SECTION AV
AUDIO, VISUAL & NAVIGATION SYSTEM

CONTENTS

BASE AUDIO

BOSE AUDIO

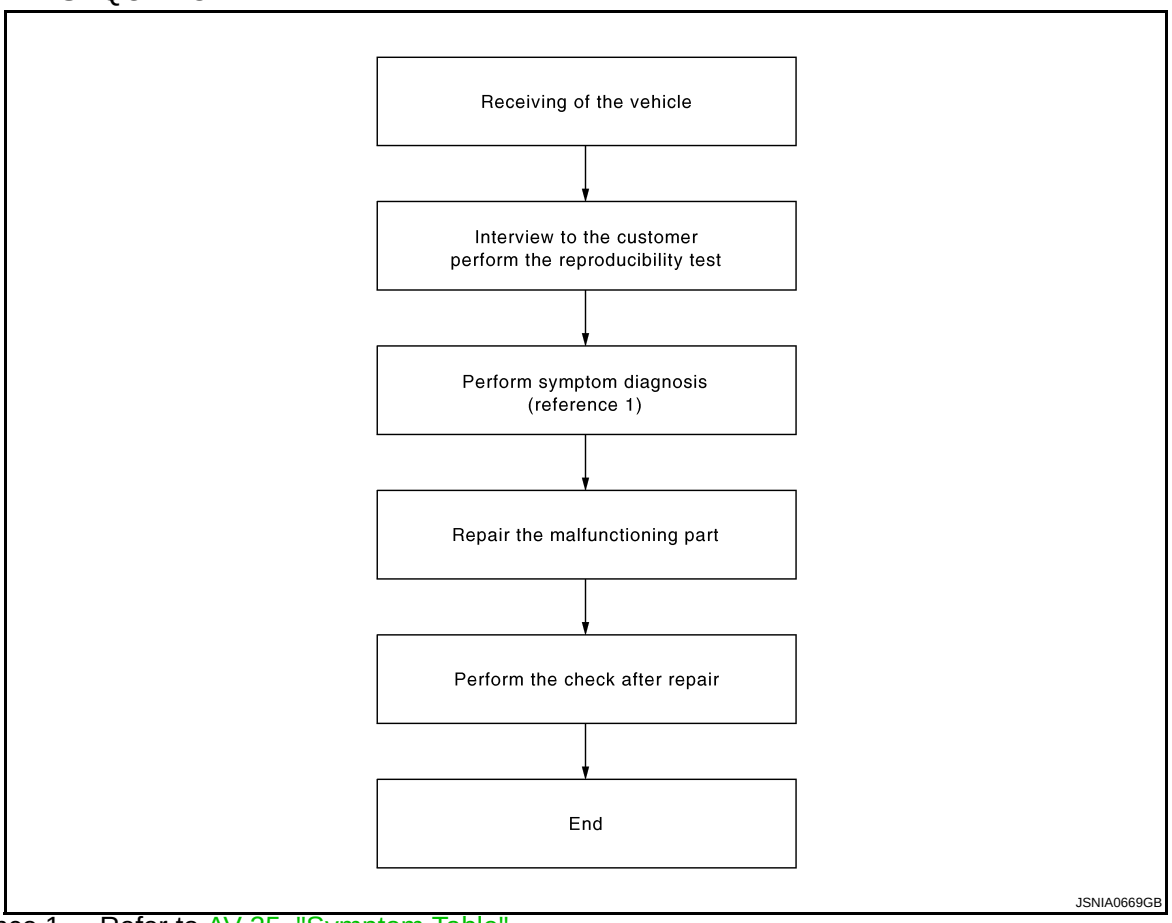
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:0000000001737431

OVERALL SEQUENCE



Reference 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 SYMPTOM

Perform 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.

4.FINAL CHECK

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

Is there any symptom?

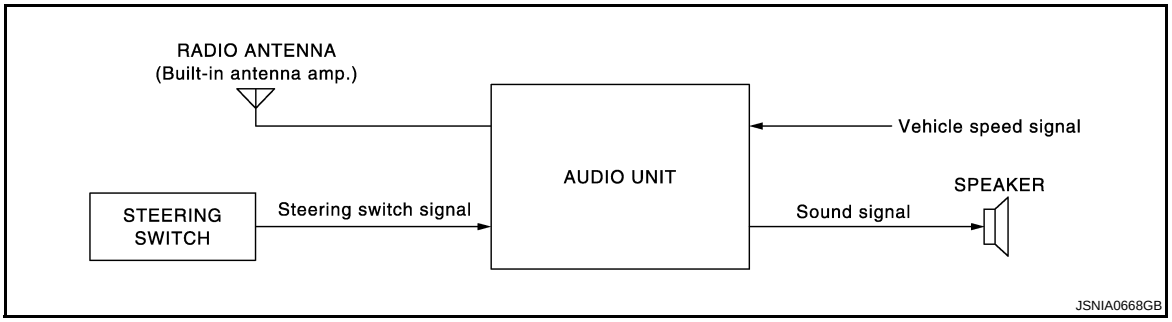
YES >> GO TO 2.
NO >> INSPECTION END

FUNCTION DIAGNOSIS

AUDIO SYSTEM

System Diagram

INFOID:0000000001700238



System Description

INFOID:0000000001713529

AUDIO SYSTEM

Audio functions
AM/FM radio
CD

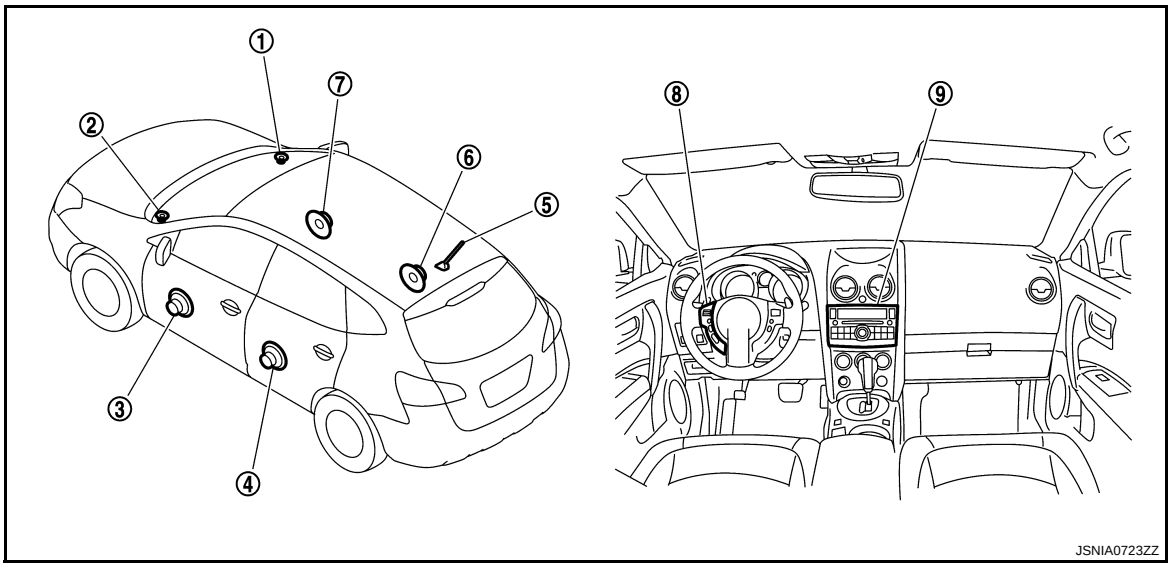
- Radio signal are received by radio antenna, next it is amplified by antenna amp., and finally it is input to audio unit. (Antenna amp. is built into radio antenna.)
- Audio unit outputs the audio signal to each speaker.

SPEED SENSITIVE VOLUME

- Volume level of this system gone up and down automatically in proportion to the vehicle speed.
- The control level can be selected by the customer.

Component Parts Location

INFOID:0000000001700240



1. Tweeter RH
2. Tweeter LH
3. Front speaker LH
4. Rear speaker LH
5. Radio antenna
6. Rear speaker RH
7. Front speaker RH
8. Steering switch
9. Audio unit

Component Description

INFOID:0000000001713530

Part name	Description
Audio unit	Controls audio system functions.
Front speaker	• Outputs sound signal from audio unit. • Outputs high, mid and low range sounds.
Tweeter	• Outputs sound signal from audio unit. • Outputs high range sounds.
Rear speaker	• Outputs sound signal from audio unit. • Outputs high, mid and low range sounds.
Radio antenna (Built-in antenna amp.)	• Radio signal received by radio antenna is amplified and sent to audio unit. • Power (antenna amp. ON signal) is supplied from audio unit.
Steering switch	• Each audio operation can be operated. • Steering switch signal (operation signal) is output to audio unit.

DIAGNOSIS SYSTEM (AUDIO UNIT)

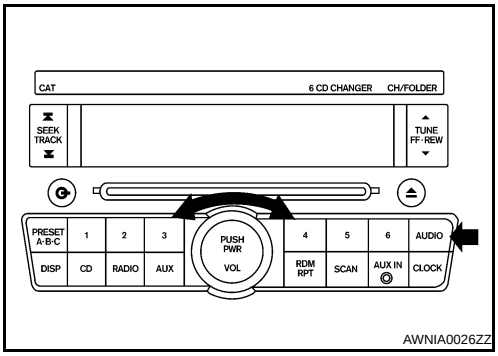
Diagnosis Description

INFOID:0000000001713613

Self-diagnosis mode can check the following items.
- Audio unit hardware/software versions
- Continuity of each speaker channel
- Continuity of each audio unit switch

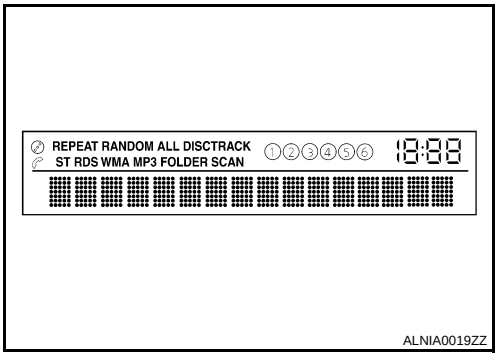
OPERATION PROCEDURE

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



AWNIA0026ZZ

4. Initially, all display segments will be illuminated.



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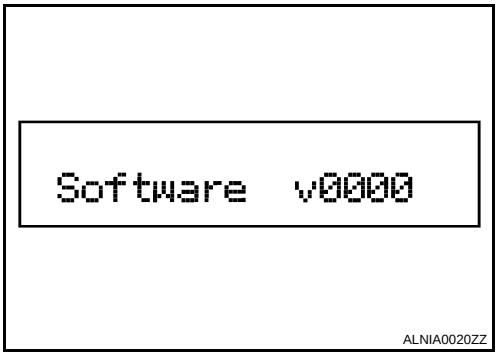
Version Check

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



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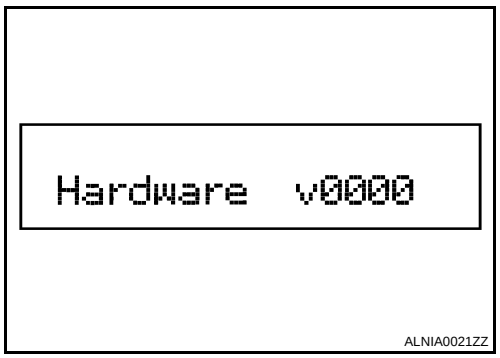
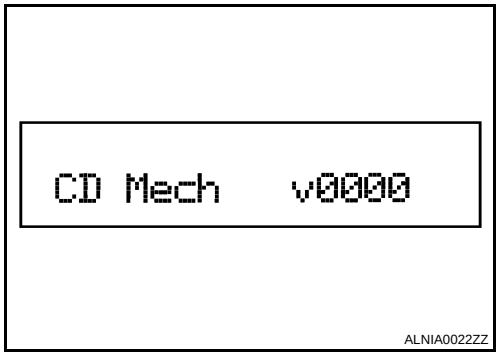
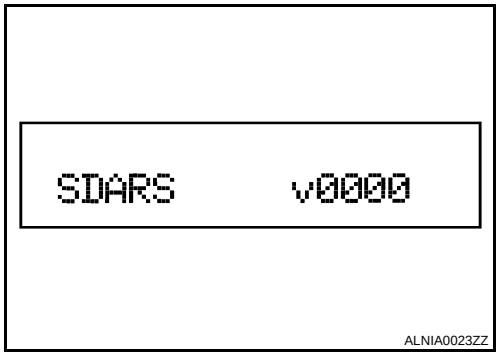
2. Press the “AUDIO” switch again to display the “Hardware” (audio hardware version).



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

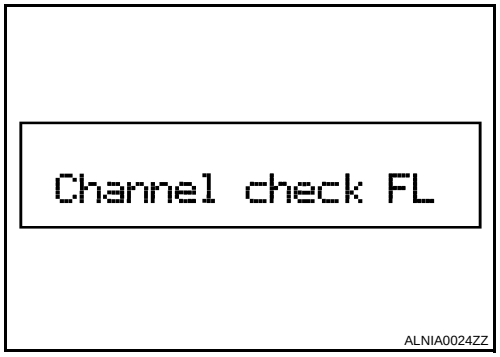


4. Press the “AUDIO” switch again to display the “SDARS” (satellite radio version).



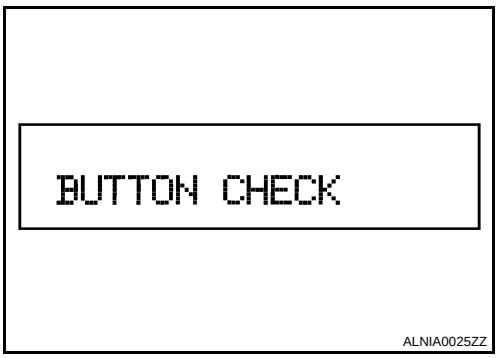
Channel Check Diagnostics

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



Button Check Diagnostics

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



COMPONENT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT

AUDIO UNIT

AUDIO UNIT : Diagnosis Procedure

INFOID:0000000001713614

1.CHECK FUSE

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

Power source	Fuse No.
Battery	35
Ignition switch ACC or ON	20

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	Reference value
Battery power supply	M46	19	OFF	Battery voltage
ACC power supply	M46	7	ACC	Battery voltage

Is inspection result OK?

YES >> INSPECTION END
NO >> Check harness between audio unit and fuse.

STEERING SWITCH SIGNAL A CIRCUIT

Description

INFOID:0000000001700251

Transmits the steering switch signal to audio unit.

Diagnosis Procedure

INFOID:0000000001700252

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 terminal 6 and spiral cable harness connector terminal 24.

6 – 24 : Continuity should exist.

4. Check continuity between audio unit harness connector terminal 6 and ground.

6 – Ground : Continuity should not exist.

Is inspection result OK?

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

2.CHECK SPIRAL CABLE

Check spiral cable.

Is inspection result OK?

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 terminals 6 and 15.

6 – 15 : Approx. 3.3 V

Is inspection result OK?

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

4.CHECK STEERING SWITCH

1. Turn ignition switch ON.
2. Check steering switch. Refer to AV-12, "Component Inspection".

Is inspection result OK?

YES >> INSPECTINON END
NO >> Replace steering switch.

Component Inspection

INFOID:0000000001715928

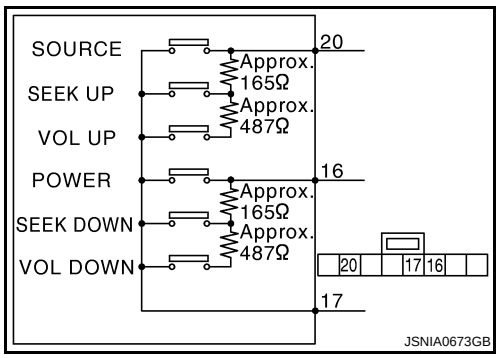
Measure the resistance between the steering switch connector terminals 20 to 17 and 16 to 17.

Between terminals 20 and 17

VOL UP switch ON	**: 645 – 659 Ω**
SEEK UP switch ON	**: 163 – 167 Ω**
SOURCE switch ON	**: 0 Ω**

Between terminals 16 and 17

VOL DOWN switch ON	**: 645 – 659 Ω**
SEEK DOWN switch ON	**: 163 – 167 Ω**
POWER switch ON	**: 0 Ω**



STEERING SWITCH SIGNAL B CIRCUIT

Description

INFOID:0000000001715918

Transmits the steering switch signal to audio unit.

Diagnosis Procedure

INFOID:0000000001715919

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 terminal 16 and spiral cable harness connector terminal 32.

16 – 32 : Continuity should exist.

4. Check continuity between audio unit harness connector terminal 16 and ground.

16 – Ground : Continuity should not exist.

Is inspection result OK?

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

2.CHECK SPIRAL CABLE

Check spiral cable.

Is inspection result OK?

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 terminals 16 and 15.

16 – 15 : Approx. 3.3 V

Is inspection result OK?

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

4.CHECK STEERING SWITCH

1. Turn ignition switch ON.
2. Check steering switch. Refer to AV-14, "Component Inspection".

Is inspection result OK?

YES >> INSPECTINON END
NO >> Replace steering switch.

Component Inspection

INFOID:0000000001716705

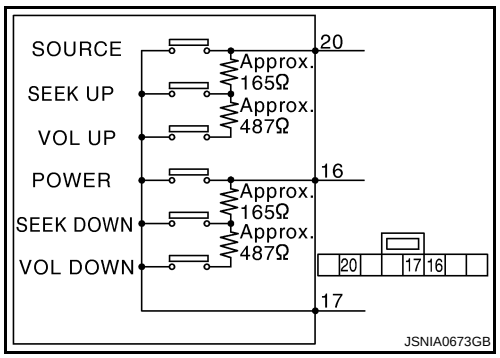
Measure the resistance between the steering switch connector terminals 20 to 17 and 16 to 17.

Between terminals 20 and 17

VOL UP switch ON	**: 645 – 659 Ω**
SEEK UP switch ON	**: 163 – 167 Ω**
SOURCE switch ON	**: 0 Ω**

Between terminals 16 and 17

VOL DOWN switch ON	**: 645 – 659 Ω**
SEEK DOWN switch ON	**: 163 – 167 Ω**
POWER switch ON	**: 0 Ω**



STEERING SWITCH SIGNAL GND CIRCUIT

Description

INFOID:0000000001716706

Transmits the steering switch signal to audio unit.

Diagnosis Procedure

INFOID:0000000001716707

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 terminal 15 and spiral cable harness connector terminal 31.

15 – 31 : Continuity should exist.

Is inspection result OK?

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

2.CHECK SPIRAL CABLE

Check spiral cable.

Is inspection result OK?

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 terminals 15 and ground.

15 – Ground : Continuity should exist.

Is inspection result OK?

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

4.CHECK STEERING SWITCH

1. Turn ignition switch ON.
2. Check steering switch. Refer to AV-16, "Component Inspection".

Is inspection result OK?

YES >> INSPECTINON END
NO >> Replace steering switch.

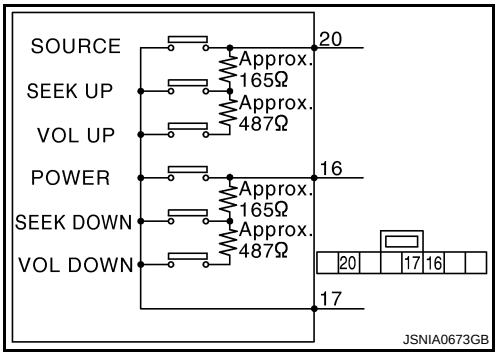
Component Inspection

INFOID:0000000001716708

Measure the resistance between the steering switch connector terminals 20 to 17 and 16 to 17.

Between terminals 20 and 17
VOL UP switch ON : 645 – 659 Ω
SEEK UP switch ON : 163 – 167 Ω
SOURCE switch ON : 0 Ω

Between terminals 16 and 17
VOL DOWN switch ON : 645 – 659 Ω



SEEK DOWN switch ON	**: 163 – 167 Ω**
POWER switch ON	**: 0 Ω**

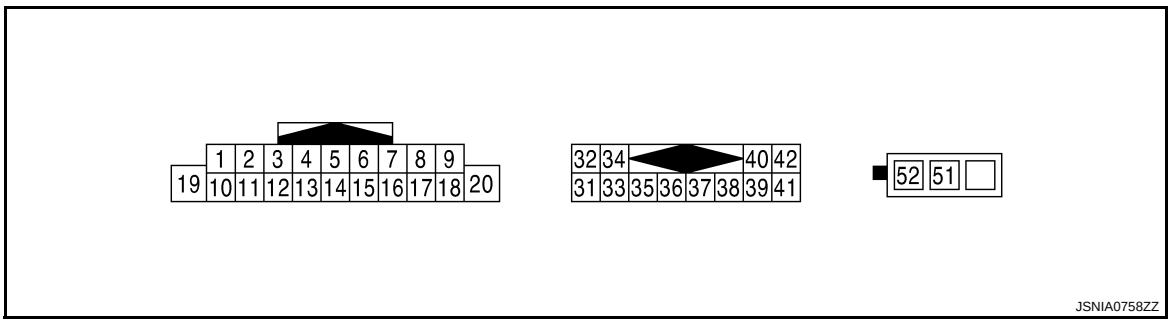
ECU DIAGNOSIS

AUDIO UNIT

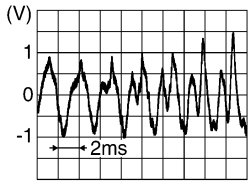
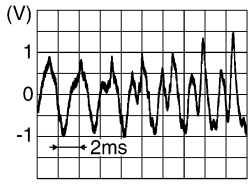
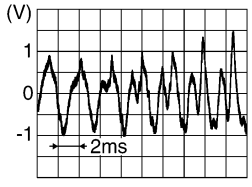
Reference Value

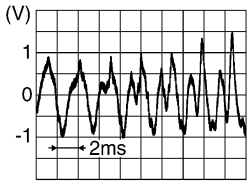
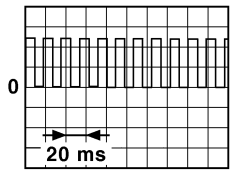
INFOID:0000000001714520

TERMINAL LAYOUT



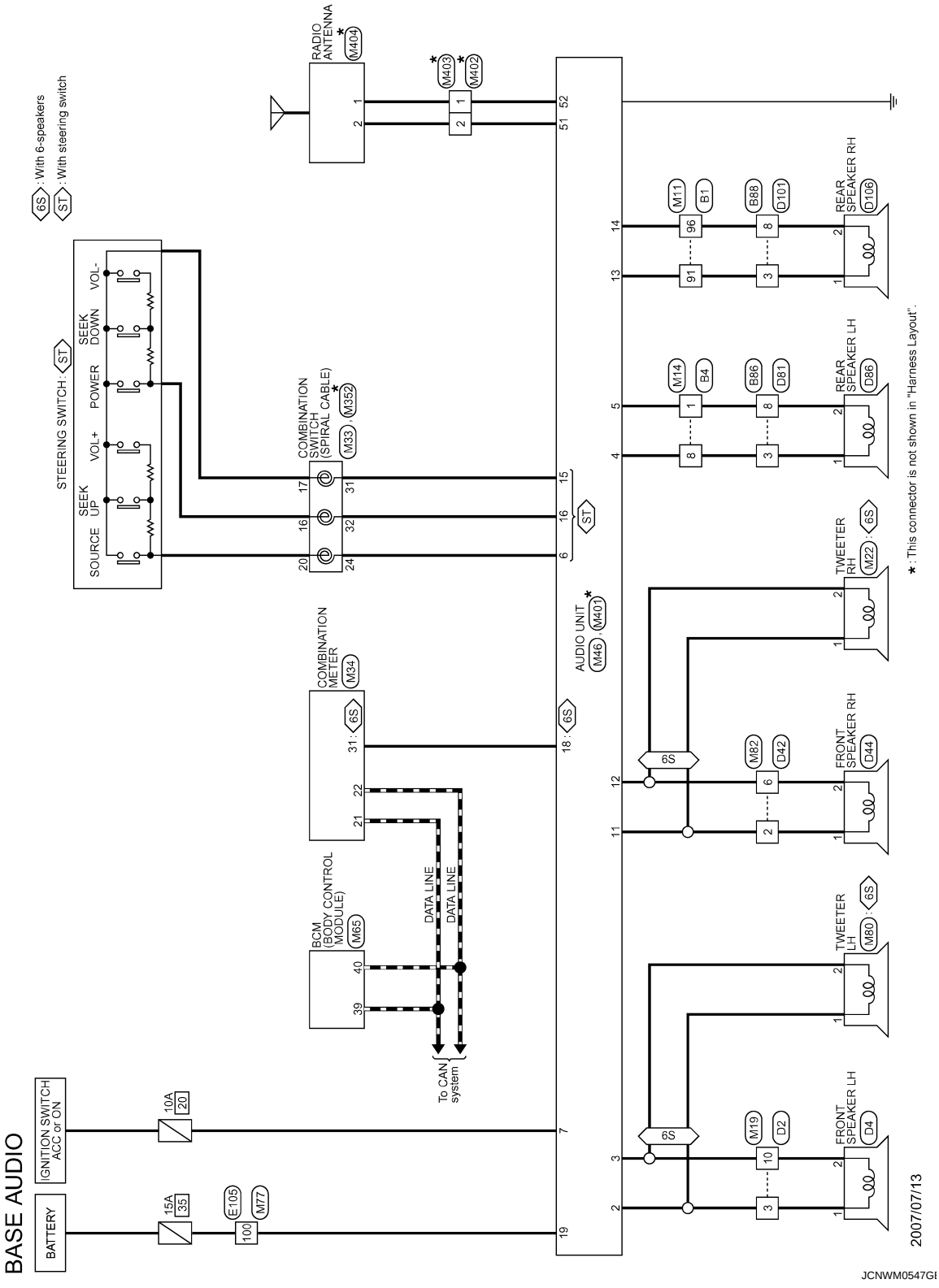
PHYSICAL VALUES

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
2 (R)	3 (G)	Sound signal front LH	Output	Ignition switch ON	Voice output	 SKIB3609E
4 (V)	5 (LG)	Sound signal rear LH	Output	Ignition switch ON	Voice output	 SKIB3609E
6 (W)	15 (GR)	Steering switch signal A	Input	Ignition switch ON	Keep pressing SOURCE switch	0 V
					Keep pressing SEEK UP switch	1.1 V
					Keep pressing VOL UP switch	2.2 V
					Except for above	3.3 V
7 (SB)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
11 (O)	12 (W)	Sound signal front RH	Output	Ignition switch ON	Voice output	 SKIB3609E

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
13 (L)	14 (P)	Sound signal rear RH	Output	Ignition switch ON	Voice output	 SKIB3609E
15 (GR)	Ground	Steering switch signal ground	—	Ignition switch ON	—	0 V
16 (O)	15 (GR)	Steering switch signal B	Input	Ignition switch ON	Keep pressing POWER switch	0 V
					Keep pressing SEEK DOWN switch	1.1 V
					Keep pressing VOL DOWN switch	2.2 V
					Except for above	3.3 V
18 (L)	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).  JSNIA0012GB
19 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
51	—	Antenna signal	Input	—	—	—
52	Ground	Antenna amp. ON signal	Output	Ignition switch ON	—	12 V

Wiring Diagram - BASE AUDIO -

INFOID:0000000001714521

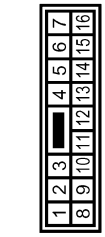


BASE AUDIO

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4

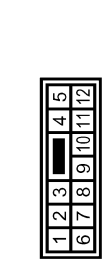
Terminal No.	Color of Wire	Signal Name [Specification]
91	GR	–
96	Y	–

Connector No.	B4
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS



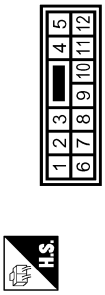
Terminal No.	Color of Wire	Signal Name [Specification]
1	R	–
8	L	–

Connector No.	B86
Connector Name	WIRE TO WIRE
Connector Type	NS12MW-CS



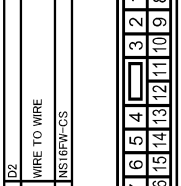
Terminal No.	Color of Wire	Signal Name [Specification]
3	L	–
8	R	–

Connector No.	B88
Connector Name	WIRE TO WIRE
Connector Type	NS12MW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
3	GR	–
8	Y	–

Connector No.	D2
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS

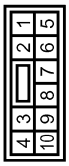


Terminal No.	Color of Wire	Signal Name [Specification]
3	B	–
10	P	–

Connector No.	D4
Connector Name	FRONT SPEAKER LH
Connector Type	NS02FW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	–
2	P	–

Connector No.	D42
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
2	G	–
6	R	–

Connector No.	D44
Connector Name	FRONT SPEAKER RH
Connector Type	NS02FW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	–
2	R	–

JCNWM0548GB

BASE AUDIO

Connector No.	D81
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS

H.S.

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

Terminal No.	Color of Wire	Signal Name [Specification]
3	L	–
8	R	–

Connector No.	D86
Connector Name	REAR SPEAKER LH
Connector Type	NS02FW-CS

H.S.

2	1

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	–
2	R	–

Connector No.	D101
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS

H.S.

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

Terminal No.	Color of Wire	Signal Name [Specification]
3	GR	–
8	Y	–

Connector No.	D106
Connector Name	REAR SPEAKER RH
Connector Type	NS02FW-CS

H.S.

2	1

Terminal No.	Color of Wire	Signal Name [Specification]
1	GR	–
2	Y	–

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
100	L	–

Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
91	L	–
96	P	–

Connector No.	M14
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS

H.S.

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

Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	–
8	V	–

Connector No.	M19
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS

H.S.

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

Terminal No.	Color of Wire	Signal Name [Specification]
3	R	–
10	G	–

JCNWM0549GB

BASE AUDIO

Connector No.	M22
Connector Name	TWEETER RH
Connector Type	TK02FBR

H.S.

2 1

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	–
2	Y	–

Connector No.	M33
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY-1V

H.S.

24 25 26 27
31 32 33 34

Terminal No.	Color of Wire	Signal Name [Specification]
24	BR	–
31	GR	–
32	O	–

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	SAB40FW

H.S.

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

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

Connector No.	M46
Connector Name	AUDIO UNIT
Connector Type	TH18FW-CS2

H.S.

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

Terminal No.	Color of Wire	Signal Name [Specification]
2	R	SOUND SIGNAL FRONT LH (+)
3	G	SOUND SIGNAL FRONT LH (–)
4	V	SOUND SIGNAL REAR LH (+)
5	LG	SOUND SIGNAL REAR LH (–)
6	W	STEERING SW SIGNAL A
7	SB	ACC
11	O	SOUND SIGNAL FRONT RH (+)
12	W	SOUND SIGNAL FRONT RH (–)
13	L	SOUND SIGNAL REAR RH (+)
14	P	SOUND SIGNAL REAR RH (+)
15	GR	STEERING SW SIGNAL GND
16	O	STEERING SW SIGNAL B
18	L	VEHICLE SPEED SIGNAL (8-PULSE)
19	Y	BAT

Connector No.	M65
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FW

H.S.

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

Terminal No.	Color of Wire	Signal Name [Specification]
39	L	CAN-H
40	P	CAN-L

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
100	Y	–

JCNWM0550GB

BASE AUDIO

Connector No.	M60
Connector Name	TWEETER LH
Connector Type	TK02FBR

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	–[Without BOSE system]
2	GR	–[With BOSE system]

Connector No.	M82
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
2	O	–
6	W	–

Connector No.	M352
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
16	–	–
17	–	–
20	–	–

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

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
51	–	ANTENNA SIGNAL
52	–	ANTENNA AMP. ON SIGNAL

Connector No.	M402
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-1/1S-HU

H.S.

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

Connector No.	M403
Connector Name	WIRE TO WIRE
Connector Type	GT13SCN-1/1PP-HU

H.S.

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

Connector No.	M404
Connector Name	RADIO ANTENNA
Connector Type	GT13SSN-1/1PP-HU

H.S.

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

JCNWM0551GB

SYMPTOM DIAGNOSIS

AUDIO SYSTEM

Symptom Table

INFOID:0000000001714543

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-11, "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-16, "Diagnosis Procedure".
Only specified switch cannot be operated.	Replace steering switch.
“SEEK UP”, “VOL UP” and “SOURCE” switches are not operated.	Steering switch signal A circuit. Refer to AV-12, "Diagnosis Procedure".
“SEEK DOWN” “VOL DOWN” and “POWER” switches are not operated.	Steering switch signal B circuit. Refer to AV-14, "Diagnosis Procedure".

NORMAL OPERATING CONDITION

Description

INFOID:0000000003032449

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. (6CD models)
- 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. (6CD models)
	Files with extensions other than “.MP3”, “.WMA”, “.mp3”, or “.wma” cannot be played. (6CD models)
	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.
It takes a relatively long time before the music starts playing.	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. (6CD models)
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

FOR USA AND CANADA

FOR USA AND CANADA : Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

INFOID:0000000003248447

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”.**
- **Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.**

FOR MEXICO

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

INFOID:0000000003248446

The Supplemental Restraint System such as “AIR BAG” and “SEAT BELT PRE-TENSIONER”, used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. Information necessary to service the system safely is included in the “SRS AIRBAG” and “SEAT BELT” of this Service Manual.

WARNING:

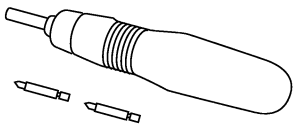
- **To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.**
- **Improper maintenance, including incorrect removal 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”.**
- **Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.**

PREPARATION

PREPARATION

Commercial Service Tools

INFOID:0000000001700266

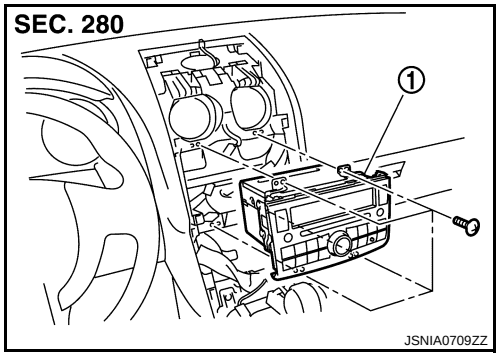
Tool name	Description
Power tool  PBIC0191E	Loosening bolts and nuts

ON-VEHICLE REPAIR

AUDIO UNIT

Exploded View

INFOID:0000000001724851



1. Audio unit

Removal and Installation

INFOID:0000000001724852

REMOVAL

1. Remove cluster lid C and cluster lid D. Refer to IP-12, "Exploded View".
2. Remove audio unit with bracket.
3. Remove bracket screws, and then remove audio unit.

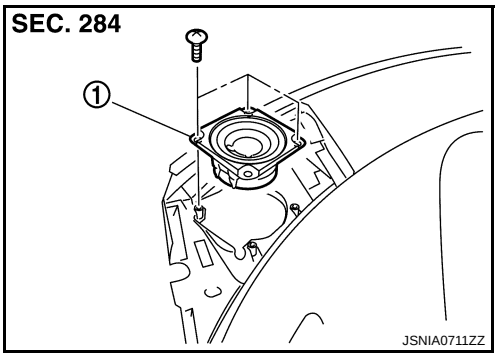
INSTALLATION

Install in the reverse order of removal.

TWEETER

Exploded View

INFOID:0000000001724853



1. Tweeter

Removal and Installation

INFOID:0000000001724854

REMOVAL

1. Remove instrument panel. Refer to IP-13, "Removal and Installation".
2. Remove tweeter from instrument panel.

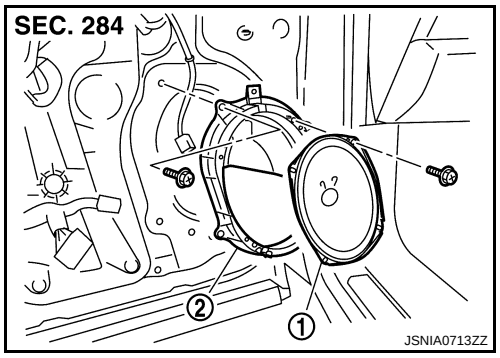
INSTALLATION

Installation is the reverse order of removal.

FRONT SPEAKER

Exploded View

INFOID:0000000001724855



1. Front speaker
2. Bracket

Removal and Installation

INFOID:0000000001724856

REMOVAL

1. Remove front door finisher. Refer to INT-11, "FRONT DOOR FINISHER : Removal and Installation".
2. Remove front door speaker from bracket.

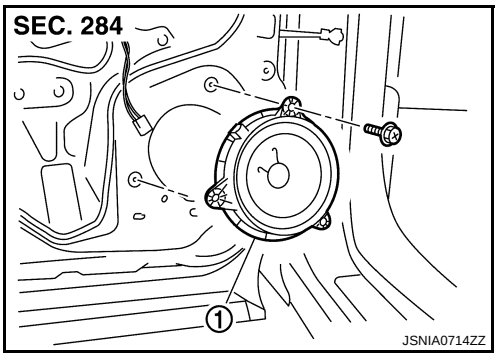
INSTALLATION

Install in the reverse order of removal.

REAR SPEAKER

Exploded View

INFOID:0000000001724857



1. Rear speaker

Removal and Installation

INFOID:0000000001724858

REMOVAL

1. Remove rear door finisher. Refer to INT-14, "REAR DOOR FINISHER : Removal and Installation".
2. Remove rear speaker.

INSTALLATION

Installation is the reverse order of removal.

STEERING SWITCH

Exploded View

INFOID:0000000001724859

Refer to SR-5, "Exploded View".

Removal and Installation

INFOID:0000000001724860

REMOVAL

Refer to SR-5, "Removal and Installation".

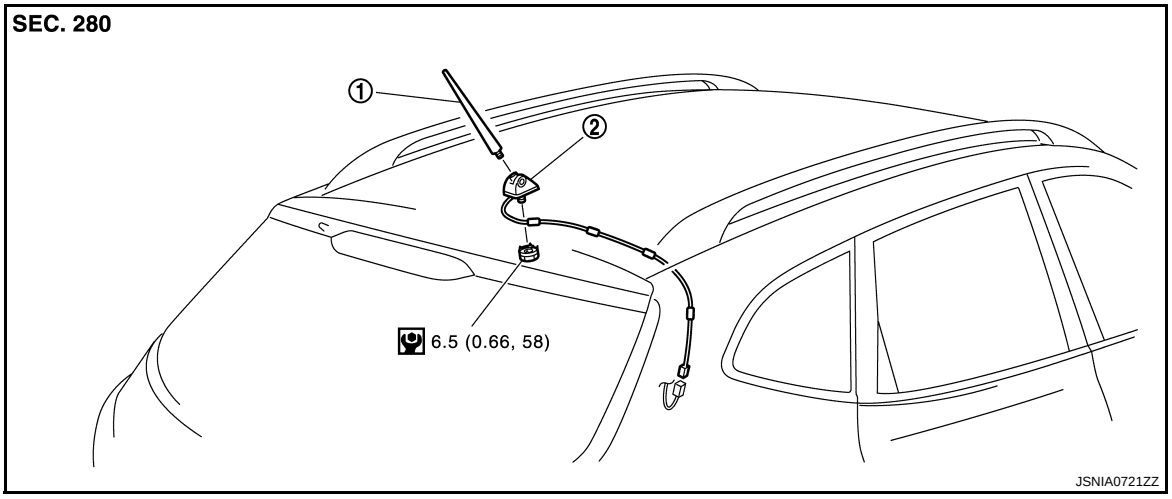
INSTALLATION

Installation is the reverse order of removal.

RADIO ANTENNA

Exploded View

INFOID:0000000001724861



1. Antenna lod
2. Antenna base

Removal and Installation

INFOID:0000000001724862

REMOVAL

1. Remove headlining assembly. Refer to INT-24, "NORMAL ROOF : Removal and Installation" (normal roof models) or INT-27, "SUNROOF : Removal and Installation" (sunroof models).
2. Remove nuts, and then remove radio antenna.

INSTALLATION

Installation is the reverse order of removal.

CAUTION:

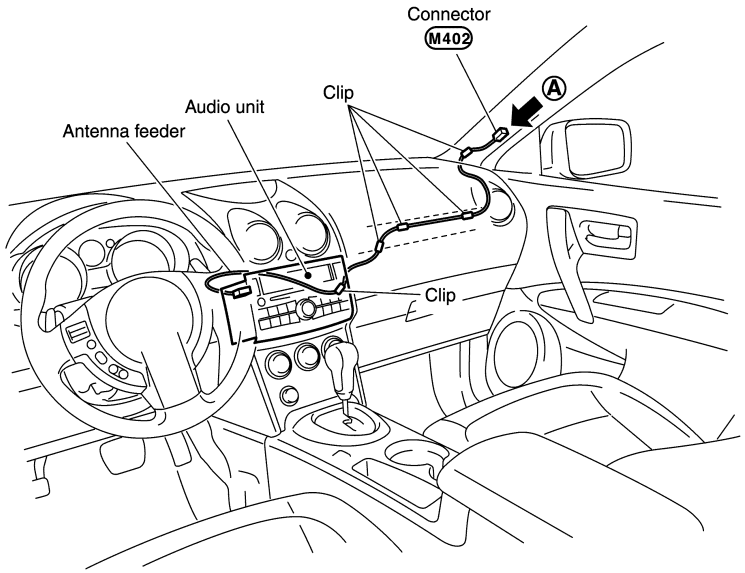
Be careful about tightening torque. Antenna sensitivity becomes poor, and when it is excessive, roof panel may be deformed, when roof antenna mounting nut tightening torque is loose.

ANTENNA FEEDER

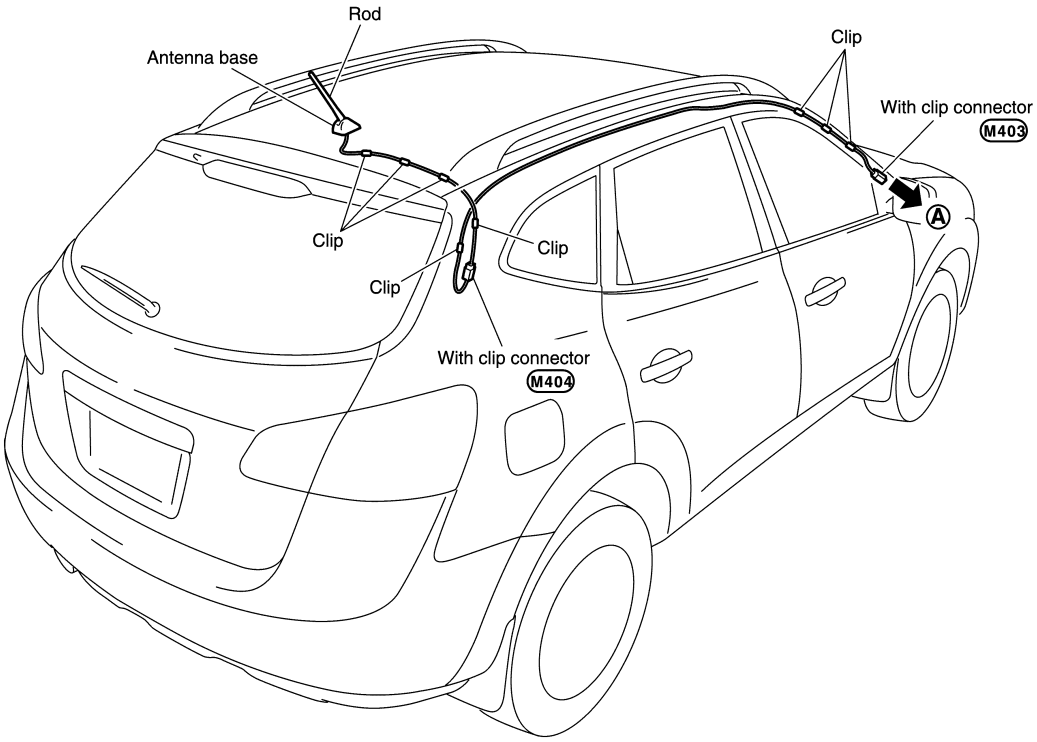
Location of Antenna

INFOID:0000000001724863

SEC. 280



Instrument panel driver side



Rear view of vehicle

JSNIA0726GB

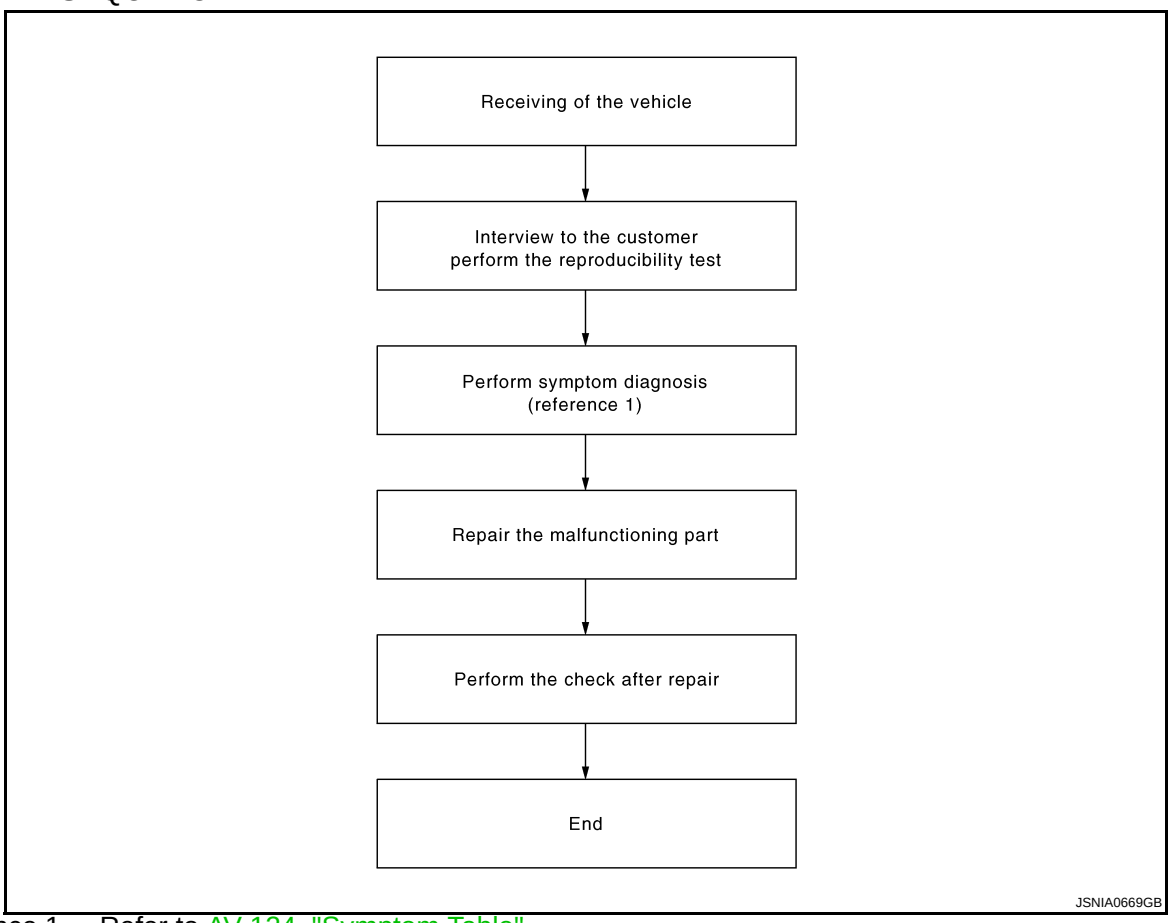
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:0000000001700275

OVERALL SEQUENCE



Reference 1 ··· Refer to AV-124, "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-124, "Symptom Table"".

>> GO TO 3.

3.REPAIR OR REPLACE MALFUNCTIONING PARTS

Repair or replace the malfunctioning parts.

>> GO TO 4.

4.FINAL CHECK

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

Is there any symptom?

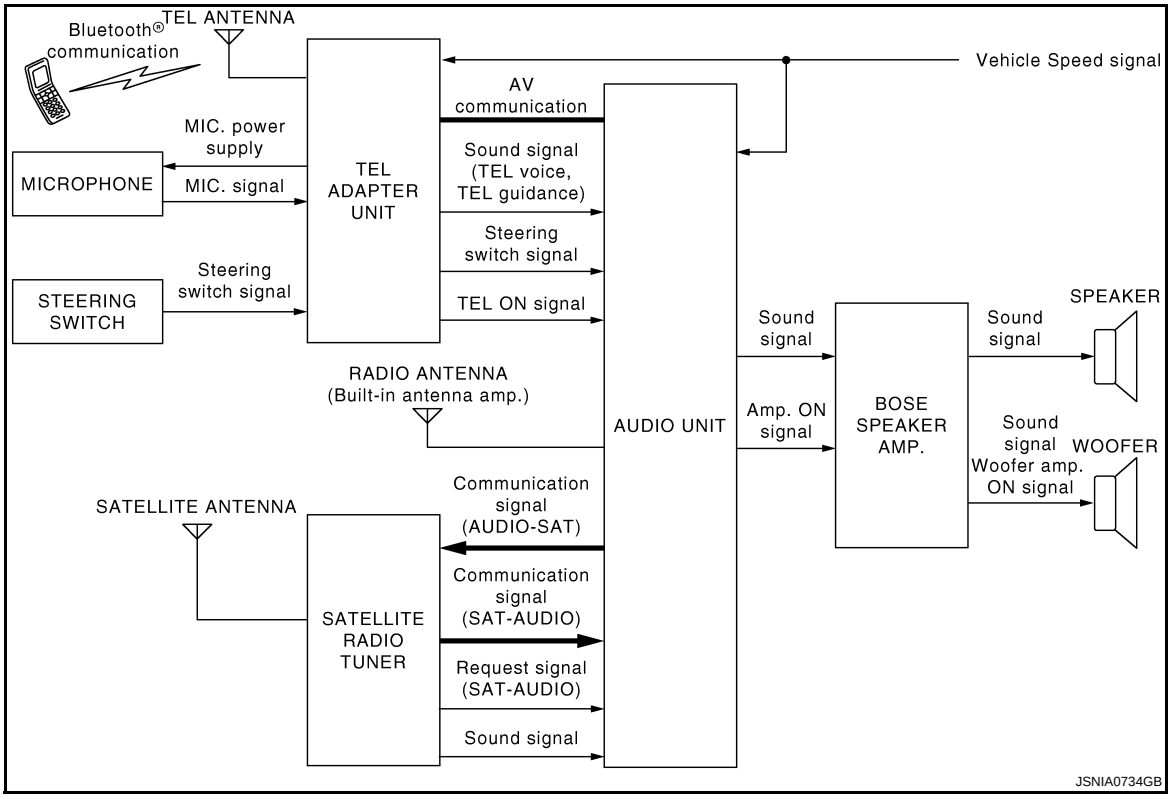
YES >> GO TO 2.
NO >> INSPECTION END

FUNCTION DIAGNOSIS

AUDIO SYSTEM

System Diagram

INFOID:0000000001700276



System Description

INFOID:0000000001700277

AUDIO SYSTEM

Audio functions
AM/FM radio
CD

- Radio signal are received by radio antenna, next it is amplified by antenna amp., and finally it is input to audio unit. (Antenna amp. is built into radio antenna.)
- Audio unit outputs sound signal to BOSE amp. and BOSE amp. outputs to each speaker.

SATELLITE RADIO SYSTEM

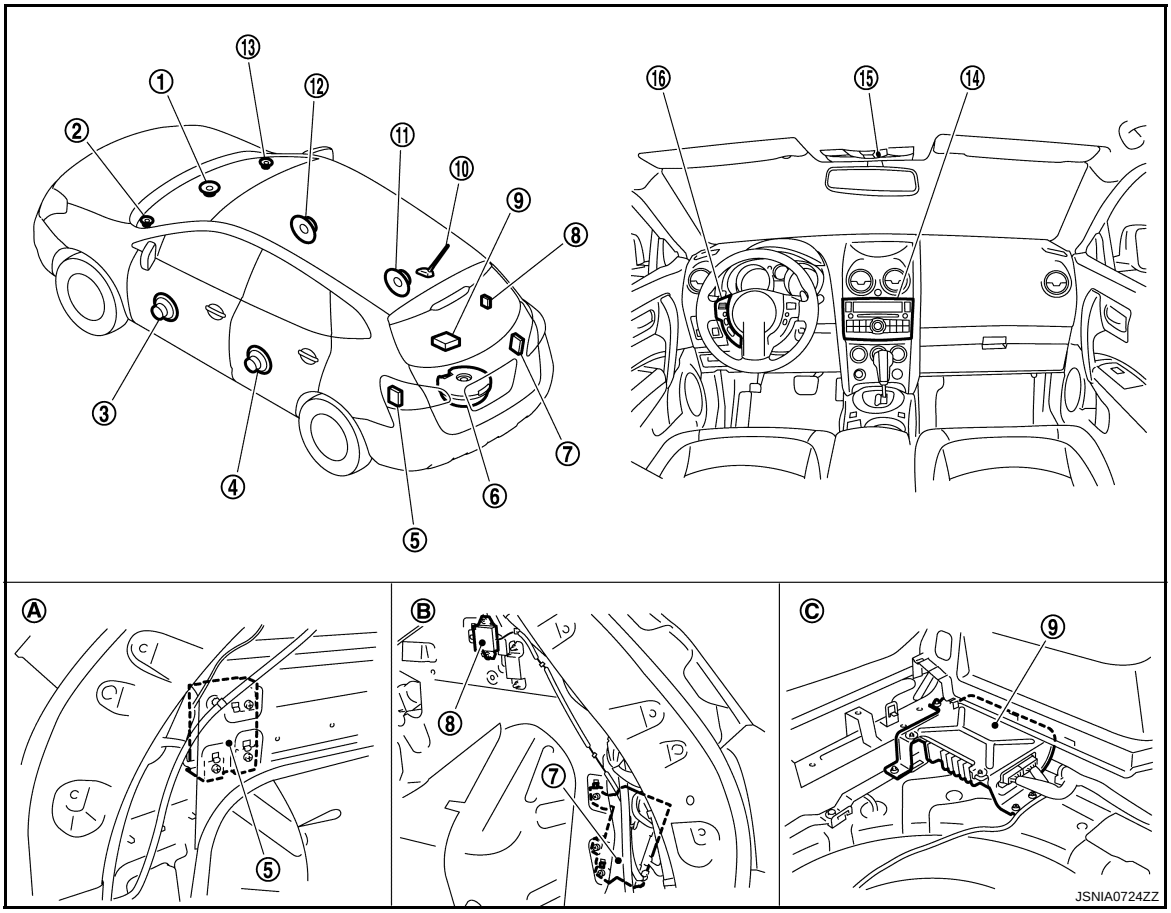
- Radio signal are supplied to satellite radio tuner from the satellite antenna.
- The satellite radio tuner then sends sound signal to the audio unit.
- Audio unit outputs sound signal to BOSE amp. and BOSE amp. outputs to each speaker.

SPEED SENSITIVE VOLUME

- Volume level of this system gone up and down automatically in proportion to the vehicle speed.
- The control level can be selected by the customer.

Component Parts Location

INFOID:0000000001700278



1. Center speaker
2. Tweeter LH
3. Front speaker LH
4. Rear speaker LH
5. Satellite radio tuner
6. Woofer
7. TEL adapter unit
8. TEL antenna
9. BOSE amp.
10. Radio & satellite radio antenna
11. Rear speaker RH
12. Front speaker RH
13. Tweeter RH
14. Audio unit
15. Microphone
16. Steering switch

A. Luggage side LH
B. Luggage side RH
C. Luggage side RH

Component Description

INFOID:0000000001700279

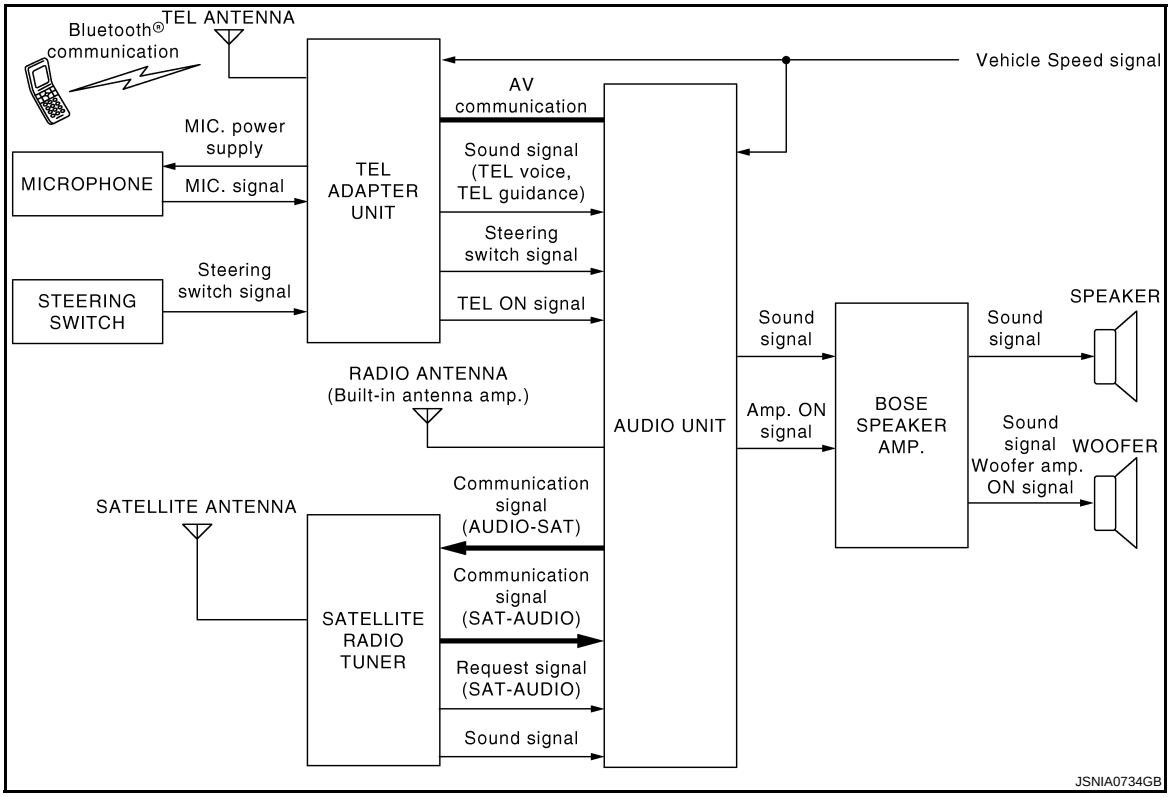
Part name	Description
Audio unit	Controls audio system and satellite radio system functions.
BOSE amp.	• Receives power (amp. ON) and sound signals from audio unit, and outputs sound signals to each speaker. • Woofer amp. ON signal is output to woofer.
Steering switch	• Each audio operation can be operated. • Steering switch signal (operation signal) is output to audio unit. (without hands-free phone system) • Steering switch signal (operation signal) is output to audio unit through TEL adapter unit. (with hands-free phone system)
Front speaker	• Outputs sound signal from BOSE amp. • Outputs high, mid and low range sounds.
Tweeter	• Outputs sound signal from BOSE amp. • Outputs high range sounds.
Center speaker	• Outputs sound signal from BOSE amp. • Outputs mid and high range sounds.

Part name	Description
Rear speaker	• Outputs sound signal from BOSE amp. • Outputs high, mid and low range sounds.
Woofer	• Woofer amp. ON signal is input from BOSE amp. • Outputs sound signal from BOSE amp. • Outputs low range sounds.
Radio &satellite radio antenna	Radio antenna • Radio signal received by radio antenna is amplified and sent 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 audio unit.
Satellite radio tuner	• Receives radio signals from satellite antenna. • Sends sound signals to audio unit.

HANDS-FREE PHONE SYSTEM

System Diagram

INFOID:0000000001838159



System Description

INFOID:0000000001705369

- 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-47, "Diagnosis Description".

When receiving a call

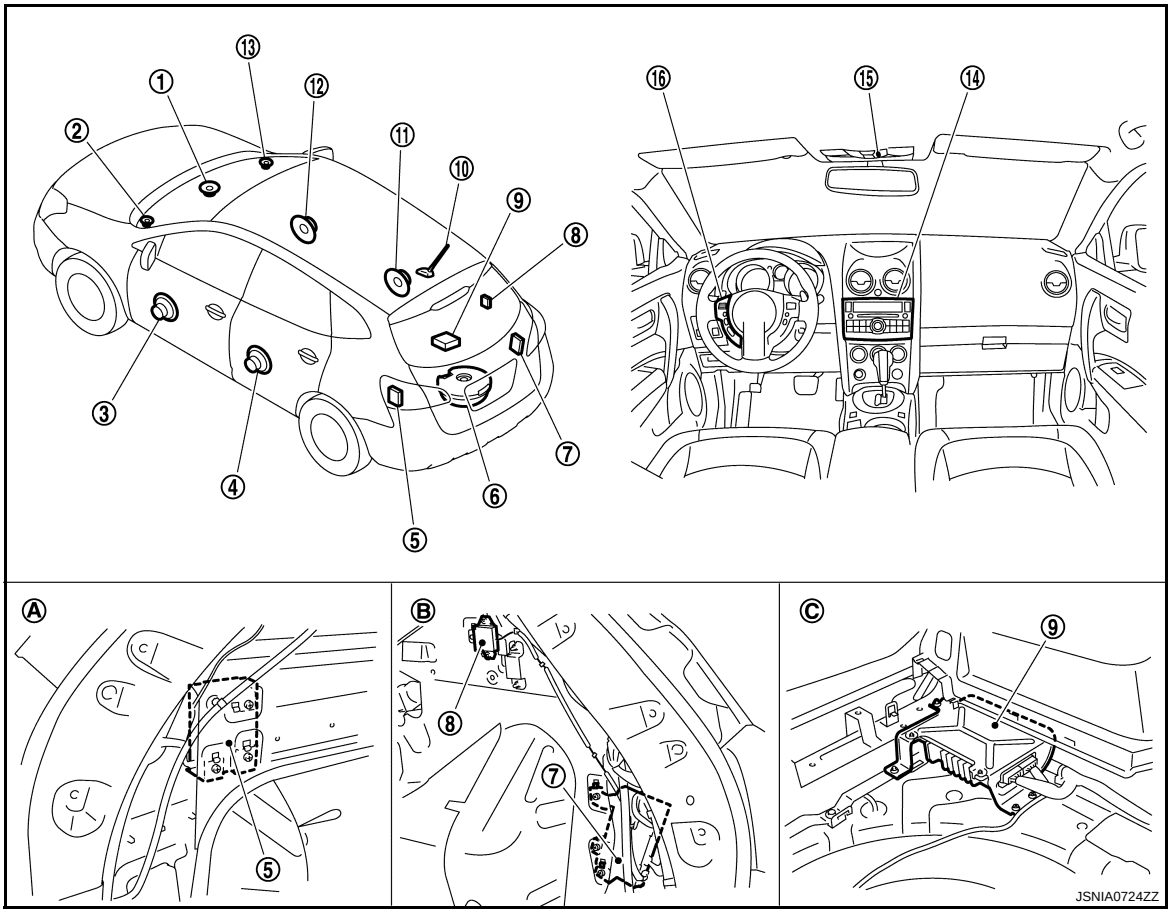
Telephone voice signal received with the portable telephone is input from TEL antenna via TEL adapter unit to audio unit with Bluetooth communication and output via BOSE amp. to the front speaker. The operation is performed with the steering switch or voice recognition function.

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.

Component Parts Location

INFOID:0000000001747957



1. Center speaker
2. Tweeter LH
3. Front speaker LH
4. Rear speaker LH
5. Satellite radio tuner
6. Woofer
7. TEL adapter unit
8. TEL antenna
9. BOSE amp.
10. Radio & satellite radio antenna
11. Rear speaker RH
12. Front speaker RH
13. Tweeter RH
14. Audio unit
15. Microphone
16. Steering switch

A. Luggage side LH
B. Luggage side RH
C. Luggage side RH

Component Description

INFOID:0000000001700283

Part name	Description
Audio unit	• 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.
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	
Center speaker	
Steering switch	• The hands free phone system can be operated. • Steering switch signal (operation signal) is output to audio unit through TEL adapter unit.
Microphone	• 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.

Part name	Description
TEL adapter unit	• Receives the steering switch signal (operation signal) from the steering switch. • 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)

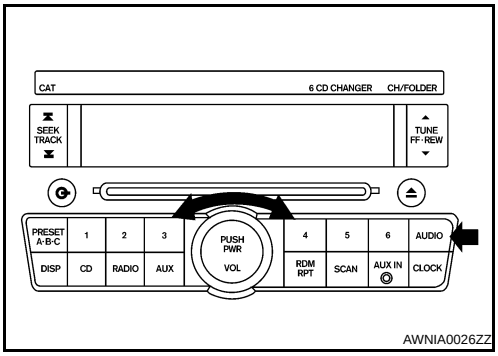
Diagnosis Description

INFOID:0000000001700284

Self-diagnosis mode can check the following items.
- Audio unit hardware/software versions
- Continuity of each speaker channel
- Continuity of each audio unit switch

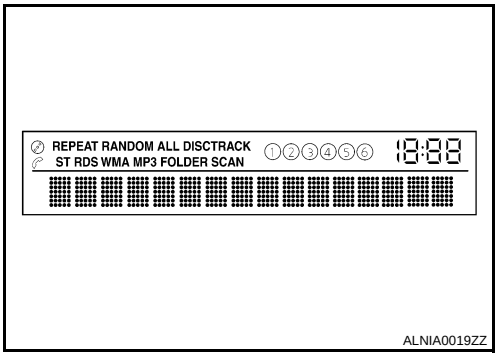
OPERATION PROCEDURE

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



AWNIA0026ZZ

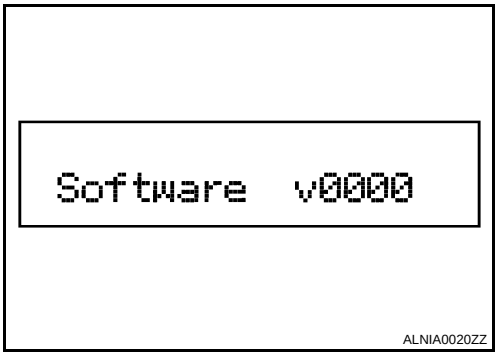
4. Initially, all display segments will be illuminated.



ALNIA0019ZZ

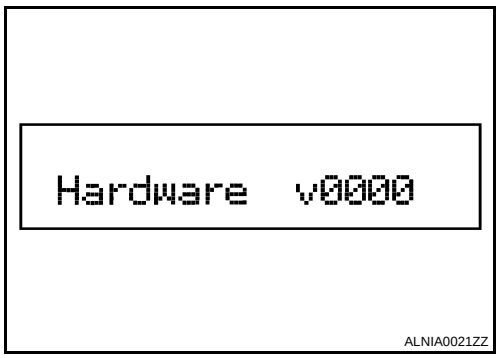
Version Check

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

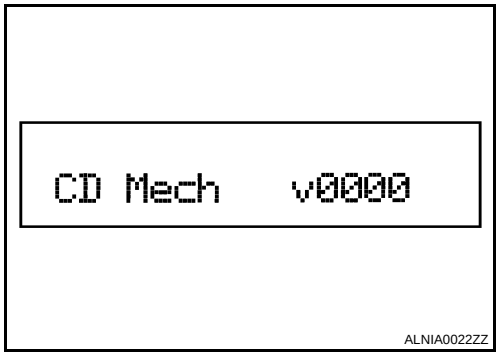


ALNIA0020ZZ

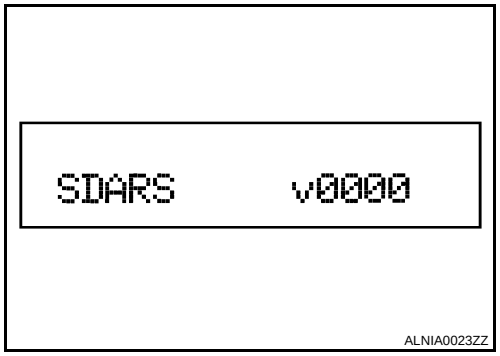
2. Press the “AUDIO” switch again to display the “Hardware” (audio hardware version).



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

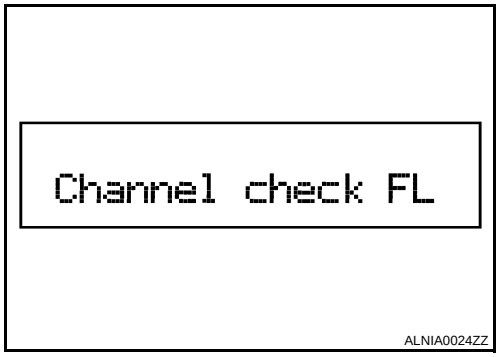


4. Press the “AUDIO” switch again to display the “SDARS” (satellite radio version).



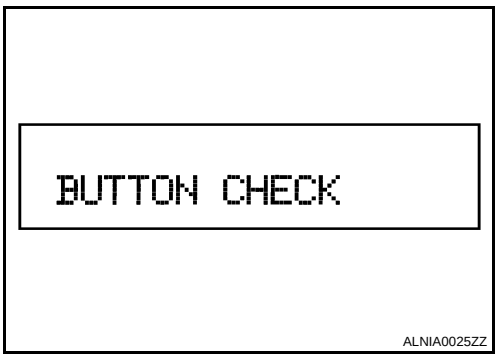
Channel Check Diagnostics

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



Button Check Diagnostics

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



DIAGNOSIS SYSTEM (TEL ADAPTER UNIT)

Diagnosis Description

INFOID:0000000001705395

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.

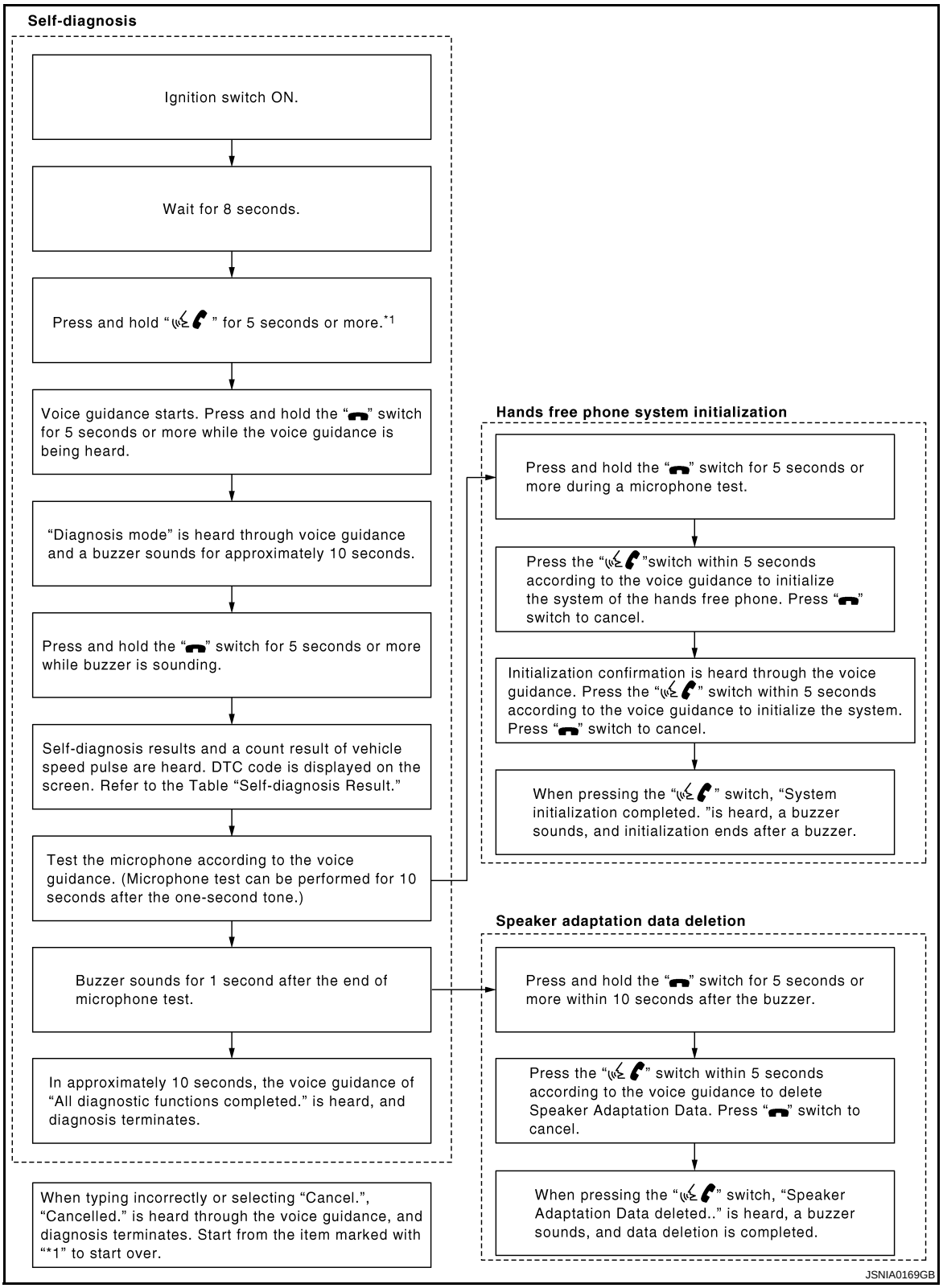
Self-diagnosis results

DTC (Audio screen)	Failure massage	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.

FLOW CHART OF TROUBLE DIAGNOSIS



COMPONENT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT

AUDIO UNIT

AUDIO UNIT : Diagnosis Procedure

INFOID:0000000001700287

1.CHECK FUSE

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

Power source	Fuse No.
Battery	35
Ignition switch ACC or ON	20

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	Reference value
Battery power supply	M46	19	OFF	Battery voltage
ACC power supply	M46	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:0000000001700288

1.CHECK FUSE

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

Power source	Fuse No.
Battery	13

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	Reference value
Battery power supply	B64	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.

Signal name	Connector No.	Terminal No.	Ignition switch position	Continuity
Ground	B64	12	OFF	Continuity should exist.

Is inspection result OK?

YES >> INSPECTION END
NO >> Repair harness or connector.

SATELLITE RADIO TUNER

SATELLITE RADIO TUNER : Diagnosis Procedure

INFOID:0000000001700289

1.CHECK FUSES

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

Power source	Fuse No.
Battery	35
Ignition switch ACC or ON	20

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	Reference value
Battery power supply	B19	12	OFF	Battery voltage
ACC power supply	B19	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:0000000001700290

1.CHECK FUSES

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

Power source	Fuse No.
Battery	35
Ignition switch ACC or ON	20
Ignition switch ON or START	1

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	Reference value
Battery power supply	B6	1	OFF	Battery voltage
ACC power supply	B6	2	ACC	Battery voltage
Ignition signal	B6	3	ON	Battery voltage

Is inspection result OK?

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	B6	4	OFF	Continuity should exist.
		21	OFF	Continuity should exist.
		22	OFF	Continuity should exist.
		23	OFF	Continuity should exist.
		24	OFF	Continuity should exist.

Is inspection result OK?

YES >> INSPECTION END
NO >> Repair harness or connector.

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

Description

INFOID:0000000001716720

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

Diagnosis Procedure

INFOID:0000000001716721

1.CHECK STEERING SWITCH SIGNAL A CIRCUIT (STEERING SWITCH TO TEL ADAPTER UNIT)

1. Turn ignition switch OFF.
2. Disconnect TEL adapter unit connector and spiral cable connector.
3. Check continuity between TEL adapter unit harness connector terminal 12 and spiral cable harness connector terminal 24.

12 – 24 : Continuity should exist.

4. Check continuity between audio unit harness connector terminal 12 and ground.

12 – Ground : Continuity should not exist.

Is inspection result OK?

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

2.CHECK SPIRAL CABLE

Check spiral cable.

Is inspection result OK?

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

3.CHECK TEL ADAPTER UNIT VOLTAGE

1. Connect TEL adapter unit connector and spiral cable connector.
2. Turn ignition switch ON.
3. Check voltage between TEL adapter unit harness connector terminals 12 and 14.

12 – 14 : Approx. 5 V

Is inspection result OK?

YES >> GO TO 4.
NO >> Replace TEL adapter unit.

4.CHECK STEERING SWITCH

1. Turn ignition switch OFF.
2. Check steering switch. Refer to AV-52, "Component Inspection".

Is inspection result OK?

YES >> INSPECTINON END
NO >> Replace steering switch.

Component Inspection

INFOID:0000000001716722

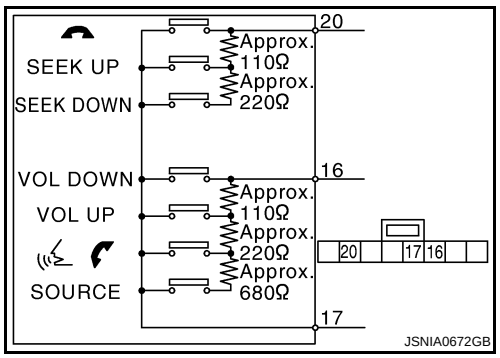
Measure the resistance between the steering switch connector terminals 20 to 17 and 16 to 17.

Between terminals 20 and 17

SEEK DOWN switch ON	: 327 – 333 Ω
SEEK UP switch ON	: 109 – 111 Ω
switch ON	: 0 Ω

Between terminals 16 and 17

SOURCE switch ON	: 1000 – 1020 Ω
switch ON	: 327 – 333 Ω
VOL UP switch ON	: 109 – 111 Ω
VOL DOWN switch ON	: 0 Ω



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

Description

INFOID:0000000001720223

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

Diagnosis Procedure

INFOID:0000000001720224

1.CHECK STEERING SWITCH SIGNAL B CIRCUIT (STEERING SWITCH TO TEL ADAPTER UNIT)

1. Turn ignition switch OFF.
2. Disconnect TEL adapter unit connector and spiral cable connector.
3. Check continuity between TEL adapter unit harness connector terminal 13 and spiral cable harness connector terminal 32.

13 – 32 : Continuity should exist.

4. Check continuity between audio unit harness connector terminal 13 and ground.

13 – Ground : Continuity should not exist.

Is inspection result OK?

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

2.CHECK SPIRAL CABLE

Check spiral cable.

Is inspection result OK?

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

3.CHECK TEL ADAPTER UNIT VOLTAGE

1. Connect TEL adapter unit connector and spiral cable connector.
2. Turn ignition switch ON.
3. Check voltage between TEL adapter unit harness connector terminals 13 and 14.

13 – 14 : Approx. 5 V

Is inspection result OK?

YES >> GO TO 4.
NO >> Replace TEL adapter unit.

4.CHECK STEERING SWITCH

1. Turn ignition switch OFF.
2. Check steering switch. Refer to AV-54, "Component Inspection".

Is inspection result OK?

YES >> INSPECTINON END
NO >> Replace steering switch.

Component Inspection

INFOID:0000000001720225

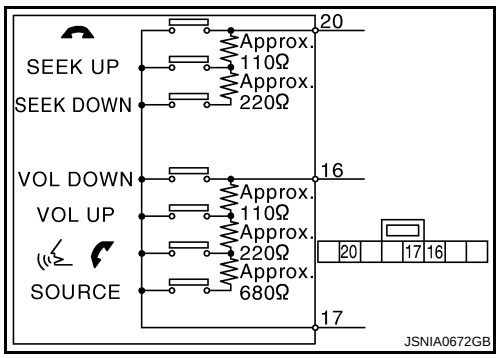
Measure the resistance between the steering switch connector terminals 20 to 17 and 16 to 17.

Between terminals 20 and 17

SEEK DOWN switch ON	: 327 – 333 Ω
SEEK UP switch ON	: 109 – 111 Ω
switch ON	: 0 Ω

Between terminals 16 and 17

SOURCE switch ON	: 1000 – 1020 Ω
switch ON	: 327 – 333 Ω
VOL UP switch ON	: 109 – 111 Ω
VOL DOWN switch ON	: 0 Ω



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

Description

INFOID:0000000001720649

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

Diagnosis Procedure

INFOID:0000000001720650

1.CHECK STEERING SWITCH SIGNAL GND CIRCUIT (STEERING SWITCH TO TEL ADAPTER UNIT)

1. Turn ignition switch OFF.
2. Disconnect TEL adapter unit connector and spiral cable connector.
3. Check continuity between TEL adapter unit harness connector terminal 14 and spiral cable harness connector terminal 31.

14 – 31 : Continuity should exist.

Is inspection result OK?

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

2.CHECK SPIRAL CABLE

Check spiral cable.

Is inspection result OK?

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

3.CHECK GROUND CIRCUIT

1. Connect TEL adapter unit connector.
2. Check continuity between TEL adapter unit harness connector terminal 14 and ground.

14 – Ground : Continuity should exist.

Is inspection result OK?

YES >> GO TO 4.
NO >> Replace TEL adapter unit.

4.CHECK STEERING SWITCH

1. Turn ignition switch OFF.
2. Check steering switch. Refer to AV-56, "Component Inspection".

Is inspection result OK?

YES >> INSPECTINON END
NO >> Replace steering switch.

Component Inspection

INFOID:0000000001720651

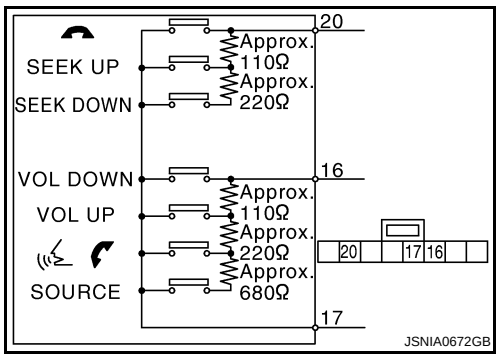
Measure the resistance between the steering switch connector terminals 20 to 17 and 16 to 17.

Between terminals 20 and 17

SEEK DOWN switch ON	: 327 – 333 Ω
SEEK UP switch ON	: 109 – 111 Ω
switch ON	: 0 Ω

Between terminals 16 and 17

SOURCE switch ON	: 1000 – 1020 Ω
switch ON	: 327 – 333 Ω
VOL UP switch ON	: 109 – 111 Ω
VOL DOWN switch ON	: 0 Ω



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

Description

INFOID:0000000001721220

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

Diagnosis Procedure

INFOID:0000000001721144

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

1. Turn ignition switch OFF.
2. Disconnect audio unit connector and TEL adapter unit connector.
3. Check continuity between audio unit harness connector terminal 6 and TEL adapter unit harness connector terminal 17.

6 – 17 : Continuity should exist.

4. Check continuity between audio unit harness connector terminal 6 and ground.

6 – Ground : Continuity should not exist.

Is inspection result OK?

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

2. 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 terminals 6 and 15.

6 – 15 : Approx. 3.3 V

Is inspection result OK?

YES >> Replace TEL adapter unit.
NO >> Replace audio unit.

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

Description

INFOID:0000000001721228

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

Diagnosis Procedure

INFOID:0000000001721758

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

1. Turn ignition switch OFF.
2. Disconnect audio unit connector and TEL adapter unit connector.
3. Check continuity between audio unit harness connector terminal 16 and TEL adapter unit harness connector terminal 18.

16 – 18 : Continuity should exist.

4. Check continuity between audio unit harness connector terminal 16 and ground.

16 – Ground : Continuity should not exist.

Is inspection result OK?

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

2. 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 terminals 16 and 15.

16 – 15 : Approx. 3.3 V

Is inspection result OK?

YES >> Replace TEL adapter unit.
NO >> Replace audio unit.

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

Description

INFOID:0000000001721273

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

Diagnosis Procedure

INFOID:0000000001721150

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

1. Turn ignition switch OFF.
2. Disconnect audio unit connector and TEL adapter unit connector.
3. Check continuity between audio unit harness connector terminal 15 and TEL adapter unit harness connector terminal 19.

15 – 19 : Continuity should exist.

Is inspection result OK?

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 terminal 15 and ground.

15 – Ground : Continuity should exist.

Is inspection result OK?

YES >> Replace TEL adapter unit.
NO >> Replace audio unit.

COMMUNICATION SIGNAL CIRCUIT

Description

INFOID:0000000001700307

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:0000000001700308

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 terminals 9, 10 and audio unit harness connector terminals 39, 40.

9 – 39	**: Continuity should exist.**
10 – 40	**: Continuity should exist.**

4. Check continuity between satellite radio tuner harness connector terminals 9, 10 and ground.

9, 10 – Ground	**: Continuity should not exist.**

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 terminal 39 and ground.

39 – Ground	**: Approx. 4 V**

Is inspection result OK?

YES >> GO TO 3.
NO >> Replace audio unit.

3.CHECK SATELLITE RAIDIO 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 terminal 10 and ground.

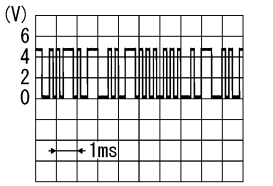
10 – Ground	**: Approx. 7.5 V**

Is inspection result OK?

YES >> GO TO 4.
NO >> Replace satellite radio tuner.

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 terminal 9 and ground.

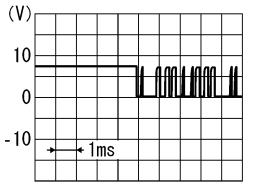
9 – Ground	When satellite radio mode is selected.	 PKIB5039J

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 terminal 40 and ground.

40 – Ground	When satellite radio mode is selected.	 SKIA9301J

Is inspection result OK?

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

REQUEST SIGNAL CIRCUIT (SAT TO AUDIO)

Description

INFOID:0000000001722582

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

Diagnosis Procedure

INFOID:0000000001722583

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 terminal 8 and audio unit harness connector terminal 38.

8 – 38 : Continuity should exist.

4. Check continuity between satellite radio tuner harness connector terminal 8 and ground.

8 – Ground : Continuity should not exist.

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 terminal 38 and ground.

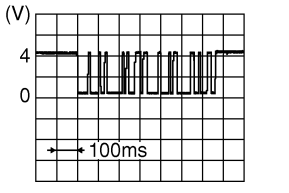
38 – Ground : Approx. 4 V

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 terminal 8 and ground.

8 – Ground	When satellite radio mode is selected.	 JSNIA0675ZZ

Is inspection result OK?

YES >> INSPECTION END
NO >> Replace satellite radio tuner.

AMP. ON SIGNAL CIRCUIT

Description

INFOID:0000000001700302

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:0000000001700303

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 terminal 1 and BOSE amp. harness connector terminal 31.

1 – 31 : Continuity should exist.

4. Check continuity between audio unit harness connector terminal 1 and ground.

1 – Ground : continuity should not exist.

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 terminal 1 and ground.

1 – Ground : Approx. 12 V

Is inspection result OK?

YES >> Replace BOSE amp.
NO >> Replace audio unit.

WOOFER AMP. ON SIGNAL CIRCUIT

Description

INFOID:0000000001871933

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:0000000001871946

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 terminal 25 and woofer harness connector terminal 4.

25 – 4 : Continuity should exist.

4. Check continuity between BOSE amp. harness connector terminal 25 and ground.

25 – Ground : continuity should not exist.

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 terminal 25 and ground.

25 – Ground : Approx. 12 V

Is inspection result OK?

YES >> Replace woofer.
NO >> Replace BOSE amp.

MICROPHONE SIGNAL CIRCUIT

Description

INFOID:0000000001700311

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

Diagnosis Procedure

INFOID:0000000001722804

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 terminals 7, 8, 29 and microphone harness connector terminals 1, 2, 4.

7 – 1 : Continuity should exist.
8 – 2 : Continuity should exist.
29 – 4 : Continuity should exist.

4. Check continuity between TEL adapter unit harness connector terminals 7, 29 and ground.

7, 29 – Ground : Continuity should not exist.

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 terminals 29 and ground.

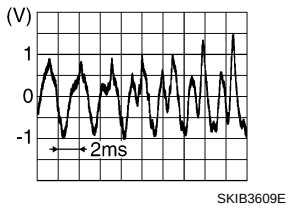
29 – Ground : Approx. 5 V

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 terminals 7 and 8.

7 – 8	Give a voice	 SKIB3609E

Is inspection result OK?

YES >> INSPECTION END
NO >> Replace microphone.

TELEPHONE ON SIGNAL CIRCUIT

Description

INFOID:0000000001722666

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

Diagnosis Procedure

INFOID:0000000001722667

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 terminal 11 and audio unit harness connector terminal 28.

11 – 28 : Continuity should exist.

4. Check continuity between TEL adapter unit harness connector terminal 11 and ground.

11 – Ground : Continuity should not exist.

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 terminal 28 and ground.

28 – Ground

While using hands-free phone system : 0 V

While not using hands-free phone system : 5 V

Is inspection result OK?

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

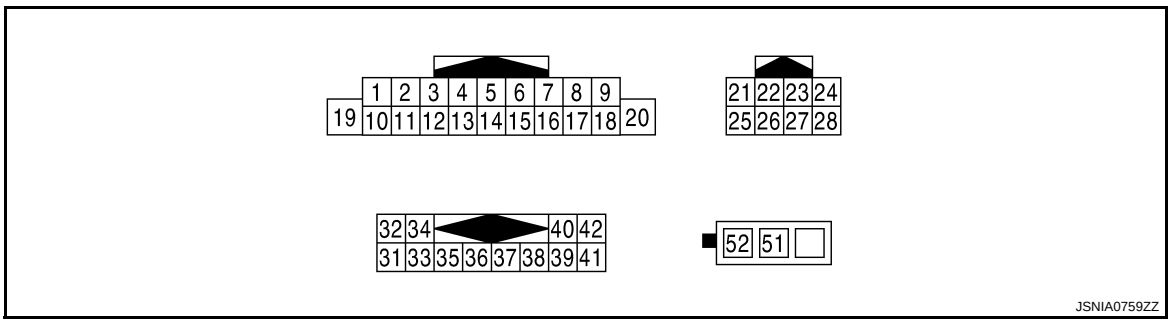
ECU DIAGNOSIS

AUDIO UNIT

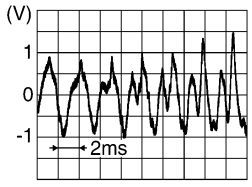
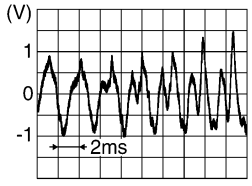
Reference Value

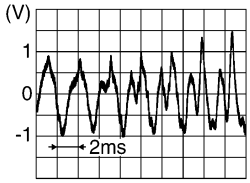
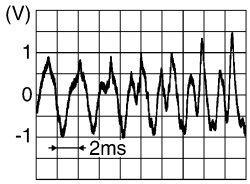
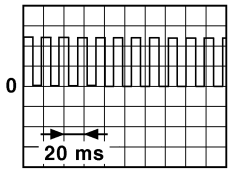
INFOID:0000000001700313

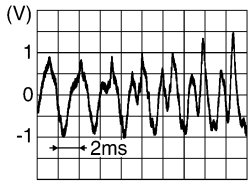
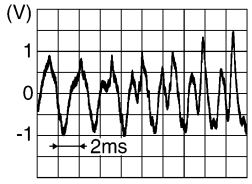
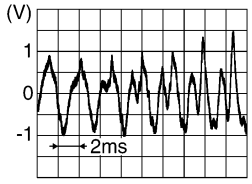
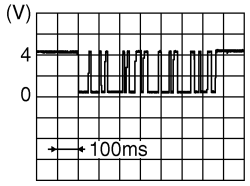
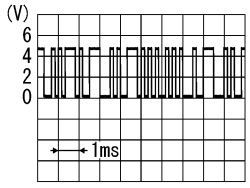
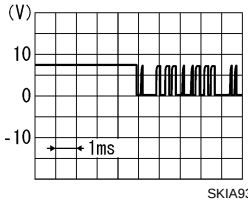
TERMINAL LAYOUT



PHYSICAL VALUES

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
1 (BR)	Ground	Amp. ON signal	Output	Ignition switch ON	—	12 V
2 (R)	3 (G)	Sound signal front LH	Output	Ignition switch ON	Voice output	 SKIB3609E
4 (V)	5 (LG)	Sound signal rear LH	Output	Ignition switch ON	Voice output	 SKIB3609E
6 (W)	15 (GR)	Steering switch signal A	Input	Ignition switch ON	Keep pressing SOURCE switch	0 V
					Keep pressing SEEK UP switch	1.1 V
					Keep pressing VOL UP switch	2.2 V
					Except for above	3.3 V
7 (SB)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
10	—	Shield	—	—	—	—

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
11 (O)	12 (W)	Sound signal front RH	Output	Ignition switch ON	Voice output	 SKIB3609E
13 (L)	14 (P)	Sound signal rear RH	Output	Ignition switch ON	Voice output	 SKIB3609E
15 (GR)	Ground	Steering switch signal ground	—	Ignition switch ON	—	0 V
16 (O)	15 (GR)	Steering switch signal B	Input	Ignition switch ON	Keep pressing POWER switch*	0 V
					Keep pressing SEEK DOWN switch	1.1 V
					Keep pressing VOL DOWN switch	2.2 V
					Except for above	3.3 V
18 (L)	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).  JSNIA0012GB
19 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
20	—	shield	—	—	—	—
21 (L)	—	AV communication signal (H)	—	Input/ Output	—	—
22 (P)	—	AV communication signal (L)	—	Input/ Output	—	—
23	—	Shield	—	—	—	—
25	—	Shield	—	—	—	—

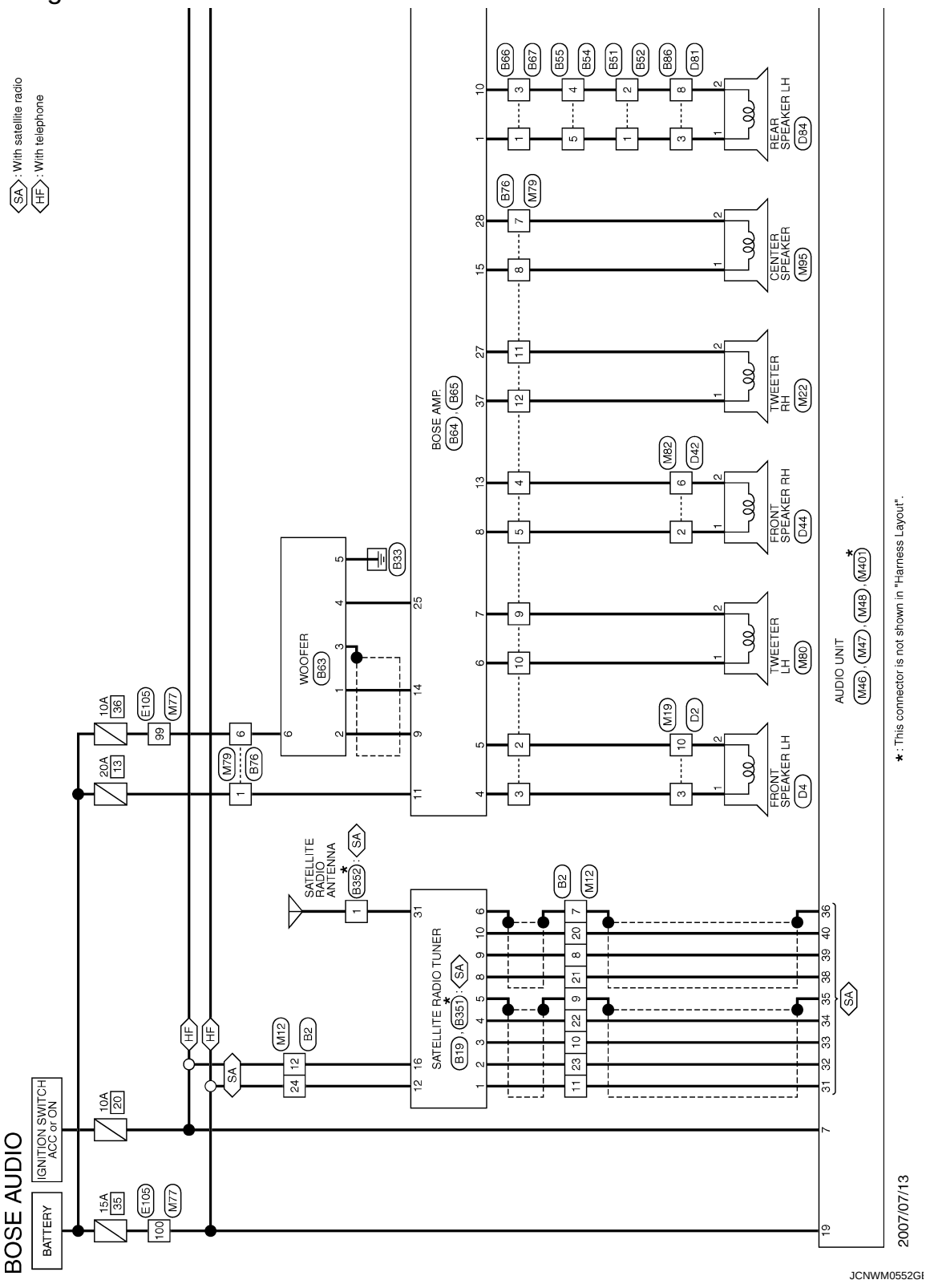
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
26 (BR)	27 (Y)	Sound signal (Telephone voice, telephone guidance)	Input	Ignition switch ON	Give a voice	 SKIB3609E
28 (V)	Ground	Telephone ON signal	Input	Ignition switch ON	While using hands-free phone system	0 V
					While not using hands-free phone system	5 V
32 (L)	31 (R)	Satellite radio sound signal LH	Input	Ignition switch ON	When satellite radio mode is selected	 SKIB3609E
34 (W)	33 (G)	Satellite radio sound signal RH	Input	Ignition switch ON	When satellite radio mode is selected	 SKIB3609E
35	—	Shield	—	—	—	—
36	—	Shield	—	—	—	—
38 (Y)	Ground	Request signal (SAT TO AUDIO)	Input	Ignition switch ON	When satellite radio mode is selected	 JSNIA0675ZZ
39 (B)	Ground	Communication signal (SAT-AUDIO)	Input	Ignition switch ON	When satellite radio mode is selected	 PKIB5039J
40 (L)	Ground	Communication signal (AUDIO-SAT)	Output	Ignition switch ON	When satellite radio mode is selected	 SKIA9301J

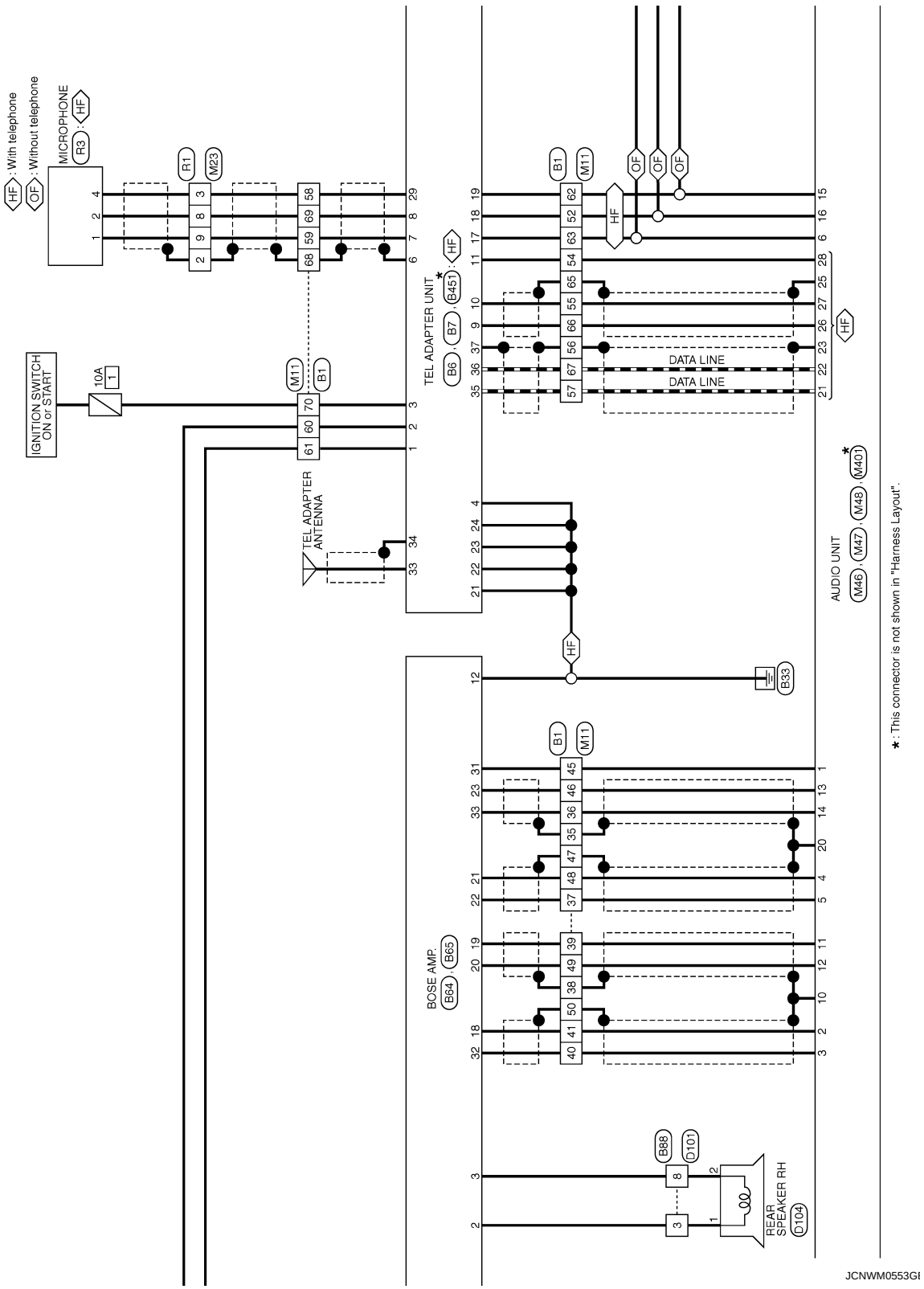
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
51	—	Antenna signal	Input	—	—	—
52	Ground	Antenna amp. ON signal	Output	Ignition switch ON	—	12 V

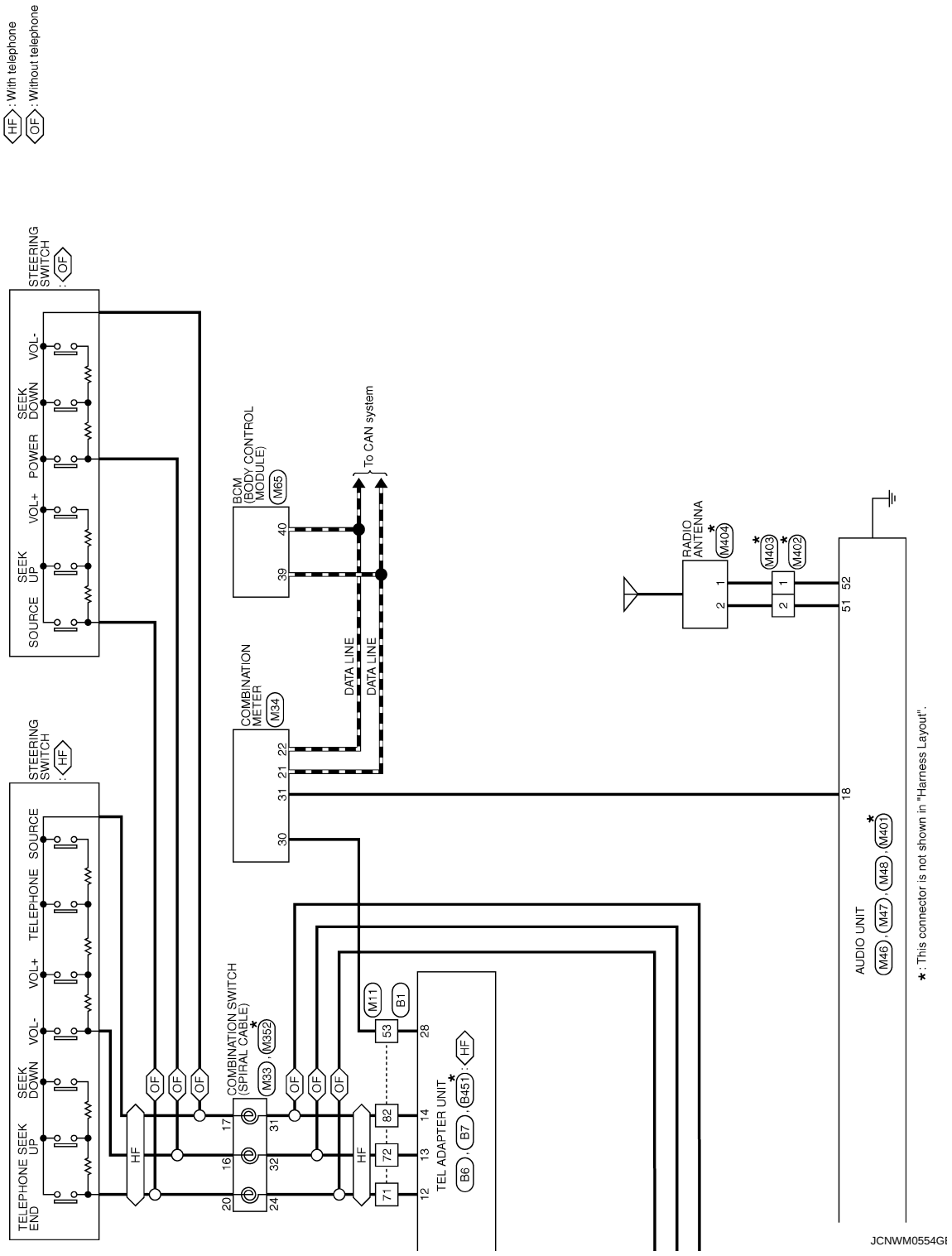
* : Without telephone system

Wiring Diagram - BOSE AUDIO -

INFOID:0000000001700314




HF : With telephone
OF : Without telephone
MICROPHONE
R3
HF
R1
M23
IGNITION SWITCH ON or START
10A
1
M11
B1
TEL ADAPTER ANTENNA
TEL ADAPTER UNIT
B6, B7, B451
HF
DATA LINE
DATA LINE
OF
OF
OF
HF
HF
AUDIO UNIT
M46, M47, M48, M401
*
B33
BOSE AMP
B64, B65
B88
D101
REAR SPEAKER RH
D104
* : This connector is not shown in "Harness Layout".
JCNWM0553GB


HF : With telephone
OF : Without telephone
STEERING SWITCH : OF
SOURCE
SEEK UP
VOL+
POWER
SEEK DOWN
VOL-
STEERING SWITCH : HF
TELEPHONE SEEK UP
TELEPHONE END
COMBINATION SWITCH (SPIRAL CABLE)
M352
M33
BCM (BODY CONTROL MODULE)
M65
To CAN system
COMBINATION METER
M34
DATA LINE
DATA LINE
TEL ADAPTER UNIT
B6
B7
B451
HF
M11
B1
RADIO ANTENNA
M404
M403
M402
AUDIO UNIT
M46
M47
M48
M401
*: This connector is not shown in "Harness Layout".
JCNWM0554GI

BOSE AUDIO

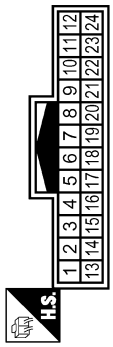
Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4

Terminal No.	Color of Wire	Signal Name [Specification]
35	SHIELD	–
36	R	–
37	LG	–
38	SHIELD	–
39	O	–
40	G	–
41	R	–
45	L	–
46	W	–
47	SHIELD	–
48	V	–
49	W	–
50	SHIELD	–
52	L	–
53	G	–
54	O	–
55	Y	–
56	SHIELD	–
57	L	–
58	W	–
59	B	–
60	SB	–
61	BR	–
62	GR	–
63	W	–
65	SHIELD	–
66	BR	–
67	P	–
68	SHIELD	–
69	R	–
70	W	–
71	W	–
72	Y	–
82	GR	–

Connector No.	B6
Connector Name	TEL ADAPTER UNIT
Connector Type	TH32FW-NH

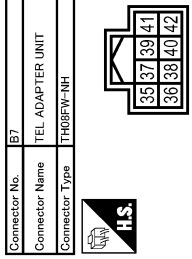
Terminal No.	Color of Wire	Signal Name [Specification]
1	BR	BAT
2	SB	ACC
3	W	IGN
4	B	GND
6	SHIELD	SHIELD
7	B	MICROPHONE SIGNAL (+)
8	R	MICROPHONE SIGNAL (–)
9	BR	SOUND SIGNAL (+)
10	Y	SOUND SIGNAL (–)
11	O	TELEPHONE ON SIGNAL
12	W	STEERING SW SIGNAL A
13	Y	STEERING SW SIGNAL B
14	GR	STEERING SW SIGNAL GND
17	W	STEERING SW SIGNAL A
18	L	STEERING SW SIGNAL B
19	GR	STEERING SW SIGNAL GND
21	B	GND
22	B	GND
23	B	GND
24	B	GND
28	G	VEHICLE SPEED SIGNAL (2-PULSE)
29	W	MICROPHONE POWER

Connector No.	B2
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



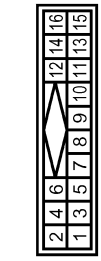
Terminal No.	Color of Wire	Signal Name [Specification]
7	SHIELD	–
8	G	–
9	SHIELD	–
10	G	–
11	R	–
12	SB	–
20	L	–
21	Y	–
22	W	–
23	L	–
24	BR	–

Connector No.	B7
Connector Name	TEL ADAPTER UNIT
Connector Type	TH08FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
35	L	AV COMMUNICATION SIGNAL (H)
36	P	AV COMMUNICATION SIGNAL (L)
37	SHIELD	SHIELD

Connector No.	B19
Connector Name	SATELLITE RADIO TUNER
Connector Type	A16FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	SOUND SIGNAL LH (–)
2	L	SOUND SIGNAL LH (+)
3	G	SOUND SIGNAL RH (–)
4	W	SOUND SIGNAL RH (+)
5	SHIELD	SHIELD
6	SHIELD	SHIELD
8	Y	REQUEST SIGNAL (SAT TO AUDIO)
9	G	COMMUNICATION SIGNAL (SAT-AUDIO)
10	L	COMMUNICATION SIGNAL (AUDIO-SAT)
12	BR	BAT
16	SB	ACC

JCNWM0555GB

BOSE AUDIO

Connector No.	B51
Connector Name	WIRE TO WIRE
Connector Type	NS04FW-CS

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	–
2	R	–

Connector No.	B52
Connector Name	WIRE TO WIRE
Connector Type	NS04MW-CS

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	–
2	R	–

Connector No.	B54
Connector Name	WIRE TO WIRE
Connector Type	NS12MW-CS

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
4	R	–
5	L	–

Connector No.	B55
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
4	R	–
5	L	–

Connector No.	B63
Connector Name	WOOFER
Connector Type	RS06FGY-PR

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
1	BR	SOUND SIGNAL WOOFER (–)
2	Y	SOUND SIGNAL WOOFER (+)
3	SHIELD	SHIELD
4	G	WOOFER AMP. ON SIGNAL
5	B	GND
6	SB	BAT

Connector No.	B64
Connector Name	BOSE AMP.
Connector Type	SGA12FBR-SJA2

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	SOUND SIGNAL REAR SPEAKER LH (+)
2	GR	SOUND SIGNAL REAR SPEAKER RH (+)
3	Y	SOUND SIGNAL REAR SPEAKER RH (–)
4	B	SOUND SIGNAL FRONT SPEAKER LH (+)
5	P	SOUND SIGNAL FRONT SPEAKER LH (–)
6	BR	SOUND SIGNAL TWEETER LH (+)
7	GR	SOUND SIGNAL TWEETER LH (–)
8	G	SOUND SIGNAL FRONT SPEAKER RH (+)
9	Y	SOUND SIGNAL WOOFER (+)
10	R	SOUND SIGNAL REAR SPEAKER LH (–)
11	W	BAT
12	B	GND
13	R	SOUND SIGNAL FRONT SPEAKER RH (–)
14	BR	SOUND SIGNAL WOOFER (–)

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BOSE AUDIO

Connector No.	B65
Connector Name	BOSE AMP.
Connector Type	SCA19FBR-SGA4

Terminal No.	Color of Wire	Signal Name [Specification]
15	V	SOUND SIGNAL CENTER SPEAKER (+)
18	R	SOUND SIGNAL FRONT LH (+)
19	O	SOUND SIGNAL FRONT RH (+)
20	W	SOUND SIGNAL FRONT RH (-)
21	V	SOUND SIGNAL REAR LH (+)
22	LG	SOUND SIGNAL REAR LH (-)
23	W	SOUND SIGNAL REAR RH (+)
25	G	WOOFER AMP. ON SIGNAL
27	W	SOUND SIGNAL TWEETER RH (-)
28	O	SOUND SIGNAL CENTER SPEAKER (-)
31	L	AMP. ON SIGNAL

32	G	SOUND SIGNAL FRONT LH (-)
33	R	SOUND SIGNAL REAR RH (-)
37	O	SOUND SIGNAL TWEETER RH (+)

Connector No.	B66
Connector Name	WIRE TO WIRE
Connector Type	NS06FW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	–
3	R	–

Connector No.	B67
Connector Name	WIRE TO WIRE
Connector Type	NS06MW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	–
3	R	–

12	O	–

Connector No.	B76
Connector Name	WIRE TO WIRE
Connector Type	NS12MW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–
2	P	–
3	B	–
4	R	–
5	G	–
6	SB	–
7	O	–
8	V	–
9	GR	–
10	BR	–
11	W	–

Connector No.	B88
Connector Name	WIRE TO WIRE
Connector Type	NS12MW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
3	L	–
8	R	–

Connector No.	B88
Connector Name	WIRE TO WIRE
Connector Type	NS12MW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
3	GR	–
8	Y	–

JCNWM0557GI

BOSE AUDIO

Connector No.	B351
Connector Name	SATELLITE RADIO TUNER
Connector Type	FAKRA JACK

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
31	–	–

Connector No.	B352
Connector Name	SATELLITE RADIO ANTENNA
Connector Type	GT16C-IPP-HU

H.S.

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

Connector No.	B451
Connector Name	TEL ADAPTER UNIT
Connector Type	GT16C-IS-HU

H.S.

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

Connector No.	D2
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
3	B	–
10	P	–

Connector No.	D4
Connector Name	FRONT SPEAKER LH
Connector Type	NS02FW-CS

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	–
2	P	–

Connector No.	D42
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
2	G	–
6	R	–

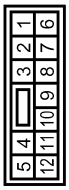
Connector No.	D44
Connector Name	FRONT SPEAKER RH
Connector Type	NS02FW-CS

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	–
2	R	–

Connector No.	D81
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS

H.S.



Terminal No.	Color of Wire	Signal Name [Specification]
3	L	–
8	R	–

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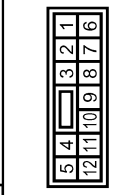
BOSE AUDIO

Connector No.	D84
Connector Name	REAR SPEAKER LH
Connector Type	NS02FBR-CS

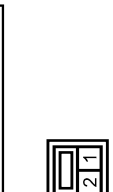
Terminal No.	Color of Wire	Signal Name [Specification]
1	L	–
2	R	–

Connector No.	D101
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS



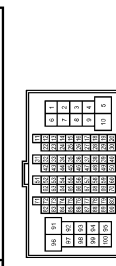
Terminal No.	Color of Wire	Signal Name [Specification]
3	GR	–
8	Y	–

Connector No.	D104
Connector Name	REAR SPEAKER RH
Connector Type	NS02FBR-CS



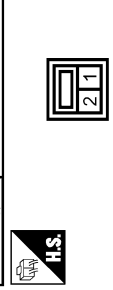
Terminal No.	Color of Wire	Signal Name [Specification]
1	GR	–
2	Y	–

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
99	SB	–
100	L	–

Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
35	SHIELD	–
36	P	–
37	LG	–
38	SHIELD	–
39	O	–
40	G	–
41	R	–
45	BR	–
46	L	–
47	SHIELD	–
48	V	–
49	W	–
50	SHIELD	–
52	O	–
53	G	–
54	V	–
55	Y	–
56	SHIELD	–
57	L	–
58	W	–
59	B	–
60	SB	–
61	BR	–
62	GR	–
63	W	–
65	SHIELD	–
66	BR	–
67	P	–
68	SHIELD	–
69	R	–
70	LG	–
71	BR	–
72	O	–
82	GR	–

Connector No.	M12
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
7	SHIELD	–
8	B	–
9	SHIELD	–
10	G	–
11	R	–
12	SB	–
20	L	–
21	Y	–
22	W	–
23	L	–
24	BR	–

Connector No.	M19
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
3	R	–
10	G	–

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BOSE AUDIO

Connector No.	M22
Connector Name	TWEETER RH
Connector Type	TK02FBR

H.S.

2	1

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	–
2	Y	–

Connector No.	M23
Connector Name	WIRE TO WIRE
Connector Type	TH12FW-NH

H.S.

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

Terminal No.	Color of Wire	Signal Name [Specification]
2	SHIELD	–
3	W	–
8	R	–
9	B	–

Connector No.	M33
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY-1V

H.S.

24	25	26	27
31	32	33	34

Terminal No.	Color of Wire	Signal Name [Specification]
24	BR	–
31	GR	–
32	O	–

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	SAB40FW

H.S.

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

Terminal No.	Color of Wire	Signal Name [Specification]
21	L	CAN-H
22	P	CAN-L
30	Y	VEHICLE SPEED (2-PULSE)
31	L	VEHICLE SPEED (8-PULSE)

Connector No.	M46
Connector Name	AUDIO UNIT
Connector Type	TH18FW-CS2

H.S.

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

Terminal No.	Color of Wire	Signal Name [Specification]
1	BR	AMP. ON SIGNAL
2	R	SOUND SIGNAL FRONT LH (+)
3	G	SOUND SIGNAL FRONT LH (–)
4	V	SOUND SIGNAL REAR LH (+)
5	LG	SOUND SIGNAL REAR LH (–)
6	W	STEERING SW SIGNAL A
7	SB	ACC
10	SHIELD	SHIELD
11	O	SOUND SIGNAL FRONT RH (+)
12	W	SOUND SIGNAL FRONT RH (–)
13	L	SOUND SIGNAL REAR RH (+)
14	P	SOUND SIGNAL REAR RH (+)
15	GR	STEERING SW SIGNAL GND
16	O	STEERING SW SIGNAL B
18	L	VEHICLE SPEED SIGNAL (8-PULSE)
19	Y	BAT
20	SHIELD	SHIELD

Connector No.	M47
Connector Name	AUDIO UNIT
Connector Type	TH08FW-NH

H.S.

21	22	23	24
25	26	27	28

Terminal No.	Color of Wire	Signal Name [Specification]
21	L	AV COMMUNICATION SIGNAL (H)
22	P	AV COMMUNICATION SIGNAL (L)
23	SHIELD	SHIELD
25	SHIELD	SHIELD
26	BR	SOUND SIGNAL (+)
27	Y	SOUND SIGNAL (–)
28	V	TELEPHONE ON SIGNAL

Connector No.	M48
Connector Name	AUDIO UNIT
Connector Type	A12FW

H.S.

32	34	40	42
31	33	35	36	37	38	39	41

Terminal No.	Color of Wire	Signal Name [Specification]
31	R	SOUND SIGNAL LH (–)
32	L	SOUND SIGNAL LH (+)
33	G	SOUND SIGNAL LH (–)
34	W	SOUND SIGNAL LH (+)
35	SHIELD	SHIELD
36	SHIELD	SHIELD
38	Y	REQUEST SIGNAL (SAT TO AUDIO)
39	B	COMMUNICATION SIGNAL (SAT–AUDIO)
40	L	COMMUNICATION SIGNAL (AUDIO–SAT)

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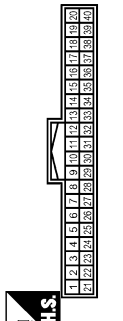
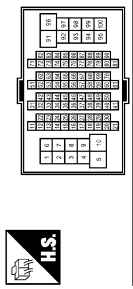
BOSE AUDIO

Connector No.	M65
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FW



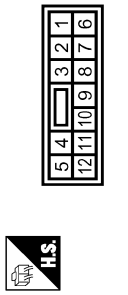
Terminal No.	Color of Wire	Signal Name [Specification]
39	L	CAN-H
40	P	CAN-L

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
99	SB	–
100	Y	–

Connector No.	M79
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	–
2	G	–
3	R	–
4	W	–
5	O	–
6	SB	–
7	P	–
8	V	–
9	GR	–
10	BR	–
11	Y	–
12	L	–

Connector No.	M80
Connector Name	TWEETER LH
Connector Type	TK02FBR

Terminal No.	Color of Wire	Signal Name [Specification]
1	BR	–[With BOSE system]
2	P	–[Without BOSE system]

Connector No.	M82
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
2	O	–
6	W	–

Connector No.	M95
Connector Name	CENTER SPEAKER
Connector Type	TK02FBR

Terminal No.	Color of Wire	Signal Name [Specification]
1	V	–
2	P	–

Connector No.	M352
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY

Terminal No.	Color of Wire	Signal Name [Specification]
16	–	–
17	–	–
20	–	–

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BOSE AUDIO

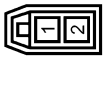
Connector No.	M401
Connector Name	AUDIO UNIT
Connector Type	GT13SH-2/1S-HU

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
51	–	ANTENNA SIGNAL
52	–	ANTENNA AMP. ON SIGNAL

Connector No.	M402
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-1/1S-HU

H.S.



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

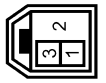
Connector No.	M403
Connector Name	WIRE TO WIRE
Connector Type	GT13SCN-1/1PP-HU

H.S.

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

Connector No.	M404
Connector Name	RADIO ANTENNA
Connector Type	GT13SSN-1/1PP-HU

H.S.



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

Connector No.	R1
Connector Name	WIRE TO WIRE
Connector Type	TH12MW-NH

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
2	SHIELD	–
3	W	–
8	R	–
9	B	–

Connector No.	R3
Connector Name	MICROPHONE
Connector Type	TK04FW

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	MICROPHONE SIGNAL (+)
2	R	MICROPHONE SIGNAL (–)
4	W	MICROPHONE POWER

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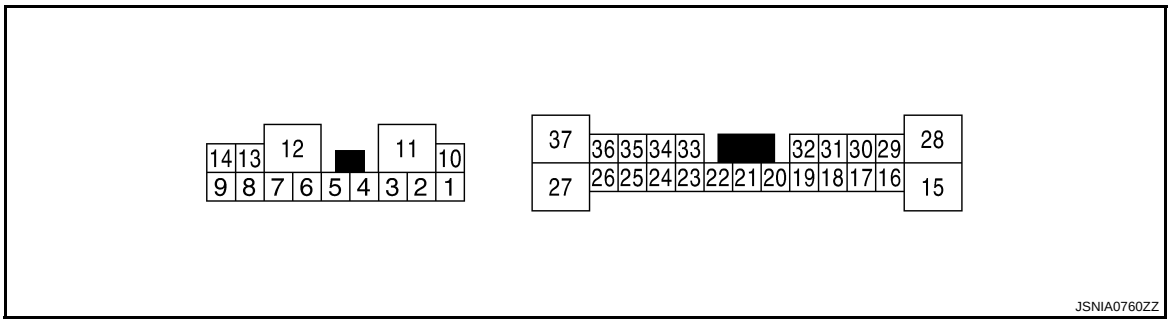
BOSE AMP.

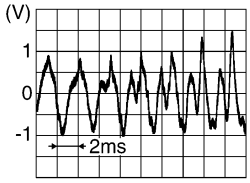
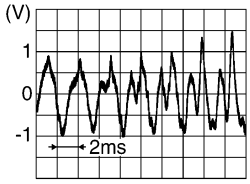
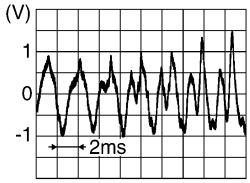
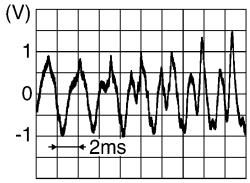
Reference Value

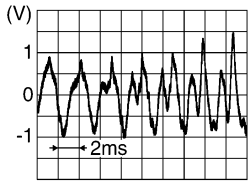
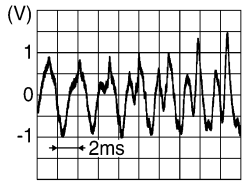
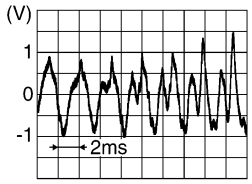
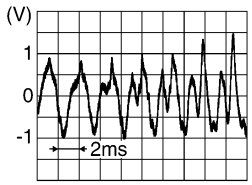
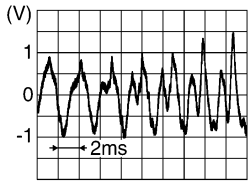
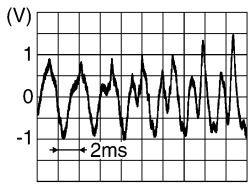
INFOID:0000000001700315

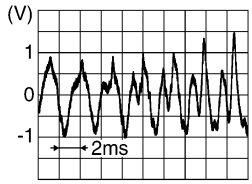
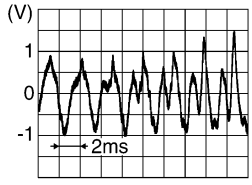
TERMINAL LAYOUT



PHYSICAL VALUES

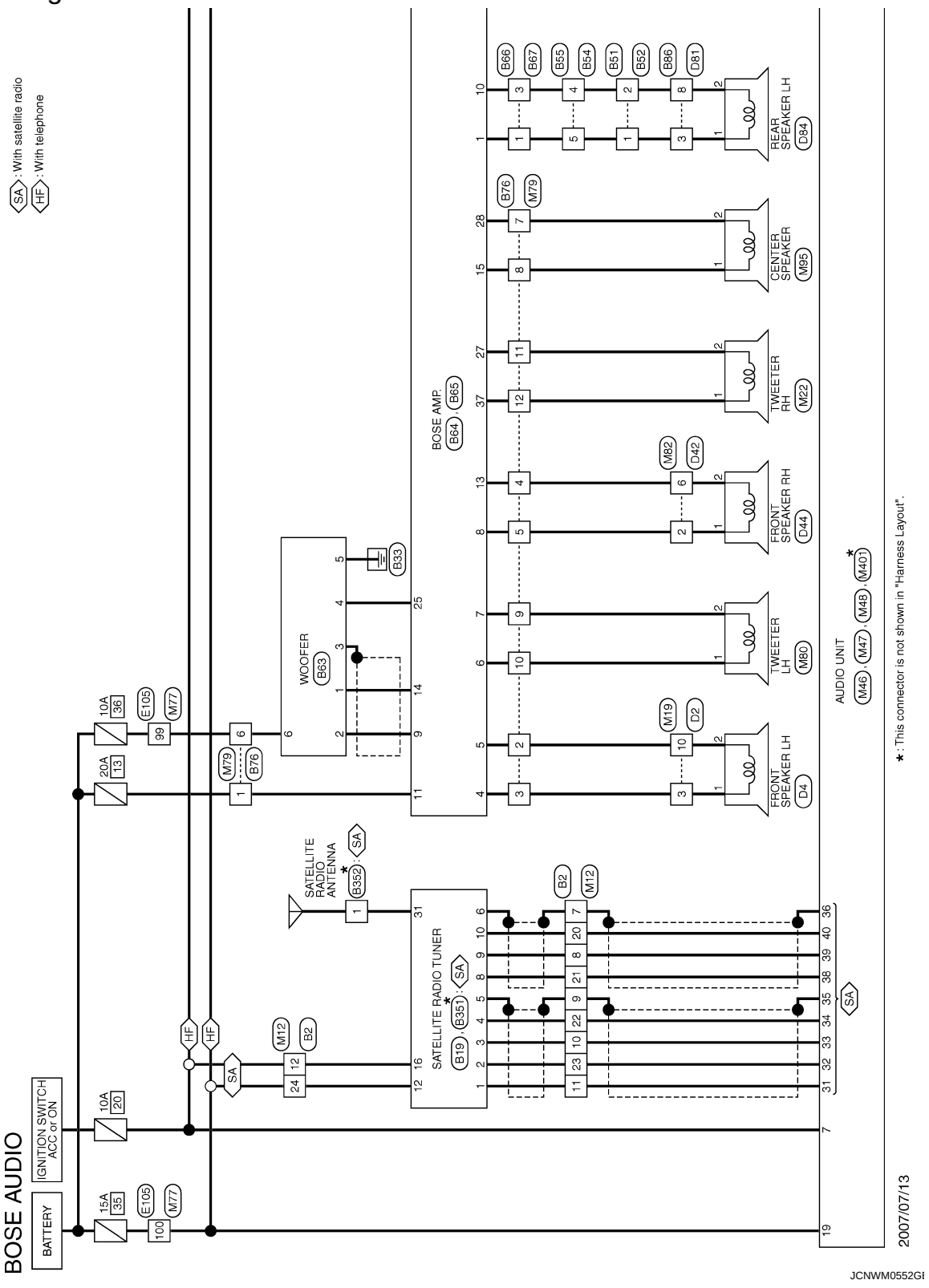
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
1 (L)	10 (R)	Sound signal rear speaker LH	Output	Ignition switch ON	Voice output	 SKIB3609E
2 (GR)	3 (Y)	Sound signal rear speaker RH	Output	Ignition switch ON	Voice output	 SKIB3609E
4 (B)	5 (P)	Sound signal front speaker LH	Output	Ignition switch ON	Voice output	 SKIB3609E
6 (BR)	7 (GR)	Sound signal tweeter LH	Output	Ignition switch ON	Voice output	 SKIB3609E

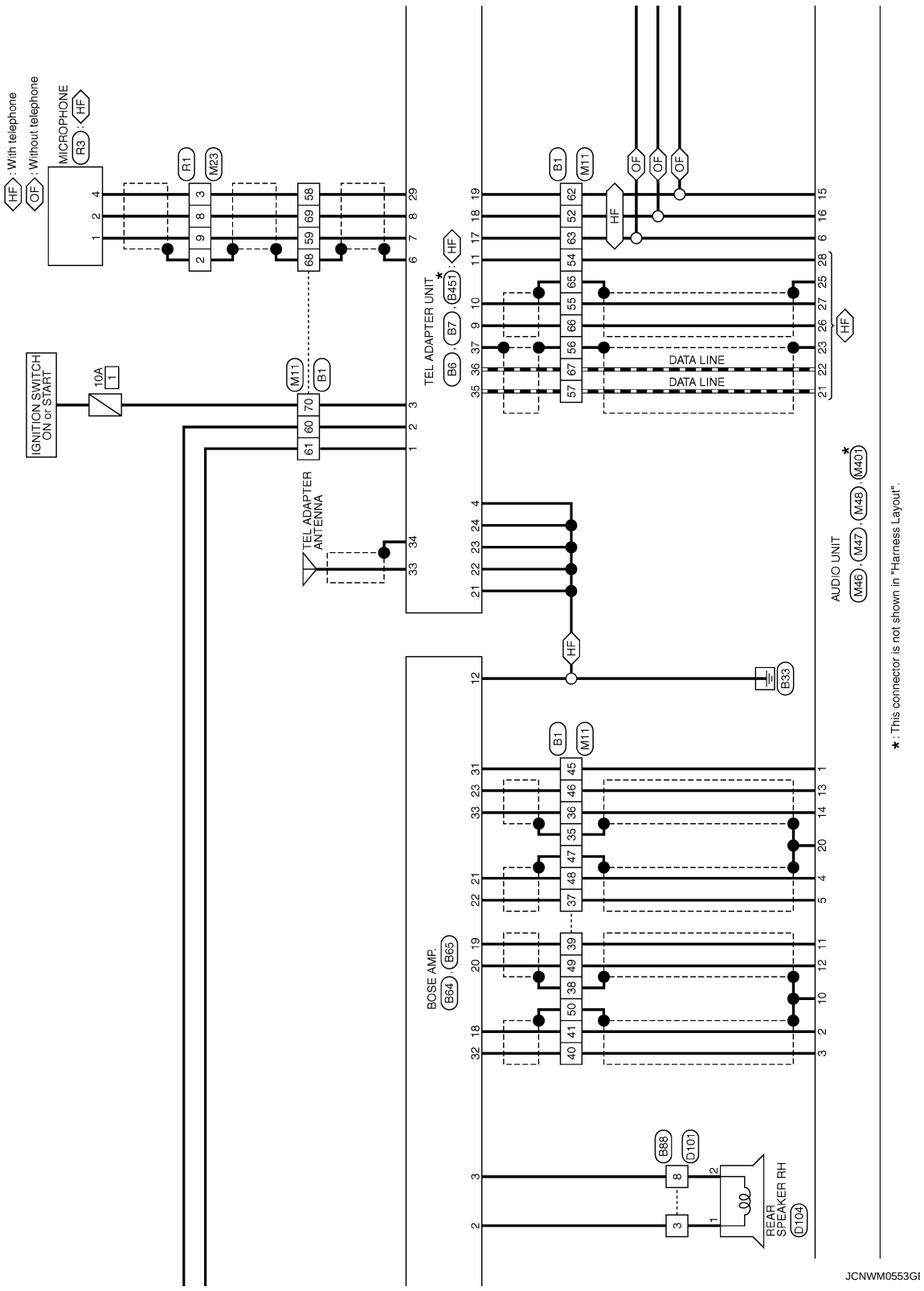
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
8 (G)	13 (R)	Sound signal front speaker RH	Output	Ignition switch ON	Voice output	 SKIB3609E
9 (Y)	14 (BR)	Sound signal woofer	Output	Ignition switch ON	Voice output	 SKIB3609E
11 (W)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
12 (B)	Ground	Ground	—	Ignition switch ON	—	0 V
15 (V)	28 (O)	Sound signal center speaker	Output	Ignition switch ON	Voice output	 SKIB3609E
18 (R)	32 (G)	Sound signal front LH	Input	Ignition switch ON	Voice output	 SKIB3609E
19 (O)	20 (W)	Sound signal front RH	Input	Ignition switch ON	Voice output	 SKIB3609E
21 (V)	22 (LG)	Sound signal rear LH	Input	Ignition switch ON	Voice output	 SKIB3609E

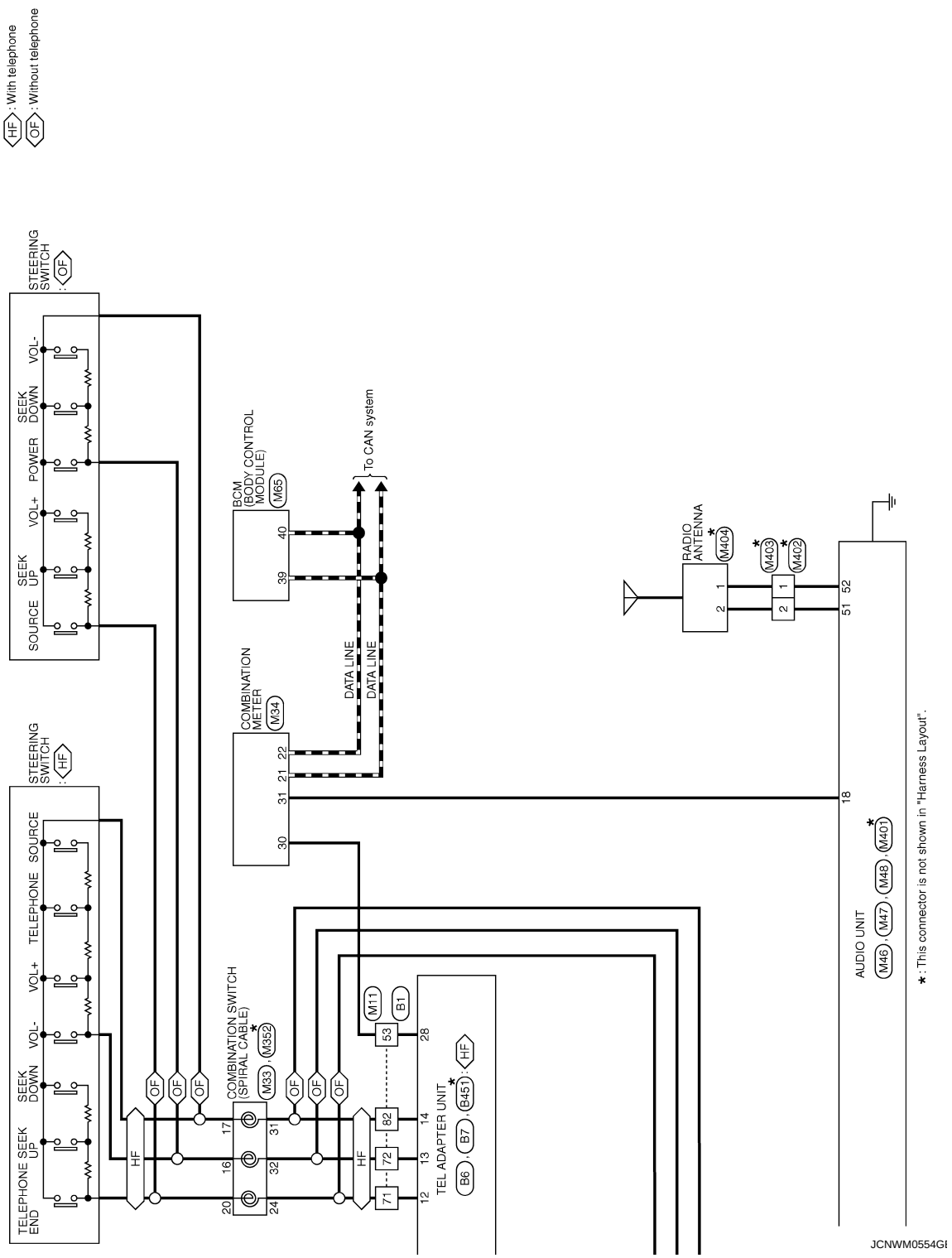
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
23 (W)	33 (R)	Sound signal rear RH	Input	Ignition switch ON	Voice output	 SKIB3609E
25 (G)	Ground	Woofer Amp. ON signal	Output	Ignition switch ACC	—	12 V
31 (L)	Ground	Amp. ON signal	Input	Ignition switch ACC	—	12 V
37 (O)	27 (W)	Sound signal tweeter RH	Output	Ignition switch ON	Voice output	 SKIB3609E

Wiring Diagram - BOSE AUDIO -

INFOID:0000000001711578




HF : With telephone
OF : Without telephone
MICROPHONE
R3
HF
R1
M23
IGNITION SWITCH ON or START
10A
1
M11
B1
TEL ADAPTER ANTENNA
TEL ADAPTER UNIT
B451
B7
B6
HF
OF
DATA LINE
DATA LINE
AUDIO UNIT
M46
M47
M48
M401
*
B33
BOSE AMP
B64
B65
REAR SPEAKER RH
D104
B88
D101
* : This connector is not shown in "Harness Layout".
JCNWM0553GB

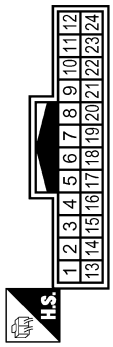

HF : With telephone
OF : Without telephone
STEERING SWITCH : OF
SOURCE
SEEK UP
VOL+
POWER
SEEK DOWN
VOL-
STEERING SWITCH : HF
TELEPHONE SEEK UP
TELEPHONE END
SOURCE
TELEPHONE
VOL+
VOL-
SEEK DOWN
COMBINATION SWITCH (SPIRAL CABLE)
M352
M33
M11
B1
TEL ADAPTER UNIT
B6
B7
B451
HF
COMBINATION METER
M34
DATA LINE
DATA LINE
BCM (BODY CONTROL MODULE)
M65
To CAN system
RADIO ANTENNA
M404
M403
M402
AUDIO UNIT
M46
M47
M48
M401
*: This connector is not shown in "Harness Layout".
JCNWM0554GB

BOSE AUDIO

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4

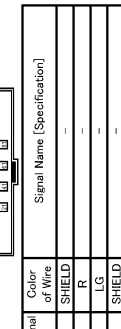
Terminal No.	Color of Wire	Signal Name [Specification]
35	SHIELD	–
36	R	–
37	LG	–
38	SHIELD	–
39	O	–
40	G	–
41	R	–
45	L	–
46	W	–
47	SHIELD	–
48	V	–
49	W	–
50	SHIELD	–
52	L	–
53	G	–
54	O	–
55	Y	–
56	SHIELD	–
57	L	–
58	W	–
59	B	–
60	SB	–
61	BR	–
62	GR	–
63	W	–
65	SHIELD	–
66	BR	–
67	P	–
68	SHIELD	–
69	R	–
70	W	–
71	W	–
72	Y	–
82	GR	–

Connector No.	B2
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



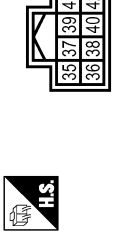
Terminal No.	Color of Wire	Signal Name [Specification]
7	SHIELD	–
8	G	–
9	SHIELD	–
10	G	–
11	R	–
12	SB	–
20	L	–
21	Y	–
22	W	–
23	L	–
24	BR	–

Connector No.	B6
Connector Name	TEL ADAPTER UNIT
Connector Type	TH32FW-NH



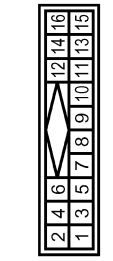
Terminal No.	Color of Wire	Signal Name [Specification]
1	BR	BAT
2	SB	ACC
3	W	IGN
4	B	GND
6	SHIELD	SHIELD
7	B	MICROPHONE SIGNAL (+)
8	R	MICROPHONE SIGNAL (–)
9	BR	SOUND SIGNAL (+)
10	Y	SOUND SIGNAL (–)
11	O	TELEPHONE ON SIGNAL
12	W	STEERING SW SIGNAL A
13	Y	STEERING SW SIGNAL B
14	GR	STEERING SW SIGNAL GND
17	W	STEERING SW SIGNAL A
18	L	STEERING SW SIGNAL B
19	GR	STEERING SW SIGNAL GND
21	B	GND
22	B	GND
23	B	GND
24	B	GND
28	G	VEHICLE SPEED SIGNAL (2-PULSE)
29	W	MICROPHONE POWER

Connector No.	B7
Connector Name	TEL ADAPTER UNIT
Connector Type	TH08FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
35	L	AV COMMUNICATION SIGNAL (H)
36	P	AV COMMUNICATION SIGNAL (L)
37	SHIELD	SHIELD

Connector No.	B19
Connector Name	SATELLITE RADIO TUNER
Connector Type	A16FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	SOUND SIGNAL LH (–)
2	L	SOUND SIGNAL LH (+)
3	G	SOUND SIGNAL RH (–)
4	W	SOUND SIGNAL RH (+)
5	SHIELD	SHIELD
6	SHIELD	SHIELD
8	Y	REQUEST SIGNAL (SAT TO AUDIO)
9	G	COMMUNICATION SIGNAL (SAT-AUDIO)
10	L	COMMUNICATION SIGNAL (AUDIO-SAT)
12	BR	BAT
16	SB	ACC

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BOSE AUDIO

Connector No.	B51
Connector Name	WIRE TO WIRE
Connector Type	NS04FW-CS

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	–
2	R	–

Connector No.	B52
Connector Name	WIRE TO WIRE
Connector Type	NS04MW-CS

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	–
2	R	–

Connector No.	B54
Connector Name	WIRE TO WIRE
Connector Type	NS12MW-CS

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
4	R	–
5	L	–

Connector No.	B55
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
4	R	–
5	L	–

Connector No.	B63
Connector Name	WOOFER
Connector Type	RS06FGY-PR

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
1	BR	SOUND SIGNAL WOOFER (–)
2	Y	SOUND SIGNAL WOOFER (+)
3	SHIELD	SHIELD
4	G	WOOFER AMP. ON SIGNAL
5	B	GND
6	SB	BAT

Connector No.	B64
Connector Name	BOSE AMP.
Connector Type	SGA12FBR-SJA2

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	SOUND SIGNAL REAR SPEAKER LH (+)
2	GR	SOUND SIGNAL REAR SPEAKER RH (+)
3	Y	SOUND SIGNAL REAR SPEAKER RH (–)
4	B	SOUND SIGNAL FRONT SPEAKER LH (+)
5	P	SOUND SIGNAL FRONT SPEAKER LH (–)
6	BR	SOUND SIGNAL TWEETER LH (+)
7	GR	SOUND SIGNAL TWEETER LH (–)
8	G	SOUND SIGNAL FRONT SPEAKER RH (+)
9	Y	SOUND SIGNAL WOOFER (+)
10	R	SOUND SIGNAL REAR SPEAKER LH (–)
11	W	BAT

12	B	GND
13	R	SOUND SIGNAL FRONT SPEAKER RH (–)
14	BR	SOUND SIGNAL WOOFER (–)

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BOSE AUDIO

Connector No.	B65
Connector Name	BOSE AMP.
Connector Type	SCA19FBR-SGA4

Terminal No.	Color of Wire	Signal Name [Specification]
15	V	SOUND SIGNAL CENTER SPEAKER (+)
18	R	SOUND SIGNAL FRONT LH (+)
19	O	SOUND SIGNAL FRONT RH (+)
20	W	SOUND SIGNAL FRONT RH (-)
21	V	SOUND SIGNAL REAR LH (+)
22	LG	SOUND SIGNAL REAR LH (-)
23	W	SOUND SIGNAL REAR RH (+)
25	G	WOOFER AMP. ON SIGNAL
27	W	SOUND SIGNAL TWEETER RH (-)
28	O	SOUND SIGNAL CENTER SPEAKER (-)
31	L	AMP. ON SIGNAL

32	G	SOUND SIGNAL FRONT LH (-)
33	R	SOUND SIGNAL REAR RH (-)
37	O	SOUND SIGNAL TWEETER RH (+)

Connector No.	B76
Connector Name	WIRE TO WIRE
Connector Type	NS12MW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–
2	P	–
3	B	–
4	R	–
5	G	–
6	SB	–
7	O	–
8	V	–
9	GR	–
10	BR	–
11	W	–

12	O	–

Connector No.	B66
Connector Name	WIRE TO WIRE
Connector Type	NS06FW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	–
3	R	–

Connector No.	B67
Connector Name	WIRE TO WIRE
Connector Type	NS06MW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	–
3	R	–

Connector No.	B86
Connector Name	WIRE TO WIRE
Connector Type	NS12MW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
3	L	–
8	R	–

Connector No.	B88
Connector Name	WIRE TO WIRE
Connector Type	NS12MW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
3	GR	–
8	Y	–

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BOSE AUDIO

Connector No.	B351
Connector Name	SATELLITE RADIO TUNER
Connector Type	FAKRA JACK

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
31	–	–

Connector No.	B352
Connector Name	SATELLITE RADIO ANTENNA
Connector Type	GT16C-IPP-HU

H.S.

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

Connector No.	B451
Connector Name	TEL ADAPTER UNIT
Connector Type	GT16C-IS-HU

H.S.

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

Connector No.	D2
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
3	B	–
10	P	–

Connector No.	D4
Connector Name	FRONT SPEAKER LH
Connector Type	NS02FW-CS

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	–
2	P	–

Connector No.	D42
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
2	G	–
6	R	–

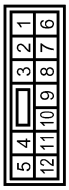
Connector No.	D44
Connector Name	FRONT SPEAKER RH
Connector Type	NS02FW-CS

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	–
2	R	–

Connector No.	D81
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS

H.S.



Terminal No.	Color of Wire	Signal Name [Specification]
3	L	–
8	R	–

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Connector No.	D84
Connector Name	REAR SPEAKER LH
Connector Type	NS02FBR-CS

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	–
2	R	–

Connector No.	D101
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
3	GR	–
8	Y	–

Connector No.	D104
Connector Name	REAR SPEAKER RH
Connector Type	NS02FBR-CS

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
1	GR	–
2	Y	–

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
99	SB	–
100	L	–

Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
35	SHIELD	–
36	P	–
37	LG	–
38	SHIELD	–
39	O	–
40	G	–
41	R	–
45	BR	–
46	L	–
47	SHIELD	–
48	V	–
49	W	–
50	SHIELD	–
52	O	–
53	G	–
54	V	–
55	Y	–
56	SHIELD	–
57	L	–
58	W	–
59	B	–
60	SB	–
61	BR	–
62	GR	–
63	W	–
65	SHIELD	–
66	BR	–
67	P	–
68	SHIELD	–
69	R	–
70	LG	–
71	BR	–
72	O	–
82	GR	–

Connector No.	M12
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
7	SHIELD	–
8	B	–
9	SHIELD	–
10	G	–
11	R	–
12	SB	–
20	L	–
21	Y	–
22	W	–
23	L	–
24	BR	–

Connector No.	M19
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
3	R	–
10	G	–

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BOSE AUDIO

Connector No.	M22
Connector Name	TWEETER RH
Connector Type	TK02FBR

H.S.

2	1

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	–
2	Y	–

Connector No.	M23
Connector Name	WIRE TO WIRE
Connector Type	TH12FW-NH

H.S.

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

Terminal No.	Color of Wire	Signal Name [Specification]
2	SHIELD	–
3	W	–
8	R	–
9	B	–

Connector No.	M33
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY-1V

H.S.

24	25	26	27
31	32	33	34

Terminal No.	Color of Wire	Signal Name [Specification]
24	BR	–
31	GR	–
32	O	–

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	SAB40FW

H.S.

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

Terminal No.	Color of Wire	Signal Name [Specification]
21	L	CAN-H
22	P	CAN-L
30	Y	VEHICLE SPEED (2-PULSE)
31	L	VEHICLE SPEED (8-PULSE)

Connector No.	M46
Connector Name	AUDIO UNIT
Connector Type	TH18FW-CS2

H.S.

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

Terminal No.	Color of Wire	Signal Name [Specification]
1	BR	AMP. ON SIGNAL
2	R	SOUND SIGNAL FRONT LH (+)
3	G	SOUND SIGNAL FRONT LH (–)
4	V	SOUND SIGNAL REAR LH (+)
5	LG	SOUND SIGNAL REAR LH (–)
6	W	STEERING SW SIGNAL A
7	SB	ACC
10	SHIELD	SHIELD
11	O	SOUND SIGNAL FRONT RH (+)
12	W	SOUND SIGNAL FRONT RH (–)
13	L	SOUND SIGNAL REAR RH (+)
14	P	SOUND SIGNAL REAR RH (+)
15	GR	STEERING SW SIGNAL GND
16	O	STEERING SW SIGNAL B
18	L	VEHICLE SPEED SIGNAL (8-PULSE)
19	Y	BAT
20	SHIELD	SHIELD

Connector No.	M47
Connector Name	AUDIO UNIT
Connector Type	TH08FW-NH

H.S.

21	22	23	24
25	26	27	28

Terminal No.	Color of Wire	Signal Name [Specification]
21	L	AV COMMUNICATION SIGNAL (H)
22	P	AV COMMUNICATION SIGNAL (L)
23	SHIELD	SHIELD
25	SHIELD	SHIELD
26	BR	SOUND SIGNAL (+)
27	Y	SOUND SIGNAL (–)
28	V	TELEPHONE ON SIGNAL

Connector No.	M48
Connector Name	AUDIO UNIT
Connector Type	A12FW

H.S.

32	34	40	42
31	33	35	36	37	38	39	41

Terminal No.	Color of Wire	Signal Name [Specification]
31	R	SOUND SIGNAL LH (–)
32	L	SOUND SIGNAL LH (+)
33	G	SOUND SIGNAL LH (–)
34	W	SOUND SIGNAL LH (+)
35	SHIELD	SHIELD
36	SHIELD	SHIELD
38	Y	REQUEST SIGNAL (SAT TO AUDIO)
39	B	COMMUNICATION SIGNAL (SAT–AUDIO)
40	L	COMMUNICATION SIGNAL (AUDIO–SAT)

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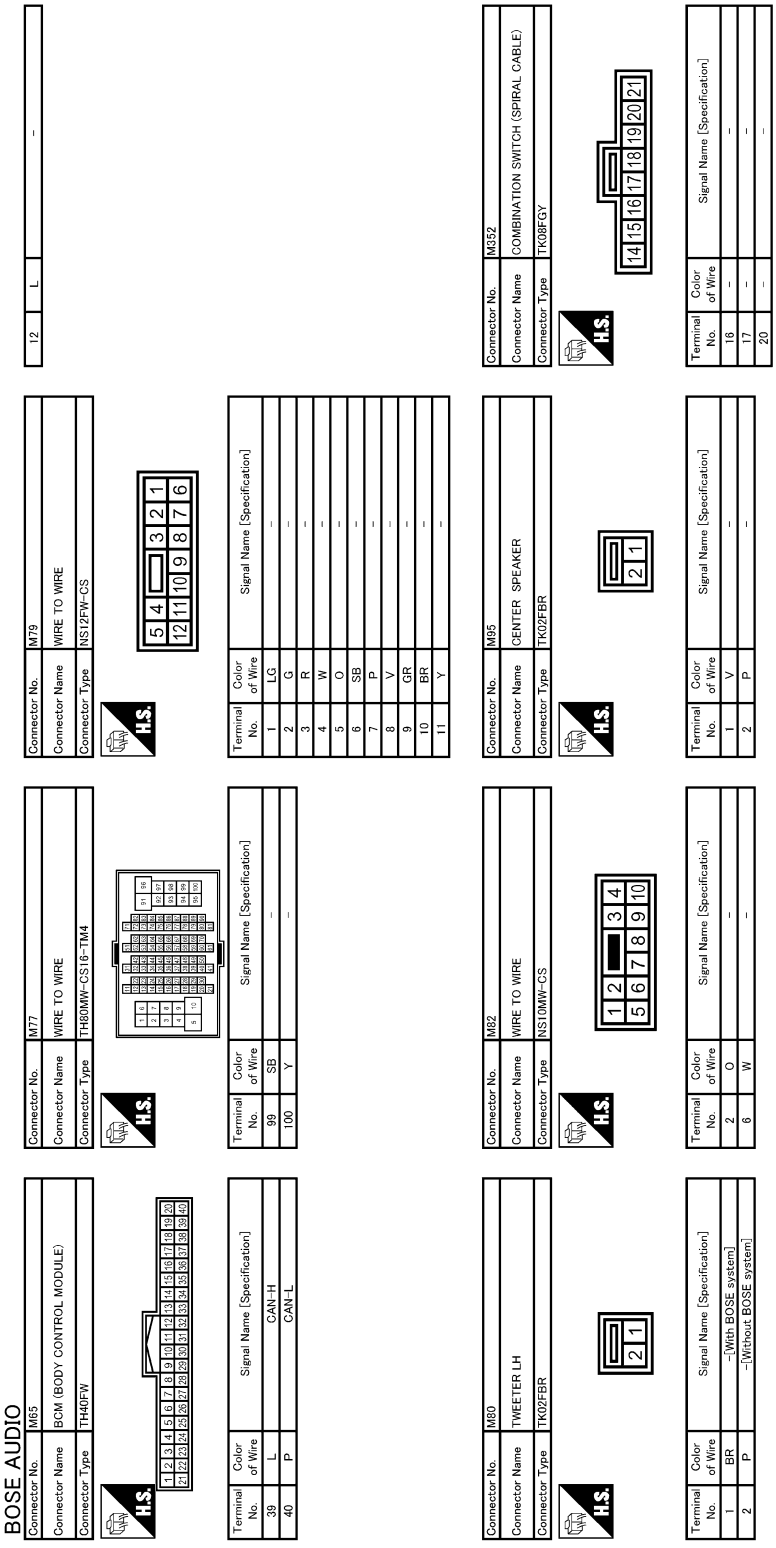
BOSE AUDIO



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BOSE AUDIO

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

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
51	–	ANTENNA SIGNAL
52	–	ANTENNA AMP. ON SIGNAL

Connector No.	M402
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-1/1S-HU

H.S.

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

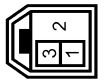
Connector No.	M403
Connector Name	WIRE TO WIRE
Connector Type	GT13SCN-1/1PP-HU

H.S.

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

Connector No.	M404
Connector Name	RADIO ANTENNA
Connector Type	GT13SSN-1/1PP-HU

H.S.



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

Connector No.	R1
Connector Name	WIRE TO WIRE
Connector Type	TH12MW-NH

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
2	SHIELD	–
3	W	–
8	R	–
9	B	–

Connector No.	R3
Connector Name	MICROPHONE
Connector Type	TK04FW

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	MICROPHONE SIGNAL (+)
2	R	MICROPHONE SIGNAL (–)
4	W	MICROPHONE POWER

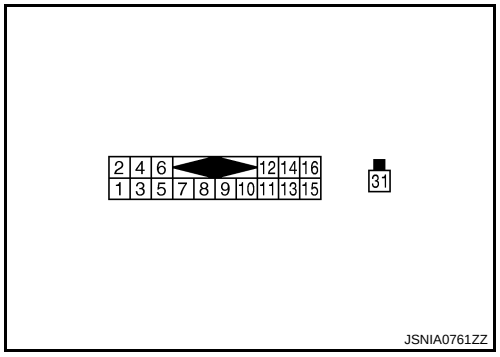
JCNWM0562GB

SATELLITE RADIO TUNER

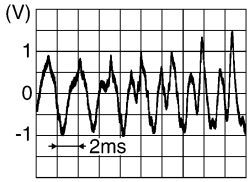
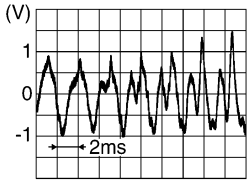
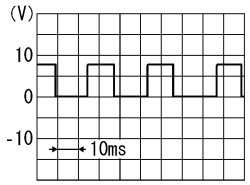
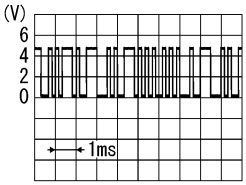
Reference Value

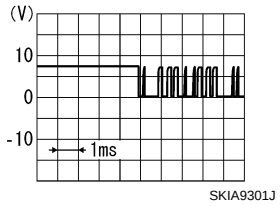
INFOID:0000000001711579

TERMINAL LAYOUT



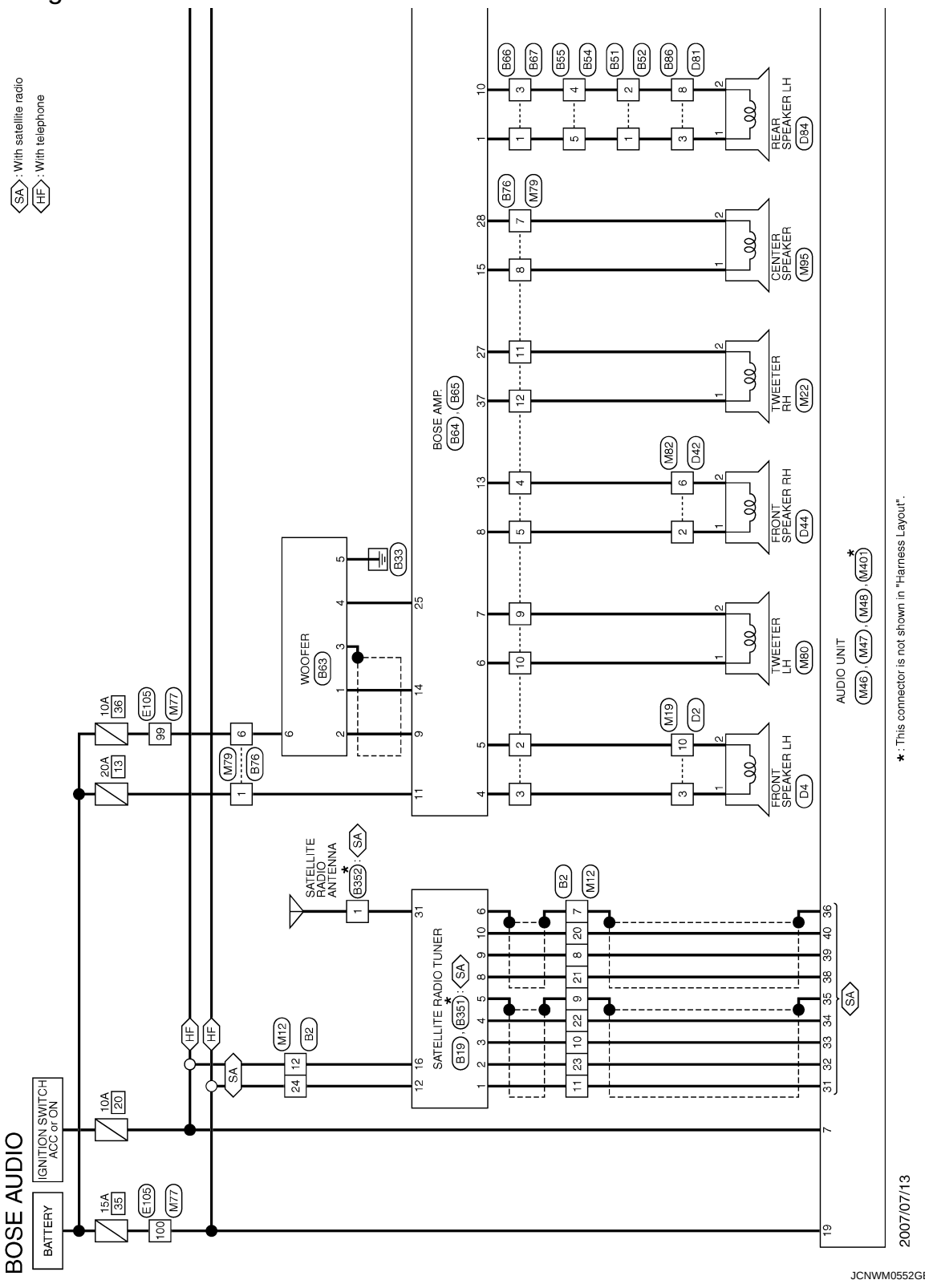
PHYSICAL VALUES

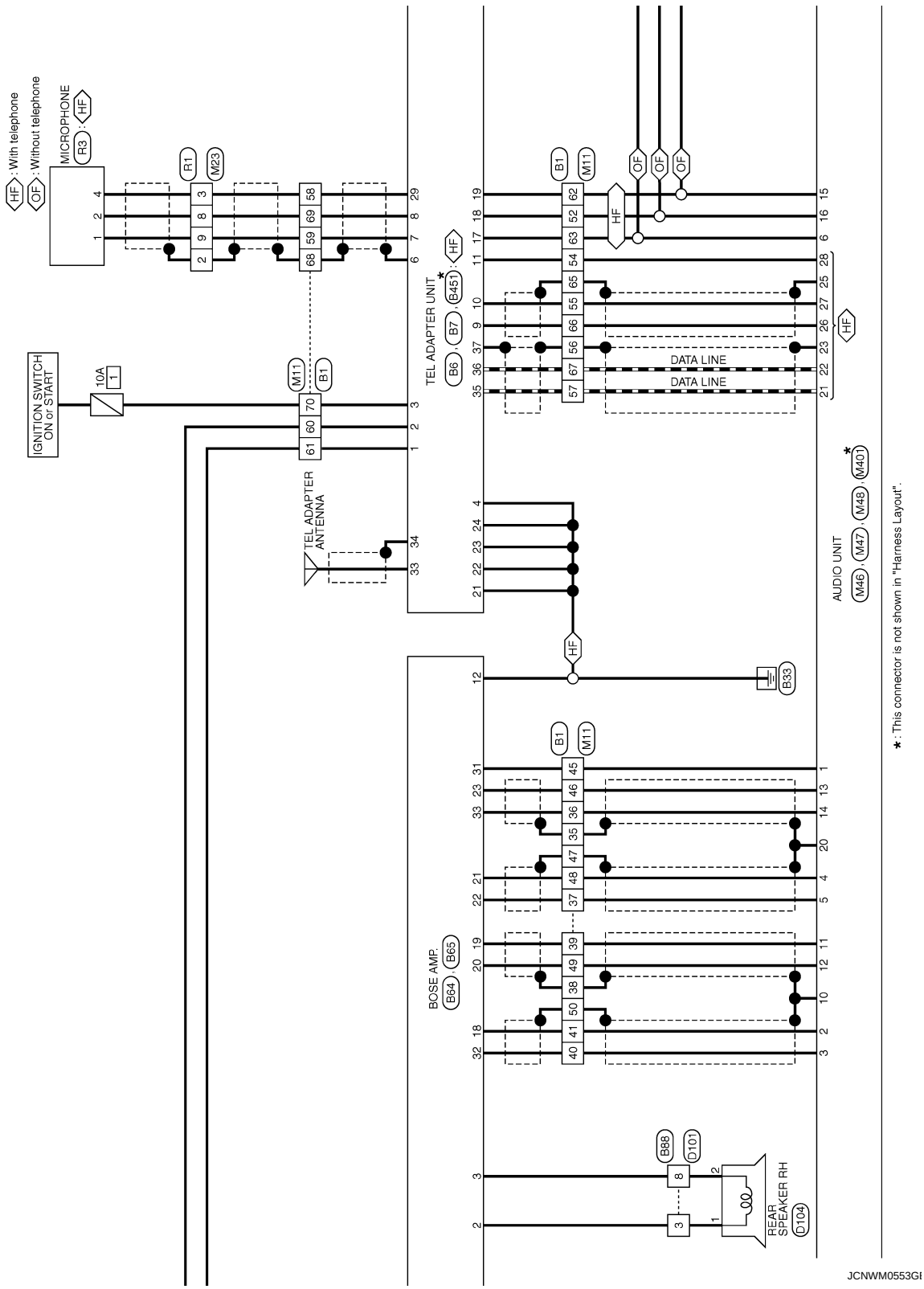
Terminal		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
2 (L)	1 (R)	Satellite radio sound signal LH	Output	Ignition switch ON	When satellite radio mode is selected	 SKIB3609E
4 (W)	3 (G)	Satellite radio sound signal RH	Output	Ignition switch ON	When satellite radio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

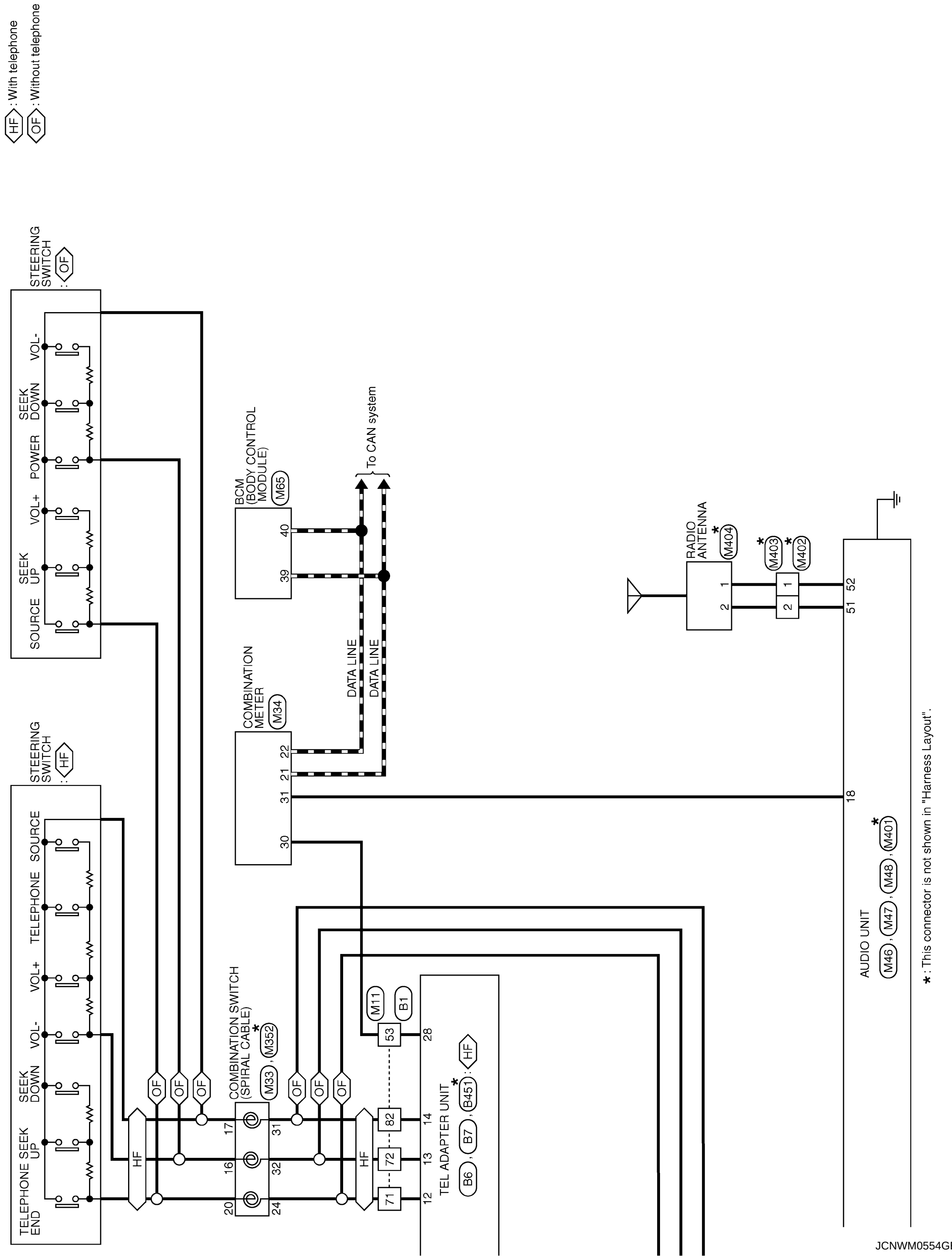
Terminal		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
10 (L)	Ground	Communication signal (AUDIO→SAT)	Input	Ignition switch ON	When satellite radio mode is selected	 SKIA9301J
12 (BR)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
16 (SB)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

Wiring Diagram - BOSE AUDIO -

INFOID:0000000001711702



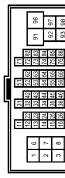

HF : With telephone
OF : Without telephone
MICROPHONE
R3
HF
R1
M23
IGNITION SWITCH ON or START
10A
1
M11
B1
70
60
61
TEL ADAPTER ANTENNA
TEL ADAPTER UNIT
B6, B7, B451
HF
DATA LINE
DATA LINE
OF
OF
OF
HF
HF
AUDIO UNIT
M46, M47, M48, M401
*
B33
BOSE AMP.
B64, B65
REAR SPEAKER RH
D104
B88
D101
* : This connector is not shown in "Harness Layout".
JCNWM0553GB



HF : With telephone
OF : Without telephone
STEERING SWITCH : OF
VOL-
SEEK DOWN
POWER
VOL+
SEEK UP
SOURCE
STEERING SWITCH : HF
SOURCE
TELEPHONE
VOL+
VOL-
SEEK DOWN
TELEPHONE SEEK UP
TELEPHONE END
BCM (BODY CONTROL MODULE)
M65
40
39
To CAN system
DATA LINE
DATA LINE
COMBINATION METER
M34
22
21
31
30
COMBINATION SWITCH (SPIRAL CABLE)
M33 , M352 *
17
16
20
31
32
24
OF
HF
M11
B1
53
82
72
71
28
14
13
12
TEL ADAPTER UNIT
B6 , B7 , B451 * : HF
RADIO ANTENNA
M404 *
M403 *
M402 *
1
2
52
51
18
AUDIO UNIT
M46 , M47 , M48 , M401 *
* : This connector is not shown in "Harness Layout".
JCNWM0554GI

BOSE AUDIO

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4

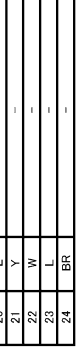


Terminal No.	Color of Wire	Signal Name [Specification]
35	SHIELD	–
36	R	–
37	LG	–
38	SHIELD	–
39	O	–
40	G	–
41	R	–
45	L	–
46	W	–
47	SHIELD	–
48	V	–
49	W	–
50	SHIELD	–
52	L	–
53	G	–
54	O	–
55	Y	–
56	SHIELD	–
57	L	–
58	W	–
59	B	–
60	SB	–
61	BR	–
62	GR	–
63	W	–
65	SHIELD	–
66	BR	–
67	P	–
68	SHIELD	–
69	R	–
70	W	–
71	W	–
72	Y	–
82	GR	–

Connector No.	B6
Connector Name	TEL ADAPTER UNIT
Connector Type	TH32FW-NH

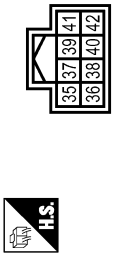
Terminal No.	Color of Wire	Signal Name [Specification]
1	BR	BAT
2	SB	ACC
3	W	IGN
4	B	GND
6	SHIELD	SHIELD
7	B	MICROPHONE SIGNAL (+)
8	R	MICROPHONE SIGNAL (–)
9	BR	SOUND SIGNAL (+)
10	Y	SOUND SIGNAL (–)
11	O	TELEPHONE ON SIGNAL
12	W	STEERING SW SIGNAL A
13	Y	STEERING SW SIGNAL B
14	GR	STEERING SW SIGNAL GND
17	W	STEERING SW SIGNAL A
18	L	STEERING SW SIGNAL B
19	GR	STEERING SW SIGNAL GND
21	B	GND
22	B	GND
23	B	GND
24	B	GND
28	G	VEHICLE SPEED SIGNAL (2-PULSE)
29	W	MICROPHONE POWER

Connector No.	B2
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



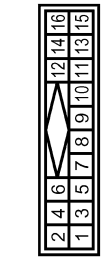
Terminal No.	Color of Wire	Signal Name [Specification]
7	SHIELD	–
8	G	–
9	SHIELD	–
10	G	–
11	R	–
12	SB	–
20	L	–
21	Y	–
22	W	–
23	L	–
24	BR	–

Connector No.	B7
Connector Name	TEL ADAPTER UNIT
Connector Type	TH08FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
35	L	AV COMMUNICATION SIGNAL (H)
36	P	AV COMMUNICATION SIGNAL (L)
37	SHIELD	SHIELD

Connector No.	B19
Connector Name	SATELLITE RADIO TUNER
Connector Type	A16FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	SOUND SIGNAL LH (–)
2	L	SOUND SIGNAL LH (+)
3	G	SOUND SIGNAL RH (–)
4	W	SOUND SIGNAL RH (+)
5	SHIELD	SHIELD
6	SHIELD	SHIELD
8	Y	REQUEST SIGNAL (SAT TO AUDIO)
9	G	COMMUNICATION SIGNAL (SAT–AUDIO)
10	L	COMMUNICATION SIGNAL (AUDIO–SAT)
12	BR	BAT
16	SB	ACC

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BOSE AUDIO

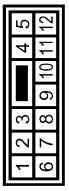
Connector No.	B51
Connector Name	WIRE TO WIRE
Connector Type	NS04FW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	–
2	R	–

Connector No.	B52
Connector Name	WIRE TO WIRE
Connector Type	NS04MW-CS

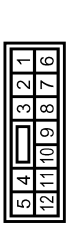
Terminal No.	Color of Wire	Signal Name [Specification]
1	L	–
2	R	–

Connector No.	B54
Connector Name	WIRE TO WIRE
Connector Type	NS12MW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
4	R	–
5	L	–

Connector No.	B55
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
4	R	–
5	L	–

Connector No.	B63
Connector Name	WOOFER
Connector Type	RS06FGY-PR

Terminal No.	Color of Wire	Signal Name [Specification]
1	BR	SOUND SIGNAL WOOFER (–)
2	Y	SOUND SIGNAL WOOFER (+)
3	SHIELD	SHIELD
4	G	WOOFER AMP. ON SIGNAL
5	B	GND
6	SB	BAT

Connector No.	B64
Connector Name	BOSE AMP.
Connector Type	SGA12FBR-SJA2

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	SOUND SIGNAL REAR SPEAKER LH (+)
2	GR	SOUND SIGNAL REAR SPEAKER RH (+)
3	Y	SOUND SIGNAL REAR SPEAKER RH (–)
4	B	SOUND SIGNAL FRONT SPEAKER LH (+)
5	P	SOUND SIGNAL FRONT SPEAKER LH (–)
6	BR	SOUND SIGNAL TWEETER LH (+)
7	GR	SOUND SIGNAL TWEETER LH (–)
8	G	SOUND SIGNAL FRONT SPEAKER RH (+)
9	Y	SOUND SIGNAL WOOFER (+)
10	R	SOUND SIGNAL REAR SPEAKER LH (–)
11	W	BAT
12	B	GND
13	R	SOUND SIGNAL FRONT SPEAKER RH (–)
14	BR	SOUND SIGNAL WOOFER (–)

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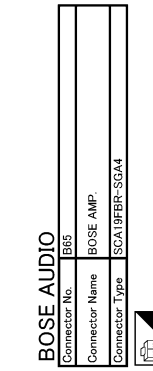
BOSE AUDIO

Connector No.	B65
Connector Name	BOSE AMP.
Connector Type	SCA19FBR-SGA4



Terminal No.	Color of Wire	Signal Name [Specification]
15	V	SOUND SIGNAL CENTER SPEAKER (+)
18	R	SOUND SIGNAL FRONT LH (+)
19	O	SOUND SIGNAL FRONT RH (+)
20	W	SOUND SIGNAL FRONT RH (–)
21	V	SOUND SIGNAL REAR LH (+)
22	LG	SOUND SIGNAL REAR LH (–)
23	W	SOUND SIGNAL REAR RH (+)
25	G	WOOFER AMP. ON SIGNAL
27	W	SOUND SIGNAL TWEETER RH (–)
28	O	SOUND SIGNAL CENTER SPEAKER (–)
31	L	AMP. ON SIGNAL

32	G	SOUND SIGNAL FRONT LH (–)
33	R	SOUND SIGNAL REAR RH (–)
37	O	SOUND SIGNAL TWEETER RH (+)

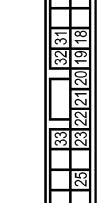
Connector No.	B66
Connector Name	WIRE TO WIRE
Connector Type	NS06FW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	–
3	R	–

Connector No.	B67
Connector Name	WIRE TO WIRE
Connector Type	NS08MW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	–
3	R	–

Connector No.	B76
Connector Name	WIRE TO WIRE
Connector Type	NS12MW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–
2	P	–
3	B	–
4	R	–
5	G	–
6	SB	–
7	O	–
8	V	–
9	GR	–
10	BR	–
11	W	–

12	O	–

Connector No.	B86
Connector Name	WIRE TO WIRE
Connector Type	NS12MW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
3	L	–
8	R	–

Connector No.	B88
Connector Name	WIRE TO WIRE
Connector Type	NS12MW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
3	GR	–
8	Y	–

JCNWM0557GI

BOSE AUDIO

Connector No.	B351
Connector Name	SATELLITE RADIO TUNER
Connector Type	FAKRA JACK

Terminal No.	Color of Wire	Signal Name [Specification]
31	–	–

Connector No.	B352
Connector Name	SATELLITE RADIO ANTENNA
Connector Type	GT16C-1PP-HU

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

Connector No.	B451
Connector Name	TEL ADAPTER UNIT
Connector Type	GT16C-1S-HU

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

Connector No.	D2
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
3	B	–
10	P	–

Connector No.	D4
Connector Name	FRONT SPEAKER LH
Connector Type	NS02FW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	–
2	P	–

Connector No.	D42
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
2	G	–
6	R	–

Connector No.	D44
Connector Name	FRONT SPEAKER RH
Connector Type	NS02FW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	–
2	R	–

Connector No.	D81
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
3	L	–
8	R	–

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BOSE AUDIO

Connector No.	D84
Connector Name	REAR SPEAKER LH
Connector Type	NS02FBR-CS

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	–
2	R	–

Connector No.	D101
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
3	GR	–
8	Y	–

Connector No.	D104
Connector Name	REAR SPEAKER RH
Connector Type	NS02FBR-CS

Terminal No.	Color of Wire	Signal Name [Specification]
1	GR	–
2	Y	–

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4

Terminal No.	Color of Wire	Signal Name [Specification]
99	SB	–
100	L	–

Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4

Terminal No.	Color of Wire	Signal Name [Specification]
35	SHIELD	–
36	P	–
37	LG	–
38	SHIELD	–
39	O	–
40	G	–
41	R	–
45	BR	–
46	L	–
47	SHIELD	–
48	V	–
49	W	–
50	SHIELD	–
52	O	–
53	G	–
54	V	–
55	Y	–
56	SHIELD	–
57	L	–
58	W	–
59	B	–
60	SB	–
61	BR	–
62	GR	–
63	W	–
65	SHIELD	–
66	BR	–
67	P	–
68	SHIELD	–
69	R	–
70	LG	–
71	BR	–
72	O	–
82	GR	–

Connector No.	M12
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
7	SHIELD	–
8	B	–
9	SHIELD	–
10	G	–
11	R	–
12	SB	–
20	L	–
21	Y	–
22	W	–
23	L	–
24	BR	–

Connector No.	M19
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
3	R	–
10	G	–

JCNWM0559GI

BOSE AUDIO

Connector No.	M22
Connector Name	TWEETER RH
Connector Type	TK02FBR

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	–
2	Y	–

Connector No.	M23
Connector Name	WIRE TO WIRE
Connector Type	TH12FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
2	SHIELD	–
3	W	–
8	R	–
9	B	–

Connector No.	M33
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY-1V

Terminal No.	Color of Wire	Signal Name [Specification]
24	BR	–
31	GR	–
32	O	–

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	SAB40FW

Terminal No.	Color of Wire	Signal Name [Specification]
21	L	CAN-H
22	P	CAN-L
30	Y	VEHICLE SPEED (2-PULSE)
31	L	VEHICLE SPEED (8-PULSE)

Connector No.	M46
Connector Name	AUDIO UNIT
Connector Type	TH18FW-CS2

Terminal No.	Color of Wire	Signal Name [Specification]
1	BR	AMP. ON SIGNAL
2	R	SOUND SIGNAL FRONT LH (+)
3	G	SOUND SIGNAL FRONT LH (–)
4	V	SOUND SIGNAL REAR LH (+)
5	LG	SOUND SIGNAL REAR LH (–)
6	W	STEERING SW SIGNAL A
7	SB	ACC
10	SHIELD	SHIELD
11	O	SOUND SIGNAL FRONT RH (+)
12	W	SOUND SIGNAL FRONT RH (–)
13	L	SOUND SIGNAL REAR RH (+)
14	P	SOUND SIGNAL REAR RH (+)
15	GR	STEERING SW SIGNAL GND
16	O	STEERING SW SIGNAL B
18	L	VEHICLE SPEED SIGNAL (8-PULSE)
19	Y	BAT
20	SHIELD	SHIELD

Connector No.	M47
Connector Name	AUDIO UNIT
Connector Type	TH08FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
21	L	AV COMMUNICATION SIGNAL (H)
22	P	AV COMMUNICATION SIGNAL (L)
23	SHIELD	SHIELD
25	SHIELD	SHIELD
26	BR	SOUND SIGNAL (+)
27	Y	SOUND SIGNAL (–)
28	V	TELEPHONE ON SIGNAL

Connector No.	M48
Connector Name	AUDIO UNIT
Connector Type	A12FW

Terminal No.	Color of Wire	Signal Name [Specification]
31	R	SOUND SIGNAL LH (–)
32	L	SOUND SIGNAL LH (+)
33	G	SOUND SIGNAL LH (–)
34	W	SOUND SIGNAL LH (+)
35	SHIELD	SHIELD
36	SHIELD	SHIELD
38	Y	REQUEST SIGNAL (SAT TO AUDIO)
39	B	COMMUNICATION SIGNAL (SAT-AUDIO)
40	L	COMMUNICATION SIGNAL (AUDIO-SAT)

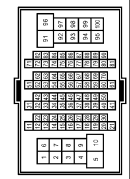
JCNWM0560GB

BOSE AUDIO

Connector No.	M65
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FW

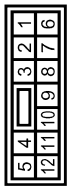
Terminal No.	Color of Wire	Signal Name [Specification]
39	L	CAN-H
40	P	CAN-L

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
99	SB	–
100	Y	–

Connector No.	M79
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	–
2	G	–
3	R	–
4	W	–
5	O	–
6	SB	–
7	P	–
8	V	–
9	GR	–
10	BR	–
11	Y	–
12	L	–

Connector No.	M80
Connector Name	TWEETER LH
Connector Type	TK02FBR

Terminal No.	Color of Wire	Signal Name [Specification]
1	BR	–[With BOSE system]
2	P	–[Without BOSE system]

Connector No.	M82
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
2	O	–
6	W	–

Connector No.	M95
Connector Name	CENTER SPEAKER
Connector Type	TK02FBR

Terminal No.	Color of Wire	Signal Name [Specification]
1	V	–
2	P	–

Connector No.	M352
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY

Terminal No.	Color of Wire	Signal Name [Specification]
16	–	–
17	–	–
20	–	–

JCNWM0561GB

BOSE AUDIO

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

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
51	–	ANTENNA SIGNAL
52	–	ANTENNA AMP. ON SIGNAL

Connector No.	M402
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-1/1S-HU

H.S.

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

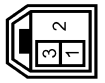
Connector No.	M403
Connector Name	WIRE TO WIRE
Connector Type	GT13SCN-1/1PP-HU

H.S.

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

Connector No.	M404
Connector Name	RADIO ANTENNA
Connector Type	GT13SSN-1/1PP-HU

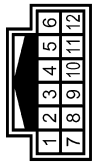
H.S.



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

Connector No.	R1
Connector Name	WIRE TO WIRE
Connector Type	TH12MW-NH

H.S.



Terminal No.	Color of Wire	Signal Name [Specification]
2	SHIELD	–
3	W	–
8	R	–
9	B	–

Connector No.	R3
Connector Name	MICROPHONE
Connector Type	TK04FW

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	MICROPHONE SIGNAL (+)
2	R	MICROPHONE SIGNAL (–)
4	W	MICROPHONE POWER

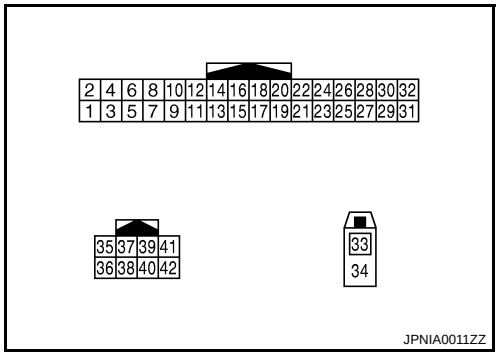
JCNWM0562GB

TEL ADAPTER UNIT

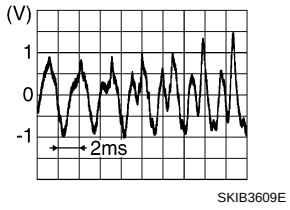
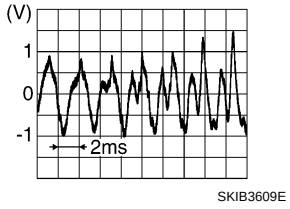
Reference Value

INFOID:0000000001711706

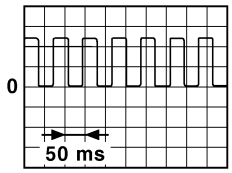
TERMINAL LAYOUT



PHYSICAL VALUES

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
1 (BR)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
2 (SB)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
3 (W)	Ground	Ignition signal	Input	Ignition switch ON	—	Battery voltage
4 (B)	Ground	Ground	—	Ignition switch ON	—	0 V
6	—	Shield	—	—	—	—
7 (B)	8 (R)	Microphone signal	Input	Ignition switch ON	Give a voice	 SKIB3609E
9 (BR)	10 (Y)	Sound signal (Telephone voice, telephone guidance)	Output	Ignition switch ON	During voice guide output with the switch pressed	 SKIB3609E
11 (O)	Ground	Telephone ON signal	Output	Ignition switch ON	While using hands-free phone system	0 V
					While not using hands-free phone system	5 V

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
12 (W)	14 (GR)	Steering switch signal A	Input	Ignition switch ON	Keep pressing switch	0 V
					Keep pressing SEEK UP switch	1.25 V
					Keep pressing SEEK DOWN switch	2.5 V
					Except for above	5 V
13 (Y)	14 (GR)	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 V
14 (GR)	Ground	Steering switch signal ground	—	Ignition switch ON	—	0 V
17 (W)	19 (GR)	Steering switch signal A	Output	Ignition switch ON	Keep pressing SOURCE switch	0 V
					Keep pressing SEEK UP switch	1.1 V
					Keep pressing VOL UP switch	2.2 V
					Except for above	3.3 V
18 (L)	19 (GR)	Steering switch signal B	Output	Ignition switch ON	Keep pressing SEEK DOWN switch	1.1 V
					Keep pressing VOL DOWN switch	2.2 V
					Except for above	3.3 V
19 (GR)	Ground	Steering switch signal ground	—	Ignition switch ON	—	0 V
21 (B)	Ground	Ground	—	Ignition switch ON	—	0 V
22 (B)	Ground	Ground	—	Ignition switch ON	—	0 V
23 (B)	Ground	Ground	—	Ignition switch ON	—	0 V
24 (B)	Ground	Ground	—	Ignition switch ON	—	0 V

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
28 (G)	Ground	Vehicle speed signal (2-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).  JSNIA0015GB
29 (W)	Ground	Microphone power supply	Output	Ignition switch ON	—	5 V
33	—	TEL antenna signal	Input	—	Not connected to TEL antenna connector	—
34	—	Shield	—	—	—	—
35 (L)	—	AV communication signal (H)	Input/ Output	—	—	—
36 (P)	—	AV communication signal (L)	Input/ Output	—	—	—
37	—	Shield	—	—	—	—

Wiring Diagram - BOSE AUDIO -

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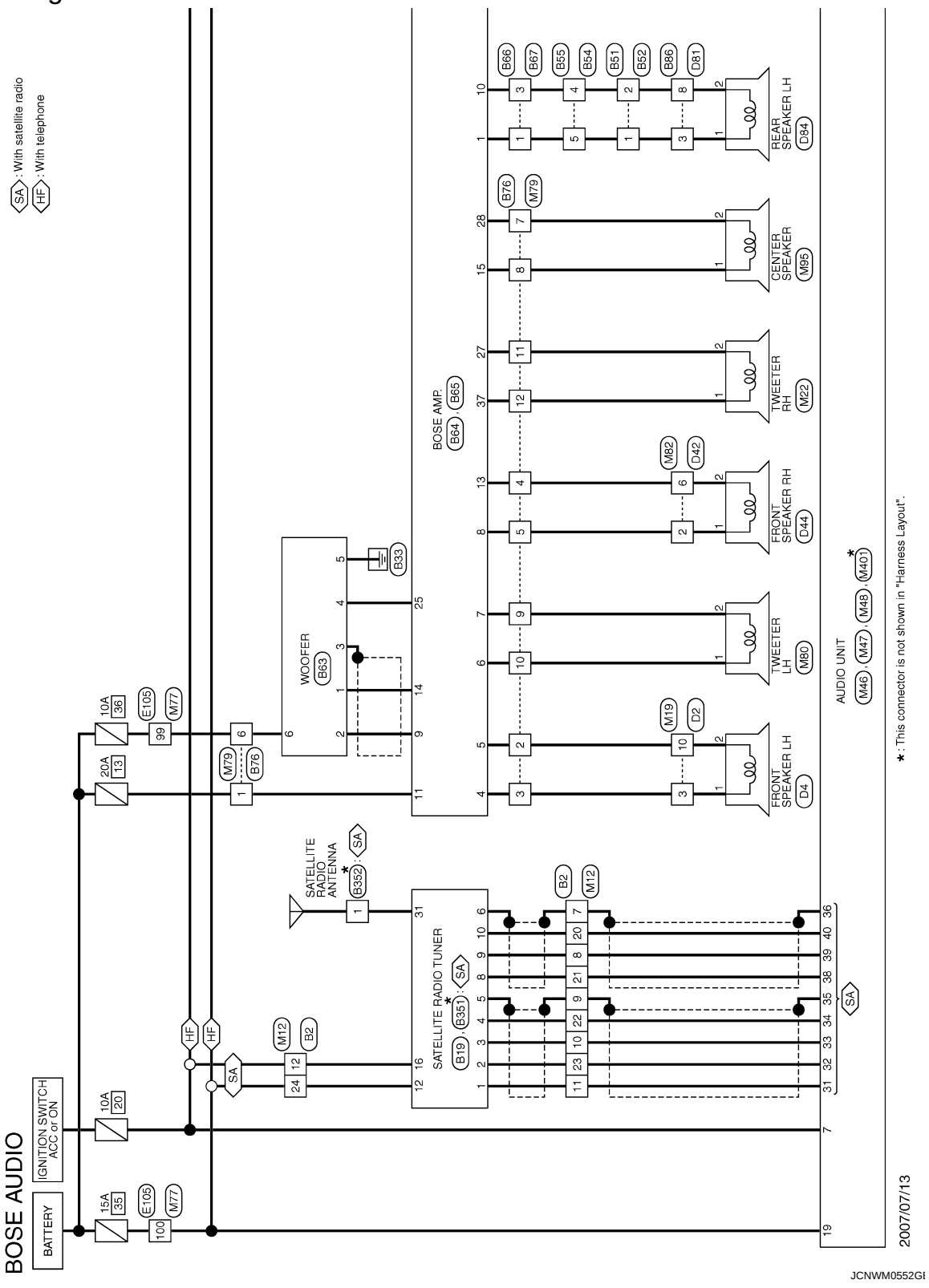
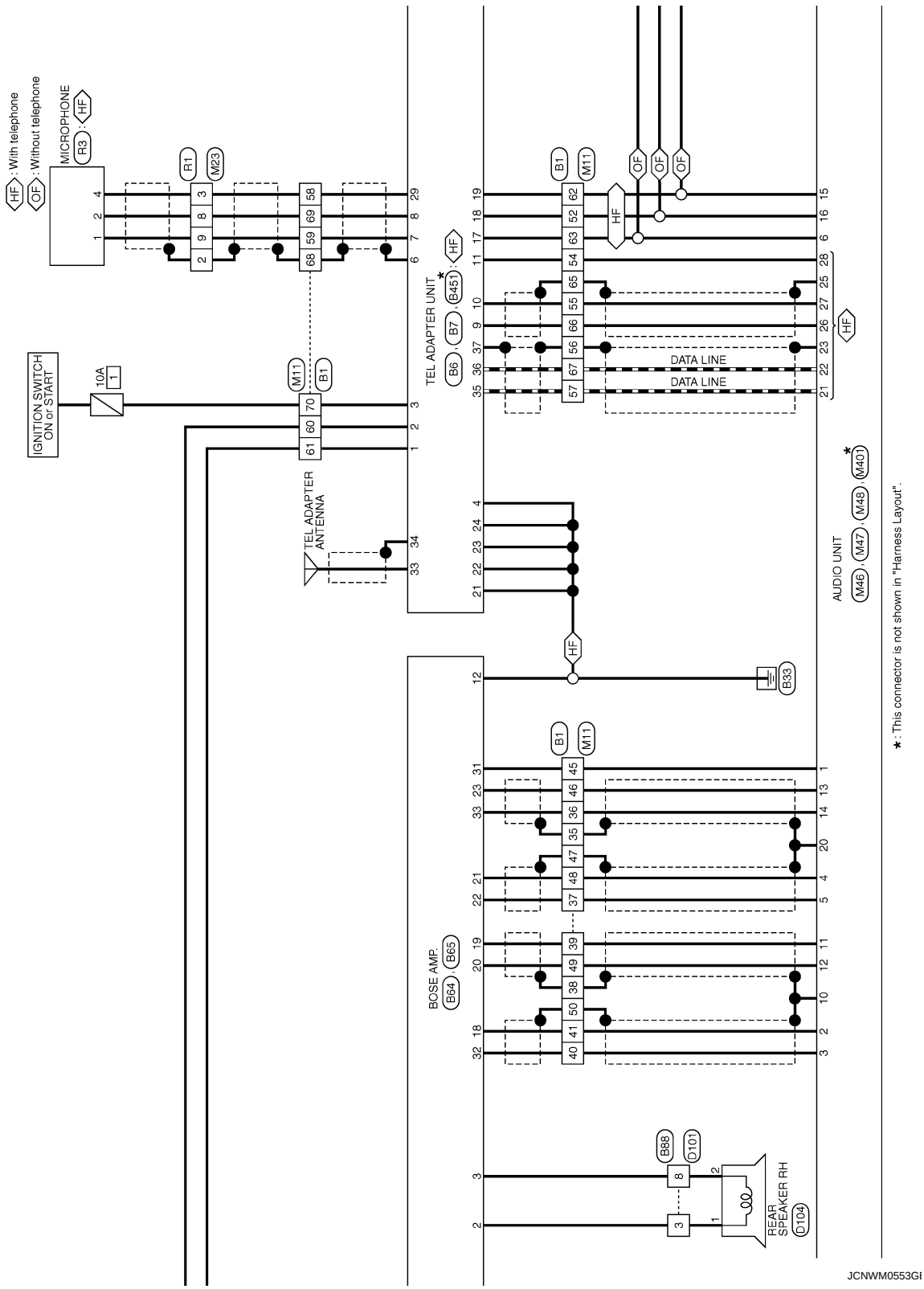
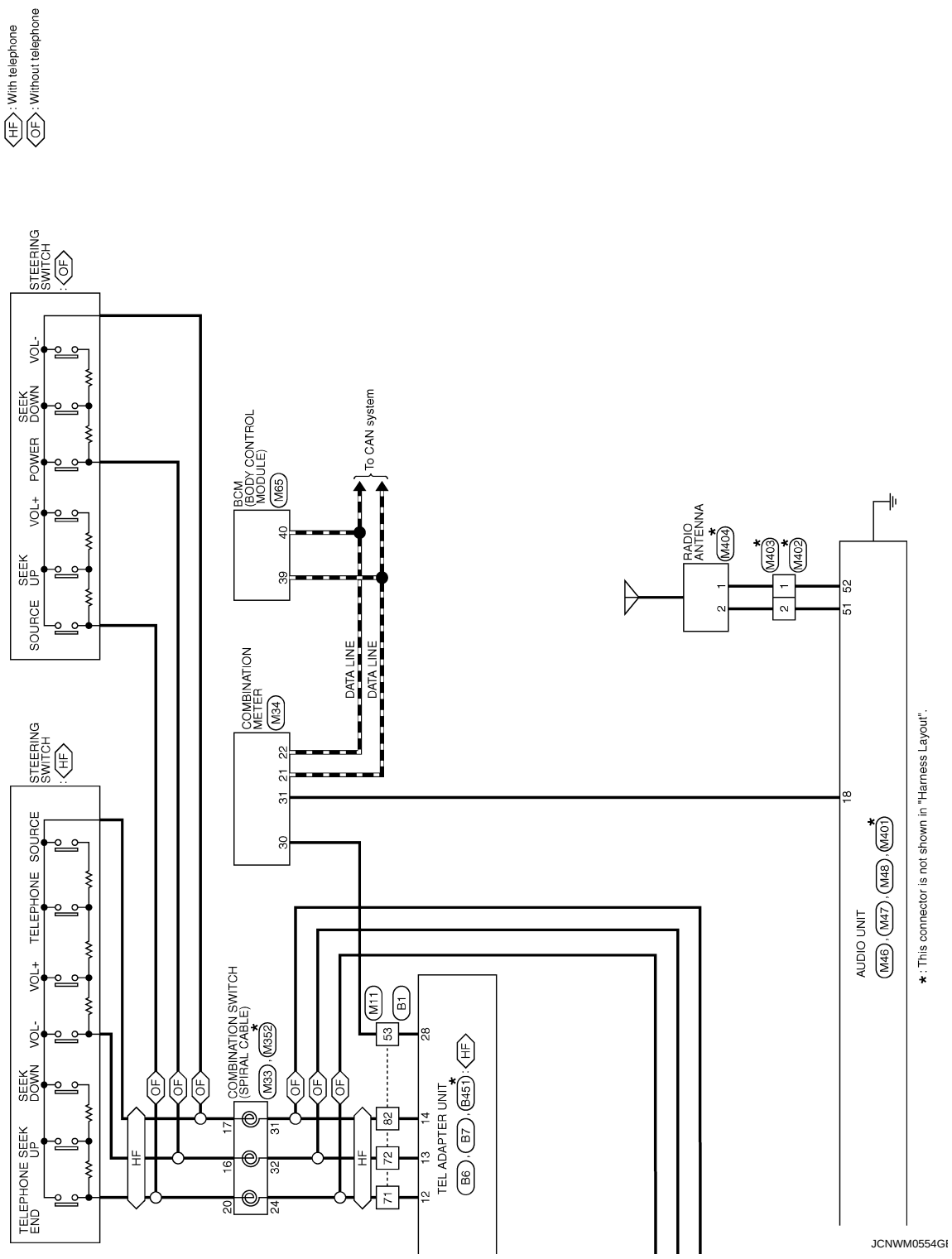
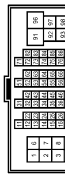



HF : With telephone
OF : Without telephone
MICROPHONE
R3
HF
R1
M23
IGNITION SWITCH ON or START
10A
1
M11
B1
70
60
61
TEL ADAPTER ANTENNA
TEL ADAPTER UNIT
B6, B7, B451
HF
DATA LINE
DATA LINE
OF
OF
OF
HF
HF
B33
AUDIO UNIT
M46, M47, M48, M401
BOSE AMP.
B64, B65
B88
D101
REAR SPEAKER RH
D104
* : This connector is not shown in "Harness Layout".
JCNWM0553GB


HF : With telephone
OF : Without telephone
STEERING SWITCH : OF
SOURCE
SEEK UP
VOL+
POWER
SEEK DOWN
VOL-
STEERING SWITCH : HF
TELEPHONE SEEK UP
TELEPHONE END
BCM (BODY CONTROL MODULE) M65
To CAN system
COMBINATION METER M34
DATA LINE
DATA LINE
RADIO ANTENNA M404
M403
M402
COMBINATION SWITCH (SPIRAL CABLE) M33, M352
TEL ADAPTER UNIT B451, B6, B7
M11
B1
AUDIO UNIT M46, M47, M48, M401
*: This connector is not shown in "Harness Layout".
JCNWM0554GB

BOSE AUDIO

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4

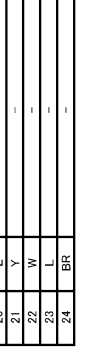


Terminal No.	Color of Wire	Signal Name [Specification]
35	SHIELD	–
36	R	–
37	LG	–
38	SHIELD	–
39	O	–
40	G	–
41	R	–
45	L	–
46	W	–
47	SHIELD	–
48	V	–
49	W	–
50	SHIELD	–
52	L	–
53	G	–
54	O	–
55	Y	–
56	SHIELD	–
57	L	–
58	W	–
59	B	–
60	SB	–
61	BR	–
62	GR	–
63	W	–
65	SHIELD	–
66	BR	–
67	P	–
68	SHIELD	–
69	R	–
70	W	–
71	W	–
72	Y	–
82	GR	–

Connector No.	B6
Connector Name	TEL ADAPTER UNIT
Connector Type	TH32FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
1	BR	BAT
2	SB	ACC
3	W	IGN
4	B	GND
6	SHIELD	SHIELD
7	B	MICROPHONE SIGNAL (+)
8	R	MICROPHONE SIGNAL (–)
9	BR	SOUND SIGNAL (+)
10	Y	SOUND SIGNAL (–)
11	O	TELEPHONE ON SIGNAL
12	W	STEERING SW SIGNAL A
13	Y	STEERING SW SIGNAL B
14	GR	STEERING SW SIGNAL GND
17	W	STEERING SW SIGNAL A
18	L	STEERING SW SIGNAL B
19	GR	STEERING SW SIGNAL GND
21	B	GND
22	B	GND
23	B	GND
24	B	GND
28	G	VEHICLE SPEED SIGNAL (2-PULSE)
29	W	MICROPHONE POWER

Connector No.	B2
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH

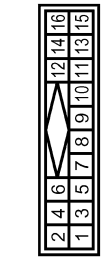


Terminal No.	Color of Wire	Signal Name [Specification]
7	SHIELD	–
8	G	–
9	SHIELD	–
10	G	–
11	R	–
12	SB	–
20	L	–
21	Y	–
22	W	–
23	L	–
24	BR	–

Connector No.	B7
Connector Name	TEL ADAPTER UNIT
Connector Type	TH08FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
35	L	AV COMMUNICATION SIGNAL (H)
36	P	AV COMMUNICATION SIGNAL (L)
37	SHIELD	SHIELD

Connector No.	B19
Connector Name	SATELLITE RADIO TUNER
Connector Type	A16FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	SOUND SIGNAL LH (–)
2	L	SOUND SIGNAL LH (+)
3	G	SOUND SIGNAL RH (–)
4	W	SOUND SIGNAL RH (+)
5	SHIELD	SHIELD
6	SHIELD	SHIELD
8	Y	REQUEST SIGNAL (SAT TO AUDIO)
9	G	COMMUNICATION SIGNAL (SAT–AUDIO)
10	L	COMMUNICATION SIGNAL (AUDIO–SAT)
12	BR	BAT
16	SB	ACC

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BOSE AUDIO

Connector No.	B51
Connector Name	WIRE TO WIRE
Connector Type	NS04FW-CS

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	–
2	R	–

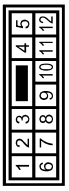
Connector No.	B52
Connector Name	WIRE TO WIRE
Connector Type	NS04MW-CS

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	–
2	R	–

Connector No.	B54
Connector Name	WIRE TO WIRE
Connector Type	NS12MW-CS

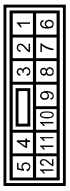
H.S.



Terminal No.	Color of Wire	Signal Name [Specification]
4	R	–
5	L	–

Connector No.	B55
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS

H.S.



Terminal No.	Color of Wire	Signal Name [Specification]
4	R	–
5	L	–

Connector No.	B63
Connector Name	WOOFER
Connector Type	RS06FGY-PR

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
1	BR	SOUND SIGNAL WOOFER (–)
2	Y	SOUND SIGNAL WOOFER (+)
3	SHIELD	SHIELD
4	G	WOOFER AMP. ON SIGNAL
5	B	GND
6	SB	BAT

Connector No.	B64
Connector Name	BOSE AMP.
Connector Type	SGA12FBR-SJA2

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	SOUND SIGNAL REAR SPEAKER LH (+)
2	GR	SOUND SIGNAL REAR SPEAKER RH (+)
3	Y	SOUND SIGNAL REAR SPEAKER RH (–)
4	B	SOUND SIGNAL FRONT SPEAKER LH (+)
5	P	SOUND SIGNAL FRONT SPEAKER LH (–)
6	BR	SOUND SIGNAL TWEETER LH (+)
7	GR	SOUND SIGNAL TWEETER LH (–)
8	G	SOUND SIGNAL FRONT SPEAKER RH (+)
9	Y	SOUND SIGNAL WOOFER (+)
10	R	SOUND SIGNAL REAR SPEAKER LH (–)
11	W	BAT

12	B	GND
13	R	SOUND SIGNAL FRONT SPEAKER RH (–)
14	BR	SOUND SIGNAL WOOFER (–)

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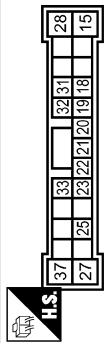
BOSE AUDIO

Connector No.	B65
Connector Name	BOSE AMP.
Connector Type	SCA19FBR-SGA4



Terminal No.	Color of Wire	Signal Name [Specification]
15	V	SOUND SIGNAL CENTER SPEAKER (+)
18	R	SOUND SIGNAL FRONT LH (+)
19	O	SOUND SIGNAL FRONT RH (+)
20	W	SOUND SIGNAL FRONT RH (–)
21	V	SOUND SIGNAL REAR LH (+)
22	LG	SOUND SIGNAL REAR LH (–)
23	W	SOUND SIGNAL REAR RH (+)
25	G	WOOFER AMP. ON SIGNAL
27	W	SOUND SIGNAL TWEETER RH (–)
28	O	SOUND SIGNAL CENTER SPEAKER (–)
31	L	AMP. ON SIGNAL

32	G	SOUND SIGNAL FRONT LH (–)
33	R	SOUND SIGNAL REAR RH (–)
37	O	SOUND SIGNAL TWEETER RH (+)

Connector No.	B66
Connector Name	WIRE TO WIRE
Connector Type	NS06FW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	–
3	R	–

Connector No.	B67
Connector Name	WIRE TO WIRE
Connector Type	NS08MW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	–
3	R	–

Connector No.	B76
Connector Name	WIRE TO WIRE
Connector Type	NS12MW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–
2	P	–
3	B	–
4	R	–
5	G	–
6	SB	–
7	O	–
8	V	–
9	GR	–
10	BR	–
11	W	–

12	O	–

Connector No.	B86
Connector Name	WIRE TO WIRE
Connector Type	NS12MW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
3	L	–
8	R	–

Connector No.	B88
Connector Name	WIRE TO WIRE
Connector Type	NS12MW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
3	GR	–
8	Y	–

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BOSE AUDIO

Connector No.	B351
Connector Name	SATELLITE RADIO TUNER
Connector Type	FAKRA JACK

Terminal No.	Color of Wire	Signal Name [Specification]
31	–	–

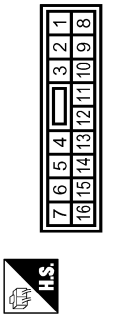
Connector No.	B352
Connector Name	SATELLITE RADIO ANTENNA
Connector Type	GT16C-IPP-HU

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

Connector No.	B451
Connector Name	TEL ADAPTER UNIT
Connector Type	GT16C-IS-HU

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

Connector No.	D2
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
3	B	–
10	P	–

Connector No.	D4
Connector Name	FRONT SPEAKER LH
Connector Type	NS02FW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	–
2	P	–

Connector No.	D42
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
2	G	–
6	R	–

Connector No.	D44
Connector Name	FRONT SPEAKER RH
Connector Type	NS02FW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	–
2	R	–

Connector No.	D81
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
3	L	–
8	R	–

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BOSE AUDIO

Connector No.	D84
Connector Name	REAR SPEAKER LH
Connector Type	NS02FBR-CS

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	–
2	R	–

Connector No.	D101
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
3	GR	–
8	Y	–

Connector No.	D104
Connector Name	REAR SPEAKER RH
Connector Type	NS02FBR-CS

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
1	GR	–
2	Y	–

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
99	SB	–
100	L	–

Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
35	SHIELD	–
36	P	–
37	LG	–
38	SHIELD	–
39	O	–
40	G	–
41	R	–
45	BR	–
46	L	–
47	SHIELD	–
48	V	–
49	W	–
50	SHIELD	–
52	O	–
53	G	–
54	V	–
55	Y	–
56	SHIELD	–
57	L	–
58	W	–
59	B	–
60	SB	–
61	BR	–
62	GR	–
63	W	–
65	SHIELD	–
66	BR	–
67	P	–
68	SHIELD	–
69	R	–
70	LG	–
71	BR	–
72	O	–
82	GR	–

Connector No.	M12
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
7	SHIELD	–
8	B	–
9	SHIELD	–
10	G	–
11	R	–
12	SB	–
20	L	–
21	Y	–
22	W	–
23	L	–
24	BR	–

Connector No.	M19
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
3	R	–
10	G	–

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BOSE AUDIO

Connector No.	M22
Connector Name	TWEETER RH
Connector Type	TK02FBR

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	–
2	Y	–

Connector No.	M23
Connector Name	WIRE TO WIRE
Connector Type	TH12FW-NH

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
2	SHIELD	–
3	W	–
8	R	–
9	B	–
14	P	SOUND SIGNAL REAR RH (+)
15	GR	STEERING SW SIGNAL GND
16	O	STEERING SW SIGNAL B
18	L	VEHICLE SPEED SIGNAL (8-PULSE)
19	Y	BAT
20	SHIELD	SHIELD

Connector No.	M33
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY-1V

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
24	BR	–
31	GR	–
32	O	–

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	SAB40FW

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
21	L	CAN-H
22	P	CAN-L
30	Y	VEHICLE SPEED (2-PULSE)
31	L	VEHICLE SPEED (8-PULSE)

Connector No.	M46
Connector Name	AUDIO UNIT
Connector Type	TH18FW-CS2

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
1	BR	AMP. ON SIGNAL
2	R	SOUND SIGNAL FRONT LH (+)
3	G	SOUND SIGNAL FRONT LH (–)
4	V	SOUND SIGNAL REAR LH (+)
5	LG	SOUND SIGNAL REAR LH (–)
6	W	STEERING SW SIGNAL A
7	SB	ACC
10	SHIELD	SHIELD
11	O	SOUND SIGNAL FRONT RH (+)
12	W	SOUND SIGNAL FRONT RH (–)
13	L	SOUND SIGNAL REAR RH (+)

Connector No.	M47
Connector Name	AUDIO UNIT
Connector Type	TH08FW-NH

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
21	L	AV COMMUNICATION SIGNAL (H)
22	P	AV COMMUNICATION SIGNAL (L)
23	SHIELD	SHIELD
25	SHIELD	SHIELD
26	BR	SOUND SIGNAL (+)
27	Y	SOUND SIGNAL (–)
28	V	TELEPHONE ON SIGNAL

Connector No.	M48
Connector Name	AUDIO UNIT
Connector Type	A12FW

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
31	R	SOUND SIGNAL LH (–)
32	L	SOUND SIGNAL LH (+)
33	G	SOUND SIGNAL LH (–)
34	W	SOUND SIGNAL LH (+)
35	SHIELD	SHIELD
36	SHIELD	SHIELD
38	Y	REQUEST SIGNAL (SAT TO AUDIO)
39	B	COMMUNICATION SIGNAL (SAT-AUDIO)
40	L	COMMUNICATION SIGNAL (AUDIO-SAT)

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BOSE AUDIO

Connector No.	M65
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FW

H.S.

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

Terminal No.	Color of Wire	Signal Name [Specification]
39	L	CAN-H
40	P	CAN-L

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
99	SB	–
100	Y	–

Connector No.	M79
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS

H.S.

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

Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	–
2	G	–
3	R	–
4	W	–
5	O	–
6	SB	–
7	P	–
8	V	–
9	GR	–
10	BR	–
11	Y	–
12	L	–

Connector No.	M80
Connector Name	TWEETER LH
Connector Type	TK02FBR

H.S.

2	1

Terminal No.	Color of Wire	Signal Name [Specification]
1	BR	–[With BOSE system]
2	P	–[Without BOSE system]

Connector No.	M82
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS

H.S.

1	2		3	4
5	6	7	8	9	10

Terminal No.	Color of Wire	Signal Name [Specification]
2	O	–
6	W	–

Connector No.	M95
Connector Name	CENTER SPEAKER
Connector Type	TK02FBR

H.S.

2	1

Terminal No.	Color of Wire	Signal Name [Specification]
1	V	–
2	P	–

Connector No.	M352
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY

H.S.

14	15	16	17	18	19	20	21

Terminal No.	Color of Wire	Signal Name [Specification]
16	–	–
17	–	–
20	–	–

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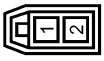
BOSE AUDIO

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

Terminal No.	Color of Wire	Signal Name [Specification]
51	–	ANTENNA SIGNAL
52	–	ANTENNA AMP. ON SIGNAL

Connector No.	M402
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-1/1S-HU

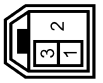


Terminal No.	Color of Wire	Signal Name [Specification]
1	–	–
2	–	–

Connector No.	M403
Connector Name	WIRE TO WIRE
Connector Type	GT13SCN-1/1PP-HU

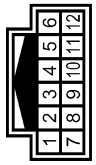
Terminal No.	Color of Wire	Signal Name [Specification]
1	–	–
2	–	–

Connector No.	M404
Connector Name	RADIO ANTENNA
Connector Type	GT13SSN-1/1PP-HU



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

Connector No.	R1
Connector Name	WIRE TO WIRE
Connector Type	TH12MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
2	SHIELD	–
3	W	–
8	R	–
9	B	–

Connector No.	R3
Connector Name	MICROPHONE
Connector Type	TK04FW

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	MICROPHONE SIGNAL (+)
2	R	MICROPHONE SIGNAL (–)
4	W	MICROPHONE POWER

JCNWM0562GB

SYMPTOM DIAGNOSIS

AUDIO SYSTEM SYMPTOMS

Symptom Table

INFOID:0000000001700318

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-49, "AUDIO UNIT : Diagnosis Procedure". • BOSE amp. power supply and ground circuit. Refer to AV-49, "BOSE AMP. : Diagnosis Procedure". • Amp. ON signal circuit. Refer to AV-64, "Diagnosis Procedure".
	Sound is not heard from woofer.	• Sound signal woofer circuit • Woofer amp. ON signal circuit. Refer to AV-65, "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.	• Satellite radio sound signal circuit • Satellite radio antenna
	When “RADIO” switch is pressed, it does not change to satellite radio mode.	• Satellite radio tuner power supply and ground circuit. Refer to AV-50, "SATELLITE RADIO TUNER : Diagnosis Procedure". • Request signal circuit. Refer to AV-63, "Diagnosis Procedure". • Communication circuit between audio unit and satellite radio tuner. Refer to AV-61, "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-56, "Diagnosis Procedure".
Only specified switch cannot be operated.	Steering switch
“SEEK UP”, “SEEK DOWN” and “ ” switches are not operated.	Steering switch signal A circuit (steering switch to TEL adapter unit). Refer to AV-52, "Diagnosis Procedure".
“ ”, “VOL UP”, “VOL DOWN”, “SOURCE” switches are not operated.	Steering switch signal B circuit (steering switch to TEL adapter unit). Refer to AV-54, "Diagnosis Procedure".
“VOL UP”, “SEEK UP” and “SOURCE” switches are not operated.	Steering switch signal A circuit (TEL adapter unit to audio unit). Refer to AV-58, "Diagnosis Procedure".
“VOL DOWN” and “SEEK DOWN” switches are not operated.	Steering switch signal B circuit (TEL adapter unit to audio unit). Refer to AV-59, "Diagnosis Procedure".

HANS-FREE PHONE SYMPTOMS

Symptom Table

INFOID:0000000001713378

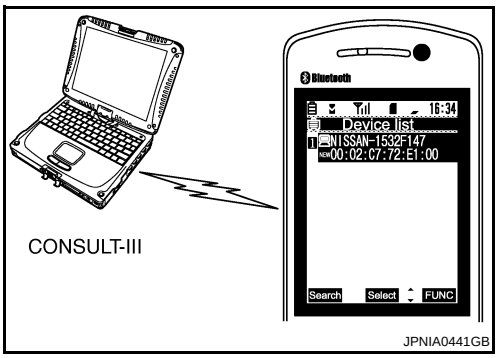
RELATED TO HANDS-FREE PHONE

- 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.	• 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-50, "TEL ADAPTER UNIT : Diagnosis Procedure".
	• Both the reception and the speech cannot be performed. • Audio can be operated by steering switch.	Telephone ON signal circuit. Refer to AV-67, "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-124, "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-66, "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

Symptoms	Possible malfunction location / Action to take
Only specified switch cannot be operated.	Steering switch
“SEEK UP”, “SEEK DOWN” and “ ” switches are not operated.	Steering switch signal A (steering switch to TEL adapter unit) circuit. Refer to AV-52, "Diagnosis Procedure".
“ ”, “VOL UP”,“VOL DOWN”“SOURCE” switches are not operated.	Steering switch signal B (steering switch to TEL adapter unit) circuit. Refer to AV-54, "Component Inspection".

NORMAL OPERATING CONDITION

Description

INFOID:0000000001700319

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.
	Check that the CD is protected by copyright.
Poor sound quality	Check that the CD 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, or if it is a multi session disc, some time may be required before the music starts playing.
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 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

FOR USA AND CANADA

FOR USA AND CANADA : Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

INFOID:0000000003248448

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”.**
- **Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.**

FOR MEXICO

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

INFOID:0000000003248449

The Supplemental Restraint System such as “AIR BAG” and “SEAT BELT PRE-TENSIONER”, used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. Information necessary to service the system safely is included in the “SRS AIRBAG” and “SEAT BELT” of this Service Manual.

WARNING:

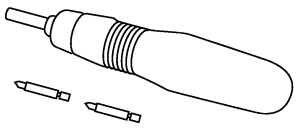
- **To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.**
- **Improper maintenance, including incorrect removal 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”.**
- **Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.**

PREPARATION

PREPARATION

Commercial Service Tools

INFOID:0000000001700321

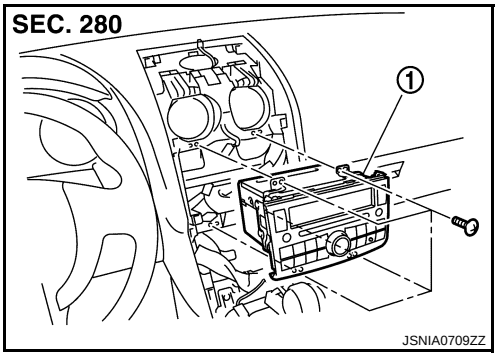
Tool name	Description
Power tool  PBIC0191E	Loosening bolts and nuts

ON-VEHICLE REPAIR

AUDIO UNIT

Exploded View

INFOID:0000000001724729



1. Audio unit

Removal and Installation

INFOID:0000000001700322

REMOVAL

1. Remove cluster lid C and cluster lid D. Refer to IP-12, "Exploded View".
2. Remove audio unit with bracket.
3. Remove bracket screws, and then remove audio unit.

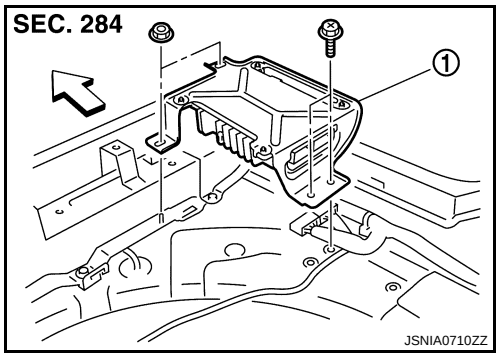
INSTALLATION

Install in the reverse order of removal.

BOSE AMP.

Exploded View

INFOID:0000000001724730



⇦: Vehicle front
1. BOSE amp.

Removal and Installation

INFOID:0000000001700323

REMOVAL

1. Remove luggage floor spacer assembly (FR, RH). Refer to INT-32, "Removal and Installation".
2. Remove BOSE amp.

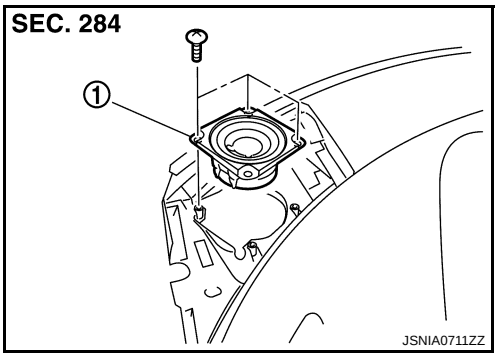
INSTALLATION

Install in the reverse order of removal.

TWEETER

Exploded View

INFOID:0000000001724731



1. Tweeter

Removal and Installation

INFOID:0000000001700325

REMOVAL

1. Remove instrument panel. Refer to IP-13, "Removal and Installation".
2. Remove tweeter from instrument panel.

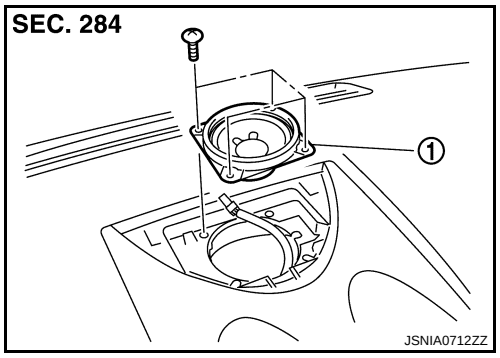
INSTALLATION

Installation is the reverse order of removal.

CENTER SPEAKER

Exploded View

INFOID:0000000001724732



1. Center speaker

Removal and Installation

INFOID:0000000001700326

REMOVAL

1. Remove center speaker grille. Refer to IP-12, "Exploded View".
2. Remove center speaker.

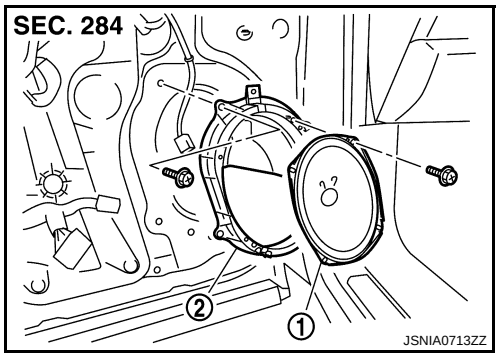
INSTALLATION

Installation is the reverse order of removal.

FRONT SPEAKER

Exploded View

INFOID:0000000001724733



1. Front speaker
2. Bracket

Removal and Installation

INFOID:0000000001700327

REMOVAL

1. Remove front door finisher. Refer to INT-11, "FRONT DOOR FINISHER : Removal and Installation".
2. Remove front door speaker from bracket.

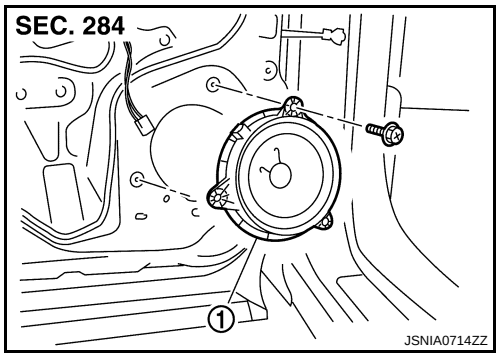
INSTALLATION

Install in the reverse order of removal.

REAR SPEAKER

Exploded View

INFOID:0000000001724734



1. Rear speaker

Removal and Installation

INFOID:0000000001700329

REMOVAL

1. Remove rear door finisher. Refer to INT-14, "REAR DOOR FINISHER : Removal and Installation".
2. Remove rear speaker.

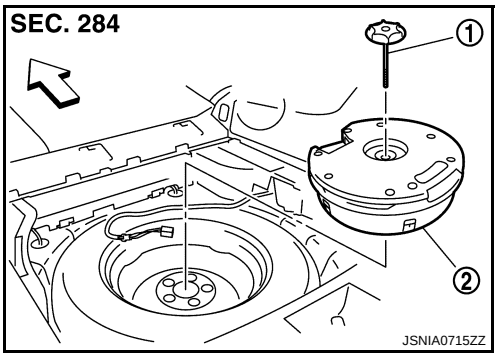
INSTALLATION

Installation is the reverse order of removal.

WOOFER

Exploded View

INFOID:0000000001724735



⇦: Vehicle front
1. Clamp
2. Woofer

Removal and Installation

INFOID:0000000001700331

REMOVAL

1. Remove luggage floor center box. Refer to INT-32, "Removal and Installation".
2. Remove clamp, and then remove woofer.

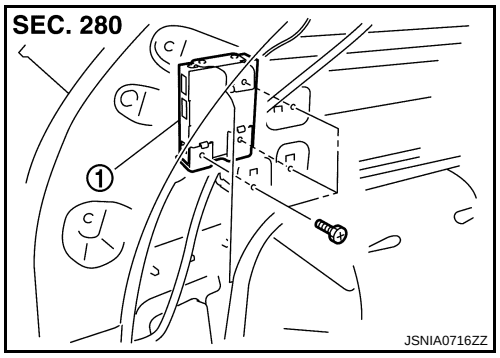
INSTALLATION

Install in the reverse order of removal.

SATELLITE RADIO TUNER

Exploded View

INFOID:0000000001724736



1. Satellite radio tuner

Removal and Installation

INFOID:0000000001700332

REMOVAL

1. Remove luggage side lower finisher (LH). Refer to INT-32, "Removal and Installation".
2. Remove satellite radio tuner.

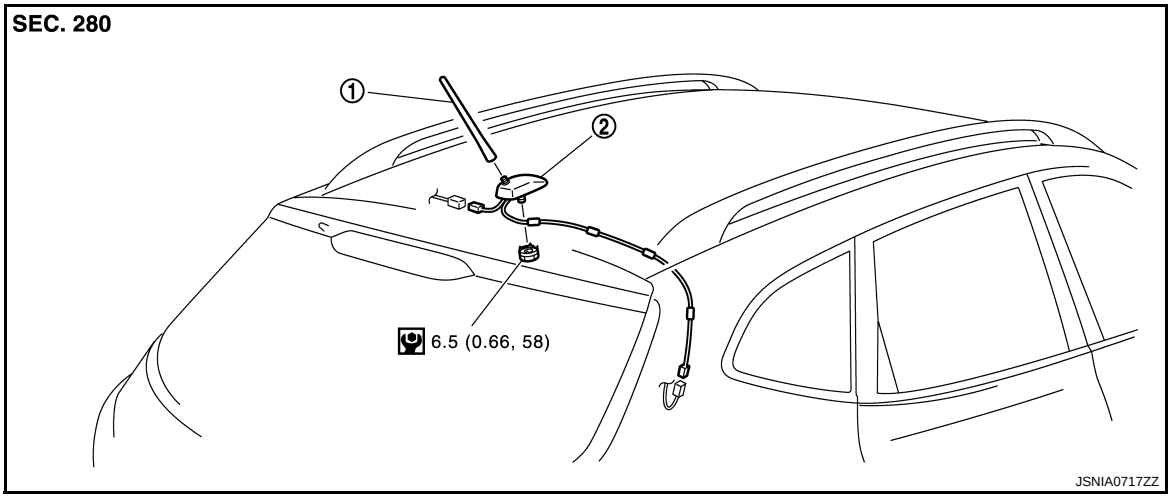
INSTALLATION

Install in the reverse order of removal.

RADIO & SATELLITE RADIO ANTENNA

Exploded View

INFOID:0000000001724737



1. Antenna lod
2. Antenna base & satellite radio antenna

Removal and Installation

INFOID:0000000001700333

REMOVAL

1. Remove headlining assembly. Refer to INT-24, "NORMAL ROOF : Removal and Installation" (normal roof models) or INT-27, "SUNROOF : Removal and Installation" (sunroof models).
2. Remove nuts, and then remove radio & satellite radio antenna.

INSTALLATION

Installation is the reverse order of removal.

CAUTION:

Be careful about tightening torque. Antenna sensitivity becomes poor, and when it is excessive, roof panel may be deformed, when roof antenna mounting nut tightening torque is loose.

STEERING SWITCH

Exploded View

INFOID:0000000001724841

Refer to SR-5, "Exploded View".

Removal and Installation

INFOID:0000000001724842

REMOVAL

Refer to SR-5, "Removal and Installation".

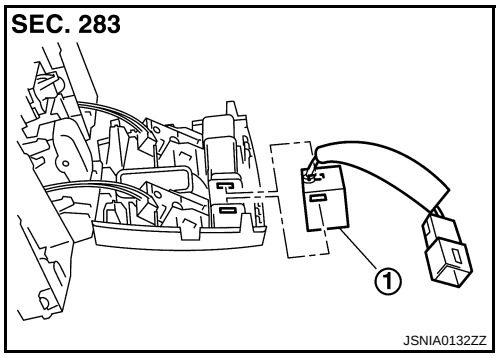
INSTALLATION

Installation is the reverse order of removal.

MICROPHONE

Exploded View

INFOID:0000000001724739



1. Microphone

Removal and Installation

INFOID:0000000001700339

REMOVAL

1. Remove map lamp. Refer to INL-65, "Removal and Installation".
2. Remove microphone from map lamp.

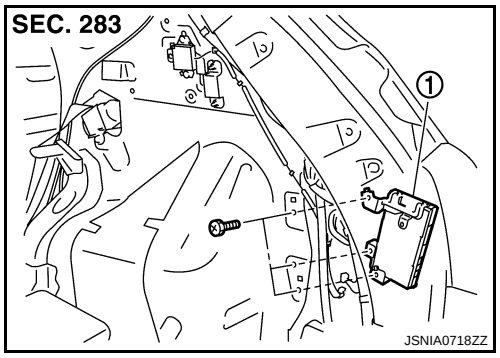
INSTALLATION

Installation is the reverse order of removal.

TEL ADAPTER UNIT

Exploded View

INFOID:0000000001724741



1. TEL adapter unit

Removal and Installation

INFOID:0000000001700341

REMOVAL

1. Remove luggage side lower finisher (RH). Refer to INT-32, "Removal and Installation".
2. Remove TEL adapter unit.

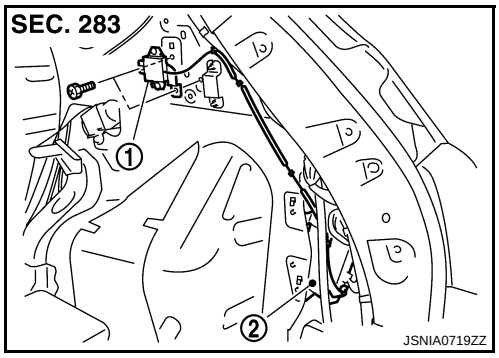
INSTALLATION

Install in the reverse order of removal.

TEL ANTENNA

Exploded View

INFOID:0000000001724740



1. TEL antenna
2. TEL adapter unit

Removal and Installation

INFOID:0000000001700340

REMOVAL

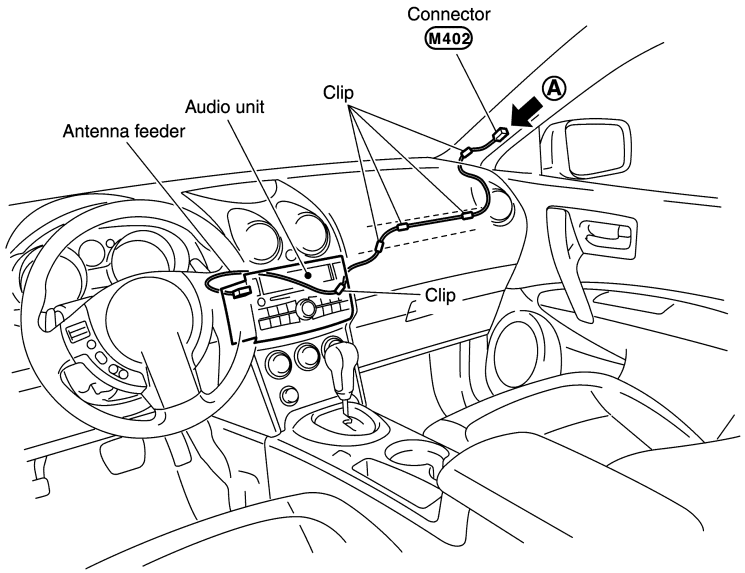
1. Remove luggage side upper finisher (RH). Refer to INT-32, "Removal and Installation".
2. Remove TEL antenna.

ANTENNA FEEDER

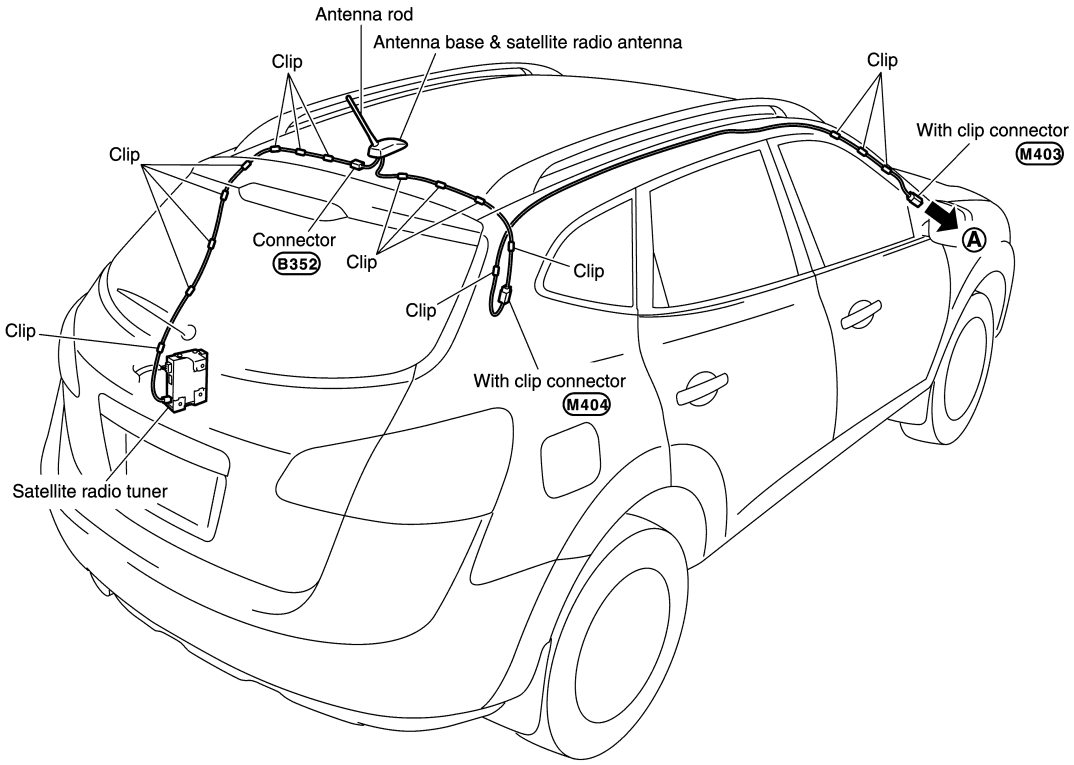
Location of Antenna

INFOID:0000000001700335

SEC. 280



Instrument panel driver side



Rear view of vehicle

JSNIA0725GB