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PRECAUTION

PRECAUTIONS

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

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

WARNING:

- **To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, it is recommended that all maintenance and repair be performed by an authorized NISSAN/INFINITI dealer.**
- **Improper repair, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SR section.**
- **Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.**

PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

WARNING:

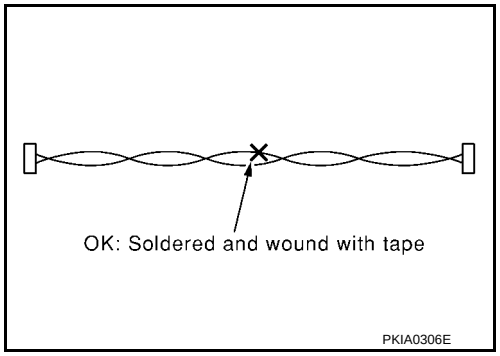
- **When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the Ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.**
- **When using air or electric power tools or hammers, always switch the Ignition OFF, disconnect the battery or batteries, and wait at least three minutes before performing any service.**

Precaution for Harness Repair

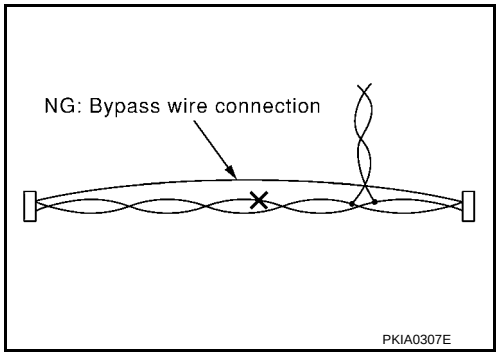
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AV COMMUNICATION SYSTEM

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



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



Precaution for Work

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- When removing or disassembling each component, be careful not to damage or deform it. If a component may be subject to interference, be sure to protect it with a shop cloth.
- When removing (disengaging) components with a screwdriver or similar tool, be sure to wrap the component with a shop cloth or vinyl tape to protect it.
- Protect the removed parts with a shop cloth and prevent them from being dropped.
- Replace a deformed or damaged clip.
- If a part is specified as a non-reusable part, always replace it with a new one.
- Be sure to tighten bolts and nuts securely to the specified torque.
- After installation is complete, be sure to check that each part works properly.
- Follow the steps below to clean components:

- Water soluble dirt:
- Dip a soft cloth into lukewarm water, wring the water out of the cloth and wipe the dirty area.
- Then rub with a soft, dry cloth.

- Oily dirt:
- Dip a soft cloth into lukewarm water with mild detergent (concentration: within 2 to 3%) and wipe the dirty area.
- Then dip a cloth into fresh water, wring the water out of the cloth and wipe the detergent off.
- Then rub with a soft, dry cloth.

- Do not use organic solvent such as thinner, benzene, alcohol or gasoline.
- For genuine leather seats, use a genuine leather seat cleaner.

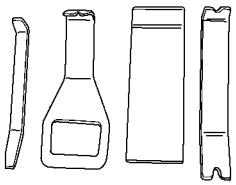
PREPARATION

PREPARATION

Special Service Tool

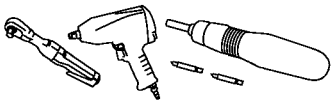
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The actual shape of the tools may differ from those illustrated here.

Tool number (TechMate No.) Tool name	Description
— (J-46534) Trim Tool Set  AWJIA0483ZZ	Removing trim components

Commercial Service Tools

INFOID:0000000014844257

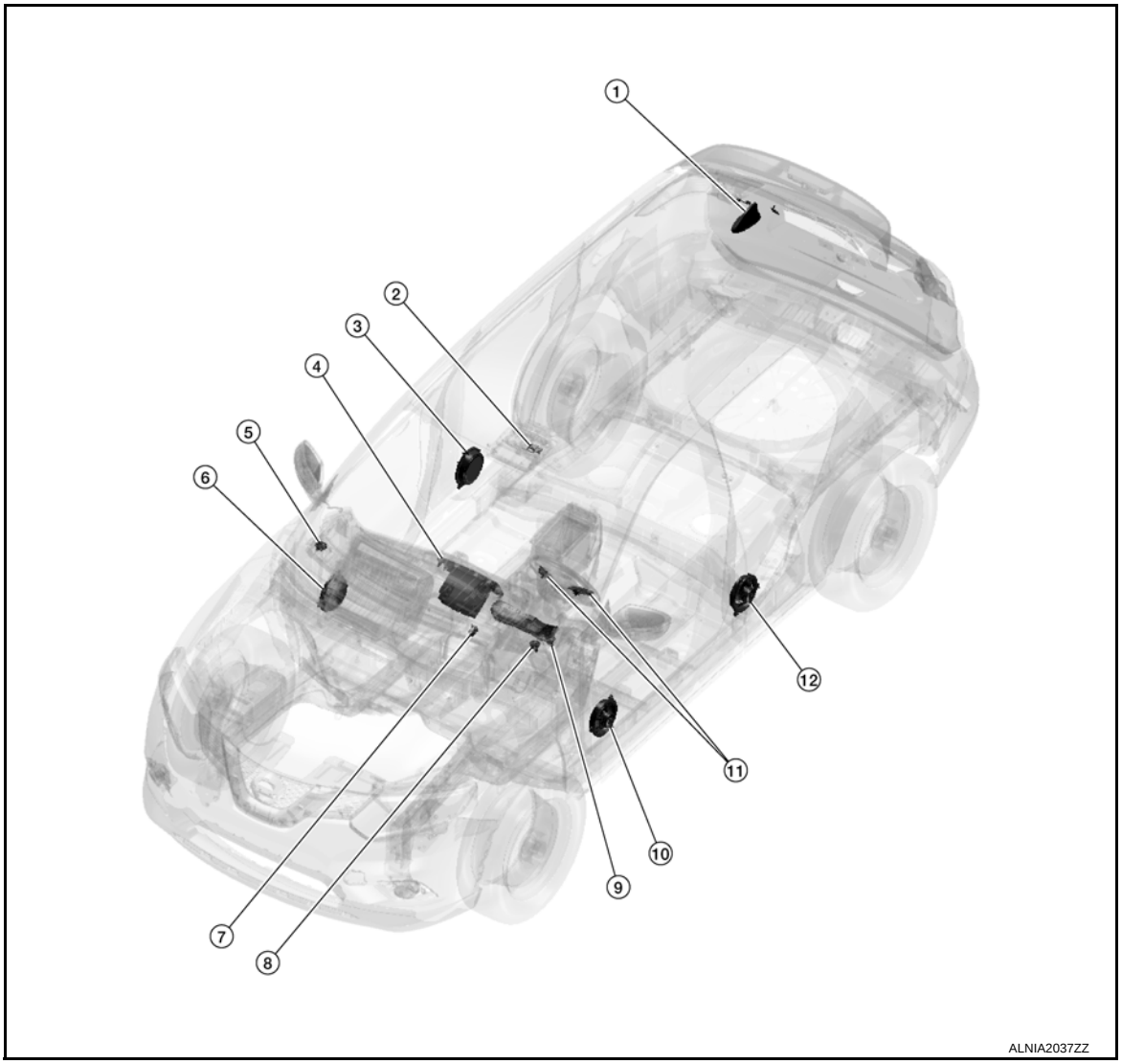
Tool name	Description
Power tool  PIIB1407E	Loosening nuts, screws and bolts

SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

INFOID:0000000015258242



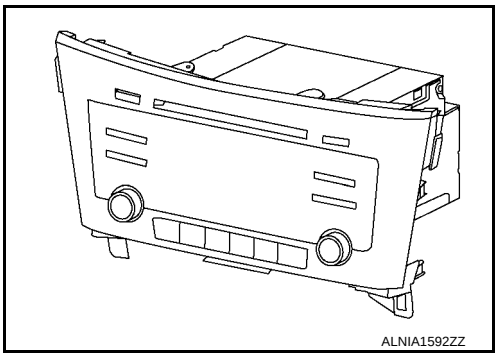
No.	Component	Function
1.	Antenna base (antenna amp., satellite and AM/FM antennas)	Refer to AV-16, "Antenna and Antenna Feeder".
2.	Microphone	Refer to AV-16, "Microphone".
3.	Rear door speaker RH	Refer to AV-15, "Speakers".
4.	Audio unit	Refer to AV-15, "Audio Unit".
5.	Front tweeter RH	Refer to AV-15, "Speakers".
6.	Front door speaker RH	
7.	USB interface and AUX in jack	Refer to AV-16, "USB Interface and AUX in Jack".
8.	Front tweeter LH	Refer to AV-15, "Speakers".
9.	Combination meter	Refer to AV-16, "Combination Meter".
10.	Front door speaker LH	Refer to AV-15, "Speakers".
11.	Steering switches	Refer to AV-16, "Steering Switches".
12.	Rear door speaker LH	Refer to AV-15, "Speakers".

Audio Unit

INFOID:0000000015258243

- AM/FM electronic tuner radio, CD drive and camera controller are integrated into the audio unit.
- The display can show audio status and rear view monitor images.
- Music files stored in iPod®*/USB memory can be played using the separate USB connector.
- Music files stored in an external audio device can be played using the separate AUX in jack.

*: iPod® is a registered trademark of Apple, Inc. All rights reserved.

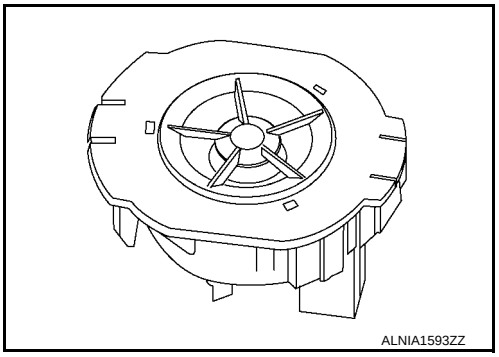

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Speakers

INFOID:0000000015258244

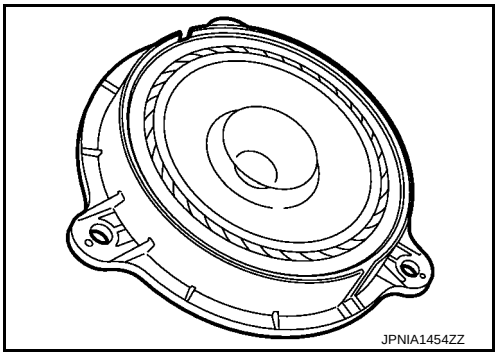
FRONT TWEETER

- 2.5 cm (1 in) tweeters are installed in the top front corners of the instrument panel.
- Sound signals are input from the audio unit to output high range sounds.


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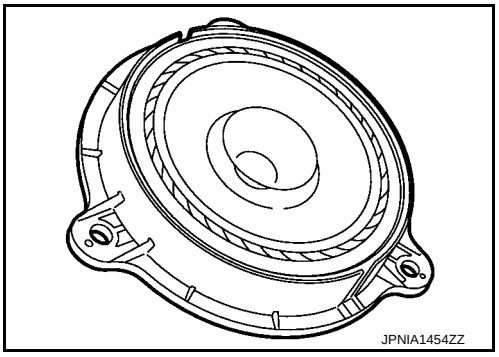
FRONT DOOR SPEAKER

- 16.5 cm (6.5 in) speakers are installed in the bottom of the front doors.
- Sound signals are input from the audio unit to output low range sounds.


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REAR DOOR SPEAKER

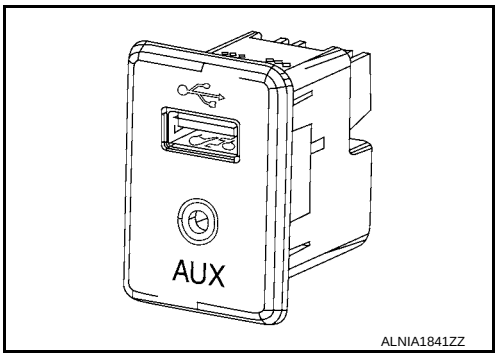
- 16.5 cm (6.5 in) speakers are installed in the bottom of the rear doors.
- Sound signals are input from the audio unit to output high, mid and low range sounds.


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USB Interface and AUX in Jack

INFOID:0000000015258245

- USB Interface and AUX in jack is installed in the console.
- iPod® and USB memory can be connected to the audio unit through the USB interface.
- An external audio device can be connected to the audio unit through the AUX in jack.

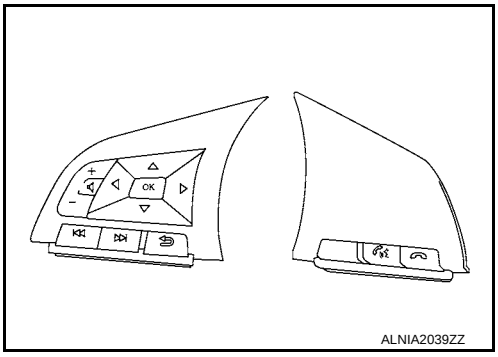


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Steering Switches

INFOID:0000000015258246

- Steering switches are installed in the steering wheel.
- Operations for audio and hands-free phone are possible.
- Switches are connected to the combination meter.
- Combination meter is connected to the audio unit via AV communication.

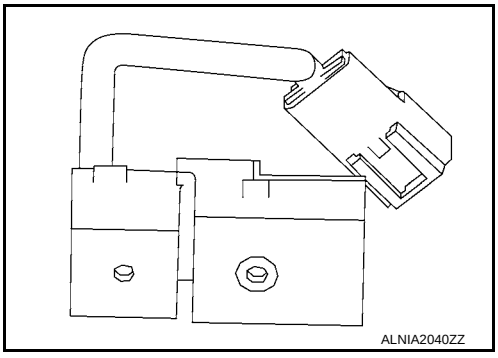


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Microphone

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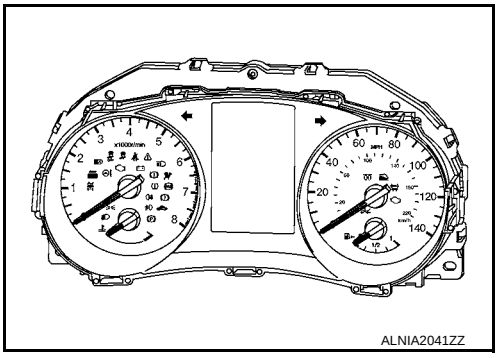
- The microphone is installed in the roof in the map lamp assembly.
- Power is supplied from the audio unit.


ALNIA2040ZZ

Combination Meter

INFOID:0000000015258248

- Combination meter sends the speed signal to the audio unit.
- Steering switches are connected to the combination meter.
- Combination meter sends the steering switch signals to the audio unit via AV communication.

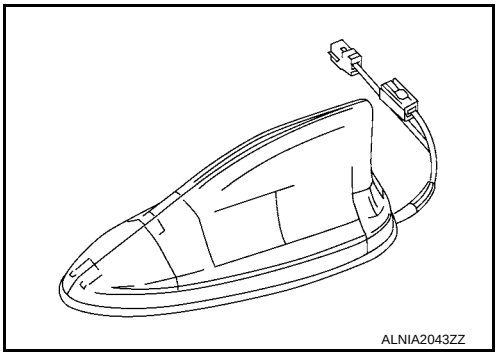

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Antenna and Antenna Feeder

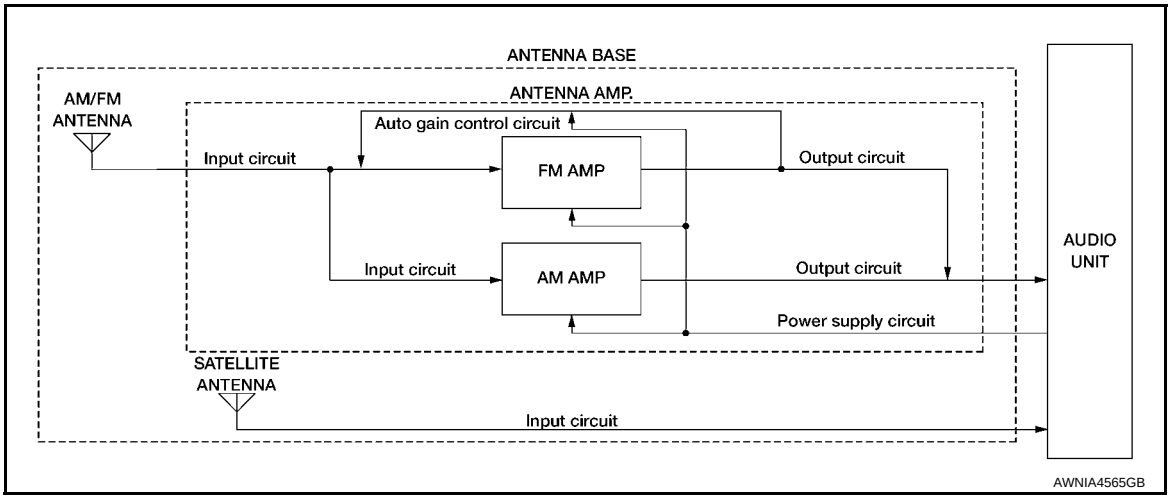
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ROOF ANTENNA

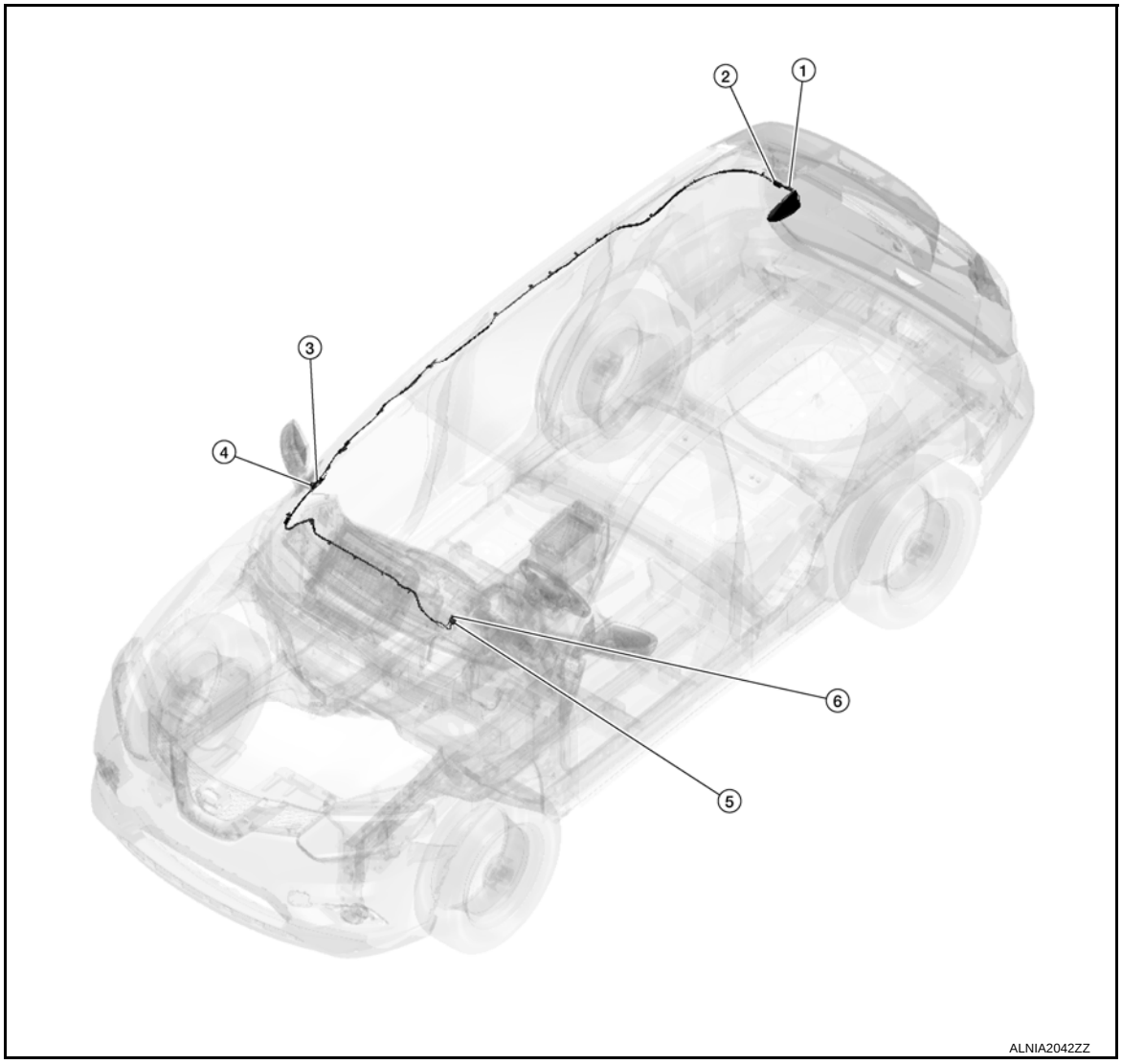
- AM/FM radio/satellite radio antenna is installed on the rear center of the roof.
- It receives radio waves and outputs them to audio unit.
- It receives satellite radio waves and outputs them to audio unit.
- Antenna amp. is integral to the roof antenna.



- The AM/FM radio antenna has an antenna amp. to obtain sufficient reception power.



ANTENNA FEEDER LAYOUT



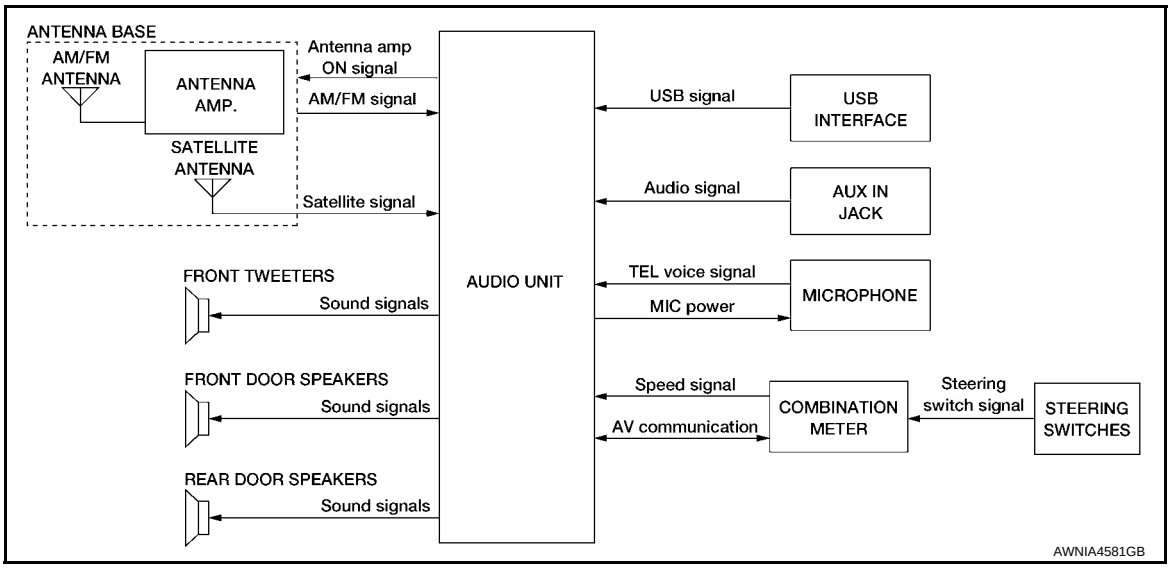
1. M503
2. M502
3. M130, M501
4. M129, M500
5. M124
6. M126

SYSTEM

System Description

INFOID:0000000015258250

SYSTEM DIAGRAM



AUDIO SYSTEM

The audio system consists of the following components:

- Audio unit
- Front tweeters
- Front door speakers
- Rear door speakers
- USB interface
- AUX in jack
- Steering switches
- Antenna base (AM/FM antenna, antenna amp. and satellite antenna)

When the audio system is on, AM/FM signals received by the AM/FM antenna are amplified by the antenna amp. and sent to the audio unit. The audio unit then sends audio signals to the front tweeters, front door speakers and rear door speakers.

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

HANDS-FREE PHONE SYSTEM

- Bluetooth® control is built into audio unit.
- The connection between cellular phone and audio unit is performed with Bluetooth® communication.
- The voice guidance signal is input from the audio unit and output to the front speakers when operating the cellular phone.

When A Call Is Originated

- Spoken voice sound output from the microphone (microphone signal) is input to audio unit.
- Audio unit outputs to cellular phone with Bluetooth® communication as a TEL voice signal.
- Voice sound is then heard at the other party.

When Receiving A Call

- Voice sound is input to own cellular phone from the other party.
- TEL voice signal is input to audio unit by establishing Bluetooth® communication from cellular phone, and the signal is output to front speakers.

SPEED SENSITIVE VOLUME SYSTEM

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

DIAGNOSIS SYSTEM (AUDIO UNIT)

Description

INFOID:0000000014844266

The audio unit on board diagnosis performs the functions listed in the table below:

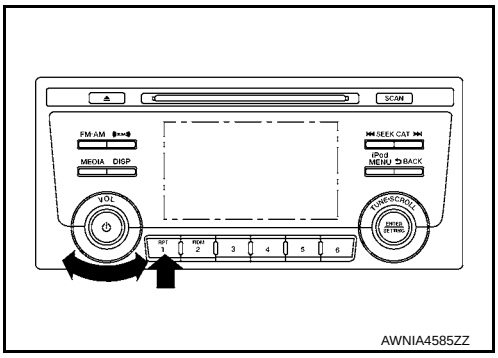
Mode		Description
Self Diagnosis		• Audio unit diagnosis. • Diagnoses the connections across system components.
Confirmation/ Adjustment	Display Diagnosis	The following check functions are available: color tone check by color bar display and white display, light and shade check by gray scale display.
	Vehicle Signals	Diagnosis of signals can be performed for vehicle speed, lights, reverse, EQ pin, destination and camera type.
	Speaker Test	The connection of a speaker can be confirmed by test tone.
	Error History	The system malfunction and the frequency when occurring in the past are displayed. When the malfunctioning item is selected, the time and place that the selected malfunction last occurred are displayed.
	Camera System	Displayed but not used.
	AV COMM Diagnosis	The communication condition of each unit of display audio system can be monitored.
	Delete Unit Connection Log	Erase the connection history of unit and error history.
	Version Information	Audio unit software and hardware versions are displayed.
	Initialize Setting	Initializes the audio unit memory.

On Board Diagnosis Function

INFOID:0000000014844267

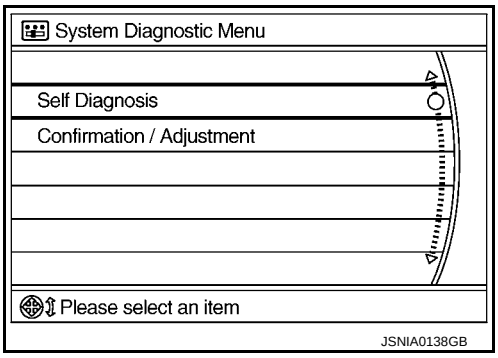
METHOD OF STARTING

1. Turn the ignition ON.
2. Turn the audio system OFF.
3. While pressing the preset 1 button, turn the volume control dial clockwise or counterclockwise for 40 clicks or more. Shifting from current screen to previous screen is performed by pressing BACK button.



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



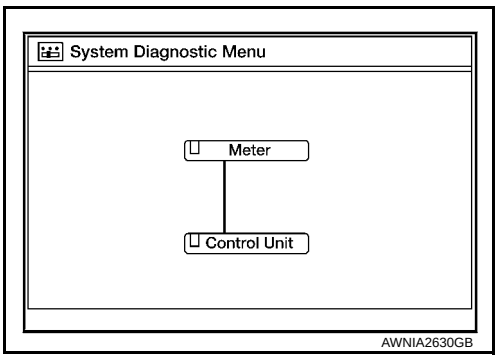
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SELF DIAGNOSIS MODE

Audio Unit Self Diagnosis

1. Select Self Diagnosis.

2. Self diagnosis screen is displayed. The bar graph visible in center of screen indicates progress of self diagnosis.
3. Diagnosis results are displayed after the self diagnosis is completed. The unit names and the connection lines are color coded according to the diagnostic results.

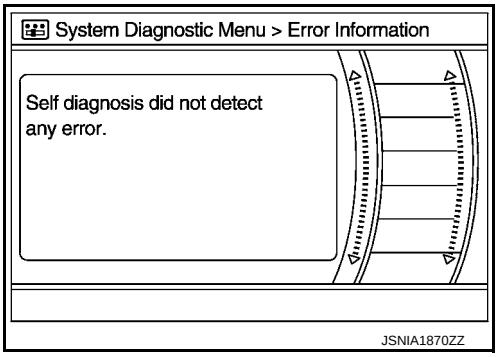


Diagnosis results	Unit	Connection line
Normal	Green	Green
Connection malfunction	Gray	Yellow
Unit malfunction [1]	Red	Green

1: Control unit (audio unit) is displayed in red.

- Replace audio unit if Self Diagnosis did not run because control unit malfunction is indicated. The symptom is audio unit internal error. Refer to AV-64, "Removal and Installation".
- If multiple errors occur at the same time for a single unit, the screen switch colors are determined according to the following order of priority: red > gray.

4. Comments of self diagnosis results can be viewed in the diagnosis result screen.



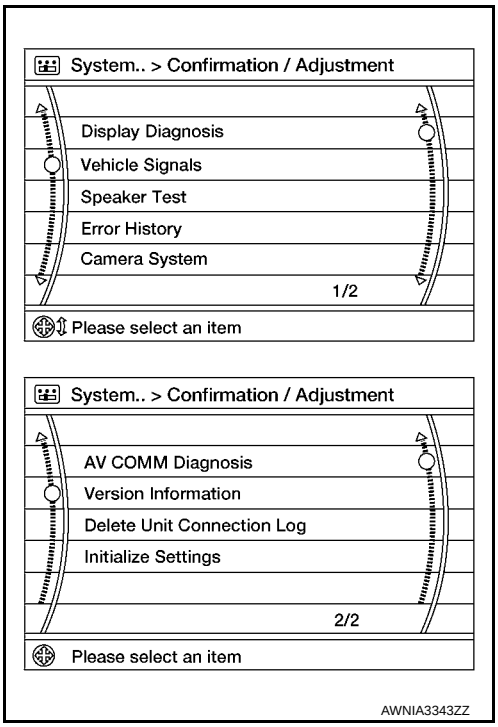
Audio Unit Self Diagnosis Results

Only Unit Part Is Displayed In Red		
Screen switch	Description	Possible cause
Control unit	Malfunction is detected in audio unit power supply and ground circuits.	• Audio unit power supply or ground circuits. Refer to AV-46, "AUDIO UNIT : Diagnosis Procedure". • If no malfunction is detected in audio unit power supply and ground circuits, replace audio unit. Refer to AV-64, "Removal and Installation".

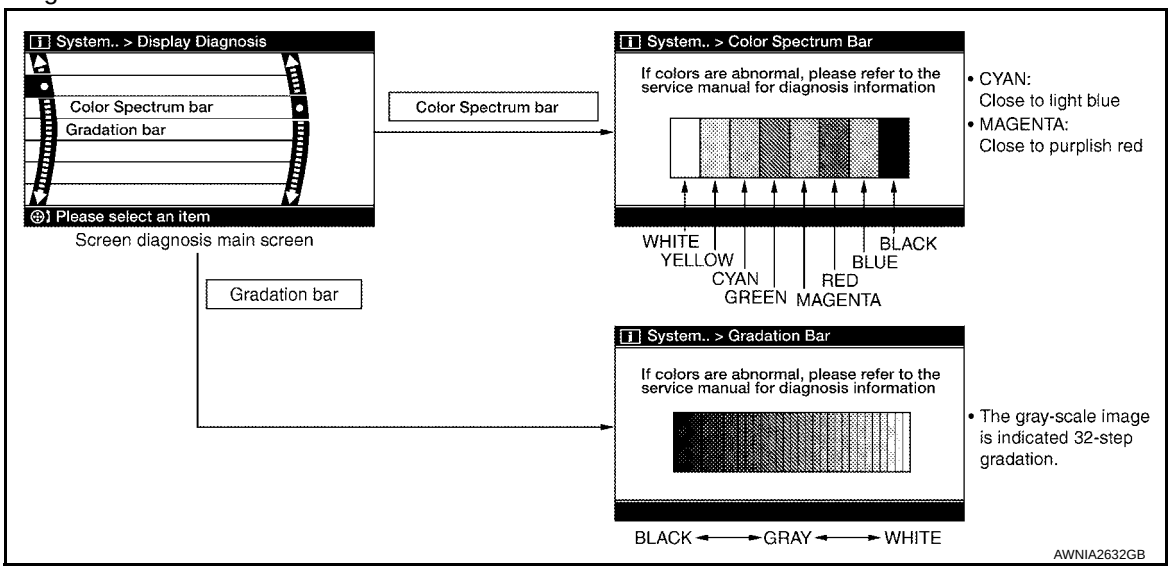
A Connecting Cable Between Units Is Displayed In Yellow		
Area with yellow connection lines	Description	Possible cause
Control unit ⇔ Meter	When one of the following is detected: • malfunction is detected in combination meter power supply and ground circuits. • malfunction is detected in AV communication circuits between audio unit and combination meter.	• Combination meter power supply or ground circuits. Refer to MWI-62, "COMBINATION METER : Diagnosis Procedure". • AV communication circuits between audio unit and combination meter.

Audio Unit Confirmation/Adjustment

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

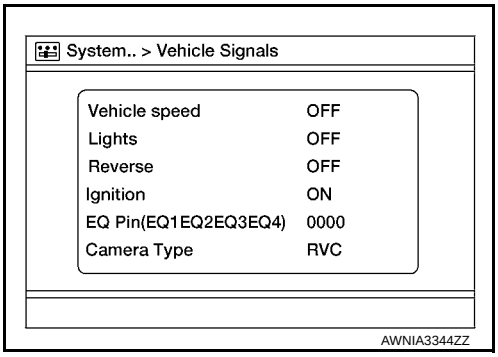


Display Diagnosis



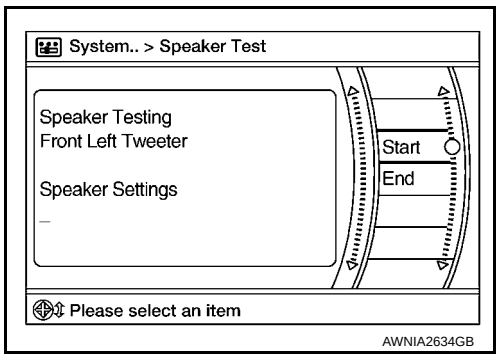
Vehicle Signals

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



Speaker Test

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



Error History

The self diagnosis results are judged depending on whether any error occurs from when Self Diagnosis is selected until the self diagnosis results are displayed.
However, the diagnosis results are judged normal if an error has occurred before the ignition switch is turned ON and then no error has occurred until the self diagnosis start. Check the Error Record to detect any error that may have occurred before the self diagnosis start because of this situation.
The frequency of occurrence is displayed in a count up manner. The actual count up method differs depending on the error item.

Count up method A

- The counter is set to 40 if an error occurs. 1 is subtracted from the counter if the condition is normal at a next ignition ON cycle.
- The counter lower limit is 1. The counter can be reset (no error record display) with the Delete log switch.

Count up method B

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

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

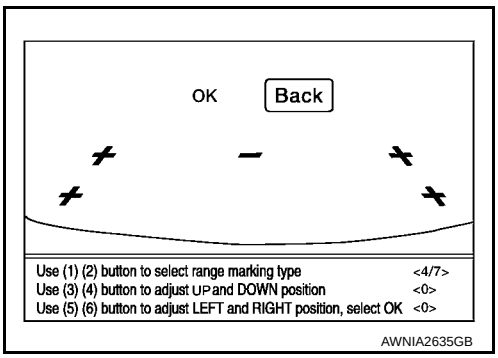
Error item

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

Error item	Description	Possible cause
CONTROL UNIT (AV)	AV communication circuit initial diagnosis malfunction is detected.	Replace the audio unit if the malfunction occurs constantly. Refer to AV-64, "Removal and Installation"
AV COMM CIRCUIT	When one of the following is detected: • malfunction is detected in combination meter power supply and ground circuits. • malfunction is detected in AV communication circuits between audio unit and combination meter.	• Combination meter power supply or ground circuits. Refer to MWI-62, "COMBINATION METER : Diagnosis Procedure". • AV communication circuits between audio unit and combination meter.

Camera System

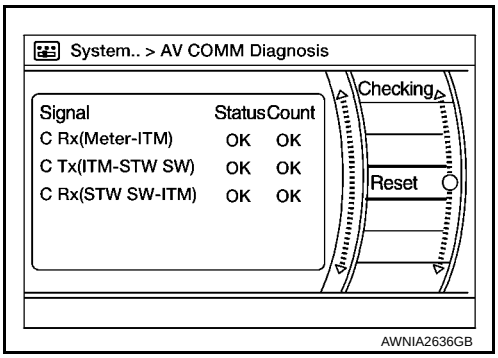
This mode is used to adjust the guide line display position of the rear view camera.



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AV COMM Diagnosis

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



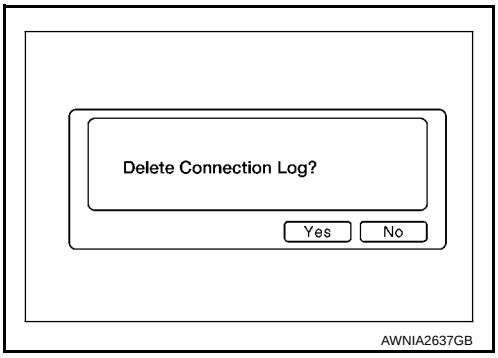
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Items	Status (Current)	Counter (Past)
C Rx(Meter-ITM)	OK / ???	OK / 0 – 39
C Tx(ITM-TW SW)	OK / ???	OK / 0 – 39
C Rx(STW SW-ITM)	OK / ???	OK / 0 – 39

NOTE:
"???" indicates UNKWN.

Delete Unit Connection Log

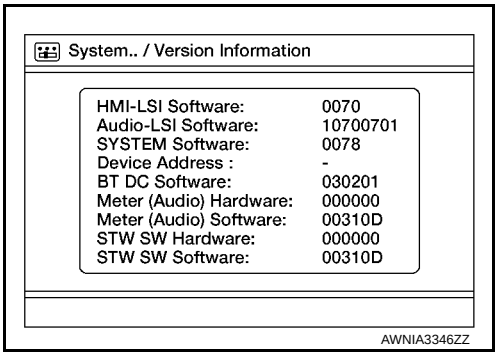
Deletes any unit connection records and error records from the audio unit memory (clears the records of the unit that has been removed).



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Version Information

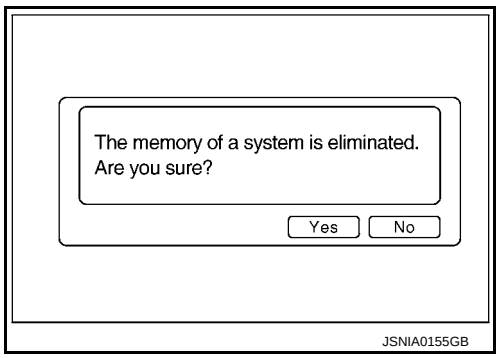
Displays audio unit software and hardware version numbers.



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Initialize Settings

Deletes data stored from the audio unit.



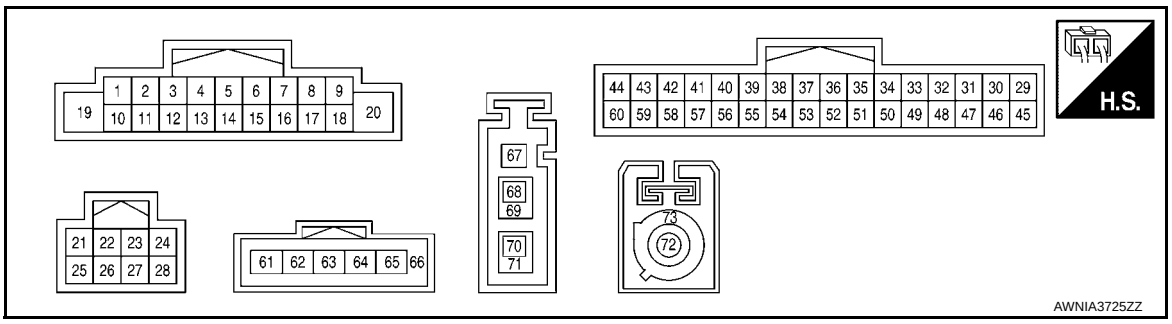
ECU DIAGNOSIS INFORMATION

AUDIO UNIT

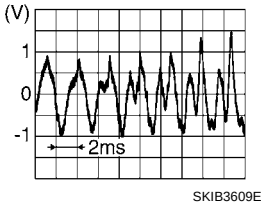
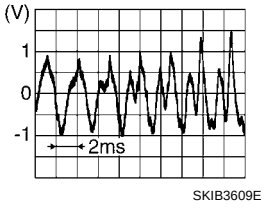
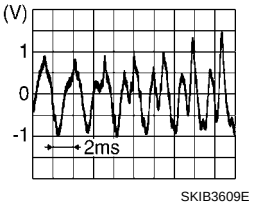
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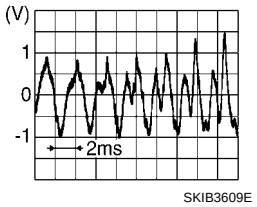
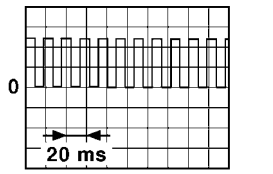
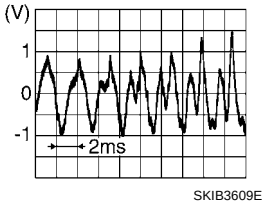
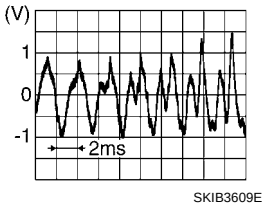
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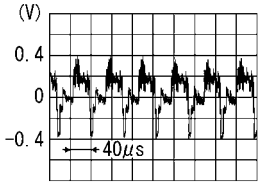
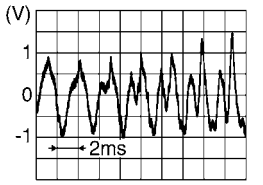
TERMINAL LAYOUT



PHYSICAL VALUES

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output	Ignition switch	Operation	
2 (Y)[1] (W)[2]	3 (R)[1] (P)[2]	Sound signal front door speaker and front tweeter LH	Output	ON	Sound output	 SKIB3609E
4 (GR)	5 (BR)	Sound signal rear door speaker LH	Output	ON	Sound output	 SKIB3609E
7 (LG)	Ground	Ignition power supply	Input	ON	—	Battery voltage
9 (V)	8 (R)	Illumination control signal	Input	ON	Headlamps ON	Battery voltage
11 (W)[1] (G)[2]	12 (GR)[1] (V)[2]	Sound signal front door speaker and front tweeter RH	Output	ON	Sound output	 SKIB3609E

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output	Ignition switch	Operation	
13 (LG)	14 (Y)	Sound signal rear door speaker RH	Output	ON	Sound output	 SKIB3609E
18 (G)	Ground	Vehicle speed signal	Input	ON	When vehicle speed is approx. 40 km/h (25 MPH)	 JSNIA0012GB
19 (L)	Ground	Battery power supply	Input	OFF	—	Battery voltage
20 (B)	Ground	Ground	—	ON	—	0 V
21 (L)	Ground	AUX jack audio signal LH	Input	ON	Received audio signal (AUX input)	 SKIB3609E
22 (G)	Ground	AUX jack audio signal RH	Input	ON	Received audio signal (AUX input)	 SKIB3609E
23 (Y)	Ground	AUX ground	—	ON	—	0V
24 (Shield)	—	AUX signal shield	—	—	—	—
31 (R)	—	HF/VR mode change	—	—	—	—
35 (W)	Ground	ACC power supply	Input	ON	—	Battery voltage
36 (SB)	—	AV communication high	Input/ Output	—	—	—
37 (LG)	—	AV communication low	Input/ Output	—	—	—
39 (SB)	—	AV communication high	Input/ Output	—	—	—
40 (LG)	—	AV communication low	Input/ Output	—	—	—

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output	Ignition switch	Operation	
41 (B)	Ground	Camera ground	—	ON	—	0 V
42 (R)	Ground	Camera power supply	Output	ON	Camera image displayed	6.0 V
					Except for above	0 V
43 (W)	44 (Shield)	Camera image signal	Input	ON	Camera image displayed	 SKIB2251J
45 (W)	47 (Shield)	Microphone signal	Input	ON	While speaking into microphone.	 SKIB3609E
46 (B)	—	MIC VCC	Input	ON	—	—
52 (B)	Ground	Camera detection	—	ON	—	0 V
58 (BR)	Ground	Reverse signal	Input	ON	Selector lever in R (reverse)	Battery voltage
					Selector lever in any position other than R (reverse)	0 V
61 (R)	—	V BUS signal	—	—	—	—
62 (W)	—	USB D– signal	—	—	—	—
63 (G)	—	USB D+ signal	—	—	—	—
65 (B)	—	USB ground	—	—	—	—
66 (Shield)	—	USB shield	—	—	—	—
67 (B)	Ground	Antenna amp. ON signal	Output	ON	Audio unit ON, FM-AM selected.	Battery voltage
68 (B)	Ground	AM/FM antenna signal	Input	ON	Audio unit ON, FM-AM selected.	5.0 V
69 (Shield)	—	AM/FM antenna shield	—	—	—	—
72 (B)	Ground	Satellite antenna signal	Input	ON	Audio unit ON, XM selected.	5.0 V
73 (Shield)	—	Satellite antenna shield	—	—	—	—

[1]: With 4 speakers

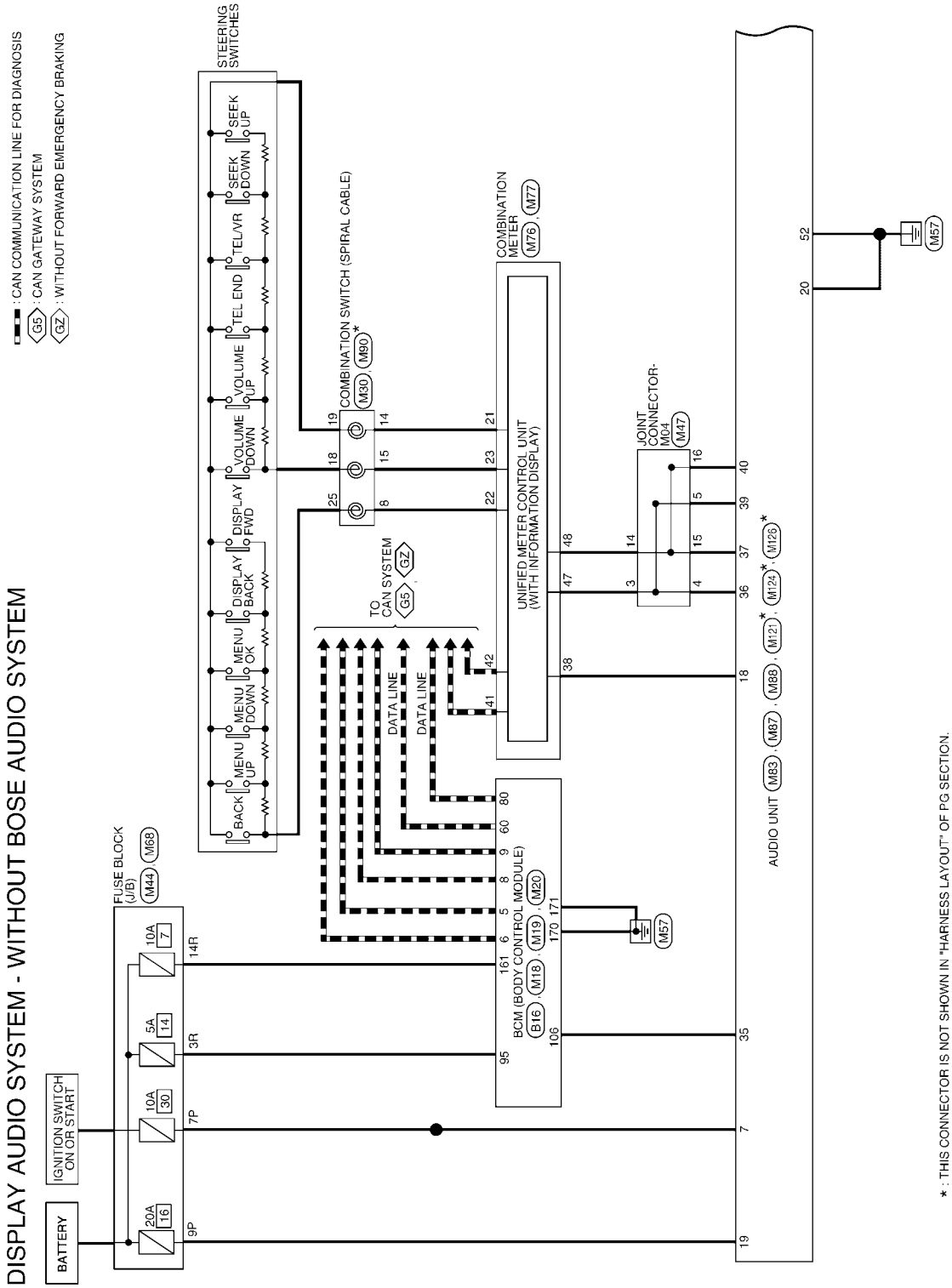
[2]: With 6 speakers

WIRING DIAGRAM

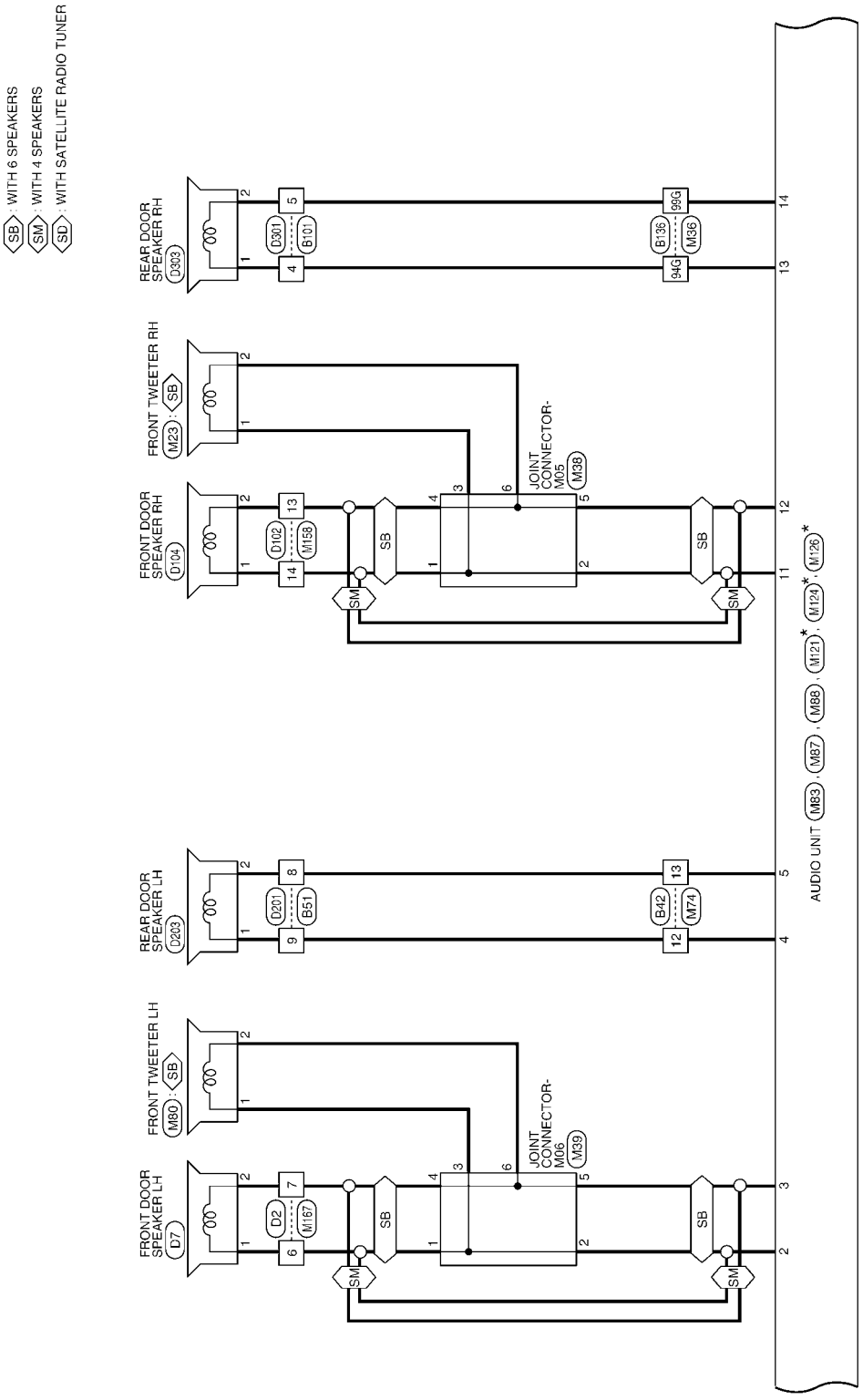
DISPLAY AUDIO WITHOUT BOSE

Wiring Diagram

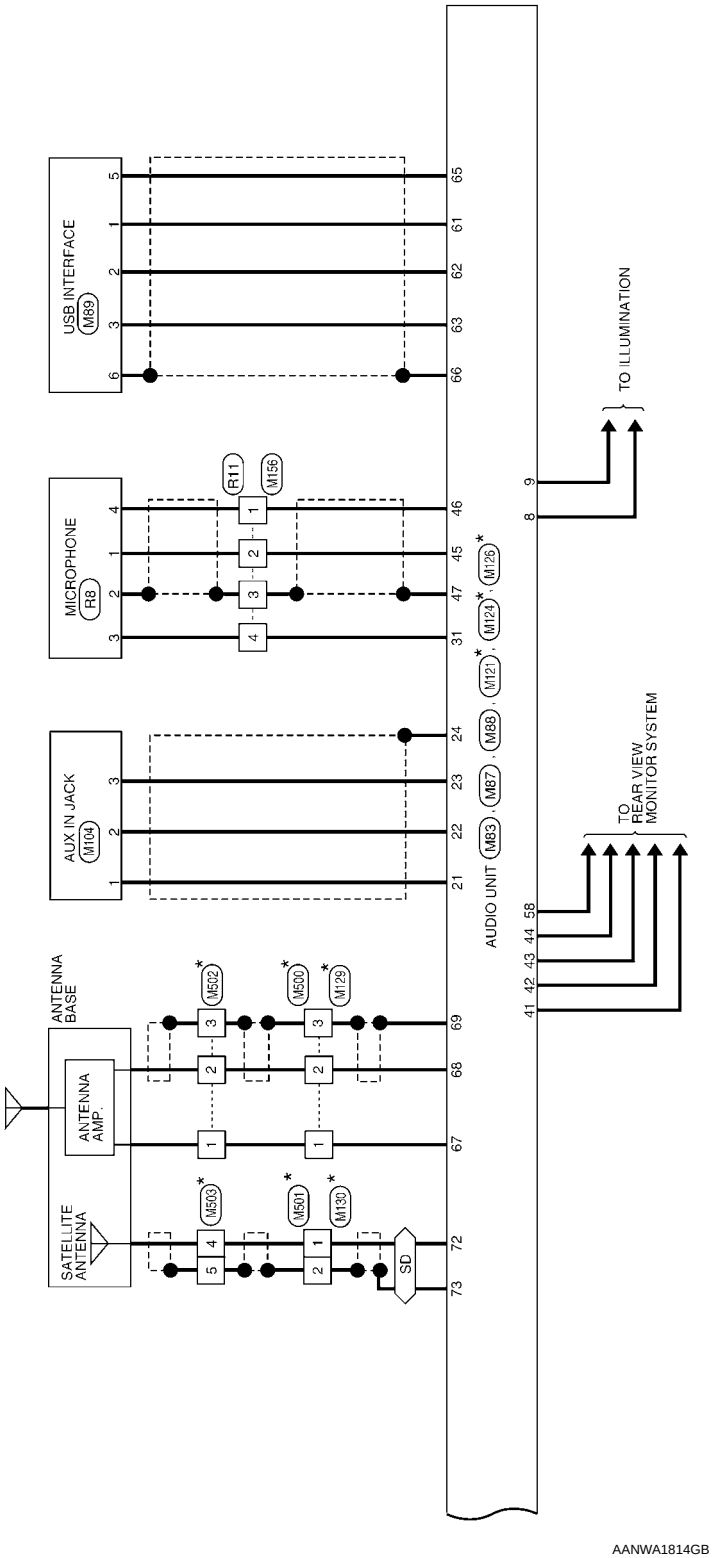
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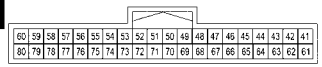
AANWA1813GB


USB INTERFACE
M89
MICROPHONE
R8
R11
M156
AUX IN JACK
M104
ANTENNA BASE
ANTENNA AMP.
SATELLITE ANTENNA
M502
M500
M129
M503
M501
M130
SD
AUDIO UNIT
M83
M87
M88
M121
M124
M126
TO ILLUMINATION
TO REAR VIEW MONITOR SYSTEM
AANWA1814GB

DISPLAY AUDIO SYSTEM CONNECTORS - WITHOUT BOSE AUDIO SYSTEM

Connector No.	B16
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FG-NH
Connector Color	GREEN

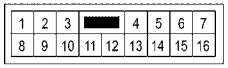
H.S.



Terminal No.	Color of Wire	Signal Name
41	–	–
42	–	–
43	–	–
44	–	–
45	–	–
46	R	I SES BACKDOOR BUTTON SW
47	–	–
48	–	–
49	G	I NO TOUCH TGATE SENSOR
50	W	I RR DOOR SW
51	LG	I TGATE SW
52	R	I RL DOOR SW
53	SB	I AS DOOR2 SW
54	–	–
55	LA/G	I RR AUTOSTOP SW
56	Y	I TGATE OPENER SW
57	SB	I DR DOOR2 SW
58	–	–
59	–	–
60	L	CAN-H
61	V	SES EXT REAR ANTENNA B
62	Y	SES INT MIDDLE ANTENNA B
63	L	SES INT MIDDLE ANTENNA A
64	LG	SES EXT REAR ANTENNA A
65	–	–
66	–	–
67	–	–
68	–	–
69	–	–
70	–	–
71	–	–
72	–	–
73	–	–
74	–	–
75	–	–
76	–	–
77	V	SHIFT LOCK RLY
78	–	–
79	LA/W	O STOP LAMP3
80	P	CAN-L

Connector No.	B42
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS
Connector Color	WHITE

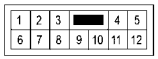
H.S.



Terminal No.	Color of Wire	Signal Name
1	LG	TO MAIN HARNESS
2	LG	TO MAIN HARNESS
3	V	TO MAIN HARNESS
4	LA/G	TO MAIN HARNESS
5	W	TO MAIN HARNESS
6	BG	TO MAIN HARNESS
7	LA/R	TO MAIN HARNESS
8	LA/G	TO MAIN HARNESS (WITHOUT AUTOMATIC DRIVE POSITIONER)
8	LA/GR	TO MAIN HARNESS (WITH AUTOMATIC DRIVE POSITIONER)
9	LA/P	TO MAIN HARNESS
10	LA/R	TO MAIN HARNESS
11	LA/V	TO MAIN HARNESS
12	LA/Y	TO MAIN HARNESS
13	LA/GR	TO MAIN HARNESS
14	LA/BG	TO MAIN HARNESS
15	LA/BR	TO MAIN HARNESS
16	R	TO MAIN HARNESS

Connector No.	B51
Connector Name	WIRE TO WIRE
Connector Type	NS12MW-CS
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
1	LA/P	TO REAR DOOR LH HARNESS
2	LA/R	TO REAR DOOR LH HARNESS
3	LA/V	TO REAR DOOR LH HARNESS
4	–	TO REAR DOOR LH HARNESS
5	–	TO REAR DOOR LH HARNESS
6	W	TO REAR DOOR LH HARNESS
7	L	TO REAR DOOR LH HARNESS
8	LA/GR	TO REAR DOOR LH HARNESS - (WITHOUT BOSE AUDIO SYSTEM)
8	LA/G	TO REAR DOOR LH HARNESS - (WITH BOSE AUDIO SYSTEM)
9	LA/Y	TO REAR DOOR LH HARNESS - (WITHOUT BOSE AUDIO SYSTEM)
9	LA/P	TO REAR DOOR LH HARNESS - (WITH BOSE AUDIO SYSTEM)
10	–	TO REAR DOOR LH HARNESS
11	–	TO REAR DOOR LH HARNESS
12	–	TO REAR DOOR LH HARNESS

Connector No.	B101
Connector Name	WIRE TO WIRE
Connector Type	NS12MW-CS
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1	Y	TO REAR DOOR RH HARNESS
2	L	TO REAR DOOR RH HARNESS
3	LA/P	TO REAR DOOR RH HARNESS
4	LA/V	TO REAR DOOR RH HARNESS - (WITHOUT BOSE AUDIO SYSTEM)
4	LG	TO REAR DOOR RH HARNESS - (WITH BOSE AUDIO SYSTEM)
5	LA/Y	TO REAR DOOR RH HARNESS - (WITHOUT BOSE AUDIO SYSTEM)
5	V	TO REAR DOOR RH HARNESS - (WITH BOSE AUDIO SYSTEM)
6	LA/GR	TO REAR DOOR RH HARNESS
7	LA/LG	TO REAR DOOR RH HARNESS
8	–	TO REAR DOOR RH HARNESS
9	–	TO REAR DOOR RH HARNESS
10	–	TO REAR DOOR RH HARNESS
11	–	TO REAR DOOR RH HARNESS
12	–	TO REAR DOOR RH HARNESS

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DISPLAY AUDIO SYSTEM CONNECTORS - WITHOUT BOSE AUDIO SYSTEM

Connector No.	B136
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1G	LA/GR	TO MAIN HARNESS
2G	LA/P	TO MAIN HARNESS
3G	Y	TO MAIN HARNESS
4G	L	TO MAIN HARNESS
5G	G	TO MAIN HARNESS
6G	LA/BR	TO MAIN HARNESS
7G	BR	TO MAIN HARNESS
8G	LA/L	TO MAIN HARNESS
9G	LA/R	TO MAIN HARNESS
10G	R	TO MAIN HARNESS
11G	G	TO MAIN HARNESS
12G	Y	TO MAIN HARNESS
13G	BR	TO MAIN HARNESS
14G	–	TO MAIN HARNESS
15G	Y	TO MAIN HARNESS
16G	–	TO MAIN HARNESS
17G	–	TO MAIN HARNESS
18G	R	TO MAIN HARNESS
19G	R	TO MAIN HARNESS
20G	W	TO MAIN HARNESS
21G	P	TO MAIN HARNESS
22G	P	TO MAIN HARNESS
23G	L	TO MAIN HARNESS
24G	W	TO MAIN HARNESS
25G	L	TO MAIN HARNESS
26G	–	TO MAIN HARNESS
27G	–	TO MAIN HARNESS
28G	–	TO MAIN HARNESS
29G	SB	TO MAIN HARNESS
30G	–	TO MAIN HARNESS
31G	–	TO MAIN HARNESS
32G	–	TO MAIN HARNESS
33G	–	TO MAIN HARNESS
34G	V	TO MAIN HARNESS
35G	BR	TO MAIN HARNESS
36G	SHIELD	TO MAIN HARNESS
37G	LG	TO MAIN HARNESS
38G	V	TO MAIN HARNESS
39G	SHIELD	TO MAIN HARNESS
40G	G	TO MAIN HARNESS
41G	R	TO MAIN HARNESS
42G	–	TO MAIN HARNESS
43G	–	TO MAIN HARNESS
44G	BG	TO MAIN HARNESS
45G	SHIELD	TO MAIN HARNESS
46G	W	TO MAIN HARNESS
47G	R	TO MAIN HARNESS
48G	SHIELD	TO MAIN HARNESS
49G	L	TO MAIN HARNESS
50G	Y	TO MAIN HARNESS
51G	–	TO MAIN HARNESS
52G	–	TO MAIN HARNESS
53G	–	TO MAIN HARNESS
54G	–	TO MAIN HARNESS
55G	–	TO MAIN HARNESS
56G	–	TO MAIN HARNESS
57G	–	TO MAIN HARNESS
58G	–	TO MAIN HARNESS
59G	–	TO MAIN HARNESS
60G	GR	TO MAIN HARNESS
61G	V	TO MAIN HARNESS
62G	–	TO MAIN HARNESS
63G	–	TO MAIN HARNESS
64G	–	TO MAIN HARNESS
65G	–	TO MAIN HARNESS
66G	–	TO MAIN HARNESS
67G	–	TO MAIN HARNESS
68G	–	TO MAIN HARNESS
69G	–	TO MAIN HARNESS
70G	–	TO MAIN HARNESS
71G	–	TO MAIN HARNESS
72G	–	TO MAIN HARNESS
73G	–	TO MAIN HARNESS
74G	–	TO MAIN HARNESS
75G	–	TO MAIN HARNESS
76G	–	TO MAIN HARNESS
77G	–	TO MAIN HARNESS
78G	LA/R	TO MAIN HARNESS
79G	LA/V	TO MAIN HARNESS
80G	LA/B	TO MAIN HARNESS
81G	LA/L	TO MAIN HARNESS
82G	–	TO MAIN HARNESS
83G	–	TO MAIN HARNESS
84G	–	TO MAIN HARNESS
85G	–	TO MAIN HARNESS
86G	–	TO MAIN HARNESS
87G	–	TO MAIN HARNESS
88G	–	TO MAIN HARNESS
89G	–	TO MAIN HARNESS
90G	–	TO MAIN HARNESS
91G	R	TO MAIN HARNESS
92G	BR	TO MAIN HARNESS
93G	W	TO MAIN HARNESS
94G	LA/V	TO MAIN HARNESS
95G	V	TO MAIN HARNESS
96G	G	TO MAIN HARNESS
97G	P	TO MAIN HARNESS
98G	GR	TO MAIN HARNESS
99G	LA/Y	TO MAIN HARNESS
100G	Y	TO MAIN HARNESS

Connector No.	D2
Connector Name	WIRE TO WIRE
Connector Type	NS18FW-CS
Connector Color	WHITE

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
1	V	TO MAIN HARNESS
2	R	TO MAIN HARNESS
3	G	TO MAIN HARNESS
4	BR	TO MAIN HARNESS
5	P	TO MAIN HARNESS
6	LA/L	TO MAIN HARNESS
7	LA/BR	TO MAIN HARNESS
8	SB	TO MAIN HARNESS
9	GR	TO MAIN HARNESS
10	L	TO MAIN HARNESS
11	P	TO MAIN HARNESS
12	LG	TO MAIN HARNESS
13	Y	TO MAIN HARNESS
14	V	TO MAIN HARNESS
15	R	TO MAIN HARNESS
16	B	TO MAIN HARNESS

Connector No.	D7
Connector Name	FRONT DOOR SPEAKER LH (WITHOUT BOSE AUDIO SYSTEM)
Connector Type	NS02FW-CS
Connector Color	WHITE

H.S.

2	1

Terminal No.	Color of Wire	Signal Name
1	LA/L	FR SP LH+
2	LA/BR	FR SP LH-

AANIA5747GB

DISPLAY AUDIO SYSTEM CONNECTORS - WITHOUT BOSE AUDIO SYSTEM

Connector No.	D102
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS
Connector Color	WHITE

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
1	LA/B	TO MAIN HARNESS
2	LA/G	TO MAIN HARNESS - (WITHOUT AUTOMATIC DRIVE POSITIONER)
2	B	TO MAIN HARNESS - (WITH AUTOMATIC DRIVE POSITIONER)
3	–	TO MAIN HARNESS
4	–	TO MAIN HARNESS
5	–	TO MAIN HARNESS
6	–	TO MAIN HARNESS
7	–	TO MAIN HARNESS
8	GR	TO MAIN HARNESS
9	Y	TO MAIN HARNESS
10	BR	TO MAIN HARNESS
11	L	TO MAIN HARNESS
12	V	TO MAIN HARNESS
13	LA/R	TO MAIN HARNESS
14	LA/G	TO MAIN HARNESS
15	–	TO MAIN HARNESS
16	–	TO MAIN HARNESS

Connector No.	D104
Connector Name	FRONT DOOR SPEAKER RH (WITHOUT BOSE AUDIO SYSTEM)
Connector Type	NS02FW-CS
Connector Color	WHITE

H.S.

2	1

Terminal No.	Color of Wire	Signal Name
1	LA/G	FR SP RH+
2	LA/R	FR SP RH-

Connector No.	D201
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS
Connector Color	WHITE

H.S.

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

Terminal No.	Color of Wire	Signal Name
1	LA/Y	TO BODY HARNESS
2	LA/BR	TO BODY HARNESS
3	LA/GR	TO BODY HARNESS
4	–	TO BODY HARNESS
5	–	TO BODY HARNESS
6	LA/V	TO BODY HARNESS
7	LA/G	TO BODY HARNESS
8	LA/R	TO BODY HARNESS
9	LA/L	TO BODY HARNESS
10	–	TO BODY HARNESS
11	–	TO BODY HARNESS
12	–	TO BODY HARNESS

Connector No.	D203
Connector Name	REAR DOOR SPEAKER LH
Connector Type	NS02FW-CS
Connector Color	WHITE

H.S.

2	1

Terminal No.	Color of Wire	Signal Name
1	LA/L	RR SP LH+
2	LA/R	RR SP LH-

Connector No.	D301
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS
Connector Color	WHITE

H.S.

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

Terminal No.	Color of Wire	Signal Name
1	LA/Y	TO BODY NO. 2 HARNESS
2	LA/BR	TO BODY NO. 2 HARNESS
3	LA/GR	TO BODY NO. 2 HARNESS
4	LA/V	TO BODY NO. 2 HARNESS
5	LA/Y	TO BODY NO. 2 HARNESS
6	LA/W	TO BODY NO. 2 HARNESS
7	LA/L	TO BODY NO. 2 HARNESS
8	–	TO BODY NO. 2 HARNESS
9	–	TO BODY NO. 2 HARNESS
10	–	TO BODY NO. 2 HARNESS
11	–	TO BODY NO. 2 HARNESS
12	–	TO BODY NO. 2 HARNESS

Connector No.	D303
Connector Name	REAR DOOR SPEAKER RH
Connector Type	NS02FW-CS
Connector Color	WHITE

H.S.

2	1

Terminal No.	Color of Wire	Signal Name
1	LA/V	RR SP RH+
2	LA/Y	RR SP RH-

AANIA5748GB

DISPLAY AUDIO SYSTEM CONNECTORS - WITHOUT BOSE AUDIO SYSTEM

Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FGY-NH
Connector Color	GRAY

H.S.

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

Terminal No.	Color of Wire	Signal Name
1	L	LIN 3 D
2	LA/G	O DI FR LEFT D
3	LA/Y	O DI FR RIGHT D
4	P	O SPARE4 RL N
5	R	CAN-L
6	L	CAN-H
7	–	–
8	L	CAN-H
9	R	CAN-L
10	BG	I DOORLOCK SW
11	Y	I HAZARD SW D
12	W	O PWR AUTOLIGHT SENSOR
13	–	–
14	–	–
15	–	–
16	–	–
17	L	O PWR ATDVC
18	–	–
19	LG	I AUTOLIGHT SENSOR
20	–	–
21	–	–
22	–	–
23	G	O WL AUTHORIZATION RL
24	LA/R	O DEFROSTER RL D
25	BR	O BAT TEMP1 RL
26	–	–
27	Y	O IGN1 RL
28	LA/W	O IGN2 RL
29	–	–
30	V	O GND AUTOLIGHT SENSOR
31	–	–
32	–	–
33	LG	O CSW 5
34	Y	I CSW 5
35	BG	O SECURITY LED
36	G	O CSW 3
37	GR	O CSW 4

38	V	O CSW 1
39	W	O CSW 2
40	SB	I DOORUNLOCK SW

Connector No.	M19
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH
Connector Color	BLACK

H.S.

100	99	98	97	96	95	94	93	92	91	90	89	88	87	86	85	84	83	82	81
120	119	118	117	116	115	114	113	112	111	110	109	108	107	106	105	104	103	102	101

Terminal No.	Color of Wire	Signal Name
81	–	–
82	W	I SES FR HANDLE BUTTON SW
83	–	–
84	BR	I CSW 2
85	SB	I CSW 1
86	P	I CSW 3
87	BG	I CSW 4
88	W	O START SW BACKLIGHT LED
89	Y	I START WO ESCL SW
90	–	–
91	–	–
92	BR	I KEY CYLINDER LOCK SW
93	P	I KEY CYLINDER UNLOCK SW
94	G	I AT LOCKED IN PARK SW
95	V	I SHORTING PIN
96	–	–
97	–	–
98	–	–
99	–	–
100	V	SES EXT DR ANTENNA A
101	–	–
102	–	–
103	–	–
104	R	I DR KNOB SW
105	Y	I SES DR HANDLE BUTTON SW
106	W	O AUTO ACC2
107	–	–
108	–	–
109	–	–
110	BG	O MR OUTPUT
111	–	–
112	–	–
113	–	–

114	Y	O IMMOBILIZER KAZASHI B
115	W	O IMMOBILIZER KAZASHI A
116	BG	SES INT FRONT ANTENNA B
117	GR	SES INT FRONT ANTENNA A
118	SB	SES EXT AS ANTENNA B
119	P	SES EXT AS ANTENNA A
120	BR	SES EXT DR ANTENNA B

Connector No.	M20
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	NS16FBR-CS
Connector Color	BROWN

H.S.

167	166	165	164		163	162	161
176	175	174	173	172	171	170	169	168

Terminal No.	Color of Wire	Signal Name
161	W	I PWR ECU
162	SB	O PWM ROOMLAMP 1
163	L	O AS LOCK OR UNLOCK D
164	–	–
165	V	O DR OR FR LOCK D
166	–	–
167	LA/V	I PWR DOORLOCK1
168	BG	I PWR FLASHERS
169	GR	I PWR STOP LAMP
170	B	I GND1
171	B	I GND2
172	G	O FR OR DR UNLOCK D
173	–	–
174	–	–
175	R	I PWR DOORLOCK2
176	LG	I PWR WIPER

Connector No.	M23
Connector Name	FRONT TWEETER RH
Connector Type	TH02FW
Connector Color	WHITE

H.S.

2	1

Terminal No.	Color of Wire	Signal Name
1	G	FR SP RH+
2	R	FR SP RH-

Connector No.	M30
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TH12FW-NH
Connector Color	WHITE

H.S.

10	9	8	7	6	5
16	15	14	13	12	11

Terminal No.	Color of Wire	Signal Name
5	BG	HORN SW
6	LA/R	ACC SW
7	LA/BR	ACC GND
8	Y	AUDIO STRG SW A
9	B	GROUND
10	R	ILL CONT OUT
11	–	–
12	–	–
13	–	–
14	L	AUDIO STRG SHLD
15	GR	AUDIO STRG SW B
16	–	–

AANIA5749GB

DISPLAY AUDIO SYSTEM CONNECTORS - WITHOUT BOSE AUDIO SYSTEM

Connector No.	M36
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1G	LA/R	TO BODY NO. 2 HARNESS
2G	W	TO BODY NO. 2 HARNESS
3G	Y	TO BODY NO. 2 HARNESS
4G	BG	TO BODY NO. 2 HARNESS
5G	G	TO BODY NO. 2 HARNESS
6G	SB	TO BODY NO. 2 HARNESS
7G	P	TO BODY NO. 2 HARNESS
8G	LA/Y	TO BODY NO. 2 HARNESS
9G	LA/W	TO BODY NO. 2 HARNESS
10G	R	TO BODY NO. 2 HARNESS
11G	G	TO BODY NO. 2 HARNESS
12G	L	TO BODY NO. 2 HARNESS
13G	BR	TO BODY NO. 2 HARNESS
14G	–	TO BODY NO. 2 HARNESS
15G	Y	TO BODY NO. 2 HARNESS
16G	–	TO BODY NO. 2 HARNESS
17G	–	TO BODY NO. 2 HARNESS
18G	R	TO BODY NO. 2 HARNESS
19G	LA/R	TO BODY NO. 2 HARNESS
20G	W	TO BODY NO. 2 HARNESS
21G	BR	TO BODY NO. 2 HARNESS
22G	P	TO BODY NO. 2 HARNESS
23G	L	TO BODY NO. 2 HARNESS
24G	W	TO BODY NO. 2 HARNESS
25G	L	TO BODY NO. 2 HARNESS
26G	–	TO BODY NO. 2 HARNESS
27G	–	TO BODY NO. 2 HARNESS
28G	–	TO BODY NO. 2 HARNESS
29G	–	TO BODY NO. 2 HARNESS
30G	–	TO BODY NO. 2 HARNESS
31G	–	TO BODY NO. 2 HARNESS
32G	–	TO BODY NO. 2 HARNESS
33G	–	TO BODY NO. 2 HARNESS
34G	V	TO BODY NO. 2 HARNESS
35G	BR	TO BODY NO. 2 HARNESS
36G	SHIELD	TO BODY NO. 2 HARNESS
37G	LG	TO BODY NO. 2 HARNESS
38G	V	TO BODY NO. 2 HARNESS
39G	SHIELD	TO BODY NO. 2 HARNESS
40G	G	TO BODY NO. 2 HARNESS
41G	R	TO BODY NO. 2 HARNESS
42G	–	TO BODY NO. 2 HARNESS
43G	–	TO BODY NO. 2 HARNESS
44G	BG	TO BODY NO. 2 HARNESS
45G	SHIELD	TO BODY NO. 2 HARNESS
46G	L	TO BODY NO. 2 HARNESS
47G	Y	TO BODY NO. 2 HARNESS
48G	SHIELD	TO BODY NO. 2 HARNESS
49G	W	TO BODY NO. 2 HARNESS
50G	R	TO BODY NO. 2 HARNESS
51G	–	TO BODY NO. 2 HARNESS
52G	–	TO BODY NO. 2 HARNESS
53G	–	TO BODY NO. 2 HARNESS
54G	–	TO BODY NO. 2 HARNESS
55G	–	TO BODY NO. 2 HARNESS
56G	–	TO BODY NO. 2 HARNESS
57G	–	TO BODY NO. 2 HARNESS
58G	–	TO BODY NO. 2 HARNESS
59G	–	TO BODY NO. 2 HARNESS
60G	GR	TO BODY NO. 2 HARNESS
61G	BR	TO BODY NO. 2 HARNESS
62G	–	TO BODY NO. 2 HARNESS
63G	–	TO BODY NO. 2 HARNESS
64G	–	TO BODY NO. 2 HARNESS
65G	–	TO BODY NO. 2 HARNESS
66G	–	TO BODY NO. 2 HARNESS
67G	–	TO BODY NO. 2 HARNESS
68G	–	TO BODY NO. 2 HARNESS
69G	–	TO BODY NO. 2 HARNESS
70G	–	TO BODY NO. 2 HARNESS
71G	–	TO BODY NO. 2 HARNESS
72G	–	TO BODY NO. 2 HARNESS
73G	–	TO BODY NO. 2 HARNESS
74G	–	TO BODY NO. 2 HARNESS
76G	–	TO BODY NO. 2 HARNESS
77G	–	TO BODY NO. 2 HARNESS
78G	LA/Y	TO BODY NO. 2 HARNESS
79G	LA/V	TO BODY NO. 2 HARNESS
80G	LA/B	TO BODY NO. 2 HARNESS
81G	LA/L	TO BODY NO. 2 HARNESS
82G	–	TO BODY NO. 2 HARNESS
83G	–	TO BODY NO. 2 HARNESS
84G	–	TO BODY NO. 2 HARNESS
85G	–	TO BODY NO. 2 HARNESS
86G	–	TO BODY NO. 2 HARNESS
87G	–	TO BODY NO. 2 HARNESS
88G	–	TO BODY NO. 2 HARNESS
89G	–	TO BODY NO. 2 HARNESS
90G	–	TO BODY NO. 2 HARNESS
91G	R	TO BODY NO. 2 HARNESS
92G	LA/L	TO BODY NO. 2 HARNESS
93G	W	TO BODY NO. 2 HARNESS
94G	LG	TO BODY NO. 2 HARNESS
95G	GR	TO BODY NO. 2 HARNESS
96G	SB	TO BODY NO. 2 HARNESS
97G	LA/BR	TO BODY NO. 2 HARNESS
98G	GR	TO BODY NO. 2 HARNESS
99G	Y	TO BODY NO. 2 HARNESS
100G	V	TO BODY NO. 2 HARNESS

Connector No.	M38
Connector Name	JOINT CONNECTOR-M05
Connector Type	NS06FW-J
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1	W	FR SP RH+
2	G	FR SP RH+
3	G	FR SP RH+
4	GR	FR SP RH-
5	V	FR SP RH-
6	R	FR SP RH-

Connector No.	M39
Connector Name	JOINT CONNECTOR-M06
Connector Type	NS06FW-J
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1	Y	FR SP LH+
2	W	FR SP LH+
3	W	FR SP LH+
4	R	FR SP LH-
5	P	FR SP LH-
6	GR	FR SP LH-

AANIA5750GB

DISPLAY AUDIO SYSTEM CONNECTORS - WITHOUT BOSE AUDIO SYSTEM

Connector No.	M44
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS16FW-CS
Connector Color	WHITE

H.S.

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

Terminal No.	Color of Wire	Signal Name
1P	R	IGNITION
2P	G	IGNITION
3P	Y	IGNITION RELAY-2 CONTROL
4P	LG	REAR WINDOW DEFOGGER RELAY OUTPUT
5P	GR	REAR WINDOW DEFOGGER RELAY OUTPUT
6P	LA/R	REAR WINDOW DEFOGGER RELAY CONTROL
7P	Y	IGNITION
8P	V	IGNITION
9P	L	BATTERY
10P	LG	IGNITION
11P	–	–
12P	–	–
13P	G	BATTERY
14P	–	–
15P	L	BATTERY
16P	LA/W	FRONT BLOWER MOTOR RELAY CONTROL

Connector No.	M47
Connector Name	JOINT CONNECTOR-M04
Connector Type	NH20FG-DC
Connector Color	GREEN

H.S.

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

Terminal No.	Color of Wire	Signal Name
1	–	–
2	SB	M-CAN H
3	SB	M-CAN H
4	SB	M-CAN H

5	SB	M-CAN H
6	L	CAN-H
7	L	CAN-H
8	L	CAN-H
9	L	CAN-H
10	–	–
11	–	–
12	–	–
13	LG	M-CAN L
14	LG	M-CAN L
15	LG	M-CAN L
16	LG	M-CAN L
17	R	CAN-L
18	R	CAN-L
19	V	CAN-L
20	V	CAN-L

Connector No.	M68
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS16FBR-CS
Connector Color	BROWN

H.S.

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

Terminal No.	Color of Wire	Signal Name
1R	V	ILLUMINATION +
2R	G	IGNITION
3R	V	BATTERY
4R	–	–
5R	–	–
6R	LA/L	ACCESSORY
7R	LA/V	BATTERY
8R	–	–
9R	–	–
10R	GR	BATTERY
11R	–	–
12R	–	–
13R	–	–
14R	W	BATTERY
15R	W	BATTERY
16R	GR	ACCESSORY

Connector No.	M74
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS
Connector Color	WHITE

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
1	LG	TO BODY HARNESS
2	LG	TO BODY HARNESS
3	V	TO BODY HARNESS
4	Y	TO BODY HARNESS
5	W	TO BODY HARNESS
6	BG	TO BODY HARNESS
7	SB	TO BODY HARNESS
8	BR	TO BODY HARNESS
9	LA/G	TO BODY HARNESS
10	LA/R	TO BODY HARNESS
11	LG	TO BODY HARNESS
12	GR	TO BODY HARNESS
13	BR	TO BODY HARNESS
14	LA/L	TO BODY HARNESS
15	LA/BR	TO BODY HARNESS
16	GR	TO BODY HARNESS

Connector No.	M76
Connector Name	COMBINATION METER
Connector Type	TH40FW-NH
Connector Color	WHITE

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
1	B	GND
2	–	–
3	–	–
4	–	–
5	–	–
6	–	–
7	BG	SECURITY

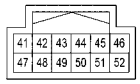
8	–	–
9	GR	ECO MODE SW
10	–	–
11	–	–
12	–	–
13	–	–
14	–	–
15	L	OUTSIDE TEMP SENSOR
16	–	–
17	BG	SATELLITE SW GND
18	SB	TRIP RESET SW
19	–	–
20	Y	OUTSIDE TEMP GND
21	L	GND (STRG SW GND)
22	Y	STRG SW A
23	GR	STRG SW B
24	BR	WASHER SW
25	V	BRAKE OIL SW
26	G	PKB SW
27	–	–
28	Y	DR BELT SW
29	R	SPORT MODE SW
30	LG	M RANGE
31	SB	NOT M RANGE
32	BG	AT SHIFT UP
33	BR	AT SHIFT DOWN
34	–	–
35	–	–
36	GR	ILL UP SW
37	V	ILL DOWN SW
38	G	8P/R OUTPUT
39	W	2P/R OUTPUT
40	–	–

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DISPLAY AUDIO SYSTEM CONNECTORS - WITHOUT BOSE AUDIO SYSTEM

Connector No.	M77
Connector Name	COMBINATION METER
Connector Type	TH12FW-NH
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
41	L	CAN-H
42	P	CAN-L
43	R	ILL CONT OUT
44	LA/B	FUEL SENSOR GND
45	G	BAT
46	V	IGN
47	SB	M-CAN H
48	LG	M-CAN L
49	–	–
50	–	–
51	LA/L	FUEL SENSOR
52	B	G1

Connector No.	M80
Connector Name	FRONT TWEETER LH
Connector Type	TH02FW
Connector Color	WHITE

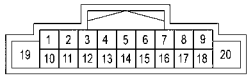
H.S.



Terminal No.	Color of Wire	Signal Name
1	W	FR SP LH+
2	GR	FR SP LH-

Connector No.	M83
Connector Name	AUDIO UNIT
Connector Type	NH18FW-CS2
Connector Color	WHITE

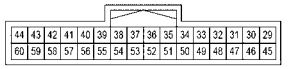
H.S.



Terminal No.	Color of Wire	Signal Name
1	BR	AMPL ON (WITH BOSE AUDIO SYSTEM)
2	Y	FR SP LH+ (WITH 4 SPEAKERS)
2	R	FR SP LH+ (WITH BOSE AUDIO SYSTEM)
2	W	FR SP LH+ (WITH 6 SPEAKERS)
3	R	FR SP LH- (WITH 4 SPEAKERS)
3	G	FR SP LH- (WITH BOSE AUDIO SYSTEM)
3	P	FR SP LH- (WITH 6 SPEAKERS)
4	V	RR SP LH+ (WITH BOSE AUDIO SYSTEM)
4	GR	RR SP LH+ (WITHOUT BOSE AUDIO SYSTEM)
5	LG	RR SP LH- (WITH BOSE AUDIO SYSTEM)
5	BR	RR SP LH- (WITHOUT BOSE AUDIO SYSTEM)
6	–	–
7	LG	IGN2
8	R	ILL-
9	V	ILL+, LIGHT SW
10	B	SHIELD (WITH BOSE AUDIO SYSTEM)
11	W	FR SP RH+ (WITH 4 SPEAKERS)
11	R	FR SP RH+ (WITH BOSE AUDIO SYSTEM)
11	G	FR SP RH+ (WITH 6 SPEAKERS)
12	GR	FR SP RH- (WITH 4 SPEAKERS)
12	W	FR SP RH- (WITH BOSE AUDIO SYSTEM)
12	V	FR SP RH- (WITH 6 SPEAKERS)
13	L	RR SP RH+ (WITH BOSE AUDIO SYSTEM)
13	LG	RR SP RH+ (WITHOUT BOSE AUDIO SYSTEM)
14	Y	RR SP RH-
15	–	–
16	–	–
17	–	–
18	G	SPEED SIGNAL
19	L	+B
20	B	GND

Connector No.	M87
Connector Name	AUDIO UNIT
Connector Type	TH32FW-NH
Connector Color	WHITE

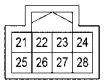
H.S.



Terminal No.	Color of Wire	Signal Name
29	–	–
30	–	–
31	R	HF/VR MODE CHANGE
32	–	–
33	–	–
34	–	–
35	W	AUTO ACC
36	SB	MCAN2 H
37	LG	MCAN2 L
38	–	–
39	SB	MCAN1 H
40	LG	MCAN1 L
41	B	CAM GND
42	R	CAM 6.2V
43	W	COMPOSITE+ (CAM NTSC)
44	SHIELD	COMPOSITE- (CAM GND)
45	W	MIC +
46	B	MIC V+
47	SHIELD	MIC GND
48	–	–
49	–	–
50	–	–
51	–	–
52	B	CAM DET
53	–	–
54	–	–
55	–	–
56	–	–
57	–	–
58	BR	REV (FOR RR VIEW)
59	–	–
60	–	–

Connector No.	M88
Connector Name	AUDIO UNIT
Connector Type	TH08FW-NH
Connector Color	WHITE

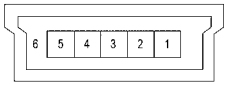
H.S.



Terminal No.	Color of Wire	Signal Name
21	L	AUXIN-L
22	G	AUXIN-R
23	Y	AUXIN-GND
24	SHIELD	AUXIN-SHIELD
25	–	–
26	–	–
27	–	–
28	–	–

Connector No.	M89
Connector Name	USB INTERFACE
Connector Type	US-CAR30
Connector Color	BLACK

H.S.



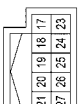
Terminal No.	Color of Wire	Signal Name
1	R	V BUS
2	W	USB D-
3	G	USB D+
4	–	–
5	B	USB GND
6	SHIELD	USB SHIELD

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DISPLAY AUDIO SYSTEM CONNECTORS - WITHOUT BOSE AUDIO SYSTEM

Connector No.	M90
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TH12FW-NH
Connector Color	WHITE

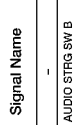
H.S.



Terminal No.	Color of Wire	Signal Name
17	–	–
18	L	AUDIO STRG SW B
19	G	AUDIO STRG SHLD
20	–	–
21	–	–
22	–	–
23	R	ILL (+)
24	Y	ILL (-)
25	P	AUDIO STRG SW A
26	GR	ACC GND
27	V	ACC SW
28	BR	HORN SW

Connector No.	M104
Connector Name	AUX IN JACK
Connector Type	A06FGY
Connector Color	GRAY

H.S.



Terminal No.	Color of Wire	Signal Name
1	L	AUX L
2	G	AUX R
3	Y	AUX GND
4	–	–
5	W	ILL CONT OUT
6	GR	GROUND

Connector No.	M121
Connector Name	AUDIO UNIT
Connector Type	US-CAR30
Connector Color	BLACK

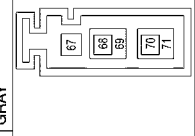
H.S.



Terminal No.	Color of Wire	Signal Name
61	R	V BUS
62	W	USB D-
63	G	USB D+
64	–	–
65	B	USB GND
66	SHIELD	USB SHIELD

Connector No.	M124
Connector Name	AUDIO UNIT
Connector Type	GT13SH-2/1S-HU
Connector Color	GRAY

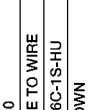
H.S.



Terminal No.	Color of Wire	Signal Name
67	B	ANT +B
68	B	ANT MAIN
69	SHIELD	MAIN GND
70	–	–
71	–	–

Connector No.	M126
Connector Name	AUDIO UNIT
Connector Type	FAKRA CODING H
Connector Color	PINK

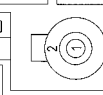
H.S.



Terminal No.	Color of Wire	Signal Name
72	B	SAT ANT
73	SHIELD	SAT ANT SHIELD

Connector No.	M129
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-1/1S-HU
Connector Color	GRAY

H.S.



Terminal No.	Color of Wire	Signal Name
1	B	TO MAIN SUB HARNESS
2	B	TO MAIN SUB HARNESS
3	SHIELD	TO MAIN SUB HARNESS

Connector No.	M130
Connector Name	WIRE TO WIRE
Connector Type	GT16C-1S-HU
Connector Color	BROWN

H.S.

Terminal No.	Color of Wire	Signal Name
1	B	TO MAIN SUB HARNESS

2	SHIELD	TO MAIN SUB HARNESS

Connector No.	M156
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-CS
Connector Color	WHITE

H.S.

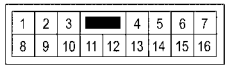
Terminal No.	Color of Wire	Signal Name
1	B	TO ROOM LAMP HARNESS
2	W	TO ROOM LAMP HARNESS
3	SHIELD	TO ROOM LAMP HARNESS
4	R	TO ROOM LAMP HARNESS
5	–	TO ROOM LAMP HARNESS
6	Y	TO ROOM LAMP HARNESS
7	LG	TO ROOM LAMP HARNESS
8	L	TO ROOM LAMP HARNESS
9	R	TO ROOM LAMP HARNESS
10	–	TO ROOM LAMP HARNESS
11	–	TO ROOM LAMP HARNESS
12	–	TO ROOM LAMP HARNESS
13	SB	TO ROOM LAMP HARNESS
14	GR	TO ROOM LAMP HARNESS
15	SB	TO ROOM LAMP HARNESS
16	GR	TO ROOM LAMP HARNESS
17	V	TO ROOM LAMP HARNESS
18	G	TO ROOM LAMP HARNESS
19	SB	TO ROOM LAMP HARNESS
20	R	TO ROOM LAMP HARNESS
21	B	TO ROOM LAMP HARNESS
22	GR	TO ROOM LAMP HARNESS
23	–	TO ROOM LAMP HARNESS
24	–	TO ROOM LAMP HARNESS

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DISPLAY AUDIO SYSTEM CONNECTORS - WITHOUT BOSE AUDIO SYSTEM

Connector No.	M158
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS
Connector Color	WHITE

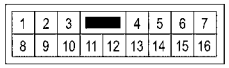
H.S.



Terminal No.	Color of Wire	Signal Name
1	B	TO FRONT DOOR RH HARNESS
2	GR	TO FRONT DOOR RH HARNESS
3	–	TO FRONT DOOR RH HARNESS
4	–	TO FRONT DOOR RH HARNESS
5	–	TO FRONT DOOR RH HARNESS
6	–	TO FRONT DOOR RH HARNESS
7	–	TO FRONT DOOR RH HARNESS
8	SB	TO FRONT DOOR RH HARNESS
9	LA/BR	TO FRONT DOOR RH HARNESS
10	LA/GR	TO FRONT DOOR RH HARNESS
11	L	TO FRONT DOOR RH HARNESS
12	Y	TO FRONT DOOR RH HARNESS
13	GR	TO FRONT DOOR RH HARNESS - (WITHOUT BOSE AUDIO SYSTEM)
13	R	TO FRONT DOOR RH HARNESS - (WITH BOSE AUDIO SYSTEM)
14	W	TO FRONT DOOR RH HARNESS - (WITHOUT BOSE AUDIO SYSTEM)
14	SB	TO FRONT DOOR RH HARNESS - (WITH BOSE AUDIO SYSTEM)
15	–	TO FRONT DOOR RH HARNESS
16	–	TO FRONT DOOR RH HARNESS

Connector No.	M167
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS
Connector Color	WHITE

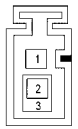
H.S.



Terminal No.	Color of Wire	Signal Name
1	V	TO FRONT DOOR LH HARNESS
2	R	TO FRONT DOOR LH HARNESS
3	G	TO FRONT DOOR LH HARNESS
4	BR	TO FRONT DOOR LH HARNESS
5	P	TO FRONT DOOR LH HARNESS
6	Y	TO FRONT DOOR LH HARNESS - (WITHOUT BOSE AUDIO SYSTEM)
6	LA/L	TO FRONT DOOR LH HARNESS - (WITH BOSE AUDIO SYSTEM)
7	R	TO FRONT DOOR LH HARNESS - (WITHOUT BOSE AUDIO SYSTEM)
7	LA/BR	TO FRONT DOOR LH HARNESS - (WITH BOSE AUDIO SYSTEM)
8	L	TO FRONT DOOR LH HARNESS
9	LA/BR	TO FRONT DOOR LH HARNESS
10	LA/GR	TO FRONT DOOR LH HARNESS
11	Y	TO FRONT DOOR LH HARNESS
12	BG	TO FRONT DOOR LH HARNESS
13	LA/G	TO FRONT DOOR LH HARNESS
14	LA/R	TO FRONT DOOR LH HARNESS
15	P	TO FRONT DOOR LH HARNESS
16	B	TO FRONT DOOR LH HARNESS

Connector No.	M500
Connector Name	WIRE TO WIRE
Connector Type	GT13SCN-1/1PP-HU
Connector Color	GRAY

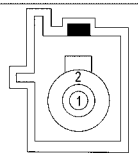
H.S.



Terminal No.	Color of Wire	Signal Name
1	B	TO MAIN HARNESS
2	B	TO MAIN HARNESS
3	SHIELD	TO MAIN HARNESS

Connector No.	M501
Connector Name	WIRE TO WIRE
Connector Type	GT16C-1PP-HU
Connector Color	BROWN

H.S.



Terminal No.	Color of Wire	Signal Name
1	B	TO MAIN HARNESS
2	SHIELD	TO MAIN HARNESS

Connector No.	M502
Connector Name	ANTENNA BASE (ANTENNA AMP)
Connector Type	GT13SSN-1/1PP-HU
Connector Color	GRAY

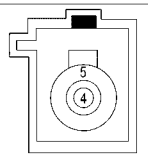
H.S.



Terminal No.	Color of Wire	Signal Name
1	B	ANT +B
2	B	ANT MAIN
3	SHIELD	MAIN GND

Connector No.	M503
Connector Name	ANTENNA BASE (SATELLITE RADIO ANTENNA)
Connector Type	GT16C-1PP-HU
Connector Color	GREEN

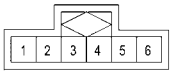
H.S.



Terminal No.	Color of Wire	Signal Name
4	B	SAT ANT
5	SHIELD	SAT ANT SHIELD

Connector No.	R8
Connector Name	MICROPHONE
Connector Type	A06FW
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
1	W	MIC SIGNAL
2	SHIELD	MIC GND
3	R	HF/VR MODE CHG
4	B	MIC VCC
5	–	–
6	–	–

AANIA5754GB

DISPLAY AUDIO SYSTEM CONNECTORS - WITHOUT BOSE AUDIO SYSTEM

Connector No.	R11
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH
Connector Color	WHITE

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

Terminal No.	Color of Wire	Signal Name
1	B	TO MAIN HARNESS
2	W	TO MAIN HARNESS
3	SHIELD	TO MAIN HARNESS
4	SB	TO MAIN HARNESS
5	–	TO MAIN HARNESS
6	LG	TO MAIN HARNESS
7	LG	TO MAIN HARNESS
8	–	TO MAIN HARNESS
9	–	TO MAIN HARNESS
10	–	TO MAIN HARNESS
11	–	TO MAIN HARNESS
12	–	TO MAIN HARNESS
13	SB	TO MAIN HARNESS
14	P	TO MAIN HARNESS
15	–	TO MAIN HARNESS
16	–	TO MAIN HARNESS
17	–	TO MAIN HARNESS
18	–	TO MAIN HARNESS
19	SB	TO MAIN HARNESS
20	R	TO MAIN HARNESS
21	B	TO MAIN HARNESS
22	L	TO MAIN HARNESS
23	–	TO MAIN HARNESS
24	–	TO MAIN HARNESS

AANIA5755GB

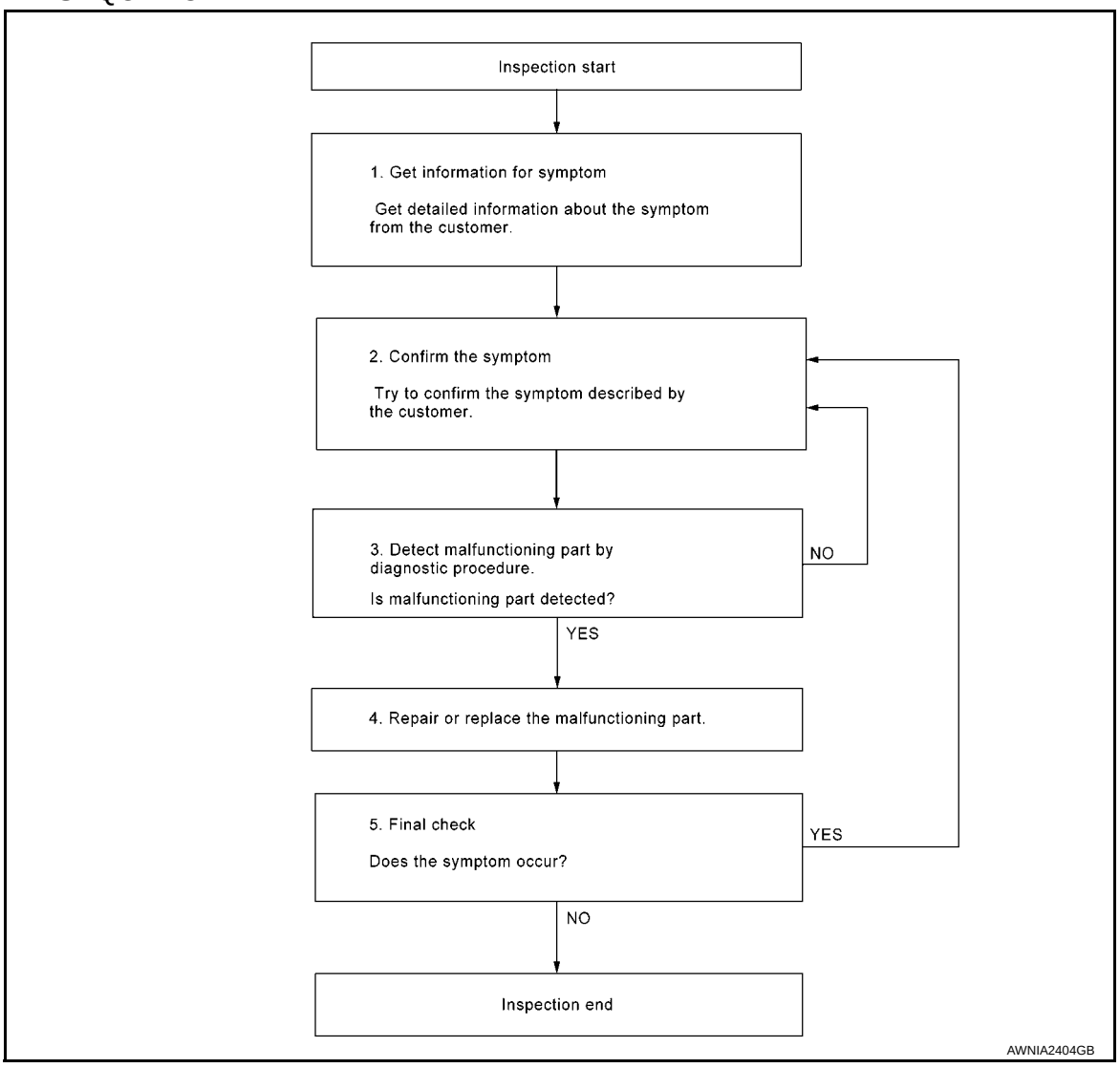
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:0000000014844270

OVERALL SEQUENCE



DETAILED FLOW

1.GET INFORMATION FOR SYMPTOM

Get detailed information from the customer about the symptom (the condition and the environment when the incident/malfunction occurred).

>> GO TO 2.

2.CONFIRM THE SYMPTOM

Try to confirm the symptom described by the customer. Verify relation between the symptom and the condition when the symptom is detected. Refer to AV-59, "Symptom Table".

>> GO TO 3.

3.DETECT MALFUNCTIONING PART BY DIAGNOSTIC PROCEDURE

Inspect according to Diagnostic Procedure of the system.

Is malfunctioning part detected?

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

4. REPAIR OR REPLACE THE MALFUNCTIONING PART

1. Repair or replace the malfunctioning part.
2. Reconnect parts or connectors disconnected during Diagnostic Procedure.

>> GO TO 5.

5. FINAL CHECK

Refer to confirmed symptom in step 2, and make sure that the symptom is not detected.

Was the repair confirmed?

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

INSPECTION AND ADJUSTMENT
REGISTRATION (AUDIO UNIT)

REGISTRATION (AUDIO UNIT) : Description

INFOID:0000000014844271

AFTER REPLACEMENT

If the audio unit is replaced with a new audio unit, the new audio unit must be registered using the Bluetooth D/C(serial #).

CAUTION:

If the new audio unit Bluetooth D/C(serial #) is not registered, the “APPS” mode will not function.

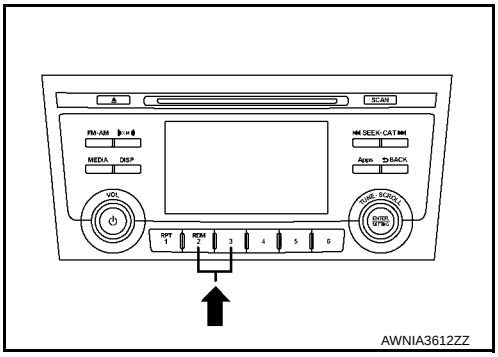
REGISTRATION (AUDIO UNIT) : Work Procedure

INFOID:0000000014844272

1. RECORD BLUETOOTH D/C(SERIAL #) FOR REPLACEMENT AUDIO UNIT

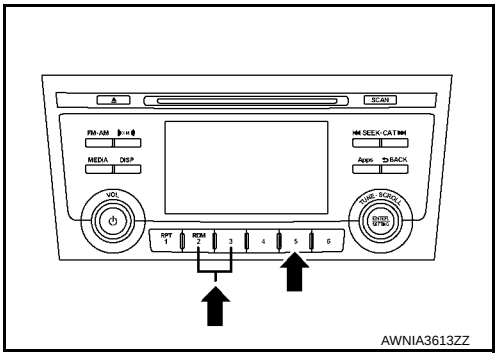
1. Turn ignition switch ON.
2. Turn audio unit OFF.
3. Access the diagnostic menu as follows:

- Press and hold preset buttons 2 and 3.



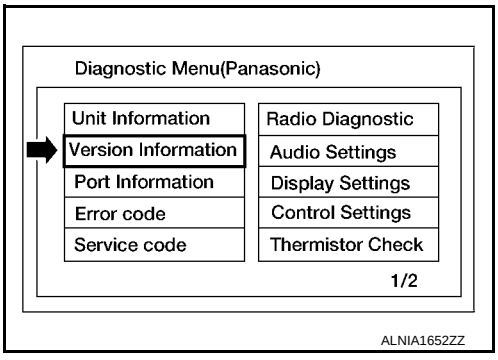
AWNIA3612ZZ

- While holding preset buttons 2 and 3, press preset button 5 three times.



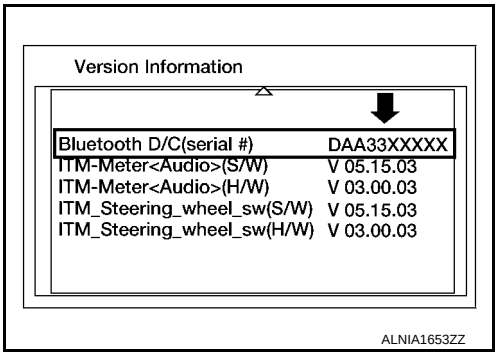
AWNIA3613ZZ

4. Select Version Information from the Diagnostic Menu.



ALNIA1652ZZ

5. Scroll through the menu pages to Bluetooth D/C(serial #) and record the number displayed.



>> GO TO 2.

2. REGISTER REPLACEMENT AUDIO UNIT

Register the replacement audio unit by contacting NISSAN Owner Services. Refer to TSB.

>> GO TO 3.

3. OPERATION CHECK

Verify that the audio unit “APPS” function operates normally.

>> Work End.

DTC/CIRCUIT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT

AUDIO UNIT

AUDIO UNIT : Diagnosis Procedure

INFOID:0000000014844273

Regarding Wiring Diagram information, refer to AV-29, "Wiring Diagram".

1.CHECK FUSE

Check that the following fuses are not blown:

Terminal No.	Signal name	Fuse No.
7	Ignition power supply	30 (10A)
19	Battery power supply	16 (20A)

Are the fuses blown?

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

2.CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect audio unit connector M83.
3. Check voltage between audio unit connector M83 and ground.

Audio unit		Ground	Condition	Voltage (Approx.)
Connector	Terminal			
M83	7	—	Ignition switch: ON	Battery voltage
	19		Ignition switch: OFF	

Is the inspection result normal?

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

3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect audio unit connector M87.
3. Check continuity between audio unit connectors and ground.

Audio unit		Ground	Continuity
Connector	Terminal		
M83	20	—	Yes
M87	52		

Is the inspection result normal?

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

FRONT TWEETER

Diagnosis Procedure

INFOID:0000000014844274

Regarding Wiring Diagram information, refer to AV-29, "Wiring Diagram".

1.CONNECTOR CHECK

Check the audio unit and speaker connectors for the following:
- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair the terminals or connectors.

2.CHECK FRONT TWEETER SIGNAL CIRCUIT CONTINUITY

1. Disconnect audio unit connector M83 and suspect front tweeter connector.
2. Check continuity between audio unit connector M83 and suspect front tweeter connector.

Audio unit		Front tweeter		Continuity
Connector	Terminal	Connector	Terminal	
M83	2	M80 (LH)	1	Yes
	3		2	
	11	M23 (RH)	1	
	12		2	

3. Check continuity between audio unit connector M83 and ground.

Audio unit		Ground	Continuity
Connector	Terminal		
M83	2	—	No
	3		
	11		
	12		

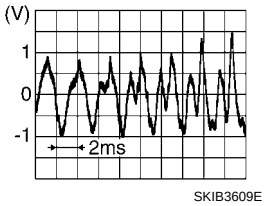
Is the inspection result normal?

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

3.CHECK FRONT TWEETER SIGNAL

1. Connect audio unit connector M83 and suspect front tweeter connector.
2. Turn ignition switch to ON.
3. Push audio unit POWER switch.
4. Check signal between the terminals of audio unit connector M83.

Audio unit connector M83		Condition	Reference value
(+)	(–)		
Terminal	Terminal		

2	3	Audio signal output	 SKIB3609E
11	12		

Is the inspection result normal?

YES >> Replace front tweeter. Refer to AV-67, "Removal and Installation".
NO >> Replace audio unit. Refer to AV-64, "Removal and Installation".

FRONT DOOR SPEAKER

Diagnosis Procedure

INFOID:0000000014844275

Regarding Wiring Diagram information, refer to AV-29, "Wiring Diagram".

1.CONNECTOR CHECK

Check the audio unit and speaker connectors for the following:
- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair the terminals or connectors.

2.CHECK FRONT DOOR SPEAKER SIGNAL CIRCUIT CONTINUITY

1. Disconnect audio unit connector M83 and suspect front door speaker connector.
2. Check continuity between audio unit connector M83 and suspect front door speaker connector.

Audio unit		Front door speaker		Continuity
Connector	Terminal	Connector	Terminal	
M83	2	D7 (LH)	1	Yes
	3		2	
	11	D104 (RH)	1	
	12		2	

3. Check continuity between audio unit connector M83 and ground.

Audio unit		Ground	Continuity
Connector	Terminal		
M83	2	—	No
	3		
	11		
	12		

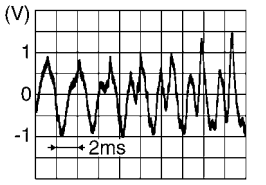
Is the inspection result normal?

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

3.CHECK FRONT DOOR SPEAKER SIGNAL

1. Connect audio unit connector M83 and suspect front door speaker connector.
2. Turn ignition switch to ON.
3. Push audio unit POWER switch.
4. Check signal between the terminals of audio unit connector M83.

Audio unit connector M83		Condition	Reference value
(+)	(–)		
Terminal	Terminal		

2	3	Audio signal output	 SKIB3609E
11	12		

Is the inspection result normal?

YES >> Replace front door speaker. Refer to AV-68, "Removal and Installation".
NO >> Replace audio unit. Refer to AV-64, "Removal and Installation".

REAR DOOR SPEAKER

Diagnosis Procedure

INFOID:0000000014844276

Regarding Wiring Diagram information, refer to AV-29, "Wiring Diagram".

1.CONNECTOR CHECK

Check the audio unit and speaker connectors for the following:
- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair the terminals or connectors.

2.CHECK REAR DOOR SPEAKER SIGNAL CIRCUIT CONTINUITY

1. Disconnect audio unit connector M83 and suspect rear door speaker connector.
2. Check continuity between audio unit connector M83 and suspect rear door speaker connector.

Audio unit		Rear speaker		Continuity
Connector	Terminal	Connector	Terminal	
M83	4	D203 (LH)	1	Yes
	5		2	
	13	D303 (RH)	1	
	14		2	

3. Check continuity between audio unit connector M83 and ground.

Audio unit		Ground	Continuity
Connector	Terminal		
M83	4	—	No
	5		
	13		
	14		

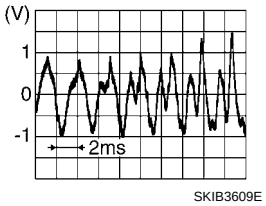
Is the inspection result normal?

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

3.CHECK REAR DOOR SPEAKER SIGNAL

1. Connect audio unit connector M83 and suspect rear door speaker connector.
2. Turn ignition switch to ON.
3. Push audio unit POWER switch.
4. Check signal between the terminals of audio unit connector M83.

Audio unit connector M83		Condition	Reference value
(+)	(–)		
Terminal	Terminal		

4	5	Audio signal output	 SKIB3609E
13	14		

Is the inspection result normal?

YES >> Replace rear door speaker. Refer to AV-69, "Removal and Installation".
NO >> Replace audio unit. Refer to AV-64, "Removal and Installation".

MICROPHONE SIGNAL CIRCUIT

Diagnosis Procedure

INFOID:0000000014844277

Regarding Wiring Diagram information, refer to AV-29, "Wiring Diagram".

1.CHECK HARNESS BETWEEN AUDIO UNIT AND MICROPHONE

1. Turn ignition switch OFF.
2. Disconnect audio unit connector M87 and microphone connector R8.
3. Check continuity between audio unit connector M87 and microphone connector R8.

Audio unit		Microphone		Continuity
Connector	Terminal	Connector	Terminal	
M87	45	R8	1	Yes
	46		4	
	47		2	

4. Check continuity between audio unit connector M87 and ground.

Audio unit		Ground	Continuity
Connector	Terminal		
M87	45	—	No
	46		

Is the inspection result normal?

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

2.CHECK MICROPHONE POWER SUPPLY

1. Connect audio unit connector M87 and microphone connector R8.
2. Turn ignition switch ON.
3. Check voltage between microphone connector R8 and ground.

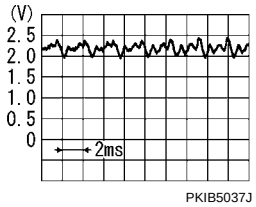
Microphone		Ground	Voltage (Approx.)
(+)		(-)	
Connector	Terminal		
R8	4	—	5V

Is the inspection result normal?

YES >> GO TO 3.
NO >> Replace audio unit. Refer to AV-64, "Removal and Installation".

3.CHECK MICROPHONE SIGNAL

Check signal between terminals of audio unit connector M87.

Audio unit connector M87		Condition	Reference value
(+)	(-)		
Terminal	Terminal		
45	47	Speak into microphone.	 PKIB5037J

Is the inspection result normal?

YES >> Replace audio unit. Refer to AV-64, "Removal and Installation".
NO >> Replace microphone. Refer to AV-71, "Removal and Installation".

STEERING SWITCH

Diagnosis Procedure

INFOID:0000000014844278

Regarding Wiring Diagram information, refer to AV-29, "Wiring Diagram".

1.CHECK STEERING WHEEL AUDIO CONTROL SWITCH RESISTANCE

1. Turn ignition switch OFF.
2. Disconnect combination switch connector M90.
3. Check resistance between the terminals of combination switch connector M90.

Combination switch connector M88		Condition	Resistance Ω (Approx.)
Terminal	Terminal		
25	19	Depress SOURCE switch.	1
		Depress △ switch.	121
		Depress ▽ switch.	321
		Depress switch.	723
		Depress ENTER switch.	2023
18		Depress − switch.	1
		Depress + switch.	121
		Depress switch.	321
		Depress switch.	723
		Depress DISPLAY switch.	2023

Is the inspection result normal?

YES >> GO TO 2.
NO >> Replace steering switches. Refer to AV-65, "Removal and Installation".

2.CHECK HARNESS BETWEEN COMBINATION METER AND COMBINATION SWITCH

1. Disconnect combination meter connector M76 and combination switch connector M30.
2. Check continuity between combination meter connector M76 and combination switch connector M30.

Combination meter		Combination switch		Continuity
Connector	Terminal	Connector	Terminal	
M76	22	M30	8	Yes
	23		15	
	21		14	

3. Check continuity between combination meter connector M76 and ground.

Combination meter		Ground	Continuity
Connector	Terminal		
M76	22	—	No
	23		
	21		

Is the inspection result normal?

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

3.CHECK COMBINATION SWITCH

Check continuity between combination switch connectors M90 and M30.

Combination switch				Continuity
Connector	Terminal	Connector	Terminal	
M90	25	M30	8	Yes
	18		15	
	19		14	

Is the inspection result normal?

YES >> GO TO 4.
NO >> Replace spiral cable. Refer to SR-16, "Removal and Installation".

4.CHECK HARNESS BETWEEN COMBINATION METER AND AUDIO UNIT

1. Disconnect combination meter connector M77 and audio unit connector M87.
2. Check continuity between combination meter connector M77 and audio unit connector M87.

Combination meter		Audio unit		Continuity
Connector	Terminal	Connector	Terminal	
M77	47	M87	36	Yes
	48		37	

3. Check continuity between combination meter connector M77 and ground.

Combination meter		Ground	Continuity
Connector	Terminal		
M77	47	—	No
	48		

Is the inspection result normal?

YES >> Replace audio unit. Refer to AV-64, "Removal and Installation".
NO >> Repair or replace harness or connectors.

USB CONNECTOR

Diagnosis Procedure

INFOID:0000000014844279

Regarding Wiring Diagram information, refer to AV-29, "Wiring Diagram".

1.CHECK USB INTERFACE HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect audio unit connector M121 and USB interface connector M89.
3. Check continuity between audio unit connector M121 and USB interface connector M89.

Audio unit		USB interface		Continuity
Connector	Terminal	Connector	Terminal	
M121	61	M89	1	Yes
	62		2	
	63		3	
	65		5	
	66		6	

4. Check continuity between audio unit connector M121 and ground.

Audio unit		—	Continuity
Connector	Terminal		
M121	61	Ground	No
	63		

Is the inspection result normal?

YES >> Replace the USB interface. Refer to AV-70, "Removal and Installation".
NO >> Repair or replace harness or connectors.

AUXILIARY INPUT JACK

Diagnosis Procedure

INFOID:0000000014844280

Regarding Wiring Diagram information, refer to AV-29, "Wiring Diagram".

1. CHECK AUX JACK HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect audio control unit connector M88 and AUX in jack connector M104.
3. Check continuity between audio control unit connector M88 and AUX in jack connector M104.

Audio control unit		AUX in jack		Continuity
Connector	Terminal	Connector	Terminal	
M88	21	M104	1	Yes
	22		4	
	23		3	

4. Check continuity between audio control unit connector M88 and ground.

Audio control unit		—	Continuity
Connector	Terminal		
M88	21	Ground	No
	22		

Is the inspection result normal?

YES >> Replace the AUX in jack. Refer to AV-70, "Removal and Installation".
NO >> Repair or replace harness or connectors.

SYMPTOM DIAGNOSIS

AUDIO SYSTEM

Symptom Table

INFOID:0000000014844281

RELATED TO AUDIO

Symptoms	Check items	Probable malfunction location
The disk cannot be removed.	Audio unit	Malfunction in audio unit. Refer to AV-20, "On Board Diagnosis Function".
No sound comes out or the level of the sound is low.	No sound from all speakers.	• Speaker circuit shorted to ground. Refer to AV-29, "Wiring Diagram". • Audio unit power supply and ground circuits malfunction. Refer to AV-46, "AUDIO UNIT : Diagnosis Procedure".
	Only a certain speaker (front tweeter LH, front tweeter RH, front door speaker LH, front door speaker RH, rear door speaker LH, rear door speaker RH) does not output sound.	• Poor connector connection of speaker. • Sound signal circuit malfunction between audio unit and speaker. Refer to: - AV-47, "Diagnosis Procedure" (front tweeter). - AV-49, "Diagnosis Procedure" (front door speaker). - AV-51, "Diagnosis Procedure" (rear door speaker). • Malfunction in speaker. Refer to: - AV-67, "Removal and Installation" (front tweeter). - AV-68, "Removal and Installation" (front door speaker). - AV-69, "Removal and Installation" (rear door speaker). • Malfunction in audio unit. Refer to AV-20, "On Board Diagnosis Function".

Symptoms	Check items	Probable malfunction location
Noise is mixed with audio.	Noise comes out from all speakers.	Malfunction in audio unit. Refer to AV-20, "On Board Diagnosis Function".
	Noise comes out only from a certain speaker (front tweeter LH, front tweeter RH, front door speaker LH, front door speaker RH, rear door speaker LH, rear door speaker RH).	• Poor connector connection of speaker. • Sound signal circuit malfunction between audio unit and speaker. Refer to: - AV-47, "Diagnosis Procedure" (front tweeter). - AV-49, "Diagnosis Procedure" (front door speaker). - AV-51, "Diagnosis Procedure" (rear door speaker). • Malfunction in speaker. • Poor Installation of speaker (e.g. backlash and looseness). Refer to: - AV-67, "Removal and Installation" (front tweeter). - AV-68, "Removal and Installation" (front door speaker). - AV-69, "Removal and Installation" (rear door speaker). • Malfunction in audio unit. Refer to AV-20, "On Board Diagnosis Function".
	Noise is mixed with radio only (when the vehicle hits a bump or while driving over bad roads)	Poor connector connection of antenna or antenna feeder. Refer to AV-16, "Antenna and Antenna Feeder".
No radio reception or poor reception.	• Other audio sounds are normal. • Any radio station cannot be received or poor reception is caused even after moving to a service area with good reception (e.g. a place with clear view and no obstacles generating external noises).	• Antenna amp. ON signal circuit malfunction. Refer to AV-26, "Reference Value". • Poor connector connection of antenna or antenna feeder. Refer to AV-16, "Antenna and Antenna Feeder".
No satellite radio reception.	Satellite radio antenna malfunction.	• Poor continuity in antenna feeder. • Poor connector connection of antenna or antenna feeder. • Loose satellite radio antenna mounting nut. Refer to AV-16, "Antenna and Antenna Feeder".
Buzz/rattle sound from speaker	The majority of buzz/rattle sounds are not indicative of an issue with the speaker, usually something nearby the speaker is causing the buzz/rattle.	Refer to "SQUEAK AND RATTLE TROUBLE DIAGNOSIS" in the appropriate interior trim section.

RELATED TO HANDS-FREE PHONE

- Before performing diagnosis, confirm that the cellular phone being used by the customer is compatible with the vehicle.
- It is possible that a malfunction is occurring due to a version change of the phone even though the phone is a compatible type. This can be confirmed by changing the cellular phone to another compatible type, and check that it operates normally. It is important to determine whether the cause of the malfunction is the vehicle or the cellular phone.

Check Compatibility

1. Make sure the customer's Bluetooth® related concern is understood.
2. Verify the customer's concern.
   NOTE:

The customer's phone may be required, depending upon their concern.

3. Write down the customer's phone brand, model and service provider.
NOTE:
It is necessary to know the service provider. On occasion, a given phone may be on the approved list with one provider, but may not be on the approved list with other providers.
4. Go to "www.nissanusa.com/bluetooth/".

a. Using the website's search engine, find out if the customer's phone is on the approved list.

b. If the customer's phone is NOT on the approved list:
Stop diagnosis here. The customer needs to obtain a Bluetooth® phone that is on the approved list before any further action.

c. If the feature related to the customer's concern shows as "N" (not compatible):
Stop diagnosis here. If the customer still wants the feature to function, they will need to get an approved phone showing the feature as "Y" (compatible) in the "Basic Features".

d. If the feature related to the customer's concern shows as "Y" (compatible):
Perform diagnosis as per the following table.

Symptoms	Check items	Probable malfunction location
Does not recognize cellular phone connection (no connection is displayed on the display at the guide).	Repeat the registration of cellular phone.	Malfunction in audio unit. Replace audio unit. Refer to AV-64, "Removal and Installation".
Hands-free phone cannot be established.	• Hands-free phone operation can be made, but the communication cannot be established. • Hands-free phone operation can be performed, however, voice between each other cannot be heard during the conversation.	
The other party's voice cannot be heard by hands-free phone.	Check the "microphone speaker" in Inspection & Adjustment Mode if sound is heard.	
Originating sound is not heard by the other party with hands-free phone communication.	Sound operation function is normal.	
	Sound operation function does not work.	Microphone signal circuit malfunction. Refer to AV-53, "Diagnosis Procedure".
The system cannot be operated.	• The voice recognition can be controlled. • Steering switches −, +, and work, but does not work.	Steering switch malfunction. Replace steering switch. Refer to AV-65, "Removal and Installation".
	Steering switches , −, +, and do not work.	Steering switch signal circuit malfunction. Refer to AV-55, "Diagnosis Procedure".
	All steering switches do not work.	Steering switch ground circuit malfunction. Refer to AV-55, "Diagnosis Procedure".

NORMAL OPERATING CONDITION

Description

INFOID:0000000014844282

RELATED TO NOISE

The majority of the audio concerns are the result of outside causes (bad CD, electromagnetic interference, etc.).
The following noise results from variations in field strength, such as fading noise and multi-path noise, or external noise from trains and other sources. It is not a malfunction.

- Fading noise: This noise occurs because of variations in the field strength in a narrow range due to mountains or buildings blocking the signal.
- Multi-path noise: This noise results from the waves sent directly from the broadcast station arriving at the antenna at a different time from the waves which reflect off mountains or buildings.

The vehicle itself can be a source of noise if noise prevention parts or electrical equipment is malfunctioning. Check if noise is caused and/or changed by engine speed, ignition switch turned to each position, and operation of each piece of electrical equipment, and determine the cause.

NOTE:
The source of the noise can be found easily by listening to the noise while removing the fuses of electrical components, one by one.

Type of Noise and Possible Cause

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

RELATED TO HANDS-FREE PHONE

Symptom	Cause and Counter measure
Does not recognize cellular phone connection (No connection is displayed on the display at the guide).	Some Bluetooth® enabled cellular phones may not be recognized by the in-vehicle phone module. Refer to “RELATED TO HANDS-FREE PHONE (Check Compatibility)” in AV-59, "Symptom Table".
Cannot use hands-free phone.	Customer will not be able to use a hands-free phone under the following conditions: • The vehicle is outside of the telephone service area. • The vehicle is in an area where it is difficult to receive radio waves; such as in a tunnel, in an underground parking garage, near a tall building or in a mountainous area. • The cellular phone is locked to prevent it from being dialed. **NOTE:** While a cellular phone is connected through the Bluetooth® wireless connection, the battery power of the cellular phone may discharge quicker than usual. The Bluetooth® Hands-Free Phone System cannot charge cellular phones.

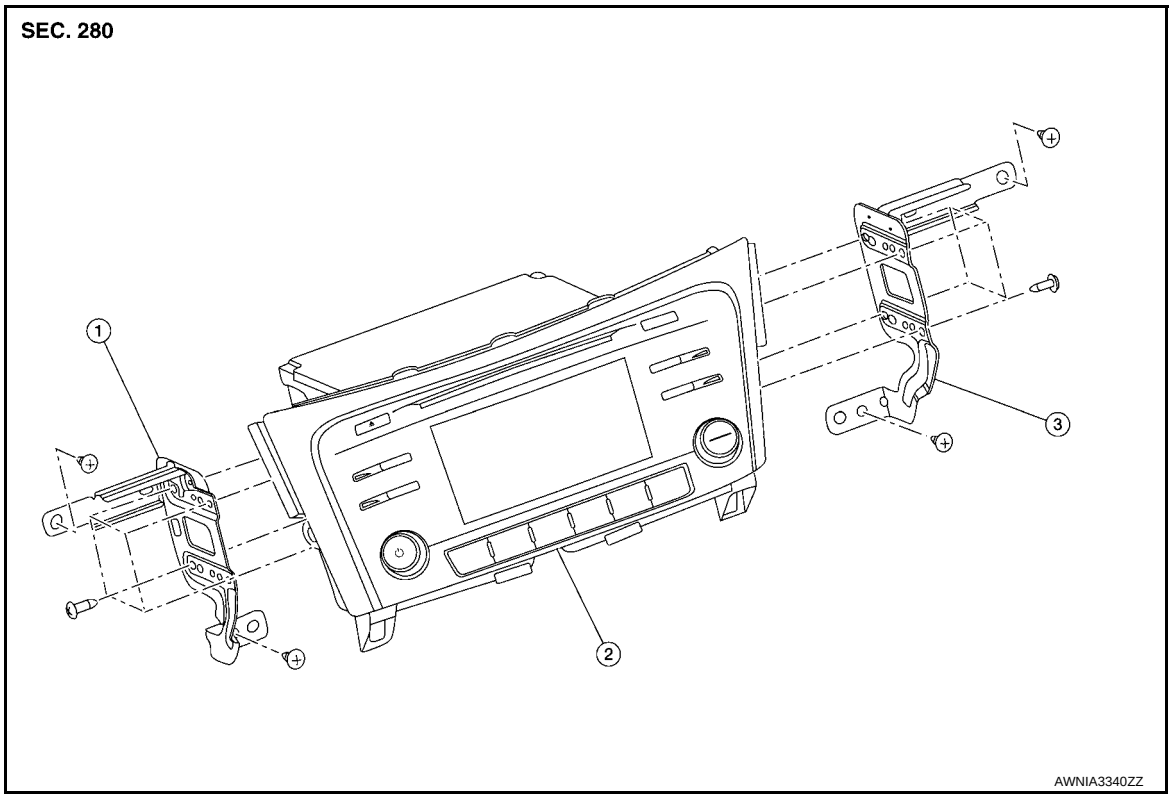
Symptom	Cause and Counter measure
The other party's voice cannot be heard by hands-free phone.	When the radio wave condition is not ideal or ambient sound is too loud, it may be difficult to hear the other person's voice during a call.
Poor sound quality.	Do not place the cellular phone in an area surrounded by metal or far away from the in-vehicle phone module to prevent tone quality degradation and wireless connection disruption.

REMOVAL AND INSTALLATION

AUDIO UNIT

Exploded View

INFOID:0000000014844283



1. Audio unit bracket (LH)
2. Audio unit
3. Audio unit bracket (RH)

Removal and Installation

INFOID:0000000014844284

REMOVAL

1. Disconnect the negative battery terminal. Refer to PG-129, "Removal and Installation (Battery)".
2. Remove cluster lid C. Refer to IP-21, "Removal and Installation".
3. Remove instrument finisher B. Refer to IP-16, "INSTRUMENT FINISHER B : Removal and Installation".
4. Remove instrument finisher E. Refer to IP-16, "INSTRUMENT FINISHER E : Removal and Installation".
5. Remove the audio unit screws, then pull out the audio unit.
6. Disconnect the harness connectors from the audio unit and remove.
7. Remove the audio unit bracket (LH/RH) screws and the audio unit brackets (LH/RH) (if necessary).

INSTALLATION

Installation is in the reverse order of removal.

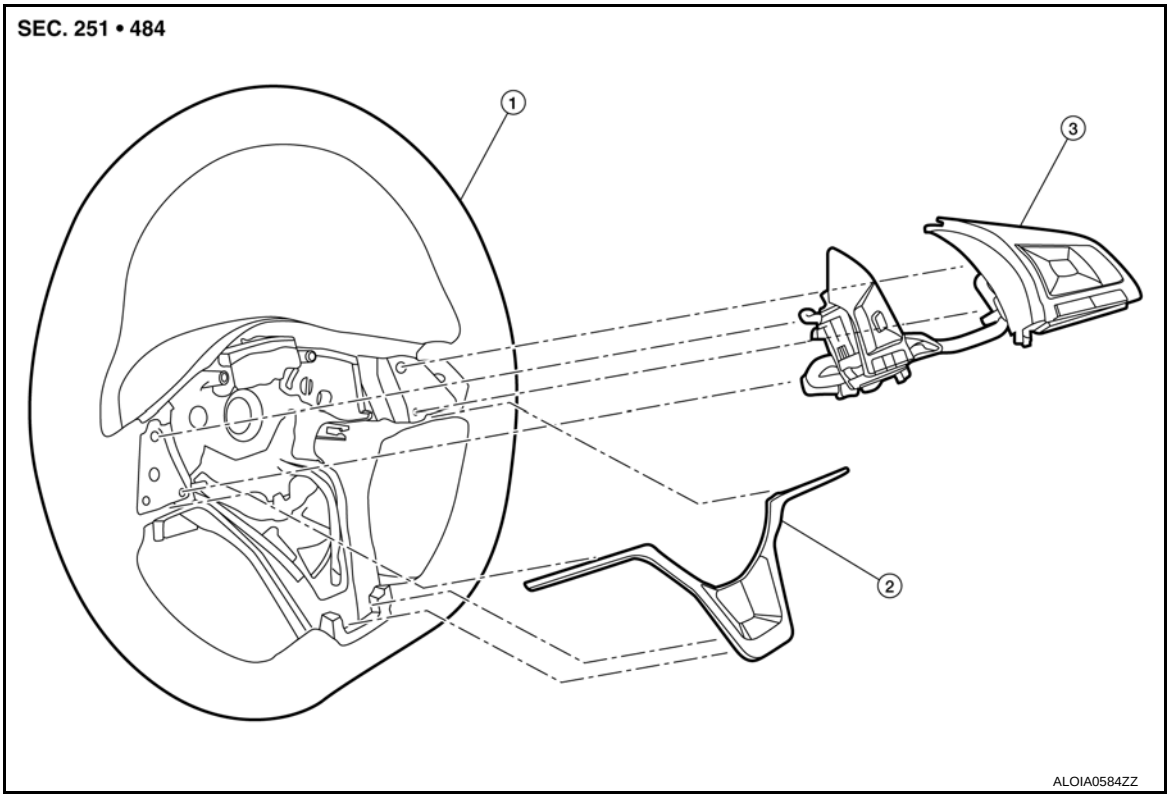
CAUTION:

When replacing audio unit, the audio unit must be registered. Refer to AV-44, "REGISTRATION (AUDIO UNIT) : Description".

STEERING SWITCHES

Exploded View

INFOID:0000000014844285



1. Steering wheel
2. Steering wheel finisher
3. Steering switches

Removal and Installation

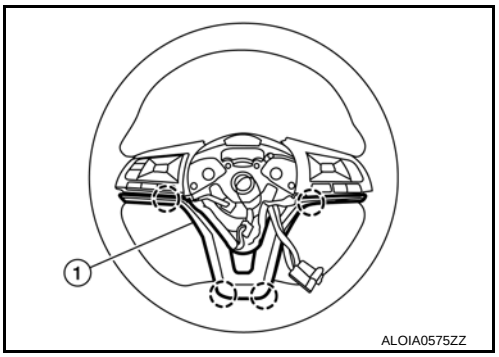
INFOID:0000000014844286

REMOVAL

NOTE:
The steering switches are serviced as an assembly.

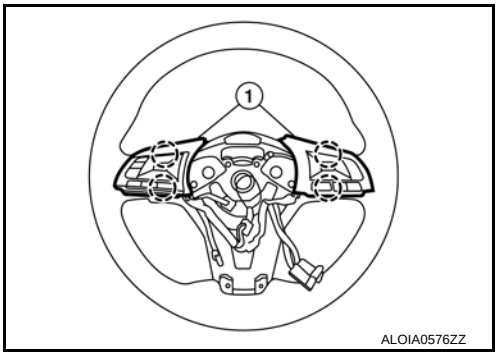
1. Remove driver airbag. Refer to SR-12, "Removal and Installation".
2. Release pawls on the steering wheel front finisher (1) using suitable tool and remove from the steering wheel.

: Pawl



3. Release pawls on the steering switches (1) using suitable tool and remove from the steering wheel.

: Pawl



4. Disconnect the harness connector from the steering switches and remove steering switches.

INSTALLATION

Installation is in the reverse order of removal.

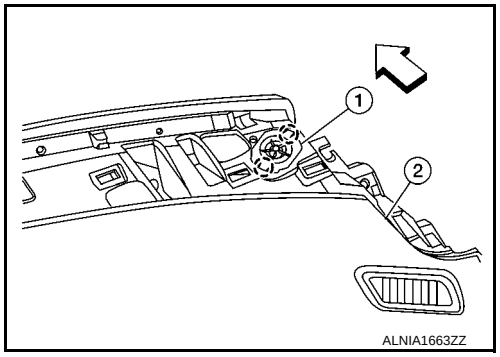
FRONT TWEETER

Removal and Installation

INFOID:0000000014844287

REMOVAL

1. Remove defroster grille. Refer to VTL-13, "DEFROSTER GRILLE : Removal and Installation".
2. Release pawls and pull out the front tweeter (1) from the instrument panel assembly (2).
   : Pawl
   : Front
3. Disconnect the harness connector from the front tweeter and remove.



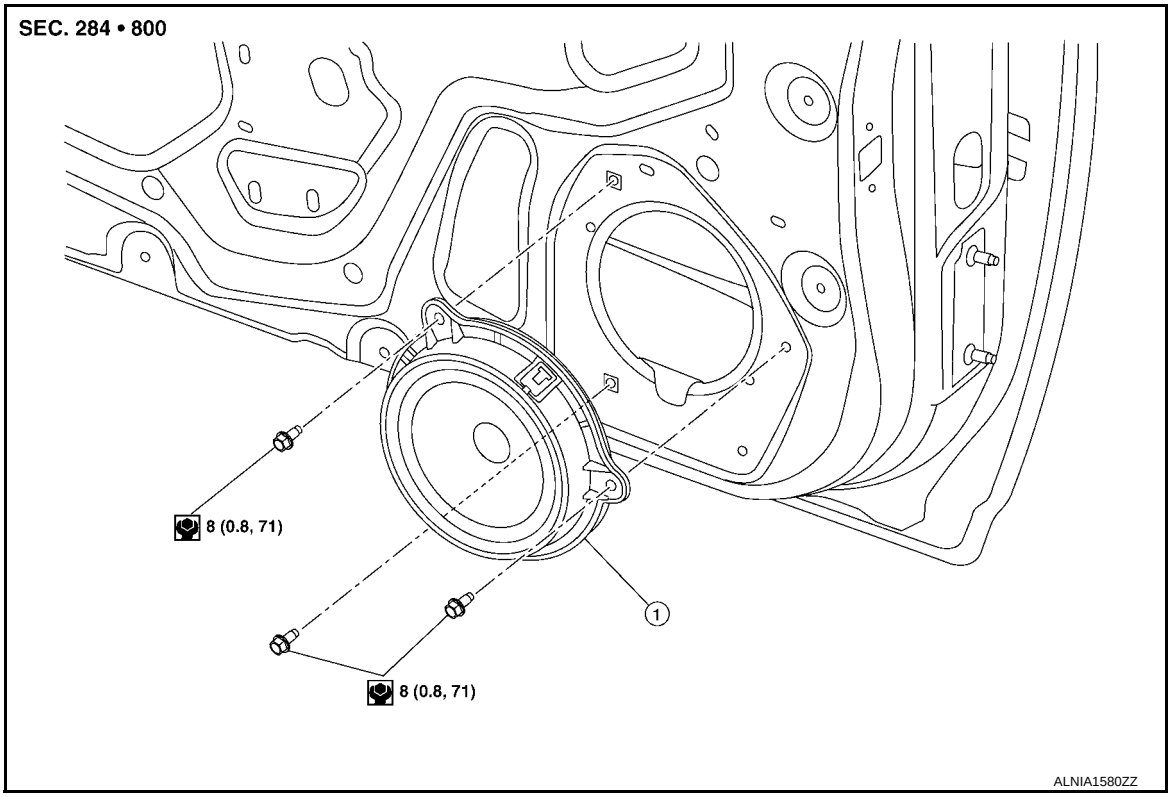
INSTALLATION

Installation is in the reverse order of removal.

FRONT DOOR SPEAKER

Exploded View

INFOID:0000000014844288



1. Front door speaker

Removal and Installation

INFOID:0000000014844289

REMOVAL

1. Remove front door finisher. Refer to INT-15, "Removal and Installation".
2. Remove front door speaker bolts, then pull out front door speaker.
3. Disconnect the harness connector from front door speaker and remove.

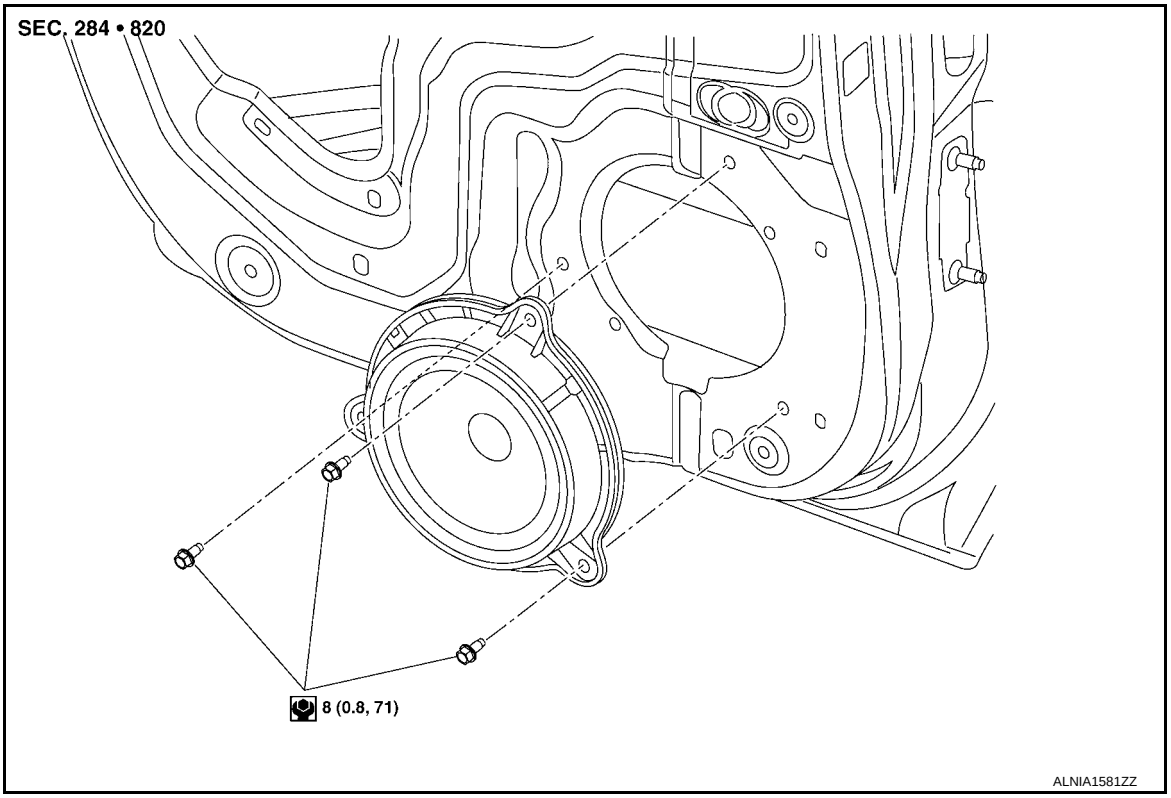
INSTALLATION

Installation is in the reverse order of removal.

REAR DOOR SPEAKER

Exploded View

INFOID:0000000014844290



1. Rear door speaker

Removal and Installation

INFOID:0000000014844291

REMOVAL

1. Remove rear door finisher. Refer to INT-18, "Removal and Installation".
2. Remove rear door speaker bolts, then pull out rear door speaker.
3. Disconnect the harness connector from the rear door speaker and remove.

INSTALLATION

Installation is in the reverse order of removal.

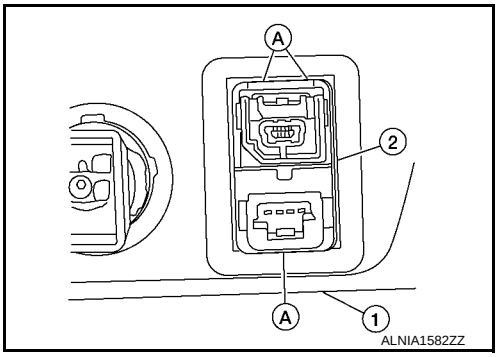
USB INTERFACE AND AUX IN JACK

Removal and Installation

INFOID:0000000014844292

REMOVAL

1. Remove cluster lid C. Refer to IP-21, "Removal and Installation".
2. Release the pawls (A) on the back of USB interface and AUX in jack (2), then remove from the front of cluster lid C (1).



INSTALLATION

Installation is in the reverse order of removal.

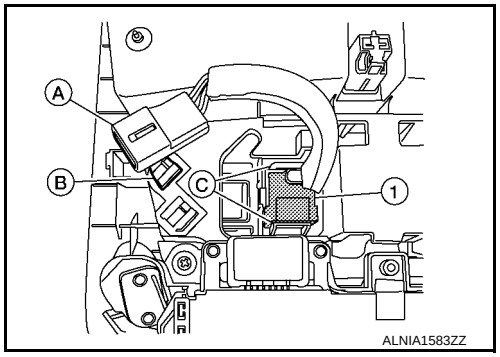
MICROPHONE

Removal and Installation

INFOID:0000000014844293

REMOVAL

1. Remove the map lamp assembly. Refer to INL-52, "Removal and Installation".
2. Release harness connector (A) by sliding rearward to remove from the pawl (B).
3. Release pawls (C) and remove the microphone (1) from the front room/map lamp assembly.



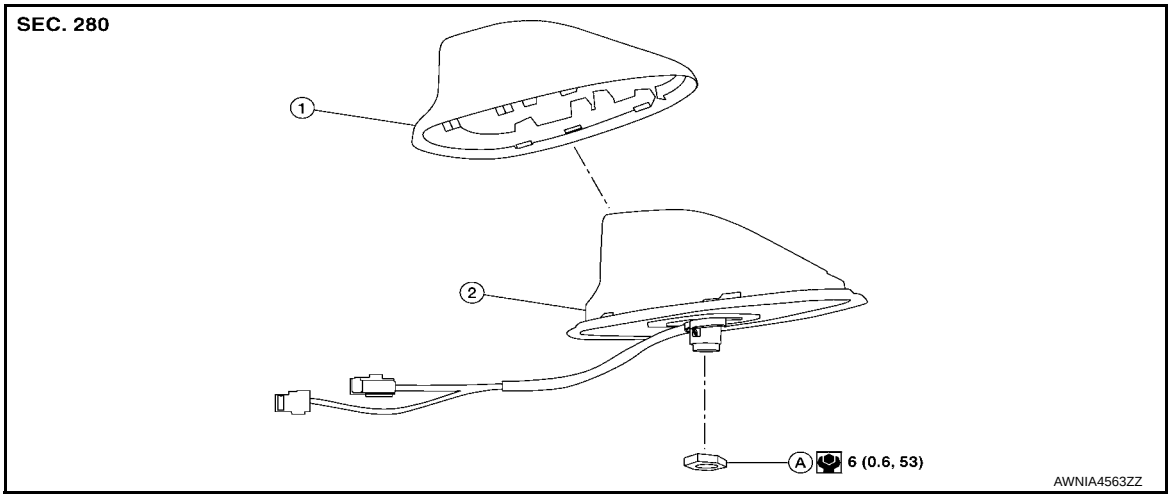
INSTALLATION

Installation is in the reverse order of removal.

ANTENNA BASE

Exploded View

INFOID:0000000014894940



1. Outer cover
2. Antenna base
A. Antenna nut

Removal and Installation

INFOID:0000000014894941

REMOVAL

1. Using a suitable tool, remove the outer cover.
2. Remove the luggage side upper finisher (RH). Refer to INT-33, "LUGGAGE SIDE UPPER FINISHER : Removal and Installation".
3. Partially lower headlining (rear). Refer to INT-29, "Removal and Installation".
4. Disconnect harness connectors from antenna feeder.
5. Remove nut from antenna base and remove.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

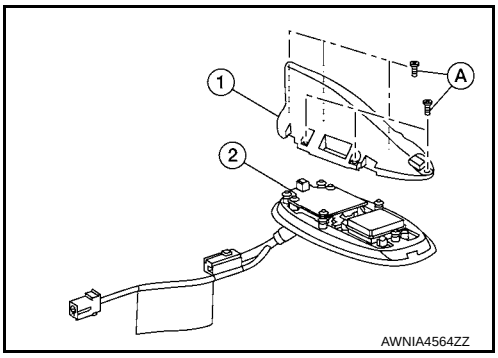
If the antenna base nut is not properly tightened, lower sensitivity of the antenna may be experienced.
If the nut is over tightened, this will deform the roof panel.

Disassembly and Assembly

INFOID:0000000014894942

DISASSEMBLY

Remove the inner cover screws (A), then remove the inner cover (1) from antenna base (2).



ASSEMBLY

Assembly is in the reverse order of disassembly.

PRECAUTION

PRECAUTIONS

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

INFOID:0000000014893874

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

WARNING:

- **To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, it is recommended that all maintenance and repair be performed by an authorized NISSAN/INFINITI dealer.**
- **Improper repair, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SR section.**
- **Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.**

PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

WARNING:

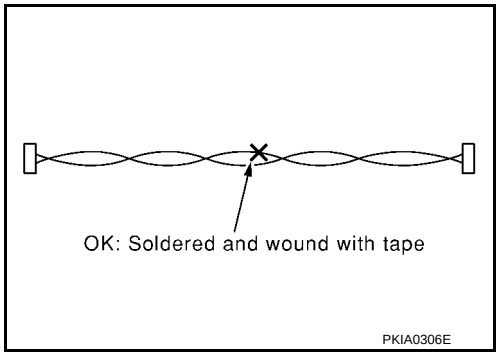
- **When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the Ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.**
- **When using air or electric power tools or hammers, always switch the Ignition OFF, disconnect the battery or batteries, and wait at least three minutes before performing any service.**

Precaution for Harness Repair

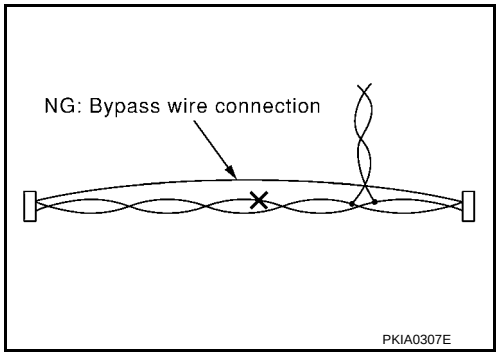
INFOID:0000000014844298

AV COMMUNICATION SYSTEM

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



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



Precaution for Work

INFOID:0000000014844299

- When removing or disassembling each component, be careful not to damage or deform it. If a component may be subject to interference, be sure to protect it with a shop cloth.
- When removing (disengaging) components with a screwdriver or similar tool, be sure to wrap the component with a shop cloth or vinyl tape to protect it.
- Protect the removed parts with a shop cloth and prevent them from being dropped.
- Replace a deformed or damaged clip.
- If a part is specified as a non-reusable part, always replace it with a new one.
- Be sure to tighten bolts and nuts securely to the specified torque.
- After installation is complete, be sure to check that each part works properly.
- Follow the steps below to clean components:

- Water soluble dirt:
- Dip a soft cloth into lukewarm water, wring the water out of the cloth and wipe the dirty area.
- Then rub with a soft, dry cloth.

- Oily dirt:
- Dip a soft cloth into lukewarm water with mild detergent (concentration: within 2 to 3%) and wipe the dirty area.
- Then dip a cloth into fresh water, wring the water out of the cloth and wipe the detergent off.
- Then rub with a soft, dry cloth.

- Do not use organic solvent such as thinner, benzene, alcohol or gasoline.
- For genuine leather seats, use a genuine leather seat cleaner.

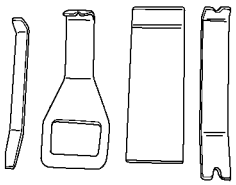
PREPARATION

PREPARATION

Special Service Tool

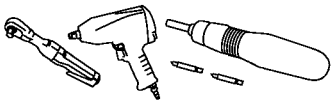
INFOID:0000000014844300

The actual shape of the tools may differ from those illustrated here.

Tool number (TechMate No.) Tool name	Description
— (J-46534) Trim Tool Set  AWJIA0483ZZ	Removing trim components

Commercial Service Tools

INFOID:0000000014844301

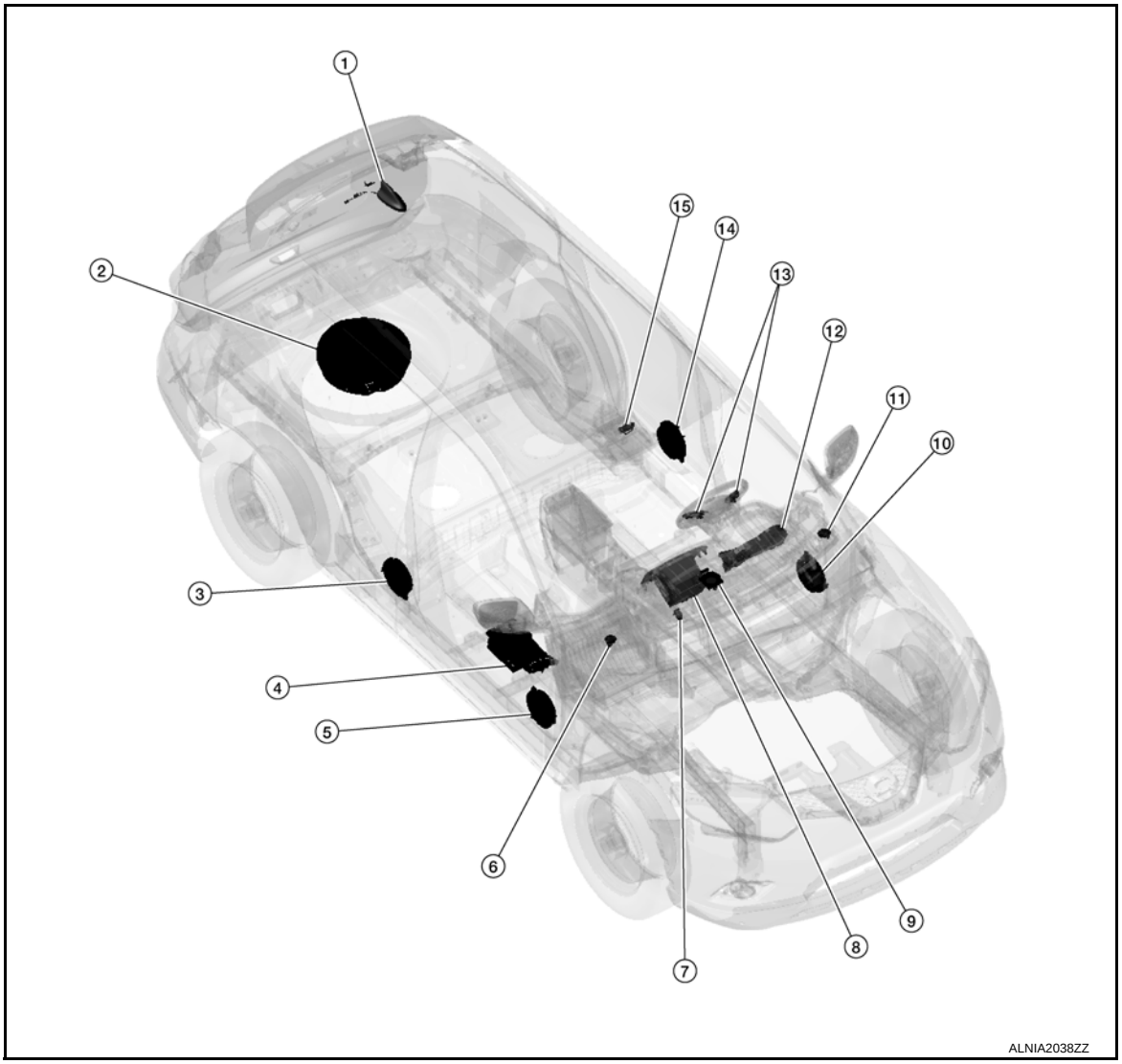
Tool name	Description
Power tool  PIIB1407E	Loosening nuts, screws and bolts

SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

INFOID:0000000015258327



No.	Component	Function
1.	Antenna base (antenna amp., satellite and AM/FM antenna)	Refer to AV-79, "Antenna and Antenna Feeder".
2.	Subwoofer	Refer to AV-77, "Speakers".
3.	Rear door speaker RH	
4.	BOSE® speaker amp.	Refer to AV-77, "BOSE Speaker Amp.".
5.	Front door speaker RH	Refer to AV-77, "Speakers".
6.	Front tweeter RH	
7.	USB interface and AUX in jack	Refer to AV-79, "USB Interface and AUX in Jack".
8.	Audio unit	Refer to AV-77, "Audio Unit".
9.	Center speaker	Refer to AV-77, "Speakers".
10.	Front door speaker LH	
11.	Front tweeter LH	
12.	Combination meter	Refer to AV-79, "Combination Meter".

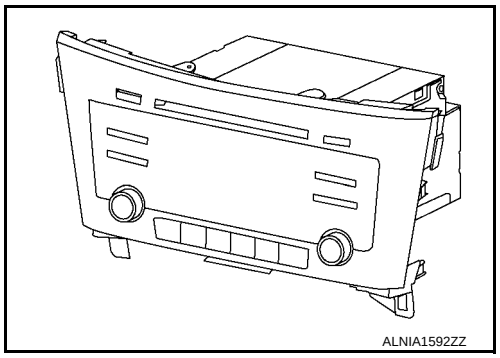
No.	Component	Function
13.	Steering switches	Refer to AV-79, "Steering Switches".
14.	Rear door speaker LH	Refer to AV-77, "Speakers".
15.	Microphone	Refer to AV-79, "Microphone".

Audio Unit

INFOID:0000000015258328

- AM/FM electronic tuner radio, CD drive and camera controller are integrated into the audio unit.
- The display can show audio status and rear view monitor images.
- Music files stored in iPod®*/USB memory can be played using the separate USB connector.
- Music files stored in an external audio device can be played using the separate AUX in jack.

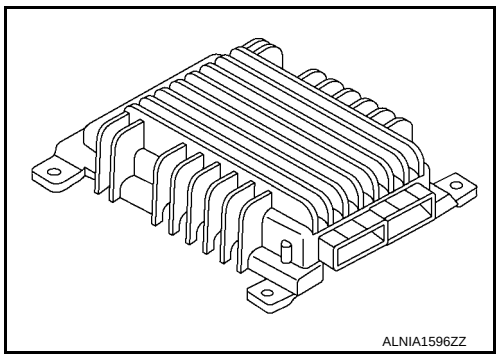
*: iPod® is a registered trademark of Apple, Inc. All rights reserved.


ALNIA1592ZZ

BOSE Speaker Amp.

INFOID:0000000015258329

- Installed under the rear of the front passenger seat.
- Receives sound signal from AV control unit, and outputs sound signal to each tweeter, speaker and the subwoofer.

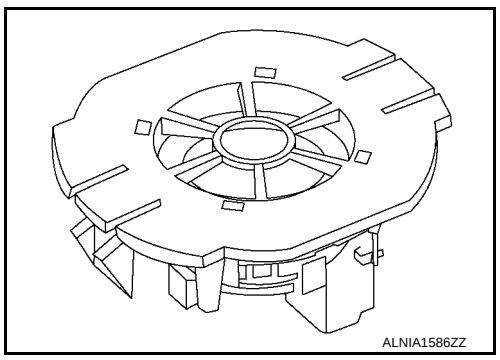

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Speakers

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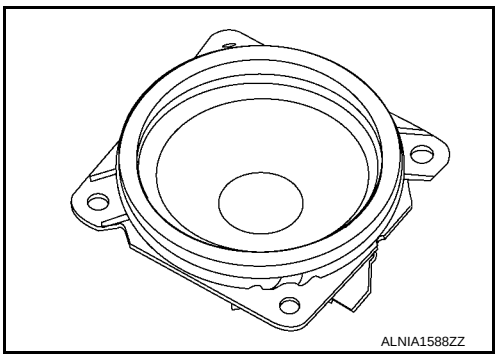
FRONT TWEETER

- 2.5 cm (1 in) tweeters are installed in the top front corners of the instrument panel.
- Sound signals are input from the Bose speaker amp. to output high range sounds.


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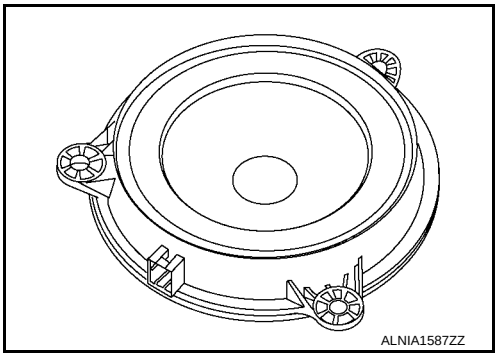
CENTER SPEAKER

- 7.6 cm (3 in) speaker is installed in the top center of the instrument panel.
- Sound signals are input from the Bose speaker amp. to output mid range sounds.



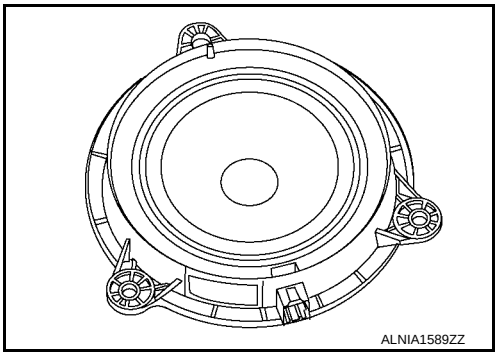
FRONT DOOR SPEAKER

- 16.5 cm (6.5 in) speakers are installed in the bottom of the front doors.
- Sound signals are input from the Bose speaker amp. to output low range sounds.



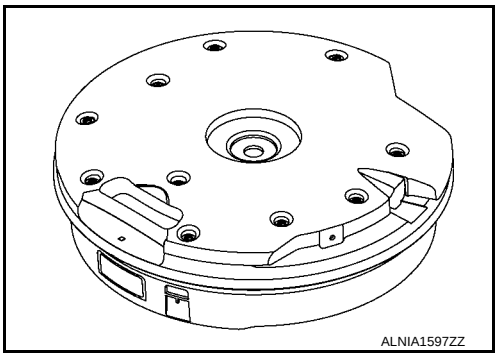
REAR DOOR SPEAKER

- 12.7 cm (5 in) speakers are installed in the bottom of the rear doors.
- Sound signals are input from the Bose speaker amp. to output high, mid and low range sounds.



SUBWOOFER

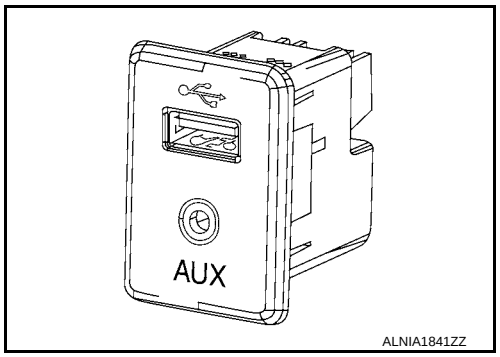
- Installed on top of the spare tire underneath the spare tire cover.
- Sound signals are input from the Bose speaker amp. to output low range sounds.



USB Interface and AUX in Jack

INFOID:0000000015258331

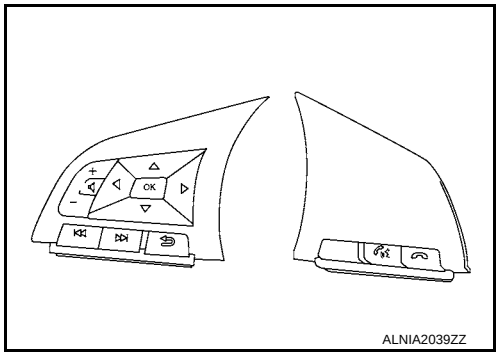
- USB Interface and AUX in jack is installed in the console.
- iPod® and USB memory can be connected to the audio unit through the USB interface.
- An external audio device can be connected to the audio unit through the AUX in jack.



Steering Switches

INFOID:0000000015258332

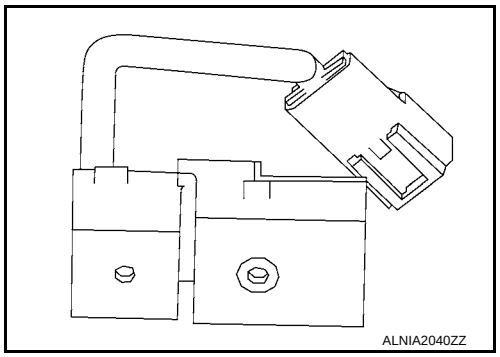
- Steering switches are installed in the steering wheel.
- Operations for audio and hands-free phone are possible.
- Switches are connected to the combination meter.
- Combination meter is connected to the audio unit via AV communication.



Microphone

INFOID:0000000015258333

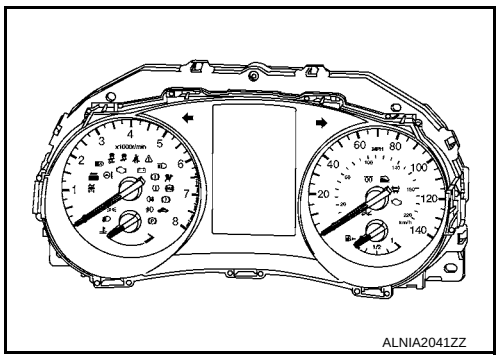
- The microphone is installed in the roof in the map lamp assembly.
- Power is supplied from the audio unit.



Combination Meter

INFOID:0000000015258334

- Combination meter sends the speed signal to the audio unit.
- Steering switches are connected to the combination meter.
- Combination meter sends the steering switch signals to the audio unit via AV communication.

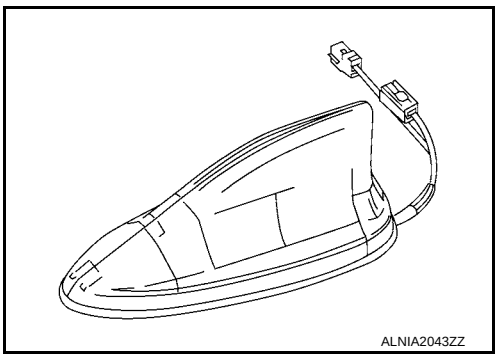


Antenna and Antenna Feeder

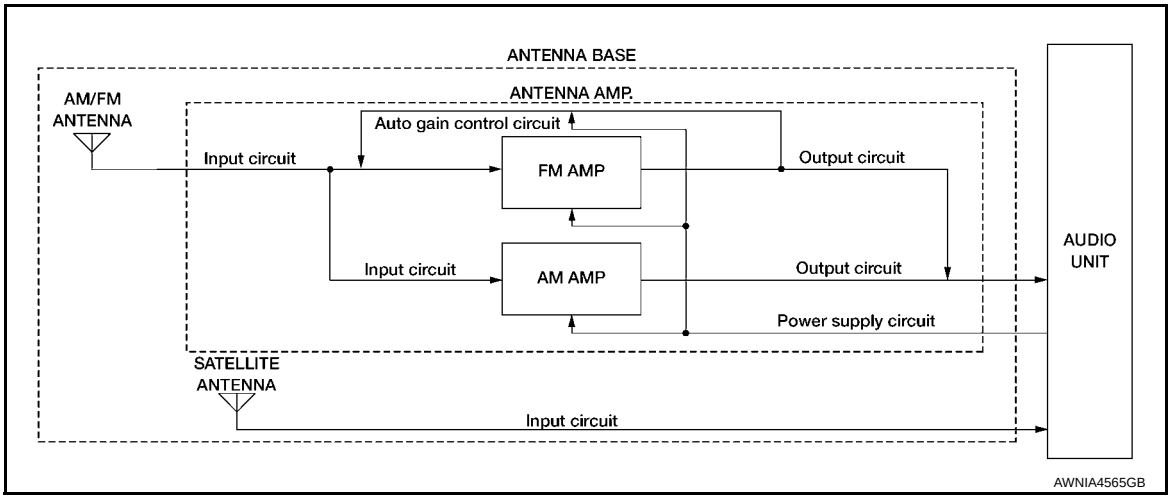
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ROOF ANTENNA

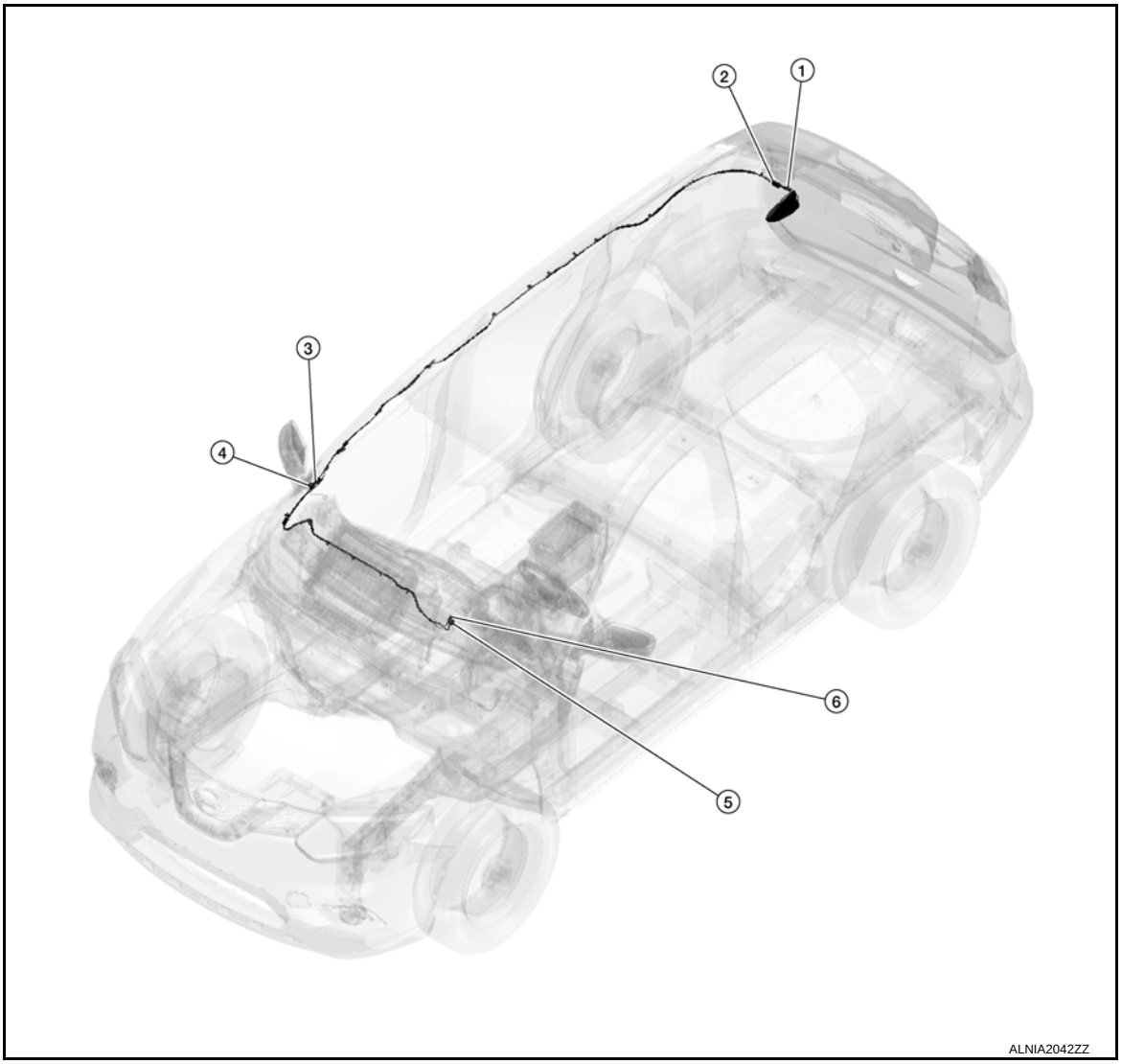
- AM/FM radio/satellite radio antenna is installed on the rear center of the roof.
- It receives radio waves and outputs them to audio unit.
- It receives satellite radio waves and outputs them to audio unit.
- Antenna amp. is integral to the roof antenna.



- The AM/FM radio antenna has an antenna amp. to obtain sufficient reception power.



ANTENNA FEEDER LAYOUT



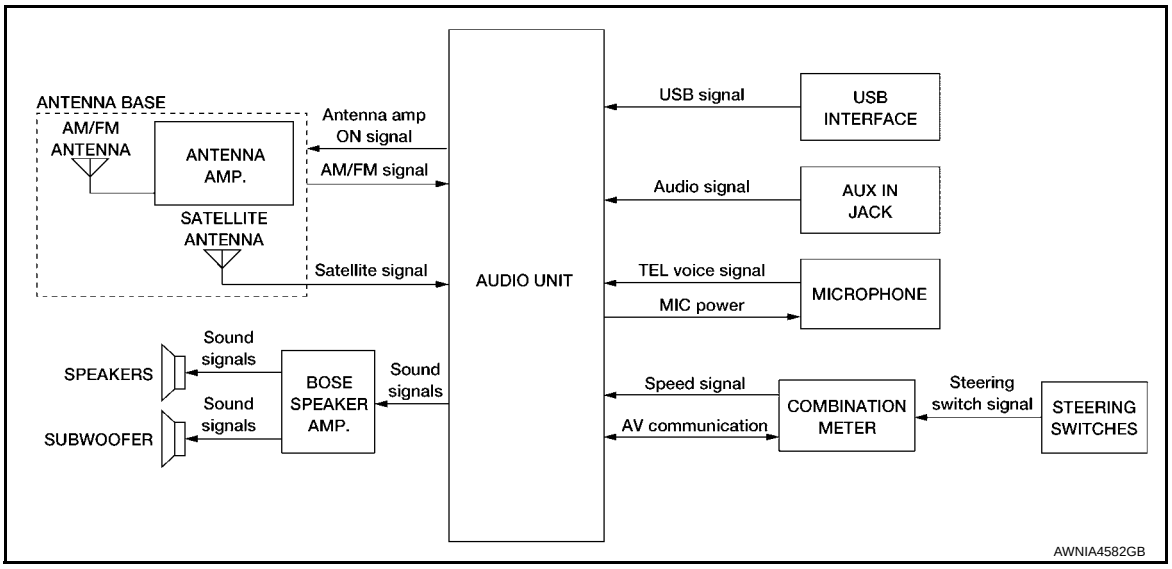
1. M503
2. M502
3. M130, M501
4. M129, M500
5. M124
6. M126

SYSTEM

System Description

INFOID:0000000015258336

SYSTEM DIAGRAM



AUDIO SYSTEM

The audio system consists of the following components:

- Audio unit
- Bose speaker amp.
- Front tweeters
- Center speaker
- Front door speakers
- Rear door speakers
- Subwoofer
- USB interface
- AUX in jack
- Steering switches
- Antenna base (AM/FM antenna, antenna amp. and satellite antenna)

When the audio system is on, AM/FM signals received by the AM/FM antenna are amplified by the antenna amp. and sent to the audio unit. The audio unit then sends audio signals to the Bose speaker amp. The Bose speaker amp. then sends the audio signals to the tweeters, speakers and subwoofer.
Refer to Owner's Manual for audio system operating instructions.

HANDS-FREE PHONE SYSTEM

- Bluetooth® control is built into audio unit.
- The connection between cellular phone and audio unit is performed with Bluetooth® communication.
- The voice guidance signal is input from the audio unit and output to the front speakers when operating the cellular phone.

When A Call Is Originated

- Spoken voice sound output from the microphone (microphone signal) is input to audio unit.
- Audio unit outputs to cellular phone with Bluetooth® communication as a TEL voice signal.
- Voice sound is then heard at the other party.

When Receiving A Call

- Voice sound is input to own cellular phone from the other party.
- TEL voice signal is input to audio unit by establishing Bluetooth® communication from cellular phone, and the signal is output to front speakers.

SPEED SENSITIVE VOLUME SYSTEM

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

DIAGNOSIS SYSTEM (AUDIO UNIT)

Description

INFOID:0000000014844311

The audio unit on board diagnosis performs the functions listed in the table below:

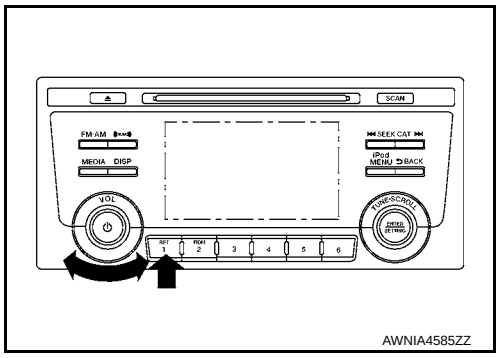
Mode		Description
Self Diagnosis		• Audio unit diagnosis. • Diagnoses the connections across system components.
Confirmation/ Adjustment	Display Diagnosis	The following check functions are available: color tone check by color bar display and white display, light and shade check by gray scale display.
	Vehicle Signals	Diagnosis of signals can be performed for vehicle speed, lights, reverse, EQ pin, destination and camera type.
	Speaker Test	The connection of a speaker can be confirmed by test tone.
	Error History	The system malfunction and the frequency when occurring in the past are displayed. When the malfunctioning item is selected, the time and place that the selected malfunction last occurred are displayed.
	Camera System	Displayed but not used.
	AV COMM Diagnosis	The communication condition of each unit of display audio system can be monitored.
	Delete Unit Connection Log	Erase the connection history of unit and error history.
	Version Information	Audio unit software and hardware versions are displayed.
	Initialize Setting	Initializes the audio unit memory.

On Board Diagnosis Function

INFOID:0000000014844312

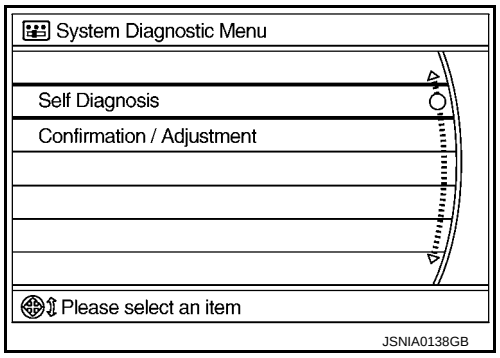
METHOD OF STARTING

1. Turn the ignition ON.
2. Turn the audio system OFF.
3. While pressing the preset 1 button, turn the volume control dial clockwise or counterclockwise for 40 clicks or more. Shifting from current screen to previous screen is performed by pressing BACK button.



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



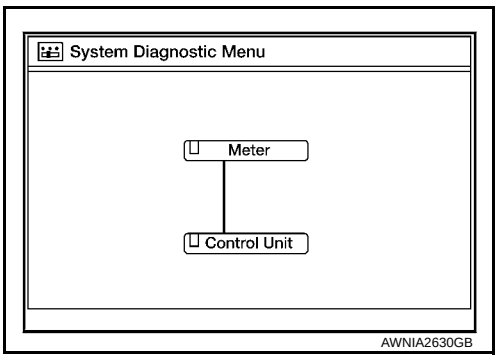
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SELF DIAGNOSIS MODE

Audio Unit Self Diagnosis

1. Select Self Diagnosis.

2. Self diagnosis screen is displayed. The bar graph visible in center of screen indicates progress of self diagnosis.
3. Diagnosis results are displayed after the self diagnosis is completed. The unit names and the connection lines are color coded according to the diagnostic results.

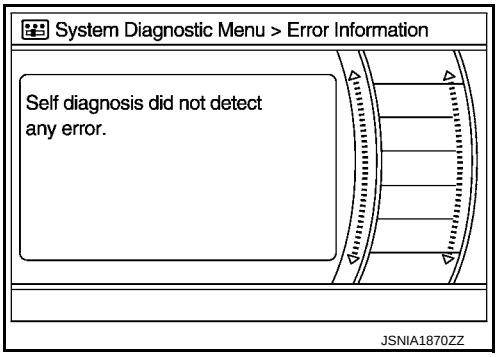


Diagnosis results	Unit	Connection line
Normal	Green	Green
Connection malfunction	Gray	Yellow
Unit malfunction [1]	Red	Green

1: Control unit (audio unit) is displayed in red.

- Replace audio unit if Self Diagnosis did not run because control unit malfunction is indicated. The symptom is audio unit internal error. Refer to AV-144, "Removal and Installation".
- If multiple errors occur at the same time for a single unit, the screen switch colors are determined according to the following order of priority: red > gray.

4. Comments of self diagnosis results can be viewed in the diagnosis result screen.



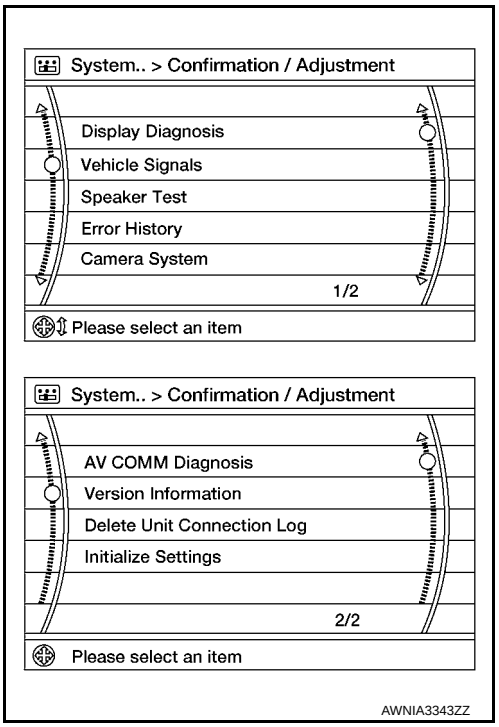
Audio Unit Self Diagnosis Results

Only Unit Part Is Displayed In Red		
Screen switch	Description	Possible cause
Control unit	Malfunction is detected in audio unit power supply and ground circuits.	• Audio unit power supply or ground circuits. Refer to AV-114, "AUDIO UNIT : Diagnosis Procedure". • If no malfunction is detected in audio unit power supply and ground circuits, replace audio unit. Refer to AV-144, "Removal and Installation".

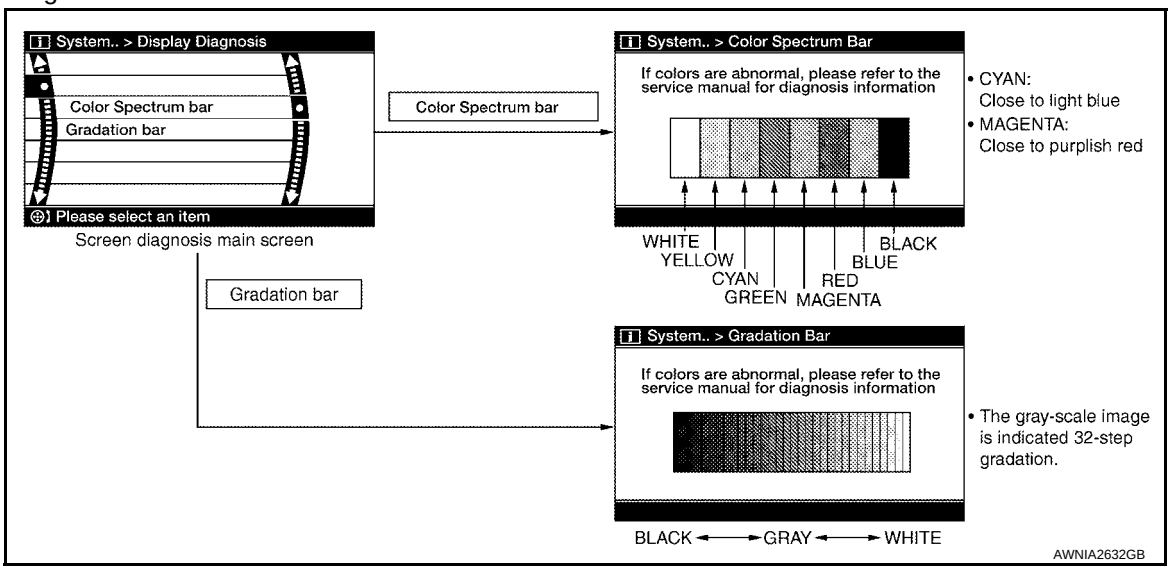
A Connecting Cable Between Units Is Displayed In Yellow		
Area with yellow connection lines	Description	Possible cause
Control unit ⇔ Meter	When one of the following is detected: • malfunction is detected in combination meter power supply and ground circuits. • malfunction is detected in AV communication circuits between audio unit and combination meter.	• Combination meter power supply or ground circuits. Refer to MWI-62, "COMBINATION METER : Diagnosis Procedure". • AV communication circuits between audio unit and combination meter.

Audio Unit Confirmation/Adjustment

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

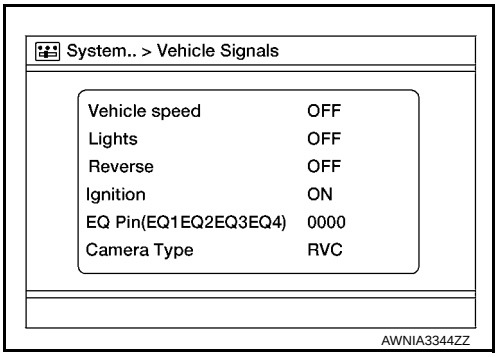


Display Diagnosis



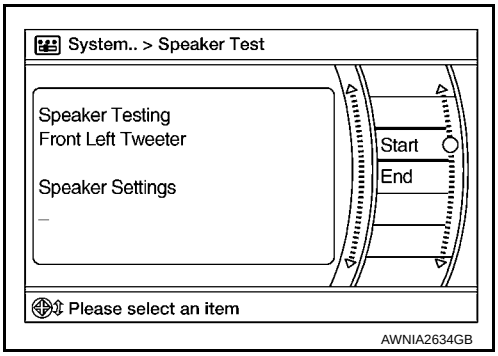
Vehicle Signals

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



Speaker Test

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



Error History

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

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

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

Count up method A

- The counter is set to 40 if an error occurs. 1 is subtracted from the counter if the condition is normal at a next ignition ON cycle.
- The counter lower limit is 1. The counter can be reset (no error record display) with the Delete log switch.

Count up method B

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

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

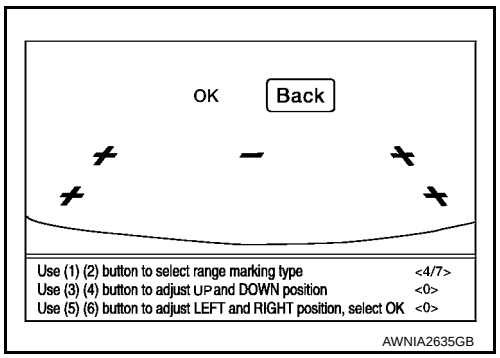
Error item

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

Error item	Description	Possible cause
CONTROL UNIT (AV)	AV communication circuit initial diagnosis malfunction is detected.	Replace the audio unit if the malfunction occurs constantly. Refer to AV-144, "Removal and Installation"
AV COMM CIRCUIT	When one of the following is detected: • malfunction is detected in combination meter power supply and ground circuits. • malfunction is detected in AV communication circuits between audio unit and combination meter.	• Combination meter power supply or ground circuits. Refer to MWI-62, "COMBINATION METER : Diagnosis Procedure". • AV communication circuits between audio unit and combination meter.

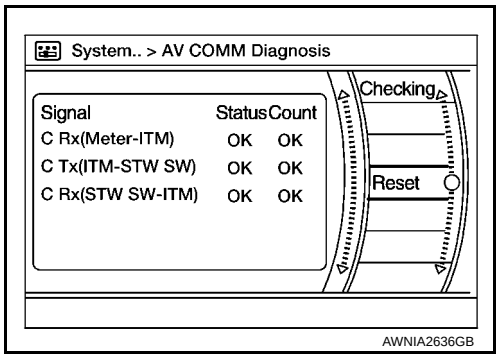
Camera System

This mode is used to adjust the guide line display position of the rear view camera.



AV COMM Diagnosis

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

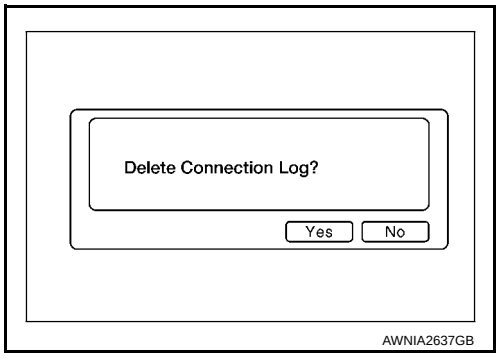


Items	Status (Current)	Counter (Past)
C Rx(Meter-ITM)	OK / ???	OK / 0 – 39
C Tx(ITM-TW SW)	OK / ???	OK / 0 – 39
C Rx(STW SW-ITM)	OK / ???	OK / 0 – 39

NOTE:
"???" indicates UNKWN.

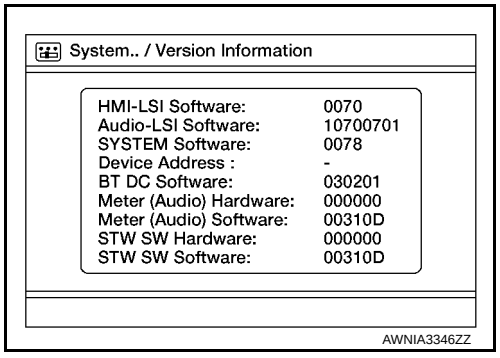
Delete Unit Connection Log

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



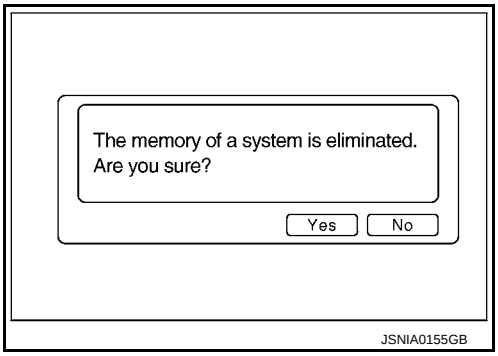
Version Information

Displays audio unit software and hardware version numbers.



Initialize Settings

Deletes data stored from the audio unit.



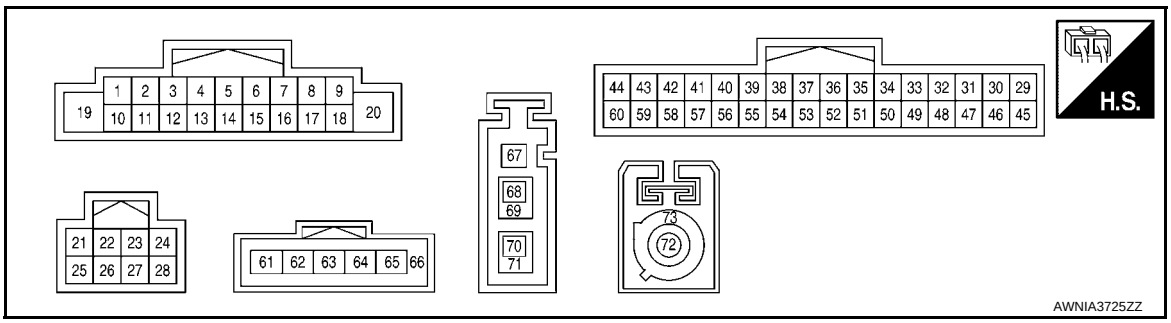
ECU DIAGNOSIS INFORMATION

AUDIO UNIT

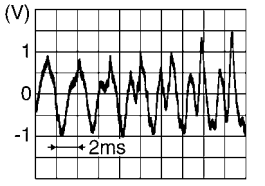
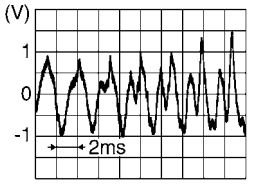
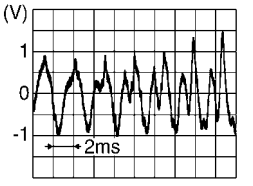
Reference Value

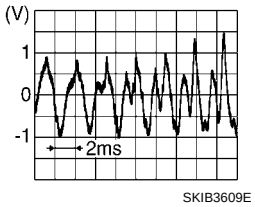
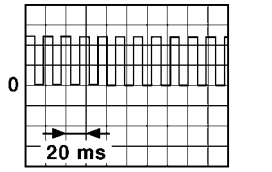
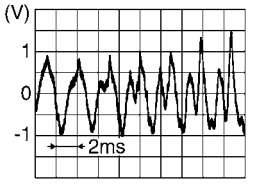
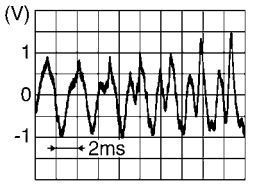
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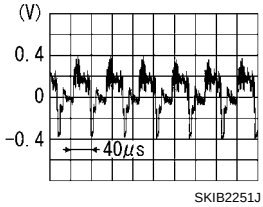
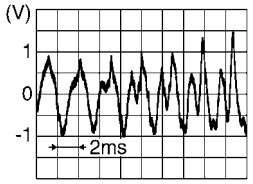
TERMINAL LAYOUT



PHYSICAL VALUES

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output	Ignition switch	Operation	
1 (BR)	Ground	BOSE amp. ON signal	Output	ON	—	Battery voltage
2 (R)	3 (G)	Pre-amp sound signal front LH	Output	ON	Sound output	 SKIB3609E
4 (V)	5 (LG)	Pre-amp sound signal rear LH	Output	ON	Sound output	 SKIB3609E
7 (LG)	Ground	Ignition power supply	Input	ON	—	Battery voltage
9 (V)	8 (R)	Illumination control signal	Input	ON	Headlamps ON	Battery voltage
10 (B)	—	Pre-amp sound signal shield	—	—	—	—
11 (R)	12 (W)	Pre-amp sound signal front RH	Output	ON	Sound output	 SKIB3609E

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output	Ignition switch	Operation	
13 (L)	14 (Y)	Pre-amp sound signal rear RH	Output	ON	Sound output	 SKIB3609E
18 (G)	Ground	Vehicle speed signal	Input	ON	When vehicle speed is approx. 40 km/h (25 MPH)	 JSNIA0012GB
19 (L)	Ground	Battery power supply	Input	OFF	—	Battery voltage
20 (B)	Ground	Ground	—	ON	—	0 V
21 (L)	Ground	AUX jack audio signal LH	Input	ON	Received audio signal (AUX input)	 SKIB3609E
22 (G)	Ground	AUX jack audio signal RH	Input	ON	Received audio signal (AUX input)	 SKIB3609E
23 (Y)	Ground	AUX ground	—	ON	—	0V
24 (Shield)	—	AUX signal shield	—	—	—	—
31 (R)	—	HF/VR mode change	—	—	—	—
35 (W)	Ground	ACC power supply	Input	ON	—	Battery voltage
36 (SB)	—	AV communication high	Input/ Output	—	—	—
37 (LG)	—	AV communication low	Input/ Output	—	—	—
39 (SB)	—	AV communication high	Input/ Output	—	—	—
40 (LG)	—	AV communication low	Input/ Output	—	—	—

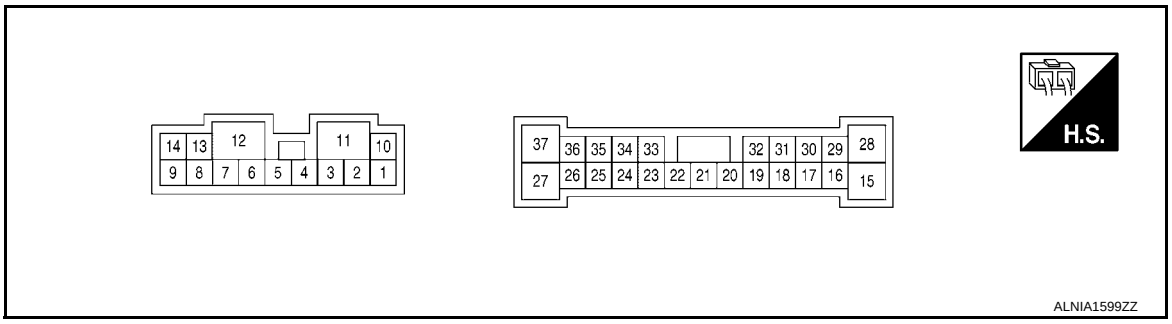
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output	Ignition switch	Operation	
41 (B)	Ground	Camera ground	—	ON	—	0 V
42 (R)	Ground	Camera power supply	Output	ON	Camera image displayed	6.0 V
					Except for above	0 V
43 (W)	44 (Shield)	Camera image signal	Input	ON	Camera image displayed	 SKIB2251J
45 (W)	47 (Shield)	Microphone signal	Input	ON	While speaking into microphone.	 SKIB3609E
46 (B)	—	MIC VCC	Input	ON	—	—
52 (B)	Ground	Camera detection	—	ON	—	0 V
58 (BR)	Ground	Reverse signal	Input	ON	Selector lever in R (reverse)	Battery voltage
					Selector lever in any position other than R (reverse)	0 V
61 (R)	—	V BUS signal	—	—	—	—
62 (W)	—	USB D– signal	—	—	—	—
63 (G)	—	USB D+ signal	—	—	—	—
65 (B)	—	USB ground	—	—	—	—
66 (Shield)	—	USB shield	—	—	—	—
67 (B)	Ground	Antenna amp. ON signal	Output	ON	Audio unit ON, FM-AM selected.	Battery voltage
68 (B)	Ground	AM/FM antenna signal	Input	ON	Audio unit ON, FM-AM selected.	5.0 V
69 (Shield)	—	AM/FM antenna shield	—	—	—	—
72 (B)	Ground	Satellite antenna signal	Input	ON	Audio unit ON, XM selected.	5.0 V
73 (Shield)	—	Satellite antenna shield	—	—	—	—

BOSE SPEAKER AMP

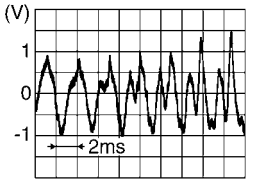
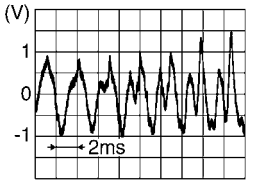
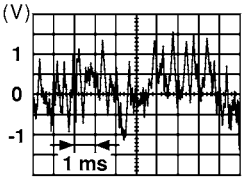
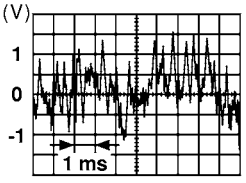
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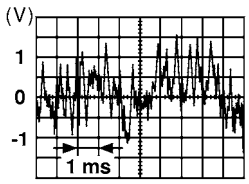
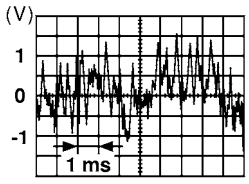
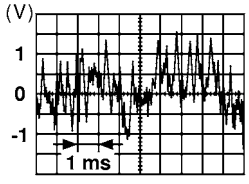
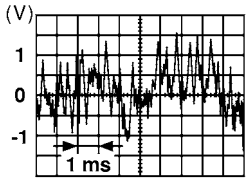
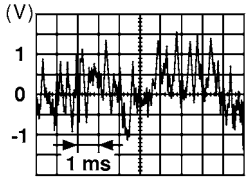
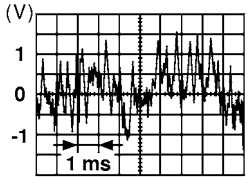
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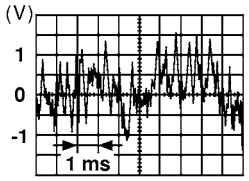
TERMINAL LAYOUT



PHYSICAL VALUES

Terminal (wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output	Ignition switch	Operation	
1 (SB)	10 (V)	Subwoofer speaker signal 1	Output	ON	Sound output	 SKIB3609E
2 (GR)	3 (Y)	Subwoofer speaker signal 2	Output	ON	Sound output	 SKIB3609E
4 (BR)	5 (P)	Front door speaker and front tweeter signal LH	Output	ON	Sound output	 SKIA0177E
6 (LG)	7 (V)	Rear door speaker signal LH	Output	ON	Sound output	 SKIA0177E

Terminal (wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output	Ignition switch	Operation	
8 (G)	13 (R)	Front door speaker and front tweeter signal RH	Output	ON	Sound output	 SKIA0177E
11 (W)	Ground	Battery power supply	Input	–	–	Battery voltage
12 (B)	Ground	Ground	–	ON	–	0V
15 (V)	28 (BG)	Center speaker signal	Output	ON	Sound output	 SKIA0177E
18 (R)	32 (G)	Sound signal front LH	Input	ON	Sound output	 SKIA0177E
19 (Y)	20 (L)	Sound signal front RH	Input	ON	Sound output	 SKIA0177E
21 (V)	22 (LG)	Sound signal rear LH	Input	ON	Sound output	 SKIA0177E
23 (W)	33 (R)	Sound signal rear RH	Input	ON	Sound output	 SKIA0177E

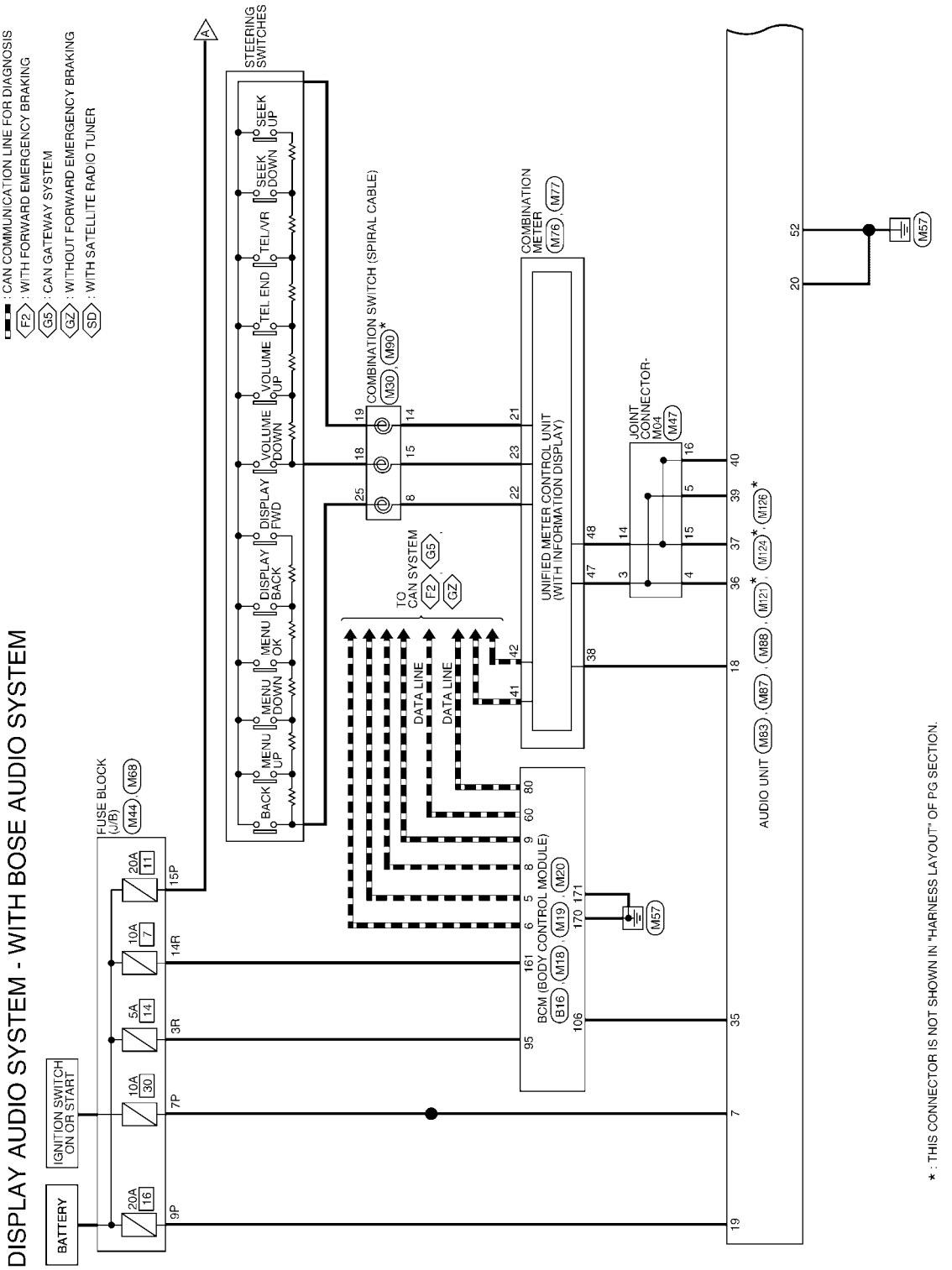
Terminal (wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output	Ignition switch	Operation	
31 (BR)	Ground	Amp. ON signal	Input	ON	–	Greater than 6.5V
37 (LG)	27 (V)	Rear door speaker signal RH	Output	ON	Sound output	 SKIA0177E

WIRING DIAGRAM

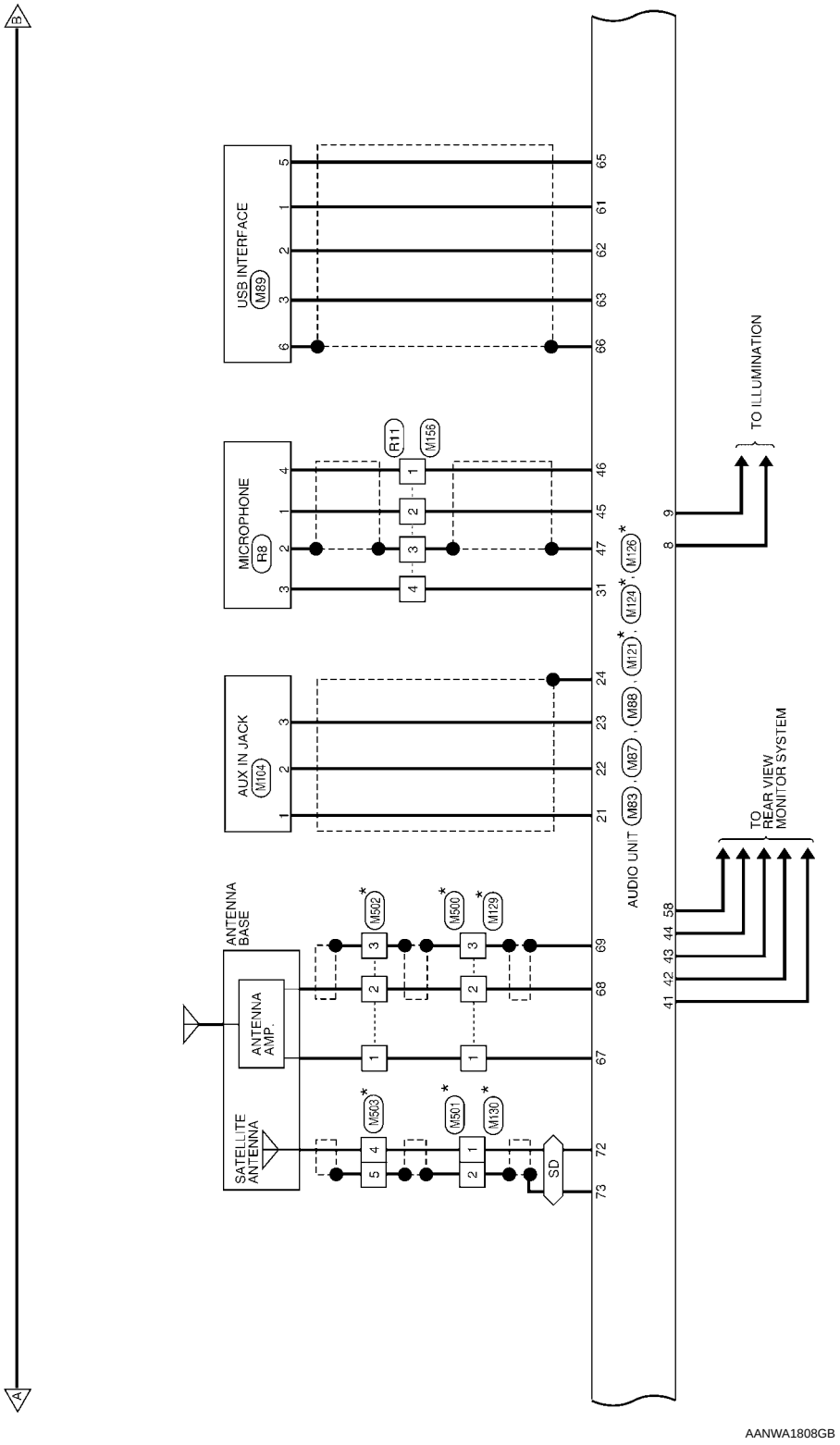
DISPLAY AUDIO WITH BOSE

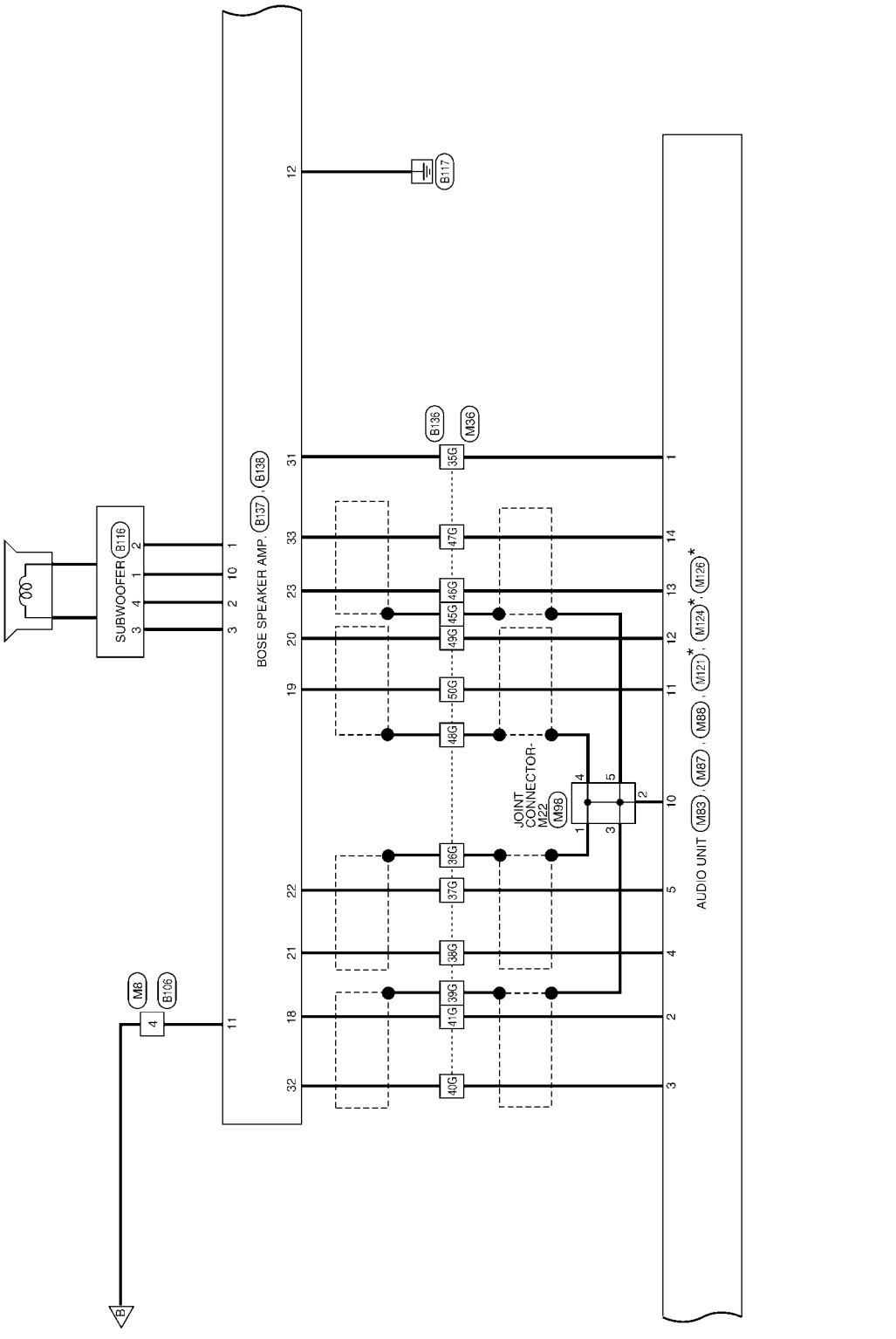
Wiring Diagram

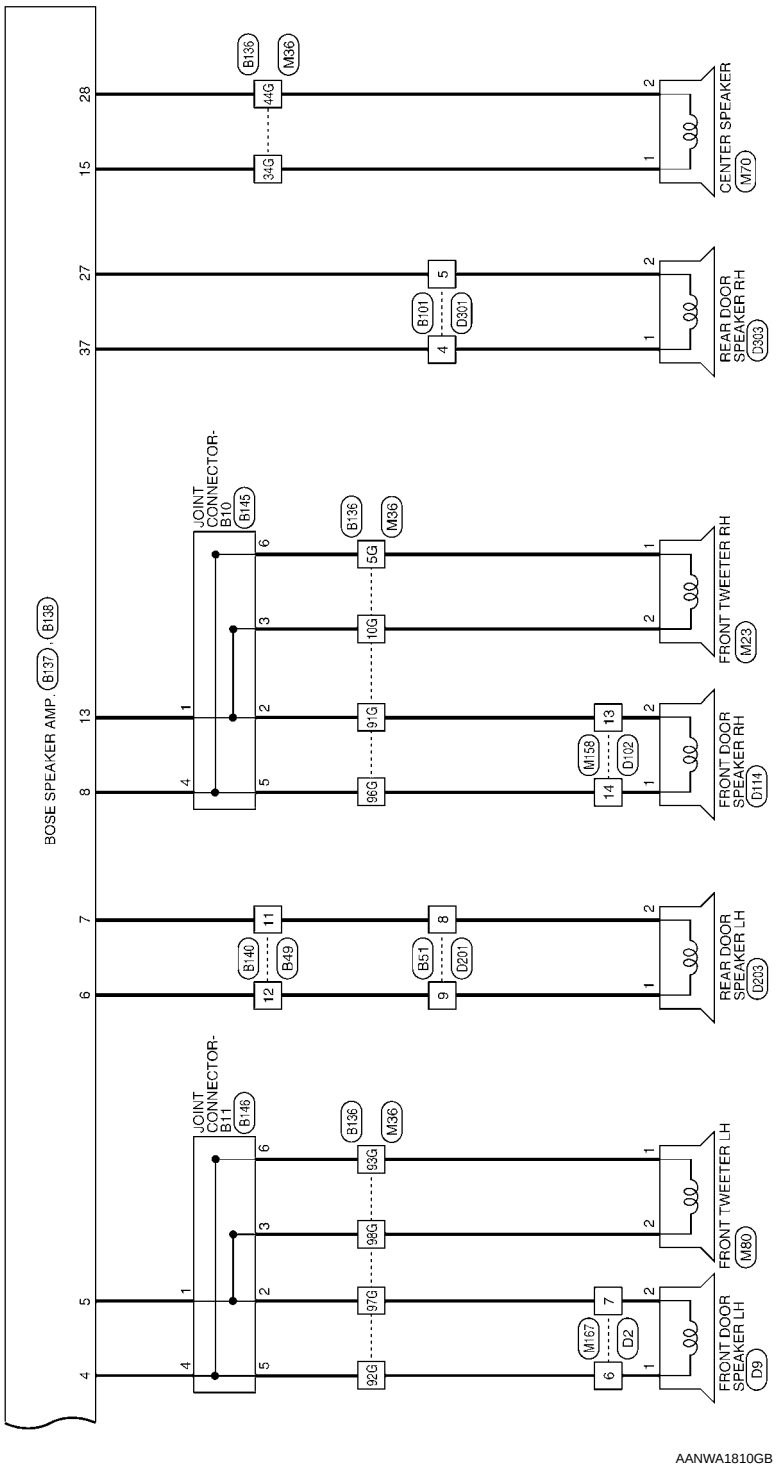
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AANWA1807GB


B
A
USB INTERFACE
M89
MICROPHONE
R8
R11
M156
AUX IN JACK
M104
ANTENNA BASE
ANTENNA AMP.
SATELLITE ANTENNA
M502
M500
M129
M503
M501
M130
SD
AUDIO UNIT
M83
M87
M88
M121
M124
M126
TO ILLUMINATION
TO REAR VIEW MONITOR SYSTEM
AANWA1808GB


B117
B136
M36
35G
47G
46G
45G
49G
50G
48G
38G
37G
36G
39G
41G
40G
SUBWOOFER
B116
BOSE SPEAKER AMP.
B137
B138
JOINT CONNECTOR-M22
M98
AUDIO UNIT
M83
M87
M88
M121
M124
M126
M8
B106
B
AANWA1809GB



AANWA1810GB

DISPLAY AUDIO SYSTEM CONNECTORS - WITH BOSE AUDIO SYSTEM

Connector No.	B16
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FG-NH
Connector Color	GREEN

H.S.

60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41
80	79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64	63	62	61

Terminal No.	Color of Wire	Signal Name
41	–	–
42	–	–
43	–	–
44	–	–
45	–	–
46	R	I SES BACKDOOR BUTTON SW
47	–	–
48	–	–
49	G	I NO TOUCH TGATE SENSOR
50	W	I RR DOOR SW
51	LG	I TGATE SW
52	R	I RL DOOR SW
53	SB	I AS DOOR2 SW
54	–	–
55	LA/G	I RR AUTOSTOP SW
56	Y	I TGATE OPENER SW
57	SB	I DR DOOR2 SW
58	–	–
59	–	–
60	L	CAN-H
61	V	SES EXT REAR ANTENNA B
62	Y	SES INT MIDDLE ANTENNA B
63	L	SES INT MIDDLE ANTENNA A
64	LG	SES EXT REAR ANTENNA A
65	–	–
66	–	–
67	–	–
68	–	–
69	–	–
70	–	–
71	–	–
72	–	–
73	–	–
74	–	–
75	–	–
76	–	–
77	V	SHIFT LOCK RLY

78	–	–
79	LA/W	O STOP LAMP3
80	P	CAN-L

Connector No.	B49
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS
Connector Color	WHITE

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
1	SB	TO BODY NO. 2 HARNESS
2	W	TO BODY NO. 2 HARNESS
3	LA/W	TO BODY NO. 2 HARNESS
4	V	TO BODY NO. 2 HARNESS
5	SB	TO BODY NO. 2 HARNESS
6	LA/BR	TO BODY NO. 2 HARNESS
7	P	TO BODY NO. 2 HARNESS
8	LA/W	TO BODY NO. 2 HARNESS
9	LA/BR	TO BODY NO. 2 HARNESS
10	R	TO BODY NO. 2 HARNESS
11	LA/G	TO BODY NO. 2 HARNESS
12	LA/P	TO BODY NO. 2 HARNESS
13	–	TO BODY NO. 2 HARNESS
14	–	TO BODY NO. 2 HARNESS
15	G	TO BODY NO. 2 HARNESS
16	V	TO BODY NO. 2 HARNESS

Connector No.	B51
Connector Name	WIRE TO WIRE
Connector Type	NS12MW-CS
Connector Color	WHITE

H.S.

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

Terminal No.	Color of Wire	Signal Name
1	LA/P	TO REAR DOOR LH HARNESS
2	LA/R	TO REAR DOOR LH HARNESS
3	LA/V	TO REAR DOOR LH HARNESS
4	–	TO REAR DOOR LH HARNESS
5	–	TO REAR DOOR LH HARNESS
6	W	TO REAR DOOR LH HARNESS
7	L	TO REAR DOOR LH HARNESS
8	LA/GR	TO REAR DOOR LH HARNESS - (WITHOUT BOSE AUDIO SYSTEM)
8	LA/G	TO REAR DOOR LH HARNESS - (WITH BOSE AUDIO SYSTEM)
9	LA/Y	TO REAR DOOR LH HARNESS - (WITHOUT BOSE AUDIO SYSTEM)
9	LA/P	TO REAR DOOR LH HARNESS - (WITH BOSE AUDIO SYSTEM)
10	–	TO REAR DOOR LH HARNESS
11	–	TO REAR DOOR LH HARNESS
12	–	TO REAR DOOR LH HARNESS

Connector No.	B101
Connector Name	WIRE TO WIRE
Connector Type	NS12MW-CS
Connector Color	WHITE

H.S.

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

Terminal No.	Color of Wire	Signal Name
1	Y	TO REAR DOOR RH HARNESS
2	L	TO REAR DOOR RH HARNESS
3	LA/P	TO REAR DOOR RH HARNESS
4	LA/V	TO REAR DOOR RH HARNESS - (WITHOUT BOSE AUDIO SYSTEM)
4	LG	TO REAR DOOR RH HARNESS - (WITH BOSE AUDIO SYSTEM)
5	LA/Y	TO REAR DOOR RH HARNESS - (WITHOUT BOSE AUDIO SYSTEM)
5	V	TO REAR DOOR RH HARNESS - (WITH BOSE AUDIO SYSTEM)
6	LA/GR	TO REAR DOOR RH HARNESS
7	LA/LG	TO REAR DOOR RH HARNESS
8	–	TO REAR DOOR RH HARNESS
9	–	TO REAR DOOR RH HARNESS
10	–	TO REAR DOOR RH HARNESS
11	–	TO REAR DOOR RH HARNESS
12	–	TO REAR DOOR RH HARNESS

Connector No.	B106
Connector Name	WIRE TO WIRE
Connector Type	M04MW-LC
Connector Color	WHITE

H.S.

1	2
3	4

Terminal No.	Color of Wire	Signal Name
1	SB	TO MAIN HARNESS
2	–	TO MAIN HARNESS
3	–	TO MAIN HARNESS
4	W	TO MAIN HARNESS

Connector No.	B116
Connector Name	SUBWOOFER
Connector Type	RS04FGY-PR
Connector Color	GRAY

H.S.

2	4
1	3

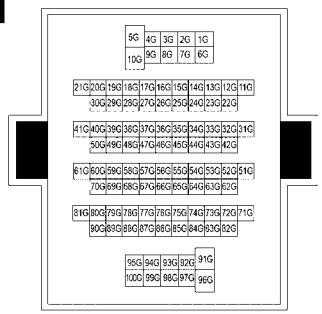
Terminal No.	Color of Wire	Signal Name
1	V	WOOFER OUT 1-
2	SB	WOOFER OUT 1+
3	Y	WOOFER OUT 2-
4	GR	WOOFER OUT 2+

AANIA5733GB

DISPLAY AUDIO SYSTEM CONNECTORS - WITH BOSE AUDIO SYSTEM

Connector No.	B136
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4
Connector Color	WHITE

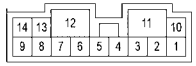
H.S.



Terminal No.	Color of Wire	Signal Name
1G	LA/GR	TO MAIN HARNESS
2G	LA/P	TO MAIN HARNESS
3G	Y	TO MAIN HARNESS
4G	L	TO MAIN HARNESS
5G	G	TO MAIN HARNESS
6G	LA/BR	TO MAIN HARNESS
7G	BR	TO MAIN HARNESS
8G	LA/L	TO MAIN HARNESS
9G	LA/R	TO MAIN HARNESS
10G	R	TO MAIN HARNESS
11G	G	TO MAIN HARNESS
12G	Y	TO MAIN HARNESS
13G	BR	TO MAIN HARNESS
14G	–	TO MAIN HARNESS
15G	Y	TO MAIN HARNESS
16G	–	TO MAIN HARNESS
17G	–	TO MAIN HARNESS
18G	R	TO MAIN HARNESS
19G	R	TO MAIN HARNESS
20G	W	TO MAIN HARNESS
21G	P	TO MAIN HARNESS
22G	P	TO MAIN HARNESS
23G	L	TO MAIN HARNESS
24G	W	TO MAIN HARNESS
25G	L	TO MAIN HARNESS
26G	–	TO MAIN HARNESS
27G	–	TO MAIN HARNESS
28G	–	TO MAIN HARNESS
29G	SB	TO MAIN HARNESS
30G	–	TO MAIN HARNESS
31G	–	TO MAIN HARNESS
32G	–	TO MAIN HARNESS
33G	–	TO MAIN HARNESS
34G	V	TO MAIN HARNESS
35G	BR	TO MAIN HARNESS
36G	SHIELD	TO MAIN HARNESS
37G	LG	TO MAIN HARNESS
38G	V	TO MAIN HARNESS
39G	SHIELD	TO MAIN HARNESS
40G	G	TO MAIN HARNESS
41G	R	TO MAIN HARNESS
42G	–	TO MAIN HARNESS
43G	–	TO MAIN HARNESS
44G	BG	TO MAIN HARNESS
45G	SHIELD	TO MAIN HARNESS
46G	W	TO MAIN HARNESS
47G	R	TO MAIN HARNESS
48G	SHIELD	TO MAIN HARNESS
49G	L	TO MAIN HARNESS
50G	Y	TO MAIN HARNESS
51G	–	TO MAIN HARNESS
52G	–	TO MAIN HARNESS
53G	–	TO MAIN HARNESS
54G	–	TO MAIN HARNESS
55G	–	TO MAIN HARNESS
56G	–	TO MAIN HARNESS
57G	–	TO MAIN HARNESS
58G	–	TO MAIN HARNESS
59G	–	TO MAIN HARNESS
60G	GR	TO MAIN HARNESS
61G	V	TO MAIN HARNESS
62G	–	TO MAIN HARNESS
63G	–	TO MAIN HARNESS
64G	–	TO MAIN HARNESS
65G	–	TO MAIN HARNESS
66G	–	TO MAIN HARNESS
67G	–	TO MAIN HARNESS
68G	–	TO MAIN HARNESS
69G	–	TO MAIN HARNESS
70G	–	TO MAIN HARNESS
71G	–	TO MAIN HARNESS
72G	–	TO MAIN HARNESS
73G	–	TO MAIN HARNESS
74G	–	TO MAIN HARNESS
75G	–	TO MAIN HARNESS
76G	–	TO MAIN HARNESS
77G	–	TO MAIN HARNESS
78G	LA/R	TO MAIN HARNESS
79G	LA/V	TO MAIN HARNESS
80G	LA/B	TO MAIN HARNESS
81G	LA/L	TO MAIN HARNESS
82G	–	TO MAIN HARNESS
83G	–	TO MAIN HARNESS
84G	–	TO MAIN HARNESS
85G	–	TO MAIN HARNESS
86G	–	TO MAIN HARNESS
87G	–	TO MAIN HARNESS
88G	–	TO MAIN HARNESS
89G	–	TO MAIN HARNESS
90G	–	TO MAIN HARNESS
91G	R	TO MAIN HARNESS
92G	BR	TO MAIN HARNESS
93G	W	TO MAIN HARNESS
94G	LA/V	TO MAIN HARNESS
95G	V	TO MAIN HARNESS
96G	G	TO MAIN HARNESS
97G	P	TO MAIN HARNESS
98G	GR	TO MAIN HARNESS
99G	LA/Y	TO MAIN HARNESS
100G	Y	TO MAIN HARNESS

Connector No.	B137
Connector Name	BOSE SPEAKER AMP.
Connector Type	SGA12FBR-SJA2
Connector Color	BROWN

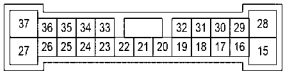
H.S.



Terminal No.	Color of Wire	Signal Name
1	SB	WOOFER OUT 1 +
2	GR	WOOFER OUT 2 +
3	Y	WOOFER OUT 2 -
4	BR	FR DOOR RH + OUT
5	P	FR DOOR LH - OUT
6	LG	RR DOOR LH + OUT
7	V	RR DOOR LH - OUT
8	G	FR DOOR RH + OUT
9	–	–
10	V	WOOFER OUT 1 -
11	W	BATTERY
12	B	GROUND
13	R	FR DOOR RH - OUT
14	–	–

Connector No.	B138
Connector Name	BOSE SPEAKER AMP.
Connector Type	SCA19FBR-SGA4
Connector Color	BROWN

H.S.



Terminal No.	Color of Wire	Signal Name
15	V	CTR SP + OUT
16	–	–
17	–	–
18	R	FR LH + IN
19	Y	FR RH + IN
20	L	FR RH - IN
21	V	RR LH + IN
22	LG	RR LH - IN
23	W	RR RH + IN
24	–	–
25	–	–
26	–	–
27	V	RR DOOR RH - OUT
28	GR	CTR SP - OUT (KOREA PRODUCTION)
28	BG	CTR SP - OUT (EXCEPT FOR KOREA PRODUCTION)
29	–	–
30	–	–
31	BR	AMP ON
32	G	FR LH - IN
33	R	RR RH - IN
34	–	–
35	–	–
36	–	–
37	LG	RR DOOR RH + OUT

AANIA5734GB

DISPLAY AUDIO SYSTEM CONNECTORS - WITH BOSE AUDIO SYSTEM

Connector No.	B140
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS
Connector Color	WHITE

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
1	GR	TO BODY HARNESS
2	W	TO BODY HARNESS
3	LA/Y	TO BODY HARNESS
4	V	TO BODY HARNESS
5	SB	TO BODY HARNESS
6	LA/BR	TO BODY HARNESS
7	LA/V	TO BODY HARNESS
8	L	TO BODY HARNESS
9	Y	TO BODY HARNESS
10	R	TO BODY HARNESS
11	V	TO BODY HARNESS
12	LG	TO BODY HARNESS
13	L	TO BODY HARNESS
14	Y	TO BODY HARNESS
15	LA/GR	TO BODY HARNESS
16	LA/LG	TO BODY HARNESS

Connector No.	B145
Connector Name	JOINT CONNECTOR-B10
Connector Type	NS06FW-J
Connector Color	WHITE

H.S.

6	5	4	3	2	1

Terminal No.	Color of Wire	Signal Name
1	R	FR DOOR RH - OUT
2	R	FR DOOR RH - OUT
3	R	FR DOOR RH - OUT
4	G	FR DOOR RH + OUT
5	G	FR DOOR RH + OUT
6	G	FR DOOR RH + OUT

Connector No.	B146
Connector Name	JOINT CONNECTOR-B11
Connector Type	NS06FW-J
Connector Color	WHITE

H.S.

6	5	4	3	2	1

Terminal No.	Color of Wire	Signal Name
1	P	FR DOOR LH - OUT
2	P	FR DOOR LH - OUT
3	GR	FR DOOR LH - OUT
4	BR	FR DOOR LH + OUT
5	BR	FR DOOR LH + OUT
6	W	FR DOOR LH + OUT

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

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
1	V	TO MAIN HARNESS
2	R	TO MAIN HARNESS
3	G	TO MAIN HARNESS
4	BR	TO MAIN HARNESS
5	P	TO MAIN HARNESS
6	LA/L	TO MAIN HARNESS
7	LA/BR	TO MAIN HARNESS
8	SB	TO MAIN HARNESS
9	GR	TO MAIN HARNESS
10	L	TO MAIN HARNESS
11	P	TO MAIN HARNESS
12	LG	TO MAIN HARNESS
13	Y	TO MAIN HARNESS
14	V	TO MAIN HARNESS
15	R	TO MAIN HARNESS
16	B	TO MAIN HARNESS

Connector No.	D9
Connector Name	FRONT DOOR SPEAKER LH (WITH BOSE AUDIO SYSTEM)
Connector Type	NS02FBR-CS
Connector Color	BROWN

H.S.

2	1

Terminal No.	Color of Wire	Signal Name
1	LA/L	FR DOOR LH + OUT
2	LA/BR	FR DOOR LH - OUT

Connector No.	D102
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS
Connector Color	WHITE

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
1	LA/B	TO MAIN HARNESS
2	LA/G	TO MAIN HARNESS - (WITHOUT AUTOMATIC DRIVE POSITIONER)
2	B	TO MAIN HARNESS - (WITH AUTOMATIC DRIVE POSITIONER)
3	–	TO MAIN HARNESS
4	–	TO MAIN HARNESS
5	–	TO MAIN HARNESS
6	–	TO MAIN HARNESS
7	–	TO MAIN HARNESS
8	GR	TO MAIN HARNESS
9	Y	TO MAIN HARNESS
10	BR	TO MAIN HARNESS
11	L	TO MAIN HARNESS
12	V	TO MAIN HARNESS
13	LA/R	TO MAIN HARNESS
14	LA/G	TO MAIN HARNESS
15	–	TO MAIN HARNESS
16	–	TO MAIN HARNESS

Connector No.	D114
Connector Name	FRONT DOOR SPEAKER RH (WITH BOSE AUDIO SYSTEM)
Connector Type	NS02FBR-CS
Connector Color	BROWN

H.S.

2	1

Terminal No.	Color of Wire	Signal Name
1	LA/G	FR DOOR RH + OUT
2	LA/R	FR DOOR RH - OUT

Connector No.	D201
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS
Connector Color	WHITE

H.S.

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

Terminal No.	Color of Wire	Signal Name
1	LA/Y	TO BODY HARNESS
2	LA/BR	TO BODY HARNESS
3	LA/GR	TO BODY HARNESS
4	–	TO BODY HARNESS
5	–	TO BODY HARNESS
6	LA/V	TO BODY HARNESS
7	LA/G	TO BODY HARNESS
8	LA/R	TO BODY HARNESS
9	LA/L	TO BODY HARNESS
10	–	TO BODY HARNESS
11	–	TO BODY HARNESS
12	–	TO BODY HARNESS

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DISPLAY AUDIO SYSTEM CONNECTORS - WITH BOSE AUDIO SYSTEM

Connector No.	D203
Connector Name	REAR DOOR SPEAKER LH
Connector Type	NS02FW-CS
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
1	LA/L	RR SP LH+
2	LA/R	RR SP LH-

Connector No.	D301
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1	LA/Y	TO BODY NO. 2 HARNESS
2	LA/BR	TO BODY NO. 2 HARNESS
3	LA/GR	TO BODY NO. 2 HARNESS
4	LA/V	TO BODY NO. 2 HARNESS
5	LA/Y	TO BODY NO. 2 HARNESS
6	LA/W	TO BODY NO. 2 HARNESS
7	LA/L	TO BODY NO. 2 HARNESS
8	–	TO BODY NO. 2 HARNESS
9	–	TO BODY NO. 2 HARNESS
10	–	TO BODY NO. 2 HARNESS
11	–	TO BODY NO. 2 HARNESS
12	–	TO BODY NO. 2 HARNESS

Connector No.	D303
Connector Name	REAR DOOR SPEAKER RH
Connector Type	NS02FW-CS
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
1	LA/V	RR SP RH+
2	LA/Y	RR SP RH-

Connector No.	M8
Connector Name	WIRE TO WIRE
Connector Type	M04FW-LC
Connector Color	WHITE

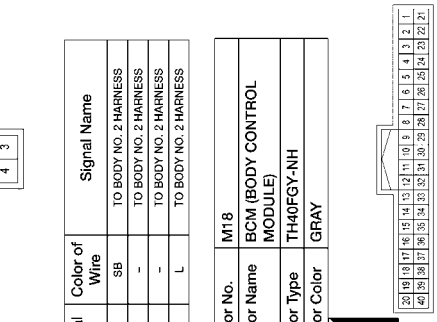
H.S.



Terminal No.	Color of Wire	Signal Name
1	SB	TO BODY NO. 2 HARNESS
2	–	TO BODY NO. 2 HARNESS
3	–	TO BODY NO. 2 HARNESS
4	L	TO BODY NO. 2 HARNESS

Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FGY-NH
Connector Color	GRAY

H.S.



Terminal No.	Color of Wire	Signal Name

1	L	LIN 3 D
2	LA/G	O DI FR LEFT D
3	LA/Y	O DI FR RIGHT D
4	P	O SPARE4 RL N
5	R	CAN-L
6	L	CAN-H
7	–	–
8	L	CAN-H
9	R	CAN-L
10	BG	I DOORLOCK SW
11	Y	I HAZARD SW D
12	W	O PWR AUTOLIGHT SENSOR
13	–	–
14	–	–
15	–	–
16	–	–
17	L	O PWR ATDVC
18	–	–
19	LG	I AUTOLIGHT SENSOR
20	–	–
21	–	–
22	–	–
23	G	O WL AUTHORIZATION RL
24	LA/R	O DEFROSTER RL D
25	BR	O BAT TEMP1 RL
26	–	–
27	Y	O IGN1 RL
28	LA/W	O IGN2 RL
29	–	–
30	V	O GND AUTOLIGHT SENSOR
31	–	–
32	–	–
33	LG	O CSW 5
34	Y	I CSW 5
35	BG	O SECURITY LED
36	G	O CSW 3
37	GR	O CSW 4
38	V	O CSW 1
39	W	O CSW 2
40	SB	I DOORUNLOCK SW

Terminal No.	Color of Wire	Signal Name

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DISPLAY AUDIO SYSTEM CONNECTORS - WITH BOSE AUDIO SYSTEM

Connector No.	M19
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH
Connector Color	BLACK

H.S.

Terminal No.	Color of Wire	Signal Name
81	–	–
82	W	I SES FR HANDLE BUTTON SW
83	–	–
84	BR	I CSW 2
85	SB	I CSW 1
86	P	I CSW 3
87	BG	I CSW 4
88	W	O START SW BACKLIGHT LED
89	Y	I START W/O ESCL SW
90	–	–
91	–	–
92	BR	I KEY CYLINDER LOCK SW
93	P	I KEY CYLINDER UNLOCK SW
94	G	I AT LOCKED IN PARK SW
95	V	I SHORTING PIN
96	–	–
97	–	–
98	–	–
99	–	–
100	V	SES EXT DR ANTENNA A
101	–	–
102	–	–
103	–	–
104	R	I DR KNOB SW
105	Y	I SES DR HANDLE BUTTON SW
106	W	O AUTO ACC2
107	–	–
108	–	–
109	–	–
110	BG	O MR OUTPUT
111	–	–
112	–	–
113	–	–
114	Y	O IMMOBILIZER KAZASHI B
115	W	O IMMOBILIZER KAZASHI A
116	BG	SES INT FRONT ANTENNA B
117	GR	SES INT FRONT ANTENNA A

118	SB	SES EXT AS ANTENNA B
119	P	SES EXT AS ANTENNA A
120	BR	SES EXT DR ANTENNA B

Connector No.	M20
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	NS16FBR-CS
Connector Color	BROWN

H.S.

Terminal No.	Color of Wire	Signal Name
161	W	I PWR ECU
162	SB	O PWM ROOMLAMP 1
163	L	O AS LOCK OR UNLOCK D
164	–	–
165	V	O DR OR FR LOCK D
166	–	–
167	LA/V	I PWR DOORLOCK1
168	BG	I PWR FLASHERS
169	GR	I PWR STOP LAMP
170	B	I GND1
171	B	I GND2
172	G	O FR OR DR UNLOCK D
173	–	–
174	–	–
175	R	I PWR DOORLOCK2
176	LG	I PWR WIPER

2	R	FR SP RH-

Connector No.	M30
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TH12FW-NH
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
5	BG	HORN SW
6	LA/R	ACC SW
7	LA/BR	ACC GND
8	Y	AUDIO STRG SW A
9	B	GROUND
10	R	ILL CONT OUT
11	–	–
12	–	–
13	–	–
14	L	AUDIO STRG SHLD
15	GR	AUDIO STRG SW B
16	–	–

Connector No.	M23
Connector Name	FRONT TWEETER RH
Connector Type	TH02FW
Connector Color	WHITE

H.S.

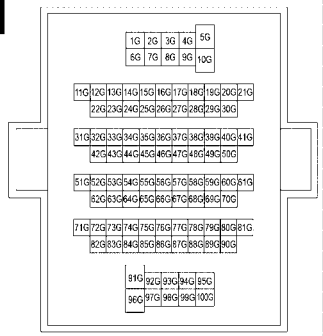
Terminal No.	Color of Wire	Signal Name
1	G	FR SP RH+

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DISPLAY AUDIO SYSTEM CONNECTORS - WITH BOSE AUDIO SYSTEM

Connector No.	M36
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4
Connector Color	WHITE

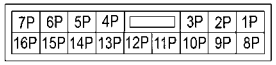
H.S.



Terminal No.	Color of Wire	Signal Name
1G	LA/R	TO BODY NO. 2 HARNESS
2G	W	TO BODY NO. 2 HARNESS
3G	Y	TO BODY NO. 2 HARNESS
4G	BG	TO BODY NO. 2 HARNESS
5G	G	TO BODY NO. 2 HARNESS
6G	SB	TO BODY NO. 2 HARNESS
7G	P	TO BODY NO. 2 HARNESS
8G	LA/Y	TO BODY NO. 2 HARNESS
9G	LA/W	TO BODY NO. 2 HARNESS
10G	R	TO BODY NO. 2 HARNESS
11G	G	TO BODY NO. 2 HARNESS
12G	L	TO BODY NO. 2 HARNESS
13G	BR	TO BODY NO. 2 HARNESS
14G	–	TO BODY NO. 2 HARNESS
15G	Y	TO BODY NO. 2 HARNESS
16G	–	TO BODY NO. 2 HARNESS
17G	–	TO BODY NO. 2 HARNESS
18G	R	TO BODY NO. 2 HARNESS
19G	LA/R	TO BODY NO. 2 HARNESS
20G	W	TO BODY NO. 2 HARNESS
21G	BR	TO BODY NO. 2 HARNESS
22G	P	TO BODY NO. 2 HARNESS
23G	L	TO BODY NO. 2 HARNESS
24G	W	TO BODY NO. 2 HARNESS
25G	L	TO BODY NO. 2 HARNESS
26G	–	TO BODY NO. 2 HARNESS
27G	–	TO BODY NO. 2 HARNESS
28G	–	TO BODY NO. 2 HARNESS
29G	–	TO BODY NO. 2 HARNESS
30G	–	TO BODY NO. 2 HARNESS
31G	–	TO BODY NO. 2 HARNESS
32G	–	TO BODY NO. 2 HARNESS
33G	–	TO BODY NO. 2 HARNESS
34G	V	TO BODY NO. 2 HARNESS
35G	BR	TO BODY NO. 2 HARNESS
36G	SHIELD	TO BODY NO. 2 HARNESS
37G	LG	TO BODY NO. 2 HARNESS
38G	V	TO BODY NO. 2 HARNESS
39G	SHIELD	TO BODY NO. 2 HARNESS
40G	G	TO BODY NO. 2 HARNESS
41G	R	TO BODY NO. 2 HARNESS
42G	–	TO BODY NO. 2 HARNESS
43G	–	TO BODY NO. 2 HARNESS
44G	BG	TO BODY NO. 2 HARNESS
45G	SHIELD	TO BODY NO. 2 HARNESS
46G	L	TO BODY NO. 2 HARNESS
47G	Y	TO BODY NO. 2 HARNESS
48G	SHIELD	TO BODY NO. 2 HARNESS
49G	W	TO BODY NO. 2 HARNESS
50G	R	TO BODY NO. 2 HARNESS
51G	–	TO BODY NO. 2 HARNESS
52G	–	TO BODY NO. 2 HARNESS
53G	–	TO BODY NO. 2 HARNESS
54G	–	TO BODY NO. 2 HARNESS
55G	–	TO BODY NO. 2 HARNESS
56G	–	TO BODY NO. 2 HARNESS
57G	–	TO BODY NO. 2 HARNESS
58G	–	TO BODY NO. 2 HARNESS
59G	–	TO BODY NO. 2 HARNESS
60G	GR	TO BODY NO. 2 HARNESS
61G	BR	TO BODY NO. 2 HARNESS
62G	–	TO BODY NO. 2 HARNESS
63G	–	TO BODY NO. 2 HARNESS
64G	–	TO BODY NO. 2 HARNESS
65G	–	TO BODY NO. 2 HARNESS
66G	–	TO BODY NO. 2 HARNESS
67G	–	TO BODY NO. 2 HARNESS
68G	–	TO BODY NO. 2 HARNESS
69G	–	TO BODY NO. 2 HARNESS
70G	–	TO BODY NO. 2 HARNESS
71G	–	TO BODY NO. 2 HARNESS
72G	–	TO BODY NO. 2 HARNESS
73G	–	TO BODY NO. 2 HARNESS
74G	–	TO BODY NO. 2 HARNESS
76G	–	TO BODY NO. 2 HARNESS
77G	–	TO BODY NO. 2 HARNESS
78G	LA/Y	TO BODY NO. 2 HARNESS
79G	LA/V	TO BODY NO. 2 HARNESS
80G	LA/B	TO BODY NO. 2 HARNESS
81G	LA/L	TO BODY NO. 2 HARNESS
82G	–	TO BODY NO. 2 HARNESS
83G	–	TO BODY NO. 2 HARNESS
84G	–	TO BODY NO. 2 HARNESS
85G	–	TO BODY NO. 2 HARNESS
86G	–	TO BODY NO. 2 HARNESS
87G	–	TO BODY NO. 2 HARNESS
88G	–	TO BODY NO. 2 HARNESS
89G	–	TO BODY NO. 2 HARNESS
90G	–	TO BODY NO. 2 HARNESS
91G	R	TO BODY NO. 2 HARNESS
92G	LA/L	TO BODY NO. 2 HARNESS
93G	W	TO BODY NO. 2 HARNESS
94G	LG	TO BODY NO. 2 HARNESS
95G	GR	TO BODY NO. 2 HARNESS
96G	SB	TO BODY NO. 2 HARNESS
97G	LA/BR	TO BODY NO. 2 HARNESS
98G	GR	TO BODY NO. 2 HARNESS
99G	Y	TO BODY NO. 2 HARNESS
100G	V	TO BODY NO. 2 HARNESS

Connector No.	M44
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS16FW-CS
Connector Color	WHITE

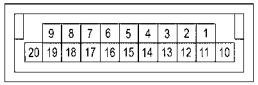
H.S.



Terminal No.	Color of Wire	Signal Name
1P	R	IGNITION
2P	G	IGNITION
3P	Y	IGNITION RELAY-2 CONTROL
4P	LG	REAR WINDOW DEFOGGER RELAY OUTPUT
5P	GR	REAR WINDOW DEFOGGER RELAY OUTPUT
6P	LA/R	REAR WINDOW DEFOGGER RELAY CONTROL
7P	Y	IGNITION
8P	V	IGNITION
9P	L	BATTERY
10P	LG	IGNITION
11P	–	–
12P	–	–
13P	G	BATTERY
14P	–	–
15P	L	BATTERY
16P	LA/W	FRONT BLOWER MOTOR RELAY CONTROL

Connector No.	M47
Connector Name	JOINT CONNECTOR-M04
Connector Type	NH20FG-DC
Connector Color	GREEN

H.S.



Terminal No.	Color of Wire	Signal Name
1	–	–
2	SB	M-CAN H
3	SB	M-CAN H
4	SB	M-CAN H
5	SB	M-CAN H
6	L	CAN-H
7	L	CAN-H
8	L	CAN-H
9	L	CAN-H
10	–	–
11	–	–
12	–	–
13	LG	M-CAN L
14	LG	M-CAN L
15	LG	M-CAN L
16	LG	M-CAN L
17	R	CAN-L
18	R	CAN-L
19	V	CAN-L
20	V	CAN-L

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DISPLAY AUDIO SYSTEM CONNECTORS - WITH BOSE AUDIO SYSTEM

Connector No.	M68
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS16FBR-CS
Connector Color	BROWN

H.S.

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

Terminal No.	Color of Wire	Signal Name
1R	V	ILLUMINATION +
2R	G	IGNITION
3R	V	BATTERY
4R	-	-
5R	-	-
6R	LA/L	ACCESSORY
7R	LA/V	BATTERY
8R	-	-
9R	-	-
10R	GR	BATTERY
11R	-	-
12R	-	-
13R	-	-
14R	W	BATTERY
15R	W	BATTERY
16R	GR	ACCESSORY

Connector No.	M76
Connector Name	COMBINATION METER
Connector Type	TH40FW-NH
Connector Color	WHITE

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
1	B	GND
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	BG	SECURITY
8	-	-
9	GR	ECO MODE SW
10	-	-
11	-	-
12	-	-
13	-	-
14	-	-
15	L	OUTSIDE TEMP SENSOR
16	-	-
17	BG	SATELLITE SW GND
18	SB	TRIP RESET SW
19	-	-
20	Y	OUTSIDE TEMP GND
21	L	GND (STRG SW GND)
22	Y	STRG SW A
23	GR	STRG SW B
24	BR	WASHER SW
25	V	BRAKE OIL SW
26	G	PKB SW
27	-	-
28	Y	DR BELT SW
29	R	SPORT MODE SW
30	LG	M RANGE
31	SB	NOT M RANGE
32	BG	AT SHIFT UP
33	BR	AT SHIFT DOWN
34	-	-
35	-	-
36	GR	ILL UP SW
37	V	ILL DOWN SW
38	G	8P/R OUTPUT

39	W	2P/R OUTPUT
40	-	-

Connector No.	M77
Connector Name	COMBINATION METER
Connector Type	TH12FW-NH
Connector Color	WHITE

H.S.

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

Terminal No.	Color of Wire	Signal Name
41	L	CAN-H
42	P	CAN-L
43	R	ILL CONT OUT
44	LA/B	FUEL SENSOR GND
45	G	BAT
46	V	IGN
47	SB	M-CAN H
48	LG	M-CAN L
49	-	-
50	-	-
51	LA/L	FUEL SENSOR
52	B	G1

Connector No.	M80
Connector Name	FRONT TWEETER LH
Connector Type	TH02FW
Connector Color	WHITE

H.S.

2	1

Terminal No.	Color of Wire	Signal Name
1	W	FR SP LH+
2	GR	FR SP LH-

Connector No.	M70
Connector Name	CENTER SPEAKER
Connector Type	TK02FBR
Connector Color	BROWN

H.S.

2	1

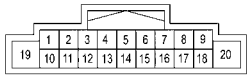
Terminal No.	Color of Wire	Signal Name
1	V	CTR SP+ OUT
2	BG	CTR SP- OUT

AANIA5739GB

DISPLAY AUDIO SYSTEM CONNECTORS - WITH BOSE AUDIO SYSTEM

Connector No.	M83
Connector Name	AUDIO UNIT
Connector Type	NH18FW-CS2
Connector Color	WHITE

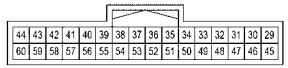
H.S.



Terminal No.	Color of Wire	Signal Name
1	BR	AMPL ON (WITH BOSE AUDIO SYSTEM)
2	Y	FR SP LH+ (WITH 4 SPEAKERS)
2	R	FR SP LH+ (WITH BOSE AUDIO SYSTEM)
2	W	FR SP LH+ (WITH 6 SPEAKERS)
3	R	FR SP LH- (WITH 4 SPEAKERS)
3	G	FR SP LH- (WITH BOSE AUDIO SYSTEM)
3	P	FR SP LH- (WITH 6 SPEAKERS)
4	V	RR SP LH+ (WITH BOSE AUDIO SYSTEM)
4	GR	RR SP LH+ (WITHOUT BOSE AUDIO SYSTEM)
5	LG	RR SP LH- (WITH BOSE AUDIO SYSTEM)
5	BR	RR SP LH- (WITHOUT BOSE AUDIO SYSTEM)
6	–	–
7	LG	IGN2
8	R	ILL-
9	V	ILL+, LIGHT SW
10	B	SHIELD (WITH BOSE AUDIO SYSTEM)
11	W	FR SP RH+ (WITH 4 SPEAKERS)
11	R	FR SP RH+ (WITH BOSE AUDIO SYSTEM)
11	G	FR SP RH+ (WITH 6 SPEAKERS)
12	GR	FR SP RH- (WITH 4 SPEAKERS)
12	W	FR SP RH- (WITH BOSE AUDIO SYSTEM)
12	V	FR SP RH- (WITH 6 SPEAKERS)
13	L	RR SP RH+ (WITH BOSE AUDIO SYSTEM)
13	LG	RR SP RH+ (WITHOUT BOSE AUDIO SYSTEM)
14	Y	RR SP RH-
15	–	–
16	–	–
17	–	–
18	G	SPEED SIGNAL
19	L	+B
20	B	GND

Connector No.	M87
Connector Name	AUDIO UNIT
Connector Type	TH32FW-NH
Connector Color	WHITE

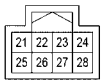
H.S.



Terminal No.	Color of Wire	Signal Name
29	–	–
30	–	–
31	R	HF/VR MODE CHANGE
32	–	–
33	–	–
34	–	–
35	W	AUTO ACC
36	SB	MCAN2 H
37	LG	MCAN2 L
38	–	–
39	SB	MCAN1 H
40	LG	MCAN1 L
41	B	CAM GND
42	R	CAM 6.2V
43	W	COMPOSITE+ (CAM NTSC)
44	SHIELD	COMPOSITE- (CAM GND)
45	W	MIC +
46	B	MIC V+
47	SHIELD	MIC GND
48	–	–
49	–	–
50	–	–
51	–	–
52	B	CAM DET
53	–	–
54	–	–
55	–	–
56	–	–
57	–	–
58	BR	REV (FOR RR VIEW)
59	–	–
60	–	–

Connector No.	M88
Connector Name	AUDIO UNIT
Connector Type	TH08FW-NH
Connector Color	WHITE

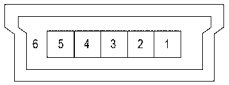
H.S.



Terminal No.	Color of Wire	Signal Name
21	L	AUXIN-L
22	G	AUXIN-R
23	Y	AUXIN-GND
24	SHIELD	AUXIN-SHIELD
25	–	–
26	–	–
27	–	–
28	–	–

Connector No.	M89
Connector Name	USB INTERFACE
Connector Type	US-CAR30
Connector Color	BLACK

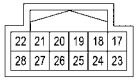
H.S.



Terminal No.	Color of Wire	Signal Name
1	R	V BUS
2	W	USB D-
3	G	USB D+
4	–	–
5	B	USB GND
6	SHIELD	USB SHIELD

Connector No.	M90
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TH12FW-NH
Connector Color	WHITE

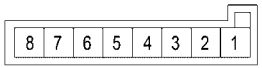
H.S.



Terminal No.	Color of Wire	Signal Name
17	–	–
18	L	AUDIO STRG SW B
19	G	AUDIO STRG SHLD
20	–	–
21	–	–
22	–	–
23	R	ILL (+)
24	Y	ILL (-)
25	P	AUDIO STRG SW A
26	GR	ACC GND
27	V	ACC SW
28	BR	HORN SW

Connector No.	M98
Connector Name	JOINT CONNECTOR- M22
Connector Type	SAC08JW
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
1	SHIELD	SHIELD
2	B	PRE AMP SHIELD
3	SHIELD	SHIELD
4	SHIELD	SHIELD
5	SHIELD	SHIELD
6	–	–
7	–	–
8	–	–

AANIA5740GB

DISPLAY AUDIO SYSTEM CONNECTORS - WITH BOSE AUDIO SYSTEM

Connector No.	M104
Connector Name	AUX IN JACK
Connector Type	A06FGY
Connector Color	GRAY

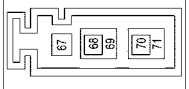
H.S.



Terminal No.	Color of Wire	Signal Name
1	L	AUX L
2	G	AUX R
3	Y	AUX GND
4	–	–
5	W	ILL CONT OUT
6	GR	GROUND

Connector No.	M124
Connector Name	AUDIO UNIT
Connector Type	GT13SH-2/1S-HU
Connector Color	GRAY

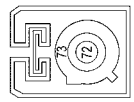
H.S.



Terminal No.	Color of Wire	Signal Name
67	B	ANT +B
68	B	ANT MAIN
69	SHIELD	MAIN GND
70	–	–
71	–	–

Connector No.	M126
Connector Name	AUDIO UNIT
Connector Type	FAKRA CODING H
Connector Color	PINK

H.S.



Terminal No.	Color of Wire	Signal Name
72	B	SAT ANT
73	SHIELD	SAT ANT SHIELD

Connector No.	M121
Connector Name	AUDIO UNIT
Connector Type	US-CAR30
Connector Color	BLACK

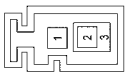
H.S.



Terminal No.	Color of Wire	Signal Name
61	R	V BUS
62	W	USB D-
63	G	USB D+
64	–	–
65	B	USB GND
66	SHIELD	USB SHIELD

Connector No.	M129
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-1/1S-HU
Connector Color	GRAY

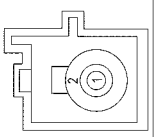
H.S.



Terminal No.	Color of Wire	Signal Name
1	B	TO MAIN SUB HARNESS
2	B	TO MAIN SUB HARNESS
3	SHIELD	TO MAIN SUB HARNESS

Connector No.	M130
Connector Name	WIRE TO WIRE
Connector Type	GT16C-1S-HU
Connector Color	BROWN

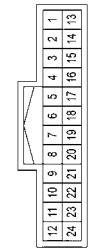
H.S.



Terminal No.	Color of Wire	Signal Name
1	B	TO MAIN SUB HARNESS
2	SHIELD	TO MAIN SUB HARNESS

Connector No.	M156
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-CS
Connector Color	WHITE

H.S.



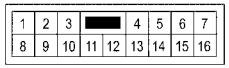
Terminal No.	Color of Wire	Signal Name
1	B	TO ROOM LAMP HARNESS
2	W	TO ROOM LAMP HARNESS
3	SHIELD	TO ROOM LAMP HARNESS
4	R	TO ROOM LAMP HARNESS
5	–	TO ROOM LAMP HARNESS
6	Y	TO ROOM LAMP HARNESS
7	LG	TO ROOM LAMP HARNESS
8	L	TO ROOM LAMP HARNESS
9	R	TO ROOM LAMP HARNESS
10	–	TO ROOM LAMP HARNESS
11	–	TO ROOM LAMP HARNESS
12	–	TO ROOM LAMP HARNESS
13	SB	TO ROOM LAMP HARNESS
14	GR	TO ROOM LAMP HARNESS
15	SB	TO ROOM LAMP HARNESS
16	GR	TO ROOM LAMP HARNESS
17	V	TO ROOM LAMP HARNESS
18	G	TO ROOM LAMP HARNESS
19	SB	TO ROOM LAMP HARNESS
20	R	TO ROOM LAMP HARNESS
21	B	TO ROOM LAMP HARNESS
22	GR	TO ROOM LAMP HARNESS
23	–	TO ROOM LAMP HARNESS
24	–	TO ROOM LAMP HARNESS

AANIA5741GB

DISPLAY AUDIO SYSTEM CONNECTORS - WITH BOSE AUDIO SYSTEM

Connector No.	M158
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS
Connector Color	WHITE

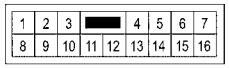
H.S.



Terminal No.	Color of Wire	Signal Name
1	B	TO FRONT DOOR RH HARNESS
2	GR	TO FRONT DOOR RH HARNESS
3	–	TO FRONT DOOR RH HARNESS
4	–	TO FRONT DOOR RH HARNESS
5	–	TO FRONT DOOR RH HARNESS
6	–	TO FRONT DOOR RH HARNESS
7	–	TO FRONT DOOR RH HARNESS
8	SB	TO FRONT DOOR RH HARNESS
9	LA/BR	TO FRONT DOOR RH HARNESS
10	LA/GR	TO FRONT DOOR RH HARNESS
11	L	TO FRONT DOOR RH HARNESS
12	Y	TO FRONT DOOR RH HARNESS
13	GR	TO FRONT DOOR RH HARNESS - (WITHOUT BOSE AUDIO SYSTEM)
13	R	TO FRONT DOOR RH HARNESS - (WITH BOSE AUDIO SYSTEM)
14	W	TO FRONT DOOR RH HARNESS - (WITHOUT BOSE AUDIO SYSTEM)
14	SB	TO FRONT DOOR RH HARNESS - (WITH BOSE AUDIO SYSTEM)
15	–	TO FRONT DOOR RH HARNESS
16	–	TO FRONT DOOR RH HARNESS

Connector No.	M167
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS
Connector Color	WHITE

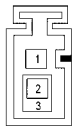
H.S.



Terminal No.	Color of Wire	Signal Name
1	V	TO FRONT DOOR LH HARNESS
2	R	TO FRONT DOOR LH HARNESS
3	G	TO FRONT DOOR LH HARNESS
4	BR	TO FRONT DOOR LH HARNESS
5	P	TO FRONT DOOR LH HARNESS
6	Y	TO FRONT DOOR LH HARNESS - (WITHOUT BOSE AUDIO SYSTEM)
6	LA/L	TO FRONT DOOR LH HARNESS - (WITH BOSE AUDIO SYSTEM)
7	R	TO FRONT DOOR LH HARNESS - (WITHOUT BOSE AUDIO SYSTEM)
7	LA/BR	TO FRONT DOOR LH HARNESS - (WITH BOSE AUDIO SYSTEM)
8	L	TO FRONT DOOR LH HARNESS
9	LA/BR	TO FRONT DOOR LH HARNESS
10	LA/GR	TO FRONT DOOR LH HARNESS
11	Y	TO FRONT DOOR LH HARNESS
12	BG	TO FRONT DOOR LH HARNESS
13	LA/G	TO FRONT DOOR LH HARNESS
14	LA/R	TO FRONT DOOR LH HARNESS
15	P	TO FRONT DOOR LH HARNESS
16	B	TO FRONT DOOR LH HARNESS

Connector No.	M500
Connector Name	WIRE TO WIRE
Connector Type	GT13SCN-1/1PP-HU
Connector Color	GRAY

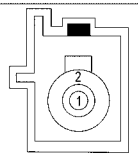
H.S.



Terminal No.	Color of Wire	Signal Name
1	B	TO MAIN HARNESS
2	B	TO MAIN HARNESS
3	SHIELD	TO MAIN HARNESS

Connector No.	M501
Connector Name	WIRE TO WIRE
Connector Type	GT16C-1PP-HU
Connector Color	BROWN

H.S.



Terminal No.	Color of Wire	Signal Name
1	B	TO MAIN HARNESS
2	SHIELD	TO MAIN HARNESS

Connector No.	M502
Connector Name	ANTENNA BASE (ANTENNA AMP)
Connector Type	GT13SSN-1/1PP-HU
Connector Color	GRAY

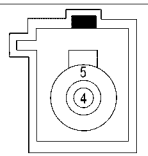
H.S.



Terminal No.	Color of Wire	Signal Name
1	B	ANT +B
2	B	ANT MAIN
3	SHIELD	MAIN GND

Connector No.	M503
Connector Name	ANTENNA BASE (SATELLITE RADIO ANTENNA)
Connector Type	GT16C-1PP-HU
Connector Color	GREEN

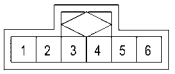
H.S.



Terminal No.	Color of Wire	Signal Name
4	B	SAT ANT
5	SHIELD	SAT ANT SHIELD

Connector No.	R8
Connector Name	MICROPHONE
Connector Type	A06FW
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
1	W	MIC SIGNAL
2	SHIELD	MIC GND
3	R	HF/VR MODE CHG
4	B	MIC VCC
5	–	–
6	–	–

AANIA5742GB

DISPLAY AUDIO SYSTEM CONNECTORS - WITH BOSE AUDIO SYSTEM

Connector No.	R11
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH
Connector Color	WHITE

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

Terminal No.	Color of Wire	Signal Name
1	B	TO MAIN HARNESS
2	W	TO MAIN HARNESS
3	SHIELD	TO MAIN HARNESS
4	SB	TO MAIN HARNESS
5	–	TO MAIN HARNESS
6	LG	TO MAIN HARNESS
7	LG	TO MAIN HARNESS
8	–	TO MAIN HARNESS
9	–	TO MAIN HARNESS
10	–	TO MAIN HARNESS
11	–	TO MAIN HARNESS
12	–	TO MAIN HARNESS
13	SB	TO MAIN HARNESS
14	P	TO MAIN HARNESS
15	–	TO MAIN HARNESS
16	–	TO MAIN HARNESS
17	–	TO MAIN HARNESS
18	–	TO MAIN HARNESS
19	SB	TO MAIN HARNESS
20	R	TO MAIN HARNESS
21	B	TO MAIN HARNESS
22	L	TO MAIN HARNESS
23	–	TO MAIN HARNESS
24	–	TO MAIN HARNESS

AANIA5743GB

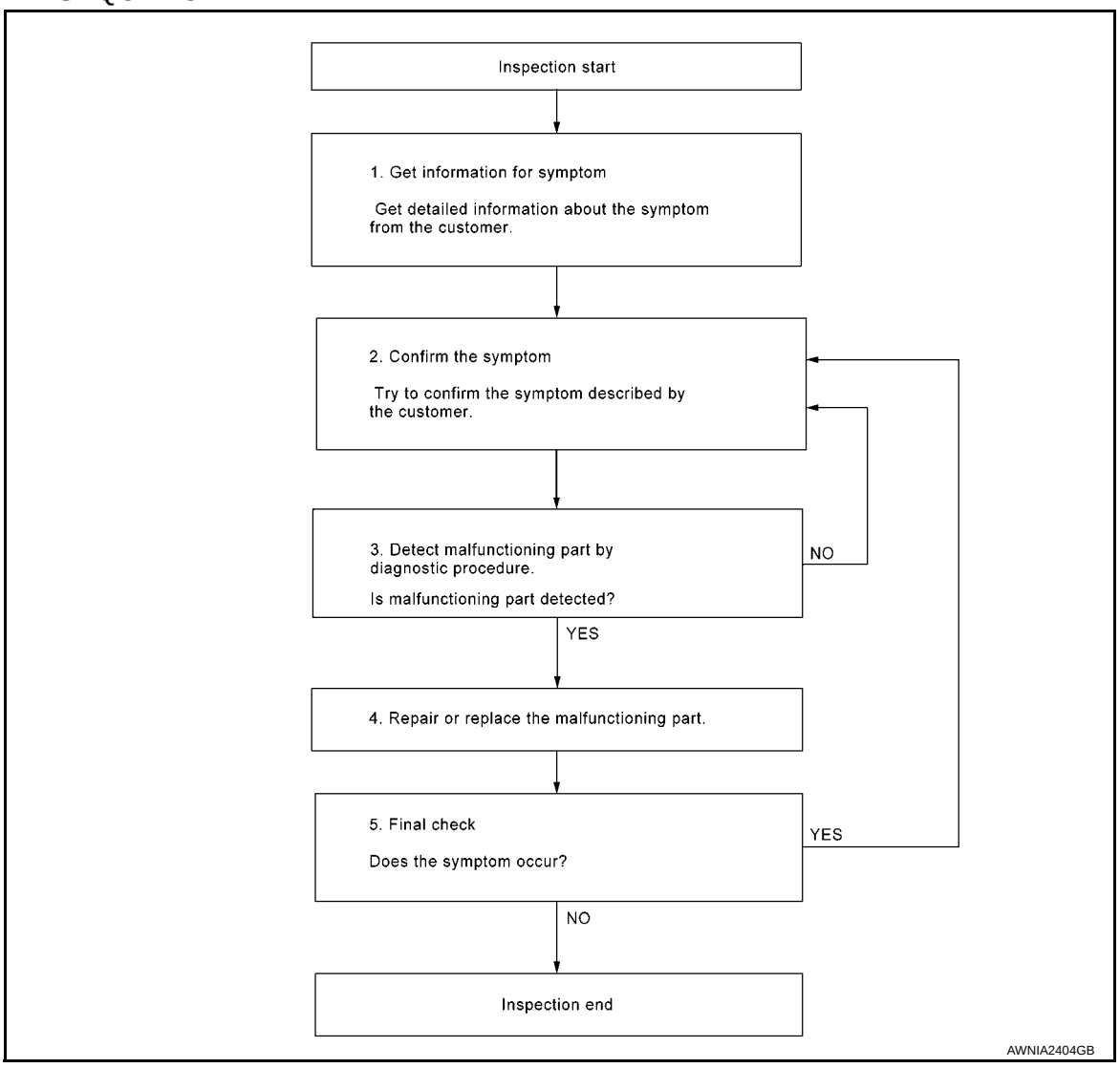
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:0000000014844315

OVERALL SEQUENCE



DETAILED FLOW

1.GET INFORMATION FOR SYMPTOM

Get detailed information from the customer about the symptom (the condition and the environment when the incident/malfunction occurred).

>> GO TO 2.

2.CONFIRM THE SYMPTOM

Try to confirm the symptom described by the customer. Verify relation between the symptom and the condition when the symptom is detected. Refer to AV-137, "Symptom Table".

>> GO TO 3.

3.DETECT MALFUNCTIONING PART BY DIAGNOSTIC PROCEDURE

Inspect according to Diagnostic Procedure of the system.

Is malfunctioning part detected?

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

4. REPAIR OR REPLACE THE MALFUNCTIONING PART

1. Repair or replace the malfunctioning part.
2. Reconnect parts or connectors disconnected during Diagnostic Procedure.

>> GO TO 5.

5. FINAL CHECK

Refer to confirmed symptom in step 2, and make sure that the symptom is not detected.

Was the repair confirmed?

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

INSPECTION AND ADJUSTMENT
REGISTRATION (AUDIO UNIT)

REGISTRATION (AUDIO UNIT) : Description

INFOID:0000000014844316

AFTER REPLACEMENT

If the audio unit is replaced with a new audio unit, the new audio unit must be registered using the Bluetooth D/C(serial #).

CAUTION:

If the new audio unit Bluetooth D/C(serial #) is not registered, the “APPS” mode will not function.

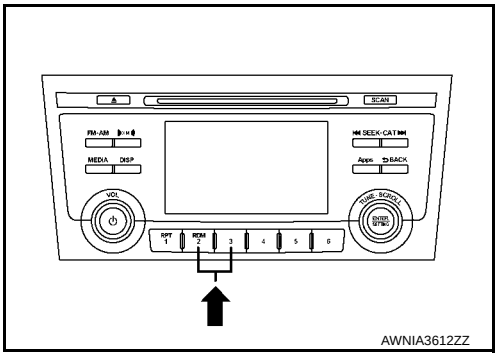
REGISTRATION (AUDIO UNIT) : Work Procedure

INFOID:0000000014844317

1. RECORD BLUETOOTH D/C(SERIAL #) FOR REPLACEMENT AUDIO UNIT

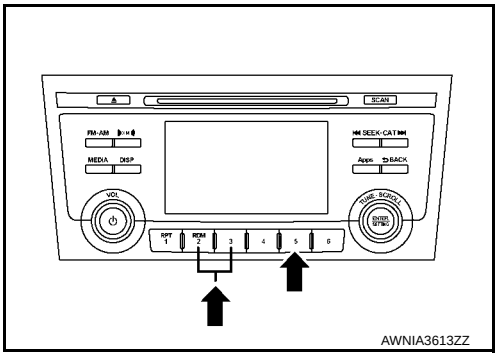
1. Turn ignition switch ON.
2. Turn audio unit OFF.
3. Access the diagnostic menu as follows:

- Press and hold preset buttons 2 and 3.



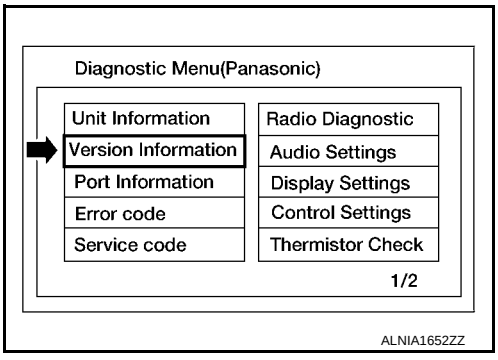
AWNIA3612ZZ

- While holding preset buttons 2 and 3, press preset button 5 three times.



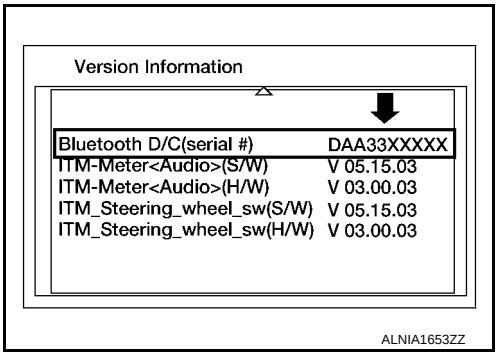
AWNIA3613ZZ

4. Select Version Information from the Diagnostic Menu.



ALNIA1652ZZ

5. Scroll through the menu pages to Bluetooth D/C(serial #) and record the number displayed.



>> GO TO 2.

2. REGISTER REPLACEMENT AUDIO UNIT

Register the replacement audio unit by contacting NISSAN Owner Services. Refer to TSB.

>> GO TO 3.

3. OPERATION CHECK

Verify that the audio unit “APPS” function operates normally.

>> Work End.

DTC/CIRCUIT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT

AUDIO UNIT

AUDIO UNIT : Diagnosis Procedure

INFOID:0000000015258339

Regarding Wiring Diagram information, refer to AV-95, "Wiring Diagram".

1.CHECK FUSE

Check that the following fuses are not blown:

Terminal No.	Signal name	Fuse No.
7	Ignition power supply	30 (10A)
19	Battery power supply	16 (20A)

Are the fuses blown?

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

2.CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect audio unit connector M83.
3. Check voltage between audio unit connector M83 and ground.

Audio unit		Ground	Condition	Voltage (Approx.)
Connector	Terminal			
M83	7	—	Ignition switch: ON	Battery voltage
	19		Ignition switch: OFF	

Is the inspection result normal?

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

3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect audio unit connector M87.
3. Check continuity between audio unit connectors and ground.

Audio unit		Ground	Continuity
Connector	Terminal		
M83	20	—	Yes
M87	52		

Is the inspection result normal?

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

BOSE SPEAKER AMP

BOSE SPEAKER AMP : Diagnosis Procedure

INFOID:0000000015258340

Regarding Wiring Diagram information, refer to AV-95, "Wiring Diagram".

1.CHECK FUSE

Check that the following fuses are not blown:

Terminal No.	Signal name	Fuse No.
11	Battery power supply	11 (20A)

Are the fuses blown?

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

2.CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect Bose speaker amp. connector B137.
3. Check voltage between Bose speaker amp. connector B137 and ground.

Bose speaker amp.		Ground	Condition	Voltage (Approx.)
Connector	Terminal			
B137	11	—	Ignition switch: OFF	Battery voltage

Is the inspection result normal?

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

3.CHECK GROUND CIRCUIT

Check continuity between Bose speaker amp. connector B137 and ground.

Bose speaker amp.		Ground	Continuity
Connector	Terminal		
B137	12	—	Yes

Is the inspection result normal?

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

FRONT TWEETER

Diagnosis Procedure

INFOID:0000000015258341

Regarding Wiring Diagram information, refer to AV-95, "Wiring Diagram".

1.CONNECTOR CHECK

Check the audio unit, Bose speaker amp. and speaker connectors for the following:
- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair the terminals or connectors.

2.CHECK FRONT TWEETER SIGNAL CIRCUIT CONTINUITY (BOSE SPEAKER AMP.)

1. Disconnect Bose speaker amp. connector B137 and suspect front tweeter connector.
2. Check continuity between Bose speaker amp. connector B137 and suspect front tweeter connector.

Bose speaker amp.		Front tweeter		Continuity
Connector	Terminal	Connector	Terminal	
B137	4	M80 (LH)	1	Yes
	5		2	
	8	M23 (RH)	1	
	13		2	

3. Check continuity between Bose speaker amp. connector B137 and ground.

Bose speaker amp.		Ground	Continuity
Connector	Terminal		
B137	4	—	No
	5		
	8		
	13		

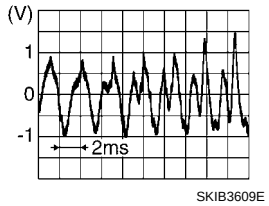
Is the inspection result normal?

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

3.CHECK FRONT TWEETER SIGNAL (BOSE SPEAKER AMP.)

1. Connect Bose speaker amp. connector B137 and suspect front tweeter connector.
2. Turn ignition switch to ON.
3. Push audio unit POWER switch.
4. Check signal between the terminals of Bose speaker amp. connectors.

Bose speaker amp. connector B137		Condition	Reference value
(+)	(–)		
Terminal	Terminal		

4	5	Audio signal output	 SKIB3609E
8	13		

Is the inspection result normal?

YES >> Replace front tweeter. Refer to AV-148, "Removal and Installation".
NO >> GO TO 4.

4. CHECK FRONT TWEETER SIGNAL CIRCUIT CONTINUITY (AUDIO UNIT)

1. Turn ignition switch to OFF.
2. Disconnect Bose speaker amp. connector B138 and audio unit connector M83.
3. Check continuity between Bose speaker amp. connector B138 and audio unit connector M83.

Bose speaker amp.		Audio unit		Continuity
Connector	Terminal	Connector	Terminal	
B138	18	M83	2	Yes
	32		3	
	19		11	
	20		12	

4. Check continuity between Bose speaker amp. connector B138 and ground.

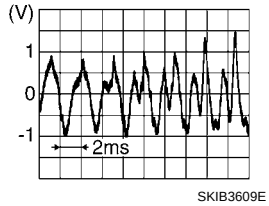
Bose speaker amp.		Ground	Continuity
Connector	Terminal		
B138	18	—	No
	32		
	19		
	20		

Is the inspection result normal?

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

5. CHECK FRONT TWEETER SIGNAL (AUDIO UNIT)

1. Connect Bose speaker amp. connector B138 and audio unit connector M83.
2. Turn ignition switch to ON.
3. Push audio unit POWER switch.
4. Check signal between audio unit connector M83 and ground.

Audio unit connector M83		Condition	Reference value
(+)	(–)		
Terminal	Terminal		
2	3	Audio signal output	 SKIB3609E
11	12		

Is the inspection result normal?

YES >> Replace Bose speaker amp. Refer to AV-147, "Removal and Installation".
NO >> Replace audio unit. Refer to AV-144, "Removal and Installation".

CENTER SPEAKER

Diagnosis Procedure

INFOID:0000000015258342

Regarding Wiring Diagram information, refer to AV-95, "Wiring Diagram".

1.CONNECTOR CHECK

Check the audio unit, Bose speaker amp. and speaker connectors for the following:
- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair the terminals or connectors.

2.CHECK CENTER SPEAKER SIGNAL CIRCUIT CONTINUITY (BOSE SPEAKER AMP.)

1. Disconnect Bose speaker amp. connector B138 and center speaker connector M70.
2. Check continuity between Bose speaker amp. connector B138 and center speaker connector M70.

Bose speaker amp.		Center speaker		Continuity
Connector	Terminal	Connector	Terminal	
B138	15	M70	1	Yes
	28		2	

3. Check continuity between Bose speaker amp. connector B138 and ground.

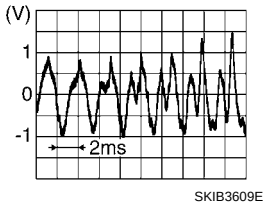
Bose speaker amp.		Ground	Continuity
Connector	Terminal		
B138	15	—	No
	28		

Is the inspection result normal?

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

3.CHECK CENTER SPEAKER SIGNAL (BOSE SPEAKER AMP.)

1. Connect Bose speaker amp. connector B138 and center speaker connector M70.
2. Turn ignition switch to ON.
3. Push audio unit POWER switch.
4. Check signal between Bose speaker amp. connector B138 and ground.

Bose speaker amp. connector B138		Condition	Reference value
(+)	(–)		
Terminal	Terminal		
15	28	Audio signal output	

SKIB3609E

Is the inspection result normal?

YES >> Replace center speaker. Refer to AV-150, "Removal and Installation".
NO >> GO TO 4.

4. CHECK CENTER SPEAKER SIGNAL CIRCUIT CONTINUITY (AUDIO UNIT)

1. Turn ignition switch to OFF.
2. Disconnect Bose speaker amp. connector B138 and audio unit connector M83.
3. Check continuity between Bose speaker amp. connector B138 and audio unit connector M83.

Bose speaker amp.		Audio unit		Continuity
Connector	Terminal	Connector	Terminal	
B138	18	M83	2	Yes
	32		3	
	19		11	
	20		12	

4. Check continuity between Bose speaker amp. connector B138 and ground.

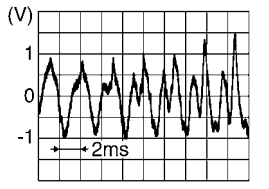
Bose speaker amp.		Ground	Continuity
Connector	Terminal		
B138	18	—	No
	32		
	19		
	20		

Is the inspection result normal?

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

5. CHECK CENTER SPEAKER SIGNAL (AUDIO UNIT)

1. Connect Bose speaker amp. connector B138 and audio unit connector M83.
2. Turn ignition switch to ON.
3. Push audio unit POWER switch.
4. Check signal between audio unit connector M83 and ground.

Audio unit connector M83		Condition	Reference value
(+)	(–)		
Terminal	Terminal		
2	3	Audio signal output	
11	12		

SKIB3609E

Is the inspection result normal?

YES >> Replace Bose speaker amp. Refer to AV-147, "Removal and Installation".
NO >> Replace audio unit. Refer to AV-144, "Removal and Installation".

FRONT DOOR SPEAKER

Diagnosis Procedure

INFOID:0000000015258343

Regarding Wiring Diagram information, refer to AV-95, "Wiring Diagram".

1. CONNECTOR CHECK

Check the audio unit, Bose speaker amp. and speaker connectors for the following:
- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair the terminals or connectors.

2. CHECK FRONT DOOR SPEAKER SIGNAL CIRCUIT CONTINUITY (BOSE SPEAKER AMP.)

1. Disconnect Bose speaker amp. connector B137 and suspect front door speaker connector.
2. Check continuity between Bose speaker amp. connector B137 and suspect front door speaker connector.

Bose speaker amp.		Front door speaker		Continuity
Connector	Terminal	Connector	Terminal	
B137	4	D9 (LH)	1	Yes
	5		2	
	8	D114 (RH)	1	
	13		2	

3. Check continuity between Bose speaker amp. connector B137 and ground.

Bose speaker amp.		Ground	Continuity
Connector	Terminal		
B137	4	—	No
	5		
	8		
	13		

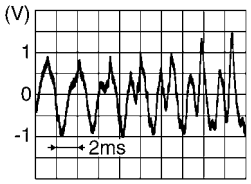
Is the inspection result normal?

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

3. CHECK FRONT DOOR SPEAKER SIGNAL (BOSE SPEAKER AMP.)

1. Connect Bose speaker amp. connector B137 and suspect front door speaker connector.
2. Turn ignition switch to ON.
3. Push audio unit POWER switch.
4. Check signal between the terminals of Bose speaker amp. connectors.

Bose speaker amp. connector B137		Condition	Reference value
(+)	(–)		
Terminal	Terminal		

4	5	Audio signal output	 SKIB3609E
8	13		

Is the inspection result normal?

YES >> Replace front door speaker. Refer to AV-149, "Removal and Installation".
NO >> GO TO 4.

4. CHECK FRONT DOOR SPEAKER SIGNAL CIRCUIT CONTINUITY (AUDIO UNIT)

1. Turn ignition switch to OFF.
2. Disconnect Bose speaker amp. connector B138 and audio unit connector M83.
3. Check continuity between Bose speaker amp. connector B138 and audio unit connector M83.

Bose speaker amp.		Audio unit		Continuity
Connector	Terminal	Connector	Terminal	
B138	18	M83	2	Yes
	32		3	
	19		11	
	20		12	

4. Check continuity between Bose speaker amp. connector B138 and ground.

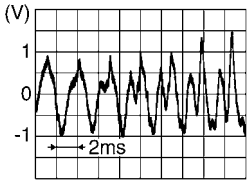
Bose speaker amp.		Ground	Continuity
Connector	Terminal		
B138	18	—	No
	32		
	19		
	20		

Is the inspection result normal?

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

5. CHECK FRONT DOOR SPEAKER SIGNAL (AUDIO UNIT)

1. Connect Bose speaker amp. connector B138 and audio unit connector M83.
2. Turn ignition switch to ON.
3. Push audio unit POWER switch.
4. Check signal between audio unit connector M83 and ground.

Audio unit connector M83		Condition	Reference value
(+)	(–)		
Terminal	Terminal		
2	3	Audio signal output	 SKIB3609E
11	12		

Is the inspection result normal?

YES >> Replace Bose speaker amp. Refer to AV-147, "Removal and Installation".
NO >> Replace audio unit. Refer to AV-144, "Removal and Installation".

REAR DOOR SPEAKER

Diagnosis Procedure

INFOID:0000000015258344

Regarding Wiring Diagram information, refer to AV-95, "Wiring Diagram".

1.CONNECTOR CHECK

Check the audio unit, Bose speaker amp. and speaker connectors for the following:
- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair the terminals or connectors.

2.CHECK REAR DOOR SPEAKER SIGNAL CIRCUIT CONTINUITY (BOSE SPEAKER AMP.)

1. Disconnect Bose speaker amp. connectors and suspect rear door speaker connector.
2. Check continuity between Bose speaker amp. connectors and suspect rear door speaker connector.

Bose speaker amp.		Rear door speaker		Continuity
Connector	Terminal	Connector	Terminal	
B137	6	D203 (LH)	1	Yes
	7		2	
B138	37	D303 (RH)	1	
	27		2	

3. Check continuity between Bose speaker amp. connectors and ground.

Bose speaker amp.		Ground	Continuity
Connector	Terminal		
B137	6	—	No
	7		
B138	37		
	27		

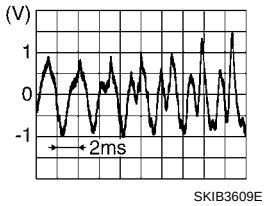
Is the inspection result normal?

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

3.CHECK REAR DOOR SPEAKER SIGNAL (BOSE SPEAKER AMP.)

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

Bose speaker amp.			Condition	Reference value
Connector	(+)	(–)		
	Terminal	Terminal		

B137	6	7	Audio signal output	 SKIB3609E
B138	37	27		

Is the inspection result normal?

YES >> Replace rear door speaker. Refer to AV-151, "Removal and Installation".
NO >> GO TO 4.

4. CHECK REAR DOOR SPEAKER SIGNAL CIRCUIT CONTINUITY (AUDIO UNIT)

1. Turn ignition switch to OFF.
2. Disconnect Bose speaker amp. connector B138 and audio unit connector M83.
3. Check continuity between Bose speaker amp. connector B138 and audio unit connector M83.

Bose speaker amp.		Audio unit		Continuity
Connector	Terminal	Connector	Terminal	
B138	21	M83	4	Yes
	22		5	
	23		13	
	33		14	

4. Check continuity between Bose speaker amp. connector B138 and ground.

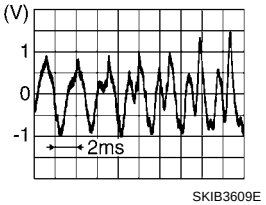
Bose speaker amp.		Ground	Continuity
Connector	Terminal		
B138	21	—	No
	22		
	23		
	33		

Is the inspection result normal?

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

5. CHECK REAR DOOR SPEAKER SIGNAL (AUDIO UNIT)

1. Connect Bose speaker amp. connector B138 and audio unit connector M83.
2. Turn ignition switch to ON.
3. Push audio unit POWER switch.
4. Check signal between audio unit connector M83 and ground.

Audio unit connector M83		Condition	Reference value
(+)	(–)		
Terminal	Terminal		
4	5	Audio signal output	 SKIB3609E
13	14		

Is the inspection result normal?

YES >> Replace Bose speaker amp. Refer to AV-147, "Removal and Installation".
NO >> Replace audio unit. Refer to AV-144, "Removal and Installation".

SUBWOOFER

Diagnosis Procedure

INFOID:0000000015258345

Regarding Wiring Diagram information, refer to AV-95, "Wiring Diagram".

1. CONNECTOR CHECK

Check the audio unit, BOSE speaker amp. and subwoofer connectors for the following:
- Proper connection
- Damage
- Disconnected or looses terminals

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair the terminal and connector.

2. CHECK SUBWOOFER SIGNAL CIRCUIT CONTINUITY (BOSE SPEAKER AMP.)

1. Disconnect BOSE speaker amp. connector B137 and subwoofer connector.
2. Check continuity between BOSE speaker amp. connector B137 and subwoofer connector.

BOSE speaker amp.		Subwoofer		Continuity
Connector	Terminal	Connector	Terminal	
B137	1	B116	2	Yes
	10		1	
	2		4	
	3		3	

3. Check continuity between BOSE speaker amp. connector B137 and ground.

BOSE speaker amp.		Ground	Continuity
Connector	Terminal		
B137	1	—	No
	10		
	2		
	3		

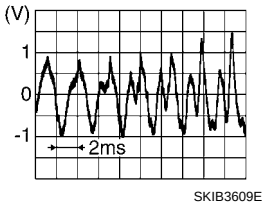
Is the inspection result normal?

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

3. CHECK SUBWOOFER SIGNAL (BOSE SPEAKER AMP.)

1. Connect BOSE speaker amp. connector B137 and subwoofer connector.
2. Turn ignition switch to ON.
3. Push audio unit POWER switch.
4. Check the signal between the terminals of BOSE speaker amp. connector B137.

BOSE speaker amp. connector B137		Condition	Reference value
(+)	(–)		
Terminal	Terminal		

1	10	Audio signal output	 SKIB3609E
2	3		

Is the inspection result normal?

YES >> Replace subwoofer. Refer to AV-152, "Removal and Installation".
NO >> GO TO 4.

4. CHECK SUBWOOFER SIGNAL CIRCUIT CONTINUITY (AUDIO UNIT)

1. Disconnect audio unit connector M83 and BOSE speaker amp. connector B138.
2. Check continuity between audio unit connector M83 and BOSE speaker amp. connector B138.

Audio unit		BOSE speaker amp.		Continuity
Connector	Terminal	Connector	Terminal	
M83	4	B138	21	Yes
	5		22	
	13		23	
	14		33	

3. Check continuity between audio unit connector M83 and ground.

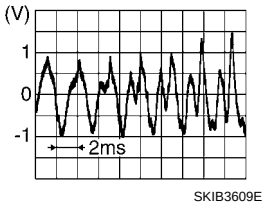
Audio unit		Ground	Continuity
Connector	Terminal		
M83	4	—	No
	5		
	13		
	14		

Is the inspection result normal?

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

5. CHECK SUBWOOFER SIGNAL (AUDIO UNIT)

1. Connect audio unit connector M83 and BOSE speaker amp. connector B138.
2. Turn ignition switch to ON.
3. Push audio unit POWER switch.
4. Check signal between the terminals of audio unit connector M83.

Audio unit connector M83		Condition	Reference value
(+)	(–)		
Terminal	Terminal		
4	5	Audio signal output	 SKIB3609E
13	14		

Is the inspection result normal?

YES >> Replace BOSE speaker amp. Refer to AV-147, "Removal and Installation".

NO >> Replace audio unit. Refer to AV-144, "Removal and Installation".

AMP ON SIGNAL CIRCUIT

Diagnosis Procedure

INFOID:0000000015258346

Regarding Wiring Diagram information, refer to AV-95, "Wiring Diagram".

1.CHECK CONTINUITY BETWEEN AUDIO UNIT AND BOSE SPEAKER AMP.

1. Turn ignition switch OFF.
2. Disconnect audio unit connector M83 and Bose speaker amp. connector B138.
3. Check continuity between audio unit connector M83 and Bose speaker amp. connector B138

Audio unit		Bose speaker amp.		Continuity
Connector	Terminal	Connector	Terminal	
M83	1	B138	31	Yes

4. Check continuity between audio unit connector M83 and ground.

Audio unit		Ground	Continuity
Connector	Terminal		
M83	1	—	No

Is the inspection result normal?

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

2.CHECK AUDIO UNIT VOLTAGE

1. Connect audio unit connector M83.
2. Turn ignition switch ON.
3. Check voltage between audio unit connector M83 and ground.

Audio unit		Ground	Voltage (Approx.)
(+)		(–)	
Connector	Terminal		
M83	1	—	Battery voltage

Is the inspection result normal?

YES >> Replace Bose speaker amp. Refer to AV-147, "Removal and Installation".
NO >> Replace audio unit. Refer to AV-144, "Removal and Installation".

MICROPHONE SIGNAL CIRCUIT

Diagnosis Procedure

INFOID:0000000015258347

Regarding Wiring Diagram information, refer to AV-95, "Wiring Diagram".

1.CHECK HARNESS BETWEEN AUDIO UNIT AND MICROPHONE

1. Turn ignition switch OFF.
2. Disconnect audio unit connector M87 and microphone connector R8.
3. Check continuity between audio unit connector M87 and microphone connector R8.

Audio unit		Microphone		Continuity
Connector	Terminal	Connector	Terminal	
M87	31	R8	3	Yes
	45		1	
	46		4	
	47		2	

4. Check continuity between audio unit connector M87 and ground.

Audio unit		Ground	Continuity
Connector	Terminal		
M87	31	—	No
	45		
	46		

Is the inspection result normal?

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

2.CHECK MICROPHONE POWER SUPPLY

1. Connect audio unit connector M87 and microphone connector R8.
2. Turn ignition switch ON.
3. Check voltage between microphone connector R8 and ground.

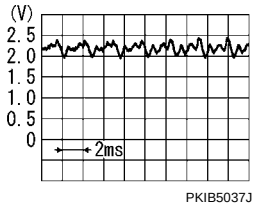
Microphone		Ground	Voltage (Approx.)
(+)		(-)	
Connector	Terminal		
R8	4	—	5V

Is the inspection result normal?

YES >> GO TO 3.
NO >> Replace audio unit. Refer to AV-144, "Removal and Installation".

3.CHECK MICROPHONE SIGNAL

Check signal between terminals of audio unit connector M87.

Audio unit connector M87		Condition	Reference value
(+)	(-)		
Terminal	Terminal		
45	47	Speak into microphone.	

PKIB5037J

Is the inspection result normal?

YES >> Replace audio unit. Refer to AV-144, "Removal and Installation".
NO >> Replace microphone. Refer to AV-154, "Removal and Installation".

STEERING SWITCH

Diagnosis Procedure

INFOID:0000000015258348

Regarding Wiring Diagram information, refer to AV-95, "Wiring Diagram".

1. CHECK STEERING WHEEL AUDIO CONTROL SWITCH RESISTANCE

1. Turn ignition switch OFF.
2. Disconnect combination switch connector M90.
3. Check resistance between the terminals of combination switch connector M90.

Combination switch connector M88		Condition	Resistance Ω (Approx.)
Terminal	Terminal		
25	19	Depress BACK switch.	1
		Depress △ switch.	52
		Depress ▽ switch.	134
		Depress OK switch.	264
		Depress DISPLAY BACK switch.	654
		Depress DISPLAY FWD switch.	2126
18		Depress − switch.	1
		Depress + switch.	52
		Depress switch.	134
		Depress switch.	264
		Depress SEEK DOWN switch.	654
		Depress SEEK UP switch.	2126

Is the inspection result normal?

YES >> GO TO 2.
NO >> Replace steering switches. Refer to AV-145, "Removal and Installation".

2. CHECK HARNESS BETWEEN COMBINATION METER AND COMBINATION SWITCH

1. Disconnect combination meter connector M76 and combination switch connector M30.
2. Check continuity between combination meter connector M76 and combination switch connector M30.

Combination meter		Combination switch		Continuity
Connector	Terminal	Connector	Terminal	
M76	22	M30	8	Yes
	23		15	
	21		14	

3. Check continuity between combination meter connector M76 and ground.

Combination meter		Ground	Continuity
Connector	Terminal		
M76	22	—	No
	23		
	21		

Is the inspection result normal?

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

3. CHECK COMBINATION SWITCH

Check continuity between combination switch connectors M90 and M30.

Combination switch				Continuity
Connector	Terminal	Connector	Terminal	
M90	25	M30	8	Yes
	18		15	
	19		14	

Is the inspection result normal?

YES >> GO TO 4.
NO >> Replace spiral cable. Refer to SR-16, "Removal and Installation".

4. CHECK HARNESS BETWEEN COMBINATION METER AND AUDIO UNIT

1. Disconnect combination meter connector M77 and audio unit connector M87.
2. Check continuity between combination meter connector M77 and audio unit connector M87.

Combination meter		Audio unit		Continuity
Connector	Terminal	Connector	Terminal	
M77	47	M87	36	Yes
	48		37	

3. Check continuity between combination meter connector M77 and ground.

Combination meter		Ground	Continuity
Connector	Terminal		
M77	47	—	No
	48		

Is the inspection result normal?

YES >> Replace audio unit. Refer to AV-144, "Removal and Installation".
NO >> Repair or replace harness or connectors.

USB CONNECTOR

Diagnosis Procedure

INFOID:0000000015258349

Regarding Wiring Diagram information, refer to AV-95, "Wiring Diagram".

1.CHECK USB INTERFACE HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect audio unit connector M121 and USB interface connector M89.
3. Check continuity between audio unit connector M121 and USB interface connector M89.

Audio unit		USB interface		Continuity
Connector	Terminal	Connector	Terminal	
M121	61	M89	1	Yes
	62		2	
	63		3	
	65		5	
	66		6	

4. Check continuity between audio unit connector M121 and ground.

Audio unit		—	Continuity
Connector	Terminal		
M121	61	Ground	No
	63		

Is the inspection result normal?

YES >> Replace the USB interface. Refer to AV-153, "Removal and Installation".
NO >> Repair or replace harness or connectors.

AUXILIARY INPUT JACK

Diagnosis Procedure

INFOID:0000000015258350

Regarding Wiring Diagram information, refer to AV-95, "Wiring Diagram".

1.CHECK AUX JACK HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect audio control unit connector M88 and AUX in jack connector M104.
3. Check continuity between audio control unit connector M88 and AUX in jack connector M104.

Audio control unit		AUX in jack		Continuity
Connector	Terminal	Connector	Terminal	
M88	21	M104	1	Yes
	22		2	
	23		3	

4. Check continuity between audio control unit connector M88 and ground.

Audio control unit		—	Continuity
Connector	Terminal		
M88	21	Ground	No
	22		

Is the inspection result normal?

YES >> Replace the AUX in jack. Refer to AV-153, "Removal and Installation".
NO >> Repair or replace harness or connectors.

SYMPTOM DIAGNOSIS

AUDIO SYSTEM

Symptom Table

INFOID:0000000015258351

RELATED TO AUDIO

Symptoms	Check items	Probable malfunction location
The disk cannot be removed.	Audio unit	Malfunction in audio unit. Refer to AV-83, "On Board Diagnosis Function".

Symptoms	Check items	Probable malfunction location
No sound comes out or the level of the sound is low.	No sound from all speakers.	• Speaker circuit shorted to ground. Refer to AV-95, "Wiring Diagram". • Bose amp. ON signal circuit malfunction. Refer to AV-130, "Diagnosis Procedure". • Bose speaker amp. power supply and ground circuits malfunction. Refer to AV-114, "BOSE SPEAKER AMP : Diagnosis Procedure".
	Only a certain speaker (front tweeter LH, front tweeter RH, center speaker, front door speaker LH, front door speaker RH, rear door speaker LH, rear door speaker RH, subwoofer) does not output sound.	• Poor connector connection of speaker. • Sound signal circuit malfunction between audio unit and Bose speaker amp. Refer to: - AV-116, "Diagnosis Procedure" (front tweeter). - AV-119, "Diagnosis Procedure" (center speaker). - AV-121, "Diagnosis Procedure" (front door speaker). - AV-124, "Diagnosis Procedure" (rear door speaker). - AV-127, "Diagnosis Procedure" (sub-woofer). • Sound signal circuit malfunction between Bose speaker amp. and speaker. Refer to: - AV-116, "Diagnosis Procedure" (front tweeter). - AV-119, "Diagnosis Procedure" (center speaker). - AV-121, "Diagnosis Procedure" (front door speaker). - AV-124, "Diagnosis Procedure" (rear door speaker). - AV-127, "Diagnosis Procedure" (sub-woofer). • Malfunction in speaker. Refer to: - AV-148, "Removal and Installation" (front tweeter). - AV-150, "Removal and Installation" (center speaker). - AV-149, "Removal and Installation" (front door speaker). - AV-151, "Removal and Installation" (rear door speaker). - AV-152, "Removal and Installation" (sub-woofer). • Malfunction in audio unit. Refer to AV-83, "On Board Diagnosis Function". • Malfunction in Bose speaker amp. Replace Bose speaker amp. Refer to AV-147, "Removal and Installation".

Symptoms	Check items	Probable malfunction location
Noise is mixed with audio.	Noise comes out from all speakers.	• Malfunction in audio unit. Refer to AV-83, "On Board Diagnosis Function". • Malfunction in Bose speaker amp. Replace Bose speaker amp. Refer to AV-147, "Removal and Installation".
	Noise comes out only from a certain speaker (front tweeter LH, front tweeter RH, center speaker, front door speaker LH, front door speaker RH, rear door speaker LH, rear door speaker RH, subwoofer).	• Poor connector connection of speaker. • Sound signal circuit malfunction between audio unit and Bose speaker amp. Refer to: - AV-116, "Diagnosis Procedure" (front tweeter). - AV-119, "Diagnosis Procedure" (center speaker). - AV-121, "Diagnosis Procedure" (front door speaker). - AV-124, "Diagnosis Procedure" (rear door speaker). - AV-127, "Diagnosis Procedure" (sub-woofer). • Sound signal circuit malfunction between Bose speaker amp. and speaker. Refer to: - AV-116, "Diagnosis Procedure" (front tweeter). - AV-119, "Diagnosis Procedure" (center speaker). - AV-121, "Diagnosis Procedure" (front door speaker). - AV-124, "Diagnosis Procedure" (rear door speaker). - AV-127, "Diagnosis Procedure" (sub-woofer). • Malfunction in speaker. Refer to: - AV-148, "Removal and Installation" (front tweeter). - AV-150, "Removal and Installation" (center speaker). - AV-149, "Removal and Installation" (front door speaker). - AV-151, "Removal and Installation" (rear door speaker). - AV-152, "Removal and Installation" (sub-woofer). • Malfunction in audio unit. Refer to AV-83, "On Board Diagnosis Function". • Malfunction in Bose speaker amp. Replace Bose speaker amp. Refer to AV-147, "Removal and Installation".
	Noise is mixed with radio only (when the vehicle hits a bump or while driving over bad roads)	Poor connector connection of antenna or antenna feeder. Refer to AV-79, "Antenna and Antenna Feeder".
No radio reception or poor reception.	• Other audio sounds are normal. • Any radio station cannot be received or poor reception is caused even after moving to a service area with good reception (e.g. a place with clear view and no obstacles generating external noises).	• Antenna amp. ON signal circuit malfunction. Refer to AV-130, "Diagnosis Procedure". • Poor connector connection of antenna or antenna feeder. Refer to AV-79, "Antenna and Antenna Feeder".

Symptoms	Check items	Probable malfunction location
No satellite radio reception.	Satellite radio antenna malfunction.	• Poor continuity in antenna feeder. • Poor connector connection of antenna or antenna feeder. Refer to AV-79, "Antenna and Antenna Feeder".
Buzz/rattle sound from speaker	The majority of buzz/rattle sounds are not indicative of an issue with the speaker, usually something nearby the speaker is causing the buzz/rattle.	Refer to "SQUEAK AND RATTLE TROUBLE DIAGNOSIS" in the appropriate interior or trim section.

RELATED TO HANDS-FREE PHONE

- Before performing diagnosis, confirm that the cellular phone being used by the customer is compatible with the vehicle.
- It is possible that a malfunction is occurring due to a version change of the phone even though the phone is a compatible type. This can be confirmed by changing the cellular phone to another compatible type, and check that it operates normally. It is important to determine whether the cause of the malfunction is the vehicle or the cellular phone.

Check Compatibility

1. Make sure the customer's Bluetooth® related concern is understood.
2. Verify the customer's concern.
   NOTE:
   The customer's phone may be required, depending upon their concern.
3. Write down the customer's phone brand, model and service provider.
   NOTE:
   It is necessary to know the service provider. On occasion, a given phone may be on the approved list with one provider, but may not be on the approved list with other providers.
4. Go to "www.nissanusa.com/bluetooth/".

a. Using the website's search engine, find out if the customer's phone is on the approved list.

b. If the customer's phone is NOT on the approved list:
   Stop diagnosis here. The customer needs to obtain a Bluetooth® phone that is on the approved list before any further action.

c. If the feature related to the customer's concern shows as "N" (not compatible):
   Stop diagnosis here. If the customer still wants the feature to function, they will need to get an approved phone showing the feature as "Y" (compatible) in the "Basic Features".

d. If the feature related to the customer's concern shows as "Y" (compatible):
   Perform diagnosis as per the following table.

Symptoms	Check items	Probable malfunction location
Does not recognize cellular phone connection (no connection is displayed on the display at the guide).	Repeat the registration of cellular phone.	Malfunction in audio unit. Replace audio unit. Refer to AV-144, "Removal and Installation".
Hands-free phone cannot be established.	• Hands-free phone operation can be made, but the communication cannot be established. • Hands-free phone operation can be performed, however, voice between each other cannot be heard during the conversation.	
The other party's voice cannot be heard by hands-free phone.	Check the "microphone speaker" in Inspection & Adjustment Mode if sound is heard.	
Originating sound is not heard by the other party with hands-free phone communication.	Sound operation function is normal.	
	Sound operation function does not work.	Microphone signal circuit malfunction. Refer to AV-131, "Diagnosis Procedure".

Symptoms	Check items	Probable malfunction location
The system cannot be operated.	• The voice recognition can be controlled. • Steering switches −, +, and ↩ work, but 🎤 does not work.	Steering switch malfunction. Replace steering switch. Refer to AV-145, "Removal and Installation".
	Steering switches 🎤, −, +, and ↩ do not work.	Steering switch signal circuit malfunction. Refer to AV-133, "Diagnosis Procedure".
	All steering switches do not work.	Steering switch ground circuit malfunction. Refer to AV-133, "Diagnosis Procedure".

NORMAL OPERATING CONDITION

Description

INFOID:0000000014844330

RELATED TO NOISE

The majority of the audio concerns are the result of outside causes (bad CD, electromagnetic interference, etc.).
The following noise results from variations in field strength, such as fading noise and multi-path noise, or external noise from trains and other sources. It is not a malfunction.

- Fading noise: This noise occurs because of variations in the field strength in a narrow range due to mountains or buildings blocking the signal.
- Multi-path noise: This noise results from the waves sent directly from the broadcast station arriving at the antenna at a different time from the waves which reflect off mountains or buildings.

The vehicle itself can be a source of noise if noise prevention parts or electrical equipment is malfunctioning. Check if noise is caused and/or changed by engine speed, ignition switch turned to each position, and operation of each piece of electrical equipment, and determine the cause.

NOTE:
The source of the noise can be found easily by listening to the noise while removing the fuses of electrical components, one by one.

Type of Noise and Possible Cause

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

RELATED TO HANDS-FREE PHONE

Symptom	Cause and Counter measure
Does not recognize cellular phone connection (No connection is displayed on the display at the guide).	Some Bluetooth® enabled cellular phones may not be recognized by the in-vehicle phone module. Refer to “RELATED TO HANDS-FREE PHONE (Check Compatibility)” in AV-137, "Symptom Table".
Cannot use hands-free phone.	Customer will not be able to use a hands-free phone under the following conditions: • The vehicle is outside of the telephone service area. • The vehicle is in an area where it is difficult to receive radio waves; such as in a tunnel, in an underground parking garage, near a tall building or in a mountainous area. • The cellular phone is locked to prevent it from being dialed. **NOTE:** While a cellular phone is connected through the Bluetooth® wireless connection, the battery power of the cellular phone may discharge quicker than usual. The Bluetooth® Hands-Free Phone System cannot charge cellular phones.

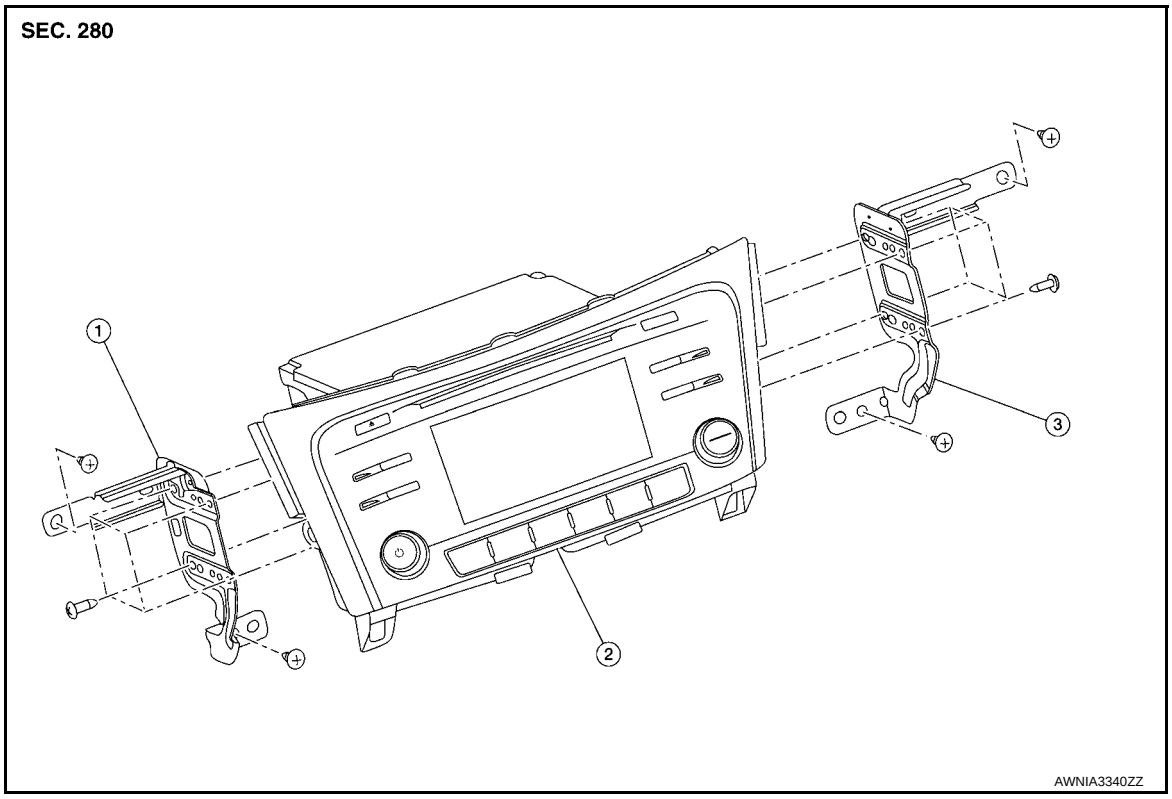
Symptom	Cause and Counter measure
The other party's voice cannot be heard by hands-free phone.	When the radio wave condition is not ideal or ambient sound is too loud, it may be difficult to hear the other person's voice during a call.
Poor sound quality.	Do not place the cellular phone in an area surrounded by metal or far away from the in-vehicle phone module to prevent tone quality degradation and wireless connection disruption.

REMOVAL AND INSTALLATION

AUDIO UNIT

Exploded View

INFOID:0000000014844331



1. Audio unit bracket (LH)
2. Audio unit
3. Audio unit bracket (RH)

Removal and Installation

INFOID:0000000014844332

REMOVAL

1. Disconnect the negative battery terminal. Refer to PG-129, "Removal and Installation (Battery)".
2. Remove cluster lid C. Refer to IP-21, "Removal and Installation".
3. Remove instrument finisher B. Refer to IP-16, "INSTRUMENT FINISHER B : Removal and Installation".
4. Remove instrument finisher E. Refer to IP-16, "INSTRUMENT FINISHER E : Removal and Installation".
5. Remove the audio unit screws, then pull out the audio unit.
6. Disconnect the harness connectors from the audio unit and remove.
7. Remove the audio unit bracket (LH/RH) screws and the audio unit brackets (LH/RH) (if necessary).

INSTALLATION

Installation is in the reverse order of removal.

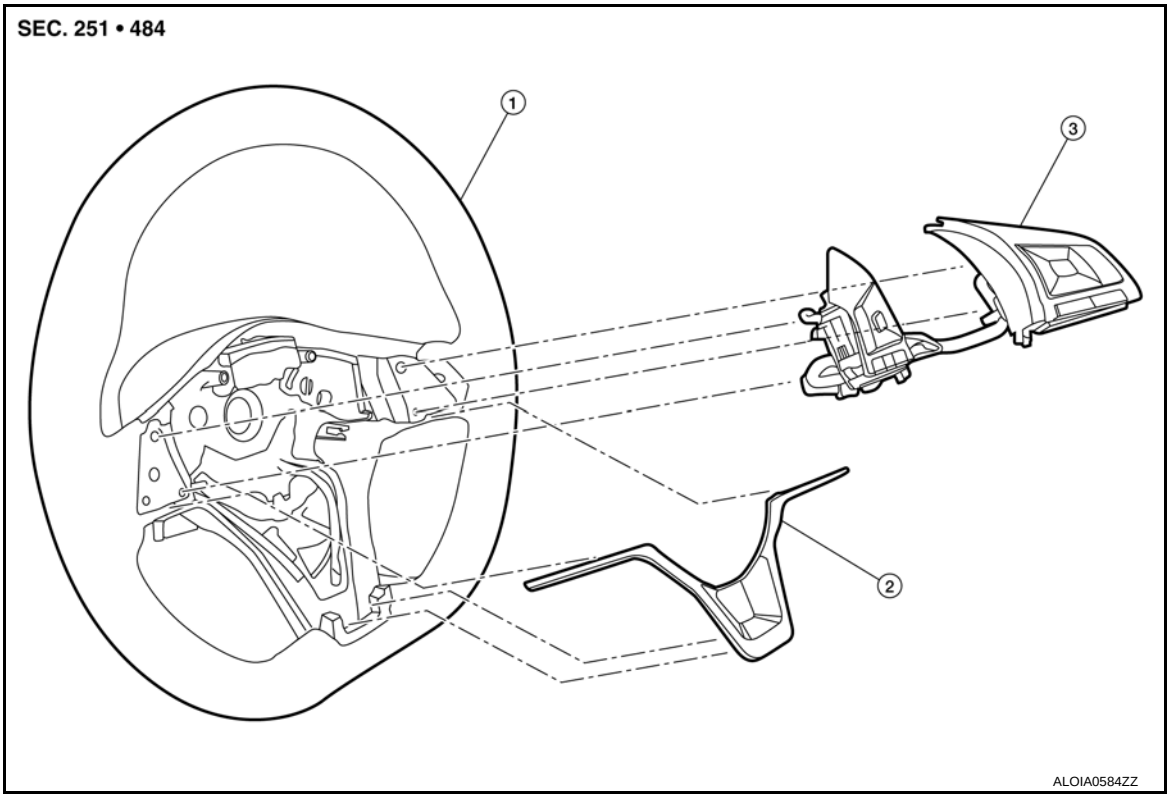
CAUTION:

When replacing audio unit, the audio unit must be registered. Refer to AV-112, "REGISTRATION (AUDIO UNIT) : Description".

STEERING SWITCHES

Exploded View

INFOID:0000000014844333



1. Steering wheel
2. Steering wheel finisher
3. Steering switches

Removal and Installation

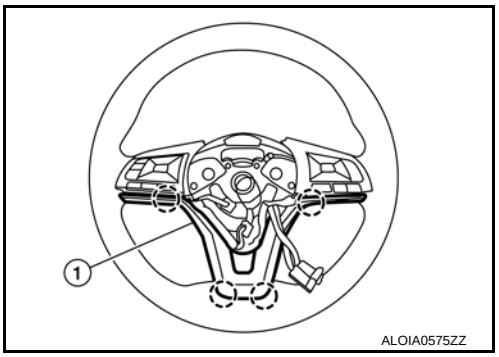
INFOID:0000000014844334

REMOVAL

NOTE:
The steering switches are serviced as an assembly.

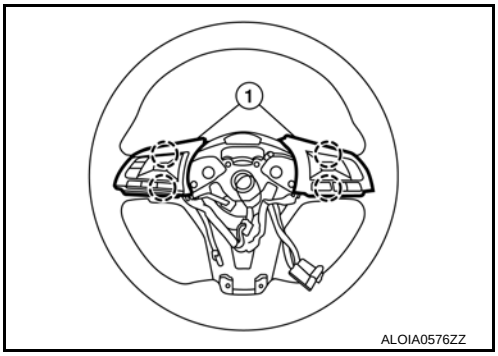
1. Remove driver airbag. Refer to SR-12, "Removal and Installation".
2. Release pawls on the steering wheel front finisher (1) using suitable tool and remove from the steering wheel.

: Pawl



3. Release pawls on the steering switches (1) using suitable tool and remove from the steering wheel.

: Pawl



4. Disconnect the harness connector from the steering switches and remove steering switches.

INSTALLATION

Installation is in the reverse order of removal.

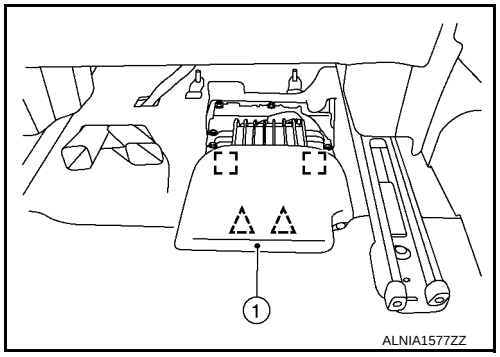
BOSE SPEAKER AMP

Removal and Installation

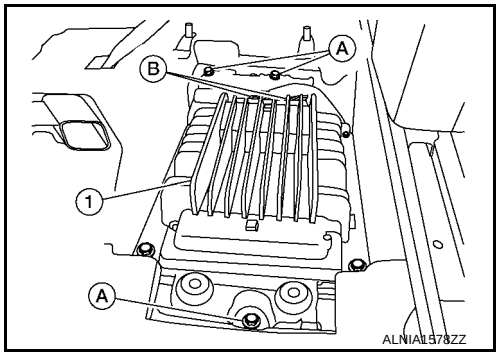
INFOID:0000000014844335

REMOVAL

1. Slide the passenger seat to the full forward position.
2. Release the clips using a suitable tool and remove Bose speaker amp cover (1).
   : Metal clip
   : Clip



3. Remove Bose speaker amp bolts (A).
4. Disconnect the harness connectors (B) from the Bose speaker amp (1).



5. Remove the Bose speaker amp and bracket as an assembly.
6. Remove the bolts and the Bose speaker amp from the Bose speaker amp bracket (if necessary).

INSTALLATION

Installation is in the reverse order of removal.

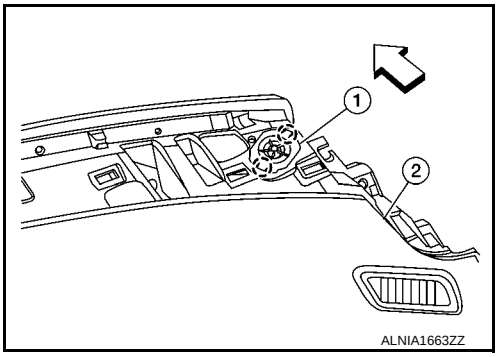
FRONT TWEETER

Removal and Installation

INFOID:0000000014844336

REMOVAL

1. Remove defroster grille. Refer to VTL-13, "DEFROSTER GRILLE : Removal and Installation".
2. Release pawls and pull out the front tweeter (1) from the instrument panel assembly (2).
   ◌ : Pawl
   ⇦ : Front
3. Disconnect the harness connector from the front tweeter and remove.



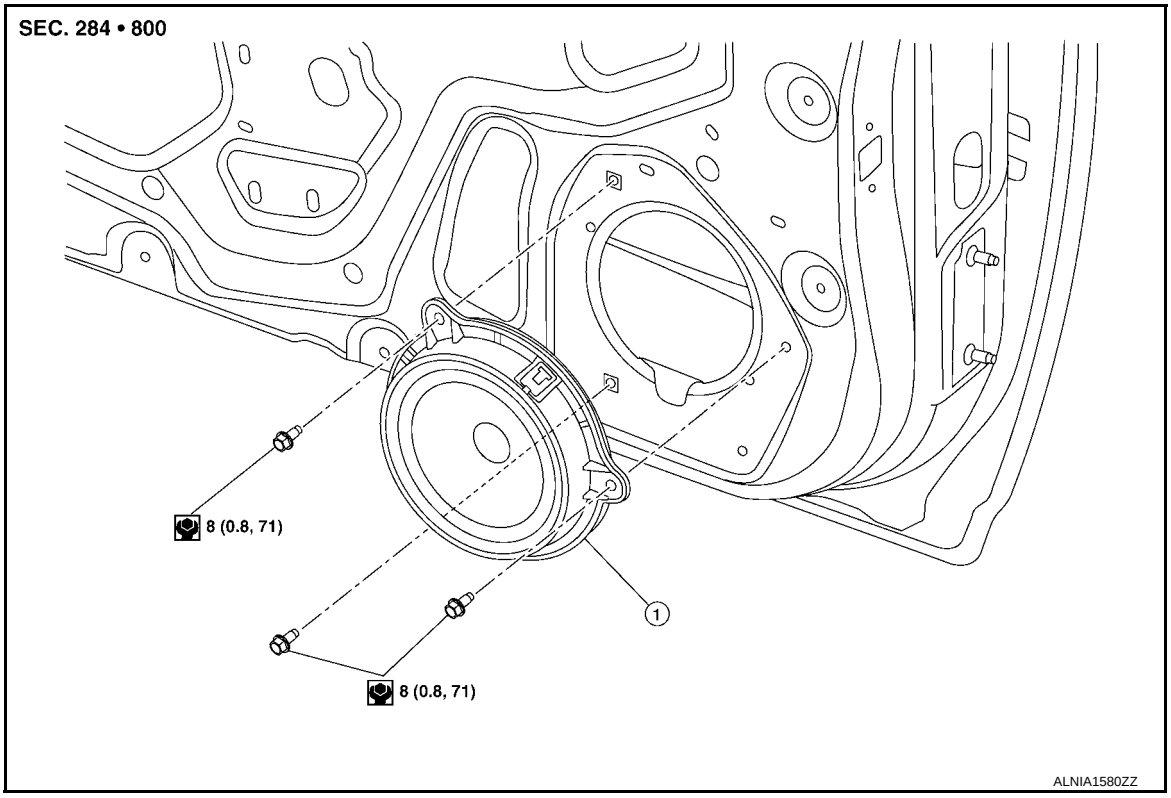
INSTALLATION

Installation is in the reverse order of removal.

FRONT DOOR SPEAKER

Exploded View

INFOID:0000000014844337



1. Front door speaker

Removal and Installation

INFOID:0000000014844338

REMOVAL

1. Remove front door finisher. Refer to INT-15, "Removal and Installation".
2. Remove front door speaker bolts, then pull out front door speaker.
3. Disconnect the harness connector from front door speaker and remove.

INSTALLATION

Installation is in the reverse order of removal.

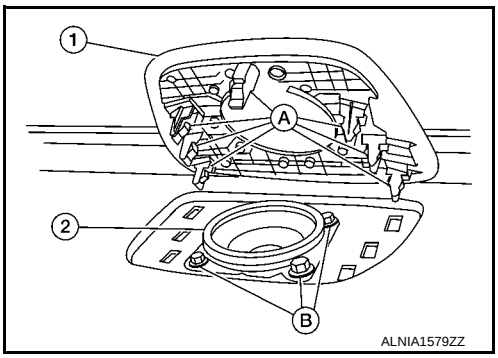
CENTER SPEAKER

Removal and Installation

INFOID:0000000014844339

REMOVAL

1. Release the metal clips (A) using a suitable tool and remove center speaker grille (1).
2. Remove the center speaker bolts (B).
3. Pull out the center speaker (2).



4. Disconnect the harness connector from the center speaker and remove.

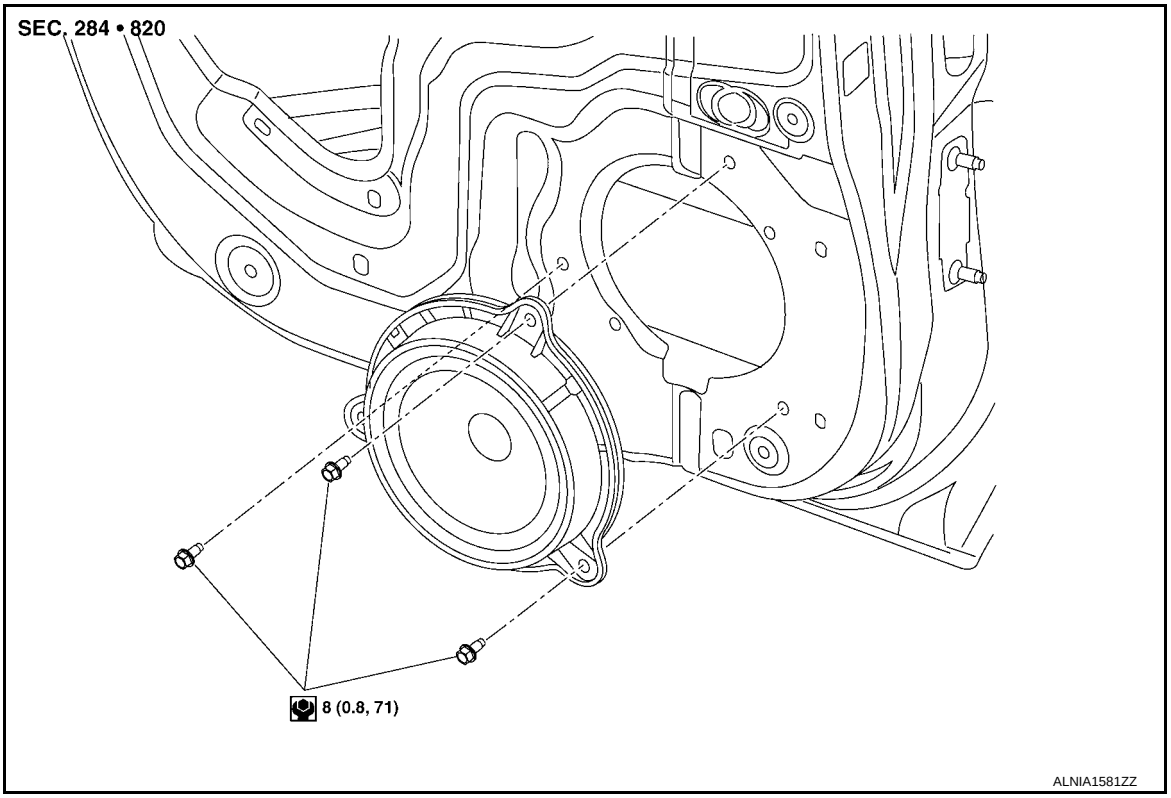
INSTALLATION

Installation is in the reverse order of removal.

REAR DOOR SPEAKER

Exploded View

INFOID:0000000014844340



1. Rear door speaker

Removal and Installation

INFOID:0000000014844341

REMOVAL

1. Remove rear door finisher. Refer to INT-18, "Removal and Installation".
2. Remove rear door speaker bolts, then pull out rear door speaker.
3. Disconnect the harness connector from the rear door speaker and remove.

INSTALLATION

Installation is in the reverse order of removal.

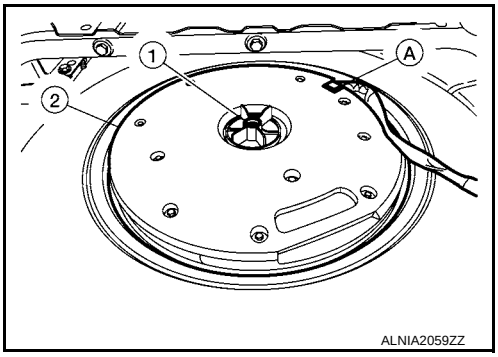
SUBWOOFER

Removal and Installation

INFOID:0000000014844342

REMOVAL

1. Remove the rear luggage floor finisher. Refer to INT-32, "Exploded View".
2. Remove the spare tire clamp (1) by rotating counterclockwise.
3. Disconnect the harness connector (A) from the subwoofer (2) and remove.
   ⇦: Front



INSTALLATION

Installation is in the reverse order of removal.

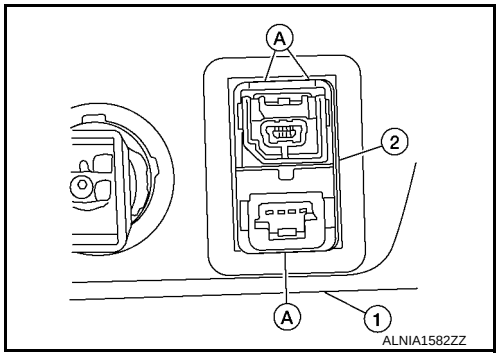
USB INTERFACE AND AUX IN JACK

Removal and Installation

INFOID:0000000014844343

REMOVAL

1. Remove cluster lid C. Refer to IP-21, "Removal and Installation".
2. Release the pawls (A) on the back of USB interface and AUX in jack (2), then remove from the front of cluster lid C (1).



INSTALLATION

Installation is in the reverse order of removal.

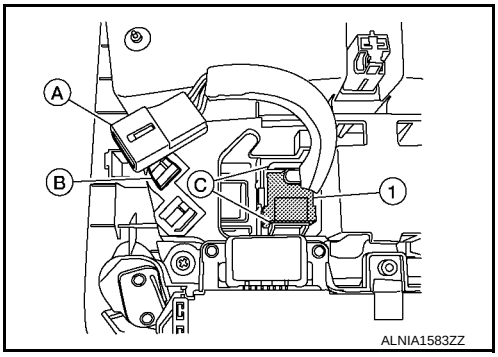
MICROPHONE

Removal and Installation

INFOID:0000000014844344

REMOVAL

1. Remove the map lamp assembly. Refer to INL-52, "Removal and Installation".
2. Release harness connector (A) by sliding rearward to remove from the pawl (B).
3. Release pawls (C) and remove the microphone (1) from the front room/map lamp assembly.



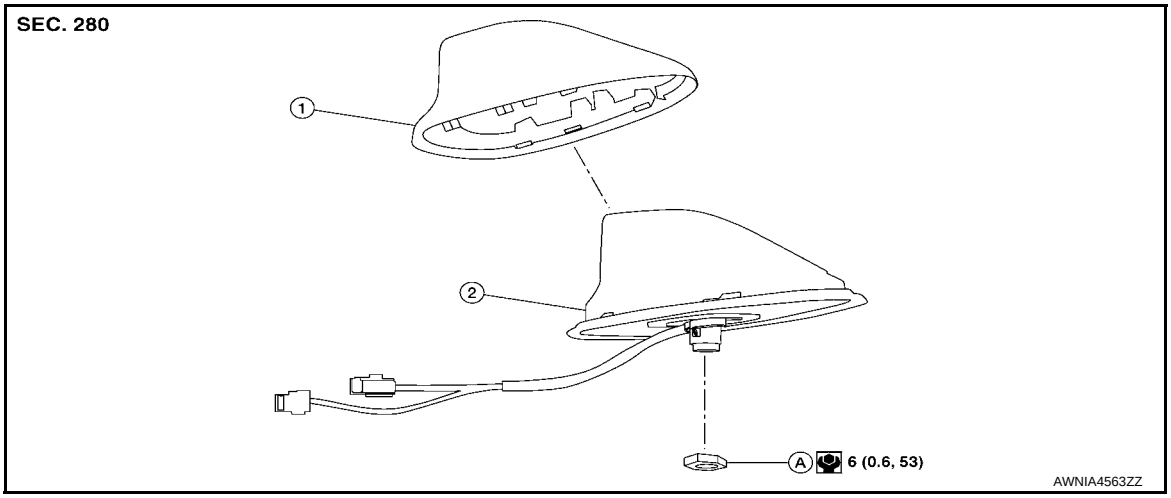
INSTALLATION

Installation is in the reverse order of removal.

ANTENNA BASE

Exploded View

INFOID:0000000014844345



1. Outer cover
2. Antenna base
A. Antenna nut

Removal and Installation

INFOID:0000000014844346

REMOVAL

1. Using a suitable tool, remove the outer cover.
2. Remove the luggage side upper finisher (RH). Refer to INT-33, "LUGGAGE SIDE UPPER FINISHER : Removal and Installation".
3. Partially lower headlining (rear). Refer to INT-29, "Removal and Installation".
4. Disconnect harness connectors from antenna feeder.
5. Remove nut from antenna base and remove.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

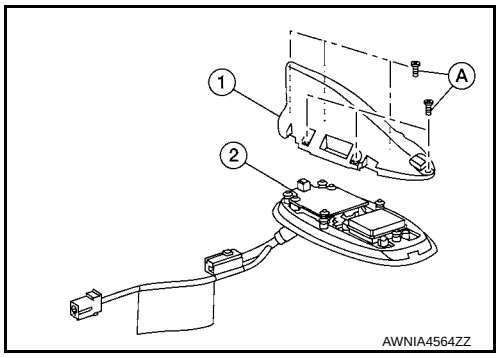
If the antenna base nut is not properly tightened, lower sensitivity of the antenna may be experienced.
If the nut is over tightened, this will deform the roof panel.

Disassembly and Assembly

INFOID:0000000014844347

DISASSEMBLY

Remove the inner cover screws (A), then remove the inner cover (1) from antenna base (2).



ASSEMBLY

Assembly is in the reverse order of disassembly.

PRECAUTION

PRECAUTIONS

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

INFOID:0000000014893877

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

WARNING:

- **To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, it is recommended that all maintenance and repair be performed by an authorized NISSAN/INFINITI dealer.**
- **Improper repair, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SR section.**
- **Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.**

PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

WARNING:

- **When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the Ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.**
- **When using air or electric power tools or hammers, always switch the Ignition OFF, disconnect the battery or batteries, and wait at least three minutes before performing any service.**

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

INFOID:0000000014844349

CAUTION:

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

NOTE:

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

Precaution for Trouble Diagnosis

INFOID:0000000014844350

AV COMMUNICATION SYSTEM

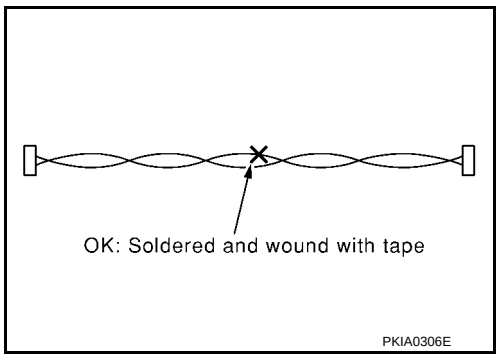
- Do not apply voltage of 7.0 V or higher to the measurement terminals.
- Use the tester with its open terminal voltage being 7.0 V or less.
- Be sure to turn ignition switch OFF and disconnect the battery cable from the negative terminal before checking the circuit.

Precaution for Harness Repair

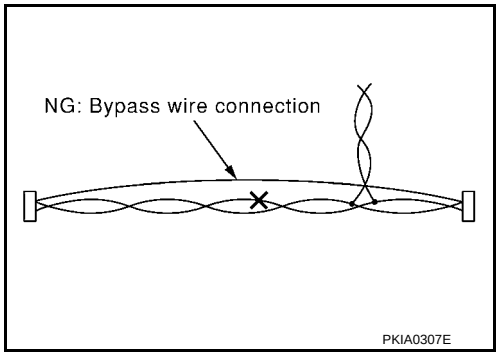
INFOID:0000000014844351

AV COMMUNICATION SYSTEM

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



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



Precaution for Work

INFOID:0000000014844352

- When removing or disassembling each component, be careful not to damage or deform it. If a component may be subject to interference, be sure to protect it with a shop cloth.
- When removing (disengaging) components with a screwdriver or similar tool, be sure to wrap the component with a shop cloth or vinyl tape to protect it.
- Protect the removed parts with a shop cloth and prevent them from being dropped.
- Replace a deformed or damaged clip.
- If a part is specified as a non-reusable part, always replace it with a new one.
- Be sure to tighten bolts and nuts securely to the specified torque.
- After installation is complete, be sure to check that each part works properly.
- Follow the steps below to clean components:

- Water soluble dirt:
- Dip a soft cloth into lukewarm water, wring the water out of the cloth and wipe the dirty area.
- Then rub with a soft, dry cloth.

- Oily dirt:
- Dip a soft cloth into lukewarm water with mild detergent (concentration: within 2 to 3%) and wipe the dirty area.
- Then dip a cloth into fresh water, wring the water out of the cloth and wipe the detergent off.
- Then rub with a soft, dry cloth.

- Do not use organic solvent such as thinner, benzene, alcohol or gasoline.
- For genuine leather seats, use a genuine leather seat cleaner.

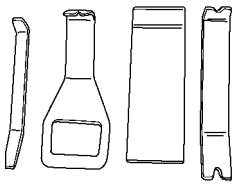
PREPARATION

PREPARATION

Special Service Tool

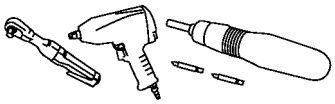
INFOID:0000000014844353

The actual shape of the tools may differ from those illustrated here.

Tool number (TechMate No.) Tool name	Description
— (J-46534) Trim Tool Set  AWJIA0483ZZ	Removing trim components

Commercial Service Tools

INFOID:0000000014844354

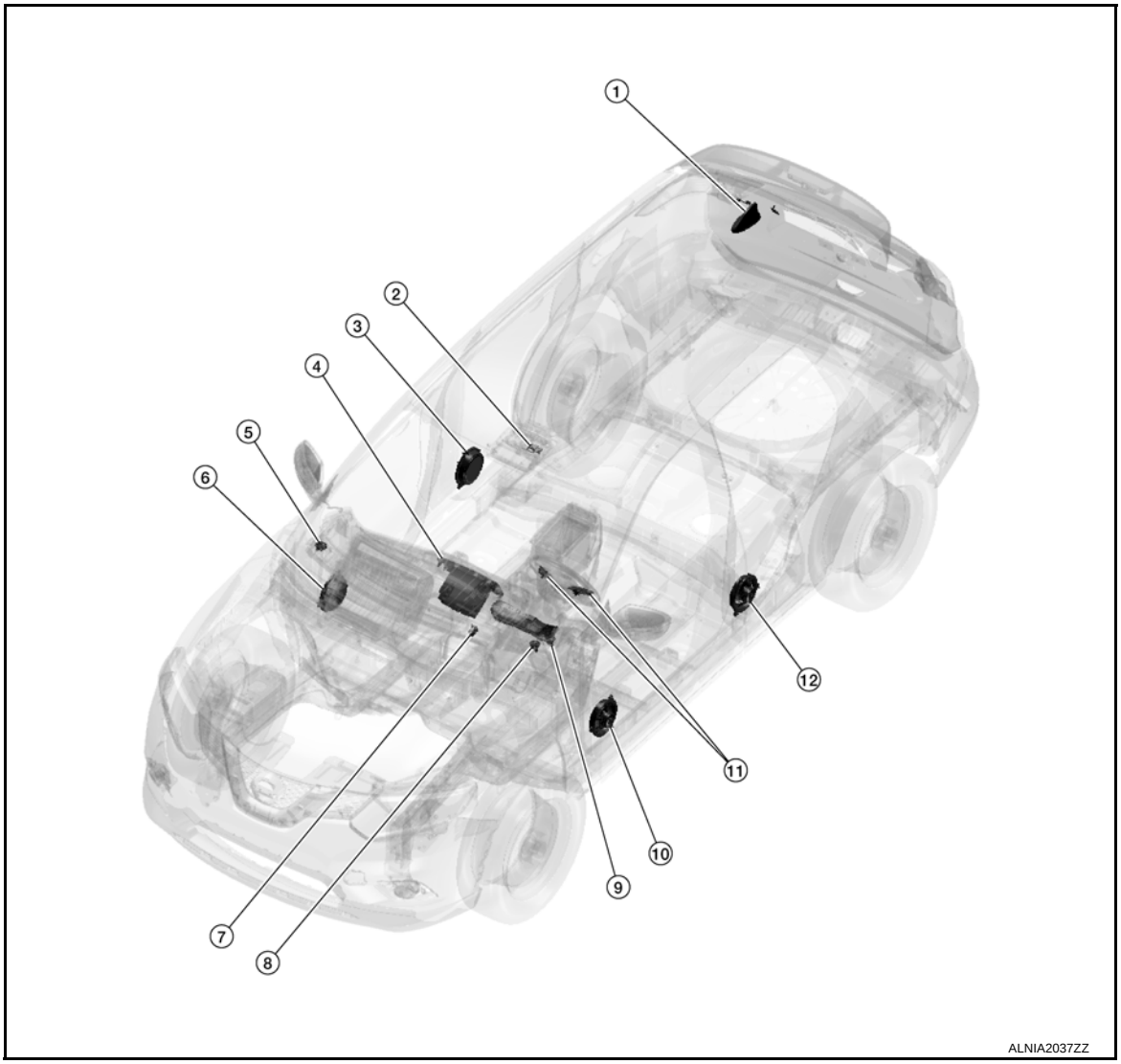
Tool name	Description
Power tool  PIIB1407E	Loosening nuts, screws and bolts

SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

INFOID:0000000015258422



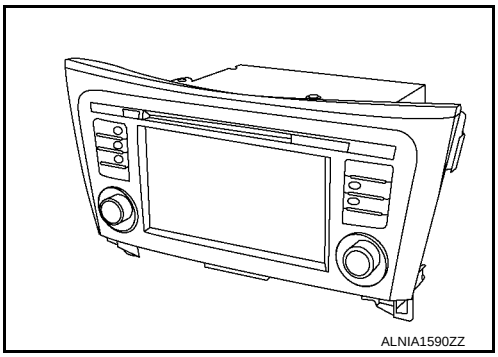
No.	Component	Function
1.	Antenna base (antenna amp., satellite and AM/FM antennas)	Refer to AV-161, "Antenna and Antenna Feeder".
2.	Microphone	Refer to AV-161, "Microphone".
3.	Rear door speaker RH	Refer to AV-160, "Speakers".
4.	AV control unit	Refer to AV-160, "AV Control Unit".
5.	Front tweeter RH	Refer to AV-160, "Speakers".
6.	Front door speaker RH	
7.	USB interface and AUX in jack	Refer to AV-161, "USB Interface and AUX In Jack".
8.	Front tweeter LH	Refer to AV-160, "Speakers".
9.	Combination meter	Refer to AV-161, "Combination Meter".
10.	Front door speaker LH	Refer to AV-160, "Speakers".
11.	Steering switches	Refer to AV-161, "Steering Switches".
12.	Rear door speaker LH	Refer to AV-160, "Speakers".

AV Control Unit

INFOID:0000000015258423

- A 7-inch WVGA display, an AM/FM electronic tuner radio, CD drive, audio amplifier, camera controller and navigation unit are integrated into the AV control unit.
- The 7-inch display is a high resolution monitor that includes touch panel functions.
- Music files stored in iPod®*/USB memory can be played using the separate USB interface.
- Music files stored in an external audio device can be played using the separate AUX in jack.

*: iPod® is a registered trademark of Apple, Inc. All rights reserved.

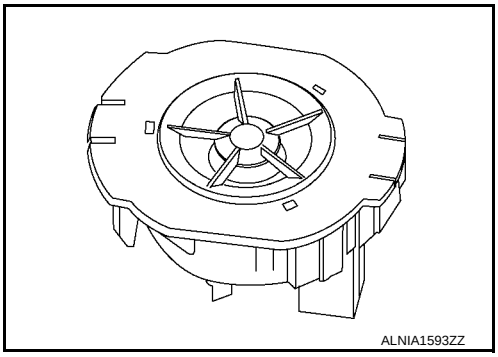

ALNIA1590ZZ

Speakers

INFOID:0000000015258424

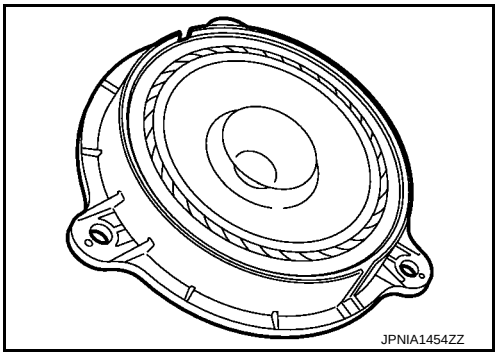
FRONT TWEETER

- 2.5 cm (1 in) tweeters are installed in the top front corners of the instrument panel.
- Sound signals are input from the AV control unit to output high range sounds.


ALNIA1593ZZ

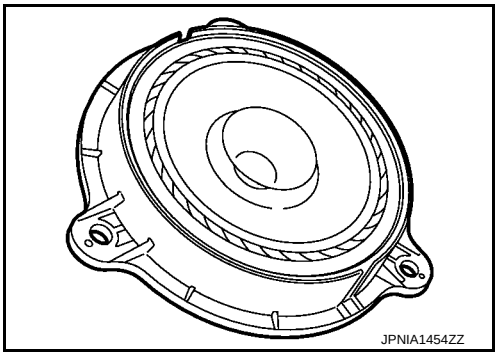
FRONT DOOR SPEAKER

- 16.5 cm (6.5 in) speakers are installed in the bottom of the front doors.
- Sound signals are input from the AV control unit to output low range sounds.


JPNIA1454ZZ

REAR DOOR SPEAKER

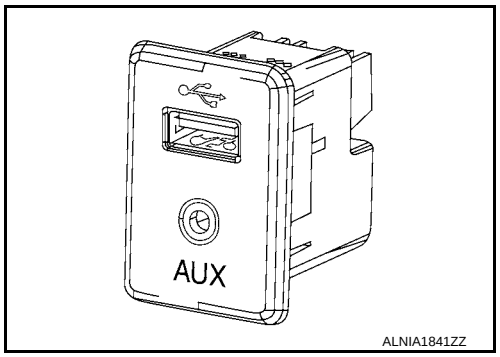
- 16.5 cm (6.5 in) speakers are installed in the bottom of the rear doors.
- Sound signals are input from the AV control unit to output high, mid and low range sounds.


JPNIA1454ZZ

USB Interface and AUX In Jack

INFOID:0000000015258425

- USB Interface and AUX in jack is installed in the console.
- iPod® and USB memory can be connected to the AV control unit through the USB interface.
- An external audio device can be connected to the AV control unit through the AUX in jack.

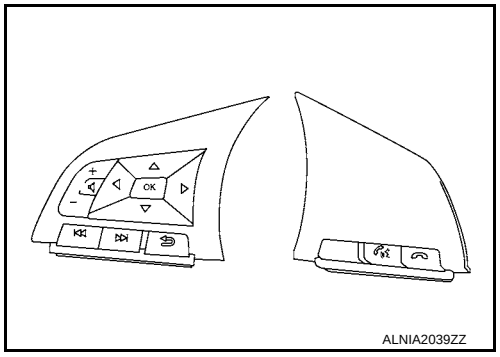


ALNIA1841ZZ

Steering Switches

INFOID:0000000015258426

- Steering switches are installed in the steering wheel.
- Operations for audio and hands-free phone are possible.
- Switches are connected to the combination meter.
- Combination meter is connected to the AV control unit via AV communication.

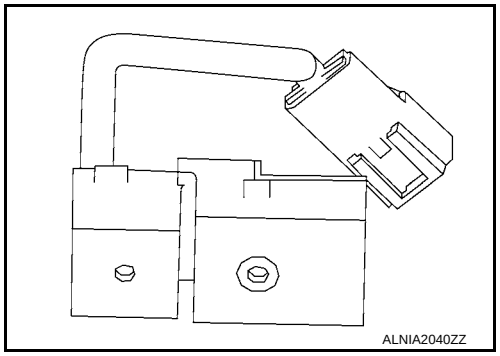


ALNIA2039ZZ

Microphone

INFOID:0000000015258427

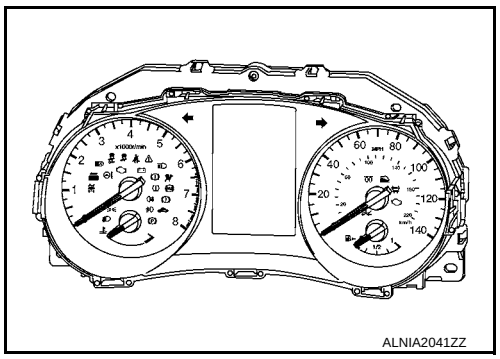
- The microphone is installed in the roof in the map lamp assembly.
- The power is supplied from the AV control unit.


ALNIA2040ZZ

Combination Meter

INFOID:0000000015258428

- Combination meter sends the speed signal to the audio unit.
- Steering switches are connected to the combination meter.
- Combination meter sends the steering switch signals to the audio unit via AV communication.


ALNIA2041ZZ

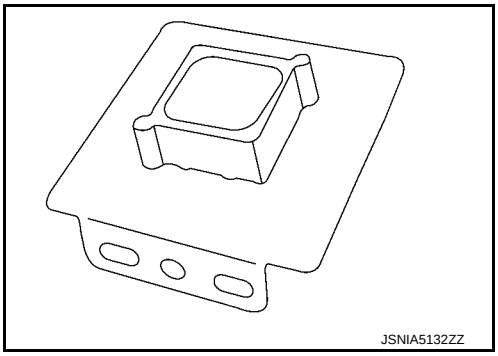
Antenna and Antenna Feeder

INFOID:0000000015258429

GPS ANTENNA

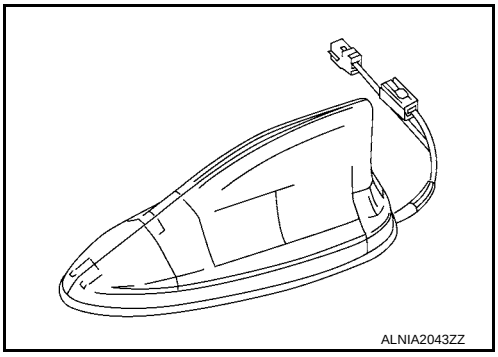
- GPS antenna is installed in the instrument panel.
- Power is supplied from the AV control unit.
- This antenna amplifies radio waves received from the GPS satellite and transmits the GPS signal to the AV control unit.

NOTE:
An object on the instrument panel may cause the reception sensitivity to be decreased.

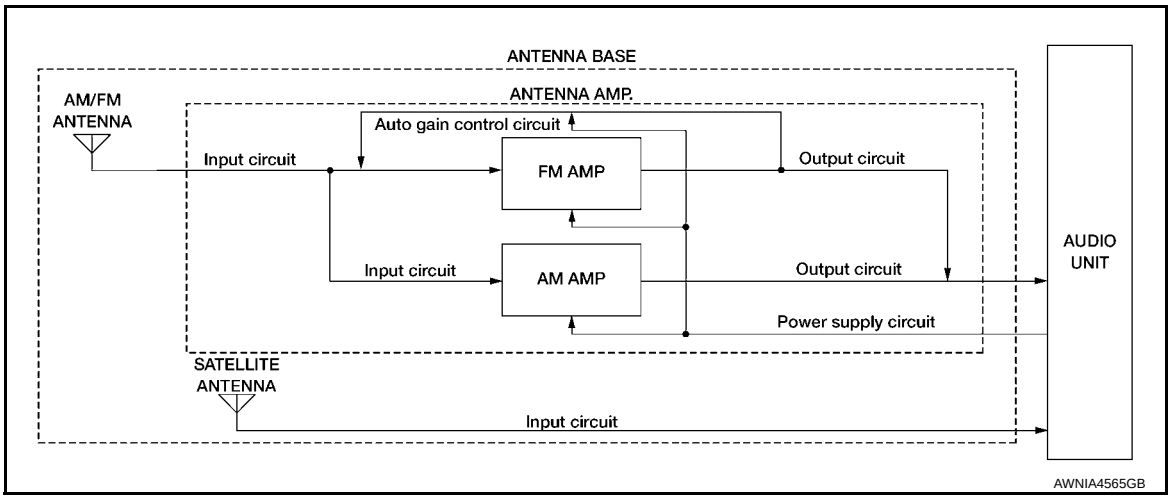

JSNIA5132ZZ

ROOF ANTENNA

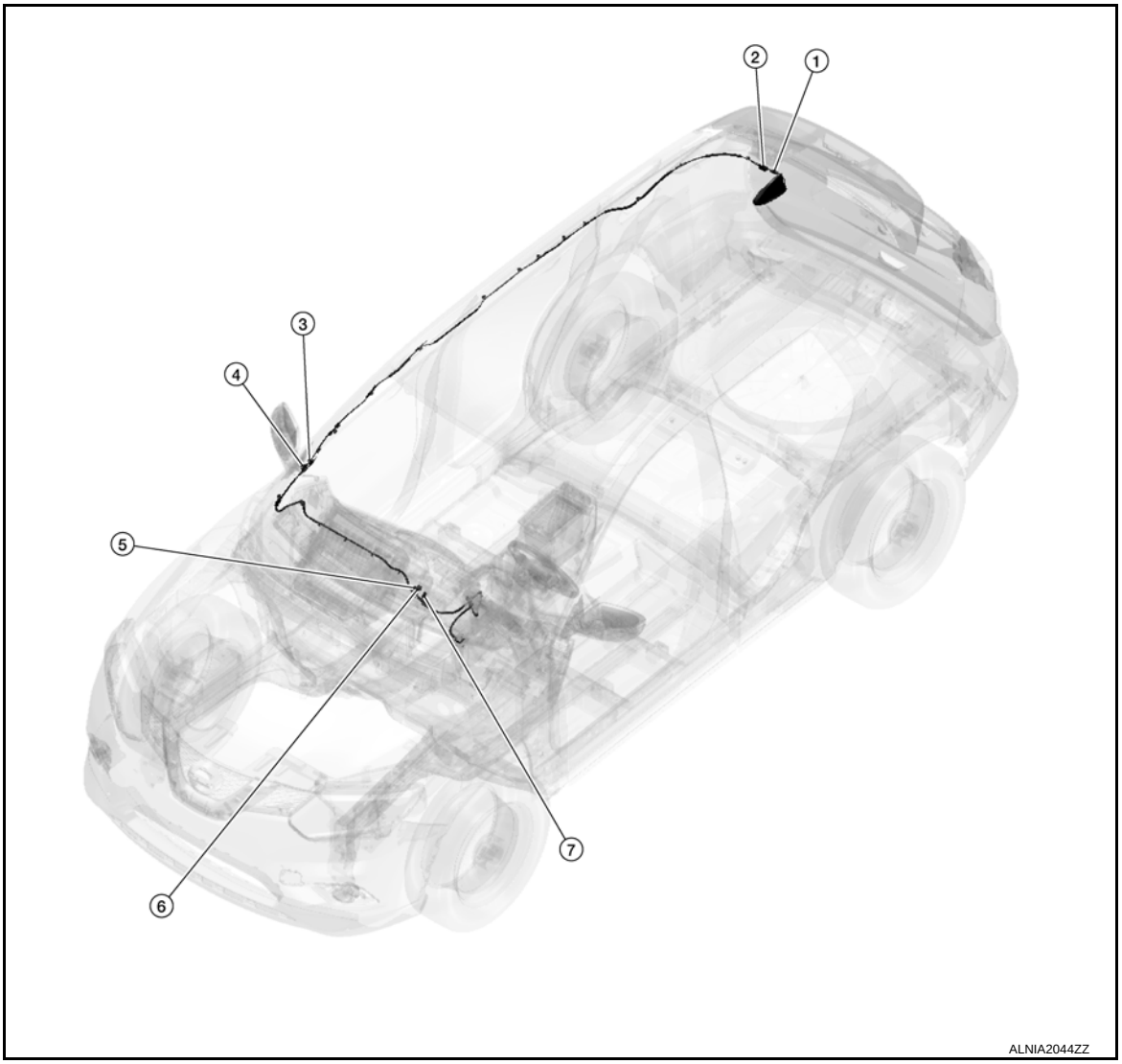
- AM/FM radio/satellite radio antenna is installed on the rear center of the roof.
- It receives radio waves and outputs them to AV control unit.
- It receives satellite radio waves and outputs them to AV control unit.
- Antenna amp. is integral to the roof antenna.


ALNIA2043ZZ

- The AM/FM radio antenna has an antenna amp. to obtain sufficient reception power.



ANTENNA FEEDER LAYOUT



1. M503
2. M502
3. M130, M501
4. M129, M500
5. M142
6. M139
7. M141

SD Card

INFOID:0000000015258430

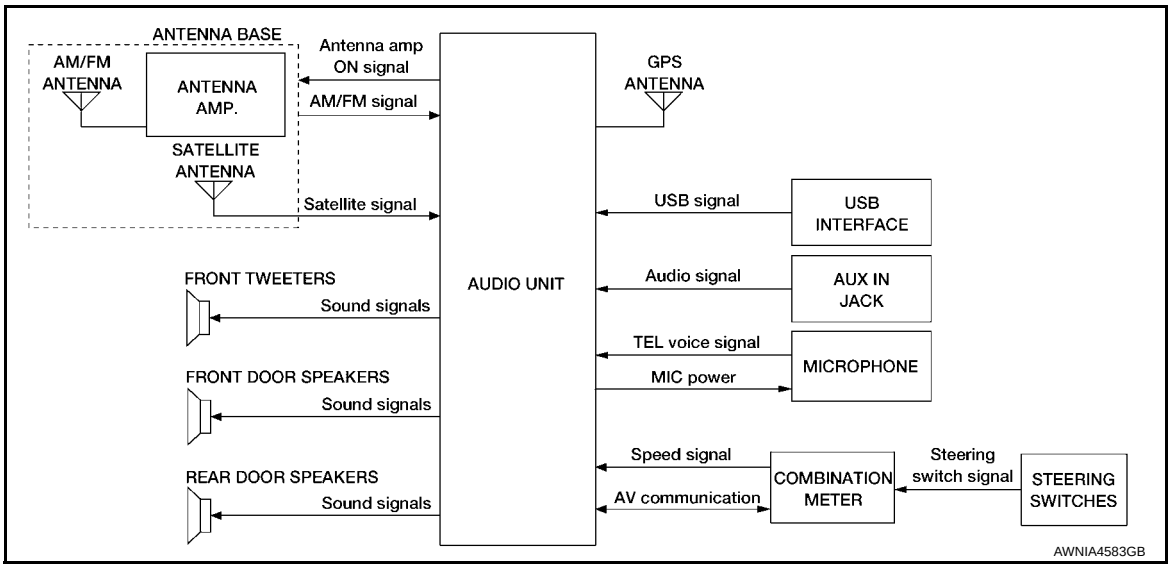
- Map data is memorized in the SD card.
- Map data is sent to the AV control unit from the SD slot.

SYSTEM

System Description

INFOID:0000000015258431

SYSTEM DIAGRAM



AUDIO SYSTEM

The audio system consists of the following component:

- AV control unit
- Front tweeters
- Front door speakers
- Rear door speakers
- USB interface
- AUX in jack
- Steering switches
- Antenna base (AM/FM antenna, antenna amp. and satellite antenna)

When the audio system is on, AM/FM signals received by the AM/FM antenna are amplified by the antenna amp. and sent to the AV control unit. The AV control unit then sends audio signals to the front tweeters, front door speakers and rear door speakers.

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

NAVIGATION SYSTEM

Description

- The navigation system can be operated by control panel of the AV control unit and display (touch panel) of the AV control unit.
- Guide sound during the operation of the navigation system is output from AV control unit to front tweeters.
- AV control unit calculates the vehicle location based on the signals from GYRO (angle speed sensor), vehicle sensor, and GPS satellite, as well as the map data from map SD-card. The vehicle location is displayed on the AV control unit.

POSITION DETECTION PRINCIPLE

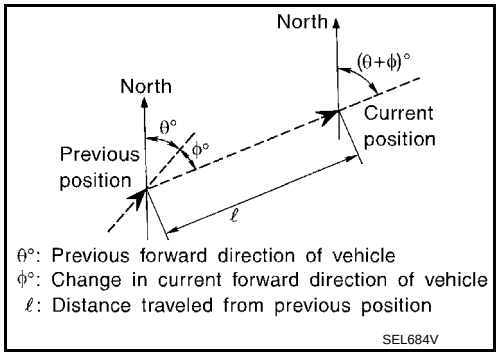
The navigation system periodically calculates the vehicle's current position according to the following three signals:

- Travel distance of the vehicle as determined by the vehicle speed sensor
- Turning angle of the vehicle as determined by the gyroscope (angular velocity sensor)
- Direction of vehicle travel as determined by the GPS antenna (GPS information)

The current position of the vehicle is then identified by comparing the calculated vehicle position with map data read from the map SD-card (map-matching), and indicated on the screen as a vehicle mark. More accurate data is judged and used by comparing vehicle position detection results found by the GPS with the result by map-matching.

The current vehicle position will be calculated by detecting the distance the vehicle moved from the previous calculation point and its direction.

- Travel distance
  Travel distance calculations are based on the vehicle speed sensor input signal. Therefore, the calculation may become incorrect as the tires wear down. To prevent this, an automatic distance correction function has been adopted.
- Travel direction
  Change in the travel direction of the vehicle is calculated by a gyroscope (angular velocity sensor) and a GPS antenna (GPS information). They have both advantages and disadvantages.



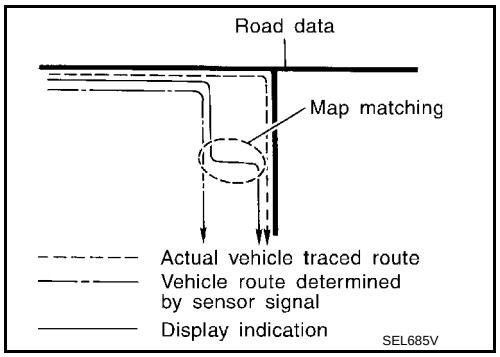
Type	Advantage	Disadvantage
Gyroscope (angular velocity sensor)	Can detect the vehicle's turning angle quite accurately.	Direction errors may accumulate when vehicle is driven for long distances without stopping.
GPS antenna (GPS information)	Can detect the vehicle's travel direction (North/South/East/West).	Correct direction cannot be detected when vehicle speed is low.

More accurate traveling direction is detected because priorities are set for the signals from these two devices according to the situation.

MAP-MATCHING

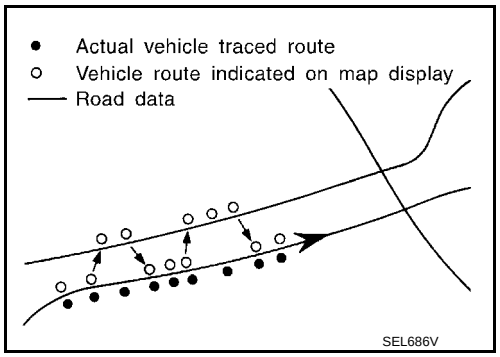
Map-matching compares a current location detected by the method in the “Location Detection Principle” with a road map data from map SD-card.

NOTE:
The road map data is based on data stored in the map SD-card.

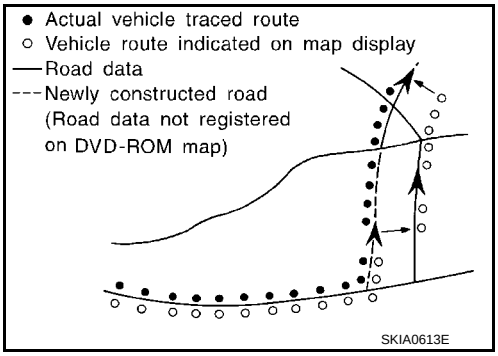


The vehicle position may not be corrected under the following circumstances and after driving for a certain time when GPS information is difficult to receive. In this case, the vehicle mark on the display must be corrected manually:

- In map-matching, alternative routes to reach the destination will be shown and prioritized, after the road on which the vehicle is currently driven has been judged and the vehicle mark has been repositioned.
  Alternative routes will be shown in different order of priority, and the incorrect road can be avoided if there is an error in distance and/or direction.
  Routes are of the same priority if two roads are running in parallel. Therefore, the vehicle mark may appear on either of them alternately, depending on maneuvering of the steering wheel and configuration of the road.



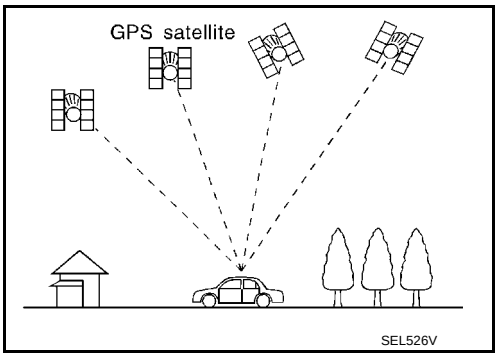
- Map-matching does not function correctly when a road on which the vehicle is driving is new and not recorded in the map SD-card, or when road pattern stored in the map data and the actual road pattern are different due to repair.
  The map-matching function may find another road and position the vehicle mark on it when driving on a road not present in the map. Then, the vehicle mark may change to it when the correct road is detected.
- Effective range for comparing the vehicle position and travel direction calculated by the distance and direction with the road data read from the map SD-card is limited. Therefore, correction by map-matching is not possible when there is an excessive gap between current vehicle position and the position on the map.



GPS (Global Positioning System)

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

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



Accuracy of the GPS will deteriorate under the following conditions:

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

NOTE:

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

USB INTERFACE

- iPod® or music files in USB memory can be played.
- Sound signals are transmitted from USB interface to the AV control unit and output to each speaker.
- iPod® is recharged when connected to USB interface.

AUX IN JACK

- Sound can be output from an external device by connecting a device to the AUX in jack.
- AUX sound signals are transmitted to each speaker via AV control unit.

SPEED SENSITIVE VOLUME SYSTEM

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

HANDS-FREE PHONE SYSTEM

- Bluetooth® control is built into AV control unit.
- The connection between cellular phone and AV control unit is performed with Bluetooth® communication.
- The voice guidance signal is input from the AV control unit and output to the front speakers when operating the cellular phone.

When A Call Is Originated

- Spoken voice sound output from the microphone (microphone signal) is input to AV control unit.
- AV control unit outputs to cellular phone with Bluetooth® communication as a TEL voice signal.
- Voice sound is then heard at the other party.

When Receiving A Call

- Voice sound is input to own cellular phone from the other party.
- TEL voice signal is input to AV control unit by establishing Bluetooth® communication from cellular phone, and the signal is output to front speakers.

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

Description

INFOID:0000000015258432

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

Mode		Item	Content
Version		—	Version data of the AV control unit is displayed.
User Configuration	Touch Display Calibration	—	Allows correction of the position detection accuracy of the touch panel.
Radio	FM monitor	—	Monitors the dynamic values of the current tuner
	AM monitor	—	
	SXM monitor	—	Version data is displayed.
System State	Running System Status	• SD card slot Access • Power Supply • Speed Signal • Direction Signal • Illumination Signal • GPS Antenna • GPS Tracking • Satellites Visible • Satellites Tracked • Microphone Current • Steering wheel key • Radio Antenna • SXM Antenna • USB Device • iPod® firmware version • BT Status	The current system status is displayed.
	Speaker Test 4kHz	—	This activates a sequence of test tone outputs to the audio circuits one after the other for 1 second.
	Speaker Test 100Hz		
	Display-Test	—	This provides a test sequence where test displays (plain colored display: e.g. white, black, red, blue, green) are shown one after the other. The respective color is shown for an indicated period of time (parameter). After the display test, the design of the display previously available is stored. While the screen shows a plain colored display, a pixel malfunction may be detected.
Self Test		• SD Card Access • BT Module Access • Radio Antenna • GPS Antenna • SXM Antenna	A system self test is executed and the results are stored into the error memory.

Perform CONSULT diagnosis if the AV control unit on board diagnosis does not start or the screen does not display anything.

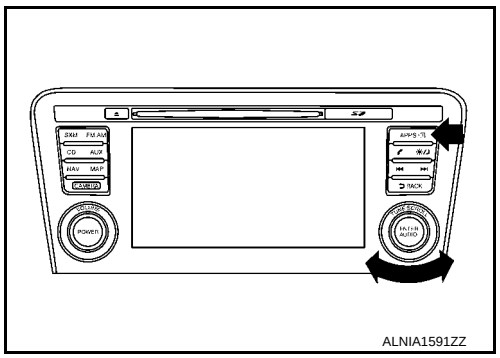
On Board Diagnosis Function

INFOID:0000000015258433

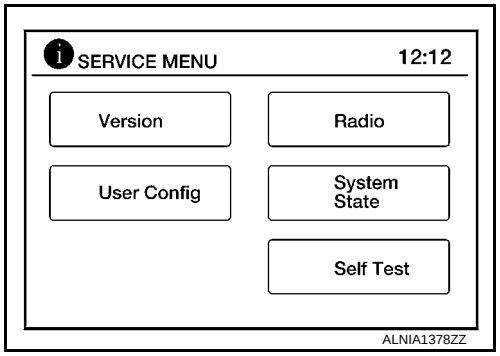
METHOD OF STARTING

1. Turn the ignition ON.

2. While pressing the APPS button, turn the TUNE-SCROLL dial counterclockwise 3 or more clicks, then clockwise 3 or more clicks, then counterclockwise 3 or more clicks. Shifting from current screen to previous screen is performed by pressing BACK button.



3. The trouble diagnosis initial screen is displayed, and Version, User Config, Radio, System State or Self Test can be selected.



CONSULT Function

INFOID:0000000015258434

CONSULT FUNCTIONS

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

Direct Diagnostic Mode	Description
Ecu Identification	The AV control unit part number is displayed.
Self Diagnostic Result	The AV control unit self diagnostic results are displayed.
Data Monitor	The AV control unit input/output data is displayed in real time.
Configuration	• The vehicle specification can be read and saved. • The vehicle specification can be written when replacing AV control unit.
CAN Diag Support Mntr	• The result of transmit/receive diagnosis of AV communication is displayed. • The result of transmit/receive diagnosis of CAN communication is displayed.

ECU IDENTIFICATION

The part number of AV control unit is displayed.

SELF DIAGNOSTIC RESULT

Refer to AV-173, "DTC Index".

DATA MONITOR

Monitor Item [Unit]	Description
VHCL SPD SIG [On/Off]	Indicates vehicle speed signal received from combination meter on CAN communication line.
ILLUM SIG [On/Off]	Indicates condition of illumination signal for the AV control unit.
IGN SIG [On/Off]	Indicates condition of ignition signal.
REV SIG [On/Off]	Indicates condition of reverse signal received from BCM.

CONFIGURATION

Refer to AV-190, "CONFIGURATION (AV CONTROL UNIT) : Description".

CAN DIAG SUPPORT MNTR

Refer to LAN-23, "CAN Diagnostic Support Monitor".

ECU DIAGNOSIS INFORMATION

AV CONTROL UNIT

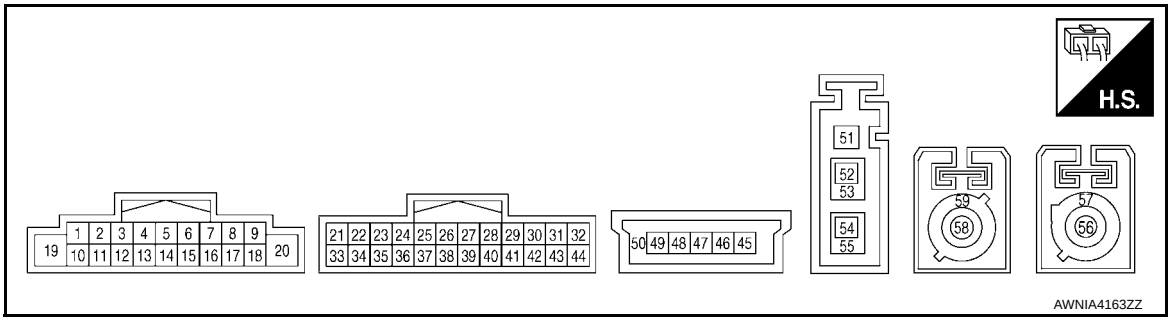
Reference Value

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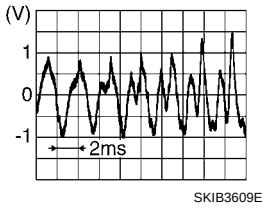
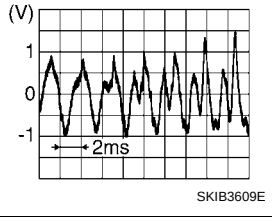
VALUES ON THE DIAGNOSIS TOOL

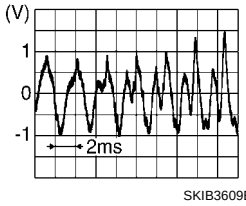
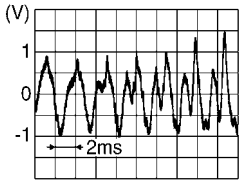
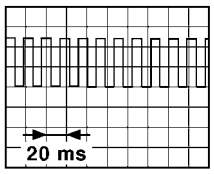
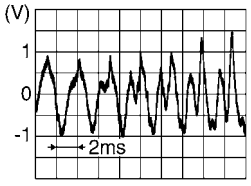
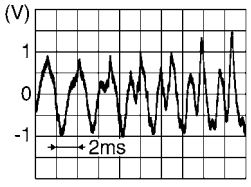
Monitor Item	Condition	Value/Status
VHCL SPD SIG	Vehicle speed = 0 km/h (0 MPH).	Off
	Vehicle speed > 0 km/h (0 MPH).	On
ILLUM SIG	Illumination signal is not received.	Off
	Illumination signal is received.	On
IGN SIG	Ignition switch OFF.	Off
	Ignition switch ON.	On
REV SIG	Selector lever in any position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

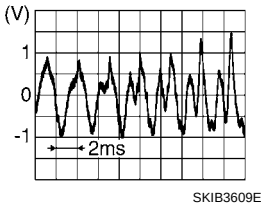
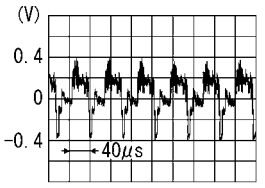
TERMINAL LAYOUT



PHYSICAL VALUES

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output	Ignition switch	Operation	
2 (W)	3 (P)	Sound signal front speaker and tweeter LH	Output	ON	Sound output	 SKIB3609E
4 (GR)	5 (BR)	Sound signal rear speaker LH	Output	ON	Sound output	 SKIB3609E
7 (W)	Ground	ACC power supply	Input	ON	—	Battery voltage
8 (L)	—	CAN high	Input/ Output	—	—	—

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output	Ignition switch	Operation	
9 (V)	Ground	Illumination control signal	Input	ON	Headlamps ON	Battery voltage
11 (G)	12 (V)	Sound signal front speaker and tweeter RH	Output	ON	Sound output	 SKIB3609E
13 (LG)	14 (Y)	Sound signal rear speaker RH	Output	ON	Sound output	 SKIB3609E
17 (R)	—	CAN low	Input/ Output	—	—	—
18 (G)	Ground	Vehicle speed signal	Input	ON	When vehicle speed is approx. 40 km/h (25 MPH)	 JSNIA0012GB
19 (L)	Ground	Battery power supply	Input	OFF	—	Battery voltage
20 (B)	Ground	Ground	—	ON	—	0 V
21 (G)	Ground	AUX jack audio signal RH	Input	ON	Received audio signal (AUX input)	 SKIB3609E
22 (Y)	Ground	AUX ground	—	ON	—	0V
23 (L)	Ground	AUX jack audio signal LH	Input	ON	Received audio signal (AUX input)	 SKIB3609E
24 (R)	—	HE/VR mode change	—	—	—	—

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output	Ignition switch	Operation	
25 (BR)	Ground	Reverse signal	Input	ON	Selector lever in R (reverse)	Battery voltage
					Selector lever in any position other than R (reverse)	0 V
30 (BG)	—	MR output	Output	—	—	—
31 (SB)	—	AV communication high	Input/ Output	—	—	—
32 (LG)	—	AV communication low	Input/ Output	—	—	—
34 (W)	36 (Shield)	Microphone signal	Input	ON	While speaking into microphone.	 SKIB3609E
35 (B)	—	MIC VCC	Input	ON	—	—
37 (Shield)	—	AUX signal shield	—	—	—	—
38 (SB)	—	AV communication high	Input/ Output	—	—	—
39 (LG)	—	AV communication low	Input/ Output	—	—	—
40 (LG)	Ground	Ignition power supply	Input	ON	—	Battery voltage
41 (G)	Ground	Camera image signal	Input	ON	When camera image is displayed	 SKIB2251J
42 (Shield)	—	Camera image signal shield	—	—	—	—
45 (R)	—	V BUS signal	—	—	—	—
46 (W)	—	USB D– signal	—	—	—	—
47 (G)	—	USB + signal	—	—	—	—
49 (B)	—	USB ground	—	—	—	—
50 (Shield)	—	USB shield	—	—	—	—
51 (B)	Ground	Antenna amp. ON signal	Output	ON	AV control unit ON, FM-AM selected.	Battery voltage

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output	Ignition switch	Operation	
52 (B)	Ground	AM-FM main antenna	Input	ON	AV control unit ON, FM-AM selected.	5.0 V
53 (Shield)	—	Antenna amp. Shield	—	—	—	—
56 (B)	Ground	Satellite antenna signal	Input	ON	AV control unit ON, SXM selected.	5.0 V
57 (Shield)	—	Satellite antenna shield	—	—	—	—
58 (B)	Ground	GPS antenna signal	Input	ON	AV control unit ON, NAV selected.	5.0 V
59 (Shield)	—	GPS antenna shield	—	—	—	—

DTC Index

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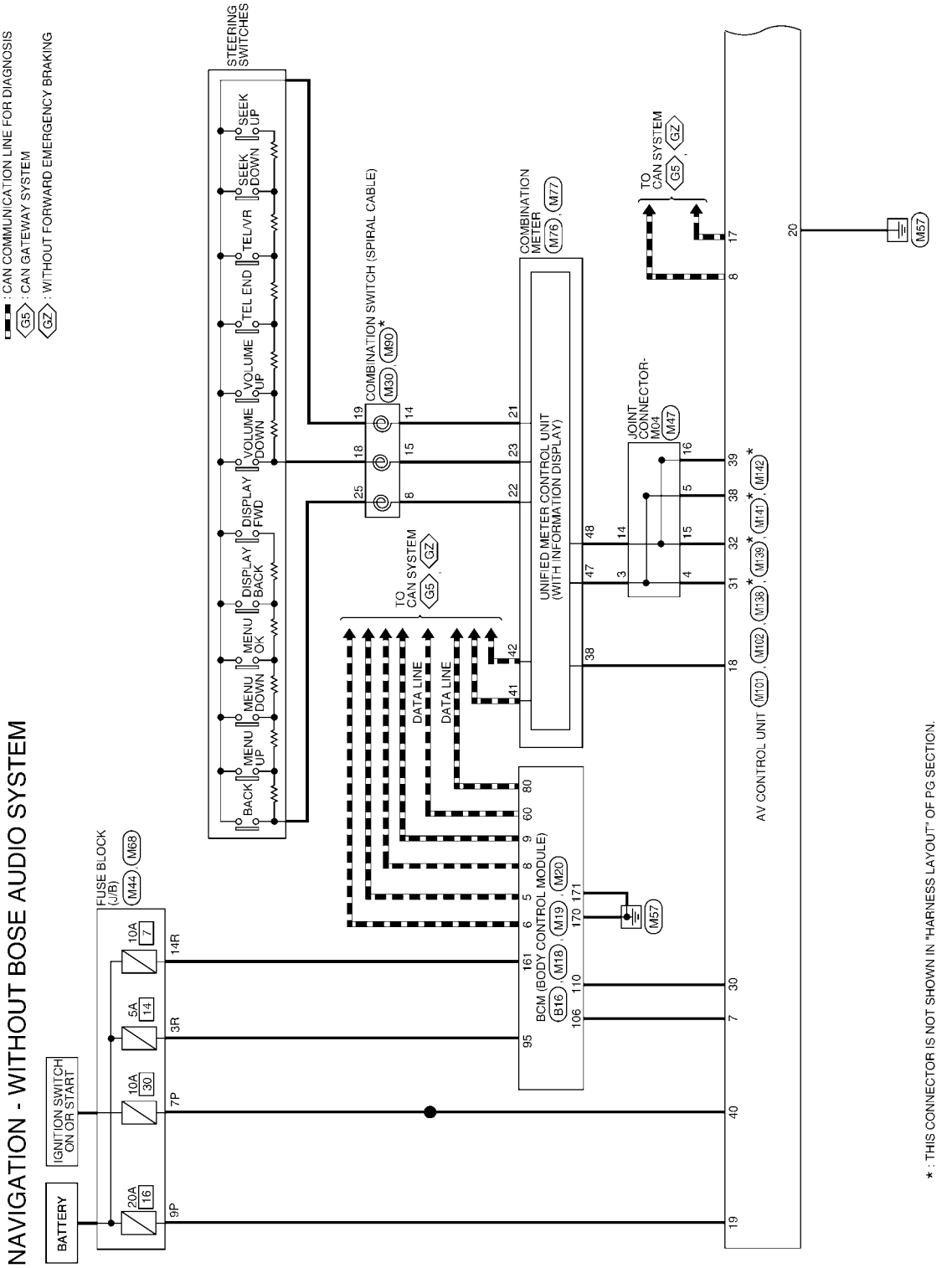
CONSULT Display	Reference Page
U1000: CAN COMM CIRCUIT	AV-193, "DTC Description"
U1010: CONTROL UNIT (CAN)	AV-194, "DTC Description"
U1217: BLUETOOTH MODULE	AV-195, "DTC Description"
U1229: iPod CERTIFICATION	AV-196, "DTC Description"
U122F: Digital broadcasting connection error	AV-197, "DTC Description"
U1244: GPS ANTENNA CONN	AV-198, "DTC Description"
U1258: SXM ANTENNA CONN	AV-199, "DTC Description"
U1263: USB OVERCURRENT	AV-201, "DTC Description"
U12AA: Configuration Error	AV-202, "DTC Description"
U12AB: FM Antenna error	AV-203, "DTC Description"
U12AC: Display Temperature too High	AV-204, "DTC Description"
U12AD: ECU Temperature too High	AV-205, "DTC Description"
U12AE: Internal Amplifier temperature Warning	AV-206, "DTC Description"
U12AF: CD Mechanism Temperature Warning	AV-207, "DTC Description"
U12B0: Supply Voltage Goes below 9V > 20s	AV-208, "DTC Description"
U12B1: Supply Voltage Goes High > 16V for 20s	AV-209, "DTC Description"
U1300: AV COMM CIRCUIT	AV-210, "DTC Description"
U1310: CONTROL UNIT(AV)	AV-212, "DTC Description"

WIRING DIAGRAM

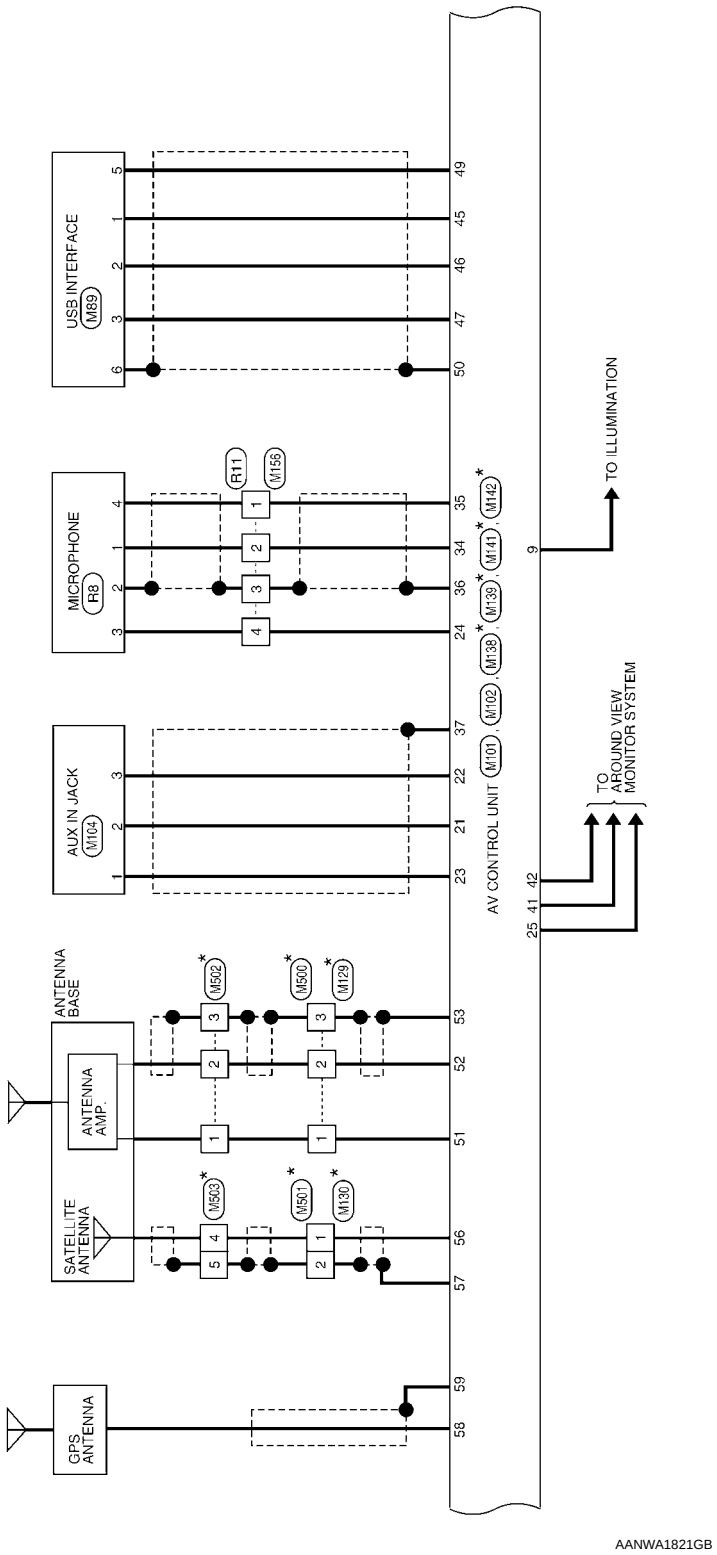
NAVIGATION WITHOUT BOSE

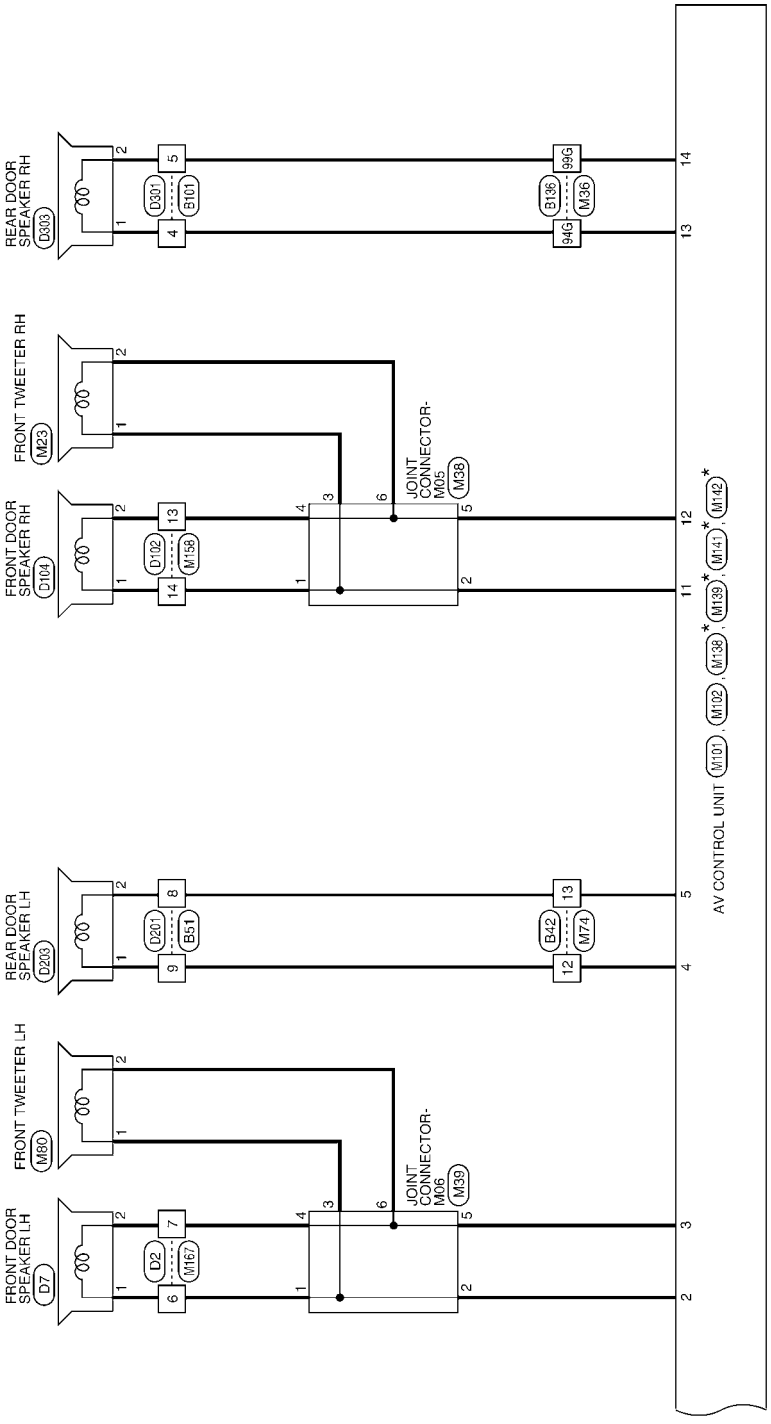
Wiring Diagram

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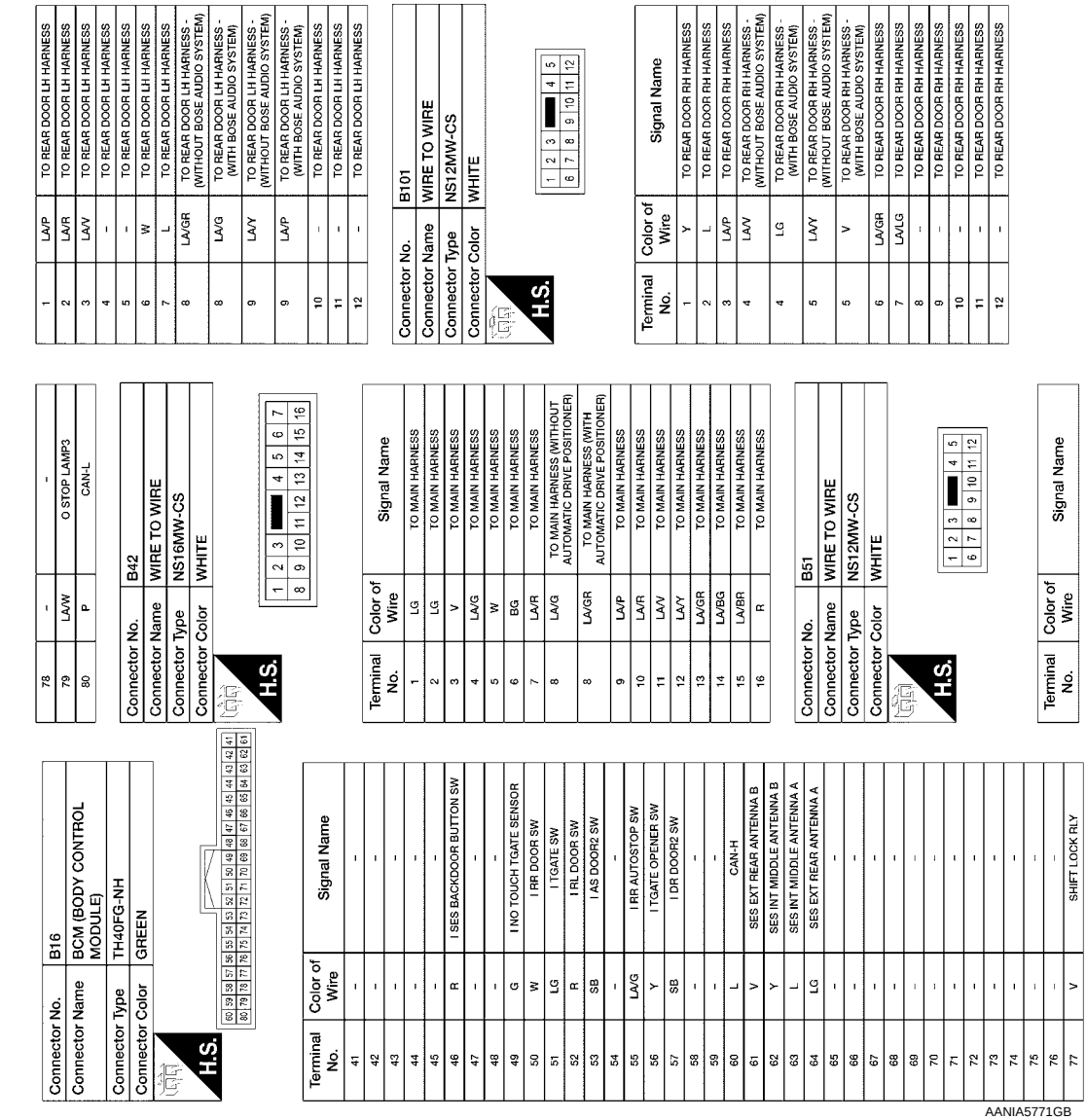
AANWA1820GB


USB INTERFACE
M89
MICROPHONE
R8
R11
M156
AUX IN JACK
M104
ANTENNA BASE
ANTENNA AMP.
SATELLITE ANTENNA
GPS ANTENNA
M502
M500
M129
M503
M501
M130
AV CONTROL UNIT
M101
M102
M138
M139
M141
M142
TO ILLUMINATION
TO AROUND VIEW MONITOR SYSTEM
AANWA1821GB



AANWA1822GB

NAVIGATION CONNECTORS - WITHOUT BOSE AUDIO SYSTEM

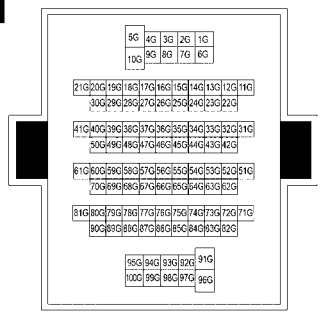


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NAVIGATION CONNECTORS - WITHOUT BOSE AUDIO SYSTEM

Connector No.	B136
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
1G	LA/GR	TO MAIN HARNESS
2G	LA/P	TO MAIN HARNESS
3G	Y	TO MAIN HARNESS
4G	L	TO MAIN HARNESS
5G	G	TO MAIN HARNESS
6G	LA/BR	TO MAIN HARNESS
7G	BR	TO MAIN HARNESS
8G	LA/L	TO MAIN HARNESS
9G	LA/R	TO MAIN HARNESS
10G	R	TO MAIN HARNESS
11G	G	TO MAIN HARNESS
12G	Y	TO MAIN HARNESS
13G	BR	TO MAIN HARNESS
14G	–	TO MAIN HARNESS
15G	Y	TO MAIN HARNESS
16G	–	TO MAIN HARNESS
17G	–	TO MAIN HARNESS
18G	R	TO MAIN HARNESS
19G	R	TO MAIN HARNESS
20G	W	TO MAIN HARNESS
21G	P	TO MAIN HARNESS
22G	P	TO MAIN HARNESS
23G	L	TO MAIN HARNESS
24G	W	TO MAIN HARNESS
25G	L	TO MAIN HARNESS
26G	–	TO MAIN HARNESS
27G	–	TO MAIN HARNESS
28G	–	TO MAIN HARNESS
29G	SB	TO MAIN HARNESS
30G	–	TO MAIN HARNESS
31G	–	TO MAIN HARNESS
32G	–	TO MAIN HARNESS
33G	–	TO MAIN HARNESS
34G	V	TO MAIN HARNESS
35G	BR	TO MAIN HARNESS
36G	SHIELD	TO MAIN HARNESS
37G	LG	TO MAIN HARNESS
38G	V	TO MAIN HARNESS
39G	SHIELD	TO MAIN HARNESS
40G	G	TO MAIN HARNESS
41G	R	TO MAIN HARNESS
42G	–	TO MAIN HARNESS
43G	–	TO MAIN HARNESS
44G	BG	TO MAIN HARNESS
45G	SHIELD	TO MAIN HARNESS
46G	W	TO MAIN HARNESS
47G	R	TO MAIN HARNESS
48G	SHIELD	TO MAIN HARNESS
49G	L	TO MAIN HARNESS
50G	Y	TO MAIN HARNESS
51G	–	TO MAIN HARNESS
52G	–	TO MAIN HARNESS
53G	–	TO MAIN HARNESS
54G	–	TO MAIN HARNESS
55G	–	TO MAIN HARNESS
56G	–	TO MAIN HARNESS
57G	–	TO MAIN HARNESS
58G	–	TO MAIN HARNESS
59G	–	TO MAIN HARNESS
60G	GR	TO MAIN HARNESS
61G	V	TO MAIN HARNESS
62G	–	TO MAIN HARNESS
63G	–	TO MAIN HARNESS
64G	–	TO MAIN HARNESS
65G	–	TO MAIN HARNESS
66G	–	TO MAIN HARNESS
67G	–	TO MAIN HARNESS
68G	–	TO MAIN HARNESS
69G	–	TO MAIN HARNESS
70G	–	TO MAIN HARNESS
71G	–	TO MAIN HARNESS
72G	–	TO MAIN HARNESS
73G	–	TO MAIN HARNESS
74G	–	TO MAIN HARNESS
75G	–	TO MAIN HARNESS
76G	–	TO MAIN HARNESS
77G	–	TO MAIN HARNESS
78G	LA/R	TO MAIN HARNESS
79G	LA/V	TO MAIN HARNESS
80G	LA/B	TO MAIN HARNESS
81G	LA/L	TO MAIN HARNESS
82G	–	TO MAIN HARNESS
83G	–	TO MAIN HARNESS
84G	–	TO MAIN HARNESS
85G	–	TO MAIN HARNESS
86G	–	TO MAIN HARNESS
87G	–	TO MAIN HARNESS
88G	–	TO MAIN HARNESS
89G	–	TO MAIN HARNESS
90G	–	TO MAIN HARNESS
91G	R	TO MAIN HARNESS
92G	BR	TO MAIN HARNESS
93G	W	TO MAIN HARNESS
94G	LA/V	TO MAIN HARNESS
95G	V	TO MAIN HARNESS
96G	G	TO MAIN HARNESS
97G	P	TO MAIN HARNESS
98G	GR	TO MAIN HARNESS
99G	LA/Y	TO MAIN HARNESS
100G	Y	TO MAIN HARNESS

16	B	TO MAIN HARNESS

Connector No.	D7
Connector Name	FRONT DOOR SPEAKER LH (WITHOUT BOSE AUDIO SYSTEM)
Connector Type	NS02FW-CS
Connector Color	WHITE

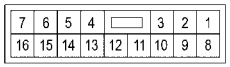
H.S.



Terminal No.	Color of Wire	Signal Name
1	LA/L	FR SP LH+
2	LA/BR	FR SP LH-

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

H.S.



Terminal No.	Color of Wire	Signal Name
1	V	TO MAIN HARNESS
2	R	TO MAIN HARNESS
3	G	TO MAIN HARNESS
4	BR	TO MAIN HARNESS
5	P	TO MAIN HARNESS
6	LA/L	TO MAIN HARNESS
7	LA/BR	TO MAIN HARNESS
8	SB	TO MAIN HARNESS
9	GR	TO MAIN HARNESS
10	L	TO MAIN HARNESS
11	P	TO MAIN HARNESS
12	LG	TO MAIN HARNESS
13	Y	TO MAIN HARNESS
14	V	TO MAIN HARNESS
15	R	TO MAIN HARNESS

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NAVIGATION CONNECTORS - WITHOUT BOSE AUDIO SYSTEM

Connector No.	D102
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS
Connector Color	WHITE

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
1	LA/B	TO MAIN HARNESS
2	LA/G	TO MAIN HARNESS - (WITHOUT AUTOMATIC DRIVE POSITIONER)
2	B	TO MAIN HARNESS - (WITH AUTOMATIC DRIVE POSITIONER)
3	–	TO MAIN HARNESS
4	–	TO MAIN HARNESS
5	–	TO MAIN HARNESS
6	–	TO MAIN HARNESS
7	–	TO MAIN HARNESS
8	GR	TO MAIN HARNESS
9	Y	TO MAIN HARNESS
10	BR	TO MAIN HARNESS
11	L	TO MAIN HARNESS
12	V	TO MAIN HARNESS
13	LA/R	TO MAIN HARNESS
14	LA/G	TO MAIN HARNESS
15	–	TO MAIN HARNESS
16	–	TO MAIN HARNESS

Connector No.	D104
Connector Name	FRONT DOOR SPEAKER RH (WITHOUT BOSE AUDIO SYSTEM)
Connector Type	NS02FW-CS
Connector Color	WHITE

H.S.

2	1

Terminal No.	Color of Wire	Signal Name
1	LA/G	FR SP RH+
2	LA/R	FR SP RH-

Connector No.	D201
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS
Connector Color	WHITE

H.S.

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

Terminal No.	Color of Wire	Signal Name
1	LA/Y	TO BODY HARNESS
2	LA/BR	TO BODY HARNESS
3	LA/GR	TO BODY HARNESS
4	–	TO BODY HARNESS
5	–	TO BODY HARNESS
6	LA/V	TO BODY HARNESS
7	LA/G	TO BODY HARNESS
8	LA/R	TO BODY HARNESS
9	LA/L	TO BODY HARNESS
10	–	TO BODY HARNESS
11	–	TO BODY HARNESS
12	–	TO BODY HARNESS

Connector No.	D203
Connector Name	REAR DOOR SPEAKER LH
Connector Type	NS02FW-CS
Connector Color	WHITE

H.S.

2	1

Terminal No.	Color of Wire	Signal Name
1	LA/L	RR SP LH+
2	LA/R	RR SP LH-

Connector No.	D301
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS
Connector Color	WHITE

H.S.

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

Terminal No.	Color of Wire	Signal Name
1	LA/Y	TO BODY NO. 2 HARNESS
2	LA/BR	TO BODY NO. 2 HARNESS
3	LA/GR	TO BODY NO. 2 HARNESS
4	LA/V	TO BODY NO. 2 HARNESS
5	LA/Y	TO BODY NO. 2 HARNESS
6	LA/W	TO BODY NO. 2 HARNESS
7	LA/L	TO BODY NO. 2 HARNESS
8	–	TO BODY NO. 2 HARNESS
9	–	TO BODY NO. 2 HARNESS
10	–	TO BODY NO. 2 HARNESS
11	–	TO BODY NO. 2 HARNESS
12	–	TO BODY NO. 2 HARNESS

Connector No.	D303
Connector Name	REAR DOOR SPEAKER RH
Connector Type	NS02FW-CS
Connector Color	WHITE

H.S.

2	1

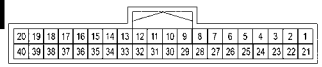
Terminal No.	Color of Wire	Signal Name
1	LA/V	RR SP RH+
2	LA/Y	RR SP RH-

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NAVIGATION CONNECTORS - WITHOUT BOSE AUDIO SYSTEM

Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FGY-NH
Connector Color	GRAY

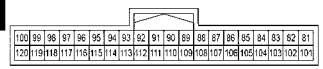
H.S.



Terminal No.	Color of Wire	Signal Name
1	L	LIN 3 D
2	LA/G	O DI FR LEFT D
3	LA/Y	O DI FR RIGHT D
4	P	O SPARE4 RL N
5	R	CAN-L
6	L	CAN-H
7	–	–
8	L	CAN-H
9	R	CAN-L
10	BG	I DOORLOCK SW
11	Y	I HAZARD SW D
12	W	O PWR AUTOLIGHT SENSOR
13	–	–
14	–	–
15	–	–
16	–	–
17	L	O PWR ATDVC
18	–	–
19	LG	I AUTOLIGHT SENSOR
20	–	–
21	–	–
22	–	–
23	G	O WL AUTHORIZATION RL
24	LA/R	O DEFROSTER RL D
25	BR	O BAT TEMP1 RL
26	–	–
27	Y	O IGN1 RL
28	LA/W	O IGN2 RL
29	–	–
30	V	O GND AUTOLIGHT SENSOR
31	–	–
32	–	–
33	LG	O CSW 5
34	Y	I CSW 5
35	BG	O SECURITY LED
36	G	O CSW 3
37	GR	O CSW 4
38	V	O CSW 1
39	W	O CSW 2
40	SB	I DOORUNLOCK SW

Connector No.	M19
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH
Connector Color	BLACK

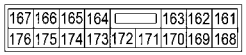
H.S.



Terminal No.	Color of Wire	Signal Name
81	–	–
82	W	I SES FR HANDLE BUTTON SW
83	–	–
84	BR	I CSW 2
85	SB	I CSW 1
86	P	I CSW 3
87	BG	I CSW 4
88	W	O START SW BACKLIGHT LED
89	Y	I START WO ESCL SW
90	–	–
91	–	–
92	BR	I KEY CYLINDER LOCK SW
93	P	I KEY CYLINDER UNLOCK SW
94	G	I AT LOCKED IN PARK SW
95	V	I SHORTING PIN
96	–	–
97	–	–
98	–	–
99	–	–
100	V	SES EXT DR ANTENNA A
101	–	–
102	–	–
103	–	–
104	R	I DR KNOB SW
105	Y	I SES DR HANDLE BUTTON SW
106	W	O AUTO ACC2
107	–	–
108	–	–
109	–	–
110	BG	O MR OUTPUT
111	–	–
112	–	–
113	–	–
114	Y	O IMMOBILIZER KAZASHI B
115	W	O IMMOBILIZER KAZASHI A
116	BG	SES INT FRONT ANTENNA B
117	GR	SES INT FRONT ANTENNA A
118	SB	SES EXT AS ANTENNA B
119	P	SES EXT AS ANTENNA A
120	BR	SES EXT DR ANTENNA B

Connector No.	M20
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	NS16FBR-CS
Connector Color	BROWN

H.S.



Terminal No.	Color of Wire	Signal Name
161	W	I PWR ECU
162	SB	O PWM ROOMLAMP 1
163	L	O AS LOCK OR UNLOCK D
164	–	–
165	V	O DR OR FR LOCK D
166	–	–
167	LA/V	I PWR DOORLOCK1
168	BG	I PWR FLASHERS
169	GR	I PWR STOP LAMP
170	B	I GND1
171	B	I GND2
172	G	O FR OR DR UNLOCK D
173	–	–
174	–	–
175	R	I PWR DOORLOCK2
176	LG	I PWR WIPER

Connector No.	M23
Connector Name	FRONT TWEETER RH
Connector Type	TH02FW
Connector Color	WHITE

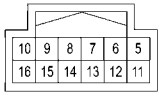
H.S.



Terminal No.	Color of Wire	Signal Name
1	G	FR SP RH+
2	R	FR SP RH-

Connector No.	M30
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TH12FW-NH
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
5	BG	HORN SW
6	LA/R	ACC SW
7	LA/BR	ACC GND
8	Y	AUDIO STRG SW A
9	B	GROUND
10	R	ILL CONT OUT
11	–	–
12	–	–
13	–	–
14	L	AUDIO STRG SHLD
15	GR	AUDIO STRG SW B
16	–	–

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NAVIGATION CONNECTORS - WITHOUT BOSE AUDIO SYSTEM

Connector No.	M36
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1G	LA/R	TO BODY NO. 2 HARNESS
2G	W	TO BODY NO. 2 HARNESS
3G	Y	TO BODY NO. 2 HARNESS
4G	BG	TO BODY NO. 2 HARNESS
5G	G	TO BODY NO. 2 HARNESS
6G	SB	TO BODY NO. 2 HARNESS
7G	P	TO BODY NO. 2 HARNESS
8G	LA/Y	TO BODY NO. 2 HARNESS
9G	LA/W	TO BODY NO. 2 HARNESS
10G	R	TO BODY NO. 2 HARNESS
11G	G	TO BODY NO. 2 HARNESS
12G	L	TO BODY NO. 2 HARNESS
13G	BR	TO BODY NO. 2 HARNESS
14G	–	TO BODY NO. 2 HARNESS
15G	Y	TO BODY NO. 2 HARNESS
16G	–	TO BODY NO. 2 HARNESS
17G	–	TO BODY NO. 2 HARNESS
18G	R	TO BODY NO. 2 HARNESS
19G	LA/R	TO BODY NO. 2 HARNESS
20G	W	TO BODY NO. 2 HARNESS
21G	BR	TO BODY NO. 2 HARNESS
22G	P	TO BODY NO. 2 HARNESS
23G	L	TO BODY NO. 2 HARNESS
24G	W	TO BODY NO. 2 HARNESS
25G	L	TO BODY NO. 2 HARNESS
26G	–	TO BODY NO. 2 HARNESS
27G	–	TO BODY NO. 2 HARNESS
28G	–	TO BODY NO. 2 HARNESS
29G	–	TO BODY NO. 2 HARNESS
30G	–	TO BODY NO. 2 HARNESS
31G	–	TO BODY NO. 2 HARNESS
32G	–	TO BODY NO. 2 HARNESS
33G	–	TO BODY NO. 2 HARNESS
34G	V	TO BODY NO. 2 HARNESS
35G	BR	TO BODY NO. 2 HARNESS
36G	SHIELD	TO BODY NO. 2 HARNESS
37G	LG	TO BODY NO. 2 HARNESS
38G	V	TO BODY NO. 2 HARNESS
39G	SHIELD	TO BODY NO. 2 HARNESS
40G	G	TO BODY NO. 2 HARNESS
41G	R	TO BODY NO. 2 HARNESS
42G	–	TO BODY NO. 2 HARNESS
43G	–	TO BODY NO. 2 HARNESS
44G	BG	TO BODY NO. 2 HARNESS
45G	SHIELD	TO BODY NO. 2 HARNESS
46G	L	TO BODY NO. 2 HARNESS
47G	Y	TO BODY NO. 2 HARNESS
48G	SHIELD	TO BODY NO. 2 HARNESS
49G	W	TO BODY NO. 2 HARNESS
50G	R	TO BODY NO. 2 HARNESS
51G	–	TO BODY NO. 2 HARNESS
52G	–	TO BODY NO. 2 HARNESS
53G	–	TO BODY NO. 2 HARNESS
54G	–	TO BODY NO. 2 HARNESS
55G	–	TO BODY NO. 2 HARNESS
56G	–	TO BODY NO. 2 HARNESS
57G	–	TO BODY NO. 2 HARNESS
58G	–	TO BODY NO. 2 HARNESS
59G	–	TO BODY NO. 2 HARNESS
60G	GR	TO BODY NO. 2 HARNESS
61G	BR	TO BODY NO. 2 HARNESS
62G	–	TO BODY NO. 2 HARNESS
63G	–	TO BODY NO. 2 HARNESS
64G	–	TO BODY NO. 2 HARNESS
65G	–	TO BODY NO. 2 HARNESS
66G	–	TO BODY NO. 2 HARNESS
67G	–	TO BODY NO. 2 HARNESS
68G	–	TO BODY NO. 2 HARNESS
69G	–	TO BODY NO. 2 HARNESS
70G	–	TO BODY NO. 2 HARNESS
71G	–	TO BODY NO. 2 HARNESS
72G	–	TO BODY NO. 2 HARNESS
73G	–	TO BODY NO. 2 HARNESS
74G	–	TO BODY NO. 2 HARNESS
76G	–	TO BODY NO. 2 HARNESS
77G	–	TO BODY NO. 2 HARNESS
78G	LA/Y	TO BODY NO. 2 HARNESS
79G	LA/W	TO BODY NO. 2 HARNESS
80G	LA/B	TO BODY NO. 2 HARNESS
81G	LA/L	TO BODY NO. 2 HARNESS
82G	–	TO BODY NO. 2 HARNESS
83G	–	TO BODY NO. 2 HARNESS
84G	–	TO BODY NO. 2 HARNESS
85G	–	TO BODY NO. 2 HARNESS
86G	–	TO BODY NO. 2 HARNESS
87G	–	TO BODY NO. 2 HARNESS
88G	–	TO BODY NO. 2 HARNESS
89G	–	TO BODY NO. 2 HARNESS
90G	–	TO BODY NO. 2 HARNESS
91G	R	TO BODY NO. 2 HARNESS
92G	LA/L	TO BODY NO. 2 HARNESS
93G	W	TO BODY NO. 2 HARNESS
94G	LG	TO BODY NO. 2 HARNESS
95G	GR	TO BODY NO. 2 HARNESS
96G	SB	TO BODY NO. 2 HARNESS
97G	LA/BR	TO BODY NO. 2 HARNESS
98G	GR	TO BODY NO. 2 HARNESS
99G	Y	TO BODY NO. 2 HARNESS
100G	V	TO BODY NO. 2 HARNESS

Connector No.	M38
Connector Name	JOINT CONNECTOR-M05
Connector Type	NS06FW-J
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1	W	FR SP RH+
2	G	FR SP RH+
3	G	FR SP RH+
4	GR	FR SP RH-
5	V	FR SP RH-
6	R	FR SP RH-

Connector No.	M39
Connector Name	JOINT CONNECTOR-M06
Connector Type	NS06FW-J
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1	Y	FR SP LH+
2	W	FR SP LH+
3	W	FR SP LH+
4	R	FR SP LH-
5	P	FR SP LH-
6	GR	FR SP LH-

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NAVIGATION CONNECTORS - WITHOUT BOSE AUDIO SYSTEM

Connector No.	M44
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS16FW-CS
Connector Color	WHITE

H.S.

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

Terminal No.	Color of Wire	Signal Name
1P	R	IGNITION
2P	G	IGNITION
3P	Y	IGNITION RELAY-2 CONTROL
4P	LG	REAR WINDOW DEFOGGER RELAY OUTPUT
5P	GR	REAR WINDOW DEFOGGER RELAY OUTPUT
6P	LA/R	REAR WINDOW DEFOGGER RELAY CONTROL
7P	Y	IGNITION
8P	V	IGNITION
9P	L	BATTERY
10P	LG	IGNITION
11P	-	-
12P	-	-
13P	G	BATTERY
14P	-	-
15P	L	BATTERY
16P	LA/W	FRONT BLOWER MOTOR RELAY CONTROL

Connector No.	M47
Connector Name	JOINT CONNECTOR-M04
Connector Type	NH20FG-DC
Connector Color	GREEN

H.S.

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

Terminal No.	Color of Wire	Signal Name
1	-	-
2	SB	M-CAN H
3	SB	M-CAN H
4	SB	M-CAN H
5	SB	M-CAN H
6	L	CAN-H
7	L	CAN-H
8	L	CAN-H
9	L	CAN-H
10	-	-
11	-	-
12	-	-
13	LG	M-CAN L
14	LG	M-CAN L
15	LG	M-CAN L
16	LG	M-CAN L
17	R	CAN-L
18	R	CAN-L
19	V	CAN-L
20	V	CAN-L

Connector No.	M68
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS16FBR-CS
Connector Color	BROWN

H.S.

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

Terminal No.	Color of Wire	Signal Name
1R	V	ILLUMINATION +
2R	G	IGNITION
3R	V	BATTERY
4R	-	-
5R	-	-
6R	LA/L	ACCESSORY
7R	LA/V	BATTERY
8R	-	-
9R	-	-
10R	GR	BATTERY
11R	-	-
12R	-	-
13R	-	-
14R	W	BATTERY
15R	W	BATTERY
16R	GR	ACCESSORY

Connector No.	M74
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS
Connector Color	WHITE

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
1	LG	TO BODY HARNESS
2	LG	TO BODY HARNESS
3	V	TO BODY HARNESS
4	Y	TO BODY HARNESS
5	W	TO BODY HARNESS
6	BG	TO BODY HARNESS
7	SB	TO BODY HARNESS
8	BR	TO BODY HARNESS
9	LA/G	TO BODY HARNESS
10	LA/R	TO BODY HARNESS
11	LG	TO BODY HARNESS
12	GR	TO BODY HARNESS
13	BR	TO BODY HARNESS
14	LA/L	TO BODY HARNESS
15	LA/BR	TO BODY HARNESS
16	GR	TO BODY HARNESS
17	-	-
18	-	-
19	-	-
20	Y	OUTSIDE TEMP GND
21	L	GND (STRG SW GND)
22	Y	STRG SW A
23	GR	STRG SW B
24	BR	WASHER SW
25	V	BRAKE OIL SW
26	G	PKB SW
27	-	-
28	Y	DR BELT SW
29	R	SPORT MODE SW
30	LG	M RANGE
31	SB	NOT M RANGE
32	BG	AT SHIFT UP
33	BR	AT SHIFT DOWN
34	-	-
35	-	-
36	GR	ILL UP SW
37	V	ILL DOWN SW
38	G	8P/R OUTPUT
39	W	2P/R OUTPUT
40	-	-

Connector No.	M76
Connector Name	COMBINATION METER
Connector Type	TH40FW-NH
Connector Color	WHITE

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
1	B	GND
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	BG	SECURITY

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NAVIGATION CONNECTORS - WITHOUT BOSE AUDIO SYSTEM

Connector No.	M77
Connector Name	COMBINATION METER
Connector Type	TH12FW-NH
Connector Color	WHITE

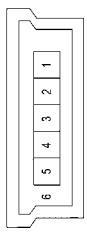
H.S.



Terminal No.	Color of Wire	Signal Name
41	L	CAN-H
42	P	CAN-L
43	R	ILL CONT OUT
44	LA/B	FUEL SENSOR GND
45	G	BAT
46	V	IGN
47	SB	M-CAN H
48	LG	M-CAN L
49	-	-
50	-	-
51	LA/L	FUEL SENSOR
52	B	G1

Connector No.	M89
Connector Name	USB INTERFACE
Connector Type	US-CAR30
Connector Color	BLACK

H.S.



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

Connector No.	M90
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TH12FW-NH
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
17	-	-
18	L	AUDIO STRG SW B
19	G	AUDIO STRG SHLD
20	-	-
21	-	-
22	-	-
23	R	ILL (+)
24	Y	ILL (-)
25	P	AUDIO STRG SW A
26	GR	ACC GND
27	V	ACC SW
28	BR	HORN SW

Connector No.	M80
Connector Name	FRONT TWEETER LH
Connector Type	TH02FW
Connector Color	WHITE

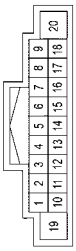
H.S.



Terminal No.	Color of Wire	Signal Name
1	W	FR SP LH+
2	GR	FR SP LH-

Connector No.	M101
Connector Name	AV CONTROL UNIT (WITHOUT BOSE AUDIO SYSTEM)
Connector Type	NH18FW-CS2
Connector Color	WHITE

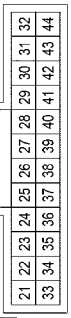
H.S.



Terminal No.	Color of Wire	Signal Name
1	-	-
2	W	FR SP LH (+)
3	P	FR SP LH (-)
4	GR	RR SP LH (+)
5	BR	RR SP LH (-)
6	-	-
7	W	ACC
8	L	CAN-H
9	V	ILL (+), LIGHT SW
10	-	-
11	G	FR SP RH (+)
12	V	FR SP RH (-)
13	LG	RR SP RH (+)
14	Y	RR SP RH (-)
15	-	-
16	-	-
17	R	CAN-L
18	G	SPEED SIGNAL
19	L	BAT
20	B	GND

Connector No.	M102
Connector Name	AV CONTROL UNIT (WITHOUT BOSE AUDIO SYSTEM)
Connector Type	TH24FW-NH
Connector Color	WHITE

H.S.



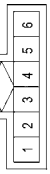
Terminal No.	Color of Wire	Signal Name
21	G	AUX R
22	Y	AUX GND
23	L	AUX L
24	-	-
25	BR	REVERSE
26	-	-
27	-	-
28	-	-
29	-	-
30	B/G	MR OUTPUT
31	SB	M-CAN TERMINATION
32	LG	M-CAN TERMINATION
33	-	-
34	W	MIC SIGNAL
35	B	MIC VCC
36	SHIELD	MIC GND
37	SHIELD	SUB OUT/AUX SHIELD
38	SB	MCAN+
39	LG	MCAN-
40	LG	IGNITION
41	G	CAMERA+
42	SHIELD	CAMERA- (SHIELD)
43	-	-
44	-	-

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NAVIGATION CONNECTORS - WITHOUT BOSE AUDIO SYSTEM

Connector No.	M104
Connector Name	AUX IN JACK
Connector Type	A06FGY
Connector Color	GRAY

H.S.



Terminal No.	Color of Wire	Signal Name
1	L	AUX L
2	G	AUX R
3	Y	AUX GND
4	–	–
5	W	ILL CONT OUT
6	GR	GROUND

Connector No.	M129
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-1/1S-HU
Connector Color	GRAY

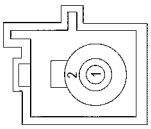
H.S.



Terminal No.	Color of Wire	Signal Name
1	B	TO MAIN SUB HARNESS
2	B	TO MAIN SUB HARNESS
3	SHIELD	TO MAIN SUB HARNESS

Connector No.	M130
Connector Name	WIRE TO WIRE
Connector Type	GT16C-1S-HU
Connector Color	BROWN

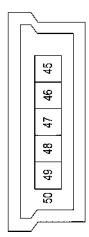
H.S.



Terminal No.	Color of Wire	Signal Name
1	B	TO MAIN SUB HARNESS
2	SHIELD	TO MAIN SUB HARNESS

Connector No.	M138
Connector Name	AV CONTROL UNIT
Connector Type	GT17HN-4DP-2H
Connector Color	BLACK

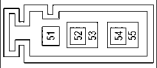
H.S.



Terminal No.	Color of Wire	Signal Name
45	R	V BUS
46	W	USB D-
47	G	USB D+
48	–	–
49	B	USB GND
50	SHIELD	USB SHIELD

Connector No.	M139
Connector Name	AV CONTROL UNIT
Connector Type	GT13SHA-2-1PP-DS
Connector Color	GRAY

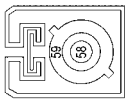
H.S.



Terminal No.	Color of Wire	Signal Name
51	B	ANT +B
52	B	ANT MAIN
53	SHIELD	MAIN GND
54	–	–
55	–	–

Connector No.	M141
Connector Name	AV CONTROL UNIT
Connector Type	FAKRA CODING C
Connector Color	BLUE

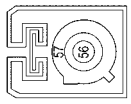
H.S.



Terminal No.	Color of Wire	Signal Name
58	B	GPS ANT
59	SHIELD	GPS ANT SHIELD

Connector No.	M142
Connector Name	AV CONTROL UNIT
Connector Type	FAKRA CODING C
Connector Color	PINK

H.S.

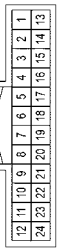


Terminal No.	Color of Wire	Signal Name

56	B	SAT ANT
57	SHIELD	SAT ANT SHIELD

Connector No.	M156
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-CS
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
1	B	TO ROOM LAMP HARNESS
2	W	TO ROOM LAMP HARNESS
3	SHIELD	TO ROOM LAMP HARNESS
4	R	TO ROOM LAMP HARNESS
5	–	TO ROOM LAMP HARNESS
6	Y	TO ROOM LAMP HARNESS
7	LG	TO ROOM LAMP HARNESS
8	L	TO ROOM LAMP HARNESS
9	R	TO ROOM LAMP HARNESS
10	–	TO ROOM LAMP HARNESS
11	–	TO ROOM LAMP HARNESS
12	–	TO ROOM LAMP HARNESS
13	SB	TO ROOM LAMP HARNESS
14	GR	TO ROOM LAMP HARNESS
15	SB	TO ROOM LAMP HARNESS
16	GR	TO ROOM LAMP HARNESS
17	V	TO ROOM LAMP HARNESS
18	G	TO ROOM LAMP HARNESS
19	SB	TO ROOM LAMP HARNESS
20	R	TO ROOM LAMP HARNESS
21	B	TO ROOM LAMP HARNESS
22	GR	TO ROOM LAMP HARNESS
23	–	TO ROOM LAMP HARNESS
24	–	TO ROOM LAMP HARNESS

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NAVIGATION CONNECTORS - WITHOUT BOSE AUDIO SYSTEM

Connector No.	M158
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS
Connector Color	WHITE

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
1	B	TO FRONT DOOR RH HARNESS
2	GR	TO FRONT DOOR RH HARNESS
3	–	TO FRONT DOOR RH HARNESS
4	–	TO FRONT DOOR RH HARNESS
5	–	TO FRONT DOOR RH HARNESS
6	–	TO FRONT DOOR RH HARNESS
7	–	TO FRONT DOOR RH HARNESS
8	SB	TO FRONT DOOR RH HARNESS
9	LA/BR	TO FRONT DOOR RH HARNESS
10	LA/GR	TO FRONT DOOR RH HARNESS
11	L	TO FRONT DOOR RH HARNESS
12	Y	TO FRONT DOOR RH HARNESS
13	GR	TO FRONT DOOR RH HARNESS - (WITHOUT BOSE AUDIO SYSTEM)
13	R	TO FRONT DOOR RH HARNESS - (WITH BOSE AUDIO SYSTEM)
14	W	TO FRONT DOOR RH HARNESS - (WITHOUT BOSE AUDIO SYSTEM)
14	SB	TO FRONT DOOR RH HARNESS - (WITH BOSE AUDIO SYSTEM)
15	–	TO FRONT DOOR RH HARNESS
16	–	TO FRONT DOOR RH HARNESS

Connector No.	M167
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS
Connector Color	WHITE

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
1	V	TO FRONT DOOR LH HARNESS
2	R	TO FRONT DOOR LH HARNESS
3	G	TO FRONT DOOR LH HARNESS
4	BR	TO FRONT DOOR LH HARNESS
5	P	TO FRONT DOOR LH HARNESS
6	Y	TO FRONT DOOR LH HARNESS - (WITHOUT BOSE AUDIO SYSTEM)
6	LA/L	TO FRONT DOOR LH HARNESS - (WITH BOSE AUDIO SYSTEM)
7	R	TO FRONT DOOR LH HARNESS - (WITHOUT BOSE AUDIO SYSTEM)
7	LA/BR	TO FRONT DOOR LH HARNESS - (WITH BOSE AUDIO SYSTEM)
8	L	TO FRONT DOOR LH HARNESS
9	LA/BR	TO FRONT DOOR LH HARNESS
10	LA/GR	TO FRONT DOOR LH HARNESS
11	Y	TO FRONT DOOR LH HARNESS
12	BG	TO FRONT DOOR LH HARNESS
13	LA/G	TO FRONT DOOR LH HARNESS
14	LA/R	TO FRONT DOOR LH HARNESS
15	P	TO FRONT DOOR LH HARNESS
16	B	TO FRONT DOOR LH HARNESS

Connector No.	M500
Connector Name	WIRE TO WIRE
Connector Type	GT13SCN-1/1PP-HU
Connector Color	GRAY

H.S.

Terminal No.	Color of Wire	Signal Name
1	B	TO MAIN HARNESS
2	B	TO MAIN HARNESS
3	SHIELD	TO MAIN HARNESS

Connector No.	M501
Connector Name	WIRE TO WIRE
Connector Type	GT16C-1PP-HU
Connector Color	BROWN

H.S.

Terminal No.	Color of Wire	Signal Name
1	B	TO MAIN HARNESS
2	SHIELD	TO MAIN HARNESS

Connector No.	M502
Connector Name	ANTENNA BASE (ANTENNA AMP)
Connector Type	GT13SSN-1/1PP-HU
Connector Color	GRAY

H.S.

Terminal No.	Color of Wire	Signal Name
1	B	ANT +B
2	B	ANT MAIN
3	SHIELD	MAIN GND

Connector No.	M503
Connector Name	ANTENNA BASE (SATELLITE RADIO ANTENNA)
Connector Type	GT16C-1PP-HU
Connector Color	GREEN

H.S.

Terminal No.	Color of Wire	Signal Name
4	B	SAT ANT
5	SHIELD	SAT ANT SHIELD

Connector No.	R8
Connector Name	MICROPHONE
Connector Type	A06FW
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1	W	MIC SIGNAL
2	SHIELD	MIC GND
3	R	HF/VR MODE CHG
4	B	MIC VCC
5	–	–
6	–	–

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NAVIGATION CONNECTORS - WITHOUT BOSE AUDIO SYSTEM

Connector No.	R11
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH
Connector Color	WHITE

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

Terminal No.	Color of Wire	Signal Name
1	B	TO MAIN HARNESS
2	W	TO MAIN HARNESS
3	SHIELD	TO MAIN HARNESS
4	SB	TO MAIN HARNESS
5	–	TO MAIN HARNESS
6	LG	TO MAIN HARNESS
7	LG	TO MAIN HARNESS
8	–	TO MAIN HARNESS
9	–	TO MAIN HARNESS
10	–	TO MAIN HARNESS
11	–	TO MAIN HARNESS
12	–	TO MAIN HARNESS
13	SB	TO MAIN HARNESS
14	P	TO MAIN HARNESS
15	–	TO MAIN HARNESS
16	–	TO MAIN HARNESS
17	–	TO MAIN HARNESS
18	–	TO MAIN HARNESS
19	SB	TO MAIN HARNESS
20	R	TO MAIN HARNESS
21	B	TO MAIN HARNESS
22	L	TO MAIN HARNESS
23	–	TO MAIN HARNESS
24	–	TO MAIN HARNESS

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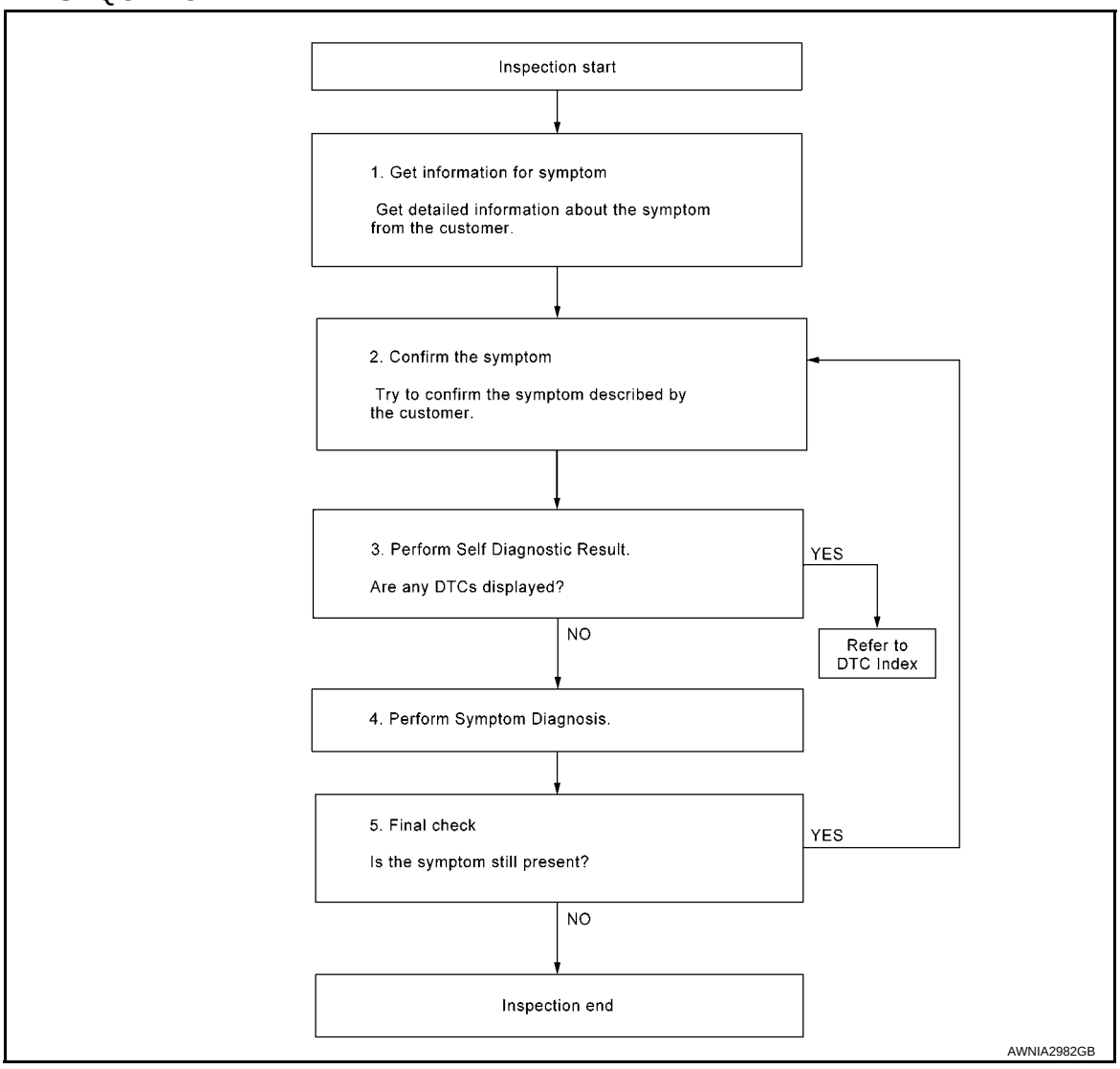
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:0000000015258663

OVERALL SEQUENCE



DETAILED FLOW

1.GET INFORMATION FOR SYMPTOM

Get detailed information from the customer about the symptom (the condition and the environment when the incident/malfunction occurred).

>> GO TO 2.

2.CONFIRM THE SYMPTOM

Try to confirm the symptom described by the customer. Verify relation between the symptom and the condition when the symptom is detected.

>> GO TO 3.

3.PERFORM SELF DIAGNOSTIC RESULT

1. Turn ignition switch ON and wait for 2 seconds or more.

2. Perform Self Diagnostic Result for MULTI AV.

Are any DTCs displayed?

YES >> Refer to AV-173, "DTC Index".
NO >> GO TO 4.

4. PERFORM SYMPTOM DIAGNOSIS

Refer to AV-226, "Symptom Table".

>> GO TO 5.

5. FINAL CHECK

Refer to symptom described by the customer in step 1.

Is the symptom still present?

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

INSPECTION AND ADJUSTMENT

ADDITIONAL SERVICE WHEN REPLACING AV CONTROL UNIT

ADDITIONAL SERVICE WHEN REPLACING AV CONTROL UNIT : Description

INFOID:0000000015258664

BEFORE REPLACEMENT

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

NOTE:

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

AFTER REPLACEMENT

CAUTION:

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

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

ADDITIONAL SERVICE WHEN REPLACING AV CONTROL UNIT : Work Procedure

INFOID:0000000015258665

1. SAVING VEHICLE SPECIFICATION

-CONSULT

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

NOTE:

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

>> GO TO 2.

2. REPLACE AV CONTROL UNIT

Replace AV control unit. Refer to AV-239, "Removal and Installation".

>> GO TO 3.

3. WRITING VEHICLE SPECIFICATION

CONSULT

1. Enter "Re/Programming, Configuration".
2. If “Before Replace ECU” operation was performed, automatically an "Operation Log Selection" screen will be displayed. Select the applicable file from the "Saved Data List" and press “Confirm” to write vehicle specification. Refer to AV-190, "CONFIGURATION (AV CONTROL UNIT) : Work Procedure".
3. If “Before Replace ECU” operation was not performed, select "After Replace ECU" or "Manual Configuration" to write vehicle specification. Refer to AV-190, "CONFIGURATION (AV CONTROL UNIT) : Work Procedure".

>> GO TO 4.

4. REGISTER AV CONTROL UNIT

Perform AV control unit registration. Refer to AV-191, "REGISTRATION (AV CONTROL UNIT) : Work Procedure".

>> GO TO 5.

5. OPERATION CHECK

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

>> Work End.

CONFIGURATION (AV CONTROL UNIT)

CONFIGURATION (AV CONTROL UNIT) : Description

INFOID:0000000015258666

Vehicle specification needs to be written with CONSULT because it is not written after replacing AV control unit.
Configuration has three functions as follows:

Function	Description
"Before Replace ECU"	• Reads the vehicle configuration of current AV control unit. • Saves the read vehicle configuration.
"After Replace ECU"	Writes the vehicle configuration with manual selection.
"Select Saved Data List"	Writes the vehicle configuration with saved data.

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

CONFIGURATION (AV CONTROL UNIT) : Work Procedure

INFOID:0000000015258667

1.WRITING MODE SELECTION

CONSULT
Select “Reprogramming, Configuration” of AV control unit.

When writing saved data>>GO TO 2.
When writing manually>>GO TO 3.

2.PERFORM “SAVED DATA LIST”

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

>> Work End.

3.PERFORM “AFTER REPLACE ECU” OR “MANUAL CONFIGURATION”

CONSULT
1. Select “After Replace ECU” or “Manual Configuration”.
2. Identify the correct model and configuration list. Refer to AV-191, "CONFIGURATION (AV CONTROL UNIT) : Configuration List".
3. Confirm and/or change setting value for each item.
   CAUTION:
   Thoroughly read and understand the vehicle specification. ECU control may not operate normally if the setting is not correct.
4. Select “Next”.
   CAUTION:
   Make sure to select “Next”, confirm each setting value and press “OK” even if the indicated configuration of brand new AV control unit is same as the desirable configuration. If not, configuration which is set automatically by selecting vehicle model can not be memorized.
5. When "Completed", select "End".

>> GO TO 4.

4. OPERATION CHECK

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

>> Work End.

CONFIGURATION (AV CONTROL UNIT) : Configuration List

INFOID:0000000015258668

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

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

⇔: Items which confirm vehicle specifications

REGISTRATION (AV CONTROL UNIT)

REGISTRATION (AV CONTROL UNIT) : Description

INFOID:0000000015258669

AFTER REPLACEMENT

If the AV control unit is replaced with a new AV control unit, the new AV control unit must be registered using the registration code.

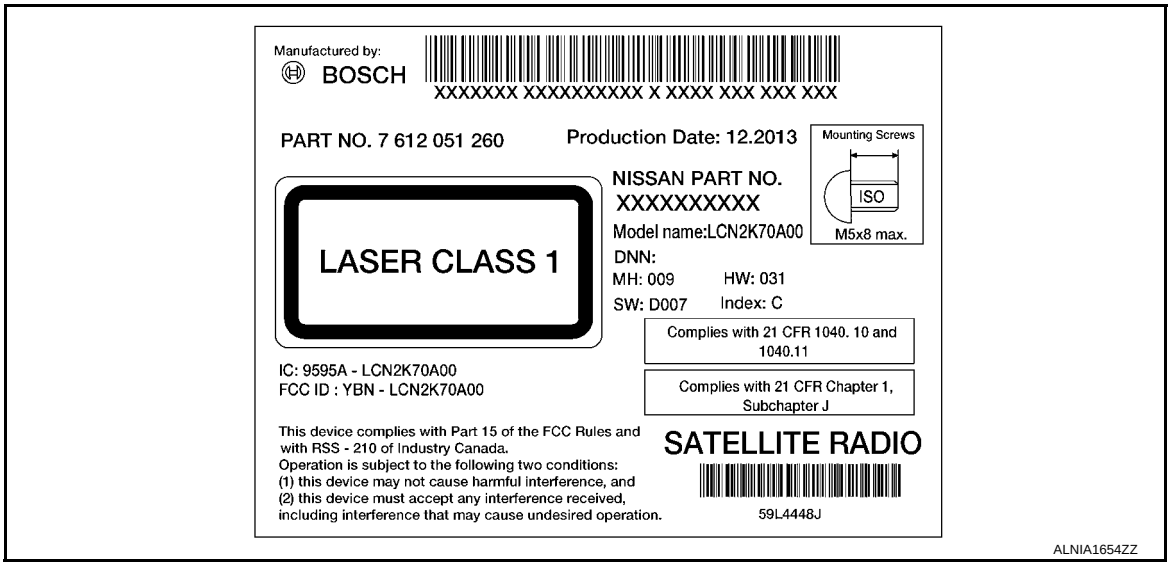
CAUTION:
If the new AV control unit registration code is not registered, the "APPS" mode will not function.

REGISTRATION (AV CONTROL UNIT) : Work Procedure

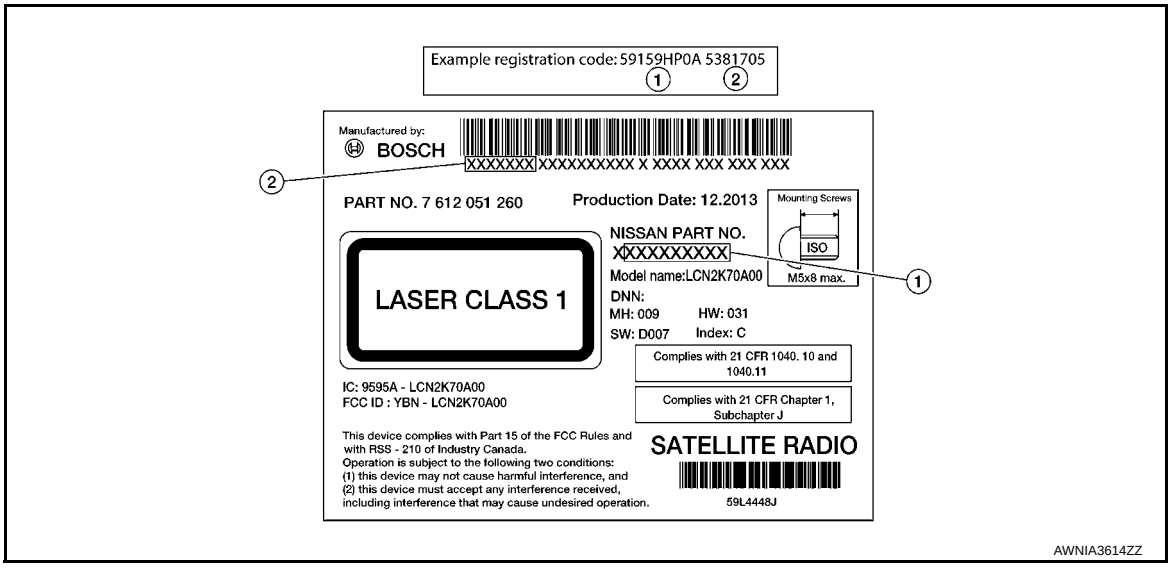
INFOID:0000000015258670

1. RECORD REGISTRATION CODE FOR REPLACEMENT AV CONTROL UNIT

1. Refer to the replacement AV control unit's label located on the top of the AV control unit.



2. Create a registration code to supply to NISSAN Owner Services by combining the last 9 digits of the NISSAN PART NO. (1) and the first 7 digits of the bar code number (2).



3. Record the registration code.

>> GO TO 2.

2. REGISTER REPLACEMENT AV CONTROL UNIT

Register the replacement AV control unit by contacting NISSAN Owner Services. Refer to TSB.

>> GO TO 3.

3. OPERATION CHECK

Verify that the AV control unit “APPS” function operates normally.

>> Work End.

DTC/CIRCUIT DIAGNOSIS

U1000 CAN COMM CIRCUIT

DTC Description

INFOID:0000000015258681

DESCRIPTION

CAN (Controller Area Network) is a serial communication line for real-time application. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Many electronic control units are equipped onto a vehicle, and each control unit shares information and links with other control units during operation (not independently). In CAN communication, control units are connected with 2 communication lines (CAN-H, CAN-L) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.
CAN Communication Signal Chart. Refer to LAN-44, "CAN COMMUNICATION SYSTEM : CAN Communication Signal Chart".

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U1000	CAN COMM CIRCUIT (CAN COMM CIRCUIT)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	—
		Diagnosis delay time	—

POSSIBLE CAUSE

CAN communication system

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

CONSULT
1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “MULTI AV”.
3. Check DTC.

Is DTC U1000 detected?

YES >> Proceed to AV-193, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015258682

1. PERFORM SELF DIAGNOSTIC RESULT

CONSULT
1. Turn ignition switch ON.
2. Erase DTC.
3. Select “Self Diagnostic Result” mode of “MULTI AV”.
4. Check DTC.

Is DTC U1000 detected?

YES >> Refer to LAN-26, "Trouble Diagnosis Flow Chart".
NO >> Refer to GI-54, "Intermittent Incident".

U1010 CONTROL UNIT (CAN)

DTC Description

INFOID:0000000015258683

DESCRIPTION

CAN (Controller Area Network) is a serial communication line for real-time application. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Many electronic control units are equipped onto a vehicle, and each control unit shares information and links with other control units during operation (not independently). In CAN communication, control units are connected with 2 communication lines (CAN-H, CAN-L) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.
CAN Communication Signal Chart. Refer to LAN-44, "CAN COMMUNICATION SYSTEM : CAN Communication Signal Chart".

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U1010	CONTROL UNIT(CAN) [Control unit(CAN)]	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	—
		Diagnosis delay time	—

POSSIBLE CAUSE

CAN communication system

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT
1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “MULTI AV”.
3. Check DTC.

Is DTC U1010 detected?

YES >> Proceed to AV-194, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015258684

1.PERFORM SELF DIAGNOSTIC RESULT

CONSULT
1. Turn ignition switch ON.
2. Erase DTC.
3. Select “Self Diagnostic Result” mode of “MULTI AV”.
4. Check DTC.

Is DTC U1010 detected?

YES >> Replace the AV control unit. Refer to AV-239, "Removal and Installation".
NO >> Refer to GI-54, "Intermittent Incident".

U1217 AV CONTROL UNIT

DTC Description

INFOID:0000000015258685

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U1217	BLUETOOTH MODULE (Bluetooth module)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	Communication error to Bluetooth sub module
		Diagnosis delay time	—

POSSIBLE CAUSE

AV control unit

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT
1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “MULTI AV”.
3. Check DTC.

Is DTC U1217 detected?

YES >> Proceed to AV-195, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015258686

1.PERFORM SELF DIAGNOSTIC RESULT

CONSULT
1. Turn ignition switch ON.
2. Erase DTC.
3. Select “Self Diagnostic Result” mode of “MULTI AV”.
4. Check DTC.

Is DTC U1217 detected?

YES >> Replace the AV control unit. Refer to AV-239, "Removal and Installation".
NO >> Refer to GI-54, "Intermittent Incident".

U1229 AV CONTROL UNIT

DTC Description

INFOID:0000000015258687

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U1229	iPod CERTIFICATION (iPod certification)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	Communication error to iPod authentication chip
		Diagnosis delay time	—

POSSIBLE CAUSE

AV control unit

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT
1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “MULTI AV”.
3. Check DTC.

Is DTC U1229 detected?

YES >> Proceed to AV-196, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015258688

1.PERFORM SELF DIAGNOSTIC RESULT

CONSULT
1. Turn ignition switch ON.
2. Erase DTC.
3. Select “Self Diagnostic Result” mode of “MULTI AV”.
4. Check DTC.

Is DTC U1229 detected?

YES >> Replace the AV control unit. Refer to AV-239, "Removal and Installation".
NO >> Refer to GI-54, "Intermittent Incident".

U122F AV CONTROL UNIT

DTC Description

INFOID:0000000015259627

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U122F	Digital broadcasting connection error (Digital broadcasting connection error)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	—
		Diagnosis delay time	—

POSSIBLE CAUSE

AV control unit

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “MULTI AV”.
3. Check DTC.

Is DTC U122F detected?

YES >> Replace AV control unit. Refer to AV-352, "Removal and Installation".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

U1244 GPS ANTENNA

DTC Description

INFOID:0000000015258689

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U1244	GPS ANTENNA CONN (GPS antenna conn)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	GPS antenna disconnected or short circuit
		Diagnosis delay time	—

POSSIBLE CAUSE

- GPS antenna disconnected
- GPS antenna signal circuit open or short to ground
- GPS antenna
- AV control unit

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “MULTI AV”.
3. Check DTC.

Is DTC U1244 detected?

YES >> Proceed to AV-198, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015258690

Regarding Wiring Diagram information, refer to AV-174, "Wiring Diagram".

1.GPS ANTENNA INSPECTION

Visually inspect the GPS antenna and antenna feeder. Refer to AV-248, "Removal and Installation".

Is inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace malfunctioning components.

2.CHECK AV CONTROL UNIT VOLTAGE

1. Turn ignition switch ON.
2. Check voltage between AV control unit connector M141 terminal 58 and ground.

AV control unit		Ground	Voltage (Approx.)
Connector	Terminal		
M141	58	—	5.0 V

Is inspection result normal?

YES >> Replace GPS antenna. Refer to AV-248, "Removal and Installation".
NO >> Replace AV control unit. Refer to AV-239, "Removal and Installation".

U1258 SATELLITE RADIO ANTENNA

DTC Description

INFOID:0000000015258691

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U1258	XM ANTENNA CONN (XM antenna conn)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	Satellite antenna disconnected or short circuit
		Diagnosis delay time	—

POSSIBLE CAUSE

- Satellite antenna disconnected
- Satellite antenna signal circuit open or short to ground
- Satellite antenna
- AV control unit

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “MULTI AV”.
3. Check DTC.

Is DTC U1258 detected?

YES >> Proceed to AV-199, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015258692

Regarding Wiring Diagram information, refer to AV-174, "Wiring Diagram".

1.SATELLITE ANTENNA INSPECTION

Visually inspect the satellite antenna and antenna feeder. Refer to AV-161, "Antenna and Antenna Feeder".

Is inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace malfunctioning components.

2.CHECK SATELLITE ANTENNA FEEDER CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M142 and satellite radio antenna connector M503.
3. Check continuity between AV control unit connector M142 and satellite radio antenna connector M503.

AV control unit		Satellite radio antenna		Continuity
Connector	Terminal	Connector	Terminal	
M142	56	M503	4	Yes

4. Check continuity between AV control unit connector M142 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M142	56	—	No

Is the inspection result normal?

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

3. CHECK AV CONTROL UNIT VOLTAGE

1. Connect AV control unit connector M142 and satellite radio antenna connector M503.
2. Turn ignition switch ON.
3. Check voltage between AV control unit connector M142 terminal 56 and ground.

AV control unit		Ground	Voltage (Approx.)
Connector	Terminal		
M142	56	—	5.0 V

Is inspection result normal?

YES >> Replace satellite radio antenna AV-249, "Removal and Installation".
NO >> Replace AV control unit. Refer to AV-239, "Removal and Installation".

U1263 USB

DTC Description

INFOID:0000000015258693

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U1263	USB OVERCURRENT (USB overcurrent)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	USB power supply excess maximum current
		Diagnosis delay time	—

POSSIBLE CAUSE

- Device connected to USB interface
- USB interface harness
- AV control unit

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. If there is a device connected to the USB interface, disconnect it.
2. Turn ignition switch ON.
3. Select “Self Diagnostic Result” mode of “MULTI AV”.
4. Check DTC.

Is DTC U1263 detected?

YES >> Proceed to AV-201, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015258694

1.CHECK USB INTERFACE HARNESS

Visually inspect USB interface harness. Refer to AV-246, "Removal and Installation".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Replace USB interface harness. Refer to AV-246, "Removal and Installation".

2.CHECK USB INTERFACE HARNESS

Check USB interface harness circuits. Refer to AV-224, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Replace AV control unit. Refer to AV-239, "Removal and Installation".
NO >> Replace USB interface harness. Refer to AV-246, "Removal and Installation".

U12AA CONFIGURATION ERROR

DTC Description

INFOID:0000000015258695

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U12AA	Configuration Error (Configuration Error)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	Incomplete Configuration
		Diagnosis delay time	—

POSSIBLE CAUSE

- AV control unit configuration
- AV control unit

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “MULTI AV”.
3. Check DTC.

Is DTC U12AA detected?

YES >> Proceed to AV-202, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015258696

1.PERFORM CONFIGURATION

CONSULT

1. Perform configuration procedure. Refer to AV-190, "CONFIGURATION (AV CONTROL UNIT) : Work Procedure".
2. Turn ignition switch ON.
3. Select “Self Diagnostic Result” mode of “MULTI AV”.
4. Check DTC.

Is DTC U12AA detected?

YES >> Replace the AV control unit. Refer to AV-239, "Removal and Installation".
NO >> Inspection End.

U12AB ANTENNA

DTC Description

INFOID:0000000015258697

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U12AB	FM Antenna error (FM Antenna error)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	Rod antenna disconnected or short circuit
		Diagnosis delay time	—

POSSIBLE CAUSE

- Rod antenna disconnected
- AM/FM antenna signal open or short to ground
- Rod antenna
- AV control unit

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “MULTI AV”.
3. Check DTC.

Is DTC U12AB detected?

YES >> Proceed to AV-203, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015258698

Regarding Wiring Diagram information, refer to AV-174, "Wiring Diagram".

1.ANTENNA INSPECTION

Visually inspect the antenna and antenna feeder. Refer to AV-161, "Antenna and Antenna Feeder".

Is inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace malfunctioning components.

2.CHECK AV CONTROL UNIT VOLTAGE

1. Turn ignition switch ON.
2. Check voltage between AV control unit connector M139 terminal 52 and ground.

AV control unit		Ground	Voltage (Approx.)
Connector	Terminal		
M139	52	—	5.0 V

Is inspection result normal?

YES >> Replace antenna base. Refer to AV-249, "Removal and Installation".
NO >> Replace AV control unit. Refer to AV-239, "Removal and Installation".

U12AC AV CONTROL UNIT

DTC Description

INFOID:0000000015258699

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U12AC	Display Temperature too High (Display Temperature too High)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	Upper operation temperature of display exceeded
		Diagnosis delay time	—

POSSIBLE CAUSE

AV control unit

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

Ⓔ CONSULT

1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “MULTI AV”.
3. Check DTC.

Is DTC U12AC detected?

YES >> Proceed to AV-204, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015258700

1.PERFORM SELF DIAGNOSTIC RESULT

Ⓔ CONSULT

1. Turn ignition switch ON.
2. Erase DTC.
3. Select “Self Diagnostic Result” mode of “MULTI AV”.
4. Check DTC.

Is DTC U12AC detected?

YES >> Replace the AV control unit. Refer to AV-239, "Removal and Installation".
NO >> Refer to GI-54, "Intermittent Incident".

U12AD AV CONTROL UNIT

DTC Description

INFOID:0000000015258701

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U12AD	ECU Temperature too High (ECU Temperature too High)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	Upper operation temperature of AV control unit exceeded
		Diagnosis delay time	—

POSSIBLE CAUSE

AV control unit

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT
1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “MULTI AV”.
3. Check DTC.

Is DTC U12AD detected?

YES >> Proceed to AV-205, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015258702

1.PERFORM SELF DIAGNOSTIC RESULT

CONSULT
1. Turn ignition switch ON.
2. Erase DTC.
3. Select “Self Diagnostic Result” mode of “MULTI AV”.
4. Check DTC.

Is DTC U12AD detected?

YES >> Replace the AV control unit. Refer to AV-239, "Removal and Installation".
NO >> Refer to GI-54, "Intermittent Incident".

U12AE AV CONTROL UNIT

DTC Description

INFOID:0000000015258703

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U12AE	Internal Amplifier temperature Warning (Internal Amplifier temperature Warning)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	Amplifier temperature threshold exceeded
		Diagnosis delay time	—

POSSIBLE CAUSE

AV control unit

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT
1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “MULTI AV”.
3. Check DTC.

Is DTC U12AE detected?

YES >> Proceed to AV-206, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015258704

1.PERFORM SELF DIAGNOSTIC RESULT

CONSULT
1. Turn ignition switch ON.
2. Erase DTC.
3. Select “Self Diagnostic Result” mode of “MULTI AV”.
4. Check DTC.

Is DTC U12AE detected?

YES >> Replace the AV control unit. Refer to AV-239, "Removal and Installation".
NO >> Refer to GI-54, "Intermittent Incident".

U12AF AV CONTROL UNIT

DTC Description

INFOID:0000000015258705

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U12AF	CD Mechanism Temperature Warning (CD Mechanism Temperature Warning)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	Upper operation temperature of CD drive exceeded
		Diagnosis delay time	—

POSSIBLE CAUSE

AV control unit

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT
1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “MULTI AV”.
3. Check DTC.

Is DTC U12AF detected?

YES >> Proceed to AV-207, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015258706

1.PERFORM SELF DIAGNOSTIC RESULT

CONSULT
1. Turn ignition switch ON.
2. Erase DTC.
3. Select “Self Diagnostic Result” mode of “MULTI AV”.
4. Check DTC.

Is DTC U12AF detected?

YES >> Replace the AV control unit. Refer to AV-239, "Removal and Installation".
NO >> Refer to GI-54, "Intermittent Incident".

U12B0 POWER SUPPLY VOLTAGE

DTC Description

INFOID:0000000015258707

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U12B0	Supply Voltage Goes below 9V > 20s (Supply Voltage Goes below 9V > 20s)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	Lower operation threshold of supply voltage exceeded
		Diagnosis delay time	—

POSSIBLE CAUSE

- Charging system malfunction
- AV control unit power supply or ground circuits
- AV control unit

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “MULTI AV”.
3. Check DTC.

Is DTC U12B0 detected?

YES >> Proceed to AV-208, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015258708

1. CHECK AV CONTROL UNIT POWER SUPPLY AND GROUND CIRCUITS

Perform the AV control unit power supply and ground circuit diagnosis procedure. Refer to AV-213, "AV CONTROL UNIT : Diagnosis Procedure".

Is the inspection result normal?

YES >> Replace the AV control unit. Refer to AV-239, "Removal and Installation".
NO >> Repair or replace harness or connectors.

U12B1 POWER SUPPLY VOLTAGE

DTC Description

INFOID:0000000015258709

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U12B1	Supply Voltage Goes High > 16V for 20s (Supply Voltage Goes High > 16V for 20s)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	Upper operation threshold of supply voltage exceeded
		Diagnosis delay time	—

POSSIBLE CAUSE

- Charging system malfunction
- AV control unit

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “MULTI AV”.
3. Check DTC.

Is DTC U12B1 detected?

YES >> Proceed to AV-209, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015258710

1. CHECK AV CONTROL UNIT POWER SUPPLY AND GROUND CIRCUITS

Perform the AV control unit power supply and ground circuit diagnosis procedure. Refer to AV-213, "AV CONTROL UNIT : Diagnosis Procedure".

Is the inspection result normal?

YES >> Replace the AV control unit. Refer to AV-239, "Removal and Installation".
NO >> Repair or replace harness or connectors.

U1300 AV COMM CIRCUIT

DTC Description

INFOID:0000000015258713

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)		DTC detection condition	
U1300	AV COMM CIRCUIT (AV comm circuit error)	1	Diagnosis condition	When ignition switch is ON.
			Signal (terminal)	AV comm circuits are shorted to ground (terminals 31, 32, 38, and 39)
			Threshold	AV comm circuits are shorted to ground
			Diagnosis delay time	2 seconds or more
		2	Diagnosis condition	When ignition switch is ON.
			Signal (terminal)	AV comm circuits are open (terminals 31, 32, 38, and 39)
			Threshold	AV comm circuits are open
			Diagnosis delay time	2 seconds or more

POSSIBLE CAUSE

- Harness or connector (AV comm circuits are open or short)

FAIL SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Turn ignition switch ON.
2. Turn ignition switch OFF and wait at least 30 seconds.
3. Turn ignition switch ON and wait at least 30 seconds or more.
4. Select “Self Diagnostic Result” mode of “MULTI AV”.
5. Check DTC.

Is DTC U1300 detected?

YES >> Proceed to AV-210, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015258714

Regarding Wiring Diagram information, refer to AV-174, "Wiring Diagram".

1.PERFORM SELF DIAGNOSTIC RESULT FOR METER M&A

CONSULT

1. Turn ignition switch ON and wait for 2 seconds or more.
2. Perform “Self Diagnostic Result” mode of “METER M&A”.

Are any DTCs displayed?

YES >> Refer to MWI-32, "DTC Index".
NO >> GO TO 2.

2.CHECK AV COMMUNICATION LOW CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M102 and combination meter connector M77.

3. Check continuity between AV control unit connector M102 and combination meter connector M77.

AV control unit		Combination meter		Continuity
Connector	Terminal	Connector	Terminal	
M102	31	M77	47	Yes
	38			

4. Check continuity between AV control unit connector M102 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M102	31	—	No
	38		

Is the inspection result normal?

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

3. CHECK AV COMMUNICATION HIGH CIRCUIT CONTINUITY

1. Check continuity between AV control unit connector M102 and combination meter connector M77.

AV control unit		Combination meter		Continuity
Connector	Terminal	Connector	Terminal	
M102	32	M77	48	Yes
	39			

2. Check continuity between AV control unit connector M102 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M102	32	—	No
	39		

Is the inspection result normal?

YES >> Replace the AV control unit. Refer to AV-239, "Removal and Installation".
NO >> Repair or replace harness or connectors.

U1310 CONTROL UNIT (AV)

DTC Description

INFOID:0000000015258715

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U1310	CONTROL UNIT (AV) (AV control unit initialization error)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	–
		Threshold	–
		Diagnosis delay time	30 seconds or more

POSSIBLE CAUSE

- AV control unit

FAIL SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

Ⓔ CONSULT

1. Turn ignition switch ON.
2. Turn ignition switch OFF and wait at least 30 seconds.
3. Turn ignition switch ON and wait at least 30 seconds or more.
4. Select “Self Diagnostic Result” mode of “MULTI AV”.
5. Check DTC.

Is DTC U1310 detected?

YES >> Replace AV control unit. Refer to AV-239, "Removal and Installation".
NO >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".

POWER SUPPLY AND GROUND CIRCUIT
AV CONTROL UNIT
AV CONTROL UNIT : Diagnosis Procedure

INFOID:0000000015258673

Regarding Wiring Diagram information, refer to AV-174, "Wiring Diagram".

1.CHECK FUSE

Check that the following fuses are not blown:

Terminal No.	Signal name	Fuse No.
19	Battery power supply	16 (20A)
40	Ignition power supply	30 (10A)

Are the fuses blown?

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

2.CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect AV control unit connectors M101 and M102.
3. Check voltage between AV control unit connectors M101 and M102 and ground.

AV control unit		Ground	Condition	Voltage (Approx.)
Connector	Terminal			
M101	19	—	Ignition switch: OFF	Battery voltage
M102	40		Ignition switch: ON	

Is the inspection result normal?

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

3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Check continuity between AV control unit connector M101 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M101	20	—	Yes

Is the inspection result normal?

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

FRONT TWEETER

Diagnosis Procedure

INFOID:0000000015258674

Regarding Wiring Diagram information, refer to AV-174, "Wiring Diagram".

1.CONNECTOR CHECK

Check the AV control unit and speaker connectors for the following:
- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair the terminals or connectors.

2.CHECK FRONT TWEETER SIGNAL CIRCUIT CONTINUITY

1. Disconnect AV control unit connector M101 and suspect front tweeter connector.
2. Check continuity between AV control unit connector M101 and suspect front tweeter connector.

AV control unit		Front tweeter		Continuity
Connector	Terminal	Connector	Terminal	
M101	2	M80 (LH)	1	Yes
	3		2	
	11	M23 (RH)	1	
	12		2	

3. Check continuity between AV control unit connector M101 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M101	2	—	No
	3		
	11		
	12		

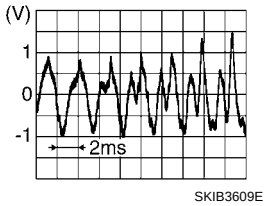
Is the inspection result normal?

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

3.CHECK FRONT TWEETER SIGNAL

1. Connect AV control unit connector M101 and suspect front tweeter connector.
2. Turn ignition switch to ON.
3. Push AV control unit POWER switch.
4. Check signal between the terminals of AV control unit connector M101.

AV control unit connector M101		Condition	Reference value
(+)	(–)		
Terminal	Terminal		

2	3		
11	12	Audio signal output	 SKIB3609E

Is the inspection result normal?

YES >> Replace front tweeter. Refer to AV-243, "Removal and Installation".
NO >> Replace AV control unit. Refer to AV-239, "Removal and Installation".

FRONT DOOR SPEAKER

Diagnosis Procedure

INFOID:0000000015258675

Regarding Wiring Diagram information, refer to AV-174, "Wiring Diagram".

1.CONNECTOR CHECK

Check the AV control unit and speaker connectors for the following:
- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair the terminals or connectors.

2.CHECK FRONT DOOR SPEAKER SIGNAL CIRCUIT CONTINUITY

1. Disconnect AV control unit connector M101 and suspect front door speaker connector.
2. Check continuity between AV control unit connector M101 and suspect front door speaker connector.

AV control unit		Front door speaker		Continuity
Connector	Terminal	Connector	Terminal	
M101	2	D7 (LH)	1	Yes
	3		2	
	11	D104 (RH)	1	
	12		2	

3. Check continuity between AV control unit connector M101 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M101	2	—	No
	3		
	11		
	12		

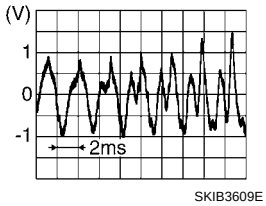
Is the inspection result normal?

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

3.CHECK FRONT DOOR SPEAKER SIGNAL

1. Connect AV control unit connector M101 and suspect front door speaker connector.
2. Turn ignition switch to ON.
3. Push AV control unit POWER switch.
4. Check signal between the terminals of AV control unit connector M101.

AV control unit connector M101		Condition	Reference value
(+)	(–)		
Terminal	Terminal		

2	3		
11	12	Audio signal output	 SKIB3609E

Is the inspection result normal?

YES >> Replace front door speaker. Refer to AV-244, "Removal and Installation".
NO >> Replace AV control unit. Refer to AV-239, "Removal and Installation".

REAR DOOR SPEAKER

Diagnosis Procedure

INFOID:0000000015258676

Regarding Wiring Diagram information, refer to AV-174, "Wiring Diagram".

1.CONNECTOR CHECK

Check the AV control unit and speaker connectors for the following:
- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair the terminals or connectors.

2.CHECK REAR DOOR SPEAKER SIGNAL CIRCUIT CONTINUITY

1. Disconnect AV control unit connector M101 and suspect rear door speaker connector.
2. Check continuity between AV control unit connector M101 and suspect rear door speaker connector.

AV control unit		Rear door speaker		Continuity
Connector	Terminal	Connector	Terminal	
M101	4	D203 (LH)	1	Yes
	5		2	
	13	D303 (RH)	1	
	14		2	

3. Check continuity between AV control unit connector M101 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M101	4	—	No
	5		
	13		
	14		

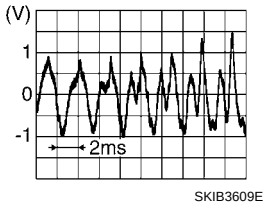
Is the inspection result normal?

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

3.CHECK REAR DOOR SPEAKER SIGNAL

1. Connect AV control unit connector M101 and suspect rear door speaker connector.
2. Turn ignition switch to ON.
3. Push AV control unit POWER switch.
4. Check signal between the terminals of AV control unit connector M101.

AV control unit connector M101		Condition	Reference value
(+)	(–)		
Terminal	Terminal		

4	5	Audio signal output	 SKIB3609E
13	14		

Is the inspection result normal?

YES >> Replace rear door speaker. Refer to AV-245, "Removal and Installation".
NO >> Replace AV control unit. Refer to AV-239, "Removal and Installation".

MICROPHONE SIGNAL CIRCUIT

Diagnosis Procedure

INFOID:0000000015258677

Regarding Wiring Diagram information, refer to AV-174, "Wiring Diagram".

1.CHECK HARNESS BETWEEN AV CONTROL UNIT AND MICROPHONE

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M102 and microphone connector R8.
3. Check continuity between AV control unit connector M102 and microphone connector R8.

AV control unit		Microphone		Continuity
Connector	Terminal	Connector	Terminal	
M102	24	R8	3	Yes
	34		1	
	35		4	
	36		2	

4. Check continuity between AV control unit connector M102 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M102	24	—	No
	34		
	35		

Is the inspection result normal?

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

2.CHECK MICROPHONE POWER SUPPLY

1. Connect AV control unit connector M102 and microphone connector R8.
2. Turn ignition switch ON.
3. Check voltage between microphone connector R8 and ground.

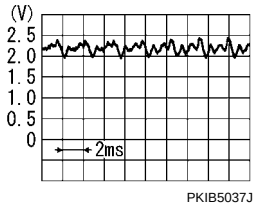
Microphone		Ground	Voltage (Approx.)
(+)		(-)	
Connector	Terminal		
R8	4	—	5V

Is the inspection result normal?

YES >> GO TO 3.
NO >> Replace AV control unit. Refer to AV-239, "Removal and Installation".

3.CHECK MICROPHONE SIGNAL

Check signal between terminals of AV control unit connector M102.

AV control unit connector M102		Condition	Reference value
(+)	(-)		
Terminal	Terminal		
34	36	Speak into microphone.	

PKIB5037J

Is the inspection result normal?

YES >> Replace AV control unit. Refer to AV-239, "Removal and Installation".
NO >> Replace microphone. Refer to AV-247, "Removal and Installation".

STEERING SWITCH

Diagnosis Procedure

INFOID:0000000015258678

Regarding Wiring Diagram information, refer to AV-174, "Wiring Diagram".

1.CHECK STEERING WHEEL AUDIO CONTROL SWITCH RESISTANCE

1. Turn ignition switch OFF.
2. Disconnect combination switch connector M90.
3. Check resistance between the terminals of combination switch connector M90.

Combination switch connector M88		Condition	Resistance Ω (Approx.)
Terminal	Terminal		
25	19	Depress BACK switch.	1
		Depress △ switch.	52
		Depress ▽ switch.	134
		Depress OK switch.	264
		Depress DISPLAY BACK switch.	654
		Depress DISPLAY FWD switch.	2126
18		Depress − switch.	1
		Depress + switch.	52
		Depress switch.	134
		Depress switch.	264
		Depress SEEK DOWN switch.	654
		Depress SEEK UP switch.	2126

Is the inspection result normal?

YES >> GO TO 2.
NO >> Replace steering switches. Refer to AV-241, "Removal and Installation".

2.CHECK HARNESS BETWEEN COMBINATION METER AND COMBINATION SWITCH

1. Disconnect combination meter connector M76 and combination switch connector M30.
2. Check continuity between combination meter connector M76 and combination switch connector M30.

Combination meter		Combination switch		Continuity
Connector	Terminal	Connector	Terminal	
M76	22	M30	8	Yes
	23		15	
	21		14	

3. Check continuity between combination meter connector M76 and ground.

Combination meter		Ground	Continuity
Connector	Terminal		
M76	22	—	No
	23		
	21		

Is the inspection result normal?

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

3. CHECK COMBINATION SWITCH

Check continuity between combination switch connectors M90 and M30.

Combination switch				Continuity
Connector	Terminal	Connector	Terminal	
M90	25	M30	8	Yes
	18		15	
	19		14	

Is the inspection result normal?

YES >> GO TO 4.
NO >> Replace spiral cable. Refer to SR-16, "Removal and Installation".

4. CHECK HARNESS BETWEEN COMBINATION METER AND AV CONTROL UNIT

1. Disconnect combination meter connector M77 and AV control unit connector M102.
2. Check continuity between combination meter connector M77 and AV control unit connector M102.

Combination meter		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M77	47	M102	31	Yes
	48		32	

3. Check continuity between combination meter connector M77 and ground.

Combination meter		Ground	Continuity
Connector	Terminal		
M77	47	—	No
	48		

Is the inspection result normal?

YES >> Replace AV control unit. Refer to AV-239, "Removal and Installation".
NO >> Repair or replace harness or connectors.

USB CONNECTOR

Diagnosis Procedure

INFOID:0000000015258679

Regarding Wiring Diagram information, refer to AV-174, "Wiring Diagram".

1.CHECK USB INTERFACE HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M138 and USB interface connector M89.
3. Check continuity between AV control unit connector M138 and USB interface connector M89.

AV control unit		USB interface		Continuity
Connector	Terminal	Connector	Terminal	
M138	45	M89	1	Yes
	46		2	
	47		3	
	49		5	
	50		6	

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

AV control unit		—	Continuity
Connector	Terminal		
M138	45	Ground	No
	47		

Is the inspection result normal?

YES >> Replace the USB interface. Refer to AV-246, "Removal and Installation".
NO >> Repair or replace harness or connectors.

AUXILIARY INPUT JACK

Diagnosis Procedure

INFOID:0000000015258680

Regarding Wiring Diagram information, refer to AV-174, "Wiring Diagram".

1. CHECK AUX IN JACK HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M102 and AUX in jack connector M104.
3. Check continuity between AV control unit connector M102 and AUX in jack connector M104.

AV control unit		AUX in jack		Continuity
Connector	Terminal	Connector	Terminal	
M102	21	M104	2	Yes
	22		3	
	23		1	

4. Check continuity between AV control unit connector M102 and ground.

AV control unit		—	Continuity
Connector	Terminal		
M102	21	Ground	No
	23		

Is the inspection result normal?

YES >> Replace the AUX in jack. Refer to AV-246, "Removal and Installation".
NO >> Repair or replace harness or connectors.

SYMPTOM DIAGNOSIS

MULTI AV SYSTEM

Symptom Table

INFOID:0000000015258671

RELATED TO AUDIO

Symptoms	Check items	Probable malfunction location
The disk cannot be removed.	AV control unit	Malfunction in AV control unit. Refer to AV-168, "On Board Diagnosis Function".
No sound comes out or the level of the sound is low.	No sound from all speakers.	• Speaker circuit shorted to ground. Refer to AV-174, "Wiring Diagram". • AV control unit power supply and ground circuits malfunction. Refer to AV-213, "AV CONTROL UNIT : Diagnosis Procedure".
	Only a certain speaker (front tweeter LH, front tweeter RH, front door speaker LH, front door speaker RH, rear door speaker LH, rear door speaker RH) does not output sound.	• Poor connector connection of speaker. • Sound signal circuit malfunction between AV control unit and speaker. Refer to: - AV-214, "Diagnosis Procedure" (front tweeter). - AV-216, "Diagnosis Procedure" (front door speaker). - AV-218, "Diagnosis Procedure" (rear door speaker). • Malfunction in speaker. Refer to: - AV-243, "Removal and Installation" (front tweeter). - AV-244, "Removal and Installation" (front door speaker). - AV-245, "Removal and Installation" (rear door speaker). • Malfunction in AV control unit. Refer to AV-168, "On Board Diagnosis Function".

Symptoms	Check items	Probable malfunction location
Noise is mixed with audio.	Noise comes out from all speakers.	Malfunction in AV control unit. Refer to AV-168, "On Board Diagnosis Function".
	Noise comes out only from a certain speaker (front tweeter LH, front tweeter RH, front door speaker LH, front door speaker RH, rear door speaker LH, rear door speaker RH).	• Poor connector connection of speaker. • Sound signal circuit malfunction between AV control unit and speaker. Refer to: - AV-214, "Diagnosis Procedure" (front tweeter). - AV-216, "Diagnosis Procedure" (front door speaker). - AV-218, "Diagnosis Procedure" (rear door speaker). • Malfunction in speaker. • Poor Installation of speaker (e.g. backlash and looseness). Refer to: - AV-243, "Removal and Installation" (front tweeter). - AV-244, "Removal and Installation" (front door speaker). - AV-245, "Removal and Installation" (rear door speaker). • Malfunction in AV control unit. Refer to AV-168, "On Board Diagnosis Function".
	Noise is mixed with radio only (when the vehicle hits a bump or while driving over bad roads)	Poor connector connection of antenna or antenna feeder. Refer to AV-161, "Antenna and Antenna Feeder".
No radio reception or poor reception.	• Other audio sounds are normal. • Any radio station cannot be received or poor reception is caused even after moving to a service area with good reception (e.g. a place with clear view and no obstacles generating external noises).	Poor connector connection of antenna or antenna feeder. Refer to AV-161, "Antenna and Antenna Feeder".
No satellite radio reception.	There is malfunction in the CONSULT self diagnosis result. Refer to AV-169, "CONSULT Function".	• Malfunction in antenna, antenna feeder or AV control unit. Perform DTC diagnosis. Refer to AV-203, "Diagnosis Procedure". • Poor continuity in antenna feeder. • Poor connector connection of antenna or antenna feeder. Refer to AV-161, "Antenna and Antenna Feeder".
	There is no malfunction in the CONSULT self diagnosis result. Refer to AV-169, "CONSULT Function".	• Poor continuity in antenna feeder. • Poor connector connection of antenna or antenna feeder. • Loose satellite radio antenna mounting nut. Refer to AV-161, "Antenna and Antenna Feeder".
Buzz/rattle sound from speaker	The majority of buzz/rattle sounds are not indicative of an issue with the speaker, usually something nearby the speaker is causing the buzz/rattle.	Refer to "SQUEAK AND RATTLE TROUBLE DIAGNOSIS" in the appropriate interior trim section.

RELATED TO HANDS-FREE PHONE

- Before performing diagnosis, confirm that the cellular phone being used by the customer is compatible with the vehicle.
- It is possible that a malfunction is occurring due to a version change of the phone even though the phone is a compatible type. This can be confirmed by changing the cellular phone to another compatible type, and

check that it operates normally. It is important to determine whether the cause of the malfunction is the vehicle or the cellular phone.

Check Compatibility

1. Make sure the customer's Bluetooth® related concern is understood.
2. Verify the customer's concern.
   NOTE:
   The customer's phone may be required, depending upon their concern.
3. Write down the customer's phone brand, model and service provider.
   NOTE:
   It is necessary to know the service provider. On occasion, a given phone may be on the approved list with one provider, but may not be on the approved list with other providers.
4. Go to "www.nissanusa.com/bluetooth/".

a. Using the website's search engine, find out if the customer's phone is on the approved list.

b. If the customer's phone is NOT on the approved list:
   Stop diagnosis here. The customer needs to obtain a Bluetooth® phone that is on the approved list before any further action.

c. If the feature related to the customer's concern shows as "N" (not compatible):
   Stop diagnosis here. If the customer still wants the feature to function, they will need to get an approved phone showing the feature as "Y" (compatible) in the "Basic Features".

d. If the feature related to the customer's concern shows as "Y" (compatible):
   Perform diagnosis as per the following table:

Symptoms	Check items	Probable malfunction location
Does not recognize cellular phone connection (no connection is displayed on the display at the guide).	Repeat the registration of cellular phone.	Malfunction in AV control unit. Replace AV control unit. Refer to AV-239, "Removal and Installation".
Hands-free phone cannot be established.	• Hands-free phone operation can be made, but the communication cannot be established. • Hands-free phone operation can be performed, however, voice between each other cannot be heard during the conversation.	
The other party's voice cannot be heard by hands-free phone.	Check the "microphone speaker" in Inspection & Adjustment Mode if sound is heard.	
Originating sound is not heard by the other party with hands-free phone communication.	Sound operation function is normal.	
	Sound operation function does not work.	Microphone signal circuit malfunction. Refer to AV-220, "Diagnosis Procedure".
The system cannot be operated.	• The voice recognition can be controlled. • Steering switches −, +, and work, but does not work.	Steering switch malfunction. Replace steering switch. Refer to AV-241, "Removal and Installation".
	Steering switches , −, +, and do not work.	Steering switch signal circuit malfunction. Refer to AV-222, "Diagnosis Procedure".
	All steering switches do not work.	Steering switch ground circuit malfunction. Refer to AV-222, "Diagnosis Procedure".

RELATED TO NAVIGATION

Symptoms	Check items	Probable malfunction location
Navigation system is inoperative.	Navigation malfunction.	• Malfunction in SD card. • Malfunction in AV control unit. Refer to AV-168, "On Board Diagnosis Function".
	Steering switches malfunction.	Steering switch signal circuit malfunction. Refer to AV-222, "Diagnosis Procedure".
	Voice activated control malfunction.	Microphone signal circuit malfunction. Refer to AV-220, "Diagnosis Procedure". Steering switch signal circuit malfunction. Refer to AV-222, "Diagnosis Procedure".

NORMAL OPERATING CONDITION

Description

INFOID:0000000015258672

RELATED TO NOISE

The majority of the audio concerns are the result of outside causes (bad CD, electromagnetic interference, etc.).
The following noise results from variations in field strength, such as fading noise and multi-path noise, or external noise from trains and other sources. It is not a malfunction:

- Fading noise: This noise occurs because of variations in the field strength in a narrow range due to mountains or buildings blocking the signal.
- Multi-path noise: This noise results from the waves sent directly from the broadcast station arriving at the antenna at a different time from the waves which reflect off mountains or buildings.

The vehicle itself can be a source of noise if noise prevention parts or electrical equipment is malfunctioning. Check if noise is caused and/or changed by engine speed, ignition switch turned to each position, and operation of each piece of electrical equipment, and determine the cause.

NOTE:
The source of the noise can be found easily by listening to the noise while removing the fuses of electrical components, one by one.

Type of Noise and Possible Cause

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

RELATED TO HANDS-FREE PHONE

Symptom	Cause and Counter measure
Does not recognize cellular phone connection (No connection is displayed on the display at the guide).	Some Bluetooth® enabled cellular phones may not be recognized by the in-vehicle phone module. Refer to “RELATED TO HANDS-FREE PHONE (Check Compatibility)” in AV-226, "Symptom Table".
Cannot use hands-free phone.	Customer will not be able to use a hands-free phone under the following conditions: • The vehicle is outside of the telephone service area. • The vehicle is in an area where it is difficult to receive radio waves; such as in a tunnel, in an underground parking garage, near a tall building or in a mountainous area. • The cellular phone is locked to prevent it from being dialed. **NOTE:** While a cellular phone is connected through the Bluetooth® wireless connection, the battery power of the cellular phone may discharge quicker than usual. The Bluetooth® Hands-Free Phone System cannot charge cellular phones.

Symptom	Cause and Counter measure
The other party's voice cannot be heard by hands-free phone.	When the radio wave condition is not ideal or ambient sound is too loud, it may be difficult to hear the other person's voice during a call.
Poor sound quality.	Do not place the cellular phone in an area surrounded by metal or far away from the in-vehicle phone module to prevent tone quality degradation and wireless connection disruption.

RELATED TO NAVIGATION

Basic Operation

Symptom	Cause	Remedy
No image is shown.	Display brightness adjustment is set fully to DARK side.	Adjust the display brightness.
No guide sound is heard. Audio guide volume is too low or too high.	Volume control is set to OFF, MIN or MAX.	Adjust the audio guide volume.
	Audio guidance is not available while the vehicle is driving on a dark pink route.	System is not malfunctioning.
Screen is too dark. Motion of the image is too slow.	Temperature inside the vehicle is low.	Wait until the temperature inside the vehicle reaches the proper temperature.
Small black or bright spots appear on the screen.	Symptom peculiar to a liquid crystal display (display unit).	System is not malfunction.

Vehicle Mark

Symptom	Cause	Remedy
Map screen and BIRDVIEW™ Name of the place vary with the screen.	Some thinning of the character data is done to prevent the display becoming to complex. In some cases and in some locations, the display contents may differ. The same place name, street name, etc. may not be displayed every time on account of the data processing.	System is not malfunctioning.
Vehicle mark is not positioned correctly.	Vehicle is transferred by ferry or by towing after its ignition switch is turned to OFF.	Drive the vehicle for a while in the GPS satellite signal receiving condition.
Screen will not switch to nighttime mode after the lighting switch is turned ON.	The daytime screen is selected by the "SWITCH SCREENS" when the last time the screen dimming setting is done. Switching between daytime/nighttime screen may be inhibited by the automatic illumination adjustment function.	Perform screen dimming and select the nighttime screen by "SWITCH SCREENS".
Map screen will not scroll in accordance with the vehicle travel.	Current location is not displayed.	Press "MAP" button to display the current location.
Vehicle mark will not be shown.	Current location is not displayed.	Press "MAP" button to display the current location.
Accuracy indicator (GPS satellite mark) on the map screen stays gray.	GPS satellite signal is intercepted because the vehicle is in or behind a building.	Move the vehicle out to an open space.
	GPS satellite signal cannot be received because an obstacle is placed on top of the instrument panel.	Do not place anything on top of the meter display (instrument panel).
	GPS satellites are not visible from current location.	Wait until GPS satellites are visible by moving the vehicle.

Symptom	Cause	Remedy
Vehicle location accuracy is low.	Accuracy indicator (GPS satellite mark) on the map screen stays gray.	Current location is not determined.
	Vehicle speed setting by the vehicle speed pulse has been deviated (advanced or retarded) from the actual vehicle speed because tire chain is fitted or the system has been used on another vehicle.	Drive the vehicle for a while [for approx. 30 minutes at approx. 30 km/h (19 MPH)] and the deviation will be automatically adjusted. If advancement or retard still occur, perform the distance adjustment by CONFIRMATION/ADJUSTMENT mode of diagnosis function.
	Map data has error or omission. (Vehicle mark is always deviated to the same position.)	As a rule, an updated map DVD–ROM will be released once a year.

Destination, Passing Points and Menu Items Cannot be Selected/Set

Symptom	Cause	Remedy
Destination cannot be set.	Destination to be set is on an expressway.	Set the destination on an ordinary road.
Passing point is not searched when re-searching the route.	The vehicle has already passed the passing point, or the system judged so.	To include the passing points that have been passed into the route again, set the route again.
Route information will not be displayed.	Route searching has not been done.	Set the destination and perform route searching.
	Vehicle mark is not on the recommended route.	Drive on the recommended route.
	Route guide is turned OFF.	Turn route guide ON.
	Route information is not available on the dark pink route.	System is not malfunctioning.
After the route searching, no guide sign will appear as the vehicle goes near the entrance/exit to the toll road.	Vehicle mark is not on the recommended route. (On the display, only guide signs related to the recommended route will be shown.)	Drive on the recommended route.
Automatic route searching is not possible.	Vehicle is driving on a highway (gray route), or no recommended route is available.	Drive on a road to be searched. Or re–search the route manually. In this case, however, the whole route will be searched.
Performed automatic detour search (or detour search). However, the result is the same as that of the previous search.	Performed search with every conditions considered. However, the result is the same as that of the previous search.	System is not malfunctioning.
Passing points cannot be set.	More than five passing points were set.	Passing points can be set up to five. To stop at more than five points, perform sharing in several steps.
When setting the route, the starting point cannot be selected.	The current vehicle location is always set as the starting point of a route.	System is not malfunctioning.
Some menu items cannot be selected.	The vehicle is being driven.	Stop the vehicle at a safe place and then operate the system.

Voice Guide

Symptom	Cause	Remedy
Voice guide will not operate.	Note: Voice guide is only available at intersections that satisfy certain conditions (indicated by ● on the map). Therefore, guidance may not be given even when the route on the map changes direction.	System is not malfunctioning.
	The vehicle is not on the recommended route.	Return to the recommended route or re-search the route.
	Voice guide is turned OFF.	Turn voice guide ON.
	Route guide is turned OFF.	Turn route guide ON.
Voice guide does not match the actual road pattern.	Voice guide may vary with the direction to which the vehicle is turn and the connection of the road to other roads.	Drive in conformity to the actual traffic rules.

Route Search

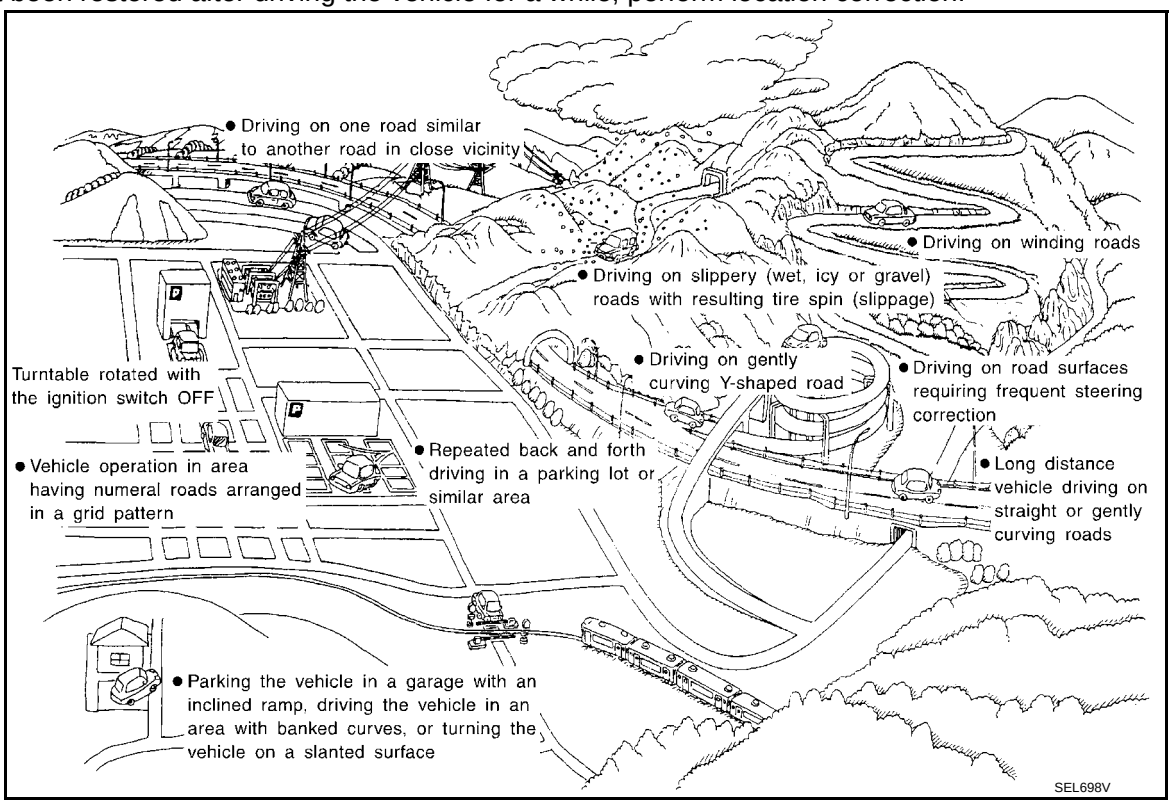
Symptom	Cause	Remedy
No route is shown.	No road to be searched is found around the destination.	Find wider road (orange road or wider) nearby and reset the destination and passing points onto it. Take care of the traveling direction when there are separate up and down roads.
	Starting point and the destination are too close.	Set the destination at more distant point.
	Conditional traffic regulation (day of the week/ time of the day) is set at the area around the current location or the destination.	Turn the time-regulating search conditions OFF. Turn “Avoid regulation time” in the search conditions OFF.
Indicated route is intermittent.	In some areas, highways (gray routes) are not used for the search(Note)Therefore, the route to the current location or the passing points may be intermittent.	System is not malfunctioning.
When the vehicle has passed the recommended route, it is deleted from the screen.	A recommended route is controlled by each section. When the vehicle has passed the passing point 1, then the map data from the starting point up to the passing point 1 will be deleted. (The data may remain undeleted in some area.)	System is not malfunctioning.
Detouring route is recommended.	In some areas, highways (gray routes) are not used for the search. (Note). Therefore, detour route may be recommended.	Set the route closer to the basic route (gray route).
	A detour route may be shown when some traffic regulation (one-way traffic, etc.) is set at the area around the starting point or the destination.	Slightly move the starting point or the destination, or set the passing point on the route of your choice.
	In the area where highways (gray routes) are used for the search, left turn has priority around the current location and the destination (passing points). For this reason, the recommended route may be detouring.	System is not malfunctioning.
Landmarks on the map do not match the actual ones.	This can be happen due to omission or error in the map data.	As a rule, an updated map DVD-ROM will be released once a year. Wait until the latest map has become available.
Recommended route is far from the starting point, passing points, and destination.	Starting point, passing points, and destination of the route guide were set far from the desired points because route searching data around these area were not stored.	Reset the destination onto the road nearby. If this road is one of the highways (gray routes), an ordinary road nearby may be displayed as the recommended route.

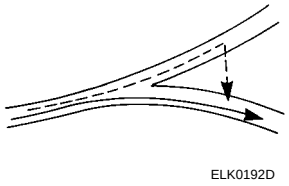
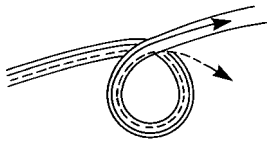
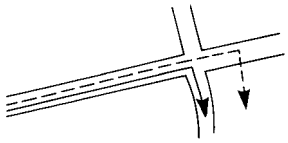
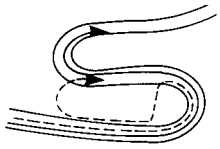
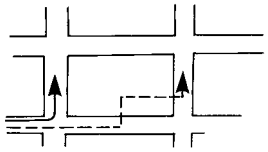
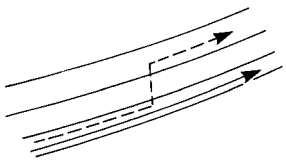
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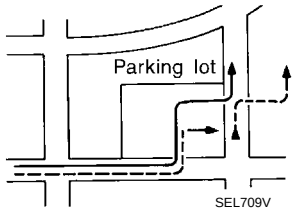
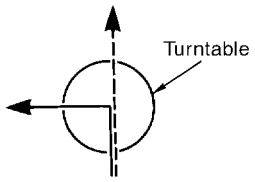
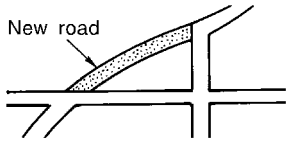
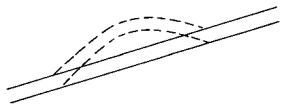
Except for the ordinance-designated cities. (Malfunctioning areas may be changed in the updated map disc.)

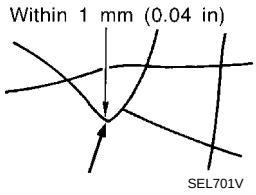
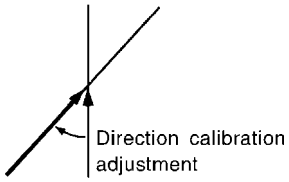
Examples of Current-Location Mark Displacement

Vehicle's travel amount is calculated by reading its travel distance and turning angle. Therefore, if the vehicle is driven in the following manner, an error will occur in the vehicle's current location display. If correct location has not been restored after driving the vehicle for a while, perform location correction.



Cause (condition) –: While driving ooo: Display		Driving condition	Remarks (correction, etc.)
Road configuration	Y–intersections  ELK0192D	At a Y intersection or similar gradual division of roads, an error in the direction of travel deduced by the sensor may result in the current-location mark appearing on the wrong road.	If after travelling about 10 km (6 miles) the correct location has not been restored, perform location correction and, if necessary, direction correction.
	Spiral roads  ELK0193D	When driving on a large, continuous spiral road (such as loop bridge), turning angle error is accumulated and the vehicle mark may deviate from the correct location.	
	Straight roads  ELK0194D	When driving on a long, straight road and slow curve without stopping, map-matching does not work effectively enough and distance errors may accumulate. As a result, the vehicle mark may deviate from the correct location when the vehicle is turned at a corner.	
	Zigzag roads  ELK0195D	When driving on a zigzag road, the map may be matched to other roads in the similar direction nearby at every turn, and the vehicle mark may deviate from the correct location.	
	Roads laid out in a grid pattern  ELK0196D	When driving where roads are laid out in a grid pattern, or where many roads are running in the similar direction nearby, the map may be matched to them by mistake and the vehicle mark may deviate from the correct location.	
	Parallel roads  ELK0197D	When two roads are running in parallel (such as highway and sideway), the map may be matched to the other road by mistake and the vehicle mark may deviate from the correct location.	

Cause (condition) –: While driving ooo: Display		Driving condition	Remarks (correction, etc.)
Place	In a parking lot  SEL709V	When driving in a parking lot, or other location where there are no roads on the map, matching may place the vehicle mark on a nearby road. When the vehicle returns to the road, the vehicle mark may have deviated from the correct location. When driving in circle or turning the steering wheel repeatedly, direction errors accumulate, and the vehicle mark may deviate from the correct location.	If after travelling about 10 km (6 miles) the correct location has not been restored, perform location correction and, if necessary, direction correction.
	Turntable  SEL710V	When the ignition switch is OFF, the navigation system cannot get the signal from the gyroscope (angular speed sensor). Therefore, the displayed direction may be wrong and the correct road may not be easily returned to after rotating the vehicle on a turntable with the ignition OFF.	
	Slippery roads	On snow, wet roads, gravel, or other roads where tires may slip easily, accumulated mileage errors may cause the vehicle mark to deviate from the correct road.	
	Slopes	When parking in sloped garages, when travelling on banked roads, or in other cases where the vehicle turns when tilted, an error in the turning angle will occur, and the vehicle mark may deviate from the road.	
Map data	Road not displayed on the map screen  SEL699V	When driving on new roads or other roads not displayed on the map screen, map matching does not function correctly and matches the location to a nearby road. When the vehicle returns to a road which is on the map, the vehicle mark may deviate from the correct road.	
	Different road pattern (Changed due to repair)  ELK0201D	If the road pattern stored in the map data and the actual road pattern are different, map matching does not function correctly and matches the location to a nearby road. The vehicle mark may deviate from the correct road.	
Vehicle	Use of tire chains	When tire chains are used, the mileage is not correctly detected, and the vehicle mark may deviate from the correct road.	Drive the vehicle for a while. If the distance still deviates, adjust it by using the distance adjustment function. (If the tire chain is removed, recover the original value.)

Cause (condition) –: While driving ooo: Display		Driving condition	Remarks (correction, etc.)
Precautions for driving	Just after the engine is started	If the vehicle is driven just after the engine is started when the gyroscope (angular speed sensor) correction is not completed, the vehicle can lose its direction and may have deviated from the correct location.	Wait for a short while before driving after starting the engine.
	Continuous driving without stopping	When driving long distances without stopping, direction errors may accumulate, and the current-location mark may deviate from the correct road.	Stop and adjust the orientation.
	Abusive driving	Spinning the wheels or engaging in other kinds of abusive driving may result in the system being unable perform correct detection, and may cause the vehicle mark to deviate from the correct road.	If after travelling about 10 km (6 miles) the correct location has not been restored, perform location correction and, if necessary, direction correction.
How to correct location	Position correction accuracy  SEL701V	If the accuracy of location settings is poor, accuracy may be reduced when the correct road cannot be found, particularly in places where there are many roads.	Enter in the road displayed on the screen with an accuracy of approx. 1mm. Caution: Whenever possible, use detailed map for the correction.
	Direction when location is corrected  SEL702V	If the accuracy of location settings during correction is poor, accuracy may be reduced afterwards.	Perform direction correction.

Location Correction by Map-Matching is Slow

- The map-matching function needs to refer to the data of the surrounding area. It is necessary to drive some distance for the function to work.
- Because map-matching operates on this principle, when there are many roads running in similar directions in the surrounding area, no matching determination may be made. The location may not be corrected until some special feature is found.

Name of Road is Not Displayed

The current road name may not be displayed if there are no road names displayed on the map screen.

Contents of Display Differ for Birdview™ and the (Flat) Map Screen

Difference of the BIRDVIEW™ screen from the flat map screen are as follows.

- The current place name displays names which are primarily in the direction of vehicle travel.
- The amount of time before the vehicle travel or turn angle is updated on the screen is longer than for the (flat) map display.
- The conditions for display of place names, roads, and other data are different for nearby areas and for more distant areas.
- Some thinning of the character data is done to prevent the display becoming too complex. In some cases and in some locations, the display contents may differ.
- The same place name, street name, etc. may be displayed multiple times.

Vehicle Mark Shows a Position Which is Completely Wrong

In the following cases, the vehicle mark may appear on completely different position in the map depending on the GPS satellite signal receiving conditions. In this case, perform location correction and direction correction:

- When location correction has not been done
  - If the receiving conditions of the GPS satellite signal is poor, if the vehicle mark becomes out of place, it may move to a completely different location and not come back if location correction is not done. The position will be corrected if the GPS signal can be received.
- When the vehicle has traveled by ferry, or when the vehicle has been being towed

- Because calculation of the current location cannot be done when traveling with the ignition off, for example when traveling by ferry or when being towed, the location before travel is displayed. If the precise location can be detected with GPS, the location will be corrected.

Vehicle Mark Jumps

In the following cases, the vehicle mark may appear to jump as a result of automatic correction of the current location:

• When map matching has been done
- If the current location and the vehicle mark are different when map matching is done, the vehicle mark may seem to jump. At this time, the location may be “corrected” to the wrong road or to a location which is not on a road.
• When GPS location correction has been done
- If the current location and the vehicle mark are different when the location is corrected using GPS measurements, the vehicle mark may seem to jump. At this time, the location may be “corrected” to a location which is not on a road.

Vehicle Mark is in a River or Sea

The navigation system moves the vehicle mark with no distinction between land and rivers or sea. If the vehicle mark is somehow out of place, it may appear that the vehicle is driving in a river or the sea.

Vehicle Mark Automatically Rotates

The system wrongly memorizes the rotating status as stopping when the ignition switch is turned ON with the turntable rotating. That causes the vehicle mark to rotate when the vehicle is stopped.

When Driving on Same Road, Sometimes Vehicle Mark is in Right Place and Sometimes it is in Wrong Place

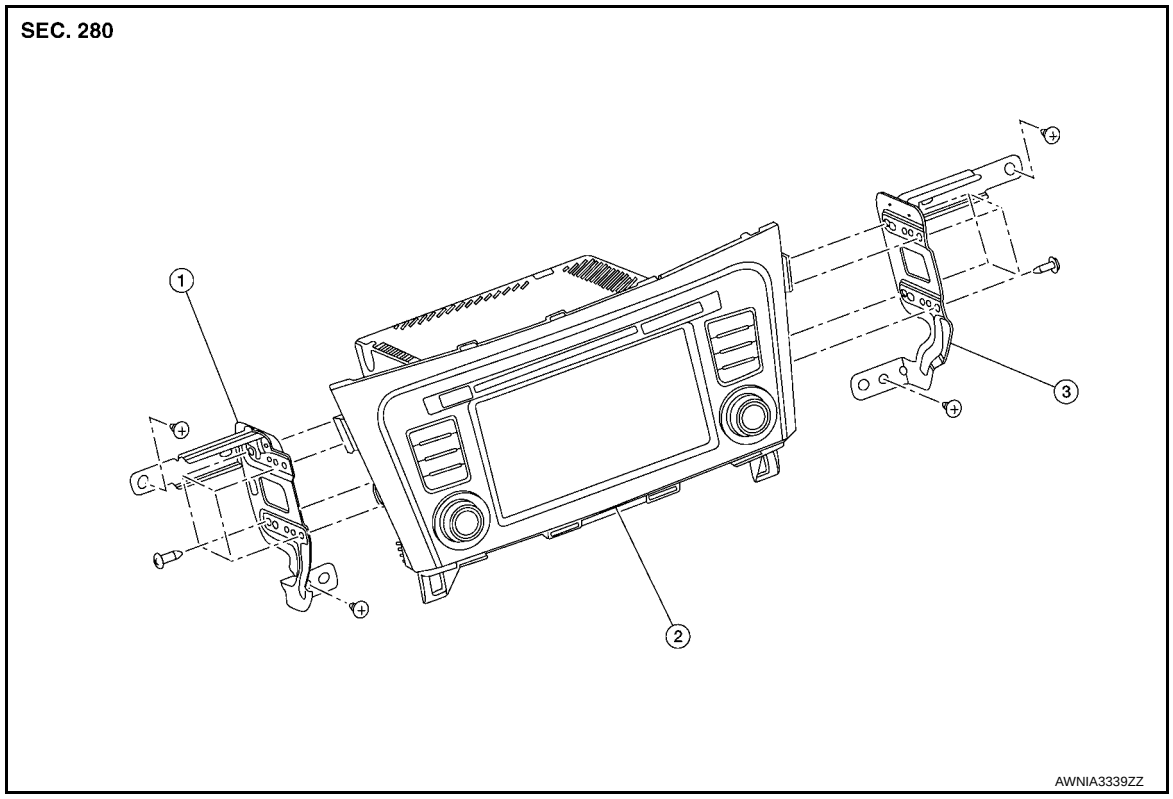
The conditions of the GPS antenna (GPS data) and gyroscope (angular speed sensor) change gradually. Depending on the road traveled and the operation of the steering wheel, the location detection results will be different. Therefore, even on a road on which the location has never been wrong, conditions may cause the vehicle mark to deviate.

REMOVAL AND INSTALLATION

AV CONTROL UNIT

Exploded View

INFOID:0000000014844423



1. AV control unit bracket (LH) 2. AV control unit 3. AV control unit bracket (RH)

Removal and Installation

INFOID:0000000014844424

REMOVAL

CAUTION:

- **Before disconnecting the AV control unit and battery terminals, turn the ignition switch OFF and wait at least 30 seconds.**
- **Before replacing AV control unit, perform "READ CONFIGURATION" to save current vehicle specification. Refer to AV-190, "CONFIGURATION (AV CONTROL UNIT) : Description".**

NOTE:

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

1. Disconnect the battery. Refer to PG-128, "Battery Disconnect".
2. Remove cluster lid C. Refer to IP-21, "Removal and Installation".
3. Remove instrument finisher B. Refer to IP-16, "INSTRUMENT FINISHER B : Removal and Installation".
4. Remove instrument finisher E. Refer to IP-16, "INSTRUMENT FINISHER E : Removal and Installation".
5. Remove the AV control unit screws, then pull out the AV control unit.
6. Disconnect the harness connectors from the AV control unit and remove.
7. Remove the AV control unit bracket (LH/RH) screws and the AV control unit brackets (LH/RH) (if necessary).

INSTALLATION

Installation is in the reverse order of removal.

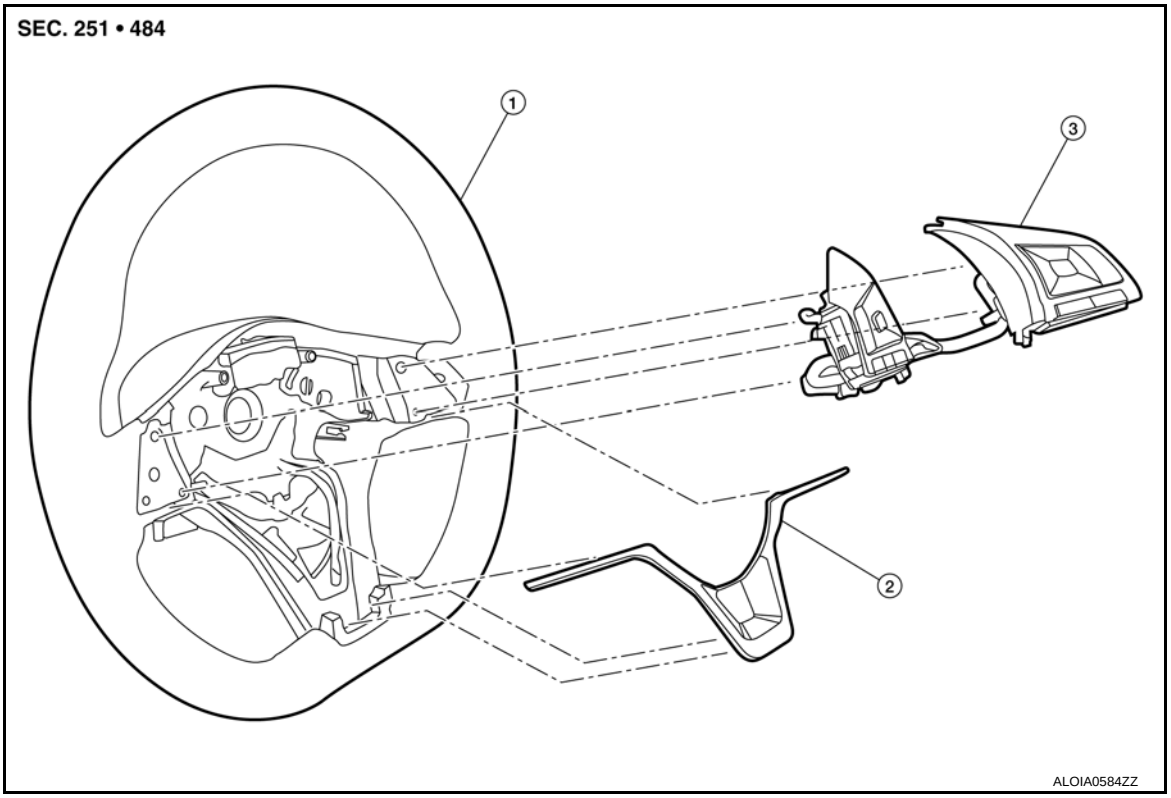
CAUTION:

- **When replacing AV control unit, perform "WRITE CONFIGURATION". Refer to AV-189, "ADDITIONAL SERVICE WHEN REPLACING AV CONTROL UNIT : Description".**
- **When replacing AV control unit, the AV control unit must be registered. Refer to AV-189, "ADDITIONAL SERVICE WHEN REPLACING AV CONTROL UNIT : Description".**

STEERING SWITCHES

Exploded View

INFOID:0000000014844425



1. Steering wheel
2. Steering wheel finisher
3. Steering switches

Removal and Installation

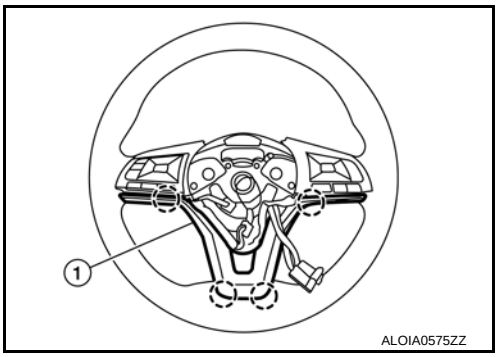
INFOID:0000000014844426

REMOVAL

NOTE:
The steering switches are serviced as an assembly.

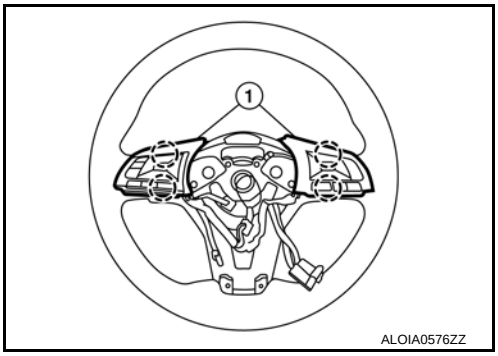
1. Remove driver airbag. Refer to SR-12, "Removal and Installation".
2. Release pawls on the steering wheel front finisher (1) using suitable tool and remove from the steering wheel.

: Pawl



3. Release pawls on the steering switches (1) using suitable tool and remove from the steering wheel.

: Pawl



4. Disconnect the harness connector from the steering switches and remove steering switches.

INSTALLATION

Installation is in the reverse order of removal.

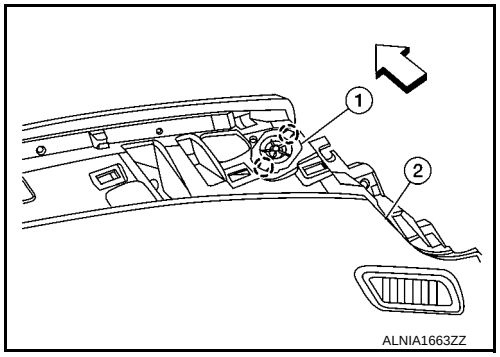
FRONT TWEETER

Removal and Installation

INFOID:0000000014844427

REMOVAL

1. Remove defroster grille. Refer to VTL-13, "DEFROSTER GRILLE : Removal and Installation".
2. Release pawls and pull out the front tweeter (1) from the instrument panel assembly (2).
   : Pawl
   : Front
3. Disconnect the harness connector from the front tweeter and remove.



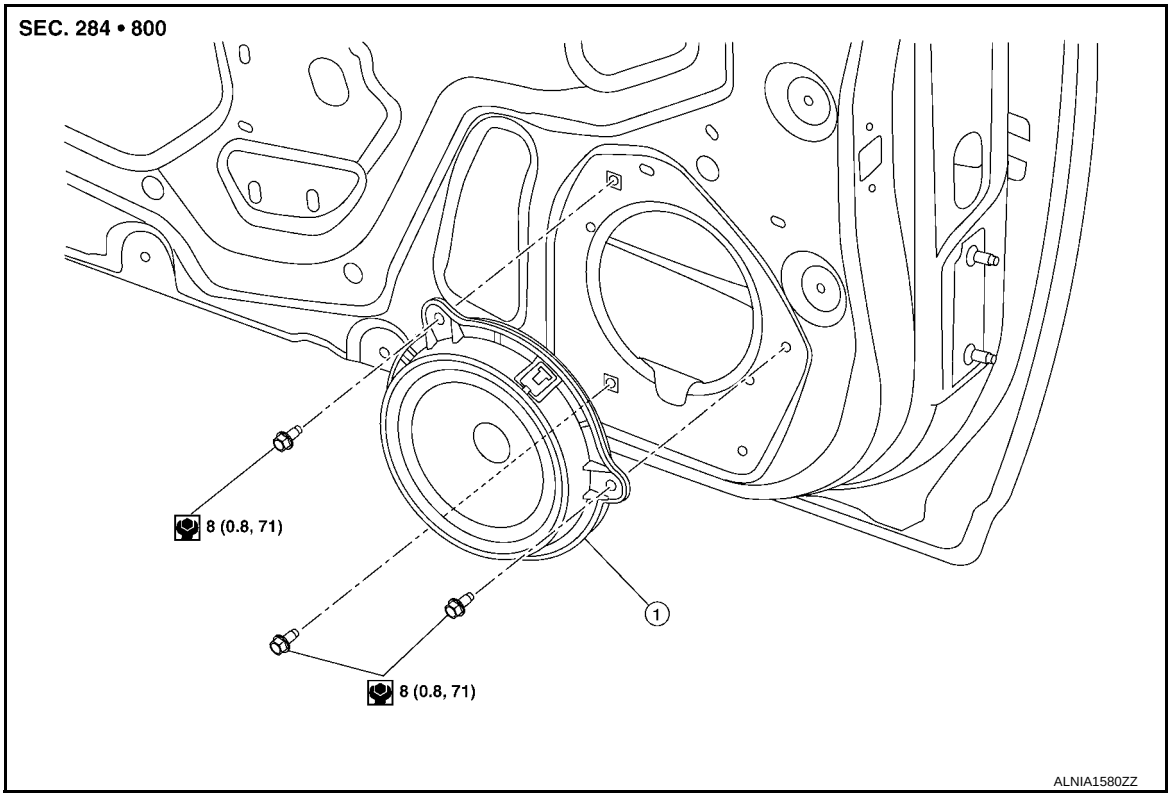
INSTALLATION

Installation is in the reverse order of removal.

FRONT DOOR SPEAKER

Exploded View

INFOID:0000000014844428



1. Front door speaker

Removal and Installation

INFOID:0000000014844429

REMOVAL

1. Remove front door finisher. Refer to INT-15, "Removal and Installation".
2. Remove front door speaker bolts, then pull out front door speaker.
3. Disconnect the harness connector from front door speaker and remove.

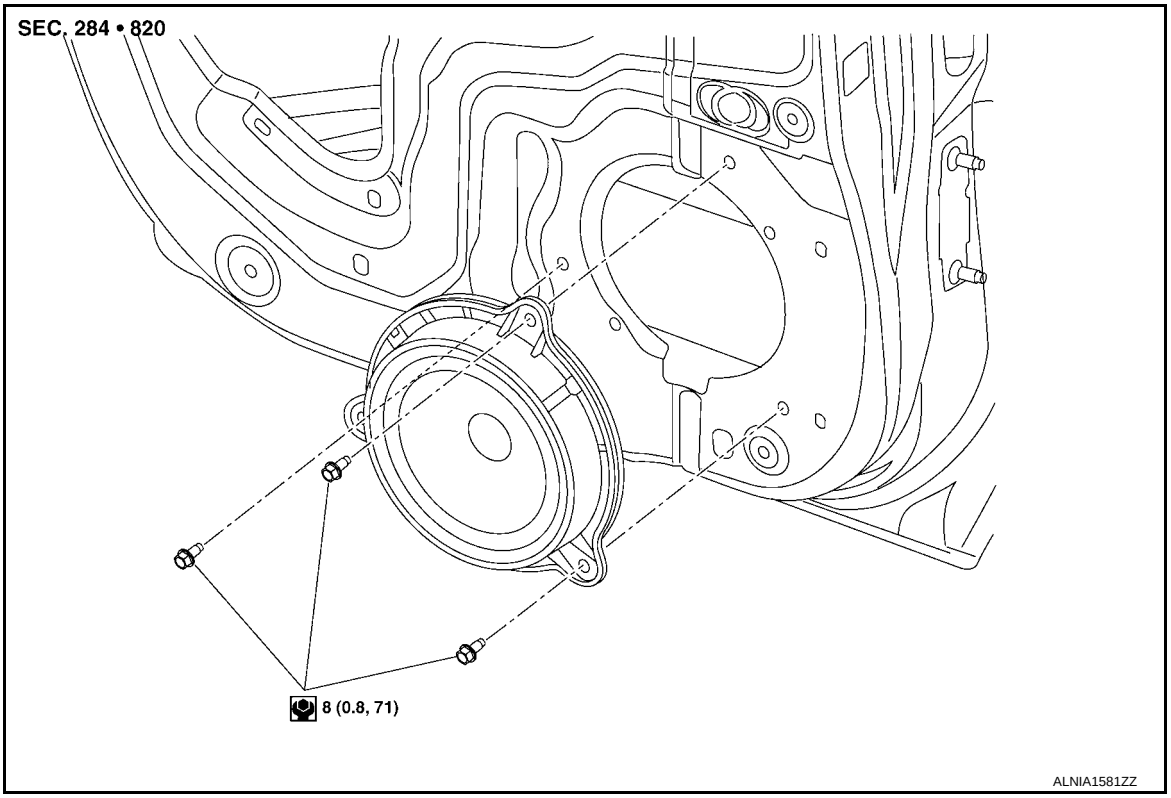
INSTALLATION

Installation is in the reverse order of removal.

REAR DOOR SPEAKER

Exploded View

INFOID:0000000014844430



1. Rear door speaker

Removal and Installation

INFOID:0000000014844431

REMOVAL

1. Remove rear door finisher. Refer to INT-18, "Removal and Installation".
2. Remove rear door speaker bolts, then pull out rear door speaker.
3. Disconnect the harness connector from the rear door speaker and remove.

INSTALLATION

Installation is in the reverse order of removal.

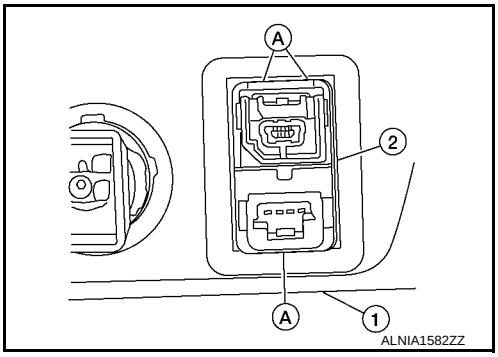
USB INTERFACE AND AUX IN JACK

Removal and Installation

INFOID:0000000014844432

REMOVAL

1. Remove cluster lid C. Refer to IP-21, "Removal and Installation".
2. Release the pawls (A) on the back of USB interface and AUX in jack (2), then remove from the front of cluster lid C (1).



INSTALLATION

Installation is in the reverse order of removal.

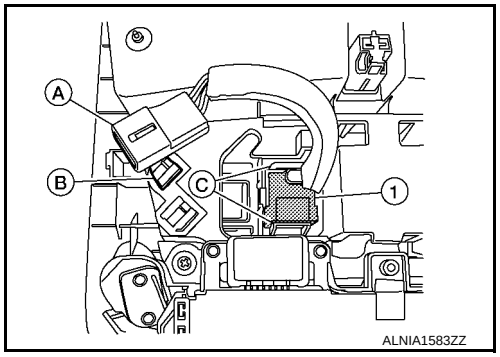
MICROPHONE

Removal and Installation

INFOID:0000000014844433

REMOVAL

1. Remove the map lamp assembly. Refer to INL-52, "Removal and Installation".
2. Release harness connector (A) by sliding rearward to remove from the pawl (B).
3. Release pawls (C) and remove the microphone (1) from the front room/map lamp assembly.



INSTALLATION

Installation is in the reverse order of removal.

GPS ANTENNA

Removal and Installation

INFOID:0000000014844434

REMOVAL

1. Remove instrument panel assembly. Refer to IP-14, "INSTRUMENT PANEL ASSEMBLY : Removal and Installation".
2. Remove screw and the GPS antenna.

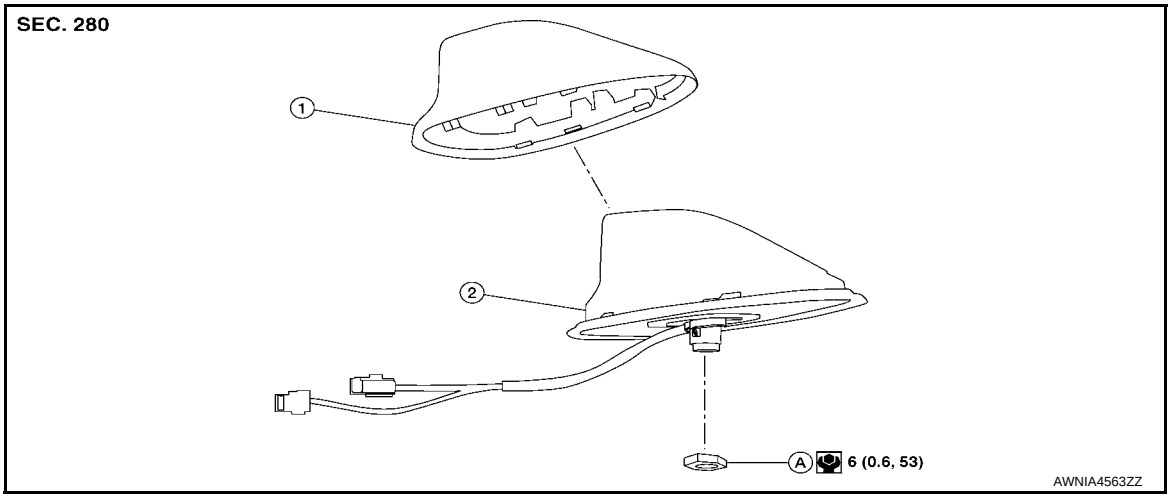
INSTALLATION

Installation is in the reverse order of removal.

ANTENNA BASE

Exploded View

INFOID:0000000014894943



1. Outer cover
2. Antenna base
A. Antenna nut

Removal and Installation

INFOID:0000000014894944

REMOVAL

1. Using a suitable tool, remove the outer cover.
2. Remove the luggage side upper finisher (RH). Refer to INT-33, "LUGGAGE SIDE UPPER FINISHER : Removal and Installation".
3. Partially lower headlining (rear). Refer to INT-29, "Removal and Installation".
4. Disconnect harness connectors from antenna feeder.
5. Remove nut from antenna base and remove.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

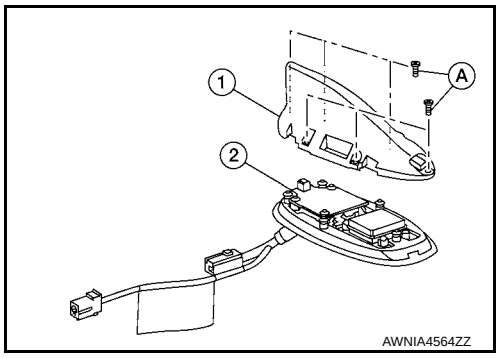
If the antenna base nut is not properly tightened, lower sensitivity of the antenna may be experienced.
If the nut is over tightened, this will deform the roof panel.

Disassembly and Assembly

INFOID:0000000014894945

DISASSEMBLY

Remove the inner cover screws (A), then remove the inner cover (1) from antenna base (2).



ASSEMBLY

Assembly is in the reverse order of disassembly.

PRECAUTION

PRECAUTIONS

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

INFOID:0000000014893878

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

WARNING:

- **To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, it is recommended that all maintenance and repair be performed by an authorized NISSAN/INFINITI dealer.**
- **Improper repair, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SR section.**
- **Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.**

PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

WARNING:

- **When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the Ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.**
- **When using air or electric power tools or hammers, always switch the Ignition OFF, disconnect the battery or batteries, and wait at least three minutes before performing any service.**

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

INFOID:0000000014844439

CAUTION:

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

NOTE:

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

Precaution for Trouble Diagnosis

INFOID:0000000014844440

AV COMMUNICATION SYSTEM

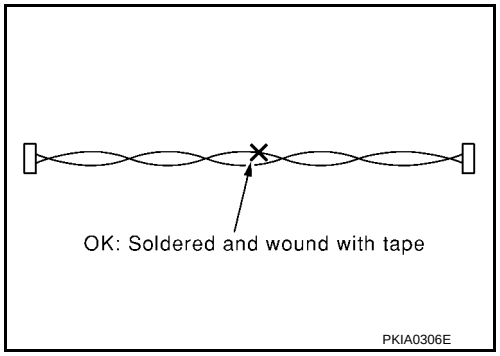
- Do not apply voltage of 7.0 V or higher to the measurement terminals.
- Use the tester with its open terminal voltage being 7.0 V or less.
- Be sure to turn ignition switch OFF and disconnect the battery cable from the negative terminal before checking the circuit.

Precaution for Harness Repair

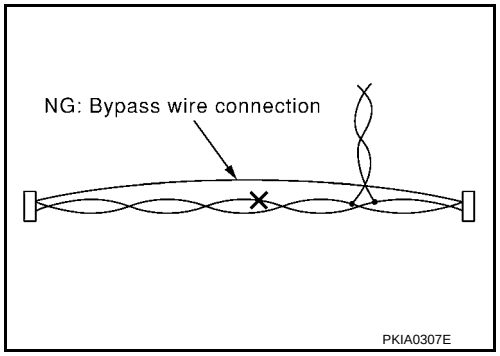
INFOID:0000000014844441

AV COMMUNICATION SYSTEM

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



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



Precaution for Work

INFOID:0000000014844442

- When removing or disassembling each component, be careful not to damage or deform it. If a component may be subject to interference, be sure to protect it with a shop cloth.
- When removing (disengaging) components with a screwdriver or similar tool, be sure to wrap the component with a shop cloth or vinyl tape to protect it.
- Protect the removed parts with a shop cloth and prevent them from being dropped.
- Replace a deformed or damaged clip.
- If a part is specified as a non-reusable part, always replace it with a new one.
- Be sure to tighten bolts and nuts securely to the specified torque.
- After installation is complete, be sure to check that each part works properly.
- Follow the steps below to clean components:

- Water soluble dirt:
- Dip a soft cloth into lukewarm water, wring the water out of the cloth and wipe the dirty area.
- Then rub with a soft, dry cloth.

- Oily dirt:
- Dip a soft cloth into lukewarm water with mild detergent (concentration: within 2 to 3%) and wipe the dirty area.
- Then dip a cloth into fresh water, wring the water out of the cloth and wipe the detergent off.
- Then rub with a soft, dry cloth.

- Do not use organic solvent such as thinner, benzene, alcohol or gasoline.
- For genuine leather seats, use a genuine leather seat cleaner.

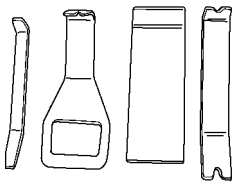
PREPARATION

PREPARATION

Special Service Tool

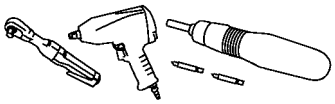
INFOID:0000000014844443

The actual shape of the tools may differ from those illustrated here.

Tool number (TechMate No.) Tool name	Description
— (J-46534) Trim Tool Set  AWJIA0483ZZ	Removing trim components

Commercial Service Tools

INFOID:0000000014844444

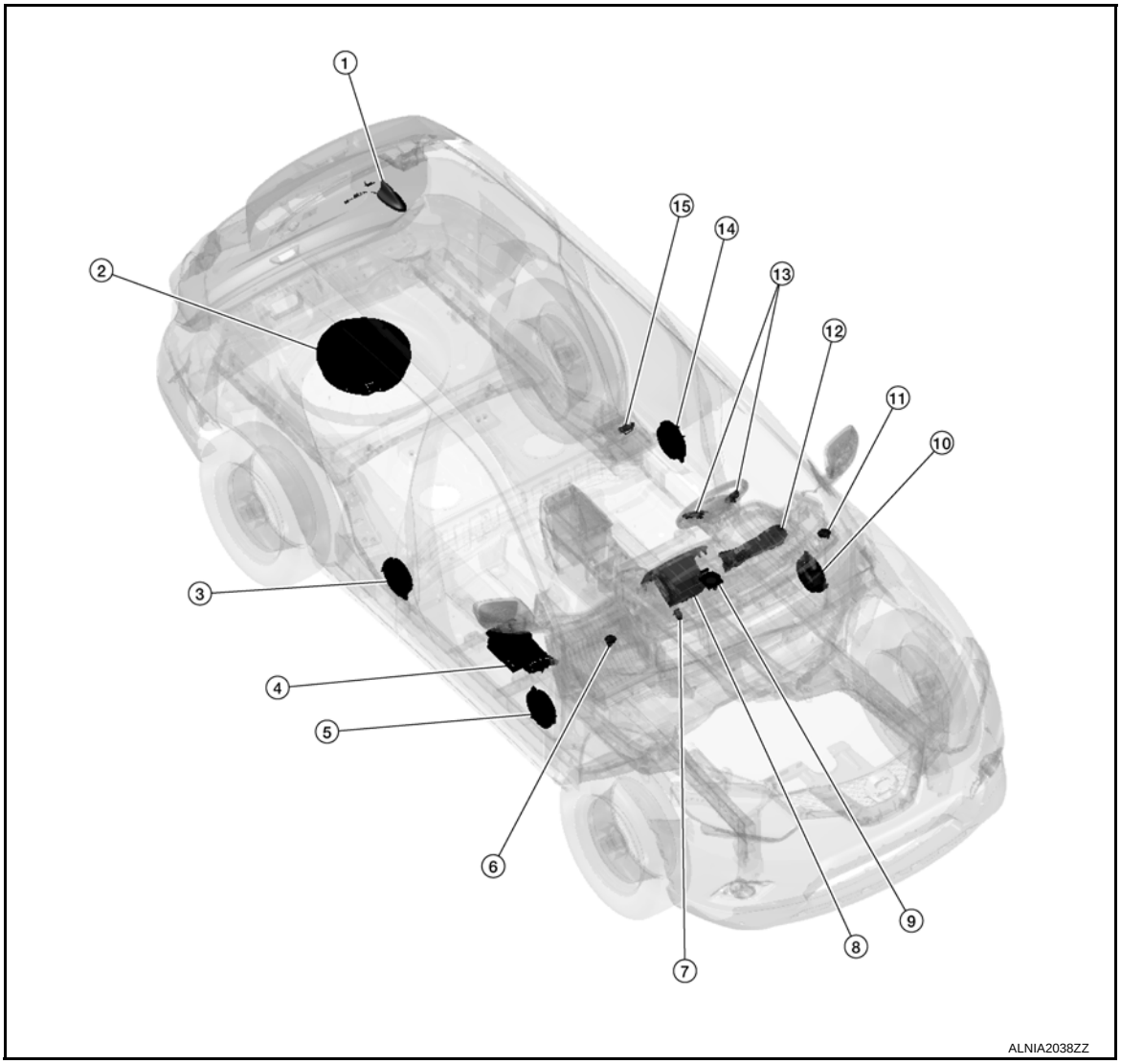
Tool name	Description
Power tool  PIIB1407E	Loosening nuts, screws and bolts

SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

INFOID:0000000015258716



No.	Component	Function
1.	Antenna base (antenna amp., satellite and AM/FM antenna)	Refer to AV-256, "Antenna and Antenna Feeder".
2.	Subwoofer	Refer to AV-254, "Speakers".
3.	Rear door speaker RH	
4.	BOSE® speaker amp.	Refer to AV-254, "BOSE Speaker Amp.".
5.	Front door speaker RH	Refer to AV-254, "Speakers".
6.	Front tweeter RH	
7.	USB interface and AUX in jack	Refer to AV-256, "USB Interface and AUX In Jack".
8.	AV control unit	Refer to AV-254, "AV Control Unit".
9.	Center speaker	Refer to AV-254, "Speakers".
10.	Front door speaker LH	
11.	Front tweeter LH	
12.	Combination meter	Refer to AV-256, "Combination Meter".

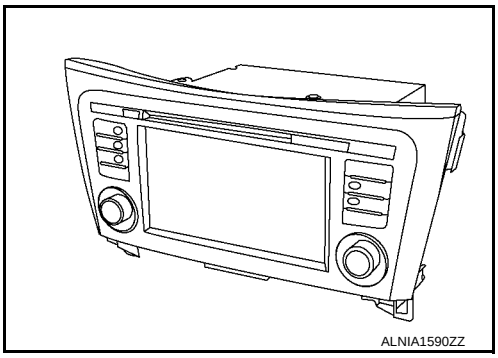
No.	Component	Function
13.	Steering switches	Refer to AV-256, "Steering Switches".
14.	Rear door speaker LH	Refer to AV-254, "Speakers".
15.	Microphone	Refer to AV-256, "Microphone".

AV Control Unit

INFOID:0000000015258717

- A 7-inch WVGA display, an AM/FM electronic tuner radio, CD drive and navigation unit are integrated into the AV control unit.
- The 7-inch display is a high resolution monitor that includes touch panel functions.
- Music files stored in iPod®*/USB memory can be played using the separate USB interface.
- Music files stored in an external audio device can be played using the separate AUX in jack.

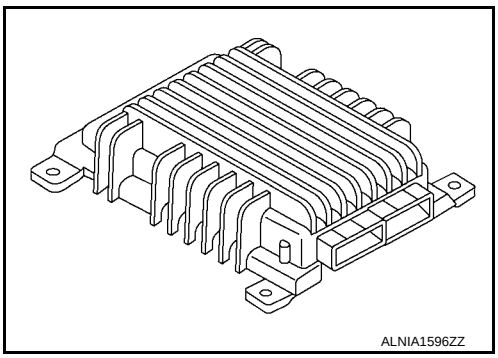
*: iPod® is a registered trademark of Apple, Inc. All rights reserved.


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BOSE Speaker Amp.

INFOID:0000000015258718

- Installed under the rear of the front passenger seat.
- Receives sound signal from AV control unit, and outputs sound signal to each tweeter, speaker and the subwoofer.

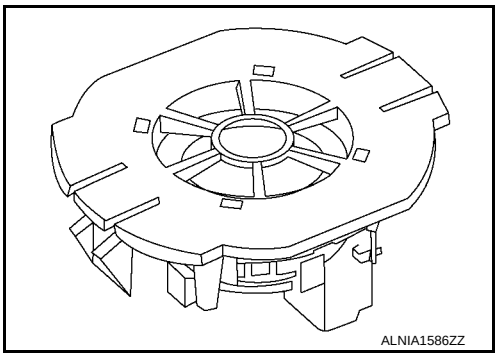

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Speakers

INFOID:0000000015258719

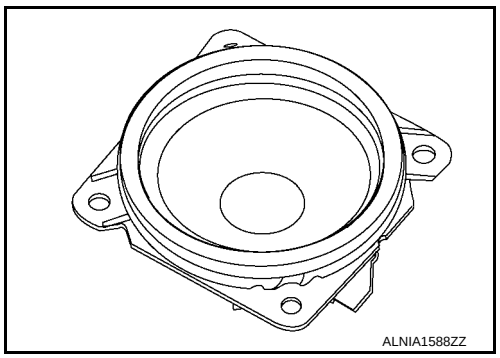
FRONT TWEETER

- 2.5 cm (1 in) tweeters are installed in the top front corners of the instrument panel.
- Sound signals are input from the Bose speaker amp. to output high range sounds.


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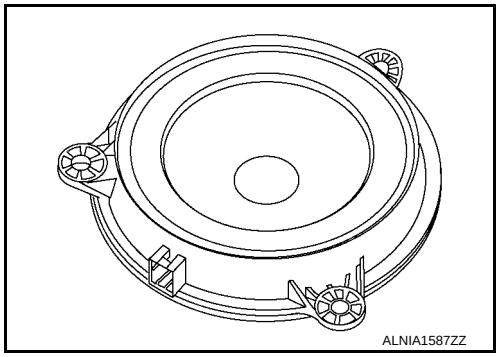
CENTER SPEAKER

- 7.6 cm (3 in) speaker is installed in the top center of the instrument panel.
- Sound signals are input from the Bose speaker amp. to output mid range sounds.



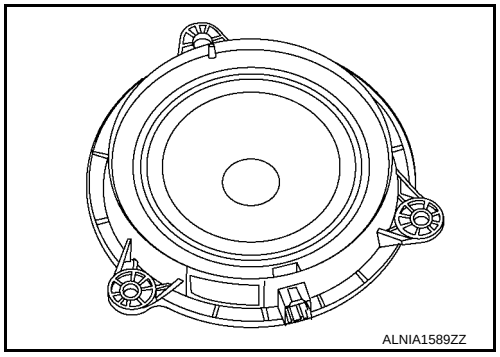
FRONT DOOR SPEAKER

- 16.5 cm (6.5 in) speakers are installed in the bottom of the front doors.
- Sound signals are input from the Bose speaker amp. to output low range sounds.



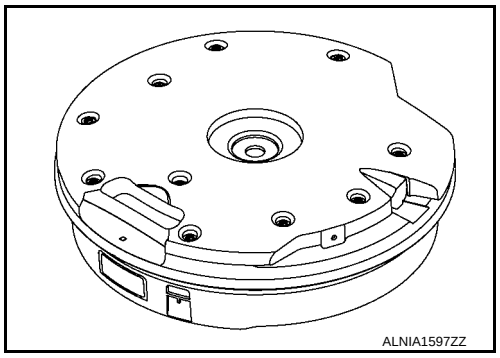
REAR DOOR SPEAKER

- 12.7 cm (5 in) speakers are installed in the bottom of the rear doors.
- Sound signals are input from the Bose speaker amp. to output high, mid and low range sounds.



SUBWOOFER

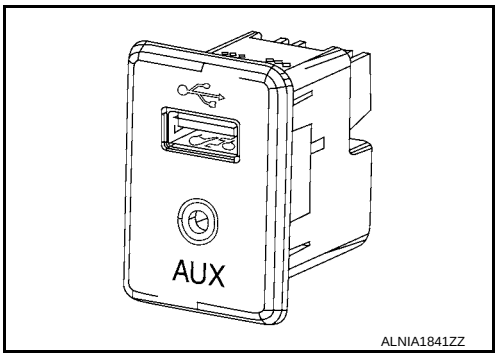
- Installed on top of the spare tire underneath the spare tire cover.
- Sound signals are input from the Bose speaker amp. to output low range sounds.



USB Interface and AUX In Jack

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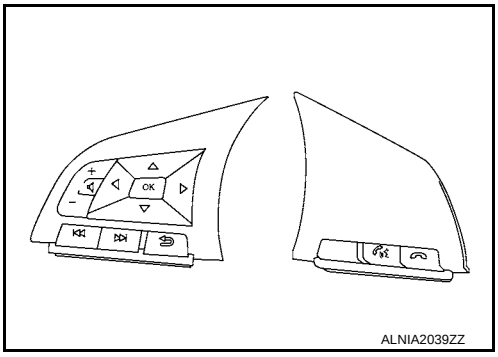
- USB Interface and AUX in jack is installed in the console.
- iPod® and USB memory can be connected to the AV control unit through the USB interface.
- An external audio device can be connected to the AV control unit through the AUX in jack.



Steering Switches

INFOID:0000000015258721

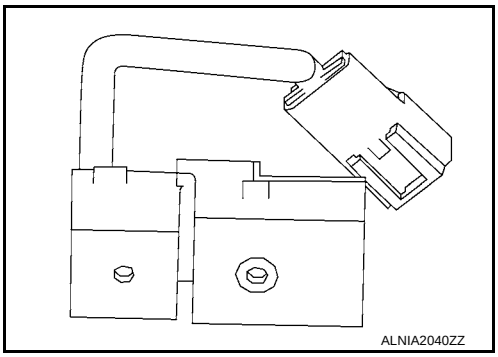
- Steering switches are installed in the steering wheel.
- Operations for audio and hands-free phone are possible.
- Switches are connected to the combination meter.
- Combination meter is connected to the AV control unit via AV communication.



Microphone

INFOID:0000000015258722

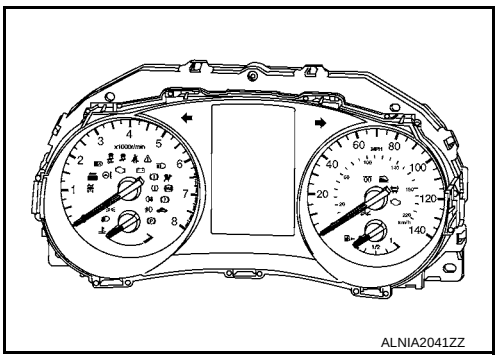
- The microphone is installed in the roof in the map lamp assembly.
- The power is supplied from the AV control unit.



Combination Meter

INFOID:0000000015258723

- Combination meter sends the speed signal to the audio unit.
- Steering switches are connected to the combination meter.
- Combination meter sends the steering switch signals to the audio unit via AV communication.



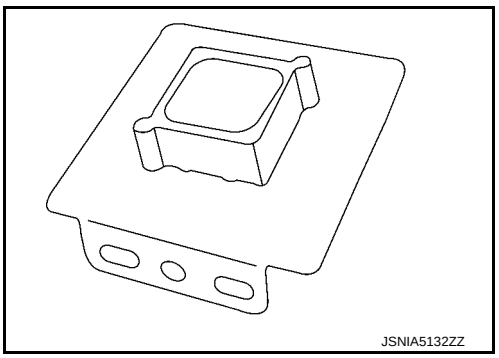
Antenna and Antenna Feeder

INFOID:0000000015258724

GPS ANTENNA

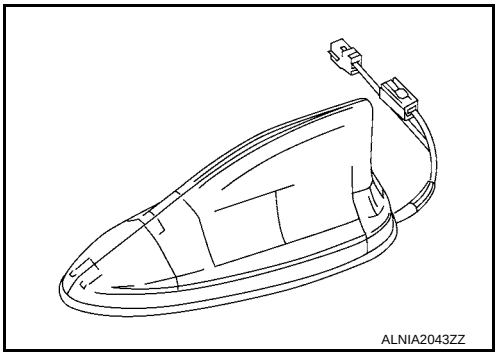
- GPS antenna is installed in the instrument panel.
- Power is supplied from the AV control unit.
- This antenna amplifies radio waves received from the GPS satellite and transmits the GPS signal to the AV control unit.

NOTE:
An object on the instrument panel may cause the reception sensitivity to be decreased.

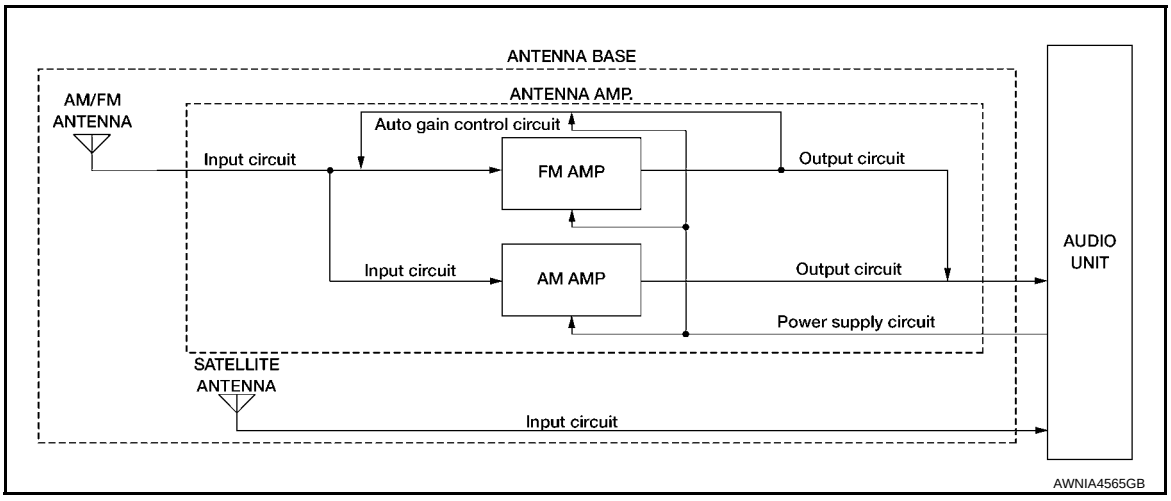

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ROOF ANTENNA

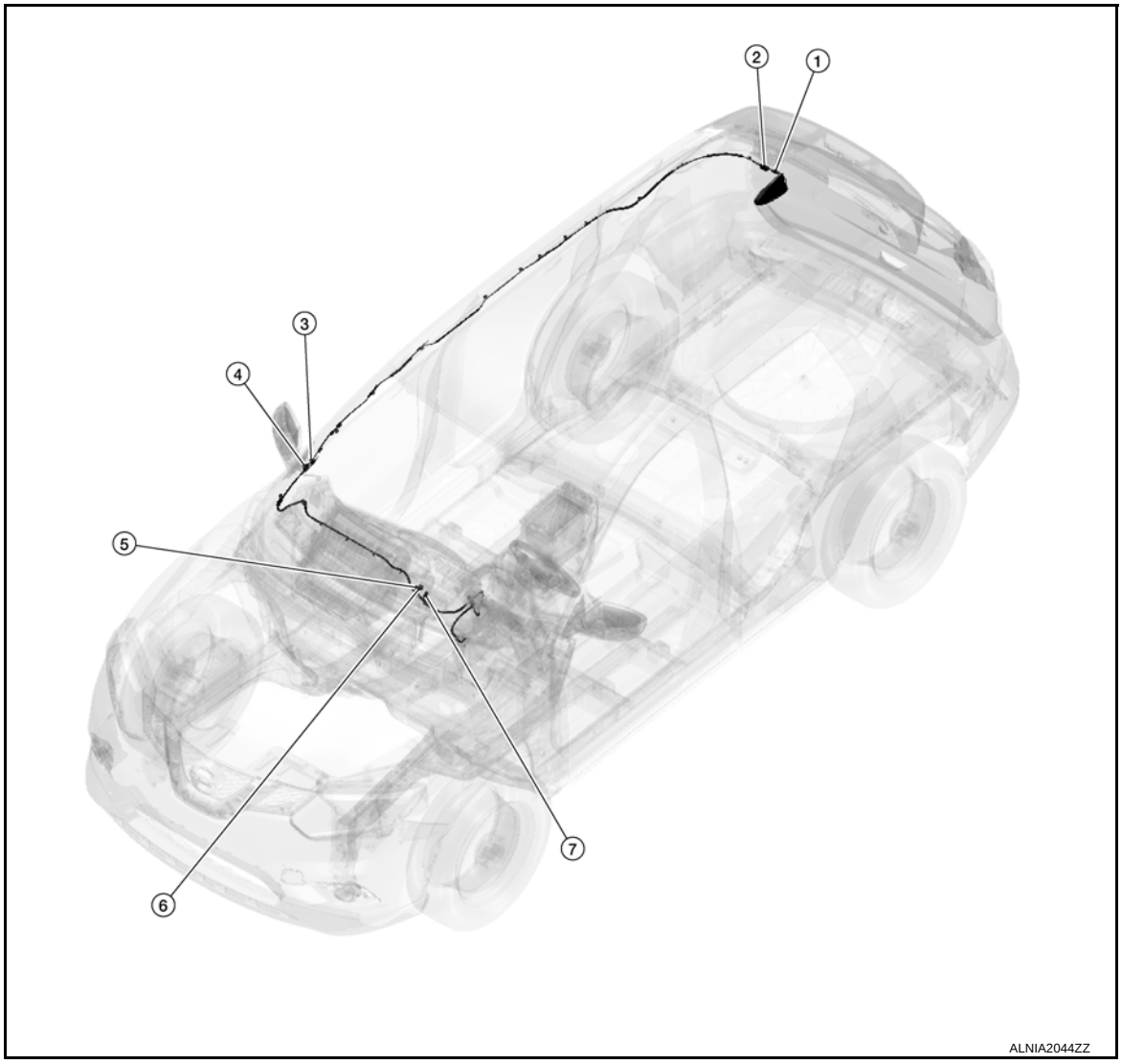
- AM/FM radio/satellite radio antenna is installed on the rear center of the roof.
- It receives radio waves and outputs them to AV control unit.
- It receives satellite radio waves and outputs them to AV control unit.
- Antenna amp. is integral to the roof antenna.


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- The AM/FM radio antenna has an antenna amp. to obtain sufficient reception power.



ANTENNA FEEDER LAYOUT



1. M503
2. M502
3. M130, M501
4. M129, M500
5. M142
6. M139
7. M141

SD Card

INFOID:0000000015258725

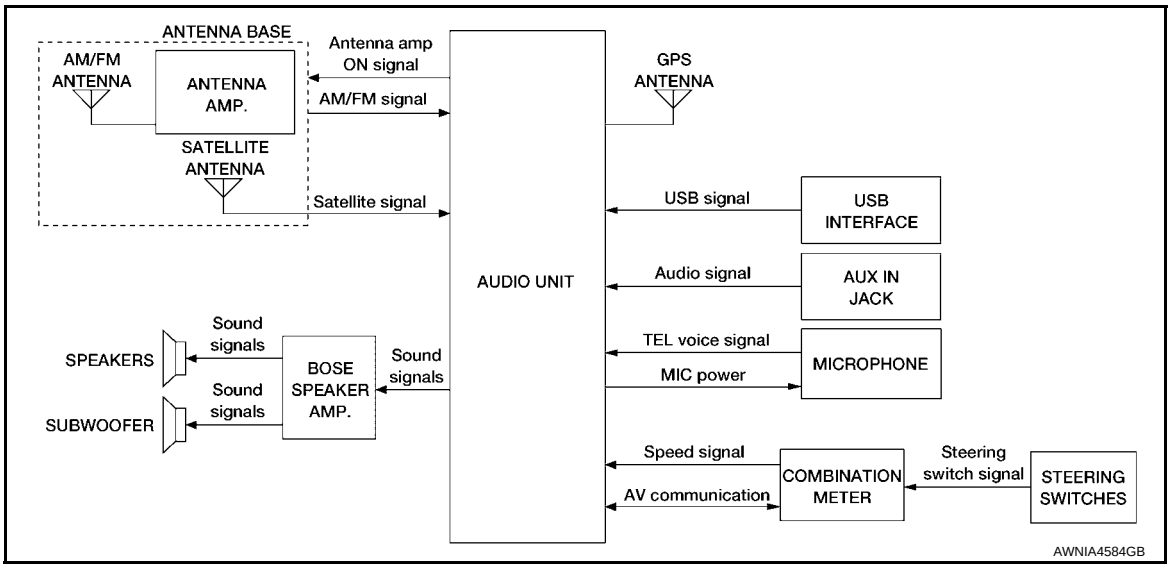
- Map data is memorized in the SD card.
- Map data is sent to the AV control unit from the SD slot.

SYSTEM

System Description

INFOID:0000000015258726

SYSTEM DIAGRAM



AUDIO SYSTEM

The audio system consists of the following component:

- AV control unit
- Bose speaker amp.
- Front tweeters
- Center speaker
- Front door speakers
- Rear door speakers
- Subwoofer
- USB interface
- AUX in jack
- Steering switches
- Antenna base (AM/FM antenna, antenna amp. and satellite antenna)

When the audio system is on, AM/FM signals received by the AM/FM antenna are amplified by the antenna amp. and sent to the AV control unit. The AV control unit sends the audio signals to the Bose speaker amp. The Bose speaker amp. then sends the audio signals to the tweeters, speakers and subwoofer.
Refer to Owner's Manual for audio system operating instructions.

NAVIGATION SYSTEM

Description

- The navigation system can be operated by control panel of the AV control unit and display (touch panel) of the AV control unit.
- Guide sound during the operation of the navigation system is output from AV control unit to front tweeters.
- AV control unit calculates the vehicle location based on the signals from GYRO (angle speed sensor), vehicle sensor, and GPS satellite, as well as the map data from map SD-card. The vehicle location is displayed on the AV control unit.

POSITION DETECTION PRINCIPLE

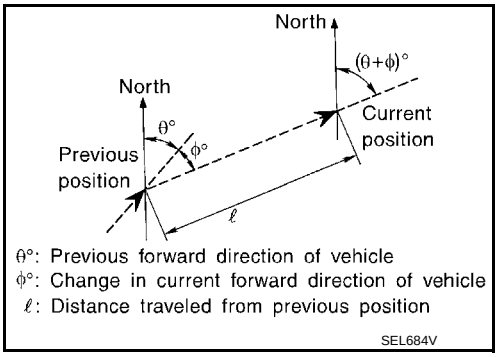
The navigation system periodically calculates the vehicle's current position according to the following three signals:

- Travel distance of the vehicle as determined by the vehicle speed sensor
- Turning angle of the vehicle as determined by the gyroscope (angular velocity sensor)
- Direction of vehicle travel as determined by the GPS antenna (GPS information)

The current position of the vehicle is then identified by comparing the calculated vehicle position with map data read from the map SD-card (map-matching), and indicated on the screen as a vehicle mark. More accurate data is judged and used by comparing vehicle position detection results found by the GPS with the result by map-matching.

The current vehicle position will be calculated by detecting the distance the vehicle moved from the previous calculation point and its direction.

- Travel distance
  Travel distance calculations are based on the vehicle speed sensor input signal. Therefore, the calculation may become incorrect as the tires wear down. To prevent this, an automatic distance correction function has been adopted.
- Travel direction
  Change in the travel direction of the vehicle is calculated by a gyroscope (angular velocity sensor) and a GPS antenna (GPS information). They have both advantages and disadvantages.



Type	Advantage	Disadvantage
Gyroscope (angular velocity sensor)	Can detect the vehicle's turning angle quite accurately.	Direction errors may accumulate when vehicle is driven for long distances without stopping.
GPS antenna (GPS information)	Can detect the vehicle's travel direction (North/South/East/West).	Correct direction cannot be detected when vehicle speed is low.

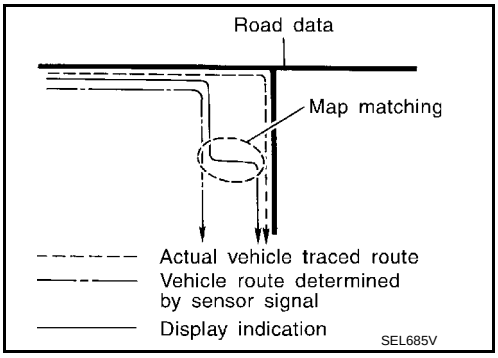
More accurate traveling direction is detected because priorities are set for the signals from these two devices according to the situation.

MAP-MATCHING

Map-matching compares a current location detected by the method in the “Location Detection Principle” with a road map data from map SD-card.

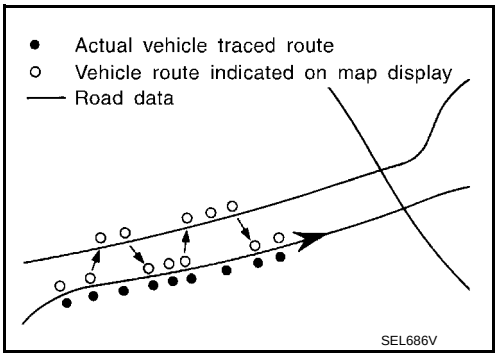
NOTE:

The road map data is based on data stored in the map SD-card.

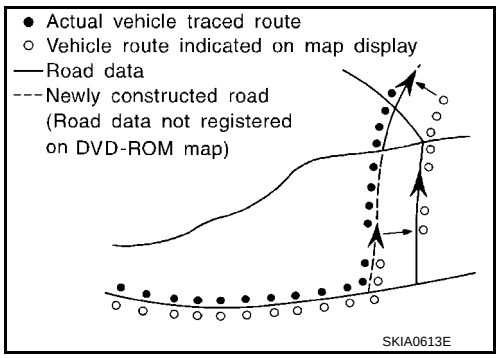


The vehicle position may not be corrected under the following circumstances and after driving for a certain time when GPS information is difficult to receive. In this case, the vehicle mark on the display must be corrected manually:

- In map-matching, alternative routes to reach the destination will be shown and prioritized, after the road on which the vehicle is currently driven has been judged and the vehicle mark has been repositioned.
  Alternative routes will be shown in different order of priority, and the incorrect road can be avoided if there is an error in distance and/or direction.
  Routes are of the same priority if two roads are running in parallel. Therefore, the vehicle mark may appear on either of them alternately, depending on maneuvering of the steering wheel and configuration of the road.

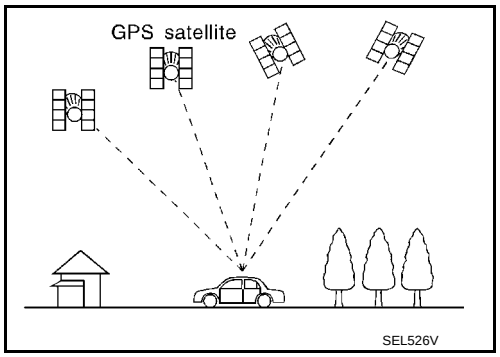


- Map-matching does not function correctly when a road on which the vehicle is driving is new and not recorded in the map SD-card, or when road pattern stored in the map data and the actual road pattern are different due to repair.
  The map-matching function may find another road and position the vehicle mark on it when driving on a road not present in the map. Then, the vehicle mark may change to it when the correct road is detected.
- Effective range for comparing the vehicle position and travel direction calculated by the distance and direction with the road data read from the map SD-card is limited. Therefore, correction by map-matching is not possible when there is an excessive gap between current vehicle position and the position on the map.



GPS (Global Positioning System)

GPS (Global Positioning System) is developed for and is controlled by the US Department of Defense. The system utilizes GPS satellites (NAVSTAR), transmitting out radio waves while flying on an orbit around the earth at an altitude of approximately 21,000 km (13,049 mile).
The receiver calculates the travel position in three dimensions (latitude/longitude/altitude) according to the time lag of the radio waves that four or more GPS satellites transmit (three-dimensional positioning). The GPS receiver calculates the travel position in two dimensions (latitude/longitude) with the previous altitude data if the GPS receiver receives only three radio waves (two-dimensional positioning). GPS position correction is not performed while stopping the vehicle.



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

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

USB INTERFACE

- iPod® or music files in USB memory can be played.
- Sound signals are transmitted from USB interface to the AV control unit and output to each speaker.
- iPod® is recharged when connected to USB interface.

AUX IN JACK

- Sound can be output from an external device by connecting a device to the AUX in jack.
- AUX sound signals are transmitted to each speaker via AV control unit.

SPEED SENSITIVE VOLUME SYSTEM

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

HANDS-FREE PHONE SYSTEM

- Bluetooth® control is built into AV control unit.
- The connection between cellular phone and AV control unit is performed with Bluetooth® communication.
- The voice guidance signal is input from the AV control unit and output to the front speakers when operating the cellular phone.

When A Call Is Originated

- Spoken voice sound output from the microphone (microphone signal) is input to AV control unit.
- AV control unit outputs to cellular phone with Bluetooth® communication as a TEL voice signal.
- Voice sound is then heard at the other party.

When Receiving A Call

- Voice sound is input to own cellular phone from the other party.
- TEL voice signal is input to AV control unit by establishing Bluetooth® communication from cellular phone, and the signal is output to front speakers.

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

Description

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

Mode		Item	Content
Version		—	Version data of the AV control unit is displayed.
User Configuration	Touch Display Calibration	—	Allows correction of the position detection accuracy of the touch panel.
Radio	FM monitor	—	Monitors the dynamic values of the current tuner
	AM monitor	—	
	SXM monitor	—	Version data is displayed.
System State	Running System Status	• SD card slot Access • Power Supply • Speed Signal • Direction Signal • Illumination Signal • GPS Antenna • GPS Tracking • Satellites Visible • Satellites Tracked • Microphone Current • Steering wheel key • Radio Antenna • SXM Antenna • USB Device • iPod® firmware version • BT Status	The current system status is displayed.
	Speaker Test 4kHz	—	This activates a sequence of test tone outputs to the audio circuits one after the other for 1 second.
	Speaker Test 100Hz		
	Display-Test	—	This provides a test sequence where test displays (plain colored display: e.g. white, black, red, blue, green) are shown one after the other. The respective color is shown for an indicated period of time (parameter). After the display test, the design of the display previously available is stored. While the screen shows a plain colored display, a pixel malfunction may be detected.
Self Test		• SD Card Access • BT Module Access • Radio Antenna • GPS Antenna • SXM Antenna	A system self test is executed and the results are stored into the error memory.

Perform CONSULT diagnosis if the AV control unit on board diagnosis does not start or the screen does not display anything.

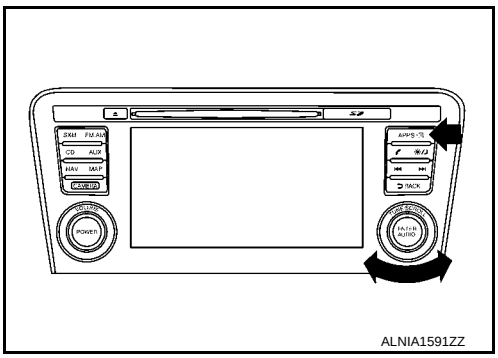
On Board Diagnosis Function

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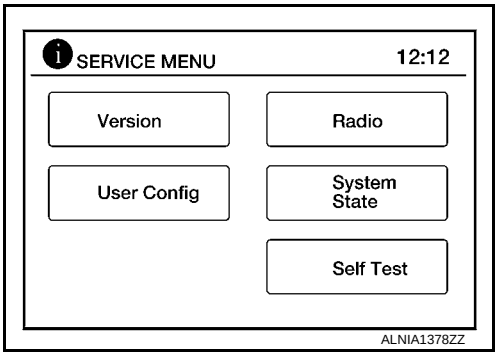
METHOD OF STARTING

1. Turn the ignition ON.

2. While pressing the APPS button, turn the TUNE-SCROLL dial counterclockwise 3 or more clicks, then clockwise 3 or more clicks, then counterclockwise 3 or more clicks. Shifting from current screen to previous screen is performed by pressing BACK button.



3. The trouble diagnosis initial screen is displayed, and Version, User Config, Radio, System State or Self Test can be selected.



CONSULT Function

INFOID:0000000015258729

CONSULT FUNCTIONS

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

Direct Diagnostic Mode	Description
Ecu Identification	The AV control unit part number is displayed.
Self Diagnostic Result	The AV control unit self diagnostic results are displayed.
Data Monitor	The AV control unit input/output data is displayed in real time.
Configuration	• The vehicle specification can be read and saved. • The vehicle specification can be written when replacing AV control unit.
CAN Diag Support Mntr	• The result of transmit/receive diagnosis of AV communication is displayed. • The result of transmit/receive diagnosis of CAN communication is displayed.

ECU IDENTIFICATION

The part number of AV control unit is displayed.

SELF DIAGNOSTIC RESULT

Refer to AV-268, "DTC Index".

DATA MONITOR

Monitor Item [Unit]	Description
VHCL SPD SIG [On/Off]	Indicates vehicle speed signal received from combination meter on CAN communication line.
ILLUM SIG [On/Off]	Indicates condition of illumination signal for the AV control unit.
IGN SIG [On/Off]	Indicates condition of ignition signal.
REV SIG [On/Off]	Indicates condition of reverse signal received from BCM.

CONFIGURATION

Refer to AV-290, "CONFIGURATION (AV CONTROL UNIT) : Description".

CAN DIAG SUPPORT MNTR

Refer to LAN-23, "CAN Diagnostic Support Monitor".

ECU DIAGNOSIS INFORMATION

AV CONTROL UNIT

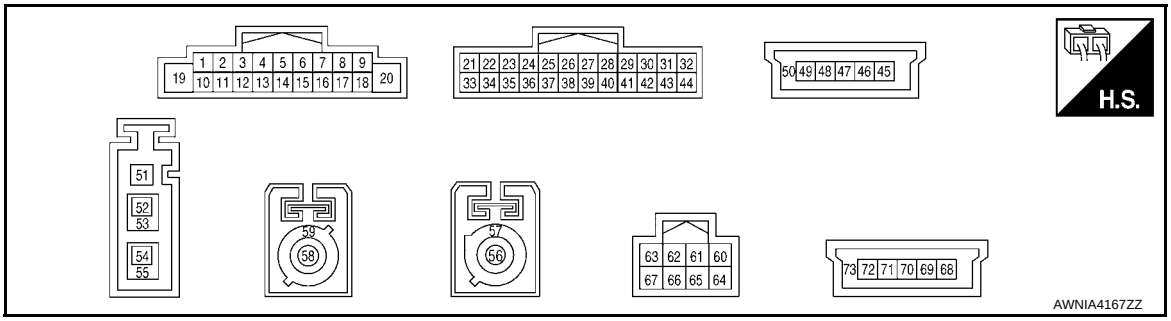
Reference Value

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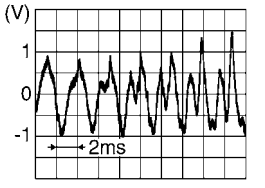
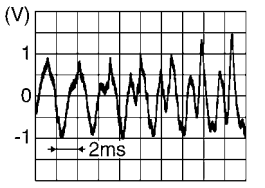
VALUES ON THE DIAGNOSIS TOOL

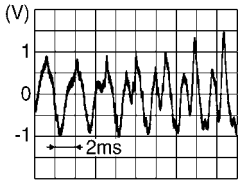
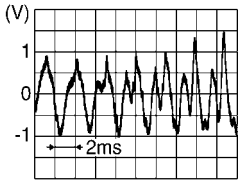
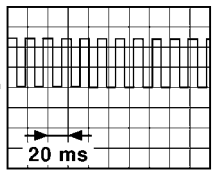
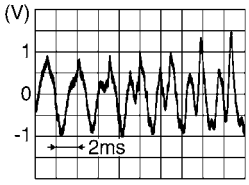
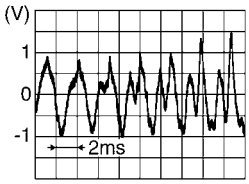
Monitor Item	Condition	Value/Status
VHCL SPD SIG	Vehicle speed = 0 km/h (0 MPH).	Off
	Vehicle speed > 0 km/h (0 MPH).	On
ILLUM SIG	Illumination signal is not received.	Off
	Illumination signal is received.	On
IGN SIG	Ignition switch OFF.	Off
	Ignition switch ON.	On
REV SIG	Selector lever in any position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

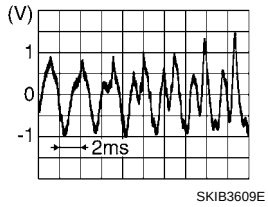
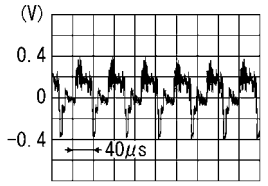
TERMINAL LAYOUT

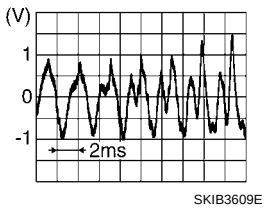


PHYSICAL VALUES

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output	Ignition switch	Operation	
1 (BR)	Ground	BOSE amp. ON signal	Output	ON	—	Battery voltage
2 (R)	3 (G)	Pre-amp sound signal front LH	Output	ON	Sound output	
4 (V)	5 (LG)	Pre-amp sound signal rear LH	Output	ON	Sound output	
7 (W)	Ground	ACC power supply	Input	ON	—	Battery voltage

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output	Ignition switch	Operation	
8 (L)	—	CAN high	Input/ Output	—	—	—
9 (V)	Ground	Illumination control signal	Input	ON	Headlamps ON	Battery voltage
10 (B)	—	Pre-amp sound signal shield	—	—	—	—
11 (R)	12 (W)	Pre-amp sound signal front RH	Output	ON	Sound output	 SKIB3609E
13 (L)	14 (Y)	Pre-amp sound signal rear RH	Output	ON	Sound output	 SKIB3609E
17 (R)	—	CAN low	Input/ Output	—	—	—
18 (G)	Ground	Vehicle speed signal	Input	ON	When vehicle speed is approx. 40 km/h (25 MPH)	 JSNIA0012GB
19 (L)	Ground	Battery power supply	Input	OFF	—	Battery voltage
20 (B)	Ground	Ground	—	ON	—	0 V
21 (G)	Ground	AUX jack audio signal RH	Input	ON	Received audio signal (AUX input)	 SKIB3609E
22 (Y)	Ground	AUX ground	—	ON	—	0V
23 (L)	Ground	AUX jack audio signal LH	Input	ON	Received audio signal (AUX input)	 SKIB3609E

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output	Ignition switch	Operation	
24 (R)	—	HE/VR mode change	—	—	—	—
25 (BR)	Ground	Reverse signal	Input	ON	Selector lever in R (reverse)	Battery voltage
					Selector lever in any position other than R (reverse)	0 V
30 (BG)	—	MR output	Output	—	—	—
31 (SB)	—	AV communication high	Input/ Output	—	—	—
32 (LG)	—	AV communication low	Input/ Output	—	—	—
34 (W)	36 (Shield)	Microphone signal	Input	ON	While speaking into microphone.	 SKIB3609E
35 (B)	—	MIC VCC (without telematics system)	Input	ON	—	—
37 (Shield)	—	AUX signal shield	—	—	—	—
38 (SB)	—	AV communication high	Input/ Output	—	—	—
39 (LG)	—	AV communication low	Input/ Output	—	—	—
40 (LG)	Ground	Ignition power supply	Input	ON	—	Battery voltage
41 (G)	Ground	Camera image signal	Input	ON	When camera image is displayed	 SKIB2251J
42 (Shield)	—	Camera image signal shield	—	—	—	—
45 (R)	—	V BUS signal	—	—	—	—
46 (W)	—	USB D– signal	—	—	—	—
47 (G)	—	USB + signal	—	—	—	—
49 (B)	—	USB ground	—	—	—	—
50 (Shield)	—	USB shield	—	—	—	—

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output	Ignition switch	Operation	
51 (B)	Ground	Antenna amp. ON signal	Output	ON	AV control unit ON, FM-AM selected.	Battery voltage
52 (B)	Ground	AM-FM main antenna	Input	ON	AV control unit ON, FM-AM selected.	5.0 V
53 (Shield)	—	Antenna amp. shield	—	—	—	—
56 (B)	Ground	Satellite antenna signal	Input	ON	AV control unit ON, SXM selected.	5.0 V
57 (Shield)	—	Satellite antenna shield	—	—	—	—
58 (B)	Ground	GPS antenna signal	Input	ON	AV control unit ON, NAV selected.	5.0 V
59 (Shield)	—	GPS antenna shield	—	—	—	—
60 (R)	64 (L)	Microphone signal	Input	ON	While speaking into the microphone	 SKIB3609E
61 (Shield)	—	Microphone shield	—	—	—	—
68 (B)	—	V BUS signal	—	—	—	—
70 (G)	—	USB D– signal	—	—	—	—
71 (W)	—	USB + signal	—	—	—	—
72 (R)	—	USB ground	—	—	—	—
73 (Shield)	—	USB shield	—	—	—	—

DTC Index

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CONSULT Display	Reference Page
U1000: CAN COMM CIRCUIT	AV-293, "DTC Description"
U1010: CONTROL UNIT (CAN)	AV-294, "DTC Description"
U1217: BLUETOOTH MODULE	AV-295, "DTC Description"
U1229: iPod CERTIFICATION	AV-296, "DTC Description"
U122F: Digital broadcasting connection error	AV-297, "DTC Description"
U1244: GPS ANTENNA CONN	AV-298, "DTC Description"
U1258: SXM ANTENNA CONN	AV-299, "DTC Description"
U1263: USB OVERCURRENT	AV-301, "DTC Description"
U1265: AMP ON TERMINAL	AV-302, "DTC Description"
U12AA: Configuration Error	AV-304, "DTC Description"

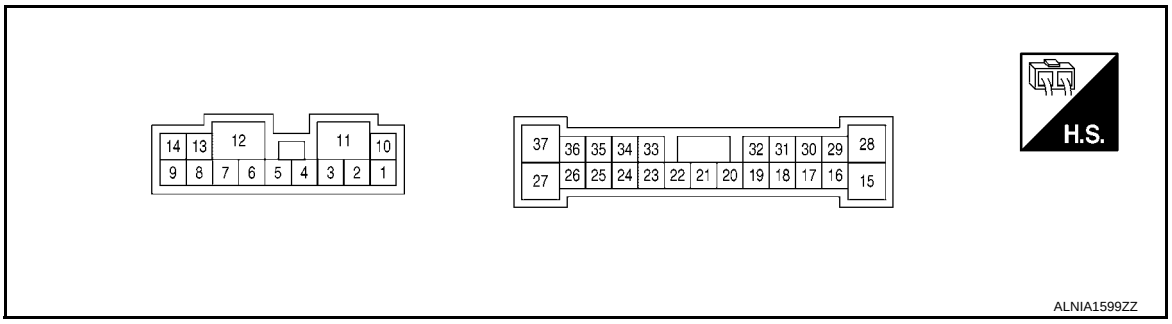
CONSULT Display	Reference Page
U12AB: FM Antenna error	AV-305, "DTC Description"
U12AC: Display Temperature too High	AV-306, "DTC Description"
U12AD: ECU Temperature too High	AV-307, "DTC Description"
U12AE: Internal Amplifier temperature Warning	AV-308, "DTC Description"
U12AF: CD Mechanism Temperature Warning	AV-309, "DTC Description"
U12B0: Supply Voltage Goes below 9V > 20s	AV-310, "DTC Description"
U12B1: Supply Voltage Goes High > 16V for 20s	AV-311, "DTC Description"
U1300: AV COMM CIRCUIT	AV-312, "DTC Description"
U1310: CONTROL UNIT(AV)	AV-314, "DTC Description"

BOSE SPEAKER AMP

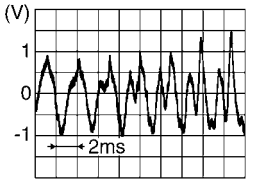
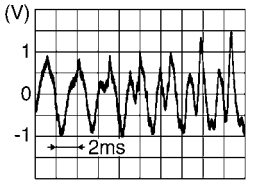
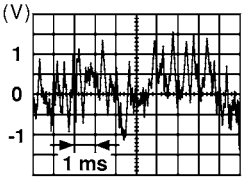
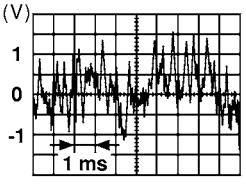
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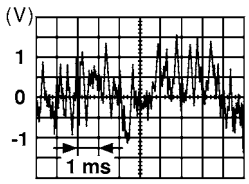
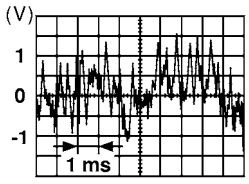
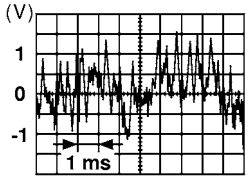
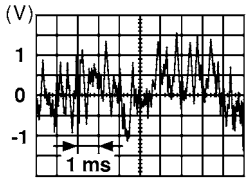
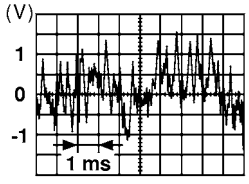
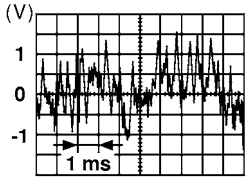
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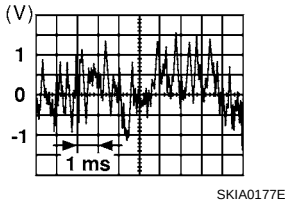
TERMINAL LAYOUT



PHYSICAL VALUES

Terminal (wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output	Ignition switch	Operation	
1 (SB)	10 (V)	Subwoofer speaker signal 1	Output	ON	Sound output	 SKIB3609E
2 (GR)	3 (Y)	Subwoofer speaker signal 2	Output	ON	Sound output	 SKIB3609E
4 (BR)	5 (P)	Front door speaker and front tweeter signal LH	Output	ON	Sound output	 SKIA0177E
6 (LG)	7 (V)	Rear door speaker signal LH	Output	ON	Sound output	 SKIA0177E

Terminal (wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output	Ignition switch	Operation	
8 (G)	13 (R)	Front door speaker and front tweeter signal RH	Output	ON	Sound output	 SKIA0177E
11 (W)	Ground	Battery power supply	Input	–	–	Battery voltage
12 (B)	Ground	Ground	–	ON	–	0V
15 (V)	28 (BG)	Center speaker signal	Output	ON	Sound output	 SKIA0177E
18 (R)	32 (G)	Sound signal front LH	Input	ON	Sound output	 SKIA0177E
19 (Y)	20 (L)	Sound signal front RH	Input	ON	Sound output	 SKIA0177E
21 (V)	22 (LG)	Sound signal rear LH	Input	ON	Sound output	 SKIA0177E
23 (W)	33 (R)	Sound signal rear RH	Input	ON	Sound output	 SKIA0177E

Terminal (wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output	Ignition switch	Operation	
31 (BR)	Ground	Amp. ON signal	Input	ON	–	Greater than 6.5V
37 (LG)	27 (V)	Rear door speaker signal RH	Output	ON	Sound output	

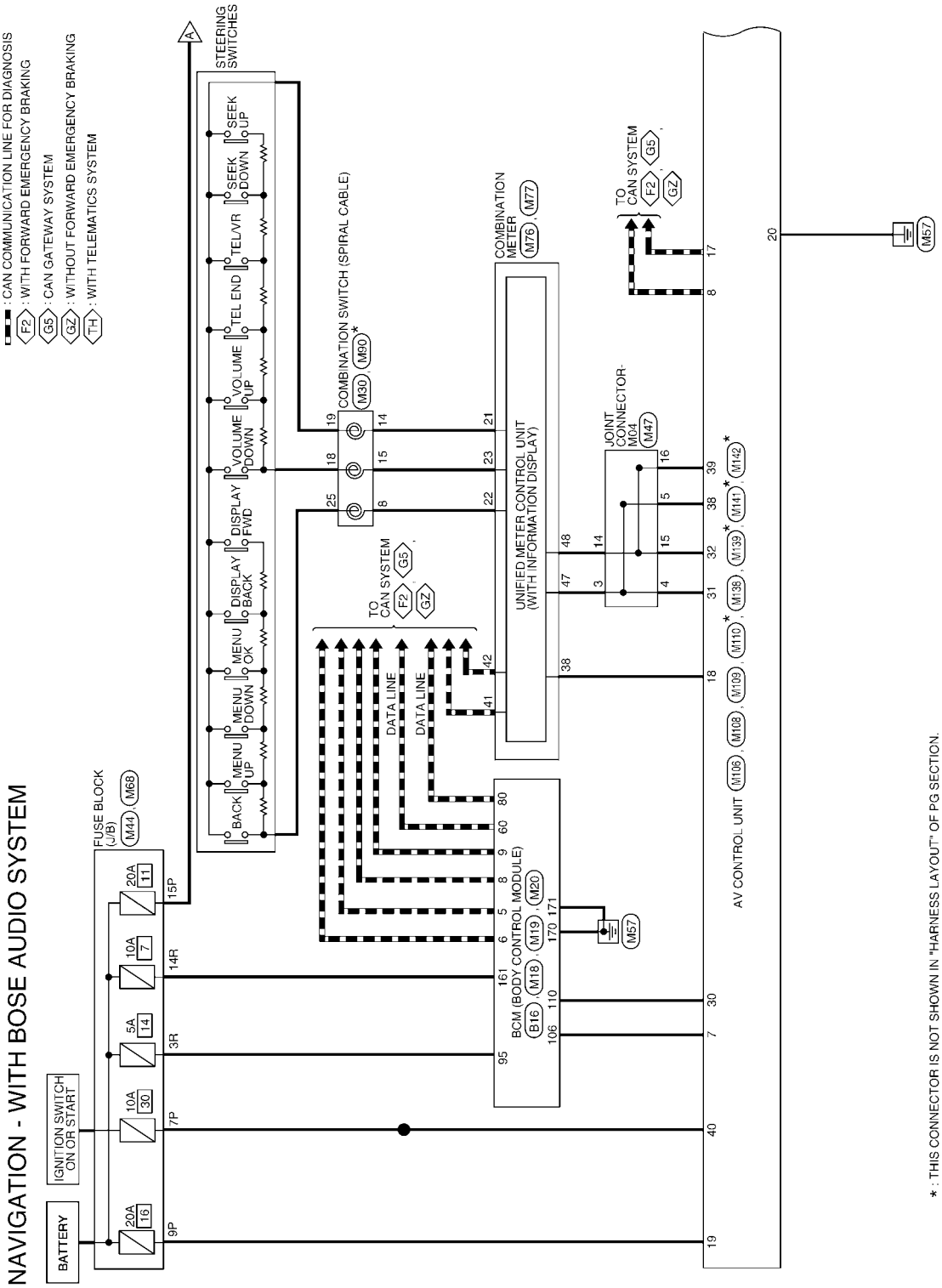
SKIA0177E

WIRING DIAGRAM

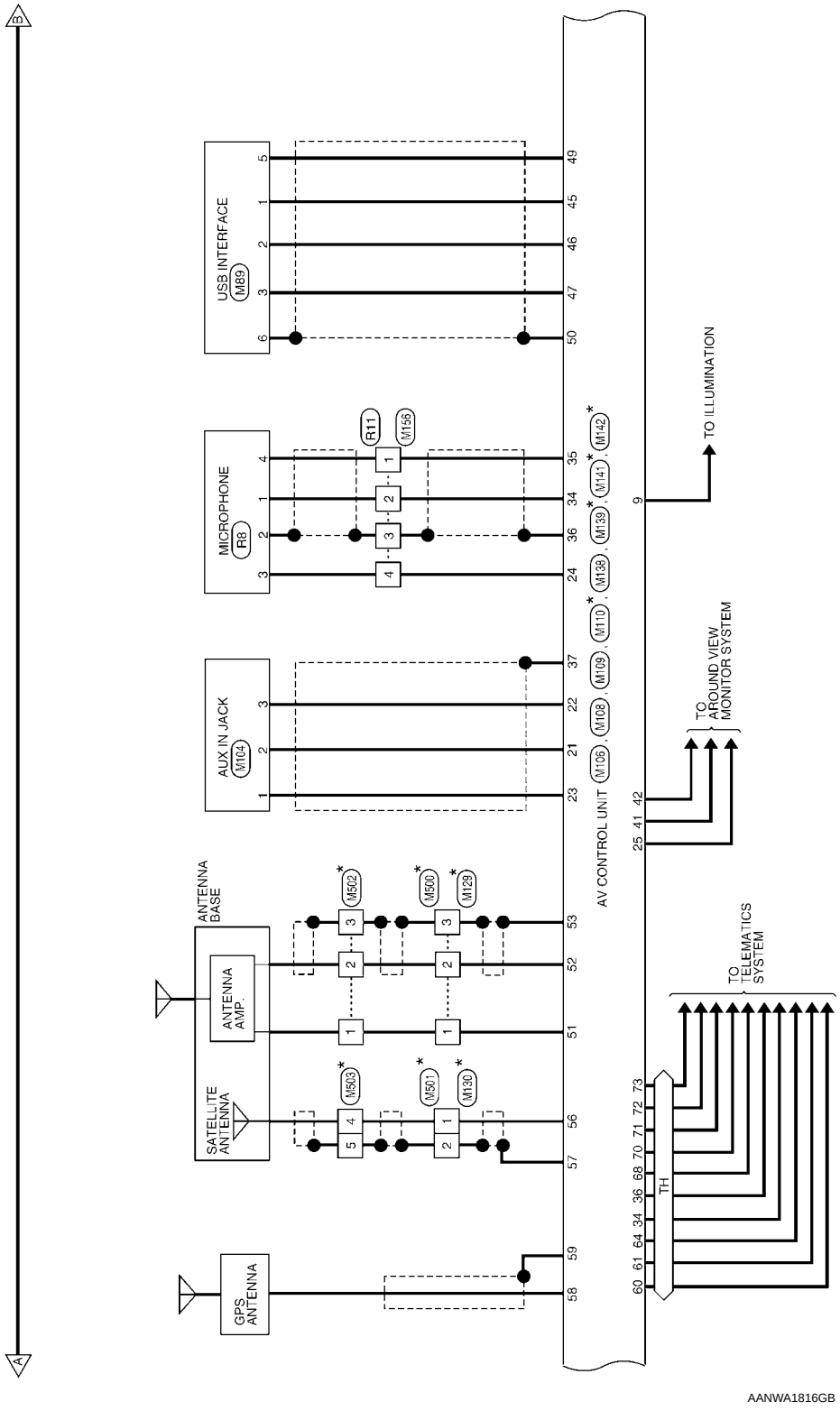
NAVIGATION WITH BOSE

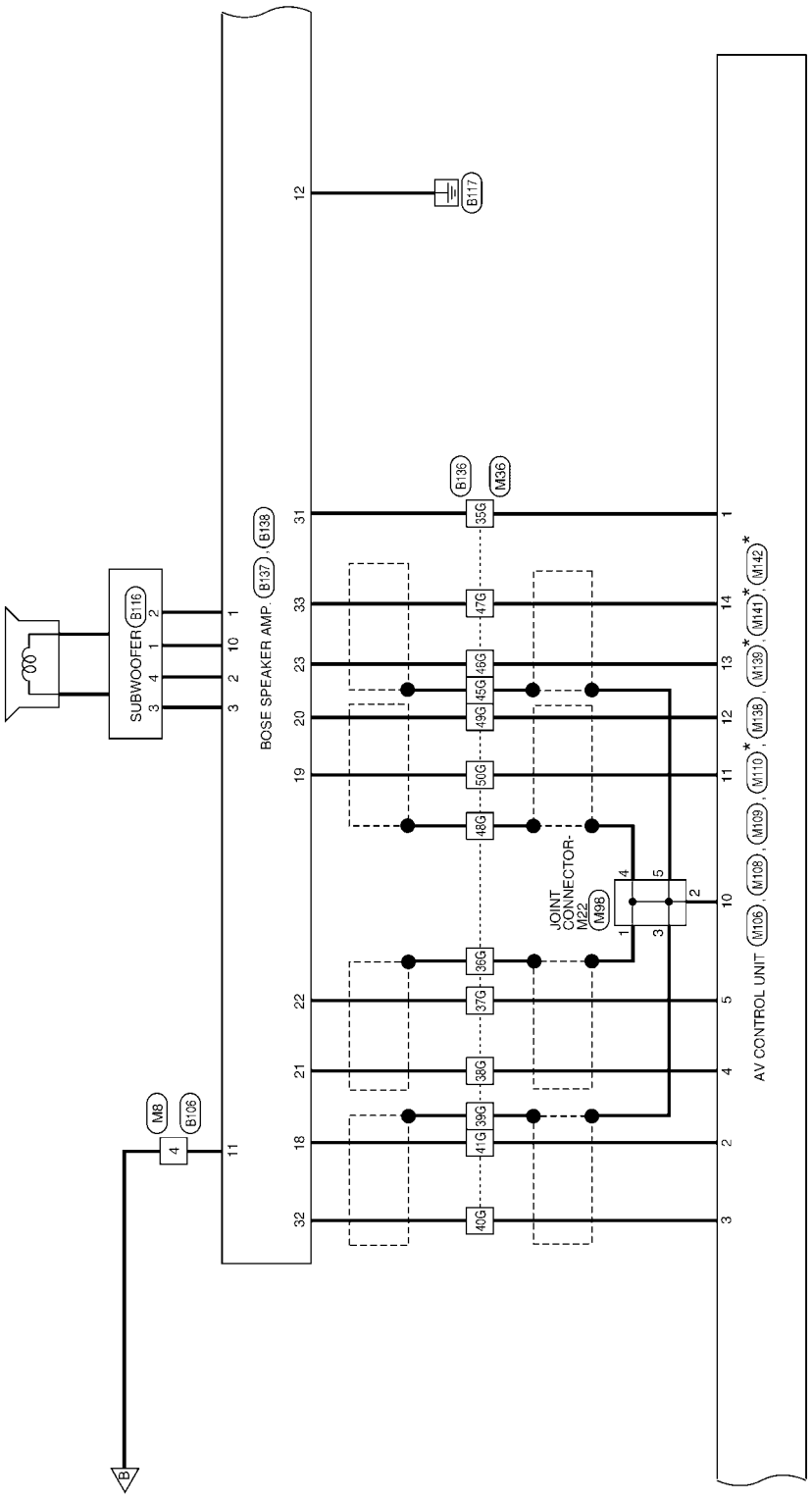
Wiring Diagram

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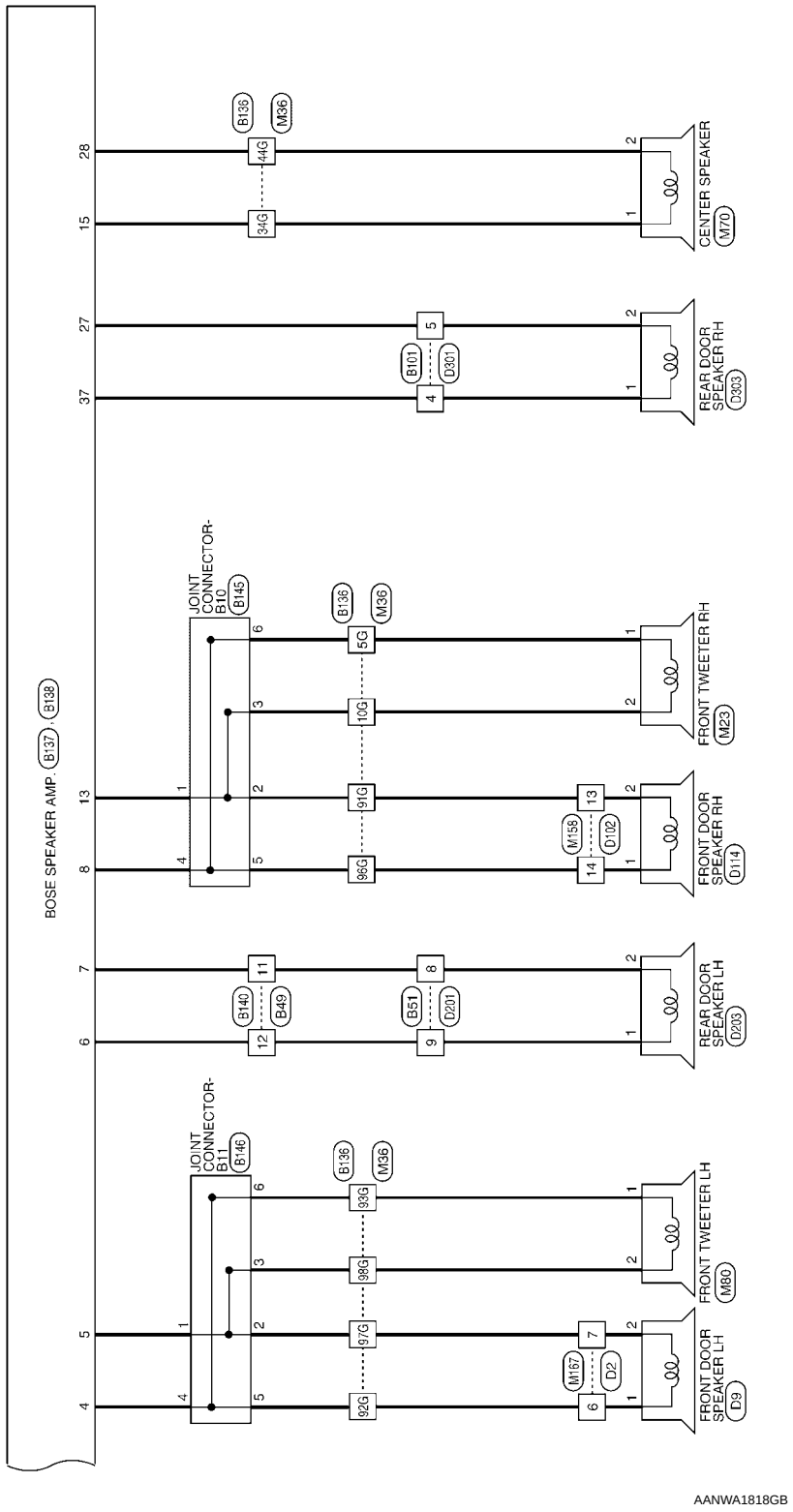


AANWA1815GB


B
A
USB INTERFACE
M89
MICROPHONE
R8
R11
M156
AUX IN JACK
M104
ANTENNA BASE
ANTENNA AMP.
SATELLITE ANTENNA
GPS ANTENNA
M502
M500
M129
M503
M501
M130
AV CONTROL UNIT
M105
M108
M109
M110
M138
M139
M141
M142
TO ILLUMINATION
TO AROUND VIEW MONITOR SYSTEM
TO TELEMATICS SYSTEM
TH
AANWA1816GB



AANWA1817GB



AANWA1818GB

NAVIGATION CONNECTORS - WITH BOSE AUDIO SYSTEM

Connector No.	B16
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FG-NH
Connector Color	GREEN

H.S.

60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41
80	79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64	63	62	61

Terminal No.	Color of Wire	Signal Name
41	–	–
42	–	–
43	–	–
44	–	–
45	–	–
46	R	I SES BACKDOOR BUTTON SW
47	–	–
48	–	–
49	G	I NO TOUCH TGATE SENSOR
50	W	I RR DOOR SW
51	LG	I TGATE SW
52	R	I RL DOOR SW
53	SB	I AS DOOR2 SW
54	–	–
55	LA/G	I RR AUTOSTOP SW
56	Y	I TGATE OPENER SW
57	SB	I DR DOOR2 SW
58	–	–
59	–	–
60	L	CAN-H
61	V	SES EXT REAR ANTENNA B
62	Y	SES INT MIDDLE ANTENNA B
63	L	SES INT MIDDLE ANTENNA A
64	LG	SES EXT REAR ANTENNA A
65	–	–
66	–	–
67	–	–
68	–	–
69	–	–
70	–	–
71	–	–
72	–	–
73	–	–
74	–	–
75	–	–
76	–	–
77	V	SHIFT LOCK RLY

78	–	–
79	LA/W	O STOP LAMP3
80	P	CAN-L

Connector No.	B49
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS
Connector Color	WHITE

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
1	SB	TO BODY NO. 2 HARNESS
2	W	TO BODY NO. 2 HARNESS
3	LA/W	TO BODY NO. 2 HARNESS
4	V	TO BODY NO. 2 HARNESS
5	SB	TO BODY NO. 2 HARNESS
6	LA/BR	TO BODY NO. 2 HARNESS
7	P	TO BODY NO. 2 HARNESS
8	LA/W	TO BODY NO. 2 HARNESS
9	LA/BR	TO BODY NO. 2 HARNESS
10	R	TO BODY NO. 2 HARNESS
11	LA/G	TO BODY NO. 2 HARNESS
12	LA/P	TO BODY NO. 2 HARNESS
13	–	TO BODY NO. 2 HARNESS
14	–	TO BODY NO. 2 HARNESS
15	G	TO BODY NO. 2 HARNESS
16	V	TO BODY NO. 2 HARNESS

Connector No.	B51
Connector Name	WIRE TO WIRE
Connector Type	NS12MW-CS
Connector Color	WHITE

H.S.

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

Terminal No.	Color of Wire	Signal Name
1	LA/P	TO REAR DOOR LH HARNESS
2	LA/R	TO REAR DOOR LH HARNESS
3	LA/V	TO REAR DOOR LH HARNESS
4	–	TO REAR DOOR LH HARNESS
5	–	TO REAR DOOR LH HARNESS
6	W	TO REAR DOOR LH HARNESS
7	L	TO REAR DOOR LH HARNESS
8	LA/GR	TO REAR DOOR LH HARNESS - (WITHOUT BOSE AUDIO SYSTEM)
8	LA/G	TO REAR DOOR LH HARNESS - (WITH BOSE AUDIO SYSTEM)
9	LA/Y	TO REAR DOOR LH HARNESS - (WITHOUT BOSE AUDIO SYSTEM)
9	LA/P	TO REAR DOOR LH HARNESS - (WITH BOSE AUDIO SYSTEM)
10	–	TO REAR DOOR LH HARNESS
11	–	TO REAR DOOR LH HARNESS
12	–	TO REAR DOOR LH HARNESS

Connector No.	B101
Connector Name	WIRE TO WIRE
Connector Type	NS12MW-CS
Connector Color	WHITE

H.S.

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

Terminal No.	Color of Wire	Signal Name
1	Y	TO REAR DOOR RH HARNESS
2	L	TO REAR DOOR RH HARNESS
3	LA/P	TO REAR DOOR RH HARNESS
4	LA/V	TO REAR DOOR RH HARNESS - (WITHOUT BOSE AUDIO SYSTEM)
4	LG	TO REAR DOOR RH HARNESS - (WITH BOSE AUDIO SYSTEM)
5	LA/Y	TO REAR DOOR RH HARNESS - (WITHOUT BOSE AUDIO SYSTEM)
5	V	TO REAR DOOR RH HARNESS - (WITH BOSE AUDIO SYSTEM)
6	LA/GR	TO REAR DOOR RH HARNESS
7	LA/LG	TO REAR DOOR RH HARNESS
8	–	TO REAR DOOR RH HARNESS
9	–	TO REAR DOOR RH HARNESS
10	–	TO REAR DOOR RH HARNESS
11	–	TO REAR DOOR RH HARNESS
12	–	TO REAR DOOR RH HARNESS

Connector No.	B106
Connector Name	WIRE TO WIRE
Connector Type	M04MW-LC
Connector Color	WHITE

H.S.

1	2
3	4

Terminal No.	Color of Wire	Signal Name
1	SB	TO MAIN HARNESS
2	–	TO MAIN HARNESS
3	–	TO MAIN HARNESS
4	W	TO MAIN HARNESS

Connector No.	B116
Connector Name	SUBWOOFER
Connector Type	RS04FGY-PR
Connector Color	GRAY

H.S.

2	4
1	3

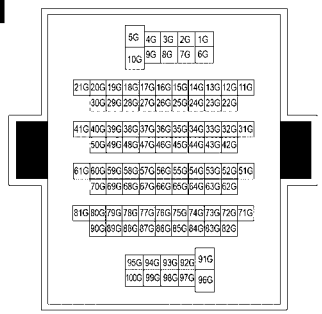
Terminal No.	Color of Wire	Signal Name
1	V	WOOFER OUT 1-
2	SB	WOOFER OUT 1+
3	Y	WOOFER OUT 2-
4	GR	WOOFER OUT 2+

AANIA5758GB

NAVIGATION CONNECTORS - WITH BOSE AUDIO SYSTEM

Connector No.	B136
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4
Connector Color	WHITE

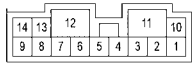
H.S.



Terminal No.	Color of Wire	Signal Name
1G	LA/GR	TO MAIN HARNESS
2G	LA/P	TO MAIN HARNESS
3G	Y	TO MAIN HARNESS
4G	L	TO MAIN HARNESS
5G	G	TO MAIN HARNESS
6G	LA/BR	TO MAIN HARNESS
7G	BR	TO MAIN HARNESS
8G	LA/L	TO MAIN HARNESS
9G	LA/R	TO MAIN HARNESS
10G	R	TO MAIN HARNESS
11G	G	TO MAIN HARNESS
12G	Y	TO MAIN HARNESS
13G	BR	TO MAIN HARNESS
14G	–	TO MAIN HARNESS
15G	Y	TO MAIN HARNESS
16G	–	TO MAIN HARNESS
17G	–	TO MAIN HARNESS
18G	R	TO MAIN HARNESS
19G	R	TO MAIN HARNESS
20G	W	TO MAIN HARNESS
21G	P	TO MAIN HARNESS
22G	P	TO MAIN HARNESS
23G	L	TO MAIN HARNESS
24G	W	TO MAIN HARNESS
25G	L	TO MAIN HARNESS
26G	–	TO MAIN HARNESS
27G	–	TO MAIN HARNESS
28G	–	TO MAIN HARNESS
29G	SB	TO MAIN HARNESS
30G	–	TO MAIN HARNESS
31G	–	TO MAIN HARNESS
32G	–	TO MAIN HARNESS
33G	–	TO MAIN HARNESS
34G	V	TO MAIN HARNESS
35G	BR	TO MAIN HARNESS
36G	SHIELD	TO MAIN HARNESS
37G	LG	TO MAIN HARNESS
38G	V	TO MAIN HARNESS
39G	SHIELD	TO MAIN HARNESS
40G	G	TO MAIN HARNESS
41G	R	TO MAIN HARNESS
42G	–	TO MAIN HARNESS
43G	–	TO MAIN HARNESS
44G	BG	TO MAIN HARNESS
45G	SHIELD	TO MAIN HARNESS
46G	W	TO MAIN HARNESS
47G	R	TO MAIN HARNESS
48G	SHIELD	TO MAIN HARNESS
49G	L	TO MAIN HARNESS
50G	Y	TO MAIN HARNESS
51G	–	TO MAIN HARNESS
52G	–	TO MAIN HARNESS
53G	–	TO MAIN HARNESS
54G	–	TO MAIN HARNESS
55G	–	TO MAIN HARNESS
56G	–	TO MAIN HARNESS
57G	–	TO MAIN HARNESS
58G	–	TO MAIN HARNESS
59G	–	TO MAIN HARNESS
60G	GR	TO MAIN HARNESS
61G	V	TO MAIN HARNESS
62G	–	TO MAIN HARNESS
63G	–	TO MAIN HARNESS
64G	–	TO MAIN HARNESS
65G	–	TO MAIN HARNESS
66G	–	TO MAIN HARNESS
67G	–	TO MAIN HARNESS
68G	–	TO MAIN HARNESS
69G	–	TO MAIN HARNESS
70G	–	TO MAIN HARNESS
71G	–	TO MAIN HARNESS
72G	–	TO MAIN HARNESS
73G	–	TO MAIN HARNESS
74G	–	TO MAIN HARNESS
75G	–	TO MAIN HARNESS
76G	–	TO MAIN HARNESS
77G	–	TO MAIN HARNESS
78G	LA/R	TO MAIN HARNESS
79G	LA/V	TO MAIN HARNESS
80G	LA/B	TO MAIN HARNESS
81G	LA/L	TO MAIN HARNESS
82G	–	TO MAIN HARNESS
83G	–	TO MAIN HARNESS
84G	–	TO MAIN HARNESS
85G	–	TO MAIN HARNESS
86G	–	TO MAIN HARNESS
87G	–	TO MAIN HARNESS
88G	–	TO MAIN HARNESS
89G	–	TO MAIN HARNESS
90G	–	TO MAIN HARNESS
91G	R	TO MAIN HARNESS
92G	BR	TO MAIN HARNESS
93G	W	TO MAIN HARNESS
94G	LA/V	TO MAIN HARNESS
95G	V	TO MAIN HARNESS
96G	G	TO MAIN HARNESS
97G	P	TO MAIN HARNESS
98G	GR	TO MAIN HARNESS
99G	LA/Y	TO MAIN HARNESS
100G	Y	TO MAIN HARNESS

Connector No.	B137
Connector Name	BOSE SPEAKER AMP.
Connector Type	SGA12FBR-SJA2
Connector Color	BROWN

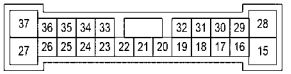
H.S.



Terminal No.	Color of Wire	Signal Name
1	SB	WOOFER OUT 1 +
2	GR	WOOFER OUT 2 +
3	Y	WOOFER OUT 2 -
4	BR	FR DOOR RH + OUT
5	P	FR DOOR LH - OUT
6	LG	RR DOOR LH + OUT
7	V	RR DOOR LH - OUT
8	G	FR DOOR RH + OUT
9	–	–
10	V	WOOFER OUT 1 -
11	W	BATTERY
12	B	GROUND
13	R	FR DOOR RH - OUT
14	–	–

Connector No.	B138
Connector Name	BOSE SPEAKER AMP.
Connector Type	SCA19FBR-SGA4
Connector Color	BROWN

H.S.



Terminal No.	Color of Wire	Signal Name
15	V	CTR SP + OUT
16	–	–
17	–	–
18	R	FR LH + IN
19	Y	FR RH + IN
20	L	FR RH - IN
21	V	RR LH + IN
22	LG	RR LH - IN
23	W	RR RH + IN
24	–	–
25	–	–
26	–	–
27	V	RR DOOR RH - OUT
28	GR	CTR SP - OUT (KOREA PRODUCTION)
28	BG	CTR SP - OUT (EXCEPT FOR KOREA PRODUCTION)
29	–	–
30	–	–
31	BR	AMP ON
32	G	FR LH - IN
33	R	RR RH - IN
34	–	–
35	–	–
36	–	–
37	LG	RR DOOR RH + OUT

AANIA5759GB

NAVIGATION CONNECTORS - WITH BOSE AUDIO SYSTEM

Connector No.	B140
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS
Connector Color	WHITE

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
1	GR	TO BODY HARNESS
2	W	TO BODY HARNESS
3	LA/Y	TO BODY HARNESS
4	V	TO BODY HARNESS
5	SB	TO BODY HARNESS
6	LA/BR	TO BODY HARNESS
7	LA/V	TO BODY HARNESS
8	L	TO BODY HARNESS
9	Y	TO BODY HARNESS
10	R	TO BODY HARNESS
11	V	TO BODY HARNESS
12	LG	TO BODY HARNESS
13	L	TO BODY HARNESS
14	Y	TO BODY HARNESS
15	LA/GR	TO BODY HARNESS
16	LA/LG	TO BODY HARNESS

Connector No.	B145
Connector Name	JOINT CONNECTOR-B10
Connector Type	NS06FW-J
Connector Color	WHITE

H.S.

6	5	4	3	2	1

Terminal No.	Color of Wire	Signal Name
1	R	FR DOOR RH - OUT
2	R	FR DOOR RH - OUT
3	R	FR DOOR RH - OUT
4	G	FR DOOR RH + OUT
5	G	FR DOOR RH + OUT
6	G	FR DOOR RH + OUT

Connector No.	B146
Connector Name	JOINT CONNECTOR-B11
Connector Type	NS06FW-J
Connector Color	WHITE

H.S.

6	5	4	3	2	1

Terminal No.	Color of Wire	Signal Name
1	P	FR DOOR LH - OUT
2	P	FR DOOR LH - OUT
3	GR	FR DOOR LH - OUT
4	BR	FR DOOR LH + OUT
5	BR	FR DOOR LH + OUT
6	W	FR DOOR LH + OUT

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

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
1	V	TO MAIN HARNESS
2	R	TO MAIN HARNESS
3	G	TO MAIN HARNESS
4	BR	TO MAIN HARNESS
5	P	TO MAIN HARNESS
6	LA/L	TO MAIN HARNESS
7	LA/BR	TO MAIN HARNESS
8	SB	TO MAIN HARNESS
9	GR	TO MAIN HARNESS
10	L	TO MAIN HARNESS
11	P	TO MAIN HARNESS
12	LG	TO MAIN HARNESS
13	Y	TO MAIN HARNESS
14	V	TO MAIN HARNESS
15	R	TO MAIN HARNESS
16	B	TO MAIN HARNESS

Connector No.	D9
Connector Name	FRONT DOOR SPEAKER LH (WITH BOSE AUDIO SYSTEM)
Connector Type	NS02FBR-CS
Connector Color	BROWN

H.S.

2	1

Terminal No.	Color of Wire	Signal Name
1	LA/L	FR DOOR LH + OUT
2	LA/BR	FR DOOR LH - OUT

Connector No.	D102
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS
Connector Color	WHITE

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
1	LA/B	TO MAIN HARNESS
2	LA/G	TO MAIN HARNESS - (WITHOUT AUTOMATIC DRIVE POSITIONER)
2	B	TO MAIN HARNESS - (WITH AUTOMATIC DRIVE POSITIONER)
3	–	TO MAIN HARNESS
4	–	TO MAIN HARNESS
5	–	TO MAIN HARNESS
6	–	TO MAIN HARNESS
7	–	TO MAIN HARNESS
8	GR	TO MAIN HARNESS
9	Y	TO MAIN HARNESS
10	BR	TO MAIN HARNESS
11	L	TO MAIN HARNESS
12	V	TO MAIN HARNESS
13	LA/R	TO MAIN HARNESS
14	LA/G	TO MAIN HARNESS
15	–	TO MAIN HARNESS
16	–	TO MAIN HARNESS

Connector No.	D114
Connector Name	FRONT DOOR SPEAKER RH (WITH BOSE AUDIO SYSTEM)
Connector Type	NS02FBR-CS
Connector Color	BROWN

H.S.

2	1

Terminal No.	Color of Wire	Signal Name
1	LA/G	FR DOOR RH + OUT
2	LA/R	FR DOOR RH - OUT

Connector No.	D201
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS
Connector Color	WHITE

H.S.

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

Terminal No.	Color of Wire	Signal Name
1	LA/Y	TO BODY HARNESS
2	LA/BR	TO BODY HARNESS
3	LA/GR	TO BODY HARNESS
4	–	TO BODY HARNESS
5	–	TO BODY HARNESS
6	LA/V	TO BODY HARNESS
7	LA/G	TO BODY HARNESS
8	LA/R	TO BODY HARNESS
9	LA/L	TO BODY HARNESS
10	–	TO BODY HARNESS
11	–	TO BODY HARNESS
12	–	TO BODY HARNESS

AANIA5760GB

NAVIGATION CONNECTORS - WITH BOSE AUDIO SYSTEM

Connector No.	D203
Connector Name	REAR DOOR SPEAKER LH
Connector Type	NS02FW-CS
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
1	LA/L	RR SP LH+
2	LA/R	RR SP LH-

Connector No.	D301
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
1	LA/Y	TO BODY NO. 2 HARNESS
2	LA/BR	TO BODY NO. 2 HARNESS
3	LA/GR	TO BODY NO. 2 HARNESS
4	LA/V	TO BODY NO. 2 HARNESS
5	LA/Y	TO BODY NO. 2 HARNESS
6	LA/W	TO BODY NO. 2 HARNESS
7	LA/L	TO BODY NO. 2 HARNESS
8	–	TO BODY NO. 2 HARNESS
9	–	TO BODY NO. 2 HARNESS
10	–	TO BODY NO. 2 HARNESS
11	–	TO BODY NO. 2 HARNESS
12	–	TO BODY NO. 2 HARNESS

Connector No.	D303
Connector Name	REAR DOOR SPEAKER RH
Connector Type	NS02FW-CS
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
1	LA/V	RR SP RH+
2	LA/Y	RR SP RH-

Connector No.	M8
Connector Name	WIRE TO WIRE
Connector Type	M04FW-LC
Connector Color	WHITE

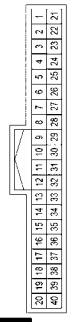
H.S.



Terminal No.	Color of Wire	Signal Name
1	SB	TO BODY NO. 2 HARNESS
2	–	TO BODY NO. 2 HARNESS
3	–	TO BODY NO. 2 HARNESS
4	L	TO BODY NO. 2 HARNESS

Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FGY-NH
Connector Color	GRAY

H.S.



Terminal No.	Color of Wire	Signal Name
1	L	LIN 3 D
2	LA/G	O DI FR LEFT D
3	LA/Y	O DI FR RIGHT D
4	P	O SPARE4 RL N
5	R	CAN-L
6	L	CAN-H
7	–	–
8	L	CAN-H
9	R	CAN-L
10	BG	I DOORLOCK SW
11	Y	I HAZARD SW D
12	W	O PWR AUTOLIGHT SENSOR
13	–	–
14	–	–
15	–	–
16	–	–
17	L	O PWR ATDVC
18	–	–
19	LG	I AUTOLIGHT SENSOR
20	–	–
21	–	–
22	–	–
23	G	O WL AUTHORIZATION RL
24	LA/R	O DEFROSTER RL D
25	BR	O BAT TEMP1 RL
26	–	–
27	Y	O IGN1 RL
28	LA/W	O IGN2 RL
29	–	–
30	V	O GND AUTOLIGHT SENSOR
31	–	–
32	–	–
33	LG	O CSW 5
34	Y	I CSW 5
35	BG	O SECURITY LED
36	G	O CSW 3
37	GR	O CSW 4
38	V	O CSW 1
39	W	O CSW 2
40	SB	I DOORUNLOCK SW

Terminal No.	Color of Wire	Signal Name

AANIA5761GB

NAVIGATION CONNECTORS - WITH BOSE AUDIO SYSTEM

Connector No.	M19
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH
Connector Color	BLACK

H.S.

109	98	97	96	95	94	93	92	91	90	89	88	87	86	85	84	83	82	81
120	119	118	117	116	115	114	113	112	111	110	109	108	107	106	105	104	103	102	101

Terminal No.	Color of Wire	Signal Name
81	–	–
82	W	I SES FR HANDLE BUTTON SW
83	–	–
84	BR	I CSW 2
85	SB	I CSW 1
86	P	I CSW 3
87	BG	I CSW 4
88	W	O START SW BACKLIGHT LED
89	Y	I START WO ESCL SW
90	–	–
91	–	–
92	BR	I KEY CYLINDER LOCK SW
93	P	I KEY CYLINDER UNLOCK SW
94	G	I AT LOCKED IN PARK SW
95	V	I SHORTING PIN
96	–	–
97	–	–
98	–	–
99	–	–
100	V	SES EXT DR ANTENNA A
101	–	–
102	–	–
103	–	–
104	R	I DR KNOB SW
105	Y	I SES DR HANDLE BUTTON SW
106	W	O AUTO ACC2
107	–	–
108	–	–
109	–	–
110	BG	O MR OUTPUT
111	–	–
112	–	–
113	–	–
114	Y	O IMMOBILIZER KAZASHI B
115	W	O IMMOBILIZER KAZASHI A
116	BG	SES INT FRONT ANTENNA B
117	GR	SES INT FRONT ANTENNA A

118	SB	SES EXT AS ANTENNA B
119	P	SES EXT AS ANTENNA A
120	BR	SES EXT DR ANTENNA B

Connector No.	M20
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	NS16FBR-CS
Connector Color	BROWN

H.S.

167	166	165	164		163	162	161
176	175	174	173	172	171	170	169	168

Terminal No.	Color of Wire	Signal Name
161	W	I PWR ECU
162	SB	O PWM ROOMLAMP 1
163	L	O AS LOCK OR UNLOCK D
164	–	–
165	V	O DR OR FR LOCK D
166	–	–
167	LA/V	I PWR DOORLOCK1
168	BG	I PWR FLASHERS
169	GR	I PWR STOP LAMP
170	B	I GND1
171	B	I GND2
172	G	O FR OR DR UNLOCK D
173	–	–
174	–	–
175	R	I PWR DOORLOCK2
176	LG	I PWR WIPER

Connector No.	M23
Connector Name	FRONT TWEETER RH
Connector Type	TH02FW
Connector Color	WHITE

H.S.

2	1

Terminal No.	Color of Wire	Signal Name
1	G	FR SP RH+
2	R	FR SP RH-

Connector No.	M30
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TH12FW-NH
Connector Color	WHITE

H.S.

10	9	8	7	6	5
16	15	14	13	12	11

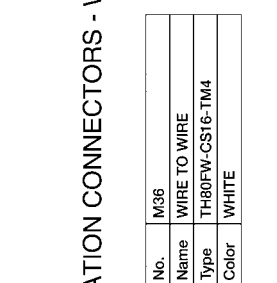
Terminal No.	Color of Wire	Signal Name
5	BG	HORN SW
6	LA/R	ACC SW
7	LA/BR	ACC GND
8	Y	AUDIO STRG SW A
9	B	GROUND
10	R	ILL CONT OUT
11	–	–
12	–	–
13	–	–
14	L	AUDIO STRG SHLD
15	GR	AUDIO STRG SW B
16	–	–

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NAVIGATION CONNECTORS - WITH BOSE AUDIO SYSTEM

Connector No.	M36
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
1G	LA/R	TO BODY NO. 2 HARNESS
2G	W	TO BODY NO. 2 HARNESS
3G	Y	TO BODY NO. 2 HARNESS
4G	BG	TO BODY NO. 2 HARNESS
5G	G	TO BODY NO. 2 HARNESS
6G	SB	TO BODY NO. 2 HARNESS
7G	P	TO BODY NO. 2 HARNESS
8G	LA/Y	TO BODY NO. 2 HARNESS
9G	LA/W	TO BODY NO. 2 HARNESS
10G	R	TO BODY NO. 2 HARNESS
11G	G	TO BODY NO. 2 HARNESS
12G	L	TO BODY NO. 2 HARNESS
13G	BR	TO BODY NO. 2 HARNESS
14G	–	TO BODY NO. 2 HARNESS
15G	Y	TO BODY NO. 2 HARNESS
16G	–	TO BODY NO. 2 HARNESS
17G	–	TO BODY NO. 2 HARNESS
18G	R	TO BODY NO. 2 HARNESS
19G	LA/R	TO BODY NO. 2 HARNESS
20G	W	TO BODY NO. 2 HARNESS
21G	BR	TO BODY NO. 2 HARNESS
22G	P	TO BODY NO. 2 HARNESS
23G	L	TO BODY NO. 2 HARNESS
24G	W	TO BODY NO. 2 HARNESS
25G	L	TO BODY NO. 2 HARNESS
26G	–	TO BODY NO. 2 HARNESS
27G	–	TO BODY NO. 2 HARNESS
28G	–	TO BODY NO. 2 HARNESS
29G	–	TO BODY NO. 2 HARNESS
30G	–	TO BODY NO. 2 HARNESS
31G	–	TO BODY NO. 2 HARNESS
32G	–	TO BODY NO. 2 HARNESS
33G	–	TO BODY NO. 2 HARNESS
34G	V	TO BODY NO. 2 HARNESS
35G	BR	TO BODY NO. 2 HARNESS
36G	SHIELD	TO BODY NO. 2 HARNESS
37G	LG	TO BODY NO. 2 HARNESS
38G	V	TO BODY NO. 2 HARNESS
39G	SHIELD	TO BODY NO. 2 HARNESS
40G	G	TO BODY NO. 2 HARNESS
41G	R	TO BODY NO. 2 HARNESS
42G	–	TO BODY NO. 2 HARNESS
43G	–	TO BODY NO. 2 HARNESS
44G	BG	TO BODY NO. 2 HARNESS
45G	SHIELD	TO BODY NO. 2 HARNESS
46G	L	TO BODY NO. 2 HARNESS
47G	Y	TO BODY NO. 2 HARNESS
48G	SHIELD	TO BODY NO. 2 HARNESS
49G	W	TO BODY NO. 2 HARNESS
50G	R	TO BODY NO. 2 HARNESS
51G	–	TO BODY NO. 2 HARNESS
52G	–	TO BODY NO. 2 HARNESS
53G	–	TO BODY NO. 2 HARNESS
54G	–	TO BODY NO. 2 HARNESS
55G	–	TO BODY NO. 2 HARNESS
56G	–	TO BODY NO. 2 HARNESS
57G	–	TO BODY NO. 2 HARNESS
58G	–	TO BODY NO. 2 HARNESS
59G	–	TO BODY NO. 2 HARNESS
60G	GR	TO BODY NO. 2 HARNESS
61G	BR	TO BODY NO. 2 HARNESS
62G	–	TO BODY NO. 2 HARNESS
63G	–	TO BODY NO. 2 HARNESS
64G	–	TO BODY NO. 2 HARNESS
65G	–	TO BODY NO. 2 HARNESS
66G	–	TO BODY NO. 2 HARNESS
67G	–	TO BODY NO. 2 HARNESS
68G	–	TO BODY NO. 2 HARNESS
69G	–	TO BODY NO. 2 HARNESS
70G	–	TO BODY NO. 2 HARNESS
71G	–	TO BODY NO. 2 HARNESS
72G	–	TO BODY NO. 2 HARNESS
73G	–	TO BODY NO. 2 HARNESS
74G	–	TO BODY NO. 2 HARNESS
76G	–	TO BODY NO. 2 HARNESS
77G	–	TO BODY NO. 2 HARNESS
78G	LA/Y	TO BODY NO. 2 HARNESS
79G	LA/V	TO BODY NO. 2 HARNESS
80G	LA/B	TO BODY NO. 2 HARNESS
81G	LA/L	TO BODY NO. 2 HARNESS
82G	–	TO BODY NO. 2 HARNESS
83G	–	TO BODY NO. 2 HARNESS
84G	–	TO BODY NO. 2 HARNESS
85G	–	TO BODY NO. 2 HARNESS
86G	–	TO BODY NO. 2 HARNESS
87G	–	TO BODY NO. 2 HARNESS
88G	–	TO BODY NO. 2 HARNESS
89G	–	TO BODY NO. 2 HARNESS
90G	–	TO BODY NO. 2 HARNESS
91G	R	TO BODY NO. 2 HARNESS
92G	LA/L	TO BODY NO. 2 HARNESS
93G	W	TO BODY NO. 2 HARNESS
94G	LG	TO BODY NO. 2 HARNESS
95G	GR	TO BODY NO. 2 HARNESS
96G	SB	TO BODY NO. 2 HARNESS
97G	LA/BR	TO BODY NO. 2 HARNESS
98G	GR	TO BODY NO. 2 HARNESS
99G	Y	TO BODY NO. 2 HARNESS
100G	V	TO BODY NO. 2 HARNESS

Connector No.	M44
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS16FW-CS
Connector Color	WHITE

H.S.

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

Terminal No.	Color of Wire	Signal Name
1P	R	IGNITION
2P	G	IGNITION
3P	Y	IGNITION RELAY-2 CONTROL
4P	LG	REAR WINDOW DEFOGGER RELAY OUTPUT
5P	GR	REAR WINDOW DEFOGGER RELAY OUTPUT
6P	LA/R	REAR WINDOW DEFOGGER RELAY CONTROL
7P	Y	IGNITION
8P	V	IGNITION
9P	L	BATTERY
10P	LG	IGNITION
11P	–	–
12P	–	–
13P	G	BATTERY
14P	–	–

15P	L
16P	LA/W

BATTERY

FRONT BLOWER MOTOR RELAY CONTROL

Connector No.	M47
Connector Name	JOINT CONNECTOR-M04
Connector Type	NH20FG-DC
Connector Color	GREEN

H.S.

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

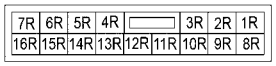
Terminal No.	Color of Wire	Signal Name
1	–	–
2	SB	M-CAN H
3	SB	M-CAN H
4	SB	M-CAN H
5	SB	M-CAN H
6	L	CAN-H
7	L	CAN-H
8	L	CAN-H
9	L	CAN-H
10	–	–
11	–	–
12	–	–
13	LG	M-CAN L
14	LG	M-CAN L
15	LG	M-CAN L
16	LG	M-CAN L
17	R	CAN-L
18	R	CAN-L
19	V	CAN-L
20	V	CAN-L

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NAVIGATION CONNECTORS - WITH BOSE AUDIO SYSTEM

Connector No.	M68
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS16FBR-CS
Connector Color	BROWN

H.S.



Terminal No.	Color of Wire	Signal Name
1R	V	ILLUMINATION +
2R	G	IGNITION
3R	V	BATTERY
4R	–	–
5R	–	–
6R	LA/L	ACCESSORY
7R	LA/V	BATTERY
8R	–	–
9R	–	–
10R	GR	BATTERY
11R	–	–
12R	–	–
13R	–	–
14R	W	BATTERY
15R	W	BATTERY
16R	GR	ACCESSORY

Connector No.	M70
Connector Name	CENTER SPEAKER
Connector Type	TK02FBR
Connector Color	BROWN

H.S.

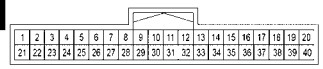


Terminal No.	Color of Wire	Signal Name
1	V	CTR SP+ OUT
2	BG	CTR SP- OUT

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Connector No.	M76
Connector Name	COMBINATION METER
Connector Type	TH40FW-NH
Connector Color	WHITE

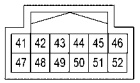
H.S.



Terminal No.	Color of Wire	Signal Name
1	B	GND
2	–	–
3	–	–
4	–	–
5	–	–
6	–	–
7	BG	SECURITY
8	–	–
9	GR	ECO MODE SW
10	–	–
11	–	–
12	–	–
13	–	–
14	–	–
15	L	OUTSIDE TEMP SENSOR
16	–	–
17	BG	SATELLITE SW GND
18	SB	TRIP RESET SW
19	–	–
20	Y	OUTSIDE TEMP GND
21	L	GND (STRG SW GND)
22	Y	STRG SW A
23	GR	STRG SW B
24	BR	WASHER SW
25	V	BRAKE OIL SW
26	G	PKB SW
27	–	–
28	Y	DR BELT SW
29	R	SPORT MODE SW
30	LG	M RANGE
31	SB	NOT M RANGE
32	BG	AT SHIFT UP
33	BR	AT SHIFT DOWN
34	–	–
35	–	–
36	GR	ILL UP SW
37	V	ILL DOWN SW
38	G	8P/R OUTPUT
39	W	2P/R OUTPUT
40	–	–

Connector No.	M77
Connector Name	COMBINATION METER
Connector Type	TH12FW-NH
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
41	L	CAN-H
42	P	CAN-L
43	R	ILL CONT OUT
44	LA/B	FUEL SENSOR GND
45	G	BAT
46	V	IGN
47	SB	M-CAN H
48	LG	M-CAN L
49	–	–
50	–	–
51	LA/L	FUEL SENSOR
52	B	G1

Connector No.	M80
Connector Name	FRONT TWEETER LH
Connector Type	TH02FW
Connector Color	WHITE

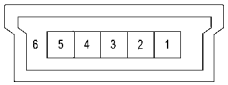
H.S.



Terminal No.	Color of Wire	Signal Name
1	W	FR SP LH+
2	GR	FR SP LH-

Connector No.	M89
Connector Name	USB INTERFACE
Connector Type	US-CAR30
Connector Color	BLACK

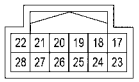
H.S.



Terminal No.	Color of Wire	Signal Name
1	R	V BUS
2	W	USB D-
3	G	USB D+
4	–	–
5	B	USB GND
6	SHIELD	USB SHIELD

Connector No.	M90
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TH12FW-NH
Connector Color	WHITE

H.S.

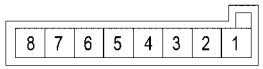


Terminal No.	Color of Wire	Signal Name
17	–	–
18	L	AUDIO STRG SW B
19	G	AUDIO STRG SHLD
20	–	–
21	–	–
22	–	–
23	R	ILL (+)
24	Y	ILL (-)
25	P	AUDIO STRG SW A
26	GR	ACC GND
27	V	ACC SW
28	BR	HORN SW

NAVIGATION CONNECTORS - WITH BOSE AUDIO SYSTEM

Connector No.	M98
Connector Name	JOINT CONNECTOR- M22
Connector Type	SAC08JW
Connector Color	WHITE

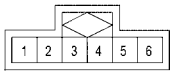
H.S.



Terminal No.	Color of Wire	Signal Name
1	SHIELD	SHIELD
2	B	PRE AMP SHIELD
3	SHIELD	SHIELD
4	SHIELD	SHIELD
5	SHIELD	SHIELD
6	–	–
7	–	–
8	–	–

Connector No.	M104
Connector Name	AUX IN JACK
Connector Type	A06FGY
Connector Color	GRAY

H.S.



Terminal No.	Color of Wire	Signal Name
1	L	AUX L
2	G	AUX R
3	Y	AUX GND
4	–	–
5	W	ILL CONT OUT
6	GR	GROUND

Connector No.	M106
Connector Name	AV CONTROL UNIT (WITH BOSE AUDIO SYSTEM)
Connector Type	TH08FW-NH
Connector Color	WHITE

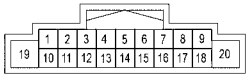
H.S.



Terminal No.	Color of Wire	Signal Name
60	R	TCU IN+
61	SHIELD	DCM SHIELD
62	–	–
63	–	–
64	L	TCU IN-
65	–	–
66	–	–
67	–	–

Connector No.	M108
Connector Name	AV CONTROL UNIT (WITH BOSE AUDIO SYSTEM)
Connector Type	NH18FW-CS2
Connector Color	WHITE

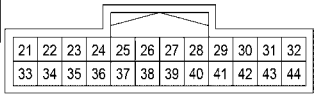
H.S.



Terminal No.	Color of Wire	Signal Name
1	BR	AMP ON
2	R	FR SP LH (+)
3	G	FR SP LH (-)
4	V	RR SP LH (+)
5	LG	RR SP LH (-)
6	–	–
7	W	ACC
8	L	CAN-H
9	V	ILL (+), LIGHT SW
10	B	PRE AMP SHIELD
11	R	FR SP RH (+)
12	W	FR SP RH (-)
13	L	RR SP RH (+)
14	Y	RR SP RH (-)
15	–	–
16	–	–
17	R	CAN-L
18	G	SPEED SIGNAL
19	L	BAT
20	B	GND

Connector No.	M109
Connector Name	AV CONTROL UNIT (WITH BOSE AUDIO SYSTEM)
Connector Type	TH24FW-NH
Connector Color	WHITE

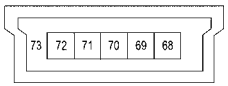
H.S.



Terminal No.	Color of Wire	Signal Name
21	G	AUX R
22	Y	AUX GND
23	L	AUX L
24	R	HE/VR MODE CHG
25	BR	REVERSE
26	–	–
27	–	–
28	–	–
29	–	–
30	BG	MR OUTPUT
31	SB	M-CAN TERMINATION
32	LG	M-CAN TERMINATION
33	–	–
34	W	MIC SIGNAL
35	B	MIC VCC (WITHOUT TELEMATICS SYSTEM)
36	SHIELD	MIC GND
37	SHIELD	SUB OUT/AUX SHIELD
38	SB	MCAN +
39	LG	MCAN -
40	LG	IGNITION
41	G	CAMERA+
42	SHIELD	CAMERA- (SHIELD)
43	–	–
44	–	–

Connector No.	M110
Connector Name	AV CONTROL UNIT (WITH BOSE AUDIO SYSTEM)
Connector Type	USCAR30-MD-M
Connector Color	GREEN

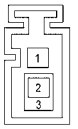
H.S.



Terminal No.	Color of Wire	Signal Name
68	B	VBUS
69	–	–
70	G	D-
71	W	D+
72	R	GND
73	SHIELD	SHIELD

Connector No.	M129
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-1/1S-HU
Connector Color	GRAY

H.S.



Terminal No.	Color of Wire	Signal Name
1	B	TO MAIN SUB HARNESS
2	B	TO MAIN SUB HARNESS
3	SHIELD	TO MAIN SUB HARNESS

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NAVIGATION CONNECTORS - WITH BOSE AUDIO SYSTEM

Connector No.	M130
Connector Name	WIRE TO WIRE
Connector Type	GT16C-1S-HU
Connector Color	BROWN

H.S.

Terminal No.	Color of Wire	Signal Name
1	B	TO MAIN SUB HARNESS
2	SHIELD	TO MAIN SUB HARNESS

Connector No.	M138
Connector Name	AV CONTROL UNIT
Connector Type	GT17HN-4DP-2H
Connector Color	BLACK

H.S.

Terminal No.	Color of Wire	Signal Name
45	R	V BUS
46	W	USB D-
47	G	USB D+
48	–	–
49	B	USB GND
50	SHIELD	USB SHIELD

Connector No.	M139
Connector Name	AV CONTROL UNIT
Connector Type	GT13SHA-2-1PP-DS
Connector Color	GRAY

H.S.

Terminal No.	Color of Wire	Signal Name
51	B	ANT +B
52	B	ANT MAIN
53	SHIELD	MAIN GND
54	–	–
55	–	–

Connector No.	M141
Connector Name	AV CONTROL UNIT
Connector Type	FAKRA CODING C
Connector Color	BLUE

H.S.

Terminal No.	Color of Wire	Signal Name
58	B	GPS ANT
59	SHIELD	GPS ANT SHIELD

Connector No.	M142
Connector Name	AV CONTROL UNIT
Connector Type	FAKRA CODING C
Connector Color	PINK

H.S.

Terminal No.	Color of Wire	Signal Name

56	B	SAT ANT
57	SHIELD	SAT ANT SHIELD

Connector No.	M156
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-CS
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1	B	TO ROOM LAMP HARNESS
2	W	TO ROOM LAMP HARNESS
3	SHIELD	TO ROOM LAMP HARNESS
4	R	TO ROOM LAMP HARNESS
5	–	TO ROOM LAMP HARNESS
6	Y	TO ROOM LAMP HARNESS
7	LG	TO ROOM LAMP HARNESS
8	L	TO ROOM LAMP HARNESS
9	R	TO ROOM LAMP HARNESS
10	–	TO ROOM LAMP HARNESS
11	–	TO ROOM LAMP HARNESS
12	–	TO ROOM LAMP HARNESS
13	SB	TO ROOM LAMP HARNESS
14	GR	TO ROOM LAMP HARNESS
15	SB	TO ROOM LAMP HARNESS
16	GR	TO ROOM LAMP HARNESS
17	V	TO ROOM LAMP HARNESS
18	G	TO ROOM LAMP HARNESS
19	SB	TO ROOM LAMP HARNESS
20	R	TO ROOM LAMP HARNESS
21	B	TO ROOM LAMP HARNESS
22	GR	TO ROOM LAMP HARNESS
23	–	TO ROOM LAMP HARNESS
24	–	TO ROOM LAMP HARNESS

Connector No.	M158
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS
Connector Color	WHITE

H.S.

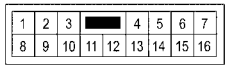
Terminal No.	Color of Wire	Signal Name
1	B	TO FRONT DOOR RH HARNESS
2	GR	TO FRONT DOOR RH HARNESS
3	–	TO FRONT DOOR RH HARNESS
4	–	TO FRONT DOOR RH HARNESS
5	–	TO FRONT DOOR RH HARNESS
6	–	TO FRONT DOOR RH HARNESS
7	–	TO FRONT DOOR RH HARNESS
8	SB	TO FRONT DOOR RH HARNESS
9	LA/BR	TO FRONT DOOR RH HARNESS
10	LA/GR	TO FRONT DOOR RH HARNESS
11	L	TO FRONT DOOR RH HARNESS
12	Y	TO FRONT DOOR RH HARNESS
13	GR	TO FRONT DOOR RH HARNESS - (WITHOUT BOSE AUDIO SYSTEM)
13	R	TO FRONT DOOR RH HARNESS - (WITH BOSE AUDIO SYSTEM)
14	W	TO FRONT DOOR RH HARNESS - (WITHOUT BOSE AUDIO SYSTEM)
14	SB	TO FRONT DOOR RH HARNESS - (WITH BOSE AUDIO SYSTEM)
15	–	TO FRONT DOOR RH HARNESS
16	–	TO FRONT DOOR RH HARNESS

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NAVIGATION CONNECTORS - WITH BOSE AUDIO SYSTEM

Connector No.	M167
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS
Connector Color	WHITE

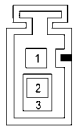
H.S.



Terminal No.	Color of Wire	Signal Name
1	V	TO FRONT DOOR LH HARNESS
2	R	TO FRONT DOOR LH HARNESS
3	G	TO FRONT DOOR LH HARNESS
4	BR	TO FRONT DOOR LH HARNESS
5	P	TO FRONT DOOR LH HARNESS
6	Y	TO FRONT DOOR LH HARNESS - (WITHOUT BOSE AUDIO SYSTEM)
6	LA/L	TO FRONT DOOR LH HARNESS - (WITH BOSE AUDIO SYSTEM)
7	R	TO FRONT DOOR LH HARNESS - (WITHOUT BOSE AUDIO SYSTEM)
7	LA/BR	TO FRONT DOOR LH HARNESS - (WITH BOSE AUDIO SYSTEM)
8	L	TO FRONT DOOR LH HARNESS
9	LA/BR	TO FRONT DOOR LH HARNESS
10	LA/GR	TO FRONT DOOR LH HARNESS
11	Y	TO FRONT DOOR LH HARNESS
12	BG	TO FRONT DOOR LH HARNESS
13	LA/G	TO FRONT DOOR LH HARNESS
14	LA/R	TO FRONT DOOR LH HARNESS
15	P	TO FRONT DOOR LH HARNESS
16	B	TO FRONT DOOR LH HARNESS

Connector No.	M500
Connector Name	WIRE TO WIRE
Connector Type	GT13SCN-1/1PP-HU
Connector Color	GRAY

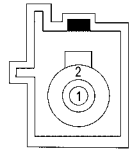
H.S.



Terminal No.	Color of Wire	Signal Name
1	B	TO MAIN HARNESS
2	B	TO MAIN HARNESS
3	SHIELD	TO MAIN HARNESS

Connector No.	M501
Connector Name	WIRE TO WIRE
Connector Type	GT16C-1PP-HU
Connector Color	BROWN

H.S.



Terminal No.	Color of Wire	Signal Name
1	B	TO MAIN HARNESS
2	SHIELD	TO MAIN HARNESS

Connector No.	M502
Connector Name	ANTENNA BASE (ANTENNA AMP)
Connector Type	GT13SSN-1/1PP-HU
Connector Color	GRAY

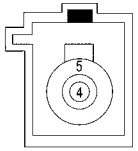
H.S.



Terminal No.	Color of Wire	Signal Name
1	B	ANT +B
2	B	ANT MAIN
3	SHIELD	MAIN GND

Connector No.	M503
Connector Name	ANTENNA BASE (SATELLITE RADIO ANTENNA)
Connector Type	GT16C-1PP-HU
Connector Color	GREEN

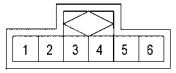
H.S.



Terminal No.	Color of Wire	Signal Name
4	B	SAT ANT
5	SHIELD	SAT ANT SHIELD

Connector No.	R8
Connector Name	MICROPHONE
Connector Type	A06FW
Connector Color	WHITE

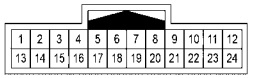
H.S.



Terminal No.	Color of Wire	Signal Name
1	W	MIC SIGNAL
2	SHIELD	MIC GND
3	R	HF/VR MODE CHG
4	B	MIC VCC
5	–	–
6	–	–

Connector No.	R11
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
1	B	TO MAIN HARNESS
2	W	TO MAIN HARNESS
3	SHIELD	TO MAIN HARNESS
4	SB	TO MAIN HARNESS
5	–	TO MAIN HARNESS
6	LG	TO MAIN HARNESS
7	LG	TO MAIN HARNESS
8	–	TO MAIN HARNESS
9	–	TO MAIN HARNESS
10	–	TO MAIN HARNESS
11	–	TO MAIN HARNESS
12	–	TO MAIN HARNESS
13	SB	TO MAIN HARNESS
14	P	TO MAIN HARNESS
15	–	TO MAIN HARNESS
16	–	TO MAIN HARNESS
17	–	TO MAIN HARNESS
18	–	TO MAIN HARNESS
19	SB	TO MAIN HARNESS
20	R	TO MAIN HARNESS
21	B	TO MAIN HARNESS
22	L	TO MAIN HARNESS
23	–	TO MAIN HARNESS
24	–	TO MAIN HARNESS

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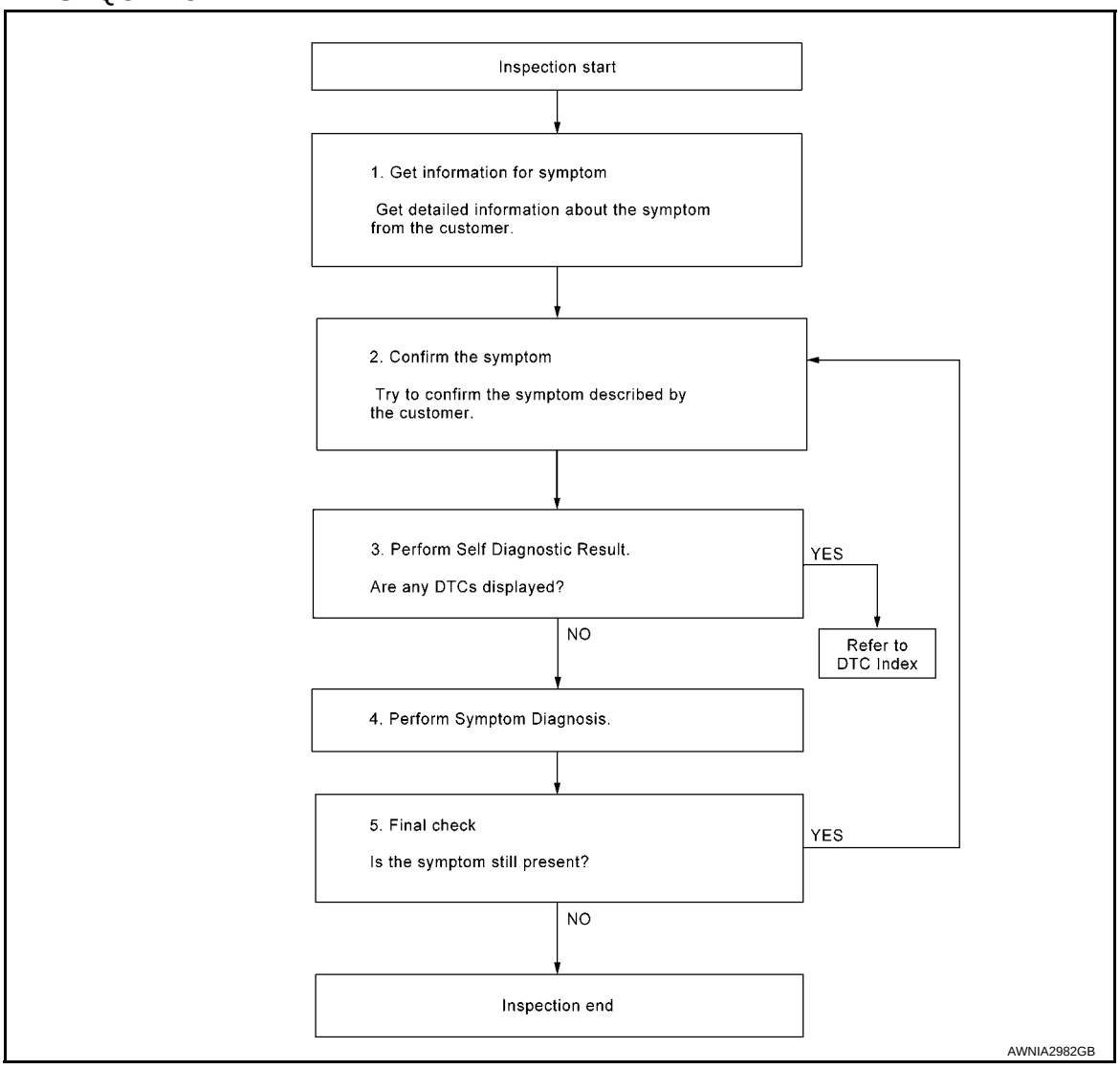
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:0000000015258733

OVERALL SEQUENCE



DETAILED FLOW

1.GET INFORMATION FOR SYMPTOM

Get detailed information from the customer about the symptom (the condition and the environment when the incident/malfunction occurred).

>> GO TO 2.

2.CONFIRM THE SYMPTOM

Try to confirm the symptom described by the customer. Verify relation between the symptom and the condition when the symptom is detected.

>> GO TO 3.

3.PERFORM SELF DIAGNOSTIC RESULT

1. Turn ignition switch ON and wait for 2 seconds or more.

2. Perform Self Diagnostic Result for MULTI AV.

Are any DTCs displayed?

YES >> Refer to AV-268, "DTC Index".
NO >> GO TO 4.

4. PERFORM SYMPTOM DIAGNOSIS

Refer to AV-338, "Symptom Table".

>> GO TO 5.

5. FINAL CHECK

Refer to symptom described by the customer in step 1.

Is the symptom still present?

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

INSPECTION AND ADJUSTMENT

ADDITIONAL SERVICE WHEN REPLACING AV CONTROL UNIT

ADDITIONAL SERVICE WHEN REPLACING AV CONTROL UNIT : Description

INFOID:0000000015258734

BEFORE REPLACEMENT

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

NOTE:

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

AFTER REPLACEMENT

CAUTION:

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

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

ADDITIONAL SERVICE WHEN REPLACING AV CONTROL UNIT : Work Procedure

INFOID:0000000015258735

1. SAVING VEHICLE SPECIFICATION

Ⓐ-CONSULT

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

NOTE:

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

>> GO TO 2.

2. REPLACE AV CONTROL UNIT

Replace AV control unit. Refer to AV-352, "Removal and Installation".

>> GO TO 3.

3. WRITING VEHICLE SPECIFICATION

ⒶCONSULT

1. Enter "Re/Programming, Configuration".
2. If “Before Replace ECU” operation was performed, automatically an "Operation Log Selection" screen will be displayed. Select the applicable file from the "Saved Data List" and press “Confirm” to write vehicle specification. Refer to AV-290, "CONFIGURATION (AV CONTROL UNIT) : Work Procedure".
3. If “Before Replace ECU” operation was not performed, select "After Replace ECU" or "Manual Configuration" to write vehicle specification. Refer to AV-290, "CONFIGURATION (AV CONTROL UNIT) : Work Procedure".

>> GO TO 4.

4. REGISTER AV CONTROL UNIT

Perform AV control unit registration. Refer to AV-291, "REGISTRATION (AV CONTROL UNIT) : Work Procedure".

>> GO TO 5.

5. OPERATION CHECK

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

>> Work End.

CONFIGURATION (AV CONTROL UNIT)

CONFIGURATION (AV CONTROL UNIT) : Description

INFOID:0000000015258736

Vehicle specification needs to be written with CONSULT because it is not written after replacing AV control unit.
Configuration has three functions as follows:

Function	Description
"Before Replace ECU"	• Reads the vehicle configuration of current AV control unit. • Saves the read vehicle configuration.
"After Replace ECU"	Writes the vehicle configuration with manual selection.
"Select Saved Data List"	Writes the vehicle configuration with saved data.

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

CONFIGURATION (AV CONTROL UNIT) : Work Procedure

INFOID:0000000015258737

1.WRITING MODE SELECTION

CONSULT
Select “Reprogramming, Configuration” of AV control unit.

When writing saved data>>GO TO 2.
When writing manually>>GO TO 3.

2.PERFORM “SAVED DATA LIST”

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

>> Work End.

3.PERFORM “AFTER REPLACE ECU” OR “MANUAL CONFIGURATION”

CONSULT
1. Select “After Replace ECU” or “Manual Configuration”.
2. Identify the correct model and configuration list. Refer to AV-291, "CONFIGURATION (AV CONTROL UNIT) : Configuration List".
3. Confirm and/or change setting value for each item.
   CAUTION:
   Thoroughly read and understand the vehicle specification. ECU control may not operate normally if the setting is not correct.
4. Select “Next”.
   CAUTION:
   Make sure to select “Next”, confirm each setting value and press “OK” even if the indicated configuration of brand new AV control unit is same as the desirable configuration. If not, configuration which is set automatically by selecting vehicle model can not be memorized.
5. When "Completed", select "End".

>> GO TO 4.

4. OPERATION CHECK

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

>> Work End.

CONFIGURATION (AV CONTROL UNIT) : Configuration List

INFOID:0000000015258738

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

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

⇔: Items which confirm vehicle specifications

REGISTRATION (AV CONTROL UNIT)

REGISTRATION (AV CONTROL UNIT) : Description

INFOID:0000000015258739

AFTER REPLACEMENT

If the AV control unit is replaced with a new AV control unit, the new AV control unit must be registered using the registration code.

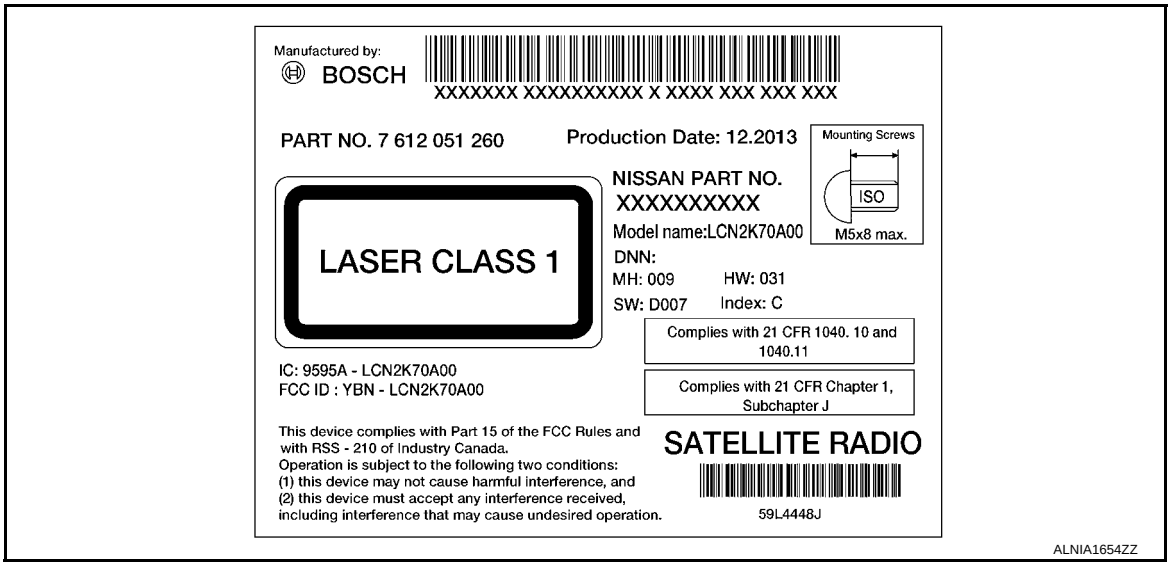
CAUTION:
If the new AV control unit registration code is not registered, the “APPS” mode will not function.

REGISTRATION (AV CONTROL UNIT) : Work Procedure

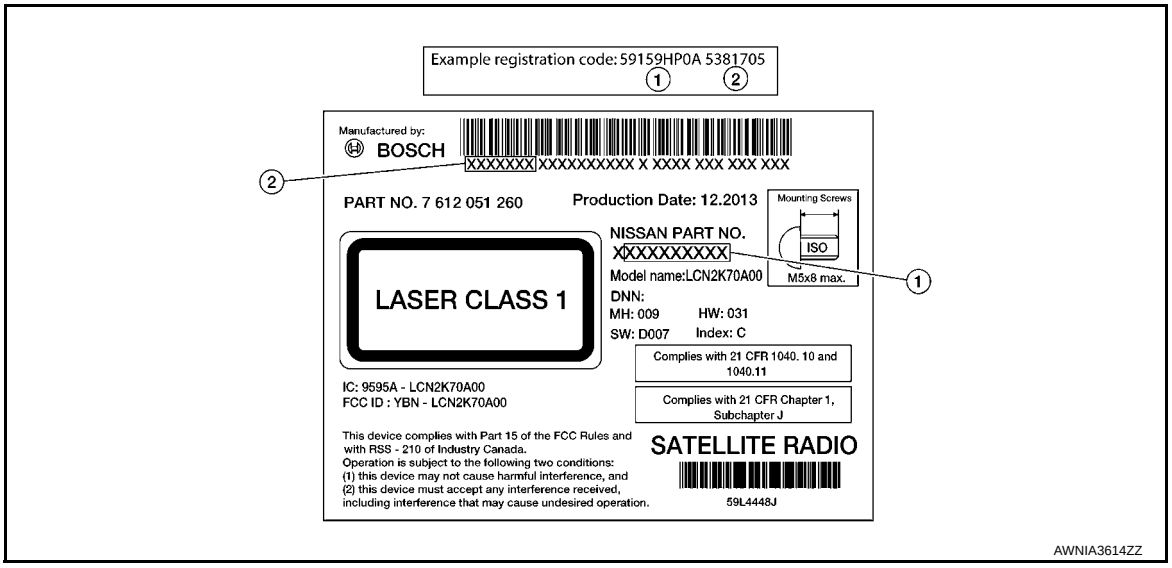
INFOID:0000000015258740

1. RECORD REGISTRATION CODE FOR REPLACEMENT AV CONTROL UNIT

1. Refer to the replacement AV control unit’s label located on the top of the AV control unit.



2. Create a registration code to supply to NISSAN Owner Services by combining the last 9 digits of the NISSAN PART NO. (1) and the first 7 digits of the bar code number (2).



3. Record the registration code.

>> GO TO 2.

2. REGISTER REPLACEMENT AV CONTROL UNIT

Register the replacement AV control unit by contacting NISSAN Owner Services. Refer to TSB.

>> GO TO 3.

3. OPERATION CHECK

Verify that the AV control unit “APPS” function operates normally.

>> Work End.

DTC/CIRCUIT DIAGNOSIS

U1000 CAN COMM CIRCUIT

DTC Description

INFOID:0000000015258805

DESCRIPTION

CAN (Controller Area Network) is a serial communication line for real-time application. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Many electronic control units are equipped onto a vehicle, and each control unit shares information and links with other control units during operation (not independently). In CAN communication, control units are connected with 2 communication lines (CAN-H, CAN-L) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.
CAN Communication Signal Chart. Refer to LAN-44, "CAN COMMUNICATION SYSTEM : CAN Communication Signal Chart".

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U1000	CAN COMM CIRCUIT (CAN COMM CIRCUIT)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	—
		Diagnosis delay time	—

POSSIBLE CAUSE

CAN communication system

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

CONSULT
1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “MULTI AV”.
3. Check DTC.

Is DTC U1000 detected?

YES >> Proceed to AV-293, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015258806

1. PERFORM SELF DIAGNOSTIC RESULT

CONSULT
1. Turn ignition switch ON.
2. Erase DTC.
3. Select “Self Diagnostic Result” mode of “MULTI AV”.
4. Check DTC.

Is DTC U1000 detected?

YES >> Refer to LAN-26, "Trouble Diagnosis Flow Chart".
NO >> Refer to GI-54, "Intermittent Incident".

U1010 CONTROL UNIT (CAN)

DTC Description

INFOID:0000000015258807

DESCRIPTION

CAN (Controller Area Network) is a serial communication line for real-time application. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Many electronic control units are equipped onto a vehicle, and each control unit shares information and links with other control units during operation (not independently). In CAN communication, control units are connected with 2 communication lines (CAN-H, CAN-L) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.
CAN Communication Signal Chart. Refer to LAN-44, "CAN COMMUNICATION SYSTEM : CAN Communication Signal Chart".

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U1010	CONTROL UNIT(CAN) [Control unit(CAN)]	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	—
		Diagnosis delay time	—

POSSIBLE CAUSE

CAN communication system

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT
1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “MULTI AV”.
3. Check DTC.

Is DTC U1010 detected?

YES >> Proceed to AV-294, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015258808

1.PERFORM SELF DIAGNOSTIC RESULT

CONSULT
1. Turn ignition switch ON.
2. Erase DTC.
3. Select “Self Diagnostic Result” mode of “MULTI AV”.
4. Check DTC.

Is DTC U1010 detected?

YES >> Replace the AV control unit. Refer to AV-352, "Removal and Installation".
NO >> Refer to GI-54, "Intermittent Incident".

U1217 AV CONTROL UNIT

DTC Description

INFOID:0000000015258809

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U1217	BLUETOOTH MODULE (Bluetooth module)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	Communication error to Bluetooth sub module
		Diagnosis delay time	—

POSSIBLE CAUSE

AV control unit

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT
1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “MULTI AV”.
3. Check DTC.

Is DTC U1217 detected?

YES >> Proceed to AV-295, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015258810

1.PERFORM SELF DIAGNOSTIC RESULT

CONSULT
1. Turn ignition switch ON.
2. Erase DTC.
3. Select “Self Diagnostic Result” mode of “MULTI AV”.
4. Check DTC.

Is DTC U1217 detected?

YES >> Replace the AV control unit. Refer to AV-352, "Removal and Installation".
NO >> Refer to GI-54, "Intermittent Incident".

U1229 AV CONTROL UNIT

DTC Description

INFOID:0000000015258811

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U1229	iPod CERTIFICATION (iPod certification)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	Communication error to iPod authentication chip
		Diagnosis delay time	—

POSSIBLE CAUSE

AV control unit

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT
1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “MULTI AV”.
3. Check DTC.

Is DTC U1229 detected?

YES >> Proceed to AV-296, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015258812

1.PERFORM SELF DIAGNOSTIC RESULT

CONSULT
1. Turn ignition switch ON.
2. Erase DTC.
3. Select “Self Diagnostic Result” mode of “MULTI AV”.
4. Check DTC.

Is DTC U1229 detected?

YES >> Replace the AV control unit. Refer to AV-352, "Removal and Installation".
NO >> Refer to GI-54, "Intermittent Incident".

U122F AV CONTROL UNIT

DTC Description

INFOID:0000000015259628

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U122F	Digital broadcasting connection error (Digital broadcasting connection error)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	—
		Diagnosis delay time	—

POSSIBLE CAUSE

AV control unit

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “MULTI AV”.
3. Check DTC.

Is DTC U122F detected?

YES >> Replace AV control unit. Refer to AV-352, "Removal and Installation".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

U1244 GPS ANTENNA

DTC Description

INFOID:0000000015258813

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U1244	GPS ANTENNA CONN (GPS antenna conn)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	GPS antenna disconnected or short circuit
		Diagnosis delay time	—

POSSIBLE CAUSE

- GPS antenna disconnected
- GPS antenna signal circuit open or short to ground
- GPS antenna
- AV control unit

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “MULTI AV”.
3. Check DTC.

Is DTC U1244 detected?

YES >> Proceed to AV-298, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015258814

Regarding Wiring Diagram information, refer to AV-273, "Wiring Diagram".

1.GPS ANTENNA INSPECTION

Visually inspect the GPS antenna and antenna feeder. Refer to AV-364, "Removal and Installation".

Is inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace malfunctioning components.

2.CHECK AV CONTROL UNIT VOLTAGE

1. Turn ignition switch ON.
2. Check voltage between AV control unit connector M141 terminal 58 and ground.

AV control unit		Ground	Voltage (Approx.)
Connector	Terminal		
M141	58	—	5.0 V

Is inspection result normal?

YES >> Replace GPS antenna. Refer to AV-364, "Removal and Installation".
NO >> Replace AV control unit. Refer to AV-352, "Removal and Installation".

U1258 SATELLITE RADIO ANTENNA

DTC Description

INFOID:0000000015258815

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U1258	XM ANTENNA CONN (XM antenna conn)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	Satellite antenna disconnected or short circuit
		Diagnosis delay time	—

POSSIBLE CAUSE

- Satellite antenna disconnected
- Satellite antenna signal circuit open or short to ground
- Satellite antenna
- AV control unit

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “MULTI AV”.
3. Check DTC.

Is DTC U1258 detected?

YES >> Proceed to AV-299, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015258816

Regarding Wiring Diagram information, refer to AV-273, "Wiring Diagram".

1.SATELLITE ANTENNA INSPECTION

Visually inspect the satellite antenna and antenna feeder. Refer to AV-256, "Antenna and Antenna Feeder".

Is inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace malfunctioning components.

2.CHECK SATELLITE ANTENNA FEEDER CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M142 and satellite radio antenna connector M503.
3. Check continuity between AV control unit connector M142 and satellite radio antenna connector M503.

AV control unit		Satellite radio antenna		Continuity
Connector	Terminal	Connector	Terminal	
M142	56	M503	4	Yes

4. Check continuity between AV control unit connector M142 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M142	56	—	No

Is the inspection result normal?

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

3. CHECK AV CONTROL UNIT VOLTAGE

1. Connect AV control unit connector M142 and satellite radio antenna connector M503.
2. Turn ignition switch ON.
3. Check voltage between AV control unit connector M142 terminal 56 and ground.

AV control unit		Ground	Voltage (Approx.)
Connector	Terminal		
M142	56	—	5.0 V

Is inspection result normal?

YES >> Replace satellite radio antenna AV-365, "Removal and Installation".
NO >> Replace AV control unit. Refer to AV-352, "Removal and Installation".

U1263 USB

DTC Description

INFOID:0000000015258817

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U1263	USB OVERCURRENT (USB overcurrent)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	USB power supply excess maximum current
		Diagnosis delay time	—

POSSIBLE CAUSE

- Device connected to USB interface
- USB interface harness
- AV control unit

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. If there is a device connected to the USB interface, disconnect it.
2. Turn ignition switch ON.
3. Select “Self Diagnostic Result” mode of “MULTI AV”.
4. Check DTC.

Is DTC U1263 detected?

YES >> Proceed to AV-301, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015258818

1.CHECK USB INTERFACE HARNESS

Visually inspect USB interface harness. Refer to AV-362, "Removal and Installation".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Replace USB interface harness. Refer to AV-362, "Removal and Installation".

2.CHECK USB INTERFACE HARNESS

Check USB interface harness circuits. Refer to AV-336, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Replace AV control unit. Refer to AV-352, "Removal and Installation".
NO >> Replace USB interface harness. Refer to AV-362, "Removal and Installation".

U1265 AUDIO AMP.

DTC Description

INFOID:0000000015258819

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U1265	AMP ON TERMINAL (amp ON terminal)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	Current of external control line exceeded maximum
		Diagnosis delay time	—

POSSIBLE CAUSE

- Amp ON signal circuit open or short to ground
- Bose speaker amp.
- AV control unit

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

Ⓔ CONSULT

1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “MULTI AV”.
3. Check DTC.

Is DTC U1265 detected?

YES >> Proceed to AV-302, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015258820

Regarding Wiring Diagram information, refer to AV-273, "Wiring Diagram".

1.CHECK CONTINUITY BETWEEN AV CONTROL UNIT AND BOSE SPEAKER AMP.

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M108 and Bose speaker amp. connector B138.
3. Check continuity between AV control unit connector M108 and Bose speaker amp. connector B138.

AV control unit		Bose speaker amp.		Continuity
Connector	Terminal	Connector	Terminal	
M108	1	B138	31	Yes

4. Check continuity between AV control unit connector M108 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M108	1	—	No

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness or connectors.

2.CHECK AV CONTROL UNIT VOLTAGE

1. Connect AV control unit connector M108.
2. Turn ignition switch ON.
3. Check voltage between AV control unit connector M108 and ground.

AV control unit		Ground	Voltage (Approx.)
(+)			
Connector	Terminal		
M108	1	—	Battery voltage

Is the inspection result normal?

YES >> Replace Bose speaker amp. Refer to AV-356, "Removal and Installation".
NO >> Replace AV control unit. Refer to AV-352, "Removal and Installation".

U12AA CONFIGURATION ERROR

DTC Description

INFOID:0000000015258821

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U12AA	Configuration Error (Configuration Error)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	Incomplete Configuration
		Diagnosis delay time	—

POSSIBLE CAUSE

- AV control unit configuration
- AV control unit

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “MULTI AV”.
3. Check DTC.

Is DTC U12AA detected?

YES >> Proceed to AV-304, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015258822

1.PERFORM CONFIGURATION

CONSULT

1. Perform configuration procedure. Refer to AV-290, "CONFIGURATION (AV CONTROL UNIT) : Work Procedure".
2. Turn ignition switch ON.
3. Select “Self Diagnostic Result” mode of “MULTI AV”.
4. Check DTC.

Is DTC U12AA detected?

YES >> Replace the AV control unit. Refer to AV-352, "Removal and Installation".
NO >> Inspection End.

U12AB ANTENNA

DTC Description

INFOID:0000000015258823

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U12AB	FM Antenna error (FM Antenna error)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	Rod antenna disconnected or short circuit
		Diagnosis delay time	—

POSSIBLE CAUSE

- Rod antenna disconnected
- AM/FM antenna signal open or short to ground
- Rod antenna
- AV control unit

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “MULTI AV”.
3. Check DTC.

Is DTC U12AB detected?

YES >> Proceed to AV-305, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015258824

Regarding Wiring Diagram information, refer to AV-273, "Wiring Diagram".

1.ANTENNA INSPECTION

Visually inspect the antenna and antenna feeder. Refer to AV-256, "Antenna and Antenna Feeder".

Is inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace malfunctioning components.

2.CHECK AV CONTROL UNIT VOLTAGE

1. Turn ignition switch ON.
2. Check voltage between AV control unit connector M139 terminal 52 and ground.

AV control unit		Ground	Voltage (Approx.)
Connector	Terminal		
M139	52	—	5.0 V

Is inspection result normal?

YES >> Replace antenna base. Refer to AV-365, "Removal and Installation".
NO >> Replace AV control unit. Refer to AV-352, "Removal and Installation".

U12AC AV CONTROL UNIT

DTC Description

INFOID:0000000015258825

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U12AC	Display Temperature too High (Display Temperature too High)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	Upper operation temperature of display exceeded
		Diagnosis delay time	—

POSSIBLE CAUSE

AV control unit

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

Ⓔ CONSULT
1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “MULTI AV”.
3. Check DTC.

Is DTC U12AC detected?

YES >> Proceed to AV-306, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015258826

1.PERFORM SELF DIAGNOSTIC RESULT

Ⓔ CONSULT
1. Turn ignition switch ON.
2. Erase DTC.
3. Select “Self Diagnostic Result” mode of “MULTI AV”.
4. Check DTC.

Is DTC U12AC detected?

YES >> Replace the AV control unit. Refer to AV-352, "Removal and Installation".
NO >> Refer to GI-54, "Intermittent Incident".

U12AD AV CONTROL UNIT

DTC Description

INFOID:0000000015258827

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U12AD	ECU Temperature too High (ECU Temperature too High)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	Upper operation temperature of AV control unit exceeded
		Diagnosis delay time	—

POSSIBLE CAUSE

AV control unit

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT
1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “MULTI AV”.
3. Check DTC.

Is DTC U12AD detected?

YES >> Proceed to AV-307, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015258828

1.PERFORM SELF DIAGNOSTIC RESULT

CONSULT
1. Turn ignition switch ON.
2. Erase DTC.
3. Select “Self Diagnostic Result” mode of “MULTI AV”.
4. Check DTC.

Is DTC U12AD detected?

YES >> Replace the AV control unit. Refer to AV-352, "Removal and Installation".
NO >> Refer to GI-54, "Intermittent Incident".

U12AE AV CONTROL UNIT

DTC Description

INFOID:0000000015258829

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U12AE	Internal Amplifier temperature Warning (Internal Amplifier temperature Warning)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	Amplifier temperature threshold exceeded
		Diagnosis delay time	—

POSSIBLE CAUSE

AV control unit

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT
1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “MULTI AV”.
3. Check DTC.

Is DTC U12AE detected?

YES >> Proceed to AV-308, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015258830

1.PERFORM SELF DIAGNOSTIC RESULT

CONSULT
1. Turn ignition switch ON.
2. Erase DTC.
3. Select “Self Diagnostic Result” mode of “MULTI AV”.
4. Check DTC.

Is DTC U12AE detected?

YES >> Replace the AV control unit. Refer to AV-352, "Removal and Installation".
NO >> Refer to GI-54, "Intermittent Incident".

U12AF AV CONTROL UNIT

DTC Description

INFOID:0000000015258831

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U12AF	CD Mechanism Temperature Warning (CD Mechanism Temperature Warning)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	Upper operation temperature of CD drive exceeded
		Diagnosis delay time	—

POSSIBLE CAUSE

AV control unit

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT
1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “MULTI AV”.
3. Check DTC.

Is DTC U12AF detected?

YES >> Proceed to AV-309, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015258832

1.PERFORM SELF DIAGNOSTIC RESULT

CONSULT
1. Turn ignition switch ON.
2. Erase DTC.
3. Select “Self Diagnostic Result” mode of “MULTI AV”.
4. Check DTC.

Is DTC U12AF detected?

YES >> Replace the AV control unit. Refer to AV-352, "Removal and Installation".
NO >> Refer to GI-54, "Intermittent Incident".

U12B0 POWER SUPPLY VOLTAGE

DTC Description

INFOID:0000000015258833

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U12B0	Supply Voltage Goes below 9V > 20s (Supply Voltage Goes below 9V > 20s)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	Lower operation threshold of supply voltage exceeded
		Diagnosis delay time	—

POSSIBLE CAUSE

- Charging system malfunction
- AV control unit power supply or ground circuits
- AV control unit

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

Ⓔ CONSULT

1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “MULTI AV”.
3. Check DTC.

Is DTC U12B0 detected?

YES >> Proceed to AV-310, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015258834

1. CHECK AV CONTROL UNIT POWER SUPPLY AND GROUND CIRCUITS

Perform the AV control unit power supply and ground circuit diagnosis procedure. Refer to AV-315, "AV CONTROL UNIT : Diagnosis Procedure".

Is the inspection result normal?

YES >> Replace the AV control unit. Refer to AV-352, "Removal and Installation".
NO >> Repair or replace harness or connectors.

U12B1 POWER SUPPLY VOLTAGE

DTC Description

INFOID:0000000015258835

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U12B1	Supply Voltage Goes High > 16V for 20s (Supply Voltage Goes High > 16V for 20s)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	Upper operation threshold of supply voltage exceeded
		Diagnosis delay time	—

POSSIBLE CAUSE

- Charging system malfunction
- AV control unit

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “MULTI AV”.
3. Check DTC.

Is DTC U12B1 detected?

YES >> Proceed to AV-311, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015258836

1. CHECK AV CONTROL UNIT POWER SUPPLY AND GROUND CIRCUITS

Perform the AV control unit power supply and ground circuit diagnosis procedure. Refer to AV-315, "AV CONTROL UNIT : Diagnosis Procedure".

Is the inspection result normal?

YES >> Replace the AV control unit. Refer to AV-352, "Removal and Installation".
NO >> Repair or replace harness or connectors.

U1300 AV COMM CIRCUIT

DTC Description

INFOID:0000000015258802

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)		DTC detection condition	
U1300	AV COMM CIRCUIT (AV comm circuit error)	1	Diagnosis condition	When ignition switch is ON.
			Signal (terminal)	AV comm circuits are shorted to ground (terminals 31, 32, 38, and 39)
			Threshold	AV comm circuits are shorted to ground
			Diagnosis delay time	2 seconds or more
		2	Diagnosis condition	When ignition switch is ON.
			Signal (terminal)	AV comm circuits are open (terminals 31, 32, 38, and 39)
			Threshold	AV comm circuits are open
			Diagnosis delay time	2 seconds or more

POSSIBLE CAUSE

- Harness or connector (AV comm circuits are open or short)

FAIL SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

Ⓔ CONSULT

1. Turn ignition switch ON.
2. Turn ignition switch OFF and wait at least 30 seconds.
3. Turn ignition switch ON and wait at least 30 seconds or more.
4. Select “Self Diagnostic Result” mode of “MULTI AV”.
5. Check DTC.

Is DTC U1300 detected?

YES >> Proceed to AV-312, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015258803

Regarding Wiring Diagram information, refer to AV-273, "Wiring Diagram".

1.PERFORM SELF DIAGNOSTIC RESULT FOR METER M&A

1. Turn ignition switch ON and wait for 2 seconds or more.
2. Perform “Self Diagnostic Result” for “METER M&A”.

Are any DTCs displayed?

YES >> Refer to MWI-32, "DTC Index".
NO >> GO TO 2.

2.CHECK AV COMMUNICATION LOW CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M109 and combination meter connector M77.
3. Check continuity between AV control unit connector M109 and combination meter connector M77.

AV control unit		Combination meter		Continuity
Connector	Terminal	Connector	Terminal	
M109	31	M77	47	Yes
	38			

4. Check continuity between AV control unit connector M109 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M109	31	—	No
	38		

Is the inspection result normal?

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

3. CHECK AV COMMUNICATION HIGH CIRCUIT CONTINUITY

1. Check continuity between AV control unit connector M109 and combination meter connector M77.

AV control unit		Combination meter		Continuity
Connector	Terminal	Connector	Terminal	
M109	32	M77	48	Yes
	39			

2. Check continuity between AV control unit connector M109 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M109	32	—	No
	39		

Is the inspection result normal?

YES >> Replace the AV control unit. Refer to AV-352, "Removal and Installation".
NO >> Repair or replace harness or connectors.

U1310 CONTROL UNIT (AV)

DTC Description

INFOID:0000000015258804

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U1310	CONTROL UNIT (AV) (AV control unit initialization error)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	–
		Threshold	–
		Diagnosis delay time	30 seconds or more

POSSIBLE CAUSE

- AV control unit

FAIL SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Turn ignition switch ON.
2. Turn ignition switch OFF and wait at least 30 seconds.
3. Turn ignition switch ON and wait at least 30 seconds or more.
4. Select “Self Diagnostic Result” mode of “MULTI AV”.
5. Check DTC.

Is DTC U1310 detected?

YES >> Replace AV control unit. Refer to AV-352, "Removal and Installation".
NO >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".

POWER SUPPLY AND GROUND CIRCUIT

AV CONTROL UNIT

AV CONTROL UNIT : Diagnosis Procedure

INFOID:0000000015258790

Regarding Wiring Diagram information, refer to AV-273, "Wiring Diagram".

1.CHECK FUSE

Check that the following fuses are not blown:

Terminal No.	Signal name	Fuse No.
19	Battery power supply	16 (20A)
40	Ignition power supply	30 (10A)

Are the fuses blown?

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

2.CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect AV control unit connectors M108 and M109.
3. Check voltage between AV control unit connectors M108 and M109 and ground.

AV control unit		Ground	Condition	Voltage (Approx.)
Connector	Terminal			
M108	19	—	Ignition switch: OFF	Battery voltage
M109	40		Ignition switch: ON	

Is the inspection result normal?

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

3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Check continuity between AV control unit connector M108 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M108	20	—	Yes

Is the inspection result normal?

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

BOSE SPEAKER AMP

BOSE SPEAKER AMP : Diagnosis Procedure

INFOID:0000000015258791

Regarding Wiring Diagram information, refer to AV-273, "Wiring Diagram".

1.CHECK FUSE

Check that the following fuses are not blown:

Terminal No.	Signal name	Fuse No.
11	Battery power supply	11 (20A)

Are the fuses blown?

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

2.CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect Bose speaker amp. connector B137.
3. Check voltage between Bose speaker amp. connector B137 and ground.

Bose speaker amp.		Ground	Condition	Voltage (Approx.)
Connector	Terminal			
B137	11	—	Ignition switch: OFF	Battery voltage

Is the inspection result normal?

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

3.CHECK GROUND CIRCUIT

Check continuity between Bose speaker amp. connector B137 and ground.

Bose speaker amp.		Ground	Continuity
Connector	Terminal		
B137	12	—	Yes

Is the inspection result normal?

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

FRONT TWEETER

Diagnosis Procedure

INFOID:0000000015258792

Regarding Wiring Diagram information, refer to AV-273, "Wiring Diagram".

1.CONNECTOR CHECK

Check the AV control unit, Bose speaker amp. and speaker connectors for the following:
- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair the terminals or connectors.

2.CHECK FRONT TWEETER SIGNAL CIRCUIT CONTINUITY (BOSE SPEAKER AMP.)

1. Disconnect Bose speaker amp. connectors and suspect front tweeter connector.
2. Check continuity between Bose speaker amp. connectors and suspect front tweeter connector.

Bose speaker amp.		Front tweeter		Continuity
Connector	Terminal	Connector	Terminal	
B137	4	M80 (LH)	1	Yes
	5		2	
	8	M23 (RH)	1	
	13		2	

3. Check continuity between Bose speaker amp. connectors and ground.

Bose speaker amp.		Ground	Continuity
Connector	Terminal		
B137	4	—	No
	5		
	8		
	13		

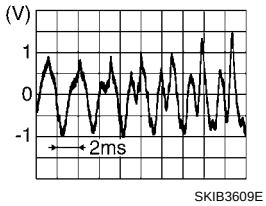
Is the inspection result normal?

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

3.CHECK FRONT TWEETER SIGNAL (BOSE SPEAKER AMP.)

1. Connect Bose speaker amp. connectors and suspect front tweeter connector.
2. Turn ignition switch to ON.
3. Push AV control unit POWER switch.
4. Check signal between the terminals of Bose speaker amp. connectors.

Bose speaker amp. connector B137		Condition	Reference value
(+)	(–)		
Terminal	Terminal		

4	5	Audio signal output	 SKIB3609E
8	13		

Is the inspection result normal?

YES >> Replace front tweeter. Refer to AV-317, "Diagnosis Procedure".
NO >> GO TO 4.

4. CHECK FRONT TWEETER SIGNAL CIRCUIT CONTINUITY (AV CONTROL UNIT)

1. Turn ignition switch to OFF.
2. Disconnect Bose speaker amp. connector B138 and AV control unit connector M108.
3. Check continuity between Bose speaker amp. connector B138 and AV control unit connector M108.

Bose speaker amp.		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
B138	18	M108	2	Yes
	32		3	
	19		11	
	20		12	

4. Check continuity between Bose speaker amp. connector B138 and ground.

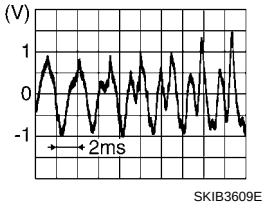
Bose speaker amp.		Ground	Continuity
Connector	Terminal		
B138	18	—	No
	32		
	19		
	20		

Is the inspection result normal?

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

5. CHECK FRONT TWEETER SIGNAL (AV CONTROL UNIT)

1. Connect Bose speaker amp. connector B138 and AV control unit connector M108.
2. Turn ignition switch to ON.
3. Push AV control unit POWER switch.
4. Check signal between AV control unit connector M108 and ground.

AV control unit connector M108		Condition	Reference value
(+)	(–)		
Terminal	Terminal		
2	3	Audio signal output	 SKIB3609E
11	12		

Is the inspection result normal?

YES >> Replace Bose speaker amp. Refer to AV-315, "BOSE SPEAKER AMP : Diagnosis Procedure".
NO >> Replace AV control unit. Refer to AV-315, "AV CONTROL UNIT : Diagnosis Procedure".

CENTER SPEAKER

Diagnosis Procedure

INFOID:0000000015258793

Regarding Wiring Diagram information, refer to AV-273, "Wiring Diagram".

1.CONNECTOR CHECK

Check the AV control unit, Bose speaker amp. and speaker connectors for the following:
- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair the terminals or connectors.

2.CHECK CENTER SPEAKER SIGNAL CIRCUIT CONTINUITY (BOSE SPEAKER AMP.)

1. Disconnect Bose speaker amp. connector B138 and center speaker connector M70.
2. Check continuity between Bose speaker amp. connector B138 and center speaker connector M70.

Bose speaker amp.		Center speaker		Continuity
Connector	Terminal	Connector	Terminal	
B138	15	M70	1	Yes
	28		2	

3. Check continuity between Bose speaker amp. connector B138 and ground.

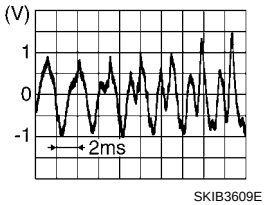
Bose speaker amp.		Ground	Continuity
Connector	Terminal		
B138	15	—	No
	28		

Is the inspection result normal?

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

3.CHECK CENTER SPEAKER SIGNAL (BOSE SPEAKER AMP.)

1. Connect Bose speaker amp. connector B138 and center speaker connector M70.
2. Turn ignition switch to ON.
3. Push AV control unit POWER switch.
4. Check signal between Bose speaker amp. connector B138 and ground.

Bose speaker amp. connector B138		Condition	Reference value
(+)	(–)		
Terminal	Terminal		
15	28	Audio signal output	

SKIB3609E

Is the inspection result normal?

YES >> Replace center speaker. Refer to AV-320, "Diagnosis Procedure".
NO >> GO TO 4.

4. CHECK CENTER SPEAKER SIGNAL CIRCUIT CONTINUITY (AV CONTROL UNIT)

1. Turn ignition switch to OFF.
2. Disconnect Bose speaker amp. connector B138 and AV control unit connector M108.
3. Check continuity between Bose speaker amp. connector B138 and AV control unit connector M108.

Bose speaker amp.		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
B138	18	M108	2	Yes
	32		3	
	19		11	
	20		12	

4. Check continuity between Bose speaker amp. connector B138 and ground.

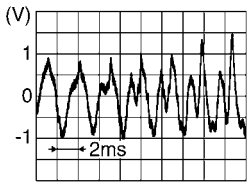
Bose speaker amp.		Ground	Continuity
Connector	Terminal		
B138	18	—	No
	32		
	19		
	20		

Is the inspection result normal?

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

5. CHECK CENTER SPEAKER SIGNAL (AV CONTROL UNIT)

1. Connect Bose speaker amp. connector B138 and AV control unit connector M108.
2. Turn ignition switch to ON.
3. Push AV control unit POWER switch.
4. Check signal between AV control unit connector M108 and ground.

AV control unit connector M108		Condition	Reference value
(+)	(–)		
Terminal	Terminal		
2	3	Audio signal output	
11	12		

SKIB3609E

Is the inspection result normal?

YES >> Replace Bose speaker amp. Refer to AV-315, "BOSE SPEAKER AMP : Diagnosis Procedure".
NO >> Replace AV control unit. Refer to AV-315, "AV CONTROL UNIT : Diagnosis Procedure".

FRONT DOOR SPEAKER

Diagnosis Procedure

INFOID:0000000015258794

Regarding Wiring Diagram information, refer to AV-273, "Wiring Diagram".

1.CONNECTOR CHECK

Check the AV control unit, Bose speaker amp. and speaker connectors for the following:
- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair the terminals or connectors.

2.CHECK FRONT DOOR SPEAKER SIGNAL CIRCUIT CONTINUITY (BOSE SPEAKER AMP.)

1. Disconnect Bose speaker amp. connectors and suspect front door speaker connector.
2. Check continuity between Bose speaker amp. connectors and suspect front door speaker connector.

Bose speaker amp.		Front door speaker		Continuity
Connector	Terminal	Connector	Terminal	
B137	4	D9 (LH)	1	Yes
	5		2	
	8	D114 (RH)	1	
	13		2	

3. Check continuity between Bose speaker amp. connectors and ground.

Bose speaker amp.		Ground	Continuity
Connector	Terminal		
B137	4	—	No
	5		
	8		
	13		

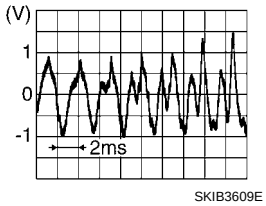
Is the inspection result normal?

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

3.CHECK FRONT DOOR SPEAKER SIGNAL (BOSE SPEAKER AMP.)

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

Bose speaker amp. connector B137		Condition	Reference value
(+)	(–)		
Terminal	Terminal		

4	5	Audio signal output	 SKIB3609E
8	13		

Is the inspection result normal?

YES >> Replace front door speaker. Refer to AV-358, "Removal and Installation".
NO >> GO TO 4.

4. CHECK FRONT DOOR SPEAKER SIGNAL CIRCUIT CONTINUITY (AV CONTROL UNIT)

1. Turn ignition switch to OFF.
2. Disconnect Bose speaker amp. connector B138 and AV control unit connector M108.
3. Check continuity between Bose speaker amp. connector B138 and AV control unit connector M108.

Bose speaker amp.		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
B138	18	M108	2	Yes
	32		3	
	19		11	
	20		12	

4. Check continuity between Bose speaker amp. connector B138 and ground.

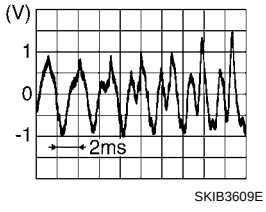
Bose speaker amp.		Ground	Continuity
Connector	Terminal		
B138	18	—	No
	32		
	19		
	20		

Is the inspection result normal?

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

5. CHECK FRONT DOOR SPEAKER SIGNAL (AV CONTROL UNIT)

1. Connect Bose speaker amp. connector B138 and AV control unit connector M108.
2. Turn ignition switch to ON.
3. Push AV control unit POWER switch.
4. Check signal between AV control unit connector M108 and ground.

AV control unit connector M108		Condition	Reference value
(+)	(–)		
Terminal	Terminal		
2	3	Audio signal output	 SKIB3609E
11	12		

Is the inspection result normal?

YES >> Replace Bose speaker amp. Refer to AV-356, "Removal and Installation".
NO >> Replace AV control unit. Refer to AV-352, "Removal and Installation".

REAR DOOR SPEAKER

Diagnosis Procedure

INFOID:0000000015258795

Regarding Wiring Diagram information, refer to AV-273, "Wiring Diagram".

1. CONNECTOR CHECK

Check the AV control unit, Bose speaker amp. and speaker connectors for the following:
- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair the terminals or connectors.

2. CHECK REAR DOOR SPEAKER SIGNAL CIRCUIT CONTINUITY (BOSE SPEAKER AMP.)

1. Disconnect Bose speaker amp. connectors and suspect rear door speaker connector.
2. Check continuity between Bose speaker amp. connectors and suspect rear door speaker connector.

Bose speaker amp.		Rear door speaker		Continuity
Connector	Terminal	Connector	Terminal	
B137	6	D203 (LH)	1	Yes
	7		2	
B138	37	D303 (RH)	1	
	27		2	

3. Check continuity between Bose speaker amp. connectors and ground.

Bose speaker amp.		Ground	Continuity
Connector	Terminal		
B137	6	—	No
	7		
B138	37		
	27		

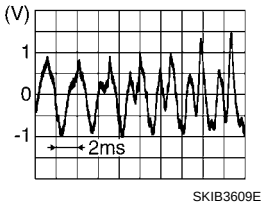
Is the inspection result normal?

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

3. CHECK REAR DOOR SPEAKER SIGNAL (BOSE SPEAKER AMP.)

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

Bose speaker amp.			Condition	Reference value
Connector	(+)	(–)		
	Terminal	Terminal		

B137	6	7	Audio signal output	 SKIB3609E
B138	37	27		

Is the inspection result normal?

YES >> Replace rear door speaker. Refer to AV-360, "Removal and Installation".
NO >> GO TO 4.

4. CHECK REAR DOOR SPEAKER SIGNAL CIRCUIT CONTINUITY (AV CONTROL UNIT)

1. Turn ignition switch to OFF.
2. Disconnect Bose speaker amp. connector B138 and AV control unit connector M108.
3. Check continuity between Bose speaker amp. connector B138 and AV control unit connector M108.

Bose speaker amp.		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
B138	21	M108	4	Yes
	22		5	
	23		13	
	33		14	

4. Check continuity between Bose speaker amp. connector B138 and ground.

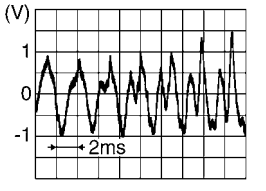
Bose speaker amp.		Ground	Continuity
Connector	Terminal		
B138	21	—	No
	22		
	23		
	33		

Is the inspection result normal?

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

5. CHECK REAR DOOR SPEAKER SIGNAL (AV CONTROL UNIT)

1. Connect Bose speaker amp. connector B138 and AV control unit connector M108.
2. Turn ignition switch to ON.
3. Push AV control unit POWER switch.
4. Check signal between AV control unit connector M108 and ground.

AV control unit connector M108		Condition	Reference value
(+)	(–)		
Terminal	Terminal		
4	5	Audio signal output	 SKIB3609E
13	14		

Is the inspection result normal?

YES >> Replace Bose speaker amp. Refer to AV-356, "Removal and Installation".
NO >> Replace AV control unit. Refer to AV-352, "Removal and Installation".

SUBWOOFER

Diagnosis Procedure

INFOID:0000000015258796

Regarding Wiring Diagram information, refer to AV-273, "Wiring Diagram".

1.CONNECTOR CHECK

Check the AV control unit, BOSE speaker amp. and subwoofer connectors for the following:
- Proper connection
- Damage
- Disconnected or looses terminals

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair the terminal and connector.

2.CHECK SUBWOOFER SIGNAL CIRCUIT CONTINUITY (BOSE AMP.)

1. Disconnect BOSE speaker amp. connector B137 and subwoofer connector.
2. Check continuity between BOSE speaker amp. connector B137 and subwoofer connector.

BOSE speaker amp.		Subwoofer		Continuity
Connector	Terminal	Connector	Terminal	
B137	1	B116	2	Yes
	10		1	
	2		4	
	3		3	

3. Check continuity between BOSE speaker amp. connector B137 and ground.

BOSE speaker amp.		Ground	Continuity
Connector	Terminal		
B137	1	—	No
	10		
	2		
	3		

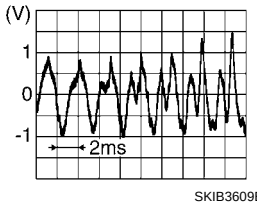
Is the inspection result normal?

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

3.CHECK SUBWOOFER SIGNAL (BOSE AMP.)

1. Connect BOSE speaker amp. connector B137 and subwoofer connector.
2. Turn ignition switch to ON.
3. Push AV control unit POWER switch.
4. Check the signal between the terminals of BOSE speaker amp. connector B137.

BOSE speaker amp. connector B137		Condition	Reference value
(+)	(–)		
Terminal	Terminal		

1	10	Audio signal output	 SKIB3609E
2	3		

Is the inspection result normal?

YES >> Replace subwoofer. Refer to AV-361, "Removal and Installation".
NO >> GO TO 4.

4. CHECK SUBWOOFER SIGNAL CIRCUIT CONTINUITY (AV CONTROL UNIT)

1. Disconnect AV control unit connector M108 and BOSE speaker amp. connector B138.
2. Check continuity between AV control unit connector M108 and BOSE speaker amp. connector B138.

AV control unit		BOSE speaker amp.		Continuity
Connector	Terminal	Connector	Terminal	
M108	4	B138	21	Yes
	5		22	
	13		23	
	14		33	

3. Check continuity between AV control unit connector M108 and ground.

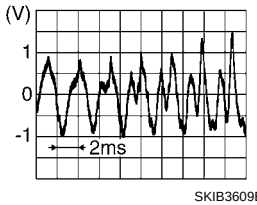
AV control unit		Ground	Continuity
Connector	Terminal		
M108	4	—	No
	5		
	13		
	14		

Is the inspection result normal?

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

5. CHECK SUBWOOFER SIGNAL (AV CONTROL UNIT)

1. Connect AV control unit connector M108 and BOSE speaker amp. connector B138.
2. Turn ignition switch to ON.
3. Push AV control unit POWER switch.
4. Check signal between the terminals of AV control unit connector M108.

AV control unit connector M108		Condition	Reference value
(+)	(–)		
Terminal	Terminal		
4	5	Audio signal output	 SKIB3609E
13	14		

Is the inspection result normal?

YES >> Replace BOSE speaker amp. Refer to AV-356, "Removal and Installation".

NO >> Replace AV control unit. Refer to AV-352, "Removal and Installation".

AMP ON SIGNAL CIRCUIT

Diagnosis Procedure

INFOID:0000000015258797

Regarding Wiring Diagram information, refer to AV-273, "Wiring Diagram".

1.CHECK CONTINUITY BETWEEN AV CONTROL UNIT AND BOSE SPEAKER AMP.

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M108 and Bose speaker amp. connector B138.
3. Check continuity between audio unit connector M108 and Bose speaker amp. connector B138

AV control unit		Bose speaker amp.		Continuity
Connector	Terminal	Connector	Terminal	
M108	1	B138	31	Yes

4. Check continuity between AV control unit connector M108 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M108	1	—	No

Is the inspection result normal?

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

2.CHECK AV CONTROL UNIT VOLTAGE

1. Connect AV control unit connector M108.
2. Turn ignition switch ON.
3. Check voltage between AV control unit connector M108 and ground.

AV control unit		Ground	Voltage (Approx.)
(+)		(–)	
Connector	Terminal		
M108	1	—	Battery voltage

Is the inspection result normal?

YES >> Replace Bose speaker amp. Refer to AV-356, "Removal and Installation".
NO >> Replace AV control unit. Refer to AV-352, "Removal and Installation".

MICROPHONE SIGNAL CIRCUIT

Diagnosis Procedure

INFOID:0000000015258798

Regarding Wiring Diagram information, refer to AV-273, "Wiring Diagram".

1.CHECK HARNESS BETWEEN AV CONTROL UNIT AND MICROPHONE

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M109 and microphone connector R8.
3. Check continuity between AV control unit connector M109 and microphone connector R8.

AV control unit		Microphone		Continuity
Connector	Terminal	Connector	Terminal	
M109	24	R8	3	Yes
	34		1	
	35		4	
	36		2	

4. Check continuity between AV control unit connector M109 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M109	24	—	No
	34		
	35		

Is the inspection result normal?

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

2.CHECK MICROPHONE POWER SUPPLY

1. Connect AV control unit connector M109 and microphone connector R8.
2. Turn ignition switch ON.
3. Check voltage between microphone connector R8 and ground.

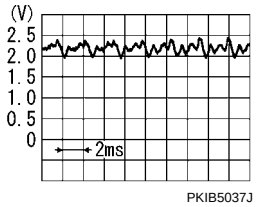
Microphone		Ground	Voltage (Approx.)
(+)		(-)	
Connector	Terminal		
R8	4	—	5V

Is the inspection result normal?

YES >> GO TO 3.
NO >> Replace AV control unit. Refer to AV-352, "Removal and Installation".

3.CHECK MICROPHONE SIGNAL

Check signal between terminals of AV control unit connector M109.

AV control unit connector M109		Condition	Reference value
(+)	(-)		
Terminal	Terminal		
34	36	Speak into microphone.	

PKIB5037J

Is the inspection result normal?

YES >> Replace AV control unit. Refer to AV-352, "Removal and Installation".
NO >> Replace microphone. Refer to AV-363, "Removal and Installation".

STEERING SWITCH

Diagnosis Procedure

INFOID:0000000015258799

Regarding Wiring Diagram information, refer to AV-273, "Wiring Diagram".

1.CHECK STEERING WHEEL AUDIO CONTROL SWITCH RESISTANCE

1. Turn ignition switch OFF.
2. Disconnect combination switch connector M90.
3. Check resistance between the terminals of combination switch connector M90.

Combination switch connector M88		Condition	Resistance Ω (Approx.)
Terminal	Terminal		
25	19	Depress BACK switch.	1
		Depress △ switch.	52
		Depress ▽ switch.	134
		Depress OK switch.	264
		Depress DISPLAY BACK switch.	654
		Depress DISPLAY FWD switch.	2126
18		Depress − switch.	1
		Depress + switch.	52
		Depress switch.	134
		Depress switch.	264
		Depress SEEK DOWN switch.	654
		Depress SEEK UP switch.	2126

Is the inspection result normal?

YES >> GO TO 2.
NO >> Replace steering switches. Refer to AV-354, "Removal and Installation".

2.CHECK HARNESS BETWEEN COMBINATION METER AND COMBINATION SWITCH

1. Disconnect combination meter connector M76 and combination switch connector M30.
2. Check continuity between combination meter connector M76 and combination switch connector M30.

Combination meter		Combination switch		Continuity
Connector	Terminal	Connector	Terminal	
M76	22	M30	8	Yes
	23		15	
	21		14	

3. Check continuity between combination meter connector M76 and ground.

Combination meter		Ground	Continuity
Connector	Terminal		
M76	22	—	No
	23		
	21		

Is the inspection result normal?

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

3. CHECK COMBINATION SWITCH

Check continuity between combination switch connectors M90 and M30.

Combination switch				Continuity
Connector	Terminal	Connector	Terminal	
M90	25	M30	8	Yes
	18		15	
	19		14	

Is the inspection result normal?

YES >> GO TO 4.
NO >> Replace spiral cable. Refer to SR-16, "Removal and Installation".

4. CHECK HARNESS BETWEEN COMBINATION METER AND AV CONTROL UNIT

1. Disconnect combination meter connector M77 and AV control unit connector M109.
2. Check continuity between combination meter connector M77 and AV control unit connector M109.

Combination meter		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M77	47	M109	31	Yes
	48		32	

3. Check continuity between combination meter connector M77 and ground.

Combination meter		Ground	Continuity
Connector	Terminal		
M77	47	—	No
	48		

Is the inspection result normal?

YES >> Replace AV control unit. Refer to AV-352, "Removal and Installation".
NO >> Repair or replace harness or connectors.

USB CONNECTOR

Diagnosis Procedure

INFOID:0000000015258800

Regarding Wiring Diagram information, refer to .AV-273, "Wiring Diagram"

1.CHECK USB INTERFACE HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M138 and USB interface connector M89.
3. Check continuity between AV control unit connector M138 and USB interface connector M89.

AV control unit		USB interface		Continuity
Connector	Terminal	Connector	Terminal	
M138	45	M89	1	Yes
	46		2	
	47		3	
	49		5	
	50		6	

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

AV control unit		—	Continuity
Connector	Terminal		
M138	45	Ground	No
	47		

Is the inspection result normal?

YES >> Replace the USB interface. Refer to AV-362, "Removal and Installation".
NO >> Repair or replace harness or connectors.

AUXILIARY INPUT JACK

Diagnosis Procedure

INFOID:0000000015258801

Regarding Wiring Diagram information, refer to AV-273, "Wiring Diagram".

1. CHECK AUX IN JACK HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M109 and AUX in jack connector M104.
3. Check continuity between AV control unit connector M109 and AUX in jack connector M104.

AV control unit		AUX in jack		Continuity
Connector	Terminal	Connector	Terminal	
M109	21	M104	2	Yes
	22		3	
	23		1	

4. Check continuity between AV control unit connector M109 and ground.

AV control unit		—	Continuity
Connector	Terminal		
M109	21	Ground	No
	23		

Is the inspection result normal?

YES >> Replace the AUX in jack. Refer to AV-362, "Removal and Installation".
NO >> Repair or replace harness or connectors.

SYMPTOM DIAGNOSIS

MULTI AV SYSTEM

Symptom Table

INFOID:0000000015258741

RELATED TO AUDIO

Symptoms	Check items	Probable malfunction location
The disk cannot be removed.	AV control unit	Malfunction in AV control unit. Refer to AV-263, "On Board Diagnosis Function".

Symptoms	Check items	Probable malfunction location
No sound comes out or the level of the sound is low.	No sound from all speakers.	• Speaker circuit shorted to ground. Refer to AV-273, "Wiring Diagram". • Bose amp. ON signal circuit malfunction. Refer to AV-331, "Diagnosis Procedure". • Bose speaker amp. power supply and ground circuits malfunction. Refer to AV-315, "BOSE SPEAKER AMP : Diagnosis Procedure".
	Only a certain speaker (front tweeter LH, front tweeter RH, center speaker, front door speaker LH, front door speaker RH, rear door speaker LH, rear door speaker RH, subwoofer) does not output sound.	• Poor connector connection of speaker. • Sound signal circuit malfunction between AV control unit and Bose speaker amp. Refer to: - AV-317, "Diagnosis Procedure" (front tweeter). - AV-320, "Diagnosis Procedure" (center speaker). - AV-322, "Diagnosis Procedure" (front door speaker). - AV-325, "Diagnosis Procedure" (rear door speaker). - AV-328, "Diagnosis Procedure" (sub-woofer). • Sound signal circuit malfunction between Bose speaker amp. and speaker. Refer to: - AV-317, "Diagnosis Procedure" (front tweeter). - AV-320, "Diagnosis Procedure" (center speaker). - AV-322, "Diagnosis Procedure" (front door speaker). - AV-325, "Diagnosis Procedure" (rear door speaker). - AV-328, "Diagnosis Procedure" (sub-woofer). • Malfunction in speaker. Refer to: - AV-357, "Removal and Installation" (front tweeter). - AV-359, "Removal and Installation" (center speaker). - AV-358, "Removal and Installation" (front door speaker). - AV-360, "Removal and Installation" (rear door speaker). - AV-361, "Removal and Installation" (sub-woofer). • Malfunction in AV control unit. Refer to AV-263, "On Board Diagnosis Function". • Malfunction in Bose speaker amp. Replace Bose speaker amp. Refer to AV-356, "Removal and Installation".

Symptoms	Check items	Probable malfunction location
Noise is mixed with audio.	Noise comes out from all speakers.	• Malfunction in AV control unit. Refer to AV-263, "On Board Diagnosis Function". • Malfunction in Bose speaker amp. Replace Bose speaker amp. Refer to AV-356, "Removal and Installation".
	Noise comes out only from a certain speaker (front tweeter LH, front tweeter RH, center speaker, front door speaker LH, front door speaker RH, rear door speaker LH, rear door speaker RH, subwoofer).	• Poor connector connection of speaker. • Sound signal circuit malfunction between AV control unit and Bose speaker amp. Refer to: - AV-317, "Diagnosis Procedure" (front tweeter). - AV-320, "Diagnosis Procedure" (center speaker). - AV-322, "Diagnosis Procedure" (front door speaker). - AV-325, "Diagnosis Procedure" (rear door speaker). - AV-328, "Diagnosis Procedure" (sub-woofer). • Sound signal circuit malfunction between Bose speaker amp. and speaker. Refer to: - AV-317, "Diagnosis Procedure" (front tweeter). - AV-320, "Diagnosis Procedure" (center speaker). - AV-322, "Diagnosis Procedure" (front door speaker). - AV-325, "Diagnosis Procedure" (rear door speaker). - AV-328, "Diagnosis Procedure" (sub-woofer). • Malfunction in speaker. Refer to: - AV-357, "Removal and Installation" (front tweeter). - AV-359, "Removal and Installation" (center speaker). - AV-358, "Removal and Installation" (front door speaker). - AV-360, "Removal and Installation" (rear door speaker). - AV-361, "Removal and Installation" (sub-woofer). • Malfunction in AV control unit. Refer to AV-263, "On Board Diagnosis Function". • Malfunction in Bose speaker amp. Replace Bose speaker amp. Refer to AV-356, "Removal and Installation".
	Noise is mixed with radio only (when the vehicle hits a bump or while driving over bad roads)	Poor connector connection of antenna or antenna feeder. Refer to AV-256, "Antenna and Antenna Feeder".
No radio reception or poor reception.	• Other audio sounds are normal. • Any radio station cannot be received or poor reception is caused even after moving to a service area with good reception (e.g. a place with clear view and no obstacles generating external noises).	• Antenna amp. ON signal circuit malfunction. Refer to AV-265, "Reference Value". • Poor connector connection of antenna or antenna feeder. Refer to AV-256, "Antenna and Antenna Feeder".

Symptoms	Check items	Probable malfunction location
No satellite radio reception.	There is malfunction in the CONSULT self diagnosis result. Refer to AV-264, "CONSULT Function".	• Malfunction in antenna, antenna feeder or AV control unit. Perform DTC diagnosis. Refer to AV-305, "Diagnosis Procedure". • Poor continuity in antenna feeder. • Poor connector connection of antenna or antenna feeder. Refer to AV-256, "Antenna and Antenna Feeder".
	There is no malfunction in the CONSULT self diagnosis result. Refer to AV-264, "CONSULT Function".	• Poor continuity in antenna feeder. • Poor connector connection of antenna or antenna feeder. • Loose satellite radio antenna mounting nut. Refer to AV-256, "Antenna and Antenna Feeder".
Buzz/rattle sound from speaker	The majority of buzz/rattle sounds are not indicative of an issue with the speaker, usually something nearby the speaker is causing the buzz/rattle.	Refer to "SQUEAK AND RATTLE TROUBLE DIAGNOSIS" in the appropriate interior trim section.

RELATED TO HANDS-FREE PHONE

- Before performing diagnosis, confirm that the cellular phone being used by the customer is compatible with the vehicle.
- It is possible that a malfunction is occurring due to a version change of the phone even though the phone is a compatible type. This can be confirmed by changing the cellular phone to another compatible type, and check that it operates normally. It is important to determine whether the cause of the malfunction is the vehicle or the cellular phone.

Check Compatibility

1. Make sure the customer’s Bluetooth® related concern is understood.
2. Verify the customer’s concern.
   NOTE:
   The customer’s phone may be required, depending upon their concern.
3. Write down the customer’s phone brand, model and service provider.
   NOTE:
   It is necessary to know the service provider. On occasion, a given phone may be on the approved list with one provider, but may not be on the approved list with other providers.
4. Go to “www.nissanusa.com/bluetooth/”.

a. Using the website’s search engine, find out if the customer’s phone is on the approved list.

b. If the customer’s phone is NOT on the approved list:
   Stop diagnosis here. The customer needs to obtain a Bluetooth® phone that is on the approved list before any further action.

c. If the feature related to the customer’s concern shows as “N” (not compatible):
   Stop diagnosis here. If the customer still wants the feature to function, they will need to get an approved phone showing the feature as “Y” (compatible) in the “Basic Features”.

d. If the feature related to the customer’s concern shows as “Y” (compatible):
   Perform diagnosis as per the following table:

Symptoms	Check items	Probable malfunction location
Does not recognize cellular phone connection (no connection is displayed on the display at the guide).	Repeat the registration of cellular phone.	Malfunction in AV control unit. Replace AV control unit. Refer to AV-352, "Removal and Installation".
Hands-free phone cannot be established.	• Hands-free phone operation can be made, but the communication cannot be established. • Hands-free phone operation can be performed, however, voice between each other cannot be heard during the conversation.	
The other party's voice cannot be heard by hands-free phone.	Check the "microphone speaker" in Inspection & Adjustment Mode if sound is heard.	
Originating sound is not heard by the other party with hands-free phone communication.	Sound operation function is normal.	
	Sound operation function does not work.	Microphone signal circuit malfunction. Refer to AV-332, "Diagnosis Procedure".
The system cannot be operated.	• The voice recognition can be controlled. • Steering switch's − , + , and switch works, but does not work.	Steering switch malfunction. Replace steering switch. Refer to AV-354, "Removal and Installation".
	Steering switch's , − , + , and switches do not work.	Steering switch signal circuit malfunction. Refer to AV-334, "Diagnosis Procedure".
	All steering switches do not work.	Steering switch ground circuit malfunction. Refer to AV-334, "Diagnosis Procedure".

RELATED TO NAVIGATION

Symptoms	Check items	Probable malfunction location
Navigation system is inoperative.	Navigation malfunction.	• Malfunction in SD card. • Malfunction in AV control unit. Refer to AV-263, "On Board Diagnosis Function".
	Steering switches malfunction.	Steering switch signal circuit malfunction. Refer to AV-334, "Diagnosis Procedure".
	Voice activated control malfunction.	Microphone signal circuit malfunction. Refer to AV-332, "Diagnosis Procedure". Steering switch signal circuit malfunction. Refer to AV-334, "Diagnosis Procedure".

NORMAL OPERATING CONDITION

Description

INFOID:0000000015258742

RELATED TO NOISE

The majority of the audio concerns are the result of outside causes (bad CD, electromagnetic interference, etc.).
The following noise results from variations in field strength, such as fading noise and multi-path noise, or external noise from trains and other sources. It is not a malfunction:

- Fading noise: This noise occurs because of variations in the field strength in a narrow range due to mountains or buildings blocking the signal.
- Multi-path noise: This noise results from the waves sent directly from the broadcast station arriving at the antenna at a different time from the waves which reflect off mountains or buildings.

The vehicle itself can be a source of noise if noise prevention parts or electrical equipment is malfunctioning. Check if noise is caused and/or changed by engine speed, ignition switch turned to each position, and operation of each piece of electrical equipment, and determine the cause.

NOTE:
The source of the noise can be found easily by listening to the noise while removing the fuses of electrical components, one by one.

Type of Noise and Possible Cause

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

RELATED TO HANDS-FREE PHONE

Symptom	Cause and Counter measure
Does not recognize cellular phone connection (No connection is displayed on the display at the guide).	Some Bluetooth® enabled cellular phones may not be recognized by the in-vehicle phone module. Refer to “RELATED TO HANDS-FREE PHONE (Check Compatibility)” in AV-338, "Symptom Table".
Cannot use hands-free phone.	Customer will not be able to use a hands-free phone under the following conditions: • The vehicle is outside of the telephone service area. • The vehicle is in an area where it is difficult to receive radio waves; such as in a tunnel, in an underground parking garage, near a tall building or in a mountainous area. • The cellular phone is locked to prevent it from being dialed. **NOTE:** While a cellular phone is connected through the Bluetooth® wireless connection, the battery power of the cellular phone may discharge quicker than usual. The Bluetooth® Hands-Free Phone System cannot charge cellular phones.

Symptom	Cause and Counter measure
The other party's voice cannot be heard by hands-free phone.	When the radio wave condition is not ideal or ambient sound is too loud, it may be difficult to hear the other person's voice during a call.
Poor sound quality.	Do not place the cellular phone in an area surrounded by metal or far away from the in-vehicle phone module to prevent tone quality degradation and wireless connection disruption.

RELATED TO NAVIGATION

Basic Operation

Symptom	Cause	Remedy
No image is shown.	Display brightness adjustment is set fully to DARK side.	Adjust the display brightness.
No guide sound is heard. Audio guide volume is too low or too high.	Volume control is set to OFF, MIN or MAX.	Adjust the audio guide volume.
	Audio guidance is not available while the vehicle is driving on a dark pink route.	System is not malfunctioning.
Screen is too dark. Motion of the image is too slow.	Temperature inside the vehicle is low.	Wait until the temperature inside the vehicle reaches the proper temperature.
Small black or bright spots appear on the screen.	Symptom peculiar to a liquid crystal display (display unit).	System is not malfunction.

Vehicle Mark

Symptom	Cause	Remedy
Map screen and BIRDVIEW™ Name of the place vary with the screen.	Some thinning of the character data is done to prevent the display becoming to complex. In some cases and in some locations, the display contents may differ. The same place name, street name, etc. may not be displayed every time on account of the data processing.	System is not malfunctioning.
Vehicle mark is not positioned correctly.	Vehicle is transferred by ferry or by towing after its ignition switch is turned to OFF.	Drive the vehicle for a while in the GPS satellite signal receiving condition.
Screen will not switch to nighttime mode after the lighting switch is turned ON.	The daytime screen is selected by the "SWITCH SCREENS" when the last time the screen dimming setting is done. Switching between daytime/nighttime screen may be inhibited by the automatic illumination adjustment function.	Perform screen dimming and select the nighttime screen by "SWITCH SCREENS".
Map screen will not scroll in accordance with the vehicle travel.	Current location is not displayed.	Press "MAP" button to display the current location.
Vehicle mark will not be shown.	Current location is not displayed.	Press "MAP" button to display the current location.
Accuracy indicator (GPS satellite mark) on the map screen stays gray.	GPS satellite signal is intercepted because the vehicle is in or behind a building.	Move the vehicle out to an open space.
	GPS satellite signal cannot be received because an obstacle is placed on top of the instrument panel.	Do not place anything on top of the meter display (instrument panel).
	GPS satellites are not visible from current location.	Wait until GPS satellites are visible by moving the vehicle.

Symptom	Cause	Remedy
Vehicle location accuracy is low.	Accuracy indicator (GPS satellite mark) on the map screen stays gray.	Current location is not determined.
	Vehicle speed setting by the vehicle speed pulse has been deviated (advanced or retarded) from the actual vehicle speed because tire chain is fitted or the system has been used on another vehicle.	Drive the vehicle for a while [for approx. 30 minutes at approx. 30 km/h (19 MPH)] and the deviation will be automatically adjusted. If advancement or retard still occur, perform the distance adjustment by CONFIRMATION/ADJUSTMENT mode of diagnosis function.
	Map data has error or omission. (Vehicle mark is always deviated to the same position.)	As a rule, an updated map DVD–ROM will be released once a year.

Destination, Passing Points and Menu Items Cannot be Selected/Set

Symptom	Cause	Remedy
Destination cannot be set.	Destination to be set is on an expressway.	Set the destination on an ordinary road.
Passing point is not searched when re-searching the route.	The vehicle has already passed the passing point, or the system judged so.	To include the passing points that have been passed into the route again, set the route again.
Route information will not be displayed.	Route searching has not been done.	Set the destination and perform route searching.
	Vehicle mark is not on the recommended route.	Drive on the recommended route.
	Route guide is turned OFF.	Turn route guide ON.
	Route information is not available on the dark pink route.	System is not malfunctioning.
After the route searching, no guide sign will appear as the vehicle goes near the entrance/exit to the toll road.	Vehicle mark is not on the recommended route. (On the display, only guide signs related to the recommended route will be shown.)	Drive on the recommended route.
Automatic route searching is not possible.	Vehicle is driving on a highway (gray route), or no recommended route is available.	Drive on a road to be searched. Or re–search the route manually. In this case, however, the whole route will be searched.
Performed automatic detour search (or detour search). However, the result is the same as that of the previous search.	Performed search with every conditions considered. However, the result is the same as that of the previous search.	System is not malfunctioning.
Passing points cannot be set.	More than five passing points were set.	Passing points can be set up to five. To stop at more than five points, perform sharing in several steps.
When setting the route, the starting point cannot be selected.	The current vehicle location is always set as the starting point of a route.	System is not malfunctioning.
Some menu items cannot be selected.	The vehicle is being driven.	Stop the vehicle at a safe place and then operate the system.

Voice Guide

Symptom	Cause	Remedy
Voice guide will not operate.	Note: Voice guide is only available at intersections that satisfy certain conditions (indicated by ● on the map). Therefore, guidance may not be given even when the route on the map changes direction.	System is not malfunctioning.
	The vehicle is not on the recommended route.	Return to the recommended route or re-search the route.
	Voice guide is turned OFF.	Turn voice guide ON.
	Route guide is turned OFF.	Turn route guide ON.
Voice guide does not match the actual road pattern.	Voice guide may vary with the direction to which the vehicle is turn and the connection of the road to other roads.	Drive in conformity to the actual traffic rules.

Route Search

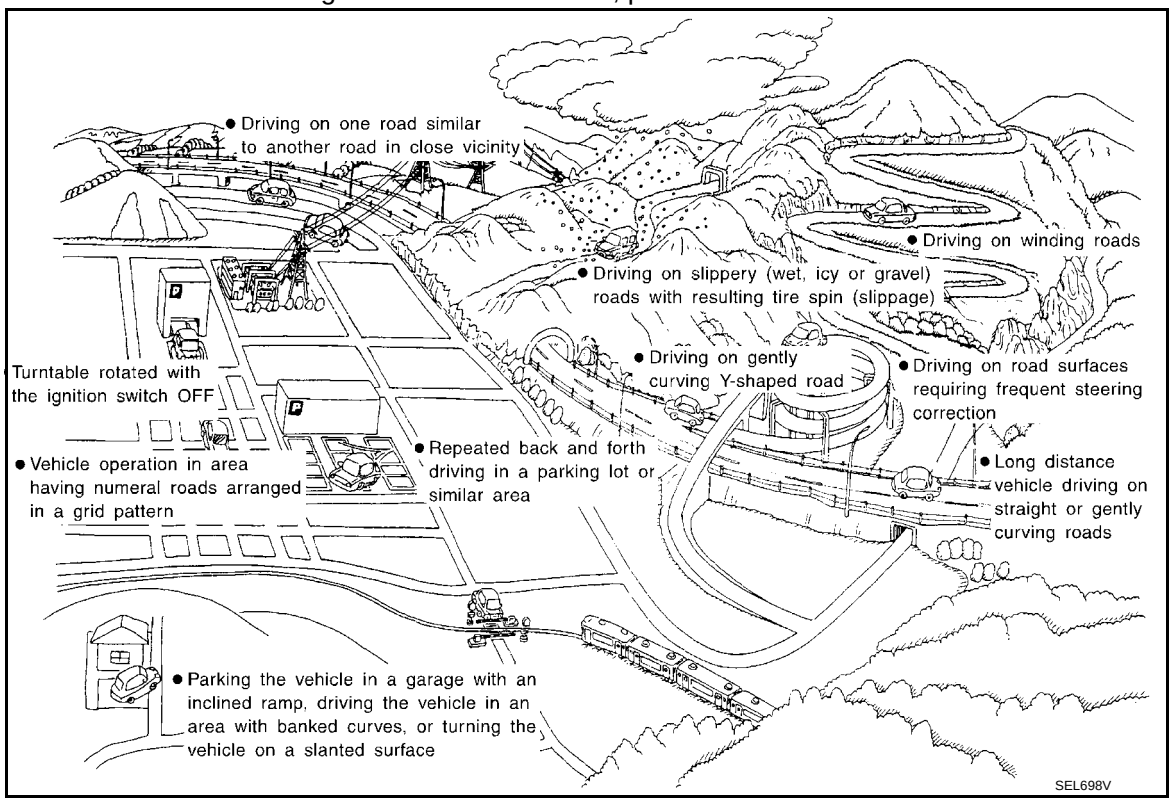
Symptom	Cause	Remedy
No route is shown.	No road to be searched is found around the destination.	Find wider road (orange road or wider) nearby and reset the destination and passing points onto it. Take care of the traveling direction when there are separate up and down roads.
	Starting point and the destination are too close.	Set the destination at more distant point.
	Conditional traffic regulation (day of the week/ time of the day) is set at the area around the current location or the destination.	Turn the time-regulating search conditions OFF. Turn “Avoid regulation time” in the search conditions OFF.
Indicated route is intermittent.	In some areas, highways (gray routes) are not used for the search(Note)Therefore, the route to the current location or the passing points may be intermittent.	System is not malfunctioning.
When the vehicle has passed the recommended route, it is deleted from the screen.	A recommended route is controlled by each section. When the vehicle has passed the passing point 1, then the map data from the starting point up to the passing point 1 will be deleted. (The data may remain undeleted in some area.)	System is not malfunctioning.
Detouring route is recommended.	In some areas, highways (gray routes) are not used for the search. (Note). Therefore, detour route may be recommended.	Set the route closer to the basic route (gray route).
	A detour route may be shown when some traffic regulation (one-way traffic, etc.) is set at the area around the starting point or the destination.	Slightly move the starting point or the destination, or set the passing point on the route of your choice.
	In the area where highways (gray routes) are used for the search, left turn has priority around the current location and the destination (passing points). For this reason, the recommended route may be detouring.	System is not malfunctioning.
Landmarks on the map do not match the actual ones.	This can be happen due to omission or error in the map data.	As a rule, an updated map DVD-ROM will be released once a year. Wait until the latest map has become available.
Recommended route is far from the starting point, passing points, and destination.	Starting point, passing points, and destination of the route guide were set far from the desired points because route searching data around these area were not stored.	Reset the destination onto the road nearby. If this road is one of the highways (gray routes), an ordinary road nearby may be displayed as the recommended route.

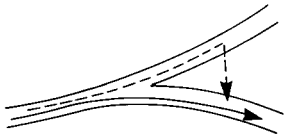
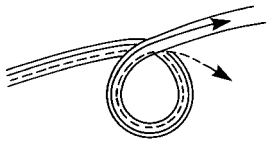
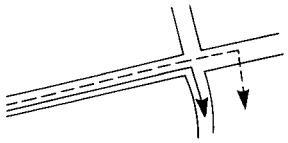
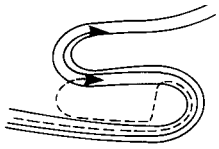
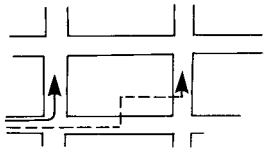
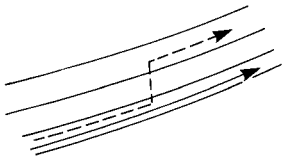
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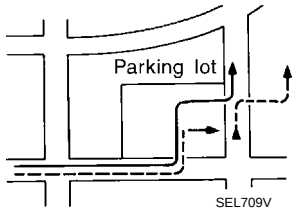
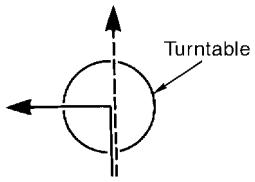
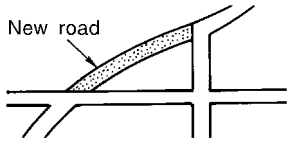
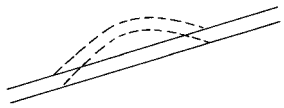
Except for the ordinance-designated cities. (Malfunctioning areas may be changed in the updated map disc.)

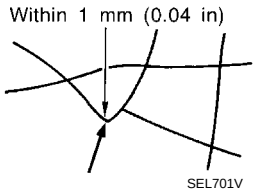
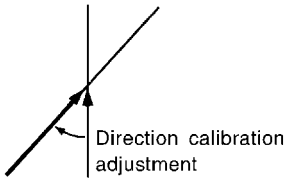
Examples of Current-Location Mark Displacement

Vehicle's travel amount is calculated by reading its travel distance and turning angle. Therefore, if the vehicle is driven in the following manner, an error will occur in the vehicle's current location display. If correct location has not been restored after driving the vehicle for a while, perform location correction.



Cause (condition) –: While driving ooo: Display		Driving condition	Remarks (correction, etc.)
Road configuration	Y–intersections  ELK0192D	At a Y intersection or similar gradual division of roads, an error in the direction of travel deduced by the sensor may result in the current-location mark appearing on the wrong road.	If after travelling about 10 km (6 miles) the correct location has not been restored, perform location correction and, if necessary, direction correction.
	Spiral roads  ELK0193D	When driving on a large, continuous spiral road (such as loop bridge), turning angle error is accumulated and the vehicle mark may deviate from the correct location.	
	Straight roads  ELK0194D	When driving on a long, straight road and slow curve without stopping, map-matching does not work effectively enough and distance errors may accumulate. As a result, the vehicle mark may deviate from the correct location when the vehicle is turned at a corner.	
	Zigzag roads  ELK0195D	When driving on a zigzag road, the map may be matched to other roads in the similar direction nearby at every turn, and the vehicle mark may deviate from the correct location.	
	Roads laid out in a grid pattern  ELK0196D	When driving where roads are laid out in a grid pattern, or where many roads are running in the similar direction nearby, the map may be matched to them by mistake and the vehicle mark may deviate from the correct location.	
	Parallel roads  ELK0197D	When two roads are running in parallel (such as highway and sideway), the map may be matched to the other road by mistake and the vehicle mark may deviate from the correct location.	

Cause (condition) –: While driving ooo: Display		Driving condition	Remarks (correction, etc.)
Place	In a parking lot  SEL709V	When driving in a parking lot, or other location where there are no roads on the map, matching may place the vehicle mark on a nearby road. When the vehicle returns to the road, the vehicle mark may have deviated from the correct location. When driving in circle or turning the steering wheel repeatedly, direction errors accumulate, and the vehicle mark may deviate from the correct location.	If after travelling about 10 km (6 miles) the correct location has not been restored, perform location correction and, if necessary, direction correction.
	Turntable  SEL710V	When the ignition switch is OFF, the navigation system cannot get the signal from the gyroscope (angular speed sensor). Therefore, the displayed direction may be wrong and the correct road may not be easily returned to after rotating the vehicle on a turntable with the ignition OFF.	
	Slippery roads	On snow, wet roads, gravel, or other roads where tires may slip easily, accumulated mileage errors may cause the vehicle mark to deviate from the correct road.	
	Slopes	When parking in sloped garages, when travelling on banked roads, or in other cases where the vehicle turns when tilted, an error in the turning angle will occur, and the vehicle mark may deviate from the road.	
Map data	Road not displayed on the map screen  SEL699V	When driving on new roads or other roads not displayed on the map screen, map matching does not function correctly and matches the location to a nearby road. When the vehicle returns to a road which is on the map, the vehicle mark may deviate from the correct road.	
	Different road pattern (Changed due to repair)  ELK0201D	If the road pattern stored in the map data and the actual road pattern are different, map matching does not function correctly and matches the location to a nearby road. The vehicle mark may deviate from the correct road.	
Vehicle	Use of tire chains	When tire chains are used, the mileage is not correctly detected, and the vehicle mark may deviate from the correct road.	Drive the vehicle for a while. If the distance still deviates, adjust it by using the distance adjustment function. (If the tire chain is removed, recover the original value.)

Cause (condition) –: While driving ooo: Display		Driving condition	Remarks (correction, etc.)
Precautions for driving	Just after the engine is started	If the vehicle is driven just after the engine is started when the gyroscope (angular speed sensor) correction is not completed, the vehicle can lose its direction and may have deviated from the correct location.	Wait for a short while before driving after starting the engine.
	Continuous driving without stopping	When driving long distances without stopping, direction errors may accumulate, and the current-location mark may deviate from the correct road.	Stop and adjust the orientation.
	Abusive driving	Spinning the wheels or engaging in other kinds of abusive driving may result in the system being unable perform correct detection, and may cause the vehicle mark to deviate from the correct road.	If after travelling about 10 km (6 miles) the correct location has not been restored, perform location correction and, if necessary, direction correction.
How to correct location	Position correction accuracy  SEL701V	If the accuracy of location settings is poor, accuracy may be reduced when the correct road cannot be found, particularly in places where there are many roads.	Enter in the road displayed on the screen with an accuracy of approx. 1mm. Caution: Whenever possible, use detailed map for the correction.
	Direction when location is corrected  SEL702V	If the accuracy of location settings during correction is poor, accuracy may be reduced afterwards.	Perform direction correction.

Location Correction by Map-Matching is Slow

- The map-matching function needs to refer to the data of the surrounding area. It is necessary to drive some distance for the function to work.
- Because map-matching operates on this principle, when there are many roads running in similar directions in the surrounding area, no matching determination may be made. The location may not be corrected until some special feature is found.

Name of Road is Not Displayed

The current road name may not be displayed if there are no road names displayed on the map screen.

Contents of Display Differ for Birdview™ and the (Flat) Map Screen

Difference of the BIRDVIEW™ screen from the flat map screen are as follows.

- The current place name displays names which are primarily in the direction of vehicle travel.
- The amount of time before the vehicle travel or turn angle is updated on the screen is longer than for the (flat) map display.
- The conditions for display of place names, roads, and other data are different for nearby areas and for more distant areas.
- Some thinning of the character data is done to prevent the display becoming too complex. In some cases and in some locations, the display contents may differ.
- The same place name, street name, etc. may be displayed multiple times.

Vehicle Mark Shows a Position Which is Completely Wrong

In the following cases, the vehicle mark may appear on completely different position in the map depending on the GPS satellite signal receiving conditions. In this case, perform location correction and direction correction:

- When location correction has not been done
  - If the receiving conditions of the GPS satellite signal is poor, if the vehicle mark becomes out of place, it may move to a completely different location and not come back if location correction is not done. The position will be corrected if the GPS signal can be received.
- When the vehicle has traveled by ferry, or when the vehicle has been being towed

- Because calculation of the current location cannot be done when traveling with the ignition off, for example when traveling by ferry or when being towed, the location before travel is displayed. If the precise location can be detected with GPS, the location will be corrected.

Vehicle Mark Jumps

In the following cases, the vehicle mark may appear to jump as a result of automatic correction of the current location:

• When map matching has been done
- If the current location and the vehicle mark are different when map matching is done, the vehicle mark may seem to jump. At this time, the location may be “corrected” to the wrong road or to a location which is not on a road.

• When GPS location correction has been done
- If the current location and the vehicle mark are different when the location is corrected using GPS measurements, the vehicle mark may seem to jump. At this time, the location may be “corrected” to a location which is not on a road.

Vehicle Mark is in a River or Sea

The navigation system moves the vehicle mark with no distinction between land and rivers or sea. If the vehicle mark is somehow out of place, it may appear that the vehicle is driving in a river or the sea.

Vehicle Mark Automatically Rotates

The system wrongly memorizes the rotating status as stopping when the ignition switch is turned ON with the turntable rotating. That causes the vehicle mark to rotate when the vehicle is stopped.

When Driving on Same Road, Sometimes Vehicle Mark is in Right Place and Sometimes it is in Wrong Place

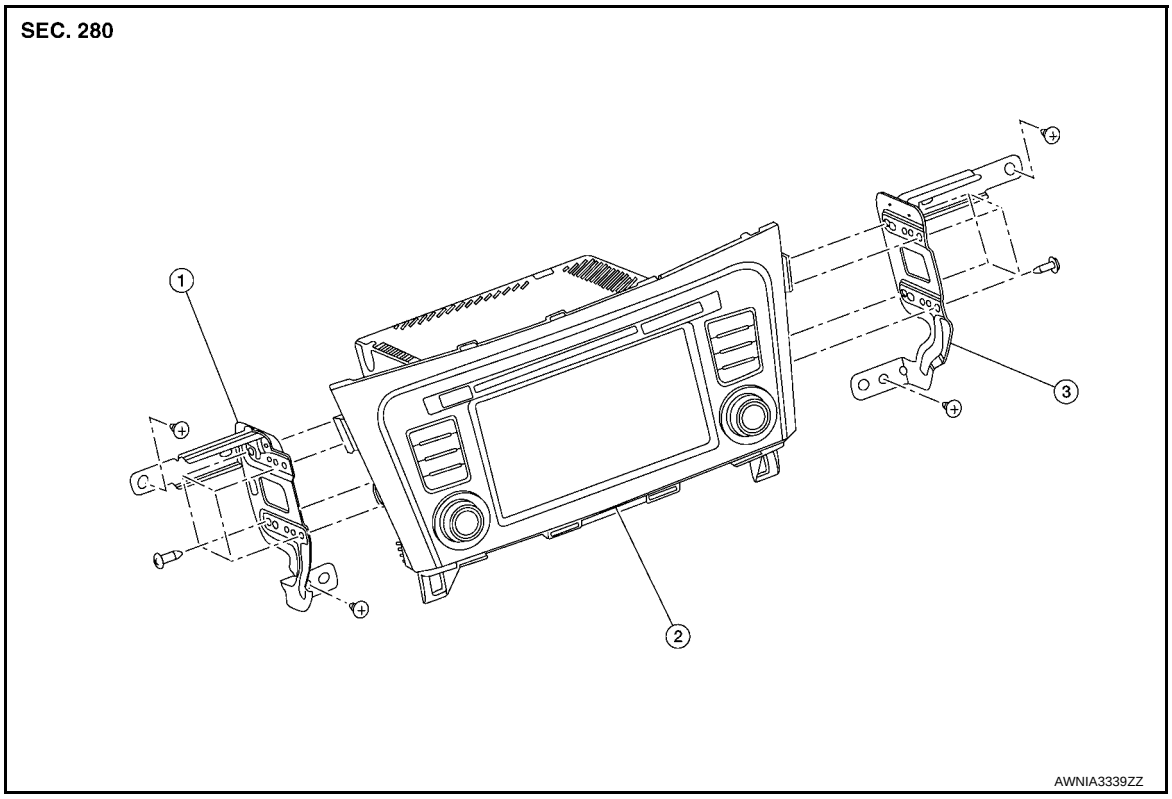
The conditions of the GPS antenna (GPS data) and gyroscope (angular speed sensor) change gradually. Depending on the road traveled and the operation of the steering wheel, the location detection results will be different. Therefore, even on a road on which the location has never been wrong, conditions may cause the vehicle mark to deviate.

REMOVAL AND INSTALLATION

AV CONTROL UNIT

Exploded View

INFOID:0000000014844520



1. AV control unit bracket (LH)
2. AV control unit
3. AV control unit bracket (RH)

Removal and Installation

INFOID:0000000014844521

REMOVAL

CAUTION:

- **Before disconnecting the AV control unit and battery terminals, turn the ignition switch OFF and wait at least 30 seconds.**
- **Before replacing AV control unit, perform "READ CONFIGURATION" to save current vehicle specification. Refer to AV-290, "CONFIGURATION (AV CONTROL UNIT) : Description".**

NOTE:

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

1. Disconnect the battery. Refer to PG-128, "Battery Disconnect".
2. Remove cluster lid C. Refer to IP-21, "Removal and Installation".
3. Remove instrument finisher B. Refer to IP-16, "INSTRUMENT FINISHER B : Removal and Installation".
4. Remove instrument finisher E. Refer to IP-16, "INSTRUMENT FINISHER E : Removal and Installation".
5. Remove the AV control unit screws, then pull out the AV control unit.
6. Disconnect the harness connectors from the AV control unit and remove.
7. Remove the AV control unit bracket (LH/RH) screws and the AV control unit brackets (LH/RH) (if necessary).

INSTALLATION

Installation is in the reverse order of removal.

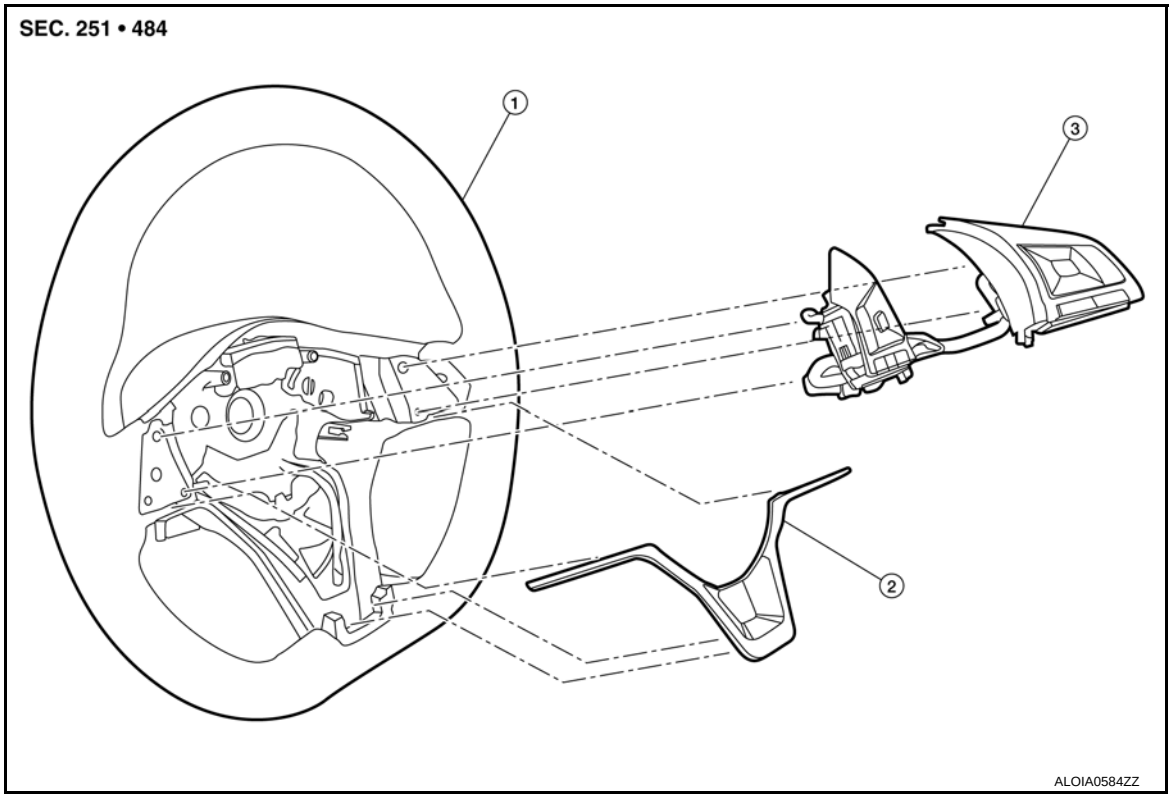
CAUTION:

- **When replacing AV control unit, perform "WRITE CONFIGURATION". Refer to AV-291, "REGISTRATION (AV CONTROL UNIT) : Description".**
- **When replacing AV control unit, the AV control unit must be registered. Refer to AV-290, "CONFIGURATION (AV CONTROL UNIT) : Description".**

STEERING SWITCHES

Exploded View

INFOID:0000000014844522



1. Steering wheel
2. Steering wheel finisher
3. Steering switches

Removal and Installation

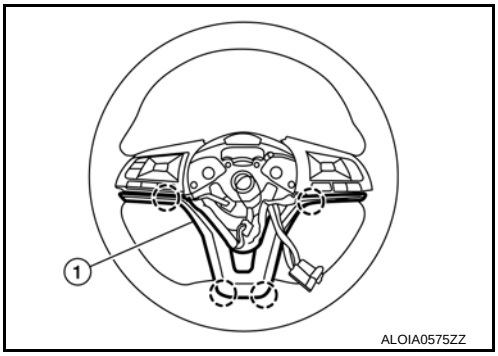
INFOID:0000000014844523

REMOVAL

NOTE:
The steering switches are serviced as an assembly.

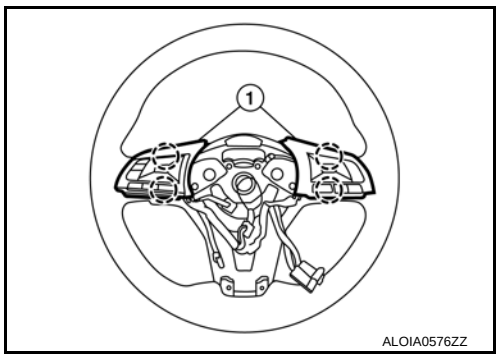
1. Remove driver airbag. Refer to SR-12, "Removal and Installation".
2. Release pawls on the steering wheel front finisher (1) using suitable tool and remove from the steering wheel.

: Pawl



3. Release pawls on the steering switches (1) using suitable tool and remove from the steering wheel.

: Pawl



4. Disconnect the harness connector from the steering switches and remove steering switches.

INSTALLATION

Installation is in the reverse order of removal.

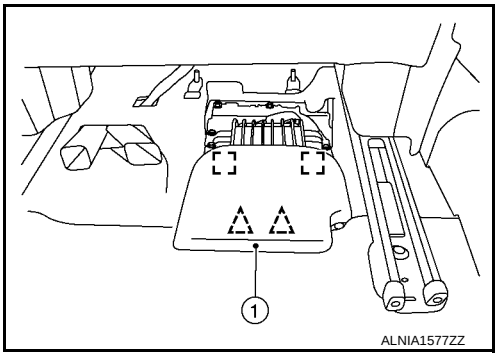
BOSE SPEAKER AMP

Removal and Installation

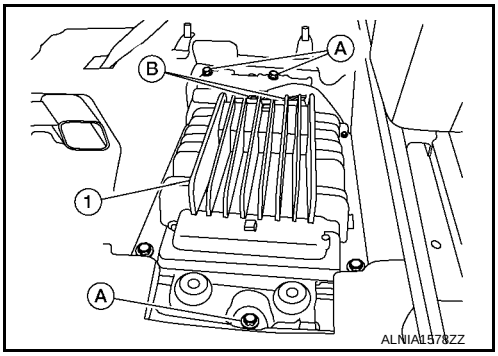
INFOID:0000000014844524

REMOVAL

1. Slide the passenger seat to the full forward position.
2. Release the clips using a suitable tool and remove Bose speaker amp cover (1).
   : Metal clip
   : Clip



3. Remove Bose speaker amp bolts (A).
4. Disconnect the harness connectors (B) from the Bose speaker amp (1).



5. Remove the Bose speaker amp and bracket as an assembly.
6. Remove the bolts and the Bose speaker amp from the Bose speaker amp bracket (if necessary).

INSTALLATION

Installation is in the reverse order of removal.

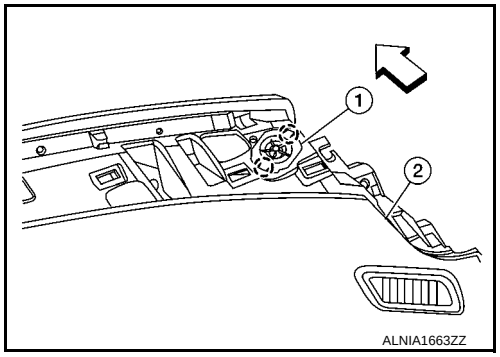
FRONT TWEETER

Removal and Installation

INFOID:0000000014844525

REMOVAL

1. Remove defroster grille. Refer to VTL-13, "DEFROSTER GRILLE : Removal and Installation".
2. Release pawls and pull out the front tweeter (1) from the instrument panel assembly (2).
   ◌ : Pawl
   ⇦ : Front
3. Disconnect the harness connector from the front tweeter and remove.



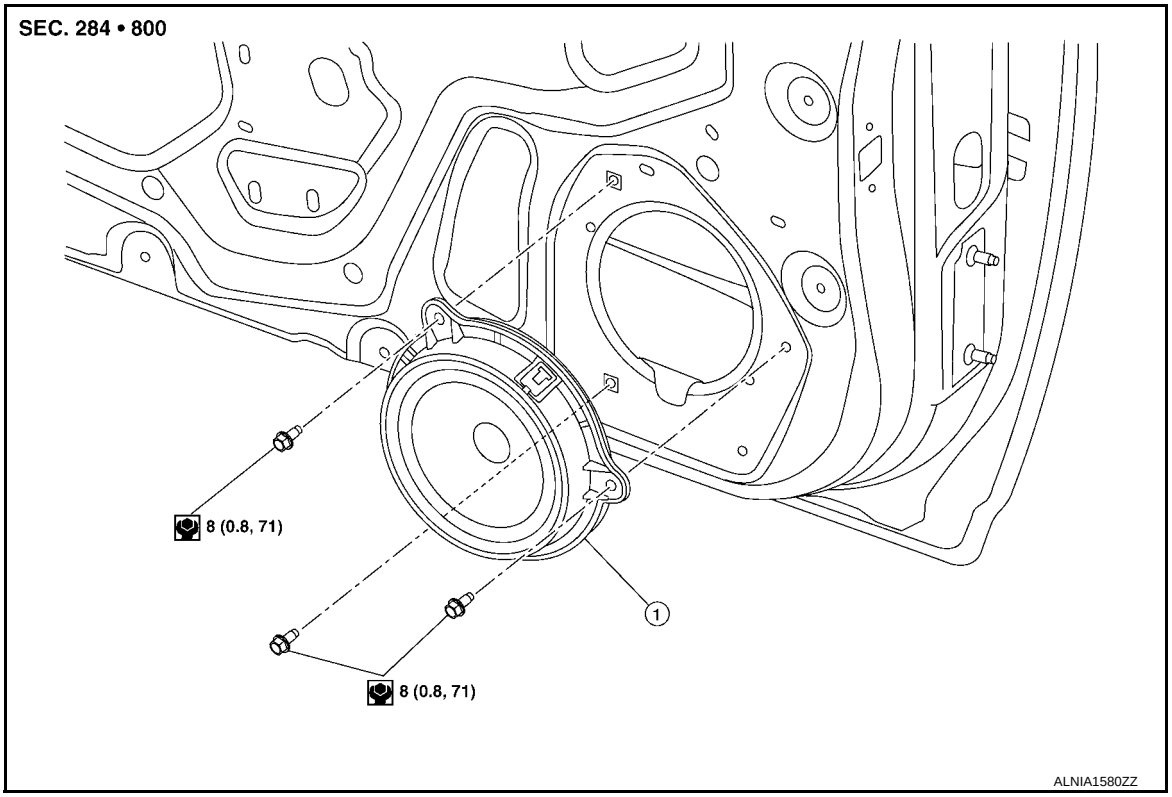
INSTALLATION

Installation is in the reverse order of removal.

FRONT DOOR SPEAKER

Exploded View

INFOID:0000000014844526



1. Front door speaker

Removal and Installation

INFOID:0000000014844527

REMOVAL

1. Remove front door finisher. Refer to INT-15, "Removal and Installation".
2. Remove front door speaker bolts, then pull out front door speaker.
3. Disconnect the harness connector from front door speaker and remove.

INSTALLATION

Installation is in the reverse order of removal.

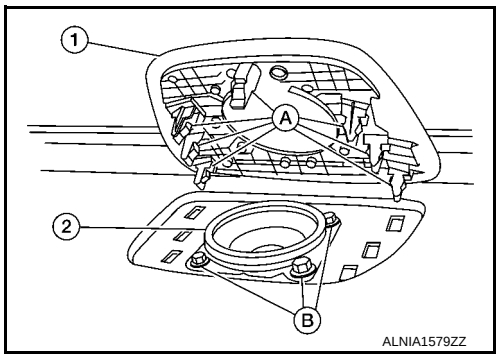
CENTER SPEAKER

Removal and Installation

INFOID:0000000014844528

REMOVAL

1. Release the metal clips (A) using a suitable tool and remove center speaker grille (1).
2. Remove the center speaker bolts (B).
3. Pull out the center speaker (2).



4. Disconnect the harness connector from the center speaker and remove.

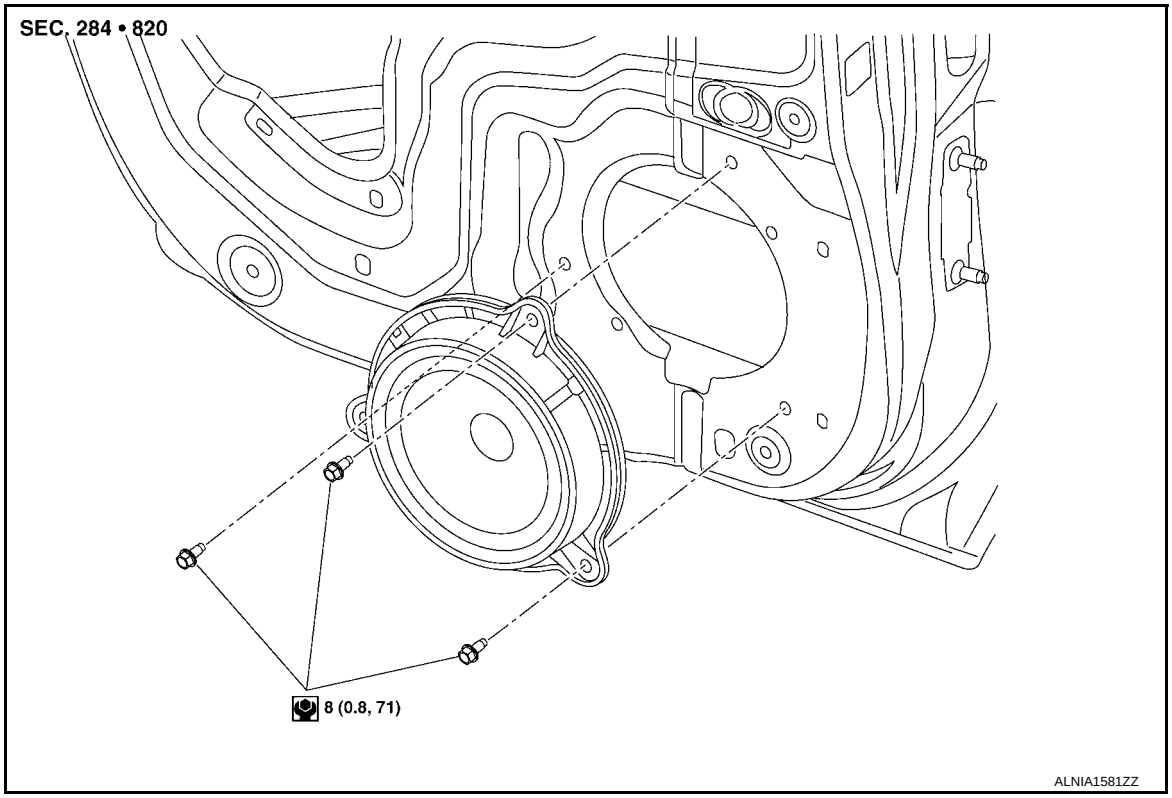
INSTALLATION

Installation is in the reverse order of removal.

REAR DOOR SPEAKER

Exploded View

INFOID:0000000014844529



1. Rear door speaker

Removal and Installation

INFOID:0000000014844530

REMOVAL

1. Remove rear door finisher. Refer to INT-18, "Removal and Installation".
2. Remove rear door speaker bolts, then pull out rear door speaker.
3. Disconnect the harness connector from the rear door speaker and remove.

INSTALLATION

Installation is in the reverse order of removal.

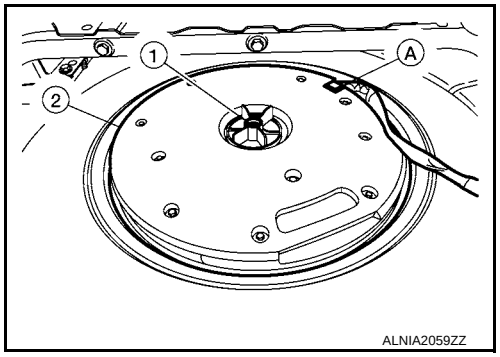
SUBWOOFER

Removal and Installation

INFOID:0000000014844531

REMOVAL

1. Remove the rear luggage floor finisher. Refer to INT-32, "Exploded View".
2. Remove the spare tire clamp (1) by rotating counterclockwise.
3. Disconnect the harness connector (A) from the subwoofer (2) and remove.
   ⇦: Front



INSTALLATION

Installation is in the reverse order of removal.

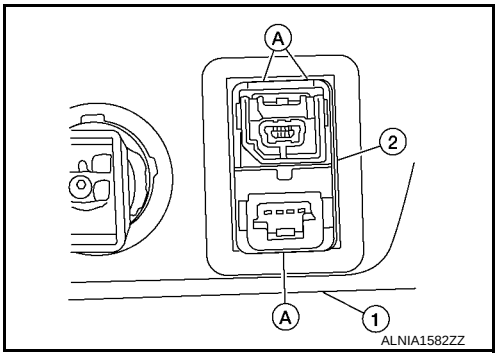
USB INTERFACE AND AUX IN JACK

Removal and Installation

INFOID:0000000014844532

REMOVAL

1. Remove cluster lid C. Refer to IP-21, "Removal and Installation".
2. Release the pawls (A) on the back of USB interface and AUX in jack (2), then remove from the front of cluster lid C (1).



INSTALLATION

Installation is in the reverse order of removal.

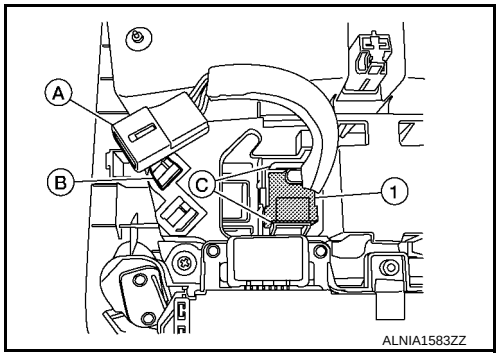
MICROPHONE

Removal and Installation

INFOID:0000000014844533

REMOVAL

1. Remove the map lamp assembly. Refer to INL-52, "Removal and Installation".
2. Release harness connector (A) by sliding rearward to remove from the pawl (B).
3. Release pawls (C) and remove the microphone (1) from the front room/map lamp assembly.



INSTALLATION

Installation is in the reverse order of removal.

GPS ANTENNA

Removal and Installation

INFOID:0000000014844534

REMOVAL

1. Remove instrument panel. Refer to IP-14, "INSTRUMENT PANEL ASSEMBLY : Removal and Installation".
2. Remove screw and the GPS antenna.

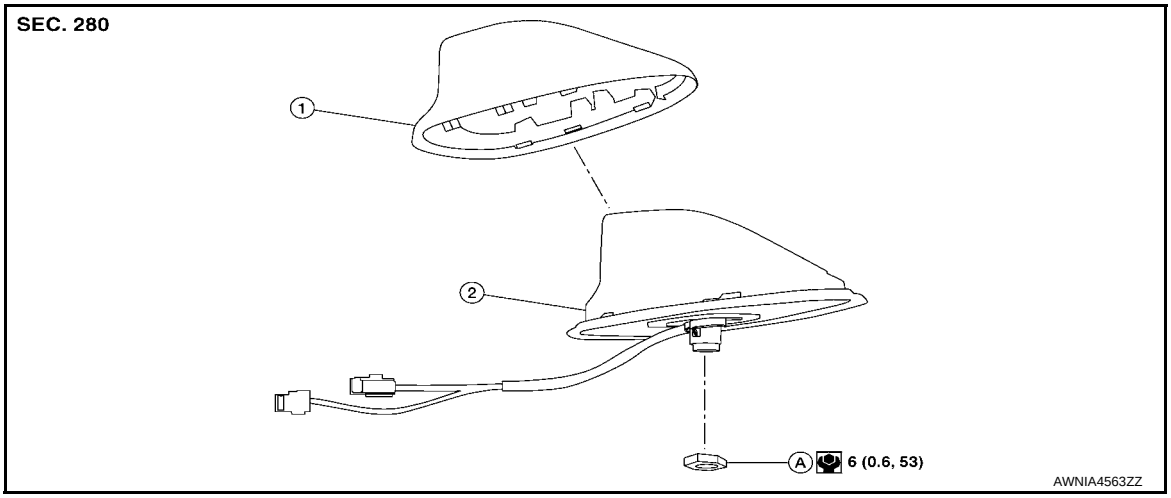
INSTALLATION

Installation is in the reverse order of removal.

ANTENNA BASE

Exploded View

INFOID:0000000014894947



1. Outer cover
2. Antenna base
A. Antenna nut

Removal and Installation

INFOID:0000000014894948

REMOVAL

1. Using a suitable tool and remove the outer cover.
2. Remove the luggage side upper finisher (RH). Refer to INT-33, "LUGGAGE SIDE UPPER FINISHER : Removal and Installation".
3. Partially lower headlining (rear). Refer to INT-29, "Removal and Installation".
4. Disconnect harness connectors from antenna feeder.
5. Remove nut from antenna base and remove.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

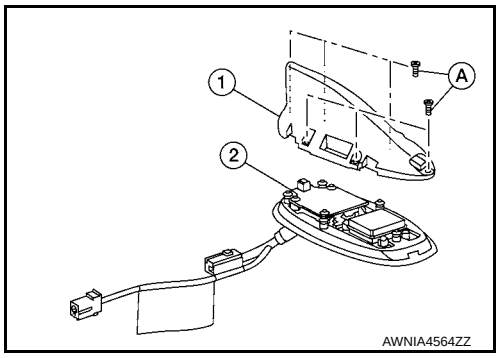
If the antenna base nut is not properly tightened, lower sensitivity of the antenna may be experienced.
If the nut is over tightened, this will deform the roof panel.

Disassembly and Assembly

INFOID:0000000014894949

DISASSEMBLY

Remove the inner cover screws (A), then remove the inner cover (1) from antenna base (2).



ASSEMBLY

Assembly is in the reverse order of disassembly.

PRECAUTION

PRECAUTIONS

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

INFOID:0000000014893879

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

WARNING:

- **To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, it is recommended that all maintenance and repair be performed by an authorized NISSAN/INFINITI dealer.**
- **Improper repair, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SR section.**
- **Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.**

PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

WARNING:

- **When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the Ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.**
- **When using air or electric power tools or hammers, always switch the Ignition OFF, disconnect the battery or batteries, and wait at least three minutes before performing any service.**

Cautions in Removing Battery Terminal, Display Control Unit, and AV Control Unit

INFOID:0000000014844540

CAUTION:

Remove battery terminal, display control unit, and AV control unit after a lapse of 30 seconds or more after turning the ignition switch OFF.

NOTE:

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

Precaution for Trouble Diagnosis

INFOID:0000000014844541

AV COMMUNICATION SYSTEM

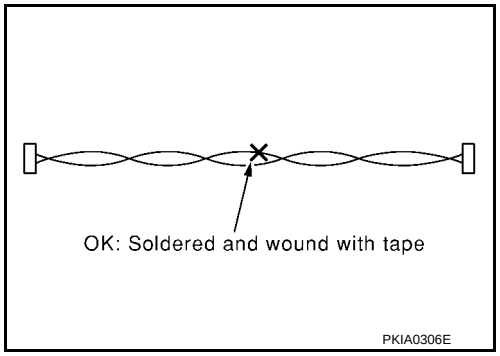
- Do not apply voltage of 7.0 V or higher to the measurement terminals.
- Use the tester with its open terminal voltage being 7.0 V or less.
- Be sure to turn ignition switch OFF and disconnect the battery cable from the negative terminal before checking the circuit.

Precaution for Harness Repair

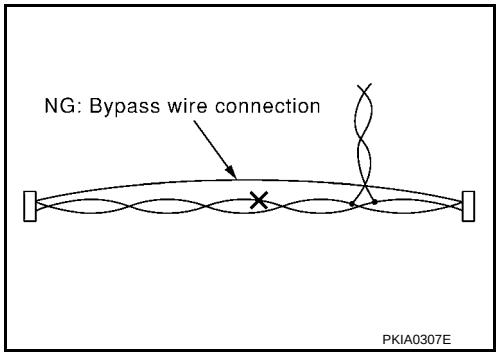
INFOID:0000000014844542

AV COMMUNICATION SYSTEM

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



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



Precaution for Work

INFOID:0000000014844543

- When removing or disassembling each component, be careful not to damage or deform it. If a component may be subject to interference, be sure to protect it with a shop cloth.
- When removing (disengaging) components with a screwdriver or similar tool, be sure to wrap the component with a shop cloth or vinyl tape to protect it.
- Protect the removed parts with a shop cloth and prevent them from being dropped.
- Replace a deformed or damaged clip.
- If a part is specified as a non-reusable part, always replace it with a new one.
- Be sure to tighten bolts and nuts securely to the specified torque.
- After installation is complete, be sure to check that each part works properly.
- Follow the steps below to clean components:

- Water soluble dirt:
- Dip a soft cloth into lukewarm water, wring the water out of the cloth and wipe the dirty area.
- Then rub with a soft, dry cloth.

- Oily dirt:
- Dip a soft cloth into lukewarm water with mild detergent (concentration: within 2 to 3%) and wipe the dirty area.
- Then dip a cloth into fresh water, wring the water out of the cloth and wipe the detergent off.
- Then rub with a soft, dry cloth.

- Do not use organic solvent such as thinner, benzene, alcohol or gasoline.
- For genuine leather seats, use a genuine leather seat cleaner.

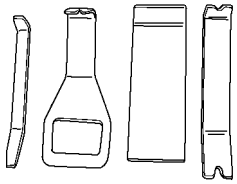
PREPARATION

PREPARATION

Special Service Tools

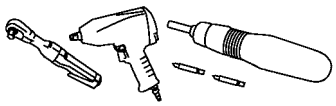
INFOID:0000000014844544

The actual shape of the tools may differ from those illustrated here.

Tool number (TechMate No.) Tool name	Description
— (J-46534) Trim Tool Set  AWJIA0483ZZ	Removing trim components

Commercial Service Tools

INFOID:0000000014844545

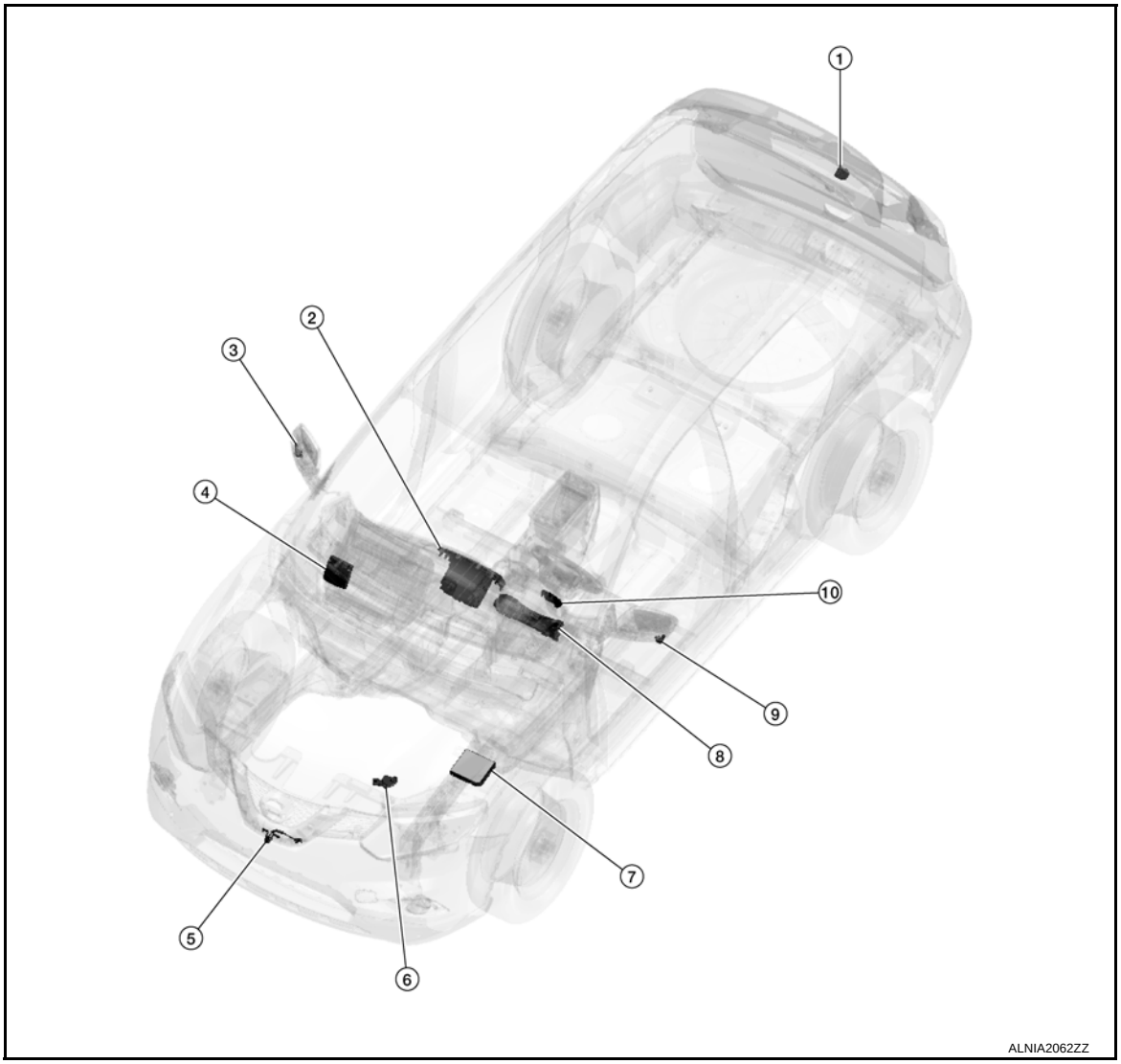
Tool name	Description
Power tool  PIIB1407E	Loosening nuts, screws and bolts

SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

INFOID:0000000015258837

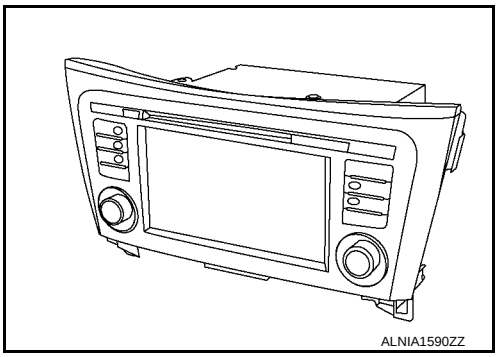


No.	Component	Function
1.	Rear view camera	Refer to AV-370, "Rear View Camera".
2.	AV control unit	Refer to AV-370, "AV Control Unit".
3.	Door mirror RH	Refer to AV-370, "Side Cameras".
4.	Around view monitor control unit	Refer to AV-370, "Around View Monitor Control Unit".
5.	Front camera	Refer to AV-371, "Front Camera".
6.	Transmission range switch	Refer to TM-17, "CVT CONTROL SYSTEM : Transmission Range Switch".
7.	IPDM E/R	Refer to PCS-6, "Component Parts Location".
8.	Combination meter	Refer to AV-256, "Combination Meter".
9.	Door mirror LH	Refer to AV-370, "Side Cameras".
10.	Steering angle sensor	Refer to AV-371, "Steering Angle Sensor".

AV Control Unit

INFOID:0000000015258838

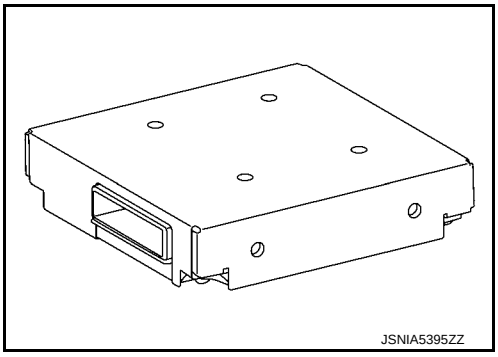
- A 7-inch WVGA display, an AM/FM electronic tuner radio, CD drive and navigation unit are integrated into the AV control unit.
- The 7-inch display is a high resolution monitor that includes touch panel functions.
- Around view monitor system views are displayed on the 7-inch display.



Around View Monitor Control Unit

INFOID:0000000015258839

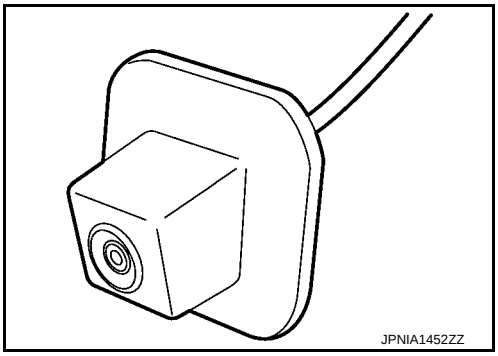
- The around view monitor control unit is installed behind the glove box.
- Vehicle width guide lines, predicted course line, vehicle front guiding line and vehicle side line, and vehicle icon are displayed and combined with camera images.



Rear View Camera

INFOID:0000000015258840

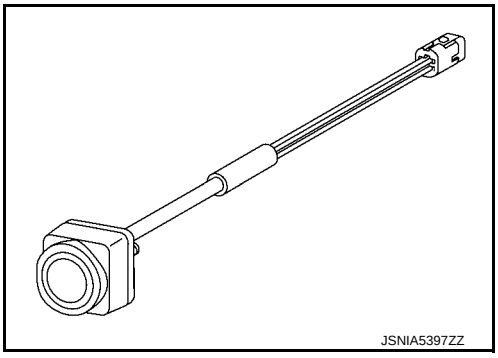
- The rear view camera is installed in the back door finisher.
- Power is supplied from the around view monitor control unit.



Side Cameras

INFOID:0000000015258841

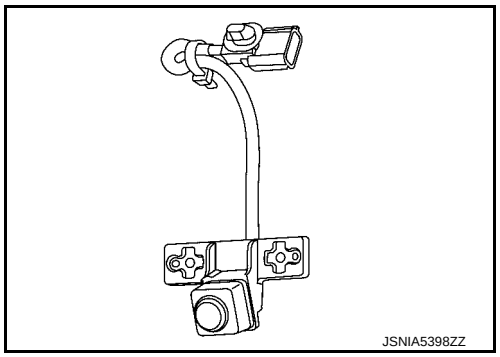
- The side cameras are installed in the door mirrors.
- Power is supplied from the around view monitor control unit.



Front Camera

INFOID:0000000015258842

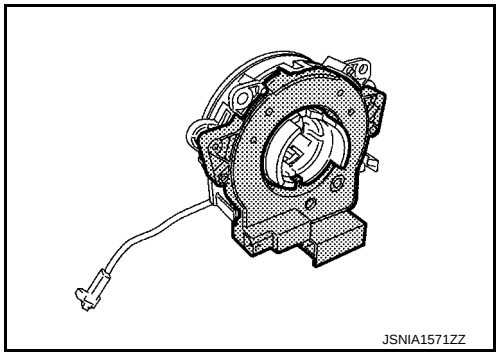
- The front camera is installed in the front grille.
- Power is supplied from the around view monitor control unit.



Steering Angle Sensor

INFOID:0000000015258843

- Steering sensor is installed to the spiral cable.
- Steering angle sends the steering signal necessary for predictive course line via CAN communication.

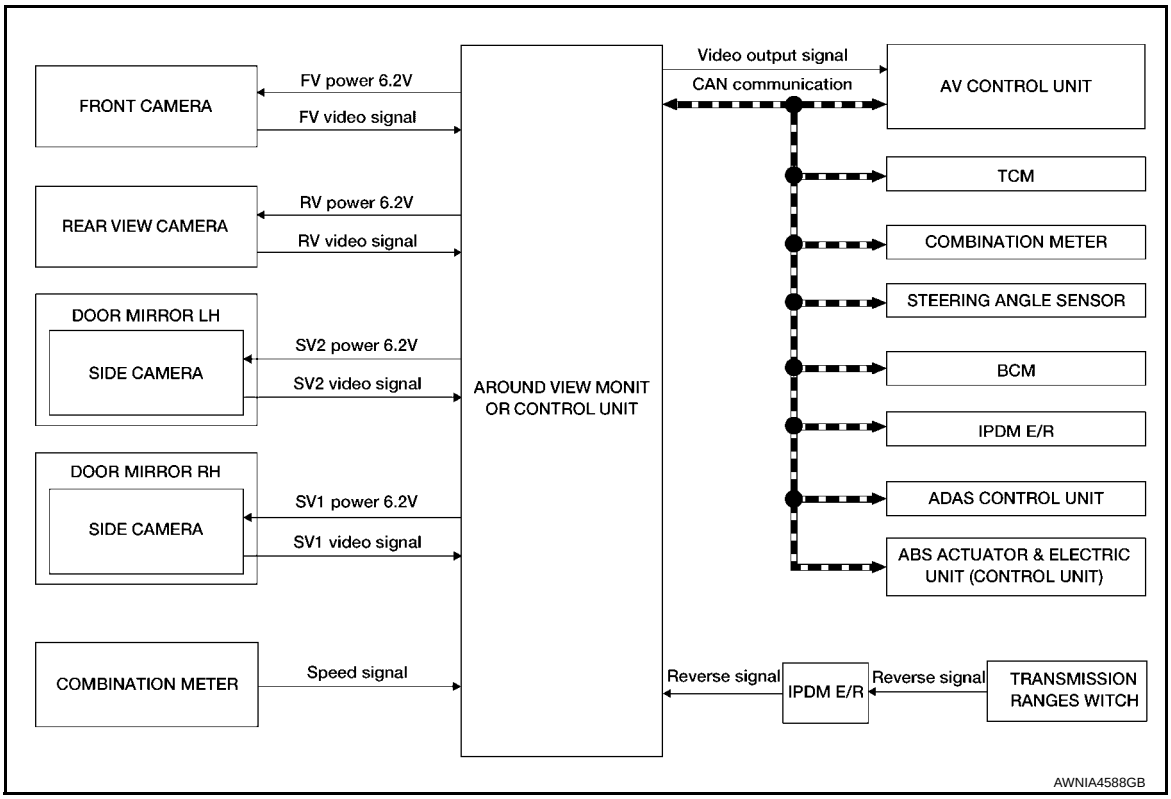


SYSTEM

System Description

INFOID:0000000015258844

SYSTEM DIAGRAM

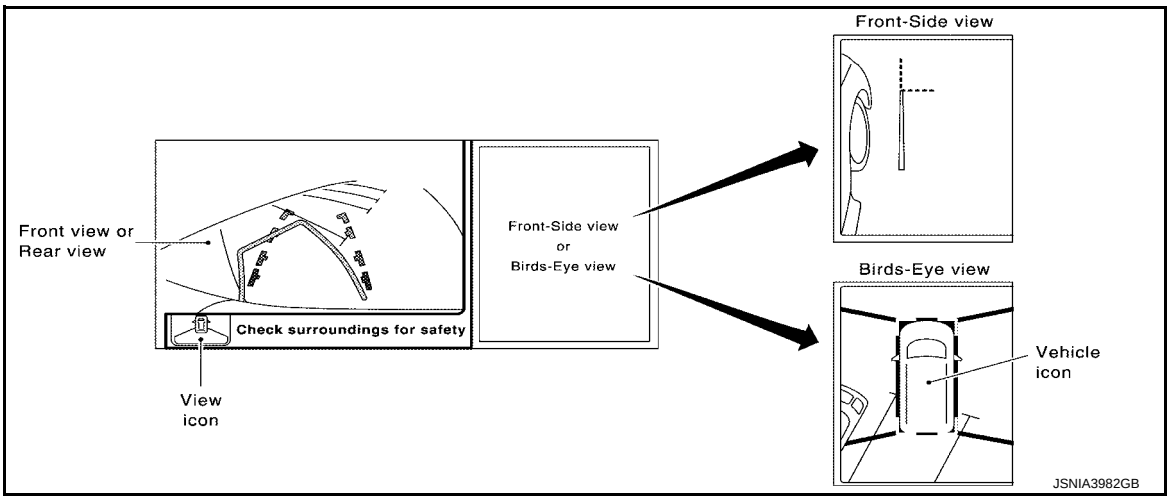


DESCRIPTION

- This system is equipped with wide-angle cameras on the front, rear and right and left door mirrors.
- Images from front view, rear view, front-side view (RH side), and birds-eye view are displayed to monitor the vehicle surroundings.
- Around view monitor control unit expands the image received from each camera to create each view.
- In front view and rear view, the vehicle width, distance lines and predictive course lines are displayed.
- In front-side view, the vehicle distance guiding line and vehicle width guiding line are displayed.
- Birds-eye view converts the images from the cameras into an overhead view and displays the status of the vehicle on the display. The vehicle icon that is displayed in the birds-eye view is depicted by the around view monitor control unit.
- Moving Object Detection (MOD) is adopted and detects moving objects according to camera image and notifies the detection result to the driver.

AROUND VIEW MONITOR DISPLAY

The around view monitor combines and displays travel direction view (front or rear), front-side view and birds-eye view.

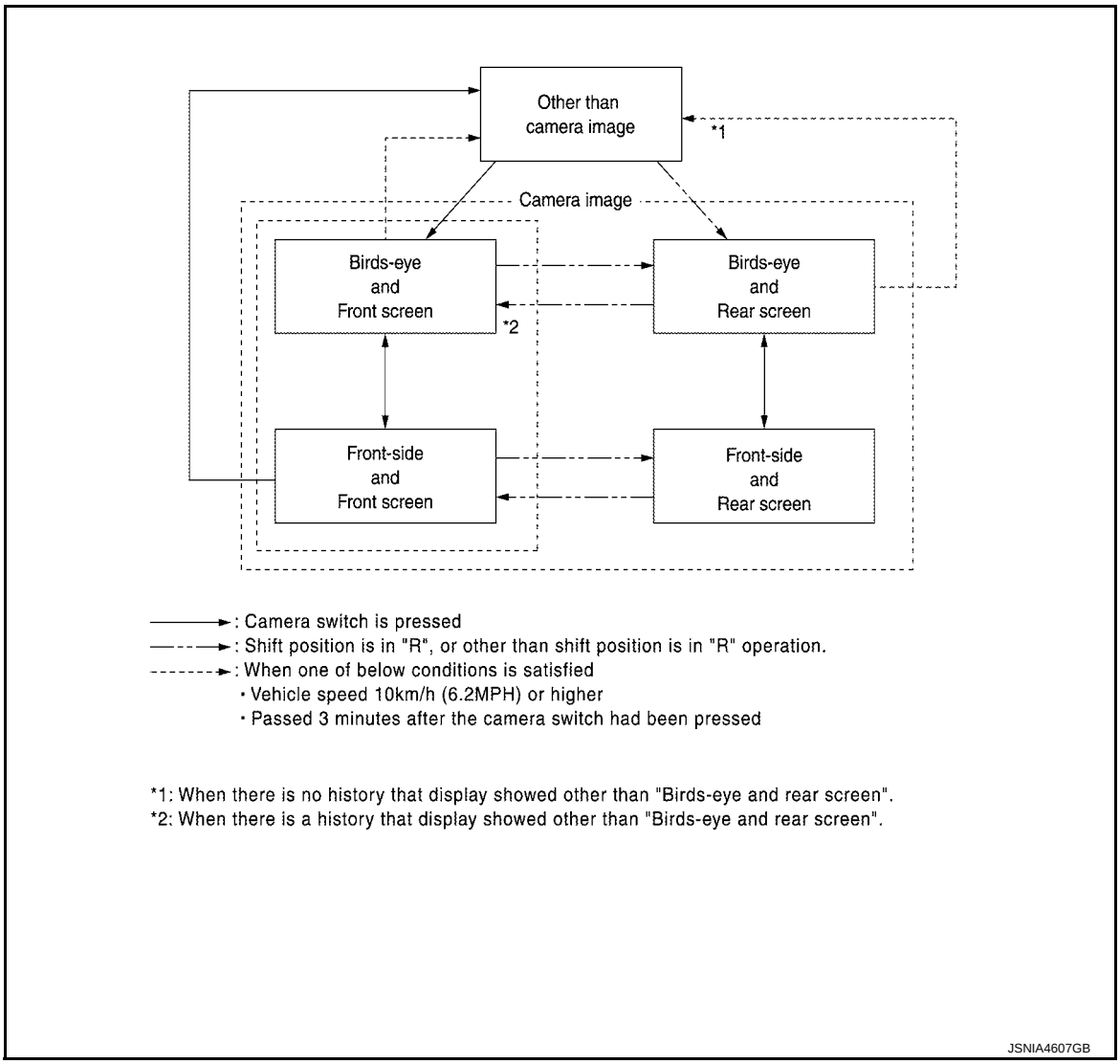


OPERATION DESCRIPTION

- The around view monitor operates by pressing the CAMERA switch on the AV control unit or by shifting to the R (reverse) position.
- When the shift lever is in any position other than R (reverse) and the CAMERA switch is pressed, the screen displays front travel direction view and birds-eye view. Pressing the CAMERA switch again changes birds-eye view to front-side view
- When the shift lever is placed in R (reverse), the screen displays rear travel direction view and birds-eye view. Pressing the CAMERA switch changes birds-eye view to front-side view
- In birds-eye view, the blind spot area is displayed in black to show the border of the camera images. In addition, red fixed lines are displayed in the 4 corners of the vehicle icon. After pressing the CAMERA switch for the first time or placing the shift lever switch in R (reverse) for the first time, the blind spot area is highlighted in yellow for 3 seconds and the red fixed lines blink five times.
- With the shift lever in any position other than R (reverse), the around view monitor screen display is cancelled 3 minutes after pressing the CAMERA switch. The screen returns to the AV control unit display.
- With the shift lever in R (reverse) position, the around view monitor screen display remains on constantly. To return to the AV control unit display, place the shift lever in any position other than R (reverse).
- If camera image calibration is incomplete, the applicable camera position is indicated as an error on the birds-eye view display.

  NOTE:
  Calibration is necessary when replacing each camera or when replacing around view monitor control unit.

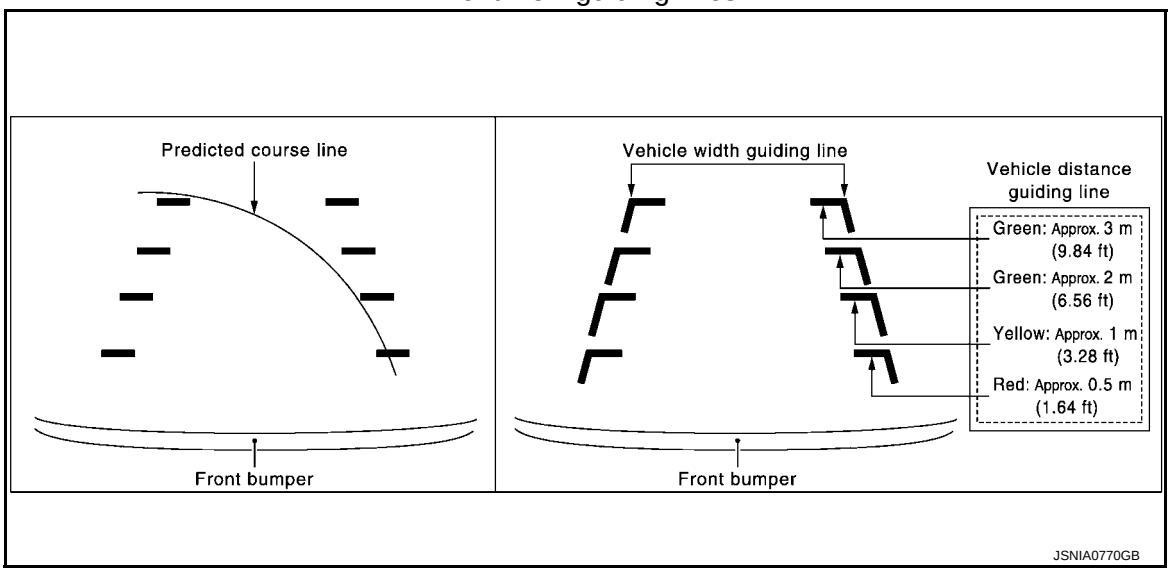
Around view monitor screen transition



Front View

- The front view image improves the visibility of obstacles in front of the vehicle and assists driving by displaying images from birds-eye view and front-side view.
- The front view image displays the vehicle width guiding line and vehicle distance guiding line, in addition to the predictive course line according to the steering angle.
- If the steering angle is within approximately 90 degrees, the predictive course lines on the left/right side are displayed. If the steering angle exceeds approximately 90 degrees, only the predictive course line on the outside is displayed (opposite side of steering direction).
- The around view monitor control unit receives the steering angle signal from steering angle sensor via CAN communication, and controls the direction and distance of the predictive course line.
- ON/OFF setting of predictive course line can be performed using CONSULT.

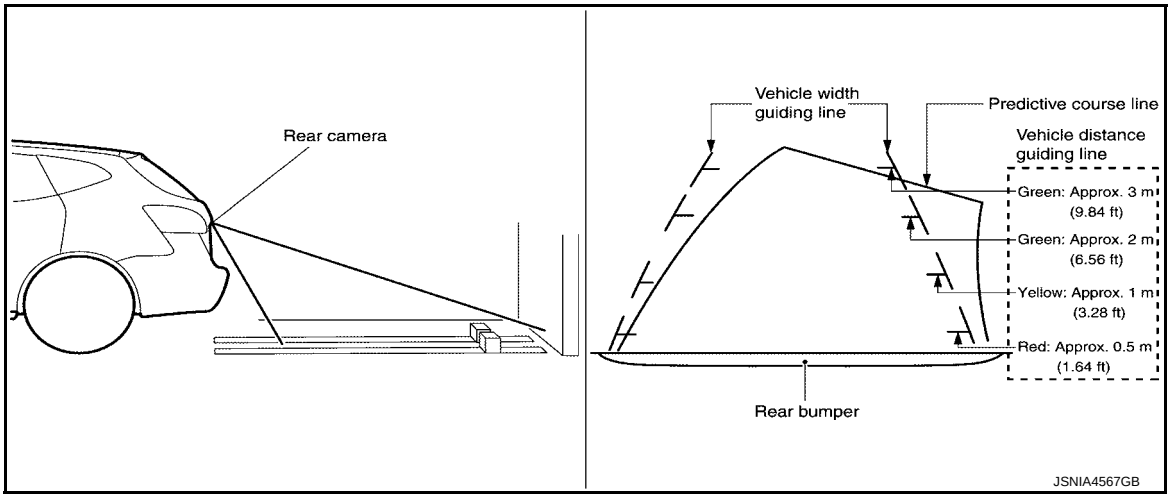
Front view guiding lines



Rear View

- The rear view image improves the visibility of obstacles in the rear of the vehicle and assists backing and parking by displaying images from birds-eye view and rear view.
- The rear view image displays the vehicle width guiding line and vehicle distance guiding line, in addition to the predictive course line according to the steering angle.
  NOTE:
  The predictive course line is not displayed at the steering neutral position.
- The around view monitor control unit receives the steering angle signal from steering angle sensor via CAN communication, and controls the direction and distance of the predictive course line.
- ON/OFF setting of predictive course line can be performed using CONSULT.

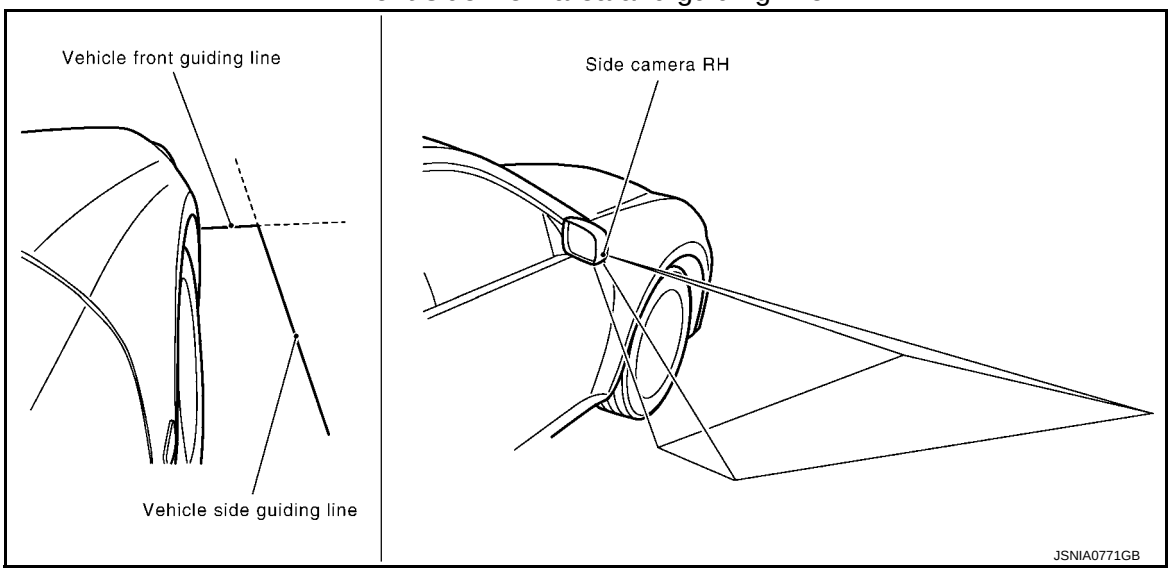
Rear view guiding lines



Front-side View

- The front-side view image improves the visibility of obstacles in the front RH side of the vehicle and assists backing and parking.
- The front-side view image displays the vehicle distance guiding line and vehicle width guiding line.

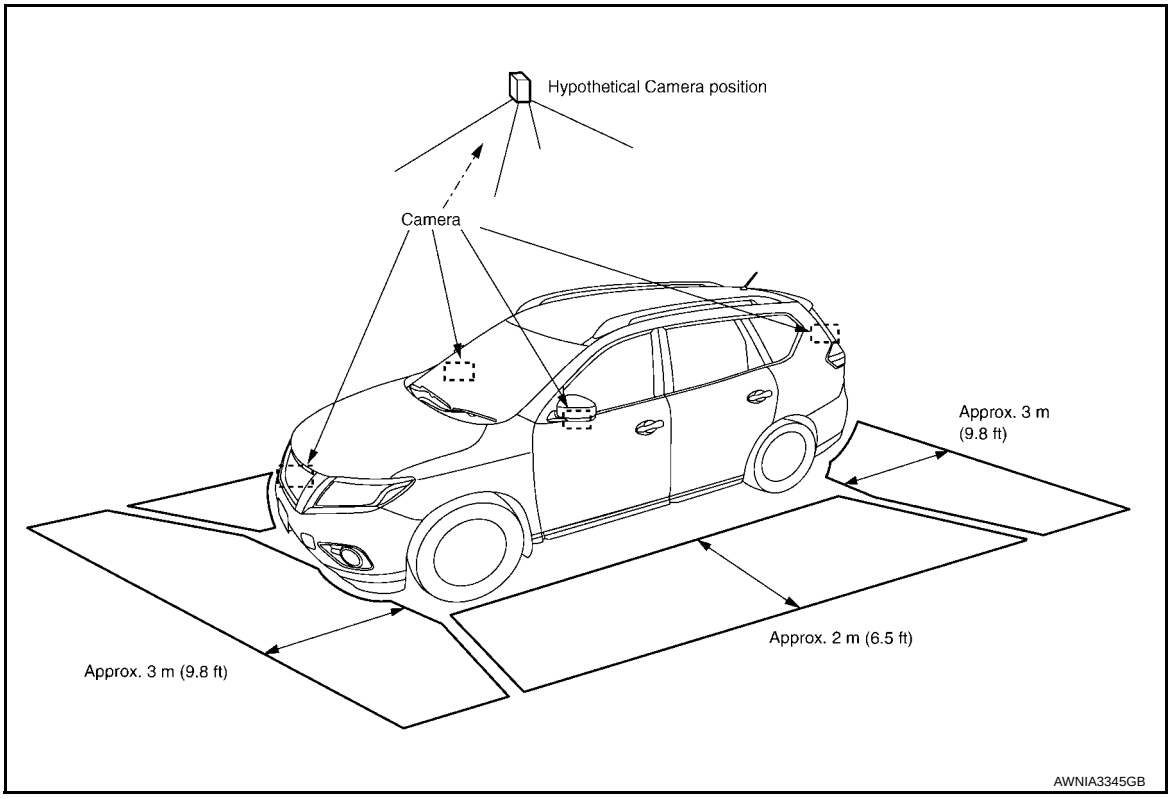
Front-side view area and guiding line



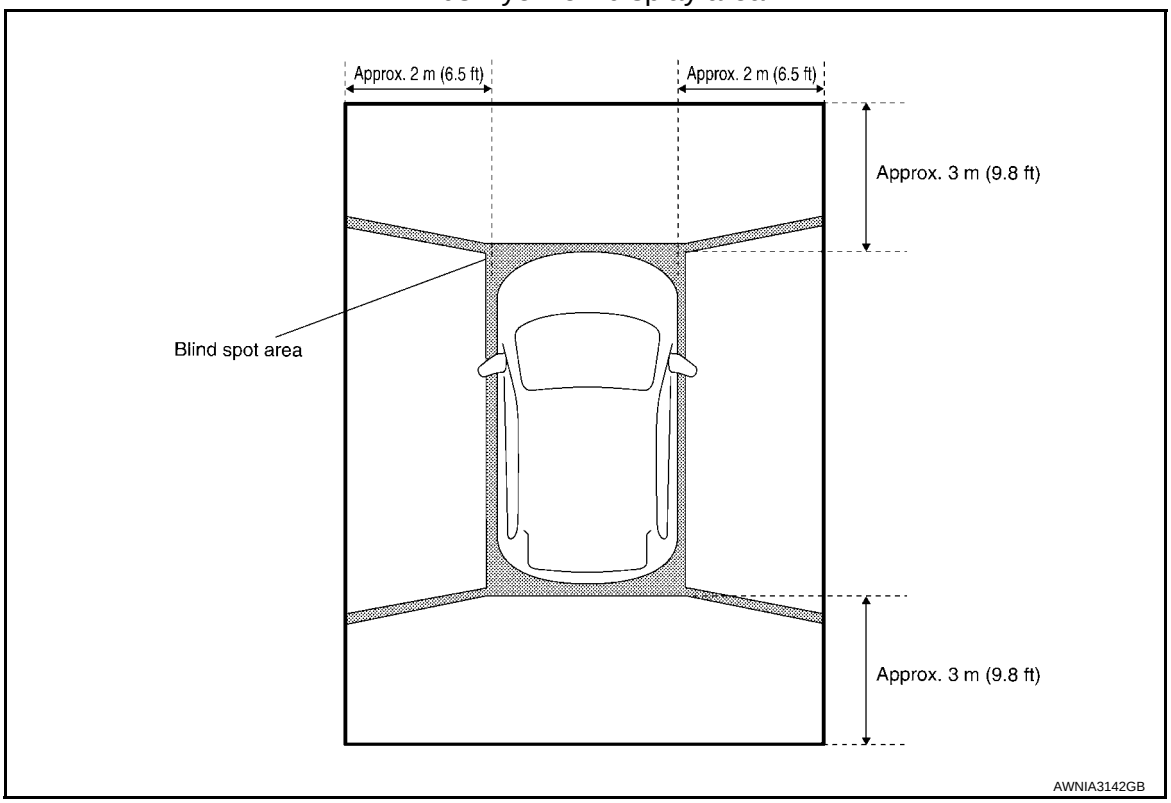
Birds-eye View

Birds-Eye View
- The birds-eye view image improves the visibility of obstacles all around the vehicle and assists backing and parking.
- The images from the four cameras are converted into an overhead view, and the surroundings of the vehicle are displayed.
- The blind spot area is displayed on the image to specify the boundary of the four cameras.

Birds-Eye view display image



Birds-Eye view display area



Moving Object Detection (MOD)

- Moving Object Detection (MOD) is a function that notifies the driver of the presence of moving objects in the area around the vehicle. MOD detects moving objects from camera image, illuminates frame of view in yellow whenever “MOD” icon is displayed in blue.
- Around view monitor control unit superimposes yellow frame line on camera image signal and outputs it to AV control unit display when moving objects are detected.
- Around view monitor control unit detects moving objects from camera image according to an image recognition method called optical flow.
- MOD does not detect a background as a moving object when the vehicle moves (when whole screen moves) but detects a moving object when an actual moving object is displayed on screen.
- Color of “MOD” icon indicates whether or not MOD is operative. “MOD” icon is displayed as shown in the following table. when MOD is operative, “MOD” icon is displayed in blue. when MOD is not operative, “MOD” icon is displayed in gray.

View		Shift position	
		P, N or D position	R position
		“MOD” icon display	
Birds-Eye view and rear view	Birds-Eye view	—	Gray
	Rear view		Blue
Birds-Eye view and front view	Birds-Eye view	Blue	—
	Front view	Gray	
Side view and rear view	Side view	—	×
	Rear view		Blue
Side view and front view	Side view	×	—
	Front view	Blue	

×: Icon is not displayed.
—: View is not displayed in each shift position (D position and R position).

- MOD illuminates frame of view in yellow when any of the conditions in the following table are satisfied:

Operation Condition		View where MOD is operative
Shift position	Vehicle speed	
P or N position	0 km/h	Birds-Eye view
D position	0 km/h (0 MPH) or more - less than 8 km/h (5 MPH)	Front view
R position	0 km/h (0 MPH) or more - less than 8 km/h (5 MPH)	Rear view

- MOD does not operate or stops operation when any of the conditions in the following table are satisfied:

Operation stop condition	Note
Door open	• MOD does not stop operation for front view. • Operation stops for rear view while back door is open. • Operation stops for Bird's-Eye view when any door is open.

CAMERA IMAGE OPERATION PRINCIPLE

- If the information written to around view monitor control unit and the information from the camera do not match, the applicable camera position is indicated as an error on the Birds-Eye view display. (Calibration operation is necessary when replacing each camera or when replacing around view monitor control unit.)
- Around view monitor control unit receives the camera switch signal from AV control unit via CAN communication by pressing the "CAMERA" button.
- Around view monitor control unit that receives the camera button signal supplies the power to each camera and inputs the camera image from each camera.
- When the shift lever switch is in the reverse position, around view monitor control unit receives the reverse signal, supplies the power to each camera, and inputs the camera image from each camera.
- Around view monitor control unit that receives the camera image signal from each camera cuts out the required screen for each view, superimposes the camera image, vehicle icon, guiding lines and "MOD" icon and outputs them to the AV control unit display.

Fail-Safe

INFOID:0000000015258845

DTC Display contents of CONSULT	Malfunction detection condition	Fail-safe condition
U0428: ST ANGLE SENSOR CALIBRATION	Neutral position adjustment of steering angle sensor is not complete.	• Predicted course line is not displayed. • MOD (Moving Object Detection) function is stopped.
U1000: CAN COMM CIRCUIT	When around view monitor control unit cannot transmit/receive CAN communication signal continuously for 2 seconds or more.	The following functions are stopped • When communication of steering angle sensor signal is not normal: - Predicted course line is not displayed. - MOD (Moving Object Detection) function is stopped. • When communication of vehicle signal, wheel speed sensor signal, and shift signal is not normal: - Predicted course line is not displayed. - MOD (Moving Object Detection) function is stopped.

DTC Display contents of CONSULT	Malfunction detection condition	Fail-safe condition
U111A: REAR CAMERA IMAGE SIGNAL	No-signal status of rear camera image signal is continued for 500 ms or more while ignition switch is ON.	Camera image is not displayed (gray screen display).
U111B: SIDE CAMERA RH IMAGE SIGNAL	No-signal status of side camera RH image signal is continued for 500 ms or more while ignition switch is ON.	
U111C: FRONT CAMERA IMAGE SIGNAL	No-signal status of front camera image signal is continued for 500 ms or more while ignition switch is ON.	
U111D: SIDE CAMERA LH IMAGE SIGNAL	No-signal status of side camera LH image signal is continued for 500 ms or more while ignition switch is ON.	
U1232: ST ANGLE SEN CALIB	Neutral position adjustment of steering angle sensor is performed. NG signal from steering angle sensor is received.	• Predicted course line is not displayed. • MOD (Moving Object Detection) function is stopped.
U1302: CAMERA POWER VOLT	Camera power supply voltage does not satisfy the following conditions for 2 seconds or more when ignition switch is turned ON: • When supplemental lighting power supply output is ON: 5.9 – 6.5 V. • When OFF: 0 V by camera power supply measurement.	Camera power output is stopped.
U1304: CAMERA IMAGE CALIB	• When camera calibration is incomplete. • When camera information in around view monitor control unit and information read from camera are not the same.	Unmatched icon ☒ display (red) is displayed (applicable for unmatched camera only).
U1305: CONFIG UNFINISH	The vehicle setting of around view monitor control unit is incomplete.	Operation is according to the vehicle setting value as default value.
Other	When around view monitor control unit is not normal.	Switch to camera screen is not allowed.
	When communication between around view monitor control unit and each camera is not normal.	On applicable camera screen, ⚠ marking (Red) is displayed.
	When communication line between around view monitor control unit and each camera image line is affected by electromagnetic noises.	On applicable camera image screen, ☒ display (Blue) is displayed.

DIAGNOSIS SYSTEM (AROUND VIEW MONITOR CONTROL UNIT)

CONSULT Function

INFOID:0000000015258846

CONSULT FUNCTIONS

CONSULT performs the following functions via communication with the around view monitor control unit.

Direct Diagnostic Mode	Description
ECU Identification	The around view monitor control unit part number is displayed.
Self Diagnostic Result	The around view monitor control unit self diagnostic results are displayed.
Data Monitor	The around view monitor control unit input/output data is displayed in real time.
Work support	The settings for around view monitor control unit functions can be changed.
Configuration	• The vehicle specification can be read and saved. • The vehicle specification can be written when replacing around view monitor control unit.
CAN Diag Support Mntr	The result of transmit/receive diagnosis of CAN communication is displayed.

ECU IDENTIFICATION

The part number of around view monitor control unit is displayed.

SELF DIAGNOSTIC RESULT

Refer to AV-386, "DTC Index".

DATA MONITOR

Monitor Item	Description
ST ANGLE SENSOR SIGNAL [On/Off]	Indicates condition of steering angle sensor signal.
REVERSE SIGNAL [On/Off]	Indicates selector lever position.
VEHICLE SPEED SIGNAL [mph/km/h]	Indicates condition of vehicle speed signal.
CAMERA SWITCH SIGNAL [On/Off]	Indicates condition of camera switch signal.
CAMERA OFF SIGNAL [On/Off]	Indicates condition of camera OFF signal.
ST ANGLE SENSOR TYPE [Absolute]	Indicates steering angle sensor type.
STEERING GEAR RATIO TYPE [Type 0]	Indicates steering gear ratio type.
STEERING POSITION [LHD/RHD]	Indicates LH or RH drive type.
REAR CAMERA IMAGE SIGNAL [OK/NG]	Indicates condition of camera image signal.
F-CAMERA IMAGE SIGNAL [OK/NG]	Indicates condition of camera image signal.
DR-SIDE CAMERA IMAGE SIG [OK/NG]	Indicates condition of camera image signal.
PA-SIDE CAMERA IMAGE SIG [OK/NG]	Indicates condition of camera image signal.
ILL [ON/OFF]	Indicates condition of illumination signal.
TURN SIGNAL [ON/OFF]	Indicates condition of turn signal.

WORK SUPPORT

Support Item	Setting	Description
CALIBRATING CAMERA IMAGE (FRONT CAMERA)	STATUS	Performs calibration of front camera.
	AXIS X	
	AXIS Y	
	ROTATE	

Support Item	Setting	Description
CALIBRATING CAMERA IMAGE (PASS-SIDE CAMERA)	STATUS	Performs calibration of passenger side camera.
	AXIS X	
	AXIS Y	
	ROTATE	
CALIBRATING CAMERA IMAGE (DR-SIDE CAMERA)	STATUS	Performs calibration of driver side camera.
	AXIS X	
	AXIS Y	
	ROTATE	
CALIBRATING CAMERA IMAGE (REAR CAMERA)	STATUS	Performs calibration of rear view camera.
	AXIS X	
	AXIS Y	
	ROTATE	
FINE TUNING OF BIRDS-EYE VIEW	STATUS	Confirmation and adjustment of difference between each camera can be performed.
	SELECT	
	AXIS X	
	AXIS Y	
	ROTATE	
REAR WIDE-VIEW FIXED GUIDE LINE CORRECTION	STATUS	Correct rear wide-view fixed guide line positions.
	AXIS X	
	AXIS Y	
	PATTERN	
NON-VIEWABLE AREA REMINDER	ON	ON/OFF setting of non-viewable area can be performed.
	OFF	
PREDICTIVE COURSE LINE DISPLAY	ON	ON/OFF setting of predictive course line display can be performed.
	OFF	
INITIALIZE CAMERA IMAGE CALIBRATION	—	Factory image calibration restoration can be performed.
STEERING ANGLE SENSOR ADJUSTMENT	—	Steering angle sensor neutral position adjustment can be performed.
CAUSE OF ENTRY CANCEL	—	Cause item can be cancelled.
MOD-FUNCTION	ON	ON/OFF setting of moving object detection (MOD) can be performed.
	OFF	

CONFIGURATION

Refer to AV-404, "Description".

CAN DIAG SUPPORT MNTR

Refer to LAN-23, "CAN Diagnostic Support Monitor".

ECU DIAGNOSIS INFORMATION

AV CONTROL UNIT

List of ECU Reference

INFOID:0000000015258847

ECU	Reference
AV control unit (NAVIGATION WITHOUT BOSE)	AV-170, "Reference Value"
	AV-173, "DTC Index"
AV control unit (NAVIGATION WITH BOSE)	AV-265, "Reference Value"
	AV-268, "DTC Index"

AROUND VIEW MONITOR CONTROL UNIT

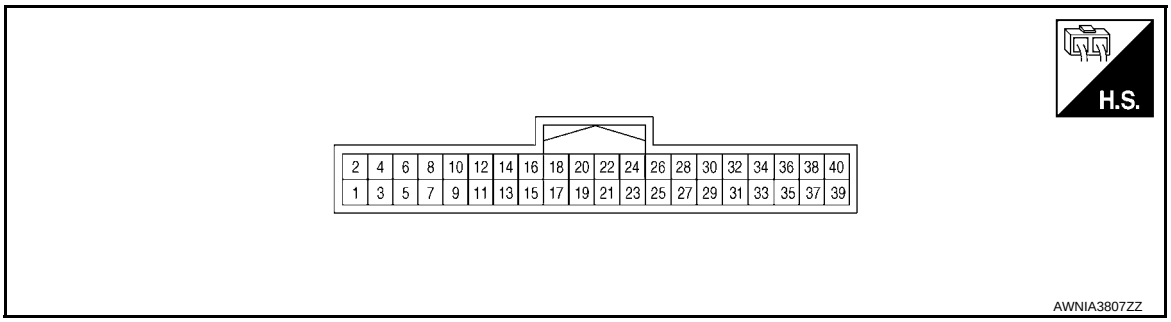
Reference Value

INFOID:0000000015258848

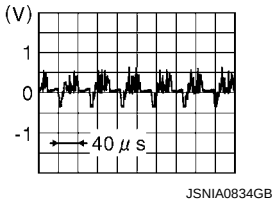
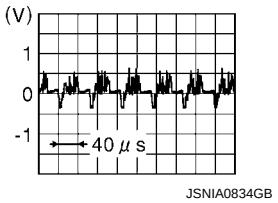
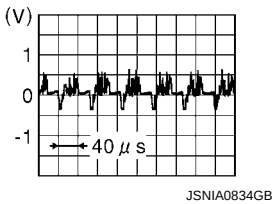
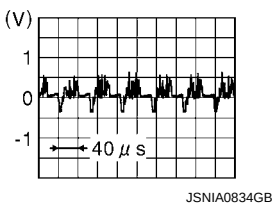
VALUES ON THE DIAGNOSIS TOOL

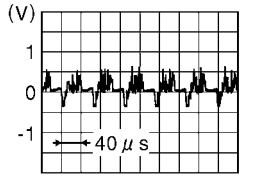
Monitor Item	Condition	Value/Status
CAMERA OFF SIGNAL	CAMERA switch ON.	Off
	CAMERA switch OFF.	On
CAMERA SWITCH SIGNAL	CAMERA switch OFF.	Off
	CAMERA switch ON.	On
DR-SIDE CAMERA IMAGE SIG	Side camera LH inoperative.	NG
	Side camera LH operative.	OK
F-CAMERA IMAGE SIG	Front camera inoperative.	NG
	Front camera operative.	OK
ILL	Illumination OFF.	Off
	Illumination ON.	On
PA-SIDE CAMERA IMAGE SIG	Side camera RH inoperative.	NG
	Side camera RH operative.	OK
REAR CAMERA IMAGE SIGNAL	Rear view camera LH inoperative.	NG
	Rear view camera LH operative.	OK
REVERSE SIGNAL	When selector lever is in any position other than R (reverse).	Off
	When selector lever in R (reverse).	On
ST ANGLE SENSOR SIGNAL	Around view monitor control unit is not receiving steering angle sensor signal.	Off
	Around view monitor control unit is receiving steering angle sensor signal.	On
ST ANGLE SENSOR TYPE	Steering angle sensor type.	Absolute
STEERING GEAR RATIO TYPE	Steering gear ratio type.	Type 0
STEERING POSITION	Left hand drive vehicle.	LHD
	Right hand drive vehicle.	RHD
TURN SIGNAL	Turn signal OFF.	Off
	Turn signal ON.	On
VEHICLE SPEED SIGNAL	While driving, equivalent to speedometer reading	mph, km/h

TERMINAL LAYOUT



PHYSICAL VALUES

Terminal (Wire color)		Description		Condition	Reference value (Approx.)
+	–	Signal name	Input/ Output		
3 (Shield)	—	Video output shield	—	—	—
4 (G)	Ground	Video output signal	Output	[Ignition switch ON] • CAMERA switch is ON or shift position is R position	 JSNIA0834GB
5 (V)	—	Front camera ground	—	[Ignition switch ON]	0 V
6 (L)	5 (V)	Front camera power supply	Output	[Ignition switch ON]	6.0 V
7 (Shield)	—	Front camera video ground	—	[Ignition switch ON]	0 V
8 (LG)	7 (Shield)	Front camera video signal	Input	[Ignition switch ON] • CAMERA switch is ON or shift position is R position	 JSNIA0834GB
9 (L)	—	Door mirror RH camera ground	—	[Ignition switch ON]	0 V
10 (B)	9 (L)	Door mirror RH camera power supply	Output	[Ignition switch ON]	6.0 V
11 (Shield)	—	Door mirror RH camera video ground	—	[Ignition switch ON]	0 V
12 (Y)	11 (Shield)	Door mirror RH camera video signal	Input	[Ignition switch ON] • CAMERA switch is ON or shift position is R position	 JSNIA0834GB
13 (Y)	—	Door mirror LH camera ground	—	[Ignition switch ON]	0 V
14 (L)	13 (Y)	Door mirror LH camera power supply	Output	[Ignition switch ON]	6.0 V
15 (Shield)	—	Door mirror LH camera video ground	—	[Ignition switch ON]	0 V
16 (G)	15 (Shield)	Door mirror LH camera video signal	Input	[Ignition switch ON] • CAMERA switch is ON or shift position is R position	 JSNIA0834GB

Terminal (Wire color)		Description		Condition	Reference value (Approx.)
+	–	Signal name	Input/ Output		
17 (B)	—	Rear view camera ground	—	[Ignition switch ON]	0 V
18 (R)	17 (B)	Rear view camera power supply	Output	[Ignition switch ON]	6.0 V
19 (Shield)	—	Rear view camera video ground	—	[Ignition switch ON]	0 V
20 (W)	19 (Shield)	Rear view camera video signal	Input	[Ignition switch ON] • CAMERA switch is ON or shift position is R position	 JSNIA0834GB
24 (R)	—	ITS CAN low	Input/ Output	—	—
26 (L)	—	ITS CAN high	Input/ Output	—	—
39 (B)	—	Ground	—	[Ignition switch ON]	0 V
40 (SB)	39 (B)	Ignition signal	Input	[Ignition switch ON or START]	12.0 V

Fail-Safe

INFOID:0000000015258849

DTC Display contents of CONSULT	Malfunction detection condition	Fail-safe condition
U0428: ST ANGLE SENSOR CALIBRATION	Neutral position adjustment of steering angle sensor is not complete.	• Predicted course line is not displayed. • MOD (Moving Object Detection) function is stopped.
U1000: CAN COMM CIRCUIT	When around view monitor control unit cannot transmit/receive CAN communication signal continuously for 2 seconds or more.	The following functions are stopped • When communication of steering angle sensor signal is not normal: - Predicted course line is not displayed. - MOD (Moving Object Detection) function is stopped. • When communication of vehicle signal, wheel speed sensor signal, and shift signal is not normal: - Predicted course line is not displayed. - MOD (Moving Object Detection) function is stopped.
U111A: REAR CAMERA IMAGE SIGNAL	No-signal status of rear camera image signal is continued for 500 ms or more while ignition switch is ON.	Camera image is not displayed (gray screen display).
U111B: SIDE CAMERA RH IMAGE SIGNAL	No-signal status of side camera RH image signal is continued for 500 ms or more while ignition switch is ON.	
U111C: FRONT CAMERA IMAGE SIGNAL	No-signal status of front camera image signal is continued for 500 ms or more while ignition switch is ON.	
U111D: SIDE CAMERA LH IMAGE SIGNAL	No-signal status of side camera LH image signal is continued for 500 ms or more while ignition switch is ON.	

DTC Display contents of CONSULT	Malfunction detection condition	Fail-safe condition
U1232: ST ANGLE SEN CALIB	Neutral position adjustment of steering angle sensor is performed. NG signal from steering angle sensor is received.	• Predicted course line is not displayed. • MOD (Moving Object Detection) function is stopped.
U1302: CAMERA POWER VOLT	Camera power supply voltage does not satisfy the following conditions for 2 seconds or more when ignition switch is turned ON: • When supplemental lighting power supply output is ON: 5.9 – 6.5 V. • When OFF: 0 V by camera power supply measurement.	Camera power output is stopped.
U1304: CAMERA IMAGE CALIB	• When camera calibration is incomplete. • When camera information in around view monitor control unit and information read from camera are not the same.	Unmatched icon ☒ display (red) is displayed (applicable for unmatched camera only).
U1305: CONFIG UNFINISH	The vehicle setting of around view monitor control unit is incomplete.	Operation is according to the vehicle setting value as default value.
Other	When around view monitor control unit is not normal.	Switch to camera screen is not allowed.
	When communication between around view monitor control unit and each camera is not normal.	On applicable camera screen, ⚠ marking (Red) is displayed.
	When communication line between around view monitor control unit and each camera image line is affected by electromagnetic noises.	On applicable camera image screen, ☒ display (Blue) is displayed.

DTC Inspection Priority Chart

INFOID:0000000015258850

If multiple DTCs are detected simultaneously, check them one by one depending on the following DTC inspection priority chart:

Priority	Detected items (DTC)
1	U1305: CONFIG UNFINISH
2	• U1000: CAN COMM CIRCUIT • U1010: CONTROL UNIT (CAN)
3	• U0428: ST ANGLE SENSOR CALIBRATION • U111A: REAR CAMERA IMAGE SIGNAL • U111B: SIDE CAMERA RH IMAGE SIGNAL • U111C: FRONT CAMERA IMAGE SIGNAL • U111D: SIDE CAMERA LH IMAGE SIGNAL • U1232: ST ANGLE SEN CALIB • U1302: CAMERA POWER VOLT • U1304: CAMERA IMAGE CALIB

DTC Index

INFOID:0000000015258851

DTC	CONSULT display	Refer to
U0428	ST ANGLE SENSOR CALIBRATION	AV-412, "DTC Description"
U1000	CAN COMM CIRCUIT	AV-414, "DTC Description"
U1010	CONTROL UNIT (CAN)	AV-415, "DTC Description"
U111A	REAR CAMERA IMAGE SIGNAL	AV-416, "DTC Description"
U111B	SIDE CAMERA RH IMAGE SIGNAL	AV-419, "DTC Description"
U111C	FRONT CAMERA IMAGE SIGNAL	AV-423, "DTC Description"
U111D	SIDE CAMERA LH IMAGE SIGNAL	AV-425, "DTC Description"
U1232	ST ANGLE SEN CALIB	AV-429, "DTC Description"

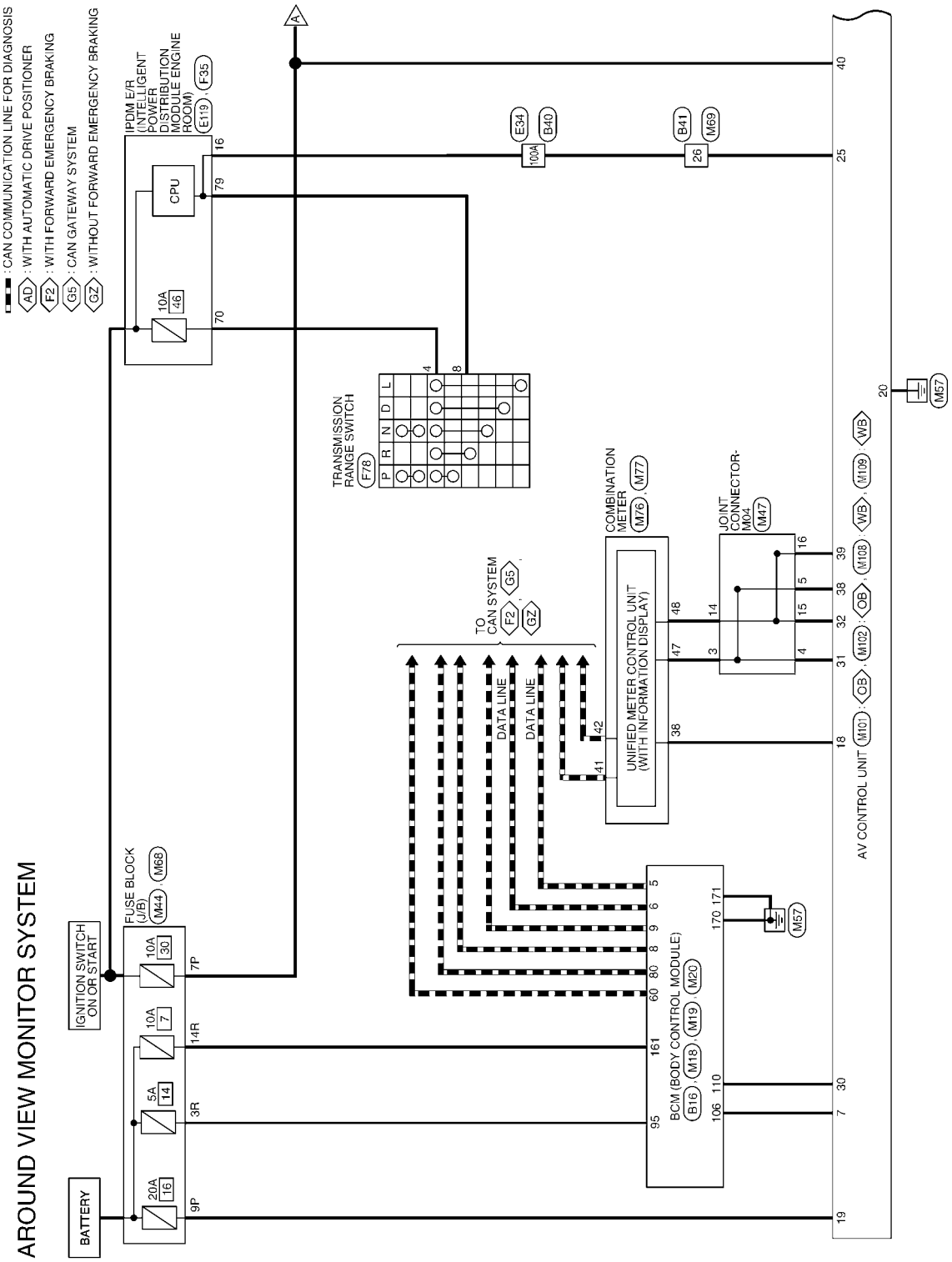
DTC	CONSULT display	Refer to
U1302	CAMERA POWER VOLT	AV-430, "DTC Description"
U1304	CAMERA IMAGE CALIB	AV-435, "DTC Description"
U1305	CONFIG UNFINISH	AV-436, "DTC Description"

WIRING DIAGRAM

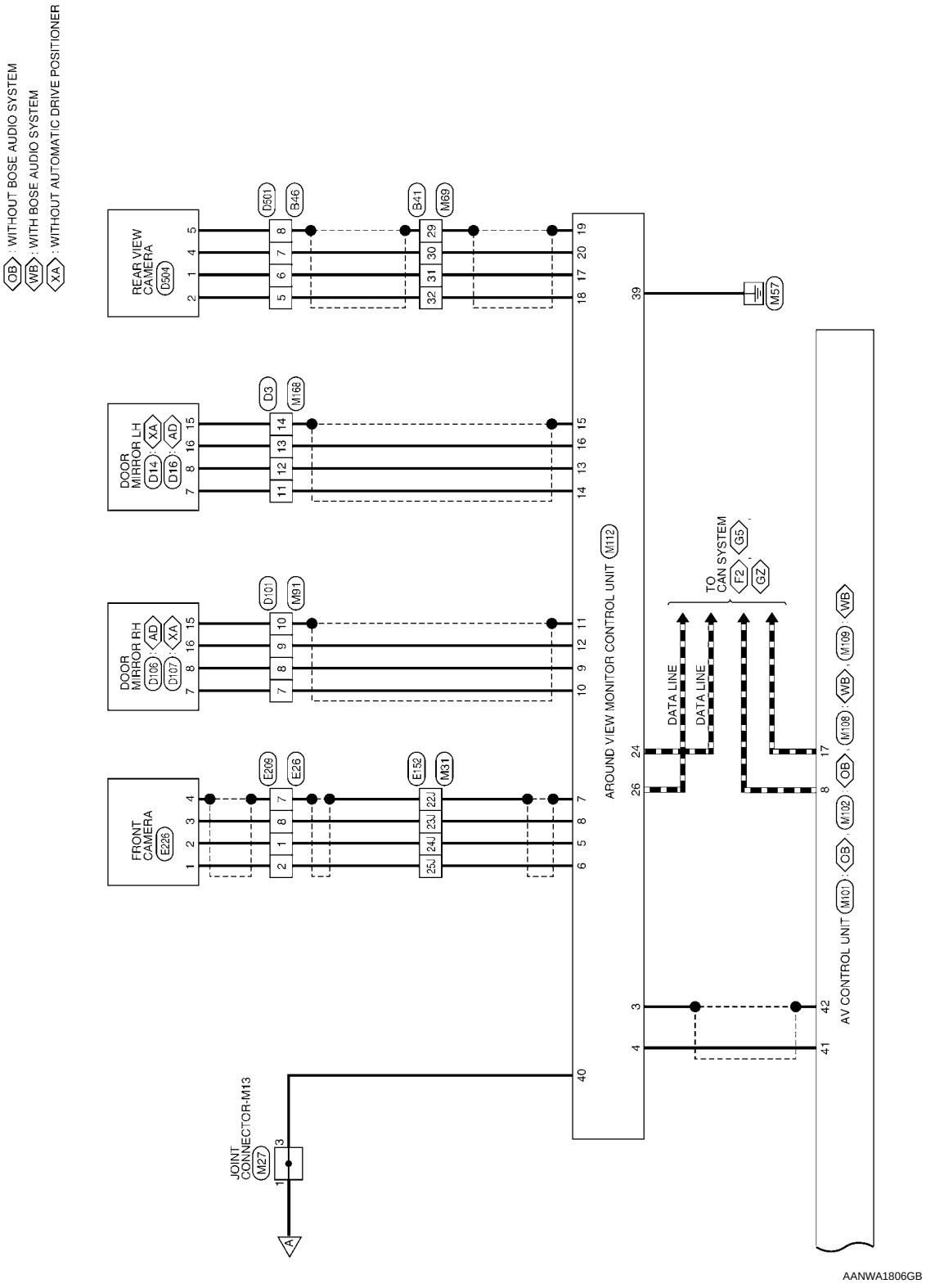
AROUND VIEW MONITOR SYSTEM

Wiring Diagram

INFOID:0000000014844561



AANWA1805GB


OB : WITHOUT BOSE AUDIO SYSTEM
WB : WITH BOSE AUDIO SYSTEM
XA : WITHOUT AUTOMATIC DRIVE POSITIONER
REAR VIEW CAMERA
D504
D501
B46
B41
M69
DOOR MIRROR LH
D14
D16
XA
AD
D3
M168
DOOR MIRROR RH
D106
D107
AD
XA
D101
M91
FRONT CAMERA
E226
E206
E26
E152
M31
AROUND VIEW MONITOR CONTROL UNIT M12
DATA LINE
DATA LINE
TO CAN SYSTEM
G5
F2
GZ
M57
JOINT CONNECTOR-M13
M27
AV CONTROL UNIT
M101
M102
M108
M109
AANWA1806GB

AROUND VIEW MONITOR SYSTEM CONNECTORS

Connector No.	B16
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FG-NH
Connector Color	GREEN

H.S.

63	64	61	62	59	60	57	58	55	56	53	54	51	52	49	50	47	48	45	46	43	44	41	42
80	79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64	63	62	61	60	59	58	57

Terminal No.	Color of Wire	Signal Name
41	–	–
42	–	–
43	–	–
44	–	–
45	–	–
46	R	SES BACKDOOR BUTTON SW
47	–	–
48	–	–
49	G	NO TOUCH TGATE SENSOR
50	W	RR DOOR SW
51	LG	TGATE SW
52	R	RL DOOR SW
53	SB	AS DOOR2 SW
54	–	–
55	LA/G	RR AUTOSTOP SW
56	Y	TGATE OPENER SW
57	SB	DR DOOR2 SW
58	–	–
59	–	–
60	L	CAN-H
61	V	SES EXT REAR ANTENNA B
62	Y	SES INT MIDDLE ANTENNA B
63	L	SES INT MIDDLE ANTENNA A
64	LG	SES EXT REAR ANTENNA A
65	–	–
66	–	–
67	–	–
68	–	–
69	–	–
70	–	–
71	–	–
72	–	–
73	–	–
74	–	–
75	–	–
76	–	–
77	–	–

78	–	–
79	LA/W	STOP LAMP3
80	P	CAN-L

Connector No.	B40
Connector Name	WIRE TO WIRE
Connector Type	TH80MDGY-CS16-TM4
Connector Color	GRAY

H.S.

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

2A	20A	19A	18A	17A	16A	15A	14A	13A	12A	11A
	30A	29A	28A	27A	26A	25A	24A	23A	22A	
4A	40A	39A	38A	37A	36A	35A	34A	33A	32A	31A
	50A	49A	48A	47A	46A	45A	44A	43A	42A	
6A	60A	59A	58A	57A	56A	55A	54A	53A	52A	51A
	70A	69A	68A	67A	66A	65A	64A	63A	62A	
81A	80A	79A	78A	77A	76A	75A	74A	73A	72A	71A
	90A	89A	88A	87A	86A	85A	84A	83A	82A	

96A	94A	93A	92A	91A
100A	99A	98A	97A	96A

Terminal No.	Color of Wire	Signal Name
1A	–	TO ENGINE ROOM HARNESS
2A	–	TO ENGINE ROOM HARNESS
3A	–	TO ENGINE ROOM HARNESS
4A	–	TO ENGINE ROOM HARNESS
5A	–	TO ENGINE ROOM HARNESS
6A	LG	TO ENGINE ROOM HARNESS
7A	Y	TO ENGINE ROOM HARNESS
8A	GR	TO ENGINE ROOM HARNESS
9A	BR	TO ENGINE ROOM HARNESS
10A	–	TO ENGINE ROOM HARNESS
11A	–	TO ENGINE ROOM HARNESS
12A	–	TO ENGINE ROOM HARNESS
13A	–	TO ENGINE ROOM HARNESS
14A	–	TO ENGINE ROOM HARNESS
15A	–	TO ENGINE ROOM HARNESS
16A	–	TO ENGINE ROOM HARNESS
17A	–	TO ENGINE ROOM HARNESS
18A	–	TO ENGINE ROOM HARNESS
19A	–	TO ENGINE ROOM HARNESS
20A	–	TO ENGINE ROOM HARNESS
21A	–	TO ENGINE ROOM HARNESS
22A	–	TO ENGINE ROOM HARNESS

23A	–	TO ENGINE ROOM HARNESS
24A	–	TO ENGINE ROOM HARNESS
25A	–	TO ENGINE ROOM HARNESS
26A	–	TO ENGINE ROOM HARNESS
27A	–	TO ENGINE ROOM HARNESS
28A	–	TO ENGINE ROOM HARNESS
29A	–	TO ENGINE ROOM HARNESS
30A	–	TO ENGINE ROOM HARNESS
31A	–	TO ENGINE ROOM HARNESS
32A	–	TO ENGINE ROOM HARNESS
33A	–	TO ENGINE ROOM HARNESS
34A	–	TO ENGINE ROOM HARNESS
35A	–	TO ENGINE ROOM HARNESS
36A	–	TO ENGINE ROOM HARNESS
37A	–	TO ENGINE ROOM HARNESS
38A	–	TO ENGINE ROOM HARNESS
39A	–	TO ENGINE ROOM HARNESS
40A	–	TO ENGINE ROOM HARNESS
41A	–	TO ENGINE ROOM HARNESS
42A	–	TO ENGINE ROOM HARNESS
43A	–	TO ENGINE ROOM HARNESS
44A	–	TO ENGINE ROOM HARNESS
45A	–	TO ENGINE ROOM HARNESS
46A	–	TO ENGINE ROOM HARNESS
47A	–	TO ENGINE ROOM HARNESS
48A	–	TO ENGINE ROOM HARNESS
49A	–	TO ENGINE ROOM HARNESS
50A	–	TO ENGINE ROOM HARNESS
51A	–	TO ENGINE ROOM HARNESS
52A	–	TO ENGINE ROOM HARNESS
53A	–	TO ENGINE ROOM HARNESS
54A	R	TO ENGINE ROOM HARNESS
55A	L	TO ENGINE ROOM HARNESS
56A	BR	TO ENGINE ROOM HARNESS
57A	W	TO ENGINE ROOM HARNESS
58A	B	TO ENGINE ROOM HARNESS
59A	LG	TO ENGINE ROOM HARNESS
60A	B	TO ENGINE ROOM HARNESS
61A	SHIELD	TO ENGINE ROOM HARNESS
62A	–	TO ENGINE ROOM HARNESS
63A	LG	TO ENGINE ROOM HARNESS
64A	Y	TO ENGINE ROOM HARNESS
65A	P	TO ENGINE ROOM HARNESS
66A	R	TO ENGINE ROOM HARNESS
67A	SB	TO ENGINE ROOM HARNESS
68A	BG	TO ENGINE ROOM HARNESS
69A	GR	TO ENGINE ROOM HARNESS
70A	G	TO ENGINE ROOM HARNESS
71A	–	TO ENGINE ROOM HARNESS
72A	–	TO ENGINE ROOM HARNESS
73A	–	TO ENGINE ROOM HARNESS
74A	–	TO ENGINE ROOM HARNESS
75A	B	TO ENGINE ROOM HARNESS

76A	G	TO ENGINE ROOM HARNESS
77A	SB	TO ENGINE ROOM HARNESS
78A	BG	TO ENGINE ROOM HARNESS
79A	Y	TO ENGINE ROOM HARNESS
80A	BR	TO ENGINE ROOM HARNESS
81A	R	TO ENGINE ROOM HARNESS
82A	–	TO ENGINE ROOM HARNESS
83A	–	TO ENGINE ROOM HARNESS
84A	–	TO ENGINE ROOM HARNESS
85A	–	TO ENGINE ROOM HARNESS
86A	–	TO ENGINE ROOM HARNESS
87A	–	TO ENGINE ROOM HARNESS
88A	–	TO ENGINE ROOM HARNESS
89A	–	TO ENGINE ROOM HARNESS
90A	–	TO ENGINE ROOM HARNESS
91A	–	TO ENGINE ROOM HARNESS
92A	–	TO ENGINE ROOM HARNESS
93A	–	TO ENGINE ROOM HARNESS
94A	–	TO ENGINE ROOM HARNESS
95A	–	TO ENGINE ROOM HARNESS
96A	BG	TO ENGINE ROOM HARNESS
97A	–	TO ENGINE ROOM HARNESS
98A	GR	TO ENGINE ROOM HARNESS
99A	LA/BR	TO ENGINE ROOM HARNESS
100A	G	TO ENGINE ROOM HARNESS

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AROUND VIEW MONITOR SYSTEM CONNECTORS

Connector No.	B41
Connector Name	WIRE TO WIRE
Connector Type	TH32MW-NH
Connector Color	WHITE

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

Terminal No.	Color of Wire	Signal Name
1	SB	TO MAIN HARNESS
2	SB	TO MAIN HARNESS
3	L	TO MAIN HARNESS
4	L	TO MAIN HARNESS
5	W	TO MAIN HARNESS
6	Y	TO MAIN HARNESS
7	LG	TO MAIN HARNESS
8	BG	TO MAIN HARNESS
9	BR	TO MAIN HARNESS
10	Y	TO MAIN HARNESS
11	G	TO MAIN HARNESS
12	L	TO MAIN HARNESS
13	W	TO MAIN HARNESS
14	GR	TO MAIN HARNESS
15	Y	TO MAIN HARNESS
16	P	TO MAIN HARNESS
17	R	TO MAIN HARNESS
18	W	TO MAIN HARNESS
19	R	TO MAIN HARNESS
20	–	TO MAIN HARNESS
21	–	TO MAIN HARNESS
22	–	TO MAIN HARNESS
23	–	TO MAIN HARNESS
24	P	TO MAIN HARNESS
25	L	TO MAIN HARNESS
26	G	TO MAIN HARNESS
27	R	TO MAIN HARNESS
28	L	TO MAIN HARNESS
29	SHIELD	TO MAIN HARNESS
30	W	TO MAIN HARNESS
31	B	TO MAIN HARNESS
32	R	TO MAIN HARNESS

Connector No.	B46
Connector Name	WIRE TO WIRE
Connector Type	TH32MW-NH
Connector Color	WHITE

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

Terminal No.	Color of Wire	Signal Name
1	–	TO BACK DOOR HARNESS
2	–	TO BACK DOOR HARNESS
3	–	TO BACK DOOR HARNESS
4	–	TO BACK DOOR HARNESS
5	R	TO BACK DOOR HARNESS
6	B	TO BACK DOOR HARNESS
7	W	TO BACK DOOR HARNESS
8	SHIELD	TO BACK DOOR HARNESS
9	–	TO BACK DOOR HARNESS
10	–	TO BACK DOOR HARNESS
11	–	TO BACK DOOR HARNESS
12	–	TO BACK DOOR HARNESS
13	W	TO BACK DOOR HARNESS
14	V	TO BACK DOOR HARNESS
15	BR	TO BACK DOOR HARNESS
16	SB	TO BACK DOOR HARNESS
17	LA/W	TO BACK DOOR HARNESS
18	LA/BR	TO BACK DOOR HARNESS
19	LG	TO BACK DOOR HARNESS
20	G	TO BACK DOOR HARNESS
21	G	TO BACK DOOR HARNESS
22	LA/R	TO BACK DOOR HARNESS
23	LA/R	TO BACK DOOR HARNESS
24	R	TO BACK DOOR HARNESS
25	–	TO BACK DOOR HARNESS
26	–	TO BACK DOOR HARNESS
27	–	TO BACK DOOR HARNESS
28	–	TO BACK DOOR HARNESS
29	Y	TO BACK DOOR HARNESS
30	G	TO BACK DOOR HARNESS
31	GR	TO BACK DOOR HARNESS
32	LG	TO BACK DOOR HARNESS

Connector No.	D3
Connector Name	WIRE TO WIRE
Connector Type	TH32FW-NH
Connector Color	WHITE

H.S.

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

Terminal No.	Color of Wire	Signal Name
1	Y	TO MAIN HARNESS
2	GR	TO MAIN HARNESS
3	LA/SB	TO MAIN HARNESS - (WITH AUTOMATIC DRIVE POSITIONER)
3	W	TO MAIN HARNESS - (WITHOUT AUTOMATIC DRIVE POSITIONER)
4	LA/BG	TO MAIN HARNESS - (WITH AUTOMATIC DRIVE POSITIONER)
4	V	TO MAIN HARNESS - (WITHOUT AUTOMATIC DRIVE POSITIONER)
5	LA/Y	TO MAIN HARNESS - (WITH AUTOMATIC DRIVE POSITIONER)
5	SB	TO MAIN HARNESS - (WITHOUT AUTOMATIC DRIVE POSITIONER)
6	LA/V	TO MAIN HARNESS - (WITH AUTOMATIC DRIVE POSITIONER)
6	LG	TO MAIN HARNESS - (WITHOUT AUTOMATIC DRIVE POSITIONER)
7	W	TO MAIN HARNESS
8	V	TO MAIN HARNESS
9	SB	TO MAIN HARNESS
10	LG	TO MAIN HARNESS
11	GR	TO MAIN HARNESS
12	G	TO MAIN HARNESS
13	Y	TO MAIN HARNESS
14	B	TO MAIN HARNESS
15	BG	TO MAIN HARNESS
16	L	TO MAIN HARNESS
17	LA/W	TO MAIN HARNESS - (WITHOUT AUTOMATIC DRIVE POSITIONER)
17	LA/SB	TO MAIN HARNESS - (WITH AUTOMATIC DRIVE POSITIONER)
18	LA/W	TO MAIN HARNESS - (WITH AUTOMATIC DRIVE POSITIONER)
18	LA/Y	TO MAIN HARNESS - (WITHOUT AUTOMATIC DRIVE POSITIONER)
19	LA/BR	TO MAIN HARNESS - (WITH AUTOMATIC DRIVE POSITIONER)
19	LA/LG	TO MAIN HARNESS - (WITHOUT AUTOMATIC DRIVE POSITIONER)
20	LA/GR	TO MAIN HARNESS - (WITH AUTOMATIC DRIVE POSITIONER)
20	LA/V	TO MAIN HARNESS - (WITHOUT AUTOMATIC DRIVE POSITIONER)

Connector No.	D14
Connector Name	DOOR MIRROR LH (WITHOUT AUTOMATIC DRIVE POSITIONER)
Connector Type	TH16MW-NH
Connector Color	WHITE

H.S.

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

Terminal No.	Color of Wire	Signal Name
1	–	–
2	LG	REAR DEFOGGER RELAY OUTPUT
3	–	–
4	LA/BR	SWITCH OUTPUT (COMMON)
5	LA/W	SWITCH OUTPUT (RIGHT)
6	–	–
7	GR	SV2 POWER 6.2V
8	G	SV2 POWER GND
9	–	–
10	B	GROUND
11	–	–
12	LA/GR	SWITCH OUTPUT (DOWN)
13	LA/G	O DI FR LEFT D
14	LA/B	GROUND
15	B	SV2 VIDEO GND
16	Y	SV2 VIDEO SIGNAL

21	BR	TO MAIN HARNESS
22	W	TO MAIN HARNESS
23	LA/R	TO MAIN HARNESS
24	GR	TO MAIN HARNESS
25	R	TO MAIN HARNESS
26	LA/G	TO MAIN HARNESS
27	LA/LG	TO MAIN HARNESS
28	LA/L	TO MAIN HARNESS
29	LA/Y	TO MAIN HARNESS
30	LA/V	TO MAIN HARNESS
31	LA/BR	TO MAIN HARNESS
32	P	TO MAIN HARNESS

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AROUND VIEW MONITOR SYSTEM CONNECTORS

Connector No.	D16
Connector Name	DOOR MIRROR LH (WITH AUTOMATIC DRIVE POSITIONER)
Connector Type	TH16MW-NH
Connector Color	WHITE

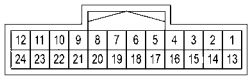
H.S.



Terminal No.	Color of Wire	Signal Name
1	LA/BG	MIRROR SENSOR (LH VERTICAL)
2	LG	RELAY OUTPUT
3	LA/SB	POWER SUPPLY (SENSOR FOR 5V)
4	LA/BR	MIRROR MOTOR LH COMMON (DOWN&RIGHT)
5	LA/W	MIRROR MOTOR LH HORIZONTAL (LEFT)
6	–	–
7	GR	SV2 POWER 6.2V
8	G	SV2 POWER GND
9	LA/V	MIRROR SENSOR (LH HORIZONTAL)
10	B	GROUND
11	LA/Y	GND (SENSOR GND)
12	LA/GR	MIRROR MOTOR LH VERTICAL
13	LA/G	O DI FR LEFT D
14	LA/B	GROUND
15	B	SV2 VIDEO GND
16	Y	SV2 VIDEO SIGNAL

Connector No.	D101
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
1	B	TO MAIN HARNESS
2	B	TO MAIN HARNESS
3	B	TO MAIN HARNESS
4	P	TO MAIN HARNESS
5	R	TO MAIN HARNESS
6	SB	TO MAIN HARNESS
7	L	TO MAIN HARNESS
8	V	TO MAIN HARNESS
9	Y	TO MAIN HARNESS
10	B	TO MAIN HARNESS
11	G	TO MAIN HARNESS
12	LA/V	TO MAIN HARNESS
13	LA/Y	TO MAIN HARNESS
14	LA/R	TO MAIN HARNESS
15	LA/V	TO MAIN HARNESS
16	LA/L	TO MAIN HARNESS
17	LA/BG	TO MAIN HARNESS
18	GR	TO MAIN HARNESS
19	LG	TO MAIN HARNESS
20	BR	TO MAIN HARNESS
21	LA/G	TO MAIN HARNESS
22	LA/SB	TO MAIN HARNESS
23	LA/BG	TO MAIN HARNESS
24	LA/Y	TO MAIN HARNESS

Connector No.	D106
Connector Name	DOOR MIRROR RH (WITH AUTOMATIC DRIVE POSITIONER)
Connector Type	TH16MW-NH
Connector Color	WHITE

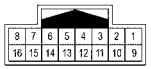
H.S.



Terminal No.	Color of Wire	Signal Name
1	LA/BG	MIRROR SENSOR (RH VERTICAL)
2	GR	RELAY OUTPUT
3	LA/SB	POWER SUPPLY (SENSOR FOR 5V)
4	LA/R	MIRROR MOTOR RH (COMMON)
5	LA/Y	MIRROR MOTOR RH HORIZONTAL (LEFT)
6	–	–
7	L	SV1 POWER 6.2V
8	V	SV1 POWER GND
9	LA/V	MIRROR SENSOR (RH HORIZONTAL)
10	B	GROUND
11	LA/Y	GND (SENSOR GND)
12	LA/V	MIRROR MOTOR RH VERTICAL
13	LA/G	O DI FR RIGHT D
14	LA/B	GROUND
15	B	SV1 VIDEO GND
16	Y	SV1 VIDEO SIGNAL

Connector No.	D107
Connector Name	DOOR MIRROR RH (WITHOUT AUTOMATIC DRIVE POSITIONER)
Connector Type	TH16MW-NH
Connector Color	WHITE

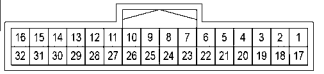
H.S.



Terminal No.	Color of Wire	Signal Name
1	–	–
2	GR	REAR WINDOW DEFOGGER RELAY OUTPUT
3	–	–
4	LA/R	SWITCH OUTPUT (COMMON)
5	LA/Y	SWITCH OUTPUT (RIGHT)
6	–	–
7	L	SV1 POWER 6.2V
8	V	SV1 POWER GND
9	–	–
10	LA/G	GROUND
11	–	–
12	LA/V	SWITCH OUTPUT (DOWN)
13	LA/G	O DI FR RIGHT D
14	LA/B	GROUND
15	B	SV1 VIDEO GND
16	Y	SV1 VIDEO SIGNAL

Connector No.	D501
Connector Name	WIRE TO WIRE
Connector Type	TH32FW-NH
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
1	–	TO BODY HARNESS
2	–	TO BODY HARNESS
3	–	TO BODY HARNESS
4	–	TO BODY HARNESS
5	R	TO BODY HARNESS
6	B	TO BODY HARNESS
7	W	TO BODY HARNESS
8	V	TO BODY HARNESS
9	–	TO BODY HARNESS
10	–	TO BODY HARNESS
11	–	TO BODY HARNESS
12	–	TO BODY HARNESS
13	G	TO BODY HARNESS
14	LA/GR	TO BODY HARNESS
15	LA/W	TO BODY HARNESS
16	LA/LG	TO BODY HARNESS
17	Y	TO BODY HARNESS
18	LA/R	TO BODY HARNESS
19	W	TO BODY HARNESS
20	–	TO BODY HARNESS
21	G	TO BODY HARNESS
22	LA/Y	TO BODY HARNESS
23	P	TO BODY HARNESS
24	BR	TO BODY HARNESS
25	–	TO BODY HARNESS
26	–	TO BODY HARNESS
27	–	TO BODY HARNESS
28	–	TO BODY HARNESS
29	V	TO BODY HARNESS
30	G	TO BODY HARNESS
31	BG	TO BODY HARNESS
32	LG	TO BODY HARNESS

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AROUND VIEW MONITOR SYSTEM CONNECTORS

Connector No.	D504
Connector Name	REAR VIEW CAMERA
Connector Type	RH06FB-1V
Connector Color	BLACK

H.S.

Terminal No.	Color of Wire	Signal Name
1	B	CAM GND
2	R	CAM 8.2V
3	–	–
4	W	COMPOSITE+ (CAM NTSC)
5	V	COMPOSITE- (CAM GND)
6	–	–

Connector No.	E26
Connector Name	WIRE TO WIRE
Connector Type	TH12MW-NH
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1	V	TO FRONT END MODULE HARNESS
2	L	TO FRONT END MODULE HARNESS
3	W	TO FRONT END MODULE HARNESS
4	BR	TO FRONT END MODULE HARNESS
5	L	TO FRONT END MODULE HARNESS
6	GR	TO FRONT END MODULE HARNESS
7	SHIELD	TO FRONT END MODULE HARNESS
8	LG	TO FRONT END MODULE HARNESS
9	–	TO FRONT END MODULE HARNESS
10	–	TO FRONT END MODULE HARNESS

11	B	TO FRONT END MODULE HARNESS
12	GR	TO FRONT END MODULE HARNESS

Connector No.	E34
Connector Name	WIRE TO WIRE
Connector Type	TH80FDGY-CS16-TM4
Connector Color	GRAY

H.S.

Terminal No.	Color of Wire	Signal Name
1A	–	TO BODY HARNESS
2A	–	TO BODY HARNESS
3A	–	TO BODY HARNESS
4A	–	TO BODY HARNESS
5A	–	TO BODY HARNESS
6A	L	TO BODY HARNESS
7A	R	TO BODY HARNESS
8A	GR	TO BODY HARNESS
9A	BR	TO BODY HARNESS
10A	–	TO BODY HARNESS
11A	–	TO BODY HARNESS
12A	–	TO BODY HARNESS
13A	–	TO BODY HARNESS
14A	–	TO BODY HARNESS
15A	–	TO BODY HARNESS
16A	–	TO BODY HARNESS
17A	–	TO BODY HARNESS
18A	–	TO BODY HARNESS
19A	–	TO BODY HARNESS
20A	–	TO BODY HARNESS
21A	–	TO BODY HARNESS
22A	–	TO BODY HARNESS
23A	–	TO BODY HARNESS
24A	–	TO BODY HARNESS
25A	–	TO BODY HARNESS
26A	–	TO BODY HARNESS
27A	–	TO BODY HARNESS
28A	–	TO BODY HARNESS
29A	–	TO BODY HARNESS
30A	–	TO BODY HARNESS
31A	–	TO BODY HARNESS
32A	–	TO BODY HARNESS
33A	–	TO BODY HARNESS
34A	–	TO BODY HARNESS
35A	–	TO BODY HARNESS
36A	–	TO BODY HARNESS
37A	–	TO BODY HARNESS
38A	–	TO BODY HARNESS
39A	–	TO BODY HARNESS
40A	–	TO BODY HARNESS
41A	–	TO BODY HARNESS
42A	–	TO BODY HARNESS
43A	–	TO BODY HARNESS
44A	–	TO BODY HARNESS
45A	–	TO BODY HARNESS
46A	–	TO BODY HARNESS
47A	–	TO BODY HARNESS
48A	–	TO BODY HARNESS
49A	–	TO BODY HARNESS
50A	–	TO BODY HARNESS
51A	–	TO BODY HARNESS
52A	–	TO BODY HARNESS
53A	–	TO BODY HARNESS
54A	R	TO BODY HARNESS
55A	L	TO BODY HARNESS
56A	BR	TO BODY HARNESS
57A	W	TO BODY HARNESS
58A	V	TO BODY HARNESS
59A	Y	TO BODY HARNESS
60A	B	TO BODY HARNESS
61A	SHIELD	TO BODY HARNESS
62A	–	TO BODY HARNESS
63A	L	TO BODY HARNESS
64A	Y	TO BODY HARNESS
65A	P	TO BODY HARNESS
66A	R	TO BODY HARNESS
67A	SB	TO BODY HARNESS
68A	BG	TO BODY HARNESS
69A	GR	TO BODY HARNESS
70A	LG	TO BODY HARNESS
71A	–	TO BODY HARNESS
72A	–	TO BODY HARNESS
73A	–	TO BODY HARNESS
74A	–	TO BODY HARNESS
75A	B	TO BODY HARNESS
76A	G	TO BODY HARNESS
77A	SB	TO BODY HARNESS
78A	BG	TO BODY HARNESS
79A	LG	TO BODY HARNESS
80A	BR	TO BODY HARNESS
81A	G	TO BODY HARNESS
82A	–	TO BODY HARNESS
83A	–	TO BODY HARNESS
84A	–	TO BODY HARNESS
85A	–	TO BODY HARNESS
86A	–	TO BODY HARNESS
87A	–	TO BODY HARNESS
88A	–	TO BODY HARNESS
89A	–	TO BODY HARNESS
90A	–	TO BODY HARNESS
91A	–	TO BODY HARNESS
92A	–	TO BODY HARNESS
93A	–	TO BODY HARNESS
94A	–	TO BODY HARNESS
95A	–	TO BODY HARNESS
96A	G	TO BODY HARNESS
97A	–	TO BODY HARNESS
98A	GR	TO BODY HARNESS
99A	W	TO BODY HARNESS
100A	G	TO BODY HARNESS

AANIA5721GB

AROUND VIEW MONITOR SYSTEM CONNECTORS

Connector No.	E119
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS16FGY-CS
Connector Color	GRAY

H.S.

Terminal No.	Color of Wire	Signal Name
3	–	–
4	Y	LIGHT POSITION REAR LH
5	–	–
6	–	–
7	–	–
8	BR	ACTUATOR4 CABIN (3FB4)
9	L	LO HORN RLY
10	–	–
11	V	IGN AIRBAG
12	B	SIGNAL GROUND
13	–	–
14	–	–
15	–	–
16	G	LIGHT REVERSE LAMP
17	W	LIGHT POSITION REAR RH
18	–	–

Connector No.	E152
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1J	–	TO MAIN HARNESS
2J	Y	TO MAIN HARNESS
3J	–	TO MAIN HARNESS
4J	–	TO MAIN HARNESS
5J	–	TO MAIN HARNESS
6J	–	TO MAIN HARNESS
7J	–	TO MAIN HARNESS
8J	–	TO MAIN HARNESS
9J	BR	TO MAIN HARNESS
10J	–	TO MAIN HARNESS
11J	–	TO MAIN HARNESS
12J	–	TO MAIN HARNESS
13J	–	TO MAIN HARNESS
14J	–	TO MAIN HARNESS
15J	–	TO MAIN HARNESS
16J	–	TO MAIN HARNESS
17J	–	TO MAIN HARNESS
18J	–	TO MAIN HARNESS
19J	–	TO MAIN HARNESS
20J	–	TO MAIN HARNESS
21J	GR	TO MAIN HARNESS
22J	SHIELD	TO MAIN HARNESS
23J	LG	TO MAIN HARNESS
24J	V	TO MAIN HARNESS
25J	L	TO MAIN HARNESS
26J	BR	TO MAIN HARNESS
27J	G	TO MAIN HARNESS
28J	R	TO MAIN HARNESS
29J	L	TO MAIN HARNESS
30J	V	TO MAIN HARNESS
31J	–	TO MAIN HARNESS
32J	–	TO MAIN HARNESS
33J	R	TO MAIN HARNESS
34J	L	TO MAIN HARNESS
35J	BG	TO MAIN HARNESS
36J	LG	TO MAIN HARNESS
37J	GR	TO MAIN HARNESS
38J	BR	TO MAIN HARNESS
39J	–	TO MAIN HARNESS
40J	–	TO MAIN HARNESS
41J	G	TO MAIN HARNESS
42J	W	TO MAIN HARNESS
43J	L	TO MAIN HARNESS
44J	B	TO MAIN HARNESS
45J	SB	TO MAIN HARNESS
46J	BR	TO MAIN HARNESS
47J	W	TO MAIN HARNESS
48J	W	TO MAIN HARNESS
49J	L	TO MAIN HARNESS
50J	P	TO MAIN HARNESS
51J	W	TO MAIN HARNESS
52J	R	TO MAIN HARNESS
53J	SB	TO MAIN HARNESS
54J	LG	TO MAIN HARNESS
55J	W	TO MAIN HARNESS
56J	BG	TO MAIN HARNESS
57J	R	TO MAIN HARNESS
58J	V	TO MAIN HARNESS
59J	BR	TO MAIN HARNESS
60J	P	TO MAIN HARNESS
61J	L	TO MAIN HARNESS
62J	P	TO MAIN HARNESS
63J	L	TO MAIN HARNESS
64J	R	TO MAIN HARNESS
65J	L	TO MAIN HARNESS
66J	BG	TO MAIN HARNESS
67J	–	TO MAIN HARNESS
68J	–	TO MAIN HARNESS
69J	G	TO MAIN HARNESS
70J	L	TO MAIN HARNESS
71J	–	TO MAIN HARNESS
72J	–	TO MAIN HARNESS
73J	–	TO MAIN HARNESS
74J	–	TO MAIN HARNESS
75J	–	TO MAIN HARNESS
76J	–	TO MAIN HARNESS
77J	–	TO MAIN HARNESS
78J	–	TO MAIN HARNESS
79J	SHIELD	TO MAIN HARNESS
80J	B	TO MAIN HARNESS
81J	W	TO MAIN HARNESS
82J	–	TO MAIN HARNESS
83J	–	TO MAIN HARNESS
84J	–	TO MAIN HARNESS
85J	–	TO MAIN HARNESS
86J	–	TO MAIN HARNESS
87J	–	TO MAIN HARNESS
88J	–	TO MAIN HARNESS
89J	–	TO MAIN HARNESS
90J	–	TO MAIN HARNESS
91J	–	TO MAIN HARNESS
92J	LG	TO MAIN HARNESS
93J	L	TO MAIN HARNESS
94J	L	TO MAIN HARNESS
95J	BR	TO MAIN HARNESS
96J	–	TO MAIN HARNESS
97J	GR	TO MAIN HARNESS
98J	P	TO MAIN HARNESS
99J	W	TO MAIN HARNESS
100J	Y	TO MAIN HARNESS

Connector No.	E209
Connector Name	WIRE TO WIRE
Connector Type	TH12FW-NH
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1	V	TO ENGINE ROOM HARNESS
2	L	TO ENGINE ROOM HARNESS
3	W	TO ENGINE ROOM HARNESS
4	BG	TO ENGINE ROOM HARNESS
5	L	TO ENGINE ROOM HARNESS
6	GR	TO ENGINE ROOM HARNESS
7	SHIELD	TO ENGINE ROOM HARNESS
8	LG	TO ENGINE ROOM HARNESS
9	–	TO ENGINE ROOM HARNESS
10	–	TO ENGINE ROOM HARNESS
11	B	TO ENGINE ROOM HARNESS
12	GR	TO ENGINE ROOM HARNESS

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AROUND VIEW MONITOR SYSTEM CONNECTORS

Connector No.	E226
Connector Name	FRONT CAMERA
Connector Type	RH04FB
Connector Color	BLACK

H.S.



Terminal No.	Color of Wire	Signal Name
1	L	FV POWER 6.2V
2	V	FV POWER GND
3	LG	FV VIDEO SIGNAL
4	SHIELD	FV VIDEO GND

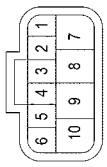
Connector No.	F35
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS16FW-CS
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
65	–	–
66	W	ACTUATOR1 1 (3FBI)
67	V	LI ECM ACT5 DRIVER
68	–	–
69	–	–
70	R	IGN AT LPG
71	Y	IGN REVERSE SW AC VALVE
72	LG	ACTUATOR5 (3FBA)
73	G	ACTUATOR1 2 (3FB)
74	–	–
75	R	ACTUATOR3 (3FB3)
76	P	LI FUEL PUMP DRIVER
77	–	–
78	BR	ACTUATOR2 (3FB2)
79	G	LI LIGHT REVERSE SW
80	–	–

Connector No.	F78
Connector Name	TRANSMISSION RANGE SWITCH
Connector Type	YDX06FB-HS4
Connector Color	BLACK

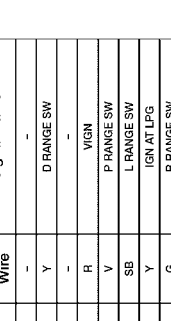
H.S.



Terminal No.	Color of Wire	Signal Name
1	–	–
2	Y	D RANGE SW
3	–	–
4	–	–
5	R	VIGN
6	V	P RANGE SW
7	SB	L RANGE SW
8	Y	IGN AT LPG
9	G	R RANGE SW
10	R	N RANGE SW

Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FGY-NH
Connector Color	GRAY

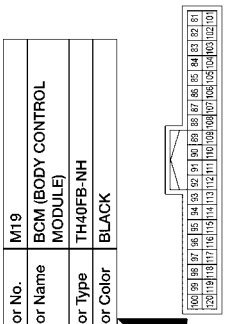
H.S.



Terminal No.	Color of Wire	Signal Name
1	L	LIN 3 D
2	LA/G	DI FR LEFT D
3	LA/Y	DI FR RIGHT D
4	P	SPARE4 RL N
5	R	CAN-L
6	L	CAN-H
7	–	–
8	L	CAN-H
9	R	CAN-L
10	BG	DOORLOCK SW
11	Y	HAZARD SW D
12	W	PWR AUTOLIGHT SENSOR
13	–	–
14	–	–
15	–	–
16	–	–
17	L	PWR ATDVC
18	–	–
19	LG	AUTOLIGHT SENSOR
20	–	–
21	–	–
22	–	–
23	G	WL AUTHORIZATION RL
24	LA/R	DEFROSTER RL D
25	BR	BAT TEMP1 RL
26	–	–
27	Y	IGN1 RL
28	LA/W	IGN2 RL
29	–	–
30	V	GND AUTOLIGHT SENSOR
31	–	–
32	–	–
33	LG	CSW 5
34	Y	CSW 5
35	BG	SECURITY LED
36	G	CSW 3
37	GR	CSW 4
38	V	CSW 1
39	W	CSW 2
40	SB	DOORUNLOCK SW

Connector No.	M19
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH
Connector Color	BLACK

H.S.



Terminal No.	Color of Wire	Signal Name
81	–	–
82	W	SES FR HANDLE BUTTON SW
83	–	–
84	BR	CSW 2
85	SB	CSW 1
86	P	CSW 3
87	BG	CSW 4
88	W	START SW BACKLIGHT LED
89	Y	START WO ESCL SW
90	–	–
91	–	–
92	BR	KEY CYLINDER LOCK SW
93	P	KEY CYLINDER UNLOCK SW
94	G	AT LOCKED IN PARK SW
95	V	SHORTING PIN
96	–	–
97	–	–
98	–	–
99	–	–
100	V	SES EXT DR ANTENNA A
101	–	–
102	–	–
103	–	–
104	R	DR KNOB SW
105	Y	SES DR HANDLE BUTTON SW
106	W	AUTO ACC2
107	–	–
108	–	–
109	–	–
110	BG	MR OUTPUT
111	–	–
112	–	–
113	–	–
114	Y	IMMOBILIZER KAZASHI B
115	W	IMMOBILIZER KAZASHI A
116	BG	SES INT FRONT ANTENNA B
117	GR	SES INT FRONT ANTENNA A
118	SB	SES EXT AS ANTENNA B
119	P	SES EXT AS ANTENNA A
120	BR	SES EXT DR ANTENNA B

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AROUND VIEW MONITOR SYSTEM CONNECTORS

Connector No.	M20
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	NS16FBR-CS
Connector Color	BROWN

H.S.

167|166|165|164| |163|162|161
176|175|174|173|172|171|170|169|168

Terminal No.	Color of Wire	Signal Name
161	W	PWR ECU
162	SB	PWM ROOMLAMP 1
163	L	AS LOCK OR UNLOCK D
164	–	–
165	V	DR OR FR LOCK D
166	–	–
167	LA/V	PWR DOORLOCK1
168	BG	PWR FLASHERS
169	GR	PWR STOP LAMP
170	B	GND1
171	B	GND2
172	G	FR OR DR UNLOCK D
173	–	–
174	–	–
175	R	PWR DOORLOCK2
176	LG	PWR WIPER

Connector No.	M27
Connector Name	JOINT CONNECTOR-M13
Connector Type	SAC08JW
Connector Color	WHITE

H.S.

8 7 6 5 4 3 2 1

Terminal No.	Color of Wire	Signal Name
1	SB	IGNITION
2	SB	IGNITION
3	SB	IGNITION
4	Y	IGNITION
5	SB	IGNITION
6	SB	IGNITION

7	SB	IGNITION
8	SB	IGNITION

Connector No.	M31
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4
Connector Color	WHITE

H.S.

5J 4J 3J 2J 1J
10J 9J 8J 7J 6J
21J 20J 19J 18J 17J 16J 15J 14J 13J 12J 11J
30J 29J 28J 27J 26J 25J 24J 23J 22J
41J 40J 39J 38J 37J 36J 35J 34J 33J 32J 31J
50J 49J 48J 47J 46J 45J 44J 43J 42J
61J 60J 59J 58J 57J 56J 55J 54J 53J 52J 51J
70J 69J 68J 67J 66J 65J 64J 63J 62J
81J 80J 79J 78J 77J 76J 75J 74J 73J 72J 71J
90J 89J 88J 87J 86J 85J 84J 83J 82J
95J 94J 93J 92J 91J
100J 99J 98J 97J 96J

Terminal No.	Color of Wire	Signal Name
1J	–	TO ENGINE ROOM HARNESS
2J	R	TO ENGINE ROOM HARNESS
3J	–	TO ENGINE ROOM HARNESS
4J	–	TO ENGINE ROOM HARNESS
5J	–	TO ENGINE ROOM HARNESS
6J	–	TO ENGINE ROOM HARNESS
7J	–	TO ENGINE ROOM HARNESS
8J	–	TO ENGINE ROOM HARNESS
9J	W	TO ENGINE ROOM HARNESS
10J	–	TO ENGINE ROOM HARNESS
11J	–	TO ENGINE ROOM HARNESS
12J	–	TO ENGINE ROOM HARNESS
13J	–	TO ENGINE ROOM HARNESS
14J	–	TO ENGINE ROOM HARNESS
15J	–	TO ENGINE ROOM HARNESS
16J	–	TO ENGINE ROOM HARNESS
17J	–	TO ENGINE ROOM HARNESS
18J	–	TO ENGINE ROOM HARNESS
19J	–	TO ENGINE ROOM HARNESS
20J	–	TO ENGINE ROOM HARNESS
21J	LA/L	TO ENGINE ROOM HARNESS
22J	SHIELD	TO ENGINE ROOM HARNESS
23J	LG	TO ENGINE ROOM HARNESS
24J	V	TO ENGINE ROOM HARNESS

25J	L	TO ENGINE ROOM HARNESS
26J	BR	TO ENGINE ROOM HARNESS
27J	G	TO ENGINE ROOM HARNESS
28J	Y	TO ENGINE ROOM HARNESS
29J	L	TO ENGINE ROOM HARNESS
30J	V	TO ENGINE ROOM HARNESS
31J	–	TO ENGINE ROOM HARNESS
32J	–	TO ENGINE ROOM HARNESS
33J	R	TO ENGINE ROOM HARNESS
33J	Y	TO ENGINE ROOM HARNESS - (WITH DRIVER ASSISTNACE SYSTEM)
34J	L	TO ENGINE ROOM HARNESS
35J	BG	TO ENGINE ROOM HARNESS
36J	GR	TO ENGINE ROOM HARNESS
37J	Y	TO ENGINE ROOM HARNESS
38J	LA/BR	TO ENGINE ROOM HARNESS
39J	–	TO ENGINE ROOM HARNESS
40J	–	TO ENGINE ROOM HARNESS
41J	LA/R	TO ENGINE ROOM HARNESS
42J	W	TO ENGINE ROOM HARNESS
43J	L	TO ENGINE ROOM HARNESS
44J	B	TO ENGINE ROOM HARNESS
45J	SB	TO ENGINE ROOM HARNESS
46J	BR	TO ENGINE ROOM HARNESS
47J	W	TO ENGINE ROOM HARNESS
48J	R	TO ENGINE ROOM HARNESS
49J	SB	TO ENGINE ROOM HARNESS
50J	GR	TO ENGINE ROOM HARNESS
51J	W	TO ENGINE ROOM HARNESS
52J	R	TO ENGINE ROOM HARNESS
53J	BR	TO ENGINE ROOM HARNESS
54J	LG	TO ENGINE ROOM HARNESS
55J	LA/Y	TO ENGINE ROOM HARNESS
56J	LA/V	TO ENGINE ROOM HARNESS
57J	LA/R	TO ENGINE ROOM HARNESS
58J	W	TO ENGINE ROOM HARNESS
59J	BR	TO ENGINE ROOM HARNESS
60J	P	TO ENGINE ROOM HARNESS
61J	L	TO ENGINE ROOM HARNESS
62J	R	TO ENGINE ROOM HARNESS
63J	L	TO ENGINE ROOM HARNESS
64J	R	TO ENGINE ROOM HARNESS
65J	L	TO ENGINE ROOM HARNESS
66J	BG	TO ENGINE ROOM HARNESS
67J	–	TO ENGINE ROOM HARNESS
68J	–	TO ENGINE ROOM HARNESS
69J	G	TO ENGINE ROOM HARNESS
70J	L	TO ENGINE ROOM HARNESS
71J	–	TO ENGINE ROOM HARNESS
72J	–	TO ENGINE ROOM HARNESS
73J	–	TO ENGINE ROOM HARNESS
74J	–	TO ENGINE ROOM HARNESS

75J	–	TO ENGINE ROOM HARNESS
76J	–	TO ENGINE ROOM HARNESS
77J	–	TO ENGINE ROOM HARNESS
78J	–	TO ENGINE ROOM HARNESS
79J	SHIELD	TO ENGINE ROOM HARNESS
80J	B	TO ENGINE ROOM HARNESS
81J	W	TO ENGINE ROOM HARNESS
82J	–	TO ENGINE ROOM HARNESS
83J	–	TO ENGINE ROOM HARNESS
84J	–	TO ENGINE ROOM HARNESS
85J	–	TO ENGINE ROOM HARNESS
86J	–	TO ENGINE ROOM HARNESS
87J	–	TO ENGINE ROOM HARNESS
88J	–	TO ENGINE ROOM HARNESS
89J	–	TO ENGINE ROOM HARNESS
90J	–	TO ENGINE ROOM HARNESS
91J	–	TO ENGINE ROOM HARNESS
92J	Y	TO ENGINE ROOM HARNESS
93J	G	TO ENGINE ROOM HARNESS
94J	L	TO ENGINE ROOM HARNESS
95J	P	TO ENGINE ROOM HARNESS
96J	–	TO ENGINE ROOM HARNESS
97J	SB	TO ENGINE ROOM HARNESS
98J	P	TO ENGINE ROOM HARNESS
99J	LA/R	TO ENGINE ROOM HARNESS
100J	R	TO ENGINE ROOM HARNESS

AANIA5724GB

AROUND VIEW MONITOR SYSTEM CONNECTORS

Connector No.	M44
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS16FW-CS
Connector Color	WHITE

H.S.

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

Terminal No.	Color of Wire	Signal Name
1P	R	IGNITION
2P	G	IGNITION
3P	Y	IGNITION RELAY-2 CONTROL
4P	LG	REAR WINDOW DEFOGGER RELAY OUTPUT
5P	GR	REAR WINDOW DEFOGGER RELAY OUTPUT
6P	LA/R	REAR WINDOW DEFOGGER RELAY CONTROL
7P	Y	IGNITION
8P	V	IGNITION
9P	L	BATTERY
10P	LG	IGNITION
11P	–	–
12P	–	–
13P	G	BATTERY
14P	–	–
15P	L	BATTERY
16P	LA/W	FRONT BLOWER MOTOR RELAY CONTROL

Connector No.	M47
Connector Name	JOINT CONNECTOR-M04
Connector Type	NH20FG-DC
Connector Color	GREEN

H.S.

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

Terminal No.	Color of Wire	Signal Name
1	–	–
2	SB	M-CAN H
3	SB	M-CAN H
4	SB	M-CAN H
5	SB	M-CAN H
6	L	CAN-H
7	L	CAN-H
8	L	CAN-H
9	L	CAN-H
10	–	–
11	–	–
12	–	–
13	LG	M-CAN L
14	LG	M-CAN L
15	LG	M-CAN L
16	LG	M-CAN L
17	R	CAN-L
18	R	CAN-L
19	V	CAN-L
20	V	CAN-L

Connector No.	M68
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS16FBR-CS
Connector Color	BROWN

H.S.

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

Terminal No.	Color of Wire	Signal Name
1R	V	ILLUMINATION +
2R	G	IGNITION
3R	V	BATTERY
4R	–	–
5R	–	–
6R	LA/L	ACCESSORY
7R	LA/V	BATTERY
8R	–	–
9R	–	–
10R	GR	BATTERY
11R	–	–
12R	–	–
13R	–	–
14R	W	BATTERY
15R	W	BATTERY
16R	GR	ACCESSORY

Connector No.	M69
Connector Name	WIRE TO WIRE
Connector Type	TH32FW-NH
Connector Color	WHITE

H.S.

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

Terminal No.	Color of Wire	Signal Name
1	SB	TO BODY HARNESS
2	BR	TO BODY HARNESS
3	L	TO BODY HARNESS
4	L	TO BODY HARNESS
5	W	TO BODY HARNESS
6	Y	TO BODY HARNESS
7	LG	TO BODY HARNESS
8	BG	TO BODY HARNESS
9	BR	TO BODY HARNESS
10	Y	TO BODY HARNESS
11	G	TO BODY HARNESS
12	L	TO BODY HARNESS
13	W	TO BODY HARNESS
14	GR	TO BODY HARNESS
15	Y	TO BODY HARNESS
16	P	TO BODY HARNESS
17	R	TO BODY HARNESS
18	W	TO BODY HARNESS
19	R	TO BODY HARNESS
20	–	TO BODY HARNESS
21	–	TO BODY HARNESS
22	–	TO BODY HARNESS
23	–	TO BODY HARNESS
24	P	TO BODY HARNESS
25	L	TO BODY HARNESS
26	BR	TO BODY HARNESS
27	R	TO BODY HARNESS
28	L	TO BODY HARNESS
29	SHIELD	TO BODY HARNESS
30	W	TO BODY HARNESS
31	B	TO BODY HARNESS
32	R	TO BODY HARNESS

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AROUND VIEW MONITOR SYSTEM CONNECTORS

Connector No.	M76
Connector Name	COMBINATION METER
Connector Type	TH40FW-NH
Connector Color	WHITE

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
1	B	GND
2	–	–
3	–	–
4	–	–
5	–	–
6	–	–
7	BG	SECURITY
8	–	–
9	GR	ECO MODE SW
10	–	–
11	–	–
12	–	–
13	–	–
14	–	–
15	L	OUTSIDE TEMP SENSOR
16	–	–
17	BG	SATELLITE SW GND
18	SB	TRIP RESET SW
19	–	–
20	Y	OUTSIDE TEMP GND
21	L	GND (STRG SW GND)
22	Y	STRG SW A
23	GR	STRG SW B
24	BR	WASHER SW
25	V	BRAKE OIL SW
26	G	PKB SW
27	–	–
28	Y	DR BELT SW
29	R	SPORT MODE SW
30	LG	M RANGE
31	SB	NOT M RANGE
32	BG	AT SHIFT UP
33	BR	AT SHIFT DOWN
34	–	–
35	–	–
36	GR	ILL UP SW
37	V	ILL DOWN SW
38	G	8P/R OUTPUT
39	W	2P/R OUTPUT
40	–	–

Connector No.	M77
Connector Name	COMBINATION METER
Connector Type	TH12FW-NH
Connector Color	WHITE

H.S.

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

Terminal No.	Color of Wire	Signal Name
41	L	CAN-H
42	P	CAN-L
43	R	ILL CONT OUT
44	LA/B	FUEL SENSOR GND
45	G	BAT
46	V	IGN
47	SB	M-CAN H
48	LG	M-CAN L
49	–	–
50	–	–
51	LA/L	FUEL SENSOR
52	B	G1

Connector No.	M91
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH
Connector Color	WHITE

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

Terminal No.	Color of Wire	Signal Name
1	B	TO FRONT DOOR RH HARNESS
2	GR	TO FRONT DOOR RH HARNESS
3	GR	TO FRONT DOOR RH HARNESS
4	W	TO FRONT DOOR RH HARNESS
5	P	TO FRONT DOOR RH HARNESS
6	SB	TO FRONT DOOR RH HARNESS
7	B	TO FRONT DOOR RH HARNESS
8	L	TO FRONT DOOR RH HARNESS
9	Y	TO FRONT DOOR RH HARNESS
10	SHIELD	TO FRONT DOOR RH HARNESS
11	G	TO FRONT DOOR RH HARNESS
12	V	TO FRONT DOOR RH HARNESS
13	Y	TO FRONT DOOR RH HARNESS - (WITH AUTOMATIC DRIVE POSITIONER)
13	LA/SB	TO FRONT DOOR RH HARNESS - (WITHOUT AUTOMATIC DRIVE POSITIONER)
14	R	TO FRONT DOOR RH HARNESS - (WITH AUTOMATIC DRIVE POSITIONER)
14	LA/GR	TO FRONT DOOR RH HARNESS - (WITHOUT AUTOMATIC DRIVE POSITIONER)
15	V	TO FRONT DOOR RH HARNESS - (WITH AUTOMATIC DRIVE POSITIONER)
15	LA/V	TO FRONT DOOR RH HARNESS - (WITHOUT AUTOMATIC DRIVE POSITIONER)
16	LA/L	TO FRONT DOOR RH HARNESS
17	LA/BG	TO FRONT DOOR RH HARNESS
18	GR	TO FRONT DOOR RH HARNESS
19	LG	TO FRONT DOOR RH HARNESS
20	BR	TO FRONT DOOR RH HARNESS
21	LA/Y	TO FRONT DOOR RH HARNESS
22	SB	TO FRONT DOOR RH HARNESS
23	BG	TO FRONT DOOR RH HARNESS
24	Y	TO FRONT DOOR RH HARNESS

Connector No.	M101
Connector Name	AV CONTROL UNIT (WITHOUT BOSE AUDIO SYSTEM)
Connector Type	NH18FW-CS2
Connector Color	WHITE

H.S.

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

Terminal No.	Color of Wire	Signal Name
1	–	–
2	W	FR SP LH (+)
3	P	FR SP LH (-)
4	GR	RR SP LH (+)
5	BR	RR SP LH (-)
6	–	–
7	W	ACC
8	L	CAN-H
9	V	ILL (+), LIGHT SW
10	–	–
11	G	FR SP RH (+)
12	V	FR SP RH (-)
13	LG	RR SP RH (+)
14	Y	RR SP RH (-)
15	–	–
16	–	–
17	R	CAN-L
18	G	SPEED SIGNAL
19	L	BAT
20	B	GND

Connector No.	M102
Connector Name	AV CONTROL UNIT (WITHOUT BOSE AUDIO SYSTEM)
Connector Type	TH24FW-NH
Connector Color	WHITE

H.S.

21	22	23	24	25	26	27	28	29	30	31	32
33	34	35	36	37	38	39	40	41	42	43	44

Terminal No.	Color of Wire	Signal Name
21	G	AUX R
22	Y	AUX GND
23	L	AUX L
24	–	–
25	BR	REVERSE
26	–	–
27	–	–
28	–	–
29	–	–
30	BG	MR OUTPUT
31	SB	M-CAN TERMINATION
32	LG	M-CAN TERMINATION
33	–	–
34	W	MIC SIGNAL
35	B	MIC VCC
36	SHIELD	MIC GND
37	SHIELD	SUB OUT/AUX SHIELD
38	SB	MCAN+
39	LG	MCAN-
40	LG	IGNITION
41	G	CAMERA+
42	SHIELD	CAMERA- (SHIELD)
43	–	–
44	–	–

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AROUND VIEW MONITOR SYSTEM CONNECTORS

Connector No.	M108
Connector Name	AV CONTROL UNIT (WITH BOSE AUDIO SYSTEM)
Connector Type	NH18FW-CS2
Connector Color	WHITE

H.S.

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

Terminal No.	Color of Wire	Signal Name
1	BR	AMP ON
2	R	FR SP LH (+)
3	G	FR SP LH (-)
4	V	RR SP LH (+)
5	LG	RR SP LH (-)
6	–	–
7	W	ACC
8	L	CAN-H
9	V	ILL (+), LIGHT SW
10	B	PRE AMP SHIELD
11	R	FR SP RH (+)
12	W	FR SP RH (-)
13	L	RR SP RH (+)
14	Y	RR SP RH (-)
15	–	–
16	–	–
17	R	CAN-L
18	G	SPEED SIGNAL
19	L	BAT
20	B	GND
21	G	AUX R
22	Y	AUX GND
23	L	AUX L
24	R	HEVR MODE CHG
25	BR	REVERSE
26	–	–
27	–	–
28	–	–
29	–	–
30	BG	MR OUTPUT
31	SB	M-CAN TERMINATION
32	LG	M-CAN TERMINATION
33	–	–
34	W	MIC SIGNAL
35	B	MIC VCC (WITHOUT TELEMATICS SYSTEM)
36	SHIELD	MIC GND
37	SHIELD	SUB OUT/AUX SHIELD
38	SB	MCAN +
39	LG	MCAN -
40	LG	IGNITION
41	G	CAMERA+
42	SHIELD	CAMERA- (SHIELD)
43	–	–
44	–	–

Connector No.	M112
Connector Name	AROUND VIEW MONITOR CONTROL UNIT
Connector Type	TH40FW-NH
Connector Color	WHITE

H.S.

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

Terminal No.	Color of Wire	Signal Name
1	–	–
2	–	–
3	SHIELD	VIDEO OUTPUT GND
4	G	VIDEO OUTPUT SIGNAL
5	V	FV POWER GND
6	L	FV POWER 6.2V
7	SHIELD	FV VIDEO GND
8	LG	FV VIDEO SIGNAL
9	L	SV1 POWER GND
10	B	SV1 POWER 6.2V
11	SHIELD	SV1 VIDEO GND
12	Y	SV1 VIDEO SIGNAL
13	Y	SV2 POWER GND
14	L	SV2 POWER 6.2V
15	SHIELD	SV2 VIDEO GND
16	G	SV2 VIDEO SIGNAL
17	B	RV POWER GND
18	R	RV POWER 6.2V
19	SHIELD	RV VIDEO GND
20	W	RV VIDEO SIGNAL
21	–	–
22	–	–
23	–	–
24	R	CAN-L (WITHOUT DRIVER ASSISTANCE SYSTEM)
24	Y	ITS CAN-L (WITH DRIVER ASSISTANCE SYSTEM)
25	–	–
26	L	CAN-H (WITHOUT DRIVER ASSISTANCE SYSTEM)
26	L	ITS CAN-H (WITH DRIVER ASSISTANCE SYSTEM)
27	–	–
28	–	–
29	–	–
30	–	–
31	–	–
32	–	–
33	–	–
34	–	–
35	–	–
36	–	–
37	–	–
38	–	–
39	B	GND
40	SB	IGN

Connector No.	M109
Connector Name	AV CONTROL UNIT (WITH BOSE AUDIO SYSTEM)
Connector Type	TH24FW-NH
Connector Color	WHITE

H.S.

21	22	23	24	25	26	27	28	29	30	31	32
33	34	35	36	37	38	39	40	41	42	43	44

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AROUND VIEW MONITOR SYSTEM CONNECTORS

Connector No.	M168
Connector Name	WIRE TO WIRE
Connector Type	TH32MW-NH
Connector Color	WHITE

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

Terminal No.	Color of Wire	Signal Name
1	Y	TO FRONT DOOR LH HARNESS
2	GR	TO FRONT DOOR LH HARNESS
3	SB	TO FRONT DOOR LH HARNESS - (WITH AUTOMATIC DRIVE POSITIONER)
3	Y	TO FRONT DOOR LH HARNESS - (WITHOUT AUTOMATIC DRIVE POSITIONER)
4	BG	TO FRONT DOOR LH HARNESS - (WITH AUTOMATIC DRIVE POSITIONER)
4	V	TO FRONT DOOR LH HARNESS - (WITHOUT AUTOMATIC DRIVE POSITIONER)
5	Y	TO FRONT DOOR LH HARNESS - (WITH AUTOMATIC DRIVE POSITIONER)
5	BR	TO FRONT DOOR LH HARNESS - (WITHOUT AUTOMATIC DRIVE POSITIONER)
6	V	TO FRONT DOOR LH HARNESS - (WITH AUTOMATIC DRIVE POSITIONER)
6	LG	TO FRONT DOOR LH HARNESS - (WITHOUT AUTOMATIC DRIVE POSITIONER)
7	Y	TO FRONT DOOR LH HARNESS
8	V	TO FRONT DOOR LH HARNESS
9	BR	TO FRONT DOOR LH HARNESS
10	LG	TO FRONT DOOR LH HARNESS
11	L	TO FRONT DOOR LH HARNESS
12	Y	TO FRONT DOOR LH HARNESS
13	G	TO FRONT DOOR LH HARNESS
14	SHIELD	TO FRONT DOOR LH HARNESS
15	SB	TO FRONT DOOR LH HARNESS
16	BG	TO FRONT DOOR LH HARNESS
17	GR	TO FRONT DOOR LH HARNESS - (WITHOUT AUTOMATIC DRIVE POSITIONER)
17	SB	TO FRONT DOOR LH HARNESS - (WITH AUTOMATIC DRIVE POSITIONER)
18	W	TO FRONT DOOR LH HARNESS - (WITH AUTOMATIC DRIVE POSITIONER)
18	LA/SB	TO FRONT DOOR LH HARNESS - (WITHOUT AUTOMATIC DRIVE POSITIONER)
19	BR	TO FRONT DOOR LH HARNESS - (WITH AUTOMATIC DRIVE POSITIONER)
19	LA/GR	TO FRONT DOOR LH HARNESS - (WITHOUT AUTOMATIC DRIVE POSITIONER)
20	GR	TO FRONT DOOR LH HARNESS - (WITH AUTOMATIC DRIVE POSITIONER)
20	LA/V	TO FRONT DOOR LH HARNESS - (WITHOUT AUTOMATIC DRIVE POSITIONER)
21	BR	TO FRONT DOOR LH HARNESS
22	W	TO FRONT DOOR LH HARNESS
23	R	TO FRONT DOOR LH HARNESS - (WITH AUTOMATIC DRIVE POSITIONER)
23	LA/R	TO FRONT DOOR LH HARNESS - (WITHOUT AUTOMATIC DRIVE POSITIONER)
24	GR	TO FRONT DOOR LH HARNESS
25	R	TO FRONT DOOR LH HARNESS LED INDICATOR L
26	LA/G	TO FRONT DOOR LH HARNESS
27	LG	TO FRONT DOOR LH HARNESS
28	L	TO FRONT DOOR LH HARNESS
29	Y	TO FRONT DOOR LH HARNESS
30	V	TO FRONT DOOR LH HARNESS
31	G	TO FRONT DOOR LH HARNESS
32	P	TO FRONT DOOR LH HARNESS

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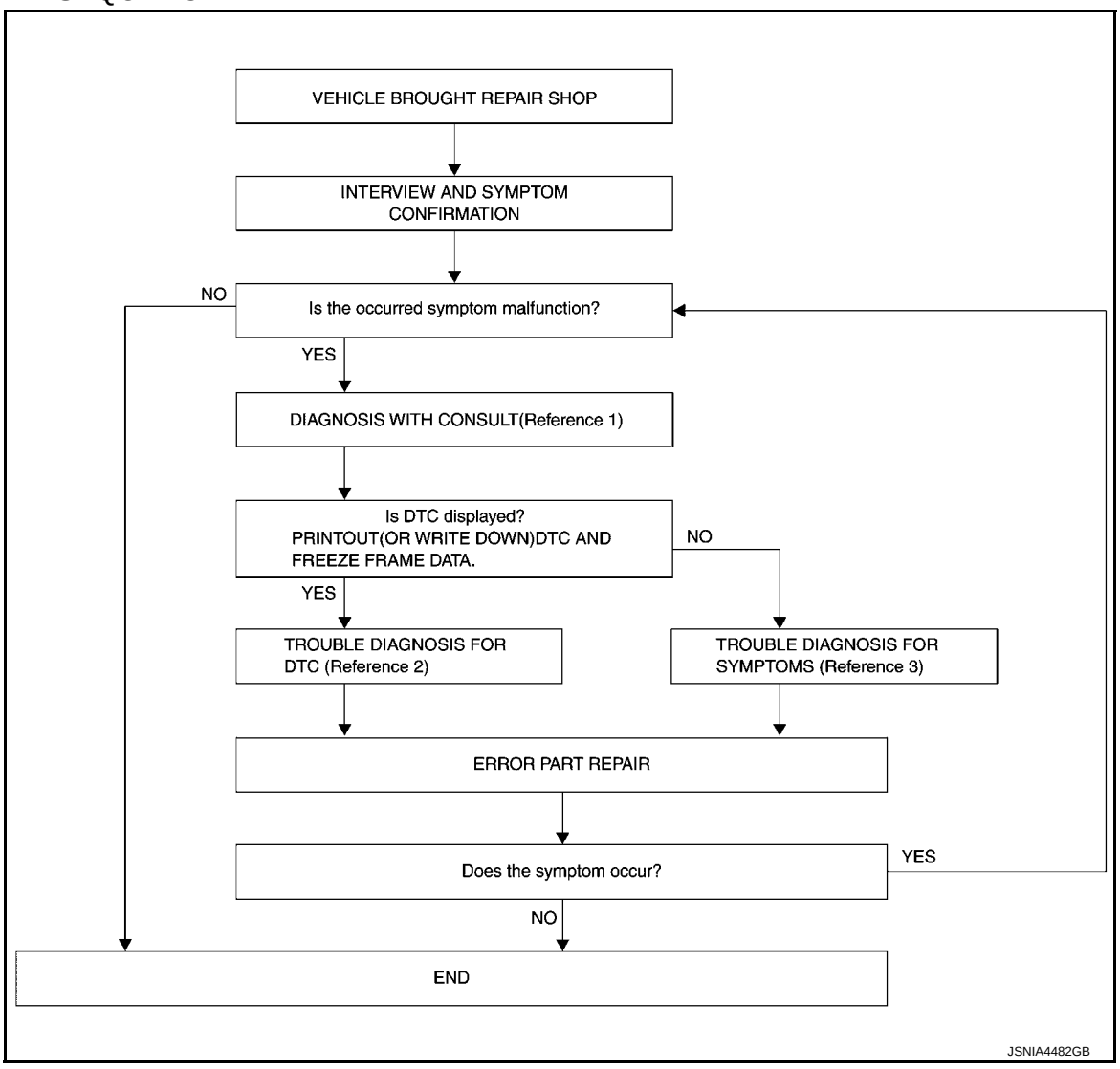
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:0000000015258852

OVERALL SEQUENCE



- Reference 1: Refer to AV-380, "CONSULT Function".
- Reference 2: Refer to AV-386, "DTC Index".
- Reference 3: Refer to AV-438, "Symptom Table".

DETAILED FLOW

1. INTERVIEW AND SYMPTOM CONFIRMATION

Check the malfunction symptoms by performing the following items:
- Interview the customer to obtain the malfunction information (conditions and environment when the malfunction occurred).
- Check the symptom.

Is the occurred symptom a malfunction?

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

2. DIAGNOSIS WITH CONSULT

1. Connect CONSULT and perform a self-diagnosis for “AVM”. Refer to AV-380, "CONSULT Function".
   NOTE:
   Skip to step 4 of the diagnosis procedure if “AVM” is not displayed.
2. When DTC is detected, follow the instructions below:

- Record DTC and Freeze Frame Data (FFD).

Is DTC displayed?

YES >> GO TO 3.
NO >> GO TO 4.

3. TROUBLE DIAGNOSIS FOR DTC

1. Check the DTC indicated in the “Self Diagnostic Result”.
2. Perform the relevant diagnosis referring to the DTC Index. Refer to AV-386, "DTC Index".

>> GO TO 5.

4. TROUBLE DIAGNOSIS FOR SYMPTOMS

Perform the relevant diagnosis referring to the diagnosis chart by symptom. Refer to AV-438, "Symptom Table".

>> GO TO 5.

5. ERROR PART REPAIR

1. Repair or replace the identified malfunctioning parts.
2. Perform a self-diagnosis for “AVM”.
   NOTE:
   Erase the stored self-diagnosis results after repairing or replacing the relevant components if any DTC has been indicated in the “Self Diagnostic Result”.
3. Check that the symptom does not occur.

Does the symptom occur?

YES >> GO TO 1.
NO >> Inspection End.

ADDITIONAL SERVICE WHEN REPLACING AROUND VIEW MONITOR CONTROL UNIT

Description

INFOID:0000000015258853

BEFORE REPLACEMENT

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

NOTE:

If “Before Replace ECU” cannot be used, use the “After Replace ECU” or “Manual Configuration” after replacing around view monitor control unit.

AFTER REPLACEMENT

CAUTION:

When replacing around view monitor control unit, you must perform “After Replace ECU” with CONSULT.

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

Work Procedure

INFOID:0000000015258854

1. SAVING VEHICLE SPECIFICATION

Ⓔ-CONSULT

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

NOTE:

If “Before Replace ECU” cannot be used, use the “After Replace ECU” or “Manual Configuration” after replacing around view monitor control unit.

>> GO TO 2.

2. REPLACE AROUND VIEW MONITOR CONTROL UNIT

Replace around view monitor control unit. Refer to AV-441, "Removal and Installation".

>> GO TO 3.

3. WRITING VEHICLE SPECIFICATION

ⒺCONSULT

1. Enter "Re/Programming, Configuration".
2. If “Before Replace ECU” operation was performed, automatically an "Operation Log Selection" screen will be displayed. Select the applicable file from the "Saved Data List" and press “Confirm” to write vehicle specification. Refer to AV-404, "Work Procedure".
3. If “Before Replace ECU” operation was not performed, select "After Replace ECU" or "Manual Configuration" to write vehicle specification. Refer to AV-404, "Work Procedure".

>> GO TO 4.

4. OPERATION CHECK

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

>> Work End.

CONFIGURATION (AROUND VIEW MONITOR CONTROL UNIT)

Description

INFOID:0000000015258855

Vehicle specification needs to be written with CONSULT because it is not written after replacing around view monitor control unit.
Configuration has three functions as follows

Function	Description
READ CONFIGURATION	• Reads the vehicle configuration of current around view monitor control unit. • Saves the read vehicle configuration.
WRITE CONFIGURATION - Manual setting	Writes the vehicle configuration with manual setting.
WRITE CONFIGURATION - Config file	Writes the vehicle configuration with saved data.

CAUTION:
- **When replacing around view monitor control unit, you must perform "WRITE CONFIGURATION" with CONSULT.**
- **Never perform "WRITE CONFIGURATION" except for new around view monitor control unit.**

Work Procedure

INFOID:0000000015258856

1.WRITING MODE SELECTION

CONSULT Configuration
Select "CONFIGURATION" of AVM.

When writing saved data>>GO TO 2.
When writing manually>>GO TO 3.

2.PERFORM "WRITE CONFIGURATION - CONFIG FILE"

CONSULT Configuration
Perform "WRITE CONFIGURATION - Config file".

>> Work End.

3.PERFORM "MANUAL CONFIGURATION"

CONSULT Configuration
Select "MANUAL CONFIGURATION" to write vehicle specifications into the around view monitor control unit.
CAUTION:
- **Thoroughly read and understand the vehicle specification. Incorrect settings may result in abnormal control of ECU.**
- **Make sure to select "NEXT" even if the default settings displayed on the CONSULT are the desired settings. If "NEXT" is not selected, the configuration process will be incomplete.**

NOTE:
If manual configuration items are not displayed, touch "NEXT".

>> GO TO 4.

4.OPERATION CHECK

Confirm that each function controlled by around view monitor control unit operates normally.

>> Work End.

PREDICTIVE COURSE LINE CENTER POSITION ADJUSTMENT

Description

INFOID:0000000015258857

Adjust the center position of the predictive course line of the rear view monitor if it is shifted.

Work Procedure

INFOID:0000000015258858

1. DRIVING

Drive the vehicle straight ahead 100 m (328.1 ft) or more at a speed of 30 km/h (18.6 MPH) or more.

>> End.

CALIBRATING CAMERA IMAGE (AROUND VIEW MONITOR)

Description

INFOID:0000000015258859

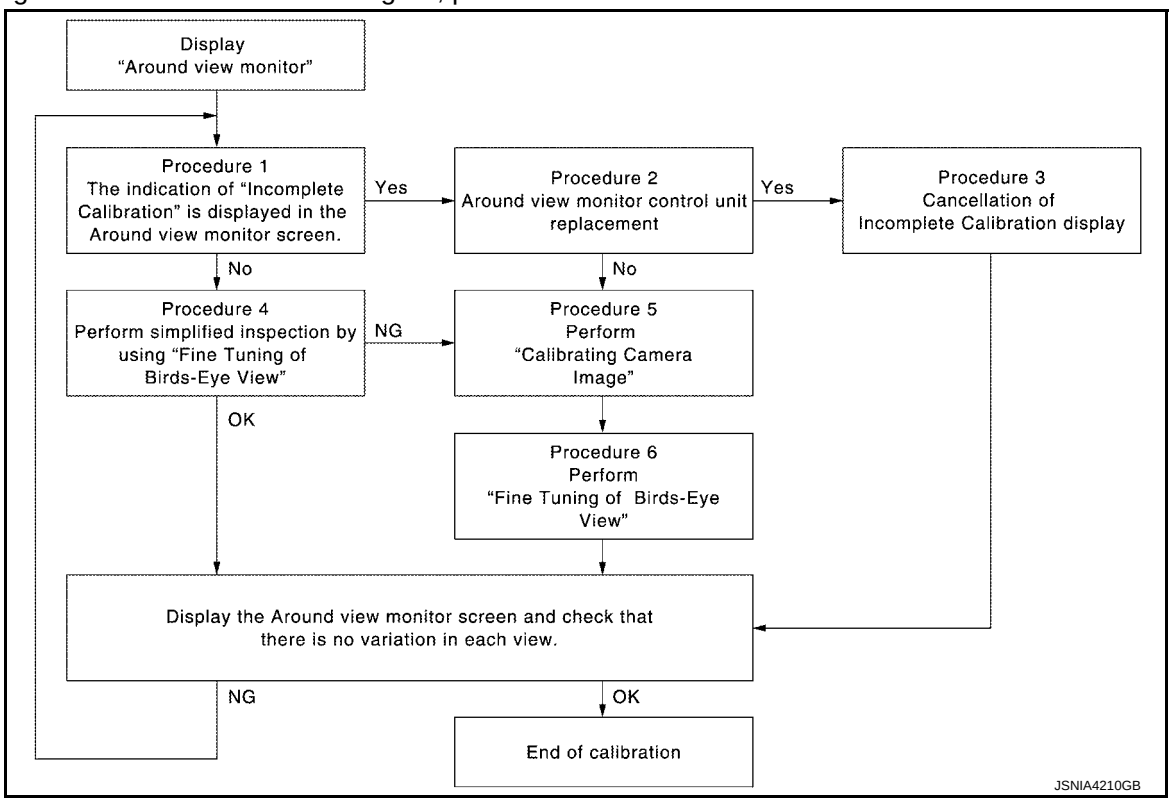
- Calibration must be performed after removing/replacing the cameras, removing parts (e.g. front grille, door mirror, and others) mounted on the cameras, or replacing the Around view monitor control unit.
- The use of CONSULT is required to perform calibration or writing of calibration results to the Around view monitor control unit.
- Align the white lines on the road near the vehicle at the boundary of each camera image by this camera calibration. The white lines far from the vehicle may not be aligned at the boundary of each camera image. The farther the line, the greater the difference is.

Work Procedure

INFOID:0000000015258860

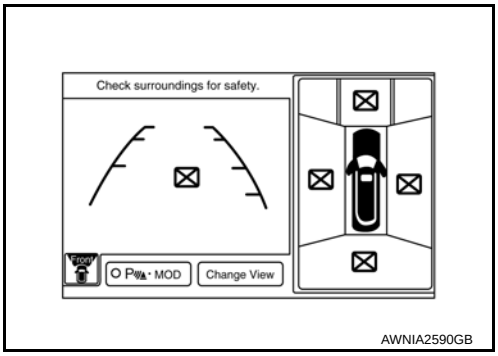
CALIBRATION FLOWCHART

Following the flowchart shown in the figure, perform the calibration.



NOTE:

View in the incomplete calibration state is indicated by "⊠" on the around view monitor.



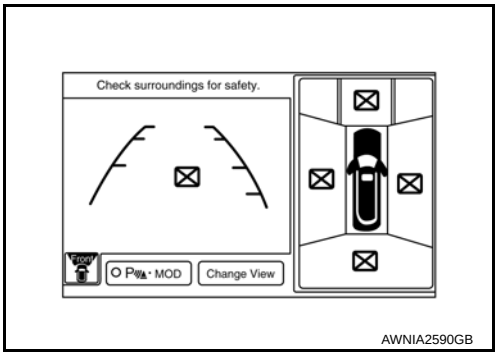
CALIBRATION PROCEDURE

1. AROUND VIEW MONITOR SCREEN CONFIRMATION

Check that there is no indication of “Incomplete calibration”.

Is the “Incomplete calibration” display visible?

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



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2. CHECK THAT AROUND VIEW MONITOR CONTROL UNIT IS REPLACED

Check that the around view monitor control unit is replaced.

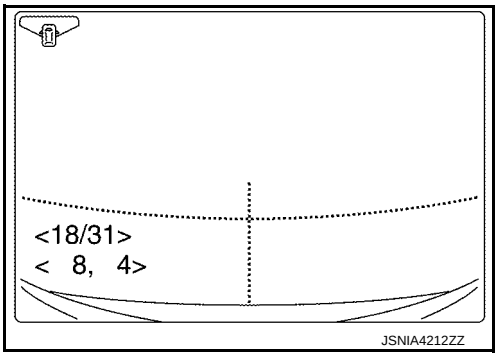
Is the around view monitor control unit replaced?

YES >> GO TO 3.
NO >> GO TO 5.

3. CANCEL THE INDICATION OF INCOMPLETE CALIBRATION (PERFORM THIS ONLY AFTER REPLACING AROUND VIEW MONITOR CONTROL UNIT.)

CONSULT work support

1. On the CONSULT screen, touch “CALIBRATING CAMERA IMAGE (FRONT CAMERA)”, “CALIBRATING CAMERA IMAGE (PASS-SIDE CAMERA)”, “CALIBRATING CAMERA IMAGE (DR-SIDE CAMERA)”, or “CALIBRATING CAMERA IMAGE (REAR CAMERA)” to accept the selection.
   NOTE:
   To cancel the indication of Incomplete calibration, select items based on the target camera.
2. On the adjustment screen of each camera, touch “APPLY” button. After this, touch “OK” button.
   CAUTION:
   - **Never perform operations other than those mentioned above.**
   - **Never perform “Initialize Camera Image Calibration”.**
3. Display the around view monitor screen to check that there is no errors, such as deviations among the camera images.



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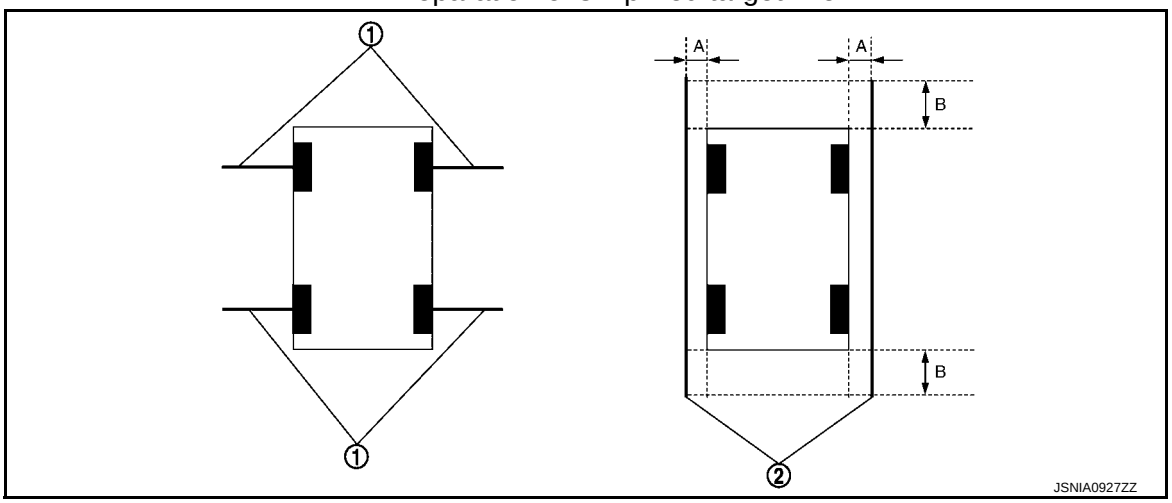
Is there a malfunction?

YES >> Calibration End.
NO >> GO TO 1.

4. PERFORM SIMPLIFIED CONFIRMATION/ADJUSTMENT BY “FINE TUNING OF BIRDS-EYE VIEW”

1. Put target line 1 on the ground beside each axle using packing tape, etc.
2. Put target lines 2 equal to the vehicle total length + approximately 1.0 m (39.3 in) from the vehicle side (right and left) at approximately 30 cm (11.8 in) away from the vehicle (make the line as parallel with the vehicle as possible).

Preparation of simplified target line



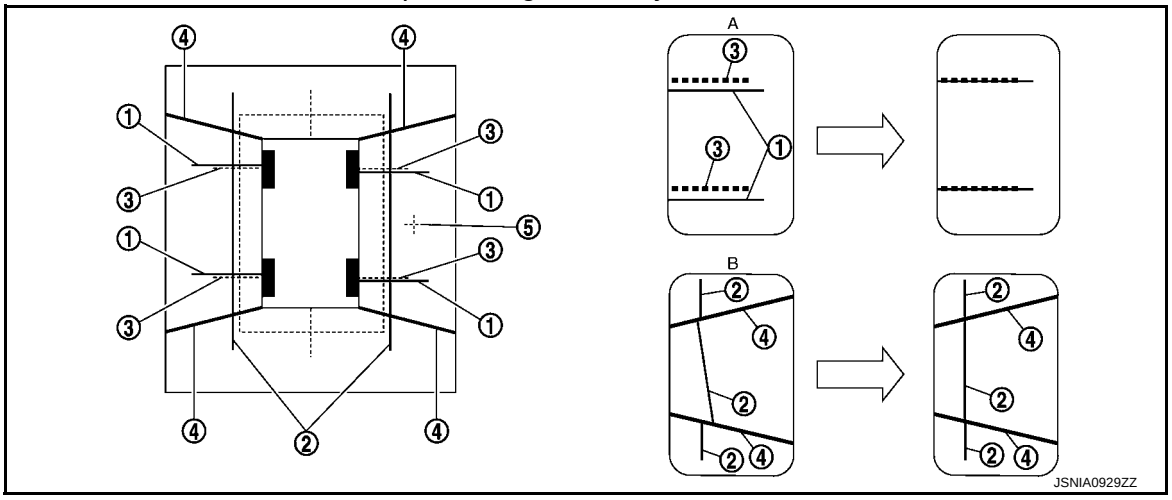
1. Target lines 1
2. Target lines 2
A. Approx. 30 cm (11.8 in)
B. Approx. 1.0 m (39.3 in)

3. CONSULT work support
   Touch “FINE TUNING OF BIRDS-EYE VIEW” on the CONSULT screen.
4. On the CONSULT screen, touch “SELECT” button to select right or left camera and perform camera calibration as instructed below:

- If the marker on the screen deviates from Target line 1, touch “AXIS X” button and “AXIS Y” button to adjust so that the marker is placed on the Target line 1.
- If Target line 2 is misaligned among the cameras, adjust each camera image to bring Target line 2 into a straight line.

CAUTION:
Never adjust the front camera and rear camera. Only adjust the right and left cameras.

Simplified target line adjustment method



1. Target lines 1
2. Target lines 2
3. Marker for target line 1
4. Boundary between cameras
5. Crosshairs cursor (mark indicated the selected camera)
A. Adjustment method for target lines 1 (right)
B. Adjustment method for target lines 2 (right)

5. Adjust right and left cameras. Touch "APPLY" on the CONSULT screen to display adjustment results.
6. After adjusting right and left cameras, check that the marker is properly placed on the screen and there is no deviation in Target line 1.
   NOTE:
   - It can be initialized to the NISSAN factory default condition with “Initialize Camera Image Calibration”.
   - The adjustment value is cancelled on this mode by performing “Initialize Camera Image Calibration”.

Is the difference corrected?

YES >> On the CONSULT screen, touch “OK” button to complete writing to the around view monitor control unit.

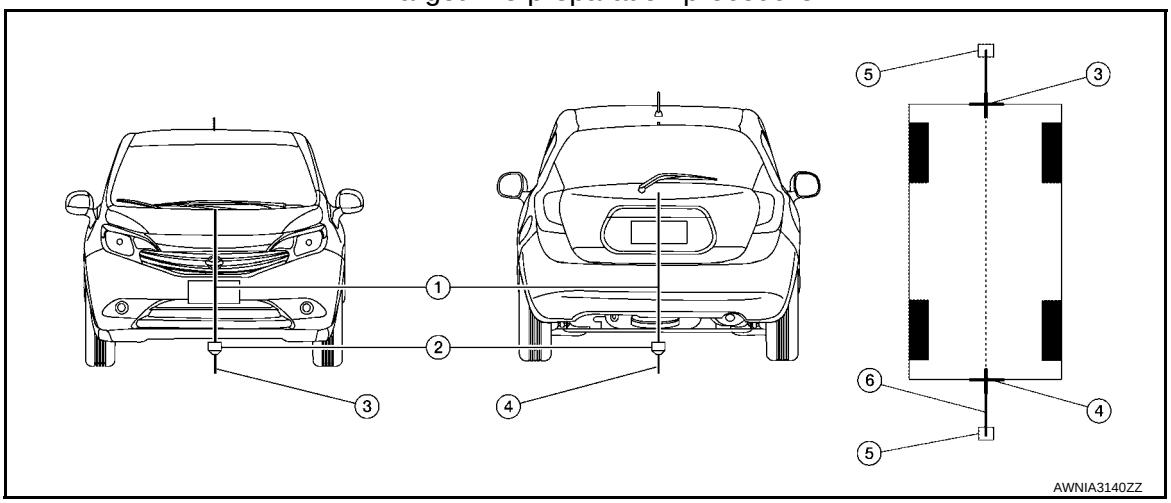
NO >> GO TO 5.

5. PERFORM “CALIBRATING CAMERA IMAGE”

Preparation of target line

1. Hang a string with a weight as shown in the figure. Put the points FM0, RM0 (mark) on the ground at the center of the vehicle front end and rear end with white packing tape or a pen.
2. Route the vinyl string under the vehicle, and then pull and fix it on the point approximately 1.0 m (39.9 in) to the front and rear of the vehicle through the points FM0 and RM0 using packing tape.

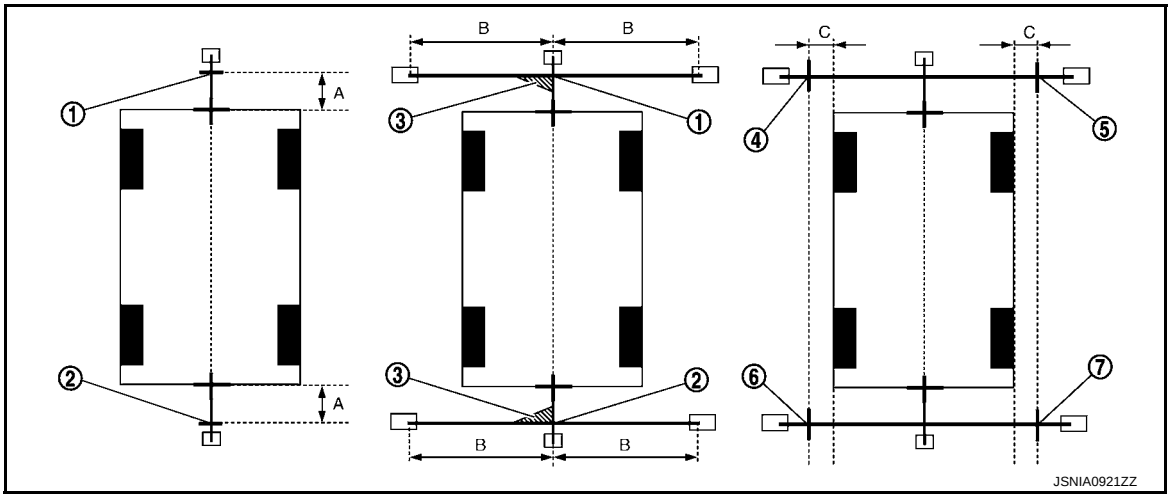
Target line preparation procedure 1



1. Thread
2. Weight
3. Point FM0 (mark)
4. Point RM0 (mark)
5. Packing tape (to fix the vinyl string)
6. Vinyl string

3. Put the points FM and RM (mark) 75 cm (29.5 in) from the points FM0 and RM0 individually.
4. Route the vinyl string through the points FM and RM using a triangle scale, and then fix it at approximately 1.5 m (59 in) on both sides with packing tape.
5. Put the points FL, FR, RL, and RR (mark) to both right and left [vehicle width / 2 + 30 cm (11.8 in)] from the points FM and RM.

Target line preparation procedure 2



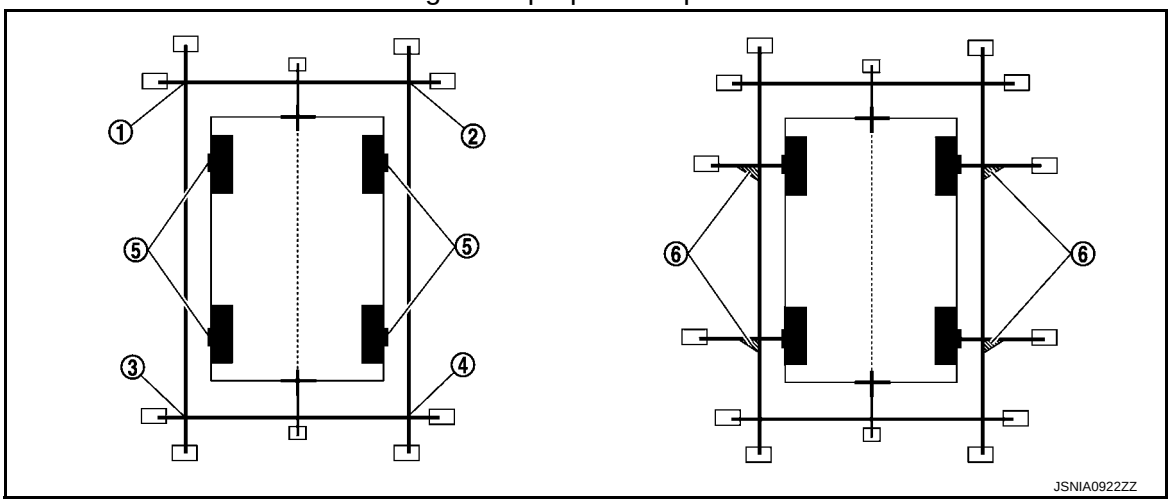
1. Point FM
2. Point RM
3. Triangle scale
4. Point FL (mark)
5. Point FR (mark)
6. Point RL (mark)

7. Point RR (mark)

A. 75 cm (29.5 in) B. Approx. 1.5 m (59 in) C. 30 cm (11.8 in) [Vehicle width/ 2 + 30 cm (11.8 in) from the points FM and RM]

6. Draw the lines of the points FL – RL and FR – RR with vinyl string, and fix it with packing tape.
7. Put a mark on the center of each axle, draw vertical lines to the lines of the points FL – RL and FR – RR from the marks on the center of the axle using a triangle scale, and then fix the lines using packing tape.

Target line preparation procedure 3

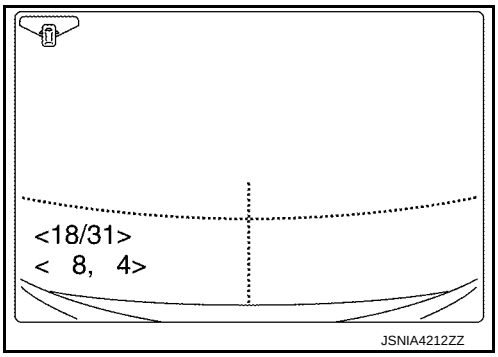


1. Point FL 2. Point FR 3. Point RL
4. Point RR 5. Center position of axle 6. Triangle scale

Perform “Calibrating Camera Image”

CONSULT work support

1. On the CONSULT screen, touch “CALIBRATING CAMERA IMAGE (FRONT CAMERA)”, “CALIBRATING CAMERA IMAGE (PASS-SIDE CAMERA)”, “CALIBRATING CAMERA IMAGE (DR-SIDE CAMERA)”, or “CALIBRATING CAMERA IMAGE (REAR CAMERA)” to accept the selection.
   NOTE:
   To cancel the indication of Incomplete calibration, select items based on the target camera.
2. On the adjustment screen of each camera, adjust the parameter by touching the “AXIS X” button, “AXIS Y” button, and “ROTATE” button to place the calibration marker shown on the camera screen on the target line drawn on the ground.



Adjustment range	
Rotation direction (Center dial)	: 31 patterns (16 on the center)
Upper/lower direction (upper/lower switch)	: –22 – 22
Left/right direction (left/right switch)	: –22 – 22

3. Touch “APPLY” button on the CONSULT screen. “PRCSNG” is displayed and adjustment results are shown on the camera screen.
   CAUTION:
   Check that “PRCSNG” is displayed. Never perform other operations while “PRCSNG” is displayed.
4. Touch “OK” button on the CONSULT screen. “PRCSNG” is displayed and adjustment results are written to the around view monitor control unit.
   CAUTION:
   Check that “PRCSNG” is displayed. Never perform other operations while “PRCSNG” is displayed.

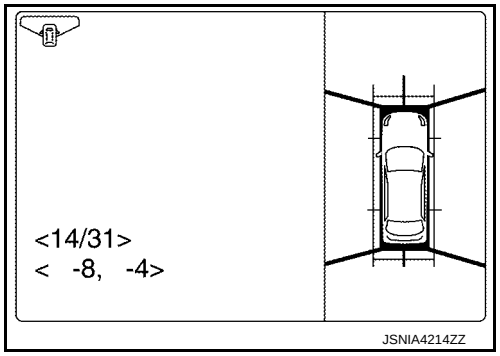
>> GO TO 6.

6. PERFORM “FINE TUNING OF BIRDS-EYE VIEW”

This mode is designed to align the boundary between each camera image that could not be aligned in the “Calibrating Camera Image” mode.

CONSULT work support

1. Select “FINE TUNING OF BIRDS-EYE VIEW” by touching CONSULT screen.
2. On the adjustment screen of each camera, adjust the parameter by touching the “AXIS X” button, “AXIS Y” button”, and “ROTATE” button to place the calibration marker shown on the camera screen on the target line drawn on the ground.
   NOTE:
   Touch “SELECT” button on the CONSULT screen to select the target camera.
3. Touch “APPLY” button on the CONSULT screen. “PRCSNG” is displayed and adjustment results are shown on the camera screen.
   CAUTION:
   Check that “PRCSNG” is displayed. Never perform other operations while “PRCSNG” is displayed.



4. Touch “OK” button on the CONSULT screen. “PRCSNG” is displayed and adjustment results are written to the around view monitor control unit.
   CAUTION:
   - **Check that “PRCSNG” is displayed. Never perform other operations while “PRCSNG” is displayed.**
   - **After pressing the “OK” button, never press buttons other than the “BACK” button.**

   NOTE:
   - It can be initialized to the NISSAN factory default condition with “Initialize Camera Image Calibration”.
   - The adjustment value is cancelled in this mode by performing “Initialize Camera Image Calibration”.

>> Calibration End.

DTC/CIRCUIT DIAGNOSIS

U0428 STEERING ANGLE SENSOR

DTC Description

INFOID:0000000015258862

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U0428	ST ANGLE SENSOR CALIBRATION (Steering angle sensor calibration)	Diagnosis condition	When ignition switch is ON
		Signal (terminal)	—
		Threshold	—
		Diagnosis delay time	—

POSSIBLE CAUSE

Neutral position adjustment of steering angle sensor is not complete

FAIL-SAFE

- Predicted course line is not displayed
- MOD (Moving Object Detection) function is stopped

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC U0428 is displayed with DTC U1232, first perform the diagnosis for DTC U1232.

Is DTC U1232 detected?

YES >> Proceed to AV-429, "DTC Description".
NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT
1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “AVM” using.
3. Check DTC.

Is DTC U0428 detected?

YES >> Proceed to AV-412, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015258863

1.ADJUST THE NEUTRAL POSITION OF THE STEERING ANGLE SENSOR

When U0428 is detected, adjust the neutral position of the steering angle sensor.
Perform adjustment of the neutral position of the steering angle sensor. Refer to BRC-77, "Work Procedure".

CAUTION:

For vehicles with VDC, adjust the steering angle sensor neutral position on the ABS actuator control unit side.

>> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT
1. Turn ignition switch ON.
2. Erase DTC.
3. Select “Self Diagnostic Result” mode of “AVM” using.
4. Check DTC.

Is DTC U0428 detected?

YES >> Replace steering angle sensor. Refer to BRC-208, "Removal and Installation".
NO >> Inspection End.

U1000 CAN COMM CIRCUIT

DTC Description

INFOID:0000000015258864

DESCRIPTION

CAN (Controller Area Network) is a serial communication line for real-time application. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Many electronic control units are equipped onto a vehicle, and each control unit shares information and links with other control units during operation (not independently). In CAN communication, control units are connected with two communication lines (CAN-H, CAN-L), allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.
CAN Communication Signal Chart. Refer to LAN-44, "CAN COMMUNICATION SYSTEM : CAN Communication Signal Chart".

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U1000	CAN COMM CIRCUIT (CAN COMM CIRCUIT)	Diagnosis condition	When ignition switch is ON
		Signal (terminal)	—
		Threshold	—
		Diagnosis delay time	—

POSSIBLE CAUSE

CAN communication system

FAIL-SAFE

- When communication of steering angle sensor signal is not normal:
- Predicted course line is not displayed
- MOD (Moving Object Detection) function is stopped
- When communication of vehicle signal, wheel speed sensor signal, and shift signal is not normal:
- Predicted course line is not displayed
- MOD (Moving Object Detection) function is stopped.

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT
1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “AVM”.
3. Check DTC.

Is DTC U1000 detected?

YES >> Proceed to AV-414, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015258865

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT
1. Turn ignition switch ON.
2. Erase DTC.
3. Select “Self Diagnostic Result” mode of “AVM”.
4. Check DTC.

Is DTC U1000 detected?

YES >> Refer to LAN-26, "Trouble Diagnosis Flow Chart".
NO >> Refer to GI-54, "Intermittent Incident".

U1010 CONTROL UNIT (CAN)

DTC Description

INFOID:0000000015258866

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U1010	CONTROL UNIT(CAN) [Control unit(CAN)]	Diagnosis condition	When ignition switch is ON
		Signal (terminal)	—
		Threshold	—
		Diagnosis delay time	—

POSSIBLE CAUSE

Around view monitor control unit

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT
1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “AVM”.
3. Check DTC.

Is DTC U1010 detected?

YES >> Proceed to AV-415, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015258867

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT
1. Turn ignition switch ON.
2. Erase DTC.
3. Select “Self Diagnostic Result” mode of “AVM”.
4. Check DTC.

Is DTC U1010 detected?

YES >> Replace around view monitor control unit. Refer to AV-441, "Removal and Installation".
NO >> Inspection End.

U111A REAR CAMERA IMAGE SIGNAL CIRCUIT

DTC Description

INFOID:0000000015258868

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U111A	REAR CAMERA IMAGE SIGNAL (CAN COMM CIRCUIT)	Diagnosis condition	When ignition switch is ON
		Signal (terminal)	Rear camera image signal (terminal 20)
		Threshold	Rear camera image signal circuit is shorted or open
		Diagnosis delay time	—

POSSIBLE CAUSE

Rear camera image signal circuit

FAIL-SAFE

Camera image is not displayed (gray screen display)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “AVM”.
3. Check DTC.

Is DTC U111A detected?

YES >> Proceed to AV-416, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015258869

Regarding Wiring Diagram information, refer to AV-388, "Wiring Diagram".

1. CHECK REAR VIEW CAMERA POWER SUPPLY AND GROUND CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector M112 and rear view camera connector D504.
3. Check continuity between around view monitor control unit connector M112 and rear view camera connector D504.

Around view monitor control unit		Rear view camera		Continuity
Connector	Terminals	Connector	Terminals	
M112	17	D504	1	Yes
	18		2	

4. Check continuity between around view monitor control unit connector M112 and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminal		
M112	18		No

Is the inspection result normal?

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

2.CHECK REAR VIEW CAMERA POWER SUPPLY VOLTAGE

1. Connect around view monitor control unit connector M112 and rear view camera connector D504.
2. Turn ignition switch ON.
3. Check voltage between around view monitor control unit connector M112 and ground.

Around view monitor control unit		Ground	Condition	Voltage (Approx.)
Connector	Terminal			
M112	18	—	CAMERA switch is ON or selector lever in R (reverse).	6.0 V

Is the inspection result normal?

YES >> GO TO 3.
NO >> Replace around view monitor control unit. Refer to AV-441, "Removal and Installation".

3.CHECK REAR VIEW CAMERA IMAGE SIGNAL AND IMAGE SIGNAL GROUND CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector M112 and rear view camera connector D504.
3. Check continuity between around view monitor control unit connector M112 and rear view camera connector D504.

Around view monitor control unit		Rear view camera		Continuity
Connector	Terminals	Connector	Terminals	
M112	20	D504	4	Yes
	19		5	

4. Check continuity between around view monitor control unit connector M112 and ground.

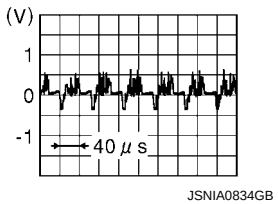
Around view monitor control unit		Ground	Continuity
Connector	Terminal		
M112	20		No

Is the inspection result normal?

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

4.CHECK REAR VIEW CAMERA IMAGE SIGNAL

1. Connect around view monitor control unit connector M112 and rear view camera connector D504.
2. Turn ignition switch ON.
3. Check signal between the terminals of around view monitor control unit connector M112.

Around view monitor control unit connector M112		Condition	Reference value
(+)	(–)		
Terminal	Terminal		
20	19	CAMERA switch is ON or selector lever in R (reverse).	

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Is the inspection result normal?

YES >> Replace around view monitor control unit. Refer to AV-441, "Removal and Installation".

NO >> Replace rear view camera. Refer to AV-444, "Removal and Installation".

U111B SIDE CAMERA RH IMAGE SIGNAL CIRCUIT

DTC Description

INFOID:0000000015258870

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U111B	SIDE CAMERA RH IMAGE SIGNAL (Side camera right image signal)	Diagnosis condition	When ignition switch is ON
		Signal (terminal)	Door mirror RH signal circuit (terminal 12)
		Threshold	Door mirror RH signal circuit is open or shorted
		Diagnosis delay time	—

POSSIBLE CAUSE

Side camera RH image signal circuit

FAIL-SAFE

Camera image is not displayed (gray screen display)

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT
1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “AVM”.
3. Check DTC.

Is DTC U111B detected?

YES >> Proceed to AV-419, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015258871

Regarding Wiring Diagram information, refer to AV-388, "Wiring Diagram".

WITH AUTOMATIC DRIVE POSITIONER

1.CHECK DOOR MIRROR RH POWER SUPPLY AND GROUND CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit M112 and door mirror RH connector D106.
3. Check continuity between around view monitor control unit connector M112 and door mirror RH connector D106.

Around view monitor control unit		Door mirror RH		Continuity
Connector	Terminals	Connector	Terminals	
M112	9	D106	8	Yes
	10		7	

4. Check continuity between around view monitor control unit connector M112 and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminal		
M112	9		No

Is the inspection result normal?

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

2.CHECK DOOR MIRROR RH POWER SUPPLY VOLTAGE

1. Connect around view monitor control unit connector M112 and door mirror RH connector D106.
2. Turn ignition switch ON.
3. Check voltage between around view monitor control unit connector M112 and ground.

Around view monitor control unit		Ground	Condition	Voltage (Approx.)
Connector	Terminal			
M112	9	—	CAMERA switch is ON or selector lever in R (reverse).	6.0 V

Is the inspection result normal?

YES >> GO TO 3.
NO >> Replace around view monitor control unit. Refer to AV-441, "Removal and Installation".

3.CHECK DOOR MIRROR RH IMAGE SIGNAL AND IMAGE SIGNAL GROUND CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector M112 and door mirror RH connector D106.
3. Check continuity between around view monitor control unit connector M112 and door mirror RH connector D106.

Around view monitor control unit		Door mirror RH		Continuity
Connector	Terminals	Connector	Terminals	
M112	12	D106	16	Yes
	11		15	

4. Check continuity between around view monitor control unit connector M112 and ground.

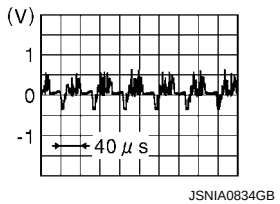
Around view monitor control unit		Ground	Continuity
Connector	Terminal		
M112	12		No

Is the inspection result normal?

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

4.CHECK DOOR MIRROR RH IMAGE SIGNAL

1. Connect around view monitor control unit connector M112 and door mirror RH connector D106.
2. Turn ignition switch ON.
3. Check signal between the terminals of around view monitor control unit connector M112.

Around view monitor control unit connector M112		Condition	Reference value
(+)	(–)		
Terminal	Terminal		
12	11	CAMERA switch is ON or selector lever in R (reverse).	

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Is the inspection result normal?

YES >> Replace around view monitor control unit. Refer to AV-441, "Removal and Installation".

NO >> Replace side camera RH. Refer to AV-443, "Removal and Installation".

WITHOUT AUTOMATIC DRIVE POSITIONER

1. CHECK DOOR MIRROR RH POWER SUPPLY AND GROUND CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit M112 and door mirror RH connector D107.
3. Check continuity between around view monitor control unit connector M112 and door mirror RH connector D107.

Around view monitor control unit		Door mirror RH		Continuity
Connector	Terminals	Connector	Terminals	
M112	9	D107	8	Yes
	10		7	

4. Check continuity between around view monitor control unit connector M112 and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminal		
M112	9		No

Is the inspection result normal?

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

2. CHECK DOOR MIRROR RH POWER SUPPLY VOLTAGE

1. Connect around view monitor control unit connector M112 and door mirror RH connector D107.
2. Turn ignition switch ON.
3. Check voltage between around view monitor control unit connector M112 and ground.

Around view monitor control unit		Ground	Condition	Voltage (Approx.)
Connector	Terminal			
M112	9	—	CAMERA switch is ON or selector lever in R (reverse).	6.0 V

Is the inspection result normal?

YES >> GO TO 3.
NO >> Replace around view monitor control unit. Refer to AV-441, "Removal and Installation".

3. CHECK DOOR MIRROR RH IMAGE SIGNAL AND IMAGE SIGNAL GROUND CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector M112 and door mirror RH connector D107.
3. Check continuity between around view monitor control unit connector M112 and door mirror RH connector D107.

Around view monitor control unit		Door mirror RH		Continuity
Connector	Terminals	Connector	Terminals	
M112	12	D107	16	Yes
	11		15	

4. Check continuity between around view monitor control unit connector M112 and ground.

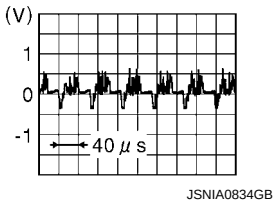
Around view monitor control unit		Ground	Continuity
Connector	Terminal		
M112	12		No

Is the inspection result normal?

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

4. CHECK DOOR MIRROR RH IMAGE SIGNAL

1. Connect around view monitor control unit connector M112 and door mirror RH connector D107.
2. Turn ignition switch ON.
3. Check signal between the terminals of around view monitor control unit connector M112.

Around view monitor control unit connector M112		Condition	Reference value
(+)	(–)		
Terminal	Terminal		
12	11	CAMERA switch is ON or selector lever in R (reverse).	

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Is the inspection result normal?

YES >> Replace around view monitor control unit. Refer to AV-441, "Removal and Installation".
NO >> Replace side camera RH. Refer to AV-443, "Removal and Installation".

U111C FRONT CAMERA IMAGE SIGNAL CIRCUIT

DTC Description

INFOID:0000000015258872

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U111C	FRONT CAMERA IMAGE SIGNAL (Front camera image signal)	Diagnosis condition	When ignition switch is ON
		Signal (terminal)	Front view camera image signal (terminal 8)
		Threshold	Front camera image signal circuit is open or shorted
		Diagnosis delay time	—

POSSIBLE CAUSE

Front camera image signal circuit

FAIL-SAFE

Camera image is not displayed (gray screen display)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

CONSULT
1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “AVM”.
3. Check DTC.

Is DTC U111C detected?

YES >> Proceed to AV-423, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015258873

Regarding Wiring Diagram information, refer to AV-388, "Wiring Diagram".

1. CHECK FRONT CAMERA POWER SUPPLY AND GROUND CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector M112 and front camera connector E226.
3. Check continuity between around view monitor control unit connector M112 and front camera connector E226.

Around view monitor control unit		Front camera		Continuity
Connector	Terminals	Connector	Terminals	
M112	6	E226	1	Yes
	5		2	

4. Check continuity between around view monitor control unit connector M112 and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminal		
M112	6		No

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness or connectors.

2.CHECK FRONT CAMERA POWER SUPPLY VOLTAGE

1. Connect around view monitor control unit connector M112 and front camera connector E226.
2. Turn ignition switch ON.
3. Check voltage between around view monitor control unit connector M112 and ground.

Around view monitor control unit		Ground	Condition	Voltage (Approx.)
Connector	Terminal			
M112	6	—	CAMERA switch is ON or selector lever in R (reverse).	6.0 V

Is the inspection result normal?

YES >> GO TO 3.
NO >> Replace around view monitor control unit. Refer to AV-441, "Removal and Installation".

3.CHECK FRONT CAMERA IMAGE SIGNAL AND IMAGE SIGNAL GROUND CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector M112 and front camera connectors E226.
3. Check continuity between around view monitor control unit connector M112 and front camera connector E226.

Around view monitor control unit		Front camera		Continuity
Connector	Terminals	Connector	Terminals	
M112	8	E226	3	Yes
	7		4	

4. Check continuity between around view monitor control unit connector M112 and ground.

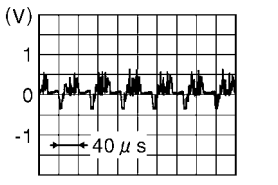
Around view monitor control unit		Ground	Continuity
Connector	Terminal		
M112	8		No

Is the inspection result normal?

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

4.CHECK FRONT CAMERA IMAGE SIGNAL

1. Connect around view monitor control unit connector M112 and front camera connector E226.
2. Turn ignition switch ON.
3. Check signal between the terminals of around view monitor control unit connector M112.

Around view monitor control unit connector M112		Condition	Reference value
(+)	(–)		
Terminal	Terminal		
8	7	CAMERA switch is ON or selector lever in R (reverse).	

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Is the inspection result normal?

YES >> Replace around view monitor control unit. Refer to AV-441, "Removal and Installation".
NO >> Replace front camera. Refer to AV-442, "Removal and Installation".

U111D SIDE CAMERA LH IMAGE SIGNAL CIRCUIT

DTC Description

INFOID:0000000015258874

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U111D	SIDE CAMERA LH IMAGE SIGNAL (Side camera left image signal)	Diagnosis condition	When ignition switch is ON
		Signal (terminal)	Side camera LH image signal (terminal 16)
		Threshold	Side camera LH image signal circuit is open or shorted
		Diagnosis delay time	—

POSSIBLE CAUSE

Side camera LH image signal circuit

FAIL-SAFE

Camera image is not displayed (gray screen display)

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT
1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “AVM”.
3. Check DTC.

Is DTC U111D detected?

YES >> Proceed to AV-425, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015258875

Regarding Wiring Diagram information, refer to AV-388, "Wiring Diagram".

WITH AUTOMATIC DRIVE POSITIONER

1.CHECK DOOR MIRROR LH POWER SUPPLY AND GROUND CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit M112 and door mirror LH connector D16.
3. Check continuity between around view monitor control unit connector M112 and door mirror LH connector D16.

Around view monitor control unit		Door mirror LH		Continuity
Connector	Terminals	Connector	Terminals	
M112	14	D16	7	Yes
	13		8	

4. Check continuity between around view monitor control unit connector M112 and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminal		
M112	14		No

Is the inspection result normal?

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

2.CHECK DOOR MIRROR LH POWER SUPPLY VOLTAGE

1. Connect around view monitor control unit connector M112 and door mirror LH connector D16.
2. Turn ignition switch ON.
3. Check voltage between around view monitor control unit connector M112 and ground.

Around view monitor control unit		Ground	Condition	Voltage (Approx.)
Connector	Terminal			
M112	14	—	CAMERA switch is ON or selector lever in R (reverse).	6.0 V

Is the inspection result normal?

YES >> GO TO 3.
NO >> Replace around view monitor control unit. Refer to AV-441, "Removal and Installation".

3.CHECK DOOR MIRROR LH IMAGE SIGNAL AND IMAGE SIGNAL GROUND CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector M112 and door mirror LH connector D16.
3. Check continuity between around view monitor control unit connector M112 and door mirror LH connector D16.

Around view monitor control unit		Door mirror LH		Continuity
Connector	Terminals	Connector	Terminals	
M112	16	D16	16	Yes
	15		15	

4. Check continuity between around view monitor control unit connector M112 and ground.

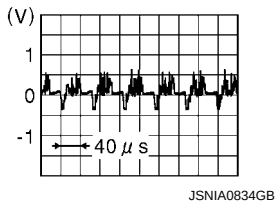
Around view monitor control unit		Ground	Continuity
Connector	Terminal		
M112	16		No

Is the inspection result normal?

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

4.CHECK DOOR MIRROR LH IMAGE SIGNAL

1. Connect around view monitor control unit connector M112 and door mirror LH connector D16.
2. Turn ignition switch ON.
3. Check signal between the terminals of around view monitor control unit connector M112.

Around view monitor control unit connector M112		Condition	Reference value
(+)	(–)		
Terminal	Terminal		
16	15	CAMERA switch is ON or selector lever in R (reverse).	

JSNIA0834GB

Is the inspection result normal?

YES >> Replace around view monitor control unit. Refer to AV-441, "Removal and Installation".

NO >> Replace side camera LH. Refer to AV-443, "Removal and Installation".

WITHOUT AUTOMATIC DRIVE POSITIONER

1.CHECK DOOR MIRROR LH POWER SUPPLY AND GROUND CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit M112 and door mirror LH connector D14.
3. Check continuity between around view monitor control unit connector M112 and door mirror LH connector D14.

Around view monitor control unit		Door mirror LH		Continuity
Connector	Terminals	Connector	Terminals	
M112	14	D14	7	Yes
	13		8	

4. Check continuity between around view monitor control unit connector M112 and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminal		
M112	14		No

Is the inspection result normal?

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

2.CHECK DOOR MIRROR LH POWER SUPPLY VOLTAGE

1. Connect around view monitor control unit connector M112 and door mirror LH connector D14.
2. Turn ignition switch ON.
3. Check voltage between around view monitor control unit connector M112 and ground.

Around view monitor control unit		Ground	Condition	Voltage (Approx.)
Connector	Terminal			
M112	14	—	CAMERA switch is ON or selector lever in R (reverse).	6.0 V

Is the inspection result normal?

YES >> GO TO 3.
NO >> Replace around view monitor control unit. Refer to AV-441, "Removal and Installation".

3.CHECK DOOR MIRROR LH IMAGE SIGNAL AND IMAGE SIGNAL GROUND CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector M112 and door mirror LH connector D14.
3. Check continuity between around view monitor control unit connector M112 and door mirror LH connector D14.

Around view monitor control unit		Door mirror LH		Continuity
Connector	Terminals	Connector	Terminals	
M112	16	D14	16	Yes
	15		15	

4. Check continuity between around view monitor control unit connector M112 and ground.

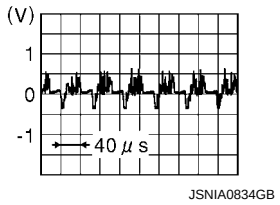
Around view monitor control unit		Ground	Continuity
Connector	Terminal		
M112	16		No

Is the inspection result normal?

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

4. CHECK DOOR MIRROR LH IMAGE SIGNAL

1. Connect around view monitor control unit connector M112 and door mirror LH connector D14.
2. Turn ignition switch ON.
3. Check signal between the terminals of around view monitor control unit connector M112.

Around view monitor control unit connector M112		Condition	Reference value
(+)	(–)		
Terminal	Terminal		
16	15	CAMERA switch is ON or selector lever in R (reverse).	

JSNIA0834GB

Is the inspection result normal?

YES >> Replace around view monitor control unit. Refer to AV-441, "Removal and Installation".
NO >> Replace side camera LH. Refer to AV-443, "Removal and Installation".

U1232 STEERING ANGLE SENSOR

DTC Description

INFOID:0000000015258876

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U1232	ST ANGLE SEN CALIB (Steering angle sensor calibration)	Diagnosis condition	When ignition switch is ON
		Signal (terminal)	—
		Threshold	—
		Diagnosis delay time	—

POSSIBLE CAUSE

- Neutral position adjustment of the steering angle sensor is incomplete
- Steering angle sensor

FAIL-SAFE

Predictive course line is not displayed

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Turn ignition switch ON.
2. Select “Self diagnostic result” mode of “AVM”.
3. Check DTC.

Is DTC U1232 detected?

YES >> Proceed to AV-429, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015258877

1.ADJUST THE PREDICTIVE COURSE LINE CENTER POSITION OF THE STEERING ANGLE SENSOR

Adjust the steering angle sensor neutral position on ABS actuator and electrical unit (control unit) side. Refer to BRC-77, "Work Procedure".

NOTE:

When DTC U1232 is detected, adjust the predictive course line center position of the steering angle sensor.

>> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Turn ignition switch ON.
2. Erase DTC.
3. Select “Self diagnostic result” mode of “AVM”.
4. Check DTC.

Is DTC U1232 detected?

YES >> Replace steering angle sensor. Refer to BRC-208, "Removal and Installation".
NO >> Inspection End.

U1302 CAMERA POWER VOLT

DTC Description

INFOID:0000000015258878

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U1302	CAMERA POWER VOLT (Camera power voltage)	Diagnosis condition	When ignition switch is ON
		Signal (terminal)	Camera power supply circuits
		Threshold	Camera power supply voltage is 5.9 V-6.5 V when ON, or 0 V when OFF
		Diagnosis delay time	—

POSSIBLE CAUSE

- Camera power supply output circuit
- Around view monitor control unit

FAIL-SAFE

Camera power output is stopped

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “AVM”.
3. Check DTC.

Is DTC U1302 detected?

YES >> Proceed to AV-430, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015258879

Regarding Wiring Diagram information, refer to AV-388, "Wiring Diagram".

1.CHECK CAMERA DATA MONITOR

CONSULT

Check CAMERA IMAGE SIG for each camera in “Data Monitor” of “AVM”.

Is “OK” displayed for all cameras?

YES >> Refer to GI-54, "Intermittent Incident".
NO-1 (Front camera)>>GO TO 2.
NO-2 (Rear view camera)>>GO TO 4.
NO-3 (LH side camera with automatic drive positioner)>>GO TO 6.
NO-4 (LH side camera without automatic drive positioner)>>GO TO 8.
NO-5 (RH side camera with automatic drive positioner)>>GO TO 10.
NO-6 (RH side camera without automatic drive positioner)>>GO TO 12.

2.CHECK FRONT CAMERA POWER SUPPLY AND POWER SUPPLY GROUND CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector M112 and front camera connector E226.
3. Check continuity between around view monitor control unit connector M112 and front camera connector E226.

Around view monitor control unit		Front camera		Continuity
Connector	Terminal	Connector	Terminal	
M112	6	E226	1	Yes
	5		2	

4. Check continuity between around view monitor control unit connector M112 and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminal		
M112	6	—	No

Is the inspection result normal?

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

3. CHECK AROUND VIEW MONITOR CONTROL UNIT VOLTAGE (FRONT CAMERA)

1. Connect around view monitor control unit connector M112 and front camera connector E226.
2. Turn ignition switch ON.
3. Check voltage between around view monitor control unit connector M112 terminals.

Around view monitor control unit M112		Condition	Voltage (Approx.)
(+)	(–)		
Terminal	Terminal		
6	5	CAMERA switch is ON or shift position is “D”.	6.2 V

Is the inspection result normal?

YES >> Replace front camera. Refer to AV-442, "Removal and Installation".
NO >> Replace around view monitor control unit. Refer to AV-441, "Removal and Installation".

4. CHECK REAR VIEW CAMERA POWER SUPPLY AND POWER SUPPLY GROUND CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector M112 and rear view camera connector D504.
3. Check continuity between around view monitor control unit connector M112 and rear view camera connector D504.

Around view monitor control unit		Rear view camera		Continuity
Connector	Terminal	Connector	Terminal	
M112	18	D504	2	Yes
	17		1	

4. Check continuity between around view monitor control unit connector M112 and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminal		
M112	18	—	No

Is the inspection result normal?

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

5. CHECK AROUND VIEW MONITOR CONTROL UNIT VOLTAGE (REAR CAMERA)

1. Connect around view monitor control unit connector M112 and rear view camera connector D504.
2. Turn ignition switch ON.
3. Check voltage between around view monitor control unit connector M112 terminals.

Around view monitor control unit M112		Condition	Voltage (Approx.)
(+)	(–)		
Terminal	Terminal		
18	17	CAMERA switch is ON or shift position is “R”.	6.2 V

Is the inspection result normal?

YES >> Replace rear view camera. Refer to AV-444, "Removal and Installation".
NO >> Replace around view monitor control unit. Refer to AV-441, "Removal and Installation".

6.CHECK LH SIDE CAMERA (WITH AUTOMATIC DRIVE POSITIONER) POWER SUPPLY AND POWER SUPPLY GROUND CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector M112 and LH side camera connector D16.
3. Check continuity between around view monitor control unit connector M112 and LH side camera connector D16.

Around view monitor control unit		LH side camera		Continuity
Connector	Terminal	Connector	Terminal	
M112	14	D16	7	Yes
	13		8	

4. Check continuity between around view monitor control unit connector M112 and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminal		
M112	14	—	No

Is the inspection result normal?

YES >> GO TO 7.
NO >> Repair or replace harness or connectors.

7.CHECK AROUND VIEW MONITOR CONTROL UNIT VOLTAGE (LH SIDE CAMERA WITH AUTOMATIC DRIVE POSITIONER)

1. Connect around view monitor control unit connector M112 and LH side camera connector D16.
2. Turn ignition switch ON.
3. Check voltage between around view monitor control unit connector M112 terminals.

Around view monitor control unit M112		Condition	Voltage (Approx.)
(+)	(–)		
Terminal	Terminal		
14	13	CAMERA switch is ON or shift position is “D” or “R”.	6.2 V

Is the inspection result normal?

YES >> Replace LH side camera. Refer to AV-443, "Removal and Installation".
NO >> Replace around view monitor control unit. Refer to AV-441, "Removal and Installation".

8.CHECK LH SIDE CAMERA (WITHOUT AUTOMATIC DRIVE POSITIONER) POWER SUPPLY AND POWER SUPPLY GROUND CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector M112 and LH side camera connector D14.
3. Check continuity between around view monitor control unit connector M112 and LH side camera connector D14.

Around view monitor control unit		LH side camera		Continuity
Connector	Terminal	Connector	Terminal	
M112	14	D14	7	Yes
	13		8	

4. Check continuity between around view monitor control unit connector M112 and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminal		
M112	14	—	No

Is the inspection result normal?

YES >> GO TO 9.
NO >> Repair or replace harness or connectors.

9. CHECK AROUND VIEW MONITOR CONTROL UNIT VOLTAGE (LH SIDE CAMERA WITHOUT AUTOMATIC DRIVE POSITIONER)

1. Connect around view monitor control unit connector M112 and LH side camera connector D14.
2. Turn ignition switch ON.
3. Check voltage between around view monitor control unit connector M112 terminals.

Around view monitor control unit M112		Condition	Voltage (Approx.)
(+)	(–)		
Terminal	Terminal		
14	13	CAMERA switch is ON or shift position is “D” or “R”.	6.2 V

Is the inspection result normal?

YES >> Replace LH side camera. Refer to AV-443, "Removal and Installation".
NO >> Replace around view monitor control unit. Refer to AV-441, "Removal and Installation".

10. CHECK RH SIDE CAMERA (WITH AUTOMATIC DRIVE POSITIONER) POWER SUPPLY AND POWER SUPPLY GROUND CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector M112 and RH side camera connector D106.
3. Check continuity between around view monitor control unit connector M112 and RH side camera connector D106.

Around view monitor control unit		RH side camera		Continuity
Connector	Terminal	Connector	Terminal	
M112	10	D106	7	Yes
	9		8	

4. Check continuity between around view monitor control unit connector M112 and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminal		
M112	10	—	No

Is the inspection result normal?

YES >> GO TO 11.
NO >> Repair or replace harness or connectors.

11. CHECK AROUND VIEW MONITOR CONTROL UNIT VOLTAGE (RH SIDE CAMERA WITH AUTOMATIC DRIVE POSITIONER)

1. Connect around view monitor control unit connector M112 and RH side camera connector D106.
2. Turn ignition switch ON.
3. Check voltage between around view monitor control unit connector M112 terminals.

Around view monitor control unit M112		Condition	Voltage (Approx.)
(+)	(–)		
Terminal	Terminal		
10	9	CAMERA switch is ON or shift position is “D” or “R”.	6.2 V

Is the inspection result normal?

YES >> Replace LH side camera. Refer to AV-443, "Removal and Installation".
NO >> Replace around view monitor control unit. Refer to AV-441, "Removal and Installation".

12. CHECK RH SIDE CAMERA (WITHOUT AUTOMATIC DRIVE POSITIONER) POWER SUPPLY AND POWER SUPPLY GROUND CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector M112 and RH side camera connector D107.
3. Check continuity between around view monitor control unit connector M112 and RH side camera connector D107.

Around view monitor control unit		RH side camera		Continuity
Connector	Terminal	Connector	Terminal	
M112	10	D107	7	Yes
	9		8	

4. Check continuity between around view monitor control unit connector M112 and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminal		
M112	10	—	No

Is the inspection result normal?

YES >> GO TO 13.
NO >> Repair or replace harness or connectors.

13. CHECK AROUND VIEW MONITOR CONTROL UNIT VOLTAGE (RH SIDE CAMERA WITHOUT AUTOMATIC DRIVE POSITIONER)

1. Connect around view monitor control unit connector M112 and RH side camera connector D107.
2. Turn ignition switch ON.
3. Check voltage between around view monitor control unit connector M112 terminals.

Around view monitor control unit M112		Condition	Voltage (Approx.)
(+)	(–)		
Terminal	Terminal		
10	9	CAMERA switch is ON or shift position is “D” or “R”.	6.2 V

Is the inspection result normal?

YES >> Replace LH side camera. Refer to AV-443, "Removal and Installation".
NO >> Replace around view monitor control unit. Refer to AV-441, "Removal and Installation".

U1304 CAMERA IMAGE CALIBRATION

DTC Description

INFOID:0000000015258880

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U1304	CAMERA IMAGE CALIB (Camera image calibration)	Diagnosis condition	When ignition switch is ON
		Signal (terminal)	—
		Threshold	—
		Diagnosis delay time	—

POSSIBLE CAUSE

Camera calibration is incomplete

FAIL-SAFE

Unmatched icon display (red) is displayed (applicable for unmatched camera only)

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT
1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “AVM”.
3. Check DTC.

Is DTC U1304 detected?

YES >> Proceed to AV-435, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015258881

1.PERFORM CALIBRATION

When U1304 is detected, perform calibration of camera image.

>> Refer to AV-406, "Work Procedure".

U1305 CONFIG UNFINISH

DTC Description

INFOID:0000000015258882

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U1305	CONFIG UNFINISH (Configuration unfinish)	Diagnosis condition	When ignition switch is ON
		Signal (terminal)	—
		Threshold	—
		Diagnosis delay time	—

POSSIBLE CAUSE

The vehicle setting of around view monitor control unit is incomplete

FAIL-SAFE

Operation is according to the vehicle setting value as default value

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT
1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “AVM”.
3. Check DTC.

Is DTC U1305 detected?

YES >> Proceed to AV-436, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015258883

1.PERFORM CONFIGURATION

When U1305 is detected, perform configuration of around view monitor control unit.

>> Refer to AV-404, "Work Procedure".

POWER SUPPLY AND GROUND CIRCUIT

Diagnosis Procedure

INFOID:0000000015258884

1.CHECK FUSE

Check that the following fuses are not blown.

Terminal No.	Signal name	Fuse No.
40	Ignition signal	30 (10A)

Are the fuses blown?

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

2.CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector M112.
3. Check voltage between around view monitor control unit connector M112 and ground.

Around view monitor control unit		Ground	Condition	Voltage (Approx.)
Connector	Terminal			
M112	40	—	Ignition switch: ON	Battery voltage

Is the inspection result normal?

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

3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Check continuity between around view monitor control unit connector M112 and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminal		
M112	39	—	Yes

Is the inspection result normal?

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

SYMPTOM DIAGNOSIS

AROUND VIEW MONITOR SYSTEM

Symptom Table

INFOID:0000000015258861

AROUND VIEW MONITOR SYSTEM

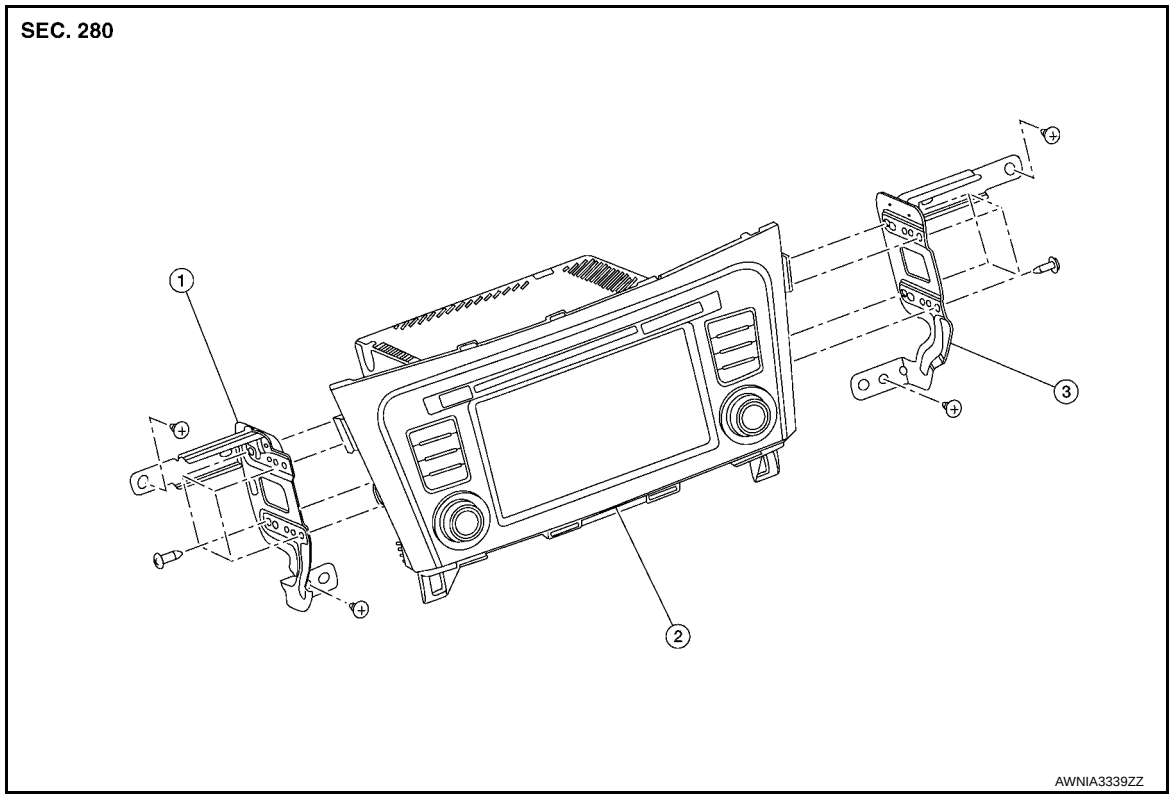
Symptom	Check items		Probable malfunction location
Screen is not switched to camera image when CAMERA button is pressed or when shift position is shifted to “R”.	“AVM” is not displayed on the system selection screen of CONSULT.		Around view monitor control unit power supply or ground circuit. Refer to AV-437, "Diagnosis Procedure".
	Check that Data Monitor item values are normal using CONSULT: • CAMERA SWITCH SIGNAL • REVERSE SIGNAL	CAMERA SWITCH SIGNAL and REVERSE SIGNAL are normal.	Around view monitor control unit. Refer to AV-441, "Removal and Installation".
		CAMERA SWITCH SIGNAL is not normal.	CAN communication circuit. Refer to LAN-26, "Trouble Diagnosis Flow Chart".
		REVERSE SIGNAL is not normal.	Reverse signal circuit. Refer to AV-383, "Reference Value".
• Front view screen is not displayed. • Front of around view screen is not displayed.	Check the following Data Monitor item using CONSULT: • F-CAMERA IMAGE SIGNAL	F-CAMERA IMAGE SIGNAL: NG	Front camera power supply circuit and image signal circuit. Refer to AV-423, "Diagnosis Procedure".
• The rear view screen is not displayed. • Rear of around view screen is not displayed.	Check the following Data Monitor item using CONSULT: • REAR CAMERA IMAGE SIGNAL	REAR CAMERA IMAGE SIGNAL: NG	Rear camera power supply circuit and image signal circuit. Refer to AV-416, "Diagnosis Procedure".
LH side of around view screen is not displayed.	Check the following Data Monitor item using CONSULT: • DR-SIDE CAMERA IMAGE SIGNAL	DR-SIDE CAMERA IMAGE SIGNAL: NG	Side camera LH power supply circuit and image signal circuit. Refer to AV-419, "Diagnosis Procedure".
• Front-side view screen is not displayed. • RH side of around view screen is not displayed.	Check the following Data Monitor item using CONSULT: • PA-SIDE CAMERA IMAGE SIGNAL	PA-SIDE CAMERA IMAGE SIGNAL: NG	Side camera RH power supply circuit and image signal circuit. Refer to AV-419, "Diagnosis Procedure".

REMOVAL AND INSTALLATION

AV CONTROL UNIT

Exploded View

INFOID:0000000014844595



1. AV control unit bracket (LH) 2. AV control unit 3. AV control unit bracket (RH)

Removal and Installation

INFOID:0000000014844596

REMOVAL

CAUTION:

- **Before disconnecting the AV control unit and battery terminals, turn the ignition switch OFF and wait at least 30 seconds.**
- **Before replacing AV control unit, perform "READ CONFIGURATION" to save current vehicle specification. Refer to AV-404, "Description".**

NOTE:

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

1. Disconnect the battery. Refer to PG-128, "Battery Disconnect".
2. Remove cluster lid C. Refer to IP-21, "Removal and Installation".
3. Remove instrument finisher B. Refer to IP-16, "INSTRUMENT FINISHER B : Removal and Installation".
4. Remove instrument finisher E. Refer to IP-16, "INSTRUMENT FINISHER E : Removal and Installation".
5. Remove the AV control unit screws, then pull out the AV control unit.
6. Disconnect the harness connectors from the AV control unit and remove.
7. Remove the AV control unit bracket (LH/RH) screws and the AV control unit brackets (LH/RH) (if necessary).

INSTALLATION

Installation is in the reverse order of removal.

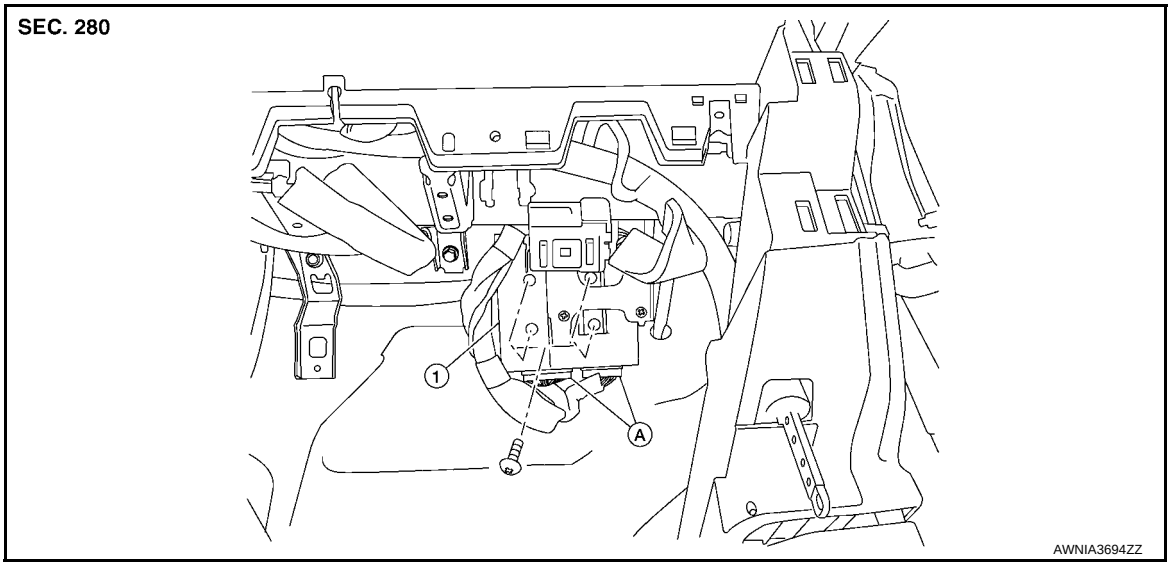
CAUTION:

- **When replacing AV control unit, perform "WRITE CONFIGURATION". Refer to AV-290, "CONFIGURATION (AV CONTROL UNIT) : Description".**
- **When replacing AV control unit, the AV control unit must be registered. Refer to AV-289, "ADDITIONAL SERVICE WHEN REPLACING AV CONTROL UNIT : Description".**

AROUND VIEW MONITOR CONTROL UNIT

Exploded View

INFOID:0000000014844597



1. Around view monitor control unit A. Harness connector

Removal and Installation

INFOID:0000000014844598

REMOVAL

CAUTION:

Before replacing around view monitor control unit, save or print current vehicle specification with CONSULT configuration before replacement. Refer to AV-404, "Description".

1. Remove glove box assembly. Refer to IP-23, "Removal and Installation".
2. Remove around view monitor control unit screws.
3. Disconnect the harness connector from the around view monitor control unit and remove.

INSTALLATION

Installation is in the reverse order of removal.

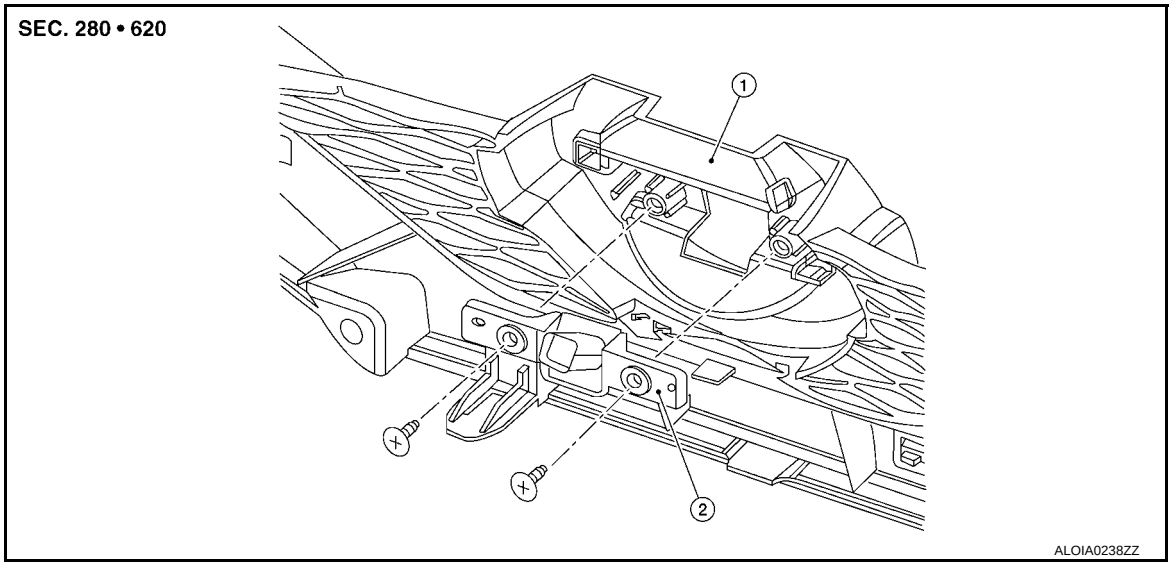
CAUTION:

- **Replace the around view monitor control unit if it has been dropped or sustained an impact.**
- **When replacing around view monitor control unit, you must perform "After Replace ECU" with CONSULT. Refer to AV-290, "CONFIGURATION (AV CONTROL UNIT) : Description".**
- **Perform camera image calibration. Refer to AV-289, "ADDITIONAL SERVICE WHEN REPLACING AV CONTROL UNIT : Description".**

FRONT CAMERA

Exploded View

INFOID:0000000014844599



1. Front grille
2. Front camera

Removal and Installation

INFOID:0000000014844600

REMOVAL

1. Remove the front grille. Refer to EXT-33, "Removal and Installation".
2. Remove screws and front camera.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

Perform camera image calibration. Refer to AV-406, "Description".

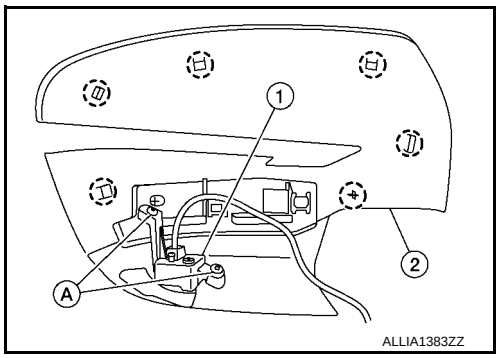
SIDE CAMERA

Removal and Installation

INFOID:0000000014844601

REMOVAL

1. Remove door mirror rear finisher (2). Refer to MIR-27, "Removal and Installation".
2. Remove screws (A) and side camera (1).
   ◌: Pawl



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

Perform camera image calibration. Refer to AV-406, "Description".

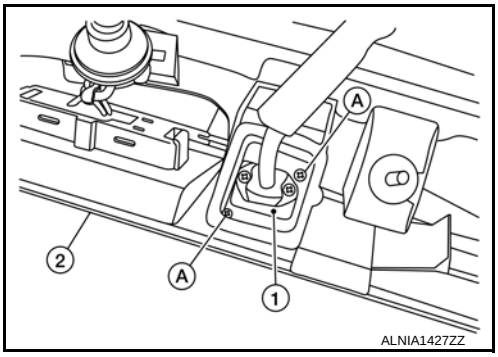
REAR VIEW CAMERA

Removal and Installation

INFOID:0000000014844602

REMOVAL

1. Remove back door outer upper finisher. Refer to EXT-63, "Removal and Installation".
2. Remove rear view camera screws (A), then remove rear view camera (1) from the back door outer upper finisher (2).



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

Perform camera image calibration. Refer to AV-406, "Description".

PRECAUTION

PRECAUTIONS

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

INFOID:0000000014893880

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

WARNING:

- **To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, it is recommended that all maintenance and repair be performed by an authorized NISSAN/INFINITI dealer.**
- **Improper repair, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SR section.**
- **Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.**

PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

WARNING:

- **When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the Ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.**
- **When using air or electric power tools or hammers, always switch the Ignition OFF, disconnect the battery or batteries, and wait at least three minutes before performing any service.**

Precaution for Trouble Diagnosis

INFOID:0000000014844607

AV COMMUNICATION SYSTEM

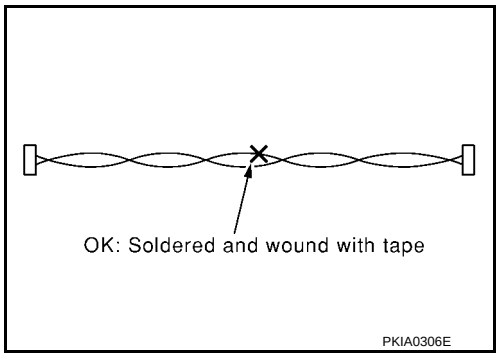
- Do not apply voltage of 7.0 V or higher to the measurement terminals.
- Use the tester with its open terminal voltage being 7.0 V or less.
- Be sure to turn ignition switch OFF and disconnect the battery cable from the negative terminal before checking the circuit.

Precaution for Harness Repair

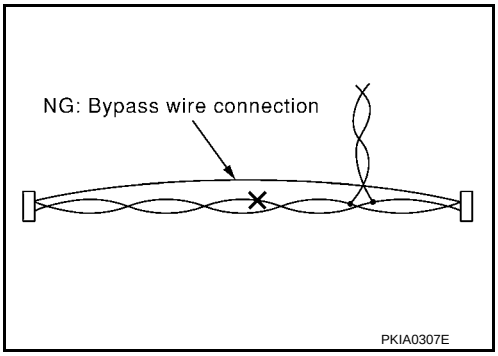
INFOID:0000000014844608

AV COMMUNICATION SYSTEM

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



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



Precaution for Work

INFOID:0000000014844609

- When removing or disassembling each component, be careful not to damage or deform it. If a component may be subject to interference, be sure to protect it with a shop cloth.
- When removing (disengaging) components with a screwdriver or similar tool, be sure to wrap the component with a shop cloth or vinyl tape to protect it.
- Protect the removed parts with a shop cloth and prevent them from being dropped.
- Replace a deformed or damaged clip.
- If a part is specified as a non-reusable part, always replace it with a new one.
- Be sure to tighten bolts and nuts securely to the specified torque.
- After installation is complete, be sure to check that each part works properly.
- Follow the steps below to clean components:

- Water soluble dirt:

- Dip a soft cloth into lukewarm water, wring the water out of the cloth and wipe the dirty area.
- Then rub with a soft, dry cloth.

- Oily dirt:

- Dip a soft cloth into lukewarm water with mild detergent (concentration: within 2 to 3%) and wipe the dirty area.
- Then dip a cloth into fresh water, wring the water out of the cloth and wipe the detergent off.
- Then rub with a soft, dry cloth.

- Do not use organic solvent such as thinner, benzene, alcohol or gasoline.
- For genuine leather seats, use a genuine leather seat cleaner.

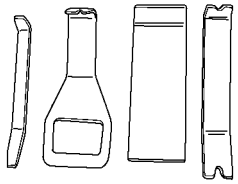
PREPARATION

PREPARATION

Special Service Tools

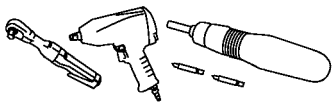
INFOID:0000000014844610

The actual shape of the tools may differ from those illustrated here.

Tool number (TechMate No.) Tool name	Description
— (J-46534) Trim Tool Set  AWJIA0483ZZ	Removing trim components

Commercial Service Tools

INFOID:0000000014844611

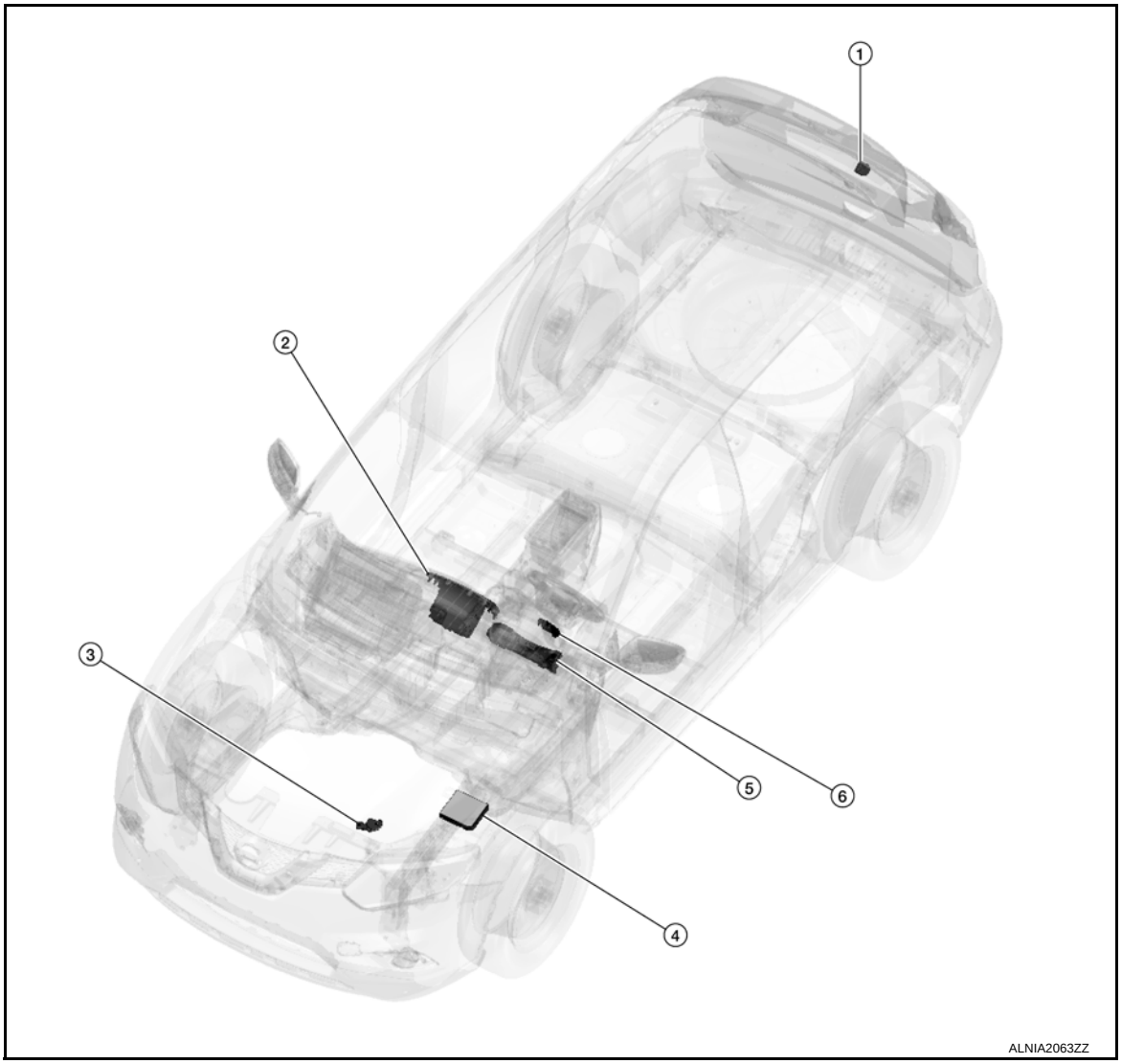
Tool name	Description
Power tool  PIIB1407E	Loosening nuts, screws and bolts

SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

INFOID:0000000015258885



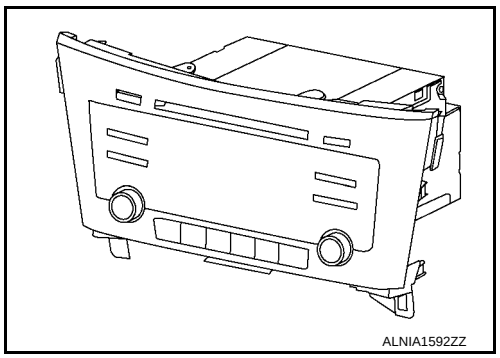
No.	Component	Function
1.	Rear view camera	Refer to AV-449, "Rear View Camera".
2.	Audio unit	Refer to AV-448, "Audio Unit".
3.	Transmission range switch	Refer to TM-17, "CVT CONTROL SYSTEM : Transmission Range Switch".
4.	IPDM E/R	Refer to PCS-6, "Component Parts Location".
5.	Combination meter	Refer to AV-79, "Combination Meter".
6.	Steering angle sensor	Refer to AV-449, "Steering Angle Sensor".

Audio Unit

INFOID:0000000015258886

Description

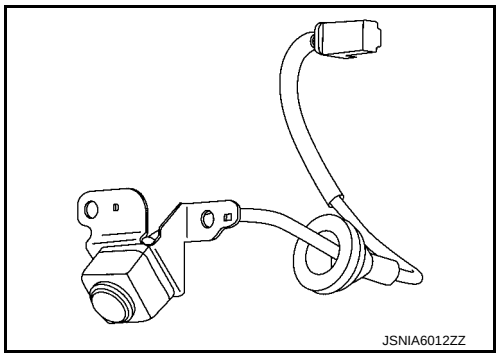
- AM/FM electronic tuner radio, CD drive and camera controller are integrated into the audio unit.
- The display can show audio status and rear view monitor images.


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Rear View Camera

INFOID:0000000015258887

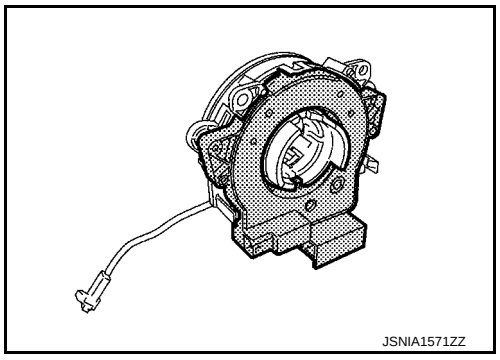
- The rear camera is installed next to the rear licence plate lamp.
- Power for the camera is supplied from the audio unit, and the image at the rear of the vehicle is sent to the audio unit display.


JSNIA6012ZZ

Steering Angle Sensor

INFOID:0000000015258888

- Steering angle sensor is installed to the spiral cable.
- Steering angle sensor sends the steering signal necessary for predictive course line to the combination meter via CAN communication.
- Combination meter sends the steering signal to the audio unit via AV communication.

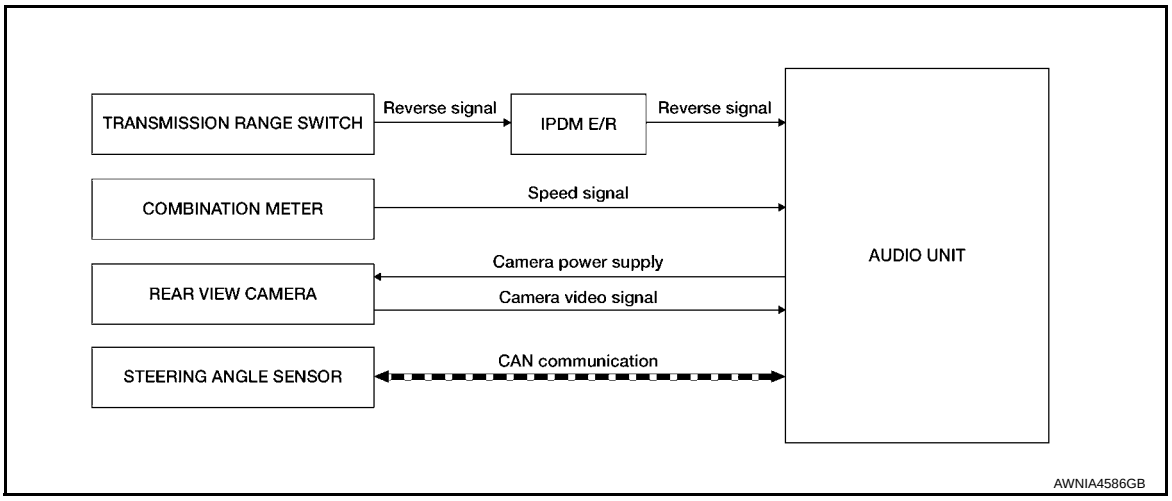

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SYSTEM

System Description

INFOID:0000000015258889

SYSTEM DIAGRAM



DESCRIPTION

Operation Description

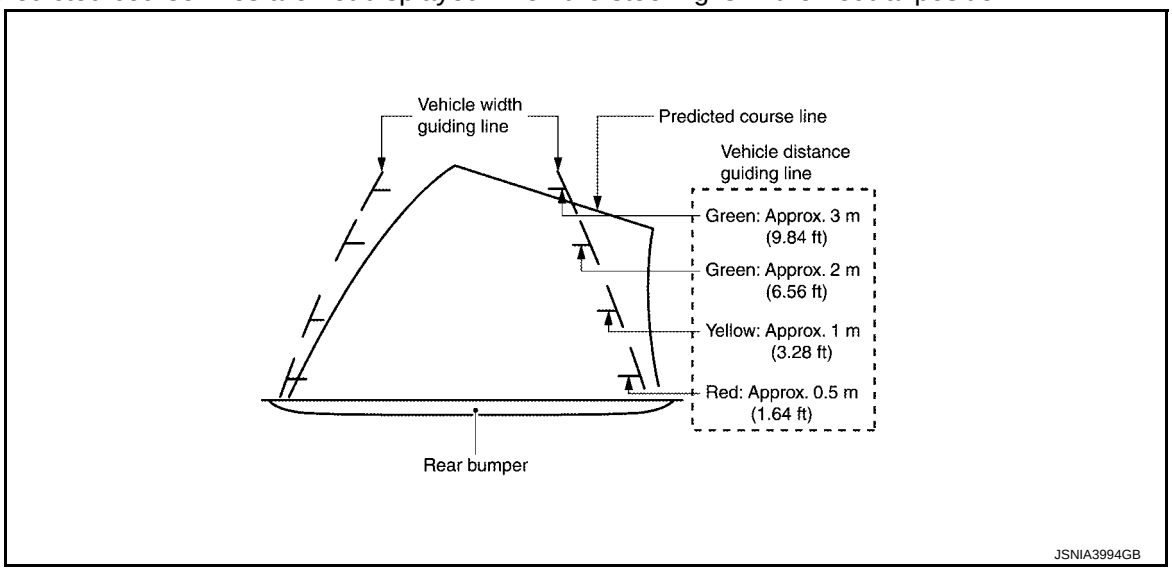
- When the selector lever is shifted to the reverse position, the rear view monitor image is displayed.
- When the selector lever is shifted to any position other than the reverse position, the original image (the image displayed before the rear view monitor image) is displayed.

Camera Image Operation Principle

- The audio unit receives the reverse signal input and supplies power to the rear view camera.
- The rear view camera supplies the image signal to the audio unit.
- The audio unit displays the rear view camera image when the reverse signal is received.
- The audio unit generates the warning message, vehicle width guide lines and the predicted course lines on the image from the rear view camera.

Vehicle Width Guide Lines and Predicted Course Lines Display Function

- The vehicle width guide lines and the predicted course lines that indicate the vehicle route according to the steering angle are displayed to allow the driver to more easily judge distances between the vehicle and objects and to help the driver back into a parking space.
- The audio unit receives the steering signal from the steering sensor via AV communication from the combination meter and draws a vehicle width guide line according to the steering angle.
- Vehicle width guide lines are displayed translucently.
- The predicted course lines are not displayed when the steering is in the neutral position.

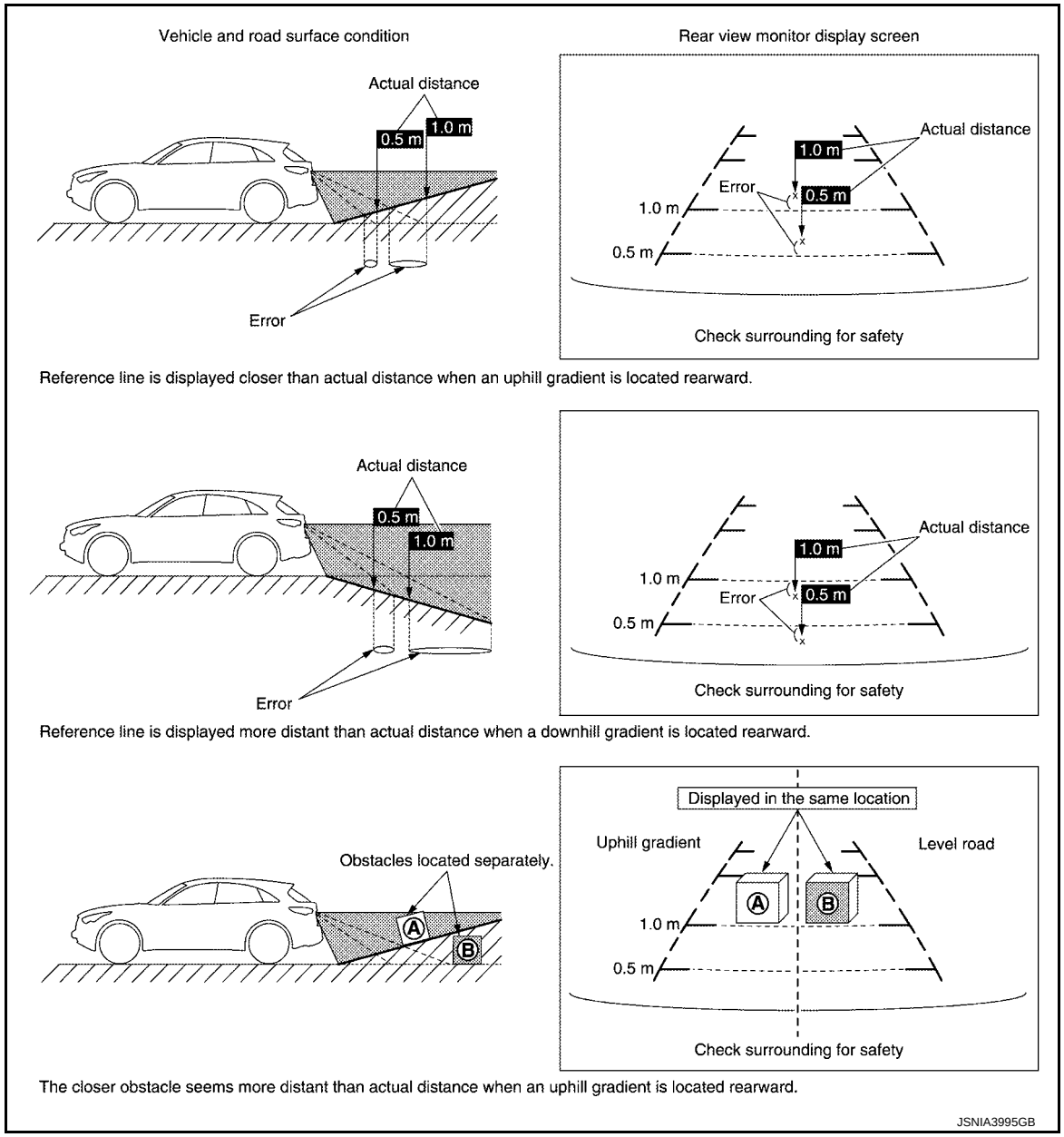


Precautions for Vehicle Width Guide Lines and Predicted Course Lines

Vehicle width guide lines and predicted course lines displayed may be different from actual lines depending on vehicle conditions and road conditions.

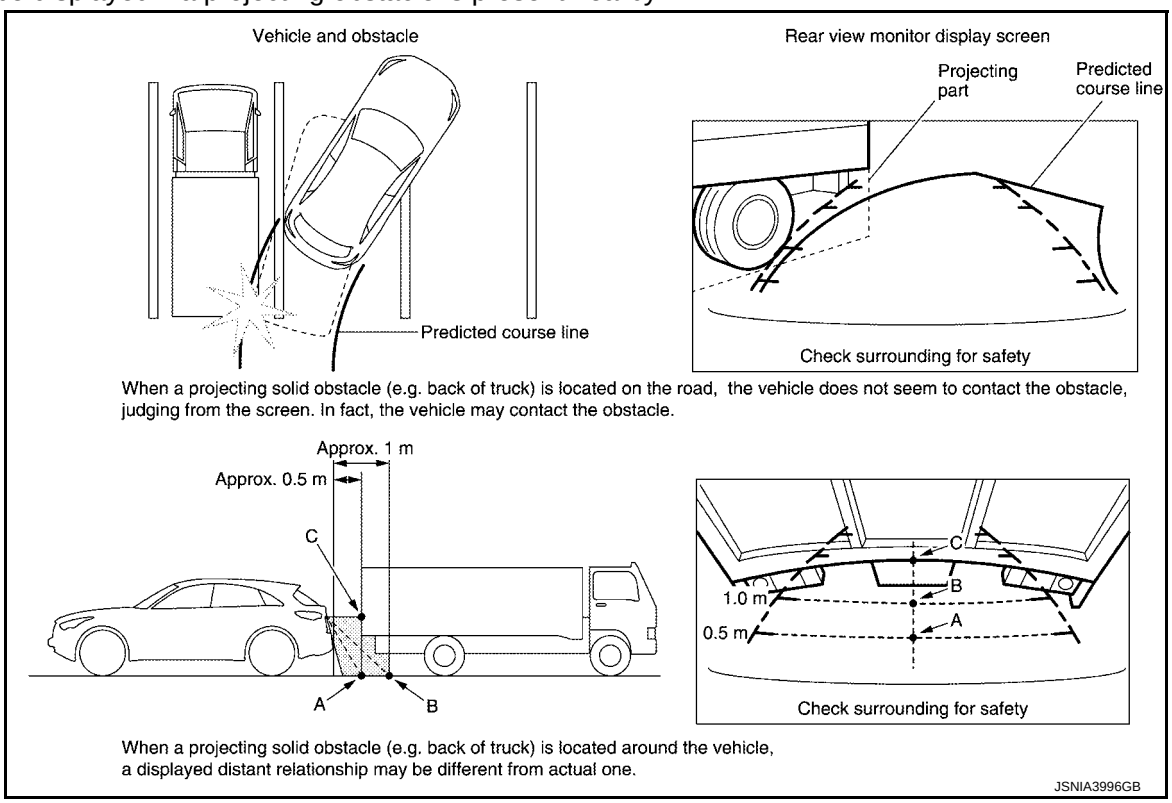
Precautions for road conditions

- Since vehicle width guide lines and predicted course lines are drawn based on the road, a different distance may be displayed if uphill or downhill gradient is present nearby.



Precautions for block

- Since vehicle width guide lines and predicted course lines are drawn based on the road, a different distance may be displayed if a projecting obstacle is present nearby.



DIAGNOSIS SYSTEM (AUDIO UNIT)

Description

INFOID:0000000015264369

The audio unit on board diagnosis performs the functions listed in the table below:

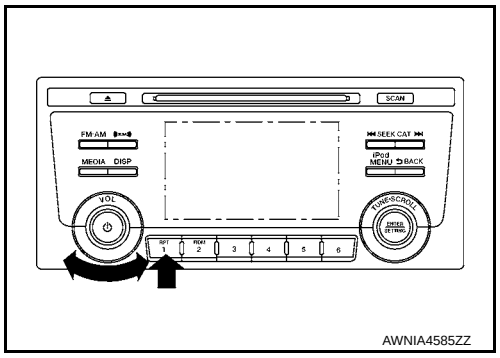
Mode		Description
Self Diagnosis		• Audio unit diagnosis. • Diagnoses the connections across system components.
Confirmation/ Adjustment	Display Diagnosis	The following check functions are available: color tone check by color bar display and white display, light and shade check by gray scale display.
	Vehicle Signals	Diagnosis of signals can be performed for vehicle speed, lights, reverse, EQ pin, destination and camera type.
	Speaker Test	The connection of a speaker can be confirmed by test tone.
	Error History	The system malfunction and the frequency when occurring in the past are displayed. When the malfunctioning item is selected, the time and place that the selected malfunction last occurred are displayed.
	Camera System	Displayed but not used.
	AV COMM Diagnosis	The communication condition of each unit of display audio system can be monitored.
	Delete Unit Connection Log	Erase the connection history of unit and error history.
	Version Information	Audio unit software and hardware versions are displayed.
	Initialize Setting	Initializes the audio unit memory.

On Board Diagnosis Function

INFOID:0000000015264370

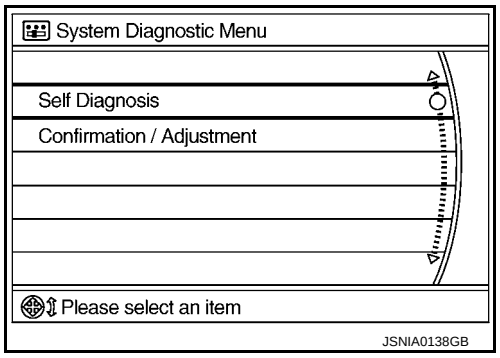
METHOD OF STARTING

1. Turn the ignition ON.
2. Turn the audio system OFF.
3. While pressing the preset 1 button, turn the volume control dial clockwise or counterclockwise for 40 clicks or more. Shifting from current screen to previous screen is performed by pressing BACK button.



AWNIA4585ZZ

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



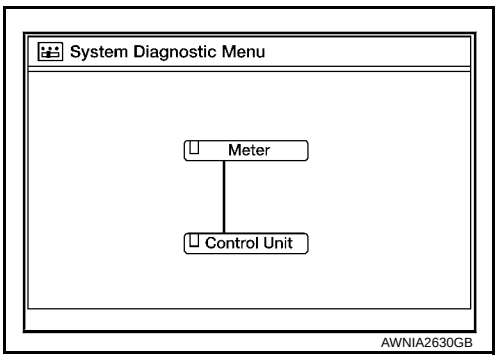
JSNIA0138GB

SELF DIAGNOSIS MODE

Audio Unit Self Diagnosis

1. Select Self Diagnosis.

2. Self diagnosis screen is displayed. The bar graph visible in center of screen indicates progress of self diagnosis.
3. Diagnosis results are displayed after the self diagnosis is completed. The unit names and the connection lines are color coded according to the diagnostic results.

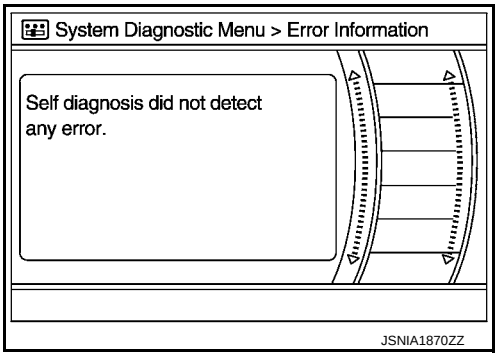


Diagnosis results	Unit	Connection line
Normal	Green	Green
Connection malfunction	Gray	Yellow
Unit malfunction [1]	Red	Green

1: Control unit (audio unit) is displayed in red.

- Replace audio unit if Self Diagnosis did not run because control unit malfunction is indicated. The symptom is audio unit internal error. Refer to AV-144, "Removal and Installation".
- If multiple errors occur at the same time for a single unit, the screen switch colors are determined according to the following order of priority: red > gray.

4. Comments of self diagnosis results can be viewed in the diagnosis result screen.



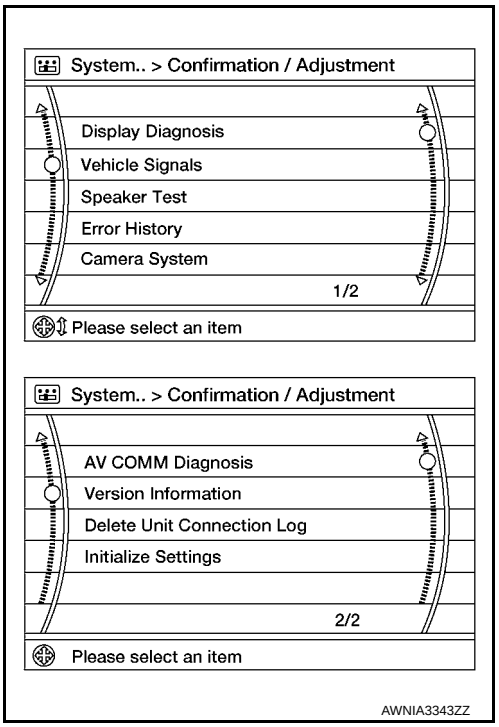
Audio Unit Self Diagnosis Results

Only Unit Part Is Displayed In Red		
Screen switch	Description	Possible cause
Control unit	Malfunction is detected in audio unit power supply and ground circuits.	• Audio unit power supply or ground circuits. Refer to AV-114, "AUDIO UNIT : Diagnosis Procedure". • If no malfunction is detected in audio unit power supply and ground circuits, replace audio unit. Refer to AV-144, "Removal and Installation".

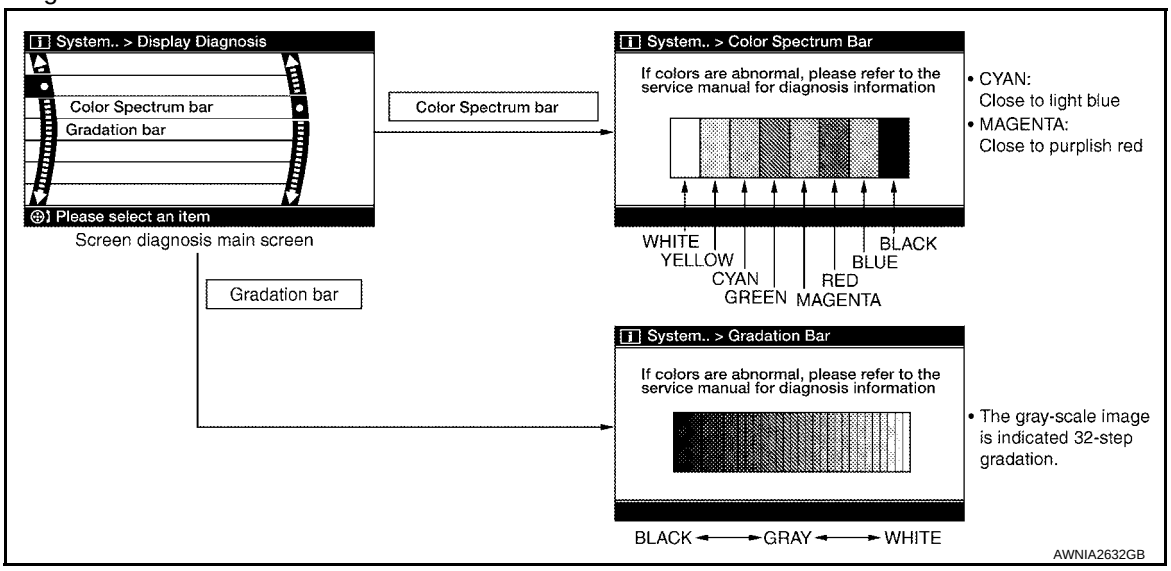
A Connecting Cable Between Units Is Displayed In Yellow		
Area with yellow connection lines	Description	Possible cause
Control unit ⇔ Meter	When one of the following is detected: • malfunction is detected in combination meter power supply and ground circuits. • malfunction is detected in AV communication circuits between audio unit and combination meter.	• Combination meter power supply or ground circuits. Refer to MWI-62, "COMBINATION METER : Diagnosis Procedure". • AV communication circuits between audio unit and combination meter.

Audio Unit Confirmation/Adjustment

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

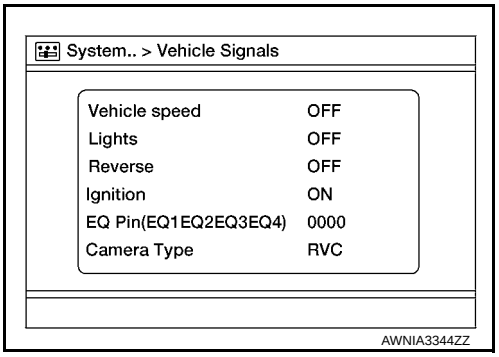


Display Diagnosis



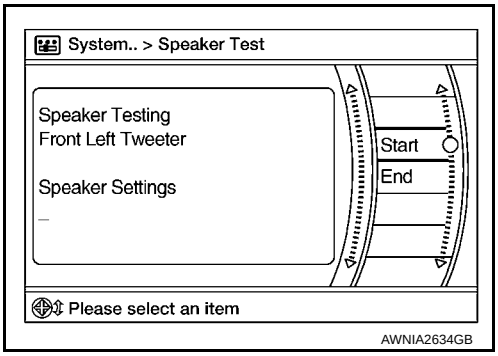
Vehicle Signals

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



Speaker Test

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



Error History

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

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

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

Count up method A

- The counter is set to 40 if an error occurs. 1 is subtracted from the counter if the condition is normal at a next ignition ON cycle.
- The counter lower limit is 1. The counter can be reset (no error record display) with the Delete log switch.

Count up method B

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

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

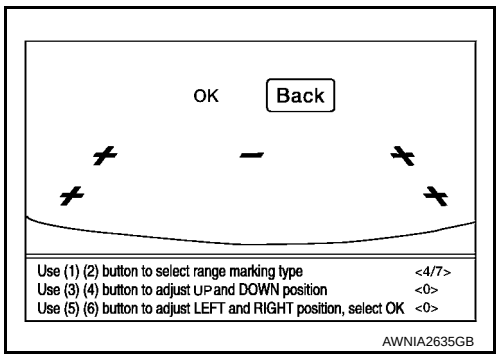
Error item

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

Error item	Description	Possible cause
CONTROL UNIT (AV)	AV communication circuit initial diagnosis malfunction is detected.	Replace the audio unit if the malfunction occurs constantly. Refer to AV-144, "Removal and Installation"
AV COMM CIRCUIT	When one of the following is detected: • malfunction is detected in combination meter power supply and ground circuits. • malfunction is detected in AV communication circuits between audio unit and combination meter.	• Combination meter power supply or ground circuits. Refer to MWI-62, "COMBINATION METER : Diagnosis Procedure". • AV communication circuits between audio unit and combination meter.

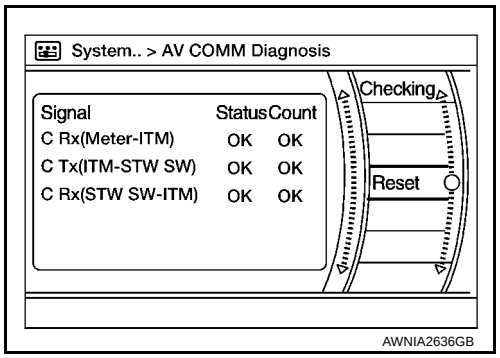
Camera System

This mode is used to adjust the guide line display position of the rear view camera.



AV COMM Diagnosis

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

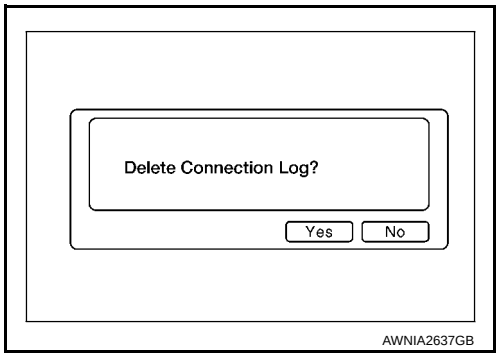


Items	Status (Current)	Counter (Past)
C Rx(Meter-ITM)	OK / ???	OK / 0 – 39
C Tx(ITM-TW SW)	OK / ???	OK / 0 – 39
C Rx(STW SW-ITM)	OK / ???	OK / 0 – 39

NOTE:
"???" indicates UNKWN.

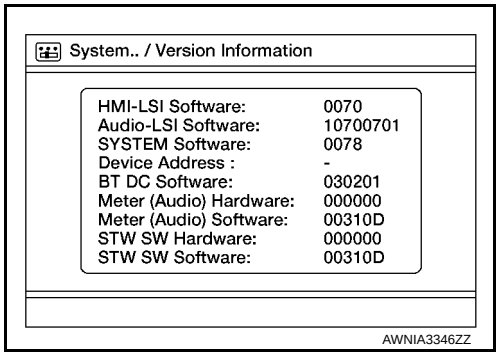
Delete Unit Connection Log

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



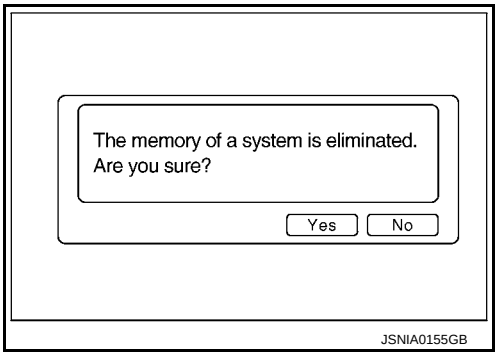
Version Information

Displays audio unit software and hardware version numbers.



Initialize Settings

Deletes data stored from the audio unit.



ECU DIAGNOSIS INFORMATION

AUDIO UNIT

List of ECU Reference

INFOID:0000000015258892

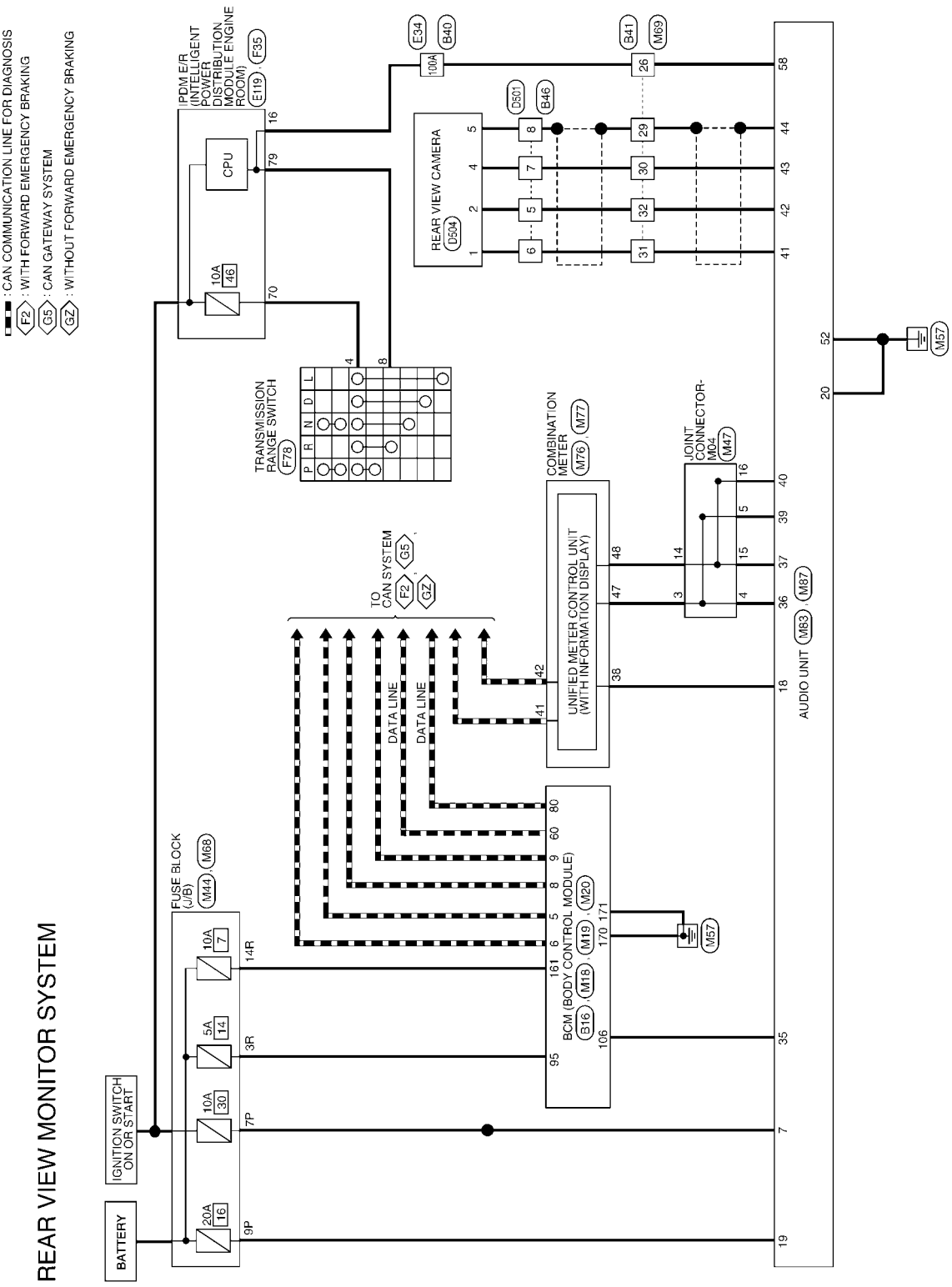
ECU	Reference
Audio unit (DISPLAY AUDIO WITHOUT BOSE)	AV-26, "Reference Value"
Audio unit (DISPLAY AUDIO WITH BOSE)	AV-89, "Reference Value"

WIRING DIAGRAM

REAR VIEW MONITOR SYSTEM

Wiring Diagram

INFOID:0000000014844620



REAR VIEW MONITOR SYSTEM CONNECTORS

Connector No.	B16
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FG-NH
Connector Color	GREEN

H.S.

60 59 58 57 56 55 54 53 52 51 50 49 48 47 46 45 44 43 42 41
80 79 78 77 76 75 74 73 72 71 70 69 68 67 66 65 64 63 62 61

Terminal No.	Color of Wire	Signal Name
41	–	–
42	–	–
43	–	–
44	–	–
45	–	–
46	R	I SES BACKDOOR BUTTON SW
47	–	–
48	–	–
49	G	I NO TOUCH TGATE SENSOR
50	W	I RR DOOR SW
51	LG	I TGATE SW
52	R	I RL DOOR SW
53	SB	I AS DOOR2 SW
54	–	–
55	LA/G	I RR AUTOSTOP SW
56	Y	I TGATE OPENER SW
57	SB	I DR DOOR2 SW
58	–	–
59	–	–
60	L	CAN-H
61	V	SES EXT REAR ANTENNA B
62	Y	SES INT MIDDLE ANTENNA B
63	L	SES INT MIDDLE ANTENNA A
64	LG	SES EXT REAR ANTENNA A
65	–	–
66	–	–
67	–	–
68	–	–
69	–	–
70	–	–
71	–	–
72	–	–
73	–	–
74	–	–
75	–	–
76	–	–
77	V	SHIFT LOCK RLY
78	–	–
79	LA/W	O STOP LAMP3
80	P	CAN-L

Connector No.	B40
Connector Name	WIRE TO WIRE
Connector Type	TH80MDGY-CS16-TM4
Connector Color	GRAY

H.S.

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

21A 20A 19A 18A 17A 16A 15A 14A 13A 12A 11A
30A 29A 28A 27A 26A 25A 24A 23A 22A

47A 40A 39A 38A 37A 36A 35A 34A 33A 32A 31A
50A 49A 48A 47A 46A 45A 44A 43A 42A

61A 60A 59A 58A 57A 56A 55A 54A 53A 52A 51A
70A 69A 68A 67A 66A 65A 64A 63A 62A

81A 80A 79A 78A 77A 76A 75A 74A 73A 72A 71A
90A 89A 88A 87A 86A 85A 84A 83A 82A

95A 94A 93A 92A 91A
100A 99A 98A 97A 96A

Terminal No.	Color of Wire	Signal Name
1A	–	TO ENGINE ROOM HARNESS
2A	–	TO ENGINE ROOM HARNESS
3A	–	TO ENGINE ROOM HARNESS
4A	–	TO ENGINE ROOM HARNESS
5A	–	TO ENGINE ROOM HARNESS
6A	LG	TO ENGINE ROOM HARNESS
7A	Y	TO ENGINE ROOM HARNESS
8A	GR	TO ENGINE ROOM HARNESS
9A	BR	TO ENGINE ROOM HARNESS
10A	–	TO ENGINE ROOM HARNESS
11A	–	TO ENGINE ROOM HARNESS
12A	–	TO ENGINE ROOM HARNESS
13A	–	TO ENGINE ROOM HARNESS
14A	–	TO ENGINE ROOM HARNESS
15A	–	TO ENGINE ROOM HARNESS
16A	–	TO ENGINE ROOM HARNESS
17A	–	TO ENGINE ROOM HARNESS
18A	–	TO ENGINE ROOM HARNESS
19A	–	TO ENGINE ROOM HARNESS
20A	–	TO ENGINE ROOM HARNESS
21A	–	TO ENGINE ROOM HARNESS
22A	–	TO ENGINE ROOM HARNESS
23A	–	TO ENGINE ROOM HARNESS
24A	–	TO ENGINE ROOM HARNESS
25A	–	TO ENGINE ROOM HARNESS
26A	–	TO ENGINE ROOM HARNESS
27A	–	TO ENGINE ROOM HARNESS
28A	–	TO ENGINE ROOM HARNESS
29A	–	TO ENGINE ROOM HARNESS
30A	–	TO ENGINE ROOM HARNESS
31A	–	TO ENGINE ROOM HARNESS
32A	–	TO ENGINE ROOM HARNESS
33A	–	TO ENGINE ROOM HARNESS
34A	–	TO ENGINE ROOM HARNESS
35A	–	TO ENGINE ROOM HARNESS
36A	–	TO ENGINE ROOM HARNESS
37A	–	TO ENGINE ROOM HARNESS
38A	–	TO ENGINE ROOM HARNESS
39A	–	TO ENGINE ROOM HARNESS
40A	–	TO ENGINE ROOM HARNESS
41A	–	TO ENGINE ROOM HARNESS
42A	–	TO ENGINE ROOM HARNESS
43A	–	TO ENGINE ROOM HARNESS
44A	–	TO ENGINE ROOM HARNESS
45A	–	TO ENGINE ROOM HARNESS
46A	–	TO ENGINE ROOM HARNESS
47A	–	TO ENGINE ROOM HARNESS
48A	–	TO ENGINE ROOM HARNESS
49A	–	TO ENGINE ROOM HARNESS
50A	–	TO ENGINE ROOM HARNESS
51A	–	TO ENGINE ROOM HARNESS
52A	–	TO ENGINE ROOM HARNESS
53A	–	TO ENGINE ROOM HARNESS
54A	R	TO ENGINE ROOM HARNESS
55A	L	TO ENGINE ROOM HARNESS
56A	BR	TO ENGINE ROOM HARNESS
57A	W	TO ENGINE ROOM HARNESS
58A	B	TO ENGINE ROOM HARNESS
59A	LG	TO ENGINE ROOM HARNESS
60A	B	TO ENGINE ROOM HARNESS
61A	SHIELD	TO ENGINE ROOM HARNESS
62A	–	TO ENGINE ROOM HARNESS
63A	LG	TO ENGINE ROOM HARNESS
64A	Y	TO ENGINE ROOM HARNESS
65A	P	TO ENGINE ROOM HARNESS
66A	R	TO ENGINE ROOM HARNESS
67A	SB	TO ENGINE ROOM HARNESS
68A	BG	TO ENGINE ROOM HARNESS
69A	GR	TO ENGINE ROOM HARNESS
70A	G	TO ENGINE ROOM HARNESS
71A	–	TO ENGINE ROOM HARNESS
72A	–	TO ENGINE ROOM HARNESS
73A	–	TO ENGINE ROOM HARNESS
74A	–	TO ENGINE ROOM HARNESS
75A	B	TO ENGINE ROOM HARNESS
76A	G	TO ENGINE ROOM HARNESS
77A	SB	TO ENGINE ROOM HARNESS
78A	BG	TO ENGINE ROOM HARNESS
79A	Y	TO ENGINE ROOM HARNESS
80A	BR	TO ENGINE ROOM HARNESS
81A	R	TO ENGINE ROOM HARNESS
82A	–	TO ENGINE ROOM HARNESS
83A	–	TO ENGINE ROOM HARNESS
84A	–	TO ENGINE ROOM HARNESS
85A	–	TO ENGINE ROOM HARNESS
86A	–	TO ENGINE ROOM HARNESS
87A	–	TO ENGINE ROOM HARNESS
88A	–	TO ENGINE ROOM HARNESS
89A	–	TO ENGINE ROOM HARNESS
90A	–	TO ENGINE ROOM HARNESS
91A	–	TO ENGINE ROOM HARNESS
92A	–	TO ENGINE ROOM HARNESS
93A	–	TO ENGINE ROOM HARNESS
94A	–	TO ENGINE ROOM HARNESS
95A	–	TO ENGINE ROOM HARNESS
96A	BG	TO ENGINE ROOM HARNESS
97A	–	TO ENGINE ROOM HARNESS
98A	GR	TO ENGINE ROOM HARNESS
99A	LA/BR	TO ENGINE ROOM HARNESS
100A	G	TO ENGINE ROOM HARNESS

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REAR VIEW MONITOR SYSTEM CONNECTORS

Connector No.	B41
Connector Name	WIRE TO WIRE
Connector Type	TH32MW-NH
Connector Color	WHITE

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

Terminal No.	Color of Wire	Signal Name
1	SB	TO MAIN HARNESS
2	SB	TO MAIN HARNESS
3	L	TO MAIN HARNESS
4	L	TO MAIN HARNESS
5	W	TO MAIN HARNESS
6	Y	TO MAIN HARNESS
7	LG	TO MAIN HARNESS
8	BG	TO MAIN HARNESS
9	BR	TO MAIN HARNESS
10	Y	TO MAIN HARNESS
11	G	TO MAIN HARNESS
12	L	TO MAIN HARNESS
13	W	TO MAIN HARNESS
14	GR	TO MAIN HARNESS
15	Y	TO MAIN HARNESS
16	P	TO MAIN HARNESS
17	R	TO MAIN HARNESS
18	W	TO MAIN HARNESS
19	R	TO MAIN HARNESS
20	–	TO MAIN HARNESS
21	–	TO MAIN HARNESS
22	–	TO MAIN HARNESS
23	–	TO MAIN HARNESS
24	P	TO MAIN HARNESS
25	L	TO MAIN HARNESS
26	G	TO MAIN HARNESS
27	R	TO MAIN HARNESS
28	L	TO MAIN HARNESS
29	SHIELD	TO MAIN HARNESS
30	W	TO MAIN HARNESS
31	B	TO MAIN HARNESS
32	R	TO MAIN HARNESS

Connector No.	B46
Connector Name	WIRE TO WIRE
Connector Type	TH32MW-NH
Connector Color	WHITE

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

Terminal No.	Color of Wire	Signal Name
1	–	TO BACK DOOR HARNESS
2	–	TO BACK DOOR HARNESS
3	–	TO BACK DOOR HARNESS
4	–	TO BACK DOOR HARNESS
5	R	TO BACK DOOR HARNESS
6	B	TO BACK DOOR HARNESS
7	W	TO BACK DOOR HARNESS
8	SHIELD	TO BACK DOOR HARNESS
9	–	TO BACK DOOR HARNESS
10	–	TO BACK DOOR HARNESS
11	–	TO BACK DOOR HARNESS
12	–	TO BACK DOOR HARNESS
13	W	TO BACK DOOR HARNESS
14	V	TO BACK DOOR HARNESS
15	BR	TO BACK DOOR HARNESS
16	SB	TO BACK DOOR HARNESS
17	LA/W	TO BACK DOOR HARNESS
18	LA/BR	TO BACK DOOR HARNESS
19	LG	TO BACK DOOR HARNESS
20	G	TO BACK DOOR HARNESS
21	G	TO BACK DOOR HARNESS
22	LA/R	TO BACK DOOR HARNESS
23	LA/R	TO BACK DOOR HARNESS
24	R	TO BACK DOOR HARNESS
25	–	TO BACK DOOR HARNESS
26	–	TO BACK DOOR HARNESS
27	–	TO BACK DOOR HARNESS
28	–	TO BACK DOOR HARNESS
29	Y	TO BACK DOOR HARNESS
30	G	TO BACK DOOR HARNESS
31	GR	TO BACK DOOR HARNESS
32	LG	TO BACK DOOR HARNESS

Connector No.	D501
Connector Name	WIRE TO WIRE
Connector Type	TH32FW-NH
Connector Color	WHITE

H.S.

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

Terminal No.	Color of Wire	Signal Name
1	–	TO BODY HARNESS
2	–	TO BODY HARNESS
3	–	TO BODY HARNESS
4	–	TO BODY HARNESS
5	R	TO BODY HARNESS
6	B	TO BODY HARNESS
7	W	TO BODY HARNESS
8	V	TO BODY HARNESS
9	–	TO BODY HARNESS
10	–	TO BODY HARNESS
11	–	TO BODY HARNESS
12	–	TO BODY HARNESS
13	G	TO BODY HARNESS
14	LA/GR	TO BODY HARNESS
15	LA/W	TO BODY HARNESS
16	LA/LG	TO BODY HARNESS
17	Y	TO BODY HARNESS
18	LA/R	TO BODY HARNESS
19	W	TO BODY HARNESS
20	–	TO BODY HARNESS
21	G	TO BODY HARNESS
22	LA/Y	TO BODY HARNESS
23	P	TO BODY HARNESS
24	BR	TO BODY HARNESS
25	–	TO BODY HARNESS
26	–	TO BODY HARNESS
27	–	TO BODY HARNESS
28	–	TO BODY HARNESS
29	V	TO BODY HARNESS
30	G	TO BODY HARNESS
31	BG	TO BODY HARNESS
32	LG	TO BODY HARNESS

Connector No.	D504
Connector Name	REAR VIEW CAMERA
Connector Type	RH06FB-1V
Connector Color	BLACK

H.S.

1	2	3
4	5	6

Terminal No.	Color of Wire	Signal Name
1	B	CAM GND
2	R	CAM 6.2V
3	–	–
4	W	COMPOSITE+ (CAM NTSC)
5	V	COMPOSITE- (CAM GND)
6	–	–

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REAR VIEW MONITOR SYSTEM CONNECTORS

Connector No.	E34
Connector Name	WIRE TO WIRE
Connector Type	TH80FDGY-CS16-TM4
Connector Color	GRAY

H.S.

Terminal No.	Color of Wire	Signal Name
1A	–	TO BODY HARNESS
2A	–	TO BODY HARNESS
3A	–	TO BODY HARNESS
4A	–	TO BODY HARNESS
5A	–	TO BODY HARNESS
6A	L	TO BODY HARNESS
7A	R	TO BODY HARNESS
8A	GR	TO BODY HARNESS
9A	BR	TO BODY HARNESS
10A	–	TO BODY HARNESS
11A	–	TO BODY HARNESS
12A	–	TO BODY HARNESS
13A	–	TO BODY HARNESS
14A	–	TO BODY HARNESS
15A	–	TO BODY HARNESS
16A	–	TO BODY HARNESS
17A	–	TO BODY HARNESS
18A	–	TO BODY HARNESS
19A	–	TO BODY HARNESS
20A	–	TO BODY HARNESS
21A	–	TO BODY HARNESS
22A	–	TO BODY HARNESS
23A	–	TO BODY HARNESS
24A	–	TO BODY HARNESS
25A	–	TO BODY HARNESS
26A	–	TO BODY HARNESS
27A	–	TO BODY HARNESS
28A	–	TO BODY HARNESS
29A	–	TO BODY HARNESS
30A	–	TO BODY HARNESS
31A	–	TO BODY HARNESS
32A	–	TO BODY HARNESS
33A	–	TO BODY HARNESS
34A	–	TO BODY HARNESS
35A	–	TO BODY HARNESS
36A	–	TO BODY HARNESS
37A	–	TO BODY HARNESS
38A	–	TO BODY HARNESS
39A	–	TO BODY HARNESS
40A	–	TO BODY HARNESS
41A	–	TO BODY HARNESS
42A	–	TO BODY HARNESS
43A	–	TO BODY HARNESS
44A	–	TO BODY HARNESS
45A	–	TO BODY HARNESS
46A	–	TO BODY HARNESS
47A	–	TO BODY HARNESS
48A	–	TO BODY HARNESS
49A	–	TO BODY HARNESS
50A	–	TO BODY HARNESS
51A	–	TO BODY HARNESS
52A	–	TO BODY HARNESS
53A	–	TO BODY HARNESS
54A	R	TO BODY HARNESS
55A	L	TO BODY HARNESS
56A	BR	TO BODY HARNESS
57A	W	TO BODY HARNESS
58A	V	TO BODY HARNESS
59A	Y	TO BODY HARNESS
60A	B	TO BODY HARNESS
61A	SHIELD	TO BODY HARNESS
62A	–	TO BODY HARNESS
63A	L	TO BODY HARNESS
64A	Y	TO BODY HARNESS
65A	P	TO BODY HARNESS
66A	R	TO BODY HARNESS
67A	SB	TO BODY HARNESS
68A	BG	TO BODY HARNESS
69A	GR	TO BODY HARNESS
70A	LG	TO BODY HARNESS
71A	–	TO BODY HARNESS
72A	–	TO BODY HARNESS
73A	–	TO BODY HARNESS
74A	–	TO BODY HARNESS
75A	B	TO BODY HARNESS
76A	G	TO BODY HARNESS
77A	SB	TO BODY HARNESS
78A	BG	TO BODY HARNESS
79A	LG	TO BODY HARNESS
80A	BR	TO BODY HARNESS
81A	G	TO BODY HARNESS
82A	–	TO BODY HARNESS
83A	–	TO BODY HARNESS
84A	–	TO BODY HARNESS
85A	–	TO BODY HARNESS
86A	–	TO BODY HARNESS
87A	–	TO BODY HARNESS
88A	–	TO BODY HARNESS
89A	–	TO BODY HARNESS
90A	–	TO BODY HARNESS
91A	–	TO BODY HARNESS
92A	–	TO BODY HARNESS
93A	–	TO BODY HARNESS
94A	–	TO BODY HARNESS
95A	–	TO BODY HARNESS
96A	G	TO BODY HARNESS
97A	–	TO BODY HARNESS
98A	GR	TO BODY HARNESS
99A	W	TO BODY HARNESS
100A	G	TO BODY HARNESS

Connector No.	E119
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS16FGY-CS
Connector Color	GRAY

H.S.

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

Terminal No.	Color of Wire	Signal Name
3	P	O IGN NOT COLUMN LOCK
4	Y	O LIGHT POSITION REAR LH
5	–	–
6	–	–
7	–	–
8	BR	O ACTUATOR4 CABIN (3FB4)
9	L	LO HORN RLY
10	–	–
11	V	O IGN AIRBAG
12	B	SIGNAL GROUND
13	–	–
14	–	–
15	–	–
16	G	O LIGHT REVERSE LAMP
17	W	O LIGHT POSITION REAR RH
18	–	–

Connector No.	F35
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS16FW-CS
Connector Color	WHITE

H.S.

71	70	69	68		67	66	65
80	79	78	77	76	75	74	73	72

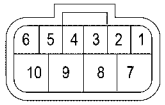
Terminal No.	Color of Wire	Signal Name
65	–	–
66	W	O ACTUATOR1 1 (3FBI)
67	V	LI ECM ACT5 DRIVER
68	–	–
69	–	–
70	R	O IGN AT LPG
71	Y	O IGN REVERSE SW AC VALVE
72	LG	O ACTUATOR6 (3FBA)
73	G	O ACTUATOR1 2 (3FB)
74	–	–
75	R	O ACTUATOR3 (3FB9)
76	P	LI FUEL PUMP DRIVER
77	–	–
78	BR	O ACTUATOR2 (3FB2)
79	G	LI LIGHT REVERSE SW
80	–	–

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REAR VIEW MONITOR SYSTEM CONNECTORS

Connector No.	F78
Connector Name	TRANSMISSION RANGE SWITCH
Connector Type	YDX06FB-HS4
Connector Color	BLACK

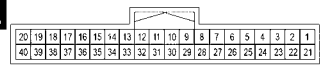
H.S.



Terminal No.	Color of Wire	Signal Name
1	–	–
2	Y	D RANGE SW
3	–	–
4	R	VIGN
5	V	P RANGE SW
6	SB	L RANGE SW
7	Y	O IGN AT LPG
8	G	R RANGE SW
9	R	N RANGE SW
10	BG	LI NP SW

Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FGY-NH
Connector Color	GRAY

H.S.



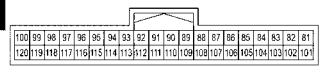
Terminal No.	Color of Wire	Signal Name
1	L	LIN 3 D
2	LA/G	O DI FR LEFT D
3	LA/Y	O DI FR RIGHT D
4	P	O SPARE4 RL N
5	R	CAN-L
6	L	CAN-H
7	–	–
8	L	CAN-H
9	R	CAN-L
10	BG	I DOORLOCK SW
11	Y	I HAZARD SW D

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12	W	O PWR AUTOLIGHT SENSOR
13	–	–
14	–	–
15	–	–
16	–	–
17	L	O PWR ATDVC
18	–	–
19	LG	I AUTOLIGHT SENSOR
20	–	–
21	–	–
22	–	–
23	G	O WL AUTHORIZATION RL
24	LA/R	O DEFROSTER RL D
25	BR	O BAT TEMP1 RL
26	–	–
27	Y	O IGN1 RL
28	LA/W	O IGN2 RL
29	–	–
30	V	O GND AUTOLIGHT SENSOR
31	–	–
32	–	–
33	LG	O CSW 5
34	Y	I CSW 5
35	BG	O SECURITY LED
36	G	O CSW 3
37	GR	O CSW 4
38	V	O CSW 1
39	W	O CSW 2
40	SB	I DOORUNLOCK SW

Connector No.	M19
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH
Connector Color	BLACK

H.S.

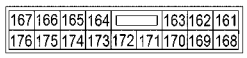


Terminal No.	Color of Wire	Signal Name
81	–	–
82	W	I SES FR HANDLE BUTTON SW
83	–	–
84	BR	I CSW 2
85	SB	I CSW 1
86	P	I CSW 3
87	BG	I CSW 4

88	W	O START SW BACKLIGHT LED
89	Y	I START WO ESCL SW
90	–	–
91	–	–
92	BR	I KEY CYLINDER LOCK SW
93	P	I KEY CYLINDER UNLOCK SW
94	G	I AT LOCKED IN PARK SW
95	V	I SHORTING PIN
96	–	–
97	–	–
98	–	–
99	–	–
100	V	SES EXT DR ANTENNA A
101	–	–
102	–	–
103	–	–
104	R	I DR KNOB SW
105	Y	I SES DR HANDLE BUTTON SW
106	W	O AUTO ACC2
107	–	–
108	–	–
109	–	–
110	BG	O MR OUTPUT
111	–	–
112	–	–
113	–	–
114	Y	O IMMOBILIZER KAZASHI B
115	W	O IMMOBILIZER KAZASHI A
116	BG	SES INT FRONT ANTENNA B
117	GR	SES INT FRONT ANTENNA A
118	SB	SES EXT AS ANTENNA B
119	P	SES EXT AS ANTENNA A
120	BR	SES EXT DR ANTENNA B

Connector No.	M20
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	NS16FBR-CS
Connector Color	BROWN

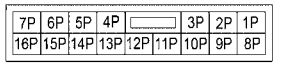
H.S.



Terminal No.	Color of Wire	Signal Name
161	W	I PWR ECU
162	SB	O PWM ROOMLAMP 1
163	L	O AS LOCK OR UNLOCK D
164	–	–
165	V	O DR OR FR LOCK D
166	–	–
167	LA/V	I PWR DOORLOCK1
168	BG	I PWR FLASHERS
169	GR	I PWR STOP LAMP
170	B	I GND1
171	B	I GND2
172	G	O FR OR DR UNLOCK D
173	–	–
174	–	–
175	R	I PWR DOORLOCK2
176	LG	I PWR WIPER

Connector No.	M44
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS16FW-CS
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
1P	R	IGNITION
2P	G	IGNITION
3P	Y	IGNITION RELAY-2 CONTROL
4P	LG	REAR WINDOW DEFOGGER RELAY OUTPUT
5P	GR	REAR WINDOW DEFOGGER RELAY OUTPUT
6P	LA/R	REAR WINDOW DEFOGGER RELAY CONTROL
7P	Y	IGNITION
8P	V	IGNITION
9P	L	BATTERY
10P	LG	IGNITION
11P	–	–
12P	–	–
13P	G	BATTERY
14P	–	–
15P	L	BATTERY
16P	LA/W	FRONT BLOWER MOTOR RELAY CONTROL

REAR VIEW MONITOR SYSTEM CONNECTORS

Connector No.	M47
Connector Name	JOINT CONNECTOR-M04
Connector Type	NH20FG-DC
Connector Color	GREEN

H.S.

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

Terminal No.	Color of Wire	Signal Name
1	–	–
2	SB	M-CAN H
3	SB	M-CAN H
4	SB	M-CAN H
5	SB	M-CAN H
6	L	CAN-H
7	L	CAN-H
8	L	CAN-H
9	L	CAN-H
10	–	–
11	–	–
12	–	–
13	LG	M-CAN L
14	LG	M-CAN L
15	LG	M-CAN L
16	LG	M-CAN L
17	R	CAN-L
18	R	CAN-L
19	V	CAN-L
20	V	CAN-L

Connector No.	M68
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS16FBR-CS
Connector Color	BROWN

H.S.

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

Terminal No.	Color of Wire	Signal Name
1R	V	ILLUMINATION +
2R	G	IGNITION
3R	V	BATTERY

4R	–	–
5R	–	–
6R	LA/L	ACCESSORY
7R	LA/V	BATTERY
8R	–	–
9R	–	–
10R	GR	BATTERY
11R	–	–
12R	–	–
13R	–	–
14R	W	BATTERY
15R	W	BATTERY
16R	GR	ACCESSORY

Connector No.	M69
Connector Name	WIRE TO WIRE
Connector Type	TH32FW-NH
Connector Color	WHITE

H.S.

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

Terminal No.	Color of Wire	Signal Name
1	SB	TO BODY HARNESS
2	BR	TO BODY HARNESS
3	L	TO BODY HARNESS
4	L	TO BODY HARNESS
5	W	TO BODY HARNESS
6	Y	TO BODY HARNESS
7	LG	TO BODY HARNESS
8	BG	TO BODY HARNESS
9	BR	TO BODY HARNESS
10	Y	TO BODY HARNESS
11	G	TO BODY HARNESS
12	L	TO BODY HARNESS
13	W	TO BODY HARNESS
14	GR	TO BODY HARNESS
15	Y	TO BODY HARNESS
16	P	TO BODY HARNESS
17	R	TO BODY HARNESS
18	W	TO BODY HARNESS
19	R	TO BODY HARNESS
20	–	TO BODY HARNESS
21	–	TO BODY HARNESS
22	–	TO BODY HARNESS
23	–	TO BODY HARNESS
24	P	TO BODY HARNESS

25	L	TO BODY HARNESS
26	BR	TO BODY HARNESS
27	R	TO BODY HARNESS
28	L	TO BODY HARNESS
29	SHIELD	TO BODY HARNESS
30	W	TO BODY HARNESS
31	B	TO BODY HARNESS
32	R	TO BODY HARNESS

Connector No.	M76
Connector Name	COMBINATION METER
Connector Type	TH40FW-NH
Connector Color	WHITE

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
1	B	GND
2	–	–
3	–	–
4	–	–
5	–	–
6	–	–
7	BG	SECURITY
8	–	–
9	GR	ECO MODE SW
10	–	–
11	–	–
12	–	–
13	–	–
14	–	–
15	L	OUTSIDE TEMP SENSOR
16	–	–
17	BG	SATELLITE SW GND
18	SB	TRIP RESET SW
19	–	–
20	Y	OUTSIDE TEMP GND
21	L	GND (STRG SW GND)
22	Y	STRG SW A
23	GR	STRG SW B
24	BR	WASHER SW
25	V	BRAKE OIL SW
26	G	PKB SW
27	–	–
28	Y	DR BELT SW
29	R	SPORT MODE SW

30	LG	M RANGE
31	SB	NOT M RANGE
32	BG	AT SHIFT UP
33	BR	AT SHIFT DOWN
34	–	–
35	–	–
36	GR	ILL UP SW
37	V	ILL DOWN SW
38	G	8P/R OUTPUT
39	W	2P/R OUTPUT
40	–	–

Connector No.	M77
Connector Name	COMBINATION METER
Connector Type	TH12FW-NH
Connector Color	WHITE

H.S.

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

Terminal No.	Color of Wire	Signal Name
41	L	CAN-H
42	P	CAN-L
43	R	ILL CONT OUT
44	LA/B	FUEL SENSOR GND
45	G	BAT
46	V	IGN
47	SB	M-CAN H
48	LG	M-CAN L
49	–	–
50	–	–
51	LA/L	FUEL SENSOR
52	B	G1

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REAR VIEW MONITOR SYSTEM CONNECTORS

Connector No.	M83
Connector Name	AUDIO UNIT
Connector Type	NH18FW-CS2
Connector Color	WHITE

H.S.

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

Terminal No.	Color of Wire	Signal Name
1	BR	AMPL ON (WITH BOSE AUDIO SYSTEM)
2	Y	FR SP LH+ (WITH 4 SPEAKERS)
2	R	FR SP LH+ (WITH BOSE AUDIO SYSTEM)
2	W	FR SP LH+ (WITH 6 SPEAKERS)
3	R	FR SP LH- (WITH 4 SPEAKERS)
3	G	FR SP LH- (WITH BOSE AUDIO SYSTEM)
3	P	FR SP LH- (WITH 6 SPEAKERS)
4	V	RR SP LH+ (WITH BOSE AUDIO SYSTEM)
4	GR	RR SP LH+ (WITHOUT BOSE AUDIO SYSTEM)
5	LG	RR SP LH- (WITH BOSE AUDIO SYSTEM)
5	BR	RR SP LH- (WITHOUT BOSE AUDIO SYSTEM)
6	–	–
7	LG	IGN2
8	R	ILL-
9	V	ILL+, LIGHT SW
10	B	SHIELD (WITH BOSE AUDIO SYSTEM)
11	W	FR SP RH+ (WITH 4 SPEAKERS)
11	R	FR SP RH+ (WITH BOSE AUDIO SYSTEM)
11	G	FR SP RH+ (WITH 6 SPEAKERS)
12	GR	FR SP RH- (WITH 4 SPEAKERS)
12	W	FR SP RH- (WITH BOSE AUDIO SYSTEM)
12	V	FR SP RH- (WITH 6 SPEAKERS)
13	L	RR SP RH+ (WITH BOSE AUDIO SYSTEM)
13	LG	RR SP RH+ (WITHOUT BOSE AUDIO SYSTEM)
14	Y	RR SP RH-
15	–	–
16	–	–
17	–	–
18	G	SPEED SIGNAL
19	L	+B

Connector No.	M87
Connector Name	AUDIO UNIT
Connector Type	TH32FW-NH
Connector Color	WHITE

H.S.

60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45
44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29

20	B	GND

Terminal No.	Color of Wire	Signal Name
29	–	–
30	–	–
31	R	HF/VR MODE CHANGE
32	–	–
33	–	–
34	–	–
35	W	AUTO ACC
36	SB	MCAN2 H
37	LG	MCAN2 L
38	–	–
39	SB	MCAN1 H
40	LG	MCAN1 L
41	B	CAM GND
42	R	CAM 6.2V
43	W	COMPOSITE+ (CAM NTSC)
44	SHIELD	COMPOSITE- (CAM GND)
45	W	MIC +
46	B	MIC V+
47	SHIELD	MIC GND
48	–	–
49	–	–
50	–	–
51	–	–
52	B	CAM DET
53	–	–
54	–	–
55	–	–
56	–	–
57	–	–
58	BR	REV (FOR RR VIEW)
59	–	–
60	–	–

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BASIC INSPECTION

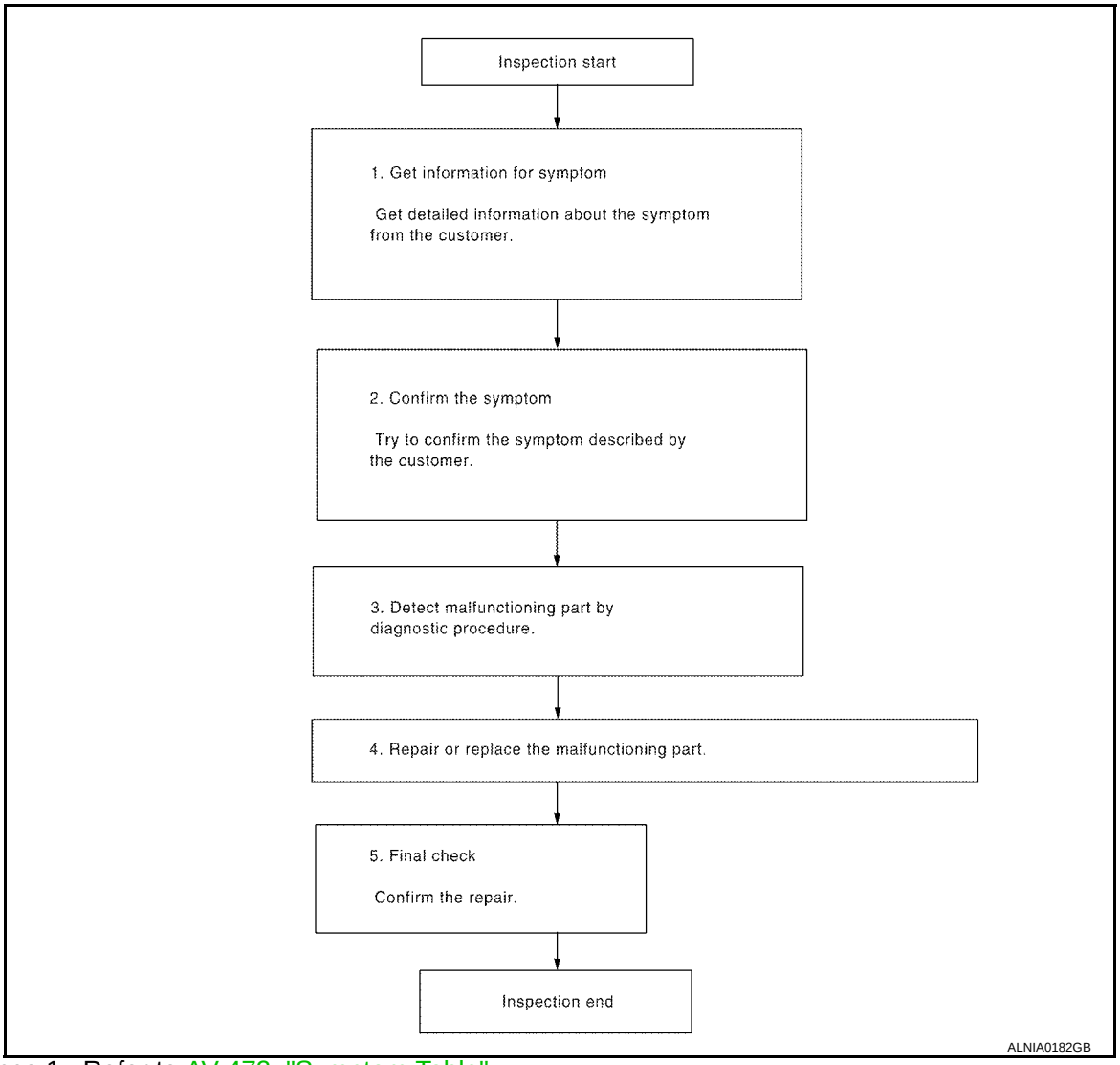
DIAGNOSIS AND REPAIR WORKFLOW

AUDIO SYSTEM

AUDIO SYSTEM : Work Flow

INFOID:0000000015258893

OVERALL SEQUENCE



Reference 1···Refer to AV-472, "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-472, "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.

DTC/CIRCUIT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT

AUDIO UNIT

AUDIO UNIT : Diagnosis Procedure

INFOID:0000000015264371

Regarding Wiring Diagram information, refer to AV-95, "Wiring Diagram".

1.CHECK FUSE

Check that the following fuses are not blown:

Terminal No.	Signal name	Fuse No.
7	Ignition power supply	30 (10A)
19	Battery power supply	16 (20A)

Are the fuses blown?

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

2.CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect audio unit connector M83.
3. Check voltage between audio unit connector M83 and ground.

Audio unit		Ground	Condition	Voltage (Approx.)
Connector	Terminal			
M83	7	—	Ignition switch: ON	Battery voltage
	19		Ignition switch: OFF	

Is the inspection result normal?

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

3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect audio unit connector M87.
3. Check continuity between audio unit connectors and ground.

Audio unit		Ground	Continuity
Connector	Terminal		
M83	20	—	Yes
M87	52		

Is the inspection result normal?

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

REAR VIEW CAMERA IMAGE SIGNAL CIRCUIT

Diagnosis Procedure

INFOID:0000000015258895

Regarding Wiring Diagram information, refer to AV-460, "Wiring Diagram".

1.CHECK REVERSE INPUT SIGNAL

1. Turn ignition switch ON.
2. Shift the selector lever to R (reverse).
3. Check voltage between audio unit connector M87 and ground.

Audio unit		Ground	Condition	Voltage (Approx.)
(+)		(–)		
Connector	Terminal			
M87	58	—	Selector lever in R (reverse)	Battery Voltage

Is inspection result normal?

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

2.CHECK CAMERA POWER SUPPLY CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect audio unit connector M87 and rear view camera connector D504.
3. Check continuity between audio unit connector M87 and rear view camera connector D504.

Audio unit		Rear view camera		Continuity
Connector	Terminal	Connector	Terminal	
M87	42	D504	2	Yes

4. Check continuity between audio unit connector M87 and ground.

Audio unit		Ground	Continuity
Connector	Terminal		
M87	42		No

Is inspection result normal?

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

3.CHECK CAMERA POWER SUPPLY VOLTAGE

1. Connect audio unit connector M87 and rear view camera connector D504.
2. Turn ignition switch ON.
3. Shift the selector lever to R (reverse).
4. Check voltage between audio unit connector M87 and ground.

Audio unit		Ground	Condition	Voltage (Approx.)
(+)		(–)		
Connector	Terminal			
M87	42	—	Selector lever is in “R”.	6.0 V

Is inspection result normal?

YES >> GO TO 4.
NO >> Replace audio unit. Refer to AV-473, "Removal and Installation".

4. CHECK CAMERA IMAGE SIGNAL CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect audio unit connector M87 and rear view camera connector D504.
3. Check continuity between audio unit connector M87 and rear view camera connector D504.

Audio unit		Rear view camera		Continuity
Connector	Terminal	Connector	Terminal	
M87	43	D504	4	Yes

4. Check continuity between audio unit connector M87 and ground.

Audio unit		Ground	Continuity
Connector	Terminal		
M87	43		No

Is inspection result normal?

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

5. CHECK CAMERA GROUND CIRCUIT CONTINUITY

Check continuity between audio unit connector M87 and rear view camera connector D504.

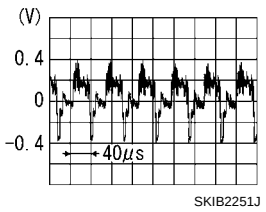
Audio unit		Rear view camera		Continuity
Connector	Terminal	Connector	Terminal	
M87	41	D504	1	Yes

Is inspection result normal?

YES >> GO TO 6.
NO >> Repair or replace harness or connectors.

6. CHECK CAMERA IMAGE SIGNAL

1. Connect audio unit connector M87 and rear view camera connector D504.
2. Turn ignition switch ON.
3. Shift the selector lever to R (reverse).
4. Check signal between audio unit connector M87 and ground.

Audio unit (+)		Ground (–)	Condition	Reference value
Connector	Terminal			
M87	43	—	Camera image displayed.	

SKIB2251J

Is inspection result normal?

YES >> Replace audio unit. Refer to AV-473, "Removal and Installation".
NO >> Replace rear view camera. Refer to AV-474, "Removal and Installation".

SYMPTOM DIAGNOSIS

REAR VIEW MONITOR SYSTEM

Symptom Table

INFOID:0000000015258896

REAR VIEW MONITOR SYSTEM

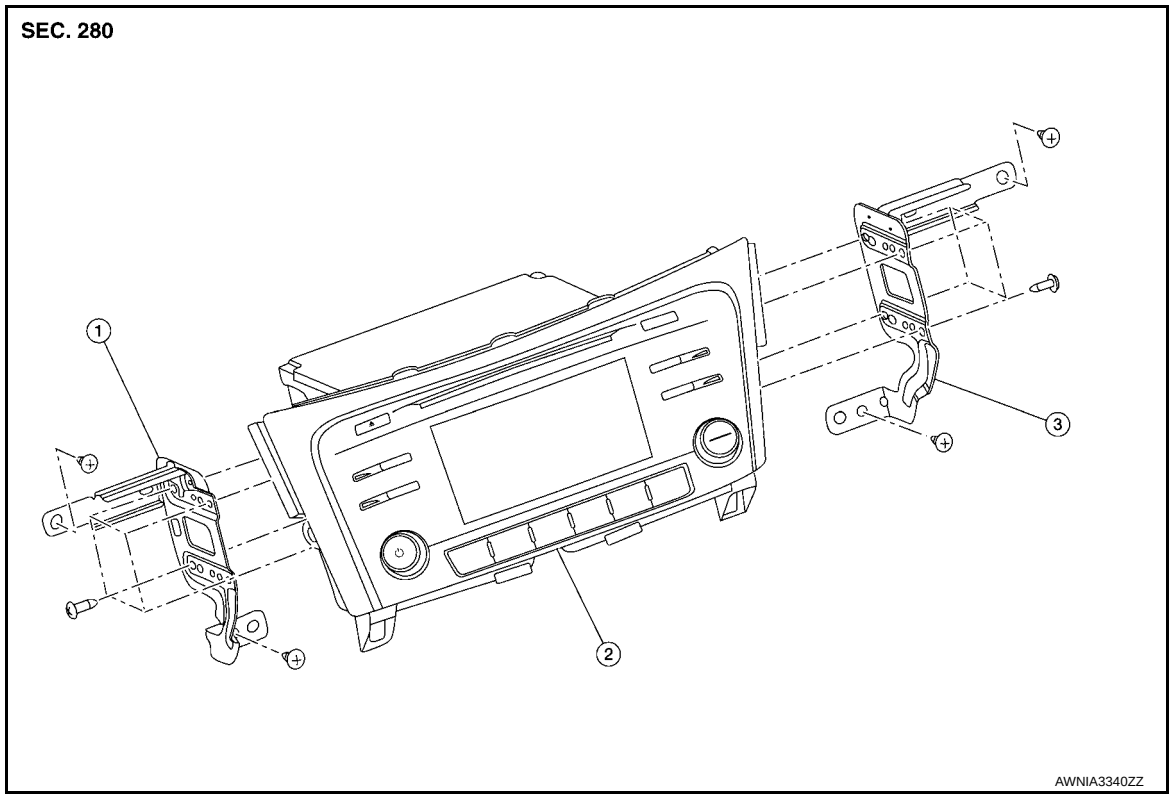
Symptom	Possible cause	Inspection item
Camera image is not shown. (Vehicle width and predictive course line are displayed.)	• Harness between rear view camera and audio unit • Rear view camera • Audio unit	Camera image signal circuit. Refer to AV-470, "Diagnosis Procedure".
Camera image does not switch.	• Harness between BCM and audio unit • Audio unit • BCM	Reverse signal circuit. Refer to AV-470, "Diagnosis Procedure".

REMOVAL AND INSTALLATION

AUDIO UNIT

Exploded View

INFOID:0000000014844625



1. Audio unit bracket (LH) 2. Audio unit 3. Audio unit bracket (RH)

Removal and Installation

INFOID:0000000014844626

REMOVAL

1. Disconnect the negative battery terminal. Refer to PG-129, "Removal and Installation (Battery)".
2. Remove cluster lid C. Refer to IP-21, "Removal and Installation".
3. Remove instrument finisher B. Refer to IP-16, "INSTRUMENT FINISHER B : Removal and Installation".
4. Remove instrument finisher E. Refer to IP-16, "INSTRUMENT FINISHER E : Removal and Installation".
5. Remove the audio unit screws, then pull out the audio unit.
6. Disconnect the harness connectors from the audio unit and remove.
7. Remove the audio unit bracket (LH/RH) screws and the audio unit brackets (LH/RH) (if necessary).

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

When replacing audio unit, the audio unit must be registered. Refer to AV-44, "REGISTRATION (AUDIO UNIT) : Description".

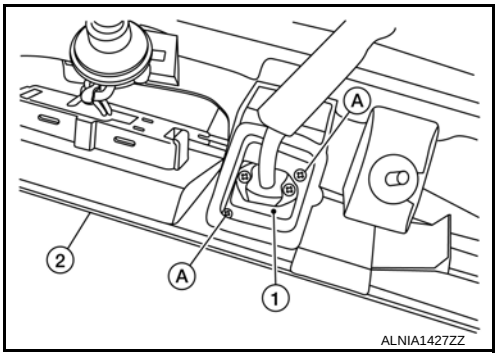
REAR VIEW CAMERA

Removal and Installation

INFOID:0000000014844627

REMOVAL

1. Remove back door outer upper finisher. Refer to EXT-63, "Removal and Installation".
2. Remove rear view camera screws (A), then remove rear view camera (1) from the back door outer upper finisher (2).



INSTALLATION

Installation is in the reverse order of removal.

PRECAUTION

PRECAUTIONS

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

INFOID:0000000014893883

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

WARNING:

- **To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, it is recommended that all maintenance and repair be performed by an authorized NISSAN/INFINITI dealer.**
- **Improper repair, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SR section.**
- **Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.**

PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

WARNING:

- **When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the Ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.**
- **When using air or electric power tools or hammers, always switch the Ignition OFF, disconnect the battery or batteries, and wait at least three minutes before performing any service.**

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

INFOID:0000000014844629

CAUTION:

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

NOTE:

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

Precaution for Trouble Diagnosis

INFOID:0000000014844630

AV COMMUNICATION SYSTEM

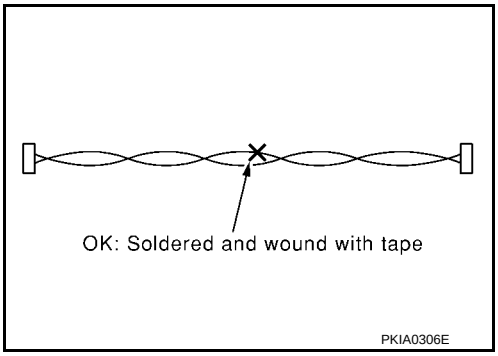
- Do not apply voltage of 7.0 V or higher to the measurement terminals.
- Use the tester with its open terminal voltage being 7.0 V or less.
- Be sure to turn ignition switch OFF and disconnect the battery cable from the negative terminal before checking the circuit.

Precaution for Harness Repair

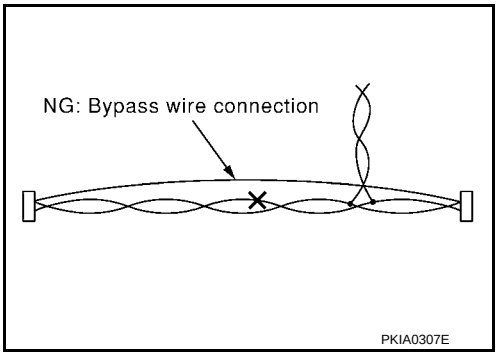
INFOID:0000000014844631

AV COMMUNICATION SYSTEM

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



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



Precaution for Work

INFOID:0000000014844632

- When removing or disassembling each component, be careful not to damage or deform it. If a component may be subject to interference, be sure to protect it with a shop cloth.
- When removing (disengaging) components with a screwdriver or similar tool, be sure to wrap the component with a shop cloth or vinyl tape to protect it.
- Protect the removed parts with a shop cloth and prevent them from being dropped.
- Replace a deformed or damaged clip.
- If a part is specified as a non-reusable part, always replace it with a new one.
- Be sure to tighten bolts and nuts securely to the specified torque.
- After installation is complete, be sure to check that each part works properly.
- Follow the steps below to clean components:

- Water soluble dirt:

- Dip a soft cloth into lukewarm water, wring the water out of the cloth and wipe the dirty area.
- Then rub with a soft, dry cloth.

- Oily dirt:

- Dip a soft cloth into lukewarm water with mild detergent (concentration: within 2 to 3%) and wipe the dirty area.
- Then dip a cloth into fresh water, wring the water out of the cloth and wipe the detergent off.
- Then rub with a soft, dry cloth.

- Do not use organic solvent such as thinner, benzene, alcohol or gasoline.
- For genuine leather seats, use a genuine leather seat cleaner.

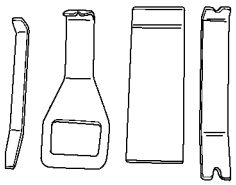
PREPARATION

PREPARATION

Special Service Tool

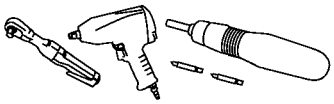
INFOID:0000000014844633

The actual shape of the tools may differ from those illustrated here.

Tool number (TechMate No.) Tool name	Description
— (J-46534) Trim Tool Set  AWJIA0483ZZ	Removing trim components

Commercial Service Tools

INFOID:0000000014844634

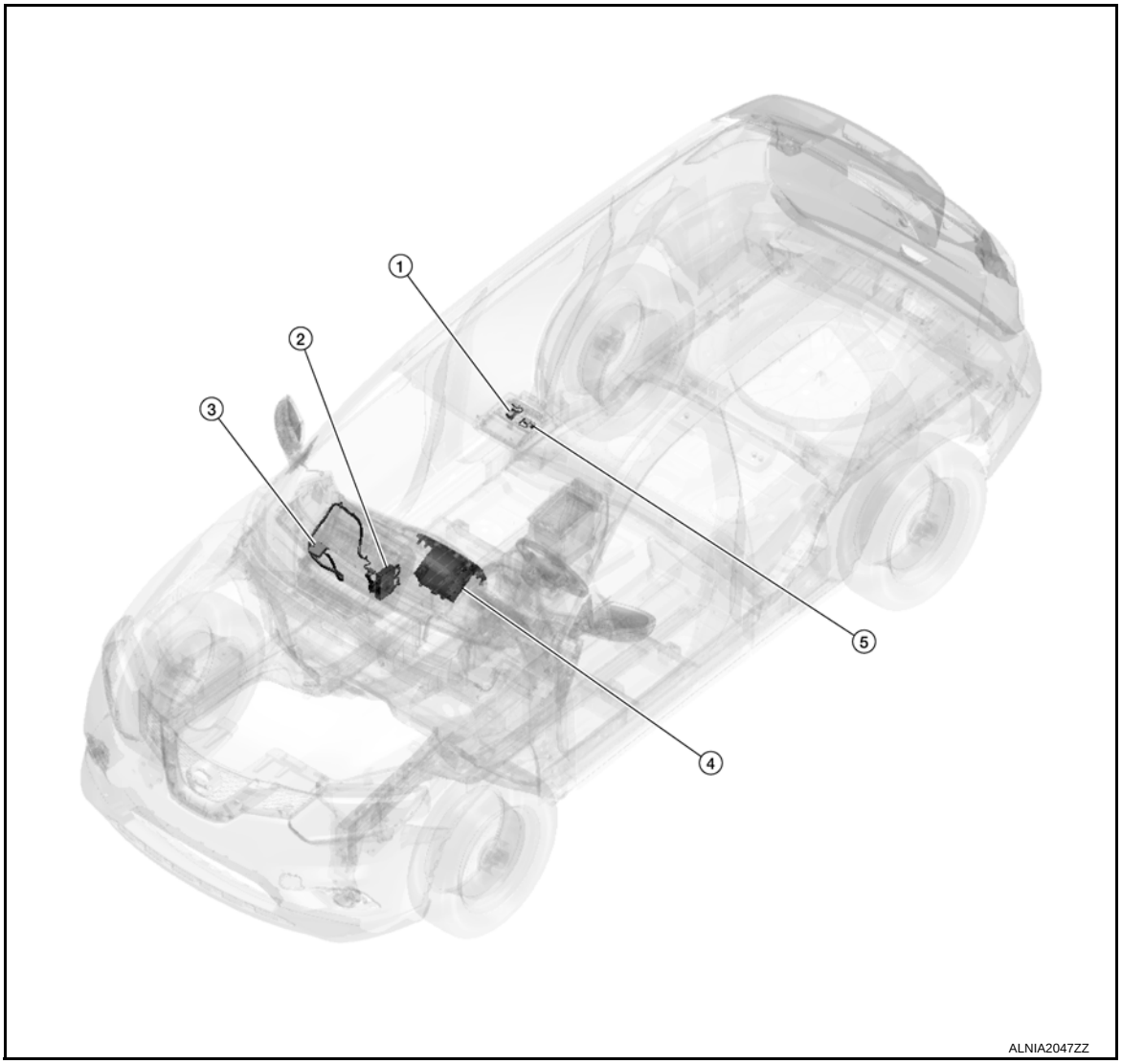
Tool name	Description
Power tool  PIIB1407E	Loosening nuts, screws and bolts

SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

INFOID:0000000015258898



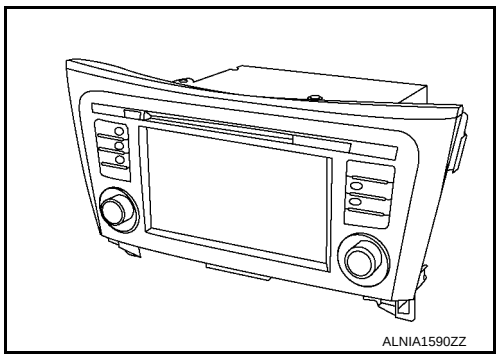
No.	Component	Function
1.	Telematics switch	Refer to AV-480, "Telematics Switch".
2.	TCU	Refer to AV-479, "TCU".
3.	Telematics antenna	Refer to AV-479, "Telematics Antenna".
4.	AV control unit	Refer to AV-478, "AV Control Unit".
3.	Microphone	Refer to AV-480, "Microphone".

AV Control Unit

INFOID:0000000015258899

Description

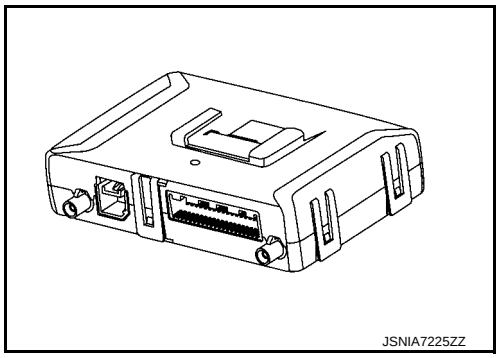
- A 7-inch WVGA display, an AM/FM electronic tuner radio, CD drive and navigation unit are integrated into the AV control unit.
- AV control unit is connected to TCU with the USB harness, and signals necessary for Telematics function and NissanConnect[SM] function are sent and received.


ALNIA1590ZZ

TCU

INFOID:0000000015258900

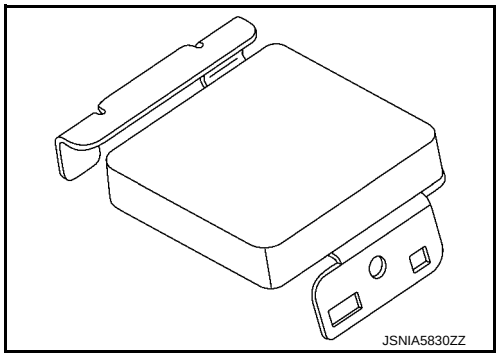
- TCU is abbreviation of Telematics Communication Unit.
- It is installed at the back of the glove box cover assembly.
- A radio communication terminal and SIM card are built into the unit and data is sent and received in SMS*, DTMF tone signal with the NissanConnect center through the TEL antenna.
  NOTE:
  *: SMS stands for Short Message Service. It is also referred to as Text Messaging, Short Mail, etc. It is the service that performs text based message communication.
- It is connected to the AV control unit with the USB harness for sound signal input/output and USB communication.
- It is connected to the airbag diagnosis sensor unit. TCU performs an emergency report when the air bag is inflated.
- VIN information necessary for the Telematics service is memorized.
- Audio signals received during SOS/Operator call are transmitted from TCU to each speaker via the AV control unit.
- During the communication with NissanConnect center, TCU transmits a TEL ON signal to the AV control unit to prohibit the use of Bluetooth® hands-free phone.


JSNIA7225ZZ

Telematics Antenna

INFOID:0000000015258901

- The telematics antenna consists of TEL antenna and GPS antenna.
- It is installed in the instrument panel.
  NOTE:
  The placement of an object on the instrument panel may cause desensitization in the receiver sensitivity.

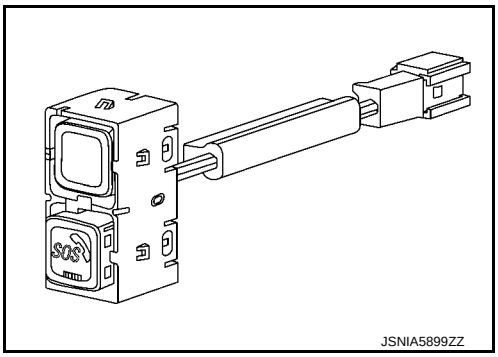

JSNIA5830ZZ

Telematics Switch

INFOID:0000000015258902

- The Telematics switch is located on the map lamp assembly.
- The Telematics switch is connected to TCU and transmits an operation signal.
- The state of LED (ON/Blink/OFF) shows the status of SOS call.

LED ON	:SOS Call available
LED Blink	:SOS Call in communication
LED OFF	:Out of service area or system error

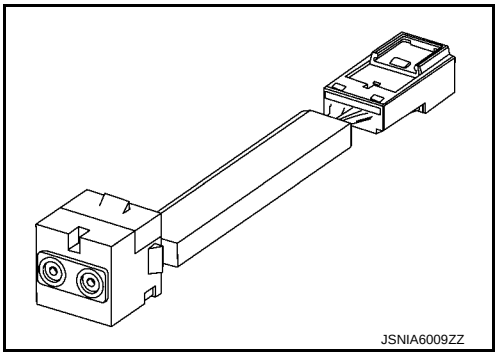


JSNIA5899ZZ

Microphone

INFOID:0000000015258903

- Microphone is installed on the map lamp assembly.
- The microphone is used for the operation of the NissanConnect, hands-free phone system, voice recognition function.
- The power is supplied from the TCU to the microphone, transmitting sound signals to the TCU at the during operation of the NissanConnect system, hands-free phone communication, and voice recognition.

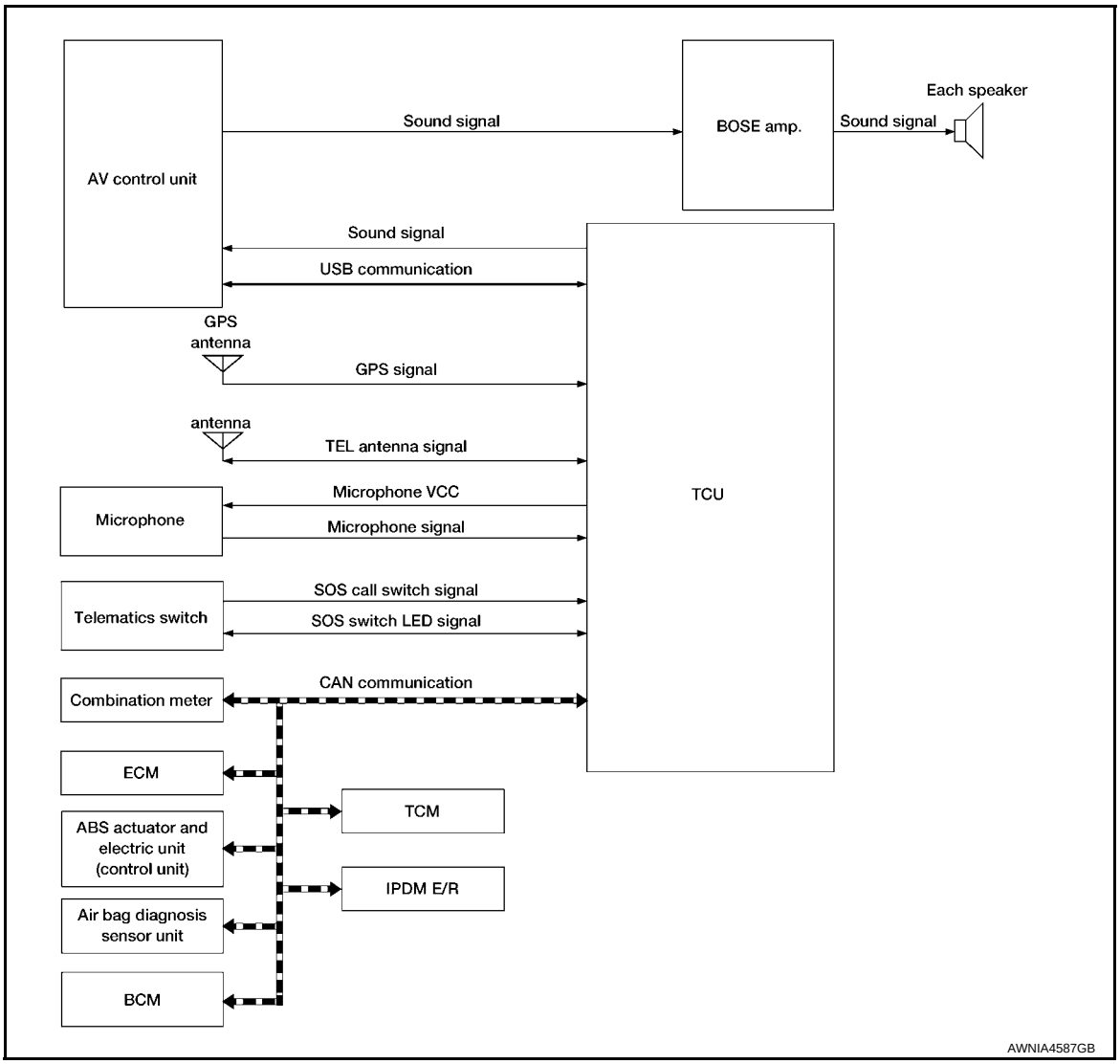

JSNIA6009ZZ

SYSTEM

System Description

INFOID:0000000015258904

SYSTEM DIAGRAM



TCU Input Signal (CAN Communication)

Transmit unit	Signal name
ECM	Engine status signal
	Malfunction indicator lamp signal
	Engine oil pressure warning lamp signal
ABS actuator and electric unit (control unit)	ABS warning lamp signal
	VDC warning lamp signal
Combination meter	Brake warning lamp signal
Air bag diagnosis sensor unit	Car crash information signal
BCM	Auto ACC signal
	Door lock status signal
	Sleep wake up signal

DESCRIPTION

- The Telematics system is a system for providing information by connecting the vehicle and the user to the NissanConnect center.
- TCU (Telematics Communication Unit) equipped with a radio communication terminal communicates with the information center (NissanConnect center) via radio waves for receiving NissanConnect services.
- With the equipment of the radio communication terminal, TCU communicate with NissanConnect center by Packet communication*1 and SMS*2 via TEL antenna mounted on the Telematics antenna.
  NOTE:
  - *1: Packet communication means a communication method that data are broken down into smaller chunks for communication. The split data is called a packet and improves the efficiency of the communication circuit.
  - *2: SMS stands for Short Message Service, also known as text messaging or short mail, and provides text-based message communication services.
- While communicating with the operator, data (e.g. transmission of own vehicle location) are transmitted to the NissanConnect Service Center by using DTMF tone signals and SMS via the radio communication module included in TCU.
- Audio signals transmitted and received while communicating with the operator are input by the microphone connected to TCU.
- Audio signals are output from TCU via the audio data circuit connected to the AV control unit.

Fail-safe

INFOID:0000000015259881

If a malfunction occurs in the telematics system, TCU performs fail-safe activation according to the detected malfunction.

Detection item	Telematics system operation in fail-safe mode	DTC
Air-bag connection	• Some telematics system does not function. • Inform a NissanConnect center about abnormality.	U1A10
CAN communication	• Telematics system does not function. • Inform a NissanConnect center about abnormality.	U1000
TEL antenna	• Telematics switch LED indicator turn OFF. (LED indicator turns ON 10 times when push the SOS call switch.) • When operated a telematics system, inform that cannot be connected to the NissanConnect center.	U1A06
GPS antenna	• Telematics system cannot send correct positional information. • Inform a NissanConnect center about abnormality.	U1A09 U1A0A
USB communication	• Telematics system does not function. • Inform a NissanConnect center about abnormality.	B13D9
TCU	Telematics system function stops.	B1310 B130D B2EF0-16 B2EF0-49 B2EF0-4A B2EF0-4B U1010 U1A01 U1A02
	• Telematics system function stops. • When operated a telematics system, inform that cannot be connected to the NissanConnect center.	U1A03 U1A11
Telematics switch (SOS call switch)	• Telematics system does not function. (Only SOS call does not operate.) • Telematics switch LED indicator is turned OFF.	B2E33 U1A0E
Microphone	• Transmit an own vehicle position to the NissanConnect center. • Inform a NissanConnect center about abnormality.	U1A0B
VIN	Telematics service does not function.	U1A04

DIAGNOSIS SYSTEM (TCU)

CONSULT Function

INFOID:0000000015258911

APPLICABLE ITEMS

CONSULT performs the following items by communication with TCU:

Diagnosis mode	Description
Self-Diagnosis Result	Performs the diagnosis of TCU and displays the current and past malfunctions collectively.
Data Monitor	The diagnosis of the vehicle signal that is input to TCU can be performed.
Work support	Performs TCU activation setting and center connection setting.
ECU identification	Checks TCU part number and various ID numbers.
Configuration	• The vehicle specification that is written in TCU can be displayed or stored • The vehicle specification can be written when TCU is replaced

SELF-DIAGNOSIS RESULT

Refer to AV-488, "DTC Index".

- In CONSULT self-diagnosis, the self-diagnosis results and error history are displayed collectively.
- The current malfunction indicates “0”. The counter increases by 1 if the condition is normal at the next power switch ON cycle.

DATA MONITOR

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Display item	Display	Condition	Note
HF TYPE	BT/NO BT	—	Indicates state of configuration result. **NOTE:** This item is displayed, but not used.
AUDIO UNIT TYPE	AUDIO/NAVI/NO NAVI	—	
CALL SWITCH TYPE	SOS/OP	—	
SPEAKER TYPE	INDRCT	—	
ZONE	PRC	—	
CHANNEL	NISSAN	—	
CAN COMM	GEN.3/GEN.5	—	
AV COMM	ENABLE/DISABLE	—	
K-LINE	ENABLE/DISABLE	—	
VEHICLE TYPE	ENG	—	
ECHO CANCEL	TYPE 1	—	This item is displayed, but cannot be monitored.
	TYPE 2		
	TYPE 3		
	TYPE 4		
NOISE CANCEL	TYPE 1	—	This item is displayed, but cannot be monitored.
	TYPE 2		
	TYPE 3		
	TYPE 4		
TCU STANDBY TIME	14DAYS	Set at 14 days (default)	Set value for continued operation time to control battery consumption
	2DAYS	Set at 2 days	
	30DAYS	Set at 30 days	
	NON	No setting	

Display item	Display	Condition	Note
SENSOR ANGLE X	—	—	Indicates state of configuration result. **NOTE:** This item is displayed, but not used.
SENSOR ANGLE Y	—	—	
SENSOR ANGLE Z	—	—	
SVTB	ENABLE/DISABLE	—	
REMOTE DOOR LOCK	ENABLE/DISABLE	—	
REMOTE HORN & LAMP	ENABLE/DISABLE	—	
REMOTE START	ENABLE/DISABLE	—	
NAD OUTPUT STATUS	On	When TCU activation is ON	NAD: Abbreviation of Network Access Device. ON/OFF setting of radio wave
	Off	When TCU activation is OFF	
ACN COMM SEQUENCE LOG	—	—	**NOTE:** This item is displayed, but not used.
SOS COMM SEQUENCE LOG	—	—	

WORK SUPPORT

Performs TCU activation setting and center connection setting.

Item name	Description
SAVE VIN DATA	The vehicle identification number data saved in TCU is stored in CONSULT.
TCU ACTIVATE SETTING	TCU ON/OFF setting is available.
WRITE VIN (SAVED DATA)	Write vehicle identification number data stored by “SAVE VIN DATA” in work support mode to TCU.
WRITE VIN (MANUAL INPUT)	Write vehicle identification number data in TCU. (MANUAL)

ECU IDENTIFICATION

Displays TCU part number and various ID numbers.

Display items	Description
ECU PART NUMBER	Displays TCU part number.
UNIT ID	Displays AV control unit ID number.
TCU ID	Displays TCU ID number.
SIM ID	Displays ICC ID of SIM card.
V.I.N	Displays the vehicle identification number stored in TCU.

CONFIGURATION

Configuration includes functions as follows.

Function		Description
Read/Write Configuration	Before ECU Replacement	Allows the reading of vehicle specification written in TCU to store the specification in CONSULT.
	After ECU Replacement	Allows the writing of the vehicle information stored in CONSULT into the TCU.
Manual Configuration		Allows the writing of the vehicle specification into the TCU by hand.

ECU DIAGNOSIS INFORMATION

TCU

Reference Value

INFOID:0000000015258907

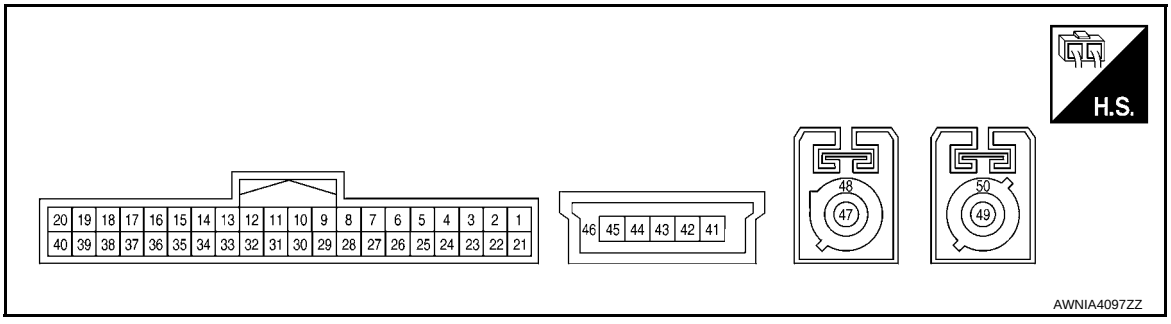
VALUES ON THE DIAGNOSIS TOOL

NOTE:
The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

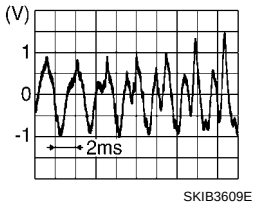
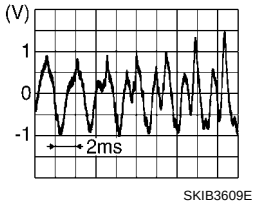
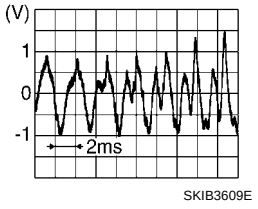
CONSULT MONITOR ITEM

Monitor Item	Condition	Value/Status
HF TYPE	Ignition switch ON	BT
AUDIO UNIT TYPE	Ignition switch ON	NAVI
CALL SWITCH TYPE	Ignition switch ON	SOS
SPEAKER TYPE	Ignition switch ON	INDRCT
ZONE	Ignition switch ON	PRC
CHANNEL	Ignition switch ON	NISSAN
CAN COMM	Ignition switch ON	GEN.3
AV COMM	Ignition switch ON	ENABLE
K-LINE	Ignition switch ON	DISABLE
VEHICLE TYPE	Ignition switch ON	ENG
ECHO CANCEL	Ignition switch ON	TYPE1
NOISE CANCEL	Ignition switch ON	TYPE1
TCU STANDBY TIME	Set at 14 days (default)	14DAYS
	Set at 2 days	2DAYS
	Set at 30 days	30DAYS
	No setting	NON
SENSOR ANGLE X	Ignition switch ON	4.0
SENSOR ANGLE Y	Ignition switch ON	4.0
SENSOR ANGLE Z	Ignition switch ON	4.0
SVTB	Ignition switch ON	DISABLE
REMOTE DOOR LOCK	Ignition switch ON	DISABLE
REMOTE HORN & LAMP	Ignition switch ON	DISABLE
REMOTE START	Ignition switch ON	DISABLE
NAD OUTPUT STATUS	When TCU activation is ON	On
	When TCU activation is OFF	Off
ACN COMM SEQUENCE LOG	Ignition switch ON	0
SOS COMM SEQUENCE LOG	Ignition switch ON	0

TERMINAL LAYOUT



PHYSICAL VALUES

Terminal (Wire color)		Description		Condition	Reference value (Approx.)
+	–	Signal name	Input/Output		
1 (L)	Ground	Battery power supply	Input	Ignition switch OFF	Battery Voltage
5 (Y)	Ground	SOS switch LED signal	Input	Ignition switch ON	5.0 V
6 (L)	—	CAN high	Input/Output	—	—
7 (R)	—	CAN low	Input/Output	—	—
10 (LG)	Ground	Ignition signal	Input	Ignition switch ON	12.0 V
11 (Shield)	—	Microphone output ground	—	—	—
12 (W)	11 (Shield)	Microphone output signal	Output	Ignition switch ON • When inputting interior sound	 SKIB3609E
16 (Shield)	—	Microphone ground	—	—	—
17 (W)	16 (Shield)	Microphone signal	Input	Ignition switch ON • When inputting interior sound	 SKIB3609E
18 (B)	16 (Shield)	Microphone VCC	Output	Ignition switch ON	4.72 V
26 (SB)	—	AV communication high	Input/Output	—	—
27 (LG)	—	AV communication low	Input/Output	—	—
28 (B)	—	Ground	—	—	—
29 (B)	—	Ground	—	—	—
31 (R)	32 (L)	Sound signal (+)	Input	Ignition switch ON • When inputting interior sound	 SKIB3609E
32 (L)	—	Sound signal (–)	—	—	—

Terminal (Wire color)		Description		Condition	Reference value (Approx.)
+	–	Signal name	Input/Output		
37 (BG)	Ground	SOS call switch signal	Input	Ignition switch ON • When pressing SOS switch (telematics switch)	0 V
				Except for above	5.0 V
41 (B)	—	V BUS signal	—	—	—
43 (G)	—	USB D- signal	—	—	—
44 (W)	—	USB D+ signal	—	—	—
45 (R)	—	USB ground	—	—	—
46 (Shield)	—	USB shield	—	—	—
47 (B)	Ground	TEL antenna signal	Input	TEL antenna disconnected.	5.0 V
48 (Shield)	—	TEL antenna shield	—	—	—
49 (B)	Ground	GPS antenna signal	Input	GPS antenna disconnected.	5.0 V
50 (Shield)	—	GPS antenna shield	—	—	—

Fail-safe

INFOID:0000000015258908

If a malfunction occurs in the telematics system, TCU performs fail-safe activation according to the detected malfunction.

Detection item	Telematics system operation in fail-safe mode	DTC
Air-bag connection	• Some telematics system does not function. • Inform a NissanConnect center about abnormality.	U1A10
CAN communication	• Telematics system does not function. • Inform a NissanConnect center about abnormality.	U1000
TEL antenna	• Telematics switch LED indicator turn OFF. (LED indicator turns ON 10 times when push the SOS call switch.) • When operated a telematics system, inform that cannot be connected to the NissanConnect center.	U1A06
GPS antenna	• Telematics system cannot send correct positional information. • Inform a NissanConnect center about abnormality.	U1A09 U1A0A
USB communication	• Telematics system does not function. • Inform a NissanConnect center about abnormality.	B13D9
TCU	Telematics system function stops.	B1310 B130D B2EF0-16 B2EF0-49 B2EF0-4A B2EF0-4B U1010 U1A01 U1A02
	• Telematics system function stops. • When operated a telematics system, inform that cannot be connected to the NissanConnect center.	U1A03 U1A11

Detection item	Telematics system operation in fail-safe mode	DTC
Telematics switch (SOS call switch)	• Telematics system does not function. (Only SOS call does not operate.) • Telematics switch LED indicator is turned OFF.	B2E33 U1A0E
Microphone	• Transmit an own vehicle position to the NissanConnect center. • Inform a NissanConnect center about abnormality.	U1A0B
VIN	Telematics service does not function.	U1A04

DTC Inspection Priority Chart

INFOID:0000000015258909

If multiple DTCs are detected simultaneously, check them one by one depending on the following DTC inspection priority chart.

Priority	Detected items (DTC)
1	U1A04: VIN UNFINISHED
2	• U1000: CAN COMM CIRCUIT • U1010: CONTROL UNIT(CAN)
3	• B130D: TEL LINE OUT ERROR • B1310: TCU TEMPERATURE ERROR • B13D9: USB CONNECTION • B2E33: ECALL BUTTON • B2EF0-16: INTERNAL BATTERY • B2EF0-49: INTERNAL BATTERY • B2EF0-4A: INTERNAL BATTERY • B2EF0-4B: INTERNAL BATTERY • U1A01: INTERNAL ERROR (TCU) • U1A02: TEL COMMUNICATION MODULE • U1A03: SIM CARD • U1A05: USB COMM • U1A06: TEL ANTENNA ERROR • U1A09: GPS ANTENNA CONN • U1A0A: GPS MODULE COMM • U1A0B: MIC IN CONN • U1A0E: SOS SWITCH ON STUCK • U1A10: AIRBAG SIGNAL • U1A11: TEL MUTE OUTPUT SIGNAL NO CONN

DTC Index

INFOID:0000000015258910

DTC	Display contents of CONSULT	Reference
B130D	TEL LINE OUT ERROR	AV-499, "DTC Description"
B1310	TCU TEMPERATURE ERROR	AV-501, "DTC Description"
B13D9	USB CONNECTION	AV-502, "DTC Description"
B2E33	ECALL BUTTON	AV-503, "DTC Description"
B2EF0-16	INTERNAL BATTERY	AV-505, "DTC Description"
B2EF0-49		
B2EF0-4A		
B2EF0-4B		
U1000	CAN COMM CIRCUIT	AV-506, "DTC Description"
U1010	CONTROL UNIT(CAN)	AV-507, "DTC Description"
U1A01	INTERNAL ERROR (TCU)	AV-508, "DTC Description"
U1A02	TEL COMMUNICATION MODULE	AV-509, "DTC Description"
U1A03	SIM CARD	AV-510, "DTC Description"
U1A04	VIN UNFINISHED	AV-511, "DTC Description"
U1A05	USB COMM	AV-512, "DTC Description"

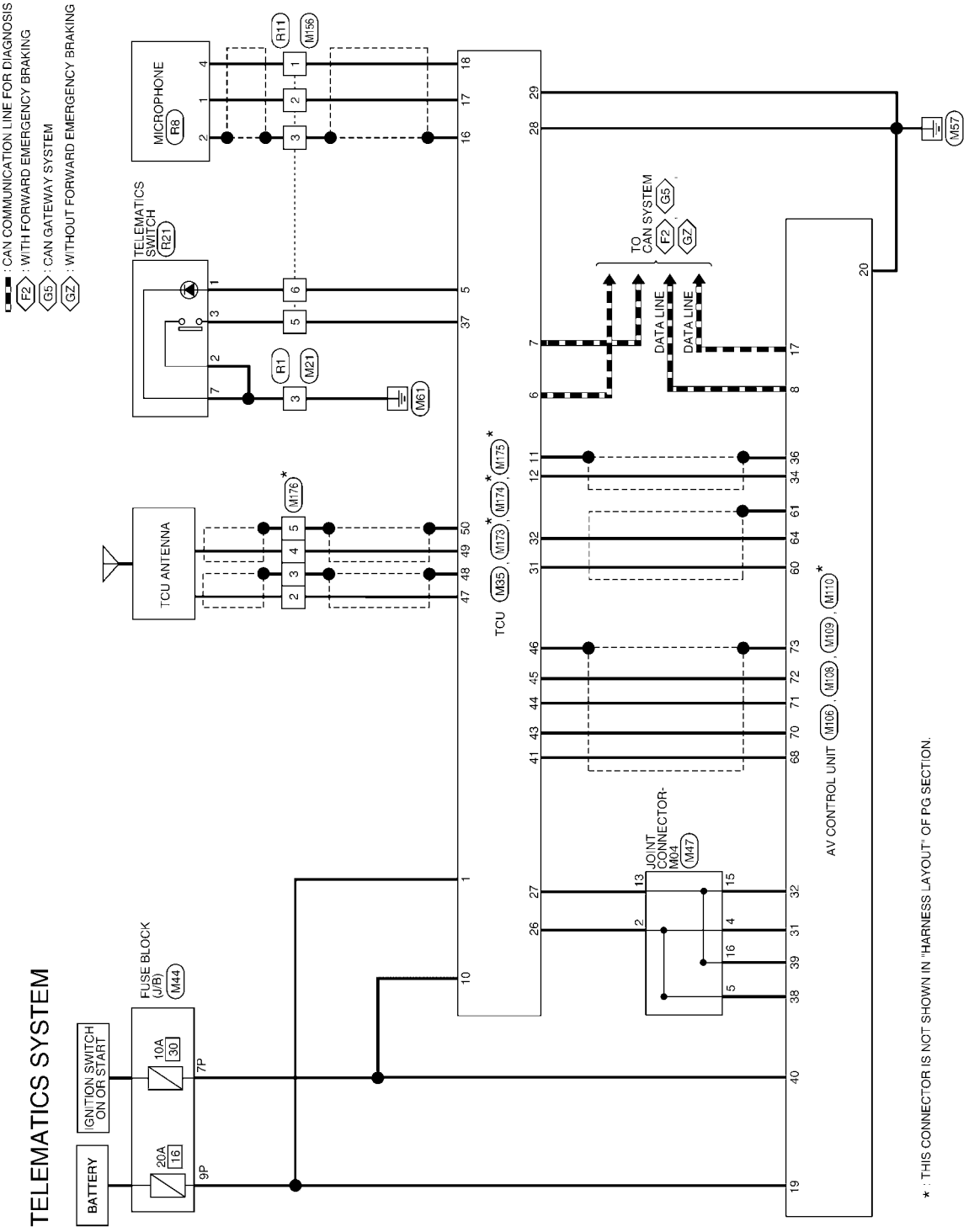
DTC	Display contents of CONSULT	Reference
U1A06	TEL ANTENNA ERROR	AV-514, "DTC Description"
U1A09	GPS ANTENNA CONN	AV-516, "DTC Description"
U1A0A	GPS MODULE COMM	AV-518, "DTC Description"
U1A0B	MIC IN CONN	AV-519, "DTC Description"
U1A0E	SOS SWITCH ON STUCK	AV-521, "DTC Description"
U1A10	AIRBAG SIGNAL	AV-523, "DTC Description"
U1A11	TEL MUTE OUTPUT SIGNAL NO CONN	AV-524, "DTC Description"

WIRING DIAGRAM

TELEMATICS SYSTEM

Wiring Diagram

INFOID:0000000014844648



AANWA1825GB

TELEMATICS SYSTEM CONNECTORS

Connector No.	M21
Connector Name	WIRE TO WIRE
Connector Type	NS08FW-CS
Connector Color	WHITE

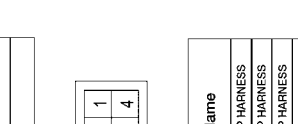
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Terminal No.	Color of Wire	Signal Name
1	–	TO ROOM LAMP HARNESS
2	V	TO ROOM LAMP HARNESS
3	B	TO ROOM LAMP HARNESS
4	B	TO ROOM LAMP HARNESS
5	–	TO ROOM LAMP HARNESS
6	W	TO ROOM LAMP HARNESS
7	R	TO ROOM LAMP HARNESS
8	Y	TO ROOM LAMP HARNESS

Connector No.	M35
Connector Name	TCU
Connector Type	TH40FB-NH
Connector Color	BLACK

H.S.

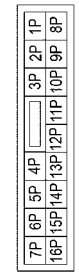


Terminal No.	Color of Wire	Signal Name
1	L	B+
2	–	–
3	–	–
4	–	–
5	Y	LED A
6	L	CAN-H
7	R	CAN-L
8	–	–
9	–	–
10	LG	IGN
11	SHIELD	MIC OUT GND
12	W	MIC OUT SIG
13	–	–
14	–	–
15	–	–

16	SHIELD	MIC GND
17	W	MIC SIG
18	B	MIC VCC
19	–	–
20	–	–
21	–	–
22	–	–
23	–	–
24	–	–
25	–	–
26	SB	M-CAN H
27	LG	M-CAN L
28	B	GND
29	B	GND
30	–	–
31	R	AUDIO HU OUT+
32	L	AUDIO HU OUT-
33	–	–
34	–	–
35	–	–
36	–	–
37	BG	ECALL SW
38	–	–
39	–	–
40	–	–

Connector No.	M44
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS16FW-CS
Connector Color	WHITE

H.S.

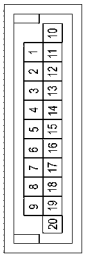


Terminal No.	Color of Wire	Signal Name
1P	R	IGNITION
2P	G	IGNITION
3P	Y	IGNITION RELAY-2 CONTROL
4P	LG	REAR WINDOW DEFOGGER RELAY OUTPUT
5P	GR	REAR WINDOW DEFOGGER RELAY OUTPUT
6P	LA/R	REAR WINDOW DEFOGGER RELAY CONTROL
7P	Y	IGNITION
8P	V	IGNITION
9P	L	BATTERY
10P	LG	IGNITION

11P	–	–
12P	–	–
13P	G	BATTERY
14P	–	–
15P	L	BATTERY
16P	LA/W	FRONT BLOWER MOTOR RELAY CONTROL

Connector No.	M47
Connector Name	JOINT CONNECTOR-M04
Connector Type	NH20FG-DC
Connector Color	GREEN

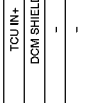
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Terminal No.	Color of Wire	Signal Name
1	–	–
2	SB	M-CAN H
3	SB	M-CAN H
4	SB	M-CAN H
5	SB	M-CAN H
6	L	CAN-H
7	L	CAN-H
8	L	CAN-H
9	L	CAN-H
10	–	–
11	–	–
12	–	–
13	LG	M-CAN L
14	LG	M-CAN L
15	LG	M-CAN L
16	LG	M-CAN L
17	R	CAN-L
18	R	CAN-L
19	V	CAN-L
20	V	CAN-L

Connector No.	M106
Connector Name	AV CONTROL UNIT (WITH BOSE AUDIO SYSTEM)
Connector Type	TH08FW-NH
Connector Color	WHITE

H.S.



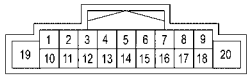
Terminal No.	Color of Wire	Signal Name
60	R	TCU IN+
61	SHIELD	DCM SHIELD
62	–	–
63	–	–
64	L	TCU IN-
65	–	–
66	–	–
67	–	–

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TELEMATICS SYSTEM CONNECTORS

Connector No.	M108
Connector Name	AV CONTROL UNIT (WITH BOSE AUDIO SYSTEM)
Connector Type	NH18FW-CS2
Connector Color	WHITE

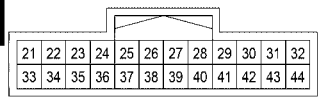
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Terminal No.	Color of Wire	Signal Name
1	BR	AMP ON
2	R	FR SP LH (+)
3	G	FR SP LH (-)
4	V	RR SP LH (+)
5	LG	RR SP LH (-)
6	–	–
7	W	ACC
8	L	CAN-H
9	V	ILL (+), LIGHT SW
10	B	PRE AMP SHIELD
11	R	FR SP RH (+)
12	W	FR SP RH (-)
13	L	RR SP RH (+)
14	Y	RR SP RH (-)
15	–	–
16	–	–
17	R	CAN-L
18	G	SPEED SIGNAL
19	L	BAT
20	B	GND

Connector No.	M109
Connector Name	AV CONTROL UNIT (WITH BOSE AUDIO SYSTEM)
Connector Type	TH24FW-NH
Connector Color	WHITE

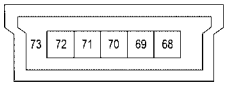
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Terminal No.	Color of Wire	Signal Name
21	G	AUX R
22	Y	AUX GND
23	L	AUX L
24	R	HE/VR MODE CHG
25	BR	REVERSE
26	–	–
27	–	–
28	–	–
29	–	–
30	BG	MR OUTPUT
31	SB	M-CAN TERMINATION
32	LG	M-CAN TERMINATION
33	–	–
34	W	MIC SIGNAL
35	B	MIC VCC (WITHOUT TELEMATICS SYSTEM)
36	SHIELD	MIC GND
37	SHIELD	SUB OUT/AUX SHIELD
38	SB	MCAN +
39	LG	MCAN -
40	LG	IGNITION
41	G	CAMERA+
42	SHIELD	CAMERA- (SHIELD)
43	–	–
44	–	–

Connector No.	M110
Connector Name	AV CONTROL UNIT (WITH BOSE AUDIO SYSTEM)
Connector Type	USCAR30-MD-M
Connector Color	GREEN

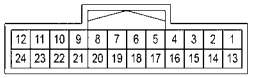
H.S.



Terminal No.	Color of Wire	Signal Name
68	B	VBUS
69	–	–
70	G	D-
71	W	D+
72	R	GND
73	SHIELD	SHIELD

Connector No.	M156
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-CS
Connector Color	WHITE

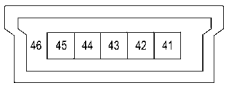
H.S.



Terminal No.	Color of Wire	Signal Name
1	B	TO ROOM LAMP HARNESS
2	W	TO ROOM LAMP HARNESS
3	SHIELD	TO ROOM LAMP HARNESS
4	R	TO ROOM LAMP HARNESS
5	–	TO ROOM LAMP HARNESS
6	Y	TO ROOM LAMP HARNESS
7	LG	TO ROOM LAMP HARNESS
8	L	TO ROOM LAMP HARNESS
9	R	TO ROOM LAMP HARNESS
10	–	TO ROOM LAMP HARNESS
11	–	TO ROOM LAMP HARNESS
12	–	TO ROOM LAMP HARNESS
13	SB	TO ROOM LAMP HARNESS
14	GR	TO ROOM LAMP HARNESS
15	SB	TO ROOM LAMP HARNESS
16	GR	TO ROOM LAMP HARNESS
17	V	TO ROOM LAMP HARNESS
18	G	TO ROOM LAMP HARNESS
19	SB	TO ROOM LAMP HARNESS
20	R	TO ROOM LAMP HARNESS
21	B	TO ROOM LAMP HARNESS
22	GR	TO ROOM LAMP HARNESS
23	–	TO ROOM LAMP HARNESS
24	–	TO ROOM LAMP HARNESS

Connector No.	M173
Connector Name	TCU
Connector Type	USCAR30-MD-M
Connector Color	GREEN

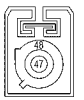
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Terminal No.	Color of Wire	Signal Name
41	B	VBUS
42	–	–
43	G	D-
44	W	D+
45	R	GND
46	SHIELD	SHIELD

Connector No.	M174
Connector Name	TCU
Connector Type	FAKRA CODE H 4003
Connector Color	PINK

H.S.



Terminal No.	Color of Wire	Signal Name
47	B	GSM ANT
48	SHIELD	GSM SHIELD

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TELEMATICS SYSTEM CONNECTORS

Connector No.	M175
Connector Name	TCU
Connector Type	3FA1ANCSJ-C02W0
Connector Color	BLUE

H.S.



Terminal No.	Color of Wire	Signal Name
49	B	GPS ANT
50	SHIELD	GPS SHIELD

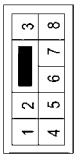
Connector No.	M176
Connector Name	TCU ANTENNA
Connector Type	GT13SCN-2/1PP-HU
Connector Color	GRAY

H.S.

Terminal No.	Color of Wire	Signal Name
1	-	-
2	B	GSM ANT
3	SHIELD	GSM SHIELD
4	B	GPS ANT
5	SHIELD	GPS SHIELD

Connector No.	R1
Connector Name	WIRE TO WIRE
Connector Type	NS08MW-CS
Connector Color	WHITE

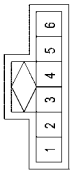
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Terminal No.	Color of Wire	Signal Name
1	-	TO MAIN HARNESS
2	P	TO MAIN HARNESS
3	B	TO MAIN HARNESS
4	B	TO MAIN HARNESS
5	-	TO MAIN HARNESS
6	W	TO MAIN HARNESS
7	Y	TO MAIN HARNESS
8	R	TO MAIN HARNESS

Connector No.	R8
Connector Name	MICROPHONE
Connector Type	A06FW
Connector Color	WHITE

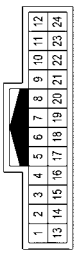
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Terminal No.	Color of Wire	Signal Name
1	W	MIC SIGNAL
2	SHIELD	MIC GND
3	R	HF/VR MODE CHG
4	B	MIC VCC
5	-	-
6	-	-

Connector No.	R11
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH
Connector Color	WHITE

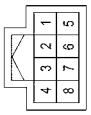
H.S.



Terminal No.	Color of Wire	Signal Name
1	B	TO MAIN HARNESS
2	W	TO MAIN HARNESS
3	SHIELD	TO MAIN HARNESS
4	SB	TO MAIN HARNESS
5	-	TO MAIN HARNESS
6	LG	TO MAIN HARNESS
7	LG	TO MAIN HARNESS
8	-	TO MAIN HARNESS
9	-	TO MAIN HARNESS
10	-	TO MAIN HARNESS
11	-	TO MAIN HARNESS
12	-	TO MAIN HARNESS
13	SB	TO MAIN HARNESS
14	P	TO MAIN HARNESS
15	-	TO MAIN HARNESS
16	-	TO MAIN HARNESS
17	-	TO MAIN HARNESS
18	-	TO MAIN HARNESS
19	SB	TO MAIN HARNESS
20	R	TO MAIN HARNESS
21	B	TO MAIN HARNESS
22	L	TO MAIN HARNESS
23	-	TO MAIN HARNESS
24	-	TO MAIN HARNESS

Connector No.	R21
Connector Name	TELEMATICS SWITCH
Connector Type	TH08FW-NH
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
1	LG	LED A
2	B	GROUND
3	SB	E CALL SW
4	-	-
5	-	-
6	-	-
7	B	GROUND
8	-	-

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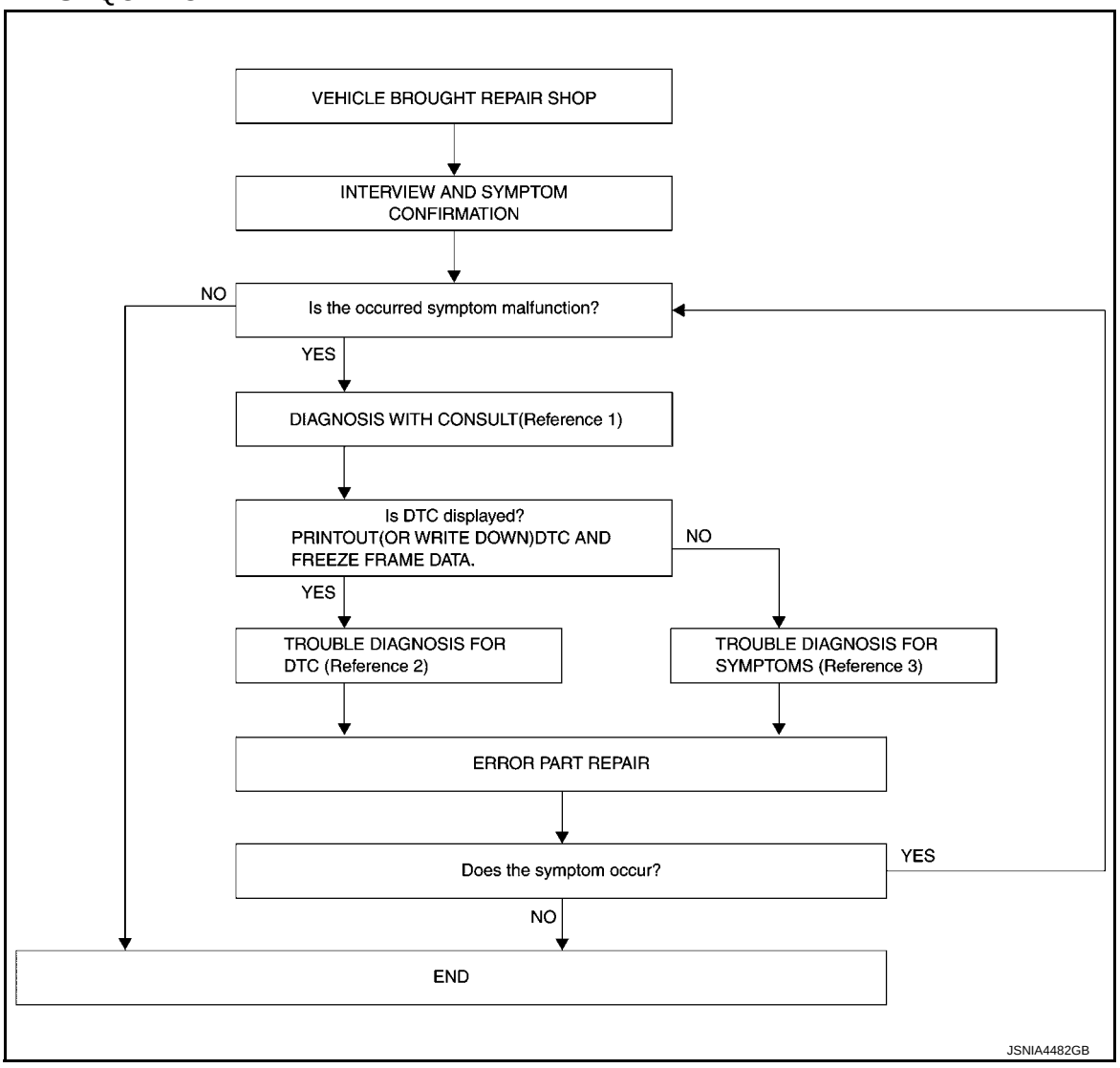
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

INFOID:0000000015258913

OVERALL SEQUENCE



- Reference 1··· Refer to AV-483, "CONSULT Function".
- Reference 2··· Refer to AV-488, "DTC Index".
- Reference 3··· Refer to AV-527, "Symptom Table".

DETAILED FLOW

1. INTERVIEW AND SYMPTOM CONFIRMATION

Check the malfunction symptoms by performing the following items.
- Interview the customer to obtain the malfunction information (conditions and environment when the malfunction occurred).
- Check the symptom.

Is the occurred symptom malfunction?

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

2. DIAGNOSIS WITH CONSULT

1. Connect CONSULT and perform a self-diagnosis for “TCU”. Refer to AV-483, "CONSULT Function".
2. When DTC is detected, follow the instructions below:

- Record DTC and Freeze Frame Data.

Is DTC displayed?

YES >> GO TO 3.
NO >> GO TO 4.

3. TROUBLE DIAGNOSIS FOR DTC

1. Check the DTC indicated in the self-diagnosis results.
2. Perform the relevant diagnosis referring to the DTC Index. Refer to AV-488, "DTC Index".

>> GO TO 5.

4. TROUBLE DIAGNOSIS FOR SYMPTOMS

Perform the relevant diagnosis referring to the diagnosis chart by symptom. Refer to AV-527, "Symptom Table".

>> GO TO 5.

5. ERROR PART REPAIR

1. Repair or replace the identified malfunctioning parts.
2. Perform a self-diagnosis for “TCU” with CONSULT.
3. Check that the symptom does not occur.

Does the symptom occur?

YES >> GO TO 1.
NO >> Inspection End.

ADDITIONAL SERVICE WHEN REPLACING TCU

Description

INFOID:0000000015258914

When TCU is replaced, TCU activation operation is required. Refer to AV-496, "Work Procedure".

PREPARATION BEFORE ACTIVATION OPERATION
- Subscribe to telematics service
- Preregister user ID and password (can be performed from owner homepage)

Work Procedure

INFOID:0000000015258915

1.TURN TCU OFF

CONSULT Work support
1. Select TCU ACTIVATE SETTING, then Start.
2. Select Start, then select Off to turn OFF the TCU.
3. Select End to return to the Work support Test Item screen.

>> GO TO 2.

2.SAVE VIN DATA

NOTE:
If the VIN data cannot be saved, it will have to be entered manually later in this procedure.

CONSULT Work support
1. Select SAVE VIN DATA, then Start.
2. Select Start to save the VIN data.
3. Select End to return to the Work support Test Item screen.

>> GO TO 3.

3.REMOVE TCU

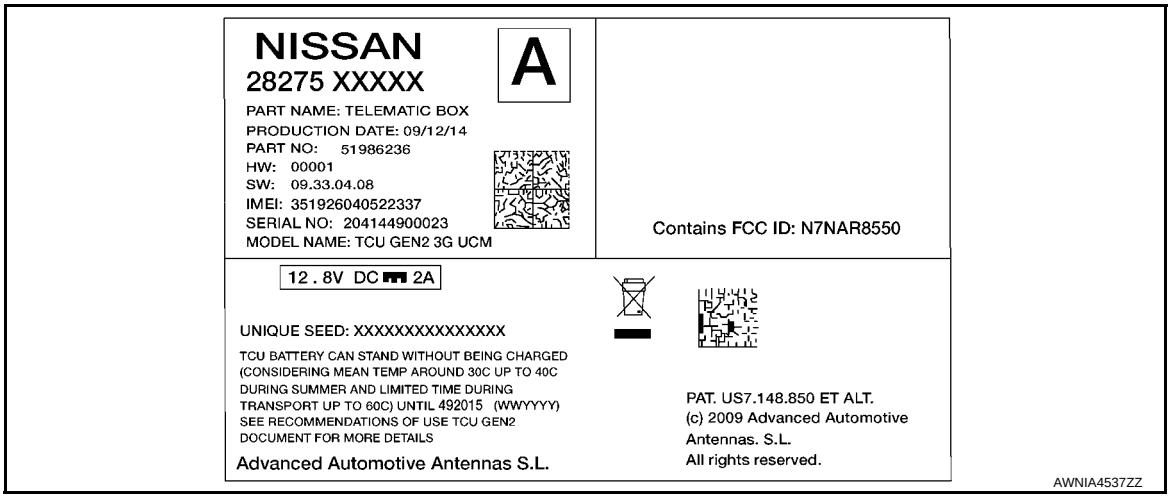
Remove the TCU. Refer to AV-531, "Removal and Installation".

>> GO TO 4.

4.RECORD TCU PART LABEL INFORMATION

NOTE:
Step 4 must be performed after the original TCU has been removed from the vehicle and before the replacement TCU is installed.

Collect, record and have the following information ready:
- VIN.
- International Mobile Equipment Identity (IMEI) number of the original TCU. Located on the TCU part label.
- International Mobile Equipment Identity (IMEI) number of the replacement TCU. Located on the TCU part label.
- Serial number of the replacement TCU. Located on the TCU part label.



>> GO TO 5.

5. INSTALL TCU

Install the replacement TCU. Refer to AV-531, "Removal and Installation".

>> GO TO 6.

6. VIN DATA

Was the VIN data saved during step 2?

YES >> GO TO 7.
NO >> GO TO 8.

7. WRITE VIN DATA

CONSULT Work support
1. Select WRITE VIN DATA, then Start.
2. Select Start.
3. After the data writing has been completed, select End to return to the Work support Test Item screen.

>> GO TO 9.

8. MANUALLY ENTER VIN DATA

CONSULT Work support
1. Select VIN REGISTRATION.
2. Enter the VIN number in the VIN (1ST TIME) field.
3. Enter the VIN number in the VIN (2ND TIME) field.
4. Select Start.
5. After the VIN registration has been completed, select End to return to the Work support Test Item screen.

>> GO TO 9.

9. REGISTER INTELLIGENT KEYS

For initialization and registration of Intelligent Keys, refer to CONSULT Immobilizer mode and follow the on-screen instructions.

>> GO TO 10.

10. CONTACT SIRIUSXM CALL CENTER

NOTICE:
This step must be performed to activate the replacement TCU. If this step is not performed, the TCU will not be able to communicate with the NissanConnect Data Center.

1. Call the SiriusXM call center. You will be asked for your name, dealer name, and the information collected in step 4. The call agent will deactivate the original TCU and activate the replacement TCU.
2. Wait for the SiriusXM Call center agent to call back, confirming TCU registration.
   NOTE:
   - This step may take 1–2 hours.
   - TCU registration does not enroll the customer in NissanConnect Services.

>> GO TO 11.

11. TURN TCU ON

Ⓔ CONSULT Work support
1. Select “TCU ACTIVATE SETTING”, then “Start”.
2. Select “Start”, then select “ON” to turn ON the TCU.
3. Select “End”, to return to the Work support Test Item screen.
4. Select “TCU ACTIVATE SETTING”, then “Start”.
5. Select “Start”, and confirm that On is displayed in the Current status field.

>> GO TO 12.

12. CONFIRM TCU ACTIVATION

1. Follow the instructions in TSB to confirm TCU activation.
2. Confirm the telematics switch LED indicator is turned ON.

>> Work End.

DTC/CIRCUIT DIAGNOSIS

B130D TCU

DTC Description

INFOID:0000000015259083

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
B130D	TEL LINE OUT ERROR (Telephone line out error)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	Sound signal between TCU and AV control unit (terminals 31 and 32)
		Threshold	—
		Diagnosis delay time	1 second or more

POSSIBLE CAUSE

- Sound signal circuits between TCU and AV control unit
- TCU
- AV control unit

FAIL-SAFE

Telematics system function stops

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Turn ignition switch ON.
2. Erase DTC using CONSULT.
3. Select “Self Diagnostic Result” mode of ”TELEMATICS”.
4. Check DTC.

Is DTC U130D detected?

YES >> Proceed to AV-499, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015259084

Regarding Wiring Diagram information, refer to AV-490, "Wiring Diagram".

1. CHECK CONTINUITY BETWEEN TCU AND AV CONTROL UNIT CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect TCU connector M35 and AV control unit connector M106.
3. Check continuity between TCU connector M35 and AV control unit connector M106.

TCU		AV control unit		Continuity
Connector	terminal	Connector	terminal	
M35	31	M106	60	Yes
	32		64	

4. Check continuity between TCU connector M35 and ground.

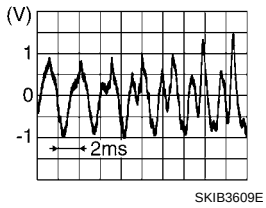
TCU		Ground	Continuity
Connector	terminal		
M35	31		No
	32		

Is the inspection result normal?

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

2.CHECK SOUND SIGNAL

1. Connect TCU connector M35 and AV control unit connector M106.
2. Turn ignition switch ON.
3. Check signal between the terminals of TCU connector M35.

TCU connector M35		Condition	Reference value
(+)	(–)		
Terminal			
31	32	When interior sound is input	 SKIB3609E

Is the inspection result normal?

YES >> Replace TCU. Refer to AV-531, "Removal and Installation".
NO >> Replace AV control unit. Refer to AV-529, "Removal and Installation".

B1310 TCU

DTC Description

INFOID:0000000015259085

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
B1310	TCU TEMPERATURE ERROR (TCU temperature error)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	TCU internal temperature is high
		Diagnosis delay time	1 second or more

POSSIBLE CAUSE

- TCU internal temperature is high
- TCU

FAIL-SAFE

Telematics system function stops

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

Ⓐ CONSULT

1. Turn ignition switch ON.
2. Erase DTC using CONSULT.
3. Select “Self Diagnostic Result” mode of “TELEMATICS”.
4. Check DTC.

Is DTC B1310 detected?

YES >> Proceed to AV-501, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015259086

1.CHECK AROUND TCU

Check whether there is any factor which causes a temperature rise near TCU.

Was there any factor?

YES >> Remove the factor.
NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE AGAIN

Perform DTC confirmation procedure again. Refer to AV-501, "DTC Description".

Is DTC B1310 detected again?

YES >> Replace TCU. Refer to AV-531, "Removal and Installation".
NO >> Inspection End.

B13D9 TCU

DTC Description

INFOID:0000000015259087

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
B13D9	USB CONNECTION (USB connection)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	USB communication signal
		Threshold	—
		Diagnosis delay time	1 second or more

POSSIBLE CAUSE

- USB harness
- TCU

FAIL-SAFE

- Telematics system does not function
- Inform a NissanConnect center about abnormality

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Turn ignition switch ON.
2. Erase DTC using CONSULT.
3. Select “Self Diagnostic Result” mode of “TELEMATICS”.
4. Check DTC.

Is DTC B13D9 detected?

YES >> Proceed to AV-502, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015259088

1.CHECK USB HARNESS CONNECTION

1. Turn ignition switch OFF.
2. Visually inspect USB harness connectors M110 and M173 between AV control unit and TCU.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace USB harness.

2.PERFORM DTC CONFIRMATION PROCEDURE AGAIN

Perform DTC confirmation procedure again. Refer to AV-502, "DTC Description".

Is DTC B13D9 detected again?

YES >> Replace TCU. Refer to AV-531, "Removal and Installation".
NO >> Inspection End.

B2E33 TELEMATICS SWITCH

DTC Description

INFOID:0000000015259089

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
B2E33	ECALL BUTTON (Ecall button)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	SOS switch LED signal (terminal 5)
		Threshold	—
		Diagnosis delay time	1 second or more

POSSIBLE CAUSE

- SOS switch LED signal circuit
- SOS switch

FAIL-SAFE

- Telematics system does not function (Only SOS call does not operate)
- SOS switch LED indicator is turned OFF

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT
1. Turn ignition switch ON.
2. Erase DTC using CONSULT.
3. Select “Self Diagnostic Result” mode of “TELEMATICS”.
4. Check DTC.

Is DTC B2E33 detected?

YES >> Proceed to AV-503, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015259090

Regarding Wiring Diagram information, refer to AV-490, "Wiring Diagram".

1.CHECK SOS SWITCH LED SIGNAL

1. Turn ignition switch ON.
2. Check the voltage between TCU connector M35 and ground.

TCU		Ground	Voltage (Approx.)
Connector	Terminal		
M35	5	—	3.5 V

Is the inspection result normal?

YES >> GO TO 2.
NO >> Replace TCU. Refer to AV-531, "Removal and Installation".

2.CHECK SOS SWITCH LED SIGNAL CIRCUIT FOR OPEN

1. Turn ignition switch OFF.
2. Disconnect TCU connector M35 and telematics switch connector.
3. Check the continuity between TCU connector M35 and telematics switch connector R21.

TCU		Telematics switch		Continuity
Connector	Terminal	Connector	Terminal	
M35	5	R21	1	Yes

Is the inspection result normal?

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

3. CHECK SOS SWITCH LED SIGNAL CIRCUIT FOR SHORT

Check the continuity between TCU connector M35 and ground.

TCU		Ground	Continuity
Connector	Terminal		
M35	5		Yes

Is the inspection result normal?

YES >> Replace telematics switch. Refer to AV-532, "Removal and Installation".
NO >> Repair or replace harness or connectors.

B2EF0 TCU

DTC Description

INFOID:0000000015259091

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
B2EF0-16 B2EF0-49 B2EF0-4A B2EF0-4B	INTERNAL BATTERY (Internal battery)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	TCU internal malfunction
		Diagnosis delay time	Less than 1 second

POSSIBLE CAUSE

TCU

FAIL-SAFE

Telematics system function stops

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Turn ignition switch ON.
2. Erase DTC using CONSULT.
3. Select “Self Diagnostic Result” mode of “TELEMATICS”.
4. Check DTC.

Is DTC B2EF0 detected?

YES >> Proceed to AV-505, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015259092

1.PERFORM DTC CONFIRMATION PROCEDURE AGAIN

Perform DTC confirmation procedure again. Refer to AV-505, "DTC Description".

Is DTC B2EF0 detected again?

YES >> Replace TCU. Refer to AV-531, "Removal and Installation".
NO >> Inspection End.

U1000 CAN COMM CIRCUIT

DTC Description

INFOID:0000000015259093

DESCRIPTION

CAN (Controller Area Network) is a serial communication line for real-time application. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Many electronic control units are equipped onto a vehicle, and each control unit shares information and links with other control units during operation (not independently). In CAN communication, control units are connected with 2 communication lines (CAN-H, CAN-L) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.
CAN Communication Signal Chart. Refer to LAN-44, "CAN COMMUNICATION SYSTEM : CAN Communication Signal Chart".

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U1000	CAN COMM CIRCUIT (CAN COMM CIRCUIT)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	CAN communication signal
		Threshold	—
		Diagnosis delay time	2 seconds or more

POSSIBLE CAUSE

CAN communication system

FAIL-SAFE

- Telematics system does not function
- Inform a NissanConnect center about abnormality

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT
1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “TELEMATICS”.
3. Check DTC.

Is DTC U1000 detected?

YES >> Proceed to AV-506, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015259094

1.PERFORM SELF DIAGNOSTIC RESULT

CONSULT
1. Turn ignition switch ON.
2. Erase DTC.
3. Select “Self Diagnostic Result” mode of “TELEMATICS”.
4. Check DTC.

Is DTC U1000 detected?

YES >> Refer to LAN-26, "Trouble Diagnosis Flow Chart".
NO >> Refer to GI-54, "Intermittent Incident".

U1010 CONTROL UNIT (CAN)

DTC Description

INFOID:0000000015259095

DESCRIPTION

CAN (Controller Area Network) is a serial communication line for real-time application. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Many electronic control units are equipped onto a vehicle, and each control unit shares information and links with other control units during operation (not independently). In CAN communication, control units are connected with 2 communication lines (CAN-H, CAN-L) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.
CAN Communication Signal Chart. Refer to LAN-44, "CAN COMMUNICATION SYSTEM : CAN Communication Signal Chart".

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U1010	CONTROL UNIT(CAN) [Control unit(CAN)]	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	Initial diagnosis abnormality of the TCU CAN controller
		Diagnosis delay time	1 second or more

POSSIBLE CAUSE

CAN communication system

FAIL-SAFE

Telematics system does not function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT
1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “TELEMATICS”.
3. Check DTC.

Is DTC U1010 detected?

YES >> Proceed to AV-507, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015259096

1.PERFORM SELF DIAGNOSTIC RESULT

CONSULT
1. Turn ignition switch ON.
2. Erase DTC.
3. Select “Self Diagnostic Result” mode of “TELEMATICS”.
4. Check DTC.

Is DTC U1010 detected?

YES >> Replace the TCU. Refer to AV-531, "Removal and Installation".
NO >> Refer to GI-54, "Intermittent Incident".

U1A01 TCU

DTC Description

INFOID:0000000015259097

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U1A01	INTERNAL ERROR (TCU) [Internal error (TCU)]	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	TCU internal malfunction
		Diagnosis delay time	1 second or more

POSSIBLE CAUSE

TCU

FAIL-SAFE

Telematics system function stops

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Turn ignition switch ON.
2. Erase DTC using CONSULT.
3. Select “Self Diagnostic Result” mode of “TELEMATICS”.
4. Check DTC.

Is DTC U1A01 detected?

YES >> Proceed to AV-508, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015259098

1.PERFORM DTC CONFIRMATION PROCEDURE AGAIN

Perform DTC confirmation procedure again. Refer to AV-508, "DTC Description".

Is DTC U1A01 detected again?

YES >> Replace TCU. Refer to AV-531, "Removal and Installation".
NO >> Inspection End.

U1A02 TCU

DTC Description

INFOID:0000000015259099

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U1A02	TEL COMMUNICATION MODULE (Telephone communication module)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	TCU internal malfunction
		Diagnosis delay time	1 second or more

POSSIBLE CAUSE

TCU

FAIL-SAFE

Telematics system function stops

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT
1. Turn ignition switch ON.
2. Erase DTC using CONSULT.
3. Select “Self Diagnostic Result” mode of “TELEMATICS”.
4. Check DTC.

Is DTC U1A012detected?

YES >> Proceed to AV-509, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015259100

1.PERFORM DTC CONFIRMATION PROCEDURE AGAIN

Perform DTC confirmation procedure again. Refer to AV-509, "DTC Description".

Is DTC U1A02 detected again?

YES >> Replace TCU. Refer to AV-531, "Removal and Installation".
NO >> Inspection End.

U1A03 TCU

DTC Description

INFOID:0000000015259101

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U1A03	SIM CARD (SIM card)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	—
		Diagnosis delay time	1 second or more

POSSIBLE CAUSE

TCU

FAIL-SAFE

- Telematics system function stops
- Call the NissanConnect Data Center and inform them that the telematics system cannot be connected.

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Turn ignition switch ON.
2. Erase DTC using CONSULT.
3. Select “Self Diagnostic Result” mode of “TELEMATICS”.
4. Check DTC.

Is DTC U1A03 detected?

YES >> Proceed to AV-510, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015259102

1.PERFORM DTC CONFIRMATION PROCEDURE AGAIN

CONSULT

1. Turn ignition switch ON.
2. Erase DTC using CONSULT.
3. Select “Self Diagnostic Result” mode of “TELEMATICS”.
4. Check DTC.

Is DTC U1A03 detected?

YES >> Replace TCU. Refer to AV-531, "Removal and Installation".
NO >> Inspection End.

U1A04 TCU

DTC Description

INFOID:0000000015259103

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U1A04	VIN UNFINISHED (VIN unfinished)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	Vehicle identification number is not written
		Diagnosis delay time	1 second or more

POSSIBLE CAUSE

- VIN number is not written
- TCU

FAIL-SAFE

Telematics system does not function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT
1. Turn ignition switch ON.
2. Erase DTC using CONSULT.
3. Select “Self Diagnostic Result” mode of “TELEMATICS”.
4. Check DTC.

Is DTC U1A04 detected?

YES >> Proceed to AV-511, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015259104

1.PERFORM WRITING VIN DATA TO TCU

Perform writing VIN data to TCU. Refer to AV-496, "Description".

Was the writing of VIN data completed?

YES >> GO TO 2.
NO >> Replace TCU. Refer to AV-531, "Removal and Installation".

2.PERFORM DTC CONFIRMATION PROCEDURE AGAIN

Perform DTC confirmation procedure again. Refer to AV-511, "DTC Description".

Is DTC U1A04 detected again?

YES >> Replace TCU. Refer to AV-531, "Removal and Installation".
NO >> Inspection End.

U1A05 TCU

DTC Description

INFOID:0000000015259105

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U1A05	USB COMM (USB comm)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	Malfunction in USB communication between TCU and AV control unit
		Diagnosis delay time	—

POSSIBLE CAUSE

- USB harness
- TCU

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “TELEMATICS”.
3. Check DTC.

Is DTC U1A05 detected?

YES >> Proceed to AV-512, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015259106

Regarding Wiring Diagram information, refer to AV-490, "Wiring Diagram".

1.CHECK USB CIRCUITS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect TCU connector M173 and AV control unit connector M110.
3. Check continuity between TCU connector M173 and AV control unit connector M110.

TCU		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M173	41	M110	68	Yes
	43		70	
	44		71	
	45		72	
	46		73	

4. Check the continuity between TCU connector M173 and ground.

TCU		Ground	Continuity
Connector	Terminal		
M173	41	—	No
	44		

Is the inspection result normal?

YES >> Replace TCU. Refer to AV-531, "Removal and Installation".
NO >> Repair or replace harness or connectors.

U1A06 TEL ANTENNA

DTC Description

INFOID:0000000015259107

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U1A06	TEL ANTENNA ERROR (TEL antenna error)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	TEL antenna signal
		Threshold	No input
		Diagnosis delay time	—

POSSIBLE CAUSE

- TEL antenna signal circuit
- TEL antenna
- TCU

FAIL-SAFE

- Telematics switch LED indicator turned OFF (LED indicator turns ON 10 times when SOS call switch is pressed)
- When telematics system is operated, inform that system cannot be connected to NISSANCONNECT^{SM} center

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

Ⓔ CONSULT

1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “TELEMATICS”.
3. Check DTC.

Is DTC U1A06 detected?

YES >> Proceed to AV-514, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015259108

Regarding Wiring Diagram information, refer to AV-490, "Wiring Diagram".

1.CHECK TELEMATICS ANTENNA

Visually check telematics antenna and antenna feeder. Refer to AV-533, "Removal and Installation".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair malfunctioning parts.

2.CHECK TCU VOLTAGE

1. Disconnect TCU harness connector M174.
2. Turn ignition switch ON.
3. Check voltage between TCU connector M174 and ground.

TCU		Ground	Voltage (Approx.)
Connector	Terminal		
M174	47		2.8 V

Is the inspection result normal?

YES >> Replace telematics antenna. Refer to AV-533, "Removal and Installation".
NO >> Replace TCU. Refer to AV-531, "Removal and Installation".

U1A09 GPS ANTENNA

DTC Description

INFOID:0000000015259109

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U1A09	GPS ANTENNA CONN (GPS antenna connection)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	GPS antenna signal
		Threshold	No input
		Diagnosis delay time	1 second or more

POSSIBLE CAUSE

- GPS antenna signal circuit
- GPS antenna

FAIL-SAFE

- Telematics system cannot send correct position inform
- Inform a NissanConnect center about abnormality

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

Ⓔ CONSULT

1. Turn ignition switch ON.
2. Erase DTC using CONSULT.
3. Select “Self Diagnostic Result” mode of “TELEMATICS”.
4. Check DTC.

Is DTC U1A09 detected?

YES >> Proceed to AV-516, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015259110

Regarding Wiring Diagram information, refer to AV-490, "Wiring Diagram".

1.CHECK TELEMATICS ANTENNA

Visually check telematics antenna and antenna feeder. Refer to AV-533, "Removal and Installation".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair malfunctioning parts.

2.CHECK TCU VOLTAGE

1. Disconnect TCU connector M175.
2. Turn ignition switch ON.
3. Check voltage between TCU terminal and ground.

(+) TCU Terminal	(–)	Voltage (Approx.)
49	Ground	5.0 V

Is the inspection result normal?

YES >> Replace telematics antenna. Refer to AV-533, "Removal and Installation".
NO >> Replace TCU. Refer to AV-531, "Removal and Installation".

U1A0A TCU

DTC Description

INFOID:0000000015259111

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U1A0A	GPS MODULE COMM (GPS module comm)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	Malfunction in the GPS module internal to TCU
		Diagnosis delay time	—

POSSIBLE CAUSE

TCU

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “TELEMATICS”.
3. Check DTC.

Is DTC U1A0A detected?

YES >> Proceed to AV-518, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015259112

1.PERFORM SELF DIAGNOSTIC RESULT

CONSULT

1. Turn ignition switch ON.
2. Erase DTC.
3. Select “Self Diagnostic Result” mode of “TELEMATICS”.
4. Check DTC.

Is DTC U1A0A detected?

YES >> Replace the TCU. Refer to AV-531, "Removal and Installation".
NO >> Refer to GI-54, "Intermittent Incident".

U1A0B MICROPHONE

DTC Description

INFOID:0000000015259113

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U1A0B	MIC IN CONN (MIC in conn)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	No input of microphone circuits
		Diagnosis delay time	—

POSSIBLE CAUSE

- Harness or connectors
- Microphone
- TCU

FAIL-SAFE

- Transmit an own vehicle position to the NissanConnect center
- Inform a NissanConnect center about abnormality

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “TELEMATICS”.
3. Check DTC.

Is DTC U1A0B detected?

YES >> Proceed to AV-519, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015259114

Regarding Wiring Diagram information, refer to AV-490, "Wiring Diagram".

1. CHECK MIC IN SIGNAL CIRCUIT AND MIC VCC CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect TCU connector M35 and microphone connector R8.
3. Check continuity between TCU connector M35 and microphone connector R8.

TCU		Microphone		Continuity
Connector	Terminal	Connector	Terminal	
M35	16	R8	2	Yes
	17		1	
	18		4	

4. Check the continuity between TCU connector M35 and ground.

TCU		Ground	Continuity
Connector	Terminal		

M35	17	—	No
	18		

Is the inspection result normal?

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

2.CHECK MIC VCC VOLTAGE

1. Connect TCU connector M35 and microphone connector R8.
2. Turn ignition switch ON.
3. Check voltage between terminals of TCU connector M35.

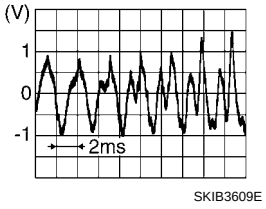
TCU connector M35		Voltage (Approx.)
(+)	(–)	
Terminal	Terminal	
18	16	5.0 V

Is the inspection result normal?

YES >> GO TO 3.
NO >> Replace TCU. Refer to AV-531, "Removal and Installation".

3.CHECK MIC IN SIGNAL

Check signal between terminals of TCU connector M35.

TCU connector M35		Condition	Reference value
(+)	(–)		
Terminal	Terminal		
17	16	Speak into microphone.	

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Is the inspection result normal?

YES >> Replace TCU. Refer to AV-531, "Removal and Installation".
NO >> Replace microphone. Refer to AV-534, "Removal and Installation".

U1A0E TELEMATICS SWITCH

DTC Description

INFOID:0000000015259115

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U1A0E	SOS SWITCH ON STUCK (SOS switch ON stuck)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	SOS switch signal
		Threshold	Continue being turned ON
		Diagnosis delay time	10 seconds or more

POSSIBLE CAUSE

- Harness or connectors
- Telematics switch
- TCU

FAIL-SAFE

- Telematics system does not function (Only SOS call does not operate)
- Telematics switch LED indicator is turned OFF

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT
1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “TELEMATICS”.
3. Check DTC.

Is DTC U1A0E detected?

YES >> Proceed to AV-521, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015259116

Regarding Wiring Diagram information, refer to AV-490, "Wiring Diagram".

1.CHECK ECALL SW FOR SHORT CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect TCU connector M35 and telematics switch connector R21.
3. Check the continuity between TCU connector M35 and ground.

TCU		Ground	Continuity
Connector	Terminal		
M35	37	—	No

Is the inspection result normal?

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

2.CHECK TELEMATICS SWITCH

Check continuity between telematics switch terminals.

Telematics switch connector R21		Condition	Continuity
Terminal	Terminal		
3	2	Switch pressed	Yes
		Switch released	No

Is the inspection result normal?

YES >> Replace TCU. Refer to AV-531, "Removal and Installation".
NO >> Replace telematics switch. Refer to AV-532, "Removal and Installation".

U1A10 TCU

DTC Description

INFOID:0000000015259117

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U1A10	AIRBAG SIGNAL (Airbag signal)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	Car crash information signal
		Threshold	Abnormality
		Diagnosis delay time	1 second or more

POSSIBLE CAUSE

CAN communication system

FAIL-SAFE

- Some telematics system does not function
- Inform a NissanConnect center about abnormality

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT
1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “TELEMATICS”.
3. Check DTC.

Is DTC U1A10 detected?

YES >> Proceed to AV-523, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015259118

1.PERFORM SELF DIAGNOSTIC RESULT OF AIR BAG

CONSULT
1. Turn ignition switch ON.
2. Erase DTC.
3. Select “Self Diagnostic Result” mode of “AIR BAG”.
4. Check DTC.

Are any DTCs detected?

YES >> Refer to SRC-16, "DTC Index".
NO >> GO TO 2.

2.PERFORM SELF DIAGNOSTIC RESULT OF TELEMATICS

CONSULT
1. Turn ignition switch ON.
2. Erase DTC.
3. Select “Self Diagnostic Result” mode of “TELEMATICS”.
4. Check DTC.

Is DTC U1A10 detected?

YES >> Replace TCU. Refer to AV-531, "Removal and Installation".
NO >> Refer to GI-54, "Intermittent Incident".

U1A11 TCU

DTC Description

INFOID:0000000015259119

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U1A11	TEL MUTE OUTPUT SIGNAL NO CONN (TEL mute output signal NO conn)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	Malfunction is detected in audio signal circuits between TCU and AV control unit
		Diagnosis delay time	—

POSSIBLE CAUSE

- Harness or connectors
- TCU
- AV control unit

FAIL-SAFE

- Telematics system function stops
- Call the NissanConnect Data Center and inform them that the telematics system cannot be connected.

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “TELEMATICS”.
3. Check DTC.

Is DTC U1A11 detected?

YES >> Proceed to AV-524, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-54, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000015259120

Regarding Wiring Diagram information, refer to AV-490, "Wiring Diagram".

1.CHECK CIRCUIT CONTINUITY BETWEEN TCU AND AV CONTROL UNIT

1. Turn ignition switch OFF.
2. Disconnect TCU connector M35 and AV control unit connector M106.
3. Check continuity between TCU connector M35 and AV control unit connector M106.

TCU		AV control unit		Continuity
Connector	Terminals	Connector	Terminals	
M35	31	M106	60	Yes
	32		64	

4. Check continuity between TCU connector M35 and ground.

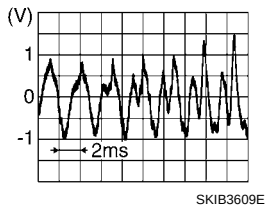
TCU		Ground	Continuity
Connector	Terminals		
M35	31		No

Is the inspection result normal?

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

2.CHECK AUDIO SIGNAL

1. Connect TCU connector M35 and AV control unit connector M106.
2. Turn ignition switch ON.
3. Check signal between TCU connector M35 terminals.

TCU connector M35		Condition	Reference value
Terminal	Terminal		
(+)	(–)		
31	32	When inputting interior sound	

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Is the inspection result normal?

YES >> Replace TCU. Refer to AV-531, "Removal and Installation".
NO >> Replace AV control unit. Refer to AV-529, "Removal and Installation".

POWER SUPPLY AND GROUND CIRCUIT

Diagnosis Procedure

INFOID:0000000015259121

Regarding Wiring Diagram information, refer to AV-490, "Wiring Diagram".

1.CHECK FUSE

Check that the following fuses are not blown.

Terminal No.	Signal name	Fuse No.
1	Battery power supply	16 (20A)
10	Ignition signal	30 (10A)

Are the fuses blown?

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

2.CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect TCU connector M35.
3. Check voltage between TCU connector M35 and ground.

TCU		Ground	Condition	Voltage (Approx.)
Connector	Terminal			
M35	1	—	Ignition switch: OFF	Battery voltage
	10		Ignition switch: ON	

Is the inspection result normal?

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

3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Check continuity between TCU connector M35 and ground.

TCU		Ground	Continuity
Connector	Terminal		
M35	28	—	Yes
	29		

Is the inspection result normal?

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

SYMPTOM DIAGNOSIS

TELEMATICS SYSTEM

Symptom Table

INFOID:0000000015259079

TELEMATICS SYSTEM

Symptom	Display icon	Error message	Possible cause
Telematics operation not available.	—	Telematics unit is not connected.	Perform self-diagnosis with CONSULT. Refer to AV-483, "CONSULT Function".
		The connection to the center failed.	Check ON/OFF status of TCU using the data monitor of CONSULT. • Replace TCU if it is ON. Refer to AV-531, "Removal and Installation". • Turn it ON again if it is OFF. Replace TCU if ON is switched to OFF. Refer to AV-531, "Removal and Installation".
		No service.	Use a cellular phone to check reception. • If service is available, replace TCU or TEL antenna. - For TCU replacement, refer to AV-531, "Removal and Installation". - For TEL antenna replacement, refer to AV-533, "Removal and Installation". • If the service is not available, move the vehicle to the position where service is available and perform the operation again.
		Service inoperative due to poor reception.	Use a cellular phone to check reception. • If it is OK, there may be a cause at the NissanConnect Data Center. Check connection after a short period of time. If there is no problem at the NissanConnect Data Center, replace TCU or TEL antenna. - For TCU replacement, refer to AV-531, "Removal and Installation". - For TEL antenna replacement, refer to AV-533, "Removal and Installation". • If it is NG, check connection again after a short period of time.
		Service not registered.	Check input of user ID and password from the navigation setting screen. If malfunction such as input or no memory despite input is detected, replace AV control unit. Refer to AV-529, "Removal and Installation".
		TCU line is used.	Check connection after a short period of time. Replace TCU if it is frequently displayed. Refer to AV-531, "Removal and Installation".
		The connection to the center failed.	There may be a cause at the NissanConnect Data Center. Check connection after a short period of time. If there is no problem at the NissanConnect Data Center, replace TCU or TEL antenna. • For TCU replacement, refer to AV-531, "Removal and Installation". • For TEL antenna replacement, refer to AV-533, "Removal and Installation".

NORMAL OPERATING CONDITION

Description

INFOID:0000000015259080

NOTE:
For Telematics system operation detail information, refer to Navigation system Owner's Manual.

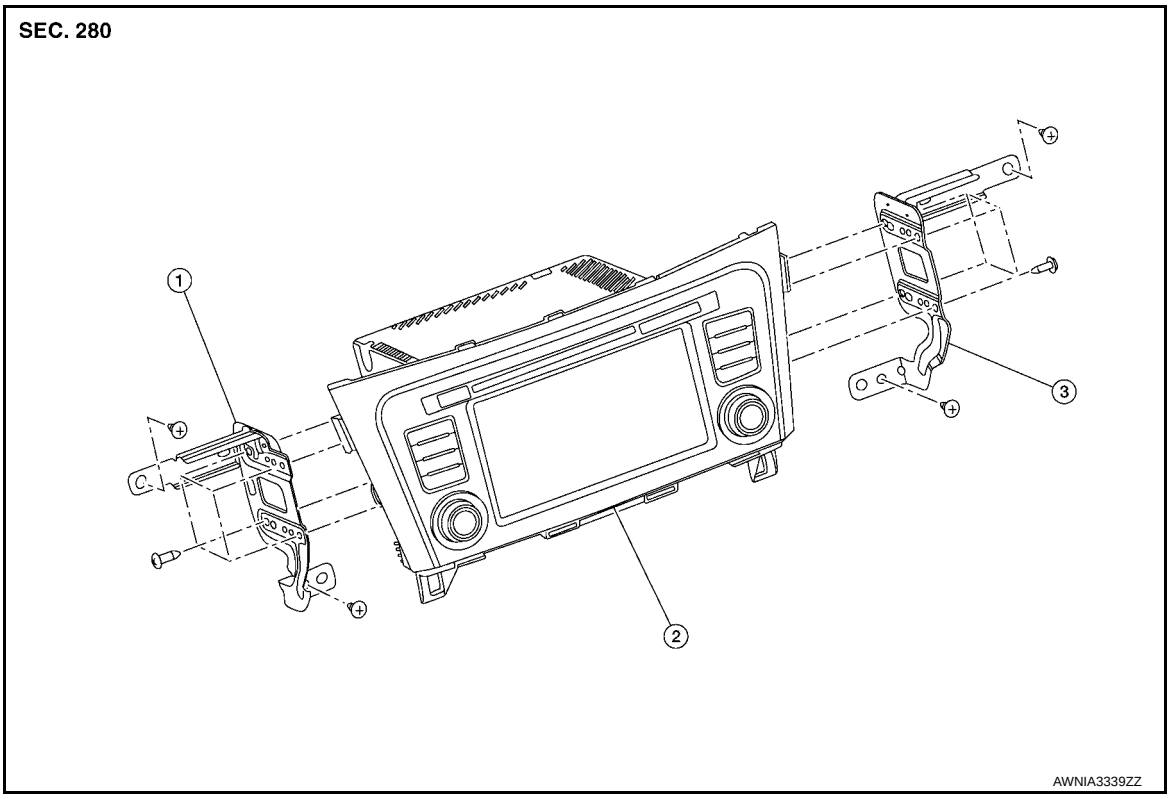
Symptom	Possible cause	Possible solution
The system cannot connect to the NissanConnect Data Center.	A subscription for the CONNECT service has not been established.	Sign up for a subscription to the NissanConnect service. For details about subscriptions, contact an NISSAN dealer or visit the NissanConnect Data Center website.
	The user ID and password are not entered.	Enter the user ID and password.
	The communication line is busy.	Try again after a short period of time.
	The vehicle is in a location where reception is difficult.	When the vehicle moves to an area where radio waves can be transmitted sufficiently, communication will be restored. When the icon on the display shows that the vehicle is inside the communication area, the system can be used.
	TCU reception is insufficient.	When the vehicle moves to an area where radio waves can be transmitted sufficiently, communication will be restored. When the icon on the display shows that the vehicle is inside the communication area, the system can be used.
Some of the items that are displayed on the menu screen cannot be selected.	The vehicle is being driven and some menu items are disabled.	The vehicle is being driven. Stop the vehicle in a safe location and apply the parking brake before operating the functions.
Some parts of the screen are not displayed		Operate the system after stopping the vehicle in a safe location and applying the parking brake.
The system does not announce information.	The volume level is set to the minimum.	Adjust the volume level by operating the VOL switches located on the control panel or on the steering switch while the system is announcing information.

REMOVAL AND INSTALLATION

AV CONTROL UNIT

Exploded View

INFOID:0000000014844696



1. AV control unit bracket (LH) 2. AV control unit 3. AV control unit bracket (RH)

Removal and Installation

INFOID:0000000014844697

REMOVAL

CAUTION:

- **Before disconnecting the AV control unit and battery terminals, turn the ignition switch OFF and wait at least 30 seconds.**
- **Before replacing AV control unit, perform "READ CONFIGURATION" to save current vehicle specification. Refer to AV-190, "CONFIGURATION (AV CONTROL UNIT) : Description".**

NOTE:

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

1. Disconnect the negative battery terminal. Refer to PG-129, "Removal and Installation (Battery)".
2. Remove cluster lid C. Refer to IP-21, "Removal and Installation".
3. Remove instrument finisher B. Refer to IP-16, "INSTRUMENT FINISHER B : Removal and Installation".
4. Remove instrument finisher E. Refer to IP-16, "INSTRUMENT FINISHER E : Removal and Installation".
5. Remove the AV control unit screws, then pull out the AV control unit.
6. Disconnect the harness connectors from the AV control unit and remove.
7. Remove the AV control unit bracket (LH/RH) screws and the AV control unit brackets (LH/RH) (if necessary).

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

- **When replacing AV control unit, perform "WRITE CONFIGURATION". Refer to AV-190, "CONFIGURATION (AV CONTROL UNIT) : Description".**
- **When replacing AV control unit, the AV control unit must be registered. Refer to AV-191, "REGISTRATION (AV CONTROL UNIT) : Description".**

TCU

Removal and Installation

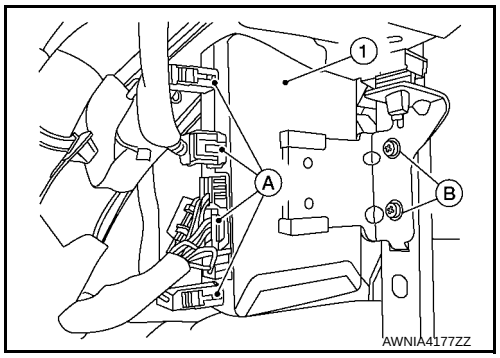
INFOID:0000000014844698

REMOVAL

CAUTION:

Before replacing TCU, perform "SAVE VIN DATA" to save current vehicle specification. For details, refer to AV-496, "Description".

1. Remove glove box. Refer to IP-23, "Removal and Installation".
2. Disconnect the harness connectors (A) from the TCU (1).
3. Remove screws (B), then remove TCU with bracket attached.



4. Slide TCU off bracket to remove, if necessary.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

After installation, perform activation. Refer to AV-496, "Description".

TELEMATICS SWITCH

Removal and Installation

INFOID:0000000014844699

The telematics switch is serviced as part of the room/map lamp. Refer to INL-52, "Removal and Installation".

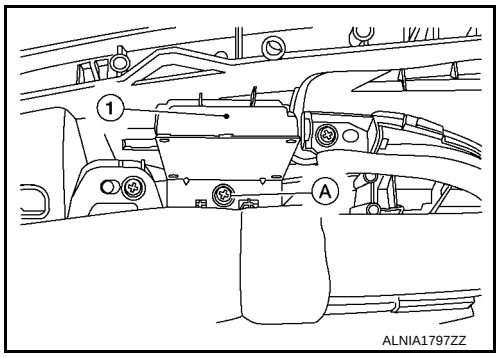
TEL ANTENNA

Removal and Installation

INFOID:0000000014844700

REMOVAL

1. Remove instrument panel. Refer to IP-14, "INSTRUMENT PANEL ASSEMBLY : Removal and Installation".
2. Remove screw (A) to remove telematics antenna (1) from instrument panel.



INSTALLATION

Installation is in the reverse order of removal.

MICROPHONE

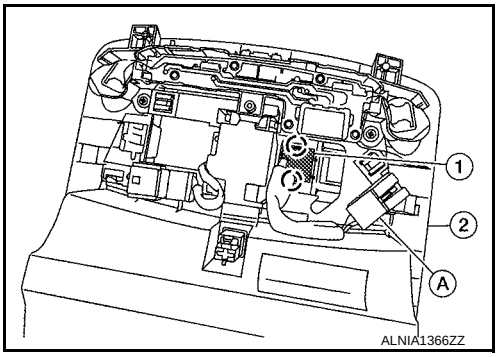
Removal and Installation

INFOID:0000000014844701

REMOVAL

1. Remove the map lamp assembly. Refer to INL-52, "Removal and Installation".
2. Disconnect the microphone connector (A) from the map lamp assembly (2).
3. Release the microphone pawls, then remove the microphone (1).

: Pawl



INSTALLATION

Installation is in the reverse order of removal.