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AUDIO, VISUAL & NAVIGATION SYSTEM

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PRECAUTION

PRECAUTIONS

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

INFOID:0000000014386784

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:0000000014386785

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 or cables from the negative terminal or terminals before checking the circuit. Refer to PG-185, "Battery Disconnect".

Precaution for Harness Repair

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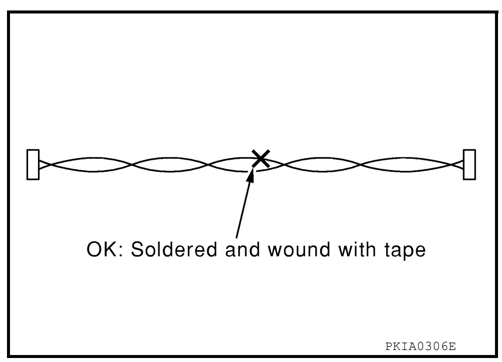
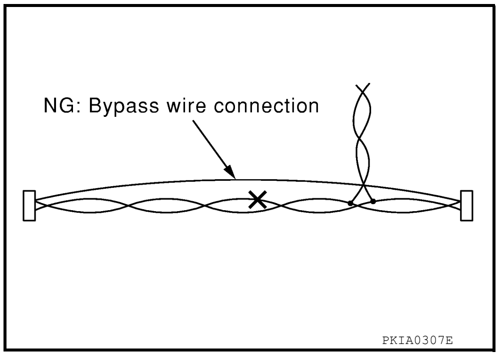
AV COMMUNICATION SYSTEM

- 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

INFOID:0000000014386787

- 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.

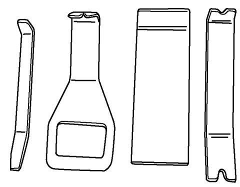
PREPARATION

PREPARATION

Special Service Tools

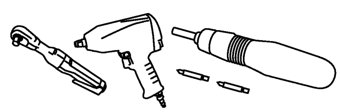
INFOID:0000000014386788

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:0000000014386789

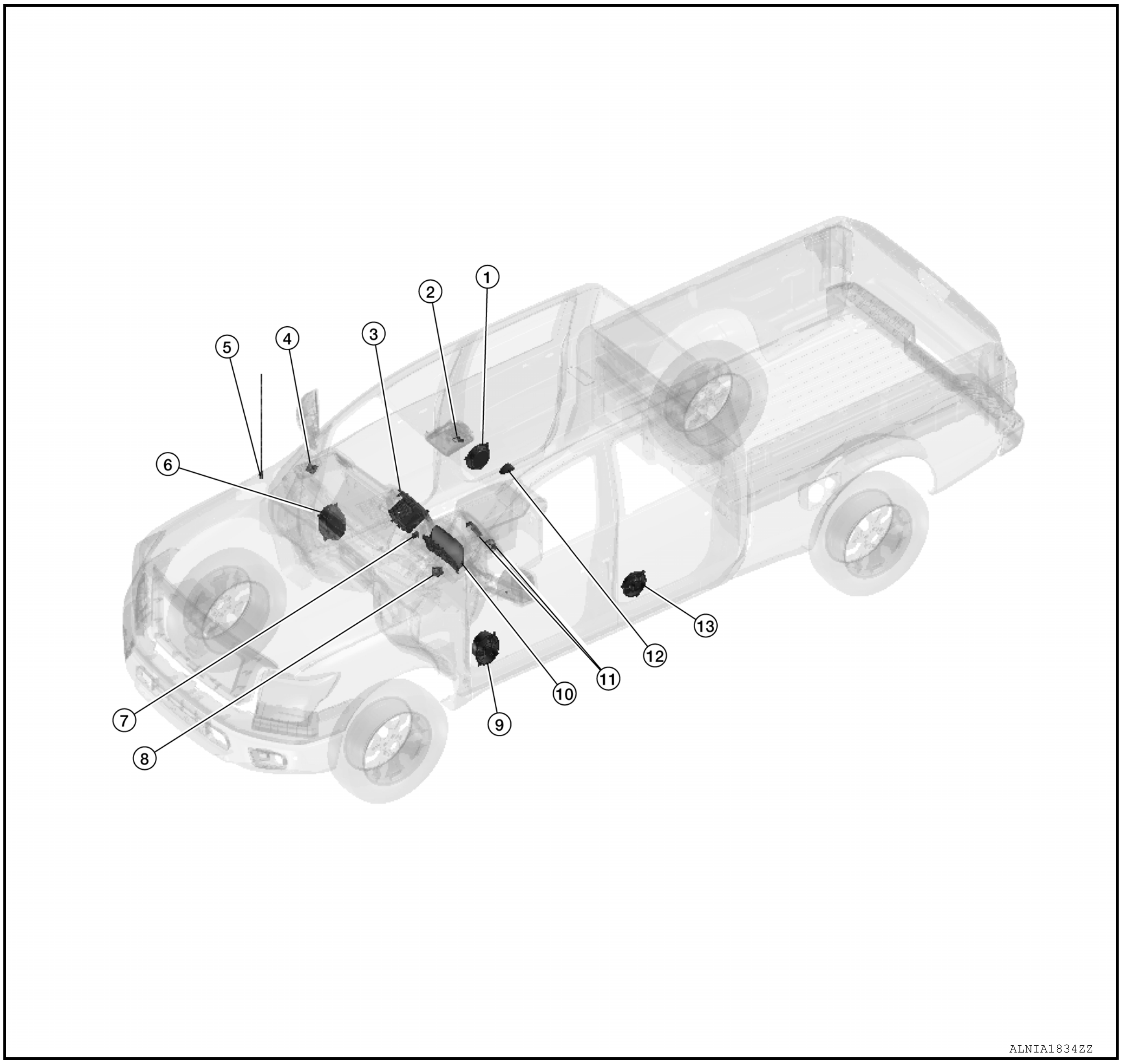
Tool name	Description
Power tool  PIIB1407E	Loosening nuts, screws and bolts

SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

INFOID:0000000014386790



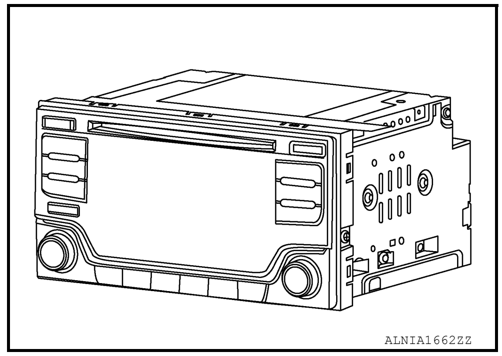
No.	Component	Function
1.	Rear door speaker RH	Refer to AV-14, "Speaker".
2.	Microphone	Refer to AV-15, "Microphone".
3.	Audio unit	Refer to AV-14, "Audio Unit".
4.	Front tweeter RH	Refer to AV-14, "Speaker".
5.	Rod antenna	Refer to AV-15, "Antenna and Antenna Feeder".
6.	Front door speaker RH	Refer to AV-14, "Speaker".
7.	USB interface and AUX in jack	Refer to AV-15, "USB Interface and AUX In Jack".
8.	Front tweeter LH	Refer to AV-14, "Speaker".
9.	Front door speaker LH	Refer to AV-14, "Speaker".
10.	Combination meter	Refer to MWI-12, "METER SYSTEM : Combination Meter".
11.	Steering switches	Refer to AV-15, "Steering Switches".
12.	Satellite antenna	Refer to AV-15, "Antenna and Antenna Feeder".
13.	Rear door speaker LH	Refer to AV-14, "Speaker".

Audio Unit

INFOID:0000000014386791

Description

- AM/FM electronic tuner radio, CD drive and Bluetooth are integrated into the audio unit.
- The display can show audio status.
- Music files stored in iPod®*/USB memory can be played using the separate USB connector.

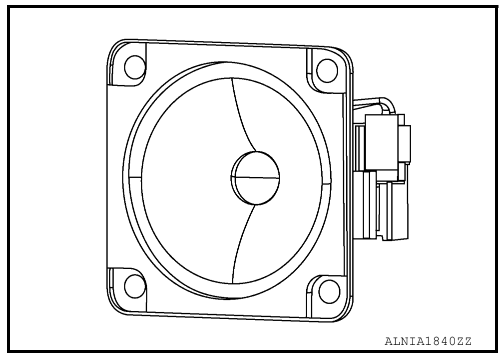


Speaker

INFOID:0000000014386792

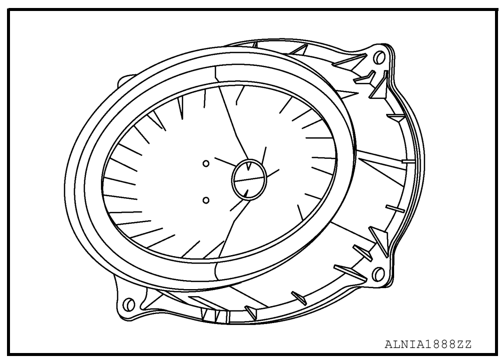
FRONT TWEETER

- 5.1 cm (2 in) speakers are installed in the top corners of the instrument panel assembly.
- Sound signals generated by the audio unit output high range sounds.



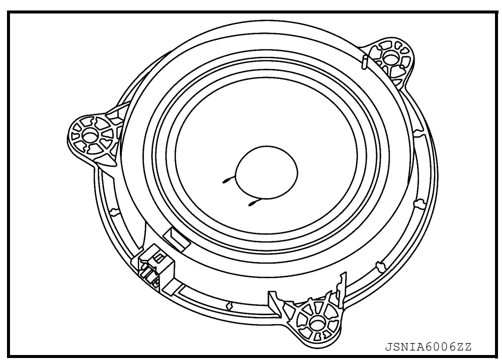
FRONT DOOR SPEAKER

- 15.2 x 22.9 cm (6 x 9 in) speakers are installed in the bottom of the front doors.
- Sound signals generated by the audio unit output low range sounds.



REAR DOOR SPEAKER

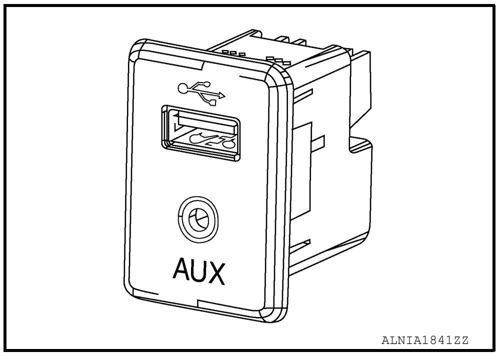
- 16.5 cm (6.5 in) speakers are installed in the bottom of the rear doors.
- Sound signals generated by the audio unit output mid range sounds.



USB Interface and AUX In Jack

INFOID:0000000014386793

- USB Interface and AUX in jack is installed in the cluster lid C lower.
- 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.

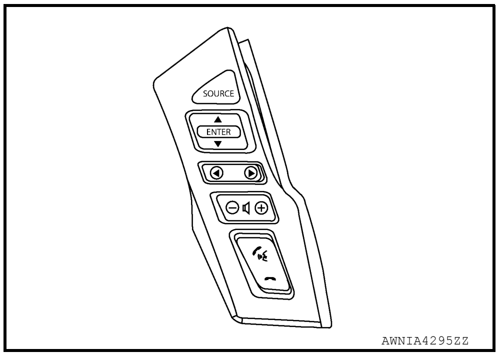


ALNIA1841ZZ

Steering Switches

INFOID:0000000014386794

- Operations for audio and hands-free phone are possible.
- Switch is connected to the audio unit.

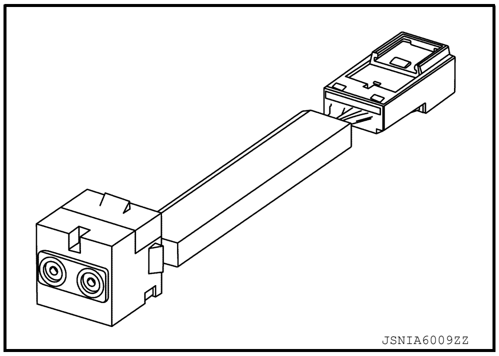


AWNIA4295ZZ

Microphone

INFOID:0000000014386795

- The microphone is installed in the front roof console.
- Power is supplied from the audio unit.



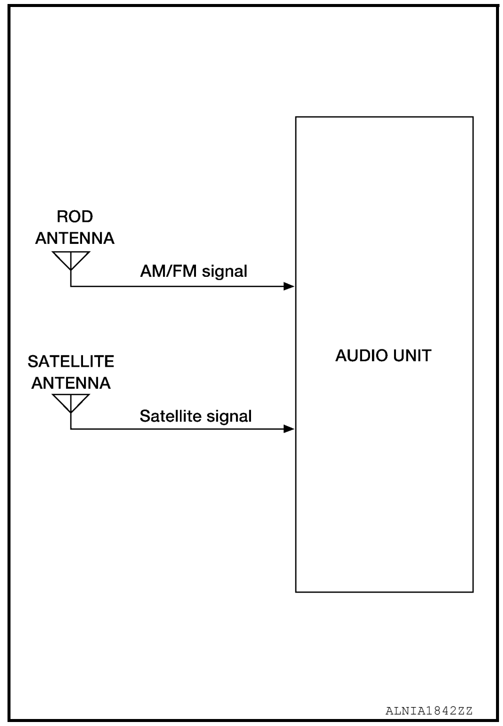
JSNIA6009ZZ

Antenna and Antenna Feeder

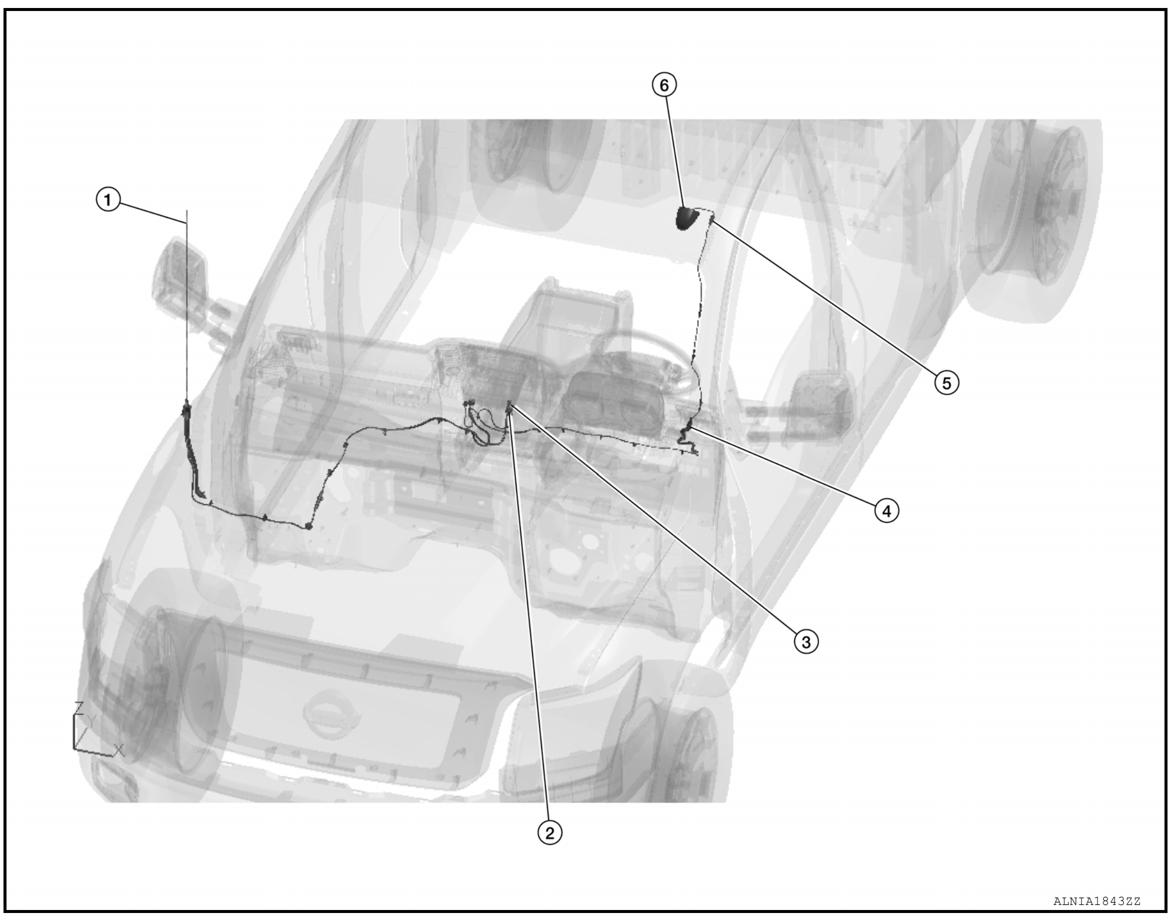
INFOID:0000000014386796

RADIO AND SATELLITE ANTENNAS

AM/FM radio rod antenna is located on the right front fender. The satellite antenna is located on the front left side of the roof.



ANTENNA FEEDER



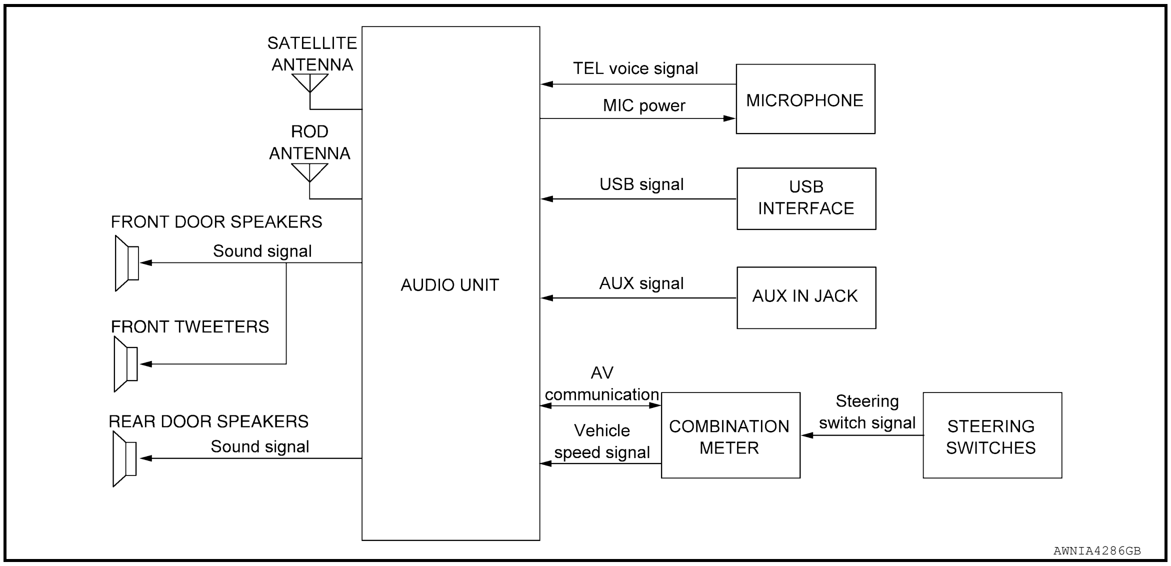
1.	Rod Antenna	2.	M181	3.	M184
4.	M188, R108	5.	R109	6.	Satellite Antenna

SYSTEM

System Description

INFOID:0000000014386797

SYSTEM DIAGRAM



DESCRIPTION

The audio system consists of the following components:

- Audio unit
- Front tweeters
- Front door speakers
- Rear door speakers
- Steering switches
- Microphone
- USB interface and AUX in jack
- Rod antenna
- Satellite antenna

When the audio system is on, AM/FM signals received by the rod antenna are 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

System Operation

NOTE:

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

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

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

Audio Unit

When the ignition switch is turned to ACC or ON, the audio unit will power up. During power up, the audio unit is initialized and performs various self-checks. Initialization may take up to 20 seconds.

Steering Switches

When buttons on the steering switches are pushed, the resistance in steering switch circuits change, depending on which button is pushed.
The following functions can be performed using the steering switches:

- Initiate self-diagnosis of the Bluetooth® telephone system

- Start a voice recognition session
- Answer and end telephone calls
- Adjust the volume of calls
- Record memos

Microphone

The microphone is located in the roof console assembly. The microphone sends a signal to the audio unit.

SATELLITE RADIO FUNCTION

- Satellite radio function is built into audio unit.
- Sound signal (satellite radio) is received by satellite antenna and transmitted to audio unit. Audio unit outputs sound signal to each speaker.

USB INTERFACE AND AUX IN JACK FUNCTION

- Sound and data signals are transmitted from USB interface to the audio unit and output to each speaker and tweeter.
- Sound signals are transmitted from AUX in jack to the audio unit and output to each speaker and tweeter.

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.

DIAGNOSIS SYSTEM (AUDIO UNIT)

Description

INFOID:0000000014386798

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

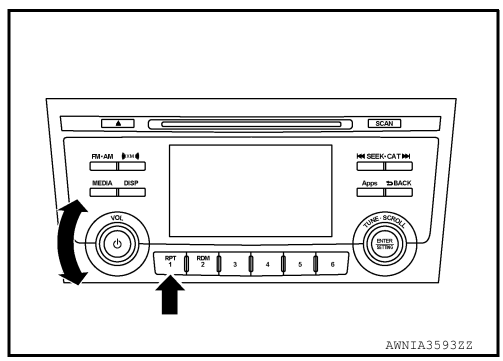
Mode		Description
Self Diagnosis		• Audio unit diagnosis. • Diagnoses the connections across system components.
Confirmation/ Adjustment	Display Diagnosis	The following check functions are available: color tone check by color bar display and white display, light and shade check by gray scale display.
	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	Guiding line position that overlaps rear view camera image can be adjusted.
	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.
	Initialize Setting	Initializes the audio unit memory.

On Board Diagnosis Function

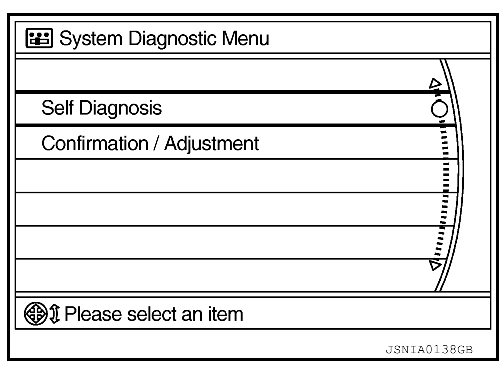
INFOID:0000000014386799

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 and counterclockwise quickly approximately 15 times or more. Shifting from current screen to previous screen is performed by pressing BACK button.



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

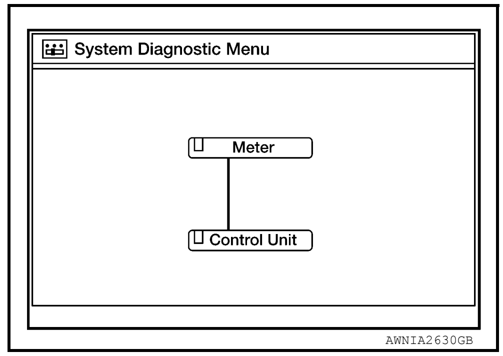


SELF DIAGNOSIS MODE

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.

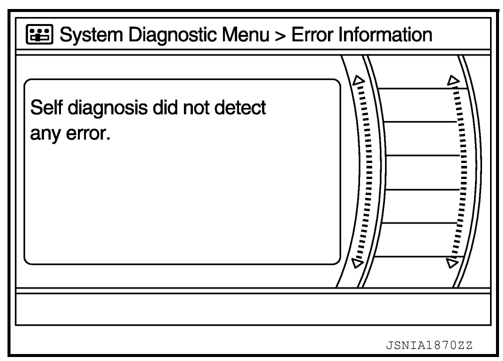


Diagnosis results	Unit	Connection line
Normal	Green	Green
Connection malfunction	Gray	Yellow
Unit malfunction [1]	Red	Green

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-66, "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.



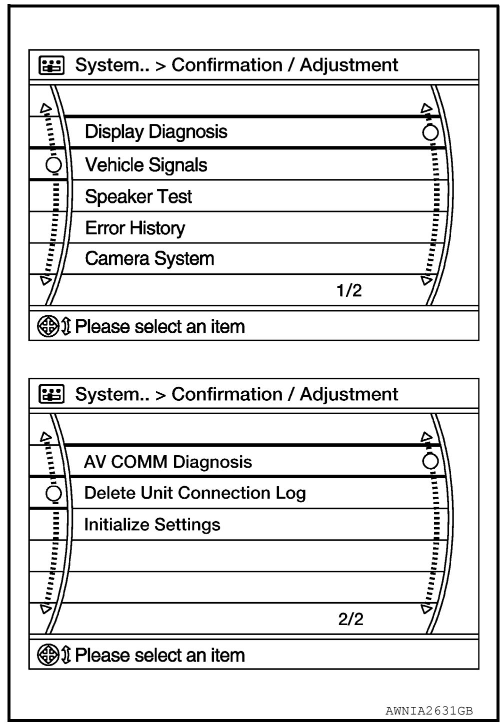
Audio Unit Self Diagnosis Results

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-66, "Removal and Installation".

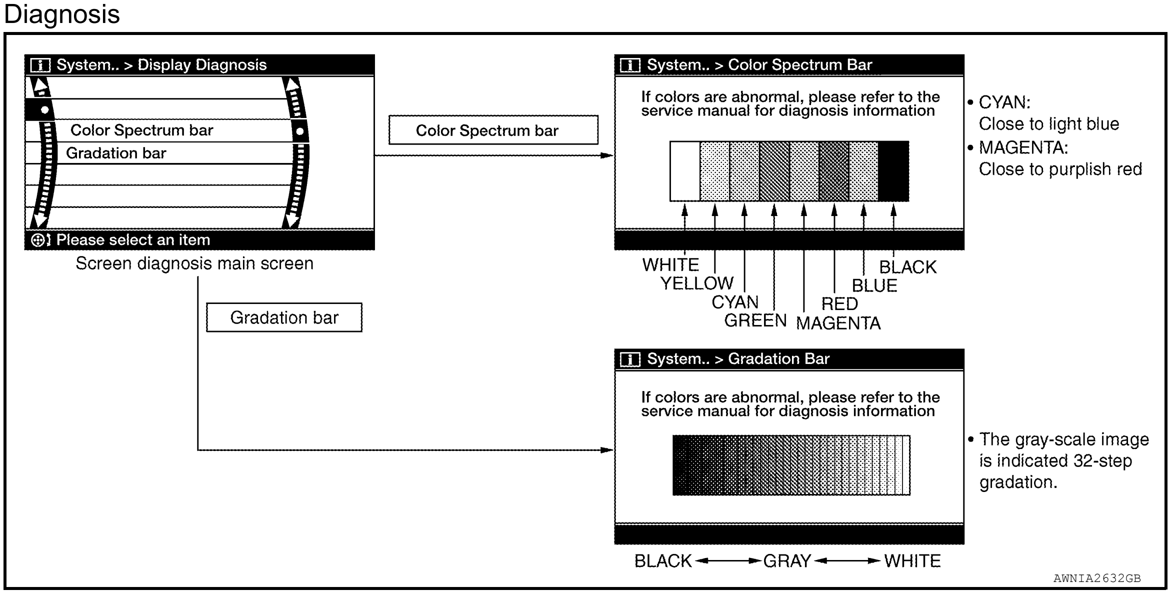
A Connecting Cable Between Units Is Displayed In Yellow		
Area with yellow connection lines	Description	Possible cause
Control unit ⇔ Meter	When one of the following is detected: • malfunction is detected in combination meter power supply and ground circuits. • malfunction is detected in AV communication circuits between audio unit and combination meter.	• Combination meter power supply or ground circuits. Refer to MWI-87, "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.

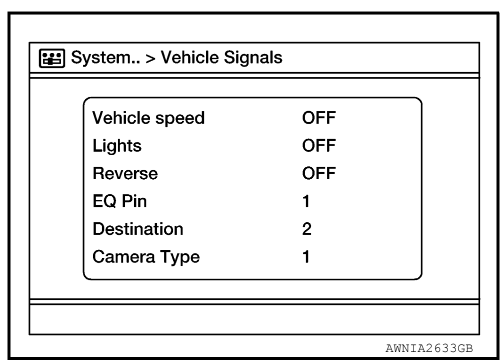


Display Diagnosis



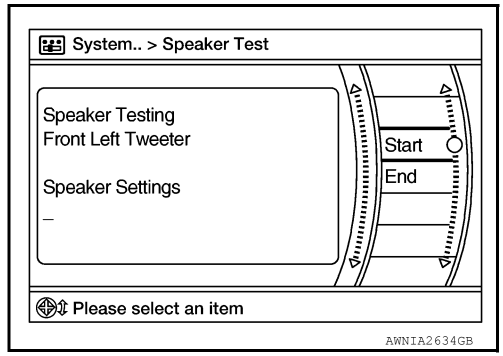
Vehicle Signals

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.



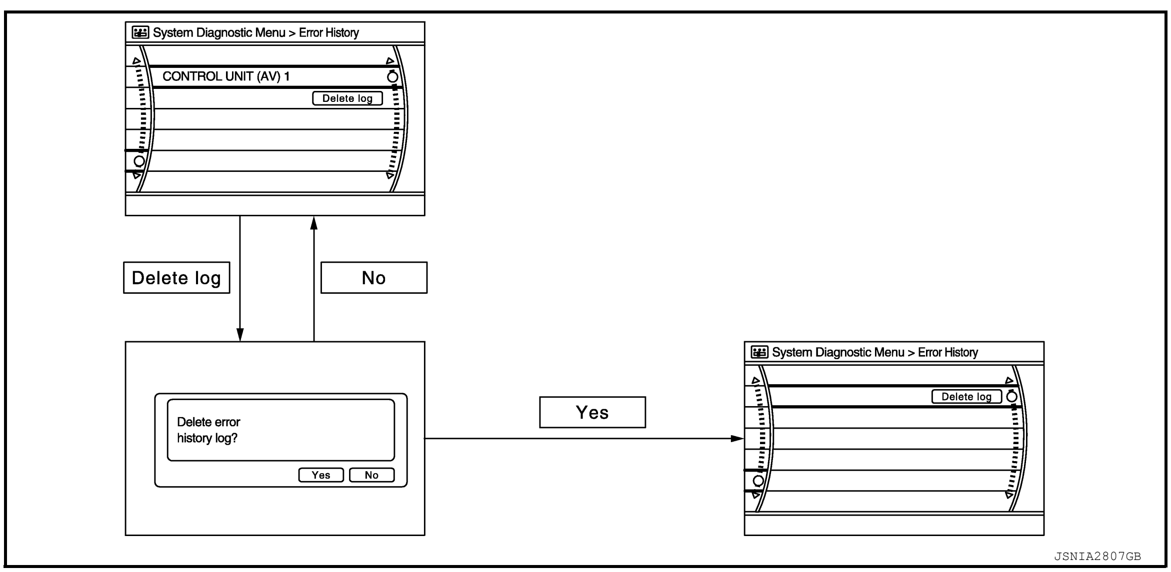
Error History

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



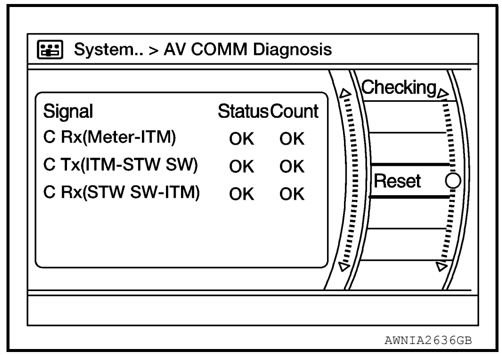
Error item

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-66, "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-87, "COMBINATION METER : Diagnosis Procedure". • AV communication circuits between audio unit and combination meter.

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.

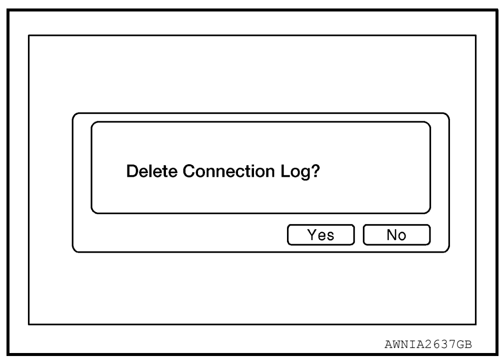


Items	Status (Current)	Counter (Past)
C Rx(Meter-ITM)	OK / ???	OK / 0 – 39
C Tx(ITM-TW SW)	OK / ???	OK / 0 – 39
C Rx(STW SW-ITM)	OK / ???	OK / 0 – 39

NOTE:
“???” indicates UNKWN.

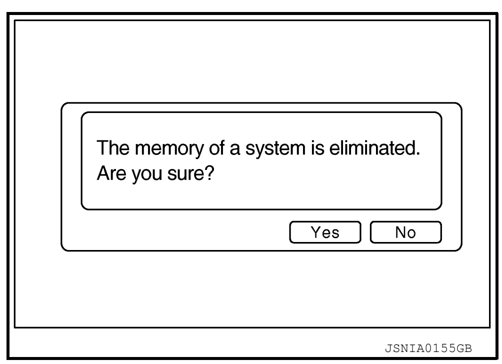
Delete Unit Connection Log

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



Initialize Settings

Deletes data stored from the audio unit.



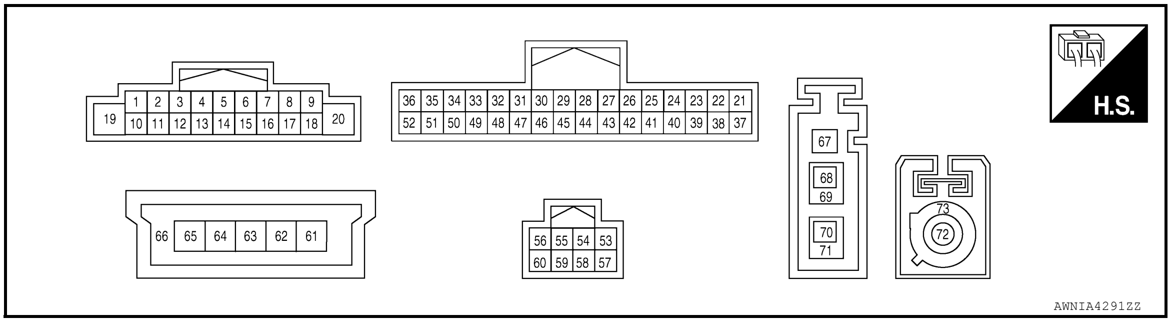
ECU DIAGNOSIS INFORMATION

AUDIO UNIT

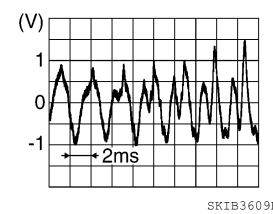
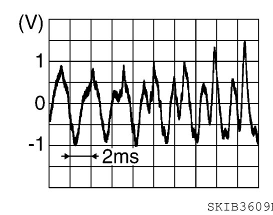
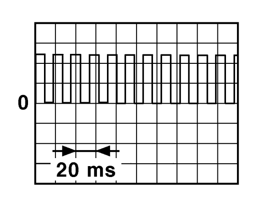
Reference Value

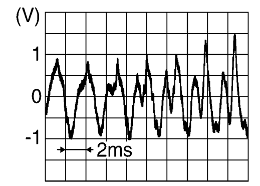
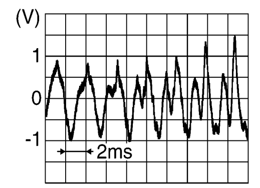
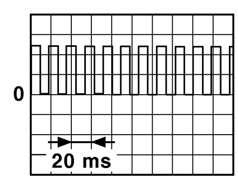
INFOID:0000000014386800

TERMINAL LAYOUT

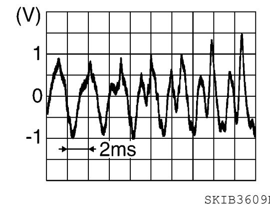
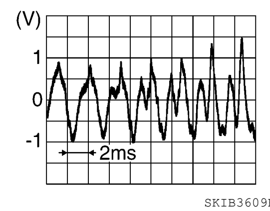
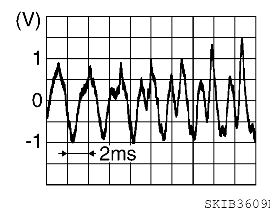


PHYSICAL VALUES

Terminal (Wire color) +	Terminal (Wire color) –	Description: Signal name	Description: Input/ Output	Condition: Ignition switch	Condition: Operation	Reference value (Approx.)
2 (L/W)	3 (L/R)	Sound signal front door speaker and front tweeter LH	Output	ON	Sound output	
4 (SB)	5 (B/Y)	Sound signal rear door speaker LH	Output	ON	Sound output	
6[1] (P)	15[1] (B)	Steering switch signal A	Input	ON	Press SOURCE switch	0V
					Press △ switch	1.0V
					Press ▽ switch	2.0V
					Press switch	3.0V
					Press ENTER switch	4.0V
					Except above	5.0V
7 (R)	Ground	ACC power supply	Input	ACC	—	Battery voltage
8 (GR)	Ground	Illumination dimming con-trol signal	Input	ON	CPM lighting ON	

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output	Ignition switch	Operation	
9 (L)	Ground	Illumination ON control signal	Input	ON	Parking lamps or headlamps ON	Battery voltage
11 (W/B)	12 (L/B)	Sound signal front door speaker and front tweeter RH	Output	ON	Sound output	 SKIB3609E
13 (O/L)	14 (R/L)	Sound signal rear door speaker RH	Output	ON	Sound output	 SKIB3609E
16[1] (R)	15[1] (B)	Steering switch signal B	Input	ON	Press – switch	0V
					Press + switch	1.0V
					Press switch	2.0V
					Press menu right switch	3.0V
					Press menu left switch	4.0V
					Except above	5.0V
18 (G)	Ground	Vehicle speed signal	Input	ON	When vehicle speed is approx. 40 km/h (25 MPH)	 JSNIA0012GB
19 (W)	Ground	Battery power supply	Input	OFF	—	Battery voltage
20 (B)	Ground	Ground	—	ON	—	0 V
28[2] (SB)	—	AV communication (H)	Input/ Output	—	—	—
29[2] (LG)	—	AV communication (L)	Input/ Output	—	—	—
31[2] (SB)	—	AV communication (H)	Input/ Output	—	—	—
32[2] (LG)	—	AV communication (L)	Input/ Output	—	—	—

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

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output	Ignition switch	Operation	
37 (W)	39 (Shield)	Microphone signal	Input	ON	While speaking into micro- phone.	
38 (R)	Ground	Microphone power supply	Output	ON	—	5.0 V
53 (Shield)	—	AUX Shield	—	—	—	—
54 (GR)	—	AUX ground	—	ON	—	0V
55 (G)	Ground	AUX audio signal RH	Input	ON	AUX audio signal received	
56 (V)	Ground	AUX audio signal LH	Input	ON	AUX audio signal received	
61 (B)	—	V BUS signal	—	—	—	—
63 (G)	—	USB D– signal	—	—	—	—
64 (W)	—	USB D+ signal	—	—	—	—
65 (R)	—	USB ground	—	—	—	—
66 (Shield)	—	USB Shield	—	—	—	—
68 (B)	—	AM/FM antenna signal	—	—	—	—
69 (Shield)	—	AM/FM antenna signal Shield	—	—	—	—
72 (B)	Ground	Satellite antenna signal	Input	ON	—	5.0 V
73 (Shield)	—	Satellite antenna signal shield	—	—	—	—

[1]: With type B combination meter

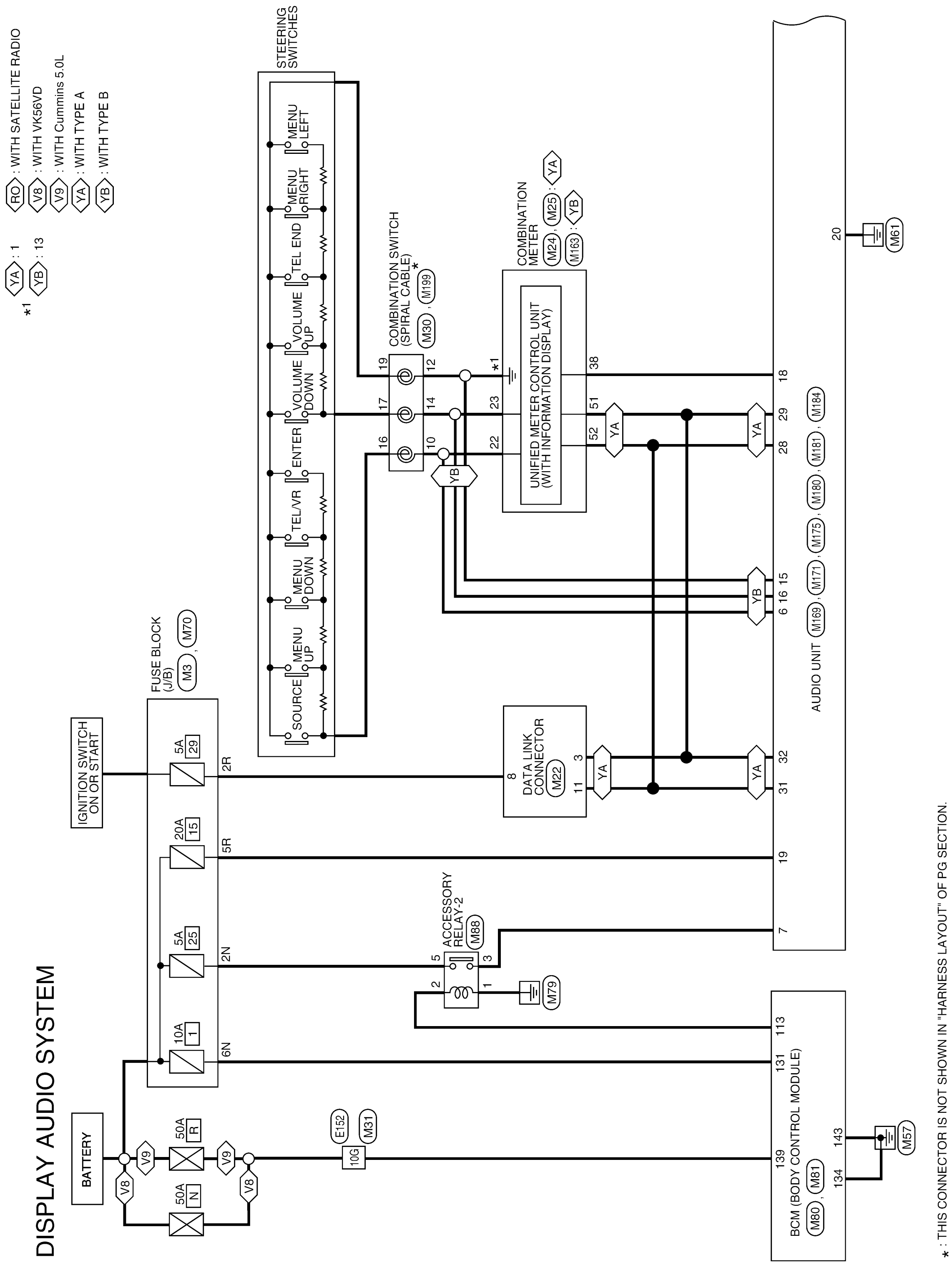
[2]: With type A combination meter

WIRING DIAGRAM

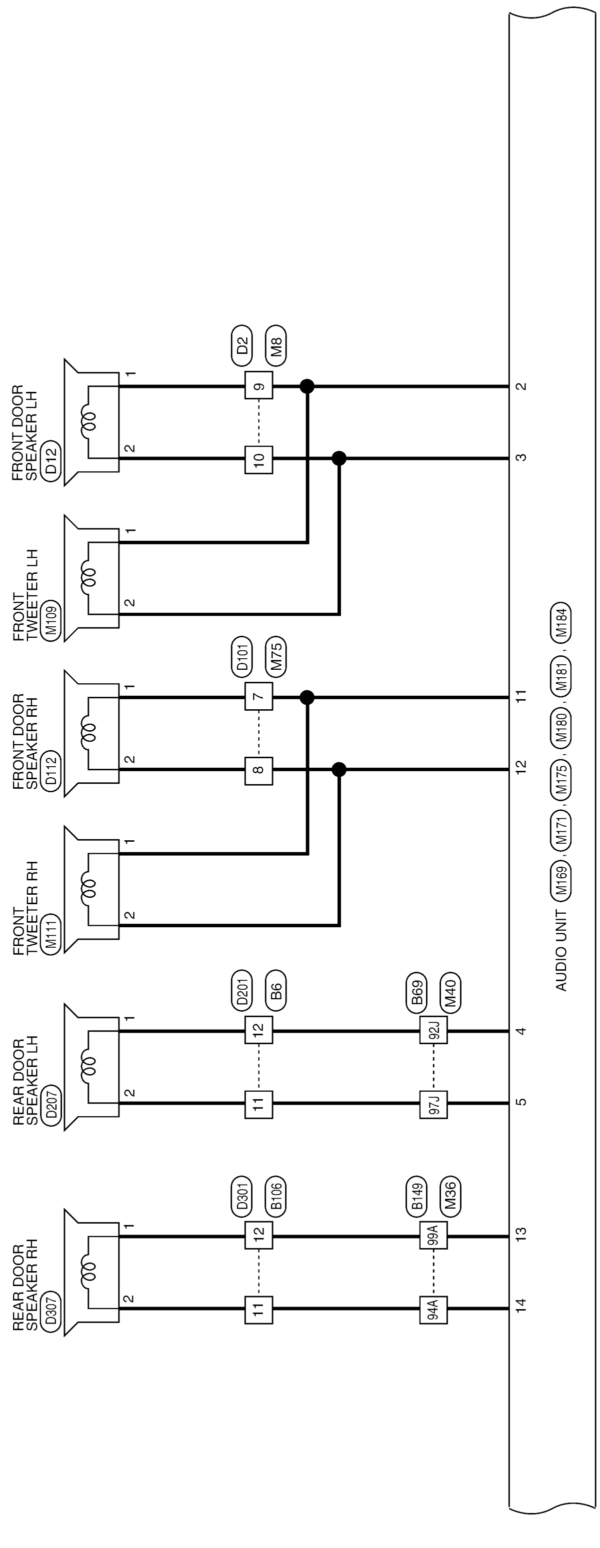
DISPLAY AUDIO

Wiring Diagram

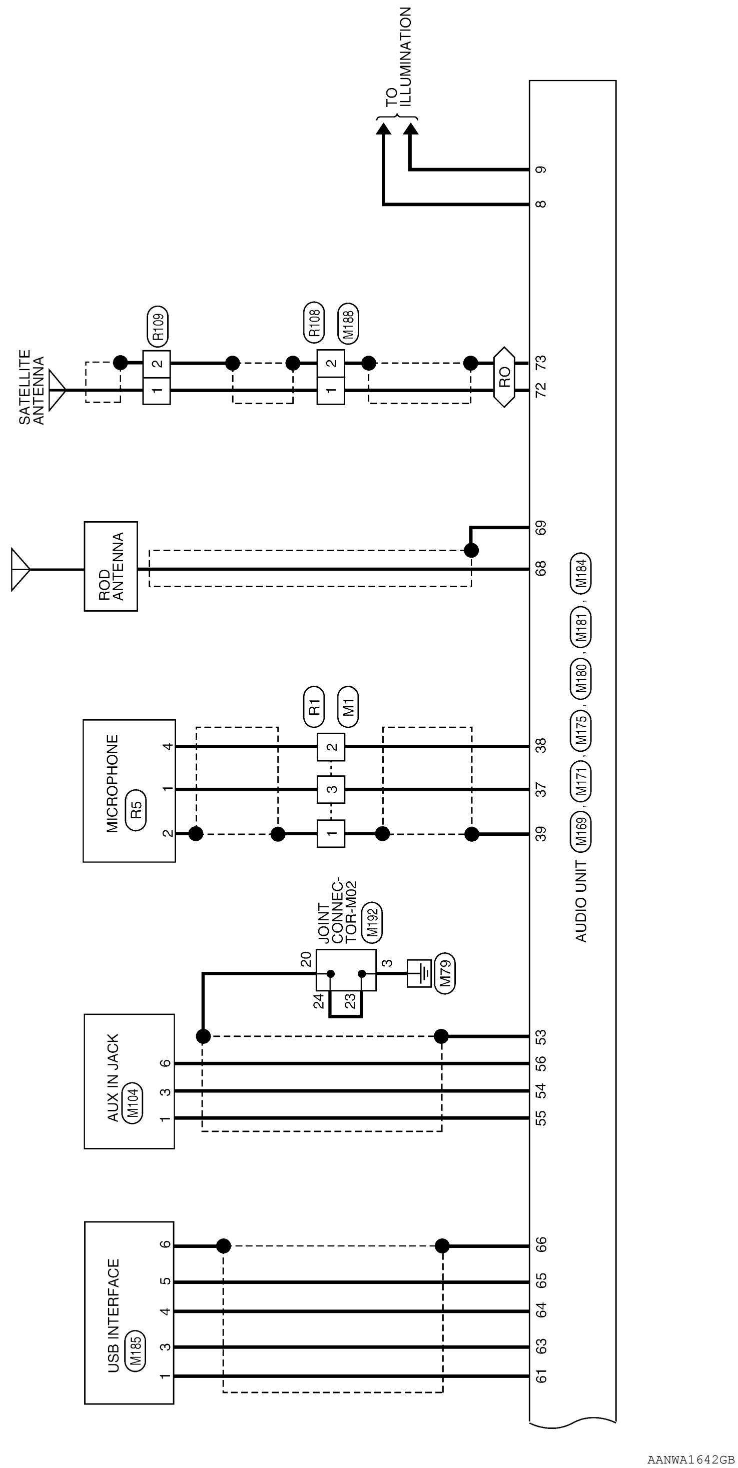
INFOID:0000000014386801



AANWA1754GB



AANWA1641GB

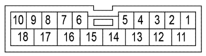


TO ILLUMINATION
SATELLITE ANTENNA
R109
R108
M188
RO
ROD ANTENNA
MICROPHONE
R5
R1
M1
JOINT CONNECTOR-M02
M192
M79
AUX IN JACK
M104
USB INTERFACE
M185
AUDIO UNIT
M169, M171, M175, M180, M181, M184
AANWA1642GB

DISPLAY AUDIO SYSTEM CONNECTORS

Connector No.	B6
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8
Connector Color	WHITE

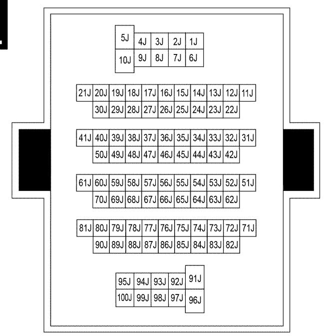
H.S.



Terminal No.	Color of Wire	Signal Name
1	–	TO REAR DOOR LH HARNESS
2	–	TO REAR DOOR LH HARNESS
3	–	TO REAR DOOR LH HARNESS
4	–	TO REAR DOOR LH HARNESS
5	–	TO REAR DOOR LH HARNESS
6	–	TO REAR DOOR LH HARNESS
7	–	TO REAR DOOR LH HARNESS
8	O/L	TO REAR DOOR LH HARNESS
9	–	TO REAR DOOR LH HARNESS
10	–	TO REAR DOOR LH HARNESS
11	B/Y	TO REAR DOOR LH HARNESS
12	SB	TO REAR DOOR LH HARNESS
13	BR	TO REAR DOOR LH HARNESS
14	Y	TO REAR DOOR LH HARNESS
15	B	TO REAR DOOR LH HARNESS
16	LG	TO REAR DOOR LH HARNESS
17	L	TO REAR DOOR LH HARNESS
18	SB	TO REAR DOOR LH HARNESS

Connector No.	B69
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4
Connector Color	WHITE

H.S.



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

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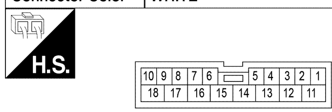
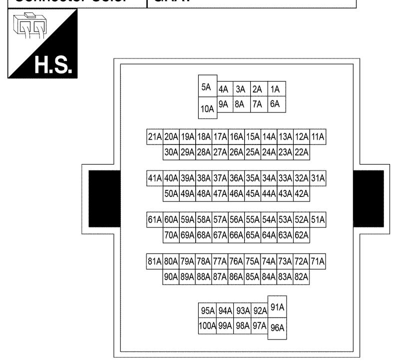
DISPLAY AUDIO SYSTEM CONNECTORS

Connector No.	B106
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	–	TO REAR DOOR RH HARNESS
2	–	TO REAR DOOR RH HARNESS
3	–	TO REAR DOOR RH HARNESS
4	–	TO REAR DOOR RH HARNESS
5	–	TO REAR DOOR RH HARNESS
6	–	TO REAR DOOR RH HARNESS
7	–	TO REAR DOOR RH HARNESS
8	O/L	TO REAR DOOR RH HARNESS
9	–	TO REAR DOOR RH HARNESS
10	–	TO REAR DOOR RH HARNESS
11	R/L	TO REAR DOOR RH HARNESS
12	O/L	TO REAR DOOR RH HARNESS
13	Y/LG	TO REAR DOOR RH HARNESS
14	BR/O	TO REAR DOOR RH HARNESS
15	B	TO REAR DOOR RH HARNESS
16	SB/R	TO REAR DOOR RH HARNESS
17	L	TO REAR DOOR RH HARNESS
18	V	TO REAR DOOR RH HARNESS

Connector No.	B149
Connector Name	WIRE TO WIRE
Connector Type	TH80MDGY-CS16-TM4
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
1A	SB/G	TO MAIN HARNESS -(WITHOUT CLIMATE CONTROLLED SEATS)
1A	SB	TO MAIN HARNESS -(WITH CLIMATE CONTROLLED SEATS)
2A	L	TO MAIN HARNESS
3A	V	TO MAIN HARNESS
4A	SB/R	TO MAIN HARNESS
5A	–	TO MAIN HARNESS
6A	LG/Y	TO MAIN HARNESS -(WITHOUT CLIMATE CONTROLLED SEATS)
6A	LG	TO MAIN HARNESS -(WITH CLIMATE CONTROLLED SEATS)
7A	W	TO MAIN HARNESS
8A	B	TO MAIN HARNESS
9A	L/B	TO MAIN HARNESS
10A	W	TO MAIN HARNESS
11A	LG	TO MAIN HARNESS
12A	BR/O	TO MAIN HARNESS
13A	Y/W	TO MAIN HARNESS
14A	R/G	TO MAIN HARNESS
15A	Y/L	TO MAIN HARNESS
16A	O/L	TO MAIN HARNESS
17A	L	TO MAIN HARNESS
18A	Y	TO MAIN HARNESS
19A	LG	TO MAIN HARNESS
20A	R	TO MAIN HARNESS
21A	BG	TO MAIN HARNESS
22A	LG/R	TO MAIN HARNESS
23A	Y/LG	TO MAIN HARNESS
24A	BR/Y	TO MAIN HARNESS
25A	–	TO MAIN HARNESS
26A	GR	TO MAIN HARNESS
27A	LG	TO MAIN HARNESS
28A	LG/B	TO MAIN HARNESS
29A	–	TO MAIN HARNESS
30A	BR	TO MAIN HARNESS
31A	W/R	TO MAIN HARNESS
32A	G/R	TO MAIN HARNESS
33A	–	TO MAIN HARNESS
34A	SHIELD	TO MAIN HARNESS
35A	P	TO MAIN HARNESS
36A	B	TO MAIN HARNESS
37A	–	TO MAIN HARNESS
38A	R/B	TO MAIN HARNESS
39A	G/O	TO MAIN HARNESS
40A	V	TO MAIN HARNESS
41A	SHIELD	TO MAIN HARNESS
42A	SHIELD	TO MAIN HARNESS
43A	R	TO MAIN HARNESS
44A	G	TO MAIN HARNESS
45A	–	TO MAIN HARNESS
46A	–	TO MAIN HARNESS
47A	Y	TO MAIN HARNESS
48A	R/W	TO MAIN HARNESS
49A	R/L	TO MAIN HARNESS
50A	B	TO MAIN HARNESS
51A	–	TO MAIN HARNESS
52A	–	TO MAIN HARNESS
53A	–	TO MAIN HARNESS
54A	–	TO MAIN HARNESS
55A	–	TO MAIN HARNESS
56A	–	TO MAIN HARNESS
57A	–	TO MAIN HARNESS
58A	–	TO MAIN HARNESS
59A	–	TO MAIN HARNESS
60A	G/W	TO MAIN HARNESS
61A	–	TO MAIN HARNESS
62A	–	TO MAIN HARNESS
63A	–	TO MAIN HARNESS
64A	–	TO MAIN HARNESS
65A	–	TO MAIN HARNESS
66A	–	TO MAIN HARNESS
67A	–	TO MAIN HARNESS
68A	–	TO MAIN HARNESS
69A	Y/R	TO MAIN HARNESS
70A	R/G	TO MAIN HARNESS
71A	–	TO MAIN HARNESS
72A	Y/B	TO MAIN HARNESS
73A	G	TO MAIN HARNESS
74A	B/R	TO MAIN HARNESS
75A	SHIELD	TO MAIN HARNESS
76A	GR/R	TO MAIN HARNESS
77A	L	TO MAIN HARNESS
78A	SHIELD	TO MAIN HARNESS
79A	Y	TO MAIN HARNESS
80A	L	TO MAIN HARNESS
81A	R	TO MAIN HARNESS
82A	SHIELD	TO MAIN HARNESS
83A	LG/B	TO MAIN HARNESS
84A	R	TO MAIN HARNESS
85A	SHIELD	TO MAIN HARNESS
86A	GR/B	TO MAIN HARNESS
87A	B	TO MAIN HARNESS
88A	W	TO MAIN HARNESS
89A	SHIELD	TO MAIN HARNESS
90A	G	TO MAIN HARNESS
91A	W/L	TO MAIN HARNESS
92A	BR	TO MAIN HARNESS
93A	L/Y	TO MAIN HARNESS
94A	R/L	TO MAIN HARNESS
95A	BR	TO MAIN HARNESS
96A	R	TO MAIN HARNESS
97A	LG	TO MAIN HARNESS
98A	B/V	TO MAIN HARNESS
99A	O/L	TO MAIN HARNESS
100A	BR/W	TO MAIN HARNESS

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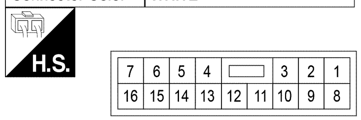
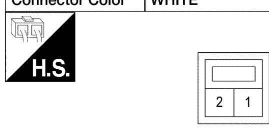
DISPLAY AUDIO SYSTEM CONNECTORS

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



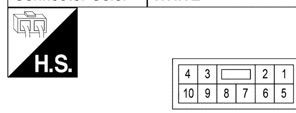
Terminal No.	Color of Wire	Signal Name
1	B/W	TO MAIN HARNESS
2	G/B	TO MAIN HARNESS
3	L	TO MAIN HARNESS
4	R	TO MAIN HARNESS
5	W/R	TO MAIN HARNESS
6	W/L	TO MAIN HARNESS
7	V	TO MAIN HARNESS
8	B	TO MAIN HARNESS
9	L/W	TO MAIN HARNESS
10	L/R	TO MAIN HARNESS
11	L/W	TO MAIN HARNESS
12	L	TO MAIN HARNESS
13	Y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

Connector No.	D12
Connector Name	FRONT DOOR SPEAKER LH
Connector Type	NS02FW-CS
Connector Color	WHITE



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

Connector No.	D101
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS
Connector Color	WHITE

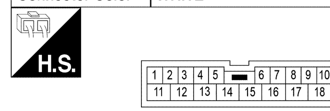


Terminal No.	Color of Wire	Signal Name
1	B/W	TO MAIN HARNESS
2	B	TO MAIN HARNESS
3	W/L	TO MAIN HARNESS
4	V	TO MAIN HARNESS
5	W/B	TO MAIN HARNESS
6	G/Y	TO MAIN HARNESS
7	W/B	TO MAIN HARNESS
8	L/B	TO MAIN HARNESS
9	G/Y	TO MAIN HARNESS
10	–	TO MAIN HARNESS

Connector No.	D112
Connector Name	FRONT DOOR SPEAKER RH
Connector Type	NS02FW-CS
Connector Color	WHITE

Terminal No.	Color of Wire	Signal Name
1	W/B	FR SP RH+
2	L/B	FR SP RH-

Connector No.	D201
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8
Connector Color	WHITE

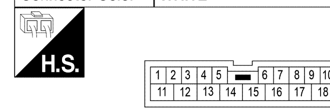


Terminal No.	Color of Wire	Signal Name
1	–	TO BODY HARNESS
2	–	TO BODY HARNESS
3	–	TO BODY HARNESS
4	–	TO BODY HARNESS
5	–	TO BODY HARNESS
6	–	TO BODY HARNESS
7	–	TO BODY HARNESS
8	O/L	TO BODY HARNESS
9	–	TO BODY HARNESS
10	–	TO BODY HARNESS
11	B/Y	TO BODY HARNESS
12	SB	TO BODY HARNESS
13	BR	TO BODY HARNESS
14	Y	TO BODY HARNESS
15	B	TO BODY HARNESS
16	BR	TO BODY HARNESS
17	Y	TO BODY HARNESS
18	V	TO BODY HARNESS

Connector No.	D207
Connector Name	REAR DOOR SPEAKER LH
Connector Type	NS02FW-CS
Connector Color	WHITE

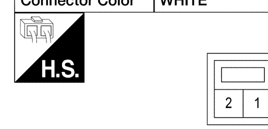
Terminal No.	Color of Wire	Signal Name
1	SB	RR SP LH+
2	B/Y	RR SP LH-

Connector No.	D301
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	–	TO BODY NO. 2 HARNESS
2	–	TO BODY NO. 2 HARNESS
3	–	TO BODY NO. 2 HARNESS
4	–	TO BODY NO. 2 HARNESS
5	–	TO BODY NO. 2 HARNESS
6	–	TO BODY NO. 2 HARNESS
7	–	TO BODY NO. 2 HARNESS
8	O/L	TO BODY NO. 2 HARNESS
9	–	TO BODY NO. 2 HARNESS
10	–	TO BODY NO. 2 HARNESS
11	R/L	TO BODY NO. 2 HARNESS
12	O/L	TO BODY NO. 2 HARNESS
13	Y	TO BODY NO. 2 HARNESS
14	BR	TO BODY NO. 2 HARNESS
15	B	TO BODY NO. 2 HARNESS
16	BR	TO BODY NO. 2 HARNESS
17	Y	TO BODY NO. 2 HARNESS
18	V	TO BODY NO. 2 HARNESS

Connector No.	D307
Connector Name	REAR DOOR SPEAKER RH
Connector Type	NS02FW-CS
Connector Color	WHITE



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

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DISPLAY AUDIO SYSTEM CONNECTORS

Connector No.	E152
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4
Connector Color	WHITE

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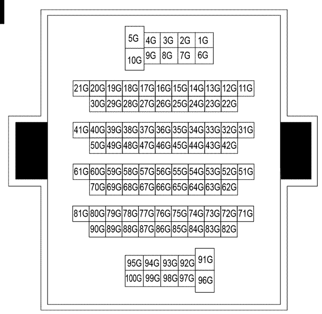
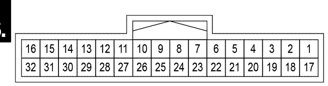


Terminal No.	Color of Wire	Signal Name
1G	G	TO MAIN HARNESS
2G	B/R	TO MAIN HARNESS
3G	W/B	TO MAIN HARNESS
4G	BR/W	TO MAIN HARNESS
5G	BR	TO MAIN HARNESS
6G	P	TO MAIN HARNESS - (WITH VK56VD)
6G	R/W	TO MAIN HARNESS - (WITH CUMMINS 5.0L)
7G	Y	TO MAIN HARNESS
8G	G	TO MAIN HARNESS
9G	R	TO MAIN HARNESS
10G	W	TO MAIN HARNESS
11G	R/G	TO MAIN HARNESS
12G	W/B	TO MAIN HARNESS
13G	BR	TO MAIN HARNESS
14G	Y/B	TO MAIN HARNESS
15G	G/W	TO MAIN HARNESS
16G	G	TO MAIN HARNESS
17G	G/Y	TO MAIN HARNESS
18G	G/Y	TO MAIN HARNESS
19G	Y/V	TO MAIN HARNESS
20G	G/Y	TO MAIN HARNESS
21G	B/Y	TO MAIN HARNESS
22G	G/R	TO MAIN HARNESS
23G	Y/R	TO MAIN HARNESS
24G	G/B	TO MAIN HARNESS
25G	R/W	TO MAIN HARNESS
26G	R	TO MAIN HARNESS
27G	LG	TO MAIN HARNESS
28G	G/B	TO MAIN HARNESS
29G	G/B	TO MAIN HARNESS
30G	BR/Y	TO MAIN HARNESS
31G	P	TO MAIN HARNESS - (WITH CUMMINS 5.0L)
31G	R	TO MAIN HARNESS - (WITH VK56VD)
32G	P	TO MAIN HARNESS
33G	Y/L	TO MAIN HARNESS
34G	GR	TO MAIN HARNESS
35G	G/R	TO MAIN HARNESS
36G	SB	TO MAIN HARNESS
37G	R/W	TO MAIN HARNESS
38G	BR	TO MAIN HARNESS
39G	BR	TO MAIN HARNESS
40G	–	TO MAIN HARNESS
41G	R/G	TO MAIN HARNESS
42G	O	TO MAIN HARNESS
43G	B	TO MAIN HARNESS - (WITH CUMMINS 5.0L)
43G	G	TO MAIN HARNESS - (WITH VK56VD)
44G	R/Y	TO MAIN HARNESS
45G	G	TO MAIN HARNESS
46G	LG	TO MAIN HARNESS
47G	R	TO MAIN HARNESS
48G	W	TO MAIN HARNESS
49G	–	TO MAIN HARNESS
50G	BR	TO MAIN HARNESS
51G	R	TO MAIN HARNESS
52G	L	TO MAIN HARNESS
53G	W	TO MAIN HARNESS
54G	W	TO MAIN HARNESS
55G	G	TO MAIN HARNESS
56G	W	TO MAIN HARNESS
57G	Y	TO MAIN HARNESS
58G	BG	TO MAIN HARNESS
59G	BG	TO MAIN HARNESS
60G	BG	TO MAIN HARNESS
61G	B	TO MAIN HARNESS
62G	W	TO MAIN HARNESS
63G	R	TO MAIN HARNESS
64G	W/L	TO MAIN HARNESS
65G	W/R	TO MAIN HARNESS
66G	BG	TO MAIN HARNESS
67G	BG	TO MAIN HARNESS
68G	B	TO MAIN HARNESS
69G	Y	TO MAIN HARNESS
70G	L	TO MAIN HARNESS
71G	R/W	TO MAIN HARNESS
72G	L/W	TO MAIN HARNESS
73G	SHIELD	TO MAIN HARNESS
74G	W	TO MAIN HARNESS
75G	R	TO MAIN HARNESS
76G	R/G	TO MAIN HARNESS
77G	G	TO MAIN HARNESS
78G	W	TO MAIN HARNESS
79G	–	TO MAIN HARNESS
80G	R	TO MAIN HARNESS
81G	L	TO MAIN HARNESS
82G	R	TO MAIN HARNESS
83G	L	TO MAIN HARNESS
84G	L	TO MAIN HARNESS
85G	W/B	TO MAIN HARNESS
86G	B/R	TO MAIN HARNESS
87G	W/B	TO MAIN HARNESS
88G	P	TO MAIN HARNESS
89G	L	TO MAIN HARNESS
90G	G	TO MAIN HARNESS
91G	G	TO MAIN HARNESS
92G	V/W	TO MAIN HARNESS
93G	BR	TO MAIN HARNESS
94G	G	TO MAIN HARNESS
95G	G	TO MAIN HARNESS
96G	W	TO MAIN HARNESS
97G	R	TO MAIN HARNESS
98G	W/B	TO MAIN HARNESS
99G	BR	TO MAIN HARNESS
100G	GR/W	TO MAIN HARNESS

Connector No.	M1
Connector Name	WIRE TO WIRE
Connector Type	TH32FW-NH
Connector Color	WHITE

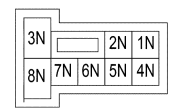
H.S.



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

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	CS06FW-M2
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
1N	–	–
2N	W	BATTERY
3N	W	BLOWER FAN RELAY OUT
4N	V	BATTERY
5N	Y	BATTERY
6N	W	BATTERY
7N	L	ACC RELAY OUT
8N	W	IGNITION

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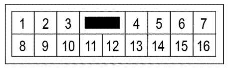
DISPLAY AUDIO SYSTEM CONNECTORS

Connector No.	M8
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS
Connector Color	WHITE

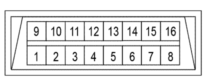
H.S.



Terminal No.	Color of Wire	Signal Name
1	B/W	TO FRONT DOOR LH HARNESS
2	G/B	TO FRONT DOOR LH HARNESS
3	L	TO FRONT DOOR LH HARNESS
4	R	TO FRONT DOOR LH HARNESS
5	W/R	TO FRONT DOOR LH HARNESS
6	W/L	TO FRONT DOOR LH HARNESS
7	V	TO FRONT DOOR LH HARNESS
8	B	TO FRONT DOOR LH HARNESS
9	L/W	TO FRONT DOOR LH HARNESS
10	L/R	TO FRONT DOOR LH HARNESS
11	L/W	TO FRONT DOOR LH HARNESS
12	L	TO FRONT DOOR LH HARNESS
13	Y	TO FRONT DOOR LH HARNESS
14	SB	TO FRONT DOOR LH HARNESS
15	V	TO FRONT DOOR LH HARNESS
16	LG	TO FRONT DOOR LH HARNESS

Connector No.	M22
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW
Connector Color	WHITE

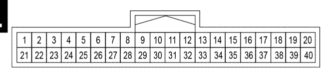
H.S.



Terminal No.	Color of Wire	Signal Name
1	–	–
2	–	–
3	LG	M-CAN-L
4	B	BODY GND
5	B	ENG GND
6	L	CAN-H
7	BR	K-LINE
8	G/R	IGN SW
9	–	–
10	–	–
11	SB	M-CAN-H
12	R	CAN-L
13	L	CAN-H
14	P	CAN-L
15	–	–
16	Y	BATTERY

Connector No.	M24
Connector Name	COMBINATION METER (WITH TYPE A)
Connector Type	TH40FW-NH
Connector Color	WHITE

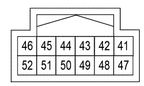
H.S.



Terminal No.	Color of Wire	Signal Name
1	B	GND(STRG/SATELLITE SW GND)
2	–	–
3	–	–
4	–	–
5	–	–
6	–	–
7	V	SECURITY
8	–	–
9	BG	AS BELT SW (W/O ODS)
10	LG	TOW MODE SW
11	BR	CHG
12	BR	LED HEAD LAMP (R)
13	W	LED HEAD LAMP (L)
14	R	ACC SW
15	W	OUTSIDE TEMP SENSOR (WITH VK56VD)
16	O	AIR BAG
17	–	–
18	P	TRIP RESET SW
19	–	–
20	R	OUTSIDE TEMP GND (WITH VK56VD)
21	–	–
22	P	STRG SW A
23	R	STRG SW B
24	W	WASHER SW
25	–	–
26	G	PKB SW
27	P/L	AS BELT SW (WITH ODS)
28	O/B	DR BELT SW
29	–	–
30	–	–
31	–	–
32	BR	AT SHIFT UP
33	V/W	AT SHIFT DOWN
34	–	–
35	–	–
36	W	ILL UP SW
37	R	ILL DOWN SW
38	G	8P/R OUTPUT
39	–	–
40	–	–

Connector No.	M25
Connector Name	COMBINATION METER (WITH TYPE A)
Connector Type	TH12FW-NH
Connector Color	WHITE

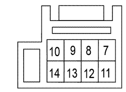
H.S.



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

Connector No.	M30
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY-1V
Connector Color	GRAY

H.S.



Terminal No.	Color of Wire	Signal Name
7	B/Y	ASCD GND -(WITH HEATED STEERING WHEEL)
8	GR	ILL (-) - (WITHOUT HEATED STEERING WHEEL)
8	R	AUDIO STRG SW REMOTE B - (WITH HEATED STEERING WHEEL)
9	G/Y	ASCD SW - (WITHOUT HEATED STEERING WHEEL)
9	P	AUDIO STRG SW REMOTE A - (WITH HEATED STEERING WHEEL)
10	P	AUDIO STRG SW REMOTE A - (WITHOUT HEATED STEERING WHEEL)
10	G/Y	ASCD SW - (WITH HEATED STEERING WHEEL)
11	R/W	HORN SWITCH OUTPUT - (WITHOUT HEATED STEERING WHEEL)
11	B	AUDIO STRG SW GND - (WITH HEATED STEERING WHEEL)
12	B	AUDIO STRG SW GND -(WITHOUT HEATED STEERING WHEEL)
13	B/Y	ASCD GND -(WITHOUT HEATED STEERING WHEEL)
14	R	AUDIO STRG SW REMOTE B - (WITHOUT HEATED STEERING WHEEL)

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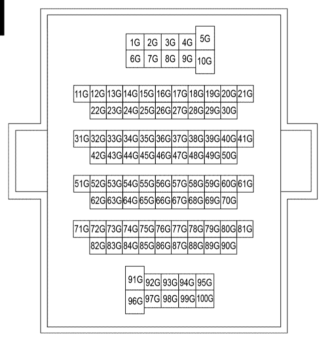
DISPLAY AUDIO SYSTEM CONNECTORS

Connector No.	M31
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4
Connector Color	WHITE

H.S.



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

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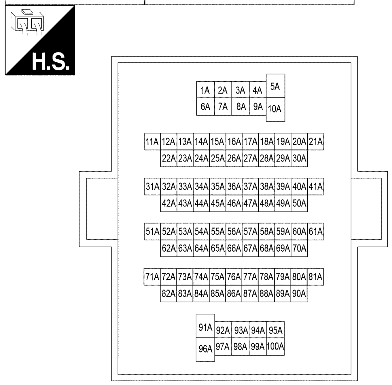
DISPLAY AUDIO SYSTEM CONNECTORS

Connector No.	M36
Connector Name	WIRE TO WIRE
Connector Type	TH80FDGY-CS16-TM4
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
1A	W	TO BODY NO. 2 HARNESS
2A	LG	TO BODY NO. 2 HARNESS
3A	V	TO BODY NO. 2 HARNESS
4A	SB	TO BODY NO. 2 HARNESS
5A	–	TO BODY NO. 2 HARNESS
6A	BG	TO BODY NO. 2 HARNESS - (WITH CLIMATE CONTROLLED SEAT)
6A	LG	TO BODY NO. 2 HARNESS - (WITHOUT CLIMATE CONTROLLED SEAT)
7A	W	TO BODY NO. 2 HARNESS
8A	B	TO BODY NO. 2 HARNESS
9A	L/B	TO BODY NO. 2 HARNESS
10A	W	TO BODY NO. 2 HARNESS
11A	R	TO BODY NO. 2 HARNESS
12A	BR	TO BODY NO. 2 HARNESS
13A	G	TO BODY NO. 2 HARNESS
14A	R/G	TO BODY NO. 2 HARNESS
15A	O	TO BODY NO. 2 HARNESS
16A	O/L	TO BODY NO. 2 HARNESS
17A	L	TO BODY NO. 2 HARNESS
18A	Y	TO BODY NO. 2 HARNESS
19A	B/W	TO BODY NO. 2 HARNESS
20A	R	TO BODY NO. 2 HARNESS
21A	BG	TO BODY NO. 2 HARNESS
22A	G	TO BODY NO. 2 HARNESS
23A	Y	TO BODY NO. 2 HARNESS
24A	L	TO BODY NO. 2 HARNESS
25A	–	TO BODY NO. 2 HARNESS
26A	GR	TO BODY NO. 2 HARNESS
27A	LG	TO BODY NO. 2 HARNESS
28A	LG	TO BODY NO. 2 HARNESS
29A	GR	TO BODY NO. 2 HARNESS
30A	BR	TO BODY NO. 2 HARNESS
31A	W/R	TO BODY NO. 2 HARNESS
32A	G/R	TO BODY NO. 2 HARNESS
33A	–	TO BODY NO. 2 HARNESS
34A	SHIELD	TO BODY NO. 2 HARNESS
35A	P	TO BODY NO. 2 HARNESS
36A	B	TO BODY NO. 2 HARNESS
37A	–	TO BODY NO. 2 HARNESS
38A	R/B	TO BODY NO. 2 HARNESS
39A	G/O	TO BODY NO. 2 HARNESS
40A	V	TO BODY NO. 2 HARNESS
41A	SHIELD	TO BODY NO. 2 HARNESS
42A	SHIELD	TO BODY NO. 2 HARNESS
43A	R	TO BODY NO. 2 HARNESS
44A	G	TO BODY NO. 2 HARNESS
45A	–	TO BODY NO. 2 HARNESS
46A	–	TO BODY NO. 2 HARNESS
47A	Y	TO BODY NO. 2 HARNESS
48A	R/W	TO BODY NO. 2 HARNESS
49A	R/L	TO BODY NO. 2 HARNESS
50A	B	TO BODY NO. 2 HARNESS
51A	–	TO BODY NO. 2 HARNESS
52A	–	TO BODY NO. 2 HARNESS
53A	–	TO BODY NO. 2 HARNESS
54A	–	TO BODY NO. 2 HARNESS
55A	–	TO BODY NO. 2 HARNESS
56A	–	TO BODY NO. 2 HARNESS
57A	–	TO BODY NO. 2 HARNESS
58A	–	TO BODY NO. 2 HARNESS
59A	–	TO BODY NO. 2 HARNESS
60A	G/W	TO BODY NO. 2 HARNESS
61A	–	TO BODY NO. 2 HARNESS
62A	–	TO BODY NO. 2 HARNESS
63A	–	TO BODY NO. 2 HARNESS
64A	–	TO BODY NO. 2 HARNESS
65A	–	TO BODY NO. 2 HARNESS
66A	–	TO BODY NO. 2 HARNESS
67A	–	TO BODY NO. 2 HARNESS
68A	–	TO BODY NO. 2 HARNESS
69A	Y/R	TO BODY NO. 2 HARNESS
70A	R/G	TO BODY NO. 2 HARNESS
71A	–	TO BODY NO. 2 HARNESS
72A	W	TO BODY NO. 2 HARNESS
73A	G	TO BODY NO. 2 HARNESS
74A	W	TO BODY NO. 2 HARNESS
75A	SHIELD	TO BODY NO. 2 HARNESS
76A	R	TO BODY NO. 2 HARNESS
77A	L	TO BODY NO. 2 HARNESS
78A	SHIELD	TO BODY NO. 2 HARNESS
79A	GR	TO BODY NO. 2 HARNESS
80A	V	TO BODY NO. 2 HARNESS
81A	R	TO BODY NO. 2 HARNESS
82A	SHIELD	TO BODY NO. 2 HARNESS
83A	R	TO BODY NO. 2 HARNESS
84A	O	TO BODY NO. 2 HARNESS
85A	SHIELD	TO BODY NO. 2 HARNESS
86A	W	TO BODY NO. 2 HARNESS
87A	B	TO BODY NO. 2 HARNESS
88A	W	TO BODY NO. 2 HARNESS
89A	SHIELD	TO BODY NO. 2 HARNESS
90A	G	TO BODY NO. 2 HARNESS
91A	W/L	TO BODY NO. 2 HARNESS
92A	BR	TO BODY NO. 2 HARNESS
93A	L/Y	TO BODY NO. 2 HARNESS
94A	R/L	TO BODY NO. 2 HARNESS
95A	BR	TO BODY NO. 2 HARNESS
96A	R	TO BODY NO. 2 HARNESS
97A	LG	TO BODY NO. 2 HARNESS
98A	B/V	TO BODY NO. 2 HARNESS
99A	O/L	TO BODY NO. 2 HARNESS
100A	BR/W	TO BODY NO. 2 HARNESS

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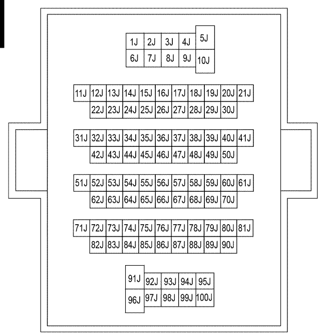
DISPLAY AUDIO SYSTEM CONNECTORS

Connector No.	M40
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4
Connector Color	WHITE

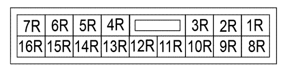
H.S.



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

Connector No.	M70
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS16FBR-CS
Connector Color	BROWN

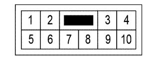
H.S.



Terminal No.	Color of Wire	Signal Name
1R	L	TAIL LAMP 2
2R	G/R	IGNITION
3R	Y/R	BATTERY
4R	–	–
5R	W	BATTERY
6R	G/W	ACCESSORY
7R	–	–
8R	–	–
9R	–	–
10R	W	BATTERY
11R	–	–
12R	BG	BATTERY
13R	B	ACCESSORY
14R	G/Y	BATTERY
15R	Y	BATTERY
16R	G/R	ACCESSORY

Connector No.	M75
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
1	B/W	TO FRONT DOOR RH HARNESS
2	B	TO FRONT DOOR RH HARNESS
3	W/L	TO FRONT DOOR RH HARNESS
4	V	TO FRONT DOOR RH HARNESS
5	W/B	TO FRONT DOOR RH HARNESS
6	G/Y	TO FRONT DOOR RH HARNESS
7	W/B	TO FRONT DOOR RH HARNESS
8	L/B	TO FRONT DOOR RH HARNESS
9	G/Y	TO FRONT DOOR RH HARNESS
10	–	TO FRONT DOOR RH HARNESS

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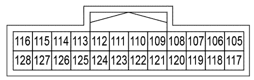
DISPLAY AUDIO SYSTEM CONNECTORS

Connector No.	M80
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH24FB-NH
Connector Color	BLACK

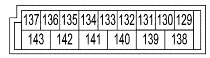
H.S.



Terminal No.	Color of Wire	Signal Name
105	G/Y	FR FLASHER
106	–	–
107	W	LOW SIDE START SW LED
108	L/R	SHIFT LOCK SOLENOID OUT
109	–	–
110	–	–
111	P	ACC LED
112	–	–
113	L	ACC RELAY OUT
114	W	AS DOOR ANT A
115	BG	AS DOOR ANT B
116	W	ROOM ANT 2 A
117	G/B	FL FLASHER
118	–	–
119	R	RF NIMOCO
120	–	–
121	G	DR DOOR ANT B
122	P	DR DOOR ANT A
123	W	ROOM ANT 1 A
124	G	ROOM ANT 1 B
125	–	–
126	P	IMMO START BUTTON ANT B
127	BG	IMMO START BUTTON ANT A
128	B	ROOM ANT 2 B

Connector No.	M81
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FEA09FW-FHA6-SA
Connector Color	WHITE

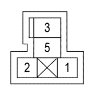
H.S.



Terminal No.	Color of Wire	Signal Name
129	R/G	BATTERY SAVER OUT
130	LG	SUPER LOCK/DOOR UNLOCK AS
131	W	BAT BCM FUSE
132	Y	DOOR LOCK AS/RR/RL
133	BR	DOOR UNLOCK AS/RR/RL
134	B	GND2
135	O	DOOR LOCK DR/AS/FL
136	L	ROOM LAMP CONT
137	V	DOOR UNLOCK DR/AS/FL
138	V	BAT REAR DOOR
139	W	BAT-POWER F/L
140	LG	P/W POWER SUPPLY IGN
141	V	P/W POWER SUPPLY BAT
142	Y	BAT FRONT DOOR
143	B	GND1

Connector No.	M88
Connector Name	ACCESSORY RELAY-2
Connector Type	MS02FL-M2-LC
Connector Color	BLUE

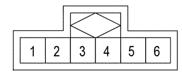
H.S.



Terminal No.	Color of Wire	Signal Name
1	B	GROUND
2	L	RELAY CONTROL
3	R	RELAY OUTPUT
5	W	BATTERY

Connector No.	M104
Connector Name	AUX IN JACK
Connector Type	A06FW
Connector Color	WHITE

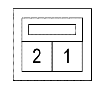
H.S.



Terminal No.	Color of Wire	Signal Name
1	G	AUDIO R OUT
2	G	AUDIO L IN-(WITH REAR SEAT ENTERTAINMENT SYSTEM)
3	GR	AUDIO GND
4	–	–
5	V	AUDIO R IN -(WITH REAR SEAT ENTERTAINMENT SYSTEM)
6	V	AUDIO L OUT

Connector No.	M109
Connector Name	FRONT TWEETER LH
Connector Type	TK02FBR
Connector Color	BROWN

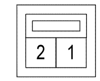
H.S.



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

Connector No.	M111
Connector Name	FRONT TWEETER RH
Connector Type	TK02FBR
Connector Color	BROWN

H.S.



Terminal No.	Color of Wire	Signal Name
1	W/B	FR SP RH+
2	L/B	FR SP RH-

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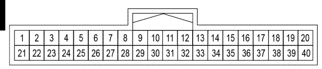
DISPLAY AUDIO SYSTEM CONNECTORS

Connector No.	M163
Connector Name	COMBINATION METER (WITH TYPE B)
Connector Type	TH40FW-NH
Connector Color	WHITE

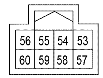
H.S.



Terminal No.	Color of Wire	Signal Name
1	B	GND (ILL)
2	B	GND (CIRCUIT)
3	B	GND (POWER)
4	–	–
5	–	–
6	R	BAT
7	V	SECURITY
8	W	IGN
9	BG	AS BELT SW (W/O ODS)
10	LG	TOW MODE SW
11	BR	CHG
12	B	SATELLITE SW GND
13	B	STRG SW GND
14	R	ACC
15	W	OUTSIDE TEMP SENSOR
16	O	AIR BAG
17	–	–
18	P	TRIP RESET SW
19	–	–
20	R	OUTSIDE TEMP GND
21	–	–
22	P	STRG SW A
23	R	STRG SW B
24	W	WASHER SW
25	–	–
26	G	PKB SW
27	P/L	AS BELT SW (WITH ODS)
28	O/B	DR BELT SW
29	–	–
30	Y/V	FUEL SENSOR GND
31	BR/Y	FUEL SENSOR
32	BR	AT SHIFT UP
33	V/W	AT SHIFT DOWN
34	L	CAN-H
35	P	CAN-L
36	W	ILL UP SW
37	R	ILL DOWN SW
38	G	8P/R OUTPUT
39	–	–
40	GR	ILL CONT OUT

Connector No.	M169
Connector Name	AUDIO UNIT
Connector Type	TH08FW-NH
Connector Color	WHITE

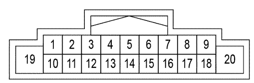
H.S.



Terminal No.	Color of Wire	Signal Name
53	SHIELD	AUX IN SHIELD
54	GR	AUX IN GND
55	G	AUX IN R
56	V	AUX IN L
57	–	–
58	–	–
59	–	–
60	–	–

Connector No.	M171
Connector Name	AUDIO UNIT
Connector Type	NH18FW-CS2
Connector Color	WHITE

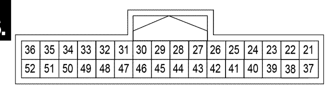
H.S.



Terminal No.	Color of Wire	Signal Name
1	–	–
2	L/W	FR SP LH+
3	L/R	FR SP LH-
4	SB	RR SP LH+
5	B/Y	RR SP LH-
6	P	STRG SW A (WITH TYPE B METER)
7	R	ACC
8	GR	ILL (-)
9	L	ILL (+)
10	–	–
11	W/B	FR SP RH+
12	L/B	RR SP RH-
13	O/L	RR SP RH+
14	R/L	RR SP RH-
15	B	STRG SW GND (WITH TYPE B METER)
16	R	STRG SW B (WITH TYPE B METER)
17	–	–
18	G	SPEED SIGNAL
19	W	BAT
20	B	GND

Connector No.	M175
Connector Name	AUDIO UNIT
Connector Type	TH32FW-NH
Connector Color	WHITE

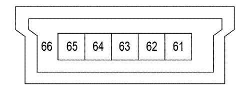
H.S.



Terminal No.	Color of Wire	Signal Name
21	–	–
22	–	–
23	–	–
24	–	–
25	–	–
26	–	–
27	–	–
28	SB	MCAN2 H (WITH TYPE A METER)
29	LG	MCAN2 L (WITH TYPE A METER)
30	–	–
31	SB	MCAN1 H (WITH TYPE A METER)
32	LG	MCAN1 L (WITH TYPE A METER)
33	–	–
34	–	–
35	–	–
36	–	–
37	W	MIC +
38	R	MIC V+
39	SHIELD	MIC GND
40	–	–
41	–	–
42	–	–
43	–	–
44	–	–
45	–	–
46	–	–
47	–	–
48	–	–
49	–	–
50	–	–
51	–	–
52	–	–

Connector No.	M180
Connector Name	AUDIO UNIT
Connector Type	USCAR30-MA-M
Connector Color	BLACK

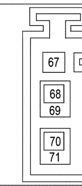
H.S.



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

Connector No.	M181
Connector Name	AUDIO UNIT
Connector Type	GT13SHA-2-1PP-DS
Connector Color	GRAY

H.S.



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

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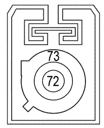
DISPLAY AUDIO SYSTEM CONNECTORS

Connector No.	M184
Connector Name	AUDIO UNIT
Connector Type	FAKRA CODING C
Connector Color	PINK

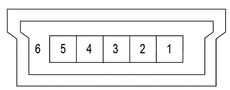
H.S.



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

Connector No.	M185
Connector Name	USB INTERFACE
Connector Type	USCAR30-MA-M
Connector Color	BLACK

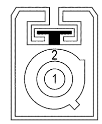
H.S.



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

Connector No.	M188
Connector Name	WIRE TO WIRE
Connector Type	FAKRA CODING C
Connector Color	PINK

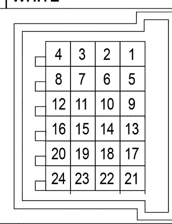
H.S.



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

Connector No.	M192
Connector Name	JOINT CONNECTOR-M02
Connector Type	NH24FW-J
Connector Color	WHITE

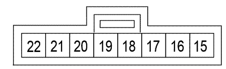
H.S.



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

Connector No.	M199
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY
Connector Color	GRAY

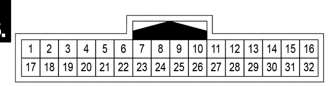
H.S.



Terminal No.	Color of Wire	Signal Name
15	R	ASCD SW
16	W	AUDIO STRG SW REMOTE A
17	L	AUDIO STRG SW REMOTE B
18	B	ASCD GND
19	BR	AUDIO STRG SW GND
20	G	HORN SWITCH OUTPUT
21	P	ILL -
22	Y	ILL +

Connector No.	R1
Connector Name	WIRE TO WIRE
Connector Type	TH32MW-NH
Connector Color	WHITE

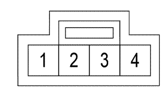
H.S.



Terminal No.	Color of Wire	Signal Name
1	SHIELD	TO MAIN HARNESS
2	R	TO MAIN HARNESS
3	W	TO MAIN HARNESS
4	Y/R	TO MAIN HARNESS
5	G/W	TO MAIN HARNESS
6	G/R	TO MAIN HARNESS
7	B	TO MAIN HARNESS
8	L	TO MAIN HARNESS
9	R/G	TO MAIN HARNESS
10	G	TO MAIN HARNESS
11	L/W	TO MAIN HARNESS
12	L	TO MAIN HARNESS
13	GR	TO MAIN HARNESS
14	R	TO MAIN HARNESS
15	W/B	TO MAIN HARNESS
16	L/B	TO MAIN HARNESS
17	–	TO MAIN HARNESS
18	P	TO MAIN HARNESS
19	W/L	TO MAIN HARNESS
20	W/B	TO MAIN HARNESS
21	–	TO MAIN HARNESS
22	–	TO MAIN HARNESS
23	–	TO MAIN HARNESS
24	–	TO MAIN HARNESS
25	–	TO MAIN HARNESS
26	–	TO MAIN HARNESS
27	–	TO MAIN HARNESS
28	Y/R	TO MAIN HARNESS
29	G/R	TO MAIN HARNESS
30	G/W	TO MAIN HARNESS
31	LG/B	TO MAIN HARNESS
32	Y/V	TO MAIN HARNESS

Connector No.	R5
Connector Name	MICROPHONE
Connector Type	TK04FW
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
1	W	MIC +
2	SHIELD	MIC GROUND
3	–	–
4	R	MIC V +

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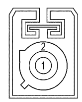
DISPLAY AUDIO SYSTEM CONNECTORS

Connector No.	R108
Connector Name	WIRE TO WIRE
Connector Type	FAKRA CODING C
Connector Color	PINK

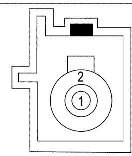
H.S.



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

Connector No.	R109
Connector Name	SATELLITE ANTENNA
Connector Type	GT16C-1PP-HU (B)
Connector Color	GREEN

H.S.



Terminal No.	Color of Wire	Signal Name
1	B	SAT ANT
2	SHIELD	SAT SHIELD

AANIA5393GB

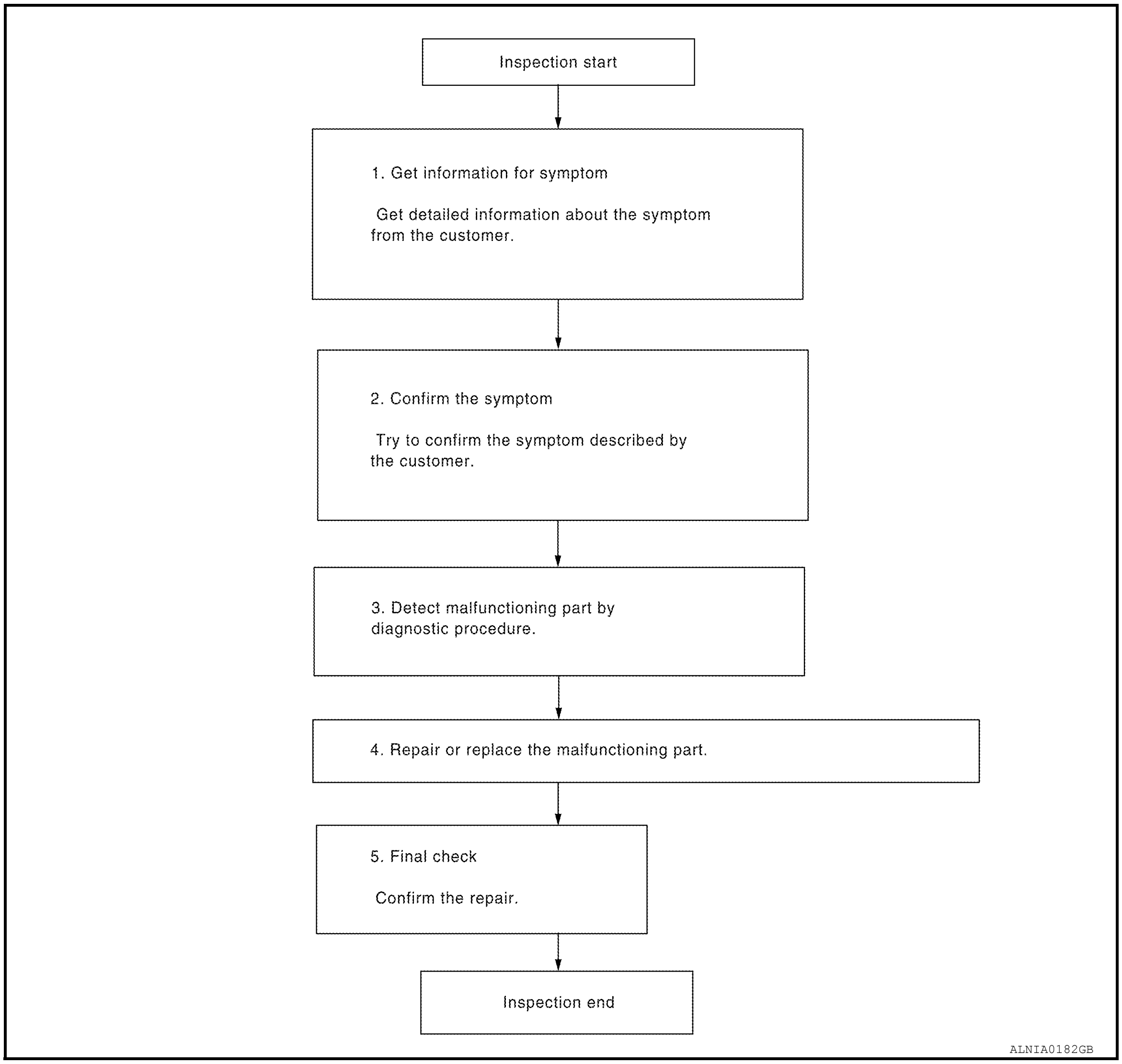
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:0000000014386802

OVERALL SEQUENCE



DETAILED FLOW

1.GET INFORMATION FOR SYMPTOM

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

>> GO TO 2.

2.CONFIRM THE SYMPTOM

Try to confirm the symptom described by the customer. Verify relation between the symptom and the condition when the symptom is detected.

>> GO TO 3.

3.DETECT MALFUNCTIONING PART BY DIAGNOSTIC PROCEDURE

Inspect according to Diagnostic Procedure of the system.

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:0000000014386803

AFTER REPLACEMENT (BLUETOOTH REGISTRATION)

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.

AFTER REPLACEMENT (SATELLITE RADIO REGISTRATION)

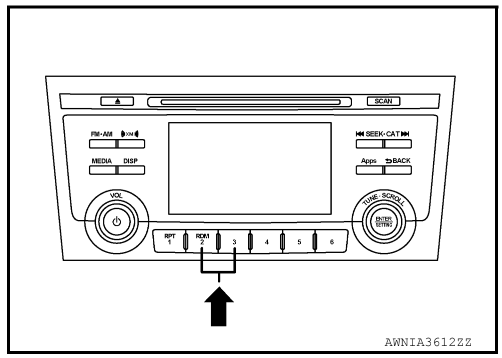
If the audio unit is replaced with a new audio unit and the customer has an active subscription for Satellite Radio, the new audio unit must be registered with the updated subscription information.

REGISTRATION (AUDIO UNIT) : Work Procedure (Bluetooth Registration)

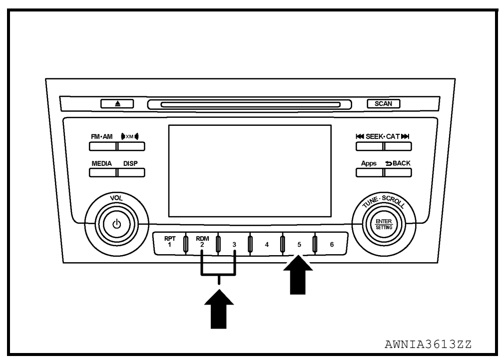
INFOID:0000000014386804

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

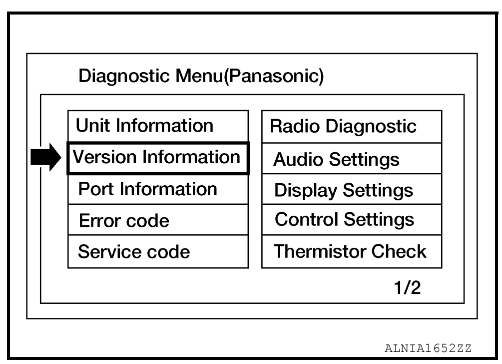
1. Turn ignition switch ON.
2. Turn audio unit OFF.
3. Access the diagnostic menu as follows:
- Press and hold preset buttons 2 and 3.



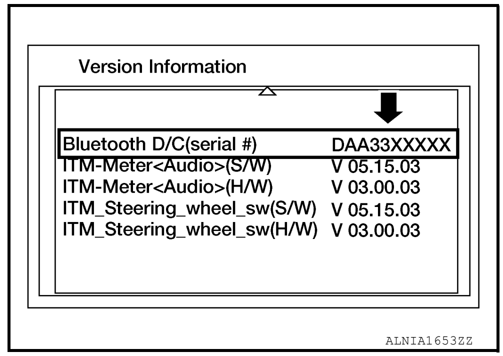
- While holding preset buttons 2 and 3, press preset button 5 three times.



4. Select Version Information from the Diagnostic Menu.



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.

REGISTRATION (AUDIO UNIT) : Work Procedure (Satellite Radio Registration)

INFOID:0000000014386805

Contact SiriusXM Dealer Support at 1-800-852-9696 to confirm the subscription is active. If the subscription is confirmed, perform the following procedure:

1. Park the vehicle outside.
2. Turn ignition ON.
3. Turn the radio ON and tune to channel "O" on the XM source.
4. Write down the 8-digit SiriusXM Radio ID displayed on the screen.
5. Tune to channel "1" on the XM source and leave the radio ON.
6. Activate service at www.siriusxm.com/refresh or by calling SiriusXM Dealer Support at 1-800-852-9696.
7. The service should be activated within 30 minutes. Audio will broadcast when tuned to channels other than "1".
8. Turn ignition OFF and wait 5 minutes.
   NOTE:
   Do not disconnect the battery or pull any fuses during this time.
9. Turn ignition ON.
10. Check that the activated service is operational.

DTC/CIRCUIT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT

AUDIO UNIT

AUDIO UNIT : Diagnosis Procedure

INFOID:0000000014386806

Regarding Wiring Diagram information, refer to AV-27, "Wiring Diagram".

1.CHECK FUSE

Check that the following fuses are not blown.

Terminal No.	Signal name	Fuse No.
7	ACC power supply	25 (5A)
19	Battery power supply	15 (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 M171.
3. Check voltage between audio unit connector M171 and ground.

Audio unit		Ground	Condition	Voltage (Approx.)
Connector	Terminal			
M171	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

Check continuity between audio unit connectors and ground.

Audio unit		Ground	Continuity
Connector	Terminal		
M171	20	—	Yes

Is the inspection result normal?

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

FRONT TWEETER

Diagnosis Procedure

INFOID:0000000014386807

Regarding Wiring Diagram information, refer to AV-27, "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 M17 and suspect front tweeter connector.
2. Check continuity between audio unit connector M171 and suspect front tweeter connector.

Audio unit		Front tweeter		Continuity
Connector	Terminal	Connector	Terminal	
M171	2	M109 (LH)	1	Yes
	3		2	
	11	M111 (RH)	1	
	12		2	

3. Check continuity between audio unit connector M171 and ground.

Audio unit		Ground	Continuity
Connector	Terminal		
M171	2	—	No
	3		
	11		
	12		

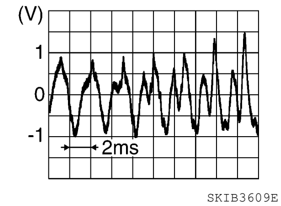
Is the inspection result normal?

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

3.CHECK FRONT TWEETER SIGNAL

1. Connect audio unit connector M171 and suspect front tweeter connector.
2. Turn ignition switch to ACC.
3. Push audio unit POWER switch.
4. Check signal between audio unit connector M171 and ground.

Audio unit connector M171		Condition	Reference value
(+)	(–)		
Terminal	Terminal		

2	3		
11	12	Audio signal output	

Is the inspection result normal?

YES >> Replace front tweeter. Refer to AV-67, "Removal and Installation".
NO >> Replace audio unit. Refer to AV-66, "Removal and Installation".

FRONT DOOR SPEAKER

Diagnosis Procedure

INFOID:0000000014386808

Regarding Wiring Diagram information, refer to AV-27, "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 M171 and suspect front door speaker connector.
2. Check continuity between audio unit connector M171 and suspect front door speaker connector.

Audio unit		Front door speaker		Continuity
Connector	Terminal	Connector	Terminal	
M171	2	D12 (LH)	1	Yes
	3		2	
	11	D112 (RH)	1	
	12		2	

3. Check continuity between audio unit connector M171 and ground.

Audio unit		Ground	Continuity
Connector	Terminal		
M171	2	—	No
	3		
	11		
	12		

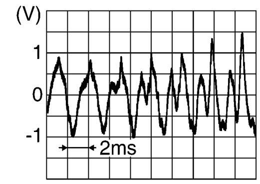
Is the inspection result normal?

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

3.CHECK FRONT DOOR SPEAKER SIGNAL

1. Connect audio unit connector M171 and suspect front door speaker connector.
2. Turn ignition switch to ACC.
3. Push audio unit POWER switch.
4. Check signal between audio unit connector M171 and ground.

Audio unit connector M171		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-68, "Removal and Installation".
NO >> Replace audio unit. Refer to AV-66, "Removal and Installation".

REAR DOOR SPEAKER

Diagnosis Procedure

INFOID:0000000014386809

Regarding Wiring Diagram information, refer to AV-27, "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 M171 and suspect rear door speaker connector.
2. Check continuity between audio unit connector M171 and suspect rear door speaker connector.

Audio unit		Rear door speaker		Continuity
Connector	Terminal	Connector	Terminal	
M171	4	D207 (LH)	1	Yes
	5		2	
	13	D307 (RH)	1	
	14		2	

3. Check continuity between audio unit connector M171 and ground.

Audio unit		Ground	Continuity
Connector	Terminal		
M171	4	—	No
	5		
	13		
	14		

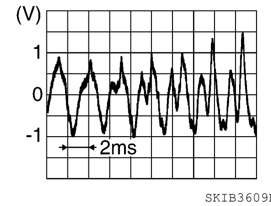
Is the inspection result normal?

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

3.CHECK REAR DOOR SPEAKER SIGNAL

1. Connect audio unit connector M43 and suspect rear door speaker connector.
2. Turn ignition switch to ACC.
3. Push audio unit POWER switch.
4. Check signal between audio unit connector M171 and ground.

Audio unit connector M171		Condition	Reference value
(+)	(–)		
Terminal	Terminal		

4	5		
13	14	Audio signal output	

Is the inspection result normal?

YES >> Replace rear door speaker. Refer to AV-69, "Removal and Installation".
NO >> Replace audio unit. Refer to AV-66, "Removal and Installation".

MICROPHONE SIGNAL CIRCUIT

Diagnosis Procedure

INFOID:0000000014386810

Regarding Wiring Diagram information, refer to AV-27, "Wiring Diagram".

1.CHECK MICROPHONE SIGNAL CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect audio unit connector M175 and microphone connector R5.
3. Check continuity between audio unit connector M175 and microphone connector R5.

Audio unit		Microphone		Continuity
Connector	Terminal	Connector	Terminal	
M175	37	R5	1	Yes
	38		4	
	39		2	

4. Check continuity between audio unit connector M175 and ground.

Audio unit		Ground	Continuity
Connector	Terminal		
M175	37	—	No
	38		
	39		

Is inspection result normal?

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

2.CHECK MICROPHONE VCC VOLTAGE

1. Connect audio unit connector M175.
2. Turn ignition switch ON.
3. Check voltage between terminals of audio unit connector M175.

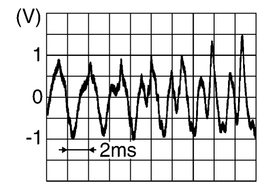
Audio unit connector M175		Voltage (Approx.)
(+)	(–)	
Terminal	Terminal	
38	39	5.0 V

Is the inspection result normal?

YES >> GO TO 3.
NO >> Replace audio unit. Refer to AV-66, "Removal and Installation".

3.CHECK MICROPHONE SIGNAL

1. Connect microphone connector R5.
2. Check signal between terminals of audio unit connector M175.

Audio unit connector M175		Condition	Reference value
(+)	(–)		
Terminal	Terminal		
37	39	Speak into microphone.	 SKIB3609E

<u>Is the inspection result normal?</u>

YES >> Replace audio unit. Refer to AV-66, "Removal and Installation".
NO >> Replace microphone. Refer to AV-73, "Removal and Installation".

STEERING SWITCH

Diagnosis Procedure

INFOID:0000000014386811

Regarding Wiring Diagram information, refer to AV-27, "Wiring Diagram".

WITH TYPE A METER

1.CHECK STEERING WHEEL AUDIO CONTROL SWITCH RESISTANCE

1. Turn ignition switch OFF.
2. Disconnect combination switch connector M30.
3. Check resistance between combination switch connector terminals.

Combination switch connector M88		Condition	Resistance Ω (Approx.)
Terminal	Terminal		
10	12	Depress SOURCE switch.	1
		Depress △ switch.	121
		Depress ▽ switch.	321
		Depress switch.	723
14		Depress ENTER switch.	2023
		Depress − 🔈 switch.	1
		Depress 🔈+ switch.	121
		Depress switch.	321
		Depress menu right switch.	723
		Depress menu left switch.	2023

Is the inspection result normal?

YES >> GO TO 2.
NO >> Replace steering switches. Refer to AV-70, "Removal and Installation".

2.CHECK HARNESS BETWEEN COMBINATION SWITCH AND COMBINATION METER

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

Combination meter		Combination switch		Continuity
Connector	Terminal	Connector	Terminal	
M24	1	M30	12	Yes
	22		10	
	23		14	

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

Combination meter		Ground	Continuity
Connector	Terminal		
M24	1	—	No
	22		
	23		

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 M30 and M199.

Combination switch				Continuity
Connector	Terminal	Connector	Terminal	
M30	10	M199	16	Yes
	12		19	
	14		17	

Is the inspection result normal?

YES >> GO TO 4.
NO >> Replace spiral cable. Refer to SR-14, "Removal and Installation".

4.CHECK HARNESS BETWEEN COMBINATION METER AND AUDIO UNIT

1. Disconnect combination meter connector M25 and audio unit connector M175.
2. Check continuity between combination meter connector M25 and audio unit connector M175.

Combination meter		Audio unit		Continuity
Connector	Terminal	Connector	Terminal	
M25	51	M175	29	Yes
	52		28	

3. Check continuity between combination meter connector M25 and ground.

Combination meter		Ground	Continuity
Connector	Terminal		
M25	51	—	No
	52		

Is the inspection result normal?

YES >> Replace audio unit. Refer to AV-66, "Removal and Installation".
NO >> Repair or replace harness or connectors.

WITH TYPE B METER

1.CHECK STEERING WHEEL AUDIO CONTROL SWITCH RESISTANCE

1. Turn ignition switch OFF.
2. Disconnect combination switch connector M30.
3. Check resistance between combination switch connector terminals.

Combination switch connector M88		Condition	Resistance Ω (Approx.)
Terminal	Terminal		
10	12	Depress SOURCE switch.	1
		Depress △ switch.	121
		Depress ▽ switch.	321
		Depress switch.	723
		Depress ENTER switch.	2023
14		Depress − switch.	1
		Depress + switch.	121
		Depress switch.	321
		Depress menu right switch.	723
		Depress menu left switch.	2023

Is the inspection result normal?

YES >> GO TO 2.
NO >> Replace steering switches. Refer to AV-70, "Removal and Installation".

2.CHECK COMBINATION SWITCH

1. Disconnect combination switch connector M199.
2. Check continuity between combination switch connectors M30 and M199.

Combination switch				Continuity
Connector	Terminal	Connector	Terminal	
M30	10	M199	16	Yes
	12		19	
	14		17	

Is the inspection result normal?

YES >> GO TO 3.
NO >> Replace spiral cable. Refer to SR-14, "Removal and Installation".

3.CHECK HARNESS BETWEEN COMBINATION SWITCH AND AUDIO UNIT

1. Disconnect audio unit connector M175.
2. Check continuity between combination switch connector M30 and audio unit connector M175.

Combination switch		Audio unit		Continuity
Connector	Terminal	Connector	Terminal	
M30	10	M175	6	Yes
	12		15	
	14		16	

3. Check continuity between combination switch connector M30 and ground.

Combination switch		Ground	Continuity
Connector	Terminal		
M30	10	—	No
	12		
	14		

Is the inspection result normal?

YES >> Replace audio unit. Refer to AV-66, "Removal and Installation".
NO >> Repair or replace harness or connectors.

USB CONNECTOR

Diagnosis Procedure

INFOID:0000000014386812

Regarding Wiring Diagram information, refer to AV-27, "Wiring Diagram".

1.CHECK USB INTERFACE HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect audio unit connector M180 and USB interface connector M185.
3. Check continuity between audio unit connector M180 and USB interface connector M185.

Audio unit		USB interface		Continuity
Connector	Terminal	Connector	Terminal	
M180	61	M185	1	Yes
	63		3	
	64		4	
	65		5	
	66		6	

4. Check continuity between audio unit connector M180 and ground.

Audio unit		—	Continuity
Connector	Terminal		
M180	61	Ground	No
	64		

Is the inspection result normal?

YES >> Replace the USB interface. Refer to AV-71, "Removal and Installation".
NO >> Repair or replace harness or connectors.

AUXILIARY INPUT JACK

Diagnosis Procedure

INFOID:0000000014386813

Regarding Wiring Diagram information, refer to AV-27, "Wiring Diagram".

1.CHECK AUX IN JACK HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect audio unit connector M169 and AUX in jack connector M104.
3. Check continuity between audio unit connector M169 and AUX in jack connector M104.

Audio unit		AUX in jack		Continuity
Connector	Terminal	Connector	Terminal	
M169	54	M104	3	Yes
	55		1	
	56		6	

4. Check continuity between audio unit connector M169 and ground.

Audio unit		—	Continuity
Connector	Terminal		
M169	55	Ground	No
	56		

Is the inspection result normal?

YES >> Replace the AUX in jack. Refer to AV-71, "Removal and Installation".
NO >> Repair or replace harness or connectors.

SYMPTOM DIAGNOSIS

AUDIO SYSTEM

Symptom Table

INFOID:0000000014386814

RELATED TO AUDIO

Symptoms	Check items	Probable malfunction location
The disk cannot be removed.	Audio unit	Malfunction in audio unit. Refer to AV-19, "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-27, "Wiring Diagram". • Audio unit power supply and ground circuits malfunction. Refer to AV-46, "AUDIO UNIT : Diagnosis Procedure".
	Only a certain speaker (front door speaker LH, front door speaker RH, front tweeter LH, front tweeter 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-68, "Removal and Installation" (front door speaker). - AV-67, "Removal and Installation" (front tweeter). - AV-69, "Removal and Installation" (rear door speaker). • Malfunction in speaker. Refer to: - AV-68, "Removal and Installation" (front door speaker). - AV-67, "Removal and Installation" (front tweeter). - AV-69, "Removal and Installation" (rear door speaker). • Malfunction in audio unit. Refer to AV-19, "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-19, "On Board Diagnosis Function".
	Noise comes out only from a certain speaker (front door speaker LH, front door speaker RH, front tweeter LH, front tweeter 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-68, "Removal and Installation" (front door speaker). - AV-67, "Removal and Installation" (front tweeter). - AV-69, "Removal and Installation" (rear door speaker). • Malfunction in speaker. • Poor Installation of speaker (e.g. backlash and looseness). Refer to: - AV-68, "Removal and Installation" (front door speaker). - AV-67, "Removal and Installation" (front tweeter). - AV-69, "Removal and Installation" (rear door speaker). • Malfunction in audio unit. Refer to AV-19, "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-15, "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-24, "Reference Value". • Poor connector connection of antenna or antenna feeder. Refer to AV-15, "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-15, "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-66, "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.	Malfunction in audio unit. Replace audio unit. Refer to AV-66, "Removal and Installation".
The other party's voice cannot be heard by hands-free phone.	Check the "microphone speaker" in Inspection & Adjustment Mode if sound is heard.	Malfunction in audio unit. Replace audio unit. Refer to AV-66, "Removal and Installation".
Originating sound is not heard by the other party with hands-free phone communication.	Sound operation function is normal.	Malfunction in audio unit. Replace audio unit. Refer to AV-66, "Removal and Installation".
Originating sound is not heard by the other party with hands-free phone communication.	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 switch's and switch works, but does not work.	Steering switch malfunction. Replace steering switch. Refer to AV-70, "Removal and Installation".
	Steering switch's , and switches 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:0000000014386815

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-61, "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.

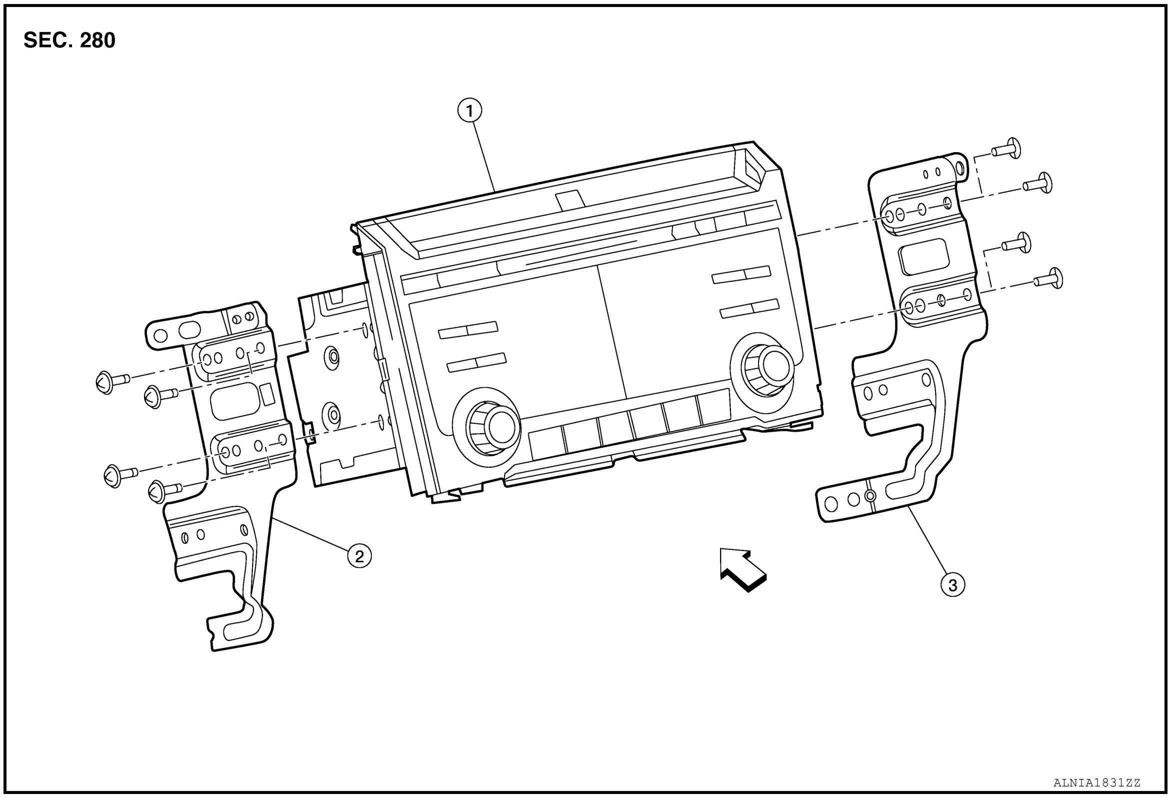
Symptom	Cause and Counter measure
The other party’s voice cannot be heard by hands-free phone.	When the radio wave condition is not ideal or ambient sound is too loud, it may be difficult to hear the other person’s voice during a call.
Poor sound quality.	Do not place the cellular phone in an area surrounded 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:0000000014386816



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

Removal and Installation

INFOID:0000000014386817

REMOVAL

1. Disconnect battery or batteries. Refer to PG-185, "Battery Disconnect".
2. Remove cluster lid C lower. Refer to IP-20, "Removal and Installation".
3. Remove audio unit screws.
4. Disconnect harness connectors from audio unit and remove.
5. Remove audio unit bracket (LH/RH) screws and audio unit brackets [(LH/RH) (if necessary)].

INSTALLATION

CAUTION:

- **After replacing audio unit, perform "REGISTRATION (AUDIO UNIT)". Refer to AV-44, "REGISTRATION (AUDIO UNIT) : Description".**

Installation is in the reverse order of removal.

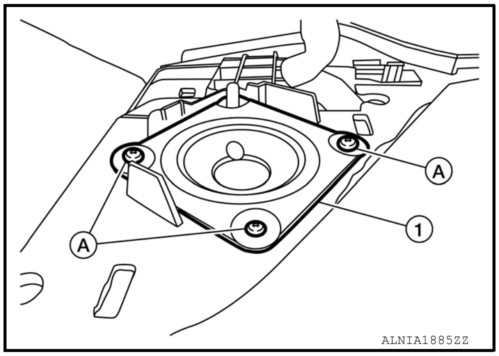
FRONT TWEETER

Removal and Installation

INFOID:0000000014386818

REMOVAL

1. Remove front pillar finisher. Refer to INT-20, "FRONT PILLAR FINISHER : Removal and Installation".
2. Remove defroster grille. Refer to IP-14, "Exploded View".
3. Remove speaker grille. Refer to IP-14, "Exploded View".
4. Remove front tweeter screws (A).
5. Disconnect harness connector from front tweeter (1) and remove front tweeter.



Installation

Installation is in the reverse order of removal.

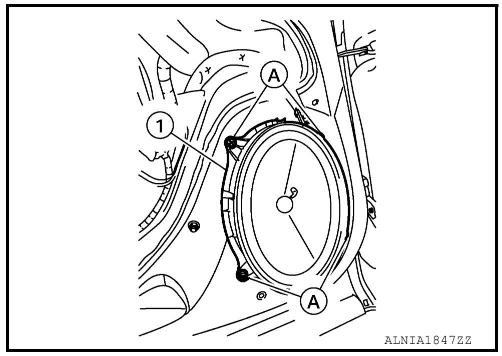
FRONT DOOR SPEAKER

Removal and Installation

INFOID:0000000014386819

REMOVAL

1. Remove front door finisher. Refer to INT-14, "Removal and Installation".
2. Remove front door speaker screws (A).
3. Disconnect harness connector from front door speaker (1) and remove front door speaker.



INSTALLATION

Installation is in the reverse order of removal.

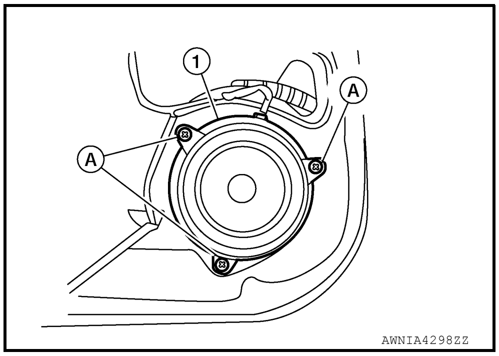
REAR DOOR SPEAKER

Removal and Installation

INFOID:0000000014386820

REMOVAL

1. Remove rear door finisher. Refer to INT-17, "Removal and Installation".
2. Remove rear door speaker screws (A).
3. Disconnect harness connector from rear door speaker (1) and remove rear door speaker.



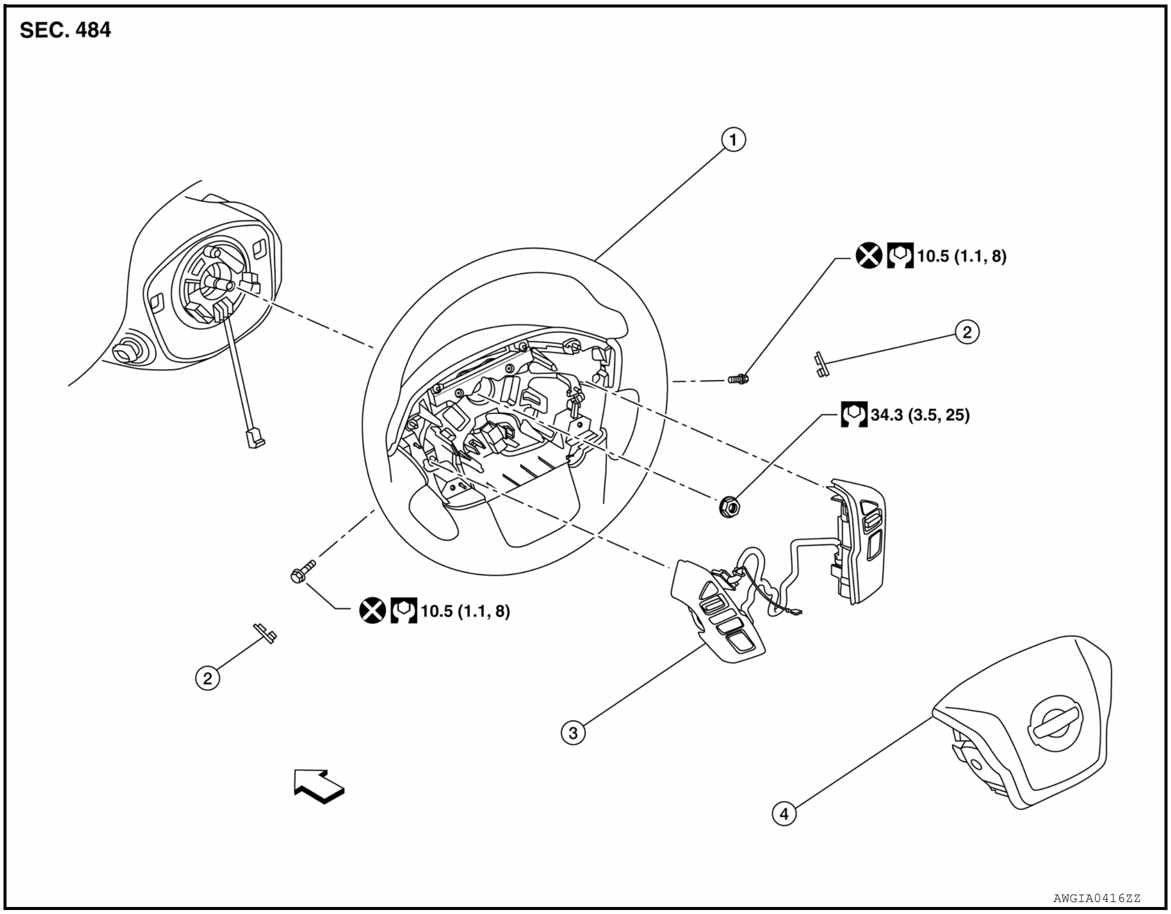
INSTALLATION

Installation is in the reverse order of removal.

STEERING SWITCHES

Exploded View

INFOID:0000000014386821



1.	Steering wheel	2.	Cover	3.	Steering switches
4.	Driver air bag module	⇦	Front		

Removal and Installation

INFOID:0000000014386822

REMOVAL

1. Remove steering wheel. Refer to ST-36, "Removal and Installation".
2. Remove steering wheel rear cover screws and steering wheel rear cover.
3. Remove steering wheel switch screws and steering wheel switches.

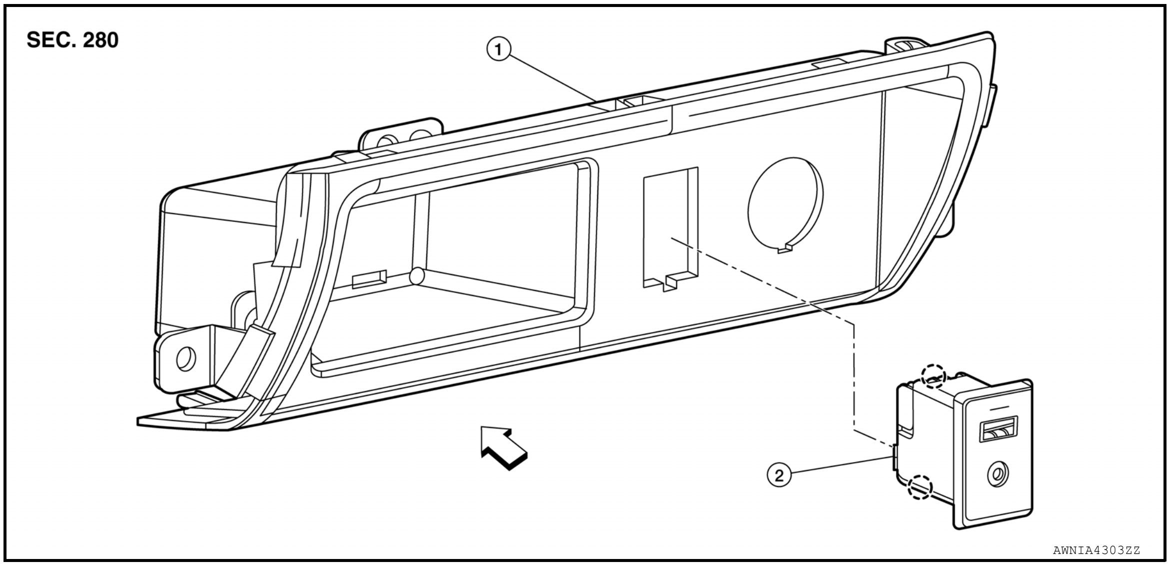
INSTALLATION

Installation is in the reverse order of removal.

USB INTERFACE AND AUX IN JACK

Exploded View

INFOID:0000000014386823



1. Cluster lid C lower
2. USB interface and aux in jack

Pawl

Front

Removal and Installation

INFOID:0000000014386824

REMOVAL

1. Remove cluster lid C lower. Refer to IP-17, "CLUSTER LID C LOWER : Removal and Installation".
2. Disconnect harness connector from USB interface and aux in jack.
3. Release pawls using suitable tool and remove USB interface and aux in jack.

INSTALLATION

Installation is in the reverse order of removal.

SATELLITE RADIO ANTENNA

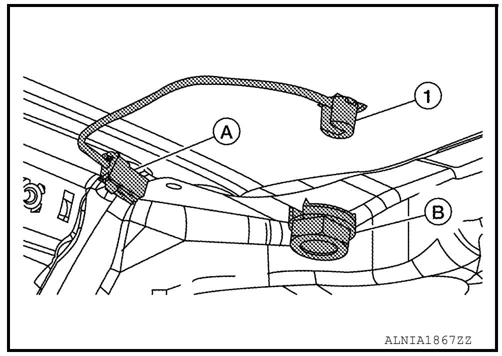
Removal and Installation

INFOID:0000000014386825

SATELLITE RADIO ANTENNA

REMOVAL

1. Partially remove headlining. Refer to INT-32, "Removal and Installation".
2. Disconnect the harness connector (A) from the satellite radio antenna connector.
3. Remove the satellite radio antenna nut (B).
4. Remove the satellite radio antenna (1).



INSTALLATION

Installation is in the reverse order of removal.

• Tighten satellite radio antenna to specification.

Satellite radio antenna nut : 10.1 N·m (1.0 kg-m, 7.0 ft-lb)

CAUTION:

If the satellite radio antenna nut is not tightened to the specified torque, lower sensitivity of the antenna may be experienced. If the nut is tightened tighter than the specified torque, this will deform the roof panel.

MICROPHONE

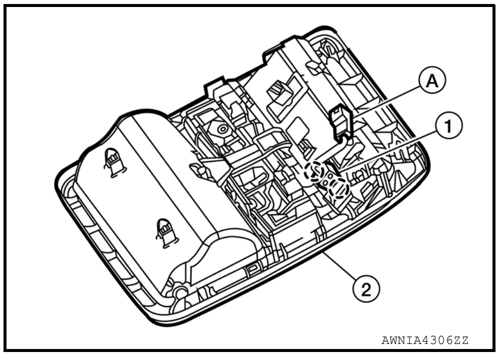
Removal and Installation

INFOID:0000000014386826

REMOVAL

1. Remove front room/map lamp assembly. Refer to INL-68, "Removal and Installation".
2. Disconnect harness connector from microphone (A).
3. Release pawls using suitable tool and remove microphone (1) from front room/map lamp assembly (2).

:Pawl



INSTALLATION

Installation is in the reverse order of removal.

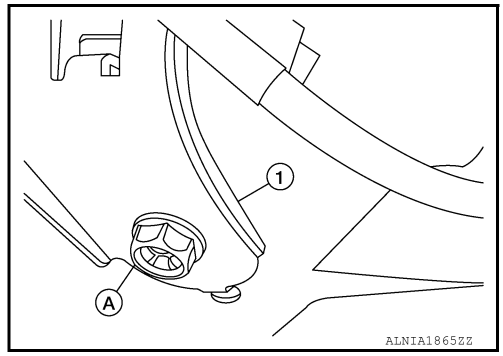
ROD ANTENNA

Removal and Installation

INFOID:0000000014386827

REMOVAL

1. Remove antenna rod.
2. Remove fender protector. Refer to EXT-41, "Removal and Installation - Front Fender Protector".
3. Remove bolt (A) from rod antenna bracket (1).



4. Disconnect the rod antenna feeder from the rod antenna.
5. Remove rod antenna.

INSTALLATION

Installation is in the reverse order of removal.

- Tighten rod antenna to specification.

Rod antenna : 7.0 N·m (0.71 kg-m, 62 in-lb)

CAUTION:

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

PRECAUTION

PRECAUTIONS

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

INFOID:0000000014386828

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

INFOID:0000000014386829

CAUTION:

Remove battery terminal or terminals, 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 continue operating for approximately 30 seconds.

Therefore, data corruption may occur if battery voltage is cut off within 30 seconds.

Precaution for Trouble Diagnosis

INFOID:0000000014386830

AV COMMUNICATION SYSTEM

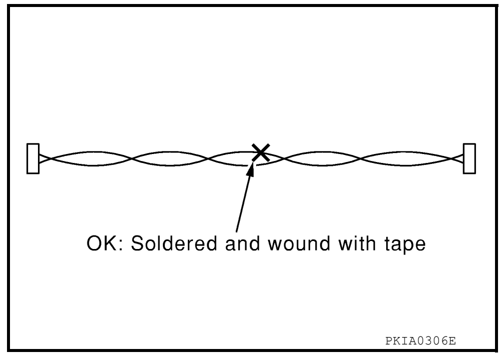
- Do not apply voltage of 7.0 V or higher to the measurement terminals.
- Use the tester with its open terminal voltage being 7.0 V or less.
- Be sure to turn ignition switch OFF and disconnect the battery cable or cables from the negative terminal or terminals before checking the circuit. Refer to PG-185, "Battery Disconnect".

Precaution for Harness Repair

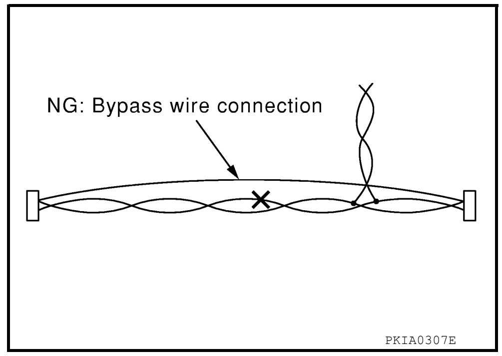
INFOID:0000000014386831

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:0000000014386832

- 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.

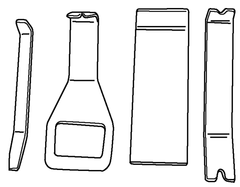
PREPARATION

PREPARATION

Special Service Tools

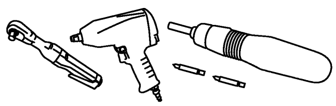
INFOID:0000000014386833

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:0000000014386834

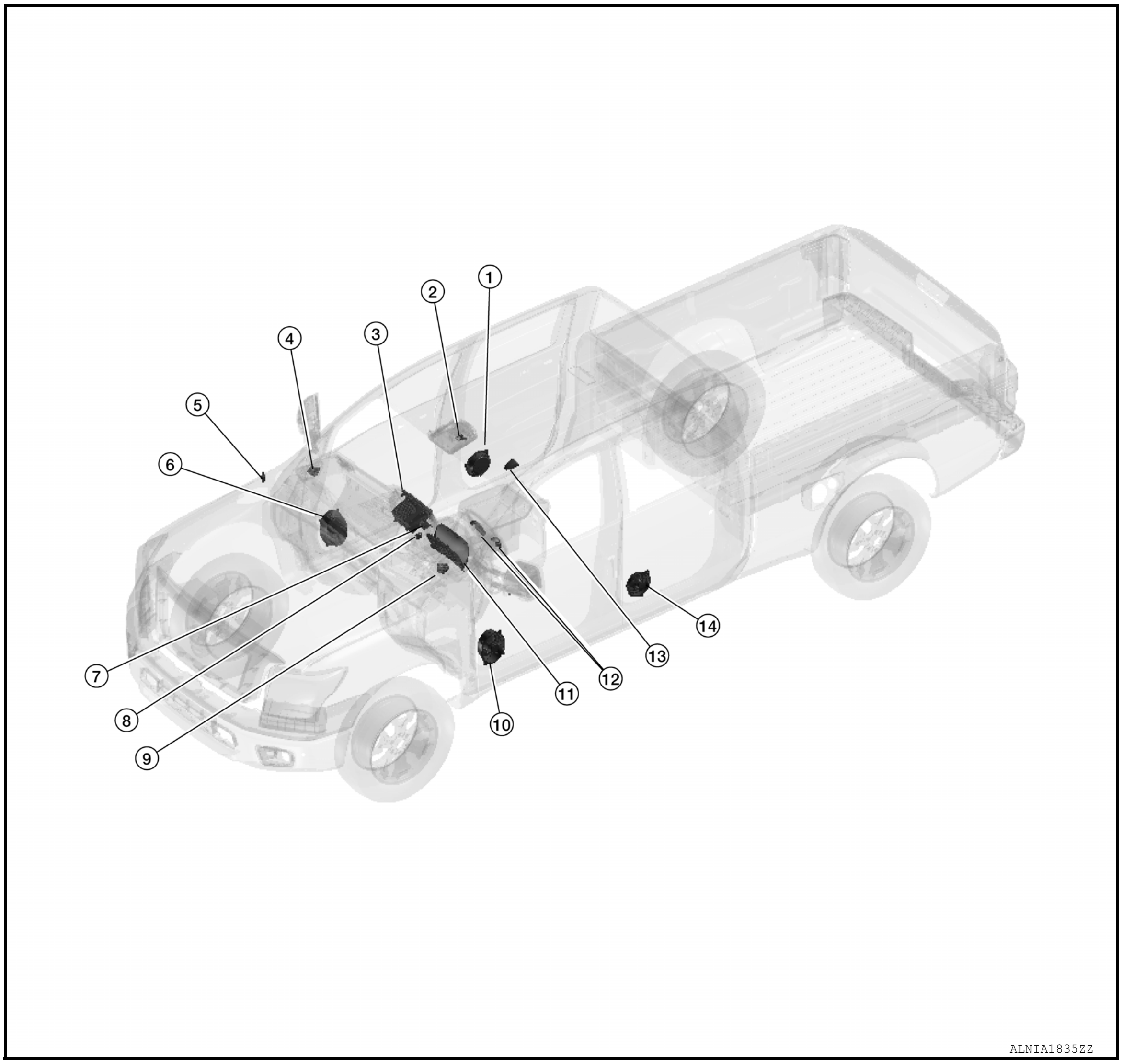
Tool name	Description
Power tool  PIIB1407E	Loosening nuts, screws and bolts

SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

INFOID:0000000014386835



No.	Component	Function
1.	Rear door speaker RH	Refer to AV-79, "Speaker".
2.	Microphone	Refer to AV-80, "Microphone".
3.	AV control unit	Refer to AV-79, "AV Control Unit".
4.	Front tweeter RH	Refer to AV-79, "Speaker".
5.	Rod antenna	Refer to AV-81, "Antenna and Antenna Feeder".
6.	Front door speaker RH	Refer to AV-79, "Speaker".
7.	GPS antenna	Refer to AV-80, "GPS Antenna".
8.	USB interface and AUX in jack	Refer to AV-80, "USB Interface and AUX In Jack".
9.	Front tweeter LH	Refer to AV-79, "Speaker".
10.	Front door speaker LH	Refer to AV-79, "Speaker".
11.	Combination meter	Refer to MWI-12, "METER SYSTEM : Combination Meter".
12.	Steering switches	Refer to AV-80, "Steering Switches".

No.	Component	Function
13.	Satellite antenna	Refer to AV-81, "Antenna and Antenna Feeder".
14.	Rear door speaker LH	Refer to AV-79, "Speaker".

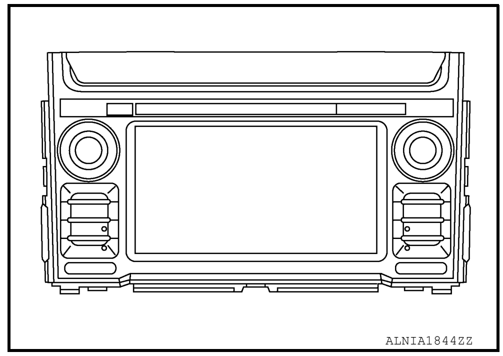
AV Control Unit

INFOID:0000000014386836

Description

- A 7-inch QVGA display, an AM/FM electronic tuner radio, CD drive, audio amplifier, Bluetooth® module, 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.

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

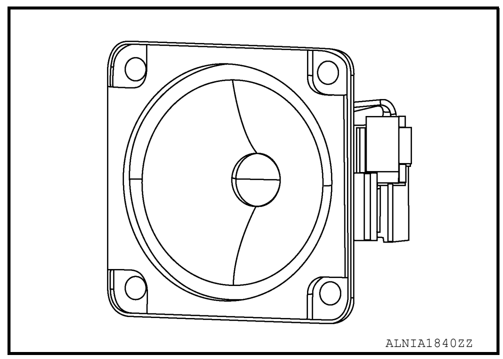


Speaker

INFOID:0000000014386837

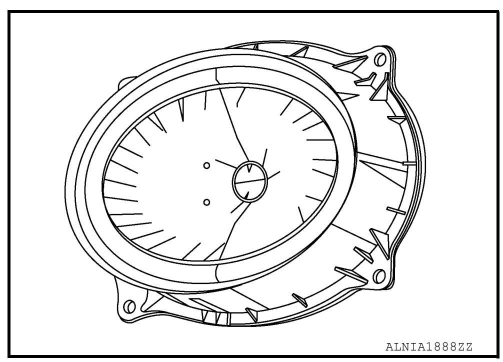
FRONT TWEETER

- 5.1 cm (2 in) speakers are installed in the top corners of the instrument panel assembly.
- Sound signals generated by the audio unit output high range sounds.



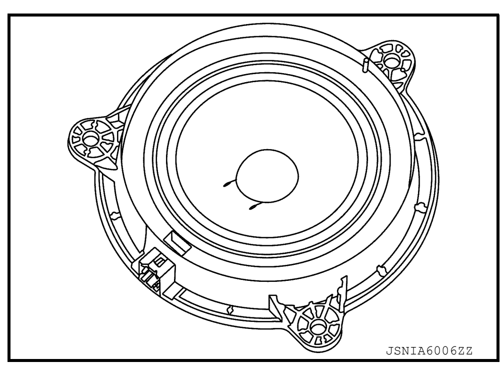
FRONT DOOR SPEAKER

- 15.2 x 22.9 cm (6 x 9 in) speakers are installed in the bottom of the front doors.
- Sound signals generated by the audio unit output low range sounds.



REAR DOOR SPEAKER

- 16.5 cm (6.5 in) speakers are installed in the bottom of the rear doors.
- Sound signals generated by the audio unit output mid range sounds.

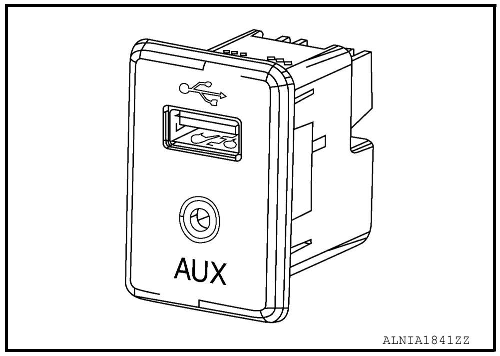


A B C D E F G H I J K L M AV O P

USB Interface and AUX In Jack

INFOID:0000000014386838

- USB Interface and AUX in jack is installed in the cluster lid C lower.
- 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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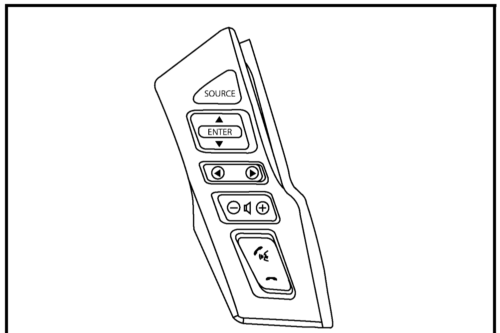
Steering Switches

INFOID:0000000014386839

- Operations for audio and hands-free phone are possible.
- Switch is connected to the audio unit.

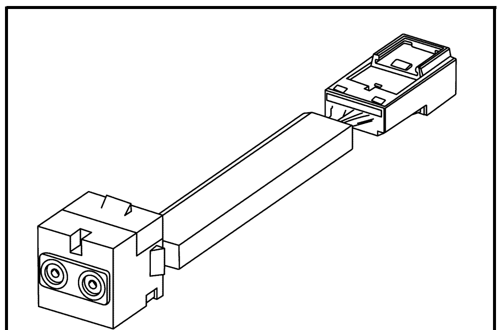


AWNIA4295ZZ

Microphone

INFOID:0000000014386840

- The microphone is installed in the front roof console.
- Power is supplied from the audio unit.

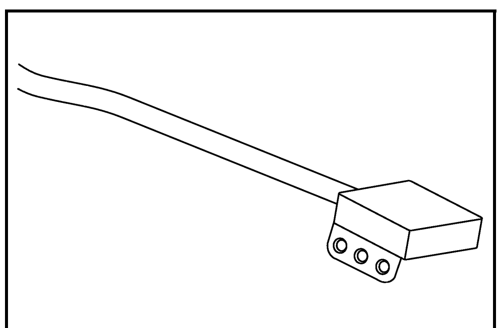


JSNIA6009ZZ

GPS Antenna

INFOID:0000000014386841

- GPS antenna is installed in the instrument panel, behind the cluster lid C finisher (LH).
- Power is supplied from the AV control unit.



JSNIA3303ZZ

SD Card

INFOID:0000000014386842

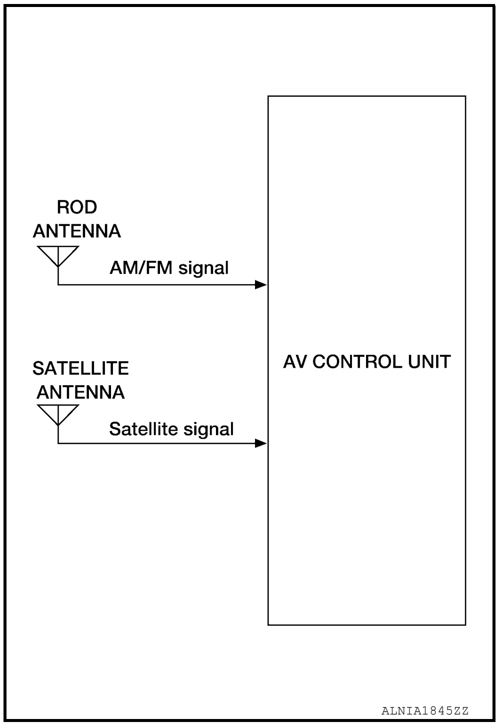
- Map data is memorized in the SD card.
- Map data is sent to the AV control unit from the SD slot.

Antenna and Antenna Feeder

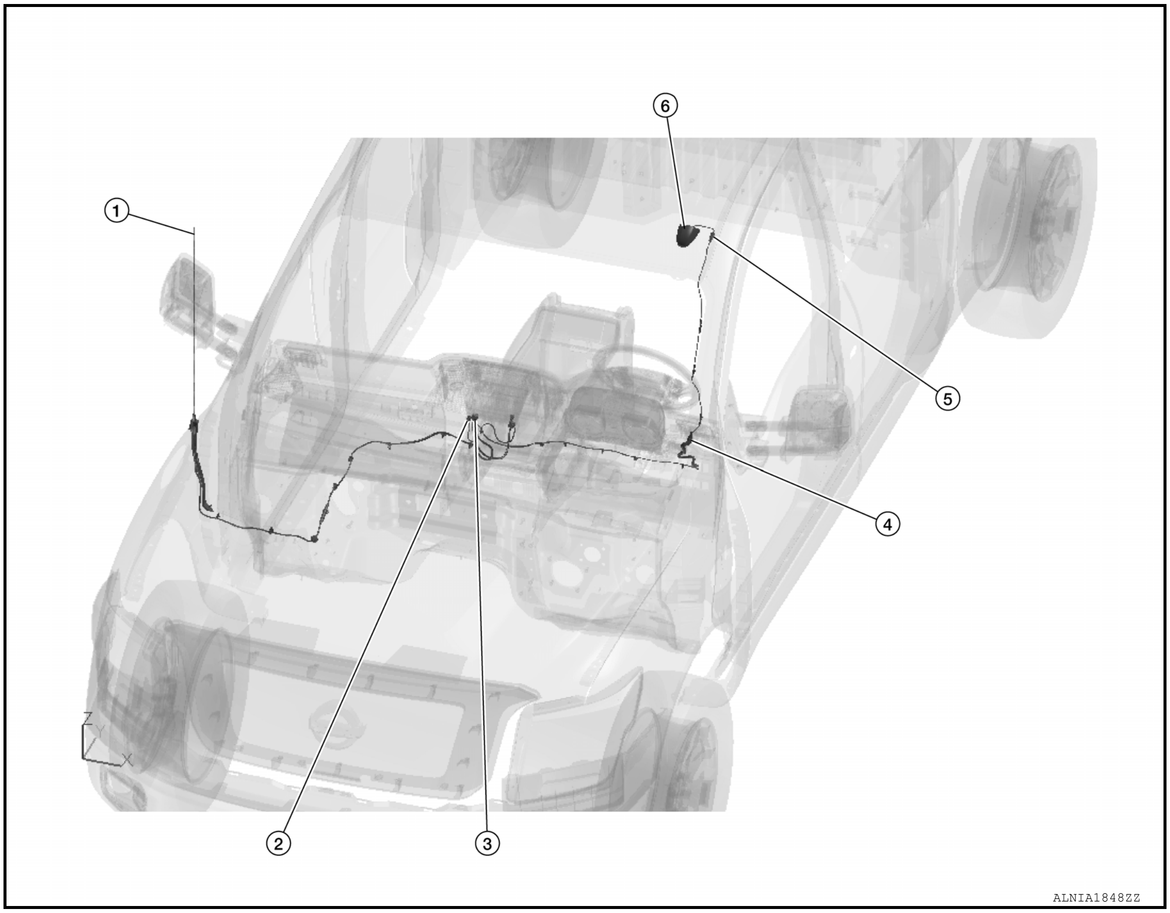
INFOID:0000000014386843

RADIO AND SATELLITE ANTENNAS

AM/FM radio rod antenna is located on the right front fender. The satellite antenna is located on the front left side of the roof.



ANTENNA FEEDER



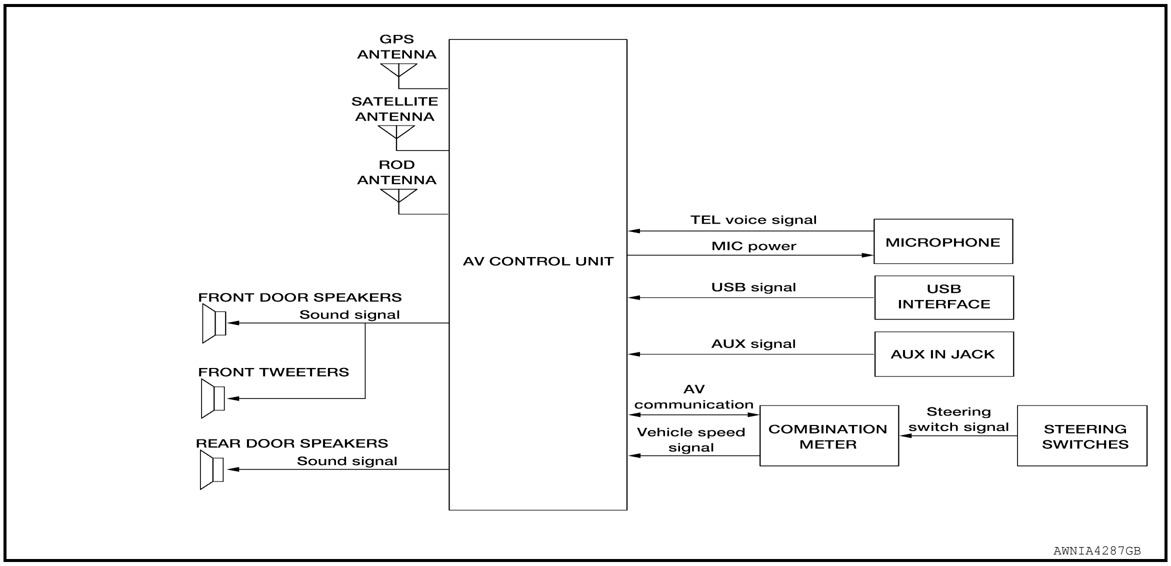
1.	Rod Antenna	2.	M147	3.	M146
4.	M188, R108	5.	R109	6.	Satellite Antenna

SYSTEM

System Description

INFOID:0000000014386844

SYSTEM DIAGRAM



DESCRIPTION

Refer to Owner’s Manual for navigation and audio system operating instructions.
Audio function and display are built into AV control unit.
This navigation unit has the following functions:

- Map data on SD-card
- High resolution color 5 inch display with touch panel function
- FM/AM twin digital tuner
- USB interface and AUX in jack
- Full support for playback of music from iPod®
- Satellite radio
- Hands-free phone system

iPod® is a trademark of Apple inc., registered in the U.S. and other countries.

NAVIGATION SYSTEM FUNCTION

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 speakers.
- 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

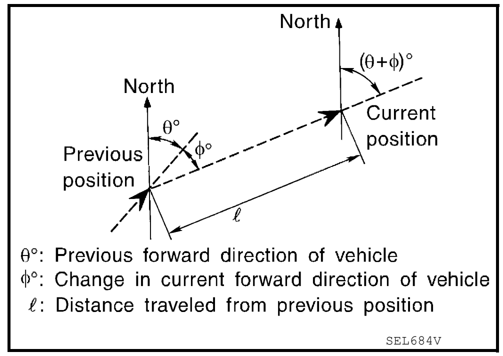
The navigation system periodically calculates the vehicle's current position according to the following three signals:

- 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.

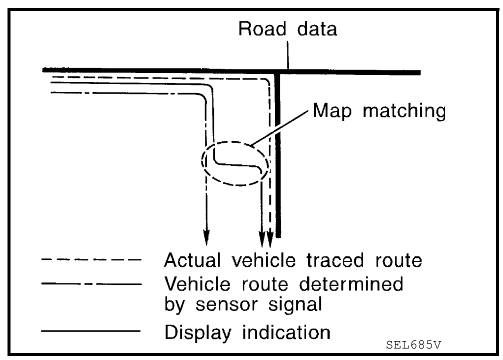
More accurate traveling direction is detected because priorities are set for the signals from these two devices according to the situation.

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.

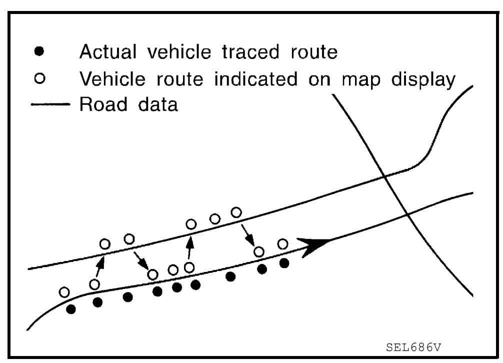
NOTE:

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

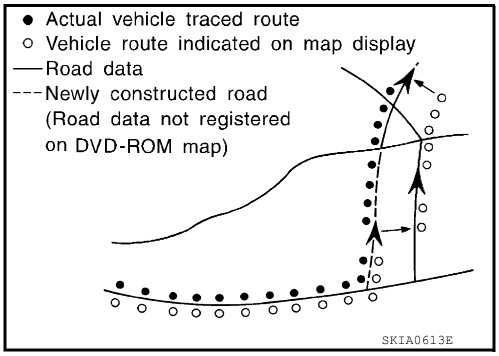


The vehicle position may not be corrected under the following circumstances and after driving for a certain time when GPS information is difficult to receive. In this case, the vehicle mark on the display must be corrected manually.

- 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.

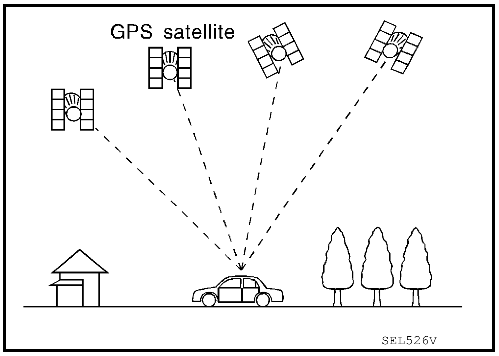


- Map-matching does not function correctly when a road on which the vehicle is driving is new and not recorded in the map SD-card, or when road pattern stored in the map data and the actual road pattern are different due to repair.
  The map-matching function may find another road and position the vehicle 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.

SATELLITE RADIO FUNCTION
- Satellite radio function is built into AV control unit.
- Sound signal (satellite radio) is received by satellite antenna and transmitted to AV control unit. AV control unit outputs sound signal to each speaker.

USB INTERFACE AND AUX IN JACK FUNCTION
- Sound and data signals are transmitted from USB interface to the AV control unit and output to each speaker and tweeter.
- Sound signals are transmitted from AUX in jack to the AV control unit and output to each speaker and tweeter.

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:0000000014386845

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

<table>
<tr><th colspan="2">Mode</th><th>Item</th><th>Content</th></tr>
<tr><td colspan="2">Version</td><td>—</td><td>Version data of the AV control unit is displayed.</td></tr>
<tr><td rowspan="3">User Configuration</td><td>Touch Display Calibration</td><td>—</td><td>Calibration of the touch panel display can be performed.</td></tr>
<tr><td>Screenshot to USB</td><td>—</td><td>A screenshot of the display can be saved to USB memory.</td></tr>
<tr><td>Time Interval</td><td>—</td><td>Destination time interval can be selected.</td></tr>
<tr><td rowspan="3">Radio</td><td>FM monitor</td><td>—</td><td rowspan="2">Monitors the dynamic values of the current tuner</td></tr>
<tr><td>AM monitor</td><td>—</td></tr>
<tr><td>SXM monitor</td><td>—</td><td>Version data is displayed.</td></tr>
<tr><td rowspan="4">System State</td><td>Running System Status</td><td>• SD card slot acces.
• Power Supply
• Speed Signal
• Direction Signal
• Illumination Signal
• GPS Antenna
• GPS tracking
• Satellites visible
• Satellites tracked
• Microphone Current
• Steer. wheel key
• Radio Antenna
• #No translation requi...
• SXM Antenna
• USB Device
• iPod firmware ver.
• BT Status</td><td>The current system status is displayed.</td></tr>
<tr><td>Speaker Test 4kHz</td><td rowspan="2">—</td><td rowspan="2">This activates a sequence of test tone outputs to the audio circuits one after the other for 1 second.</td></tr>
<tr><td>Speaker Test 100Hz</td></tr>
<tr><td>Display-Test</td><td>—</td><td>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.</td></tr>
<tr><td colspan="2">Self Test</td><td>• SD Card Access
• BT Module Access
• GPS Antenna
• Radio Antenna
• SXM Antenna</td><td>A system self test is executed and the results are stored into the error memory.</td></tr>
</table>

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

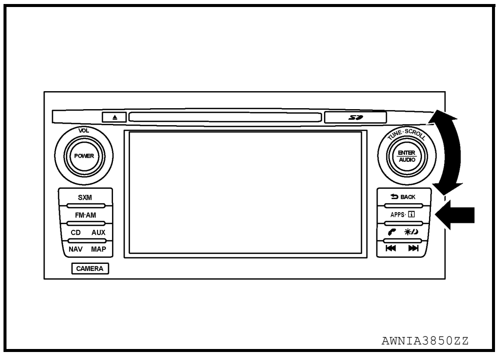
On Board Diagnosis Function

INFOID:0000000014386846

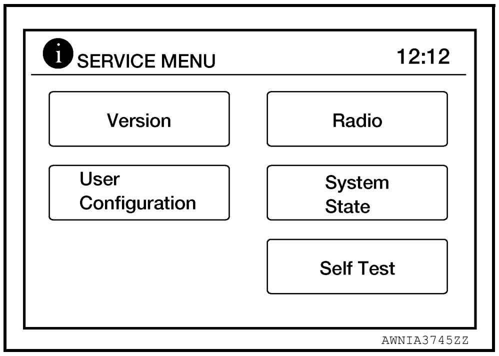
METHOD OF STARTING

1. Turn the ignition ON.

2. Turn the audio system OFF.
3. While pressing the APPS button, turn the TUNE-SCROLL dial counterclockwise 5 or more clicks, then clockwise 5 or more clicks, then counterclockwise 5 or more clicks. Shifting from current screen to previous screen is performed by pressing BACK button.



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



CONSULT Function

INFOID:0000000014386847

CAUTION:

After disconnecting the CONSULT vehicle interface (VI) from the data link connector, the ignition must be cycled OFF → ON (for at least 5 seconds) → OFF. If this step is not performed, the BCM may not go to ”sleep mode”, potentially causing a discharged battery and no-start condition.

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-93, "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.

Monitor Item [Unit]	Description
IGN SIG [On/Off]	Indicates condition of ignition signal.
REV SIG [On/Off]	Indicates condition of reverse signal received from BCM.

CONFIGURATION

Refer to AV-111, "CONFIGURATION (AV CONTROL UNIT) : Description".

CAN DIAG SUPPORT MNTR

Refer to LAN-50, "CAN Diagnostic Support Monitor".

ECU DIAGNOSIS INFORMATION

AV CONTROL UNIT

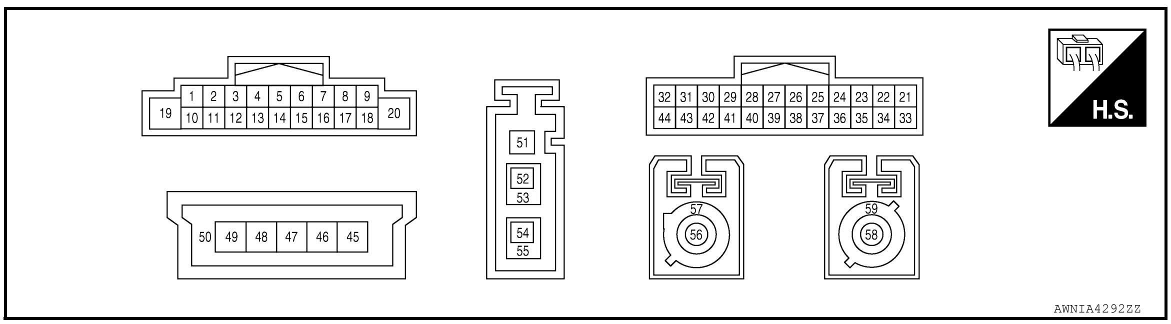
Reference Value

INFOID:0000000014386848

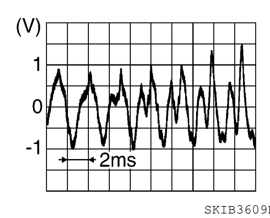
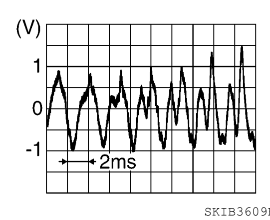
VALUES ON THE DIAGNOSIS TOOL

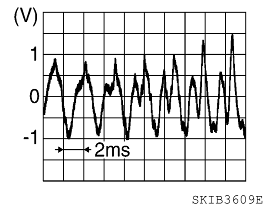
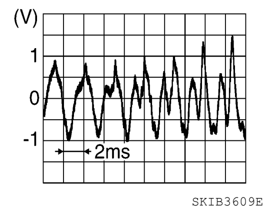
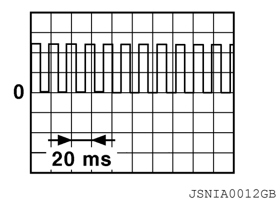
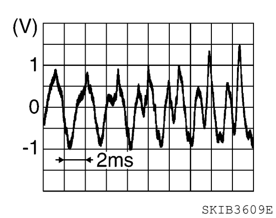
Monitor Item	Condition	Value/Status
VHCL SPD SIG	Vehicle speed = 0 km/h (0 MPH).	Off
	Vehicle speed > 0 km/h (0 MPH).	On
ILLUM SIG	Illumination signal is not received.	Off
	Illumination signal is received.	On
IGN SIG	Ignition switch OFF or ACC.	Off
	Ignition switch ON.	On
REV SIG	Selector lever in any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

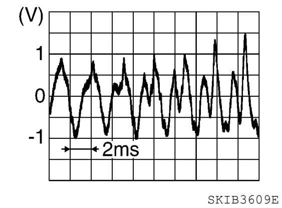
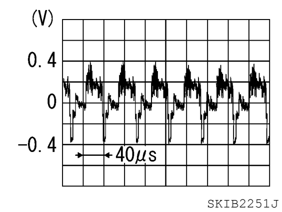
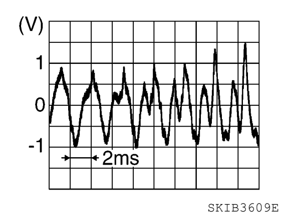
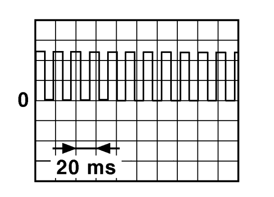
TERMINAL LAYOUT



PHYSICAL VALUES

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

Terminal (Wire color) +	Terminal (Wire color) –	Description: Signal name	Description: Input/ Output	Condition: Ignition switch	Condition: Operation	Reference value (Approx.)
9 (L)	Ground	Illumination ON control signal	Input	ON	Parking lamps or headlamps ON	Battery voltage
11 (W/B)	12 (L/B)	Sound signal front door speaker and front tweeter RH	Output	ON	Sound output	
13 (O/L)	14 (R/L)	Sound signal rear door speaker RH	Output	ON	Sound output	
17 (P)	—	CAN low	Input/ Output	—	—	—
18 (G)	Ground	Vehicle speed signal	Input	ON	When vehicle speed is approx. 40 km/h (25 MPH)	
19 (W)	Ground	Battery power supply	Input	OFF	—	Battery voltage
20 (B)	Ground	Ground	—	ON	—	0 V
21 (LG)	—	AV communication (L)	Input/ Output	—	—	—
22 (SB)	—	AV communication (H)	Input/ Output	—	—	—
23 (L)	—	MR output	Output	—	—	—
28 (G/W)	Ground	Reverse signal	Input	ON	Selector lever in R (reverse)	Battery voltage
					Selector lever in any position other than R (reverse)	0 V
30 (V)	Ground	AUX audio signal LH	Input	ON	AUX audio signal received	
31 (GR)	—	AUX ground	—	ON	—	0V

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output	Ignition switch	Operation	
32 (G)	Ground	AUX audio signal RH	Input	ON	AUX audio signal received	
33 (L/W)	Ground	Camera ground	—	ON	—	0 V
34 (L)	Ground	Camera power supply	Output	ON	When camera image is displayed	6.0 V
					Except for above	0 V
36 (R)	35 (R/W)	Camera image signal	Input	ON	When camera image is displayed	
37 (G/R)	Ground	Ignition power supply	Input	ON or START	—	Battery voltage
38 (LG)	—	AV communication (L)	Input/ Output	—	—	—
39 (SB)	—	AV communication (H)	Input/ Output	—	—	—
40 (Shield)	—	AUX shield	—	—	—	—
42 (R)	Ground	Microphone power supply	Output	ON	—	5.0 V
43 (W)	41 (Shield)	Microphone signal	Input	ON	While speaking into microphone.	
44 (GR)	Ground	Illumination dimming control signal	Input	ON	CPM lighting ON	
45 (B)	—	V BUS signal	—	—	—	—
47 (G)	—	USB D– signal	—	—	—	—
48 (W)	—	USB D+ signal	—	—	—	—

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output	Ignition switch	Operation	
49 (R)	—	USB ground	—	—	—	—
50 (Shield)	—	USB shield	—	—	—	—
52 (B)	—	AM/FM antenna signal	—	—	—	—
53 (Shield)	—	AM/FM antenna shield	—	—	—	—
56 (B)	Ground	Satellite antenna signal	Input	ON	—	5.0 V
57 (Shield)	—	Satellite antenna shield	—	—	—	—
58 (B)	Ground	GPS antenna signal	Input	ON	—	5.0 V
59 (Shield)	—	GPS antenna shield	—	—	—	—

DTC Index

INFOID:0000000014386849

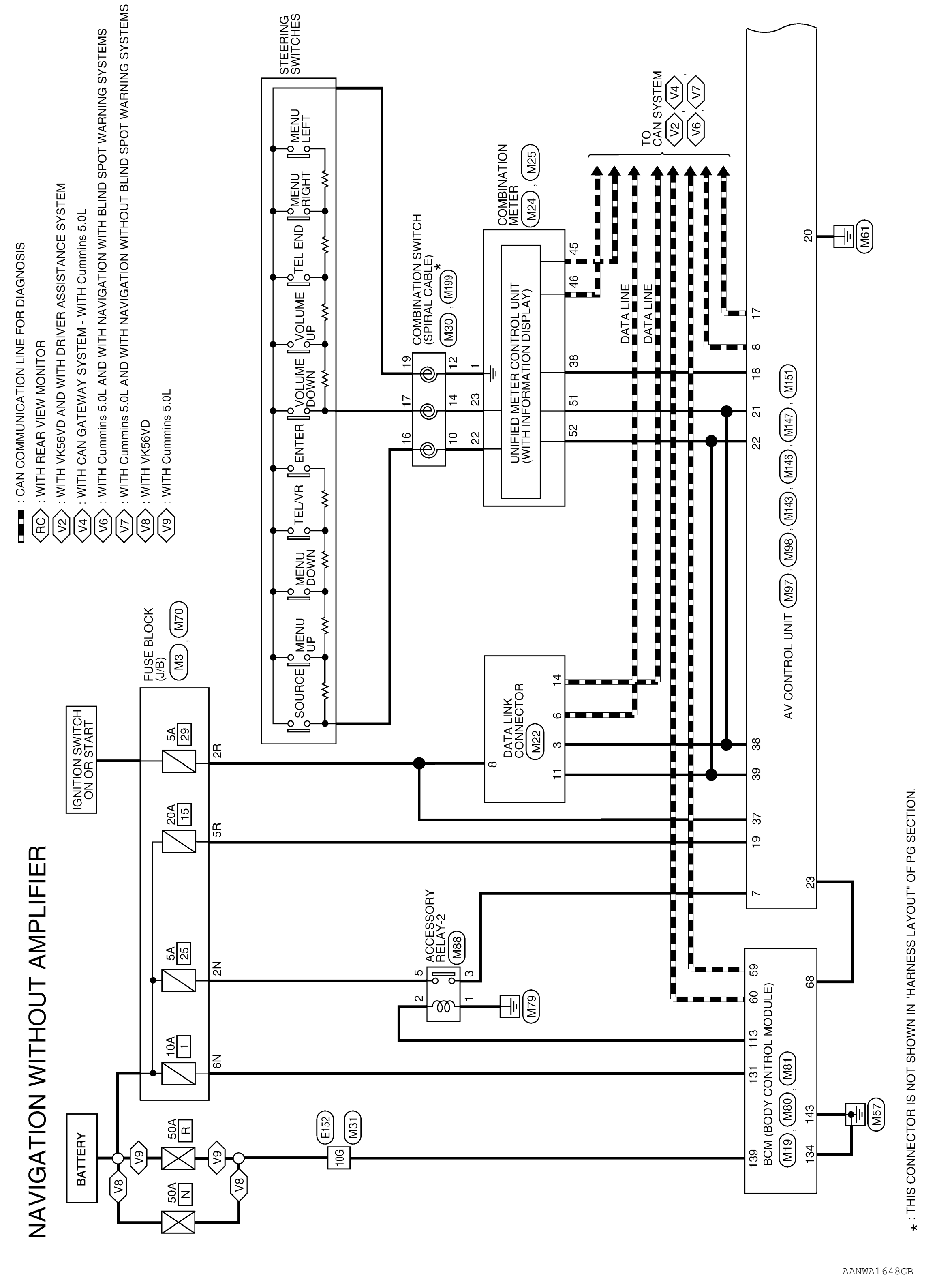
CONSULT Display	Reference Page
U1000: CAN COMM CIRCUIT	AV-115, "DTC Description"
U1010: CONTROL UNIT(CAN)	AV-116, "DTC Description"
U1217: BLUETOOTH MODULE	AV-117, "DTC Description"
U1229: iPod CERTIFICATION	AV-118, "DTC Description"
U1244: GPS ANTENNA CONN	AV-119, "DTC Description"
U1258: XM ANTENNA CONN	AV-120, "DTC Description"
U1263: USB OVERCURRENT	AV-122, "DTC Description"
U12AA: Configuration Error	AV-123, "DTC Description"
U12AB: FM Antenna error	AV-124, "DTC Description"
U12AC: Display Temperature too High	AV-125, "DTC Description"
U12AD: ECU Temperature too High	AV-126, "DTC Description"
U12AE: Internal Amplifier temperature Warning	AV-127, "DTC Description"
U12AF: CD Mechanism Temperature Warning	AV-128, "DTC Description"
U12B0: Supply Voltage Goes below 9V > 20s	AV-129, "DTC Description"
U12B1: Supply Voltage Goes High > 16V for 20s	AV-130, "DTC Description"

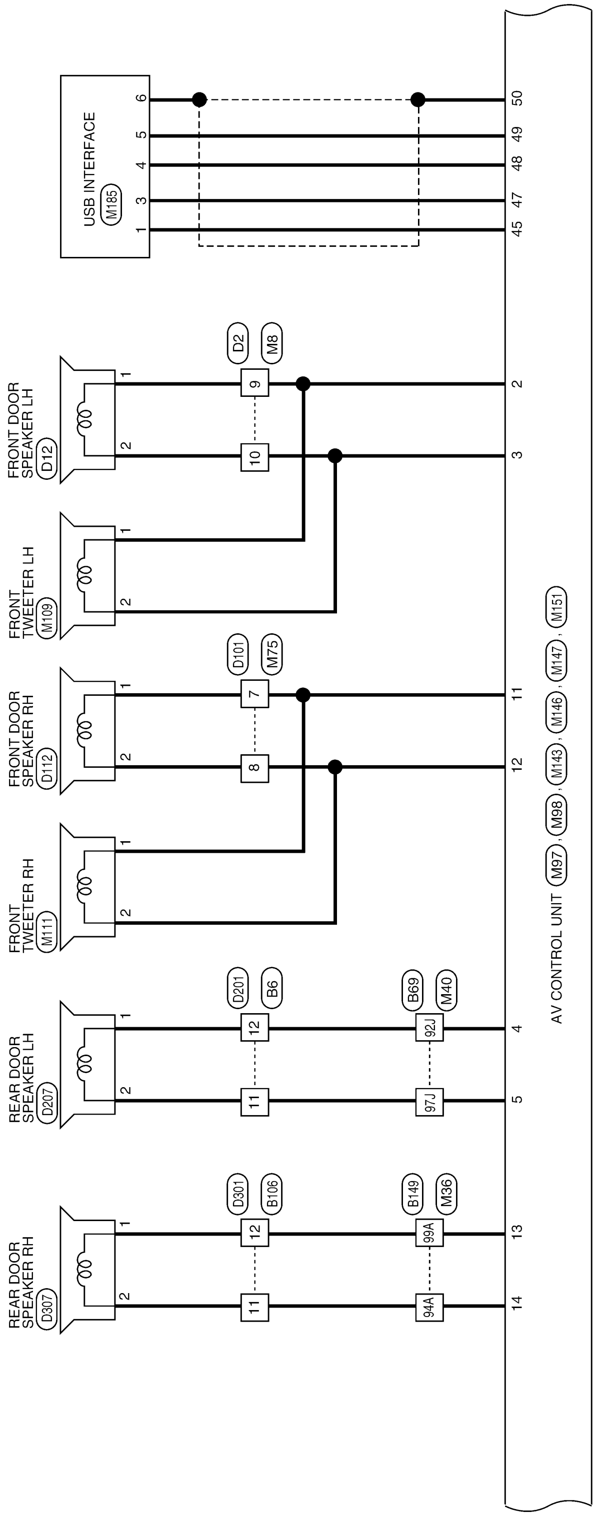
WIRING DIAGRAM

NAVIGATION WITHOUT AMPLIFIER

Wiring Diagram

INFOID:0000000014386850





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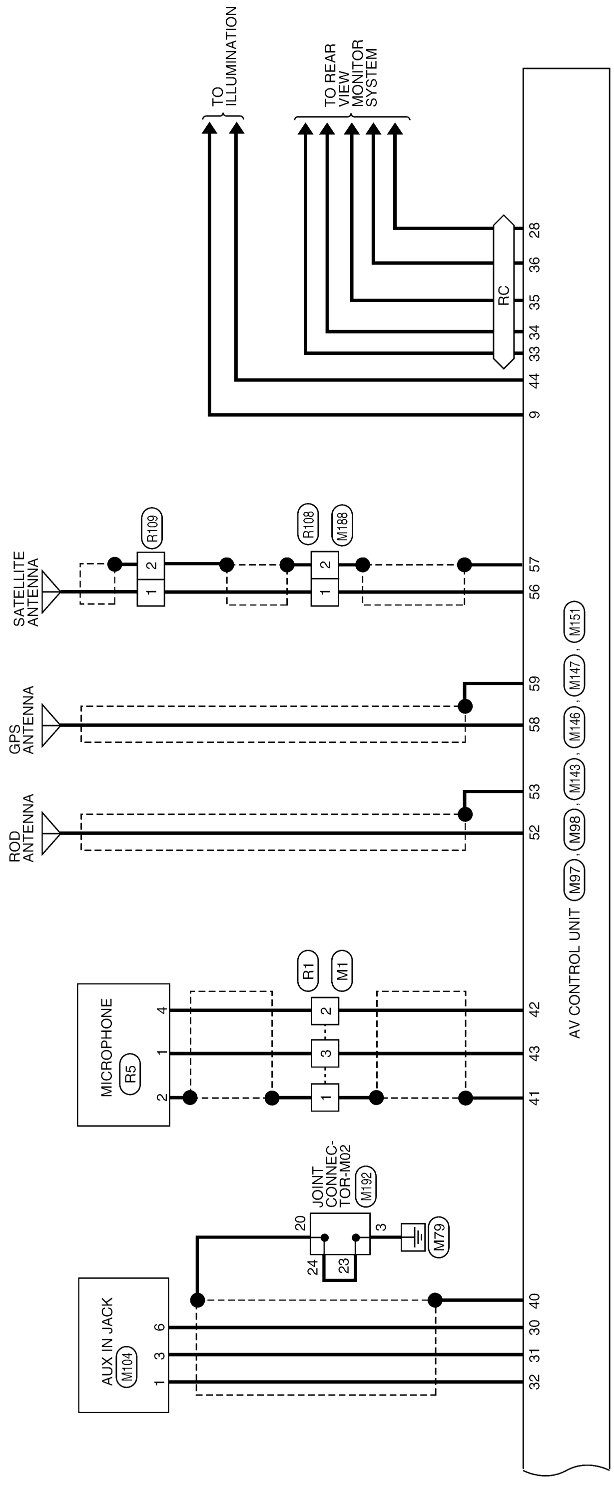

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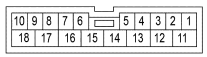
NAVIGATION WITHOUT AMPLIFIER CONNECTORS

Connector No.	B6
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8
Connector Color	WHITE

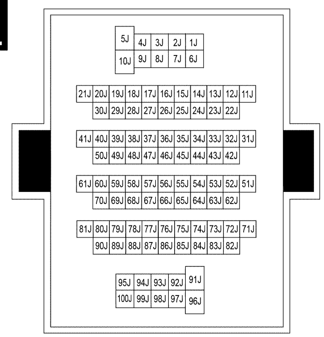
H.S.



Terminal No.	Color of Wire	Signal Name
1	–	TO REAR DOOR LH HARNESS
2	–	TO REAR DOOR LH HARNESS
3	–	TO REAR DOOR LH HARNESS
4	–	TO REAR DOOR LH HARNESS
5	–	TO REAR DOOR LH HARNESS
6	–	TO REAR DOOR LH HARNESS
7	–	TO REAR DOOR LH HARNESS
8	O/L	TO REAR DOOR LH HARNESS
9	–	TO REAR DOOR LH HARNESS
10	–	TO REAR DOOR LH HARNESS
11	B/Y	TO REAR DOOR LH HARNESS
12	SB	TO REAR DOOR LH HARNESS
13	BR	TO REAR DOOR LH HARNESS
14	Y	TO REAR DOOR LH HARNESS
15	B	TO REAR DOOR LH HARNESS
16	LG	TO REAR DOOR LH HARNESS
17	L	TO REAR DOOR LH HARNESS
18	SB	TO REAR DOOR LH HARNESS

Connector No.	B69
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4
Connector Color	WHITE

H.S.



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

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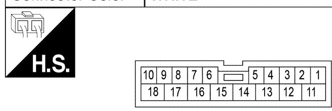
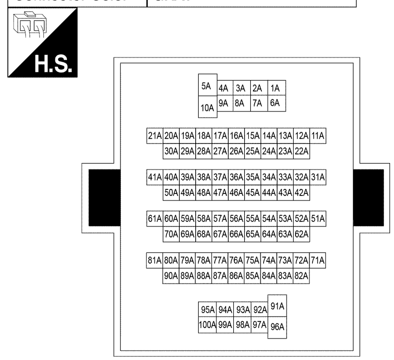
NAVIGATION WITHOUT AMPLIFIER CONNECTORS

Connector No.	B106
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	–	TO REAR DOOR RH HARNESS
2	–	TO REAR DOOR RH HARNESS
3	–	TO REAR DOOR RH HARNESS
4	–	TO REAR DOOR RH HARNESS
5	–	TO REAR DOOR RH HARNESS
6	–	TO REAR DOOR RH HARNESS
7	–	TO REAR DOOR RH HARNESS
8	O/L	TO REAR DOOR RH HARNESS
9	–	TO REAR DOOR RH HARNESS
10	–	TO REAR DOOR RH HARNESS
11	R/L	TO REAR DOOR RH HARNESS
12	O/L	TO REAR DOOR RH HARNESS
13	Y/LG	TO REAR DOOR RH HARNESS
14	BR/O	TO REAR DOOR RH HARNESS
15	B	TO REAR DOOR RH HARNESS
16	SB/R	TO REAR DOOR RH HARNESS
17	L	TO REAR DOOR RH HARNESS
18	V	TO REAR DOOR RH HARNESS

Connector No.	B149
Connector Name	WIRE TO WIRE
Connector Type	TH80MDGY-CS16-TM4
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
1A	SB/G	TO MAIN HARNESS -(WITHOUT CLIMATE CONTROLLED SEATS)
1A	SB	TO MAIN HARNESS -(WITH CLIMATE CONTROLLED SEATS)
2A	L	TO MAIN HARNESS
3A	V	TO MAIN HARNESS
4A	SB/R	TO MAIN HARNESS
5A	–	TO MAIN HARNESS
6A	LG/Y	TO MAIN HARNESS -(WITHOUT CLIMATE CONTROLLED SEATS)
6A	LG	TO MAIN HARNESS -(WITH CLIMATE CONTROLLED SEATS)
7A	W	TO MAIN HARNESS
8A	B	TO MAIN HARNESS
9A	L/B	TO MAIN HARNESS
10A	W	TO MAIN HARNESS
11A	LG	TO MAIN HARNESS
12A	BR/O	TO MAIN HARNESS
13A	Y/W	TO MAIN HARNESS
14A	R/G	TO MAIN HARNESS
15A	Y/L	TO MAIN HARNESS
16A	O/L	TO MAIN HARNESS
17A	L	TO MAIN HARNESS
18A	Y	TO MAIN HARNESS
19A	LG	TO MAIN HARNESS
20A	R	TO MAIN HARNESS
21A	BG	TO MAIN HARNESS
22A	LG/R	TO MAIN HARNESS
23A	Y/LG	TO MAIN HARNESS
24A	BR/Y	TO MAIN HARNESS
25A	–	TO MAIN HARNESS
26A	GR	TO MAIN HARNESS
27A	LG	TO MAIN HARNESS
28A	LG/B	TO MAIN HARNESS
29A	–	TO MAIN HARNESS
30A	BR	TO MAIN HARNESS
31A	W/R	TO MAIN HARNESS
32A	G/R	TO MAIN HARNESS
33A	–	TO MAIN HARNESS
34A	SHIELD	TO MAIN HARNESS
35A	P	TO MAIN HARNESS
36A	B	TO MAIN HARNESS
37A	–	TO MAIN HARNESS
38A	R/B	TO MAIN HARNESS
39A	G/O	TO MAIN HARNESS
40A	V	TO MAIN HARNESS
41A	SHIELD	TO MAIN HARNESS
42A	SHIELD	TO MAIN HARNESS
43A	R	TO MAIN HARNESS
44A	G	TO MAIN HARNESS
45A	–	TO MAIN HARNESS
46A	–	TO MAIN HARNESS
47A	Y	TO MAIN HARNESS
48A	R/W	TO MAIN HARNESS
49A	R/L	TO MAIN HARNESS
50A	B	TO MAIN HARNESS
51A	–	TO MAIN HARNESS
52A	–	TO MAIN HARNESS
53A	–	TO MAIN HARNESS
54A	–	TO MAIN HARNESS
55A	–	TO MAIN HARNESS
56A	–	TO MAIN HARNESS
57A	–	TO MAIN HARNESS
58A	–	TO MAIN HARNESS
59A	–	TO MAIN HARNESS
60A	G/W	TO MAIN HARNESS
61A	–	TO MAIN HARNESS
62A	–	TO MAIN HARNESS
63A	–	TO MAIN HARNESS
64A	–	TO MAIN HARNESS
65A	–	TO MAIN HARNESS
66A	–	TO MAIN HARNESS
67A	–	TO MAIN HARNESS
68A	–	TO MAIN HARNESS
69A	Y/R	TO MAIN HARNESS
70A	R/G	TO MAIN HARNESS
71A	–	TO MAIN HARNESS
72A	Y/B	TO MAIN HARNESS
73A	G	TO MAIN HARNESS
74A	B/R	TO MAIN HARNESS
75A	SHIELD	TO MAIN HARNESS
76A	GR/R	TO MAIN HARNESS
77A	L	TO MAIN HARNESS
78A	SHIELD	TO MAIN HARNESS
79A	Y	TO MAIN HARNESS
80A	L	TO MAIN HARNESS
81A	R	TO MAIN HARNESS
82A	SHIELD	TO MAIN HARNESS
83A	LG/B	TO MAIN HARNESS
84A	R	TO MAIN HARNESS
85A	SHIELD	TO MAIN HARNESS
86A	GR/B	TO MAIN HARNESS
87A	B	TO MAIN HARNESS
88A	W	TO MAIN HARNESS
89A	SHIELD	TO MAIN HARNESS
90A	G	TO MAIN HARNESS
91A	W/L	TO MAIN HARNESS
92A	BR	TO MAIN HARNESS
93A	L/Y	TO MAIN HARNESS
94A	R/L	TO MAIN HARNESS
95A	BR	TO MAIN HARNESS
96A	R	TO MAIN HARNESS
97A	LG	TO MAIN HARNESS
98A	B/V	TO MAIN HARNESS
99A	O/L	TO MAIN HARNESS
100A	BR/W	TO MAIN HARNESS

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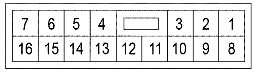
NAVIGATION WITHOUT AMPLIFIER CONNECTORS

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

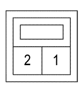
H.S.



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

Connector No.	D12
Connector Name	FRONT DOOR SPEAKER LH
Connector Type	NS02FW-CS
Connector Color	WHITE

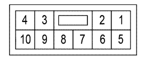
H.S.



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

Connector No.	D101
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS
Connector Color	WHITE

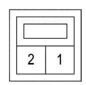
H.S.



Terminal No.	Color of Wire	Signal Name
1	B/W	TO MAIN HARNESS
2	B	TO MAIN HARNESS
3	W/L	TO MAIN HARNESS
4	V	TO MAIN HARNESS
5	W/B	TO MAIN HARNESS
6	G/Y	TO MAIN HARNESS
7	W/B	TO MAIN HARNESS
8	L/B	TO MAIN HARNESS
9	G/Y	TO MAIN HARNESS
10	–	TO MAIN HARNESS

Connector No.	D112
Connector Name	FRONT DOOR SPEAKER RH
Connector Type	NS02FW-CS
Connector Color	WHITE

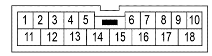
H.S.



Terminal No.	Color of Wire	Signal Name
1	W/B	FR SP RH+
2	L/B	FR SP RH-

Connector No.	D201
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8
Connector Color	WHITE

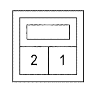
H.S.



Terminal No.	Color of Wire	Signal Name
1	–	TO BODY HARNESS
2	–	TO BODY HARNESS
3	–	TO BODY HARNESS
4	–	TO BODY HARNESS
5	–	TO BODY HARNESS
6	–	TO BODY HARNESS
7	–	TO BODY HARNESS
8	O/L	TO BODY HARNESS
9	–	TO BODY HARNESS
10	–	TO BODY HARNESS
11	B/Y	TO BODY HARNESS
12	SB	TO BODY HARNESS
13	BR	TO BODY HARNESS
14	Y	TO BODY HARNESS
15	B	TO BODY HARNESS
16	BR	TO BODY HARNESS
17	Y	TO BODY HARNESS
18	V	TO BODY HARNESS

Connector No.	D207
Connector Name	REAR DOOR SPEAKER LH
Connector Type	NS02FW-CS
Connector Color	WHITE

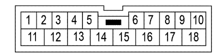
H.S.



Terminal No.	Color of Wire	Signal Name
1	SB	RR SP LH+
2	B/Y	RR SP LH-

Connector No.	D301
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8
Connector Color	WHITE

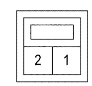
H.S.



Terminal No.	Color of Wire	Signal Name
1	–	TO BODY NO. 2 HARNESS
2	–	TO BODY NO. 2 HARNESS
3	–	TO BODY NO. 2 HARNESS
4	–	TO BODY NO. 2 HARNESS
5	–	TO BODY NO. 2 HARNESS
6	–	TO BODY NO. 2 HARNESS
7	–	TO BODY NO. 2 HARNESS
8	O/L	TO BODY NO. 2 HARNESS
9	–	TO BODY NO. 2 HARNESS
10	–	TO BODY NO. 2 HARNESS
11	R/L	TO BODY NO. 2 HARNESS
12	O/L	TO BODY NO. 2 HARNESS
13	Y	TO BODY NO. 2 HARNESS
14	BR	TO BODY NO. 2 HARNESS
15	B	TO BODY NO. 2 HARNESS
16	BR	TO BODY NO. 2 HARNESS
17	Y	TO BODY NO. 2 HARNESS
18	V	TO BODY NO. 2 HARNESS

Connector No.	D307
Connector Name	REAR DOOR SPEAKER RH
Connector Type	NS02FW-CS
Connector Color	WHITE

H.S.



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

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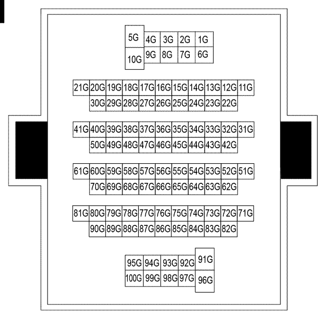
A B C D E F G H I J K L M AV O P

NAVIGATION WITHOUT AMPLIFIER CONNECTORS

Connector No.	E152
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4
Connector Color	WHITE

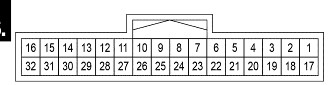
H.S.



Terminal No.	Color of Wire	Signal Name
1G	G	TO MAIN HARNESS
2G	B/R	TO MAIN HARNESS
3G	W/B	TO MAIN HARNESS
4G	BR/W	TO MAIN HARNESS
5G	BR	TO MAIN HARNESS
6G	P	TO MAIN HARNESS - (WITH VK56VD)
6G	R/W	TO MAIN HARNESS - (WITH CUMMINS 5.0L)
7G	Y	TO MAIN HARNESS
8G	G	TO MAIN HARNESS
9G	R	TO MAIN HARNESS
10G	W	TO MAIN HARNESS
11G	R/G	TO MAIN HARNESS
12G	W/B	TO MAIN HARNESS
13G	BR	TO MAIN HARNESS
14G	Y/B	TO MAIN HARNESS
15G	G/W	TO MAIN HARNESS
16G	G	TO MAIN HARNESS
17G	G/Y	TO MAIN HARNESS
18G	G/Y	TO MAIN HARNESS
19G	Y/V	TO MAIN HARNESS
20G	G/Y	TO MAIN HARNESS
21G	B/Y	TO MAIN HARNESS
22G	G/R	TO MAIN HARNESS
23G	Y/R	TO MAIN HARNESS
24G	G/B	TO MAIN HARNESS
25G	R/W	TO MAIN HARNESS
26G	R	TO MAIN HARNESS
27G	LG	TO MAIN HARNESS
28G	G/B	TO MAIN HARNESS
29G	G/B	TO MAIN HARNESS
30G	BR/Y	TO MAIN HARNESS
31G	P	TO MAIN HARNESS - (WITH CUMMINS 5.0L)
31G	R	TO MAIN HARNESS - (WITH VK56VD)
32G	P	TO MAIN HARNESS
33G	Y/L	TO MAIN HARNESS
34G	GR	TO MAIN HARNESS
35G	G/R	TO MAIN HARNESS
36G	SB	TO MAIN HARNESS
37G	R/W	TO MAIN HARNESS
38G	BR	TO MAIN HARNESS
39G	BR	TO MAIN HARNESS
40G	–	TO MAIN HARNESS
41G	R/G	TO MAIN HARNESS
42G	O	TO MAIN HARNESS
43G	B	TO MAIN HARNESS - (WITH CUMMINS 5.0L)
43G	G	TO MAIN HARNESS - (WITH VK56VD)
44G	R/Y	TO MAIN HARNESS
45G	G	TO MAIN HARNESS
46G	LG	TO MAIN HARNESS
47G	R	TO MAIN HARNESS
48G	W	TO MAIN HARNESS
49G	–	TO MAIN HARNESS
50G	BR	TO MAIN HARNESS
51G	R	TO MAIN HARNESS
52G	L	TO MAIN HARNESS
53G	W	TO MAIN HARNESS
54G	W	TO MAIN HARNESS
55G	G	TO MAIN HARNESS
56G	W	TO MAIN HARNESS
57G	Y	TO MAIN HARNESS
58G	BG	TO MAIN HARNESS
59G	BG	TO MAIN HARNESS
60G	BG	TO MAIN HARNESS
61G	B	TO MAIN HARNESS
62G	W	TO MAIN HARNESS
63G	R	TO MAIN HARNESS
64G	W/L	TO MAIN HARNESS
65G	W/R	TO MAIN HARNESS
66G	BG	TO MAIN HARNESS
67G	BG	TO MAIN HARNESS
68G	B	TO MAIN HARNESS
69G	Y	TO MAIN HARNESS
70G	L	TO MAIN HARNESS
71G	R/W	TO MAIN HARNESS
72G	L/W	TO MAIN HARNESS
73G	SHIELD	TO MAIN HARNESS
74G	W	TO MAIN HARNESS
75G	R	TO MAIN HARNESS
76G	R/G	TO MAIN HARNESS
77G	G	TO MAIN HARNESS
78G	W	TO MAIN HARNESS
79G	–	TO MAIN HARNESS
80G	R	TO MAIN HARNESS
81G	L	TO MAIN HARNESS
82G	R	TO MAIN HARNESS
83G	L	TO MAIN HARNESS
84G	L	TO MAIN HARNESS
85G	W/B	TO MAIN HARNESS
86G	B/R	TO MAIN HARNESS
87G	W/B	TO MAIN HARNESS
88G	P	TO MAIN HARNESS
89G	L	TO MAIN HARNESS
90G	G	TO MAIN HARNESS
91G	G	TO MAIN HARNESS
92G	V/W	TO MAIN HARNESS
93G	BR	TO MAIN HARNESS
94G	G	TO MAIN HARNESS
95G	G	TO MAIN HARNESS
96G	W	TO MAIN HARNESS
97G	R	TO MAIN HARNESS
98G	W/B	TO MAIN HARNESS
99G	BR	TO MAIN HARNESS
100G	GR/W	TO MAIN HARNESS

Connector No.	M1
Connector Name	WIRE TO WIRE
Connector Type	TH32FW-NH
Connector Color	WHITE

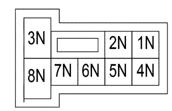
H.S.



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

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	CS06FW-M2
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
1N	–	–
2N	W	BATTERY
3N	W	BLOWER FAN RELAY OUT
4N	V	BATTERY
5N	Y	BATTERY
6N	W	BATTERY
7N	L	ACC RELAY OUT
8N	W	IGNITION

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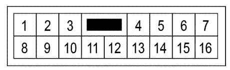
NAVIGATION WITHOUT AMPLIFIER CONNECTORS

Connector No.	M8
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS
Connector Color	WHITE

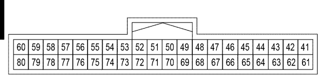
H.S.



Terminal No.	Color of Wire	Signal Name
1	B/W	TO FRONT DOOR LH HARNESS
2	G/B	TO FRONT DOOR LH HARNESS
3	L	TO FRONT DOOR LH HARNESS
4	R	TO FRONT DOOR LH HARNESS
5	W/R	TO FRONT DOOR LH HARNESS
6	W/L	TO FRONT DOOR LH HARNESS
7	V	TO FRONT DOOR LH HARNESS
8	B	TO FRONT DOOR LH HARNESS
9	L/W	TO FRONT DOOR LH HARNESS
10	L/R	TO FRONT DOOR LH HARNESS
11	L/W	TO FRONT DOOR LH HARNESS
12	L	TO FRONT DOOR LH HARNESS
13	Y	TO FRONT DOOR LH HARNESS
14	SB	TO FRONT DOOR LH HARNESS
15	V	TO FRONT DOOR LH HARNESS
16	LG	TO FRONT DOOR LH HARNESS

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

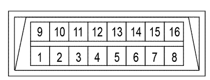
H.S.



Terminal No.	Color of Wire	Signal Name
41	Y/L	TRAILER LIGHT CHECK RELAY OUT
42	R/Y	CARGO LAMP OUT
43	–	–
44	–	–
45	–	–
46	–	–
47	–	–
48	R	HIGH SIDE START SW LED
49	–	–
50	–	–
51	–	–
52	W	AUDIO DONGLE
53	–	–
54	W/L	PW UART
55	W/B	L&R SENSOR K-LINE
56	–	–
57	–	–
58	–	–
59	P	CAN-L
60	L	CAN-H
61	O	REAR DEFOGGER RELAY OUT
62	W	STARTER RELAY OUT
63	–	–
64	P	BUZZER OUT
65	–	–
66	W	BLOWER FAN RELAY OUT
67	G	IGN ELEC RELAY OUT 2
68	L	MR OUTPUT
69	R/B	AT DEVICE OUT
70	P	IGN USM OUT 1
71	O	DR REQUEST SW
72	G	AS REQUEST SW
73	–	–
74	–	–
75	L/W	COMBI SW OUT 5
76	P	COMBI SW OUT 4
77	L	COMBI SW OUT 3
78	O/B	COMBI SW OUT 2
79	R/W	COMBI SW OUT 1
80	–	–

Connector No.	M22
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW
Connector Color	WHITE

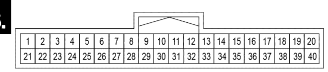
H.S.



Terminal No.	Color of Wire	Signal Name
1	–	–
2	–	–
3	LG	M-CAN-L
4	B	BODY GND
5	B	ENG GND
6	L	CAN-H
7	BR	K-LINE
8	G/R	IGN SW
9	–	–
10	–	–
11	SB	M-CAN-H
12	R	CAN-L
13	L	CAN-H
14	P	CAN-L
15	–	–
16	Y	BATTERY

Connector No.	M24
Connector Name	COMBINATION METER (WITH TYPE A)
Connector Type	TH40FW-NH
Connector Color	WHITE

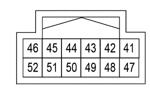
H.S.



Terminal No.	Color of Wire	Signal Name
1	B	GND(STRG/SATELLITE SW GND)
2	–	–
3	–	–
4	–	–
5	–	–
6	–	–
7	V	SECURITY
8	–	–
9	BG	AS BELT SW (W/O ODS)
10	LG	TOW MODE SW
11	BR	CHG
12	BR	LED HEAD LAMP (R)
13	W	LED HEAD LAMP (L)
14	R	ACC SW
15	W	OUTSIDE TEMP SENSOR (WITH VK56VD)
16	O	AIR BAG
17	–	–
18	P	TRIP RESET SW
19	–	–
20	R	OUTSIDE TEMP GND (WITH VK56VD)
21	–	–
22	P	STRG SW A
23	R	STRG SW B
24	W	WASHER SW
25	–	–
26	G	PKB SW
27	P/L	AS BELT SW (WITH ODS)
28	O/B	DR BELT SW
29	–	–
30	–	–
31	–	–
32	BR	AT SHIFT UP
33	V/W	AT SHIFT DOWN
34	–	–
35	–	–
36	W	ILL UP SW
37	R	ILL DOWN SW
38	G	8P/R OUTPUT
39	–	–
40	–	–

Connector No.	M25
Connector Name	COMBINATION METER (WITH TYPE A)
Connector Type	TH12FW-NH
Connector Color	WHITE

H.S.



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

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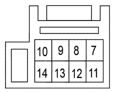
NAVIGATION WITHOUT AMPLIFIER CONNECTORS

Connector No.	M30
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY-1V
Connector Color	GRAY

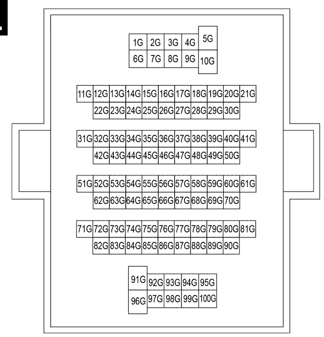
H.S.



Terminal No.	Color of Wire	Signal Name
7	B/Y	ASCD GND -(WITH HEATED STEERING WHEEL)
8	GR	ILL (-) - (WITHOUT HEATED STEERING WHEEL)
8	R	AUDIO STRG SW REMOTE B - (WITH HEATED STEERING WHEEL)
9	G/Y	ASCD SW - (WITHOUT HEATED STEERING WHEEL)
9	P	AUDIO STRG SW REMOTE A - (WITH HEATED STEERING WHEEL)
10	P	AUDIO STRG SW REMOTE A - (WITHOUT HEATED STEERING WHEEL)
10	G/Y	ASCD SW - (WITH HEATED STEERING WHEEL)
11	R/W	HORN SWITCH OUTPUT - (WITHOUT HEATED STEERING WHEEL)
11	B	AUDIO STRG SW GND - (WITH HEATED STEERING WHEEL)
12	B	AUDIO STRG SW GND -(WITHOUT HEATED STEERING WHEEL)
13	B/Y	ASCD GND -(WITHOUT HEATED STEERING WHEEL)
14	R	AUDIO STRG SW REMOTE B - (WITHOUT HEATED STEERING WHEEL)

Connector No.	M31
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4
Connector Color	WHITE

H.S.



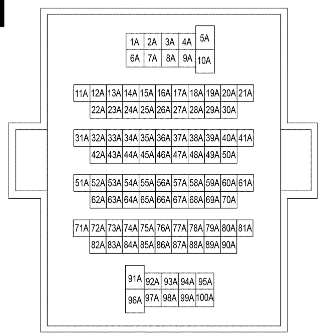
Terminal No.	Color of Wire	Signal Name
1G	G	TO ENGINE ROOM HARNESS
2G	B/R	TO ENGINE ROOM HARNESS
3G	W	TO ENGINE ROOM HARNESS
4G	BR/W	TO ENGINE ROOM HARNESS
5G	–	TO ENGINE ROOM HARNESS
6G	R/W	TO ENGINE ROOM HARNESS
7G	Y	TO ENGINE ROOM HARNESS
8G	G	TO ENGINE ROOM HARNESS
9G	R	TO ENGINE ROOM HARNESS
10G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

AANIA5414GB

NAVIGATION WITHOUT AMPLIFIER CONNECTORS

Connector No.	M36
Connector Name	WIRE TO WIRE
Connector Type	TH80FDGY-CS16-TM4
Connector Color	GRAY

H.S.



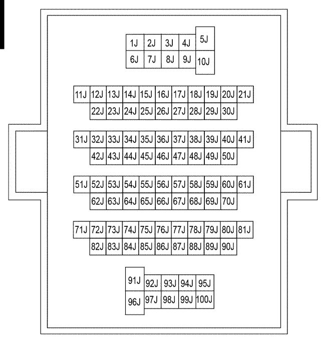
Terminal No.	Color of Wire	Signal Name
1A	W	TO BODY NO. 2 HARNESS
2A	LG	TO BODY NO. 2 HARNESS
3A	V	TO BODY NO. 2 HARNESS
4A	SB	TO BODY NO. 2 HARNESS
5A	–	TO BODY NO. 2 HARNESS
6A	BG	TO BODY NO. 2 HARNESS - (WITH CLIMATE CONTROLLED SEAT)
6A	LG	TO BODY NO. 2 HARNESS - (WITHOUT CLIMATE CONTROLLED SEAT)
7A	W	TO BODY NO. 2 HARNESS
8A	B	TO BODY NO. 2 HARNESS
9A	L/B	TO BODY NO. 2 HARNESS
10A	W	TO BODY NO. 2 HARNESS
11A	R	TO BODY NO. 2 HARNESS
12A	BR	TO BODY NO. 2 HARNESS
13A	G	TO BODY NO. 2 HARNESS
14A	R/G	TO BODY NO. 2 HARNESS
15A	O	TO BODY NO. 2 HARNESS
16A	O/L	TO BODY NO. 2 HARNESS
17A	L	TO BODY NO. 2 HARNESS
18A	Y	TO BODY NO. 2 HARNESS
19A	B/W	TO BODY NO. 2 HARNESS
20A	R	TO BODY NO. 2 HARNESS
21A	BG	TO BODY NO. 2 HARNESS
22A	G	TO BODY NO. 2 HARNESS
23A	Y	TO BODY NO. 2 HARNESS
24A	L	TO BODY NO. 2 HARNESS
25A	–	TO BODY NO. 2 HARNESS
26A	GR	TO BODY NO. 2 HARNESS
27A	LG	TO BODY NO. 2 HARNESS
28A	LG	TO BODY NO. 2 HARNESS
29A	GR	TO BODY NO. 2 HARNESS
30A	BR	TO BODY NO. 2 HARNESS
31A	W/R	TO BODY NO. 2 HARNESS
32A	G/R	TO BODY NO. 2 HARNESS
33A	–	TO BODY NO. 2 HARNESS
34A	SHIELD	TO BODY NO. 2 HARNESS
35A	P	TO BODY NO. 2 HARNESS
36A	B	TO BODY NO. 2 HARNESS
37A	–	TO BODY NO. 2 HARNESS
38A	R/B	TO BODY NO. 2 HARNESS
39A	G/O	TO BODY NO. 2 HARNESS
40A	V	TO BODY NO. 2 HARNESS
41A	SHIELD	TO BODY NO. 2 HARNESS
42A	SHIELD	TO BODY NO. 2 HARNESS
43A	R	TO BODY NO. 2 HARNESS
44A	G	TO BODY NO. 2 HARNESS
45A	–	TO BODY NO. 2 HARNESS
46A	–	TO BODY NO. 2 HARNESS
47A	Y	TO BODY NO. 2 HARNESS
48A	R/W	TO BODY NO. 2 HARNESS
49A	R/L	TO BODY NO. 2 HARNESS
50A	B	TO BODY NO. 2 HARNESS
51A	–	TO BODY NO. 2 HARNESS
52A	–	TO BODY NO. 2 HARNESS
53A	–	TO BODY NO. 2 HARNESS
54A	–	TO BODY NO. 2 HARNESS
55A	–	TO BODY NO. 2 HARNESS
56A	–	TO BODY NO. 2 HARNESS
57A	–	TO BODY NO. 2 HARNESS
58A	–	TO BODY NO. 2 HARNESS
59A	–	TO BODY NO. 2 HARNESS
60A	G/W	TO BODY NO. 2 HARNESS
61A	–	TO BODY NO. 2 HARNESS
62A	–	TO BODY NO. 2 HARNESS
63A	–	TO BODY NO. 2 HARNESS
64A	–	TO BODY NO. 2 HARNESS
65A	–	TO BODY NO. 2 HARNESS
66A	–	TO BODY NO. 2 HARNESS
67A	–	TO BODY NO. 2 HARNESS
68A	–	TO BODY NO. 2 HARNESS
69A	Y/R	TO BODY NO. 2 HARNESS
70A	R/G	TO BODY NO. 2 HARNESS
71A	–	TO BODY NO. 2 HARNESS
72A	W	TO BODY NO. 2 HARNESS
73A	G	TO BODY NO. 2 HARNESS
74A	W	TO BODY NO. 2 HARNESS
75A	SHIELD	TO BODY NO. 2 HARNESS
76A	R	TO BODY NO. 2 HARNESS
77A	L	TO BODY NO. 2 HARNESS
78A	SHIELD	TO BODY NO. 2 HARNESS
79A	GR	TO BODY NO. 2 HARNESS
80A	V	TO BODY NO. 2 HARNESS
81A	R	TO BODY NO. 2 HARNESS
82A	SHIELD	TO BODY NO. 2 HARNESS
83A	R	TO BODY NO. 2 HARNESS
84A	O	TO BODY NO. 2 HARNESS
85A	SHIELD	TO BODY NO. 2 HARNESS
86A	W	TO BODY NO. 2 HARNESS
87A	B	TO BODY NO. 2 HARNESS
88A	W	TO BODY NO. 2 HARNESS
89A	SHIELD	TO BODY NO. 2 HARNESS
90A	G	TO BODY NO. 2 HARNESS
91A	W/L	TO BODY NO. 2 HARNESS
92A	BR	TO BODY NO. 2 HARNESS
93A	L/Y	TO BODY NO. 2 HARNESS
94A	R/L	TO BODY NO. 2 HARNESS
95A	BR	TO BODY NO. 2 HARNESS
96A	R	TO BODY NO. 2 HARNESS
97A	LG	TO BODY NO. 2 HARNESS
98A	B/V	TO BODY NO. 2 HARNESS
99A	O/L	TO BODY NO. 2 HARNESS
100A	BR/W	TO BODY NO. 2 HARNESS

AANIA5415GB

NAVIGATION WITHOUT AMPLIFIER CONNECTORS

Connector No.	M40
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4
Connector Color	WHITE

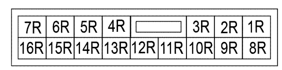
H.S.



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

Connector No.	M70
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS16FBR-CS
Connector Color	BROWN

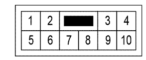
H.S.



Terminal No.	Color of Wire	Signal Name
1R	L	TAIL LAMP 2
2R	G/R	IGNITION
3R	Y/R	BATTERY
4R	–	–
5R	W	BATTERY
6R	G/W	ACCESSORY
7R	–	–
8R	–	–
9R	–	–
10R	W	BATTERY
11R	–	–
12R	BG	BATTERY
13R	B	ACCESSORY
14R	G/Y	BATTERY
15R	Y	BATTERY
16R	G/R	ACCESSORY

Connector No.	M75
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS
Connector Color	WHITE

H.S.

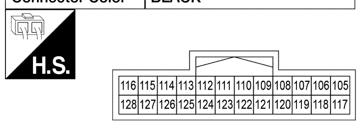


Terminal No.	Color of Wire	Signal Name
1	B/W	TO FRONT DOOR RH HARNESS
2	B	TO FRONT DOOR RH HARNESS
3	W/L	TO FRONT DOOR RH HARNESS
4	V	TO FRONT DOOR RH HARNESS
5	W/B	TO FRONT DOOR RH HARNESS
6	G/Y	TO FRONT DOOR RH HARNESS
7	W/B	TO FRONT DOOR RH HARNESS
8	L/B	TO FRONT DOOR RH HARNESS
9	G/Y	TO FRONT DOOR RH HARNESS
10	–	TO FRONT DOOR RH HARNESS

AANIA5416GB

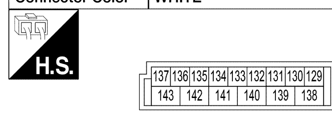
NAVIGATION WITHOUT AMPLIFIER CONNECTORS

Connector No.	M80
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH24FB-NH
Connector Color	BLACK



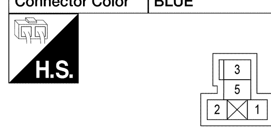
Terminal No.	Color of Wire	Signal Name
105	G/Y	FR FLASHER
106	–	–
107	W	LOW SIDE START SW LED
108	L/R	SHIFT LOCK SOLENOID OUT
109	–	–
110	–	–
111	P	ACC LED
112	–	–
113	L	ACC RELAY OUT
114	W	AS DOOR ANT A
115	BG	AS DOOR ANT B
116	W	ROOM ANT 2 A
117	G/B	FL FLASHER
118	–	–
119	R	RF NIMOCO
120	–	–
121	G	DR DOOR ANT B
122	P	DR DOOR ANT A
123	W	ROOM ANT 1 A
124	G	ROOM ANT 1 B
125	–	–
126	P	IMMO START BUTTON ANT B
127	BG	IMMO START BUTTON ANT A
128	B	ROOM ANT 2 B

Connector No.	M81
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FEA09FW-FHA6-SA
Connector Color	WHITE



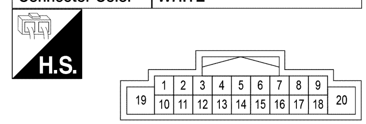
Terminal No.	Color of Wire	Signal Name
129	R/G	BATTERY SAVER OUT
130	LG	SUPER LOCK/DOOR UNLOCK AS
131	W	BAT BCM FUSE
132	Y	DOOR LOCK AS/RR/RL
133	BR	DOOR UNLOCK AS/RR/RL
134	B	GND2
135	O	DOOR LOCK DR/AS/FL
136	L	ROOM LAMP CONT
137	V	DOOR UNLOCK DR/AS/FL
138	V	BAT REAR DOOR
139	W	BAT-POWER F/L
140	LG	P/W POWER SUPPLY IGN
141	V	P/W POWER SUPPLY BAT
142	Y	BAT FRONT DOOR
143	B	GND1

Connector No.	M88
Connector Name	ACCESSORY RELAY-2
Connector Type	MS02FL-M2-LC
Connector Color	BLUE



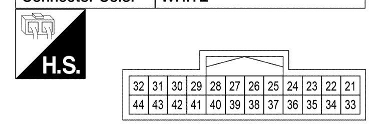
Terminal No.	Color of Wire	Signal Name
1	B	GROUND
2	L	RELAY CONTROL
3	R	RELAY OUTPUT
5	W	BATTERY

Connector No.	M97
Connector Name	AV CONTROL UNIT (WITHOUT AUDIO AMPLIFIER)
Connector Type	NH18FW-CS2
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	–	–
2	L/W	FR SP LH+
3	L/R	FR SP LH-
4	SB	RR SP LH+
5	B/Y	RR SP LH-
6	–	–
7	R	ACC
8	L	CAN-H
9	L	ILL (+)
10	–	–
11	W/B	FR SP RH+
12	L/B	FR SP RH-
13	O/L	RR SP RH+
14	R/L	RR SP RH-
15	–	–
16	–	–
17	P	CAN-L
18	G	SPEED SIG
19	W	BAT
20	B	GND

Connector No.	M98
Connector Name	AV CONTROL UNIT (WITHOUT AUDIO AMPLIFIER)
Connector Type	TH24FW-NH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
21	LG	M CAN2-L
22	SB	M CAN2-H
23	L	MR OUTPUT
24	–	–
25	–	–
26	–	–
27	–	–
28	G/W	REVERSE SIGNAL (WITH REAR VIEW CAMERA)
29	–	–
30	V	AUX L
31	GR	AUX GND
32	G	AUX R
33	L/W	CAMERA GND (WITH REAR VIEW CAMERA)
34	L	CAMERA ON (WITH REAR VIEW CAMERA)
35	R/W	COMP- (WITH REAR VIEW CAMERA)
36	R	COMP+ (WITH REAR VIEW CAMERA)
37	G/R	IGN
38	LG	M CAN1-L
39	SB	M CAN1-H
40	SHIELD	AUX SHIELD
41	SHIELD	MIC GND
42	R	MIC VCC
43	W	MIC SIGNAL
44	GR	ILL (-)

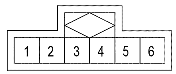
AANIA5417GB

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

NAVIGATION WITHOUT AMPLIFIER CONNECTORS

Connector No.	M104
Connector Name	AUX IN JACK
Connector Type	A06FW
Connector Color	WHITE

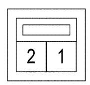
H.S.



Terminal No.	Color of Wire	Signal Name
1	G	AUDIO R OUT
2	G	AUDIO L IN-(WITH REAR SEAT ENTERTAINMENT SYSTEM)
3	GR	AUDIO GND
4	–	–
5	V	AUDIO R IN -(WITH REAR SEAT ENTERTAINMENT SYSTEM)
6	V	AUDIO L OUT

Connector No.	M109
Connector Name	FRONT TWEETER LH
Connector Type	TK02FBR
Connector Color	BROWN

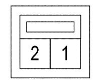
H.S.



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

Connector No.	M111
Connector Name	FRONT TWEETER RH
Connector Type	TK02FBR
Connector Color	BROWN

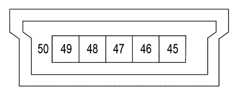
H.S.



Terminal No.	Color of Wire	Signal Name
1	W/B	FR SP RH+
2	L/B	FR SP RH-

Connector No.	M143
Connector Name	AV CONTROL UNIT
Connector Type	USCAR30-MA-M
Connector Color	BLACK

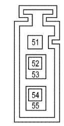
H.S.



Terminal No.	Color of Wire	Signal Name
45	B	V BUS
46	–	–
47	G	D-
48	W	D+
49	R	GND
50	SHIELD	SHIELD

Connector No.	M146
Connector Name	AV CONTROL UNIT
Connector Type	GT13SHA-2-1PP-DS
Connector Color	GRAY

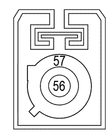
H.S.



Terminal No.	Color of Wire	Signal Name
51	–	–
52	B	ANT MAIN
53	SHIELD	MAIN GND
54	–	–
55	–	–

Connector No.	M147
Connector Name	AV CONTROL UNIT
Connector Type	FAKRA CODING C
Connector Color	PINK

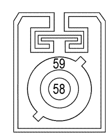
H.S.



Terminal No.	Color of Wire	Signal Name
56	B	SAT ANT
57	SHIELD	SAT SHIELD

Connector No.	M151
Connector Name	AV CONTROL UNIT
Connector Type	FAKRA CODING C
Connector Color	BLUE

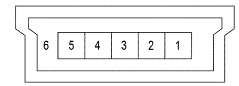
H.S.



Terminal No.	Color of Wire	Signal Name
58	B	GPS ANT
59	SHIELD	GPS SHIELD

Connector No.	M185
Connector Name	USB INTERFACE
Connector Type	USCAR30-MA-M
Connector Color	BLACK

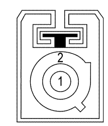
H.S.



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

Connector No.	M188
Connector Name	WIRE TO WIRE
Connector Type	FAKRA CODING C
Connector Color	PINK

H.S.



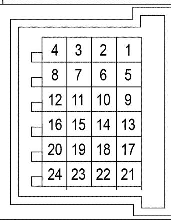
Terminal No.	Color of Wire	Signal Name
1	B	TO ROOF ANTENNA HARNESS
2	SHIELD	TO ROOF ANTENNA HARNESS

AANIA5418GB

NAVIGATION WITHOUT AMPLIFIER CONNECTORS

Connector No.	M192
Connector Name	JOINT CONNECTOR-M02
Connector Type	NH24FW-J
Connector Color	WHITE

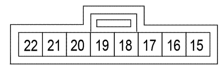
H.S.



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

Connector No.	M199
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY
Connector Color	GRAY

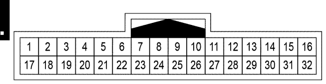
H.S.



Terminal No.	Color of Wire	Signal Name
15	R	ASCD SW
16	W	AUDIO STRG SW REMOTE A
17	L	AUDIO STRG SW REMOTE B
18	B	ASCD GND
19	BR	AUDIO STRG SW GND
20	G	HORN SWITCH OUTPUT
21	P	ILL -
22	Y	ILL +

Connector No.	R1
Connector Name	WIRE TO WIRE
Connector Type	TH32MW-NH
Connector Color	WHITE

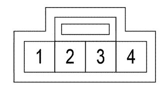
H.S.



Terminal No.	Color of Wire	Signal Name
1	SHIELD	TO MAIN HARNESS
2	R	TO MAIN HARNESS
3	W	TO MAIN HARNESS
4	Y/R	TO MAIN HARNESS
5	G/W	TO MAIN HARNESS
6	G/R	TO MAIN HARNESS
7	B	TO MAIN HARNESS
8	L	TO MAIN HARNESS
9	R/G	TO MAIN HARNESS
10	G	TO MAIN HARNESS
11	L/W	TO MAIN HARNESS
12	L	TO MAIN HARNESS
13	GR	TO MAIN HARNESS
14	R	TO MAIN HARNESS
15	W/B	TO MAIN HARNESS
16	L/B	TO MAIN HARNESS
17	–	TO MAIN HARNESS
18	P	TO MAIN HARNESS
19	W/L	TO MAIN HARNESS
20	W/B	TO MAIN HARNESS
21	–	TO MAIN HARNESS
22	–	TO MAIN HARNESS
23	–	TO MAIN HARNESS
24	–	TO MAIN HARNESS
25	–	TO MAIN HARNESS
26	–	TO MAIN HARNESS
27	–	TO MAIN HARNESS
28	Y/R	TO MAIN HARNESS
29	G/R	TO MAIN HARNESS
30	G/W	TO MAIN HARNESS
31	LG/B	TO MAIN HARNESS
32	Y/V	TO MAIN HARNESS

Connector No.	R5
Connector Name	MICROPHONE
Connector Type	TK04FW
Connector Color	WHITE

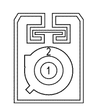
H.S.



Terminal No.	Color of Wire	Signal Name
1	W	MIC +
2	SHIELD	MIC GROUND
3	–	–
4	R	MIC V +

Connector No.	R108
Connector Name	WIRE TO WIRE
Connector Type	FAKRA CODING C
Connector Color	PINK

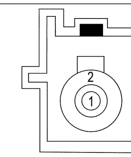
H.S.



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

Connector No.	R109
Connector Name	SATELLITE ANTENNA
Connector Type	GT16C-1PP-HU (B)
Connector Color	GREEN

H.S.



Terminal No.	Color of Wire	Signal Name
1	B	SAT ANT
2	SHIELD	SAT SHIELD

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

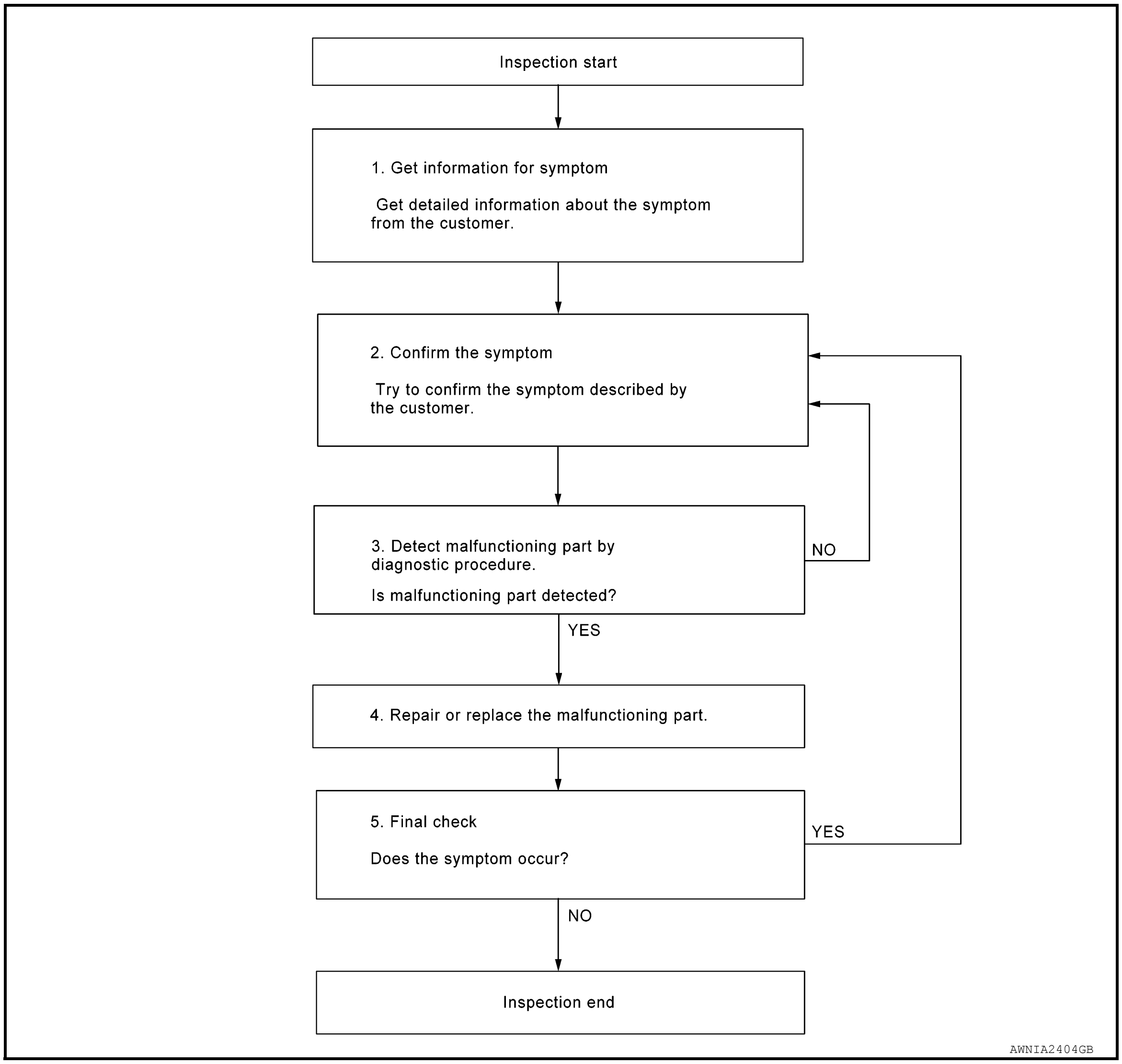
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:0000000014386851

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-144, "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.

Does the symptom occur?

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:0000000014386852

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:0000000014386853

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-157, "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-111, "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-111, "CONFIGURATION (AV CONTROL UNIT) : Work Procedure".

>> GO TO 4.

4.REGISTER AV CONTROL UNIT

Perform AV control unit registration. Refer to AV-112, "REGISTRATION (AV CONTROL UNIT) : Work Procedure (Registration Code)".

>> 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:0000000014386854

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:0000000014386855

1.WRITING MODE SELECTION

CONSULT
Select "Reprogramming, Configuration" of "MULTI AV".

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-112, "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:0000000014386856

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

SETTING ITEM		NOTE
Items	Setting value	
SOUND SYSTEM	BASE ⇔ BOSE	BASE: Without BOSE audio BOSE: With BOSE audio
CAMERA SYSTEM	NONE/AVM ⇔ REAR CAMERA	NONE/AVM: With around view monitor REAR CAMERA: With rear view camera

⇔: Items which confirm vehicle specifications

REGISTRATION (AV CONTROL UNIT)

REGISTRATION (AV CONTROL UNIT) : Description

INFOID:0000000014386857

AFTER REPLACEMENT (REGISTRATION CODE)

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.

AFTER REPLACEMENT (SATELLITE RADIO REGISTRATION)

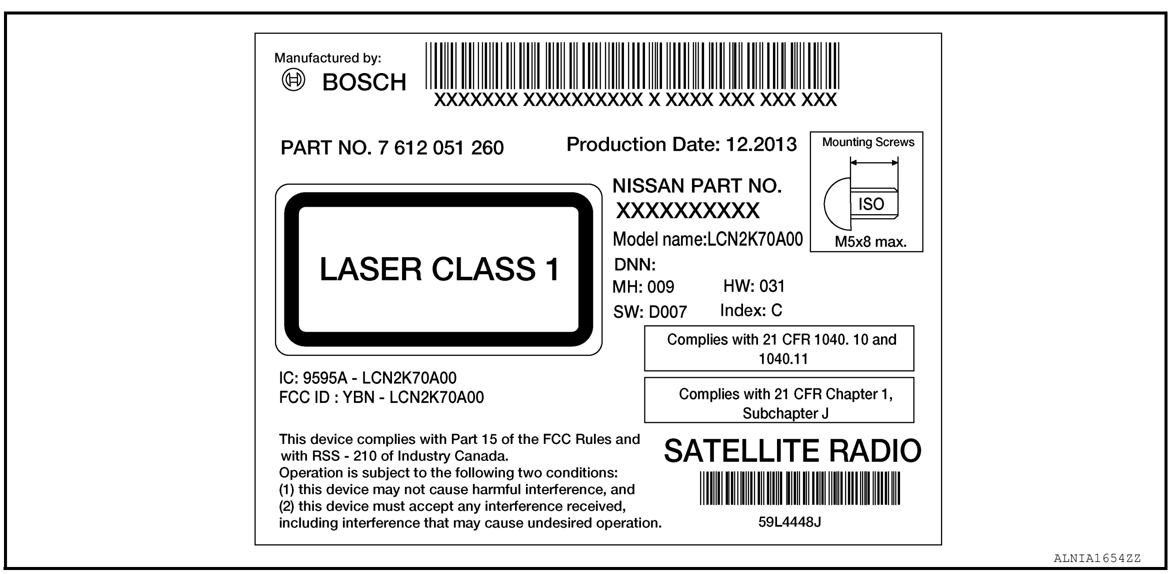
If the AV control unit is replaced with a new AV control unit and the customer has an active subscription for Satellite Radio, the new AV control unit must be registered with the updated subscription information.

REGISTRATION (AV CONTROL UNIT) : Work Procedure (Registration Code)

INFOID:0000000014386858

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.



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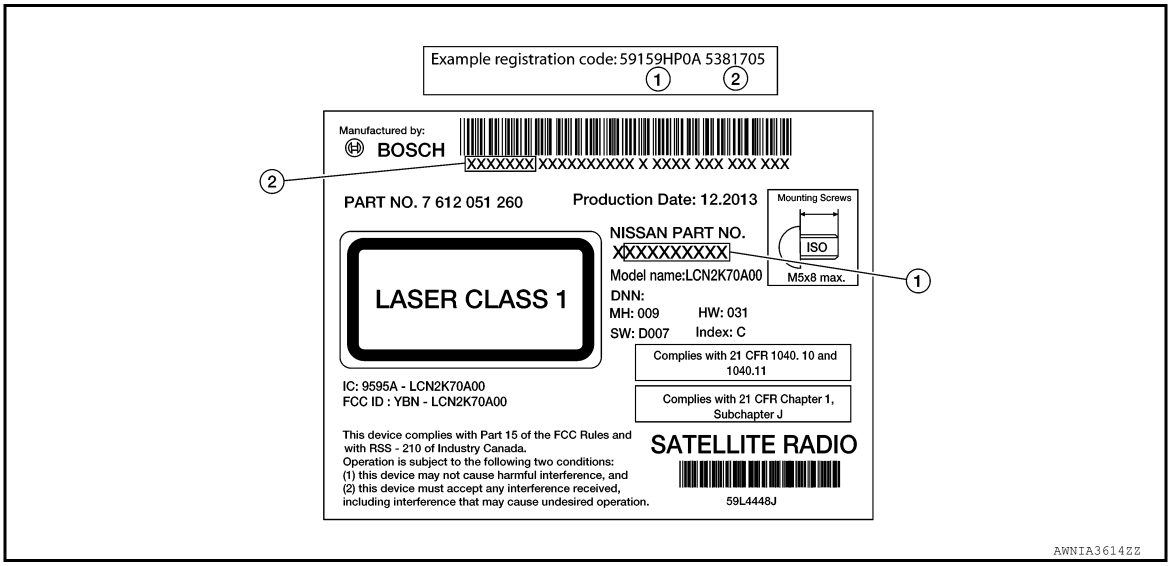
2. Create a registration code to supply to NISSAN Owner Services by combining the last 9 digits of the NISSAN PART NO. (1) and the first 7 digits of the bar code number (2).



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.

REGISTRATION (AV CONTROL UNIT) : Work Procedure (Satellite Radio Registration)

INFOID:0000000014386859

Contact SiriusXM Dealer Support at 1-800-852-9696 to confirm the subscription is active. If the subscription is confirmed, perform the following procedure:

1. Park the vehicle outside.
2. Turn ignition ON.
3. Turn the radio ON and tune to channel "O" on the XM source.
4. Write down the 8-digit SiriusXM Radio ID displayed on the screen.
5. Tune to channel "1" on the XM source and leave the radio ON.
6. If activating NavTraffic and/or NavWeather/Travel Link Weather, press the APPS button and select Traffic Info or Weather Info to display the respective screen.

7. Activate service at www.siriusxm.com/refresh or by calling SiriusXM Dealer Support at 1-800-852-9696.

8. The service should be activated within 30 minutes.
   - For satellite radio, audio will broadcast when tuned to channels other than "1".
   - For satellite traffic and/or weather, traffic/weather information will display on the Traffic Info/Weather Info screen, or the screen will indicate the system is active.

9. Turn ignition OFF and wait 5 minutes.
   NOTE:
   Do not disconnect the battery or pull any fuses during this time.

10. Turn ignition ON.

11. Check that the activated service is operational.

DTC/CIRCUIT DIAGNOSIS

U1000 CAN COMM CIRCUIT

DTC Description

INFOID:0000000014386860

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-74, "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-115, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014386861

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-53, "Trouble Diagnosis Flow Chart".
NO >> Refer to GI-47, "Intermittent Incident".

U1010 CONTROL UNIT (CAN)

DTC Description

INFOID:0000000014386862

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-74, "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-116, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014386863

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-157, "Removal and Installation".
NO >> Refer to GI-47, "Intermittent Incident".

U1217 AV CONTROL UNIT

DTC Description

INFOID:0000000014386864

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-117, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014386865

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-157, "Removal and Installation".
NO >> Refer to GI-47, "Intermittent Incident".

U1229 AV CONTROL UNIT

DTC Description

INFOID:0000000014386866

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-118, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014386867

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-157, "Removal and Installation".
NO >> Refer to GI-47, "Intermittent Incident".

U1244 GPS ANTENNA

DTC Description

INFOID:0000000014386868

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-119, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014386869

Regarding Wiring Diagram information, refer to AV-94, "Wiring Diagram".

1. GPS ANTENNA INSPECTION

Visually inspect the GPS antenna and antenna feeder. Refer to AV-163, "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 M151 terminal 58 and ground.

AV control unit		Ground	Voltage (Approx.)
Connector	Terminal		
M151	58	—	5.0 V

Is inspection result normal?

YES >> Replace GPS antenna. Refer to AV-163, "Removal and Installation".
NO >> Replace AV control unit. Refer to AV-157, "Removal and Installation".

U1258 SATELLITE RADIO ANTENNA

DTC Description

INFOID:0000000014386870

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-120, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014386871

Regarding Wiring Diagram information, refer to AV-94, "Wiring Diagram".

1.SATELLITE ANTENNA INSPECTION

Visually inspect the satellite antenna and antenna feeder. Refer to AV-81, "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 M147 and satellite radio antenna connector R109.
3. Check continuity between AV control unit connector M147 and satellite radio antenna connector R109.

AV control unit		Satellite radio antenna		Continuity
Connector	Terminal	Connector	Terminal	
M147	56	R109	1	Yes

4. Check continuity between AV control unit connector M147 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M147	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 M147 and satellite radio antenna connector R109.
2. Turn ignition switch ON.
3. Check voltage between AV control unit connector M147 terminal 56 and ground.

AV control unit		Ground	Voltage (Approx.)
Connector	Terminal		
M147	56	—	5.0 V

Is inspection result normal?

YES >> Replace satellite radio antenna AV-162, "Removal and Installation".
NO >> Replace AV control unit. Refer to AV-157, "Removal and Installation".

U1263 USB

DTC Description

INFOID:0000000014386872

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-122, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014386873

1.CHECK USB INTERFACE HARNESS

Visually inspect USB interface harness. Refer to AV-158, "Removal and Installation".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Replace USB interface harness. Refer to AV-158, "Removal and Installation".

2.CHECK USB INTERFACE HARNESS

Check USB interface harness circuits. Refer to AV-142, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Replace AV control unit. Refer to AV-157, "Removal and Installation".
NO >> Replace USB interface harness. Refer to AV-158, "Removal and Installation".

U12AA CONFIGURATION ERROR

DTC Description

INFOID:0000000014386874

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-123, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014386875

1.PERFORM CONFIGURATION

CONSULT

1. Perform configuration procedure. Refer to AV-111, "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-157, "Removal and Installation".
NO >> Inspection End.

U12AB ANTENNA

DTC Description

INFOID:0000000014386876

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-124, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014386877

Regarding Wiring Diagram information, refer to AV-94, "Wiring Diagram".

1. ROD ANTENNA INSPECTION

Visually inspect the rod antenna and antenna feeder. Refer to AV-81, "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 M146 terminal 52 and ground.

AV control unit		Ground	Voltage (Approx.)
Connector	Terminal		
M146	52	—	5.0 V

Is inspection result normal?

YES >> Replace rod antenna. Refer to AV-165, "Removal and Installation".
NO >> Replace AV control unit. Refer to AV-157, "Removal and Installation".

U12AC AV CONTROL UNIT

DTC Description

INFOID:0000000014386878

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-125, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014386879

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-157, "Removal and Installation".
NO >> Refer to GI-47, "Intermittent Incident".

U12AD AV CONTROL UNIT

DTC Description

INFOID:0000000014386880

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-126, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014386881

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-157, "Removal and Installation".
NO >> Refer to GI-47, "Intermittent Incident".

U12AE AV CONTROL UNIT

DTC Description

INFOID:0000000014386882

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-127, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014386883

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-157, "Removal and Installation".
NO >> Refer to GI-47, "Intermittent Incident".

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U12AF AV CONTROL UNIT

DTC Description

INFOID:0000000014386884

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-128, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014386885

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-157, "Removal and Installation".
NO >> Refer to GI-47, "Intermittent Incident".

U12B0 POWER SUPPLY VOLTAGE

DTC Description

INFOID:0000000014386886

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-129, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014386887

1.CHECK CHARGING SYSTEM

Check the vehicle charging system. Refer to CHG-25, "Work Flow (With EXP-800 NI or GR8-1200 NI) (with Cummins 5.0L)" or CHG-31, "Work Flow (Without EXP-800 NI or GR8-1200 NI) (with Cummins 5.0L)".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning components.

2.CHECK AV CONTROL UNIT POWER SUPPLY AND GROUND CIRCUITS

Perform the AV control unit power supply and ground circuit diagnosis procedure. Refer to AV-131, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Replace the AV control unit. Refer to AV-157, "Removal and Installation".
NO >> Repair or replace harness or connectors.

U12B1 POWER SUPPLY VOLTAGE

DTC Description

INFOID:0000000014386888

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-130, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014386889

1.CHECK CHARGING SYSTEM

Check the vehicle charging system. Refer to CHG-25, "Work Flow (With EXP-800 NI or GR8-1200 NI) (with Cummins 5.0L)" or CHG-31, "Work Flow (Without EXP-800 NI or GR8-1200 NI) (with Cummins 5.0L)".

Is the inspection result normal?

YES >> Replace the AV control unit. Refer to AV-157, "Removal and Installation".
NO >> Repair or replace the malfunctioning components.

POWER SUPPLY AND GROUND CIRCUIT

Diagnosis Procedure

INFOID:0000000014386890

Regarding Wiring Diagram information, refer to AV-94, "Wiring Diagram".

1.CHECK FUSE

Check that the following fuses are not blown.

Terminal No.	Signal name	Fuse No.
7	ACC power supply	25 (5A)
19	Battery power supply	15 (20A)
37	Ignition power supply	29 (5A)

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 M97 and M98.
3. Check voltage between AV control unit connectors M97 and M98 and ground.

AV control unit		Ground	Condition	Voltage (Approx.)
Connector	Terminal			
M97	19	—	Ignition switch: OFF	Battery voltage
	7		Ignition switch: ON	
M98	37			

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 M97 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M97	20	—	Yes

Is the inspection result normal?

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

FRONT TWEETER

Diagnosis Procedure

INFOID:0000000014386891

Regarding Wiring Diagram information, refer to AV-94, "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 M97 and suspect front tweeter connector.
2. Check continuity between AV control unit connector M97 and suspect front tweeter connector.

AV control unit		Front tweeter		Continuity
Connector	Terminal	Connector	Terminal	
M97	2	M109 (LH)	1	Yes
	3		2	
	11	M111 (RH)	1	
	12		2	

3. Check continuity between AV control unit connector M97 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M97	2	—	No
	3		
	11		
	12		

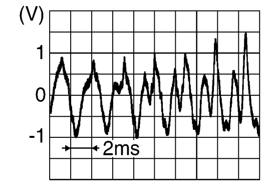
Is the inspection result normal?

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

3.CHECK FRONT TWEETER SIGNAL

1. Connect AV control unit connector M97 and suspect front tweeter connector.
2. Turn ignition switch to ACC.
3. Push AV control unit POWER switch.
4. Check signal between AV control unit connector M97 and ground.

AV control unit connector M97		Condition	Reference value
(+)	(–)		
Terminal	Terminal		

2	3		
11	12	Audio signal output	

Is the inspection result normal?

YES >> Replace front tweeter. Refer to AV-159, "Removal and Installation".
NO >> Replace AV control unit. Refer to AV-157, "Removal and Installation".

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FRONT DOOR SPEAKER

Diagnosis Procedure

INFOID:0000000014386892

Regarding Wiring Diagram information, refer to AV-94, "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 M97 and suspect front door speaker connector.
2. Check continuity between AV control unit connector M97 and suspect front door speaker connector.

AV control unit		Front door speaker		Continuity
Connector	Terminal	Connector	Terminal	
M97	2	D12 (LH)	1	Yes
	3		2	
	11	D112 (RH)	1	
	12		2	

3. Check continuity between AV control unit connector M97 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M97	2	—	No
	3		
	11		
	12		

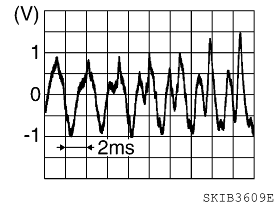
Is the inspection result normal?

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

3. CHECK FRONT DOOR SPEAKER SIGNAL

1. Connect AV control unit connector M97 and suspect front door speaker connector.
2. Turn ignition switch to ACC.
3. Push AV control unit POWER switch.
4. Check signal between AV control unit connector M97 and ground.

AV control unit connector M97		Condition	Reference value
(+)	(–)		
Terminal	Terminal		

2	3	Audio signal output	
11	12		

Is the inspection result normal?

YES >> Replace front door speaker. Refer to AV-160, "Removal and Installation".
NO >> Replace AV control unit. Refer to AV-157, "Removal and Installation".

REAR DOOR SPEAKER

Diagnosis Procedure

INFOID:0000000014386893

Regarding Wiring Diagram information, refer to AV-94, "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 M97 and suspect rear door speaker connector.
2. Check continuity between AV control unit connector M97 and suspect rear door speaker connector.

AV control unit		Rear door speaker		Continuity
Connector	Terminal	Connector	Terminal	
M97	4	D207 (LH)	1	Yes
	5		2	
	13	D307 (RH)	1	
	14		2	

3. Check continuity between AV control unit connector M97 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M97	4	—	No
	5		
	13		
	14		

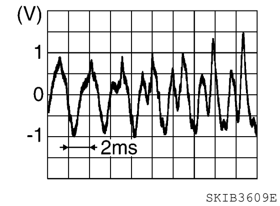
Is the inspection result normal?

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

3.CHECK REAR DOOR SPEAKER SIGNAL

1. Connect AV control unit connector M97 and suspect rear door speaker connector.
2. Turn ignition switch to ACC.
3. Push AV control unit POWER switch.
4. Check signal between AV control unit connector M97 and ground.

AV control unit connector M97		Condition	Reference value
(+)	(–)		
Terminal	Terminal		

4	5		
13	14	Audio signal output	

Is the inspection result normal?

YES >> Replace rear door speaker. Refer to AV-161, "Removal and Installation".
NO >> Replace AV control unit. Refer to AV-157, "Removal and Installation".

MICROPHONE SIGNAL CIRCUIT

Diagnosis Procedure

INFOID:0000000014386894

Regarding Wiring Diagram information, refer to AV-94, "Wiring Diagram".

1.CHECK MICROPHONE SIGNAL CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M98 and microphone connector R5.
3. Check continuity between AV control unit connector M98 and microphone connector R5.

AV control unit		Microphone		Continuity
Connector	Terminal	Connector	Terminal	
M97	41	R5	2	Yes
	42		4	
	43		1	

4. Check continuity between AV control unit connector M98 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M98	41	—	No
	42		
	43		

Is inspection result normal?

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

2.CHECK MICROPHONE VCC VOLTAGE

1. Connect AV control unit connector M98.
2. Turn ignition switch ON.
3. Check voltage between terminals of AV control unit connector M98.

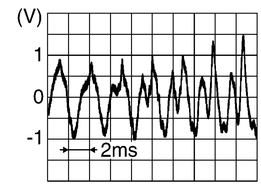
AV control unit connector M98		Voltage (Approx.)
(+)	(–)	
Terminal	Terminal	
42	41	5.0 V

Is the inspection result normal?

YES >> GO TO 3.
NO >> Replace AV control unit. Refer to AV-157, "Removal and Installation".

3.CHECK MICROPHONE SIGNAL

1. Connect microphone connector.
2. Check signal between terminals of AV control unit connector M98.

AV control unit connector M98		Condition	Reference value
(+)	(–)		
Terminal	Terminal		
43	41	Speak into microphone.	 SKIB3609E

Is the inspection result normal?

YES >> Replace AV control unit. Refer to AV-157, "Removal and Installation".
NO >> Replace microphone. Refer to AV-166, "Removal and Installation".

STEERING SWITCH

Diagnosis Procedure

INFOID:0000000014386895

Regarding Wiring Diagram information, refer to AV-94, "Wiring Diagram".

1.CHECK STEERING WHEEL AUDIO CONTROL SWITCH RESISTANCE

1. Turn ignition switch OFF.
2. Disconnect combination switch connector M30.
3. Check resistance between combination switch connector terminals.

Combination switch connector M88		Condition	Resistance Ω (Approx.)
Terminal	Terminal		
10	12	Depress SOURCE switch.	1
		Depress △ switch.	121
		Depress ▽ switch.	321
		Depress switch.	723
		Depress ENTER switch.	2023
14		Depress − switch.	1
		Depress + switch.	121
		Depress switch.	321
		Depress menu right switch.	723
		Depress menu left switch.	2023

Is the inspection result normal?

YES >> GO TO 2.
NO >> Replace steering switches. Refer to AV-164, "Removal and Installation".

2.CHECK HARNESS BETWEEN COMBINATION SWITCH AND COMBINATION METER

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

Combination meter		Combination switch		Continuity
Connector	Terminal	Connector	Terminal	
M24	1	M30	12	Yes
	22		10	
	23		14	

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

Combination meter		Ground	Continuity
Connector	Terminal		
M24	1	—	No
	22		
	23		

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 M30 and M199.

Combination switch				Continuity
Connector	Terminal	Connector	Terminal	
M30	10	M199	16	Yes
	12		19	
	14		17	

Is the inspection result normal?

YES >> GO TO 4.
NO >> Replace spiral cable. Refer to SR-14, "Removal and Installation".

4.CHECK HARNESS BETWEEN COMBINATION METER AND AV CONTROL UNIT

1. Disconnect AV control unit connector M98.
2. Check continuity between combination meter connector M25 and AV control unit connector M98.

Combination meter		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M25	51	M98	21	Yes
	52		22	

3. Check continuity between combination meter connector M25 and ground.

Combination meter		Ground	Continuity
Connector	Terminal		
M25	51	—	No
	52		

Is the inspection result normal?

YES >> Replace AV control unit. Refer to AV-157, "Removal and Installation".
NO >> Repair or replace harness or connectors.

USB CONNECTOR

Diagnosis Procedure

INFOID:0000000014386896

Regarding Wiring Diagram information, refer to AV-94, "Wiring Diagram".

1.CHECK USB INTERFACE HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M143 and USB interface connector M185.
3. Check continuity between AV control unit connector M143 and USB interface connector M185.

AV control unit		USB interface		Continuity
Connector	Terminal	Connector	Terminal	
M143	45	M185	1	Yes
	47		3	
	48		4	
	49		5	
	50		6	

4. Check continuity between AV control unit connector M143 and ground.

AV control unit		—	Continuity
Connector	Terminal		
M143	45	Ground	No
	48		

Is the inspection result normal?

YES >> Replace the USB interface. Refer to AV-158, "Removal and Installation".
NO >> Repair or replace harness or connectors.

AUXILIARY INPUT JACK

Diagnosis Procedure

INFOID:0000000014386897

Regarding Wiring Diagram information, refer to AV-94, "Wiring Diagram".

1.CHECK AUX IN JACK HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M98 and AUX in jack connector M104.
3. Check continuity between AV control unit connector M98 and AUX in jack connector M104.

AV control unit		AUX in jack		Continuity
Connector	Terminal	Connector	Terminal	
M98	30	M104	6	Yes
	31		3	
	32		1	

4. Check continuity between AV control unit connector M98 and ground.

AV control unit		—	Continuity
Connector	Terminal		
M98	30	Ground	No
	32		

Is the inspection result normal?

YES >> Replace the AUX in jack. Refer to AV-158, "Removal and Installation".
NO >> Repair or replace harness or connectors.

SYMPTOM DIAGNOSIS

MULTI AV SYSTEM

Symptom Table

INFOID:0000000014386898

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-87, "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-94, "Wiring Diagram". • AV control unit power supply and ground circuits malfunction. Refer to AV-131, "Diagnosis Procedure".
	Only a certain speaker (front door speaker LH, front door speaker RH, front tweeter LH, front tweeter 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-134, "Diagnosis Procedure" (front door speaker). - AV-132, "Diagnosis Procedure" (front tweeter). - AV-136, "Diagnosis Procedure" (rear door speaker). • Malfunction in speaker. Refer to: - AV-160, "Removal and Installation" (front door speaker). - AV-159, "Removal and Installation" (front tweeter). - AV-161, "Removal and Installation" (rear door speaker). • Malfunction in AV control unit. Refer to AV-87, "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-87, "On Board Diagnosis Function".
	Noise comes out only from a certain speaker (front door speaker LH, front door speaker RH, front tweeter LH, front tweeter 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-134, "Diagnosis Procedure" (front door speaker). - AV-132, "Diagnosis Procedure" (front tweeter). - AV-136, "Diagnosis Procedure" (rear door speaker). • Malfunction in speaker. • Poor Installation of speaker (e.g. backlash and looseness). Refer to: - AV-160, "Removal and Installation" (front door speaker). - AV-159, "Removal and Installation" (front tweeter). - AV-161, "Removal and Installation" (rear door speaker). • Malfunction in AV control unit. Refer toAV-87, "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-81, "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-81, "Antenna and Antenna Feeder".
No satellite radio reception.	There is malfunction in the CONSULT self diagnosis result. Refer to AV-88, "CONSULT Function".	• Malfunction in antenna, antenna feeder or AV control unit. Perform DTC diagnosis. Refer to AV-120, "Diagnosis Procedure". • Poor continuity in antenna feeder. • Poor connector connection of antenna or antenna feeder. Refer to AV-81, "Antenna and Antenna Feeder".
	There is no malfunction in the CONSULT self diagnosis result. Refer to AV-88, "CONSULT Function".	• Poor continuity in antenna feeder. • Poor connector connection of antenna or antenna feeder. • Loose satellite radio antenna mounting nut. Refer to AV-81, "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-157, "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-138, "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-164, "Removal and Installation".
	Steering switch's , and switches do not work.	Steering switch signal circuit malfunction. Refer to AV-140, "Diagnosis Procedure".
	All steering switches do not work.	Steering switch ground circuit malfunction. Refer to AV-140, "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 toAV-87, "On Board Diagnosis Function".
	Steering switches malfunction.	Steering switch signal circuit malfunction. Refer to AV-140, "Diagnosis Procedure".
	Voice activated control malfunction.	Microphone signal circuit malfunction. Refer to AV-138, "Diagnosis Procedure". Steering switch signal circuit malfunction. Refer to AV-140, "Diagnosis Procedure".

NORMAL OPERATING CONDITION

Description

INFOID:0000000014386899

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-144, "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 malfunctioning.

Vehicle Mark

Symptom	Cause	Remedy
Map screen and BIRDVIEW™ Name of the place vary with the screen.	Some thinning of the character data is done to prevent the display becoming to complex. In some cases and in some locations, the display contents may differ. The same place name, street name, etc. may not be displayed every time on account of the data processing.	System is not malfunctioning.
Vehicle mark is not positioned correctly.	Vehicle is transferred by ferry or by towing after its ignition switch is turned to OFF.	Drive the vehicle for a while in the GPS satellite signal receiving condition.
Screen will not switch to nighttime mode after the lighting switch is turned ON.	The daytime screen is selected by the "SWITCH SCREENS" when the last time the screen dimming setting is done. Switching between daytime/nighttime screen may be inhibited by the automatic illumination adjustment function.	Perform screen dimming and select the nighttime screen by "SWITCH SCREENS".
Map screen will not scroll in accordance with the vehicle travel.	Current location is not displayed.	Press "MAP" button to display the current location.
Vehicle mark will not be shown.	Current location is not displayed.	Press "MAP" button to display the current location.
Accuracy indicator (GPS satellite mark) on the map screen stays gray.	GPS satellite signal is intercepted because the vehicle is in or behind a building.	Move the vehicle out to an open space.
	GPS satellite signal cannot be received because an obstacle is placed on top of the instrument panel.	Do not place anything on top of the meter display (instrument panel).
	GPS satellites are not visible from current location.	Wait until GPS satellites are visible by moving the vehicle.

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 condition 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 turned and the connection of the road to other roads.	Drive in conformity to the actual traffic rules.

Route Search

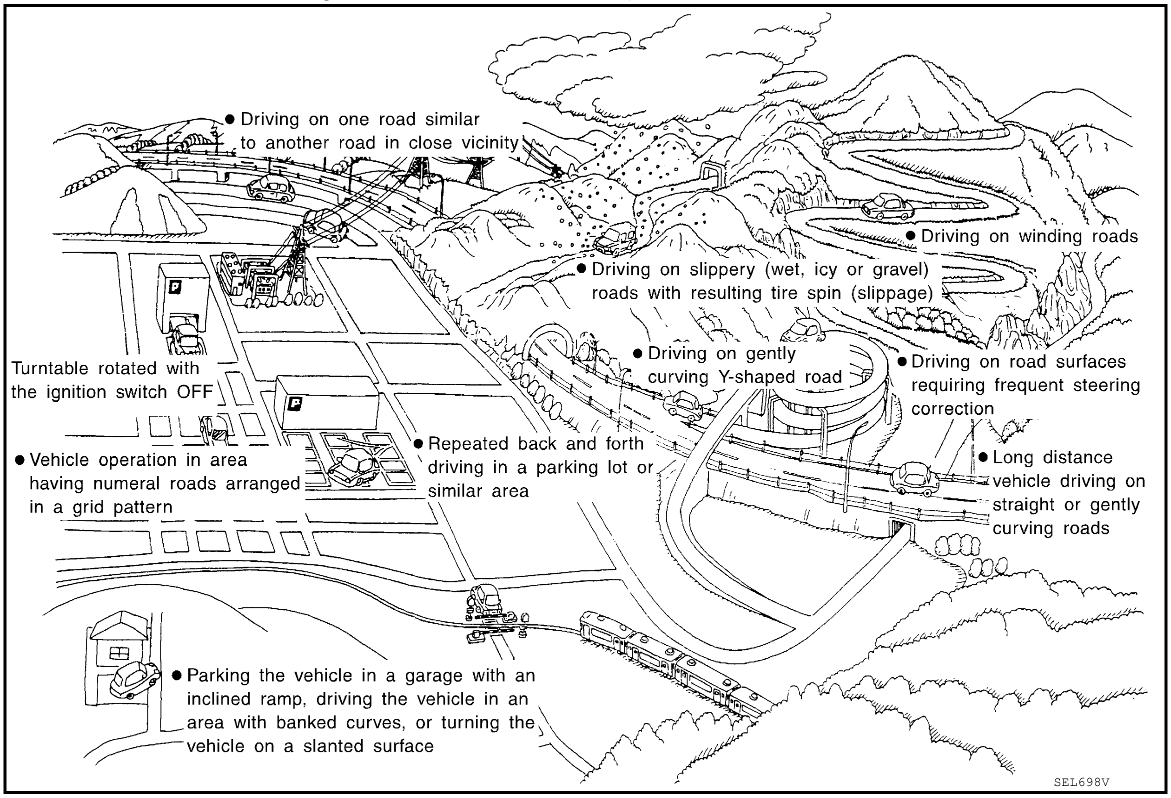
Symptom	Cause	Remedy
No route is shown.	No road to be searched is found around the destination.	Find wider road (orange road or wider) nearby and reset the destination and passing points onto it. Take care of the traveling direction when there are separate up and down roads.
	Starting point and the destination 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 happen due to omission or error in the map data.	As a rule, an updated map DVD-ROM will be released once a year. Wait until the latest map has become available.
Recommended route is far from the starting point, passing points, and destination.	Starting point, passing points, and destination of the route guide were set far from the desired points because route searching data around these area were not stored.	Reset the destination onto the road nearby. If this road is one of the highways (gray routes), an ordinary road nearby may be displayed as the recommended route.

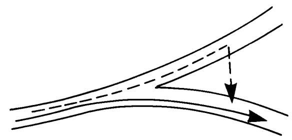
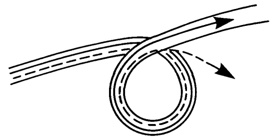
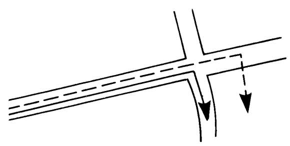
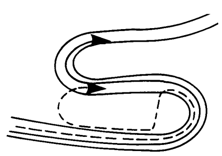
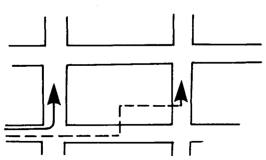
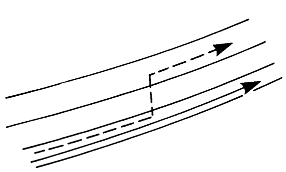
NOTE:

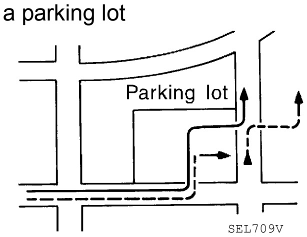
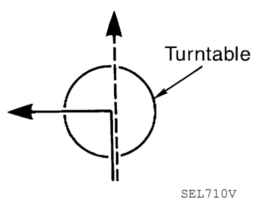
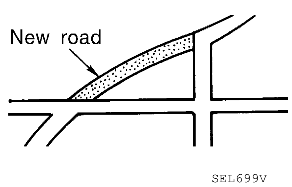
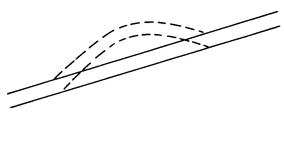
Except for the ordinance-designated cities. (Malfunctioning areas may be changed in the updated map disc.)

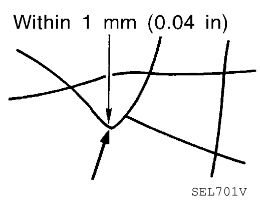
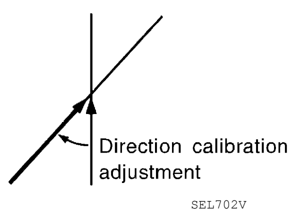
Examples of Current-Location Mark Displacement

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 	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 	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 	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) 	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 	If the accuracy of location settings is poor, accuracy may be reduced when the correct road cannot be found, particularly in places where there are many roads.	Enter in the road displayed on the screen with an accuracy of approx. 1mm. Caution: Whenever possible, use detailed map for the correction.
	Direction when location is corrected 	If the accuracy of location settings during correction is poor, accuracy may be reduced afterwards.	Perform direction correction.

Location Correction by Map-Matching is Slow

- The map-matching function needs to refer to the data of the surrounding area. It is necessary to drive some distance for the function to work.
- Because map-matching operates on this principle, when there are many roads running in similar directions in the surrounding area, no matching determination may be made. The location may not be corrected until some special feature is found.

Name of Road is Not Displayed

The current road name may not be displayed if there are no road names displayed on the map screen.

Contents of Display Differ for Birdview™ and the (Flat) Map Screen

Difference of the BIRDVIEW™ screen from the flat map screen are as follows.

- The current place name displays names which are primarily in the direction of vehicle travel.
- The amount of time before the vehicle travel or turn angle is updated on the screen is longer than for the (flat) map display.
- The conditions for display of place names, roads, and other data are different for nearby areas and for more distant areas.
- Some thinning of the character data is done to prevent the display becoming too complex. In some cases and in some locations, the display contents may differ.
- The same place name, street name, etc. may be displayed multiple times.

Vehicle Mark Shows a Position Which is Completely Wrong

In the following cases, the vehicle mark may appear on completely different position in the map depending on the GPS satellite signal receiving conditions. In this case, perform location correction and direction correction.

- When location correction has not been done
- If the receiving conditions of the GPS satellite signal is poor, if the vehicle mark becomes out of place, it may move to a completely different location and not come back if location correction is not done. The position will be corrected if the GPS signal can be received.
- When the vehicle has traveled by ferry, or when the vehicle has been being towed

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

- 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

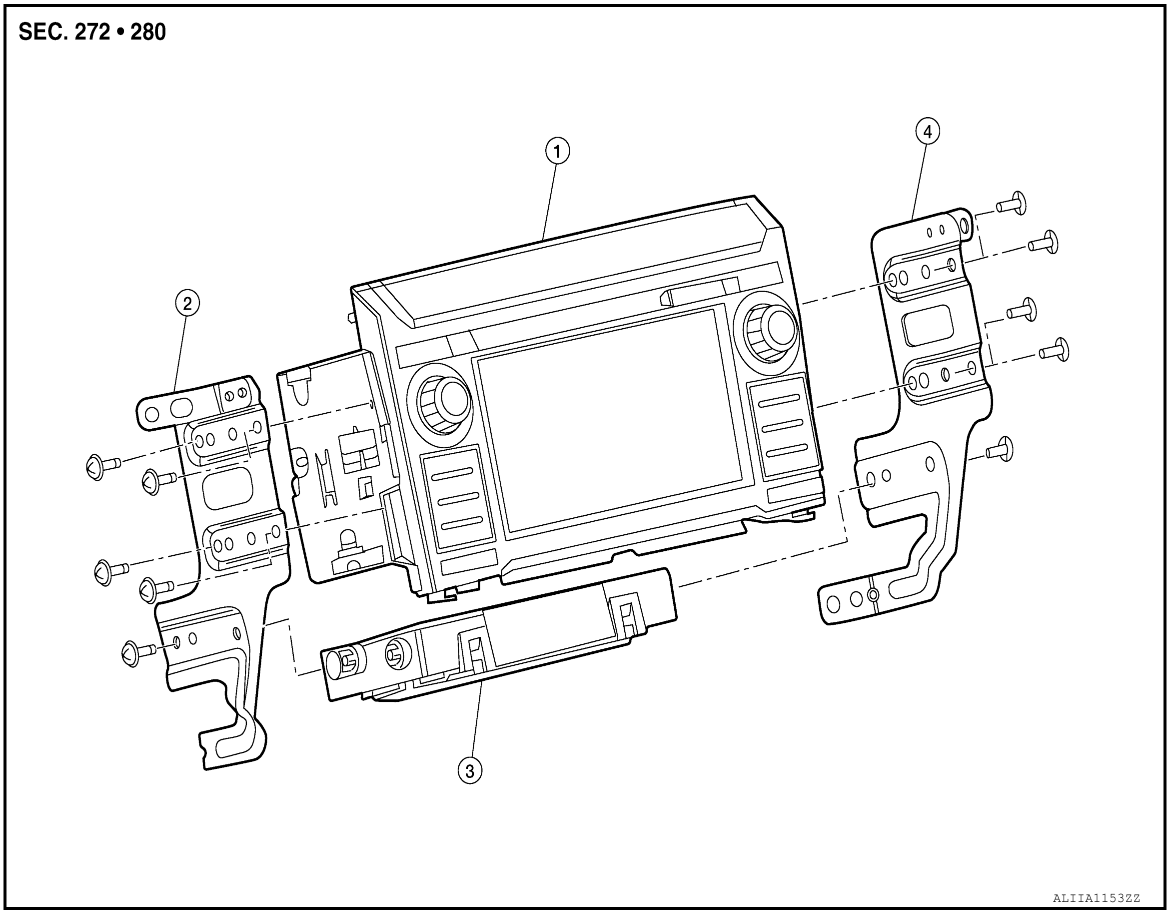
The conditions of the GPS antenna (GPS data) and gyroscope (angular speed sensor) change gradually. Depending on the road traveled and the operation of the steering wheel, the location detection results will be different. Therefore, even on a road on which the location has never been wrong, conditions may cause the vehicle mark to deviate.

REMOVAL AND INSTALLATION

AV CONTROL UNIT

Exploded View

INFOID:0000000014386900



1. AV control unit
2. AV control unit bracket (LH)
3. A/C auto amp.
4. AV control unit bracket (RH)

Removal and Installation

INFOID:0000000014386901

REMOVAL

CAUTION:

Before replacing AV control unit, perform "ADDITIONAL SERVICE WHEN REPLACING AV CONTROL UNIT" to save current vehicle specification. Refer to AV-110, "ADDITIONAL SERVICE WHEN REPLACING AV CONTROL UNIT : Description".

1. Disconnect battery or batteries. Refer to PG-185, "Battery Disconnect".
2. Remove cluster lid C lower. Refer to IP-20, "Removal and Installation".
3. Remove A/C switch assembly. Refer to HAC-121, "Removal and Installation".
4. Remove AV control unit bracket screws, then pull out AV control unit.
5. Disconnect harness connectors from AV control unit and remove AV control unit.

INSTALLATION

Installation is in the reverse order of removal.

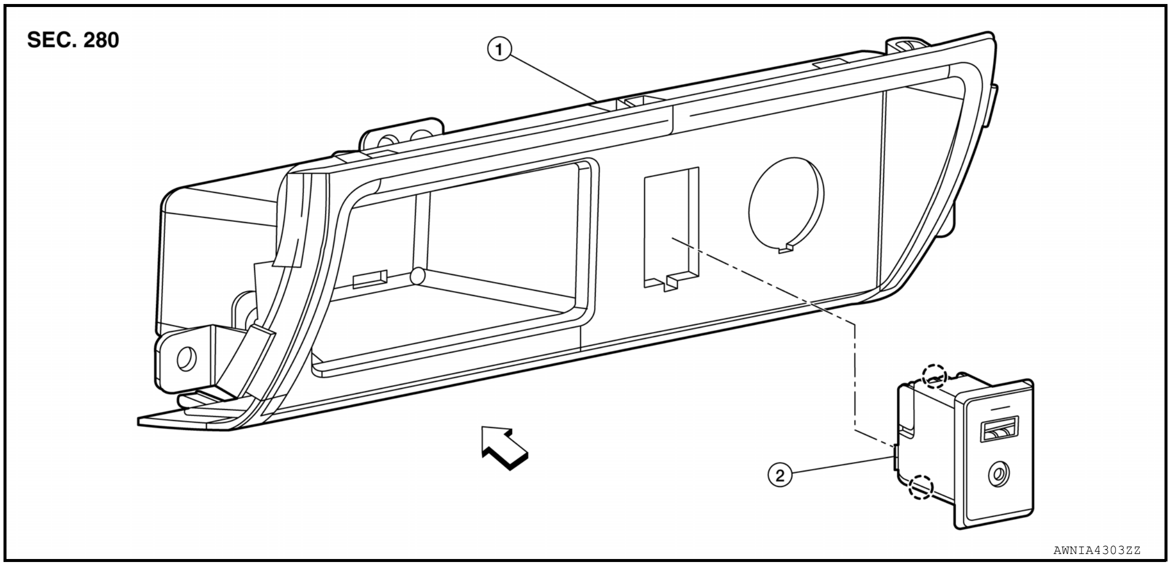
CAUTION:

After replacing AV control unit, perform "ADDITIONAL SERVICE WHEN REPLACING AV CONTROL UNIT" to configure and register AV control unit. Refer to AV-110, "ADDITIONAL SERVICE WHEN REPLACING AV CONTROL UNIT : Description".

USB INTERFACE AND AUX IN JACK

Exploded View

INFOID:0000000014386902



1. Cluster lid C lower
2. USB interface and aux in jack

Pawl

Front

Removal and Installation

INFOID:0000000014386903

REMOVAL

1. Remove cluster lid C lower. Refer to IP-17, "CLUSTER LID C LOWER : Removal and Installation".
2. Disconnect harness connector from USB interface and aux in jack.
3. Release pawls using suitable tool and remove USB interface and aux in jack.

INSTALLATION

Installation is in the reverse order of removal.

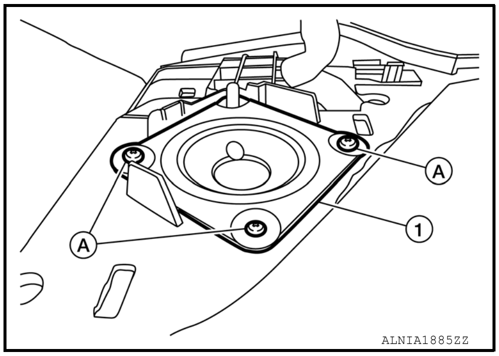
FRONT TWEETER

Removal and Installation

INFOID:0000000014386904

REMOVAL

1. Remove front pillar finisher. Refer to INT-20, "FRONT PILLAR FINISHER : Removal and Installation".
2. Remove defroster grille. Refer to IP-14, "Exploded View".
3. Remove speaker grille. Refer to IP-14, "Exploded View".
4. Remove front tweeter screws (A).
5. Disconnect harness connector from front tweeter (1) and remove front tweeter.



Installation

Installation is in the reverse order of removal.

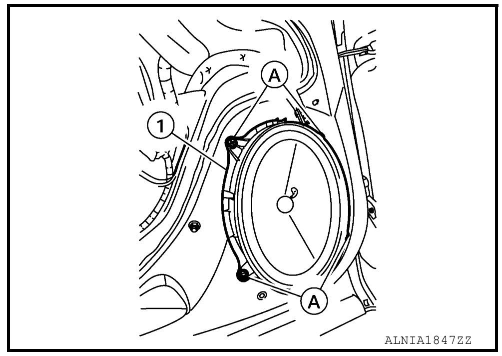
FRONT DOOR SPEAKER

Removal and Installation

INFOID:0000000014386905

REMOVAL

1. Remove front door finisher. Refer to INT-14, "Removal and Installation".
2. Remove front door speaker screws (A).
3. Disconnect harness connector from front door speaker (1) and remove front door speaker.



INSTALLATION

Installation is in the reverse order of removal.

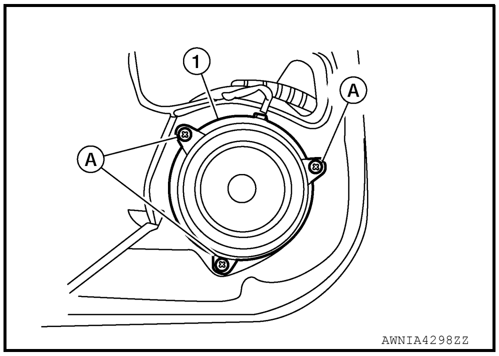
REAR DOOR SPEAKER

Removal and Installation

INFOID:0000000014386906

REMOVAL

1. Remove rear door finisher. Refer to INT-17, "Removal and Installation".
2. Remove rear door speaker screws (A).
3. Disconnect harness connector from rear door speaker (1) and remove rear door speaker.



INSTALLATION

Installation is in the reverse order of removal.

SATELLITE RADIO ANTENNA

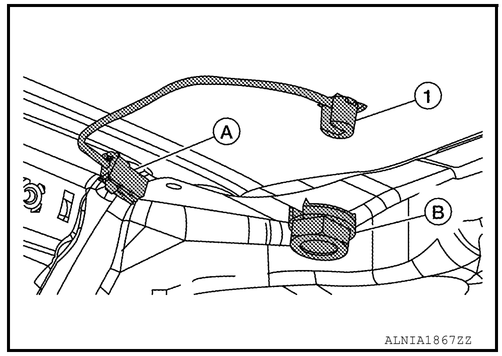
Removal and Installation

INFOID:0000000014386907

SATELLITE RADIO ANTENNA

REMOVAL

1. Partially remove headliner. Refer to INT-32, "Removal and Installation".
2. Disconnect the harness connector (A) from the satellite radio antenna connector.
3. Remove the satellite radio antenna nut (B).



4. Remove the satellite radio antenna.

INSTALLATION

Installation is in the reverse order of removal.

- Install satellite radio antenna to specification.

Satellite radio antenna nut : 10.1 N·m (1.0 kg-m, 7.0 ft-lb)

CAUTION:

If the satellite radio antenna nut is not tightened to the specified torque, lower sensitivity of the antenna may be experienced. If the nut is tightened tighter than the specified torque, this will deform the roof panel.

GPS ANTENNA

Removal and Installation

INFOID:0000000014386908

REMOVAL

1. Remove instrument panel assembly. Refer to IP-14, "Removal and Installation".
2. Remove GPS antenna screw and GPS antenna.

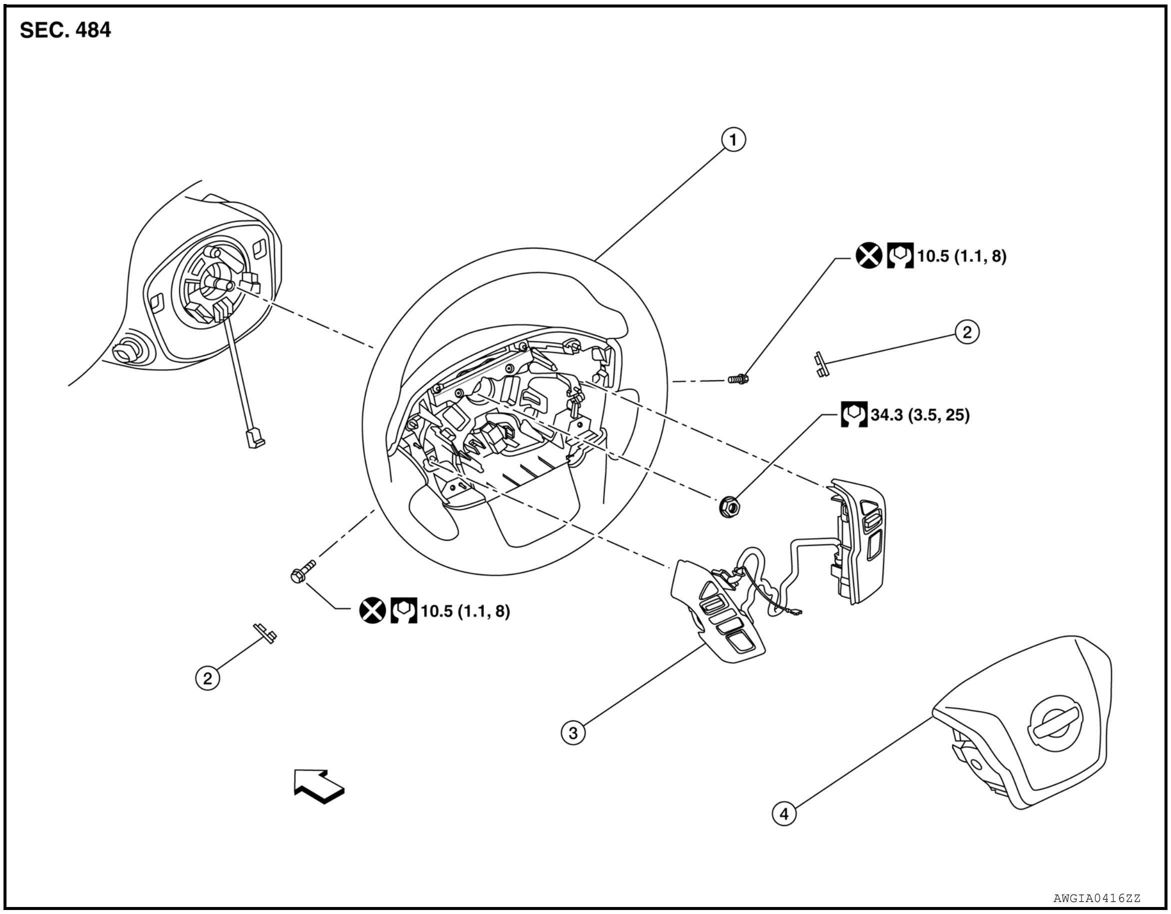
INSTALLATION

Installation is in the reverse order of removal.

STEERING SWITCHES

Exploded View

INFOID:0000000014386909



1.	Steering wheel	2.	Cover	3.	Steering switches
4.	Driver air bag module	⇦	Front		

Removal and Installation

INFOID:0000000014386910

REMOVAL

1. Remove steering wheel. Refer to ST-36, "Removal and Installation".
2. Remove steering wheel rear cover screws and steering wheel rear cover.
3. Remove steering wheel switch screws and steering wheel switches.

INSTALLATION

Installation is in the reverse order of removal.

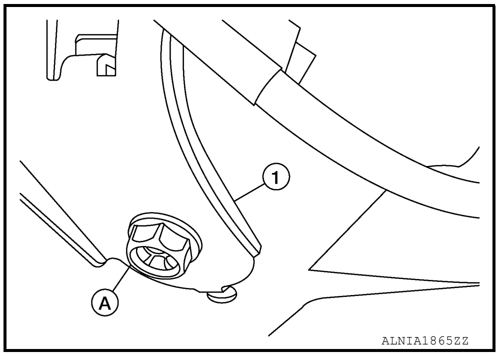
ROD ANTENNA

Removal and Installation

INFOID:0000000014386911

REMOVAL

1. Remove antenna rod.
2. Remove fender protector. Refer to EXT-41, "Removal and Installation - Front Fender Protector".
3. Remove bolt (A) from rod antenna bracket (1).



4. Disconnect the rod antenna feeder from the rod antenna.
5. Remove rod antenna.

INSTALLATION

Installation is in the reverse order of removal.
• Tighten rod antenna to specification.

Rod antenna : 7.0 N·m (0.71 kg-m, 62 in-lb)

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

MICROPHONE

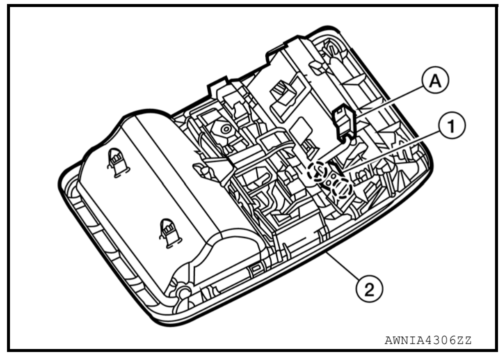
Removal and Installation

INFOID:0000000014386912

REMOVAL

1. Remove front room/map lamp assembly. Refer to INL-68, "Removal and Installation".
2. Disconnect harness connector from microphone (A).
3. Release pawls using suitable tool and remove microphone (1) from front room/map lamp assembly (2).

:Pawl



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:0000000014386913

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

INFOID:0000000014386914

CAUTION:

Remove battery terminal or terminals, 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 continue operating for approximately 30 seconds.
Therefore, data corruption may occur if battery voltage is cut off within 30 seconds.

Precaution for Trouble Diagnosis

INFOID:0000000014386915

AV COMMUNICATION SYSTEM

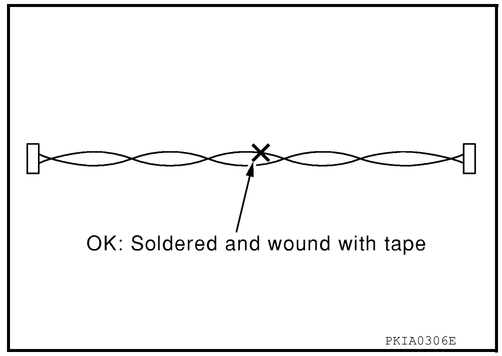
- Do not apply voltage of 7.0 V or higher to the measurement terminals.
- Use the tester with its open terminal voltage being 7.0 V or less.
- Be sure to turn ignition switch OFF and disconnect the battery cable or cables from the negative terminal or terminals before checking the circuit. Refer to PG-185, "Battery Disconnect".

Precaution for Harness Repair

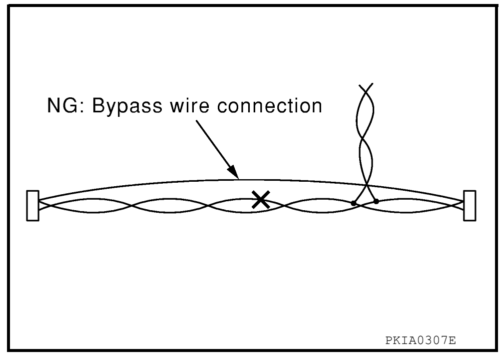
INFOID:0000000014386916

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:0000000014386917

- 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.

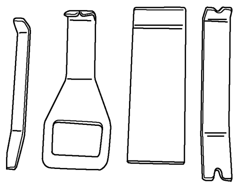
PREPARATION

PREPARATION

Special Service Tools

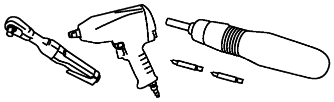
INFOID:0000000014386918

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:0000000014386919

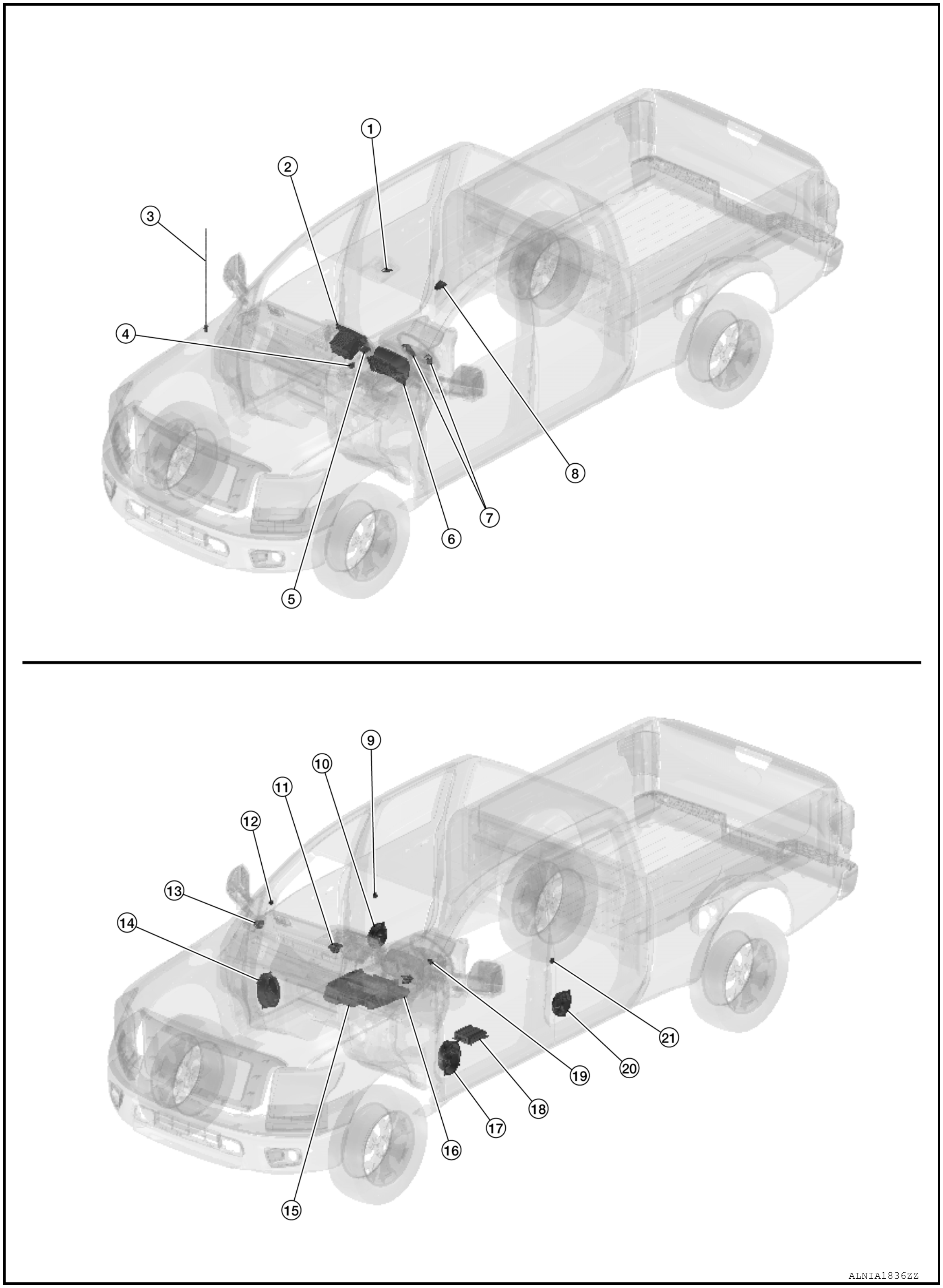
Tool name	Description
Power tool  PIIB1407E	Loosening nuts, screws and bolts

SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

INFOID:0000000014386920



No.	Component	Function
1.	Microphone	Refer to AV-174, "Microphone".
2.	AV control unit	Refer to AV-171, "AV Control Unit".
3.	Rod antenna	Refer to AV-174, "Antenna and Antenna Feeder".
4.	USB interface and AUX in jack	Refer to AV-173, "USB Interface and AUX In Jack".
5.	GPS antenna	Refer to AV-174, "GPS Antenna".
6.	Combination meter	Refer to MWI-12, "METER SYSTEM : Combination Meter".
7.	Steering switches	Refer to AV-174, "Steering Switches".
8.	Satellite antenna	Refer to AV-174, "Antenna and Antenna Feeder".
9.	Rear door tweeter RH	Refer to AV-172, "Speaker".
10.	Rear door speaker RH	Refer to AV-172, "Speaker".
11.	Center speaker	Refer to AV-172, "Speaker".
12.	Front pillar speaker RH	Refer to AV-172, "Speaker".
13.	Front tweeter RH	Refer to AV-172, "Speaker".
14.	Front door speaker RH	Refer to AV-172, "Speaker".
15.	Subwoofer	Refer to AV-172, "Speaker".
16.	Front tweeter LH	Refer to AV-172, "Speaker".
17.	Front door speaker LH	Refer to AV-172, "Speaker".
18.	Audio amp.	Refer to AV-171, "Audio Amp.".
19.	Front pillar speaker LH	Refer to AV-172, "Speaker".
20.	Rear door speaker LH	Refer to AV-172, "Speaker".
21.	Rear door tweeter LH	Refer to AV-172, "Speaker".

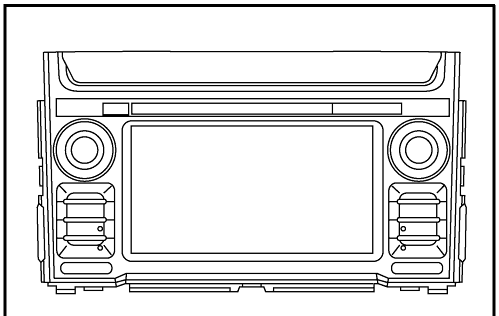
AV Control Unit

INFOID:0000000014386921

Description

- A 7-inch QVGA display, an AM/FM electronic tuner radio, CD drive, audio amplifier, Bluetooth® module, 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.

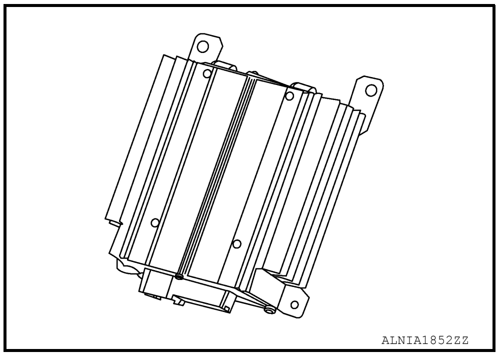
*: iPod® is a registered trademark of Apple, Inc. All rights reserved.


ALNIA1844ZZ

Audio Amp.

INFOID:0000000014386922

- Audio amp. is located under the left front seat.
- It receives sound signal from AV control unit and outputs sound signal to each speaker, tweeter and the subwoofer.

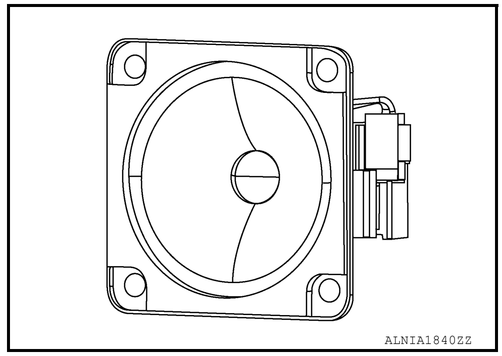

ALNIA1852ZZ

Speaker

INFOID:0000000014386923

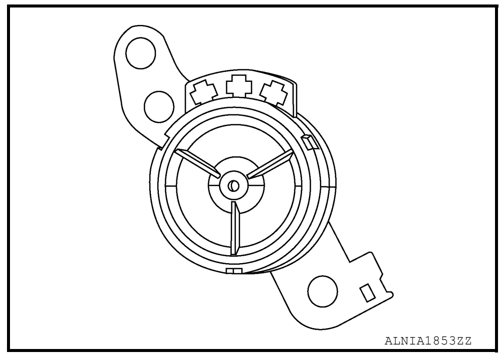
FRONT TWEETER

- 5.1 cm (2 in) speakers are installed in the top corners of the instrument panel assembly.
- Sound signals generated by the audio amp. output high range sounds.



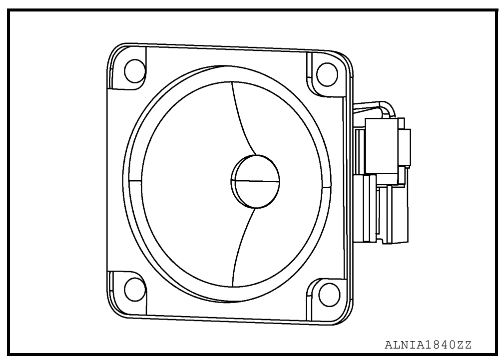
FRONT PILLAR SPEAKER

- 2.5 cm (1 in) speakers are installed in the LH and RH front pillar finishers.
- Sound signals generated by the audio amp. output high range sounds.



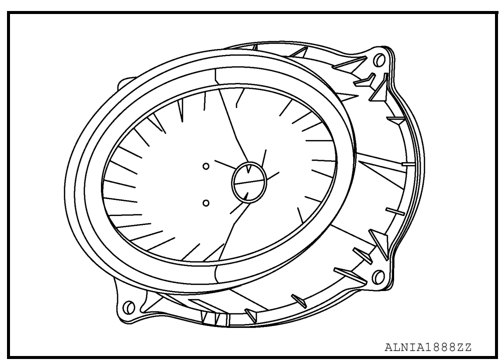
CENTER SPEAKER

- 10.2 cm (4 in) speaker is installed in the top center of the instrument panel assembly.
- Sound signals generated by the audio amp. output mid range sounds.



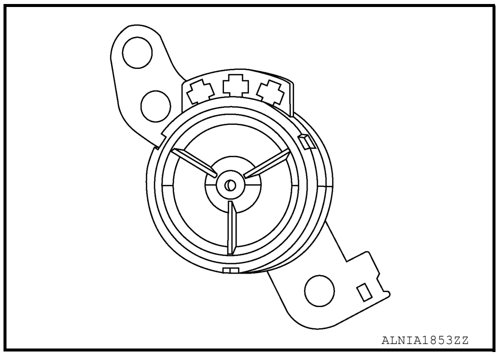
FRONT DOOR SPEAKER

- 15.2 x 22.9 cm (6 x 9 in) speakers are installed in the front side bottom of the front doors.
- Sound signals generated by the audio amp. output low range sounds.



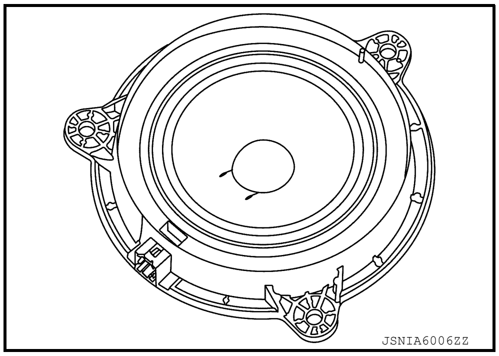
REAR DOOR TWEETER

- 2.5 cm (1 in) speakers are installed in the front side middle of the rear doors.
- Sound signals generated by the audio amp. output high range sounds.



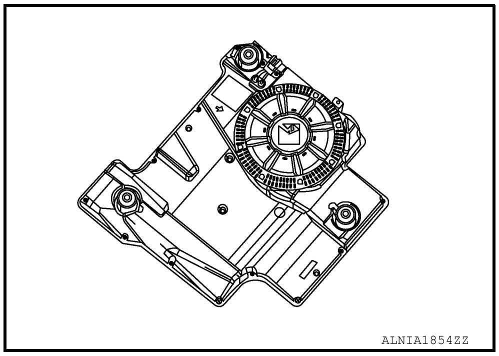
REAR DOOR SPEAKER

- 16.5 cm (6.5 in) speakers are installed in the front side bottom of the rear doors.
- Sound signals generated by the audio amp. output mid range sounds.



SUBWOOFER

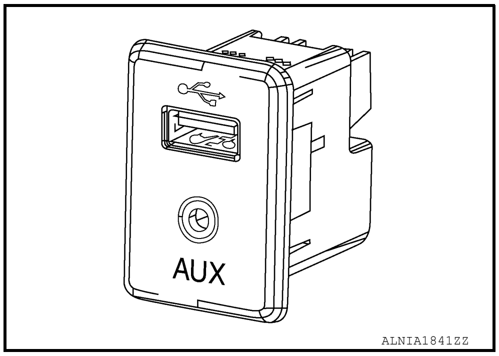
- 20.3 cm (8 in) driver is installed in the subwoofer which is mounted under the right front seat.
- Sound signals generated by the audio amp. output low range sounds.



USB Interface and AUX In Jack

INFOID:0000000014386924

- USB Interface and AUX in jack is installed in the cluster lid C lower.
- 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.

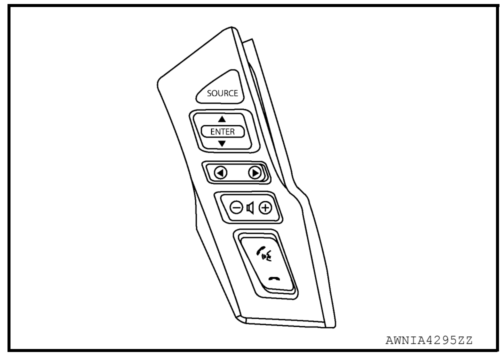


A B C D E F G H I J K L M AV O P

Steering Switches

INFOID:0000000014386925

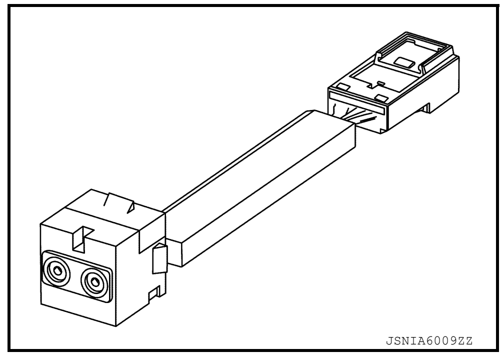
- Operations for audio and hands-free phone are possible.
- Switch is connected to the AV control unit.



Microphone

INFOID:0000000014386926

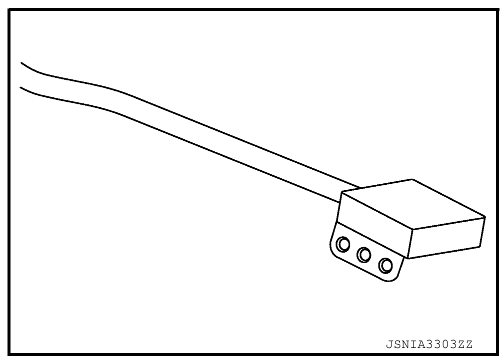
- The microphone is installed in the front roof console.
- Power is supplied from the AV control unit.



GPS Antenna

INFOID:0000000014386927

- GPS antenna is installed in the instrument panel, behind the cluster lid C finisher (LH).
- Power is supplied from the AV control unit.



SD Card

INFOID:0000000014386928

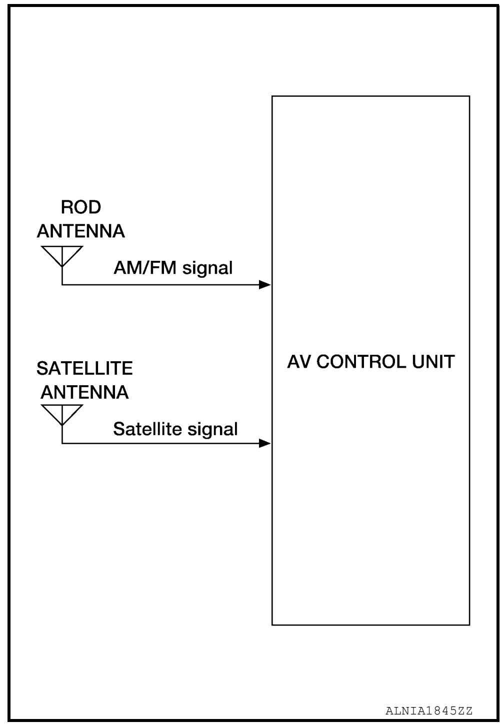
- Map data is memorized in the SD card.
- Map data is sent to the AV control unit from the SD slot.

Antenna and Antenna Feeder

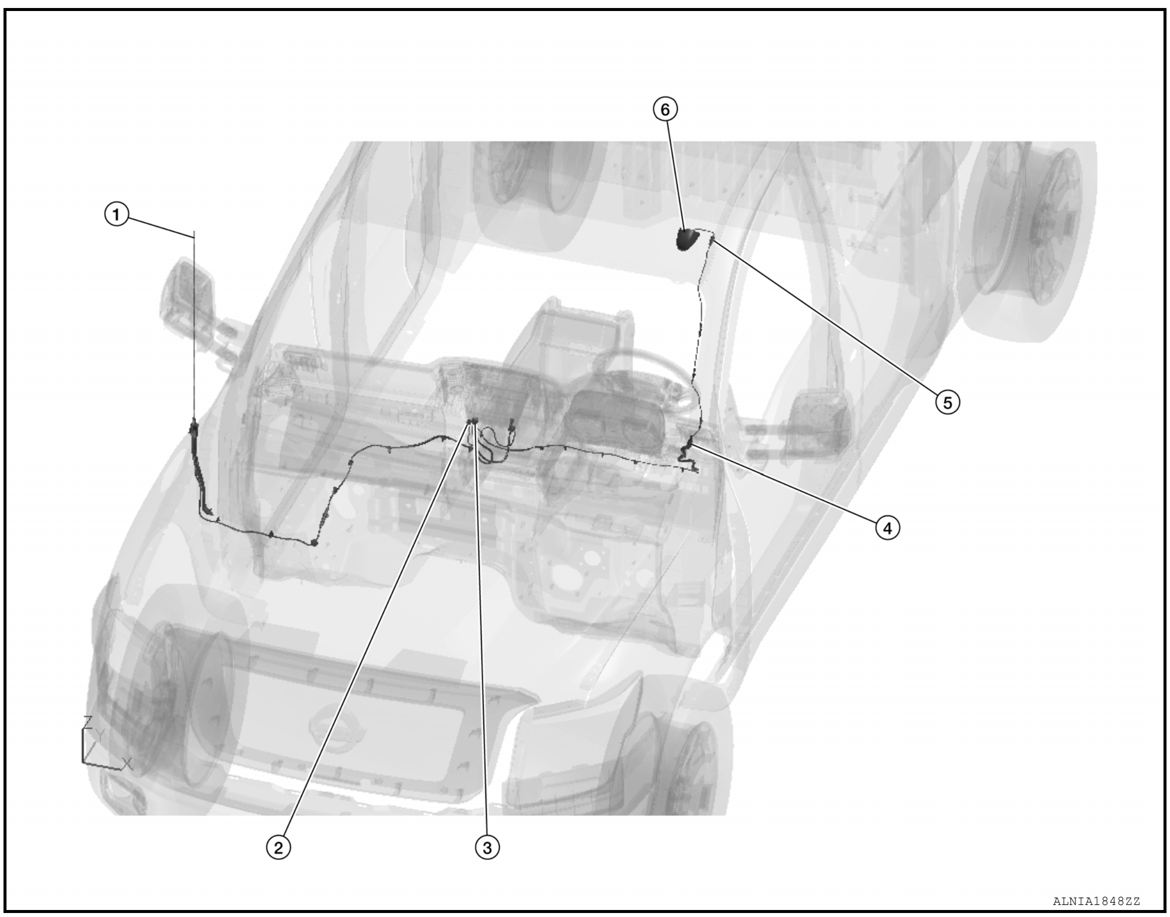
INFOID:0000000014386929

RADIO AND SATELLITE ANTENNAS

AM/FM radio rod antenna is located on the right front fender. The satellite antenna is located on the front left side of the roof.



ANTENNA FEEDER



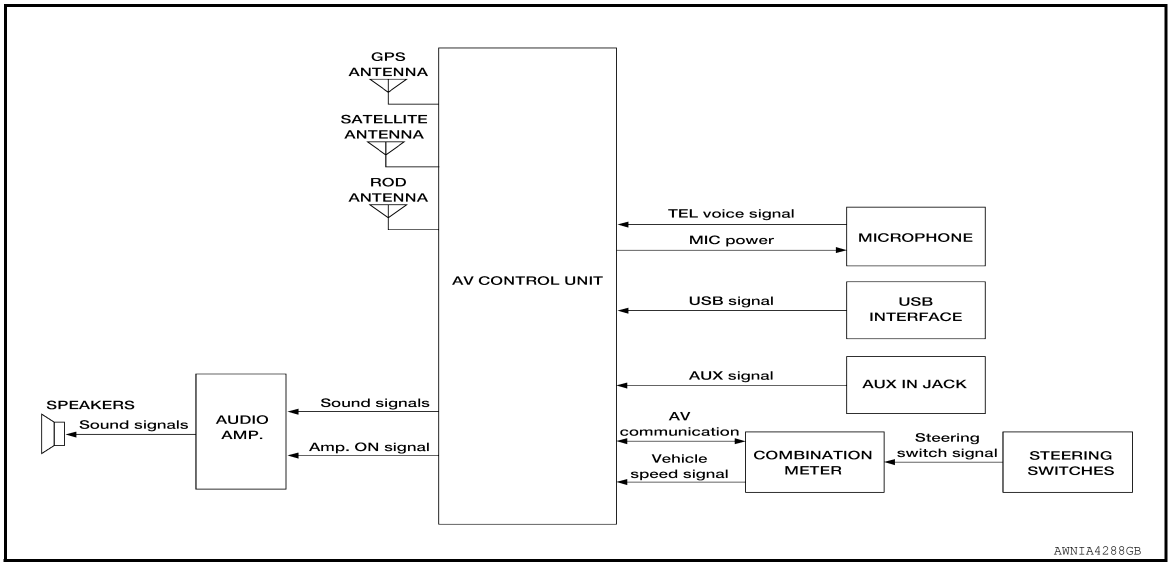
1.	Rod Antenna	2.	M147	3.	M146
4.	M188, R108	5.	R109	6.	Satellite Antenna

SYSTEM

System Description

INFOID:0000000014386930

SYSTEM DIAGRAM



DESCRIPTION

Refer to Owner’s Manual for navigation and audio system operating instructions.
Audio function and display are built into AV control unit.
This navigation has the following functions.
- Map data on SD-card
- High resolution color 7-inch display with touch panel function
- FM/AM twin digital tuner
- USB interface and AUX in jack
- Full support for playback of music from iPod®
- Satellite radio
- Hands-free phone system

iPod® is a trademark of Apple inc., registered in the U.S. and other countries.

NAVIGATION SYSTEM FUNCTION

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 speakers.
- 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.

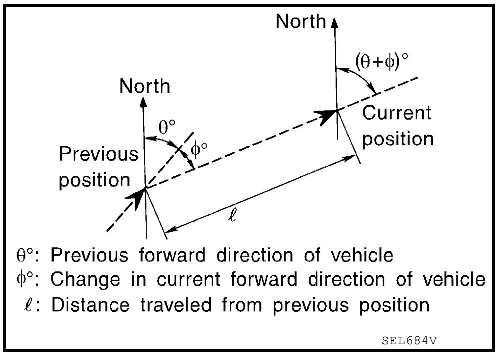
POSITION DETECTION PRINCIPLE

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.

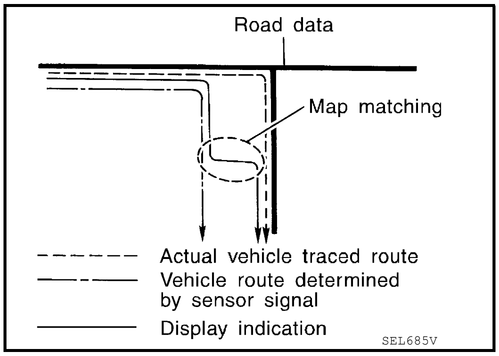
More accurate traveling direction is detected because priorities are set for the signals from these two devices according to the situation.

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.

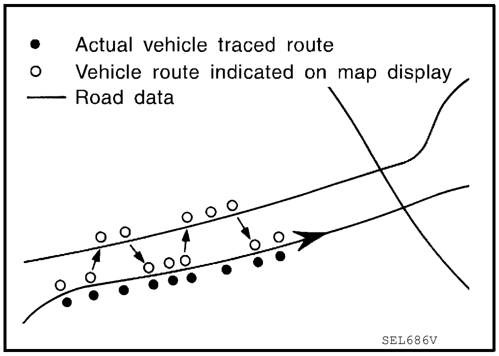
NOTE:

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

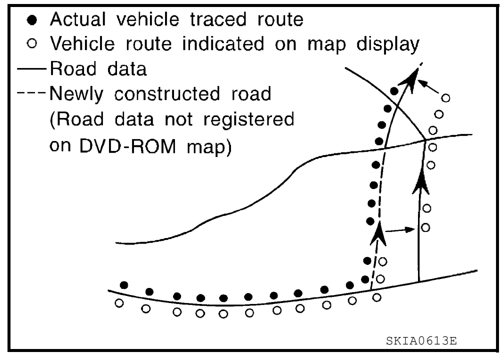


The vehicle position may not be corrected under the following circumstances and after driving for a certain time when GPS information is difficult to receive. In this case, the vehicle mark on the display must be corrected manually.

- 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.



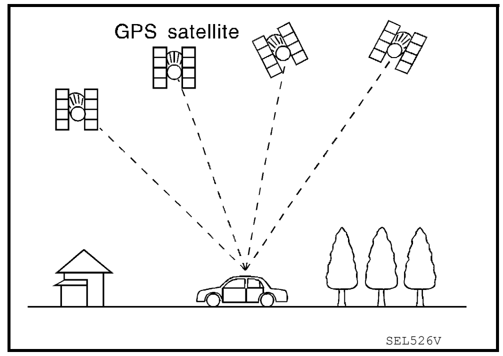
- Map-matching does not function correctly when a road on which the vehicle is driving is new and not recorded in the map SD-card, or when road pattern stored in the map data and the actual road pattern are different due to repair.
  The map-matching function may find another road and position the vehicle 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.

SATELLITE RADIO FUNCTION
- Satellite radio function is built into AV control unit.
- Sound signal (satellite radio) is received by satellite antenna and transmitted to AV control unit. AV control unit outputs sound signal to each speaker.

USB INTERFACE AND AUX IN JACK FUNCTION
- Sound and data signals are transmitted from USB interface to the AV control unit and output to each speaker and tweeter.
- Sound signals are transmitted from AUX in jack to the AV control unit and output to each speaker and tweeter.

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:0000000014386931

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	—	Calibration of the touch panel display can be performed.
	Screenshot to USB	—	A screenshot of the display can be saved to USB memory.
	Time Interval	—	Destination time interval can be selected.
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 acces. • Power Supply • Speed Signal • Direction Signal • Illumination Signal • GPS Antenna • GPS tracking • Satellites visible • Satellites tracked • Microphone Current • Steer. wheel key • Radio Antenna • #No translation requi... • SXM Antenna • USB Device • iPod firmware ver. • 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 • GPS Antenna • Radio 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.

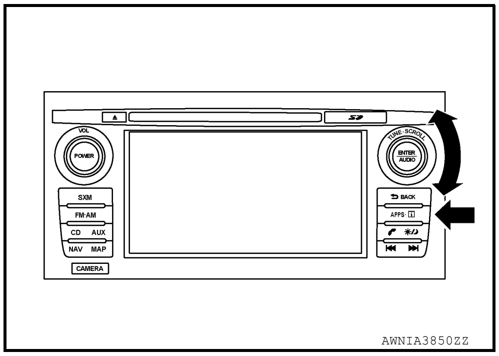
On Board Diagnosis Function

INFOID:0000000014386932

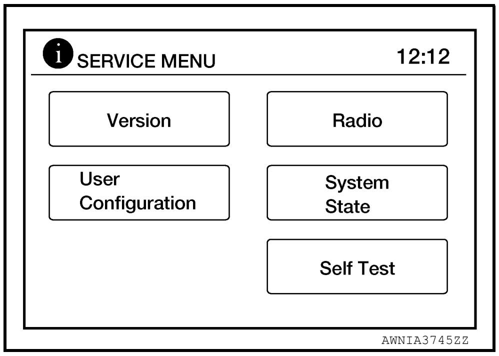
METHOD OF STARTING

1. Turn the ignition ON.

2. Turn the audio system OFF.
3. While pressing the APPS button, turn the TUNE-SCROLL dial counterclockwise 5 or more clicks, then clockwise 5 or more clicks, then counterclockwise 5 or more clicks. Shifting from current screen to previous screen is performed by pressing BACK button.



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



CONSULT Function

INFOID:0000000014386933

CAUTION:
After disconnecting the CONSULT vehicle interface (VI) from the data link connector, the ignition must be cycled OFF → ON (for at least 5 seconds) → OFF. If this step is not performed, the BCM may not go to "sleep mode", potentially causing a discharged battery and no-start condition.

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-187, "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.

Monitor Item [Unit]	Description
IGN SIG [On/Off]	Indicates condition of ignition signal.
REV SIG [On/Off]	Indicates condition of reverse signal received from BCM.

CONFIGURATION

Refer to AV-212, "CONFIGURATION (AV CONTROL UNIT) : Description".

CAN DIAG SUPPORT MNTR

Refer to LAN-50, "CAN Diagnostic Support Monitor".

ECU DIAGNOSIS INFORMATION

AV CONTROL UNIT

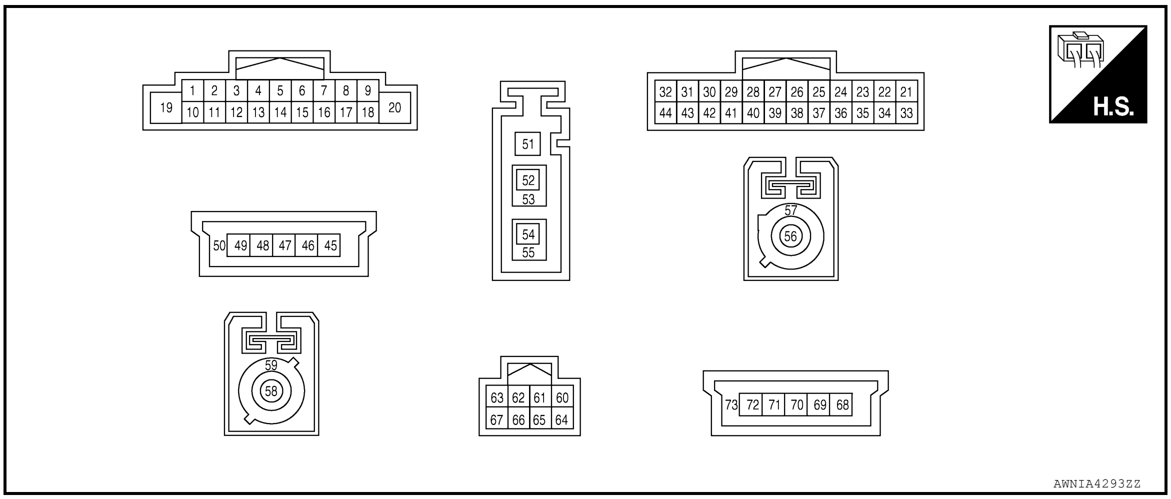
Reference Value

INFOID:0000000014386934

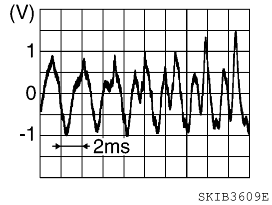
VALUES ON THE DIAGNOSIS TOOL

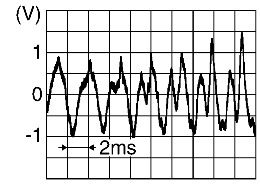
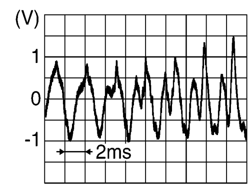
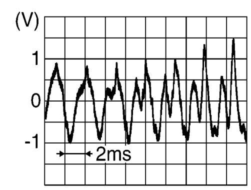
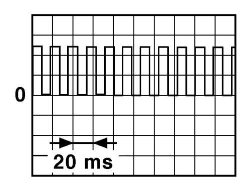
Monitor Item	Condition	Value/Status
VHCL SPD SIG	Vehicle speed = 0 km/h (0 MPH).	Off
	Vehicle speed > 0 km/h (0 MPH).	On
ILLUM SIG	Illumination signal is not received.	Off
	Illumination signal is received.	On
IGN SIG	Ignition switch OFF or ACC.	Off
	Ignition switch ON.	On
REV SIG	Selector lever in any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

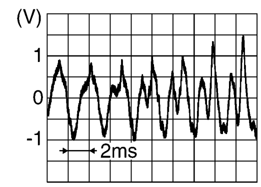
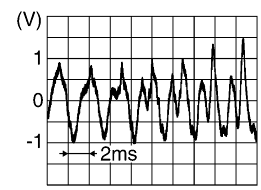
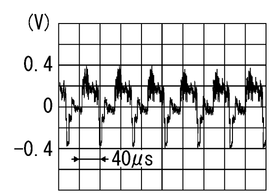
TERMINAL LAYOUT

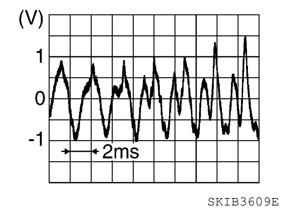
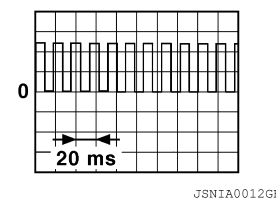
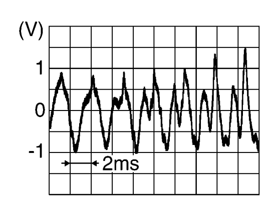


PHYSICAL VALUES

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output	Ignition switch	Operation	
1 (G/W)	Ground	Amp ON signal	Output	ACC	—	Battery voltage
2 (L)	3 (W)	Sound signal front speaker LH	Output	ON	Sound output	

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output	Ignition switch	Operation	
4 (L)	5 (BR)	Sound signal rear speaker LH	Output	ON	Sound output	 SKIB3609E
7 (R)	Ground	ACC power supply	Input	ACC	—	Battery voltage
8 (L)	—	CAN high	Input/ Output	—	—	—
9 (L)	Ground	Illumination ON control signal	Input	ON	Parking lamps or headlamps ON	Battery voltage
10 (Shield)	—	Sound signal shield	—	—	—	—
11 (B)	12 (Y)	Sound signal front speaker RH	Output	ON	Sound output	 SKIB3609E
13 (B/W)	14 (P)	Sound signal rear speaker RH	Output	ON	Sound output	 SKIB3609E
17 (P)	—	CAN low	Input/ Output	—	—	—
18 (G)	Ground	Vehicle speed signal	Input	ON	When vehicle speed is approx. 40 km/h (25 MPH)	 JSNIA0012GB
19 (W)	Ground	Battery power supply	Input	OFF	—	Battery voltage
20 (B)	Ground	Ground	—	ON	—	0 V
21 (LG)	—	AV communication (L)	Input/ Output	—	—	—
22 (SB)	—	AV communication (H)	Input/ Output	—	—	—
23 (L)	—	MR output	Output	—	—	—

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output	Ignition switch	Operation	
28 (G/W)	Ground	Reverse signal	Input	ON	Selector lever in R (reverse)	Battery voltage
					Selector lever in any position other than R (reverse)	0 V
30 (V)	Ground	AUX audio signal LH	Input	ON	AUX audio signal received	 SKIB3609E
31 (GR)	—	AUX ground	—	ON	—	0V
32 (G)	Ground	AUX audio signal RH	Input	ON	AUX audio signal received	 SKIB3609E
33 (L/W)	Ground	Camera ground	—	ON	—	0 V
34 (L)	Ground	Camera power supply	Output	ON	When camera image is displayed	6.0 V
					Except for above	0 V
36 (R)[1] (G)[2]	35 (R/W)[1] (Shield)[2]	Camera image signal	Input	ON	When camera image is displayed	 SKIB2251J
37 (G/R)	Ground	Ignition power supply	Input	ON or START	—	Battery voltage
38 (LG)	—	AV communication (L)	Input/ Output	—	—	—
39 (SB)	—	AV communication (H)	Input/ Output	—	—	—
40 (Shield)	—	AUX shield	—	—	—	—
42 (R)	Ground	Microphone power supply	Output	ON	—	5.0 V

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output	Ignition switch	Operation	
43 (W)	41 (Shield)	Microphone signal	Input	ON	While speaking into microphone.	
44 (GR)	Ground	Illumination dimming control signal	Input	ON	CPM lighting ON	
45 (B)	—	V BUS signal	—	—	—	—
47 (G)	—	USB D– signal	—	—	—	—
48 (W)	—	USB D+ signal	—	—	—	—
49 (R)	—	USB ground	—	—	—	—
50 (Shield)	—	USB shield	—	—	—	—
52 (B)	—	AM/FM antenna signal	—	—	—	—
53 (Shield)	—	AM/FM antenna shield	—	—	—	—
56 (B)	Ground	Satellite antenna signal	Input	ON	—	5.0 V
57 (Shield)	—	Satellite antenna shield	—	—	—	—
58 (B)	Ground	GPS antenna signal	Input	ON	—	5.0 V
59 (Shield)	—	GPS antenna shield	—	—	—	—
60[3] (W)	64[3] (R)	Microphone signal	Output	ON	While speaking into the microphone	
61[3] (Shield)	—	Microphone shield	—	—	—	—
68[3] (B)	—	V BUS signal	—	—	—	—
70[3] (G)	—	USB D- signal	—	—	—	—

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output	Ignition switch	Operation	
71[3] (W)	—	USB D+ signal	—	—	—	—
72[3] (R)	—	USB ground	—	—	—	—
73[3] (Shield)	—	USB shield	—	—	—	—

[1]: With rear view monitor

[2]: With around view monitor

[3]: With telematics system

DTC Index

INFOID:0000000014386935

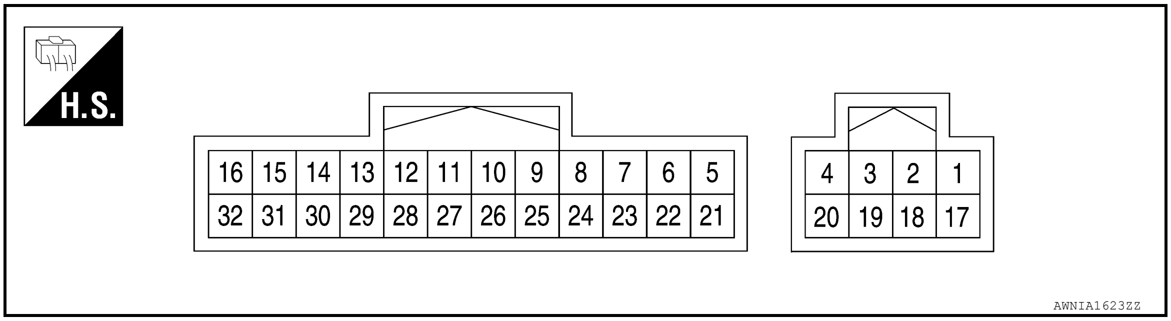
CONSULT Display	Reference Page
U1000: CAN COMM CIRCUIT	AV-216, "DTC Description"
U1010: CONTROL UNIT (CAN)	AV-217, "DTC Description"
U1217: BLUETOOTH MODULE	AV-218, "DTC Description"
U1229: iPod CERTIFICATION	AV-219, "DTC Description"
U1244: GPS ANTENNA CONN	AV-220, "DTC Description"
U1258: XM ANTENNA CONN	AV-221, "DTC Description"
U1263: USB OVERCURRENT	AV-223, "DTC Description"
U1265: AMP ON TERMINAL	AV-224, "DTC Description"
U12AA: Configuration Error	AV-226, "DTC Description"
U12AB: FM Antenna error	AV-227, "DTC Description"
U12AC: Display Temperature too High	AV-228, "DTC Description"
U12AD: ECU Temperature too High	AV-229, "DTC Description"
U12AE: Internal Amplifier temperature Warning	AV-230, "DTC Description"
U12AF: CD Mechanism Temperature Warning	AV-231, "DTC Description"
U12B0: Supply Voltage Goes below 9V > 20s	AV-232, "DTC Description"
U12B1: Supply Voltage Goes High > 16V for 20s	AV-233, "DTC Description"

AUDIO AMP.

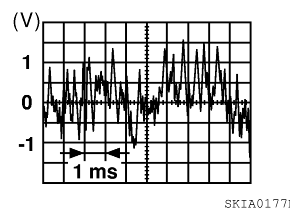
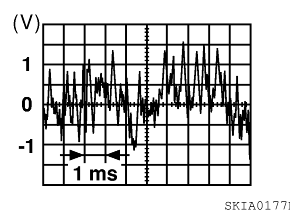
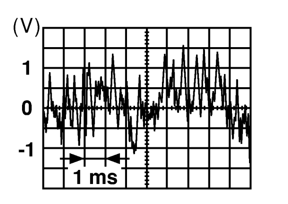
Reference Value

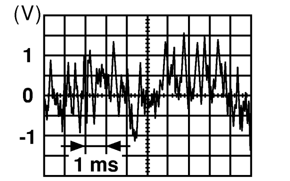
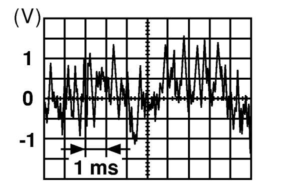
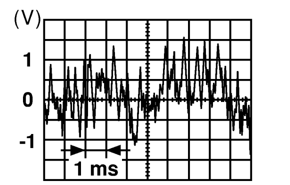
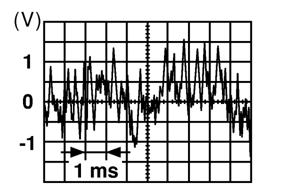
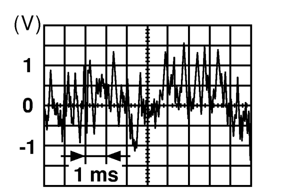
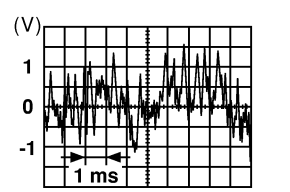
INFOID:0000000014386936

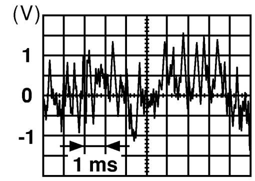
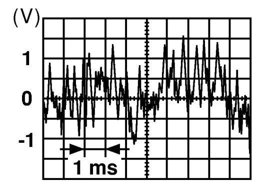
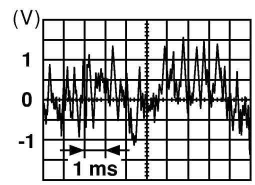
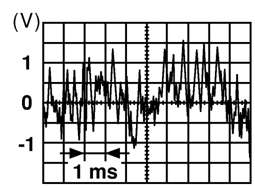
TERMINAL LAYOUT



PHYSICAL VALUES

Terminal (wire color)		Item	Signal input/ output	Condition		Reference value (Approx.)
+	–					
1 (Y)	Ground	Battery	Input	–	–	Battery voltage
2 (W)	18 (B)	Subwoofer	Output	Ignition switch ON	Receive audio signal	
3 (BR/W)	19 (BR)	Subwoofer	Output	Ignition switch ON	Receive audio signal	
4 (B)	Ground	Ground	–	Ignition switch ON	–	–
9 (G/W)	Ground	Amp. ON signal	Input	Ignition switch ON	–	More than 6.5V
10 (L/W)	26 (L/B)	Center speaker	Output	Ignition switch ON	Receive audio signal	

Terminal (wire color)		Item	Signal input/ output	Condition		Reference value (Approx.)
+	–					
11 (SB)	27 (B/Y)	Rear door speaker LH and rear door tweeter LH	Output	Ignition switch ON	Receive audio signal	 SKIA0177E
12 (O/L)	28 (R/L)	Rear door speaker RH and rear door tweeter RH	Output	Ignition switch ON	Receive audio signal	 SKIA0177E
13 (W/B)	29 (L/B)	Front tweeter RH and front pillar speaker RH	Output	Ignition switch ON	Receive audio signal	 SKIA0177E
14 (L/W)	30 (L/R)	Front tweeter LH and front pillar speaker LH	Output	Ignition switch ON	Receive audio signal	 SKIA0177E
15 (L/W)	31 (L/R)	Front door speaker LH	Output	Ignition switch ON	Receive audio signal	 SKIA0177E
16 (W/B)	32 (L/B)	Front door speaker RH	Output	Ignition switch ON	Receive audio signal	 SKIA0177E
17 (Y/LG)	Ground	Battery	Input	–	–	Battery voltage
20 (B)	Ground	Ground	–	Ignition switch ON	–	–

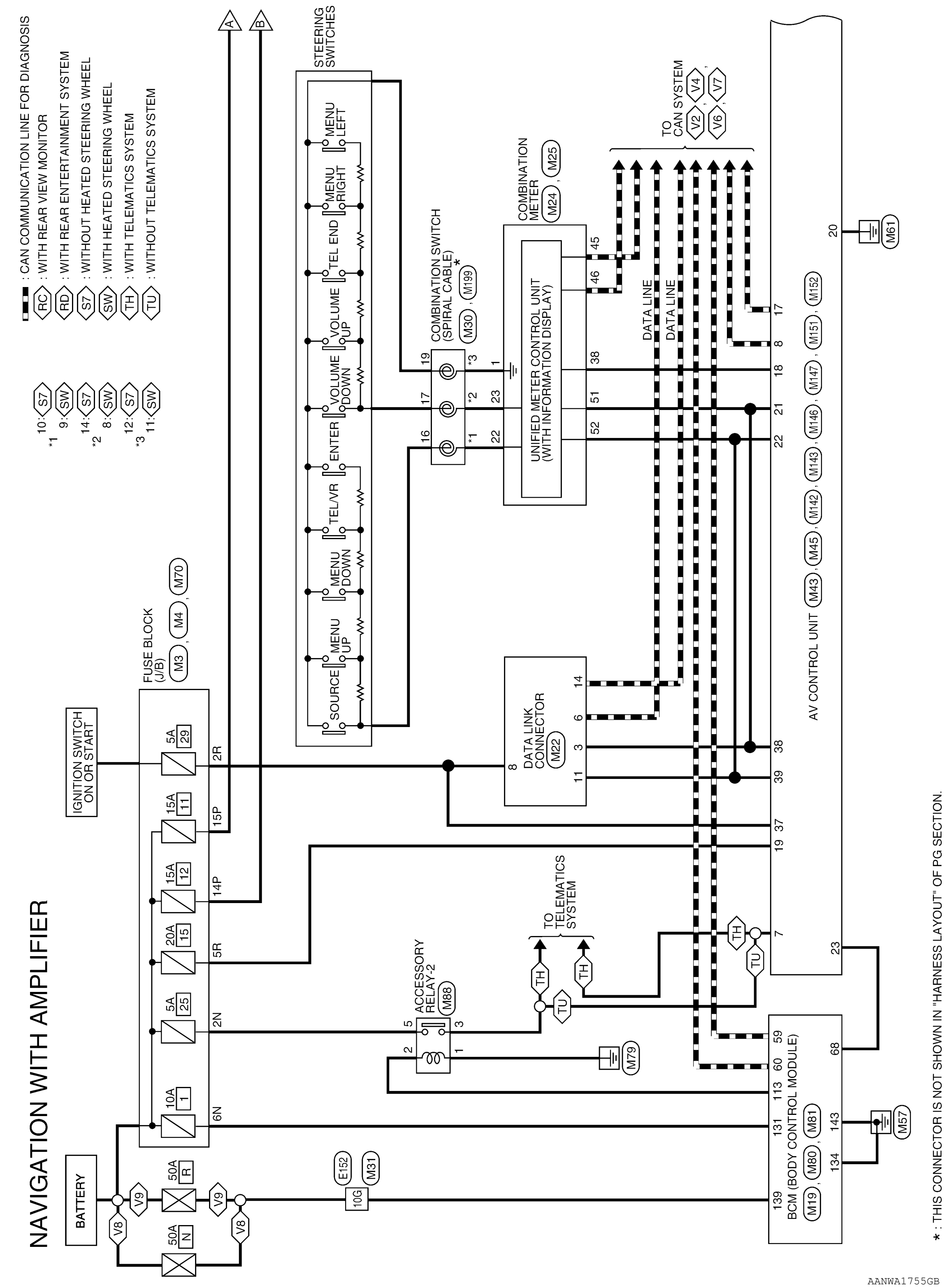
Terminal (wire color)		Item	Signal input/ output	Condition		Reference value (Approx.)
+	–					
21 (B)	5 (Y)	Audio sound signal front RH	Input	Ignition switch ON	Receive audio signal	 SKIA0177E
22 (L)	6 (W)	Audio sound signal front LH	Input	Ignition switch ON	Receive audio signal	 SKIA0177E
23 (B/W)	7 (P)	Audio sound signal rear RH	Input	Ignition switch ON	Receive audio signal	 SKIA0177E
24 (L)	8 (BR)	Audio sound signal rear LH	Input	Ignition switch ON	Receive audio signal	 SKIA0177E

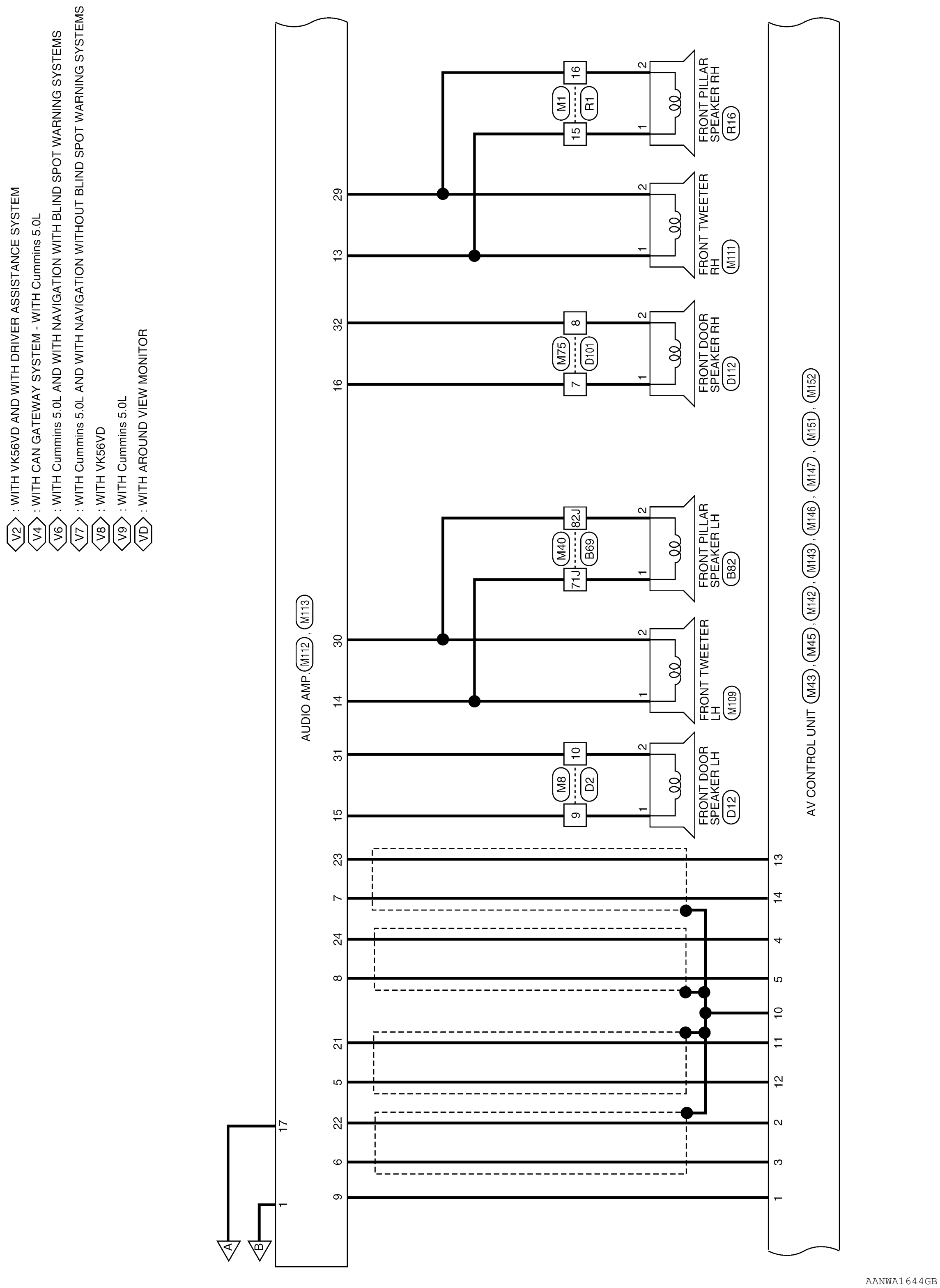
WIRING DIAGRAM

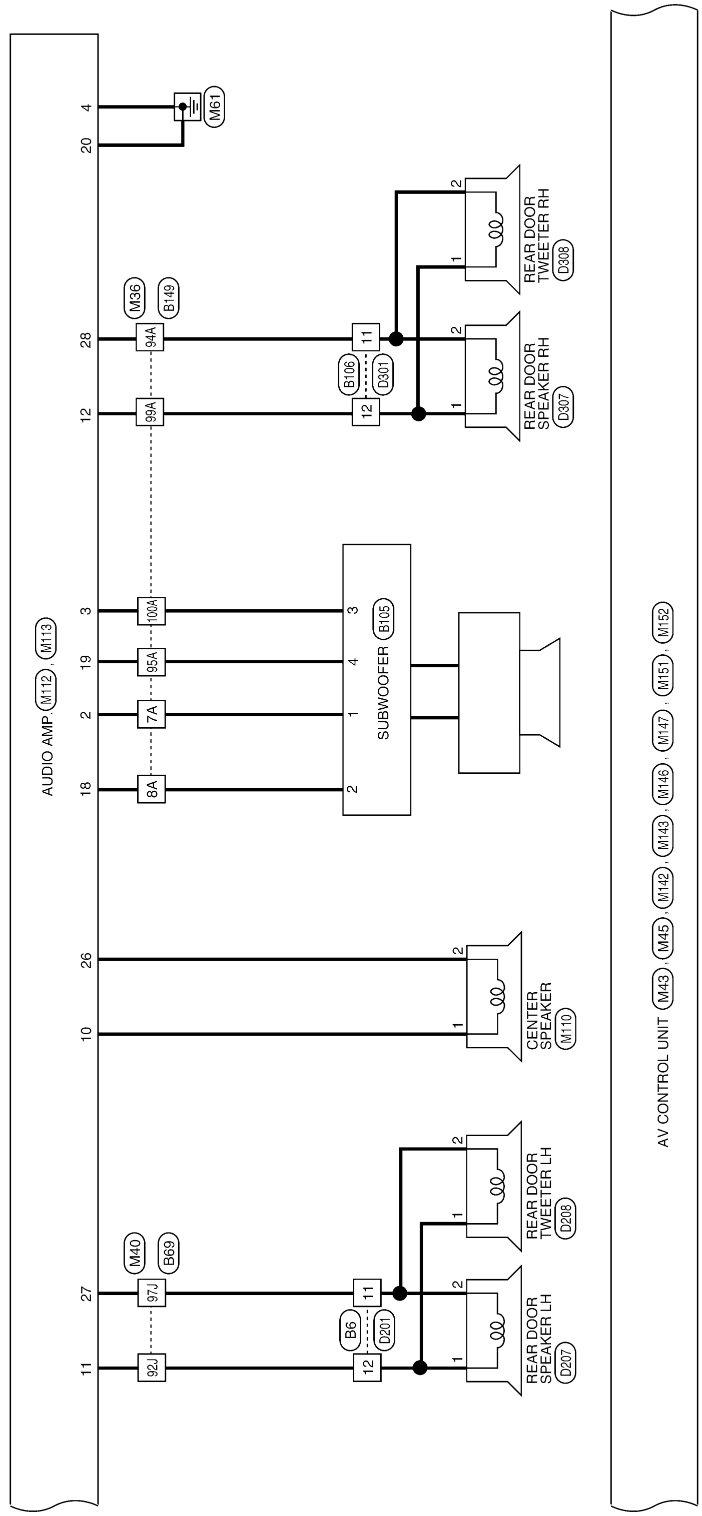
NAVIGATION WITH AMPLIFIER

Wiring Diagram

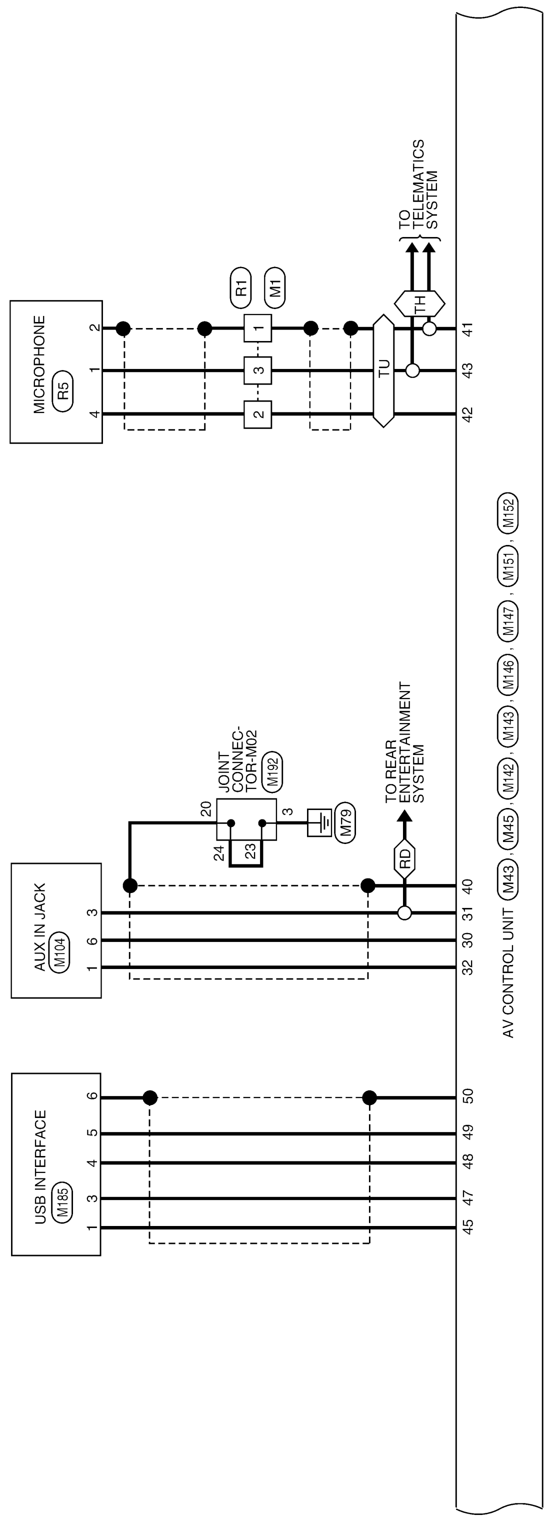
INFOID:0000000014386937




V2 : WITH VK56VD AND WITH DRIVER ASSISTANCE SYSTEM
V4 : WITH CAN GATEWAY SYSTEM - WITH Cummins 5.0L
V6 : WITH Cummins 5.0L AND WITH NAVIGATION WITH BLIND SPOT WARNING SYSTEMS
V7 : WITH Cummins 5.0L AND WITH NAVIGATION WITHOUT BLIND SPOT WARNING SYSTEMS
V8 : WITH VK56VD
V9 : WITH Cummins 5.0L
VD : WITH AROUND VIEW MONITOR
AUDIO AMP. M112, M113
FRONT PILLAR SPEAKER RH R16
FRONT TWEETER RH M111
FRONT DOOR SPEAKER RH D112
FRONT PILLAR SPEAKER LH B82
FRONT TWEETER LH M109
FRONT DOOR SPEAKER LH D12
AV CONTROL UNIT M43, M45, M142, M143, M146, M147, M151, M152
M1 R1
M75 D101
M40 B69
M8 D2
A
B
AANWA1644GB



AANWA1645GB



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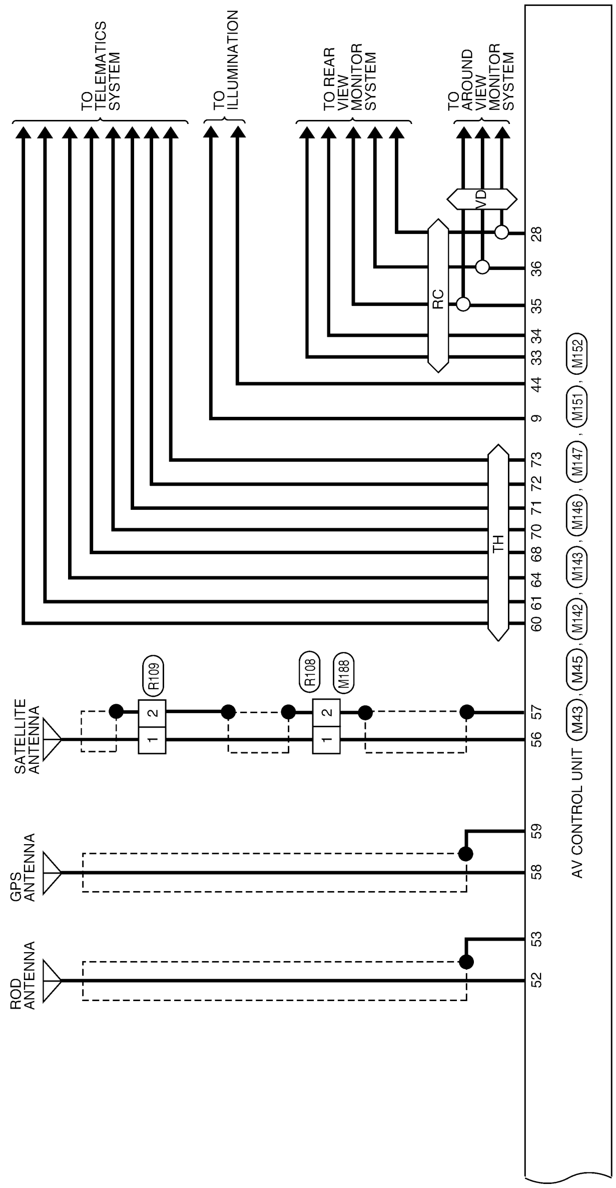

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B
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AV
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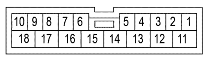
NAVIGATION WITH AMPLIFIER CONNECTORS

Connector No.	B6
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8
Connector Color	WHITE

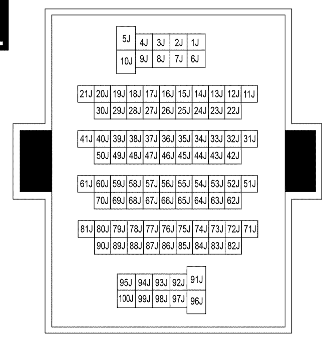
H.S.



Terminal No.	Color of Wire	Signal Name
1	–	TO REAR DOOR LH HARNESS
2	–	TO REAR DOOR LH HARNESS
3	–	TO REAR DOOR LH HARNESS
4	–	TO REAR DOOR LH HARNESS
5	–	TO REAR DOOR LH HARNESS
6	–	TO REAR DOOR LH HARNESS
7	–	TO REAR DOOR LH HARNESS
8	O/L	TO REAR DOOR LH HARNESS
9	–	TO REAR DOOR LH HARNESS
10	–	TO REAR DOOR LH HARNESS
11	B/Y	TO REAR DOOR LH HARNESS
12	SB	TO REAR DOOR LH HARNESS
13	BR	TO REAR DOOR LH HARNESS
14	Y	TO REAR DOOR LH HARNESS
15	B	TO REAR DOOR LH HARNESS
16	LG	TO REAR DOOR LH HARNESS
17	L	TO REAR DOOR LH HARNESS
18	SB	TO REAR DOOR LH HARNESS

Connector No.	B69
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4
Connector Color	WHITE

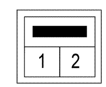
H.S.



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

Connector No.	B82
Connector Name	FRONT PILLAR SPEAKER LH
Connector Type	TK02MBR-P
Connector Color	BROWN

H.S.



Terminal No.	Color of Wire	Signal Name
1	L/W	FR LH TW +
2	L/R	FR LH TW -

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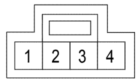
NAVIGATION WITH AMPLIFIER CONNECTORS

Connector No.	B105
Connector Name	SUBWOOFER
Connector Type	NS04FW-CS
Connector Color	WHITE

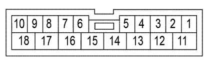
H.S.



Terminal No.	Color of Wire	Signal Name
1	W	WOOFER 1 +
2	B	WOOFER 1 -
3	BR/W	WOOFER 2 +
4	BR	WOOFER 2 -

Connector No.	B106
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8
Connector Color	WHITE

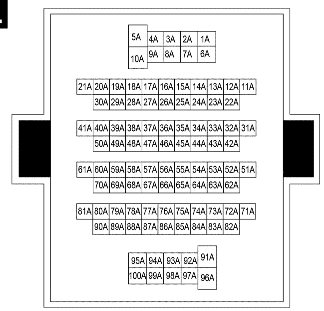
H.S.



Terminal No.	Color of Wire	Signal Name
1	–	TO REAR DOOR RH HARNESS
2	–	TO REAR DOOR RH HARNESS
3	–	TO REAR DOOR RH HARNESS
4	–	TO REAR DOOR RH HARNESS
5	–	TO REAR DOOR RH HARNESS
6	–	TO REAR DOOR RH HARNESS
7	–	TO REAR DOOR RH HARNESS
8	O/L	TO REAR DOOR RH HARNESS
9	–	TO REAR DOOR RH HARNESS
10	–	TO REAR DOOR RH HARNESS
11	R/L	TO REAR DOOR RH HARNESS
12	O/L	TO REAR DOOR RH HARNESS
13	Y/LG	TO REAR DOOR RH HARNESS
14	BR/O	TO REAR DOOR RH HARNESS
15	B	TO REAR DOOR RH HARNESS
16	SB/R	TO REAR DOOR RH HARNESS
17	L	TO REAR DOOR RH HARNESS
18	V	TO REAR DOOR RH HARNESS

Connector No.	B149
Connector Name	WIRE TO WIRE
Connector Type	TH80MDGY-CS16-TM4
Connector Color	GRAY

H.S.



Terminal No.	Color of Wire	Signal Name
1A	SB/G	TO MAIN HARNESS -(WITHOUT CLIMATE CONTROLLED SEATS)
1A	SB	TO MAIN HARNESS -(WITH CLIMATE CONTROLLED SEATS)
2A	L	TO MAIN HARNESS
3A	V	TO MAIN HARNESS
4A	SB/R	TO MAIN HARNESS
5A	–	TO MAIN HARNESS
6A	LG/Y	TO MAIN HARNESS -(WITHOUT CLIMATE CONTROLLED SEATS)
6A	LG	TO MAIN HARNESS -(WITH CLIMATE CONTROLLED SEATS)
7A	W	TO MAIN HARNESS
8A	B	TO MAIN HARNESS
9A	L/B	TO MAIN HARNESS
10A	W	TO MAIN HARNESS
11A	LG	TO MAIN HARNESS
12A	BR/O	TO MAIN HARNESS
13A	Y/W	TO MAIN HARNESS
14A	R/G	TO MAIN HARNESS
15A	Y/L	TO MAIN HARNESS
16A	O/L	TO MAIN HARNESS
17A	L	TO MAIN HARNESS
18A	Y	TO MAIN HARNESS
19A	LG	TO MAIN HARNESS
20A	R	TO MAIN HARNESS
21A	BG	TO MAIN HARNESS
22A	LG/R	TO MAIN HARNESS
23A	Y/LG	TO MAIN HARNESS
24A	BR/Y	TO MAIN HARNESS
25A	–	TO MAIN HARNESS
26A	GR	TO MAIN HARNESS
27A	LG	TO MAIN HARNESS
28A	LG/B	TO MAIN HARNESS
29A	–	TO MAIN HARNESS
30A	BR	TO MAIN HARNESS
31A	W/R	TO MAIN HARNESS
32A	G/R	TO MAIN HARNESS
33A	–	TO MAIN HARNESS
34A	SHIELD	TO MAIN HARNESS
35A	P	TO MAIN HARNESS
36A	B	TO MAIN HARNESS
37A	–	TO MAIN HARNESS
38A	R/B	TO MAIN HARNESS
39A	G/O	TO MAIN HARNESS
40A	V	TO MAIN HARNESS
41A	SHIELD	TO MAIN HARNESS
42A	SHIELD	TO MAIN HARNESS
43A	R	TO MAIN HARNESS
44A	G	TO MAIN HARNESS
45A	–	TO MAIN HARNESS
46A	–	TO MAIN HARNESS
47A	Y	TO MAIN HARNESS
48A	R/W	TO MAIN HARNESS
49A	R/L	TO MAIN HARNESS
50A	B	TO MAIN HARNESS
51A	–	TO MAIN HARNESS
52A	–	TO MAIN HARNESS
53A	–	TO MAIN HARNESS
54A	–	TO MAIN HARNESS
55A	–	TO MAIN HARNESS
56A	–	TO MAIN HARNESS
57A	–	TO MAIN HARNESS
58A	–	TO MAIN HARNESS
59A	–	TO MAIN HARNESS
60A	G/W	TO MAIN HARNESS
61A	–	TO MAIN HARNESS
62A	–	TO MAIN HARNESS
63A	–	TO MAIN HARNESS
64A	–	TO MAIN HARNESS
65A	–	TO MAIN HARNESS
66A	–	TO MAIN HARNESS
67A	–	TO MAIN HARNESS
68A	–	TO MAIN HARNESS
69A	Y/R	TO MAIN HARNESS
70A	R/G	TO MAIN HARNESS
71A	–	TO MAIN HARNESS
72A	Y/B	TO MAIN HARNESS
73A	G	TO MAIN HARNESS
74A	B/R	TO MAIN HARNESS
75A	SHIELD	TO MAIN HARNESS
76A	GR/R	TO MAIN HARNESS
77A	L	TO MAIN HARNESS
78A	SHIELD	TO MAIN HARNESS
79A	Y	TO MAIN HARNESS
80A	L	TO MAIN HARNESS
81A	R	TO MAIN HARNESS
82A	SHIELD	TO MAIN HARNESS
83A	LG/B	TO MAIN HARNESS
84A	R	TO MAIN HARNESS
85A	SHIELD	TO MAIN HARNESS
86A	GR/B	TO MAIN HARNESS
87A	B	TO MAIN HARNESS
88A	W	TO MAIN HARNESS
89A	SHIELD	TO MAIN HARNESS
90A	G	TO MAIN HARNESS
91A	W/L	TO MAIN HARNESS
92A	BR	TO MAIN HARNESS
93A	L/Y	TO MAIN HARNESS
94A	R/L	TO MAIN HARNESS
95A	BR	TO MAIN HARNESS
96A	R	TO MAIN HARNESS
97A	LG	TO MAIN HARNESS
98A	B/V	TO MAIN HARNESS
99A	O/L	TO MAIN HARNESS
100A	BR/W	TO MAIN HARNESS

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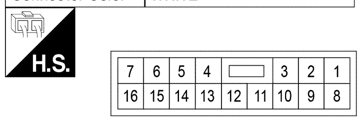
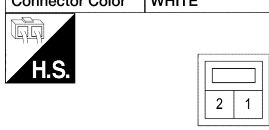
NAVIGATION WITH AMPLIFIER CONNECTORS

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



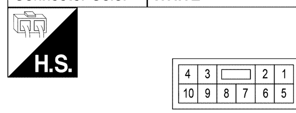
Terminal No.	Color of Wire	Signal Name
1	B/W	TO MAIN HARNESS
2	G/B	TO MAIN HARNESS
3	L	TO MAIN HARNESS
4	R	TO MAIN HARNESS
5	W/R	TO MAIN HARNESS
6	W/L	TO MAIN HARNESS
7	V	TO MAIN HARNESS
8	B	TO MAIN HARNESS
9	L/W	TO MAIN HARNESS
10	L/R	TO MAIN HARNESS
11	L/W	TO MAIN HARNESS
12	L	TO MAIN HARNESS
13	Y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

Connector No.	D12
Connector Name	FRONT DOOR SPEAKER LH
Connector Type	NS02FW-CS
Connector Color	WHITE



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

Connector No.	D101
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS
Connector Color	WHITE

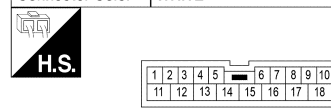


Terminal No.	Color of Wire	Signal Name
1	B/W	TO MAIN HARNESS
2	B	TO MAIN HARNESS
3	W/L	TO MAIN HARNESS
4	V	TO MAIN HARNESS
5	W/B	TO MAIN HARNESS
6	G/Y	TO MAIN HARNESS
7	W/B	TO MAIN HARNESS
8	L/B	TO MAIN HARNESS
9	G/Y	TO MAIN HARNESS
10	–	TO MAIN HARNESS

Connector No.	D112
Connector Name	FRONT DOOR SPEAKER RH
Connector Type	NS02FW-CS
Connector Color	WHITE

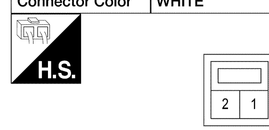
Terminal No.	Color of Wire	Signal Name
1	W/B	FR SP RH+
2	L/B	FR SP RH-

Connector No.	D201
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8
Connector Color	WHITE



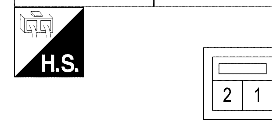
Terminal No.	Color of Wire	Signal Name
1	–	TO BODY HARNESS
2	–	TO BODY HARNESS
3	–	TO BODY HARNESS
4	–	TO BODY HARNESS
5	–	TO BODY HARNESS
6	–	TO BODY HARNESS
7	–	TO BODY HARNESS
8	O/L	TO BODY HARNESS
9	–	TO BODY HARNESS
10	–	TO BODY HARNESS
11	B/Y	TO BODY HARNESS
12	SB	TO BODY HARNESS
13	BR	TO BODY HARNESS
14	Y	TO BODY HARNESS
15	B	TO BODY HARNESS
16	BR	TO BODY HARNESS
17	Y	TO BODY HARNESS
18	V	TO BODY HARNESS

Connector No.	D207
Connector Name	REAR DOOR SPEAKER LH
Connector Type	NS02FW-CS
Connector Color	WHITE



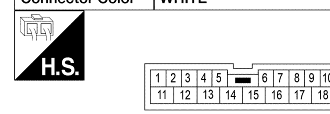
Terminal No.	Color of Wire	Signal Name
1	SB	RR SP LH+
2	B/Y	RR SP LH-

Connector No.	D208
Connector Name	REAR DOOR TWEETER LH
Connector Type	TK02FBR
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
1	SB	RR LH OUT +
2	B/Y	RR LH OUT -

Connector No.	D301
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	–	TO BODY NO. 2 HARNESS
2	–	TO BODY NO. 2 HARNESS
3	–	TO BODY NO. 2 HARNESS
4	–	TO BODY NO. 2 HARNESS
5	–	TO BODY NO. 2 HARNESS
6	–	TO BODY NO. 2 HARNESS
7	–	TO BODY NO. 2 HARNESS
8	O/L	TO BODY NO. 2 HARNESS
9	–	TO BODY NO. 2 HARNESS
10	–	TO BODY NO. 2 HARNESS
11	R/L	TO BODY NO. 2 HARNESS
12	O/L	TO BODY NO. 2 HARNESS
13	Y	TO BODY NO. 2 HARNESS
14	BR	TO BODY NO. 2 HARNESS
15	B	TO BODY NO. 2 HARNESS
16	BR	TO BODY NO. 2 HARNESS
17	Y	TO BODY NO. 2 HARNESS
18	V	TO BODY NO. 2 HARNESS

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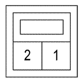
NAVIGATION WITH AMPLIFIER CONNECTORS

Connector No.	D307
Connector Name	REAR DOOR SPEAKER RH
Connector Type	NS02FW-CS
Connector Color	WHITE

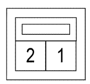
H.S.



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

Connector No.	D308
Connector Name	REAR DOOR TWEETER RH
Connector Type	TK02FBR
Connector Color	BROWN

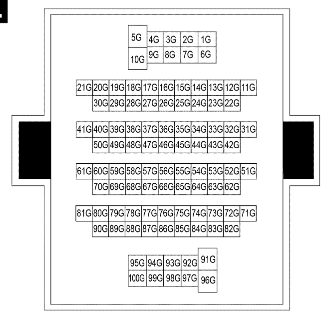
H.S.



Terminal No.	Color of Wire	Signal Name
1	O/L	RR RH OUT +
2	R/L	RR RH OUT -

Connector No.	E152
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
1G	G	TO MAIN HARNESS
2G	B/R	TO MAIN HARNESS
3G	W/B	TO MAIN HARNESS
4G	BR/W	TO MAIN HARNESS
5G	BR	TO MAIN HARNESS
6G	P	TO MAIN HARNESS - (WITH VK56VD)
6G	R/W	TO MAIN HARNESS - (WITH CUMMINS 5.0L)
7G	Y	TO MAIN HARNESS
8G	G	TO MAIN HARNESS
9G	R	TO MAIN HARNESS
10G	W	TO MAIN HARNESS
11G	R/G	TO MAIN HARNESS
12G	W/B	TO MAIN HARNESS
13G	BR	TO MAIN HARNESS
14G	Y/B	TO MAIN HARNESS
15G	G/W	TO MAIN HARNESS
16G	G	TO MAIN HARNESS
17G	G/Y	TO MAIN HARNESS
18G	G/Y	TO MAIN HARNESS
19G	Y/V	TO MAIN HARNESS
20G	G/Y	TO MAIN HARNESS
21G	B/Y	TO MAIN HARNESS
22G	G/R	TO MAIN HARNESS
23G	Y/R	TO MAIN HARNESS
24G	G/B	TO MAIN HARNESS
25G	R/W	TO MAIN HARNESS
26G	R	TO MAIN HARNESS
27G	LG	TO MAIN HARNESS
28G	G/B	TO MAIN HARNESS
29G	G/B	TO MAIN HARNESS
30G	BR/Y	TO MAIN HARNESS
31G	P	TO MAIN HARNESS - (WITH CUMMINS 5.0L)
31G	R	TO MAIN HARNESS - (WITH VK56VD)
32G	P	TO MAIN HARNESS
33G	Y/L	TO MAIN HARNESS
34G	GR	TO MAIN HARNESS
35G	G/R	TO MAIN HARNESS
36G	SB	TO MAIN HARNESS
37G	R/W	TO MAIN HARNESS
38G	BR	TO MAIN HARNESS
39G	BR	TO MAIN HARNESS
40G	–	TO MAIN HARNESS
41G	R/G	TO MAIN HARNESS
42G	O	TO MAIN HARNESS
43G	B	TO MAIN HARNESS - (WITH CUMMINS 5.0L)
43G	G	TO MAIN HARNESS - (WITH VK56VD)
44G	R/Y	TO MAIN HARNESS
45G	G	TO MAIN HARNESS
46G	LG	TO MAIN HARNESS
47G	R	TO MAIN HARNESS
48G	W	TO MAIN HARNESS
49G	–	TO MAIN HARNESS
50G	BR	TO MAIN HARNESS
51G	R	TO MAIN HARNESS
52G	L	TO MAIN HARNESS
53G	W	TO MAIN HARNESS
54G	W	TO MAIN HARNESS
55G	G	TO MAIN HARNESS
56G	W	TO MAIN HARNESS
57G	Y	TO MAIN HARNESS
58G	BG	TO MAIN HARNESS
59G	BG	TO MAIN HARNESS
60G	BG	TO MAIN HARNESS
61G	B	TO MAIN HARNESS
62G	W	TO MAIN HARNESS
63G	R	TO MAIN HARNESS
64G	W/L	TO MAIN HARNESS
65G	W/R	TO MAIN HARNESS
66G	BG	TO MAIN HARNESS
67G	BG	TO MAIN HARNESS
68G	B	TO MAIN HARNESS
69G	Y	TO MAIN HARNESS
70G	L	TO MAIN HARNESS
71G	R/W	TO MAIN HARNESS
72G	L/W	TO MAIN HARNESS
73G	SHIELD	TO MAIN HARNESS
74G	W	TO MAIN HARNESS
75G	R	TO MAIN HARNESS
76G	R/G	TO MAIN HARNESS
77G	G	TO MAIN HARNESS
78G	W	TO MAIN HARNESS
79G	–	TO MAIN HARNESS
80G	R	TO MAIN HARNESS
81G	L	TO MAIN HARNESS
82G	R	TO MAIN HARNESS
83G	L	TO MAIN HARNESS
84G	L	TO MAIN HARNESS
85G	W/B	TO MAIN HARNESS
86G	B/R	TO MAIN HARNESS
87G	W/B	TO MAIN HARNESS
88G	P	TO MAIN HARNESS
89G	L	TO MAIN HARNESS
90G	G	TO MAIN HARNESS
91G	G	TO MAIN HARNESS
92G	V/W	TO MAIN HARNESS
93G	BR	TO MAIN HARNESS
94G	G	TO MAIN HARNESS
95G	G	TO MAIN HARNESS
96G	W	TO MAIN HARNESS
97G	R	TO MAIN HARNESS
98G	W/B	TO MAIN HARNESS
99G	BR	TO MAIN HARNESS
100G	GR/W	TO MAIN HARNESS

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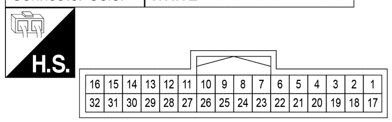
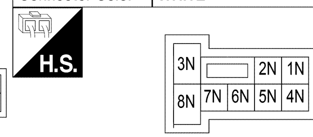
NAVIGATION WITH AMPLIFIER CONNECTORS

Connector No.	M1
Connector Name	WIRE TO WIRE
Connector Type	TH32FW-NH
Connector Color	WHITE



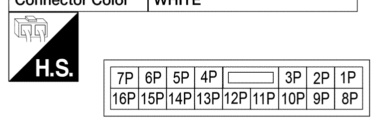
Terminal No.	Color of Wire	Signal Name
1	SHIELD	TO ROOM LAMP HARNESS
2	R	TO ROOM LAMP HARNESS
3	W	TO ROOM LAMP HARNESS
4	SB	TO ROOM LAMP HARNESS
5	G/W	TO ROOM LAMP HARNESS
6	G/R	TO ROOM LAMP HARNESS
7	B	TO ROOM LAMP HARNESS
8	L	TO ROOM LAMP HARNESS
9	R/G	TO ROOM LAMP HARNESS
10	G	TO ROOM LAMP HARNESS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

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	CS06FW-M2
Connector Color	WHITE



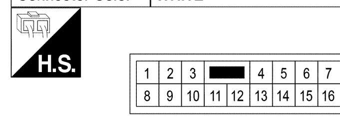
Terminal No.	Color of Wire	Signal Name
1N	–	–
2N	W	BATTERY
3N	W	BLOWER FAN RELAY OUT
4N	V	BATTERY
5N	Y	BATTERY
6N	W	BATTERY
7N	L	ACC RELAY OUT
8N	W	IGNITION

Connector No.	M4
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS16FW-CS
Connector Color	WHITE



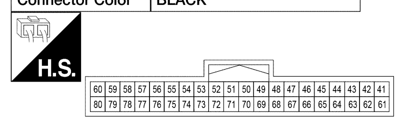
Terminal No.	Color of Wire	Signal Name
1P	R	IGNITION
2P	Y	IGNITION
3P	G	IGNITION RELAY OUT
4P	B/W	RR DEF RLY
5P	B/W	RR DEF RLY
6P	O	RR DEF RLY OUT
7P	G	IGNITION
8P	W	IGNITION
9P	L	BATTERY
10P	–	–
11P	–	–
12P	–	–
13P	R	BATTERY
14P	Y	BATTERY
15P	Y/LG	BATTERY
16P	W	BLOWER FAN RELAY OUT

Connector No.	M8
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	B/W	TO FRONT DOOR LH HARNESS
2	G/B	TO FRONT DOOR LH HARNESS
3	L	TO FRONT DOOR LH HARNESS
4	R	TO FRONT DOOR LH HARNESS
5	W/R	TO FRONT DOOR LH HARNESS
6	W/L	TO FRONT DOOR LH HARNESS
7	V	TO FRONT DOOR LH HARNESS
8	B	TO FRONT DOOR LH HARNESS
9	L/W	TO FRONT DOOR LH HARNESS
10	L/R	TO FRONT DOOR LH HARNESS
11	L/W	TO FRONT DOOR LH HARNESS
12	L	TO FRONT DOOR LH HARNESS
13	Y	TO FRONT DOOR LH HARNESS
14	SB	TO FRONT DOOR LH HARNESS
15	V	TO FRONT DOOR LH HARNESS
16	LG	TO FRONT DOOR LH HARNESS

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



Terminal No.	Color of Wire	Signal Name
41	Y/L	TRAILER LIGHT CHECK RELAY OUT
42	R/Y	CARGO LAMP OUT
43	–	–
44	–	–
45	–	–
46	–	–
47	–	–
48	R	HIGH SIDE START SW LED
49	–	–
50	–	–
51	–	–
52	W	AUDIO DONGLE
53	–	–
54	W/L	PW UART
55	W/B	L&R SENSOR K-LINE
56	–	–
57	–	–
58	–	–
59	P	CAN-L
60	L	CAN-H
61	O	REAR DEFOGGER RELAY OUT
62	W	STARTER RELAY OUT
63	–	–
64	P	BUZZER OUT
65	–	–
66	W	BLOWER FAN RELAY OUT
67	G	IGN ELEC RELAY OUT 2
68	L	MR OUTPUT
69	R/B	AT DEVICE OUT
70	P	IGN USM OUT 1
71	O	DR REQUEST SW
72	G	AS REQUEST SW
73	–	–
74	–	–
75	L/W	COMBI SW OUT 5
76	P	COMBI SW OUT 4
77	L	COMBI SW OUT 3
78	O/B	COMBI SW OUT 2
79	R/W	COMBI SW OUT 1
80	–	–

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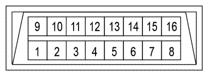
NAVIGATION WITH AMPLIFIER CONNECTORS

Connector No.	M22
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW
Connector Color	WHITE

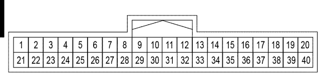
H.S.



Terminal No.	Color of Wire	Signal Name
1	–	–
2	–	–
3	LG	M-CAN-L
4	B	BODY GND
5	B	ENG GND
6	L	CAN-H
7	BR	K-LINE
8	G/R	IGN SW
9	–	–
10	–	–
11	SB	M-CAN-H
12	R	CAN-L
13	L	CAN-H
14	P	CAN-L
15	–	–
16	Y	BATTERY

Connector No.	M24
Connector Name	COMBINATION METER (WITH TYPE A)
Connector Type	TH40FW-NH
Connector Color	WHITE

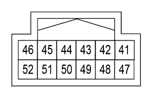
H.S.



Terminal No.	Color of Wire	Signal Name
1	B	GND(STRG/SATELLITE SW GND)
2	–	–
3	–	–
4	–	–
5	–	–
6	–	–
7	V	SECURITY
8	–	–
9	BG	AS BELT SW (W/O ODS)
10	LG	TOW MODE SW
11	BR	CHG
12	BR	LED HEAD LAMP (R)
13	W	LED HEAD LAMP (L)
14	R	ACC SW
15	W	OUTSIDE TEMP SENSOR (WITH VK56VD)
16	O	AIR BAG
17	–	–
18	P	TRIP RESET SW
19	–	–
20	R	OUTSIDE TEMP GND (WITH VK56VD)
21	–	–
22	P	STRG SW A
23	R	STRG SW B
24	W	WASHER SW
25	–	–
26	G	PKB SW
27	P/L	AS BELT SW (WITH ODS)
28	O/B	DR BELT SW
29	–	–
30	–	–
31	–	–
32	BR	AT SHIFT UP
33	V/W	AT SHIFT DOWN
34	–	–
35	–	–
36	W	ILL UP SW
37	R	ILL DOWN SW
38	G	8P/R OUTPUT
39	–	–
40	–	–

Connector No.	M25
Connector Name	COMBINATION METER (WITH TYPE A)
Connector Type	TH12FW-NH
Connector Color	WHITE

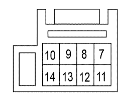
H.S.



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

Connector No.	M30
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY-1V
Connector Color	GRAY

H.S.



Terminal No.	Color of Wire	Signal Name
7	B/Y	ASCD GND -(WITH HEATED STEERING WHEEL)
8	GR	ILL (-) - (WITHOUT HEATED STEERING WHEEL)
8	R	AUDIO STRG SW REMOTE B - (WITH HEATED STEERING WHEEL)
9	G/Y	ASCD SW - (WITHOUT HEATED STEERING WHEEL)
9	P	AUDIO STRG SW REMOTE A - (WITH HEATED STEERING WHEEL)
10	P	AUDIO STRG SW REMOTE A - (WITHOUT HEATED STEERING WHEEL)
10	G/Y	ASCD SW - (WITH HEATED STEERING WHEEL)
11	R/W	HORN SWITCH OUTPUT - (WITHOUT HEATED STEERING WHEEL)
11	B	AUDIO STRG SW GND - (WITH HEATED STEERING WHEEL)
12	B	AUDIO STRG SW GND -(WITHOUT HEATED STEERING WHEEL)
13	B/Y	ASCD GND -(WITHOUT HEATED STEERING WHEEL)
14	R	AUDIO STRG SW REMOTE B - (WITHOUT HEATED STEERING WHEEL)

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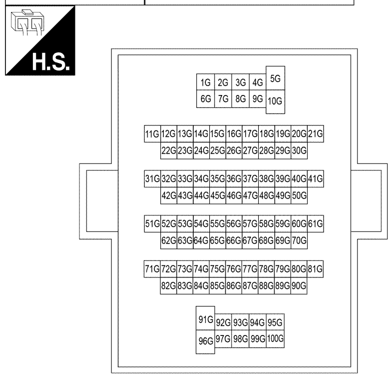
NAVIGATION WITH AMPLIFIER CONNECTORS

Connector No.	M31
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4
Connector Color	WHITE



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

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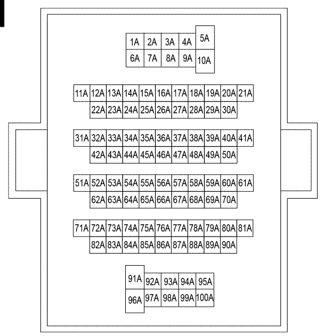
NAVIGATION WITH AMPLIFIER CONNECTORS

Connector No.	M36
Connector Name	WIRE TO WIRE
Connector Type	TH80FDGY-CS16-TM4
Connector Color	GRAY

H.S.



Terminal No.	Color of Wire	Signal Name
1A	W	TO BODY NO. 2 HARNESS
2A	LG	TO BODY NO. 2 HARNESS
3A	V	TO BODY NO. 2 HARNESS
4A	SB	TO BODY NO. 2 HARNESS
5A	–	TO BODY NO. 2 HARNESS
6A	BG	TO BODY NO. 2 HARNESS - (WITH CLIMATE CONTROLLED SEAT)
6A	LG	TO BODY NO. 2 HARNESS - (WITHOUT CLIMATE CONTROLLED SEAT)
7A	W	TO BODY NO. 2 HARNESS
8A	B	TO BODY NO. 2 HARNESS
9A	L/B	TO BODY NO. 2 HARNESS
10A	W	TO BODY NO. 2 HARNESS
11A	R	TO BODY NO. 2 HARNESS
12A	BR	TO BODY NO. 2 HARNESS
13A	G	TO BODY NO. 2 HARNESS
14A	R/G	TO BODY NO. 2 HARNESS
15A	O	TO BODY NO. 2 HARNESS
16A	O/L	TO BODY NO. 2 HARNESS
17A	L	TO BODY NO. 2 HARNESS
18A	Y	TO BODY NO. 2 HARNESS
19A	B/W	TO BODY NO. 2 HARNESS
20A	R	TO BODY NO. 2 HARNESS
21A	BG	TO BODY NO. 2 HARNESS
22A	G	TO BODY NO. 2 HARNESS
23A	Y	TO BODY NO. 2 HARNESS
24A	L	TO BODY NO. 2 HARNESS
25A	–	TO BODY NO. 2 HARNESS
26A	GR	TO BODY NO. 2 HARNESS
27A	LG	TO BODY NO. 2 HARNESS
28A	LG	TO BODY NO. 2 HARNESS
29A	GR	TO BODY NO. 2 HARNESS
30A	BR	TO BODY NO. 2 HARNESS
31A	W/R	TO BODY NO. 2 HARNESS
32A	G/R	TO BODY NO. 2 HARNESS
33A	–	TO BODY NO. 2 HARNESS
34A	SHIELD	TO BODY NO. 2 HARNESS
35A	P	TO BODY NO. 2 HARNESS
36A	B	TO BODY NO. 2 HARNESS
37A	–	TO BODY NO. 2 HARNESS
38A	R/B	TO BODY NO. 2 HARNESS
39A	G/O	TO BODY NO. 2 HARNESS
40A	V	TO BODY NO. 2 HARNESS
41A	SHIELD	TO BODY NO. 2 HARNESS
42A	SHIELD	TO BODY NO. 2 HARNESS
43A	R	TO BODY NO. 2 HARNESS
44A	G	TO BODY NO. 2 HARNESS
45A	–	TO BODY NO. 2 HARNESS
46A	–	TO BODY NO. 2 HARNESS
47A	Y	TO BODY NO. 2 HARNESS
48A	R/W	TO BODY NO. 2 HARNESS
49A	R/L	TO BODY NO. 2 HARNESS
50A	B	TO BODY NO. 2 HARNESS
51A	–	TO BODY NO. 2 HARNESS
52A	–	TO BODY NO. 2 HARNESS
53A	–	TO BODY NO. 2 HARNESS
54A	–	TO BODY NO. 2 HARNESS
55A	–	TO BODY NO. 2 HARNESS
56A	–	TO BODY NO. 2 HARNESS
57A	–	TO BODY NO. 2 HARNESS
58A	–	TO BODY NO. 2 HARNESS
59A	–	TO BODY NO. 2 HARNESS
60A	G/W	TO BODY NO. 2 HARNESS
61A	–	TO BODY NO. 2 HARNESS
62A	–	TO BODY NO. 2 HARNESS
63A	–	TO BODY NO. 2 HARNESS
64A	–	TO BODY NO. 2 HARNESS
65A	–	TO BODY NO. 2 HARNESS
66A	–	TO BODY NO. 2 HARNESS
67A	–	TO BODY NO. 2 HARNESS
68A	–	TO BODY NO. 2 HARNESS
69A	Y/R	TO BODY NO. 2 HARNESS
70A	R/G	TO BODY NO. 2 HARNESS
71A	–	TO BODY NO. 2 HARNESS
72A	W	TO BODY NO. 2 HARNESS
73A	G	TO BODY NO. 2 HARNESS
74A	W	TO BODY NO. 2 HARNESS
75A	SHIELD	TO BODY NO. 2 HARNESS
76A	R	TO BODY NO. 2 HARNESS
77A	L	TO BODY NO. 2 HARNESS
78A	SHIELD	TO BODY NO. 2 HARNESS
79A	GR	TO BODY NO. 2 HARNESS
80A	V	TO BODY NO. 2 HARNESS
81A	R	TO BODY NO. 2 HARNESS
82A	SHIELD	TO BODY NO. 2 HARNESS
83A	R	TO BODY NO. 2 HARNESS
84A	O	TO BODY NO. 2 HARNESS
85A	SHIELD	TO BODY NO. 2 HARNESS
86A	W	TO BODY NO. 2 HARNESS
87A	B	TO BODY NO. 2 HARNESS
88A	W	TO BODY NO. 2 HARNESS
89A	SHIELD	TO BODY NO. 2 HARNESS
90A	G	TO BODY NO. 2 HARNESS
91A	W/L	TO BODY NO. 2 HARNESS
92A	BR	TO BODY NO. 2 HARNESS
93A	L/Y	TO BODY NO. 2 HARNESS
94A	R/L	TO BODY NO. 2 HARNESS
95A	BR	TO BODY NO. 2 HARNESS
96A	R	TO BODY NO. 2 HARNESS
97A	LG	TO BODY NO. 2 HARNESS
98A	B/V	TO BODY NO. 2 HARNESS
99A	O/L	TO BODY NO. 2 HARNESS
100A	BR/W	TO BODY NO. 2 HARNESS

AANIA5427GB

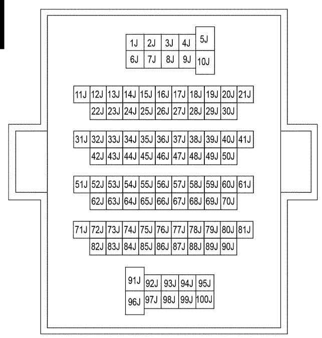
A B C D E F G H I J K L M AV O P

NAVIGATION WITH AMPLIFIER CONNECTORS

18	G	SPEED SIG
19	W	BAT
20	B	GND

Connector No.	M40
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4
Connector Color	WHITE

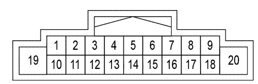
H.S.



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

Connector No.	M43
Connector Name	AV CONTROL UNIT (WITH AUDIO AMPLIFIER)
Connector Type	NH18FW-CS2
Connector Color	WHITE

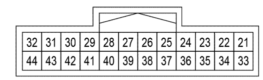
H.S.



Terminal No.	Color of Wire	Signal Name
1	G/W	AMP ON
2	L	FR SP LH+
3	W	FR SP LH-
4	L	RR SP LH+
5	BR	RR SP LH-
6	–	–
7	R	ACC
8	L	CAN-H
9	L	ILL (+)
10	SHIELD	PRE AMP SHIELD
11	B	FR SP RH+
12	Y	FR SP RH-
13	B/W	RR SP RH+
14	P	RR SP RH-
15	–	–
16	–	–
17	P	CAN-L

Connector No.	M45
Connector Name	AV CONTROL UNIT (WITH AUDIO AMPLIFIER)
Connector Type	TH24FW-NH
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
21	LG	M CAN2-L
22	SB	M CAN2-H
23	L	MR OUTPUT
24	–	–
25	–	–
26	–	–
27	–	–
28	G/W	REVERSE SIGNAL
29	–	–
30	V	AUX L
31	GR	AUX GND
32	G	AUX R
33	L/W	CAMERA GND
34	L	CAMERA ON
35	SHIELD	COMP- (WITH AROUND VIEW CAMERA)
35	R/W	COMP- (WITH REAR VIEW CAMERA)
36	G	COMP+ (WITH AROUND VIEW CAMERA)
36	R	COMP+ (WITH REAR VIEW CAMERA)
37	G/R	IGN
38	LG	M CAN1-L
39	SB	M CAN1-H
40	SHIELD	AUX SHIELD
41	SHIELD	MIC GND
42	R	MIC VCC(WITHOUT TELEMATICS)
43	W	MIC SIGNAL
44	GR	ILL (-)

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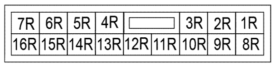
NAVIGATION WITH AMPLIFIER CONNECTORS

Connector No.	M70
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS16FBR-CS
Connector Color	BROWN

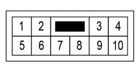
H.S.



Terminal No.	Color of Wire	Signal Name
1R	L	TAIL LAMP 2
2R	G/R	IGNITION
3R	Y/R	BATTERY
4R	–	–
5R	W	BATTERY
6R	G/W	ACCESSORY
7R	–	–
8R	–	–
9R	–	–
10R	W	BATTERY
11R	–	–
12R	BG	BATTERY
13R	B	ACCESSORY
14R	G/Y	BATTERY
15R	Y	BATTERY
16R	G/R	ACCESSORY

Connector No.	M75
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS
Connector Color	WHITE

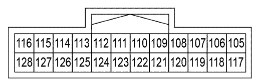
H.S.



Terminal No.	Color of Wire	Signal Name
1	B/W	TO FRONT DOOR RH HARNESS
2	B	TO FRONT DOOR RH HARNESS
3	W/L	TO FRONT DOOR RH HARNESS
4	V	TO FRONT DOOR RH HARNESS
5	W/B	TO FRONT DOOR RH HARNESS
6	G/Y	TO FRONT DOOR RH HARNESS
7	W/B	TO FRONT DOOR RH HARNESS
8	L/B	TO FRONT DOOR RH HARNESS
9	G/Y	TO FRONT DOOR RH HARNESS
10	–	TO FRONT DOOR RH HARNESS

Connector No.	M80
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH24FB-NH
Connector Color	BLACK

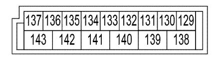
H.S.



Terminal No.	Color of Wire	Signal Name
105	G/Y	FR FLASHER
106	–	–
107	W	LOW SIDE START SW LED
108	L/R	SHIFT LOCK SOLENOID OUT
109	–	–
110	–	–
111	P	ACC LED
112	–	–
113	L	ACC RELAY OUT
114	W	AS DOOR ANT A
115	BG	AS DOOR ANT B
116	W	ROOM ANT 2 A
117	G/B	FL FLASHER
118	–	–
119	R	RF NIMOCO
120	–	–
121	G	DR DOOR ANT B
122	P	DR DOOR ANT A
123	W	ROOM ANT 1 A
124	G	ROOM ANT 1 B
125	–	–
126	P	IMMO START BUTTON ANT B
127	BG	IMMO START BUTTON ANT A
128	B	ROOM ANT 2 B

Connector No.	M81
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FEA09FW-FHA6-SA
Connector Color	WHITE

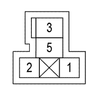
H.S.



Terminal No.	Color of Wire	Signal Name
129	R/G	BATTERY SAVER OUT
130	LG	SUPER LOCK/DOOR UNLOCK AS
131	W	BAT BCM FUSE
132	Y	DOOR LOCK AS/RR/RL
133	BR	DOOR UNLOCK AS/RR/RL
134	B	GND2
135	O	DOOR LOCK DR/AS/FL
136	L	ROOM LAMP CONT
137	V	DOOR UNLOCK DR/AS/FL
138	V	BAT REAR DOOR
139	W	BAT-POWER F/L
140	LG	P/W POWER SUPPLY IGN
141	V	P/W POWER SUPPLY BAT
142	Y	BAT FRONT DOOR
143	B	GND1

Connector No.	M88
Connector Name	ACCESSORY RELAY-2
Connector Type	MS02FL-M2-LC
Connector Color	BLUE

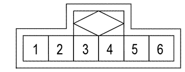
H.S.



Terminal No.	Color of Wire	Signal Name
1	B	GROUND
2	L	RELAY CONTROL
3	R	RELAY OUTPUT
5	W	BATTERY

Connector No.	M104
Connector Name	AUX IN JACK
Connector Type	A06FW
Connector Color	WHITE

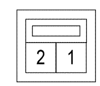
H.S.



Terminal No.	Color of Wire	Signal Name
1	G	AUDIO R OUT
2	G	AUDIO L IN-(WITH REAR SEAT ENTERTAINMENT SYSTEM)
3	GR	AUDIO GND
4	–	–
5	V	AUDIO R IN -(WITH REAR SEAT ENTERTAINMENT SYSTEM)
6	V	AUDIO L OUT

Connector No.	M109
Connector Name	FRONT TWEETER LH
Connector Type	TK02FBR
Connector Color	BROWN

H.S.



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

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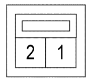
NAVIGATION WITH AMPLIFIER CONNECTORS

Connector No.	M110
Connector Name	CENTER SPEAKER
Connector Type	TK02FBR
Connector Color	BROWN

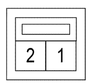
H.S.



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

Connector No.	M111
Connector Name	FRONT TWEETER RH
Connector Type	TK02FBR
Connector Color	BROWN

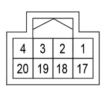
H.S.



Terminal No.	Color of Wire	Signal Name
1	W/B	FR SP RH+
2	L/B	FR SP RH-

Connector No.	M112
Connector Name	AUDIO AMP.
Connector Type	TH08FW-NH
Connector Color	WHITE

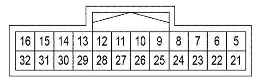
H.S.



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

Connector No.	M113
Connector Name	AUDIO AMP.
Connector Type	PCA24FGY
Connector Color	GRAY

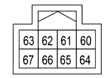
H.S.



Terminal No.	Color of Wire	Signal Name
5	Y	FR RH IN-
6	W	FR LH IN-
7	P	RR RH IN-
8	BR	RR LH IN-
9	G/W	AMP ON
10	L/W	CIR OUT+
11	SB	RR LH OUT+
12	O/L	RR RH OUT+
13	W/B	FR RH TW+
14	L/W	FR LH TW+
15	L/W	FR LH OUT+
16	W/B	FR RH OUT+
21	B	FR RH IN+
22	L	FR LH IN+
23	B/W	RR RH IN+
24	L	RR LH IN+
25	-	-
26	L/B	CIR OUT-
27	B/Y	RR LH OUT-
28	R/L	RR RH OUT-
29	L/B	FR RH TW-
30	L/R	FR LH TW-
31	L/R	FR LH OUT-
32	L/B	FR RH OUT-

Connector No.	M142
Connector Name	AV CONTROL UNIT (WITH AUDIO AMPLIFIER)
Connector Type	TH08FW-NH
Connector Color	WHITE

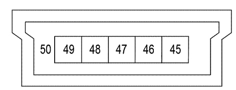
H.S.



Terminal No.	Color of Wire	Signal Name
60	W	TCU IN+
61	SHIELD	DCM SHIELD
62	-	-
63	-	-
64	R	TCU IN-
65	-	-
66	-	-
67	-	-

Connector No.	M143
Connector Name	AV CONTROL UNIT
Connector Type	USCAR30-MA-M
Connector Color	BLACK

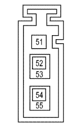
H.S.



Terminal No.	Color of Wire	Signal Name
45	B	V BUS
46	-	-
47	G	D-
48	W	D+
49	R	GND
50	SHIELD	SHIELD

Connector No.	M146
Connector Name	AV CONTROL UNIT
Connector Type	GT13SHA-2-1PP-DS
Connector Color	GRAY

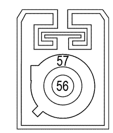
H.S.



Terminal No.	Color of Wire	Signal Name
51	-	-
52	B	ANT MAIN
53	SHIELD	MAIN GND
54	-	-
55	-	-

Connector No.	M147
Connector Name	AV CONTROL UNIT
Connector Type	FAKRA CODING C
Connector Color	PINK

H.S.



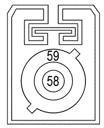
Terminal No.	Color of Wire	Signal Name
56	B	SAT ANT
57	SHIELD	SAT SHIELD

AANIA5430GB

NAVIGATION WITH AMPLIFIER CONNECTORS

Connector No.	M151
Connector Name	AV CONTROL UNIT
Connector Type	FAKRA CODING C
Connector Color	BLUE

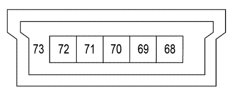
H.S.



Terminal No.	Color of Wire	Signal Name
58	B	GPS ANT
59	SHIELD	GPS SHIELD

Connector No.	M152
Connector Name	AV CONTROL UNIT (WITH AUDIO AMPLIFIER)
Connector Type	USCAR30-MD-M
Connector Color	GREEN

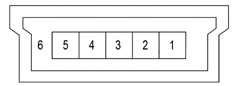
H.S.



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.	M185
Connector Name	USB INTERFACE
Connector Type	USCAR30-MA-M
Connector Color	BLACK

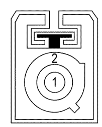
H.S.



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

Connector No.	M188
Connector Name	WIRE TO WIRE
Connector Type	FAKRA CODING C
Connector Color	PINK

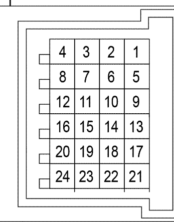
H.S.



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

Connector No.	M192
Connector Name	JOINT CONNECTOR-M02
Connector Type	NH24FW-J
Connector Color	WHITE

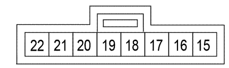
H.S.



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

Connector No.	M199
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY
Connector Color	GRAY

H.S.

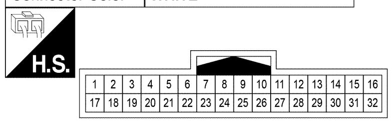


Terminal No.	Color of Wire	Signal Name
15	R	ASCD SW
16	W	AUDIO STRG SW REMOTE A
17	L	AUDIO STRG SW REMOTE B
18	B	ASCD GND
19	BR	AUDIO STRG SW GND
20	G	HORN SWITCH OUTPUT
21	P	ILL -
22	Y	ILL +

AANIA5431GB

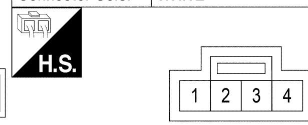
NAVIGATION WITH AMPLIFIER CONNECTORS

Connector No.	R1
Connector Name	WIRE TO WIRE
Connector Type	TH32MW-NH
Connector Color	WHITE



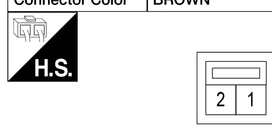
Terminal No.	Color of Wire	Signal Name
1	SHIELD	TO MAIN HARNESS
2	R	TO MAIN HARNESS
3	W	TO MAIN HARNESS
4	Y/R	TO MAIN HARNESS
5	G/W	TO MAIN HARNESS
6	G/R	TO MAIN HARNESS
7	B	TO MAIN HARNESS
8	L	TO MAIN HARNESS
9	R/G	TO MAIN HARNESS
10	G	TO MAIN HARNESS
11	L/W	TO MAIN HARNESS
12	L	TO MAIN HARNESS
13	GR	TO MAIN HARNESS
14	R	TO MAIN HARNESS
15	W/B	TO MAIN HARNESS
16	L/B	TO MAIN HARNESS
17	–	TO MAIN HARNESS
18	P	TO MAIN HARNESS
19	W/L	TO MAIN HARNESS
20	W/B	TO MAIN HARNESS
21	–	TO MAIN HARNESS
22	–	TO MAIN HARNESS
23	–	TO MAIN HARNESS
24	–	TO MAIN HARNESS
25	–	TO MAIN HARNESS
26	–	TO MAIN HARNESS
27	–	TO MAIN HARNESS
28	Y/R	TO MAIN HARNESS
29	G/R	TO MAIN HARNESS
30	G/W	TO MAIN HARNESS
31	LG/B	TO MAIN HARNESS
32	Y/V	TO MAIN HARNESS

Connector No.	R5
Connector Name	MICROPHONE
Connector Type	TK04FW
Connector Color	WHITE



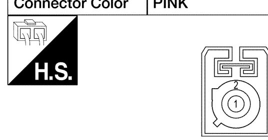
Terminal No.	Color of Wire	Signal Name
1	W	MIC +
2	SHIELD	MIC GROUND
3	–	–
4	R	MIC V +

Connector No.	R16
Connector Name	FRONT PILLAR SPEAKER RH
Connector Type	TK02MBR-P
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
1	W/B	FR RH TW +
2	L/B	FR RH TW -

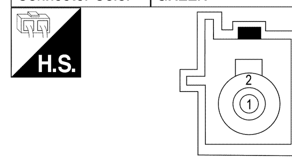
Connector No.	R108
Connector Name	WIRE TO WIRE
Connector Type	FAKRA CODING C
Connector Color	PINK



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

2	SHIELD	TO MAIN HARNESS

Connector No.	R109
Connector Name	SATELLITE ANTENNA
Connector Type	GT16C-1PP-HU (B)
Connector Color	GREEN



Terminal No.	Color of Wire	Signal Name
1	B	SAT ANT
2	SHIELD	SAT SHIELD

AANIA5432GB

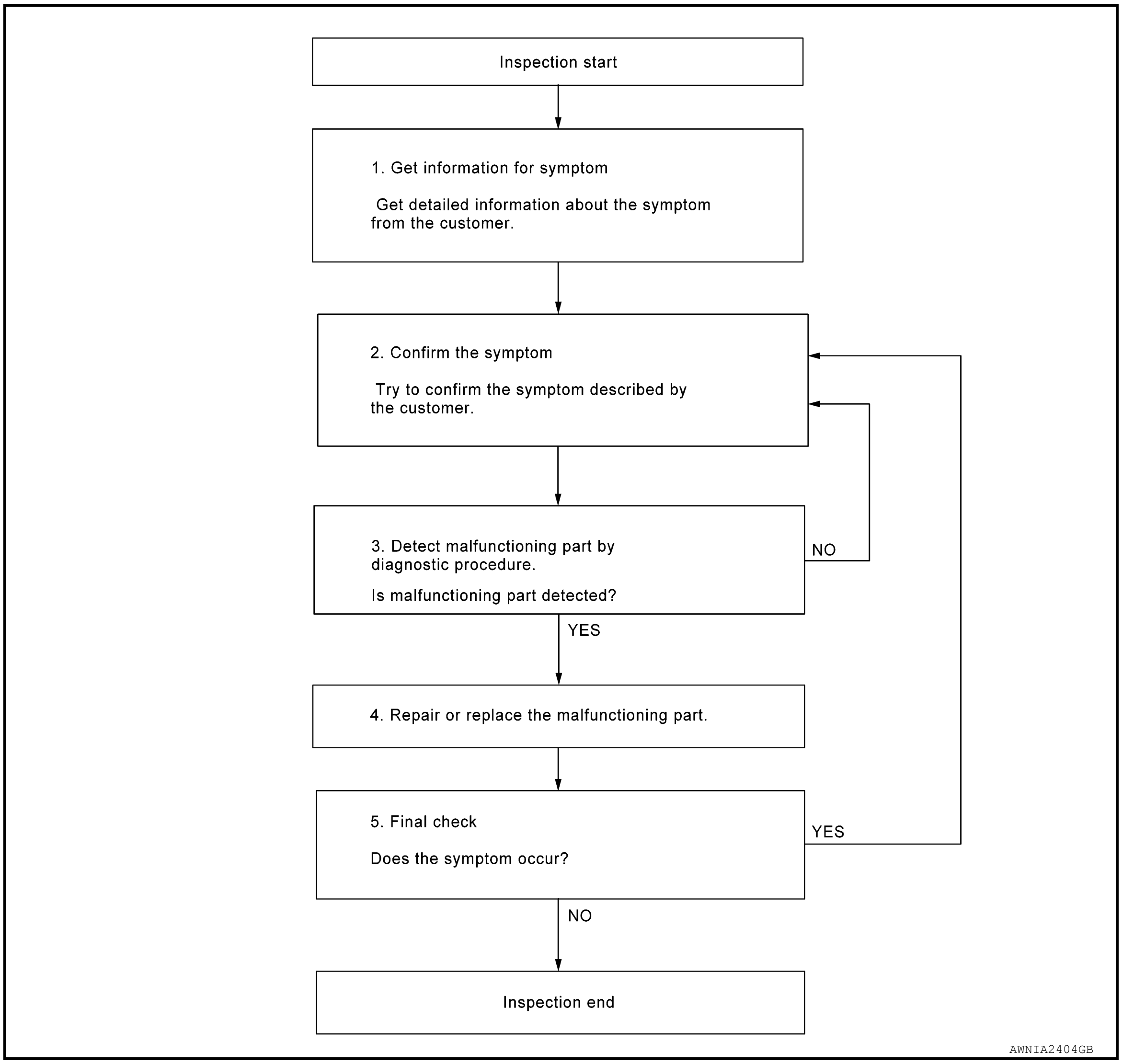
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:0000000014386938

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-264, "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.

Does the symptom occur?

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:0000000014386939

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:0000000014386940

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-277, "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-212, "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-212, "CONFIGURATION (AV CONTROL UNIT) : Work Procedure".

>> GO TO 4.

4.REGISTER AV CONTROL UNIT

Perform AV control unit registration. Refer to AV-213, "REGISTRATION (AV CONTROL UNIT) : Work Procedure (Registration Code)".

>> 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:0000000014386941

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:0000000014386942

1.WRITING MODE SELECTION

CONSULT
Select “Reprogramming, Configuration” of “MULTI AV”.

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-213, "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:0000000014386943

CAUTION:

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

SETTING ITEM		NOTE
Items	Setting value	
SOUND SYSTEM	BASE ⇔ BOSE	BASE: Without BOSE audio BOSE: With BOSE audio
CAMERA SYSTEM	NONE/AVM ⇔ REAR CAMERA	NONE/AVM: With around view monitor REAR CAMERA: With rear view camera

⇔: Items which confirm vehicle specifications

REGISTRATION (AV CONTROL UNIT)

REGISTRATION (AV CONTROL UNIT) : Description

INFOID:0000000014386944

AFTER REPLACEMENT (REGISTRATION CODE)

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.

AFTER REPLACEMENT (SATELLITE RADIO REGISTRATION)

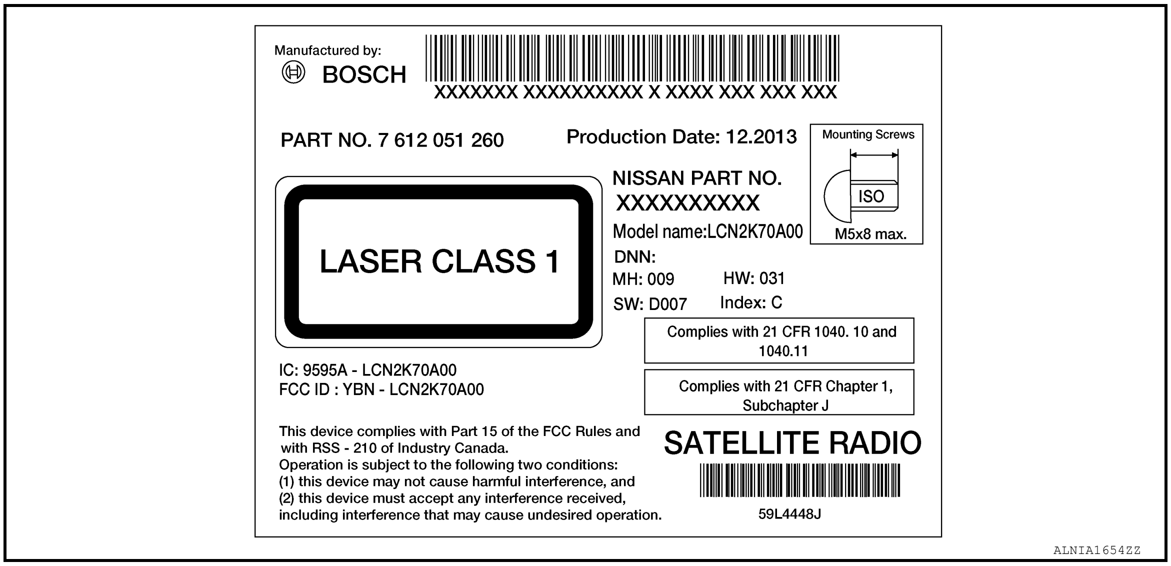
If the AV control unit is replaced with a new AV control unit and the customer has an active subscription for Satellite Radio, the new AV control unit must be registered with the updated subscription information.

REGISTRATION (AV CONTROL UNIT) : Work Procedure (Registration Code)

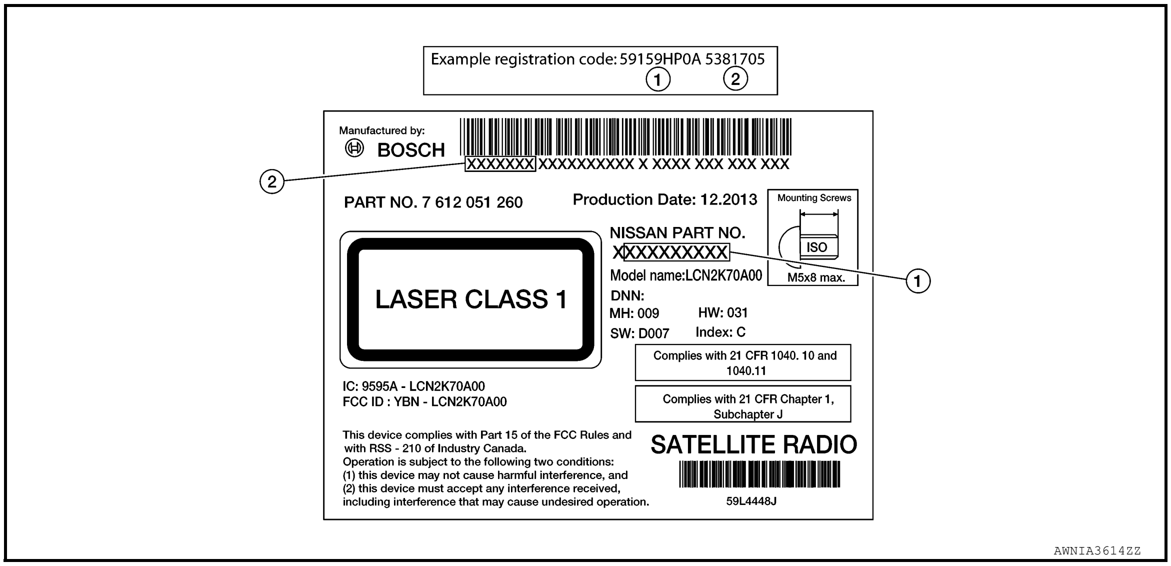
INFOID:0000000014386945

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.

REGISTRATION (AV CONTROL UNIT) : Work Procedure (Satellite Radio Registration)

INFOID:0000000014386946

Contact SiriusXM Dealer Support at 1-800-852-9696 to confirm the subscription is active. If the subscription is confirmed, perform the following procedure:

1. Park the vehicle outside.
2. Turn ignition ON.
3. Turn the radio ON and tune to channel "O" on the XM source.
4. Write down the 8-digit SiriusXM Radio ID displayed on the screen.
5. Tune to channel "1" on the XM source and leave the radio ON.
6. If activating NavTraffic and/or NavWeather/Travel Link Weather, press the APPS button and select Traffic Info or Weather Info to display the respective screen.

7. Activate service at www.siriusxm.com/refresh or by calling SiriusXM Dealer Support at 1-800-852-9696.

8. The service should be activated within 30 minutes.
   - For satellite radio, audio will broadcast when tuned to channels other than "1".
   - For satellite traffic and/or weather, traffic/weather information will display on the Traffic Info/Weather Info screen, or the screen will indicate the system is active.

9. Turn ignition OFF and wait 5 minutes.
   NOTE:
   Do not disconnect the battery or pull any fuses during this time.

10. Turn ignition ON.

11. Check that the activated service is operational.

DTC/CIRCUIT DIAGNOSIS

U1000 CAN COMM CIRCUIT

DTC Description

INFOID:0000000014386947

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-74, "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-216, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014386948

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-53, "Trouble Diagnosis Flow Chart".
NO >> Refer to GI-47, "Intermittent Incident".

U1010 CONTROL UNIT (CAN)

DTC Description

INFOID:0000000014386949

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-74, "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-217, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014386950

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-277, "Removal and Installation".
NO >> Refer to GI-47, "Intermittent Incident".

U1217 AV CONTROL UNIT

DTC Description

INFOID:0000000014386951

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-218, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014386952

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-277, "Removal and Installation".
NO >> Refer to GI-47, "Intermittent Incident".

U1229 AV CONTROL UNIT

DTC Description

INFOID:0000000014386953

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-219, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014386954

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-277, "Removal and Installation".
NO >> Refer to GI-47, "Intermittent Incident".

U1244 GPS ANTENNA

DTC Description

INFOID:0000000014386955

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-220, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014386956

Regarding Wiring Diagram information, refer to AV-191, "Wiring Diagram".

1. GPS ANTENNA INSPECTION

Visually inspect the GPS antenna and antenna feeder. Refer to AV-288, "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 M151 terminal 58 and ground.

AV control unit		Ground	Voltage (Approx.)
Connector	Terminal		
M151	58	—	5.0 V

Is inspection result normal?

YES >> Replace GPS antenna. Refer to AV-288, "Removal and Installation".
NO >> Replace AV control unit. Refer to AV-277, "Removal and Installation".

U1258 SATELLITE RADIO ANTENNA

DTC Description

INFOID:0000000014386957

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-221, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014386958

Regarding Wiring Diagram information, refer to AV-191, "Wiring Diagram".

1. SATELLITE ANTENNA INSPECTION

Visually inspect the satellite antenna and antenna feeder. Refer to AV-174, "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 M147 and satellite radio antenna connector R109.
3. Check continuity between AV control unit connector M147 and satellite radio antenna connector R109.

AV control unit		Satellite radio antenna		Continuity
Connector	Terminal	Connector	Terminal	
M147	56	R109	1	Yes

4. Check continuity between AV control unit connector M147 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M147	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 M147 and satellite radio antenna connector R109.
2. Turn ignition switch ON.
3. Check voltage between AV control unit connector M147 terminal 56 and ground.

AV control unit		Ground	Voltage (Approx.)
Connector	Terminal		
M147	56	—	5.0 V

Is inspection result normal?

YES >> Replace satellite radio antenna AV-287, "Removal and Installation".
NO >> Replace AV control unit. Refer to AV-277, "Removal and Installation".

U1263 USB

DTC Description

INFOID:0000000014386959

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-223, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014386960

1. CHECK USB INTERFACE HARNESS

Visually inspect USB interface harness. Refer to AV-278, "Removal and Installation".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Replace USB interface harness. Refer to AV-278, "Removal and Installation".

2. CHECK USB INTERFACE HARNESS

Check USB interface harness circuits. Refer to AV-262, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Replace AV control unit. Refer to AV-277, "Removal and Installation".
NO >> Replace USB interface harness. Refer to AV-278, "Removal and Installation".

U1265 AUDIO AMP.

DTC Description

INFOID:0000000014386961

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
- Audio 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-224, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014386962

Regarding Wiring Diagram information, refer to AV-191, "Wiring Diagram".

1. CHECK CONTINUITY BETWEEN AV CONTROL UNIT AND BOSE SPEAKER AMP.

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M43 and audio amp. connector M113.
3. Check continuity between AV control unit connector M43 and audio amp. connector M113.

AV control unit		Audio amp.		Continuity
Connector	Terminal	Connector	Terminal	
M43	1	M113	9	Yes

4. Check continuity between AV control unit connector M43 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M43	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 M43.
2. Turn ignition switch ON.
3. Check voltage between AV control unit connector M43 and ground.

AV control unit		Ground	Voltage (Approx.)
(+)			
Connector	Terminal		
M43	1	—	Battery voltage

Is the inspection result normal?

YES >> Replace audio amp. Refer to AV-286, "Removal and Installation".
NO >> Replace AV control unit. Refer to AV-277, "Removal and Installation".

U12AA CONFIGURATION ERROR

DTC Description

INFOID:0000000014386963

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-226, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014386964

1. PERFORM CONFIGURATION

CONSULT
1. Perform configuration procedure. Refer to AV-212, "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-277, "Removal and Installation".
NO >> Inspection End.

U12AB ANTENNA

DTC Description

INFOID:0000000014386965

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-227, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014386966

Regarding Wiring Diagram information, refer to AV-191, "Wiring Diagram".

1.ROD ANTENNA INSPECTION

Visually inspect the rod antenna and antenna feeder. Refer to AV-174, "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 M146 terminal 52 and ground.

AV control unit		Ground	Voltage (Approx.)
Connector	Terminal		
M146	52	—	5.0 V

Is inspection result normal?

YES >> Replace rod antenna. Refer to AV-290, "Removal and Installation".
NO >> Replace AV control unit. Refer to AV-277, "Removal and Installation".

U12AC AV CONTROL UNIT

DTC Description

INFOID:0000000014386967

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-228, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014386968

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-277, "Removal and Installation".
NO >> Refer to GI-47, "Intermittent Incident".

U12AD AV CONTROL UNIT

DTC Description

INFOID:0000000014386969

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-229, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014386970

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-277, "Removal and Installation".
NO >> Refer to GI-47, "Intermittent Incident".

U12AE AV CONTROL UNIT

DTC Description

INFOID:0000000014386971

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-230, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014386972

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-277, "Removal and Installation".
NO >> Refer to GI-47, "Intermittent Incident".

U12AF AV CONTROL UNIT

DTC Description

INFOID:0000000014386973

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-231, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014386974

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-277, "Removal and Installation".
NO >> Refer to GI-47, "Intermittent Incident".

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

U12B0 POWER SUPPLY VOLTAGE

DTC Description

INFOID:0000000014386975

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-232, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014386976

1.CHECK CHARGING SYSTEM

Check the vehicle charging system. Refer to CHG-25, "Work Flow (With EXP-800 NI or GR8-1200 NI) (with Cummins 5.0L)" or CHG-31, "Work Flow (Without EXP-800 NI or GR8-1200 NI) (with Cummins 5.0L)".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning components.

2.CHECK AV CONTROL UNIT POWER SUPPLY AND GROUND CIRCUITS

Perform the AV control unit power supply and ground circuit diagnosis procedure. Refer to AV-234, "AV CONTROL UNIT : Diagnosis Procedure".

Is the inspection result normal?

YES >> Replace the AV control unit. Refer to AV-277, "Removal and Installation".
NO >> Repair or replace harness or connectors.

U12B1 POWER SUPPLY VOLTAGE

DTC Description

INFOID:0000000014386977

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-233, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014386978

1.CHECK CHARGING SYSTEM

Check the vehicle charging system. Refer to CHG-25, "Work Flow (With EXP-800 NI or GR8-1200 NI) (with Cummins 5.0L)" or CHG-31, "Work Flow (Without EXP-800 NI or GR8-1200 NI) (with Cummins 5.0L)".

Is the inspection result normal?

YES >> Replace the AV control unit. Refer to AV-277, "Removal and Installation".
NO >> Repair or replace the malfunctioning components.

POWER SUPPLY AND GROUND CIRCUIT

AV CONTROL UNIT

AV CONTROL UNIT : Diagnosis Procedure

INFOID:0000000014386979

Regarding Wiring Diagram information, refer to AV-191, "Wiring Diagram".

1.CHECK FUSE

Check that the following fuses are not blown.

Terminal No.	Signal name	Fuse No.
7	ACC power supply	25 (5A)
19	Battery power supply	15 (20A)
37	Ignition power supply	29 (5A)

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 M43 and M45.
3. Check voltage between AV control unit connectors M43 and M45 and ground.

AV control unit		Ground	Condition	Voltage (Approx.)
Connector	Terminal			
M43	19	—	Ignition switch: OFF	Battery voltage
	7		Ignition switch: ON	
M45	37			

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 M43 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M43	20	—	Yes

Is the inspection result normal?

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

AUDIO AMP.

AUDIO AMP. : Diagnosis Procedure

INFOID:0000000014386980

Regarding Wiring Diagram information, refer to AV-191, "Wiring Diagram".

1.CHECK FUSE

Check that the following fuses are not blown.

Terminal No.	Signal name	Fuse No.
1	Battery power supply	12 (15A)
17	Battery power supply	11 (15A)

Are the fuses blown?

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

2.CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect audio amp. connector M112.
3. Check voltage between audio amp. connector M112 and ground.

Audio amp.		Ground	Condition	Voltage (Approx.)
Connector	Terminal			
M112	1	—	Ignition switch: OFF	Battery voltage
	17			

Is the inspection result normal?

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

3.CHECK GROUND CIRCUIT

Check continuity between audio amp. connector M112 and ground.

Audio amp.		Ground	Continuity
Connector	Terminal		
M112	4	—	Yes
	20		

Is the inspection result normal?

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

FRONT TWEETER

Diagnosis Procedure

INFOID:0000000014386981

Regarding Wiring Diagram information, refer to AV-191, "Wiring Diagram".

1.CONNECTOR CHECK

Check the AV control unit, audio amp. and tweeter 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 (AUDIO AMP.)

1. Disconnect audio amp. connector M113 and suspect front tweeter connector.
2. Check continuity between audio amp. connector M113 and suspect front tweeter connector.

Audio amp.		Front tweeter		Continuity
Connector	Terminal	Connector	Terminal	
M113	14	M109 (LH)	1	Yes
	30		2	
	13	M111 (RH)	1	
	29		2	

3. Check continuity between audio amp. connector M113 and ground.

Audio amp.		Ground	Continuity
Connector	Terminal		
M113	14	—	No
	30		
	13		
	29		

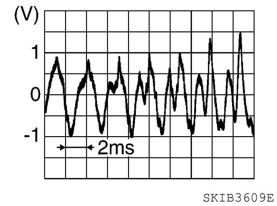
Is the inspection result normal?

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

3.CHECK FRONT TWEETER SIGNAL (AUDIO AMP.)

1. Connect audio amp. connector M113 and suspect front tweeter connector.
2. Turn ignition switch to ACC.
3. Push AV control unit POWER switch.
4. Check signal between audio amp. connector M113 and ground.

Audio amp. connector M113		Condition	Reference value
(+)	(–)		
Terminal	Terminal		

14	30	Audio signal output	
13	29		

Is the inspection result normal?

YES >> Replace front tweeter. Refer to AV-279, "Removal and Installation".
NO >> GO TO 4.

4.CHECK FRONT TWEETER SIGNAL CIRCUIT CONTINUITY (AV CONTROL UNIT)

1. Turn ignition switch to OFF.
2. Disconnect audio amp. connector M113 and AV control unit connector M43.
3. Check continuity between audio amp. connector M113 and AV control unit connector M43.

Audio amp.		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M113	22	M43	2	Yes
	6		3	
	21		11	
	5		12	

4. Check continuity between audio amp. connector M113 and ground.

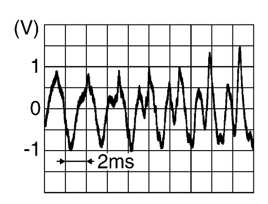
Audio amp.		Ground	Continuity
Connector	Terminal		
M113	22	—	No
	6		
	21		
	5		

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 audio amp. connector M113 and AV control unit connector M43.
2. Turn ignition switch to ACC.
3. Push AV control unit POWER switch.
4. Check signal between AV control unit connector M43 and ground.

AV control unit connector M43		Condition	Reference value
(+)	(–)		
Terminal	Terminal		
2	3	Audio signal output	
11	12		

Is the inspection result normal?

YES >> Replace audio amp. Refer to AV-286, "Removal and Installation".
NO >> Replace AV control unit. Refer to AV-277, "Removal and Installation".

CENTER SPEAKER

Diagnosis Procedure

INFOID:0000000014386982

Regarding Wiring Diagram information, refer to AV-191, "Wiring Diagram".

1.CONNECTOR CHECK

Check the AV control unit, audio 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 (AUDIO AMP.)

1. Disconnect audio amp. connector M113 and center speaker connector M110.
2. Check continuity between audio amp. connector M113 and center speaker connector M110.

Audio amp.		Center speaker		Continuity
Connector	Terminal	Connector	Terminal	
M113	10	M110	1	Yes
	26		2	

3. Check continuity between audio amp. connector M113 and ground.

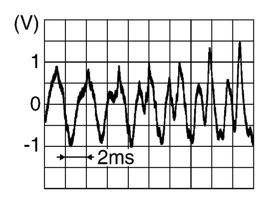
Audio amp.		Ground	Continuity
Connector	Terminal		
M113	10	—	No
	26		

Is the inspection result normal?

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

3.CHECK CENTER SPEAKER SIGNAL (AUDIO AMP.)

1. Connect audio amp. connector M113 and center speaker connector M110.
2. Turn ignition switch to ACC.
3. Push AV control unit POWER switch.
4. Check signal between audio amp. connector M113 and ground.

Audio amp. connector M113		Condition	Reference value
(+)	(–)		
Terminal	Terminal		
10	26	Audio signal output	

Is the inspection result normal?

YES >> Replace center speaker. Refer to AV-280, "Removal and Installation".
NO >> GO TO 4.

4.CHECK CENTER SPEAKER SIGNAL CIRCUIT CONTINUITY (AV CONTROL UNIT)

1. Turn ignition switch to OFF.
2. Disconnect audio amp. connector M113 and AV control unit connector M43.
3. Check continuity between audio amp. connector M113 and AV control unit connector M43.

Audio amp.		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M113	22	M43	2	Yes
	6		3	
	21		11	
	5		12	

4. Check continuity between audio amp. connector M113 and ground.

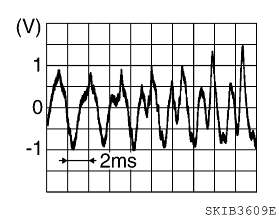
Audio amp.		Ground	Continuity
Connector	Terminal		
M113	22	—	No
	6		
	21		
	5		

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 audio amp. connector M113 and AV control unit connector M43.
2. Turn ignition switch to ACC.
3. Push AV control unit POWER switch.
4. Check signal between AV control unit connector M43 and ground.

AV control unit connector M43		Condition	Reference value
(+)	(–)		
Terminal	Terminal		
2	3	Audio signal output	
11	12		

Is the inspection result normal?

YES >> Replace audio amp. Refer to AV-286, "Removal and Installation".
NO >> Replace AV control unit. Refer to AV-277, "Removal and Installation".

FRONT PILLAR SPEAKER

Diagnosis Procedure

INFOID:0000000014386983

Regarding Wiring Diagram information, refer to AV-191, "Wiring Diagram".

1.CONNECTOR CHECK

Check the AV control unit, audio 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 PILLAR SPEAKER SIGNAL CIRCUIT CONTINUITY (AUDIO AMP.)

1. Disconnect audio amp. connector M113 and suspect front pillar speaker connector.
2. Check continuity between audio amp. connector M113 and suspect front pillar speaker connector.

Audio amp.		Front pillar speaker		Continuity
Connector	Terminal	Connector	Terminal	
M113	14	B82 (LH)	1	Yes
	30		2	
	13	R16 (RH)	1	
	29		2	

3. Check continuity between audio amp. connector M113 and ground.

Audio amp.		Ground	Continuity
Connector	Terminal		
M113	14	—	No
	30		
	13		
	29		

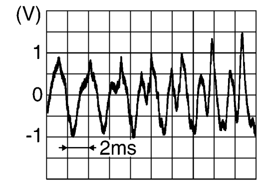
Is the inspection result normal?

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

3.CHECK FRONT PILLAR SPEAKER SIGNAL (AUDIO AMP.)

1. Connect audio amp. connector M113 and suspect front pillar speaker connector.
2. Turn ignition switch to ACC.
3. Push AV control unit POWER switch.
4. Check signal between audio amp. connector M113 and ground.

Audio amp. connector M113		Condition	Reference value
(+)	(–)		
Terminal	Terminal		

14	30	Audio signal output	 SKIB3609E
13	29		

Is the inspection result normal?

YES >> Replace front pillar speaker. Refer to AV-279, "Removal and Installation".
NO >> GO TO 4.

4.CHECK FRONT PILLAR SPEAKER SIGNAL CIRCUIT CONTINUITY (AV CONTROL UNIT)

1. Turn ignition switch to OFF.
2. Disconnect audio amp. connector M113 and AV control unit connector M43.
3. Check continuity between audio amp. connector M113 and AV control unit connector M43.

Audio amp.		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M113	22	M43	2	Yes
	6		3	
	21		11	
	5		12	

4. Check continuity between audio amp. connector M113 and ground.

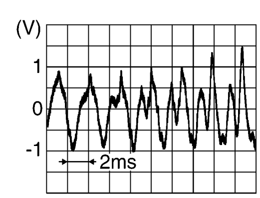
Audio amp.		Ground	Continuity
Connector	Terminal		
M113	22	—	No
	6		
	21		
	5		

Is the inspection result normal?

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

5.CHECK FRONT PILLAR SPEAKER SIGNAL (AV CONTROL UNIT)

1. Connect audio amp. connector M113 and AV control unit connector M43.
2. Turn ignition switch to ACC.
3. Push AV control unit POWER switch.
4. Check signal between AV control unit connector M43 and ground.

AV control unit connector M43		Condition	Reference value
(+)	(–)		
Terminal	Terminal		
2	3	Audio signal output	 SKIB3609E
11	12		

Is the inspection result normal?

YES >> Replace audio amp. Refer to AV-286, "Removal and Installation".
NO >> Replace AV control unit. Refer to AV-277, "Removal and Installation".

FRONT DOOR SPEAKER

Diagnosis Procedure

INFOID:0000000014386984

Regarding Wiring Diagram information, refer to AV-191, "Wiring Diagram".

1.CONNECTOR CHECK

Check the AV control unit, audio 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 (AUDIO AMP.)

1. Disconnect audio amp. connector M113 and suspect front door speaker connector.
2. Check continuity between audio amp. connector M113 and suspect front door speaker connector.

Audio amp.		Front door speaker		Continuity
Connector	Terminal	Connector	Terminal	
M113	15	D12 (LH)	1	Yes
	31		2	
	16	D112 (RH)	1	
	32		2	

3. Check continuity between audio amp. connector M113 and ground.

Audio amp.		Ground	Continuity
Connector	Terminal		
M113	15	—	No
	31		
	16		
	32		

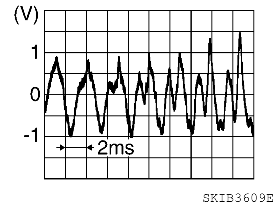
Is the inspection result normal?

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

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

1. Connect audio amp. connector M113 and suspect front door speaker connector.
2. Turn ignition switch to ACC.
3. Push AV control unit POWER switch.
4. Check signal between audio amp. connector M113 and ground.

Audio amp. connector M113		Condition	Reference value
(+)	(–)		
Terminal	Terminal		

15	31	Audio signal output	
16	32		

Is the inspection result normal?

YES >> Replace front door speaker. Refer to AV-281, "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 audio amp. connector M113 and AV control unit connector M43.
3. Check continuity between audio amp. connector M113 and AV control unit connector M43.

Audio amp.		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M113	22	M43	2	Yes
	6		3	
	21		11	
	5		12	

4. Check continuity between audio amp. connector M113 and ground.

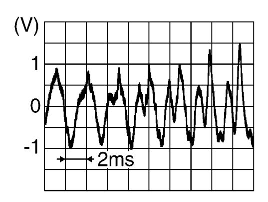
Audio amp.		Ground	Continuity
Connector	Terminal		
M113	22	—	No
	6		
	21		
	5		

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 audio amp. connector M113 and AV control unit connector M43.
2. Turn ignition switch to ACC.
3. Push AV control unit POWER switch.
4. Check signal between AV control unit connector M43 and ground.

AV control unit connector M43		Condition	Reference value
(+)	(−)		
Terminal	Terminal		
2	3	Audio signal output	
11	12		

Is the inspection result normal?

YES >> Replace audio amp. Refer to AV-286, "Removal and Installation".
NO >> Replace AV control unit. Refer to AV-277, "Removal and Installation".

REAR DOOR TWEETER

Diagnosis Procedure

INFOID:0000000014386985

Regarding Wiring Diagram information, refer to AV-191, "Wiring Diagram".

1.CONNECTOR CHECK

Check the AV control unit, audio amp. and tweeter 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 TWEETER SIGNAL CIRCUIT CONTINUITY (AUDIO AMP.)

1. Disconnect audio amp. connectors and suspect rear door tweeter connector.
2. Check continuity between audio amp. connectors and suspect rear door tweeter connector.

Audio amp.		Rear door tweeter		Continuity
Connector	Terminal	Connector	Terminal	
M113	11	D208 (LH)	1	Yes
	27		2	
	12	D308 (RH)	1	
	28		2	

3. Check continuity between audio amp. connectors and ground.

Audio amp.		Ground	Continuity
Connector	Terminal		
M113	11	—	No
	27		
	12		
	28		

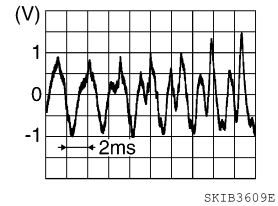
Is the inspection result normal?

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

3.CHECK REAR DOOR TWEETER SIGNAL (AUDIO AMP.)

1. Connect audio amp. connectors and suspect rear door tweeter connector.
2. Turn ignition switch to ACC.
3. Push AV control unit POWER switch.
4. Check signal between audio amp. connectors and ground.

Audio amp.			Condition	Reference value
Connector	(+)	(–)		
	Terminal	Terminal		

M113	11	27	Audio signal output	
	12	28		

Is the inspection result normal?

YES >> Replace rear door tweeter. Refer to AV-283, "Removal and Installation".
NO >> GO TO 4.

4.CHECK REAR DOOR TWEETER SIGNAL CIRCUIT CONTINUITY (AV CONTROL UNIT)

1. Turn ignition switch to OFF.
2. Disconnect audio amp. connector M113 and AV control unit connector M43.
3. Check continuity between audio amp. connector M113 and AV control unit connector M43.

Audio amp.		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M113	24	M43	4	Yes
	8		5	
	23		13	
	7		14	

4. Check continuity between audio amp. connector M113 and ground.

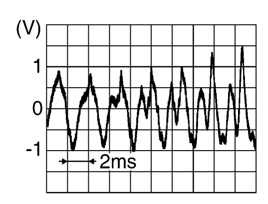
Audio amp.		Ground	Continuity
Connector	Terminal		
M113	24	—	No
	8		
	23		
	7		

Is the inspection result normal?

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

5.CHECK REAR DOOR TWEETER SIGNAL (AV CONTROL UNIT)

1. Connect audio amp. connector M113 and AV control unit connector M43.
2. Turn ignition switch to ACC.
3. Push AV control unit POWER switch.
4. Check signal between AV control unit connector M43 and ground.

AV control unit connector M43		Condition	Reference value
(+)	(−)		
Terminal	Terminal		
4	5	Audio signal output	
13	14		

Is the inspection result normal?

YES >> Replace audio amp. Refer to AV-286, "Removal and Installation".
NO >> Replace AV control unit. Refer to AV-277, "Removal and Installation".

REAR DOOR SPEAKER

Diagnosis Procedure

INFOID:0000000014386986

Regarding Wiring Diagram information, refer to AV-191, "Wiring Diagram".

1.CONNECTOR CHECK

Check the AV control unit, audio 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 (AUDIO AMP.)

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

Audio amp.		Rear door speaker		Continuity
Connector	Terminal	Connector	Terminal	
M113	11	D207 (LH)	1	Yes
	27		2	
	12	D307 (RH)	1	
	28		2	

3. Check continuity between audio amp. connectors and ground.

Audio amp.		Ground	Continuity
Connector	Terminal		
M113	11	—	No
	27		
	12		
	28		

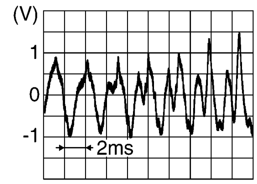
Is the inspection result normal?

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

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

1. Connect audio amp. connectors and suspect rear door speaker connector.
2. Turn ignition switch to ACC.
3. Push AV control unit POWER switch.
4. Check signal between audio amp. connectors and ground.

Audio amp.			Condition	Reference value
Connector	(+)	(–)		
	Terminal	Terminal		

M113	11	27	Audio signal output	 SKIB3609E
	12	28		

Is the inspection result normal?

YES >> Replace rear door speaker. Refer to AV-283, "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 audio amp. connector M113 and AV control unit connector M43.
3. Check continuity between audio amp. connector M113 and AV control unit connector M43.

Audio amp.		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M113	24	M43	4	Yes
	8		5	
	23		13	
	7		14	

4. Check continuity between audio amp. connector M113 and ground.

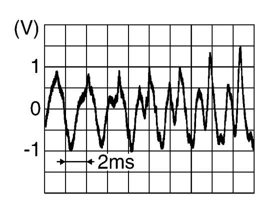
Audio amp.		Ground	Continuity
Connector	Terminal		
M113	24	—	No
	8		
	23		
	7		

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 audio amp. connector M113 and AV control unit connector M43.
2. Turn ignition switch to ACC.
3. Push AV control unit POWER switch.
4. Check signal between AV control unit connector M43 and ground.

AV control unit connector M43		Condition	Reference value
(+)	(–)		
Terminal	Terminal		
4	5	Audio signal output	 SKIB3609E
13	14		

Is the inspection result normal?

YES >> Replace audio amp. Refer to AV-286, "Removal and Installation".
NO >> Replace AV control unit. Refer to AV-277, "Removal and Installation".

SUBWOOFER

Diagnosis Procedure

INFOID:0000000014386987

Regarding Wiring Diagram information, refer to AV-191, "Wiring Diagram".

1.CONNECTOR CHECK

Check the audio amp. and subwoofer connectors for the following:
- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

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

2.CHECK SUBWOOFER SIGNAL CIRCUIT CONTINUITY (AUDIO AMP.)

1. Disconnect audio amp. connector M112 and subwoofer connector B105.
2. Check continuity between audio amp. connector M112 and subwoofer connector B105.

Audio amp.		Subwoofer		Continuity
Connector	Terminal	Connector	Terminal	
M112	2	B105	1	Yes
	3		3	
	18		2	
	19		4	

3. Check continuity between audio amp. connector M112 and ground.

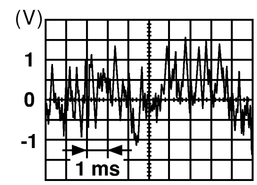
Audio amp.		—	Continuity
Connector	Terminal		
M112	2	Ground	No
	3		
	18		
	19		

Is the inspection result normal?

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

3.CHECK SUBWOOFER SIGNAL (AUDIO AMP.)

1. Connect audio amp. connector M112 and subwoofer connector B105.
2. Turn ignition switch to ACC.
3. Push “POWER” switch.
4. Check the signal between audio amp. harness connector M112 terminals with CONSULT or oscilloscope.

Audio amp. connector M112		Condition	Reference signal
(+)	(-)		
Terminal	Terminal		
2	18	Receive audio signal	
3	19		

Is the inspection result normal?

YES >> Replace subwoofer. Refer to AV-283, "Removal and Installation".
NO >> GO TO 4.

4.CHECK SUBWOOFER SIGNAL CIRCUIT CONTINUITY (AV CONTROL UNIT)

1. Disconnect AV control unit connector M43 and audio amp. connector M113.
2. Check continuity between AV control unit harness connector M43 and audio amp. harness connector M113.

AV control unit		Audio amp.		Continuity
Connector	Terminal	Connector	Terminal	
M43	4	M113	24	Yes
	5		8	
	13		23	
	14		7	

3. Check continuity between AV control unit harness connector M43 and ground.

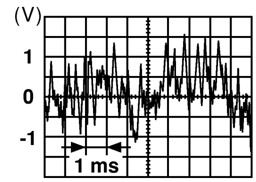
Connector	Terminal	—	Continuity
M43	4	Ground	No
	5		
	13		
	14		

Is the inspection result normal?

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

5.CHECK SUBWOOFER SIGNAL (AV CONTROL UNIT)

1. Connect AV control unit connector M43 and audio amp. connector M113.
2. Turn ignition switch to ACC.
3. Push “POWER” switch.
4. Check the signal between AV control unit harness connector M43 terminals with CONSULT or oscilloscope.

AV control unit connector M43		Condition	Reference signal
(+)	(-)		
Terminal	Terminal		
4	5	Receive audio signal	SKIA0177E
13	14		

Is the inspection result normal?

YES >> Replace audio amp. Refer to AV-286, "Removal and Installation".
NO >> Replace AV control unit. Refer to AV-277, "Removal and Installation".

MICROPHONE SIGNAL CIRCUIT

Diagnosis Procedure

INFOID:0000000014386988

Regarding Wiring Diagram information, refer to AV-191, "Wiring Diagram".

1.CHECK MICROPHONE SIGNAL CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M45 and microphone connector R5.
3. Check continuity between AV control unit connector M45 and microphone connector R5.

AV control unit		Microphone		Continuity
Connector	Terminal	Connector	Terminal	
M45	41	R5	2	Yes
	42		4	
	43		1	

4. Check continuity between AV control unit connector M45 and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M45	41	—	No
	42		
	43		

Is inspection result normal?

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

2.CHECK MICROPHONE VCC VOLTAGE

1. Connect AV control unit connector M45.
2. Turn ignition switch ON.
3. Check voltage between terminals of AV control unit connector M45.

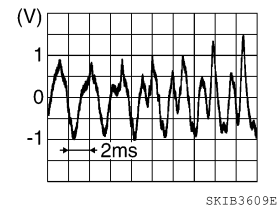
AV control unit connector M45		Voltage (Approx.)
(+)	(–)	
Terminal	Terminal	
42	41	5.0 V

Is the inspection result normal?

YES >> GO TO 3.
NO >> Replace AV control unit. Refer to AV-277, "Removal and Installation".

3.CHECK MICROPHONE SIGNAL

1. Connect microphone connector.
2. Check signal between terminals of AV control unit connector M45.

AV control unit connector M45		Condition	Reference value
(+)	(–)		
Terminal	Terminal		
43	41	Speak into microphone.	

Is the inspection result normal?

YES >> Replace AV control unit. Refer to AV-277, "Removal and Installation".
NO >> Replace microphone. Refer to AV-291, "Removal and Installation".

STEERING SWITCH

Diagnosis Procedure

INFOID:0000000014386989

Regarding Wiring Diagram information, refer to AV-191, "Wiring Diagram".

WITHOUT HEATED STEERING

1.CHECK STEERING WHEEL AUDIO CONTROL SWITCH RESISTANCE

1. Turn ignition switch OFF.
2. Disconnect combination switch connector M30.
3. Check resistance between combination switch connector terminals.

Combination switch connector M88		Condition	Resistance Ω (Approx.)
Terminal	Terminal		
10	12	Depress SOURCE switch.	1
		Depress △ switch.	121
		Depress ▽ switch.	321
		Depress switch.	723
		Depress ENTER switch.	2023
14		Depress − switch.	1
		Depress + switch.	121
		Depress switch.	321
		Depress menu right switch.	723
		Depress menu left switch.	2023

Is the inspection result normal?

YES >> GO TO 2.
NO >> Replace steering switches. Refer to AV-289, "Removal and Installation".

2.CHECK HARNESS BETWEEN COMBINATION SWITCH AND COMBINATION METER

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

Combination meter		Combination switch		Continuity
Connector	Terminal	Connector	Terminal	
M24	1	M30	12	Yes
	22		10	
	23		14	

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

Combination meter		Ground	Continuity
Connector	Terminal		
M24	1	—	No
	22		
	23		

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 M30 and M199.

Combination switch				Continuity
Connector	Terminal	Connector	Terminal	
M30	10	M199	16	Yes
	12		19	
	14		17	

Is the inspection result normal?

YES >> GO TO 4.
NO >> Replace spiral cable. Refer to SR-14, "Removal and Installation".

4.CHECK HARNESS BETWEEN COMBINATION METER AND AV CONTROL UNIT

1. Disconnect AV control unit connector M45.
2. Check continuity between combination meter connector M25 and AV control unit connector M45.

Combination meter		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M25	51	M45	21	Yes
	52		22	

3. Check continuity between combination meter connector M25 and ground.

Combination meter		Ground	Continuity
Connector	Terminal		
M25	51	—	No
	52		

Is the inspection result normal?

YES >> Replace AV control unit. Refer to AV-157, "Removal and Installation".
NO >> Repair or replace harness or connectors.

WITH HEATED STEERING

1.CHECK STEERING WHEEL AUDIO CONTROL SWITCH RESISTANCE

1. Turn ignition switch OFF.
2. Disconnect combination switch connector M30.
3. Check resistance between combination switch connector terminals.

Combination switch connector M88		Condition	Resistance Ω (Approx.)
Terminal	Terminal		
9	11	Depress SOURCE switch.	1
		Depress △ switch.	121
		Depress ▽ switch.	321
		Depress switch.	723
		Depress ENTER switch.	2023
8		Depress − switch.	1
		Depress + switch.	121
		Depress switch.	321
		Depress menu right switch.	723
		Depress menu left switch.	2023

Is the inspection result normal?

YES >> GO TO 2.
NO >> Replace steering switches. Refer to AV-289, "Removal and Installation".

2.CHECK HARNESS BETWEEN COMBINATION SWITCH AND COMBINATION METER

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

Combination meter		Combination switch		Continuity
Connector	Terminal	Connector	Terminal	
M24	1	M30	11	Yes
	22		9	
	23		8	

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

Combination meter		Ground	Continuity
Connector	Terminal		
M24	1	—	No
	22		
	23		

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 M30 and M199.

Combination switch				Continuity
Connector	Terminal	Connector	Terminal	
M30	9	M199	16	Yes
	11		19	
	8		17	

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace spiral cable. Refer to SR-14, "Removal and Installation".

4.CHECK HARNESS BETWEEN COMBINATION METER AND AV CONTROL UNIT

1. Disconnect AV control unit connector M45.
2. Check continuity between combination meter connector M25 and AV control unit connector M45.

Combination meter		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M25	51	M45	21	Yes
	52		22	

3. Check continuity between combination meter connector M25 and ground.

Combination meter		Ground	Continuity
Connector	Terminal		
M25	51	—	No
	52		

Is the inspection result normal?

YES >> Replace AV control unit. Refer to AV-277, "Removal and Installation".
NO >> Repair or replace harness or connectors.

USB CONNECTOR

Diagnosis Procedure

INFOID:0000000014386990

Regarding Wiring Diagram information, refer to AV-191, "Wiring Diagram".

1.CHECK USB INTERFACE HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M143 and USB interface connector M185.
3. Check continuity between AV control unit connector M143 and USB interface connector M185.

AV control unit		USB interface		Continuity
Connector	Terminal	Connector	Terminal	
M143	45	M185	1	Yes
	47		3	
	48		4	
	49		5	
	50		6	

4. Check continuity between AV control unit connector M143 and ground.

AV control unit		—	Continuity
Connector	Terminal		
M143	45	Ground	No
	48		

Is the inspection result normal?

YES >> Replace the USB interface. Refer to AV-278, "Removal and Installation".
NO >> Repair or replace harness or connectors.

AUXILIARY INPUT JACK

Diagnosis Procedure

INFOID:0000000014386991

Regarding Wiring Diagram information, refer to AV-191, "Wiring Diagram".

1.CHECK AUX IN JACK HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M45 and AUX in jack connector M104.
3. Check continuity between AV control unit connector M45 and AUX in jack connector M104.

AV control unit		AUX in jack		Continuity
Connector	Terminal	Connector	Terminal	
M45	30	M104	6	Yes
	31		3	
	32		1	

4. Check continuity between AV control unit connector M45 and ground.

AV control unit		—	Continuity
Connector	Terminal		
M45	30	Ground	No
	32		

Is the inspection result normal?

YES >> Replace the AUX in jack. Refer to AV-278, "Removal and Installation".
NO >> Repair or replace harness or connectors.

SYMPTOM DIAGNOSIS

MULTI AV SYSTEM

Symptom Table

INFOID:0000000014386992

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-180, "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-191, "Wiring Diagram". • Audio amp. power supply and ground circuits malfunction. Refer to AV-234, "AUDIO AMP. : Diagnosis Procedure".
	Only a certain speaker (front tweeter LH, front tweeter RH, center speaker, front pillar speaker LH, front pillar speaker RH, front door speaker LH, front door speaker RH, rear tweeter LH, rear tweeter RH, rear door speaker LH, rear door speaker RH and subwoofer) does not output sound.	• Poor connector connection of speaker. • Sound signal circuit malfunction between audio amp. and speaker and AV control unit and audio amp. Refer to: - AV-236, "Diagnosis Procedure" (front tweeter). - AV-239, "Diagnosis Procedure" (center speaker). - AV-244, "Diagnosis Procedure" (front pillar speaker). - AV-244, "Diagnosis Procedure" (front door speaker). - AV-247, "Diagnosis Procedure" (rear tweeter). - AV-250, "Diagnosis Procedure" (rear door speaker). - AV-250, "Diagnosis Procedure" (subwoofer). • Malfunction in speaker. Refer to: - AV-279, "Removal and Installation" (front tweeter). - AV-280, "Removal and Installation" (center speaker). - AV-281, "Removal and Installation" (front pillar speaker). - AV-281, "Removal and Installation" (front door speaker). - AV-284, "Removal and Installation" (rear tweeter). - AV-283, "Removal and Installation" (rear door speaker). - AV-283, "Removal and Installation" (subwoofer). • Malfunction in AV control unit. Refer to AV-180, "On Board Diagnosis Function". • Malfunction in audio amp. Replace audio amp. Refer to AV-286, "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-180, "On Board Diagnosis Function". • Malfunction in audio amp. Replace audio amp. Refer to AV-286, "Removal and Installation".
	Noise comes out only from a certain speaker (front tweeter LH, front tweeter RH, center speaker, front pillar speaker LH, front pillar speaker RH, front door speaker LH, front door speaker RH, rear tweeter LH, rear tweeter RH, rear door speaker LH, rear door speaker RH and subwoofer).	• Poor connector connection of speaker. • Sound signal circuit malfunction between audio amp. and speaker and AV control unit and audio amp. Refer to: - AV-236, "Diagnosis Procedure" (front tweeter). - AV-239, "Diagnosis Procedure" (center speaker). - AV-244, "Diagnosis Procedure" (front pillar speaker). - AV-244, "Diagnosis Procedure" (front door speaker). - AV-247, "Diagnosis Procedure" (rear tweeter). - AV-250, "Diagnosis Procedure" (rear door speaker). - AV-250, "Diagnosis Procedure" (subwoofer). • Malfunction in speaker. Refer to: - AV-279, "Removal and Installation" (front tweeter). - AV-280, "Removal and Installation" (center speaker). - AV-281, "Removal and Installation" (front pillar speaker). - AV-281, "Removal and Installation" (front door speaker). - AV-284, "Removal and Installation" (rear tweeter). - AV-283, "Removal and Installation" (rear door speaker). - AV-283, "Removal and Installation" (subwoofer). • Malfunction in AV control unit. Refer to AV-180, "On Board Diagnosis Function". • Malfunction in audio amp. Replace audio amp. Refer to AV-286, "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-174, "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-174, "Antenna and Antenna Feeder".

<table>
<tr><th>Symptoms</th><th>Check items</th><th>Probable malfunction location</th></tr>
<tr><td rowspan="2">No satellite radio reception.</td><td>There is malfunction in the CONSULT self diagnosis result.
Refer to AV-181, "CONSULT Function".</td><td>• Malfunction in antenna, antenna feeder or AV control unit. Perform DTC diagnosis.
Refer to AV-227, "Diagnosis Procedure".
• Poor continuity in antenna feeder.
• Poor connector connection of antenna or antenna feeder.
Refer to AV-174, "Antenna and Antenna Feeder".</td></tr>
<tr><td>There is no malfunction in the CONSULT self diagnosis result.
Refer to AV-181, "CONSULT Function".</td><td>• Poor continuity in antenna feeder.
• Poor connector connection of antenna or antenna feeder.
• Loose satellite radio antenna mounting nut.
Refer to AV-174, "Antenna and Antenna Feeder".</td></tr>
<tr><td>Buzz/rattle sound from speaker</td><td>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.</td><td>Refer to "SQUEAK AND RATTLE TROUBLE DIAGNOSIS" in the appropriate interior trim section.</td></tr>
</table>

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-289, "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-256, "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-289, "Removal and Installation".
	Steering switch's , and switches do not work.	Steering switch signal circuit malfunction. Refer to AV-258, "Diagnosis Procedure".
	All steering switches do not work.	Steering switch ground circuit malfunction. Refer to AV-258, "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-180, "On Board Diagnosis Function".
	Steering switches malfunction.	Steering switch signal circuit malfunction. Refer to AV-258, "Diagnosis Procedure".
	Voice activated control malfunction.	Microphone signal circuit malfunction. Refer to AV-256, "Diagnosis Procedure". Steering switch signal circuit malfunction. Refer to AV-258, "Diagnosis Procedure".

NORMAL OPERATING CONDITION

Description

INFOID:0000000014386993

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-264, "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 malfunctioning.

Vehicle Mark

Symptom	Cause	Remedy
Map screen and BIRDVIEW™ Name of the place vary with the screen.	Some thinning of the character data is done to prevent the display becoming to complex. In some cases and in some locations, the display contents may differ. The same place name, street name, etc. may not be displayed every time on account of the data processing.	System is not malfunctioning.
Vehicle mark is not positioned correctly.	Vehicle is transferred by ferry or by towing after its ignition switch is turned to OFF.	Drive the vehicle for a while in the GPS satellite signal receiving condition.
Screen will not switch to nighttime mode after the lighting switch is turned ON.	The daytime screen is selected by the “SWITCH SCREENS” when the last time the screen dimming setting is done. Switching between daytime/nighttime screen may be inhibited by the automatic illumination adjustment function.	Perform screen dimming and select the nighttime screen by “SWITCH SCREENS”.
Map screen will not scroll in accordance with the vehicle travel.	Current location is not displayed.	Press “MAP” button to display the current location.
Vehicle mark will not be shown.	Current location is not displayed.	Press “MAP” button to display the current location.
Accuracy indicator (GPS satellite mark) on the map screen stays gray.	GPS satellite signal is intercepted because the vehicle is in or behind a building.	Move the vehicle out to an open space.
	GPS satellite signal cannot be received because an obstacle is placed on top of the instrument panel.	Do not place anything on top of the meter display (instrument panel).
	GPS satellites are not visible from current location.	Wait until GPS satellites are visible by moving the vehicle.

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 condition 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 turned and the connection of the road to other roads.	Drive in conformity to the actual traffic rules.

Route Search

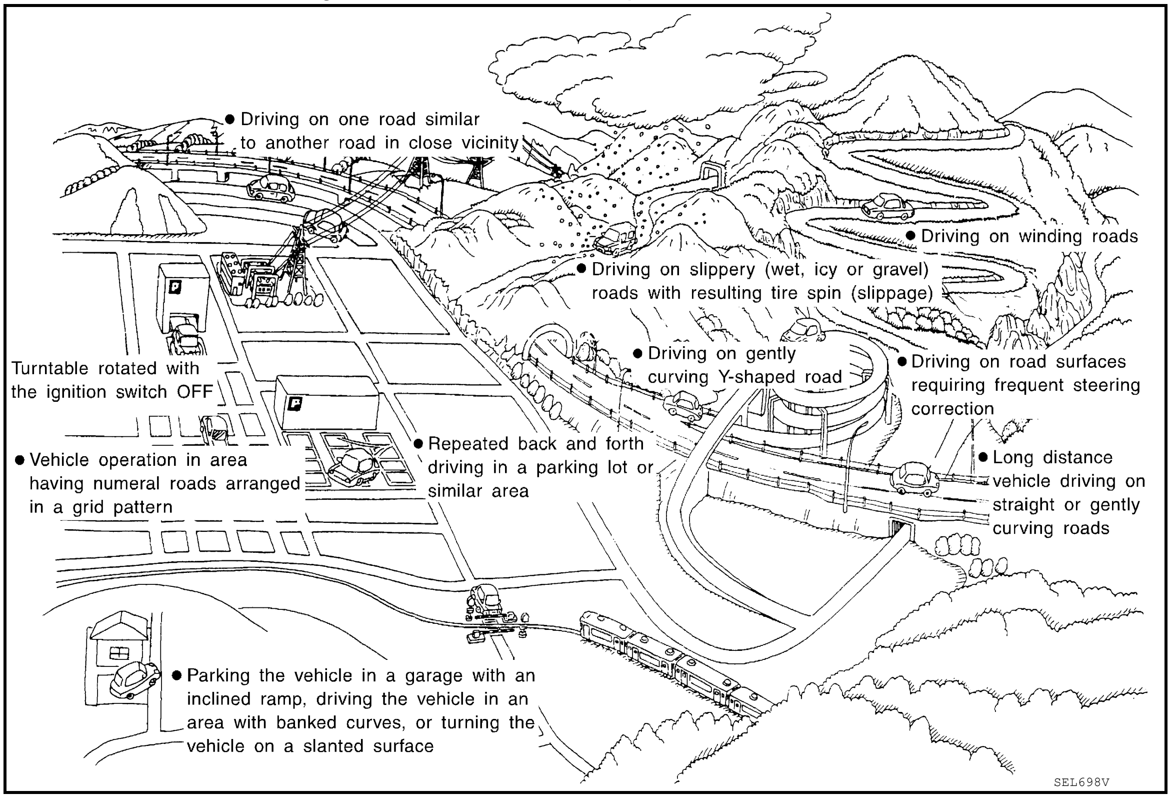
Symptom	Cause	Remedy
No route is shown.	No road to be searched is found around the destination.	Find wider road (orange road or wider) nearby and reset the destination and passing points onto it. Take care of the traveling direction when there are separate up and down roads.
	Starting point and the destination 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 happen due to omission or error in the map data.	As a rule, an updated map DVD-ROM will be released once a year. Wait until the latest map has become available.
Recommended route is far from the starting point, passing points, and destination.	Starting point, passing points, and destination of the route guide were set far from the desired points because route searching data around these area were not stored.	Reset the destination onto the road nearby. If this road is one of the highways (gray routes), an ordinary road nearby may be displayed as the recommended route.

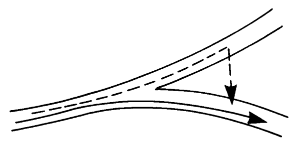
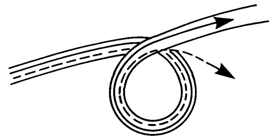
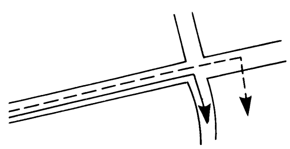
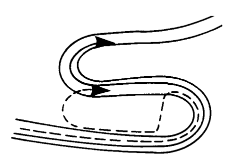
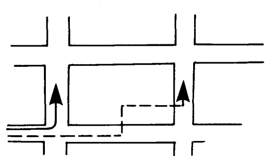
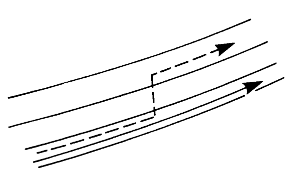
NOTE:

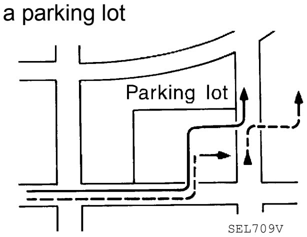
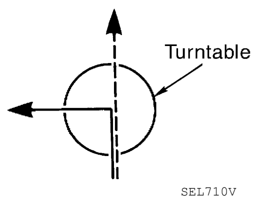
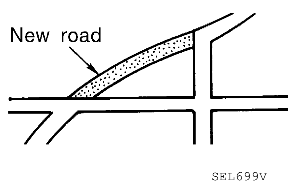
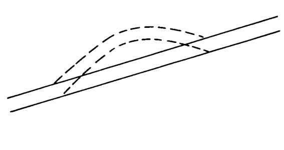
Except for the ordinance-designated cities. (Malfunctioning areas may be changed in the updated map disc.)

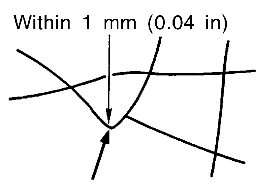
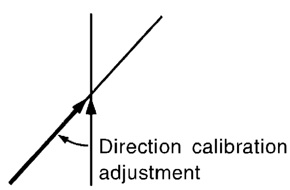
Examples of Current-Location Mark Displacement

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.	

<table>
<tr><th colspan="2">Cause (condition) –: While driving ooo: Display</th><th>Driving condition</th><th>Remarks (correction, etc.)</th></tr>
<tr><td rowspan="4">Place</td><td>In a parking lot

</td><td>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.</td><td rowspan="6">If after travelling about 10 km (6 miles) the correct location has not been restored, perform location correction and, if necessary, direction correction.</td></tr>
<tr><td>Turntable

</td><td>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.</td></tr>
<tr><td>Slippery roads</td><td>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.</td></tr>
<tr><td>Slopes</td><td>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.</td></tr>
<tr><td rowspan="2">Map data</td><td>Road not displayed on the map screen

</td><td>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.</td></tr>
<tr><td>Different road pattern
(Changed due to repair)

</td><td>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.</td></tr>
<tr><td>Vehicle</td><td>Use of tire chains</td><td>When tire chains are used, the mileage is not correctly detected, and the vehicle mark may deviate from the correct road.</td><td>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.)</td></tr>
</table>

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

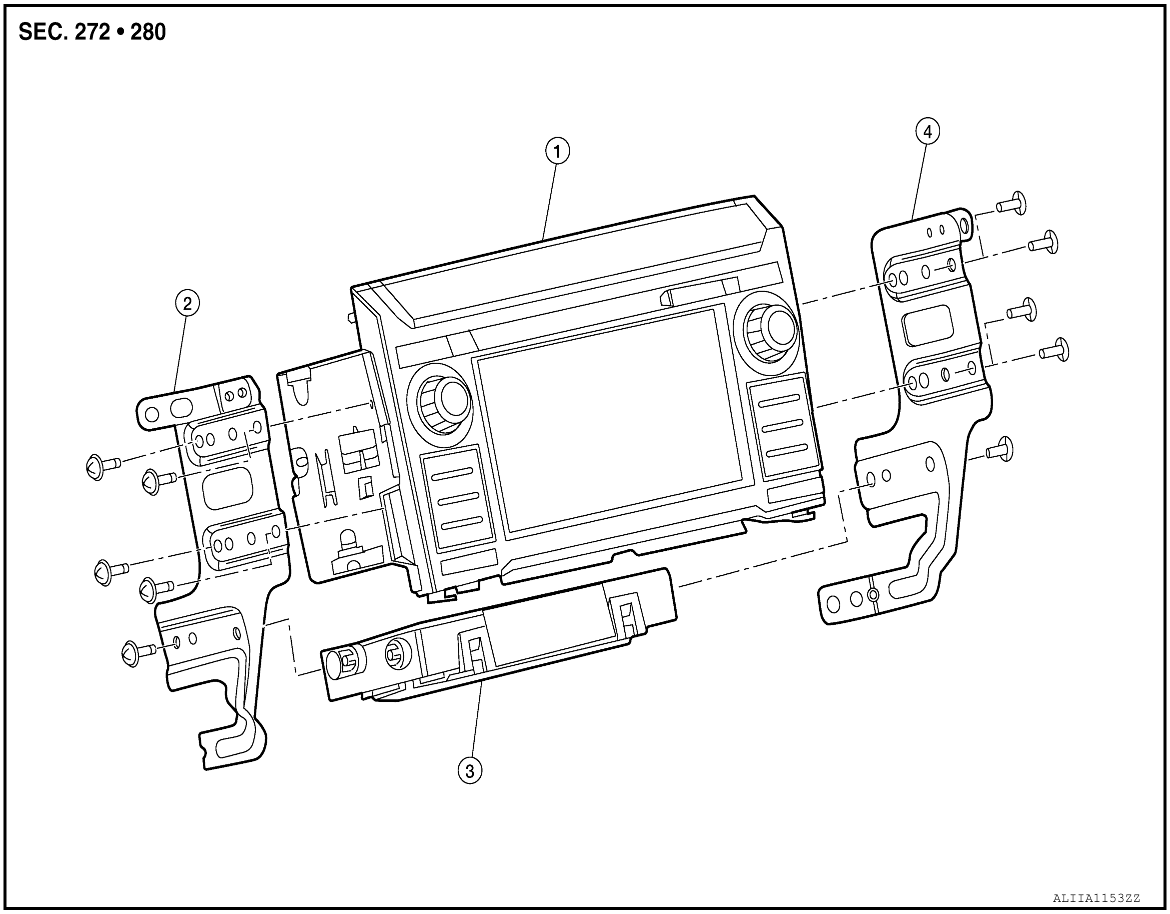
The conditions of the GPS antenna (GPS data) and gyroscope (angular speed sensor) change gradually. Depending on the road traveled and the operation of the steering wheel, the location detection results will be different. Therefore, even on a road on which the location has never been wrong, conditions may cause the vehicle mark to deviate.

REMOVAL AND INSTALLATION

AV CONTROL UNIT

Exploded View

INFOID:0000000014386994



1. AV control unit
2. AV control unit bracket (LH)
3. A/C auto amp.
4. AV control unit bracket (RH)

Removal and Installation

INFOID:0000000014386995

REMOVAL

CAUTION:

Before replacing AV control unit, perform "ADDITIONAL SERVICE WHEN REPLACING AV CONTROL UNIT" to save current vehicle specification. Refer to AV-211, "ADDITIONAL SERVICE WHEN REPLACING AV CONTROL UNIT : Description".

1. Disconnect battery or batteries. Refer to PG-185, "Battery Disconnect".
2. Remove cluster lid C lower. Refer to IP-17, "CLUSTER LID C LOWER : Removal and Installation".
3. Remove A/C switch assembly. Refer to HAC-121, "Removal and Installation".
4. Remove AV control unit bracket screws, then pull out AV control unit.
5. Disconnect harness connectors from AV control unit and remove AV control unit.

INSTALLATION

Installation is in the reverse order of removal.

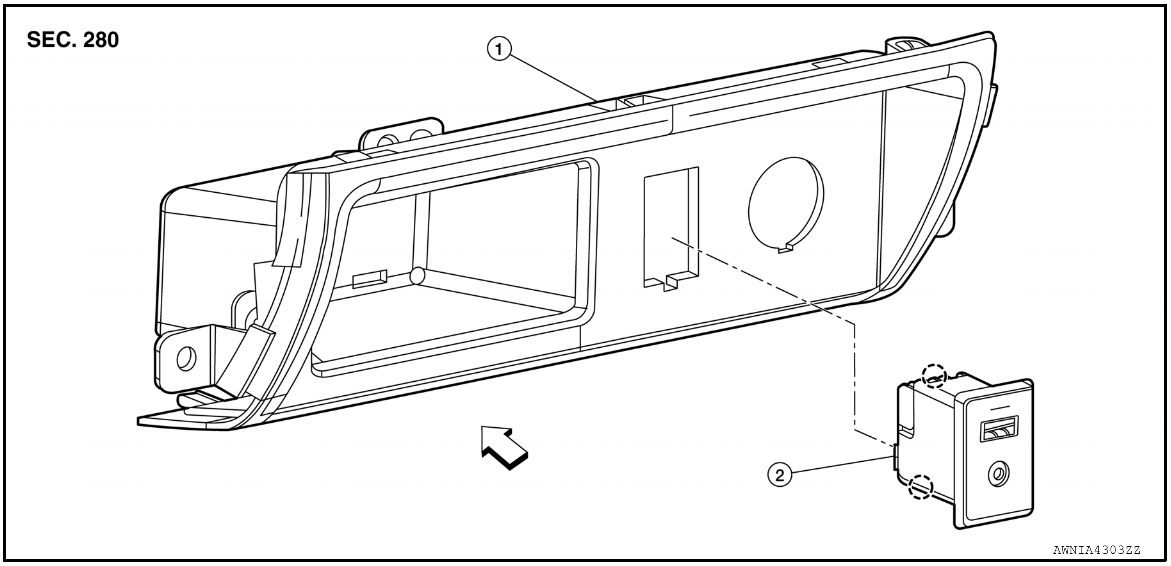
CAUTION:

After replacing AV control unit, perform "ADDITIONAL SERVICE WHEN REPLACING AV CONTROL UNIT" to configure and register AV control unit. Refer to AV-211, "ADDITIONAL SERVICE WHEN REPLACING AV CONTROL UNIT : Description".

USB INTERFACE AND AUX IN JACK

Exploded View

INFOID:0000000014386996



1. Cluster lid C lower 2. USB interface and aux in jack ◌ Pawl

⇦ Front

Removal and Installation

INFOID:0000000014386997

REMOVAL

1. Remove cluster lid C lower. Refer to IP-17, "CLUSTER LID C LOWER : Removal and Installation".
2. Disconnect harness connector from USB interface and aux in jack.
3. Release pawls using suitable tool and remove USB interface and aux in jack.

INSTALLATION

Installation is in the reverse order of removal.

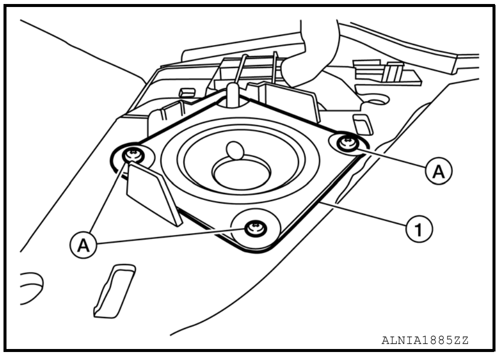
FRONT TWEETER

Removal and Installation

INFOID:0000000014386998

REMOVAL

1. Remove front pillar finisher. Refer to INT-20, "FRONT PILLAR FINISHER : Removal and Installation".
2. Remove defroster grille. Refer to IP-14, "Exploded View".
3. Remove speaker grille. Refer to IP-14, "Exploded View".
4. Remove front tweeter screws (A).
5. Disconnect harness connector from front tweeter (1) and remove front tweeter.



Installation

Installation is in the reverse order of removal.

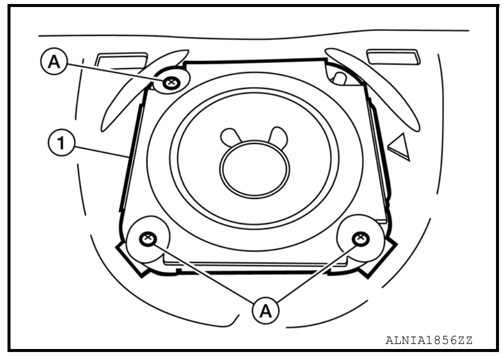
CENTER SPEAKER

Removal and Installation

INFOID:0000000014386999

REMOVAL

1. Remove center speaker grille. Refer to IP-14, "Exploded View".
2. Remove center speaker screws (A).
3. Pull out center speaker (1), disconnect harness connector from center speaker and remove center speaker.



INSTALLATION

Installation is in the reverse order of removal.

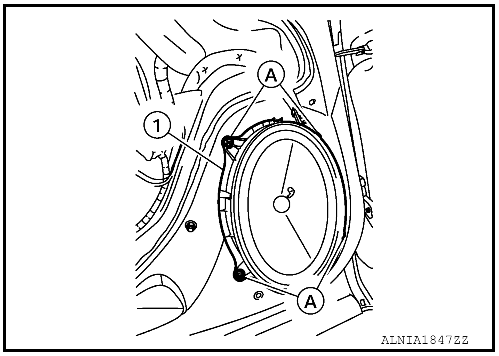
FRONT DOOR SPEAKER

Removal and Installation

INFOID:0000000014387000

REMOVAL

1. Remove front door finisher. Refer to INT-14, "Removal and Installation".
2. Remove front door speaker screws (A).
3. Disconnect harness connector from front door speaker (1) and remove front door speaker.



INSTALLATION

Installation is in the reverse order of removal.

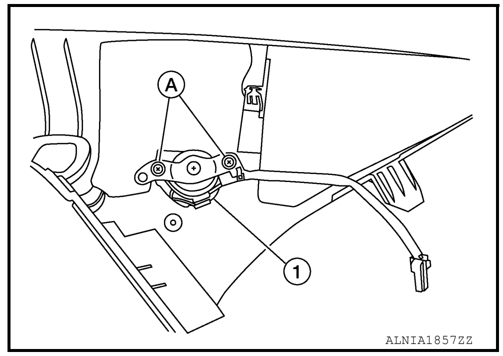
FRONT SPEAKER

Removal and Installation

INFOID:0000000014387001

REMOVAL

1. Remove front pillar finisher. Refer to INT-20, "FRONT PILLAR FINISHER : Removal and Installation".
2. Remove front speaker screws (A).
3. Disconnect harness connector from the front speaker (1) and remove front speaker.



INSTALLATION

Installation is in the reverse order of removal.

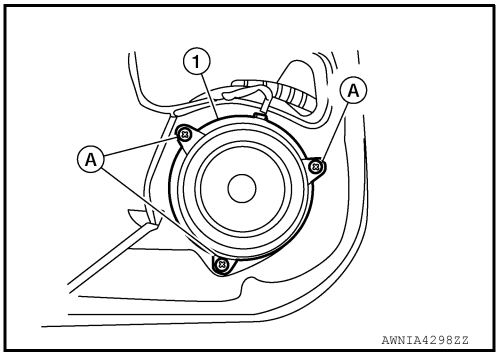
REAR DOOR SPEAKER

Removal and Installation

INFOID:0000000014387002

REMOVAL

1. Remove rear door finisher. Refer to INT-17, "Removal and Installation".
2. Remove rear door speaker screws (A).
3. Disconnect harness connector from rear door speaker (1) and remove rear door speaker.



INSTALLATION

Installation is in the reverse order of removal.

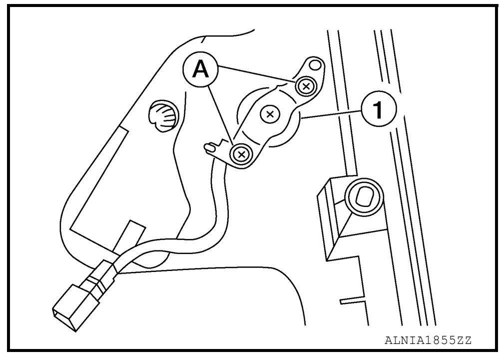
REAR DOOR TWEETER

Removal and Installation

INFOID:0000000014387003

REMOVAL

1. Remove the rear door finisher. Refer to INT-17, "Removal and Installation".
2. Remove the rear door tweeter screws (A).
3. Disconnect the harness connector from the rear tweeter (1) and remove rear tweeter.



INSTALLATION

Installation is in the reverse order of removal.

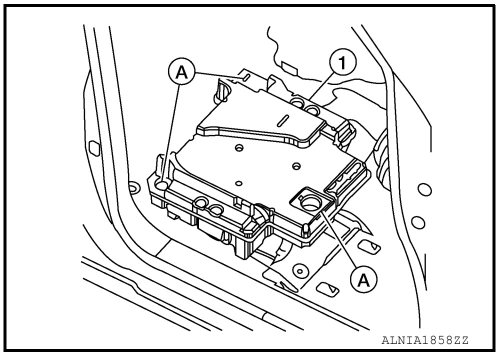
SUBWOOFER

Removal and Installation

INFOID:0000000014387004

REMOVAL

1. Remove front seat (RH). Refer to SE-100, "Removal and Installation - Captain Seats".
2. Remove subwoofer screws (A).
3. Disconnect harness connector from subwoofer (1) and remove subwoofer.



INSTALLATION

Installation is in the reverse order of removal.

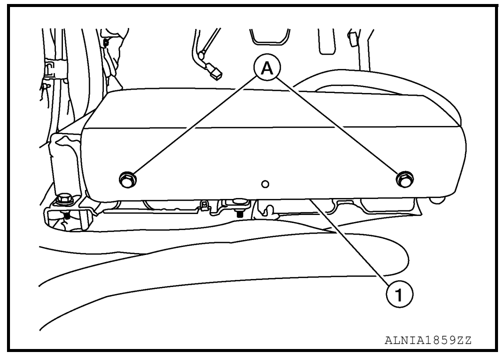
AUDIO AMP

Removal and Installation

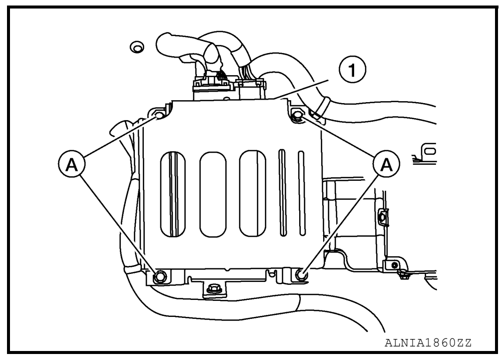
INFOID:0000000014387005

REMOVAL

1. Remove front seat (LH). Refer to SE-100, "Removal and Installation - Captain Seats".
2. Remove kick plate screws (A) and kick plate (1).



3. Remove audio amp screws (A).
4. Disconnect harness connectors from audio amp (1) and remove audio amp.



INSTALLATION

Installation is in the reverse order of removal.

SATELLITE RADIO ANTENNA

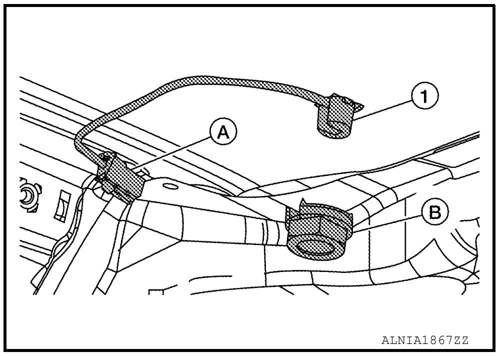
Removal and Installation

INFOID:0000000014387006

SATELLITE RADIO ANTENNA

REMOVAL

1. Partially remove headliner. Refer to INT-32, "Removal and Installation".
2. Disconnect the harness connector (A) from the satellite radio antenna connector.
3. Remove the satellite radio antenna nut (B).



4. Remove the satellite radio antenna.

INSTALLATION

Installation is in the reverse order of removal.

Satellite radio antenna nut : 10.1 N·m (1.0 kg-m, 7.0 ft-lb)

CAUTION:

If the satellite radio antenna nut is not tightened to the specified torque, lower sensitivity of the antenna may be experienced. If the nut is tightened tighter than the specified torque, this will deform the roof panel.

GPS ANTENNA

Removal and Installation

INFOID:0000000014387007

REMOVAL

1. Remove instrument panel assembly. Refer to IP-14, "Removal and Installation".
2. Remove GPS antenna screw and GPS antenna.

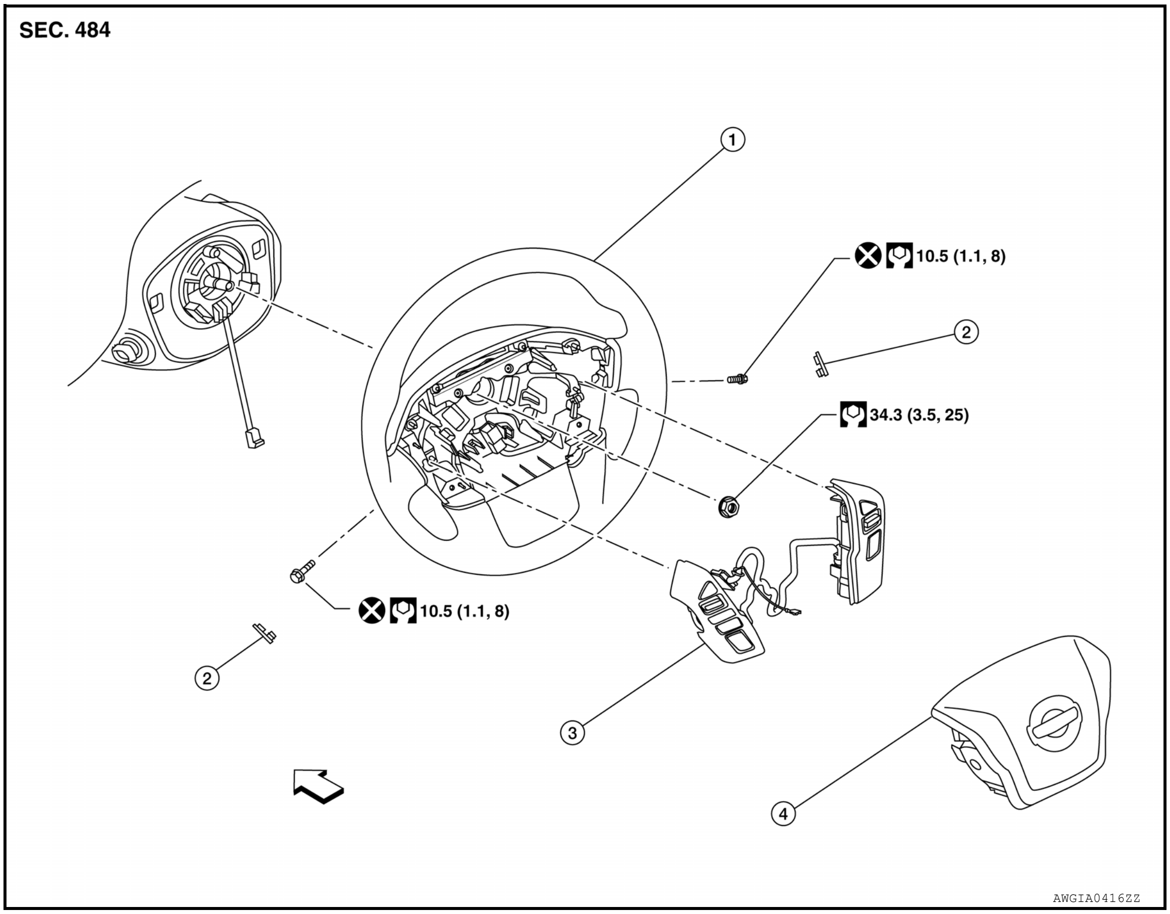
INSTALLATION

Installation is in the reverse order of removal.

STEERING SWITCH

Exploded View

INFOID:0000000014387008



1.	Steering wheel	2.	Cover	3.	Steering switches
4.	Driver air bag module	⇦	Front		

Removal and Installation

INFOID:0000000014387009

REMOVAL

1. Remove steering wheel. Refer to ST-36, "Removal and Installation".
2. Remove steering wheel rear cover screws and steering wheel rear cover.
3. Remove steering wheel switch screws and steering wheel switches.

INSTALLATION

Installation is in the reverse order of removal.

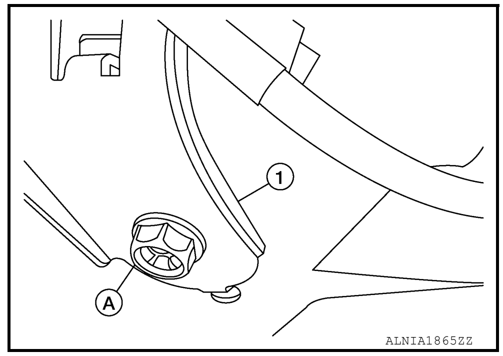
ROD ANTENNA

Removal and Installation

INFOID:0000000014387010

REMOVAL

1. Remove antenna rod.
2. Remove fender protector. Refer to EXT-41, "Removal and Installation - Front Fender Protector".
3. Remove bolt (A) from rod antenna bracket (1).



4. Disconnect the rod antenna feeder from the rod antenna.
5. Remove rod antenna.

INSTALLATION

Installation is in the reverse order of removal.

- Tighten rod antenna to specification.

Rod antenna	**: 7.0 N·m (0.71 kg-m, 62 in-lb)**

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

MICROPHONE

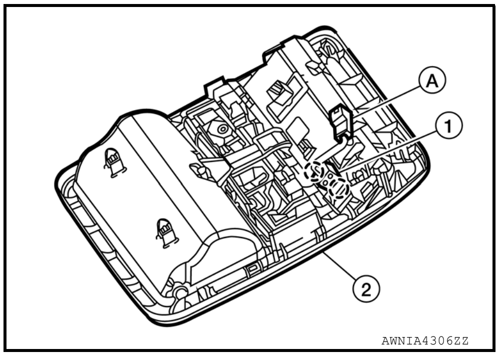
Removal and Installation

INFOID:0000000014387011

REMOVAL

1. Remove front room/map lamp assembly. Refer to INL-68, "Removal and Installation".
2. Disconnect harness connector from microphone (A).
3. Release pawls using suitable tool and remove microphone (1) from front room/map lamp assembly (2).

:Pawl



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:0000000014387012

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

INFOID:0000000014387013

CAUTION:

Remove battery terminal or terminals 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 continue operating for approximately 30 seconds.
Therefore, data corruption may occur if battery voltage is cut off within 30 seconds.

Precaution for Trouble Diagnosis

INFOID:0000000014387014

M-CAN COMMUNICATION SYSTEM

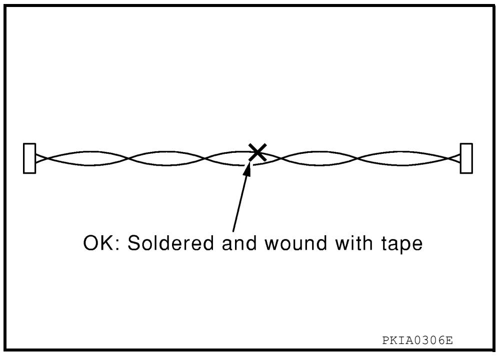
- Do not apply voltage of 7.0 V or higher to the measurement terminals.
- Use the tester with its open terminal voltage being 7.0 V or less.
- Be sure to turn ignition switch OFF and disconnect the battery cable or cables from the negative terminal or terminals before checking the circuit. Refer to PG-185, "Battery Disconnect".

Precaution for Harness Repair

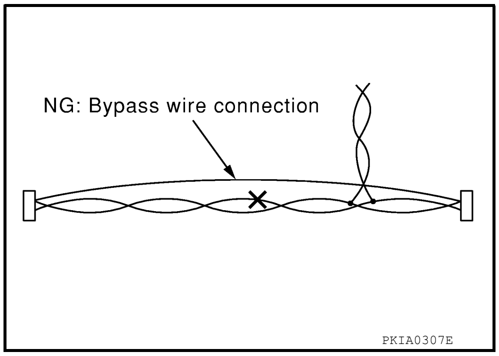
INFOID:0000000014387015

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:0000000014387016

- 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.

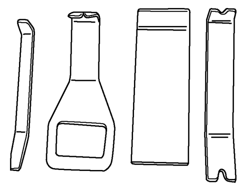
PREPARATION

PREPARATION

Special Service Tools

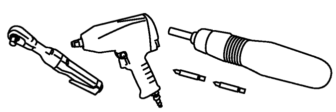
INFOID:0000000014387017

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:0000000014387018

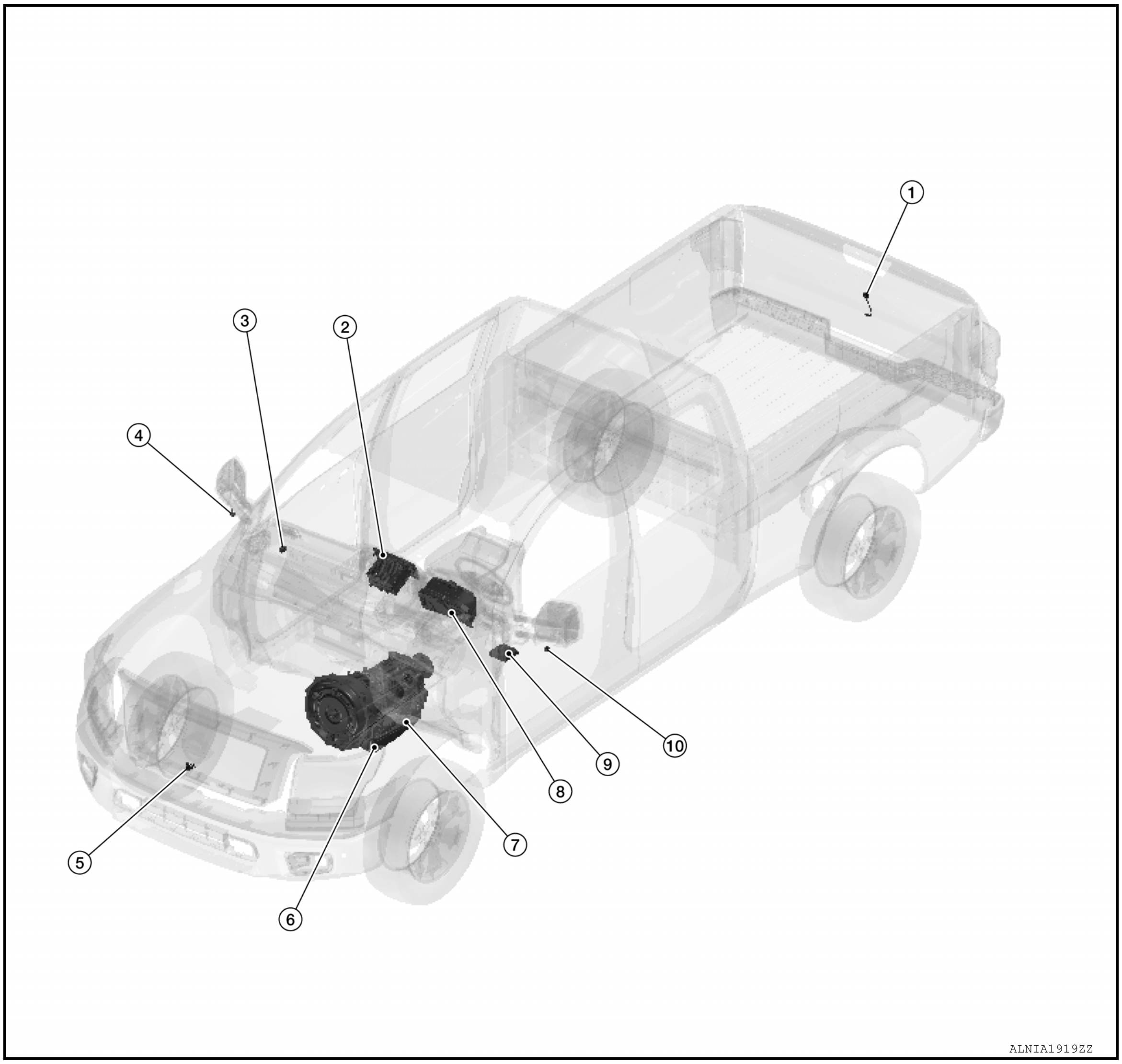
Tool name	Description
Power tool  PIIB1407E	Loosening nuts, screws and bolts

SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

INFOID:0000000014387019

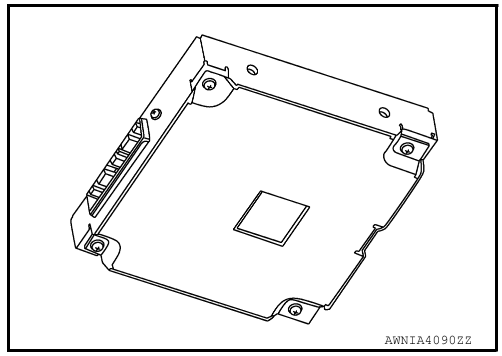


No.	Component	Function
1.	Rear view camera	Refer to AV-296, "Rear Camera".
2.	AV control unit	Refer to AV-171, "AV Control Unit".
3.	Back-up lamp relay	Supplies the reverse signal to the around view monitor and AV control unit.
4.	Door mirror RH	Refer to AV-296, "Side Camera".
5.	Front camera	Refer to AV-296, "Front Camera".
6.	A/T assembly (VK56VD)	Refer to TM-267, "A/T CONTROL SYSTEM : Transmission Range Switch".
7.	Transmission range switch (Cummins 5.0L)	Refer to TM-17, "A/T CONTROL SYSTEM : Transmission Range Switch".
8.	Combination meter	Refer to MWI-12, "METER SYSTEM : Combination Meter".
9.	Around view monitor control unit	Refer to AV-296, "Around View Monitor Control Unit".
10.	Door mirror LH	Refer to AV-296, "Side Camera".

Around View Monitor Control Unit

INFOID:0000000014387020

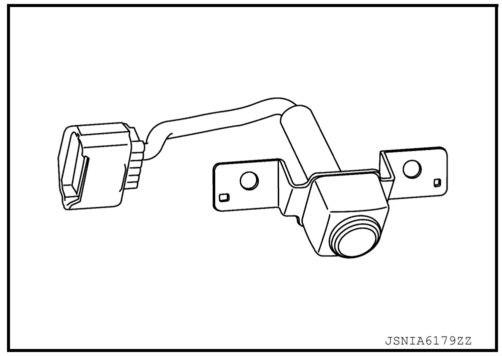
- The around view monitor control unit is installed under the left front seat.
- Necessary signals are transmitted/received to/from control unit via CAN communication.
- Camera image signals received from each camera are converted/synthesized in the around view monitor control unit and transmitted to the AV control unit.
- Vehicle width guide lines, predicted course line, vehicle front guiding line and vehicle side line, tire icon, and vehicle icon are rendered with the around view monitor control unit and combined with camera image.



Front Camera

INFOID:0000000014387021

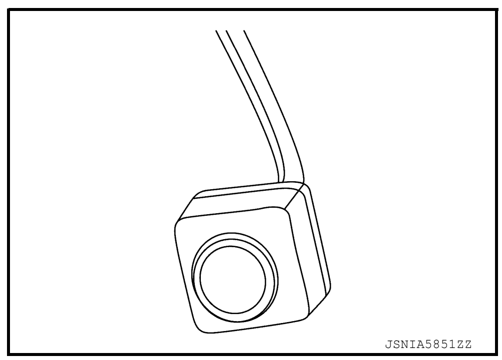
- The front camera is installed in the front grille.
- Power for the camera is supplied from the around view monitor control unit, and the image at the front of the vehicle is sent to the around view monitor control unit.



Side Camera

INFOID:0000000014387022

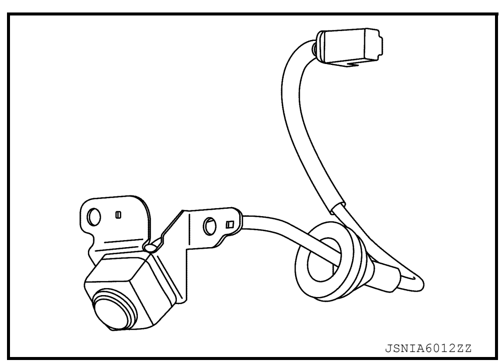
- The side camera is installed in the door mirror.
- Power for the camera is supplied from the around view monitor control unit, and the image at the side of the vehicle is sent to the around view monitor control unit.



Rear Camera

INFOID:0000000014387023

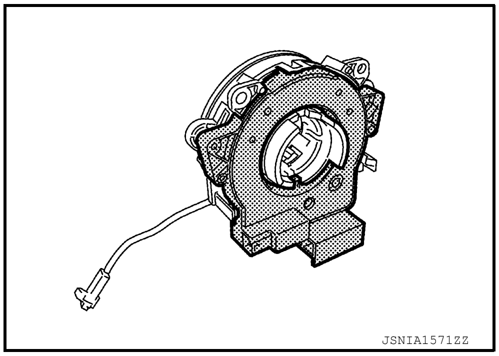
- The rear camera is installed next to the tailgate handle.
- Power for the camera is supplied from the around view monitor control unit, and the image at the rear of the vehicle is sent to the around view monitor control unit.



Steering Angle Sensor

INFOID:0000000014387024

- Steering angle sensor is installed to the spiral cable.
- Steering angle sensor sends the steering signal necessary for predictive course line of the front or rear view monitor to the around view monitor control unit via CAN communication.

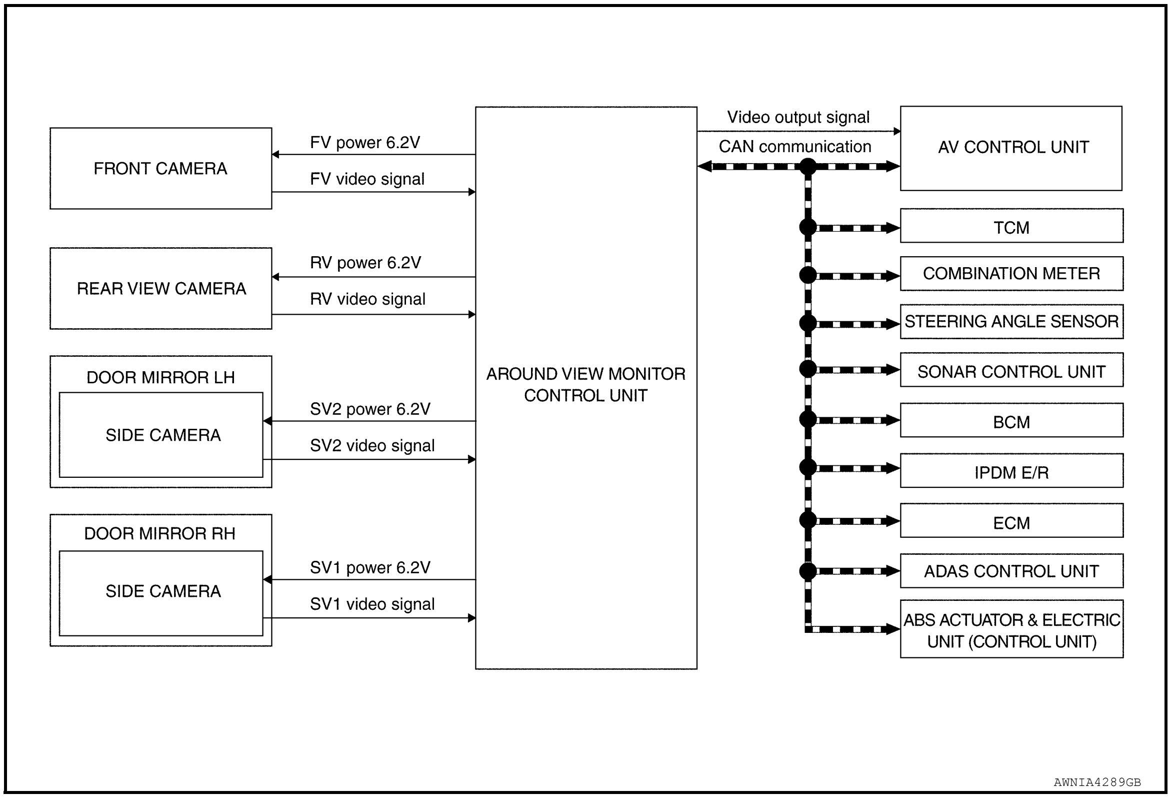


SYSTEM

System Description

INFOID:0000000014387025

SYSTEM DIAGRAM

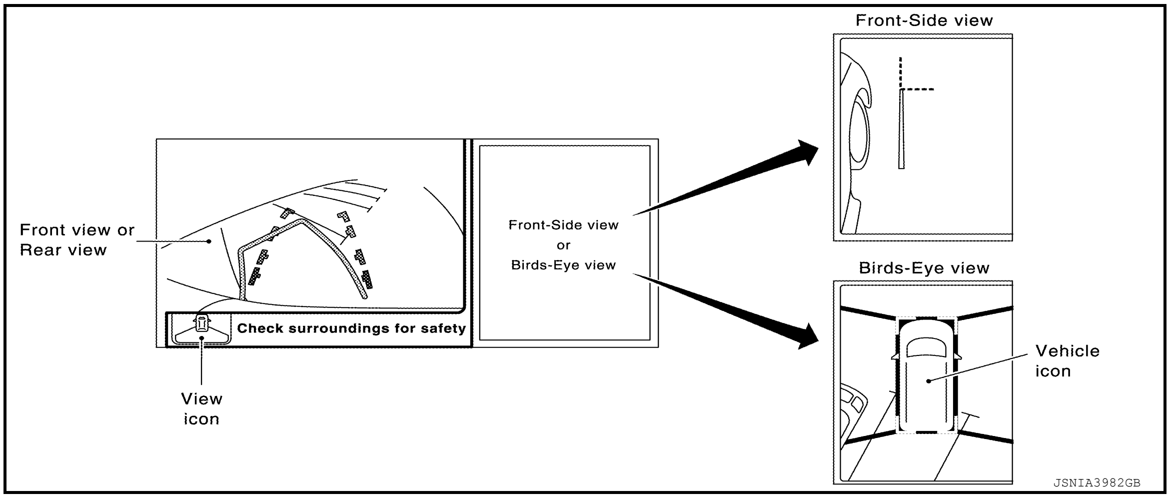


DESCRIPTION

- 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

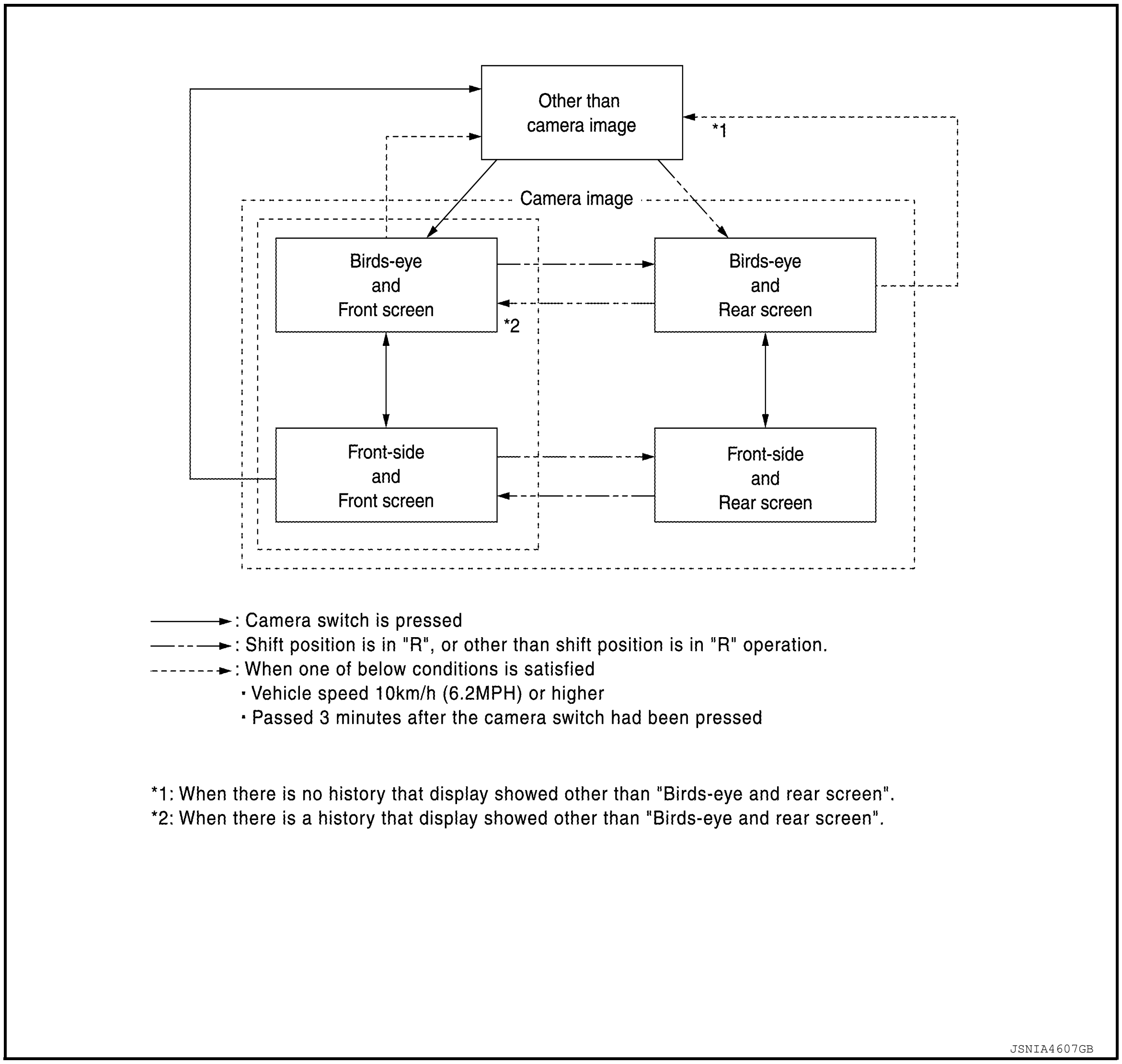
The around view monitor combines and displays travel direction view (front or rear), front-side view and birds-eye view.



OPERATION DESCRIPTION

- The around view monitor operates by pressing the CAMERA switch on the AV control unit or by shifting the shift lever switch to the R (reverse) position.
- When the shift lever switch 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 switch 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 switch 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 switch 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 switch is 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.

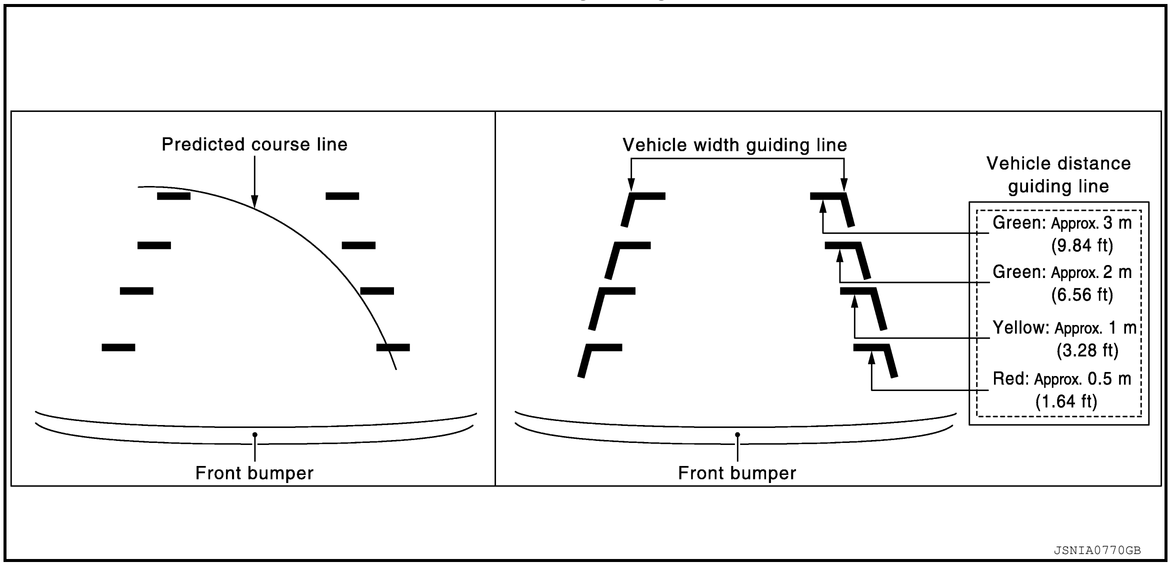
Around view monitor screen transition



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.

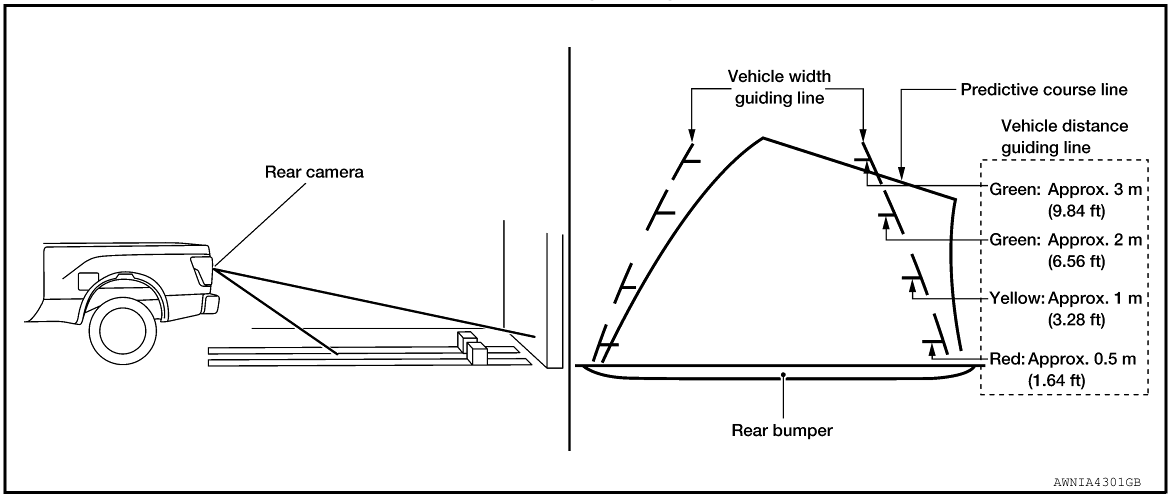
Front view guiding lines



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 front side 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.

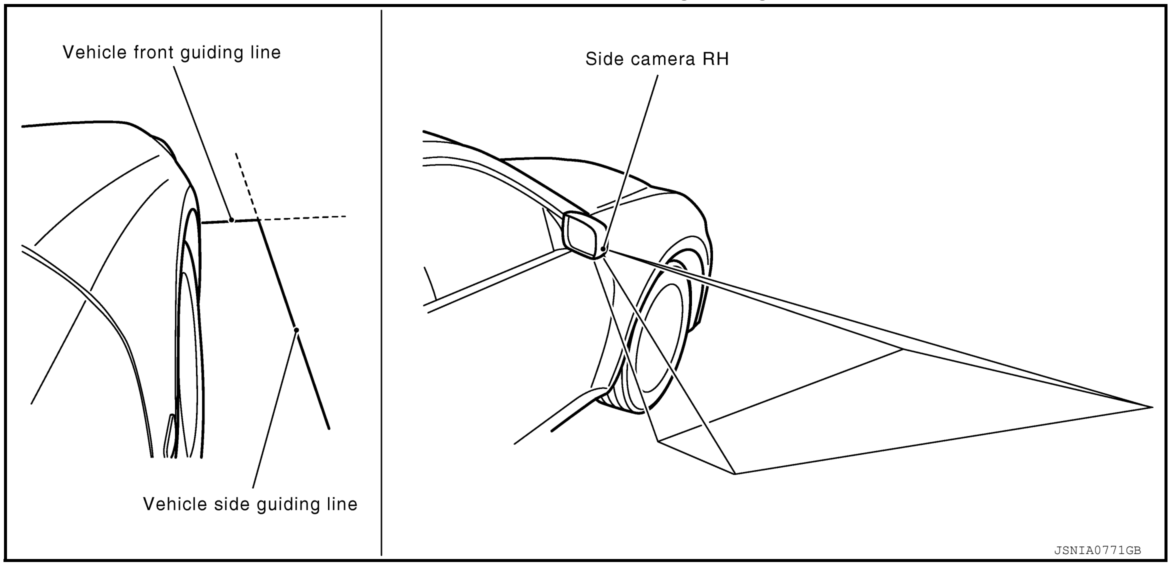
Rear view guiding lines



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

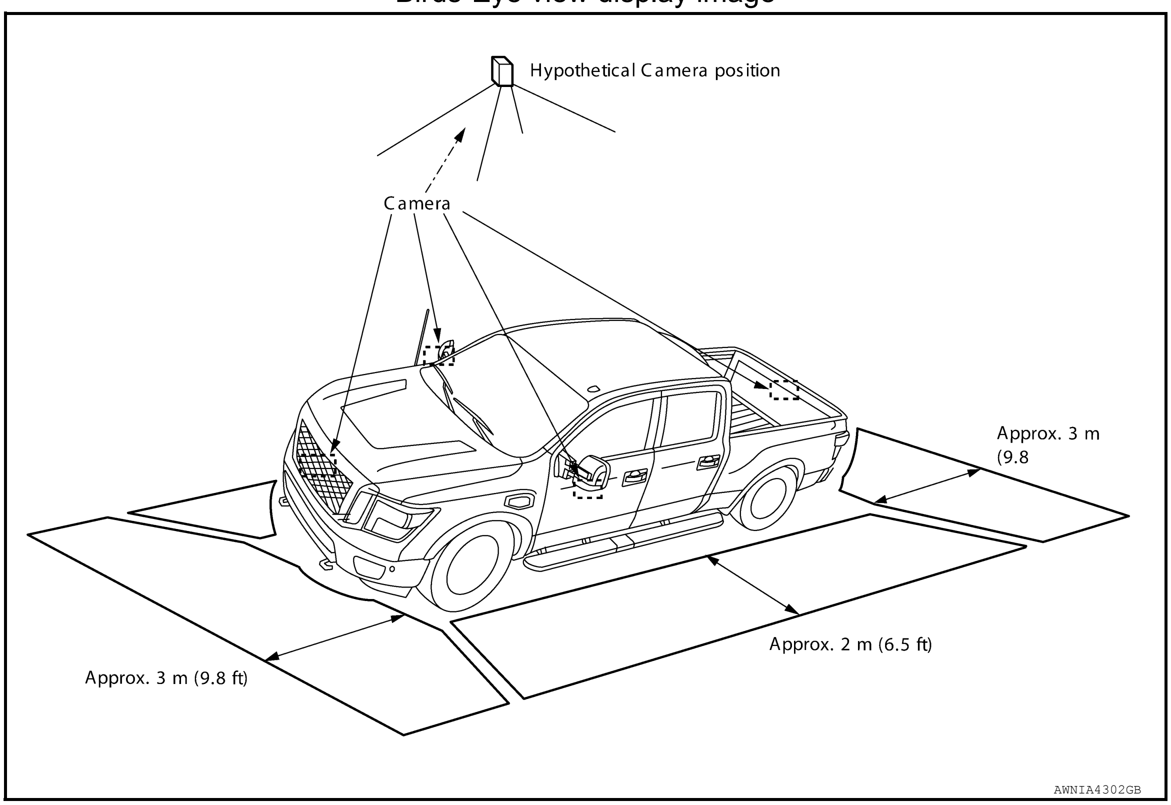


Birds-eye View

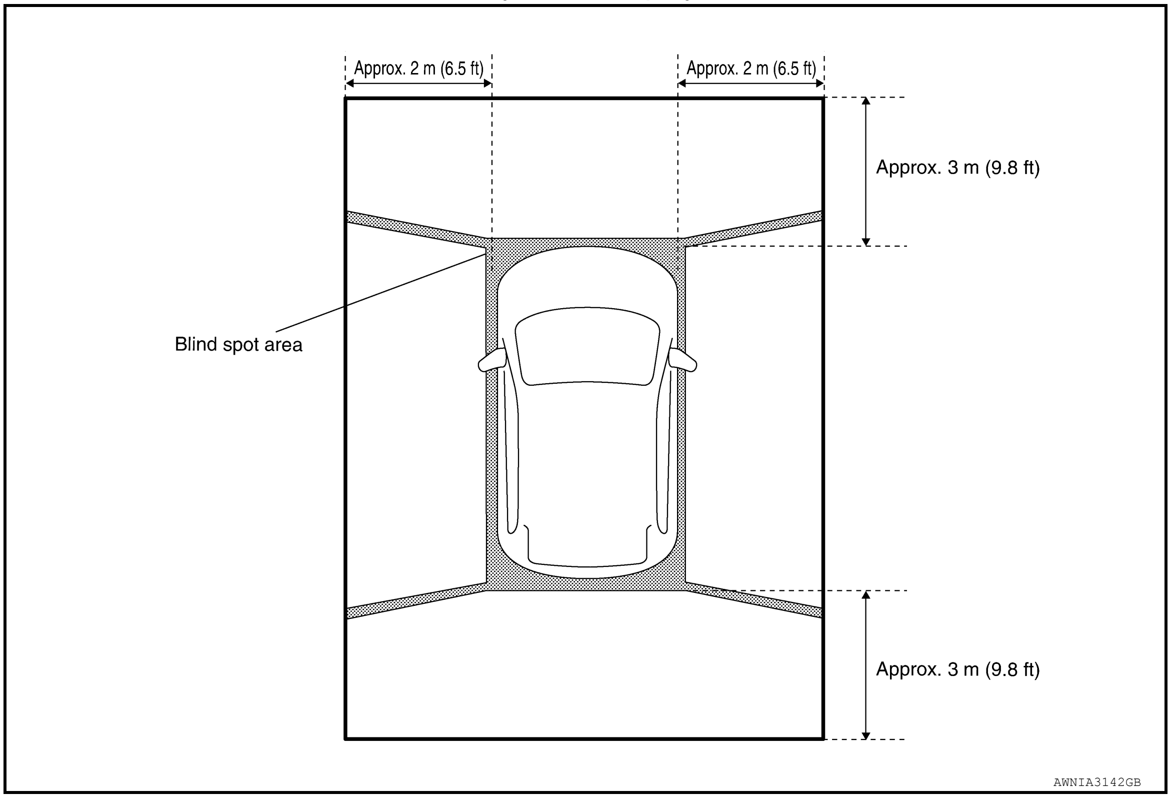
Birds-Eye View

- 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 or N position	D position	R position
		“MOD” icon display		
Birds-Eye view and rear view	Birds-Eye view	Blue	—	Gray
	Rear view	Gray		Blue
Birds-Eye view and front view	Birds-Eye view	Blue	Gray	—
	Front view	Gray	Blue	
Side view and rear view	Side view	×	—	×
	Rear view	Gray		Blue
Side view and front view	Side view	×	×	—
	Front view	Gray	Blue	
Rear wide view		Gray	—	Blue
Front wide view		Gray	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 • Front wide view
R position	0 km/h (0 MPH) or more - less than 8 km/h (5 MPH)	• Rear view • Rear wide 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 and front wide view. • Operation stops for rear view and rear wide view while tailgate 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, sonar indicator and "MOD" icon and outputs them to the display unit.

Fail-Safe

INFOID:0000000014387026

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:0000000014387027

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-313, "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.
CALIBRATING CAMERA IMAGE (FRONT CAMERA)	STATUS	Performs calibration of front camera.
	AXIS X	
	AXIS Y	
	ROTATE	
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	

Support Item	Setting	Description
FINE TUNING OF BIRDS-EYE VIEW	STATUS	Confirmation and adjustment of difference between each camera can be performed.
	SELECT	
	AXIS X	
	AXIS Y	
	ROTATE	
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-331, "Description".

CAN DIAG SUPPORT MNTR

Refer to LAN-50, "CAN Diagnostic Support Monitor".

ECU DIAGNOSIS INFORMATION

AROUND VIEW MONITOR CONTROL UNIT

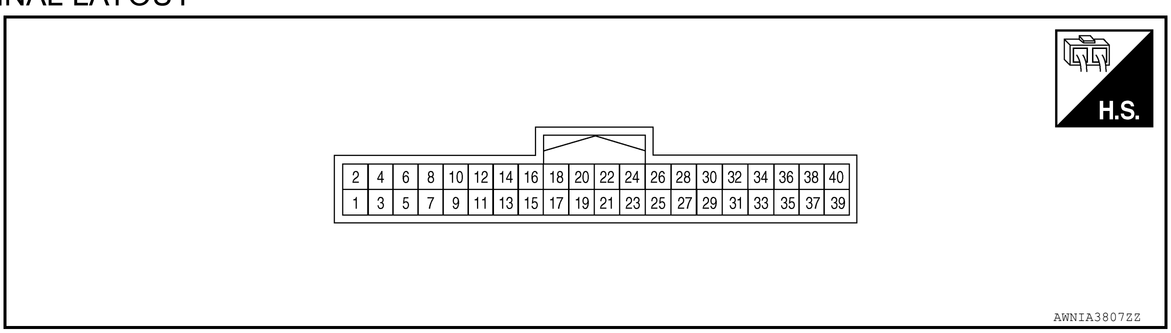
Reference Value

INFOID:0000000014387028

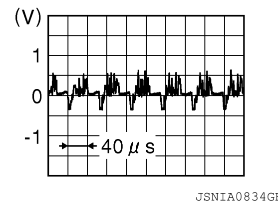
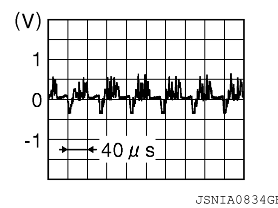
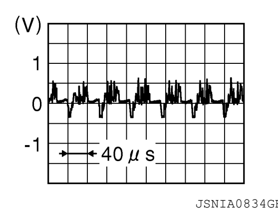
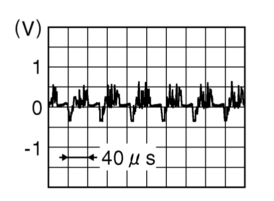
VALUES ON THE DIAGNOSIS TOOL

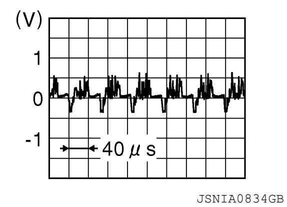
Monitor Item	Condition	Value/Status
CAMERA OFF SIGNAL	CAMERA switch ON.	Off
	CAMERA switch OFF.	On
CAMERA SWITCH SIGNAL	CAMERA switch OFF.	Off
	CAMERA switch ON.	On
DR-SIDE CAMERA IMAGE SIG	Side camera LH inoperative.	NG
	Side camera LH operative.	OK
F-CAMERA IMAGE SIG	Front camera inoperative.	NG
	Front 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 ground	—	—	—
4 (G)	Ground	Video output signal	Output	Ignition switch ON • CAMERA switch is ON or shift position is R position	
5 (L/G)	—	Front camera ground	—	Ignition switch ON	0 V
6 (L)	5 (L/G)	Front camera power supply	Output	Ignition switch ON	6.0 V
7 (Shield)	—	Front camera video ground	—	Ignition switch ON	0 V
8 (W/G)	7 (Shield)	Front camera video signal	Input	Ignition switch ON • CAMERA switch is ON or shift position is R position	
9 (O/L)	—	Door mirror RH camera ground	—	Ignition switch ON	0 V
10 (O)	9 (O/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 (L/G)	11 (Shield)	Door mirror RH camera video signal	Input	Ignition switch ON • CAMERA switch is ON or shift position is R position	
13 (B)	—	Door mirror LH camera ground	—	Ignition switch ON	0 V
14 (W)	13 (B)	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 (R)	15 (Shield)	Door mirror LH camera video signal	Input	Ignition switch ON • CAMERA switch is ON or shift position is R position	

Terminal (Wire color)		Description		Condition	Reference value (Approx.)
+	–	Signal name	Input/ Output		
17 (L/W)	—	Rear view camera ground	—	Ignition switch ON	0 V
18 (L)	17 (L/W)	Rear view camera power supply	Output	Ignition switch ON	6.0 V
19 (R/W)	—	Rear view camera video ground	—	Ignition switch ON	0 V
20 (R)	19 (R/W)	Rear view camera video signal	Input	Ignition switch ON • CAMERA switch is ON or shift position is R position	
24 (R)	—	CAN low	Input/ Output	—	—
26 (L)	—	CAN high	Input/ Output	—	—
32 (G/W)	39 (B)	Reverse signal	Input	Ignition switch ON • R position	Battery voltage
39 (B)	—	Ground	—	Ignition switch ON	0 V
40 (G/R)	39 (B)	Ignition signal	Input	Ignition switch ON or START	Battery voltage

Fail-Safe

INFOID:0000000014387029

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.

DTC Inspection Priority Chart

INFOID:0000000014387030

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:0000000014387031

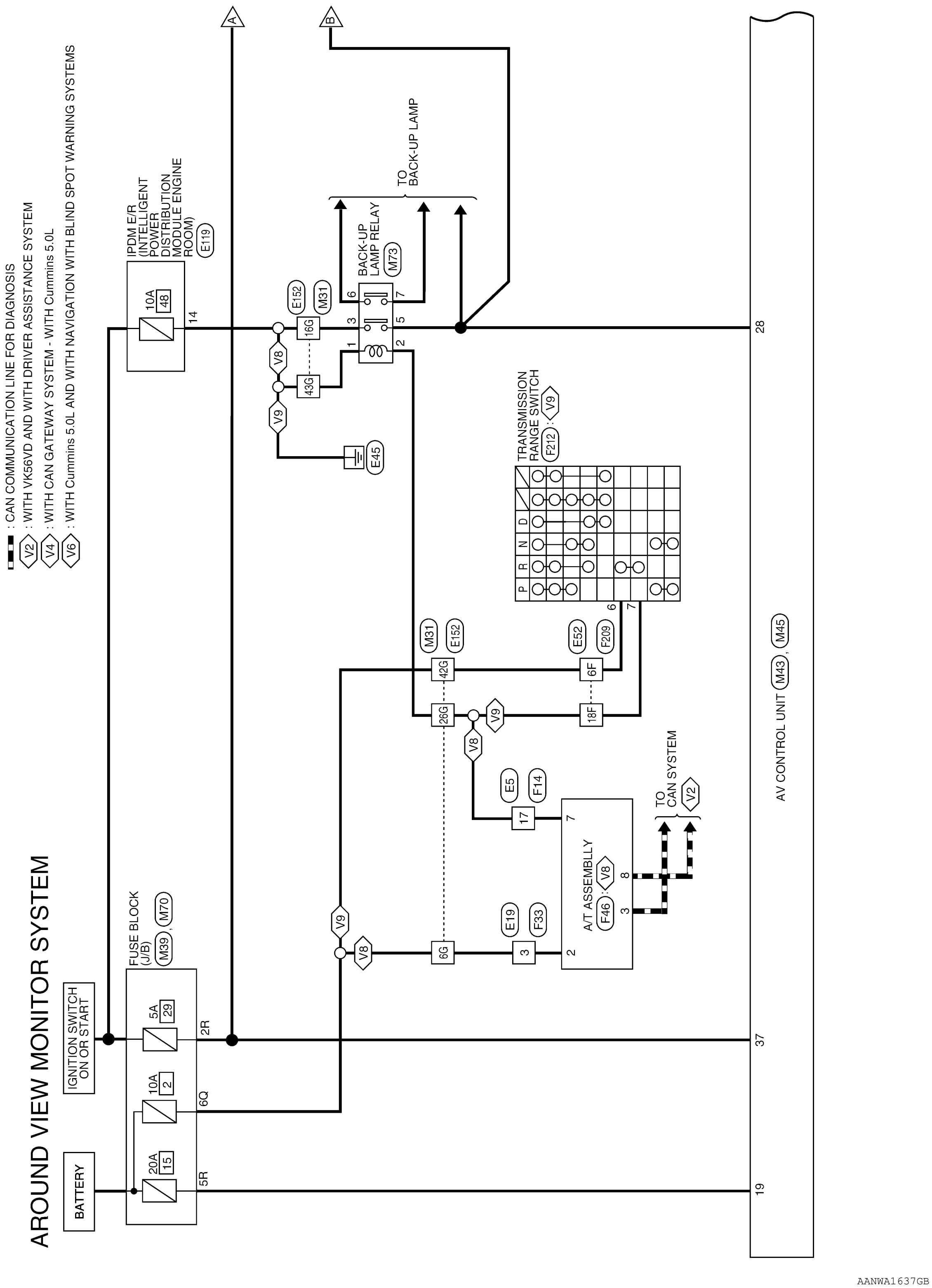
DTC	CONSULT display	Refer to
U0428	ST ANGLE SENSOR CALIBRATION	AV-338, "DTC Description"
U1000	CAN COMM CIRCUIT	AV-340, "DTC Description"
U1010	CONTROL UNIT (CAN)	AV-341, "DTC Description"
U111A	REAR CAMERA IMAGE SIGNAL	AV-342, "DTC Description"
U111B	SIDE CAMERA RH IMAGE SIGNAL	AV-344, "DTC Description"
U111C	FRONT CAMERA IMAGE SIGNAL	AV-346, "DTC Description"
U111D	SIDE CAMERA LH IMAGE SIGNAL	AV-348, "DTC Description"
U1232	ST ANGLE SEN CALIB	AV-350, "DTC Description"
U1302	CAMERA POWER VOLT	AV-351, "DTC Description"
U1304	CAMERA IMAGE CALIB	AV-355, "DTC Description"
U1305	CONFIG UNFINISH	AV-356, "DTC Description"

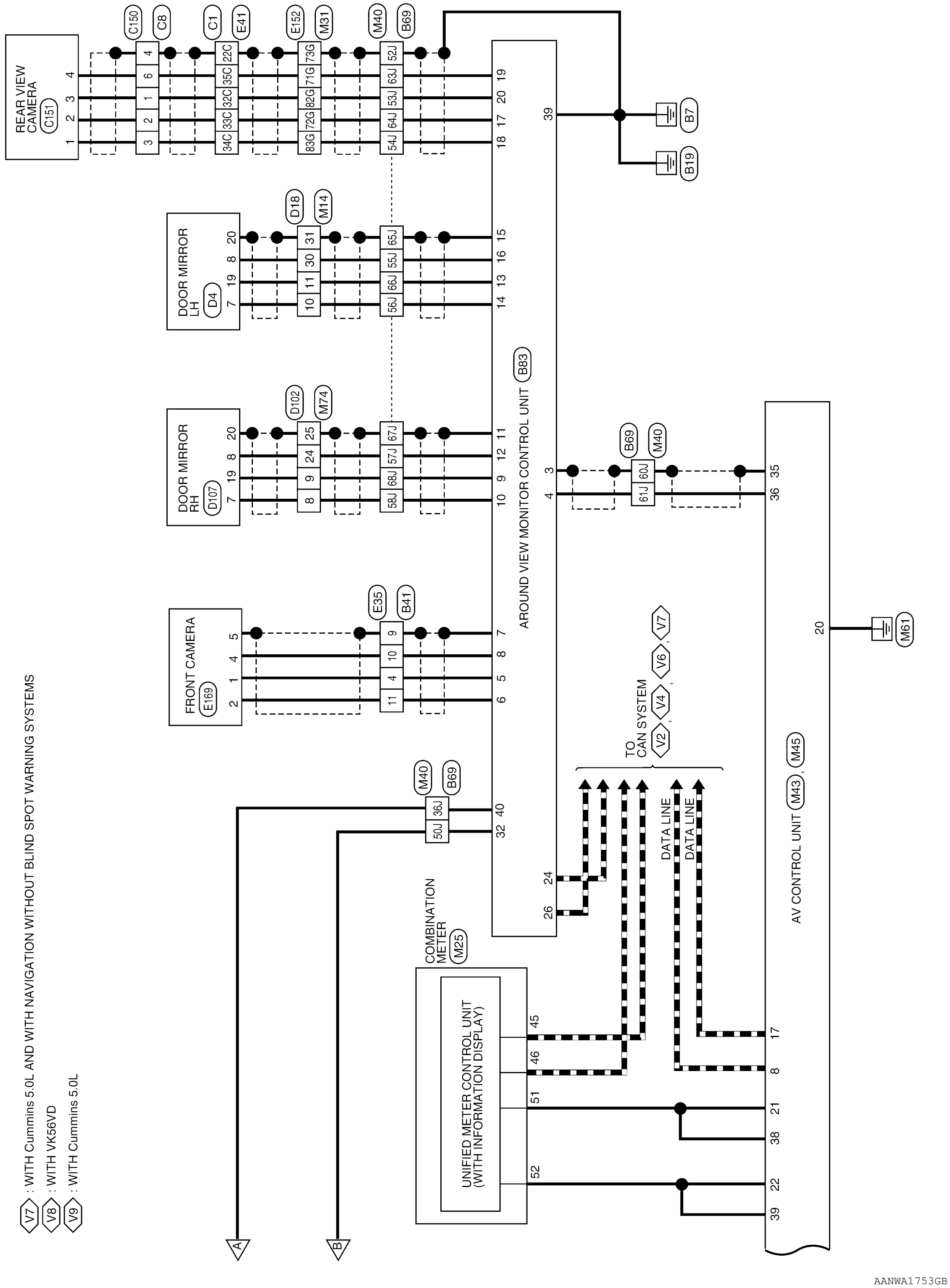
WIRING DIAGRAM

AROUND VIEW MONITOR SYSTEM

Wiring Diagram

INFOID:0000000014387032

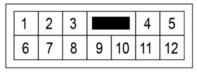



REAR VIEW CAMERA
C151
DOOR MIRROR LH
D4
DOOR MIRROR RH
D107
FRONT CAMERA
E169
AROUND VIEW MONITOR CONTROL UNIT
B83
COMBINATION METER
M25
UNIFIED METER CONTROL UNIT (WITH INFORMATION DISPLAY)
AV CONTROL UNIT
M43, M45
TO CAN SYSTEM
V2, V4, V6, V7
DATA LINE
DATA LINE
B7
B19
M61
V7 : WITH Cummins 5.0L AND WITH NAVIGATION WITHOUT BLIND SPOT WARNING SYSTEMS
V8 : WITH VK56VD
V9 : WITH Cummins 5.0L
AANWA1753GB

AROUND VIEW MONITOR SYSTEM CONNECTORS

Connector No.	B41
Connector Name	WIRE TO WIRE
Connector Type	NS12MW-CS
Connector Color	WHITE

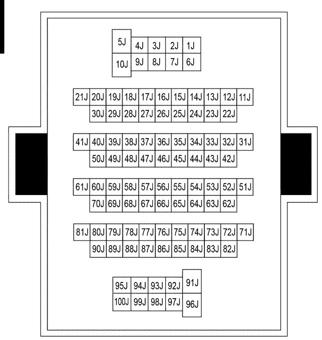
H.S.



Terminal No.	Color of Wire	Signal Name
1	Y	TO ENGINE ROOM HARNESS
2	V	TO ENGINE ROOM HARNESS
3	L	TO ENGINE ROOM HARNESS
4	L/G	TO ENGINE ROOM HARNESS
5	R/G	TO ENGINE ROOM HARNESS
6	SB	TO ENGINE ROOM HARNESS
7	P	TO ENGINE ROOM HARNESS
8	L	TO ENGINE ROOM HARNESS
9	SHIELD	TO ENGINE ROOM HARNESS
10	W/G	TO ENGINE ROOM HARNESS
11	L	TO ENGINE ROOM HARNESS
12	BR	TO ENGINE ROOM HARNESS

Connector No.	B69
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4
Connector Color	WHITE

H.S.



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

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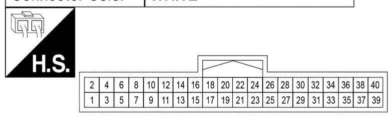
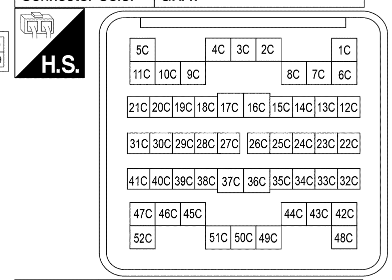
AROUND VIEW MONITOR SYSTEM CONNECTORS

Connector No.	B83
Connector Name	AROUND VIEW MONITOR CONTROL UNIT
Connector Type	TH40FW-NH
Connector Color	WHITE



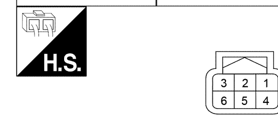
Terminal No.	Color of Wire	Signal Name
1	–	–
2	–	–
3	SHIELD	VIDEO OUTPUT GND
4	G	VIDEO OUTPUT SIGNAL
5	L/G	FV POWER GND
6	L	FV POWER 6.2V
7	SHIELD	FV VIDEO GND
8	W/G	FV VIDEO SIGNAL
9	O/L	SV1 POWER GND
10	O	SV1 POWER 6.2V
11	SHIELD	SV1 VIDEO GND
12	L/G	SV1 VIDEO SIGNAL
13	B	SV2 POWER GND
14	W	SV2 POWER 6.2V
15	SHIELD	SV2 VIDEO GND
16	R	SV2 VIDEO SIGNAL
17	L/W	RV POWER GND
18	L	RV POWER 6.2V
19	R/W	RV VIDEO GND
20	R	RV VIDEO SIGNAL
21	–	–
22	–	–
23	–	–
24	R	CAN-L
25	–	–
26	L	CAN-H
27	–	–
28	–	–
29	–	–
30	–	–
31	–	–
32	G/W	REVERSE
33	–	–
34	–	–
35	–	–
36	–	–
37	–	–
38	–	–
39	B	GND
40	G/R	IGN

Connector No.	C1
Connector Name	WIRE TO WIRE
Connector Type	RK26FGY-RS20-X6
Connector Color	GRAY



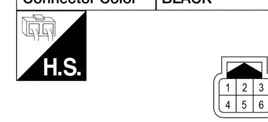
Terminal No.	Color of Wire	Signal Name
1C	Y/V	TO ENGINE ROOM HARNESS
2C	W/L	TO ENGINE ROOM HARNESS
3C	B	TO ENGINE ROOM HARNESS
4C	BR/W	TO ENGINE ROOM HARNESS
5C	BR/Y	TO ENGINE ROOM HARNESS
6C	Y	TO ENGINE ROOM HARNESS
7C	G/R	TO ENGINE ROOM HARNESS - (WITH CUMMINS 5.0L)
7C	R	TO ENGINE ROOM HARNESS - (WITH VK56VD)
8C	B	TO ENGINE ROOM HARNESS - (WITH CUMMINS 5.0L)
8C	O/B	TO ENGINE ROOM HARNESS - (WITH VK56VD)
9C	W/L	TO ENGINE ROOM HARNESS - (WITH CUMMINS 5.0L)
9C	SB	TO ENGINE ROOM HARNESS - (WITH VK56VD)
10C	GR/R	TO ENGINE ROOM HARNESS - (WITH CUMMINS 5.0L)
10C	GR	TO ENGINE ROOM HARNESS - (WITH VK56VD)
11C	B	TO ENGINE ROOM HARNESS - (WITH CUMMINS 5.0L)
11C	R/W	TO ENGINE ROOM HARNESS - (WITH VK56VD)
12C	Y	TO ENGINE ROOM HARNESS
13C	B	TO ENGINE ROOM HARNESS
14C	BG	TO ENGINE ROOM HARNESS
15C	Y	TO ENGINE ROOM HARNESS
16C	B	TO ENGINE ROOM HARNESS
17C	V	TO ENGINE ROOM HARNESS
18C	BG	TO ENGINE ROOM HARNESS
19C	L	TO ENGINE ROOM HARNESS
20C	W	TO ENGINE ROOM HARNESS
21C	LG	TO ENGINE ROOM HARNESS
22C	SHIELD	TO ENGINE ROOM HARNESS
23C	G/B	TO ENGINE ROOM HARNESS
24C	G/B	TO ENGINE ROOM HARNESS
25C	W	TO ENGINE ROOM HARNESS
26C	B	TO ENGINE ROOM HARNESS
27C	LG	TO ENGINE ROOM HARNESS
28C	G/W	TO ENGINE ROOM HARNESS
29C	R/LG	TO ENGINE ROOM HARNESS
30C	R/L	TO ENGINE ROOM HARNESS
31C	B	TO ENGINE ROOM HARNESS
32C	R	TO ENGINE ROOM HARNESS
33C	L/W	TO ENGINE ROOM HARNESS
34C	L	TO ENGINE ROOM HARNESS
35C	R/W	TO ENGINE ROOM HARNESS
36C	L	TO ENGINE ROOM HARNESS
37C	Y	TO ENGINE ROOM HARNESS
38C	GR	TO ENGINE ROOM HARNESS
39C	R	TO ENGINE ROOM HARNESS
40C	P	TO ENGINE ROOM HARNESS
41C	V	TO ENGINE ROOM HARNESS
42C	LG/B	TO ENGINE ROOM HARNESS
43C	Y/B	TO ENGINE ROOM HARNESS
44C	R	TO ENGINE ROOM HARNESS
45C	G	TO ENGINE ROOM HARNESS
46C	BR	TO ENGINE ROOM HARNESS
47C	B	TO ENGINE ROOM HARNESS
48C	Y/R	TO ENGINE ROOM HARNESS
49C	R/Y	TO ENGINE ROOM HARNESS - (WITH CUMMINS 5.0L)
49C	V	TO ENGINE ROOM HARNESS - (WITH VK56VD)
50C	B	TO ENGINE ROOM HARNESS - (WITH CUMMINS 5.0L)
50C	B/Y	TO ENGINE ROOM HARNESS - (WITH VK56VD)
51C	V	TO ENGINE ROOM HARNESS - (WITH CUMMINS 5.0L)
51C	B	TO ENGINE ROOM HARNESS - (WITH VK56VD)
52C	V/W	TO ENGINE ROOM HARNESS

Connector No.	C8
Connector Name	WIRE TO WIRE
Connector Type	RH06FB-1V
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	R	TO CHASSIS SUB HARNESS
2	L/W	TO CHASSIS SUB HARNESS
3	L	TO CHASSIS SUB HARNESS
4	SHIELD	TO CHASSIS SUB HARNESS
5	G	TO CHASSIS SUB HARNESS
6	R/W	TO CHASSIS SUB HARNESS

Connector No.	C150
Connector Name	WIRE TO WIRE
Connector Type	RH06MB-1V
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	R	TO CHASSIS HARNESS
2	L/W	TO CHASSIS HARNESS
3	L	TO CHASSIS HARNESS
4	SHIELD	TO CHASSIS HARNESS
5	G	TO CHASSIS HARNESS
6	R/W	TO CHASSIS HARNESS

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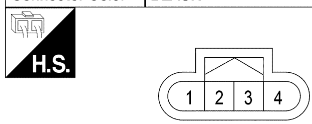
A B C D E F G H I J K L M AV O P

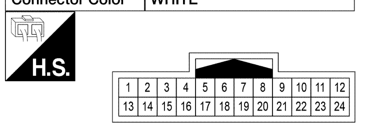
AROUND VIEW MONITOR SYSTEM CONNECTORS

Connector No.	C151
Connector Name	REAR VIEW CAMERA
Connector Type	RH04FB
Connector Color	BLACK



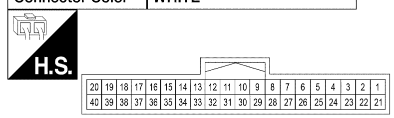
Terminal No.	Color of Wire	Signal Name
1	L	REAR VIEW CAMERA POWER
2	L/W	GROUND
3	R	REAR VIEW CAMERA VIDEO +
4	R/W	REAR VIEW CAMERA VIDEO -

Connector No.	D4
Connector Name	DOOR MIRROR LH
Connector Type	TH24MW-NH
Connector Color	WHITE



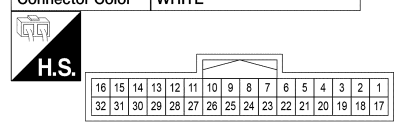
Terminal No.	Color of Wire	Signal Name
1	LG	SWITCH MTR UP
2	L	SWITCH MOTOR LT -(WITH MEMORY MIRRORS)
2	Y	SWITCH MOTOR LT (WITHOUT MEMORY MIRRORS)
3	BG	MOTOR COMMON
4	G/L	POWERFOLD UNFOLD+ -(WITH MEMORY MIRRORS)
5	GR	POWERFOLD FOLD+ -(WITH MEMORY MIRRORS)
6	B/W	HEATED MIRROR +
7	W	VCC
8	R	VIDEO +
9	G/B	FRONT TURN LH
10	B	GND
11	LG/B	EC FEED
12	Y/V	EC RETURN
13	Y	MEMORY GND
14	SB	MEMORY FEED
15	V	HOR SENSOR
16	BG	VER SENSOR
17	–	–
18	B	HEATED MIRROR -
19	B	GND
20	SHIELD	VIDEO -
21	R/G	BAT SAVER OUT
22	L	ROOM LAMP CONT
23	W	LED LH
24	B	GND

Connector No.	D18
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-NH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	LG	TO MAIN HARNESS -(WITH AROUND VIEW MONITOR)
1	SB	TO MAIN HARNESS -(WITHOUT MEMORY MIRRORS)
2	SB	TO MAIN HARNESS
3	BG	TO MAIN HARNESS
4	Y	TO MAIN HARNESS
5	BR	TO MAIN HARNESS
6	SB	TO MAIN HARNESS
7	V	TO MAIN HARNESS
8	GR	TO MAIN HARNESS
9	L	TO MAIN HARNESS
10	W	TO MAIN HARNESS
11	B	TO MAIN HARNESS
12	R/G	TO MAIN HARNESS
13	Y	TO MAIN HARNESS
14	LG	TO MAIN HARNESS
15	L	TO MAIN HARNESS
16	V	TO MAIN HARNESS
17	LG	TO MAIN HARNESS
18	BR	TO MAIN HARNESS
19	LG/B	TO MAIN HARNESS
20	Y/V	TO MAIN HARNESS
21	BG	TO MAIN HARNESS -(WITH MEMORY MIRRORS)
21	BR	TO MAIN HARNESS -(WITHOUT MEMORY MIRRORS)
22	V	TO MAIN HARNESS
23	L	TO MAIN HARNESS -(WITH MEMORY MIRRORS)
23	G	TO MAIN HARNESS -(WITHOUT MEMORY MIRRORRS)
24	LG	TO MAIN HARNESS
25	Y	TO MAIN HARNESS
26	L	TO MAIN HARNESS
27	Y	TO MAIN HARNESS
28	L	TO MAIN HARNESS
29	V	TO MAIN HARNESS
30	R	TO MAIN HARNESS
31	SHIELD	TO MAIN HARNESS
32	R	TO MAIN HARNESS
33	BR	TO MAIN HARNESS
34	–	TO MAIN HARNESS
35	W	TO MAIN HARNESS
36	L	TO MAIN HARNESS
37	L/R	TO MAIN HARNESS
38	LG	TO MAIN HARNESS
39	SB	TO MAIN HARNESS
40	L	TO MAIN HARNESS

Connector No.	D102
Connector Name	WIRE TO WIRE
Connector Type	TH32FW-NH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	BR	TO MAIN HARNESS
2	V	TO MAIN HARNESS
3	BR	TO MAIN HARNESS
4	L	TO MAIN HARNESS
5	L/R	TO MAIN HARNESS
6	L	TO MAIN HARNESS
7	R/G	TO MAIN HARNESS
8	B	TO MAIN HARNESS
9	W	TO MAIN HARNESS
10	Y	TO MAIN HARNESS
11	LG	TO MAIN HARNESS
12	L	TO MAIN HARNESS
13	Y/V	TO MAIN HARNESS
14	W/L	TO MAIN HARNESS
15	V/R	TO MAIN HARNESS
16	L/W	TO MAIN HARNESS
17	SB	TO MAIN HARNESS
18	Y	TO MAIN HARNESS
19	G	TO MAIN HARNESS
20	V/W	TO MAIN HARNESS -(WITHOUT AUTOMATIC DRIVE POSITIONER)
20	GR/R	TO MAIN HARNESS - (WITH AUTOMATIC DRIVE POSITIONER)
21	–	TO MAIN HARNESS
22	–	TO MAIN HARNESS
23	R	TO MAIN HARNESS
24	R	TO MAIN HARNESS
25	SHIELD	TO MAIN HARNESS
26	LG	TO MAIN HARNESS
27	Y	TO MAIN HARNESS
28	BR	TO MAIN HARNESS
29	LG/B	TO MAIN HARNESS
30	–	TO MAIN HARNESS
31	–	TO MAIN HARNESS
32	–	TO MAIN HARNESS

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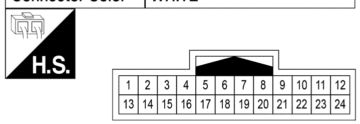
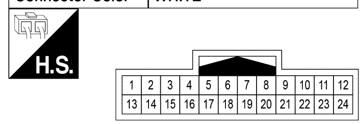
AROUND VIEW MONITOR SYSTEM CONNECTORS

Connector No.	D107
Connector Name	DOOR MIRROR RH
Connector Type	TH24MW-NH
Connector Color	WHITE



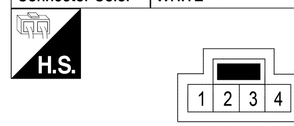
Terminal No.	Color of Wire	Signal Name
1	BR	SWITCH MTR UP
2	G	SWITCH MTR LT
3	SB	MTR COMMON
4	L/R	POWERFOLD UNFOLD+
5	L	POWERFOLD FOLD+
6	B/W	HEATED MIRROR +
7	B	VCC
8	R	VIDEO +
9	G/Y	FR TURN RH
10	B	GND
11	LG/B	EC FEED
12	Y/V	EC RETURN
13	L	MEMORY GND
14	V	MEMORY FEED
15	Y	HOR SENSOR
16	BR	VER SENSOR
17	–	–
18	B	HEATED MIRROR -
19	W	GND
20	SHIELD	VIDEO -
21	R/G	BAT SAVER OUT
22	L	ROOM LAMP CONT
23	R	LED RH
24	B	GND

Connector No.	E5
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH
Connector Color	WHITE



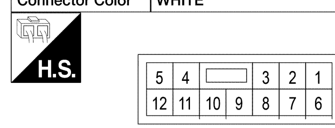
Terminal No.	Color of Wire	Signal Name
1	L/R	TO ENGINE CONTROL HARNESS
2	BR	TO ENGINE CONTROL HARNESS
3	V	TO ENGINE CONTROL HARNESS
4	L/O	TO ENGINE CONTROL HARNESS
5	W	TO ENGINE CONTROL HARNESS
6	B/R	TO ENGINE CONTROL HARNESS
7	Y/R	TO ENGINE CONTROL HARNESS
8	BR	TO ENGINE CONTROL HARNESS
9	W/L	TO ENGINE CONTROL HARNESS
10	L/Y	TO ENGINE CONTROL HARNESS
11	SB	TO ENGINE CONTROL HARNESS
12	L	TO ENGINE CONTROL HARNESS
13	W/R	TO ENGINE CONTROL HARNESS
14	Y	TO ENGINE CONTROL HARNESS
15	B	TO ENGINE CONTROL HARNESS
16	B	TO ENGINE CONTROL HARNESS
17	R	TO ENGINE CONTROL HARNESS
18	B	TO ENGINE CONTROL HARNESS
19	B/R	TO ENGINE CONTROL HARNESS
20	GR	TO ENGINE CONTROL HARNESS
21	V/R	TO ENGINE CONTROL HARNESS
22	B	TO ENGINE CONTROL HARNESS
23	B	TO ENGINE CONTROL HARNESS
24	P	TO ENGINE CONTROL HARNESS

Connector No.	E19
Connector Name	WIRE TO WIRE
Connector Type	NS04MW-CS
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	L	TO ENGINE CONTROL HARNESS
2	W	TO ENGINE CONTROL HARNESS
3	P	TO ENGINE CONTROL HARNESS
4	SB	TO ENGINE CONTROL HARNESS

Connector No.	E35
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	Y	TO BODY HARNESS
2	V	TO BODY HARNESS
3	L	TO BODY HARNESS
4	W	TO BODY HARNESS
5	R/G	TO BODY HARNESS
6	SB	TO BODY HARNESS
7	P	TO BODY HARNESS
8	L	TO BODY HARNESS
9	SHIELD	TO BODY HARNESS
10	B	TO BODY HARNESS
11	R	TO BODY HARNESS
12	BR	TO BODY HARNESS

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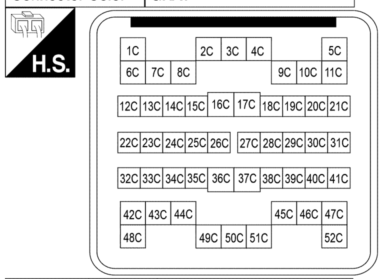
AROUND VIEW MONITOR SYSTEM CONNECTORS

Connector No.	E41
Connector Name	WIRE TO WIRE
Connector Type	RK26MGY-RS20-X6
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
1C	Y/V	TO CHASSIS HARNESS
2C	W/L	TO CHASSIS HARNESS
3C	B	TO CHASSIS HARNESS
4C	BR/W	TO CHASSIS HARNESS
5C	BR/Y	TO CHASSIS HARNESS
6C	Y	TO CHASSIS HARNESS
7C	G/R	TO CHASSIS HARNESS - (WITH CUMMINS 5.0L)
7C	R	TO CHASSIS HARNESS - (WITH VK56VD)
8C	B	TO CHASSIS HARNESS - (WITH CUMMINS 5.0L)
8C	O/B	TO CHASSIS HARNESS - (WITH VK56VD)
9C	W/L	TO CHASSIS HARNESS - (WITH CUMMINS 5.0L)
9C	SB	TO CHASSIS HARNESS - (WITH VK56VD)
10C	GR/R	TO CHASSIS HARNESS - (WITH CUMMINS 5.0L)
10C	GR	TO CHASSIS HARNESS - (WITH VK56VD)
11C	B	TO CHASSIS HARNESS - (WITH CUMMINS 5.0L)
11C	R/W	TO CHASSIS HARNESS - (WITH VK56VD)
12C	Y	TO CHASSIS HARNESS
13C	B	TO CHASSIS HARNESS
14C	BG	TO CHASSIS HARNESS
15C	Y	TO CHASSIS HARNESS
16C	B	TO CHASSIS HARNESS
17C	V	TO CHASSIS HARNESS
18C	BG	TO CHASSIS HARNESS
19C	L	TO CHASSIS HARNESS
20C	BG	TO CHASSIS HARNESS
21C	B	TO CHASSIS HARNESS
22C	SHIELD	TO CHASSIS HARNESS
23C	G/B	TO CHASSIS HARNESS
24C	G/Y	TO CHASSIS HARNESS
25C	W	TO CHASSIS HARNESS
26C	B	TO CHASSIS HARNESS
27C	LG	TO CHASSIS HARNESS
28C	G/W	TO CHASSIS HARNESS
29C	R/G	TO CHASSIS HARNESS - (WITHOUT BULB CHECK)
29C	G/R	TO CHASSIS HARNESS - (WITH BULB CHECK)
30C	R/L	TO CHASSIS HARNESS
31C	B	TO CHASSIS HARNESS
32C	R	TO CHASSIS HARNESS
33C	L/W	TO CHASSIS HARNESS
34C	L	TO CHASSIS HARNESS
35C	R/W	TO CHASSIS HARNESS
36C	L	TO CHASSIS HARNESS
37C	Y	TO CHASSIS HARNESS
38C	BR	TO CHASSIS HARNESS
39C	R	TO CHASSIS HARNESS
40C	P	TO CHASSIS HARNESS
41C	V	TO CHASSIS HARNESS
42C	G/B	TO CHASSIS HARNESS
43C	Y/B	TO CHASSIS HARNESS
44C	R	TO CHASSIS HARNESS
45C	G	TO CHASSIS HARNESS
46C	BR	TO CHASSIS HARNESS
47C	B	TO CHASSIS HARNESS
48C	Y/R	TO CHASSIS HARNESS
49C	R/Y	TO CHASSIS HARNESS - (WITH CUMMINS 5.0L)
49C	V	TO CHASSIS HARNESS - (WITH VK56VD)
50C	B	TO CHASSIS HARNESS - (WITH CUMMINS 5.0L)
50C	B/Y	TO CHASSIS HARNESS - (WITH VK56VD)
51C	V	TO CHASSIS HARNESS - (WITH CUMMINS 5.0L)
51C	B	TO CHASSIS HARNESS - (WITH VK56VD)
52C	B	TO CHASSIS HARNESS - (WITHOUT FFV)
52C	L	TO CHASSIS HARNESS - (WITH FFV)
52C	V/W	TO CHASSIS HARNESS

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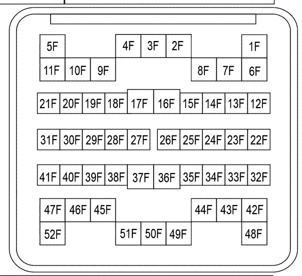
AROUND VIEW MONITOR SYSTEM CONNECTORS

Connector No.	E52
Connector Name	WIRE TO WIRE
Connector Type	RK26FGY-RS20-X6
Connector Color	GRAY

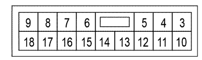
H.S.



Terminal No.	Color of Wire	Signal Name
1F	Y	TO ENGINE CONTROL NO. 2 HARNESS
2F	B	TO ENGINE CONTROL NO. 2 HARNESS
3F	BR	TO ENGINE CONTROL NO. 2 HARNESS
4F	W/R	TO ENGINE CONTROL NO. 2 HARNESS
5F	B/R	TO ENGINE CONTROL NO. 2 HARNESS
6F	O	TO ENGINE CONTROL NO. 2 HARNESS
7F	GR/Y	TO ENGINE CONTROL NO. 2 HARNESS
8F	V	TO ENGINE CONTROL NO. 2 HARNESS
9F	BR	TO ENGINE CONTROL NO. 2 HARNESS
10F	Y/B	TO ENGINE CONTROL NO. 2 HARNESS
11F	L	TO ENGINE CONTROL NO. 2 HARNESS
12F	R	TO ENGINE CONTROL NO. 2 HARNESS
13F	Y	TO ENGINE CONTROL NO. 2 HARNESS
14F	V	TO ENGINE CONTROL NO. 2 HARNESS
15F	SB	TO ENGINE CONTROL NO. 2 HARNESS
16F	P	TO ENGINE CONTROL NO. 2 HARNESS
17F	Y/R	TO ENGINE CONTROL NO. 2 HARNESS
18F	R	TO ENGINE CONTROL NO. 2 HARNESS
19F	V	TO ENGINE CONTROL NO. 2 HARNESS
20F	BR	TO ENGINE CONTROL NO. 2 HARNESS
21F	L/R	TO ENGINE CONTROL NO. 2 HARNESS
22F	L/W	TO ENGINE CONTROL NO. 2 HARNESS
23F	R/L	TO ENGINE CONTROL NO. 2 HARNESS
24F	W/L	TO ENGINE CONTROL NO. 2 HARNESS
25F	W/R	TO ENGINE CONTROL NO. 2 HARNESS
26F	B/R	TO ENGINE CONTROL NO. 2 HARNESS
27F	Y	TO ENGINE CONTROL NO. 2 HARNESS
28F	W/R	TO ENGINE CONTROL NO. 2 HARNESS
29F	L/O	TO ENGINE CONTROL NO. 2 HARNESS
30F	B	TO ENGINE CONTROL NO. 2 HARNESS
31F	B	TO ENGINE CONTROL NO. 2 HARNESS
32F	V/W	TO ENGINE CONTROL NO. 2 HARNESS
33F	GR	TO ENGINE CONTROL NO. 2 HARNESS
34F	L/R	TO ENGINE CONTROL NO. 2 HARNESS
35F	R/W	TO ENGINE CONTROL NO. 2 HARNESS
36F	L/B	TO ENGINE CONTROL NO. 2 HARNESS
37F	L	TO ENGINE CONTROL NO. 2 HARNESS
38F	R/Y	TO ENGINE CONTROL NO. 2 HARNESS
39F	R/Y	TO ENGINE CONTROL NO. 2 HARNESS
40F	B/R	TO ENGINE CONTROL NO. 2 HARNESS
41F	W	TO ENGINE CONTROL NO. 2 HARNESS
42F	Y	TO ENGINE CONTROL NO. 2 HARNESS
43F	B/P	TO ENGINE CONTROL NO. 2 HARNESS
44F	Y/B	TO ENGINE CONTROL NO. 2 HARNESS
45F	L/Y	TO ENGINE CONTROL NO. 2 HARNESS
46F	O	TO ENGINE CONTROL NO. 2 HARNESS
47F	W/R	TO ENGINE CONTROL NO. 2 HARNESS
48F	L	TO ENGINE CONTROL NO. 2 HARNESS
49F	BR	TO ENGINE CONTROL NO. 2 HARNESS
50F	SHIELD	TO ENGINE CONTROL NO. 2 HARNESS
51F	L	TO ENGINE CONTROL NO. 2 HARNESS
52F	BR	TO ENGINE CONTROL NO. 2 HARNESS

Connector No.	E119
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
3	–	–
4	B/R	NP SW
5	L/W	H/LAMP HI RH
6	G	H/LAMP HI LH
7	L	H/LAMP LO LH
8	R/Y	H/LAMP LO RH
9	G/W	FR FOG/L LH
10	–	–
11	P	ETC VB - (WITH CUMMINS 5.0L)
11	O	ETC VB - (WITH VK56VD)
12	W/R	FR FOG/L RH
13	Y/R	A/T ECU IGN
14	G	REVERSE LAMP IGN
15	GR	ABS ECU IGN
16	G	ETC RLY CONT - (WITH CUMMINS 5.0L)
16	V/R	ETC RLY CONT - (WITH VK56VD)
17	L/W	IGN COIL - (WITH CUMMINS 5.0L)
17	W	IGN COIL - (WITH VK56VD)
18	–	–

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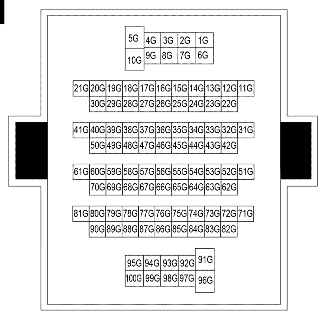
A B C D E F G H I J K L M AV O P

AROUND VIEW MONITOR SYSTEM CONNECTORS

Connector No.	E152
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4
Connector Color	WHITE

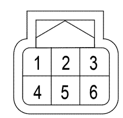
H.S.



Terminal No.	Color of Wire	Signal Name
1G	G	TO MAIN HARNESS
2G	B/R	TO MAIN HARNESS
3G	W/B	TO MAIN HARNESS
4G	BR/W	TO MAIN HARNESS
5G	BR	TO MAIN HARNESS
6G	P	TO MAIN HARNESS - (WITH VK56VD)
6G	R/W	TO MAIN HARNESS - (WITH CUMMINS 5.0L)
7G	Y	TO MAIN HARNESS
8G	G	TO MAIN HARNESS
9G	R	TO MAIN HARNESS
10G	W	TO MAIN HARNESS
11G	R/G	TO MAIN HARNESS
12G	W/B	TO MAIN HARNESS
13G	BR	TO MAIN HARNESS
14G	Y/B	TO MAIN HARNESS
15G	G/W	TO MAIN HARNESS
16G	G	TO MAIN HARNESS
17G	G/Y	TO MAIN HARNESS
18G	G/Y	TO MAIN HARNESS
19G	Y/V	TO MAIN HARNESS
20G	G/Y	TO MAIN HARNESS
21G	B/Y	TO MAIN HARNESS
22G	G/R	TO MAIN HARNESS
23G	Y/R	TO MAIN HARNESS
24G	G/B	TO MAIN HARNESS
25G	R/W	TO MAIN HARNESS
26G	R	TO MAIN HARNESS
27G	LG	TO MAIN HARNESS
28G	G/B	TO MAIN HARNESS
29G	G/B	TO MAIN HARNESS
30G	BR/Y	TO MAIN HARNESS
31G	P	TO MAIN HARNESS - (WITH CUMMINS 5.0L)
31G	R	TO MAIN HARNESS - (WITH VK56VD)
32G	P	TO MAIN HARNESS
33G	Y/L	TO MAIN HARNESS
34G	GR	TO MAIN HARNESS
35G	G/R	TO MAIN HARNESS
36G	SB	TO MAIN HARNESS
37G	R/W	TO MAIN HARNESS
38G	BR	TO MAIN HARNESS
39G	BR	TO MAIN HARNESS
40G	–	TO MAIN HARNESS
41G	R/G	TO MAIN HARNESS
42G	O	TO MAIN HARNESS
43G	B	TO MAIN HARNESS - (WITH CUMMINS 5.0L)
43G	G	TO MAIN HARNESS - (WITH VK56VD)
44G	R/Y	TO MAIN HARNESS
45G	G	TO MAIN HARNESS
46G	LG	TO MAIN HARNESS
47G	R	TO MAIN HARNESS
48G	W	TO MAIN HARNESS
49G	–	TO MAIN HARNESS
50G	BR	TO MAIN HARNESS
51G	R	TO MAIN HARNESS
52G	L	TO MAIN HARNESS
53G	W	TO MAIN HARNESS
54G	W	TO MAIN HARNESS
55G	G	TO MAIN HARNESS
56G	W	TO MAIN HARNESS
57G	Y	TO MAIN HARNESS
58G	BG	TO MAIN HARNESS
59G	BG	TO MAIN HARNESS
60G	BG	TO MAIN HARNESS
61G	B	TO MAIN HARNESS
62G	W	TO MAIN HARNESS
63G	R	TO MAIN HARNESS
64G	W/L	TO MAIN HARNESS
65G	W/R	TO MAIN HARNESS
66G	BG	TO MAIN HARNESS
67G	BG	TO MAIN HARNESS
68G	B	TO MAIN HARNESS
69G	Y	TO MAIN HARNESS
70G	L	TO MAIN HARNESS
71G	R/W	TO MAIN HARNESS
72G	L/W	TO MAIN HARNESS
73G	SHIELD	TO MAIN HARNESS
74G	W	TO MAIN HARNESS
75G	R	TO MAIN HARNESS
76G	R/G	TO MAIN HARNESS
77G	G	TO MAIN HARNESS
78G	W	TO MAIN HARNESS
79G	–	TO MAIN HARNESS
80G	R	TO MAIN HARNESS
81G	L	TO MAIN HARNESS
82G	R	TO MAIN HARNESS
83G	L	TO MAIN HARNESS
84G	L	TO MAIN HARNESS
85G	W/B	TO MAIN HARNESS
86G	B/R	TO MAIN HARNESS
87G	W/B	TO MAIN HARNESS
88G	P	TO MAIN HARNESS
89G	L	TO MAIN HARNESS
90G	G	TO MAIN HARNESS
91G	G	TO MAIN HARNESS
92G	V/W	TO MAIN HARNESS
93G	BR	TO MAIN HARNESS
94G	G	TO MAIN HARNESS
95G	G	TO MAIN HARNESS
96G	W	TO MAIN HARNESS
97G	R	TO MAIN HARNESS
98G	W/B	TO MAIN HARNESS
99G	BR	TO MAIN HARNESS
100G	GR/W	TO MAIN HARNESS

Connector No.	E169
Connector Name	FRONT CAMERA
Connector Type	RH06FB-1V
Connector Color	BLACK

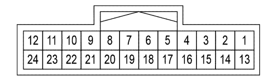
H.S.



Terminal No.	Color of Wire	Signal Name
1	W	FR CAM GND
2	R	FR CAM POWER
3	–	–
4	B	FR CAM VIDEO +
5	SHIELD	FR CAM VIDEO -
6	–	–

Connector No.	F14
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH
Connector Color	WHITE

H.S.



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

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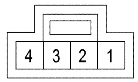
AROUND VIEW MONITOR SYSTEM CONNECTORS

Connector No.	F33
Connector Name	WIRE TO WIRE
Connector Type	NS04FW-CS
Connector Color	WHITE

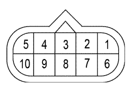
H.S.



Terminal No.	Color of Wire	Signal Name
1	L	TO ENGINE ROOM HARNESS
2	W	TO ENGINE ROOM HARNESS
3	P	TO ENGINE ROOM HARNESS
4	SB	TO ENGINE ROOM HARNESS

Connector No.	F46
Connector Name	A/T ASSEMBLY (WITH VK56VD)
Connector Type	RK10FG
Connector Color	GREEN

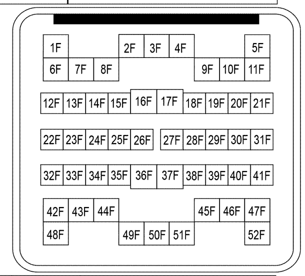
H.S.



Terminal No.	Color of Wire	Signal Name
1	Y/R	VIGN
2	P	BATT
3	L	CAN-H
4	BR	K-LINE
5	B	GND
6	Y/R	VIGN
7	R	REV LAMP RELAY
8	P	CAN-L
9	B/R	STARTER RELAY
10	B	GND

Connector No.	F209
Connector Name	WIRE TO WIRE
Connector Type	RK26MGY-RS20-X6
Connector Color	GRAY

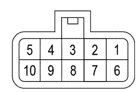
H.S.



Terminal No.	Color of Wire	Signal Name
1F	Y/R	TO ENGINE ROOM HARNESS
2F	B	TO ENGINE ROOM HARNESS
3F	B/Y	TO ENGINE ROOM HARNESS
4F	W/R	TO ENGINE ROOM HARNESS
5F	B/R	TO ENGINE ROOM HARNESS
6F	O/L	TO ENGINE ROOM HARNESS
7F	GR	TO ENGINE ROOM HARNESS
8F	P	TO ENGINE ROOM HARNESS
9F	BR/W	TO ENGINE ROOM HARNESS
10F	G/Y	TO ENGINE ROOM HARNESS
11F	L/W	TO ENGINE ROOM HARNESS
12F	R/W	TO ENGINE ROOM HARNESS
13F	G/Y	TO ENGINE ROOM HARNESS
14F	V/W	TO ENGINE ROOM HARNESS
15F	LG	TO ENGINE ROOM HARNESS
16F	R/Y	TO ENGINE ROOM HARNESS
17F	BR/Y	TO ENGINE ROOM HARNESS
18F	R	TO ENGINE ROOM HARNESS
19F	V	TO ENGINE ROOM HARNESS
20F	BR	TO ENGINE ROOM HARNESS
21F	L/R	TO ENGINE ROOM HARNESS
22F	L/LG	TO ENGINE ROOM HARNESS
23F	SB	TO ENGINE ROOM HARNESS
24F	W/L	TO ENGINE ROOM HARNESS
25F	W/B	TO ENGINE ROOM HARNESS
26F	B/Y	TO ENGINE ROOM HARNESS
27F	Y	TO ENGINE ROOM HARNESS
28F	W/R	TO ENGINE ROOM HARNESS
29F	L/O	TO ENGINE ROOM HARNESS
30F	B	TO ENGINE ROOM HARNESS
31F	B	TO ENGINE ROOM HARNESS
32F	V	TO ENGINE ROOM HARNESS
33F	BG	TO ENGINE ROOM HARNESS
34F	L/R	TO ENGINE ROOM HARNESS
35F	R/W	TO ENGINE ROOM HARNESS
36F	L/B	TO ENGINE ROOM HARNESS
37F	L/O	TO ENGINE ROOM HARNESS
38F	Y/W	TO ENGINE ROOM HARNESS
39F	R/Y	TO ENGINE ROOM HARNESS
40F	G/B	TO ENGINE ROOM HARNESS
41F	W	TO ENGINE ROOM HARNESS
42F	Y	TO ENGINE ROOM HARNESS
43F	B/P	TO ENGINE ROOM HARNESS
44F	Y/B	TO ENGINE ROOM HARNESS
45F	L/Y	TO ENGINE ROOM HARNESS
46F	O	TO ENGINE ROOM HARNESS
47F	W/L	TO ENGINE ROOM HARNESS
48F	L	TO ENGINE ROOM HARNESS
49F	BR	TO ENGINE ROOM HARNESS
50F	SHIELD	TO ENGINE ROOM HARNESS
51F	L	TO ENGINE ROOM HARNESS
52F	BR	TO ENGINE ROOM HARNESS

Connector No.	F212
Connector Name	TRANSMISSION RANGE SWITCH
Connector Type	HS10FB
Connector Color	BLACK

H.S.



Terminal No.	Color of Wire	Signal Name
1	L/W	RANGE SIGNAL C
2	P	RANGE SIGNAL B
3	R/Y	IGNITION
4	GR	RANGE SIGNAL PA
5	Y/R	RANGE SIGNAL A
6	O/L	BATTERY
7	R	REVERSE RELAY CONT
8	B/R	NP SW
9	BR/Y	IGNITION RELAY
10	–	–

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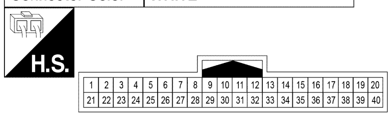
A B C D E F G H I J K L M AV O P

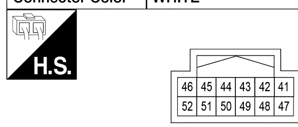
AROUND VIEW MONITOR SYSTEM CONNECTORS

Connector No.	M14
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-NH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	LG	TO FRONT DOOR LH HARNESS - (WITH MEMORY MIRRORS)
1	SB	TO FRONT DOOR LH HARNESS - (WITHOUT MEMORY MIRRORS)
2	SB	TO FRONT DOOR LH HARNESS
3	B	TO FRONT DOOR LH HARNESS
4	Y	TO FRONT DOOR LH HARNESS
5	V	TO FRONT DOOR LH HARNESS
6	SB	TO FRONT DOOR LH HARNESS
7	Y	TO FRONT DOOR LH HARNESS
8	GR	TO FRONT DOOR LH HARNESS
9	L	TO FRONT DOOR LH HARNESS
10	W	TO FRONT DOOR LH HARNESS
11	B	TO FRONT DOOR LH HARNESS
12	R/G	TO FRONT DOOR LH HARNESS
13	G	TO FRONT DOOR LH HARNESS
14	R	TO FRONT DOOR LH HARNESS
15	O	TO FRONT DOOR LH HARNESS
16	V	TO FRONT DOOR LH HARNESS
17	P	TO FRONT DOOR LH HARNESS
18	G	TO FRONT DOOR LH HARNESS
19	LG/B	TO FRONT DOOR LH HARNESS
20	Y/V	TO FRONT DOOR LH HARNESS
21	O	TO FRONT DOOR LH HARNESS - (WITH MEMORY MIRRORS)
21	BR	TO FRONT DOOR LH HARNESS - (WITHOUT MEMORY MIRRORS)
22	BG	TO FRONT DOOR LH HARNESS
23	L	TO FRONT DOOR LH HARNESS - (WITH MEMORY MIRRORS)
23	G	TO FRONT DOOR LH HARNESS - (WITHOUT MEMORY MIRRORS)
24	BR	TO FRONT DOOR LH HARNESS
25	Y	TO FRONT DOOR LH HARNESS
26	LG	TO FRONT DOOR LH HARNESS
27	W	TO FRONT DOOR LH HARNESS
28	L	TO FRONT DOOR LH HARNESS
29	P	TO FRONT DOOR LH HARNESS
30	R	TO FRONT DOOR LH HARNESS
31	SHIELD	TO FRONT DOOR LH HARNESS
32	R	TO FRONT DOOR LH HARNESS
33	O	TO FRONT DOOR LH HARNESS
34	–	TO FRONT DOOR LH HARNESS
35	W	TO FRONT DOOR LH HARNESS
36	L	TO FRONT DOOR LH HARNESS
37	L/R	TO FRONT DOOR LH HARNESS
38	GR	TO FRONT DOOR LH HARNESS
39	P	TO FRONT DOOR LH HARNESS
40	R	TO FRONT DOOR LH HARNESS

Connector No.	M25
Connector Name	COMBINATION METER (WITH TYPE A)
Connector Type	TH12FW-NH
Connector Color	WHITE



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

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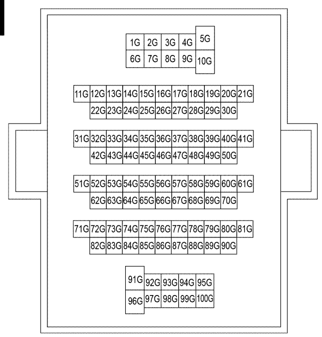
AROUND VIEW MONITOR SYSTEM CONNECTORS

Connector No.	M31
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4
Connector Color	WHITE

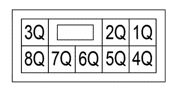
H.S.



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

Connector No.	M39
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS08FW-CS
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
1Q	–	–
2Q	O/L	IGNITION
3Q	–	–
4Q	–	–
5Q	–	–
6Q	R/W	BATTERY
7Q	R/W	IGNITION
8Q	–	–

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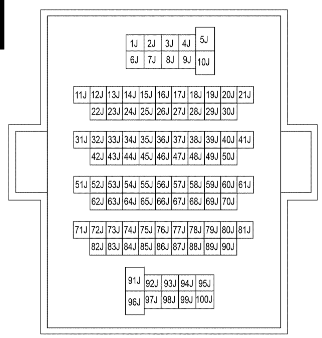
AROUND VIEW MONITOR SYSTEM CONNECTORS

Connector No.	M40
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4
Connector Color	WHITE

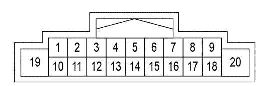
H.S.



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

Connector No.	M43
Connector Name	AV CONTROL UNIT (WITH AUDIO AMPLIFIER)
Connector Type	NH18FW-CS2
Connector Color	WHITE

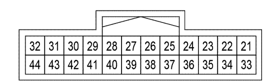
H.S.



Terminal No.	Color of Wire	Signal Name
1	G/W	AMP ON
2	L	FR SP LH+
3	W	FR SP LH-
4	L	RR SP LH+
5	BR	RR SP LH-
6	–	–
7	R	ACC
8	L	CAN-H
9	L	ILL (+)
10	SHIELD	PRE AMP SHIELD
11	B	FR SP RH+
12	Y	FR SP RH-
13	B/W	RR SP RH+
14	P	RR SP RH-
15	–	–
16	–	–
17	P	CAN-L
18	G	SPEED SIG
19	W	BAT
20	B	GND

Connector No.	M45
Connector Name	AV CONTROL UNIT (WITH AUDIO AMPLIFIER)
Connector Type	TH24FW-NH
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
21	LG	M CAN2-L
22	SB	M CAN2-H
23	L	MR OUTPUT
24	–	–
25	–	–
26	–	–
27	–	–
28	G/W	REVERSE SIGNAL
29	–	–
30	V	AUX L
31	GR	AUX GND
32	G	AUX R
33	L/W	CAMERA GND
34	L	CAMERA ON
35	R/W	COMP- (WITH REAR VIEW CAMERA)
35	SHIELD	COMP- (WITH AROUND VIEW CAMERA)
36	R	COMP+ (WITH REAR VIEW CAMERA)
36	G	COMP+ (WITH AROUND VIEW CAMERA)
37	G/R	IGN
38	LG	M CAN1-L
39	SB	M CAN1-H
40	SHIELD	AUX SHIELD
41	SHIELD	MIC GND
42	R	MIC VCC(WITHOUT TELEMATICS)
43	W	MIC SIGNAL
44	GR	ILL (-)

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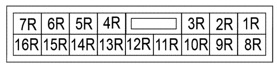
AROUND VIEW MONITOR SYSTEM CONNECTORS

Connector No.	M70
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS16FBR-CS
Connector Color	BROWN

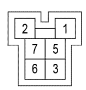
H.S.



Terminal No.	Color of Wire	Signal Name
1R	L	TAIL LAMP 2
2R	G/R	IGNITION
3R	Y/R	BATTERY
4R	–	–
5R	W	BATTERY
6R	G/W	ACCESSORY
7R	–	–
8R	–	–
9R	–	–
10R	W	BATTERY
11R	–	–
12R	BG	BATTERY
13R	B	ACCESSORY
14R	G/Y	BATTERY
15R	Y	BATTERY
16R	G/R	ACCESSORY

Connector No.	M73
Connector Name	BACK-UP LAMP RELAY
Connector Type	M06FBR-R-LC
Connector Color	BROWN

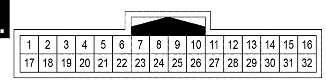
H.S.



Terminal No.	Color of Wire	Signal Name
1	G	GROUND
2	R	REV LAMP RELAY CONTROL
3	G	IGNITION
5	G/W	REVERSE
6	W/B	BATTERY
7	Y/R	REVERSE

Connector No.	M74
Connector Name	WIRE TO WIRE
Connector Type	TH32MW-NH
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
1	BR	TO FRONT DOOR RH HARNESS
2	V	TO FRONT DOOR RH HARNESS
3	BR	TO FRONT DOOR RH HARNESS
4	L	TO FRONT DOOR RH HARNESS
5	L/R	TO FRONT DOOR RH HARNESS
6	L	TO FRONT DOOR RH HARNESS
7	R/G	TO FRONT DOOR RH HARNESS
8	B	TO FRONT DOOR RH HARNESS
9	W	TO FRONT DOOR RH HARNESS
10	Y	TO FRONT DOOR RH HARNESS
11	LG	TO FRONT DOOR RH HARNESS
12	L	TO FRONT DOOR RH HARNESS
13	Y/V	TO FRONT DOOR RH HARNESS
14	W/L	TO FRONT DOOR RH HARNESS
15	V/R	TO FRONT DOOR RH HARNESS
16	L/W	TO FRONT DOOR RH HARNESS
17	SB	TO FRONT DOOR RH HARNESS
18	Y	TO FRONT DOOR RH HARNESS
19	G	TO FRONT DOOR RH HARNESS
20	V/W	TO FRONT DOOR RH HARNESS - (WITHOUT AUTOMATIC DRIVE POSITIONER)
20	GR/R	TO FRONT DOOR RH HARNESS - (WITH AUTOMATIC DRIVE POSITIONER)
21	–	TO FRONT DOOR RH HARNESS
22	–	TO FRONT DOOR RH HARNESS
23	O	TO FRONT DOOR RH HARNESS
24	R	TO FRONT DOOR RH HARNESS
25	SHIELD	TO FRONT DOOR RH HARNESS
26	W	TO FRONT DOOR RH HARNESS
27	BG	TO FRONT DOOR RH HARNESS
28	G	TO FRONT DOOR RH HARNESS
29	LG/B	TO FRONT DOOR RH HARNESS
30	–	TO FRONT DOOR RH HARNESS
31	–	TO FRONT DOOR RH HARNESS
32	–	TO FRONT DOOR RH HARNESS

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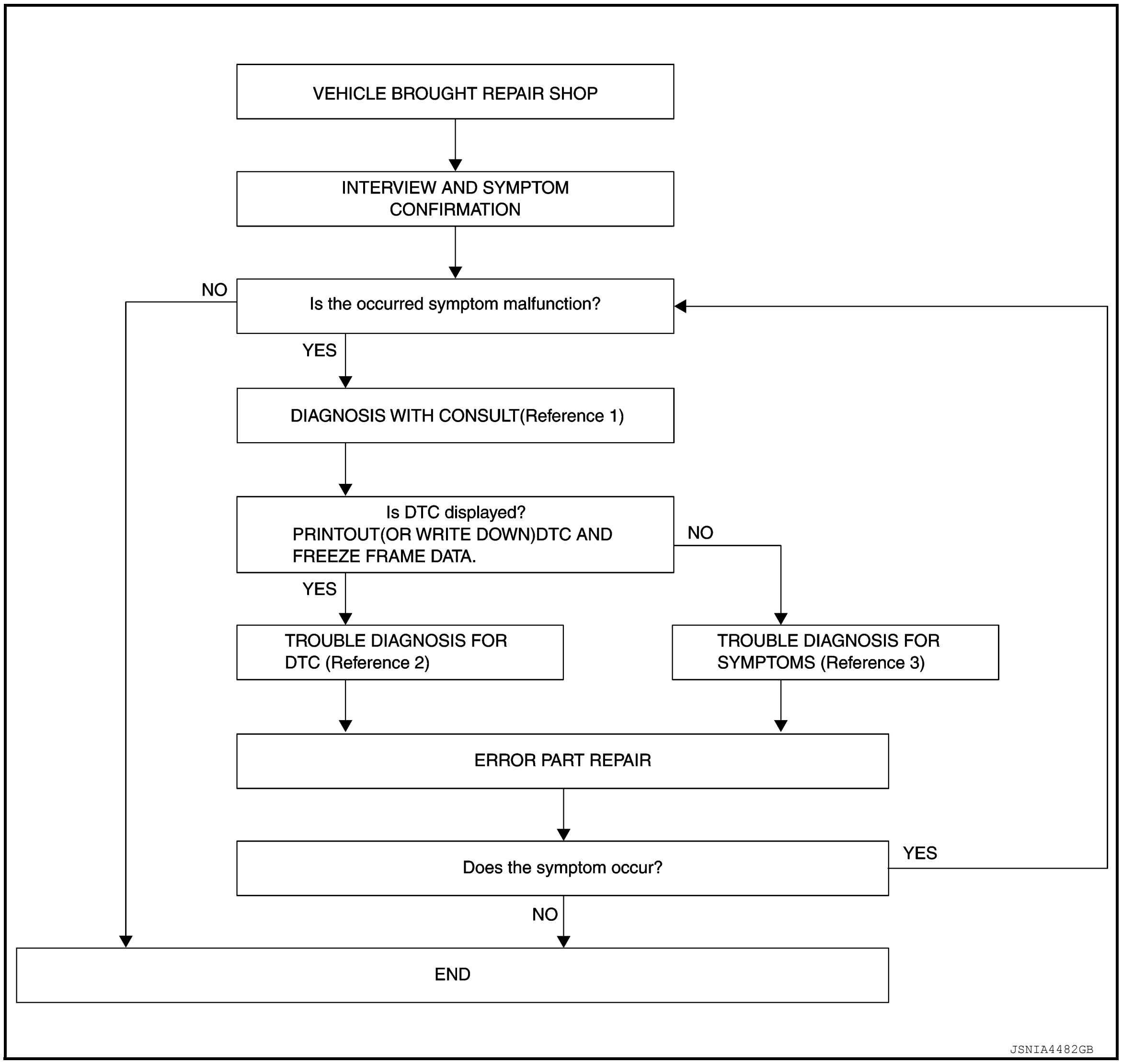
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:0000000014387033

OVERALL SEQUENCE



- Reference 1: Refer to AV-306, "CONSULT Function".
- Reference 2: Refer to AV-313, "DTC Index".
- Reference 3: Refer to AV-358, "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 “MULTI AV”. Refer to AV-306, "CONSULT Function".
   NOTE:
   Skip to step 4 of the diagnosis procedure if “MULTI AV” 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-313, "DTC Index".

>> GO TO 5.

4. TROUBLE DIAGNOSIS FOR SYMPTOMS

Perform the relevant diagnosis referring to the diagnosis chart by symptom. Refer to AV-358, "Symptom Table".

>> GO TO 5.

5. ERROR PART REPAIR

1. Repair or replace the identified malfunctioning parts.
2. Perform a self-diagnosis for “MULTI AV”.
   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:0000000014387034

When replacing around view monitor control unit, save or print current vehicle specification with CONSULT "Configuration" before replacement.

BEFORE REPLACEMENT

NOTE:
If "READ CONFIGURATION" can not be used, use the "MANUAL CONFIGURATION" after replacing around view monitor control unit

AFTER REPLACEMENT

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:0000000014387035

1.SAVING VEHICLE SPECIFICATION

CONSULT Configuration
Perform "READ CONFIGURATION" to save or print current vehicle specification. Refer to AV-331, "Description".

NOTE:
If "READ CONFIGURATION" can not be used, use "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-360, "Removal and Installation".

>> GO TO 3.

3.WRITING VEHICLE SPECIFICATION

CONSULT Configuration
Perform "WRITE CONFIGURATION - Config file" or "MANUAL CONFIGURATION" to write vehicle specification. Refer to AV-331, "Work Procedure".

>> GO TO 4.

4.CALIBRATE CAMERA IMAGE

Perform calibration of camera image. Refer to AV-332, "CALIBRATING CAMERA IMAGE (AROUND VIEW MONITOR) : Description".

>> Work End.

CONFIGURATION (AROUND VIEW MONITOR CONTROL UNIT)

Description

INFOID:0000000014387036

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:0000000014387037

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.

INSPECTION AND ADJUSTMENT

PREDICTIVE COURSE LINE CENTER POSITION ADJUSTMENT

PREDICTIVE COURSE LINE CENTER POSITION ADJUSTMENT : Description

INFOID:0000000014387038

Adjust the center position of the predictive course line of the front view and rear view monitor.

PREDICTIVE COURSE LINE CENTER POSITION ADJUSTMENT : Work Procedure

INFOID:0000000014387039

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.

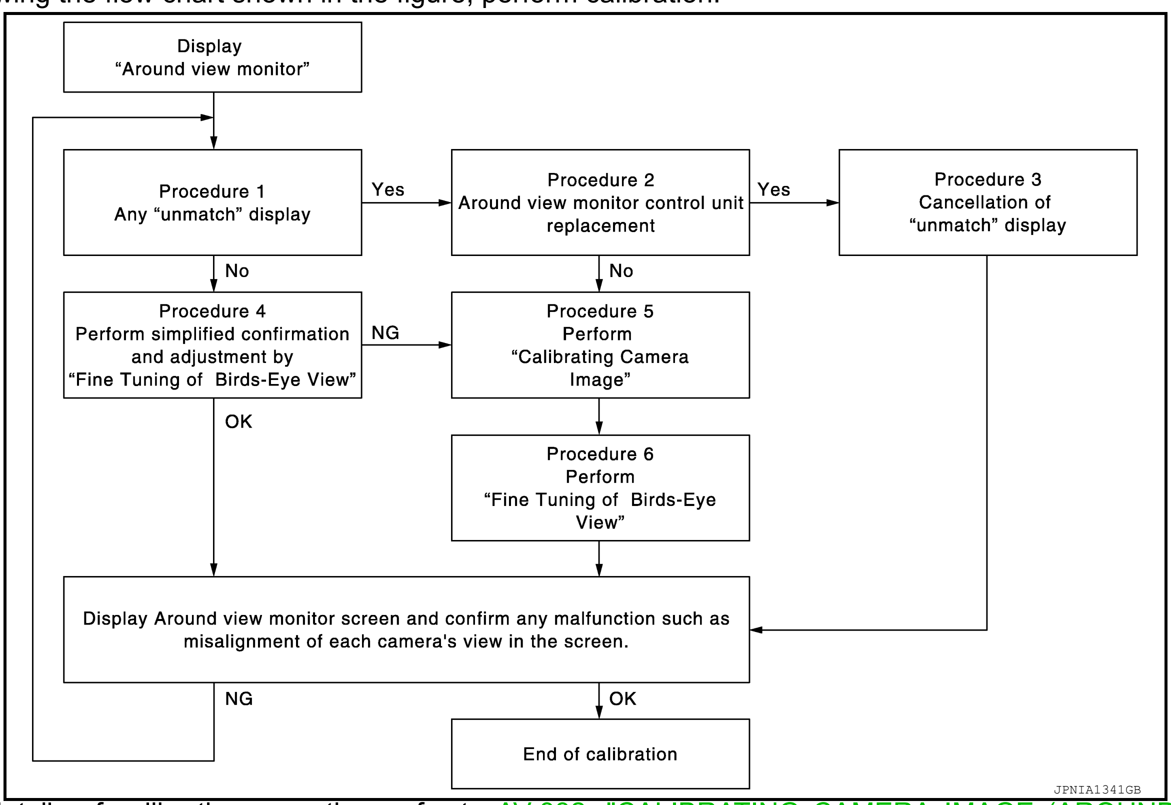
>> Work End.

CALIBRATING CAMERA IMAGE (AROUND VIEW MONITOR)

CALIBRATING CAMERA IMAGE (AROUND VIEW MONITOR) : Description

INFOID:0000000014387040

- Perform camera calibration and perform writing to the around view monitor control unit after removal/installation or replacement of each camera or camera mounting parts (front grille, door mirror, or others) or replacement of around view monitor control unit.
- By performing this camera calibration procedure, the boundary of each camera image is aligned to the white lines on the road near the vehicle. The boundary of each camera image may not be aligned to the white lines far from the vehicle. The farther the line, the greater the difference is.
- Following the flow chart shown in the figure, perform calibration:



- For details of calibration operation, refer to AV-332, "CALIBRATING CAMERA IMAGE (AROUND VIEW MONITOR) : Work Procedure".

CALIBRATING CAMERA IMAGE (AROUND VIEW MONITOR) : Work Procedure

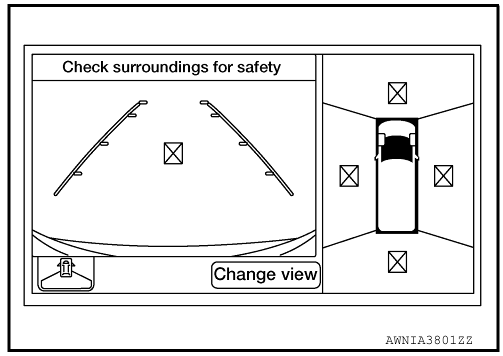
INFOID:0000000014387041

CAUTION:

When around view monitor control unit is replaced, perform the control unit setting before performing this calibration. Refer to **AV-332, "CALIBRATING CAMERA IMAGE (AROUND VIEW MONITOR) : Description"**.

1.CHECK AROUND VIEW MONITOR SCREEN

Check whether or not un-match display “⊠” is on screen.



Is un-match display on screen?

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

2.CHECK WHETHER OR NOT AROUND VIEW MONITOR CONTROL UNIT IS REPLACED

Check whether or not around view monitor control unit is replaced.

Is around view monitor control unit replaced?

YES >> GO TO 3.
NO >> GO TO 5.

3.RELEASE UN-MATCH DISPLAY (PERFORM ONLY WHEN AROUND VIEW MONITOR CONTROL UNIT IS REPLACED)

CONSULT Work Support

1. Select “CALIBRATING CAMERA IMAGE”.
   NOTE:
   In random order, perform the operation for all cameras for which un-match display "⊠" appears.
   - Front camera: “CALIBRATING CAMERA IMAGE (FRONT CAMERA)”
   - Passenger side camera: “CALIBRATING CAMERA IMAGE (PASS-SIDE CAMERA)”
   - Driver side camera: “CALIBRATING CAMERA IMAGE (DR-SIDE CAMERA)”
   - Rear camera: “CALIBRATING CAMERA IMAGE (REAR CAMERA)”
2. On each camera calibration screen, press “APPLY”, and then press “OK” button.
   CAUTION:
   - **Never perform any operation other than selecting “APPLY” button.**
   - **Never perform “INITIALIZE CAMERA IMAGE CALIBRATION”.**
3. Display the around view monitor screen. Check that images are displayed normally without any difference between images for each camera.

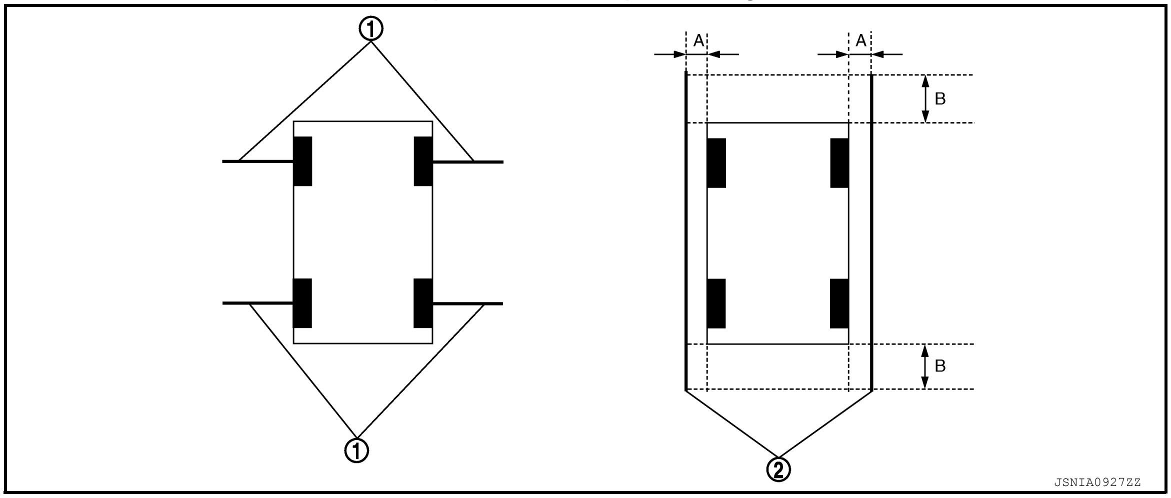
Is there a malfunction such as a difference between camera images?

YES >> Calibration end.
NO >> GO TO 1.

4.PERFORM SIMPLIFIED CONFIRMATION/ADJUSTMENT BY “FINE TUNING OF BIRDS-EYE VIEW”

1. Put target line 1 beside each axle using packing tape, etc.
2. Put target line 2 at a position approximately 30 cm (11.81 in) away from each side of the vehicle (the left and right). Check that the target line is a length equivalent to the vehicle length plus an additional approximate length of 1.0 m (39.37 in) (parallel to the vehicle as much as possible).

Preparation of simplified target line



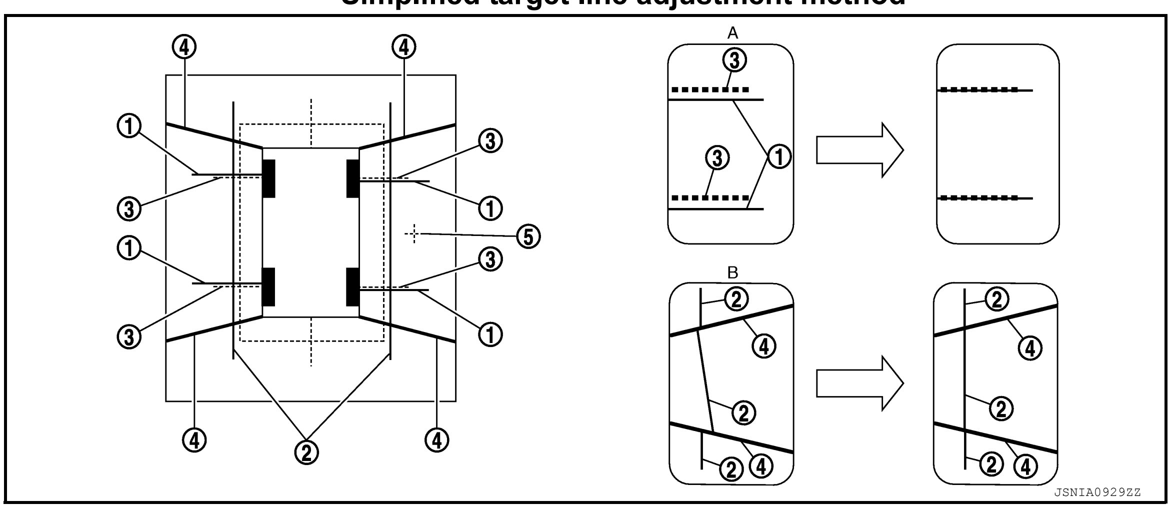
1.	Target lines 1	2.	Target lines 2
A.	Approx. 30 cm (11.81 in)	B.	Approx. 1.0 m (39.37 in)

3. CONSULT Work Support
   Select “FINE TUNING OF BIRDS-EYE VIEW”.
4. Select the left and right cameras on CONSULT screen. Perform the following calibration:
- Check that target line 1 and marker are aligned normally on screen. If difference is detected, align marker using “+” and “–” of “AXIS X” and “AXIS Y” on CONSULT screen.
- Check that target line 2 is aligned normally on screen without difference between images of each camera. If difference is detected, align images so that line 2 is displayed in a straight line using “+” and “–”of “AXIS X”, “AXIS Y”, and “ROTATE” on CONSULT screen.

NOTE:
Press “SELECT” on CONSULT screen and select camera position for adjustment.

CAUTION:
- **Never adjust the front camera and rear camera. Only adjust the side cameras LH/RH.**
- **Perform adjustment operation slowly because approximately 1 second is required for changing image on screen.**

Simplified target line adjustment method



1.	Target lines 1	2.	Target lines 2	3.	Marker for target line 1
4.	Boundary between cameras	5.	Crosshair cursor (mark indicated by the selected camera)		
A.	Adjustment method for target lines 1 (right)	B.	Adjustment method for target lines 2 (right)		

5. Adjust the left and right cameras. Check that difference of images on screen between target line 1 and marker, and between target lines 2 are solved. Press “APPLY”.

NOTE:
- The setting can be initialized to factory default condition using “CALIBRATING CAMERA IMAGE” of Work Support.
- The adjustment value on this mode is canceled when “INITIALIZE CAMERA IMAGE CALIBRATION” is performed.

Is the difference corrected?

YES >> • Select “OK” to end calibration.
CAUTION:
After selecting “OK”, never perform any operation other than “BACK” on CONSULT.

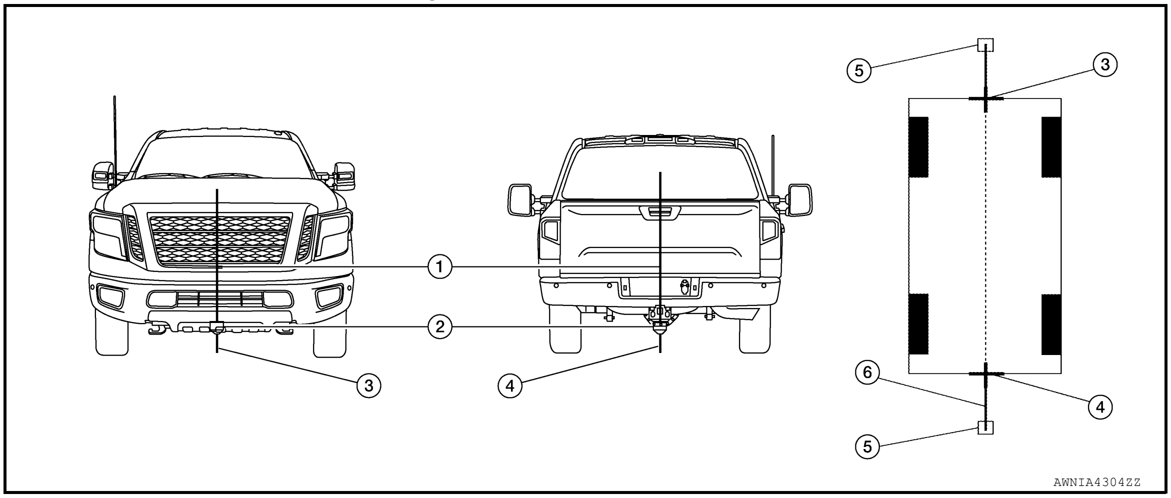
NO >> GO TO 5.

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 and RM0 (mark) on the ground at the center of the vehicle front end and rear end using white packing tape or a pen.
2. Route the vinyl string under the vehicle, and then pull and fix the vinyl string at a point approximately 1.0 m (39.37 in) at the front and rear of the vehicle through points FM0 and RM0 using packing tape.

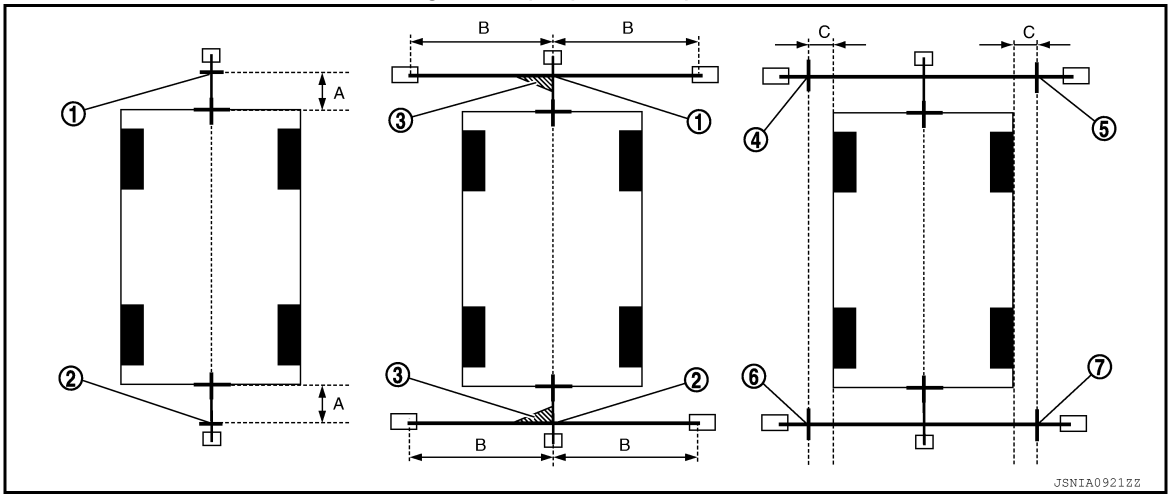
Target line preparation procedure 1



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 points FM and RM (mark) 75 cm (29.53 in) from the points FM0 and RM0 individually.
4. Route the vinyl string through points FM and RM using a triangle scale, and then fix it at approximately 1.5 m (59.06 in) on both sides with packing tape.
5. Put points FL, FR, RL, and RR (mark) at a distance of half the vehicle width, plus 30 cm (11.81 in) to the left and right from points FM and RM.

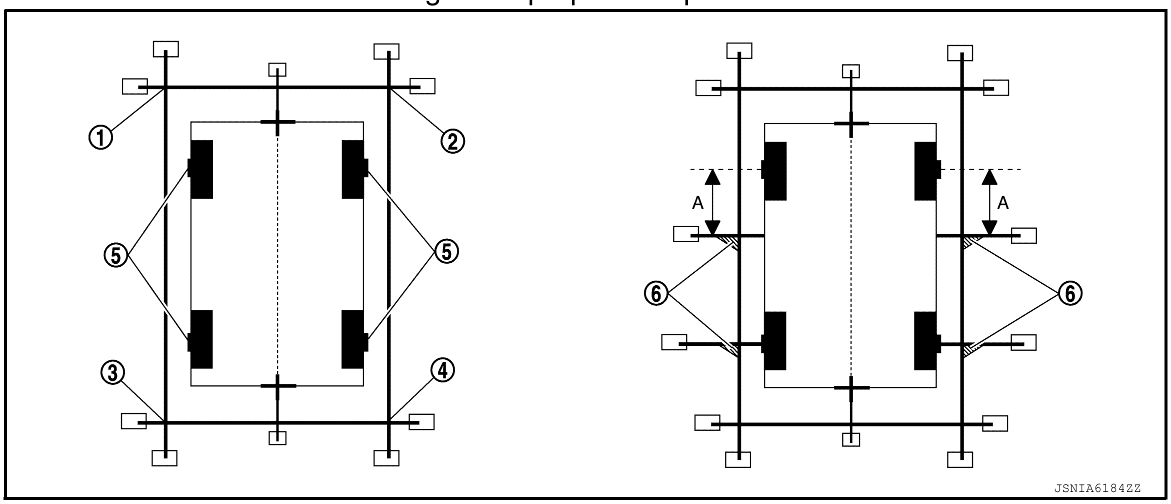
Target line preparation procedure 2



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 (29.53 in)	B.	Approximately 1.5 m (59.06 in)	C:	30 cm (11.81 in) [A half of the vehicle width plus 30 cm (11.81 in) from the points FM and RM]

6. Draw the lines of the points FL – RL and FR – RR with the vinyl string, and fix them with packing tape.
7. Put a mark at the center of front axle. Use a triangle ruler to draw a line at the position 1 m (39.37 in) backward from the mark placed at the center of front axle so that the line becomes perpendicular to the line drawn between point FL-RL and point FR-RR and fix with packing tape.
8. Put a mark at the center of rear axle. Use a triangle ruler to draw a line at the position 1 m (39.37 in) backward from the mark placed at the center of rear axle so that the line becomes perpendicular to the line drawn between point FL-RL and point FR-RR and fix with 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
A.	1 m (39.37 in)				

Perform “CALIBRATING CAMERA IMAGE”

CONSULT Work Support

1. Select “CALIBRATING CAMERA IMAGE”.
   NOTE:
   In random order, perform the operation for all cameras.
- Front camera: “CALIBRATING CAMERA IMAGE (FRONT CAMERA)”
- Passenger side camera: “CALIBRATING CAMERA IMAGE (PASS-SIDE CAMERA)”
- Driver side camera: “CALIBRATING CAMERA IMAGE (DR-SIDE CAMERA)”
- Rear camera: “CALIBRATING CAMERA IMAGE (REAR CAMERA)”
2. On each calibration screen of “REAR CAMERA”, “FRONT CAMERA”, “DR-SIDE CAMERA”, and “PASS-SIDE CAMERA”, operate “+” and “–” of “AXIS X”, “AXIS Y”, and “ROTATE” so that images on screen of target line and calibration maker are aligned.
3. Press “APPLY” on CONSULT screen. “Writing...” is displayed, and then the adjustment result is displayed on the display.
   CAUTION:
   Check that “Writing...” is displayed. Never perform other operations while “Writing...” is displayed.
4. Press “APPLY” on CONSULT screen. “Writing...” is displayed, and then the adjustment result is written to around view monitor control unit.
   CAUTION:
   Check that “Writing...” is displayed. Never perform other operations while “Writing...” is displayed.

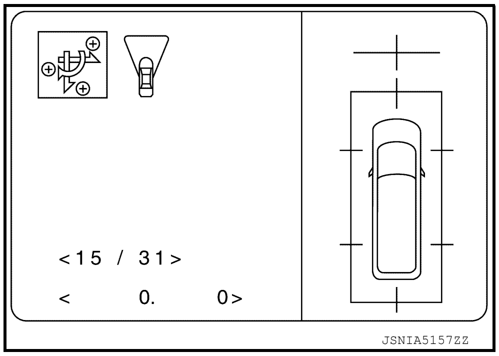
>> GO TO 6.

6.PERFORM “FINE TUNING OF BIRDS-EYE VIEW”

This mode is designed to align the boundary between each camera image that cannot be aligned in the “CALIBRATING CAMERA IMAGE” mode.

CONSULT Work Support

1. Select “FINE TUNING OF BIRDS-EYE VIEW”.
2. Operate “+” and “–” of “AXIS X”, “AXIS Y”, and “ROTATE” so that images on screen of target line on the ground and marker are aligned between each camera.
   CAUTION:
   Perform adjustment operation slowly because approximately 1 second is required for changing image on screen.
   NOTE:
   Press “SELECT” on CONSULT screen and select camera position for adjustment.



3. Press “APPLY” on CONSULT screen. “Writing...” is displayed, and then the adjustment result is displayed on the display.
   CAUTION:
   Check that “Writing...” is displayed. Never perform other operations while “Writing...” is displayed.
4. Press “APPLY” on CONSULT screen. “Writing...” is displayed, and then the adjustment result is written to around view monitor control unit.
   CAUTION:
   - **Check that “Writing...” is displayed. Never perform other operations while “Writing...” is displayed.**
   - **After selecting “OK”, never perform any operation other than “BACK” on CONSULT.**

NOTE:
- The setting can be initialized to the factory default setting using “CALIBRATING CAMERA IMAGE” of Work Support.
- The adjustment value on this mode is canceled when “INITIALIZE CAMERA IMAGE CALIBRATION” is performed.

>> Calibration end.

DTC/CIRCUIT DIAGNOSIS

U0428 STEERING ANGLE SENSOR

DTC Description

INFOID:0000000014387042

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-350, "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-338, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014387043

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-70, "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-168, "Removal and Installation".
NO >> Inspection End.

U1000 CAN COMM CIRCUIT

DTC Description

INFOID:0000000014387044

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-74, "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-340, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014387045

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-53, "Trouble Diagnosis Flow Chart".
NO >> Refer to GI-47, "Intermittent Incident".

U1010 CONTROL UNIT (CAN)

DTC Description

INFOID:0000000014387046

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-341, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014387047

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-360, "Removal and Installation".
NO >> Inspection End.

U111A REAR CAMERA IMAGE SIGNAL CIRCUIT

DTC Description

INFOID:0000000014387048

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-342, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014387049

1.CHECK CONTINUITY OF REAR VIEW CAMERA POWER SUPPLY AND GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector B83 and rear view camera connector C151.
3. Check continuity between around view monitor control unit connector B83 and rear view camera connector C151.

Around view monitor control unit		Rear view camera		Continuity
Connector	Terminal	Connector	Terminal	
B83	17	C151	2	Yes
	18		1	

4. Check continuity between around view monitor control unit connector B83 and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminal		
B83	18		No

Is the inspection result normal?

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

2.CHECK VOLTAGE OF REAR VIEW CAMERA POWER SUPPLY

1. Connect around view monitor control unit connector B83 and rear view camera connector C151.

2. Turn ignition switch ON.
3. Check voltage between around view monitor control unit connector B83 and ground.

(+)		(–)	Condition	Voltage (Approx.)
Around view monitor control unit				
Connector	Terminal			
B83	18	Ground	“CAMERA” switch is ON or shift position is “R”.	6.0 V

Is the inspection result normal?

YES >> GO TO 3.
NO >> Replace around view monitor control unit. Refer to AV-360, "Removal and Installation".

3.CHECK CONTINUITY OF REAR VIEW CAMERA IMAGE SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector B83 and rear view camera connector C151.
3. Check continuity between around view monitor control unit connector B83 and rear view camera connector C151.

Around view monitor control unit		Rear view camera		Continuity
Connector	Terminal	Connector	Terminal	
B83	19	C151	4	Yes
	20		3	

4. Check continuity between around view monitor control unit harness connector B83 and ground.

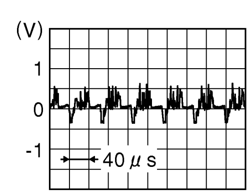
Around view monitor control unit		Ground	Continuity
Connector	Terminal		
B83	20		No

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair harness or connector.

4.CHECK REAR VIEW CAMERA IMAGE SIGNAL

1. Connect around view monitor control unit connector B83 and rear view camera connector C151.
2. Turn ignition switch ON.
3. Check signal between around view monitor control unit connector B83.

Around view monitor control unit			Condition	Reference value
Connector	(+)	(–)		
	Terminal			
B83	20	19	“CAMERA” switch is ON or shift position is “R”.	 JSNIA0834GB

Is the inspection result normal?

YES >> Replace around view monitor control unit. Refer to AV-360, "Removal and Installation".
NO >> Replace rear view camera. Refer to AV-363, "Removal and Installation".

U111B SIDE CAMERA RH IMAGE SIGNAL CIRCUIT

DTC Description

INFOID:0000000014387050

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-344, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014387051

1. CHECK CONTINUITY OF SIDE CAMERA RH POWER SUPPLY AND GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector B83 and door mirror RH connector D107.
3. Check continuity between around view monitor control unit connector B83 and door mirror RH connector D107.

Around view monitor control unit		Door mirror RH		Continuity
Connector	Terminal	Connector	Terminal	
B83	9	D107	19	Yes
	10		7	

4. Check continuity between around view monitor control unit connector B83 and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminal		
B83	10		No

Is the inspection result normal?

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

2. CHECK VOLTAGE OF SIDE CAMERA RH POWER SUPPLY

1. Connect around view monitor control unit connector B83 and door mirror RH connector D107.

2. Turn ignition switch ON.
3. Check voltage between around view monitor control unit connector B83 and ground.

(+)		(–)	Condition	Voltage (Approx.)
Around view monitor control unit				
Connector	Terminal			
B83	10	Ground	“CAMERA” switch is ON or shift position is “R”.	6.0 V

Is the inspection result normal?

YES >> GO TO 3.
NO >> Replace around view monitor control unit. Refer to AV-360, "Removal and Installation".

3.CHECK CONTINUITY OF SIDE CAMERA RH IMAGE SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector B83 and door mirror RH connector D107.
3. Check continuity between around view monitor control unit connector B83 and door mirror RH connector D107.

Around view monitor control unit		Door mirror RH		Continuity
Connector	Terminal	Connector	Terminal	
B83	11	D107	20	Yes
	12		8	

4. Check continuity between around view monitor control unit connector B83 and ground.

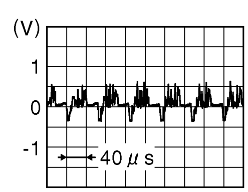
Around view monitor control unit		Ground	Continuity
Connector	Terminal		
B83	12		No

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair harness or connector.

4.CHECK SIDE CAMERA RH IMAGE SIGNAL

1. Connect around view monitor control unit connector B83 and door mirror RH connector D107.
2. Turn ignition switch ON.
3. Check signal between around view monitor control unit connector B83.

Around view monitor control unit			Condition	Reference value
Connector	(+)	(–)		
	Terminal			
B83	12	11	“CAMERA” switch is ON or shift position is “R”.	 JSNIA0834GB

Is the inspection result normal?

YES >> Replace around view monitor control unit. Refer to AV-360, "Removal and Installation".
NO >> Replace side camera RH. Refer to AV-362, "Removal and Installation".

U111C FRONT CAMERA IMAGE SIGNAL CIRCUIT

DTC Description

INFOID:0000000014387052

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U111C	FRONT CAMERA IMAGE SIG-NAL (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-346, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014387053

1. CHECK CONTINUITY OF FRONT CAMERA POWER SUPPLY AND GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector B83 and front camera connector E169.
3. Check continuity between around view monitor control unit connector B83 and front camera connector E169.

Around view monitor control unit		Front camera		Continuity
Connector	Terminal	Connector	Terminal	
B83	5	E169	1	Yes
	6		2	

4. Check continuity between around view monitor control unit connector B83 and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminal		
B83	6		No

Is the inspection result normal?

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

2. CHECK VOLTAGE OF FRONT CAMERA POWER SUPPLY

1. Connect around view monitor control unit connector B83 and front camera connector E169.

2. Turn ignition switch ON.
3. Check voltage between around view monitor control unit connector B83.

Around view monitor control unit			Condition	Voltage (Approx.)
Connector	(+) Terminal	(–) Terminal		
B83	6	5	“CAMERA” switch is ON or shift position is “R”.	6.0 V

Is the inspection result normal?

YES >> GO TO 3.
NO >> Replace around view monitor control unit. Refer to AV-360, "Removal and Installation".

3.CHECK CONTINUITY OF FRONT CAMERA IMAGE SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector B83 and front camera connector E169.
3. Check continuity between around view monitor control unit connector B83 and front camera connector E169.

Around view monitor control unit		Front camera		Continuity
Connector	Terminal	Connector	Terminal	
B83	7	E169	5	Yes
	8		4	

4. Check continuity between around view monitor control unit connector B83 and ground.

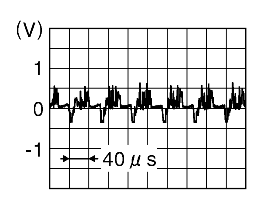
Around view monitor control unit		Ground	Continuity
Connector	Terminal		
B83	8		No

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair harness or connector.

4.CHECK FRONT CAMERA IMAGE SIGNAL

1. Connect around view monitor control unit connector B83 and front camera connector E169.
2. Turn ignition switch ON.
3. Check signal between around view monitor control unit connector B83.

Around view monitor control unit			Condition	Reference value
Connector	(+) Terminal	(–) Terminal		
B83	8	7	“CAMERA” switch is ON or shift position is “R”.	 JSNIA0834GB

Is the inspection result normal?

YES >> Replace around view monitor control unit. Refer to AV-360, "Removal and Installation".
NO >> Replace front camera. Refer to AV-361, "Removal and Installation".

U111D SIDE CAMERA LH IMAGE SIGNAL CIRCUIT

DTC Description

INFOID:0000000014387054

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-348, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014387055

1. CHECK CONTINUITY OF SIDE CAMERA LH POWER SUPPLY AND GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector B83 and door mirror LH connector D4.
3. Check continuity between around view monitor control unit connector B83 and door mirror LH connector D4.

Around view monitor control unit		Door mirror LH		Continuity
Connector	Terminal	Connector	Terminal	
B83	13	D4	19	Yes
	14		7	

4. Check continuity between around view monitor control unit harness connector B83 and ground.

Around view control module		Ground	Continuity
Connector	Terminal		
B83	14		No

Is the inspection result normal?

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

2. CHECK VOLTAGE OF SIDE CAMERA LH POWER SUPPLY

1. Connect around view monitor control unit connector B83 and door mirror LH connector D4.

2. Turn ignition switch ON.
3. Check voltage between around view monitor control unit connector B83 and ground.

Around view monitor control unit			Condition	Voltage (Approx.)
Connector	(+)	(–)		
	Terminal			
B83	14	13	“CAMERA” switch is ON or shift position is “R”.	6.0 V

Is the inspection result normal?

YES >> GO TO 3.
NO >> Replace around view monitor control unit. Refer to AV-360, "Removal and Installation".

3. CHECK CONTINUITY OF SIDE CAMERA LH IMAGE SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector B83 and door mirror LH connector D4.
3. Check continuity between around view monitor control unit connector B83 and door mirror LH connector D4.

Around view monitor control unit		Door mirror LH		Continuity
Connector	Terminal	Connector	Terminal	
B83	15	D4	20	Yes
	16		8	

4. Check continuity between around view monitor control unit connector B83 and ground.

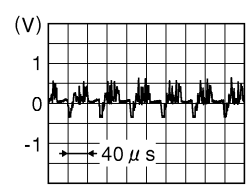
Around view monitor control unit		Ground	Continuity
Connector	Terminals		
B83	16		No

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair harness or connector.

4. CHECK SIDE CAMERA LH IMAGE SIGNAL

1. Connect around view monitor control unit connector B83 and door mirror LH connector D4.
2. Turn ignition switch ON.
3. Check signal between around view monitor control unit connector B83.

Around view monitor control unit			Condition	Reference value
Connector	(+)	(–)		
	Terminal			
B83	16	15	“CAMERA” switch is ON or shift position is “R”.	 JSNIA0834GB

Is the inspection result normal?

YES >> Replace around view monitor control unit. Refer to AV-360, "Removal and Installation".
NO >> Replace side camera LH. Refer to AV-362, "Removal and Installation".

U1232 STEERING ANGLE SENSOR

DTC Description

INFOID:0000000014387056

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-350, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014387057

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-70, "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-168, "Removal and Installation".
NO >> Inspection End.

U1302 CAMERA POWER VOLT

DTC Description

INFOID:0000000014387058

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-351, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014387059

1.CHECK CAMERA DATA MONITOR

Check CAMERA IMAGE SIG for each camera in “Data Monitor” of “AVM”.

Is “OK” displayed for all cameras?

YES >> Refer to GI-47, "Intermittent Incident".
NO-1 (Front camera)>>GO TO 2.
NO-2 (Rear view camera)>>GO TO 4.
NO-3 (LH side camera)>>GO TO 6.
NO-4 (RH side camera)>>GO TO 8.

2.CHECK FRONT CAMERA POWER SUPPLY AND POWER SUPPLY GROUND CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector B83 and front camera connector E169.
3. Check continuity between around view monitor control unit connector B83 and front camera connector E169.

Around view monitor control unit		Front camera		Continuity
Connector	Terminal	Connector	Terminal	
B83	6	E169	2	Yes
	5		1	

4. Check continuity between around view monitor control unit connector B83 and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminal		
B83	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

1. Connect around view monitor control unit connector B83 and front camera connector E169.
2. Turn ignition switch ON.
3. Check voltage between around view monitor control unit connector B83 terminals.

Around view monitor control unit B83		Condition	Voltage (Approx.)
(+)	(–)		
Terminal	Terminal		
6	5	CAMERA switch is ON or shift position is R.	6.2 V

Is the inspection result normal?

YES >> Replace front camera. Refer to AV-361, "Removal and Installation".
NO >> Replace around view monitor control unit. Refer to AV-360, "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 B83 and rear view camera connector C151.
3. Check continuity between around view monitor control unit connector B83 and rear view camera connector C151.

Around view monitor control unit		Rear view camera		Continuity
Connector	Terminal	Connector	Terminal	
B83	18	C151	1	Yes
	17		2	

4. Check continuity between around view monitor control unit connector B83 and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminal		
B83	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

1. Connect around view monitor control unit connector B83 and rear view camera connector C151.
2. Turn ignition switch ON.
3. Check voltage between around view monitor control unit connector B83 terminals.

Around view monitor control unit B83		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-363, "Removal and Installation".
NO >> Replace around view monitor control unit. Refer to AV-360, "Removal and Installation".

6.CHECK LH SIDE CAMERA POWER SUPPLY AND POWER SUPPLY GROUND CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector B83 and LH side camera connector D4.
3. Check continuity between around view monitor control unit connector B83 and LH side camera connector D4.

Around view monitor control unit		LH side camera		Continuity
Connector	Terminal	Connector	Terminal	
B83	14	D4	7	Yes
	13		19	

4. Check continuity between around view monitor control unit connector B83 and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminal		
B83	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

1. Connect around view monitor control unit connector B83 and LH side camera connector D4.
2. Turn ignition switch ON.
3. Check voltage between around view monitor control unit connector B83 terminals.

Around view monitor control unit B83		Condition	Voltage (Approx.)
(+)	(–)		
Terminal	Terminal		
14	13	CAMERA switch is ON or shift position is R.	6.2 V

Is the inspection result normal?

YES >> Replace LH side camera. Refer to AV-362, "Removal and Installation".
NO >> Replace around view monitor control unit. Refer to AV-360, "Removal and Installation".

8.CHECK RH SIDE CAMERA POWER SUPPLY AND POWER SUPPLY GROUND CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect around view monitor control unit connector B83 and RH side camera connector D107.
3. Check continuity between around view monitor control unit connector B83 and RH side camera connector D107.

Around view monitor control unit		RH side camera		Continuity
Connector	Terminal	Connector	Terminal	
B83	10	D107	7	Yes
	9		19	

4. Check continuity between around view monitor control unit connector B83 and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminal		
B83	10	—	No

Is the inspection result normal?

YES >> GO TO 9.
NO >> Repair or replace harness or connectors.

9.CHECK AROUND VIEW MONITOR CONTROL UNIT VOLTAGE

1. Connect around view monitor control unit connector B83 and RH side camera connector D107.
2. Turn ignition switch ON.
3. Check voltage between around view monitor control unit connector B83 terminals.

Around view monitor control unit B83		Condition	Voltage (Approx.)
(+)	(–)		
Terminal	Terminal		
10	9	CAMERA switch is ON or shift position is R.	6.2 V

Is the inspection result normal?

YES >> Replace LH side camera. Refer to AV-362, "Removal and Installation".
NO >> Replace around view monitor control unit. Refer to AV-360, "Removal and Installation".

U1304 CAMERA IMAGE CALIBRATION

DTC Description

INFOID:0000000014387060

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-355, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014387061

1.PERFORM CALIBRATING CAMERA IMAGE

Perform camera calibration. Refer to AV-332, "CALIBRATING CAMERA IMAGE (AROUND VIEW MONITOR) : Description".

>> 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 U1304 detected?

YES >> Replace malfunctioning camera.
NO >> Inspection End.

U1305 CONFIG UNFINISH

DTC Description

INFOID:0000000014387062

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-356, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014387063

1.PERFORM CONFIGURATION OF AROUND VIEW MONITOR CONTROL UNIT

Perform configuration of around view monitor control unit. Refer to AV-331, "Work Procedure".

>> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE AGAIN

CONSULT
1. Turn ignition switch ON.
2. Erase DTC.
3. Select “Self Diagnostic Result” mode of “AVM”.
4. Check DTC.

Is DTC U1305 detected?

YES >> Replace around view monitor control unit. Refer to AV-360, "Removal and Installation".
NO >> Inspection End.

POWER SUPPLY AND GROUND CIRCUIT

Diagnosis Procedure

INFOID:0000000014387064

1.CHECK FUSE

Check that the following fuses are not blown.

Terminal No.	Signal name	Fuse No.
40	Ignition signal	29 (5A)

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 B83.
3. Check voltage between around view monitor control unit connector B83 and ground.

Around view monitor control unit		Ground	Condition	Voltage (Approx.)
Connector	Terminal			
B83	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 B83 and ground.

Around view monitor control unit		Ground	Continuity
Connector	Terminal		
B83	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:0000000014387065

AROUND VIEW MONITOR SYSTEM

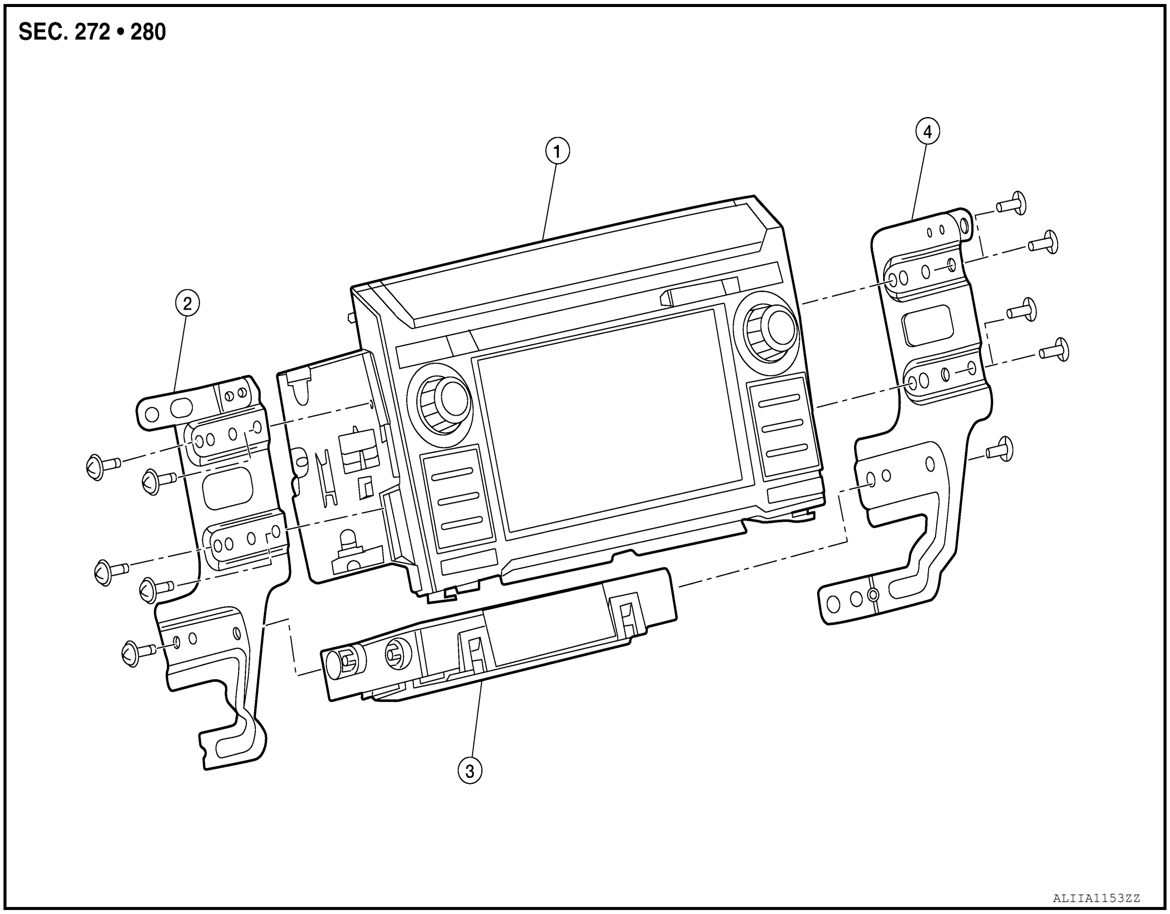
Symptom	Check items		Probable malfunction location
Screen is not switched to camera image when CAMERA button is pressed and when shift position is shifted to the reverse position.	“AVM” is not displayed on the system selection screen of CONSULT.		Around view monitor control unit power supply circuit • BAT power supply circuit • Ignition power supply circuit
	Check that the following Data Monitor items operate normally using CONSULT: • Camera switch signal • Reverse signal	Camera switch signal and reverse signal are normal.	Around view monitor control unit
		Camera switch signal or reverse signal is not normal.	CAN communication circuit
Screen is switched when pressing camera button or shifting selector lever to the reverse position; however, all views are not displayed.	Only superimposing is displayed (only images that AV control unit plots are displayed).		Camera image signal circuit Refer to AV-342, "Diagnosis Procedure", AV-344, "Diagnosis Procedure", AV-346, "Diagnosis Procedure", AV-348, "Diagnosis Procedure".
	Superimposing is not displayed.		AV control unit Refer to AV-328, "Work Flow".
The screen is not switched to the rear view image even if the selector is shifted to the reverse position.	The front view is displayed normally.		Reverse signal circuit.
• Front view screen is not displayed. • Front of top view screen is not displayed.	Check the following Data Monitor items using CONSULT: • Front camera image signal	• Image signal: NG	Front camera power supply circuit and image signal circuit Refer to AV-346, "Diagnosis Procedure".
• The rear view screen is not displayed. • Rear of top view screen is not displayed.	Check the following Data Monitor items using CONSULT: • Rear camera image signal	• Image signal: NG	Rear camera power supply circuit and image signal circuit Refer to AV-342, "Diagnosis Procedure".
• The side view screen is not displayed. • Left side of top view screen is not displayed.	Check the following Data Monitor items using CONSULT: • Side camera LH image signal	• Image signal: NG	Side camera LH power supply circuit and image signal circuit Refer to AV-348, "Diagnosis Procedure".
Right side of top view image is not displayed.	Check the following Data Monitor items using CONSULT: • Side camera RH image signal	• Image signal: NG	Side camera RH power supply circuit and image signal circuit. Refer to AV-344, "Diagnosis Procedure".

REMOVAL AND INSTALLATION

AV CONTROL UNIT

Exploded View

INFOID:0000000014387066



1. AV control unit
2. AV control unit bracket (LH)
3. A/C auto amp.
4. AV control unit bracket (RH)

Removal and Installation

INFOID:0000000014387067

REMOVAL

CAUTION:

Before replacing AV control unit, perform "ADDITIONAL SERVICE WHEN REPLACING AV CONTROL UNIT" to save current vehicle specification. Refer to AV-110, "ADDITIONAL SERVICE WHEN REPLACING AV CONTROL UNIT : Description".

1. Disconnect battery or batteries. Refer to PG-185, "Battery Disconnect".
2. Remove cluster lid C lower. Refer to IP-17, "CLUSTER LID C LOWER : Removal and Installation".
3. Remove A/C switch assembly. Refer to HAC-121, "Removal and Installation".
4. Remove AV control unit bracket screws, then pull out AV control unit.
5. Disconnect harness connectors from AV control unit and remove AV control unit.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

After replacing AV control unit, perform "ADDITIONAL SERVICE WHEN REPLACING AV CONTROL UNIT" to configure and register AV control unit. Refer to AV-110, "ADDITIONAL SERVICE WHEN REPLACING AV CONTROL UNIT : Description".

AROUND VIEW MONITOR CONTROL UNIT

Removal and Installation

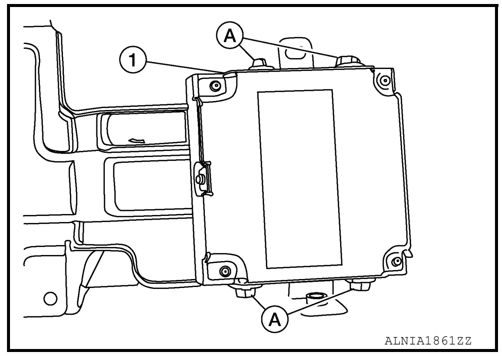
INFOID:0000000014387068

REMOVAL

CAUTION:

Before replacing around view monitor control unit, perform "ADDITIONAL SERVICE WHEN REPLACING AROUND VIEW MONITOR CONTROL UNIT" to save current vehicle specification. Refer to AV-330, "Description".

1. Remove front seat (LH). Refer to SE-100, "Removal and Installation - Captain Seats".
2. Remove around view monitor control unit screws (A).
3. Disconnect harness connectors from around view monitor control unit (1) and remove around view monitor control unit.



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

- **Be sure to perform "After Replace ECU" of "Read / Write Configuration" or "Manual Configuration" when replacing around view monitor control unit. Refer to AV-330, "Description".**
- **Perform the calibration and perform the writing to the around view monitor control unit when removing and replacing each camera, removing the camera mounting parts (front grille, door mirror, etc.) and replacing the around view monitor control unit. Refer to AV-332, "CALIBRATING CAMERA IMAGE (AROUND VIEW MONITOR) : Description".**

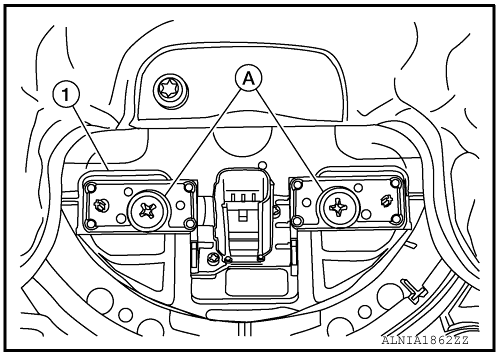
FRONT CAMERA

Removal and Installation

INFOID:0000000014387069

REMOVAL

1. Remove front grille. Refer to EXT-32, "Removal and Installation".
2. Remove screws (A) and remove front camera (1).



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

Perform the calibration and perform the writing to the around view monitor control unit when removing and replacing each camera, removing the camera mounting parts (front grille, door mirror, etc.) and replacing the around view monitor control unit. Refer to AV-332, "CALIBRATING CAMERA IMAGE (AROUND VIEW MONITOR) : Description".

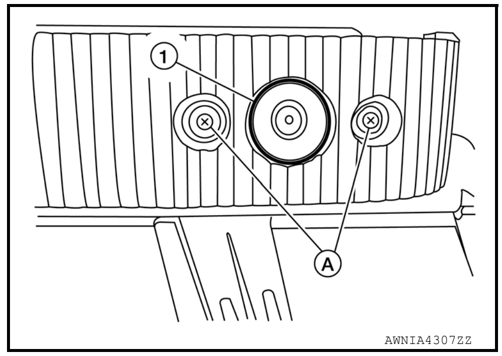
SIDE CAMERA

Removal and Installation

INFOID:0000000014387070

REMOVAL

1. Remove door mirror rear finisher. Refer to MIR-37, "Removal and Installation".
2. Remove screws (A).
3. Disconnect harness connector from side camera and remove side camera (1).



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

Perform the calibration and perform the writing to the around view monitor control unit when removing and replacing each camera, removing the camera mounting parts (front grille, door mirror, etc.) and replacing the around view monitor control unit. Refer to AV-332, "CALIBRATING CAMERA IMAGE (AROUND VIEW MONITOR) : Description".

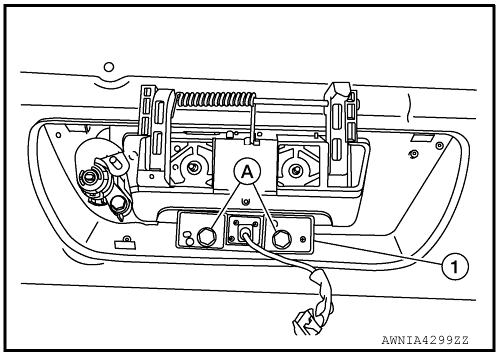
REAR CAMERA

Removal and Installation

INFOID:0000000014387071

REMOVAL

1. Remove tailgate handle. Refer to DLK-183, "TAILGATE HANDLE : Removal and Installation".
2. Remove screws (A) from rear camera (1).
3. Disconnect harness connector from rear camera and remove rear camera.



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

Perform the calibration and perform the writing to the around view monitor control unit when removing and replacing each camera, removing the camera mounting parts (front grille, door mirror, etc.) and replacing the around view monitor control unit. Refer to AV-332, "CALIBRATING CAMERA IMAGE (AROUND VIEW MONITOR) : Description".

PRECAUTION

PRECAUTIONS

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

INFOID:0000000014387072

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

INFOID:0000000014387073

CAUTION:
Remove battery terminal or terminals 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 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:0000000014387074

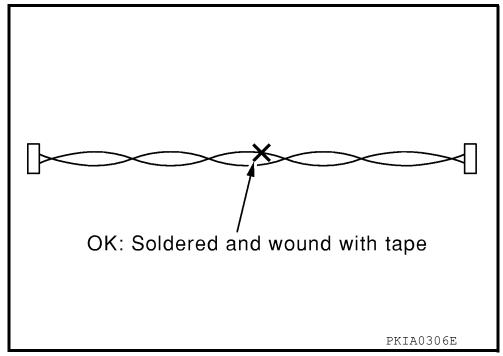
M-CAN COMMUNICATION SYSTEM
- Do not apply voltage of 7.0 V or higher to the measurement terminals.
- Use the tester with its open terminal voltage being 7.0 V or less.
- Be sure to turn ignition switch OFF and disconnect the battery cable or cables from the negative terminal or terminals before checking the circuit. Refer to PG-185, "Battery Disconnect".

Precaution for Harness Repair

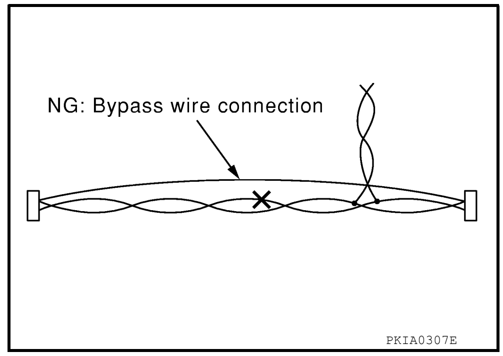
INFOID:0000000014387075

M-CAN 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:0000000014387076

- 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.

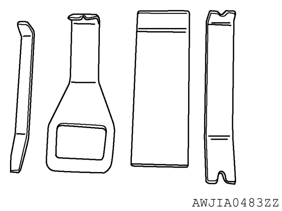
PREPARATION

PREPARATION

Special Service Tools

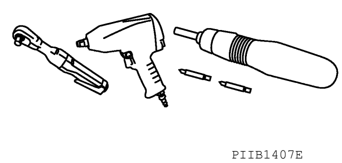
INFOID:0000000014387077

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

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

Commercial Service Tools

INFOID:0000000014387078

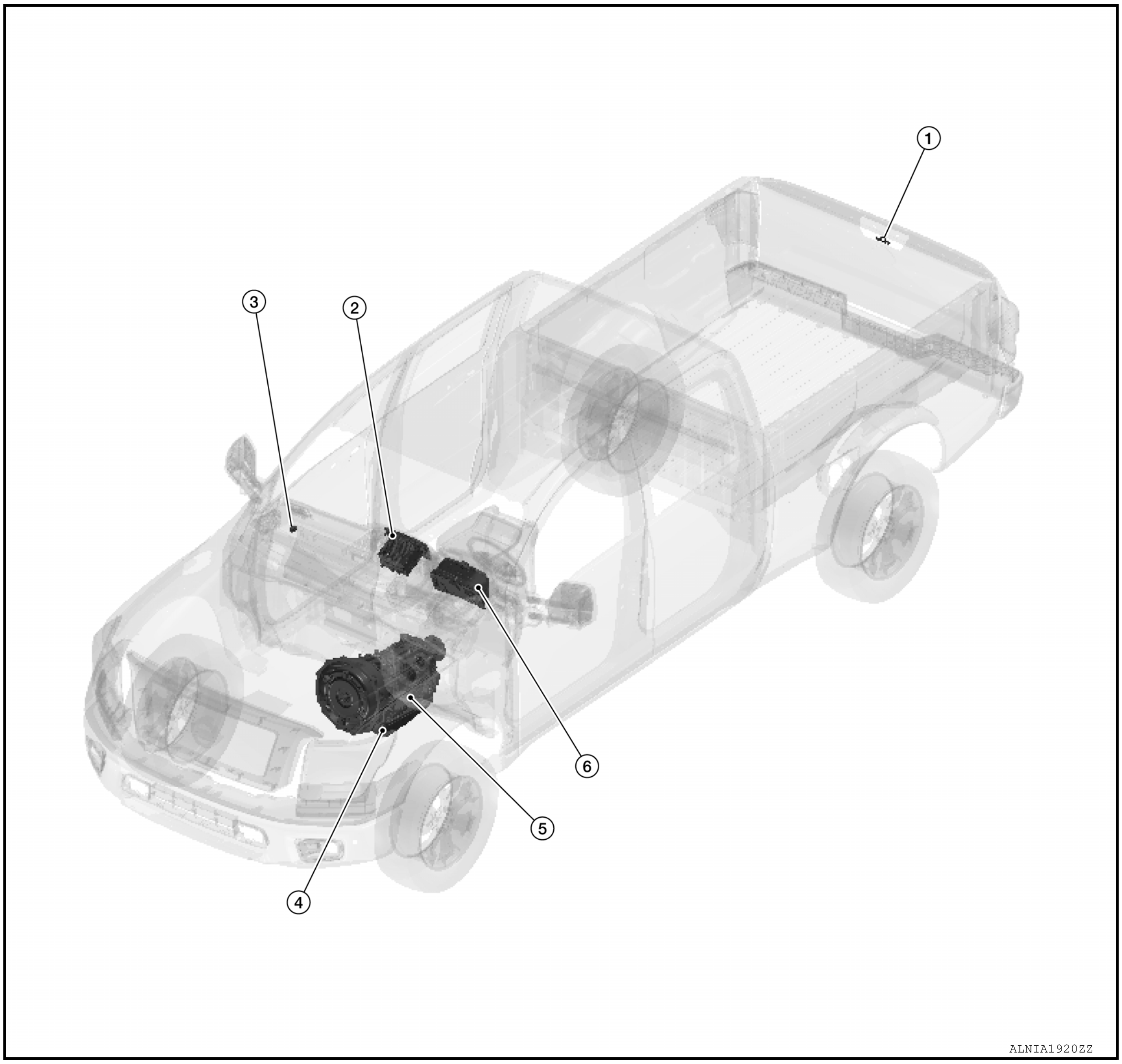
Tool name		Description
Power tool		Loosening nuts, screws and bolts

SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

INFOID:0000000014387079



No.	Component	Function
1.	Rear view camera	Refer to AV-368, "Rear View Camera".
2.	AV control unit	Refer to AV-367, "AV Control Unit".
3.	Back-up lamp relay	Supplies the reverse signal to the AV control unit.
4.	A/T assembly (VK56VD)	Refer to TM-267, "A/T CONTROL SYSTEM : Transmission Range Switch".
5.	Transmission range switch (Cummins 5.0L)	Refer to TM-17, "A/T CONTROL SYSTEM : Transmission Range Switch".
6.	Combination meter	Refer to MWI-12, "METER SYSTEM : Combination Meter".

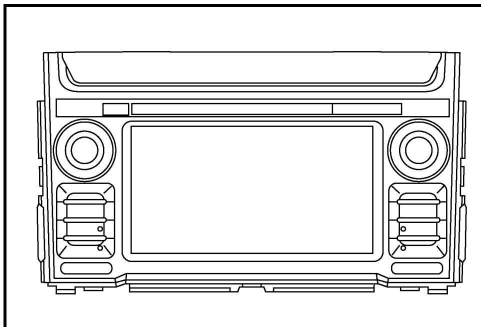
AV Control Unit

INFOID:0000000014387080

Description

- A 7-inch QVGA display, an AM/FM electronic tuner radio, CD drive, audio amplifier, Bluetooth® module, 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.

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



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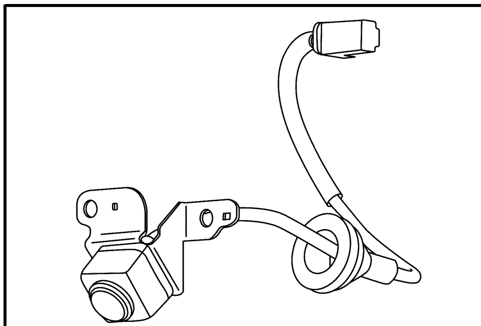
Rear View Camera

INFOID:0000000014387081

- The rear view camera is installed next to the tailgate handle.
- Power for the camera is supplied from the AV control unit and the image at the rear of the vehicle is sent to the AV control unit.



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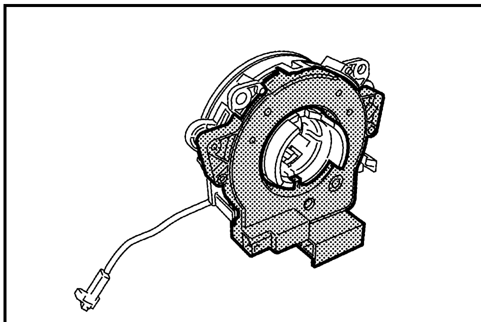
Steering Angle Sensor

INFOID:0000000014387082

- Steering angle sensor is installed to the spiral cable.
- Steering angle sensor sends the steering signal necessary for predictive course line of the rear view monitor to the AV control unit via CAN communication.



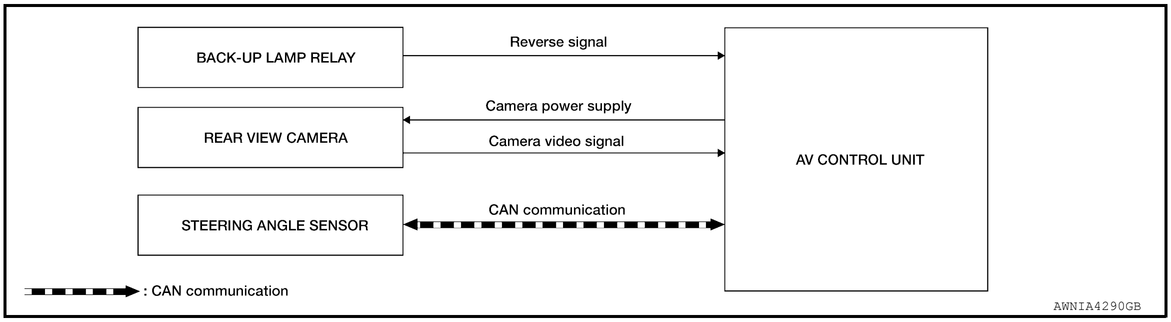
JSNIA1571ZZ

SYSTEM

System Description

INFOID:0000000014387083

SYSTEM DIAGRAM



DESCRIPTION

Operation Description

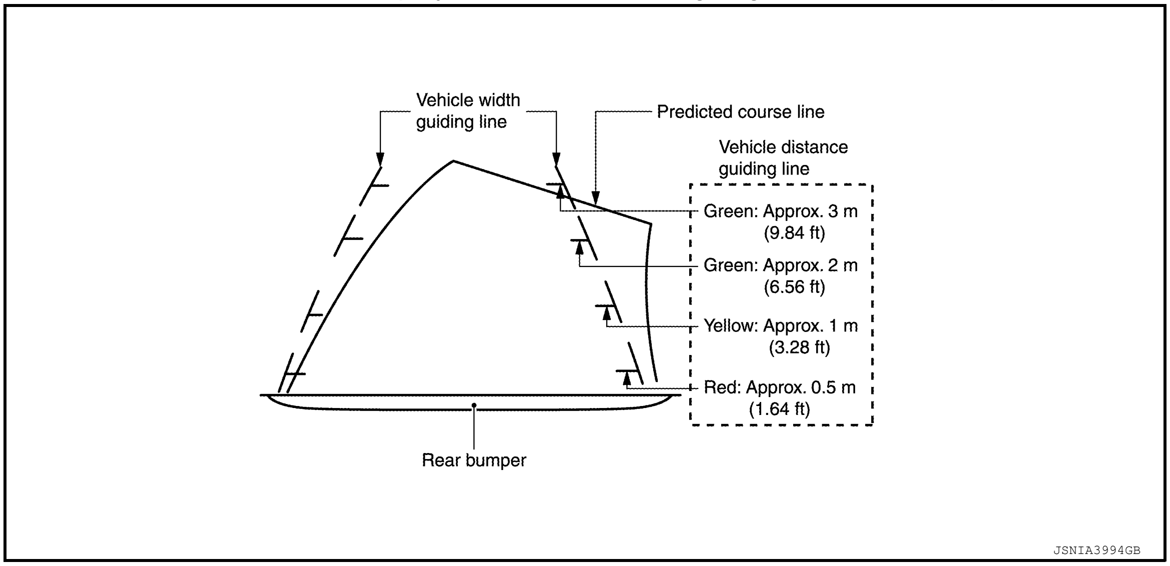
- When the selector lever is shifted to the reverse position, the rear view monitor image is displayed.
- When the selector lever is shifted to any position other than the reverse position, the original image (the image displayed before the rear view monitor image) is displayed.

Camera Image Operation Principle

- The AV control unit receives the reverse signal input and supplies power to the rear view camera.
- The AV control unit displays the rear view camera image when the reverse signal is received.
- The AV control 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 of Rear View Monitor Display

- The vehicle width guide lines and the predicted course lines that indicate the vehicle route according to the steering angle are displayed on the rear view monitor display to allow the driver to more easily judge distances between the vehicle and objects and help the driver back into a parking space.
- The AV control unit receives the steering signal from the steering sensor via CAN communication and draws a vehicle width guide line according to the steering angle.
- When the vehicle width guide lines are displayed, the vehicle width guide lines are displayed translucently.
- The predicted course lines are not displayed when the steering angle is in the neutral position.



DIAGNOSIS SYSTEM (AV CONTROL UNIT)

Description

INFOID:0000000014387084

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	—	Calibration of the touch panel display can be performed.
	Screenshot to USB	—	A screenshot of the display can be saved to USB memory.
	Time Interval	—	Destination time interval can be selected.
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 acces. • Power Supply • Speed Signal • Direction Signal • Illumination Signal • GPS Antenna • GPS tracking • Satellites visible • Satellites tracked • Microphone Current • Steer. wheel key • Radio Antenna • #No translation requi... • SXM Antenna • USB Device • iPod firmware ver. • 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 • GPS Antenna • Radio 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.

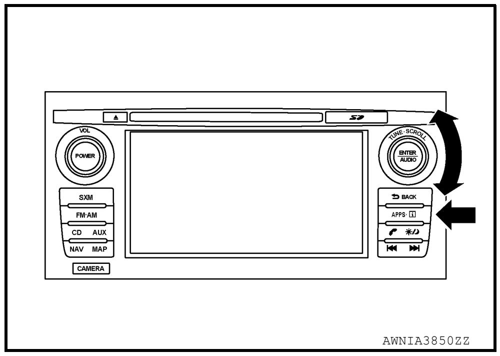
On Board Diagnosis Function

INFOID:0000000014387085

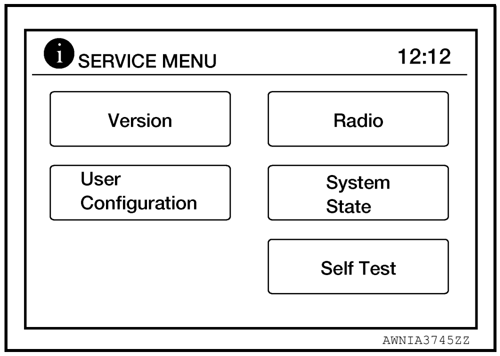
METHOD OF STARTING

1. Turn the ignition ON.

2. Turn the audio system OFF.
3. While pressing the APPS button, turn the TUNE-SCROLL dial counterclockwise 5 or more clicks, then clockwise 5 or more clicks, then counterclockwise 5 or more clicks. Shifting from current screen to previous screen is performed by pressing BACK button.



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



CONSULT Function

INFOID:0000000014387086

CAUTION:

After disconnecting the CONSULT vehicle interface (VI) from the data link connector, the ignition must be cycled OFF → ON (for at least 5 seconds) → OFF. If this step is not performed, the BCM may not go to ”sleep mode”, potentially causing a discharged battery and no-start condition.

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-93, "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.

Monitor Item [Unit]	Description
IGN SIG [On/Off]	Indicates condition of ignition signal.
REV SIG [On/Off]	Indicates condition of reverse signal received from BCM.

CONFIGURATION

Refer to AV-111, "CONFIGURATION (AV CONTROL UNIT) : Description".

CAN DIAG SUPPORT MNTR

Refer to LAN-50, "CAN Diagnostic Support Monitor".

ECU DIAGNOSIS INFORMATION

AV CONTROL UNIT

List of ECU Reference

INFOID:0000000014387087

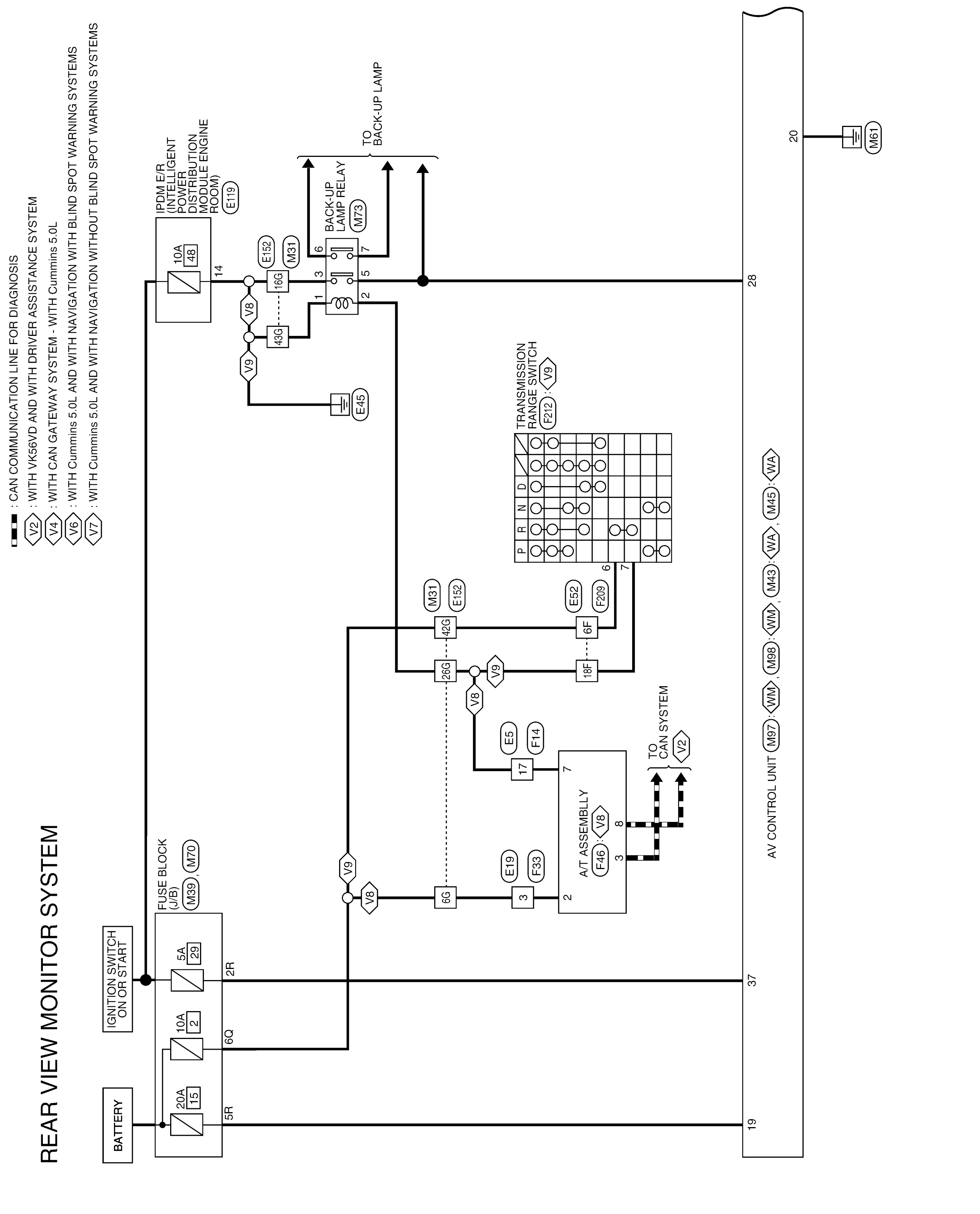
ECU	Reference
AV control unit (Navigation without amplifier)	AV-90, "Reference Value"
	AV-93, "DTC Index"
AV control unit (Navigation with amplifier)	AV-183, "Reference Value"
	AV-187, "DTC Index"

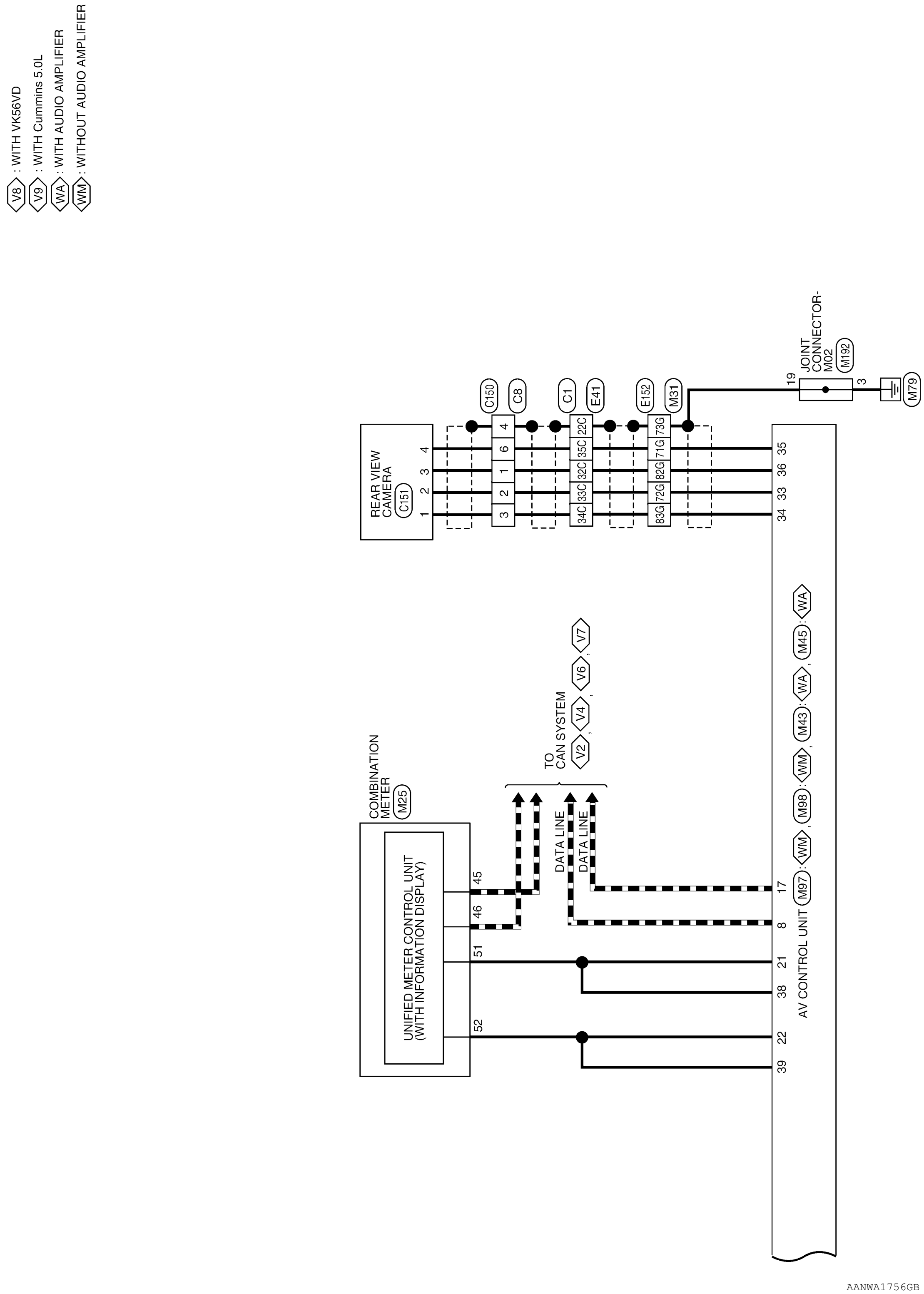
WIRING DIAGRAM

REAR VIEW MONITOR SYSTEM

Wiring Diagram

INFOID:0000000014387088





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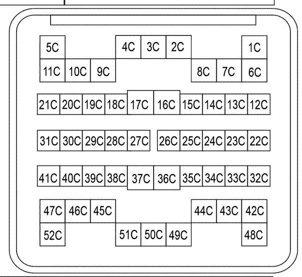
REAR VIEW MONITOR SYSTEM CONNECTORS

Connector No.	C1
Connector Name	WIRE TO WIRE
Connector Type	RK26FGY-RS20-X6
Connector Color	GRAY

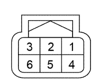
H.S.



Terminal No.	Color of Wire	Signal Name
1C	Y/V	TO ENGINE ROOM HARNESS
2C	W/L	TO ENGINE ROOM HARNESS
3C	B	TO ENGINE ROOM HARNESS
4C	BR/W	TO ENGINE ROOM HARNESS
5C	BR/Y	TO ENGINE ROOM HARNESS
6C	Y	TO ENGINE ROOM HARNESS
7C	G/R	TO ENGINE ROOM HARNESS - (WITH CUMMINS 5.0L)
7C	R	TO ENGINE ROOM HARNESS - (WITH VK56VD)
8C	B	TO ENGINE ROOM HARNESS - (WITH CUMMINS 5.0L)
8C	O/B	TO ENGINE ROOM HARNESS - (WITH VK56VD)
9C	W/L	TO ENGINE ROOM HARNESS - (WITH CUMMINS 5.0L)
9C	SB	TO ENGINE ROOM HARNESS - (WITH VK56VD)
10C	GR/R	TO ENGINE ROOM HARNESS - (WITH CUMMINS 5.0L)
10C	GR	TO ENGINE ROOM HARNESS - (WITH VK56VD)
11C	B	TO ENGINE ROOM HARNESS - (WITH CUMMINS 5.0L)
11C	R/W	TO ENGINE ROOM HARNESS - (WITH VK56VD)
12C	Y	TO ENGINE ROOM HARNESS
13C	B	TO ENGINE ROOM HARNESS
14C	BG	TO ENGINE ROOM HARNESS
15C	Y	TO ENGINE ROOM HARNESS
16C	B	TO ENGINE ROOM HARNESS
17C	V	TO ENGINE ROOM HARNESS
18C	BG	TO ENGINE ROOM HARNESS
19C	L	TO ENGINE ROOM HARNESS
20C	W	TO ENGINE ROOM HARNESS
21C	LG	TO ENGINE ROOM HARNESS
22C	SHIELD	TO ENGINE ROOM HARNESS
23C	G/B	TO ENGINE ROOM HARNESS
24C	G/B	TO ENGINE ROOM HARNESS
25C	W	TO ENGINE ROOM HARNESS
26C	B	TO ENGINE ROOM HARNESS
27C	LG	TO ENGINE ROOM HARNESS
28C	G/W	TO ENGINE ROOM HARNESS
29C	R/LG	TO ENGINE ROOM HARNESS
30C	R/L	TO ENGINE ROOM HARNESS
31C	B	TO ENGINE ROOM HARNESS
32C	R	TO ENGINE ROOM HARNESS
33C	L/W	TO ENGINE ROOM HARNESS
34C	L	TO ENGINE ROOM HARNESS
35C	R/W	TO ENGINE ROOM HARNESS
36C	L	TO ENGINE ROOM HARNESS
37C	Y	TO ENGINE ROOM HARNESS
38C	GR	TO ENGINE ROOM HARNESS
39C	R	TO ENGINE ROOM HARNESS
40C	P	TO ENGINE ROOM HARNESS
41C	V	TO ENGINE ROOM HARNESS
42C	LG/B	TO ENGINE ROOM HARNESS
43C	Y/B	TO ENGINE ROOM HARNESS
44C	R	TO ENGINE ROOM HARNESS
45C	G	TO ENGINE ROOM HARNESS
46C	BR	TO ENGINE ROOM HARNESS
47C	B	TO ENGINE ROOM HARNESS
48C	Y/R	TO ENGINE ROOM HARNESS
49C	R/Y	TO ENGINE ROOM HARNESS - (WITH CUMMINS 5.0L)
49C	V	TO ENGINE ROOM HARNESS - (WITH VK56VD)
50C	B	TO ENGINE ROOM HARNESS - (WITH CUMMINS 5.0L)
50C	B/Y	TO ENGINE ROOM HARNESS - (WITH VK56VD)
51C	V	TO ENGINE ROOM HARNESS - (WITH CUMMINS 5.0L)
51C	B	TO ENGINE ROOM HARNESS - (WITH VK56VD)
52C	V/W	TO ENGINE ROOM HARNESS

Connector No.	C8
Connector Name	WIRE TO WIRE
Connector Type	RH06FB-1V
Connector Color	BLACK

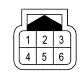
H.S.



Terminal No.	Color of Wire	Signal Name
1	R	TO CHASSIS SUB HARNESS
2	L/W	TO CHASSIS SUB HARNESS
3	L	TO CHASSIS SUB HARNESS
4	SHIELD	TO CHASSIS SUB HARNESS
5	G	TO CHASSIS SUB HARNESS
6	R/W	TO CHASSIS SUB HARNESS

Connector No.	C150
Connector Name	WIRE TO WIRE
Connector Type	RH06MB-1V
Connector Color	BLACK

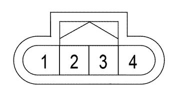
H.S.



Terminal No.	Color of Wire	Signal Name
1	R	TO CHASSIS HARNESS
2	L/W	TO CHASSIS HARNESS
3	L	TO CHASSIS HARNESS
4	SHIELD	TO CHASSIS HARNESS
5	G	TO CHASSIS HARNESS
6	R/W	TO CHASSIS HARNESS

Connector No.	C151
Connector Name	REAR VIEW CAMERA
Connector Type	RH04FB
Connector Color	BLACK

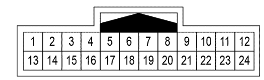
H.S.



Terminal No.	Color of Wire	Signal Name
1	L	REAR VIEW CAMERA POWER
2	L/W	GROUND
3	R	REAR VIEW CAMERA VIDEO +
4	R/W	REAR VIEW CAMERA VIDEO -

Connector No.	E5
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
1	L/R	TO ENGINE CONTROL HARNESS
2	BR	TO ENGINE CONTROL HARNESS
3	V	TO ENGINE CONTROL HARNESS
4	L/O	TO ENGINE CONTROL HARNESS
5	W	TO ENGINE CONTROL HARNESS
6	B/R	TO ENGINE CONTROL HARNESS
7	Y/R	TO ENGINE CONTROL HARNESS
8	BR	TO ENGINE CONTROL HARNESS
9	W/L	TO ENGINE CONTROL HARNESS
10	L/Y	TO ENGINE CONTROL HARNESS
11	SB	TO ENGINE CONTROL HARNESS
12	L	TO ENGINE CONTROL HARNESS
13	W/R	TO ENGINE CONTROL HARNESS
14	Y	TO ENGINE CONTROL HARNESS
15	B	TO ENGINE CONTROL HARNESS
16	B	TO ENGINE CONTROL HARNESS
17	R	TO ENGINE CONTROL HARNESS
18	B	TO ENGINE CONTROL HARNESS
19	B/R	TO ENGINE CONTROL HARNESS
20	GR	TO ENGINE CONTROL HARNESS
21	V/R	TO ENGINE CONTROL HARNESS
22	B	TO ENGINE CONTROL HARNESS
23	B	TO ENGINE CONTROL HARNESS
24	P	TO ENGINE CONTROL HARNESS

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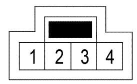
REAR VIEW MONITOR SYSTEM CONNECTORS

Connector No.	E19
Connector Name	WIRE TO WIRE
Connector Type	NS04MW-CS
Connector Color	WHITE

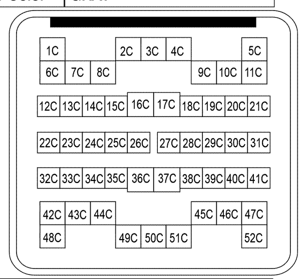
H.S.



Terminal No.	Color of Wire	Signal Name
1	L	TO ENGINE CONTROL HARNESS
2	W	TO ENGINE CONTROL HARNESS
3	P	TO ENGINE CONTROL HARNESS
4	SB	TO ENGINE CONTROL HARNESS

Connector No.	E41
Connector Name	WIRE TO WIRE
Connector Type	RK26MGY-RS20-X6
Connector Color	GRAY

H.S.



Terminal No.	Color of Wire	Signal Name
1C	Y/V	TO CHASSIS HARNESS
2C	W/L	TO CHASSIS HARNESS
3C	B	TO CHASSIS HARNESS
4C	BR/W	TO CHASSIS HARNESS
5C	BR/Y	TO CHASSIS HARNESS
6C	Y	TO CHASSIS HARNESS
7C	G/R	TO CHASSIS HARNESS - (WITH CUMMINS 5.0L)
7C	R	TO CHASSIS HARNESS - (WITH VK56VD)
8C	B	TO CHASSIS HARNESS - (WITH CUMMINS 5.0L)
8C	O/B	TO CHASSIS HARNESS - (WITH VK56VD)
9C	W/L	TO CHASSIS HARNESS - (WITH CUMMINS 5.0L)
9C	SB	TO CHASSIS HARNESS - (WITH VK56VD)
10C	GR/R	TO CHASSIS HARNESS - (WITH CUMMINS 5.0L)
10C	GR	TO CHASSIS HARNESS - (WITH VK56VD)
11C	B	TO CHASSIS HARNESS - (WITH CUMMINS 5.0L)
11C	R/W	TO CHASSIS HARNESS - (WITH VK56VD)
12C	Y	TO CHASSIS HARNESS
13C	B	TO CHASSIS HARNESS
14C	BG	TO CHASSIS HARNESS
15C	Y	TO CHASSIS HARNESS
16C	B	TO CHASSIS HARNESS
17C	V	TO CHASSIS HARNESS
18C	BG	TO CHASSIS HARNESS
19C	L	TO CHASSIS HARNESS
20C	BG	TO CHASSIS HARNESS
21C	B	TO CHASSIS HARNESS
22C	SHIELD	TO CHASSIS HARNESS
23C	G/B	TO CHASSIS HARNESS
24C	G/Y	TO CHASSIS HARNESS
25C	W	TO CHASSIS HARNESS
26C	B	TO CHASSIS HARNESS
27C	LG	TO CHASSIS HARNESS
28C	G/W	TO CHASSIS HARNESS
29C	R/G	TO CHASSIS HARNESS - (WITHOUT BULB CHECK)
29C	G/R	TO CHASSIS HARNESS - (WITH BULB CHECK)
30C	R/L	TO CHASSIS HARNESS
31C	B	TO CHASSIS HARNESS
32C	R	TO CHASSIS HARNESS
33C	L/W	TO CHASSIS HARNESS
34C	L	TO CHASSIS HARNESS
35C	R/W	TO CHASSIS HARNESS
36C	L	TO CHASSIS HARNESS
37C	Y	TO CHASSIS HARNESS
38C	BR	TO CHASSIS HARNESS
39C	R	TO CHASSIS HARNESS
40C	P	TO CHASSIS HARNESS
41C	V	TO CHASSIS HARNESS
42C	G/B	TO CHASSIS HARNESS
43C	Y/B	TO CHASSIS HARNESS
44C	R	TO CHASSIS HARNESS
45C	G	TO CHASSIS HARNESS
46C	BR	TO CHASSIS HARNESS
47C	B	TO CHASSIS HARNESS
48C	Y/R	TO CHASSIS HARNESS
49C	R/Y	TO CHASSIS HARNESS - (WITH CUMMINS 5.0L)
49C	V	TO CHASSIS HARNESS - (WITH VK56VD)
50C	B	TO CHASSIS HARNESS - (WITH CUMMINS 5.0L)
50C	B/Y	TO CHASSIS HARNESS - (WITH VK56VD)
51C	V	TO CHASSIS HARNESS - (WITH CUMMINS 5.0L)
51C	B	TO CHASSIS HARNESS - (WITH VK56VD)
52C	B	TO CHASSIS HARNESS - (WITHOUT FFV)
52C	L	TO CHASSIS HARNESS - (WITH FFV)
52C	V/W	TO CHASSIS HARNESS

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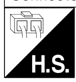
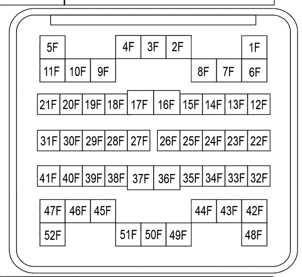
REAR VIEW MONITOR SYSTEM CONNECTORS

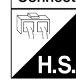
Connector No.	E52
Connector Name	WIRE TO WIRE
Connector Type	RK26FGY-RS20-X6
Connector Color	GRAY

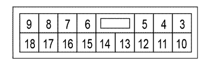




Terminal No.	Color of Wire	Signal Name
1F	Y	TO ENGINE CONTROL NO. 2 HARNESS
2F	B	TO ENGINE CONTROL NO. 2 HARNESS
3F	BR	TO ENGINE CONTROL NO. 2 HARNESS
4F	W/R	TO ENGINE CONTROL NO. 2 HARNESS
5F	B/R	TO ENGINE CONTROL NO. 2 HARNESS
6F	O	TO ENGINE CONTROL NO. 2 HARNESS
7F	GR/Y	TO ENGINE CONTROL NO. 2 HARNESS
8F	V	TO ENGINE CONTROL NO. 2 HARNESS
9F	BR	TO ENGINE CONTROL NO. 2 HARNESS
10F	Y/B	TO ENGINE CONTROL NO. 2 HARNESS
11F	L	TO ENGINE CONTROL NO. 2 HARNESS
12F	R	TO ENGINE CONTROL NO. 2 HARNESS
13F	Y	TO ENGINE CONTROL NO. 2 HARNESS
14F	V	TO ENGINE CONTROL NO. 2 HARNESS
15F	SB	TO ENGINE CONTROL NO. 2 HARNESS
16F	P	TO ENGINE CONTROL NO. 2 HARNESS
17F	Y/R	TO ENGINE CONTROL NO. 2 HARNESS
18F	R	TO ENGINE CONTROL NO. 2 HARNESS
19F	V	TO ENGINE CONTROL NO. 2 HARNESS
20F	BR	TO ENGINE CONTROL NO. 2 HARNESS
21F	L/R	TO ENGINE CONTROL NO. 2 HARNESS
22F	L/W	TO ENGINE CONTROL NO. 2 HARNESS
23F	R/L	TO ENGINE CONTROL NO. 2 HARNESS
24F	W/L	TO ENGINE CONTROL NO. 2 HARNESS
25F	W/R	TO ENGINE CONTROL NO. 2 HARNESS
26F	B/R	TO ENGINE CONTROL NO. 2 HARNESS
27F	Y	TO ENGINE CONTROL NO. 2 HARNESS
28F	W/R	TO ENGINE CONTROL NO. 2 HARNESS
29F	L/O	TO ENGINE CONTROL NO. 2 HARNESS
30F	B	TO ENGINE CONTROL NO. 2 HARNESS
31F	B	TO ENGINE CONTROL NO. 2 HARNESS
32F	V/W	TO ENGINE CONTROL NO. 2 HARNESS
33F	GR	TO ENGINE CONTROL NO. 2 HARNESS
34F	L/R	TO ENGINE CONTROL NO. 2 HARNESS
35F	R/W	TO ENGINE CONTROL NO. 2 HARNESS
36F	L/B	TO ENGINE CONTROL NO. 2 HARNESS
37F	L	TO ENGINE CONTROL NO. 2 HARNESS
38F	R/Y	TO ENGINE CONTROL NO. 2 HARNESS
39F	R/Y	TO ENGINE CONTROL NO. 2 HARNESS
40F	B/R	TO ENGINE CONTROL NO. 2 HARNESS
41F	W	TO ENGINE CONTROL NO. 2 HARNESS
42F	Y	TO ENGINE CONTROL NO. 2 HARNESS
43F	B/P	TO ENGINE CONTROL NO. 2 HARNESS
44F	Y/B	TO ENGINE CONTROL NO. 2 HARNESS
45F	L/Y	TO ENGINE CONTROL NO. 2 HARNESS
46F	O	TO ENGINE CONTROL NO. 2 HARNESS
47F	W/R	TO ENGINE CONTROL NO. 2 HARNESS
48F	L	TO ENGINE CONTROL NO. 2 HARNESS
49F	BR	TO ENGINE CONTROL NO. 2 HARNESS
50F	SHIELD	TO ENGINE CONTROL NO. 2 HARNESS
51F	L	TO ENGINE CONTROL NO. 2 HARNESS
52F	BR	TO ENGINE CONTROL NO. 2 HARNESS

Connector No.	E119
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS16FW-CS
Connector Color	WHITE





Terminal No.	Color of Wire	Signal Name
3	–	–
4	B/R	NP SW
5	L/W	H/LAMP HI RH
6	G	H/LAMP HI LH
7	L	H/LAMP LO LH
8	R/Y	H/LAMP LO RH
9	G/W	FR FOG/L LH
10	–	–
11	O	ETC VB - (WITH VK56VD)
11	P	ETC VB - (WITH CUMMINS 5.0L)
12	W/R	FR FOG/L RH
13	Y/R	A/T ECU IGN
14	G	REVERSE LAMP IGN
15	GR	ABS ECU IGN
16	V/R	ETC RLY CONT - (WITH VK56VD)
16	G	ETC RLY CONT - (WITH CUMMINS 5.0L)
17	W	IGN COIL - (WITH VK56VD)
17	L/W	IGN COIL - (WITH CUMMINS 5.0L)
18	–	–

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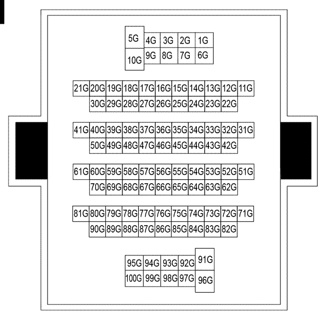
REAR VIEW MONITOR SYSTEM CONNECTORS

Connector No.	E152
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4
Connector Color	WHITE

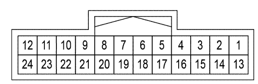
H.S.



Terminal No.	Color of Wire	Signal Name
1G	G	TO MAIN HARNESS
2G	B/R	TO MAIN HARNESS
3G	W/B	TO MAIN HARNESS
4G	BR/W	TO MAIN HARNESS
5G	BR	TO MAIN HARNESS
6G	P	TO MAIN HARNESS - (WITH VK56VD)
6G	R/W	TO MAIN HARNESS - (WITH CUMMINS 5.0L)
7G	Y	TO MAIN HARNESS
8G	G	TO MAIN HARNESS
9G	R	TO MAIN HARNESS
10G	W	TO MAIN HARNESS
11G	R/G	TO MAIN HARNESS
12G	W/B	TO MAIN HARNESS
13G	BR	TO MAIN HARNESS
14G	Y/B	TO MAIN HARNESS
15G	G/W	TO MAIN HARNESS
16G	G	TO MAIN HARNESS
17G	G/Y	TO MAIN HARNESS
18G	G/Y	TO MAIN HARNESS
19G	Y/V	TO MAIN HARNESS
20G	G/Y	TO MAIN HARNESS
21G	B/Y	TO MAIN HARNESS
22G	G/R	TO MAIN HARNESS
23G	Y/R	TO MAIN HARNESS
24G	G/B	TO MAIN HARNESS
25G	R/W	TO MAIN HARNESS
26G	R	TO MAIN HARNESS
27G	LG	TO MAIN HARNESS
28G	G/B	TO MAIN HARNESS
29G	G/B	TO MAIN HARNESS
30G	BR/Y	TO MAIN HARNESS
31G	P	TO MAIN HARNESS - (WITH CUMMINS 5.0L)
31G	R	TO MAIN HARNESS - (WITH VK56VD)
32G	P	TO MAIN HARNESS
33G	Y/L	TO MAIN HARNESS
34G	GR	TO MAIN HARNESS
35G	G/R	TO MAIN HARNESS
36G	SB	TO MAIN HARNESS
37G	R/W	TO MAIN HARNESS
38G	BR	TO MAIN HARNESS
39G	BR	TO MAIN HARNESS
40G	–	TO MAIN HARNESS
41G	R/G	TO MAIN HARNESS
42G	O	TO MAIN HARNESS
43G	B	TO MAIN HARNESS - (WITH CUMMINS 5.0L)
43G	G	TO MAIN HARNESS - (WITH VK56VD)
44G	R/Y	TO MAIN HARNESS
45G	G	TO MAIN HARNESS
46G	LG	TO MAIN HARNESS
47G	R	TO MAIN HARNESS
48G	W	TO MAIN HARNESS
49G	–	TO MAIN HARNESS
50G	BR	TO MAIN HARNESS
51G	R	TO MAIN HARNESS
52G	L	TO MAIN HARNESS
53G	W	TO MAIN HARNESS
54G	W	TO MAIN HARNESS
55G	G	TO MAIN HARNESS
56G	W	TO MAIN HARNESS
57G	Y	TO MAIN HARNESS
58G	BG	TO MAIN HARNESS
59G	BG	TO MAIN HARNESS
60G	BG	TO MAIN HARNESS
61G	B	TO MAIN HARNESS
62G	W	TO MAIN HARNESS
63G	R	TO MAIN HARNESS
64G	W/L	TO MAIN HARNESS
65G	W/R	TO MAIN HARNESS
66G	BG	TO MAIN HARNESS
67G	BG	TO MAIN HARNESS
68G	B	TO MAIN HARNESS
69G	Y	TO MAIN HARNESS
70G	L	TO MAIN HARNESS
71G	R/W	TO MAIN HARNESS
72G	L/W	TO MAIN HARNESS
73G	SHIELD	TO MAIN HARNESS
74G	W	TO MAIN HARNESS
75G	R	TO MAIN HARNESS
76G	R/G	TO MAIN HARNESS
77G	G	TO MAIN HARNESS
78G	W	TO MAIN HARNESS
79G	–	TO MAIN HARNESS
80G	R	TO MAIN HARNESS
81G	L	TO MAIN HARNESS
82G	R	TO MAIN HARNESS
83G	L	TO MAIN HARNESS
84G	L	TO MAIN HARNESS
85G	W/B	TO MAIN HARNESS
86G	B/R	TO MAIN HARNESS
87G	W/B	TO MAIN HARNESS
88G	P	TO MAIN HARNESS
89G	L	TO MAIN HARNESS
90G	G	TO MAIN HARNESS
91G	G	TO MAIN HARNESS
92G	V/W	TO MAIN HARNESS
93G	BR	TO MAIN HARNESS
94G	G	TO MAIN HARNESS
95G	G	TO MAIN HARNESS
96G	W	TO MAIN HARNESS
97G	R	TO MAIN HARNESS
98G	W/B	TO MAIN HARNESS
99G	BR	TO MAIN HARNESS
100G	GR/W	TO MAIN HARNESS

Connector No.	F14
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH
Connector Color	WHITE

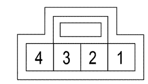
H.S.



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

Connector No.	F33
Connector Name	WIRE TO WIRE
Connector Type	NS04FW-CS
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
1	L	TO ENGINE ROOM HARNESS
2	W	TO ENGINE ROOM HARNESS
3	P	TO ENGINE ROOM HARNESS
4	SB	TO ENGINE ROOM HARNESS

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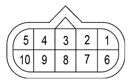
REAR VIEW MONITOR SYSTEM CONNECTORS

Connector No.	F46
Connector Name	A/T ASSEMBLY (WITH VK56VD)
Connector Type	RK10FG
Connector Color	GREEN

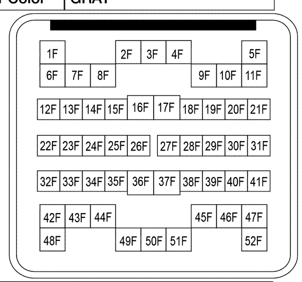
H.S.



Terminal No.	Color of Wire	Signal Name
1	Y/R	VIGN
2	P	BATT
3	L	CAN-H
4	BR	K-LINE
5	B	GND
6	Y/R	VIGN
7	R	REV LAMP RELAY
8	P	CAN-L
9	B/R	STARTER RELAY
10	B	GND

Connector No.	F209
Connector Name	WIRE TO WIRE
Connector Type	RK26MGY-RS20-X6
Connector Color	GRAY

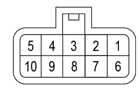
H.S.



Terminal No.	Color of Wire	Signal Name
1F	Y/R	TO ENGINE ROOM HARNESS
2F	B	TO ENGINE ROOM HARNESS
3F	B/Y	TO ENGINE ROOM HARNESS
4F	W/R	TO ENGINE ROOM HARNESS
5F	B/R	TO ENGINE ROOM HARNESS
6F	O/L	TO ENGINE ROOM HARNESS
7F	GR	TO ENGINE ROOM HARNESS
8F	P	TO ENGINE ROOM HARNESS
9F	BR/W	TO ENGINE ROOM HARNESS
10F	G/Y	TO ENGINE ROOM HARNESS
11F	L/W	TO ENGINE ROOM HARNESS
12F	R/W	TO ENGINE ROOM HARNESS
13F	G/Y	TO ENGINE ROOM HARNESS
14F	V/W	TO ENGINE ROOM HARNESS
15F	LG	TO ENGINE ROOM HARNESS
16F	R/Y	TO ENGINE ROOM HARNESS
17F	BR/Y	TO ENGINE ROOM HARNESS
18F	R	TO ENGINE ROOM HARNESS
19F	V	TO ENGINE ROOM HARNESS
20F	BR	TO ENGINE ROOM HARNESS
21F	L/R	TO ENGINE ROOM HARNESS
22F	L/LG	TO ENGINE ROOM HARNESS
23F	SB	TO ENGINE ROOM HARNESS
24F	W/L	TO ENGINE ROOM HARNESS
25F	W/B	TO ENGINE ROOM HARNESS
26F	B/Y	TO ENGINE ROOM HARNESS
27F	Y	TO ENGINE ROOM HARNESS
28F	W/R	TO ENGINE ROOM HARNESS
29F	L/O	TO ENGINE ROOM HARNESS
30F	B	TO ENGINE ROOM HARNESS
31F	B	TO ENGINE ROOM HARNESS
32F	V	TO ENGINE ROOM HARNESS
33F	BG	TO ENGINE ROOM HARNESS
34F	L/R	TO ENGINE ROOM HARNESS
35F	R/W	TO ENGINE ROOM HARNESS
36F	L/B	TO ENGINE ROOM HARNESS
37F	L/O	TO ENGINE ROOM HARNESS
38F	Y/W	TO ENGINE ROOM HARNESS
39F	R/Y	TO ENGINE ROOM HARNESS
40F	G/B	TO ENGINE ROOM HARNESS
41F	W	TO ENGINE ROOM HARNESS
42F	Y	TO ENGINE ROOM HARNESS
43F	B/P	TO ENGINE ROOM HARNESS
44F	Y/B	TO ENGINE ROOM HARNESS
45F	L/Y	TO ENGINE ROOM HARNESS
46F	O	TO ENGINE ROOM HARNESS
47F	W/L	TO ENGINE ROOM HARNESS
48F	L	TO ENGINE ROOM HARNESS
49F	BR	TO ENGINE ROOM HARNESS
50F	SHIELD	TO ENGINE ROOM HARNESS
51F	L	TO ENGINE ROOM HARNESS
52F	BR	TO ENGINE ROOM HARNESS

Connector No.	F212
Connector Name	TRANSMISSION RANGE SWITCH
Connector Type	HS10FB
Connector Color	BLACK

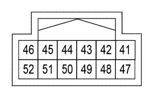
H.S.



Terminal No.	Color of Wire	Signal Name
1	L/W	RANGE SIGNAL C
2	P	RANGE SIGNAL B
3	R/Y	IGNITION
4	GR	RANGE SIGNAL PA
5	Y/R	RANGE SIGNAL A
6	O/L	BATTERY
7	R	REVERSE RELAY CONT
8	B/R	NP SW
9	BR/Y	IGNITION RELAY
10	–	–

Connector No.	M25
Connector Name	COMBINATION METER (WITH TYPE A)
Connector Type	TH12FW-NH
Connector Color	WHITE

H.S.



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

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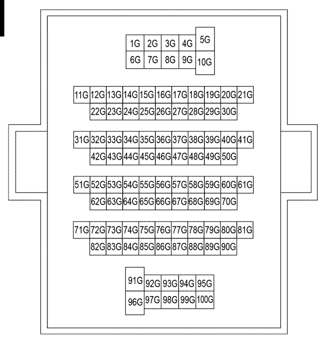
REAR VIEW MONITOR SYSTEM CONNECTORS

Connector No.	M31
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4
Connector Color	WHITE

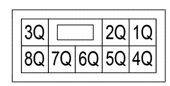
H.S.



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

Connector No.	M39
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS08FW-CS
Connector Color	WHITE

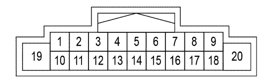
H.S.



Terminal No.	Color of Wire	Signal Name
1Q	–	–
2Q	O/L	IGNITION
3Q	–	–
4Q	–	–
5Q	–	–
6Q	R/W	BATTERY
7Q	R/W	IGNITION
8Q	–	–

Connector No.	M43
Connector Name	AV CONTROL UNIT (WITH AUDIO AMPLIFIER)
Connector Type	NH18FW-CS2
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
1	G/W	AMP ON
2	L	FR SP LH+
3	W	FR SP LH-
4	L	RR SP LH+
5	BR	RR SP LH-
6	–	–
7	R	ACC
8	L	CAN-H
9	L	ILL (+)
10	SHIELD	PRE AMP SHIELD
11	B	FR SP RH+
12	Y	FR SP RH-
13	B/W	RR SP RH+
14	P	RR SP RH-
15	–	–
16	–	–
17	P	CAN-L
18	G	SPEED SIG
19	W	BAT
20	B	GND

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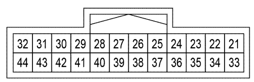
REAR VIEW MONITOR SYSTEM CONNECTORS

Connector No.	M45
Connector Name	AV CONTROL UNIT (WITH AUDIO AMPLIFIER)
Connector Type	TH24FW-NH
Connector Color	WHITE

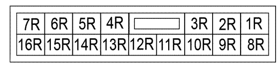
H.S.



Terminal No.	Color of Wire	Signal Name
21	LG	M CAN2-L
22	SB	M CAN2-H
23	L	MR OUTPUT
24	–	–
25	–	–
26	–	–
27	–	–
28	G/W	REVERSE SIGNAL
29	–	–
30	V	AUX L
31	GR	AUX GND
32	G	AUX R
33	L/W	CAMERA GND
34	L	CAMERA ON
35	R/W	COMP- (WITH REAR VIEW CAMERA)
35	SHIELD	COMP- (WITH AROUND VIEW CAMERA)
36	R	COMP+ (WITH REAR VIEW CAMERA)
36	G	COMP+ (WITH AROUND VIEW CAMERA)
37	G/R	IGN
38	LG	M CAN1-L
39	SB	M CAN1-H
40	SHIELD	AUX SHIELD
41	SHIELD	MIC GND
42	R	MIC VCC(WITHOUT TELEMATICS)
43	W	MIC SIGNAL
44	GR	ILL (-)

Connector No.	M70
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS16FBR-CS
Connector Color	BROWN

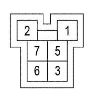
H.S.



Terminal No.	Color of Wire	Signal Name
1R	L	TAIL LAMP 2
2R	G/R	IGNITION
3R	Y/R	BATTERY
4R	–	–
5R	W	BATTERY
6R	G/W	ACCESSORY
7R	–	–
8R	–	–
9R	–	–
10R	W	BATTERY
11R	–	–
12R	BG	BATTERY
13R	B	ACCESSORY
14R	G/Y	BATTERY
15R	Y	BATTERY
16R	G/R	ACCESSORY

Connector No.	M73
Connector Name	BACK-UP LAMP RELAY
Connector Type	M06FBR-R-LC
Connector Color	BROWN

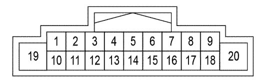
H.S.



Terminal No.	Color of Wire	Signal Name
1	G	GROUND
2	R	REV LAMP RELAY CONTROL
3	G	IGNITION
5	G/W	REVERSE
6	W/B	BATTERY
7	Y/R	REVERSE

Connector No.	M97
Connector Name	AV CONTROL UNIT (WITHOUT AUDIO AMPLIFIER)
Connector Type	NH18FW-CS2
Connector Color	WHITE

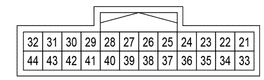
H.S.



Terminal No.	Color of Wire	Signal Name
1	–	–
2	L/W	FR SP LH+
3	L/R	FR SP LH-
4	SB	RR SP LH+
5	B/Y	RR SP LH-
6	–	–
7	R	ACC
8	L	CAN-H
9	L	ILL (+)
10	–	–
11	W/B	FR SP RH+
12	L/B	FR SP RH-
13	O/L	RR SP RH+
14	R/L	RR SP RH-
15	–	–
16	–	–
17	P	CAN-L
18	G	SPEED SIG
19	W	BAT
20	B	GND

Connector No.	M98
Connector Name	AV CONTROL UNIT (WITHOUT AUDIO AMPLIFIER)
Connector Type	TH24FW-NH
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
21	LG	M CAN2-L
22	SB	M CAN2-H
23	L	MR OUTPUT
24	–	–
25	–	–
26	–	–
27	–	–
28	G/W	REVERSE SIGNAL (WITH REAR VIEW CAMERA)
29	–	–
30	V	AUX L
31	GR	AUX GND
32	G	AUX R
33	L/W	CAMERA GND (WITH REAR VIEW CAMERA)
34	L	CAMERA ON (WITH REAR VIEW CAMERA)
35	R/W	COMP- (WITH REAR VIEW CAMERA)
36	R	COMP+ (WITH REAR VIEW CAMERA)
37	G/R	IGN
38	LG	M CAN1-L
39	SB	M CAN1-H
40	SHIELD	AUX SHIELD
41	SHIELD	MIC GND
42	R	MIC VCC
43	W	MIC SIGNAL
44	GR	ILL (-)

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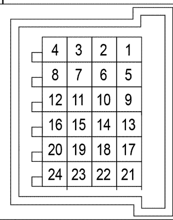
REAR VIEW MONITOR SYSTEM CONNECTORS

Connector No.	M192
Connector Name	JOINT CONNECTOR-M02
Connector Type	NH24FW-J
Connector Color	WHITE

H.S.



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

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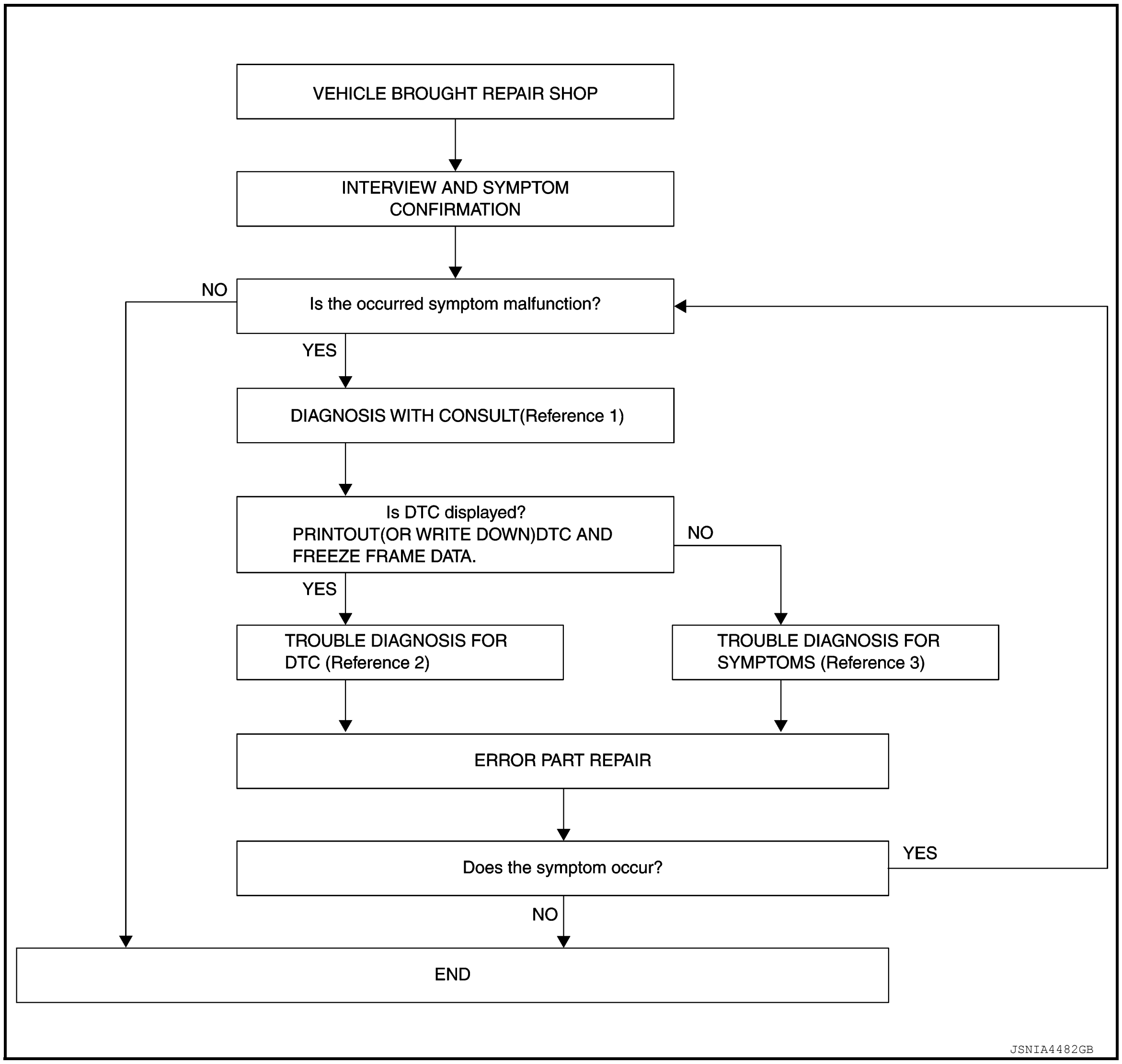
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:0000000014387089

OVERALL SEQUENCE



- Reference 1: Refer to AV-371, "CONSULT Function".
- Reference 2: Refer to AV-389, "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 “MULTI AV”. Refer to AV-371, "CONSULT Function".

NOTE:
Skip to step 4 of the diagnosis procedure if “MULTI AV” 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 list.

>> GO TO 5.

4.TROUBLE DIAGNOSIS FOR SYMPTOMS

Perform the relevant diagnosis referring to the diagnosis chart by symptom. Refer to AV-389, "Symptom Table".

>> GO TO 5.

5.ERROR PART REPAIR

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

DTC/CIRCUIT DIAGNOSIS

REAR VIEW CAMERA IMAGE SIGNAL CIRCUIT

Diagnosis Procedure

INFOID:0000000014387090

Regarding Wiring Diagram information, refer to AV-374, "Wiring Diagram".

1. CHECK REVERSE INPUT SIGNAL

1. Turn ignition switch ON.
2. Shift the selector lever to R (reverse).
3. Check voltage between AV control unit connector M45 (with audio amplifier) or M98 (without audio amplifier) and ground.

AV control unit		Ground	Condition	Voltage (Approx.)
(+)		(–)		
Connector	Terminal			
M45 (with audio amplifier)	28		Selector lever is in “R”.	Battery Voltage
M98 (without audio amplifier)				

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 AV control unit connector M45 (with audio amplifier) or M98 (without audio amplifier) and rear view camera connector.
3. Check continuity between AV control unit connector M45 (with audio amplifier) or M98 (without audio amplifier) and rear view camera connector C151.

AV control unit		Rear view camera		Continuity
Connector	Terminal	Connector	Terminal	
M45 (with audio amplifier)	34	C151	1	Yes
M98 (without audio amplifier)				

4. Check continuity between AV control unit connector M45 (with audio amplifier) or M98 (without audio amplifier) and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M45 (with audio amplifier)	34		No
M98 (without audio amplifier)			

Is inspection result normal?

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

3. CHECK CAMERA POWER SUPPLY VOLTAGE

1. Connect AV control unit connector M45 (with audio amplifier) or M98 (without audio amplifier) and rear view camera connector.
2. Turn ignition switch ON.
3. Shift the selector lever to R (reverse).

4. Check voltage between AV control unit connector M45 (with audio amplifier) or M98 (without audio amplifier) nd ground.

AV control unit		Ground	Condition	Voltage (Approx.)
(+)		(–)		
Connector	Terminal			
M45 (with audio amplifier)	34		Selector lever is in “R”.	6.0 V
M98 (without audio amplifier)				

Is inspection result normal?

YES >> GO TO 4.
NO >> Replace AV control unit. Refer to AV-390, "Removal and Installation".

4.CHECK CAMERA IMAGE SIGNAL CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M45 (with audio amplifier) or M98 (without audio amplifier) and rear view camera connector.
3. Check continuity between AV control unit connector M45 (with audio amplifier) or M98 (without audio amplifier) and rear view camera connector C151.

COMP +

AV control unit		Rear view camera		Continuity
Connector	Terminal	Connector	Terminal	
M45 (with audio amplifier)	36	C151	3	Yes
M98 (without audio amplifier)				

COMP –

AV control unit		Rear view camera		Continuity
Connector	Terminal	Connector	Terminal	
M45 (with audio amplifier)	35	C151	4	Yes
M98 (without audio amplifier)				

4. Check continuity between AV control unit connector M45 (with audio amplifier) or M98 (without audio amplifier) and ground.

AV control unit		Ground	Continuity
Connector	Terminal		
M45 (with audio amplifier)	36		No
M98 (without audio amplifier)			

Is inspection result normal?

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

5.CHECK CAMERA GROUND CIRCUIT CONTINUITY

Check continuity between AV control unit connector M45 (with audio amplifier) or M98 (without audio amplifier) and rear view camera connector C151.

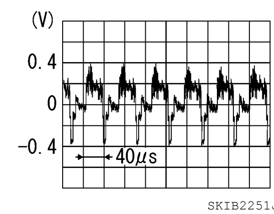
AV control unit		Rear view camera		Continuity
Connector	Terminal	Connector	Terminal	
M45 (with audio amplifier)	33	C151	2	Yes
M98 (without audio amplifier)				

Is inspection result normal?

YES >> GO TO 6.
NO >> Repair or replace harness or connectors.

6.CHECK CAMERA IMAGE SIGNAL

1. Connect AV control unit connector M45 (with audio amplifier) or M98 (without audio amplifier) and rear view camera connector.
2. Turn ignition switch ON.
3. Shift the selector lever to R (reverse).
4. Check signal between AV control unit connector M45 (with audio amplifier) or M98 (without audio amplifier) and ground.

AV control unit connector M45 (with audio amplifier) or M98 (without audio amplifier)		Condition	Reference value
(+)	(–)		
Terminal	Terminal		
36	35	Camera image displayed.	

Is inspection result normal?

YES >> Replace AV control unit. Refer to AV-390, "Removal and Installation".
NO >> Replace rear view camera. Refer to AV-391, "Removal and Installation".

SYMPTOM DIAGNOSIS

REAR VIEW MONITOR SYSTEM

Symptom Table

INFOID:0000000014387091

REAR VIEW MONITOR

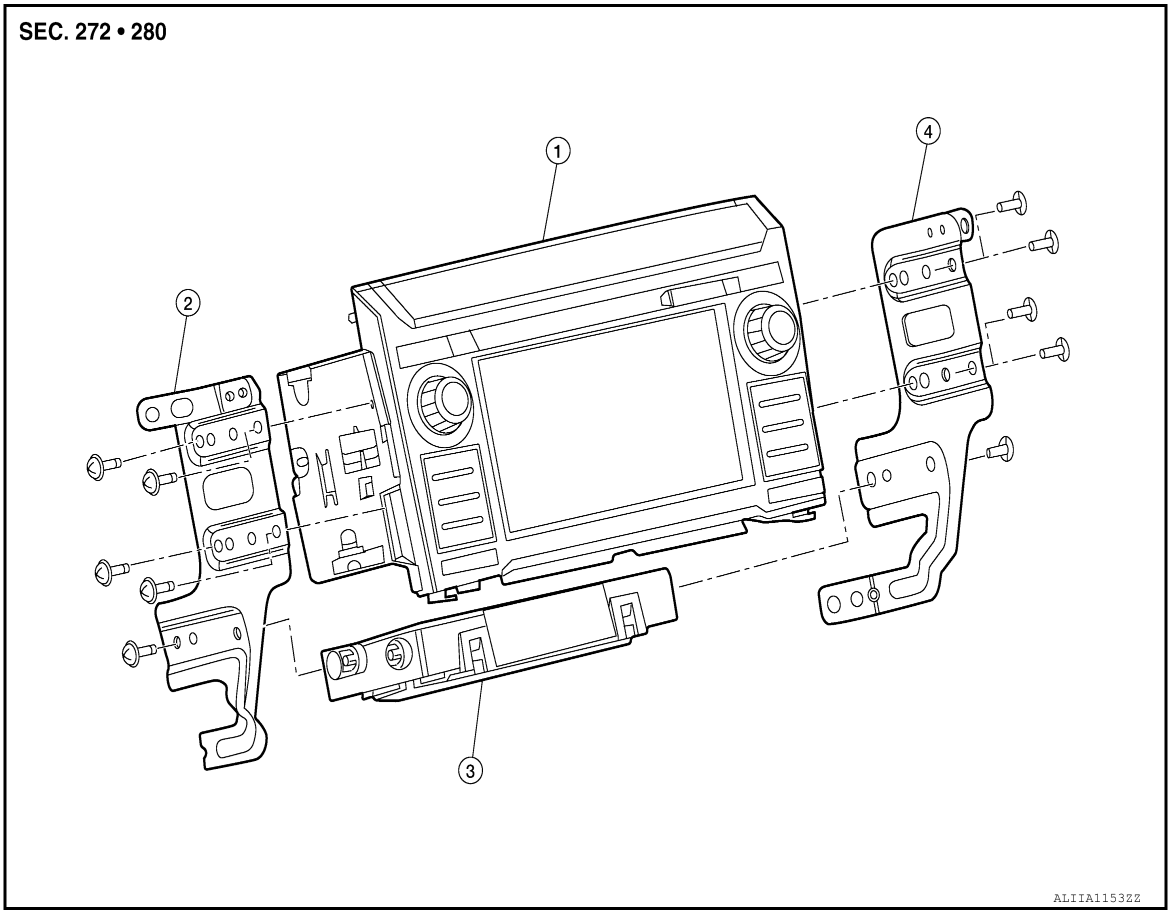
Symptoms	Check items	Probable malfunction location
Rear view camera is inoperative.	Reverse signal circuit malfunction.	Reverse signal circuit malfunction between back-up lamp relay and AV control unit. Refer to AV-373, "List of ECU Reference".
	Camera image signal circuit malfunction.	Camera image signal circuit malfunction between rear view camera and AV control unit. Refer to AV-386, "Diagnosis Procedure".
	Rear view camera malfunction.	Replace rear view camera. Refer to AV-391, "Removal and Installation".

REMOVAL AND INSTALLATION

AV CONTROL UNIT

Exploded View

INFOID:0000000014387092



1. AV control unit
2. AV control unit bracket (LH)
3. A/C auto amp.
4. AV control unit bracket (RH)

Removal and Installation

INFOID:0000000014387093

REMOVAL

CAUTION:

Before replacing AV control unit, perform "ADDITIONAL SERVICE WHEN REPLACING AV CONTROL UNIT" to save current vehicle specification. Refer to AV-211, "ADDITIONAL SERVICE WHEN REPLACING AV CONTROL UNIT : Description".

1. Disconnect battery or batteries. Refer to PG-185, "Battery Disconnect".
2. Remove cluster lid C lower. Refer to IP-17, "CLUSTER LID C LOWER : Removal and Installation".
3. Remove A/C switch assembly. Refer to HAC-121, "Removal and Installation".
4. Remove AV control unit bracket screws, then pull out AV control unit.
5. Disconnect harness connectors from AV control unit and remove AV control unit.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

After replacing AV control unit, perform "ADDITIONAL SERVICE WHEN REPLACING AV CONTROL UNIT" to configure and register AV control unit. Refer to AV-211, "ADDITIONAL SERVICE WHEN REPLACING AV CONTROL UNIT : Description".

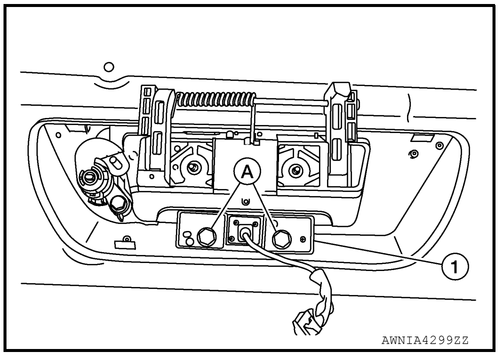
REAR VIEW CAMERA

Removal and Installation

INFOID:0000000014387094

REMOVAL

1. Remove tailgate handle. Refer to DLK-183, "TAILGATE HANDLE : Removal and Installation".
2. Remove screws (A) from rear camera (1).
3. Disconnect harness connector from rear camera (1) and remove rear camera.



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:0000000014387095

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

INFOID:0000000014387096

CAUTION:

Remove battery terminal or terminals, 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 continue operating for approximately 30 seconds.

Therefore, data corruption may occur if battery voltage is cut off within 30 seconds.

Precaution for Trouble Diagnosis

INFOID:0000000014387097

AV COMMUNICATION SYSTEM

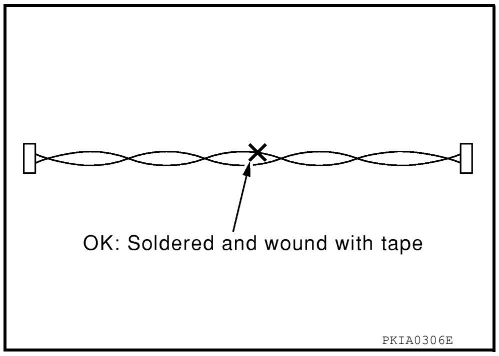
- Do not apply voltage of 7.0 V or higher to the measurement terminals.
- Use the tester with its open terminal voltage being 7.0 V or less.
- Be sure to turn ignition switch OFF and disconnect the battery cable or cables from the negative terminal or terminals before checking the circuit. Refer to PG-185, "Battery Disconnect".

Precaution for Harness Repair

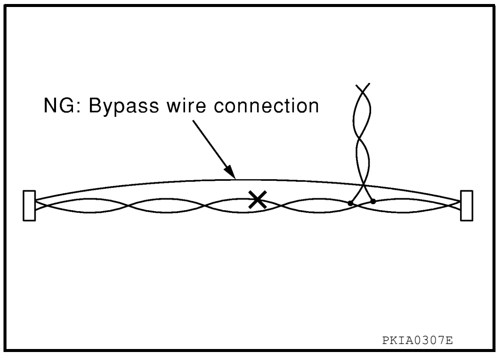
INFOID:0000000014387098

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:0000000014387099

- 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.

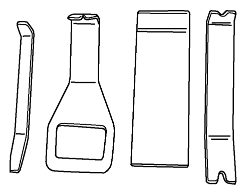
PREPARATION

PREPARATION

Special Service Tool

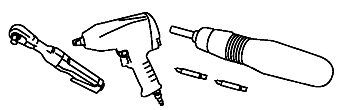
INFOID:0000000014387100

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:0000000014387101

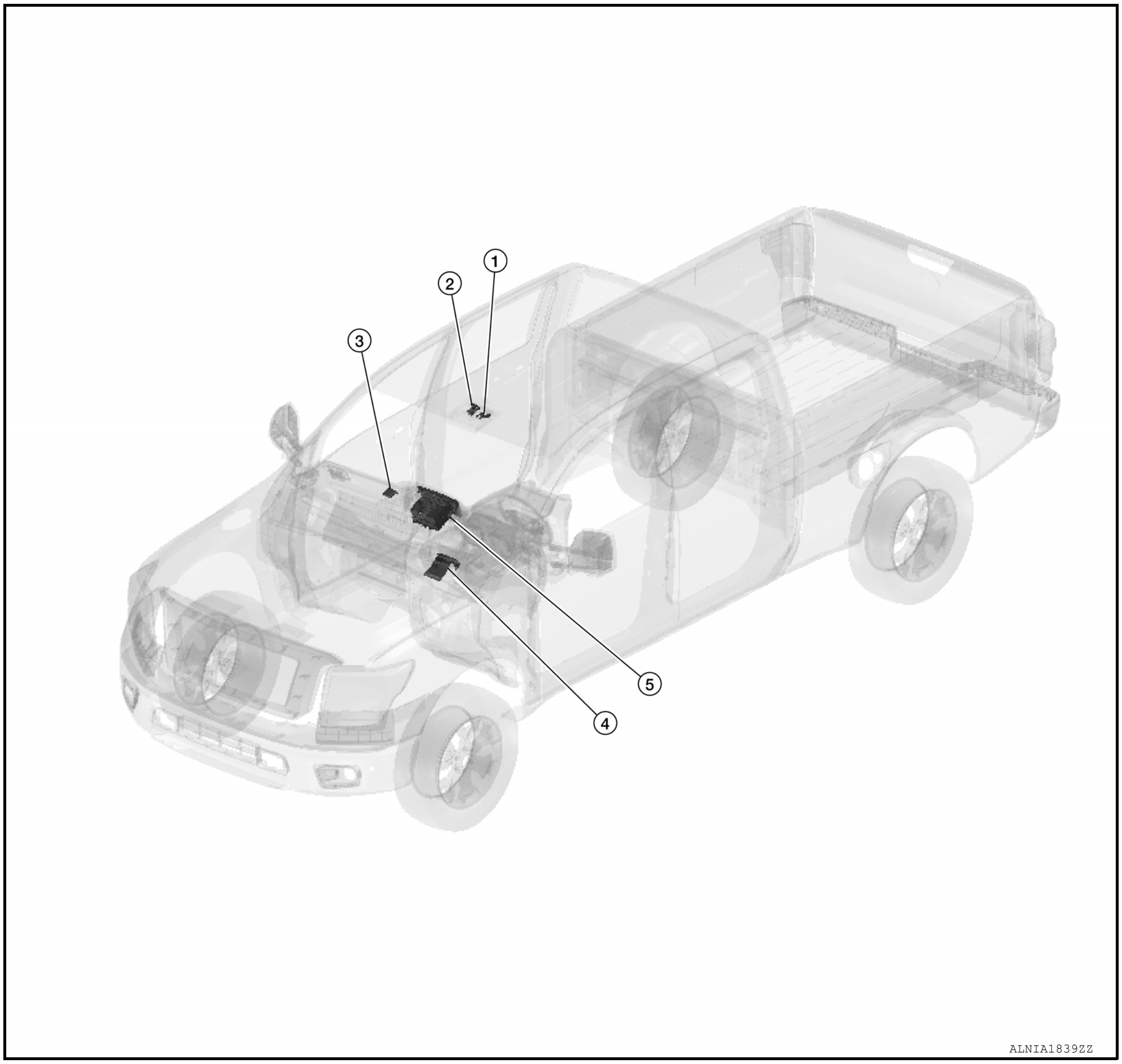
Tool name		Description
Power tool	 PIIB1407E	Loosening nuts, screws and bolts

SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

INFOID:0000000014387102



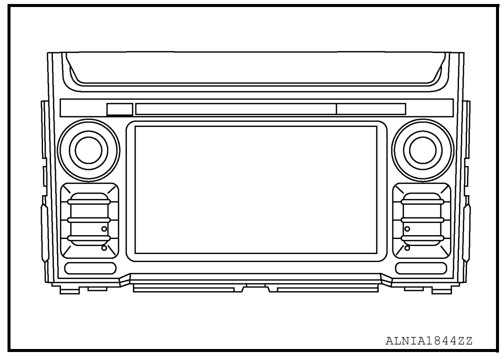
No.	Component	Function
1.	Microphone	Refer to AV-397, "Microphone".
2.	Telematics switch	Refer to AV-397, "Telematics Switch".
3.	TEL antenna	Refer to AV-396, "Telematics Antenna".
4.	TCU	Refer to AV-396, "TCU".
5.	AV control unit	Refer to AV-395, "AV Control Unit".

AV Control Unit

INFOID:0000000014387103

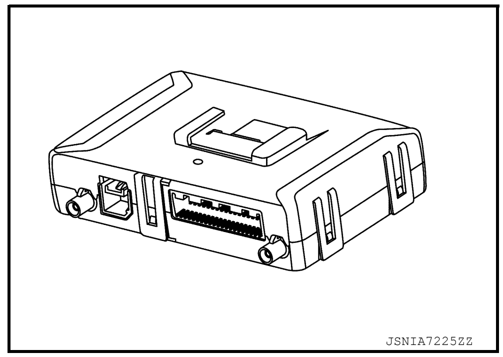
Description

- 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.



TCU

INFOID:0000000014387104

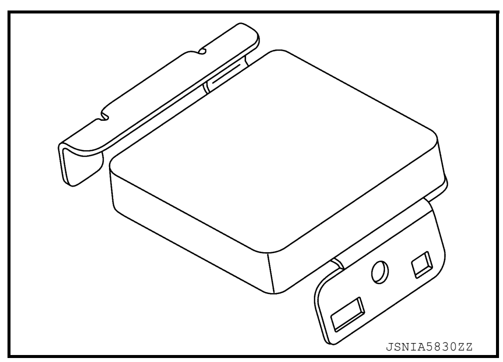


- Telematics Communication Unit (TCU) is installed on the steering member.
- A radio communication terminal and SIM card are built into the unit and data is sent and received in SMS*, DTMF tone signal with the NISSANCONNECT^{SM} center through the TEL antenna.
  NOTE:
  *: SMS stands for Short Message Service. It is also referred to as Text Messaging, Short Mail, etc. 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 via CAN communication. 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^{SM} center, TCU transmits a TEL ON signal to the AV control unit to prohibit the use of Bluetooth® hands-free phone.

Telematics Antenna

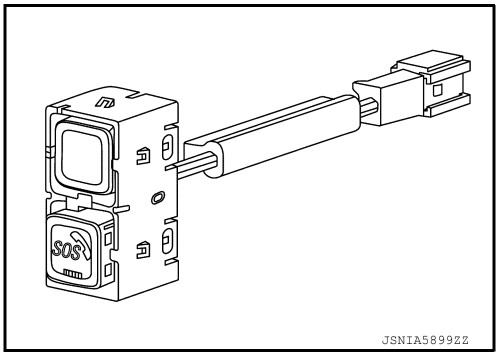
INFOID:0000000014387105

- 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.



Telematics Switch

INFOID:0000000014387106

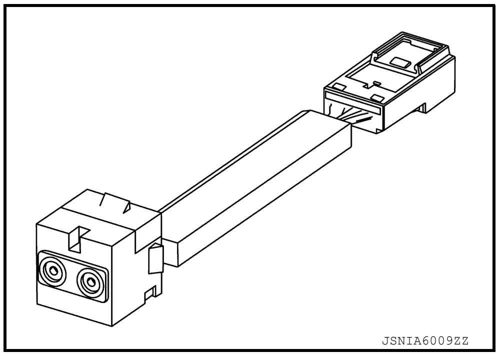


- The Telematics switch is located on the map lamp assembly.
- The Telematics switch is connected to TCU and transmits an operation signal.
- The state of LED (ON/Blink/OFF) shows the status of SOS call.

LED ON	:SOS Call available
LED Blink	:SOS Call in communication
LED OFF	:Out of service area or system error

Microphone

INFOID:0000000014387107



- Microphone is installed on the map lamp assembly.
- The microphone is used for the operation of the NISSANCONNECT^{SM}, hands-free phone system, voice recognition function.
- The power is supplied from the TCU to the microphone, transmitting sound signals to the TCU during operation of the NISSAN-CONNECT^{SM} system, hands-free phone communication, and voice recognition.

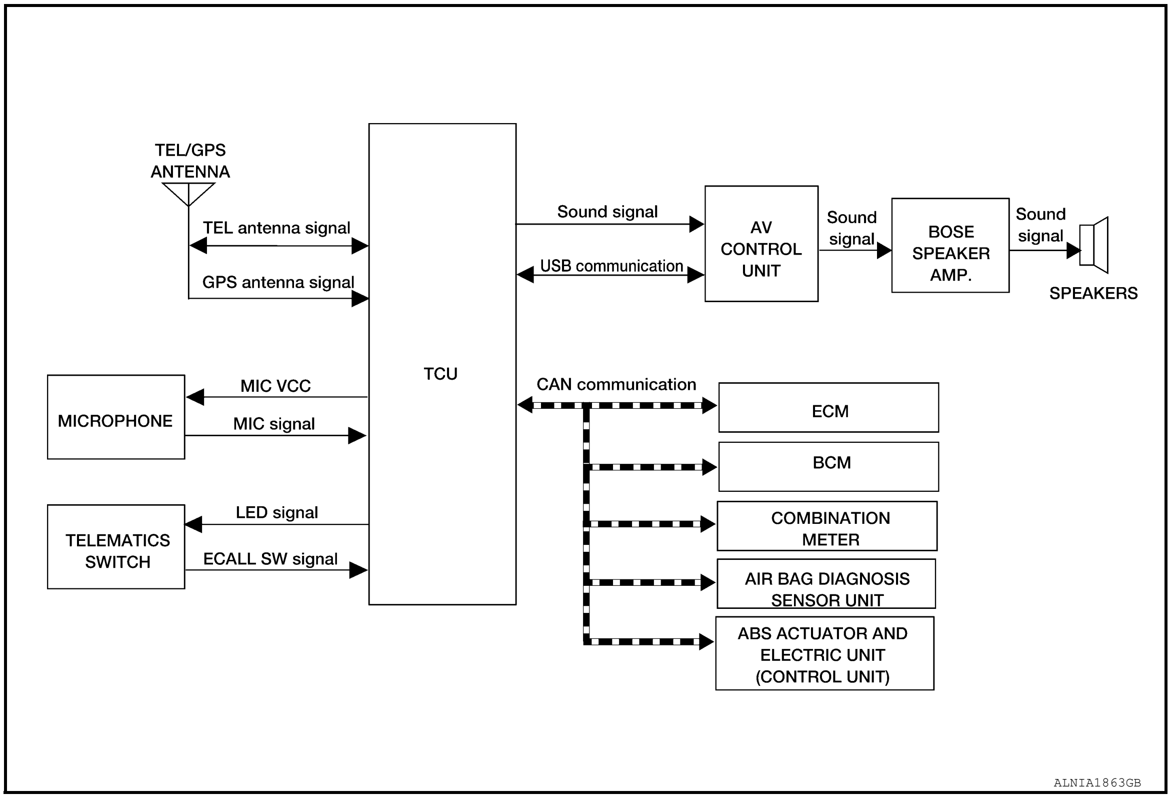
SYSTEM

TELEMATICS SYSTEM

TELEMATICS SYSTEM : System Description

INFOID:0000000014387108

SYSTEM DIAGRAM



DESCRIPTION

- The Telematics system is a system for providing information by connecting the vehicle and the user to the NISSANCONNECT^{SM} center.
- Telematics Communication Unit (TCU) equipped with a radio communication terminal communicates with the information center (NISSANCONNECT^{SM} center) via radio waves for receiving NISSANCONNECT^{SM} services.
- With the equipment of the radio communication terminal, TCU communicates with NISSANCONNECT^{SM} center by Packet communication*1 and SMS*2 via TEL antenna.
  NOTE:
  - *1: Packet communication means a communication method that data is 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) is transmitted to the NISSANCONNECT^{SM} 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 microphone connected to TCU.
- Audio signals are output from TCU via the audio data circuit connected to the AV control unit.

TELEMATICS SYSTEM : Fail-safe

INFOID:0000000014387109

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 systems do not function. • Inform a NISSANCONNECT^{SM} center about abnormality.	U1A10
CAN communication	• Telematics system does not function. • Inform a NISSANCONNECT^{SM} center about abnormality.	U1000
TEL antenna	• Telematics switch LED indicator OFF. (LED indicator turns ON 10 times when the SOS call switch is pressed.) • When operating the telematics system, cannot be connected to the NISSANCONNECT^{SM} center.	U1A06
GPS antenna	• Telematics system cannot send correct positional information. • Inform a NISSANCONNECT^{SM} center about abnormality.	U1A09 U1A0A
TCU	Telematics system function stops.	U1010
	• Telematics system function stops. • When operating the telematics system, cannot be connected to the NISSANCONNECT^{SM} center.	U1A11
Telematics switch (SOS call switch)	• Telematics system does not function. (Only SOS call inoperative.) • Telematics switch LED indicator OFF.	U1A0E
Microphone	• Transmit vehicle position to the NISSANCONNECT^{SM} center. • Inform a NISSANCONNECT^{SM} center about abnormality.	U1A0B U1A0C

DIAGNOSIS SYSTEM (TCU)

CONSULT Function

INFOID:0000000014387110

CONSULT FUNCTIONS

CONSULT performs the following functions via communication with the TCU.

Direct Diagnostic Mode	Description
Ecu Identification	The AV control unit part number is displayed.
Self Diagnostic Result	The AV control unit self diagnostic results are displayed.
Data Monitor	The AV control unit input/output data is displayed in real time.
Work support	The settings for AV control unit functions can be changed.
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 TCU is displayed.

SELF DIAGNOSTIC RESULT

Refer to AV-405, "DTC Index".

DATA MONITOR

Monitor Item [Unit]	Description
HF TYPE [BT/NO BT]	HF type is displayed.
AUDIO UNIT TYPE [AUDIO/NAVI]	AV control unit type is displayed.
CALL SWITCH TYPE [SOS/OP]	Call switch type is displayed.
SPEAKER TYPE [INDRCT]	Speaker type is displayed.
ZONE [USA]	Zone is displayed.
CHANNEL [NISSAN]	Channel is displayed.
CAN COMM [GEN.3]	CAN comm is displayed.
AV COMM [ENABLE/DISABLE]	AV comm is displayed.
K-LINE [ENABLE/DISABLE]	K-Line is displayed.
VEHICLE TYPE [ENG]	Vehicle type is displayed.
ECHO CANCEL [TYPE 1/TYPE 2/TYPE 3/TYPE 4]	Echo cancel type is displayed.
NOISE CANCEL [TYPE 1/TYPE 2/TYPE 3/TYPE 4]	Noise cancel type is displayed.
TCU STANDBY TIME [2DAYS/14DAYS/30DAYS]	TCU standby time is displayed.
SENSOR ANGLE X	—
SENSOR ANGLE Y	—
SENSOR ANGLE Z	—
SVTB	—
REMOTE DOOR LOCK [ENABLE/DISABLE]	Remote door lock is displayed.
REMOTE HORN & LAMP [ENABLE/DISABLE]	Remote horn and lamp is displayed.
REMOTE START [ENABLE/DISABLE]	Remote start is displayed.
NAD OUTPUT STATUS [On/Off]	TCU activation is displayed.
ACN COMM SEQUENCE LOG [1–255]	ACN communication sequence log is displayed.
SOS COMM SEQUENCE LOG [1–10]	SOS communication sequence log is displayed.
SOS SW [ON/OFF]	SOS switch is displayed.

WORK SUPPORT

Conditions	Description
SAVE VIN DATA	VIN data saved in TCU is stored in CONSULT.
CENTER CONNECTION SETTING	Connection to INFINITI CONNECTION data center can be set.
TCU ACTIVATE SETTING	Off: TCU activation Off.
	On: TCU activation On.
WRITE VIN (SAVED DATA)	VIN data from SAVE VIN DATA can be written to new TCU.
WRITE VIN (MANUAL INPUT)	VIN data can be manually written to new TCU.

CAN DIAG SUPPORT MNTR

Refer to LAN-50, "CAN Diagnostic Support Monitor".

ECU DIAGNOSIS INFORMATION

TCU

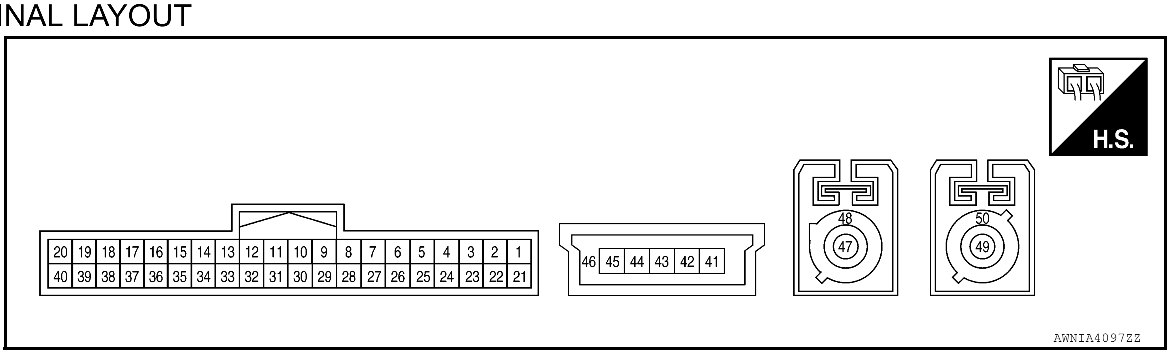
Reference Value

INFOID:0000000014387111

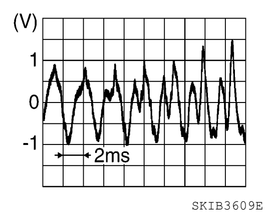
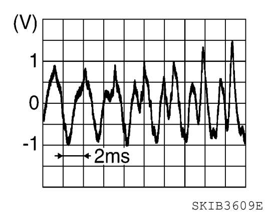
VALUES ON THE DIAGNOSIS TOOL

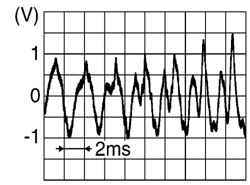
Monitor Item	Condition	Value/Status
HF TYPE	Ignition switch ON	BT
AUDIO UNIT TYPE		NAVI
CALL SWITCH TYPE		SOS
SPEAKER TYPE		INDRCT
ZONE		USA
CHANNEL		NISSAN
CAN COMM		GEN.3
AV COMM		ENABLE
K-LINE		DISABLE
VEHICLE TYPE		ENG
ECHO CANCEL		TYPE1
NOISE CANCEL		TYPE1
TCU STANDBY TIME	Set at 14 days (default)	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		4.0
SENSOR ANGLE Z		4.0
SVTB		DISABLE
REMOTE DOOR LOCK		DISABLE
REMOTE HORN & LAMP		DISABLE
REMOTE START		DISABLE
NAD OUTPUT STATUS	When TCU activation is ON	On
	When TCU activation is OFF	Off
ACN COMM SEQUENCE LOG	—	—
SOS COMM SEQUENCE LOG	—	—
SOS SW	SOS switch pressed	On
	SOS switch released	Off

TERMINAL LAYOUT



PHYSICAL VALUES

Terminal (Wire color) +	Terminal (Wire color) –	Description: Signal name	Description: Input/ Output	Condition	Reference value (Approx.)
1 (Y)	29 (B)	Battery power supply	Input	Ignition switch OFF	Battery Voltage
2 (R)	29 (B)	ACC power supply	Input	Ignition switch ACC	Battery Voltage
3 (R)	29 (B)	ACC power supply	Output	Ignition switch ACC	Battery Voltage
5 (W/L)	28 (B)	SOS switch LED signal	Input	Ignition switch ACC • When not illuminated LED lamp of SOS switch	Battery Voltage
				Ignition switch ACC • When illuminated LED lamp of SOS switch	0 V
6 (L)	—	CAN high	Input/ Output	—	—
7 (P)	—	CAN low	Input/ Output	—	—
10 (G/R)	29 (B)	Ignition signal	Input	Ignition switch ON	Battery Voltage
11 (Shield)	—	Microphone shield	—	—	—
12 (W)	11 (Shield)	Microphone signal	Output	Ignition switch ACC • When inputting interior sound	
16 (Shield)	—	Microphone ground	—	—	—
17 (W)	16 (Shield)	Microphone signal	Input	Ignition switch ACC • When inputting interior sound	
18 (R)	16 (Shield)	Microphone VCC	Input	Ignition switch ACC	5 V
26 (SB)	—	AV communication high	Input/ Output	—	—
27 (LG)	—	AV communication low	Input/ Output	—	—
28 (B)	Ground	Ground	—	Ignition switch ON	0 V
29 (B)	Ground	Ground	—	Ignition switch ON	0 V

Terminal (Wire color)		Description		Condition	Reference value (Approx.)
+	–	Signal name	Input/ Output		
31 (W)	32 (R)	Sound signal (+)	Output	Ignition switch ACC • When inputting interior sound	 SKIB3609E
37 (P)	28 (B)	SOS call switch signal	Input	Ignition switch ACC • When pressing SOS switch	0 V
				Ignition switch ACC • Except for above	5 V
41 (B)	—	V BUS signal	—	—	—
43 (G)	—	D- signal	Input/ Output	—	—
44 (W)	—	D+ signal	Input/ Output	—	—
45 (R)	—	ground	Input	—	—
46 (Shield)	—	Shield	—	—	—
47 (B)	Ground	TEL antenna signal	Input	Not connected TEL antenna connector.	2.8 V
48 (Shield)	—	Shield	—	—	—
49 (B)	Ground	GPS antenna signal	Input	Not connected GPS antenna connector.	2.8 V
50 (Shield)	—	Shield	—	—	—

Fail-safe

INFOID:0000000014387112

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 systems do not function. • Inform a NISSANCONNECT^{SM} center about abnormality.	U1A10
CAN communication	• Telematics system does not function. • Inform a NISSANCONNECT^{SM} center about abnormality.	U1000
TEL antenna	• Telematics switch LED indicator OFF. (LED indicator turns ON 10 times when the SOS call switch is pressed.) • When operating the telematics system, cannot be connected to the NISSANCONNECT^{SM} center.	U1A06
GPS antenna	• Telematics system cannot send correct positional information. • Inform a NISSANCONNECT^{SM} center about abnormality.	U1A0A
TCU	Telematics system function stops.	U1010
	• Telematics system function stops. • When operating the telematics system, cannot be connected to the NISSANCONNECT^{SM} center.	U1A11

Detection item	Telematics system operation in fail-safe mode	DTC
Telematics switch (SOS call switch)	• Telematics system does not function. (Only SOS call inoperative.) • Telematics switch LED indicator OFF.	U1A0E
Microphone	• Transmit vehicle position to the NISSANCONNECT^{SM} center. • Inform a NISSANCONNECT^{SM} center about abnormality.	U1A0B U1A0C

DTC Inspection Priority Chart

INFOID:0000000014387113

If multiple DTCs are detected simultaneously, check them one by one depending on the following DTC inspection priority chart.

Priority	Detected items (DTC)
1	• U1000: CAN COMM CIRCUIT • U1010: CONTROL UNIT(CAN)
3	• B130C: TCU pairing error • U1A00: ACC not connected • U1A05: USB COMM • U1A06: TEL ANTENNA ERROR • U1A0A: GPS MODULE COMM • U1A0B: MIC IN CONN • U1A0C: MIC OUT CONN • U1A0E: SOS SWITCH ON STUCK • U1A10: AIRBAG SIGNAL • U1A11: TEL MUTE OUTPUT SIGNAL NO CONN

DTC Index

INFOID:0000000014387114

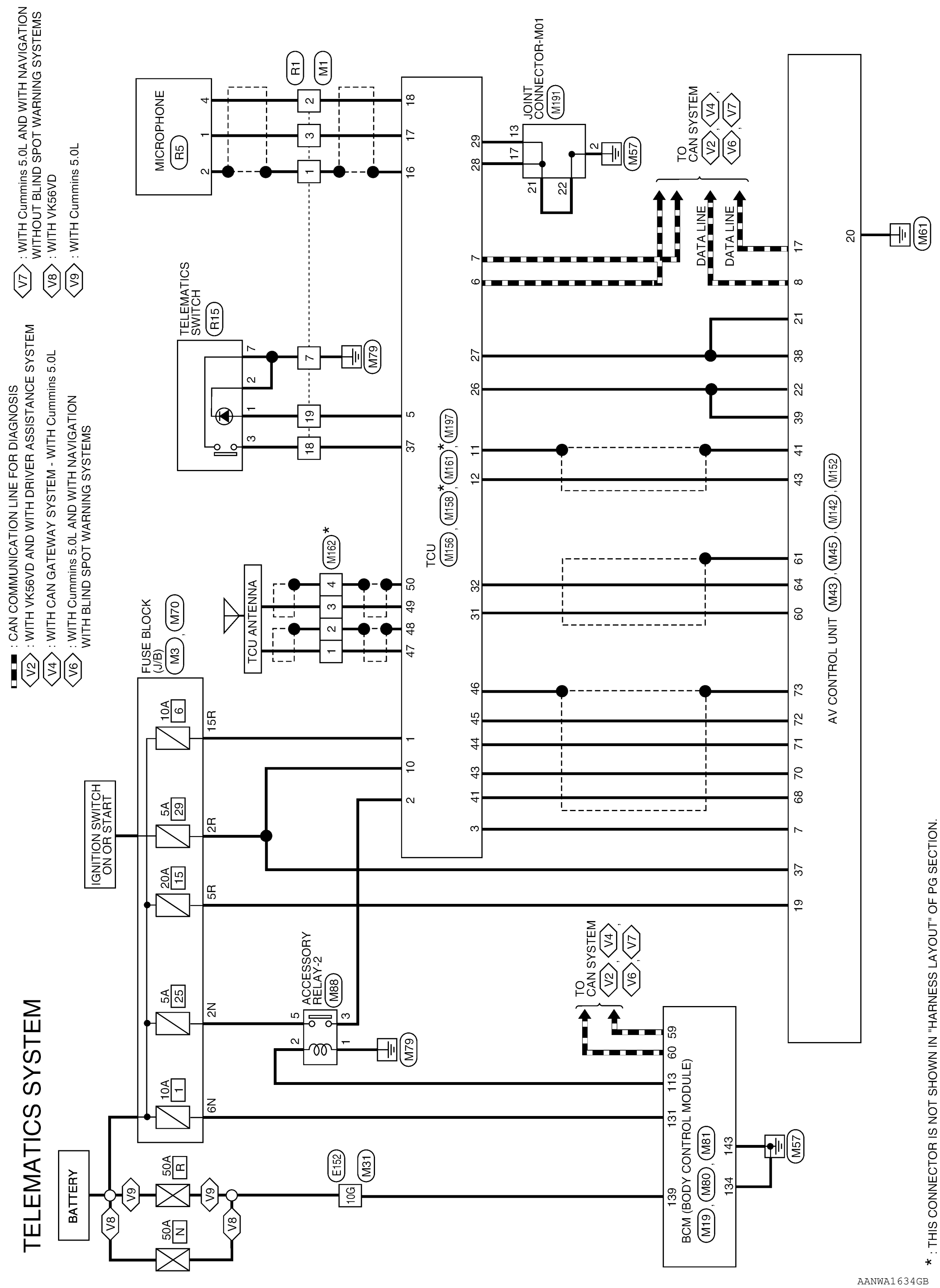
DTC	Display contents of CONSULT	Reference
B130C	TCU pairing error	AV-417, "DTC Description"
U1000	CAN COMM CIRCUIT	AV-418, "DTC Description"
U1010	CONTROL UNIT (CAN)	AV-419, "DTC Description"
U1A00	ACC NO CONN	AV-420, "DTC Description"
U1A05	USB COMM	AV-421, "DTC Description"
U1A06	TEL ANTENNA ERROR	AV-423, "DTC Description"
U1A0A	GPS MODULE COMM	AV-425, "DTC Description"
U1A0B	MIC IN CONN	AV-426, "DTC Description"
U1A0C	MIC OUT CONN	AV-428, "DTC Description"
U1A0E	SOS SWITCH ON STUCK	AV-430, "DTC Description"
U1A10	AIR BAG SIGNAL	AV-432, "DTC Description"
U1A11	TEL MUTE OUTPUT SIGNAL NO CONN	AV-433, "DTC Description"

WIRING DIAGRAM

TELEMATICS SYSTEM

Wiring Diagram

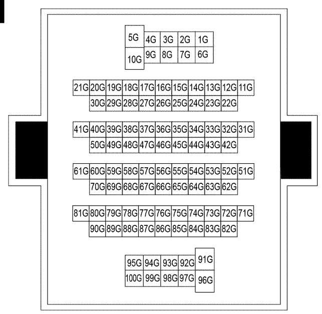
INFOID:0000000014387115



TELEMATICS SYSTEM CONNECTORS

Connector No.	E152
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4
Connector Color	WHITE

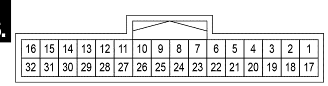
H.S.



Terminal No.	Color of Wire	Signal Name
1G	G	TO MAIN HARNESS
2G	B/R	TO MAIN HARNESS
3G	W/B	TO MAIN HARNESS
4G	BR/W	TO MAIN HARNESS
5G	BR	TO MAIN HARNESS
6G	P	TO MAIN HARNESS - (WITH VK56VD)
6G	R/W	TO MAIN HARNESS - (WITH CUMMINS 5.0L)
7G	Y	TO MAIN HARNESS
8G	G	TO MAIN HARNESS
9G	R	TO MAIN HARNESS
10G	W	TO MAIN HARNESS
11G	R/G	TO MAIN HARNESS
12G	W/B	TO MAIN HARNESS
13G	BR	TO MAIN HARNESS
14G	Y/B	TO MAIN HARNESS
15G	G/W	TO MAIN HARNESS
16G	G	TO MAIN HARNESS
17G	G/Y	TO MAIN HARNESS
18G	G/Y	TO MAIN HARNESS
19G	Y/V	TO MAIN HARNESS
20G	G/Y	TO MAIN HARNESS
21G	B/Y	TO MAIN HARNESS
22G	G/R	TO MAIN HARNESS
23G	Y/R	TO MAIN HARNESS
24G	G/B	TO MAIN HARNESS
25G	R/W	TO MAIN HARNESS
26G	R	TO MAIN HARNESS
27G	LG	TO MAIN HARNESS
28G	G/B	TO MAIN HARNESS
29G	G/B	TO MAIN HARNESS
30G	BR/Y	TO MAIN HARNESS
31G	P	TO MAIN HARNESS - (WITH CUMMINS 5.0L)
31G	R	TO MAIN HARNESS - (WITH VK56VD)
32G	P	TO MAIN HARNESS
33G	Y/L	TO MAIN HARNESS
34G	GR	TO MAIN HARNESS
35G	G/R	TO MAIN HARNESS
36G	SB	TO MAIN HARNESS
37G	R/W	TO MAIN HARNESS
38G	BR	TO MAIN HARNESS
39G	BR	TO MAIN HARNESS
40G	–	TO MAIN HARNESS
41G	R/G	TO MAIN HARNESS
42G	O	TO MAIN HARNESS
43G	B	TO MAIN HARNESS - (WITH CUMMINS 5.0L)
43G	G	TO MAIN HARNESS - (WITH VK56VD)
44G	R/Y	TO MAIN HARNESS
45G	G	TO MAIN HARNESS
46G	LG	TO MAIN HARNESS
47G	R	TO MAIN HARNESS
48G	W	TO MAIN HARNESS
49G	–	TO MAIN HARNESS
50G	BR	TO MAIN HARNESS
51G	R	TO MAIN HARNESS
52G	L	TO MAIN HARNESS
53G	W	TO MAIN HARNESS
54G	W	TO MAIN HARNESS
55G	G	TO MAIN HARNESS
56G	W	TO MAIN HARNESS
57G	Y	TO MAIN HARNESS
58G	BG	TO MAIN HARNESS
59G	BG	TO MAIN HARNESS
60G	BG	TO MAIN HARNESS
61G	B	TO MAIN HARNESS
62G	W	TO MAIN HARNESS
63G	R	TO MAIN HARNESS
64G	W/L	TO MAIN HARNESS
65G	W/R	TO MAIN HARNESS
66G	BG	TO MAIN HARNESS
67G	BG	TO MAIN HARNESS
68G	B	TO MAIN HARNESS
69G	Y	TO MAIN HARNESS
70G	L	TO MAIN HARNESS
71G	R/W	TO MAIN HARNESS
72G	L/W	TO MAIN HARNESS
73G	SHIELD	TO MAIN HARNESS
74G	W	TO MAIN HARNESS
75G	R	TO MAIN HARNESS
76G	R/G	TO MAIN HARNESS
77G	G	TO MAIN HARNESS
78G	W	TO MAIN HARNESS
79G	–	TO MAIN HARNESS
80G	R	TO MAIN HARNESS
81G	L	TO MAIN HARNESS
82G	R	TO MAIN HARNESS
83G	L	TO MAIN HARNESS
84G	L	TO MAIN HARNESS
85G	W/B	TO MAIN HARNESS
86G	B/R	TO MAIN HARNESS
87G	W/B	TO MAIN HARNESS
88G	P	TO MAIN HARNESS
89G	L	TO MAIN HARNESS
90G	G	TO MAIN HARNESS
91G	G	TO MAIN HARNESS
92G	V/W	TO MAIN HARNESS
93G	BR	TO MAIN HARNESS
94G	G	TO MAIN HARNESS
95G	G	TO MAIN HARNESS
96G	W	TO MAIN HARNESS
97G	R	TO MAIN HARNESS
98G	W/B	TO MAIN HARNESS
99G	BR	TO MAIN HARNESS
100G	GR/W	TO MAIN HARNESS

Connector No.	M1
Connector Name	WIRE TO WIRE
Connector Type	TH32FW-NH
Connector Color	WHITE

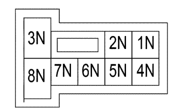
H.S.



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

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	CS06FW-M2
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
1N	–	–
2N	W	BATTERY
3N	W	BLOWER FAN RELAY OUT
4N	V	BATTERY
5N	Y	BATTERY
6N	W	BATTERY
7N	L	ACC RELAY OUT
8N	W	IGNITION

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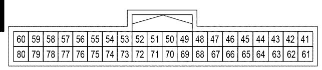
TELEMATICS SYSTEM CONNECTORS

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

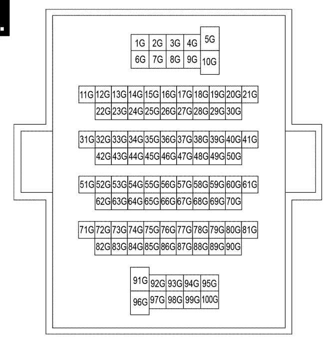
H.S.



Terminal No.	Color of Wire	Signal Name
41	Y/L	TRAILER LIGHT CHECK RELAY OUT
42	R/Y	CARGO LAMP OUT
43	–	–
44	–	–
45	–	–
46	–	–
47	–	–
48	R	HIGH SIDE START SW LED
49	–	–
50	–	–
51	–	–
52	W	AUDIO DONGLE
53	–	–
54	W/L	PW UART
55	W/B	L&R SENSOR K-LINE
56	–	–
57	–	–
58	–	–
59	P	CAN-L
60	L	CAN-H
61	O	REAR DEFOGGER RELAY OUT
62	W	STARTER RELAY OUT
63	–	–
64	P	BUZZER OUT
65	–	–
66	W	BLOWER FAN RELAY OUT
67	G	IGN ELEC RELAY OUT 2
68	L	MR OUTPUT
69	R/B	AT DEVICE OUT
70	P	IGN USM OUT 1
71	O	DR REQUEST SW
72	G	AS REQUEST SW
73	–	–
74	–	–
75	L/W	COMBI SW OUT 5
76	P	COMBI SW OUT 4
77	L	COMBI SW OUT 3
78	O/B	COMBI SW OUT 2
79	R/W	COMBI SW OUT 1
80	–	–

Connector No.	M31
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4
Connector Color	WHITE

H.S.



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

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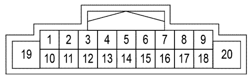
TELEMATICS SYSTEM CONNECTORS

Connector No.	M43
Connector Name	AV CONTROL UNIT (WITH AUDIO AMPLIFIER)
Connector Type	NH18FW-CS2
Connector Color	WHITE

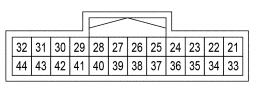
H.S.



Terminal No.	Color of Wire	Signal Name
1	G/W	AMP ON
2	L	FR SP LH+
3	W	FR SP LH-
4	L	RR SP LH+
5	BR	RR SP LH-
6	–	–
7	R	ACC
8	L	CAN-H
9	L	ILL (+)
10	SHIELD	PRE AMP SHIELD
11	B	FR SP RH+
12	Y	FR SP RH-
13	B/W	RR SP RH+
14	P	RR SP RH-
15	–	–
16	–	–
17	P	CAN-L
18	G	SPEED SIG
19	W	BAT
20	B	GND

Connector No.	M45
Connector Name	AV CONTROL UNIT (WITH AUDIO AMPLIFIER)
Connector Type	TH24FW-NH
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
21	LG	M CAN2-L
22	SB	M CAN2-H
23	L	MR OUTPUT
24	–	–
25	–	–
26	–	–
27	–	–
28	G/W	REVERSE SIGNAL
29	–	–
30	V	AUX L
31	GR	AUX GND
32	G	AUX R
33	L/W	CAMERA GND
34	L	CAMERA ON
35	SHIELD	COMP- (WITH AROUND VIEW CAMERA)
35	R/W	COMP- (WITH REAR VIEW CAMERA)
36	G	COMP+ (WITH AROUND VIEW CAMERA)
36	R	COMP+ (WITH REAR VIEW CAMERA)
37	G/R	IGN
38	LG	M CAN1-L
39	SB	M CAN1-H
40	SHIELD	AUX SHIELD
41	SHIELD	MIC GND
42	R	MIC VCC(WITHOUT TELEMATICS)
43	W	MIC SIGNAL
44	GR	ILL (-)

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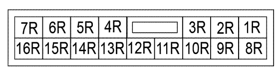
Connector No.	M70
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS16FBR-CS
Connector Color	BROWN

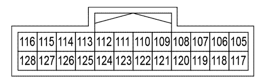
H.S.



Terminal No.	Color of Wire	Signal Name
1R	L	TAIL LAMP 2
2R	G/R	IGNITION
3R	Y/R	BATTERY
4R	–	–
5R	W	BATTERY
6R	G/W	ACCESSORY
7R	–	–
8R	–	–
9R	–	–
10R	W	BATTERY
11R	–	–
12R	BG	BATTERY
13R	B	ACCESSORY
14R	G/Y	BATTERY
15R	Y	BATTERY
16R	G/R	ACCESSORY

Connector No.	M80
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH24FB-NH
Connector Color	BLACK

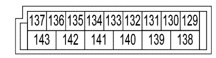
H.S.



Terminal No.	Color of Wire	Signal Name
105	G/Y	FR FLASHER
106	–	–
107	W	LOW SIDE START SW LED
108	L/R	SHIFT LOCK SOLENOID OUT
109	–	–
110	–	–
111	P	ACC LED
112	–	–
113	L	ACC RELAY OUT
114	W	AS DOOR ANT A
115	BG	AS DOOR ANT B
116	W	ROOM ANT 2 A
117	G/B	FL FLASHER
118	–	–
119	R	RF NIMOCO
120	–	–
121	G	DR DOOR ANT B
122	P	DR DOOR ANT A
123	W	ROOM ANT 1 A
124	G	ROOM ANT 1 B
125	–	–
126	P	IMMO START BUTTON ANT B
127	BG	IMMO START BUTTON ANT A
128	B	ROOM ANT 2 B

Connector No.	M81
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FEA09FW-FHA6-SA
Connector Color	WHITE

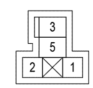
H.S.



Terminal No.	Color of Wire	Signal Name
129	R/G	BATTERY SAVER OUT
130	LG	SUPER LOCK/DOOR UNLOCK AS
131	W	BAT BCM FUSE
132	Y	DOOR LOCK AS/RR/RL
133	BR	DOOR UNLOCK AS/RR/RL
134	B	GND2
135	O	DOOR LOCK DR/AS/FL
136	L	ROOM LAMP CONT
137	V	DOOR UNLOCK DR/AS/FL
138	V	BAT REAR DOOR
139	W	BAT-POWER F/L
140	LG	P/W POWER SUPPLY IGN
141	V	P/W POWER SUPPLY BAT
142	Y	BAT FRONT DOOR
143	B	GND1

Connector No.	M88
Connector Name	ACCESSORY RELAY-2
Connector Type	MS02FL-M2-LC
Connector Color	BLUE

H.S.

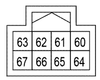


Terminal No.	Color of Wire	Signal Name
1	B	GROUND
2	L	RELAY CONTROL
3	R	RELAY OUTPUT
5	W	BATTERY

TELEMATICS SYSTEM CONNECTORS

Connector No.	M142
Connector Name	AV CONTROL UNIT (WITH AUDIO AMPLIFIER)
Connector Type	TH08FW-NH
Connector Color	WHITE

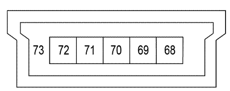
H.S.



Terminal No.	Color of Wire	Signal Name
60	W	TCU IN+
61	SHIELD	DCM SHIELD
62	–	–
63	–	–
64	R	TCU IN-
65	–	–
66	–	–
67	–	–

Connector No.	M152
Connector Name	AV CONTROL UNIT (WITH AUDIO AMPLIFIER)
Connector Type	USCAR30-MD-M
Connector Color	GREEN

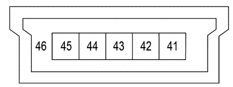
H.S.



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	TCU
Connector Type	USCAR30-MD-M
Connector Color	GREEN

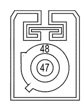
H.S.



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.	M158
Connector Name	TCU
Connector Type	FAKRA CODE H 4003
Connector Color	PINK

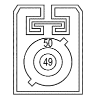
H.S.



Terminal No.	Color of Wire	Signal Name
47	B	GSM ANT
48	SHIELD	GSM SHIELD

Connector No.	M161
Connector Name	TCU
Connector Type	3FA1ANCSJ-C02W0
Connector Color	BLUE

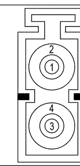
H.S.



Terminal No.	Color of Wire	Signal Name
49	B	GPS ANT
50	SHIELD	GPS SHIELD

Connector No.	M162
Connector Name	TCU ANTENNA
Connector Type	GT16CN-2PP-HUA
Connector Color	BROWN

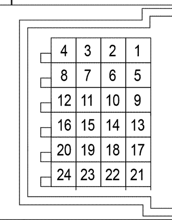
H.S.



Terminal No.	Color of Wire	Signal Name
1	B	GSM ANT
2	SHIELD	GSM SHIELD
3	B	GPS ANT
4	SHIELD	GPS SHIELD

Connector No.	M191
Connector Name	JOINT CONNECTOR-M01
Connector Type	NH24FW-J
Connector Color	WHITE

H.S.



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

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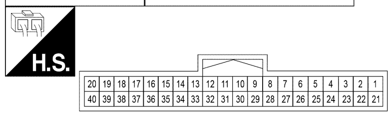
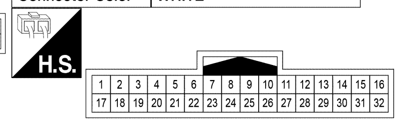
TELEMATICS SYSTEM CONNECTORS

Connector No.	M197
Connector Name	TCU
Connector Type	TH40FB-NH
Connector Color	BLACK



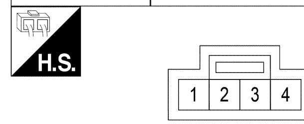
Terminal No.	Color of Wire	Signal Name
1	Y	BAT
2	R	ACC
3	R	ACC OUT
4	–	–
5	W/L	LED A
6	L	CAN-H
7	P	CAN-L
8	–	–
9	–	–
10	G/R	IGN
11	SHIELD	MIC OUT GND
12	W	MIC OUT SIGNAL
13	–	–
14	–	–
15	–	–
16	SHIELD	MIC GND
17	W	MIC SIGNAL
18	R	MIC VCC
19	–	–
20	–	–
21	–	–
22	–	–
23	–	–
24	–	–
25	–	–
26	SB	M-CAN H
27	LG	M-CAN L
28	B	GND
29	B	GND
30	–	–
31	W	AUDIO HU OUT+
32	R	AUDIO HU OUT-
33	–	–
34	–	–
35	–	–
36	–	–
37	P	ECALL SW
38	–	–
39	–	–
40	–	–

Connector No.	R1
Connector Name	WIRE TO WIRE
Connector Type	TH32MW-NH
Connector Color	WHITE



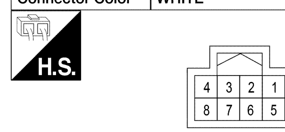
Terminal No.	Color of Wire	Signal Name
1	SHIELD	TO MAIN HARNESS
2	R	TO MAIN HARNESS
3	W	TO MAIN HARNESS
4	Y/R	TO MAIN HARNESS
5	G/W	TO MAIN HARNESS
6	G/R	TO MAIN HARNESS
7	B	TO MAIN HARNESS
8	L	TO MAIN HARNESS
9	R/G	TO MAIN HARNESS
10	G	TO MAIN HARNESS
11	L/W	TO MAIN HARNESS
12	L	TO MAIN HARNESS
13	GR	TO MAIN HARNESS
14	R	TO MAIN HARNESS
15	W/B	TO MAIN HARNESS
16	L/B	TO MAIN HARNESS
17	–	TO MAIN HARNESS
18	P	TO MAIN HARNESS
19	W/L	TO MAIN HARNESS
20	W/B	TO MAIN HARNESS
21	–	TO MAIN HARNESS
22	–	TO MAIN HARNESS
23	–	TO MAIN HARNESS
24	–	TO MAIN HARNESS
25	–	TO MAIN HARNESS
26	–	TO MAIN HARNESS
27	–	TO MAIN HARNESS
28	Y/R	TO MAIN HARNESS
29	G/R	TO MAIN HARNESS
30	G/W	TO MAIN HARNESS
31	LG/B	TO MAIN HARNESS
32	Y/V	TO MAIN HARNESS

Connector No.	R5
Connector Name	MICROPHONE
Connector Type	TK04FW
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	W	MIC +
2	SHIELD	MIC GROUND
3	–	–
4	R	MIC V +

Connector No.	R15
Connector Name	TELEMATICS SWITCH
Connector Type	TH08FW-NH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	W/L	LED GREEN
2	B	GROUND
3	P	ECALL SW
4	–	–
5	L	ILLUMINATION +
6	GR	ILLUMINATION -
7	B	GROUND
8	–	–

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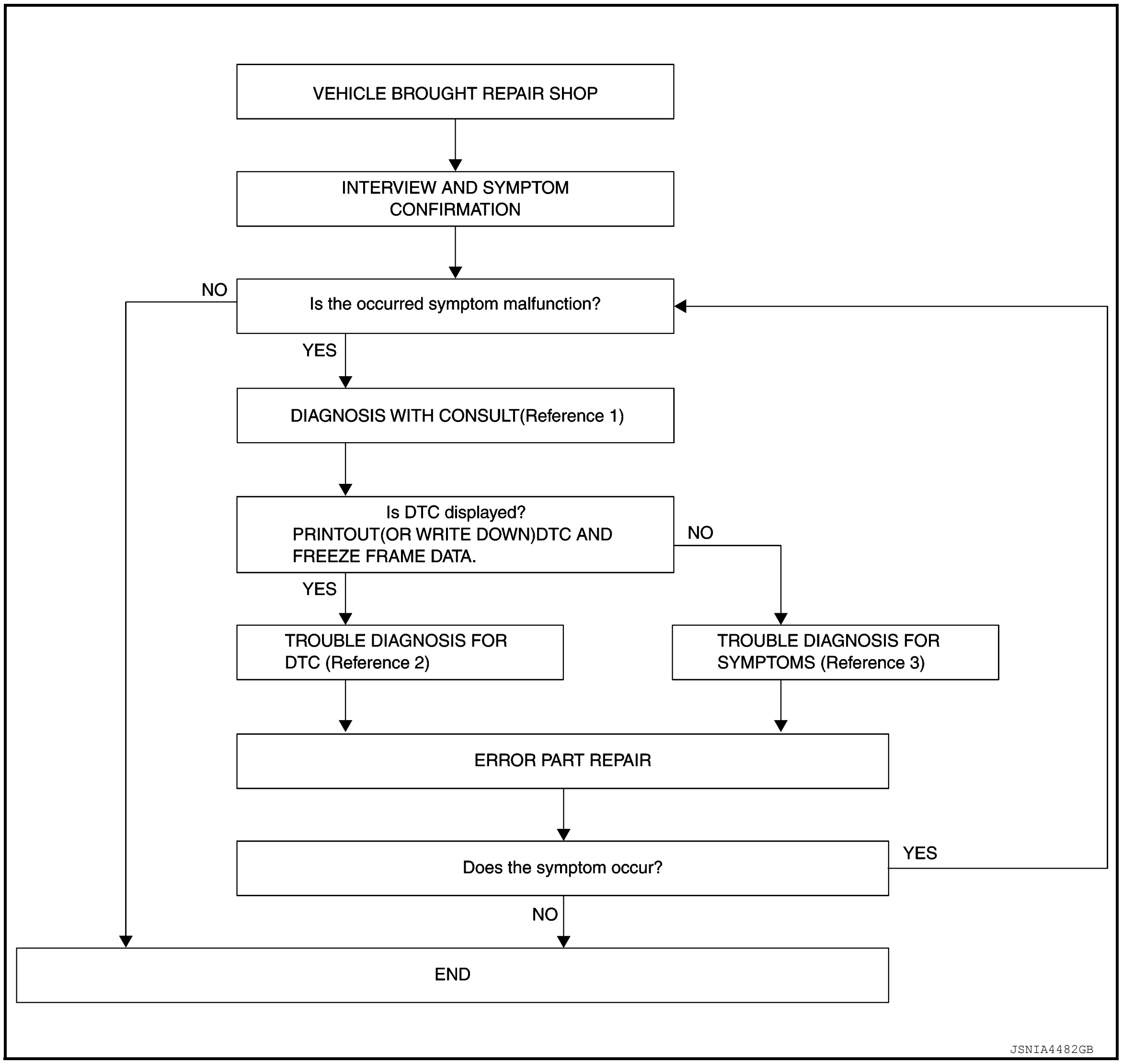
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

INFOID:0000000014387116

OVERALL SEQUENCE



- Reference 1··· Refer to AV-400, "CONSULT Function".
- Reference 2··· Refer to AV-405, "DTC Index".
- Reference 3··· Refer to AV-436, "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-400, "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-405, "DTC Index".

>> GO TO 5.

4.TROUBLE DIAGNOSIS FOR SYMPTOMS

Perform the relevant diagnosis referring to the diagnosis chart by symptom. Refer to AV-436, "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:0000000014387117

When TCU is replaced, TCU activation operation is required. Refer to AV-414, "Work Procedure".

Preparation before activation operation

- Subscribe to telematics service
- Preregister user ID and password (can be performed from owner homepage)

Work Procedure

INFOID:0000000014387118

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-439, "Removal and Installation".

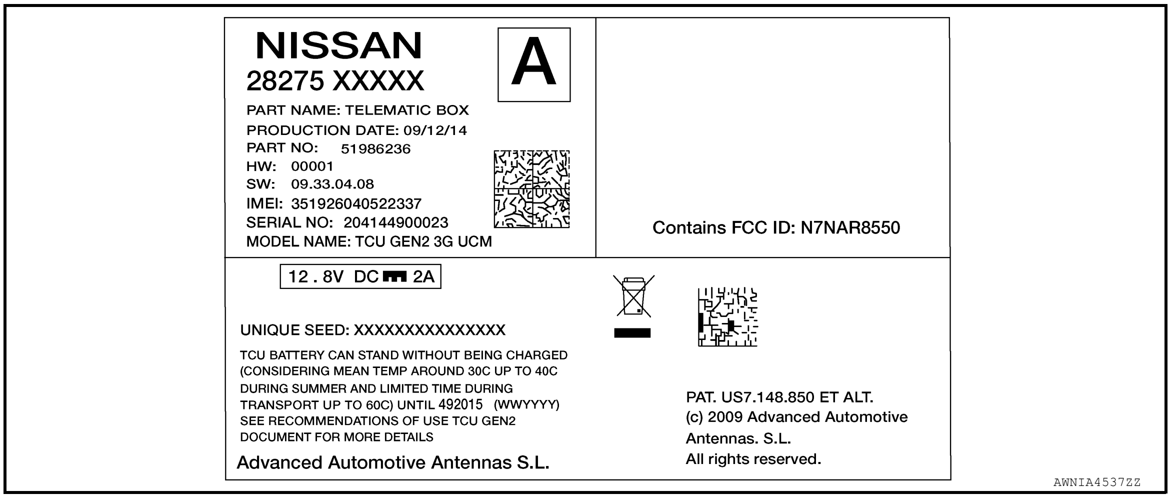
>> GO TO 4.

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-439, "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^{SM} 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

B130C TCU

DTC Description

INFOID:0000000014692703

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
B130C	TCU pairing error (TCU pairing error)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	—
		Diagnosis delay time	—

POSSIBLE CAUSE

- TCU pairing
- 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 B130C detected?

YES >> Proceed to AV-417, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014692704

1.PERFORM WORK PROCEDURE

Perform Work Procedure steps 8 through 12. Refer to AV-414, "Work Procedure".

Is the Telematics system operating normally?

YES >> Inspection End.
NO >> Replace the TCU. Refer to AV-439, "Removal and Installation".

U1000 CAN COMM CIRCUIT

DTC Description

INFOID:0000000014387119

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-74, "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 “TELEMATICS”.
3. Check DTC.

Is DTC U1000 detected?

YES >> Proceed to AV-418, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014387120

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-53, "Trouble Diagnosis Flow Chart".
NO >> Refer to GI-47, "Intermittent Incident".

U1010 CONTROL UNIT (CAN)

DTC Description

INFOID:0000000014387121

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-74, "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 “TELEMATICS”.
3. Check DTC.

Is DTC U1010 detected?

YES >> Proceed to AV-419, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014387122

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-439, "Removal and Installation".
NO >> Refer to GI-47, "Intermittent Incident".

U1A00 TCU

DTC Description

INFOID:0000000014387123

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U1A00	ACC not connected (ACC not connected)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	No input of ACC signal
		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 U1A00 detected?

YES >> Proceed to AV-420, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014387124

1.CHECK ACC POWER CIRCUIT

Check the ACC power circuit. Refer to AV-435, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Replace TCU. Refer to AV-439, "Removal and Installation".
NO >> Repair or replace malfunctioning parts.

U1A05 TCU

DTC Description

INFOID:0000000014387125

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-421, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014387126

Regarding Wiring Diagram information, refer to AV-406, "Wiring Diagram".

1.CHECK USB CIRCUITS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect TCU connector M156 and AV control unit connector M152.
3. Check continuity between TCU connector M156 and AV control unit connector M152.

TCU		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M156	41	M152	68	Yes
	43		70	
	44		71	
	45		72	
	46		73	

4. Check the continuity between TCU connector M156 and ground.

TCU		Ground	Continuity
Connector	Terminal		
M156	41	—	No
	44		

Is the inspection result normal?

YES >> Replace TCU. Refer to AV-439, "Removal and Installation".

NO >> Repair or replace harness or connectors.

U1A06 TEL ANTENNA

DTC Description

INFOID:0000000014387127

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)	—
		Threshold	Malfunction detected in TEL antenna signal circuit between TCU and TEL antenna
		Diagnosis delay time	—

POSSIBLE CAUSE

- TEL antenna signal circuit
- TEL antenna
- 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 U1A06 detected?

YES >> Proceed to AV-423, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014387128

Regarding Wiring Diagram information, refer to AV-406, "Wiring Diagram".

1. CHECK TELEMATICS ANTENNA

Visually check telematics antenna and antenna feeder. Refer to AV-441, "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 M158.
2. Turn ignition switch ON.
3. Check voltage between TCU connector M158 and ground.

TCU		Ground	Voltage (Approx.)
Connector	Terminal		
M158	47		2.8 V

Is the check result normal?

YES >> Replace telematics antenna. Refer to AV-441, "Removal and Installation".

NO >> Replace TCU. Refer to AV-439, "Removal and Installation".

U1A0A TCU

DTC Description

INFOID:0000000014387131

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-425, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014387132

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-439, "Removal and Installation".
NO >> Refer to GI-47, "Intermittent Incident".

U1A0B MICROPHONE

DTC Description

INFOID:0000000014387133

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

—

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-426, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014387134

Regarding Wiring Diagram information, refer to AV-406, "Wiring Diagram".

1.CHECK MIC IN SIGNAL CIRCUIT AND MIC VCC CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect TCU connector M197 and microphone connector R5.
3. Check continuity between TCU connector M197 and microphone connector R5.

TCU		Microphone		Continuity
Connector	Terminal	Connector	Terminal	
M197	16	R5	2	Yes
	17		1	
	18		4	

4. Check the continuity between TCU connector M197 and ground.

TCU		Ground	Continuity
Connector	Terminal		

M197	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 M197 and microphone connector R5.
2. Turn ignition switch ON.
3. Check voltage between terminals of TCU connector M197.

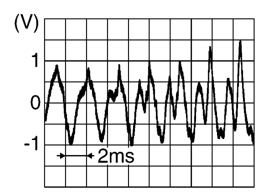
TCU connector M197		Voltage (Approx.)
(+)	(–)	
Terminal	Terminal	
18	16	5.0 V

Is the inspection result normal?

YES >> GO TO 3.
NO >> Replace TCU. Refer to AV-439, "Removal and Installation".

3.CHECK MIC IN SIGNAL

Check signal between terminals of TCU connector M197.

TCU connector M197		Condition	Reference value
(+)	(–)		
Terminal	Terminal		
17	16	Speak into microphone.	 SKIB3609E

Is the inspection result normal?

YES >> Replace TCU. Refer to AV-439, "Removal and Installation".
NO >> Replace microphone. Refer to AV-442, "Removal and Installation".

U1A0C MICROPHONE

DTC Description

INFOID:0000000014387135

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U1A0C	MIC OUT CONN (MIC out conn)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	No output of microphone circuits
		Diagnosis delay time	—

POSSIBLE CAUSE

- Harness or connectors
- TCU
- 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 “TELEMATICS”.
3. Check DTC.

Is DTC U1A0C detected?

YES >> Proceed to AV-428, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014387136

Regarding Wiring Diagram information, refer to AV-406, "Wiring Diagram".

1.CHECK TCU MIC SIGNAL CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect TCU connector M197 and AV control unit connector M45.
3. Check continuity between TCU connector M197 and AV control unit connector M45.

TCU		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M197	11	M45	41	Yes
	12		43	

4. Check the continuity between TCU connector M197 and ground.

TCU		Ground	Continuity
Connector	Terminal		
M197	12	—	No

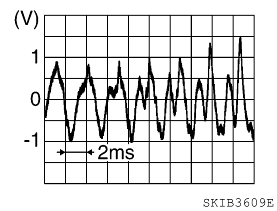
Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness or connectors.

2.CHECK TCU MIC SIGNAL

Check signal between TCU connector M197.

TCU connector M197		Condition	Reference value
(+)	(–)		
Terminal	Terminal		
12	11	Speak into microphone.	

Is the inspection result normal?

YES >> Replace TCU. Refer to AV-439, "Removal and Installation".

NO >> Replace AV control unit. Refer to AV-438, "Removal and Installation".

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

U1A0E TELEMATICS SWITCH

DTC Description

INFOID:0000000014387137

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)	—
		Threshold	ECALL SW short circuit
		Diagnosis delay time	—

POSSIBLE CAUSE

- Harness or connectors
- Telematics switch
- 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 U1A0E detected?

YES >> Proceed to AV-430, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014387138

Regarding Wiring Diagram information, refer to AV-406, "Wiring Diagram".

1. CHECK ECALL SW FOR SHORT CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect TCU connector M197 and telematics switch connector R15.
3. Check the continuity between TCU connector M197 and ground.

TCU		Ground	Continuity
Connector	Terminal		
M197	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 R15		Condition	Continuity
Terminal	Terminal		

3	7	Switch pressed	Yes
		Switch released	No

Is the inspection result normal?

YES >> Replace TCU. Refer to AV-439, "Removal and Installation".
NO >> Replace telematics switch. Refer to AV-440, "Removal and Installation".

U1A10 TCU

DTC Description

INFOID:0000000014387139

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)	—
		Threshold	When an abnormal signal from air bag diagnosis sensor is detected
		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 “TELEMATICS”.
3. Check DTC.

Is DTC U1A10 detected?

YES >> Proceed to AV-432, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014387140

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-18, "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-439, "Removal and Installation".
NO >> Refer to GI-47, "Intermittent Incident".

U1A11 TCU

DTC Description

INFOID:0000000014387141

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

—

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-433, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-47, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000014387142

Regarding Wiring Diagram information, refer to AV-406, "Wiring Diagram".

1. CHECK CIRCUIT CONTINUITY BETWEEN TCU AND AV CONTROL UNIT

1. Turn ignition switch OFF.
2. Disconnect TCU connector M197 and AV control unit connector M142.
3. Check continuity between TCU connector M197 and AV control unit connector M142.

TCU		AV control unit		Continuity
Connector	Terminals	Connector	Terminals	
M197	31	M142	60	Yes
	32		64	

4. Check continuity between TCU connector M197 and ground.

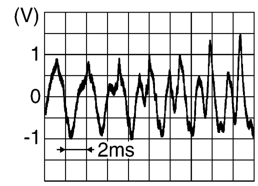
TCU		Ground	Continuity
Connector	Terminals		
M197	31		No

Is the inspection result normal?

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

2.CHECK AUDIO SIGNAL

1. Connect TCU connector M197 and AV control unit connector M142.
2. Turn ignition switch ON.
3. Check signal between TCU connector M197 terminals.

TCU connector M197		Condition	Reference value
Terminal	Terminal		
(+)	(–)		
31	32	When inputting interior sound	 SKIB3609E

Is the inspection result normal?

YES >> Replace TCU. Refer to AV-439, "Removal and Installation".
NO >> Replace AV control unit. Refer to AV-438, "Removal and Installation".

POWER SUPPLY AND GROUND CIRCUIT

Diagnosis Procedure

INFOID:0000000014387143

Regarding Wiring Diagram information, refer to AV-406, "Wiring Diagram".

1.CHECK FUSE

Check that the following fuses are not blown.

Terminal No.	Signal name	Fuse No.
1	Battery power supply	6 (10A)
2	ACC power supply	25 (5A)
10	Ignition signal	29 (5A)

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 M197.
3. Check voltage between TCU connector M197 and ground.

TCU		Ground	Condition	Voltage (Approx.)
Connector	Terminal			
M197	1	—	Ignition switch: OFF	Battery voltage
	2		Ignition switch: ACC	
	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 M197 and ground.

TCU		Ground	Continuity
Connector	Terminal		
M197	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:0000000014387144

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-400, "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-439, "Removal and Installation". • Turn it ON again if it is OFF. Replace TCU if ON is switched to OFF. Refer to AV-439, "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-439, "Removal and Installation". - For TEL antenna replacement, refer to AV-441, "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 NISSANCONNECTION^{SM} Data Center. Check connection after a short period of time. If there is no problem at the NISSANCONNECTION^{SM} Data Center, replace TCU or TEL antenna. - For TCU replacement, refer to AV-439, "Removal and Installation". - For TEL antenna replacement, refer to AV-441, "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-438, "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-439, "Removal and Installation".
		The connection to the center failed.	There may be a cause at the NISSANCONNECTION^{SM} Data Center. Check connection after a short period of time. If there is no problem at the NISSANCONNECTION^{SM} Data Center, replace TCU or TEL antenna. • For TCU replacement, refer to AV-439, "Removal and Installation". • For TEL antenna replacement, refer to AV-441, "Removal and Installation".

NORMAL OPERATING CONDITION

Description

INFOID:0000000014387145

NOTE:
For Telematics system operation detail information, refer to Navigation system Owner's Manual.

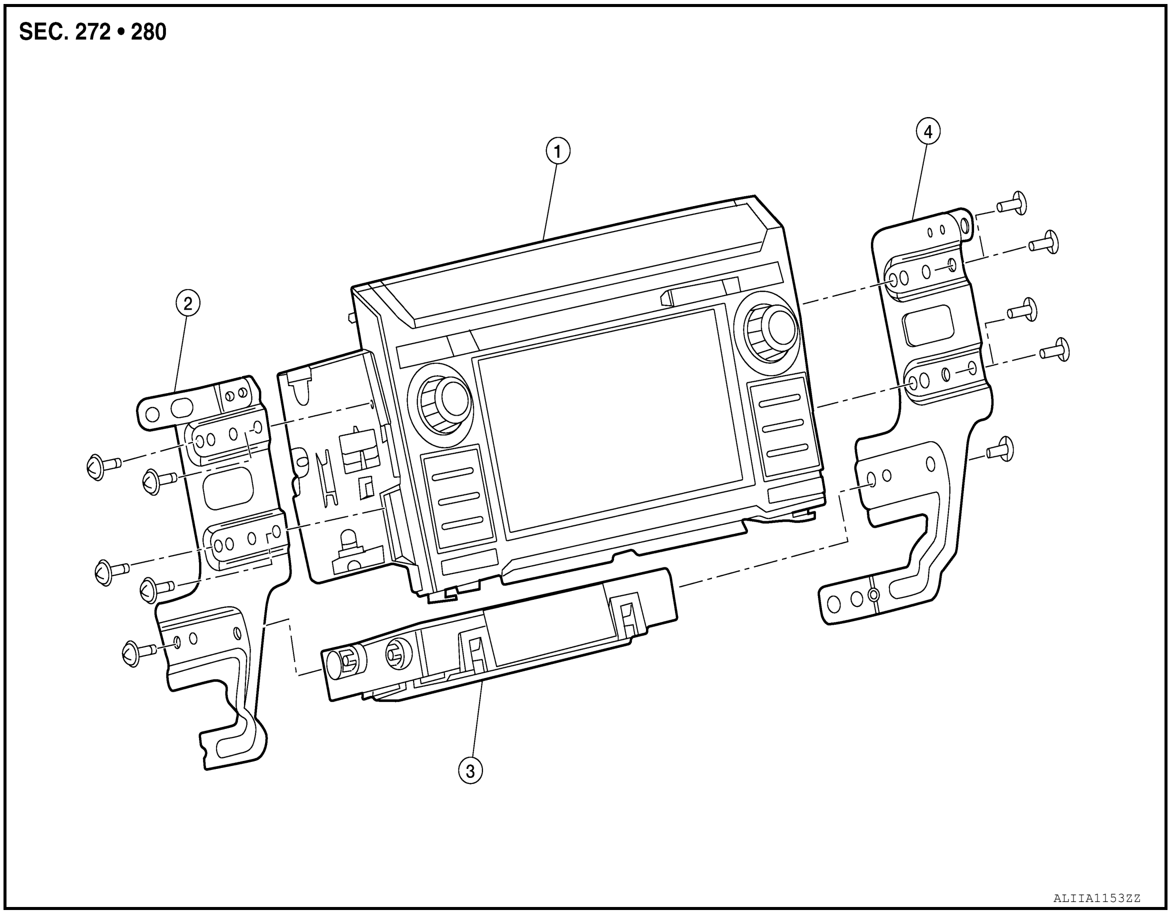
Symptom	Possible cause	Possible solution
The system cannot connect to the NISSANCONNECT^{SM} Data Center.	A subscription for the CONNECT service has not been established.	Sign up for a subscription to the NISSAN-CONNECT^{SM} service. For details about subscriptions, contact an NISSAN dealer or visit the NISSANCONNECT^{SM} 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:0000000014387146



1. AV control unit
2. AV control unit bracket (LH)
3. A/C auto amp.
4. AV control unit bracket (RH)

Removal and Installation

INFOID:0000000014387147

REMOVAL

CAUTION:

Before replacing AV control unit, perform "ADDITIONAL SERVICE WHEN REPLACING AV CONTROL UNIT" to save current vehicle specification. Refer to AV-211, "ADDITIONAL SERVICE WHEN REPLACING AV CONTROL UNIT : Description".

1. Disconnect the battery or batteries. Refer to PG-185, "Battery Disconnect".
2. Remove cluster lid C. Refer to IP-20, "Removal and Installation".
3. Remove the A/C switch assembly. Refer to HAC-121, "Removal and Installation".
4. Remove the AV control unit bracket screws, then pull out the AV control unit.
5. Disconnect the harness connectors from the AV control unit and remove AV control unit.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

After replacing AV control unit, perform "ADDITIONAL SERVICE WHEN REPLACING AV CONTROL UNIT" to configure and register AV control unit. Refer to AV-211, "ADDITIONAL SERVICE WHEN REPLACING AV CONTROL UNIT : Description".

TCU

Removal and Installation

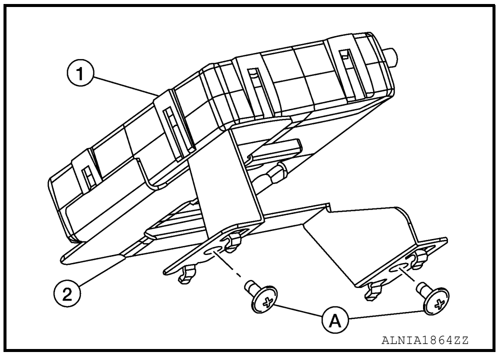
INFOID:0000000014387148

REMOVAL

CAUTION:

Before replacing TCU, perform "SAVE VIN DATA" to save current vehicle specification. For details, refer to AV-414, "Description".

1. Remove body control module. Refer to BCS-79, "Removal and Installation".
2. Disconnect harness connectors from the TCU (1).
3. Remove screws (A) from bracket, remove bracket from steering member and remove TCU (1) from bracket (2).



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

After installation, perform activation. Refer to AV-414, "Description".

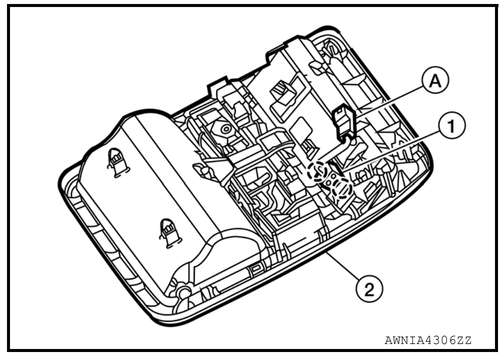
TELEMATICS SWITCH

Removal and Installation

INFOID:0000000014387149

REMOVAL

1. Remove front room/map lamp assembly. Refer to INL-68, "Removal and Installation".
2. Disconnect harness connector (A) from telematics switch.
3. Release pawls using suitable tool and remove telematics switch (1) from front room/map lamp assembly (2).



INSTALLATION

Installation is in the reverse order of removal.

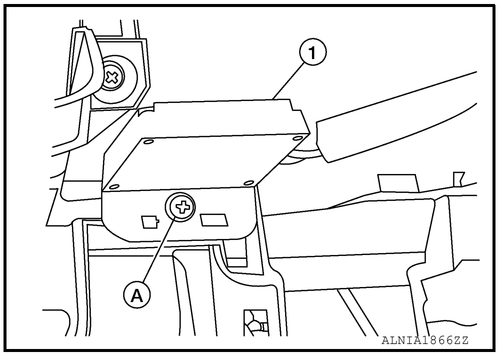
TEL ANTENNA

Removal and Installation

INFOID:0000000014387150

REMOVAL

1. Remove instrument panel. Refer to IP-14, "Removal and Installation".
2. Remove screw (A) to remove tel antenna (1) from instrument panel.



INSTALLATION

Installation is in the reverse order of removal.

MICROPHONE

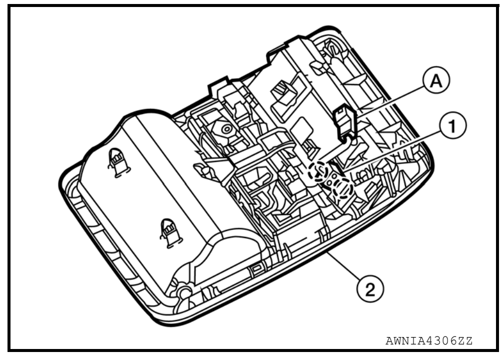
Removal and Installation

INFOID:0000000014387151

REMOVAL

1. Remove front room/map lamp assembly. Refer to INL-68, "Removal and Installation".
2. Disconnect harness connector from microphone (A).
3. Release pawls using suitable tool and remove microphone (1) from front room/map lamp assembly (2).

:Pawl



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:0000000014387152

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:0000000014387153

AV COMMUNICATION SYSTEM

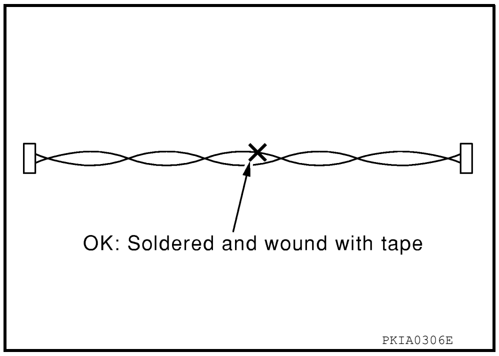
- Do not apply voltage of 7.0 V or higher to the measurement terminals.
- Use the tester with its open terminal voltage being 7.0 V or less.
- Be sure to turn ignition switch OFF and disconnect the battery cable or cables from the negative terminal or terminals before checking the circuit. Refer to PG-185, "Battery Disconnect".

Precaution for Harness Repair

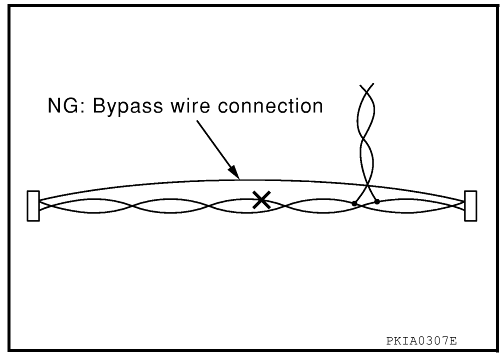
INFOID:0000000014387154

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:0000000014387155

• 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.

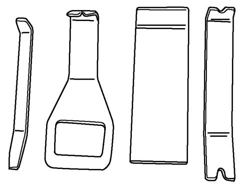
PREPARATION

PREPARATION

Special Service Tools

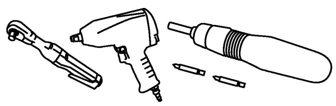
INFOID:0000000014387156

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:0000000014387157

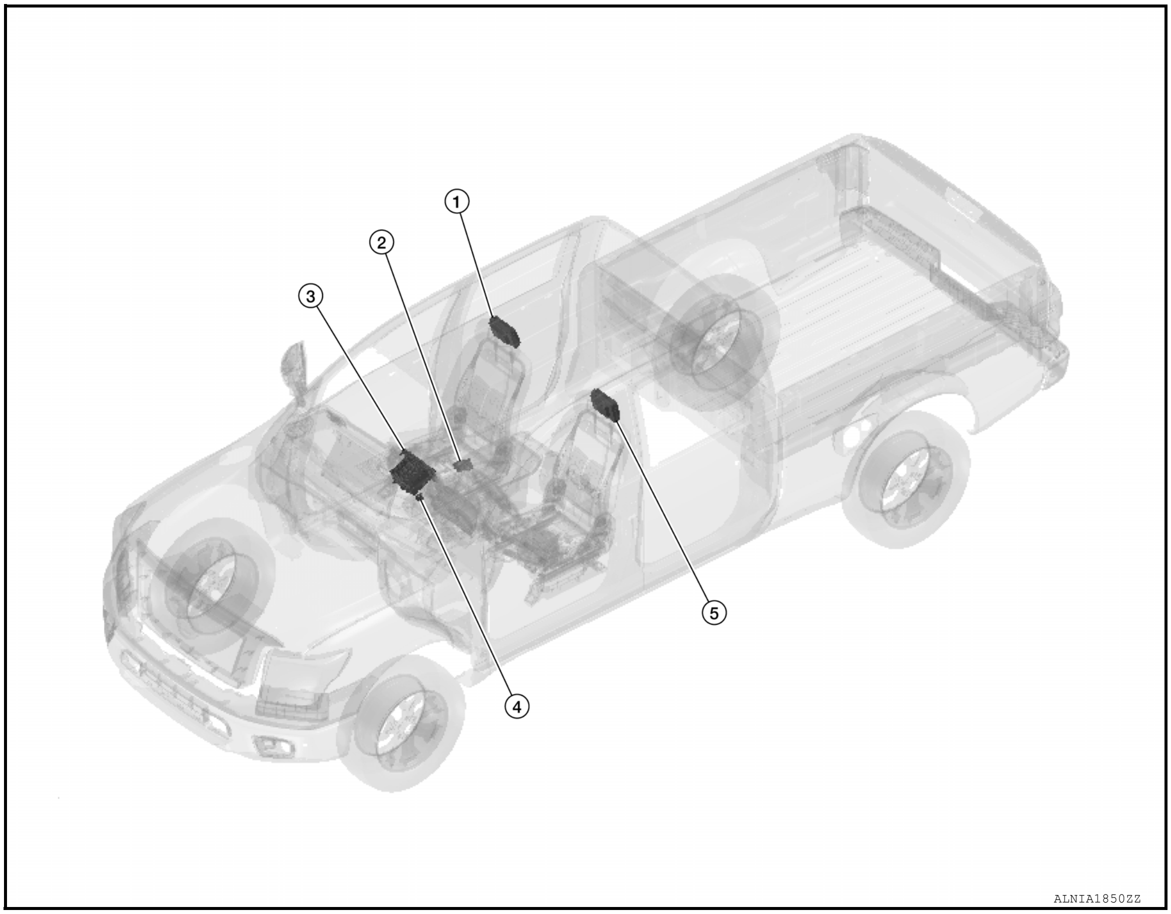
Tool name		Description
Power tool	 PIIB1407E	Loosening nuts, screws and bolts

SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

INFOID:0000000014387158



No.	Component	Function
1.	Headrest display unit (passenger seat)	7-inch color TFT-LCD panel with top loading DVD player and infrared transmitter for wireless headphones.
2.	Rear seat entertainment control unit	Controls the headrest display units.
3.	AV control unit	Refer to AV-171, "AV Control Unit".
4.	AUX in jack	Refer to AV-173, "USB Interface and AUX In Jack".
5.	Headrest display unit (driver seat)	7-inch color TFT-LCD panel with top loading DVD player and infrared transmitter for wireless headphones.

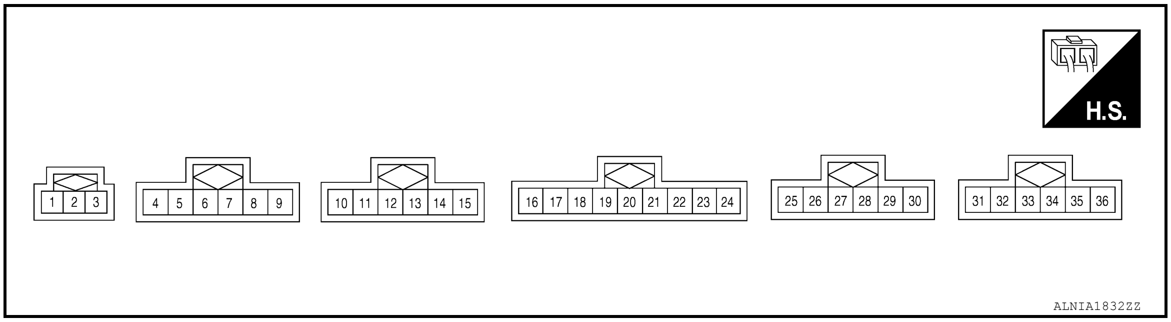
ECU DIAGNOSIS INFORMATION

REAR SEAT ENTERTAINMENT SYSTEM

Reference Value

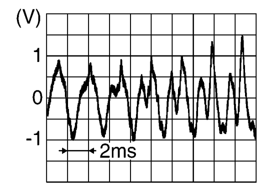
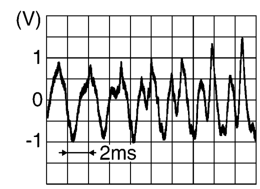
INFOID:0000000014387159

TERMINAL LAYOUT



PHYSICAL VALUES

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output	Ignition switch	Operation	
1 (B)	Ground	Ground	—	ON	—	0 V
3 (R)	Ground	ACC power supply	Input	ACC	—	Battery voltage
4 (Shield)	—	Audio and video shield (Driver seat)	—	—	—	—
5 (Y)	Ground	Video (Driver seat)	—	—	—	—
6 (R)	Ground	Audio RH (Driver seat)	—	—	—	—
7 (W)	Ground	Audio LH (Driver seat)	—	—	—	—
8 (B)	Ground	Monitor ground (Driver seat)	—	—	—	—
9 (R/W)	Ground	Monitor power (Driver seat)	—	—	—	—
10 (Shield)	—	Audio and video shield (Driver seat)	—	—	—	—
11 (Y)	Ground	Video (Driver seat)	—	—	—	—
12 (R)	Ground	Audio RH (Driver seat)	—	—	—	—
13 (W)	Ground	Audio LH (Driver seat)	—	—	—	—
14 (B)	Ground	Monitor SCL (Driver seat)	—	—	—	—
15 (R/W)	Ground	Monitor SDA (Driver seat)	—	—	—	—
16 (R)	—	(Not used)	—	—	—	—
17 (B/R)	—	(Not used)	—	—	—	—

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output	Ignition switch	Operation	
18 (W)	—	(Not used)	—	—	—	—
19 (L)	—	(Not used)	—	—	—	—
21 (R/W)	—	(Not used)	—	—	—	—
22 (R/B)	Ground	AUX audio signal LH	Input	ON	AUX audio signal received	 SKIB3609E
23 (B/W)	Ground	AUX audio signal RH	Input	ON	AUX audio signal received	 SKIB3609E
24 (W/B)	—	AUX ground	—	ON	—	0V
25 (Shield)	—	Audio and video shield (Passenger seat)	—	—	—	—
26 (Y)	Ground	Video (Passenger seat)	—	—	—	—
27 (R)	Ground	Audio RH (Passenger seat)	—	—	—	—
28 (W)	Ground	Audio LH (Passenger seat)	—	—	—	—
29 (B)	Ground	Monitor SCL (Passenger seat)	—	—	—	—
30 (R/W)	Ground	Monitor SDA (Passenger seat)	—	—	—	—
31 (Shield)	—	Audio and video shield (Passenger seat)	—	—	—	—
32 (Y)	Ground	Video (Passenger seat)	—	—	—	—
33 (R)	Ground	Audio RH (Passenger seat)	—	—	—	—
34 (W)	Ground	Audio LH (Passenger seat)	—	—	—	—
35 (B)	Ground	Monitor ground (Passenger seat)	—	—	—	—
36 (R/W)	Ground	Monitor power (Passenger seat)	—	—	—	—

WIRING DIAGRAM

REAR SEAT ENTERTAINMENT SYSTEM

Wiring Diagram

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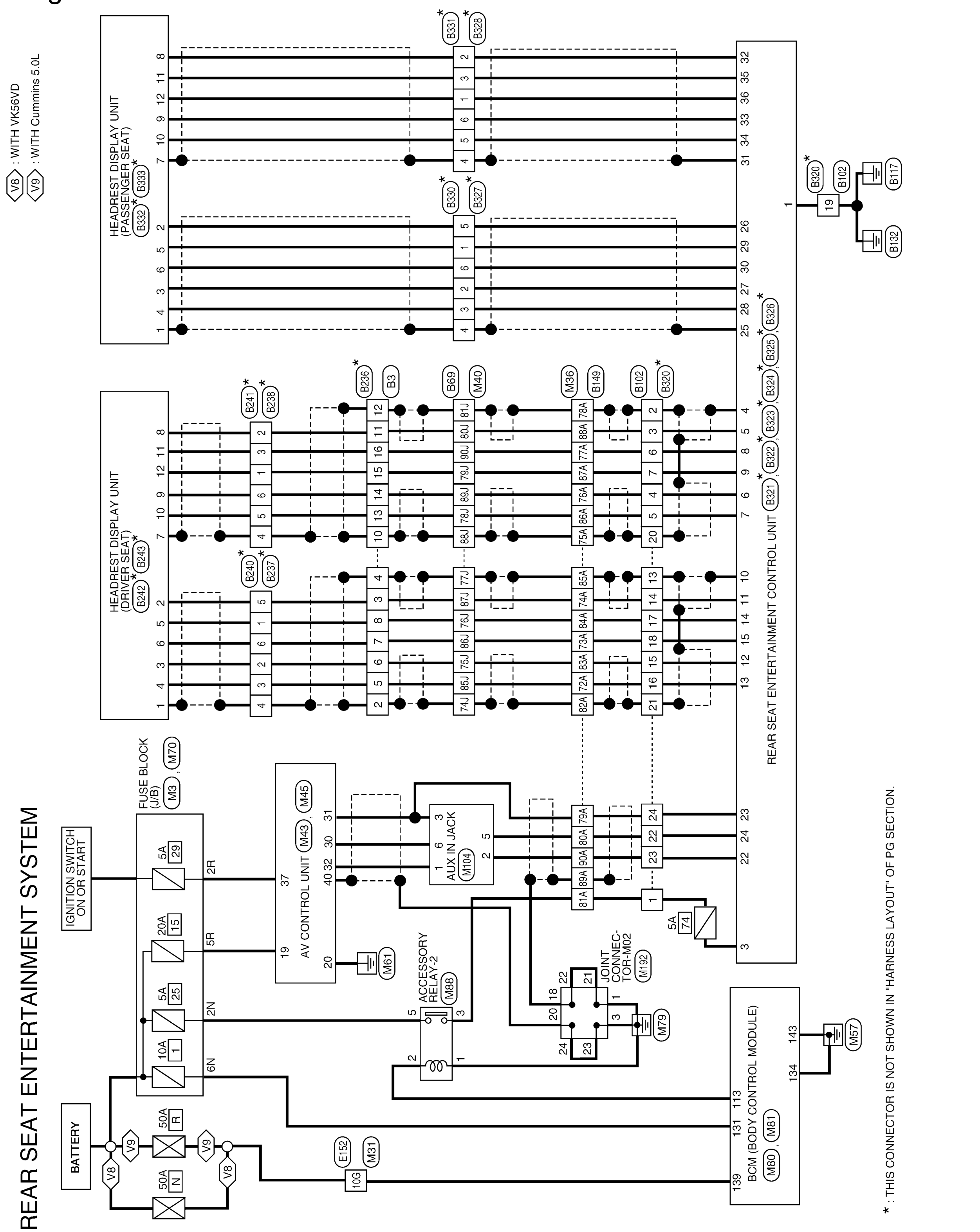

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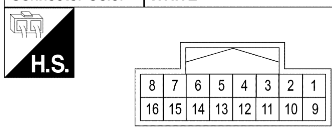
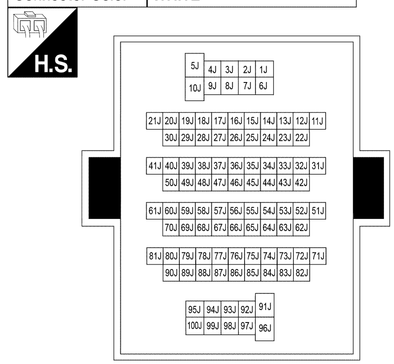
REAR SEAT ENTERTAINMENT SYSTEM CONNECTORS

Connector No.	B3
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	–	TO FRONT SEAT LH HARNESS
2	SHIELD	TO FRONT SEAT LH HARNESS
3	B/R	TO FRONT SEAT LH HARNESS
4	SHIELD	TO FRONT SEAT LH HARNESS
5	Y/B	TO FRONT SEAT LH HARNESS
6	LG/B	TO FRONT SEAT LH HARNESS
7	G	TO FRONT SEAT LH HARNESS
8	R	TO FRONT SEAT LH HARNESS
9	–	TO FRONT SEAT LH HARNESS
10	SHIELD	TO FRONT SEAT LH HARNESS
11	W	TO FRONT SEAT LH HARNESS
12	SHIELD	TO FRONT SEAT LH HARNESS
13	GR/B	TO FRONT SEAT LH HARNESS
14	GR/R	TO FRONT SEAT LH HARNESS
15	B	TO FRONT SEAT LH HARNESS
16	L	TO FRONT SEAT LH HARNESS

Connector No.	B69
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4
Connector Color	WHITE



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

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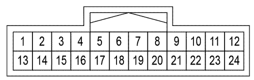
REAR SEAT ENTERTAINMENT SYSTEM CONNECTORS

Connector No.	B102
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH
Connector Color	WHITE

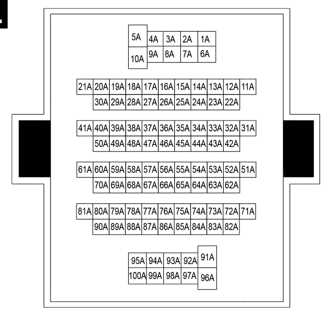
H.S.



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

Connector No.	B149
Connector Name	WIRE TO WIRE
Connector Type	TH80MDGY-CS16-TM4
Connector Color	GRAY

H.S.



Terminal No.	Color of Wire	Signal Name
1A	SB/G	TO MAIN HARNESS -(WITHOUT CLIMATE CONTROLLED SEATS)
1A	SB	TO MAIN HARNESS -(WITH CLIMATE CONTROLLED SEATS)
2A	L	TO MAIN HARNESS
3A	V	TO MAIN HARNESS
4A	SB/R	TO MAIN HARNESS
5A	–	TO MAIN HARNESS
6A	LG/Y	TO MAIN HARNESS -(WITHOUT CLIMATE CONTROLLED SEATS)
6A	LG	TO MAIN HARNESS -(WITH CLIMATE CONTROLLED SEATS)
7A	W	TO MAIN HARNESS
8A	B	TO MAIN HARNESS
9A	L/B	TO MAIN HARNESS
10A	W	TO MAIN HARNESS
11A	LG	TO MAIN HARNESS
12A	BR/O	TO MAIN HARNESS
13A	Y/W	TO MAIN HARNESS
14A	R/G	TO MAIN HARNESS
15A	Y/L	TO MAIN HARNESS
16A	O/L	TO MAIN HARNESS
17A	L	TO MAIN HARNESS
18A	Y	TO MAIN HARNESS
19A	LG	TO MAIN HARNESS
20A	R	TO MAIN HARNESS
21A	BG	TO MAIN HARNESS
22A	LG/R	TO MAIN HARNESS
23A	Y/LG	TO MAIN HARNESS
24A	BR/Y	TO MAIN HARNESS
25A	–	TO MAIN HARNESS
26A	GR	TO MAIN HARNESS
27A	LG	TO MAIN HARNESS
28A	LG/B	TO MAIN HARNESS
29A	–	TO MAIN HARNESS
30A	BR	TO MAIN HARNESS
31A	W/R	TO MAIN HARNESS
32A	G/R	TO MAIN HARNESS
33A	–	TO MAIN HARNESS
34A	SHIELD	TO MAIN HARNESS
35A	P	TO MAIN HARNESS
36A	B	TO MAIN HARNESS
37A	–	TO MAIN HARNESS
38A	R/B	TO MAIN HARNESS
39A	G/O	TO MAIN HARNESS
40A	V	TO MAIN HARNESS
41A	SHIELD	TO MAIN HARNESS
42A	SHIELD	TO MAIN HARNESS
43A	R	TO MAIN HARNESS
44A	G	TO MAIN HARNESS
45A	–	TO MAIN HARNESS
46A	–	TO MAIN HARNESS
47A	Y	TO MAIN HARNESS
48A	R/W	TO MAIN HARNESS
49A	R/L	TO MAIN HARNESS
50A	B	TO MAIN HARNESS
51A	–	TO MAIN HARNESS
52A	–	TO MAIN HARNESS
53A	–	TO MAIN HARNESS
54A	–	TO MAIN HARNESS
55A	–	TO MAIN HARNESS
56A	–	TO MAIN HARNESS
57A	–	TO MAIN HARNESS
58A	–	TO MAIN HARNESS
59A	–	TO MAIN HARNESS
60A	G/W	TO MAIN HARNESS
61A	–	TO MAIN HARNESS
62A	–	TO MAIN HARNESS
63A	–	TO MAIN HARNESS
64A	–	TO MAIN HARNESS
65A	–	TO MAIN HARNESS
66A	–	TO MAIN HARNESS
67A	–	TO MAIN HARNESS
68A	–	TO MAIN HARNESS
69A	Y/R	TO MAIN HARNESS
70A	R/G	TO MAIN HARNESS
71A	–	TO MAIN HARNESS
72A	Y/B	TO MAIN HARNESS
73A	G	TO MAIN HARNESS
74A	B/R	TO MAIN HARNESS
75A	SHIELD	TO MAIN HARNESS
76A	GR/R	TO MAIN HARNESS
77A	L	TO MAIN HARNESS
78A	SHIELD	TO MAIN HARNESS
79A	Y	TO MAIN HARNESS
80A	L	TO MAIN HARNESS
81A	R	TO MAIN HARNESS
82A	SHIELD	TO MAIN HARNESS
83A	LG/B	TO MAIN HARNESS
84A	R	TO MAIN HARNESS
85A	SHIELD	TO MAIN HARNESS
86A	GR/B	TO MAIN HARNESS
87A	B	TO MAIN HARNESS
88A	W	TO MAIN HARNESS
89A	SHIELD	TO MAIN HARNESS
90A	G	TO MAIN HARNESS
91A	W/L	TO MAIN HARNESS
92A	BR	TO MAIN HARNESS
93A	L/Y	TO MAIN HARNESS
94A	R/L	TO MAIN HARNESS
95A	BR	TO MAIN HARNESS
96A	R	TO MAIN HARNESS
97A	LG	TO MAIN HARNESS
98A	B/V	TO MAIN HARNESS
99A	O/L	TO MAIN HARNESS
100A	BR/W	TO MAIN HARNESS

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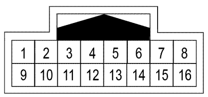
A B C D E F G H I J K L M AV O P

REAR SEAT ENTERTAINMENT SYSTEM CONNECTORS

Connector No.	B236
Connector Name	WIRE TO WIRE
Connector Type	TH16MW
Connector Color	WHITE

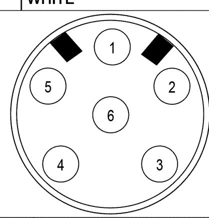
H.S.



Terminal No.	Color of Wire	Signal Name
1	–	TO BODY HARNESS
2	SHIELD	TO BODY HARNESS
3	Y	TO BODY HARNESS
4	SHIELD	TO BODY HARNESS
5	W	TO BODY HARNESS
6	R	TO BODY HARNESS
7	R/W	TO BODY HARNESS
8	B	TO BODY HARNESS
9	–	TO BODY HARNESS
10	SHIELD	TO BODY HARNESS
11	Y	TO BODY HARNESS
12	SHIELD	TO BODY HARNESS
13	W	TO BODY HARNESS
14	R	TO BODY HARNESS
15	R/W	TO BODY HARNESS
16	B	TO BODY HARNESS

Connector No.	B237
Connector Name	WIRE TO WIRE
Connector Type	99U8VZ060-SP
Connector Color	WHITE

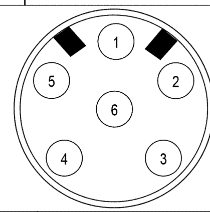
H.S.



Terminal No.	Color of Wire	Signal Name
1	B	TO FRONT SEAT LH SUB HARNESS
2	R	TO FRONT SEAT LH SUB HARNESS
3	W	TO FRONT SEAT LH SUB HARNESS
4	SHIELD	TO FRONT SEAT LH SUB HARNESS
5	Y	TO FRONT SEAT LH SUB HARNESS
6	R/W	TO FRONT SEAT LH SUB HARNESS

Connector No.	B238
Connector Name	WIRE TO WIRE
Connector Type	99U8VZ060-SP
Connector Color	RED

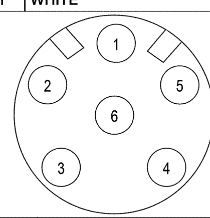
H.S.



Terminal No.	Color of Wire	Signal Name
1	R/W	TO FRONT SEAT LH SUB HARNESS
2	Y	TO FRONT SEAT LH SUB HARNESS
3	B	TO FRONT SEAT LH SUB HARNESS
4	SHIELD	TO FRONT SEAT LH SUB HARNESS
5	W	TO FRONT SEAT LH SUB HARNESS
6	R	TO FRONT SEAT LH SUB HARNESS

Connector No.	B240
Connector Name	WIRE TO WIRE
Connector Type	99U8VZ060-SP
Connector Color	WHITE

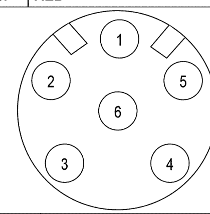
H.S.



Terminal No.	Color of Wire	Signal Name
1	B	TO FRONT SEAT LH HARNESS
2	R	TO FRONT SEAT LH HARNESS
3	W	TO FRONT SEAT LH HARNESS
4	SHIELD	TO FRONT SEAT LH HARNESS
5	Y	TO FRONT SEAT LH HARNESS
6	R	TO FRONT SEAT LH HARNESS

Connector No.	B241
Connector Name	WIRE TO WIRE
Connector Type	99U8VZ060-SP
Connector Color	RED

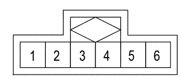
H.S.



Terminal No.	Color of Wire	Signal Name
1	R	TO FRONT SEAT LH HARNESS
2	Y	TO FRONT SEAT LH HARNESS
3	B	TO FRONT SEAT LH HARNESS
4	SHIELD	TO FRONT SEAT LH HARNESS
5	W	TO FRONT SEAT LH HARNESS
6	R	TO FRONT SEAT LH HARNESS

Connector No.	B242
Connector Name	HEADREST DISPLAY UNIT (DRIVER SEAT)
Connector Type	99U8VZ060-SP
Connector Color	WHITE

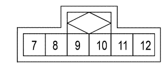
H.S.



Terminal No.	Color of Wire	Signal Name
1	SHIELD	P2 AUDIO SHIELD
2	Y	P2 VIDEO
3	R	P2 AUDIO-R
4	W	P2 AUDIO-L
5	B	P2 MON SCL
6	R	P2 MON SDA

Connector No.	B243
Connector Name	HEADREST DISPLAY UNIT (DRIVER SEAT)
Connector Type	99U8VZ060-SP
Connector Color	RED

H.S.



Terminal No.	Color of Wire	Signal Name
7	SHIELD	P1 AUDIO SHIELD
8	Y	P1 VIDEO
9	R	P1 AUDIO-R
10	W	P1 AUDIO-L
11	B	P1 MON GND
12	R	P1 MON PWR

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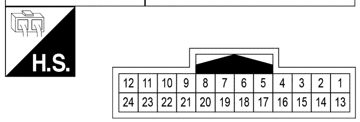
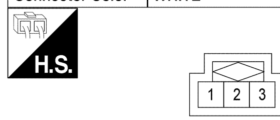
REAR SEAT ENTERTAINMENT SYSTEM CONNECTORS

Connector No.	B320
Connector Name	WIRE TO WIRE
Connector Type	TH24MW
Connector Color	WHITE



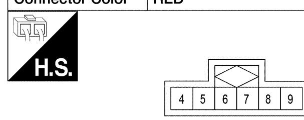
Terminal No.	Color of Wire	Signal Name
1	R	TO BODY NO. 2 HARNESS
2	SHIELD	TO BODY NO. 2 HARNESS
3	Y	TO BODY NO. 2 HARNESS
4	R	TO BODY NO. 2 HARNESS
5	W	TO BODY NO. 2 HARNESS
6	B	TO BODY NO. 2 HARNESS
7	R/W	TO BODY NO. 2 HARNESS
8	W	TO BODY NO. 2 HARNESS -(NOT USED)
9	R	TO BODY NO. 2 HARNESS -(NOT USED)
10	B	TO BODY NO. 2 HARNESS -(NOT USED)
11	R/W	TO BODY NO. 2 HARNESS -(NOT USED)
12	L	TO BODY NO. 2 HARNESS -(NOT USED)
13	SHIELD	TO BODY NO. 2 HARNESS
14	Y	TO BODY NO. 2 HARNESS
15	R	TO BODY NO. 2 HARNESS
16	W	TO BODY NO. 2 HARNESS
17	B	TO BODY NO. 2 HARNESS
18	R/W	TO BODY NO. 2 HARNESS
19	B	TO BODY NO. 2 HARNESS
20	SHIELD	TO BODY NO. 2 HARNESS
21	SHIELD	TO BODY NO. 2 HARNESS
22	W/B	TO BODY NO. 2 HARNESS
23	R/B	TO BODY NO. 2 HARNESS
24	B	TO BODY NO. 2 HARNESS

Connector No.	B321
Connector Name	REAR SEAT ENTERTAINMENT CONTROL UNIT
Connector Type	99U8VZ060-SP
Connector Color	WHITE



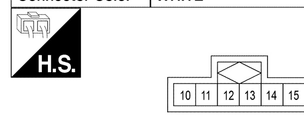
Terminal No.	Color of Wire	Signal Name
1	B	BATT
2	–	–
3	R	GND

Connector No.	B322
Connector Name	REAR SEAT ENTERTAINMENT CONTROL UNIT
Connector Type	99U8VZ060-SP
Connector Color	RED



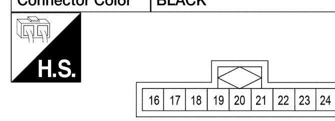
Terminal No.	Color of Wire	Signal Name
4	SHIELD	P1 SHIELD
5	Y	P1 VIDEO
6	R	P1 AUDIO-R
7	W	P1 AUDIO-L
8	B	P1 MON GND
9	R/W	P1 MON PWR

Connector No.	B323
Connector Name	REAR SEAT ENTERTAINMENT CONTROL UNIT
Connector Type	99U8VZ060-SP
Connector Color	WHITE



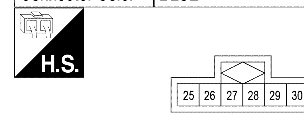
Terminal No.	Color of Wire	Signal Name
10	SHIELD	P2 SHIELD
11	Y	P2 VIDEO
12	R	P2 AUDIO-R
13	W	P2 AUDIO-L
14	B	P2 MON SCL
15	R/W	P2 MON SDA

Connector No.	B324
Connector Name	REAR SEAT ENTERTAINMENT CONTROL UNIT
Connector Type	99U8VZ060-SP
Connector Color	BLACK



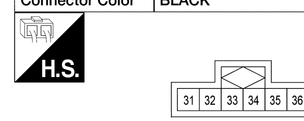
Terminal No.	Color of Wire	Signal Name
16	R	-(NOT USED)
17	B/R	-(NOT USED)
18	W	-(NOT USED)
19	L	-(NOT USED)
20	–	–
21	R/W	-(NOT USED)
22	R/B	AUX AUDIO LH+
23	B/W	AUX AUDIO RH+
24	W/B	AUX AUDIO GND

Connector No.	B325
Connector Name	REAR SEAT ENTERTAINMENT CONTROL UNIT
Connector Type	99U8VZ060-SP
Connector Color	BLUE



Terminal No.	Color of Wire	Signal Name
25	SHIELD	P1 SHIELD
26	Y	P1 VIDEO
27	R	P1 AUDIO-R
28	W	P1 AUDIO-L
29	B	P1 MON GND
30	R/W	P1 MON PWR

Connector No.	B326
Connector Name	REAR SEAT ENTERTAINMENT CONTROL UNIT
Connector Type	99U8VZ060-SP
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
31	SHIELD	P2 SHIELD
32	Y	P2 VIDEO
33	R	P2 AUDIO-R
34	W	P2 AUDIO-L
35	B	P2 MON SCL
36	R/W	P2 MON SDA

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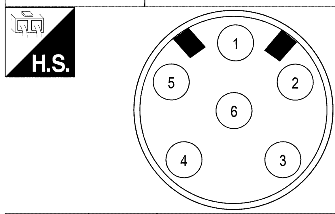
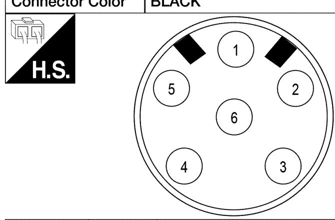
REAR SEAT ENTERTAINMENT SYSTEM CONNECTORS

Connector No.	B327
Connector Name	WIRE TO WIRE
Connector Type	99U8VZ060-SP
Connector Color	BLUE



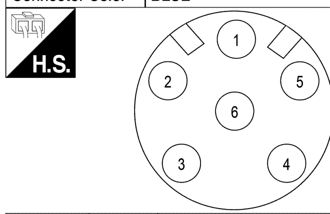
Terminal No.	Color of Wire	Signal Name
1	B	TO FRONT SEAT RH SUB HARNESS
2	R	TO FRONT SEAT RH SUB HARNESS
3	W	TO FRONT SEAT RH SUB HARNESS
4	SHIELD	TO FRONT SEAT RH SUB HARNESS
5	Y	TO FRONT SEAT RH SUB HARNESS
6	R/W	TO FRONT SEAT RH SUB HARNESS

Connector No.	B328
Connector Name	WIRE TO WIRE
Connector Type	99U8VZ060-SP
Connector Color	BLACK



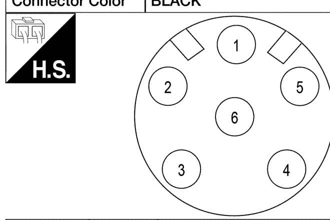
Terminal No.	Color of Wire	Signal Name
1	R/W	TO FRONT SEAT RH SUB HARNESS
2	Y	TO FRONT SEAT RH SUB HARNESS
3	B	TO FRONT SEAT RH SUB HARNESS
4	SHIELD	TO FRONT SEAT RH SUB HARNESS
5	W	TO FRONT SEAT RH SUB HARNESS
6	R	TO FRONT SEAT RH SUB HARNESS

Connector No.	B330
Connector Name	WIRE TO WIRE
Connector Type	99U8VZ060-SP
Connector Color	BLUE



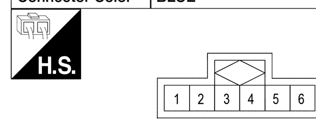
Terminal No.	Color of Wire	Signal Name
1	B	TO FRONT SEAT RH HARNESS
2	R	TO FRONT SEAT RH HARNESS
3	W	TO FRONT SEAT RH HARNESS
4	SHIELD	TO FRONT SEAT RH HARNESS
5	Y	TO FRONT SEAT RH HARNESS
6	R	TO FRONT SEAT RH HARNESS

Connector No.	B331
Connector Name	WIRE TO WIRE
Connector Type	99U8VZ060-SP
Connector Color	BLACK



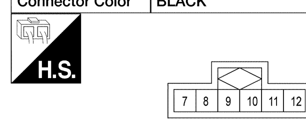
Terminal No.	Color of Wire	Signal Name
1	R	TO FRONT SEAT RH HARNESS
2	Y	TO FRONT SEAT RH HARNESS
3	B	TO FRONT SEAT RH HARNESS
4	SHIELD	TO FRONT SEAT RH HARNESS
5	W	TO FRONT SEAT RH HARNESS
6	R	TO FRONT SEAT RH HARNESS

Connector No.	B332
Connector Name	HEADREST DISPLAY UNIT (PASSENGER SEAT)
Connector Type	99U8VZ060-SP
Connector Color	BLUE



Terminal No.	Color of Wire	Signal Name
1	SHIELD	P2 AUDIO SHIELD
2	Y	P2 VIDEO
3	R	P2 AUDIO-R
4	W	P2 AUDIO-L
5	B	P2 MON SCL
6	R	P2 MON SDA

Connector No.	B333
Connector Name	HEADREST DISPLAY UNIT (PASSENGER SEAT)
Connector Type	99U8VZ060-SP
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
7	SHIELD	P1 AUDIO SHIELD
8	Y	P1 VIDEO
9	R	P1 AUDIO-R
10	W	P1 AUDIO-L
11	B	P1 MON GND
12	R	P1 MON PWR

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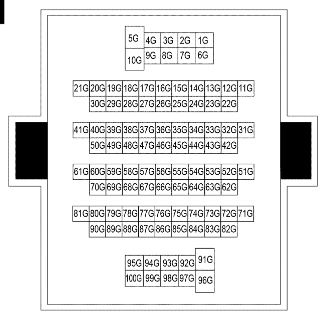
REAR SEAT ENTERTAINMENT SYSTEM CONNECTORS

Connector No.	E152
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4
Connector Color	WHITE

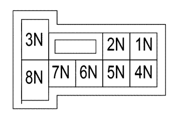
H.S.



Terminal No.	Color of Wire	Signal Name
1G	G	TO MAIN HARNESS
2G	B/R	TO MAIN HARNESS
3G	W/B	TO MAIN HARNESS
4G	BR/W	TO MAIN HARNESS
5G	BR	TO MAIN HARNESS
6G	P	TO MAIN HARNESS - (WITH VK56VD)
6G	R/W	TO MAIN HARNESS - (WITH CUMMINS 5.0L)
7G	Y	TO MAIN HARNESS
8G	G	TO MAIN HARNESS
9G	R	TO MAIN HARNESS
10G	W	TO MAIN HARNESS
11G	R/G	TO MAIN HARNESS
12G	W/B	TO MAIN HARNESS
13G	BR	TO MAIN HARNESS
14G	Y/B	TO MAIN HARNESS
15G	G/W	TO MAIN HARNESS
16G	G	TO MAIN HARNESS
17G	G/Y	TO MAIN HARNESS
18G	G/Y	TO MAIN HARNESS
19G	Y/V	TO MAIN HARNESS
20G	G/Y	TO MAIN HARNESS
21G	B/Y	TO MAIN HARNESS
22G	G/R	TO MAIN HARNESS
23G	Y/R	TO MAIN HARNESS
24G	G/B	TO MAIN HARNESS
25G	R/W	TO MAIN HARNESS
26G	R	TO MAIN HARNESS
27G	LG	TO MAIN HARNESS
28G	G/B	TO MAIN HARNESS
29G	G/B	TO MAIN HARNESS
30G	BR/Y	TO MAIN HARNESS
31G	P	TO MAIN HARNESS - (WITH CUMMINS 5.0L)
31G	R	TO MAIN HARNESS - (WITH VK56VD)
32G	P	TO MAIN HARNESS
33G	Y/L	TO MAIN HARNESS
34G	GR	TO MAIN HARNESS
35G	G/R	TO MAIN HARNESS
36G	SB	TO MAIN HARNESS
37G	R/W	TO MAIN HARNESS
38G	BR	TO MAIN HARNESS
39G	BR	TO MAIN HARNESS
40G	–	TO MAIN HARNESS
41G	R/G	TO MAIN HARNESS
42G	O	TO MAIN HARNESS
43G	B	TO MAIN HARNESS - (WITH CUMMINS 5.0L)
43G	G	TO MAIN HARNESS - (WITH VK56VD)
44G	R/Y	TO MAIN HARNESS
45G	G	TO MAIN HARNESS
46G	LG	TO MAIN HARNESS
47G	R	TO MAIN HARNESS
48G	W	TO MAIN HARNESS
49G	–	TO MAIN HARNESS
50G	BR	TO MAIN HARNESS
51G	R	TO MAIN HARNESS
52G	L	TO MAIN HARNESS
53G	W	TO MAIN HARNESS
54G	W	TO MAIN HARNESS
55G	G	TO MAIN HARNESS
56G	W	TO MAIN HARNESS
57G	Y	TO MAIN HARNESS
58G	BG	TO MAIN HARNESS
59G	BG	TO MAIN HARNESS
60G	BG	TO MAIN HARNESS
61G	B	TO MAIN HARNESS
62G	W	TO MAIN HARNESS
63G	R	TO MAIN HARNESS
64G	W/L	TO MAIN HARNESS
65G	W/R	TO MAIN HARNESS
66G	BG	TO MAIN HARNESS
67G	BG	TO MAIN HARNESS
68G	B	TO MAIN HARNESS
69G	Y	TO MAIN HARNESS
70G	L	TO MAIN HARNESS
71G	R/W	TO MAIN HARNESS
72G	L/W	TO MAIN HARNESS
73G	SHIELD	TO MAIN HARNESS
74G	W	TO MAIN HARNESS
75G	R	TO MAIN HARNESS
76G	R/G	TO MAIN HARNESS
77G	G	TO MAIN HARNESS
78G	W	TO MAIN HARNESS
79G	–	TO MAIN HARNESS
80G	R	TO MAIN HARNESS
81G	L	TO MAIN HARNESS
82G	R	TO MAIN HARNESS
83G	L	TO MAIN HARNESS
84G	L	TO MAIN HARNESS
85G	W/B	TO MAIN HARNESS
86G	B/R	TO MAIN HARNESS
87G	W/B	TO MAIN HARNESS
88G	P	TO MAIN HARNESS
89G	L	TO MAIN HARNESS
90G	G	TO MAIN HARNESS
91G	G	TO MAIN HARNESS
92G	V/W	TO MAIN HARNESS
93G	BR	TO MAIN HARNESS
94G	G	TO MAIN HARNESS
95G	G	TO MAIN HARNESS
96G	W	TO MAIN HARNESS
97G	R	TO MAIN HARNESS
98G	W/B	TO MAIN HARNESS
99G	BR	TO MAIN HARNESS
100G	GR/W	TO MAIN HARNESS

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	CS06FW-M2
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
1N	–	–
2N	W	BATTERY
3N	W	BLOWER FAN RELAY OUT
4N	V	BATTERY
5N	Y	BATTERY
6N	W	BATTERY
7N	L	ACC RELAY OUT
8N	W	IGNITION

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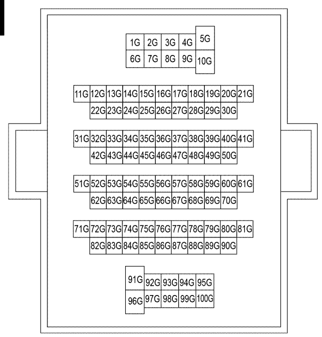
REAR SEAT ENTERTAINMENT SYSTEM CONNECTORS

Connector No.	M31
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4
Connector Color	WHITE

H.S.



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

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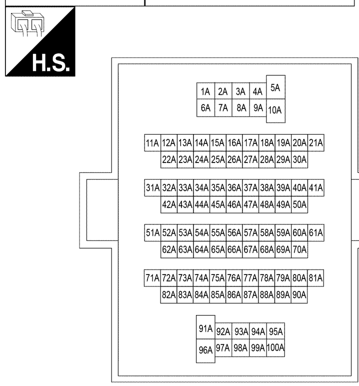
REAR SEAT ENTERTAINMENT SYSTEM CONNECTORS

Connector No.	M36
Connector Name	WIRE TO WIRE
Connector Type	TH80FDGY-CS16-TM4
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
1A	W	TO BODY NO. 2 HARNESS
2A	LG	TO BODY NO. 2 HARNESS
3A	V	TO BODY NO. 2 HARNESS
4A	SB	TO BODY NO. 2 HARNESS
5A	–	TO BODY NO. 2 HARNESS
6A	BG	TO BODY NO. 2 HARNESS - (WITH CLIMATE CONTROLLED SEAT)
6A	LG	TO BODY NO. 2 HARNESS - (WITHOUT CLIMATE CONTROLLED SEAT)
7A	W	TO BODY NO. 2 HARNESS
8A	B	TO BODY NO. 2 HARNESS
9A	L/B	TO BODY NO. 2 HARNESS
10A	W	TO BODY NO. 2 HARNESS
11A	R	TO BODY NO. 2 HARNESS
12A	BR	TO BODY NO. 2 HARNESS
13A	G	TO BODY NO. 2 HARNESS
14A	R/G	TO BODY NO. 2 HARNESS
15A	O	TO BODY NO. 2 HARNESS
16A	O/L	TO BODY NO. 2 HARNESS
17A	L	TO BODY NO. 2 HARNESS
18A	Y	TO BODY NO. 2 HARNESS
19A	B/W	TO BODY NO. 2 HARNESS
20A	R	TO BODY NO. 2 HARNESS
21A	BG	TO BODY NO. 2 HARNESS
22A	G	TO BODY NO. 2 HARNESS
23A	Y	TO BODY NO. 2 HARNESS
24A	L	TO BODY NO. 2 HARNESS
25A	–	TO BODY NO. 2 HARNESS
26A	GR	TO BODY NO. 2 HARNESS
27A	LG	TO BODY NO. 2 HARNESS
28A	LG	TO BODY NO. 2 HARNESS
29A	GR	TO BODY NO. 2 HARNESS
30A	BR	TO BODY NO. 2 HARNESS
31A	W/R	TO BODY NO. 2 HARNESS
32A	G/R	TO BODY NO. 2 HARNESS
33A	–	TO BODY NO. 2 HARNESS
34A	SHIELD	TO BODY NO. 2 HARNESS
35A	P	TO BODY NO. 2 HARNESS
36A	B	TO BODY NO. 2 HARNESS
37A	–	TO BODY NO. 2 HARNESS
38A	R/B	TO BODY NO. 2 HARNESS
39A	G/O	TO BODY NO. 2 HARNESS
40A	V	TO BODY NO. 2 HARNESS
41A	SHIELD	TO BODY NO. 2 HARNESS
42A	SHIELD	TO BODY NO. 2 HARNESS
43A	R	TO BODY NO. 2 HARNESS
44A	G	TO BODY NO. 2 HARNESS
45A	–	TO BODY NO. 2 HARNESS
46A	–	TO BODY NO. 2 HARNESS
47A	Y	TO BODY NO. 2 HARNESS
48A	R/W	TO BODY NO. 2 HARNESS
49A	R/L	TO BODY NO. 2 HARNESS
50A	B	TO BODY NO. 2 HARNESS
51A	–	TO BODY NO. 2 HARNESS
52A	–	TO BODY NO. 2 HARNESS
53A	–	TO BODY NO. 2 HARNESS
54A	–	TO BODY NO. 2 HARNESS
55A	–	TO BODY NO. 2 HARNESS
56A	–	TO BODY NO. 2 HARNESS
57A	–	TO BODY NO. 2 HARNESS
58A	–	TO BODY NO. 2 HARNESS
59A	–	TO BODY NO. 2 HARNESS
60A	G/W	TO BODY NO. 2 HARNESS
61A	–	TO BODY NO. 2 HARNESS
62A	–	TO BODY NO. 2 HARNESS
63A	–	TO BODY NO. 2 HARNESS
64A	–	TO BODY NO. 2 HARNESS
65A	–	TO BODY NO. 2 HARNESS
66A	–	TO BODY NO. 2 HARNESS
67A	–	TO BODY NO. 2 HARNESS
68A	–	TO BODY NO. 2 HARNESS
69A	Y/R	TO BODY NO. 2 HARNESS
70A	R/G	TO BODY NO. 2 HARNESS
71A	–	TO BODY NO. 2 HARNESS
72A	W	TO BODY NO. 2 HARNESS
73A	G	TO BODY NO. 2 HARNESS
74A	W	TO BODY NO. 2 HARNESS
75A	SHIELD	TO BODY NO. 2 HARNESS
76A	R	TO BODY NO. 2 HARNESS
77A	L	TO BODY NO. 2 HARNESS
78A	SHIELD	TO BODY NO. 2 HARNESS
79A	GR	TO BODY NO. 2 HARNESS
80A	V	TO BODY NO. 2 HARNESS
81A	R	TO BODY NO. 2 HARNESS
82A	SHIELD	TO BODY NO. 2 HARNESS
83A	R	TO BODY NO. 2 HARNESS
84A	O	TO BODY NO. 2 HARNESS
85A	SHIELD	TO BODY NO. 2 HARNESS
86A	W	TO BODY NO. 2 HARNESS
87A	B	TO BODY NO. 2 HARNESS
88A	W	TO BODY NO. 2 HARNESS
89A	SHIELD	TO BODY NO. 2 HARNESS
90A	G	TO BODY NO. 2 HARNESS
91A	W/L	TO BODY NO. 2 HARNESS
92A	BR	TO BODY NO. 2 HARNESS
93A	L/Y	TO BODY NO. 2 HARNESS
94A	R/L	TO BODY NO. 2 HARNESS
95A	BR	TO BODY NO. 2 HARNESS
96A	R	TO BODY NO. 2 HARNESS
97A	LG	TO BODY NO. 2 HARNESS
98A	B/V	TO BODY NO. 2 HARNESS
99A	O/L	TO BODY NO. 2 HARNESS
100A	BR/W	TO BODY NO. 2 HARNESS

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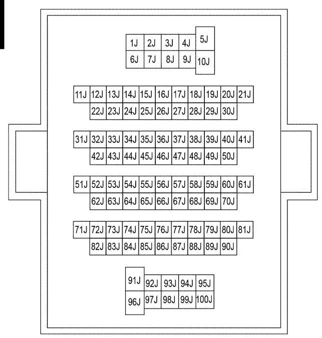
REAR SEAT ENTERTAINMENT SYSTEM CONNECTORS

Connector No.	M40
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4
Connector Color	WHITE

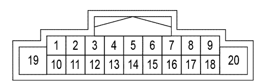
H.S.



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

Connector No.	M43
Connector Name	AV CONTROL UNIT (WITH AUDIO AMPLIFIER)
Connector Type	NH18FW-CS2
Connector Color	WHITE

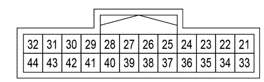
H.S.



Terminal No.	Color of Wire	Signal Name
1	G/W	AMP ON
2	L	FR SP LH+
3	W	FR SP LH-
4	L	RR SP LH+
5	BR	RR SP LH-
6	–	–
7	R	ACC
8	L	CAN-H
9	L	ILL (+)
10	SHIELD	PRE AMP SHIELD
11	B	FR SP RH+
12	Y	FR SP RH-
13	B/W	RR SP RH+
14	P	RR SP RH-
15	–	–
16	–	–
17	P	CAN-L
18	G	SPEED SIG
19	W	BAT
20	B	GND

Connector No.	M45
Connector Name	AV CONTROL UNIT (WITH AUDIO AMPLIFIER)
Connector Type	TH24FW-NH
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
21	LG	M CAN2-L
22	SB	M CAN2-H
23	L	MR OUTPUT
24	–	–
25	–	–
26	–	–
27	–	–
28	G/W	REVERSE SIGNAL
29	–	–
30	V	AUX L
31	GR	AUX GND
32	G	AUX R
33	L/W	CAMERA GND
34	L	CAMERA ON
35	SHIELD	COMP- (WITH AROUND VIEW CAMERA)
35	R/W	COMP- (WITH REAR VIEW CAMERA)
36	G	COMP+ (WITH AROUND VIEW CAMERA)
36	R	COMP+ (WITH REAR VIEW CAMERA)
37	G/R	IGN
38	LG	M CAN1-L
39	SB	M CAN1-H
40	SHIELD	AUX SHIELD
41	SHIELD	MIC GND
42	R	MIC VCC(WITHOUT TELEMATICS)
43	W	MIC SIGNAL
44	GR	ILL (-)

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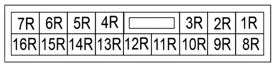
REAR SEAT ENTERTAINMENT SYSTEM CONNECTORS

Connector No.	M70
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS16FBR-CS
Connector Color	BROWN

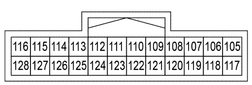
H.S.



Terminal No.	Color of Wire	Signal Name
1R	L	TAIL LAMP 2
2R	G/R	IGNITION
3R	Y/R	BATTERY
4R	–	–
5R	W	BATTERY
6R	G/W	ACCESSORY
7R	–	–
8R	–	–
9R	–	–
10R	W	BATTERY
11R	–	–
12R	BG	BATTERY
13R	B	ACCESSORY
14R	G/Y	BATTERY
15R	Y	BATTERY
16R	G/R	ACCESSORY

Connector No.	M80
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH24FB-NH
Connector Color	BLACK

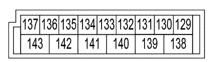
H.S.



Terminal No.	Color of Wire	Signal Name
105	G/Y	FR FLASHER
106	–	–
107	W	LOW SIDE START SW LED
108	L/R	SHIFT LOCK SOLENOID OUT
109	–	–
110	–	–
111	P	ACC LED
112	–	–
113	L	ACC RELAY OUT
114	W	AS DOOR ANT A
115	BG	AS DOOR ANT B
116	W	ROOM ANT 2 A
117	G/B	FL FLASHER
118	–	–
119	R	RF NIMOCO
120	–	–
121	G	DR DOOR ANT B
122	P	DR DOOR ANT A
123	W	ROOM ANT 1 A
124	G	ROOM ANT 1 B
125	–	–
126	P	IMMO START BUTTON ANT B
127	BG	IMMO START BUTTON ANT A
128	B	ROOM ANT 2 B

Connector No.	M81
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FEA09FW-FHA6-SA
Connector Color	WHITE

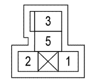
H.S.



Terminal No.	Color of Wire	Signal Name
129	R/G	BATTERY SAVER OUT
130	LG	SUPER LOCK/DOOR UNLOCK AS
131	W	BAT BCM FUSE
132	Y	DOOR LOCK AS/RR/RL
133	BR	DOOR UNLOCK AS/RR/RL
134	B	GND2
135	O	DOOR LOCK DR/AS/FL
136	L	ROOM LAMP CONT
137	V	DOOR UNLOCK DR/AS/FL
138	V	BAT REAR DOOR
139	W	BAT-POWER F/L
140	LG	P/W POWER SUPPLY IGN
141	V	P/W POWER SUPPLY BAT
142	Y	BAT FRONT DOOR
143	B	GND1

Connector No.	M88
Connector Name	ACCESSORY RELAY-2
Connector Type	MS02FL-M2-LC
Connector Color	BLUE

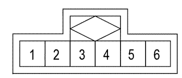
H.S.



Terminal No.	Color of Wire	Signal Name
1	B	GROUND
2	L	RELAY CONTROL
3	R	RELAY OUTPUT
5	W	BATTERY

Connector No.	M104
Connector Name	AUX IN JACK
Connector Type	A06FW
Connector Color	WHITE

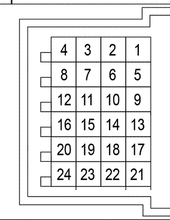
H.S.



Terminal No.	Color of Wire	Signal Name
1	G	AUDIO R OUT
2	G	AUDIO L IN-(WITH REAR SEAT ENTERTAINMENT SYSTEM)
3	GR	AUDIO GND
4	–	–
5	V	AUDIO R IN -(WITH REAR SEAT ENTERTAINMENT SYSTEM)
6	V	AUDIO L OUT

Connector No.	M192
Connector Name	JOINT CONNECTOR-M02
Connector Type	NH24FW-J
Connector Color	WHITE

H.S.



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

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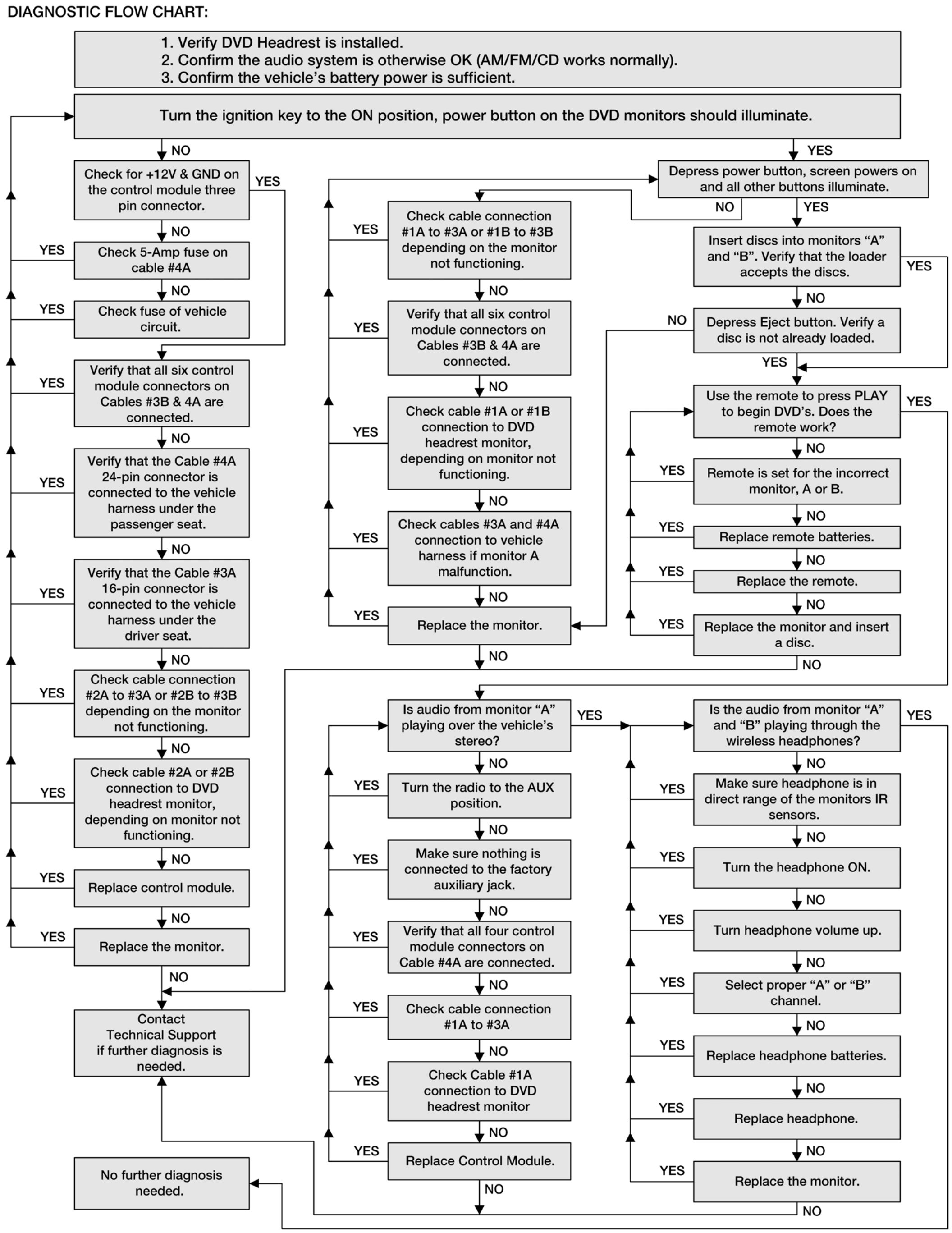
A B C D E F G H I J K L M AV O P

SYMPTOM DIAGNOSIS

REAR SEAT ENTERTAINMENT SYSTEM

Symptom Table

INFOID:0000000014387161



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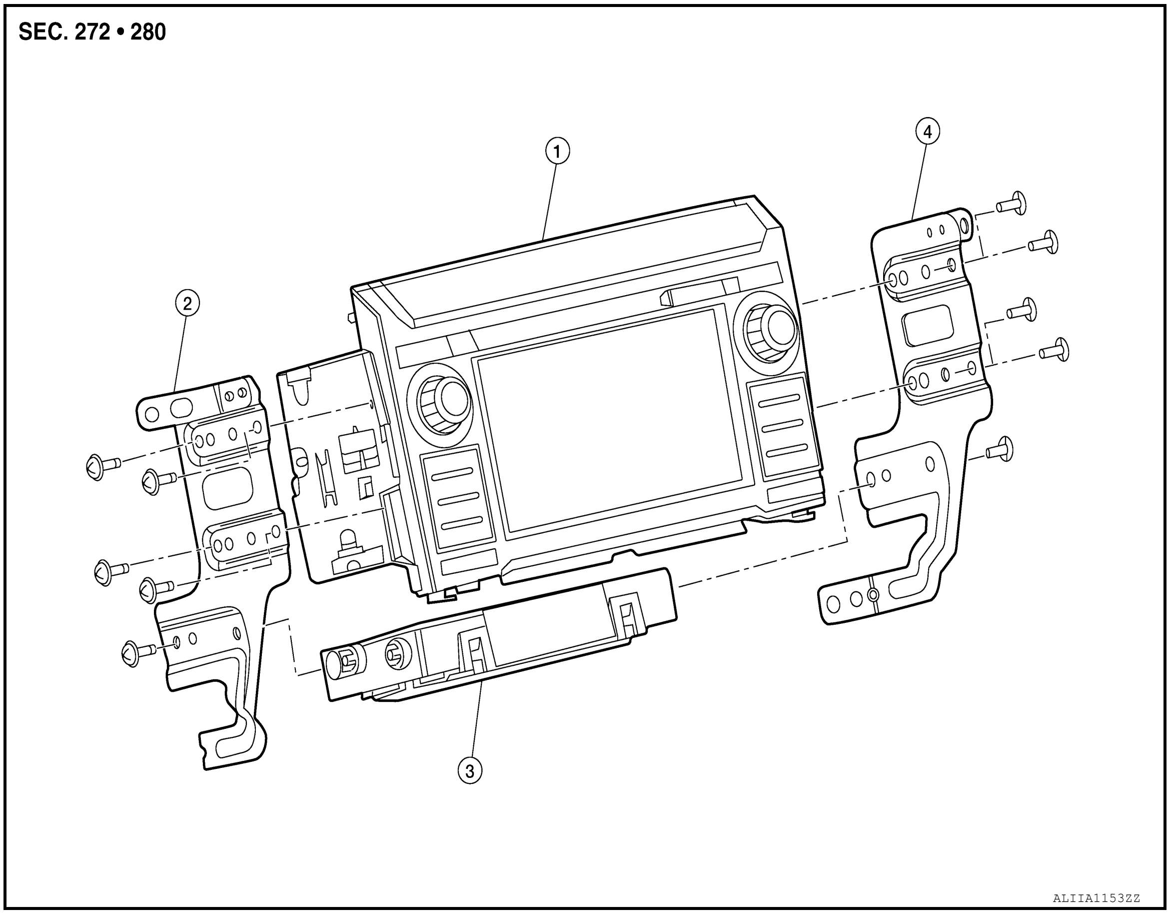
REMOVAL AND INSTALLATION

AV CONTROL UNIT

Exploded View

INFOID:0000000014387162



1. AV control unit
2. AV control unit bracket (LH)
3. A/C auto amp.
4. AV control unit bracket (RH)

Removal and Installation

INFOID:0000000014387163

REMOVAL

CAUTION:

Before replacing AV control unit, perform "ADDITIONAL SERVICE WHEN REPLACING AV CONTROL UNIT" to save current vehicle specification. Refer to AV-110, "ADDITIONAL SERVICE WHEN REPLACING AV CONTROL UNIT : Description".

1. Disconnect battery or batteries. Refer to PG-185, "Battery Disconnect".
2. Remove cluster lid C lower. Refer to IP-17, "CLUSTER LID C LOWER : Removal and Installation".
3. Remove A/C switch assembly. Refer to HAC-121, "Removal and Installation".
4. Remove AV control unit bracket screws, then pull out AV control unit.
5. Disconnect harness connectors from AV control unit and remove AV control unit.

INSTALLATION

Installation is in the reverse order of removal.

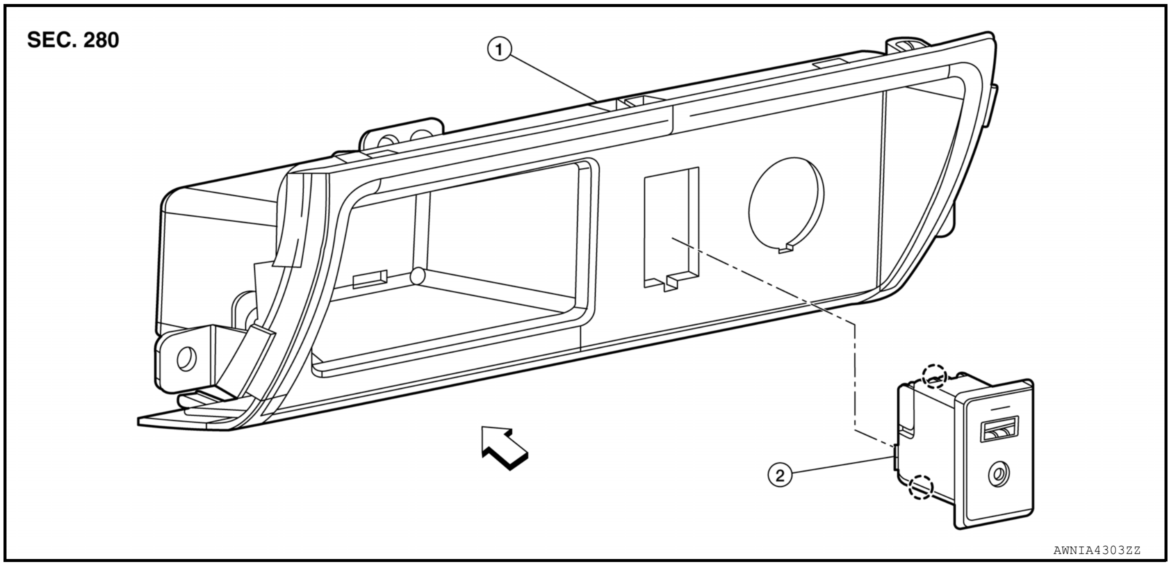
CAUTION:

After replacing AV control unit, perform "ADDITIONAL SERVICE WHEN REPLACING AV CONTROL UNIT" to configure and register AV control unit. Refer to AV-110, "ADDITIONAL SERVICE WHEN REPLACING AV CONTROL UNIT : Description".

USB INTERFACE AND AUX IN JACK

Exploded View

INFOID:0000000014387164



1. Cluster lid C lower
2. USB interface and aux in jack

Pawl

Front

Removal and Installation

INFOID:0000000014387165

REMOVAL

1. Remove cluster lid C lower. Refer to IP-17, "CLUSTER LID C LOWER : Removal and Installation".
2. Disconnect harness connector from USB interface and aux in jack
3. Release pawls using suitable tool and remove USB interface and aux in jack.

INSTALLATION

Installation is in the reverse order of removal.

HEADREST DISPLAY UNIT

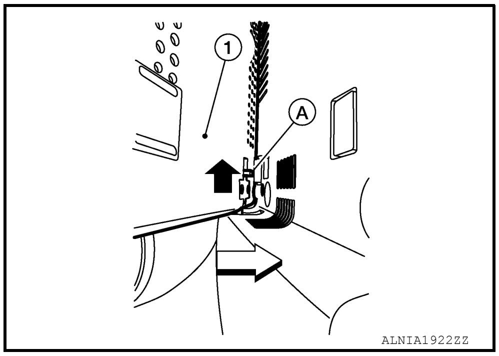
Removal and Installation

INFOID:0000000014387166

REMOVAL

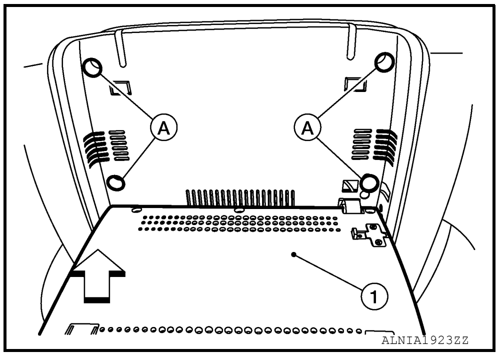
1. Pull gently at the top of the display unit to release magnets.
2. Release headrest display unit lock tab (A) in the direction shown and reposition the headrest display unit (1).

   ⇦ : Front



3. Remove screws (A) and reposition headrest display unit (1).

   ⇦ : Front



4. Disconnect harness connectors from headrest display unit and remove headrest display unit.

INSTALLATION

Installation is in the reverse order of removal.

REAR SEAT ENTERTAINMENT CONTROL UNIT

Removal and Installation

INFOID:0000000014387167

REMOVAL

1. Remove front passenger seat. Refer to SE-100, "Removal and Installation - Captain Seats".
2. Disconnect harness connectors from rear seat entertainment control unit.
3. Remove bolt and nut, then remove rear seat entertainment control unit.

INSTALLATION

Installation is in the reverse order of removal.