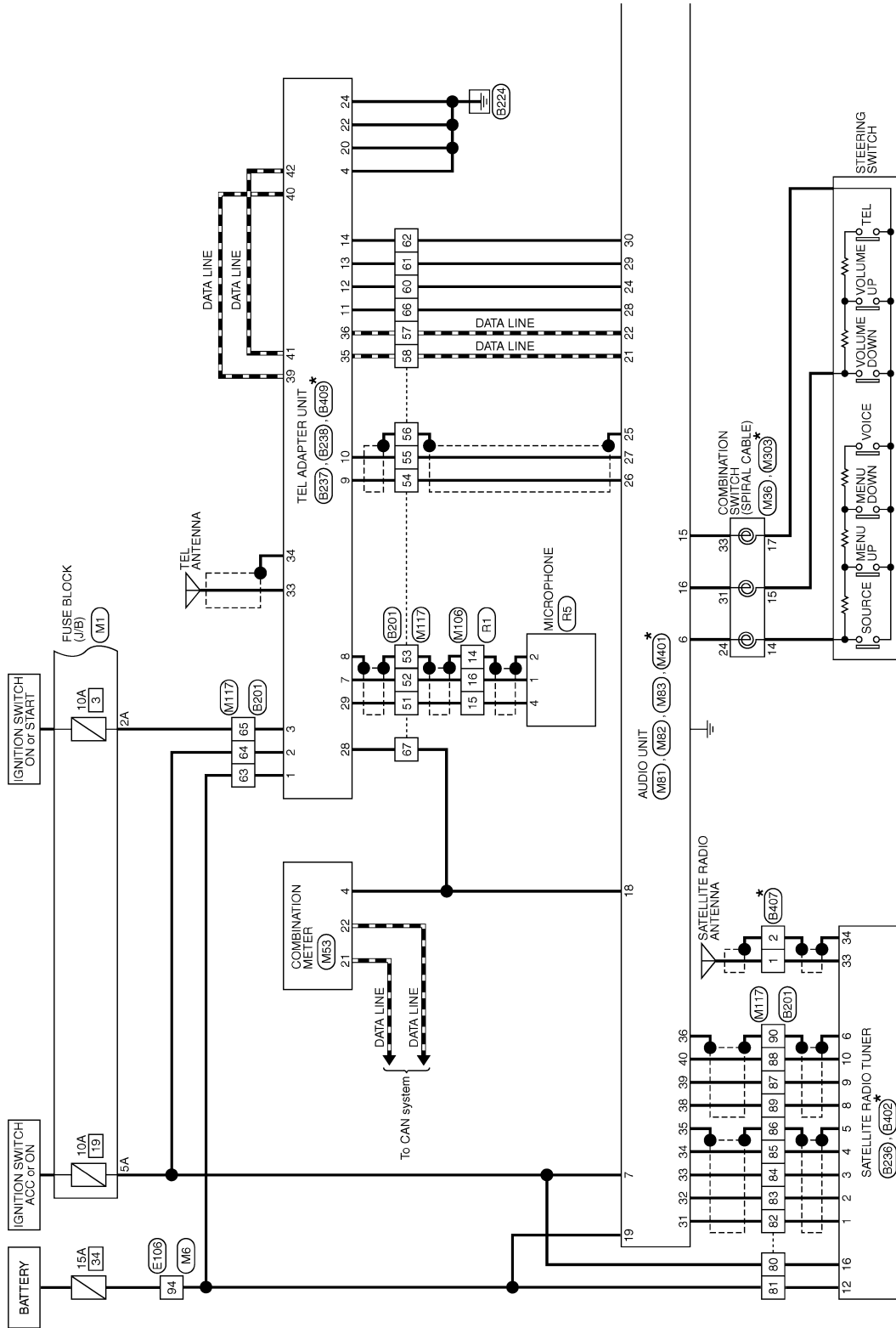
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[BOSE AUDIO WITHOUT NAVIGATION]

Wiring Diagram - BOSE AUDIO WITHOUT NAVIGATION SYSTEM -

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BOSE AUDIO WITHOUT NAVIGATION SYSTEM



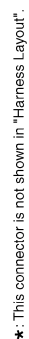
*: This connector is not shown in "Harness Layout".

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[BOSE AUDIO WITHOUT NAVIGATION]

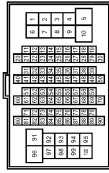
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BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B1		
Connector Name	WIRE TO WIRE		
Connector Type	TH00FW-GS16-TM44		



Terminal No.	Color of Wire	Signal Name [Specification]
51	W	-
57	SHIELD	-
60	V	-
61	SB	-
62	SHIELD	-
63	BR	-
64	Y	-
65	SHIELD	-
66	P	-
67	L	-
68	SHIELD	-



Connector No.	B20		
Connector Name	REAR SPEAKER LH		
Connector Type	TK02FBR		

69	R	-
70	G	-

Connector No.	B2		
Connector Name	WIRE TO WIRE		
Connector Type	NS16FW-GS		



Terminal No.	Color of Wire	Signal Name [Specification]
2	Y	-
3	LG	-
4	G	-
5	O	-
6	V	-
7	L	-
12	Y	-
13	W	-
14	B	-
15	GR	-
16	LG	-

37	B	SOUND SIGNAL TWEETER RH (-)
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Connector No.	B6		
Connector Name	FUSE BLOCK (J/B)		
Connector Type	NS16FBR-GS		



Terminal No.	Color of Wire	Signal Name [Specification]
12G	Y	-

Connector No.	B41		
Connector Name	BOSE AMP		
Connector Type	SCA19FBR-SCA4		



Terminal No.	Color of Wire	Signal Name [Specification]
18	P	SOUND SIGNAL FRONT LH (+)
19	R	SOUND SIGNAL FRONT RH (+)
20	G	SOUND SIGNAL FRONT RH (-)
21	V	SOUND SIGNAL REAR LH (+)
22	SB	SOUND SIGNAL REAR LH (-)
23	BR	SOUND SIGNAL REAR RH (+)
25	GR	WOOFER AMP ON SIGNAL
27	W	SOUND SIGNAL TWEETER RH (+)
31	W	BOSE AMP ON SIGNAL
32	Y	SOUND SIGNAL FRONT LH (-)
33	Y	SOUND SIGNAL REAR RH (-)

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	-

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BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B42
Connector Name	BOSE AMP.
Connector Type	SGA12FER-SJA2



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

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	SOUND SIGNAL REAR SPEAKER LH (+)
2	LG	SOUND SIGNAL REAR SPEAKER RH (+)
3	Y	SOUND SIGNAL REAR SPEAKER RH (-)
4	L	SOUND SIGNAL FRONT SPEAKER LH (+)
5	V	SOUND SIGNAL FRONT SPEAKER LH (-)
6	LG	SOUND SIGNAL TWEETER LH (+)
7	GR	SOUND SIGNAL TWEETER LH (-)
8	O	SOUND SIGNAL FRONT DOOR RH (+)
9	SB	SOUND SIGNAL WOOFER (+)
10	P	SOUND SIGNAL REAR SPEAKER LH (-)
11	Y	BATTERY

12	B	GND
13	G	SOUND SIGNAL FRONT DOOR RH (-)
14	V	SOUND SIGNAL WOOFER (+)

Connector No.	B43
Connector Name	WOOFER
Connector Type	RS06FY-PR



2	4	6
1	3	5

Terminal No.	Color of Wire	Signal Name [Specification]
1	V	SOUND SIGNAL WOOFER (-)
2	SB	SOUND SIGNAL WOOFER (+)
3	SHIELD	SHIELD
4	GR	WOOFER AMP. ON SIGNAL
5	B	GND
6	Y	BATTERY

Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	TH08FW-CS16-TM4



16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
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Terminal No.	Color of Wire	Signal Name [Specification]
8	LG	-
9	Y	-
51	P	-
52	L	-
53	SHIELD	-
54	BR	-
55	Y	-
56	SHIELD	-
57	G	-
58	R	-
60	W	-

Connector No.	B229
Connector Name	REAR SPEAKER RH
Connector Type	TR02FBR



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

Connector No.	B236
Connector Name	SATELLITE RADIO TUNER
Connector Type	AI6FW



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

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	SATELLITE RADIO SOUND SIGNAL LH (-)
2	R	SATELLITE RADIO SOUND SIGNAL LH (+)
3	W	SATELLITE RADIO SOUND SIGNAL RH (-)
4	B	SATELLITE RADIO SOUND SIGNAL RH (+)
5	SHIELD	SHIELD
6	SHIELD	SHIELD
8	Y	REQUEST (SAT->CONT)
9	O	COMM (SAT->AUDIO)
10	BR	COMM (AUDIO->SAT)
12	SB	BATTERY
16	V	ACC

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BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B237
Connector Name	TEL ADAPTER UNIT
Connector Type	TH22FW-NH



2	4	8	10	12	14	20	22	24	28	29
1	3	7	9	11	13					

14	LG	STRG SW GND (INPUT)
20	B	CONTROL SIGNAL
22	B	CONTROL SIGNAL
24	B	CONTROL SIGNAL
28	V	VEHICLE SPEED (8-PULSE)
29	P	MICROPHONE VCC

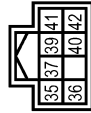
Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	BATTERY
2	V	ACC
3	SB	IGNITION
4	B	GND
7	L	MICROPHONE SIGNAL
8	SHIELD	MICROPHONE GND
9	BR	TEL VOICE SIGNAL (+)
10	Y	TEL VOICE SIGNAL (-)
11	O	MUTE CONTROL
12	W	STRG SW A (INPUT)
13	GR	STRG SW B (INPUT)



Connector No.	B402
Connector Name	SATELLITE RADIO TUNER
Connector Type	FAKRA CONNECTOR

Terminal No.	Color of Wire	Signal Name [Specification]
33	-	SATELLITE ANTENNA SIGNAL
34	SHIELD	SHIELD

Connector No.	B238
Connector Name	TEL ADAPTER UNIT
Connector Type	TH08FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
35	R	AV COMM (H)
36	G	AV COMM (L)
39	L	M-CAN JUMPER1
40	L	M-CAN-2
41	Y	M-CAN JUMPER2
42	Y	M-CAN-2

Connector No.	B407
Connector Name	SATELLITE RADIO ANTENNA
Connector Type	GT16C-1PP-HU(A)



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-

Connector No.	B401
Connector Name	WIRE TO WIRE
Connector Type	GT13SSH-1/1PP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-

Connector No.	B409
Connector Name	TEL ADAPTER UNIT
Connector Type	GT16C-1S-HU

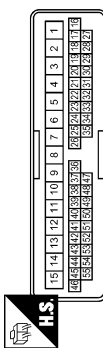


Terminal No.	Color of Wire	Signal Name [Specification]
33	-	TEL ANTENNA SIGNAL
34	SHIELD	SHIELD

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BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



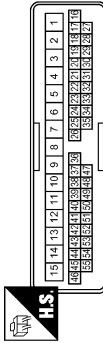
Terminal No.	Color of Wire	Signal Name [Specification]
11	P	- [With BOSE system]
12	L	-

Connector No.	D6
Connector Name	FRONT DOOR SPEAKER LH
Connector Type	NS02FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	- [With BOSE system]

Connector No.	D31
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



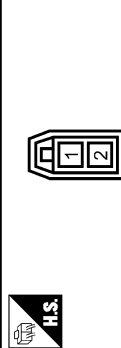
Terminal No.	Color of Wire	Signal Name [Specification]
12	P	- [With BOSE system]
13	L	- [With BOSE system]

Connector No.	D36
Connector Name	FRONT DOOR SPEAKER RH
Connector Type	NS02FW-CS



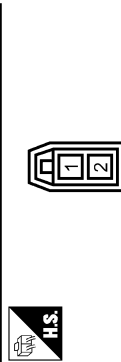
Terminal No.	Color of Wire	Signal Name [Specification]
1	L	- [With BOSE system]
2	P	- [With BOSE system]

Connector No.	D301
Connector Name	WIRE TO WIRE
Connector Type	GT13SS-1/S-HU(21)



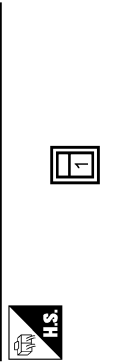
Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-

Connector No.	D303
Connector Name	ANTENNA AMP.
Connector Type	GT13SC-1/S-HU



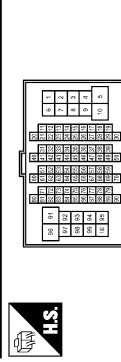
Terminal No.	Color of Wire	Signal Name [Specification]
1	-	ANTENNA AMP. ON SIGNAL
2	-	AM-FM MAIN

Connector No.	D311
Connector Name	GLASS ANTENNA
Connector Type	P01FB-A



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	-

Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS16-7M4



Terminal No.	Color of Wire	Signal Name [Specification]
94	Y	-

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BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS06FW-M2



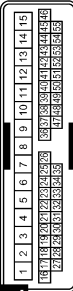
Terminal No.	Signal Name [Specification]
2A	G
5A	L

Connector No.	M2
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS10FW-CS



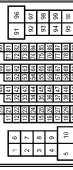
Terminal No.	Color of Wire	Signal Name [Specification]
1B	Y	-

Connector No.	M5
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



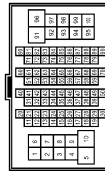
Terminal No.	Color of Wire	Signal Name [Specification]
11	V	-
12	L	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH60MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
94	Y	-

Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
51	V	-
57	SHIELD	-
60	L	-
61	R	-
62	SHIELD	-
63	R	-
64	G	-
65	SHIELD	-
66	LG	-
67	V	-
68	SHIELD	-

Connector No.	M25
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
2	Y	-
3	LG	-
4	LG	-
5	V	-
6	V	-
7	L	-
12	Y	-
13	W	-
14	L	-
15	W	-
16	L	-

Connector No.	M36
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TX08FGY-1V



Terminal No.	Color of Wire	Signal Name [Specification]
24	P	-
31	L	-
33	B	-

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BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M41
Connector Name	TWEETER LH
Connector Type	TK02FBR



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

Connector No.	M42
Connector Name	TWEETER RH
Connector Type	TK02FBR



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

Connector No.	M53
Connector Name	COMBINATION METER
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
4	Y	VEHICLE SPEED SIGNAL (8-PULSE)
21	L	CAN-H
22	P	CAN-L

Connector No.	M81
Connector Name	AUDIO UNIT
Connector Type	TH18FW-GS2



Terminal No.	Color of Wire	Signal Name [Specification]
1	V	BOSE AMP. ON SIGNAL
2	LG	SOUND SIGNAL FRONT SPEAKER LH (+)
3	V	SOUND SIGNAL FRONT SPEAKER LH (-)
4	L	SOUND SIGNAL REAR SPEAKER LH (+)
5	R	SOUND SIGNAL REAR SPEAKER LH (-)
6	P	STRG SW A
7	L	ACC
8	W	ILL (+)
9	R	ILL (-)
10	SHIELD	SHIELD
11	L	SOUND SIGNAL FRONT SPEAKER RH (+)

12	P	SOUND SIGNAL FRONT SPEAKER RH (-)
13	R	SOUND SIGNAL REAR SPEAKER RH (+)
14	G	SOUND SIGNAL REAR SPEAKER RH (-)
15	B	STRG SW GND
16	L	STRG SW B
18	Y	SPEED SIGNAL (8P)
19	Y	BATTERY
20	SHIELD	SHIELD

Connector No.	M82
Connector Name	AUDIO UNIT
Connector Type	TH12FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
21	R	AV COMM (H)
22	G	AV COMM (L)
24	W	STRG SW A (OUTPUT)
25	SHIELD	SHIELD
26	LG	SOUND SIGNAL TEL (+)
27	V	SOUND SIGNAL TEL (-)
28	O	TEL ON
29	GR	STRG SW B (OUTPUT)
30	B	STRG SW GND (OUTPUT)

Connector No.	M83
Connector Name	AUDIO UNIT
Connector Type	AI2FW



Terminal No.	Color of Wire	Signal Name [Specification]
31	W	SATELLITE RADIO SOUND SIGNAL LH (-)
32	B	SATELLITE RADIO SOUND SIGNAL LH (+)
33	R	SATELLITE RADIO SOUND SIGNAL RH (-)
34	G	SATELLITE RADIO SOUND SIGNAL RH (+)
35	SHIELD	SHIELD
36	SHIELD	SHIELD
38	P	REQUEST SIGNAL (SAT->CONT)
39	G	COMM (SAT->AUDIO)
40	L	COMM (AUDIO->SAT)

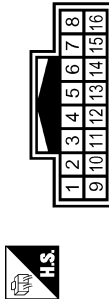
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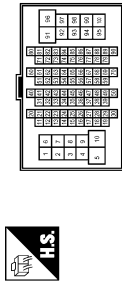
BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M105
Connector Name	WIRE TO WIRE
Connector Type	TH16MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
14	SHIELD	-
15	R	-
16	G	-

Connector No.	M117
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CSI (E-TM4)



Terminal No.	Color of Wire	Signal Name [Specification]
8	LG	-
9	Y	-
51	R	-
52	G	-
53	SHIELD	-
54	LG	-
55	V	-
56	SHIELD	-
57	G	-
58	R	-
60	W	-

Connector No.	M303
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY



Terminal No.	Color of Wire	Signal Name [Specification]
14	W	-
15	L	-
17	BR	-

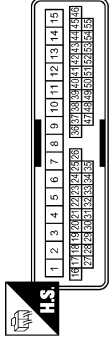
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65	G	-
66	O	-
67	V	-
80	W	-
81	Y	-
82	W	-
83	B	-
84	R	-
85	G	-
86	SHIELD	-
87	G	-
88	L	-
89	P	-
90	SHIELD	-

Connector No.	M405
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-1/IS-HU



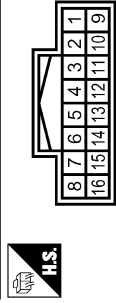
Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-

Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-GS15



Terminal No.	Color of Wire	Signal Name [Specification]
12	LG	-
13	V	-

Connector No.	R1
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
14	SHIELD	-
15	L	-
16	P	-

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BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	R5
Connector Name	MICROPHONE
Connector Type	TKG4FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	P	MICROPHONE SIGNAL
2	SHIELD	SHIELD
4	L	MICROPHONE VCC

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WOOFER

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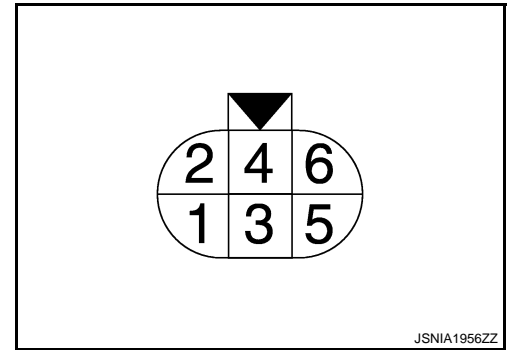
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WOOFER

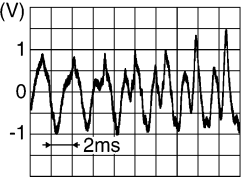
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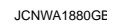
TERMINAL LAYOUT



PHYSICAL VALUES

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
2 (SB)	1 (V)	Sound signal woofer	Output	Ignition switch ON	Voice output	
3	—	Shield	—	—	—	—
4 (GR)	Ground	Woofer amp. ON signal	Input	Ignition switch ON	Voice output	12.0 V
5 (B)	Ground	Ground	—	Ignition switch ON	—	0 V
6 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage

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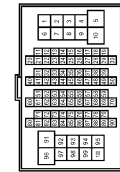
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[BOSE AUDIO WITHOUT NAVIGATION]

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH00FW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
51	W	-
57	SHIELD	-
60	V	-
61	SB	-
62	SHIELD	-
63	BR	-
64	Y	-
65	SHIELD	-
66	P	-
67	L	-
68	SHIELD	-

69	R	-
70	G	-

Connector No.	B2
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



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

Terminal No.	Color of Wire	Signal Name [Specification]
2	Y	-
3	LG	-
4	G	-
5	O	-
6	V	-
7	L	-
12	Y	-
13	W	-
14	B	-
15	GR	-
16	LG	-

Connector No.	B6
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS16FBR-CS



5G4G	3G2G1G
12G11G	10G9G8G7G6G

Terminal No.	Color of Wire	Signal Name [Specification]
12G	Y	-

Connector No.	B41
Connector Name	BOSE AMP.
Connector Type	SCA19FBR-SGA4



37	33	32	31	28
27	25	23	22	21
20	19	18	15	

37	B	SOUND SIGNAL TWEETER RH (+)
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Connector No.	B20
Connector Name	REAR SPEAKER LH
Connector Type	TK02FBR



2	1
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Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	-

Terminal No.	Color of Wire	Signal Name [Specification]
18	P	SOUND SIGNAL FRONT LH (+)
19	R	SOUND SIGNAL FRONT RH (+)
20	G	SOUND SIGNAL FRONT RH (-)
21	V	SOUND SIGNAL REAR LH (+)
22	SB	SOUND SIGNAL REAR LH (-)
23	BR	SOUND SIGNAL REAR RH (+)
25	GR	WOOFER AMP. ON SIGNAL
27	W	SOUND SIGNAL TWEETER RH (+)
31	W	BOSE AMP. ON SIGNAL
32	L	SOUND SIGNAL FRONT LH (-)
33	Y	SOUND SIGNAL REAR RH (-)

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BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B42
Connector Name	BOSE AMP.
Connector Type	SGM12FER-SJA2



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

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	SOUND SIGNAL REAR SPEAKER LH (+)
2	LG	SOUND SIGNAL REAR SPEAKER RH (+)
3	Y	SOUND SIGNAL REAR SPEAKER RH (-)
4	L	SOUND SIGNAL FRONT SPEAKER LH (+)
5	V	SOUND SIGNAL FRONT SPEAKER LH (-)
6	LG	SOUND SIGNAL TWEETER LH (+)
7	GR	SOUND SIGNAL TWEETER LH (-)
8	O	SOUND SIGNAL FRONT DOOR RH (+)
9	SB	SOUND SIGNAL WOOFER (+)
10	P	SOUND SIGNAL REAR SPEAKER LH (-)
11	Y	BATTERY

12	B	GND
13	G	SOUND SIGNAL FRONT DOOR RH (-)
14	V	SOUND SIGNAL WOOFER (-)

Connector No.	B43
Connector Name	WOOFER
Connector Type	RS08FGY-PR



2	4	6
1	3	5

Terminal No.	Color of Wire	Signal Name [Specification]
1	V	SOUND SIGNAL WOOFER (-)
2	SB	SOUND SIGNAL WOOFER (+)
3	SHIELD	SHIELD
4	GR	WOOFER AMP. ON SIGNAL
5	B	GND
6	Y	BATTERY

Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	TH00FW-CS16-TM4



16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
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Terminal No.	Color of Wire	Signal Name [Specification]
8	LG	-
9	Y	-
51	P	-
52	L	-
53	SHIELD	-
54	BR	-
55	Y	-
56	SHIELD	-
57	G	-
58	R	-
60	W	-

Connector No.	B229
Connector Name	REAR SPEAKER RH
Connector Type	TK02FER



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

Connector No.	B236
Connector Name	SATELLITE RADIO TUNER
Connector Type	A16FW



2	4	6	12	16
1	3	5	8	9
10				

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	SATELLITE RADIO SOUND SIGNAL LH (-)
2	R	SATELLITE RADIO SOUND SIGNAL LH (+)
3	W	SATELLITE RADIO SOUND SIGNAL RH (-)
4	B	SATELLITE RADIO SOUND SIGNAL RH (+)
5	SHIELD	SHIELD
6	SHIELD	SHIELD
8	Y	REQUEST (SAT->CONT)
9	O	COMM (SAT->AUDIO)
10	BR	COMM (AUDIO->SAT)
12	SB	BATTERY
16	V	ACC

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B237
Connector Name	TEL ADAPTER UNIT
Connector Type	TH22FW-NH



2	4	8	10	12	14	20	22	24	28
1	3	7	9	11	13				29

14	LG	STRG SW GND (INPUT)
20	B	CONTROL SIGNAL
22	B	CONTROL SIGNAL
24	B	CONTROL SIGNAL
28	V	VEHICLE SPEED (8-PULSE)
29	P	MICROPHONE VCC



35	37	39	41
36	40	42	

Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	BATTERY
2	V	ACC
3	SB	IGNITION
4	B	GND
7	L	MICROPHONE SIGNAL
8	SHIELD	MICROPHONE GND
9	BR	TEL VOICE SIGNAL (+)
10	Y	TEL VOICE SIGNAL (-)
11	O	MUTE CONTROL
12	W	STRG SW A (INPUT)
13	GR	STRG SW B (INPUT)

Terminal No.	Color of Wire	Signal Name [Specification]
35	R	AV COMM (H)
36	G	AV COMM (L)
39	L	M-CAN JUMPER1
40	L	M-CAN+ 2
41	Y	M-CAN JUMPER2
42	Y	M-CAN- 2

Connector No.	B238
Connector Name	TEL ADAPTER UNIT
Connector Type	TH08FW-NH



1	2
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Connector No.	B401
Connector Name	WIRE TO WIRE
Connector Type	GT13SON-1/IPP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-

Connector No.	B402
Connector Name	SATELLITE RADIO TUNER
Connector Type	FAKRA CONNECTOR



33	34
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Terminal No.	Color of Wire	Signal Name [Specification]
33	-	SATELLITE ANTENNA SIGNAL
34	SHIELD	SHIELD

Connector No.	B405
Connector Name	WIRE TO WIRE
Connector Type	GT13SSH-1/IPP-HU(21)



1	2
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Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-

Connector No.	B407
Connector Name	SATELLITE RADIO ANTENNA
Connector Type	GT16C-IPP-HU(A)



1	2
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Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-

Connector No.	B409
Connector Name	TEL ADAPTER UNIT
Connector Type	GT16C-IS-HU



33	34
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Terminal No.	Color of Wire	Signal Name [Specification]
33	-	TEL ANTENNA SIGNAL
34	SHIELD	SHIELD

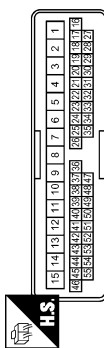
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BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



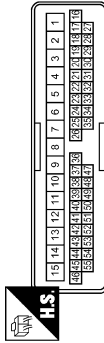
Terminal No.	Color of Wire	Signal Name [Specification]
11	P	— [With BOSE system]
12	L	—

Connector No.	D6
Connector Name	FRONT DOOR SPEAKER LH
Connector Type	NS02FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	—
2	P	— [With BOSE system]

Connector No.	D31
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



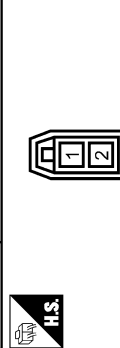
Terminal No.	Color of Wire	Signal Name [Specification]
12	P	— [With BOSE system]
13	L	— [With BOSE system]

Connector No.	D36
Connector Name	FRONT DOOR SPEAKER RH
Connector Type	NS02FW-CS



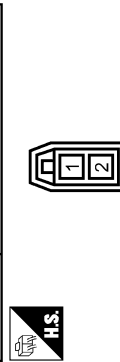
Terminal No.	Color of Wire	Signal Name [Specification]
1	L	— [With BOSE system]
2	P	— [With BOSE system]

Connector No.	D301
Connector Name	WIRE TO WIRE
Connector Type	GT13SS-1/S-HU(21)



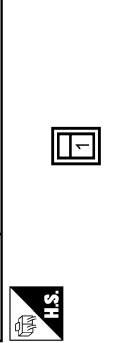
Terminal No.	Color of Wire	Signal Name [Specification]
1	—	—
2	—	—

Connector No.	D303
Connector Name	ANTENNA AMP.
Connector Type	GT13SC-1/S-HU



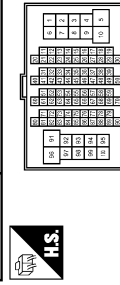
Terminal No.	Color of Wire	Signal Name [Specification]
1	—	ANTENNA AMP. ON SIGNAL
2	—	AM-FM MAIN

Connector No.	D311
Connector Name	GLASS ANTENNA
Connector Type	P01FB-A



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	—

Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
94	Y	—

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS06FW-M2



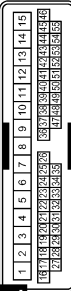
Terminal No.	Color of Wire	Signal Name [Specification]
2A	G	-
5A	L	-

Connector No.	M2
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS10FW-CS



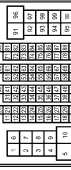
Terminal No.	Color of Wire	Signal Name [Specification]
1B	Y	-

Connector No.	M5
Connector Name	WIRE TO WIRE
Connector Type	TH40MM-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
11	V	-
12	L	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH80MM-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
94	Y	-

Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Type	TH80MM-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
51	V	-
57	SHIELD	-
60	L	-
61	R	-
62	SHIELD	-
63	R	-
64	G	-
65	SHIELD	-
66	LG	-
67	V	-
68	SHIELD	-

Connector No.	M25
Connector Name	WIRE TO WIRE
Connector Type	NS16MM-CS



Terminal No.	Color of Wire	Signal Name [Specification]
2	Y	-
3	LG	-
4	LG	-
5	V	-
6	V	-
7	L	-
12	Y	-
13	W	-
14	W	-
15	W	-
16	L	-

Connector No.	M35
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TX08FGY-1V



Terminal No.	Color of Wire	Signal Name [Specification]
24	P	-
31	L	-
33	B	-

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BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M41
Connector Name	TWEETER LH
Connector Type	TK02FBR



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

Connector No.	M42
Connector Name	TWEETER RH
Connector Type	TK02FBR



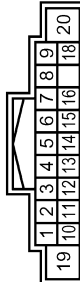
Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	W	-

Connector No.	M53
Connector Name	COMBINATION METER
Connector Type	TH12FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
4	Y	VEHICLE SPEED SIGNAL (8-PULSE)
21	L	GAN-H
22	P	GAN-L

Connector No.	M81
Connector Name	AUDIO UNIT
Connector Type	TH18FW-CS2



Terminal No.	Color of Wire	Signal Name [Specification]
1	V	BOSE AMP. ON SIGNAL
2	LG	SOUND SIGNAL FRONT SPEAKER LH (+)
3	V	SOUND SIGNAL FRONT SPEAKER LH (-)
4	L	SOUND SIGNAL REAR SPEAKER LH (+)
5	R	SOUND SIGNAL REAR SPEAKER LH (-)
6	P	STRG SW A
7	L	ACC
8	W	ILL (-)
9	R	ILL (+)
10	SHIELD	SHIELD
11	L	SOUND SIGNAL FRONT SPEAKER RH (+)

12	P	SOUND SIGNAL FRONT SPEAKER RH (-)
13	R	SOUND SIGNAL REAR SPEAKER RH (+)
14	G	SOUND SIGNAL REAR SPEAKER RH (-)
15	B	STRG SW GND
16	L	STRG SW B
18	Y	SPEED SIGNAL (8P)
19	Y	BATTERY
20	SHIELD	SHIELD

Connector No.	M82
Connector Name	AUDIO UNIT
Connector Type	TH12FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
21	R	AV COMM (H)
22	G	AV COMM (L)
24	W	STRG SW A (OUTPUT)
25	SHIELD	SHIELD
26	LG	SOUND SIGNAL TEL (+)
27	V	SOUND SIGNAL TEL (-)
28	O	TEL ON
29	GR	STRG SW B (OUTPUT)
30	B	STRG SW GND (OUTPUT)

Connector No.	M83
Connector Name	AUDIO UNIT
Connector Type	A12FW



Terminal No.	Color of Wire	Signal Name [Specification]
31	W	SATELLITE RADIO SOUND SIGNAL LH (-)
32	B	SATELLITE RADIO SOUND SIGNAL LH (+)
33	R	SATELLITE RADIO SOUND SIGNAL RH (-)
34	G	SATELLITE RADIO SOUND SIGNAL RH (+)
35	SHIELD	SHIELD
36	SHIELD	SHIELD
38	P	REQUEST SIGNAL (SAT->CONT)
39	G	COMM (SAT->AUDIO)
40	L	COMM (AUDIO->SAT)

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BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M106
Connector Name	WIRE TO WIRE
Connector Type	TH16MW-NH



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

Terminal No.	Color of Wire	Signal Name [Specification]
14	SHIELD	-
15	R	-
16	G	-

Connector No.	M117
Connector Name	WIRE TO WIRE
Connector Type	TH60MW-CS16-TM



1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	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
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	R5
Connector Name	MICROPHONE
Connector Type	TKG4FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	P	MICROPHONE SIGNAL
2	SHIELD	SHIELD
4	L	MICROPHONE VCC

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SATELLITE RADIO TUNER

[BOSE AUDIO WITHOUT NAVIGATION]

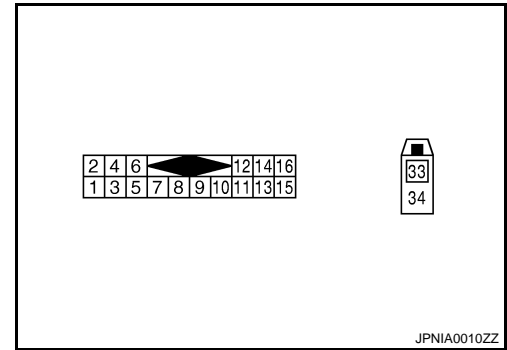
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SATELLITE RADIO TUNER

Reference Value

INFOID:000000004498005

TERMINAL LAYOUT



PHYSICAL VALUES

Terminal		Description		Condition		Reference value (Approx.)
+	−	Signal name	Input/Output			
2 (R)	1 (G)	Satellite radio sound signal LH	Output	Ignition switch ON	When satellite radio mode is selected	<p>SKIB3609E</p>
4 (B)	3 (W)	Satellite radio sound signal RH	Output	Ignition switch ON	When satellite radio mode is selected	<p>SKIB3609E</p>
5	—	Shield	—	—	—	—
6	—	Shield	—	—	—	—
8 (Y)	Ground	Request signal (SAT TO AUDIO)	Output	Ignition switch ON	When satellite radio mode is selected	<p>SKIA9299J</p>
9 (O)	Ground	Communication signal (SAT→AUDIO)	Output	Ignition switch ON	When satellite radio mode is selected	<p>PKIB5039J</p>

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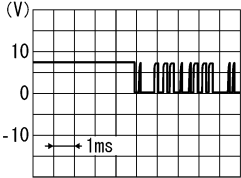
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SATELLITE RADIO TUNER

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[BOSE AUDIO WITHOUT NAVIGATION]

Terminal		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
10 (BR)	Ground	Communication signal (AUDIO→SAT)	Input	Ignition switch ON	When satellite radio mode is selected	 SKIA9301J
12 (SB)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
16 (V)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
33	—	Satellite radio antenna sig- nal	Input	—	—	—
34	—	Shield	—	—	—	—

SATELLITE RADIO TUNER

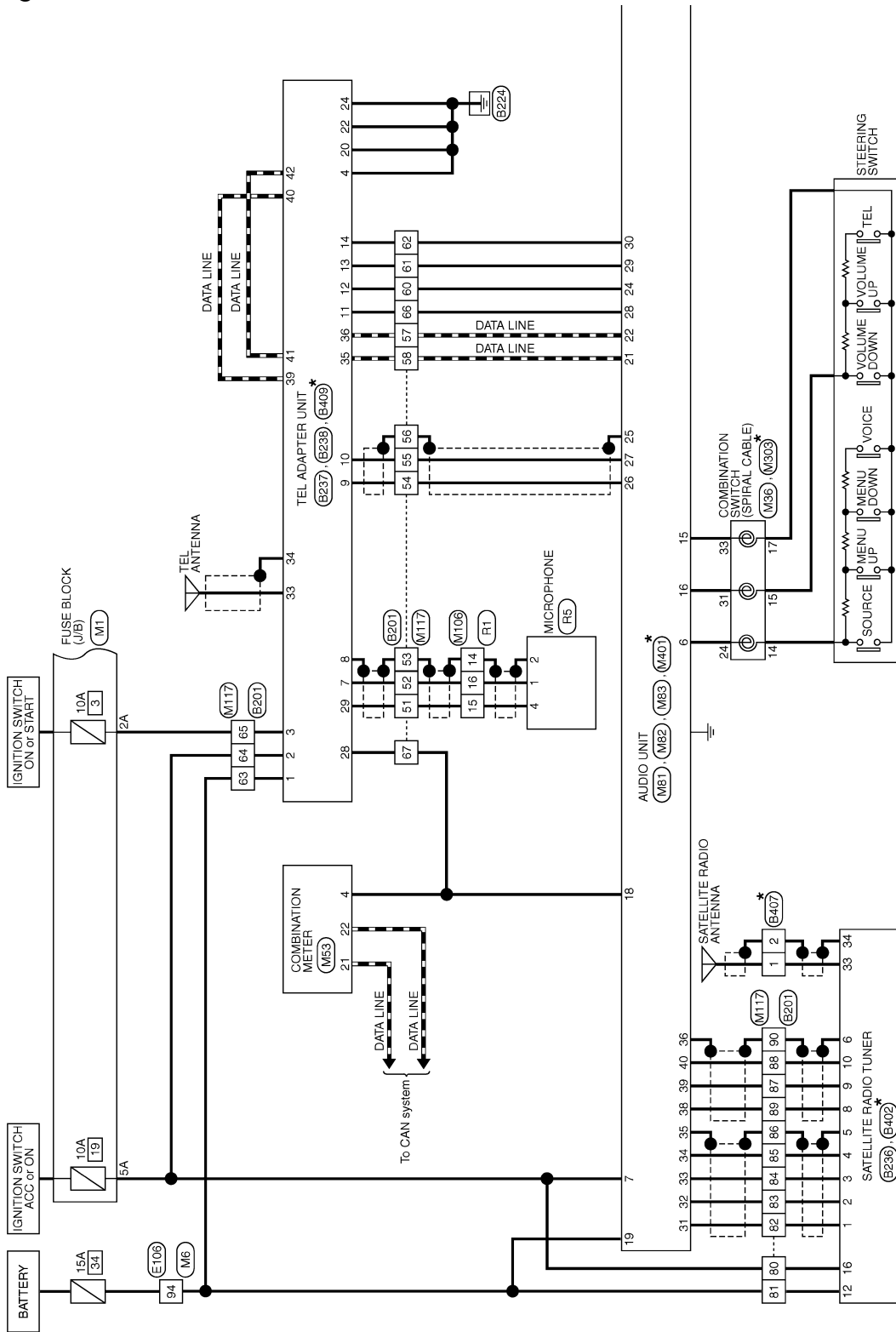
[BOSE AUDIO WITHOUT NAVIGATION]

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Wiring Diagram - BOSE AUDIO WITHOUT NAVIGATION SYSTEM -

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BOSE AUDIO WITHOUT NAVIGATION SYSTEM



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*: This connector is not shown in "Harness Layout".

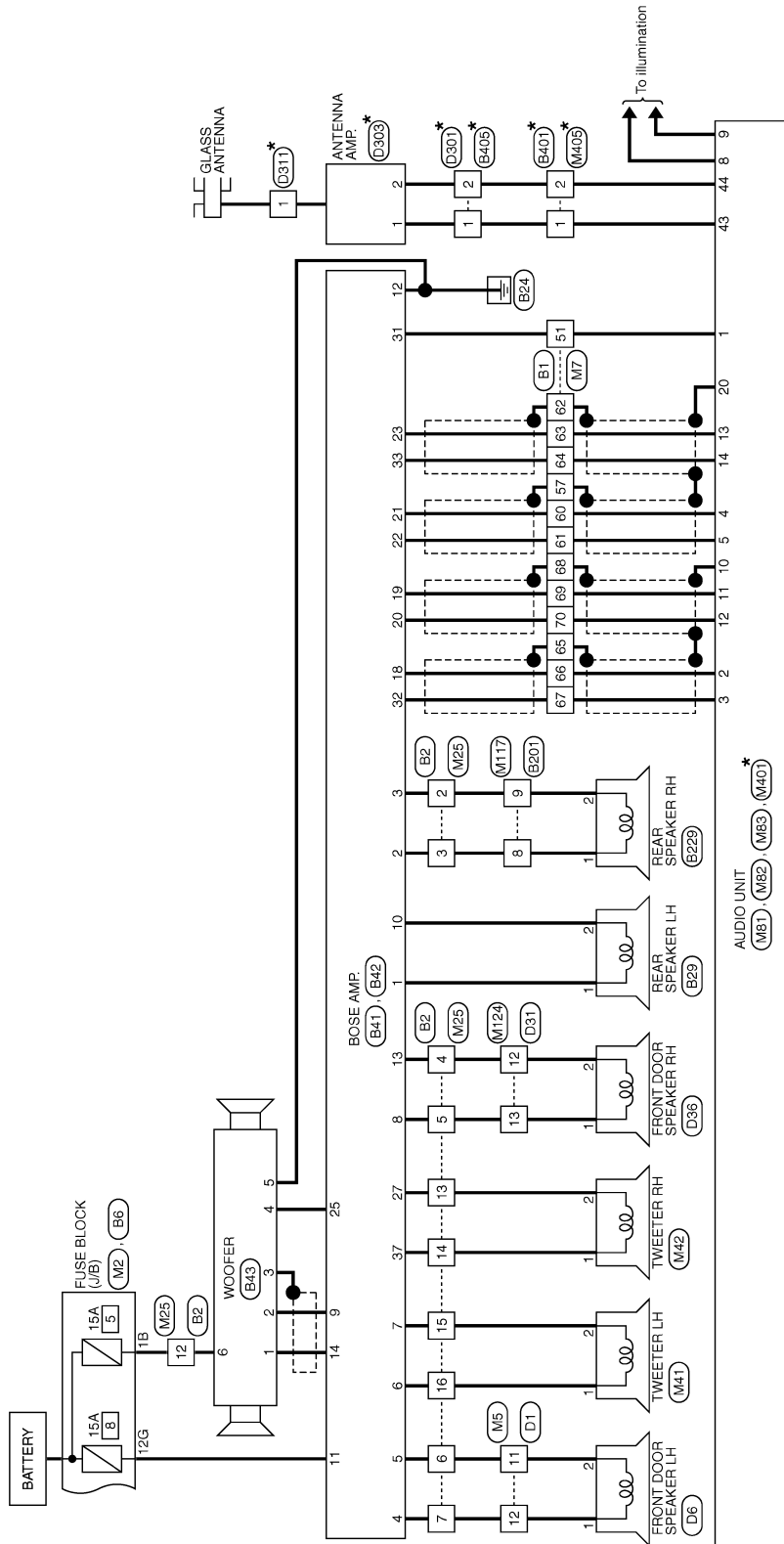
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SATELLITE RADIO TUNER

[BOSE AUDIO WITHOUT NAVIGATION]

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*: This connector is not shown in "Harness Layout".

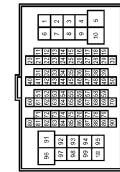
SATELLITE RADIO TUNER

[BOSE AUDIO WITHOUT NAVIGATION]

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BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B1	R	G
Connector Name	WIRE TO WIRE		
Connector Type	TH00FW-CS16-TM4		



Terminal No.	Color of Wire	Signal Name [Specification]
51	W	-
57	SHIELD	-
60	V	-
61	SB	-
62	SHIELD	-
63	BR	-
64	Y	-
65	SHIELD	-
66	P	-
67	L	-
68	SHIELD	-

Connector No.	B20
Connector Name	REAR SPEAKER LH
Connector Type	TK02FBR



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	-

69	R	-
70	G	-

Connector No.	B2
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
2	Y	-
3	LG	-
4	G	-
5	O	-
6	V	-
7	L	-
12	Y	-
13	W	-
14	B	-
15	GR	-
16	LG	-

37	B	SOUND SIGNAL TWEETER RH (+)
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Connector No.	B6
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS16FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
12G	Y	-

Connector No.	B41
Connector Name	BOSE AMP.
Connector Type	SCA19FBR-SGA4



Terminal No.	Color of Wire	Signal Name [Specification]
18	P	SOUND SIGNAL FRONT LH (+)
19	R	SOUND SIGNAL FRONT RH (+)
20	G	SOUND SIGNAL FRONT LH (-)
21	V	SOUND SIGNAL REAR LH (+)
22	SB	SOUND SIGNAL REAR LH (-)
23	BR	SOUND SIGNAL REAR RH (+)
25	GR	WOOFER AMP. ON SIGNAL
27	W	SOUND SIGNAL TWEETER RH (+)
31	W	BOSE AMP. ON SIGNAL
32	L	SOUND SIGNAL FRONT LH (-)
33	Y	SOUND SIGNAL REAR RH (-)

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SATELLITE RADIO TUNER

[BOSE AUDIO WITHOUT NAVIGATION]

< ECU DIAGNOSIS >

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B42
Connector Name	BOSE AMP.
Connector Type	SGMZFBR-SJA2



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

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	SOUND SIGNAL REAR SPEAKER LH (+)
2	LG	SOUND SIGNAL REAR SPEAKER RH (+)
3	Y	SOUND SIGNAL REAR SPEAKER RH (-)
4	L	SOUND SIGNAL FRONT SPEAKER LH (+)
5	V	SOUND SIGNAL FRONT SPEAKER LH (-)
6	LG	SOUND SIGNAL TWEETER LH (+)
7	GR	SOUND SIGNAL TWEETER LH (-)
8	O	SOUND SIGNAL FRONT DOOR RH (+)
9	SB	SOUND SIGNAL WOOFER (+)
10	P	SOUND SIGNAL REAR SPEAKER LH (-)
11	Y	BATTERY

12	B	GND
13	G	SOUND SIGNAL FRONT DOOR RH (-)
14	V	SOUND SIGNAL WOOFER (-)

Connector No.	B43
Connector Name	WOOFER
Connector Type	RS08FGY-PR



2	4	6
1	3	5

Terminal No.	Color of Wire	Signal Name [Specification]
1	V	SOUND SIGNAL WOOFER (-)
2	SB	SOUND SIGNAL WOOFER (+)
3	SHIELD	SHIELD
4	GR	WOOFER AMP. ON SIGNAL
5	B	GND
6	Y	BATTERY

Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	TH00FW-CS16-TM4



16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
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Terminal No.	Color of Wire	Signal Name [Specification]
8	LG	-
9	Y	-
51	P	-
52	L	-
53	SHIELD	-
54	BR	-
55	Y	-
56	SHIELD	-
57	G	-
58	R	-
60	W	-

Connector No.	B229
Connector Name	REAR SPEAKER RH
Connector Type	TK02FER



2	1
---	---

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

Connector No.	B236
Connector Name	SATELLITE RADIO TUNER
Connector Type	AI6FW



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

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	SATELLITE RADIO SOUND SIGNAL LH (-)
2	R	SATELLITE RADIO SOUND SIGNAL LH (+)
3	W	SATELLITE RADIO SOUND SIGNAL RH (-)
4	B	SATELLITE RADIO SOUND SIGNAL RH (+)
5	SHIELD	SHIELD
6	SHIELD	SHIELD
8	Y	REQUEST (SAT->CONT)
9	O	COMM (SAT->AUDIO)
10	BR	COMM (AUDIO->SAT)
12	SB	BATTERY
16	V	ACC

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SATELLITE RADIO TUNER

[BOSE AUDIO WITHOUT NAVIGATION]

< ECU DIAGNOSIS >

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B237
Connector Name	TEL ADAPTER UNIT
Connector Type	TH22FW-NH



2	4	8	10	12	14	20	22	24	28
1	3	7	9	11	13				29

14	LG	STRG SW GND (INPUT)
20	B	CONTROL SIGNAL
22	B	CONTROL SIGNAL
24	B	CONTROL SIGNAL
28	V	VEHICLE SPEED (8-PULSE)
29	P	MICROPHONE VCC

Connector No.	B238
Connector Name	TEL ADAPTER UNIT
Connector Type	TH08FW-NH



35	37	39	41
36	40	42	

Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	BATTERY
2	V	ACC
3	SB	IGNITION
4	B	GND
7	L	MICROPHONE SIGNAL
8	SHIELD	MICROPHONE GND
9	BR	TEL VOICE SIGNAL (+)
10	Y	TEL VOICE SIGNAL (-)
11	O	MUTE CONTROL
12	W	STRG SW A (INPUT)
13	GR	STRG SW B (INPUT)

Terminal No.	Color of Wire	Signal Name [Specification]
35	R	AV COMM (H)
36	G	AV COMM (L)
39	L	M-CAN JUMPER1
40	L	M-CAN+ 2
41	Y	M-CAN JUMPER2
42	Y	M-CAN- 2

Connector No.	B401
Connector Name	WIRE TO WIRE
Connector Type	GT13SON-1/IPP-HU



1	2
---	---

Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-

Connector No.	B402
Connector Name	SATELLITE RADIO TUNER
Connector Type	FAKRA CONNECTOR



33	34
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Terminal No.	Color of Wire	Signal Name [Specification]
33	-	SATELLITE ANTENNA SIGNAL
34	SHIELD	SHIELD

Connector No.	B405
Connector Name	WIRE TO WIRE
Connector Type	GT13SSH-1/IPP-HU(21)



1	2
---	---

Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-

Connector No.	B407
Connector Name	SATELLITE RADIO ANTENNA
Connector Type	GT16C-IPP-HU(A)



1	2
---	---

Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-

Connector No.	B409
Connector Name	TEL ADAPTER UNIT
Connector Type	GT16C-IS-HU



33	34
----	----

Terminal No.	Color of Wire	Signal Name [Specification]
33	-	TEL ANTENNA SIGNAL
34	SHIELD	SHIELD

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A
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AV

[BOSE AUDIO WITHOUT NAVIGATION]

Revision: 2008 October

Terminal No.	Color of Wire	Signal Name [Specification]
94	Y	-

2009 370Z

SATELLITE RADIO TUNER

[BOSE AUDIO WITHOUT NAVIGATION]

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BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS06FW-M2



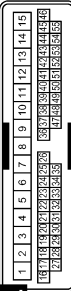
Terminal No.	Color of Wire	Signal Name [Specification]
2A	G	-
5A	L	-

Connector No.	M2
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS10FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1B	Y	-

Connector No.	M5
Connector Name	WIRE TO WIRE
Connector Type	TH40MM-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
11	V	-
12	L	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH60MM-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
94	Y	-

Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Type	TH60MM-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
51	V	-
57	SHIELD	-
60	L	-
61	R	-
62	SHIELD	-
63	R	-
64	G	-
65	SHIELD	-
66	LG	-
67	V	-
68	SHIELD	-

Connector No.	M25
Connector Name	WIRE TO WIRE
Connector Type	NS16MM-CS



Terminal No.	Color of Wire	Signal Name [Specification]
2	Y	-
3	LG	-
4	LG	-
5	V	-
6	V	-
7	L	-
12	Y	-
13	W	-
14	W	-
15	W	-
16	L	-

Connector No.	M35
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TX08FGY-1V



Terminal No.	Color of Wire	Signal Name [Specification]
24	P	-
31	L	-
33	B	-

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AV

SATELLITE RADIO TUNER

[BOSE AUDIO WITHOUT NAVIGATION]

< ECU DIAGNOSIS >

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M41
Connector Name	TWEETER LH
Connector Type	TK02FBR



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

Connector No.	M42
Connector Name	TWEETER RH
Connector Type	TK02FBR



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

Connector No.	M53
Connector Name	COMBINATION METER
Connector Type	TH12FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
4	Y	VEHICLE SPEED SIGNAL (8-PULSE)
21	L	CAN-H
22	P	CAN-L

Connector No.	M81
Connector Name	AUDIO UNIT
Connector Type	TH18FW-CS2



Terminal No.	Color of Wire	Signal Name [Specification]
1	V	BOSE AMP. ON SIGNAL
2	LG	SOUND SIGNAL FRONT SPEAKER LH (+)
3	V	SOUND SIGNAL FRONT SPEAKER LH (-)
4	L	SOUND SIGNAL REAR SPEAKER LH (+)
5	R	SOUND SIGNAL REAR SPEAKER LH (-)
6	P	STRG SW A
7	L	ACC
8	W	ILL (-)
9	R	ILL (+)
10	SHIELD	SHIELD
11	L	SOUND SIGNAL FRONT SPEAKER RH (+)

12	P	SOUND SIGNAL FRONT SPEAKER RH (-)
13	R	SOUND SIGNAL REAR SPEAKER RH (+)
14	G	SOUND SIGNAL REAR SPEAKER RH (-)
15	B	STRG SW GND
16	L	STRG SW B
18	Y	SPEED SIGNAL (8P)
19	Y	BATTERY
20	SHIELD	SHIELD

Connector No.	M82
Connector Name	AUDIO UNIT
Connector Type	TH12FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
21	R	AV COMM (H)
22	G	AV COMM (L)
24	W	STRG SW A (OUTPUT)
25	SHIELD	SHIELD
26	LG	SOUND SIGNAL TEL (+)
27	V	SOUND SIGNAL TEL (-)
28	O	TEL ON
29	GR	STRG SW B (OUTPUT)
30	B	STRG SW GND (OUTPUT)

Connector No.	M83
Connector Name	AUDIO UNIT
Connector Type	A12FW



Terminal No.	Color of Wire	Signal Name [Specification]
31	W	SATELLITE RADIO SOUND SIGNAL LH (-)
32	B	SATELLITE RADIO SOUND SIGNAL LH (+)
33	R	SATELLITE RADIO SOUND SIGNAL RH (-)
34	G	SATELLITE RADIO SOUND SIGNAL RH (+)
35	SHIELD	SHIELD
36	SHIELD	SHIELD
38	P	REQUEST SIGNAL (SAT->CONT)
39	G	COMM (SAT->AUDIO)
40	L	COMM (AUDIO->SAT)

SATELLITE RADIO TUNER

[BOSE AUDIO WITHOUT NAVIGATION]

< ECU DIAGNOSIS >

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M106
Connector Name	WIRE TO WIRE
Connector Type	TH16MW-NH



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

Terminal No.	Color of Wire	Signal Name [Specification]
14	SHIELD	-
15	R	-
16	G	-

Connector No.	M117
Connector Name	WIRE TO WIRE
Connector Type	TH60MW-CS16-TM



1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	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
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	R5
Connector Name	MICROPHONE
Connector Type	TKG4FW



Terminal No.	Color of Wire	Signal Name (Specification)
1	P	MICROPHONE SIGNAL
2	SHIELD	SHIELD
4	L	MICROPHONE VCC

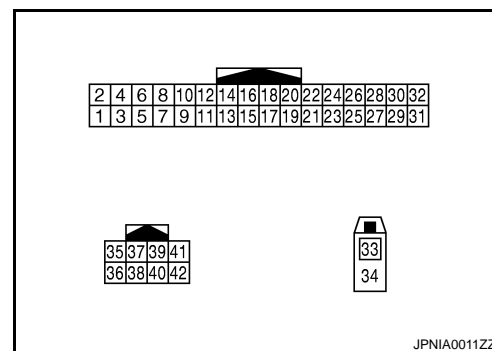
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TEL ADAPTER UNIT

Reference Value

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TERMINAL LAYOUT





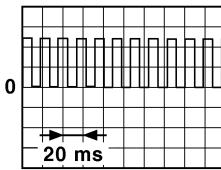
PHYSICAL VALUES

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
1 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
2 (V)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
3 (SB)	Ground	Ignition signal	Input	Ignition switch ON	—	Battery voltage
4 (B)	Ground	Ground	—	Ignition switch ON	—	0 V
7 (L)	8	Microphone signal	Input	Ignition switch ON	Give a voice	 SKIB3609E
8	—	Shield (microphone signal ground)	—	—	—	—
9 (BR)	10 (Y)	Sound signal (Telephone voice, tele- phone guidance)	Output	Ignition switch ON	During voice guide output with the switch pressed	 SKIB3609E
11 (O)	Ground	Mute control signal	Output	Ignition switch ON	While using hands-free phone system	0 V
					While not using hands-free phone system	5.0 V

TEL ADAPTER UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
12 (W)	14 (LG)	Steering switch signal A	Input	Ignition switch ON	Keep pressing  switch	0 V
					Keep pressing MENU UP switch	1.25 V
					Keep pressing MENU DOWN switch	2.5 V
					Except for above	5.0 V
13 (GR)	14 (LG)	Steering switch signal B	Input	Ignition switch ON	Keep pressing VOL DOWN switch	0 V
					Keep pressing VOL UP switch	1.25 V
					Keep pressing  switch	2.5 V
					Keep pressing SOURCE switch	3.7 V
					Except for above.	5.0 V
14 (LG)	Ground	Steering switch signal ground	—	Ignition switch ON	—	0 V
20 (B)	Ground	Control signal	—	Ignition switch ON	—	0 V
22 (B)	Ground	Control signal	—	Ignition switch ON	—	0 V
24 (B)	Ground	Control signal	—	Ignition switch ON	—	0 V
28 (V)	Ground	Vehicle speed signal (8-pulse)	Input	Ignition switch ON	When vehicle speed is approx. 40 km/h (25MPH)	NOTE: The maximum voltage varies depending on the specification (destination unit). 
29 (P)	Ground	Microphone power supply	Output	Ignition switch ON	—	5.0 V
33	—	TEL antenna signal	Input	—	Not connected to TEL antenna connector	5.0 V
34	—	Shield	—	—	—	—
35 (R)	—	AV communication signal (H)	Input/ Output	—	—	—
36 (G)	—	AV communication signal (L)	Input/ Output	—	—	—
39 (L)	—	M-CAN JUMPER 1	—	—	—	—

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TEL ADAPTER UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

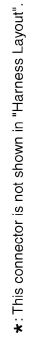
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
40 (L)	—	M-CAN +2	—	—	—	—
41 (Y)	—	M-CAN JUMPER 2	—	—	—	—
42 (Y)	—	M-CAN -2	—	—	—	—

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[BOSE AUDIO WITHOUT NAVIGATION]

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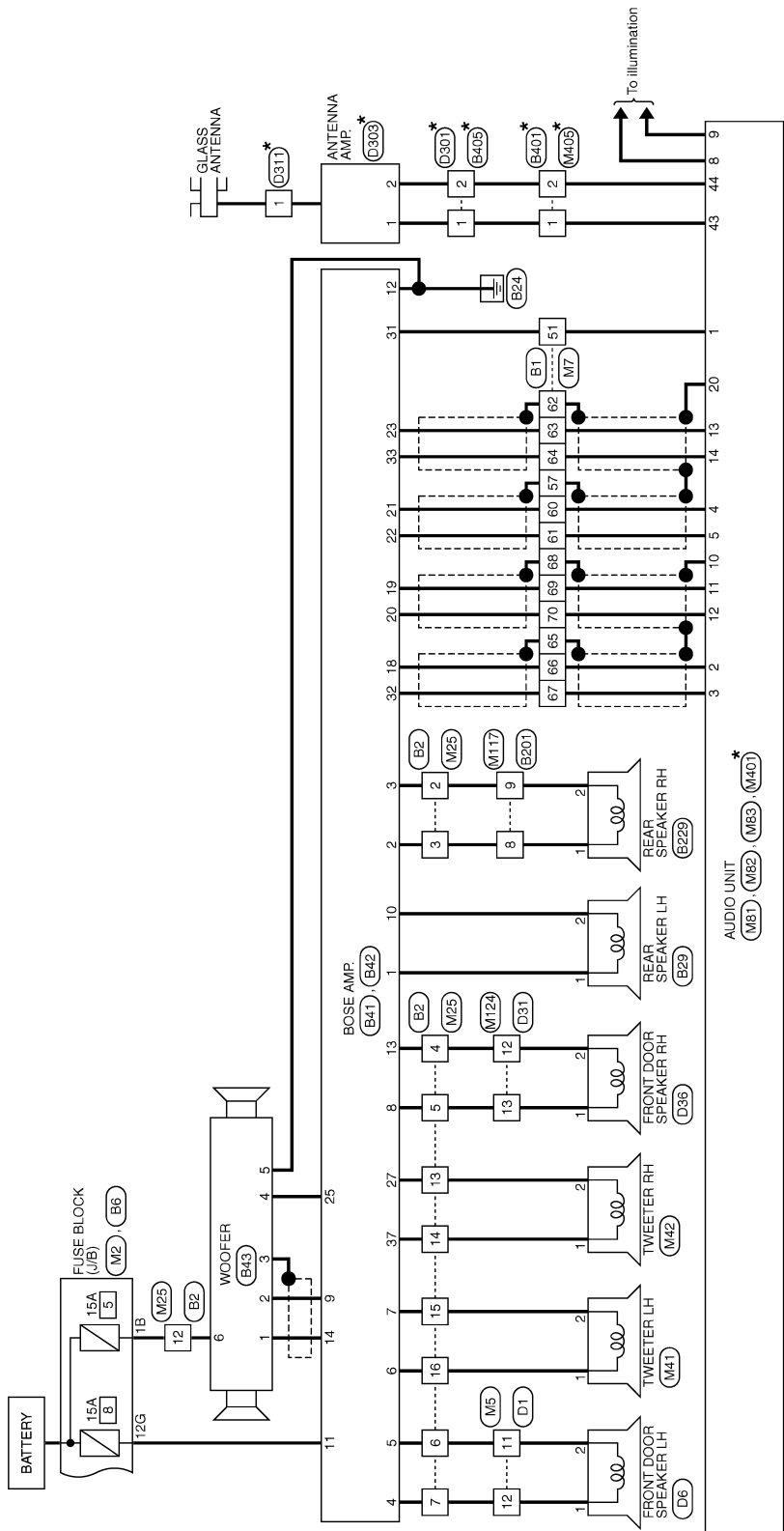


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TEL ADAPTER UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]



★: This connector is not shown in "Harness Layout".

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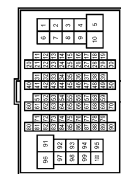
TEL ADAPTER UNIT

[BOSE AUDIO WITHOUT NAVIGATION]

< ECU DIAGNOSIS >

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH00FW-CS16-TM44



Terminal No.	Color of Wire	Signal Name [Specification]
51	W	-
57	SHIELD	-
60	V	-
61	SB	-
62	SHIELD	-
63	BR	-
64	Y	-
65	SHIELD	-
66	P	-
67	L	-
68	SHIELD	-

Connector No.	B20
Connector Name	REAR SPEAKER LH
Connector Type	TK02FBR



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	-

69	R	-
70	G	-

Connector No.	B2
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
2	Y	-
3	LG	-
4	G	-
5	O	-
6	V	-
7	L	-
12	Y	-
13	W	-
14	B	-
15	GR	-
16	LG	-

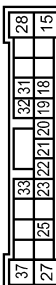
37	B	SOUND SIGNAL TWEETER RH (-)
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Connector No.	B6
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS16FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
12G	Y	-

Terminal No.	Color of Wire	Signal Name [Specification]
18	P	SOUND SIGNAL FRONT LH (+)
19	R	SOUND SIGNAL FRONT RH (+)
20	G	SOUND SIGNAL FRONT RH (-)
21	V	SOUND SIGNAL REAR LH (+)
22	SB	SOUND SIGNAL REAR LH (-)
23	BR	SOUND SIGNAL REAR RH (+)
25	GR	WOOFER AMP ON SIGNAL
27	W	SOUND SIGNAL TWEETER RH (+)
31	W	BOSE AMP ON SIGNAL
32	Y	SOUND SIGNAL FRONT LH (-)
33	Y	SOUND SIGNAL REAR RH (-)



Connector No.	B41
Connector Name	BOSE AMP
Connector Type	SCA19FBR-SCA4

JCNWA1882GE

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B42
Connector Name	BOSE AMP.
Connector Type	SGA12FER-SJA2



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

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	SOUND SIGNAL REAR SPEAKER LH (+)
2	LG	SOUND SIGNAL REAR SPEAKER RH (+)
3	Y	SOUND SIGNAL REAR SPEAKER RH (-)
4	L	SOUND SIGNAL FRONT SPEAKER LH (+)
5	V	SOUND SIGNAL FRONT SPEAKER LH (-)
6	LG	SOUND SIGNAL TWEETER LH (+)
7	GR	SOUND SIGNAL TWEETER LH (-)
8	O	SOUND SIGNAL FRONT DOOR RH (+)
9	SB	SOUND SIGNAL WOOFER (+)
10	P	SOUND SIGNAL REAR SPEAKER LH (-)
11	Y	BATTERY

12	B	GND
13	G	SOUND SIGNAL FRONT DOOR RH (-)
14	V	SOUND SIGNAL WOOFER (+)



2	4	6
1	3	5

Terminal No.	Color of Wire	Signal Name [Specification]
1	V	SOUND SIGNAL WOOFER (-)
2	SB	SOUND SIGNAL WOOFER (+)
3	SHIELD	SHIELD
4	GR	WOOFER AMP. ON SIGNAL
5	B	GND
6	Y	BATTERY

Connector No.	B43
Connector Name	WOOFER
Connector Type	RS06FY-PR



Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	TH08FW-CS16-TM4



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

Terminal No.	Color of Wire	Signal Name [Specification]
8	LG	-
9	Y	-
51	P	-
52	L	-
53	SHIELD	-
54	BR	-
55	Y	-
56	SHIELD	-
57	G	-
58	R	-
60	W	-

61	GR	-
62	LG	-
63	Y	-
64	V	-
65	SB	-
66	O	-
67	V	-
80	V	-
81	SB	-
82	G	-
83	R	-
84	W	-
85	B	-
86	SHIELD	-
87	O	-
88	BR	-
89	Y	-
90	SHIELD	-

Connector No.	B229
Connector Name	REAR SPEAKER RH
Connector Type	TR02FBR



2	1
---	---

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

Connector No.	B236
Connector Name	SATELLITE RADIO TUNER
Connector Type	AI6FW



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

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	SATELLITE RADIO SIGNAL LH (-)
2	R	SATELLITE RADIO SIGNAL LH (+)
3	W	SATELLITE RADIO SIGNAL RH (-)
4	B	SATELLITE RADIO SIGNAL RH (+)
5	SHIELD	SHIELD
6	SHIELD	SHIELD
8	Y	REQUEST (SAT->CONT)
9	O	COMM (SAT->AUDIO)
10	BR	COMM (AUDIO->SAT)
12	SB	BATTERY
16	V	ACC

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TEL ADAPTER UNIT

[BOSE AUDIO WITHOUT NAVIGATION]

< ECU DIAGNOSIS >

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B237
Connector Name	TEL ADAPTER UNIT
Connector Type	TH22FW-NH



2	4	8	10	12	14	20	22	24	28	29
1	3	7	9	11	13					

14	LG	STRG SW GND (INPUT)
20	B	CONTROL SIGNAL
22	B	CONTROL SIGNAL
24	B	CONTROL SIGNAL
28	V	VEHICLE SPEED (8-PULSE)
29	P	MICROPHONE VCC

Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	BATTERY
2	V	ACC
3	SB	IGNITION
4	B	GND
7	L	MICROPHONE SIGNAL
8	SHIELD	MICROPHONE GND
9	BR	TEL VOICE SIGNAL (+)
10	Y	TEL VOICE SIGNAL (-)
11	O	MUTE CONTROL
12	W	STRG SW A (INPUT)
13	GR	STRG SW B (INPUT)



Connector No.	B402
Connector Name	SATELLITE RADIO TUNER
Connector Type	FAKRA CONNECTOR

Terminal No.	Color of Wire	Signal Name [Specification]
33	-	SATELLITE ANTENNA SIGNAL
34	SHIELD	SHIELD

Connector No.	B238
Connector Name	TEL ADAPTER UNIT
Connector Type	TH08FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
35	R	AV COMM (H)
36	G	AV COMM (L)
39	L	M-CAN JUMPER1
40	L	M-CAN- 2
41	Y	M-CAN JUMPER2
42	Y	M-CAN- 2

Connector No.	B407
Connector Name	SATELLITE RADIO ANTENNA
Connector Type	GT16C-1PP-HU(A)



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-

Connector No.	B401
Connector Name	WIRE TO WIRE
Connector Type	GT13SSH-1/1PP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-

Connector No.	B409
Connector Name	TEL ADAPTER UNIT
Connector Type	GT16C-1S-HU

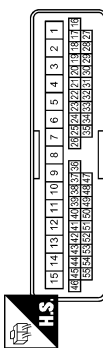


Terminal No.	Color of Wire	Signal Name [Specification]
33	-	TEL ANTENNA SIGNAL
34	SHIELD	SHIELD

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BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



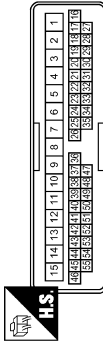
Terminal No.	Color of Wire	Signal Name [Specification]
11	P	- [With BOSE system]
12	L	-

Connector No.	D6
Connector Name	FRONT DOOR SPEAKER LH
Connector Type	NS02FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	- [With BOSE system]

Connector No.	D31
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



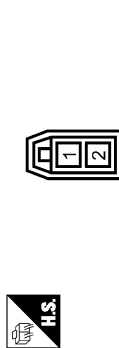
Terminal No.	Color of Wire	Signal Name [Specification]
12	P	- [With BOSE system]
13	L	- [With BOSE system]

Connector No.	D36
Connector Name	FRONT DOOR SPEAKER RH
Connector Type	NS02FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	- [With BOSE system]
2	P	- [With BOSE system]

Connector No.	D301
Connector Name	WIRE TO WIRE
Connector Type	GT13SS-1/S-HU(21)



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-

Connector No.	D303
Connector Name	ANTENNA AMP.
Connector Type	GT13SC-1/S-HU



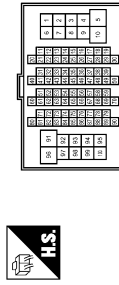
Terminal No.	Color of Wire	Signal Name [Specification]
1	-	ANTENNA AMP. ON SIGNAL
2	-	AM-FM MAIN

Connector No.	D311
Connector Name	GLASS ANTENNA
Connector Type	P01FB-A



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	-

Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS16-7M4



Terminal No.	Color of Wire	Signal Name [Specification]
94	Y	-

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TEL ADAPTER UNIT

[BOSE AUDIO WITHOUT NAVIGATION]

< ECU DIAGNOSIS >

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS06FW-M2



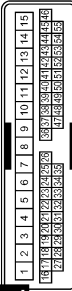
Terminal No.	Color of Wire	Signal Name [Specification]
2A	G	-
5A	L	-

Connector No.	M2
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS10FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1B	Y	-

Connector No.	M5
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
11	V	-
12	L	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH60MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
94	Y	-

Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
51	V	-
57	SHIELD	-
60	L	-
61	R	-
62	SHIELD	-
63	R	-
64	G	-
65	SHIELD	-
66	LG	-
67	V	-
68	SHIELD	-

Connector No.	M25
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
2	Y	-
3	LG	-
4	LG	-
5	V	-
6	V	-
7	L	-
12	Y	-
13	W	-
14	L	-
15	W	-
16	L	-

Connector No.	M36
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TX08FGY-1V



Terminal No.	Color of Wire	Signal Name [Specification]
24	P	-
31	L	-
33	B	-

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TEL ADAPTER UNIT

[BOSE AUDIO WITHOUT NAVIGATION]

< ECU DIAGNOSIS >

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M41
Connector Name	TWEETER LH
Connector Type	TK02FBR



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

Connector No.	M42
Connector Name	TWEETER RH
Connector Type	TK02FBR



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

Connector No.	M53
Connector Name	COMBINATION METER
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
4	Y	VEHICLE SPEED SIGNAL (8-PULSE)
21	L	CAN-H
22	P	CAN-L

Connector No.	M81
Connector Name	AUDIO UNIT
Connector Type	TH18FW-CS2



Terminal No.	Color of Wire	Signal Name [Specification]
1	V	BOSE AMP. ON SIGNAL
2	LG	SOUND SIGNAL FRONT SPEAKER LH (+)
3	V	SOUND SIGNAL FRONT SPEAKER LH (-)
4	L	SOUND SIGNAL REAR SPEAKER LH (+)
5	R	SOUND SIGNAL REAR SPEAKER LH (-)
6	P	STRG SW A
7	L	ACC
8	W	ILL (+)
9	R	ILL (-)
10	SHIELD	SHIELD
11	L	SOUND SIGNAL FRONT SPEAKER RH (+)

12	P	SOUND SIGNAL FRONT SPEAKER RH (-)
13	R	SOUND SIGNAL REAR SPEAKER RH (+)
14	G	SOUND SIGNAL REAR SPEAKER RH (-)
15	B	STRG SW GND
16	L	STRG SW B
18	Y	SPEED SIGNAL (8P)
19	Y	BATTERY
20	SHIELD	SHIELD

Connector No.	M82
Connector Name	AUDIO UNIT
Connector Type	TH12FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
21	R	AV COMM (H)
22	G	AV COMM (L)
24	W	STRG SW A (OUTPUT)
25	SHIELD	SHIELD
26	LG	SOUND SIGNAL TEL (+)
27	V	SOUND SIGNAL TEL (-)
28	O	TEL ON
29	GR	STRG SW B (OUTPUT)
30	B	STRG SW GND (OUTPUT)

Connector No.	M83
Connector Name	AUDIO UNIT
Connector Type	AI2FW



Terminal No.	Color of Wire	Signal Name [Specification]
31	W	SATELLITE RADIO SOUND SIGNAL LH (-)
32	B	SATELLITE RADIO SOUND SIGNAL LH (+)
33	R	SATELLITE RADIO SOUND SIGNAL RH (-)
34	G	SATELLITE RADIO SOUND SIGNAL RH (+)
35	SHIELD	SHIELD
36	SHIELD	SHIELD
38	P	REQUEST SIGNAL (SAT->CONT)
39	G	COMM (SAT->AUDIO)
40	L	COMM (AUDIO->SAT)

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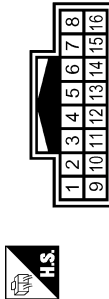
TEL ADAPTER UNIT

[BOSE AUDIO WITHOUT NAVIGATION]

< ECU DIAGNOSIS >

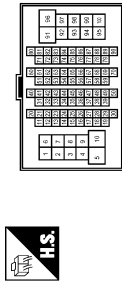
BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M105
Connector Name	WIRE TO WIRE
Connector Type	TH16MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
14	SHIELD	-
15	R	-
16	G	-

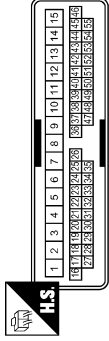
Connector No.	M117
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CSI (E-TM4)



Terminal No.	Color of Wire	Signal Name [Specification]
8	LG	-
9	Y	-
51	R	-
52	G	-
53	SHIELD	-
54	LG	-
55	V	-
56	SHIELD	-
57	G	-
58	R	-
60	W	-

61	GR	-
62	B	-
63	Y	-
64	L	-
65	G	-
66	O	-
67	V	-
80	W	-
81	Y	-
82	W	-
83	B	-
84	R	-
85	G	-
86	SHIELD	-
87	G	-
88	L	-
89	P	-
90	SHIELD	-

Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-GS15



Terminal No.	Color of Wire	Signal Name [Specification]
12	LG	-
13	V	-

Connector No.	M303
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY



Terminal No.	Color of Wire	Signal Name [Specification]
14	W	-
15	L	-
17	BR	-

Connector No.	M401
Connector Name	AUDIO UNIT
Connector Type	GT13SH-2/1S-HU



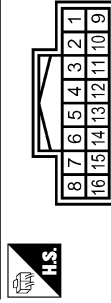
Terminal No.	Color of Wire	Signal Name [Specification]
43	-	ANTENNA AMP. ON SIGNAL
44	-	AM-FM MAIN

Connector No.	M405
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-1/1S-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-

Connector No.	R1
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
14	SHIELD	-
15	L	-
16	P	-

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BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	R5
Connector Name	MICROPHONE
Connector Type	TKG4FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	P	MICROPHONE SIGNAL
2	SHIELD	SHIELD
4	L	MICROPHONE VCC

JCNWA1889GE

AUDIO SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

SYMPTOM DIAGNOSIS

AUDIO SYSTEM SYMPTOMS



Symptom Table

INFOID:000000004498009

AUDIO SYSTEM

Symptoms	Check items	Possible malfunction location / Action to take
Audio sound is not heard.	No sound from all speakers.	<ul style="list-style-type: none"> Audio unit power supply and ground circuit. Refer to AV-47, "AUDIO UNIT : Diagnosis Procedure". BOSE amp. power supply and ground circuit. Refer to AV-47, "BOSE AMP. : Diagnosis Procedure". Amp. ON signal circuit. Refer to AV-66, "Diagnosis Procedure".
	Sound is not heard from woofer.	<ul style="list-style-type: none"> Sound signal woofer circuit Woofer amp. ON signal circuit. Refer to AV-67, "Diagnosis Procedure".
	Sound is not heard only from the specific places.	Sound signal circuit of malfunctioning system.
Satellite radio is not received.	When "RADIO" switch is pressed, it change to satellite radio mode.	<ul style="list-style-type: none"> Satellite radio sound signal circuit Satellite radio antenna
	When "RADIO" switch is pressed, it does not change to satellite radio mode.	<ul style="list-style-type: none"> Satellite radio tuner power supply and ground circuit. Refer to AV-48, "SATELLITE RADIO TUNER : Diagnosis Procedure". Request signal circuit. Refer to AV-64, "Diagnosis Procedure". Communication circuit between audio unit and satellite radio tuner. Refer to AV-62, "Diagnosis Procedure".

RELATED TO STEERING SWITCH

Symptoms	Possible malfunction location / Action to take
All steering switches are not operated.	Steering switch signal ground circuit. Refer to AV-54, "Diagnosis Procedure" .
Only specified switch cannot be operated.	Steering switch
"  ", "MENU UP", "MENU DOWN" and "SOURCE" switches are not operated.	Steering switch signal A circuit (steering switch to audio unit). Refer to AV-50, "Diagnosis Procedure" .
"  ", "VOL UP" and "VOL DOWN" switches are not operated.	Steering switch signal B circuit (steering switch to audio unit). Refer to AV-52, "Diagnosis Procedure" .

HANS-FREE PHONE SYMPTOMS

Symptom Table

INFOID:000000004498010

RELATED TO HANDS-FREE PHONE

- Check that the cellular phone is corresponding type (Bluetooth™ enabled) when the hands-free related malfunction vehicle is in service before performing a diagnosis.
- There is a case that malfunction occurs due to the version change of the phone type, etc. even though it is a corresponding type. Therefore, confirm it by changing the cellular phone to another corresponding type phone, and check that it operates normally. It is necessary to distinguish whether the cause is the vehicle or cellular phone. Check to ensure the customer's phone is supported by checking the phone compatibility for the hands-free system.

Simple Check for Bluetooth™ Communication

If cellular phone and TEL adapter unit cannot be connected with Bluetooth™ communication, following procedure allows the technician to judge which device has malfunction.

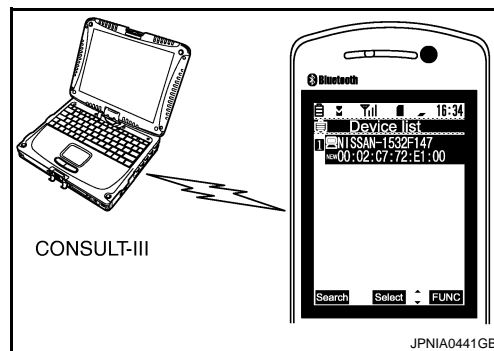
1. Turn on a cellular phone, not connecting Bluetooth™ communication.
2. Start CONSULT-III, then start Windows®.
3. Set CONSULT-III near a cellular phone.

4. When operated Bluetooth™ registration by cellular phone, check if CONSULT-III* would be displayed on the device name.
(If other Bluetooth™ device is located near cellular phone, a name of the device would be displayed also.)

NOTE:

*:Displayed device name is "NISSAN-*****".

- If no device name is displayed, cellular phone is malfunction. Repair the cellular phone first, then perform diagnosis.
- If CONSULT-III is displayed on device name, cellular phone is normal. Perform diagnosis as per the following table.



Trouble Diagnosis Chart by Symptom



Symptoms	Check items	Possible malfunction location/Action to take
Does not recognize cellular phone connection.	Repeat the registration of cellular phone.	TEL adapter unit
Hands-free phone cannot be established.	<ul style="list-style-type: none"> • Both the reception and the speech cannot be performed. • Audio cannot be operated by steering switch. 	TEL adapter unit power supply and ground circuit. Refer to AV-48, "TEL ADAPTER UNIT : Diagnosis Procedure" .
	<ul style="list-style-type: none"> • Both the reception and the speech cannot be performed. • Audio can be operated by steering switch. 	Telephone ON signal circuit. Refer to AV-70, "Diagnosis Procedure" .
The other party's voice cannot be heard by hands-free phone.	Audio system sound is normal.	Sound signal (telephone voice, telephone guidance) circuit
	Audio system sound does not sound.	Refer to AV-134, "Symptom Table" .
Originating sound is not heard by the other party with hands-free phone communication.	Sound operation function is normal.	TEL adapter unit
	Sound operation function does not work.	Microphone signal circuit. Refer to AV-68, "Diagnosis Procedure" .
When hands-free phone is in use, the information (connection time etc.) is not displayed on the audio screen.	—	AV communication signal (H, L)

RELATED TO STEERING SWITCH

HANS-FREE PHONE SYMPTOMS

< SYMPTOM DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

Symptoms	Possible malfunction location / Action to take
All steering switches are not operated.	Steering switch signal ground circuit. Refer to AV-54, "Diagnosis Procedure" .
Only specified switch cannot be operated.	Steering switch
"MENU UP", "MENU DOWN" and "  " switches are not operated.	<ul style="list-style-type: none"> Steering switch signal A circuit (steering switch to audio unit). Refer to AV-50, "Diagnosis Procedure". Steering switch signal A circuit (audio unit to TEL adapter unit). Refer to AV-56, "Diagnosis Procedure".
"  ", "VOL UP", "VOL DOWN" and "SOURCE" switches are not operated.	<ul style="list-style-type: none"> Steering switch signal B circuit (steering switch to audio unit). Refer to AV-52, "Diagnosis Procedure". Steering switch signal B circuit (audio unit to TEL adapter unit). Refer to AV-58, "Diagnosis Procedure".

NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

NORMAL OPERATING CONDITION

Description

INFOID:000000004498011

RELATED TO AUDIO

- The majority of the audio malfunctions are the result of outside causes (bad CD, electromagnetic interference, etc.). Check the symptoms below to diagnose the malfunction.
- The vehicle itself can be a source of noise if noise prevention parts or electrical equipment is malfunctioning. Check that noise is caused and/or changed by engine speed, ignition switch turned to each position, and operation of each piece of electrical equipment. Then determine the cause.

NOTE:

- CD-R is not guaranteed to play because they can contain compressed audio (MP3, WMA) or could be incorrectly mastered by the customer on a computer.
- Check that the CDs carry the Compact Disc Logo. If not, the disc is not mastered to the red book Compact Disc Standard and may not play.

Symptoms	Cause and Counter measure
Cannot play	Check that the CD was inserted correctly.
	Check that the CD is scratched or dirty.
	Check that there is condensation inside the player, and if there is, wait until the condensation is gone (about 1 hour) before using the player.
	The player will play correctly after it returns to the normal temperature if there is a temperature increase error.
	Only the music CD files (CD-DA data) will be played if there is a mixture of music CD files (CD-DA data) and MP3/WMA files on a CD.
	Files with extensions other than ".MP3", ".WMA", ".mp3", or ".wma" cannot be played.
	Check that the finalization process, such as session close and disc close, is done for the disc.
Poor sound quality	Check that the CD is scratched or dirty.
	Check that the CD is protected by copyright.
It takes a relatively long time before the music starts playing.	Check that the CD is scratched or dirty.
The songs do not play back in the desired order.	If there are many folder or file levels on the MP3/WMA CD, or if it is a multi session disc, some time may be required before the music starts playing.
	The playback order is the order in which the files were written by the software, so the files might not play in the desired order.

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

NOTE:

- Fading noise: This noise occurs because of variations in the field strength in a narrow range due to mountains or buildings blocking the signal.
- Multi-path noise: This noise results from a time difference between the broadcast waves directly from the station arriving at the antenna and the waves reflected by mountains or buildings.

RELATED TO TELEPHONE

Symptom	Possible cause	Possible solution
The voice on the other side is difficult to be heard. The voice is difficult to reach the other side of the connection.	The interior of the vehicle is too noisy.	Close the windows or have other occupants be quiet.
	The volume of the voice is too low.	Speak louder.
	Pronunciation is unclear.	Speak clearly.

PRECAUTION

PRECAUTIONS

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

INFOID:000000004498012

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the "SRS AIRBAG" and "SEAT BELT" 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 "SRS AIRBAG".
- Never 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

When working near the Airbag Diagnosis Sensor Unit or other Airbag System sensors while ignition switch is ON or engine is running, never use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration may activate the sensor(s), deploy the airbag(s), possibly cause serious injury. When using air or electric power tools or hammers, always turn OFF ignition switch, disconnect the battery, and wait 3 minutes or more before performing any service.

Precaution for Battery Service

INFOID:000000004747737

Before disconnecting the battery, lower both the driver and passenger windows. This will prevent any interference between the window edge and the vehicle when the door is opened/closed. During normal operation, the window slightly raises and lowers automatically to prevent any window to vehicle interference. The automatic window function will not work with the battery disconnected.

PREPARATION

< PREPARATION >

[BOSE AUDIO WITHOUT NAVIGATION]

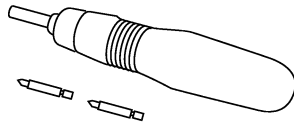
PREPARATION

PREPARATION

Commercial Service Tools

INFOID:000000004498014

Tool name	Description
Power tool	Loosening bolts and nuts



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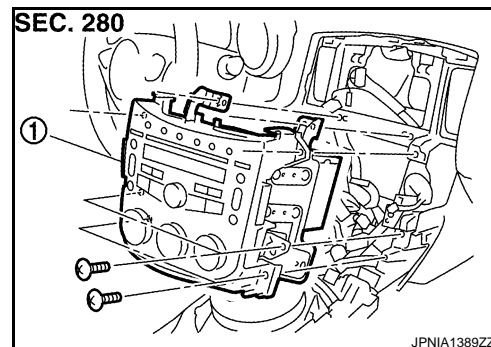
ON-VEHICLE REPAIR

AUDIO UNIT

Exploded View

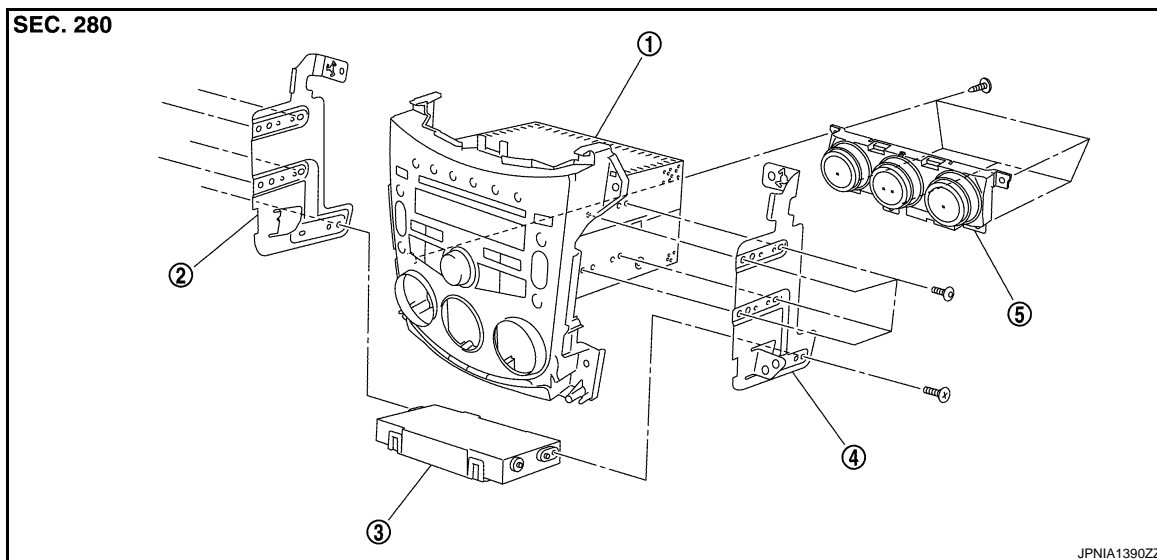
REMOVAL

INFOID:000000004498015



1. Audio unit

DISASSEMBLY



- | | | |
|---------------|----------------|------------------|
| 1. Audio unit | 2. Bracket LH | 3. A/C auto amp. |
| 4. Bracket RH | 5. A/C control | |

Removal and Installation

INFOID:000000004498016

REMOVAL

1. Remove cluster lid C. Refer to [IP-11, "Exploded View"](#).
2. Remove audio unit with A/C auto amp. and A/C control as a single unit from the body.
3. Remove screws to remove A/C control.
4. Remove bracket screws to remove audio unit.

INSTALLATION

Install in the reverse order of removal.

NOTE:

Models for Mexico require the switching of AM frequency band of the radio to Step after replacing audio unit. Refer to [AV-37, "System Description"](#).

FRONT DOOR SPEAKER

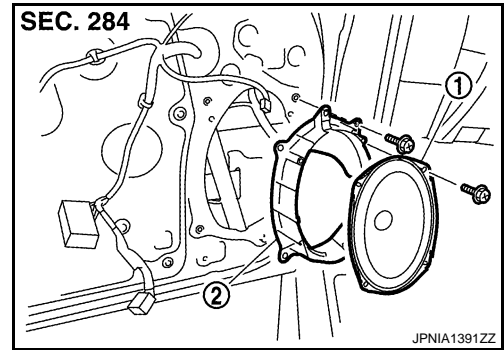
< ON-VEHICLE REPAIR >

[BOSE AUDIO WITHOUT NAVIGATION]

FRONT DOOR SPEAKER

Exploded View

INFOID:0000000004511860



1. Front door speaker
2. Speaker bracket

Removal and Installation

INFOID:0000000004511861

REMOVAL

1. Remove front door finisher. Refer to [INT-11, "Exploded View"](#).
2. Remove front door speaker screws, then disconnect front door speaker connector and remove front door speaker.

INSTALLATION

Install in the reverse order of removal.

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AV

TWEETER

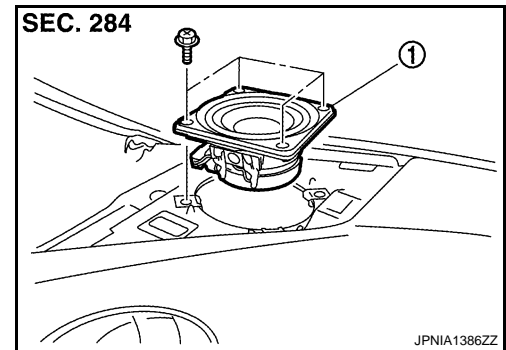
< ON-VEHICLE REPAIR >

[BOSE AUDIO WITHOUT NAVIGATION]

TWEETER

Exploded View

INFOID:000000004511862



1. Tweeter

Removal and Installation

INFOID:000000004511863

REMOVAL

1. Remove speaker grille. Refer to [IP-11, "Exploded View"](#).
2. Remove tweeter screws, then lift up tweeter, disconnect connector and remove tweeter.

INSTALLATION

Install in the reverse order of removal.

REAR SPEAKER

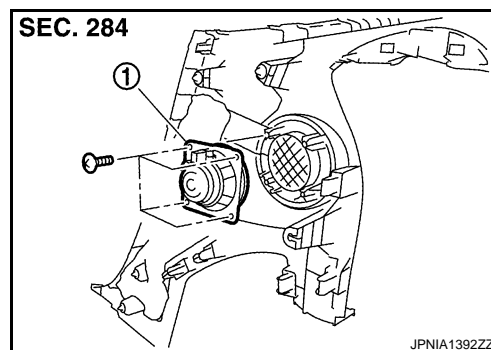
< ON-VEHICLE REPAIR >

[BOSE AUDIO WITHOUT NAVIGATION]

REAR SPEAKER

Exploded View

INFOID:000000004511864



1. Rear speaker

Removal and Installation

INFOID:000000004511865

REMOVAL

1. Remove rear side finisher. Refer to [INT-14, "Exploded View"](#).
2. Remove rear speaker screws, then remove rear speaker.

INSTALLATION

Install in the reverse order of removal.

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AV

BOSE AMP.

< ON-VEHICLE REPAIR >

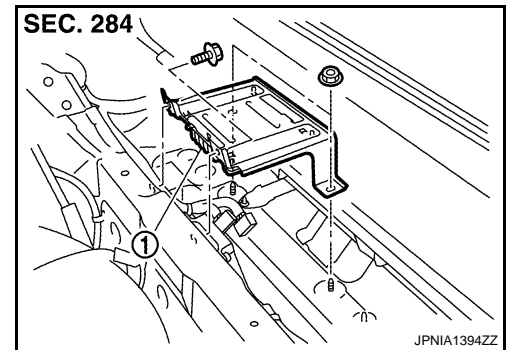
[BOSE AUDIO WITHOUT NAVIGATION]

BOSE AMP.

Exploded View

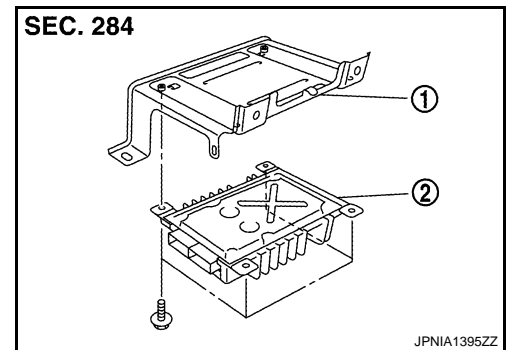
INFOID:000000004511418

REMOVAL



1. BOSE amp.

DISASSEMBLY



1. Bracket
2. BOSE amp.

Removal and Installation

INFOID:000000004511419

REMOVAL

1. Remove luggage floor spacer front. Refer to [INT-25, "Exploded View"](#).
2. Disconnect BOSE amp. connector, remove BOSE amp. with bracket as a single unit from body.
3. Remove BOSE amp. bracket screws to remove BOSE amp.

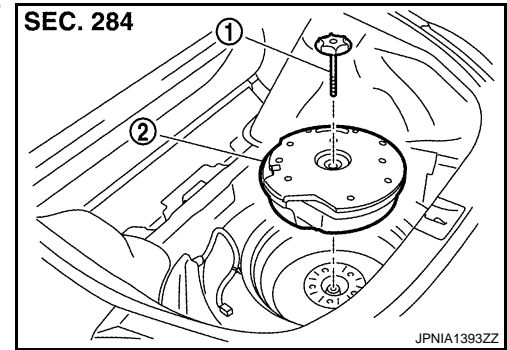
INSTALLATION

Install in the reverse order of removal.

WOOFER

Exploded View

INFOID:000000004511420



1. Clamp
2. Woofer

Removal and Installation

INFOID:000000004511421

REMOVAL

1. Remove luggage spacer. Refer to [INT-20. "Exploded View"](#).
2. Remove clamp, then disconnect woofer connector and remove the woofer.

INSTALLATION

Install in the reverse order of removal.

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AV

ANTENNA AMP.

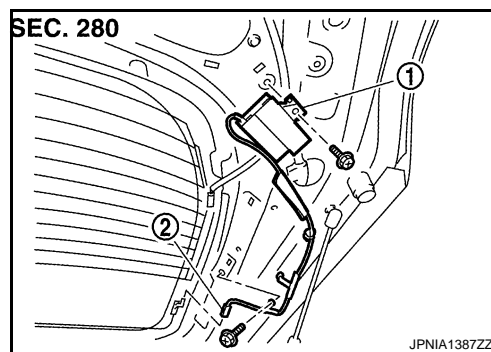
< ON-VEHICLE REPAIR >

[BOSE AUDIO WITHOUT NAVIGATION]

ANTENNA AMP.

Exploded View

INFOID:0000000004509148



1. Antenna amp.
2. Connector

Removal and Installation

INFOID:0000000004509149

REMOVAL

1. Remove back door finisher side. Refer to [INT-27, "Exploded View"](#).
2. Disconnect connector and remove screw, then remove antenna amp.

INSTALLATION

Install in the reverse order of removal.

SATELLITE RADIO TUNER

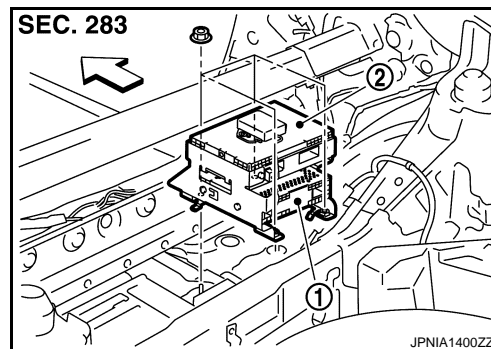
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[BOSE AUDIO WITHOUT NAVIGATION]

SATELLITE RADIO TUNER

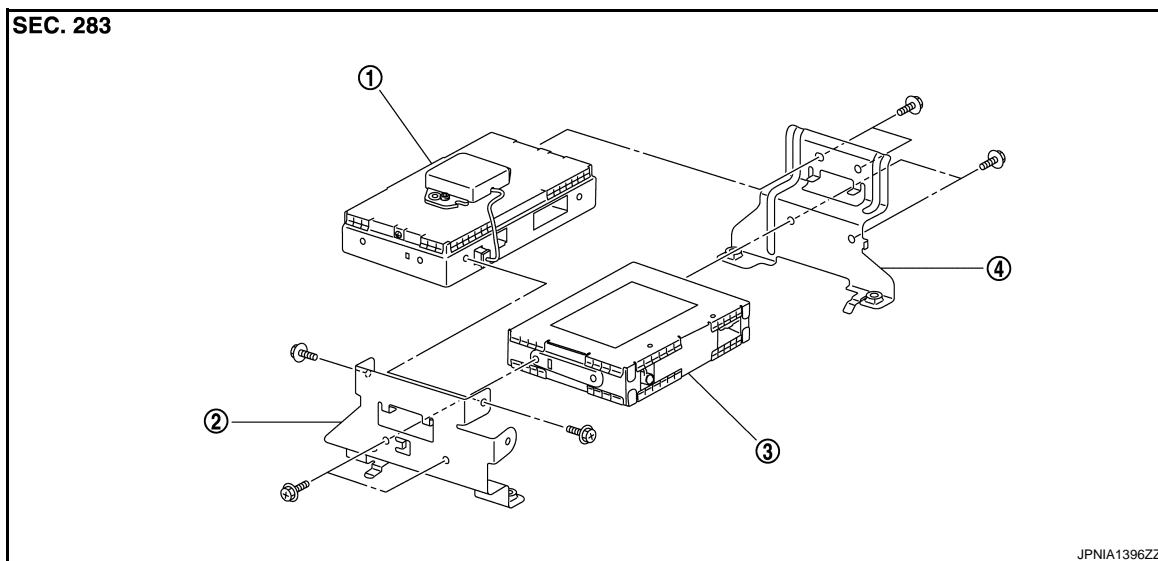
Exploded View

REMOVAL



- 1. Satellite radio tuner
- 2. TEL adapter unit
- ⇐ : Vehicle front

DISASSEMBLY



- 1. TEL adapter unit
- 2. Bracket LH
- 3. Satellite radio tuner
- 4. Bracket RH

Removal and Installation

REMOVAL

1. Remove luggage floor spacer front. Refer to [INT-20, "Exploded View"](#).
2. Disconnect TEL adapter unit connector and satellite radio tuner connector.
3. Remove satellite radio tuner with TEL adapter unit as a single unit from the body.
4. Remove bracket screws, and then remove satellite radio tuner.

INSTALLATION

Install in the reverse order of removal.

SATELLITE RADIO ANTENNA

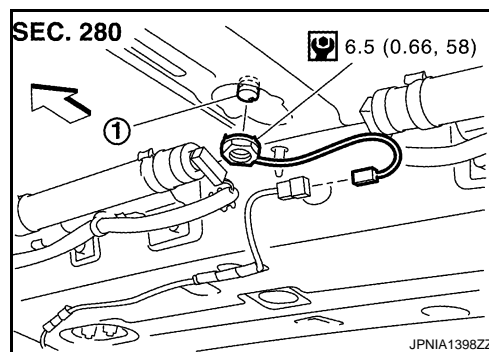
< ON-VEHICLE REPAIR >

[BOSE AUDIO WITHOUT NAVIGATION]

SATELLITE RADIO ANTENNA

Exploded View

INFOID:000000004512050



1. Satellite radio antenna

⇐ : Vehicle front

Refer to [GI-4, "Components"](#) for symbols in the figure.

Removal and Installation

INFOID:000000004512051

REMOVAL

1. Remove rear pillar finisher (LH/RH). Refer to [INT-14, "Exploded View"](#).
2. Pull down headlining (rear side) and obtain space for work between vehicle and headlining. Refer to [INT-22, "Exploded View"](#).
3. Disconnect satellite radio antenna connector.
4. Remove satellite radio antenna mounting nut, then remove satellite radio antenna from roof panel.

INSTALLATION

Install in the reverse order of removal.

CAUTION:

- Never bend headlining when pull down headlining (rear side).
- When satellite radio antenna mounting nut tightening torque is loose, be careful about tightening torque. Antenna sensitivity becomes poor, and when it is excessive, roof panel may become deformed.

STEERING SWITCH

Exploded View

INFOID:000000004511422

Refer to [ST-12. "Exploded View"](#) .

Removal and Installation

INFOID:000000004511423

REMOVAL

Refer to [ST-12. "Exploded View"](#).

INSTALLATION

Install in the reverse order of removal.

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TEL ADAPTER UNIT

< ON-VEHICLE REPAIR >

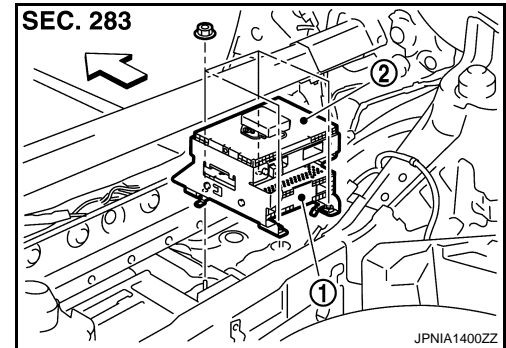
[BOSE AUDIO WITHOUT NAVIGATION]

TEL ADAPTER UNIT

Exploded View

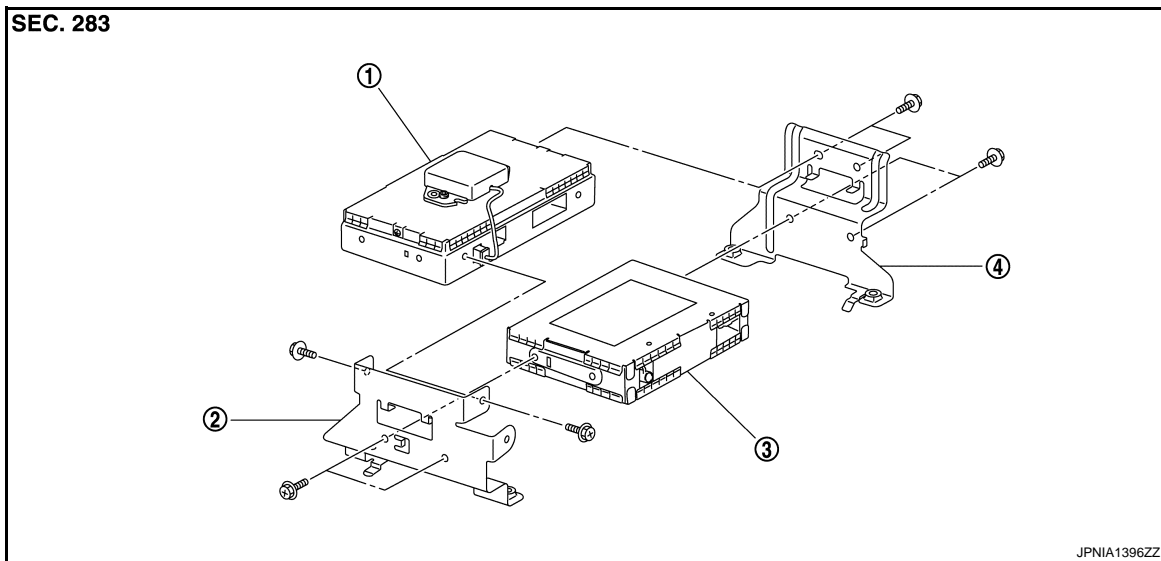
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REMOVAL



1. Satellite radio tuner
 2. TEL adapter unit
- ⇐: Vehicle front

DISASSEMBLY



1. TEL adapter unit
2. Bracket LH
3. Satellite radio tuner
4. Bracket RH

Removal and Installation

INFOID:000000004498038

REMOVAL

1. Remove luggage floor spacer front. Refer to [INT-20, "Exploded View"](#).
2. Disconnect TEL adapter unit connector and satellite radio tuner connector.
3. Remove TEL adapter unit with satellite radio tuner as a single unit from the body.
4. Remove bracket screws, and then remove TEL adapter unit.

INSTALLATION

Install in the reverse order of removal.

ANTENNA FEEDER

< ON-VEHICLE REPAIR >

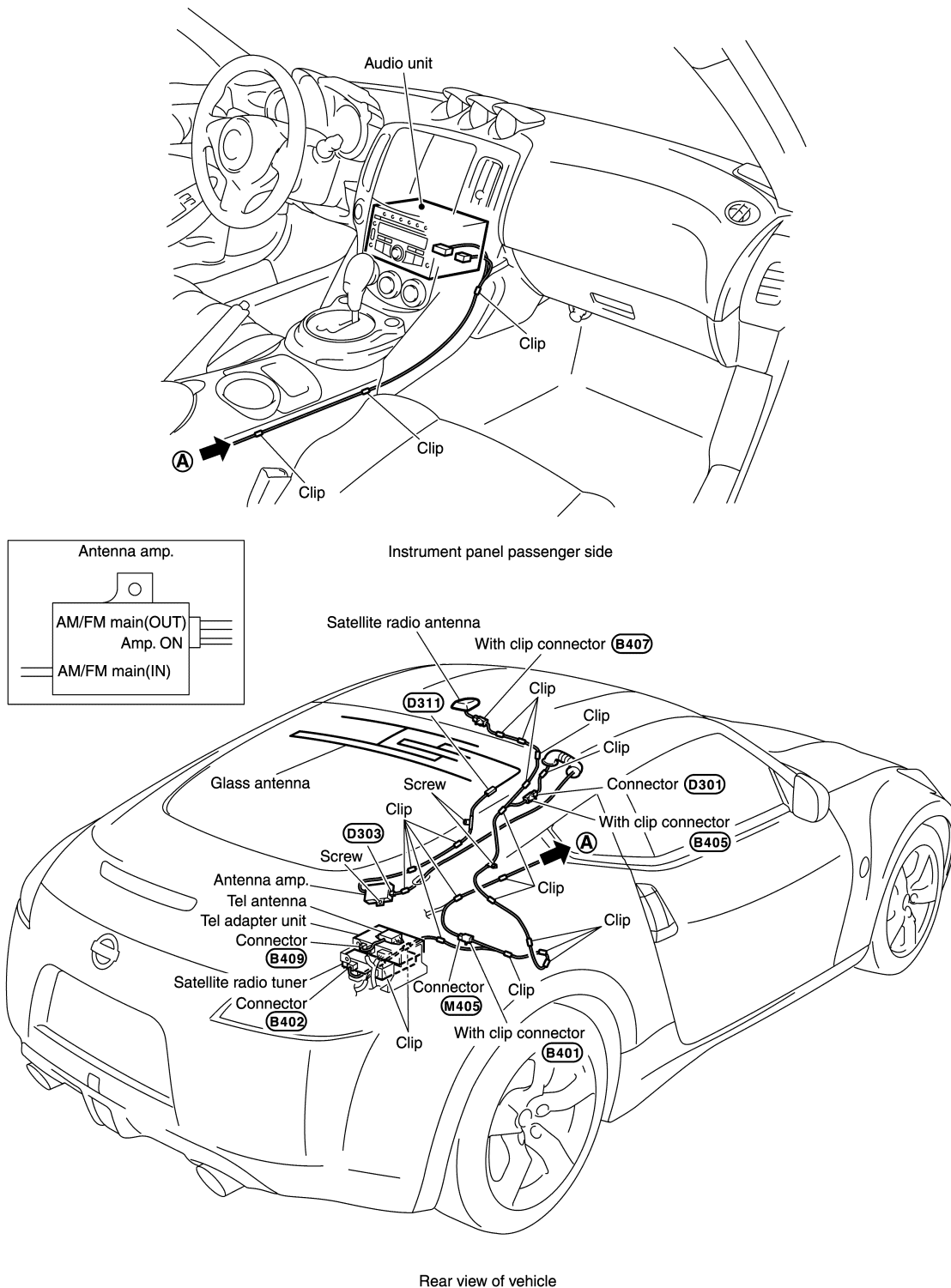
[BOSE AUDIO WITHOUT NAVIGATION]

ANTENNA FEEDER

Harness Layout

INFOID:000000004498041

SEC. 280



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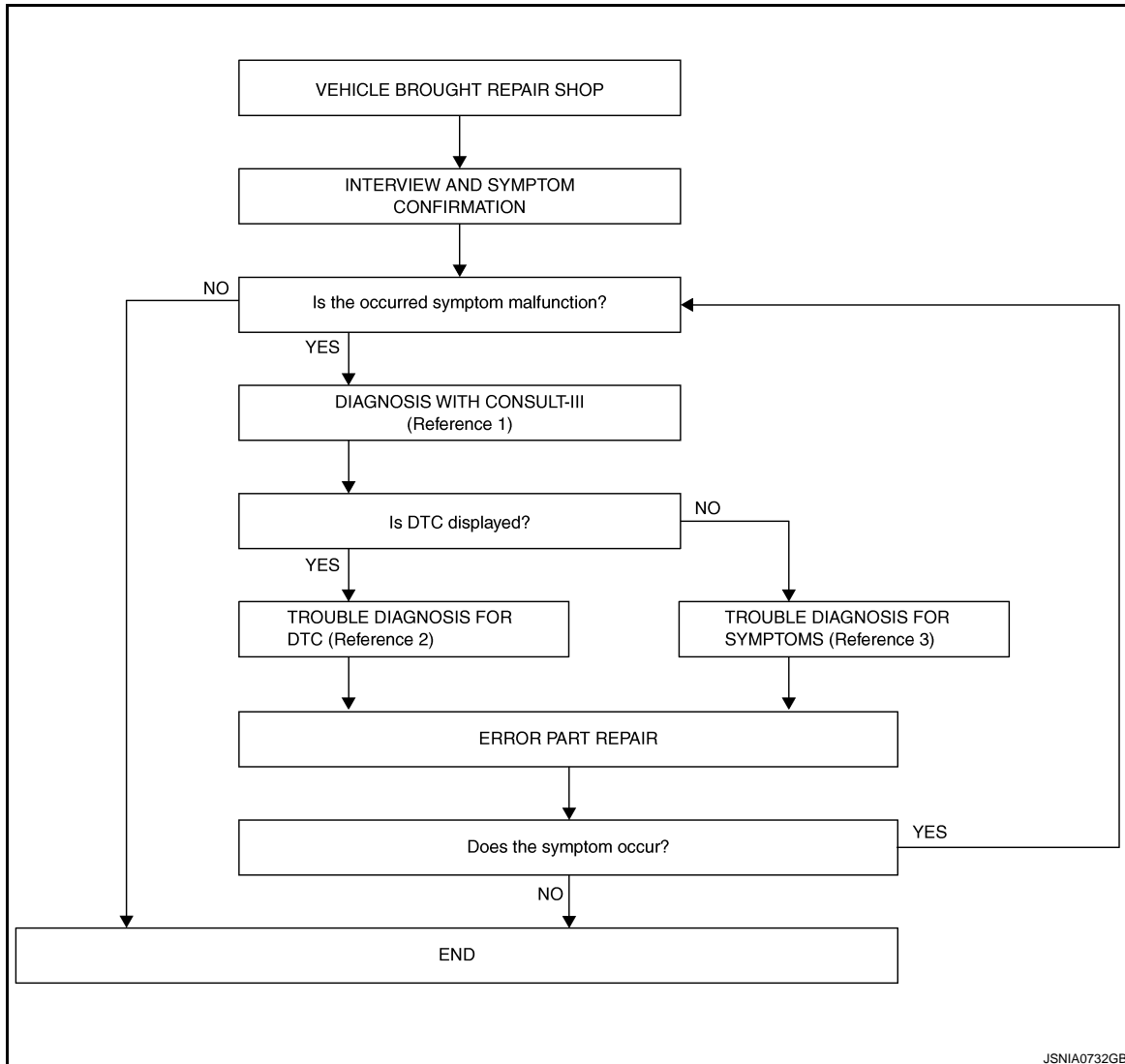
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

INFOID:000000004469460

OVERALL SEQUENCE



- Reference 1... Refer to [AV-183, "CONSULT-III Function \(MULTI AV\)".](#)
- Reference 2... Refer to [AV-252, "DTC Index".](#)
- Reference 3... Refer to [AV-319, "Symptom Table".](#)

DETAILED FLOW

1. INTERVIEW AND SYMPTOM CONFIRMATION

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.

Is the occurring symptom a malfunction?

YES >> GO TO 2.

NO >> INSPECTION END

2. DIAGNOSIS WITH CONSULT-III

DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

[BOSE AUDIO WITH NAVIGATION]

1. Connect CONSULT-III and perform a self-diagnosis for "MULTI AV". Refer to [AV-183, "CONSULT-III Function \(MULTI AV\)"](#).

NOTE:

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

2. Check if any DTC is displayed in the self-diagnosis results.

Is DTC displayed?

YES >> GO TO 3.

NO >> GO TO 4.

3.TROUBLE DIAGNOSIS FOR DTC

1. Check the DTC indicated in the self-diagnosis results.
2. Perform the relevant diagnosis referring to the DTC Index. Refer to [AV-252, "DTC Index"](#).

>> GO TO 5.

4.TROUBLE DIAGNOSIS FOR SYMPTOMS

Perform the relevant diagnosis referring to the diagnosis chart by symptom. Refer to [AV-319, "Symptom Table"](#).

>> GO TO 5.

5.ERROR PART REPAIR

1. Repair or replace the identified malfunctioning parts.
2. Perform a self-diagnosis for "MULTI AV" with CONSULT-III.

NOTE:

Erase the stored self-diagnosis results after repairing or replacing the relevant components if any DTC has been indicated in the self-diagnosis results.

3. Check that the symptom does not occur.

Does the symptom occur?

YES >> GO TO 1.

NO >> INSPECTION END

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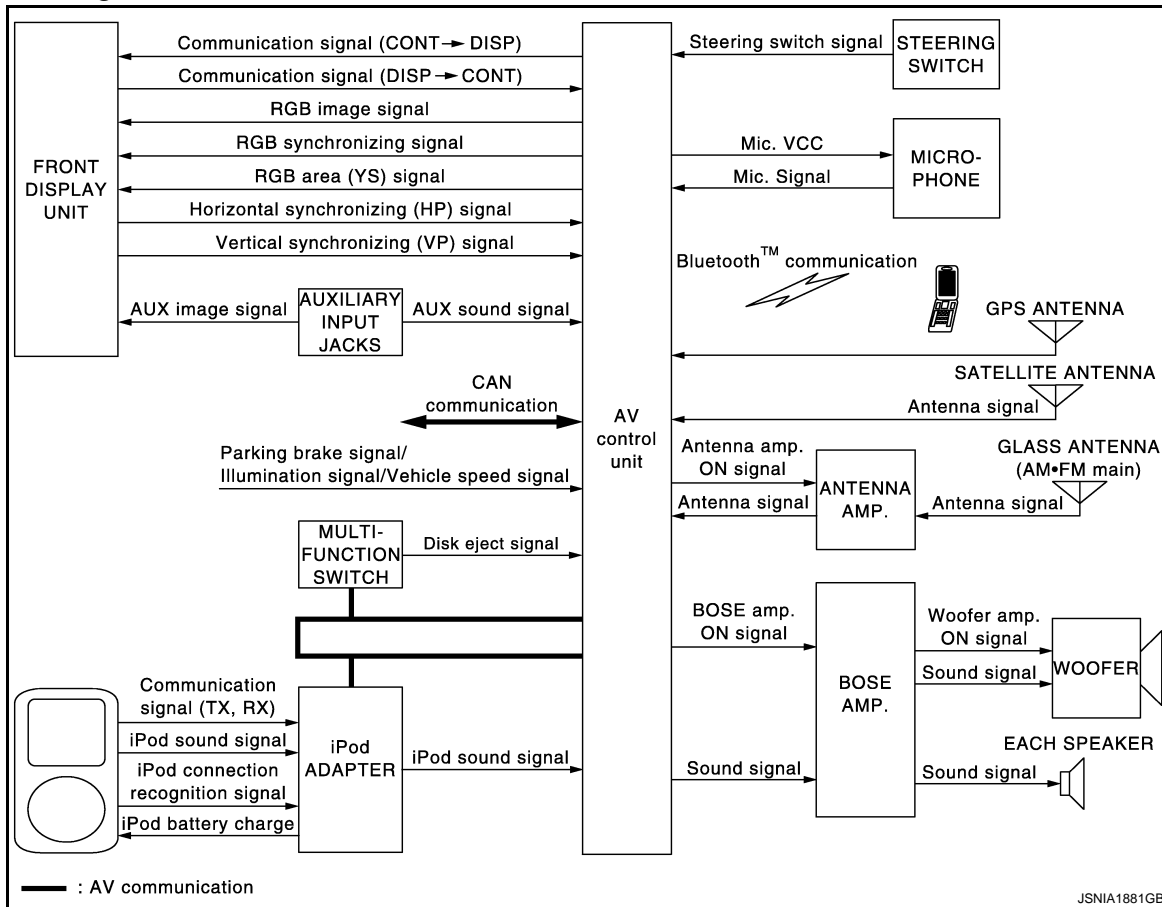
AV

FUNCTION DIAGNOSIS

MULTI AV SYSTEM

System Diagram

INFOID:000000004469467



JSNIA1881GB

NOTE:

- Woofer, illustrated in the above figure, integrates two woofers and a woofer amp.
- In this section, PRESET SWITCH and MULTIFUNCTION SWITCH are written as the MULTIFUNCTION SWITCH.

System Description

INFOID:000000004469468

MULTI AV system means that the following systems are integrated.

System name	System explanation
NAVIGATION SYSTEM	AV-159. "System Description"
AUDIO SYSTEM	AV-164. "System Description"
HANDS-FREE PHONE SYSTEM	AV-168. "System Description"
VEHICLE INFORMATION SYSTEM	<ul style="list-style-type: none"> • Status of audio, climate control system, fuel economy, maintenance and navigation is 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.
AUXILIARY INPUT SYSTEM	Refer to the following "AUXILIARY INPUT SYSTEM".
VOICE RECOGNITION SYSTEM	Refer to the following "VOICE RECOGNITION SYSTEM".
TOUCH PANEL SYSTEM	Refer to the following "TOUCH PANEL SYSTEM".

MULTI AV SYSTEM

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

- AV control unit function by transmitting/receiving data one by one with each unit (slave unit) that configures them completely as a master unit by connecting between units that configure MULTI AV system with two AV communication lines (H, L).
- Two AV communication lines (H, L) adopt a twisted pair line that is resistant to noise.
- AV control unit is connected by CAN communication, and it receives data signal from ECM, combination meter. It computes and displays fuel economy information value with the obtained information. Transmitting/receiving of data signal is performed by BCM. Also, it transmits the required signal of vehicle setting and receives the response signal.
- AV control unit is connected with front display unit and serial communication, and it transmits the required signal of display and display control and receives the response signal from front display unit.

NOTE:

AV control unit can perform CONSULT-III self-operating function and on board self-diagnosis.

- CONSULT-III self diagnosis: Refer to [AV-183, "CONSULT-III Function \(MULTI AV\)"](#).
- On board self diagnosis: Refer to [AV-171, "Diagnosis Description"](#).

AUXILIARY INPUT SYSTEM

- Image and sound can be output from an external device by connecting a device with auxiliary input jacks.
- Operation can be performed with multifunction switch and steering switch. Multifunction switch transmits operation signal to AV control unit by AV communication.
- The AUX image signal is input from the auxiliary input jacks to the front display unit.
- The AUX sound signal is input from the auxiliary input jacks to the AV control unit. The AV control unit outputs the AUX sound signal to the BOSE amp. The BOSE amp. outputs the AUX sound signal to woofer and each speaker.

VOICE RECOGNITION SYSTEM

- Each operation of multi AV system can be performed by inputting sound in to a microphone.
- Start of sound recognition system can be performed by steering switch.

TOUCH PANEL SYSTEM

Each operation of multi AV system can be performed by directly touching the appropriate display.

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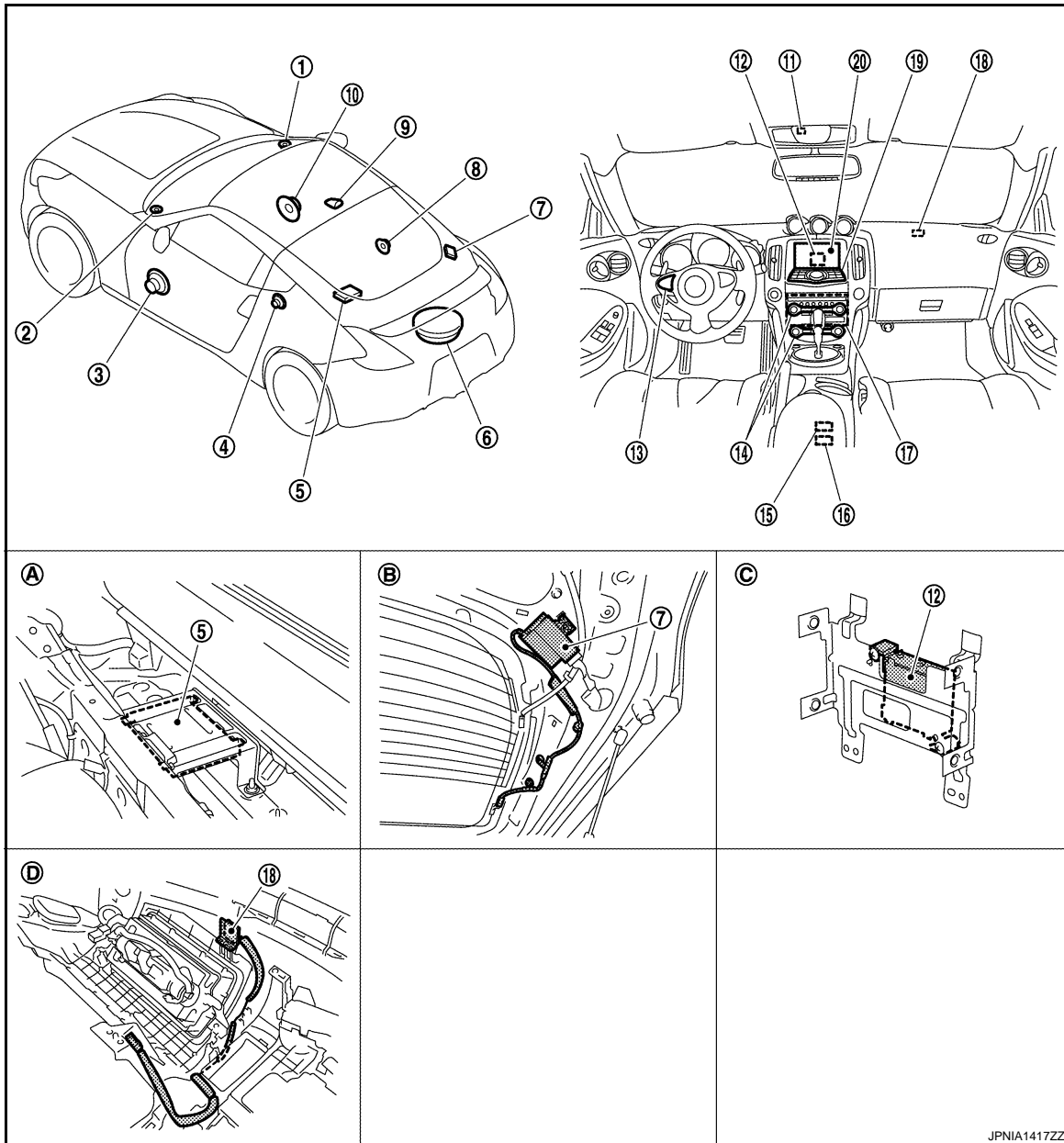
MULTI AV SYSTEM

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

Component Parts Location

INFOID:000000004496686



JPNA1417ZZ

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| 1. Tweeter RH | 2. Tweeter LH | 3. Front door speaker LH |
| 4. Rear speaker LH | 5. BOSE amp. | 6. Woofer |
| 7. Antenna amp. | 8. Rear speaker | 9. Satellite radio antenna |
| 10. Front door speaker RH | 11. Microphone | 12. iPod adapter |
| 13. Steering switch | 14. Preset switch | 15. Auxiliary input jacks |
| 16. iPod connector | 17. AV control unit | 18. GPS antenna |
| 19. Multifunction switch | 20. Front display unit | |
| A. Luggage side LH | B. Back door side RH | C. Front display bracket back side |
| D. Instrument panel remove condition | | |

MULTI AV SYSTEM

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

Component Description

INFOID:000000004469470

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"> Integrates hard disk drive (HDD) allowing map data and music data to be stored. It is the master unit of the MULTI AV system, and it is connected to each control unit by communication. It operates each system according to communication signals from the AV control unit. The AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions. It is connected to ECM, A/C auto amp. and combination meter via CAN communication to obtain necessary information for the vehicle information function. It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function. It inputs the illumination signals that are required for the display dimming control. It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake). Update of map data is performed with the CONSULT-III and the applicable cable. It includes the TEL adapter and Bluetooth™ function.
FRONT DISPLAY UNIT	<ul style="list-style-type: none"> Front display image is controlled by the serial communication from AV control unit. RGB image signal is input from AV control unit (RGB, RGB area and RGB synchronizing). Auxiliary image signal is input from the auxiliary input jacks. Synchronize signal (HP, VP) is output to AV control unit. Touch panel function can be operated for each system by touching a display directly.
BOSE AMP.	<ul style="list-style-type: none"> Inputs power (amp. ON) and sound signal from AV control unit, and outputs sound signal to woofer and each speaker. Woofer amp. ON signal is transmitted to woofer.
WOOFER	<ul style="list-style-type: none"> Composed of two woofers and a woofer amp. Inputs power (amp. ON) and sound signal from BOSE amp. Outputs low frequency sound.
FRONT DOOR SPEAKER	<ul style="list-style-type: none"> Outputs sound signal from BOSE amp. Outputs sound (mid and low range).
REAR SPEAKER	<ul style="list-style-type: none"> Outputs sound signal from BOSE amp. Outputs sound (mid and low range).
TWEETER	<ul style="list-style-type: none"> Outputs sound signal from BOSE amp. Outputs sound (high range).
MULTIFUNCTION SWITCH	<ul style="list-style-type: none"> Operation panel is equipped with the centralized switch where audio and auxiliary input and navigation operations are integrated. The multifunction switch is connected to the preset switch by wiring harness, and it transmits the operation signal to the preset switch.
PRESET SWITCH	<ul style="list-style-type: none"> Operation panel is equipped with the centralized switch where audio and air conditioner operations are integrated. The preset switch is connected via AV communication, and it transmits the operation signals of the preset switch and multifunction switch. The disk ejection operating signal is performed by wiring harness.
STEERING SWITCH	<ul style="list-style-type: none"> Operations for audio, hands-free phone, audio response and navigation, etc. 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 operation and voice recognition. Mic. signal is transmitted to AV control unit. The power (Mic. power supply) is supplied from the AV control unit.
AUXILIARY INPUT JACKS	AUX image signal of auxiliary input is transmitted to front display unit, and sound signal is transmitted to AV control unit.
GPS ANTENNA	GPS signal is received and transmitted to AV control unit.

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MULTI AV SYSTEM

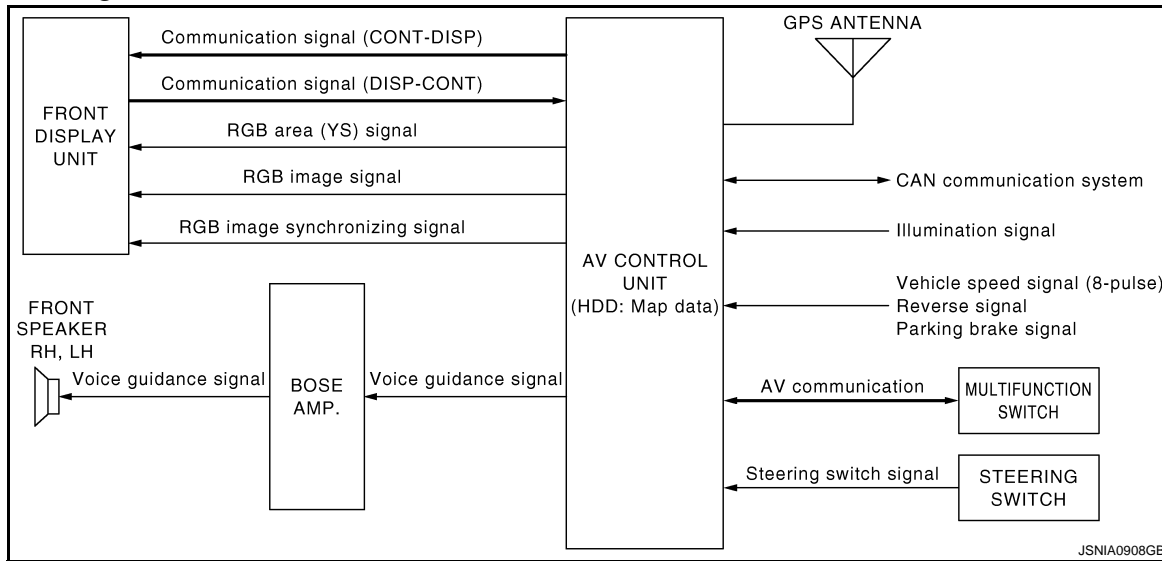
< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

Part name	Description
ANTENNA AMP.	<ul style="list-style-type: none">• Radio signal received by glass antenna is amplified and transmitted to AV control unit.• Power (antenna amp. ON signal) is supplied from AV control unit.
SATELLITE RADIO ANTENNA	Receives the satellite radio wave and outputs it to the AV control unit.
iPod ADAPTER	<ul style="list-style-type: none">• Inputs iPod sound signal from iPod®, and outputs iPod sound signal to AV control unit.• Receiving/transmitting of iPod® operation signals are performed as follows:<ul style="list-style-type: none">- between AV control unit and iPod adapter: AV communication.- between iPod® and iPod adapter: serial communication.

NAVIGATION SYSTEM

System Diagram



System Description

INFOID:000000004469472

DESCRIPTION

- The AV control unit controls navigation function while GPS tuner has built-in map data, GYRO (angle speed sensor), on the HDD (Hard Disk Drive).
- The AV control unit inputs operation signal with communication signal, through display (touch panel) and multifunction switch and steering switch.
- Guide sound is output to front speaker through BOSE amp. from AV control unit when operating navigation system.
- A vehicle position is calculated with the GYRO (angle speed sensor), vehicle sensor, signal from GPS satellite and map data stored on HDD (Hard Disk Drive), and transmits the map image signal (RGB image, RGB area, RGB image synchronizing) to the front display unit.

POSITION DETECTION PRINCIPLE

The navigation system periodically calculates the current vehicle position according to the following three types of signals.

- Travel distance of the vehicle as determined by the vehicle speed sensor
- Vehicle turning angle determined by the gyroscope (angular speed sensor)
- The travel direction of the vehicle 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, which is stored in the HDD (Hard Disk Drive) (map-matching), and indicated on the screen with a current location mark. More accurate data is used by comparing position detection results from GPS to the map-matching.

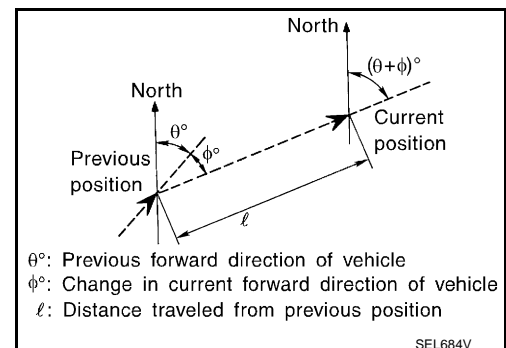
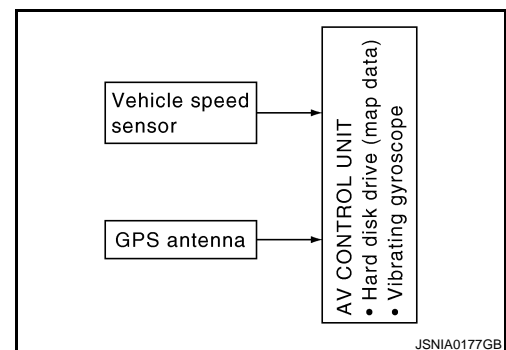
The current position is calculated by detecting the travel distance from the previous calculation point, and its direction change.

- Travel distance

The travel distance is generated from the vehicle speed sensor input signal. The automatic distance correction function is adopted for preventing a miss-detection of the travel distance because of tire wear etc.

- Travel direction

The gyroscope (angular velocity sensor) and GPS antenna (GPS information) generate the change of the travel direction. Both have advantages and disadvantages as per the following descriptions.

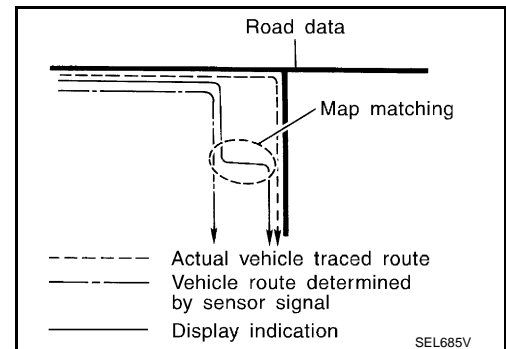


Type	Advantage	Disadvantage
Gyroscope (angular velocity sensor)	The turning angle is precisely detected.	Errors are accumulated when driving a long distance without stopping.
GPS antenna (GPS information)	The travel direction (North/South/East/West) is detected.	The travel direction is not precisely detected when driving slowly.

Input signals are prioritized in each situation. However, this order of priority may change in accordance with more detailed travel conditions so that the travel direction is detected more accurately.

MAP-MATCHING

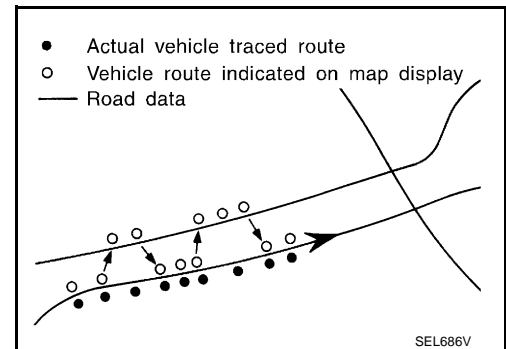
Map-matching repositions the vehicle on the road map when a new location is judged to be more accurate. This is done by comparing the current vehicle position (calculated by the normal position detection method) from the map data stored in the HDD (Hard Disk Drive).



There is a possibility that the vehicle position may not be corrected the when vehicle is driven over a certain distance or time in which GPS information is hard to receive. Manually correct the current location mark on the screen.

- Map-matching detects, prepares, and prioritizes several alternative routes in addition to the road detected as currently being driven on. Therefore, due to errors in the distance and/or direction, an incorrect road may be prioritized, and the current location mark may be repositioned to the incorrect road.

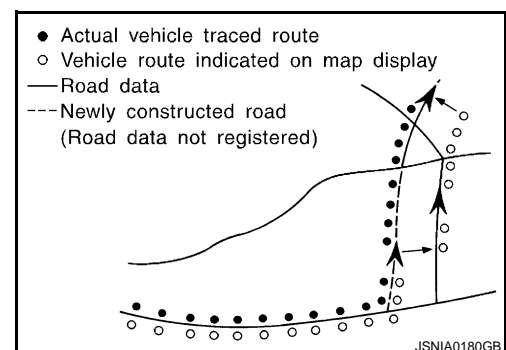
If two roads are running in parallel, they are of the same priority. Therefore, the current location mark may appear on either of them alternately, depending on maneuvering of the steering wheel and configuration of the road, etc.



- Map-matching does not function correctly when the road on which the vehicle is driving is new, etc. and not recorded in the map data. In addition map-matching does not function correctly when the road pattern stored in the map data and the actual road pattern are different due to repair, etc.

Therefore, the map-matching function detects other roads as a currently driving road if the road is not in the map, and displays the current location mark on it. Later, the current location mark may be repositioned to the road if the correct road is detected.

- Effective range for comparing the vehicle position and travel direction calculated by the distance and direction with the road data is limited. Therefore, correction by map-matching is not possible when there is an excessive gap between the real-time vehicle position and the position on the map.



GPS (GLOBAL POSITIONING SYSTEM)

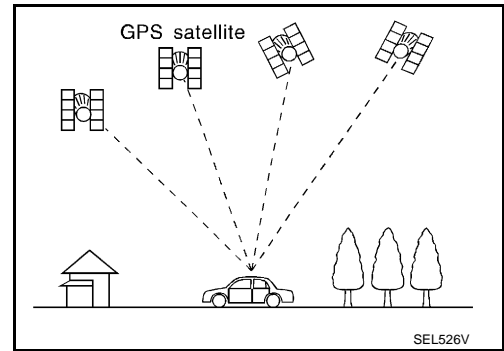
NAVIGATION SYSTEM

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

GPS (Global Positioning System) is developed for and is controlled by the US Department of Defense. The system utilizes GPS satellites (NAVSTAR), transmitting out radio waves while flying on an orbit around the earth at an altitude of approximately 21,000 km (13,049 mile).

The receiver calculates the travel position in three dimensions (latitude/longitude/altitude) according to the time lag of the radio waves that four or more GPS satellites transmit (three-dimensional positioning). The GPS receiver calculates the travel position in two dimensions (latitude/longitude) with the previous altitude data if the GPS receiver receives only three radio waves (two-dimensional positioning). GPS position correction is not performed while the vehicle is stopped.



Accuracy of GPS will deteriorate under the following conditions:

- In two-dimensional positioning, GPS accuracy will deteriorate when altitude of the vehicle position changes.
- The position of GPS satellite affects GPS detection precision. The position detection may not be precisely performed.
- The position detection is not performed if GPS receiver does not receive radio waves from GPS satellites. (Inside a tunnel, parking in a building, under an elevated highway etc.) GPS receiver may not receive radio waves from GPS satellites if any object is placed on the GPS antenna.

NOTE:

- The detection result has an error of approximately 10 m (32.81ft) even with a high-precision three dimensional positioning.
- There may be cases when the accuracy is lowered and radio waves are stopped intentionally because the GPS satellite signal is controlled by the US trace control center.

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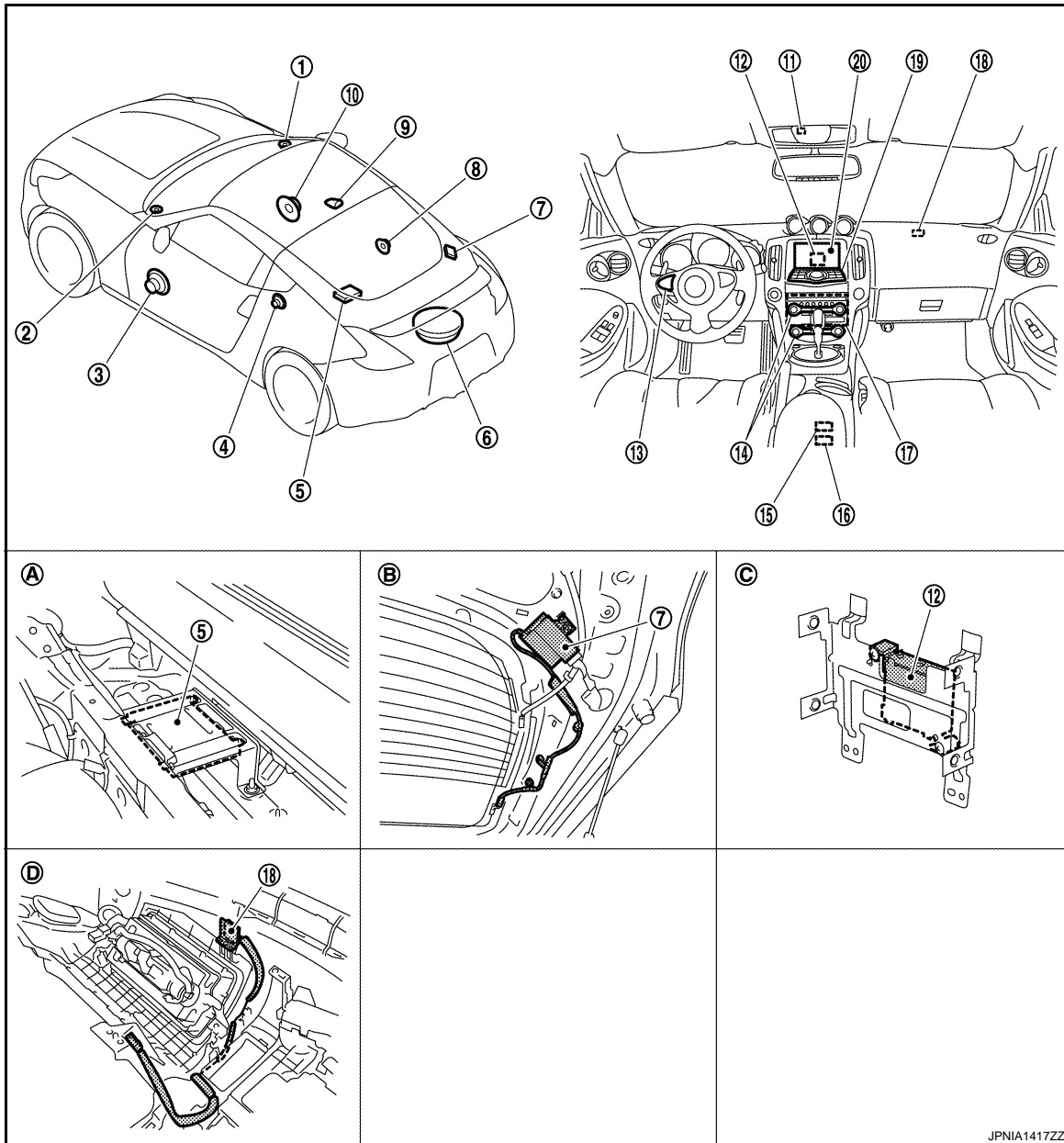
NAVIGATION SYSTEM

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

Component Parts Location

INFOID:000000004496705



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|--------------------------------------|------------------------|------------------------------------|
| 1. Tweeter RH | 2. Tweeter LH | 3. Front door speaker LH |
| 4. Rear speaker LH | 5. BOSE amp. | 6. Woofer |
| 7. Antenna amp. | 8. Rear speaker | 9. Satellite radio antenna |
| 10. Front door speaker RH | 11. Microphone | 12. iPod adapter |
| 13. Steering switch | 14. Preset switch | 15. Auxiliary input jacks |
| 16. iPod connector | 17. AV control unit | 18. GPS antenna |
| 19. Multifunction switch | 20. Front display unit | |
| A. Luggage side LH | B. Back door side RH | C. Front display bracket back side |
| D. Instrument panel remove condition | | |

NAVIGATION SYSTEM

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

Component Description

INFOID:000000004469474

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"> It is the master unit that controls each operation of the navigation system. The HDD (Hard Disk Drive) is built in, and the map data is stored in HDD. The RGB image signal (map information) is output to the front display unit. The voice guidance signal is output to the BOSE amp.
FRONT DISPLAY UNIT	<ul style="list-style-type: none"> Map image signal is input from AV control unit, and it is indicated on the display. Each operation of navigation can be performed by the touch panel function.
BOSE AMP.	Voice guidance signal is input from AV control unit, and it is output to front LH/RH speakers.
FRONT DOOR SPEAKER	Voice guidance signal from BOSE amp. is output.
FRONT SQUAWKER	
MULTIFUNCTION SWITCH	<ul style="list-style-type: none"> Each operation of navigation can be performed. The multifunction switch is connected to the preset switch by wiring harness, and it transmits the operation signal to the preset switch.
PRESET SWITCH	<ul style="list-style-type: none"> Operation panel is equipped with the centralized switch where audio and air conditioner operations are integrated. The preset switch is connected via AV communication, and it transmits the operation signals of the preset switch and multifunction switch. The disk ejection operating signal is performed by wiring harness.
STEERING SWITCH	<ul style="list-style-type: none"> Each operation of navigation, etc. can be performed. Switch operating signal is output to AV control unit.
MICROPHONE	<ul style="list-style-type: none"> Used for hands-free phone operation and voice recognition. Mic. signal is transmitted to AV control unit. Power (Mic. power supply) is supplied from AV control unit.
GPS ANTENNA	GPS signal is received and is output to AV control unit.

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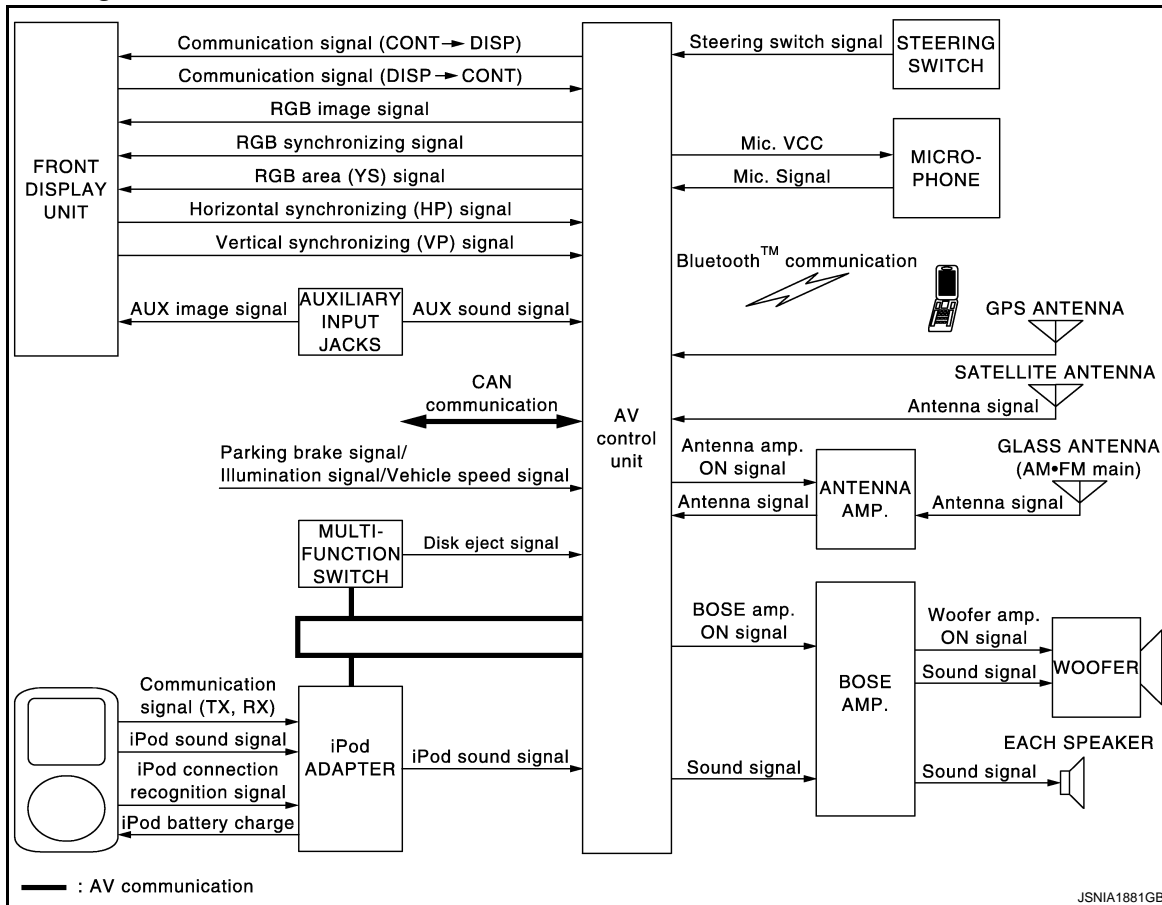
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AUDIO SYSTEM

System Diagram

INFOID:000000004498042



NOTE:

- Woofer, illustrated in the above figure, integrates two woofers and a woofer amp.
- In this section, PRESET SWITCH and MULTIFUNCTION SWITCH are written as the MULTIFUNCTION SWITCH.

System Description

INFOID:000000004469480

The audio system is equipped with the following functions. Each function is operated with multifunction switch, preset switch, touch panel, steering switch or audio recognition. Operation status of audio is indicated in the display.

Function
AM/FM radio
Satellite radio
CD
Music Box (Hard Disk Drive)
CF (Compact Flash)
iPod connection
AUX mode

FUNCTION DESCRIPTION

Operating Signal

Audio system operation can be performed with multifunction switch, preset switch, steering switch, touch panel function or voice recognition function.

AUDIO SYSTEM

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

- Operating signal is transmitted to AV control unit with AV communication when it is operated by multifunction switch or preset switch. The CD ejection operating signal is performed by wiring harness.
- Operating signal is transmitted to AV control unit with steering switch signal when it is operated by steering switch.
- Refer to [AV-154, "System Description"](#) for explanation of voice recognition function and touch panel function.

Screen Front Display

- Switching of display is performed with serial communication between front display unit and AV control unit.
- The image signal to front display operating condition is performed with RGB image signal, RGB area signal and RGB synchronizing signal.

AM/FM Radio Mode

- AM/FM radio tuner is built into AV control unit.
- AM/FM radio wave is received by glass antenna, next it is amplified by antenna amp., and finally it is input to AV control unit.
- Audio signal is input to BOSE amp. and BOSE amp. outputs to woofer and each speaker for AV control unit.

Satellite Radio Mode

- Satellite radio tuner is built into AV control unit.
- Audio wave (satellite radio) is received by satellite radio antenna, and it is input to AV control unit. AV control unit outputs audio signal to BOSE amp. The signal is also outputted from BOSE amp. to both woofer and each speaker.

CD Mode

- CD function is built into AV control unit.
- AV control unit outputs audio signal to BOSE amp. and BOSE amp. outputs to woofer and each speaker when CD is inserted to AV control unit.

Music Box Mode

- Music CD data is stored on HDD that is built into AV control unit, and it can be played.
- AV control unit outputs music (audio signal) that is stored on HDD to BOSE amp., and BOSE amp. outputs to woofer and each speaker.

CF Mode

- AV control unit has built in CF replay function.
- Music (audio signal) that is stored in CF outputs to BOSE amp., and BOSE amp. outputs to woofer and each speaker when CF is inserted into AV control unit.

iPod Connection

- Connect iPod® and iPod adapter with wire harness and iPod adapter input iPod sound signal from iPod®. When iPod mode is selected, iPod adapter outputs iPod sound signal to AV control unit. AV control unit output sound signal to BOSE amp., and BOSE amp. output sound signal to woofer and each speaker.
- Receiving/transmitting of iPod® operation signals are performed as follows:
 - between AV control unit and iPod adapter: AV communication.
 - between iPod® and iPod adapter: serial communication.
- The iPod® connection status can be recognized if iPod adapter receives iPod connection recognition signal.
- The iPod adapter can charge iPod®.

AUX Mode

Refer to [AV-154, "System Description"](#).

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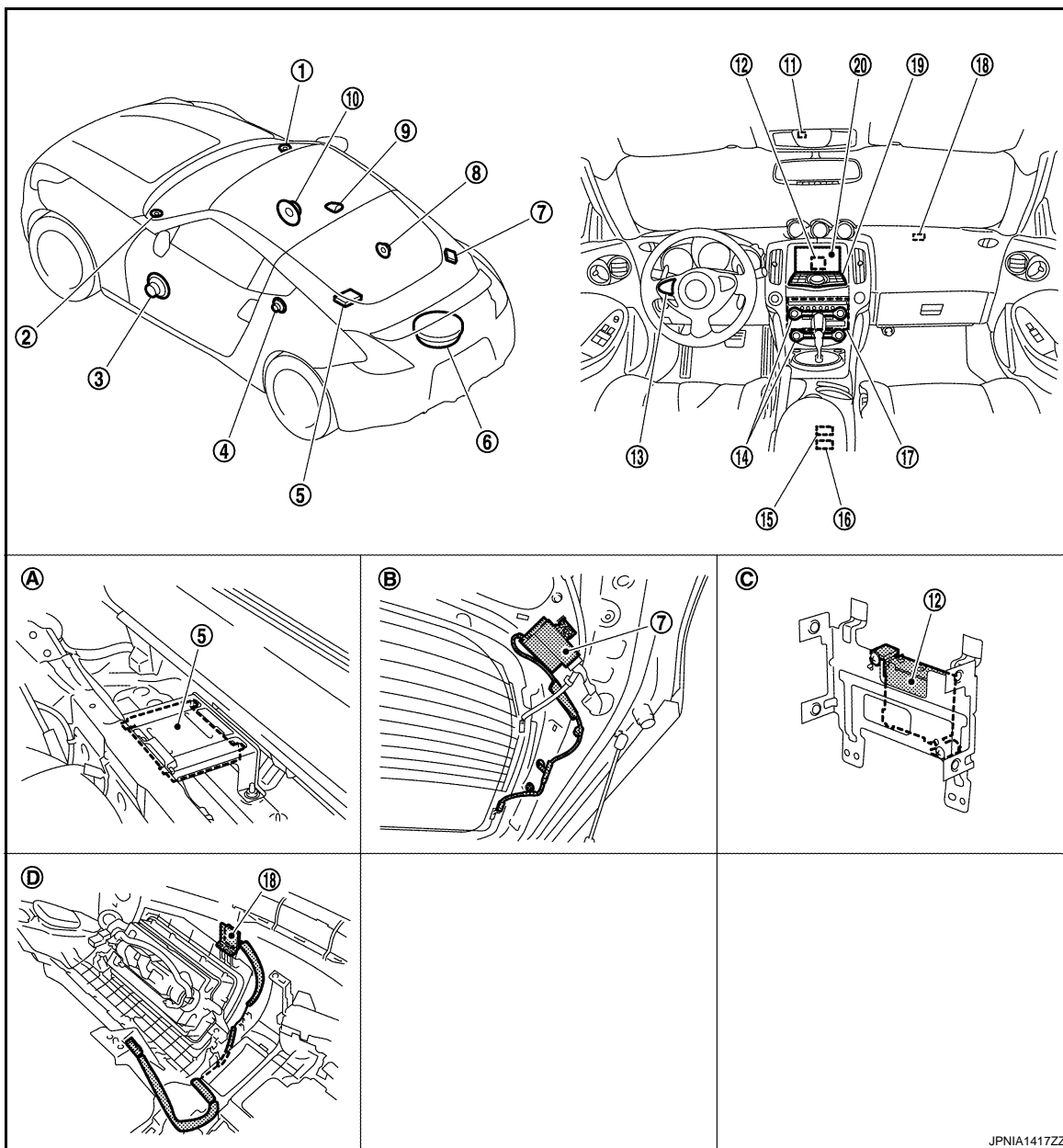
AUDIO SYSTEM

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

Component Parts Location

INFOID:000000004496706



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|--------------------------------------|------------------------|------------------------------------|
| 1. Tweeter RH | 2. Tweeter LH | 3. Front door speaker LH |
| 4. Rear speaker LH | 5. BOSE amp. | 6. Woofer |
| 7. Antenna amp. | 8. Rear speaker | 9. Satellite radio antenna |
| 10. Front door speaker RH | 11. Microphone | 12. iPod adapter |
| 13. Steering switch | 14. Preset switch | 15. Auxiliary input jacks |
| 16. iPod connector | 17. AV control unit | 18. GPS antenna |
| 19. Multifunction switch | 20. Front display unit | |
| A. Luggage side LH | B. Back door side RH | C. Front display bracket back side |
| D. Instrument panel remove condition | | |

AUDIO SYSTEM

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

Component Description

INFOID:000000004469482

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"> Receiving function of AM/FM/satellite radio, replaying function of CD, replaying/saving function of music box (HDD), replaying function of CF and voice recognition function are integrated. BOSE amp. ON signal and sound signal are transmitted to BOSE amp.
FRONT DISPLAY UNIT	<ul style="list-style-type: none"> Front display image is controlled by the serial communication from AV control unit. RGB image signal (audio operation condition) is input from AV control unit. Touch panel function can be operated for each system by touching the display directly.
BOSE AMP.	<ul style="list-style-type: none"> Inputs power (amp. ON) and sound signal from AV control unit, and outputs sound signal to woofer and each speaker. Woofer amp. ON signal is transmitted to woofer.
WOOFER	<ul style="list-style-type: none"> Composed of two woofers and a woofer amp. Inputs power (amp. ON) and sound signal from BOSE amp. Outputs low frequency sound.
FRONT DOOR SPEAKER	<ul style="list-style-type: none"> Outputs sound signal from BOSE amp. Outputs sound (mid and low range).
REAR SPEAKER	<ul style="list-style-type: none"> Outputs sound signal from BOSE amp. Outputs sound (mid and low range).
TWEETER	<ul style="list-style-type: none"> Outputs sound signal from BOSE amp. Outputs sound (high range).
MULTIFUNCTION SWITCH	<ul style="list-style-type: none"> Operation panel is equipped with the centralized switch where audio and auxiliary input operations are integrated. The multifunction switch is connected to the preset switch by wiring harness, and it transmits the operation signal to the preset switch.
PRESET SWITCH	<ul style="list-style-type: none"> Operation panel is equipped with the centralized switch where audio and air conditioner operations are integrated. The preset switch is connected via AV communication, and it transmits the operation signals of the preset switch and multifunction switch. The disk ejection operating signal is performed by wiring harness.
STEERING SWITCH	<ul style="list-style-type: none"> Operations for audio, hands-free phone, audio response and navigation, etc. 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 operation and voice recognition. Mic. signal is transmitted to AV control unit. The power (Mic. power supply) is supplied from the AV control unit.
SATELLITE RADIO ANTENNA	Receives the satellite radio wave and outputs it to the AV control unit.
ANTENNA AMP.	Power (antenna amp. ON signal) is supplied from AV control unit.
iPod ADAPTER	<ul style="list-style-type: none"> Inputs iPod sound signal from iPod®, and outputs iPod sound signal to AV control unit. Receiving/transmitting of iPod® operation signals are performed as follows: <ul style="list-style-type: none"> between AV control unit and iPod adapter: AV communication. between iPod® and iPod adapter: serial communication.

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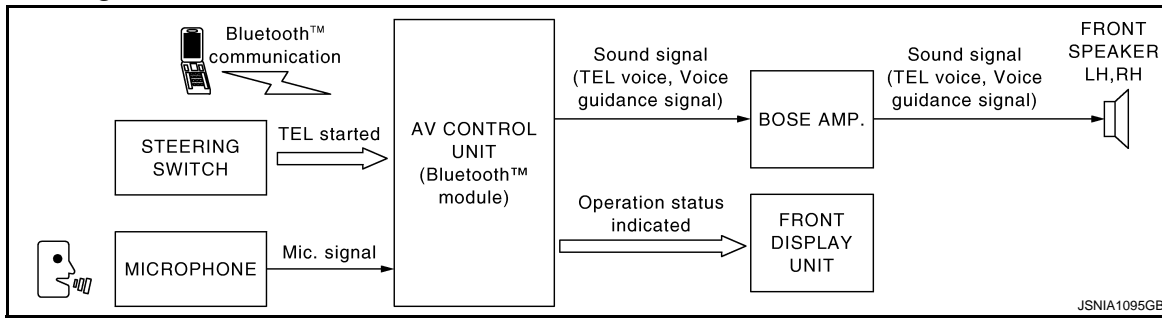
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HANDS-FREE PHONE SYSTEM

System Diagram



System Description

INFOID:000000004469484

- AV control unit includes hands-free phone function.
- Hands-free communication can be operated by connecting using Bluetooth™ communication with cellular phone.
- Operation is performed by steering switch, and operating condition is indicated on front display.
- Guide sound that is heard during operation is input from AV control unit to BOSE amp., and is output from front speaker.

WHEN A CALL IS ORIGINATED

Spoken voice sound output from the microphone (Mic. signal) is input to AV control unit. AV control unit outputs to cellular phone with Bluetooth™ communication as a TEL voice signal. Vocal sound is then heard at the other party.

WHEN RECEIVING A CALL

Vocal sound is input to own cellular phone from the other party. TEL voice signal is output to front speaker, and the signal is input to BOSE amp. via AV control unit by establishing Bluetooth™ communication from cellular phone.

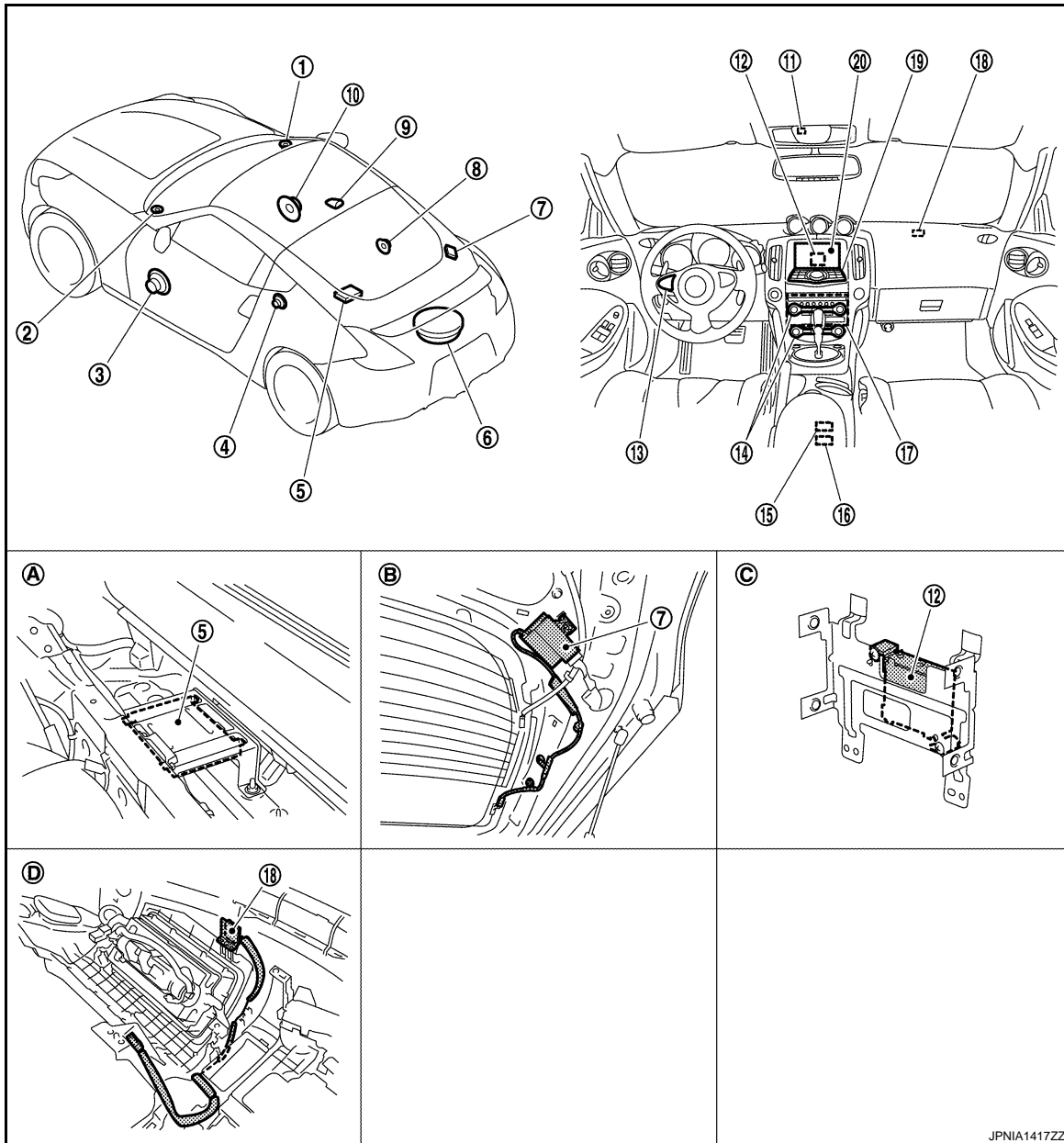
HANDS-FREE PHONE SYSTEM

[BOSE AUDIO WITH NAVIGATION]

< FUNCTION DIAGNOSIS >

Component Parts Location

INFOID:000000004496707



- | | | |
|--------------------------------------|------------------------|------------------------------------|
| 1. Tweeter RH | 2. Tweeter LH | 3. Front door speaker LH |
| 4. Rear speaker LH | 5. BOSE amp. | 6. Woofer |
| 7. Antenna amp. | 8. Rear speaker | 9. Satellite radio antenna |
| 10. Front door speaker RH | 11. Microphone | 12. iPod adapter |
| 13. Steering switch | 14. Preset switch | 15. Auxiliary input jacks |
| 16. iPod connector | 17. AV control unit | 18. GPS antenna |
| 19. Multifunction switch | 20. Front display unit | |
| A. Luggage side LH | B. Back door side RH | C. Front display bracket back side |
| D. Instrument panel remove condition | | |

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HANDS-FREE PHONE SYSTEM

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

Component Description

INFOID:000000004469486

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none">• It includes the TEL adapter and Bluetooth™ function.• It outputs the TEL voice signal and voice guidance sound signal to the BOSE amp.
FRONT DISPLAY UNIT	<ul style="list-style-type: none">• Display image is controlled by the serial communication from AV control unit.• Inputs RGB image signal (RGB, RGB area and RGB synchronizing) from AV control unit and displays the status of hands free phone system.
BOSE AMP.	Inputs TEL voice signal or voice guidance signal from AV control unit and outputs it to front door speaker.
FRONT DOOR SPEAKER	Outputs the TEL voice signal or voice guidance signal from BOSE amp.
PRESET SWITCH	<ul style="list-style-type: none">• Adjust the sound when using TEL.• The operation signal is transmitted to the AV control unit via AV communication.
STEERING SWITCH	<ul style="list-style-type: none">• The hands free-phone system can be operated.• Steering switch signal (operation signal) is output to AV control unit.
MICROPHONE	<ul style="list-style-type: none">• Uses when operating the hands-free phone.• Outputs Mic. signal (TEL voice signal) to the AV control unit.• The power (Mic. power supply) is supplied from the AV control unit.

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

Diagnosis Description

INFOID:000000004469487

MULTIFUNCTION SWITCH AND PRESET SWITCH SELF-DIAGNOSIS FUNCTION

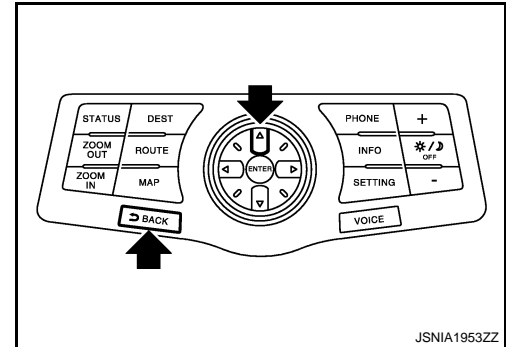
The ON/OFF operation (continuity) of each switch in the multifunction switch and preset switch can be checked.

Self-diagnosis Mode

- Press the "BACK" switch and the "▲" switch of the 8-direction switches within 10 seconds after turning the ignition switch from OFF to ACC and hold them for 3 seconds or more. Then the buzzer sounds, all indicators of the preset switch illuminate, and the self-diagnosis mode starts.
- The continuity of each switch at the ON position can be checked by pressing the switch. The buzzer sounds if the switch is normal.

NOTE:

The disk eject switch cannot be checked.



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Finishing Self-diagnosis Mode

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

MULTI AV SYSTEM ON BOARD DIAGNOSIS FUNCTION

- The AV control unit diagnosis function starts up with multifunction switch operation and the AV control unit performs a diagnosis for each unit in the system during the on board diagnosis.
- Perform a CONSULT-III diagnosis if the on board diagnosis does not start, e.g., the screen does not display anything, the multifunction switch does not function, etc.

ON BOARD DIAGNOSIS

Description

- The trouble diagnosis function has a self-diagnosis mode for conducting trouble diagnosis automatically and a confirmation/adjustment mode for operating manually.
- The self-diagnosis mode performs diagnoses on the AV control unit, connections between system components as well as connections between AV control unit and GPS antenna and between AV control unit and satellite radio antenna. Then it displays the diagnosis results on the display.
- The confirmation/adjustment mode allows the technician to check, modify or adjust the vehicle signals and set values, as well as to monitor the system error records and system communication status. The checking, modifying or adjusting generally require human intervention and judgment (the system cannot automatically).

On Board Diagnosis Item

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 GPS antenna and between AV control unit and satellite radio antenna.

AV

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

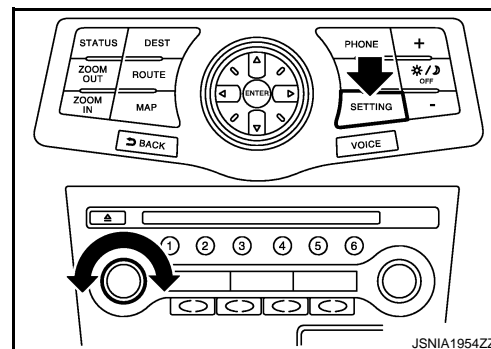
Mode			Description
Confirmation/ Adjustment	Display Diagnosis		The following check functions are available: color tone check by color bar display, light and shade check by gray scale display and touch panel calibration response check.
	Vehicle Signals		Diagnosis of signals can be performed for vehicle speed, parking brake, lights, ignition switch, and reverse.
	Speaker Test		The connection of a speaker can be confirmed by test tone.
	Climate Control*		Not used.
	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.
		XM SAT Subscription Status	The XM NavTraffic subscription status can be checked.
	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.
	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.
	Handsfree Phone		The received volume adjustment of hands-free phone, microphone speaker check, and erase memory can be performed.
	Bluetooth		The passkey and the device name can be checked and changed.
	SAT	Change Channel	Any necessary channels required to receive traffic information from the satellite radio system can be set.
		Change Application ID	Any application ID's required to receive traffic information from the satellite radio system can be set.
		Diag	Not used.
Delete Unit Connection Log		Erase the connection history of unit and error history.	
Initialize Settings		Initializes the AV control unit memory.	

NOTE:

*: On-board self-diagnosis is not supported. Only CONSULT-III is supported.

STARTING PROCEDURE

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

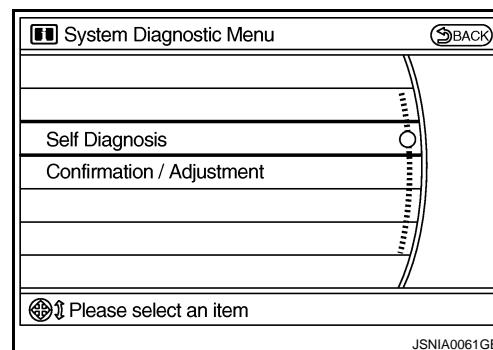


DIAGNOSIS SYSTEM (AV CONTROL UNIT)

[BOSE AUDIO WITH NAVIGATION]

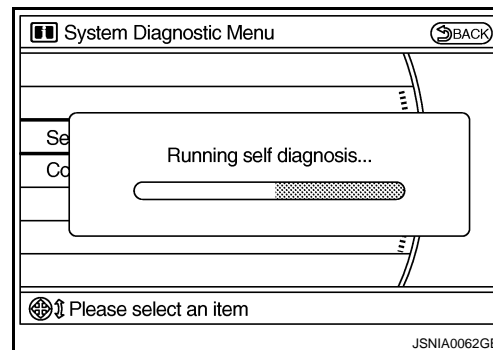
< FUNCTION DIAGNOSIS >

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



SELF-DIAGNOSIS MODE

- Start the self-diagnosis function and select "Self Diagnosis".
 - Self-diagnosis subdivision screen is displayed, and the self-diagnosis mode starts.
 - The bar graph visible on the center of the self-diagnosis subdivision screen indicates progress of the trouble diagnosis.

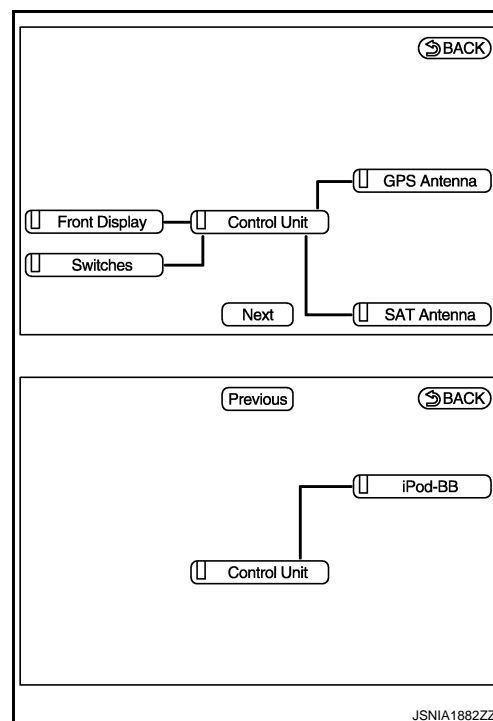


- Diagnosis results are displayed after the self-diagnosis is completed. The unit names and the connection lines are color-coded according to the diagnostic results.

Diagnosis results	Unit	Con- nection line
Normal	Green	Green
Connection malfunction	Gray	Yellow
Unit malfunction ^{Note}	Red	Green

NOTE:

- Only the control unit (AV control unit) is displayed in red.
- The number of units that is displayed on the on board self-diagnosis display according to equipment.
- Replace AV control unit if "Self-Diagnosis did not run because of a control unit malfunction" is indicated. The symptom is AV control unit internal error. Refer to [AV-331. "Exploded View"](#).
- If multiple errors occur at the same time for a single unit, the screen switch colors are determined according to the following order of priority: red > gray.

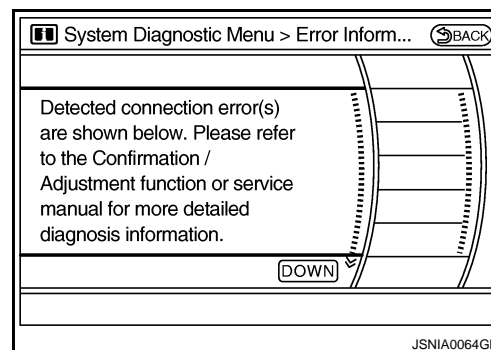


DIAGNOSIS SYSTEM (AV CONTROL UNIT)

[BOSE AUDIO WITH NAVIGATION]

< FUNCTION DIAGNOSIS >

- The comments of the self-diagnosis results can be viewed with a component in the diagnosis result screen.



SELF-DIAGNOSIS RESULTS

- The self-diagnosis mode allows the technician to diagnose the connection in the communication line between AV control unit and each unit and the internal operation of the AV control unit.
- Because the start condition of diagnosis function is a switch operation, the on board diagnosis function cannot be started up if any malfunction is detected in the communication circuit between AV control unit and multifunction switch.
- Check the applicable display at the following table, and then repair the malfunctioning parts.

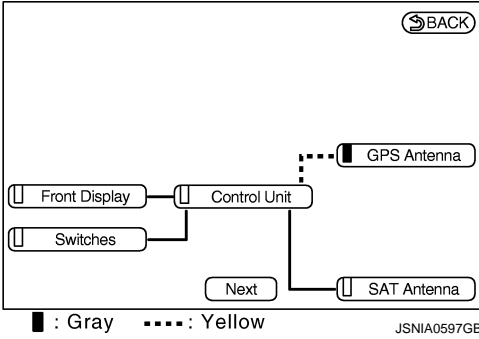
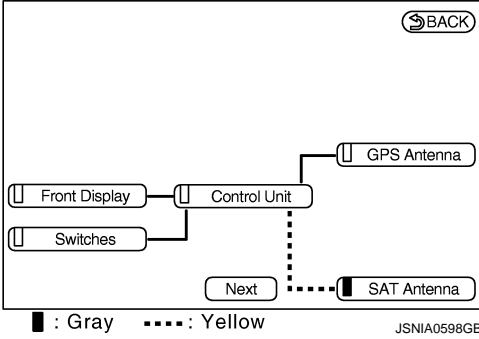
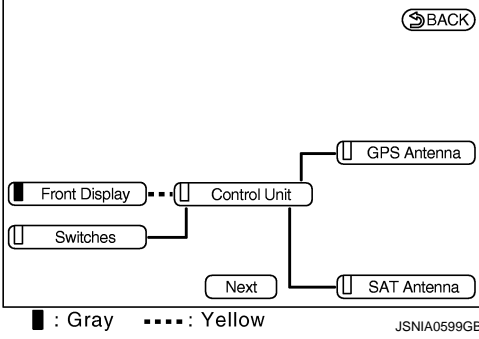
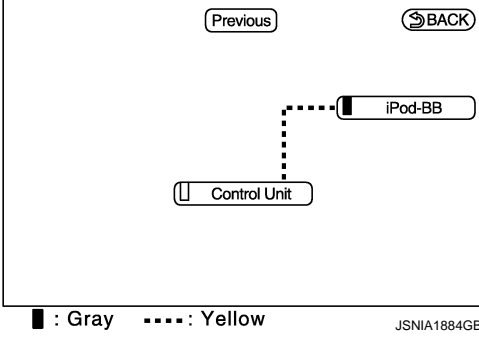
Self-diagnosis Result Chart

Diagnosis results	Detection logic	Possible malfunction location / Action to take
<p>JSNIA1883GB</p> <p>NOTE: When a control unit malfunction is detected (red in unit display), connection malfunctions with other connection unit may be displayed.</p> <p>“Self-Diagnosis did not run because of a control unit malfunction”</p>	<p>Malfunction is detected in AV control unit power supply and ground circuits.</p>	<p>Check AV control unit power supply and ground circuits. When detecting no malfunction in those components, replace AV control unit.</p>

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

Diagnosis results	Detection logic	Possible malfunction location / Action to take
 <p>■ : Gray ---- : Yellow</p> <p>JSNIA0597GB</p>	GPS antenna connection malfunction is detected.	GPS antenna.
 <p>■ : Gray ---- : Yellow</p> <p>JSNIA0598GB</p>	Satellite radio antenna connection malfunction is detected.	<ul style="list-style-type: none"> Satellite radio antenna feeder. Satellite radio antenna.
 <p>■ : Gray ---- : Yellow</p> <p>JSNIA0599GB</p>	<p>When either one of the following items are detected:</p> <ul style="list-style-type: none"> serial communication circuits between AV control unit and front display unit are malfunctioning. serial communication signal between AV control unit and front display unit is malfunctioning. 	Serial communication circuits between AV control unit and front display unit.
 <p>■ : Gray ---- : Yellow</p> <p>JSNIA1884GB</p>	<p>When either one of the following items are detected:</p> <ul style="list-style-type: none"> iPod adapter power supply and ground circuits are malfunctioning. AV communication circuits between multifunction switch and iPod adapter are malfunctioning. AV communication signal between AV control unit and iPod adapter is malfunctioning. 	<ul style="list-style-type: none"> iPod adapter power supply and ground circuits. AV communication circuits between multifunction switch and iPod adapter.

NOTE:

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

CONFIRMATION/ADJUSTMENT MODE

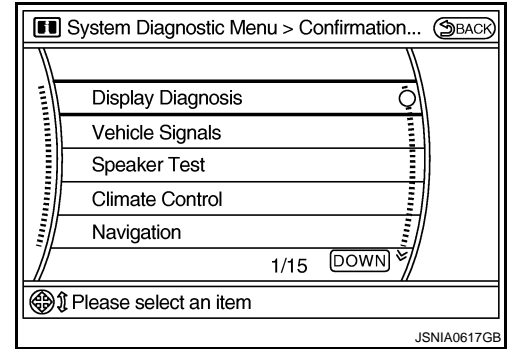
- Start the diagnosis function and select "Confirmation/Adjustment". The confirmation/adjustment mode indicates where each item can be checked or adjusted.

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

[BOSE AUDIO WITH NAVIGATION]

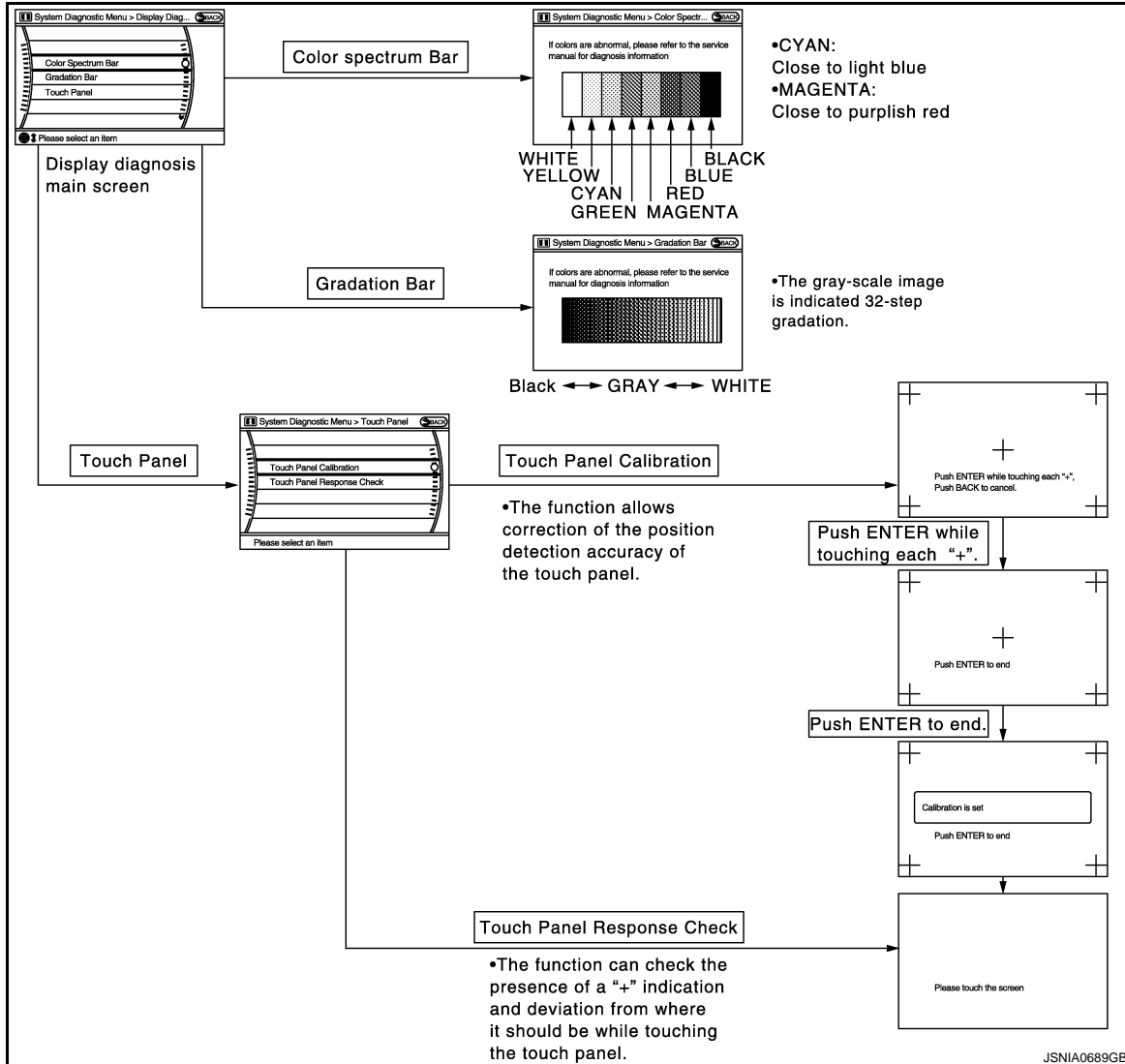
< FUNCTION DIAGNOSIS >

2. Select each switch on the “Confirmation/Adjustment Mode” screen to display the relevant trouble diagnosis screen. Press the “BACK” switch to return to the initial Confirmation/Adjustment Mode screen.



JSNIA0617GB

Display Diagnosis



JSNIA0689GB

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

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| R (red) signal error | : Light blue (Cyan) tint |
| G (green) signal error | : Purple (Magenta) tint |
| B (blue) signal error | : Yellow tint |

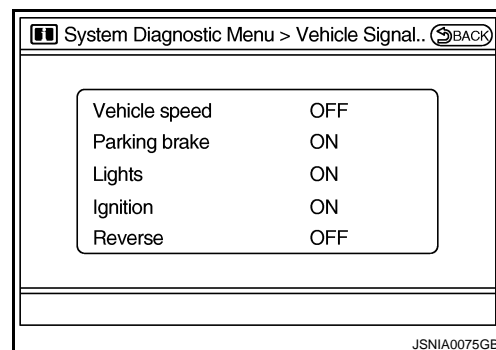
Vehicle Signals

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

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



Diagnosis item	Display	Vehicle status	Remarks
Vehicle speed	ON	Vehicle speed > 0 km/h (0 MPH)	Changes in indication may be delayed. This is normal.
	OFF	Vehicle speed = 0 km/h (0 MPH)	
Parking brake	ON	Parking brake is applied.	
	OFF	Parking brake is released.	
Lights	ON	Light switch 1ST or 2ND	—
	OFF	Light switch OFF	
Ignition	ON	Ignition switch ON	—
	OFF	Ignition switch in the ACC position	
Reverse	ON	Shift the selector lever to the "R" position	Changes in indication may be delayed. This is normal.
	OFF	Shift the selector lever to a position other than the "R" position	

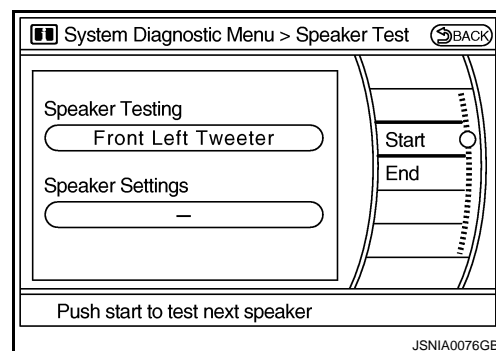
Speaker Test

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

NOTE:

The frequency of test tone emitted from each speaker is as follows.

Tweeter	: 3 kHz
Front door speaker	: 300 Hz
Rear speaker	: 1 kHz



Climate Control

On-board self-diagnosis is not supported. Only CONSULT-III is supported.

Refer to [HAC-24, "CONSULT-III Function"](#) [without 7 inch display].

Refer to [HAC-114, "CONSULT-III Function"](#) [with 7 inch display].

Navigation

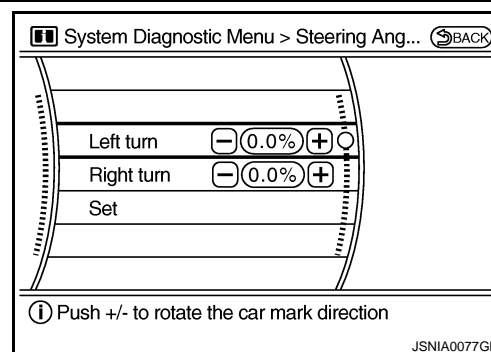
STEERING ANGLE ADJUSTMENT

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< FUNCTION DIAGNOSIS >

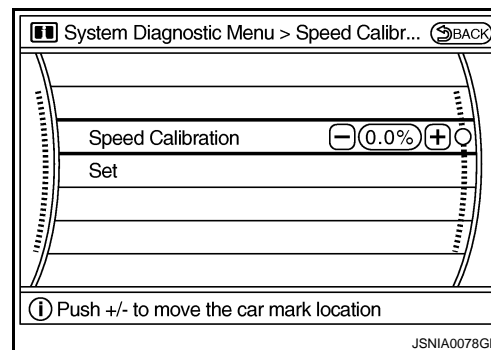
[BOSE AUDIO WITH NAVIGATION]

The steering angle output value detected with the gyroscope is adjusted.



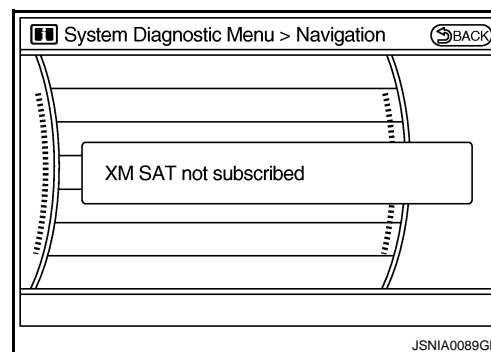
SPEED CALIBRATION

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.



XM SAT SUBSCRIPTION STATUS

The XM NavTraffic subscription status can be checked.



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 the error occurred. If the current location mark has deviated from the correct position, then the place of the error occurrence cannot be correctly located.
- 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 IGN switch is turned ON. The counter increases by 1 if the condition is normal at a next IGN ON cycle.
- The counter upper limit is 39. Any counts exceeding 39 are ignored. The counter can be reset (no error record display) with the “Delete log” switch or CONSULT-III.

Count up method B

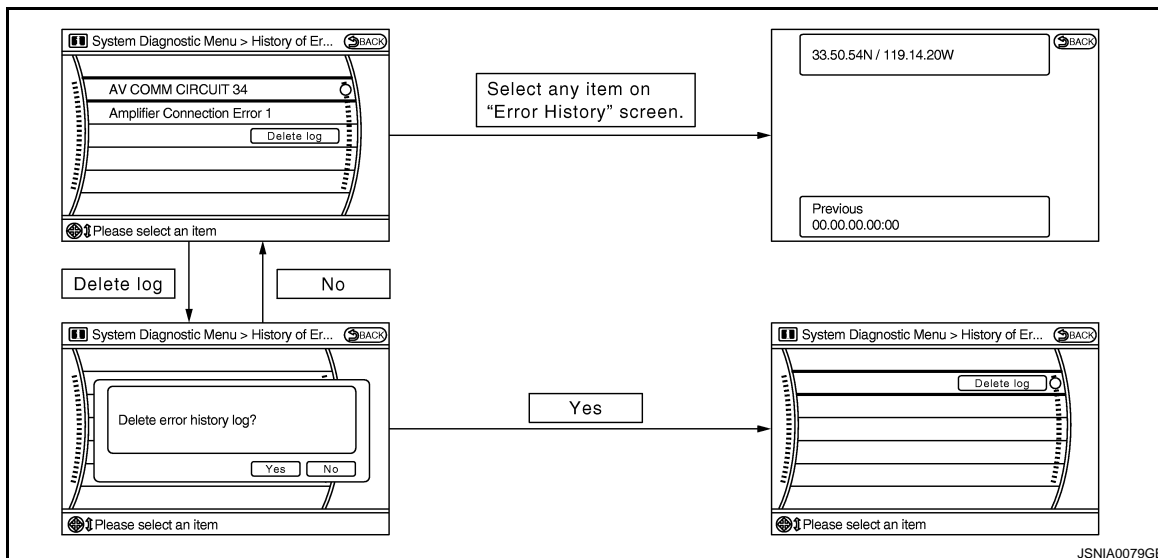
DIAGNOSIS SYSTEM (AV CONTROL UNIT)

[BOSE AUDIO WITH NAVIGATION]

< FUNCTION DIAGNOSIS >

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

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 communication)
Count up method B	Other than the above



Error item

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

Error item	Description	Possible malfunction factor/Action to take
CAN COMM CIRCUIT	CAN communication malfunction is detected.	Perform diagnosis with CONSULT-III, and then repair the malfunctioning parts according to the diagnosis results. Refer to AV-183, "CONSULT-III Function (MULTI AV)".
CONTROL UNIT (CAN)	CAN initial diagnosis malfunction is detected.	Replace the AV control unit.
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		
XM SERIAL COMM Error		
CAN Controller Memory Error		
Bluetooth Module Connection Error		
HDD CONN Error		
HDD READ Error		
HDD WRITE Error		
HDD COMM Error		
HDD ACCESS Error		
DSP CONN Error		
DSP COMM Error		

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

Error item	Description	Possible malfunction factor/Action to take
Internal Communication Error	Malfunction is detected in AV control unit power supply and ground circuits.	Check AV control unit power supply and ground circuits. When detecting no malfunction in those components, replace AV control unit.
GPS Communication Error	GPS malfunction is detected.	An intermittent error caused by strong radio interference may be detected unless a symptom (GPS reception error, etc.) occurs. Replace the AV control unit if the malfunction occurs constantly.
GPS ROM Error		
GPS RAM Error		
GPS RTC Error		
Front Display Connection Error	When either one of the following items are detected: <ul style="list-style-type: none"> front display unit power supply and ground circuits are malfunctioning. serial communication circuits between AV control unit and front display unit are malfunctioning. serial communication signal between AV control unit and front display unit is malfunctioning. 	<ul style="list-style-type: none"> Front display unit power supply and ground circuits. Serial communication circuits between AV control unit and display unit.
GPS Antenna Error	GPS antenna connection malfunction is detected.	GPS antenna.
XM Antenna Connection Error	Satellite radio antenna connection malfunction is detected.	<ul style="list-style-type: none"> Satellite radio antenna feeder. Satellite radio antenna.
<ul style="list-style-type: none"> AV COMM CIRCUIT Internal Communication Error 	Malfunction is detected in AV control unit power supply and ground circuits.	Check AV control unit power supply and ground circuits. When detecting no malfunction in those components, replace AV control unit.
<ul style="list-style-type: none"> AV COMM CIRCUIT Switches Connection Error 	When either one of the following items are detected: <ul style="list-style-type: none"> multifunction switch power supply and ground circuits are malfunctioning. AV communication circuits between AV control unit and multifunction switch are malfunctioning. AV communication signal between AV control unit and multifunction switch is malfunctioning. 	<ul style="list-style-type: none"> Multifunction switch power supply and ground circuits. AV communication circuits between AV control unit and multifunction switch.
<ul style="list-style-type: none"> AV COMM CIRCUIT iPod Connection Error 	When either one of the following items are detected: <ul style="list-style-type: none"> iPod adapter power supply and ground circuits are malfunctioning. AV communication circuits between multifunction switch and iPod adapter are malfunctioning. AV communication signal between AV control unit and iPod adapter is malfunctioning. 	<ul style="list-style-type: none"> iPod adapter power supply and ground circuits. AV communication circuits between multifunction switch unit and iPod adapter.
<ul style="list-style-type: none"> AV COMM CIRCUIT Switches Connection Error iPod Connection Error 	Malfunction is detected in AV communication circuits between AV control unit and multifunction switch.	AV communication circuits between AV control unit and multifunction switch.

Vehicle CAN Diagnosis

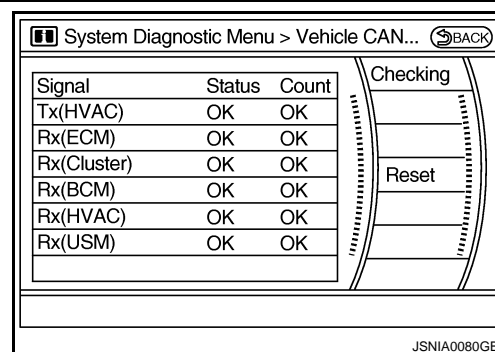
DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

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

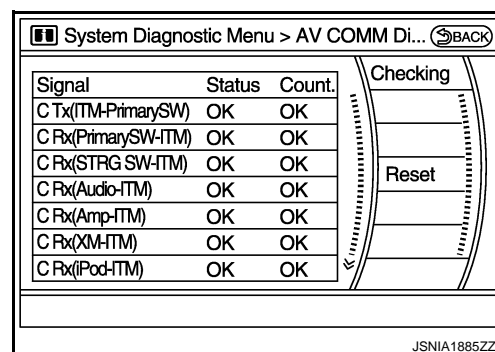
Items	Display (Current)	Malfunction counter (Past)
Tx (HVAC)	OK / UNKWN	OK / 0 – 39
Rx (ECM)	OK / UNKWN	OK / 0 – 39
Rx (Cluster)	OK / UNKWN	OK / 0 – 39
Rx (BCM)	OK / UNKWN	OK / 0 – 39
Rx (HVAC)	OK / UNKWN	OK / 0 – 39
Rx (USM)	OK / UNKWN	OK / 0 – 39



AV COMM Diagnosis

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

Items	Status (Current)	Counter (Past)
C Tx(ITM-PrimarySW)	OK / UNKWN	OK / 0 – 39
C Rx(PrimarySW-ITM)	OK / UNKWN	OK / 0 – 39
C Rx(STRG SW-ITM)	OK / UNKWN	OK / 0 – 39
C Rx(Audio-ITM)	OK / UNKWN	OK / 0 – 39
C Rx(Amp-ITM)	OK / UNKWN	OK / 0 – 39
C Rx(XM-ITM)	OK / UNKWN	OK / 0 – 39
C Rx(iPod-ITM)	OK / UNKWN	OK / 0 – 39
C Rx(Amp-Audio)	—	—
C Rx(iPod-Audio)	OK / UNKWN	OK / 0 – 39
C Tx(Audio-ITM)	OK / UNKWN	OK / 0 – 39

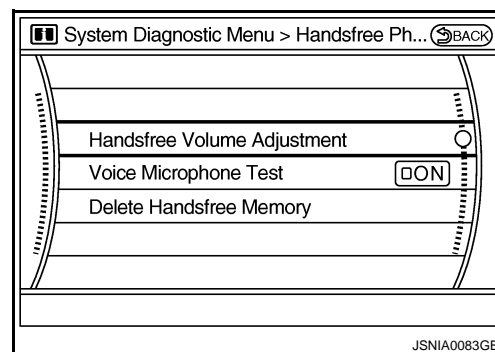


NOTE:

- Any units with “—” displayed have no history of vehicle connection.
- “Audio” and “Amp” indicate the same status because “Amp” indicates the status of the amplifier integrated in the AV control unit.
- “STRG SW”, “Amp”, and “XM” indicate the same status as “Audio”.

Hands-Free Phone

The hands-free phone reception volume adjustment, microphone and speaker test, and memory erase functions are also available.



DIAGNOSIS SYSTEM (AV CONTROL UNIT)

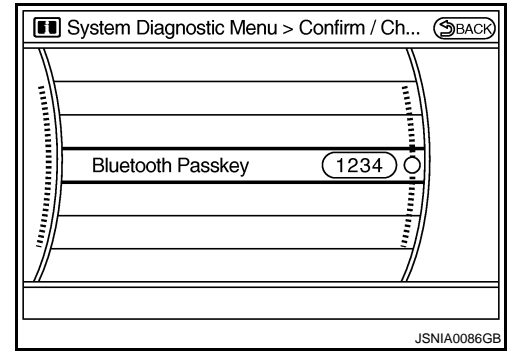
< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

Bluetooth

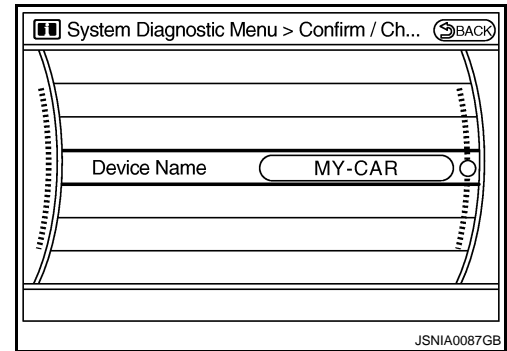
Confirm / Change Passkey

- The Bluetooth passkey can be confirmed and changed.
- The passkey can be changed by four digits within 0 to 9.



Confirm / Change Device Name

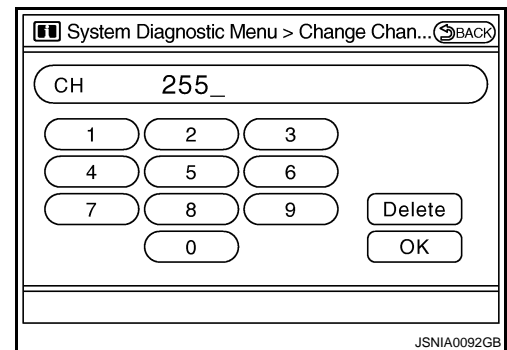
- The Bluetooth device name be confirmed and changed.
- The device name can be changed by sixteen digits from A to Z (small characters can be used) and "-" (hyphens).



SAT

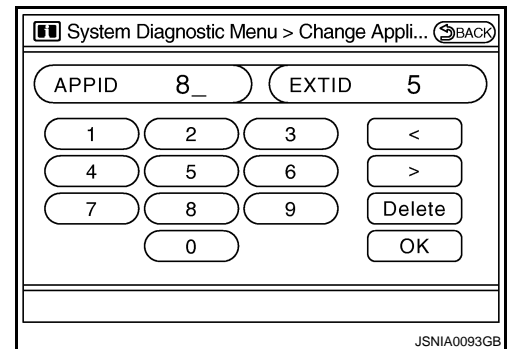
• Change Channel

- Any necessary channels required to receive traffic information from the satellite radio system can be set.



• Change Application ID

- Any application ID's required to receive traffic information from the satellite radio system can be set.



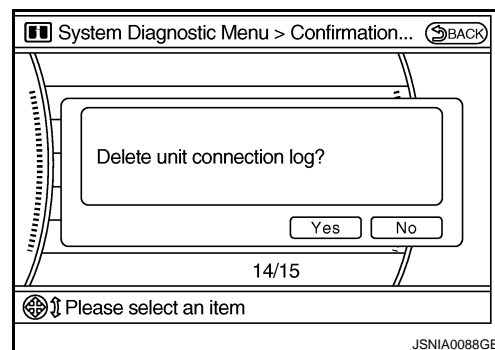
Delete Unit Connection Log

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< FUNCTION DIAGNOSIS >

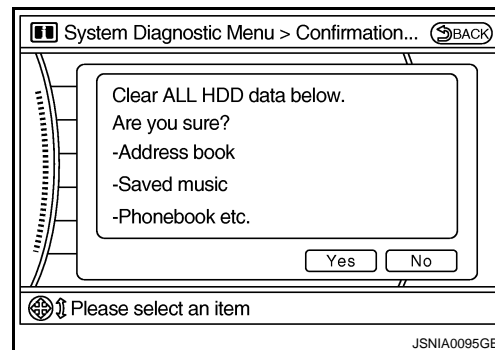
[BOSE AUDIO WITH NAVIGATION]

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

Deletes data stored in HDD.



CONSULT-III Function (MULTI AV)

INFOID:000000004469488

CONSULT-III FUNCTIONS

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

Diagnosis mode	Description
Ecu Identification	The part number of AV control unit can be checked.
Self Diagnostic Result	Performs a diagnosis on the AV control unit and a connection diagnosis for the communication circuit of the MULTI AV system, and displays the current and past malfunctions collectively.
Data Monitor	The diagnosis of vehicle signal that is input to the AV control unit can be performed.

AV COMMUNICATION

When "AV communication" of "CAN Diag Support Monitor" is selected, the following function will be performed.

AV communication	AV&NAVI C/U	Displays the communication status from AV control unit to each unit as well as the error counter.
	AUDIO	Displays the AV control unit communication status and the error counter.

ECU IDENTIFICATION

The part number of AV control unit is displayed.

SELF DIAGNOSIS RESULT

- In CONSULT-III self-diagnosis, self-diagnosis results and error history are displayed collectively.
- A current malfunction indicates "crnt". a past malfunction indicates "past".
- The timing is displayed as "0" if any of the error codes [U1000], [U1010], [U1300] and [U1310] is detected. the counter increases by 1 if the status is normal at the next ignition switch on cycle.

Self-diagnosis Results Display Item

Error item	Description	Possible malfunction factor/Action to take
CAN COMM CIRCUIT [U1000]	CAN communication malfunction is detected.	Refer to AV-186. "Diagnosis Procedure" .

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

Error item	Description	Possible malfunction factor/Action to take
CONTROL UNIT (CAN) [U1010]	CAN initial diagnosis malfunction is detected.	Replace the AV control unit.
CONTROL UNIT (AV) [U1310]	AV communication circuit initial diagnosis malfunction is detected.	
Cont Unit FLASH-ROM [U1200]	AV control unit malfunction is detected.	
GYRO NO CONN [U1201]		
CAN CONT [U1216]		
BLUETOOTH MODULE CONN [U1217]		
HDD-CONN [U1218]		
HDD-READ [U1219]		
XM SERIAL COMM [U1220]		
HDD-WRITE [U121A]		
HDD-COMM [U121B]		
HDD-ACCESS [U121C]		
DSP CONN [U121D]		
DSP COMM [U121E]		
INTERNAL COMM [U121F]	Malfunction is detected in AV control unit power supply and ground circuits.	Check AV control unit power supply and ground circuits. When detecting no malfunction in those components, replace AV control unit.
GPS COMM [U1204]	GPS malfunction is detected.	An intermittent error caused by strong radio interference may be detected unless a symptom (GPS reception error, etc.) occurs. Replace the AV control unit if the malfunction occurs constantly.
GPS ROM [U1205]		
GPS RAM [U1206]		
GPS RTC [U1207]		
FRONT DISP CONN [U1243]	When either one of the following items are detected: <ul style="list-style-type: none">• front display unit power supply and ground circuits are malfunctioning.• serial communication circuits between AV control unit and front display unit are malfunctioning.• serial communication signal between AV control unit and front display unit is malfunctioning.	<ul style="list-style-type: none">• Front display unit power supply and ground circuits.• Serial communication circuits between AV control unit and display unit.
GPS ANTENNA CONN [U1244]	GPS antenna connection malfunction is detected.	GPS antenna.
XM ANTENNA CONN [U1258]	Satellite radio antenna connection malfunction is detected.	<ul style="list-style-type: none">• Satellite radio antenna feeder.• Satellite radio antenna.
<ul style="list-style-type: none">• AV COMM CIRCUIT [U1300]• INTERNAL COMM [U121F]	Malfunction is detected in AV control unit power supply and ground circuits.	Check AV control unit power supply and ground circuits. When detecting no malfunction in those components, replace AV control unit.
<ul style="list-style-type: none">• AV COMM CIRCUIT [U1300]• SWITCH CONN [U1240]	When either one of the following items are detected: <ul style="list-style-type: none">• multifunction switch power supply and ground circuits are malfunctioning.• AV communication circuits between AV control unit and multifunction switch are malfunctioning.• AV communication signal between AV control unit and multifunction switch is malfunctioning.	<ul style="list-style-type: none">• Multifunction switch power supply and ground circuits.• AV communication circuits between AV control unit and multifunction switch.

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

Error item	Description	Possible malfunction factor/Action to take
<ul style="list-style-type: none"> AV COMM CIRCUIT [U1300] IPOD CONN [U1254] 	When either one of the following items are detected: <ul style="list-style-type: none"> iPod adapter power supply and ground circuits are malfunctioning. AV communication circuits between multifunction switch and iPod adapter are malfunctioning. AV communication signal between AV control unit and iPod adapter is malfunctioning. 	<ul style="list-style-type: none"> iPod adapter power supply and ground circuits. AV communication circuits between multifunction switch unit and iPod adapter.
<ul style="list-style-type: none"> AV COMM CIRCUIT [U1300] SWITCH CONN [U1240] IPOD CONN [U1254] 	Malfunction is detected in AV communication circuits between AV control unit and multifunction switch.	AV communication circuits between AV control unit and multifunction switch.

DATA MONITOR

All Signals

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

Display Item	Display	Vehicle status	Remarks
VHCL SPD SIG	On	Vehicle speed >0 km/h (0 MPH)	Changes in indication may be delayed. This is normal.
	Off	Vehicle speed =0 km/h (0 MPH)	
PKB SIG	On	Parking brake is applied.	
	Off	Parking brake is released.	
ILLUM SIG	On	Block the light beam from the auto light optical sensor when the light switch is 1ST or 2ND.	—
	Off	Expose the auto light optical sensor to light when the light switch is OFF, 1ST or 2ND.	
IGN SIG	On	Ignition switch ON	
	Off	Ignition switch in the ACC position	
REV SIG	On	Selector lever in the "R" position	Changes in indication may be delayed. This is normal.
	Off	Selector lever in any position other than the "R" position	

Selection From Menu

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

Item to be selected	Description
VHCL SPD SIG	The same as when "ALL SIGNALS" is selected.
PKB SIG	
ILLUM SIG	
IGN SIG	
REV SIG	

AV

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COMPONENT DIAGNOSIS

U1000 CAN COMM CIRCUIT

Description

INFOID:000000004469489

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

CAN Communication Signal Chart. Refer to [LAN-23, "CAN Communication Signal Chart"](#).

DTC Logic

INFOID:000000004469490

DTC DETECTION LOGIC

DTC	Display contents of CONSULT-III	Diagnostic item is detected when...	Probable malfunction location
U1000	CAN COMM CIRCUIT	AV control unit is not transmitting or receiving CAN communication signal for 2 seconds or more.	CAN communication system.

Diagnosis Procedure

INFOID:000000004469491

1.PERFORM SELF-DIAGNOSTIC

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

Is "CAN COMM CIRCUIT" displayed?

- YES >> Refer to "LAN system". Refer to [LAN-14, "Trouble Diagnosis Flow Chart"](#).
- NO >> Refer to GI section. Refer to [GI-39, "Intermittent Incident"](#).

U1010 CONTROL UNIT (CAN)

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

U1010 CONTROL UNIT (CAN)

Description

INFOID:0000000004469492

Initial diagnosis of AV control unit.

DTC Logic

INFOID:0000000004469493

DTC DETECTION LOGIC

DTC	Display contents of CONSULT-III	Diagnostic item is detected when...	Probable malfunction location
U1010	CONTROL UNIT (CAN)	CAN initial diagnosis malfunction is detected.	AV control unit.

Diagnosis Procedure

INFOID:0000000004469494

1.REPLACE AV CONTROL UNIT

When DTC U1010 is detected, replace AV control unit.

>> INSPECTION END

AV

U1310 AV CONTROL UNIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

U1310 AV CONTROL UNIT

Description

INFOID:000000004469495

Replace the AV control unit if this DTC is displayed. Refer to [AV-331, "Exploded View"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none">Integrates hard disk drive (HDD) allowing map data and music data to be stored.It is the master unit of the MULTI AV system, and it is connected to each control unit by communication. It operates each system according to communication signals from the AV control unit.The AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions.It is connected to ECM, A/C auto amp. and combination meter via CAN communication to obtain necessary information for the vehicle information function.It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.It inputs the illumination signals that are required for the display dimming control.It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).Update of map data is performed with the CONSULT-III and the applicable cable.It includes the TEL adapter and Bluetooth™ function.

DTC Logic

INFOID:000000004469496

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1310	CONTROL UNIT (AV) [U1310]	An initial diagnosis error is detected in AV communication circuit.	Replace AV control unit.

U1200 AV CONTROL UNIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

U1200 AV CONTROL UNIT

Description

INFOID:000000004469497

Replace the AV control unit if this DTC is displayed. Refer to [AV-331. "Exploded View"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none">Integrates hard disk drive (HDD) allowing map data and music data to be stored.It is the master unit of the MULTI AV system, and it is connected to each control unit by communication. It operates each system according to communication signals from the AV control unit.The AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions.It is connected to ECM, A/C auto amp. and combination meter via CAN communication to obtain necessary information for the vehicle information function.It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.It inputs the illumination signals that are required for the display dimming control.It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).Update of map data is performed with the CONSULT-III and the applicable cable.It includes the TEL adapter and Bluetooth™ function.

DTC Logic

INFOID:000000004469498

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1200	Cont Unit FLASH-ROM [U1200]	An internal malfunction is detected in AV control unit (FLASH-ROM).	Replace AV control unit.

AV

U1201 AV CONTROL UNIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

U1201 AV CONTROL UNIT

Description

INFOID:000000004469499

Replace the AV control unit if this DTC is displayed. Refer to [AV-331, "Exploded View"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none">Integrates hard disk drive (HDD) allowing map data and music data to be stored.It is the master unit of the MULTI AV system, and it is connected to each control unit by communication. It operates each system according to communication signals from the AV control unit.The AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions.It is connected to ECM, A/C auto amp. and combination meter via CAN communication to obtain necessary information for the vehicle information function.It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.It inputs the illumination signals that are required for the display dimming control.It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).Update of map data is performed with the CONSULT-III and the applicable cable.It includes the TEL adapter and Bluetooth™ function.

DTC Logic

INFOID:000000004469500

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1201	GYRO NO CONN [U1201]	Internal malfunction of AV control unit (gyrocompass disconnection) is detected.	Replace AV control unit.

U1216 AV CONTROL UNIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

U1216 AV CONTROL UNIT

Description

INFOID:000000004469501

Replace the AV control unit if this DTC is displayed. Refer to [AV-331. "Exploded View"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none">Integrates hard disk drive (HDD) allowing map data and music data to be stored.It is the master unit of the MULTI AV system, and it is connected to each control unit by communication. It operates each system according to communication signals from the AV control unit.The AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions.It is connected to ECM, A/C auto amp. and combination meter via CAN communication to obtain necessary information for the vehicle information function.It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.It inputs the illumination signals that are required for the display dimming control.It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).Update of map data is performed with the CONSULT-III and the applicable cable.It includes the TEL adapter and Bluetooth™ function.

DTC Logic

INFOID:000000004469502

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1216	CAN CONT [U1216]	Internal malfunction of AV control unit (CAN controller) is detected.	Replace AV control unit.

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AV

U1217 AV CONTROL UNIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

U1217 AV CONTROL UNIT

Description

INFOID:000000004469503

Replace the AV control unit if this DTC is displayed. Refer to [AV-331, "Exploded View"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none">Integrates hard disk drive (HDD) allowing map data and music data to be stored.It is the master unit of the MULTI AV system, and it is connected to each control unit by communication. It operates each system according to communication signals from the AV control unit.The AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions.It is connected to ECM, A/C auto amp. and combination meter via CAN communication to obtain necessary information for the vehicle information function.It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.It inputs the illumination signals that are required for the display dimming control.It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).Update of map data is performed with the CONSULT-III and the applicable cable.It includes the TEL adapter and Bluetooth™ function.

DTC Logic

INFOID:000000004469504

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1217	BLUETOOTH MODULE CONN [U1217]	Internal malfunction of AV control unit (Bluetooth module connection malfunction) is detected.	Replace AV control unit.

U1218 AV CONTROL UNIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

U1218 AV CONTROL UNIT

Description

INFOID:000000004469505

Replace the AV control unit if this DTC is displayed. Refer to [AV-331. "Exploded View"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none">Integrates hard disk drive (HDD) allowing map data and music data to be stored.It is the master unit of the MULTI AV system, and it is connected to each control unit by communication. It operates each system according to communication signals from the AV control unit.The AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions.It is connected to ECM, A/C auto amp. and combination meter via CAN communication to obtain necessary information for the vehicle information function.It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.It inputs the illumination signals that are required for the display dimming control.It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).Update of map data is performed with the CONSULT-III and the applicable cable.It includes the TEL adapter and Bluetooth™ function.

DTC Logic

INFOID:000000004469506

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1218	HDD-CONN [U1218]	Internal malfunction of AV control unit (HDD connection malfunction) is detected.	Replace AV control unit.

AV

U1219 AV CONTROL UNIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

U1219 AV CONTROL UNIT

Description

INFOID:000000004469507

Replace the AV control unit if this DTC is displayed. Refer to [AV-331, "Exploded View"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none">Integrates hard disk drive (HDD) allowing map data and music data to be stored.It is the master unit of the MULTI AV system, and it is connected to each control unit by communication. It operates each system according to communication signals from the AV control unit.The AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions.It is connected to ECM, A/C auto amp. and combination meter via CAN communication to obtain necessary information for the vehicle information function.It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.It inputs the illumination signals that are required for the display dimming control.It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).Update of map data is performed with the CONSULT-III and the applicable cable.It includes the TEL adapter and Bluetooth™ function.

DTC Logic

INFOID:000000004469508

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1219	HDD-READ [U1219]	Internal malfunction of AV control unit (HDD read malfunction) is detected.	Replace AV control unit.

U1220 AV CONTROL UNIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

U1220 AV CONTROL UNIT

Description

INFOID:000000004469509

Replace the AV control unit if this DTC is displayed. Refer to [AV-331, "Exploded View"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none">Integrates hard disk drive (HDD) allowing map data and music data to be stored.It is the master unit of the MULTI AV system, and it is connected to each control unit by communication. It operates each system according to communication signals from the AV control unit.The AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions.It is connected to ECM, A/C auto amp. and combination meter via CAN communication to obtain necessary information for the vehicle information function.It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.It inputs the illumination signals that are required for the display dimming control.It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).Update of map data is performed with the CONSULT-III and the applicable cable.It includes the TEL adapter and Bluetooth™ function.

DTC Logic

INFOID:000000004469510

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1220	XM SERIAL COMM [U1220]	Internal malfunction of AV control unit (satellite radio tuner communication error) is detected.	Replace AV control unit.

AV

U121A AV CONTROL UNIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

U121A AV CONTROL UNIT

Description

INFOID:000000004469511

Replace the AV control unit if this DTC is displayed. Refer to [AV-331, "Exploded View"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none">Integrates hard disk drive (HDD) allowing map data and music data to be stored.It is the master unit of the MULTI AV system, and it is connected to each control unit by communication. It operates each system according to communication signals from the AV control unit.The AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions.It is connected to ECM, A/C auto amp. and combination meter via CAN communication to obtain necessary information for the vehicle information function.It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.It inputs the illumination signals that are required for the display dimming control.It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).Update of map data is performed with the CONSULT-III and the applicable cable.It includes the TEL adapter and Bluetooth™ function.

DTC Logic

INFOID:000000004469512

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U121A	HDD-WRITE [U121A]	Internal malfunction of AV control unit (HDD write malfunction) is detected.	Replace AV control unit.

U121B AV CONTROL UNIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

U121B AV CONTROL UNIT

Description

INFOID:000000004469513

Replace the AV control unit if this DTC is displayed. Refer to [AV-331, "Exploded View"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none">Integrates hard disk drive (HDD) allowing map data and music data to be stored.It is the master unit of the MULTI AV system, and it is connected to each control unit by communication. It operates each system according to communication signals from the AV control unit.The AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions.It is connected to ECM, A/C auto amp. and combination meter via CAN communication to obtain necessary information for the vehicle information function.It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.It inputs the illumination signals that are required for the display dimming control.It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).Update of map data is performed with the CONSULT-III and the applicable cable.It includes the TEL adapter and Bluetooth™ function.

DTC Logic

INFOID:000000004469514

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U121B	HDD-COMM [U121B]	Internal malfunction of AV control unit (HDD communication error) is detected.	Replace AV control unit.

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AV

U121C AV CONTROL UNIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

U121C AV CONTROL UNIT

Description

INFOID:000000004469515

Replace the AV control unit if this DTC is displayed. Refer to [AV-331, "Exploded View"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none">Integrates hard disk drive (HDD) allowing map data and music data to be stored.It is the master unit of the MULTI AV system, and it is connected to each control unit by communication. It operates each system according to communication signals from the AV control unit.The AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions.It is connected to ECM, A/C auto amp. and combination meter via CAN communication to obtain necessary information for the vehicle information function.It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.It inputs the illumination signals that are required for the display dimming control.It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).Update of map data is performed with the CONSULT-III and the applicable cable.It includes the TEL adapter and Bluetooth™ function.

DTC Logic

INFOID:000000004469516

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U121C	HDD-ACCESS [U121C]	Internal malfunction of AV control unit (HDD access error) is detected.	Replace AV control unit.

U121D AV CONTROL UNIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

U121D AV CONTROL UNIT

Description

INFOID:000000004469517

Replace the AV control unit if this DTC is displayed. Refer to [AV-331. "Exploded View"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none">Integrates hard disk drive (HDD) allowing map data and music data to be stored.It is the master unit of the MULTI AV system, and it is connected to each control unit by communication. It operates each system according to communication signals from the AV control unit.The AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions.It is connected to ECM, A/C auto amp. and combination meter via CAN communication to obtain necessary information for the vehicle information function.It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.It inputs the illumination signals that are required for the display dimming control.It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).Update of map data is performed with the CONSULT-III and the applicable cable.It includes the TEL adapter and Bluetooth™ function.

DTC Logic

INFOID:000000004469518

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U121D	DSP CONN [U121D]	Internal malfunction of AV control unit (DSP connection error) is detected.	Replace AV control unit.

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AV

U121E AV CONTROL UNIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

U121E AV CONTROL UNIT

Description

INFOID:000000004469519

Replace the AV control unit if this DTC is displayed. Refer to [AV-331, "Exploded View"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none">Integrates hard disk drive (HDD) allowing map data and music data to be stored.It is the master unit of the MULTI AV system, and it is connected to each control unit by communication. It operates each system according to communication signals from the AV control unit.The AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions.It is connected to ECM, A/C auto amp. and combination meter via CAN communication to obtain necessary information for the vehicle information function.It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.It inputs the illumination signals that are required for the display dimming control.It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).Update of map data is performed with the CONSULT-III and the applicable cable.It includes the TEL adapter and Bluetooth™ function.

DTC Logic

INFOID:000000004469520

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U121E	DSP COMM [U121E]	Internal malfunction of AV control unit (DSP communication error) is detected.	Replace AV control unit.

U121F AV CONTROL UNIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

U121F AV CONTROL UNIT

Description

INFOID:000000004469521

Replace the AV control unit if this DTC is displayed. Refer to [AV-331, "Exploded View"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none">Integrates hard disk drive (HDD) allowing map data and music data to be stored.It is the master unit of the MULTI AV system, and it is connected to each control unit by communication. It operates each system according to communication signals from the AV control unit.The AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions.It is connected to ECM, A/C auto amp. and combination meter via CAN communication to obtain necessary information for the vehicle information function.It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.It inputs the illumination signals that are required for the display dimming control.It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).Update of map data is performed with the CONSULT-III and the applicable cable.It includes the TEL adapter and Bluetooth™ function.

DTC Logic

INFOID:000000004469522

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U121F	INTERNAL COMM [U121F]	Internal malfunction of AV control unit (internal communication error) is detected.	AV control unit power supply and ground circuit.

Diagnosis Procedure

INFOID:000000004469523

1. CHECK AV CONTROL UNIT POWER SUPPLY AND GROUND CIRCUIT

Check AV control unit power supply and ground circuit. Refer to [AV-211, "AV CONTROL UNIT : Diagnosis Procedure"](#).

Is the inspection result normal?

- YES >> Replace AV control unit.
NO >> Repair or replace malfunctioning parts.

AV

U1204 GPS

Description

INFOID:000000004469524

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-331, "Exploded View"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"> Integrates hard disk drive (HDD) allowing map data and music data to be stored. It is the master unit of the MULTI AV system, and it is connected to each control unit by communication. It operates each system according to communication signals from the AV control unit. The AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions. It is connected to ECM and combination meter via CAN communication to obtain necessary information for the vehicle information function. It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function. It inputs the illumination signals that are required for the display dimming control. It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake). Update of map data is performed with the CONSULT-III and the applicable cable. It includes the TEL adapter and Bluetooth™ function.

DTC Logic

INFOID:000000004469525

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1204	GPS COMM [U1204]	Internal malfunction of AV control unit (GPS malfunction) is detected.	An intermittent error caused by strong radio interference may be detected unless a symptom (GPS reception error, etc.) occurs. Replace the AV control unit if the malfunction occurs constantly.

Diagnosis Procedure

INFOID:000000004469526

1. PERFORM THE SELF-DIAGNOSIS

- Delete the self-diagnosis results. Turn ignition switch OFF.
- Turn ignition switch ON. Perform the self-diagnosis again.
- Check that the DTC is detected again.

Is any DTC detected?

YES >> Replace AV control unit.

NO >> The intermittent malfunction caused by strong radio interference can be detected.

U1205 GPS

Description

INFOID:000000004523321

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-331, "Exploded View"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"> Integrates hard disk drive (HDD) allowing map data and music data to be stored. It is the master unit of the MULTI AV system, and it is connected to each control unit by communication. It operates each system according to communication signals from the AV control unit. The AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions. It is connected to ECM and combination meter via CAN communication to obtain necessary information for the vehicle information function. It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function. It inputs the illumination signals that are required for the display dimming control. It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake). Update of map data is performed with the CONSULT-III and the applicable cable. It includes the TEL adapter and Bluetooth™ function.

DTC Logic

INFOID:000000004469528

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1205	GPS ROM [U1205]	Internal malfunction of AV control unit (GPS malfunction) is detected.	An intermittent error caused by strong radio interference may be detected unless a symptom (GPS reception error, etc.) occurs. Replace the AV control unit if the malfunction occurs constantly.

Diagnosis Procedure

INFOID:000000004469529

1. PERFORM THE SELF-DIAGNOSIS

- Delete the self-diagnosis results. Turn ignition switch OFF.
- Turn ignition switch ON. Perform the self-diagnosis again.
- Check that the DTC is detected again.

Is any DTC detected?

YES >> Replace AV control unit.

NO >> The intermittent malfunction caused by strong radio interference can be detected.

U1206 GPS

Description

INFOID:000000004523322

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-331, "Exploded View"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"> Integrates hard disk drive (HDD) allowing map data and music data to be stored. It is the master unit of the MULTI AV system, and it is connected to each control unit by communication. It operates each system according to communication signals from the AV control unit. The AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions. It is connected to ECM and combination meter via CAN communication to obtain necessary information for the vehicle information function. It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function. It inputs the illumination signals that are required for the display dimming control. It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake). Update of map data is performed with the CONSULT-III and the applicable cable. It includes the TEL adapter and Bluetooth™ function.

DTC Logic

INFOID:000000004469531

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1206	GPS RAM [U1206]	Internal malfunction of AV control unit (GPS malfunction) is detected.	An intermittent error caused by strong radio interference may be detected unless a symptom (GPS reception error, etc.) occurs. Replace the AV control unit if the malfunction occurs constantly.

Diagnosis Procedure

INFOID:000000004469532

1. PERFORM THE SELF-DIAGNOSIS

- Delete the self-diagnosis results. Turn ignition switch OFF.
- Turn ignition switch ON. Perform the self-diagnosis again.
- Check that the DTC is detected again.

Is any DTC detected?

YES >> Replace AV control unit.

NO >> The intermittent malfunction caused by strong radio interference can be detected.

U1207 GPS

Description

INFOID:0000000044523323

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-331, "Exploded View"](#).

Part name	Description
AV CONTROL UNIT	<ul style="list-style-type: none"> Integrates hard disk drive (HDD) allowing map data and music data to be stored. It is the master unit of the MULTI AV system, and it is connected to each control unit by communication. It operates each system according to communication signals from the AV control unit. The AV control unit includes the audio, hands-free phone, voice control, navigation, satellite radio, and vehicle information functions. It is connected to ECM and combination meter via CAN communication to obtain necessary information for the vehicle information function. It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function. It inputs the illumination signals that are required for the display dimming control. It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake). Update of map data is performed with the CONSULT-III and the applicable cable. It includes the TEL adapter and Bluetooth™ function.

DTC Logic

INFOID:000000004469534

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1207	GPS RTC [U1207]	Internal malfunction of AV control unit (GPS malfunction) is detected.	An intermittent error caused by strong radio interference may be detected unless a symptom (GPS reception error, etc.) occurs. Replace the AV control unit if the malfunction occurs constantly.

Diagnosis Procedure

INFOID:000000004469535

1. PERFORM THE SELF-DIAGNOSIS

- Delete the self-diagnosis results. Turn ignition switch OFF.
- Turn ignition switch ON. Perform the self-diagnosis again.
- Check that the DTC is detected again.

Is any DTC detected?

YES >> Replace AV control unit.

NO >> The intermittent malfunction caused by strong radio interference can be detected.

AV

U1243 FRONT DISPLAY UNIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

U1243 FRONT DISPLAY UNIT

Description

INFOID:000000004469536

Part name	Description
FRONT DISPLAY UNIT	<ul style="list-style-type: none">• Front display image is controlled by the serial communication from AV control unit.• RGB image signal is input from AV control unit (RGB, RGB area and RGB synchronizing). Auxiliary image signal is input from the auxiliary input jack.• Synchronize signal (HP, VP) is output to AV control unit.• Touch panel function can be operated for each system by touching a display directly.

DTC Logic

INFOID:000000004469537

DTC	Display contents of CONSULT-III	DTC Detection Condition	Possible causes
U1243	FRONT DISP CONN [U1243]	When either one of the following items are detected: <ul style="list-style-type: none">• front display unit power supply and ground circuits are malfunctioning.• serial communication circuits between AV control unit and front display unit are malfunctioning.• serial communication signal between AV control unit and front display unit is malfunctioning.	<ul style="list-style-type: none">• Front display unit power supply and ground circuits.• Serial communication circuits between AV control unit and display unit.

Diagnosis Procedure

INFOID:000000004469538

1.CHECK FRONT DISPLAY UNIT POWER SUPPLY AND GROUND CIRCUIT

Check front display unit power supply and ground circuit. Refer to [AV-211, "FRONT DISPLAY UNIT : Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair malfunctioning parts.

2.CHECK CONTINUITY COMMUNICATION CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect front display unit connector and AV control unit connector.
3. Check continuity between front display unit harness connector and AV control unit harness connector.

Front display unit		AV control unit		Continuity
Connector	Terminals	Connector	Terminals	
M75	11	M86	70	Existed
	22		71	

4. Check continuity between front display unit harness connector and ground.

Front display unit		Ground	Continuity
Connector	Terminals		
M75	11		Not existed
	22		

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

3.CHECK COMMUNICATION SIGNAL

U1243 FRONT DISPLAY UNIT

[BOSE AUDIO WITH NAVIGATION]

< COMPONENT DIAGNOSIS >

1. Connect front display unit connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check signal between front display unit harness connector terminal and ground using an oscilloscope.

(+)		(-)	Condition	Reference value
Front display unit				
Connector	Terminal			
M75	11	Ground	When adjusting display brightness.	<div><div><div>(V)</div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></di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Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace AV control unit.

4.CHECK COMMUNICATION SIGNAL

Check signal between display unit harness connector and ground using an oscilloscope.

(+) Front display unit		(-)	Condition	Reference value
Connector	Terminal			
M75	22	Ground	When adjusting display brightness.	<div><div><div>(V)</div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></di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Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace front display unit.

AV

U1244 GPS ANTENNA

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

U1244 GPS ANTENNA

Description

INFOID:000000004469539

Part name	Description
GPS ANTENNA	GPS signal is received and transmitted to AV control unit.

DTC Logic

INFOID:000000004469540

DTC	Display contents of CONSULT-III	DTC Detection Condition	Possible causes
U1244	GPS ANTENNA CONN [U1244]	GPS antenna connection malfunction is detected.	GPS antenna disconnection.

Diagnosis Procedure

INFOID:000000004469541

1. GPS ANTENNA CHECK

Visually check GPS antenna and antenna feeder.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair 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 terminal and ground.

(+)	(-)	Voltage (Approx.)
AV control unit		
Terminal		
110	Ground	5.0 V

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace AV control unit.

U1258 SATELLITE RADIO ANTENNA

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

U1258 SATELLITE RADIO ANTENNA

Description

INFOID:000000004469545

Part name	Description
SATELLITE RADIO ANTENNA	Satellite radio waves are received and transmitted to AV control unit.

DTC Logic

INFOID:000000004469546

DTC	Display contents of CONSULT-III	DTC Detection Condition	Possible causes
U1258	XM ANTENNA CONN [U1258]	Satellite radio antenna connection malfunction is detected.	<ul style="list-style-type: none">Satellite radio antenna feeder.Satellite radio antenna.

Diagnosis Procedure

INFOID:000000004469547

1.SATELLITE RADIO ANTENNA CHECK

Visually check satellite radio antenna and antenna feeder.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair malfunctioning parts.

2.CHECK AV CONTROL UNIT VOLTAGE

1. Disconnect satellite radio antenna connector.
2. Turn ignition switch ON.
3. Check voltage between AV control unit terminal and ground.

(+)	(–)	Voltage (Approx.)
AV control unit Terminal		
108	Ground	5.0 V

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace AV control unit.

AV

U1300 AV COMM CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

U1300 AV COMM CIRCUIT

Description

INFOID:000000004469548

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

SELF-DIAGNOSIS RESULTS DISPLAY ITEM

DTC	Display contents of CONSULT-III	Description	Possible malfunction factor/Action to take
U1300 U121F	<ul style="list-style-type: none"> AV COMM CIRCUIT [U1300] INTERNAL COMM [U121F] 	Malfunction is detected in AV control unit power supply and ground circuits.	Check AV control unit power supply and ground circuits. When detecting no malfunction in those components, replace AV control unit.
U1300 U1240	<ul style="list-style-type: none"> AV COMM CIRCUIT [U1300] SWITCH CONN [U1240] 	When either one of the following items are detected: <ul style="list-style-type: none"> multifunction switch power supply and ground circuits are malfunctioning. AV communication circuits between AV control unit and multifunction switch are malfunctioning. AV communication signal between AV control unit and multifunction switch is malfunctioning. 	<ul style="list-style-type: none"> Multifunction switch power supply and ground circuits. AV communication circuits between AV control unit and multifunction switch.
U1300 U1254	<ul style="list-style-type: none"> AV COMM CIRCUIT [U1300] IPOD CONN [U1254] 	When either one of the following items are detected: <ul style="list-style-type: none"> iPod adapter power supply and ground circuits are malfunctioning. AV communication circuits between multifunction switch and iPod adapter are malfunctioning. AV communication signal between AV control unit and iPod adapter is malfunctioning. 	<ul style="list-style-type: none"> iPod adapter power supply and ground circuits. AV communication circuits between multifunction switch unit and iPod adapter.
U1300 U1240 U1254	<ul style="list-style-type: none"> AV COMM CIRCUIT [U1300] SWITCH CONN [U1240] IPOD CONN [U1254] 	Malfunction is detected in AV communication circuits between AV control unit and multifunction switch.	AV communication circuits between AV control unit and multifunction switch.

POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

POWER SUPPLY AND GROUND CIRCUIT

AV CONTROL UNIT

AV CONTROL UNIT : Diagnosis Procedure

INFOID:000000004469549

1.CHECK FUSE

Check for blown fuses.

Power source	Fuse No.
Battery	34
Ignition switch ACC or ON	19
Ignition switch ON or START	3

Is the inspection result normal?

YES >> GO TO 2.

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

2.CHECK POWER SUPPLY CIRCUIT

Check voltage between AV control unit harness connectors and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Voltage (Approx.)
Battery power supply	M84	19	OFF	Battery voltage
	M85	22		
		24		
ACC power supply	M84	7	ACC	Battery voltage
	M85	25		
Ignition signal	M85	35	ON	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

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

3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect AV control unit connectors.
3. Check continuity between AV control unit harness connectors and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Continuity
Ground	M85	21	OFF	Existed
		23		
		43		

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair harness or connector.

FRONT DISPLAY UNIT

FRONT DISPLAY UNIT : Diagnosis Procedure

INFOID:000000004469550

1.CHECK FUSE

Check for blown fuses.

POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

Power source	Fuse No.
Battery	34
Ignition switch ACC or ON	19

Is the inspection result normal?

YES >> GO TO 2.

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

2.CHECK POWER SUPPLY CIRCUIT

Check voltage between display unit harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Voltage (Approx.)
Battery power supply	M75	2	OFF	Battery voltage
ACC power supply		3	ACC	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Check harness between display unit and fuse.

3.CHECK GROUND CIRCUIT

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

Signal name	Connector No.	Terminal No.	Ignition switch position	Continuity
Ground	M75	1	OFF	Existed
		13		

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair harness or connector.

MULTIFUNCTION SWITCH

MULTIFUNCTION SWITCH : Diagnosis Procedure

INFOID:000000004469551

1.CHECK FUSE

Check for blown fuses.

Power source	Fuse No.
Ignition switch ACC or ON	19

Is the inspection result normal?

YES >> GO TO 2.

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

2.CHECK POWER SUPPLY CIRCUIT

Check voltage between multifunction switch harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Voltage (Approx.)
ACC power supply	M72	3	ACC	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> Check harness between multifunction switch and fuse.

3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect multifunction switch connector.

POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

3. Check continuity between multifunction switch harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Continuity
Ground	M72	1	OFF	Existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair harness or connector.

BOSE AMP.

BOSE AMP. : Diagnosis Procedure

INFOID:000000004469553

1.CHECK FUSE

Check for blown fuses.

Power source	Fuse No.
Battery	8

Is the inspection result normal?

YES >> GO TO 2.

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

2.CHECK POWER SUPPLY CIRCUIT

Check voltage between BOSE amp. harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Voltage (Approx.)
Battery power supply	B42	11	OFF	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> Check harness between BOSE amp. and fuse.

3.CHECK GROUND CIRCUIT

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

Signal name	Connector No.	Terminal No.	Ignition switch position	Continuity
Ground	B42	12	OFF	Existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair harness or connector.

WOOFER

WOOFER : Diagnosis Procedure

INFOID:000000004469554

1.CHECK FUSE

Check for blown fuses.

Power source	Fuse No.
Battery	5

Is the inspection result normal?

YES >> GO TO 2.

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

2.CHECK POWER SUPPLY CIRCUIT

Check voltage between woofer amp. harness connector and ground.

POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

Signal name	Connector No.	Terminal No.	Ignition switch position	Voltage (Approx.)
Battery power supply	B43	6	OFF	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> Check harness between woofer amp. and fuse.

3.CHECK GROUND CIRCUIT

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

Signal name	Connector No.	Terminal No.	Ignition switch position	Continuity
Ground	B43	5	OFF	Existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair harness or connector.

iPod ADAPTER

iPod ADAPTER : Diagnosis Procedure

INFOID:000000004469555

1.CHECK FUSE

Check for blown fuses.

Power source	Fuse No.
Battery	34
Ignition switch ACC or ON	19

Is the inspection result normal?

YES >> GO TO 2.

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

2.CHECK POWER SUPPLY CIRCUIT

Check voltage between iPod adapter harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Voltage (Approx.)
Battery power supply	M111	5	OFF	Battery voltage
ACC power supply		3	ACC	

Is the inspection result normal?

YES >> INSPECTION END

NO >> Check harness between iPod adapter and fuse.

RGB (R: RED) SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

RGB (R: RED) SIGNAL CIRCUIT

Description

INFOID:000000004469556

Transmit the image displayed with AV control unit with RGB signal to the front display unit.

Diagnosis Procedure

INFOID:000000004469557

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

1. Turn ignition switch OFF.
2. Disconnect front display unit connector and AV control unit connector.
3. Check continuity between front display unit harness connector and AV control unit harness connector.

Front display unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M75	17	M86	61	Existed

4. Check continuity between front display unit harness connector and ground.

Front display unit		Ground	Continuity
Connector	Terminal		
M75	17		Not existed

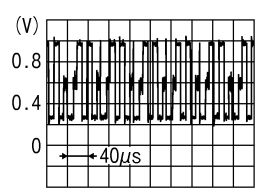
Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK RGB (R: RED) SIGNAL

1. Connect front display unit connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check signal between front display unit harness connector and ground using an oscilloscope.

(+) Front display unit		(-)	Condition	Reference value
Connector	Terminal			
M75	17	Ground	Start confirmation/adjustment mode, and then display color bar by selecting "Color Spectrum Bar" on DISPLAY DIAGNOSIS screen.	 JSNIA1029ZZ

Is the inspection result normal?

YES >> Replace front display unit.

NO >> Replace AV control unit.

RGB (G: GREEN) SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

RGB (G: GREEN) SIGNAL CIRCUIT

Description

INFOID:000000004469558

Transmit the image displayed with AV control unit with RGB signal to the front display unit.

Diagnosis Procedure

INFOID:000000004469559

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

1. Turn ignition switch OFF.
2. Disconnect front display unit connector and AV control unit connector.
3. Check continuity between front display unit harness connector and AV control unit harness connector.

Front display unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M75	6	M86	62	Existed

4. Check continuity between front display unit harness connector and ground.

Front display unit		Ground	Continuity
Connector	Terminal		
M75	6		Not existed

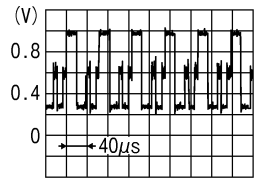
Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK RGB (G: GREEN) SIGNAL

1. Connect front display unit connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check signal between front display unit harness connector and ground using an oscilloscope.

(+) (Front display unit)		(-)	Condition	Reference value
Connector	Terminal			
M75	6	Ground	Start confirmation/adjustment mode, and then display color bar by selecting "Color Spectrum Bar" on DISPLAY DIAGNOSIS screen.	

JSNIA1030ZZ

Is the inspection result normal?

YES >> Replace front display unit.

NO >> Replace AV control unit.

RGB (B: BLUE) SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

RGB (B: BLUE) SIGNAL CIRCUIT

Description

INFOID:000000004469560

Transmit the image displayed with AV control unit with RGB signal to the front display unit.

Diagnosis Procedure

INFOID:000000004469561

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

1. Turn ignition switch OFF.
2. Disconnect front display unit connector and AV control unit connector.
3. Check continuity between front display unit harness connector and AV control unit harness connector.

Front display unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M75	18	M86	63	Existed

4. Check continuity between front display unit harness connector and ground.

Front display unit		Ground	Continuity
Connector	Terminal		
M75	18		Not existed

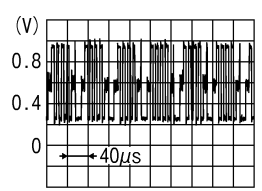
Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK RGB (B: BLUE) SIGNAL

1. Connect front display unit connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check signal between front display unit harness connector and ground using an oscilloscope.

(+) (V)		(-)	Condition	Reference value
Connector	Terminal			
M75	18	Ground	Start confirmation/adjustment mode, and then display color bar by selecting "Color Spectrum Bar" on DISPLAY DIAGNOSIS screen.	 JSNIA1031ZZ

Is the inspection result normal?

YES >> Replace front display unit.

NO >> Replace AV control unit.

RGB SYNCHRONIZING SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

RGB SYNCHRONIZING SIGNAL CIRCUIT

Description

INFOID:000000004469562

Transmit the RGB synchronizing signal to the front display unit so as to synchronize the RGB image displayed with AV control unit.

Diagnosis Procedure

INFOID:000000004469563

1.CHECK CONTINUITY RGB SYNCHRONIZING SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect front display unit connector and AV control unit connector.
3. Check continuity between front display unit harness connector and AV control unit harness connector.

Front display unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M75	19	M86	65	Existed

4. Check continuity between front display unit harness connector and ground.

Front display unit		Ground	Continuity
Connector	Terminal		
M75	19		Not existed

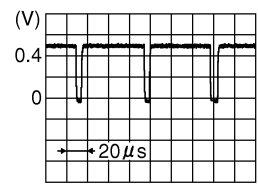
Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK RGB SYNCHRONIZING SIGNAL

1. Connect front display unit connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check signal between front display unit harness connector and ground using an oscilloscope.

(+) Front display unit		(-)	Condition	Reference value
Connector	Terminal			
M75	19	Ground	—	

JPNIA0461GB

Is the inspection result normal?

YES >> Replace front display unit.

NO >> Replace AV control unit.

RGB AREA (YS) SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

RGB AREA (YS) SIGNAL CIRCUIT

Description

INFOID:000000004469564

Transmits the display area of RGB image displayed by AV control unit with RGB area (YS) signal to front display unit.

Diagnosis Procedure

INFOID:000000004469565

1.CHECK CONTINUITY RGB AREA (YS) SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect front display unit connector and AV control unit connector.
3. Check continuity between front display unit harness connector and AV control unit harness connector.

Front display unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M75	9	M86	67	Existed

4. Check continuity between front display unit harness connector and ground.

Front display unit		Ground	Continuity
Connector	Terminal		
M75	9		Not existed

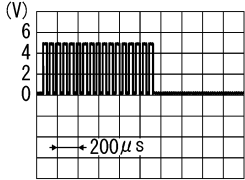
Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK RGB AREA (YS) SIGNAL

1. Connect front display unit connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check signal between front display unit harness connector and ground using an oscilloscope.

(+) (V)		(-)	Condition	Reference value
Connector	Terminal			
M75	9	Ground	When RGB image is displayed.	Approx. 5.0 V
			When AUX image is displayed.	

PKIB4948J

Is the inspection result normal?

YES >> Replace front display unit.

NO >> Replace AV control unit.

HORIZONTAL SYNCHRONIZING (HP) SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

HORIZONTAL SYNCHRONIZING (HP) SIGNAL CIRCUIT

Description

INFOID:000000004469566

In composite image (AUX image), transmit the vertical synchronizing (VP) signal and horizontal synchronizing (HP) signal from front display unit to AV control unit so as to synchronize the RGB images displayed with AV control unit such as the image quality adjusting menu, etc.

Diagnosis Procedure

INFOID:000000004469567

1.CHECK CONTINUITY HORIZONTAL SYNCHRONIZING (HP) SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect front display unit connector and AV control unit connector.
3. Check continuity between front display unit harness connector and AV control unit harness connector.

Front display unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M75	8	M86	68	Existed

4. Check continuity between front display unit harness connector and ground.

Front display unit		Ground	Continuity
Connector	Terminal		
M75	8		Not existed

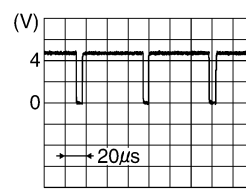
Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK HORIZONTAL SYNCHRONIZING (HP) SIGNAL

1. Connect front display unit connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check signal between front display unit harness connector and ground using an oscilloscope.

(+) Front display unit		(-)	Condition	Reference value
Connector	Terminal			
M75	8	Ground	—	 SKIB3601E

Is the inspection result normal?

YES >> Replace AV control unit.

NO >> Replace front display unit.

VERTICAL SYNCHRONIZING (VP) SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

VERTICAL SYNCHRONIZING (VP) SIGNAL CIRCUIT

Description

INFOID:000000004469568

In composite image (AUX image), transmit the vertical synchronizing (VP) signal and horizontal synchronizing (HP) signal from front display unit to AV control unit so as to synchronize the RGB images displayed with AV control unit such as the image quality adjusting menu, etc.

Diagnosis Procedure

INFOID:000000004469569

1.CHECK CONTINUITY VERTICAL SYNCHRONIZING (VP) SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect front display unit connector and AV control unit connector.
3. Check continuity between front display unit harness connector and AV control unit harness connector.

Front display unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M75	20	M86	69	Existed

4. Check continuity between front display unit harness connector and ground.

Front display unit		Ground	Continuity
Connector	Terminal		
M75	20		Not existed

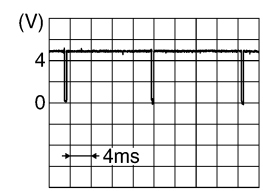
Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK VERTICAL SYNCHRONIZING (VP) SIGNAL

1. Connect front display unit connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check signal between front display unit harness connector and ground using an oscilloscope.

(+) (V)		(-)	Condition	Reference value
Connector	Terminal			
M75	20	Ground	—	

Is the inspection result normal?

YES >> Replace AV control unit.

NO >> Replace front display unit.

AUX IMAGE SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

AUX IMAGE SIGNAL CIRCUIT

Description

INFOID:000000004469570

Transmits the image signal of external device from auxiliary input jacks to front display unit.

Diagnosis Procedure

INFOID:000000004469571

1.CHECK CONTINUITY AUX IMAGE SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect auxiliary input jacks connector and front display unit connector.
3. Check continuity between auxiliary input jacks harness connector and front display unit harness connector.

Auxiliary input jacks		Front display unit		Continuity
Connector	Terminals	Connector	Terminals	
M258	7	M75	15	Existed
	8		5	

4. Check continuity between front display unit harness connector and ground.

Front display unit		Ground	Continuity
Connector	Terminal		
M75	15		Not existed

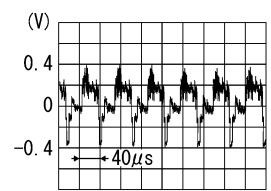
Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK AUX IMAGE SIGNAL

1. Connect auxiliary input jacks connector and front display unit connector.
2. Turn ignition switch ON.
3. Check signal between AV control unit harness connector using an oscilloscope.

(+) Front display unit		(-) Front display unit		Condition	Reference value
Connector	Terminal	Connector	Terminal		
M75	15	M75	5	When AUX image is displayed.	 SKIB2251J

Is the inspection result normal?

YES >> Replace front display unit.

NO >> Check that there is no malfunction in the external device.

DISK EJECT SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

DISK EJECT SIGNAL CIRCUIT

Description

INFOID:000000004469572

The disk eject signal is output to AV control unit when the disk eject switch of preset switch is pressed.

Diagnosis Procedure

INFOID:000000004469573

1.CHECK CONTINUITY CD EJECT SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect multifunction switch connector and AV control unit connector.
3. Check continuity between multifunction switch harness connector and AV control unit harness connector.

Multifunction switch		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M72	14	M87	85	Existed

4. Check continuity between multifunction switch harness connector and ground.

Multifunction switch		Ground	Continuity
Connector	Terminal		
M72	14		Not existed

Is the inspection result normal?

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

2.CHECK AV CONTROL UNIT VOLTAGE

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

(+)		(-)	Voltage (Approx.)
AV control unit			
Connector	Terminal		
M72	85	Ground	5.0 V

Is the inspection result normal?

- YES >> Replace preset switch.
NO >> Replace AV control unit.

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AV

MICROPHONE SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

MICROPHONE SIGNAL CIRCUIT

Description

INFOID:000000004469574

Supply power from AV control unit to microphone. The microphone transmits the sound/voice to the AV control unit.

Diagnosis Procedure

INFOID:000000004469575

1.CHECK CONTINUITY BETWEEN AV CONTROL UNIT AND MICROPHONE CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector and microphone connector.
3. Check continuity between AV control unit harness connector and microphone harness connector.

AV control unit		Microphone		Continuity
Connector	Terminals	Connector	Terminals	
M85	26	R5	4	Existed
	27		2	
	28		1	

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

AV control unit		Ground	Continuity
Connector	Terminals		
M85	26		Not existed
	28		

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK VOLTAGE MICROPHONE VCC

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

(+) (V)		(-)		Voltage (Approx.)
AV control unit		AV control unit		
Connector	Terminal	Connector	Terminal	
M85	26	M85	27	5.0 V

Is the inspection result normal?

YES >> GO TO 3.

NO >> Replace AV control unit.

3.CHECK MICROPHONE SIGNAL

1. Connect microphone connector.
2. Check signal between AV control unit harness connector using an oscilloscope.

MICROPHONE SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

(+) (+)		(-) (-)		Condition	Reference value
AV control unit		AV control unit			
Connector	Terminal	Connector	Terminal		
M85	28	M85	27	Give a voice	<p>(V)</p> <p>2.5 2.0 1.5 1.0 0.5 0</p> <p>← 2ms →</p>

PKIB5037J

Is the inspection result normal?

YES >> Replace AV control unit.

NO >> Replace microphone.

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STEERING SWITCH SIGNAL A CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

STEERING SWITCH SIGNAL A CIRCUIT

Description

INFOID:000000004469584

Transmits the steering switch signal to AV control unit.

Diagnosis Procedure

INFOID:000000004469585

1.CHECK STEERING SWITCH SIGNAL A CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector and spiral cable connector.
3. Check continuity between AV control unit harness connector and spiral cable harness connector.

AV control unit		Spiral cable		Continuity
Connector	Terminal	Connector	Terminal	
M84	6	M36	24	Existed

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

AV control unit		Ground	Continuity
Connector	Terminal		
M84	6		Not existed

Is the inspection result normal?

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

2.CHECK SPIRAL CABLE

Check spiral cable.

Is the inspection result normal?

- YES >> GO TO 3.
NO >> Replace spiral cable.

3.CHECK AV CONTROL UNIT VOLTAGE

1. Connect AV control unit connector and spiral cable connector.
2. Turn ignition switch ON.
3. Check voltage between AV control unit harness connector.

(+)AV control unit		(-)AV control unit		Voltage (Approx.)
Connector	Terminal	Connector	Terminal	
M84	6	M84	15	5.0 V

Is the inspection result normal?

- YES >> GO TO 4.
NO >> Replace AV control unit.

4.CHECK STEERING SWITCH

1. Turn ignition switch OFF.
2. Check steering switch. Refer to [AV-227. "Component Inspection"](#).

Is the inspection result normal?

- YES >> INSPECTION END
NO >> Replace steering switch.

STEERING SWITCH SIGNAL A CIRCUIT

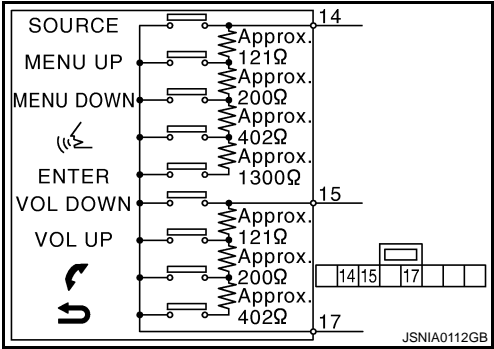
< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]




Component Inspection

INFOID:000000004469586

Measure the resistance between the steering switch connector.



Standard

Steering switch		Condition	Resistance Ω
Terminal			
14	17	ENTER switch ON	1983 – 2063
		 switch ON	709 – 737
		MENU DOWN switch ON	315 – 327
		MENU UP switch ON	119 – 123
		SOURCE switch ON	0
15	17	 switch ON	709 – 737
		 switch ON	315 – 327
		VOL UP switch ON	119 – 123
		VOL DOWN switch ON	0

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AV

STEERING SWITCH SIGNAL B CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

STEERING SWITCH SIGNAL B CIRCUIT

Description

INFOID:000000004469587

Transmits the steering switch signal to AV control unit.

Diagnosis Procedure

INFOID:000000004469588

1.CHECK STEERING SWITCH SIGNAL B CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector and spiral cable connector.
3. Check continuity between AV control unit harness connector and spiral cable harness connector.

AV control unit		Spiral cable		Continuity
Connector	Terminal	Connector	Terminal	
M84	16	M36	31	Existed

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

AV control unit		Ground	Continuity
Connector	Terminal		
M84	16		Not existed

Is the inspection result normal?

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

2.CHECK SPIRAL CABLE

Check spiral cable.

Is the inspection result normal?

- YES >> GO TO 3.
NO >> Replace spiral cable.

3.CHECK AV CONTROL UNIT VOLTAGE

1. Connect AV control unit connector and spiral cable connector.
2. Turn ignition switch ON.
3. Check voltage between AV control unit harness connector.

(+) (+)		(-) (-)		Voltage (Approx.)
AV control unit		AV control unit		
Connector	Terminal	Connector	Terminal	
M84	16	M84	15	5.0 V

Is the inspection result normal?

- YES >> GO TO 4.
NO >> Replace AV control unit.

4.CHECK STEERING SWITCH

1. Turn ignition switch OFF.
2. Check steering switch. Refer to [AV-229. "Component Inspection"](#).

Is the inspection result normal?

- YES >> INSPECTION END
NO >> Replace steering switch.

STEERING SWITCH SIGNAL B CIRCUIT

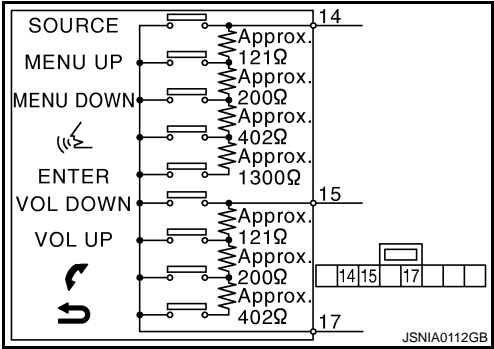
< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]




Component Inspection

INFOID:000000004523570

Measure the resistance between the steering switch connector.



Standard

Steering switch		Condition	Resistance Ω
Terminal			
14	17	ENTER switch ON	1983 – 2063
		 switch ON	709 – 737
		MENU DOWN switch ON	315 – 327
		MENU UP switch ON	119 – 123
		SOURCE switch ON	0
15	17	 switch ON	709 – 737
		 switch ON	315 – 327
		VOL UP switch ON	119 – 123
		VOL DOWN switch ON	0

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AV

STEERING SWITCH SIGNAL GND CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

STEERING SWITCH SIGNAL GND CIRCUIT

Description

INFOID:000000004469590

Transmits the steering switch signal to AV control unit.

Diagnosis Procedure

INFOID:000000004469591

1.CHECK STEERING SWITCH SIGNAL GND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector and spiral cable connector.
3. Check continuity between AV control unit harness connector and spiral cable harness connector.

AV control unit		Spiral cable		Continuity
Connector	Terminal	Connector	Terminal	
M84	15	M36	33	Existed

4. Connect AV control unit connector.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK SPIRAL CABLE

Check spiral cable.

Is the inspection result normal?

YES >> GO TO 3.

NO >> Replace spiral cable.

3.CHECK GROUND CIRCUIT

1. Connect AV control unit connector.
2. Check continuity between AV control unit harness connector and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M84	15		Existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace AV control unit.

4.CHECK STEERING SWITCH

Check steering switch. Refer to [AV-231, "Component Inspection"](#).

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace steering switch.

STEERING SWITCH SIGNAL GND CIRCUIT

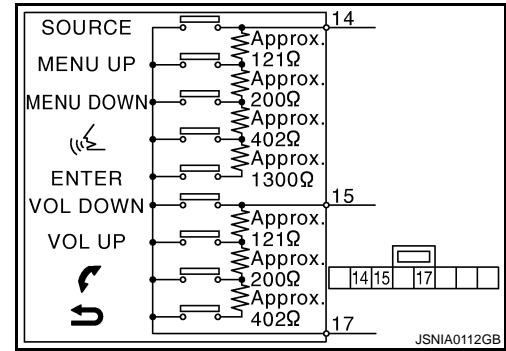
< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]




Component Inspection

INFOID:000000004523571

Measure the resistance between the steering switch connector.



Standard

Steering switch		Condition	Resistance Ω
Terminal			
14	17	ENTER switch ON	1983 – 2063
		 switch ON	709 – 737
		MENU DOWN switch ON	315 – 327
		MENU UP switch ON	119 – 123
		SOURCE switch ON	0
15	17	 switch ON	709 – 737
		 switch ON	315 – 327
		VOL UP switch ON	119 – 123
		VOL DOWN switch ON	0

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AV CONTROL UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

ECU DIAGNOSIS

AV CONTROL UNIT

Reference Values

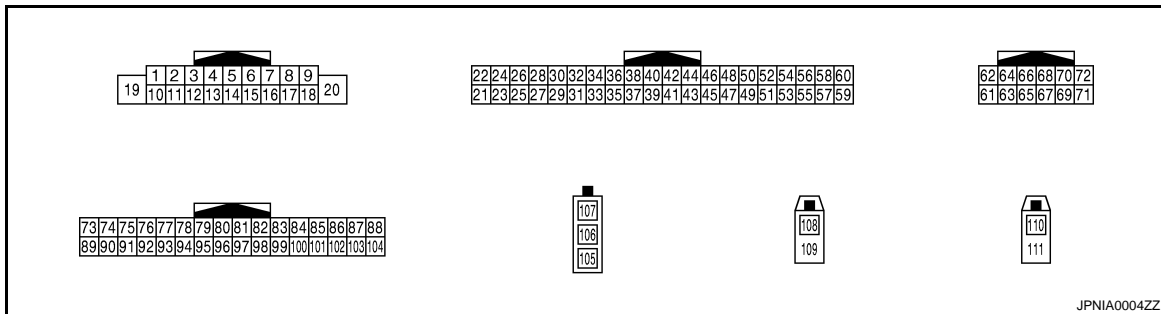
INFOID:000000004469593

VALUES ON THE DIAGNOSIS TOOL

CONSULT-III MONITOR ITEM

Monitor Item	Condition		Value/Status
VHCL SPD SIG	Ignition switch ON	Vehicle speed > 0 km/h (0 MPH)	On
		Vehicle speed = 0 km/h (0 MPH)	Off
PKB SIG	Ignition switch ON	Parking brake is applied.	On
		Parking brake is released.	Off
ILLUM SIG	Ignition switch ON	Light switch 1ST or 2ND	On
		Light switch OFF	Off
IGN SIG	Ignition switch ON	—	On
	Ignition switch ACC	—	Off
REV SIG	Ignition switch ON	Selector lever in R position	On
		Selector lever in any position other than R	Off

TERMINAL LAYOUT



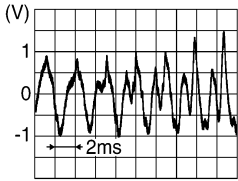

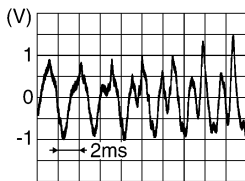
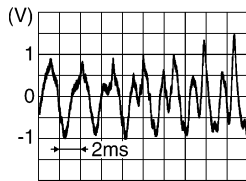


PHYSICAL VALUES

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
1 (V)	Ground	BOSE amp. ON signal	Output	Ignition switch ON	—	12.0 V
2 (LG)	3 (V)	Sound signal front LH	Output	Ignition switch ON	Sound output.	<p>SKIB3609E</p>

AV CONTROL UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
4 (L)	5 (R)	Sound signal rear LH	Output	Ignition switch ON	Sound output.	 SKIB3609E
6 (P)	15 (B)	Steering switch signal A	Input	Ignition switch ON	Keep pressing SOURCE switch.	0 V
					Keep pressing MENU UP switch.	1.0 V
					Keep pressing MENU DOWN switch.	2.0 V
					Keep pressing  switch.	3.0 V
					Keep pressing ENTER switch.	4.0 V
					Except for above.	5.0 V
7 (L)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
9 (R)	Ground	Illumination signal	Input	Ignition switch OFF	Lighting switch is OFF.	0 V
					Lighting switch is 1ST or 2ND.	12.0 V
10	—	Shield	—	—	—	—
11 (L)	12 (P)	Sound signal front RH	Output	Ignition switch ON	Sound output.	 SKIB3609E
13 (R)	14 (G)	Sound signal rear RH	Output	Ignition switch ON	Sound output.	 SKIB3609E
15 (B)	Ground	Steering switch signal GND	—	Ignition switch ON	—	0 V
16 (L)	15 (B)	Steering switch signal B	Input	Ignition switch ON	Keep pressing VOL DOWN switch.	0 V
					Keep pressing VOL UP switch.	1.0 V
					Keep pressing  switch.	2.0 V
					Keep pressing  switch.	3.0 V
					Except for above.	5.0 V

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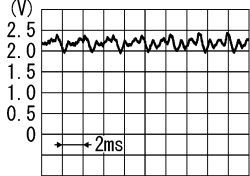
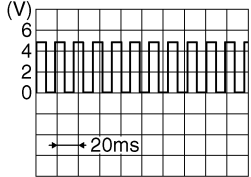
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AV CONTROL UNIT

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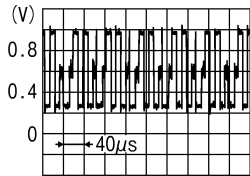
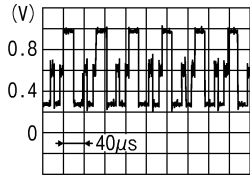
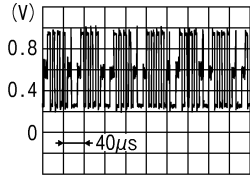
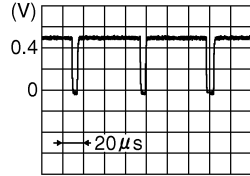
[BOSE AUDIO WITH NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
19 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
21 (B)	Ground	Ground	—	Ignition switch ON	—	0 V
22 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
23 (B)	Ground	Ground	—	Ignition switch ON	—	0 V
24 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
25 (L)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
26 (R)	27	Microphone VCC	Output	Ignition switch ON	—	5.0 V
27	—	Shield (Microphone ground)	—	—	—	—
28 (G)	27	Microphone signal	Input	Ignition switch ON	Make a sound with your voice	 PKIB5037J
35 (G)	Ground	Ignition signal	Input	Ignition switch ON	—	Battery voltage
36 (O)	Ground	Parking brake signal	Input	Ignition switch ON	Parking brake ON.	0 V
					Parking brake OFF.	5.0 V
37 (O)	Ground	Reverse signal	Input	Ignition switch ON	R position.	12.0 V
					Other than R position.	0 V
38 (Y)	Ground	Vehicle speed signal (8- pulse)	Input	Ignition switch ON	When vehicle speed is ap- prox. 40 km/h (25MPH).	NOTE: Maximum voltage may be 12 V due to specifications (connected units).  SKIA6649J
43 (B)	Ground	Ground	—	Ignition switch ON	—	0 V

AV CONTROL UNIT

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[BOSE AUDIO WITH NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
48 (L)	—	AV communication signal (H)	Input/ Output	—	—	—
49 (P)	—	AV communication signal (L)	Input/ Output	—	—	—
50 (LG)	—	AV communication signal (H)	Input/ Output	—	—	—
51 (V)	—	AV communication signal (L)	Input/ Output	—	—	—
52 (L)	—	CAN-H	Input/ Output	—	—	—
53 (P)	—	CAN-L	Input/ Output	—	—	—
61 (B)	Ground	RGB image signal (R: red)	Output	Ignition switch ON	Start confirmation/adjust- ment mode, and then dis- play color bar by selecting “Color Spectrum Bar” on DISPLAY DIAGNOSIS screen.	 JSNIA1029ZZ
62 (W)	Ground	RGB image signal (G: green)	Output	Ignition switch ON	Start confirmation/adjust- ment mode, and then dis- play color bar by selecting “Color Spectrum Bar” on DISPLAY DIAGNOSIS screen.	 JSNIA1030ZZ
63 (R)	64	RGB image signal (B: blue)	Output	Ignition switch ON	Start confirmation/adjust- ment mode, and then dis- play color bar by selecting “Color Spectrum Bar” on DISPLAY DIAGNOSIS screen.	 JSNIA1031ZZ
64	—	Shield (RGB ground)	—	—	—	—
65 (G)	66 (B)	RGB synchronizing signal	Output	Ignition switch ON	—	 JPNIA0461GB
66 (B)	Ground	RGB synchronizing signal ground	—	Ignition switch ON	—	0 V
67 (L)	Ground	RGB area (YS) signal	Output	Ignition switch ON	When RGB image is dis- played.	5.0 V

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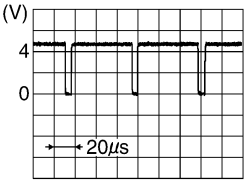
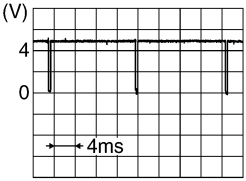
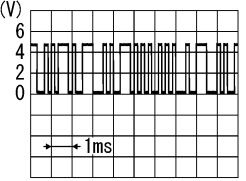
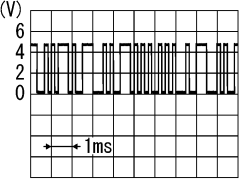
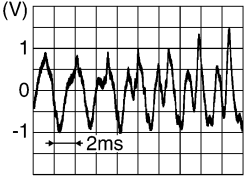
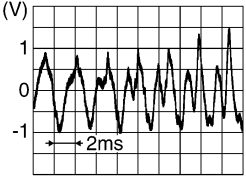
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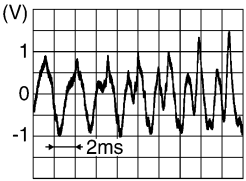
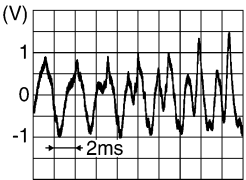
[BOSE AUDIO WITH NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
68 (G)	Ground	Horizontal synchronizing (HP) signal	Input	Ignition switch ON	—	 SKIB3601E
69 (Y)	Ground	Vertical synchronizing (VP) signal	Input	Ignition switch ON	—	 SKIB3598E
70 (R)	Ground	Communication signal (CONT→DISP)	Output	Ignition switch ON	When adjusting display brightness.	 PKIB5039J
71 (G)	Ground	Communication signal (DISP→CONT)	Input	Ignition switch ON	When adjusting display brightness.	 PKIB5039J
79 (R)	95 (G)	iPod sound signal LH	Input	Ignition switch ON	When iPod mode is select- ed.	 SKIB3609E
80 (B)	96 (W)	iPod sound signal RH	Input	Ignition switch ON	When iPod mode is select- ed.	 SKIB3609E
81	—	Shield	—	—	—	—
85 (SB)	Ground	Disk eject signal	Input	—	Pressing the eject switch.	0 V
					Except for above.	5.0 V
86	—	Shield	—	—	—	—

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[BOSE AUDIO WITH NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
87 (Y)	88 (L)	AUX sound signal LH	Input	Ignition switch ON	When AUX mode is select- ed.	 SKIB3609E
102 (BR)	Ground	Disk eject switch ground	—	Ignition switch ON	—	0 V
103 (G)	88 (L)	AUX sound signal RH	Input	Ignition switch ON	When AUX mode is select- ed.	 SKIB3609E
105	—	FM sub	Input	—	—	—
106	—	AM-FM main	Input	—	—	—
107	Ground	Antenna amp. ON signal	Output	Ignition switch ON	—	12.0 V
108	Ground	Satellite radio antenna sig- nal	Input	Ignition switch ON	Not connected to satellite radio antenna connector.	5.0 V
109	—	Shield	—	—	—	—
110	Ground	GPS antenna signal	Input	Ignition switch ON	Not connected to GPS an- tenna connector.	5.0 V
111	—	Shield	—	—	—	—

Wiring Diagram - BOSE AUDIO WITH NAVIGATION SYSTEM -

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NOTE:

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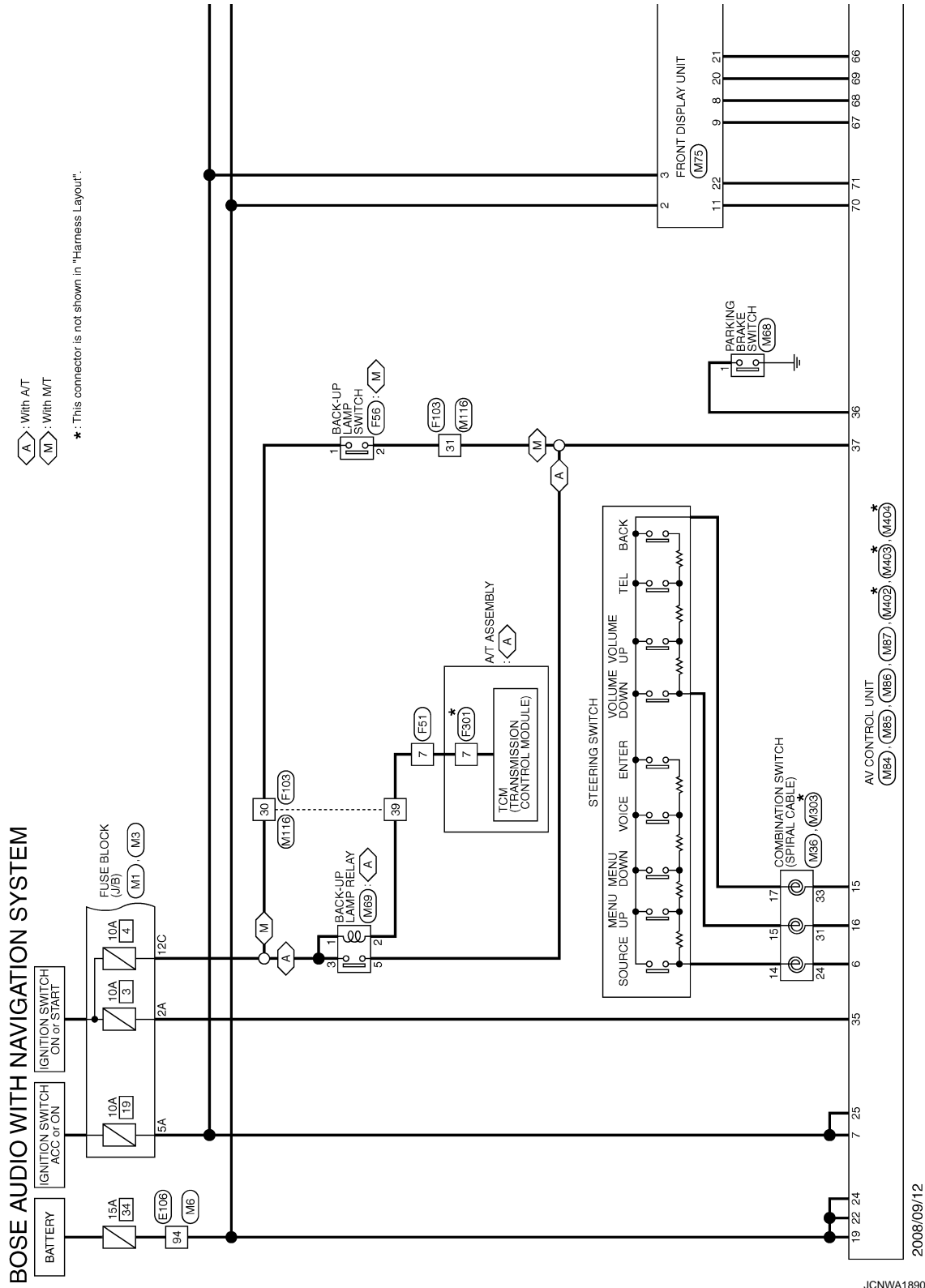
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[BOSE AUDIO WITH NAVIGATION]

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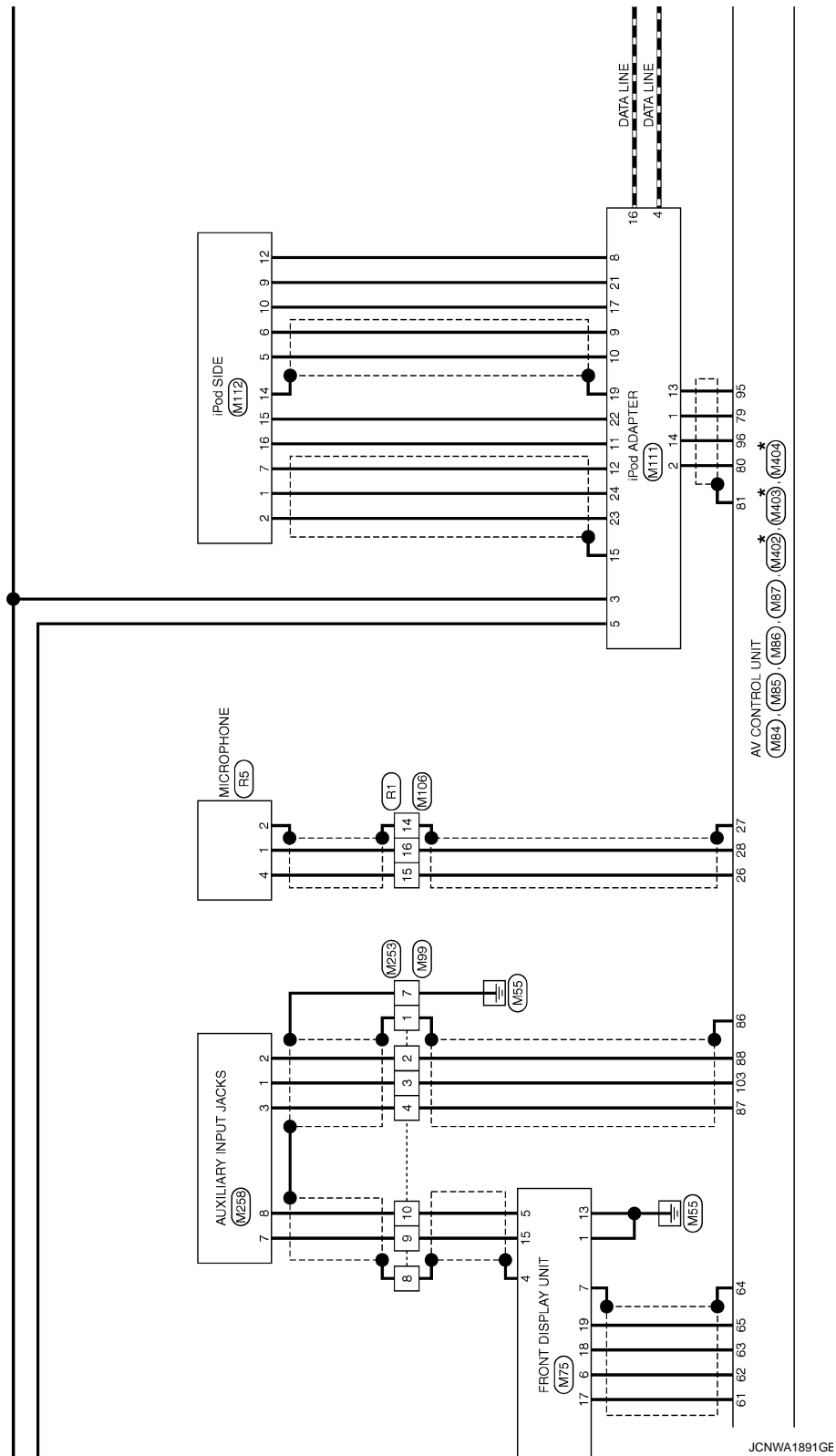


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[BOSE AUDIO WITH NAVIGATION]

★: This connector is not shown in "Harness Layout".



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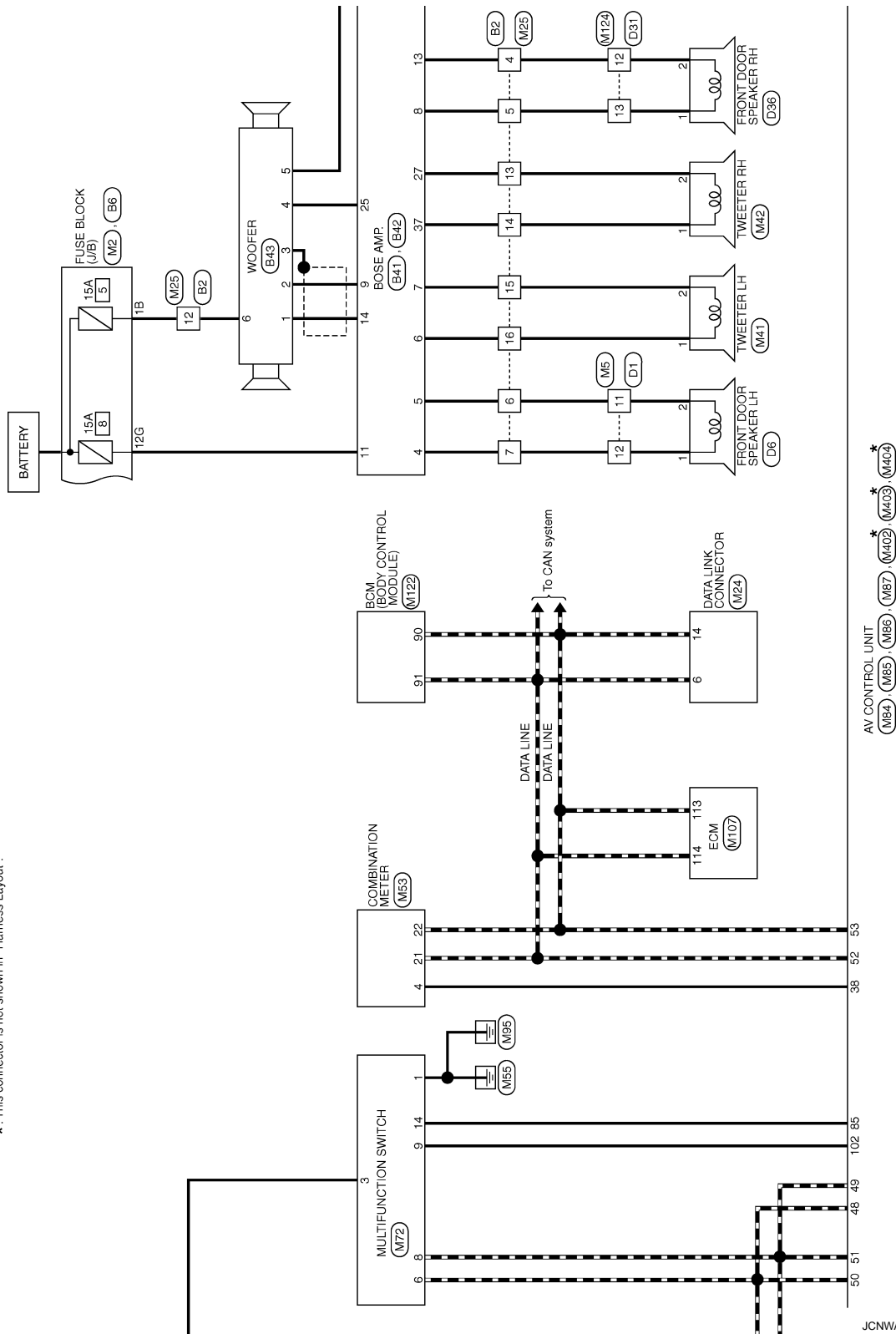
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[BOSE AUDIO WITH NAVIGATION]

★: This connector is not shown in "Harness Layout".



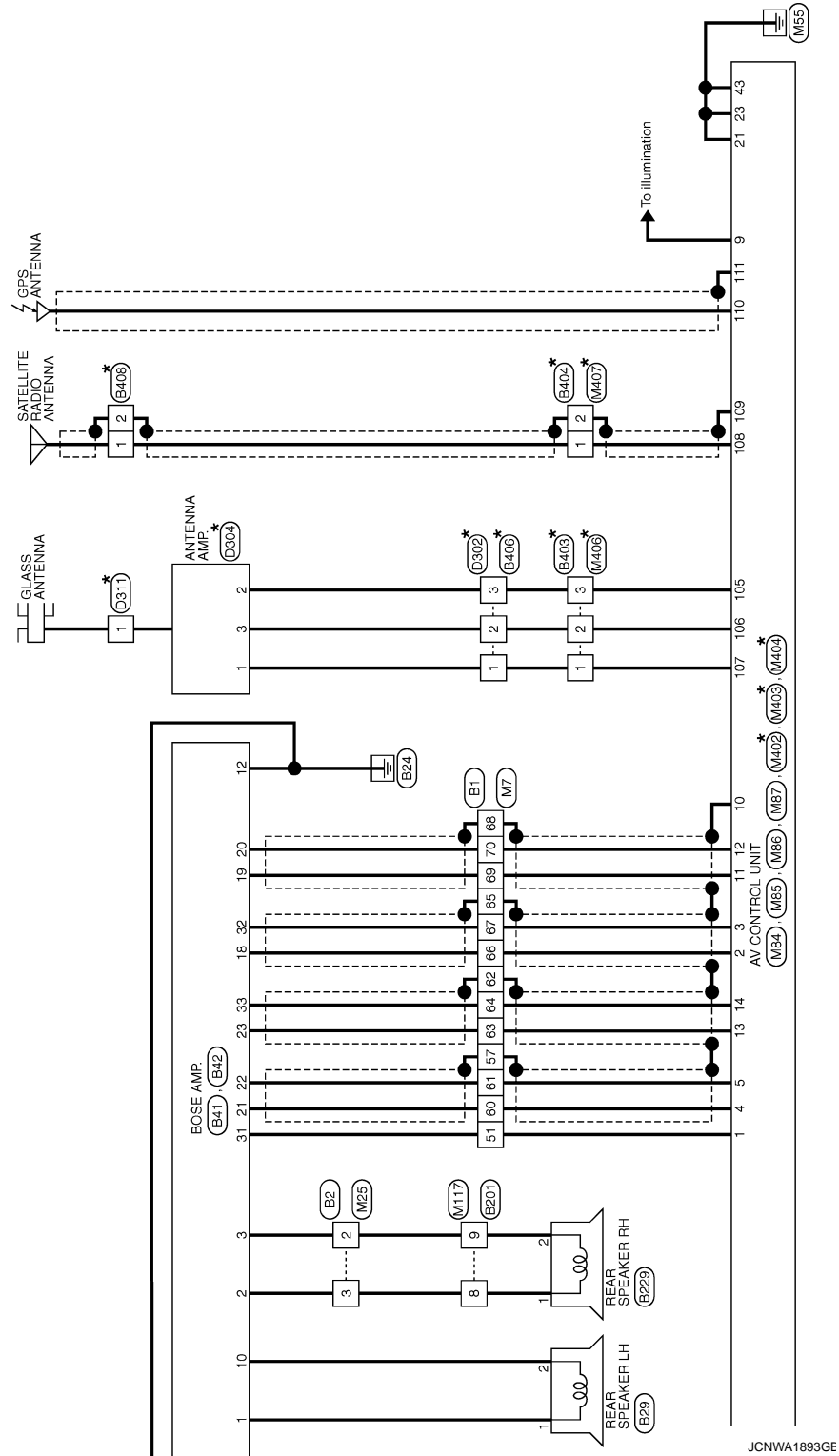
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[BOSE AUDIO WITH NAVIGATION]

★: This connector is not shown in "Harness Layout".



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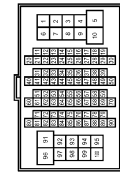
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[BOSE AUDIO WITH NAVIGATION]

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH08FW-GS16-TM44



Terminal No.	Color of Wire	Signal Name [Specification]
51	W	-
57	SHIELD	-
60	V	-
61	SB	-
62	SHIELD	-
63	BR	-
64	Y	-
65	SHIELD	-
66	P	-
67	L	-
68	SHIELD	-

Connector No.	B20
Connector Name	REAR SPEAKER LH
Connector Type	TK02FBR



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	-

69	R	-
70	G	-

Connector No.	B2
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-GS



Terminal No.	Color of Wire	Signal Name [Specification]
2	Y	-
3	LG	-
4	G	-
5	O	-
6	V	-
7	L	-
12	Y	-
13	W	-
14	B	-
15	GR	-
16	LG	-

37	B	SOUND SIGNAL TWEETER RH (-)
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Connector No.	B6
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS16FBR-GS



Terminal No.	Color of Wire	Signal Name [Specification]
12G	Y	-

Connector No.	B41
Connector Name	BOSE AMP
Connector Type	SCA19FBR-SGA4



Terminal No.	Color of Wire	Signal Name [Specification]
18	P	SOUND SIGNAL FRONT LH (+)
19	R	SOUND SIGNAL FRONT RH (+)
20	G	SOUND SIGNAL FRONT RH (-)
21	V	SOUND SIGNAL REAR LH (+)
22	SB	SOUND SIGNAL REAR LH (-)
23	BR	SOUND SIGNAL REAR RH (+)
25	GR	WOOFER AMP ON SIGNAL
27	W	SOUND SIGNAL TWEETER RH (+)
31	W	BOSE AMP ON SIGNAL
32	Y	SOUND SIGNAL FRONT LH (-)
33	Y	SOUND SIGNAL REAR RH (-)

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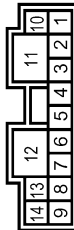
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[BOSE AUDIO WITH NAVIGATION]

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B42
Connector Name	BOSE AMP.
Connector Type	SGA12FBR-SJA2



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	SOUND SIGNAL REAR SPEAKER LH (+)
2	LG	SOUND SIGNAL REAR SPEAKER RH (+)
3	Y	SOUND SIGNAL REAR SPEAKER RH (-)
4	L	SOUND SIGNAL FRONT SPEAKER LH (+)
5	V	SOUND SIGNAL FRONT SPEAKER LH (-)
6	LG	SOUND SIGNAL TWEETER LH (+)
7	GR	SOUND SIGNAL TWEETER LH (-)
8	O	SOUND SIGNAL FRONT DOOR RH (+)
9	SB	SOUND SIGNAL WOOFER (+)
10	P	SOUND SIGNAL REAR SPEAKER LH (-)
11	Y	BATTERY

Connector No.	B229
Connector Name	REAR SPEAKER RH
Connector Type	TK02FBR



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

12	B	GND
13	G	SOUND SIGNAL FRONT DOOR RH (-)
14	V	SOUND SIGNAL WOOFER (+)

Connector No.	B43
Connector Name	WOOFER
Connector Type	RS06FY-PR



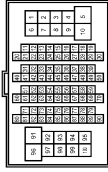
Terminal No.	Color of Wire	Signal Name [Specification]
1	V	SOUND SIGNAL WOOFER (-)
2	SB	SOUND SIGNAL WOOFER (+)
3	SHIELD	SHIELD
4	GR	WOOFER AMP. ON SIGNAL
5	B	GND
6	Y	BATTERY

Connector No.	B404
Connector Name	WIRE TO WIRE
Connector Type	GT16C-IPP-HU(A)



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-

Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	TH80FY-CS/6-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
8	LG	-
9	Y	-

Connector No.	B405
Connector Name	WIRE TO WIRE
Connector Type	GT13SCN-2/IPP-HU(21)



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-
3	-	-

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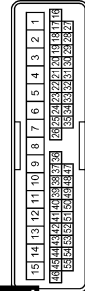
BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B408
Connector Name	SATELLITE RADIO ANTENNA
Connector Type	GT16C-IPP-HU(B)



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-

Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



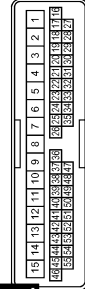
Terminal No.	Color of Wire	Signal Name [Specification]
11	P	- [With BOSE system]
12	L	-

Connector No.	D6
Connector Name	FRONT DOOR SPEAKER LH
Connector Type	NS30FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	- [With BOSE system]

Connector No.	D31
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



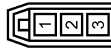
Terminal No.	Color of Wire	Signal Name [Specification]
12	P	- [With BOSE system]
13	L	- [With BOSE system]

Connector No.	D36
Connector Name	FRONT DOOR SPEAKER RH
Connector Type	NS30FW-CS



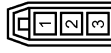
Terminal No.	Color of Wire	Signal Name [Specification]
1	L	- [With BOSE system]
2	P	- [With BOSE system]

Connector No.	D302
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1S-HU(21)



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-
3	-	-

Connector No.	D304
Connector Name	ANTENNA AMP.
Connector Type	GT13SC-2/1S-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	ANTENNA AMP. ON SIGNAL
2	-	FM SUB
3	-	AM-FM MAIN

Connector No.	D311
Connector Name	GLASS ANTENNA
Connector Type	FO1FB-A



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	-

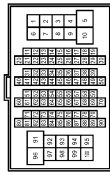
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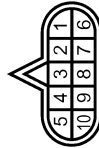
BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH06FW-CS16-TM4



Terminal No.	94
Color of Wire	Y
Signal Name [Specification]	-

Connector No.	F51
Connector Name	A/T ASSEMBLY
Connector Type	RK10FG-DGY



Terminal No.	7
Color of Wire	W
Signal Name [Specification]	-

Connector No.	F56
Connector Name	BACK-UP LAMP SWITCH
Connector Type	RK02FB



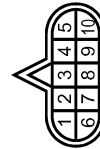
Terminal No.	1
Color of Wire	R
Signal Name [Specification]	-
Terminal No.	2
Color of Wire	O
Signal Name [Specification]	-

Connector No.	F103
Connector Name	WIRE TO WIRE
Connector Type	TK38FW-NS10



Terminal No.	30
Color of Wire	R
Signal Name [Specification]	-
Terminal No.	31
Color of Wire	O
Signal Name [Specification]	-
Terminal No.	39
Color of Wire	W
Signal Name [Specification]	-

Connector No.	F301
Connector Name	TOM (TRANSMISSION CONTROL MODULE)
Connector Type	SP10FG



Terminal No.	7
Color of Wire	L
Signal Name [Specification]	REV LAMP RLY

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS06FW-M2



Terminal No.	2A
Color of Wire	G
Signal Name [Specification]	-
Terminal No.	5A
Color of Wire	L
Signal Name [Specification]	-

Connector No.	M2
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS10FW-CS



Terminal No.	1B
Color of Wire	Y
Signal Name [Specification]	-

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FW-CS



Terminal No.	12C
Color of Wire	O
Signal Name [Specification]	-

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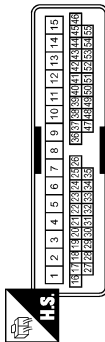
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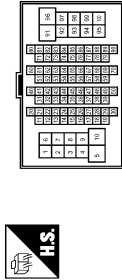
BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M5
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS15



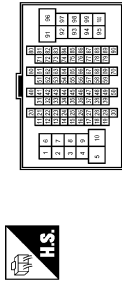
Terminal No.	Color of Wire	Signal Name [Specification]
11	V	-
12	L	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
94	Y	-

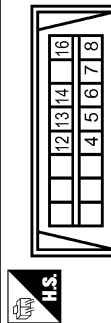
Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
51	V	-
57	SHIELD	-
60	L	-
61	R	-
62	SHIELD	-
63	R	-
64	G	-
65	SHIELD	-
66	LG	-
67	V	-
68	SHIELD	-

69	L	-
70	P	-

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



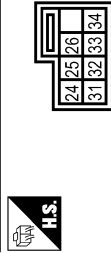
Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
14	P	-

Connector No.	M25
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
2	Y	-
3	LG	-
4	LG	-
5	V	-
6	V	-
7	L	-
12	Y	-
13	W	-
14	L	-
15	W	-
16	L	-

Connector No.	M36
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY-1V



Terminal No.	Color of Wire	Signal Name [Specification]
24	P	-
31	L	-
33	B	-

Connector No.	M41
Connector Name	TWEETER LH
Connector Type	TK02FBR



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

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AV CONTROL UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M42
Connector Name	TWEETER RH
Connector Type	TK02BR



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

Connector No.	M53
Connector Name	COMBINATION METER
Connector Type	TH24FW-NH



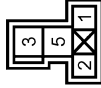
Terminal No.	Color of Wire	Signal Name [Specification]
4	Y	VEHICLE SPEED SIGNAL (8-PULSE)
21	L	CAN-H
22	P	CAN-L

Connector No.	M68
Connector Name	PARKING BRAKE SWITCH
Connector Type	FO1FB-A



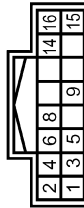
Terminal No.	Color of Wire	Signal Name [Specification]
1	O	-

Connector No.	M69
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS02LE-M2-LC



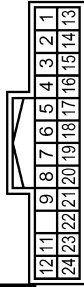
Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	G	-
3	R	-
5	O	-

Connector No.	M72
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH16FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
3	L	ACC
6	LG	AV COMM (H)
8	V	AV COMM (L)
9	BR	SW GND
14	SB	EJECT SIGNAL

Connector No.	M75
Connector Name	FRONT DISPLAY UNIT
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	Y	BATTERY
3	L	ACC
4	SHIELD	SHIELD
5	V	AUX IMAGE GND
6	W	RGB (G.GREEN) SIGNAL
7	SHIELD	SHIELD (RGB GND)
8	G	HP
9	L	RGB AREA (VS) SIGNAL
11	R	COMM (CONT->DISP)
13	B	GND

15	LG	AUX IMAGE SIGNAL
17	B	RGB (RED) SIGNAL
18	R	RGB (BLUE) SIGNAL
19	G	RGB SYNC
20	Y	VP
21	B	RGB SYNC GND
22	G	COMM (DISP->CONT)

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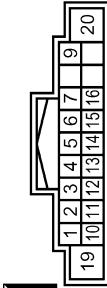
AV CONTROL UNIT

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[BOSE AUDIO WITH NAVIGATION]

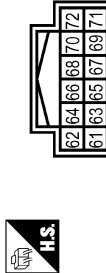
BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M84
Connector Name	AV CONTROL UNIT
Connector Type	TH18FW-CS2



Terminal No.	Color of Wire	Signal Name [Specification]
1	V	BOSE AMP-ON SIGNAL
2	LG	SOUND SIGNAL FRONT LH (+)
3	V	SOUND SIGNAL FRONT LH (-)
4	L	SOUND SIGNAL REAR LH (+)
5	R	SOUND SIGNAL REAR LH (-)
6	P	STRG SW A
7	L	ACC
9	R	ILLUMINATION
10	SHIELD	SHIELD
11	L	SOUND SIGNAL FRONT RH (+)
12	P	SOUND SIGNAL FRONT RH (-)

Connector No.	M88
Connector Name	AV CONTROL UNIT
Connector Type	TH12FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
61	B	RGB (R/RED) SIGNAL
62	W	RGB (G/GREEN) SIGNAL
63	R	RGB (B/BLUE) SIGNAL
64	SHIELD	SHIELD (RGB GND)
65	G	RGB SYNC
66	B	RGB SYNC GND
67	L	RGB AREA (YS) SIGNAL
68	G	VP
69	Y	VP
70	R	COMM (CONT->DISP)
71	G	COMM (DISP->CONT)

13	R	SOUND SIGNAL REAR RH (+)
14	G	SOUND SIGNAL REAR RH (-)
15	B	STRG SW GND
16	L	STRG SW B
19	Y	BATTERY



Terminal No.	Color of Wire	Signal Name [Specification]
21	B	GND
22	Y	BATTERY
23	B	GND
24	Y	BATTERY
25	L	ACC
26	R	MICROPHONE YCC
27	SHIELD	MICROPHONE GND
28	G	MICROPHONE SIGNAL
35	G	IGNITION
36	O	PARKING BRAKE
37	O	REVERSE

Connector No.	M89
Connector Name	WIRE TO WIRE
Connector Type	TH12MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	SHIELD	-
2	L	-
3	G	-
4	Y	-
7	B	-
8	SHIELD	-
9	LG	-
10	V	-

38	Y	VEHICLE SPEED (8-PULSE)
43	B	GND
48	L	AV COMM (H)
49	P	AV COMM (L)
50	LG	AV COMM (H)
51	Y	AV COMM (L)
52	L	CAN-H
53	P	CAN-L

Connector No.	M106
Connector Name	WIRE TO WIRE
Connector Type	TH10MP-NH



Terminal No.	Color of Wire	Signal Name [Specification]
14	SHIELD	-
15	R	-
16	G	-

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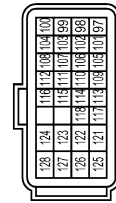
AV CONTROL UNIT

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[BOSE AUDIO WITH NAVIGATION]

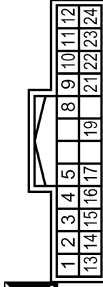
BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M107
Connector Name	ECM
Connector Type	RH24GY-R26-R-LH-Z



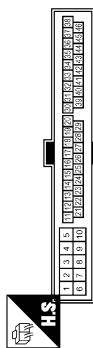
Terminal No.	Color of Wire	Signal Name [Specification]
113	P	VEH-CAN-L1
114	L	VEH-CAN-H1

Connector No.	M111
Connector Name	IPod ADAPTER
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	IPod SOUND SIGNAL LH (-)
2	B	IPod SOUND SIGNAL RH (-)
3	V	ACC
4	R	AV COMM (L)
5	Y	BATTERY
8	W	CHARGE POWER
9	LG	COMM (IPod ADAPTER->IPod)
10	V	COMM (IPod->IPod ADAPTER)
11	L	ACCESSORY IDENTIFY
12	G	IPod SOUND SIGNAL RH (+)
13	G	IPod SOUND SIGNAL LH (+)

Connector No.	M116
Connector Name	WIRE TO WIRE
Connector Type	TK68MW-NS10



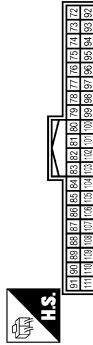
Terminal No.	Color of Wire	Signal Name [Specification]
30	R	-
31	O	-
39	G	-

Connector No.	M117
Connector Name	WIRE TO WIRE
Connector Type	TH68MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
8	LG	-
9	Y	-

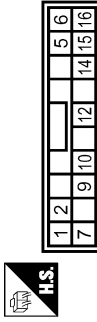
Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH



Terminal No.	Color of Wire	Signal Name [Specification]
90	P	CAN-L
91	L	CAN-H

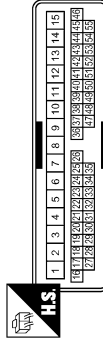
14	W	IPod SOUND SIGNAL RH (-)
15	SHIELD	SHIELD
16	G	AV COMM (H)
17	B	GND
19	SHIELD	SHIELD
21	SB	IPod CONNECTION RECOGNITION
22	W	ACCESSORY DETECT
23	Y	IPod SOUND SIGNAL GND
24	L	IPod SOUND SIGNAL LH (+)

Connector No.	M112
Connector Name	IPod SIDE
Connector Type	IP16FGY



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	IPod SOUND SIGNAL LH (+)
2	Y	IPod SOUND SIGNAL GND
5	V	COMM (IPod->IPod ADAPTER)
6	LG	COMM (IPod ADAPTER->IPod)
7	G	IPod SOUND SIGNAL RH (+)
9	SB	IPod CONNECTION RECOGNITION
10	B	GND
12	W	CHARGE POWER
14	SHIELD	SHIELD
15	W	ACCESSORY DETECT
16	L	ACCESSORY IDENTIFY

Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
12	LG	-
13	V	-

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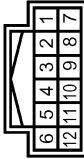
AV CONTROL UNIT

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[BOSE AUDIO WITH NAVIGATION]

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M253
Connector Name	WIRE TO WIRE
Connector Type	TH12FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	SHIELD	-
2	B	-
3	R	-
4	W	-
7	SHIELD	-
8	SHIELD	-
9	G	-
10	R	-

Connector No.	M258
Connector Name	AUXILIARY INPUT JACKS
Connector Type	AUBFW



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	AUX SOUND SIGNAL RH (+)
2	B	AUX SOUND SIGNAL GND
3	W	AUX SOUND SIGNAL LH (+)
7	G	AUX IMAGE SIGNAL
8	R	AUX IMAGE GND

Connector No.	M303
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY



Terminal No.	Color of Wire	Signal Name [Specification]
14	W	-
15	L	-
17	BR	-

Connector No.	M402
Connector Name	AV CONTROL UNIT
Connector Type	GT13SH-2/IS-HU



Terminal No.	Color of Wire	Signal Name [Specification]
105	-	FM SUB
106	-	AM-FM MAIN
107	-	ANTENNA AMP. ON SIGNAL

Connector No.	M403
Connector Name	AV CONTROL UNIT
Connector Type	FARKA JACK



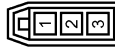
Terminal No.	Color of Wire	Signal Name [Specification]
108	-	SATELLITE ANTENNA SIGNAL
109	SHIELD	SHIELD

Connector No.	M404
Connector Name	AV CONTROL UNIT
Connector Type	GT5-IS-HU



Terminal No.	Color of Wire	Signal Name [Specification]
110	-	GPS ANTENNA SIGNAL
111	SHIELD	SHIELD

Connector No.	M406
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/IS-HU



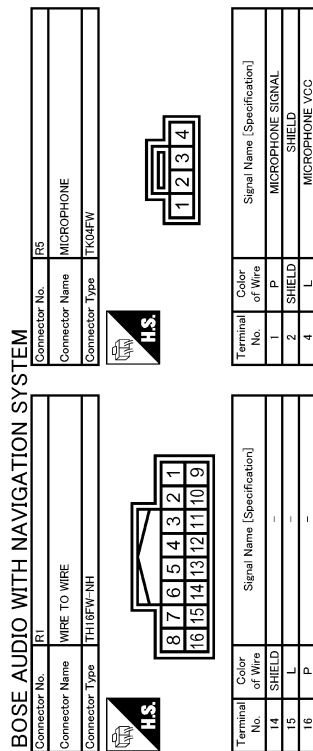
Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-
3	-	-

Connector No.	M407
Connector Name	WIRE TO WIRE
Connector Type	GT16C-IS-HU(A)



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-

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JCNWA1903GE

INFOID:000000004469595

Fail-Safe

When the ambience temperature becomes extremely low or extremely high, or when HDD is malfunctioning, AV control unit displays the message and limits the AV control unit function.

FAIL-SAFE CONDITIONS

- When the ambience temperature is -20°C (-4°F) or lower, or when it is 70°C (158°F) or higher
- When HDD is malfunctioning

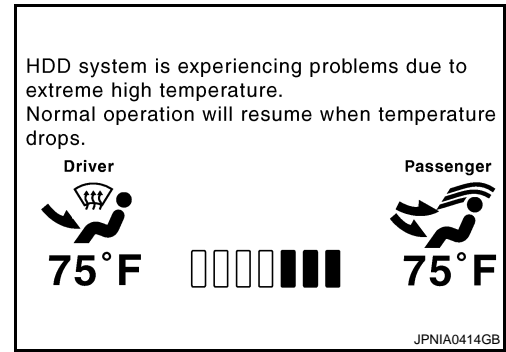
AV CONTROL UNIT

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[BOSE AUDIO WITH NAVIGATION]

Display

The messages displayed on fail-safe conditions are as shown below:



Fail-safe mode	Display (display of the fail-safe condition)
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.
When HDD is malfunctioning	HDD system is not functioning. Please contact your dealer for assistance.

DESCRIPTION OF CONTROLS

Function		When Fail-safe Function is activated
Air conditioner	Operation	Only multifunction switch (preset switch) can be operated.
	Display	<ul style="list-style-type: none"> • LED of multifunction switch (preset switch) illuminates. • Aimed temperature, blow angle, and flow rate are displayed in simplified mode.
Audio	Operation	Only ON/OFF and volume control operations by multifunction switch (preset switch) are possible.
	Display	No display ("Fail-safe mode" is displayed.)
Hands-free phone	Operation	Cannot be operated.
Navigation	Operation	Cannot be operated.
Self diagnosis		The display in simplified mode of fail-safe condition
CONSULT-III diagnosis		Cannot be operated.

Ability Operation Mode

There is an ability operation mode for Fail-saves due to low or high ambience temperature.

If HDD data can be read, fail-safe is shown, then normal displays are displayed only for functions which can be operated.

RELEASE CONDITIONS OF FAIL-SAFE

Fail-safe is released on the following conditions and normal mode is restored.

When the temperature of HDD is low or high.

If the ambient temperature becomes out of the fail-safe conditional range, normal mode is restored.

When HDD is malfunctioning.

If the malfunction disappears, normal mode is restored.

NOTE:

- If fail-safe mode due to HDD malfunction is seen continuously, replace AV control unit.
- If fail-safe mode due to HDD malfunction is seen temporarily, check the "Error History" of Confirmation/Adjustment mode. If this is normal, then continue the normal operation, observing the function. (It might be a temporary malfunction of HDD.)

DTC Index

INFOID:000000004469596

SELF-DIAGNOSIS RESULTS DISPLAY ITEM

AV CONTROL UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

DTC	Display item	Refer to
U1000	CAN COMM CIRCUIT [U1000]	AV-186, "Diagnosis Procedure"
U1010	CONTROL UNIT (CAN) [1010]	AV-187, "Diagnosis Procedure"
U1310	CONTROL UNIT (AV) [U1310]	AV-188, "DTC Logic"
U1200	Cont Unit FLASH-ROM [1200]	AV-189, "DTC Logic"
U1201	GYRO NO CONN [1201]	AV-190, "DTC Logic"
U1216	CAN CONT [U1216]	AV-191, "DTC Logic"
U1217	BLUETOOTH MODULE CONN [U1217]	AV-192, "DTC Logic"
U1218	HDD-CONN [U1218]	AV-193, "DTC Logic"
U1219	HDD-READ [U1219]	AV-194, "DTC Logic"
U1220	XM SERIAL COMM [U1220]	AV-195, "DTC Logic"
U121A	HDD-WRITE [U121A]	AV-196, "DTC Logic"
U121B	HDD-COMM [U121B]	AV-197, "DTC Logic"
U121C	HDD-ACCESS [U121C]	AV-198, "DTC Logic"
U121D	DSP CONN [U121D]	AV-199, "DTC Logic"
U121E	DSP COMM [U121E]	AV-200, "DTC Logic"
U121F	INTERNAL COMM [U121F]	AV-201, "DTC Logic"
U1204	GPS COMM [U1204]	AV-202, "DTC Logic"
U1205	GPS ROM [U1205]	AV-203, "DTC Logic"
U1206	GPS RAM [U1206]	AV-204, "DTC Logic"
U1207	GPS RTC [U1207]	AV-205, "DTC Logic"
U1243	FRONT DISP CONN [U1243]	AV-206, "DTC Logic"
U1244	GPS ANTENNA CONN [U1244]	AV-208, "DTC Logic"
U1258	XM ANTENNA CONN [U1258]	AV-209, "DTC Logic"
U1300 U121F	<ul style="list-style-type: none"> • AV COMM CIRCUIT [U1300] • INTERNAL COMM [U121F] 	AV-210, "Description"
U1300 U1240	<ul style="list-style-type: none"> • AV COMM CIRCUIT [U1300] • SWITCH CONN [U1240] 	AV-210, "Description"
U1300 U1254	<ul style="list-style-type: none"> • AV COMM CIRCUIT [U1300] • IPOD CONN [U1254] 	AV-210, "Description"
U1300 U1240 U1254	<ul style="list-style-type: none"> • AV COMM CIRCUIT [U1300] • SWITCH CONN [U1240] • IPOD CONN [U1254] 	AV-210, "Description"

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FRONT DISPLAY UNIT

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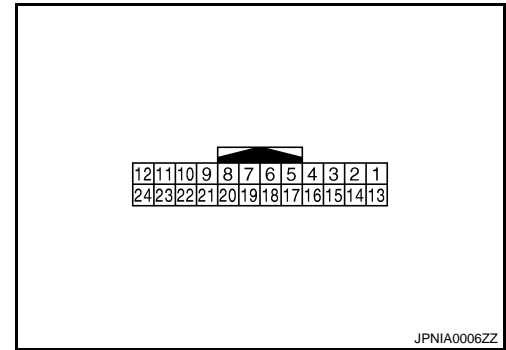
[BOSE AUDIO WITH NAVIGATION]

FRONT DISPLAY UNIT

Reference Values

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TERMINAL LAYOUT



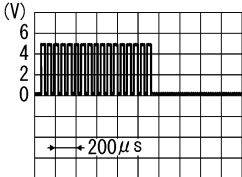
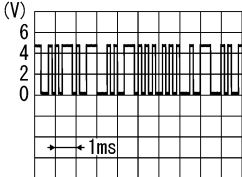
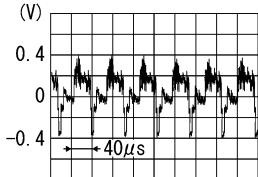
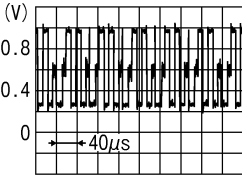
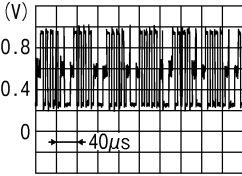
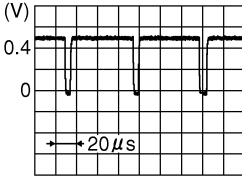
PHYSICAL VALUES

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
1 (B)	Ground	Ground	—	Ignition switch ON	—	0 V
2 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
3 (L)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
4	—	Shield	—	—	—	—
5 (V)	Ground	AUX image ground	—	Ignition switch ON	—	0 V
6 (W)	7	RGB image 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>JSNIA1030ZZ</p>
7	—	Shield (RGB ground)	—	—	—	—
8 (G)	Ground	Horizontal synchronizing (HP) signal	Output	Ignition switch ON	—	<p>SKIB3601E</p>

FRONT DISPLAY UNIT

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[BOSE AUDIO WITH NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
9 (L)	Ground	RGB area (YS) signal	Input	Ignition switch ON	When RGB image is displayed.	5.0 V
				Ignition switch ON	When AUX image is displayed.	 <p>PKIB4948J</p>
11 (R)	Ground	Communication signal (CONT→DISP)	Input	Ignition switch ON	When adjusting display brightness.	 <p>PKIB5039J</p>
13 (B)	Ground	Ground	—	Ignition switch ON	—	0 V
15 (LG)	5 (V)	AUX image signal	Input	Ignition switch ON	When AUX image is displayed.	 <p>SKIB2251J</p>
17 (B)	Ground	RGB image 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.	 <p>JSNIA1029ZZ</p>
18 (R)	Ground	RGB image 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.	 <p>JSNIA1031ZZ</p>
19 (G)	Ground	RGB synchronizing signal	Input	Ignition switch ON	—	 <p>JPNIA0461GB</p>

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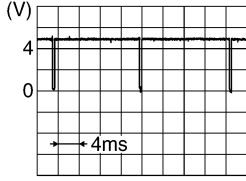
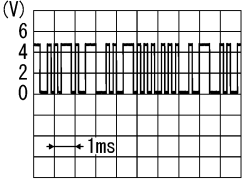
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[BOSE AUDIO WITH NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
20 (Y)	Ground	Vertical synchronizing (VP) signal	Output	Ignition switch ON	—	 SKIB3598E
21 (B)	Ground	RGB synchronizing signal ground	—	Ignition switch ON	—	0 V
22 (G)	Ground	Communication signal (DISP→CONT)	Output	Ignition switch ON	When adjusting display brightness.	 PKIB5039J

Wiring Diagram - BOSE AUDIO WITH NAVIGATION SYSTEM -

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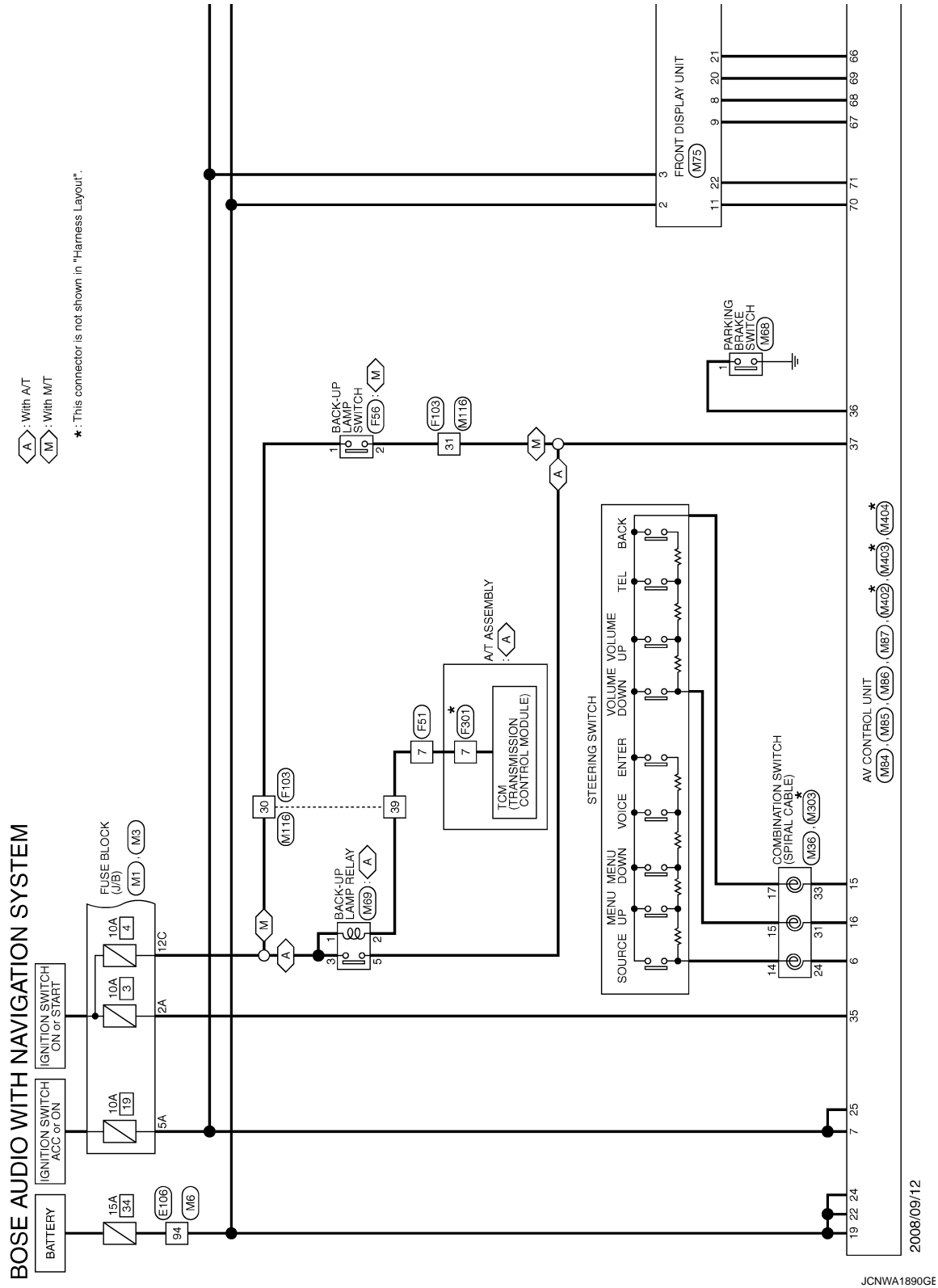
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[BOSE AUDIO WITH NAVIGATION]

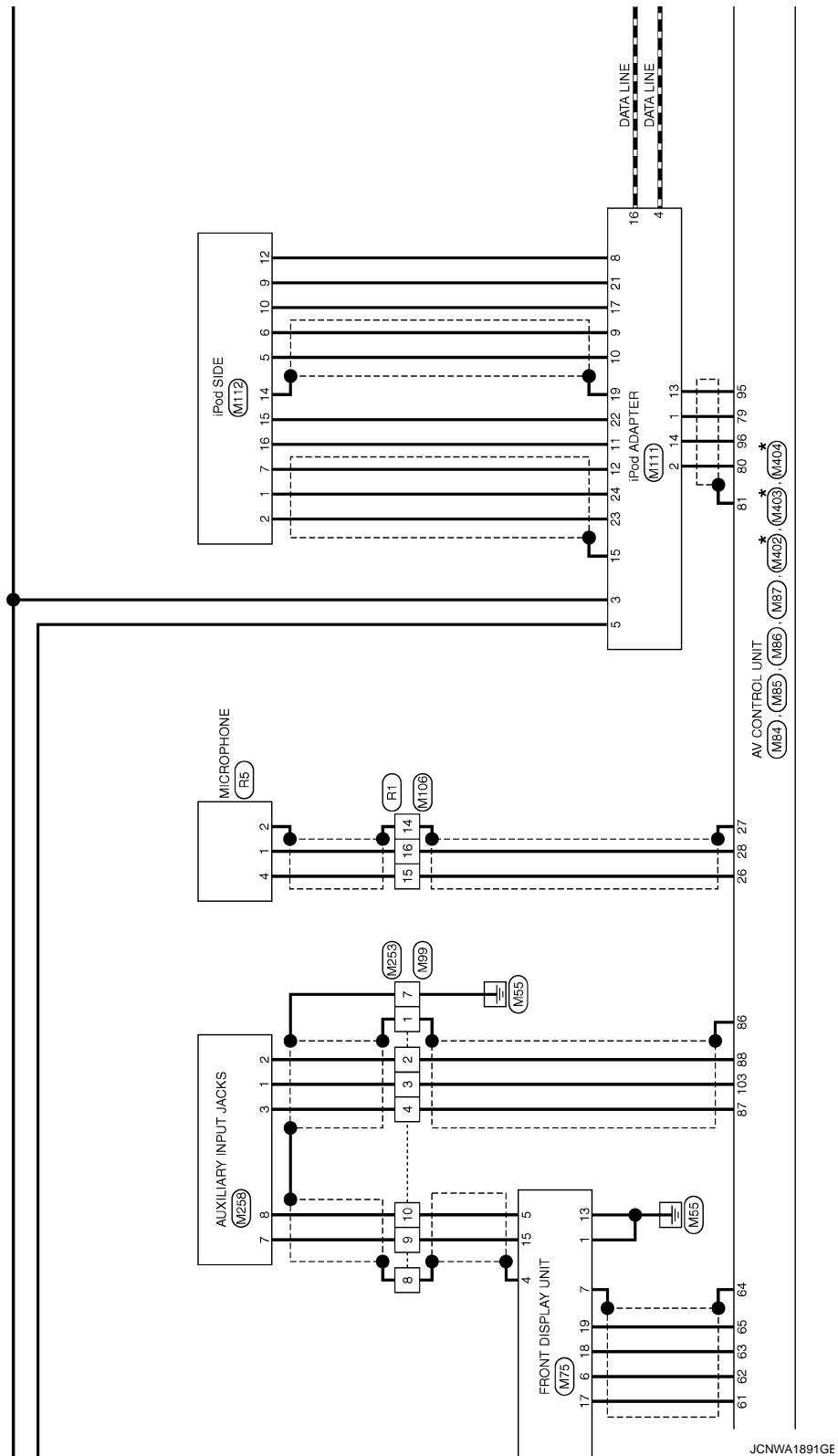
In this section, PRESET SWITCH and MULTIFUNCTION SWITCH are written as the MULTIFUNCTION SWITCH.



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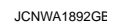
[BOSE AUDIO WITH NAVIGATION]

*: This connector is not shown in "Harness Layout".



[BOSE AUDIO WITH NAVIGATION]

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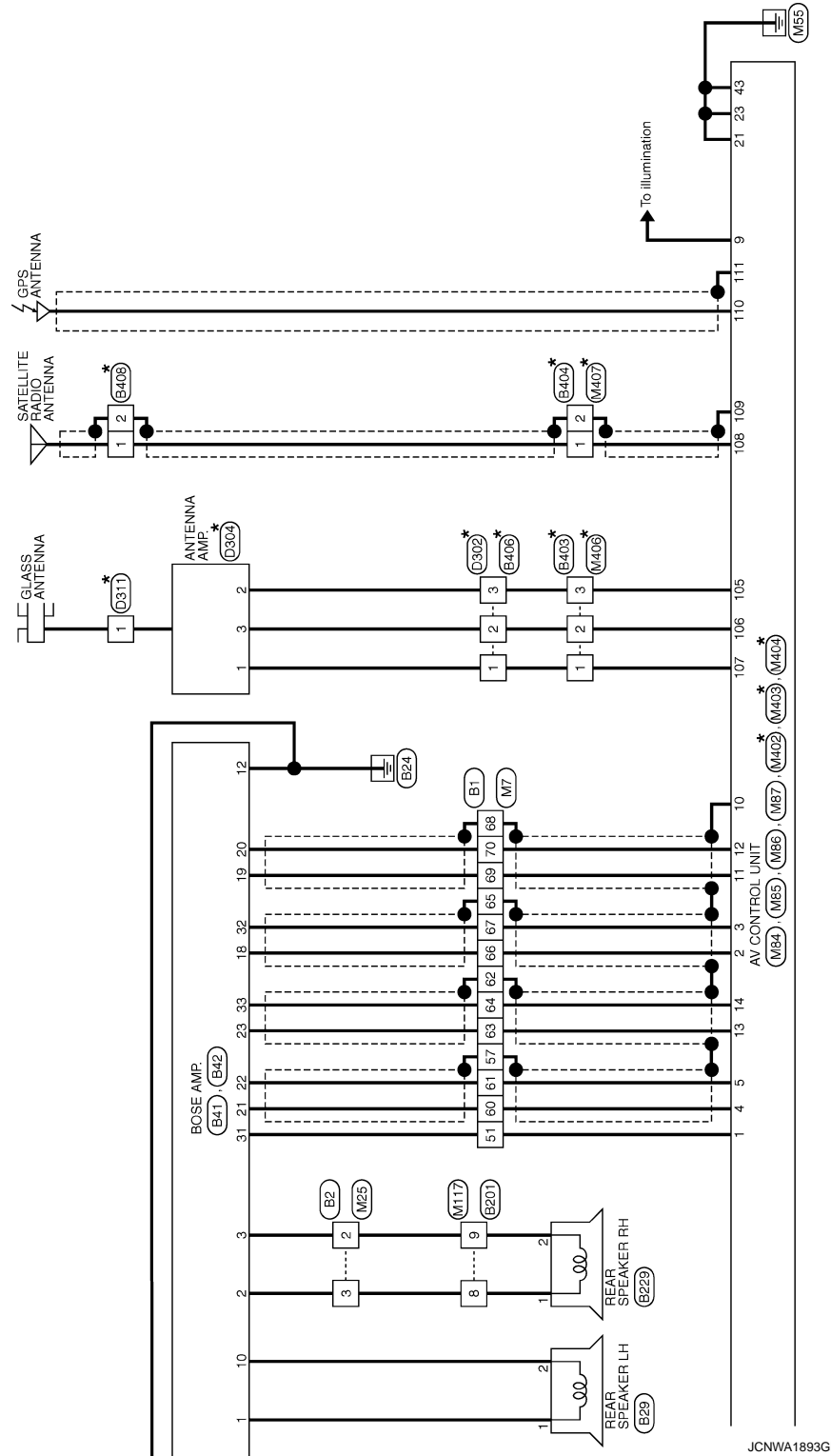


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[BOSE AUDIO WITH NAVIGATION]

★: This connector is not shown in "Harness Layout".



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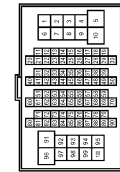
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[BOSE AUDIO WITH NAVIGATION]

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH00FW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
51	W	-
57	SHIELD	-
60	V	-
61	SB	-
62	SHIELD	-
63	BR	-
64	Y	-
65	SHIELD	-
66	P	-
67	L	-
68	SHIELD	-

Connector No.	B20
Connector Name	REAR SPEAKER LH
Connector Type	TK02FBR



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	-

69	R
70	G

Connector No.	B2
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
2	Y	-
3	LG	-
4	G	-
5	O	-
6	V	-
7	L	-
12	Y	-
13	W	-
14	B	-
15	GR	-
16	LG	-

37	B
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Connector No.	B41
Connector Name	BOSE AMP
Connector Type	SCA19FBR-SGA4



Terminal No.	Color of Wire	Signal Name [Specification]
18	P	SOUND SIGNAL FRONT LH (+)
19	R	SOUND SIGNAL FRONT RH (+)
20	G	SOUND SIGNAL FRONT LH (-)
21	V	SOUND SIGNAL REAR LH (+)
22	SB	SOUND SIGNAL REAR LH (-)
23	BR	SOUND SIGNAL REAR RH (+)
25	GR	WOOFER AMP ON SIGNAL
27	W	SOUND SIGNAL TWEETER RH (+)
31	W	BOSE AMP ON SIGNAL
32	L	SOUND SIGNAL FRONT LH (-)
33	Y	SOUND SIGNAL REAR RH (-)

Connector No.	B6
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS16FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
12G	Y	-

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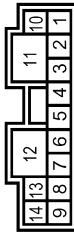
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[BOSE AUDIO WITH NAVIGATION]

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B42
Connector Name	BOSE AMP.
Connector Type	SGM2FBR-SJ42



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	SOUND SIGNAL REAR SPEAKER LH (+)
2	LG	SOUND SIGNAL REAR SPEAKER RH (+)
3	Y	SOUND SIGNAL REAR SPEAKER RH (-)
4	L	SOUND SIGNAL FRONT SPEAKER LH (+)
5	V	SOUND SIGNAL FRONT SPEAKER LH (-)
6	LG	SOUND SIGNAL TWEETER LH (+)
7	GR	SOUND SIGNAL TWEETER LH (-)
8	O	SOUND SIGNAL FRONT DOOR RH (+)
9	SB	SOUND SIGNAL WOOFER (+)
10	P	SOUND SIGNAL REAR SPEAKER LH (-)
11	Y	BATTERY



Connector No.	B229
Connector Name	REAR SPEAKER RH
Connector Type	TK02FBR

12	B	GND
13	G	SOUND SIGNAL FRONT DOOR RH (-)
14	V	SOUND SIGNAL WOOFER (-)



Terminal No.	Color of Wire	Signal Name [Specification]
1	V	SOUND SIGNAL WOOFER (-)
2	SB	SOUND SIGNAL WOOFER (+)
3	SHIELD	SHIELD
4	GR	WOOFER AMP. ON SIGNAL
5	B	GND
6	Y	BATTERY



Connector No.	B404
Connector Name	WIRE TO WIRE
Connector Type	GT16C-IPP-HU(A)

Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	TH60FY-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
8	LG	-
9	Y	-

Connector No.	B406
Connector Name	WIRE TO WIRE
Connector Type	GT13SCN-2/IPP-HU(21)



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-
3	-	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-
3	-	-

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[BOSE AUDIO WITH NAVIGATION]

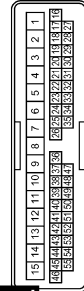
BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B408
Connector Name	SATELLITE RADIO ANTENNA
Connector Type	GT16C-IPP-HU(B)



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-

Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



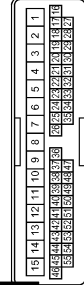
Terminal No.	Color of Wire	Signal Name [Specification]
11	P	- [With BOSE system]
12	L	-

Connector No.	D6
Connector Name	FRONT DOOR SPEAKER LH
Connector Type	NS02FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	- [With BOSE system]

Connector No.	D31
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
12	P	- [With BOSE system]
13	L	- [With BOSE system]

Connector No.	D36
Connector Name	FRONT DOOR SPEAKER RH
Connector Type	NS02FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	- [With BOSE system]
2	P	- [With BOSE system]

Connector No.	D302
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/IS-HU(21)



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-
3	-	-

Connector No.	D304
Connector Name	ANTENNA AMP.
Connector Type	GT13SC-2/IS-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	ANTENNA AMP. ON SIGNAL
2	-	FM SUB
3	-	AM-FM MAIN

Connector No.	D311
Connector Name	GLASS ANTENNA
Connector Type	P01FB-A



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	-

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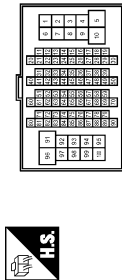
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[BOSE AUDIO WITH NAVIGATION]

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH8DFW-CS16-TM4



Terminal No.	94
Color of Wire	Y
Signal Name [Specification]	—

Connector No.	F51
Connector Name	A/T ASSEMBLY
Connector Type	RK10FG-DG1



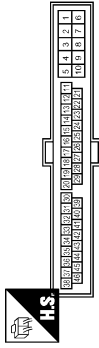
Terminal No.	7
Color of Wire	W
Signal Name [Specification]	—

Connector No.	F56
Connector Name	BACK-UP LAMP SWITCH
Connector Type	RK02FB



Terminal No.	1
Color of Wire	R
Signal Name [Specification]	—
Terminal No.	2
Color of Wire	O
Signal Name [Specification]	—

Connector No.	F103
Connector Name	WIRE TO WIRE
Connector Type	TK38FW-NS10



Terminal No.	30
Color of Wire	R
Signal Name [Specification]	—
Terminal No.	31
Color of Wire	O
Signal Name [Specification]	—
Terminal No.	39
Color of Wire	W
Signal Name [Specification]	—

Connector No.	F301
Connector Name	TOM (TRANSMISSION CONTROL MODULE)
Connector Type	SP10FG



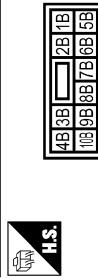
Terminal No.	7
Color of Wire	L
Signal Name [Specification]	REV LAMP RLY

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS06FW-M2



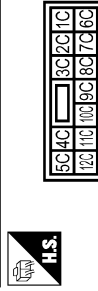
Terminal No.	2A
Color of Wire	G
Signal Name [Specification]	—
Terminal No.	5A
Color of Wire	L
Signal Name [Specification]	—

Connector No.	M2
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS10FW-CS



Terminal No.	1B
Color of Wire	Y
Signal Name [Specification]	—

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FW-CS



Terminal No.	12C
Color of Wire	O
Signal Name [Specification]	—

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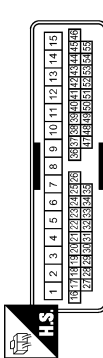
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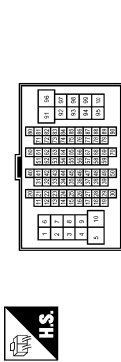
BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M5
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



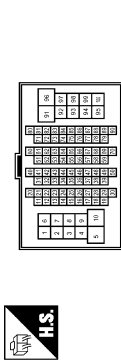
Terminal No.	Color of Wire	Signal Name [Specification]
11	V	-
12	L	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH60MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
94	Y	-

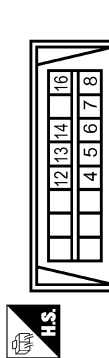
Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Type	TH60MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
51	V	-
57	SHIELD	-
60	L	-
61	R	-
62	SHIELD	-
63	R	-
64	G	-
65	SHIELD	-
66	LG	-
67	V	-
68	SHIELD	-

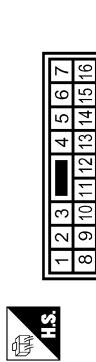
69	L	-
70	P	-

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



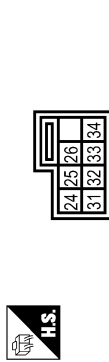
Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
14	P	-

Connector No.	M25
Connector Name	WIRE TO WIRE
Connector Type	NS18MW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
2	Y	-
3	LG	-
4	LG	-
5	V	-
6	V	-
7	L	-
12	Y	-
13	W	-
14	W	-
15	W	-
16	L	-

Connector No.	M36
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TR08FGY-1V



Terminal No.	Color of Wire	Signal Name [Specification]
24	P	-
31	L	-
33	B	-

Connector No.	M41
Connector Name	TWEETER LH
Connector Type	TR02FBR



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

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[BOSE AUDIO WITH NAVIGATION]

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M42
Connector Name	TWEETER RH
Connector Type	TK02BR



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	—
2	W	—

Connector No.	M53
Connector Name	COMBINATION METER
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
4	Y	VEHICLE SPEED SIGNAL (8-PULSE)
21	L	CAN-H
22	P	CAN-L

Connector No.	M68
Connector Name	PARKING BRAKE SWITCH
Connector Type	PO1FB-A



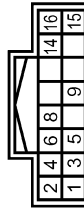
Terminal No.	Color of Wire	Signal Name [Specification]
1	O	—

Connector No.	M69
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS2EL-M2-LC



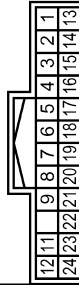
Terminal No.	Color of Wire	Signal Name [Specification]
1	W	—
2	G	—
3	R	—
5	O	—

Connector No.	M72
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH18FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
3	L	ACC
6	LG	AV COMM (H)
8	V	AV COMM (L)
9	BR	SW GND
14	SB	EJECT SIGNAL

Connector No.	M75
Connector Name	FRONT DISPLAY UNIT
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	Y	BATTERY
3	L	ACC
4	SHIELD	SHIELD
5	V	AUX IMAGE GND
6	W	RGB (G.GREEN) SIGNAL
7	SHIELD	SHIELD (RGB GND)
8	G	HP
9	L	RGB AREA (VS) SIGNAL
11	R	COMM (CONT->DISP)
13	B	GND

15	LG	AUX IMAGE SIGNAL
17	B	RGB (RED) SIGNAL
18	R	RGB (BLUE) SIGNAL
19	G	RGB SYNC
20	Y	VP
21	B	RGB SYNC GND
22	G	COMM (DISP->CONT)

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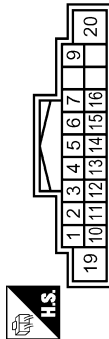
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[BOSE AUDIO WITH NAVIGATION]

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M84
Connector Name	AV CONTROL UNIT
Connector Type	TH18FW-GS2



Terminal No.	Color of Wire	Signal Name [Specification]
1	V	BOSE AMP-ON SIGNAL
2	LG	SOUND SIGNAL FRONT LH (+)
3	V	SOUND SIGNAL FRONT LH (-)
4	L	SOUND SIGNAL REAR LH (+)
5	R	SOUND SIGNAL REAR LH (-)
6	P	STRG SW A
7	L	ACC
9	R	ILLUMINATION
10	SHIELD	SHIELD
11	L	SOUND SIGNAL FRONT RH (+)
12	P	SOUND SIGNAL FRONT RH (-)

Connector No.	M88
Connector Name	AV CONTROL UNIT
Connector Type	TH12FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
61	B	RGB (R/RED) SIGNAL
62	W	RGB (G/GREEN) SIGNAL
63	R	RGB (B/BLUE) SIGNAL
64	SHIELD	SHIELD (RGB GND)
65	G	RGB SYNC
66	B	RGB SYNC GND
67	L	RGB AREA (YS) SIGNAL
68	G	UP
69	Y	VP
70	R	COMM (CONT-DISP)
71	G	COMM (DISP->CONT)

13	R	SOUND SIGNAL REAR RH (+)
14	G	SOUND SIGNAL REAR RH (-)
15	B	STRG SW GND
16	L	STRG SW B
19	Y	BATTERY



Terminal No.	Color of Wire	Signal Name [Specification]
21	B	GND
22	Y	BATTERY
23	B	GND
24	Y	BATTERY
25	L	ACC
26	R	MICROPHONE VCC
27	SHIELD	MICROPHONE GND
28	G	MICROPHONE SIGNAL
35	G	IGNITION
36	O	PARKING BRAKE
37	O	REVERSE

Connector No.	M89
Connector Name	WIRE TO WIRE
Connector Type	TH12MM-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	SHIELD	-
2	L	-
3	G	-
4	Y	-
7	B	-
8	SHIELD	-
9	LG	-
10	V	-

38	Y	VEHICLE SPEED (8-PULSE)
43	B	GND
48	L	AV COMM (H)
49	P	AV COMM (L)
50	LG	AV COMM (H)
51	V	AV COMM (L)
52	L	CAN-H
53	P	CAN-L

Connector No.	M106
Connector Name	WIRE TO WIRE
Connector Type	TH16MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
14	SHIELD	-
15	R	-
16	G	-

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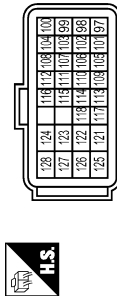
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[BOSE AUDIO WITH NAVIGATION]

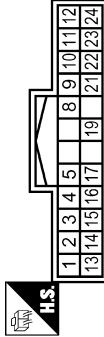
BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M107
Connector Name	ECM
Connector Type	RH24FGY-R26-R-LH-Z



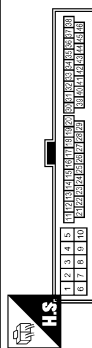
Terminal No.	Color of Wire	Signal Name [Specification]
113	P	VEHCAN-L1
114	L	VEHCAN-H1

Connector No.	M111
Connector Name	IPod ADAPTER
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	Pod SOUND SIGNAL LH (-)
2	B	Pod SOUND SIGNAL RH (-)
3	V	ACC
4	R	AV COMM (L)
5	Y	BATTERY
8	W	CHARGE POWER
9	LG	COMM (IPod-Adapter->IPod)
10	V	COMM (IPod-Adapter->IPod)
11	L	ACCESSORY IDENTIFY
12	G	Pod SOUND SIGNAL RH (+)
13	G	Pod SOUND SIGNAL LH (-)

Connector No.	M116
Connector Name	WIRE TO WIRE
Connector Type	TK38MW-NS10



Terminal No.	Color of Wire	Signal Name [Specification]
30	R	-
31	O	-
39	G	-

14	W	IPod SOUND SIGNAL RH (-)
15	SHIELD	SHIELD
16	G	AV COMM (H)
17	B	GND
19	SHIELD	SHIELD
21	SB	Pod CONNECTION RECOGNITION
22	W	ACCESSORY DETECT
23	Y	Pod SOUND SIGNAL GND
24	L	Pod SOUND SIGNAL LH (+)

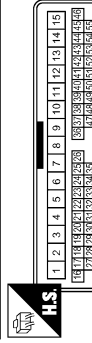
Terminal No.	Color of Wire	Signal Name [Specification]
1	L	IPod SOUND SIGNAL LH (+)
2	Y	IPod SOUND SIGNAL LH (+)
5	V	COMM (IPod-Adapter->IPod)
6	LG	COMM (IPod-Adapter->IPod)
7	G	Pod SOUND SIGNAL RH (+)
9	SB	Pod CONNECTION RECOGNITION
10	B	GND
12	W	CHARGE POWER
14	SHIELD	SHIELD
15	W	ACCESSORY DETECT
18	L	ACCESSORY IDENTIFY

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH



Terminal No.	Color of Wire	Signal Name [Specification]
90	P	CAN-L
91	L	CAN-H

Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	TH40MH-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
12	LG	-
13	V	-

JCNWA1901GE

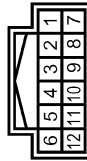
FRONT DISPLAY UNIT

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[BOSE AUDIO WITH NAVIGATION]

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M253
Connector Name	WIRE TO WIRE
Connector Type	TH12FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	SHIELD	-
2	B	-
3	R	-
4	W	-
7	SHIELD	-
8	SHIELD	-
9	G	-
10	R	-

Connector No.	M258
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A08FW



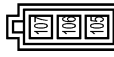
Terminal No.	Color of Wire	Signal Name [Specification]
1	R	AUX SOUND SIGNAL RH (+)
2	B	AUX SOUND SIGNAL GND
3	W	AUX SOUND SIGNAL LH (+)
7	G	AUX IMAGE SIGNAL
8	R	AUX IMAGE GND

Connector No.	M403
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY



Terminal No.	Color of Wire	Signal Name [Specification]
14	W	-
15	L	-
17	BR	-

Connector No.	M402
Connector Name	AV CONTROL UNIT
Connector Type	GT13SH-2/IS-HU



Terminal No.	Color of Wire	Signal Name [Specification]
105	-	FM SUB
106	-	AM-FM MAIN
107	-	ANTENNA AMP. ON SIGNAL

Connector No.	M403
Connector Name	AV CONTROL UNIT
Connector Type	FAKRA JACK



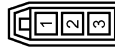
Terminal No.	Color of Wire	Signal Name [Specification]
108	-	SATELLITE ANTENNA SIGNAL
109	SHIELD	SHIELD

Connector No.	M404
Connector Name	AV CONTROL UNIT
Connector Type	GT5-IS-HU



Terminal No.	Color of Wire	Signal Name [Specification]
110	-	GPS ANTENNA SIGNAL
111	SHIELD	SHIELD

Connector No.	M406
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/IS-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-
3	-	-

Connector No.	M407
Connector Name	WIRE TO WIRE
Connector Type	GT16C-IS-HU(A)

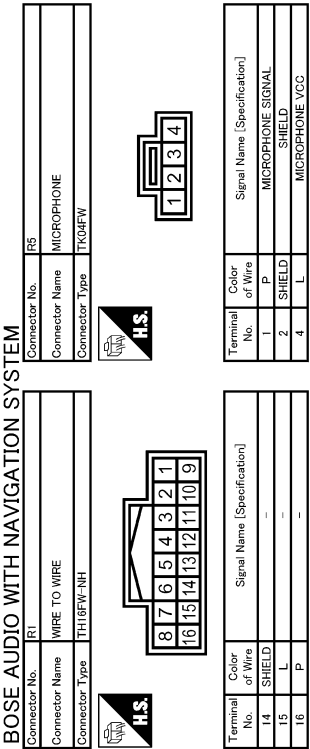


Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-

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BOSE AMP.

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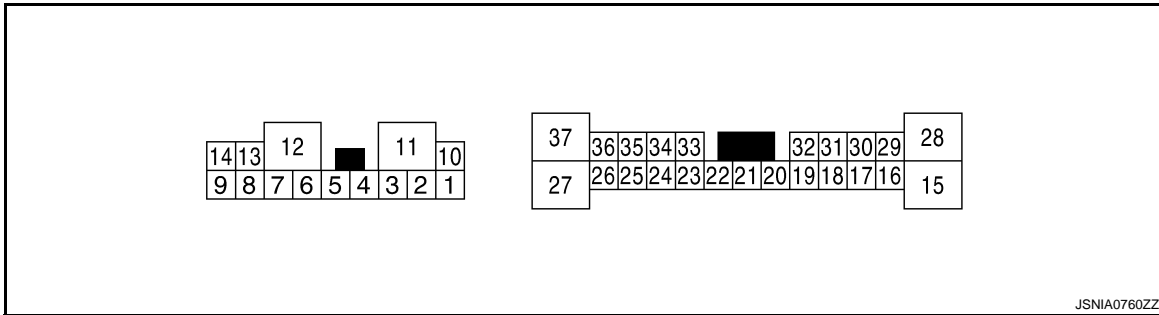
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BOSE AMP.

Reference Value

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TERMINAL LAYOUT



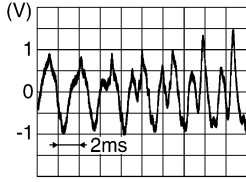
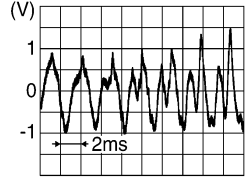
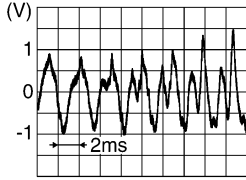
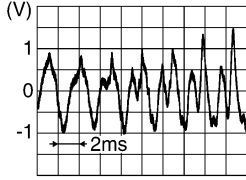
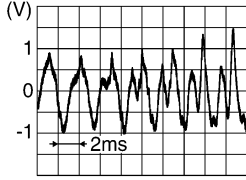
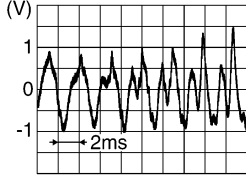
PHYSICAL VALUES

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/ Output			
1 (L)	10 (P)	Sound signal rear speaker LH	Output	Ignition switch ON	Voice output	<p>SKIB3609E</p>
2 (LG)	3 (Y)	Sound signal rear speaker RH	Output	Ignition switch ON	Voice output	<p>SKIB3609E</p>
4 (L)	5 (V)	Sound signal front door speaker LH	Output	Ignition switch ON	Voice output	<p>SKIB3609E</p>
6 (LG)	7 (GR)	Sound signal tweeter LH	Output	Ignition switch ON	Voice output	<p>SKIB3609E</p>

BOSE AMP.

< ECU DIAGNOSIS >

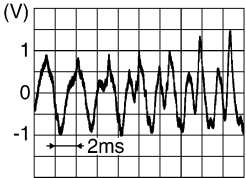
[BOSE AUDIO WITH NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/ Output			
8 (O)	13 (G)	Sound signal front door speaker RH	Output	Ignition switch ON	Voice output	 SKIB3609E
9 (SB)	14 (V)	Sound signal woofer	Output	Ignition switch ON	Voice output	 SKIB3609E
11 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
18 (P)	32 (L)	Sound signal front LH	Input	Ignition switch ON	Voice output	 SKIB3609E
19 (R)	20 (G)	Sound signal front RH	Input	Ignition switch ON	Voice output	 SKIB3609E
21 (V)	22 (SB)	Sound signal rear LH	Input	Ignition switch ON	Voice output	 SKIB3609E
23 (BR)	33 (Y)	Sound signal rear RH	Input	Ignition switch ON	Voice output	 SKIB3609E
25 (GR)	Ground	Woofer amp. ON signal	Output	Ignition switch ACC	—	12.0 V

BOSE AMP.

< ECU DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	−	Signal name	Input/ Output			
31 (W)	Ground	BOSE amp. ON signal	Input	Ignition switch ACC	—	12.0 V
27 (W)	37 (B)	Sound signal tweeter RH	Output	Ignition switch ON	Voice output	

Wiring Diagram - BOSE AUDIO WITH NAVIGATION SYSTEM -

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NOTE:

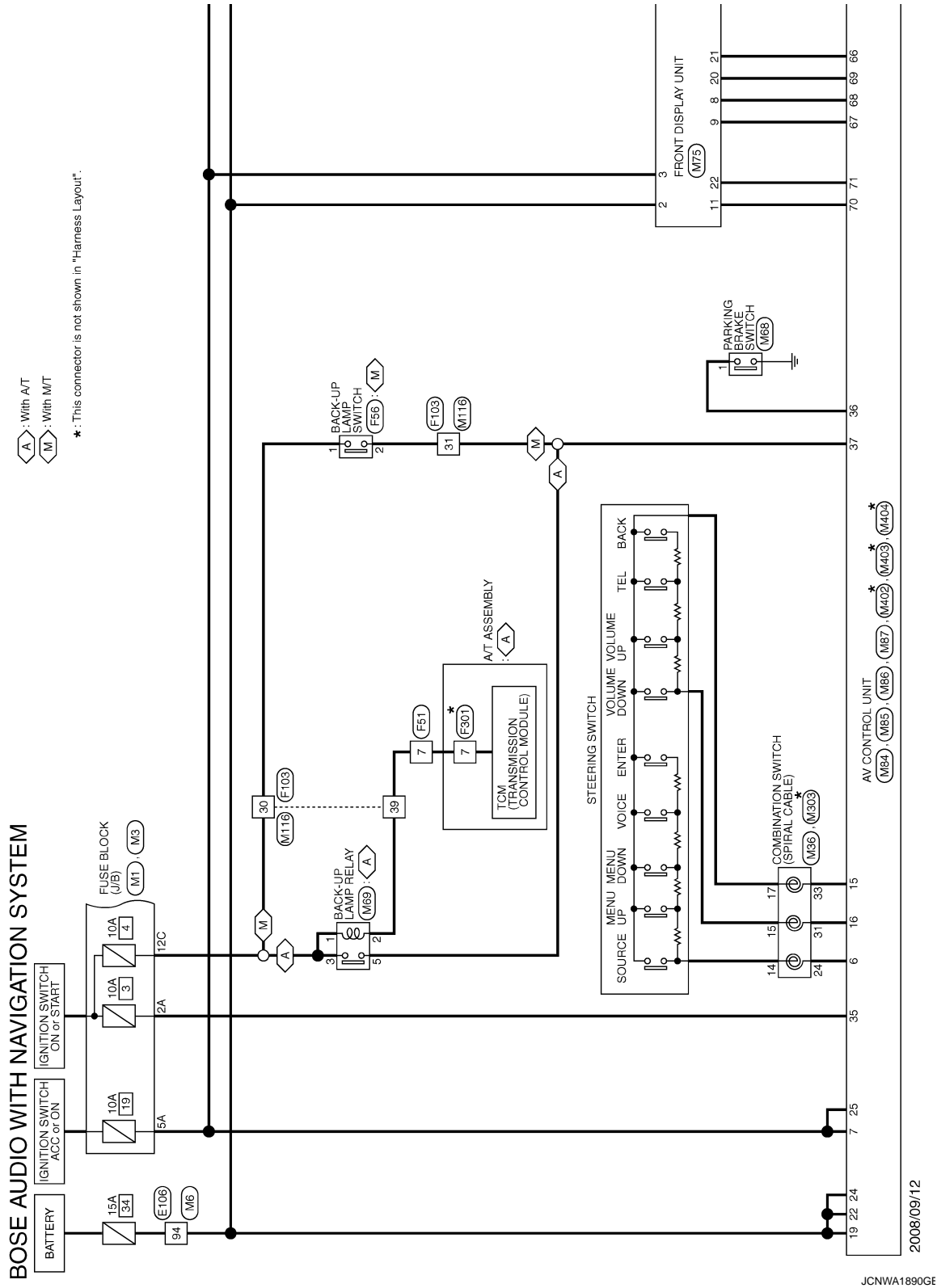
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BOSE AMP.

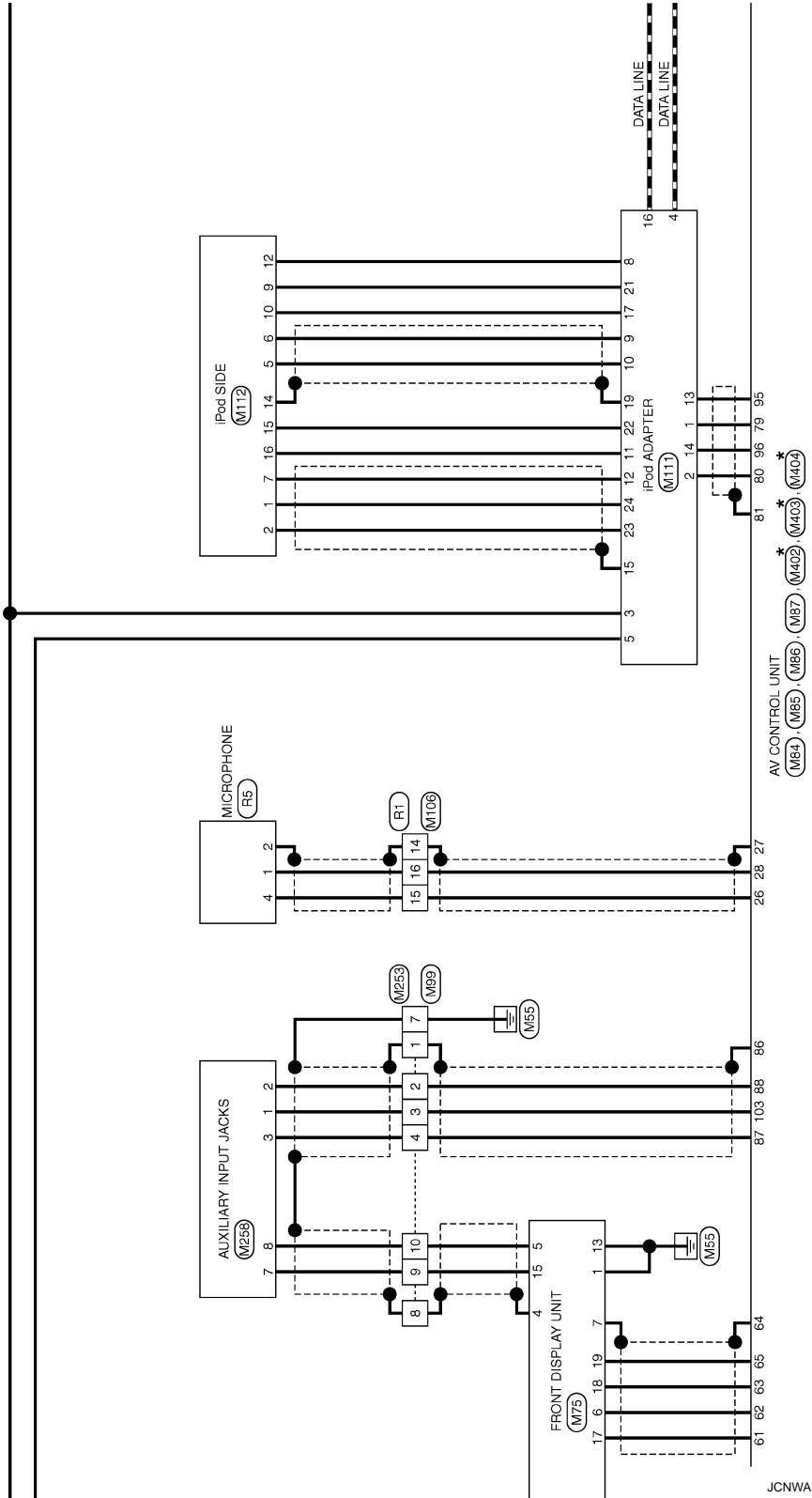
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[BOSE AUDIO WITH NAVIGATION]

In this section, PRESET SWITCH and MULTIFUNCTION SWITCH are written as the MULTIFUNCTION SWITCH.



★: This connector is not shown in "Harness Layout".



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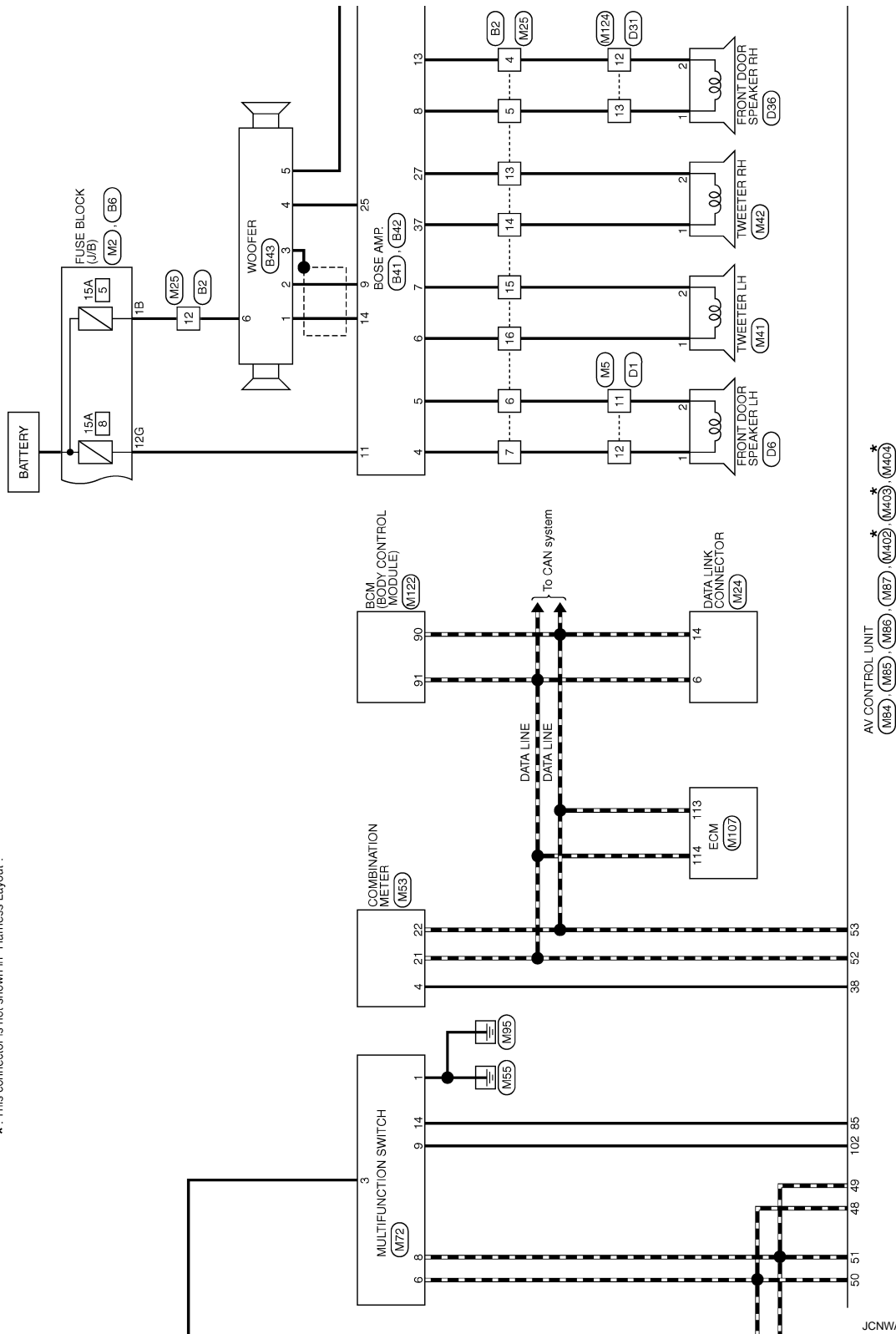
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BOSE AMP.

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[BOSE AUDIO WITH NAVIGATION]

★: This connector is not shown in "Harness Layout".



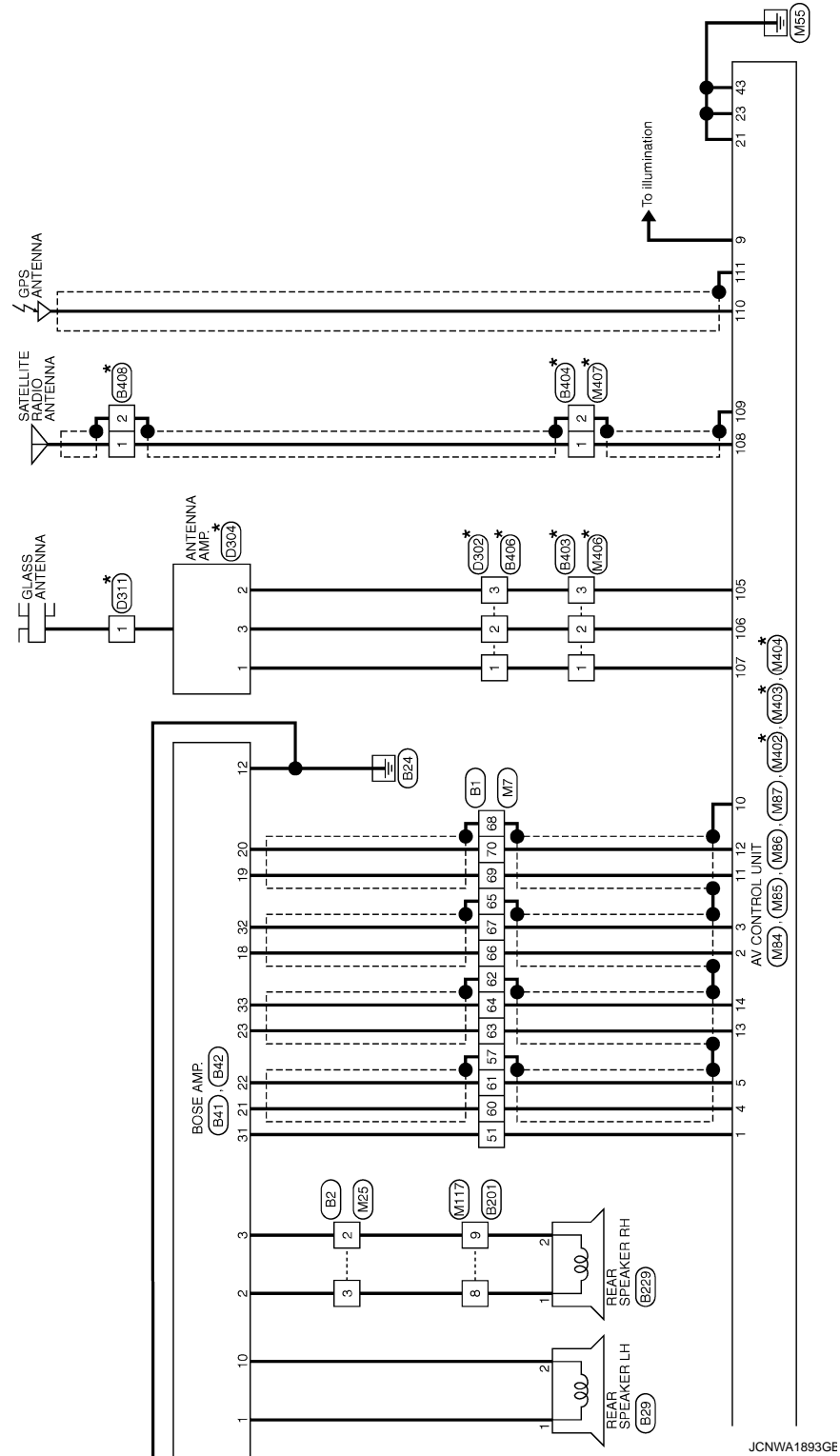
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BOSE AMP.

< ECU DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

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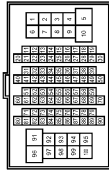
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BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH00FW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
51	W	-
57	SHIELD	-
60	V	-
61	SB	-
62	SHIELD	-
63	BR	-
64	Y	-
65	SHIELD	-
66	P	-
67	L	-
68	SHIELD	-

Connector No.	B20
Connector Name	REAR SPEAKER LH
Connector Type	TK02FBR



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	-

69	R	-
70	G	-

Connector No.	B2
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
2	Y	-
3	LG	-
4	G	-
5	O	-
6	V	-
7	L	-
12	Y	-
13	W	-
14	B	-
15	GR	-
16	LG	-

37	B	SOUND SIGNAL TWEETER RH (-)
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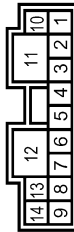
Connector No.	B6
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS16FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
12G	Y	-

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B42
Connector Name	BOSE AMP.
Connector Type	SGA12FBR-SJA2



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	SOUND SIGNAL REAR SPEAKER LH (+)
2	LG	SOUND SIGNAL REAR SPEAKER RH (+)
3	Y	SOUND SIGNAL REAR SPEAKER LH (-)
4	L	SOUND SIGNAL REAR SPEAKER RH (-)
5	V	SOUND SIGNAL FRONT SPEAKER LH (+)
6	LG	SOUND SIGNAL FRONT SPEAKER RH (+)
7	GR	SOUND SIGNAL TWEETER LH (-)
8	O	SOUND SIGNAL TWEETER RH (-)
9	SB	SOUND SIGNAL FRONT DOOR RH (+)
10	P	SOUND SIGNAL FRONT DOOR LH (+)
11	Y	BATTERY

Connector No.	B229
Connector Name	REAR SPEAKER RH
Connector Type	TK02FBR



Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	REAR SPEAKER RH
2	Y	BATTERY

12	B	GND
13	G	SOUND SIGNAL FRONT DOOR RH (-)
14	V	SOUND SIGNAL WOOFER (-)



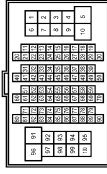
Terminal No.	Color of Wire	Signal Name [Specification]
1	V	SOUND SIGNAL WOOVER (-)
2	SB	SOUND SIGNAL WOOVER (+)
3	SHIELD	SHIELD
4	GR	WOOVER AMP. ON SIGNAL
5	B	GND
6	Y	BATTERY

Connector No.	B404
Connector Name	WIRE TO WIRE
Connector Type	GT16C-IPP-HU(A)



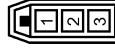
Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-

Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	TH80FY-CS/6-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
8	LG	-
9	Y	-

Connector No.	B405
Connector Name	WIRE TO WIRE
Connector Type	GT13SCN-2/IPP-HU(21)



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-
3	-	-

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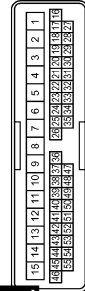
BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B408
Connector Name	SATELLITE RADIO ANTENNA
Connector Type	GT16C-IPP-HU(B)



Terminal No.	Color of Wire	Signal Name [Specification]
1	—	—
2	—	—

Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



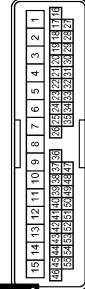
Terminal No.	Color of Wire	Signal Name [Specification]
11	P	— [With BOSE system]
12	L	—

Connector No.	D6
Connector Name	FRONT DOOR SPEAKER LH
Connector Type	NS30FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	—
2	P	— [With BOSE system]

Connector No.	D31
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



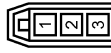
Terminal No.	Color of Wire	Signal Name [Specification]
12	P	— [With BOSE system]
13	L	— [With BOSE system]

Connector No.	D36
Connector Name	FRONT DOOR SPEAKER RH
Connector Type	NS30FW-CS



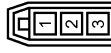
Terminal No.	Color of Wire	Signal Name [Specification]
1	L	— [With BOSE system]
2	P	— [With BOSE system]

Connector No.	D302
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1S-HU(21)



Terminal No.	Color of Wire	Signal Name [Specification]
1	—	—
2	—	—
3	—	—

Connector No.	D304
Connector Name	ANTENNA AMP.
Connector Type	GT13SC-2/1S-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	—	ANTENNA AMP. ON SIGNAL
2	—	FM SUB
3	—	AM-FM MAIN

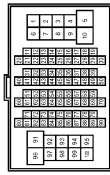
Connector No.	D311
Connector Name	GLASS ANTENNA
Connector Type	FO1FB-A



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	—

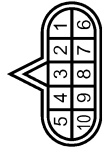
BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH06FW-CS16-TM4



Terminal No.	94
Color of Wire	Y
Signal Name [Specification]	—

Connector No.	F51
Connector Name	A/T ASSEMBLY
Connector Type	RK10FG-DGY



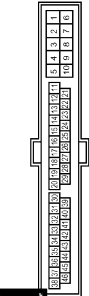
Terminal No.	7
Color of Wire	W
Signal Name [Specification]	—

Connector No.	F56
Connector Name	BACK-UP LAMP SWITCH
Connector Type	RK02FB



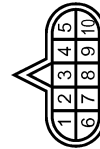
Terminal No.	1
Color of Wire	R
Signal Name [Specification]	—
Terminal No.	2
Color of Wire	O
Signal Name [Specification]	—

Connector No.	F103
Connector Name	WIRE TO WIRE
Connector Type	TK38FW-NS10



Terminal No.	30
Color of Wire	R
Signal Name [Specification]	—
Terminal No.	31
Color of Wire	O
Signal Name [Specification]	—
Terminal No.	39
Color of Wire	W
Signal Name [Specification]	—

Connector No.	F301
Connector Name	TOM (TRANSMISSION CONTROL MODULE)
Connector Type	SP10FG



Terminal No.	7
Color of Wire	L
Signal Name [Specification]	REV LAMP RLY

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS06FW-M2



Terminal No.	2A
Color of Wire	G
Signal Name [Specification]	—
Terminal No.	5A
Color of Wire	L
Signal Name [Specification]	—

Connector No.	M2
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS10FW-CS



Terminal No.	1B
Color of Wire	Y
Signal Name [Specification]	—

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FW-CS



Terminal No.	12C
Color of Wire	O
Signal Name [Specification]	—

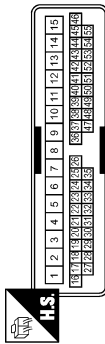
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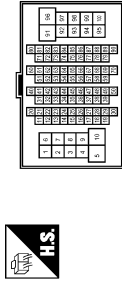
BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M5
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS15



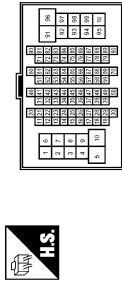
Terminal No.	Color of Wire	Signal Name [Specification]
11	V	-
12	L	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
94	Y	-

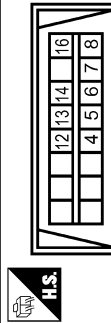
Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
51	V	-
57	SHIELD	-
60	L	-
61	R	-
62	SHIELD	-
63	R	-
64	G	-
65	SHIELD	-
66	LG	-
67	V	-
68	SHIELD	-

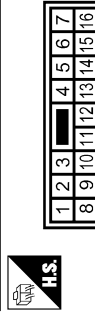
69	L	-
70	P	-

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



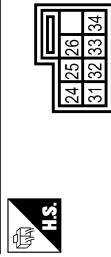
Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
14	P	-

Connector No.	M25
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
2	Y	-
3	LG	-
4	LG	-
5	V	-
6	V	-
7	L	-
12	Y	-
13	W	-
14	L	-
15	W	-
16	L	-

Connector No.	M36
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY-1V



Terminal No.	Color of Wire	Signal Name [Specification]
24	P	-
31	L	-
33	B	-

Connector No.	M41
Connector Name	TWEETER LH
Connector Type	TK02FBR



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

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BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M42
Connector Name	TWEETER RH
Connector Type	TK02BR



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

Connector No.	M53
Connector Name	COMBINATION METER
Connector Type	TH24FW-NH



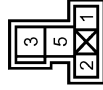
Terminal No.	Color of Wire	Signal Name [Specification]
4	Y	VEHICLE SPEED SIGNAL (8-PULSE)
21	L	CAN-H
22	P	CAN-L

Connector No.	M68
Connector Name	PARKING BRAKE SWITCH
Connector Type	FO1FB-A



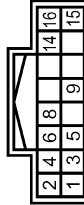
Terminal No.	Color of Wire	Signal Name [Specification]
1	O	-

Connector No.	M69
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS02LE-M2-LC



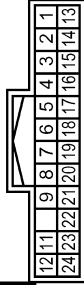
Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	G	-
3	R	-
5	O	-

Connector No.	M72
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH16FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
3	L	ACC
6	LG	AV COMM (H)
8	V	AV COMM (L)
9	BR	SW GND
14	SB	EJECT SIGNAL

Connector No.	M75
Connector Name	FRONT DISPLAY UNIT
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	Y	BATTERY
3	L	ACC
4	SHIELD	SHIELD
5	V	AUX IMAGE GND
6	W	RGB (G.GREEN) SIGNAL
7	SHIELD	SHIELD (RGB GND)
8	G	HP
9	L	RGB AREA (VS) SIGNAL
11	R	COMM (CONT->DISP)
13	B	GND

15	LG	AUX IMAGE SIGNAL
17	B	RGB (RED) SIGNAL
18	R	RGB (BLUE) SIGNAL
19	G	RGB SYNC
20	Y	VP
21	B	RGB SYNC GND
22	G	COMM (DISP->CONT)

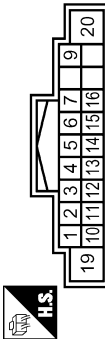
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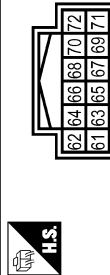
BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M84
Connector Name	AV CONTROL UNIT
Connector Type	TH18FW-CS2



Terminal No.	Color of Wire	Signal Name [Specification]
1	V	BOSE AMP- ON SIGNAL
2	LG	SOUND SIGNAL FRONT LH (+)
3	V	SOUND SIGNAL FRONT LH (-)
4	L	SOUND SIGNAL REAR LH (+)
5	R	SOUND SIGNAL REAR LH (-)
6	P	STRG SW A
7	L	ACC
9	R	ILLUMINATION
10	SHIELD	SHIELD
11	L	SOUND SIGNAL FRONT RH (+)
12	P	SOUND SIGNAL FRONT RH (-)

Connector No.	M88
Connector Name	AV CONTROL UNIT
Connector Type	TH12FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
61	B	RGB (R/RED) SIGNAL
62	W	RGB (G/GREEN) SIGNAL
63	R	RGB (B/BLUE) SIGNAL
64	SHIELD	SHIELD (RGB GND)
65	G	RGB SYNC
66	B	RGB SYNC GND
67	L	RGB AREA (YS) SIGNAL
68	G	HP
69	Y	VP
70	R	COMM (CONT->DISP)
71	G	COMM (DISP->CONT)

13	R	SOUND SIGNAL REAR RH (+)
14	G	SOUND SIGNAL REAR RH (-)
15	B	STRG SW GND
16	L	STRG SW B
19	Y	BATTERY



Terminal No.	Color of Wire	Signal Name [Specification]
21	B	GND
22	Y	BATTERY
23	B	GND
24	Y	BATTERY
25	L	ACC
26	R	MICROPHONE YCC
27	SHIELD	MICROPHONE GND
28	G	MICROPHONE SIGNAL
35	G	IGNITION
36	O	PARKING BRAKE
37	O	REVERSE

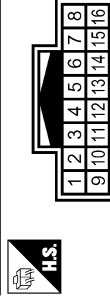
Connector No.	M89
Connector Name	WIRE TO WIRE
Connector Type	TH12MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	SHIELD	-
2	L	-
3	G	-
4	Y	-
7	B	-
8	SHIELD	-
9	LG	-
10	V	-

38	Y	VEHICLE SPEED (8-PULSE)
43	B	GND
48	L	AV COMM (H)
49	P	AV COMM (L)
50	LG	AV COMM (H)
51	Y	AV COMM (L)
52	L	CAN-H
53	P	CAN-L

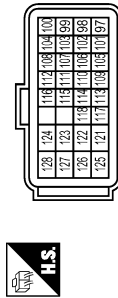
Connector No.	M106
Connector Name	WIRE TO WIRE
Connector Type	TH10MP-NH



Terminal No.	Color of Wire	Signal Name [Specification]
14	SHIELD	-
15	R	-
16	G	-

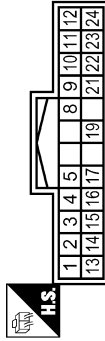
BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M107
Connector Name	ECM
Connector Type	RH24GY-R26-R-LH-Z



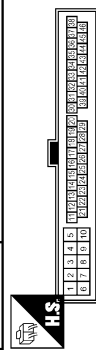
Terminal No.	Color of Wire	Signal Name [Specification]
113	P	VEH CAN-L1
114	L	VEH CAN-H1

Connector No.	M111
Connector Name	IPod ADAPTER
Connector Type	TH24FW-NH



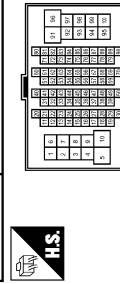
Terminal No.	Color of Wire	Signal Name [Specification]
1	R	IPod SOUND SIGNAL LH (-)
2	B	IPod SOUND SIGNAL RH (-)
3	V	ACC
4	R	AV COMM (L)
5	Y	BATTERY
8	W	CHARGE POWER
9	LG	COMM (IPod ADAPTER->IPod)
10	V	COMM (IPod->IPod ADAPTER)
11	L	ACCESSORY IDENTIFY
12	G	IPod SOUND SIGNAL RH (+)
13	G	IPod SOUND SIGNAL LH (+)

Connector No.	M116
Connector Name	WIRE TO WIRE
Connector Type	TK68MW-NS10



Terminal No.	Color of Wire	Signal Name [Specification]
30	R	-
31	O	-
39	G	-

Connector No.	M117
Connector Name	WIRE TO WIRE
Connector Type	TH68MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
8	LG	-
9	Y	-

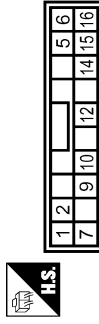
Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH



Terminal No.	Color of Wire	Signal Name [Specification]
90	P	CAN-L
91	L	CAN-H

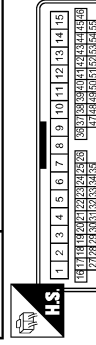
14	W	IPod SOUND SIGNAL RH (-)
15	SHIELD	SHIELD
16	G	AV COMM (H)
17	B	GND
19	SHIELD	SHIELD
21	SB	IPod CONNECTION RECOGNITION
22	W	ACCESSORY DETECT
23	Y	IPod SOUND SIGNAL GND
24	L	IPod SOUND SIGNAL LH (+)

Connector No.	M112
Connector Name	IPod SIDE
Connector Type	IP16FGY



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	IPod SOUND SIGNAL LH (+)
2	Y	IPod SOUND SIGNAL GND
5	V	COMM (IPod->IPod ADAPTER)
6	LG	COMM (IPod ADAPTER->IPod)
7	G	IPod SOUND SIGNAL RH (+)
9	SB	IPod CONNECTION RECOGNITION
10	B	GND
12	W	CHARGE POWER
14	SHIELD	SHIELD
15	W	ACCESSORY DETECT
16	L	ACCESSORY IDENTIFY

Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15

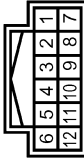


Terminal No.	Color of Wire	Signal Name [Specification]
12	LG	-
13	V	-

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BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M253
Connector Name	WIRE TO WIRE
Connector Type	TH12FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	SHIELD	-
2	B	-
3	R	-
4	W	-
7	SHIELD	-
8	SHIELD	-
9	G	-
10	R	-

Connector No.	M258
Connector Name	AUXILIARY INPUT JACKS
Connector Type	AUBFW



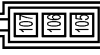
Terminal No.	Color of Wire	Signal Name [Specification]
1	R	AUX SOUND SIGNAL RH (+)
2	B	AUX SOUND SIGNAL GND
3	W	AUX SOUND SIGNAL LH (+)
7	G	AUX IMAGE SIGNAL
8	R	AUX IMAGE GND

Connector No.	M303
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY



Terminal No.	Color of Wire	Signal Name [Specification]
14	W	-
15	L	-
17	BR	-

Connector No.	M402
Connector Name	AV CONTROL UNIT
Connector Type	GT13SH-2/IS-HU



Terminal No.	Color of Wire	Signal Name [Specification]
105	-	FM SUB
106	-	AM-FM MAIN
107	-	ANTENNA AMP. ON SIGNAL

Connector No.	M403
Connector Name	AV CONTROL UNIT
Connector Type	FAKRA JACK



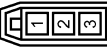
Terminal No.	Color of Wire	Signal Name [Specification]
108	-	SATELLITE ANTENNA SIGNAL
109	SHIELD	SHIELD

Connector No.	M404
Connector Name	AV CONTROL UNIT
Connector Type	GT5-IS-HU



Terminal No.	Color of Wire	Signal Name [Specification]
110	-	GPS ANTENNA SIGNAL
111	SHIELD	SHIELD

Connector No.	M406
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/IS-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-
3	-	-

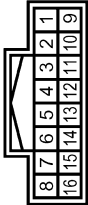

Connector No.	M407
Connector Name	WIRE TO WIRE
Connector Type	GT16C-IS-HU(A)





Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	RI	RB
Connector Name	WIRE TO WIRE	MICROPHONE
Connector Type	TH16FW-NH	TK6DFW



Terminal No.	Color of Wire	Signal Name [Specification]
14	SHIELD	-
15	L	-
16	P	-



Terminal No.	Color of Wire	Signal Name [Specification]
1	P	MICROPHONE SIGNAL
2	SHIELD	SHIELD
4	L	MICROPHONE VCC

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WOOFER

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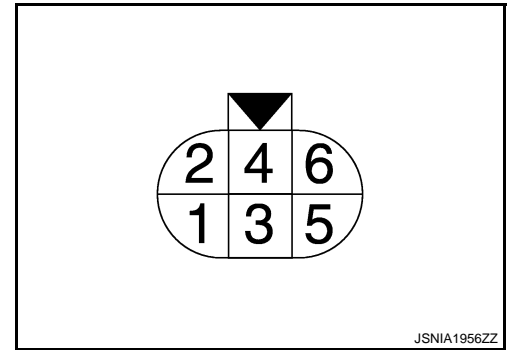
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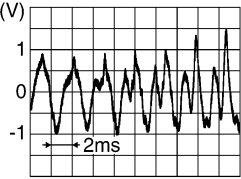
Reference Value

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TERMINAL LAYOUT



PHYSICAL VALUES

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
2 (SB)	1 (V)	Sound signal woofer	Output	Ignition switch ON	Voice output	 (V) SKIB3609E
3	—	Shield	—	—	—	—
4 (GR)	Ground	Woofer amp. ON signal	Input	Ignition switch ON	Voice output	12.0 V
5 (B)	Ground	Ground	—	Ignition switch ON	—	0 V
6 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage

Wiring Diagram - BOSE AUDIO WITH NAVIGATION SYSTEM -

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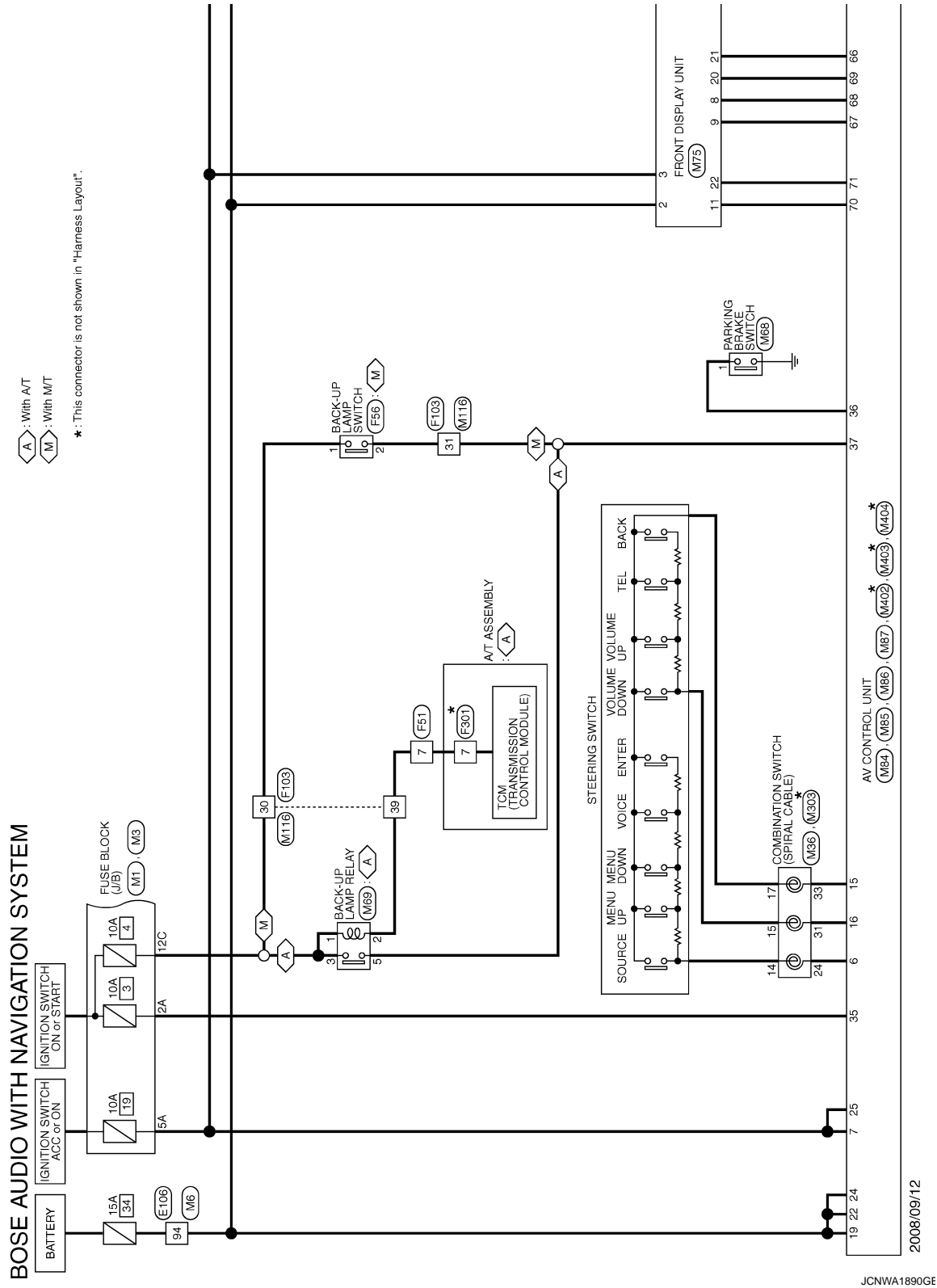
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[BOSE AUDIO WITH NAVIGATION]

In this section, PRESET SWITCH and MULTIFUNCTION SWITCH are written as the MULTIFUNCTION SWITCH.



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AV

The diagram illustrates the internal wiring of the iPod adapter board. It shows the following components and their connections:

- iPod SIDE (M112)**: A 24-pin connector on the left. Pins 1-12 are connected to the iPod adapter. Pins 13-24 are connected to the iPod adapter. Pins 1-12 are also connected to the iPod adapter.
- iPod ADAPTER (M113)**: A 24-pin connector on the right. Pins 1-12 are connected to the iPod side. Pins 13-24 are connected to the iPod side. Pins 1-12 are also connected to the iPod side.
- MICROPHONE (R5)**: A 4-pin connector. Pins 1-4 are connected to the iPod adapter. Pins 1-4 are also connected to the iPod adapter.
- AUXILIARY INPUT JACKS (M253)**: A 10-pin connector. Pins 1-10 are connected to the iPod adapter. Pins 1-10 are also connected to the iPod adapter.
- FRONT DISPLAY UNIT (M75)**: A 13-pin connector. Pins 1-13 are connected to the iPod adapter. Pins 1-13 are also connected to the iPod adapter.
- AV CONTROL UNIT**: A 95-pin connector. Pins 1-95 are connected to the iPod adapter. Pins 1-95 are also connected to the iPod adapter.

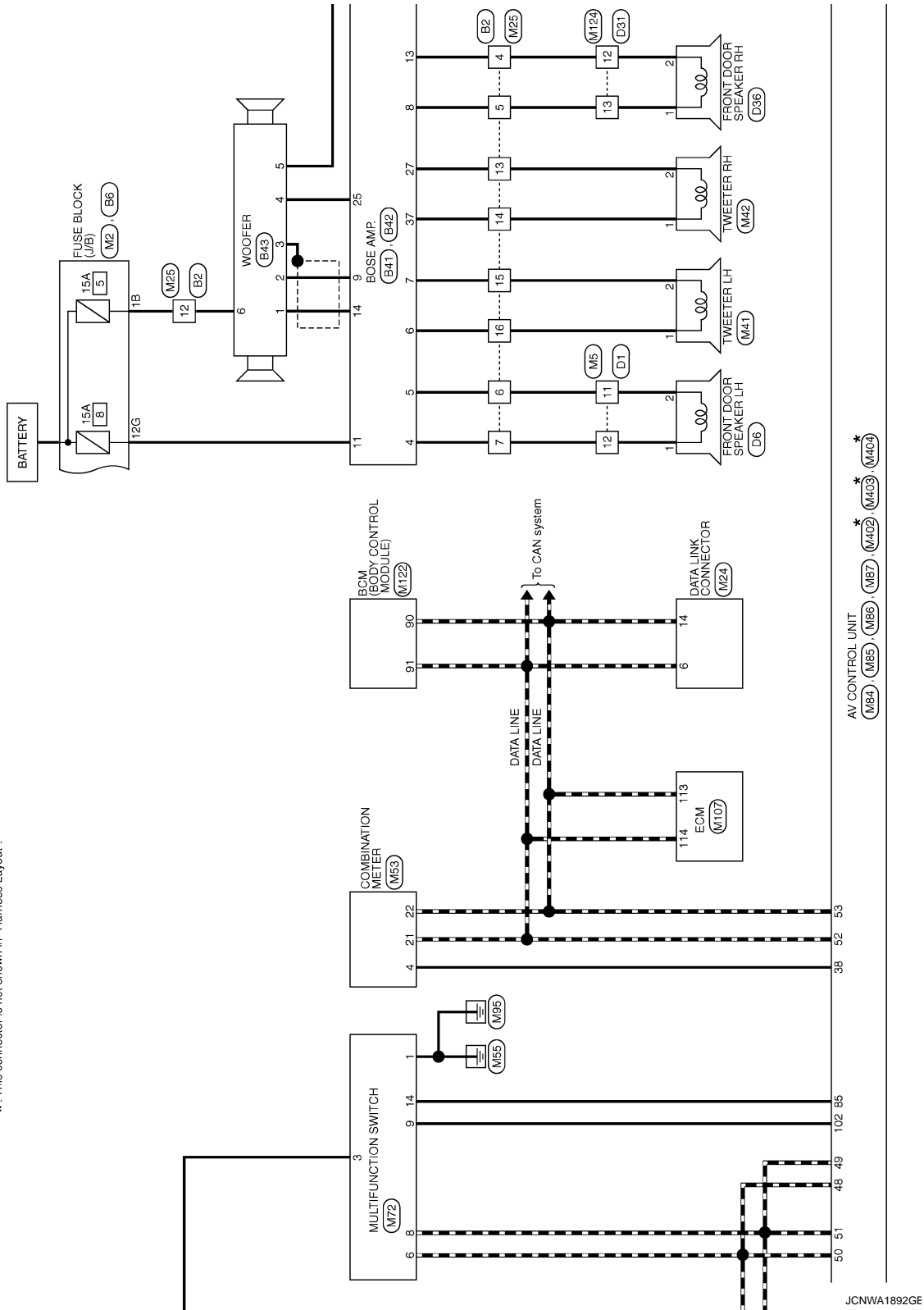
The diagram includes various component labels and pin numbers, indicating the specific connections and components involved in the adapter's operation.

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[BOSE AUDIO WITH NAVIGATION]

★: This connector is not shown in "Harness Layout".



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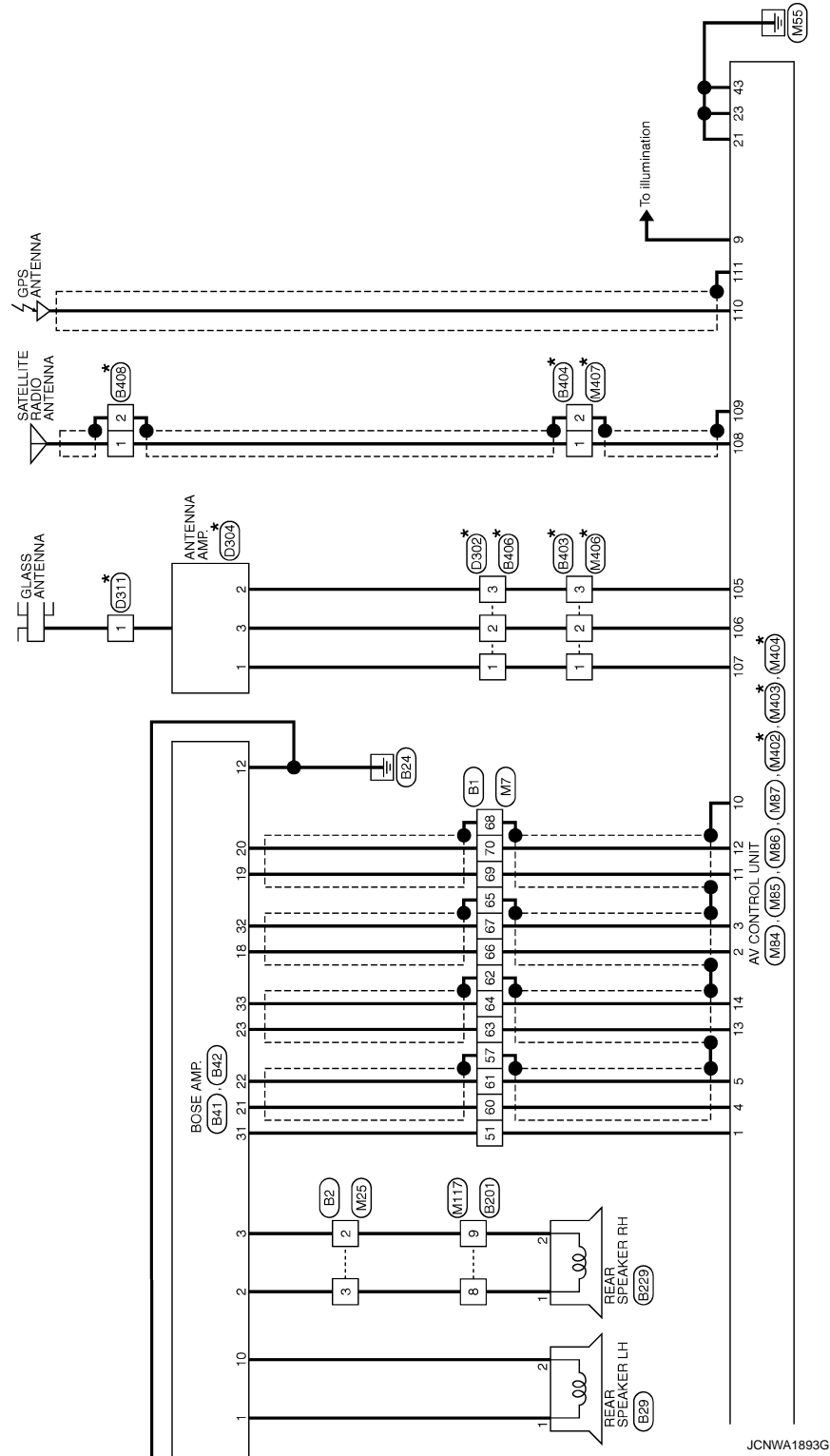
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[BOSE AUDIO WITH NAVIGATION]

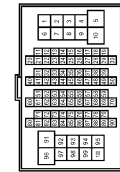
★: This connector is not shown in "Harness Layout".



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BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH00FW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
51	W	-
57	SHIELD	-
60	V	-
61	SB	-
62	SHIELD	-
63	BR	-
64	Y	-
65	SHIELD	-
66	P	-
67	L	-
68	SHIELD	-

69	R	-
70	G	-

Connector No.	B2
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



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

Terminal No.	Color of Wire	Signal Name [Specification]
2	Y	-
3	LG	-
4	G	-
5	O	-
6	V	-
7	L	-
12	Y	-
13	W	-
14	B	-
15	GR	-
16	LG	-

Connector No.	B6
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS16FBR-CS



5G4G	3G2G1G
12G11G	10G9G8G7G6G

Terminal No.	Color of Wire	Signal Name [Specification]
12G	Y	-

Connector No.	B41
Connector Name	BOSE AMP.
Connector Type	SCA19FBR-SGA4



37	33	32	31	28
27	25	23	22	21
20	19	18	15	

37	B	SOUND SIGNAL TWEETER RH (+)
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Connector No.	B20
Connector Name	REAR SPEAKER LH
Connector Type	TK02FBR



2	1
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Terminal No.	Color of Wire	Signal Name [Specification]
18	P	SOUND SIGNAL FRONT LH (+)
19	R	SOUND SIGNAL FRONT RH (+)
20	G	SOUND SIGNAL FRONT LH (-)
21	V	SOUND SIGNAL REAR LH (+)
22	SB	SOUND SIGNAL REAR LH (-)
23	BR	SOUND SIGNAL REAR RH (+)
25	GR	WOOFER AMP. ON SIGNAL
27	W	SOUND SIGNAL TWEETER RH (+)
31	W	BOSE AMP. ON SIGNAL
32	L	SOUND SIGNAL FRONT LH (-)
33	Y	SOUND SIGNAL REAR RH (-)

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	-

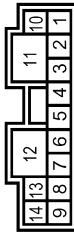
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BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B42
Connector Name	BOSE AMP.
Connector Type	SGM2FBR-SJ42



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	SOUND SIGNAL REAR SPEAKER LH (+)
2	LG	SOUND SIGNAL REAR SPEAKER RH (+)
3	Y	SOUND SIGNAL REAR SPEAKER RH (-)
4	L	SOUND SIGNAL FRONT SPEAKER LH (+)
5	V	SOUND SIGNAL FRONT SPEAKER LH (-)
6	LG	SOUND SIGNAL TWEETER LH (+)
7	GR	SOUND SIGNAL TWEETER LH (-)
8	O	SOUND SIGNAL FRONT DOOR RH (+)
9	SB	SOUND SIGNAL WOOFER (+)
10	P	SOUND SIGNAL REAR SPEAKER LH (-)
11	Y	BATTERY

Connector No.	B229
Connector Name	REAR SPEAKER RH
Connector Type	TK02FBR



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

12	B	GND
13	G	SOUND SIGNAL FRONT DOOR RH (-)
14	V	SOUND SIGNAL WOOFER (-)



Terminal No.	Color of Wire	Signal Name [Specification]
1	V	SOUND SIGNAL WOOFER (-)
2	SB	SOUND SIGNAL WOOFER (+)
3	SHIELD	SHIELD
4	GR	WOOFER AMP. ON SIGNAL
5	B	GND
6	Y	BATTERY

Connector No.	B404
Connector Name	WIRE TO WIRE
Connector Type	GT16C-IPP-HU(A)



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-

Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	TH60FY-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
8	LG	-
9	Y	-

Connector No.	B406
Connector Name	WIRE TO WIRE
Connector Type	GT13SCN-2/IPP-HU(21)



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-
3	-	-

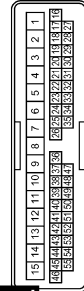
BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B408
Connector Name	SATELLITE RADIO ANTENNA
Connector Type	GT16C-IPP-HU(B)



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-

Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



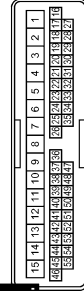
Terminal No.	Color of Wire	Signal Name [Specification]
11	P	- [With BOSE system]
12	L	-

Connector No.	D6
Connector Name	FRONT DOOR SPEAKER LH
Connector Type	NS02FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	- [With BOSE system]

Connector No.	D31
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
12	P	- [With BOSE system]
13	L	- [With BOSE system]

Connector No.	D36
Connector Name	FRONT DOOR SPEAKER RH
Connector Type	NS02FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	- [With BOSE system]
2	P	- [With BOSE system]

Connector No.	D302
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/IS-HU(21)



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-
3	-	-

Connector No.	D304
Connector Name	ANTENNA AMP.
Connector Type	GT13SC-2/IS-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	ANTENNA AMP. ON SIGNAL
2	-	FM SUB
3	-	AM-FM MAIN

Connector No.	D311
Connector Name	GLASS ANTENNA
Connector Type	P01FB-A



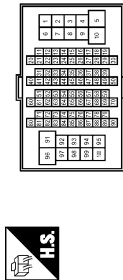
Terminal No.	Color of Wire	Signal Name [Specification]
1	B	-

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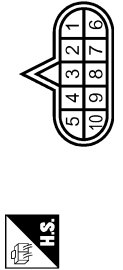
BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH8DFW-CS16-TM4



Terminal No.	94
Color of Wire	Y
Signal Name [Specification]	—

Connector No.	F51
Connector Name	A/T ASSEMBLY
Connector Type	RK10FG-DG1



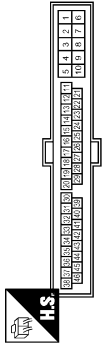
Terminal No.	7
Color of Wire	W
Signal Name [Specification]	—

Connector No.	F56
Connector Name	BACK-UP LAMP SWITCH
Connector Type	RK02FB



Terminal No.	1
Color of Wire	R
Signal Name [Specification]	—
Terminal No.	2
Color of Wire	O
Signal Name [Specification]	—

Connector No.	F103
Connector Name	WIRE TO WIRE
Connector Type	TK38FW-NS10



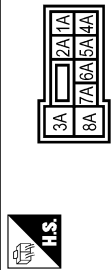
Terminal No.	30
Color of Wire	R
Signal Name [Specification]	—
Terminal No.	31
Color of Wire	O
Signal Name [Specification]	—
Terminal No.	39
Color of Wire	W
Signal Name [Specification]	—

Connector No.	F301
Connector Name	TOM (TRANSMISSION CONTROL MODULE)
Connector Type	SP10FG



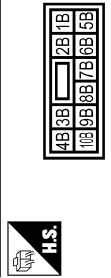
Terminal No.	7
Color of Wire	L
Signal Name [Specification]	REV LAMP RLY

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS06FW-M2



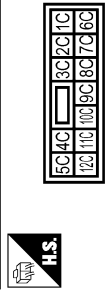
Terminal No.	2A
Color of Wire	G
Signal Name [Specification]	—
Terminal No.	5A
Color of Wire	L
Signal Name [Specification]	—

Connector No.	M2
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS10FW-CS



Terminal No.	1B
Color of Wire	Y
Signal Name [Specification]	—

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FW-CS

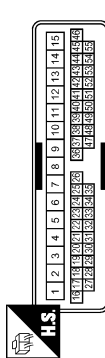


Terminal No.	12C
Color of Wire	O
Signal Name [Specification]	—

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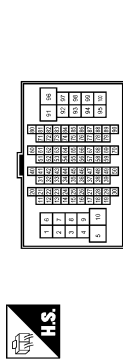
BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M5
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



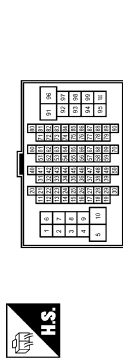
Terminal No.	Color of Wire	Signal Name [Specification]
11	V	-
12	L	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH60MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
94	Y	-

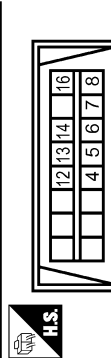
Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Type	TH60MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
51	V	-
57	SHIELD	-
60	L	-
61	R	-
62	SHIELD	-
63	R	-
64	G	-
65	SHIELD	-
66	LG	-
67	V	-
68	SHIELD	-

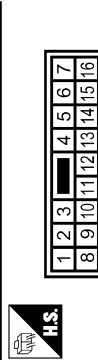
69	L	-
70	P	-

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



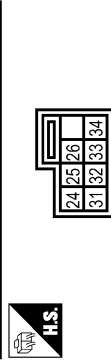
Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
14	P	-

Connector No.	M25
Connector Name	WIRE TO WIRE
Connector Type	NS18MW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
2	Y	-
3	LG	-
4	LG	-
5	V	-
6	V	-
7	L	-
12	Y	-
13	W	-
14	W	-
15	W	-
16	L	-

Connector No.	M36
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TR08FGY-1V



Terminal No.	Color of Wire	Signal Name [Specification]
24	P	-
31	L	-
33	B	-

Connector No.	M41
Connector Name	TWEETER LH
Connector Type	TR02FBR



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

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AV
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P

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M42
Connector Name	TWEETER RH
Connector Type	TK02BR



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	—
2	W	—

Connector No.	M53
Connector Name	COMBINATION METER
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
4	Y	VEHICLE SPEED SIGNAL (8-PULSE)
21	L	CAN-H
22	P	CAN-L

Connector No.	M68
Connector Name	PARKING BRAKE SWITCH
Connector Type	PO1FB-A



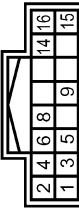
Terminal No.	Color of Wire	Signal Name [Specification]
1	O	—

Connector No.	M69
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS2EL-M2-LC



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	—
2	G	—
3	R	—
5	O	—

Connector No.	M72
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH18FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
3	L	ACC
6	LG	AV COMM (H)
8	V	AV COMM (L)
9	BR	SW GND
14	SB	EJECT SIGNAL

Connector No.	M75
Connector Name	FRONT DISPLAY UNIT
Connector Type	TH24FW-NH



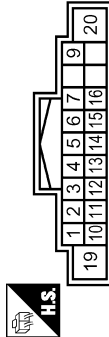
Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	Y	BATTERY
3	L	ACC
4	SHIELD	SHIELD
5	V	AUX IMAGE GND
6	W	RGB (G.GREEN) SIGNAL
7	SHIELD	SHIELD (RGB GND)
8	G	HP
9	L	RGB AREA (VS) SIGNAL
11	R	COMM (CONT->DISP)
13	B	GND

15	LG	AUX IMAGE SIGNAL
17	B	RGB (RED) SIGNAL
18	R	RGB (BLUE) SIGNAL
19	G	RGB SYNC
20	Y	VP
21	B	RGB SYNC GND
22	G	COMM (DISP->CONT)

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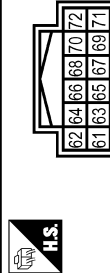
BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M84
Connector Name	AV CONTROL UNIT
Connector Type	TH18FW-GS2



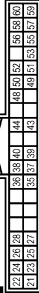
Terminal No.	Color of Wire	Signal Name [Specification]
1	V	BOSE AMP-ON SIGNAL
2	LG	SOUND SIGNAL FRONT LH (+)
3	V	SOUND SIGNAL FRONT LH (-)
4	L	SOUND SIGNAL REAR LH (+)
5	R	SOUND SIGNAL REAR LH (-)
6	P	STRG SW A
7	L	ACC
9	R	ILLUMINATION
10	SHIELD	SHIELD
11	L	SOUND SIGNAL FRONT RH (+)
12	P	SOUND SIGNAL FRONT RH (-)

Connector No.	M88
Connector Name	AV CONTROL UNIT
Connector Type	TH12FW-NH



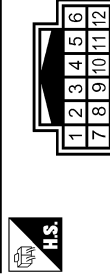
Terminal No.	Color of Wire	Signal Name [Specification]
61	B	RGB (R/RED) SIGNAL
62	W	RGB (G/GREEN) SIGNAL
63	R	RGB (B/BLUE) SIGNAL
64	SHIELD	SHIELD (RGB GND)
65	G	RGB SYNC
66	B	RGB SYNC GND
67	L	RGB AREA (YS) SIGNAL
68	G	HP
69	Y	HP
70	R	COMM (CONT->DISP)
71	G	COMM (DISP->CONT)

13	R	SOUND SIGNAL REAR RH (+)
14	G	SOUND SIGNAL REAR RH (-)
15	B	STRG SW GND
16	L	STRG SW B
19	Y	BATTERY



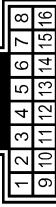
Terminal No.	Color of Wire	Signal Name [Specification]
21	B	GND
22	Y	BATTERY
23	B	GND
24	Y	BATTERY
25	L	ACC
26	R	MICROPHONE VCC
27	SHIELD	MICROPHONE GND
28	G	MICROPHONE SIGNAL
35	G	IGNITION
36	O	PARKING BRAKE
37	O	REVERSE

Connector No.	M89
Connector Name	WIRE TO WIRE
Connector Type	TH12MM-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	SHIELD	-
2	L	-
3	G	-
4	Y	-
7	B	-
8	SHIELD	-
9	LG	-
10	V	-

Connector No.	M106
Connector Name	WIRE TO WIRE
Connector Type	TH16MW-NH

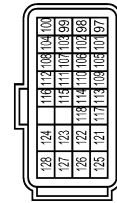


Terminal No.	Color of Wire	Signal Name [Specification]
14	SHIELD	-
15	R	-
16	G	-

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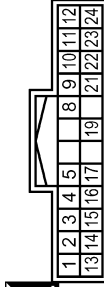
BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M107
Connector Name	ECM
Connector Type	RH24FGY-R26-R-LH-Z



Terminal No.	Color of Wire	Signal Name [Specification]
113	P	VEHCAN-L1
114	L	VEHCAN-H1

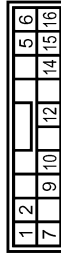
Connector No.	M111
Connector Name	IPod ADAPTER
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	Pod SOUND SIGNAL LH (-)
2	B	Pod SOUND SIGNAL RH (-)
3	V	ACC
4	R	AV COMM (L)
5	Y	BATTERY
8	W	CHARGE POWER
9	LG	COMM (IPod ADAPTER->IPod)
10	V	COMM (IPod->IPod ADAPTER)
11	L	ACCESSORY IDENTIFY
12	G	Pod SOUND SIGNAL RH (+)
13	G	Pod SOUND SIGNAL LH (-)

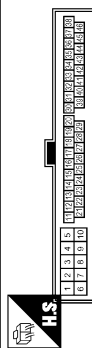
14	W	Pod SOUND SIGNAL RH (-)
15	SHIELD	SHIELD
16	G	AV COMM (H)
17	B	GND
19	SHIELD	SHIELD
21	SB	Pod CONNECTION RECOGNITION
22	W	ACCESSORY DETECT
23	Y	Pod SOUND SIGNAL GND
24	L	Pod SOUND SIGNAL LH (+)

Connector No.	M112
Connector Name	IPod SIDE
Connector Type	IP16FGY



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	IPod SOUND SIGNAL LH (+)
2	Y	IPod SOUND SIGNAL LH (+)
5	V	COMM (IPod->IPod ADAPTER)
6	LG	COMM (IPod ADAPTER->IPod)
7	G	Pod SOUND SIGNAL RH (+)
9	SB	Pod CONNECTION RECOGNITION
10	B	GND
12	W	CHARGE POWER
14	SHIELD	SHIELD
15	W	ACCESSORY DETECT
16	L	ACCESSORY IDENTIFY

Connector No.	M116
Connector Name	WIRE TO WIRE
Connector Type	TK38MW-NS10



Terminal No.	Color of Wire	Signal Name [Specification]
30	R	-
31	O	-
39	G	-

Connector No.	M117
Connector Name	WIRE TO WIRE
Connector Type	TH60MW-CS16-TM4



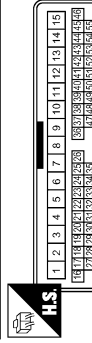
Terminal No.	Color of Wire	Signal Name [Specification]
8	LG	-
9	Y	-

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH



Terminal No.	Color of Wire	Signal Name [Specification]
90	P	CAN-L
91	L	CAN-H

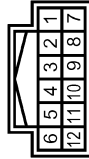
Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
12	LG	-
13	V	-

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M253
Connector Name	WIRE TO WIRE
Connector Type	TH12FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	SHIELD	-
2	B	-
3	R	-
4	W	-
7	SHIELD	-
8	SHIELD	-
9	G	-
10	R	-

Connector No.	M258
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A08FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	AUX SOUND SIGNAL RH (+)
2	B	AUX SOUND SIGNAL GND
3	W	AUX SOUND SIGNAL LH (+)
7	G	AUX IMAGE SIGNAL
8	R	AUX IMAGE GND

Connector No.	M403
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY



Terminal No.	Color of Wire	Signal Name [Specification]
14	W	-
15	L	-
17	BR	-

Connector No.	M402
Connector Name	AV CONTROL UNIT
Connector Type	GT13SH-2/IS-HU



Terminal No.	Color of Wire	Signal Name [Specification]
105	-	FM SUB
106	-	AM-FM MAIN
107	-	ANTENNA AMP. ON SIGNAL

Connector No.	M403
Connector Name	AV CONTROL UNIT
Connector Type	FAKRA JACK



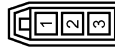
Terminal No.	Color of Wire	Signal Name [Specification]
108	-	SATELLITE ANTENNA SIGNAL
109	SHIELD	SHIELD

Connector No.	M404
Connector Name	AV CONTROL UNIT
Connector Type	GT5-IS-HU



Terminal No.	Color of Wire	Signal Name [Specification]
110	-	GPS ANTENNA SIGNAL
111	SHIELD	SHIELD

Connector No.	M406
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/IS-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-
3	-	-

Connector No.	M407
Connector Name	WIRE TO WIRE
Connector Type	GT16C-IS-HU(A)

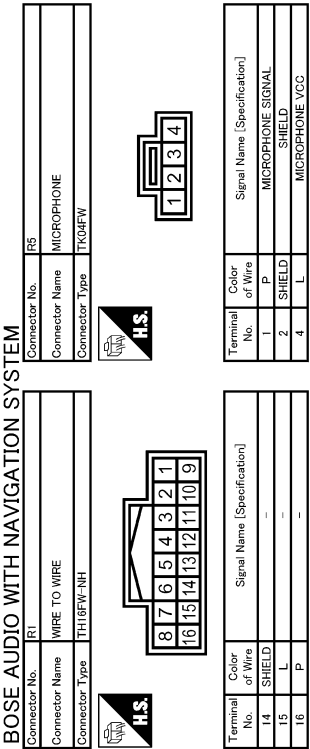


Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-

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IPOD ADAPTER

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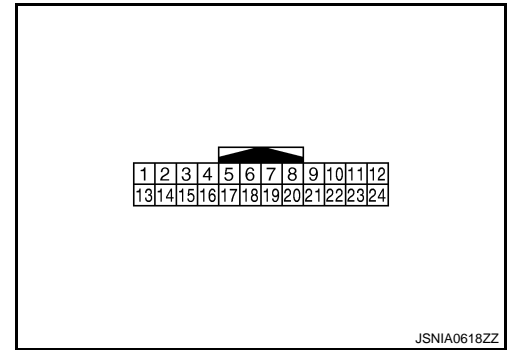
[BOSE AUDIO WITH NAVIGATION]

IPOD ADAPTER

Reference Values

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TERMINAL LAYOUT



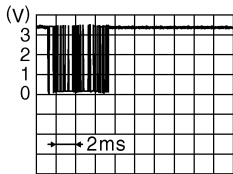
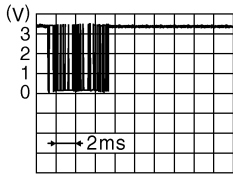
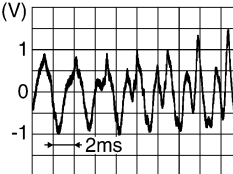
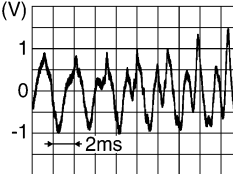
PHYSICAL VALUES

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
1 (R)	13 (G)	iPod sound signal LH	Output	Ignition switch ON	When iPod mode is select- ed.	<p>SKIB3609E</p>
2 (B)	14 (W)	iPod sound signal RH	Output	Ignition switch ON	When iPod mode is select- ed.	<p>SKIB3609E</p>
3 (V)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
4 (R)	—	AV communication signal (L)	Input/ Output	—	—	—
5 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
8 (W)	17 (B)	iPod battery charge	Output	Ignition switch ON	Connected to iPod®.	12.0 V

IPOD ADAPTER

< ECU DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

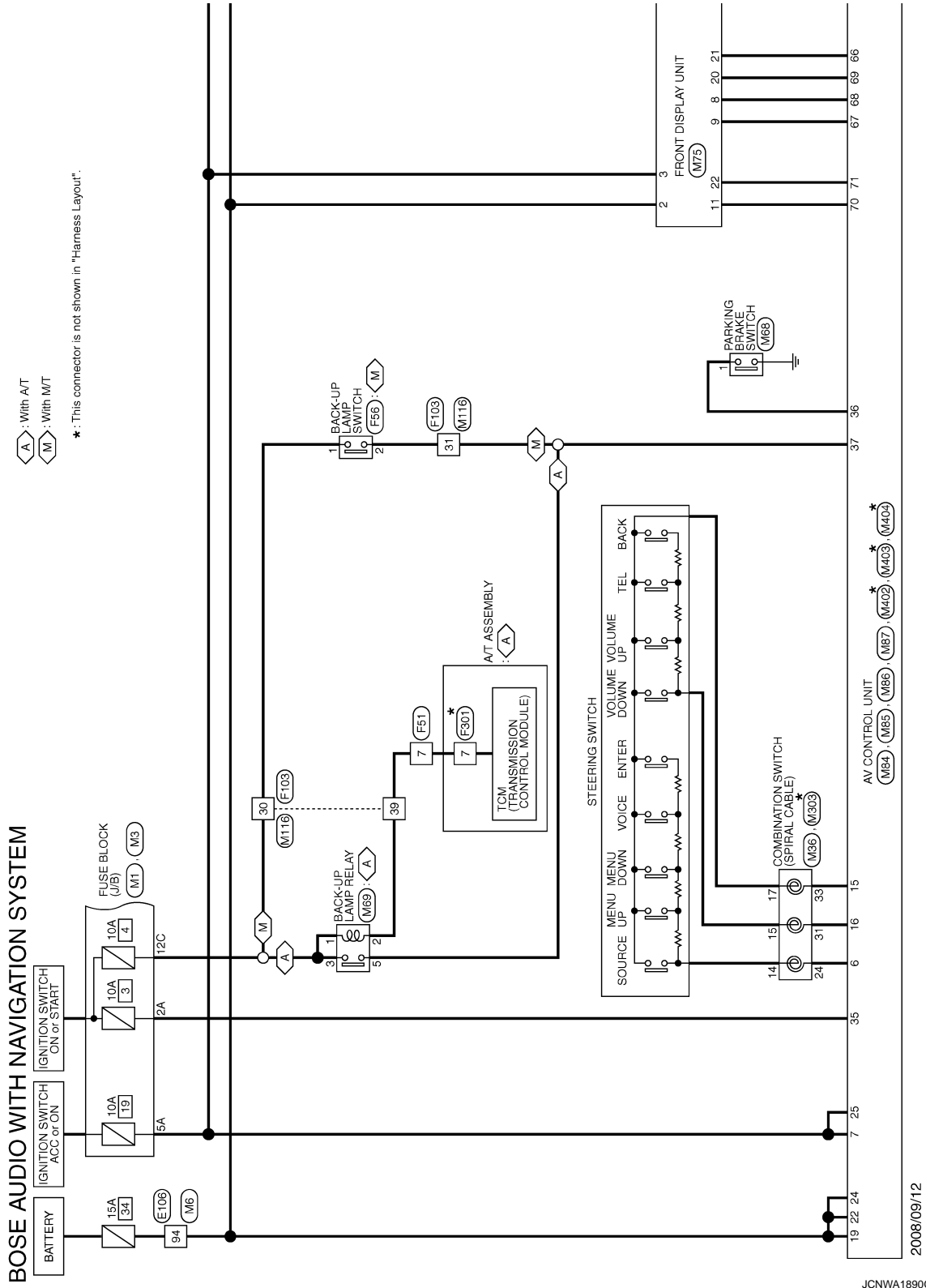
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
9 (LG)	Ground	Communication signal (iPod adapter→iPod®)	Output	Ignition switch ON	The wave pattern is displayed just after iPod connection.	 <p>JPNIA0462GB</p> <p>NOTE: After the wave pattern display, the value continues Approx 3.3 V</p>
10 (V)	Ground	Communication signal (iPod®→iPod adapter)	Input	Ignition switch ON	Connected to iPod®.	 <p>JPNIA0462GB</p>
11 (L)	Ground	ACCESSORY-IDENTIFY	—	Ignition switch ON	Connected to iPod®.	0 V
12 (G)	23 (Y)	iPod sound signal RH	Input	Ignition switch ON	When iPod mode is selected.	 <p>SKIB3609E</p>
15	—	Shield	—	—	—	—
16 (G)	—	AV communication signal (H)	Input/ Output	—	—	—
17 (B)	Ground	Charge ground	—	Ignition switch ON	—	0 V
19	—	Shield	—	—	—	—
21 (SB)	Ground	iPod connection recognition signal	Input	Ignition switch ON	Not connected to iPod®.	4.0 V
					Connected to iPod®.	0 V
22 (W)	Ground	ACCESSORY-DETECT	—	Ignition switch ON	Connected to iPod®.	0 V
24 (L)	23 (Y)	iPod sound signal LH	Input	Ignition switch ON	When iPod mode is selected.	 <p>SKIB3609E</p>

Wiring Diagram - BOSE AUDIO WITH NAVIGATION SYSTEM -

INFOID:000000004495922

NOTE:

In this section, PRESET SWITCH and MULTIFUNCTION SWITCH are written as the MULTIFUNCTION SWITCH.



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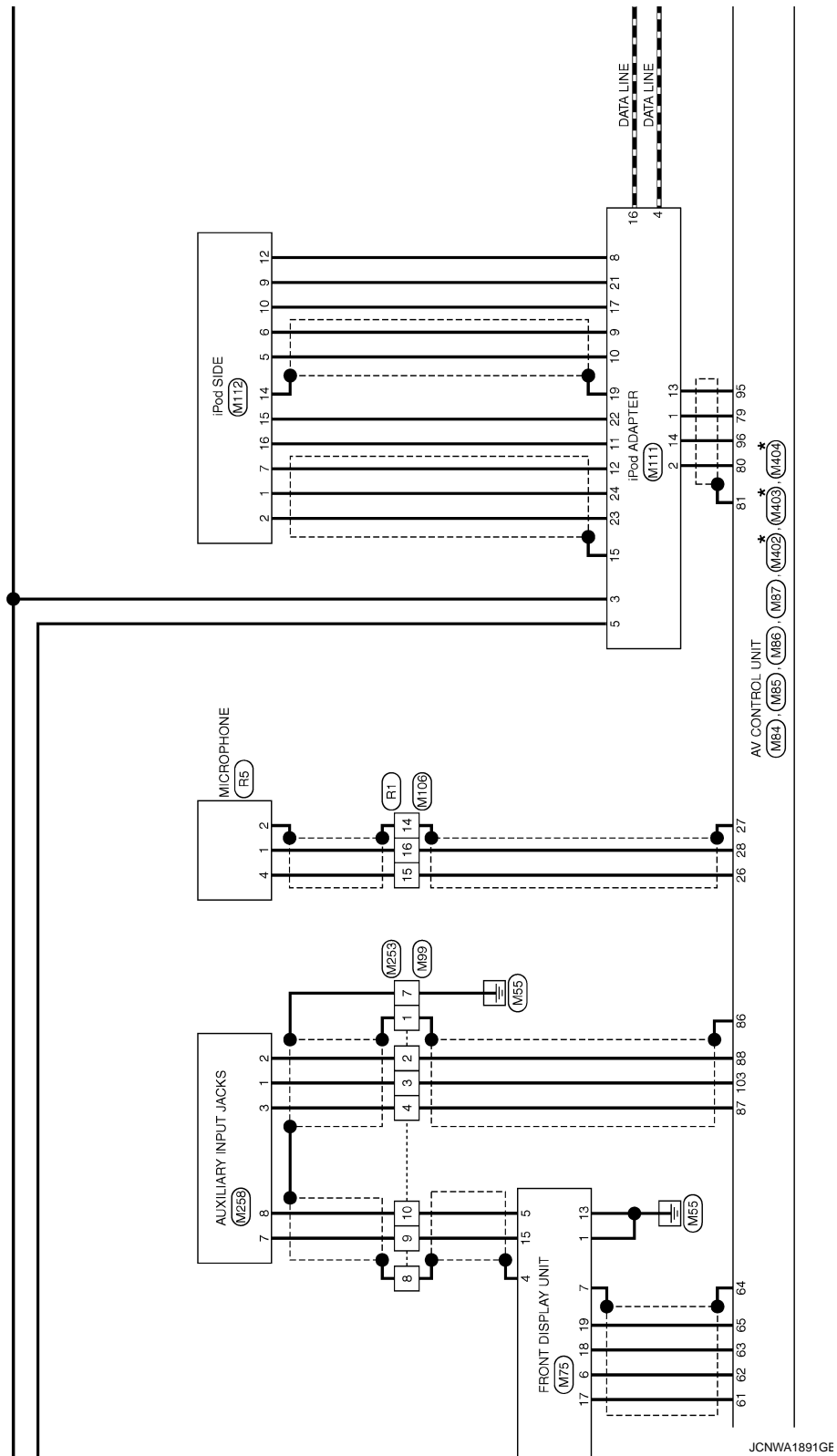
AV

IPOD ADAPTER

< ECU DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

★: This connector is not shown in "Harness Layout".

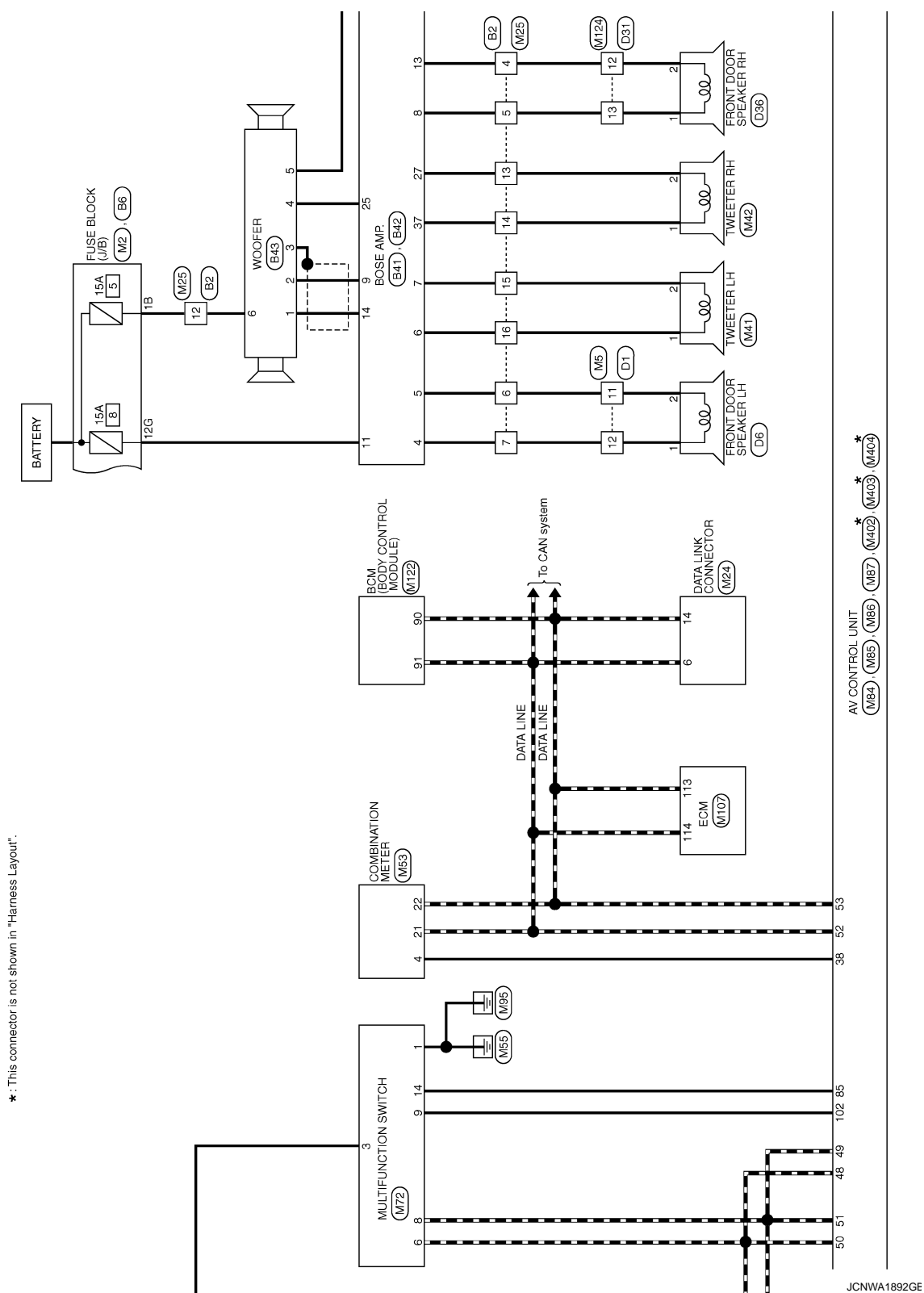


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IPOD ADAPTER

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[BOSE AUDIO WITH NAVIGATION]

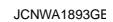


AV

IPOD ADAPTER

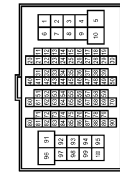
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[BOSE AUDIO WITH NAVIGATION]



BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B1		
Connector Name	WIRE TO WIRE		
Connector Type	TH00FW-CS16-TM4		



Terminal No.	Color of Wire	Signal Name [Specification]
51	W	-
57	SHIELD	-
60	V	-
61	SB	-
62	SHIELD	-
63	BR	-
64	Y	-
65	SHIELD	-
66	P	-
67	L	-
68	SHIELD	-

Connector No.	B20		
Connector Name	REAR SPEAKER LH		
Connector Type	TK02FBR		



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	-

69	R		
70	G		

Connector No.	B2		
Connector Name	WIRE TO WIRE		
Connector Type	NS16FW-CS		



Terminal No.	Color of Wire	Signal Name [Specification]
2	Y	-
3	LG	-
4	G	-
5	O	-
6	V	-
7	L	-
12	Y	-
13	W	-
14	B	-
15	GR	-
16	LG	-

37	B		
			SOUND SIGNAL TWEETER RH (+)

Connector No.	B41		
Connector Name	BOSE AMP		
Connector Type	SCA19FBR-SGA4		



Terminal No.	Color of Wire	Signal Name [Specification]
18	P	SOUND SIGNAL FRONT LH (+)
19	R	SOUND SIGNAL FRONT RH (+)
20	G	SOUND SIGNAL FRONT LH (-)
21	V	SOUND SIGNAL FRONT RH (-)
22	SB	SOUND SIGNAL REAR LH (+)
23	BR	SOUND SIGNAL REAR RH (+)
25	GR	WOOFER AMP ON SIGNAL
27	W	SOUND SIGNAL TWEETER RH (+)
31	W	BOSE AMP ON SIGNAL
32	L	SOUND SIGNAL FRONT LH (-)
33	Y	SOUND SIGNAL REAR RH (-)

Connector No.	B6		
Connector Name	FUSE BLOCK (J/B)		
Connector Type	NS16FBR-CS		



Terminal No.	Color of Wire	Signal Name [Specification]
12G	Y	-

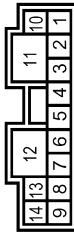
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BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B42
Connector Name	BOSE AMP.
Connector Type	SGMZFBR-SJA2



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	SOUND SIGNAL REAR SPEAKER LH (+)
2	LG	SOUND SIGNAL REAR SPEAKER RH (+)
3	Y	SOUND SIGNAL REAR SPEAKER RH (-)
4	L	SOUND SIGNAL FRONT SPEAKER LH (+)
5	V	SOUND SIGNAL FRONT SPEAKER LH (-)
6	LG	SOUND SIGNAL TWEETER LH (+)
7	GR	SOUND SIGNAL TWEETER LH (-)
8	O	SOUND SIGNAL FRONT DOOR RH (+)
9	SB	SOUND SIGNAL WOOFER (+)
10	P	SOUND SIGNAL REAR SPEAKER LH (-)
11	Y	BATTERY

Connector No.	B229
Connector Name	REAR SPEAKER RH
Connector Type	TK02FBR



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

12	B	GND
13	G	SOUND SIGNAL FRONT DOOR RH (-)
14	V	SOUND SIGNAL WOOFER (-)

Connector No.	B43
Connector Name	WOOFER
Connector Type	RS08FGY-FR



Terminal No.	Color of Wire	Signal Name [Specification]
1	V	SOUND SIGNAL WOOFER (-)
2	SB	SOUND SIGNAL WOOFER (+)
3	SHIELD	SHIELD
4	GR	WOOFER AMP. ON SIGNAL
5	B	GND
6	Y	BATTERY

Connector No.	B404
Connector Name	WIRE TO WIRE
Connector Type	GT16C-IPP-HUA



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-

Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	TH60FY-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
8	LG	-
9	Y	-

Connector No.	B406
Connector Name	WIRE TO WIRE
Connector Type	GT13SCN-2/IPP-HU(21)



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-
3	-	-

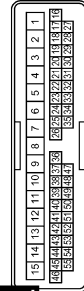
BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B408
Connector Name	SATELLITE RADIO ANTENNA
Connector Type	GT16C-IPP-HU(B)



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-

Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



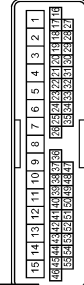
Terminal No.	Color of Wire	Signal Name [Specification]
11	P	- [With BOSE system]
12	L	-

Connector No.	D6
Connector Name	FRONT DOOR SPEAKER LH
Connector Type	NS02FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	- [With BOSE system]

Connector No.	D31
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
12	P	- [With BOSE system]
13	L	- [With BOSE system]

Connector No.	D36
Connector Name	FRONT DOOR SPEAKER RH
Connector Type	NS02FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	- [With BOSE system]
2	P	- [With BOSE system]

Connector No.	D302
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/IS-HU(21)



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-
3	-	-

Connector No.	D304
Connector Name	ANTENNA AMP.
Connector Type	GT13SC-2/IS-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	ANTENNA AMP. ON SIGNAL
2	-	FM SUB
3	-	AM-FM MAIN

Connector No.	D311
Connector Name	GLASS ANTENNA
Connector Type	FOIFB-A



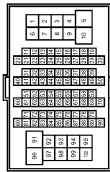
Terminal No.	Color of Wire	Signal Name [Specification]
1	B	-

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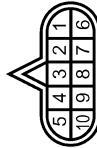
BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH8DFW-CS16-TM4



Terminal No.	94
Color of Wire	Y
Signal Name [Specification]	—

Connector No.	F51
Connector Name	A/T ASSEMBLY
Connector Type	RK10FG-DG1



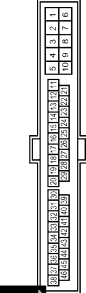
Terminal No.	7
Color of Wire	W
Signal Name [Specification]	—

Connector No.	F56
Connector Name	BACK-UP LAMP SWITCH
Connector Type	RK02FB



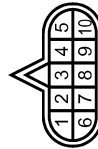
Terminal No.	1
Color of Wire	R
Signal Name [Specification]	—

Connector No.	F103
Connector Name	WIRE TO WIRE
Connector Type	TK38FW-NS10



Terminal No.	30
Color of Wire	R
Signal Name [Specification]	—

Connector No.	F301
Connector Name	TOM (TRANSMISSION CONTROL MODULE)
Connector Type	SP10FG



Terminal No.	7
Color of Wire	L
Signal Name [Specification]	REV LAMP RLY

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS06FW-M2



Terminal No.	2A
Color of Wire	G
Signal Name [Specification]	—

Connector No.	M2
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS10FW-CS



Terminal No.	1B
Color of Wire	Y
Signal Name [Specification]	—

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FW-CS

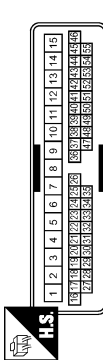


Terminal No.	12C
Color of Wire	O
Signal Name [Specification]	—

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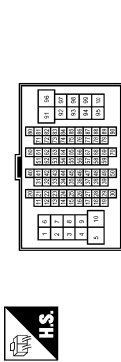
BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M5
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



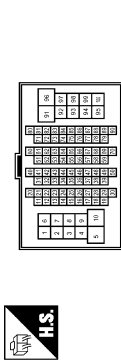
Terminal No.	Color of Wire	Signal Name [Specification]
11	V	-
12	L	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH60MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
94	Y	-

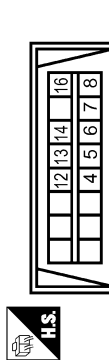
Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
51	V	-
57	SHIELD	-
60	L	-
61	R	-
62	SHIELD	-
63	R	-
64	G	-
65	SHIELD	-
66	LG	-
67	V	-
68	SHIELD	-

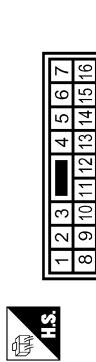
69	L	-
70	P	-

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



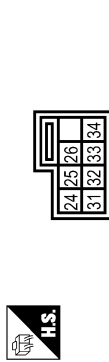
Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
14	P	-

Connector No.	M25
Connector Name	WIRE TO WIRE
Connector Type	NS18MW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
2	Y	-
3	LG	-
4	LG	-
5	V	-
6	V	-
7	L	-
12	Y	-
13	W	-
14	W	-
15	W	-
16	L	-

Connector No.	M36
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TR08FGY-1V



Terminal No.	Color of Wire	Signal Name [Specification]
24	P	-
31	L	-
33	B	-

Connector No.	M41
Connector Name	TWEETER LH
Connector Type	TR02FBR



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

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BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M42
Connector Name	TWEETER RH
Connector Type	TK02BR



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	—
2	W	—

Connector No.	M53
Connector Name	COMBINATION METER
Connector Type	TH24FW-NH



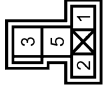
Terminal No.	Color of Wire	Signal Name [Specification]
4	Y	VEHICLE SPEED SIGNAL (8-PULSE)
21	L	CAN-H
22	P	CAN-L

Connector No.	M68
Connector Name	PARKING BRAKE SWITCH
Connector Type	PO1FB-A



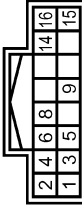
Terminal No.	Color of Wire	Signal Name [Specification]
1	O	—

Connector No.	M69
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS2EL-M2-LC



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	—
2	G	—
3	R	—
5	O	—

Connector No.	M72
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH16FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
3	L	ACC
6	LG	AV COMM (H)
8	V	AV COMM (L)
9	BR	SW GND
14	SB	EJECT SIGNAL

Connector No.	M75
Connector Name	FRONT DISPLAY UNIT
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	Y	BATTERY
3	L	ACC
4	SHIELD	SHIELD
5	V	AUX IMAGE GND
6	W	RGB (G.GREEN) SIGNAL
7	SHIELD	SHIELD (RGB GND)
8	G	HP
9	L	RGB AREA (VS) SIGNAL
11	R	COMM (CONT->DISP)
13	B	GND

15	LG	AUX IMAGE SIGNAL
17	B	RGB (RED)
18	R	RGB (BLUE) SIGNAL
19	G	RGB SYNC
20	Y	VP
21	B	RGB SYNC GND
22	G	COMM (DISP->CONT)

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BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M84
Connector Name	AV CONTROL UNIT
Connector Type	TH18FW-GS2

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

13	R	SOUND SIGNAL REAR RH (+)
14	G	SOUND SIGNAL REAR RH (-)
15	B	STRG SW GND
16	L	STRG SW B
19	Y	BATTERY



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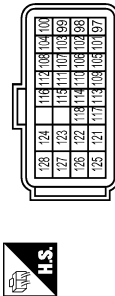
IPOD ADAPTER

< ECU DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

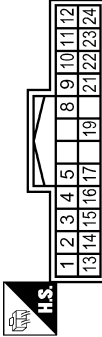
BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M107
Connector Name	ECM
Connector Type	RH24FGY-R26-R-LH-Z



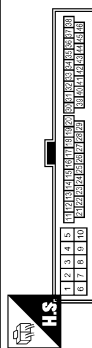
Terminal No.	Color of Wire	Signal Name [Specification]
113	P	VEHCAN-L1
114	L	VEHCAN-H1

Connector No.	M111
Connector Name	IPOD ADAPTER
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	Pod SOUND SIGNAL LH (-)
2	B	Pod SOUND SIGNAL RH (-)
3	V	ACC
4	R	AV COMM (L)
5	Y	BATTERY
8	W	CHARGE POWER
9	LG	COMM (IPod-Adapter->IPod)
10	V	COMM (IPod-Adapter->IPod)
11	L	ACCESSORY IDENTIFY
12	G	Pod SOUND SIGNAL RH (+)
13	G	Pod SOUND SIGNAL LH (-)

Connector No.	M116
Connector Name	WIRE TO WIRE
Connector Type	TK38MW-NS10



Terminal No.	Color of Wire	Signal Name [Specification]
30	R	-
31	O	-
39	G	-

14	W	Pod SOUND SIGNAL RH (-)
15	SHIELD	SHIELD
16	G	AV COMM (H)
17	B	GND
19	SHIELD	SHIELD
21	SB	Pod CONNECTION RECOGNITION
22	W	ACCESSORY DETECT
23	Y	Pod SOUND SIGNAL GND
24	L	Pod SOUND SIGNAL LH (+)

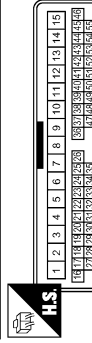
Terminal No.	Color of Wire	Signal Name [Specification]
1	L	IPod SOUND SIGNAL LH (+)
2	Y	IPod SOUND SIGNAL LH (+)
5	V	COMM (IPod->IPod ADAPTER)
6	LG	COMM (IPod->IPod ADAPTER)
7	G	IPod SOUND SIGNAL RH (+)
9	SB	IPod CONNECTION RECOGNITION
10	B	GND
12	W	CHARGE POWER
14	SHIELD	SHIELD
15	W	ACCESSORY DETECT
18	L	ACCESSORY IDENTIFY

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH



Terminal No.	Color of Wire	Signal Name [Specification]
90	P	CAN-L
91	L	CAN-H

Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	TH40MH-CS15

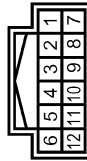


Terminal No.	Color of Wire	Signal Name [Specification]
12	LG	-
13	V	-

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BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M253
Connector Name	WIRE TO WIRE
Connector Type	TH12FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	SHIELD	-
2	B	-
3	R	-
4	W	-
7	SHIELD	-
8	SHIELD	-
9	G	-
10	R	-

Connector No.	M258
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A08FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	AUX SOUND SIGNAL RH (+)
2	B	AUX SOUND SIGNAL GND
3	W	AUX SOUND SIGNAL LH (+)
7	G	AUX IMAGE SIGNAL
8	R	AUX IMAGE GND

Connector No.	M403
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY



Terminal No.	Color of Wire	Signal Name [Specification]
14	W	-
15	L	-
17	BR	-

Connector No.	M402
Connector Name	AV CONTROL UNIT
Connector Type	GT13SH-2/IS-HU



Terminal No.	Color of Wire	Signal Name [Specification]
105	-	FM SUB
106	-	AM-FM MAIN
107	-	ANTENNA AMP. ON SIGNAL

Connector No.	M403
Connector Name	AV CONTROL UNIT
Connector Type	FAKRA JACK



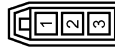
Terminal No.	Color of Wire	Signal Name [Specification]
108	-	SATELLITE ANTENNA SIGNAL
109	SHIELD	SHIELD

Connector No.	M404
Connector Name	AV CONTROL UNIT
Connector Type	GT5-IS-HU



Terminal No.	Color of Wire	Signal Name [Specification]
110	-	GPS ANTENNA SIGNAL
111	SHIELD	SHIELD

Connector No.	M406
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/IS-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-
3	-	-

Connector No.	M407
Connector Name	WIRE TO WIRE
Connector Type	GT16C-IS-HU(A)



Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-



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AV

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	RI	Connector No.	RS
Connector Name	WIRE TO WIRE	Connector Name	MICROPHONE
Connector Type	TH16FW-NH	Connector Type	TKG4FW



Terminal No.	Color of Wire	Signal Name [Specification]
14	SHIELD	-
15	L	-
16	P	-



Terminal No.	Color of Wire	Signal Name [Specification]
1	P	MICROPHONE SIGNAL
2	SHIELD	SHIELD
4	L	MICROPHONE VCC

MULTI AV SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

SYMPTOM DIAGNOSIS

MULTI AV SYSTEM SYMPTOMS

Symptom Table

INFOID:000000004469605

RELATED TO NAVIGATION

Symptoms	Check items	Possible malfunction location / Action to take
Multifunction switch and preset switch operation does not work.	<ul style="list-style-type: none"> All switches cannot be operated. "MULTI AV" is displayed on system selection screen when the CONSULT-III is started. 	<ul style="list-style-type: none"> Multifunction switch power supply and ground circuit. AV communication circuit between AV control unit and multifunction switch. Perform CONSULT-III self-diagnosis. Refer to AV-183, "CONSULT-III Function (MULTI AV)" .
	<ul style="list-style-type: none"> All switches cannot be operated. "MULTI AV" is not displayed on system selection screen when the CONSULT-III is initialized. 	AV control unit power supply and ground circuit malfunction. Refer to AV-211, "AV CONTROL UNIT : Diagnosis Procedure" .
	Only specified switch cannot be operated.	Multifunction switch or preset switch malfunction. Replace multifunction switch AV-338, "Exploded View" or preset switch AV-339, "Exploded View" .
Fuel economy display, vehicle setting operation is abnormal.	There is malfunction in the CONSULT-III self-diagnosis result.	Perform detected DTC self-diagnosis. Refer to AV-183, "CONSULT-III Function (MULTI AV)" .
	There is no malfunction in the self-diagnosis results.	Ignition signal circuit malfunction. Refer to AV-211, "AV CONTROL UNIT : Diagnosis Procedure" .
There is no guide sound	On the setting display select "system sound (guide sound volume, etc.)," and confirm that guide sound is ON.	AV control unit malfunction. Replace AV control unit. Refer to AV-331, "Exploded View" .

RELATED TO HANDS-FREE PHONE

- Check that the cellular phone is a corresponding type (Bluetooth™ correspondence) when the hands-free related malfunction vehicle is in service before performing a diagnosis.
- There is a case that malfunction occurs due to the version change of the phone type, etc. even though it is a corresponding type. Therefore, confirm it by changing the cellular phone to another corresponding type phone, and check that it operates normally. It is necessary to distinguish whether the cause is the vehicle or cellular phone.

Simple Check for Bluetooth™ Communication

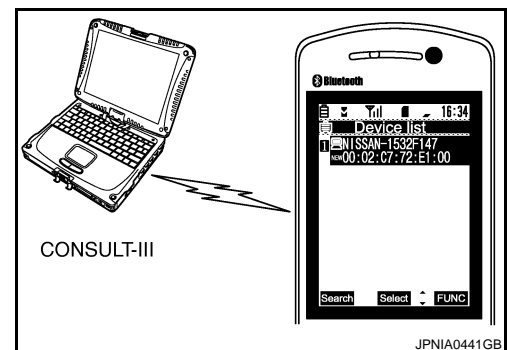
If cellular phone and AV control unit cannot be connected with Bluetooth™ communication, the following procedure allows the technician to judge which device has a malfunction.

- Turn on the cellular phone, not connecting Bluetooth™ communication.
- Start CONSULT-III, then start Windows®.
- Set CONSULT-III near the cellular phone.
- When operating Bluetooth™ registration by cellular phone, check if CONSULT-III* is displayed on the device name.
(If another Bluetooth™ device is located near the cellular phone, the name of the device will also be displayed.)

NOTE:

*:Displayed device name is "NISSAN-*****".

- If no device name is displayed, cellular phone is malfunctioning. Repair the cellular phone first, then perform diagnosis.
- If CONSULT-III is displayed on device name, cellular phone is normal. Perform diagnosis as per the following table.



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AV

MULTI AV SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

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.	AV control unit malfunction. Replace AV control unit. Refer to AV-331, "Exploded View" .
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. 	AV control unit malfunction. Replace AV control unit. Refer to AV-331, "Exploded View" .
The other party's voice cannot be heard by hands-free phone.	Check the "microphone speaker" in Inspection & Adjustment Mode if sound is heard.	AV control unit malfunction. Replace AV control unit. Refer to AV-331, "Exploded View" .
	Check the "microphone speaker" in Inspection & Adjustment Mode if sound is not heard.	AV control unit malfunction. Replace AV control unit. Refer to AV-331, "Exploded View" .
Sound is not heard by the other party with hands-free phone communication.	Sound operation function is normal.	AV control unit malfunction. Replace AV control unit. Refer to AV-331, "Exploded View" .
	Sound operation function does not work.	Microphone signal circuit malfunction. Refer to AV-224, "Diagnosis Procedure" .

RELATED TO RGB IMAGE

Symptoms	Check items	Possible malfunction location / Action to take
RGB image is not shown.	<ul style="list-style-type: none"> All RGB images are not shown. "MULTI AV" is displayed on system selection screen when the CONSULT-III is started. 	Perform CONSULT-III self-diagnosis. Refer to AV-183, "CONSULT-III Function (MULTI AV)" .
	<ul style="list-style-type: none"> All RGB images are not shown. "MULTI AV" is not displayed on system selection screen when the CONSULT-III is started. 	AV control unit power supply and ground circuit malfunction. Refer to AV-211, "AV CONTROL UNIT : Diagnosis Procedure" .
Color of RGB image is not proper.	Light blue (Cyan) tint.	RGB signal (R: red) circuit malfunction between AV control unit and display unit. Refer to AV-215, "Diagnosis Procedure" .
	Purple (Magenta) tint.	RGB signal (G: green) circuit malfunction between AV control unit and display unit. Refer to AV-216, "Diagnosis Procedure" .
	Screen looks yellowish.	RGB signal (B: blue) circuit malfunction between AV control unit and display unit. Refer to AV-217, "Diagnosis Procedure" .
RGB screen is rolling.	—	RGB synchronizing signal circuit malfunction between AV control unit and front display unit. Refer to AV-218, "Diagnosis Procedure" .

RELATED TO VOICE CONTROL

Symptoms	Check items	Probable malfunction location
The voice cannot be controlled even if the voice control screen is displayed.	Voice sounds at "Voice Microphone Test" of Confirmation/Adjustment mode.	AV control unit malfunction. Replace AV control unit. Refer to AV-331, "Exploded View" .
	Voice does not sound at "Voice Microphone Test" of Confirmation/Adjustment mode.	Microphone circuit malfunction. Refer to AV-224, "Diagnosis Procedure" .

MULTI AV SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

Symptoms	Check items	Probable malfunction location
The voice cannot be controlled (Voice control screen is not displayed).	Steering switch's "SOURCE", "MENU UP", "MENU DOWN", "ENTER" switches operate, but "⏮" switch does not operate.	Steering switch malfunction. Replace steering switch. Refer to AV-340, "Removal and Installation" .
	Steering switch's "SOURCE", "MENU UP", "MENU DOWN", "⏮", "ENTER" switches do not operate.	Steering switch signal A circuit malfunction. Refer to AV-226, "Diagnosis Procedure" .
	All steering switches do not work.	Steering switch signal GND circuit malfunction. Refer to AV-230, "Diagnosis Procedure" .

RELATED TO AUDIO

Symptoms	Check items	Possible malfunction location / Action to take
The CD cannot be removed.	—	Disk eject signal circuit malfunction between AV control unit and preset switch. Refer to AV-223, "Diagnosis Procedure" .
Audio sound is not heard.	No sound from all speakers.	<ul style="list-style-type: none"> Amp. ON signal circuit. BOSE amp. power supply and ground circuit. Refer to AV-213, "BOSE AMP. : Diagnosis Procedure" .
	There is no sound from the woofer.	<ul style="list-style-type: none"> Woofer amp. power supply and ground circuit. Sound signal woofer circuit between BOSE amp. and woofer. Woofer amp. ON signal circuit between BOSE amp. and woofer.
	There is sound only from specific places (RH front, RH rear, LH front and LH rear).	Sound signal circuit of suspect system.
Satellite radio is not received.	There is malfunction in the CONSULT-III self-diagnosis result.	Perform CONSULT-III self-diagnosis. Refer to AV-183, "CONSULT-III Function (MULTI AV)" .
	There is no malfunction in the CONSULT-III self-diagnosis result.	Perform the following inspection procedure. <ol style="list-style-type: none"> Check satellite radio antenna mounting nut for looseness. NOTE: Tightening torque: 6.5 N·m (0.66 kg-m, 58 in-lb) Visually check for satellite radio antenna feeder. Replace the satellite radio antenna. Refer to AV-348, "Exploded View". Replace the AV control unit. Refer to AV-331, "Exploded View".
AM/FM radio is not received.	Other audio sounds are normal.	<ul style="list-style-type: none"> Antenna amp. ON signal circuit. Antenna feeder.

RELATED TO iPod®

Connect another iPod® and check if the symptom is reproduced or not. If the symptom is reproduced, diagnose the vehicle. If no malfunction is detected, replace the iPod harness.

NOTE:

It is unable to read a connection between iPod® and iPod harness.

Symptoms	Check items	Possible malfunction location / Action to take
There is no sound from the iPod®.	Other audio sounds are normal.	<ul style="list-style-type: none"> iPod sound signal circuit between AV control unit and iPod adapter. iPod sound signal circuit between iPod® and iPod adapter.
It does not change to iPod mode.	There is malfunction in the CONSULT-III self-diagnosis.	Perform CONSULT-III self-diagnosis. Refer to AV-183, "CONSULT-III Function (MULTI AV)" .
"iPod is not connected" is displayed when it comes to iPod mode.	Connected to iPod®.	iPod connection recognition signal circuit between iPod® and iPod adapter.

MULTI AV SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

Symptoms	Check items	Possible malfunction location / Action to take
iPod® cannot charge the battery.	—	iPod battery charge circuit between iPod® and iPod adapter.
The title of music file in the iPod® is not indicated.	—	Communication circuit between iPod® and iPod adapter.
Accessing the iPod® is unavailable from the vehicle.		

RELATED TO STEERING SWITCH

Symptoms	Probable malfunction location
None of the steering switch operations work.	Steering switch signal GND circuit malfunction. Refer to AV-230, "Diagnosis Procedure" .
Only specified switch cannot be operated.	Steering switch malfunction. Refer to AV-340, "Exploded View" .
Steering switch's "SOURCE", "MENU UP", "MENU DOWN", "↖", "ENTER" switches do not work.	Steering switch signal A circuit malfunction. Refer to AV-226, "Diagnosis Procedure" .
Steering switch's "↷", "VOL UP", "VOL DOWN", "↶" switches do not work.	Steering switch signal B circuit malfunction. Refer to AV-228, "Diagnosis Procedure" .

RELATED TO AUXILIARY INPUT

NOTE:

Check that there is no malfunction of AUX equipment main body before performing a diagnosis.

Symptoms	Check items	Probable malfunction location
No vocal sound is heard when AUX mode is selected.	Vocal sound is heard when other modes are selected.	AUX sound signal circuit (auxiliary input jacks to AV control unit).
Image is not displayed when AUX mode is selected.	—	AUX image signal circuit malfunction. Refer to AV-222, "Diagnosis Procedure" .

NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

NORMAL OPERATING CONDITION

Description

INFOID:000000004469606

NOTE:

- For Navigation system operation information, refer to Navigation system Owner's Manual.
- Vehicle operation information, refer to Owner's Manual.

BASIC OPERATIONS




Symptom	Possible cause	Possible solution
No image is displayed.	The brightness is at the lowest setting.	Adjust the brightness of the display.
	The systems in the video mode.	Press <DISC-AUX> to change the mode.
	The display is turned off.	Press <Day/Night> to turn on the display.
No voice guidance is available. Or The volume is too high or too low.	The volume is not set correctly, or it is turned off.	Adjust the volume of voice guidance.
	Voice guidance is not provided for certain streets (roads displayed in gray).	This is not a malfunction.
No map is displayed on the screen.	A screen other than map screen is displayed.	Press <MAP> .
The screen is too dim. The movement is slow.	The temperature in the interior of the vehicle is low.	Wait until the interior of the vehicle has warmed up.
Some pixels in the display are darker or brighter than others.	This condition is an inherent characteristic of liquid crystal displays.	This is not a malfunction.
Some menu items cannot be selected.	Some menu items become unavailable while the vehicle is driven.	Park the vehicle in a safe location, and then operate the navigation system.

NOTE:

Locations stored in the Address Book and other memory functions may be lost if the vehicle's battery is disconnected or becomes discharged. If this occurs, service the vehicle's battery as necessary and re-enter the information in the Address Book.

RELATED TO VOICE RECOGNITION

Related to Basic Operation

Symptom	Possible cause	Possible solution
The system does not recognize your command. or The system recognizes your command incorrectly	The interior of the vehicle is too noisy.	Close the windows or have other occupants quiet.
	The volume of your voice is too low.	Speak louder.
	The volume if your voice is too loud.	Speak softer.
	Your pronunciation is unclear.	Speak clearly.
	You are speaking before the voice recognition is ready	Press and release “  ” switch on the steering switch, and speak a command after the tone sounds.
	8 seconds or more have passed after you pressed and released “  ” switch on the steering switch.	Make sure to speak a command within 8 seconds after you press and release “  ” switch on the steering switch.
	Only a limited range of voice commands is usable for each screen.	Use a correct voice command appropriate for the current screen.
	The fan of the air conditioner is too loud.	If the air conditioner is set to “Auto”, the fan speed is automatically lowered and voice commands can be recognized more easily. Lower the fan speed as necessary or set the air conditioner to “Auto”.

Related to Item Choice

The system should respond correctly to all voice commands without difficulty. If problems are encountered, follow the solutions given in this guide for the appropriate error.

NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

Where the solutions are listed by number, try each solution in turn, starting with number one, until the problem is resolved.

Symptom/ error message	Solution
Displays "COMMAND NOT RECOGNIZED" or the system fails to interpret the command correctly.	1. Ensure that the command format is valid.
	2. Speak clearly without pausing between words and at a level appropriate to the ambient noise level.
	3. Ensure that the ambient noise level is not excessive, for example, windows open or defrost on. NOTE: If it is too noisy to use the phone, it is likely that voice commands will not be recognized.
	4. If optional words of the command have been omitted, then command should be tried with these in place.
The system consistently selects the wrong voicetag	1. Ensure that the voicetag requested matches what was originally stored. This can be confirmed by giving the "Addressbook" Directory or Phone Directory command.
	2. Replace one of the voicetags being confused with a different voicetag.

Related to Telephone

The system should respond correctly to all voice commands without difficulty. If problems are encountered, try the following solutions.

Where the solutions are listed by number, try each solution in turn, starting with number 1, until the problem is resolved.

Symptom	Solution
System fails to interpret the command correctly.	1. Ensure that the command is valid.
	2. Ensure that the command is spoken after the tone.
	3. Speak clearly without pausing between words and at level appropriate to the ambient noise level in the vehicle.
	4. Ensure that the ambient noise level is not excessive (for example, windows open or defroster on). NOTE: If it is too noisy to use the phone, it is likely that the voice commands will not be recognized.
	5. If more than one command was said at a time, try saying the commands separately.
	6. If the system consistently fails to recognize commands, the voice training procedure should be carried out to improve the recognition response for the speaker. See "Speaker adaptation (SA) mode" earlier in this section. Refer to "OWNER'S MANUAL".
The system consistently selects the wrong voicetag	1. Ensure that the phone book entry name requested matches what was originally stored. This can be confirmed by using the "List Names" command.
	2. Replace one of the names being confused with a new name.

RELATED TO AUDIO

- The majority of the audio malfunctions are the result of outside causes (bad CD/cassette, electromagnetic interference, etc.). Check the symptoms below to diagnose the malfunction.
- The vehicle itself can be a source of noise if noise prevention parts or electrical equipment is malfunctioning. Check if noise is caused and/or changed by engine speed, ignition switch turned to each position, and operation of each piece of electrical equipment, and then determine the cause.

NOTE:

- CD-R is not guaranteed to play because they can contain compressed audio (MP3, WMA) or could be incorrectly mastered by the customer on a computer.
- Check if the CDs carry the Compact Disc Logo. If not, the disc is not mastered to the "red book" Compact Disc Standard and may not play.

NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

Symptom	Cause and Counter measure
Cannot play	Check if the CD/CF was inserted correctly.
	Check if the CD/CF is scratched or dirty.
	Check if there is condensation inside the player, and if there is, wait until the condensation is gone (about 1 hour) before using the player.
	If there is a temperature increase error, the player will play correctly after it returns to the normal temperature.
	If there is a mixture of music CD files (CD-DA data) and MP3/WMA files on a CD, only the music CD files (CD-DA data) will be played.
	Files with extensions other than ".MP3", ".WMA", ".mp3", or ".wma" cannot be played. In addition, the character codes and number of characters for folder names and file names should be in compliance with the specifications.
	Check if the disc or the file is generated in an irregular format, This may occur depending on the variation or the setting of MP3/WMA writing applications or other text editing applications.
	Check if the finalization process, such as session close and disc close, is done for the disc.
Poor sound quality	Check if the CD/CF is scratched or dirty.
It takes a relatively long time before the music starts playing.	If there are many folder or file levels on the MP3/WMA CD/CF, or if it is a multisession disc, some time may be required before the music starts playing.
Music cuts off or skips	The writing software and hardware combination might not match, or the writing speed, writing depth, writing width might not match the specifications. Try using the slowest writing speed.
Skipping with high bit rate files	Skipping may occur with large quantities of data such as high bit rate data.
Move immediately to the next song when playing	When a non-MP3/WMA file has been given an extension of ".MP3", ".WMA", ".mp3", or ".wma", or when play is prohibited by copyright protection, the player will skip to the next song.
The songs do not play back in the desired order.	The playback order is the order in which the files were written by the software, so the files might not play in the desired order.

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

NOTE:

- Fading noise: This noise occurs because of variations in the field strength in a narrow range due to mountains or buildings blocking the signal.
- Multi-path noise: This noise results from a time difference between the broadcast waves directly from the station arriving at the antenna and the waves reflected by mountains or buildings.

RELATED TO VEHICLE ICON

Symptom	Possible cause	Possible solution
Names of roads differ between Plan View and Birdview™.	This is because the quantity of the displayed information is reduced so that the screen does not become too crowded. There is also a chance that names of the roads may be displayed multiple times, and the names appearing on the screen may be different because of a processing procedure.	This is not a malfunction.
The vehicle icon is not displayed in the correct position.	The vehicle was transported after the ignition switch was pressed off, for example, by a ferry or car transporter.	Drive the vehicle for a while on a road where GPS signals can be received.
	The position and direction of the vehicle icon may be incorrect depending on the driving environments and the levels of positioning accuracy of the navigation system.	This is not a malfunction. Drive the vehicle for a while to automatically correct the position and direction of the vehicle icon.
When the vehicle is traveling on a new road, the vehicle icon is located on another road nearby.	Because the new road is not stored in the map data, the system automatically places the vehicle icon on the nearest road available.	Updated road information will be included in the next version of the map data.

NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

Symptom	Possible cause	Possible solution
The screen does not switch to the night screen even after turning on the headlights.	The daytime screen was set the last time the headlights were turned on.	Set the screen to the night screen mode using <Day/Night> when you turn on the headlights.
The map does not scroll even when the vehicle is moving.	The current location map screen is not displayed.	Press <MAP>.
The vehicle icon is not displayed.	The current location map screen is not displayed.	Press <MAP>.
The location of the vehicle icon is misaligned from the actual position.	When using tire chains or replacing the tires, speed calculations based on the speed sensor may be incorrect.	Drive the vehicle for a while (at approximately 19 MPH for about 30 minutes) to automatically correct the vehicle icon position. If this does not correct the vehicle icon position, contact an INFINITI dealer.
	The map data has a mistake or is incomplete (the vehicle icon position is always misaligned in the same area).	Updated road information will be included in the next version of the map data.

RELATED TO ROUTE CALCULATION AND VISUAL GUIDANCE

Symptom	Possible cause	Possible solution
Waypoints are not included in the auto reroute calculation.	Waypoints that you have already passed are not included in the auto reroute calculation.	If you want to go to that waypoint again, you need to edit the route.
Route information is not displayed.	Route calculation has not yet been performed.	Set the destination and perform route calculation.
	You are not driving on the suggested route.	Drive on the suggested route.
	Route guidance is set to off.	Turn on route guidance.
	Route information is not provided for certain types of roads (roads displayed in gray).	This is not a malfunction.
The auto reroute calculation (or detour calculation) suggests the same route as the one previously suggested.	Route calculations took priority conditions into consideration, but the same route was calculated.	This is not a malfunction.
A waypoint cannot be added.	Five waypoints are already set on the route, including ones that you have already passed.	A maximum of 5 waypoints can be set on the route. If you want to go to 6 or more waypoints, perform route calculations multiple times as necessary.
The suggested route is not displayed.	Roads near the destination cannot be calculated.	Reset the destination to a main or ordinary road, and recalculate the route.
	The starting point and destination are too close.	Set a more distant destination.
	The starting point and destination are too far away.	Divide your trip by selecting one or two intermediate destinations, and perform route calculations multiple times.
	There are time restricted roads (by the day of the week, by time) near the current vehicle location or destination.	Set [Use Time Restricted Roads] to off.
The part of the route that you have already passed is deleted.	A route is managed by sections between waypoints. If you passed the first waypoint, the section between the starting point and the waypoint is deleted. (It may not be deleted depending on the area.)	This is not a malfunction.
An indirect route is suggested.	If there are restrictions (such as one-way streets) on roads close to the starting point or destination, the system may suggest an indirect route.	Adjust the location of the starting point or destination.
	The system may suggest an indirect route because route calculation does not take into consideration some areas such as narrow streets (gray roads.)	Reset the destination to a main or ordinary road, and recalculate the route.


NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

Symptom	Possible cause	Possible solution
The landmark information does not correspond to the actual information.	This may be caused by insufficient or incorrect map data.	Updated information will be included in the next version of the data.
The suggested route does not exactly connect to the starting point, waypoints, or destination.	There is no data for route calculation closes to these locations.	Set the starting point, waypoints and destination on a main road, and perform route calculation.

RELATED TO VOICE GUIDANCE

Symptom	Possible cause	Possible solution
Voice guidance is not available	Voice guidance is only available at certain intersections marked with  . In some cases, voice guidance is not available even when the vehicle should make a turn.	This is not a malfunction.
	The vehicle has deviated from the suggested route.	Go back to the suggested route or request route calculation again
	Voice guidance is set to off.	Turn on voice guidance.
	Route guidance is set to off.	Turn on voice guidance.
The guidance contact does not correspond to the actual condition.	The contact of voice guidance may vary, depending on the types of intersections at which turn are made.	Follow all traffic rules and regulations.

RELATED TO TRAFFIC INFORMATION

Symptom	Possible cause	Possible solution
The traffic information is not displayed	The traffic information is not set to on.	Set the traffic information to on.
	You are in an area where traffic information is not available	Scroll to an area where traffic information is available
	You have not subscribed to XM NavTraffic or, your subscription to XM NavTraffic has expired.	Check your subscription status of XM NavTraffic.
	The map scale is set at a level where the display of icons is impossible.	Check that the map scale is set at a level in which the display of icons is possible.
With the automatic detour route search ON, no detour route is set to avoid congested areas.	There is no faster route compared to the current route, based on the road network and traffic information.	The automatic detour search is not intended for avoiding traffic jams. It searches for the fastest route taking into consideration such things as traffic jams.
The route does not avoid road section with traffic information stating it is closed due to road construction.	The navigation system is designed not to avoid this event because the actual period of closure may differ from the declared roadwork period.	Observe the actual road condition and follow the instructions on road for detour when necessary. If the road closure is for certain, use detour function and set the detour distance to avoid the closed road section.
Traffic information displayed differs from information from other media (e.g. radio).	Other media may use different information sources.	Observe the actual road conditions and regulations. Always observe safe driving practices and follow all traffic regulations.

PRECAUTION

PRECAUTIONS

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

INFOID:000000004747742

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the "SRS AIRBAG" and "SEAT BELT" 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 "SRS AIRBAG".
- Never 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

When working near the Airbag Diagnosis Sensor Unit or other Airbag System sensors while ignition switch is ON or engine is running, never use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration may activate the sensor(s), deploy the airbag(s), possibly cause serious injury. When using air or electric power tools or hammers, always turn OFF ignition switch, disconnect the battery, and wait 3 minutes or more before performing any service.

Precaution for Battery Service

INFOID:000000004747738

Before disconnecting the battery, lower both the driver and passenger windows. This will prevent any interference between the window edge and the vehicle when the door is opened/closed. During normal operation, the window slightly raises and lowers automatically to prevent any window to vehicle interference. The automatic window function will not work with the battery disconnected.

Precaution for Trouble Diagnosis

INFOID:000000004469608

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 at 7.0 V or less.
- Turn ignition switch OFF and disconnect the battery cable from the negative terminal before checking the circuit.

Precaution for Harness Repair

INFOID:000000004469609

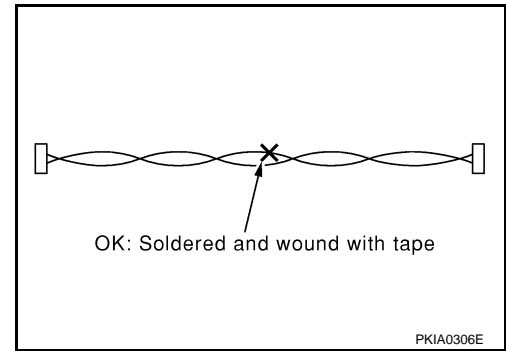
AV COMMUNICATION SYSTEM

PRECAUTIONS

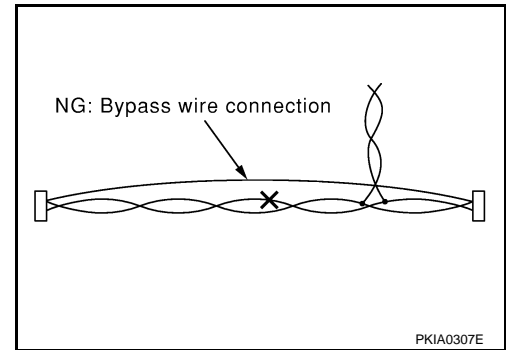
< PRECAUTION >

[BOSE AUDIO WITH NAVIGATION]

- 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.)



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PREPARATION

< PREPARATION >

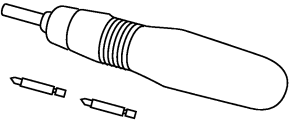
[BOSE AUDIO WITH NAVIGATION]

PREPARATION

PREPARATION

Commercial Service Tools

INFOID:000000004469610

Tool name	Description
<p>Power tool</p>  <p>PBIC0191E</p>	<p>Loosening screws</p>

ON-VEHICLE REPAIR

AV CONTROL UNIT

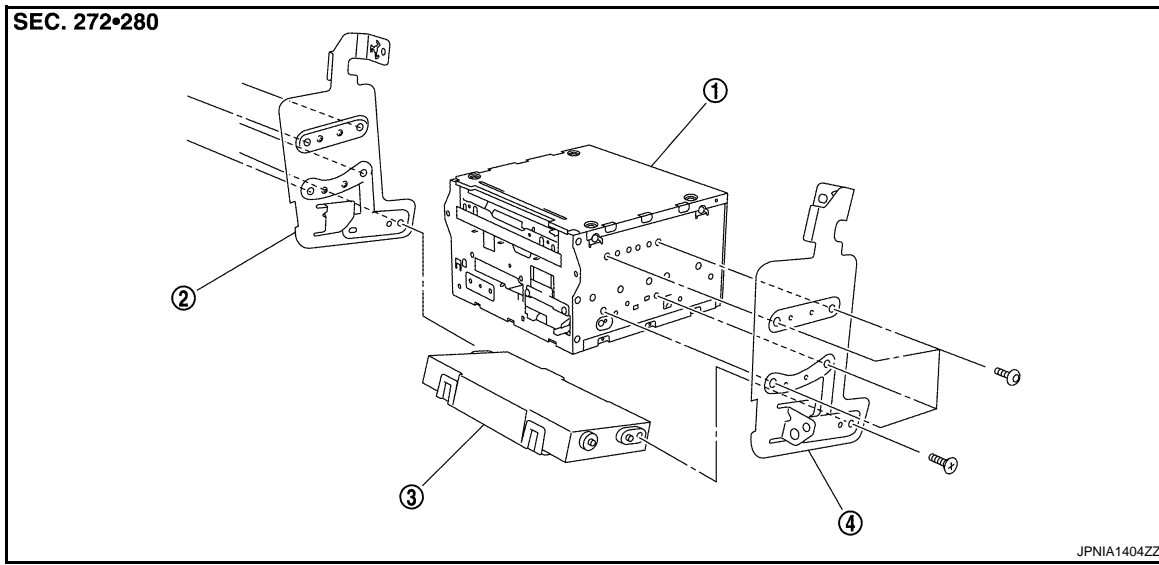
Exploded View

INFOID:000000004469611

REMOVAL

Refer to [IP-11, "Exploded View"](#).

DISASSEMBLY



- 1. AV control unit
- 2. Bracket LH
- 3. A/C auto amp.
- 4. Bracket RH

Removal and Installation

INFOID:000000004469612

REMOVAL

1. Remove preset switch. Refer to [AV-339, "Removal and Installation"](#).
2. Remove AV control unit with A/C auto amp. as a single unit from the body.
3. Remove bracket screws to remove AV control unit.

INSTALLATION

Install in the reverse order of removal.

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FRONT DISPLAY UNIT

< ON-VEHICLE REPAIR >

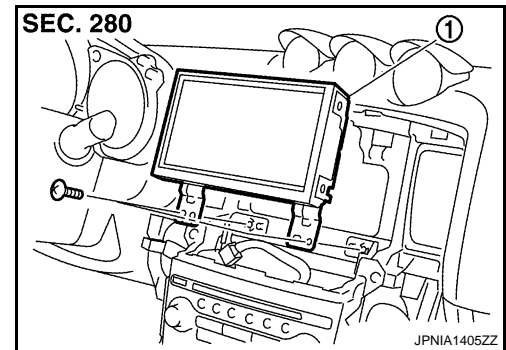
[BOSE AUDIO WITH NAVIGATION]

FRONT DISPLAY UNIT

Exploded View

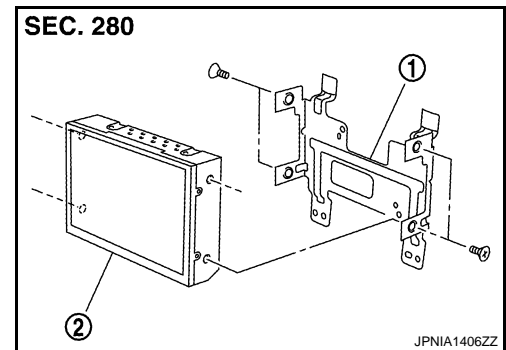
INFOID:000000004469613

REMOVAL



1. Front display unit

DISASSEMBLY



1. Bracket
2. Front display unit

Removal and Installation

INFOID:000000004469614

REMOVAL

1. Remove cluster lid C. Refer to [IP-11, "Exploded View"](#).
2. Remove front display unit with bracket as a single unit from the body.
3. Remove bracket screws to remove front display unit.

INSTALLATION

Install in the reverse order of removal.

FRONT DOOR SPEAKER

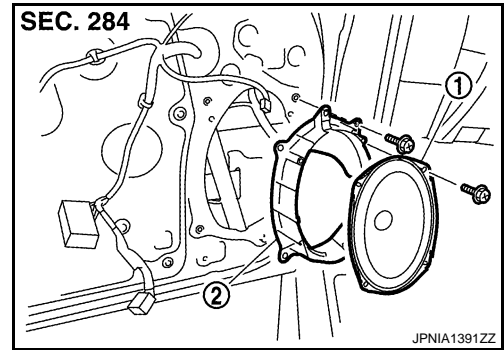
< ON-VEHICLE REPAIR >

[BOSE AUDIO WITH NAVIGATION]

FRONT DOOR SPEAKER

Exploded View

INFOID:000000004469615



1. Front door speaker
2. Speaker bracket

Removal and Installation

INFOID:000000004469616

REMOVAL

1. Remove front door finisher. Refer to [INT-11, "Exploded View"](#).
2. Remove front door speaker screws, then disconnect front door speaker connector and remove front door speaker.

INSTALLATION

Install in the reverse order of removal.

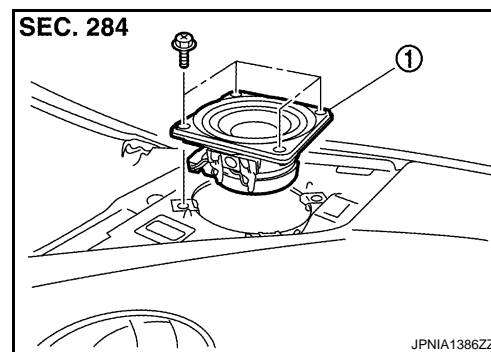
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AV

TWEETER

Exploded View

INFOID:000000004469619



1. Tweeter

Removal and Installation

INFOID:000000004469620

REMOVAL

1. Remove speaker grille. Refer to [IP-11, "Exploded View"](#).
2. Remove tweeter screws, then lift up tweeter, disconnect connector and remove tweeter.

INSTALLATION

Install in the reverse order of removal.

REAR SPEAKER

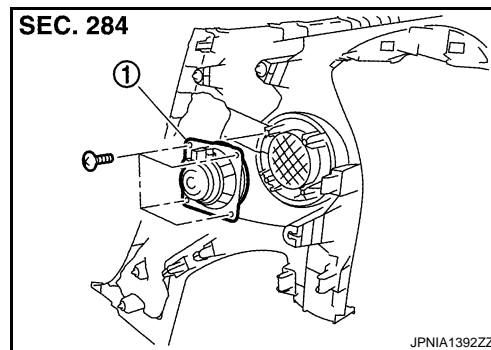
< ON-VEHICLE REPAIR >

[BOSE AUDIO WITH NAVIGATION]

REAR SPEAKER

Exploded View

INFOID:0000000004469617



1. Rear speaker

Removal and Installation

INFOID:0000000004469618

REMOVAL

1. Remove rear side finisher. Refer to [INT-14, "Exploded View"](#).
2. Remove rear speaker screws, then remove rear speaker.

INSTALLATION

Install in the reverse order of removal.

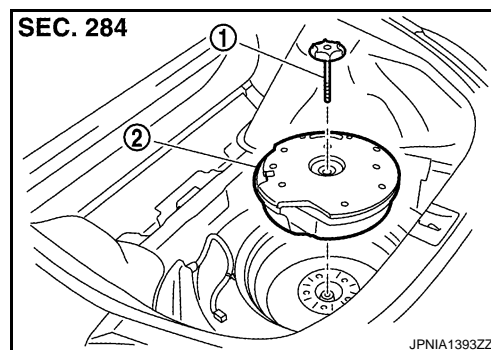
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WOOFER

Exploded View

INFOID:000000004469625



1. Clamp
2. Woofer

Removal and Installation

INFOID:000000004469626

REMOVAL

1. Remove luggage spacer. Refer to [INT-20. "Exploded View"](#).
2. Remove clamp, then disconnect woofer connector and remove the woofer.

INSTALLATION

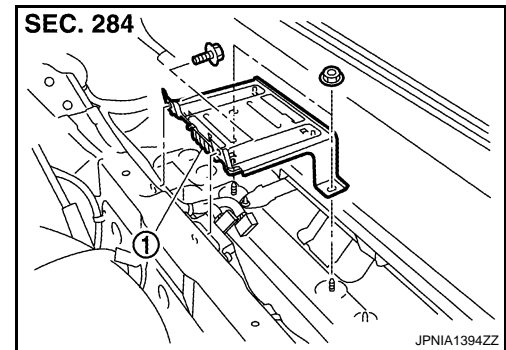
Install in the reverse order of removal.

BOSE AMP.

Exploded View

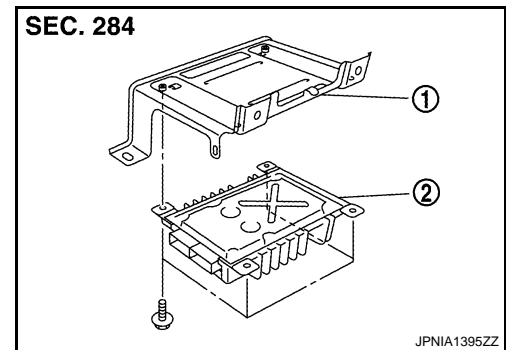
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REMOVAL



1. BOSE amp.

DISASSEMBLY



1. Bracket
2. BOSE amp.

Removal and Installation

INFOID:000000004469628

REMOVAL

1. Remove luggage floor spacer front. Refer to [INT-25, "Exploded View"](#).
2. Disconnect BOSE amp. connector, remove BOSE amp. with bracket as a single unit from body.
3. Remove BOSE amp. bracket screws to remove BOSE amp.

INSTALLATION

Install in the reverse order of removal.

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AV

MULTIFUNCTION SWITCH

< ON-VEHICLE REPAIR >

[BOSE AUDIO WITH NAVIGATION]

MULTIFUNCTION SWITCH

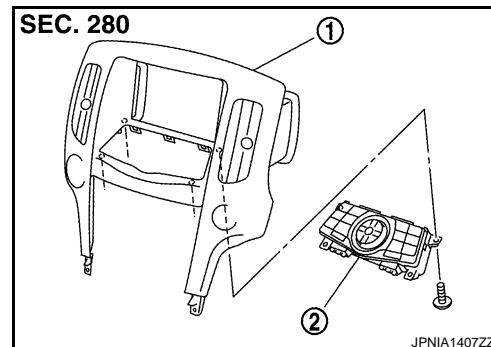
Exploded View

INFOID:000000004469629

REMOVAL

Refer to [IP-11, "Exploded View"](#).

DISASSEMBLY



1. Cluster lid C
2. Multifunction switch

Removal and Installation

INFOID:000000004469630

REMOVAL

1. Remove cluster lid C. Refer to [IP-11, "Exploded View"](#).
2. Remove multifunction switch screws, then remove multifunction switch from cluster lid C.

INSTALLATION

Install in the reverse order of removal.

PRESET SWITCH

< ON-VEHICLE REPAIR >

[BOSE AUDIO WITH NAVIGATION]

PRESET SWITCH

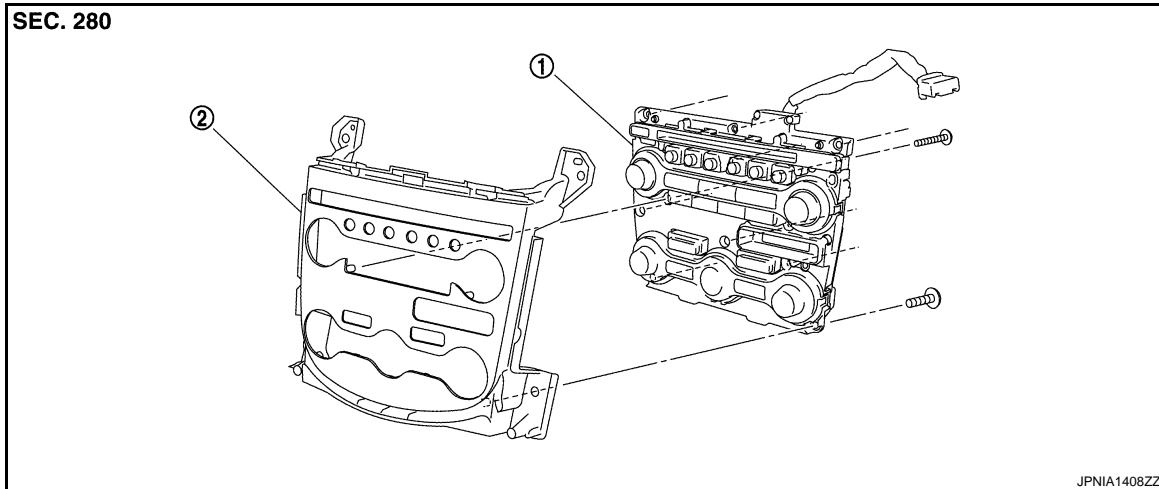
Exploded View

INFOID:000000004469631

REMOVAL

Refer to [IP-11, "Exploded View"](#).

DISASSEMBLY



1. Preset switch

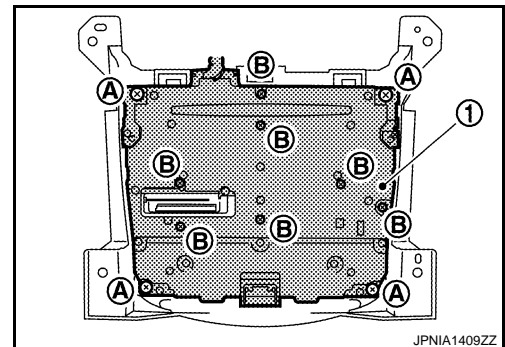
2. Cluster lid C finisher

Removal and Installation

INFOID:000000004469632

REMOVAL

1. Remove cluster lid C. Refer to [IP-11, "Exploded View"](#).
2. Remove preset switch with cluster lid C finisher as a single unit from the body.
3. Remove preset switch screws (A) (B) to remove preset switch (1) from cluster lid C finisher.



INSTALLATION

Install in the reverse order of removal.

STEERING SWITCH

Exploded View

INFOID:000000004469633

Refer to [ST-12, "Exploded View"](#).

Removal and Installation

INFOID:000000004469634

REMOVAL

Refer to [ST-12, "Exploded View"](#).

INSTALLATION

Install in the reverse order of removal.

ANTENNA AMP.

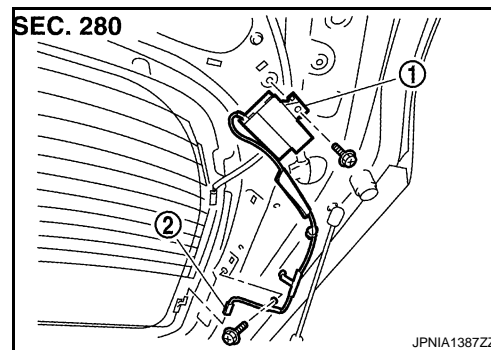
< ON-VEHICLE REPAIR >

[BOSE AUDIO WITH NAVIGATION]

ANTENNA AMP.

Exploded View

INFOID:0000000004497956



1. Antenna amp.
2. Connector

Removal and Installation

INFOID:0000000004497957

REMOVAL

1. Remove back door finisher side. Refer to [INT-27, "Exploded View"](#).
2. Disconnect connector and remove screw, then remove antenna amp.

INSTALLATION

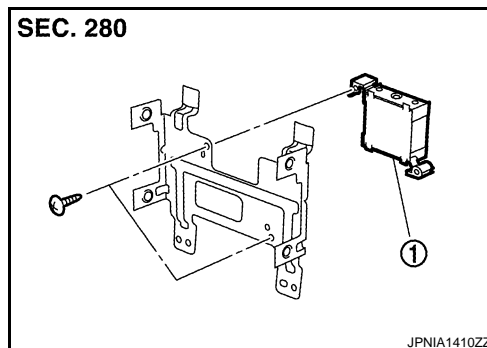
Install in the reverse order of removal.

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IPOD ADAPTER

Exploded View

INFOID:000000004469635



1. iPod adapter

Removal and Installation

INFOID:000000004469636

REMOVAL

1. Remove front display unit. Refer to [AV-332, "Exploded View"](#).
2. Remove screws to remove the iPod adapter from the bracket.

INSTALLATION

Install in the reverse order of removal.

IPOD CONNECTOR

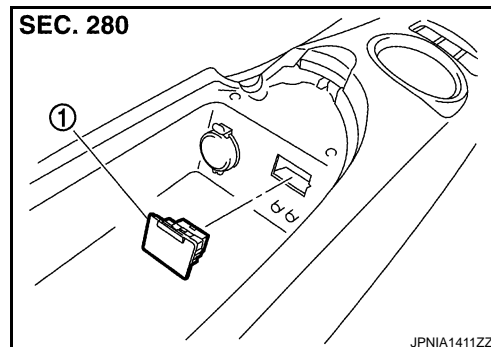
Exploded View

INFOID:000000004469637

REMOVAL

Refer to [IP-22, "Exploded View"](#).

DISASSEMBLY



1. iPod connector

Removal and Installation

INFOID:000000004469638

REMOVAL

1. Remove center console. Refer to [IP-22, "Exploded View"](#).
2. Press the pawl from the back of center console to remove iPod connector.

INSTALLATION

Install in the reverse order of removal.

AUXILIARY INPUT JACKS

< ON-VEHICLE REPAIR >

[BOSE AUDIO WITH NAVIGATION]

AUXILIARY INPUT JACKS

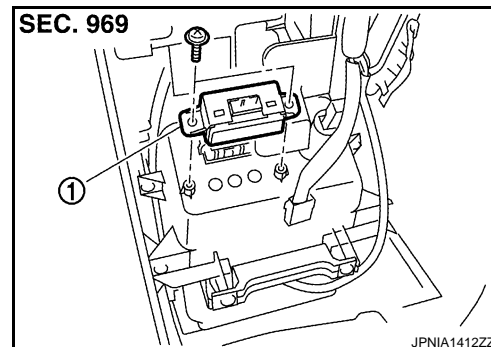
Exploded View

INFOID:000000004469639

REMOVAL

Refer to [IP-22, "Exploded View"](#).

DISASSEMBLY



1. Auxiliary input jacks

Removal and Installation

INFOID:000000004469640

REMOVAL

1. Remove center console. Refer to [IP-22, "Exploded View"](#).
2. Remove screws to remove auxiliary input jacks from the center console.

INSTALLATION

Install in the reverse order of removal.

MICROPHONE

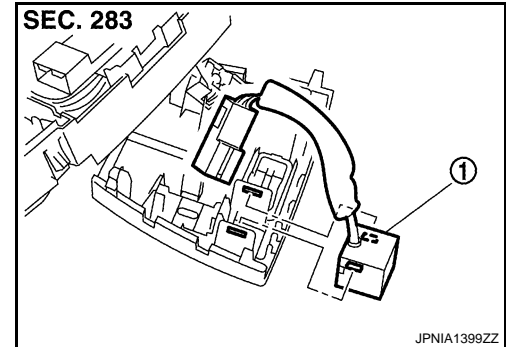
Exploded View

INFOID:000000004469641

REMOVAL

Refer to [INT-20. "Exploded View"](#).

DISASSEMBLY



1. Microphone

Removal and Installation

INFOID:000000004469642

REMOVAL

1. Remove map lamp. Refer to [INL-95. "Exploded View"](#).
2. Press the pawl to remove microphone from map lamp.

INSTALLATION

Install in the reverse order of removal.

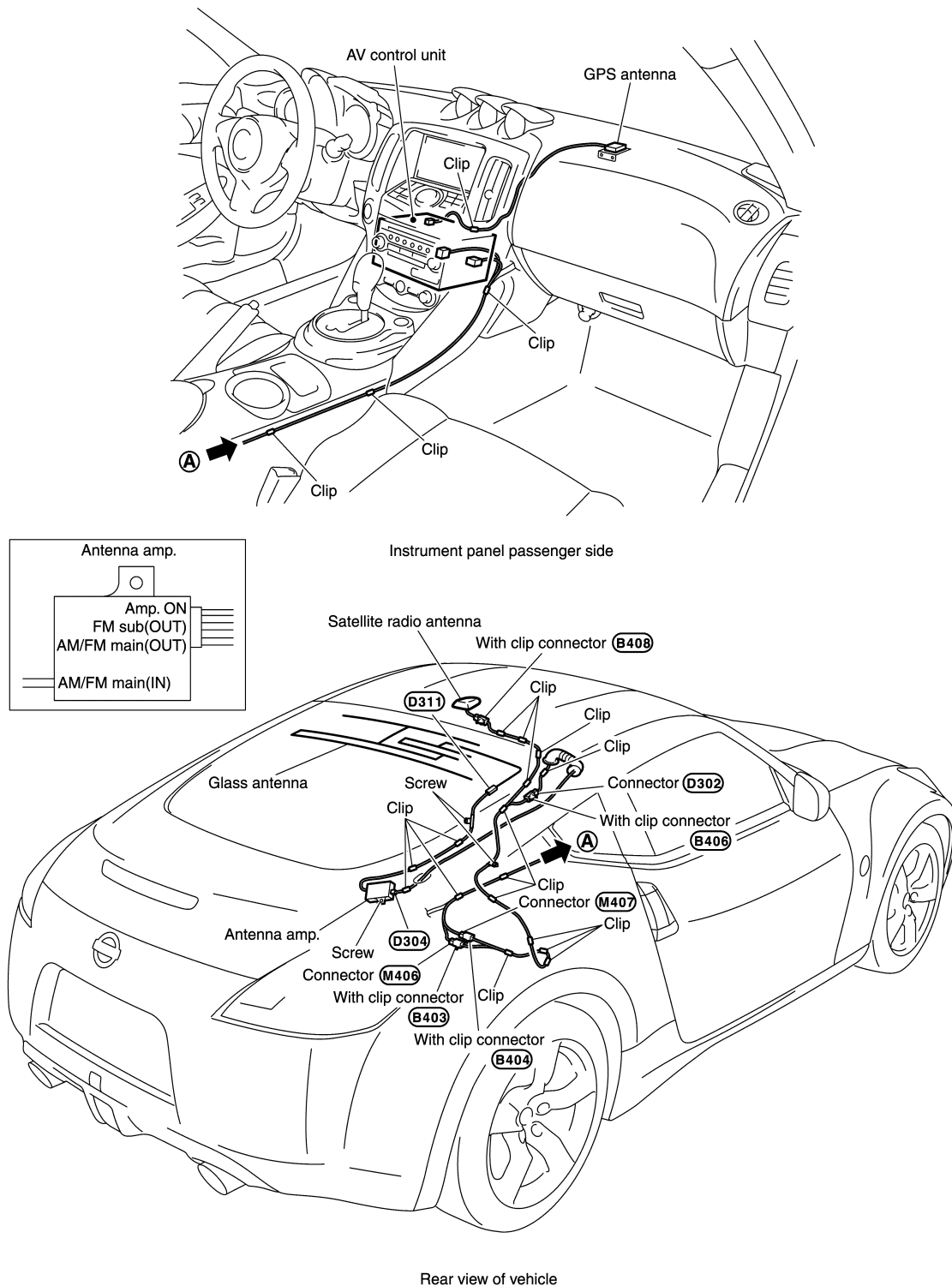
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GPS ANTENNA

Harness Layout

INFOID:0000000004469644

SEC. 280



JPNIA1413GB

Removal and Installation

INFOID:0000000004469645

REMOVAL

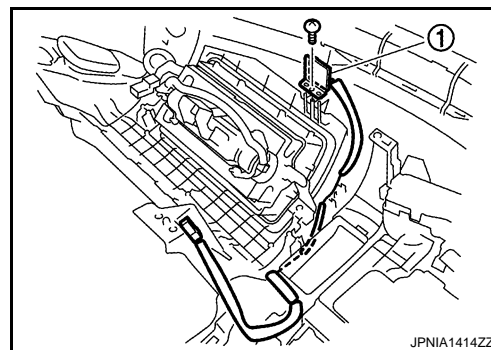
1. Remove installment panel. Refer to [IP-11, "Exploded View"](#).

GPS ANTENNA

< ON-VEHICLE REPAIR >

[BOSE AUDIO WITH NAVIGATION]

2. Remove screw to remove GPS antenna (1) from instrument panel.



INSTALLATION

Install in the reverse order of removal.

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SATELLITE RADIO ANTENNA

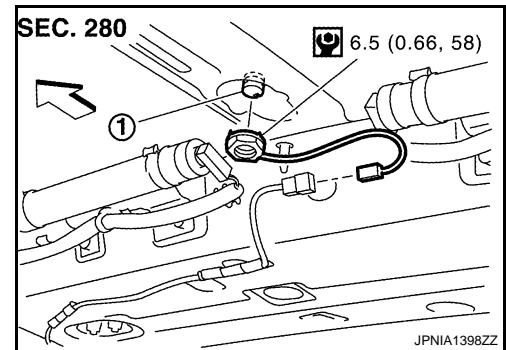
< ON-VEHICLE REPAIR >

[BOSE AUDIO WITH NAVIGATION]

SATELLITE RADIO ANTENNA

Exploded View

INFOID:000000004469654



1. Satellite radio antenna

⇐ : Vehicle front

Refer to [GI-4, "Components"](#) for symbols in the figure.

Removal and Installation

INFOID:000000004469655

REMOVAL

1. Remove rear pillar finisher (LH/RH). Refer to [INT-14, "Exploded View"](#).
2. Pull down headlining (rear side) and obtain space for work between vehicle and headlining. Refer to [INT-22, "Exploded View"](#).
3. Disconnect satellite radio antenna connector.
4. Remove satellite radio antenna mounting nut, then remove satellite radio antenna from roof panel.

INSTALLATION

Install in the reverse order of removal.

CAUTION:

- Never bend headlining when pull down headlining (rear side).
- When satellite radio antenna mounting nut tightening torque is loose, be careful about tightening torque. Antenna sensitivity becomes poor, and when it is excessive, roof panel may become deformed.

ANTENNA FEEDER (RADIO)

< ON-VEHICLE REPAIR >

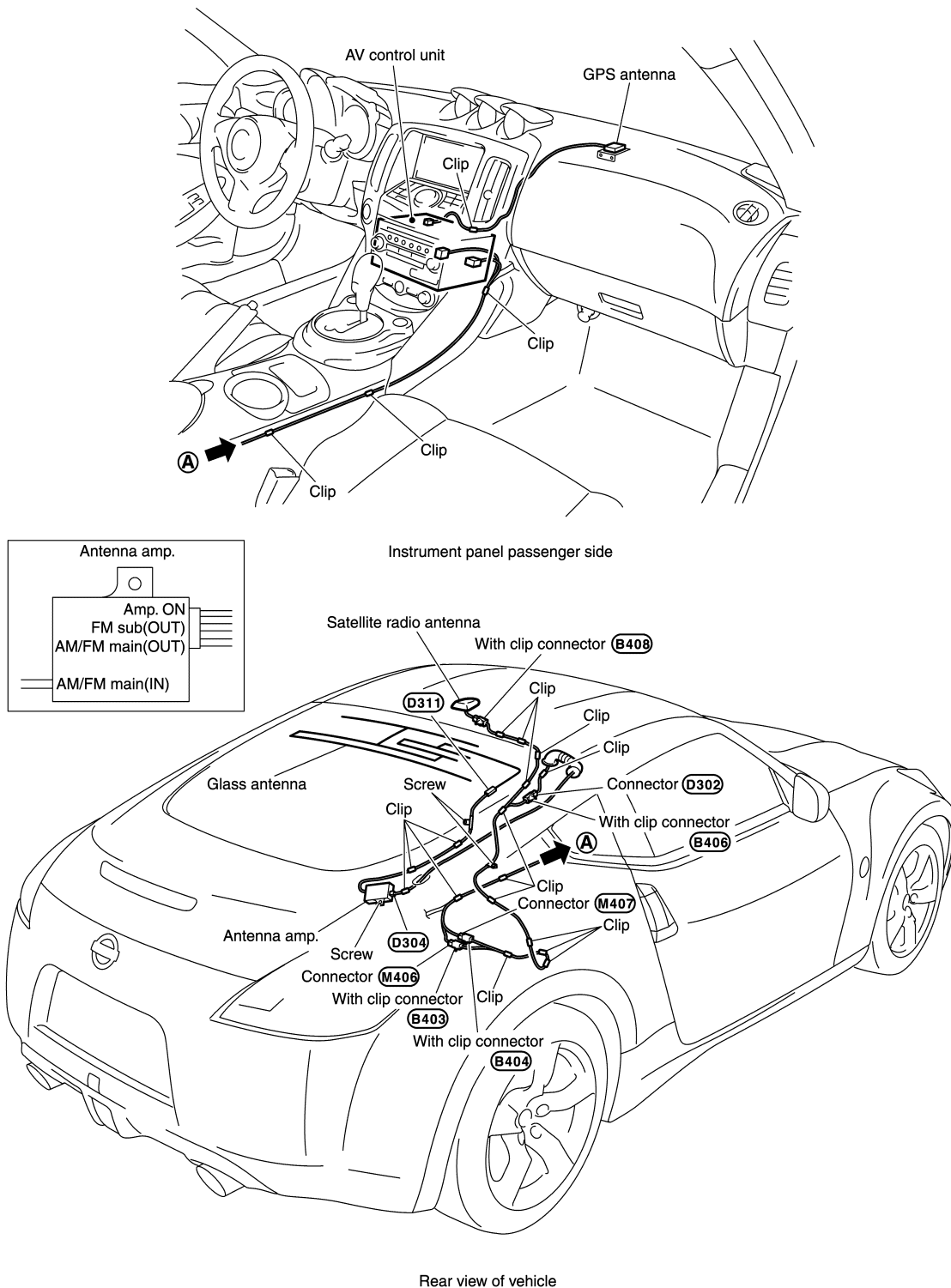
[BOSE AUDIO WITH NAVIGATION]

ANTENNA FEEDER (RADIO)

Harness Layout

INFOID:000000004511344

SEC. 280



JPNIA1413GB

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ANTENNA FEEDER (SATELLITE RADIO)

< ON-VEHICLE REPAIR >

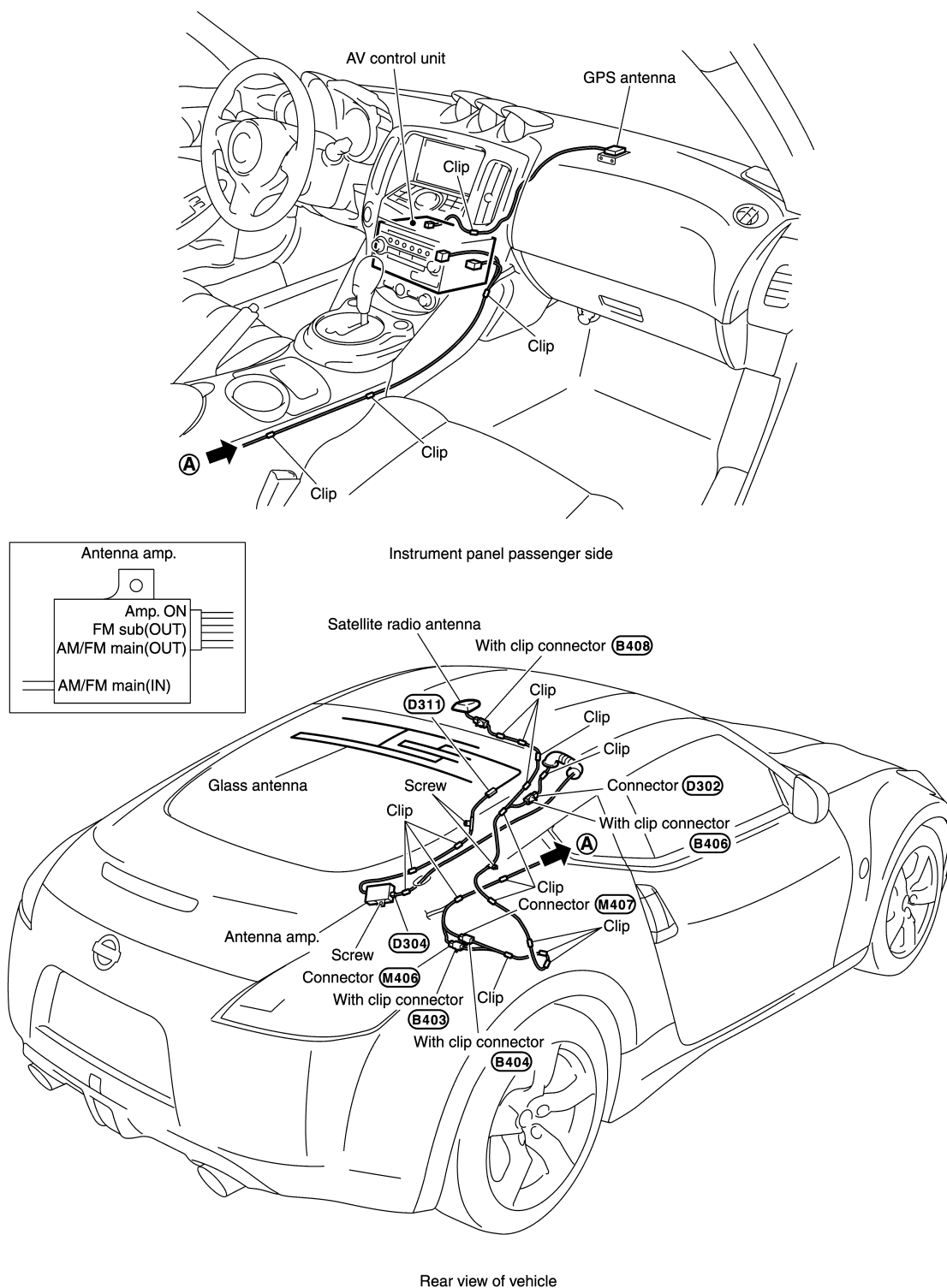
[BOSE AUDIO WITH NAVIGATION]

ANTENNA FEEDER (SATELLITE RADIO)

Harness Layout

INFOID:000000004511416

SEC. 280



JPNIA1413GB

[BOSE AUDIO WITH NAVIGATION]

ANTENNA FEEDER (GPS)

INFOID:0000000004511417

