

SECTION **AV**

AUDIO, VISUAL & NAVIGATION SYSTEM

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

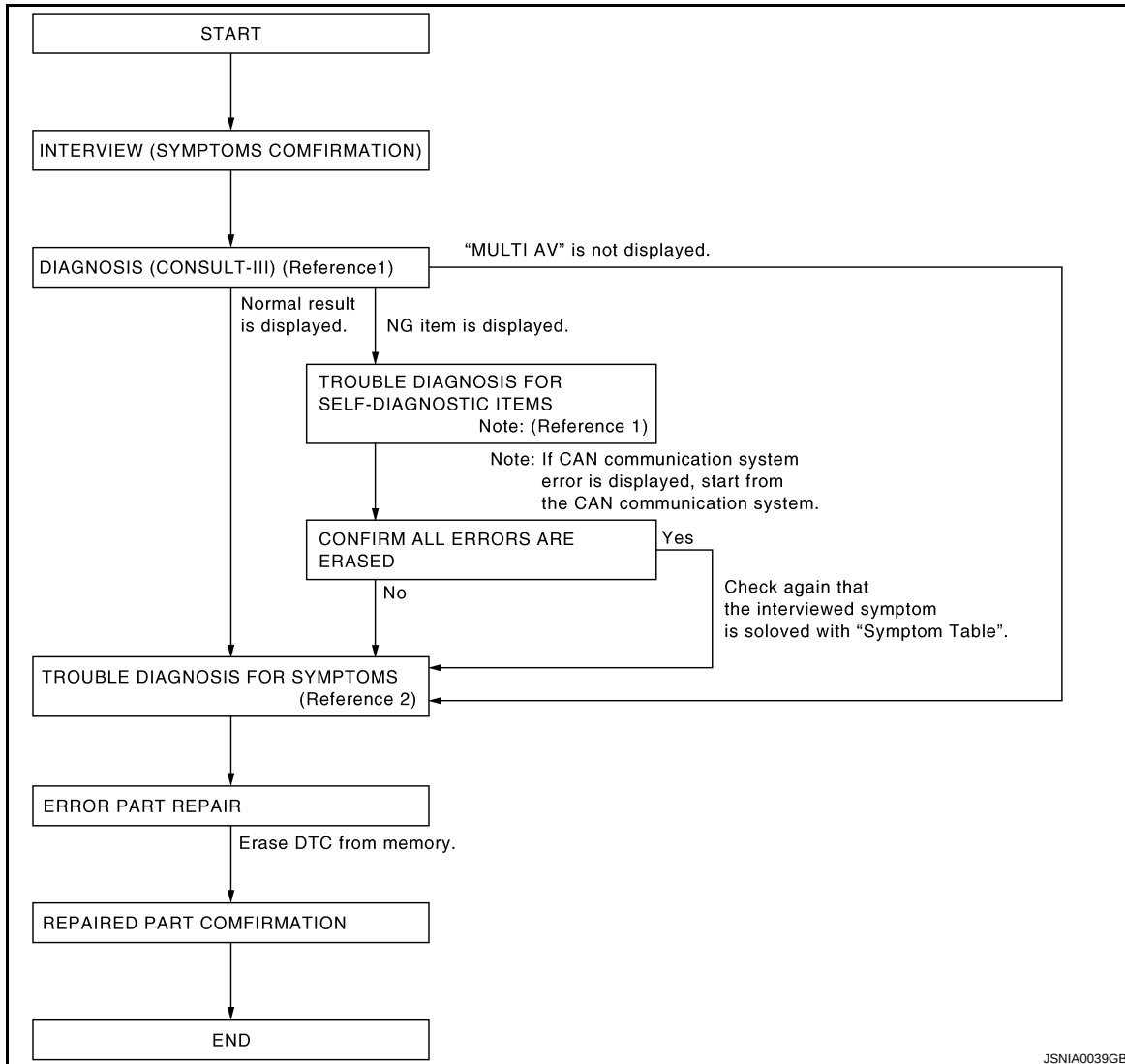
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:000000000964519

OVERALL SEQUENCE



- Reference 1... Refer to [AV-26, "CONSULT - III Function"](#).
- Reference 2... Refer to [AV-105, "Symptom Table"](#).

DETAILED FLOW

1.CHECK SYMPTOM

Check the malfunction symptoms by performing the following items.

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

>> GO TO 2.

2.SELF-DIAGNOSIS (CONSULT-III)

1. Connect CONSULT-III and perform a self-diagnosis for "MULTI AV".

NOTE:

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[BASE AUDIO WITHOUT NAVIGATION]

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

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

Is any DTC No. displayed?

YES >> GO TO 3.

NO >> GO TO 4.

3.CHECK SELF-DIAGNOSIS RESULTS (CONSULT-III)

1. Check the DTC No. indicated in the self-diagnosis results.
2. Perform the relevant diagnosis referring to the DTC Index. Refer to [AV-76, "DTC Index"](#).

NOTE:

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

>> GO TO 5.

4.PERFORM DIAGNOSIS BY SYMPTOM

Perform the relevant diagnosis referring to the diagnosis chart by symptom. Refer to [AV-105, "Symptom Table"](#).

>> GO TO 5.

5.REPAIR OR REPLACE MALFUNCTIONING PARTS

Repair or replace the identified malfunctioning parts.

NOTE:

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

>> GO TO 6.

6.CHECK AFTER REPAIR

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

Is any DTC No. displayed?

YES >> GO TO 3.

NO >> GO TO 7.

7.FINAL CHECK

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

No symptoms?

YES >> INSPECTION END

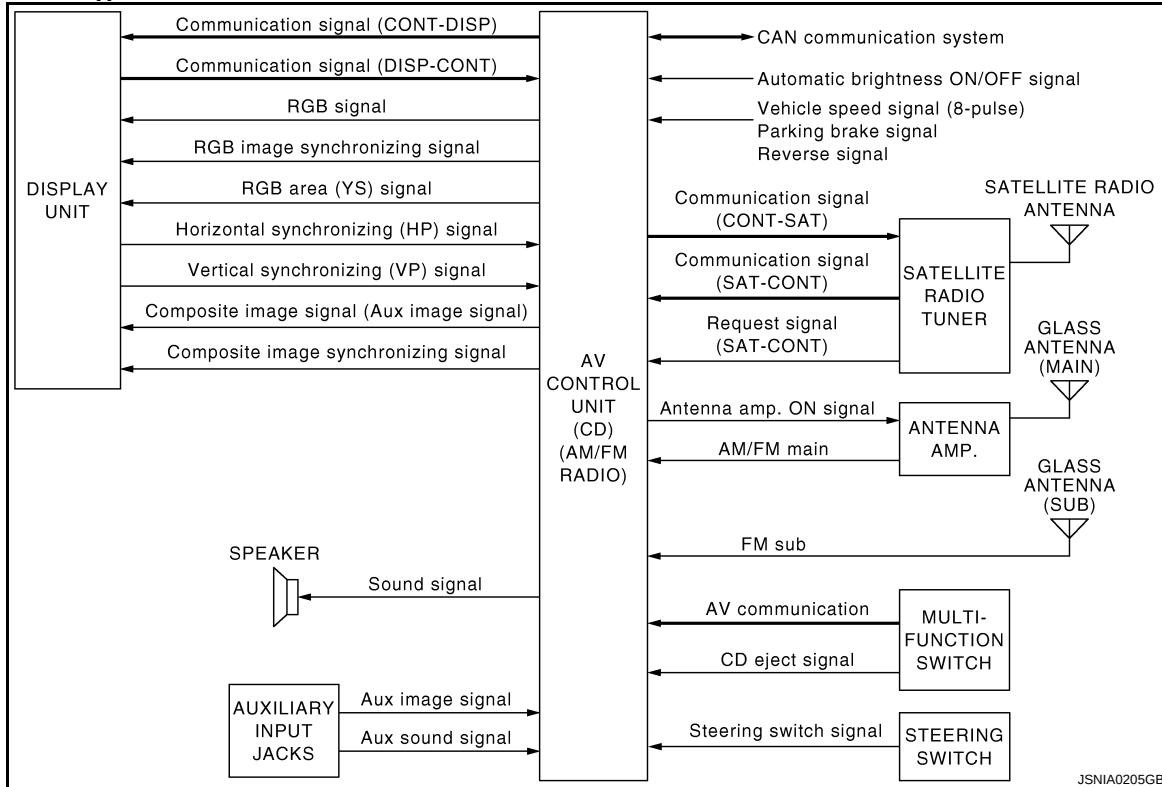
NO >> GO TO 4.

AV

FUNCTION DIAGNOSIS

MULTI AV SYSTEM

System Diagram



NOTE:

The name MULTIFUNCTION SWITCH indicates the integration of PRESET SWITCH and MULTIFUNCTION SWITCH virtually.

System Description

INFOID:000000000964521

Multi AV system means that the following systems are integrated.

System name	System explanation
AUDIO SYSTEM	AV-16. "System Description"
VEHICLE INFORMATION SYSTEM	- Indicates the status of audio, climate control system, fuel economy and maintenance. - AV control unit displays the fuel consumption status while receiving data signal through CAN communication from ECM, unified meter and A/C amp and BCM.
SATELLITE RADIO SYSTEM	Refer to "SATELLITE RADIO SYSTEM" shown below.
AUXILIARY INPUT SYSTEM	Refer to "AUXILIARY INPUT SYSTEM" shown below.

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

NOTE:

MULTI AV SYSTEM

< FUNCTION DIAGNOSIS >

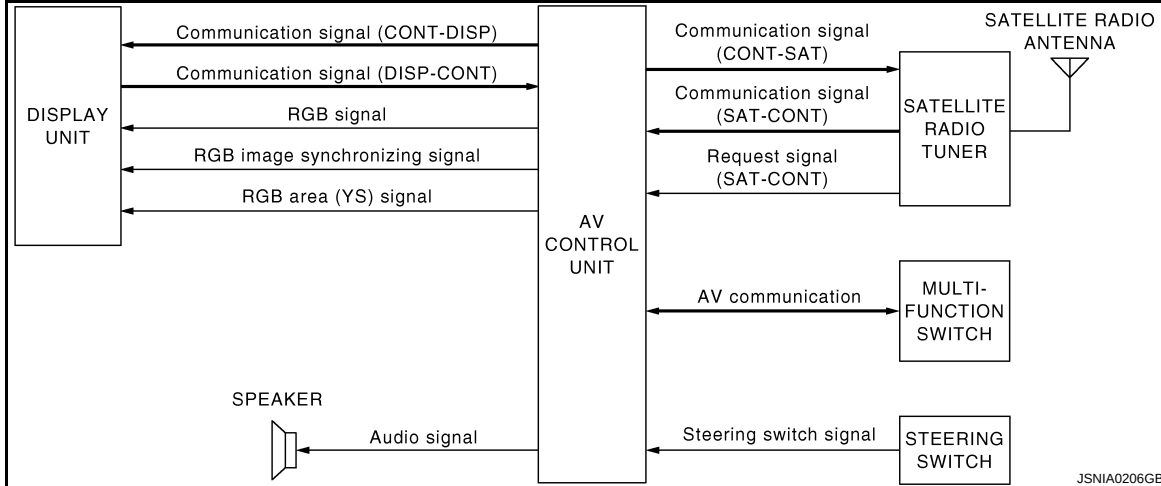
[BASE AUDIO WITHOUT NAVIGATION]

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

- CONSULT-III self-diagnosis: refer to [AV-26, "CONSULT - III Function"](#).
- On board self-diagnosis: refer to [AV-19, "Diagnosis Description"](#).

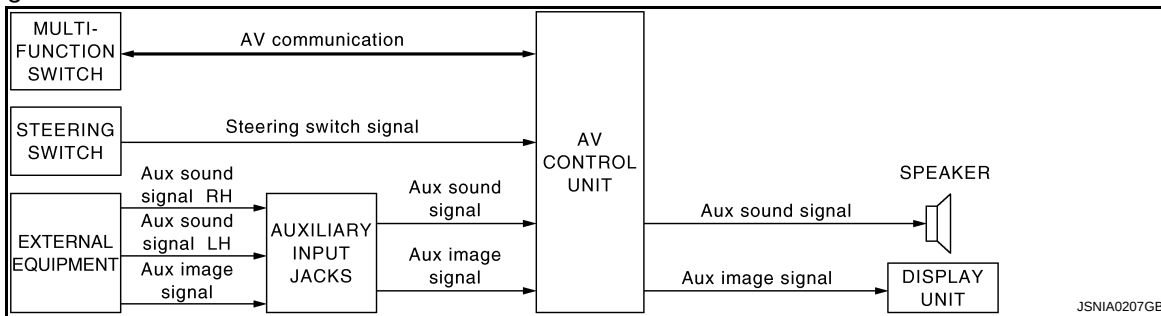
SATELLITE RADIO SYSTEM

- Satellite radio tuner is controlled by communication signal and request signal with AV control unit.
- Audio signal (satellite radio) is received by satellite antenna and sent to AV control unit. AV control unit is output the audio signal (satellite radio) to each speaker.



AUXILIARY INPUT SYSTEM

- Image and sound can be output from an external device by connecting a device with auxiliary input jacks.
- Operation can be performed with multifunction switch and steering switch. Multifunction switch sends operation signal to AV control unit with communication.



Component Parts Location

INFOID:000000000964522

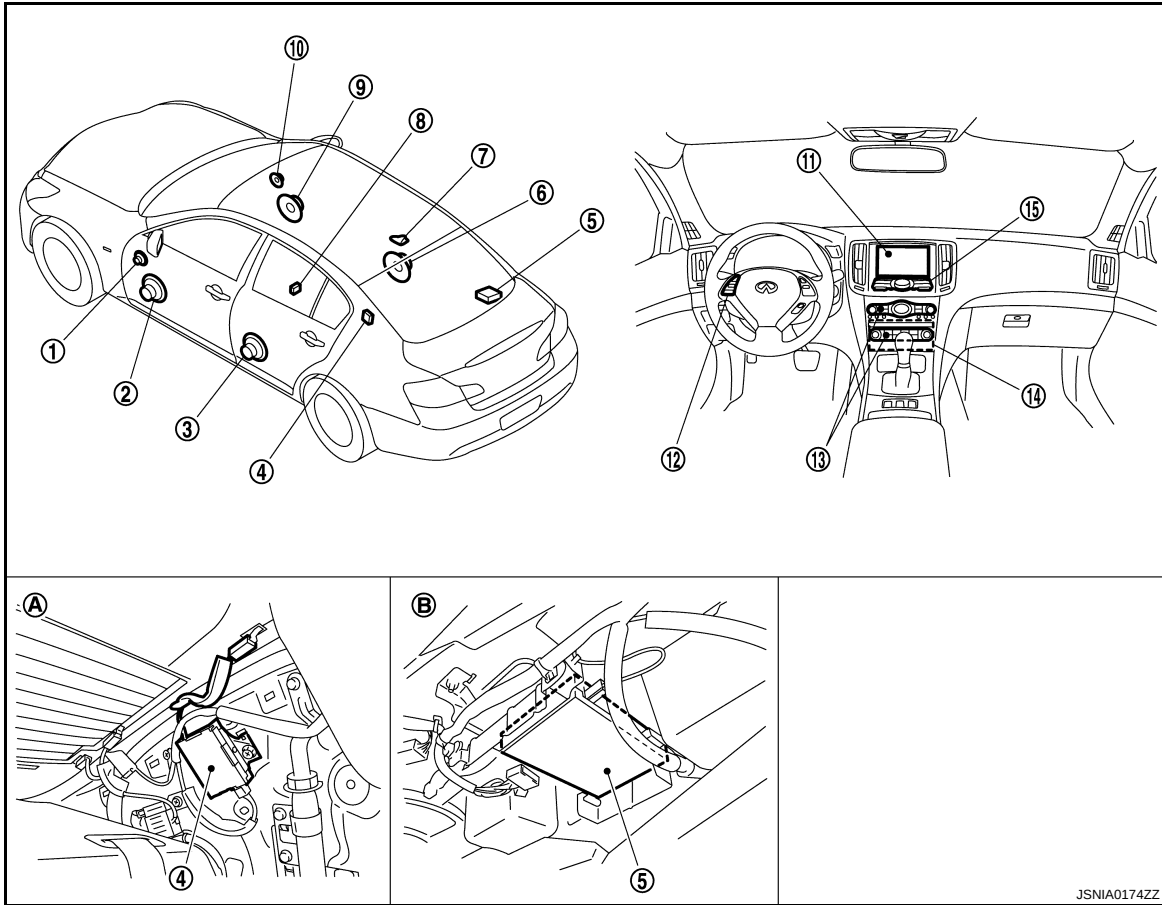
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AV

MULTI AV SYSTEM

< FUNCTION DIAGNOSIS >

[BASE AUDIO WITHOUT NAVIGATION]



1. Tweeter LH	2. Front door speaker LH	3. Rear door speaker LH
4. Antenna amp.	5. Satellite radio tuner	6. Rear door speaker RH
7. Satellite radio antenna	8. Auxiliary input jacks	9. Front door speaker RH
10. Tweeter RH	11. Display unit	12. Steering switch
13. Preset switch	14. AV control unit	15. Multifunction switch
A. Within rear pillar finisher LH	B. Rear parcel shelf lower part (left side)	

Component Description

INFOID:000000000964523

Part name	Description
AV CONTORL UNIT	- It is the master unit of the MULTI AV system, and it is connected to each control unit by means of communication. It operates each system according to communication signals from the AV control unit. - AV control unit includes audio function and vehicle information function. - It is connected to ECM and unified meter and A/C amp via CAN communication to obtain necessary information for the vehicle information function. - It inputs the automatic brightness ON/OFF signals that are required for the display dimming control. - It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake). - Auxiliary image signal is input from the auxiliary input jacks.
DISPLAY UNIT	- Display image is controlled by the serial communication from AV control unit. - RGB image signal is input from AV control unit (RGB, RGB area and RGB synchronizing). - Synchronize signal (HP, VP) is output to AV control unit. - Auxiliary image signal is input from the AV control unit.
FRONT DOOR SPEAKER	- Outputs sound signal from AV control unit. - Outputs high, mid and low range sounds.

MULTI AV SYSTEM

< FUNCTION DIAGNOSIS >

[BASE AUDIO WITHOUT NAVIGATION]

Part name	Description
REAR DOOR SPEAKER	- Outputs sound signal from AV control unit. - Outputs high, mid and low range sounds.
TWEETER	- Outputs sound signal from AV control unit. - Outputs high range sound.
MULTIFUNCTION SWITCH	- Operation panel is equipped with the centralized switch where audio and auxiliary input operations are integrated. - Connected with preset switch via cable, and operation signal is sent to AV control unit via AV communication.
PRESET SWITCH	- Operation panel is equipped with the centralized switch where audio and air conditioner operations are integrated. - Connected with multifunction switch via cable, and operation signal is sent to AV control unit via AV communication. - The CD ejection operating signal is performed by hardwire.
STEERING SWITCH	- The operation of Audio, etc. can be performed. - Steering switch signal (operation signal) is output to AV control unit.
AUXILIARY INPUT JACKS	The image signal of the auxiliary input is output via the AV control unit to the display, and it outputs the sound signal to the AV control unit.
ANTENNA AMP.	- Radio signal received by glass antenna is amplified and sent to AV control unit. - Power (antenna amp ON signal) is supplied from AV control unit.
SATELLITE RADIO TUNER	- Inputs the satellite radio signal from satellite radio antenna and outputs the sound signal to the AV control unit. - It is controlled with the AV control unit and serial communication (communication signal and request signal).
SATELLITE RADIO ANTENNA	Receives the satellite radio signal and outputs it to the satellite radio tuner.

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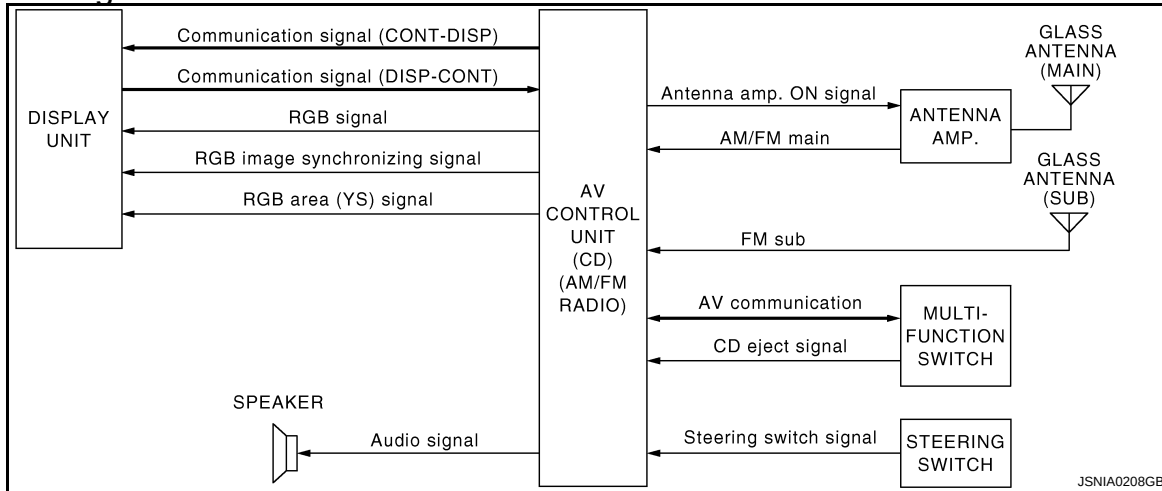
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AUDIO SYSTEM

System Diagram



System Description

INFOID:0000000000964525

The audio system is equipped with following function. Each function can be operated with the multifunction switch, preset switch or steering switch. It indicates the operation status of AUDIO to the display.

Function
AM/FM radio
CD

Function description

Operating signal

Operation of the audio system can be performed with the multi function switch, preset switch or steering switch.

- Operating signal is transmitted to AV control unit with AV communication when it is operated by multi function switch or preset switch. The CD ejection operating signal is performed by hardware.
- Operating signal is transmitted to AV control unit with steering switch signal when it is operated by steering switch.

Screen display

- The display switching of the screen is performed with the communication signal between the display and the AV control unit.
- The image signal to display operating condition is performed with RGB signal, RGB area signal and RGB image synchronizing signal.

AM/FM Radio Mode

- AM/FM radio tuner is built into AV control unit.
- Audio signal is received by glass antenna, next it is amplified by antenna amp, and finally it is input to AV control unit. AV control unit outputs the audio signal to each speaker.

CD Mode

- CD function is built into AV control unit.
- AV control unit outputs the audio signal to each speaker when inserting the CD to AV control unit.

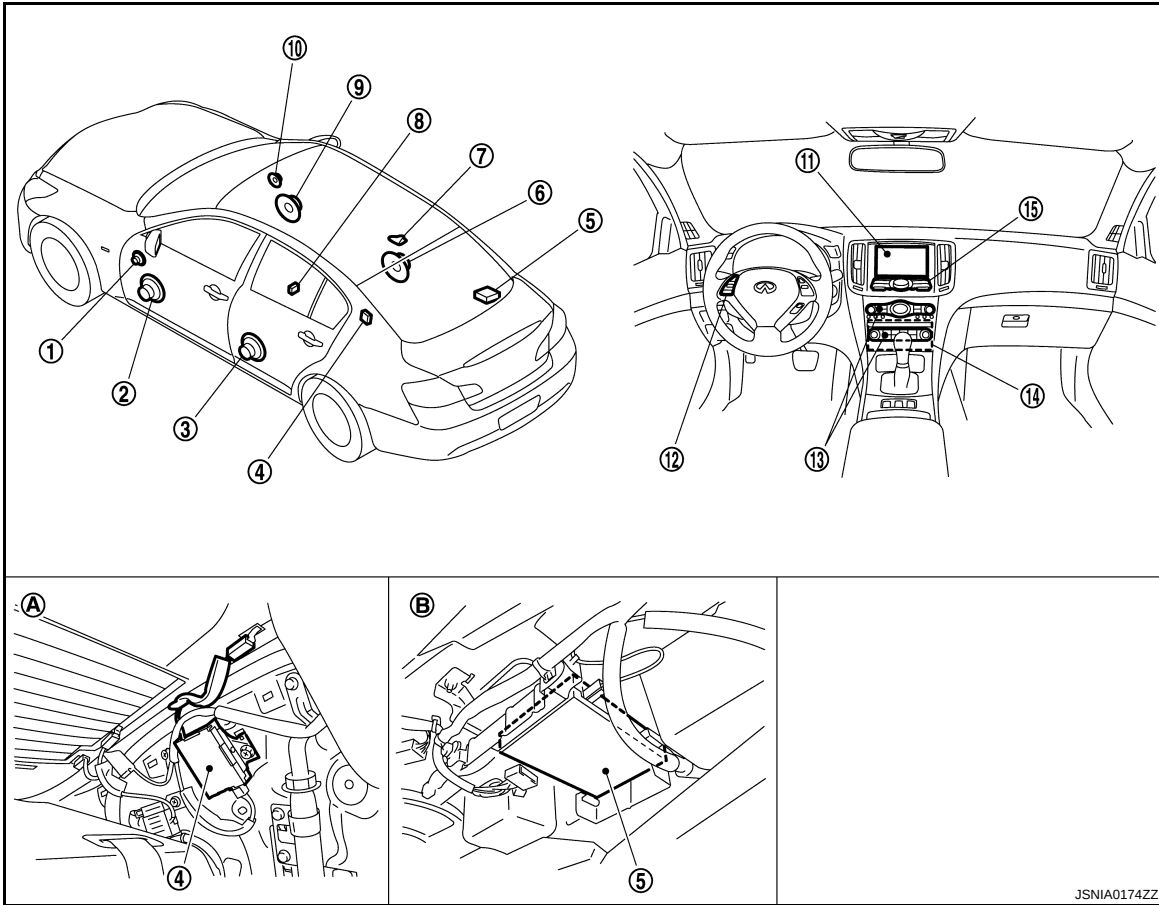
Component Parts Location

INFOID:0000000000964526

AUDIO SYSTEM

< FUNCTION DIAGNOSIS >

[BASE AUDIO WITHOUT NAVIGATION]



1. Tweeter LH	2. Front door speaker LH	3. Rear door speaker LH
4. Antenna amp.	5. Satellite radio tuner	6. Rear door speaker RH
7. Satellite radio antenna	8. Auxiliary input jacks	9. Front door speaker RH
10. Tweeter RH	11. Display unit	12. Steering switch
13. Preset switch	14. AV control unit	15. Multifunction switch
A. Within rear pillar finisher LH	B. Rear parcel shelf lower part (left side)	

Component Description

INFOID:000000000964527

Part name	Description
AV CONTORL UNIT	- The AM/FM receiving function and the CD playing function are equipped. - Outputs the audio signal from each function to each speaker.
DISPLAY UNIT	- Display image is controlled by the serial communication from AV control unit. - RGB image signal (audio operation condition) is input from AV control unit.
FRONT DOOR SPEAKER	- Outputs sound signal from AV control unit. - Outputs high, mid and low range sounds.
REAR DOOR SPEAKER	- Outputs sound signal from AV control unit. - Outputs high, mid and low range sounds.
TWEETER	- Outputs sound signal from AV control unit. - Outputs high range sound.
MULTIFUNCTION SWITCH	- Each audio operation can be operated. - Connected with preset switch via cable, and operation signal is sent to AV control unit via AV communication.

AUDIO SYSTEM

< FUNCTION DIAGNOSIS >

[BASE AUDIO WITHOUT NAVIGATION]

Part name	Description
PRESET SWITCH	• Each audio and air conditioner operation can be operated. • Connected with multifunction switch via cable, and operation signal is sent to AV control unit via AV communication. • The CD ejection operating signal is performed by hardwire
STEERING SWITCH	• Each audio operation can be operated. • Steering switch signal (operation signal) is output to AV control unit.
ANTENNA AMP.	• Radio signal received by glass antenna is amplified and sent to AV control unit. • Power (antenna amp ON signal) is supplied from AV control unit.

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

Diagnosis Description

INFOID:000000000964528

Multifunction switch and preset switch self-diagnosis function

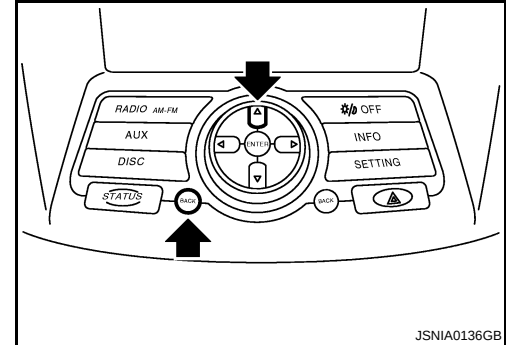
The ON/OFF operation (continuity) of each switch in the multifunction switch and preset switch can be checked.

Self-diagnosis mode

- Press the "BACK" switch and the "UP" switch of the 4-direction switches within 10 seconds after turning the ignition switch from OFF to ACC and hold them for 3 seconds or more. The buzzer sounds, all indicators of the preset switch illuminate, and the self-diagnosis mode starts.
- The continuity of each switch at the ON position can be checked by pressing the switch. The buzzer sounds if the switch is normal.

CAUTION:

The hazard switch and CD eject switch cannot be checked.



Finishing self-diagnosis mode

Self-diagnosis mode is canceled when turning the ignition switch OFF.

MULTI AV SYSTEM on board diagnosis function

- The AV control unit diagnosis function starts up with multifunction switch operation and the AV control unit performs a diagnosis for each unit in the system during the on board diagnosis.
- Perform a CONSULT-III diagnosis if the on board diagnosis does not start, e.g., the screen does not display anything, the multifunction switch does not function. etc.

On board diagnosis

Description

- The trouble diagnosis function has a self-diagnosis mode for conducting trouble diagnosis automatically and a confirmation/adjustment mode for operating manually.
- Self-diagnosis mode performs the AV control unit diagnosis and the connection diagnosis between each of the units that make up the system, and it indicates the results to the display.
- The confirmation/adjustment mode allows the technician to check, modify or adjust the vehicle signals and set values, as well as to monitor the system error records and system communication status. The check, modify or adjust actions generally require human intervention and judgment (the system cannot make judgment automatically).

On board diagnosis item

Mode	Description
Self Diagnosis	- AV control unit diagnosis - Perform the connection diagnosis between each of the units.

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

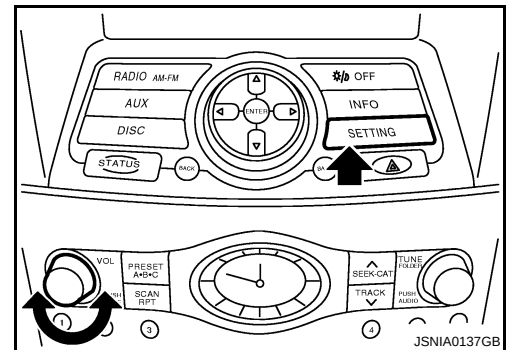
< FUNCTION DIAGNOSIS >

[BASE AUDIO WITHOUT NAVIGATION]

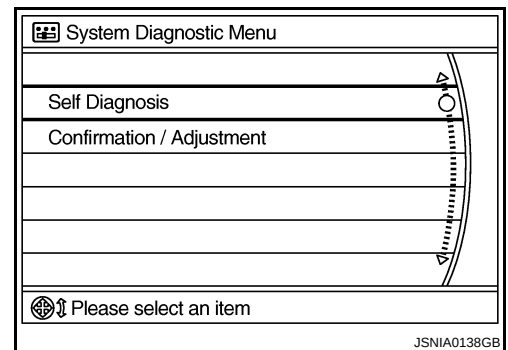
	Mode	Description
Confirmation/ Adjustment	Display Diagnosis	The confirmations of the tint with the color spectrum bar display and shading of color with the gradation bar display can be performed.
	Vehicle Signals	Diagnosis of signals can be performed for vehicle speed, parking brake, lights, ignition switch, and reverse.
	Speaker Test	The connection of a speaker can be confirmed by test tone.
	Climate Control	Start auto air conditioner system self-diagnosis.
	Error History	The system malfunction and the frequency when occurred in the past are displayed. When the malfunctioning item is selected, the time and place that the selected malfunction last occurred are displayed.
	Vehicle CAN Diagnosis	The transmitting/receiving of CAN communication can be monitored.
	AV COMM Diagnosis	The communication condition of each unit of Multi AV system can be monitored.
	Delete Unit Connection Log	Erase the connection history of unit and error history
	Initialize Settings	Initializes the AV control unit memory.

STARTING PROCEDURE

1. Start the engine.
2. Turn the audio system OFF.
3. While pushing the "SETTING" button, turn the volume control dial clockwise or counterclockwise for 40 clicks or more. (When the self-diagnosis mode is started, a short beep will be heard.)
 - Shifting from current screen to previous screen is performed by pushing "BACK" button.

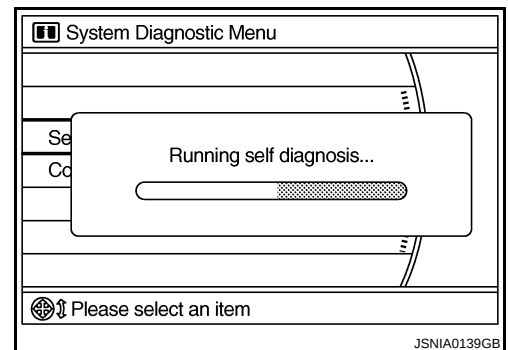


4. The trouble diagnosis initial screen is displayed, and then the items of "Self Diagnosis" and "Confirmation/Adjustment" can be selected.



Self-diagnosis mode

1. Start the self-diagnosis function and select "Self-diagnosis".
 - Self-diagnosis subdivision screen is displayed, and the self-diagnosis mode starts.
 - The bar graph visible on the center of the self-diagnosis subdivision screen indicates progress of the trouble diagnosis.



DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< FUNCTION DIAGNOSIS >

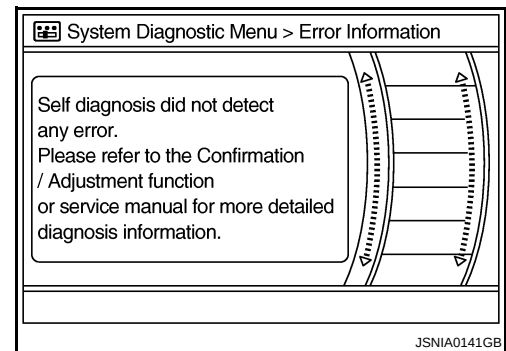
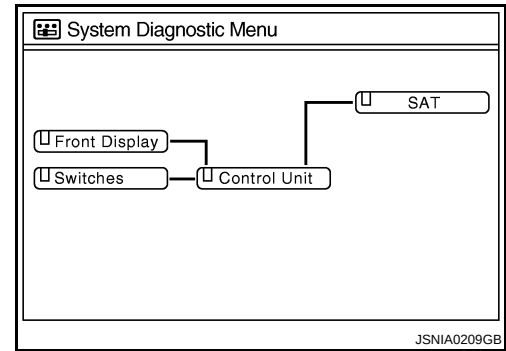
[BASE AUDIO WITHOUT NAVIGATION]

- Diagnosis results are displayed after the self-diagnosis is completed. The unit names and the connection lines are color-coded according to the diagnostic results.

Diagnosis results	Unit	Con- nection line
Normal	Green	Green
Connection malfunction	Gray	Yellow
Unit malfunction ^{Note}	Red	Green

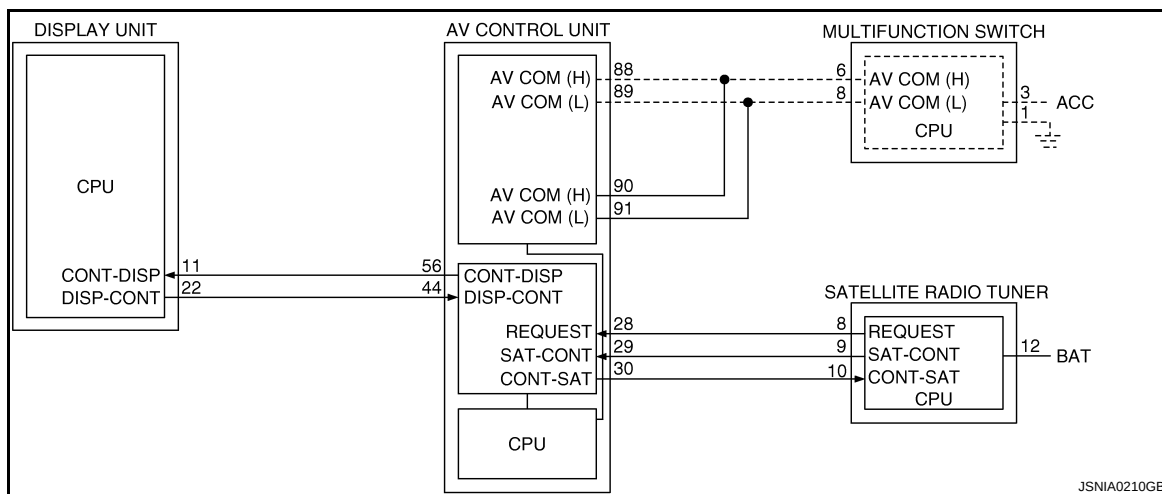
NOTE:

- Only the control unit (AV control unit) is displayed in red.
- Replace AV control unit if "Self-Diagnosis did not run because of a control unit malfunction" is indicated. The symptom is AV control unit internal error.
- 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 > yellow > gray.
- The comments of the self-diagnosis results can be viewed with a component in the diagnosis result screen.



Detection range of self-diagnosis mode

- The self-diagnosis mode allows the technician to diagnose the connection in the communication line between AV control unit and each unit and the internal operation of the AV control unit.
- Because the start condition of diagnosis function is a switch operation, the on board diagnosis function cannot be started up if any malfunction is detected in the communication circuit between AV control unit and multifunction switch.



Self-diagnosis results

Check the applicable display at the following table, and then repair the malfunctioning parts.

Self-diagnosis result chart

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

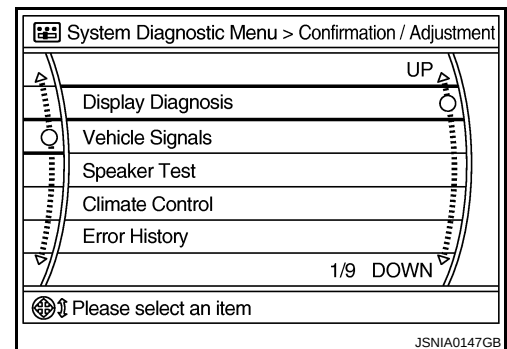
< FUNCTION DIAGNOSIS >

[BASE AUDIO WITHOUT NAVIGATION]

Area with yellow connection lines	Description	Possible malfunction location / Action to take
■ : Red JSNIA0211GB	AV control unit malfunction is detected	Replace the AV control unit
■ : Gray - - - - : Yellow JSNIA0212GB	Satellite radio tuner power supply and ground circuit malfunction is detected	Satellite radio tuner power supply and ground

CONFIRMATION/ADJUSTMENT MODE

1. Start the diagnosis function and select "Confirmation/Adjustment". The confirmation/adjustment mode indicates where each item can be checked or adjusted.
2. Select each switch on the "Inspection & Adjustment Mode" screen to display the relevant trouble diagnosis screen. Press the "RETURN" switch to return to the initial Inspection & Adjustment Mode screen.

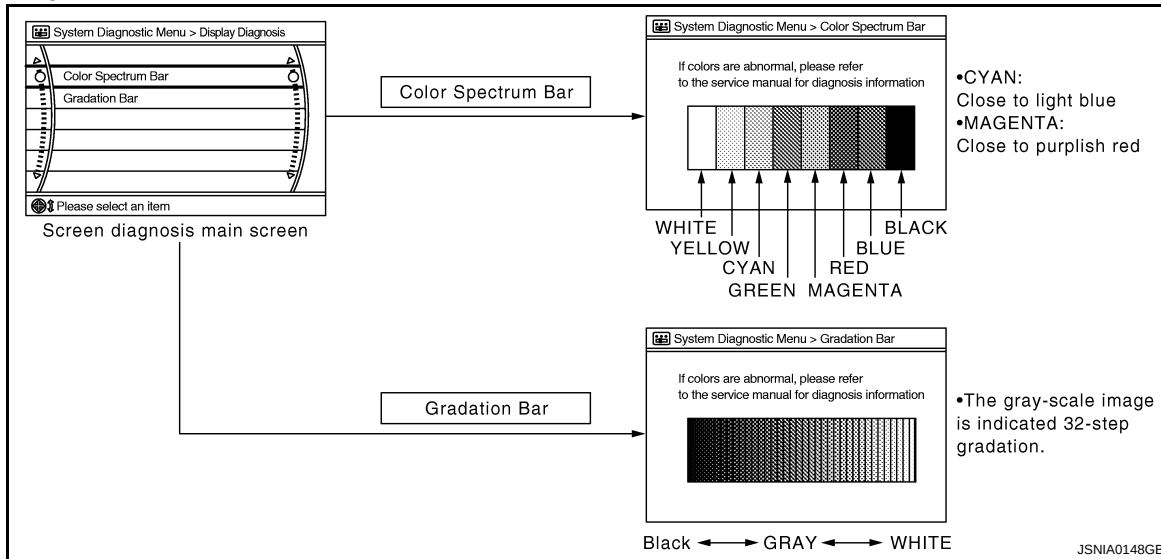


DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< FUNCTION DIAGNOSIS >

[BASE AUDIO WITHOUT NAVIGATION]

Display Diagnosis

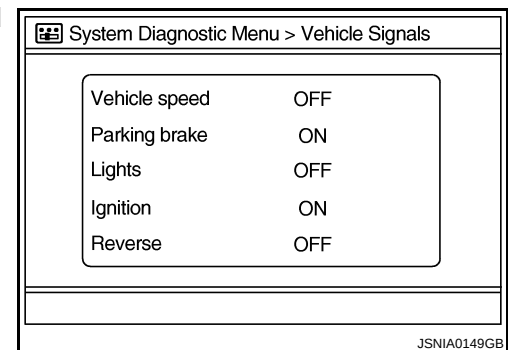


The tint of the color bar indication is as per the following list if RGB signal error is detected.

R (red) signal error : Light blue (Cyan) tint
G (green) signal error : Purple (Magenta) tint
B (blue) signal error : Yellow tint

Vehicle Signals

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



Diagnosis item	Display	Vehicle status	Remarks
Vehicle speed	ON	Vehicle speed > 0 km/h	Changes in indication may be delayed by approximately 1.5 seconds. This is normal.
	OFF	Vehicle speed = 0 km/h	
Parking brake	ON	Parking brake is applied.	
	OFF	Parking brake is released.	
Lights	ON	Light switch ON	Block the light beam from the auto light optical sensor.
	OFF	Light switch OFF	
Ignition	ON	Ignition switch ON	—
	OFF	Ignition switch in ACC position	
Reverse	ON	Selector lever in R position	Changes in indication may be delayed by approximately 1.5 seconds. This is normal.
	OFF	Selector lever in any position other than R	

Speaker Test

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< FUNCTION DIAGNOSIS >

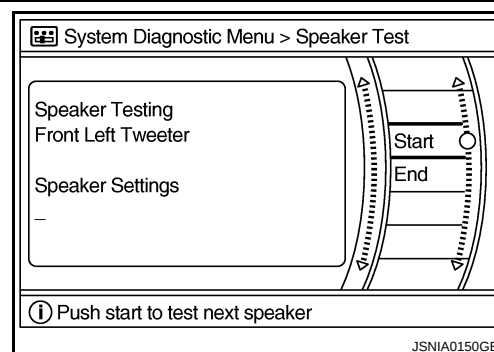
[BASE AUDIO WITHOUT NAVIGATION]

Select "SPEAKER DIAGNOSIS" to display the Speaker Diagnosis screen. Press "START and NEXT" to generate a test tone in a speaker. Press "Start" to generate a test tone in the next speaker. Press "End" to stop the test tones.

NOTE:

The frequency of test tone emitted from each speaker is as follows.

Tweeter	: 3 kHz
Front door speaker	: 300 Hz
Rear door speaker	: 1 kHz



Climate Control

Refer to "HEATER & AIR CONDITIONING CONTROL SYSTEM" for details.

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 SW 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.

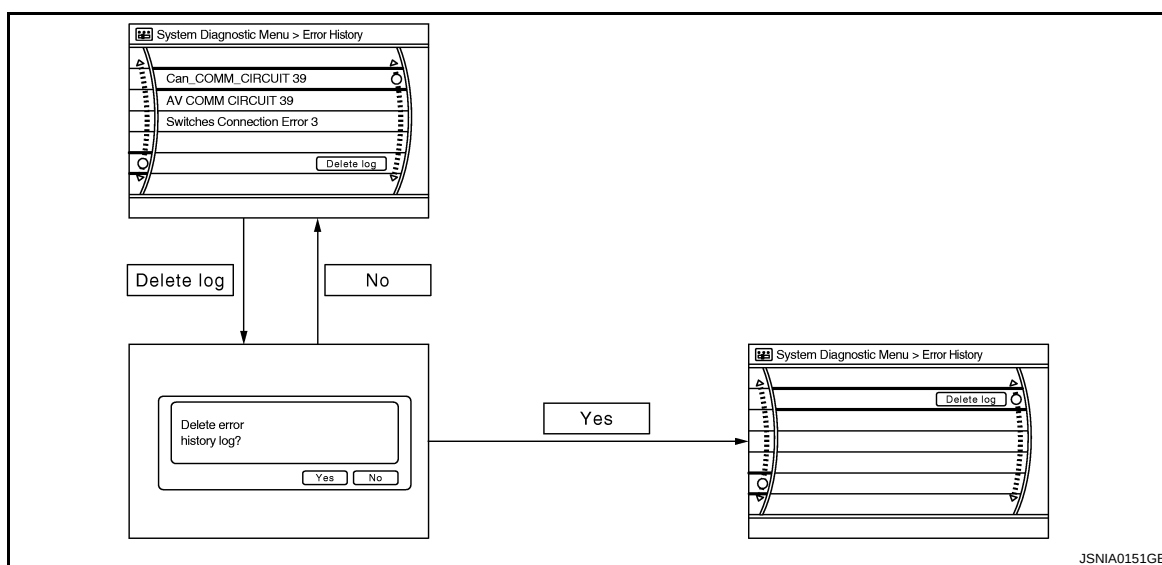
Count up method A

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

Count up method B

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

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



Error item

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

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< FUNCTION DIAGNOSIS >

[BASE AUDIO WITHOUT NAVIGATION]

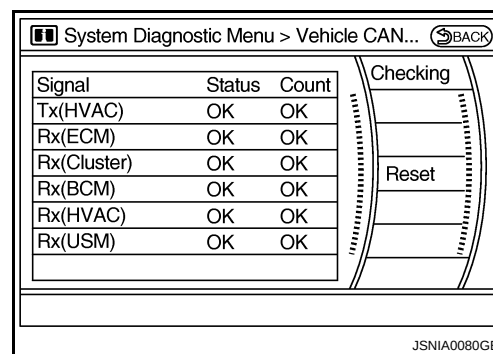
Error item	Description	Possible malfunction factor/Action to take
CAN COMM CIRCUIT	CAN communication malfunction is detected	Perform diagnosis with CONSULT-III, and then repair the malfunctioning parts according to the diagnosis results. Refer to AV-26, "CONSULT - III Function" .
CONTROL UNIT (CAN)	CAN initial diagnosis malfunction is detected	Replace the AV control unit
CONTROL UNIT (AV)	AV communication circuit initial diagnosis malfunction is detected	
FLASH-ROM Error Of Control Unit	AV control unit malfunction is detected	
CAN Controller Memory Error		
Front Display Connection Error	• Display unit power supply and ground circuit malfunction is detected • Malfunction is detected on communication circuit between display unit and AV control unit • Malfunction is detected on communication signal between display unit and AV control unit	• Display unit power supply and ground circuit • Communication circuit between display unit and AV control unit
SAT Connection Error	• Satellite radio tuner power supply and ground circuit malfunction is detected • Malfunction is detected on communication signal between satellite radio tuner and AV control unit	Satellite radio tuner power supply and ground circuit
• AV COMM CIRCUIT • Switches Connection Error	• Multifunction switch power supply and ground circuit malfunction is detected • A malfunction is detected in communication circuit between AV control unit and multifunction switch • A malfunction is detected in communication signal between AV control unit and multifunction switch	• Multifunction switch power supply and ground circuits • Communication circuit between AV control unit and multifunction switch

Vehicle CAN Diagnosis

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

Items	Display (Current)	Malfunction counter (Past)
Tx (HVAC)	OK / UNKWN	OK / 0 – 39
Rx (ECM)	OK / UNKWN	OK / 0 – 39
Rx (Cluster)	OK / UNKWN	OK / 0 – 39
Rx (BCM)	OK / UNKWN	OK / 0 – 39
Rx (HVAC)	OK / UNKWN	OK / 0 – 39
Rx (USM)	OK / UNKWN	OK / 0 – 39

AV COMM Diagnosis



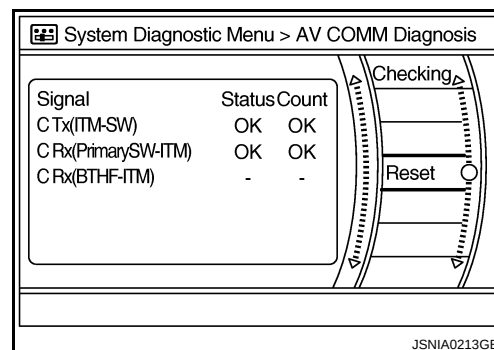
DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< FUNCTION DIAGNOSIS >

[BASE AUDIO WITHOUT NAVIGATION]

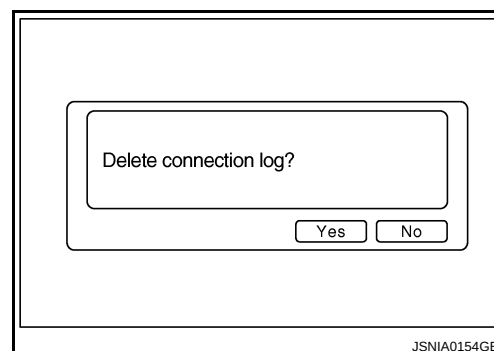
- Displays the communication status between AV control unit (master unit) and each unit.
- The error counter displays “OK” if any malfunction was not detected in the past and displays “0” if a malfunction is detected. It increases by 1 if the condition is normal at the next ignition switch ON cycle.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

Items	Status (Current)	Counter (Past)
C Tx (ITM-SW)	OK / UNKWN	OK / 0 - 39
C Rx (PrimarySW-ITM)	OK / UNKWN	OK / 0 - 39
C Rx (XM-ITM)	—	—



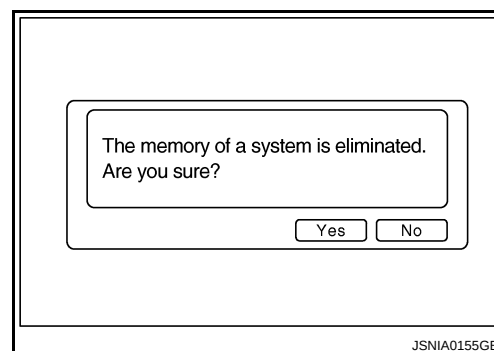
Delete Unit Connection Log

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



Initialize Settings

Initializes the AV control unit memory.



CONSULT - III Function

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CONSULT-III functions

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

Diagnosis mode	Description
SELF-DIAG RESULTS	Performs the connection diagnosis of communication circuit between AV control unit and navigation system and displays the current and past malfunctions collectively.
DATA MONITOR	The diagnosis of vehicle signal that is input to the AV control unit can be performed.
AV COMM MONITOR	The communication status of navigation system can be monitored.
ECU PART NUMBER	The part number of AV control unit can be checked.

Self-diagnosis results

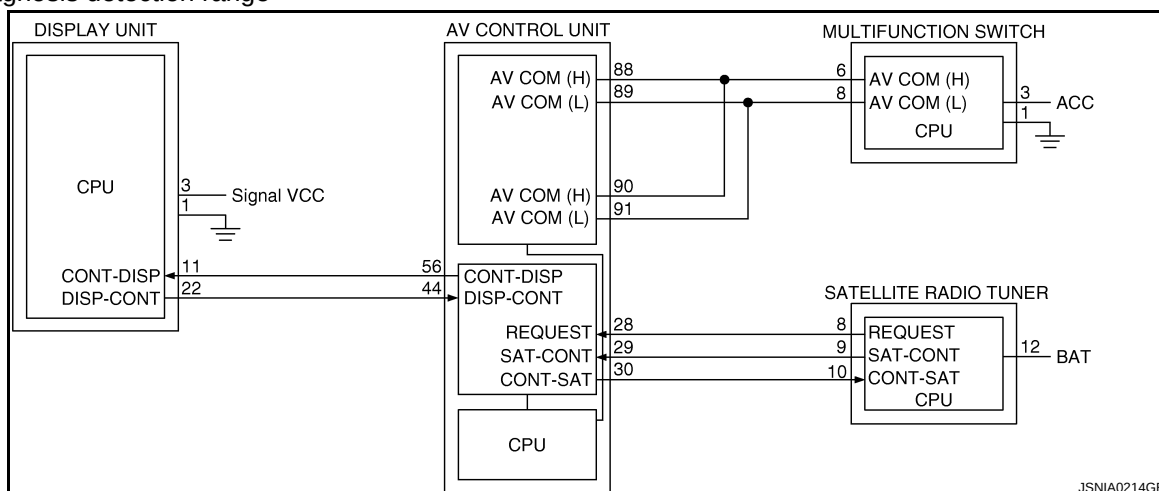
- In CONSULT-III self-diagnosis, self-diagnosis results and error history are displayed collectively.
- The current malfunction indicates “CRNT”. The past malfunction indicates “PAST”.
- The timing is displayed as “0” if any of the error codes [U1000], [U1010], [U1300] and [U1310] is detected. The counter increases by 1 if the condition is normal at the next ignition switch ON cycle.

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< FUNCTION DIAGNOSIS >

[BASE AUDIO WITHOUT NAVIGATION]

Self-diagnosis detection range



Self-diagnosis results display item

Error item	Description	Possible malfunction factor/Action to take
CAN COMM CIRCUIT [U1000]	CAN communication malfunction is detected	Perform diagnosis with CONSULT-III, and then repair the malfunctioning parts according to the diagnosis results. Refer to AV-26. "CONSULT - III Function" .
CONTROL UNIT (CAN) [U1010]	CAN initial diagnosis malfunction is detected	Replace the AV control unit
CONTROL UNIT (AV) [U1310]	AV communication circuit initial diagnosis malfunction is detected	
Control Unit FLASH-ROM [U1200]	AV control unit malfunction is detected	
CAN CONT [U1216]		
FRONT DISP CONN [U1243]	• Display unit power supply and ground circuit malfunction is detected • Malfunction is detected on communication circuit between display unit and AV control unit • Malfunction is detected on communication signal between display unit and AV control unit	• Display unit power supply and ground circuit • Communication circuit between display unit and AV control unit
SAT CONN [U1255]	• Satellite radio tuner power supply and ground circuit malfunction is detected • Malfunction is detected on communication signal between satellite radio tuner and AV control unit	Satellite radio tuner power supply and ground circuit
• AV COMM CIRCUIT [U1300] • SWITCHE CONN [U1240]	• Multifunction switch power supply and ground circuit malfunction is detected • A malfunction is detected in communication circuit between AV control unit and multifunction switch • A malfunction is detected in communication signal between AV control unit and multifunction switch	• Multifunction switch power supply and ground circuits • Communication circuit between AV control unit and multifunction switch

DATA MONITOR

ALL SIGNALS

- Displays the status of the following vehicle signals inputted to the AV control unit.
- For each signal, actual signal can be compared with the condition recognized on the system.

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< FUNCTION DIAGNOSIS >

[BASE AUDIO WITHOUT NAVIGATION]

Display Item	Display	Vehicle status	Remarks
VHCL SPD SIG	ON	Vehicle speed >0 km/h (0 MPH)	Changes in indication may be delayed. This is normal.
	OFF	Vehicle speed =0 km/h (0 MPH)	
PKB SIG	ON	Parking brake is applied.	
	OFF	Parking brake is released.	
ILLUM SIG	ON	Block the light beam from the auto light optical sensor when the light SW is ON .	—
	OFF	Expose the auto light optical sensor to light when the light SW is OFF or ON.	
IGN SIG	ON	Ignition switch ON	
	OFF	Ignition switch in ACC position	
REV SIG	ON	Selector lever in R position	Changes in indication may be delayed. This is normal.
	OFF	Selector lever in any position other than R	

SELECTION FROM MENU

Allows the technician to select which vehicle signals should be displayed and displays the status of the selected vehicle signals.

Item to be selected	Description
VHCL SPD SIG	The same as when "ALL SIGNALS" is selected.
PKB SIG	
ILLUM SIG	
IGN SIG	
REV SIG	

AV COMM MONITOR

AV&NAVI C/U

- Displays the communication status from AV control unit to each unit as well as the error counter.
- The error counter displays "OK" if no malfunction was 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.

Items	Display (Current)	Malfunction counter (Past)
TRANSMIT DIAG	OK / UNKWN	OK / 0 – 39
PANEL SWITCH	OK / UNKWN	OK / 0 – 39
SW SECONDARY	—	—
RR CONTROL SW	—	—
STEERING SW	—	—
AUDIO	—	—
SPEAKER AMP	—	—
SIDE CAMERA	—	—
REAR CAMERA	—	—
TV TUNER	—	—
DVD PLAYER	—	—

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< FUNCTION DIAGNOSIS >

[BASE AUDIO WITHOUT NAVIGATION]

Items	Display (Current)	Malfunction counter (Past)
VIDEO DIST	—	—
ETC	—	—
HANDS FREE	OK / UNKWN	OK / 0 – 39
XM	—	—
IPOD	—	—
FM MULTI	—	—
REMOTE CONT	—	—

AUDIO

- Displays the AV control unit communication status and the error counter.
- This item does not use.

Items	Display (Current)	Malfunction counter (Past)
TRANSMIT DG	—	—
SPEAKER AMP	—	—
TV TUNER	—	—
DVD PLAYER	—	—
MD DECK	—	—
CD CHANGER	—	—
MD CHANGER	—	—
IPOD	—	—

ECU PART NUMBER

The part number of AV control unit is displayed.

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COMPONENT DIAGNOSIS

U1000 CAN COMM CIRCUIT

Description

INFOID:000000000964530

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 independent). 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-28, "CAN Communication Signal Chart"](#).

DTC Logic

INFOID:000000000964531

DTC DETECTION LOGIC

DTC	Display contents of CONSULT-III	Diagnostic item is detected when ...	Probable malfunction location
U1000	CAN COMM CIRCUIT	When AV control unit is not transmitting or receiving CAN communication signal for 2 seconds or more.	CAN communication system

Diagnosis Procedure

INFOID:000000000964532

1.PERFORM SELF DIAGNOSTIC

1. Turn ignition switch ON and wait for 2 second or more.
2. Check "Self Diagnostic Result" of "MULTI AV".

Is "CAN COMM CIRCUIT" displayed?

- YES >> Refer to "LAN system". Refer to [LAN-18, "Trouble Diagnosis Flow Chart"](#).
- NO >> Refer to GI section. Refer to [GI-39, "Intermittent Incident"](#).

U1010 CONTROL UNIT (CAN)

< COMPONENT DIAGNOSIS >

[BASE AUDIO WITHOUT NAVIGATION]

U1010 CONTROL UNIT (CAN)

Description

INFOID:0000000000964533

Initial diagnosis of AV control unit.

DTC Logic

INFOID:0000000000964534

DTC DETECTION LOGIC

DTC	Display contents of CONSULT-III	Diagnostic item is detected when ...	Probable malfunction location
U1010	CONTROL UNIT (CAN)	CAN initial diagnosis malfunction is detected	AV control unit

Diagnosis Procedure

INFOID:0000000000964535

1.REPLACE AV CONTROL UNIT

When DTC U1010 is detected, replace AV control unit.

>> INSPECTION END

U1310 AV CONTROL UNIT

< COMPONENT DIAGNOSIS >

[BASE AUDIO WITHOUT NAVIGATION]

U1310 AV CONTROL UNIT

Description

INFOID:000000000964536

Replace the AV control unit if this DTC is displayed. Refer to [AV-111. "Exploded View"](#).

Part name	Description
AV CONTORL UNIT	• It is the master unit of the MULTI AV system, and it is connected to each control unit by means of communication. It operates each system according to communication signals from the AV control unit. • AV control unit includes audio function and vehicle information function. • It is connected to ECM and unified meter and A/C amp via CAN communication to obtain necessary information for the vehicle information function. • It inputs the automatic brightness ON/OFF signals that are required for the display dimming control. • It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).

DTC Logic

INFOID:000000000964537

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1310	CONTROL UNIT (AV) [U1310]	An initial diagnosis error is detected in AV communication circuit.	Replace AV control unit

U1200 AV CONTROL UNIT

< COMPONENT DIAGNOSIS >

[BASE AUDIO WITHOUT NAVIGATION]

U1200 AV CONTROL UNIT

Description

INFOID:0000000000964538

Replace the AV control unit if this DTC is displayed. Refer to [AV-111. "Exploded View"](#).

Part name	Description
AV CONTORL UNIT	• It is the master unit of the MULTI AV system, and it is connected to each control unit by means of communication. It operates each system according to communication signals from the AV control unit. • AV control unit includes audio function and vehicle information function. • It is connected to ECM and unified meter and A/C amp via CAN communication to obtain necessary information for the vehicle information function. • It inputs the automatic brightness ON/OFF signals that are required for the display dimming control. • It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).

DTC Logic

INFOID:0000000000964539

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1200	Cont Unit FLASH- ROM [U1200]	An internal malfunction is detected in AV control unit (FLASH-ROM).	Replace AV control unit

U1216 AV CONTROL UNIT

< COMPONENT DIAGNOSIS >

[BASE AUDIO WITHOUT NAVIGATION]

U1216 AV CONTROL UNIT

Description

INFOID:000000000964540

Replace the AV control unit if this DTC is displayed. Refer to [AV-111. "Exploded View"](#).

Part name	Description
AV CONTORL UNIT	• It is the master unit of the MULTI AV system, and it is connected to each control unit by means of communication. It operates each system according to communication signals from the AV control unit. • AV control unit includes audio function and vehicle information function. • It is connected to ECM and unified meter and A/C amp via CAN communication to obtain necessary information for the vehicle information function. • It inputs the automatic brightness ON/OFF signals that are required for the display dimming control. • It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).

DTC Logic

INFOID:000000000964541

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1216	CAN CONT [U1216]	Internal malfunction of AV control unit (CAN controller) is detected.	Replace AV control unit

U1243 DISPLAY UNIT

< COMPONENT DIAGNOSIS >

[BASE AUDIO WITHOUT NAVIGATION]

U1243 DISPLAY UNIT

Description

INFOID:000000000964542

Part name	Description
DISPLAY UNIT	• Display image is controlled by the serial communication from AV control unit. • Inputs the RGB image signal (RGB, RGB area and RGB synchronizing) from AV control unit and the auxiliary image signal from the auxiliary input jacks. • Outputs the synchronizing signals (HP and VP) to the AV control unit.

DTC Logic

INFOID:000000000964543

DTC	Display contents of CONSULT-III	DTC Detection Condition	Possible causes
U1243	FRONT DISP CONN [U1243]	• Display unit power supply and ground circuit malfunction is detected • Malfunction is detected on communication circuit between display unit and AV control unit • Malfunction is detected on communication signal between display unit and AV control unit	• Display unit power supply and ground circuit • Communication circuit between display unit and AV control unit

Diagnosis Procedure

INFOID:000000000964544

1.CHECK DISPLAY UNIT POWER SUPPLY AND GROUND CIRCUIT

Check display unit power supply and ground circuit. Refer to [AV-39. "DISPLAY UNIT : Diagnosis Procedure"](#).

Is inspection result OK?

YES >> GO TO 2.

NO >> Repair malfunctioning parts.

2.CHECK CONTINUITY COMMUNICATION CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect display unit connector and AV control unit connector.
3. Check continuity between display unit harness connector terminals 11, 22 and AV control unit harness connector terminals 56, 44.

11 - 56 : Continuity should exist.

22 - 44 : Continuity should exist.

4. Check continuity between display unit harness connector terminals 11, 22 and ground.

11, 22 - Ground : Continuity should not exist.

Is inspection result OK?

YES >> GO TO 3.

NO >> Repair harness or connector.

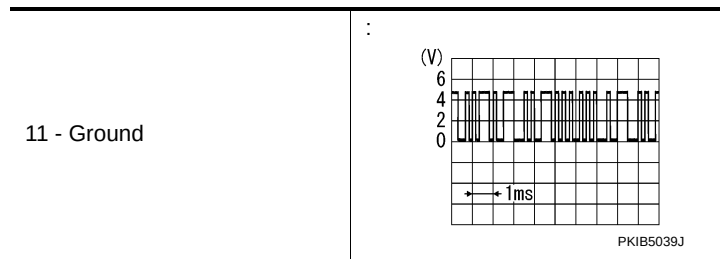
3.CHECK COMMUNICATION SIGNAL

1. Connect display unit connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check signal between display unit harness connector terminal 11 and ground.

U1243 DISPLAY UNIT

< COMPONENT DIAGNOSIS >

[BASE AUDIO WITHOUT NAVIGATION]



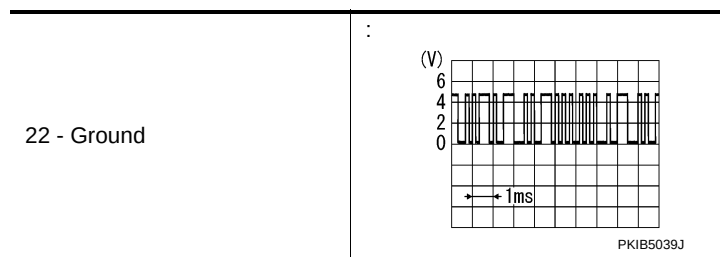
Is inspection result OK?

YES >> GO TO 4.

NO >> Replace AV control unit.

4.CHECK COMMUNICATION SIGNAL

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



Is inspection result OK?

YES >> INSPECTION END

NO >> Replace display unit.

U1255 SATELLITE RADIO TUNER

< COMPONENT DIAGNOSIS >

[BASE AUDIO WITHOUT NAVIGATION]

U1255 SATELLITE RADIO TUNER

Description

INFOID:000000000964545

Part name	Description
SATELLITE RADIO TUNER	- Inputs the satellite radio signal from satellite radio antenna and outputs it to the AV control unit. - It is controlled with the communication (communication signal, request signal) from AV control unit.

DTC Logic

INFOID:000000000964546

DTC	Display contents of CONSULT-III	DTC Detection Condition	Possible causes
U1255	SAT CONN [U1255]	The satellite radio tuner power supply and ground circuit malfunction is detected	Satellite radio tuner power supply and ground circuit

Diagnosis Procedure

INFOID:000000000964547

1.CHECK SATELLITE RADIO TUNER POWER SUPPLY AND GROUND CIRCUIT

Check satellite radio tuner power supply and ground circuit. Refer to [AV-41. "SATELLITE RADIO TUNER : Diagnosis Procedure"](#).

Is inspection result OK?

- YES >> INSPECTION END
NO >> Repair malfunctioning parts.

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AV

U1300 AV COMM CIRCUIT

< COMPONENT DIAGNOSIS >

[BASE AUDIO WITHOUT NAVIGATION]

U1300 AV COMM CIRCUIT

Description

INFOID:000000000964548

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

Self-diagnosis results display item

DTC	Display contents of CONSULT-III	DTC Detection Condition	Possible causes
U1300 U1240	• AV COMM CIRCUIT [U1300] • SWITCH CONN [U1240]	• Multifunction switch power supply and ground circuit malfunction is detected • A malfunction is detected in communication circuit between AV control unit and multifunction switch • A malfunction is detected in communication signal between AV control unit and multifunction switch	• Multifunction switch power supply and ground circuits • Communication circuit between AV control unit and multifunction switch

POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[BASE AUDIO WITHOUT NAVIGATION]

POWER SUPPLY AND GROUND CIRCUIT

AV CONTROL UNIT

AV CONTROL UNIT : Diagnosis Procedure

INFOID:000000000964549

1.CHECK FUSE

Check for blown fuses.

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

Is inspection result OK?

YES >> GO TO 2.

NO >> Be sure to eliminate cause of malfunction before installing new fuse.

2.CHECK POWER SUPPLY CIRCUIT

Check voltage between AV control unit harness connectors and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Value (Approx.)
Battery power supply	M81	19	OFF	12 V
ACC power supply	M81	7	ACC	12 V
Ignition signal	M85	104	ON	12 V

Is inspection result OK?

YES >> GO TO 3.

NO >> Check harness between AV control unit and fuse.

3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect AV control unit connectors.
3. Check continuity between AV control unit harness connectors and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Continuity
Ground	M81	20	OFF	Continuity should exist.
	M85	85		

Is inspection result OK?

YES >> INSPECTION END

NO >> Repair harness or connector.

DISPLAY UNIT

DISPLAY UNIT : Diagnosis Procedure

INFOID:000000000964550

1.CHECK POWER SUPPLY CIRCUIT (DISPLAY SIDE)

Check voltage between Display unit harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Value (Approx.)
Inverter VCC	M71	2	ACC	9 V
Signal VCC		3		

Is inspection result OK?

YES >> GO TO 4.

NO >> GO TO 2.

POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[BASE AUDIO WITHOUT NAVIGATION]

2.CHECK POWER SUPPLY CIRCUIT (CONTINUITY)

1. Turn ignition switch OFF.
2. Disconnect the harness connector between display unit and AV control unit.
3. Check continuity between display unit harness connector M71 and AV control unit harness connector M83.

Signal name	Display unit (M71)	AV control unit (M83)	Continuity
Inverter VCC	2	59	Continuity should exist.
Signal VCC	3	47	Continuity should exist.

4. Check continuity between display unit harness connector M71 and ground.

Signal name	Display unit (M71)	—	Continuity
Inverter VCC	2	Ground	Continuity should not exist.
Signal VCC	3	Ground	Continuity should not exist.

Is inspection result OK?

YES >> GO TO 3.

NO >> Repair harness or connector.

3.CHECK POWER SUPPLY CIRCUIT (AV CONTROL UNIT SIDE)

1. Connect the AV control unit harness connector.
2. Turn ignition switch ACC.
3. Check voltage between AV control unit harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Value (Approx.)
Inverter VCC	M83	59	ACC	9 V
Signal VCC		47		

Is inspection result OK?

YES >> INSPECTION END

NO >> Replacement of AV control unit.

4.CHECK GROUND CIRCUIT

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

Signal name	Connector No.	Terminal No.	Ignition switch position	Continuity
Ground	M71	1	OFF	Continuity should exist.

Is inspection result OK?

YES >> INSPECTION END

NO >> Repair harness or connector.

MULTIFUNCTION SWITCH

MULTIFUNCTION SWITCH : Diagnosis Procedure

INFOID:000000000964551

1.CHECK FUSE

Check for blown fuses.

Power source	Fuse No.
Ignition switch ACC or ON	19

Is inspection result OK?

YES >> GO TO 2.

NO >> Be sure to eliminate cause of malfunction before installing new fuse.

POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[BASE AUDIO WITHOUT NAVIGATION]

2.CHECK POWER SUPPLY CIRCUIT

Check voltage between multifunction switch harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Value (Approx.)
ACC power supply	M72	3	ACC	12 V

Is inspection result OK?

YES >> GO TO 3.

NO >> Check harness between multifunction switch and fuse.

3.CHECK GROUND CIRCUIT

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

Signal name	Connector No.	Terminal No.	Ignition switch position	Continuity
Ground	M72	1	OFF	Continuity should exist.

Is inspection result OK?

YES >> INSPECTION END

NO >> Repair harness or connector.

SATELLITE RADIO TUNER

SATELLITE RADIO TUNER : Diagnosis Procedure

INFOID:000000000964552

1.CHECK FUSE

Check for blown fuses.

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

Is inspection result OK?

YES >> GO TO 2.

NO >> Be sure to eliminate cause of malfunction before installing new fuse.

2.CHECK POWER SUPPLY CIRCUIT

Check voltage between satellite radio tuner harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Value (Approx.)
Battery power supply	B236	12	OFF	12 V
ACC power supply	B236	16	ACC	12 V

Is inspection result OK?

YES >> INSPECTION END

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

RGB (R: RED) SIGNAL CIRCUIT

Description

INFOID:000000000964553

Transmit the image displayed with AV control unit with RGB signal to the display unit.

Diagnosis Procedure

INFOID:000000000964554

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

1. Turn ignition switch OFF.
2. Disconnect display unit connector and AV control unit connector.
3. Check continuity between display unit harness connector terminal 17 and AV control unit harness connector terminal 40.

17 - 40 : Continuity should exist.

4. Check continuity between display unit harness connector terminal 17 and ground.

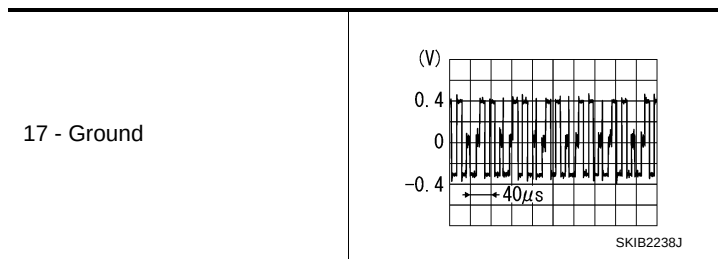
17 - Ground : Continuity should not exist.

Is inspection result OK?

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

2.CHECK RGB (R: RED) SIGNAL

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



Is inspection result OK?

- YES >> Replace display unit.
NO >> Replace AV control unit.

RGB (G: GREEN) SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

[BASE AUDIO WITHOUT NAVIGATION]

RGB (G: GREEN) SIGNAL CIRCUIT

Description

INFOID:0000000000964555

Transmit the image displayed with AV control unit with RGB signal to the display unit.

Diagnosis Procedure

INFOID:0000000000964556

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

1. Turn ignition switch OFF.
2. Disconnect display unit connector and AV control unit connector.
3. Check continuity between display unit harness connector terminal 6 and AV control unit harness connector terminal 39.

6 - 39 : Continuity should exist.

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

6 - Ground : Continuity should not exist.

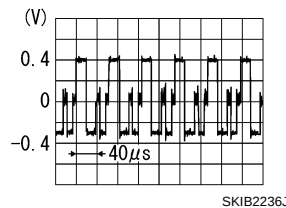
Is inspection result OK?

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

2.CHECK RGB (G: GREEN) SIGNAL

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

6 - Ground



Is inspection result OK?

- YES >> Replace display unit.
NO >> Replace AV control unit.

AV

RGB (B: BLUE) SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

[BASE AUDIO WITHOUT NAVIGATION]

RGB (B: BLUE) SIGNAL CIRCUIT

Description

INFOID:000000000964557

Transmit the image displayed with AV control unit with RGB signal to the display unit.

Diagnosis Procedure

INFOID:000000000964558

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

1. Turn ignition switch OFF.
2. Disconnect display unit connector and AV control unit connector.
3. Check continuity between display unit harness connector terminal 18 and AV control unit harness connector terminal 38.

18 - 38 : Continuity should exist.

4. Check continuity between display unit harness connector terminal 18 and ground.

18 - Ground : Continuity should not exist.

Is inspection result OK?

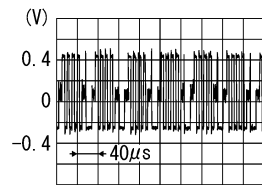
YES >> GO TO 2.

NO >> Repair harness or connector.

2. CHECK RGB (B: BLUE) SIGNAL

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

18 - Ground



SKIB2237J

Is inspection result OK?

YES >> Replace display unit.

NO >> Replace AV control unit.

RGB SYNCHRONIZING SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

[BASE AUDIO WITHOUT NAVIGATION]

RGB SYNCHRONIZING SIGNAL CIRCUIT

Description

INFOID:000000000964559

Transmit the RGB synchronizing signal to the display unit so as to synchronize the RGB image displayed with AV control unit.

Diagnosis Procedure

INFOID:000000000964560

1.CHECK CONTINUITY RGB SYNCHRONIZING SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect display unit connector and AV control unit connector.
3. Check continuity between display unit harness connector terminal 19 and AV control unit harness connector terminal 41.

19 - 41 : Continuity should exist.

4. Check continuity between display unit harness connector terminal 19 and ground.

19 - Ground : Continuity should not exist.

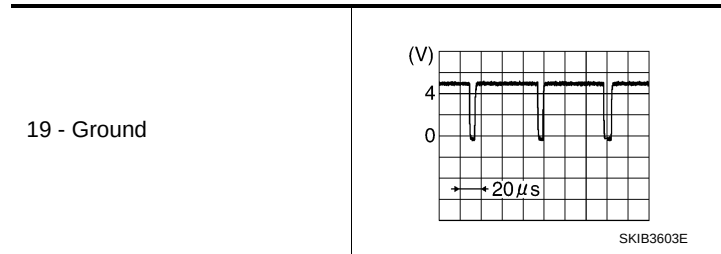
Is inspection result OK?

YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK RGB SYNCHRONIZING SIGNAL

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



Is inspection result OK?

YES >> Replace display unit.

NO >> Replace AV control unit.

AV

RGB AREA (YS) SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

[BASE AUDIO WITHOUT NAVIGATION]

RGB AREA (YS) SIGNAL CIRCUIT

Description

INFOID:000000000964561

Transmits the display area of RGB image displayed by AV control unit with RGB area (YS) signal to display unit.

Diagnosis Procedure

INFOID:000000000964562

1.CHECK CONTINUITY RGB AREA (YS) SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect display unit connector and AV control unit connector.
3. Check continuity between display unit harness connector terminal 9 and AV control unit harness connector terminal 43.

9 - 43 : Continuity should exist.

4. Check continuity between display unit harness connector terminal 9 and ground.

9 - Ground : Continuity should not exist.

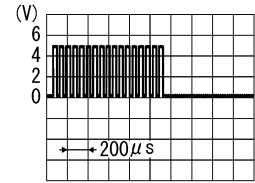
Is inspection result OK?

YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK RGB SYNCHRONIZING SIGNAL

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

	At RGB image displayed	: Approx. 5 V
9 - Ground	At rear view camera image displayed	

PKIB4948J

Is inspection result OK?

YES >> Replace display unit.

NO >> Replace AV control unit.

HORIZONTAL SYNCHRONIZING (HP) SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

[BASE AUDIO WITHOUT NAVIGATION]

HORIZONTAL SYNCHRONIZING (HP) SIGNAL CIRCUIT

Description

INFOID:000000000964563

In composite image (AUX image, camera image), transmit the vertical synchronizing (VP) signal and horizontal synchronizing (HP) signal from display unit to AV control unit so as to synchronize the RGB images displayed with AV control unit such as the image quality adjusting menu, etc.

Diagnosis Procedure

INFOID:000000000964564

1.CHECK CONTINUITY HORIZONTAL SYNCHRONIZING (HP) SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect display unit connector and AV control unit connector.
3. Check continuity between display unit harness connector terminal 8 and AV control unit harness connector terminal 45.

8 - 45 : Continuity should exist.

4. Check continuity between display unit harness connector terminal 8 and ground.

8 - Ground : Continuity should not exist.

Is inspection result OK?

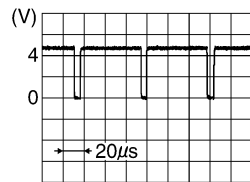
YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK HORIZONTAL SYNCHRONIZING (HP) SIGNAL

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

8 - Ground



SKIB3601E

Is inspection result OK?

YES >> Replace AV control unit.

NO >> Replace Display unit.

AV

VERTICAL SYNCHRONIZING (VP) SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

[BASE AUDIO WITHOUT NAVIGATION]

VERTICAL SYNCHRONIZING (VP) SIGNAL CIRCUIT

Description

INFOID:000000000964565

In composite image (AUX image, camera image), transmit the vertical synchronizing (VP) signal and horizontal synchronizing (HP) signal from display unit to AV control unit so as to synchronize the RGB images displayed with AV control unit such as the image quality adjusting menu, etc.

Diagnosis Procedure

INFOID:000000000964566

1. CHECK CONTINUITY VERTICAL SYNCHRONIZING (VP) SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect display unit connector and AV control unit connector.
3. Check continuity between display unit harness connector terminal 20 and AV control unit harness connector terminal 57.

20 - 57 : Continuity should exist.

4. Check continuity between display unit harness connector terminal 20 and ground.

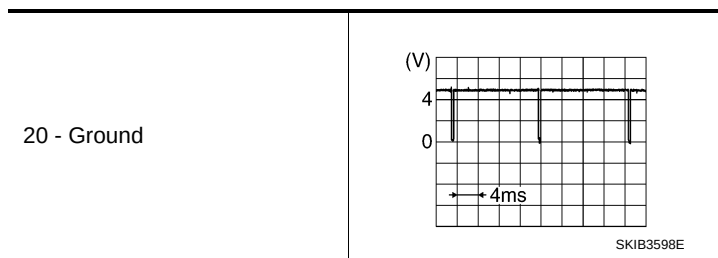
20 - Ground : Continuity should not exist.

Is inspection result OK?

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

2. CHECK VERTICAL SYNCHRONIZING (VP) SIGNAL

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



Is inspection result OK?

- YES >> Replace AV control unit.
NO >> Replace Display unit.

AUX IMAGE SIGNAL CIRCUIT

Description

INFOID:000000000964567

- Transmits the image signal of AUX device from auxiliary input jacks to AV control unit.
- AV control unit transmits the image signal that is inputted to the display unit.

Diagnosis Procedure

INFOID:000000000964568

1.CHECK CONTINUITY AUX IMAGE SIGNAL CIRCUIT (AUX INPUT JACKS AND AV CONTROL UNIT)

1. Turn ignition switch OFF.
2. Disconnect auxiliary input jacks connector and AV control unit connector.
3. Check continuity between auxiliary input jacks harness connector terminal 7 and AV control unit harness connector terminal 66.

7 - 66 : Continuity should exist.

4. Check continuity between auxiliary input jacks harness connector terminal 7 and ground.

7 - Ground : Continuity should not exist.

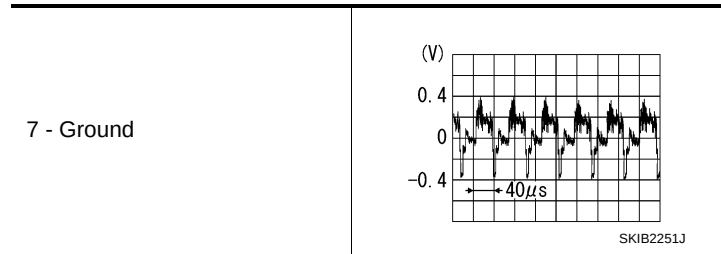
Is inspection result OK?

YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK AUX IMAGE SIGNAL (AUX INPUT JACKS TO AV CONTROL UNIT)

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



Is inspection result OK?

YES >> GO TO 3.

NO >> Check that there is no malfunction in the external device.

3.CHECK CONTINUITY AUX IMAGE SIGNAL CIRCUIT (AV CONTROL UNIT AND DISPLAY UNIT)

1. Turn ignition switch OFF.
2. Disconnect auxiliary input jacks connector and AV control unit connector.
3. Check continuity between display unit harness connector terminal 15 and AV control unit harness connector terminal 36.

15 - 36 : Continuity should exist.

4. Check continuity between display unit harness connector terminal 15 and ground.

15 - Ground : Continuity should not exist.

Is inspection result OK?

YES >> GO TO 4.

NO >> Repair harness or connector.

4.CHECK AUX IMAGE SIGNAL

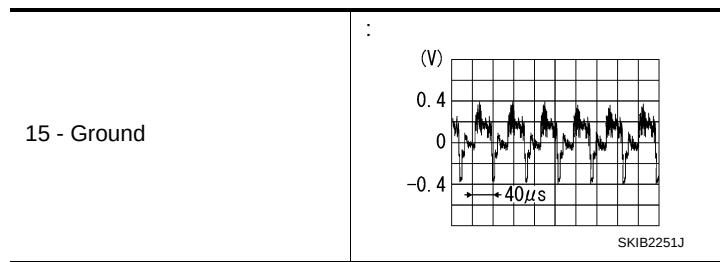
1. Connect AV control unit connector and display unit connector.

AUX IMAGE SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

[BASE AUDIO WITHOUT NAVIGATION]

2. Turn ignition switch ON.
3. Check signal between display unit harness connector terminal 15 and ground.



Is inspection result OK?

- YES >> Replace display unit.
NO >> Replace AV control unit.

CD EJECT SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

[BASE AUDIO WITHOUT NAVIGATION]

CD EJECT SIGNAL CIRCUIT

Description

INFOID:000000000964569

The eject signal is output to AV control unit when the eject switch of multifunction switch is pressed.

Diagnosis Procedure

INFOID:000000000964570

1.CHECK CONTINUITY CD EJECT SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect multifunction switch connector and AV control unit connector.
3. Check continuity between multifunction switch harness connector terminal 14 and AV control unit harness connector terminal 103.

14 - 103 : Continuity should exist.

4. Check continuity between multifunction switch harness connector terminal 14 and ground.

14 - Ground : Continuity should not exist.

Is inspection result OK?

YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK AV CONTROL UNIT VOLTAGE

1. Connect multifunction switch connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check voltage between AV control unit harness connector terminal 103 and ground.

103 - Ground : Approx. 3.3 V

Is inspection result OK?

YES >> Replace preset switch.

NO >> Replace AV control unit.

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AV

COMMUNICATION SIGNAL CIRCUIT (CONT-SAT)

< COMPONENT DIAGNOSIS >

[BASE AUDIO WITHOUT NAVIGATION]

COMMUNICATION SIGNAL CIRCUIT (CONT-SAT)

Description

INFOID:000000000964571

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

Diagnosis Procedure

INFOID:000000000964572

1.CHECK CONTINUITY COMMUNICATION SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect satellite radio tuner connector and AV control unit connector.
3. Check continuity between satellite radio tuner harness connector terminals 9, 10 and AV control unit harness connector terminals 29, 30.

9 - 29 : Continuity should exist.

10 - 30 : Continuity should exist.

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

9, 10 - Ground : Continuity should not exist.

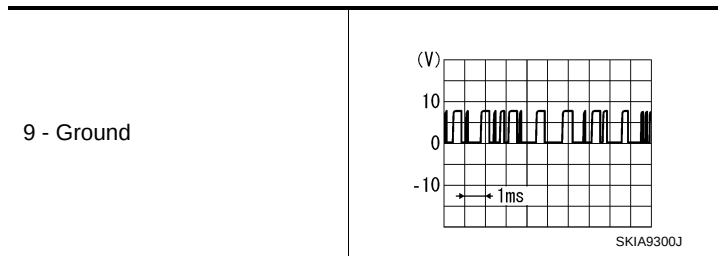
Is inspection result OK?

YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK COMMUNICATION SIGNAL

1. Connect satellite radio tuner connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check signal between satellite radio tuner harness connector terminal 9 and ground.



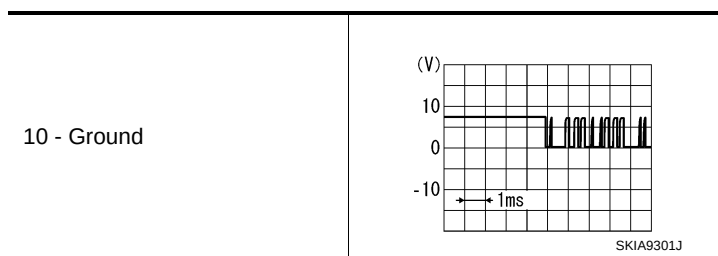
Is inspection result OK?

YES >> GO TO 3.

NO >> Replace satellite radio tuner.

3.CHECK COMMUNICATION SIGNAL

Check signal between satellite radio tuner harness connector terminal 10 and ground.



Is inspection result OK?

YES >> Replace satellite radio tuner.

NO >> Replace AV control unit.

REQUEST SIGNAL CIRCUIT (SAT→CONT)

< COMPONENT DIAGNOSIS >

[BASE AUDIO WITHOUT NAVIGATION]

REQUEST SIGNAL CIRCUIT (SAT→CONT)

Description

INFOID:000000000964573

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

Diagnosis Procedure

INFOID:000000000964574

1.CHECK CONTINUITY REQUEST SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect satellite radio tuner connector and AV control unit connector.
3. Check continuity between satellite radio tuner unit harness connector terminal 8 and AV control unit harness connector terminal 28.

8 - 28 : Continuity should exist.

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

8 - Ground : Continuity should not exist.

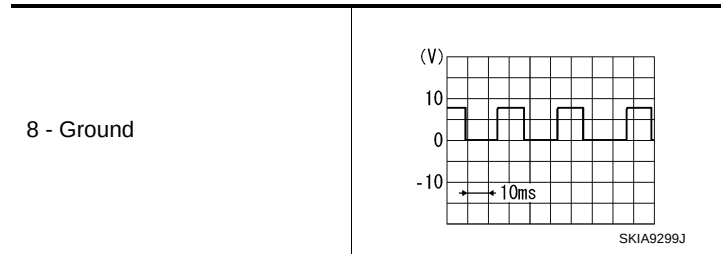
Is inspection result OK?

YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK COMMUNICATION SIGNAL

1. Connect satellite radio tuner connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check signal between satellite radio tuner harness connector terminal 8 and ground.



Is inspection result OK?

YES >> Replace AV control unit.

NO >> Replace satellite radio tuner.

AV

STEERING SWITCH SIGNAL A CIRCUIT

< COMPONENT DIAGNOSIS >

[BASE AUDIO WITHOUT NAVIGATION]

STEERING SWITCH SIGNAL A CIRCUIT

Description

INFOID:000000000964575

Transmits the steering switch signal to AV control unit.

Diagnosis Procedure

INFOID:000000000964576

1.CHECK STEERING SWITCH SIGNAL A CIRCUIT

1. Disconnect AV control unit connector and spiral cable connector.
2. Check continuity between AV control unit harness connector terminal 6 and spiral cable harness connector terminal 24.

6 - 24 : Continuity should exist.

3. Check continuity between AV control unit harness connector terminals 6 and ground.

6 - Ground : Continuity should not exist.

Is inspection result OK?

YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK SPIRAL CABLE

Check spiral cable.

Is inspection result OK?

YES >> GO TO 3.

NO >> Replace spiral cable.

3.CHECK AV CONTROL UNIT VOLTAGE

1. Connect AV control unit connector and spiral cable connector.
2. Turn ignition switch ON.
3. Check voltage between AV control unit harness connector terminals 6 and 15.

6 - 15 : Approx. 3.3 V

Is inspection result OK?

YES >> GO TO 4.

NO >> Replace AV control unit.

4.CHECK STEERING SWITCH

1. Turn ignition switch OFF.
2. Check steering switch. Refer to [AV-54, "Component Inspection"](#).

Is inspection result OK?

YES >> INSPECTION END

NO >> Replace steering switch.

Component Inspection

INFOID:000000000964577

Measure the resistance between the steering switch connector terminals 14 to 17 and 15 to 17.

STEERING SWITCH SIGNAL A CIRCUIT

< COMPONENT DIAGNOSIS >

[BASE AUDIO WITHOUT NAVIGATION]

Standard

Between terminals 14 and 17

MENU DOWN switch ON : 318 – 324 Ω

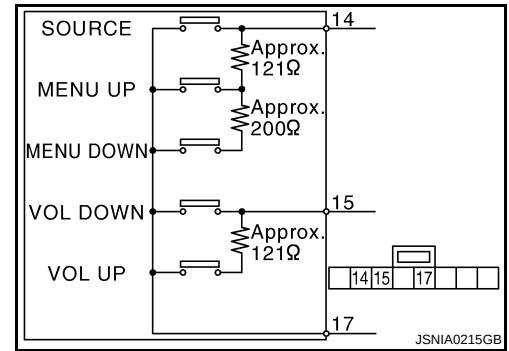
MENU UP switch ON : 120 – 122 Ω

SOURCE switch ON : 0 Ω

Between terminals 15 and 17

VOL UP switch ON : 120 – 122Ω

VOL DOWN switch ON : 0 Ω



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STEERING SWITCH SIGNAL B CIRCUIT

< COMPONENT DIAGNOSIS >

[BASE AUDIO WITHOUT NAVIGATION]

STEERING SWITCH SIGNAL B CIRCUIT

Description

INFOID:000000000964578

Transmits the steering switch signal to AV control unit.

Diagnosis Procedure

INFOID:000000000964579

1.CHECK STEERING SWITCH SIGNAL B CIRCUIT

1. Disconnect AV control unit connector and spiral cable connector.
2. Check continuity between AV control unit harness connector terminal 16 and spiral cable harness connector terminal 31.

16 - 31 : Continuity should exist.

3. Check continuity between AV control unit harness connector terminals 16 and ground.

16 - Ground : Continuity should not exist.

Is inspection result OK?

YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK SPIRAL CABLE

Check spiral cable.

Is inspection result OK?

YES >> GO TO 3.

NO >> Replace spiral cable.

3.CHECK AV CONTROL UNIT VOLTAGE

1. Connect AV control unit connector and spiral cable connector.
2. Turn ignition switch ON.
3. Check voltage between AV control unit harness connector terminals 16 and 15.

16 - 15 : Approx. 3.3 V

Is inspection result OK?

YES >> GO TO 4.

NO >> Replace AV control unit.

4.CHECK STEERING SWITCH

1. Turn ignition switch OFF.
2. Check steering switch. Refer to [AV-56, "Component Inspection"](#).

Is inspection result OK?

YES >> INSPECTION END

NO >> Replace steering switch.

Component Inspection

INFOID:000000000964580

Measure the resistance between the steering switch connector terminals 14 to 17 and 15 to 17.

STEERING SWITCH SIGNAL B CIRCUIT

< COMPONENT DIAGNOSIS >

[BASE AUDIO WITHOUT NAVIGATION]

Standard

Between terminals 14 and 17

MENU DOWN switch ON : 318 – 324 Ω

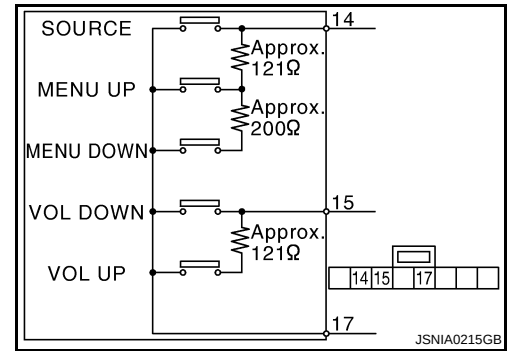
MENU UP switch ON : 120 – 122 Ω

SOURCE switch ON : 0 Ω

Between terminals 15 and 17

VOL UP switch ON : 120 – 122Ω

VOL DOWN switch ON : 0 Ω



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STEERING SWITCH SIGNAL GND CIRCUIT

< COMPONENT DIAGNOSIS >

[BASE AUDIO WITHOUT NAVIGATION]

STEERING SWITCH SIGNAL GND CIRCUIT

Description

INFOID:000000000964581

Transmits the steering switch signal to AV control unit.

Diagnosis Procedure

INFOID:000000000964582

1.CHECK STEERING SWITCH SIGNAL GND CIRCUIT

1. Disconnect AV control unit connector and spiral cable connector.
2. Check continuity between AV control unit harness connector terminal 15 and spiral cable harness connector terminal 33.

15 - 33 : Continuity should exist.

3. Connect AV control unit connector.

Is inspection result OK?

YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK SPIRAL CABLE

Check spiral cable.

Is inspection result OK?

YES >> GO TO 3.

NO >> Replace spiral cable.

3.CHECK GROUND CIRCUIT

1. Connect AV control unit connector.
2. Check continuity between AV control unit harness connector terminal 15 and ground.

15 - Ground : Continuity should exist.

Is inspection result OK?

YES >> GO TO 4.

NO >> Replace AV control unit.

4.CHECK STEERING SWITCH

1. Turn ignition switch OFF.
2. Check steering switch. Refer to [AV-58. "Component Inspection"](#).

Is inspection result OK?

YES >> INSPECTION END

NO >> Replace steering switch.

Component Inspection

INFOID:000000000964583

Measure the resistance between the steering switch connector terminals 14 to 17 and 15 to 17.

Standard

Between terminals 14 and 17

MENU DOWN switch ON : 318 – 324 Ω

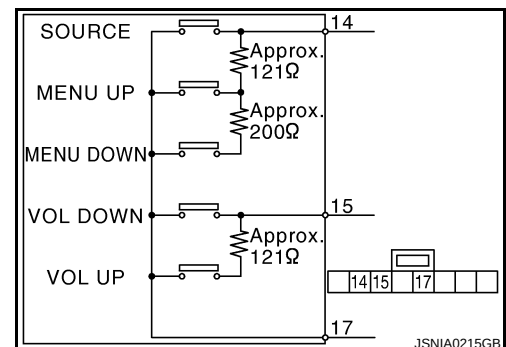
MENU UP switch ON : 120 – 122 Ω

SOURCE switch ON : 0 Ω

Between terminals 15 and 17

VOL UP switch ON : 120 – 122 Ω

VOL DOWN switch ON : 0 Ω



ECU DIAGNOSIS

AV CONTROL UNIT

Reference Value

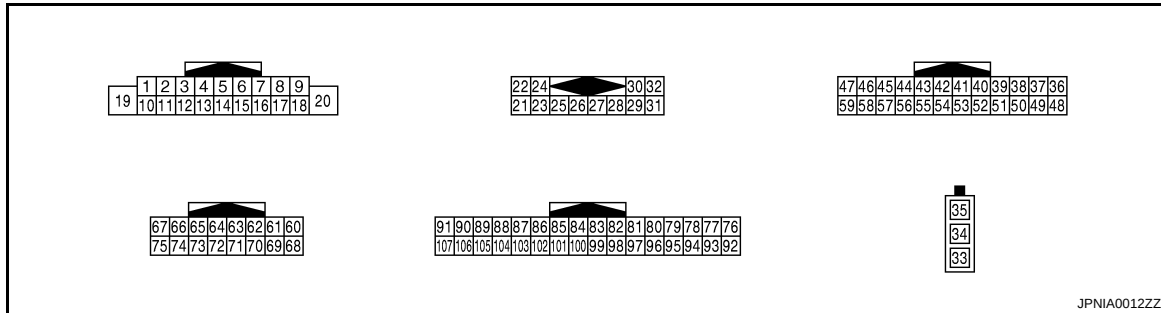
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VALUES ON THE DIAGNOSIS TOOL

CONSULT-III data monitor item

Display Item	Dis-play	Vehicle status	Remarks
VHCL SPD SIG	ON	Vehicle speed >0 km/h (0 MPH)	Changes in indication may be delayed. This is normal.
	OFF	Vehicle speed =0 km/h (0 MPH)	
PKB SIG	ON	Parking brake is applied.	Changes in indication may be delayed. This is normal.
	OFF	Parking brake is released.	
ILLUM SIG	ON	Block the light beam from the auto light optical sensor when the light SW is ON .	—
	OFF	Expose the auto light optical sensor to light when the light SW is OFF or ON.	
IGN SIG	ON	Ignition switch ON	—
	OFF	Ignition switch in ACC position	
REV SIG	ON	Selector lever in R position	Changes in indication may be delayed. This is normal.
	OFF	Selector lever in any position other than R	

TERMINAL LAYOUT



PHYSICAL VALUES

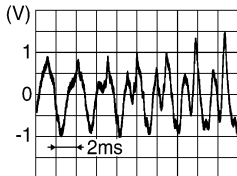
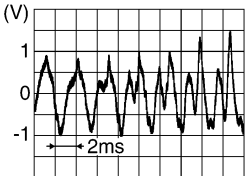
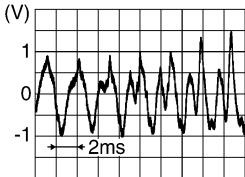
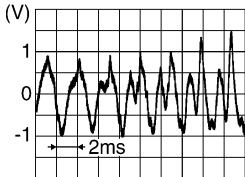
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AV

AV CONTROL UNIT

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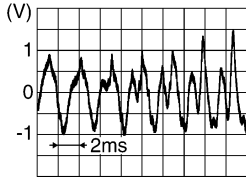
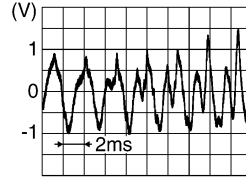
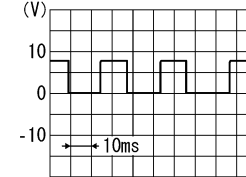
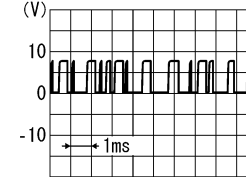
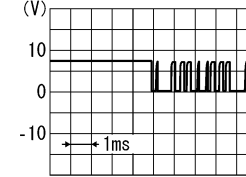
[BASE AUDIO WITHOUT NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
2 (L)	3 (W)	Sound signal front door speaker LH	Output	Ignition switch ON	Voice output	 SKIB3609E
4 (LG)	5 (SB)	Sound signal rear door speaker LH	Output	Ignition switch ON	Voice output	 SKIB3609E
6 (P)	15 (B)	Steering switch signal A	Input	Ignition switch ON	Keep pressing SOURCE switch.	0 V
					Keep pressing Δ switch.	0.7 V
					Keep pressing ∇ switch.	1.3 V
					Except for above.	3.3 V
7 (V)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
9 (R)	Ground	Illumination signal	Input	OFF	Lighting switch is OFF.	0 V
					Lighting switch is ON.	12 V
11 (BR)	12 (R)	Sound signal front door speaker RH	Output	Ignition switch ON	Voice output	 SKIB3609E
13 (L)	14 (P)	Sound signal rear door speaker RH	Output	Ignition switch ON	Voice output	 SKIB3609E
15 (B)	Ground	Steering switch signal GND	—	Ignition switch ON	—	0 V
16 (L)	15 (B)	Steering switch signal B	Input	Ignition switch ON	Keep pressing VOL DOWN switch.	0 V
					Keep pressing VOL UP switch.	0.7 V
					Except for above.	3.3 V

AV CONTROL UNIT

< ECU DIAGNOSIS >

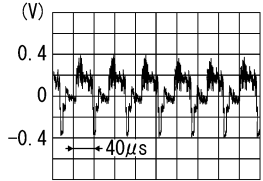
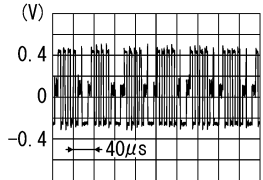
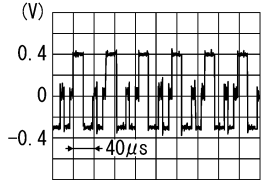
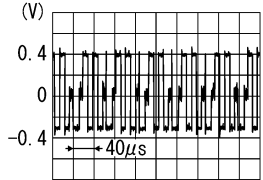
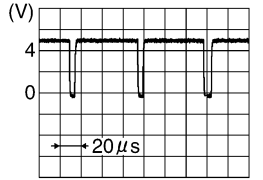
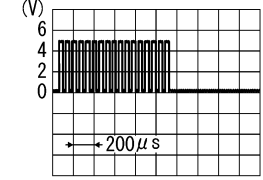
[BASE AUDIO WITHOUT NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
19 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
20 (B)	Ground	GND	—	Ignition switch- ing	—	0 V
22 (B)	21 (W)	Satellite radio sound signal LH	Input	Ignition switch ON	When satellite radio mode is selected	 SKIB3609E
24 (G)	23 (R)	Satellite radio sound signal RH	Input	Ignition switch ON	When satellite radio mode is selected	 SKIB3609E
25	—	Shield	—	—	—	—
26	—	Shield	—	—	—	—
28 (W)	Ground	Request signal (SAT→CONT)	Input	Ignition switch ON	When satellite radio mode is selected	 SKIA9299J
29 (B)	Ground	Communication signal (SAT→CONT)	Input	Ignition switch ON	When satellite radio mode is selected	 SKIA9300J
30 (R)	Ground	Communication signal (CONT→SAT)	Output	Ignition switch ON	When satellite radio mode is selected	 SKIA9301J
33	—	FM sub	Input	—	—	—
34	—	AM-FM main	Input	—	—	—
35	Ground	Antenna amp. ON signal	Output	Ignition switch ACC	—	12 V

AV CONTROL UNIT

< ECU DIAGNOSIS >

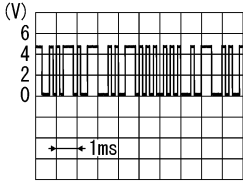
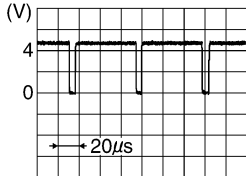
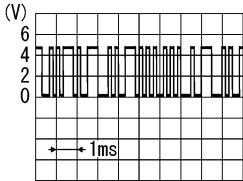
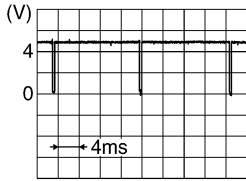
[BASE AUDIO WITHOUT NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
36 (SB)	Ground	AUX image signal	Output	Ignition switch ON	When AUX mode is select- ed	 SKIB2251J
37 (V)	Ground	AUX image GND	—	Ignition switch ON	—	0 V
38 (P)	Ground	RGB signal (B: blue)	Output	Ignition switch ON	Start confirmation/adjust- ment mode, and then dis- play color bar by selecting "Color Spectrum Bar" on DISPLAY DIAGNOSIS screen.	 SKIB2237J
39 (L)	Ground	RGB signal (G: green)	Output	Ignition switch ON	Start confirmation/adjust- ment mode, and then dis- play color bar by selecting "Color Spectrum Bar" on DISPLAY DIAGNOSIS screen.	 SKIB2236J
40 (G)	Ground	RGB signal (R: red)	Output	Ignition switch ON	Start confirmation/adjust- ment mode, and then dis- play color bar by selecting "Color Spectrum Bar" on DISPLAY DIAGNOSIS screen.	 SKIB2238J
41 (W)	Ground	RGB synchronizing signal	Output	Ignition switch ON	—	 SKIB3603E
42	—	Shield	—	—	—	—
43 (B)	Ground	RGB area (YS) signal	Output	Ignition switch ON	RGB image	5 V
					AUX image	 PKIB4948J

AV CONTROL UNIT

< ECU DIAGNOSIS >

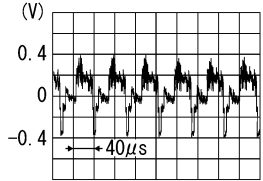
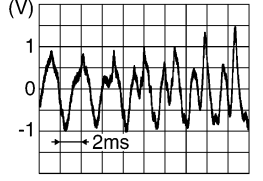
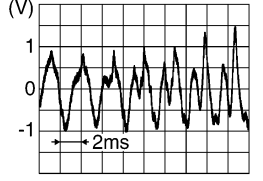
[BASE AUDIO WITHOUT NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
44 (BR)	Ground	Communication signal (DISP→CONT)	Input	Ignition switch ON	When adjusting display- brightness.	 PKIB5039J
45 (R)	Ground	Horizontal synchronizing (HP) signal	Input	Ignition switch ON	—	 SKIB3601E
46 (LG)	Ground	Signal GND	—	Ignition switch	—	0 V
47 (O)	Ground	Signal VCC	Output	Ignition switch ACC	—	9 V
49 (Y)	Ground	Composite synchronizing signal GND	—	Ignition switch ON	—	0 V
50	—	Shield	—	—	—	—
55	—	Shield	—	—	—	—
56 (Y)	Ground	Communication signal (CONT→DISP)	Output	Ignition switch ON	When adjusting display- brightness.	 PKIB5039J
57 (G)	Ground	Vertical synchronizing (VP) signal	Input	Ignition switch On	—	 SKIB3598E
58 (BR)	Ground	Inverter GND	—	Ignition switch ON	—	0 V
59 (Y)	Ground	Inverter VCC	Output	Ignition switch ACC	—	9 V

AV CONTROL UNIT

< ECU DIAGNOSIS >

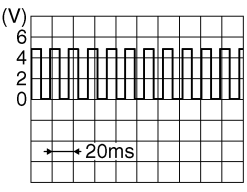
[BASE AUDIO WITHOUT NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
66 (G)	Ground	AUX image signal	Input	Ignition switch ON	When AUX mode is select- ed	 SKIB2251J
73	—	Shield	—	—	—	—
74 (R)	Ground	AUX image signal GND	—	Ignition switch ON	—	0 V
85 (B)	Ground	GND	—	Ignition switch ON	—	0 V
86 (L)	—	CAN—H	Input/ Output	—	—	—
87 (P)	—	CAN—L	Input/ Output	—	—	—
88 (LG)	—	AV communication signal (H)	Input/ Output	—	—	—
89 (V)	—	AV communication signal (L)	Input/ Output	—	—	—
90 (L)	—	AV communication signal (H)	Input/ Output	—	—	—
91 (P)	—	AV communication signal (L)	Input/ Output	—	—	—
95 (Y)	Ground	AUX sound signal RH	Input	Ignition switch ON	When AUX mode is select- ed	 SKIB3609E
96 (W)	Ground	AUX sound signal LH	Input	Ignition switch ON	When AUX mode is select- ed	 SKIB3609E
97	—	Shield	—	—	—	—
101 (BR)	Ground	SW GND	—	Ignition switch ON	—	0 V
103 (SB)	Ground	Eject signal	Input	—	Pressing the eject switch	0 V
					Except for above	3.3 V
104 (G)	Ground	Ignition signal	Input	Ignition switch ON	—	Battery voltage

AV CONTROL UNIT

< ECU DIAGNOSIS >

[BASE AUDIO WITHOUT NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
105 (O)	Ground	Reverse signal	Input	Ignition switch ON	R position	12 V
					Other than R position	0 V
106 (V)	Ground	Parking brake signal	Input	Ignition switch ON	Parking brake ON	0 V
					Parking brake OFF	12 V
107 (R)	Ground	Vehicle speed signal (8-pulse)	Input	Ignition switch ON	When vehicle speed is ap- prox. 40 km/h (25MPH)	 SKIA6649J

Wiring Diagram — BASE AUDIO WITHOUT NAVIGATION SYSTEM —

INFOID:000000000964585

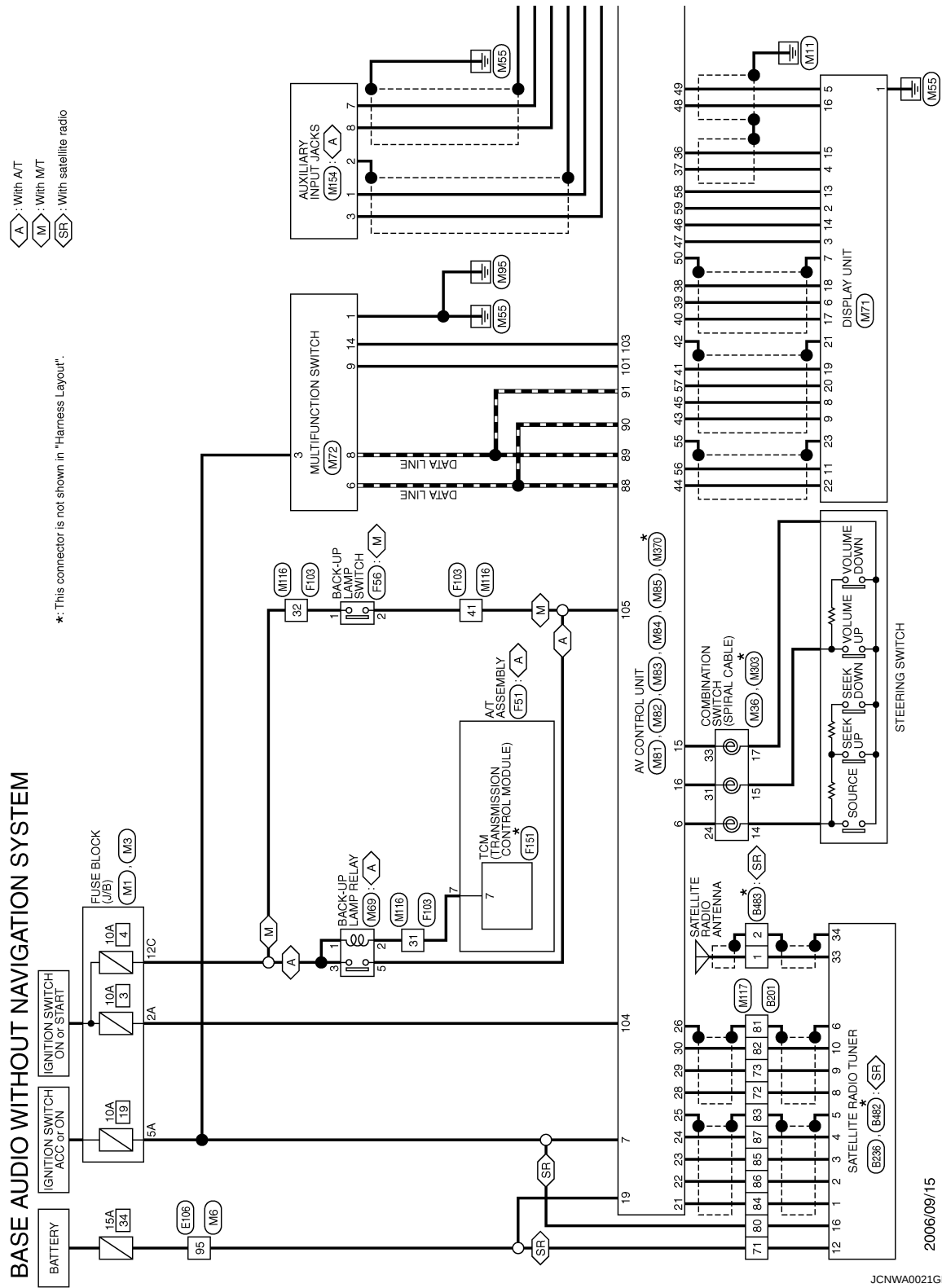
NOTE:

AV CONTROL UNIT

< ECU DIAGNOSIS >

[BASE AUDIO WITHOUT NAVIGATION]

The name MULTIFUNCTION SWITCH indicates the integration of PRESET SWITCH and MULTIFUNCTION SWITCH virtually.



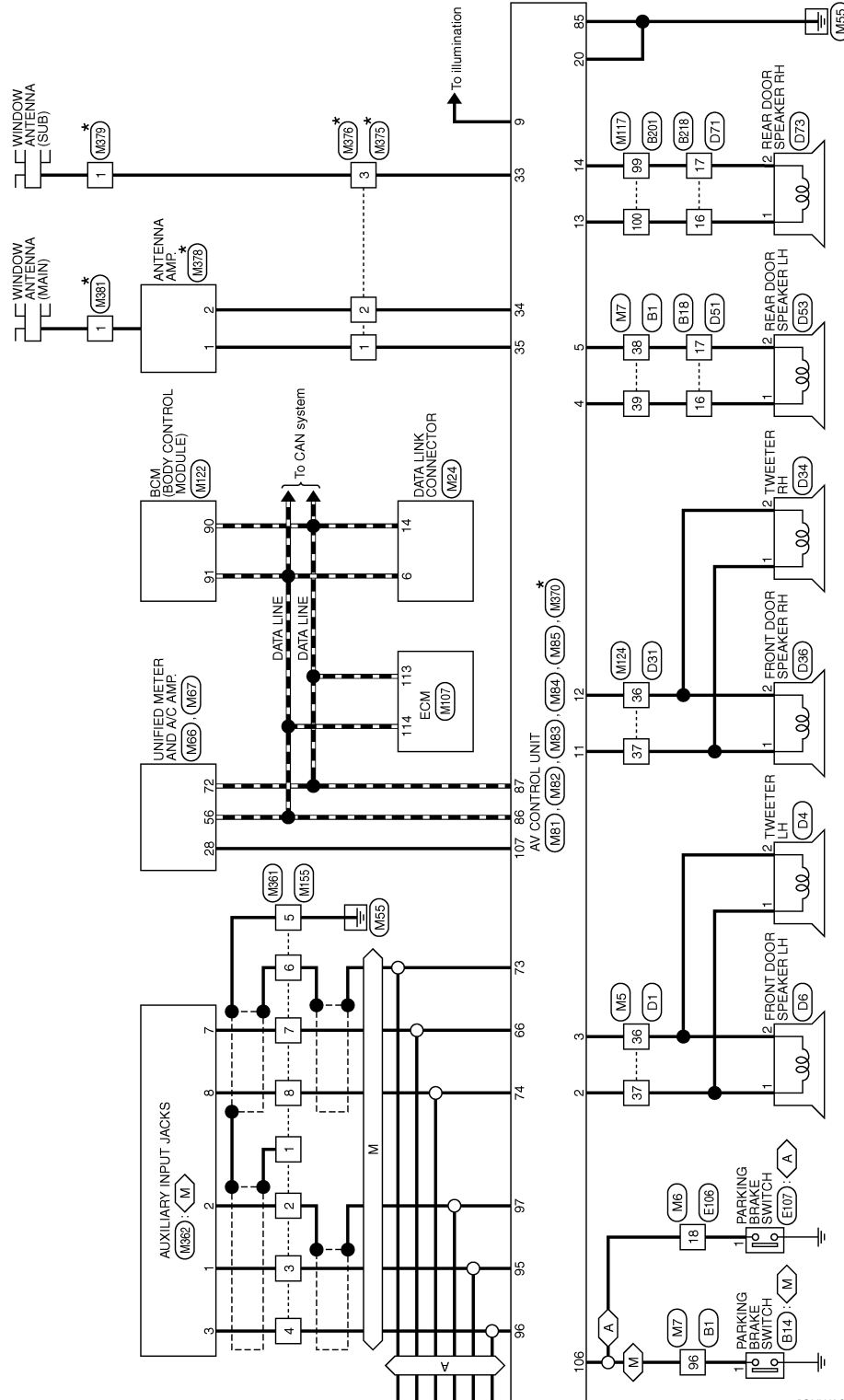
AV CONTROL UNIT

< ECU DIAGNOSIS >

[BASE AUDIO WITHOUT NAVIGATION]

A : With A/T
M : With M/T

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



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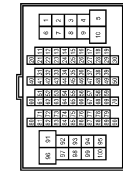
AV CONTROL UNIT

< ECU DIAGNOSIS >

[BASE AUDIO WITHOUT NAVIGATION]

BASE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	THB0FW-CS16-TM4



Terminal No.	Color of Wire	Signal Name
38	Y	-
39	LG	-
96	V	-

Connector No.	B14
Connector Name	PARKING BRAKE SWITCH
Connector Type	PO1FB-A



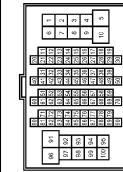
Terminal No.	Color of Wire	Signal Name
1	V	-

Connector No.	B18
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-HS8



Terminal No.	Color of Wire	Signal Name
16	LG	- [Without BOSE system]
17	Y	- [Without BOSE system]

Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	THB0FW-CS16-TM4



Terminal No.	Color of Wire	Signal Name
71	Y	-
72	G	-
73	L	-
80	V	-
81	SHIELD	-
82	P	-
83	SHIELD	-
84	G	- [Without CD auto changer]
85	W	- [Without CD auto changer]
86	R	-
87	B	-

Connector No.	B218
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-HS8



Terminal No.	Color of Wire	Signal Name
16	L	-
17	P	-

Connector No.	B236
Connector Name	SATELLITE RADIO TUNER
Connector Type	A18FW



Terminal No.	Color of Wire	Signal Name
1	G	SOUND SIGNAL LH (-)
2	R	SOUND SIGNAL LH (+)
3	W	SOUND SIGNAL RH (-)
4	B	SOUND SIGNAL RH (+)
5	SHIELD	SHIELD
6	SHIELD	SHIELD
8	G	REQUEST (SAT->CONT)
9	L	COMM (SAT->CONT)
10	P	COMM (CONT->SAT)
12	Y	BATTERY
16	V	ACC

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[BASE AUDIO WITHOUT NAVIGATION]

BASE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B482
Connector Name	SATELLITE RADIO TUNER
Connector Type	-



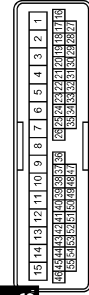
Terminal No.	Color of Wire	Signal Name
33	-	SATELLITE ANTENNA
34	SHIELD	SHIELD

Connector No.	B483
Connector Name	SATELLITE RADIO ANTENNA
Connector Type	GT16-IPP-HU



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

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



Terminal No.	Color of Wire	Signal Name
36	W	-
37	L	-

Connector No.	D4
Connector Name	TWEETER LH
Connector Type	TK02FER



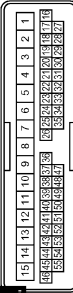
Terminal No.	Color of Wire	Signal Name
1	L	-
2	W	-

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



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

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



Terminal No.	Color of Wire	Signal Name
36	W	-
37	L	-

Connector No.	D34
Connector Name	TWEETER RH
Connector Type	TK02FER



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

Connector No.	D38
Connector Name	FRONT DOOR SPEAKER RH
Connector Type	NS02FW-CS



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

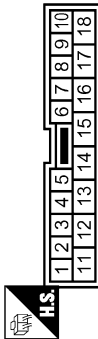
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Connector No.	D51
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



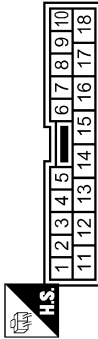
Terminal No.	Color of Wire	Signal Name
16	LG	-
17	Y	-

Connector No.	D83
Connector Name	REAR DOOR SPEAKER LH (Without BOSE system)
Connector Type	NS02FW-GS



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

Connector No.	D71
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



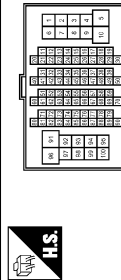
Terminal No.	Color of Wire	Signal Name
16	L	-
17	P	-

Connector No.	D73
Connector Name	REAR DOOR SPEAKER RH (Without BOSE system)
Connector Type	NS02FW-GS



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

Connector No.	E108
Connector Name	WIRE TO WIRE
Connector Type	THB0FW-GS16-TM4



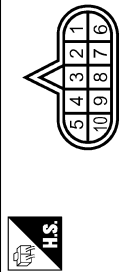
Terminal No.	Color of Wire	Signal Name
18	O	-
95	Y	-

Connector No.	E107
Connector Name	PARKING BRAKE SWITCH (A/T)
Connector Type	TE01FW



Terminal No.	Color of Wire	Signal Name
1	O	-

Connector No.	F51
Connector Name	A/T ASSEMBLY
Connector Type	RK1DFG-DGY



Terminal No.	Color of Wire	Signal Name
7	R	-

Connector No.	F56
Connector Name	BACK-UP LAMP SWITCH
Connector Type	RK02FB



Terminal No.	Color of Wire	Signal Name
1	R	-
2	O	-

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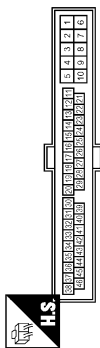
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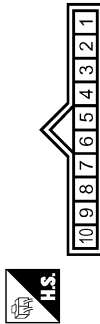
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Connector No.	F103
Connector Name	WIRE TO WIRE
Connector Type	TK38FW-NS10



Terminal No.	Color of Wire	Signal Name
31	R	-
32	R	-
41	O	-

Connector No.	F151
Connector Name	TCM (TRANSMISSION CONTROL MODULE)
Connector Type	SP10FBGY



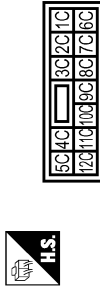
Terminal No.	Color of Wire	Signal Name
7	O	REV LAMP RLY

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS10FW-M2



Terminal No.	Color of Wire	Signal Name
2A	G	-
5A	V	-

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FW-CS



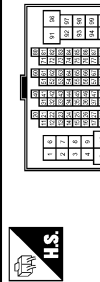
Terminal No.	Color of Wire	Signal Name
12C	R	-

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



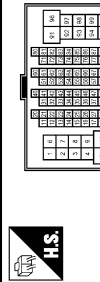
Terminal No.	Color of Wire	Signal Name
36	W	-
37	L	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS18-TM4



Terminal No.	Color of Wire	Signal Name
18	V	-
95	Y	-

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



Terminal No.	Color of Wire	Signal Name
38	SB	-
39	LG	-
96	V	-

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD18FW



Terminal No.	Color of Wire	Signal Name
6	L	-
14	P	-

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B
C
D
E
F
G
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M
N
O
P

AV

AV CONTROL UNIT

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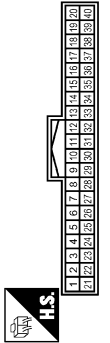
BASE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M36
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08GY-IV



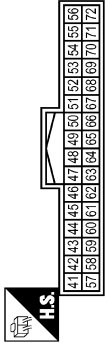
Terminal No.	Color of Wire	Signal Name
24	P	-
31	L	-
33	B	-

Connector No.	M65
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH40FW-NH



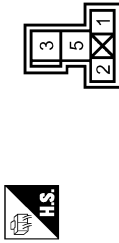
Terminal No.	Color of Wire	Signal Name
28	R	VEHICLE SPEED (8-PULSE)

Connector No.	M67
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH42FW-NH



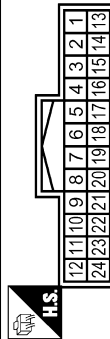
Terminal No.	Color of Wire	Signal Name
55	L	CAN-H
72	P	CAN-L

Connector No.	M69
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS02FL-M2



Terminal No.	Color of Wire	Signal Name
1	R	-
2	W	-
3	LG	-
5	O	-

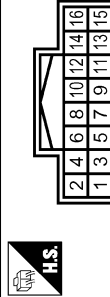
Connector No.	M71
Connector Name	DISPLAY UNIT
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name
1	B	GND
2	Y	INVERTER VCC [Without NAVI]
3	O	SIGNAL VCC [Without NAVI]
4	V	AUX IMAGE GND [Without NAVI]
5	Y	COMPOSITE SYNC GND [Without NAVI]
6	L	RGB (GREEN) SIGNAL [Without NAVI]
7	SHIELD	SHIELD
8	R	HP
9	B	RGB AREA (VS) SIGNAL
11	Y	COMM (CONT->DISP) [Without NAVI]
13	BR	INVERTER GND [Without NAVI]

14	LG	SIGNAL GND [Without NAVI]
15	SB	AUX IMAGE SIGNAL [Without NAVI]
16	BR	COMPOSITE SYNC
17	G	RGB (RED) [Without NAVI]
18	P	RGB (BLUE) SIGNAL [Without NAVI]
19	W	RGB SYNC [Without NAVI]
20	Q	VP [Without NAVI]
21	SHIELD	SHIELD
22	BR	COMM (DISP->CONT) [Without NAVI]
23	SHIELD	SHIELD

Connector No.	M72
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH10FW-NH



Terminal No.	Color of Wire	Signal Name
1	B	GND
3	V	ACC
6	LG	AV COMM (H)
8	V	AV COMM (L)
9	BR	SW GND
14	SB	EJECT SIGNAL

AV CONTROL UNIT

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[BASE AUDIO WITHOUT NAVIGATION]

BASE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M81
Connector Name	AV CONTROL UNIT
Connector Type	TH18FW-CS2



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

Terminal No.	Color of Wire	Signal Name
2	L	FRONT DOOR SPEAKER LH (+)
3	W	FRONT DOOR SPEAKER LH (-)
4	LG	REAR DOOR SPEAKER LH (+)
5	SB	REAR DOOR SPEAKER LH (-)
6	P	STRG SW A
7	V	ACC
9	R	ILLUMINATION
11	BR	FRONT DOOR SPEAKER RH (+)
12	R	FRONT DOOR SPEAKER RH (-)
13	L	REAR DOOR SPEAKER RH (+)
14	P	REAR DOOR SPEAKER RH (-)

Connector No.	M83
Connector Name	AV CONTROL UNIT
Connector Type	TH24FW-RH



47	48	49	50	51	52	53	54	55
56	57	58	59	60	61	62	63	64
65	66	67	68	69	70	71	72	73

Terminal No.	Color of Wire	Signal Name
36	SB	AUX IMAGE SIGNAL
37	V	AUX IMAGE GND
38	P	RGB (BLUE) SIGNAL
39	L	RGB (GREEN) SIGNAL
40	G	RGB (RED) SIGNAL
41	W	RGB SYNC
42	SHIELD	SHIELD
43	B	RGB AREA (VS) SIGNAL
44	BR	COMM (DISP->CONT)
45	R	HP
46	LG	SIGNAL GND

15	B	STRG SW GND
16	L	STRG SW B
19	Y	BATTERY
20	B	GND



22	23	24	25	26	27	28	29	30
31	32							

Terminal No.	Color of Wire	Signal Name
21	W	SOUND SIGNAL LH (-)
22	B	SOUND SIGNAL LH (+)
23	R	SOUND SIGNAL RH (-)
24	G	SOUND SIGNAL RH (+)
25	SHIELD	SHIELD
26	SHIELD	SHIELD
28	W	REQUEST (SAT->CONT)
29	B	COMM (SAT->CONT)
30	R	COMM (CONT->SAT)

Connector No.	M84
Connector Name	AV CONTROL UNIT
Connector Type	TH18FW-RH



67	68	69	70	71	72	73	74	75
76	77	78	79	80	81	82	83	84
85	86	87	88	89	90	91	92	93

Terminal No.	Color of Wire	Signal Name
66	G	AUX IMAGE SIGNAL
73	SHIELD	SHIELD
74	R	AUX IMAGE GND

AV CONTROL UNIT

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[BASE AUDIO WITHOUT NAVIGATION]

BASE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M85
Connector Name	AV CONTROL UNIT
Connector Type	TH82FW-NH

Terminal No.	Color of Wire	Signal Name
85	B	GND
86	L	CAN-H
87	P	CAN-L
88	LG	AV COMM (H) [Without BOSE system]
89	V	AV COMM (L) [Without BOSE system]
90	L	AV COMM (H)
91	P	AV COMM (L)
95	Y	SOUND SIGNAL RH (+) [Without BOSE system]
96	W	SOUND SIGNAL LH (+) [Without BOSE system]
97	SHIELD	SHIELD
101	BR	SW GND

Terminal No.	Color of Wire	Signal Name
85	B	GND
86	L	CAN-H
87	P	CAN-L
88	LG	AV COMM (H) [Without BOSE system]
89	V	AV COMM (L) [Without BOSE system]
90	L	AV COMM (H)
91	P	AV COMM (L)
95	Y	SOUND SIGNAL RH (+) [Without BOSE system]
96	W	SOUND SIGNAL LH (+) [Without BOSE system]
97	SHIELD	SHIELD
101	BR	SW GND

Connector No.	M117
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TIM4

Terminal No.	Color of Wire	Signal Name
71	Y	-
72	W	-
73	B	-
80	V	-
81	SHIELD	-
82	R	-
83	SHIELD	-
84	W	-
85	R	-
86	B	-
87	G	-

103	SB	EJECT SIGNAL
104	G	IGNITION
105	O	REVERSE
106	V	PARKING BRAKE
107	R	VEHICLE SPEED (8-PULSE)

Terminal No.	Color of Wire	Signal Name
113	P	VHECANLH
114	L	VHECANHI

Connector No.	M107
Connector Name	ECM
Connector Type	MAA24EGY-MEA8-LH-Z

Terminal No.	Color of Wire	Signal Name
128	128	128
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136	136	136
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AV CONTROL UNIT

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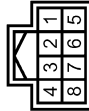
BASE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M154
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A08FW



Terminal No.	Color of Wire	Signal Name
1	BR	SOUND SIGNAL RH (+) [Without NAVI]
2	SHIELD	SHIELD [Without NAVI]
3	Y	SOUND SIGNAL LH (+) [Without NAVI]
7	G	AUX IMAGE SIGNAL
8	R	AUX IMAGE GND

Connector No.	M155
Connector Name	WIRE TO WIRE
Connector Type	TH08FW-NH



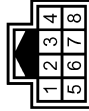
Terminal No.	Color of Wire	Signal Name
1	SHIELD	-
2	SHIELD	[Without NAVI]
3	BR	[Without NAVI]
4	Y	[Without NAVI]
5	B	-
6	SHIELD	-
7	G	-
8	R	-

Connector No.	M303
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FCY



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

Connector No.	M381
Connector Name	WIRE TO WIRE
Connector Type	TH08MW-NH



Terminal No.	Color of Wire	Signal Name
1	SHIELD	-
2	B	-
3	BR	- [Without NAVI]
4	Y	- [Without NAVI]
5	SHIELD	-
6	SHIELD	-
7	G	-
8	R	-

Connector No.	M382
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A08FW



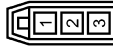
Terminal No.	Color of Wire	Signal Name
1	BR	SOUND SIGNAL RH (+) [Without NAVI]
2	B	SOUND SIGNAL GND
3	Y	SOUND SIGNAL LH (+) [Without NAVI]
7	G	AUX IMAGE SIGNAL
8	R	AUX IMAGE GND

Connector No.	M370
Connector Name	AV CONTROL UNIT
Connector Type	GT13SH-2/1S-HU



Terminal No.	Color of Wire	Signal Name
33	-	FM SUB
34	-	AM-FM MAIN
35	-	ANTENNA AMP. ON SIGNAL

Connector No.	M375
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1S-HU



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

Connector No.	M376
Connector Name	WIRE TO WIRE
Connector Type	GT13SCN-2/1PP-HU



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

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BASE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M378	Connector No.	M379	Connector No.	M381
Connector Name	ANTENNA AMP.	Connector Name	WINDOW ANTENNA(SUB)	Connector Name	WINDOW ANTENNA(MAIN)
Connector Type	GT13SG-17/IS-HU	Connector Type	FOIFB-A	Connector Type	FOIFB-A
					
Terminal No.	1	Terminal No.	1	Terminal No.	1
Color of Wire	-	Color of Wire	-	Color of Wire	-
Signal Name	ANTENNA AMP. ON SIGNAL AM-FM MAIN	Signal Name	-	Signal Name	-

DTC Index

Self-diagnosis results display item

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INFOID:000000000964586

AV CONTROL UNIT

< ECU DIAGNOSIS >

[BASE AUDIO WITHOUT NAVIGATION]

Error item	Refer to
CAN COMM CIRCUIT [U1000]	LAN-18, "Trouble Diagnosis Flow Chart"
CONTROL UNIT (CAN) [U1010]	LAN-18, "Trouble Diagnosis Flow Chart"
CONTROL UNIT (AV) [U1310]	AV-32, "DTC Logic"
Control Unit FLASH-ROM [U1200]	AV-33, "DTC Logic"
CAN CONT [U1216]	AV-34, "DTC Logic"
FRONT DISP CONN [U1243]	AV-35, "Diagnosis Procedure"
SAT CONN [U1255]	AV-37, "Diagnosis Procedure"
• AV COMM CIRCUIT [U1300] • SWITCHE CONN [U1240]	AV-38, "Description"

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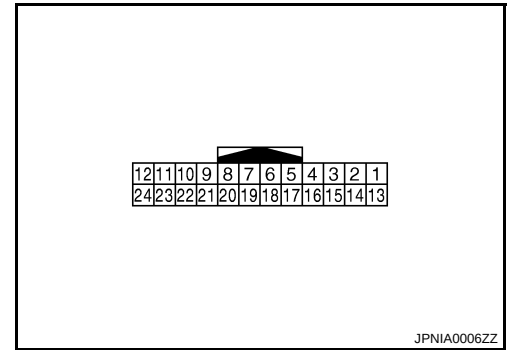
P

DISPLAY UNIT

Reference Value

INFOID:000000000964587

TERMINAL LAYOUT



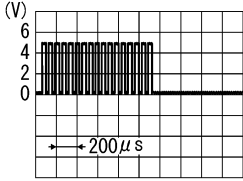
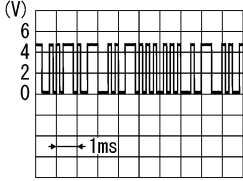
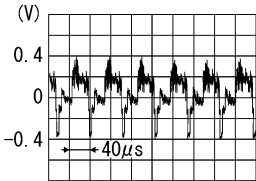
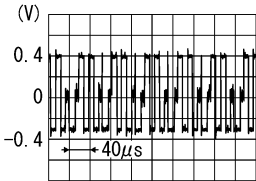
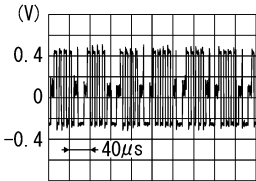
PHYSICAL VALUES

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
1 (B)	Ground	GND	—	Ignition switch ON	—	0 V
2 (Y)	Ground	Inverter VCC	Input	Ignition switch ACC	—	9 V
3 (O)	Ground	Signal VCC	Input	Ignition switch ACC	—	9 V
4 (V)	Ground	AUX image GND	—	Ignition switch ON	—	0 V
5 (Y)	Ground	Composite synchronizing signal GND	—	Ignition switch ON	—	0 V
6 (L)	Ground	RGB signal (G: green)	Input	Ignition switch ON	Start confirmation/adjust- ment mode, and then dis- play color bar by selecting "Color Spectrum Bar" on DISPLAY DIAGNO- SIS screen.	SKIB2236J
7	—	Shield	—	—	—	—
8 (R)	Ground	Horizontal synchronizing (HP) signal	Output	Ignition switch ON	—	SKIB3601E

DISPLAY UNIT

< ECU DIAGNOSIS >

[BASE AUDIO WITHOUT NAVIGATION]

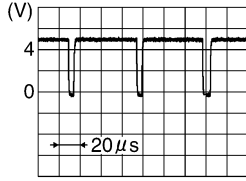
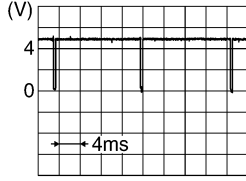
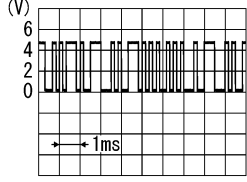
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
9 (B)	Ground	RGB area (YS) signal	Input	Ignition switch ON	At RGB image displayed	5 V
				Ignition switch ON	At rear view camera image displayed	 PKIB4948J
11 (Y)	Ground	Communication signal (CONT→DISP)	Input	Ignition switch ON	When adjusting display-brightness.	 PKIB5039J
13 (BR)	Ground	Inverter GND	—	Ignition switch ON	—	0 V
14 (LG)	Ground	Signal GND	—	Ignition switch ON	—	0 V
15 (SB)	Ground	AUX image signal	Input	Ignition switch ON	When AUX mode is selected	 SKIB2251J
17 (G)	Ground	RGB signal (R: red)	Input	Ignition switch ON	Start confirmation/adjustment mode, and then display color bar by selecting "Color Spectrum Bar" on DISPLAY DIAGNOSIS screen.	 SKIB2238J
18 (P)	Ground	RGB signal (B: blue)	Input	Ignition switch ON	Start confirmation/adjustment mode, and then display color bar by selecting "Color Spectrum Bar" on DISPLAY DIAGNOSIS screen.	 SKIB2237J

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DISPLAY UNIT

< ECU DIAGNOSIS >

[BASE AUDIO WITHOUT NAVIGATION]

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

Wiring Diagram — BASE AUDIO WITHOUT NAVIGATION SYSTEM —

INFOID:000000000964588

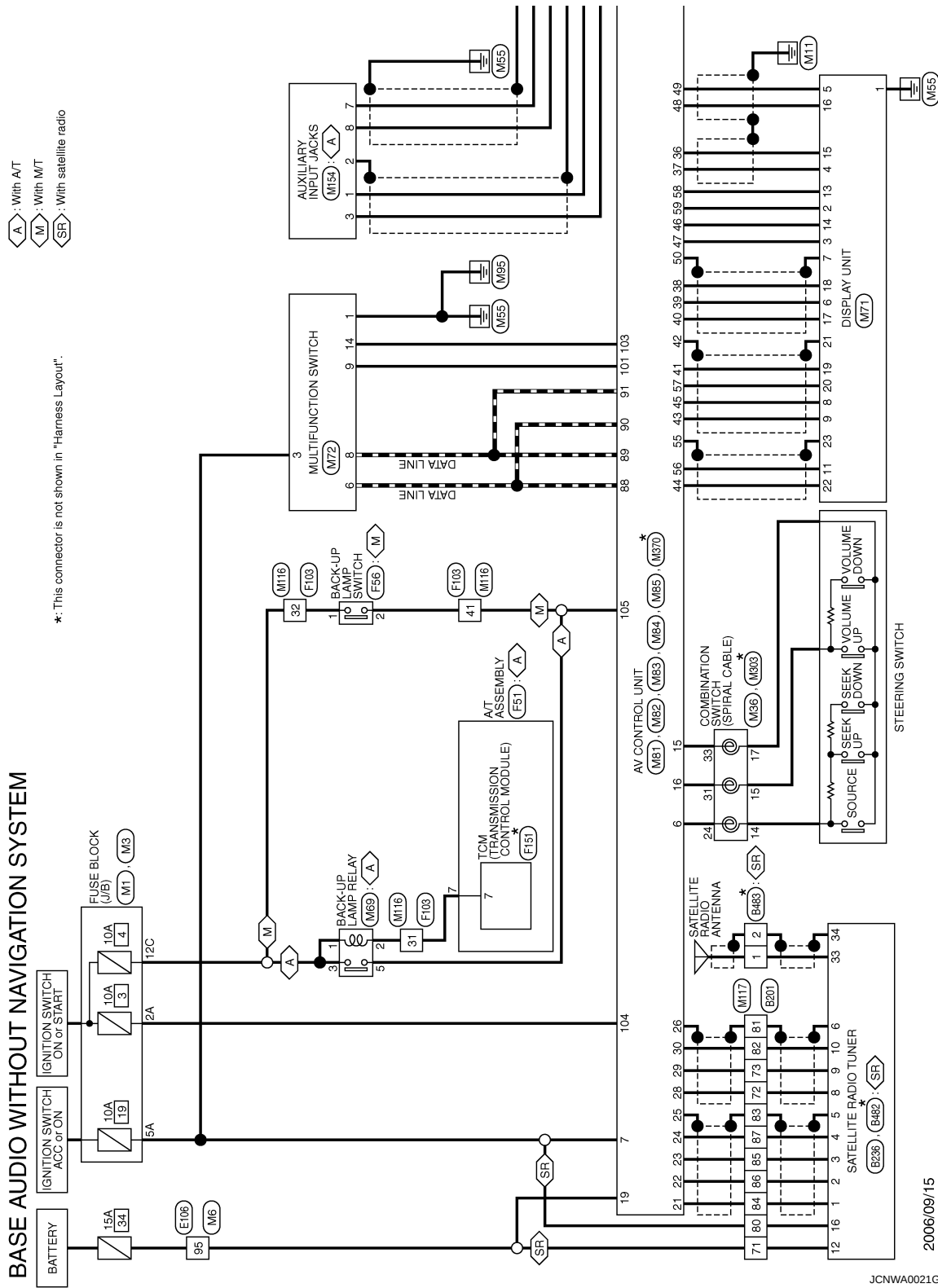
NOTE:

DISPLAY UNIT

< ECU DIAGNOSIS >

[BASE AUDIO WITHOUT NAVIGATION]

The name MULTIFUNCTION SWITCH indicates the integration of PRESET SWITCH and MULTIFUNCTION SWITCH virtually.



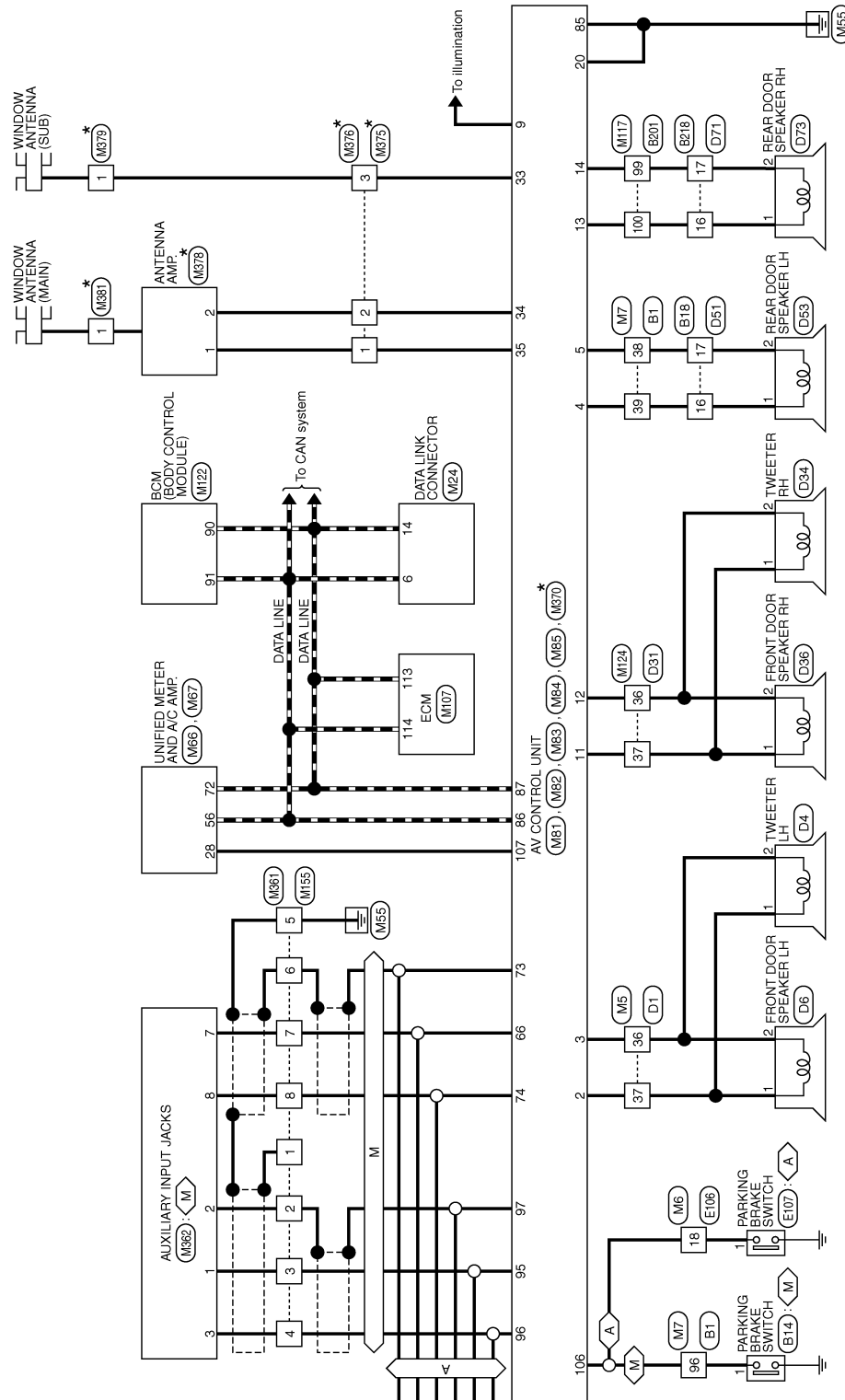
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< ECU DIAGNOSIS >

[BASE AUDIO WITHOUT NAVIGATION]

A : With A/T
M : With M/T

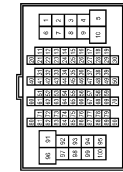
*: This connector is not shown in "Harness Layout".



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BASE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



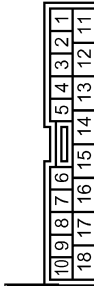
Terminal No.	Color of Wire	Signal Name
38	Y	-
39	LG	-
96	V	-

Connector No.	B14
Connector Name	PARKING BRAKE SWITCH
Connector Type	PO1FB-A



Terminal No.	Color of Wire	Signal Name
1	V	-

Connector No.	B18
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-HS8



Terminal No.	Color of Wire	Signal Name
16	LG	- [Without BOSE system]
17	Y	- [Without BOSE system]

Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color of Wire	Signal Name
71	Y	-
72	G	-
73	L	-
80	V	-
81	SHIELD	-
82	P	-
83	SHIELD	-
84	G	- [Without CD auto changer]
85	W	- [Without CD auto changer]
86	R	-
87	B	-

Connector No.	B218
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-HS8



Terminal No.	Color of Wire	Signal Name
16	L	-
17	P	-

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



Terminal No.	Color of Wire	Signal Name
1	G	SOUND SIGNAL LH (-)
2	R	SOUND SIGNAL LH (+)
3	W	SOUND SIGNAL RH (-)
4	B	SOUND SIGNAL RH (+)
5	SHIELD	SHIELD
6	SHIELD	SHIELD
8	G	REQUEST (SAT->CONT)
9	L	COMM (SAT->CONT)
10	P	COMM (CONT->SAT)
12	Y	BATTERY
16	V	ACC

BASE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B482
Connector Name	SATELLITE RADIO TUNER
Connector Type	-



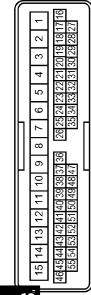
Terminal No.	Color of Wire	Signal Name
33	-	SATELLITE ANTENNA
34	SHIELD	SHIELD

Connector No.	B483
Connector Name	SATELLITE RADIO ANTENNA
Connector Type	GT16-IPP-HU



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

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



Terminal No.	Color of Wire	Signal Name
35	W	-
37	L	-

Connector No.	D4
Connector Name	TWEETER LH
Connector Type	TK02FBR



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

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



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

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



Terminal No.	Color of Wire	Signal Name
36	W	-
37	L	-

Connector No.	D34
Connector Name	TWEETER RH
Connector Type	TK02FBR



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

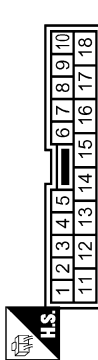
Connector No.	D38
Connector Name	FRONT DOOR SPEAKER RH
Connector Type	NS02FW-CS



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

BASE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	D51
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Terminal No.	Color of Wire	Signal Name
16	LG	-
17	Y	-

Connector No.	D53
Connector Name	REAR DOOR SPEAKER LH (Without BOSE system)
Connector Type	NS102FW-CS



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

Connector No.	D71
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



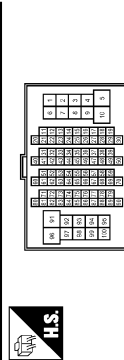
Terminal No.	Color of Wire	Signal Name
16	L	-
17	P	-

Connector No.	D73
Connector Name	REAR DOOR SPEAKER RH (Without BOSE system)
Connector Type	NS102FW-CS



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

Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	THB0FW-CS16-TM44



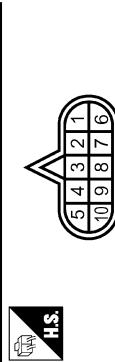
Terminal No.	Color of Wire	Signal Name
18	O	-
95	Y	-

Connector No.	E107
Connector Name	PARKING BRAKE SWITCH (A/T)
Connector Type	TE101FW



Terminal No.	Color of Wire	Signal Name
1	O	-

Connector No.	F51
Connector Name	A/T ASSEMBLY
Connector Type	RK10FG-DGY



Terminal No.	Color of Wire	Signal Name
7	R	-

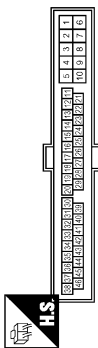
Connector No.	F56
Connector Name	BACK-UP LAMP SWITCH
Connector Type	RK102FB



Terminal No.	Color of Wire	Signal Name
1	R	-
2	O	-

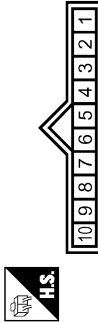
BASE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	F103
Connector Name	WIRE TO WIRE
Connector Type	TK38FW-NS10



Terminal No.	Color of Wire	Signal Name
31	R	-
32	R	-
41	O	-

Connector No.	F151
Connector Name	TOM (TRANSMISSION CONTROL MODULE)
Connector Type	SP10FBGY



Terminal No.	Color of Wire	Signal Name
7	O	REV LAMP RLY

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS08FW-H2



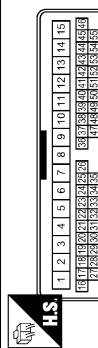
Terminal No.	Color of Wire	Signal Name
2A	G	-
5A	V	-

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FW-CS



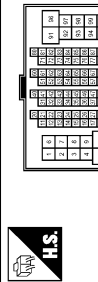
Terminal No.	Color of Wire	Signal Name
12C	R	-

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



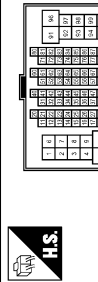
Terminal No.	Color of Wire	Signal Name
36	W	-
37	L	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS18-TM4



Terminal No.	Color of Wire	Signal Name
18	V	-
95	Y	-

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



Terminal No.	Color of Wire	Signal Name
38	SB	-
59	LG	-
96	V	-

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD18FW



Terminal No.	Color of Wire	Signal Name
6	L	-
14	P	-

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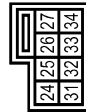
DISPLAY UNIT

[BASE AUDIO WITHOUT NAVIGATION]

< ECU DIAGNOSIS >

BASE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M36
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGV-IV



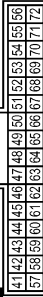
Terminal No.	Color of Wire	Signal Name
24	P	-
31	L	-
33	B	-

Connector No.	M65
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH40FW-NH



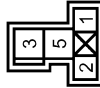
Terminal No.	Color of Wire	Signal Name
28	R	VEHICLE SPEED (8-PULSE)

Connector No.	M67
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH42FW-NH



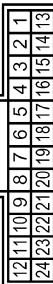
Terminal No.	Color of Wire	Signal Name
56	L	CAN-H
72	P	CAN-L

Connector No.	M69
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS02EL-M2



Terminal No.	Color of Wire	Signal Name
1	R	-
2	W	-
3	LG	-
5	O	-

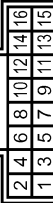
Connector No.	M71
Connector Name	DISPLAY UNIT
Connector Type	TH24FW-RH



Terminal No.	Color of Wire	Signal Name
1	B	GND
2	Y	INVERTER VCC [Without NAVI]
3	O	SIGNAL VCC [Without NAVI]
4	V	AUX IMAGE GND [Without NAVI]
5	Y	COMPOSITE SYNC GND [Without NAVI]
6	L	RGB (GREEN) SIGNAL [Without NAVI]
7	SHIELD	SHIELD
8	R	HP
9	B	RGB AREA (VS) SIGNAL
11	Y	COMM (CONT->DISP) [Without NAVI]
13	BR	INVERTER GND [Without NAVI]

14	LG	SIGNAL GND [Without NAVI]
15	SR	AUX IMAGE SIGNAL [Without NAVI]
16	BR	COMPOSITE SYNC
17	G	RGB (RED) [Without NAVI]
18	P	RGB (BLUE) SIGNAL [Without NAVI]
19	W	RGB SYNC [Without NAVI]
20	G	VP [Without NAVI]
21	SHIELD	SHIELD
22	BR	COMM (DISP->CONT) [Without NAVI]
23	SHIELD	SHIELD

Connector No.	M72
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH10FW-NH



Terminal No.	Color of Wire	Signal Name
1	B	GND
3	V	ACC
8	LG	AV COMM (H)
8	V	AV COMM (L)
9	BR	SW GND
14	SB	EJECT SIGNAL

DISPLAY UNIT

< ECU DIAGNOSIS >

[BASE AUDIO WITHOUT NAVIGATION]

BASE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M81
Connector Name	AV CONTROL UNIT
Connector Type	TH18FW-CS2



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

Terminal No.	Color of Wire	Signal Name
2	L	FRONT DOOR SPEAKER LH (+)
3	W	FRONT DOOR SPEAKER LH (-)
4	LG	REAR DOOR SPEAKER LH (+)
5	SB	REAR DOOR SPEAKER LH (-)
6	P	STRG SW A
7	V	ACC
9	R	ILLUMINATION
11	BR	FRONT DOOR SPEAKER RH (+)
12	R	FRONT DOOR SPEAKER RH (-)
13	L	REAR DOOR SPEAKER RH (+)
14	P	REAR DOOR SPEAKER RH (-)

Connector No.	M83
Connector Name	AV CONTROL UNIT
Connector Type	TH24FW-RH



47	48	49	50	55	56	57	58	59
60	61	62	63	64	65	66	67	68

Terminal No.	Color of Wire	Signal Name
36	SB	AUX IMAGE SIGNAL
37	V	AUX IMAGE GND
38	P	RGB (BLUE) SIGNAL
39	L	RGB (GREEN) SIGNAL
40	G	RGB (RED) SIGNAL
41	W	RGB SYNC
42	SHIELD	SHIELD
43	B	RGB AREA (VS) SIGNAL
44	BR	COMM (DISP->CONT)
45	R	HP
46	LG	SIGNAL GND

15	B	STRG SW GND
16	L	STRG SW B
19	Y	BATTERY
20	B	GND



22	24	30	32
21	23	25	26
27	28	29	31

Terminal No.	Color of Wire	Signal Name
21	W	SOUND SIGNAL LH (-)
22	B	SOUND SIGNAL LH (+)
23	R	SOUND SIGNAL RH (-)
24	G	SOUND SIGNAL RH (+)
25	SHIELD	SHIELD
26	SHIELD	SHIELD
28	W	REQUEST (SAT->CONT)
29	B	COMM (SAT->CONT)
30	R	COMM (CONT->SAT)

Connector No.	M84
Connector Name	AV CONTROL UNIT
Connector Type	TH18FW-RH



67	68	69	70
71	72	73	74
75	76	77	78

Terminal No.	Color of Wire	Signal Name
66	G	AUX IMAGE SIGNAL
73	SHIELD	SHIELD
74	R	AUX IMAGE GND

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BASE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M85
Connector Name	AV CONTROL UNIT
Connector Type	TH32FW-NH

Terminal No.	Color of Wire	Signal Name
85	B	GND
86	L	CAN-H
87	P	CAN-L
88	LG	AV COMM (H) [Without BOSE system]
89	V	AV COMM (L) [Without BOSE system]
90	L	AV COMM (H)
91	P	AV COMM (L)
95	Y	SOUND SIGNAL RH (+) [Without BOSE system]
96	W	SOUND SIGNAL LH (+) [Without BOSE system]
97	SHIELD	SHIELD
101	BR	SW GND

Terminal No.	Color of Wire	Signal Name
85	B	GND
86	L	CAN-H
87	P	CAN-L
88	LG	AV COMM (H) [Without BOSE system]
89	V	AV COMM (L) [Without BOSE system]
90	L	AV COMM (H)
91	P	AV COMM (L)
95	Y	SOUND SIGNAL RH (+) [Without BOSE system]
96	W	SOUND SIGNAL LH (+) [Without BOSE system]
97	SHIELD	SHIELD
101	BR	SW GND

Connector No.	M117
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4

Terminal No.	Color of Wire	Signal Name
71	Y	-
72	W	-
73	B	-
80	V	-
81	SHIELD	-
82	R	-
83	SHIELD	-
84	W	-
85	R	-
86	B	-
87	G	-

Terminal No.	Color of Wire	Signal Name
71	Y	-
72	W	-
73	B	-
80	V	-
81	SHIELD	-
82	R	-
83	SHIELD	-
84	W	-
85	R	-
86	B	-
87	G	-

103	SB	EJECT SIGNAL
104	G	IGNITION
105	O	REVERSE
106	V	PARKING BRAKE
107	R	VEHICLE SPEED (8-PULSE)

Terminal No.	Color of Wire	Signal Name
103	SB	EJECT SIGNAL
104	G	IGNITION
105	O	REVERSE
106	V	PARKING BRAKE
107	R	VEHICLE SPEED (8-PULSE)

Connector No.	M107
Connector Name	ECM
Connector Type	MAA24FGY-MEA8-LH-Z

Terminal No.	Color of Wire	Signal Name
113	P	VHECAN-L
114	L	VHECAN-H

Terminal No.	Color of Wire	Signal Name
113	P	VHECAN-L
114	L	VHECAN-H

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH

Terminal No.	Color of Wire	Signal Name
81	SB	EJECT SIGNAL
82	G	IGNITION
83	O	REVERSE
84	V	PARKING BRAKE
85	R	VEHICLE SPEED (8-PULSE)

Terminal No.	Color of Wire	Signal Name
81	SB	EJECT SIGNAL
82	G	IGNITION
83	O	REVERSE
84	V	PARKING BRAKE
85	R	VEHICLE SPEED (8-PULSE)

Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15

Terminal No.	Color of Wire	Signal Name
1	SB	EJECT SIGNAL
2	G	IGNITION
3	O	REVERSE
4	V	PARKING BRAKE
5	R	VEHICLE SPEED (8-PULSE)

Terminal No.	Color of Wire	Signal Name
36	R	-
37	BR	-

Connector No.	M116
Connector Name	WIRE TO WIRE
Connector Type	TK38MW-NS10

Terminal No.	Color of Wire	Signal Name
31	W	-
32	LG	-
41	O	-

Terminal No.	Color of Wire	Signal Name
31	W	-
32	LG	-
41	O	-

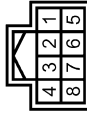
BASE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M154
Connector Name	AUXILIARY INPUT JACKS
Connector Type	AG8FW



Terminal No.	Color of Wire	Signal Name
1	BR	SOUND SIGNAL RH (+) [Without NAVI]
2	SHIELD	SHIELD [Without NAVI]
3	Y	SOUND SIGNAL LH (+) [Without NAVI]
7	G	AUX IMAGE SIGNAL
8	R	AUX IMAGE GND

Connector No.	M155
Connector Name	WIRE TO WIRE
Connector Type	TH08FW-NH



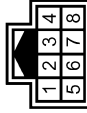
Terminal No.	Color of Wire	Signal Name
1	SHIELD	-
2	SHIELD	[Without NAVI]
3	BR	[Without NAVI]
4	Y	[Without NAVI]
5	B	-
6	SHIELD	-
7	G	-
8	R	-

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



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

Connector No.	M381
Connector Name	WIRE TO WIRE
Connector Type	TH08MW-NH



Terminal No.	Color of Wire	Signal Name
1	SHIELD	-
2	B	-
3	BR	- [Without NAVI]
4	Y	- [Without NAVI]
5	SHIELD	-
6	SHIELD	-
7	G	-
8	R	-

Connector No.	M382
Connector Name	AUXILIARY INPUT JACKS
Connector Type	AG8FW



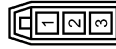
Terminal No.	Color of Wire	Signal Name
1	BR	SOUND SIGNAL RH (+) [Without NAVI]
2	B	SOUND SIGNAL GND
3	Y	SOUND SIGNAL LH (+) [Without NAVI]
7	G	AUX IMAGE SIGNAL
8	R	AUX IMAGE GND

Connector No.	M370
Connector Name	AV CONTROL UNIT
Connector Type	GT13SH-2/1S-HU



Terminal No.	Color of Wire	Signal Name
33	-	FM SUB
34	-	AM-FM MAIN
35	-	ANTENNA AMP. ON SIGNAL

Connector No.	M375
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1S-HU



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

Connector No.	M376
Connector Name	WIRE TO WIRE
Connector Type	GT13SCN-2/1PP-HU



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

BASE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M378
Connector Name	ANTENNA AMP.
Connector Type	GT13SC-1/1S-HU



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

Connector No.	M379
Connector Name	WINDOW ANTENNA(SUB)
Connector Type	P01FB-A



Terminal No.	Color of Wire	Signal Name
1	-	-

Connector No.	M381
Connector Name	WINDOW ANTENNA(MAIN)
Connector Type	P01FB-A



Terminal No.	Color of Wire	Signal Name
1	-	-

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

SATELLITE RADIO TUNER

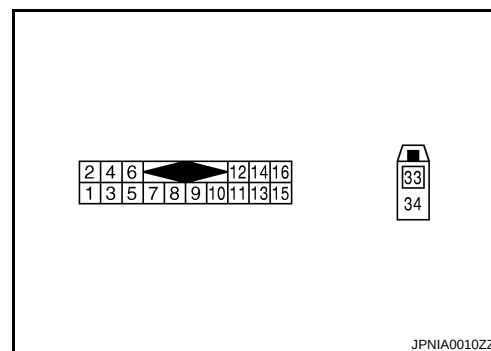
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[BASE AUDIO WITHOUT NAVIGATION]

SATELLITE RADIO TUNER

Reference Value

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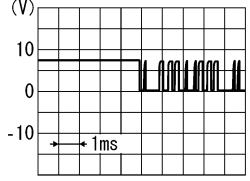
PHYSICAL VALUES

Terminal		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/Output			
2 (R)	1 (G)	Satellite radio sound signal LH	Output	Ignition switch ON	When satellite radio mode is selected	 SKIB3609E
4 (B)	3 (W)	Satellite radio sound signal RH	Output	Ignition switch ON	When satellite radio mode is selected	 SKIB3609E
5	—	Shield	—	—	—	—
6	—	Shield	—	—	—	—
8 (G)	Ground	Request signal (SAT→CONT)	Output	Ignition switch ON	When satellite radio mode is selected	 SKIA9299J
9 (L)	Ground	Communication signal (SAT→CONT)	Output	Ignition switch ON	When satellite radio mode is selected	 SKIA9300J

SATELLITE RADIO TUNER

< ECU DIAGNOSIS >

[BASE AUDIO WITHOUT NAVIGATION]

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

Wiring Diagram — BASE AUDIO WITHOUT NAVIGATION SYSTEM —

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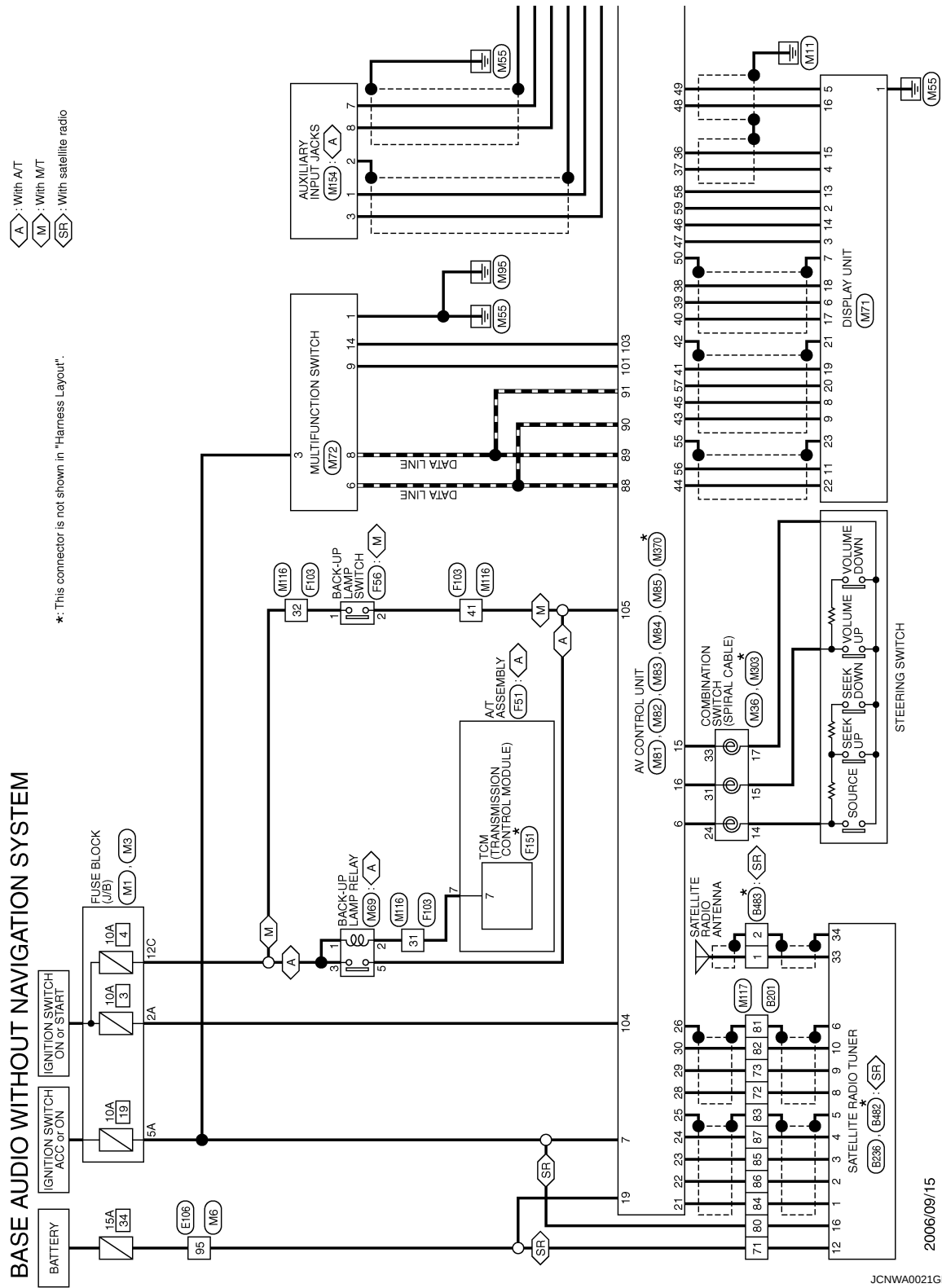
NOTE:

SATELLITE RADIO TUNER

[BASE AUDIO WITHOUT NAVIGATION]

< ECU DIAGNOSIS >

The name MULTIFUNCTION SWITCH indicates the integration of PRESET SWITCH and MULTIFUNCTION SWITCH virtually.



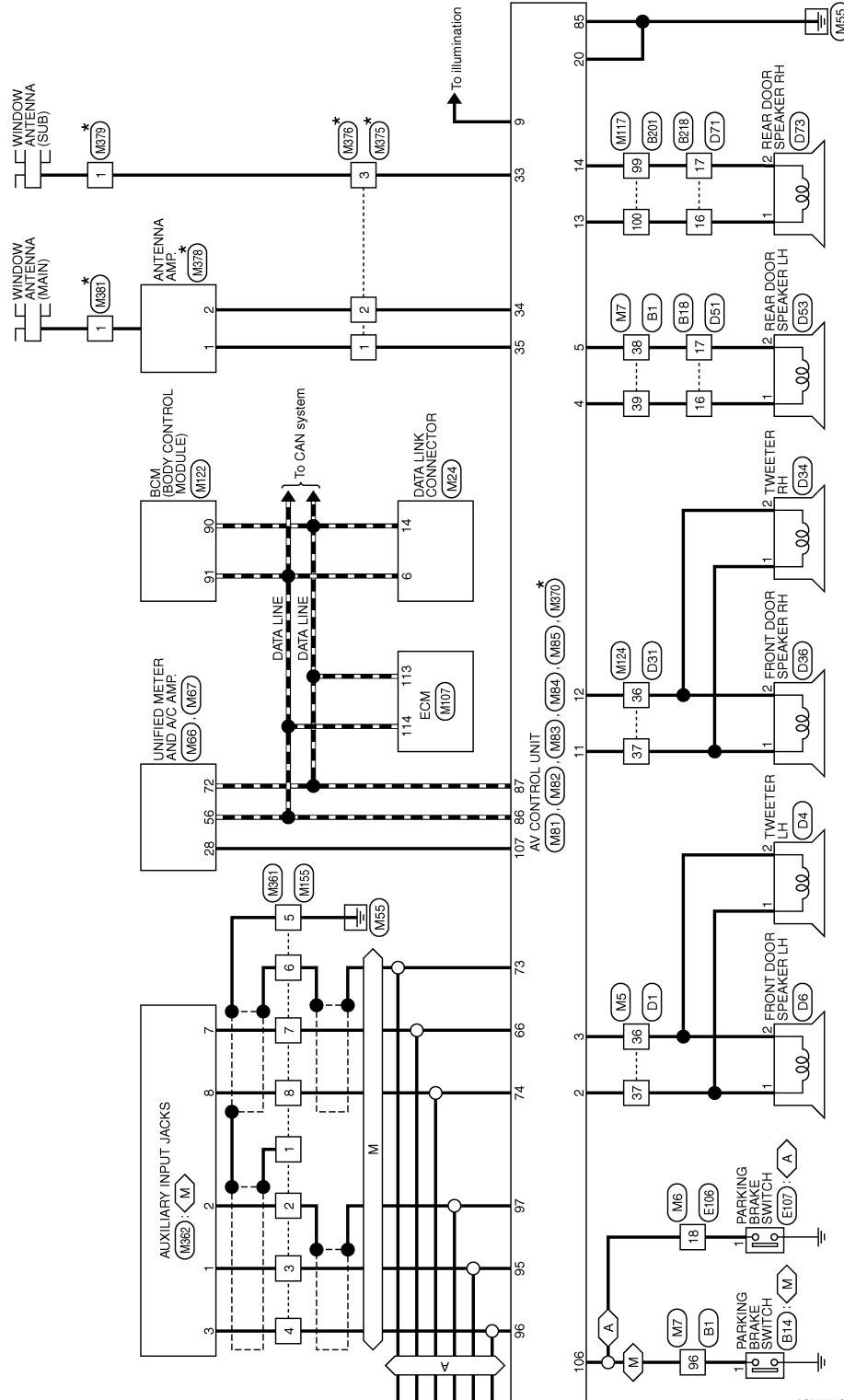
SATELLITE RADIO TUNER

[BASE AUDIO WITHOUT NAVIGATION]

< ECU DIAGNOSIS >

A : With A/T
M : With M/T

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



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A
B
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AV

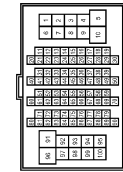
SATELLITE RADIO TUNER

[BASE AUDIO WITHOUT NAVIGATION]

< ECU DIAGNOSIS >

BASE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	THB0FW-CS16-TM4



Terminal No.	Color of Wire	Signal Name
38	Y	-
39	LG	-
96	V	-

Connector No.	B14
Connector Name	PARKING BRAKE SWITCH
Connector Type	PO1FB-A



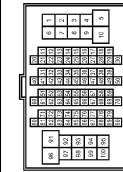
Terminal No.	Color of Wire	Signal Name
1	V	-

Connector No.	B18
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-HS8



Terminal No.	Color of Wire	Signal Name
16	LG	- [Without BOSE system]
17	Y	- [Without BOSE system]

Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	THB0FW-CS16-TM4



Terminal No.	Color of Wire	Signal Name
71	Y	-
72	G	-
73	L	-
80	V	-
81	SHIELD	-
82	P	-
83	SHIELD	-
84	G	- [Without CD auto changer]
85	W	- [Without CD auto changer]
86	R	-
87	B	-

Connector No.	B218
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-HS8



Terminal No.	Color of Wire	Signal Name
16	L	-
17	P	-

Connector No.	B236
Connector Name	SATELLITE RADIO TUNER
Connector Type	A18FW



Terminal No.	Color of Wire	Signal Name
1	G	SOUND SIGNAL LH (-)
2	R	SOUND SIGNAL LH (+)
3	W	SOUND SIGNAL RH (-)
4	B	SOUND SIGNAL RH (+)
5	SHIELD	SHIELD
6	SHIELD	SHIELD
8	G	REQUEST (SAT->CONT)
9	L	COMM (SAT->CONT)
10	P	COMM (CONT->SAT)
12	Y	BATTERY
16	V	ACC

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SATELLITE RADIO TUNER

[BASE AUDIO WITHOUT NAVIGATION]

< ECU DIAGNOSIS >

BASE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B482
Connector Name	SATELLITE RADIO TUNER
Connector Type	-



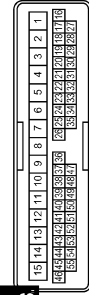
Terminal No.	Color of Wire	Signal Name
33	-	SATELLITE ANTENNA
34	SHIELD	SHIELD

Connector No.	B483
Connector Name	SATELLITE RADIO ANTENNA
Connector Type	GT16-IPP-HU



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

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



Terminal No.	Color of Wire	Signal Name
36	W	-
37	L	-

Connector No.	D4
Connector Name	TWEETER LH
Connector Type	TK02FER



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

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



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

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



Terminal No.	Color of Wire	Signal Name
36	W	-
37	L	-

Connector No.	D34
Connector Name	TWEETER RH
Connector Type	TK02FER



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

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



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

SATELLITE RADIO TUNER

[BASE AUDIO WITHOUT NAVIGATION]

< ECU DIAGNOSIS >

BASE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	D51
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Terminal No.	Color of Wire	Signal Name
16	LG	-
17	Y	-

Connector No.	D83
Connector Name	REAR DOOR SPEAKER LH (Without BOSE system)
Connector Type	NS30FW-GS



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

Connector No.	D71
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



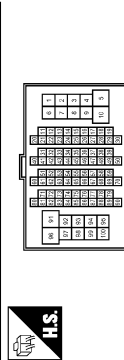
Terminal No.	Color of Wire	Signal Name
16	L	-
17	P	-

Connector No.	D73
Connector Name	REAR DOOR SPEAKER RH (Without BOSE system)
Connector Type	NS30FW-GS



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

Connector No.	E108
Connector Name	WIRE TO WIRE
Connector Type	THB0FW-GS16-TM4



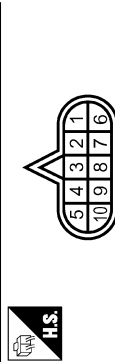
Terminal No.	Color of Wire	Signal Name
18	O	-
95	Y	-

Connector No.	E107
Connector Name	PARKING BRAKE SWITCH (A/T)
Connector Type	TE01FW



Terminal No.	Color of Wire	Signal Name
1	O	-

Connector No.	F51
Connector Name	A/T ASSEMBLY
Connector Type	RK10FG-DGY



Terminal No.	Color of Wire	Signal Name
7	R	-

Connector No.	F56
Connector Name	BACK-UP LAMP SWITCH
Connector Type	RK02FB



Terminal No.	Color of Wire	Signal Name
1	R	-
2	O	-

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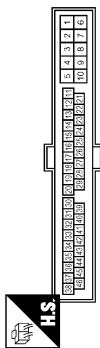
SATELLITE RADIO TUNER

[BASE AUDIO WITHOUT NAVIGATION]

< ECU DIAGNOSIS >

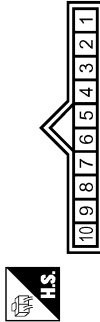
BASE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	F103
Connector Name	WIRE TO WIRE
Connector Type	TK38FW-NS10



Terminal No.	Color of Wire	Signal Name
31	R	-
32	R	-
41	O	-

Connector No.	F151
Connector Name	TCM (TRANSMISSION CONTROL MODULE)
Connector Type	SP10FBGY



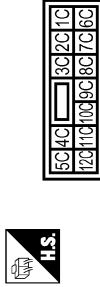
Terminal No.	Color of Wire	Signal Name
7	O	REV LAMP RLY

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FW-M2



Terminal No.	Color of Wire	Signal Name
2A	G	-
5A	V	-

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FW-CS



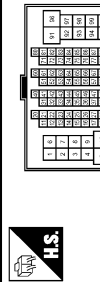
Terminal No.	Color of Wire	Signal Name
12C	R	-

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



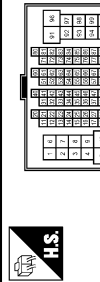
Terminal No.	Color of Wire	Signal Name
36	W	-
37	L	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS18-TM4



Terminal No.	Color of Wire	Signal Name
18	V	-
95	Y	-

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



Terminal No.	Color of Wire	Signal Name
38	SB	-
39	LG	-
96	V	-

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD18FW



Terminal No.	Color of Wire	Signal Name
6	L	-
14	P	-

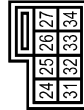
SATELLITE RADIO TUNER

[BASE AUDIO WITHOUT NAVIGATION]

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BASE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M36
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08GY-IV



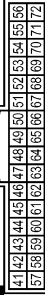
Terminal No.	Color of Wire	Signal Name
24	P	-
31	L	-
33	B	-

Connector No.	M65
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH40FW-NH



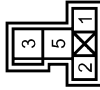
Terminal No.	Color of Wire	Signal Name
28	R	VEHICLE SPEED (8-PULSE)

Connector No.	M67
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH42FW-NH



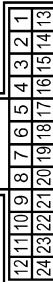
Terminal No.	Color of Wire	Signal Name
55	L	CAN-H
72	P	CAN-L

Connector No.	M69
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS02FL-M2



Terminal No.	Color of Wire	Signal Name
1	R	-
2	W	-
3	LG	-
5	O	-

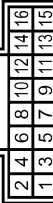
Connector No.	M71
Connector Name	DISPLAY UNIT
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name
1	B	GND
2	Y	INVERTER VCC [Without NAVI]
3	O	SIGNAL VCC [Without NAVI]
4	V	AUX IMAGE GND [Without NAVI]
5	Y	COMPOSITE SYNC GND [Without NAVI]
6	L	RGB (GREEN) SIGNAL [Without NAVI]
7	SHIELD	SHIELD
8	R	HP
9	B	RGB AREA (VS) SIGNAL
11	Y	COMM (CONT->DISP) [Without NAVI]
13	BR	INVERTER GND [Without NAVI]

14	LG	SIGNAL GND [Without NAVI]
15	SB	AUX IMAGE SIGNAL [Without NAVI]
16	BR	COMPOSITE SYNC
17	G	RGB (RED) [Without NAVI]
18	P	RGB (BLUE) SIGNAL [Without NAVI]
19	W	RGB SYNC [Without NAVI]
20	Q	VP [Without NAVI]
21	SHIELD	SHIELD
22	BR	COMM (DISP->CONT) [Without NAVI]
23	SHIELD	SHIELD

Connector No.	M72
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH10FW-NH



Terminal No.	Color of Wire	Signal Name
1	B	GND
3	V	ACC
6	LG	AV COMM (H)
8	V	AV COMM (L)
9	BR	SW GND
14	SB	EJECT SIGNAL

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[BASE AUDIO WITHOUT NAVIGATION]

< ECU DIAGNOSIS >

BASE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M81
Connector Name	AV CONTROL UNIT
Connector Type	TH18FW-CS2



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

Terminal No.	Color of Wire	Signal Name
2	L	FRONT DOOR SPEAKER LH (+)
3	W	FRONT DOOR SPEAKER LH (-)
4	LG	REAR DOOR SPEAKER LH (+)
5	SB	REAR DOOR SPEAKER LH (-)
6	P	STRG SW A
7	V	ACC
9	R	ILLUMINATION
11	BR	FRONT DOOR SPEAKER RH (+)
12	R	FRONT DOOR SPEAKER RH (-)
13	L	REAR DOOR SPEAKER RH (+)
14	P	REAR DOOR SPEAKER RH (-)

Connector No.	M83
Connector Name	AV CONTROL UNIT
Connector Type	TH24FW-RH



47	48	49	50	51	52	53	54	55
56	57	58	59	60	61	62	63	64
65	66	67	68	69	70	71	72	73

Terminal No.	Color of Wire	Signal Name
36	SB	AUX IMAGE SIGNAL
37	V	AUX IMAGE GND
38	P	RGB (BLUE) SIGNAL
39	L	RGB (GREEN) SIGNAL
40	G	RGB (RED) SIGNAL
41	W	RGB SYNC
42	SHIELD	SHIELD
43	B	RGB AREA (VS) SIGNAL
44	BR	COMM (DISP->CONT)
45	R	HP
46	LG	SIGNAL GND

15	B	STRG SW GND
16	L	STRG SW B
19	Y	BATTERY
20	B	GND



22	23	24	25	26	27	28	29	30
31	32							

Terminal No.	Color of Wire	Signal Name
21	W	SOUND SIGNAL LH (-)
22	B	SOUND SIGNAL LH (+)
23	R	SOUND SIGNAL RH (-)
24	G	SOUND SIGNAL RH (+)
25	SHIELD	SHIELD
26	SHIELD	SHIELD
28	W	REQUEST (SAT->CONT)
29	B	COMM (SAT->CONT)
30	R	COMM (CONT->SAT)

Connector No.	M84
Connector Name	AV CONTROL UNIT
Connector Type	TH18FW-RH



67	68	69	70	71	72	73	74	75
76	77	78	79	80	81	82	83	84
85	86	87	88	89	90	91	92	93

Terminal No.	Color of Wire	Signal Name
66	G	AUX IMAGE SIGNAL
73	SHIELD	SHIELD
74	R	AUX IMAGE GND

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AV

SATELLITE RADIO TUNER

[BASE AUDIO WITHOUT NAVIGATION]

< ECU DIAGNOSIS >

BASE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M85
Connector Name	AV CONTROL UNIT
Connector Type	TH82FW-NH

Terminal No.	Color of Wire	Signal Name
85	B	GND
86	L	CAN-H
87	P	CAN-L
88	LG	AV COMM (H) [Without BOSE system]
89	V	AV COMM (L) [Without BOSE system]
90	L	AV COMM (H)
91	P	AV COMM (L)
95	Y	SOUND SIGNAL RH (+) [Without BOSE system]
96	W	SOUND SIGNAL LH (+) [Without BOSE system]
97	SHIELD	SHIELD
101	BR	SW GND

Terminal No.	Color of Wire	Signal Name
85	B	GND
86	L	CAN-H
87	P	CAN-L
88	LG	AV COMM (H) [Without BOSE system]
89	V	AV COMM (L) [Without BOSE system]
90	L	AV COMM (H)
91	P	AV COMM (L)
95	Y	SOUND SIGNAL RH (+) [Without BOSE system]
96	W	SOUND SIGNAL LH (+) [Without BOSE system]
97	SHIELD	SHIELD
101	BR	SW GND

Connector No.	M117
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TIM

Terminal No.	Color of Wire	Signal Name
71	Y	-
72	W	-
73	B	-
80	V	-
81	SHIELD	-
82	R	-
83	SHIELD	-
84	W	-
85	R	-
86	B	-
87	G	-

103	SB	EJECT SIGNAL
104	G	IGNITION
105	O	REVERSE
106	V	PARKING BRAKE
107	R	VEHICLE SPEED (8-PULSE)

Terminal No.	Color of Wire	Signal Name
113	P	VHECANL L
114	L	VHECAN H

Connector No.	M107
Connector Name	ECM
Connector Type	MAA24EGY-MEA8-LH-Z

Terminal No.	Color of Wire	Signal Name
128	128	128
127	123	123
126	122	122
125	121	121

Terminal No.	Color of Wire	Signal Name
113	P	VHECANL L
114	L	VHECAN H

Connector No.	M116
Connector Name	WIRE TO WIRE
Connector Type	TK38MW-NS10

Terminal No.	Color of Wire	Signal Name
31	W	-
32	LG	-
41	O	-

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FE-NH

Terminal No.	Color of Wire	Signal Name
90	P	CAN-L
91	L	CAN-H

Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15

Terminal No.	Color of Wire	Signal Name
36	R	-
37	BR	-

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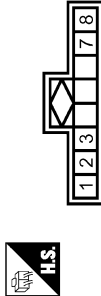
SATELLITE RADIO TUNER

[BASE AUDIO WITHOUT NAVIGATION]

< ECU DIAGNOSIS >

BASE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M154
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A08FW



Terminal No.	Color of Wire	Signal Name
1	BR	SOUND SIGNAL RH (+) [Without NAVI]
2	SHIELD	SHIELD [Without NAVI]
3	Y	SOUND SIGNAL LH (+) [Without NAVI]
4	G	Y
5	R	G
6	SHIELD	SHIELD
7	G	G
8	R	R

Connector No.	M155
Connector Name	WIRE TO WIRE
Connector Type	TH08FW-NH



Terminal No.	Color of Wire	Signal Name
1	SHIELD	SHIELD
2	SHIELD	SHIELD
3	BR	[Without NAVI]
4	Y	[Without NAVI]
5	B	[Without NAVI]
6	SHIELD	SHIELD
7	G	G
8	R	R

Connector No.	M303
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FCY



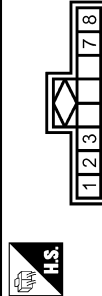
Terminal No.	Color of Wire	Signal Name
14	W	W
15	L	L
17	BR	BR

Connector No.	M381
Connector Name	WIRE TO WIRE
Connector Type	TH08MW-NH



Terminal No.	Color of Wire	Signal Name
1	SHIELD	SHIELD
2	B	B
3	BR	[Without NAVI]
4	Y	[Without NAVI]
5	SHIELD	SHIELD
6	SHIELD	SHIELD
7	G	G
8	R	R

Connector No.	M382
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A08FW



Terminal No.	Color of Wire	Signal Name
1	BR	SOUND SIGNAL RH (+) [Without NAVI]
2	B	SOUND SIGNAL GND
3	Y	SOUND SIGNAL LH (+) [Without NAVI]
7	G	AUX IMAGE SIGNAL
8	R	AUX IMAGE GND

Connector No.	M370
Connector Name	AV CONTROL UNIT
Connector Type	GT13SH-2/1S-HU



Terminal No.	Color of Wire	Signal Name
33	-	FM SUB
34	-	AM-FM MAIN
35	-	ANTENNA AMP. ON SIGNAL

Connector No.	M375
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1S-HU



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

Connector No.	M376
Connector Name	WIRE TO WIRE
Connector Type	GT13SCN-2/1PP-HU



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

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AV

SATELLITE RADIO TUNER

< ECU DIAGNOSIS >

[BASE AUDIO WITHOUT NAVIGATION]

BASE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M378	Connector No.	M379	Connector No.	M381
Connector Name	ANTENNA AMP.	Connector Name	WINDOW ANTENNA(SUB)	Connector Name	WINDOW ANTENNA(MAIN)
Connector Type	GT13SC-17/IS-HU	Connector Type	FOIFB-A	Connector Type	FOIFB-A
					
Terminal No.	Color of Wire	Signal Name	Terminal No.	Color of Wire	Signal Name
1	-	ANTENNA AMP - ON SIGNAL	1	-	-
2	-	AM-FM MAIN			

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MULTI AV SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[BASE AUDIO WITHOUT NAVIGATION]

SYMPTOM DIAGNOSIS

MULTI AV SYSTEM SYMPTOMS

Symptom Table

INFOID:000000000964591

Operation

Symptoms	Check items	Possible malfunction location / Action to take
Multifunction switch and preset switch operation does not work.	- All switches cannot be operated "MULTI AV" is displayed with CONSULT-III	Perform CONSULT-III self-diagnosis. (AV-26, "CONSULT - III Function")
	- All switches cannot be operated "MULTI AV" is not displayed with CONSULT-III	AV control unit power supply and ground circuit (AV-39, "AV CONTROL UNIT : Diagnosis Procedure")
	Only specified switch cannot be operated	- Perform CONSULT-III self-diagnosis. (AV-26, "CONSULT - III Function") - No malfunction - multifunction switch (AV-119, "Exploded View") - preset switch (AV-120, "Exploded View") - Malfunction is detected. (AV-26, "CONSULT - III Function")

Related to RGB image

Trouble diagnosis chart by symptom

Symptoms	Check items	Possible malfunction location / Action to take
RGB image is not shown.	There is malfunction in the CONSULT-III self-diagnosis result	Perform CONSULT-III self-diagnosis. (AV-26, "CONSULT - III Function")
	There is no malfunction in CONSULT-III self-diagnosis results	Display unit power supply circuit (Inverter VCC) (AV-39, "DISPLAY UNIT : Diagnosis Procedure")
Color of RGB image is not proper.	Light blue (Cyan) tint	RGB signal (R: red) circuit (AV-42, "Diagnosis Procedure")
	Purple (Magenta) tint	RGB signal (G: green) circuit (AV-43, "Diagnosis Procedure")
	Screen looks yellowish	RGB signal (B: blue) circuit (AV-44, "Diagnosis Procedure")
RGB screen is rolling.	—	RGB synchronizing signal circuit (AV-45, "Diagnosis Procedure")
Fuel economy display is malfunctioning	There is malfunction in the CONSULT-III self-diagnosis result	Perform CONSULT-III self-diagnosis. (AV-26, "CONSULT - III Function")
	There is no malfunction in CONSULT-III self-diagnosis results	Ignition signal (AV-39, "AV CONTROL UNIT : Diagnosis Procedure")

Related to AUDIO

Trouble diagnosis chart by symptom

Symptoms	Check items	Possible malfunction location / Action to take
The CD cannot be removed.	—	CD eject signal circuit (AV-51, "Diagnosis Procedure")
Audio sound is not heard.	No sound from all speakers	AV control unit (AV-111, "Exploded View")
	Sound is not heard only from the specific places (RH front, RH rear, LH front and LH rear).	Sound signal circuit of malfunctioning system

MULTI AV SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[BASE AUDIO WITHOUT NAVIGATION]

Symptoms	Check items	Possible malfunction location / Action to take
Satellite radio is not received.	"ANTENNA" is not displayed even when the channel is turned to 0 in Satellite radio mode	Perform the following inspection procedure. 1. Check satellite radio antenna mounting nut for looseness. NOTE: Tightening torque: 6.5 N·m (0.66 kg-m, 58 in-lb.) 2. Visually check for satellite radio antenna feeder. 3. Replace the satellite radio antenna. (AV-118, "Exploded View") 4. Replace the satellite radio tuner. (AV-117, "Exploded View")
	"ANTENNA" is displayed when the channel is turned to 0 in Satellite radio mode	Perform the following inspection procedure. 1. Check the connection between Satellite radio tuner and antenna feeder. 2. Check the connection between Satellite radio antenna and antenna feeder. 3. Check Antenna feeder for open circuit. 4. Replace the satellite radio antenna. (AV-118, "Exploded View") 5. Replace the satellite radio tuner. (AV-117, "Exploded View")
The sound of Satellite radio is not heard	Other audio sounds are normal	Satellite radio sound signal circuit (Between satellite radio tuner and AV control unit)
It does not change to Satellite radio mode	There is malfunction in the CONSULT-III self-diagnosis result	Satellite radio tuner power supply and ground circuit (AV-41, "SATELLITE RADIO TUNER : Diagnosis Procedure")
	There is no malfunction in CONSULT-III self-diagnosis results	- Request signal circuit (AV-53, "Diagnosis Procedure") - Communication signal circuit between AV control unit and satellite radio tuner (AV-52, "Diagnosis Procedure")

Related to STEERING SWITCH

Trouble diagnosis chart by symptom

Symptoms	Inspection location / Probable malfunction location
None of the steering switch operations work.	Steering switch signal GND circuit (AV-58, "Diagnosis Procedure")
Only specified switch (1) cannot be operated	Steering switch (AV-121, "Exploded View")
"SOURCE", "MENU UP", "MENU DOWN" switches of steering switch are not operated	Steering switch signal A circuit (AV-54, "Diagnosis Procedure")
"VOL UP", "VOL DOWN" switches of steering switch are not operated	Steering switch signal B circuit (AV-56, "Diagnosis Procedure")

Related to AUXILIARY INPUT

NOTE:

Check that there is no malfunction of AUX equipment main body before performing a diagnosis.

Trouble diagnosis chart by symptom

Symptoms	Check items	Probable malfunction location
No voice sound is heard when AUX mode is selected.	Voice sound is heard when other modes are selected.	Sound signal circuit (auxiliary input jacks to AV control unit)
Image is not displayed when AUX mode is selected.	—	AUX image signal circuit (AV-49, "Diagnosis Procedure")
It does not change from AUX mode to other modes.	—	Vertical synchronizing (VP) signal circuit (AV-48, "Diagnosis Procedure")
The screen is rolling at AUX mode.	—	Horizontal synchronizing (HP) signal circuit (AV-47, "Diagnosis Procedure")

NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[BASE AUDIO WITHOUT NAVIGATION]

NORMAL OPERATING CONDITION

Description

INFOID:000000000964592

BASIC OPERATIONS

Symptom	Possible cause	Possible solution
No image is displayed.	The brightness is at the lowest setting.	Adjust the brightness of the display.
	The system in the video mode.	Push <DISC> to change the mode.
	The display is turned off.	Push <Day/Night> to turn on the display.
The screen is too dim. The movement is slow.	The temperature in the interior of the vehicle is low.	Wait until the interior of the vehicle has warmed up.
Some pixels in the display are darker or brighter than others.	This condition is an inherent characteristic of liquid crystal displays.	This is not a malfunction.
Some menu items cannot be selected.	Some menu items become unavailable while the vehicle is driven.	Park the vehicle in a safe location, and then operate the multi AV system.

RELATED TO AUDIO

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

NOTE:

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

Symptom	Cause and Counter measure
Cannot play	Check if the CD was inserted correctly.
	Check if the CD is scratched or dirty.
	Check if there is condensation inside the player, and if there is, wait until the condensation is gone (about 1 hour) before using the player.
	If there is a temperature increase error, the player will play correctly after it returns to the normal temperature.
	If there is a mixture of music CD files (CD-DA data) and MP3/WMA files on a CD, only the music CD files (CD-DA data) will be played.
	Files with extensions other than ".MP3", ".WMA", ".mp3", or ".wma" cannot be played. In addition, the character codes and number of characters for folder names and file names should be in compliance with the specifications.
	Check if the disc or the file is generated in an irregular format. This may occur depending on the variation or the setting of MP3/WMA writing applications or other text editing applications.
	Check if the finalization process, such as session close and disc close, is done for the disc.
Poor sound quality	Check if the CD is protected by copyright.
	Check if the CD is scratched or dirty.
It takes a relatively long time before the music starts playing.	If there are many folder or file levels on the MP3/WMA CD, or if it is a multisession disc, some time may be required before the music starts playing.
Music cuts off or skips	The writing software and hardware combination might not match, or the writing speed, writing depth, writing width might not match the specifications. Try using the slowest writing speed.
Skipping with high bit rate files	Skipping may occur with large quantities if data such as for high bit rate data.

NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[BASE AUDIO WITHOUT NAVIGATION]

Symptom	Cause and Counter measure
Move immediately to the next song when playing	When a non-MP3/WMA file has been given an extension of ".MP3", ".WMA", ".mp3", or ".wma", or when play is prohibited by copyright protection, the player will skip to the next song.
The songs do not play back in the desired order.	The playback order is the order in which the files were written by the software, so the files might not play in the desired order.

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

NOTE:

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

PRECAUTION

PRECAUTIONS

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

INFOID:000000000964593

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the SRS and SB section of this Service Manual.

WARNING:

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SRS 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.

Precaution for Trouble Diagnosis

INFOID:000000000964594

AV COMMUNICATION SYSTEM

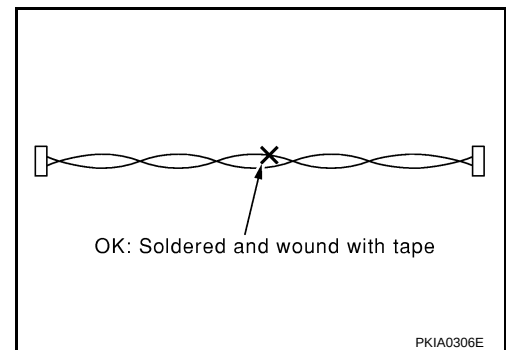
- Do not apply voltage of 7.0 V or higher to the measurement terminals.
- Use the tester with its open terminal voltage being 7.0 V or less.
- Be sure to turn ignition switch OFF and disconnect the battery cable from the negative terminal before checking the circuit.

Precaution for Harness Repair

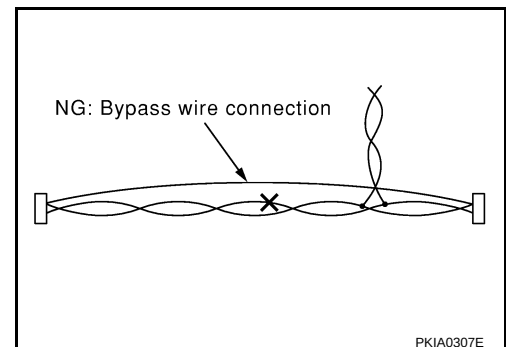
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AV COMMUNICATION SYSTEM

- 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.)



PREPARATION

< PREPARATION >

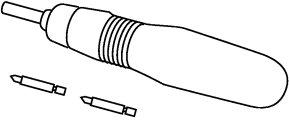
[BASE AUDIO WITHOUT NAVIGATION]

PREPARATION

PREPARATION

Commercial Service Tools

INFOID:000000000964596

Tool name	Description
Power tool  PBIC0191E	Loosening bolts and nuts

ON-VEHICLE REPAIR

AV CONTROL UNIT

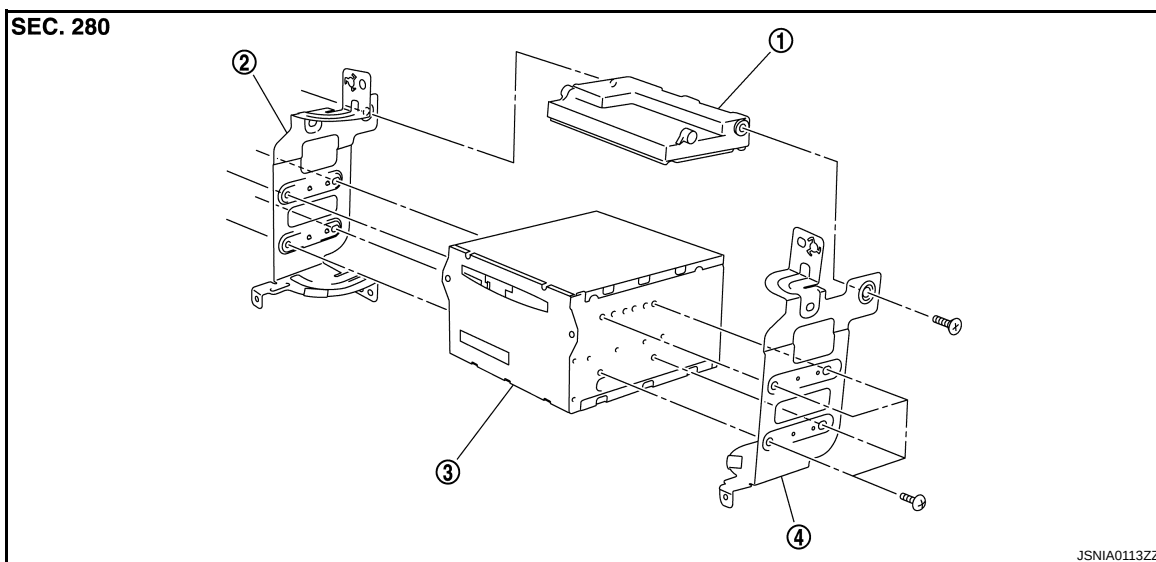
Exploded View

INFOID:000000000964597

REMOVAL

Refer to [JP-11](#), "Exploded View".

DISASSEMBLY



1. Unified meter and A/C amp.	2. Bracket LH	3. AV control unit
4. Bracket RH		

Removal and Installation

INFOID:000000000964598

REMOVAL

1. Remove Display unit.
2. Remove AV control unit with a unified meter and A/C amp. as a single unit from the body.
3. Remove bracket screws, and then remove AV control unit.

INSTALLATION

Installation is the reverse order of removal.

DISPLAY UNIT**Exploded View**

INFOID:000000000964599

Refer to [IP-11, "Exploded View"](#).

Removal and Installation

INFOID:000000000964600

REMOVAL

1. Remove cluster lid C. Refer to [IP-11, "Exploded View"](#).
2. Remove display unit with bracket as a single unit.

INSTALLATION

Installation is the reverse order of removal.

FRONT DOOR SPEAKER

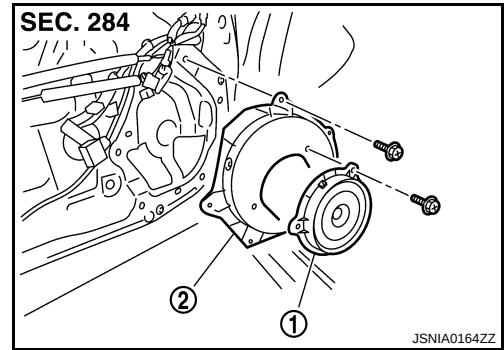
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[BASE AUDIO WITHOUT NAVIGATION]

FRONT DOOR SPEAKER

Exploded View

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1. Front door speaker
2. Speaker bracket

Removal and Installation

INFOID:0000000000964602

REMOVAL

1. Remove front door finisher. Refer to [INT-10. "Exploded View"](#).
2. Remove the front door speaker from speaker bracket.

INSTALLATION

Installation is the reverse order of removal.

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REAR DOOR SPEAKER

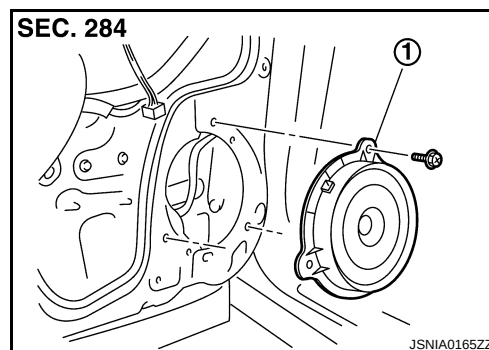
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[BASE AUDIO WITHOUT NAVIGATION]

REAR DOOR SPEAKER

Exploded View

INFOID:000000000964603



1. Rear door speaker

Removal and Installation

INFOID:000000000964604

REMOVAL

1. Remove rear door finisher. Refer to [INT-10, "Exploded View"](#).
2. Remove rear door speaker from rear door.

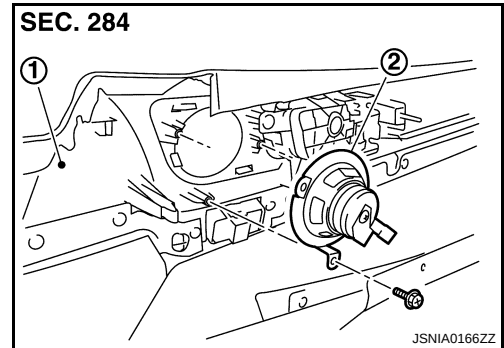
INSTALLATION

Installation is the reverse order of removal.

TWEETER

Exploded View

INFOID:0000000000964605



1. Door finisher
2. Tweeter

Removal and Installation

INFOID:0000000000964606

REMOVAL

1. Remove front door finisher. Refer to [INT-10. "Exploded View"](#).
2. Remove the tweeter from the front door finisher.

INSTALLATION

Installation is the reverse order of removal.

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AV

ANTENNA AMP.

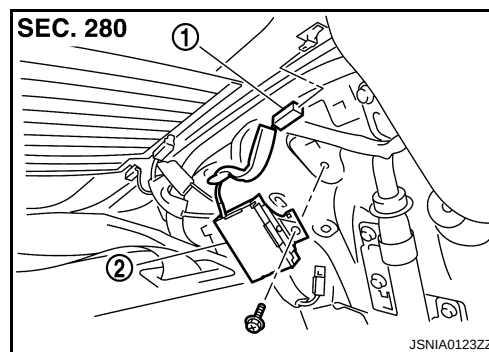
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[BASE AUDIO WITHOUT NAVIGATION]

ANTENNA AMP.

Exploded View

INFOID:000000000964607



1. AM-FM main connector
2. Antenna amp.

Removal and Installation

INFOID:000000000964608

REMOVAL

1. Remove rear pillar finisher LH. Refer to [INT-13. "Exploded View"](#).
2. Remove antenna amp. from rear pillar LH.

INSTALLATION

Installation is the reverse order of removal.

SATELLITE RADIO TUNER

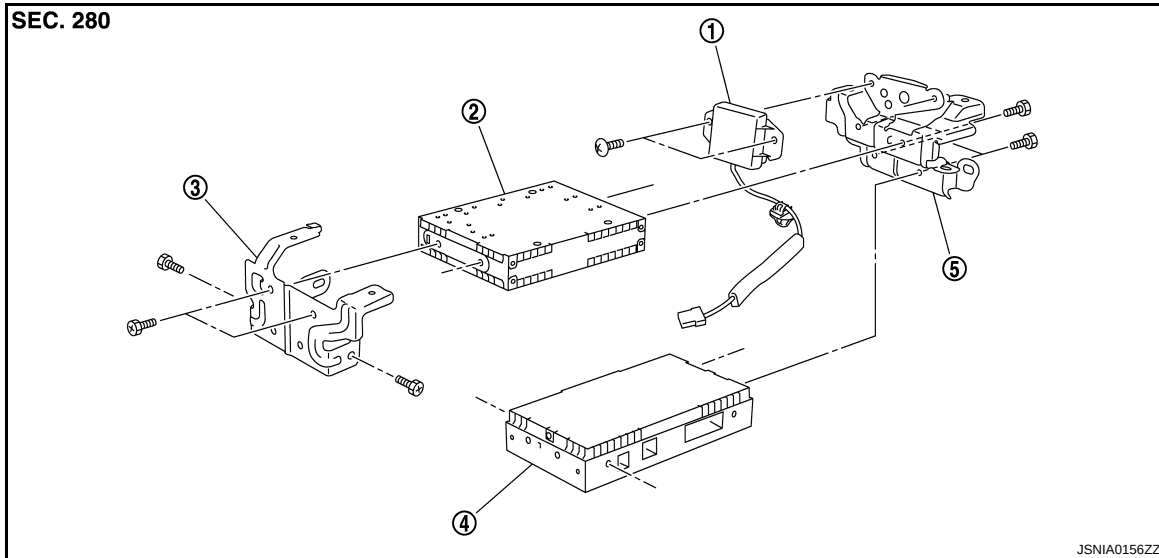
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[BASE AUDIO WITHOUT NAVIGATION]

SATELLITE RADIO TUNER

Exploded View

INFOID:000000000964609



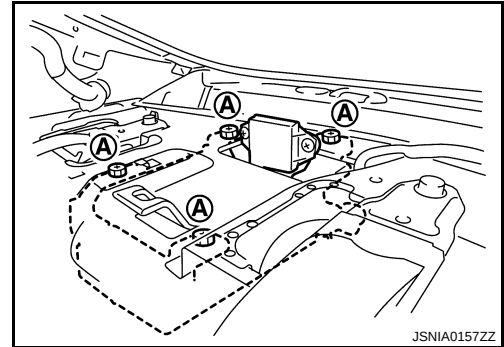
1. TEL antenna	2. Satellite radio tuner	3. Bracket (front)
4. TEL adapter unit	5. Bracket (rear)	

Removal and Installation

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REMOVAL

1. Remove trunk front finisher. Refer to [INT-26, "Exploded View"](#).
2. Remove rear parcel shelf finisher. Refer to [INT-18, "Exploded View"](#).
3. Remove screw (A) from inside the cabin, and remove TEL adapter unit and TEL antenna as a single unit from trunk room side.
4. Remove bracket screws and remove TEL adapter unit and satellite radio tuner.



INSTALLATION

Installation is the reverse order of removal.

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SATELLITE RADIO ANTENNA

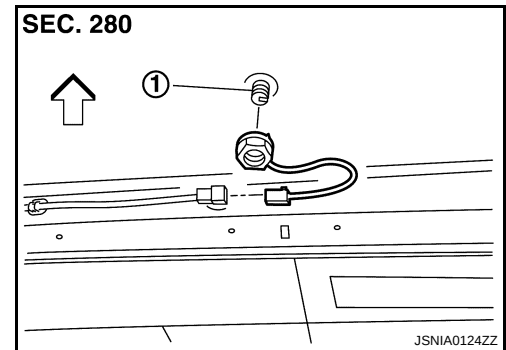
< ON-VEHICLE REPAIR >

[BASE AUDIO WITHOUT NAVIGATION]

SATELLITE RADIO ANTENNA

Exploded View

INFOID:000000000964611



1. Satellite radio antenna

Removal and Installation

INFOID:000000000964612

REMOVAL

1. Remove head lining assembly (rear) to secure work space between vehicle and headlining. Refer to [INT-22, "Exploded View"](#).
2. Remove nuts, and then remove satellite radio antenna from roof panel.

INSTALLATION

Installation is the reverse order of removal.

Roof antenna mounting nut  : 6.5 N·m (0.66 kg-m, 58 in-lb)

CAUTION:

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

MULTIFUNCTION SWITCH

< ON-VEHICLE REPAIR >

[BASE AUDIO WITHOUT NAVIGATION]

MULTIFUNCTION SWITCH

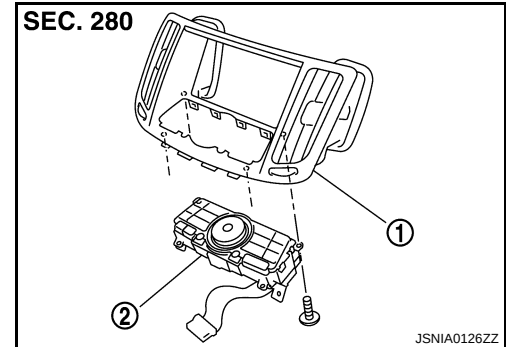
Exploded View

INFOID:0000000000964613

REMOVAL

Refer to [IP-11, "Exploded View"](#).

DISASSEMBLY



1. Center ventilator grille
2. Multifunction switch

Removal and Installation

INFOID:0000000000964614

REMOVAL

1. Remove cluster lid C. Refer to [IP-11, "Exploded View"](#).
2. Remove multi function switch with center ventilator grille as a single unit.
3. Remove multi function switch from center ventilator.

INSTALLATION

Installation is the reverse order of removal.

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PRESET SWITCH

< ON-VEHICLE REPAIR >

[BASE AUDIO WITHOUT NAVIGATION]

PRESET SWITCH

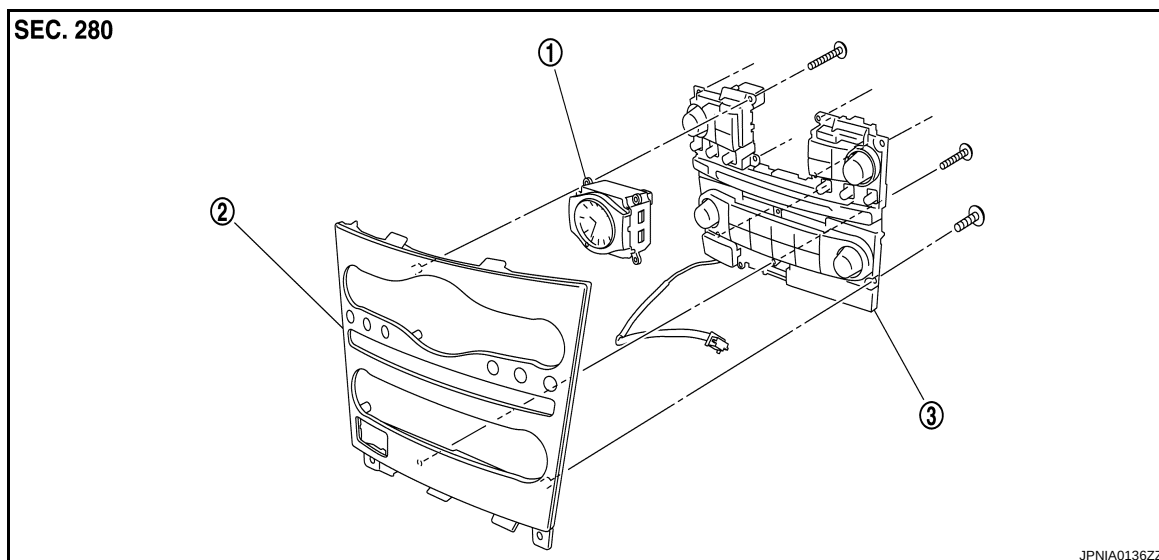
Exploded View

INFOID:000000000964615

REMOVAL

Refer to [IP-11, "Exploded View"](#).

DISASSEMBLY



1. Clock

2. Cluster lid C

3. Preset switch

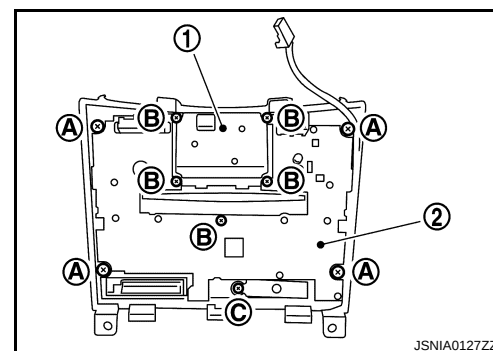
Removal and Installation

INFOID:000000000964616

REMOVAL

1. Remove cluster lid C. Refer to [IP-11, "Exploded View"](#).
2. Remove preset switch (2) from cluster lid C.

- 1. Clock
- A. Screw
- B. Screw
- C. Screw



INSTALLATION

Installation is the reverse order of removal.

NOTE:

When installing preset switch, do not allow the print wire that connects preset switch and multifunction switch to get caught in between AV control unit and preset switch.

STEERING SWITCH

< ON-VEHICLE REPAIR >

[BASE AUDIO WITHOUT NAVIGATION]

STEERING SWITCH

Exploded View

INFOID:000000000964617

Refer to [ST-15, "Exploded View"](#).

Removal and Installation

INFOID:000000000964618

REMOVAL

Refer to [ST-15, "Removal and Installation"](#).

INSTALLATION

Installation is the reverse order of removal.

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AUXILIARY INPUT JACKS

< ON-VEHICLE REPAIR >

[BASE AUDIO WITHOUT NAVIGATION]

AUXILIARY INPUT JACKS

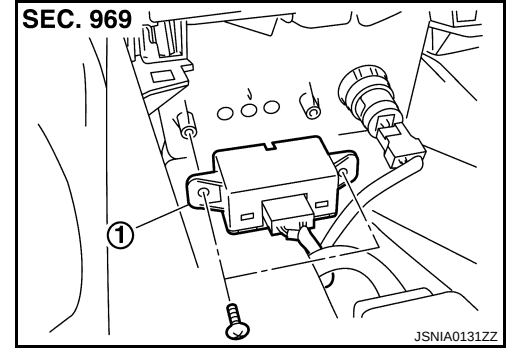
Exploded View

INFOID:000000000964619

REMOVAL

Refer to [IP-22, "Exploded View"](#).

DISASSEMBLY



1. Auxiliary input jacks

Removal and Installation

INFOID:000000000964620

REMOVAL

1. Remove center console. (M/T models) Refer to [INT-20, "Exploded View"](#).
Remove center console cup. (A/T models) Refer to [INT-20, "Exploded View"](#).
2. Remove auxiliary input jacks from center console. (M/T models)
Remove auxiliary input jacks from center console cup. (A/T models)

INSTALLATION

Installation is the reverse order of removal.

ANTENNA FEEDER (RADIO)

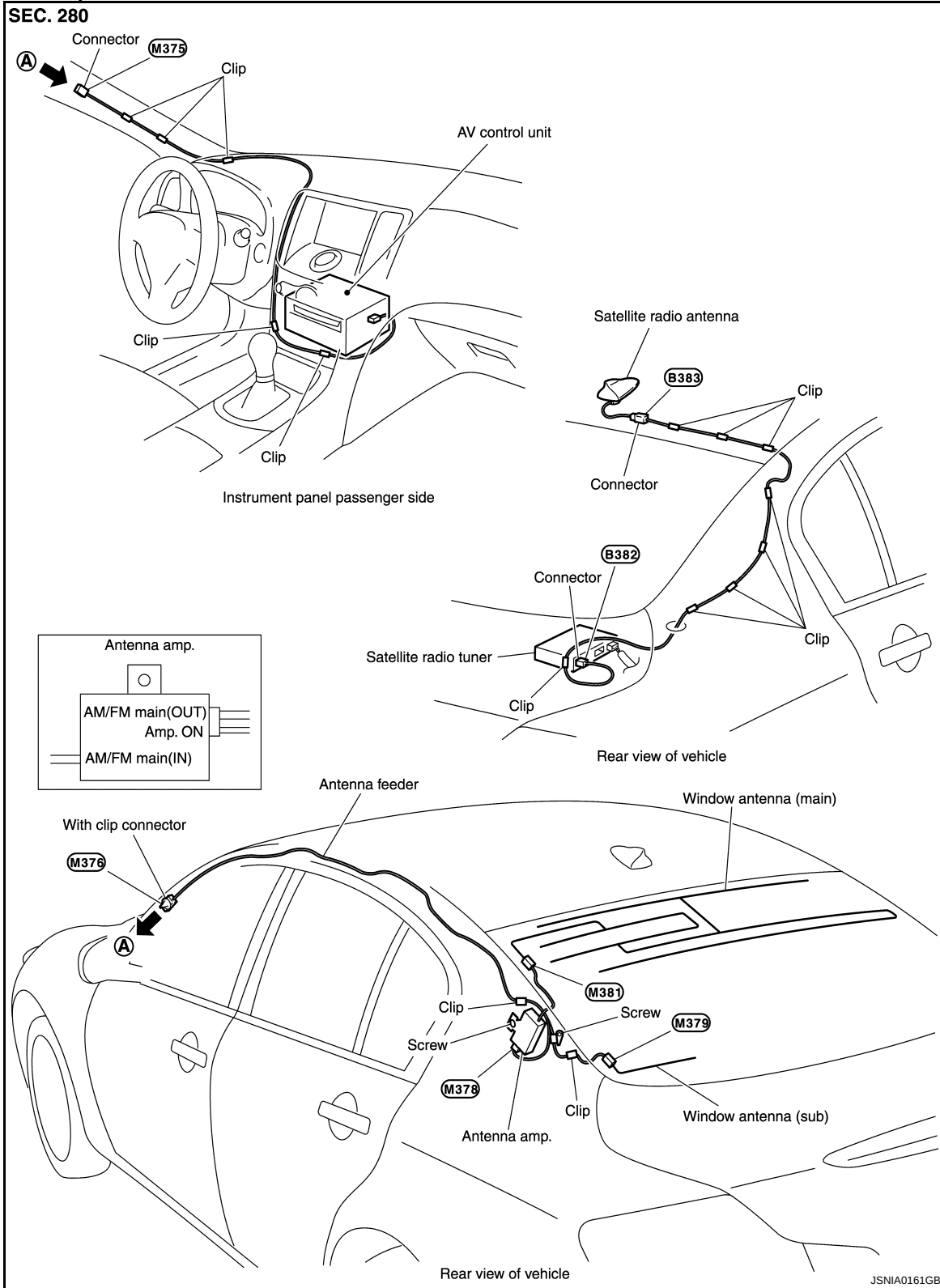
< ON-VEHICLE REPAIR >

[BASE AUDIO WITHOUT NAVIGATION]

ANTENNA FEEDER (RADIO)

Harness Layout

INFOID:0000000000964621



ANTENNA FEEDER (SATELLITE RADIO)

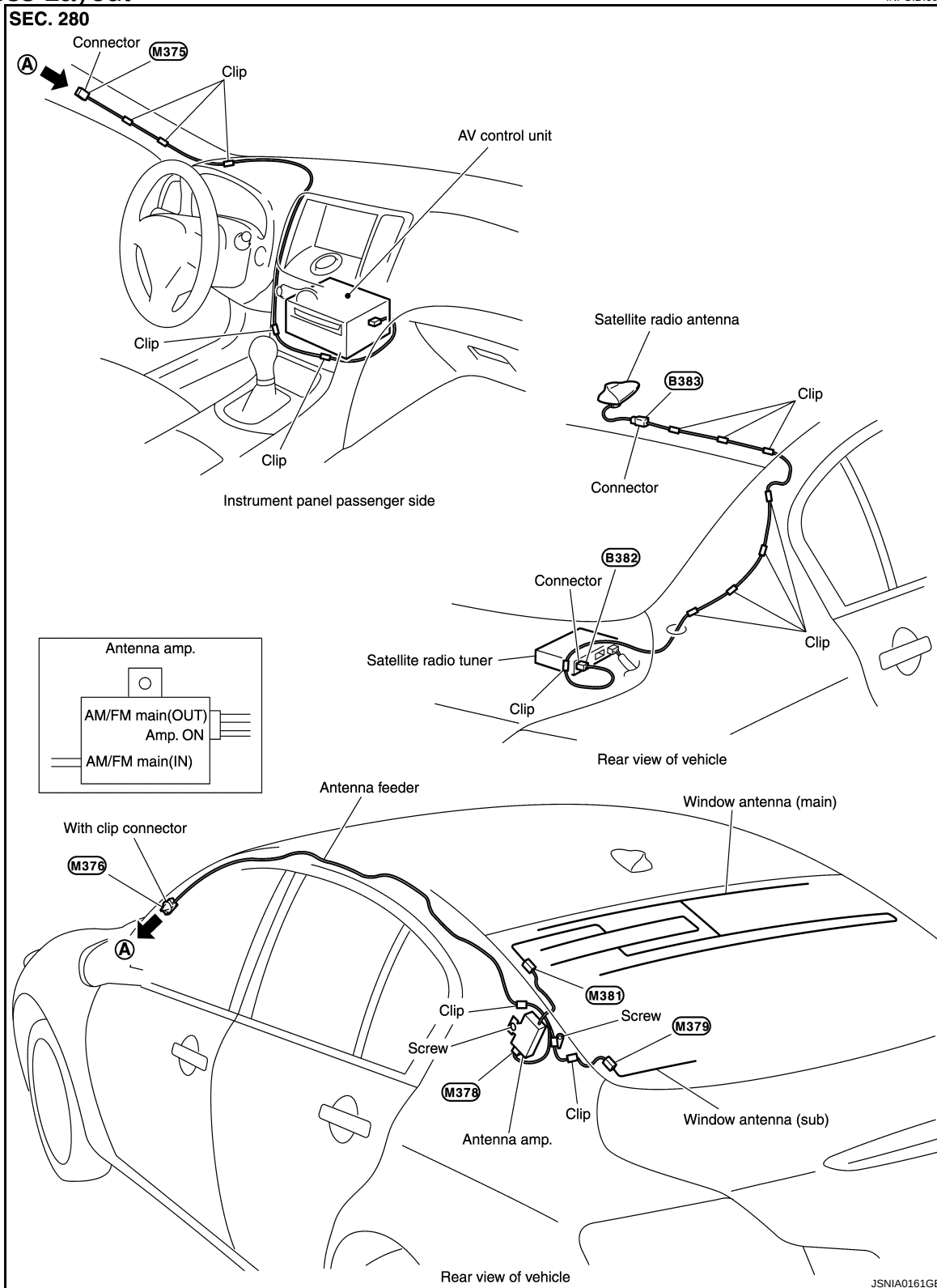
< ON-VEHICLE REPAIR >

[BASE AUDIO WITHOUT NAVIGATION]

ANTENNA FEEDER (SATELLITE RADIO)

Harness Layout

INFOID:000000000964622



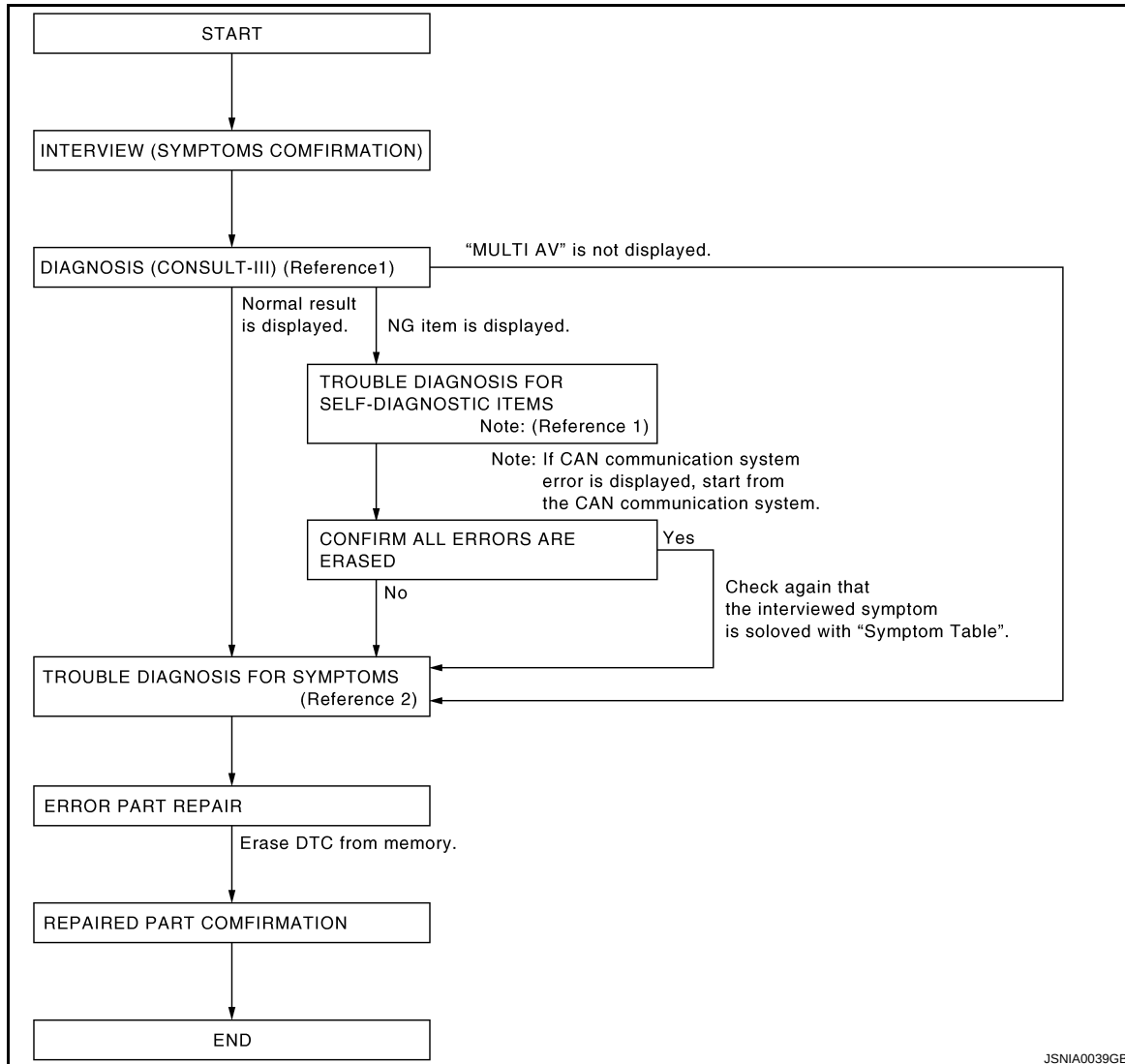
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:000000000964623

OVERALL SEQUENCE



- Reference 1... Refer to [AV-145, "CONSULT - III Function"](#).
- Reference 2... Refer to [AV-285, "Symptom Table"](#).

DETAILED FLOW

1.CHECK SYMPTOM

Check the malfunction symptoms by performing the following items.

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

>> GO TO 2.

2.SELF-DIAGNOSIS (CONSULT-III)

1. Connect CONSULT-III and perform a self-diagnosis for "MULTI AV".

NOTE:

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[BOSE AUDIO WITHOUT NAVIGATION]

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

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

Is any DTC No. displayed?

YES >> GO TO 3.

NO >> GO TO 4.

3.CHECK SELF-DIAGNOSIS RESULTS (CONSULT-III)

1. Check the DTC No. indicated in the self-diagnosis results.
2. Perform the relevant diagnosis referring to the DTC Index. Refer to [AV-209. "DTC Index"](#).

NOTE:

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

>> GO TO 5.

4.PERFORM DIAGNOSIS BY SYMPTOM

Perform the relevant diagnosis referring to the diagnosis chart by symptom. Refer to [AV-285. "Symptom Table"](#).

>> GO TO 5.

5.REPAIR OR REPLACE MALFUNCTIONING PARTS

Repair or replace the identified malfunctioning parts.

NOTE:

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

>> GO TO 6.

6.CHECK AFTER REPAIR

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

Is any DTC No. displayed?

YES >> GO TO 3.

NO >> GO TO 7.

7.FINAL CHECK

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

No symptoms?

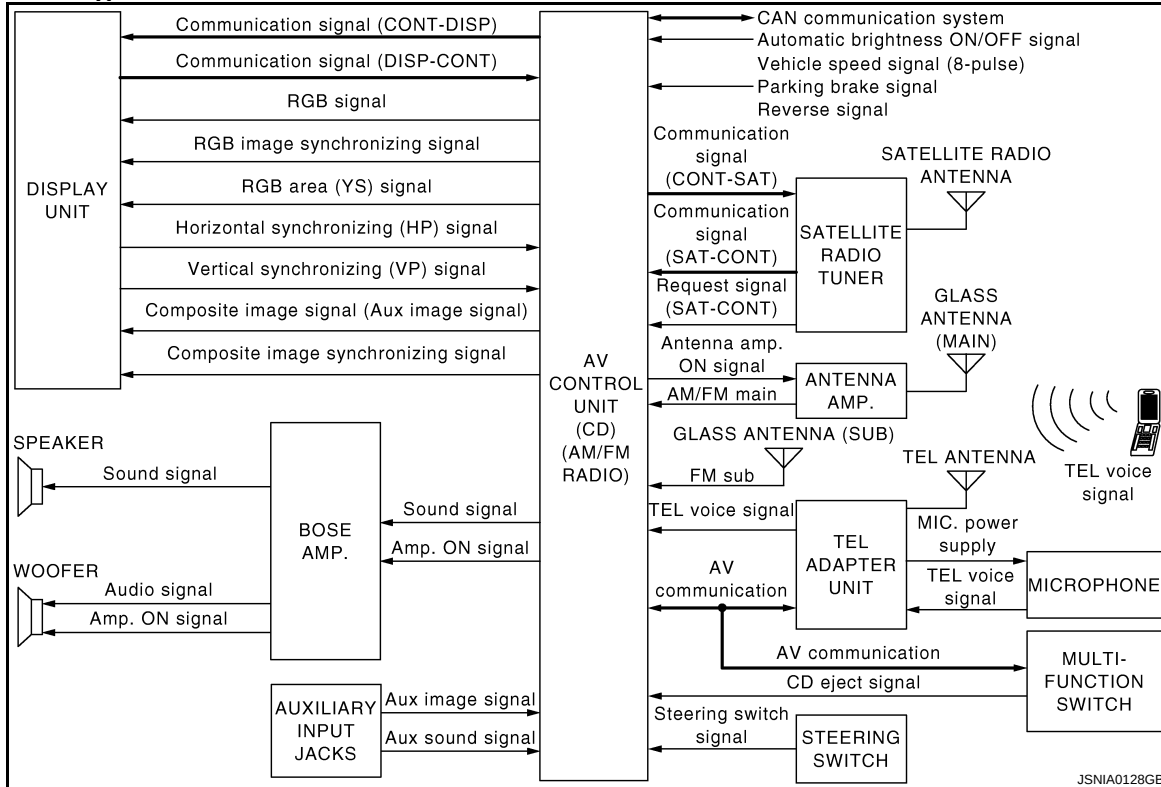
YES >> INSPECTION END

NO >> GO TO 4.

FUNCTION DIAGNOSIS

MULTI AV SYSTEM

System Diagram



NOTE:

The name MULTIFUNCTION SWITCH indicates the integration of PRESET SWITCH and MULTIFUNCTION SWITCH virtually.

System Description

Multi AV system means that the following systems are integrated.

System name	System explanation
AUDIO SYSTEM	AV-132, "System Description"
VEHICLE INFORMATION SYSTEM	- Indicates the status of audio, climate control system, fuel economy and maintenance. - AV control unit displays the fuel consumption status while receiving data signal through CAN communication from ECM, unified meter and A/C amp and BCM.
HANDS-FREE PHONE SYSTEM	AV-135, "System Description"
SATELLITE RADIO SYSTEM	Refer to "SATELLITE RADIO SYSTEM" shown below.
AUXILIARY INPUT SYSTEM	Refer to "AUXILIARY INPUT SYSTEM" shown below.

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

MULTI AV SYSTEM

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

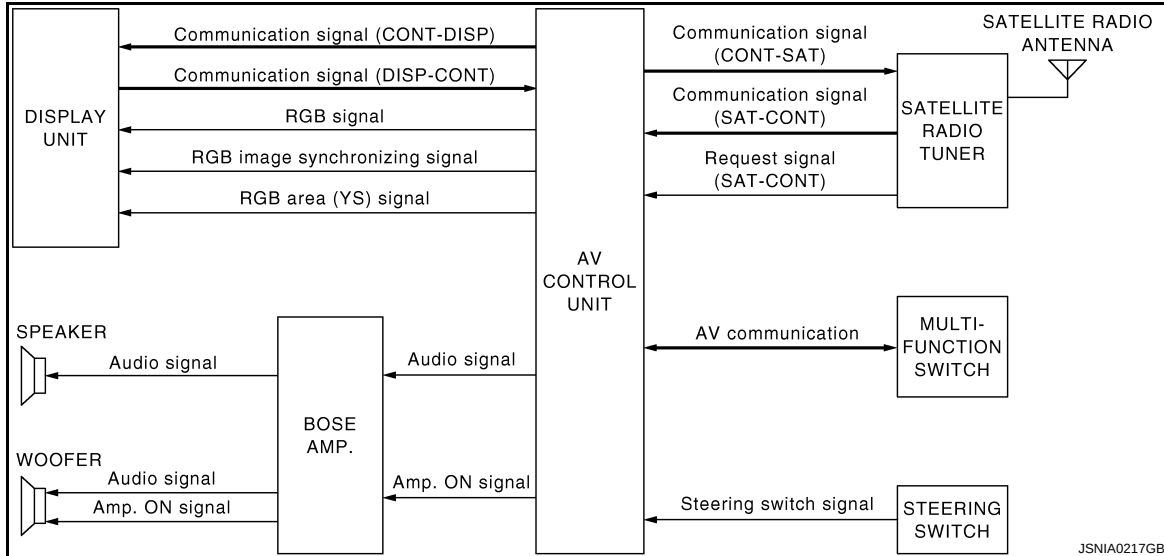
NOTE:

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

- CONSULT-III self-diagnosis: refer to [AV-145. "CONSULT - III Function"](#).
- Refer to [AV-138. "Diagnosis Description"](#) for on board self-diagnosis.
- On board self-diagnosis of TEL adapter unit can be performed.
- Refer to [AV-150. "Diagnosis Description"](#) for on board self-diagnosis.

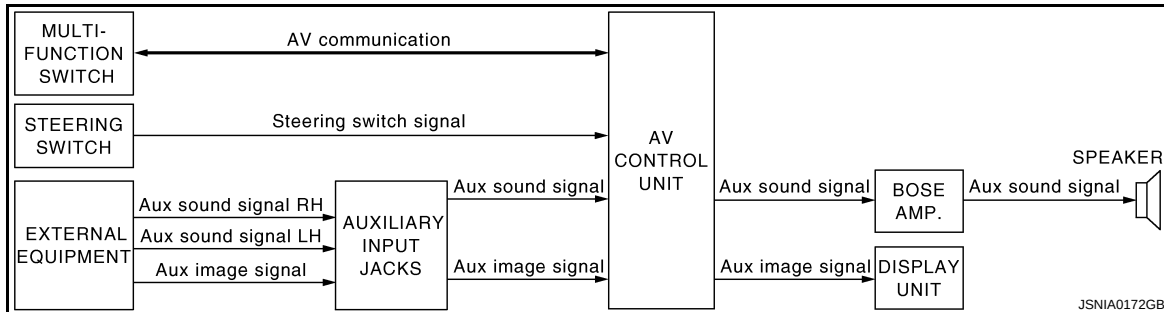
SATELLITE RADIO SYSTEM

- Satellite radio tuner is controlled by communication signal and request signal with AV control unit.
- Audio signal (satellite radio) is received by satellite antenna and sent to AV control unit. Audio signal (satellite radio) is sent from AV control unit to BOSE amp. and sent from BOSE amp. to each speaker.



AUXILIARY INPUT SYSTEM

- Image and sound can be output from an external device by connecting a device with auxiliary input jacks.
- Operation can be performed with multifunction switch and steering switch. Multifunction switch sends operation signal to AV control unit with communication.



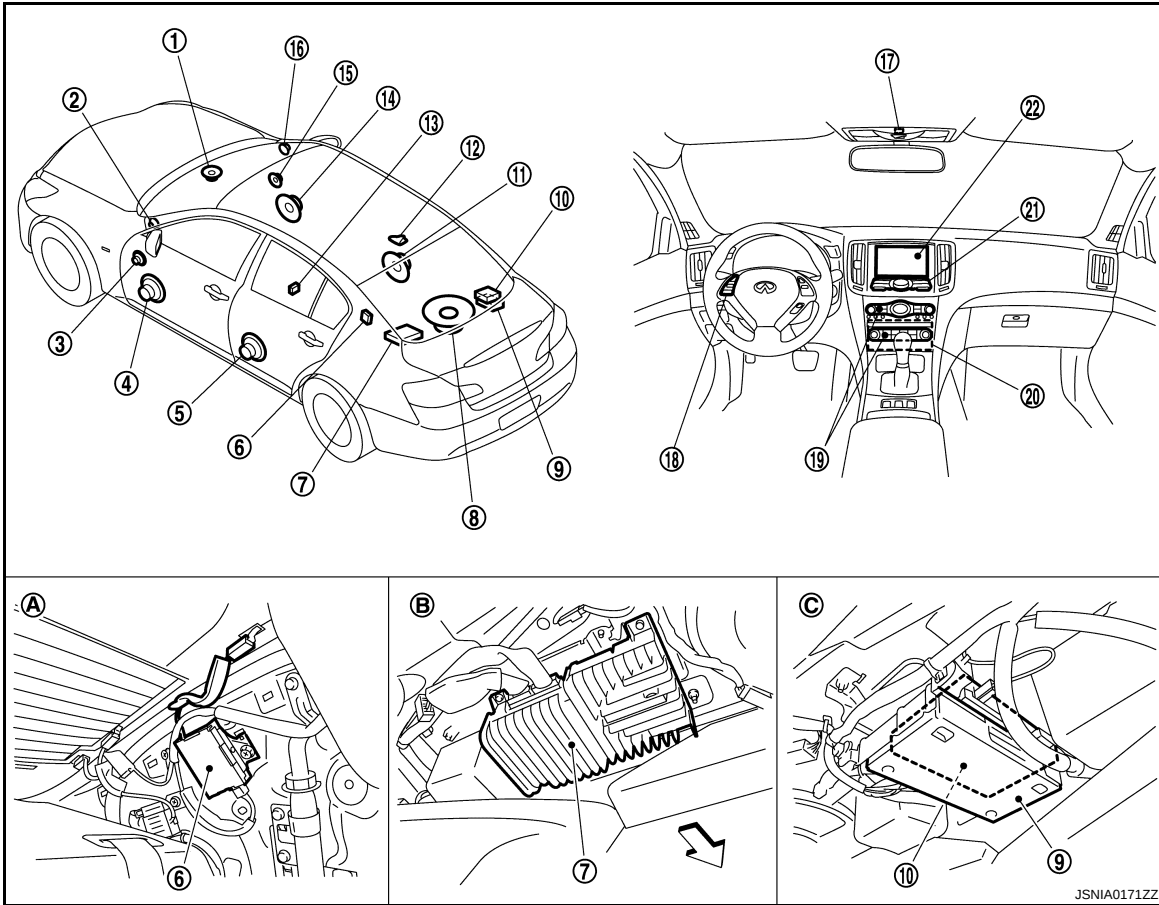
Component Parts Location

INFOID:000000000964626

MULTI AV SYSTEM

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]



1. Center speaker	2. Tweeter LH	3. Front door squawker LH
4. Front door woofer LH	5. Rear door speaker LH	6. Antenna amp.
7. BOSE amp.	8. Woofer	9. TEL adapter unit
10. Satellite radio tuner	11. Rear door speaker RH	12. Satellite radio antenna
13. Auxiliary input jacks	14. Front door woofer RH	15. Front door squawker RH
16. Tweeter RH	17. Microphone	18. Steering switch
19. Preset switch	20. AV control unit	21. Multifunction switch
22. Display unit		
A. Within rear pillar finisher LH	B. Rear parcel shelf lower part (left side)	C. Lower part of rear parcel shelf (on the right side)

Component Description

INFOID:000000000964627

AV

MULTI AV SYSTEM

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

Part name	Description
AV CONTORL UNIT	- It is the master unit of the MULTI AV system, and it is connected to each control unit by means of communication. It operates each system according to communication signals from the AV control unit. - AV control unit includes audio function and vehicle information function. - It is connected to ECM and unified meter and A/C amp via CAN communication to obtain necessary information for the vehicle information function. - It inputs the automatic brightness ON/OFF signals that are required for the display dimming control. - It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake). - Auxiliary image signal is input from the auxiliary input jacks.
DISPLAY UNIT	- Display image is controlled by the serial communication from AV control unit. - RGB image signal is input from AV control unit (RGB, RGB area and RGB synchronizing). - Synchronize signal (HP, VP) is output to AV control unit. - Auxiliary image signal is input from the auxiliary input jacks.
BOSE AMP.	Inputs power (amp ON) and sound signal from A/V control unit, and outputs sound signal to each speaker.
FRONT DOOR WOOFER	- Outputs sound signal from BOSE amp. - Outputs low-pitched sound.
FRONT DOOR SQUAWKER	- Outputs sound signal from BOSE amp. - Outputs midrange sound.
REAR DOOR SPEAKER	- Outputs sound signal from BOSE amp. - Outputs high, mid and low range sounds.
TWEETER	- Outputs sound signal from BOSE amp. - Outputs high range sound.
CENTER SPEAKER	- Outputs sound signal from BOSE amp. - Outputs high, mid and low range sounds.
WOOFER	- Outputs sound signal from BOSE amp. - Outputs low-pitched sound. - Power (amp ON signal) is supplied from BOSE amp.
MULTIFUNCTION SWITCH	- Operation panel is equipped with the centralized switch where audio and auxiliary input operations are integrated. - Connected with AV control unit via cable, and operation signal is sent to AV control unit via AV communication.
PRESET SWITCH	- Operation panel is equipped with the centralized switch where audio and air conditioner operations are integrated. - Connected with multifunction switch via cable, and operation signal is sent to AV control unit via AV communication. - The CD ejection operating signal is performed by hardwire.
STEERING SWITCH	- Operations such as audio, hands-free phone are possible. - Steering switch signal (operation signal) is output to AV control unit.
MICROPHONE	- Used only when hands-free phone is operated. - Outputs Mic. signal (TEL voice signal) to the TEL adapter unit. - The power (Mic. power supply) is supplied from the TEL adapter unit.
AUXILIARY INPUT JACKS	The image signal of the auxiliary input is output via the AV control unit to the display, and it outputs the sound signal to the AV control unit.
ANTENNA AMP.	- Radio signal received by glass antenna is amplified and sent to AV control unit. - Power (antenna amp ON signal) is supplied from AV control unit.
TEL ADAPTER UNIT	- Inputs the TEL voice signal from TEL antenna and outputs it to the AV control unit. - It is connected with the AV control unit via AV communication and controlled with the AV control unit.
TEL ANTENNA	Receives the TEL voice signal and outputs it to the TEL adapter unit.

MULTI AV SYSTEM

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

Part name	Description
SATELLITE RADIO TUNER	- Inputs the satellite radio signal from satellite radio antenna and outputs the sound signal to the AV control unit. - It is controlled with the AV control unit and serial communication (communication signal and request signal).
SATELLITE RADIO ANTENNA	Receives the satellite radio signal and outputs it to the satellite radio tuner.

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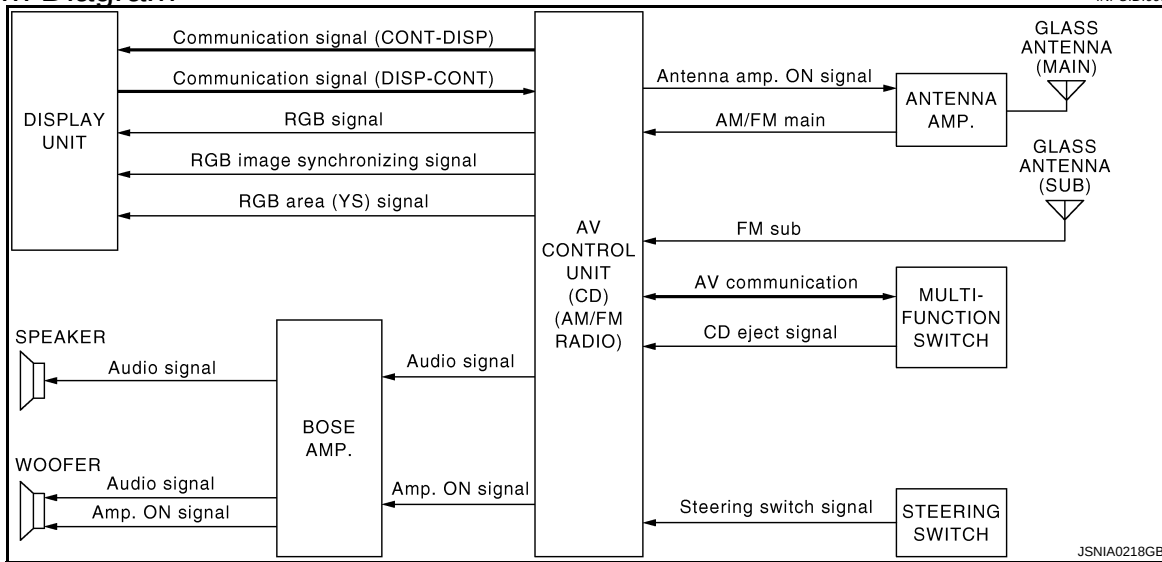
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AUDIO SYSTEM

System Diagram



System Description

INFOID:0000000000964629

The audio system is equipped with following function. Each function can be operated with the multifunction switch, preset switch or steering switch. It indicates the operation status of AUDIO to the display.

Function
AM/FM radio
CD

Function description

Operating signal

Operation of the audio system can be performed with the multi function switch, preset switch or steering switch.

- Operating signal is transmitted to AV control unit with AV communication when it is operated by multi function switch or preset switch. The CD ejection operating signal is performed by hardware.
- Operating signal is transmitted to AV control unit with steering switch signal when it is operated by steering switch.

Screen display

- The display switching of the screen is performed with the communication signal between the display and the AV control unit.
- The image signal to display operating condition is performed with RGB signal, RGB area signal and RGB image synchronizing signal.

AM/FM Radio Mode

- AM/FM radio tuner is built into AV control unit.
- Audio signal is received by glass antenna, next it is amplified by antenna amp, and finally it is input to AV control unit. Audio signal is input to BOSE amp. and BOSE amp. outputs to each speaker for AV control unit.

CD Mode

- CD function is built into AV control unit.
- AV control unit outputs audio signal to BOSE amp. and BOSE amp. outputs to each speaker when CD is inserted to AV control unit.

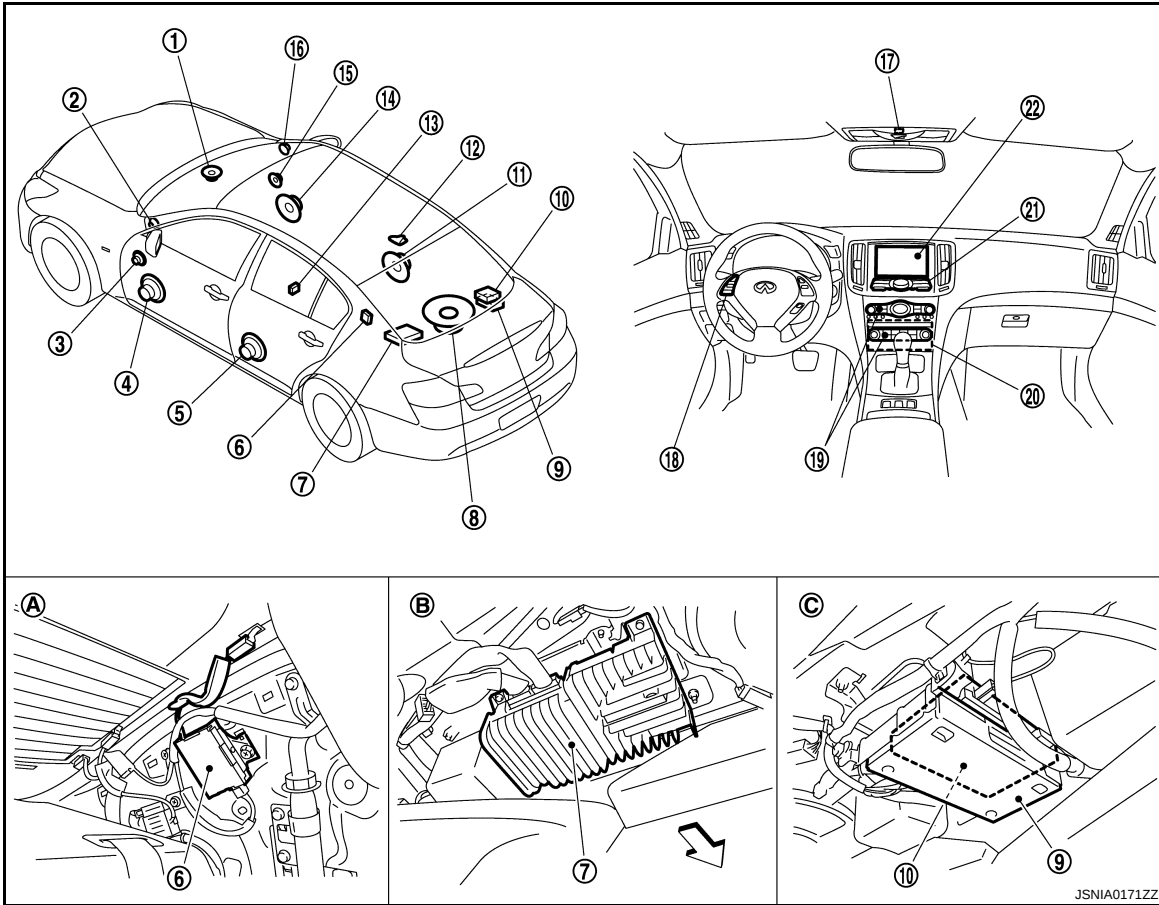
Component Parts Location

INFOID:0000000000964630

AUDIO SYSTEM

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]



1. Center speaker	2. Tweeter LH	3. Front door squawker LH
4. Front door woofer LH	5. Rear door speaker LH	6. Antenna amp.
7. BOSE amp.	8. Woofer	9. TEL adapter unit
10. Satellite radio tuner	11. Rear door speaker RH	12. Satellite radio antenna
13. Auxiliary input jacks	14. Front door woofer RH	15. Front door squawker RH
16. Tweeter RH	17. Microphone	18. Steering switch
19. Preset switch	20. AV control unit	21. Multifunction switch
22. Display unit		
A. Within rear pillar finisher LH	B. Rear parcel shelf lower part (left side)	C. Lower part of rear parcel shelf (on the right side)

Component Description

INFOID:000000000964631

Part name	Description
AV CONTORL UNIT	- The AM/FM receiving function and the CD playing function are equipped. - Audio signal is output to BOSE amp. from each function.
DISPLAY UNIT	- Display image is controlled by the serial communication from AV control unit. - RGB image signal (audio operation condition) is input from AV control unit.
BOSE AMP.	Inputs power (amp ON) and sound signal from A/V control unit, and outputs sound signal to each speaker.
FRONT DOOR WOOFER	- Outputs sound signal from BOSE amp. - Outputs low-pitched sound.
FRONT DOOR SQUAWKER	- Outputs sound signal from BOSE amp. - Outputs midrange sound.
REAR DOOR SPEAKER	- Outputs sound signal from BOSE amp. - Outputs high, mid and low range sounds.

AUDIO SYSTEM

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

Part name	Description
TWEETER	• Outputs sound signal from BOSE amp. • Outputs high range sound.
CENTER SPEAKER	• Outputs sound signal from BOSE amp. • Outputs high, mid and low range sounds.
WOOFER	• Outputs sound signal from BOSE amp. • Outputs low-pitched sound. • Power (amp ON signal) is supplied from BOSE amp.
MULTIFUNCTION SWITCH	• Each audio operation can be operated. • Connected with AV control unit via cable, and operation signal is sent to AV control unit via AV communication.
PRESET SWITCH	• Each audio operation can be operated. • It is connected to the multifunction switch by means of communication. The operation signal is transmitted to the AV control unit. • The CD ejection operating signal is performed by hardwire.
STEERING SWITCH	• Each audio operation can be operated. • Steering switch signal (operation signal) is output to AV control unit.
ANTENNA AMP.	• Radio signal received by glass antenna is amplified and sent to AV control unit. • Power (antenna amp ON signal) is supplied from AV control unit.
SATELLITE RADIO TUNER	• Inputs the satellite radio signal from satellite radio antenna and outputs the sound signal to the AV control unit. • It is controlled with the AV control unit and serial communication (communication signal and request signal).
SATELLITE RADIO ANTENNA	Receives the satellite radio signal and outputs it to the satellite radio tuner.

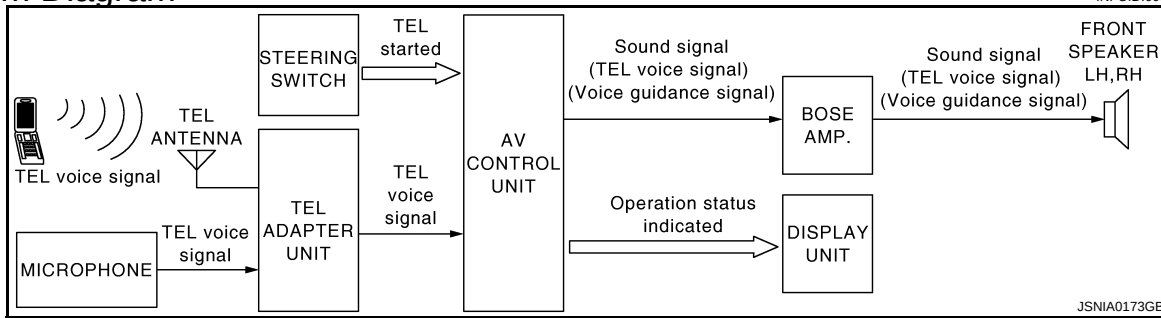
HANDS-FREE PHONE SYSTEM

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

HANDS-FREE PHONE SYSTEM

System Diagram



System Description

- TEL adapter unit is controlled with AV communication from AV control unit.
- The connection between portable telephone and TEL adapter unit is performed with Bluetooth®.
- The voice guidance signal is input from the TEL adapter unit to the AV control unit and output via BOSE amp. to the front speaker and center speaker when operating the TEL.
- TEL adapter unit has the on board self-diagnosis function. Refer to [AV-150. "Diagnosis Description"](#).

When receiving a call

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

When a call is originated

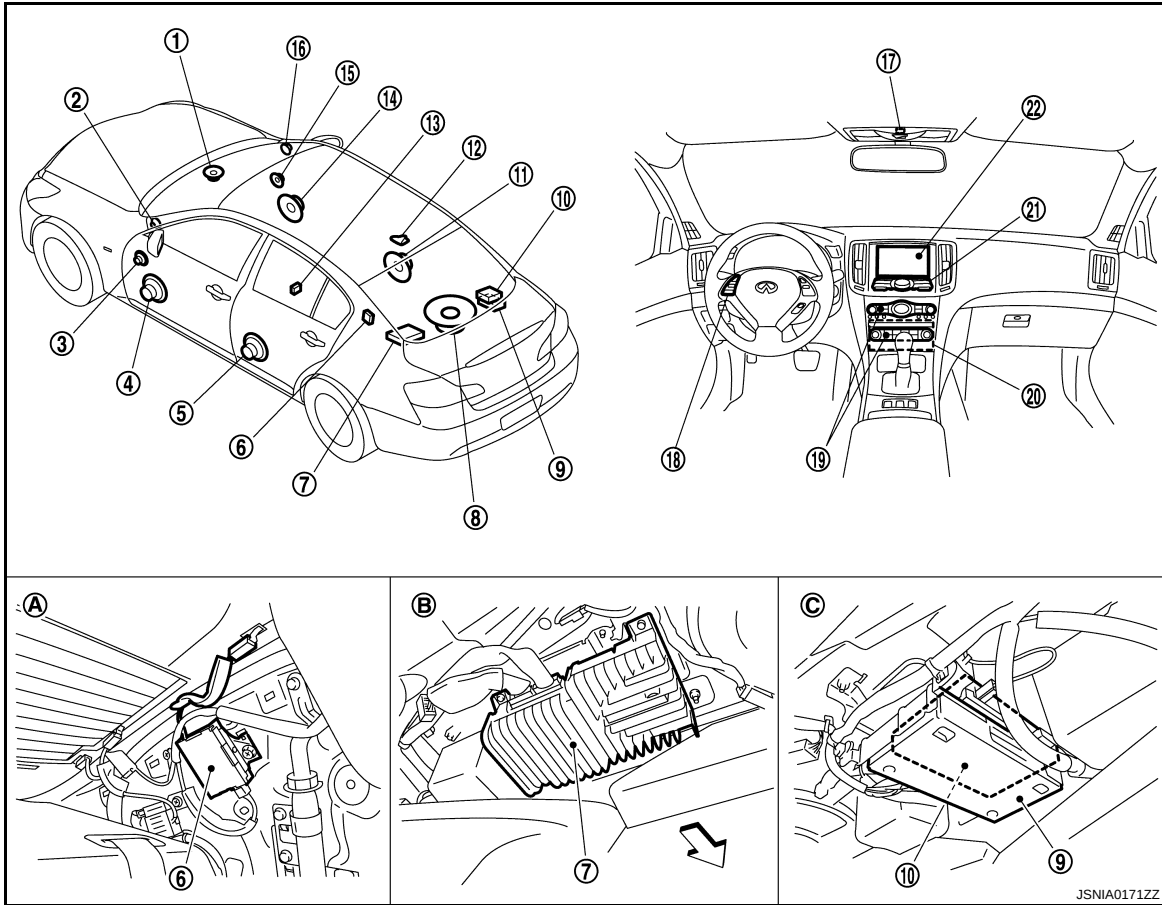
Speech sound (TEL voice signal) is input from the microphone to the TEL adapter unit. It is input from the TEL antenna via Bluetooth communication to the portable telephone. It is transmitted to the phone on the other side. The operation is performed with the steering switch or voice recognition function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

Component Parts Location

HANDS-FREE PHONE SYSTEM

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]



1. Center speaker	2. Tweeter LH	3. Front door squawker LH
4. Front door woofer LH	5. Rear door speaker LH	6. Antenna amp.
7. BOSE amp.	8. Woofer	9. TEL adapter unit
10. Satellite radio tuner	11. Rear door speaker RH	12. Satellite radio antenna
13. Auxiliary input jacks	14. Front door woofer RH	15. Front door squawker RH
16. Tweeter RH	17. Microphone	18. Steering switch
19. Preset switch	20. AV control unit	21. Multifunction switch
22. Display unit		
A. Within rear pillar finisher LH	B. Rear parcel shelf lower part (left side)	C. Lower part of rear parcel shelf (on the right side)

Component Description

INFOID:000000000964635

Part name	Description
AV CONTORL UNIT	- Inputs TEL voice signal or voice guidance signal from TEL adapter unit and outputs it to BOSE amp. during reception. - Connects with TEL adapter unit and AV communication and controls hands free phone system.
DISPLAY UNIT	- Display image is controlled by the serial communication from AV control unit. - Inputs RGB image signal (RGB, RGB area and RGB synchronizing) from AV control unit and displays the status of hands free phone system.
BOSE AMP.	Inputs TEL voice signal or voice guidance signal from AV control unit and outputs it to front speaker and center speaker.
FRONT DOOR WOOFER	Outputs the TEL voice signal or voice guidance signal from Bose amp.
FRONT DOOR SQUAWKER	
TWEETER	

HANDS-FREE PHONE SYSTEM

[BOSE AUDIO WITHOUT NAVIGATION]

< FUNCTION DIAGNOSIS >

Part name	Description
PRESET SWITCH	- Adjust the sound when using TEL. - The operation signal is transmitted to the AV control unit via AV communication.
STEERING SWITCH	- The hands free phone system can be operated. - Steering switch signal (operation signal) is output to AV control unit.
MICROPHONE	- Uses when operating the hands-free phone. - Outputs Mic. signal (TEL voice signal) to the TEL adapter unit. - The power (Mic. power supply) is supplied from the TEL adapter unit.
TEL ADAPTER UNIT	- Receives the steering switch signal (operation signal) from the steering switch. - Inputs the TEL voice signal from TEL antenna during reception and outputs it to the AV control unit. - Inputs the TEL voice signal from microphone during speech recognition and outputs it to the TEL antenna. - Controlled by AV communication sent from AV control unit.
TEL ANTENNA	Connects with the portable telephone via Bluetooth® and communicates the TEL voice signal.

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DIAGNOSIS SYSTEM (AV CONTROL UNIT)

Diagnosis Description

INFOID:000000000964636

Multifunction switch and preset switch self-diagnosis function

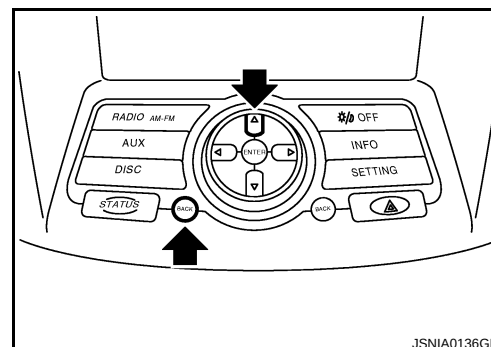
The ON/OFF operation (continuity) of each switch in the multifunction switch and preset switch can be checked.

Self-diagnosis mode

- Press the "BACK" switch and the "UP" switch of the 4-direction switches within 10 seconds after turning the ignition switch from OFF to ACC and hold them for 3 seconds or more. The buzzer sounds, all indicators of the preset switch illuminate, and the self-diagnosis mode starts.
- The continuity of each switch at the ON position can be checked by pressing the switch. The buzzer sounds if the switch is normal.

CAUTION:

The hazard switch and CD eject switch cannot be checked.



JSNIA0136GB

Finishing self-diagnosis mode

Self-diagnosis mode is canceled when turning the ignition switch OFF.

MULTI AV SYSTEM on board diagnosis function

- The AV control unit diagnosis function starts up with multifunction switch operation and the AV control unit performs a diagnosis for each unit in the system during the on board diagnosis.
- Perform a CONSULT-III diagnosis if the on board diagnosis does not start, e.g., the screen does not display anything, the multifunction switch does not function. etc.

On board diagnosis

Description

- The trouble diagnosis function has a self-diagnosis mode for conducting trouble diagnosis automatically and a confirmation/adjustment mode for operating manually.
- Self-diagnosis mode performs the AV control unit diagnosis and the connection diagnosis between each of the units that make up the system, and it indicates the results to the display.
- The confirmation/adjustment mode allows the technician to check, modify or adjust the vehicle signals and set values, as well as to monitor the system error records and system communication status. The check, modify or adjust actions generally require human intervention and judgment (the system cannot make judgment automatically).

On board diagnosis item

Mode	Description
Self Diagnosis	- AV control unit diagnosis - Perform the connection diagnosis between each of the units.

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

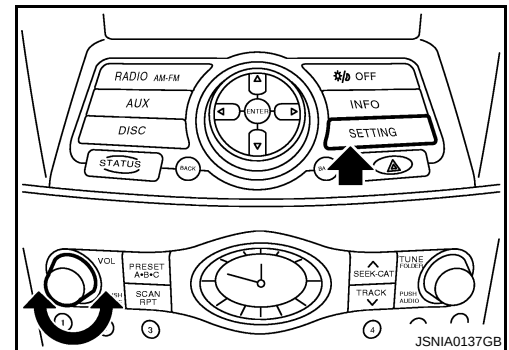
< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

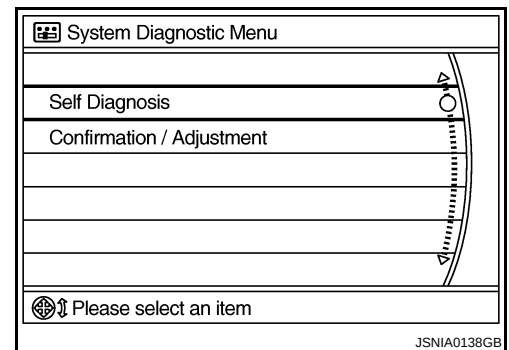
	Mode	Description
Confirmation/ Adjustment	Display Diagnosis	The confirmations of the tint with the color spectrum bar display and shading of color with the gradation bar display can be performed.
	Vehicle Signals	Diagnosis of signals can be performed for vehicle speed, parking brake, lights, ignition switch, and reverse.
	Speaker Test	The connection of a speaker can be confirmed by test tone.
	Climate Control	Start auto air conditioner system self-diagnosis.
	Error History	The system malfunction and the frequency when occurred in the past are displayed. When the malfunctioning item is selected, the time and place that the selected malfunction last occurred are displayed.
	Vehicle CAN Diagnosis	The transmitting/receiving of CAN communication can be monitored.
	AV COMM Diagnosis	The communication condition of each unit of Multi AV system can be monitored.
	Delete Unit Connection Log	Erase the connection history of unit and error history
	Initialize Settings	Initializes the AV control unit memory.

STARTING PROCEDURE

1. Start the engine.
2. Turn the audio system OFF.
3. While pushing the "SETTING" button, turn the volume control dial clockwise or counterclockwise for 40 clicks or more. (When the self-diagnosis mode is started, a short beep will be heard.)
 - Shifting from current screen to previous screen is performed by pushing "BACK" button.

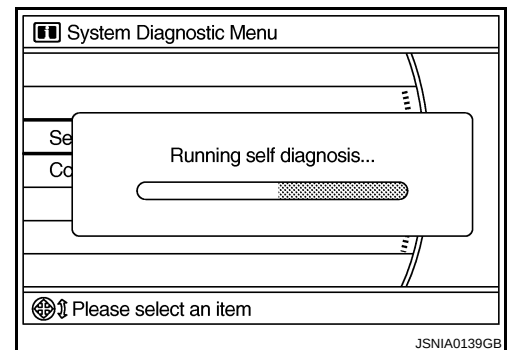


4. The trouble diagnosis initial screen is displayed, and then the items of "Self Diagnosis" and "Confirmation/Adjustment" can be selected.



Self-diagnosis mode

1. Start the self-diagnosis function and select "Self-diagnosis".
 - Self-diagnosis subdivision screen is displayed, and the self-diagnosis mode starts.
 - The bar graph visible on the center of the self-diagnosis subdivision screen indicates progress of the trouble diagnosis.



DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< FUNCTION DIAGNOSIS >

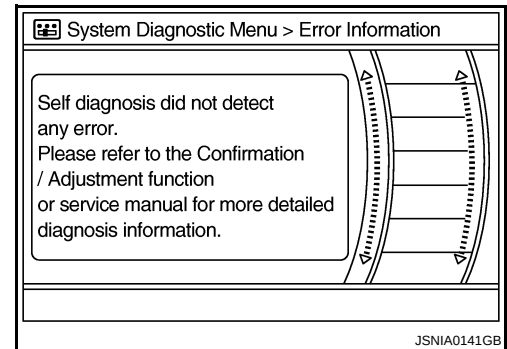
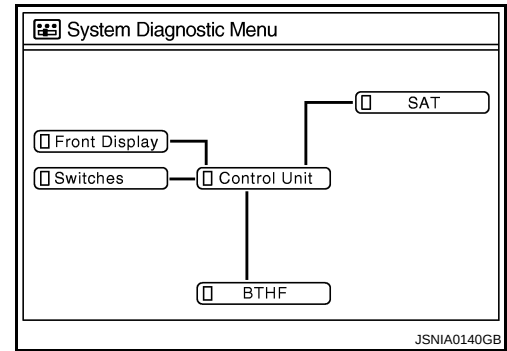
[BOSE AUDIO WITHOUT NAVIGATION]

- Diagnosis results are displayed after the self-diagnosis is completed. The unit names and the connection lines are color-coded according to the diagnostic results.

Diagnosis results	Unit	Con- nection line
Normal	Green	Green
Connection malfunction	Gray	Yellow
Unit malfunction ^{Note}	Red	Green

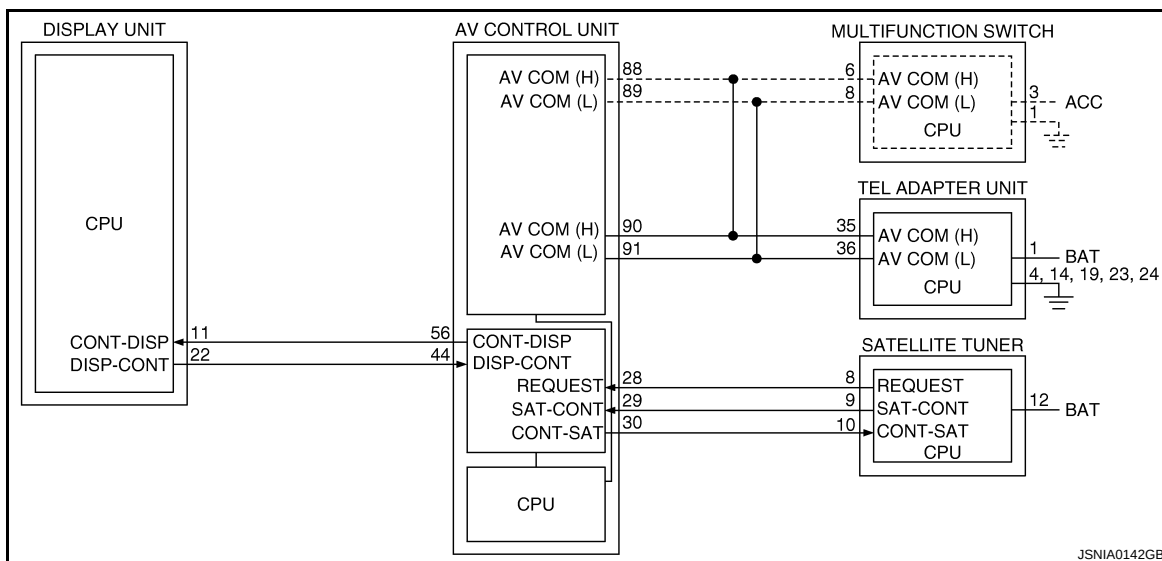
NOTE:

- Only the control unit (AV control unit) is displayed in red.
- Replace AV control unit if "Self-Diagnosis did not run because of a control unit malfunction" is indicated. The symptom is AV control unit internal error. Refer to [AV-530, "Exploded View"](#).
- If multiple errors occur at the same time for a single unit, the screen switch colors are determined according to the following order of priority: red > yellow > gray.
- The comments of the self-diagnosis results can be viewed with a component in the diagnosis result screen.



Detection range of self-diagnosis mode

- The self-diagnosis mode allows the technician to diagnose the connection in the communication line between AV control unit and each unit and the internal operation of the AV control unit.
- Because the start condition of diagnosis function is a switch operation, the on board diagnosis function cannot be started up if any malfunction is detected in the communication circuit between AV control unit and multifunction switch.



Self-diagnosis results

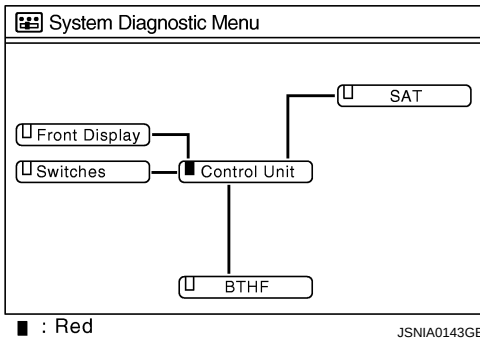
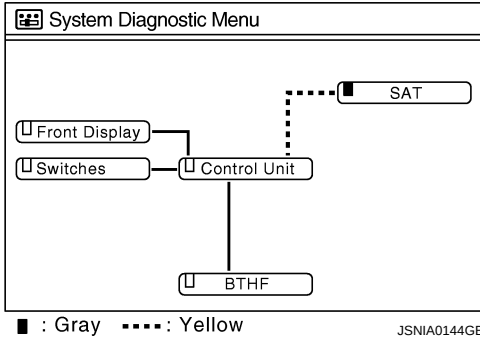
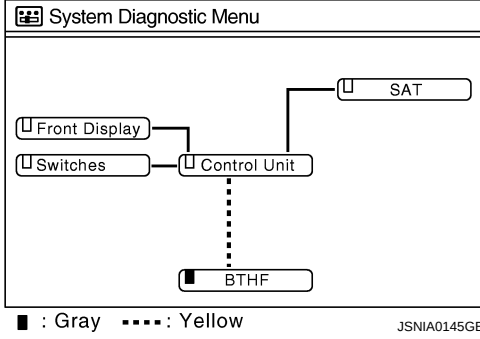
Check the applicable display at the following table, and then repair the malfunctioning parts.

Self-diagnosis result chart

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

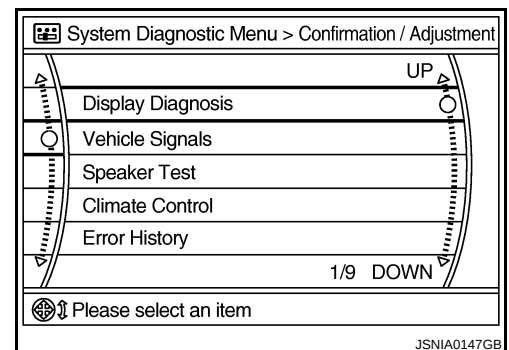
< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

Area with yellow connection lines	Description	Possible malfunction location / Action to take
 ■ : Red JSNIA0143GB	AV control unit malfunction is detected	Replace the AV control unit
 ■ : Gray ----: Yellow JSNIA0144GB	Satellite radio tuner power supply and ground circuit malfunction is detected	Satellite radio tuner power supply and ground
 ■ : Gray ----: Yellow JSNIA0145GB	- TEL adapter unit power supply and ground circuit malfunction is detected - Malfunction is detected on communication circuit between AV control unit and TEL adapter unit - Malfunction is detected on communication signal between AV control unit and TEL adapter unit	- TEL adapter unit power supply and ground - Communication circuit between AV control unit and TEL adapter unit

CONFIRMATION/ADJUSTMENT MODE

- Start the diagnosis function and select "Confirmation/Adjustment". The confirmation/adjustment mode indicates where each item can be checked or adjusted.
- Select each switch on the "Confirmation/Adjustment Mode" screen to display the relevant trouble diagnosis screen. Press the "RETURN" switch to return to the initial Confirmation/Adjustment Mode screen.

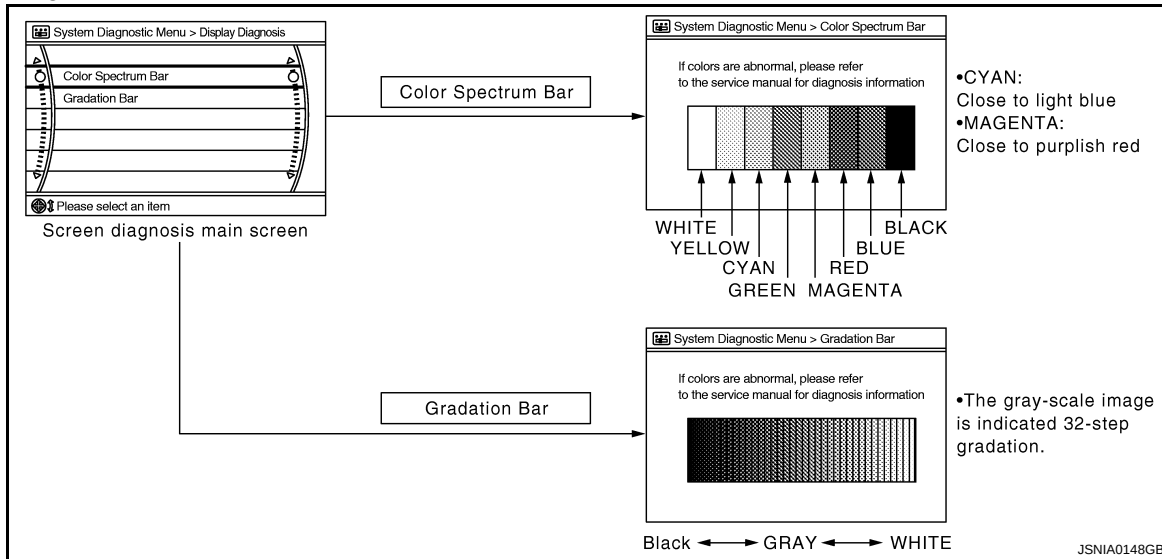


DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

Display Diagnosis

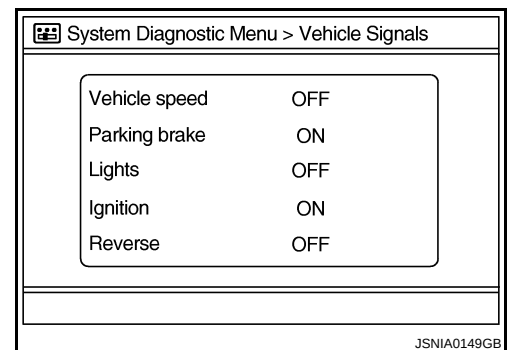


The tint of the color bar indication is as per the following list if RGB signal error is detected.

R (red) signal error : Light blue (Cyan) tint
G (green) signal error : Purple (Magenta) tint
B (blue) signal error : Yellow tint

Vehicle Signals

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



Diagnosis item	Display	Vehicle status	Remarks
Vehicle speed	ON	Vehicle speed > 0 km/h (0 MPH)	Changes in indication may be delayed by approximately 1.5 seconds. This is normal.
		Vehicle speed = 0 km/h (0 MPH)	
Parking brake	ON	Parking brake is applied.	
	OFF	Parking brake is released.	
Lights	ON	Light switch ON	Block the light beam from the auto light optical sensor.
	OFF	Light switch OFF	
Ignition	ON	Ignition switch ON	—
	OFF	Ignition switch in ACC position	
Reverse	ON	Selector lever in R position	Changes in indication may be delayed by approximately 1.5 seconds. This is normal.
	OFF	Selector lever in any position other than R	

Speaker Test

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< FUNCTION DIAGNOSIS >

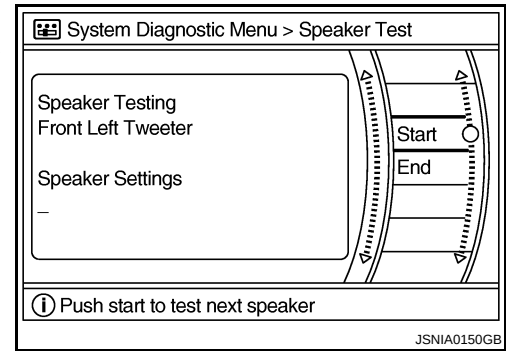
[BOSE AUDIO WITHOUT NAVIGATION]

Select "SPEAKER DIAGNOSIS" to display the Speaker Diagnosis screen. Press "START and NEXT" to generate a test tone in a speaker. Press "Start" to generate a test tone in the next speaker. Press "End" to stop the test tones.

NOTE:

The frequency of test tone emitted from each speaker is as follows.

Tweeter	: 3 kHz
Front door speaker	: 300 Hz
Rear door speaker	: 1 kHz



Climate Control

Refer to "HEATER & AIR CONDITIONING CONTROL SYSTEM" for details.

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 SW 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.

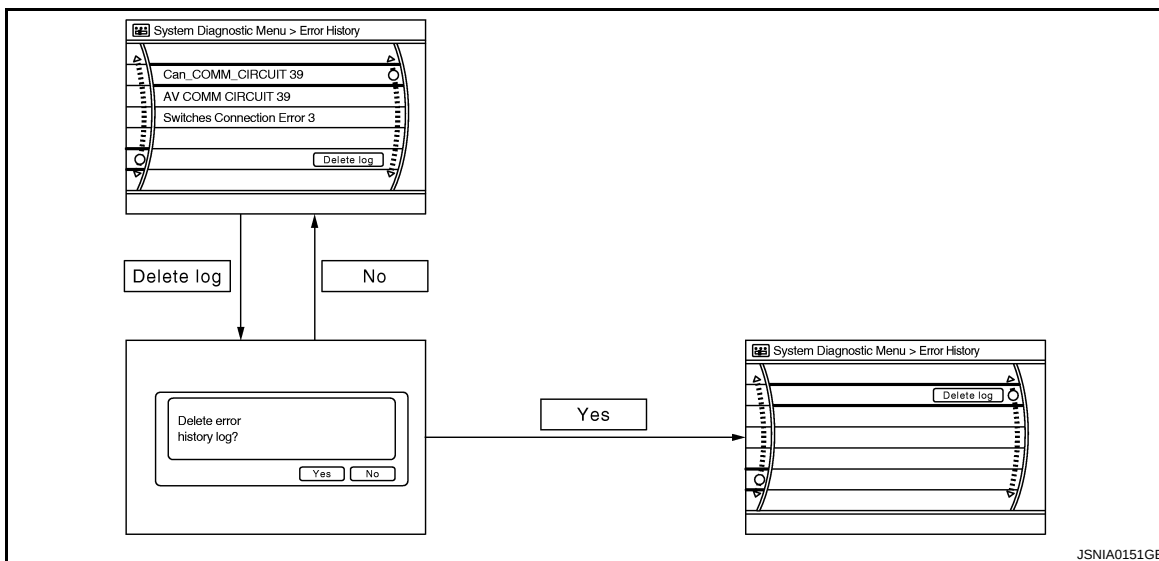
Count up method A

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

Count up method B

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

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



Error item

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

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< FUNCTION DIAGNOSIS >

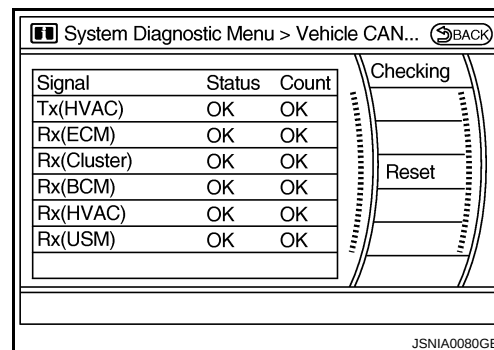
[BOSE AUDIO WITHOUT NAVIGATION]

Error item	Description	Possible malfunction factor/Action to take
CAN COMM CIRCUIT	CAN communication malfunction is detected	Perform diagnosis with CONSULT-III, and then repair the malfunctioning parts according to the diagnosis results. Refer to AV-145, "CONSULT - III Function" .
CONTROL UNIT (CAN)	CAN initial diagnosis malfunction is detected	Replace the AV control unit
CONTROL UNIT (AV)	AV communication circuit initial diagnosis malfunction is detected	
FLASH-ROM Error Of Control Unit	AV control unit malfunction is detected	
CAN Controller Memory Error		
Front Display Connection Error	• Display unit power supply and ground circuit malfunction is detected • Malfunction is detected on communication circuit between display unit and AV control unit • Malfunction is detected on communication signal between display unit and AV control unit	• Display unit power supply and ground circuit • Communication circuit between display unit and AV control unit
SAT Connection Error	• Satellite radio tuner power supply and ground circuit malfunction is detected • Malfunction is detected on communication signal between satellite radio tuner and AV control unit	Satellite radio tuner power supply and ground circuit
• AV COMM CIRCUIT • Switches Connection Error	• Multifunction switch power supply and ground circuit malfunction is detected • A malfunction is detected in communication circuit between AV control unit and multifunction switch • A malfunction is detected in communication signal between AV control unit and multifunction switch	• Multifunction switch power supply and ground circuits • Communication circuit between AV control unit and multifunction switch
• AV COMM CIRCUIT • H/F Unit Connection Error	• TEL adapter unit power supply and ground circuit malfunction is detected • Malfunction is detected in communication circuit between TEL adapter unit and AV control unit • Malfunction is detected in communication signal between TEL adapter unit and AV control unit	TEL adapter unit power supply and ground circuit
• AV COMM CIRCUIT • Switches Connection Error • H/F Unit Connection Error	Malfunction is detected in communication circuit between AV control unit and the branch point multifunction switch and TEL adapter unit	Communication circuit between AV control unit and the branch point multifunction switch and TEL adapter unit

Vehicle CAN Diagnosis

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

Items	Display (Current)	Malfunction counter (Past)
Tx (HVAC)	OK / UNKWN	OK / 0 - 39
Rx (ECM)	OK / UNKWN	OK / 0 - 39
Rx (Cluster)	OK / UNKWN	OK / 0 - 39



DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< FUNCTION DIAGNOSIS >

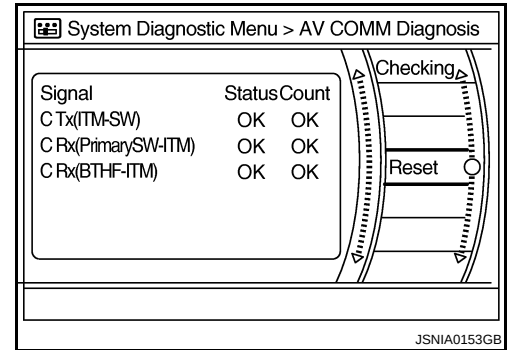
[BOSE AUDIO WITHOUT NAVIGATION]

Items	Display (Current)	Malfunction counter (Past)
Rx (BCM)	OK / UNKWN	OK / 0 - 39
Rx (HVAC)	OK / UNKWN	OK / 0 - 39
Rx (USM)	OK / UNKWN	OK / 0 - 39

AV COMM Diagnosis

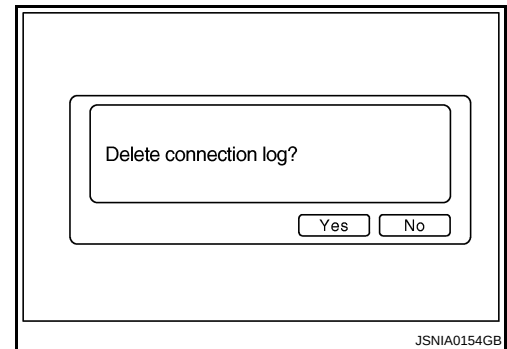
- Displays the communication status between AV control unit (master unit) and each unit.
- The error counter displays "OK" if any malfunction was not detected in the past and displays "0" if a malfunction is detected. It increases by 1 if the condition is normal at the next ignition switch ON cycle.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

Items	Status (Current)	Counter (Past)
C Tx(ITM-SW)	OK / UNKWN	OK / 0 - 39
C Rx(PrimarySW-ITM)	OK / UNKWN	OK / 0 - 39
C Rx(XM-ITM)	OK / UNKWN	OK / 0 - 39



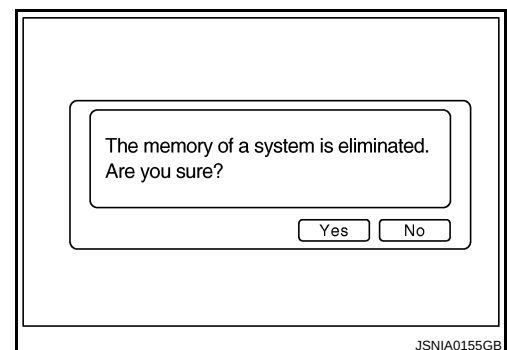
Delete Unit Connection Log

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



Initialize Settings

Initializes the AV control unit memory.



CONSULT - III Function

INFOID:000000000964637

CONSULT-III functions

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

Diagnosis mode	Description
SELF-DIAG RESULTS	Performs the connection diagnosis of communication circuit between AV control unit and navigation system and displays the current and past malfunctions collectively.
DATA MONITOR	The diagnosis of vehicle signal that is input to the AV control unit can be performed.

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< FUNCTION DIAGNOSIS >

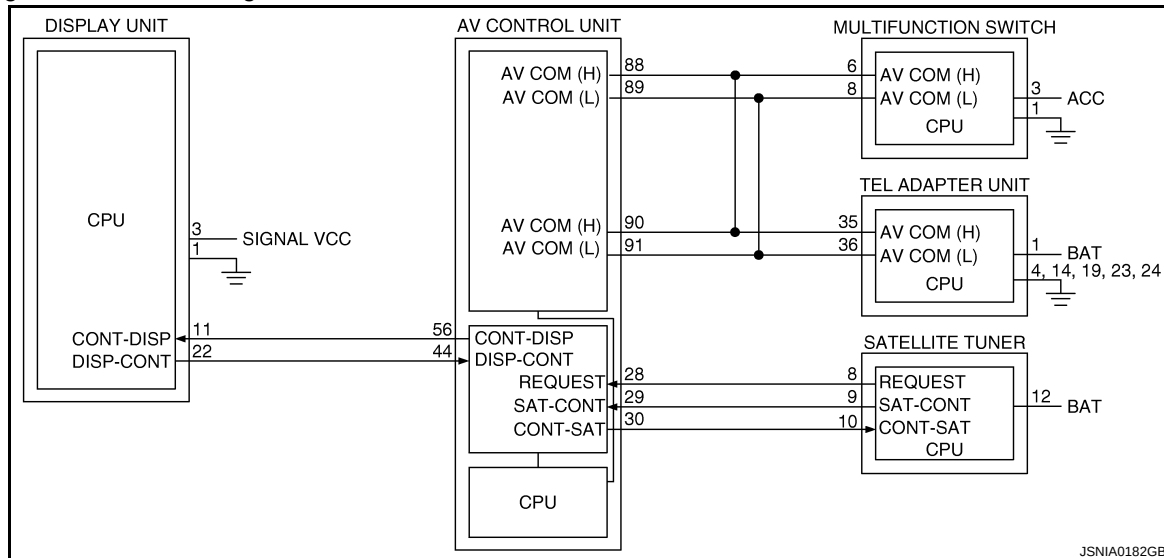
[BOSE AUDIO WITHOUT NAVIGATION]

Diagnosis mode	Description
AV COMM MONITOR	The communication status of navigation system can be monitored.
ECU PART NUMBER	The part number of AV control unit can be checked.

Self-diagnosis results

- In CONSULT-III self-diagnosis, self-diagnosis results and error history are displayed collectively.
- The current malfunction indicates "CRNT". The past malfunction indicates "PAST".
- The timing is displayed as "0" if any of the error codes [U1000], [U1010], [U1300] and [U1310] is detected. The counter increases by 1 if the condition is normal at the next ignition switch ON cycle.

Self-diagnosis detection range



Self-diagnosis results display item

Error item	Description	Possible malfunction factor/Action to take
CAN COMM CIRCUIT [U1000]	CAN communication malfunction is detected	Perform diagnosis with CONSULT-III, and then repair the malfunctioning parts according to the diagnosis results. Refer to AV-145, "CONSULT - III Function" .
CONTROL UNIT (CAN) [U1010]	CAN initial diagnosis malfunction is detected	Replace the AV control unit
CONTROL UNIT (AV) [U1310]	AV communication circuit initial diagnosis malfunction is detected	
Control Unit FLASH-ROM [U1200]	AV control unit malfunction is detected	
CAN CONT [U1216]		
FRONT DISP CONN [U1243]	• Display unit power supply and ground circuit malfunction is detected • Malfunction is detected on communication circuit between display unit and AV control unit • Malfunction is detected on communication signal between display unit and AV control unit	• Display unit power supply and ground circuit • Communication circuit between display unit and AV control unit
SAT CONN [U1255]	• Satellite radio tuner power supply and ground circuit malfunction is detected • Malfunction is detected on communication signal between satellite radio tuner and AV control unit	Satellite radio tuner power supply and ground circuit

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

Error item	Description	Possible malfunction factor/Action to take
- AV COMM CIRCUIT [U1300] - SWITCHE CONN [U1240]	- Multifunction switch power supply and ground circuit malfunction is detected - A malfunction is detected in communication circuit between AV control unit and multifunction switch - A malfunction is detected in communication signal between AV control unit and multifunction switch	- Multifunction switch power supply and ground circuits - Communication circuit between AV control unit and multifunction switch
- AV COMM CIRCUIT [U1300] - HAND FREE CONN [U1256]	- TEL adapter unit power supply and ground circuit malfunction is detected - Malfunction is detected in communication circuit between TEL adapter unit and AV control unit - Malfunction is detected in communication signal between TEL adapter unit and AV control unit	TEL adapter unit power supply and ground circuit
- AV COMM CIRCUIT [U1300] - SWITCHE CONN [U1240] - HAND FREE CONN [U1256]	Malfunction is detected in communication circuit between AV control unit and the branch point multifunction switch and TEL adapter unit	Communication circuit between AV control unit and the branch point multifunction switch and TEL adapter unit

DATA MONITOR

ALL SIGNALS

- Displays the status of the following vehicle signals inputted to the AV control unit.
- For each signal, actual signal can be compared with the condition recognized on the system.

Display Item	Display	Vehicle status	Remarks
VHCL SPD SIG	ON	Vehicle speed >0 km/h (0 MPH)	Changes in indication may be delayed. This is normal.
	OFF	Vehicle speed =0 km/h (0 MPH)	
PKB SIG	ON	Parking brake is applied.	
	OFF	Parking brake is released.	
ILLUM SIG	ON	Block the light beam from the auto light optical sensor when the light SW is ON.	—
	OFF	Expose the auto light optical sensor to light when the light SW is OFF or ON.	
IGN SIG	ON	Ignition switch ON	
	OFF	Ignition switch in ACC position	
REV SIG	ON	Selector lever in R position	Changes in indication may be delayed. This is normal.
	OFF	Selector lever in any position other than R	

SELECTION FROM MENU

Allows the technician to select which vehicle signals should be displayed and displays the status of the selected vehicle signals.

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

Item to be selected	Description
VHCL SPD SIG	The same as when "ALL SIGNALS" is selected.
PKB SIG	
ILLUM SIG	
IGN SIG	
REV SIG	

AV communication monitor

AV&NAVI C/U

- Displays the communication status from AV control unit to each unit as well as the error counter.
- The error counter displays "OK" if no malfunction was 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.

Items	Display (Current)	Malfunction counter (Past)
TRANSMIT DIAG	OK / UNKWN	OK / 0 – 39
PANEL SWITCH	OK / UNKWN	OK / 0 – 39
SW SECONDARY	—	—
RR CONTROL SW	—	—
STEERING SW	—	—
AUDIO	—	—
SPEAKER AMP	—	—
SIDE CAMERA	—	—
REAR CAMERA	—	—
TV TUNER	—	—
DVD PLAYER	—	—
VIDEO DIST	—	—
ETC	—	—
HANDS FREE	OK / UNKWN	OK / 0 – 39
XM	—	—
IPOD	—	—
FM MULTI	—	—
REMOTE CONT	—	—

AUDIO

- Displays the AV control unit communication status and the error counter.
- This item does not use.

Items	Display (Current)	Malfunction counter (Past)
TRANSMIT DG	—	—
SPEAKER AMP	—	—
TV TUNER	—	—
DVD PLAYER	—	—
MD DECK	—	—
CD CHANGER	—	—

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

Items	Display (Current)	Malfunction counter (Past)
MD CHANGER	—	—
IPOD	—	—

ECU PART NUMBER

The part number of AV control unit is displayed.

A

B

C

D

E

F

G

H

I

J

K

L

M

AV

O

P

DIAGNOSIS SYSTEM (TEL ADAPTER UNIT)

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

DIAGNOSIS SYSTEM (TEL ADAPTER UNIT)

Diagnosis Description

INFOID:000000000964638

HANDS FREE PHONE SYSTEM ON BOARD DIAGNOSIS

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

On board diagnosis item

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

CAUTION:

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

STEP	MODE	Description
STEP1	Self-diagnosis	The self-diagnosis mode performs the microphone test and the diagnosis of TEL adapter unit, TEL antenna and steering unit, and then reads out the results with the sound and indicates them on the display.
STEP2	Speaker adaptation data deleting	The speaker adaptation data deleting mode can delete the speaker adaptation data.
	Hands free phone system initialization	Hands free phone system initialization mode can perform the initialization of hands free phone system.

Self-diagnosis results

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

NOTE:

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

Self-diagnosis results

DTC	DTC name	Possible causes
DTC 10000	INTERNAL FAILURE	TEL adapter unit
DTC 01000	ANT. SHORT TO BATT OR OPEN	TEL antenna
DTC 00100	ANT. SHORT TO GROUND	
DTC 00010	STEERING REMOTE BUTTON STUCK A	Steering switch
DTC 00001	STEERING REMOTE BUTTON STUCK B	
DTC 00000	THERE ARE NO FAILURE RECORDS TO REPORT	—

The details of error count

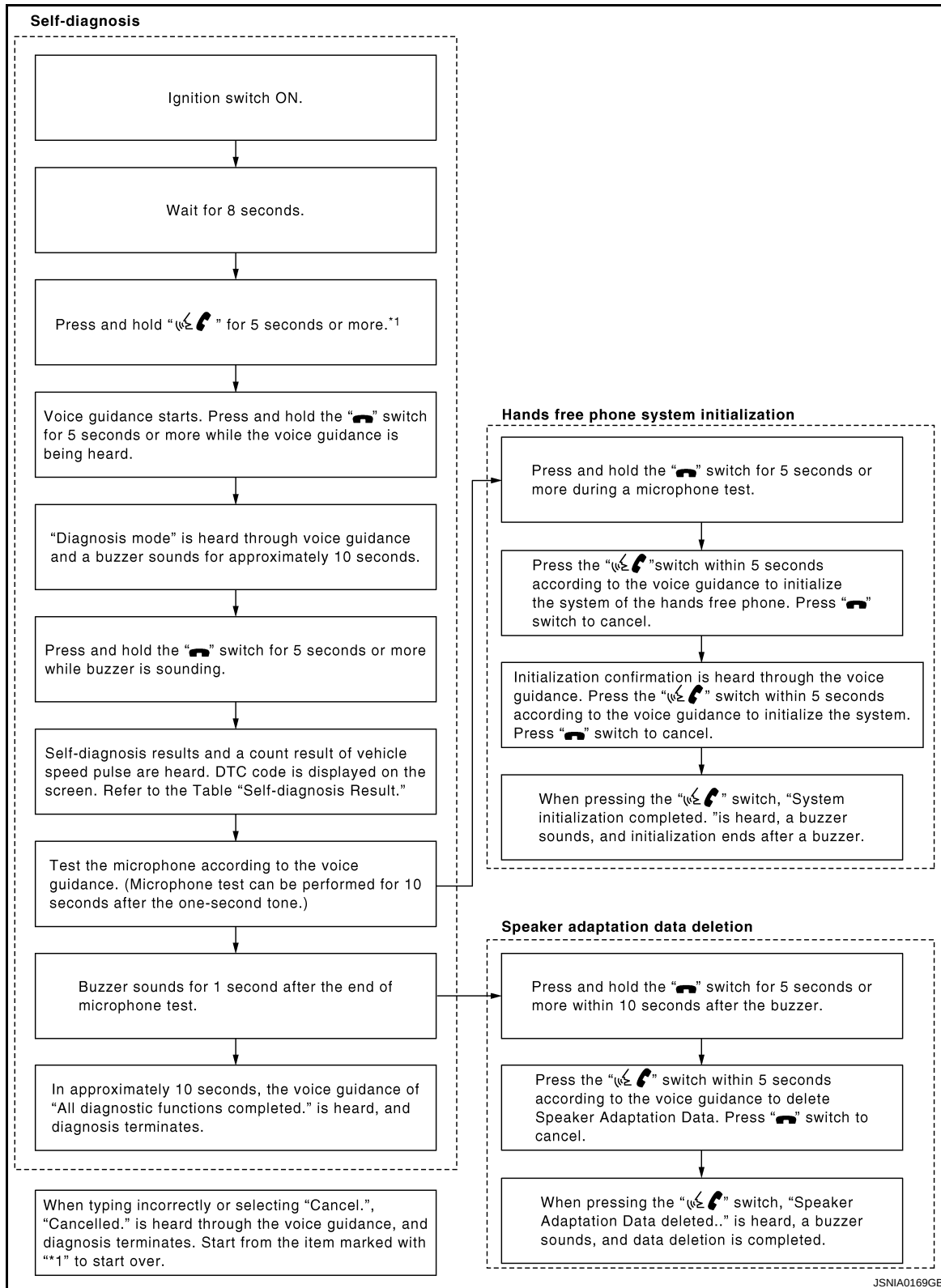
The error count guides "0" when the error occurs. The next time it counts up "1" if it is normal with the ignition switch ON. It continues the count up unless the initialization of hands free phone system is performed.

DIAGNOSIS SYSTEM (TEL ADAPTER UNIT)

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

FLOW CHART OF TROUBLE DIAGNOSIS



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

AV

COMPONENT DIAGNOSIS

U1000 CAN COMM CIRCUIT

Description

INFOID:000000000964639

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 independent). 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-28, "CAN Communication Signal Chart"](#).

DTC Logic

INFOID:000000000964640

DTC DETECTION LOGIC

DTC	Display contents of CONSULT-III	Diagnostic item is detected when ...	Probable malfunction location
U1000	CAN COMM CIRCUIT	When AV control unit is not transmitting or receiving CAN communication signal for 2 seconds or more.	CAN communication system

Diagnosis Procedure

INFOID:000000000964641

1.PERFORM SELF DIAGNOSTIC

1. Turn ignition switch ON and wait for 2 second or more.
2. Check "Self Diagnostic Result" of "MULTI AV".

Is "CAN COMM CIRCUIT" displayed?

- YES >> Refer to "LAN system". Refer to [LAN-18, "Trouble Diagnosis Flow Chart"](#).
- NO >> Refer to GI section. Refer to [GI-39, "Intermittent Incident"](#).

U1010 CONTROL UNIT (CAN)

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

U1010 CONTROL UNIT (CAN)

Description

INFOID:0000000000964642

Initial diagnosis of AV control unit.

DTC Logic

INFOID:0000000000964643

DTC DETECTION LOGIC

DTC	Display contents of CONSULT-III	Diagnostic item is detected when ...	Probable malfunction location
U1010	CONTROL UNIT (CAN)	CAN initial diagnosis malfunction is detected	AV control unit

Diagnosis Procedure

INFOID:0000000000964644

1.REPLACE AV CONTROL UNIT

When DTC U1010 is detected, replace AV control unit.

>> INSPECTION END

U1310 AV CONTROL UNIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

U1310 AV CONTROL UNIT

Description

INFOID:000000000964645

Replace the AV control unit if this DTC is displayed. Refer to [AV-292, "Exploded View"](#).

Part name	Description
AV CONTORL UNIT	• It is the master unit of the MULTI AV system, and it is connected to each control unit by means of communication. It operates each system according to communication signals from the AV control unit. • AV control unit includes audio function and vehicle information function. • It is connected to ECM and unified meter and A/C amp via CAN communication to obtain necessary information for the vehicle information function. • It inputs the automatic brightness ON/OFF signals that are required for the display dimming control. • It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).

DTC Logic

INFOID:000000000964646

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1310	CONTROL UNIT (AV) [U1310]	An initial diagnosis error is detected in AV communication circuit.	Replace AV control unit

U1200 AV CONTROL UNIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

U1200 AV CONTROL UNIT

Description

INFOID:0000000000964647

Replace the AV control unit if this DTC is displayed. Refer to [AV-292, "Exploded View"](#).

Part name	Description
AV CONTORL UNIT	• It is the master unit of the MULTI AV system, and it is connected to each control unit by means of communication. It operates each system according to communication signals from the AV control unit. • AV control unit includes audio function and vehicle information function. • It is connected to ECM and unified meter and A/C amp via CAN communication to obtain necessary information for the vehicle information function. • It inputs the automatic brightness ON/OFF signals that are required for the display dimming control. • It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).

DTC Logic

INFOID:0000000000964648

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1200	Cont Unit FLASH- ROM [U1200]	An internal malfunction is detected in AV control unit (FLASH-ROM).	Replace AV control unit

U1216 AV CONTROL UNIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

U1216 AV CONTROL UNIT

Description

INFOID:000000000964649

Replace the AV control unit if this DTC is displayed. Refer to [AV-292. "Exploded View"](#).

Part name	Description
AV CONTORL UNIT	• It is the master unit of the MULTI AV system, and it is connected to each control unit by means of communication. It operates each system according to communication signals from the AV control unit. • AV control unit includes audio function and vehicle information function. • It is connected to ECM and unified meter and A/C amp via CAN communication to obtain necessary information for the vehicle information function. • It inputs the automatic brightness ON/OFF signals that are required for the display dimming control. • It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).

DTC Logic

INFOID:000000000964650

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1216	CAN CONT [U1216]	Internal malfunction of AV control unit (CAN controller) is detected.	Replace AV control unit

U1243 DISPLAY UNIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

U1243 DISPLAY UNIT

Description

INFOID:000000000964651

Part name	Description
DISPLAY UNIT	• Display image is controlled by the serial communication from AV control unit. • Inputs the RGB image signal (RGB, RGB area and RGB synchronizing) from AV control unit and the auxiliary image signal from the auxiliary input jacks. • Outputs the synchronizing signals (HP and VP) to the AV control unit.

DTC Logic

INFOID:000000000964652

DTC	Display contents of CONSULT-III	DTC Detection Condition	Possible causes
U1243	FRONT DISP CONN [U1243]	• Display unit power supply and ground circuit malfunction is detected • Malfunction is detected on communication circuit between display unit and AV control unit • Malfunction is detected on communication signal between display unit and AV control unit	• Display unit power supply and ground circuit • Communication circuit between display unit and AV control unit

Diagnosis Procedure

INFOID:000000000964653

1.CHECK DISPLAY UNIT POWER SUPPLY AND GROUND CIRCUIT

Check display unit power supply and ground circuit. Refer to [AV-39. "DISPLAY UNIT : Diagnosis Procedure"](#).

Is inspection result OK?

YES >> GO TO 2.

NO >> Repair malfunctioning parts.

2.CHECK CONTINUITY COMMUNICATION CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect display unit connector and AV control unit connector.
3. Check continuity between display unit harness connector terminals 11, 22 and AV control unit harness connector terminals 56, 44.

11 - 56 : Continuity should exist.

22 - 44 : Continuity should exist.

4. Check continuity between display unit harness connector terminals 11, 22 and ground.

11, 22 - Ground : Continuity should not exist.

Is inspection result OK?

YES >> GO TO 3.

NO >> Repair harness or connector.

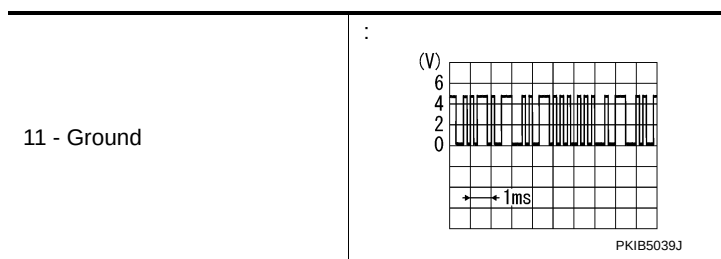
3.CHECK COMMUNICATION SIGNAL

1. Connect display unit connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check signal between display unit harness connector terminal 11 and ground.

U1243 DISPLAY UNIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]



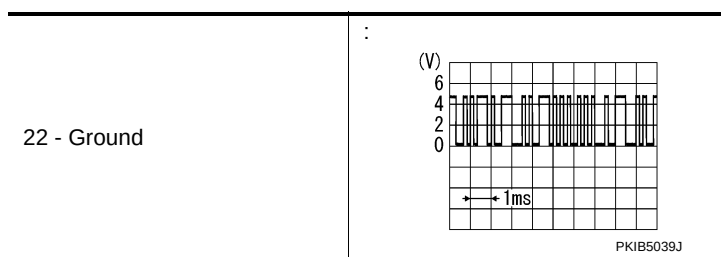
Is inspection result OK?

YES >> GO TO 4.

NO >> Replace AV control unit.

4.CHECK COMMUNICATION SIGNAL

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



Is inspection result OK?

YES >> INSPECTION END

NO >> Replace display unit.

U1255 SATELLITE RADIO TUNER

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

U1255 SATELLITE RADIO TUNER

Description

INFOID:000000000964654

Part name	Description
SATELLITE RADIO TUNER	- Inputs the satellite radio signal from satellite radio antenna and outputs it to the AV control unit. - It is controlled with the communication (communication signal, request signal) from AV control unit.

DTC Logic

INFOID:000000000964655

DTC	Display contents of CONSULT-III	DTC Detection Condition	Possible causes
U1255	SAT CONN [U1255]	The satellite radio tuner power supply and ground circuit malfunction is detected	Satellite radio tuner power supply and ground circuit

Diagnosis Procedure

INFOID:000000000964656

1.CHECK SATELLITE RADIO TUNER POWER SUPPLY AND GROUND CIRCUIT

Check satellite radio tuner power supply and ground circuit. Refer to [AV-41. "SATELLITE RADIO TUNER : Diagnosis Procedure"](#).

Is inspection result OK?

- YES >> INSPECTION END
NO >> Repair malfunctioning parts.

A
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AV

U1300 AV COMM CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

U1300 AV COMM CIRCUIT

Description

INFOID:000000000964657

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

Self-diagnosis results display item

DTC	Display contents of CONSULT-III	DTC Detection Condition	Possible causes
U1300 U1240	• AV COMM CIRCUIT [U1300] • SWITCH CONN [U1240]	• Multifunction switch power supply and ground circuit malfunction is detected • A malfunction is detected in communication circuit between AV control unit and multifunction switch • A malfunction is detected in communication signal between AV control unit and multifunction switch	• Multifunction switch power supply and ground circuits • Communication circuit between AV control unit and multifunction switch
U1300 U1256	• AV COMM CIRCUIT [U1300] • HAND FREE CONN [U1256]	• TEL adapter unit power supply and ground circuit malfunction is detected • Malfunction is detected in communication circuit between TEL adapter unit and AV control unit • Malfunction is detected in communication signal between TEL adapter unit and AV control unit	• TEL adapter unit power supply and ground circuit • Communication circuit between TEL adapter unit and AV control unit
U1300 U1240 U1256	• AV COMM CIRCUIT [U1300] • SWITCHE CONN [U1240] • HAND FREE CONN [U1256]	Malfunction is detected in communication circuit between AV control unit and the branch point multifunction switch and TEL adapter unit	Communication circuit between AV control unit and the branch point multifunction switch and TEL adapter unit

POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

POWER SUPPLY AND GROUND CIRCUIT

AV CONTROL UNIT

AV CONTROL UNIT : Diagnosis Procedure

INFOID:000000000964658

1.CHECK FUSE

Check for blown fuses.

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

Is inspection result OK?

YES >> GO TO 2.

NO >> Be sure to eliminate cause of malfunction before installing new fuse.

2.CHECK POWER SUPPLY CIRCUIT

Check voltage between AV control unit harness connectors and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Value (Approx.)
Battery power supply	M81	19	OFF	12 V
ACC power supply	M81	7	ACC	12 V
Ignition signal	M85	104	ON	12 V

Is inspection result OK?

YES >> GO TO 3.

NO >> Check harness between AV control unit and fuse.

3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect AV control unit connectors.
3. Check continuity between AV control unit harness connectors and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Continuity
Ground	M81	20	OFF	Continuity should exist.
	M85	85		

Is inspection result OK?

YES >> INSPECTION END

NO >> Repair harness or connector.

DISPLAY UNIT

DISPLAY UNIT : Diagnosis Procedure

INFOID:000000000964659

1.CHECK POWER SUPPLY CIRCUIT (DISPLAY SIDE)

Check voltage between Display unit harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Value (Approx.)
Inverter VCC	M71	2	ACC	9 V
Signal VCC		3		

Is inspection result OK?

YES >> GO TO 4.

NO >> GO TO 2.

POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

2.CHECK POWER SUPPLY CIRCUIT (CONTINUITY)

1. Turn ignition switch OFF.
2. Disconnect the harness connector between display unit and AV control unit.
3. Check continuity between display unit harness connector M71 and AV control unit harness connector M83

Signal name	Display unit (M71)	AV control unit (M83)	Continuity
Inverter VCC	2	59	Continuity should exist.
Signal VCC	3	47	Continuity should exist.

4. Check continuity between display unit harness connector M71 and ground.

Signal name	Display unit (M71)	—	Continuity
Inverter VCC	2	Ground	Continuity should not exist.
Signal VCC	3	Ground	Continuity should not exist.

Is inspection result OK?

YES >> GO TO 3.

NO >> Repair harness or connector.

3.CHECK POWER SUPPLY CIRCUIT (AV CONTROL UNIT SIDE)

1. Connect the AV control unit harness connector.
2. Turn ignition switch ACC.
3. Check voltage between AV control unit harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Value (Approx.)
Inverter VCC	M83	59	ACC	9 V
Signal VCC		47		

Is inspection result OK?

YES >> INSPECTION END

NO >> Replacement of AV control unit.

4.CHECK GROUND CIRCUIT

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

Signal name	Connector No.	Terminal No.	Ignition switch position	Continuity
Ground	M71	1	OFF	Continuity should exist.

Is inspection result OK?

YES >> INSPECTION END

NO >> Repair harness or connector.

MULTIFUNCTION SWITCH

MULTIFUNCTION SWITCH : Diagnosis Procedure

INFOID:000000000964660

1.CHECK FUSE

Check for blown fuses.

Power source	Fuse No.
Ignition switch ACC or ON	19

Is inspection result OK?

YES >> GO TO 2.

NO >> Be sure to eliminate cause of malfunction before installing new fuse.

POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

2.CHECK POWER SUPPLY CIRCUIT

Check voltage between multifunction switch harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Value (Approx.)
ACC power supply	M72	3	ACC	12 V

Is inspection result OK?

YES >> GO TO 3.

NO >> Check harness between multifunction switch and fuse.

3.CHECK GROUND CIRCUIT

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

Signal name	Connector No.	Terminal No.	Ignition switch position	Continuity
Ground	M72	1	OFF	Continuity should exist.

Is inspection result OK?

YES >> INSPECTION END

NO >> Repair harness or connector.

SATELLITE RADIO TUNER

SATELLITE RADIO TUNER : Diagnosis Procedure

INFOID:000000000964661

1.CHECK FUSE

Check for blown fuses.

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

Is inspection result OK?

YES >> GO TO 2.

NO >> Be sure to eliminate cause of malfunction before installing new fuse.

2.CHECK POWER SUPPLY CIRCUIT

Check voltage between satellite radio tuner harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Value (Approx.)
Battery power supply	B236	12	OFF	12 V
ACC power supply	B236	16	ACC	12 V

Is inspection result OK?

YES >> INSPECTION END

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

TEL ADAPTER UNIT

TEL ADAPTER UNIT : Diagnosis Procedure

INFOID:000000000964662

1.CHECK FUSE

Check for blown fuses.

Power source	Fuse No.
Battery	34

POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

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

Is inspection result OK?

YES >> GO TO 2.

NO >> Be sure to eliminate cause of malfunction before installing new fuse.

2.CHECK POWER SUPPLY CIRCUIT

Check voltage between TEL adapter unit harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Value (Approx.)
Battery power supply	B237	1	OFF	12 V
ACC power supply	B237	2	ACC	12 V
Ignition signal	B237	3	ON	12 V

Is inspection result OK?

YES >> GO TO 3.

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

3.CHECK GROUND CIRCUIT

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

Signal name	Connector No.	Terminal No.	Ignition switch position	Continuity
Ground	B237	4, 14, 19, 23, 24	OFF	Continuity should exist.

Is inspection result OK?

YES >> INSPECTION END

NO >> Repair harness or connector.

BOSE AMP.

BOSE AMP. : Diagnosis Procedure

INFOID:000000000964663

1.CHECK FUSE

Check for blown fuses.

Power source	Fuse No.
Battery	5, 8

Is inspection result OK?

YES >> GO TO 2.

NO >> Be sure to eliminate cause of malfunction before installing new fuse.

2.CHECK POWER SUPPLY CIRCUIT

Check voltage between BOSE amp. harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Value (Approx.)
Battery power supply	B42	10	OFF	12 V
		11		

Is inspection result OK?

YES >> GO TO 3.

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

3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.

POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

2. Disconnect BOSE amp. connector.
3. Check continuity between BOSE amp. harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Continuity
Ground	B42	7	OFF	Continuity should exist.
		12		

Is inspection result OK?

YES >> INSPECTION END

NO >> Repair harness or connector.

MICROPHONE

MICROPHONE : Diagnosis Procedure

INFOID:000000000964664

1.CHECK POWER SUPPLY CIRCUIT (MICROPHONE SIDE)

Check voltage between microphone harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Value (Approx.)
Microphone VCC signal	R17	4	ON	5 V

Is inspection result OK?

YES >> GO TO 4.

NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT (CONTINUITY)

1. Turn ignition switch OFF.
2. Disconnect the harness connector between microphone and TEL adapter unit.
3. Check continuity between microphone harness connector R17 terminal 4 and TEL adapter unit harness connector B237 terminal 29.

Signal name	Continuity
Microphone VCC signal	Continuity should exist.

4. Check continuity between microphone harness connector R17 terminal 4 and ground.

Signal name	Continuity
Microphone VCC signal	Continuity should not exist.

Is inspection result OK?

YES >> GO TO 3.

NO >> Repair harness or connector.

3.CHECK POWER SUPPLY CIRCUIT (TEL ADAPTER UNIT SIDE)

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

Signal name	Connector No.	Terminal No.	Ignition switch position	Value (Approx.)
Microphone VCC signal	B237	29	ON	5 V

Is inspection result OK?

YES >> INSPECTION END

NO >> Replacement of TEL adapter unit.

4.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect the microphone harness connector R17 and the TEL adapter unit harness connector B237.
3. Check continuity between microphone harness connector R17 terminal 2 and TEL adapter unit harness connector B237 terminal 8.

POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

Signal name	Continuity
Microphone ground	Continuity should exist.

Is inspection result OK?

YES >> INSPECTION END

NO >> Repair harness or connector.

RGB (R: RED) SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

RGB (R: RED) SIGNAL CIRCUIT

Description

INFOID:0000000000964665

Transmit the image displayed with AV control unit with RGB signal to the display unit.

Diagnosis Procedure

INFOID:0000000000964666

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

1. Turn ignition switch OFF.
2. Disconnect display unit connector and AV control unit connector.
3. Check continuity between display unit harness connector terminal 17 and AV control unit harness connector terminal 40.

17 - 40 : Continuity should exist.

4. Check continuity between display unit harness connector terminal 17 and ground.

17 - Ground : Continuity should not exist.

Is inspection result OK?

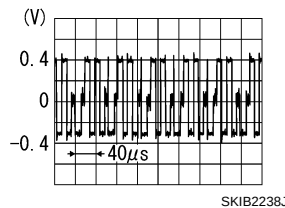
YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK RGB (R: RED) SIGNAL

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

17 - Ground



Is inspection result OK?

YES >> Replace display unit.

NO >> Replace AV control unit.

AV

RGB (G: GREEN) SIGNAL CIRCUIT**Description**

INFOID:000000000964667

Transmit the image displayed with AV control unit with RGB signal to the display unit.

Diagnosis Procedure

INFOID:000000000964668

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

1. Turn ignition switch OFF.
2. Disconnect display unit connector and AV control unit connector.
3. Check continuity between display unit harness connector terminal 6 and AV control unit harness connector terminal 39.

6 - 39 : Continuity should exist.

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

6 - Ground : Continuity should not exist.

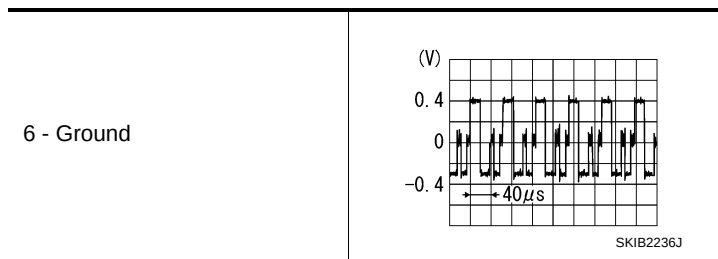
Is inspection result OK?

YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK RGB (G: GREEN) SIGNAL

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

**Is inspection result OK?**

YES >> Replace display unit.

NO >> Replace AV control unit.

RGB (B: BLUE) SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

RGB (B: BLUE) SIGNAL CIRCUIT

Description

INFOID:0000000000964669

Transmit the image displayed with AV control unit with RGB signal to the display unit.

Diagnosis Procedure

INFOID:0000000000964670

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

1. Turn ignition switch OFF.
2. Disconnect display unit connector and AV control unit connector.
3. Check continuity between display unit harness connector terminal 18 and AV control unit harness connector terminal 38.

18 - 38 : Continuity should exist.

4. Check continuity between display unit harness connector terminal 18 and ground.

18 - Ground : Continuity should not exist.

Is inspection result OK?

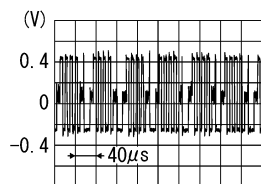
YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK RGB (B: BLUE) SIGNAL

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

18 - Ground



Is inspection result OK?

YES >> Replace display unit.

NO >> Replace AV control unit.

RGB SYNCHRONIZING SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

RGB SYNCHRONIZING SIGNAL CIRCUIT

Description

INFOID:000000000964671

Transmit the RGB synchronizing signal to the display unit so as to synchronize the RGB image displayed with AV control unit.

Diagnosis Procedure

INFOID:000000000964672

1. CHECK CONTINUITY RGB SYNCHRONIZING SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect display unit connector and AV control unit connector.
3. Check continuity between display unit harness connector terminal 19 and AV control unit harness connector terminal 41.

19 - 41 : Continuity should exist.

4. Check continuity between display unit harness connector terminal 19 and ground.

19 - Ground : Continuity should not exist.

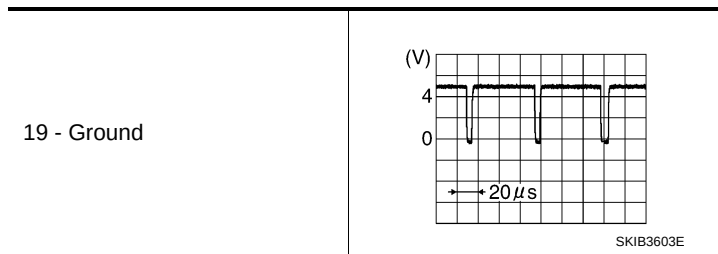
Is inspection result OK?

YES >> GO TO 2.

NO >> Repair harness or connector.

2. CHECK RGB SYNCHRONIZING SIGNAL

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



Is inspection result OK?

YES >> Replace display unit.

NO >> Replace AV control unit.

RGB AREA (YS) SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

RGB AREA (YS) SIGNAL CIRCUIT

Description

INFOID:000000000964673

Transmits the display area of RGB image displayed by AV control unit with RGB area (YS) signal to display unit.

Diagnosis Procedure

INFOID:000000000964674

1.CHECK CONTINUITY RGB AREA (YS) SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect display unit connector and AV control unit connector.
3. Check continuity between display unit harness connector terminal 9 and AV control unit harness connector terminal 43.

9 - 43 : Continuity should exist.

4. Check continuity between display unit harness connector terminal 9 and ground.

9 - Ground : Continuity should not exist.

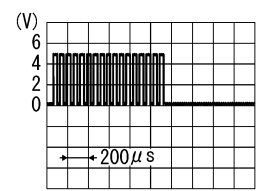
Is inspection result OK?

YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK RGB SYNCHRONIZING SIGNAL

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

	At RGB image displayed	: Approx. 5 V
9 - Ground	At rear view camera image displayed	

Is inspection result OK?

YES >> Replace display unit.

NO >> Replace AV control unit.

AV

HORIZONTAL SYNCHRONIZING (HP) SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

HORIZONTAL SYNCHRONIZING (HP) SIGNAL CIRCUIT

Description

INFOID:000000000964675

In composite image (AUX image, camera image), transmit the vertical synchronizing (VP) signal and horizontal synchronizing (HP) signal from display unit to AV control unit so as to synchronize the RGB images displayed with AV control unit such as the image quality adjusting menu, etc.

Diagnosis Procedure

INFOID:000000000964676

1. CHECK CONTINUITY HORIZONTAL SYNCHRONIZING (HP) SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect display unit connector and AV control unit connector.
3. Check continuity between display unit harness connector terminal 8 and AV control unit harness connector terminal 45.

8 - 45 : Continuity should exist.

4. Check continuity between display unit harness connector terminal 8 and ground.

8 - Ground : Continuity should not exist.

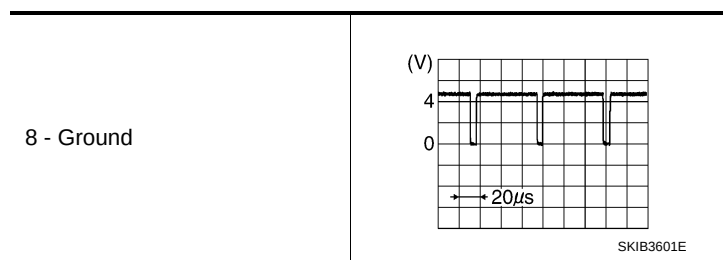
Is inspection result OK?

YES >> GO TO 2.

NO >> Repair harness or connector.

2. CHECK HORIZONTAL SYNCHRONIZING (HP) SIGNAL

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



Is inspection result OK?

YES >> Replace AV control unit.

NO >> Replace Display unit.

VERTICAL SYNCHRONIZING (VP) SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

VERTICAL SYNCHRONIZING (VP) SIGNAL CIRCUIT

Description

INFOID:000000000964677

In composite image (AUX image, camera image), transmit the vertical synchronizing (VP) signal and horizontal synchronizing (HP) signal from display unit to AV control unit so as to synchronize the RGB images displayed with AV control unit such as the image quality adjusting menu, etc.

Diagnosis Procedure

INFOID:000000000964678

1.CHECK CONTINUITY VERTICAL SINCHRONIZING (VP) SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect display unit connector and AV control unit connector.
3. Check continuity between display unit harness connector terminal 20 and AV control unit harness connector terminal 57.

20 - 57 : Continuity should exist.

4. Check continuity between display unit harness connector terminal 20 and ground.

20 - Ground : Continuity should not exist.

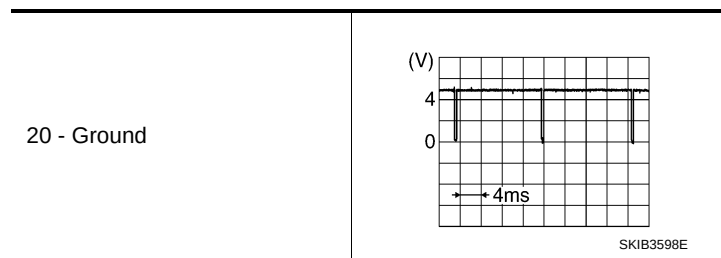
Is inspection result OK?

YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK VERTICAL SINCHRONIZING (VP) SIGNAL

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



Is inspection result OK?

YES >> Replace AV control unit.

NO >> Replace Display unit.

AV

AUX IMAGE SIGNAL CIRCUIT

Description

INFOID:000000000964679

- Transmits the image signal of AUX device from auxiliary input jacks to AV control unit.
- AV control unit transmits the image signal that is inputted to the display unit.

Diagnosis Procedure

INFOID:000000000964680

1. CHECK CONTINUITY AUX IMAGE SIGNAL CIRCUIT (AUX INPUT JACKS AND AV CONTROL UNIT)

1. Turn ignition switch OFF.
2. Disconnect auxiliary input jacks connector and AV control unit connector.
3. Check continuity between auxiliary input jacks harness connector terminal 7 and AV control unit harness connector terminal 66.

7 - 66 : Continuity should exist.

4. Check continuity between auxiliary input jacks harness connector terminal 7 and ground.

7 - Ground : Continuity should not exist.

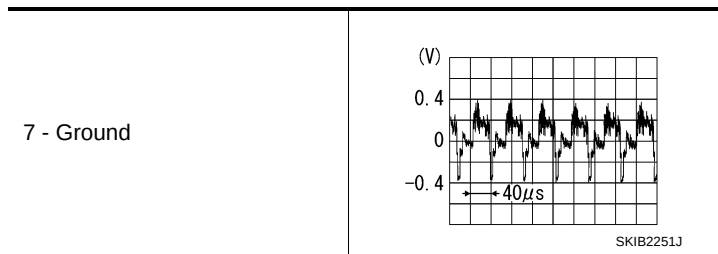
Is inspection result OK?

YES >> GO TO 2.

NO >> Repair harness or connector.

2. CHECK AUX IMAGE SIGNAL (AUX INPUT JACKS TO AV CONTROL UNIT)

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



Is inspection result OK?

YES >> GO TO 3.

NO >> Check that there is no malfunction in the external device.

3. CHECK CONTINUITY AUX IMAGE SIGNAL CIRCUIT (AV CONTROL UNIT AND DISPLAY UNIT)

1. Turn ignition switch OFF.
2. Disconnect auxiliary input jacks connector and AV control unit connector.
3. Check continuity between display unit harness connector terminal 15 and AV control unit harness connector terminal 36.

15 - 36 : Continuity should exist.

4. Check continuity between display unit harness connector terminal 15 and ground.

15 - Ground : Continuity should not exist.

Is inspection result OK?

YES >> GO TO 4.

NO >> Repair harness or connector.

4. CHECK AUX IMAGE SIGNAL

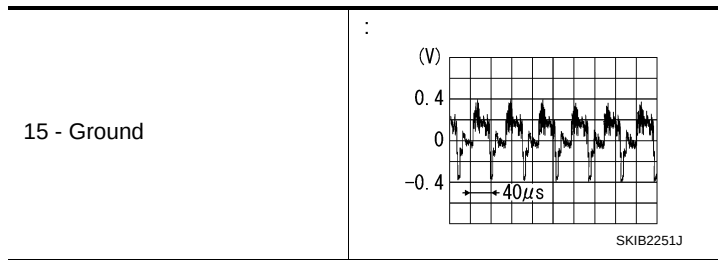
1. Connect AV control unit connector and display unit connector.

AUX IMAGE SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

2. Turn ignition switch ON.
3. Check signal between display unit harness connector terminal 15 and ground.



Is inspection result OK?

- YES >> Replace display unit.
NO >> Replace AV control unit.

A
B
C
D
E
F
G
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M
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P

AV

CD EJECT SIGNAL CIRCUIT

Description

INFOID:000000000964681

The eject signal is output to AV control unit when the eject switch of multifunction switch is pressed.

Diagnosis Procedure

INFOID:000000000964682

1.CHECK CONTINUITY CD EJECT SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect multifunction switch connector and AV control unit connector.
3. Check continuity between multifunction switch harness connector terminal 14 and AV control unit harness connector terminal 103.

14 - 103 : Continuity should exist.

4. Check continuity between multifunction switch harness connector terminal 14 and ground.

14 - Ground : Continuity should not exist.

Is inspection result OK?

YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK AV CONTROL UNIT VOLTAGE

1. Connect multifunction switch connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check voltage between AV control unit harness connector terminal 103 and ground.

103 - Ground : Approx. 3.3 V

Is inspection result OK?

YES >> Replace preset switch.

NO >> Replace AV control unit.

MICROPHONE SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

MICROPHONE SIGNAL CIRCUIT

Description

INFOID:000000000964683

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

Diagnosis Procedure

INFOID:000000000964684

1.CHECK CONTINUITY BETWEEN TEL ADAPTER UNIT AND MICROPHONE CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect TEL adapter unit connector and microphone connector.
3. Check continuity between TEL adapter unit harness connector terminals 7, 8, 29 and microphone harness connector terminals 1, 2, 4.

7 - 1 : Continuity should exist.

8 - 2 : Continuity should exist.

29 - 4 : Continuity should exist.

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

7, 29 - Ground : Continuity should not exist.

Is inspection result OK?

YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK VOLTAGE MICROPHONE VCC

1. Connect TEL adapter unit connector.
2. Turn ignition switch ON.
3. Check voltage between TEL adapter unit harness connector terminal 29 and 8.

29 - 8 : Approx. 5 V

Is inspection result OK?

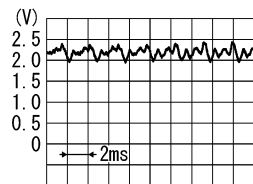
YES >> GO TO 3.

NO >> Replace TEL adapter unit.

3.CHECK MICROPHONE SIGNAL

1. Connect microphone connector.
2. Check signal between TEL adapter unit harness connector terminals 7 and 8.

7 - 8



PKIB50373

Is inspection result OK?

YES >> Replace TEL adapter unit.

NO >> Replace microphone.

CONTROL SIGNAL CIRCUIT

Description

INFOID:000000000964685

TEL adapter unit identifies the vehicle model according to the control signal and performs the control.

Diagnosis Procedure

INFOID:000000000964686

1.CHECK CONTINUITY CONTROL SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect TEL adapter unit connector.
3. Check continuity between TEL adapter unit harness connector terminals 23, 24 and ground.

23, 24 - Ground : Continuity should exist.

Is inspection result OK?

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

2.CHECK VOLTAGE TEL ADAPTER UNIT

1. Connect TEL adapter unit connector.
2. Turn ignition switch ON.
3. Check voltage between TEL adapter unit harness connector terminal 23, 24 and ground.

23, 24 - Ground : Approx. 5 V

Is inspection result OK?

- YES >> INSPECTION END
NO >> Replace TEL adapter unit.

COMMUNICATION SIGNAL CIRCUIT (CONT-SAT)

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

COMMUNICATION SIGNAL CIRCUIT (CONT-SAT)

Description

INFOID:000000000964687

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

Diagnosis Procedure

INFOID:000000000964688

1.CHECK CONTINUITY COMMUNICATION SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect satellite radio tuner connector and AV control unit connector.
3. Check continuity between satellite radio tuner harness connector terminals 9, 10 and AV control unit harness connector terminals 29, 30.

9 - 29 : Continuity should exist.

10 - 30 : Continuity should exist.

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

9, 10 - Ground : Continuity should not exist.

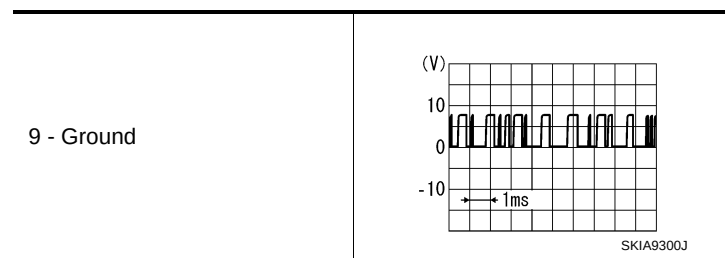
Is inspection result OK?

YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK COMMUNICATION SIGNAL

1. Connect satellite radio tuner connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check signal between satellite radio tuner harness connector terminal 9 and ground.



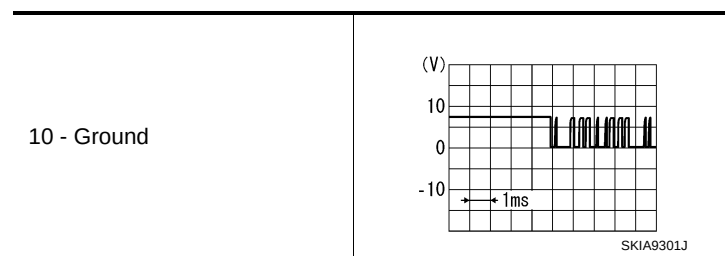
Is inspection result OK?

YES >> GO TO 3.

NO >> Replace satellite radio tuner.

3.CHECK COMMUNICATION SIGNAL

Check signal between satellite radio tuner harness connector terminal 10 and ground.



Is inspection result OK?

YES >> Replace satellite radio tuner.

NO >> Replace AV control unit.

REQUEST SIGNAL CIRCUIT (SAT→CONT)

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

REQUEST SIGNAL CIRCUIT (SAT→CONT)

Description

INFOID:000000000964689

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

Diagnosis Procedure

INFOID:000000000964690

1.CHECK CONTINUITY REQUEST SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect satellite radio tuner connector and AV control unit connector.
3. Check continuity between satellite radio tuner unit harness connector terminal 8 and AV control unit harness connector terminal 28.

8 - 28 : Continuity should exist.

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

8 - Ground : Continuity should not exist.

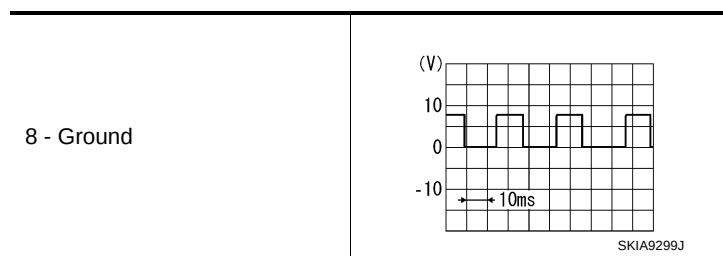
Is inspection result OK?

YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK COMMUNICATION SIGNAL

1. Connect satellite radio tuner connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check signal between satellite radio tuner harness connector terminal 8 and ground.



Is inspection result OK?

YES >> Replace AV control unit.

NO >> Replace satellite radio tuner.

STEERING SWITCH SIGNAL A CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

STEERING SWITCH SIGNAL A CIRCUIT

Description

INFOID:0000000000964691

Transmits the steering switch signal to AV control unit.

Diagnosis Procedure

INFOID:0000000000964692

1.CHECK STEERING SWITCH SIGNAL A CIRCUIT

1. Disconnect AV control unit connector and spiral cable connector.
2. Check continuity between AV control unit harness connector terminal 6 and spiral cable harness connector terminal 24.

6 - 24 : Continuity should exist.

3. Check continuity between AV control unit harness connector terminals 6 and ground.

6 - Ground : Continuity should not exist.

Is inspection result OK?

YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK SPIRAL CABLE

Check spiral cable.

Is inspection result OK?

YES >> GO TO 3.

NO >> Replace spiral cable.

3.CHECK AV CONTROL UNIT VOLTAGE

1. Connect AV control unit connector and spiral cable connector.
2. Turn ignition switch ON.
3. Check voltage between AV control unit harness connector terminals 6 and 15.

6 - 15 : Approx. 3.3 V

Is inspection result OK?

YES >> GO TO 4.

NO >> Replace AV control unit.

4.CHECK STEERING SWITCH

1. Turn ignition switch OFF.
2. Check steering switch. Refer to [AV-181. "Component Inspection"](#).

Is inspection result OK?

YES >> INSPECTION END

NO >> Replace steering switch.

Component Inspection

INFOID:0000000000964693

Measure the resistance between the steering switch connector terminals 14 to 17 and 15 to 17.

STEERING SWITCH SIGNAL A CIRCUIT

[BOSE AUDIO WITHOUT NAVIGATION]

< COMPONENT DIAGNOSIS >

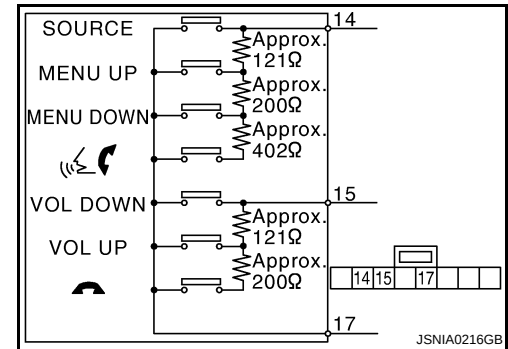
Standard

Between terminals 14 and 17

 switch ON : 716 – 730 Ω
 MENU DOWN switch ON : 318 – 324 Ω
 MENU UP switch ON : 120 – 122 Ω
 SOURCE switch ON : 0 Ω

Between terminals 15 and 17

 switch ON : 318 – 324 Ω
 VOL UP switch ON : 120 – 122 Ω
 VOL DOWN switch ON : 0 Ω



STEERING SWITCH SIGNAL B CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

STEERING SWITCH SIGNAL B CIRCUIT

Description

INFOID:0000000000964694

Transmits the steering switch signal to AV control unit.

Diagnosis Procedure

INFOID:0000000000964695

1.CHECK STEERING SWITCH SIGNAL B CIRCUIT

1. Disconnect AV control unit connector and spiral cable connector.
2. Check continuity between AV control unit harness connector terminal 16 and spiral cable harness connector terminal 31.

16 - 31 : Continuity should exist.

3. Check continuity between AV control unit harness connector terminals 16 and ground.

16 - Ground : Continuity should not exist.

Is inspection result OK?

YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK SPIRAL CABLE

Check spiral cable.

Is inspection result OK?

YES >> GO TO 3.

NO >> Replace spiral cable.

3.CHECK AV CONTROL UNIT VOLTAGE

1. Connect AV control unit connector and spiral cable connector.
2. Turn ignition switch ON.
3. Check voltage between AV control unit harness connector terminals 16 and 15.

16 - 15 : Approx. 3.3 V

Is inspection result OK?

YES >> GO TO 4.

NO >> Replace AV control unit.

4.CHECK STEERING SWITCH

1. Turn ignition switch OFF.
2. Check steering switch. Refer to [AV-183. "Component Inspection"](#).

Is inspection result OK?

YES >> INSPECTION END

NO >> Replace steering switch.

Component Inspection

INFOID:0000000000964696

Measure the resistance between the steering switch connector terminals 14 to 17 and 15 to 17.

STEERING SWITCH SIGNAL B CIRCUIT

[BOSE AUDIO WITHOUT NAVIGATION]

< COMPONENT DIAGNOSIS >

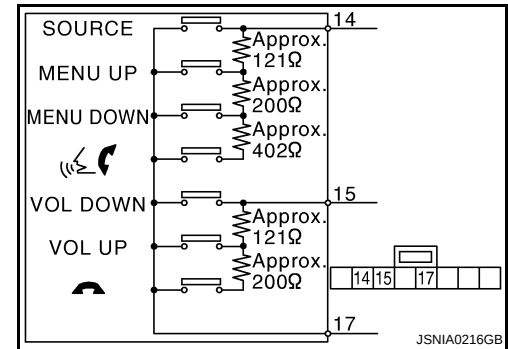
Standard

Between terminals 14 and 17

 switch ON : 716 – 730 Ω
 MENU DOWN switch ON : 318 – 324 Ω
 MENU UP switch ON : 120 – 122 Ω
 SOURCE switch ON : 0 Ω

Between terminals 15 and 17

 switch ON : 318 – 324 Ω
 VOL UP switch ON : 120 – 122 Ω
 VOL DOWN switch ON : 0 Ω



STEERING SWITCH SIGNAL GND CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

STEERING SWITCH SIGNAL GND CIRCUIT

Description

INFOID:000000000964697

Transmits the steering switch signal to AV control unit.

Diagnosis Procedure

INFOID:000000000964698

1.CHECK STEERING SWITCH SIGNAL GND CIRCUIT

1. Disconnect AV control unit connector and spiral cable connector.
2. Check continuity between AV control unit harness connector terminal 15 and spiral cable harness connector terminal 33.

15 - 33 : Continuity should exist.

3. Connect AV control unit connector.

Is inspection result OK?

YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK SPIRAL CABLE

Check spiral cable.

Is inspection result OK?

YES >> GO TO 3.

NO >> Replace spiral cable.

3.CHECK GROUND CIRCUIT

1. Connect AV control unit connector.
2. Check continuity between AV control unit harness connector terminal 15 and ground.

15 - Ground : Continuity should exist.

Is inspection result OK?

YES >> GO TO 4.

NO >> Replace AV control unit.

4.CHECK STEERING SWITCH

1. Turn ignition switch OFF.
2. Check steering switch. Refer to [AV-185, "Component Inspection"](#).

Is inspection result OK?

YES >> INSPECTION END

NO >> Replace steering switch.

Component Inspection

INFOID:000000000964699

Measure the resistance between the steering switch connector terminals 14 to 17 and 15 to 17.

Standard

Between terminals 14 and 17

switch ON : 716 – 730 Ω

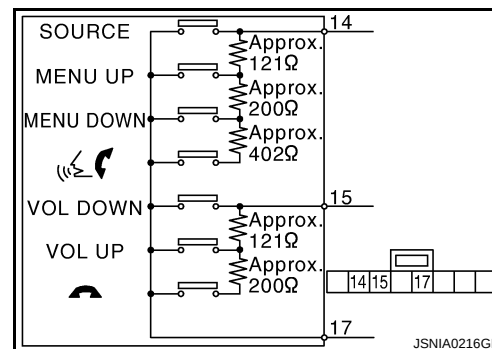
MENU DOWN switch ON : 318 – 324 Ω

MENU UP switch ON : 120 – 122 Ω

SOURCE switch ON : 0 Ω

Between terminals 15 and 17

switch ON : 318 – 324 Ω



STEERING SWITCH SIGNAL GND CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

VOL UP switch ON	: 120 – 122 Ω
VOL DOWN switch ON	: 0 Ω

AV CONTROL UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

ECU DIAGNOSIS

AV CONTROL UNIT

Reference Value

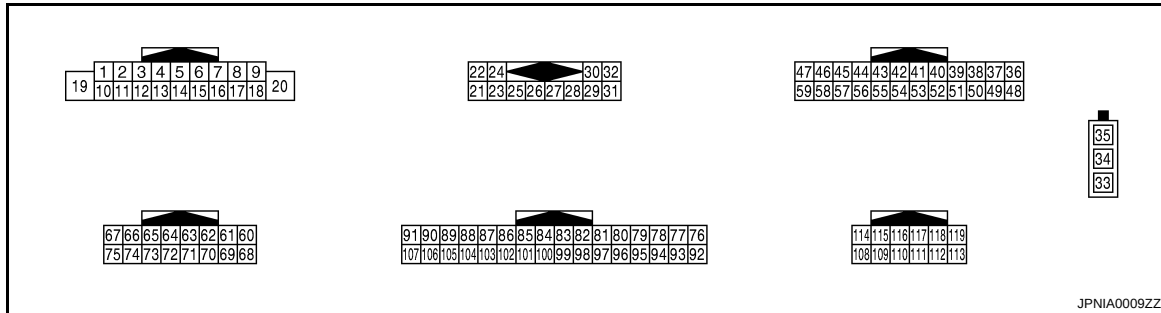
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VALUES ON THE DIAGNOSIS TOOL

CONSULT-III data monitor item

Display Item	Dis-play	Vehicle status	Remarks
VHCL SPD SIG	ON	Vehicle speed >0 km/h (0 MPH)	Changes in indication may be delayed. This is normal.
	OFF	Vehicle speed =0 km/h (0 MPH)	
PKB SIG	ON	Parking brake is applied.	Changes in indication may be delayed. This is normal.
	OFF	Parking brake is released.	
ILLUM SIG	ON	Block the light beam from the auto light optical sensor when the light SW is ON.	—
	OFF	Expose the auto light optical sensor to light when the light SW is OFF or ON.	
IGN SIG	ON	Ignition switch ON	—
	OFF	Ignition switch in ACC position	
REV SIG	ON	Selector lever in R position	Changes in indication may be delayed. This is normal.
	OFF	Selector lever in any position other than R	

TERMINAL LAYOUT



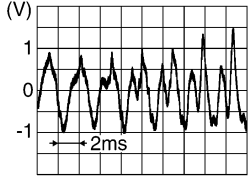
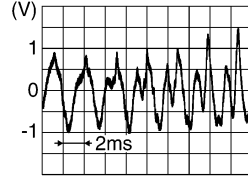
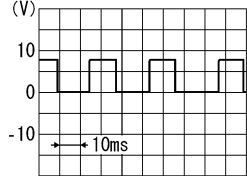
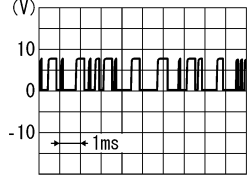
PHYSICAL VALUES

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
6 (P)	15 (B)	Steering switch signal A	Input	Ignition switch ON	Keep pressing SOURCE switch.	0 V
					Keep pressing Δ switch.	0.7 V
					Keep pressing ∇ switch.	1.3 V
					Keep pressing $\curvearrowright$ switch	2 V
					Except for above.	3.3 V
7 (V)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage

AV CONTROL UNIT

< ECU DIAGNOSIS >

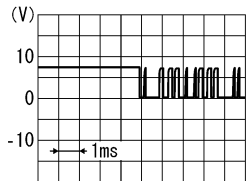
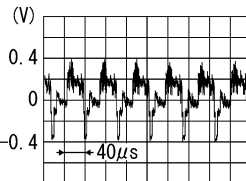
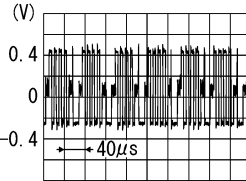
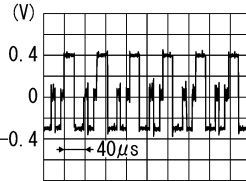
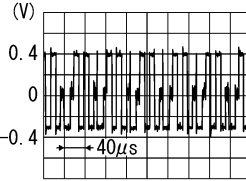
[BOSE AUDIO WITHOUT NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
9 (R)	Ground	Illumination signal	Input	OFF	Lighting switch is OFF.	0 V
					Lighting switch is ON.	12 V
15 (B)	Ground	Steering switch signal GND	—	Ignition switch ON	—	0 V
16 (L)	15 (B)	Steering switch signal B	Input	Ignition switch ON	Keep pressing VOL DOWN switch.	0 V
					Keep pressing VOL UP switch.	0.7 V
					Keep pressing  switch.	1.3 V
					Except for above.	3.3 V
19 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
20 (B)	Ground	GND	—	Ignition switch ON	—	0 V
22 (B)	21 (W)	Satellite radio sound signal LH	Input	Ignition switch ON	When satellite radio mode is selected	 SKIB3609E
24 (G)	23 (R)	Satellite radio sound signal RH	Input	Ignition switch ON	When satellite radio mode is selected	 SKIB3609E
25	—	Shield	—	—	—	—
26	—	Shield	—	—	—	—
28 (W)	Ground	Request signal (SAT→CONT)	Input	Ignition switch ON	When satellite radio mode is selected	 SKIA9299J
29 (B)	Ground	Communication signal (SAT→CONT)	Input	Ignition switch ON	When satellite radio mode is selected	 SKIA9300J

AV CONTROL UNIT

< ECU DIAGNOSIS >

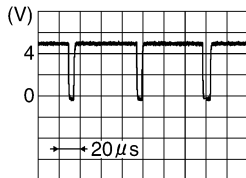
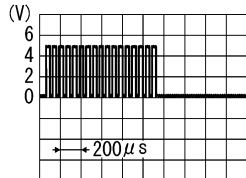
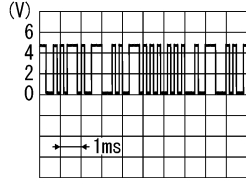
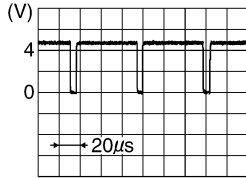
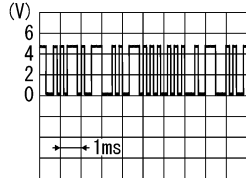
[BOSE AUDIO WITHOUT NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
30 (R)	Ground	Communication signal (CONT→SAT)	Output	Ignition switch ON	When satellite radio mode is selected	 SKIA9301J
33	—	FM sub	Input	—	—	—
34	—	AM—FM main	Input	—	—	—
35	Ground	Antenna amp. ON signal	Output	Ignition switch ACC	—	12 V
36 (SB)	Ground	AUX image signal	Output	Ignition switch ON	When AUX mode is select- ed	 SKIB2251J
37 (V)	Ground	AUX image ground	—	Ignition switch ON	—	0 V
38 (P)	Ground	RGB signal (B: blue)	Output	Ignition switch ON	Start confirmation/adjust- ment mode, and then dis- play color bar by selecting "Color Spectrum Bar" on DISPLAY DIAGNOSIS screen.	 SKIB2237J
39 (L)	Ground	RGB signal (G: green)	Output	Ignition switch ON	Start confirmation/adjust- ment mode, and then dis- play color bar by selecting "Color Spectrum Bar" on DISPLAY DIAGNOSIS screen.	 SKIB2236J
40 (G)	Ground	RGB signal (R: red)	Output	Ignition switch ON	Start confirmation/adjust- ment mode, and then dis- play color bar by selecting "Color Spectrum Bar" on DISPLAY DIAGNOSIS screen.	 SKIB2238J

AV CONTROL UNIT

< ECU DIAGNOSIS >

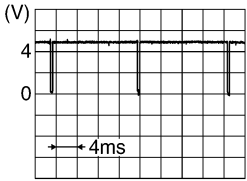
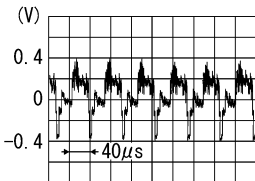
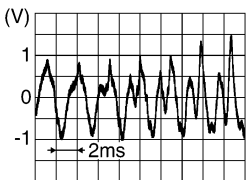
[BOSE AUDIO WITHOUT NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
41 (W)	Ground	RGB synchronizing signal	Output	Ignition switch ON	—	 SKIB3603E
42	—	Shield	—	—	—	—
43 (B)	Ground	RGB area (YS) signal	Output	Ignition switch ON	RGB image	5 V
					AUX image	 PKIB4948J
44 (BR)	Ground	Communication signal (DISP→CONT)	Input	Ignition switch ON	When adjusting display- brightness.	 PKIB5039J
45 (R)	Ground	Horizontal synchronizing (HP) signal	Input	Ignition switch ON	—	 SKIB3601E
46 (LG)	Ground	Signal GND	—	Ignition switch ON	—	0 V
47 (O)	Ground	Signal VCC	Output	Ignition switch ACC	—	9 V
49 (Y)	—	Composite synchronizing signal GND	—	Ignition switch ON	—	0 V
50	—	Shield	—	—	—	—
55	—	Shield	—	—	—	—
56 (Y)	Ground	Communication signal (CONT→DISP)	Output	Ignition switch ON	When adjusting display- brightness.	 PKIB5039J

AV CONTROL UNIT

< ECU DIAGNOSIS >

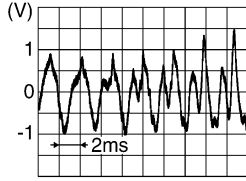
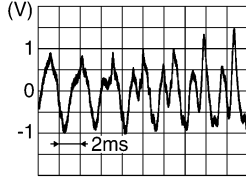
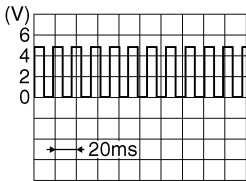
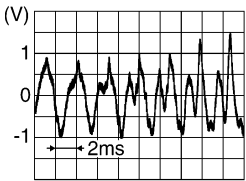
[BOSE AUDIO WITHOUT NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
57 (G)	Ground	Vertical synchronizing (VP) signal	Input	Ignition switch ON	—	 SKIB3598E
58 (BR)	Ground	Inverter GND	—	Ignition switch ON	—	0 V
59 (Y)	Ground	Inverter VCC	Output	Ignition switch ACC	—	9 V
66 (G)	Ground	AUX image signal	Input	Ignition switch ON	When AUX mode is selected	 SKIB2251J
73	—	Shield	—	—	—	—
74 (R)	Ground	AUX image signal GND	—	Ignition switch ON	—	0 V
80 (L)	79 (P)	TEL voice signal	Input	Ignition switch ON	During voice guide output with the  switch pressed	 SKIB3609E
81	—	Shield	—	—	—	—
85 (B)	Ground	GND	—	Ignition switch ON	—	0 V
86 (L)	—	CAN-H	Input/ Output	—	—	—
87 (P)	—	CAN-L	Input/ Output	—	—	—
88 (G)	—	AV communication signal (H)	Input/ Output	—	—	—
89 (R)	—	AV communication signal (L)	Input/ Output	—	—	—
90 (L)	—	AV communication signal (H)	Input/ Output	—	—	—
91 (P)	—	AV communication signal (L)	Input/ Output	—	—	—

AV CONTROL UNIT

< ECU DIAGNOSIS >

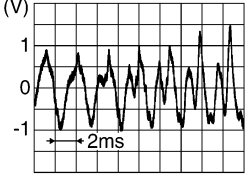
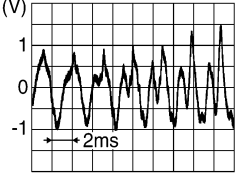
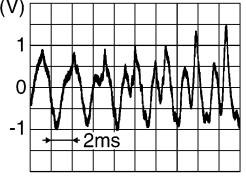
[BOSE AUDIO WITHOUT NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
95 (BR)	Ground	AUX sound signal RH	Input	Ignition switch ON	When AUX mode is select- ed	 SKIB3609E
96 (Y)	Ground	AUX sound signal LH	Input	Ignition switch ON	When AUX mode is select- ed	 SKIB3609E
97	—	Shield	—	—	—	—
101 (BR)	Ground	SW GND	—	Ignition switch ON	—	0 V
103 (SB)	Ground	Eject signal	Input	—	Pressing the eject switch	0 V
					Except for above	3.3 V
104 (G)	Ground	Ignition signal	Input	Ignition switch ON	—	Battery voltage
105 (O)	Ground	Reverse signal	Input	Ignition switch ON	R position	12 V
					Other than R position	0 V
106 (V)	Ground	Parking brake signal	Input	Ignition switch ON	Parking brake ON	0 V
					Parking brake OFF	12 V
107 (R)	Ground	Vehicle speed signal (8-pulse)	Input	Ignition switch ON	When vehicle speed is ap- prox. 40 km/h (25 MPH)	 SKIA6649J
108 (BR)	114 (Y)	Sound signal rear RH	Output	Ignition switch ON	Voice output	 SKIB3609E

AV CONTROL UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
109 (R)	115 (G)	Sound signal front RH	Output	Ignition switch ON	Voice output	 SKIB3609E
110 (V)	Ground	Amp. ON signal	Output	Ignition switch ON	—	12 V
111	—	Shield	—	—	—	—
112 (V)	118 (SB)	Sound signal rear LH	Output	Ignition switch ON	Voice output	 SKIB3609E
113 (P)	119 (L)	Sound signal front LH	Output	Ignition switch ON	Voice output	 SKIB3609E

Wiring Diagram — BOSE AUDIO WITHOUT NAVIGATION SYSTEM —

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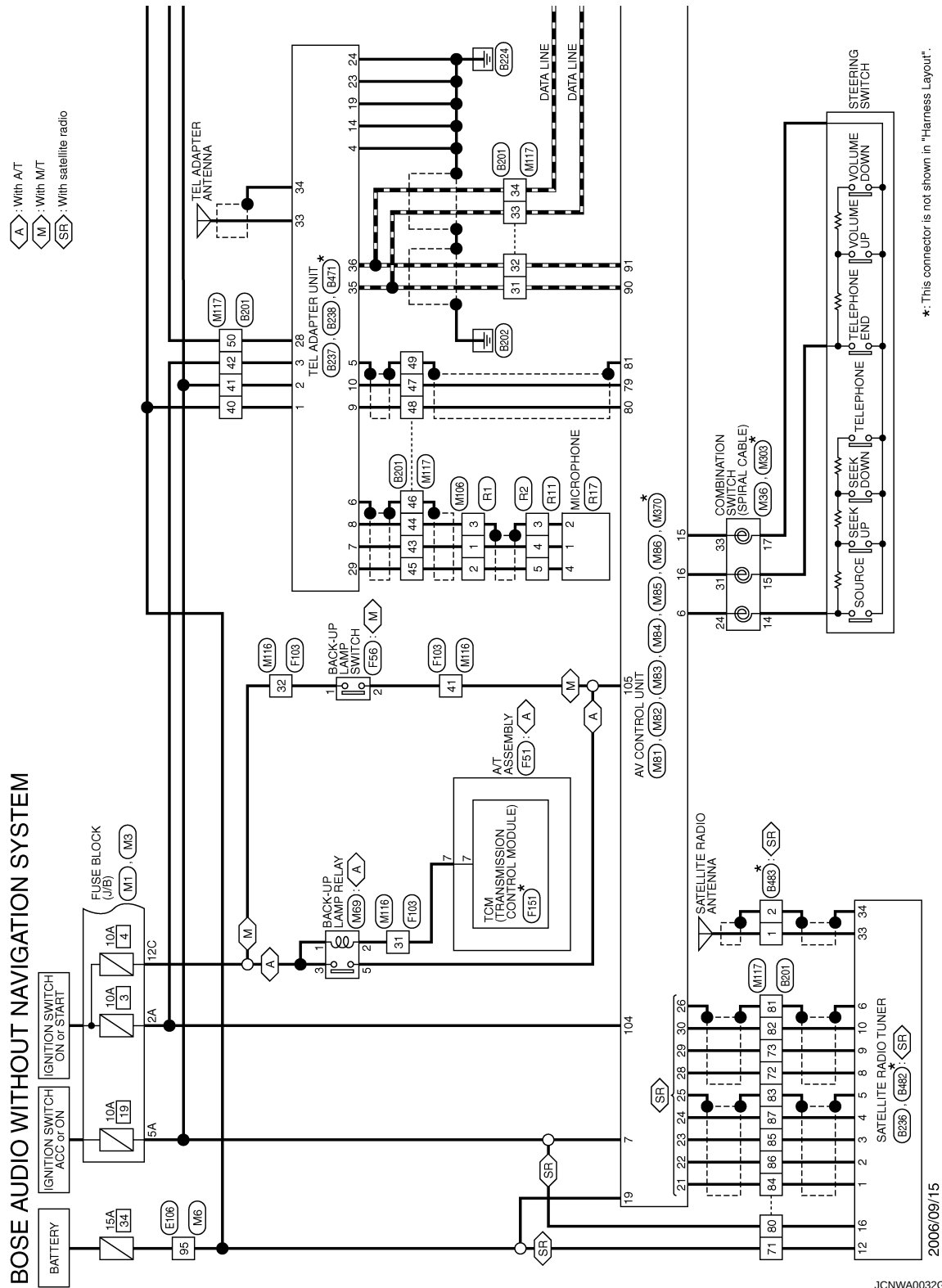
NOTE:

AV CONTROL UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

The name MULTIFUNCTION SWITCH indicates the integration of PRESET SWITCH and MULTIFUNCTION SWITCH virtually.



[BOSE AUDIO WITHOUT NAVIGATION]

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

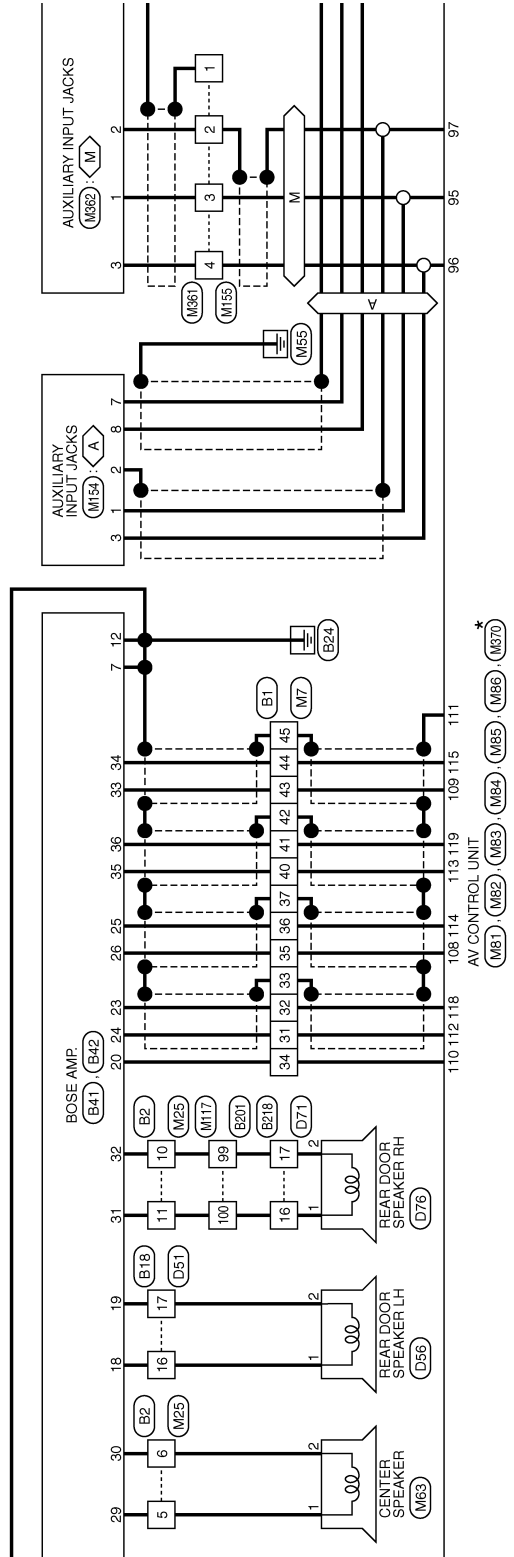


AV CONTROL UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

A : With A/T
M : With M/T



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

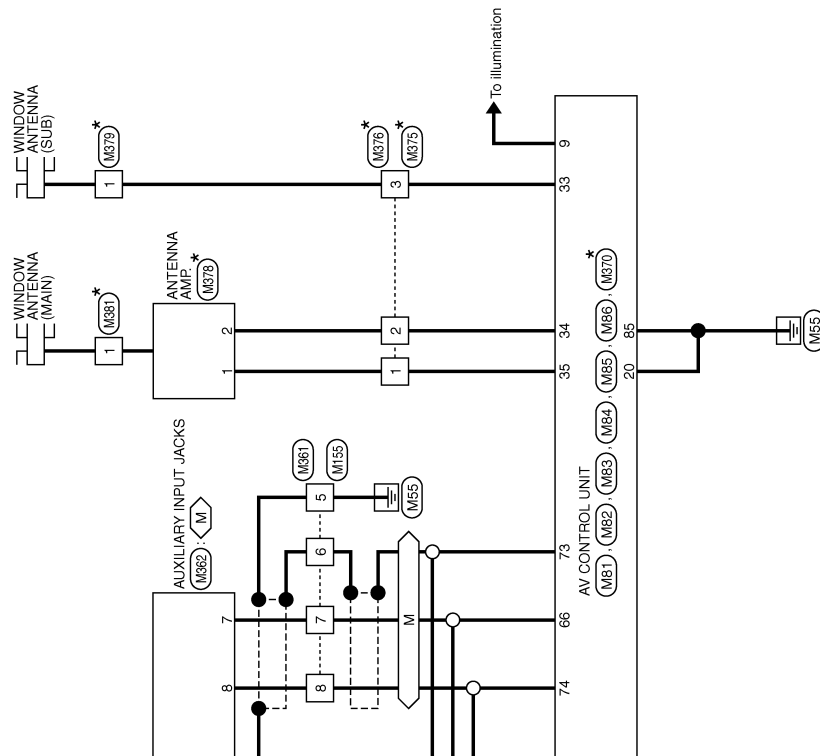
JCNWA0034GE

AV CONTROL UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

M : With M/T



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

JCNWA0035GE

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

AV

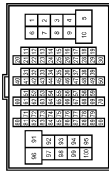
AV CONTROL UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color of Wire	Signal Name
31	V	-
32	SB	-
33	SHIELD	-
34	V	-
35	BR	-
36	Y	-
37	SHIELD	-
40	P	-
41	L	-
42	SHIELD	-
43	R	-

44	G	-
45	SHIELD	-
96	V	-

Connector No.	B2
Connector Name	WIRE TO WIRE
Connector Type	NS18FW-CS



Terminal No.	Color of Wire	Signal Name
1	L	-
2	W	-
3	V	-
4	LG	-
5	Y	-
6	G	-
7	B	-
10	Y	-
11	LG	-
12	Y	-
13	GR	-

Connector No.	B6
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FB-CS



Connector No.	B14
Connector Name	PARKING BRAKE SWITCH
Connector Type	P01FB-A



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

Terminal No.	1
Color of Wire	V
Signal Name	-

Terminal No.	Color of Wire	Signal Name
16	L	- [With BOSE system]
17	P	BOSE, BOSE

JCNWA0036GE

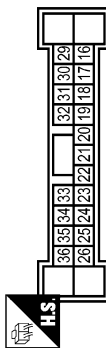
AV CONTROL UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

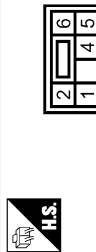
BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B41
Connector Name	BOSE AMP.
Connector Type	SCA11FER-SGA4



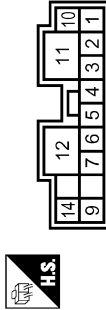
Terminal No.	Color of Wire	Signal Name
16	SB	SOUND SIGNAL WOOFER (+)
17	V	SOUND SIGNAL WOOFER (-)
18	L	SOUND SIGNAL REAR DOOR LH (+)
19	P	SOUND SIGNAL REAR DOOR LH (-)
20	V	AMP ON SIGNAL
21	SHIELD	SHIELD
22	GR	WOOFER AMP ON SIGNAL
23	SB	SOUND SIGNAL REAR LH (-)
24	V	SOUND SIGNAL REAR LH (+)
25	Y	SOUND SIGNAL REAR RH (-)
26	BR	SOUND SIGNAL REAR RH (+)

Connector No.	B46
Connector Name	WOOFER
Connector Type	NSD0FB-CS



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

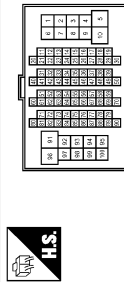
29	Y	SOUND SIGNAL CENTER (+)
30	G	SOUND SIGNAL CENTER (-)
31	LG	SOUND SIGNAL REAR DOOR RH (+)
32	Y	SOUND SIGNAL REAR DOOR RH (-)
33	R	SOUND SIGNAL FRONT RH (+)
34	G	SOUND SIGNAL FRONT RH (-)
35	P	SOUND SIGNAL FRONT LH (+)
36	L	SOUND SIGNAL FRONT LH (-)



Terminal No.	Color of Wire	Signal Name
1	L	FRONT DOOR SQUAWKER LH (+)
2	W	FRONT DOOR SQUAWKER LH (-)
3	LG	FRONT DOOR SQUAWKER RH (+)
4	V	FRONT DOOR SQUAWKER RH (-)
5	G	FRONT DOOR WOOFER RH (+)
6	R	FRONT DOOR WOOFER RH (-)
7	B	GND
9	W	FRONT DOOR WOOFER LH (-)
10	Y	BATTERY
11	GR	BATTERY
12	B	GND

47	G	-
48	Y	-
49	SHIELD	-
50	P	-
71	Y	-
72	G	-
73	L	-
80	V	-
81	SHIELD	-
82	P	-
83	SHIELD	-
84	G	- [Without CD auto changer]
85	W	- [Without CD auto changer]
86	R	-
87	B	-
89	P	-
100	L	-

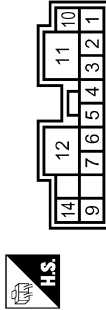
Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS1P-TM



Terminal No.	Color of Wire	Signal Name
31	L	-
32	P	-
33	G	-
34	R	-
40	Y	-
41	LG	-
42	W	-
43	BR	-
44	O	-
45	Y	-
46	SHIELD	-

14	B	FRONT DOOR WOOFER LH (+)

Connector No.	B42
Connector Name	BOSE AMP.
Connector Type	SGA12FBR-SJA2



47	G	-
48	Y	-
49	SHIELD	-
50	P	-
71	Y	-
72	G	-
73	L	-
80	V	-
81	SHIELD	-
82	P	-
83	SHIELD	-
84	G	- [Without CD auto changer]
85	W	- [Without CD auto changer]
86	R	-
87	B	-
89	P	-
100	L	-

Connector No.	B218
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-TS8



Terminal No.	Color of Wire	Signal Name
16	L	-
17	P	-

AV CONTROL UNIT

[BOSE AUDIO WITHOUT NAVIGATION]

< ECU DIAGNOSIS >

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B236
Connector Name	SATELLITE RADIO TUNER
Connector Type	A18FW



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

Terminal No.	Color of Wire	Signal Name
1	G	SOUND SIGNAL LH (-)
2	R	SOUND SIGNAL LH (+)
3	W	SOUND SIGNAL RH (-)
4	B	SOUND SIGNAL RH (+)
5	SHIELD	SHIELD
6	SHIELD	SHIELD
8	G	REQUEST (SAT->CONT)
9	L	COMM (SAT->CONT)
10	P	COMM (CONT->SAT)
12	Y	BATTERY
16	V	ACC

Connector No.	B237
Connector Name	TEL ADAPTER UNIT
Connector Type	TH432FW-NH



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

Terminal No.	Color of Wire	Signal Name
1	Y	BATTERY
2	LG	ACC
3	W	IGNITION
4	B	GND
5	SHIELD	SHIELD
6	SHIELD	SHIELD
7	BR	MICROPHONE SIGNAL
8	O	MICROPHONE GND
9	Y	TEL VOICE SIGNAL (+)
10	G	TEL VOICE SIGNAL (-)
14	B	GND

Connector No.	B471
Connector Name	TEL ADAPTER UNIT
Connector Type	GT18C-IS-HU



33	34

Terminal No.	Color of Wire	Signal Name
33	-	TEL ANTENNA
34	SHIELD	SHIELD

Connector No.	B482
Connector Name	SATELLITE RADIO TUNER
Connector Type	-



33	34

Terminal No.	Color of Wire	Signal Name
33	-	SATELLITE ANTENNA
34	SHIELD	SHIELD

Connector No.	B483
Connector Name	SATELLITE RADIO ANTENNA
Connector Type	GT18-IPP-HU



1	2

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

19	B	GND
23	B	CONTROL SIGNAL
24	B	CONTROL SIGNAL
28	P	VEHICLE SPEED (8-PULSE)
29	Y	MICROPHONE VCC

Connector No.	B238
Connector Name	TEL ADAPTER UNIT
Connector Type	TH432FW-NH



35	37	39	41
36	38	40	42

Terminal No.	Color of Wire	Signal Name
35	L	AV COMM (H)
36	P	AV COMM (L)

Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-GS15



15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
46	45	44	43	42	41	39	38	37	36	26	25	24	23	22
16	15	14	13	12	11	10	9	8	7	6	5	4	3	2
47	46	45	44	43	42	41	40	39	38	37	36	35	34	33
17	16	15	14	13	12	11	10	9	8	7	6	5	4	3
48	47	46	45	44	43	42	41	40	39	38	37	36	35	34
18	17	16	15	14	13	12	11	10	9	8	7	6	5	4
49	48	47	46	45	44	43	42	41	40	39	38	37	36	35
19	18	17	16	15	14	13	12	11	10	9	8	7	6	5
50	49	48	47	46	45	44	43	42	41	40	39	38	37	36
20	19	18	17	16	15	14	13	12	11	10	9	8	7	6
51	50	49	48	47	46	45	44	43	42	41	40	39	38	37
21	20	19	18	17	16	15	14	13	12	11	10	9	8	7
52	51	50	49	48	47	46	45	44	43	42	41	40	39	38
22	21	20	19	18	17	16	15	14	13	12	11	10	9	8
53	52	51	50	49	48	47	46	45	44	43	42	41	40	39
23	22	21	20	19	18	17	16	15	14	13	12	11	10	9
54	53	52	51	50	49	48	47	46	45	44	43	42	41	40
24	23	22	21	20	19	18	17	16	15	14	13	12	11	10
55	54	53	52	51	50	49	48	47	46	45	44	43	42	41
25	24	23	22	21	20	19	18	17	16	15	14	13	12	11
56	55	54	53	52	51	50	49	48	47	46	45	44	43	42
26	25	24	23	22	21	20	19	18	17	16	15	14	13	12
57	56	55	54	53	52	51	50	49	48	47	46	45	44	43
27	26	25	24	23	22	21	20	19	18	17	16	15	14	13
58	57	56	55	54	53	52	51	50	49	48	47	46	45	44
28	27	26	25	24	23	22	21	20	19	18	17	16	15	14
59	58	57	56	55	54	53	52	51	50	49	48	47	46	45
29	28	27	26	25	24	23	22	21	20	19	18	17	16	15
60	59	58	57	56	55	54	53	52	51	50	49	48	47	46
30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
61	60	59	58	57	56	55	54	53	52	51	50	49	48	47
31	30	29	28	27	26	25	24	23	22	21	20	19	18	17
62	61	60	59	58	57	56	55	54	53	52	51	50	49	48
32	31	30	29	28	27	26	25	24	23	22	21	20	19	18
63	62	61	60	59	58	57	56	55	54	53	52	51	50	49
33	32	31	30	29	28	27	26	25	24	23	22	21	20	19
64	63	62	61	60	59	58	57	56	55	54	53	52	51	50
34	33	32	31	30	29	28	27	26	25	24	23	22	21	20
65	64	63	62	61	60	59	58	57	56	55	54	53	52	51
35	34	33	32	31	30	29	28	27	26	25	24	23	22	21
66	65	64	63	62	61	60	59	58	57	56	55	54	53	52
36	35	34	33	32	31	30	29	28	27	26	25	24	23	22
67	66	65	64	63	62	61	60	59	58	57	56	55	54	53
37	36	35	34	33	32	31	30	29	28	27	26	25	24	23
68	67	66	65	64	63	62	61	60	59	58	57	56	55	54
38	37	36	35	34	33	32	31	30	29	28	27	26	25	24
69	68	67	66	65	64	63	62	61	60	59	58	57	56	55
39	38	37	36	35	34	33	32	31	30	29	28	27	26	25
70	69	68	67	66	65	64	63	62	61	60	59	58	57	56
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71	70	69	68	67	66	65	64	63	62	61	60	59	58	57
41	40	39	38	37	36	35	34	33	32	31	30	29	28	27
72	71	70	69	68	67	66	65	64	63	62	61	60	59	58
42	41	40	39	38	37	36	35	34	33	32	31	30	29	28
73	72	71	70	69	68	67	66	65	64	63	62	61	60	59
43	42	41	40	39	38	37	36	35	34	33	32	31	30	29
74	73	72	71	70	69	68	67	66	65	64	63	62	61	60
44	43	42	41	40	39	38	37	36	35	34	33	32	31	30
75	74	73	72	71	70	69	68	67	66	65	64	63	62	61
45	44	43	42	41	40	39	38	37	36	35	34	33	32	31
76	75	74	73	72	71	70	69	68	67	66	65	64	63	62
46	45	44	43	42	41	40	39	38	37	36	35	34	33	32
77	76	75	74	73	72	71	70	69	68	67	66	65	64	63
47	46	45	44	43	42	41	40	39	38	37	36	35	34	33
78	77	76	75	74	73	72	71	70	69	68	67	66	65	64
48	47	46	45	44	43	42	41	40	39	38	37	36	35	34
79	78	77	76	75	74	73	72	71	70	69	68	67	66	65
49	48	47	46	45	44	43	42	41	40	39	38	37	36	35
80	79	78	77	76	75	74	73	72	71	70	69	68	67	66
50	49	48	47	46	45	44	43	42	41	40	39	38	37	36
81	80	79	78	77	76	75	74	73	72	71	70	69	68	67
51	50	49	48	47	46	45	44	43	42	41	40	39	38	37
82	81	80	79	78	77	76	75	74	73	72	71	70	69	68
52	51	50	49	48	47	46	45	44	43	42	41	40	39	38
83	82	81	80	79	78	77	76	75	74	73	72	71	70	69
53	52	51	50	49	48	47	46	45	44	43	42	41	40	39
84	83	82	81	80	79	78	77	76	75	74	73	72	71	70
54	53	52	51	50	49	48	47	46	45	44	43	42	41	40
85	84	83	82	81	80	79	78	77	76	75	74	73	72	71
55	54	53	52	51	50	49	48	47	46	45	44	43	42	41
86	85	84	83	82	81	80	79	78	77	76	75	74	73	72
56	55	54	53	52	51	50	49	48	47	46	45	44	43	42
87	86	85	84	83	82	81	80	79	78	77	76	75	74	73
57	56	55	54	53	52	51	50	49	48	47	46	45	44	43
88	87	86	85	84	83	82	81	80	79	78	77	76	75	74
58	57	56	55	54	53	52	51	50	49	48	47	46	45	44
89	88	87	86	85	84	83	82	81	80	79	78	77	76	75
59	58	57	56	55	54	53	52	51	50	49	48	47	46	45
90	89	88	87	86	85	84	83	82	81	80	79	78	77	76
60	59	58	57	56	55	54	53	52	51	50	49	48	47	46
91	90	89	88	87	86	85	84	83	82	81	80	79	78	77
61	60	59	58	57	56	55	54	53	52	51	50	49	48	47
92	91	90	89	88	87	86	85	84	83	82	81	80	79	78
62	61	60	59	58	57	56	55	54	53	52	51	50	49	48
93	92	91	90	89	88	87	86	85	84	83	82	81	80	79
63	62	61	60	59	58	57	56	55	54	53	52	51	50	49
94	93	92	91	90	89	88	87	86	85	84	83	82	81	80
64	63	62	61	60	59	58	57	56	55	54	53	52	51	50
95	94	93	92	91	90	89	88	87	86	85	84	83	82	81
65	64	63	62	61	60	59	58	57	56	55	54	53	52	51
96	95	94	93	92	91	90	89	88	87	86	85	84	83	82
66	65	64	63	62	61	60	59	58	57	56	55	54	53	52
97	96	95	94	93	92	91	90	89	88	87	86	85	84	83
67	66	65	64	63	62	61	60	59	58	57	56	55	54	53
98	97	96	95	94	93	92	91	90	89	88	87	86	85	84
68	67	66	65	64	63	62	61	60	59	58	57	56	55	54
99	98	97	96	95	94	93	92	91	90	89	88	87	86	85
69	68	67	66	65	64	63	62	61	60	59	58	57	56	55
100	99	98	97	96	95	94	93	92	91	90	89	88	87	86
70	69	68	67	66	65	64	63	62	61	60	59	58	57	56
101	100	99	98	97	96	95	94	93	92	91	90	89	88	87
71	70	69	68	67	66	65	64	63	62	61	60	59	58	57
102	101	100	99	98	97	96	95	94	93	92	91	90	89	88

AV CONTROL UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	D2
Connector Name	TWEETER LH
Connector Type	TK02MBR-P



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

Connector No.	D11
Connector Name	FRONT DOOR WOOFER LH
Connector Type	NS02FW-CS



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

Connector No.	D16
Connector Name	FRONT DOOR SQUAWKER LH
Connector Type	TK02FER



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

Connector No.	D31
Connector Name	WIRE TO WIRE
Connector Type	TH04FW-GS15



Terminal No.	Color of Wire	Signal Name
9	R	-
10	G	-
36	W	-
37	L	-

Connector No.	D32
Connector Name	TWEETER RH
Connector Type	TK02MBR-P



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

Connector No.	D41
Connector Name	FRONT DOOR WOOFER RH
Connector Type	NS02FW-CS



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

Connector No.	D46
Connector Name	FRONT DOOR SQUAWKER RH
Connector Type	TK02FER



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

Connector No.	D51
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-1S8



Terminal No.	Color of Wire	Signal Name
16	LG	-
17	Y	-

AV CONTROL UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	D56
Connector Name	REAR DOOR SPEAKER LH (With BOSE system)
Connector Type	NS02FBR-CS



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

Connector No.	D71
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



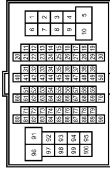
Terminal No.	Color of Wire	Signal Name
16	L	-
17	P	-

Connector No.	D76
Connector Name	REAR DOOR SPEAKER RH (With BOSE system)
Connector Type	NS02FBR-CS



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

Connector No.	E108
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



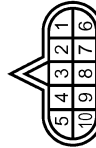
Terminal No.	Color of Wire	Signal Name
18	O	-
95	Y	-

Connector No.	E107
Connector Name	PARKING BRAKE SWITCH (A/T)
Connector Type	TB01FW



Terminal No.	Color of Wire	Signal Name
1	O	-

Connector No.	F51
Connector Name	A/T ASSEMBLY
Connector Type	RK10FG-DGY



Terminal No.	Color of Wire	Signal Name
7	R	-

Connector No.	F56
Connector Name	BACK-UP LAMP SWITCH
Connector Type	RK02FB



Terminal No.	Color of Wire	Signal Name
1	R	-
2	O	-

Connector No.	F103
Connector Name	WIRE TO WIRE
Connector Type	TK36FW-NS10



Terminal No.	Color of Wire	Signal Name
31	R	-
32	R	-
41	O	-

AV CONTROL UNIT

[BOSE AUDIO WITHOUT NAVIGATION]

< ECU DIAGNOSIS >

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	F151
Connector Name	TCM (TRANSMISSION CONTROL MODULE)
Connector Type	SP10FBGY



10	9	8	7	6	5	4	3	2	1

Terminal No.	Color of Wire	Signal Name
7	O	REV LAMP RLY

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NSJ06FW-M2



3A	2A	1A
8A	7A	6A
5A	4A	3A

Terminal No.	Color of Wire	Signal Name
2A	G	-
5A	V	-

Connector No.	M2
Connector Name	FUSE BLOCK (J/B)
Connector Type	NSJ06FW-CS



4B	3B	2B	1B
10B	9B	8B	7B
6B	5B	4B	3B

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

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	NSJ2FW-CS



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

Terminal No.	Color of Wire	Signal Name
12C	R	-

Connector No.	M5
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS15



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40	41	42	43	44	45

Terminal No.	Color of Wire	Signal Name
9	W	-
10	B	-
36	W	-
37	L	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS19-TM4



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40	41	42	43	44	45

Terminal No.	Color of Wire	Signal Name
18	V	-
95	Y	-

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



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40	41	42	43	44	45

Terminal No.	Color of Wire	Signal Name
31	V	-
32	SB	-
33	SHIELD	-
34	V	-
35	BR	-
36	Y	-
37	SHIELD	-
40	P	-
41	L	-
42	SHIELD	-
43	R	-

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AV

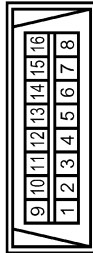
AV CONTROL UNIT

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[BOSE AUDIO WITHOUT NAVIGATION]

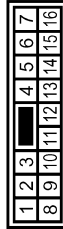
BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



Terminal No.	Color of Wire	Signal Name
6	L	-
14	P	-

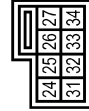
Connector No.	M25
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS



Terminal No.	Color of Wire	Signal Name
1	L	-
2	W	-
3	BR	-
4	R	-
5	L	-
6	LG	-
7	B	-
10	P	-
11	L	-
12	Y	-
13	SB	-

14	R	-
15	G	-
16	W	-

Connector No.	M36
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY-1V



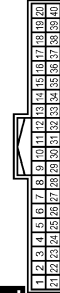
Terminal No.	Color of Wire	Signal Name
24	P	-
31	L	-
33	B	-

Connector No.	M63
Connector Name	CENTER SPEAKER
Connector Type	TK02FBR



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

Connector No.	M68
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH40FW-NH



Terminal No.	Color of Wire	Signal Name
28	R	VEHICLE SPEED (8-PULSE)

Connector No.	M67
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH32FY-NH



Terminal No.	Color of Wire	Signal Name
56	L	CAN-H
72	P	CAN-L

Connector No.	M69
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS02FL-M2



Terminal No.	Color of Wire	Signal Name
1	R	-
2	W	-
3	LG	-
5	O	-

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AV CONTROL UNIT

[BOSE AUDIO WITHOUT NAVIGATION]

< ECU DIAGNOSIS >

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M71
Connector Name	DISPLAY UNIT
Connector Type	TH24FW-NH

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

14	LG	SIGNAL GND [Without NAVI]
15	SB	AUX IMAGE SIGNAL [Without NAVI]
16	BR	COMPOSITE SYNC
17	G	RGB (RED) SIGNAL [Without NAVI]
18	P	RGB (BLUE) SIGNAL [Without NAVI]
19	W	RGB SYNC [Without NAVI]
20	G	VP [Without NAVI]
21	SHIELD	SHIELD
22	BR	COMM (DISP->CONT) [Without NAVI]
23	SHIELD	SHIELD

Terminal No.	Color of Wire	Signal Name
1	B	GND
2	Y	INVERTER VCC [Without NAVI]
3	O	SIGNAL VCC [Without NAVI]
4	V	AUX IMAGE GND [Without NAVI]
5	Y	COMPOSITE SYNC GND [Without NAVI]
6	L	RGB (GREEN) SIGNAL [Without NAVI]
7	SHIELD	SHIELD
8	R	HP
9	B	RGB AREA (VS) SIGNAL
11	Y	COMM (CONT->DISP) [Without NAVI]
13	BR	INVERTER GND [Without NAVI]

Connector No.	M82
Connector Name	AV CONTROL UNIT
Connector Type	A12FW

22	24	30	32
21	23	25	26
27	28	29	31

Terminal No.	Color of Wire	Signal Name
21	W	SOUND SIGNAL LH (-)
22	B	SOUND SIGNAL LH (+)
23	R	SOUND SIGNAL RH (-)
24	G	SOUND SIGNAL RH (+)
25	SHIELD	SHIELD
26	SHIELD	SHIELD
28	W	REQUEST (SAT->CONT)
29	B	COMM (SAT->CONT)
30	R	COMM (CONT->SAT)

Connector No.	M83
Connector Name	AV CONTROL UNIT
Connector Type	TH24FW-NH

47	48	45	44	43	42	41	40	39	38	37	36
59	58	57	56	55	54	53	52	51	50	49	48

Terminal No.	Color of Wire	Signal Name
36	SB	AUX IMAGE SIGNAL
37	V	AUX IMAGE GND
38	P	RGB (BLUE) SIGNAL
39	L	RGB (GREEN) SIGNAL
40	G	RGB (RED) SIGNAL
41	W	RGB SYNC
42	SHIELD	SHIELD
43	B	RGB AREA (VS) SIGNAL
44	BR	COMM (DISP->CONT)
45	R	HP
46	LG	SIGNAL GND

Connector No.	M72
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH18FW-NH

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

Terminal No.	Color of Wire	Signal Name
1	B	GND
3	V	ACC
6	LG	AV COMM (H)
8	V	AV COMM (L)
9	BR	SW GND
14	SB	EJECT SIGNAL

47	O	SIGNAL VCC
48	BR	COMPOSITE SYNC
49	Y	COMPOSITE SYNC GND
50	SHIELD	SHIELD
53	SHIELD	SHIELD
56	Y	COMM (CONT->DISP)
57	G	VP
58	BR	INVERTER GND
59	Y	INVERTER VCC

Connector No.	M81
Connector Name	AV CONTROL UNIT
Connector Type	TH18FW-CS2

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

Terminal No.	Color of Wire	Signal Name
6	P	STRG SW A
7	V	ACC
9	R	ILLUMINATION
15	B	STRG SW GND
16	L	STRG SW B
19	Y	BATTERY
20	B	GND

Connector No.	M84
Connector Name	AV CONTROL UNIT
Connector Type	TH18FW-NH

67	66	65	64	63	62	61	60
75	74	73	72	71	70	69	68

Terminal No.	Color of Wire	Signal Name
66	G	AUX IMAGE SIGNAL
73	SHIELD	SHIELD
74	R	AUX IMAGE GND

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

AV

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AV CONTROL UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M85
Connector Name	AV CONTROL UNIT
Connector Type	TH32FW-NH



91	90	89	88	87	86	85	84	83	82	81	80	79	78	77	76
107	106	105	104	103	102	101	100	99	98	97	96	95	94	93	92

Terminal No.	Color of Wire	Signal Name
79	P	TEL VOICE SIGNAL (-)
80	L	TEL VOICE SIGNAL (+)
81	SHIELD	SHIELD
85	B	GND
86	L	CAN-H
87	P	CAN-L
88	G	AV COMM (+) [With BOSE system]
89	R	AV COMM (L) [With BOSE system]
90	L	AV COMM (H)
91	P	AV COMM (L)
95	BR	SOUND SIGNAL RH (+) [With BOSE system]

Connector No.	M107
Connector Name	ECM
Connector Type	MAX24FGY-MEAF-LH-Z



128	124	120	116	112	108	104	100
127	123	119	115	111	107	103	99
126	122	118	114	110	106	102	98
125	121	117	113	109	105	101	97

Terminal No.	Color of Wire	Signal Name
113	P	VHECAN LI
114	L	VHECAN HI

96	Y	SOUND SIGNAL LH (+) [With BOSE system]
97	SHIELD	SHIELD
101	BR	SW GND
103	SB	EJECT SIGNAL
104	G	IGNITION
105	O	REVERSE
106	V	PARKING BRAKE
107	R	VEHICLE SPEED (8-PULSE)

Connector No.	M86
Connector Name	AV CONTROL UNIT
Connector Type	TH12FW-NH



114	113	112	111	110	109	108	107	106	105	104	103	102	101	100	99	98	97	96	95	94	93	92	91	90	89	88	87	86	85	84	83	82	81	80	79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64	63	62	61	60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Terminal No.	Color of Wire	Signal Name
108	BR	SOUND SIGNAL REAR RH (+)
109	R	SOUND SIGNAL FRONT RH (+)
110	V	AMP. ON SIGNAL
111	SHIELD	SHIELD
112	V	SOUND SIGNAL REAR LH (+)
113	P	SOUND SIGNAL FRONT LH (+)
114	Y	SOUND SIGNAL REAR RH (-)
115	G	SOUND SIGNAL FRONT RH (-)
118	SB	SOUND SIGNAL REAR LH (-)
119	L	SOUND SIGNAL FRONT LH (-)

Connector No.	M117
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-GS16-TM4



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100

Terminal No.	Color of Wire	Signal Name
31	L	-
32	P	-
33	G	-
34	R	-
40	Y	-
41	G	-
42	O	-
43	B	-
44	R	-
45	W	-
46	SHIELD	-

Connector No.	M106
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



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

Terminal No.	Color of Wire	Signal Name
1	B	- [Without NAVI]
2	W	- [Without NAVI]
3	R	- [Without NAVI]

47	P	-
48	L	-
49	SHIELD	-
50	V	-
71	Y	-
72	W	-
73	B	-
80	V	-
81	SHIELD	-
82	R	-
83	SHIELD	-
84	W	-
85	R	-
86	B	-
87	G	-
99	P	-
100	L	-

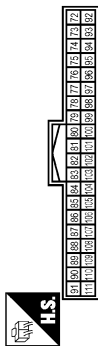
AV CONTROL UNIT

[BOSE AUDIO WITHOUT NAVIGATION]

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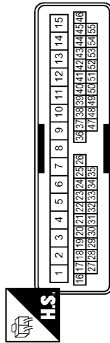
BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M122
Connector Name	BOM BODY CONTROL MODULE
Connector Type	TH40FB-NH



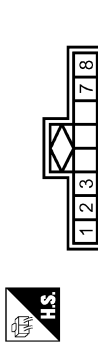
Terminal No.	Color of Wire	Signal Name
90	P	CAN-L
91	L	CAN-H

Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CSS15



Terminal No.	Color of Wire	Signal Name
9	R	-
10	G	-
36	R	-
37	BR	-

Connector No.	M154
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A08FW



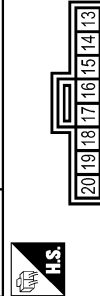
Terminal No.	Color of Wire	Signal Name
1	BR	SOUND SIGNAL RH (C) [Without NAVI]
2	SHIELD	SHIELD [Without NAVI]
3	Y	SOUND SIGNAL LH (C) [Without NAVI]
7	G	AUX IMAGE SIGNAL
8	R	AUX IMAGE GND

Connector No.	M155
Connector Name	WIRE TO WIRE
Connector Type	TH08FW-NH



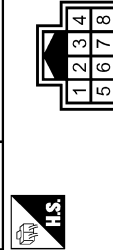
Terminal No.	Color of Wire	Signal Name
1	SHIELD	-
2	SHIELD	[Without NAVI]
3	BR	[Without NAVI]
4	Y	[Without NAVI]
5	B	-
6	SHIELD	-
7	G	-
8	R	-

Connector No.	M303
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08GY



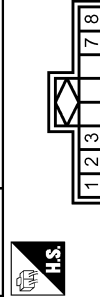
Terminal No.	Color of Wire	Signal Name
14	W	-
15	L	-
17	BR	-

Connector No.	M361
Connector Name	WIRE TO WIRE
Connector Type	TH08MW-NH



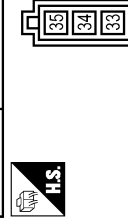
Terminal No.	Color of Wire	Signal Name
1	SHIELD	-
2	B	-
3	BR	- [Without NAVI]
4	Y	- [Without NAVI]
5	SHIELD	-
6	SHIELD	-
7	G	-
8	R	-

Connector No.	M362
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A08FW



Terminal No.	Color of Wire	Signal Name
1	BR	SOUND SIGNAL RH (C) [Without NAVI]
2	B	SOUND SIGNAL GND
3	Y	SOUND SIGNAL LH (C) [Without NAVI]
7	G	AUX IMAGE SIGNAL
8	R	AUX IMAGE GND

Connector No.	M370
Connector Name	AV CONTROL UNIT
Connector Type	GT13SH-2/IS-HU



Terminal No.	Color of Wire	Signal Name
33	-	FM SUB
34	-	AM-FM MAIN
35	-	ANTENNA AMP ON SIGNAL

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AV

AV CONTROL UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M375
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1S-HU



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

Connector No.	M376
Connector Name	WIRE TO WIRE
Connector Type	GT13SCN-2/1P-HU



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

Connector No.	M378
Connector Name	ANTENNA AMP.
Connector Type	GT13SC-1/1S-HU



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

Connector No.	M379
Connector Name	WINDOW ANTENNA(SUB)
Connector Type	P01FB-A



Terminal No.	Color of Wire	Signal Name
1	-	-

Connector No.	M381
Connector Name	WINDOW ANTENNA(MAIN)
Connector Type	P01FB-A



Terminal No.	Color of Wire	Signal Name
1	-	-

Connector No.	R1
Connector Name	WIRE TO WIRE
Connector Type	1K10FW-NS8



Terminal No.	Color of Wire	Signal Name
1	G	- [Without NAV]
2	Y	- [Without NAV]
3	SHIELD	-

Connector No.	R2
Connector Name	WIRE TO WIRE
Connector Type	TH12FW-NH



Terminal No.	Color of Wire	Signal Name
3	SHIELD	-
4	R	-
5	G	-

Connector No.	R11
Connector Name	WIRE TO WIRE
Connector Type	TH12MW-NH



Terminal No.	Color of Wire	Signal Name
3	SHIELD	-
4	R	-
5	G	-

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BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	RT7
Connector Name	MICROPHONE
Connector Type	TK04FW



Terminal No.	Color of Wire	Signal Name
1	R	MICROPHONE SIGNAL
2	SHIELD	SHIELD
4	G	MICROPHONE VCC

DTC Index

Self-diagnosis results display item

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INFOID:0000000000964702

AV CONTROL UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

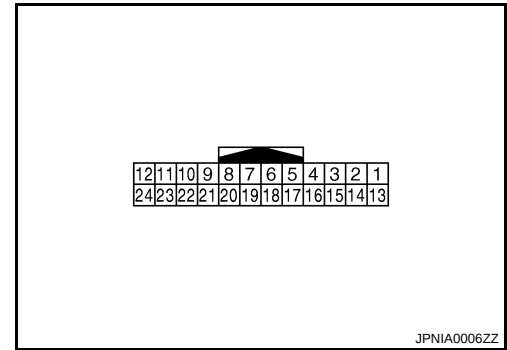
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CONTROL UNIT (CAN) [U1010]	LAN-18, "Trouble Diagnosis Flow Chart"
CONTROL UNIT (AV) [U1310]	AV-154, "DTC Logic"
Control Unit FLASH-ROM [U1200]	AV-155, "DTC Logic"
CAN CONT [U1216]	AV-156, "DTC Logic"
FRONT DISP CONN [U1243]	AV-157, "Diagnosis Procedure"
SAT CONN [U1255]	AV-159, "Diagnosis Procedure"
• AV COMM CIRCUIT [U1300] • SWITCHE CONN [U1240]	AV-160, "Description"
• AV COMM CIRCUIT [U1300] • HAND FREE CONN [U1256]	AV-160, "Description"
• AV COMM CIRCUIT [U1300] • SWITCHE CONN [U1240] • HAND FREE CONN [U1256]	AV-160, "Description"

DISPLAY UNIT

Reference Value

INFOID:000000000964703

TERMINAL LAYOUT



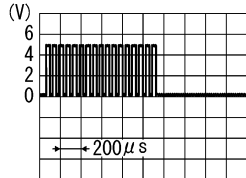
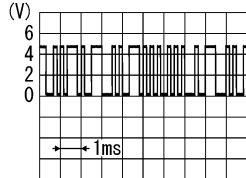
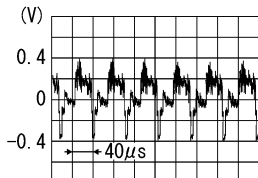
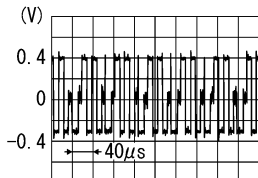
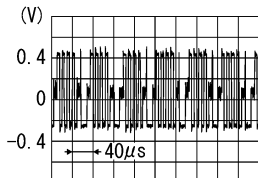
PHYSICAL VALUES

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
1 (B)	Ground	GND	—	Ignition switch ON	—	0 V
2 (Y)	Ground	Inverter VCC	Input	Ignition switch ACC	—	9 V
3 (O)	Ground	Signal VCC	Input	Ignition switch ACC	—	9 V
4 (V)	Ground	AUX image GND	—	Ignition switch ON	—	0 V
5 (Y)	Ground	Composite synchronizing signal GND	—	Ignition switch ON	—	0 V
6 (L)	Ground	RGB signal (G: green)	Input	Ignition switch ON	Start confirmation/adjust- ment mode, and then dis- play color bar by selecting "Color Spectrum Bar" on DISPLAY DIAGNO- SIS screen.	SKIB2236J
7	—	Shield	—	—	—	—
8 (R)	Ground	Horizontal synchronizing (HP) signal	Output	Ignition switch ON	—	SKIB3601E

DISPLAY UNIT

< ECU DIAGNOSIS >

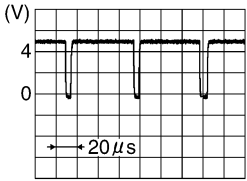
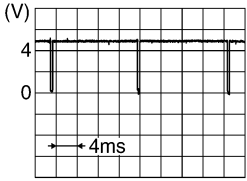
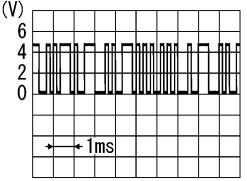
[BOSE AUDIO WITHOUT NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
9 (B)	Ground	RGB area (YS) signal	Input	Ignition switch ON	At RGB image displayed	5 V
					At rear view camera image displayed	 PKIB4948J
11 (Y)	Ground	Communication signal (CONT→DISP)	Input	Ignition switch ON	When adjusting display- brightness.	 PKIB5039J
13 (BR)	Ground	Inverter GND	—	Ignition switch ON	—	0 V
14 (LG)	Ground	Signal GND	—	Ignition switch ON	—	0 V
15 (SB)	Ground	AUX image signal	Input	Ignition switch ON	When AUX mode is select- ed	 SKIB2251J
17 (G)	Ground	RGB signal (R: red)	Input	Ignition switch ON	Start confirmation/adjust- ment mode, and then dis- play color bar by selecting “Color Spectrum Bar” on DISPLAY DIAGNOSIS screen.	 SKIB2238J
18 (P)	Ground	RGB signal (B: blue)	Input	Ignition switch ON	Start confirmation/adjust- ment mode, and then dis- play color bar by selecting “Color Spectrum Bar” on DISPLAY DIAGNO- SIS screen.	 SKIB2237J

DISPLAY UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

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

Wiring Diagram — BOSE AUDIO WITHOUT NAVIGATON SYSTEM —

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NOTE:

AV

O

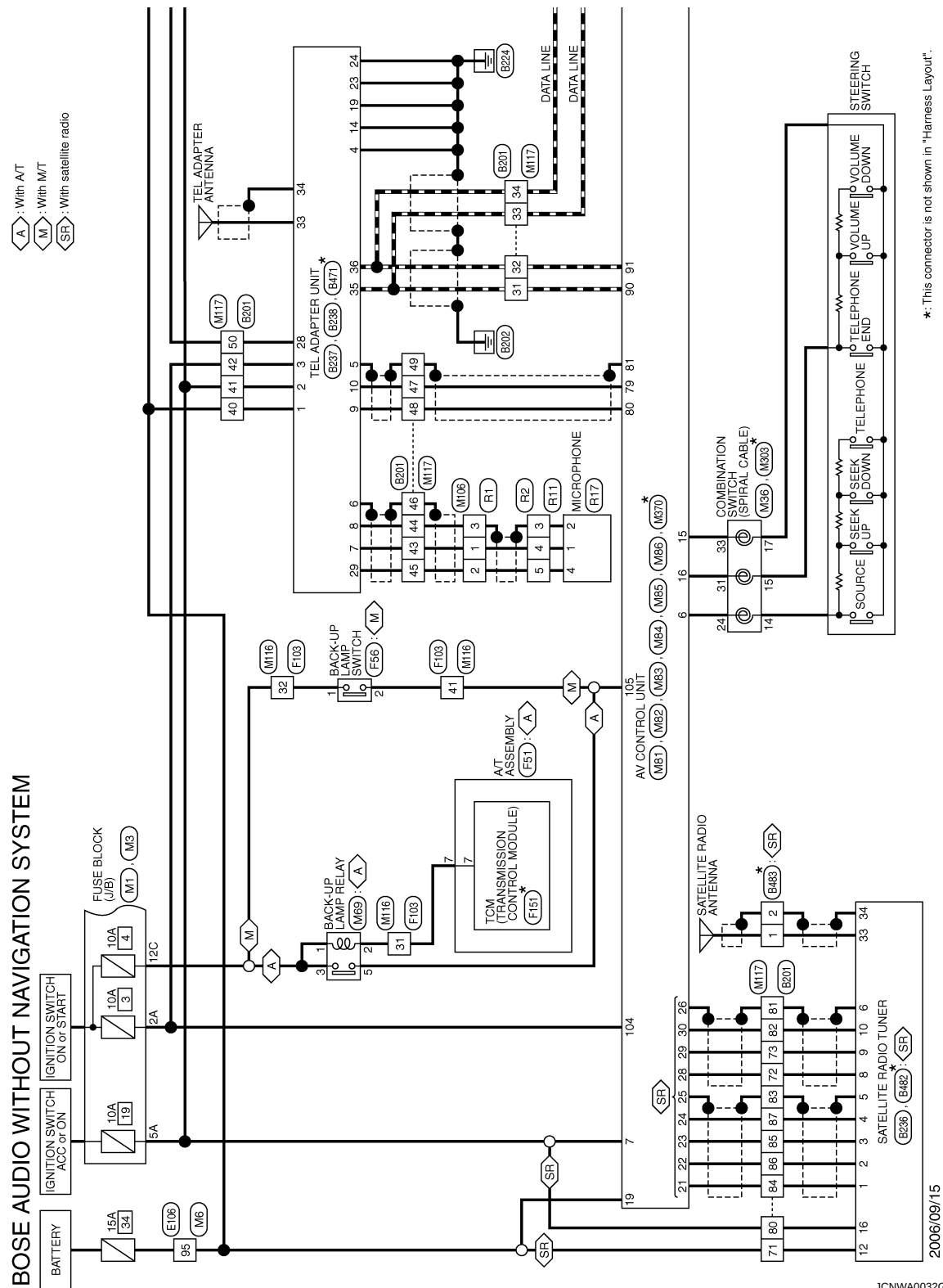
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DISPLAY UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

The name MULTIFUNCTION SWITCH indicates the integration of PRESET SWITCH and MULTIFUNCTION SWITCH virtually.



[BOSE AUDIO WITHOUT NAVIGATION]

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



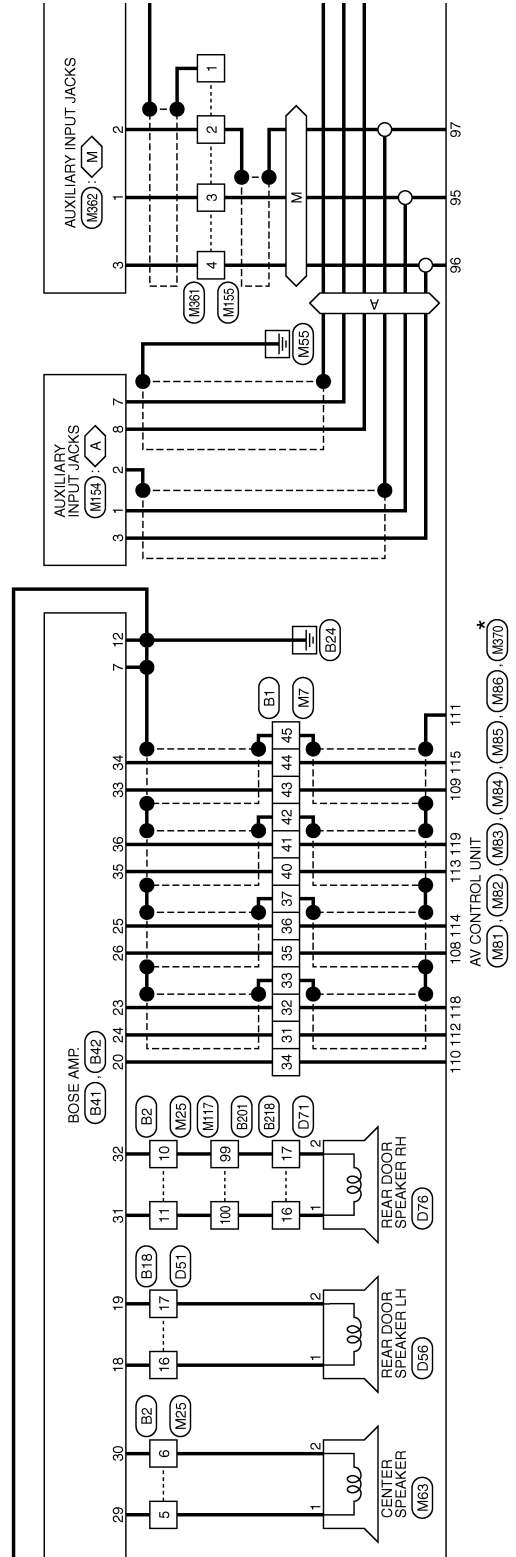
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DISPLAY UNIT

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[BOSE AUDIO WITHOUT NAVIGATION]

A : With A/T
M : With M/T



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

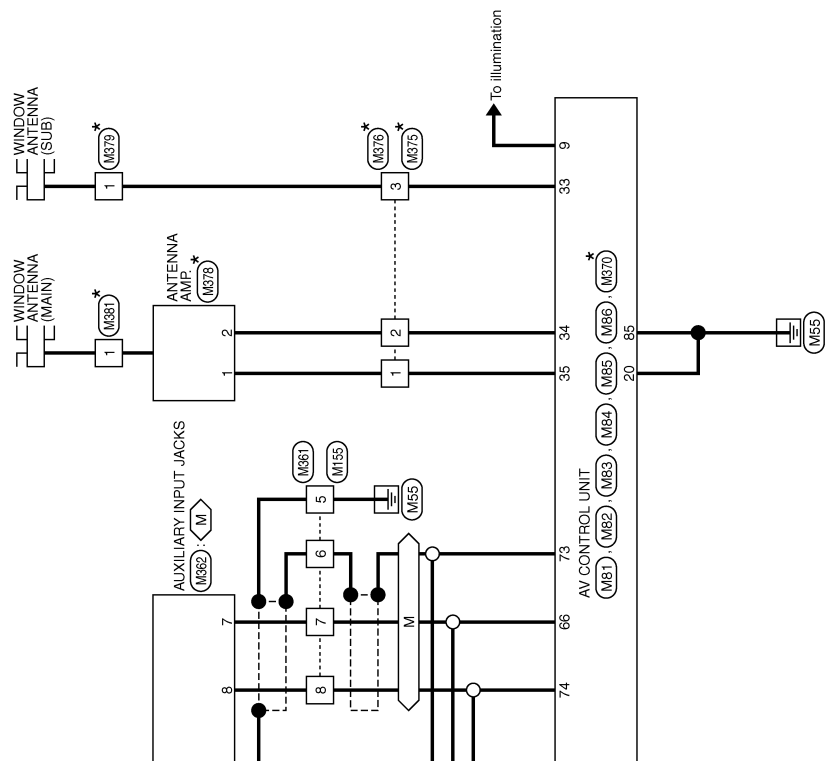
JCNWA0034GE

DISPLAY UNIT

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[BOSE AUDIO WITHOUT NAVIGATION]

M : With M/T



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

JCNWA0035GE

AV

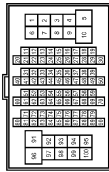
DISPLAY UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color of Wire	Signal Name
31	V	-
32	SB	-
33	SHIELD	-
34	V	-
35	BR	-
36	Y	-
37	SHIELD	-
40	P	-
41	L	-
42	SHIELD	-
43	R	-

44	G	-
45	SHIELD	-
96	V	-

Connector No.	B2
Connector Name	WIRE TO WIRE
Connector Type	NS18FW-CS



Terminal No.	Color of Wire	Signal Name
1	L	-
2	W	-
3	V	-
4	LG	-
5	Y	-
6	G	-
7	B	-
10	Y	-
11	LG	-
12	Y	-
13	GR	-

Connector No.	B6
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FB-CS



Connector No.	B14
Connector Name	PARKING BRAKE SWITCH
Connector Type	P01FB-A



Connector No.	B18
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-HSB



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

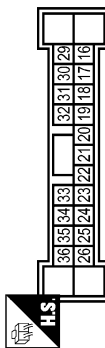
Terminal No.	1
Color of Wire	V
Signal Name	-

Terminal No.	Color of Wire	Signal Name
16	L	- [With BOSE system]
17	P	BOSE POWER WINDOW

JCNWA0036GE

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B41
Connector Name	BOSE AMP.
Connector Type	SCA11FER-SGA4



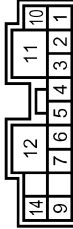
Terminal No.	Color of Wire	Signal Name
16	SB	SOUND SIGNAL WOOFER (+)
17	V	SOUND SIGNAL WOOFER (-)
18	L	SOUND SIGNAL REAR DOOR LH (+)
19	P	SOUND SIGNAL REAR DOOR LH (-)
20	V	AMP ON SIGNAL
21	SHIELD	SHIELD
22	GR	WOOFER AMP ON SIGNAL
23	SB	WOOFER AMP ON SIGNAL
24	V	SOUND SIGNAL REAR LH (+)
25	Y	SOUND SIGNAL REAR LH (-)
26	BR	SOUND SIGNAL REAR RH (+)

Connector No.	B46
Connector Name	WOOFER
Connector Type	NSD0FB-CS



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

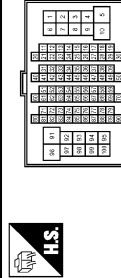
29	Y	SOUND SIGNAL CENTER (+)
30	G	SOUND SIGNAL CENTER (-)
31	LG	SOUND SIGNAL REAR DOOR RH (+)
32	Y	SOUND SIGNAL REAR DOOR RH (-)
33	R	SOUND SIGNAL FRONT RH (+)
34	G	SOUND SIGNAL FRONT RH (-)
35	P	SOUND SIGNAL FRONT LH (+)
36	L	SOUND SIGNAL FRONT LH (-)



Terminal No.	Color of Wire	Signal Name
1	L	FRONT DOOR SQUAWKER LH (+)
2	W	FRONT DOOR SQUAWKER LH (-)
3	LG	FRONT DOOR SQUAWKER RH (+)
4	V	FRONT DOOR SQUAWKER RH (-)
5	G	FRONT DOOR WOOFER RH (+)
6	R	FRONT DOOR WOOFER RH (-)
7	B	GND
9	W	FRONT DOOR WOOFER LH (-)
10	Y	BATTERY
11	GR	BATTERY
12	B	GND

47	G	-
48	Y	-
49	SHIELD	-
50	P	-
71	Y	-
72	G	-
73	L	-
80	V	-
81	SHIELD	-
82	P	-
83	SHIELD	-
84	G	- [Without CD auto changer]
85	W	- [Without CD auto changer]
86	R	-
87	B	-
89	P	-
100	L	-

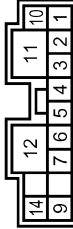
Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS1P-TM



Terminal No.	Color of Wire	Signal Name
31	L	-
32	P	-
33	G	-
34	R	-
40	Y	-
41	LG	-
42	W	-
43	BR	-
44	O	-
45	Y	-
46	SHIELD	-

14	B	FRONT DOOR WOOFER LH (+)

Connector No.	B42
Connector Name	BOSE AMP.
Connector Type	SGA12FBR-SJA2



Terminal No.	Color of Wire	Signal Name
1	L	FRONT DOOR SQUAWKER LH (+)
2	W	FRONT DOOR SQUAWKER LH (-)
3	LG	FRONT DOOR SQUAWKER RH (+)
4	V	FRONT DOOR SQUAWKER RH (-)
5	G	FRONT DOOR WOOFER RH (+)
6	R	FRONT DOOR WOOFER RH (-)
7	B	GND
9	W	FRONT DOOR WOOFER LH (-)
10	Y	BATTERY
11	GR	BATTERY
12	B	GND

Connector No.	B218
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-TS8



Terminal No.	Color of Wire	Signal Name
16	L	-
17	P	-

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B236
Connector Name	SATELLITE RADIO TUNER
Connector Type	A18FW



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

Terminal No.	Color of Wire	Signal Name
1	G	SOUND SIGNAL LH (-)
2	R	SOUND SIGNAL LH (+)
3	W	SOUND SIGNAL RH (-)
4	B	SOUND SIGNAL RH (+)
5	SHIELD	SHIELD
6	SHIELD	SHIELD
8	G	REQUEST (SAT->CONT)
9	L	COMM (SAT->CONT)
10	P	COMM (CONT->SAT)
12	Y	BATTERY
16	V	ACC



Terminal No.	Color of Wire	Signal Name
33	-	TEL ANTENNA
34	SHIELD	SHIELD

Connector No.	B237
Connector Name	TEL ADAPTER UNIT
Connector Type	TH432FW-NH



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

Terminal No.	Color of Wire	Signal Name
1	Y	BATTERY
2	LG	ACC
3	W	IGNITION
4	B	GND
5	SHIELD	SHIELD
6	SHIELD	SHIELD
7	BR	MICROPHONE SIGNAL
8	O	MICROPHONE GND
9	Y	TEL VOICE SIGNAL (+)
10	G	TEL VOICE SIGNAL (-)
14	B	GND



Terminal No.	Color of Wire	Signal Name
33	-	SATELLITE ANTENNA
34	SHIELD	SHIELD

19	B	GND
23	B	CONTROL SIGNAL
24	B	CONTROL SIGNAL
28	P	VEHICLE SPEED (8-PULSE)
29	Y	MICROPHONE VCC



35	37	39	41
36	38	40	42

Terminal No.	Color of Wire	Signal Name
35	L	AV COMM (H)
36	P	AV COMM (L)

Connector No.	B483
Connector Name	SATELLITE RADIO ANTENNA
Connector Type	GT16-1PP-HU



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

Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-GS15



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

Terminal No.	Color of Wire	Signal Name
9	R	-
10	G	-
36	W	-
37	L	-

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	D2
Connector Name	TWEETER LH
Connector Type	TK02MBR-P



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

Connector No.	D11
Connector Name	FRONT DOOR WOOFER LH
Connector Type	NS02FW-CS



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

Connector No.	D16
Connector Name	FRONT DOOR SQUAWKER LH
Connector Type	TK02FER



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

Connector No.	D31
Connector Name	WIRE TO WIRE
Connector Type	TH04FW-GS15



Terminal No.	Color of Wire	Signal Name
9	R	-
10	G	-
36	W	-
37	L	-

Connector No.	D32
Connector Name	TWEETER RH
Connector Type	TK02MBR-P



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

Connector No.	D41
Connector Name	FRONT DOOR WOOFER RH
Connector Type	NS02FW-CS



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

Connector No.	D46
Connector Name	FRONT DOOR SQUAWKER RH
Connector Type	TK02FER



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

Connector No.	D51
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-1S8



Terminal No.	Color of Wire	Signal Name
16	LG	-
17	Y	-

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	D56
Connector Name	REAR DOOR SPEAKER LH (With BOSE system)
Connector Type	NS02FBR-CS



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

Connector No.	D71
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



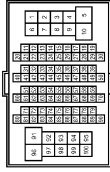
Terminal No.	Color of Wire	Signal Name
16	L	-
17	P	-

Connector No.	D76
Connector Name	REAR DOOR SPEAKER RH (With BOSE system)
Connector Type	NS02FBR-CS



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

Connector No.	E108
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



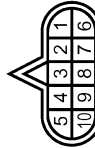
Terminal No.	Color of Wire	Signal Name
18	O	-
95	Y	-

Connector No.	E107
Connector Name	PARKING BRAKE SWITCH (A/T)
Connector Type	TB01FW



Terminal No.	Color of Wire	Signal Name
1	O	-

Connector No.	F51
Connector Name	A/T ASSEMBLY
Connector Type	RK10FG-DGY



Terminal No.	Color of Wire	Signal Name
7	R	-

Connector No.	F56
Connector Name	BACK-UP LAMP SWITCH
Connector Type	RK02FB



Terminal No.	Color of Wire	Signal Name
1	R	-
2	O	-

Connector No.	F103
Connector Name	WIRE TO WIRE
Connector Type	TK36FW-NS10



Terminal No.	Color of Wire	Signal Name
31	R	-
32	R	-
41	O	-

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	F151
Connector Name	TCM (TRANSMISSION CONTROL MODULE)
Connector Type	SP10FBGY



Terminal No.	Color of Wire	Signal Name
7	O	REV LAMP RLY

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NSJ06FW-M2



Terminal No.	Color of Wire	Signal Name
2A	G	-
5A	V	-

Connector No.	M2
Connector Name	FUSE BLOCK (J/B)
Connector Type	NSJ06FW-CS



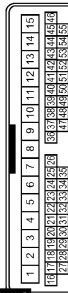
Terminal No.	Color of Wire	Signal Name
1B	SB	-

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	NSJ2FW-CS



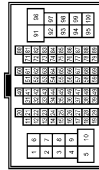
Terminal No.	Color of Wire	Signal Name
12C	R	-

Connector No.	M5
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS15



Terminal No.	Color of Wire	Signal Name
9	W	-
10	B	-
36	W	-
37	L	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS19-TM4



Terminal No.	Color of Wire	Signal Name
18	V	-
95	Y	-

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



Terminal No.	Color of Wire	Signal Name
31	V	-
32	SB	-
33	SHIELD	-
34	V	-
35	BR	-
36	Y	-
37	SHIELD	-
40	P	-
41	L	-
42	SHIELD	-
43	R	-

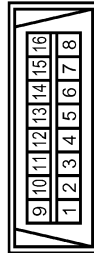
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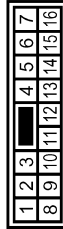
BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



Terminal No.	Color of Wire	Signal Name
6	L	-
14	P	-

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



Terminal No.	Color of Wire	Signal Name
1	L	-
2	W	-
3	BR	-
4	R	-
5	L	-
6	LG	-
7	B	-
10	P	-
11	L	-
12	Y	-
13	SB	-

14	R	-
15	G	-
16	W	-

Connector No.	M36
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY-1V



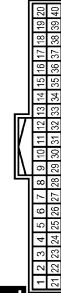
Terminal No.	Color of Wire	Signal Name
24	P	-
31	L	-
33	B	-

Connector No.	M63
Connector Name	CENTER SPEAKER
Connector Type	TK02FBR



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

Connector No.	M68
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH40FW-NH



Terminal No.	Color of Wire	Signal Name
28	R	VEHICLE SPEED (8-PULSE)

Connector No.	M67
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH32FY-NH



Terminal No.	Color of Wire	Signal Name
56	L	CAN-H
72	P	CAN-L

Connector No.	M89
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS02FL-M2



Terminal No.	Color of Wire	Signal Name
1	R	-
2	W	-
3	LG	-
5	O	-

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DISPLAY UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M71
Connector Name	DISPLAY UNIT
Connector Type	TH24FW-NH

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

14	LG	SIGNAL GND [Without NAVI]
15	SB	AUX IMAGE SIGNAL [Without NAVI]
16	BR	COMPOSITE SYNC
17	G	RGB (RED) SIGNAL [Without NAVI]
18	P	RGB (BLUE) SIGNAL [Without NAVI]
19	W	RGB SYNC [Without NAVI]
20	G	VP [Without NAVI]
21	SHIELD	SHIELD
22	BR	COMM (DISP->CONT) [Without NAVI]
23	SHIELD	SHIELD

Terminal No.	Color of Wire	Signal Name
1	B	GND
2	Y	INVERTER VCC [Without NAVI]
3	O	SIGNAL VCC [Without NAVI]
4	V	AUX IMAGE GND [Without NAVI]
5	Y	COMPOSITE SYNC GND [Without NAVI]
6	L	RGB (GREEN) SIGNAL [Without NAVI]
7	SHIELD	SHIELD
8	R	HP
9	B	RGB AREA (VS) SIGNAL
11	Y	COMM (CONT->DISP) [Without NAVI]
13	BR	INVERTER GND [Without NAVI]

Connector No.	M82
Connector Name	AV CONTROL UNIT
Connector Type	A12FW

22	24	30	32
21	23	25	26
27	28	29	31

Terminal No.	Color of Wire	Signal Name
21	W	SOUND SIGNAL LH (-)
22	B	SOUND SIGNAL LH (+)
23	R	SOUND SIGNAL RH (-)
24	G	SOUND SIGNAL RH (+)
25	SHIELD	SHIELD
26	SHIELD	SHIELD
28	W	REQUEST (SAT->CONT)
29	B	COMM (SAT->CONT)
30	R	COMM (CONT->SAT)

Connector No.	M83
Connector Name	AV CONTROL UNIT
Connector Type	TH24FW-NH

47	48	45	44	43	42	41	40	39	38	37	36
59	58	57	56	55	54	53	52	51	50	49	48

Terminal No.	Color of Wire	Signal Name
36	SB	AUX IMAGE SIGNAL
37	V	AUX IMAGE GND
38	P	RGB (BLUE) SIGNAL
39	L	RGB (GREEN) SIGNAL
40	G	RGB (RED) SIGNAL
41	W	RGB SYNC
42	SHIELD	SHIELD
43	B	RGB AREA (VS) SIGNAL
44	BR	COMM (DISP->CONT)
45	R	HP
46	LG	SIGNAL GND

Connector No.	M72
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH18FW-NH

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

Terminal No.	Color of Wire	Signal Name
1	B	GND
3	V	ACC
6	LG	AV COMM (H)
8	V	AV COMM (L)
9	BR	SW GND
14	SB	EJECT SIGNAL

47	O	SIGNAL VCC
48	BR	COMPOSITE SYNC
49	Y	COMPOSITE SYNC GND
50	SHIELD	SHIELD
53	SHIELD	SHIELD
56	Y	COMM (CONT->DISP)
57	G	VP
58	BR	INVERTER GND
59	Y	INVERTER VCC

Connector No.	M81
Connector Name	AV CONTROL UNIT
Connector Type	TH18FW-CS2

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

Terminal No.	Color of Wire	Signal Name
6	P	STRG SW A
7	V	ACC
9	R	ILLUMINATION
15	B	STRG SW GND
16	L	STRG SW B
19	Y	BATTERY
20	B	GND

Connector No.	M84
Connector Name	AV CONTROL UNIT
Connector Type	TH18FW-NH

67	66	65	64	63	62	61	60
75	74	73	72	71	70	69	68

Terminal No.	Color of Wire	Signal Name
66	G	AUX IMAGE SIGNAL
73	SHIELD	SHIELD
74	R	AUX IMAGE GND

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M85
Connector Name	AV CONTROL UNIT
Connector Type	TH32FW-NH

Terminal No.	Color of Wire	Signal Name
79	P	TEL VOICE SIGNAL (-)
80	L	TEL VOICE SIGNAL (+)
81	SHIELD	SHIELD
85	B	GND
86	L	CAN-H
87	P	CAN-L
88	G	AV COMM (+) [With BOSE system]
89	R	AV COMM (L) [With BOSE system]
90	L	AV COMM (H)
91	P	AV COMM (L)
95	BR	SOUND SIGNAL RH (+) [With BOSE system]



91	90	89	88	87	86	85	84	83	82	81	80	79	78	77	76

96	Y	SOUND SIGNAL LH (+) [With BOSE system]
97	SHIELD	SHIELD
101	BR	SW GND
103	SB	EJECT SIGNAL
104	G	IGNITION
105	O	REVERSE
106	V	PARKING BRAKE
107	R	VEHICLE SPEED (8-PULSE)



Connector No.	M86
Connector Name	AV CONTROL UNIT
Connector Type	TH12FW-NH

Terminal No.	Color of Wire	Signal Name
108	BR	SOUND SIGNAL REAR RH (+)
109	R	SOUND SIGNAL FRONT RH (+)
110	V	AMP. ON SIGNAL
111	SHIELD	SHIELD
112	V	SOUND SIGNAL REAR LH (+)
113	P	SOUND SIGNAL FRONT LH (+)
114	Y	SOUND SIGNAL REAR RH (-)
115	G	SOUND SIGNAL FRONT RH (-)
118	SB	SOUND SIGNAL REAR LH (-)
119	L	SOUND SIGNAL FRONT LH (-)



Connector No.	M105
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8

Terminal No.	Color of Wire	Signal Name
1	B	- [Without NAV]
2	W	- [Without NAV]
3	R	- [Without NAV]



11	12	13	14	15	16	17	18

Terminal No.	Color of Wire	Signal Name
79	P	TEL VOICE SIGNAL (-)
80	L	TEL VOICE SIGNAL (+)
81	SHIELD	SHIELD
85	B	GND
86	L	CAN-H
87	P	CAN-L
88	G	AV COMM (+) [With BOSE system]
89	R	AV COMM (L) [With BOSE system]
90	L	AV COMM (H)
91	P	AV COMM (L)
95	BR	SOUND SIGNAL RH (+) [With BOSE system]

Terminal No.	Color of Wire	Signal Name
108	BR	SOUND SIGNAL REAR RH (+)
109	R	SOUND SIGNAL FRONT RH (+)
110	V	AMP. ON SIGNAL
111	SHIELD	SHIELD
112	V	SOUND SIGNAL REAR LH (+)
113	P	SOUND SIGNAL FRONT LH (+)
114	Y	SOUND SIGNAL REAR RH (-)
115	G	SOUND SIGNAL FRONT RH (-)
118	SB	SOUND SIGNAL REAR LH (-)
119	L	SOUND SIGNAL FRONT LH (-)

Terminal No.	Color of Wire	Signal Name
1	B	- [Without NAV]
2	W	- [Without NAV]
3	R	- [Without NAV]



11	12	13	14	15	16	17	18

Connector No.	M107
Connector Name	ECM
Connector Type	MAX24FGY-ME48-LH-Z

Terminal No.	Color of Wire	Signal Name
113	P	VHECAN LI
114	L	VHECAN HI



126	125	124	123	122	121	120	119	118	117	116	115	114	113	112	111	110	109	108	107	106	105	104	103	102	101	100	99	98	97	96	95	94	93	92	91	90	89	88	87	86	85	84	83	82	81	80	79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64	63	62	61	60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Connector No.	M117
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4

Terminal No.	Color of Wire	Signal Name
31	L	-
32	P	-
33	G	-
34	R	-
40	Y	-
41	G	-
42	O	-
43	B	-
44	R	-
45	W	-
46	SHIELD	-



Terminal No.	Color of Wire	Signal Name
47	P	-
48	L	-
49	SHIELD	-
50	V	-
71	Y	-
72	W	-
73	B	-
80	V	-
81	SHIELD	-
82	R	-
83	SHIELD	-
84	W	-
85	R	-
86	B	-
87	G	-
99	P	-
100	L	-

Terminal No.	Color of Wire	Signal Name
113	P	VHECAN LI
114	L	VHECAN HI

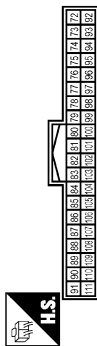
Terminal No.	Color of Wire	Signal Name
31	L	-
32	P	-
33	G	-
34	R	-
40	Y	-
41	G	-
42	O	-
43	B	-
44	R	-
45	W	-
46	SHIELD	-

Terminal No.	Color of Wire	Signal Name
31	L	-
32	P	-
33	G	-
34	R	-
40	Y	-
41	G	-
42	O	-
43	B	-
44	R	-
45	W	-
46	SHIELD	-



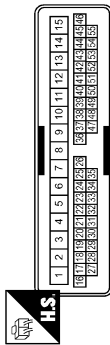
BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M122
Connector Name	BOX BODY CONTROL MODULE
Connector Type	TH40FB-NH



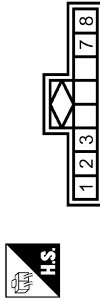
Terminal No.	Color of Wire	Signal Name
90	P	CAN-L
91	L	CAN-H

Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



Terminal No.	Color of Wire	Signal Name
9	R	-
10	G	-
36	R	-
37	BR	-

Connector No.	M154
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A08FW



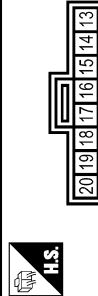
Terminal No.	Color of Wire	Signal Name
1	BR	SOUND SIGNAL RH (C) [Without NAVI]
2	SHIELD	SHIELD [Without NAVI]
3	Y	SOUND SIGNAL LH (C) [Without NAVI]
7	G	AUX IMAGE SIGNAL
8	R	AUX IMAGE GND

Connector No.	M155
Connector Name	WIRE TO WIRE
Connector Type	TH08FW-NH



Terminal No.	Color of Wire	Signal Name
1	SHIELD	-
2	SHIELD	[Without NAVI]
3	BR	[Without NAVI]
4	Y	[Without NAVI]
5	B	-
6	SHIELD	-
7	G	-
8	R	-

Connector No.	M303
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08GY



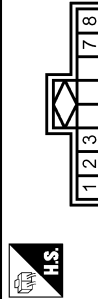
Terminal No.	Color of Wire	Signal Name
14	W	-
15	L	-
17	BR	-

Connector No.	M361
Connector Name	WIRE TO WIRE
Connector Type	TH08MW-NH



Terminal No.	Color of Wire	Signal Name
1	SHIELD	-
2	B	-
3	BR	- [Without NAVI]
4	Y	- [Without NAVI]
5	SHIELD	-
6	SHIELD	-
7	G	-
8	R	-

Connector No.	M362
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A08FW



Terminal No.	Color of Wire	Signal Name
1	BR	SOUND SIGNAL RH (C) [Without NAVI]
2	B	SOUND SIGNAL GND
3	Y	SOUND SIGNAL LH (C) [Without NAVI]
7	G	AUX IMAGE SIGNAL
8	R	AUX IMAGE GND

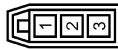
Connector No.	M370
Connector Name	AV CONTROL UNIT
Connector Type	GT13SH-2/IS-HU



Terminal No.	Color of Wire	Signal Name
33	-	FM SUB
34	-	AM-FM MAIN
35	-	ANTENNA AMP ON SIGNAL

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M375
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1S-HU



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

Connector No.	M376
Connector Name	WIRE TO WIRE
Connector Type	GT13SCN-2/1P-HU



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

Connector No.	M378
Connector Name	ANTENNA AMP.
Connector Type	GT13SC-1/1S-HU



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

Connector No.	M379
Connector Name	WINDOW ANTENNA(SUB)
Connector Type	P01FB-A



Terminal No.	Color of Wire	Signal Name
1	-	-

Connector No.	M381
Connector Name	WINDOW ANTENNA(MAIN)
Connector Type	P01FB-A



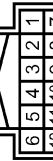
Terminal No.	Color of Wire	Signal Name
1	-	-

Connector No.	R1
Connector Name	WIRE TO WIRE
Connector Type	1K10FW-NS8



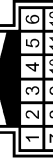
Terminal No.	Color of Wire	Signal Name
1	G	- [Without NAV]
2	Y	- [Without NAV]
3	SHIELD	-

Connector No.	R2
Connector Name	WIRE TO WIRE
Connector Type	TH12FW-NH



Terminal No.	Color of Wire	Signal Name
3	SHIELD	-
4	R	-
5	G	-

Connector No.	R11
Connector Name	WIRE TO WIRE
Connector Type	TH12MW-NH



Terminal No.	Color of Wire	Signal Name
3	SHIELD	-
4	R	-
5	G	-

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BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	RT7
Connector Name	MICROPHONE
Connector Type	TK04FW



Terminal No.	Color of Wire	Signal Name
1	R	MICROPHONE SIGNAL
2	SHIELD	SHIELD
4	G	MICROPHONE VCC



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BOSE AMP.

< ECU DIAGNOSIS >

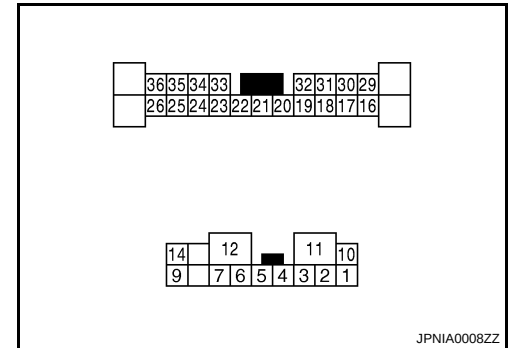
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BOSE AMP.

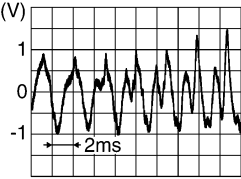
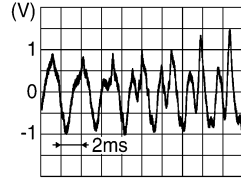
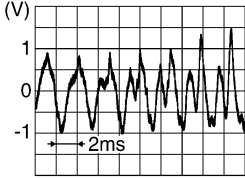
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TERMINAL LAYOUT



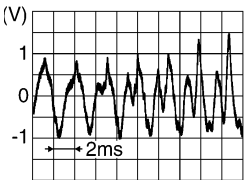
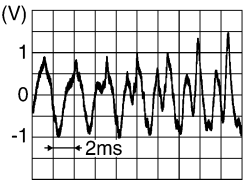
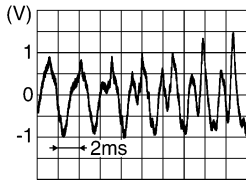
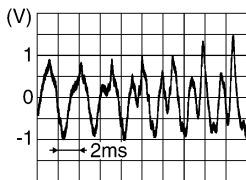
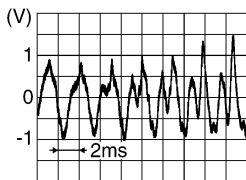
PHYSICAL VALUES

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
1 (L)	2 (W)	Sound signal front door squawker LH	Output	Ignition switch ON	Voice output	 SKIB3609E
3 (LG)	4 (V)	Sound signal front door squawker RH	Output	Ignition switch ON	Voice output	 SKIB3609E
5 (G)	6 (R)	Sound signal front door woofer RH	Output	Ignition switch ON	Voice output	 SKIB3609E
7 (B)	Ground	GND	—	Ignition switch ON	—	0 V
10 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
11 (GR)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
12 (B)	Ground	GND	—	Ignition switch ON	—	0 V

BOSE AMP.

< ECU DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
14 (B)	9 (W)	Sound signal front door woofer LH	Output	Ignition switch ON	Voice output	 SKIB3609E
16 (SB)	17 (V)	Sound signal woofer	Output	Ignition switch ON	Voice output	 SKIB3609E
18 (L)	19 (P)	Sound signal rear door speaker LH	Output	Ignition switch ON	Voice output	 SKIB3609E
20 (V)	Ground	Amp. ON signal	Input	Ignition switch ACC	—	12 V
21	—	Shield	—	—	—	—
22 (GR)	Ground	Woofer Amp. ON signal	Output	Ignition switch ACC	—	12 V
24 (V)	23 (SB)	Sound signal rear LH	Input	Ignition switch ON	Voice output	 SKIB3609E
26 (BR)	25 (Y)	Sound signal rear RH	Input	Ignition switch ON	Voice output	 SKIB3609E

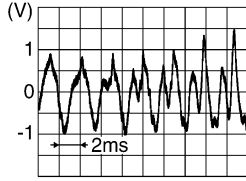
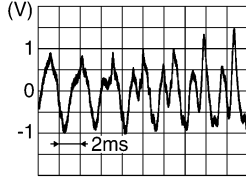
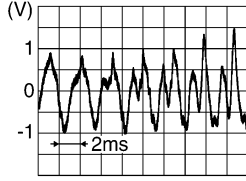
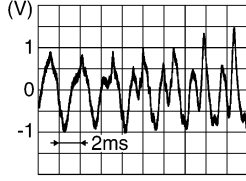
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AV

BOSE AMP.

< ECU DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/ Output			
29 (Y)	30 (G)	Sound signal center speaker	Output	Ignition switch ON	Voice output	 SKIB3609E
31 (LG)	32 (Y)	Sound signal rear door speaker RH	Output	Ignition switch ON	Voice output	 SKIB3609E
33 (R)	34 (G)	Sound signal front RH	Input	Ignition switch ON	Voice output	 SKIB3609E
35 (P)	36 (L)	Sound signal front LH	Input	Ignition switch ON	Voice output	 SKIB3609E

Wiring Diagram — BOSE AUDIO WITHOUT NAVIGATION SYSTEM —

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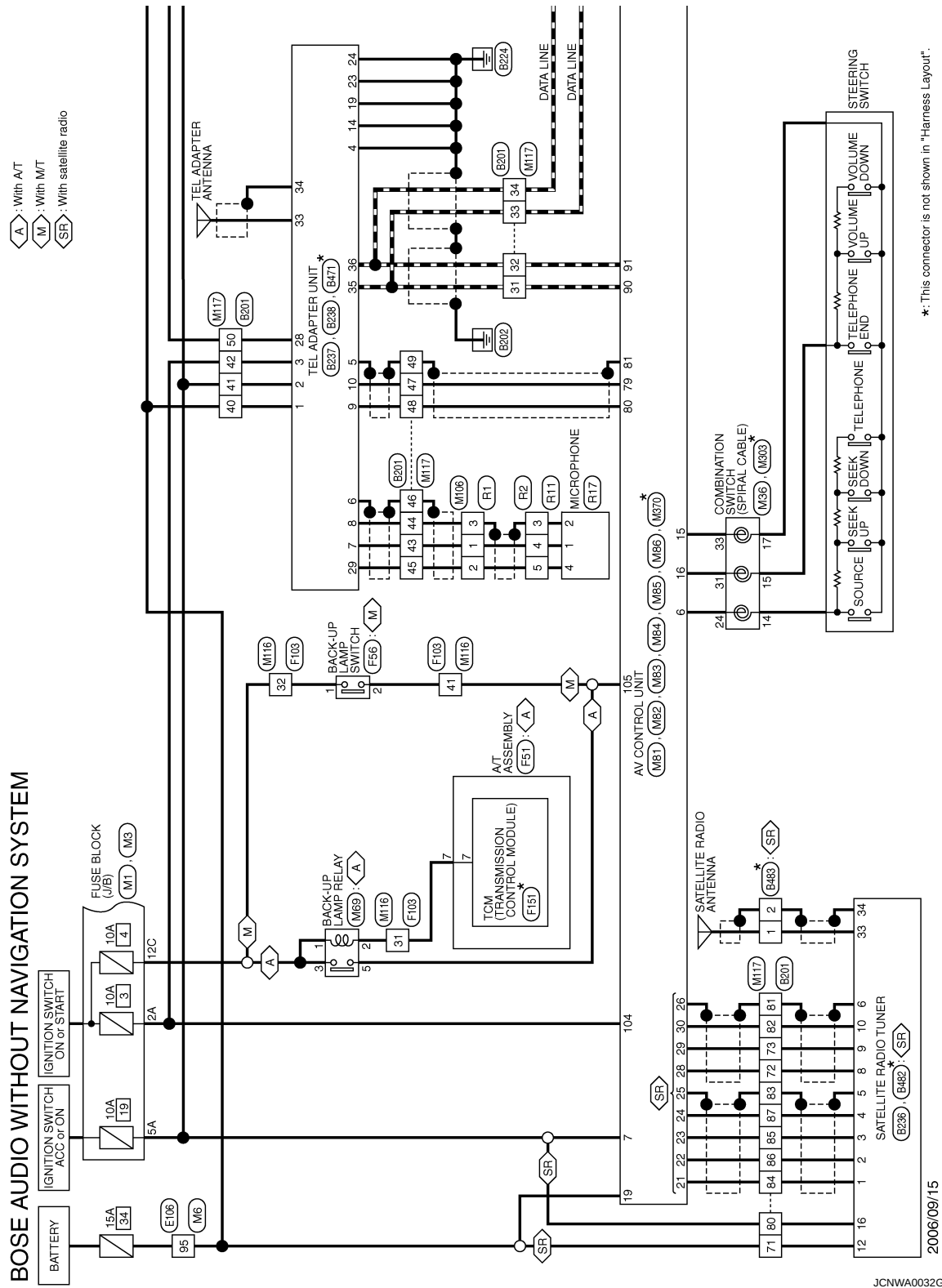
NOTE:

BOSE AMP.

< ECU DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

The name MULTIFUNCTION SWITCH indicates the integration of PRESET SWITCH and MULTIFUNCTION SWITCH virtually.



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

[BOSE AUDIO WITHOUT NAVIGATION]

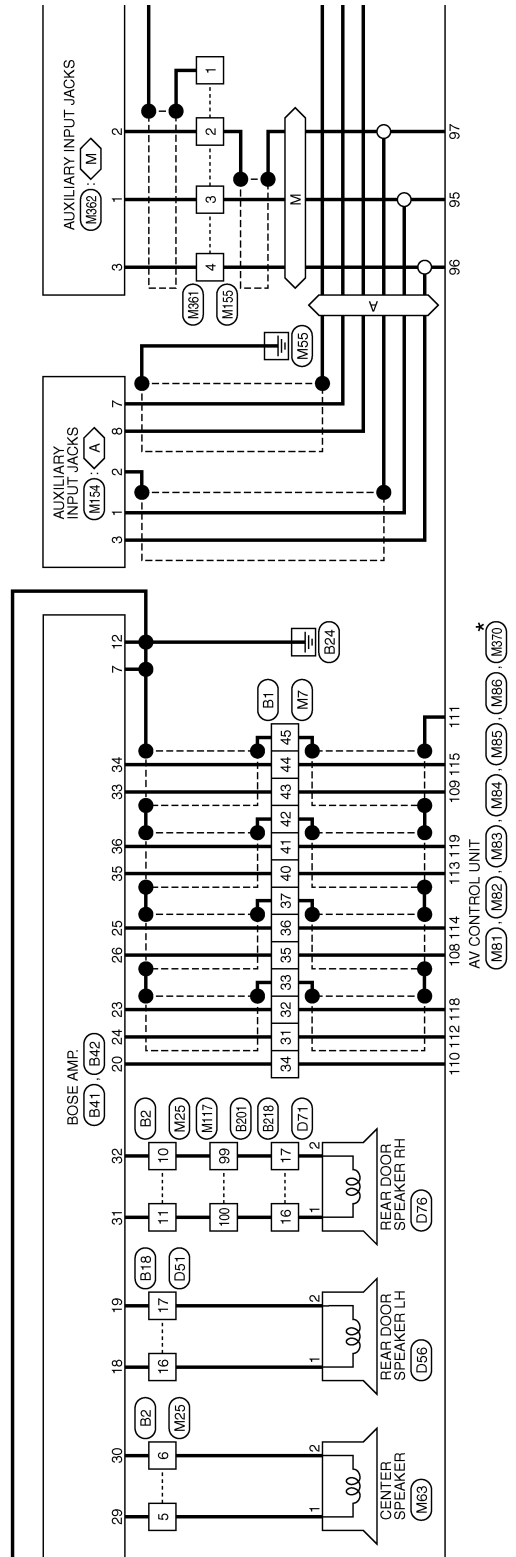
Revision: October 2006



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

[BOSE AUDIO WITHOUT NAVIGATION]

< ECU DIAGNOSIS >



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

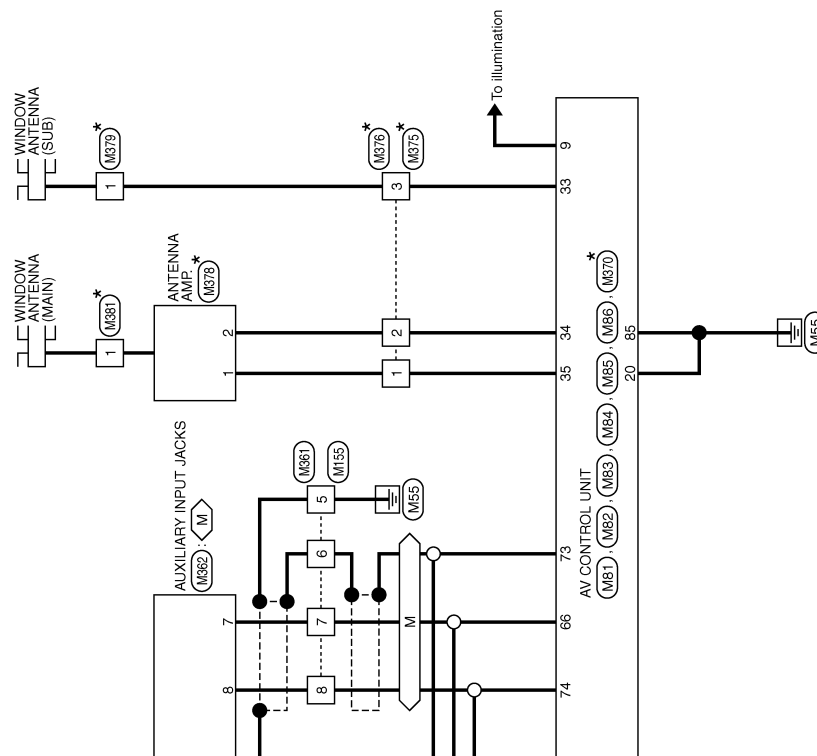
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BOSE AMP.

< ECU DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

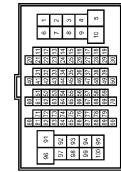
M: With M/T



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BOSE AUDIO WITHOUT NAVIGATION SYSTEM

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



Terminal No.	Color of Wire	Signal Name
31	V	-
32	SB	-
33	SHIELD	-
34	V	-
35	BR	-
36	Y	-
37	SHIELD	-
40	P	-
41	L	-
42	SHIELD	-
43	R	-

44	G	-
45	SHIELD	-
96	V	-

Connector No.	B2
Connector Name	WIRE TO WIRE
Connector Type	NS18FW-CS



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

Terminal No.	Color of Wire	Signal Name
1	L	-
2	W	-
3	V	-
4	LG	-
5	Y	-
6	G	-
7	B	-
10	Y	-
11	LG	-
12	Y	-
13	GR	-

Connector No.	B6
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FB-CS



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

Connector No.	B14
Connector Name	PARKING BRAKE SWITCH
Connector Type	P01FB-A



1

Connector No.	B18
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS



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

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

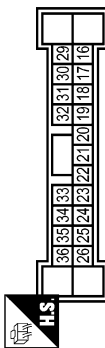
Terminal No.	Color of Wire	Signal Name
1	V	-

Terminal No.	Color of Wire	Signal Name
16	L	- [With BOSE system]
17	P	- [With BOSE system]

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BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B41
Connector Name	BOSE AMP.
Connector Type	SCA12FBR-SGA4



Terminal No.	Color of Wire	Signal Name
1	SB	SOUND SIGNAL WOOFER (+)
2	V	SOUND SIGNAL WOOFER (-)
3	L	SOUND SIGNAL REAR DOOR LH (+)
4	P	SOUND SIGNAL REAR DOOR LH (-)
5	V	AMP ON SIGNAL
6	SHIELD	SHIELD
7	GR	WOOFER AMP-ON SIGNAL
8	SB	WOOFER AMP-ON SIGNAL
9	V	SOUND SIGNAL REAR LH (+)
10	Y	SOUND SIGNAL REAR LH (-)
11	Y	SOUND SIGNAL REAR RH (+)
12	Y	SOUND SIGNAL REAR RH (-)
13	Y	SOUND SIGNAL FRONT LH (+)
14	P	SOUND SIGNAL FRONT LH (-)
15	L	SOUND SIGNAL FRONT RH (+)
16	L	SOUND SIGNAL FRONT RH (-)

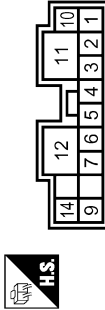
Connector No.	B46
Connector Name	WOOFER
Connector Type	NSD0FBR-CS



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

29	Y	SOUND SIGNAL CENTER (+)
30	G	SOUND SIGNAL CENTER (-)
31	LG	SOUND SIGNAL REAR DOOR RH (+)
32	Y	SOUND SIGNAL REAR DOOR RH (-)
33	R	SOUND SIGNAL FRONT RH (+)
34	G	SOUND SIGNAL FRONT RH (-)
35	P	SOUND SIGNAL FRONT LH (+)
36	L	SOUND SIGNAL FRONT LH (-)

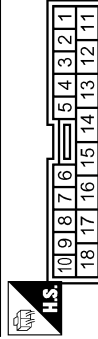
Connector No.	B42
Connector Name	BOSE AMP.
Connector Type	SGA12FBR-SJA2



Terminal No.	Color of Wire	Signal Name
1	L	FRONT DOOR SQUAWKER LH (+)
2	W	FRONT DOOR SQUAWKER LH (-)
3	LG	FRONT DOOR SQUAWKER RH (+)
4	V	FRONT DOOR SQUAWKER RH (-)
5	G	FRONT DOOR WOOFER RH (+)
6	R	FRONT DOOR WOOFER RH (-)
7	B	GND
8	W	FRONT DOOR WOOFER LH (+)
9	Y	BATTERY
10	Y	BATTERY
11	GR	BATTERY
12	B	GND

47	G	-
48	Y	-
49	SHIELD	-
50	P	-
51	Y	-
52	G	-
53	L	-
54	V	-
55	SHIELD	-
56	P	-
57	SHIELD	-
58	G	-
59	W	-
60	R	-
61	B	-
62	P	-
63	L	-

Connector No.	B218
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8



Terminal No.	Color of Wire	Signal Name
16	L	-
17	P	-

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BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B236
Connector Name	SATELLITE RADIO TUNER
Connector Type	AT16W



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

Terminal No.	Color of Wire	Signal Name
1	G	SOUND SIGNAL LH (-)
2	R	SOUND SIGNAL LH (+)
3	W	SOUND SIGNAL RH (-)
4	B	SOUND SIGNAL RH (+)
5	SHIELD	SHIELD
6	SHIELD	SHIELD
8	G	REQUEST (SAT->CONT)
9	L	COMM (SAT->CONT)
10	P	COMM (CONT->SAT)
12	Y	BATTERY
16	V	ACC



Connector No.	B471
Connector Name	TEL ADAPTER UNIT
Connector Type	GT18C-IS-HU

Terminal No.	Color of Wire	Signal Name
33	-	TEL ANTENNA
34	SHIELD	SHIELD

Connector No.	B237
Connector Name	TEL ADAPTER UNIT
Connector Type	TH432FW-NH



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

Terminal No.	Color of Wire	Signal Name
1	Y	BATTERY
2	LG	ACC
3	W	IGNITION
4	B	GND
5	SHIELD	SHIELD
6	SHIELD	SHIELD
7	BR	MICROPHONE SIGNAL
8	O	MICROPHONE GND
9	Y	TEL VOICE SIGNAL (+)
10	G	TEL VOICE SIGNAL (-)
14	B	GND



Connector No.	B482
Connector Name	SATELLITE RADIO TUNER
Connector Type	-

Terminal No.	Color of Wire	Signal Name
33	-	SATELLITE ANTENNA
34	SHIELD	SHIELD

19	B	GND
23	B	CONTROL SIGNAL
24	B	CONTROL SIGNAL
28	P	VEHICLE SPEED (8-PUL SE)
29	Y	MICROPHONE VCC



35	37	39	41
36	38	40	42

Terminal No.	Color of Wire	Signal Name
35	L	AV COMM (H)
36	P	AV COMM (L)

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



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

Terminal No.	Color of Wire	Signal Name
9	R	-
10	G	-
36	W	-
37	L	-

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A
B
C
D
E
F
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J
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P

AV

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	D2
Connector Name	TWEETER LH
Connector Type	TK02MBR-P



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

Connector No.	D11
Connector Name	FRONT DOOR WOOFER LH
Connector Type	NS02FW-CS



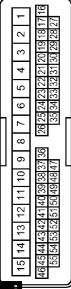
Terminal No.	Color of Wire	Signal Name
1	G	-
2	R	-

Connector No.	D16
Connector Name	FRONT DOOR SQUAWKER LH
Connector Type	TK02FER



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

Connector No.	D31
Connector Name	WIRE TO WIRE
Connector Type	TH00FW-CS15



Terminal No.	Color of Wire	Signal Name
9	R	-
10	G	-
36	W	-
37	L	-

Connector No.	D32
Connector Name	TWEETER RH
Connector Type	TK02MBR-P



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

Connector No.	D41
Connector Name	FRONT DOOR WOOFER RH
Connector Type	NS02FW-CS



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

Connector No.	D46
Connector Name	FRONT DOOR SQUAWKER RH
Connector Type	TK02FER



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

Connector No.	D51
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Terminal No.	Color of Wire	Signal Name
16	LG	-
17	Y	-

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	D56
Connector Name	REAR DOOR SPEAKER LH (With BOSE system)
Connector Type	NS02FBR-CS



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

Connector No.	D71
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



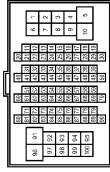
Terminal No.	Color of Wire	Signal Name
16	L	-
17	P	-

Connector No.	D76
Connector Name	REAR DOOR SPEAKER RH (With BOSE system)
Connector Type	NS02FBR-CS



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

Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TK38FW-TM4



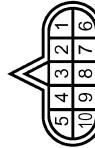
Terminal No.	Color of Wire	Signal Name
18	O	-
35	Y	-

Connector No.	E107
Connector Name	PARKING BRAKE SWITCH (A/T)
Connector Type	TB01FW



Terminal No.	Color of Wire	Signal Name
1	O	-

Connector No.	F51
Connector Name	A/T ASSEMBLY
Connector Type	RK10FG-D0Y



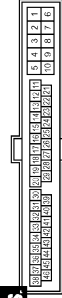
Terminal No.	Color of Wire	Signal Name
7	R	-

Connector No.	F56
Connector Name	BACK-UP LAMP SWITCH
Connector Type	RK02FB



Terminal No.	Color of Wire	Signal Name
1	R	-
2	O	-

Connector No.	F103
Connector Name	WIRE TO WIRE
Connector Type	TK38FW-TS10



Terminal No.	Color of Wire	Signal Name
31	R	-
32	R	-
41	O	-

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BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	F1B1
Connector Name	TOM (TRANSMISSION CONTROL MODULE)
Connector Type	SP10FBGY



10	9	8	7	6	5	4	3	2	1

Terminal No.	Color of Wire	Signal Name
7	O	REV LAMP RLY

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



3A	2A	1A
8A	7A	6A
5A	4A	3A

Terminal No.	Color of Wire	Signal Name
2A	G	-
5A	V	-

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



4B	3B	2B	1B
10B	9B	8B	7B
6B	5B	4B	3B

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

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FW-GS



50	40	30	20	10
120	110	100	90	80
70	60	50	40	30

Terminal No.	Color of Wire	Signal Name
12C	R	-

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



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40	41	42	43	44	45

Terminal No.	Color of Wire	Signal Name
9	W	-
10	B	-
36	W	-
37	L	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS18-TM4



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40	41	42	43	44	45

Terminal No.	Color of Wire	Signal Name
18	V	-
95	Y	-

Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-GS16-TM4



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40	41	42	43	44	45

Terminal No.	Color of Wire	Signal Name
31	V	-
32	SB	-
33	SHIELD	-
34	V	-
35	BR	-
36	Y	-
37	SHIELD	-
40	P	-
41	L	-
42	SHIELD	-
43	R	-

Terminal No.	Color of Wire	Signal Name
44	G	-
45	SHIELD	-
96	V	-

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BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD18FW



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

Terminal No.	Color of Wire	Signal Name
6	L	-
14	P	-

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



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

Terminal No.	Color of Wire	Signal Name
1	L	-
2	W	-
3	BR	-
4	R	-
5	L	-
6	LG	-
7	B	-
10	P	-
11	L	-
12	Y	-
13	SB	-

14	R
15	G
16	W

Connector No.	M38
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGV-1V



24	25	26	27
31	32	33	34

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

Connector No.	M63
Connector Name	CENTER SPEAKER
Connector Type	TK02FBR



2	1

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

Connector No.	M66
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH40FW-NH



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

Terminal No.	Color of Wire	Signal Name
28	R	VEHICLE SPEED (8-PULSE)

Connector No.	M67
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH32FW-NH



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

Terminal No.	Color of Wire	Signal Name
56	L	CAN-H
72	P	CAN-L

Connector No.	M69
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS02FL-M2



3	5
2	1

Terminal No.	Color of Wire	Signal Name
1	R	-
2	W	-
3	LG	-
5	O	-

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M71
Connector Name	DISPLAY UNIT
Connector Type	TH24FW-NH

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

14	LG	SIGNAL GND [Without NAVI]
15	SB	AUX IMAGE SIGNAL [Without NAVI]
16	BR	COMPOSITE SYNC
17	G	RGB (RRED) SIGNAL [Without NAVI]
18	P	RGB (BLUE) SIGNAL [Without NAVI]
19	W	RGB SYNC [Without NAVI]
20	G	VP [Without NAVI]
21	SHIELD	SHIELD
22	BR	COMM (DISP->CONT) [Without NAVI]
23	SHIELD	SHIELD

Terminal No.	Color of Wire	Signal Name
1	B	GND
2	Y	INVERTER VCC [Without NAVI]
3	O	SIGNAL VCC [Without NAVI]
4	V	AUX IMAGE GND [Without NAVI]
5	Y	COMPOSITE SYNC GND [Without NAVI]
6	L	RGB (GREEN) SIGNAL [Without NAVI]
7	SHIELD	SHIELD
8	R	HP
9	B	RGB AREA (YS) SIGNAL
11	Y	COMM (CONT->DISP) [Without NAVI]
13	BR	INVERTER GND [Without NAVI]

Connector No.	M82
Connector Name	AV CONTROL UNIT
Connector Type	AI2FW

22	24	30	32
21	23	25	26
27	28	29	31

Terminal No.	Color of Wire	Signal Name
21	W	SOUND SIGNAL LH (-)
22	B	SOUND SIGNAL LH (+)
23	R	SOUND SIGNAL RH (-)
24	G	SOUND SIGNAL RH (+)
25	SHIELD	SHIELD
26	SHIELD	SHIELD
28	W	REQUEST (SAT->CONT)
29	B	COMM (SAT->CONT)
30	R	COMM (CONT->SAT)

Connector No.	M72
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH18FW-NH

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

Connector No.	M81
Connector Name	AV CONTROL UNIT
Connector Type	TH18FW-CS2

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

Terminal No.	Color of Wire	Signal Name
1	B	GND
3	V	ACC
6	LG	AV COMM (H)
8	V	AV COMM (L)
9	BR	SW GND
14	SB	EJECT SIGNAL

Terminal No.	Color of Wire	Signal Name
6	P	STRG SW A
7	V	ACC
9	R	ILLUMINATION
15	B	STRG SW GND
16	L	STRG SW B
19	Y	BATTERY
20	B	GND

47	O	SIGNAL VCC
48	BR	COMPOSITE SYNC
49	Y	COMPOSITE SYNC GND
50	SHIELD	SHIELD
55	SHIELD	SHIELD
56	Y	COMM (CONT->DISP)
57	G	VP
58	BR	INVERTER GND
59	Y	INVERTER VCC

Connector No.	M84
Connector Name	AV CONTROL UNIT
Connector Type	TH18FW-NH

67	68	65	64	63	62	61	60
75	74	73	72	71	70	69	68

Terminal No.	Color of Wire	Signal Name
66	G	AUX IMAGE SIGNAL
73	SHIELD	SHIELD
74	R	AUX IMAGE GND

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M85
Connector Name	AV CONTROL UNIT
Connector Type	TH22FW-NH



91	90	89	88	87	86	85	84	83	82	81	80	79	78	77	76
107	104	103	104	103	102	101	100	99	98	97	96	95	94	93	92

96	Y	SOUND SIGNAL LH (+) [With BOSE system]
97	SHIELD	SHIELD
101	BR	SW GND
103	SB	EJECT SIGNAL
104	G	IGNITION
105	O	REVERSE
106	V	PARKING BRAKE
107	R	VEHICLE SPEED (8-PULSE)

Connector No.	M86
Connector Name	AV CONTROL UNIT
Connector Type	TH12FW-NH



114	113	116	117	118	119
108	109	110	111	112	113

Terminal No.	Color of Wire	Signal Name
79	P	TEL VOICE SIGNAL (-)
80	L	TEL VOICE SIGNAL (+)
81	SHIELD	SHIELD
85	B	GND
86	L	CAN-H
87	P	CAN-L
88	G	AV COMM (H) [With BOSE system]
89	R	AV COMM (L) [With BOSE system]
90	L	AV COMM (H)
91	P	AV COMM (L)
95	BR	SOUND SIGNAL RH (+) [With BOSE system]



126	124	123	122	121	120	119	118	117	116	115	114	113	112	111	110	109	108	107	106	105	104	103	102	101	100	99	98	97	96	95	94	93	92	91	90	89	88	87	86	85	84	83	82	81	80	79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64	63	62	61	60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Connector No.	M107
Connector Name	ECM
Connector Type	IMA24FGY-MEAS-LH-Z

Connector No.	M116
Connector Name	WIRE TO WIRE
Connector Type	TK38MW-NS10



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46

Terminal No.	Color of Wire	Signal Name
113	P	VHECAN L1
114	L	VHECAN H1

Connector No.	M106
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



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

Terminal No.	Color of Wire	Signal Name
1	B	- [Without NAVI]
2	W	- [Without NAVI]
3	R	- [Without NAVI]

47	P	-
48	L	-
49	SHIELD	-
50	V	-
51	Y	-
71	W	-
72	W	-
73	B	-
80	V	-
81	SHIELD	-
82	R	-
83	SHIELD	-
84	W	-
85	R	-
86	B	-
87	G	-
99	P	-
100	L	-

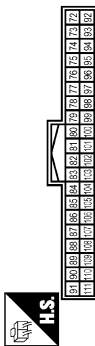
Connector No.	M117
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65

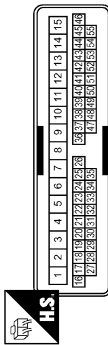
BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M122
Connector Name	BOM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH



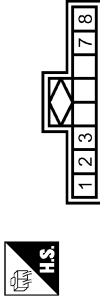
Terminal No.	Color of Wire	Signal Name
90	P	CAN-L
91	L	CAN-H

Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



Terminal No.	Color of Wire	Signal Name
9	R	-
10	G	-
36	R	-
37	BR	-

Connector No.	M154
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A08FW



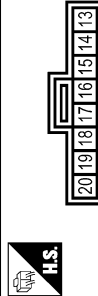
Terminal No.	Color of Wire	Signal Name
1	BR	SOUND SIGNAL RH (c) [Without NAVI]
2	SHIELD	SHIELD [Without NAVI]
3	Y	SOUND SIGNAL LH (c) [Without NAVI]
7	G	AUX IMAGE SIGNAL
8	R	AUX IMAGE GND

Connector No.	M155
Connector Name	WIRE TO WIRE
Connector Type	TH08FW-NH



Terminal No.	Color of Wire	Signal Name
1	SHIELD	-
2	SHIELD	[Without NAVI]
3	BR	[Without NAVI]
4	Y	[Without NAVI]
5	B	-
6	SHIELD	-
7	G	-
8	R	-

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



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

Connector No.	M361
Connector Name	WIRE TO WIRE
Connector Type	TH08MW-NH



Terminal No.	Color of Wire	Signal Name
1	SHIELD	-
2	B	-
3	BR	- [Without NAVI]
4	Y	- [Without NAVI]
5	SHIELD	-
6	SHIELD	-
7	G	-
8	R	-

Connector No.	M362
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A08FW



Terminal No.	Color of Wire	Signal Name
1	BR	SOUND SIGNAL RH (c) [Without NAVI]
2	B	SOUND SIGNAL GND
3	Y	SOUND SIGNAL LH (c) [Without NAVI]
7	G	AUX IMAGE SIGNAL
8	R	AUX IMAGE GND

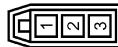
Connector No.	M370
Connector Name	AV CONTROL UNIT
Connector Type	GT13SH-2/1S-HU



Terminal No.	Color of Wire	Signal Name
33	-	FM SUB
34	-	AM-FM MAIN
35	-	ANTENNA AMP ON SIGNAL

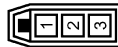
BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M375
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1S-HU



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

Connector No.	M376
Connector Name	WIRE TO WIRE
Connector Type	GT13SCN-2/1FP-HU



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

Connector No.	M378
Connector Name	ANTENNA AMP.
Connector Type	GT13SC-1/1S-HU



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

Connector No.	M379
Connector Name	WINDOW ANTENNA(SUB)
Connector Type	P01FB-A



Terminal No.	Color of Wire	Signal Name
1	-	-

Connector No.	M381
Connector Name	WINDOW ANTENNA(MAIN)
Connector Type	P01FB-A



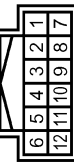
Terminal No.	Color of Wire	Signal Name
1	-	-

Connector No.	R1
Connector Name	WIRE TO WIRE
Connector Type	1K10FW-NS8



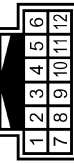
Terminal No.	Color of Wire	Signal Name
1	G	- [Without NAV]
2	Y	- [Without NAV]
3	SHIELD	-

Connector No.	R2
Connector Name	WIRE TO WIRE
Connector Type	1H12FW-NH



Terminal No.	Color of Wire	Signal Name
3	SHIELD	-
4	R	-
5	G	-

Connector No.	R11
Connector Name	WIRE TO WIRE
Connector Type	1H12MW-NH



Terminal No.	Color of Wire	Signal Name
3	SHIELD	-
4	R	-
5	G	-

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BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	R17
Connector Name	MICROPHONE
Connector Type	TK04FW



Terminal No.	Color of Wire	Signal Name
1	R	MICROPHONE SIGNAL
2	SHIELD	SHIELD
4	G	MICROPHONE VCC

SATELLITE RADIO TUNER

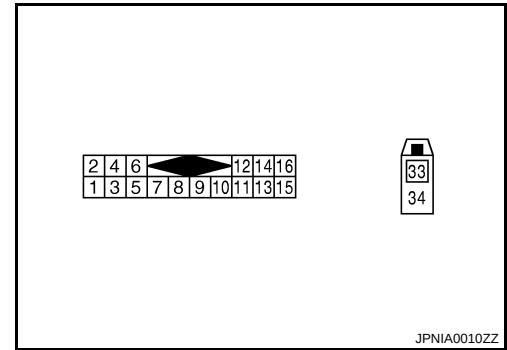
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[BOSE AUDIO WITHOUT NAVIGATION]

SATELLITE RADIO TUNER

Reference Value

INFOID:000000000964707



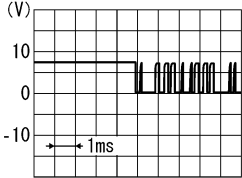
PHYSICAL VALUES

Terminal		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/Output			
2 (R)	1 (G)	Satellite radio sound signal LH	Output	Ignition switch ON	When satellite radio mode is selected	 SKIB3609E
4 (B)	3 (W)	Satellite radio sound signal RH	Output	Ignition switch ON	When satellite radio mode is selected	 SKIB3609E
5	—	Shield	—	—	—	—
6	—	Shield	—	—	—	—
8 (G)	Ground	Request signal (SAT→CONT)	Output	Ignition switch ON	When satellite radio mode is selected	 SKIA9299J
9 (L)	Ground	Communication signal (SAT→CONT)	Output	Ignition switch ON	When satellite radio mode is selected	 SKIA9300J

SATELLITE RADIO TUNER

< ECU DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

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

Wiring Diagram — BOSE AUDIO WITHOUT NAVIGATION SYSTEM —

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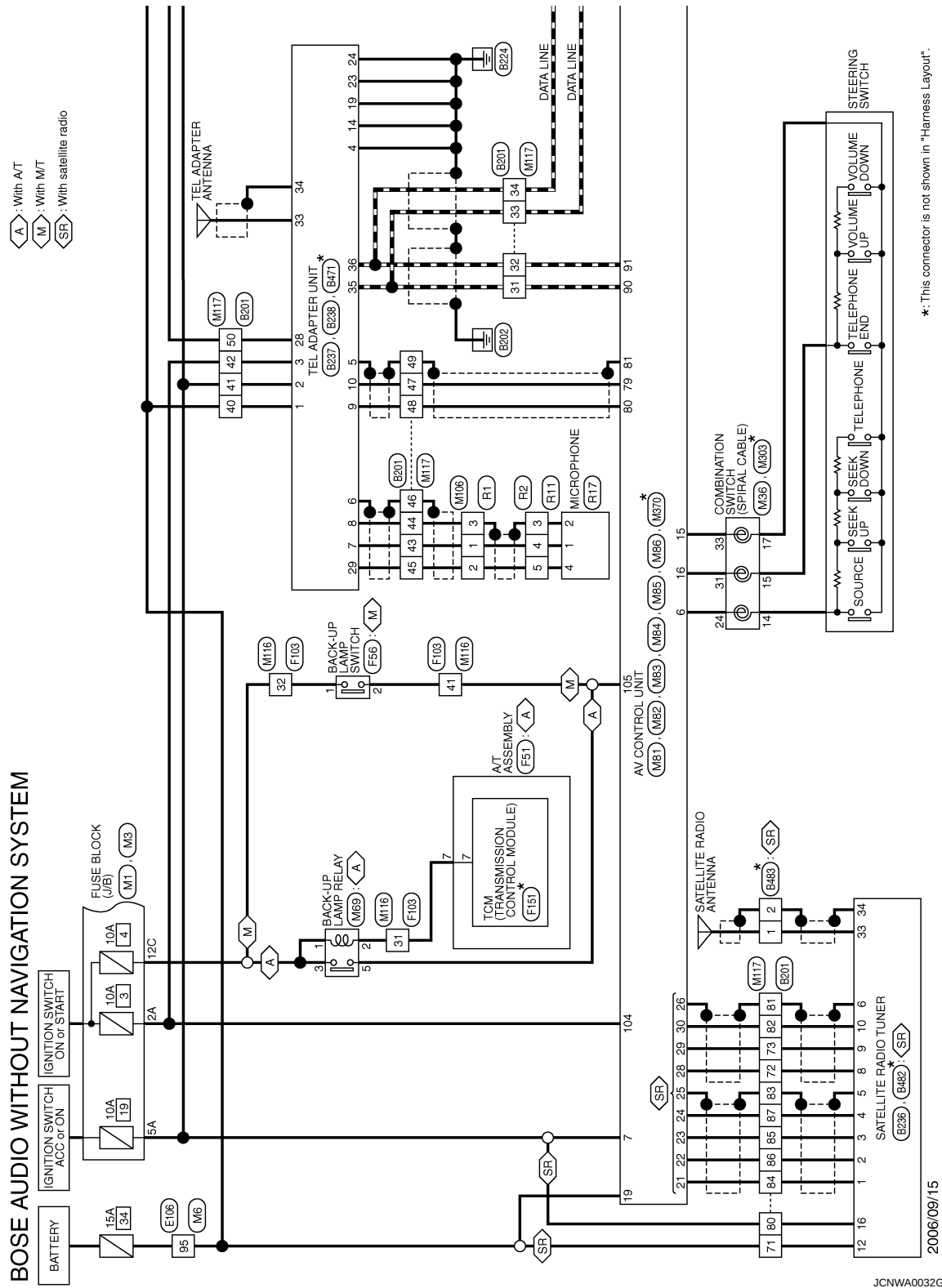
NOTE:

SATELLITE RADIO TUNER

[BOSE AUDIO WITHOUT NAVIGATION]

< ECU DIAGNOSIS >

The name MULTIFUNCTION SWITCH indicates the integration of PRESET SWITCH and MULTIFUNCTION SWITCH virtually.



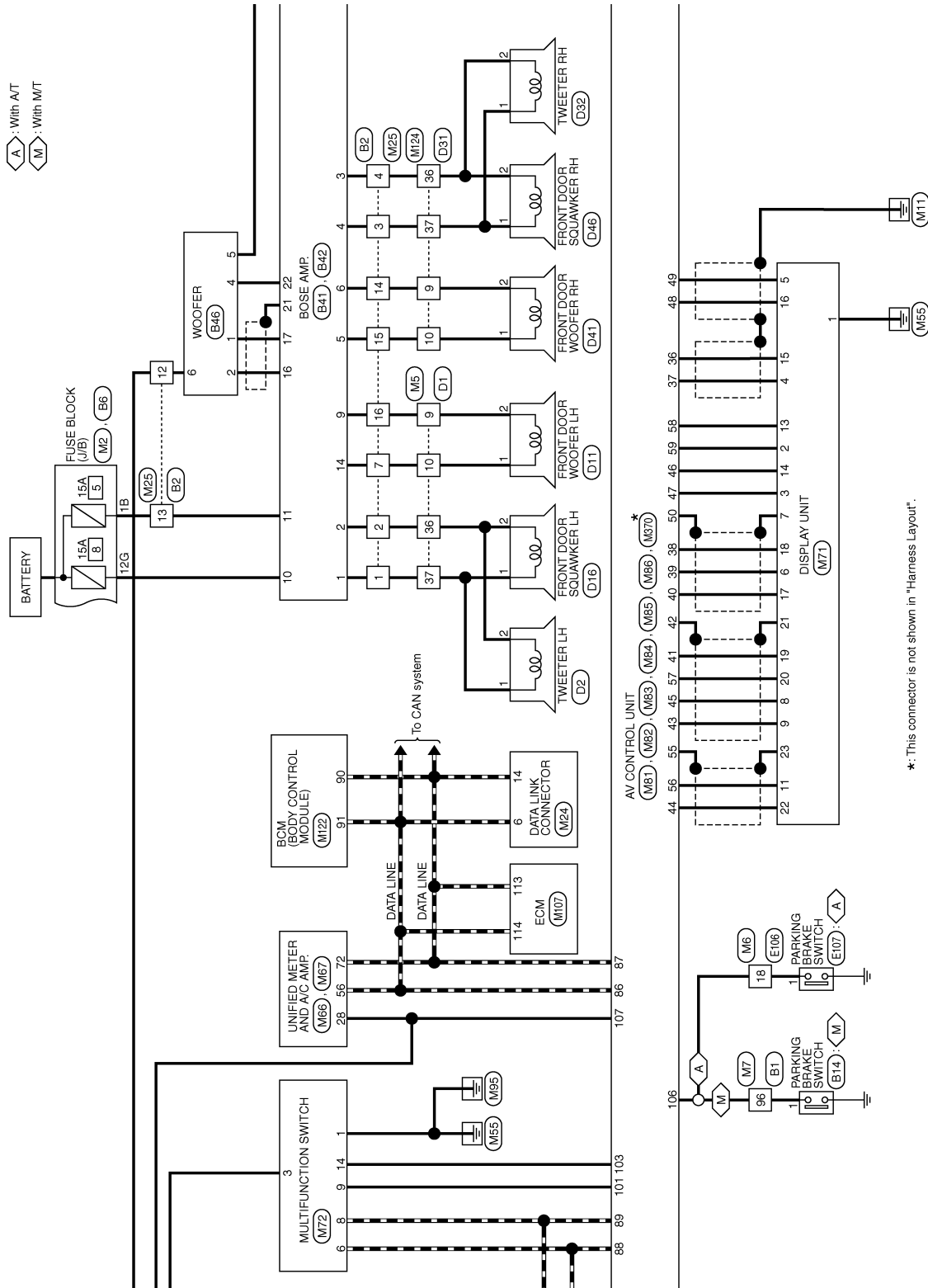
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SATELLITE RADIO TUNER

[BOSE AUDIO WITHOUT NAVIGATION]

< ECU DIAGNOSIS >



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

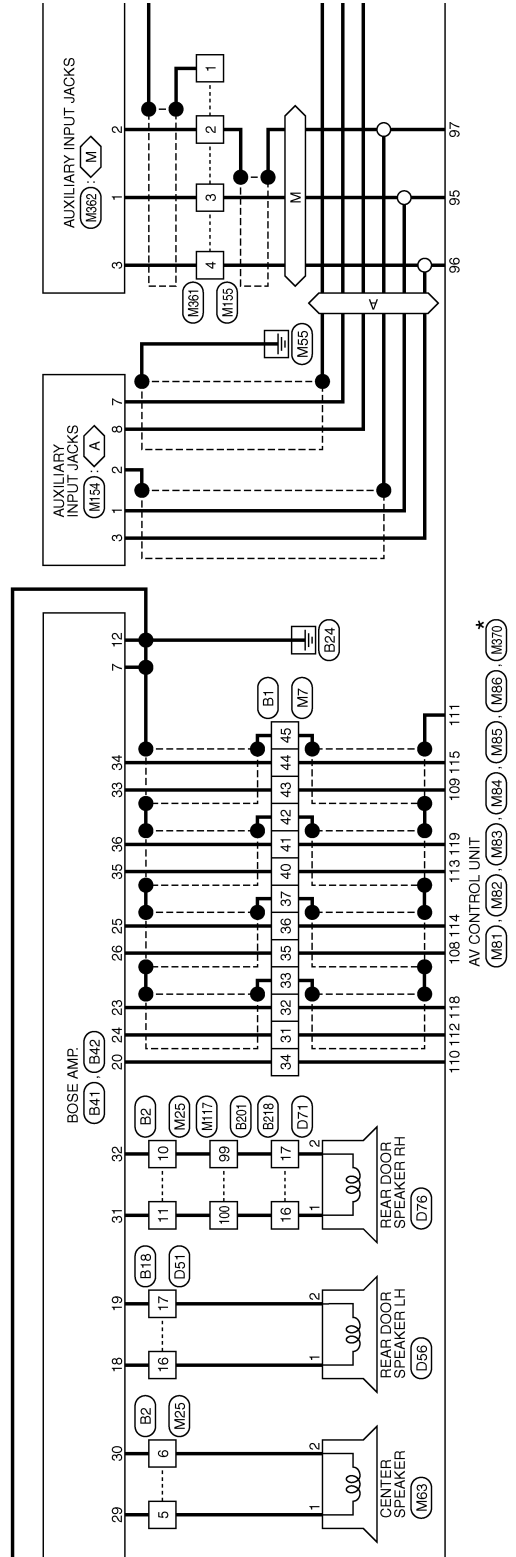
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SATELLITE RADIO TUNER

[BOSE AUDIO WITHOUT NAVIGATION]

< ECU DIAGNOSIS >

A : With A/T
M : With M/T



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

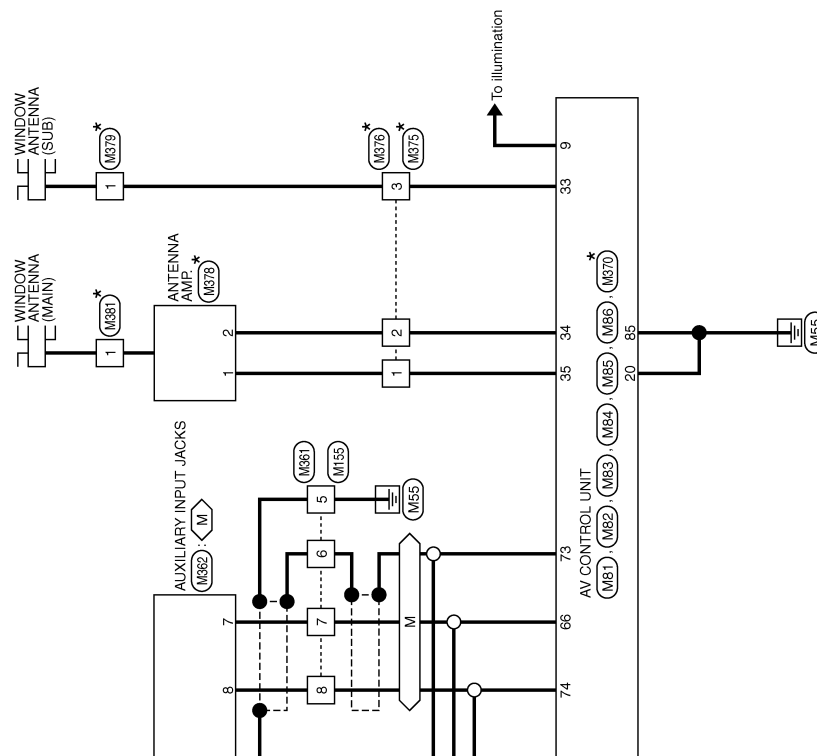
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[BOSE AUDIO WITHOUT NAVIGATION]

M : With M/T



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

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SATELLITE RADIO TUNER

[BOSE AUDIO WITHOUT NAVIGATION]

< ECU DIAGNOSIS >

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

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



Terminal No.	Color of Wire	Signal Name
31	V	-
32	SB	-
33	SHIELD	-
34	V	-
35	BR	-
36	Y	-
37	SHIELD	-
40	P	-
41	L	-
42	SHIELD	-
43	R	-

44	G	-
45	SHIELD	-
96	V	-

Connector No.	B2
Connector Name	WIRE TO WIRE
Connector Type	NS18FW-CS



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

Terminal No.	Color of Wire	Signal Name
1	L	-
2	W	-
3	V	-
4	LG	-
5	Y	-
6	G	-
7	B	-
10	Y	-
11	LG	-
12	Y	-
13	GR	-

Connector No.	B6
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FB-CS



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

Connector No.	B14
Connector Name	PARKING BRAKE SWITCH
Connector Type	P01FB-A



1

Connector No.	B18
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS



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

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

Terminal No.	Color of Wire	Signal Name
1	V	-

Terminal No.	Color of Wire	Signal Name
16	L	- [With BOSE system]
17	P	- [With BOSE system]

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SATELLITE RADIO TUNER

[BOSE AUDIO WITHOUT NAVIGATION]

< ECU DIAGNOSIS >

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B41
Connector Name	BOSE AMP.
Connector Type	SCA12FR-SGA4

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Terminal No.	Color of Wire	Signal Name
16	SB	SOUND SIGNAL WOOFER (+)
17	V	SOUND SIGNAL WOOFER (-)
18	L	SOUND SIGNAL REAR DOOR LH (+)
19	P	SOUND SIGNAL REAR DOOR LH (-)
20	V	AMP ON SIGNAL
21	SHIELD	SHIELD
22	GR	WOOFER AMP-ON SIGNAL
23	SB	SOUND SIGNAL REAR LH (-)
24	V	SOUND SIGNAL REAR LH (+)
25	Y	SOUND SIGNAL REAR RH (-)
26	BR	SOUND SIGNAL REAR RH (+)

Connector No.	B46
Connector Name	WOOFER
Connector Type	NSD0FBF-CS

2	6
1	4
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SATELLITE RADIO TUNER

[BOSE AUDIO WITHOUT NAVIGATION]

< ECU DIAGNOSIS >

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B236
Connector Name	SATELLITE RADIO TUNER
Connector Type	AT16W



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

Terminal No.	Color of Wire	Signal Name
1	G	SOUND SIGNAL LH (-)
2	R	SOUND SIGNAL LH (+)
3	W	SOUND SIGNAL RH (-)
4	B	SOUND SIGNAL RH (+)
5	SHIELD	SHIELD
6	SHIELD	SHIELD
8	G	REQUEST (SAT->CONT)
9	L	COMM (SAT->CONT)
10	P	COMM (CONT->SAT)
12	Y	BATTERY
16	V	ACC



Connector No.	B471
Connector Name	TEL ADAPTER UNIT
Connector Type	GT18C-IS-HU

Terminal No.	Color of Wire	Signal Name
33	-	TEL ANTENNA
34	SHIELD	SHIELD

Connector No.	B237
Connector Name	TEL ADAPTER UNIT
Connector Type	TH432FW-NH



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

Terminal No.	Color of Wire	Signal Name
1	Y	BATTERY
2	LG	ACC
3	W	IGNITION
4	B	GND
5	SHIELD	SHIELD
6	SHIELD	SHIELD
7	BR	MICROPHONE SIGNAL
8	O	MICROPHONE GND
9	Y	TEL VOICE SIGNAL (+)
10	G	TEL VOICE SIGNAL (-)
14	B	GND



Connector No.	B482
Connector Name	SATELLITE RADIO TUNER
Connector Type	-

Terminal No.	Color of Wire	Signal Name
33	-	SATELLITE ANTENNA
34	SHIELD	SHIELD

19	B	GND
23	B	CONTROL SIGNAL
24	B	CONTROL SIGNAL
28	P	VEHICLE SPEED (8-PUL SE)
29	Y	MICROPHONE VCC



35	37	39	41
36	38	40	42

Terminal No.	Color of Wire	Signal Name
35	L	AV COMM (H)
36	P	AV COMM (L)

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



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

Terminal No.	Color of Wire	Signal Name
9	R	-
10	G	-
36	W	-
37	L	-

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SATELLITE RADIO TUNER

[BOSE AUDIO WITHOUT NAVIGATION]

< ECU DIAGNOSIS >

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	D2
Connector Name	TWEETER LH
Connector Type	TK02MBR-P



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

Connector No.	D11
Connector Name	FRONT DOOR WOOFER LH
Connector Type	NS02FW-CS



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

Connector No.	D16
Connector Name	FRONT DOOR SQUAWKER LH
Connector Type	TK02FER



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

Connector No.	D31
Connector Name	WIRE TO WIRE
Connector Type	TH00FW-CS15



Terminal No.	Color of Wire	Signal Name
9	R	-
10	G	-
36	W	-
37	L	-

Connector No.	D32
Connector Name	TWEETER RH
Connector Type	TK02MBR-P



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

Connector No.	D41
Connector Name	FRONT DOOR WOOFER RH
Connector Type	NS02FW-CS



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

Connector No.	D46
Connector Name	FRONT DOOR SQUAWKER RH
Connector Type	TK02FER



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

Connector No.	D51
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Terminal No.	Color of Wire	Signal Name
16	LG	-
17	Y	-

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SATELLITE RADIO TUNER

[BOSE AUDIO WITHOUT NAVIGATION]

< ECU DIAGNOSIS >

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	D56
Connector Name	REAR DOOR SPEAKER LH (With BOSE system)
Connector Type	NS02FBR-CS



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

Connector No.	D71
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



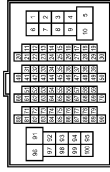
Terminal No.	Color of Wire	Signal Name
16	L	-
17	P	-

Connector No.	D76
Connector Name	REAR DOOR SPEAKER RH (With BOSE system)
Connector Type	NS02FBR-CS



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

Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TK38FW-TM4



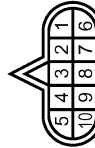
Terminal No.	Color of Wire	Signal Name
18	O	-
35	Y	-

Connector No.	E107
Connector Name	PARKING BRAKE SWITCH (A/T)
Connector Type	TB01FW



Terminal No.	Color of Wire	Signal Name
1	O	-

Connector No.	F51
Connector Name	A/T ASSEMBLY
Connector Type	RK10FG-D0Y



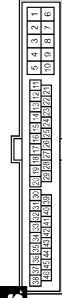
Terminal No.	Color of Wire	Signal Name
7	R	-

Connector No.	F56
Connector Name	BACK-UP LAMP SWITCH
Connector Type	RK03FB



Terminal No.	Color of Wire	Signal Name
1	R	-
2	O	-

Connector No.	F103
Connector Name	WIRE TO WIRE
Connector Type	TK38FW-TS10



Terminal No.	Color of Wire	Signal Name
31	R	-
32	R	-
41	O	-

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SATELLITE RADIO TUNER

[BOSE AUDIO WITHOUT NAVIGATION]

< ECU DIAGNOSIS >

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	F1B1
Connector Name	TOM (TRANSMISSION CONTROL MODULE)
Connector Type	SP10FBGY



10	9	8	7	6	5	4	3	2	1

Terminal No.	7
Color of Wire	O
Signal Name	REV LAMP RLY

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



3A	2A	1A
8A	7A	6A
5A	4A	3A

Terminal No.	2A
Color of Wire	G
Signal Name	-

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



4B	3B	2B	1B
10B	9B	8B	7B
6B	5B	4B	3B

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

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FW-CS



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

Terminal No.	12C
Color of Wire	R
Signal Name	-

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



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40	41	42	43	44	45

Terminal No.	9
Color of Wire	W
Signal Name	-

Terminal No.	18
Color of Wire	Y
Signal Name	-

Terminal No.	31
Color of Wire	V
Signal Name	-

Terminal No.	44
Color of Wire	G
Signal Name	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS18-TM4



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40	41	42	43	44	45

Terminal No.	18
Color of Wire	Y
Signal Name	-

Terminal No.	31
Color of Wire	V
Signal Name	-

Terminal No.	44
Color of Wire	G
Signal Name	-

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



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40	41	42	43	44	45

Terminal No.	31
Color of Wire	V
Signal Name	-

Terminal No.	44
Color of Wire	G
Signal Name	-

SATELLITE RADIO TUNER

[BOSE AUDIO WITHOUT NAVIGATION]

< ECU DIAGNOSIS >

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD18FW



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

Terminal No.	Color of Wire	Signal Name
6	L	-
14	P	-

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



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

Terminal No.	Color of Wire	Signal Name
1	L	-
2	W	-
3	BR	-
4	R	-
5	L	-
6	LG	-
7	B	-
10	P	-
11	L	-
12	Y	-
13	SB	-

14	R
15	G
16	W

Connector No.	M38
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY-1V



24	25	26	27	31	32	33	34

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

Connector No.	M63
Connector Name	CENTER SPEAKER
Connector Type	TK02FBR



2	1

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

Connector No.	M66
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH40FW-NH



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

Terminal No.	Color of Wire	Signal Name
28	R	VEHICLE SPEED (8-PULSE)

Connector No.	M67
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH32FW-NH



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

Terminal No.	Color of Wire	Signal Name
56	L	CAN-H
72	P	CAN-L

Connector No.	M69
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS02FL-M2



2	3	5	1

Terminal No.	Color of Wire	Signal Name
1	R	-
2	W	-
3	LG	-
5	O	-

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SATELLITE RADIO TUNER

[BOSE AUDIO WITHOUT NAVIGATION]

< ECU DIAGNOSIS >

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M71
Connector Name	DISPLAY UNIT
Connector Type	TH24FW-NH

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

14	LG	SIGNAL GND [Without NAVI]
15	SB	AUX IMAGE SIGNAL [Without NAVI]
16	BR	COMPOSITE SYNC
17	G	RGB (RRED) SIGNAL [Without NAVI]
18	P	RGB (BLUE) SIGNAL [Without NAVI]
19	W	RGB SYNC [Without NAVI]
20	G	VP [Without NAVI]
21	SHIELD	SHIELD
22	BR	COMM (DISP->CONT) [Without NAVI]
23	SHIELD	SHIELD

Terminal No.	Color of Wire	Signal Name
1	B	GND
2	Y	INVERTER VCC [Without NAVI]
3	O	SIGNAL VCC [Without NAVI]
4	V	AUX IMAGE GND [Without NAVI]
5	Y	COMPOSITE SYNC GND [Without NAVI]
6	L	RGB (GREEN) SIGNAL [Without NAVI]
7	SHIELD	SHIELD
8	R	HP
9	B	RGB AREA (YS) SIGNAL
11	Y	COMM (CONT->DISP) [Without NAVI]
13	BR	INVERTER GND [Without NAVI]

Connector No.	M82
Connector Name	AV CONTROL UNIT
Connector Type	AI2FW

22	24	30	32
21	23	25	26
27	28	29	31

Terminal No.	Color of Wire	Signal Name
21	W	SOUND SIGNAL LH (-)
22	B	SOUND SIGNAL LH (+)
23	R	SOUND SIGNAL RH (-)
24	G	SOUND SIGNAL RH (+)
25	SHIELD	SHIELD
26	SHIELD	SHIELD
28	W	REQUEST (SAT->CONT)
29	B	COMM (SAT->CONT)
30	R	COMM (CONT->SAT)

Connector No.	M72
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH18FW-NH

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

Connector No.	M81
Connector Name	AV CONTROL UNIT
Connector Type	TH18FW-CS2

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

Terminal No.	Color of Wire	Signal Name
1	B	GND
3	V	ACC
6	LG	AV COMM (H)
8	V	AV COMM (L)
9	BR	SW GND
14	SB	EJECT SIGNAL

Terminal No.	Color of Wire	Signal Name
6	P	STRG SW A
7	V	ACC
9	R	ILLUMINATION
15	B	STRG SW GND
16	L	STRG SW B
19	Y	BATTERY
20	B	GND

47	O	SIGNAL VCC
48	BR	COMPOSITE SYNC
49	Y	COMPOSITE SYNC GND
50	SHIELD	SHIELD
55	SHIELD	SHIELD
56	Y	COMM (CONT->DISP)
57	G	VP
58	BR	INVERTER GND
59	Y	INVERTER VCC

Connector No.	M83
Connector Name	AV CONTROL UNIT
Connector Type	TH24FW-NH

47	46	45	44	43	42	41	40	39	38	37	36
59	58	57	56	55	54	53	52	51	50	49	48

Terminal No.	Color of Wire	Signal Name
36	SB	AUX IMAGE SIGNAL
37	V	AUX IMAGE GND
38	P	RGB (BLUE) SIGNAL
39	L	RGB (GREEN) SIGNAL
40	G	RGB (RRED) SIGNAL
41	W	RGB SYNC
42	SHIELD	SHIELD
43	B	RGB AREA (YS) SIGNAL
44	BR	COMM (DISP->CONT)
45	R	HP
46	LG	SIGNAL GND

Connector No.	M84
Connector Name	AV CONTROL UNIT
Connector Type	TH18FW-NH

67	66	65	64	63	62	61	60
75	74	73	72	71	70	69	68

Terminal No.	Color of Wire	Signal Name
66	G	AUX IMAGE SIGNAL
73	SHIELD	SHIELD
74	R	AUX IMAGE GND

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SATELLITE RADIO TUNER

[BOSE AUDIO WITHOUT NAVIGATION]

< ECU DIAGNOSIS >

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M85
Connector Name	AV CONTROL UNIT
Connector Type	TH2FW-NH



91	90	89	88	87	86	85	84	83	82	81	80	79	78	77	76
107	106	105	104	103	102	101	100	99	98	97	96	95	94	93	92

Terminal No.	Color of Wire	Signal Name
79	P	TEL VOICE SIGNAL (-)
80	L	TEL VOICE SIGNAL (+)
81	SHIELD	SHIELD
85	B	GND
86	L	CAN-H
87	P	CAN-L
88	G	AV COMM (H) [With BOSE system]
89	R	AV COMM (L) [With BOSE system]
90	L	AV COMM (H)
91	P	AV COMM (L)
95	BR	SOUND SIGNAL RH (+) [With BOSE system]



126	124	123	122	121	120	119	118	117	116	115	114	113	112	111	110	109	108	107	106	105	104	103	102	101	100	99	98	97	96	95	94	93	92	91	90	89	88	87	86	85	84	83	82	81	80	79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64	63	62	61	60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Connector No.	M107
Connector Name	ECM
Connector Type	IMA24FGY-MEAS-LH-Z

96	Y	SOUND SIGNAL LH (+) [With BOSE system]
97	SHIELD	SHIELD
101	BR	SW GND
103	SB	EJECT SIGNAL
104	G	IGNITION
105	O	REVERSE
106	V	PARKING BRAKE
107	R	VEHICLE SPEED (8-PULSE)



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100

Connector No.	M116
Connector Name	WIRE TO WIRE
Connector Type	TK38MW-NS10

Connector No.	M86
Connector Name	AV CONTROL UNIT
Connector Type	TH12FW-NH



108	107	106	105	104	103	102	101	100	99	98	97	96	95	94	93	92	91	90	89	88	87	86	85	84	83	82	81	80	79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64	63	62	61	60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Terminal No.	Color of Wire	Signal Name
108	BR	SOUND SIGNAL REAR RH (+)
109	R	SOUND SIGNAL FRONT RH (+)
110	V	AMP ON SIGNAL
111	SHIELD	SHIELD
112	V	SOUND SIGNAL REAR LH (+)
113	P	SOUND SIGNAL FRONT LH (+)
114	Y	SOUND SIGNAL REAR RH (-)
115	G	SOUND SIGNAL FRONT RH (-)
118	SB	SOUND SIGNAL REAR LH (-)
119	L	SOUND SIGNAL FRONT LH (-)



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100

Connector No.	M117
Connector Name	WIRE TO WIRE
Connector Type	TH48MW-CS16-TM4

Connector No.	M106
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



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

Terminal No.	Color of Wire	Signal Name
1	B	- [Without NAVI]
2	W	- [Without NAVI]
3	R	- [Without NAVI]

47	P	-
48	L	-
49	SHIELD	-
50	V	-
71	Y	-
72	W	-
73	B	-
80	V	-
81	SHIELD	-
82	R	-
83	SHIELD	-
84	W	-
85	R	-
86	B	-
87	G	-
99	P	-
100	L	-

Terminal No.	Color of Wire	Signal Name
31	L	-
32	P	-
33	G	-
34	R	-
40	Y	-
41	G	-
42	O	-
43	B	-
44	R	-
45	W	-
46	SHIELD	-

Terminal No.	Color of Wire	Signal Name
31	W	-
32	LG	-
41	O	-

Terminal No.	Color of Wire	Signal Name
113	P	VHECAN L1
114	L	VHECAN H1

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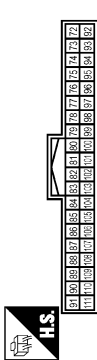
SATELLITE RADIO TUNER

[BOSE AUDIO WITHOUT NAVIGATION]

< ECU DIAGNOSIS >

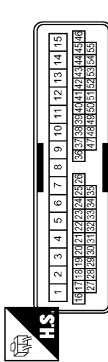
BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M122
Connector Name	BOM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH



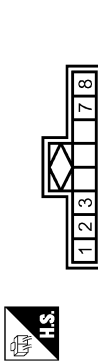
Terminal No.	Color of Wire	Signal Name
90	P	CAN-L
91	L	CAN-H

Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



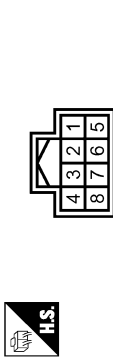
Terminal No.	Color of Wire	Signal Name
9	R	-
10	G	-
36	R	-
37	BR	-

Connector No.	M154
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A08FW



Terminal No.	Color of Wire	Signal Name
1	BR	SOUND SIGNAL RH (c) [Without NAVI]
2	SHIELD	SHIELD [Without NAVI]
3	Y	SOUND SIGNAL LH (c) [Without NAVI]
7	G	AUX IMAGE SIGNAL
8	R	AUX IMAGE GND

Connector No.	M155
Connector Name	WIRE TO WIRE
Connector Type	TH08FW-NH



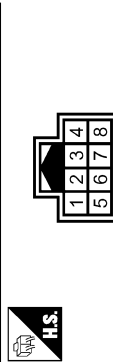
Terminal No.	Color of Wire	Signal Name
1	SHIELD	-
2	SHIELD	[Without NAVI]
3	BR	[Without NAVI]
4	Y	[Without NAVI]
5	B	-
6	SHIELD	-
7	G	-
8	R	-

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



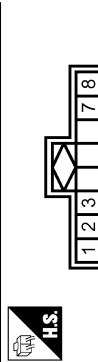
Terminal No.	Color of Wire	Signal Name
14	W	-
15	L	-
17	BR	-

Connector No.	M361
Connector Name	WIRE TO WIRE
Connector Type	TH08MW-NH



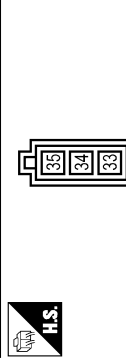
Terminal No.	Color of Wire	Signal Name
1	SHIELD	-
2	B	-
3	BR	- [Without NAVI]
4	Y	- [Without NAVI]
5	SHIELD	-
6	SHIELD	-
7	G	-
8	R	-

Connector No.	M362
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A08FW



Terminal No.	Color of Wire	Signal Name
1	BR	SOUND SIGNAL RH (c) [Without NAVI]
2	B	SOUND SIGNAL GND
3	Y	SOUND SIGNAL LH (c) [Without NAVI]
7	G	AUX IMAGE SIGNAL
8	R	AUX IMAGE GND

Connector No.	M370
Connector Name	AV CONTROL UNIT
Connector Type	GT13SH-2/1S-HU



Terminal No.	Color of Wire	Signal Name
33	-	FM SUB
34	-	AM-FM MAIN
35	-	ANTENNA AMP ON SIGNAL

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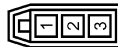
SATELLITE RADIO TUNER

[BOSE AUDIO WITHOUT NAVIGATION]

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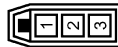
BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M375
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1S-HU



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

Connector No.	M376
Connector Name	WIRE TO WIRE
Connector Type	GT13SCN-2/1FP-HU



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

Connector No.	M378
Connector Name	ANTENNA AMP.
Connector Type	GT13SC-1/1S-HU



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

Connector No.	M379
Connector Name	WINDOW ANTENNA(SUB)
Connector Type	P01FB-A



Terminal No.	Color of Wire	Signal Name
1	-	-

Connector No.	M381
Connector Name	WINDOW ANTENNA(MAIN)
Connector Type	P01FB-A



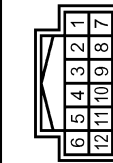
Terminal No.	Color of Wire	Signal Name
1	-	-

Connector No.	R1
Connector Name	WIRE TO WIRE
Connector Type	1K10FW-NS8



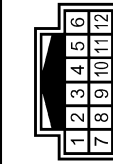
Terminal No.	Color of Wire	Signal Name
1	G	- [Without NAV]
2	Y	- [Without NAV]
3	SHIELD	-

Connector No.	R2
Connector Name	WIRE TO WIRE
Connector Type	1H12FW-NH



Terminal No.	Color of Wire	Signal Name
3	SHIELD	-
4	R	-
5	G	-

Connector No.	R11
Connector Name	WIRE TO WIRE
Connector Type	1H12MW-NH



Terminal No.	Color of Wire	Signal Name
3	SHIELD	-
4	R	-
5	G	-

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BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	R17
Connector Name	MICROPHONE
Connector Type	TKQAFW



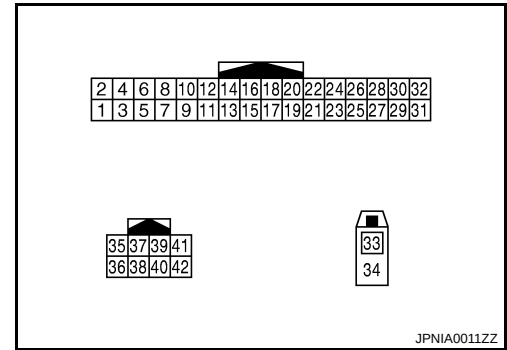
Terminal No.	Color of Wire	Signal Name
1	R	MICROPHONE SIGNAL
2	SHIELD	SHIELD
4	G	MICROPHONE VCC

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TEL ADAPTER UNIT

Reference Value

INFOID:000000000964709



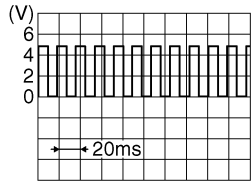
PHYSICAL VALUES

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
1 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
2 (LG)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
3 (W)	Ground	Ignition signal	Input	Ignition switch ON	—	Battery voltage
4 (B)	Ground	GND	—	Ignition switch ON	—	0 V
5	—	Shield	—	—	—	—
6	—	Shield	—	—	—	—
7 (BR)	8 (O)	Microphone signal	Input	Ignition switch ON	Give a voice	PKIB5037J
8 (O)	Ground	Microphone GND	—	Ignition switch ON	—	0 V
9 (Y)	10 (G)	TEL voice signal	Output	Ignition switch ON	During voice guide output with the switch pressed	SKIB3609E

TEL ADAPTER UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
14 (B)	Ground	GND	—	Ignition switch ON	—	0 V
19 (B)	Ground	GND	—	Ignition switch ON	—	0 V
23 (B)	Ground	Control signal	Input	Ignition switch ON	—	0 V
24 (B)	Ground	Control signal	Input	Ignition switch ON	—	0 V
28 (P)	Ground	Vehicle speed signal (8-pulse)	Input	Ignition switch ON	When vehicle speed is ap- prox. 40 km/h (25MPH)	 SKIA6649J
29 (Y)	8 (O)	Microphone VCC	Output	Ignition switch ON	—	5 V
33	—	TEL antenna	Input	—	—	—
34	—	Shield	—	—	—	—
35 (L)	—	AV communication signal (H)	Input/ Output	—	—	—
36 (P)	—	AV communication signal (L)	Input/ Output	—	—	—

Wiring Diagram — BOSE AUDIO WITHOUT NAVIGATION SYSTEM —

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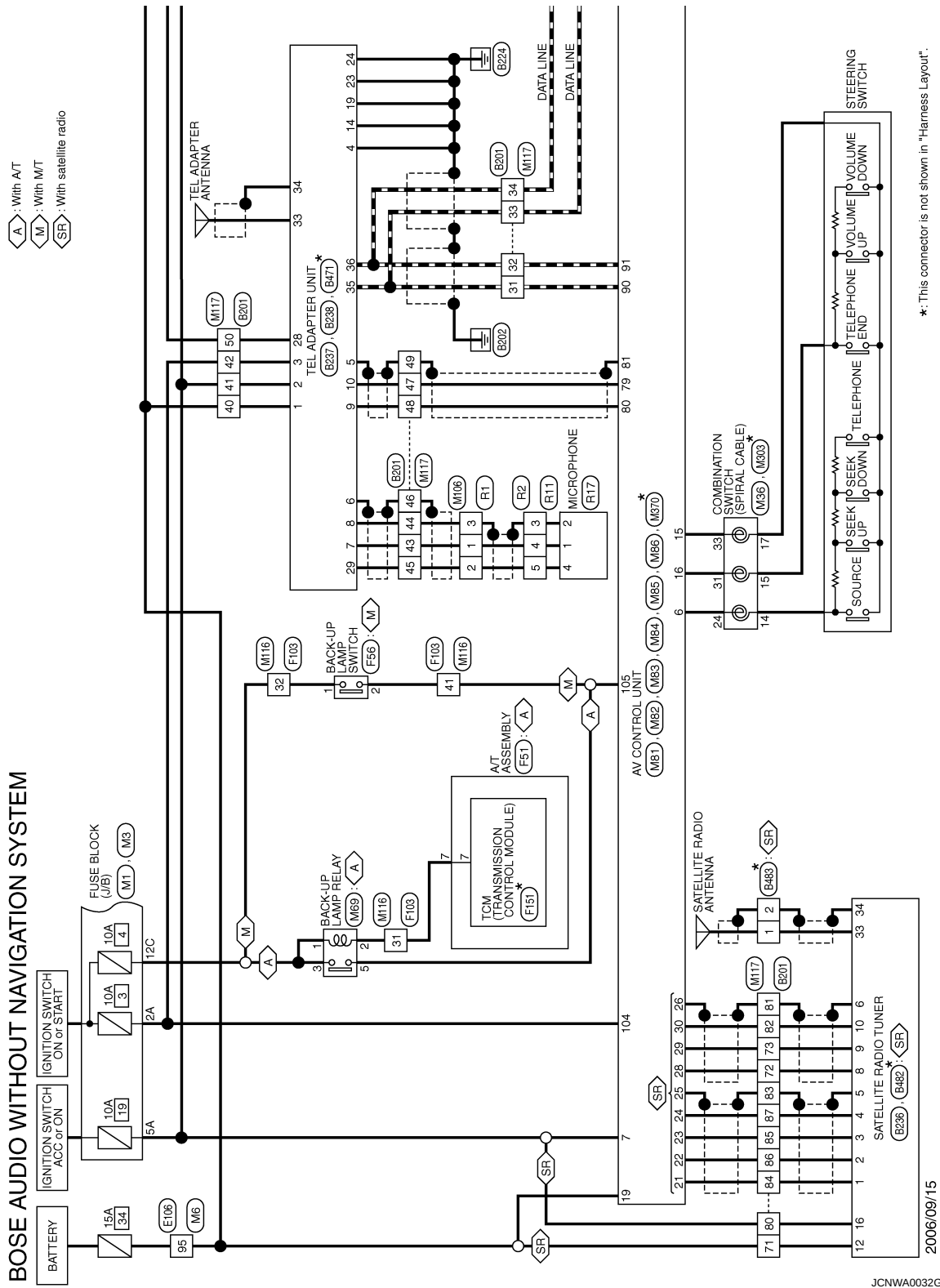
NOTE:

TEL ADAPTER UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

The name MULTIFUNCTION SWITCH indicates the integration of PRESET SWITCH and MULTIFUNCTION SWITCH virtually.



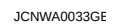
*: This connector is not shown in "Harness Layout".

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[BOSE AUDIO WITHOUT NAVIGATION]

Revision: October 2006



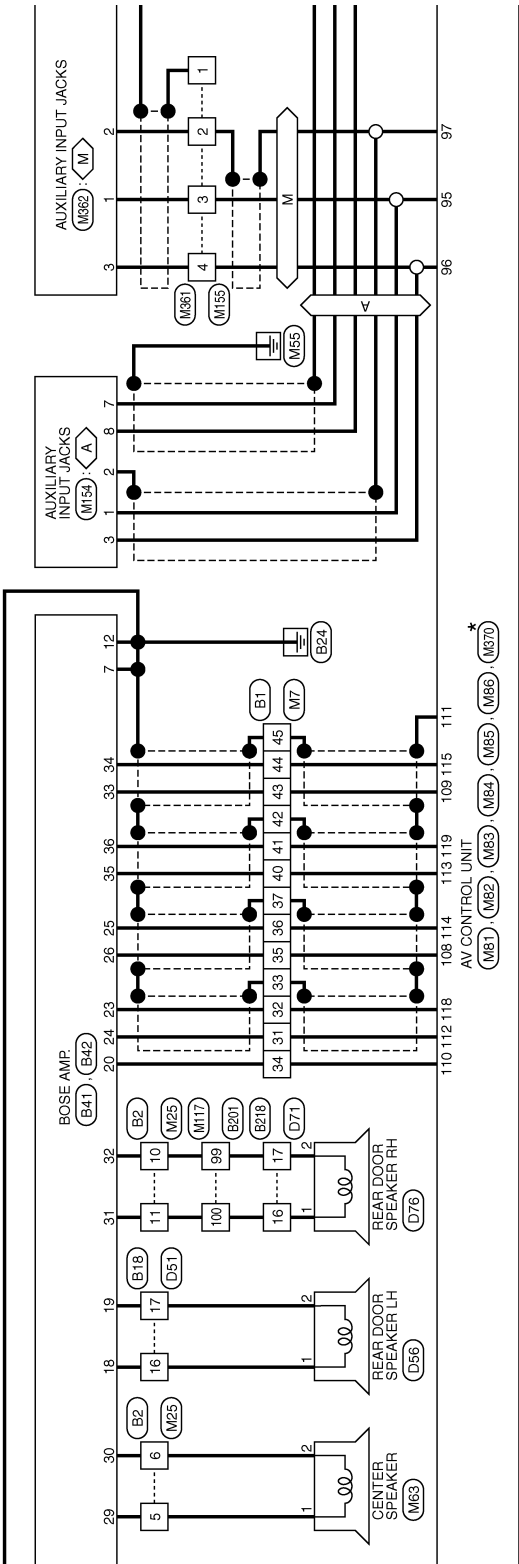
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TEL ADAPTER UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

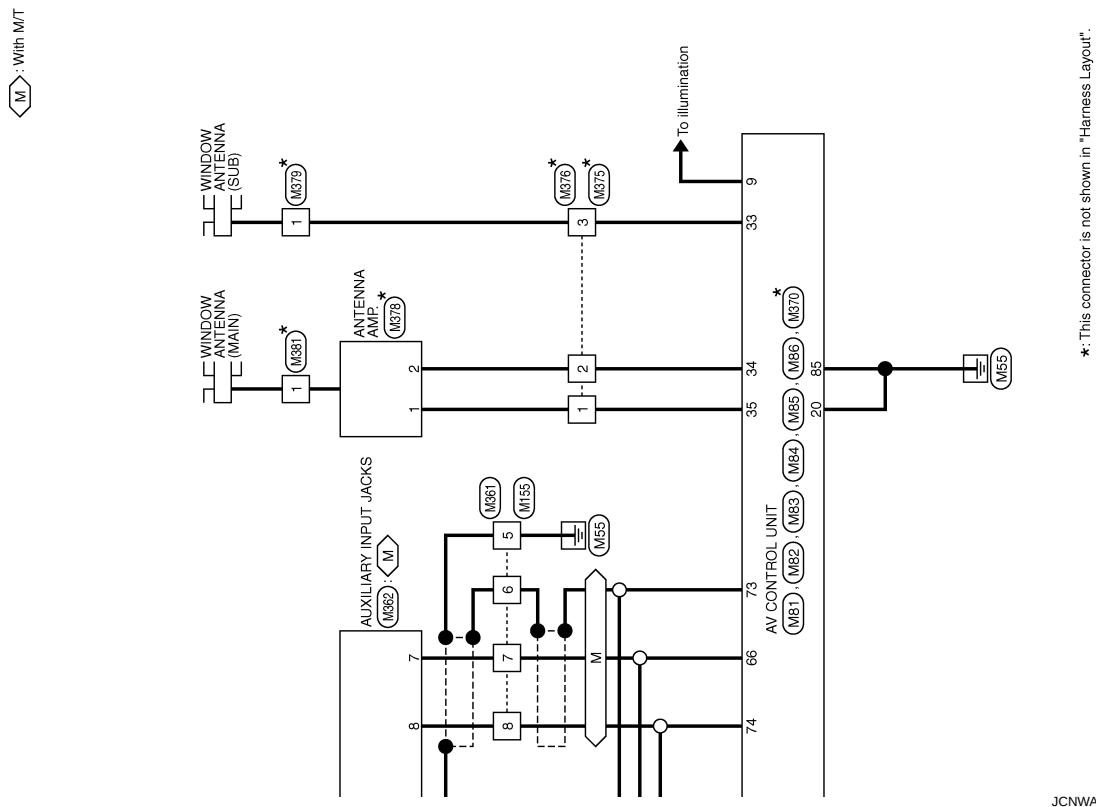
A : With A/T
M : With M/T



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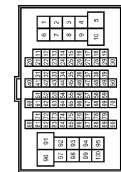
TEL ADAPTER UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

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



Terminal No.	Color of Wire	Signal Name
31	V	-
32	SB	-
33	SHIELD	-
34	V	-
35	BR	-
36	Y	-
37	SHIELD	-
40	P	-
41	L	-
42	SHIELD	-
43	R	-

44	G	-
45	SHIELD	-
96	V	-



Connector No.	B2
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS



Terminal No.	Color of Wire	Signal Name
1	L	-
2	W	-
3	V	-
4	LG	-
5	Y	-
6	G	-
7	B	-
10	Y	-
11	LG	-
12	Y	-
13	GR	-

Connector No.	B6
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FB-CS



Connector No.	B14
Connector Name	PARKING BRAKE SWITCH
Connector Type	P01FB-A



Connector No.	B18
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS



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

Terminal No.	1
Color of Wire	V
Signal Name	-

Terminal No.	Color of Wire	Signal Name
16	L	- [With BOSE system]
17	P	- [With BOSE system]

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TEL ADAPTER UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B41
Connector Name	BOSE AMP.
Connector Type	SCA10FR-SGA4

Terminal No.	Color of Wire	Signal Name
16	SB	SOUND SIGNAL WOOFER (+)
17	V	SOUND SIGNAL WOOFER (-)
18	L	SOUND SIGNAL REAR DOOR LH (+)
19	P	SOUND SIGNAL REAR DOOR LH (-)
20	V	AMP ON SIGNAL
21	SHIELD	SHIELD
22	GR	WOOFER AMP ON SIGNAL
23	SB	SOUND SIGNAL REAR LH (-)
24	V	SOUND SIGNAL REAR LH (+)
25	Y	SOUND SIGNAL REAR RH (-)
26	BR	SOUND SIGNAL REAR RH (+)

Connector No.	B46
Connector Name	WOOFER
Connector Type	NSD0FBF-CS

2	6
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	5

 H.S.

TEL ADAPTER UNIT

[BOSE AUDIO WITHOUT NAVIGATION]

< ECU DIAGNOSIS >

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B236
Connector Name	SATELLITE RADIO TUNER
Connector Type	AT16W



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

Terminal No.	Color of Wire	Signal Name
1	G	SOUND SIGNAL LH (-)
2	R	SOUND SIGNAL LH (+)
3	W	SOUND SIGNAL RH (-)
4	B	SOUND SIGNAL RH (+)
5	SHIELD	SHIELD
6	SHIELD	SHIELD
8	G	REQUEST (SAT->CONT)
9	L	COMM (SAT->CONT)
10	P	COMM (CONT->SAT)
12	Y	BATTERY
16	V	ACC



Connector No.	B471
Connector Name	TEL ADAPTER UNIT
Connector Type	GT18C-IS-HU

Connector No.	B237
Connector Name	TEL ADAPTER UNIT
Connector Type	TH432FW-NH



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

Terminal No.	Color of Wire	Signal Name
1	Y	BATTERY
2	LG	ACC
3	W	IGNITION
4	B	GND
5	SHIELD	SHIELD
6	SHIELD	SHIELD
7	BR	MICROPHONE SIGNAL
8	O	MICROPHONE GND
9	Y	TEL VOICE SIGNAL (+)
10	G	TEL VOICE SIGNAL (-)
14	B	GND



Connector No.	B482
Connector Name	SATELLITE RADIO TUNER
Connector Type	-

19	B	GND
23	B	CONTROL SIGNAL
24	B	CONTROL SIGNAL
28	P	VEHICLE SPEED (8-PUL SE)
29	Y	MICROPHONE VCC



35	37	39	41
36	38	40	42

Terminal No.	Color of Wire	Signal Name
35	L	AV COMM (H)
36	P	AV COMM (L)

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



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

Terminal No.	Color of Wire	Signal Name
9	R	-
10	G	-
36	W	-
37	L	-

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



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TEL ADAPTER UNIT

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[BOSE AUDIO WITHOUT NAVIGATION]

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	D2
Connector Name	TWEETER LH
Connector Type	TK02MBR-P



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

Connector No.	D11
Connector Name	FRONT DOOR WOOFER LH
Connector Type	NS02FW-CS



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

Connector No.	D16
Connector Name	FRONT DOOR SQUAWKER LH
Connector Type	TK02FER



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

Connector No.	D31
Connector Name	WIRE TO WIRE
Connector Type	TH00FW-CS15



Terminal No.	Color of Wire	Signal Name
9	R	-
10	G	-
36	W	-
37	L	-

Connector No.	D32
Connector Name	TWEETER RH
Connector Type	TK02MBR-P



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

Connector No.	D41
Connector Name	FRONT DOOR WOOFER RH
Connector Type	NS02FW-CS



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

Connector No.	D46
Connector Name	FRONT DOOR SQUAWKER RH
Connector Type	TK02FER



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

Connector No.	D51
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Terminal No.	Color of Wire	Signal Name
16	LG	-
17	Y	-

TEL ADAPTER UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	D56
Connector Name	REAR DOOR SPEAKER LH (With BOSE system)
Connector Type	NS02FBR-CS



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

Connector No.	D71
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



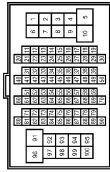
Terminal No.	Color of Wire	Signal Name
16	L	-
17	P	-

Connector No.	D76
Connector Name	REAR DOOR SPEAKER RH (With BOSE system)
Connector Type	NS02FBR-CS



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

Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TK38FW-TM4



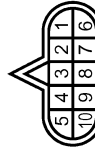
Terminal No.	Color of Wire	Signal Name
18	O	-
35	Y	-

Connector No.	E107
Connector Name	PARKING BRAKE SWITCH (A/T)
Connector Type	TB01FW



Terminal No.	Color of Wire	Signal Name
1	O	-

Connector No.	F51
Connector Name	A/T ASSEMBLY
Connector Type	RK10FG-D0Y



Terminal No.	Color of Wire	Signal Name
7	R	-

Connector No.	F56
Connector Name	BACK-UP LAMP SWITCH
Connector Type	RK02FB



Terminal No.	Color of Wire	Signal Name
1	R	-
2	O	-

Connector No.	F103
Connector Name	WIRE TO WIRE
Connector Type	TK38FW-TS10



Terminal No.	Color of Wire	Signal Name
31	R	-
32	R	-
41	O	-

TEL ADAPTER UNIT

[BOSE AUDIO WITHOUT NAVIGATION]

< ECU DIAGNOSIS >

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	F1B1
Connector Name	TOM (TRANSMISSION CONTROL MODULE)
Connector Type	SP10FBGY



10	9	8	7	6	5	4	3	2	1

Terminal No.	7
Color of Wire	O
Signal Name	REV LAMP RLY

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



3A	2A	1A
8A	7A	6A
5A	4A	3A

Terminal No.	2A
Color of Wire	G
Signal Name	-

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



4B	3B	2B	1B
10B	9B	8B	7B
6B	5B	4B	3B

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

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FW-GS



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

Terminal No.	12C
Color of Wire	R
Signal Name	-

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



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40	41	42	43	44	45

Terminal No.	9
Color of Wire	W
Signal Name	-

Terminal No.	18
Color of Wire	Y
Signal Name	-

Terminal No.	31
Color of Wire	V
Signal Name	-

Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-GS16-TM4



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40	41	42	43	44	45

Terminal No.	32
Color of Wire	SB
Signal Name	-

Terminal No.	44
Color of Wire	G
Signal Name	-

Terminal No.	45
Color of Wire	SHIELD
Signal Name	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40	41	42	43	44	45

Terminal No.	95
Color of Wire	Y
Signal Name	-

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TEL ADAPTER UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD18FW



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

Terminal No.	Color of Wire	Signal Name
6	L	-
14	P	-

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



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

Terminal No.	Color of Wire	Signal Name
1	L	-
2	W	-
3	BR	-
4	R	-
5	L	-
6	LG	-
7	B	-
10	P	-
11	L	-
12	Y	-
13	SB	-

14	R
15	G
16	W

Connector No.	M38
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGV-1V



24	25	26	27	31	32	33	34

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

Connector No.	M63
Connector Name	CENTER SPEAKER
Connector Type	TK02FBR



2	1

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

Connector No.	M66
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH40FW-NH



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

Terminal No.	Color of Wire	Signal Name
28	R	VEHICLE SPEED (8-PULSE)

Connector No.	M67
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH32FW-NH



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

Terminal No.	Color of Wire	Signal Name
56	L	CAN-H
72	P	CAN-L

Connector No.	M69
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS02FL-M2



3	5	2	1

Terminal No.	Color of Wire	Signal Name
1	R	-
2	W	-
3	LG	-
5	O	-

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TEL ADAPTER UNIT

[BOSE AUDIO WITHOUT NAVIGATION]

< ECU DIAGNOSIS >

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M71
Connector Name	DISPLAY UNIT
Connector Type	TH24FW-NH

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

14	LG	SIGNAL GND [Without NAVI]
15	SB	AUX IMAGE SIGNAL [Without NAVI]
16	BR	COMPOSITE SYNC
17	G	RGB (RED) SIGNAL [Without NAVI]
18	P	RGB (BLUE) SIGNAL [Without NAVI]
19	W	RGB SYNC [Without NAVI]
20	G	VP [Without NAVI]
21	SHIELD	SHIELD
22	BR	COMM (DISP->CONT) [Without NAVI]
23	SHIELD	SHIELD

Terminal No.	Color of Wire	Signal Name
1	B	GND
2	Y	INVERTER VCC [Without NAVI]
3	O	SIGNAL VCC [Without NAVI]
4	V	AUX IMAGE GND [Without NAVI]
5	Y	COMPOSITE SYNC GND [Without NAVI]
6	L	RGB (GREEN) SIGNAL [Without NAVI]
7	SHIELD	SHIELD
8	R	HP
9	B	RGB AREA (YS) SIGNAL
11	Y	COMM (CONT->DISP) [Without NAVI]
13	BR	INVERTER GND [Without NAVI]

Connector No.	M82
Connector Name	AV CONTROL UNIT
Connector Type	AI2FW

22	24	30	32
21	23	25	26
27	28	29	31

Terminal No.	Color of Wire	Signal Name
21	W	SOUND SIGNAL LH (-)
22	B	SOUND SIGNAL LH (+)
23	R	SOUND SIGNAL RH (-)
24	G	SOUND SIGNAL RH (+)
25	SHIELD	SHIELD
26	SHIELD	SHIELD
28	W	REQUEST (SAT->CONT)
29	B	COMM (SAT->CONT)
30	R	COMM (CONT->SAT)

Connector No.	M72
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH18FW-NH

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

Connector No.	M81
Connector Name	AV CONTROL UNIT
Connector Type	TH18FW-CS2

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

Terminal No.	Color of Wire	Signal Name
1	B	GND
3	V	ACC
6	LG	AV COMM (H)
8	V	AV COMM (L)
9	BR	SW GND
14	SB	EJECT SIGNAL

Terminal No.	Color of Wire	Signal Name
6	P	STRG SW A
7	V	ACC
9	R	ILLUMINATION
15	B	STRG SW GND
16	L	STRG SW B
19	Y	BATTERY
20	B	GND

47	O	SIGNAL VCC
48	BR	COMPOSITE SYNC
49	Y	COMPOSITE SYNC GND
50	SHIELD	SHIELD
55	SHIELD	SHIELD
56	Y	COMM (CONT->DISP)
57	G	VP
58	BR	INVERTER GND
59	Y	INVERTER VCC

Connector No.	M83
Connector Name	AV CONTROL UNIT
Connector Type	TH24FW-NH

47	46	45	44	43	42	41	40	39	38	37	36
59	58	57	56	55	54	53	52	51	50	49	48

Terminal No.	Color of Wire	Signal Name
36	SB	AUX IMAGE SIGNAL
37	V	AUX IMAGE GND
38	P	RGB (BLUE) SIGNAL
39	L	RGB (GREEN) SIGNAL
40	G	RGB (RED) SIGNAL
41	W	RGB SYNC
42	SHIELD	SHIELD
43	B	RGB AREA (YS) SIGNAL
44	BR	COMM (DISP->CONT)
45	R	HP
46	LG	SIGNAL GND

Connector No.	M84
Connector Name	AV CONTROL UNIT
Connector Type	TH18FW-NH

67	66	65	64	63	62	61	60
75	74	73	72	71	70	69	68

Terminal No.	Color of Wire	Signal Name
66	G	AUX IMAGE SIGNAL
73	SHIELD	SHIELD
74	R	AUX IMAGE GND

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TEL ADAPTER UNIT

[BOSE AUDIO WITHOUT NAVIGATION]

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BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M85
Connector Name	AV CONTROL UNIT
Connector Type	TH22FW-NH

Terminal No.	Color of Wire	Signal Name
79	P	TEL VOICE SIGNAL (-)
80	L	TEL VOICE SIGNAL (+)
81	SHIELD	SHIELD
85	B	GND
86	L	CAN-H
87	P	CAN-L
88	G	AV COMM (H) [With BOSE system]
89	R	AV COMM (L) [With BOSE system]
90	L	AV COMM (H)
91	P	AV COMM (L)
95	BR	SOUND SIGNAL RH (+) [With BOSE system]

Terminal No.	Color of Wire	Signal Name
96	Y	SOUND SIGNAL LH (+) [With BOSE system]
97	SHIELD	SHIELD
101	BR	SW GND
103	SB	EJECT SIGNAL
104	G	IGNITION
105	O	REVERSE
106	V	PARKING BRAKE
107	R	VEHICLE SPEED (8-PULSE)

Connector No.	M86
Connector Name	AV CONTROL UNIT
Connector Type	TH12FW-NH

Terminal No.	Color of Wire	Signal Name
108	BR	SOUND SIGNAL REAR RH (+)
109	R	SOUND SIGNAL FRONT RH (+)
110	V	AMP ON SIGNAL
111	SHIELD	SHIELD
112	V	SOUND SIGNAL REAR LH (+)
113	P	SOUND SIGNAL FRONT LH (+)
114	Y	SOUND SIGNAL REAR RH (-)
115	G	SOUND SIGNAL FRONT RH (-)
118	SB	SOUND SIGNAL REAR LH (-)
119	L	SOUND SIGNAL FRONT LH (-)

Connector No.	M106
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8

Terminal No.	Color of Wire	Signal Name
1	B	- [Without NAVI]
2	W	- [Without NAVI]
3	R	- [Without NAVI]

Terminal No.	Color of Wire	Signal Name
79	P	TEL VOICE SIGNAL (-)
80	L	TEL VOICE SIGNAL (+)
81	SHIELD	SHIELD
85	B	GND
86	L	CAN-H
87	P	CAN-L
88	G	AV COMM (H) [With BOSE system]
89	R	AV COMM (L) [With BOSE system]
90	L	AV COMM (H)
91	P	AV COMM (L)
95	BR	SOUND SIGNAL RH (+) [With BOSE system]

Terminal No.	Color of Wire	Signal Name
108	BR	SOUND SIGNAL REAR RH (+)
109	R	SOUND SIGNAL FRONT RH (+)
110	V	AMP ON SIGNAL
111	SHIELD	SHIELD
112	V	SOUND SIGNAL REAR LH (+)
113	P	SOUND SIGNAL FRONT LH (+)
114	Y	SOUND SIGNAL REAR RH (-)
115	G	SOUND SIGNAL FRONT RH (-)
118	SB	SOUND SIGNAL REAR LH (-)
119	L	SOUND SIGNAL FRONT LH (-)

Terminal No.	Color of Wire	Signal Name
1	B	- [Without NAVI]
2	W	- [Without NAVI]
3	R	- [Without NAVI]

Connector No.	M107
Connector Name	ECM
Connector Type	MA24FGY-MEAS-LH-Z

Terminal No.	Color of Wire	Signal Name
126	124	126
127	123	127
128	122	128
129	121	129

Connector No.	M117
Connector Name	WIRE TO WIRE
Connector Type	TH48MW-CS16-TM4

Terminal No.	Color of Wire	Signal Name
31	L	-
32	P	-
33	G	-
34	R	-
40	Y	-
41	G	-
42	O	-
43	B	-
44	R	-
45	W	-
46	SHIELD	-

Terminal No.	Color of Wire	Signal Name
47	P	-
48	L	-
49	SHIELD	-
50	V	-
71	Y	-
72	W	-
73	B	-
80	V	-
81	SHIELD	-
82	R	-
83	SHIELD	-
84	W	-
85	R	-
86	B	-
87	G	-
99	P	-
100	L	-

Terminal No.	Color of Wire	Signal Name
113	P	VHECAN L1
114	L	VHECAN H1

Terminal No.	Color of Wire	Signal Name
31	W	-
32	LG	-
41	O	-

Terminal No.	Color of Wire	Signal Name
31	L	-
32	P	-
33	G	-
34	R	-
40	Y	-
41	G	-
42	O	-
43	B	-
44	R	-
45	W	-
46	SHIELD	-

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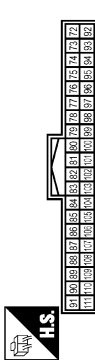
TEL ADAPTER UNIT

[BOSE AUDIO WITHOUT NAVIGATION]

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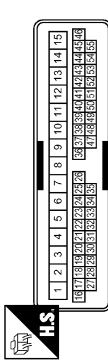
BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M122
Connector Name	BOM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH



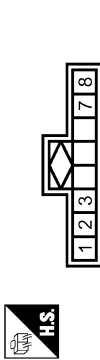
Terminal No.	Color of Wire	Signal Name
90	P	CAN-L
91	L	CAN-H

Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



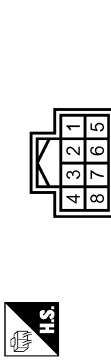
Terminal No.	Color of Wire	Signal Name
9	R	-
10	G	-
36	R	-
37	BR	-

Connector No.	M154
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A08FW



Terminal No.	Color of Wire	Signal Name
1	BR	SOUND SIGNAL RH (+) [Without NAVI]
2	SHIELD	SHIELD [Without NAVI]
3	Y	SOUND SIGNAL LH (+) [Without NAVI]
7	G	AUX IMAGE SIGNAL
8	R	AUX IMAGE GND

Connector No.	M155
Connector Name	WIRE TO WIRE
Connector Type	TH08FW-NH



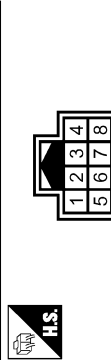
Terminal No.	Color of Wire	Signal Name
1	SHIELD	-
2	SHIELD	[Without NAVI]
3	BR	[Without NAVI]
4	Y	[Without NAVI]
5	B	-
6	SHIELD	-
7	G	-
8	R	-

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



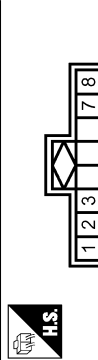
Terminal No.	Color of Wire	Signal Name
14	W	-
15	L	-
17	BR	-

Connector No.	M361
Connector Name	WIRE TO WIRE
Connector Type	TH08MW-NH



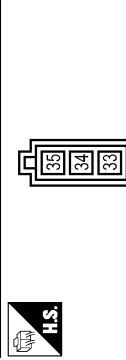
Terminal No.	Color of Wire	Signal Name
1	SHIELD	-
2	B	-
3	BR	- [Without NAVI]
4	Y	- [Without NAVI]
5	SHIELD	-
6	SHIELD	-
7	G	-
8	R	-

Connector No.	M362
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A08FW



Terminal No.	Color of Wire	Signal Name
1	BR	SOUND SIGNAL RH (+) [Without NAVI]
2	B	SOUND SIGNAL GND
3	Y	SOUND SIGNAL LH (+) [Without NAVI]
7	G	AUX IMAGE SIGNAL
8	R	AUX IMAGE GND

Connector No.	M370
Connector Name	AV CONTROL UNIT
Connector Type	GT13SH-2/1S-HU



Terminal No.	Color of Wire	Signal Name
33	-	FM SUB
34	-	AM-FM MAIN
35	-	ANTENNA AMP ON SIGNAL

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TEL ADAPTER UNIT

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[BOSE AUDIO WITHOUT NAVIGATION]

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M375
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1S-HU



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

Connector No.	M376
Connector Name	WIRE TO WIRE
Connector Type	GT13SCN-2/1P-HU



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

Connector No.	M378
Connector Name	ANTENNA AMP.
Connector Type	GT13SC-1/1S-HU



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

Connector No.	M379
Connector Name	WINDOW ANTENNA(SUB)
Connector Type	P01FB-A



Terminal No.	Color of Wire	Signal Name
1	-	-

Connector No.	M381
Connector Name	WINDOW ANTENNA(MAIN)
Connector Type	P01FB-A



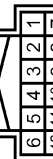
Terminal No.	Color of Wire	Signal Name
1	-	-

Connector No.	R1
Connector Name	WIRE TO WIRE
Connector Type	1K10FW-NS8



Terminal No.	Color of Wire	Signal Name
1	G	- [Without NAV]
2	Y	- [Without NAV]
3	SHIELD	-

Connector No.	R2
Connector Name	WIRE TO WIRE
Connector Type	1H12FW-NH



Terminal No.	Color of Wire	Signal Name
3	SHIELD	-
4	R	-
5	G	-

Connector No.	R11
Connector Name	WIRE TO WIRE
Connector Type	1H12MW-NH



Terminal No.	Color of Wire	Signal Name
3	SHIELD	-
4	R	-
5	G	-

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AV

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	R17
Connector Name	MICROPHONE
Connector Type	TKQAFW



Terminal No.	Color of Wire	Signal Name
1	R	MICROPHONE SIGNAL
2	SHIELD	SHIELD
4	G	MICROPHONE VCC

SYMPTOM DIAGNOSIS

MULTI AV SYSTEM SYMPTOMS

Symptom Table

INFOID:000000000964711

Operation

Symptoms	Check items	Possible malfunction location / Action to take
Multifunction switch and preset switch operation does not work.	- All switches cannot be operated "MULTI AV" is displayed with CONSULT-III	Perform CONSULT-III self-diagnosis. (AV-145, "CONSULT - III Function")
	- All switches cannot be operated "MULTI AV" is not displayed with CONSULT-III	Multifunction switch power supply and ground circuit (AV-380, "MULTIFUNCTION SWITCH : Diagnosis Procedure")
	Only specified switch cannot be operated	- Perform CONSULT-III self-diagnosis. (AV-145, "CONSULT - III Function") - No malfunction - multifunction switch (AV-304, "Exploded View") - preset switch (AV-305, "Exploded View") - Malfunction is detected. (AV-145, "CONSULT - III Function")

Related to HANDS FREE PHONE

Basic Inspection

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

On board self-diagnosis of hands free phone system

Always perform the on board self-diagnosis at first after completing the basic inspection when the malfunction is detected on the hands free phone system. Narrow down possible causes using the Diagnosis Chart if there is no malfunction in the on board self-diagnosis.

Trouble diagnosis chart by symptom

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.	TEL adapter unit (AV-310, "Exploded View")
Hands free phone cannot be established.	Both the reception and the speech cannot be performed	- Perform CONSULT-III self-diagnosis. (AV-145, "CONSULT - III Function") - No malfunction - TEL adapter unit (AV-310, "Exploded View") - Malfunction is detected (AV-145, "CONSULT - III Function")
The other party's voice cannot be heard by hands free phone.	The operation of the "☎" switch can be performed	TEL voice signal circuit (TEL adapter unit to AV control unit)
	The operation of the "☎" switch cannot be performed	Control signal circuit (AV-178, "Diagnosis Procedure")
Originating sound is not heard by the other party with hands free phone communication.	Sound operation function is normal.	TEL adapter unit (AV-310, "Exploded View")
	Sound operation function does not work.	Microphone signal circuit (AV-177, "Diagnosis Procedure")

MULTI AV SYSTEM SYMPTOMS

[BOSE AUDIO WITHOUT NAVIGATION]

< SYMPTOM DIAGNOSIS >

Related to RGB image

Trouble diagnosis chart by symptom

Symptoms	Check items	Possible malfunction location / Action to take
RGB image is not shown.	There is malfunction in the CONSULT-III self-diagnosis result	Perform CONSULT-III self-diagnosis. (AV-145, "CONSULT - III Function")
	There is no malfunction in CONSULT-III self-diagnosis results	Display unit power supply and ground circuit (AV-161, "DISPLAY UNIT : Diagnosis Procedure")
Color of RGB image is not proper.	Light blue (Cyan) tint	RGB signal (R: red) circuit (AV-167, "Diagnosis Procedure")
	Purple (Magenta) tint	RGB signal (G: green) circuit (AV-168, "Diagnosis Procedure")
	Screen looks yellowish	RGB signal (B: blue) circuit (AV-169, "Diagnosis Procedure")
RGB screen is rolling.	—	RGB synchronizing signal circuit (AV-170, "Diagnosis Procedure")
Fuel economy display is malfunctioning	There is malfunction in the CONSULT-III self-diagnosis result	Perform CONSULT-III self-diagnosis. (AV-145, "CONSULT - III Function")
	There is no malfunction in CONSULT-III self-diagnosis results	Ignition signal (AV-161, "AV CONTROL UNIT : Diagnosis Procedure")

Related to AUDIO

Trouble diagnosis chart by symptom

Symptoms	Check items	Possible malfunction location / Action to take
The CD cannot be removed.	—	CD eject signal circuit
Audio sound is not heard.	No sound from all speakers	- BOSE amp. power supply and ground circuit (AV-164, "BOSE AMP. : Diagnosis Procedure") - Amp. ON signal circuit
	Sound is not heard from woofer.	- Sound signal woofer circuit - Woofer amp. ON signal
	Sound is not heard from center speaker.	Sound signal center speaker circuit
	Sound is not heard only from the specific places (RH front, RH rear, LH front and LH rear).	Sound signal circuit of malfunctioning system
Satellite radio is not received.	"ANTENNA" is not displayed even when the channel is turned to 0 in Satellite radio mode	Perform the following inspection procedure. - Check satellite radio antenna mounting nut for looseness. NOTE: Tightening torque: 6.5 N·m (0.66 kg-m, 58 in-lb.) - Visually check for satellite radio antenna feeder. - Replace the satellite radio antenna. (AV-303, "Exploded View") - Replace the satellite radio tuner. (AV-302, "Exploded View")
	"ANTENNA" is displayed when the channel is turned to 0 in Satellite radio mode	Perform the following inspection procedure. - Check the connection between Satellite radio tuner and antenna feeder. - Check the connection between Satellite radio antenna and antenna feeder. - Check Antenna feeder for open circuit. - Replace the satellite radio antenna. (AV-303, "Exploded View") - Replace the satellite radio tuner. (AV-302, "Exploded View")
The sound of Satellite radio is not heard	Other audio sounds are normal	Satellite radio sound signal circuit

MULTI AV SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

Symptoms	Check items	Possible malfunction location / Action to take
It does not change to Satellite radio mode	There is malfunction in the CONSULT-III self-diagnosis result	Satellite radio tuner power supply and ground circuit (AV-163, "SATELLITE RADIO TUNER : Diagnosis Procedure")
	There is no malfunction in CONSULT-III self-diagnosis results	- Request signal circuit (AV-180, "Diagnosis Procedure") - Communication circuit between AV control unit and satellite radio tuner (AV-179, "Diagnosis Procedure")

Related to STEERING SWITCH

Trouble diagnosis chart by symptom

Symptoms	Probable malfunction location
None of the steering switch operations work.	Steering switch signal GND circuit (AV-185, "Diagnosis Procedure")
Only specified switch cannot be operated	Steering switch (AV-306, "Exploded View")
"SOURCE", "MENU UP", "MENU DOWN", "↶" switches of steering switch are not operated	Steering switch signal A circuit (AV-181, "Diagnosis Procedure")
"VOL UP", "VOL DOWN", "↷" switches of steering switch are not operated	Steering switch signal B circuit (AV-183, "Diagnosis Procedure")

AUX

NOTE:

Check that there is no malfunction of AUX equipment main body before performing a diagnosis.

Trouble diagnosis chart by symptom

Symptoms	Check items	Probable malfunction location
No voice sound is heard when AUX mode is selected.	Voice sound is heard when other modes are selected.	Sound signal circuit (auxiliary input jacks to AV control unit)
Image is not displayed when AUX mode is selected.	—	AUX image signal circuit (AV-174, "Diagnosis Procedure")
It does not change from AUX mode to other modes.	—	Vertical synchronizing (VP) signal circuit (AV-173, "Diagnosis Procedure")
The screen is rolling at AUX mode.	—	Horizontal synchronizing (HP) signal circuit (AV-172, "Diagnosis Procedure")

NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[BOSE AUDIO WITHOUT NAVIGATION]

NORMAL OPERATING CONDITION

Description

INFOID:000000000964712

BASIC OPERATIONS

Symptom	Possible cause	Possible solution
No image is displayed.	The brightness is at the lowest setting.	Adjust the brightness of the display.
	The system in the video mode.	Push <DISC> to change the mode.
	The display is turned off.	Push <Day/Night> to turn on the display.
The screen is too dim. The movement is slow.	The temperature in the interior of the vehicle is low.	Wait until the interior of the vehicle has warmed up.
Some pixels in the display are darker or brighter than others.	This condition is an inherent characteristic of liquid crystal displays.	This is not a malfunction.
Some menu items cannot be selected.	Some menu items become unavailable while the vehicle is driven.	Park the vehicle in a safe location, and then operate the multi AV system.

RELATED TO VOICE RECOGNITION

Related to telephone

The system should respond correctly to all voice commands without difficulty. If problems are encountered, try the following solutions.

Where the solutions are listed by number, try each solution in turn, starting with number 1, until the problem is resolves.

Symptom	Solution
System fails to interpret the command correctly.	1. Ensure that the command is valid.
	2. Ensure that the command is spoken after the tone.
	3. Speak clearly without pausing between words and at level appropriate to the ambient noise level in the vehicle.
	4. Ensure that the ambient noise level is not excessive (for example, windows open or defroster on), NOTE: If it is too noisy to use the phone, it is likely that the voice commands will be recognized.
	5. If more than one command was said at a time, try saying the commands separately.
	6. If the system consistently fails to recognize commands, the voice training procedure should be carried out to improve the recognition response for the speaker. See "Speaker adaptation (SA) mode" earlier in this section. Refer to "OWNER'S MANUAL".
The system consistently selects the wrong voicetag	1. Ensure that the phone book entry name requested matches what was originally stored. This can be confirmed by using the "List Names" command.
	2. Replace one of the names being confused with a new name.

RELATED TO AUDIO

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

NOTE:

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

NORMAL OPERATING CONDITION

[BOSE AUDIO WITHOUT NAVIGATION]

< SYMPTOM DIAGNOSIS >

Symptom	Cause and Counter measure
Cannot play	Check if the CD was inserted correctly.
	Check if the CD is scratched or dirty.
	Check if there is condensation inside the player, and if there is, wait until the condensation is gone (about 1 hour) before using the player.
	If there is a temperature increase error, the player will play correctly after it returns to the normal temperature.
	If there is a mixture of music CD files (CD-DA data) and MP3/WMA files on a CD, only the music CD files (CD-DA data) will be played.
	Files with extensions other than ".MP3", ".WMA", ".mp3", or ".wma" cannot be played. In addition, the character codes and number of characters for folder names and file names should be in compliance with the specifications.
	Check if the disc or the file is generated in an irregular format, This may occur depending on the variation or the setting of MP3/WMA writing applications or other text editing applications.
	Check if the finalization process, such as session close and disc close, is done for the disc.
Poor sound quality	Check if the CD is scratched or dirty.
It takes a relatively long time before the music starts playing.	If there are many folder or file levels on the MP3/WMA CD, or if it is a multisession disc, some time may be required before the music starts playing.
Music cuts off or skips	The writing software and hardware combination might not match, or the writing speed, writing depth, writing width might not match the specifications. Try using the slowest writing speed.
Skipping with high bit rate files	Skipping may occur with large quantities if data such as for high bit rate data.
Move immediately to the next song when playing	When a non-MP3/WMA file has been given an extension of ".MP3", ".WMA", ".mp3", or ".wma", or when play is prohibited by copyright protection, the player will skip to the next song.
The songs do not play back in the desired order.	The playback order is the order in which the files were written by the software, so the files might not play in the desired order.

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

NOTE:

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

PRECAUTION

PRECAUTIONS

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

INFOID:000000000964713

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the SRS and SB section of this Service Manual.

WARNING:

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SRS 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.

Precaution for Trouble Diagnosis

INFOID:000000000964714

AV COMMUNICATION SYSTEM

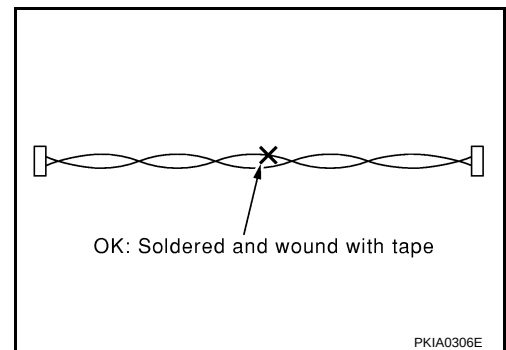
- Do not apply voltage of 7.0 V or higher to the measurement terminals.
- Use the tester with its open terminal voltage being 7.0 V or less.
- Be sure to turn ignition switch OFF and disconnect the battery cable from the negative terminal before checking the circuit.

Precaution for Harness Repair

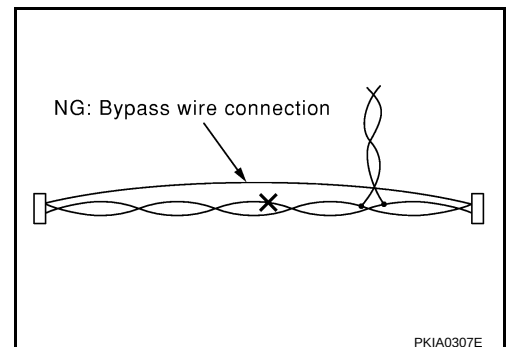
INFOID:000000000964715

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.)

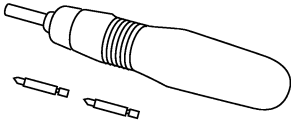


PREPARATION

PREPARATION

Commercial Service Tools

INFOID:0000000000964716

Tool name	Description
Power tool	Loosening bolts and nuts
 PBIC0191E	

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ON-VEHICLE REPAIR

AV CONTROL UNIT

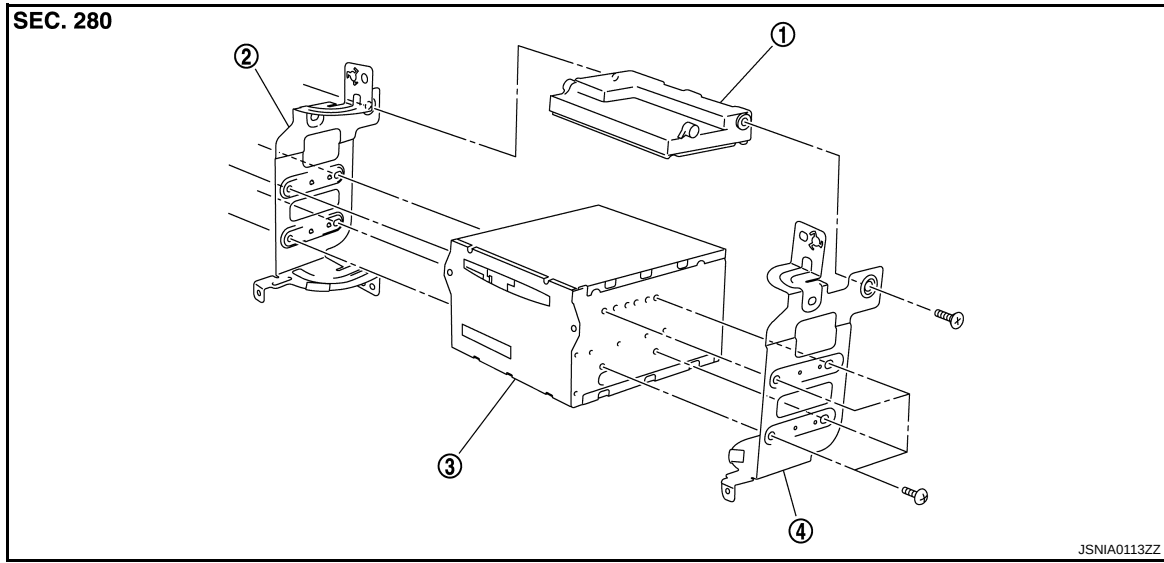
Exploded View

INFOID:000000000964717

REMOVAL

Refer to [IP-11. "Exploded View"](#).

DISASSEMBLY



1. Unified meter and A/C amp.	2. Bracket LH	3. AV control unit
4. Bracket RH		

Removal and Installation

INFOID:000000000964718

REMOVAL

1. Remove Display unit.
2. Remove AV control unit with a unified meter and A/C amp. as a single unit from the body.
3. Remove bracket screws, and then remove AV control unit.

INSTALLATION

Installation is the reverse order of removal.

DISPLAY UNIT

Exploded View

INFOID:0000000000964719

Refer to [IP-11, "Exploded View"](#).

Removal and Installation

INFOID:0000000000964720

REMOVAL

1. Remove cluster lid C. Refer to [IP-11, "Exploded View"](#).
2. Remove display unit with bracket as a single unit.

INSTALLATION

Installation is the reverse order of removal.

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FRONT DOOR SQUAWKER

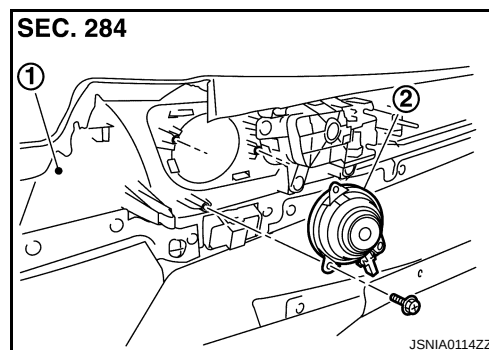
< ON-VEHICLE REPAIR >

[BOSE AUDIO WITHOUT NAVIGATION]

FRONT DOOR SQUAWKER

Exploded View

INFOID:000000000964721



1. Door finisher
2. Front door squawker

Removal and Installation

INFOID:000000000964722

REMOVAL

1. Remove front door finisher. Refer to [INT-10, "Exploded View"](#).
2. Remove front door squawker from door finisher.

INSTALLATION

Installation is the reverse order of removal.

FRONT DOOR WOOFER

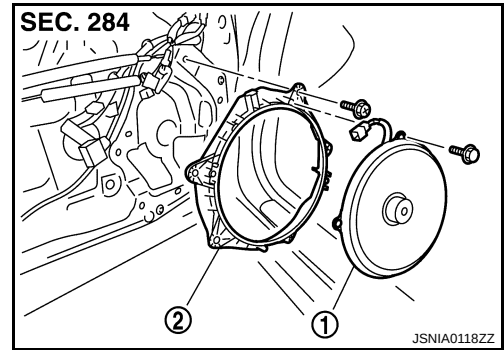
< ON-VEHICLE REPAIR >

[BOSE AUDIO WITHOUT NAVIGATION]

FRONT DOOR WOOFER

Exploded View

INFOID:0000000000964723



1. Front door woofer
2. Woofer bracket

Removal and Installation

INFOID:0000000000964724

REMOVAL

1. Remove front door finisher. Refer to [INT-10. "Exploded View"](#).
2. Remove front door woofer from woofer bracket.

INSTALLATION

Installation is the reverse order of removal.

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AM

REAR DOOR SPEAKER

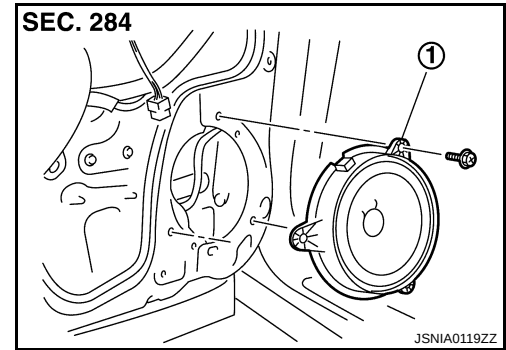
< ON-VEHICLE REPAIR >

[BOSE AUDIO WITHOUT NAVIGATION]

REAR DOOR SPEAKER

Exploded View

INFOID:000000000964725



1. Rear door speaker

Removal and Installation

INFOID:000000000964726

REMOVAL

1. Remove rear door finisher. Refer to [INT-10, "Exploded View"](#).
2. Remove rear door speaker from rear door.

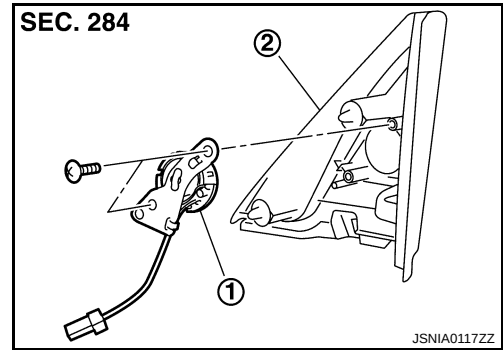
INSTALLATION

Installation is the reverse order of removal.

TWEETER

Exploded View

INFOID:0000000000964727



1. Tweeter
2. Corner cover inner

Removal and Installation

INFOID:0000000000964728

REMOVAL

1. Remove front door finisher, and then remove corner cover inner. Refer to [INT-10, "Exploded View"](#).
2. Remove tweeter from corner cover inner.

INSTALLATION

Installation is the reverse order of removal.

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AV

CENTER SPEAKER

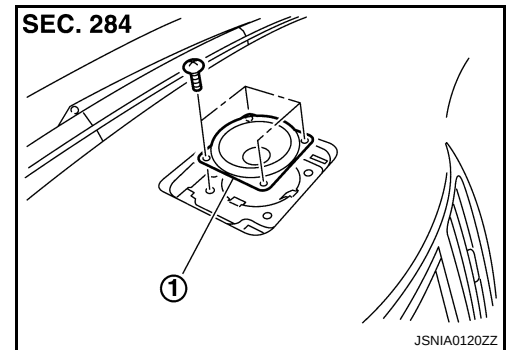
< ON-VEHICLE REPAIR >

[BOSE AUDIO WITHOUT NAVIGATION]

CENTER SPEAKER

Exploded View

INFOID:000000000964729



1. Center speaker

Removal and Installation

INFOID:000000000964730

REMOVAL

1. Remove upper grille, and then remove center speaker. Refer to [INT-10. "Exploded View"](#).

INSTALLATION

Installation is the reverse order of removal.

WOOFER

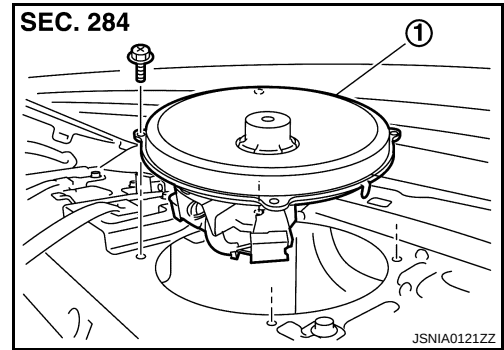
< ON-VEHICLE REPAIR >

[BOSE AUDIO WITHOUT NAVIGATION]

WOOFER

Exploded View

INFOID:000000000964731



1. Woofer

Removal and Installation

INFOID:000000000964732

REMOVAL

1. Remove rear parcel shelf finisher. Refer to [INT-18, "Exploded View"](#).
2. Remove woofer from rear parcel shelf.

INSTALLATION

Installation is the reverse order of removal.

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AV

BOSE AMP.

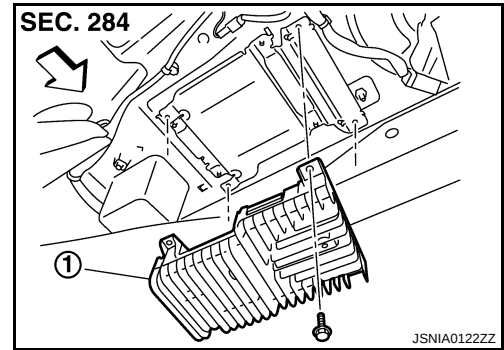
< ON-VEHICLE REPAIR >

[BOSE AUDIO WITHOUT NAVIGATION]

BOSE AMP.

Exploded View

INFOID:000000000964733



1. BOSE amp.

Removal and Installation

INFOID:000000000964734

REMOVAL

1. Remove trunk front finisher. Refer to [INT-26, "Exploded View"](#).
2. Remove BOSE amp. from rear parcel shelf.

INSTALLATION

Installation is the reverse order of removal.

ANTENNA AMP.

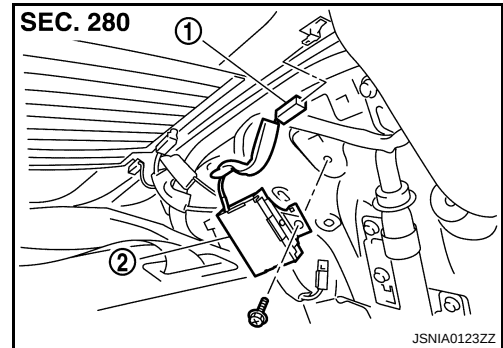
< ON-VEHICLE REPAIR >

[BOSE AUDIO WITHOUT NAVIGATION]

ANTENNA AMP.

Exploded View

INFOID:0000000000964735



1. AM-FM main connector
2. Antenna amp.

Removal and Installation

INFOID:0000000000964736

REMOVAL

1. Remove rear pillar finisher LH. Refer to [INT-13, "Exploded View"](#).
2. Remove antenna amp. from rear pillar LH.

INSTALLATION

Installation is the reverse order of removal.

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AM

SATELLITE RADIO TUNER

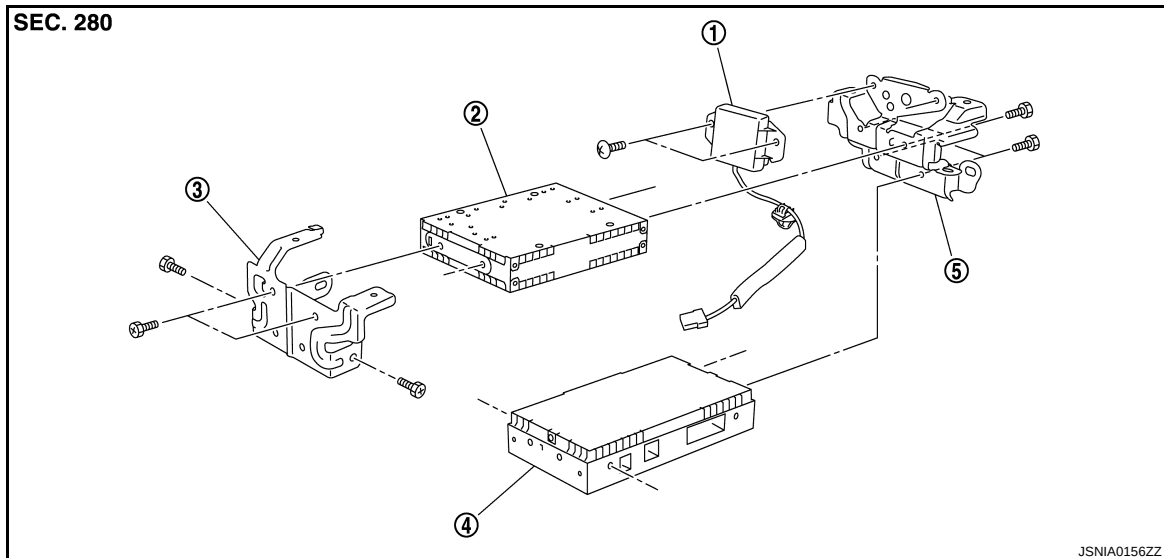
< ON-VEHICLE REPAIR >

[BOSE AUDIO WITHOUT NAVIGATION]

SATELLITE RADIO TUNER

Exploded View

INFOID:000000000964737



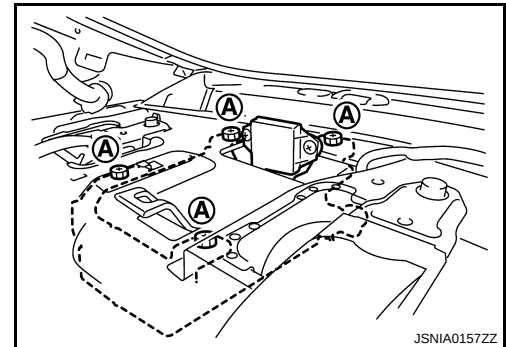
1. TEL antenna	2. Satellite radio tuner	3. Bracket (front)
4. TEL adapter unit	5. Bracket (rear)	

Removal and Installation

INFOID:000000000964738

REMOVAL

1. Remove trunk front finisher. Refer to [INT-26, "Exploded View"](#).
2. Remove rear parcel shelf finisher. Refer to [INT-18, "Exploded View"](#).
3. Remove screw (A) from inside the cabin, and remove TEL adapter unit and TEL antenna as a single unit from trunk room side.
4. Remove bracket screws and remove TEL adapter unit and satellite radio tuner.



INSTALLATION

Installation is the reverse order of removal.

SATELLITE RADIO ANTENNA

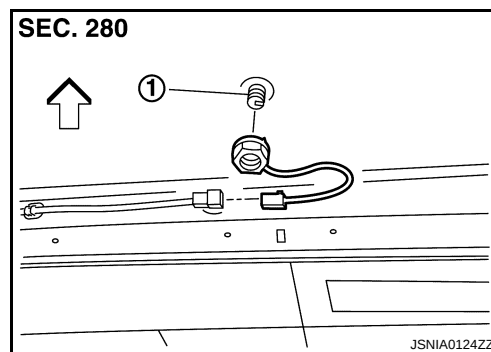
< ON-VEHICLE REPAIR >

[BOSE AUDIO WITHOUT NAVIGATION]

SATELLITE RADIO ANTENNA

Exploded View

INFOID:0000000000964739



1. Satellite radio antenna

Removal and Installation

INFOID:0000000000964740

REMOVAL

1. Remove head lining assembly (rear) to secure work space between vehicle and headlining. Refer to [INT-22. "Exploded View"](#).
2. Remove nuts, and then remove satellite radio antenna from roof panel.

INSTALLATION

Installation is the reverse order of removal.

Roof antenna mounting nut  : 6.5 N·m (0.66 kg-m, 58 in-lb)

CAUTION:

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

MULTIFUNCTION SWITCH

< ON-VEHICLE REPAIR >

[BOSE AUDIO WITHOUT NAVIGATION]

MULTIFUNCTION SWITCH

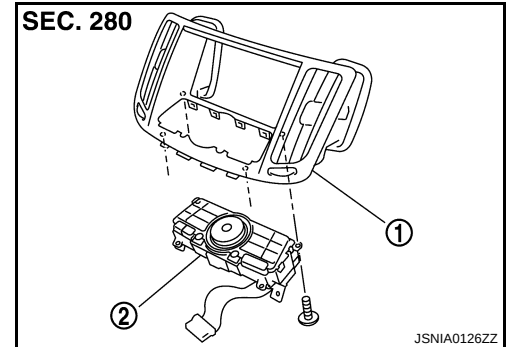
Exploded View

INFOID:000000000964741

REMOVAL

Refer to [IP-11, "Exploded View"](#).

DISASSEMBLY



1. Center ventilator grille
2. Multifunction switch

Removal and Installation

INFOID:000000000964742

REMOVAL

1. Remove cluster lid C. Refer to [IP-11, "Exploded View"](#).
2. Remove multi function switch with center ventilator grille as a single unit.
3. Remove multi function switch from center ventilator.

INSTALLATION

Installation is the reverse order of removal.

PRESET SWITCH

< ON-VEHICLE REPAIR >

[BOSE AUDIO WITHOUT NAVIGATION]

PRESET SWITCH

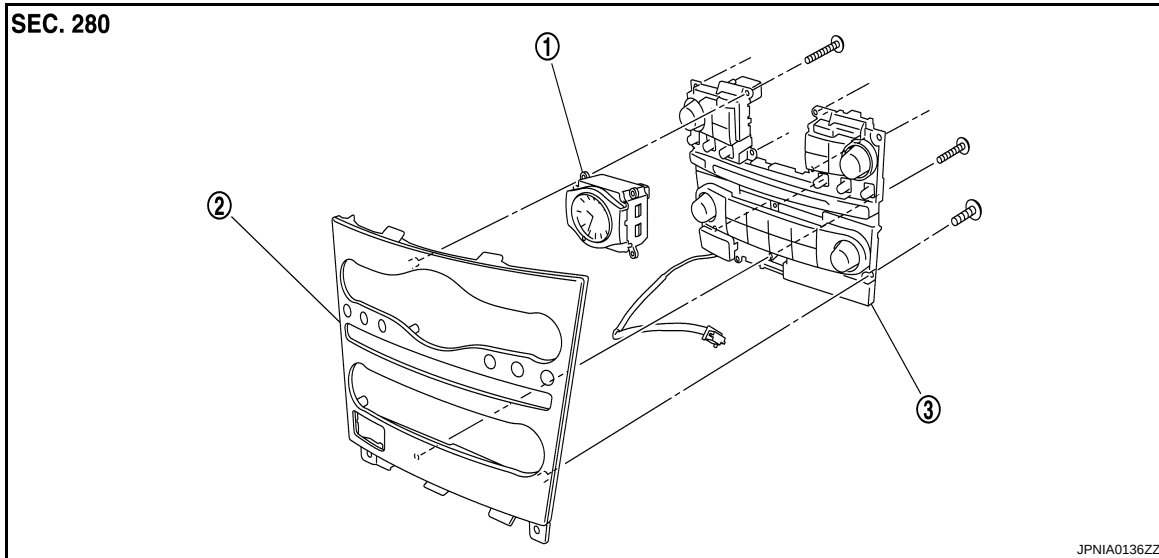
Exploded View

INFOID:000000000964743

REMOVAL

Refer to [IP-11, "Exploded View"](#).

DISASSEMBLY



1. Clock

2. Cluster lid C

3. Preset switch

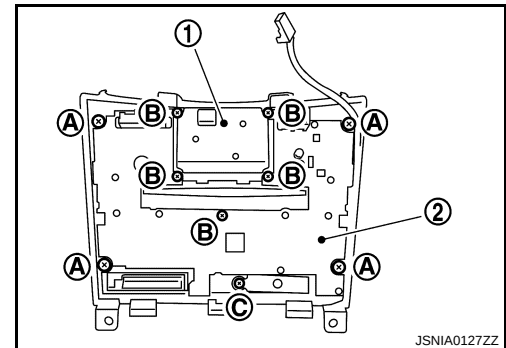
Removal and Installation

INFOID:000000000964744

REMOVAL

1. Remove cluster lid C. Refer to [IP-11, "Exploded View"](#).
2. Remove preset switch (2) from cluster lid C.

- 1. Clock
- A. Screw
- B. Screw
- C. Screw



INSTALLATION

Installation is the reverse order of removal.

NOTE:

When installing preset switch, do not allow the print wire that connects preset switch and multifunction switch to get caught in between AV control unit and preset switch.

STEERING SWITCH

< ON-VEHICLE REPAIR >

[BOSE AUDIO WITHOUT NAVIGATION]

STEERING SWITCH

Exploded View

INFOID:000000000964745

Refer to [ST-15, "Exploded View"](#).

Removal and Installation

INFOID:000000000964746

REMOVAL

Refer to [ST-15, "Removal and Installation"](#).

INSTALLATION

Installation is the reverse order of removal.

AUXILIARY INPUT JACKS

< ON-VEHICLE REPAIR >

[BOSE AUDIO WITHOUT NAVIGATION]

AUXILIARY INPUT JACKS

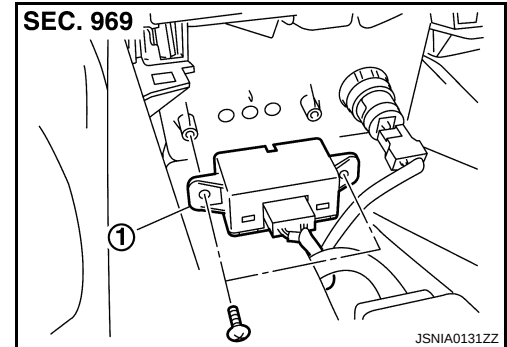
Exploded View

INFOID:0000000000964747

REMOVAL

Refer to [JP-22, "Exploded View"](#).

DISASSEMBLY



1. Auxiliary input jacks

Removal and Installation

INFOID:0000000000964748

REMOVAL

1. Remove center console. (M/T models) Refer to [INT-20, "Exploded View"](#).
Remove center console cup. (A/T models) Refer to [INT-20, "Exploded View"](#).
2. Remove auxiliary input jacks from center console. (M/T models)
Remove auxiliary input jacks from center console cup. (A/T models)

INSTALLATION

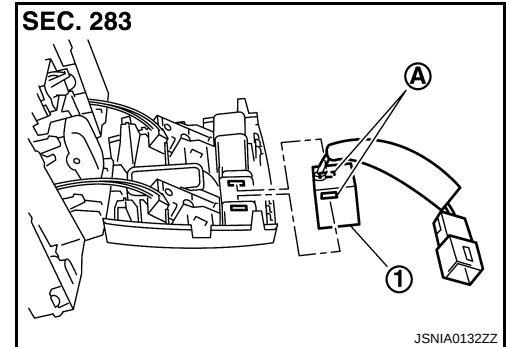
Installation is the reverse order of removal.

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AM

MICROPHONE**Exploded View**

INFOID:000000000964749

REMOVALRefer to [INL-96, "Exploded View"](#).**DISASSEMBLY**

- 1. Microphone
- A. Pawl

Removal and Installation

INFOID:000000000964750

REMOVAL

1. Remove map lamp. Refer to [INL-96, "Exploded View"](#).
2. Remove microphone from map lamp.

INSTALLATION

Installation is the reverse order of removal.

TEL ANTENNA

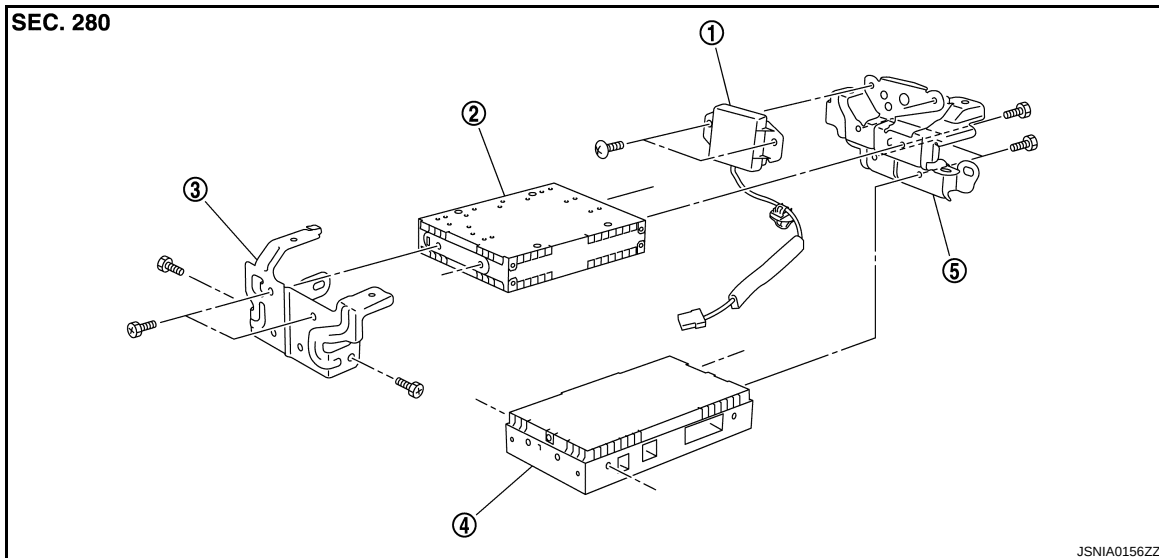
< ON-VEHICLE REPAIR >

[BOSE AUDIO WITHOUT NAVIGATION]

TEL ANTENNA

Exploded View

INFOID:0000000000964751



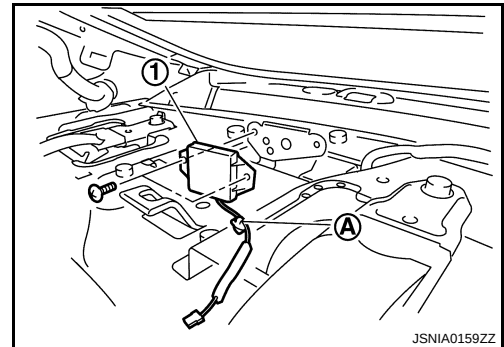
1. TEL antenna	2. Satellite radio tuner	3. Bracket (front)
4. TEL adapter unit	5. Bracket (rear)	

Removal and Installation

INFOID:0000000000964752

REMOVAL

1. Remove trunk front finisher. Refer to [INT-26, "Exploded View"](#).
2. Remove rear parcel shelf finisher. Refer to [INT-18, "Exploded View"](#).
3. Remove screws and clip (A) from inside the cabin and remove TEL antenna (1) connector from trunk room side.



INSTALLATION

Installation is the reverse order of removal.

TEL ADAPTER UNIT

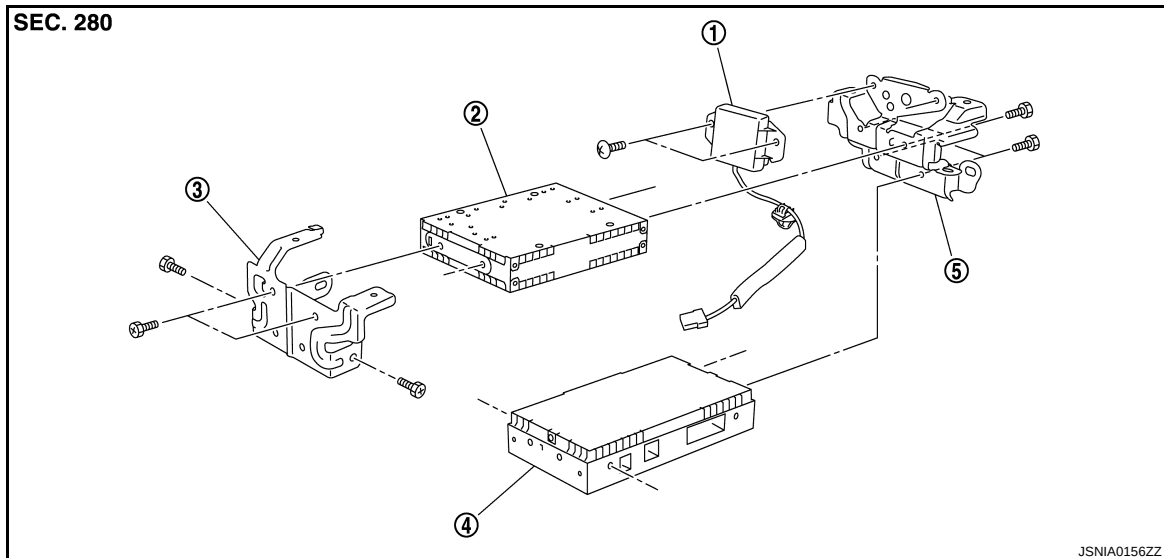
< ON-VEHICLE REPAIR >

[BOSE AUDIO WITHOUT NAVIGATION]

TEL ADAPTER UNIT

Exploded View

INFOID:000000000964753



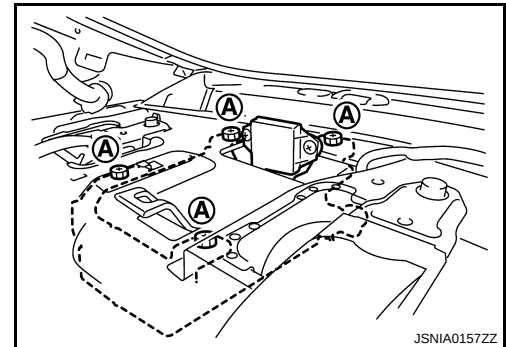
1. TEL antenna	2. Satellite radio tuner	3. Bracket (front)
4. TEL adapter unit	5. Bracket (rear)	

Removal and Installation

INFOID:000000000964754

REMOVAL

1. Remove trunk front finisher. Refer to [INT-26, "Exploded View"](#).
2. Remove rear parcel shelf finisher. Refer to [INT-18, "Exploded View"](#).
3. Remove screw (A) from inside the cabin, and remove TEL adapter unit and TEL antenna as a single unit from trunk room side.
4. Remove bracket screws and remove TEL adapter unit and satellite radio tuner.



INSTALLATION

Installation is the reverse order of removal.

ANTENNA FEEDER (RADIO)

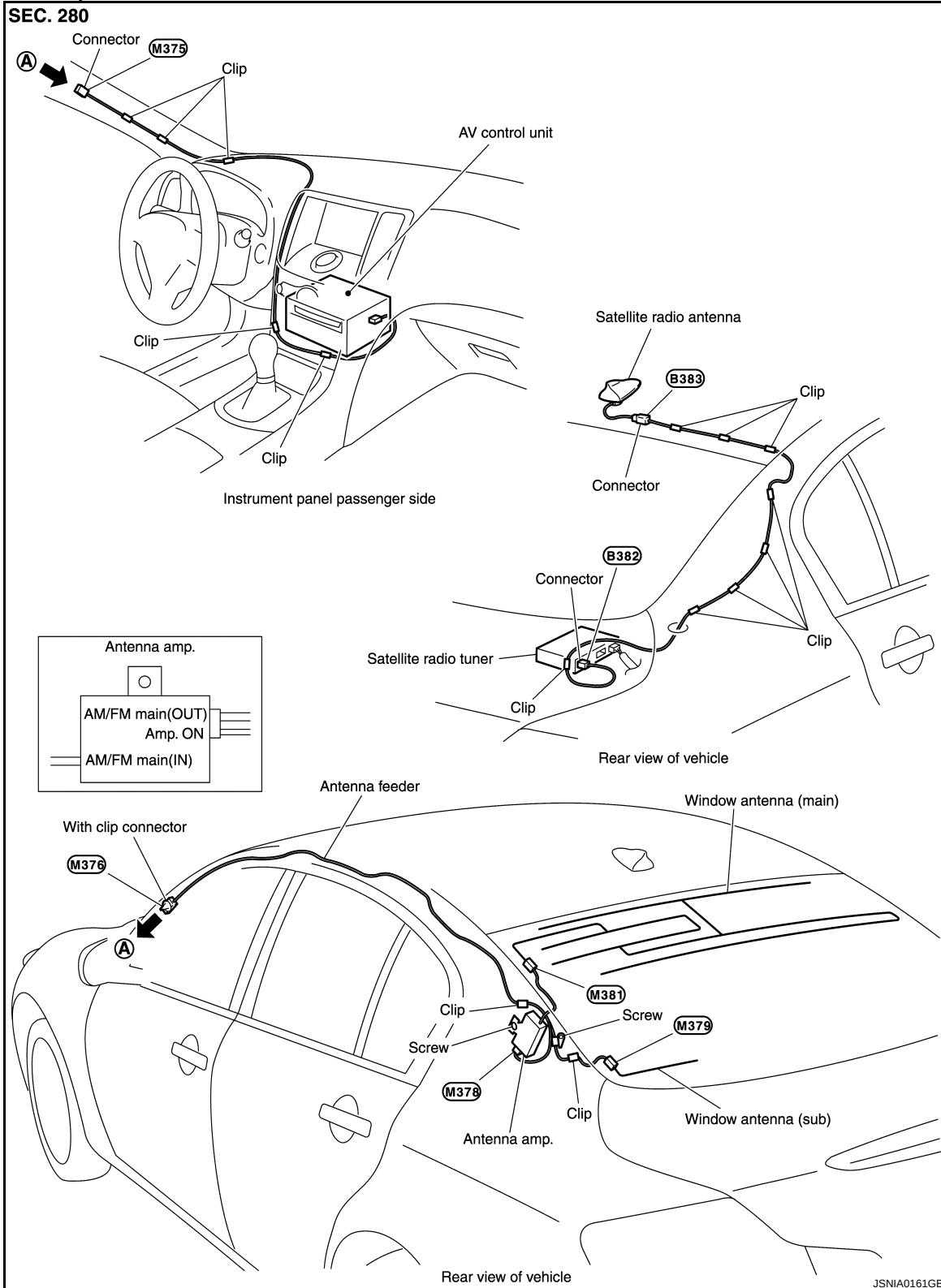
< ON-VEHICLE REPAIR >

[BOSE AUDIO WITHOUT NAVIGATION]

ANTENNA FEEDER (RADIO)

Harness Layout

INFOID:000000000964755



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AV

ANTENNA FEEDER (SATELLITE RADIO)

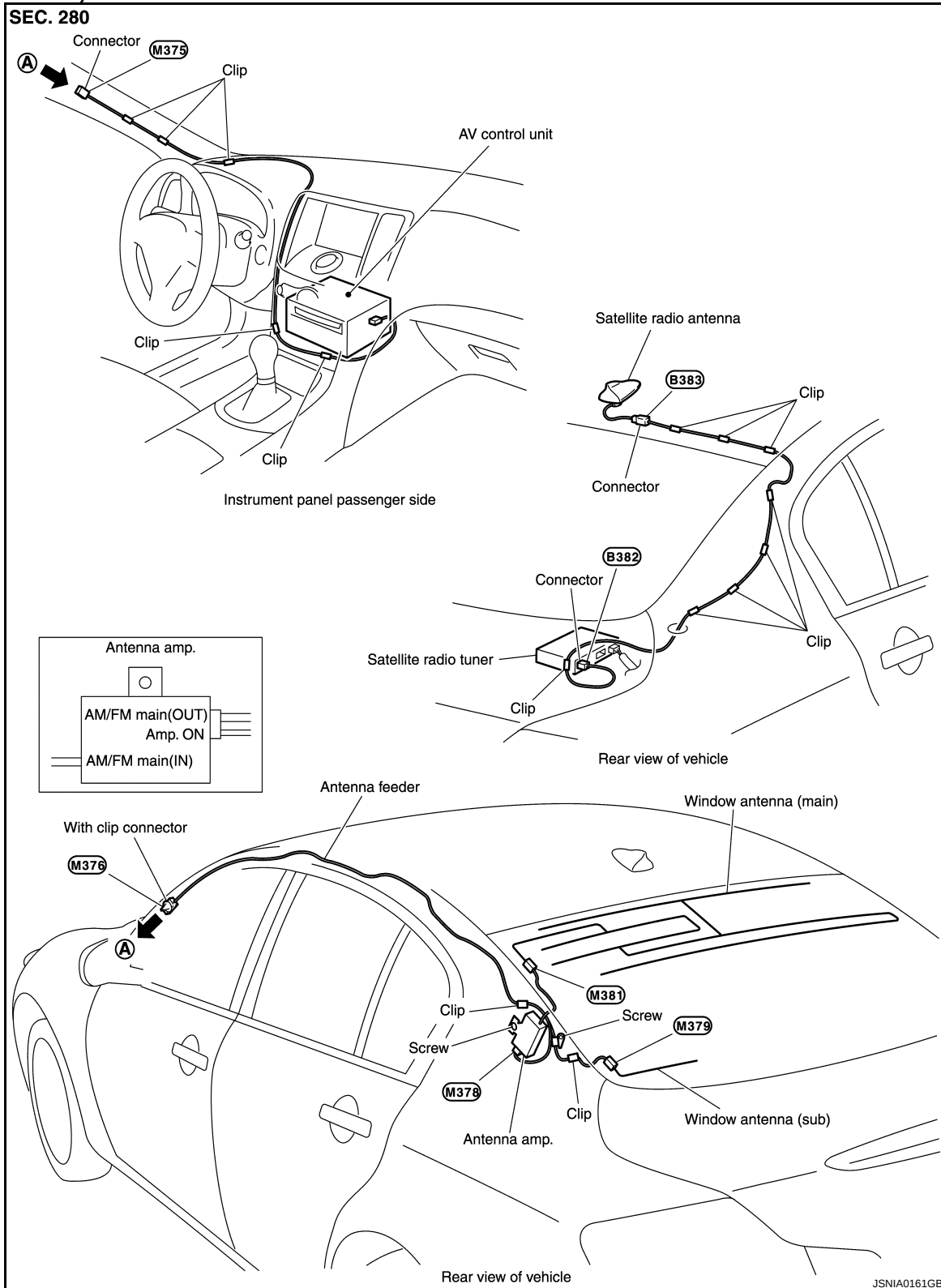
< ON-VEHICLE REPAIR >

[BOSE AUDIO WITHOUT NAVIGATION]

ANTENNA FEEDER (SATELLITE RADIO)

Harness Layout

INFOID:000000000964756



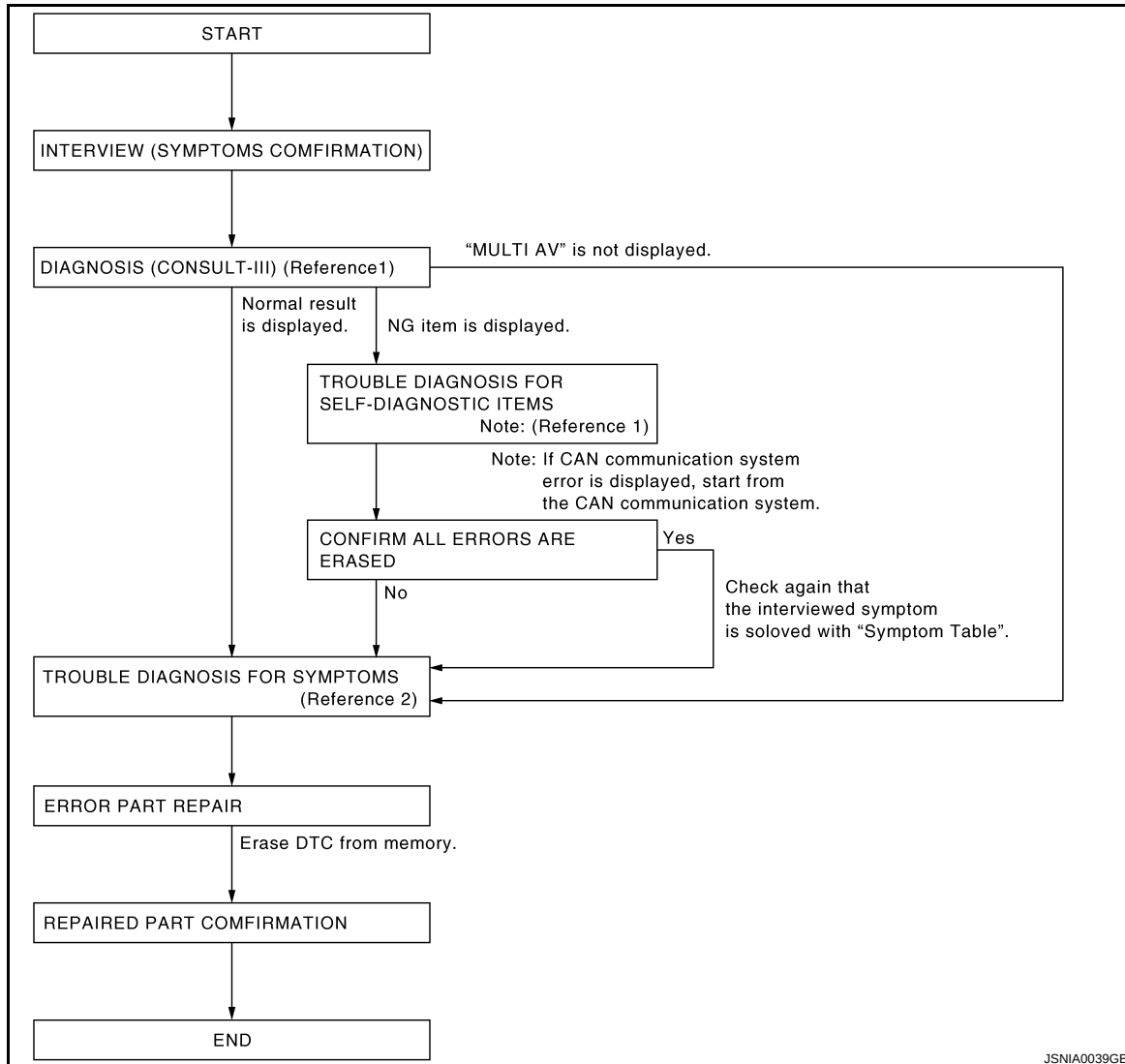
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:000000000964757

OVERALL SEQUENCE



- Reference 1... Refer to [AV-347, "CONSULT - III Function"](#).
- Reference 2... Refer to [AV-514, "Symptom Table"](#).

DETAILED FLOW

1. CHECK SYMPTOM

Check the malfunction symptoms by performing the following items.

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

>> GO TO 2.

2. SELF-DIAGNOSIS (CONSULT-III)

1. Connect CONSULT-III and perform a self-diagnosis for "MULTI AV".

NOTE:

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[BOSE AUDIO WITH NAVIGATION]

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

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

Is any DTC No. displayed?

YES >> GO TO 3.

NO >> GO TO 4.

3. CHECK SELF-DIAGNOSIS RESULTS (CONSULT-III)

1. Check the DTC No. indicated in the self-diagnosis results.

2. Perform the relevant diagnosis referring to the DTC Index. Refer to [AV-429. "DTC Index"](#).

NOTE:

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

>> GO TO 5.

4. PERFORM DIAGNOSIS BY SYMPTOM

Perform the relevant diagnosis referring to the diagnosis chart by symptom. Refer to [AV-514. "Symptom Table"](#).

>> GO TO 5.

5. REPAIR OR REPLACE MALFUNCTIONING PARTS

Repair or replace the identified malfunctioning parts.

NOTE:

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

>> GO TO 6.

6. CHECK AFTER REPAIR

1. Perform a self-diagnosis for "MULTI AV" with CONSULT-III after repairing or replacing the malfunctioning parts.

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

Is any DTC No. displayed?

YES >> GO TO 3.

NO >> GO TO 7.

7. FINAL CHECK

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

No symptoms?

YES >> INSPECTION END

NO >> GO TO 4.

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

[BOSE AUDIO WITH NAVIGATION]

INSPECTION AND ADJUSTMENT

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description

INFOID:0000000000964758

Always correct the center position of the rear view monitor's possible route line after disconnecting the battery negative terminal.

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement

INFOID:0000000000964759

1. CORRECTION OF CENTER POSITION OF REAR VIEW MONITOR'S POSSIBLE ROUTE LINE

Refer to the following for details.

>> Refer to [AV-315, "REAR VIEW MONITOR POSSIBLE ROUTE LINE CENTER POSITION ADJUSTMENT : Special Repair Requirement"](#).

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description

INFOID:0000000000964760

When camera control unit is replaced, the center position of rear view monitor possible route line shall be corrected.

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement

INFOID:0000000000964761

1. CORRECTION OF CENTER POSITION OF REAR VIEW MONITOR'S POSSIBLE ROUTE LINE

Refer to the following for details.

>> Refer to [AV-315, "REAR VIEW MONITOR POSSIBLE ROUTE LINE CENTER POSITION ADJUSTMENT : Special Repair Requirement"](#).

REAR VIEW MONITOR POSSIBLE ROUTE LINE CENTER POSITION ADJUSTMENT

REAR VIEW MONITOR POSSIBLE ROUTE LINE CENTER POSITION ADJUSTMENT : Description

INFOID:0000000000964762

Adjust the center position of the possible route line of the rear view monitor if it is shifted.

REAR VIEW MONITOR POSSIBLE ROUTE LINE CENTER POSITION ADJUSTMENT : Special Repair Requirement

INFOID:0000000000964763

1. STEERING OPERATION

Steer the steering wheel to the leftmost and rightmost ends.

>> GO TO 2

2. DRIVING

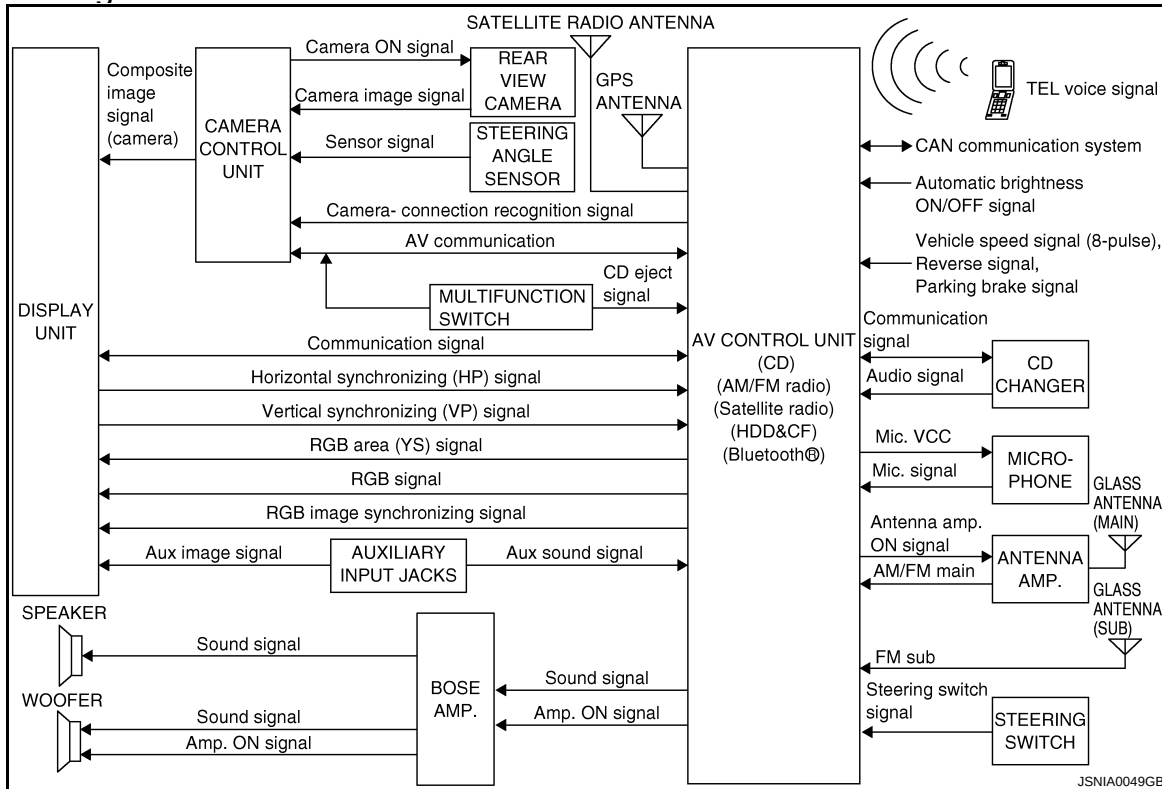
Drive the vehicle straight ahead 100 m (328.1 ft) or more at a speed of 30 km/h (18.6 MPH) or more.

>> END

FUNCTION DIAGNOSIS

MULTI AV SYSTEM

System Diagram



NOTE:

The name MULTIFUNCTION SWITCH indicates the integration of PRESET SWITCH and MULTIFUNCTION SWITCH virtually.

System Description

Multi AV system means that the following systems are integrated.

System name	System explanation
NAVIGATION SYSTEM	AV-322. "System Description"
AUDIO SYSTEM	AV-330. "System Description"
REAR VIEW MONITOR SYSTEM	AV-327. "System Description"
VEHICLE INFORMATION SYSTEM	- Status of audio, climate control system, fuel economy, maintenance and navigation is displayed. - AV control unit displays the fuel consumption status while receiving data signal through CAN communication from ECM, unified meter and A/C amp. and BCM.
CD CHANGER SYSTEM	Refer to the following "CD CHANGER SYSTEM".
HANDS-FREE PHONE SYSTEM	Refer to the following "HANDS-FREE PHONE SYSTEM".
AUXILIARY INPUT SYSTEM	Refer to "AUXILIARY INPUT SYSTEM" shown below.
Voice recognition system	Refer to the following "VOICE RECOGNITION SYSTEM".
TOUCH PANEL SYSTEM	Refer to the following "TOUCH PANEL SYSTEM".

- AV control unit controls by sending/receiving data one by one with each unit (slave unit) that configures them completely as a master unit by connecting between units that configure MULTI AV system with two AV communication lines (H, L).
- Two AV communication lines (H, L) adopt a twisted pair line that is resistant to noise.

MULTI AV SYSTEM

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

- AV control unit is connected by CAN communication, and it receives data signal from ECM, unified meter and A/C amp. It computes and displays fuel economy information value with the obtained information. Sending/receiving of data signal is performed by BCM. Also, it sends the required signal of vehicle setting and receives the response signal.
- AV control unit is connected with display and serial communication, and it sends the required signal of display and display control and receives the response signal from front display. Also, it is connected with satellite radio by serial communication, and it sends the operating signal and receives the display signal.

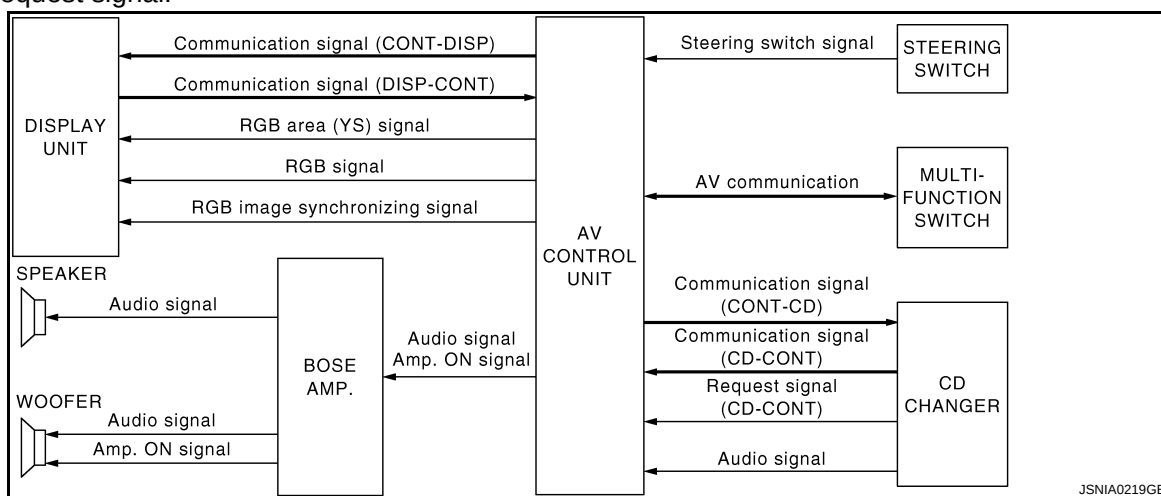
NOTE:

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

- CONSULT-III self diagnosis: Refer to [AV-347, "CONSULT - III Function"](#).
- On board self diagnosis: Refer to [AV-333, "Diagnosis Description"](#).

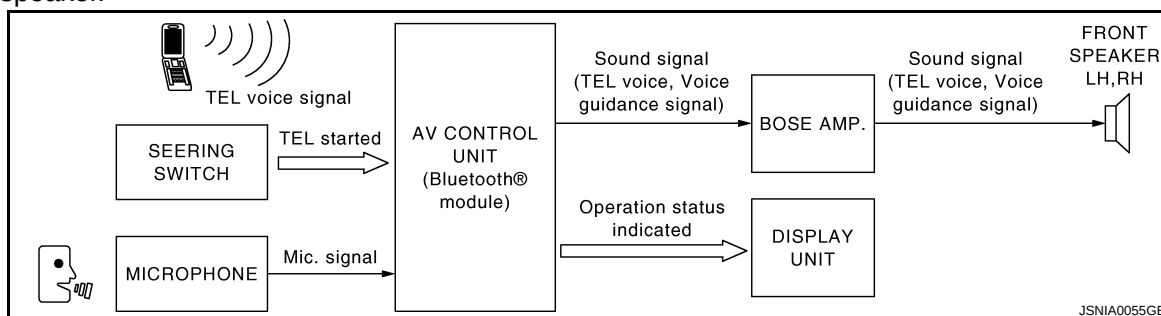
CD CHANGER SYSTEM

- CD changer output audio signal to AV control unit when CD changer mode is selected. AV control unit outputs audio signal to BOSE amp. and BOSE amp. outputs to each speaker.
- Operation such as selection of CD that is inserted in CD changer is performed by the communication signal and request signal.



HANDS-FREE PHONE SYSTEM

- Hands-free communication can be operated by connecting using Bluetooth® with cellular phone.
- Operation is performed by steering switch, and operating condition is indicated on display.
- Guide sound that is heard during operation is input from AV control unit to BOSE amp., and is output from front speaker.



When a call is originated

Spoken voice sound output from the microphone (Mic. Signal) is input to AV control unit. AV control unit outputs to cellular phone with Bluetooth communication as a TEL voice signal. 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 output to front speaker, and the signal is input to BOSE amp. via AV control unit by establishing Bluetooth communication from cellular phone.

AUXILIARY INPUT SYSTEM

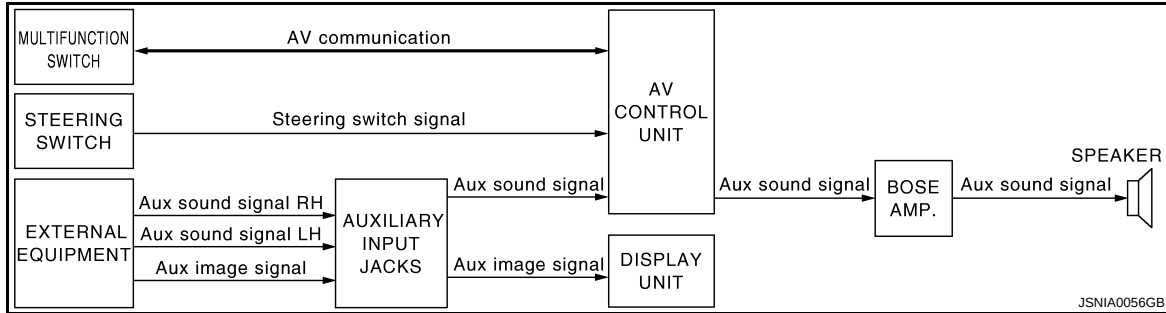
- Image and sound can be output from an external device by connecting a device with auxiliary input jacks.

MULTI AV SYSTEM

< FUNCTION DIAGNOSIS >

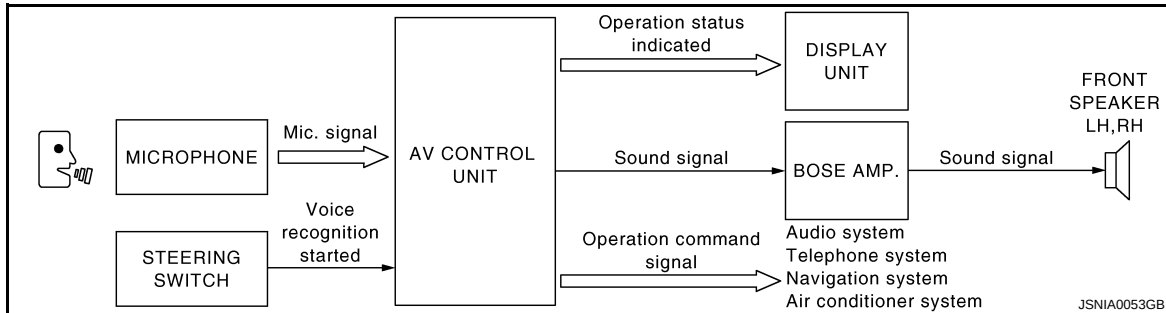
[BOSE AUDIO WITH NAVIGATION]

- Operation can be performed with multifunction switch and steering switch. Multifunction switch sends operation signal to AV control unit by AV communication.



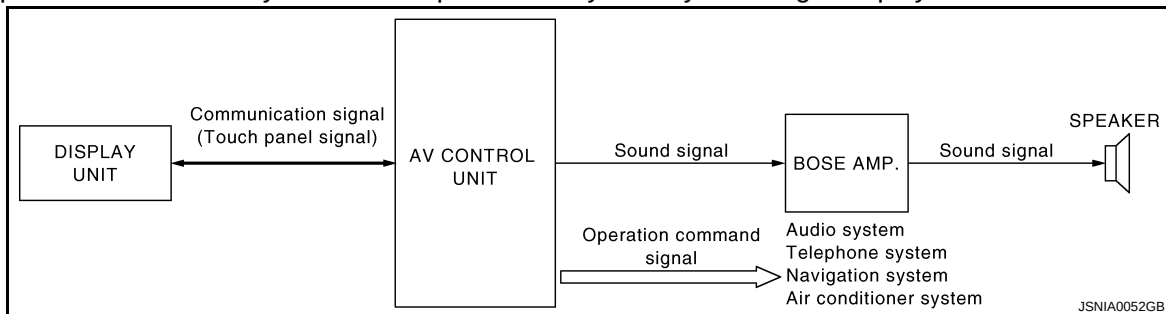
Voice recognition system

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



TOUCH PANEL SYSTEM

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



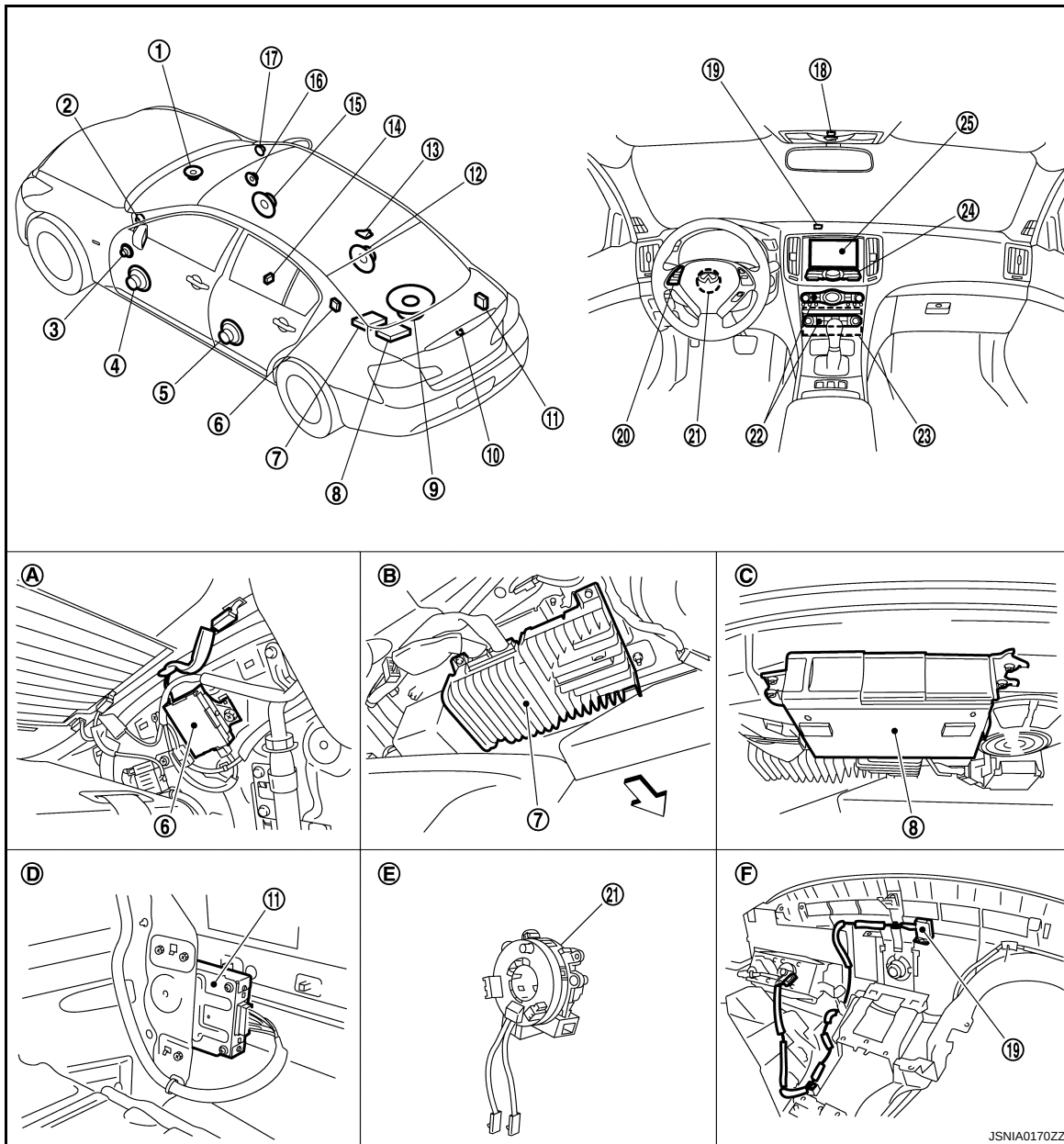
Component Parts Location

INFOID:000000000964766

MULTI AV SYSTEM

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]



1. Center speaker	2. Tweeter LH	3. Front door squawker LH
4. Front door woofer LH	5. Rear door speaker	6. Antenna amp.
7. BOSE amp.	8. CD changer	9. Woofer
10. Rear view camera	11. Camera control unit	12. Rear door speaker RH
13. Satellite radio antenna	14. Auxiliary input jacks	15. Front door woofer RH
16. Front door squawker RH	17. Tweeter RH	18. Microphone
19. GPS antenna	20. Steering switch	21. Steering angle sensor
22. Preset switch	23. AV control unit	24. Multifunction switch
25. Display unit		
A. Within rear pillar finisher LH	B. Lower part of rear parcel shelf (inside of CD changer)	C. Rear parcel shelf lower part (left side)
D. Trunk room right side	E. Spiral cable part	F. Instrument panel rear side

Component Description

INFOID:000000000964767

MULTI AV SYSTEM

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

Part name	Description
AV CONTORL UNIT	- Integrates HDD (hard disk drive) allowing map data and music data to be stored. - It is the master unit of the MULTI AV system, and it is connected to each control unit by means of communication. It operates each system according to communication signals from the AV control unit. - The AV control unit includes the audio, hands-free phone, voice control, navigation, and vehicle information functions. - It is connected to ECM and unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function. - It inputs the automatic brightness ON/OFF signals that are required for the display dimming control. - It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake). - Update of map data is performed with the CONSULT-III and the applicable cable.
DISPLAY UNIT	- Display image is controlled by the serial communication from AV control unit. - RGB image signal is input from AV control unit (RGB, RGB area and RGB synchronizing). Auxiliary image signal is input from the auxiliary input jack. Camera image signal is input from camera control unit. - Synchronize signal (HP, VP) is output to AV control unit. - Touch panel function can be operated for each system by touching a display directly.
BOSE AMP.	Inputs power (amp ON) and sound signal from AV control unit, and outputs sound signal to each speaker.
FRONT DOOR WOOFER	- Outputs sound signal from BOSE amp. - Outputs low-pitched sound.
FRONT DOOR SQUAWKER	- Outputs sound signal from BOSE amp. - Outputs midrange sound.
REAR DOOR SPEAKER	- Outputs sound signal from BOSE amp. - Outputs high, mid and low range sounds.
TWEETER	- Outputs sound signal from BOSE amp. - Outputs high range sound.
CENTER SPEAKER	- Outputs sound signal from BOSE amp. - Outputs high, mid and low range sounds.
WOOFER	- Outputs sound signal from BOSE amp. - Outputs low-pitched sound. - Power (amp ON signal) is supplied from BOSE amp.
MULTIFUNCTION SWITCH	- Operation panel is equipped with the centralized switch where audio, auxiliary input and navigation operations are integrated. - Connected with preset switch via cable, and operation signal is sent to AV control unit via AV communication.
PRESET SWITCH	- Operation panel is equipped with the centralized switch where audio and air conditioner operations are integrated. - Connected with multifunction switch via cable, and operation signal is sent to AV control unit via AV communication. - The CD ejection operating signal is performed by hardware.
CAMERA CONTROL UNIT	- Camera image signal is input from rear view camera, and camera image is indicated on the display. - Power (camera ON signal) is sent to rear view camera. - Controlled by AV communication sent from AV control unit. - AV control unit recognizes the presence of camera system with camera connection recognition signal.
REAR VIEW CAMERA	The image of vehicle rear view is sent to camera control unit.
STEERING SWITCH	- Operations for audio, hands-free phone, audio response and navigation, etc. are possible. - Steering switch signal (operation signal) is output to AV control unit.
STEERING ANGLE SENSOR	Sensor signal (steering angle) is sent to camera control unit.

MULTI AV SYSTEM

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

Part name	Description
MICROPHONE	• Used for hands-free phone operation and audio response. • Mic signal is sent to AV control unit • Power (Mic VCC) is supplied from AV control unit.
AUXILIARY INPUT JACKS	Image signal of auxiliary input is sent to display, and sound signal is sent to AV control unit.
GPS ANTENNA	GPS signal is received and sent to AV control unit.
ANTENNA AMP.	• Radio signal received by glass antenna is amplified and sent to AV control unit. • Power (antenna amp ON signal) is supplied from AV control unit.
SATELLITE RADIO ANTENNA	Satellite radio signal is received and sent to AV control unit.
CD CHANGER	• Controlled by communication signal, request signal from AV control unit • Audio signal from CD CHANGER is sent to AV control unit.

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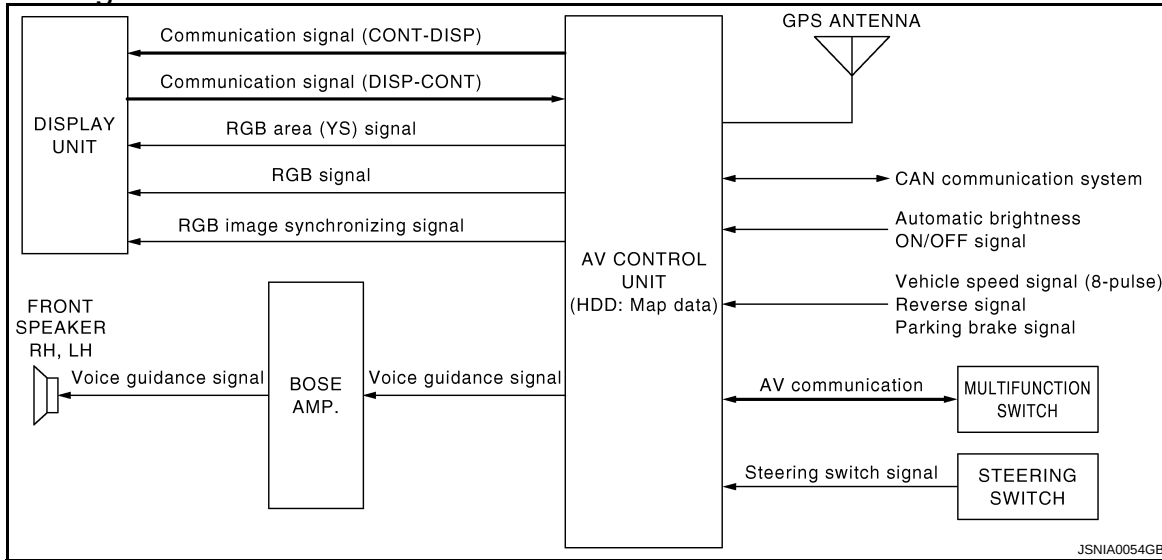
AV

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NAVIGATION SYSTEM

System Diagram



System Description

INFOID:000000000964769

DESCRIPTION

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

Position detection principle

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

- Travel distance of the vehicle as determined by the vehicle speed sensor
- Vehicle turning angle determined by the gyroscope (angular speed sensor)
- The travel direction of the vehicle determined by the GPS antenna (GPS information)

The current position of the vehicle is then identified by comparing the calculated vehicle position with map data, which is stored in the HDD (Hard Disk drive) (map-matching), and indicated on the screen with a current location mark. More accurate data is used by comparing position detection results from GPS to the map-matching.

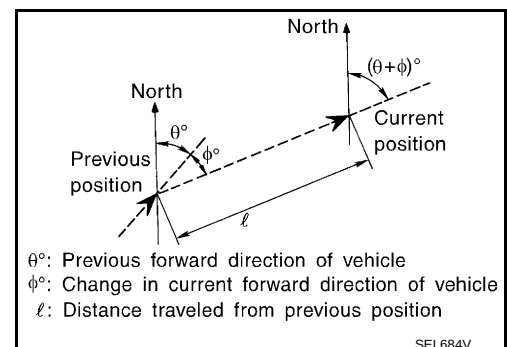
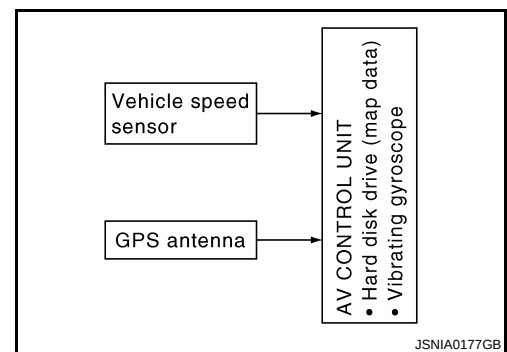
The current position is calculated by detecting the travel distance from the previous calculation point, and its direction change.

• Travel distance

The travel distance is generated from the vehicle speed sensor input signal. The automatic distance correction function is adopted for preventing to mis-detect the travel distance by tires' wear down etc.

• Travel direction

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

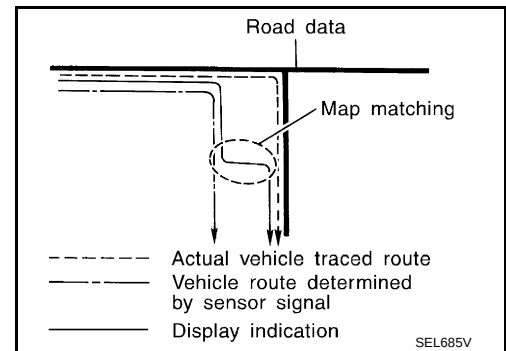


Type	Advantage	Disadvantage
Gyroscope (angular velocity sensor)	The turning angle is precisely detected.	Errors are accumulated when driving a long distance without stopping.
GPS antenna (GPS information)	The travel direction (North/South/East/West) is detected.	The travel direction is not precisely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

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

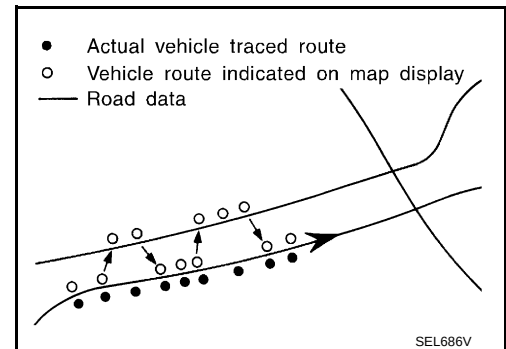
Map-matching

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



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

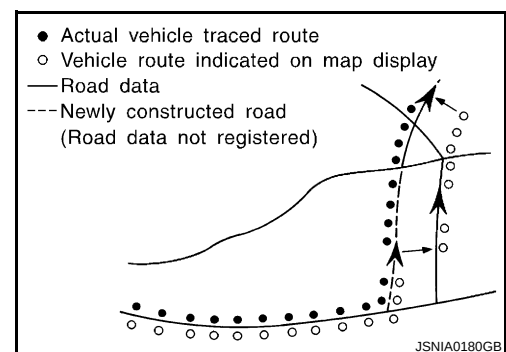
- In map-matching, several alternative routes are prepared and prioritized in addition to the road judged as currently driving. Therefore, due to errors in the distance and/or direction, an incorrect road may be prioritized, and the current location mark may be repositioned to the incorrect road. If two roads are running in parallel, they are of the same priority. Therefore, the current location mark may appear on either of them alternately, depending on maneuvering of the steering wheel and configuration of the road, etc.



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

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

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



GPS (Global Positioning System)

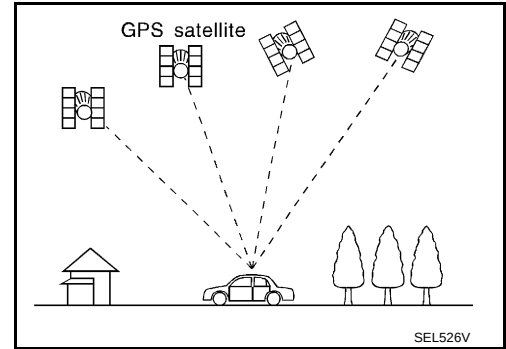
NAVIGATION SYSTEM

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

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

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 even with a high-precision three dimensional positioning.
- There may be the cases that the accuracy is lowered and radio waves are stopped intentionally because the GPS satellite signal is controlled by the US trace control center.

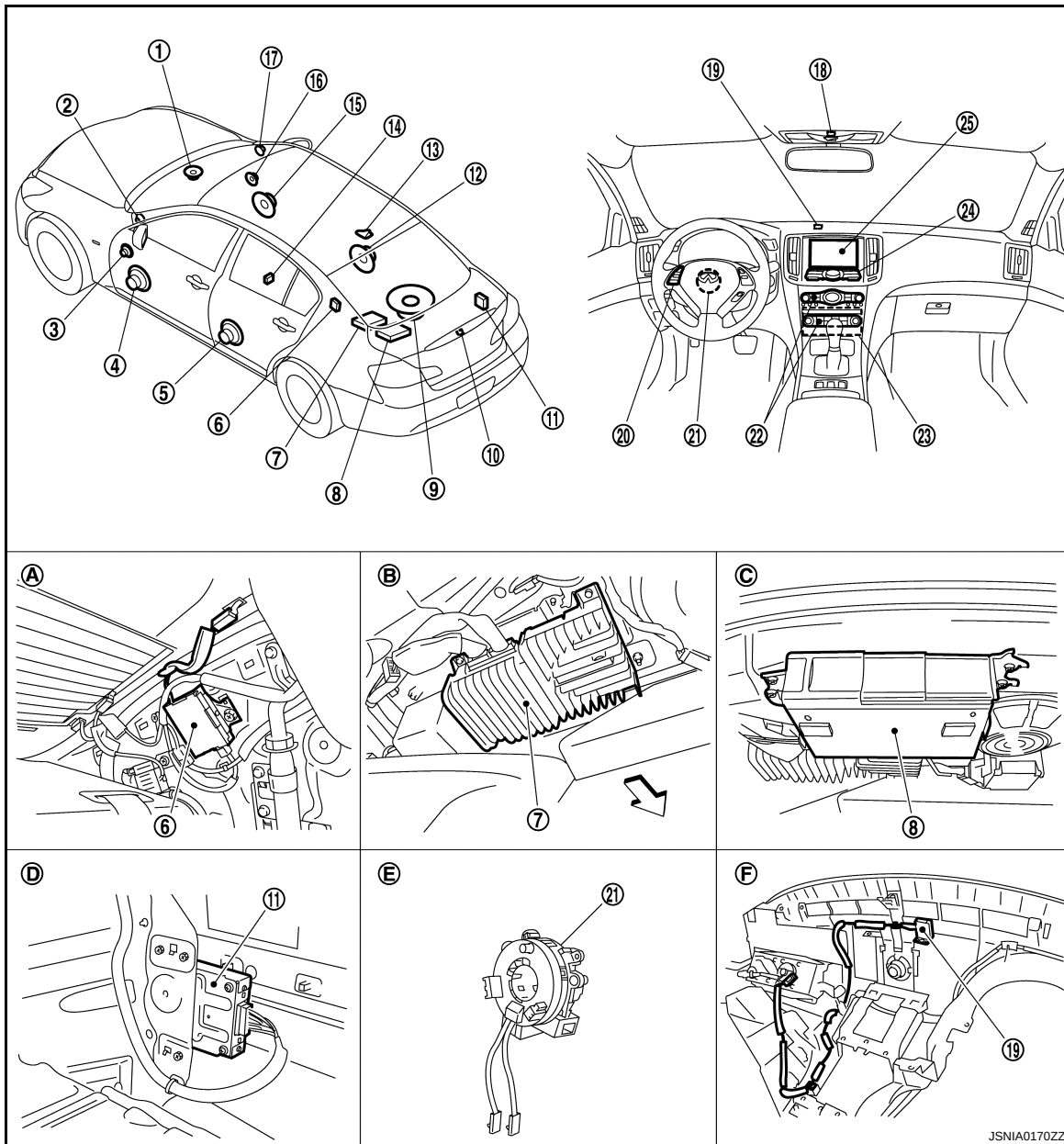
Component Parts Location

INFOID:000000000964770

NAVIGATION SYSTEM

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]



1. Center speaker	2. Tweeter LH	3. Front door squawker LH
4. Front door woofer LH	5. Rear door speaker	6. Antenna amp.
7. BOSE amp.	8. CD changer	9. Woofer
10. Rear view camera	11. Camera control unit	12. Rear door speaker RH
13. Satellite radio antenna	14. Auxiliary input jacks	15. Front door woofer RH
16. Front door squawker RH	17. Tweeter RH	18. Microphone
19. GPS antenna	20. Steering switch	21. Steering angle sensor
22. Preset switch	23. AV control unit	24. Multifunction switch
25. Display unit		
A. Within rear pillar finisher LH	B. Lower part of rear parcel shelf (inside of CD changer)	C. Rear parcel shelf lower part (left side)
D. Trunk room right side	E. Spiral cable part	F. Instrument panel rear side

Component Description

INFOID:000000000964771

NAVIGATION SYSTEM

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

Part name	Description
AV CONTORL UNIT	• It is the master unit that controls each operation of the Navigation system. • The HDD (Hard Disk Drive) is built in, and the map data is stored in HDD. • The RGB signal (map information) is output to the display. • The voice guidance signal is output to the BOSE amp.
DISPLAY UNIT	• Map image signal is input from AV control unit, and it is indicated on the display. • Each operation of navigation can be performed by the touch panel function.
BOSE AMP.	Voice guidance signal is input from AV control unit, and it is output to front LH/ RH speakers.
FRONT DOOR WOOFER	Voice guidance signal from BOSE amp. is output.
FRONT DOOR SQUAWKER	
TWEETER	
MULTIFUNCTION SWITCH	• Each operation of navigation can be performed. • Connected with preset switch via cable and operation signal is sent to AV control unit via AV communication.
STEERING SWITCH	• Each operation of navigation, etc. can be performed. • Switch operating signal is output to AV control unit.
GPS ANTENNA	GPS signal is received and is output to AV control unit.

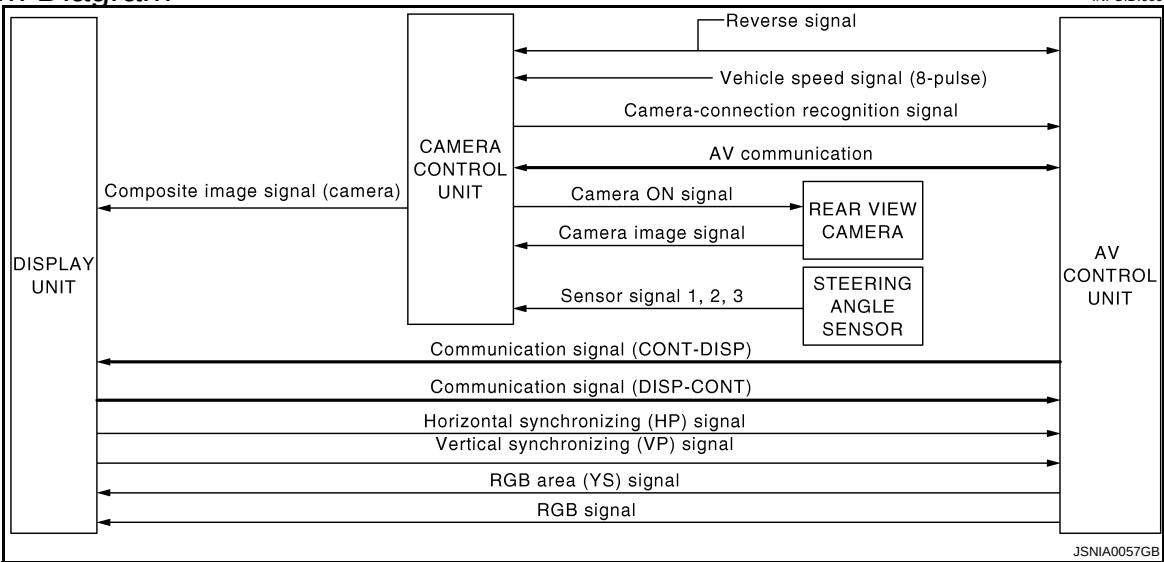
REAR VIEW MONITOR SYSTEM

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

REAR VIEW MONITOR SYSTEM

System Diagram



System Description

INFOID:0000000000964773

Camera image operation principle

- Power is supplied to rear view camera from camera control unit and outputs camera image signal to camera control unit when selector lever is set to R position and the reverse signal on camera control unit is input.
- Camera control unit synthesizes guide lines and possible route lines with camera image signal from rear view camera, and transmits camera image signal to the display. In this case, since the reverse signal is also input to AV control unit, the AV control unit recognizes the selector lever as in R position, and it switches communication signal between AV control unit and display unit, and image that is displayed on the display unit by RGB signal with rear view monitor image. In addition, possible route lines are controlled by original sensor signal from steering angle sensor.
- The AV control unit determines whether rear view camera is equipped or not, based on the presence of camera connection recognition signal. It switches to rear view monitor image at the time of reverse signal input when it is not equipped.
- Warning message under the rear view monitor display is described by AV control unit.
- AV control unit is connected in communication with camera control unit and display unit, and it controls operation of rear view monitor system.

Component Parts Location

INFOID:0000000000964774

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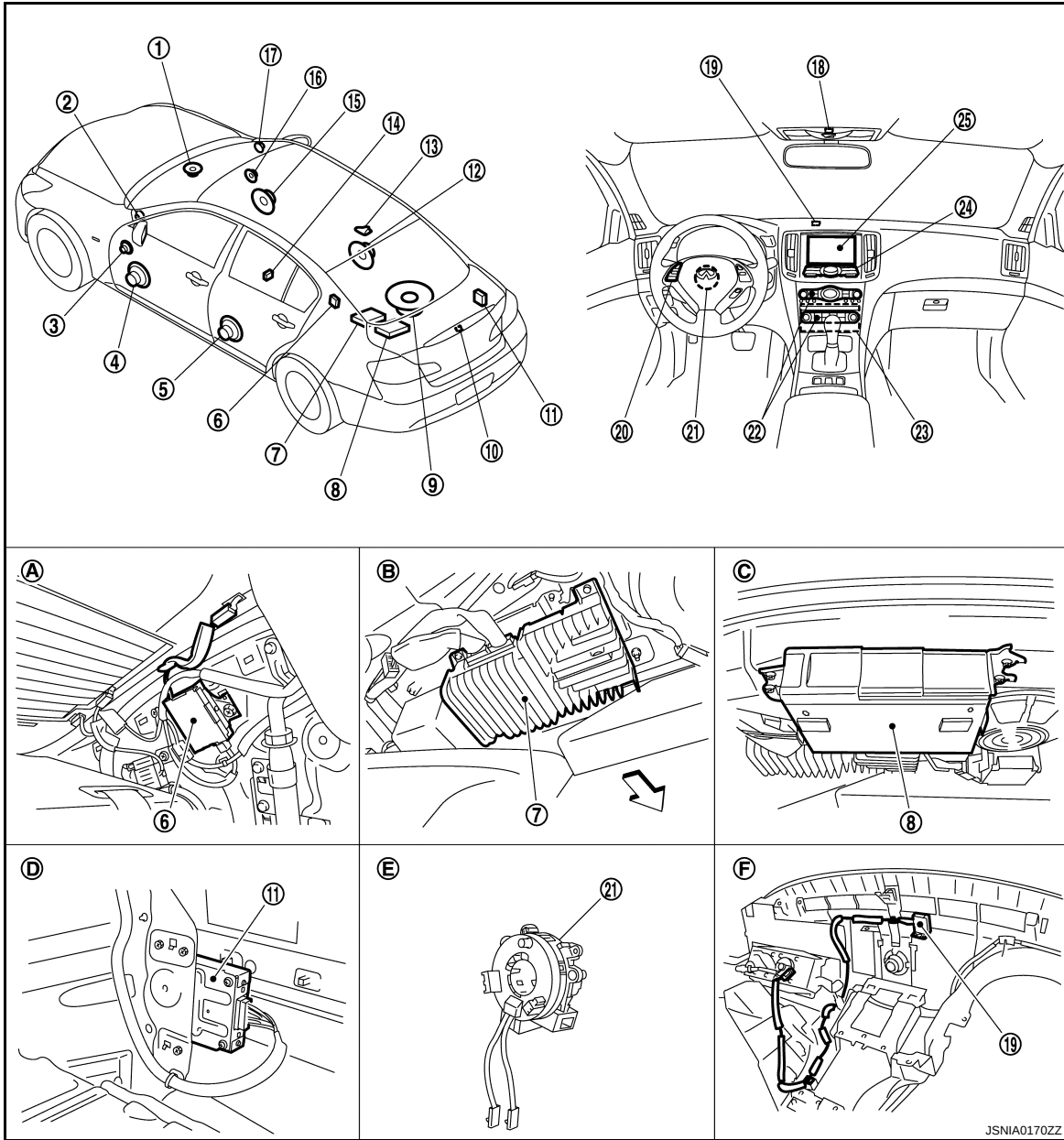
KM

KN

REAR VIEW MONITOR SYSTEM

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]



1. Center speaker	2. Tweeter LH	3. Front door squawker LH
4. Front door woofer LH	5. Rear door speaker	6. Antenna amp.
7. BOSE amp.	8. CD changer	9. Woofer
10. Rear view camera	11. Camera control unit	12. Rear door speaker RH
13. Satellite radio antenna	14. Auxiliary input jacks	15. Front door woofer RH
16. Front door squawker RH	17. Tweeter RH	18. Microphone
19. GPS antenna	20. Steering switch	21. Steering angle sensor
22. Preset switch	23. AV control unit	24. Multifunction switch
25. Display unit		
A. Within rear pillar finisher LH	B. Lower part of rear parcel shelf (inside of CD changer)	C. Rear parcel shelf lower part (left side)
D. Trunk room right side	E. Spiral cable part	F. Instrument panel rear side

Component Description

INFOID:0000000000964775

REAR VIEW MONITOR SYSTEM

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

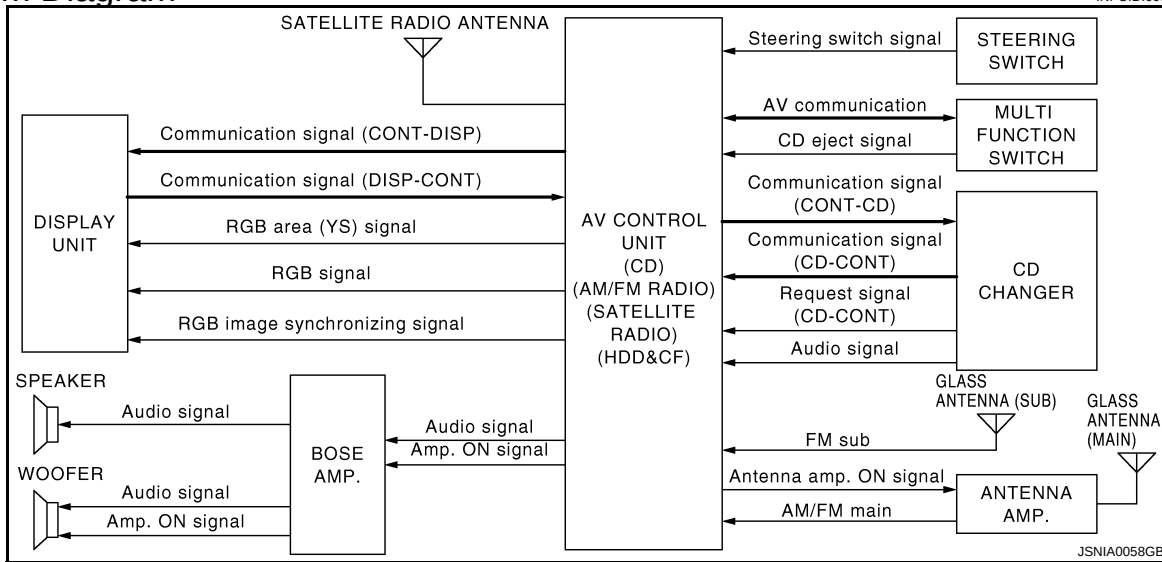
Part name	Description
AV CONTORL UNIT	- Image on display is changed to rear view monitor with the communication for camera control unit and display unit. - Warning displayed in rear view monitor image is illustrated.
DISPLAY UNIT	- Camera image signal is sent from camera control unit, and RGB signal for warning display is sent from AV control unit. - Rear view monitor image is changed with the communication for AV control unit.
CAMERA CONTROL UNIT	- Camera image signal is input from rear view camera, and camera image is indicated on the display. - Power (camera ON signal) is sent to rear view camera. - Controlled by AV communication sent from AV control unit. - AV control unit recognizes the presence of camera system with camera connection recognition signal.
REAR VIEW CAMERA	The image of vehicle rear view is sent to camera control unit.
STEERING ANGLE SENSOR	Steering signal necessary for possible route line control is sent to camera control unit.

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AUDIO SYSTEM

System Diagram



System Description

INFOID:000000000964777

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

Function
AM/FM radio
satellite radio
CD
Music Box (Hard Disk Drive)
CF (Compact Flash)

Function description

Operating signal

Audio system operation can be performed with multi function switch, preset switch, steering switch, touch panel function or voice recognition function.

- Operating signal is transmitted to AV control unit with AV communication when it is operated by multi function switch or preset switch. The CD ejection operating signal is performed by hardware.
- Operating signal is transmitted to AV control unit with steering switch signal when it is operated by steering switch.
- Refer to [AV-316, "System Description"](#) for explanation of voice recognition function and touch panel function.

Screen display

- Switching of display is performed with serial communication between display and AV control unit.
- The image signal to display operating condition is performed with RGB signal, RGB area signal and RGB image synchronizing signal.

AM/FM Radio Mode

- AM/FM radio tuner is built into AV control unit.
- Audio signal is received by glass antenna, next it is amplified by antenna amp., and finally it is input to AV control unit. Audio signal is input to BOSE amp. and BOSE amp. outputs to each speaker for AV control unit.

Satellite Radio Mode

- Satellite radio tuner is built into AV control unit.
- Audio signal (satellite radio) is received by satellite antenna, and it is input to AV control unit. Audio signal (satellite radio) is output to BOSE amp. and it is output to BOSE amp. to each speaker for AV control unit.

CD Mode

- CD function is built into AV control unit.

AUDIO SYSTEM

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

- AV control unit outputs audio signal to BOSE amp. and BOSE amp. outputs to each speaker when CD is inserted to AV control unit.

Music Box Mode

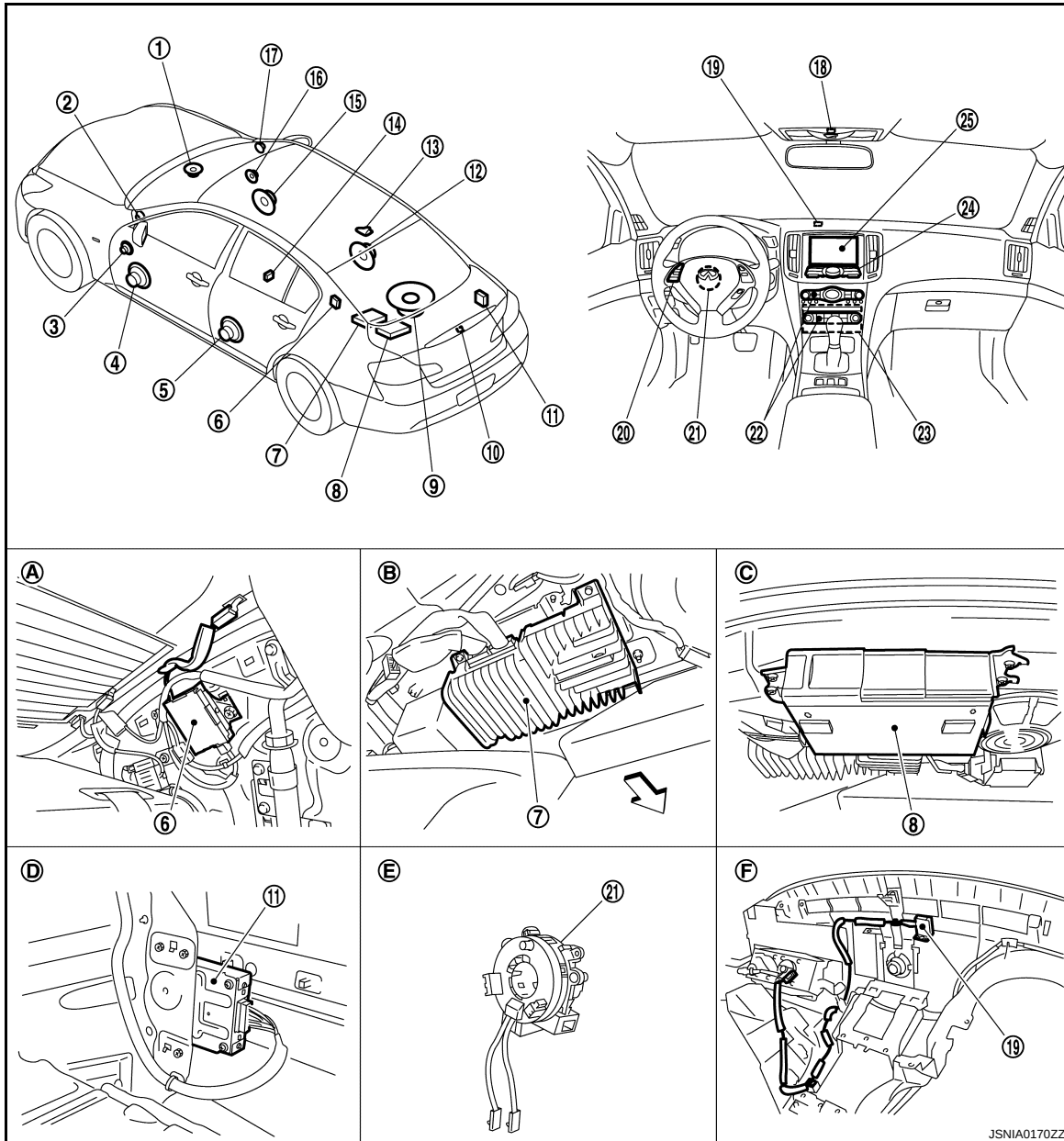
- Music CD data is stored on HDD that is built into AV control unit, and it can be played.
- AV control unit outputs music (audio signal) that is stored on HDD to BOSE amp., and BOSE amp. outputs to each speaker.

CF Mode

- AV control unit has built in CF replay function.
- Music (audio signal) that is stored in CF outputs to BOSE amp., and BOSE amp. outputs to each speaker when CF is inserted into AV control unit.

Component Parts Location

INFOID:000000000964778



1. Center speaker	2. Tweeter LH	3. Front door squawker LH
4. Front door woofer LH	5. Rear door speaker	6. Antenna amp.
7. BOSE amp.	8. CD changer	9. Woofer
10. Rear view camera	11. Camera control unit	12. Rear door speaker RH

AUDIO SYSTEM

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

13. Satellite radio antenna	14. Auxiliary input jacks	15. Front door woofer RH
16. Front door squawker RH	17. Tweeter RH	18. Microphone
19. GPS antenna	20. Steering switch	21. Steering angle sensor
22. Preset switch	23. AV control unit	24. Multifunction switch
25. Display unit		
A. Within rear pillar finisher LH	B. Lower part of rear parcel shelf (inside of CD changer)	C. Rear parcel shelf lower part (left side)
D. Trunk room right side	E. Spiral cable part	F. Instrument panel rear side

Component Description

INFOID:000000000964779

Part name	Description
AV CONTORL UNIT	- Receiving function of AM/FM/satellite radio, replaying function of CD, replaying/saving function of music box (HDD), replaying function of CF and voice recognition function are integrated. - Audio signal is output to BOSE amp. from each function.
DISPLAY UNIT	- Display image is controlled by the serial communication from AV control unit. - RGB image signal (audio operation condition) is input from AV control unit. - Touch panel function can be operated for each system by touching a display directly.
BOSE AMP.	Inputs power (amp ON) and sound signal from A/V control unit, and outputs sound signal to each speaker.
FRONT DOOR WOOFER	- Outputs sound signal from BOSE amp. - Outputs low-pitched sound.
FRONT DOOR SQUAWKER	- Outputs sound signal from BOSE amp. - Outputs midrange sound.
REAR DOOR SPEAKER	- Outputs sound signal from BOSE amp. - Outputs high, mid and low range sounds.
TWEETER	- Outputs sound signal from BOSE amp. - Outputs high range sound.
CENTER SPEAKER	- Outputs sound signal from BOSE amp. - Outputs high, mid and low range sounds.
WOOFER	- Outputs sound signal from BOSE amp. - Outputs low-pitched sound. - Power (amp ON signal) is supplied from BOSE amp.
MULTIFUNCTION SWITCH	- Each audio operation can be operated. - Connected with preset switch via cable, and operation signal is sent to AV control unit via AV communication.
PRESET SWITCH	- Each audio operation can be operated. - Connected with multifunction switch via cable, and operation signal is sent to AV control unit via AV communication. - The CD ejection operating signal is performed by hardwire.
STEERING SWITCH	- Each audio operation can be operated. - Steering switch signal (operation signal) is output to AV control unit.
MICROPHONE	-It is used for voice activated operation - Pronounced voice is converted to voice signal and sent to AV control unit.
ANTENNA AMP.	- Radio signal received by glass antenna is amplified and sent to AV control unit. - Power (antenna amp ON signal) is supplied from AV control unit.
SATELLITE RADIO ANTENNA	Audio signal (satellite radio) is received and output to AV control unit.

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

Diagnosis Description

INFOID:000000000964780

Multifunction switch and preset switch self-diagnosis function

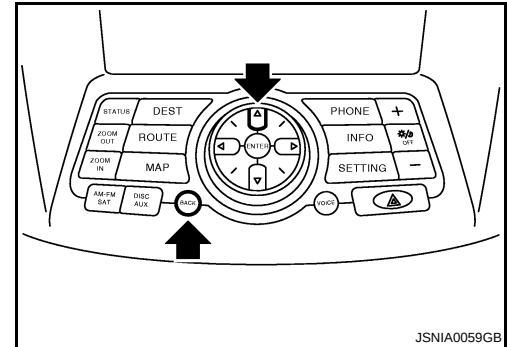
The ON/OFF operation (continuity) of each switch in the multifunction switch and preset switch can be checked.

Self-diagnosis mode

- Press the "BACK" switch and the "UP" switch of the 8-direction switches within 10 seconds after turning the ignition switch from OFF to ACC and hold them for 3 seconds or more. Then the buzzer sounds, all indicators of the preset switch illuminate, and the self-diagnosis mode starts.
- The continuity of each switch at the ON position can be checked by pressing the switch. The buzzer sounds if the switch is normal.

CAUTION:

The hazard switch and CD eject switch cannot be checked.



JSNIA0059GB

Finishing self-diagnosis mode

Self-diagnosis mode is canceled when turning the ignition switch OFF.

MULTI AV SYSTEM on board diagnosis function

- The AV control unit diagnosis function starts up with multifunction switch operation and the AV control unit performs a diagnosis for each unit in the system during the on board diagnosis.
- Perform a CONSULT-III diagnosis if the on board diagnosis does not start, e.g., the screen does not display anything, the multifunction switch does not function. etc.

On board diagnosis

Description

- The trouble diagnosis function has a self-diagnosis mode for conducting trouble diagnosis automatically and a confirmation/adjustment mode for operating manually.
- The self-diagnosis mode performs diagnoses on the AV control unit, connections between system components as well as connections between AV control unit and GPS antenna and between AV control unit and satellite radio antenna. Then it displays the diagnosis results on the display.
- The confirmation/adjustment mode allows the technician to check, modify or adjust the vehicle signals and set values, as well as to monitor the system error records and system communication status. The check, modify or adjust actions generally require human intervention and judgment (the system cannot make judgment automatically).

On board diagnosis item

Mode	Description
Self Diagnosis	- AV control unit diagnosis - Diagnoses the connections across system components, between AV control unit and GPS antenna and between AV control unit and satellite radio antenna.

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

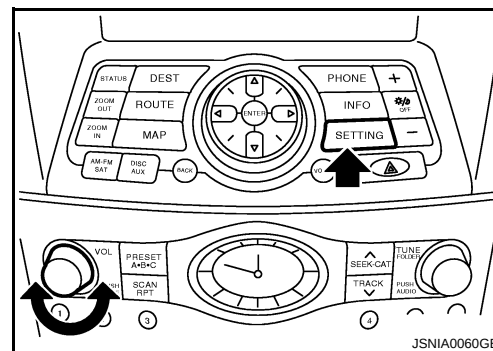
< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

Mode		Description
Confirmation/ Adjustment	Display Diagnosis	The following check functions are available: color tone check by color bar display, light and shade check by gray scale display and touch panel calibration response check.
	Vehicle Signals	Diagnosis of signals can be performed for vehicle speed, parking brake, lights, ignition switch, and reverse.
	Speaker Test	The connection of a speaker can be confirmed by test tone.
	Climate Control	Start auto air conditioner system self-diagnosis.
	Navigation	Steering Angle Adjustment When there is a difference between the actual turning angle and the vehicle mark turning angle, it can be adjusted.
		Speed Calibration When there is a difference between the current location mark and the actual location, it can be adjusted.
		XM SAT Subscription Status The XM NavTraffic subscription status can be checked.
	Error History	The system malfunction and the frequency when occurred in the past are displayed. When the malfunctioning item is selected, the time and place that the selected malfunction last occurred are displayed.
	Synchronizer FES clock	—
	Vehicle CAN Diagnosis	The transmitting/receiving of CAN communication can be monitored.
	AV COMM Diagnosis	The communication condition of each unit of Multi AV system can be monitored.
	Handsfree Phone	The received volume adjustment of hands-free phone, microphone speaker check, and erase memory can be performed.
	Camera Cont.	The signal connected to camera control unit can be checked and the guiding line position that overlaps rear view camera image can be adjusted.
	Bluetooth	The passkey and the device name can be checked and changed.
	SAT	Change Channel Any necessary channels required to receive traffic information from the satellite radio system can be set.
		Change Application ID Any application ID's required to receive traffic information from the satellite radio system can be set.
		Diag Not used
	Delete Unit Connection Log	Erase the connection history of unit and error history
	Initialize Settings	Initializes the AV control unit memory.

STARTING PROCEDURE

1. Start the engine.
2. Turn the audio system OFF.
3. While pushing the “SETTING” button, turn the volume control dial clockwise or counterclockwise for 40 clicks or more. (When the self-diagnosis mode is started, a short beep will be heard.)
 - Shifting from current screen to previous screen is performed by pushing “BACK” button.

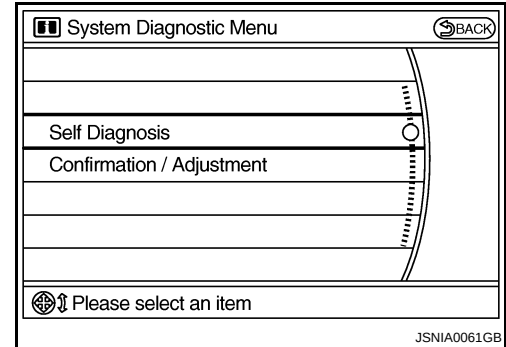


DIAGNOSIS SYSTEM (AV CONTROL UNIT)

[BOSE AUDIO WITH NAVIGATION]

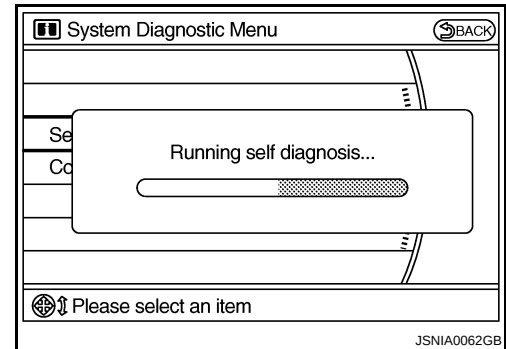
< FUNCTION DIAGNOSIS >

- The trouble diagnosis initial screen is displayed, and then the items of "Self Diagnosis" and "Confirmation/Adjustment" can be selected.



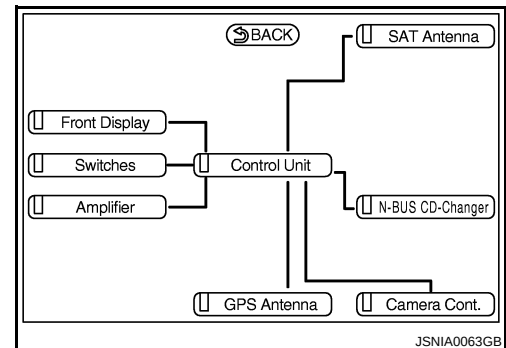
Self-diagnosis mode

- Start the self-diagnosis function and select "Self Diagnosis".
 - Self-diagnosis subdivision screen is displayed, and the self-diagnosis mode starts.
 - The bar graph visible on the center of the self-diagnosis subdivision screen indicates progress of the trouble diagnosis.



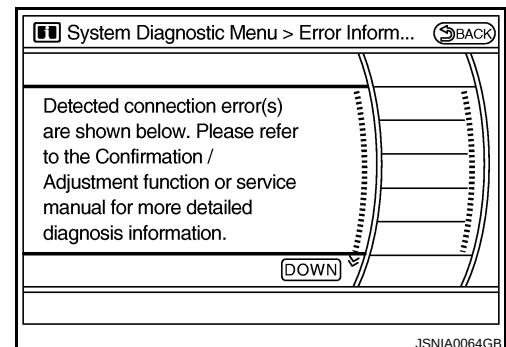
- Diagnosis results are displayed after the self-diagnosis is completed. The unit names and the connection lines are color-coded according to the diagnostic results.

Diagnosis results	Unit	Con- nection line
Normal	Green	Green
Connection malfunction	Gray	Yellow
CD changer not diagnosed	Gray	Gray
Unit malfunction ^{Note}	Red	Green



NOTE:

- Only the control unit (AV control unit) is displayed in red.
- Replace AV control unit if "Self-Diagnosis did not run because of a control unit malfunction" is indicated. The symptom is AV control unit internal error. Refer to [AV-530, "Exploded View"](#).
- If multiple errors occur at the same time for a single unit, the screen switch colors are determined according to the following order of priority: red > yellow > gray.
- The comments of the self-diagnosis results can be viewed with a component in the diagnosis result screen.



Detection range of self-diagnosis mode

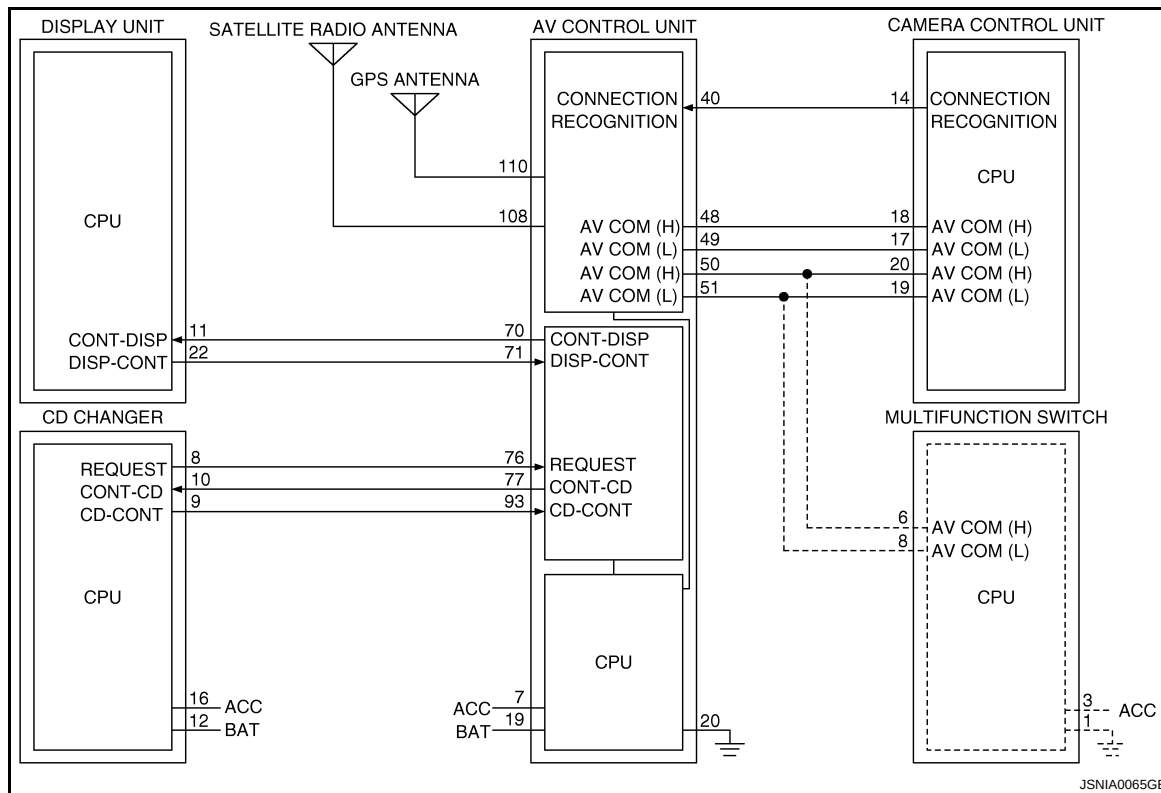
- The self-diagnosis mode allows the technician to diagnose the connection in the communication line between AV control unit and each unit and the internal operation of the AV control unit.

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

[BOSE AUDIO WITH NAVIGATION]

< FUNCTION DIAGNOSIS >

- Because the start condition of diagnosis function is a switch operation, the on board diagnosis function cannot be started up if any malfunction is detected in the communication circuit between AV control unit and multifunction switch.



Self-diagnosis results

Check the applicable display at the following table, and then repair the malfunctioning parts.

Self-diagnosis result chart

Area with yellow connection lines	Description	Possible malfunction location / Action to take
BACK SAT Antenna Front Display Switches Control Unit N-BUS CD-Changer GPS Antenna Camera Cont. ■ : Red JSNIA0090GB	AV control unit malfunction is detected	AV control unit power supply and ground circuit
BACK SAT Antenna Front Display Switches Control Unit N-BUS CD-Changer GPS Antenna Camera Cont. ■ : Gray ---- : Yellow JSNIA0067GB	A malfunction is detected in Camera-connection recognition signal circuit	Camera connection recognition signal circuit

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

Area with yellow connection lines	Description	Possible malfunction location / Action to take
	GPS antenna connection malfunction is detected	GPS antenna
	Poor connection is detected in satellite radio antenna	- Satellite radio antenna feeder - Satellite radio antenna
	- Malfunction is detected on communication circuit between AV control unit and display unit - Malfunction is detected on communication signal between AV control unit and display unit	AV control unit-to-display unit communication line

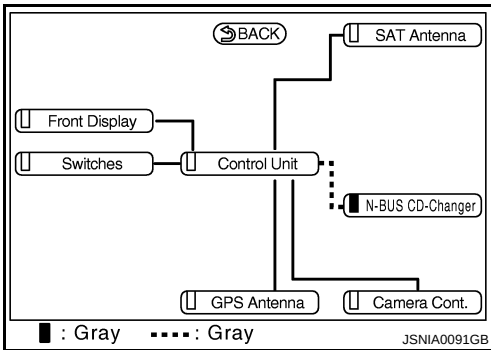
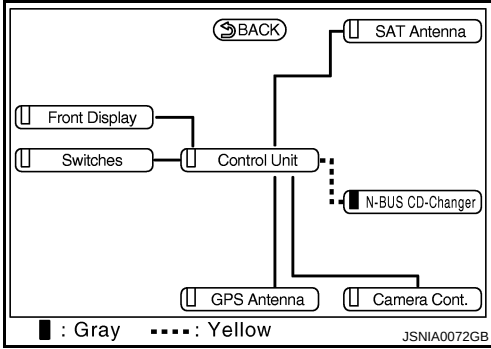
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DIAGNOSIS SYSTEM (AV CONTROL UNIT)

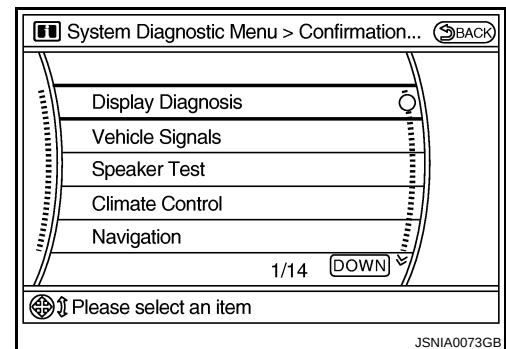
< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

Area with yellow connection lines	Description	Possible malfunction location / Action to take
 ■ : Gray ---- : Gray JSNIA0091GB	No diagnosis due to internal malfunction of CD changer	Replace the CD changer.
 ■ : Gray ---- : Yellow JSNIA0072GB	• CD changer power supply and ground circuits • A malfunction is detected in communication circuit between AV control unit and CD changer (REQ1 signal or communication signal) • A malfunction is detected in communication signal between AV control unit and CD changer (REQ1 signal or communication signal)	• CD changer power supply and ground circuits • Communication line between AV control unit and CD changer (REQ1 signal or communication signal)

CONFIRMATION/ADJUSTMENT MODE

1. Start the diagnosis function and select "Confirmation/Adjustment". The confirmation/adjustment mode indicates where each item can be checked or adjusted.
2. Select each switch on the "Confirmation/Adjustment Mode" screen to display the relevant trouble diagnosis screen. Press the "BACK" switch to return to the initial Confirmation/Adjustment Mode screen.

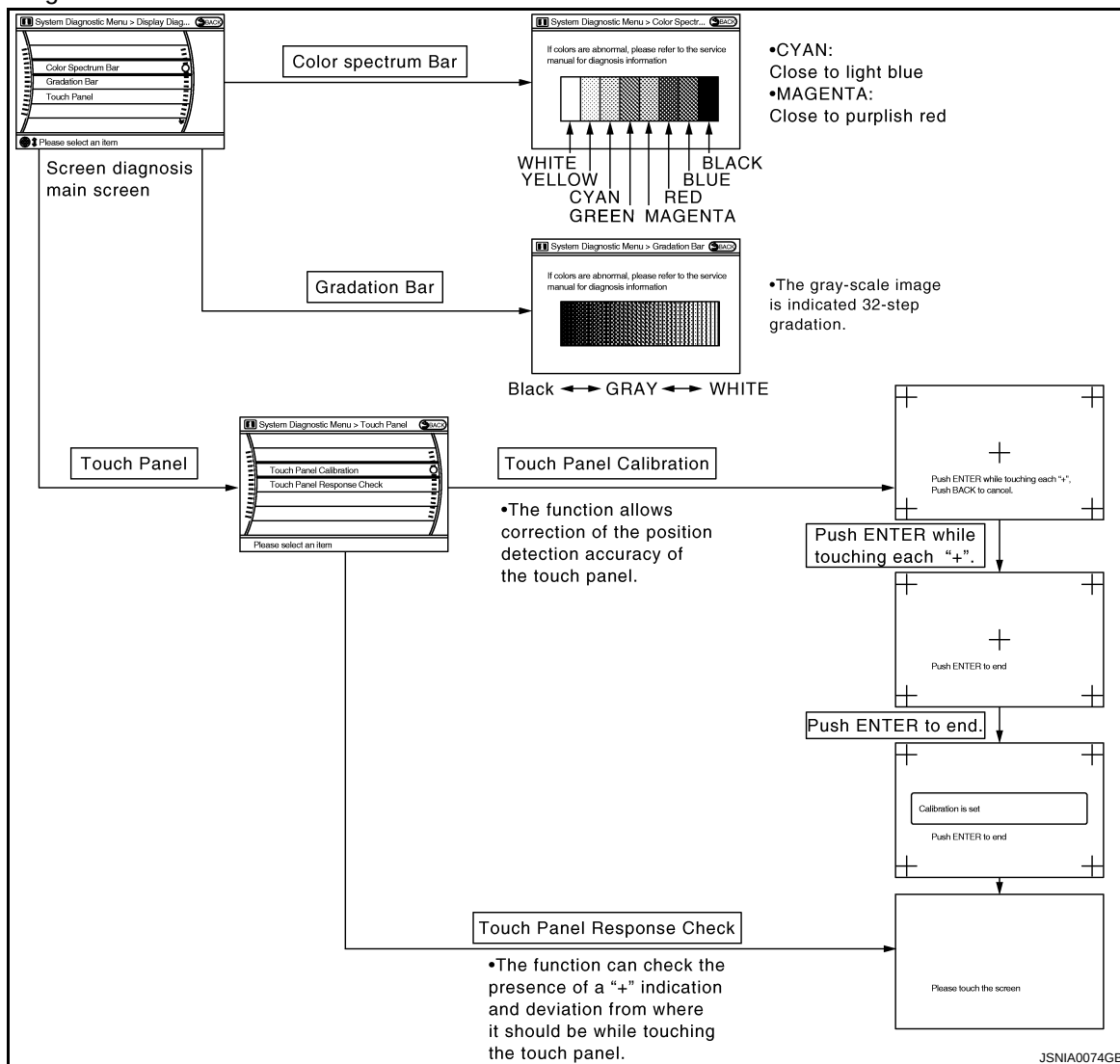


DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

Display Diagnosis

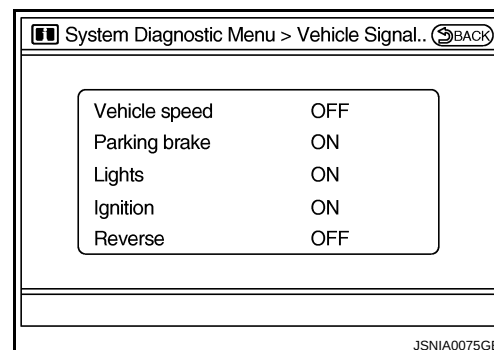


The tint of the color bar indication is as per the following list if RGB signal error is detected.

R (red) signal error : Light blue (Cyan) tint
G (green) signal error : Purple (Magenta) tint
B (blue) signal error : Yellow tint

Vehicle Signals

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



DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

Diagnosis item	Display	Vehicle status	Remarks
Vehicle speed	ON	Vehicle speed > 0 km/h (0 MPH)	Changes in indication may be delayed by approximately 1.5 seconds. This is normal.
	OFF	Vehicle speed = 0 km/h (0 MPH)	
Parking brake	ON	Parking brake is applied.	Block the light beam from the auto light optical sensor.
	OFF	Parking brake is released.	
Lights	ON	Light switch ON	—
	OFF	Light switch OFF	
Ignition	ON	Ignition switch ON	—
	OFF	Ignition switch in ACC position	
Reverse	ON	Selector lever in R position	Changes in indication may be delayed by approximately 1.5 seconds. This is normal.
	OFF	Selector lever in any position other than R	

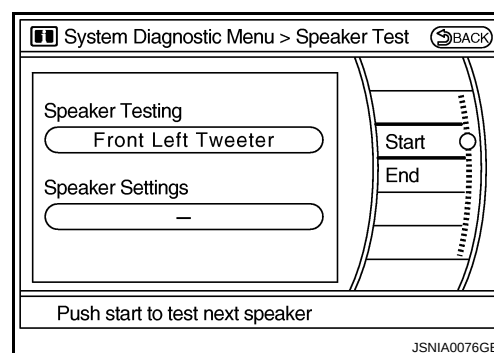
Speaker Test

Select "SPEAKER DIAGNOSIS" to display the Speaker Diagnosis screen. Press "START and NEXT" to generate a test tone in a speaker. Press "Start" to generate a test tone in the next speaker. Press "End" to stop the test tones.

NOTE:

The frequency of test tone emitted from each speaker is as follows.

Tweeter	: 3 kHz
Front door speaker	: 300 Hz
Rear door speaker	: 1 kHz



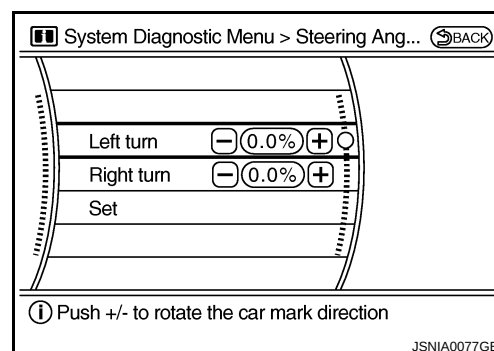
Climate Control

Refer to "HEATER & AIR CONDITIONING CONTROL SYSTEM" for details.

Navigation

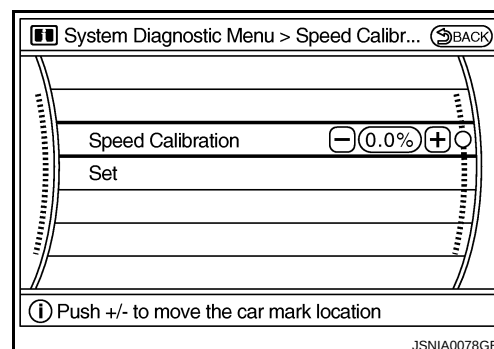
STEERING ANGLE ADJUSTMENT

The steering angle output value detected with the gyroscope is adjusted.



SPEED CALIBRATION

During normal driving, distance error caused by tire wear and tire pressure change is automatically adjusted for by the automatic distance correction function. This function, on the other hand, is for immediate adjustment, in cases such as driving with tire chain fitted on tires.



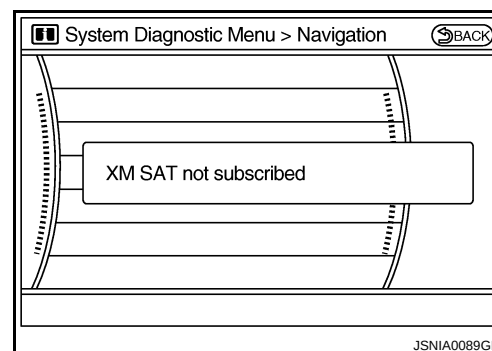
DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

XM SAT SUBSCRIPTION STATUS

The XM NavTraffic subscription status can be checked.



Error History

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

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

The error record displays the time and place of the most recent occurrence of that error. However, take note of the following points.

- If there is a malfunction with the GPS antenna circuit board in the AV control unit, the correct date and time of occurrence may not be able to be displayed.
- Place of the error occurrence is represented by the position of the current location mark at the time an error occurred. If current location mark has deviated from the correct position, then the place of the error occurrence cannot be located correctly.
- The frequency of occurrence is displayed in a count up manner. The actual count up method differs depending on the error item.

Count up method A

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

Count up method B

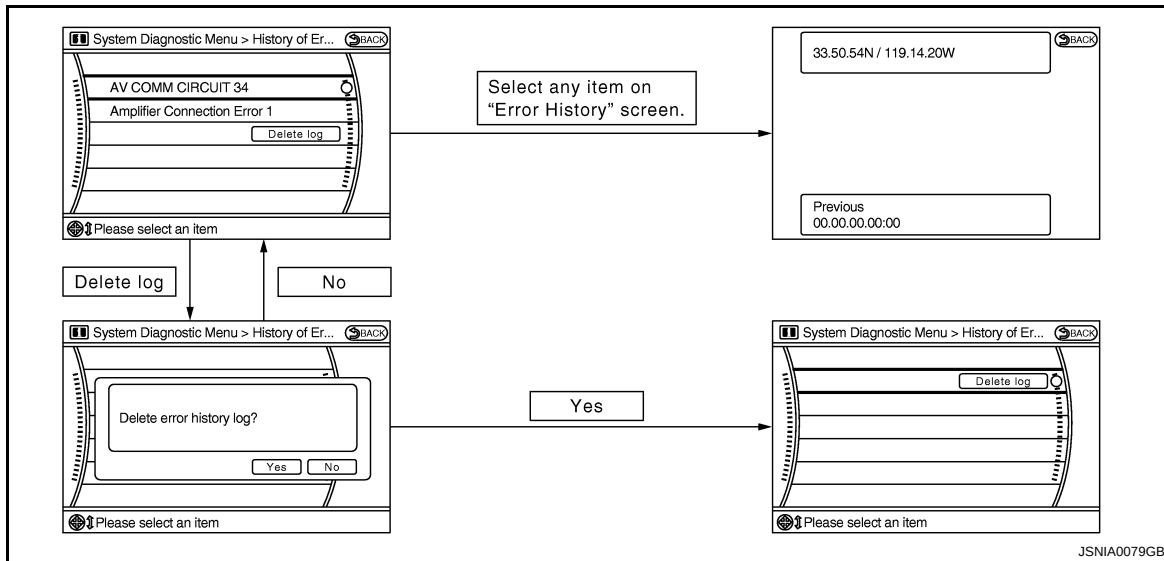
- The counter increases by 1 if an error occurs when IGN switch is ON. The counter will not decrease even if the condition is normal at the next IGN ON cycle.
- The counter upper limit is 50. Any counts exceeding 50 are ignored. The counter can be reset (no error record display) with the “Delete log”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

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

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]



Error item

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

Error item	Description	Possible malfunction factor/Action to take
CAN COMM CIRCUIT	CAN communication malfunction is detected	Perform diagnosis with CONSULT-III, and then repair the malfunctioning parts according to the diagnosis results. Refer to AV-347, "CONSULT - III Function" .
CONTROL UNIT (CAN)	CAN initial diagnosis malfunction is detected	Replace the AV control unit
CONTROL UNIT (AV)	AV communication circuit initial diagnosis malfunction is detected	
FLASH-ROM Error Of Control Unit	AV control unit malfunction is detected	
Connection Of Gyro		
XM SERIAL COMM Error		
CAN Controller Memory Error		
Bluetooth Module Connection Error		
HDD CONN Error		
HDD READ Error		
HDD WRITE Error		
HDD COMM Error		
HDD ACCESS Error		
DSP CONN Error		
DSP COMM Error		
Internal Communication Error		AV control unit power supply and ground circuit
GPS Communication Error	GPS malfunction is detected	An intermittent error caused by strong radio interference may be detected unless any symptoms (GPS reception error, etc.) occur. Replace the AV control unit ff the malfunction occurs constantly.
GPS ROM Error		
GPS RAM Error		
GPS RTC Error		

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< FUNCTION DIAGNOSIS >

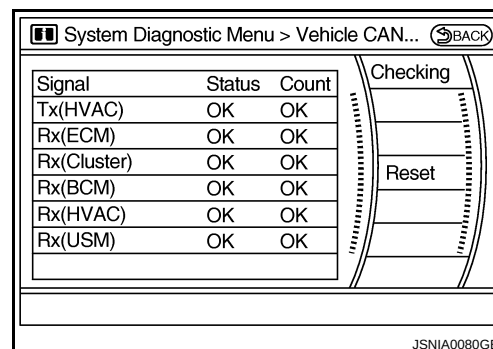
[BOSE AUDIO WITH NAVIGATION]

Error item	Description	Possible malfunction factor/Action to take
Front Display Connection Error	- Display unit power supply and ground circuit malfunction is detected - Malfunction is detected on communication circuit between display unit and AV control unit - Malfunction is detected on communication signal between display unit and AV control unit	- Display unit power supply and ground circuit - Communication circuit between display unit and AV control unit
GPS Antenna Error	GPS antenna connection malfunction is detected	GPS antenna
XM Antenna Connection Error	Poor connection is detected in satellite radio antenna	Satellite radio antenna
Camera Control Unit Connection Error	A malfunction is detected in Camera-connection recognition signal circuit	Camera-connection recognition signal circuit
CD Changer Connection Error	- A malfunction is detected in CD changer power supply and ground circuits - A malfunction is detected in communication circuit between AV control unit and CD changer (REQ1 signal or communication signal) - A malfunction is detected in communication signal between AV control unit and CD changer (REQ1 signal or communication signal)	- CD changer power supply and ground circuits - Communication between AV control unit and CD changer (REQ1 signal or communication signal)
- AV COMM CIRCUIT - Switches Connection Error	- Multifunction switch power supply and ground circuit malfunction is detected - A malfunction is detected in AV communication circuit between AV control unit and multifunction switch - A malfunction is detected in AV communication signal between AV control unit and multifunction switch	- Multifunction switch power supply and ground circuits - AV communication circuit between AV control unit and multifunction switch
- AV COMM CIRCUIT - Rearview Camera Connection Error	- A malfunction is detected in camera control unit power supply and ground circuits - Malfunction is detected on AV communication signal between camera control unit and AV control unit	Camera control unit power supply and ground circuits
- AV COMM CIRCUIT - Rearview Camera Connection Error - Camera Control Unit Connection Error	- Malfunction is detected in AV communication circuit between camera control unit and AV control unit - Malfunction is detected on AV communication signal between camera control unit and AV control unit	AV communication circuit between Camera control unit and AV control unit

Vehicle CAN Diagnosis

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

Items	Display (Current)	Malfunction counter (Past)
Tx (HVAC)	OK / UNKWN	OK / 0 – 39
Rx (ECM)	OK / UNKWN	OK / 0 – 39
Rx (Cluster)	OK / UNKWN	OK / 0 – 39
Rx (BCM)	OK / UNKWN	OK / 0 – 39



DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

Items	Display (Current)	Malfunction counter (Past)
Rx (HVAC)	OK / UNKWN	OK / 0 – 39
Rx (USM)	OK / UNKWN	OK / 0 – 39

AV COMM Diagnosis

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

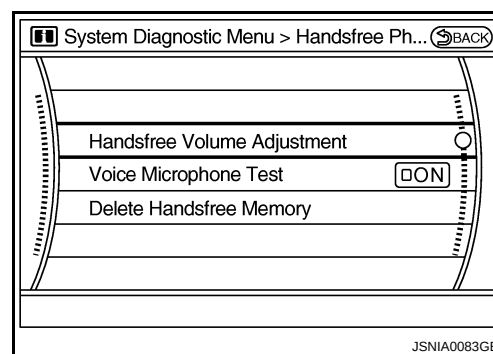
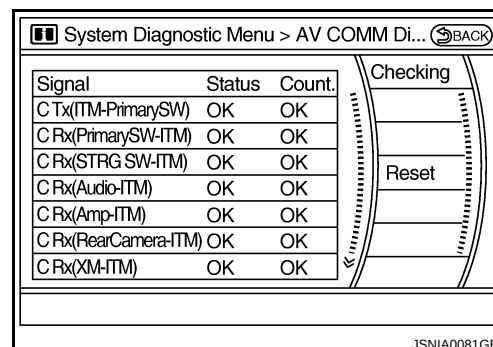
Items	Status (Current)	Counter (Past)
C Tx(ITM-PrimarySW)	OK / UNKWN	OK / 0 – 39
C Rx(PrimarySW-ITM)	OK / UNKWN	OK / 0 – 39
C Rx(STRG SW-ITM)	OK / UNKWN	OK / 0 – 39
C Rx (Audio-ITM)	OK / UNKWN	OK / 0 – 39
C Rx(Amp-ITM)	OK / UNKWN	OK / 0 – 39
C Rx(RearCamera-ITM)	OK / UNKWN	OK / 0 – 39
C Rx(XM-ITM)	OK / UNKWN	OK / 0 – 39
C Rx(Amp-Audio)	—	—
C Tx(Audio-ITM)	OK / UNKWN	OK / 0 – 39

NOTE:

- Any units with “—” displayed have no history of vehicle connection.
- “Audio” and “Amp” indicate the same status because “Amp” indicates the status of the amplifier integrated in the AV control unit.
- “STRG SW”, “Amp”“XM” indicate the same status as “Audio”.

Handsfree Phone

The hands-free phone reception volume adjustment, microphone and speaker test, and memory erase functions are also available.



Camera Cont.

The two functions of “Connection Confirmation” and “Adjust Offset of Rear view Camera” are available.

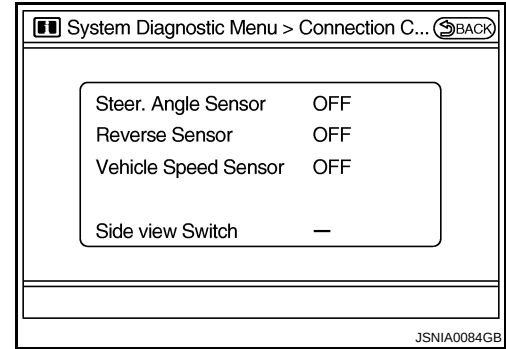
CONNECTION CONFIRMATION

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

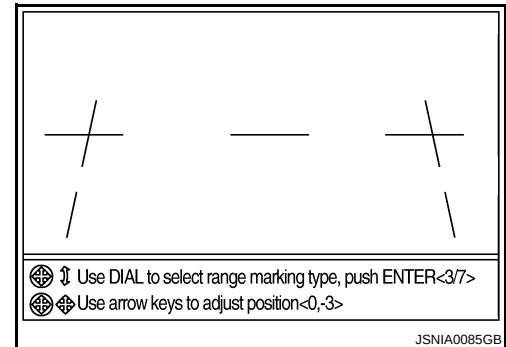
The steering angle sensor, reverse signal and vehicle speed sensor can be inspected.



Diagnosis item	Display	Vehicle status
Steer. Angle Sensor	ON	When steering the vehicle with ignition switch ON (remains ON until connection mode is stopped when it is turned ON)
	OFF	- Ignition switch at ACC - No steering with ignition switch ON
	—	Malfunction detected in camera-connection recognition signal
Reverse Sensor	ON	Selector lever is in "R" with ignition switch ON.
	OFF	- Ignition switch at ACC - Selector lever is in position other than "R" with ignition switch ON.
	—	Malfunction detected in camera-connection recognition signal
Vehicle Speed Sensor	ON	Vehicle speed is more than 0 km/h with ignition switch ON
	OFF	- Ignition switch at ACC - Vehicle speed is 0 km/h with ignition switch ON
	—	Malfunction detected in camera-connection recognition signal
Side view Switch	—	—

ADJUST OFFSET OF REAR VIEW CAMERA

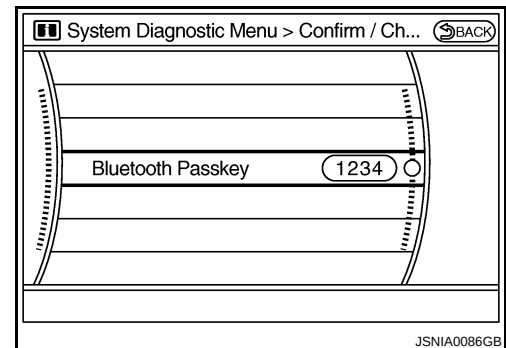
Use this mode to adjust the guide line display position of the rear-view monitor if necessary after removing the rear view monitor camera.



Bluetooth

Passkey confirmation/change

- The passkey of Bluetooth can be confirmed and changed.
- The passkey can be changed by four digits within 0 to 9.



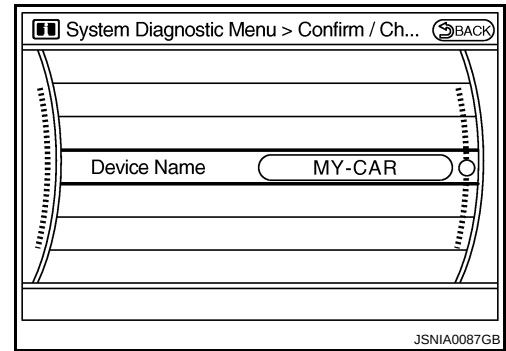
Device name check/change

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

[BOSE AUDIO WITH NAVIGATION]

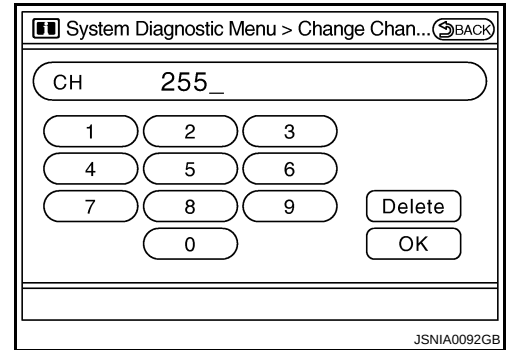
< FUNCTION DIAGNOSIS >

- The device name of Bluetooth can be confirmed and changed.
- The device name can be changed by sixteen digits within A to Z (small character can be used) and - (hyphen).

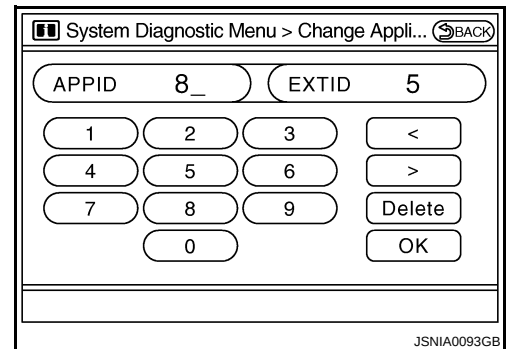


SAT

- Change Channel
- Any necessary channels required to receive traffic information from the satellite radio system can be set.

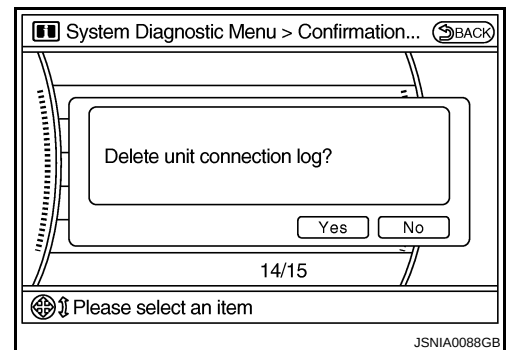


- Change Application ID
- Any application ID's required to receive traffic information from the satellite radio system can be set.



Delete Unit Connection Log

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



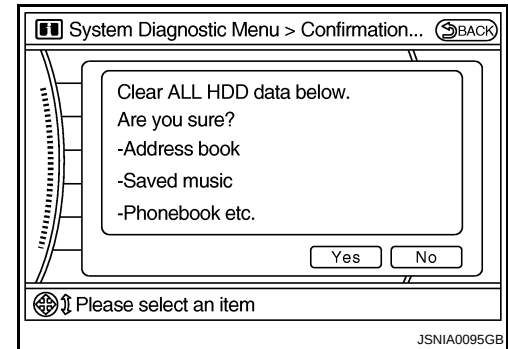
Initialize Settings

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

Deletes data stored in HDD.



CONSULT - III Function

INFOID:000000000964781

CONSULT-III functions

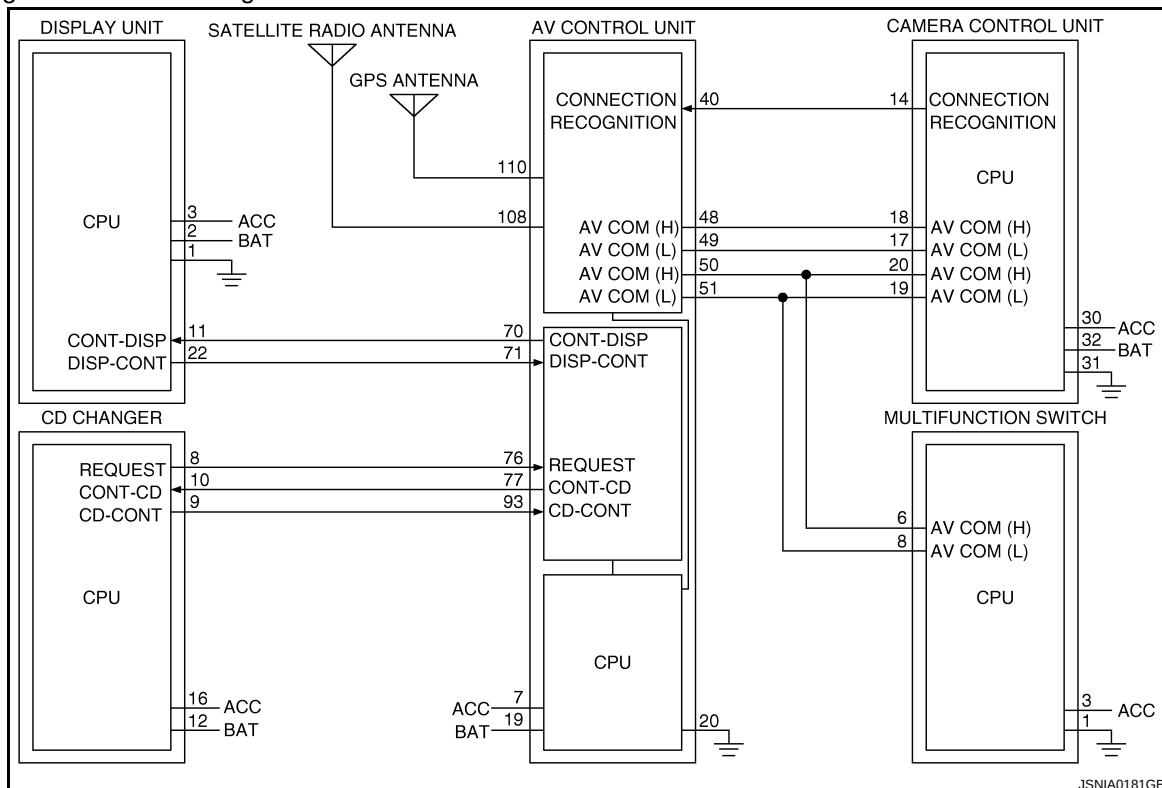
CONSULT-III performs the following functions via the communication with the AV control unit.

Diagnosis mode	Description
SELF-DIAG RESULTS	Performs a diagnosis on the AV control unit and a connection diagnosis for the communication circuit of the Multi AV system, and displays the current and past malfunctions collectively.
DATA MONITOR	The diagnosis of vehicle signal that is input to the AV control unit can be performed.
AV COMM MONITOR	Allows the technician to monitor the status of the Multi AV system communication signals.
ECU PART NUMBER	The part number of AV control unit can be checked.

Self-diagnosis results

- In CONSULT-III self-diagnosis, self-diagnosis results and error history are displayed collectively.
- The current malfunction indicates "CRNT". The past malfunction indicates "PAST".
- The timing is displayed as "0" if any of the error codes [U1000], [U1010], [U1300] and [U1310] is detected. The counter increases by 1 if the condition is normal at the next ignition switch ON cycle.

Self-diagnosis detection range



Self-diagnosis results display item

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

Error item	Description	Possible malfunction factor/Action to take
CAN COMM CIRCUIT[U1000]	CAN communication malfunction is detected	Perform diagnosis with CONSULT-III, and then repair the malfunctioning parts according to the diagnosis results. Refer to AV-347, "CONSULT - III Function" .
CONTROL UNIT (CAN) [U1010]	CAN initial diagnosis malfunction is detected	Replace the AV control unit
CONTROL UNIT (AV) [U1310]	AV communication circuit initial diagnosis malfunction is detected	
Control Unit FLASH-ROM [U1200]	AV control unit malfunction is detected	
Gyro NO CONN [U1201]		
CAN CONT [U1216]		
BLUETOOTH CONN [U1217]		
HDD CONN [U1218]		
HDD READ [U1219]		
XM SERIAL COMM [U1220]		
HDD WRITE [U121A]		
HDD COMM [U121B]		
HDD ACCESS [U121C]		
DSP CONN [U121D]		
DSP COMM [U121E]		
INTERNAL COMM [U121F]		
GPS COMM [U1204]	GPS malfunction is detected	An intermittent error caused by strong radio interference may be detected unless any symptoms (GPS reception error, etc.) occur. Replace the AV control unit ff the malfunction occurs constantly.
GPS ROM [U1205]		
GPS RAM [U1206]		
GPS RTC [U1207]		
FRONT DISP CONN [U1243]	• Display unit power supply and ground circuit malfunction is detected • Malfunction is detected on communication circuit between display unit and AV control unit • Malfunction is detected on communication signal between display unit and AV control unit	• Display unit power supply and ground circuit • Communication circuit between display unit and AV control unit
GPS ANTENNA CONN [U1244]	GPS antenna connection malfunction is detected	GPS antenna
XM ANTENNA CONN [U1258]	Poor connection is detected in satellite radio antenna	Satellite radio antenna
CAMERA CONT. CONN [U1250]	A malfunction is detected in Camera-connection recognition signal circuit	Camera-connection recognition signal circuit
CD CHANGER [N-BUS] [U124C]	• A malfunction is detected in CD changer power supply and ground circuits • A malfunction is detected in communication circuit between AV control unit and CD changer (REQ1 signal or communication signal) • A malfunction is detected in communication signal between AV control unit and CD changer (REQ1 signal or communication signal)	• CD changer power supply and ground circuits • Communication between AV control unit and CD changer (REQ1 signal or communication signal)

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

Error item	Description	Possible malfunction factor/Action to take
- AV COMM CIRCUIT [U1300] - SWITCHE CONN [U1240]	- Multifunction switch power supply and ground circuit malfunction is detected - A malfunction is detected in AV communication circuit between AV control unit and multifunction switch - A malfunction is detected in AV communication signal between AV control unit and multifunction switch	- Multifunction switch power supply and ground circuits - AV communication circuit between AV control unit and multifunction switch
- AV COMM CIRCUIT [U1300] - REAR CAMERA LAN CONN [U1252]	- A malfunction is detected in camera control unit power supply and ground circuits - Malfunction is detected on AV communication signal between Camera control unit and AV control unit	Camera control unit power supply and ground circuits
- AV COMM CIRCUIT [U1300] - CAMERA CONT. CONN [U1250] - REAR CAMERA LAN CONN [U1252]	- Malfunction is detected on AV communication circuit between camera control unit and AV control unit - Malfunction is detected on AV communication signal between camera control unit and AV control unit	AV communication circuit between camera control unit and AV control unit

DATA MONITOR

ALL SIGNALS

- Displays the status of the following vehicle signals inputted to the AV control unit.
- For each signal, actual signal can be compared with the condition recognized on the system.

Display Item	Display	Vehicle status	Remarks
VHCL SPD SIG	ON	Vehicle speed >0 km/h (0 MPH)	Changes in indication may be delayed. This is normal.
	OFF	Vehicle speed =0 km/h (0 MPH)	
PKB SIG	ON	Parking brake is applied.	
	OFF	Parking brake is released.	
ILLUM SIG	ON	Block the light beam from the auto light optical sensor when the light SW is ON.	—
	OFF	Expose the auto light optical sensor to light when the light SW is OFF or ON.	
IGN SIG	ON	Ignition switch ON	
	OFF	Ignition switch in ACC position	
REV SIG	ON	Selector lever in R position	Changes in indication may be delayed. This is normal.
	OFF	Selector lever in any position other than R	

SELECTION FROM MENU

Allows the technician to select which vehicle signals should be displayed and displays the status of the selected vehicle signals.

Item to be selected	Description
VHCL SPD SIG	The same as when "ALL SIGNALS" is selected.
PKB SIG	
ILLUM SIG	
IGN SIG	
REV SIG	

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

< FUNCTION DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

AV communication monitor

AV&NAVI C/U

- Displays the communication status from AV control unit to each unit as well as the error counter.
- The error counter displays "OK" if no malfunction was 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.

Items	Display (Current)	Malfunction counter (Past)
TRANSMIT DIAG	OK / UNKWN	OK / 0 – 39
PANEL SWITCH	OK/ UNKWN	OK / 0 – 39
SW SECONDARY	—	—
RR CONTROL SW	—	—
STEERING SW	OK / UNKWN	OK / 0 – 39
AUDIO	OK / UNKWN	OK / 0 – 39
SPEAKER AMP	OK / UNKWN	OK / 0 – 39
SIDE CAMERA	—	—
REAR CAMERA	OK / UNKWN	OK / UNKWN
TV TUNER	—	—
DVD PLAYER	—	—
VIDEO DIST	—	—
ETC	—	—
HANDS FREE	—	—
XM	OK/ UNKWN	OK / 0 – 39
IPOD	—	—
FM MULTI	—	—
REMOTE CONT	—	—

AUDIO

- Displays the AV control unit communication status and the error counter.
- The error counter displays "OK" if no malfunction was 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.

Items	Display (Current)	Malfunction counter (Past)
TRANSMIT DG	OK / UNKWN	OK / 0 – 39
SPEAKER AMP	—	—
TV TUNER	—	—
DVD PLAYER	—	—
MD DECK	—	—
CD CHANGER	—	—
MD CHANGER	—	—
IPOD	—	—

ECU PART NUMBER

The part number of AV control unit is displayed.

COMPONENT DIAGNOSIS

U1000 CAN COMM CIRCUIT

Description

INFOID:0000000000964782

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 independent). 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-28, "CAN Communication Signal Chart"](#).

DTC Logic

INFOID:0000000000964783

DTC DETECTION LOGIC

DTC	Display contents of CONSULT-III	Diagnostic item is detected when ...	Probable malfunction location
U1000	CAN COMM CIRCUIT	When AV control unit is not transmitting or receiving CAN communication signal for 2 seconds or more.	CAN communication system

Diagnosis Procedure

INFOID:0000000000964784

1.PERFORM SELF DIAGNOSTIC

1. Turn ignition switch ON and wait for 2 second or more.
2. Check "Self Diagnostic Result" of "MULTI AV".

Is "CAN COMM CIRCUIT" displayed?

- YES >> Refer to "LAN system". Refer to [LAN-18, "Trouble Diagnosis Flow Chart"](#).
- NO >> Refer to GI section. Refer to [GI-39, "Intermittent Incident"](#).

U1010 CONTROL UNIT (CAN)

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

U1010 CONTROL UNIT (CAN)

Description

INFOID:000000000964785

Initial diagnosis of AV control unit.

DTC Logic

INFOID:000000000964786

DTC DETECTION LOGIC

DTC	Display contents of CONSULT-III	Diagnostic item is detected when ...	Probable malfunction location
U1010	CONTROL UNIT (CAN)	CAN initial diagnosis malfunction is detected	AV control unit

Diagnosis Procedure

INFOID:000000000964787

1.REPLACE AV CONTROL UNIT

When DTC U1010 is detected, replace AV control unit.

>> INSPECTION END

U1310 AV CONTROL UNIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

U1310 AV CONTROL UNIT

Description

INFOID:0000000000964788

Replace the AV control unit if this DTC is displayed. Refer to [AV-530, "Exploded View"](#).

Part name	Description
AV CONTORL UNIT	- Integrates HDD (hard disk drive) allowing map data and music data to be stored. - It is the master unit of the MULTI AV system, and it is connected to each control unit by means of communication. It operates each system according to communication signals from the AV control unit. - The AV control unit includes the audio, hands-free phone, voice control, navigation, and vehicle information functions. - It is connected to ECM and unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function. - It inputs the automatic brightness ON/OFF signals that are required for the display dimming control. - It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).

DTC Logic

INFOID:0000000000964789

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1310	CONTROL UNIT (AV) [U1310]	An initial diagnosis error is detected in AV communication circuit.	Replace AV control unit

U1200 AV CONTROL UNIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

U1200 AV CONTROL UNIT

Description

INFOID:000000000964790

Replace the AV control unit if this DTC is displayed. Refer to [AV-530, "Exploded View"](#).

Part name	Description
AV CONTORL UNIT	- Integrates HDD (hard disk drive) allowing map data and music data to be stored. - It is the master unit of the MULTI AV system, and it is connected to each control unit by means of communication. It operates each system according to communication signals from the AV control unit. - The AV control unit includes the audio, hands-free phone, voice control, navigation, and vehicle information functions. - It is connected to ECM and unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function. - It inputs the automatic brightness ON/OFF signals that are required for the display dimming control. - It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).

DTC Logic

INFOID:000000000964791

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1200	Cont Unit FLASH- ROM [U1200]	An internal malfunction is detected in AV control unit (FLASH-ROM).	Replace AV control unit

U1201 AV CONTROL UNIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

U1201 AV CONTROL UNIT

Description

INFOID:0000000000964792

Replace the AV control unit if this DTC is displayed. Refer to [AV-530, "Exploded View"](#).

Part name	Description
AV CONTORL UNIT	- Integrates HDD (hard disk drive) allowing map data and music data to be stored. - It is the master unit of the MULTI AV system, and it is connected to each control unit by means of communication. It operates each system according to communication signals from the AV control unit. - The AV control unit includes the audio, hands-free phone, voice control, navigation, and vehicle information functions. - It is connected to ECM and unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function. - It inputs the automatic brightness ON/OFF signals that are required for the display dimming control. - It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).

DTC Logic

INFOID:0000000000964793

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1201	GYRO NO CONN [U1201]	Internal malfunction of AV control unit (gyrocompass disconnection) is detected.	Replace AV control unit

A
B
C
D
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AV

U1216 AV CONTROL UNIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

U1216 AV CONTROL UNIT

Description

INFOID:000000000964794

Replace the AV control unit if this DTC is displayed. Refer to [AV-530, "Exploded View"](#).

Part name	Description
AV CONTORL UNIT	- Integrates HDD (hard disk drive) allowing map data and music data to be stored. - It is the master unit of the MULTI AV system, and it is connected to each control unit by means of communication. It operates each system according to communication signals from the AV control unit. - The AV control unit includes the audio, hands-free phone, voice control, navigation, and vehicle information functions. - It is connected to ECM and unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function. - It inputs the automatic brightness ON/OFF signals that are required for the display dimming control. - It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).

DTC Logic

INFOID:000000000964795

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1216	CAN CONT [U1216]	Internal malfunction of AV control unit (CAN controller) is detected.	Replace AV control unit

U1217 AV CONTROL UNIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

U1217 AV CONTROL UNIT

Description

INFOID:000000000964796

Replace the AV control unit if this DTC is displayed. Refer to [AV-530, "Exploded View"](#).

Part name	Description
AV CONTORL UNIT	- Integrates HDD (hard disk drive) allowing map data and music data to be stored. - It is the master unit of the MULTI AV system, and it is connected to each control unit by means of communication. It operates each system according to communication signals from the AV control unit. - The AV control unit includes the audio, hands-free phone, voice control, navigation, and vehicle information functions. - It is connected to ECM and unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function. - It inputs the automatic brightness ON/OFF signals that are required for the display dimming control. - It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).

DTC Logic

INFOID:000000000964797

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1217	BLUETOOTH MODULE CONN [U1217]	Internal malfunction of AV control unit (Bluetooth module connection malfunction) is detected.	Replace AV control unit

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AV

U1218 AV CONTROL UNIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

U1218 AV CONTROL UNIT

Description

INFOID:000000000964798

Replace the AV control unit if this DTC is displayed. Refer to [AV-530, "Exploded View"](#).

Part name	Description
AV CONTORL UNIT	- Integrates HDD (hard disk drive) allowing map data and music data to be stored. - It is the master unit of the MULTI AV system, and it is connected to each control unit by means of communication. It operates each system according to communication signals from the AV control unit. - The AV control unit includes the audio, hands-free phone, voice control, navigation, and vehicle information functions. - It is connected to ECM and unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function. - It inputs the automatic brightness ON/OFF signals that are required for the display dimming control. - It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).

DTC Logic

INFOID:000000000964799

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1218	HDD-CONN [U1218]	Internal malfunction of AV control unit (HDD connection malfunction) is detected.	Replace AV control unit

U1219 AV CONTROL UNIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

U1219 AV CONTROL UNIT

Description

INFOID:000000000964800

Replace the AV control unit if this DTC is displayed. Refer to [AV-530, "Exploded View"](#).

Part name	Description
AV CONTORL UNIT	- Integrates HDD (hard disk drive) allowing map data and music data to be stored. - It is the master unit of the MULTI AV system, and it is connected to each control unit by means of communication. It operates each system according to communication signals from the AV control unit. - The AV control unit includes the audio, hands-free phone, voice control, navigation, and vehicle information functions. - It is connected to ECM and unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function. - It inputs the automatic brightness ON/OFF signals that are required for the display dimming control. - It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).

DTC Logic

INFOID:000000000964801

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1219	HDD-READ [U1219]	Internal malfunction of AV control unit (HDD read malfunction) is detected.	Replace AV control unit

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AV

U1220 AV CONTROL UNIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

U1220 AV CONTROL UNIT

Description

INFOID:000000000964802

Replace the AV control unit if this DTC is displayed. Refer to [AV-530, "Exploded View"](#).

Part name	Description
AV CONTORL UNIT	- Integrates HDD (hard disk drive) allowing map data and music data to be stored. - It is the master unit of the MULTI AV system, and it is connected to each control unit by means of communication. It operates each system according to communication signals from the AV control unit. - The AV control unit includes the audio, hands-free phone, voice control, navigation, and vehicle information functions. - It is connected to ECM and unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function. - It inputs the automatic brightness ON/OFF signals that are required for the display dimming control. - It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).

DTC Logic

INFOID:000000000964803

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1220	XM SERIAL COMM [U1220]	Internal malfunction of AV control unit (satellite radio tuner communication error) is detected.	Replace AV control unit

U121A AV CONTROL UNIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

U121A AV CONTROL UNIT

Description

INFOID:000000000964804

Replace the AV control unit if this DTC is displayed. Refer to [AV-530, "Exploded View"](#).

Part name	Description
AV CONTORL UNIT	- Integrates HDD (hard disk drive) allowing map data and music data to be stored. - It is the master unit of the MULTI AV system, and it is connected to each control unit by means of communication. It operates each system according to communication signals from the AV control unit. - The AV control unit includes the audio, hands-free phone, voice control, navigation, and vehicle information functions. - It is connected to ECM and unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function. - It inputs the automatic brightness ON/OFF signals that are required for the display dimming control. - It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).

DTC Logic

INFOID:000000000964805

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U121A	HDD-WRITE [U121A]	Internal malfunction of AV control unit (HDD write malfunction) is detected.	Replace AV control unit

U121B AV CONTROL UNIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

U121B AV CONTROL UNIT

Description

INFOID:000000000964806

Replace the AV control unit if this DTC is displayed. Refer to [AV-530, "Exploded View"](#).

Part name	Description
AV CONTORL UNIT	- Integrates HDD (hard disk drive) allowing map data and music data to be stored. - It is the master unit of the MULTI AV system, and it is connected to each control unit by means of communication. It operates each system according to communication signals from the AV control unit. - The AV control unit includes the audio, hands-free phone, voice control, navigation, and vehicle information functions. - It is connected to ECM and unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function. - It inputs the automatic brightness ON/OFF signals that are required for the display dimming control. - It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).

DTC Logic

INFOID:000000000964807

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U121B	HDD-COMM [U121B]	Internal malfunction of AV control unit (HDD communication error) is detected.	Replace AV control unit

U121C AV CONTROL UNIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

U121C AV CONTROL UNIT

Description

INFOID:000000000964808

Replace the AV control unit if this DTC is displayed. Refer to [AV-530, "Exploded View"](#).

Part name	Description
AV CONTORL UNIT	- Integrates HDD (hard disk drive) allowing map data and music data to be stored. - It is the master unit of the MULTI AV system, and it is connected to each control unit by means of communication. It operates each system according to communication signals from the AV control unit. - The AV control unit includes the audio, hands-free phone, voice control, navigation, and vehicle information functions. - It is connected to ECM and unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function. - It inputs the automatic brightness ON/OFF signals that are required for the display dimming control. - It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).

DTC Logic

INFOID:000000000964809

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U121C	HDD-ACCESS [U121C]	Internal malfunction of AV control unit (HDD access error) is detected.	Replace AV control unit

U121D AV CONTROL UNIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

U121D AV CONTROL UNIT

Description

INFOID:000000000964810

Replace the AV control unit if this DTC is displayed. Refer to [AV-530, "Exploded View"](#).

Part name	Description
AV CONTORL UNIT	- Integrates HDD (hard disk drive) allowing map data and music data to be stored. - It is the master unit of the MULTI AV system, and it is connected to each control unit by means of communication. It operates each system according to communication signals from the AV control unit. - The AV control unit includes the audio, hands-free phone, voice control, navigation, and vehicle information functions. - It is connected to ECM and unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function. - It inputs the automatic brightness ON/OFF signals that are required for the display dimming control. - It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).

DTC Logic

INFOID:000000000964811

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U121D	DSP CONN [U121D]	Internal malfunction of AV control unit (DSP connection error) is detected.	Replace AV control unit

U121E AV CONTROL UNIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

U121E AV CONTROL UNIT

Description

INFOID:0000000000964812

Replace the AV control unit if this DTC is displayed. Refer to [AV-530, "Exploded View"](#).

Part name	Description
AV CONTORL UNIT	- Integrates HDD (hard disk drive) allowing map data and music data to be stored. - It is the master unit of the MULTI AV system, and it is connected to each control unit by means of communication. It operates each system according to communication signals from the AV control unit. - The AV control unit includes the audio, hands-free phone, voice control, navigation, and vehicle information functions. - It is connected to ECM and unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function. - It inputs the automatic brightness ON/OFF signals that are required for the display dimming control. - It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).

DTC Logic

INFOID:0000000000964813

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U121E	DSP COMM [U121E]	Internal malfunction of AV control unit (DSP communication error) is detected.	Replace AV control unit

U121F AV CONTROL UNIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

U121F AV CONTROL UNIT

Description

INFOID:000000000964814

Part name	Description
AV CONTORL UNIT	- Integrates HDD (hard disk drive) allowing map data and music data to be stored. - It is the master unit of the MULTI AV system, and it is connected to each control unit by means of communication. It operates each system according to communication signals from the AV control unit. - The AV control unit includes the audio, hands-free phone, voice control, navigation, and vehicle information functions. - It is connected to ECM and unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function. - It inputs the automatic brightness ON/OFF signals that are required for the display dimming control. - It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).

DTC Logic

INFOID:000000000964815

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U121F	INTERNAL COMM [U121F]	Internal malfunction of AV control unit (internal communication error) is detected.	AV control unit power supply and ground circuit

Diagnosis Procedure

INFOID:000000000964816

1. CHECK AV CONTROL UNIT POWER SUPPLY AND GROUND CIRCUIT

Check AV control unit power supply and ground circuit. Refer to [AV-379, "AV CONTROL UNIT : Diagnosis Procedure"](#).

Is inspection result OK?

YES >> INSPECTION END
NO >> Repair malfunctioning parts.

U1204 GPS

Description

INFOID:0000000000964817

An intermittent error caused by strong radio interference may be detected unless any symptoms (GPS reception error, etc.) occur. Replace the AV control unit if the malfunction occurs constantly. Refer to [AV-530, "Exploded View"](#).

Part name	Description
AV CONTROL UNIT	- Integrates HDD (hard disk drive) allowing map data and music data to be stored. - It is the master unit of the MULTI AV system, and it is connected to each control unit by means of communication. It operates each system according to communication signals from the AV control unit. - The AV control unit includes the audio, hands-free phone, voice control, navigation, and vehicle information functions. - It is connected to ECM and unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function. - It inputs the automatic brightness ON/OFF signals that are required for the display dimming control. - It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).

DTC Logic

INFOID:0000000000964818

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1204	GPS CONN [U1204]	Internal malfunction of AV control unit (GPS malfunction) is detected.	Replace AV control unit

Diagnosis Procedure

INFOID:0000000000964819

1. PERFORM THE SELF-DIAGNOSIS

- Delete the self-diagnosis results. Turn ignition switch OFF.
- Turn ignition switch ON. Perform the self-diagnosis again.
- Check that the DTC is detected again.

Is any DTC detected?

YES >> Replace AV control unit.

NO >> The intermittent malfunction caused by strong radio interference can be detected.

U1205 GPS

Description

INFOID:000000000964820

An intermittent error caused by strong radio interference may be detected unless any symptoms (GPS reception error, etc.) occur. Replace the AV control unit if the malfunction occurs constantly. Refer to [AV-530, "Exploded View"](#).

Part name	Description
AV CONTROL UNIT	- Integrates HDD (hard disk drive) allowing map data and music data to be stored. - It is the master unit of the MULTI AV system, and it is connected to each control unit by means of communication. It operates each system according to communication signals from the AV control unit. - The AV control unit includes the audio, hands-free phone, voice control, navigation, and vehicle information functions. - It is connected to ECM and unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function. - It inputs the automatic brightness ON/OFF signals that are required for the display dimming control. - It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).

DTC Logic

INFOID:000000000964821

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1205	GPS ROM [U1205]	Internal malfunction of AV control unit (GPS malfunction) is detected.	Replace AV control unit

Diagnosis Procedure

INFOID:000000000964822

1.PERFORM THE SELF-DIAGNOSIS

- Delete the self-diagnosis results. Turn ignition switch OFF.
- Turn ignition switch ON. Perform the self-diagnosis again.
- Check that the DTC is detected again.

Is any DTC detected?

- YES >> Replace AV control unit.
- NO >> The intermittent malfunction caused by strong radio interference can be detected.

U1206 GPS

Description

INFOID:0000000000964823

An intermittent error caused by strong radio interference may be detected unless any symptoms (GPS reception error, etc.) occur. Replace the AV control unit if the malfunction occurs constantly. Refer to [AV-530, "Exploded View"](#).

Part name	Description
AV CONTROL UNIT	- Integrates HDD (hard disk drive) allowing map data and music data to be stored. - It is the master unit of the MULTI AV system, and it is connected to each control unit by means of communication. It operates each system according to communication signals from the AV control unit. - The AV control unit includes the audio, hands-free phone, voice control, navigation, and vehicle information functions. - It is connected to ECM and unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function. - It inputs the automatic brightness ON/OFF signals that are required for the display dimming control. - It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).

DTC Logic

INFOID:0000000000964824

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1206	GPS RAM [U1206]	Internal malfunction of AV control unit (GPS malfunction) is detected.	Replace AV control unit

Diagnosis Procedure

INFOID:0000000000964825

1.PERFORM THE SELF-DIAGNOSIS

- Delete the self-diagnosis results. Turn ignition switch OFF.
- Turn ignition switch ON. Perform the self-diagnosis again.
- Check that the DTC is detected again.

Is any DTC detected?

YES >> Replace AV control unit.

NO >> The intermittent malfunction caused by strong radio interference can be detected.

U1207 GPS

Description

INFOID:000000000964826

An intermittent error caused by strong radio interference may be detected unless any symptoms (GPS reception error, etc.) occur. Replace the AV control unit if the malfunction occurs constantly. Refer to [AV-530, "Exploded View"](#).

Part name	Description
AV CONTROL UNIT	- Integrates HDD (hard disk drive) allowing map data and music data to be stored. - It is the master unit of the MULTI AV system, and it is connected to each control unit by means of communication. It operates each system according to communication signals from the AV control unit. - The AV control unit includes the audio, hands-free phone, voice control, navigation, and vehicle information functions. - It is connected to ECM and unified meter and A/C amp. via CAN communication to obtain necessary information for the vehicle information function. - It inputs the automatic brightness ON/OFF signals that are required for the display dimming control. - It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).

DTC Logic

INFOID:000000000964827

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1207	GPS RTC [U1207]	Internal malfunction of AV control unit (GPS malfunction) is detected.	Replace AV control unit

Diagnosis Procedure

INFOID:000000000964828

1. PERFORM THE SELF-DIAGNOSIS

- Delete the self-diagnosis results. Turn ignition switch OFF.
- Turn ignition switch ON. Perform the self-diagnosis again.
- Check that the DTC is detected again.

Is any DTC detected?

- YES >> Replace AV control unit.
- NO >> The intermittent malfunction caused by strong radio interference can be detected.

U1243 DISPLAY UNIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

U1243 DISPLAY UNIT

Description

INFOID:000000000964829

Part name	Description
DISPLAY UNIT	• Display image is controlled by the serial communication from AV control unit. • RGB image signal is input from AV control unit (RGB, RGB area and RGB synchronizing). Auxiliary image signal is input from the auxiliary input jack. Camera image signal is input from the camera control unit. • Synchronize signal (HP, VP) is output to AV control unit. • Touch panel function can be operated for each system by touching a display directly.

DTC Logic

INFOID:000000000964830

DTC	Display contents of CONSULT-III	DTC Detection Condition	Possible causes
U1243	FRONT DISP CONN [U1243]	• Display unit power supply and ground circuit malfunction is detected • Malfunction is detected on communication circuit between display unit and AV control unit • Malfunction is detected on communication signal between display unit and AV control unit	• Display unit power supply and ground circuit • Communication circuit between display unit and AV control unit

Diagnosis Procedure

INFOID:000000000964831

1.CHECK DISPLAY UNIT POWER SUPPLY AND GROUND CIRCUIT

Check display unit power supply and ground circuit. Refer to [AV-379, "DISPLAY UNIT : Diagnosis Procedure"](#).

Is inspection result OK?

YES >> GO TO 2.

NO >> Repair malfunctioning parts.

2.CHECK CONTINUITY COMMUNICATION CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect display unit connector and AV control unit connector.
3. Check continuity between display unit harness connector terminals 11, 22 and AV control unit harness connector terminals 70, 71.

11 - 70 : Continuity should exist.

22 - 71 : Continuity should exist.

4. Check continuity between display unit harness connector terminals 11, 22 and ground.

11, 22 - Ground : Continuity should not exist.

Is inspection result OK?

YES >> GO TO 3.

NO >> Repair harness or connector.

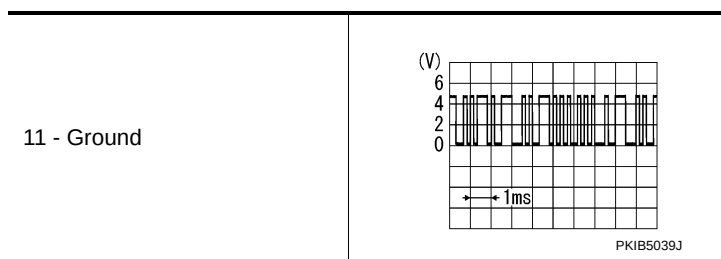
3.CHECK COMMUNICATION SIGNAL

1. Connect display unit connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check signal between display unit harness connector terminal 11 and ground.

U1243 DISPLAY UNIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]



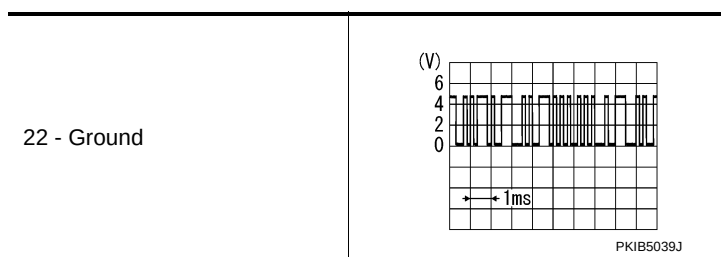
Is inspection result OK?

YES >> GO TO 4.

NO >> Replace AV control unit.

4. CHECK COMMUNICATION SIGNAL

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



Is inspection result OK?

YES >> INSPECTION END

NO >> Replace display unit.

U1244 GPS ANTENNA

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

U1244 GPS ANTENNA

Description

INFOID:0000000000964832

Part name	Description
GPS ANTENNA	GPS signal is received and sent to AV control unit.

DTC Logic

INFOID:0000000000964833

DTC	Display contents of CONSULT-III	DTC Detection Condition	Possible causes
U1244	GPS ANETNNA CONN [U1244]	GPS antenna connection malfunction is detected	GPS antenna disconnection

Diagnosis Procedure

INFOID:0000000000964834

1.GPS ANTENNA CHECK

Visually check GPS antenna and antenna feeder.

Is inspection result OK?

YES >> GO TO 2.

NO >> Repair malfunctioning parts.

2.CHECK AV CONTROL UNIT VOLTAGE

1. Disconnect GPS antenna connector.
2. Turn ignition switch ON.
3. Check voltage between AV control unit terminal 110 and ground.

110 - Ground : Approx. 5 V

Is inspection result OK?

YES >> INSPECTION END

NO >> Replace AV control unit.

AV

U124C CD CHANGER

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

U124C CD CHANGER

Description

INFOID:000000000964835

Part name	Description
CD CHANGER	- Controlled by communication signal, request signal from AV control unit - Audio signal from CD CHANGER is sent to AV control unit.

DTC Logic

INFOID:000000000964836

DTC	Display contents of CONSULT-III	DTC Detection Condition	Probable malfunction location
U124C	CD CHANGER[N-BUS] [U124C]	- A malfunction is detected in CD changer power supply and ground circuits - Malfunction occurs in request signal circuit.(Between CD changer and AV control unit) - Malfunction occurs in communication signal circuit.(Between CD changer and AV control unit) - Malfunction is detected in request signal or communication signal.	- CD changer power supply and ground circuits - Request signal circuit (Between CD changer and AV control unit) - Communication signal circuit (Between CD changer and AV control unit)

Diagnosis Procedure

INFOID:000000000964837

1.CHECK CD CHANGER POWER SUPPLY AND GROUND CIRCUIT

Check CD changer power supply and ground circuit. Refer to [AV-374, "Diagnosis Procedure"](#).

Is inspection result OK?

YES >> GO TO 2.

NO >> Repair malfunctioning parts.

2.CHECK CONTINUITY COMMUNICATION CIRCUIT

- Turn ignition switch OFF.
- Disconnect CD changer connector and AV control unit connector.
- Check continuity between CD changer harness connector terminals 8, 9, 10 and AV control unit harness connector terminals 76, 93, 77.

8 - 76 : Continuity should exist.

9 - 93 : Continuity should exist.

10 - 77 : Continuity should exist.

- Check continuity between CD changer harness connector terminals 8, 9, 10 and ground.

8, 9, 10 - Ground : Continuity should not exist.

Is inspection result OK?

YES >> GO TO 3.

NO >> Repair harness or connector.

3.CHECK REQUEST SIGNAL

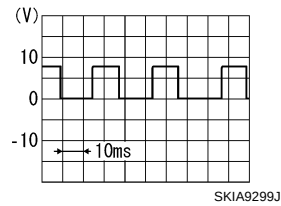
- Connect CD changer connector and AV control unit connector.
- Turn ignition switch ON.
- Check signal between CD changer harness connector terminal 8 and ground.

U124C CD CHANGER

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

8 - Ground



Is inspection result OK?

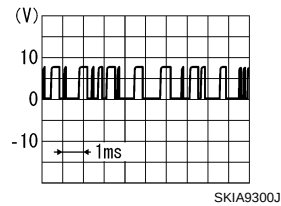
YES >> GO TO 4.

NO >> Replace CD changer.

4.CHECK COMMUNICATION SIGNAL

Check signal between CD changer harness connector terminal 9 and ground.

9 - Ground



Is inspection result OK?

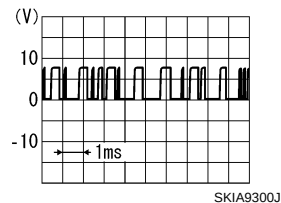
YES >> INSPECTION END

NO >> Replace CD changer.

5.CHECK COMMUNICATION SIGNAL

Check signal between CD changer harness connector terminal 10 and ground.

10 - Ground



Is inspection result OK?

YES >> INSPECTION END

NO >> Replace AV control unit.

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U1250 CAMERA CONTROL UNIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

U1250 CAMERA CONTROL UNIT

Description

INFOID:000000000964838

Part name	Description
CAMERA CONTROL UNIT	• Camera image signal is input from rear view camera, and camera image is indicated on the display. • Power (camera ON signal) is sent to rear view camera. • Controlled by AV communication sent from AV control unit. • AV control unit recognizes the presence of camera system with camera connection recognition signal.

DTC Logic

INFOID:000000000964839

DTC	Display contents of CONSULT-III	DTC Detection Condition	Possible causes
U1250	CAMERA CONT. CONN [U1250]	A malfunction is detected in Camera-connection recognition signal circuit	Camera-connection recognition signal circuit

Diagnosis Procedure

INFOID:000000000964840

1.CHECK CAMERA-CONNECTION RECOGNITION SIGNAL CIRCUIT

1. Disconnect AV control unit connector and camera control unit connector.
2. Check continuity between AV control unit harness connector terminal 40 and camera control unit harness connector terminal 14.

40 - 14 : Continuity should exist.

Is inspection result OK?

YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK AV CONTROL UNIT VOLTAGE

1. Connect AV control unit connector.
2. Turn ignition switch ON.
3. Check voltage between AV control unit harness connector terminal 40 and ground.

40 - Ground : Approx. 5 V

Is inspection result OK?

YES >> Replace camera control unit.

NO >> Replace AV control unit.

U1258 SATELLITE RADIO ANTENNA

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

U1258 SATELLITE RADIO ANTENNA

Description

INFOID:000000000964841

Part name	Description
SATELLITE RADIO ANTENNA	Satellite radio signal is received and sent to AV control unit.

DTC Logic

INFOID:000000000964842

DTC	Display contents of CONSULT-III	DTC Detection Condition	Possible causes
U1258	XM ANETNNA CONN [U1258]	Satellite radio antenna connection malfunction is detected	Satellite radio antenna disconnection

Diagnosis Procedure

INFOID:000000000964843

1.SATELLITE RADIO ANTENNA CHECK

Visually check satellite radio antenna and antenna feeder.

Is inspection result OK?

YES >> GO TO 2.

NO >> Repair malfunctioning parts.

2.CHECK AV CONTROL UNIT VOLTAGE

1. Disconnect satellite radio antenna connector.
2. Turn ignition switch ON.
3. Check voltage between AV control unit terminal 108 and ground.

108 - Ground : Approx. 5 V

Is inspection result OK?

YES >> INSPECTION END

NO >> Replace AV control unit.

AV

U1300 AV COMM CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

U1300 AV COMM CIRCUIT

Description

INFOID:000000000964844

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

Self-diagnosis results display item

DTC	Display contents of CONSULT-III	Description	Possible malfunction factor/Action to take
U1300 U1240	• AV COMM CIRCUIT [U1300] • SWITCH CONN [U1240]	• Multifunction switch power supply and ground circuit malfunction is detected • Malfunction occurs in AV communication circuit between AV control unit and multifunction switch. • Malfunction is detected in AV communication signal between AV control unit and multifunction switch.	• Multifunction switch power supply and ground circuits • AV communication circuit between AV control unit and multifunction switch
U1300 U1252	• AV COMM CIRCUIT [U1300] • REAR CAMERA LAN CONN [U1252]	• A malfunction is detected in camera control unit power supply and ground circuits • Malfunction is detected on communication signal between Camera control unit and AV control unit	Camera control unit power supply and ground circuits
U1300 U1250 U1252	• AV COMM CIRCUIT [U1300] • CAMERA CONT CONN [U1250] • REAR CAMERA LAN CONN [U1252]	• Malfunction occurs in AV communication circuit between camera control unit and AV control unit.	AV communication circuit between camera control unit and AV control unit

POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

POWER SUPPLY AND GROUND CIRCUIT

AV CONTROL UNIT

AV CONTROL UNIT : Diagnosis Procedure

INFOID:000000000964845

1.CHECK FUSE

Check for blown fuses.

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

Is inspection result OK?

YES >> GO TO 2.

NO >> Be sure to eliminate cause of malfunction before installing new fuse.

2.CHECK POWER SUPPLY CIRCUIT

Check voltage between AV control unit harness connectors and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Value (Approx.)
Battery power supply	M80	19	OFF	12 V
	M87	22		
		24		
ACC power supply	M80	7	ACC	12 V
	M87	25		
Ignition signal	M87	35	ON	12 V

Is inspection result OK?

YES >> GO TO 3.

NO >> Check harness between AV control unit and fuse.

3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect AV control unit connectors.
3. Check continuity between AV control unit harness connectors and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Continuity
Ground	M80	20	OFF	Continuity should exist.
	M87	21		
		23		

Is inspection result OK?

YES >> INSPECTION END

NO >> Repair harness or connector.

DISPLAY UNIT

DISPLAY UNIT : Diagnosis Procedure

INFOID:000000000964846

1.CHECK FUSE

Check for blown fuses.

POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

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

Is inspection result OK?

YES >> GO TO 2.

NO >> Be sure to eliminate cause of malfunction before installing new fuse.

2.CHECK POWER SUPPLY CIRCUIT

Check voltage between Display unit harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Value (Approx.)
Battery power supply	M71	2	OFF	12 V
ACC power supply	M71	3	ACC	12 V

Is inspection result OK?

YES >> GO TO 3.

NO >> Check harness between Display unit and fuse.

3.CHECK GROUND CIRCUIT

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

Signal name	Connector No.	Terminal No.	Ignition switch position	Continuity
Ground	M71	1	OFF	Continuity should exist.
		13		

Is inspection result OK?

YES >> INSPECTION END

NO >> Repair harness or connector.

MULTIFUNCTION SWITCH

MULTIFUNCTION SWITCH : Diagnosis Procedure

INFOID:000000000964847

1.CHECK FUSE

Check for blown fuses.

Power source	Fuse No.
Ignition switch ACC or ON	19

Is inspection result OK?

YES >> GO TO 2.

NO >> Be sure to eliminate cause of malfunction before installing new fuse.

2.CHECK POWER SUPPLY CIRCUIT

Check voltage between multifunction switch harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Value (Approx.)
ACC power supply	M72	3	ACC	12 V

Is inspection result OK?

YES >> GO TO 3.

NO >> Check harness between multifunction switch and fuse.

3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect multifunction switch connector.

POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

3. Check continuity between multifunction switch harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Continuity
Ground	M72	1	OFF	Continuity should exist.

Is inspection result OK?

YES >> INSPECTION END

NO >> Repair harness or connector.

CAMERA CONTROL UNIT

CAMERA CONTROL UNIT : Diagnosis Procedure

INFOID:0000000000964848

1.CHECK FUSE

Check for blown fuses.

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

Is inspection result OK?

YES >> GO TO 2.

NO >> Be sure to eliminate cause of malfunction before installing new fuse.

2.CHECK POWER SUPPLY CIRCUIT

Check voltage between camera control unit harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Value (Approx.)
Battery power supply	B241	32	OFF	12 V
ACC power supply	B241	30	ACC	12 V
Ignition signal	B241	29	ON	12 V

Is inspection result OK?

YES >> GO TO 3.

NO >> Check harness between camera control unit and fuse.

3.CHECK GROUND CIRCUIT

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

Signal name	Connector No.	Terminal No.	Ignition switch position	Continuity
Ground	B241	31	OFF	Continuity should exist.

Is inspection result OK?

YES >> INSPECTION END

NO >> Repair harness or connector.

BOSE AMP.

BOSE AMP. : Diagnosis Procedure

INFOID:0000000000964849

1.CHECK FUSE

Check for blown fuses.

Power source	Fuse No.
Battery	5,8

Is inspection result OK?

POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

YES >> GO TO 2.

NO >> Be sure to eliminate cause of malfunction before installing new fuse.

2.CHECK POWER SUPPLY CIRCUIT

Check voltage between BOSE amp. harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Value (Approx.)
Battery power supply	B42	10	OFF	12 V
		11		

Is inspection result OK?

YES >> GO TO 3.

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

3.CHECK GROUND CIRCUIT

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

Signal name	Connector No.	Terminal No.	Ignition switch position	Continuity
Ground	B42	7	OFF	Continuity should exist.
		12		

Is inspection result OK?

YES >> INSPECTION END

NO >> Repair harness or connector.

CD CHANGER

CD CHANGER : Diagnosis Procedure

INFOID:000000000964850

1.CHECK FUSE

Check for blown fuses.

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

Is inspection result OK?

YES >> GO TO 2.

NO >> Be sure to eliminate cause of malfunction before installing new fuse.

2.CHECK POWER SUPPLY CIRCUIT

Check voltage between CD changer harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Value (Approx.)
Battery power supply	B43	12	OFF	12 V
ACC power supply	B43	16	ACC	12 V

Is inspection result OK?

YES >> INSPECTION END

NO >> Check harness between CD changer and fuse.

RGB (R: RED) SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

RGB (R: RED) SIGNAL CIRCUIT

Description

INFOID:0000000000964851

Transmit the image displayed with AV control unit with RGB signal to the display unit.

Diagnosis Procedure

INFOID:0000000000964852

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

1. Turn ignition switch OFF.
2. Disconnect display unit connector and AV control unit connector.
3. Check continuity between display unit harness connector terminal 17 and AV control unit harness connector terminal 61.

17 - 61 : Continuity should exist.

4. Check continuity between display unit harness connector terminal 17 and ground.

17 - Ground : Continuity should not exist.

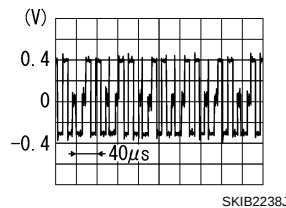
Is inspection result OK?

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

2.CHECK RGB (R: RED) SIGNAL

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

17 - Ground



Is inspection result OK?

- YES >> Replace display unit.
NO >> Replace AV control unit.

AV

RGB (G: GREEN) SIGNAL CIRCUIT**Description**

INFOID:000000000964853

Transmit the image displayed with AV control unit with RGB signal to the display unit.

Diagnosis Procedure

INFOID:000000000964854

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

1. Turn ignition switch OFF.
2. Disconnect display unit connector and AV control unit connector.
3. Check continuity between display unit harness connector terminal 6 and AV control unit harness connector terminal 62.

6 - 62 : Continuity should exist.

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

6 - Ground : Continuity should not exist.

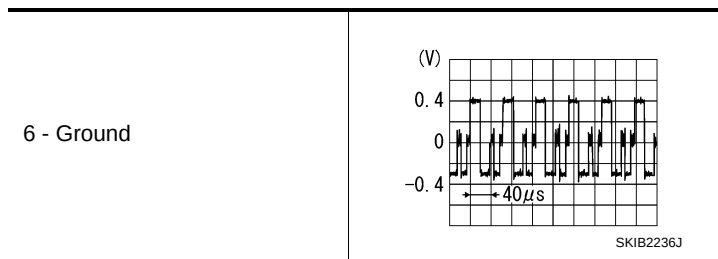
Is inspection result OK?

YES >> GO TO 2.

NO >> Repair harness or connector.

2. CHECK RGB (G: GREEN) SIGNAL

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

**Is inspection result OK?**

YES >> Replace display unit.

NO >> Replace AV control unit.

RGB (B: BLUE) SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

RGB (B: BLUE) SIGNAL CIRCUIT

Description

INFOID:0000000000964855

Transmit the image displayed with AV control unit with RGB signal to the display unit.

Diagnosis Procedure

INFOID:0000000000964856

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

1. Turn ignition switch OFF.
2. Disconnect display unit connector and AV control unit connector.
3. Check continuity between display unit harness connector terminal 18 and AV control unit harness connector terminal 63.

18 - 63 : Continuity should exist.

4. Check continuity between display unit harness connector terminal 18 and ground.

18 - Ground : Continuity should not exist.

Is inspection result OK?

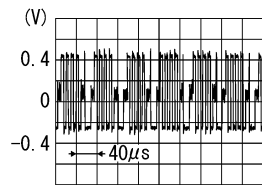
YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK RGB (B: BLUE) SIGNAL

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

18 - Ground



SKIB2237J

Is inspection result OK?

YES >> Replace display unit.

NO >> Replace AV control unit.

AV

RGB SYNCHRONIZING SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

RGB SYNCHRONIZING SIGNAL CIRCUIT

Description

INFOID:000000000964857

Transmit the RGB synchronizing signal to the display unit so as to synchronize the RGB image displayed with AV control unit.

Diagnosis Procedure

INFOID:000000000964858

1. CHECK CONTINUITY RGB SYNCHRONIZING SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect display unit connector and AV control unit connector.
3. Check continuity between display unit harness connector terminal 19 and AV control unit harness connector terminal 65.

19 - 65 : Continuity should exist.

4. Check continuity between display unit harness connector terminal 19 and ground.

19 - Ground : Continuity should not exist.

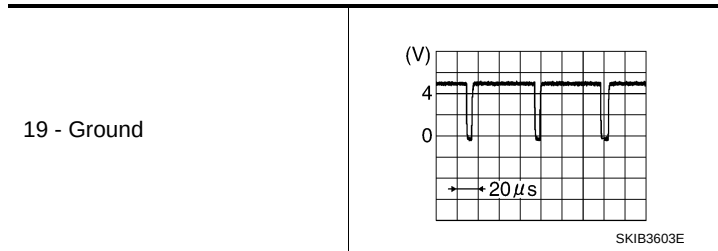
Is inspection result OK?

YES >> GO TO 2.

NO >> Repair harness or connector.

2. CHECK RGB SYNCHRONIZING SIGNAL

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



Is inspection result OK?

YES >> Replace display unit.

NO >> Replace AV control unit.

RGB AREA (YS) SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

RGB AREA (YS) SIGNAL CIRCUIT

Description

INFOID:000000000964859

Transmits the display area of RGB image displayed by AV control unit with RGB area (YS) signal to display unit.

Diagnosis Procedure

INFOID:000000000964860

1.CHECK CONTINUITY RGB AREA (YS) SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect display unit connector and AV control unit connector.
3. Check continuity between display unit harness connector terminal 9 and AV control unit harness connector terminal 67.

9 - 67 : Continuity should exist.

4. Check continuity between display unit harness connector terminal 9 and ground.

9 - Ground : Continuity should not exist.

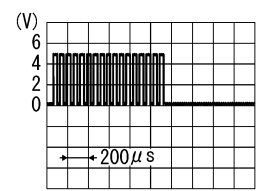
Is inspection result OK?

YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK RGB SYNCHRONIZING SIGNAL

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

	At RGB image displayed	: Approx. 5 V
9 - Ground	At rear view camera image displayed	

Is inspection result OK?

YES >> Replace display unit.

NO >> Replace AV control unit.

AV

HORIZONTAL SYNCHRONIZING (HP) SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

HORIZONTAL SYNCHRONIZING (HP) SIGNAL CIRCUIT

Description

INFOID:000000000964861

In composite image (AUX image, camera image), transmit the vertical synchronizing (VP) signal and horizontal synchronizing (HP) signal from display unit to AV control unit so as to synchronize the RGB images displayed with AV control unit such as the image quality adjusting menu, etc.

Diagnosis Procedure

INFOID:000000000964862

1. CHECK CONTINUITY HORIZONTAL SYNCHRONIZING (HP) SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect display unit connector and AV control unit connector.
3. Check continuity between display unit harness connector terminal 8 and AV control unit harness connector terminal 68.

8 - 68 : Continuity should exist.

4. Check continuity between display unit harness connector terminal 8 and ground.

8 - Ground : Continuity should not exist.

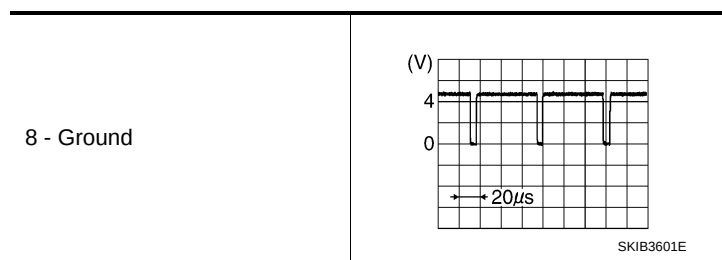
Is inspection result OK?

YES >> GO TO 2.

NO >> Repair harness or connector.

2. CHECK HORIZONTAL SYNCHRONIZING (HP) SIGNAL

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



Is inspection result OK?

YES >> Replace AV control unit.

NO >> Replace Display unit.

VERTICAL SYNCHRONIZING (VP) SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

VERTICAL SYNCHRONIZING (VP) SIGNAL CIRCUIT

Description

INFOID:000000000964863

In composite image (AUX image, camera image), transmit the vertical synchronizing (VP) signal and horizontal synchronizing (HP) signal from display unit to AV control unit so as to synchronize the RGB images displayed with AV control unit such as the image quality adjusting menu, etc.

Diagnosis Procedure

INFOID:000000000964864

1.CHECK CONTINUITY VERTICAL SINCHRONIZING (VP) SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect display unit connector and AV control unit connector.
3. Check continuity between display unit harness connector terminal 20 and AV control unit harness connector terminal 69.

20 - 69 : Continuity should exist.

4. Check continuity between display unit harness connector terminal 20 and ground.

20 - Ground : Continuity should not exist.

Is inspection result OK?

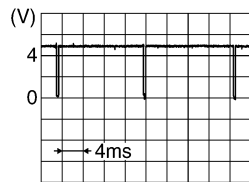
YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK VERTICAL SINCHRONIZING (VP) SIGNAL

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

20 - Ground



SKIB3598E

Is inspection result OK?

YES >> Replace AV control unit.

NO >> Replace Display unit.

AV

AUX IMAGE SIGNAL CIRCUIT

Description

INFOID:000000000964865

Transmits the image signal of external device from auxiliary input jacks to display unit.

Diagnosis Procedure

INFOID:000000000964866

1.CHECK CONTINUITY AUX IMAGE SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect auxiliary input jacks connector and display unit connector.
3. Check continuity between auxiliary input jacks harness connector terminal 7 and display unit harness connector terminal 15.

7 - 15 : Continuity should exist.

4. Check continuity between auxiliary input jacks harness connector terminal 7 and ground.

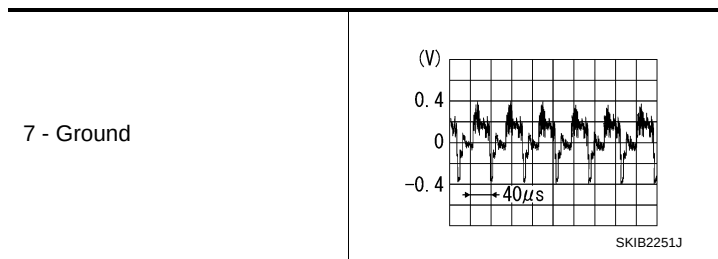
7 - Ground : Continuity should not exist.

Is inspection result OK?

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

2.CHECK AUX IMAGE SIGNAL

1. Connect auxiliary input jacks connector and display unit connector.
2. Turn ignition switch ON.
3. Check signal between auxiliary input jacks harness connector terminal 7 and ground.



Is inspection result OK?

- YES >> Replace display unit.
NO >> Check that there is no malfunction in the external device.

CD EJECT SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

CD EJECT SIGNAL CIRCUIT

Description

INFOID:0000000000964867

The eject signal is output to AV control unit when the eject switch of multifunction switch is pressed.

Diagnosis Procedure

INFOID:0000000000964868

1.CHECK CONTINUITY CD EJECT SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect multifunction switch connector and AV control unit connector.
3. Check continuity between multifunction switch harness connector terminal 14 and AV control unit harness connector terminal 85.

14 - 85 : Continuity should exist.

4. Check continuity between multifunction switch harness connector terminal 14 and ground.

14 - Ground : Continuity should not exist.

Is inspection result OK?

YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK AV CONTROL UNIT VOLTAGE

1. Connect multifunction switch connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check voltage between AV control unit harness connector terminal 85 and ground.

85 - Ground : Approx. 3.3 V

Is inspection result OK?

YES >> Replace preset switch.

NO >> Replace AV control unit.

A
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P

AV

MICROPHONE SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

MICROPHONE SIGNAL CIRCUIT

Description

INFOID:000000000964869

Supply power from AV control unit to microphone. The microphone transmits the sound voice to the AV control unit.

Diagnosis Procedure

INFOID:000000000964870

1.CHECK CONTINUITY BETWEEN AV CONTROL UNIT AND MICROPHONE CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector and microphone connector.
3. Check continuity between AV control unit harness connector terminals 26, 27, 28 and microphone harness connector terminals 4, 2, 1.

26 - 4 : Continuity should exist.

27 - 2 : Continuity should exist.

28 - 1 : Continuity should exist.

4. Check continuity between AV control unit harness connector terminals 26, 28 and ground.

26, 28 - Ground : Continuity should not exist.

Is inspection result OK?

YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK VOLTAGE MICROPHONE VCC

1. Connect AV control unit connector.
2. Turn ignition switch ON.
3. Check voltage between AV control unit harness connector terminals 26 and 27.

26 - 27 : Approx. 5 V

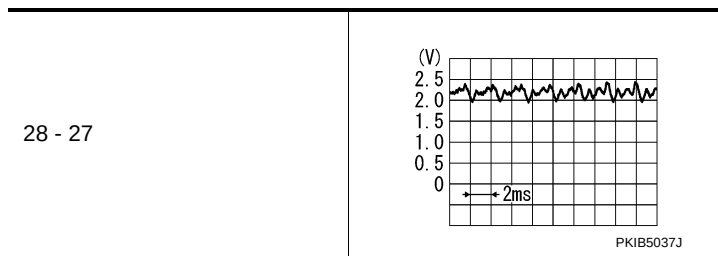
Is inspection result OK?

YES >> GO TO 3.

NO >> Replace AV control unit.

3.CHECK MICROPHONE SIGNAL

1. Connect microphone connector.
2. Check signal between AV control unit harness connector terminals 28 and 27.



Is inspection result OK?

YES >> Replace AV control unit.

NO >> Replace microphone.

CAMERA IMAGE SIGNAL CIRCUIT (REAR VIEW CAMERA TO CAMERA CONTROL UNIT)

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

CAMERA IMAGE SIGNAL CIRCUIT (REAR VIEW CAMERA TO CAMERA CONTROL UNIT)

Description

INFOID:0000000000964871

- Camera control unit outputs camera ON signal to rear view camera and inputs rear view camera image signal from rear view camera when the reverse signal is input.
- The camera control unit that inputs the camera image signal transmits the camera image signal to the display unit.

Diagnosis Procedure

INFOID:0000000000964872

1.CHECK CONTINUITY CAMERA IMAGE SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect camera control unit connector and rear view camera connector.
3. Check continuity between camera control unit harness connector terminal 6 and rear view camera harness connector terminal 3.

6 - 3 : Continuity should exist.

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

6 - Ground : Continuity should not exist.

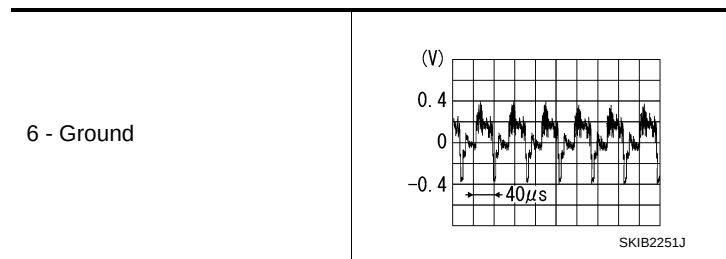
Is inspection result OK?

YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK CAMERA IMAGE SIGNAL

1. Connect camera control unit connector and rear view camera connector.
2. Turn ignition switch ON.
3. Check signal between camera control unit harness connector terminal 6 and ground.



Is inspection result OK?

YES >> Replace camera control unit.

NO >> Replace rear view camera.

CAMERA ON SIGNAL CIRCUIT

Description

INFOID:000000000964873

- Camera control unit outputs camera ON signal to rear view camera and inputs rear view camera image signal from rear view camera when the reverse signal is input.
- The camera control unit that inputs the camera image signal transmits the camera image signal to the display unit.

Diagnosis Procedure

INFOID:000000000964874

1.CHECK CONTINUITY CAMERA ON SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect camera control unit connector and rear view camera connector.
3. Check continuity between camera control unit harness connector terminal 8 and rear view camera harness connector terminal 1.

8 - 1 : Continuity should exist.

4. Check continuity between camera control unit harness connector terminal 8 and ground.

8 - Ground : Continuity should not exist.

Is inspection result OK?

YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK VOLTAGE CAMERA ON SIGNAL

1. Connect camera control unit connector and rear view camera connector.
2. Turn ignition switch ON.
3. Check signal between camera control unit harness connector terminal 8 and ground.

8 - Ground : Approx. 6 V

Is inspection result OK?

YES >> Replace rear view camera.

NO >> Replace camera control unit.

CAMERA IMAGE SIGNAL CIRCUIT (CAMERA CONTROL UNIT TO DISPLAY UNIT)

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

CAMERA IMAGE SIGNAL CIRCUIT (CAMERA CONTROL UNIT TO DISPLAY UNIT)

Description

INFOID:000000000964875

- Camera control unit outputs camera ON signal to rear view camera and inputs rear view camera image signal from rear view camera when the reverse signal is input.
- The camera control unit that inputs the camera image signal transmits the camera image signal to the display unit.

Diagnosis Procedure

INFOID:000000000964876

1.CHECK CONTINUITY CAMERA IMAGE SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect camera control unit connector and display unit connector.
3. Check continuity between camera control unit harness connector terminal 12 and display unit harness connector terminal 12.

12 - 12 : Continuity should exist.

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

12 - Ground : Continuity should not exist.

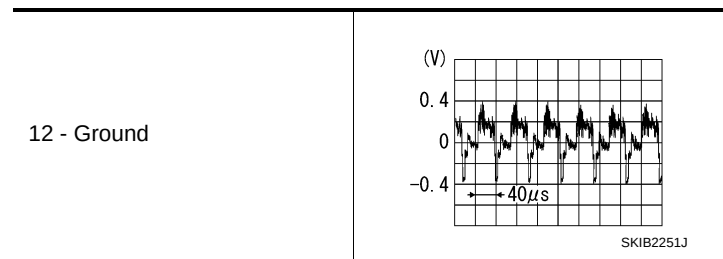
Is inspection result OK?

YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK CAMERA IMAGE SIGNAL

1. Connect camera control unit connector and display unit connector.
2. Turn ignition switch ON.
3. Check signal between camera control unit harness connector terminal 12 and ground.



Is inspection result OK?

YES >> Replace display unit.

NO >> Replace camera control unit.

STEERING ANGLE SENSOR SIGNAL 1, 2 CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

STEERING ANGLE SENSOR SIGNAL 1, 2 CIRCUIT

Description

INFOID:000000000964877

- Steering angle sensor signal 1, 2 detects the turning direction and quantity of the steering and transmits it to the camera control unit.
- Steering angle sensor signal 3 detects the neutral position of the steering and transmits it to the camera control unit.
- Camera control unit performs the correction of neutral position with sensor signal 1, 2, 3 and vehicle speed signal.

Diagnosis Procedure

INFOID:000000000964878

1. CHECK CONTINUITY STEERING ANGLE SENSOR SIGNAL 1, 2 CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect camera control unit connector and steering angle sensor connector.
3. Check continuity between camera control unit harness connector terminals 23, 24 and steering angle sensor harness connector terminals 3, 4.

23 - 3 : Continuity should exist.

24 - 4 : Continuity should exist.

4. Check continuity between camera control unit harness connector terminals 23, 24 and ground.

23, 24 - Ground : Continuity should not exist.

Is inspection result OK?

YES >> GO TO 2.

NO >> Repair harness or connector.

2. CHECK SIGNAL SENSOR SIGNAL 1, 2

1. Connect camera control unit connector.
2. Turn ignition switch ON.
3. Check voltage between camera control unit harness connector terminals 23, 24 and ground.

23 - Ground : Approx. 5 V

24 - Ground : Approx. 5 V

Is inspection result OK?

YES >> GO TO 3.

NO >> Replace camera control unit.

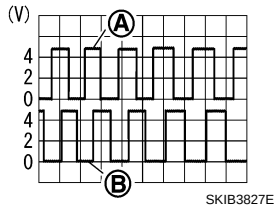
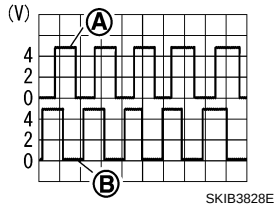
3. CHECK SIGNAL SENSOR SIGNAL 1, 2

1. Connect steering angle sensor connector.
2. Check signal between camera control unit harness connector terminal 23, 24 and ground.

STEERING ANGLE SENSOR SIGNAL 1, 2 CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

23, 24 - Ground	Turn the steering to the right	 A: Sensor signal 1 B: Sensor signal 2
	Turn the steering to the left	 A: Sensor signal 1 B: Sensor signal 2

Is inspection result OK?

YES >> INSPECTION END

NO >> Replace Steering angle sensor.

STEERING ANGLE SENSOR SIGNAL 3 CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

STEERING ANGLE SENSOR SIGNAL 3 CIRCUIT

Description

INFOID:000000000964879

- Steering angle sensor signal 1, 2 detects the turning direction and quantity of the steering and transmits it to the camera control unit.
- Steering angle sensor signal 3 detects the neutral position of the steering and transmits it to the camera control unit.
- Camera control unit performs the correction of neutral position with sensor signal 1, 2, 3 and vehicle speed signal.

Diagnosis Procedure

INFOID:000000000964880

1.CHECK CONTINUITY STEERING ANGLE SENSOR SIGNAL 3 CIRCUIT

- Turn ignition switch OFF.
- Disconnect camera control unit connector and steering angle sensor connector.
- Check continuity between camera control unit harness connector terminal 25 and steering angle sensor harness connector terminal 5.

25 - 5 : Continuity should exist.

- Check continuity between camera control unit harness connector terminal 25 and ground.

5 - Ground : Continuity should not exist.

Is inspection result OK?

YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK SIGNAL SENSOR SIGNAL 3

- Connect camera control unit connector.
- Turn ignition switch ON.
- Check voltage between camera control unit harness connector terminal 25 and ground.

25 - Ground : Approx. 5 V

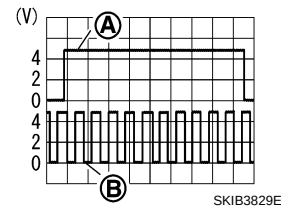
Is inspection result OK?

YES >> GO TO 3.

NO >> Replace camera control unit.

3.CHECK SIGNAL SENSOR SIGNAL 3

- Connect steering angle sensor connector.
- Check signal between camera control unit harness connector terminal 25 and ground.

25 - Ground	Turn the steering around the neutral position	 A: Sensor signal 3 B: Sensor signal 1

Is inspection result OK?

YES >> INSPECTION END

NO >> Replace Steering angle sensor.

STEERING SWITCH SIGNAL A CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

STEERING SWITCH SIGNAL A CIRCUIT

Description

INFOID:0000000000964881

Transmits the steering switch signal to AV control unit.

Diagnosis Procedure

INFOID:0000000000964882

1.CHECK STEERING SWITCH SIGNAL A CIRCUIT

1. Disconnect AV control unit connector and spiral cable connector.
2. Check continuity between AV control unit harness connector terminal 6 and spiral cable harness connector terminal 24.

6 - 24 : Continuity should exist.

3. Check continuity between AV control unit harness connector terminals 6 and ground.

6 - Ground : Continuity should not exist.

Is inspection result OK?

YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK SPIRAL CABLE

Check spiral cable.

Is inspection result OK?

YES >> GO TO 3.

NO >> Replace spiral cable.

3.CHECK AV CONTROL UNIT VOLTAGE

1. Connect AV control unit connector and spiral cable connector.
2. Turn ignition switch ON.
3. Check voltage between AV control unit harness connector terminals 6 and 15.

6 - 15 : Approx. 5 V

Is inspection result OK?

YES >> GO TO 4.

NO >> Replace AV control unit.

4.CHECK STEERING SWITCH

1. Turn ignition switch OFF.
2. Check steering switch. Refer to [AV-399. "Component Inspection"](#).

Is inspection result OK?

YES >> INSPECTION END

NO >> Replace steering switch.

Component Inspection

INFOID:0000000000964883

Measure the resistance between the steering switch connector terminals 14 to 17 and 15 to 17.

STEERING SWITCH SIGNAL A CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

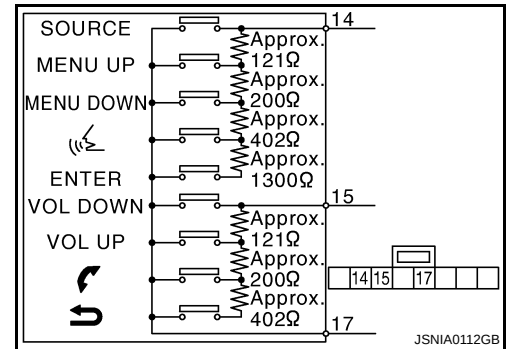
Standard

Between terminals 14 and 17

ENTER switch ON : 2003 – 2043 Ω
↖ switch ON : 716 – 730 Ω
MENU DOWN switch ON : 318 – 324 Ω
MENU UP switch ON : 120 – 122 Ω
SOURCE switch ON : 0 Ω

Between terminals 15 and 17

↷ switch ON : 716 – 730 Ω
↶ switch ON : 318 – 324 Ω
VOL UP switch ON : 120 – 122 Ω
VOL DOWN switch ON : 0 Ω



STEERING SWITCH SIGNAL B CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

STEERING SWITCH SIGNAL B CIRCUIT

Description

INFOID:0000000000964884

Transmits the steering switch signal to AV control unit.

Diagnosis Procedure

INFOID:0000000000964885

1.CHECK STEERING SWITCH SIGNAL B CIRCUIT

1. Disconnect AV control unit connector and spiral cable connector.
2. Check continuity between AV control unit harness connector terminal 16 and spiral cable harness connector terminals 31.

16 - 31 : Continuity should exist.

3. Check continuity between AV control unit harness connector terminal 16 and ground.

16 - Ground : Continuity should not exist.

Is inspection result OK?

YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK SPIRAL CABLE

Check spiral cable.

Is inspection result OK?

YES >> GO TO 3.

NO >> Replace spiral cable.

3.CHECK AV CONTROL UNIT VOLTAGE

1. Connect AV control unit connector and spiral cable connector.
2. Turn ignition switch ON.
3. Check voltage between AV control unit harness connector terminals 16 and 15.

16 - 15 : Approx. 5 V

Is inspection result OK?

YES >> GO TO 4.

NO >> Replace AV control unit.

4.CHECK STEERING SWITCH

1. Turn ignition switch OFF.
2. Check steering switch. Refer to [AV-401. "Component Inspection"](#).

Is inspection result OK?

YES >> INSPECTION END

NO >> Replace steering switch.

Component Inspection

INFOID:0000000000964886

Measure the resistance between the steering switch connector terminals 14 to 17 and 15 to 17.

STEERING SWITCH SIGNAL B CIRCUIT

[BOSE AUDIO WITH NAVIGATION]

< COMPONENT DIAGNOSIS >

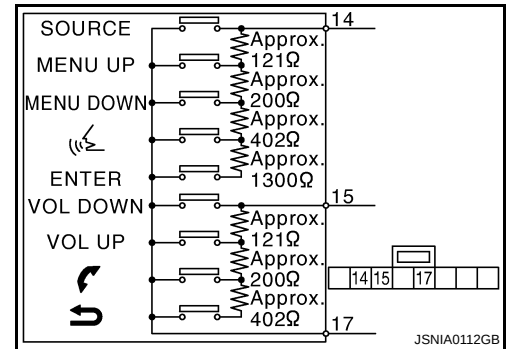
Standard

Between terminals 14 and 17

ENTER switch ON : 2003 – 2043 Ω
switch ON : 716 – 730 Ω
MENU DOWN switch ON : 318 – 324 Ω
MENU UP switch ON : 120 – 122 Ω
SOURCE switch ON : 0 Ω

Between terminals 15 and 17

switch ON : 716 – 730 Ω
switch ON : 318 – 324 Ω
VOL UP switch ON : 120 – 122 Ω
VOL DOWN switch ON : 0 Ω



STEERING SWITCH SIGNAL GND CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

STEERING SWITCH SIGNAL GND CIRCUIT

Description

INFOID:0000000000964887

Transmits the steering switch signal to AV control unit.

Diagnosis Procedure

INFOID:0000000000964888

1.CHECK STEERING SWITCH SIGNAL GND CIRCUIT

1. Disconnect AV control unit connector and spiral cable connector.
2. Check continuity between AV control unit harness connector terminal 15 and spiral cable harness connector terminal 33.

15 - 33 : Continuity should exist.

3. Connect AV control unit connector.

Is inspection result OK?

YES >> GO TO 2.

NO >> Repair harness or connector.

2.CHECK SPIRAL CABLE

Check spiral cable.

Is inspection result OK?

YES >> GO TO 3.

NO >> Replace spiral cable.

3.CHECK GROUND CIRCUIT

1. Connect AV control unit connector.
2. Check continuity between AV control unit harness connector terminal 15 and ground.

15 - Ground : Continuity should exist.

Is inspection result OK?

YES >> GO TO 4.

NO >> Replace AV control unit.

4.CHECK STEERING SWITCH

1. Turn ignition switch OFF.
2. Check steering switch. Refer to [AV-58, "Component Inspection"](#).

Is inspection result OK?

YES >> INSPECTION END

NO >> Replace steering switch.

Component Inspection

INFOID:0000000000964889

Measure the resistance between the steering switch connector terminals 14 to 17 and 15 to 17.

Standard

Between terminals 14 and 17

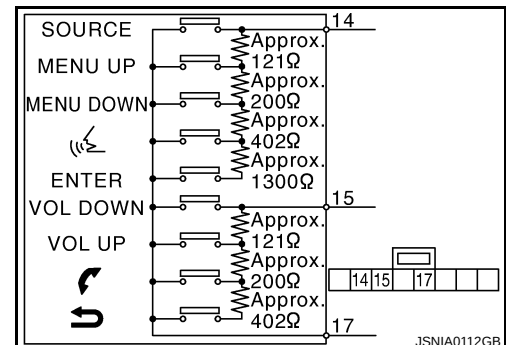
ENTER switch ON : 2003 – 2043 Ω

switch ON : 716 – 730 Ω

MENU DOWN switch ON : 318 – 324 Ω

MENU UP switch ON : 120 – 122 Ω

SOURCE switch ON : 0 Ω



STEERING SWITCH SIGNAL GND CIRCUIT

< COMPONENT DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

Between terminals 15 and
17

↶ switch ON : 716 – 730 Ω

↷ switch ON : 318 – 324 Ω

VOL UP switch ON : 120 – 122 Ω

VOL DOWN switch ON : 0 Ω

AV CONTROL UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

ECU DIAGNOSIS

AV CONTROL UNIT

Reference Value

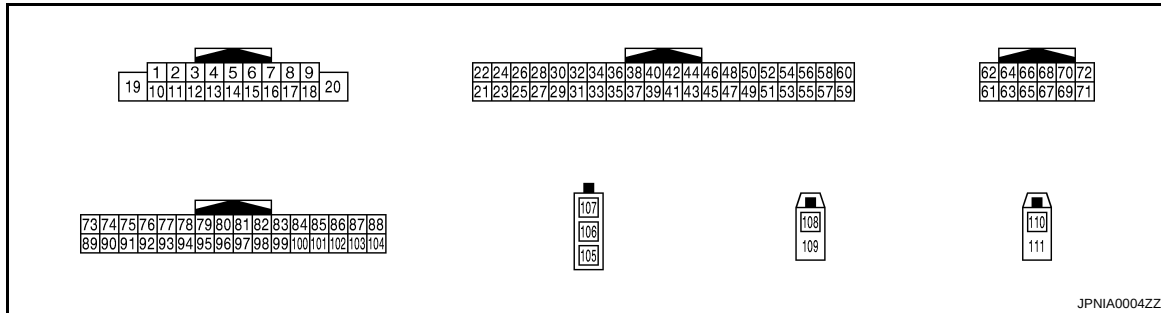
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VALUES ON THE DIAGNOSIS TOOL

CONSULT-III data monitor item

Display Item	Display	Vehicle status	Remarks
VHCL SPD SIG	ON	Vehicle speed >0 km/h (0 MPH)	Changes in indication may be delayed. This is normal.
	OFF	Vehicle speed =0 km/h (0 MPH)	
PKB SIG	ON	Parking brake is applied.	Changes in indication may be delayed. This is normal.
	OFF	Parking brake is released.	
ILLUM SIG	ON	Block the light beam from the auto light optical sensor when the light SW is ON.	—
	OFF	Expose the auto light optical sensor to light when the light SW is OFF or ON.	
IGN SIG	ON	Ignition switch ON	—
	OFF	Ignition switch in ACC position	
REV SIG	ON	Selector lever in R position	Changes in indication may be delayed. This is normal.
	OFF	Selector lever in any position other than R	

TERMINAL LAYOUT



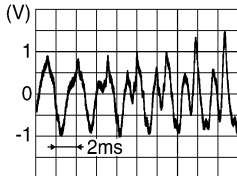
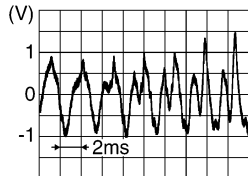
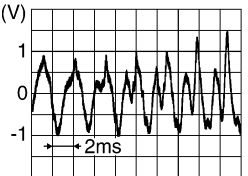
PHYSICAL VALUES

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
1 (V)	Ground	Amp. ON signal	Output	Ignition switch ON	—	12 V
2 (P)	3 (L)	Sound signal front LH	Output	Ignition switch ON	Voice output	(V) 2ms SKIB3609E

AV CONTROL UNIT

< ECU DIAGNOSIS >

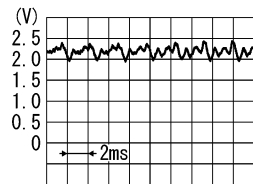
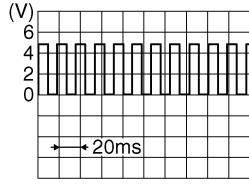
[BOSE AUDIO WITH NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
4 (V)	5 (SB)	Sound signal rear LH	Output	Ignition switch ON	Voice output	 SKIB3609E
6 (P)	15 (B)	Steering switch signal A	Input	Ignition switch ON	Keep pressing SOURCE switch.	0 V
					Keep pressing MENU UP switch.	1 V
					Keep pressing MENU DOWN switch.	2 V
					Keep pressing  switch	3 V
					Keep pressing ENTER switch.	4 V
					Except for above.	5 V
7 (V)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
9 (R)	Ground	Illumination signal	Input	OFF	Lighting switch is OFF.	0 V
					Lighting switch is ON.	12 V
10	—	Shield	—	—	—	—
11 (R)	12 (G)	Sound signal front RH	Output	Ignition switch ON	Voice output	 SKIB3609E
13 (BR)	14 (Y)	Sound signal rear RH	Output	Ignition switch ON	Voice output	 SKIB3609E
15 (B)	Ground	Steering switch signal GND	—	Ignition switch ON	—	0 V
16 (L)	15 (B)	Steering switch signal B	Input	Ignition switch ON	Keep pressing VOL DOWN switch.	0 V
					Keep pressing VOL UP switch.	1 V
					Keep pressing  switch.	2 V
					Keep pressing  switch.	3 V
					Except for above.	5 V

AV CONTROL UNIT

< ECU DIAGNOSIS >

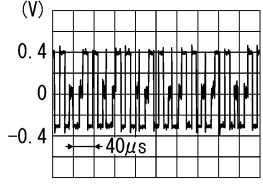
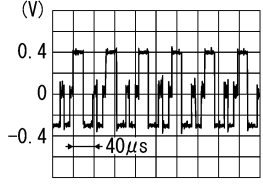
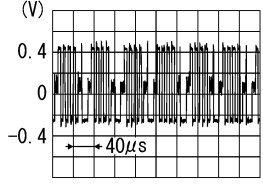
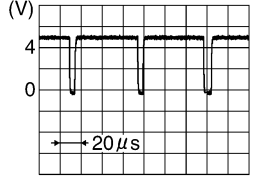
[BOSE AUDIO WITH NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
19 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
20 (B)	Ground	GND	—	Ignition switch ON	—	0 V
21 (B)	Ground	GND	—	Ignition switch ON	—	0 V
22 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
23 (B)	Ground	GND	—	Ignition switch ON	—	0 V
24 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
25 (V)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
26 (G)	27	Microphone VCC	Output	Ignition switch ON	—	5 V
27	Ground	Shield	—	ON	—	0 V
28 (R)	27	Microphone signal	Input	Ignition switch ON	Sounds	 PKIB5037J
35 (G)	Ground	Ignition signal	Input	Ignition switch ON	—	Battery voltage
36 (V)	Ground	Parking brake signal	Input	Ignition switch ON	Parking brake ON	0 V
					Parking brake OFF	12 V
37 (O)	Ground	Reverse signal	Input	Ignition switch ON	R position	12 V
					Other than R position	0 V
38 (R)	Ground	Vehicle speed signal (8-pulse)	Input	Ignition switch ON	When vehicle speed is approx. 40 km/h (25MPH)	 SKIA6649J

AV CONTROL UNIT

< ECU DIAGNOSIS >

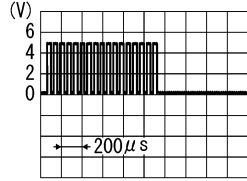
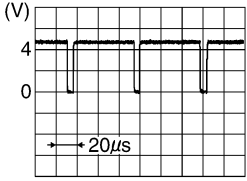
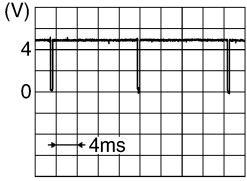
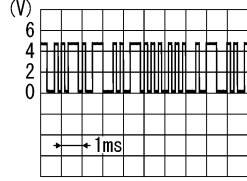
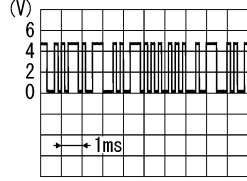
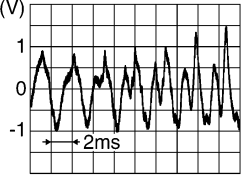
[BOSE AUDIO WITH NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
40 (W)	Ground	Camera-connection recognition signal	Input	Ignition switch ON	Connected to camera control unit connector	0 V
					Not connected to camera control unit connector	5 V
48 (G)	—	AV communication signal (H)	Input/ Output	—	—	—
49 (R)	—	AV communication signal (L)	Input/ Output	—	—	—
50 (V)	—	AV communication signal (H)	Input/ Output	—	—	—
51 (LG)	—	AV communication signal (L)	Input/ Output	—	—	—
52 (L)	—	CAN-H	Input/ Output	—	—	—
53 (P)	—	CAN-L	Input/ Output	—	—	—
61 (L)	Ground	RGB signal (R: red)	Output	Ignition switch ON	Start confirmation/adjustment mode, and then display color bar by selecting "Color Spectrum Bar" on DISPLAY DIAGNOSIS screen.	 SKIB2238J
62 (O)	Ground	RGB signal (G: green)	Output	Ignition switch ON	Start confirmation/adjustment mode, and then display color bar by selecting "Color Spectrum Bar" on DISPLAY DIAGNOSIS screen.	 SKIB2236J
63 (V)	Ground	RGB signal (B: blue)	Output	Ignition switch ON	Start confirmation/adjustment mode, and then display color bar by selecting "Color Spectrum Bar" on DISPLAY DIAGNOSIS screen.	 SKIB2237J
64	—	Shield	—	—	—	—
65 (Y)	Ground	RGB synchronizing signal	Output	Ignition switch ON	—	 SKIB3603E
66	—	Shield	—	—	—	—

AV CONTROL UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/ Output			
67 (B)	Ground	RGB area (YS) signal	Output	Ignition switch ON	At RGB image displayed	5 V
				Ignition switch ON	At rear view camera image displayed	 PKIB4948J
68 (R)	Ground	Horizontal synchronizing (HP) signal	Input	Ignition switch ON	—	 SKIB3601E
69 (W)	Ground	Vertical synchronizing (VP) signal	Input	Ignition switch ON	—	 SKIB3598E
70 (BR)	Ground	Communication signal (CONT→DISP)	Output	Ignition switch ON	When adjusting display-brightness.	 PKIB5039J
71 (Y)	Ground	Communication signal (DISP→CONT)	Input	Ignition switch ON	When adjusting display-brightness.	 PKIB5039J
72	—	Shield	—	—	—	—
73 (B)	89 (W)	CD changer sound signal LH	Input	Ignition switch ON	When CD change mode is selected	 SKIB3609E

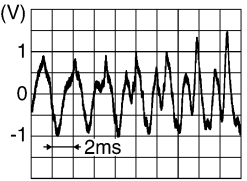
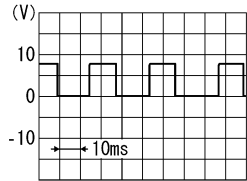
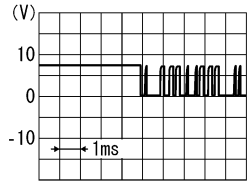
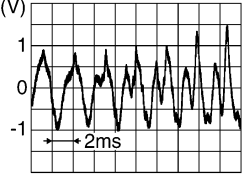
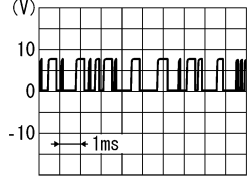
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AV CONTROL UNIT

< ECU DIAGNOSIS >

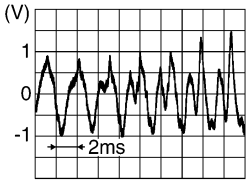
[BOSE AUDIO WITH NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
74 (G)	90 (R)	CD changer sound signal RH	Input	Ignition switch ON	When CD change mode is selected	 SKIB3609E
75	—	Shield	—	—	—	—
76 (W)	Ground	Request signal (CD→CONT)	Output	Ignition switch ON	When CD change mode is selected	 SKIA9299J
77 (R)	Ground	Communication signal (CONT→CD)	Input	Ignition switch ON	When CD change mode is selected	 SKIA9301J
85 (SB)	Ground	Eject signal	Input	—	Pressing the eject switch	0 V
					Except for above	3.3 V
86	—	Shield	—	—	—	—
87 (W)	88 (B)	AUX sound signal LH	Input	Ignition switch ON	When AUX mode is select- ed	 SKIB3609E
91	—	Shield	—	—	—	—
93 (B)	Ground	Communication signal (CD→CONT)	Input	Ignition switch ON	When CD change mode is selected	 SKIA9300J
102 (BR)	Ground	SW GND	—	Ignition switch ON	—	0 V

AV CONTROL UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
103 (R)	88 (B)	AUX sound signal RH	Input	Ignition switch ON	When AUX mode is select- ed	 SKIB3609E
105	—	FM sub	Input	—	—	—
106	—	AM—FM main	Input	—	—	—
107	Ground	Antenna amp. ON signal	Output	Ignition switch ACC	—	12 V
108	Ground	Satellite antenna signal	Input	Ignition switch ACC	Not connected to satellite antenna connector	5 V
109	—	Shield	—	—	—	—
110	—	GPS antenna signal	Input	Ignition switch ACC	Not connected to GPS an- tenna connector	5 V
111	—	Shield	—	—	—	—

Wiring Diagram — BOSE AUDIO WITH NAVIGATION SYSTEM —

INFOID:0000000000964891

NOTE:

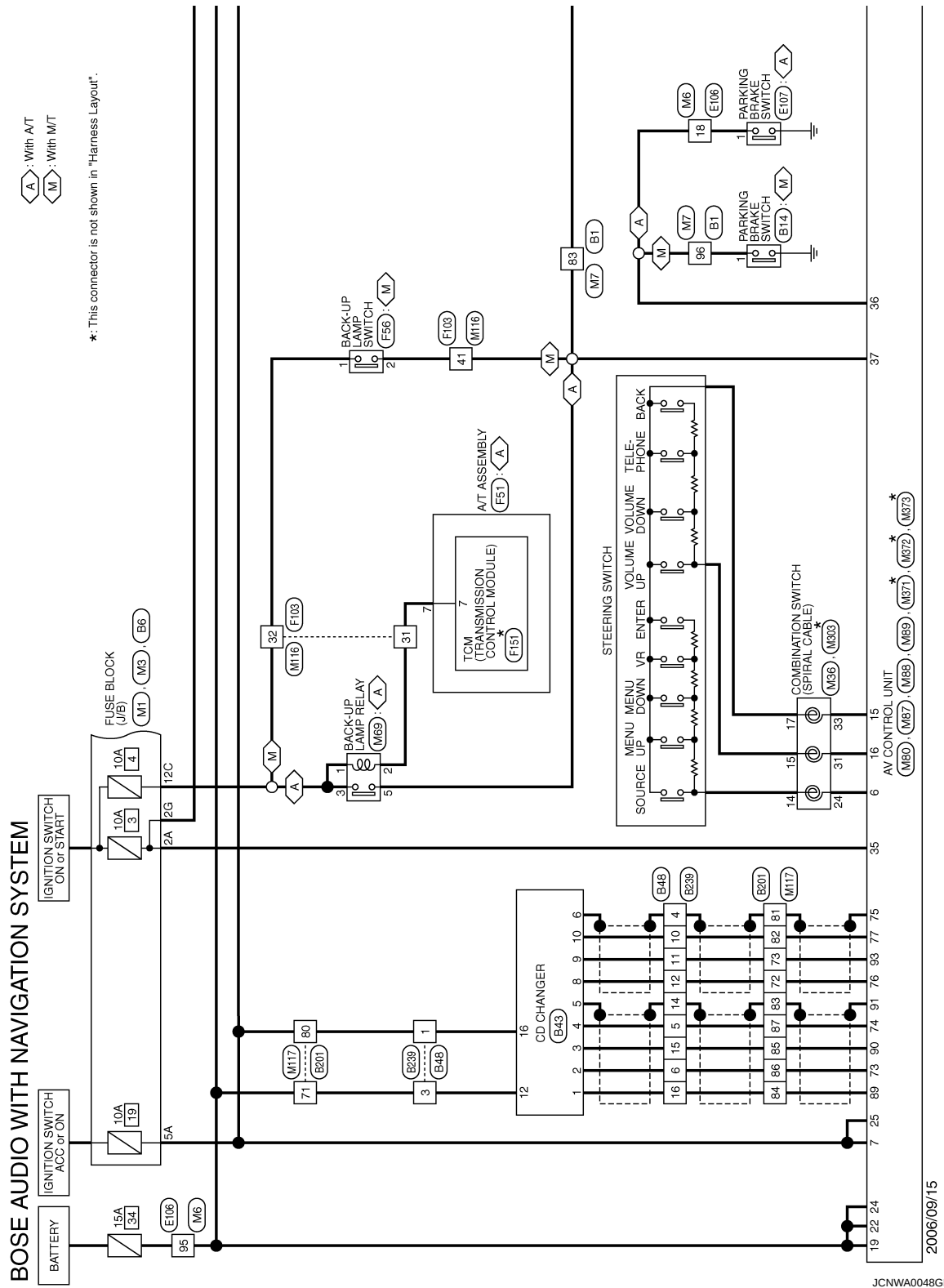
AM

AV CONTROL UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

The name MULTIFUNCTION SWITCH indicates the integration of PRESET SWITCH and MULTIFUNCTION SWITCH virtually.



[BOSE AUDIO WITH NAVIGATION]

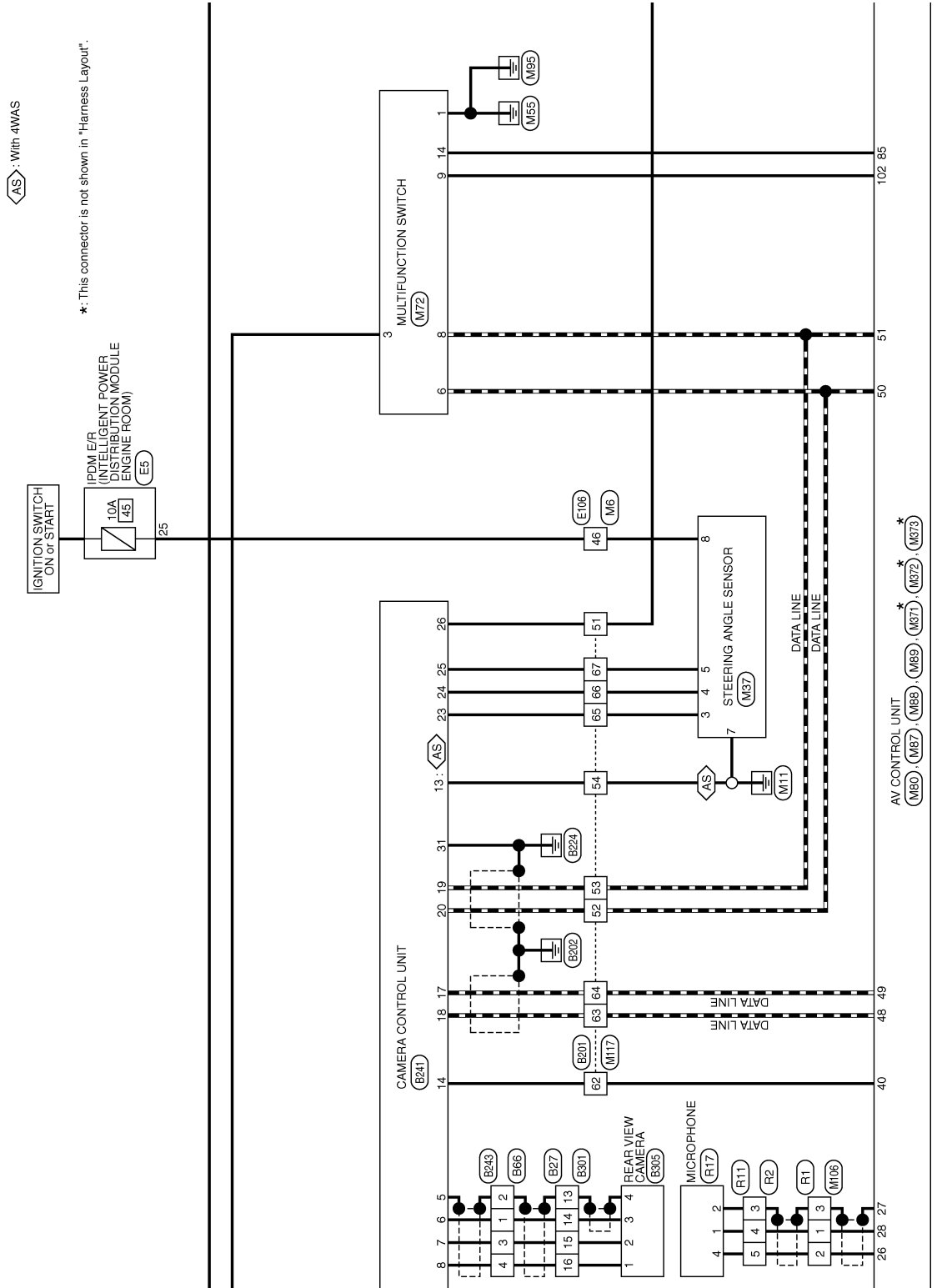
A : With A/T
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AV CONTROL UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

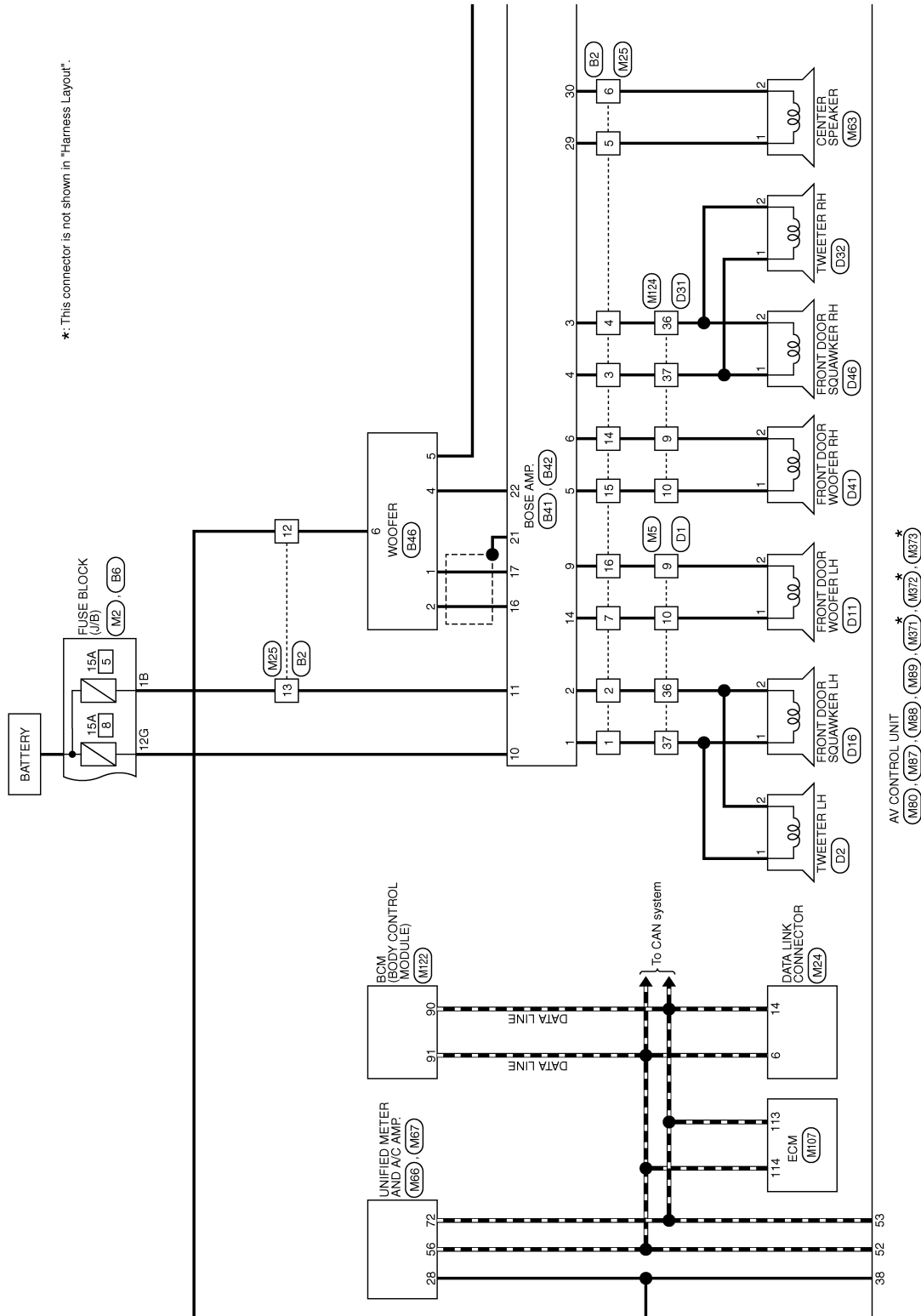


JCNWA0050GE

AV CONTROL UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]



JCNWA0051GE

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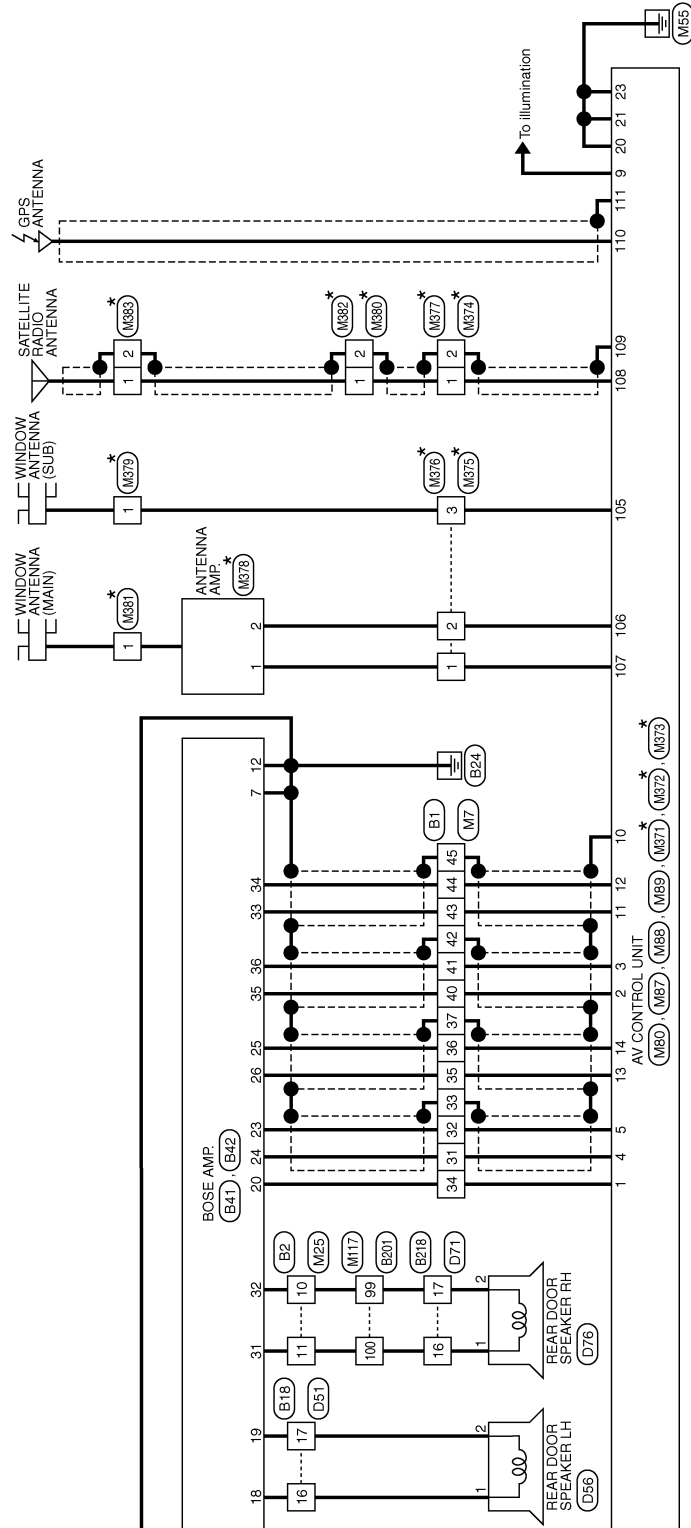
AV

AV CONTROL UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

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



JCNWA0052GE

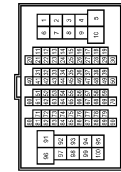
AV CONTROL UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

BOSE AUDIO WITH NAVIGATION SYSTEM

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



Terminal No.	Color of Wire	Signal Name
31	V	-
32	SB	-
33	SHIELD	-
34	V	-
35	BR	-
36	Y	-
37	SHIELD	-
40	P	-
41	L	-
42	SHIELD	-
43	R	-

44	G	-
45	SHIELD	-
83	O	-
96	V	-



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

Terminal No.	Color of Wire	Signal Name
1	L	-
2	W	-
3	V	-
4	LG	-
5	Y	-
6	G	-
7	B	-
10	Y	-
11	LG	-
12	Y	-
13	GR	-

14	R	-
15	G	-
16	W	-

Connector No.	B6
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FB-CS



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

Connector No.	B14
Connector Name	PARKING BRAKE SWITCH
Connector Type	P01FB-A



1

Connector No.	B18
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS



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

Connector No.	B27
Connector Name	WIRE TO WIRE
Connector Type	NS18MW-CS



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

Terminal No.	Color of Wire	Signal Name
2G	GR	-
12G	Y	-

Terminal No.	Color of Wire	Signal Name
1	V	-

Terminal No.	Color of Wire	Signal Name
16	L	- [With BOSE system]
17	P	- [With BOSE system]

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

JCNWA0053GE

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AV

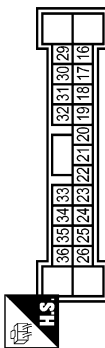
AV CONTROL UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

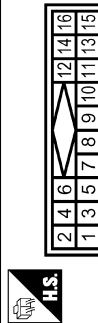
BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B41
Connector Name	BOSE AMP.
Connector Type	SCA10FBR-SGA4



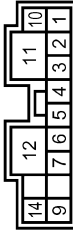
Terminal No.	Color of Wire	Signal Name
16	SB	SOUND SIGNAL WOOFER (+)
17	V	SOUND SIGNAL WOOFER (-)
18	L	SOUND SIGNAL REAR DOOR LH (+)
19	P	SOUND SIGNAL REAR DOOR LH (-)
20	V	AMP ON SIGNAL
21	SHIELD	SHIELD
22	GR	WOOFER AMP- ON SIGNAL
23	SB	SOUND SIGNAL REAR LH (-)
24	V	SOUND SIGNAL REAR LH (+)
25	Y	SOUND SIGNAL REAR RH (-)
26	BR	SOUND SIGNAL REAR RH (+)

Connector No.	B43
Connector Name	OD CHANGER
Connector Type	A10FW



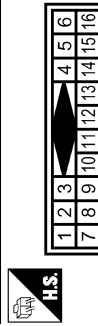
Terminal No.	Color of Wire	Signal Name
1	W	SOUND SIGNAL LH (-)
2	R	SOUND SIGNAL LH (+)
3	G	SOUND SIGNAL RH (-)
4	B	SOUND SIGNAL RH (+)
5	SHIELD	SHIELD
6	SHIELD	SHIELD
7	P	REQUEST (OD->CONT)
8	L	COMM (OD->CONT)
9	G	COMM (CONT->OD)
10	Y	BATTERY
11	ACC	ACC
12	V	
13	W	
14	B	
15	R	
16	G	

29	Y	SOUND SIGNAL CENTER (+)
30	G	SOUND SIGNAL CENTER (-)
31	LG	SOUND SIGNAL REAR DOOR RH (+)
32	Y	SOUND SIGNAL REAR DOOR RH (-)
33	R	SOUND SIGNAL FRONT RH (+)
34	G	SOUND SIGNAL FRONT RH (-)
35	P	SOUND SIGNAL FRONT LH (+)
36	L	SOUND SIGNAL FRONT LH (-)



Terminal No.	Color of Wire	Signal Name
1	L	FRONT DOOR SQUAWKER LH (+)
2	W	FRONT DOOR SQUAWKER LH (-)
3	LG	FRONT DOOR SQUAWKER RH (+)
4	V	FRONT DOOR SQUAWKER RH (-)
5	G	FRONT DOOR WOOFER RH (+)
6	R	FRONT DOOR WOOFER RH (-)
7	B	GND
8	W	FRONT DOOR WOOFER LH (+)
9	Y	BATTERY
10	GR	BATTERY
11	GND	
12	B	
13	W	
14	L	

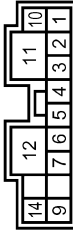
Connector No.	B48
Connector Name	WIRE TO WIRE
Connector Type	A10MW



Terminal No.	Color of Wire	Signal Name
1	V	WIRE TO WIRE
2	Y	WIRE TO WIRE
3	SHIELD	SHIELD
4	B	WIRE TO WIRE
5	W	WIRE TO WIRE
6	R	WIRE TO WIRE
7	GR	WIRE TO WIRE
8	O	WIRE TO WIRE
9	W	
10	R	
11	GR	
12	O	
13	W	
14	R	
15	GR	
16	O	

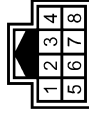
14	B	FRONT DOOR WOOFER LH (+)

Connector No.	B42
Connector Name	BOSE AMP.
Connector Type	SGA12FBR-SJA2



Terminal No.	Color of Wire	Signal Name
1	L	FRONT DOOR SQUAWKER LH (+)
2	W	FRONT DOOR SQUAWKER LH (-)
3	LG	FRONT DOOR SQUAWKER RH (+)
4	V	FRONT DOOR SQUAWKER RH (-)
5	G	FRONT DOOR WOOFER RH (+)
6	R	FRONT DOOR WOOFER RH (-)
7	B	GND
8	W	FRONT DOOR WOOFER LH (+)
9	Y	BATTERY
10	GR	BATTERY
11	GND	
12	B	
13	W	
14	L	

Connector No.	B66
Connector Name	WIRE TO WIRE
Connector Type	TH08MW-RH



Terminal No.	Color of Wire	Signal Name
1	B	
2	SHIELD	
3	W	
4	R	
5	GR	
6	O	

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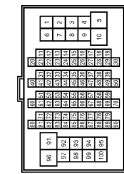
AV CONTROL UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

BOSE AUDIO WITH NAVIGATION SYSTEM

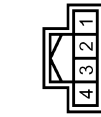
Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color of Wire	Signal Name
51	V	-
52	G	-
53	R	-
54	B	-
55	L	-
56	LG	-
57	W	-
58	Y	-
59	BR	-
60	L	-
61	R	-

67	O	-
71	Y	-
72	G	-
73	L	-
80	V	-
81	SHIELD	-
82	P	-
83	SHIELD	-
84	W	- [With CD auto changer]
85	G	- [With CD auto changer]
86	R	-
87	B	-
99	P	-
100	L	-

Connector No.	B210
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-NH



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

Connector No.	B218
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8

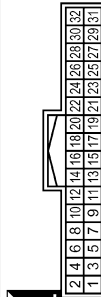


Terminal No.	Color of Wire	Signal Name
16	L	-
17	P	-

Connector No.	B239
Connector Name	WIRE TO WIRE
Connector Type	AI0FW

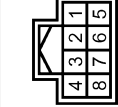


Connector No.	B241
Connector Name	CAMERA CONTROL UNIT
Connector Type	TH32FW-NH



20	G	AV COMM (H)
22	GR	REVERSE
23	L	SENSOR SIGNAL 1
24	R	SENSOR SIGNAL 2
25	O	SENSOR SIGNAL 3
26	V	VEHICLE SPEED (3-PULSE)
29	SB	IGNITION
30	LG	ACC
31	B	GND
32	L	BATTERY

Connector No.	B243
Connector Name	WIRE TO WIRE
Connector Type	TH08FW-NH



Terminal No.	Color of Wire	Signal Name
1	V	-
3	Y	-
4	SHIELD	-
5	B	-
6	R	-
10	P	-
11	L	-
12	G	-
14	SHIELD	-
15	G	-
16	W	-

5	SHIELD	SHIELD
6	B	CAMERA IMAGE SIGNAL
7	W	GND
8	R	CAMERA ON SIGNAL
11	SHIELD	SHIELD
12	W	CAMERA IMAGE SIGNAL
13	B	CONTROL SIGNAL
14	W	CONNECTION RECOGNITION
17	BR	AV COMM (L)
18	Y	AV COMM (H)
19	R	AV COMM (L)

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

AV CONTROL UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B301
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



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

Terminal No.	Color of Wire	Signal Name
13	SHIELD	-
14	Y	-
15	L	-
16	R	-

Connector No.	B305
Connector Name	REAR VIEW CAMERA
Connector Type	TH04MW-NH



1	2	3	4

Terminal No.	Color of Wire	Signal Name
1	R	CAMERA ON SIGNAL
2	L	GND
3	Y	CAMERA IMAGE SIGNAL
4	SHIELD	SHIELD

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



15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
46	45	44	43	42	41	40	39	38	37	36	35	34	33	32
31	30	29	28	27	26	25	24	23	22	21	20	19	18	17

Terminal No.	Color of Wire	Signal Name
9	R	-
10	G	-
36	W	-
37	L	-

Connector No.	D2
Connector Name	TWEETER LH
Connector Type	TK02MBR-P



2	1

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

Connector No.	D11
Connector Name	FRONT DOOR WOOFER LH
Connector Type	NS02FW-CS



2	1

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

Connector No.	D16
Connector Name	FRONT DOOR SQUAWKER LH
Connector Type	TK02FBR



2	1

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

Connector No.	D31
Connector Name	WIRE TO WIRE
Connector Type	TH40FY-CS15



15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
46	45	44	43	42	41	40	39	38	37	36	35	34	33	32
31	30	29	28	27	26	25	24	23	22	21	20	19	18	17

Terminal No.	Color of Wire	Signal Name
9	R	-
10	G	-
36	W	-
37	L	-

Connector No.	D32
Connector Name	TWEETER RH
Connector Type	TK02MBR-P



2	1

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

AV CONTROL UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	D41
Connector Name	FRONT DOOR WOOFER RH
Connector Type	NS02FW-CS



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

Connector No.	D46
Connector Name	FRONT DOOR SQUAWKER RH
Connector Type	TK10ZFBR



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

Connector No.	D51
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Terminal No.	Color of Wire	Signal Name
16	LG	-
17	Y	-

Connector No.	D56
Connector Name	REAR DOOR SPEAKER LH (With BOSE system)
Connector Type	NS02FBR-CS



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

Connector No.	D71
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Terminal No.	Color of Wire	Signal Name
16	L	-
17	P	-

Connector No.	D76
Connector Name	REAR DOOR SPEAKER RH (With BOSE system)
Connector Type	NS02FBR-CS



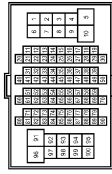
Terminal No.	Color of Wire	Signal Name
1	L	-
2	P	-

Connector No.	E5
Connector Name	IPDM E/R INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)
Connector Type	TH20FW-CS/2-M4-1V



Terminal No.	Color of Wire	Signal Name
25	G	-

Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH60FW-CS/16-TM4



Terminal No.	Color of Wire	Signal Name
18	O	-
46	LG	-
85	Y	-

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	E107
Connector Name	PARKING BRAKE SWITCH (A/T)
Connector Type	TB01FW



Terminal No.	Color of Wire	Signal Name
1	O	-

Connector No.	F51
Connector Name	A/T ASSEMBLY
Connector Type	RK10FG-DGY



Terminal No.	Color of Wire	Signal Name
7	R	-

Connector No.	F56
Connector Name	BACK-UP LAMP SWITCH
Connector Type	RK02FE



Terminal No.	Color of Wire	Signal Name
1	R	-
2	O	-

Connector No.	F103
Connector Name	WIRE TO WIRE
Connector Type	TK36FW-NS10



Terminal No.	Color of Wire	Signal Name
31	R	-
32	R	-
41	O	-

Connector No.	F151
Connector Name	TOM (TRANSMISSION CONTROL MODULE)
Connector Type	SP10FBGY



Terminal No.	Color of Wire	Signal Name
7	O	REV LAMP RLY

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



Terminal No.	Color of Wire	Signal Name
2A	G	-
5A	V	-

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



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

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FW-GS



Terminal No.	Color of Wire	Signal Name
12C	R	-

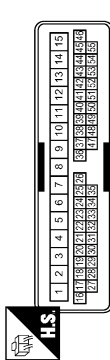
AV CONTROL UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

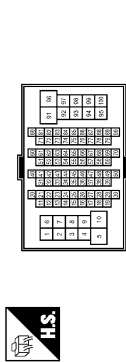
BOSE AUDIO WITH NAVIGATION SYSTEM

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



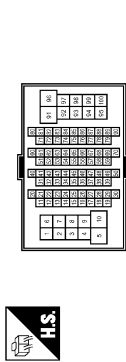
Terminal No.	Color of Wire	Signal Name
9	W	-
10	B	-
36	W	-
37	L	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



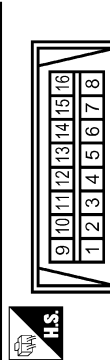
Terminal No.	Color of Wire	Signal Name
18	V	-
46	G	-
95	Y	-

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



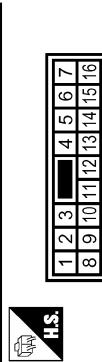
Terminal No.	Color of Wire	Signal Name
31	V	-
32	SB	-
33	SHIELD	-
34	V	-
35	BR	-
36	Y	-
37	SHIELD	-
40	P	-
41	L	-
42	SHIELD	-
43	R	-

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



Terminal No.	Color of Wire	Signal Name
6	L	-
14	P	-

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

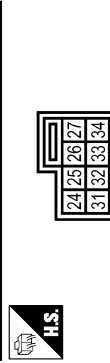


Terminal No.	Color of Wire	Signal Name
1	L	-
2	W	-
3	BR	-
4	R	-
5	L	-
6	LG	-
7	B	-
10	P	-
11	L	-
12	Y	-
13	SB	-

Terminal No.	14
Terminal No.	15
Terminal No.	16



Connector No.	M36
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY-1V



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

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P

AV

AV CONTROL UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M37
Connector Name	STEERING ANGLE SENSOR
Connector Type	TH08FW-NH



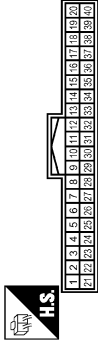
Terminal No.	Color of Wire	Signal Name
3	L	SENSOR1
4	BR	SENSOR2
5	O	SENSOR3
7	B	GND
8	G	IGN

Connector No.	M63
Connector Name	CENTER SPEAKER
Connector Type	TK02FBR



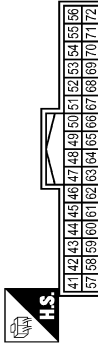
Terminal No.	Color of Wire	Signal Name
1	L	-
2	LG	-

Connector No.	M66
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH40FW-NH



Terminal No.	Color of Wire	Signal Name
28	R	VEHICLE SPEED (8-PULSE)

Connector No.	M67
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH32FW-NH



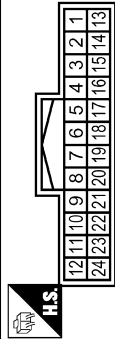
Terminal No.	Color of Wire	Signal Name
56	L	CAN-H
72	P	CAN-L

Connector No.	M69
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS02FL-M2



Terminal No.	Color of Wire	Signal Name
1	R	-
2	W	-
3	LG	-
5	O	-

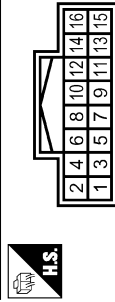
Connector No.	M71
Connector Name	DISPLAY UNIT
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name
1	B	GND
2	Y	BATTERY [With NAVI]
3	V	ACC [With NAVI]
4	SHIELD	SHIELD [With NAVI]
5	R	AUX IMAGE GND [With NAVI]
6	O	RGB (GREEN) SIGNAL [With NAVI]
7	SHIELD	SHIELD
8	R	HP
9	B	RGB AREA (VS) SIGNAL
11	BR	COMM (CONT->DISP) [With NAVI]
12	W	CAMERA IMAGE SIGNAL

13	B	GND [With NAVI]
14	SHIELD	SHIELD [With NAVI]
15	G	AUX IMAGE SIGNAL [With NAVI]
17	L	RGB (RED) SIGNAL [With NAVI]
18	V	RGB (BLUE) SIGNAL [With NAVI]
19	Y	RGB STRG [With NAVI]
20	W	VP [With NAVI]
21	SHIELD	SHIELD
22	Y	COMM (DISP->CONT) [With NAVI]
23	SHIELD	SHIELD

Connector No.	M72
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH18FW-NH



Terminal No.	Color of Wire	Signal Name
1	B	GND
3	V	ACC
6	LG	AV COMM (H)
8	V	AV COMM (L)
9	BR	SW GND
14	SB	EJECT SIGNAL

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AV CONTROL UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M80
Connector Name	AV CONTROL UNIT
Connector Type	TH18FW-CS2

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

13	BR	SOUND SIGNAL-REAR RH (+)
14	Y	SOUND SIGNAL-REAR RH (-)
15	B	STRG SW GND
16	L	STRG SW B
19	Y	BATTERY
20	B	GND

Terminal No.	Color of Wire	Signal Name
1	V	AMP ON SIGNAL
2	P	SOUND SIGNAL FRONT LH (+)
3	L	SOUND SIGNAL FRONT LH (-)
4	V	SOUND SIGNAL REAR LH (+)
5	SB	SOUND SIGNAL REAR LH (-)
6	P	STRG SW A
7	V	ACC
9	R	ILLUMINATION
10	SHIELD	SHIELD
11	R	SOUND SIGNAL FRONT RH (+)
12	G	SOUND SIGNAL FRONT RH (-)

Connector No.	M88
Connector Name	AV CONTROL UNIT
Connector Type	TH12FW-RH

62	64	66	68	70	72
61	63	65	67	69	71

Terminal No.	Color of Wire	Signal Name
61	L	RGB (RED) SIGNAL
62	O	RGB (GREEN) SIGNAL
63	V	RGB (BLUE) SIGNAL
64	SHIELD	SHIELD
65	Y	RGB SYNC
66	SHIELD	SHIELD
67	B	RGB AREA (VS) SIGNAL
68	R	HP
69	W	VP
70	BR	COMM (CONT->DISP)
71	Y	COMM (DISP->CONT)

Connector No.	M87
Connector Name	AV CONTROL UNIT
Connector Type	TH40FW-RH

21	22	23	24	25	26	27	28	35	36	37

Terminal No.	Color of Wire	Signal Name
21	B	GND
22	Y	BATTERY
23	B	GND
24	Y	BATTERY
25	V	ACC
26	G	MICROPHONE VCC
27	SHIELD	MICROPHONE GND
28	R	MICROPHONE SIGNAL
35	G	IGNITION
36	V	PARKING BRAKE
37	O	REVERSE

Connector No.	M89
Connector Name	AV CONTROL UNIT
Connector Type	TH32FW-RH

73	74	75	76	77	79	80	81	82	83	84	85	86	87	88
89	90	91	92	93	94	95	96	97	98	99	100	101	102	103

Terminal No.	Color of Wire	Signal Name
73	B	SOUND SIGNAL LH (+)
74	G	SOUND SIGNAL RH (+)
75	SHIELD	SHIELD
76	W	REQUEST (CD->CONT)
77	R	COMM (CONT->CD)
85	SB	EJECT SIGNAL
86	SHIELD	SHIELD
87	W	SOUND SIGNAL LH (+)
88	B	SOUND SIGNAL GND
89	W	SOUND SIGNAL LH (-)
90	R	SOUND SIGNAL RH (-)

91	SHIELD	SHIELD
93	B	COMM (CD->CONT)
102	BR	SW GND
103	R	SOUND SIGNAL RH (+)

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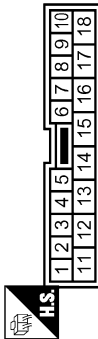
AV CONTROL UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

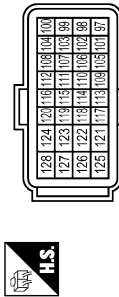
BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M106
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



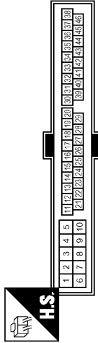
Terminal No.	Color of Wire	Signal Name
1	R	- [With NAV]
2	G	- [With NAV]
3	SHIELD	- [With NAV]

Connector No.	M107
Connector Name	ECM
Connector Type	MAA24FGY-MEAB-LH-Z



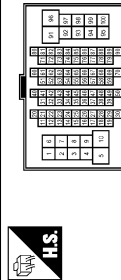
Terminal No.	Color of Wire	Signal Name
113	P	VHECAN L1
114	L	VHECAN H1

Connector No.	M116
Connector Name	WIRE TO WIRE
Connector Type	TK38MW-NS10



Terminal No.	Color of Wire	Signal Name
31	W	-
32	LG	-
41	O	-

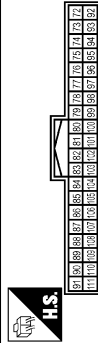
Connector No.	M117
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name
51	V	-
52	G	-
53	R	-
54	B	-
60	Y	-
61	V	-
62	W	-
63	Y	-
64	BR	-
65	L	-
66	BR	-

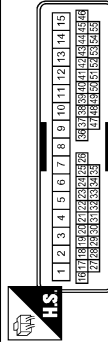
67	O	-
71	Y	-
72	W	-
73	B	-
80	V	-
81	SHIELD	-
82	R	-
83	SHIELD	-
84	W	-
85	R	-
86	B	-
87	G	-
99	P	-
100	L	-

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH



Terminal No.	Color of Wire	Signal Name
90	P	CAN-L
91	L	CAN-H

Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



Terminal No.	Color of Wire	Signal Name
9	R	-
10	G	-
36	R	-
37	BR	-

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AV CONTROL UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M145
Connector Name	WIRE TO WIRE
Connector Type	TH08MW-NH



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

Connector No.	M154
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A08FW



Terminal No.	Color of Wire	Signal Name
1	R	SOUND SIGNAL RH (+) [With NAVI]
2	B	SOUND SIGNAL GND
3	W	SOUND SIGNAL LH (+) [With NAVI]
7	G	AUX IMAGE SIGNAL
8	R	AUX IMAGE GND

Connector No.	M155
Connector Name	WIRE TO WIRE
Connector Type	TH08FW-NH



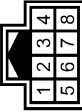
Terminal No.	Color of Wire	Signal Name
1	SHIELD	-
2	B	[With NAVI]
3	R	[With NAVI]
4	W	[With NAVI]
5	B	-
6	SHIELD	-
7	G	-
8	R	-

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



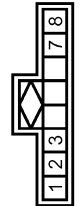
Terminal No.	Color of Wire	Signal Name
14	W	-
15	L	-
17	BR	-

Connector No.	M361
Connector Name	WIRE TO WIRE
Connector Type	TH08MW-NH



Terminal No.	Color of Wire	Signal Name
1	SHIELD	-
2	B	-
3	R	- [With NAVI]
4	W	- [With NAVI]
5	SHIELD	-
6	SHIELD	-
7	G	-
8	R	-

Connector No.	M362
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A08FW



Terminal No.	Color of Wire	Signal Name
1	R	SOUND SIGNAL RH (+) [With NAVI]
2	B	SOUND SIGNAL GND
3	W	SOUND SIGNAL LH (+) [With NAVI]
7	G	AUX IMAGE SIGNAL
8	R	AUX IMAGE GND

Connector No.	M371
Connector Name	AV CONTROL UNIT
Connector Type	GT13SH-2/1S-HU



Terminal No.	Color of Wire	Signal Name
105	-	FM SUB
106	-	AM-FM MAIN
107	-	AM/FM AMP-ON SIGNAL

Connector No.	M372
Connector Name	AV CONTROL UNIT
Connector Type	FAKRA JACK



Terminal No.	Color of Wire	Signal Name
108	-	SAETLITE ANTENNA
109	SHIELD	SHIELD

AV CONTROL UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M373
Connector Name	AV CONTROL UNIT
Connector Type	GT6-1S-HU



Terminal No.	Color of Wire	Signal Name
110	-	GPS ANTENNA
111	SHIELD	SHIELD

Connector No.	M374
Connector Name	WIRE TO WIRE
Connector Type	GT16C-1PP-HU



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

Connector No.	M375
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1S-HU



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

Connector No.	M376
Connector Name	WIRE TO WIRE
Connector Type	GT13SCN-2/1PP-HU



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

Connector No.	M377
Connector Name	WIRE TO WIRE
Connector Type	GT16C-1S-HU



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

Connector No.	M378
Connector Name	ANTENNA AMP.
Connector Type	GT13SC-1/1S-HU



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

Connector No.	M379
Connector Name	WINDOW ANTENNA(SUB)
Connector Type	P01FB-A



Terminal No.	Color of Wire	Signal Name
1	-	-

Connector No.	M380
Connector Name	WIRE TO WIRE
Connector Type	GT16-1PP-HU



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

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M381
Connector Name	WINDOW ANTENNA(MAIN)
Connector Type	P01FE-A



Terminal No.	Color of Wire	Signal Name
1	-	-

Connector No.	M382
Connector Name	WIRE TO WIRE
Connector Type	GT16C-1S-HU



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

Connector No.	M383
Connector Name	SATELLITE RADIO TUNER
Connector Type	GT16C-1PP-HU



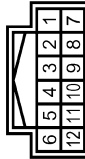
Terminal No.	Color of Wire	Signal Name
1	-	-
2	SHIELD	-

Connector No.	R1
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8



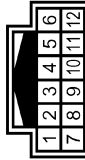
Terminal No.	Color of Wire	Signal Name
1	R	- [With NAV]
2	G	- [With NAV]
3	SHIELD	-

Connector No.	R2
Connector Name	WIRE TO WIRE
Connector Type	TH12FW-NH



Terminal No.	Color of Wire	Signal Name
3	SHIELD	-
4	R	-
5	G	-

Connector No.	R11
Connector Name	WIRE TO WIRE
Connector Type	TH12MW-NH



Terminal No.	Color of Wire	Signal Name
3	SHIELD	-
4	R	-
5	G	-

Connector No.	R17
Connector Name	MICROPHONE
Connector Type	TK04FW



Terminal No.	Color of Wire	Signal Name
1	R	MICROPHONE SIGNAL
2	SHIELD	SHIELD
4	G	MICROPHONE VCC

DTC Index

Self-diagnosis results display item

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INFOID:000000000964892

AV CONTROL UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

Error item	Refer to
CAN COMM CIRCUIT [U1000]	LAN-18, "Trouble Diagnosis Flow Chart"
CONTROL UNIT (CAN) [U1010]	LAN-18, "Trouble Diagnosis Flow Chart"
CONTROL UNIT (AV) [U1310]	AV-353, "DTC Logic"
Control Unit FLASH-ROM [U1200]	AV-354, "DTC Logic"
Gyro NO CONN [U1201]	AV-355, "DTC Logic"
CAN CONT [U1216]	AV-356, "DTC Logic"
BLUETOOTH CONN [U1217]	AV-357, "DTC Logic"
HDD CONN [U1218]	AV-358, "DTC Logic"
HDD READ [U1219]	AV-359, "DTC Logic"
XM SERIAL COMM [U1220]	AV-360, "DTC Logic"
HDD WRITE [U121A]	AV-361, "DTC Logic"
HDD COMM [U121B]	AV-362, "DTC Logic"
HDD ACCESS [U121C]	AV-363, "DTC Logic"
DSP CONN [U121D]	AV-364, "DTC Logic"
DSP COMM [U121E]	AV-365, "DTC Logic"
INTERNAL COMM [U121F]	AV-366, "DTC Logic"
GPS COMM [U1204]	AV-367, "Diagnosis Procedure"
GPS ROM [U1205]	AV-368, "Diagnosis Procedure"
GPS RAM [U1206]	AV-369, "Diagnosis Procedure"
GPS RTC [U1207]	AV-370, "Diagnosis Procedure"
FRONT DISP CONN [U1243]	AV-371, "Diagnosis Procedure"
GPS ANTENNA CONN [U1244]	AV-373, "Diagnosis Procedure"
CD CHANGER [N-BUS] [U124C]	AV-374, "Diagnosis Procedure"
CAMERA CONT. CONN [U1250]	AV-376, "Diagnosis Procedure"
XM ANTENNA CONN [U1258]	AV-377, "Diagnosis Procedure"
• AV COMM CIRCUIT [U1300] • SWITCHE CONN [U1240]	AV-378, "Description"
• AV COMM CIRCUIT [U1300] • REAR CAMERA LAN CONN [U1252]	AV-378, "Description"
• AV COMM CIRCUIT [U1300] • CAMERA CONT. CONN [U1250] • REAR CAMERA LAN CONN [U1252]	AV-378, "Description"

DISPLAY UNIT

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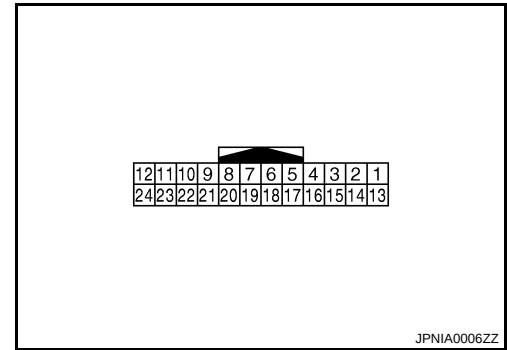
[BOSE AUDIO WITH NAVIGATION]

DISPLAY UNIT

Reference Value

INFOID:000000000964893

TERMINAL LAYOUT



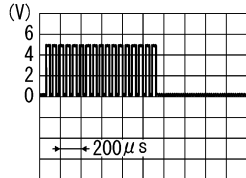
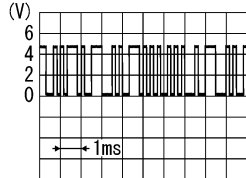
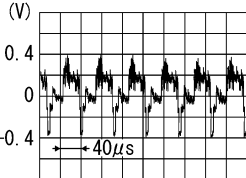
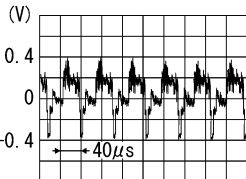
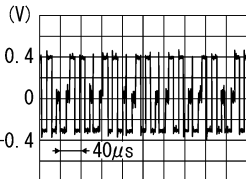
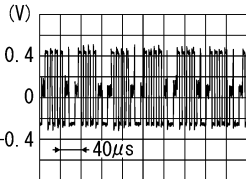
PHYSICAL VALUES

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
1 (B)	Ground	GND	—	Ignition switch ON	—	0 V
2 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
3 (V)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
4	—	Shield	—	—	—	—
5 (R)	—	AUX image GND	—	—	—	—
6 (O)	Ground	RGB signal (G: green)	Input	Ignition switch ON	Start confirmation/adjust- ment mode, and then dis- play color bar by selecting "Color Spectrum Bar" on DISPLAY DIAGNO- SIS screen.	SKIB2236J
7	—	Shield	—	—	—	—
8 (R)	Ground	Horizontal synchronizing (HP) signal	Output	Ignition switch ON	—	SKIB3601E

DISPLAY UNIT

< ECU DIAGNOSIS >

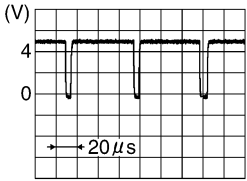
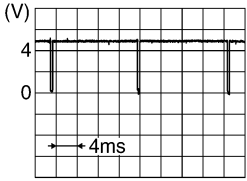
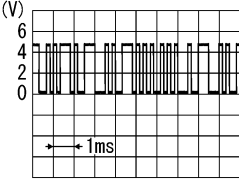
[BOSE AUDIO WITH NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
9 (B)	Ground	RGB area (YS) signal	Input	Ignition switch ON	At RGB image displayed	5 V
				Ignition switch ON	At rear view camera image displayed	 PKIB4948J
11 (BR)	Ground	Communication signal (CONT→DISP)	Input	Ignition switch ON	When adjusting display- brightness.	 PKIB5039J
12 (W)	Ground	Camera image signal	Input	Ignition switch ON	At rear view camera image displayed	 SKIB2251J
13 (B)	Ground	GND	—	Ignition switch ON	—	0 V
14	—	Shield	—	—	—	—
15 (G)	Ground	AUX image signal	Input	Ignition switch ON	AUX image	 SKIB2251J
17 (L)	Ground	RGB signal (R: red)	Input	Ignition switch ON	Start confirmation/adjust- ment mode, and then dis- play color bar by selecting “Color Spectrum Bar” on DISPLAY DIAGNOSIS screen.	 SKIB2238J
18 (V)	Ground	RGB signal (B: blue)	Input	Ignition switch ON	Start confirmation/adjust- ment mode, and then dis- play color bar by selecting “Color Spectrum Bar” on DISPLAY DIAGNO- SIS screen.	 SKIB2237J

DISPLAY UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

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

Wiring Diagram — BOSE AUDIO WITH NAVIGATION SYSTEM —

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NOTE:

AV

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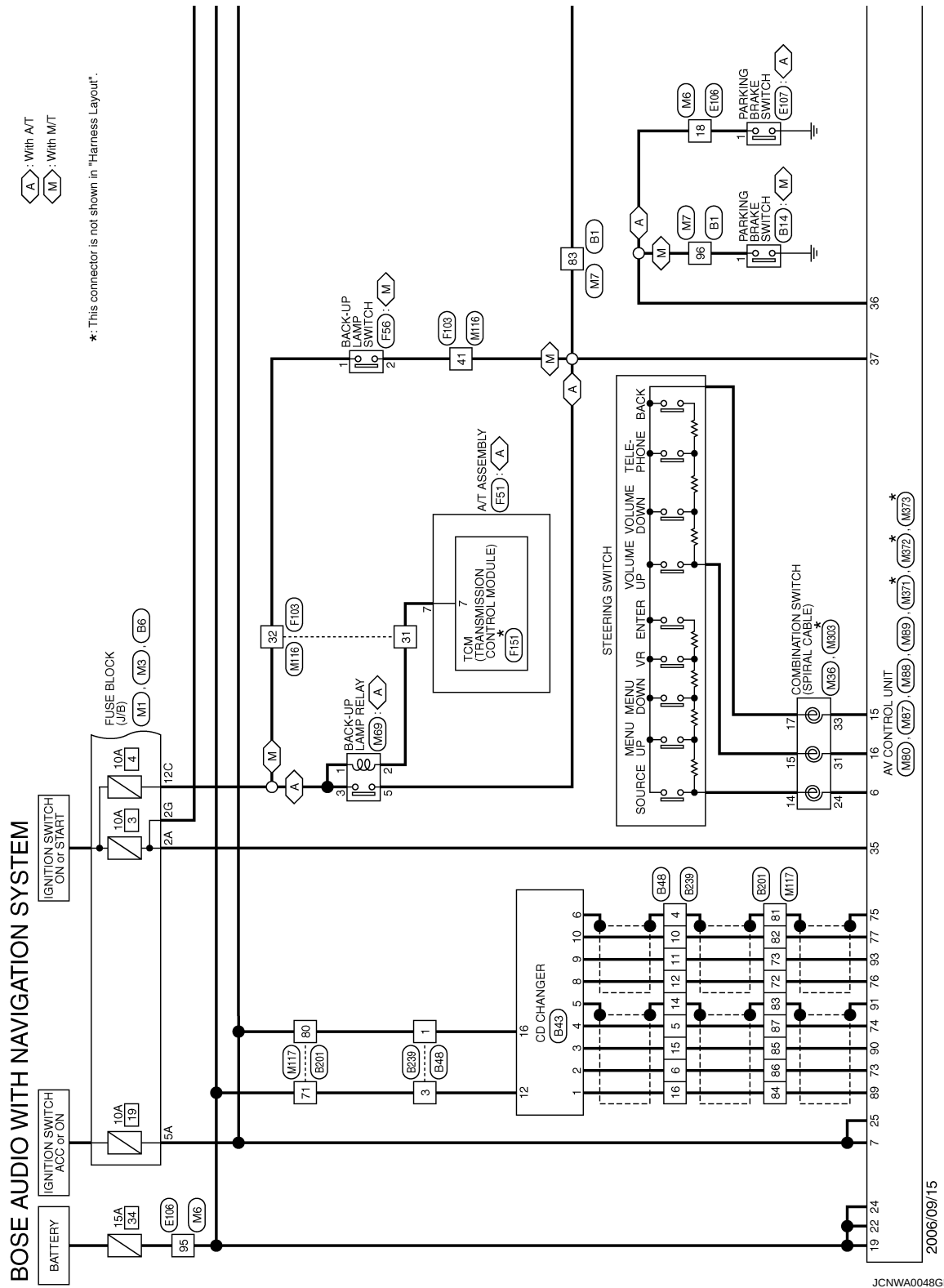
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DISPLAY UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

The name MULTIFUNCTION SWITCH indicates the integration of PRESET SWITCH and MULTIFUNCTION SWITCH virtually.



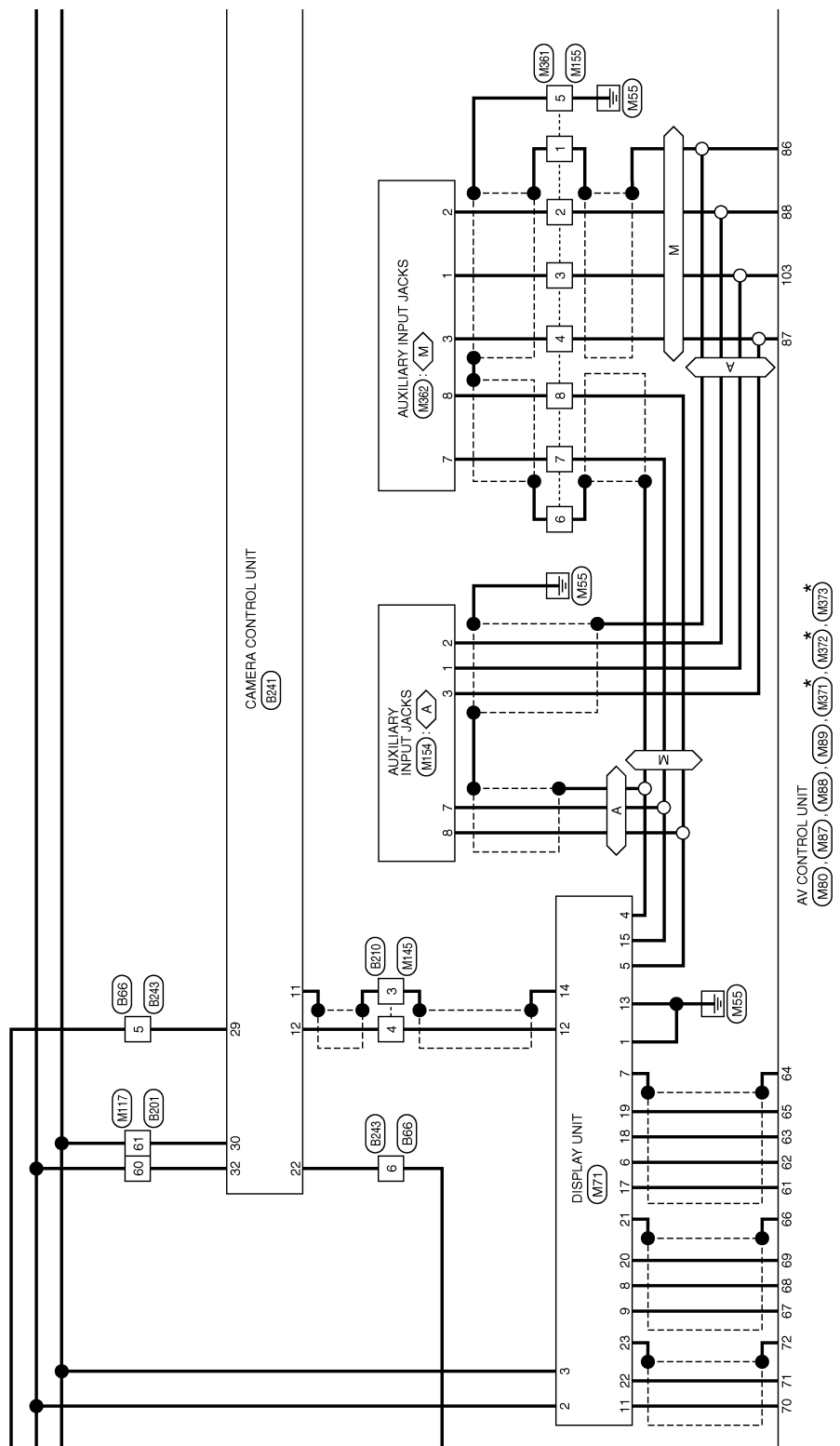
DISPLAY UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

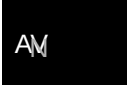
A : With A/T
M : With M/T

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



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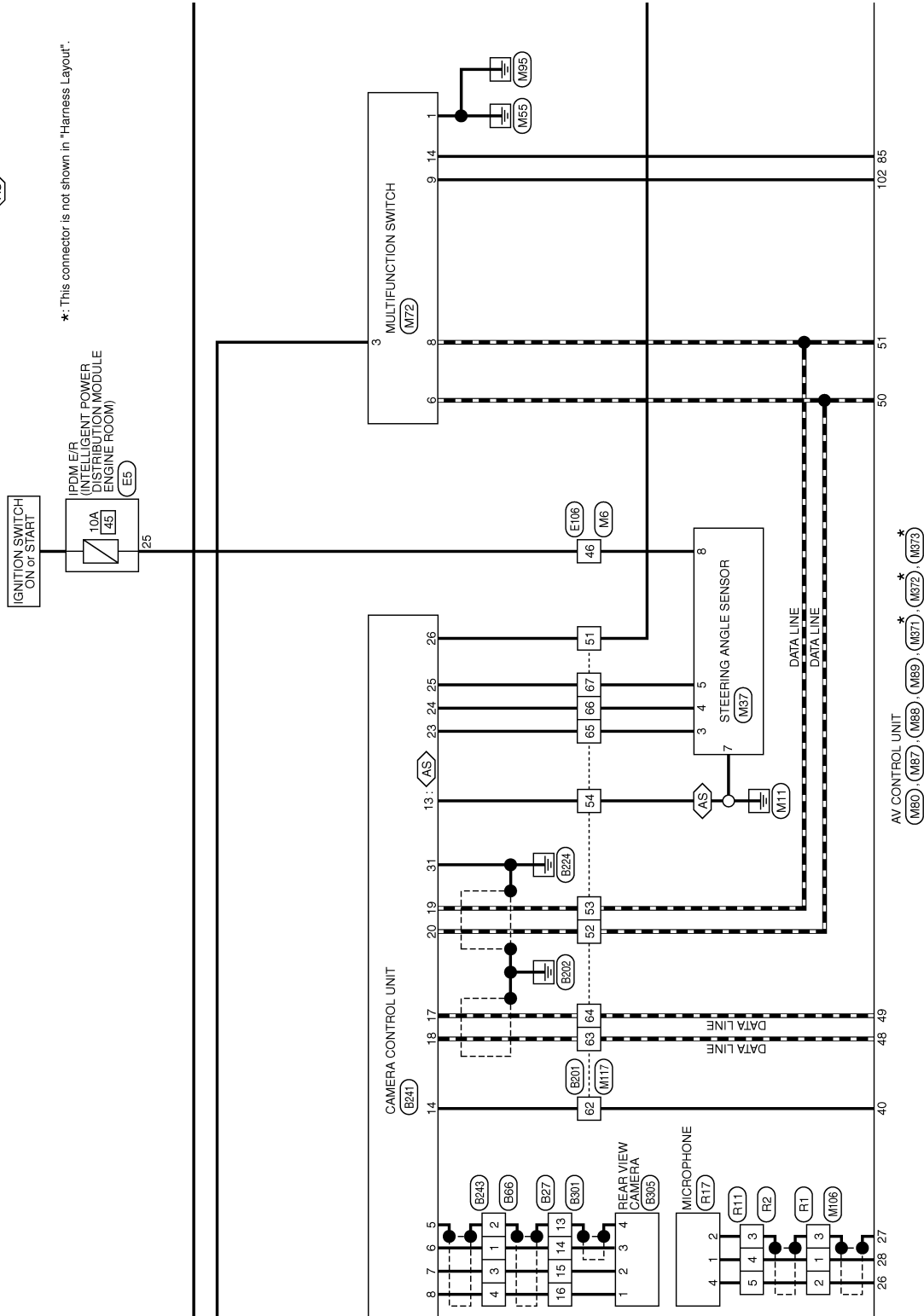


DISPLAY UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

AS With 4WAS

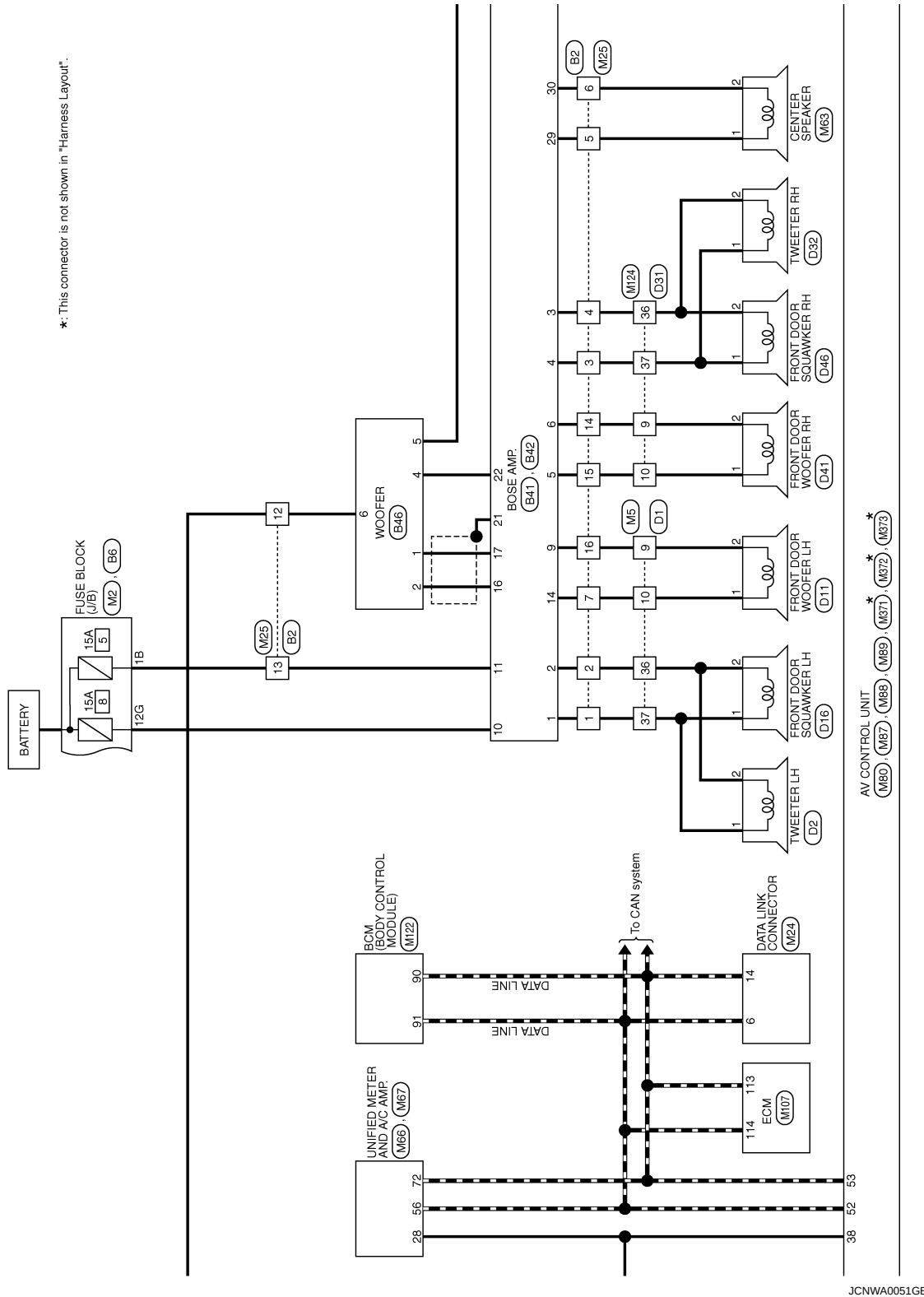


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DISPLAY UNIT

< ECU DIAGNOSIS >

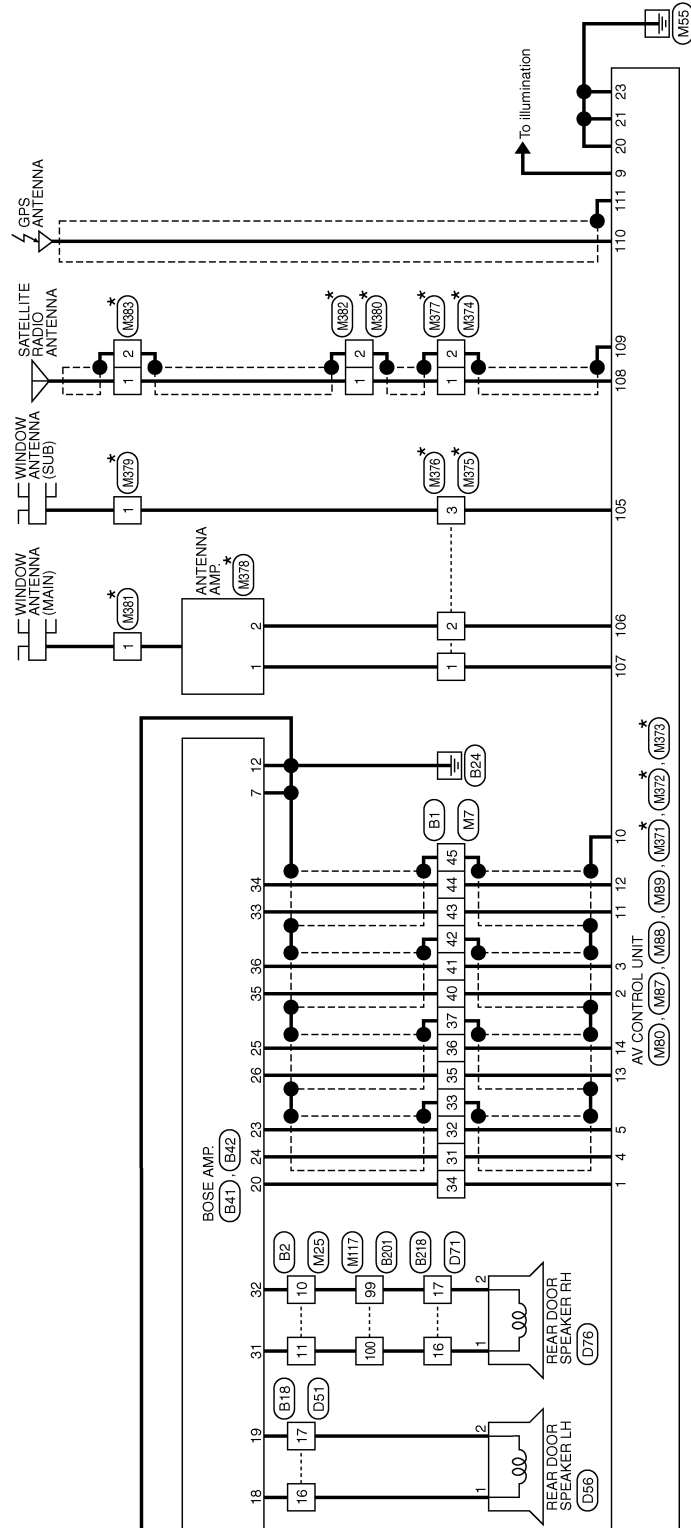
[BOSE AUDIO WITH NAVIGATION]



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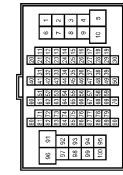
*: This connector is not shown in "Harness Layout".



JCNWA0052GE

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color of Wire	Signal Name
31	V	-
32	SB	-
33	SHIELD	-
34	V	-
35	BR	-
36	Y	-
37	SHIELD	-
40	P	-
41	L	-
42	SHIELD	-
43	R	-

44	G	-
45	SHIELD	-
83	O	-
96	V	-

Connector No.	B2
Connector Name	WIRE TO WIRE
Connector Type	NS18FW-CS



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

Terminal No.	Color of Wire	Signal Name
1	L	-
2	W	-
3	V	-
4	LG	-
5	Y	-
6	G	-
7	B	-
10	Y	-
11	LG	-
12	Y	-
13	GR	-

Connector No.	B6
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FB-CS



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

Connector No.	B14
Connector Name	PARKING BRAKE SWITCH
Connector Type	P01FB-A



1

Connector No.	B18
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS



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

Connector No.	B27
Connector Name	WIRE TO WIRE
Connector Type	NS18MW-CS



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

Terminal No.	Color of Wire	Signal Name
2G	GR	-
12G	Y	-

Terminal No.	Color of Wire	Signal Name
1	V	-

Terminal No.	Color of Wire	Signal Name
16	L	- [With BOSE system]
17	P	- [With BOSE system]

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

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

AV

DISPLAY UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B41
Connector Name	BOSE AMP.
Connector Type	SCA10FBR-SGA4

29	Y	SOUND SIGNAL CENTER (+)
30	G	SOUND SIGNAL CENTER (-)
31	LG	SOUND SIGNAL REAR DOOR RH (+)
32	Y	SOUND SIGNAL REAR DOOR RH (-)
33	R	SOUND SIGNAL FRONT RH (+)
34	G	SOUND SIGNAL FRONT RH (-)
35	P	SOUND SIGNAL FRONT LH (+)
36	L	SOUND SIGNAL FRONT LH (-)



Terminal No.	Color of Wire	Signal Name
16	SB	SOUND SIGNAL WOOFER (+)
17	V	SOUND SIGNAL WOOFER (-)
18	L	SOUND SIGNAL REAR DOOR LH (+)
19	P	SOUND SIGNAL REAR DOOR LH (-)
20	V	AMP ON SIGNAL
21	SHIELD	SHIELD
22	GR	WOOFER AMP-ON SIGNAL
23	SB	SOUND SIGNAL REAR LH (-)
24	V	SOUND SIGNAL REAR LH (+)
25	Y	SOUND SIGNAL REAR RH (-)
26	BR	SOUND SIGNAL REAR RH (+)



Connector No.	B43
Connector Name	OD CHANGER
Connector Type	A10FW

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

Terminal No.	Color of Wire	Signal Name
1	W	SOUND SIGNAL LH (-)
2	R	SOUND SIGNAL LH (+)
3	G	SOUND SIGNAL RH (-)
4	B	SOUND SIGNAL RH (+)
5	SHIELD	SHIELD
6	SHIELD	SHIELD
8	P	REQUEST (OD->CONT)
9	L	COMM (OD->CONT)
10	G	COMM (CONT->OD)
12	Y	BATTERY
16	V	ACC

Connector No.	B42
Connector Name	BOSE AMP.
Connector Type	SGA12FBR-SJA2

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



Terminal No.	Color of Wire	Signal Name
1	L	FRONT DOOR SQUAWKER LH (+)
2	W	FRONT DOOR SQUAWKER LH (-)
3	LG	FRONT DOOR SQUAWKER RH (+)
4	V	FRONT DOOR SQUAWKER RH (-)
5	G	FRONT DOOR WOOFER RH (+)
6	R	FRONT DOOR WOOFER RH (-)
7	B	GND
9	W	FRONT DOOR WOOFER LH (-)
10	Y	BATTERY
11	GR	BATTERY
12	B	GND

Connector No.	B48
Connector Name	WIRE TO WIRE
Connector Type	A10MW



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

Terminal No.	Color of Wire	Signal Name
1	V	-
3	Y	-
4	SHIELD	-
5	B	-
6	R	-
10	G	-
11	L	-
12	P	-
14	SHIELD	-
15	G	-
16	W	-

Connector No.	B66
Connector Name	WIRE TO WIRE
Connector Type	TH08MW-RH



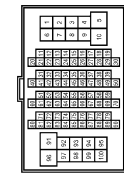
1	2	3	4
5	6	7	8

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

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BOSE AUDIO WITH NAVIGATION SYSTEM

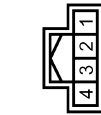
Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color of Wire	Signal Name
51	V	-
52	G	-
53	R	-
54	B	-
55	L	-
56	LG	-
57	W	-
58	Y	-
59	BR	-
60	L	-
61	R	-

67	O	-
71	Y	-
72	G	-
73	L	-
80	V	-
81	SHIELD	-
82	P	-
83	SHIELD	-
84	W	- [With CD auto changer]
85	G	- [With CD auto changer]
86	R	-
87	B	-
99	P	-
100	L	-

Connector No.	B210
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-NH



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

Connector No.	B218
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8

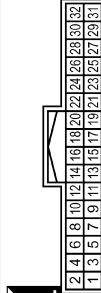


Terminal No.	Color of Wire	Signal Name
16	L	-
17	P	-

Connector No.	B239
Connector Name	WIRE TO WIRE
Connector Type	A10FW

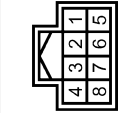


Connector No.	B241
Connector Name	CAMERA CONTROL UNIT
Connector Type	TH32FW-NH



20	G	AV COMM (H)
22	GR	REVERSE
23	L	SENSOR SIGNAL 1
24	R	SENSOR SIGNAL 2
25	O	SENSOR SIGNAL 3
26	V	VEHICLE SPEED (3-PULSE)
29	SB	IGNITION
30	LG	ACC
31	B	GND
32	L	BATTERY

Connector No.	B243
Connector Name	WIRE TO WIRE
Connector Type	TH08FW-NH



Terminal No.	Color of Wire	Signal Name
1	V	-
3	Y	-
4	SHIELD	-
5	B	-
6	R	-
10	P	-
11	L	-
12	G	-
14	SHIELD	-
15	G	-
16	W	-

5	SHIELD	SHIELD
6	B	CAMERA IMAGE SIGNAL
7	W	GND
8	R	CAMERA ON SIGNAL
11	SHIELD	SHIELD
12	W	CAMERA IMAGE SIGNAL
13	B	CONTROL SIGNAL
14	W	CONNECTION RECOGNITION
17	BR	AV COMM (L)
18	Y	AV COMM (H)
19	R	AV COMM (L)

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

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B301
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



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

Terminal No.	Color of Wire	Signal Name
13	SHIELD	-
14	Y	-
15	L	-
16	R	-

Connector No.	B305
Connector Name	REAR VIEW CAMERA
Connector Type	TH04MW-NH



1	2	3	4

Terminal No.	Color of Wire	Signal Name
1	R	CAMERA ON SIGNAL
2	L	GND
3	Y	CAMERA IMAGE SIGNAL
4	SHIELD	SHIELD

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



15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
46	44	43	42	41	40	39	38	37	36	35	34	33	32	31
30	29	28	27	26	25	24	23	22	21	20	19	18	17	16

Terminal No.	Color of Wire	Signal Name
9	R	-
10	G	-
36	W	-
37	L	-

Connector No.	D2
Connector Name	TWEETER LH
Connector Type	TK02MBR-P



2	1

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

Connector No.	D11
Connector Name	FRONT DOOR WOOFER LH
Connector Type	NS02FW-CS



2	1

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

Connector No.	D16
Connector Name	FRONT DOOR SQUAWKER LH
Connector Type	TK02FBR



2	1

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

Connector No.	D31
Connector Name	WIRE TO WIRE
Connector Type	TH40FY-CS15



15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
46	44	43	42	41	40	39	38	37	36	35	34	33	32	31
30	29	28	27	26	25	24	23	22	21	20	19	18	17	16

Terminal No.	Color of Wire	Signal Name
9	R	-
10	G	-
36	W	-
37	L	-

Connector No.	D32
Connector Name	TWEETER RH
Connector Type	TK02MBR-P



2	1

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

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	D41
Connector Name	FRONT DOOR WOOFER RH
Connector Type	NS02FW-CS



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

Connector No.	D46
Connector Name	FRONT DOOR SQUAWKER RH
Connector Type	TK10ZFBR



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

Connector No.	D51
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Terminal No.	Color of Wire	Signal Name
16	LG	-
17	Y	-

Connector No.	D56
Connector Name	REAR DOOR SPEAKER LH (With BOSE system)
Connector Type	NS02FBR-CS



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

Connector No.	D71
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



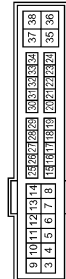
Terminal No.	Color of Wire	Signal Name
16	L	-
17	P	-

Connector No.	D76
Connector Name	REAR DOOR SPEAKER RH (With BOSE system)
Connector Type	NS02FBR-CS



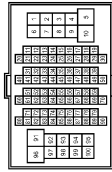
Terminal No.	Color of Wire	Signal Name
1	L	-
2	P	-

Connector No.	E5
Connector Name	IPDM E/R INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)
Connector Type	TH20FW-CS/2-M4-1V



Terminal No.	Color of Wire	Signal Name
25	G	-

Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH60FW-CS/16-TM4



Terminal No.	Color of Wire	Signal Name
18	O	-
46	LG	-
85	Y	-

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BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	E107
Connector Name	PARKING BRAKE SWITCH (A.T)
Connector Type	TBD1FW



Terminal No.	Color of Wire	Signal Name
1	O	-

Connector No.	F51
Connector Name	A/T ASSEMBLY
Connector Type	RK10FG-DGY



Terminal No.	Color of Wire	Signal Name
7	R	-

Connector No.	F56
Connector Name	BACK-UP LAMP SWITCH
Connector Type	RK02FE



Terminal No.	Color of Wire	Signal Name
1	R	-
2	O	-

Connector No.	F103
Connector Name	WIRE TO WIRE
Connector Type	TK38FW-NS10



Terminal No.	Color of Wire	Signal Name
31	R	-
32	R	-
41	O	-

Connector No.	F151
Connector Name	TOM (TRANSMISSION CONTROL MODULE)
Connector Type	SP10FBGY



Terminal No.	Color of Wire	Signal Name
7	O	REV LAMP RLY

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS08FW-M2



Terminal No.	Color of Wire	Signal Name
2A	G	-
5A	V	-

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



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

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FW-GS

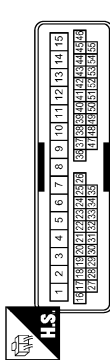


Terminal No.	Color of Wire	Signal Name
12C	R	-

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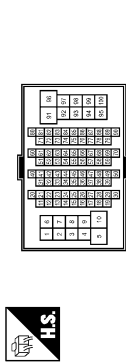
BOSE AUDIO WITH NAVIGATION SYSTEM

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



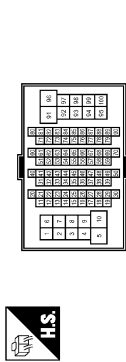
Terminal No.	Color of Wire	Signal Name
9	W	-
10	B	-
36	W	-
37	L	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



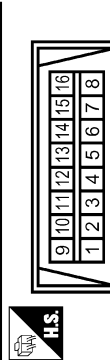
Terminal No.	Color of Wire	Signal Name
18	V	-
46	G	-
95	Y	-

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



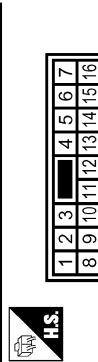
Terminal No.	Color of Wire	Signal Name
31	V	-
32	SB	-
33	SHIELD	-
34	V	-
35	BR	-
36	Y	-
37	SHIELD	-
40	P	-
41	L	-
42	SHIELD	-
43	R	-

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



Terminal No.	Color of Wire	Signal Name
6	L	-
14	P	-

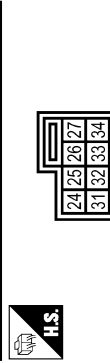
Connector No.	M25
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS



Terminal No.	Color of Wire	Signal Name
1	L	-
2	W	-
3	BR	-
4	R	-
5	L	-
6	LG	-
7	B	-
10	P	-
11	L	-
12	Y	-
13	SB	-

Terminal No.	14
Color of Wire	R
Signal Name	-
Terminal No.	15
Color of Wire	G
Signal Name	-
Terminal No.	16
Color of Wire	W
Signal Name	-

Connector No.	M36
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY-1V



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

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M37
Connector Name	STEERING ANGLE SENSOR
Connector Type	TH08FW-NH



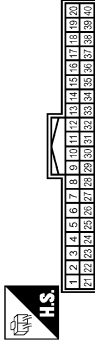
Terminal No.	Color of Wire	Signal Name
3	L	SENSOR1
4	BR	SENSOR2
5	O	SENSOR3
7	B	GND
8	G	IGN

Connector No.	M63
Connector Name	CENTER SPEAKER
Connector Type	TK02FBR



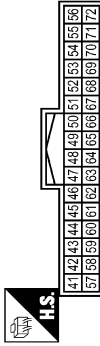
Terminal No.	Color of Wire	Signal Name
1	L	-
2	LG	-

Connector No.	M66
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH40FW-NH



Terminal No.	Color of Wire	Signal Name
28	R	VEHICLE SPEED (8-PULSE)

Connector No.	M67
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH32FW-NH



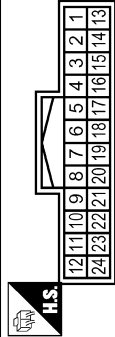
Terminal No.	Color of Wire	Signal Name
56	L	CAN-H
72	P	CAN-L

Connector No.	M69
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS02FL-M2



Terminal No.	Color of Wire	Signal Name
1	R	-
2	W	-
3	LG	-
5	O	-

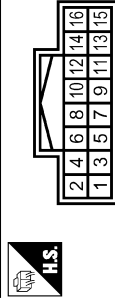
Connector No.	M71
Connector Name	DISPLAY UNIT
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name
1	B	GND
2	Y	BATTERY [With NAVI]
3	V	ACC [With NAVI]
4	SHIELD	SHIELD [With NAVI]
5	R	AUX IMAGE GND [With NAVI]
6	O	RGB (GREEN) SIGNAL [With NAVI]
7	SHIELD	SHIELD
8	R	HP
9	B	RGB AREA (VS) SIGNAL
11	BR	COMM (CONT->DISP) [With NAVI]
12	W	CAMERA IMAGE SIGNAL

13	B	GND [With NAVI]
14	SHIELD	SHIELD [With NAVI]
15	G	AUX IMAGE SIGNAL [With NAVI]
17	L	RGB (RED) SIGNAL [With NAVI]
18	V	RGB (BLUE) SIGNAL [With NAVI]
19	Y	RGB STRG [With NAVI]
20	W	VP [With NAVI]
21	SHIELD	SHIELD
22	Y	COMM (DISP->CONT) [With NAVI]
23	SHIELD	SHIELD

Connector No.	M72
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH18FW-NH



Terminal No.	Color of Wire	Signal Name
1	B	GND
3	V	ACC
6	LG	AV COMM (H)
8	V	AV COMM (L)
9	BR	SW GND
14	SB	EJECT SIGNAL

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M80
Connector Name	AV CONTROL UNIT
Connector Type	TH18FW-CS2

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

13	BR	SOUND SIGNAL-REAR RH (+)
14	Y	SOUND SIGNAL-REAR RH (-)
15	B	STRG SW GND
16	L	STRG SW B
19	Y	BATTERY
20	B	GND

Terminal No.	Color of Wire	Signal Name
1	V	AMP ON SIGNAL
2	P	SOUND SIGNAL FRONT LH (+)
3	L	SOUND SIGNAL FRONT LH (-)
4	V	SOUND SIGNAL REAR LH (+)
5	SB	SOUND SIGNAL REAR LH (-)
6	P	STRG SW A
7	V	ACC
9	R	ILLUMINATION
10	SHIELD	SHIELD
11	R	SOUND SIGNAL FRONT RH (+)
12	G	SOUND SIGNAL FRONT RH (-)

Connector No.	M88
Connector Name	AV CONTROL UNIT
Connector Type	TH12FW-RH

62	64	66	68	70	72
61	63	65	67	69	71

Terminal No.	Color of Wire	Signal Name
61	L	RGB (RED) SIGNAL
62	O	RGB (GREEN) SIGNAL
63	V	RGB (BLUE) SIGNAL
64	SHIELD	SHIELD
65	Y	RGB SYNC
66	SHIELD	SHIELD
67	B	RGB AREA (VS) SIGNAL
68	R	HP
69	W	VP
70	BR	COMM (CONT->DISP)
71	Y	COMM (DISP->CONT)

Connector No.	M87
Connector Name	AV CONTROL UNIT
Connector Type	TH40FW-RH

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37

Terminal No.	Color of Wire	Signal Name
21	B	GND
22	Y	BATTERY
23	B	GND
24	Y	BATTERY
25	V	ACC
26	G	MICROPHONE VCC
27	SHIELD	MICROPHONE GND
28	R	MICROPHONE SIGNAL
35	G	IGNITION
36	V	PARKING BRAKE
37	O	REVERSE

Connector No.	M89
Connector Name	AV CONTROL UNIT
Connector Type	TH32FW-RH

73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88
89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104

Terminal No.	Color of Wire	Signal Name
73	B	SOUND SIGNAL LH (+)
74	G	SOUND SIGNAL RH (+)
75	SHIELD	SHIELD
76	W	REQUEST (CD->CONT)
77	R	COMM (CONT->CD)
85	SB	EJECT SIGNAL
86	SHIELD	SHIELD
87	W	SOUND SIGNAL LH (+)
88	B	SOUND SIGNAL GND
89	W	SOUND SIGNAL LH (-)
90	R	SOUND SIGNAL RH (-)

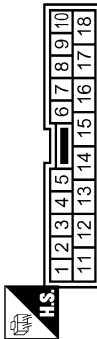
38	R	VEHICLE SPEED (8-PULSE)
40	W	CONNECTION RECOGNITION
48	G	AV COMM (H)
49	R	AV COMM (L)
50	V	AV COMM (H)
51	LG	AV COMM (L)
52	L	CAN-H
53	P	CAN-L

91	SHIELD	SHIELD
93	B	COMM (CD->CONT)
102	BR	SW GND
103	R	SOUND SIGNAL RH (+)

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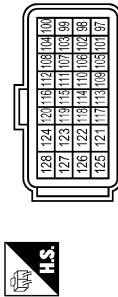
BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M106
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



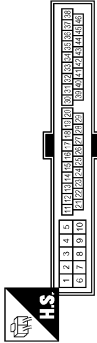
Terminal No.	Color of Wire	Signal Name
1	R	- [With NAV]
2	G	- [With NAV]
3	SHIELD	- [With NAV]

Connector No.	M107
Connector Name	ECM
Connector Type	MAA24FGY-MEAB-LH-Z



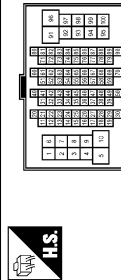
Terminal No.	Color of Wire	Signal Name
113	P	VHECAN L1
114	L	VHECAN H1

Connector No.	M116
Connector Name	WIRE TO WIRE
Connector Type	TK38MW-NS10



Terminal No.	Color of Wire	Signal Name
31	W	-
32	LG	-
41	O	-

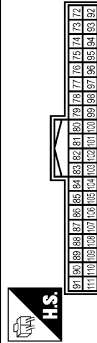
Connector No.	M117
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name
51	V	-
52	G	-
53	R	-
54	B	-
60	Y	-
61	V	-
62	W	-
63	Y	-
64	BR	-
65	L	-
66	BR	-

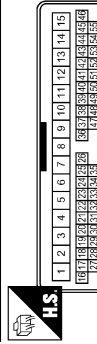
67	O	-
71	Y	-
72	W	-
73	B	-
80	V	-
81	SHIELD	-
82	R	-
83	SHIELD	-
84	W	-
85	R	-
86	B	-
87	G	-
99	P	-
100	L	-

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH



Terminal No.	Color of Wire	Signal Name
90	P	CAN-L
91	L	CAN-H

Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



Terminal No.	Color of Wire	Signal Name
9	R	-
10	G	-
36	R	-
37	BR	-

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M145
Connector Name	WIRE TO WIRE
Connector Type	TH08MW-NH



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

Connector No.	M154
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A08FW



Terminal No.	Color of Wire	Signal Name
1	R	SOUND SIGNAL RH (+) [With NAVI]
2	B	SOUND SIGNAL GND
3	W	SOUND SIGNAL LH (+) [With NAVI]
4	G	AUX IMAGE SIGNAL
7	R	AUX IMAGE GND

Connector No.	M155
Connector Name	WIRE TO WIRE
Connector Type	TH08FW-NH



Terminal No.	Color of Wire	Signal Name
1	SHIELD	-
2	B	[With NAVI]
3	R	[With NAVI]
4	W	[With NAVI]
5	B	-
6	SHIELD	-
7	G	-
8	R	-

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



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

Connector No.	M361
Connector Name	WIRE TO WIRE
Connector Type	TH08MW-NH



Terminal No.	Color of Wire	Signal Name
1	SHIELD	-
2	B	-
3	R	- [With NAVI]
4	W	- [With NAVI]
5	SHIELD	-
6	SHIELD	-
7	G	-
8	R	-

Connector No.	M362
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A08FW



Terminal No.	Color of Wire	Signal Name
1	R	SOUND SIGNAL RH (+) [With NAVI]
2	B	SOUND SIGNAL GND
3	W	SOUND SIGNAL LH (+) [With NAVI]
4	G	AUX IMAGE SIGNAL
7	R	AUX IMAGE GND

Connector No.	M371
Connector Name	AV CONTROL UNIT
Connector Type	GT13SH-2/1S-HU



Terminal No.	Color of Wire	Signal Name
105	-	FM SUB
106	-	AM-FM MAIN
107	-	ANETNA AMP-ON SIGNAL

Connector No.	M372
Connector Name	AV CONTROL UNIT
Connector Type	FAKRA JACK



Terminal No.	Color of Wire	Signal Name
108	-	SAETLITE ANTENNA
109	SHIELD	SHIELD

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M373
Connector Name	AV CONTROL UNIT
Connector Type	GT6-1S-HU



Terminal No.	Color of Wire	Signal Name
110	-	GPS ANTENNA
111	SHIELD	SHIELD

Connector No.	M374
Connector Name	WIRE TO WIRE
Connector Type	GT16C-1PP-HU



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

Connector No.	M375
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1S-HU



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

Connector No.	M376
Connector Name	WIRE TO WIRE
Connector Type	GT13SCN-2/1PP-HU



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

Connector No.	M377
Connector Name	WIRE TO WIRE
Connector Type	GT16C-1S-HU



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

Connector No.	M378
Connector Name	ANTENNA AMP.
Connector Type	GT13SC-1/1S-HU



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

Connector No.	M379
Connector Name	WINDOW ANTENNA(SUB)
Connector Type	P01FB-A



Terminal No.	Color of Wire	Signal Name
1	-	-

Connector No.	M380
Connector Name	WIRE TO WIRE
Connector Type	GT16-1PP-HU



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

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M381
Connector Name	WINDOW ANTENNA(MAIN)
Connector Type	P01FE-A



Terminal No.	Color of Wire	Signal Name
1	-	-

Connector No.	M382
Connector Name	WIRE TO WIRE
Connector Type	GT16C-1S-HU



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

Connector No.	M383
Connector Name	SATELLITE RADIO TUNER
Connector Type	GT16C-1PP-HU



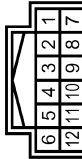
Terminal No.	Color of Wire	Signal Name
1	-	-
2	SHIELD	-

Connector No.	R1
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8



Terminal No.	Color of Wire	Signal Name
1	R	- [With NAV]
2	G	- [With NAV]
3	SHIELD	-

Connector No.	R2
Connector Name	WIRE TO WIRE
Connector Type	TH12FW-NH



Terminal No.	Color of Wire	Signal Name
3	SHIELD	-
4	R	-
5	G	-

Connector No.	R11
Connector Name	WIRE TO WIRE
Connector Type	TH12MW-NH



Terminal No.	Color of Wire	Signal Name
3	SHIELD	-
4	R	-
5	G	-

Connector No.	R17
Connector Name	MICROPHONE
Connector Type	TK04FW



Terminal No.	Color of Wire	Signal Name
1	R	MICROPHONE SIGNAL
2	SHIELD	SHIELD
4	G	MICROPHONE VCC

BOSE AMP.

< ECU DIAGNOSIS >

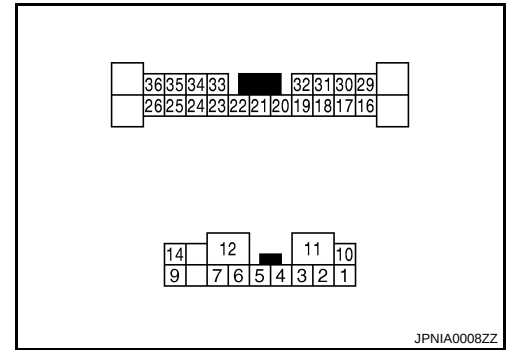
[BOSE AUDIO WITH NAVIGATION]

BOSE AMP.

Reference Value

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TERMINAL LAYOUT



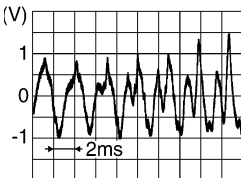
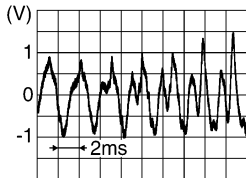
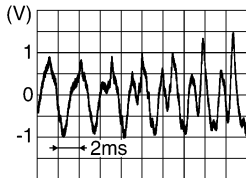
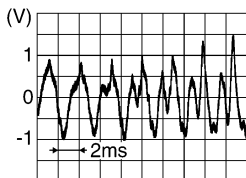
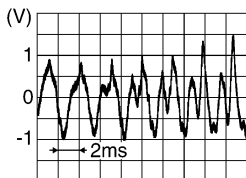
PHYSICAL VALUES

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
1 (L)	2 (W)	Sound signal front door squawker LH	Output	Ignition switch ON	Voice output	SKIB3609E
3 (LG)	4 (V)	Sound signal front door squawker RH	Output	Ignition switch ON	Voice output	SKIB3609E
5 (G)	6 (R)	Sound signal front door woofer RH	Output	Ignition switch ON	Voice output	SKIB3609E
7 (B)	Ground	GND	—	Ignition switch ON	—	0 V
10 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
11 (GR)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
12 (B)	Ground	GND	—	Ignition switch ON	—	0 V

BOSE AMP.

< ECU DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
14 (B)	9 (W)	Sound signal front door woofer LH	Output	Ignition switch ON	Voice output	 SKIB3609E
16 (SB)	17 (V)	Sound signal woofer	Output	Ignition switch ON	Voice output	 SKIB3609E
18 (L)	19 (P)	Sound signal rear door speaker LH	Output	Ignition switch ON	Voice output	 SKIB3609E
20 (V)	Ground	Amp. ON signal	Input	Ignition switch ACC	—	12 V
21	—	Shield	—	—	—	—
22 (GR)	Ground	Woofer Amp. ON signal	Output	Ignition switch ACC	—	12 V
24 (V)	23 (SB)	Sound signal rear LH	Input	Ignition switch ON	Voice output	 SKIB3609E
26 (BR)	25 (Y)	Sound signal rear RH	Input	Ignition switch ON	Voice output	 SKIB3609E

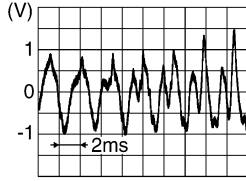
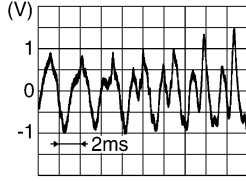
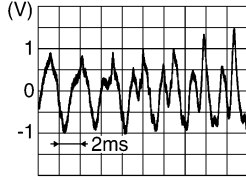
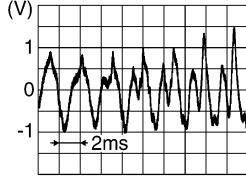
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J
K
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M
N
O
P

AV

BOSE AMP.

< ECU DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/ Output			
29 (Y)	30 (G)	Sound signal center speaker	Output	Ignition switch ON	Voice output	 SKIB3609E
31 (LG)	32 (Y)	Sound signal rear door speaker RH	Output	Ignition switch ON	Voice output	 SKIB3609E
33 (R)	34 (G)	Sound signal front RH	Input	Ignition switch ON	Voice output	 SKIB3609E
35 (P)	36 (L)	Sound signal front LH	Input	Ignition switch ON	Voice output	 SKIB3609E

Wiring Diagram — BOSE AUDIO WITH NAVIGATION SYSTEM —

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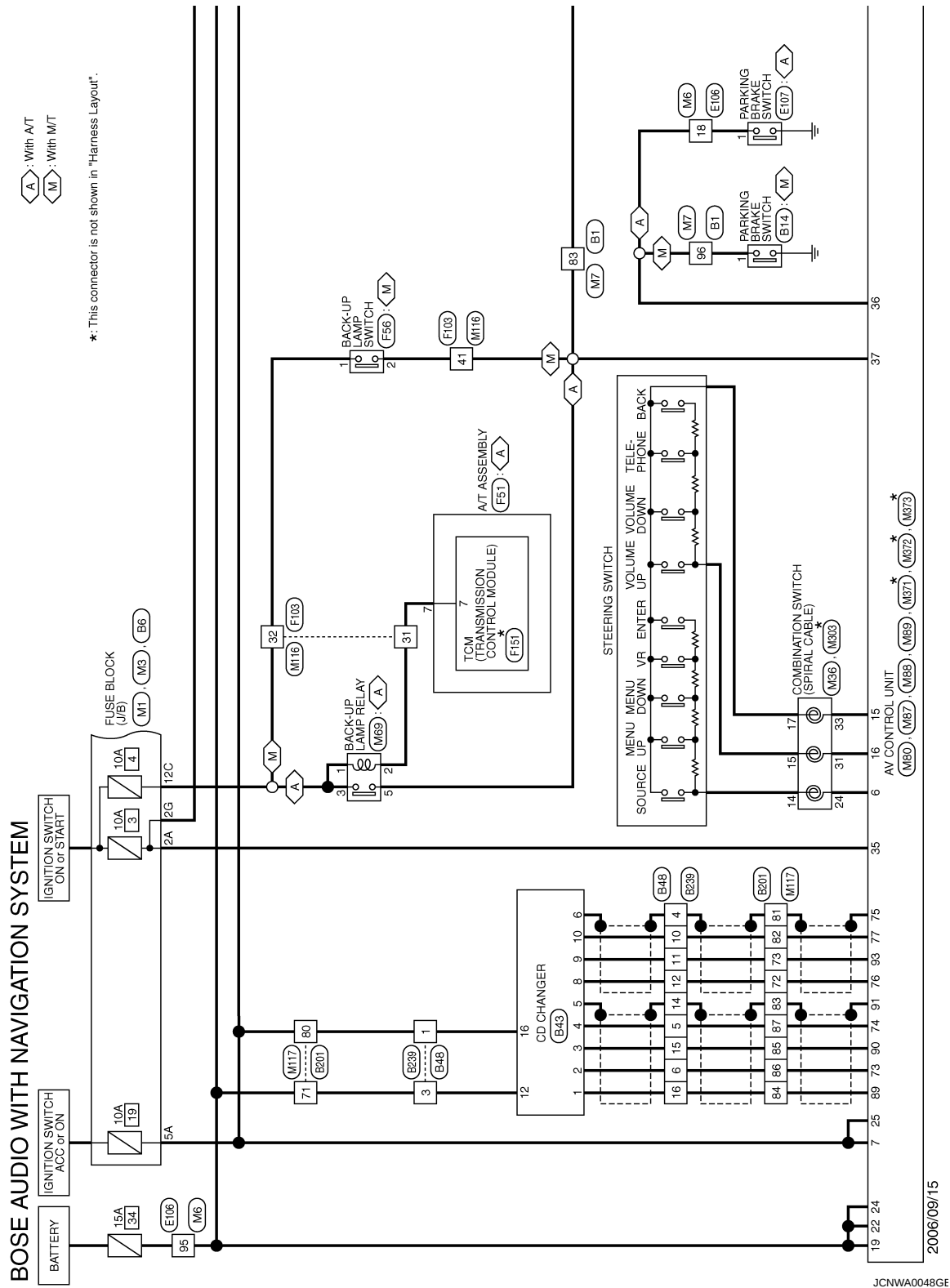
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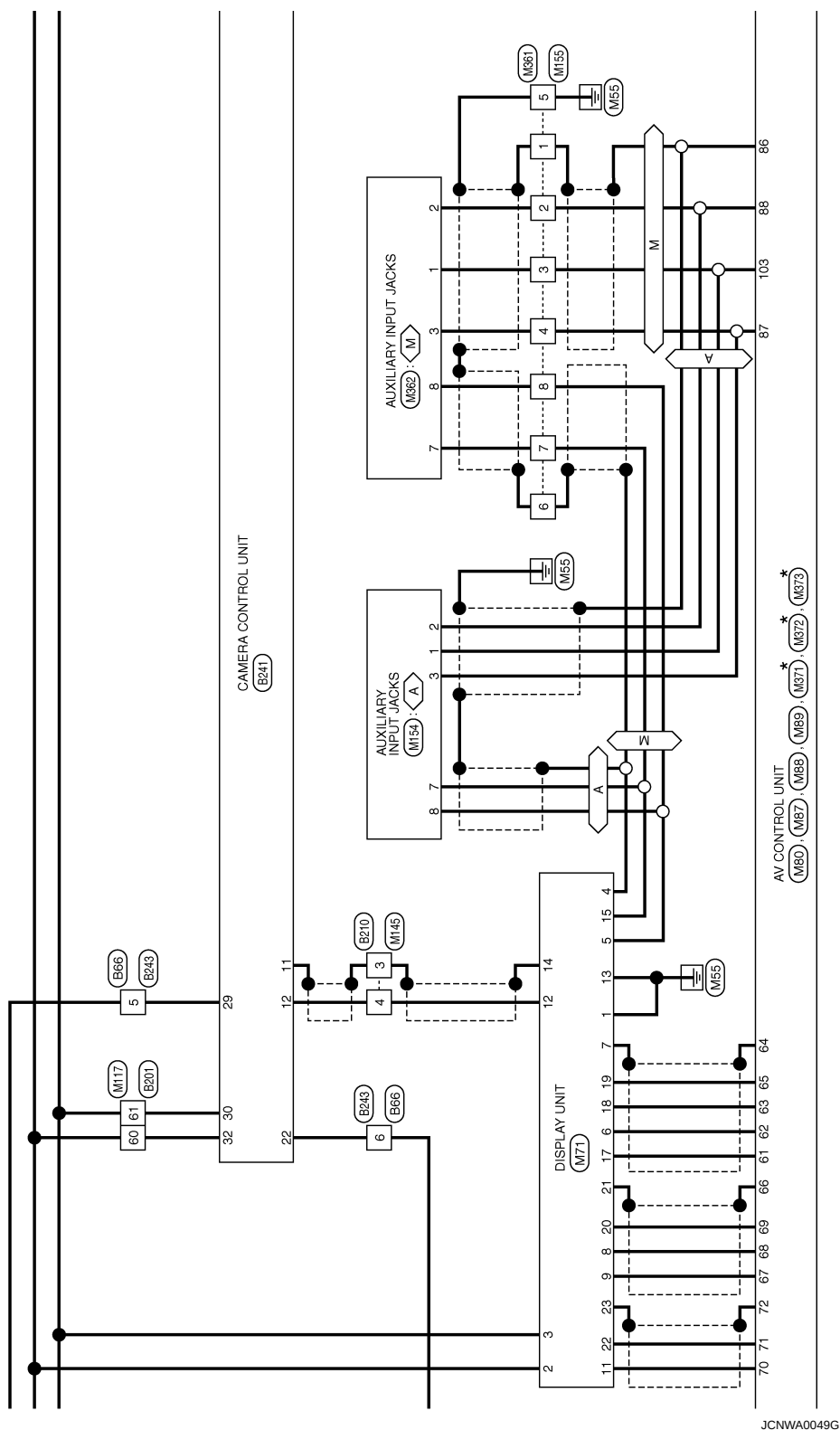
BOSE AMP.

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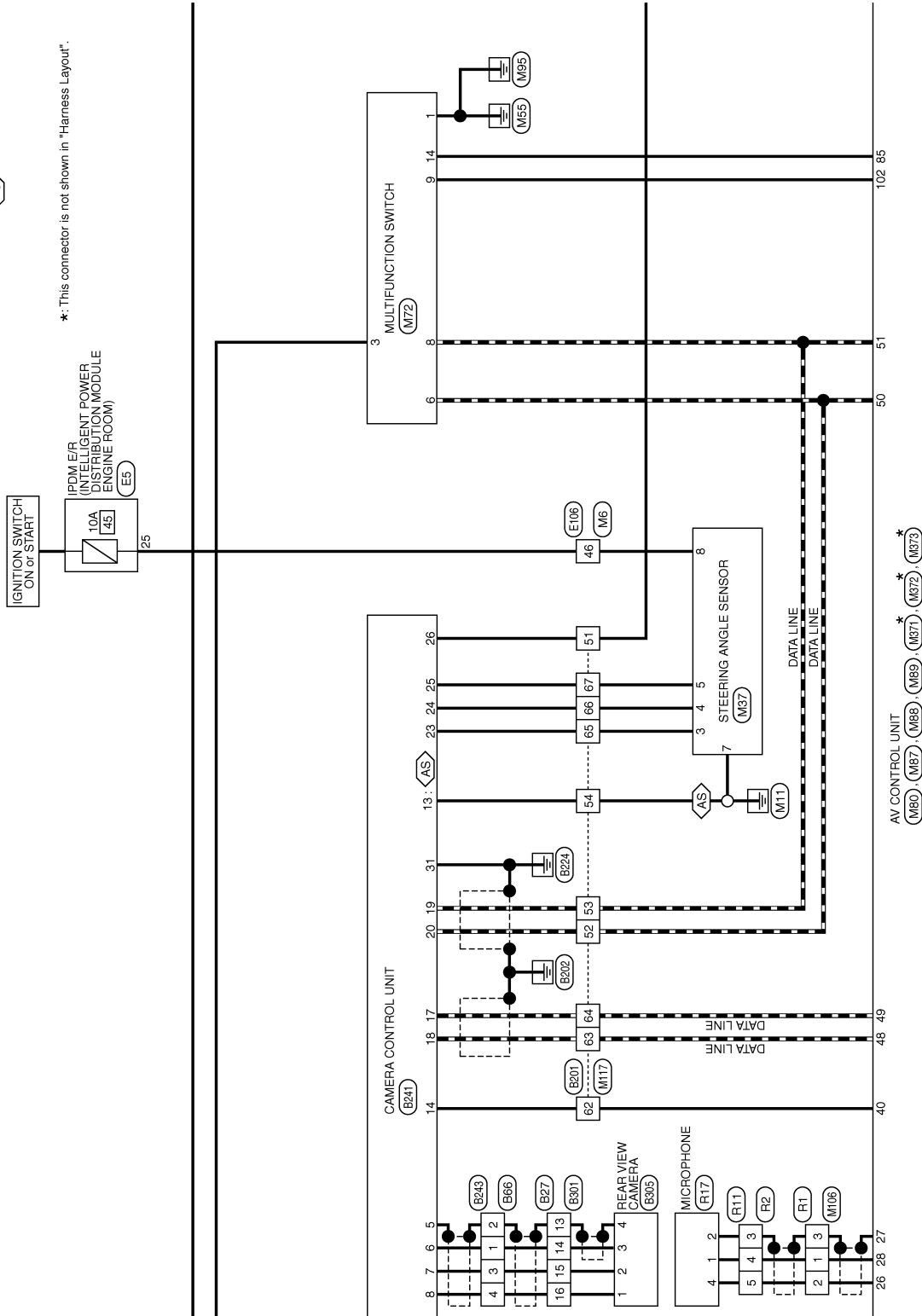
[BOSE AUDIO WITH NAVIGATION]

The name MULTIFUNCTION SWITCH indicates the integration of PRESET SWITCH and MULTIFUNCTION SWITCH virtually.





AS With 4WAS



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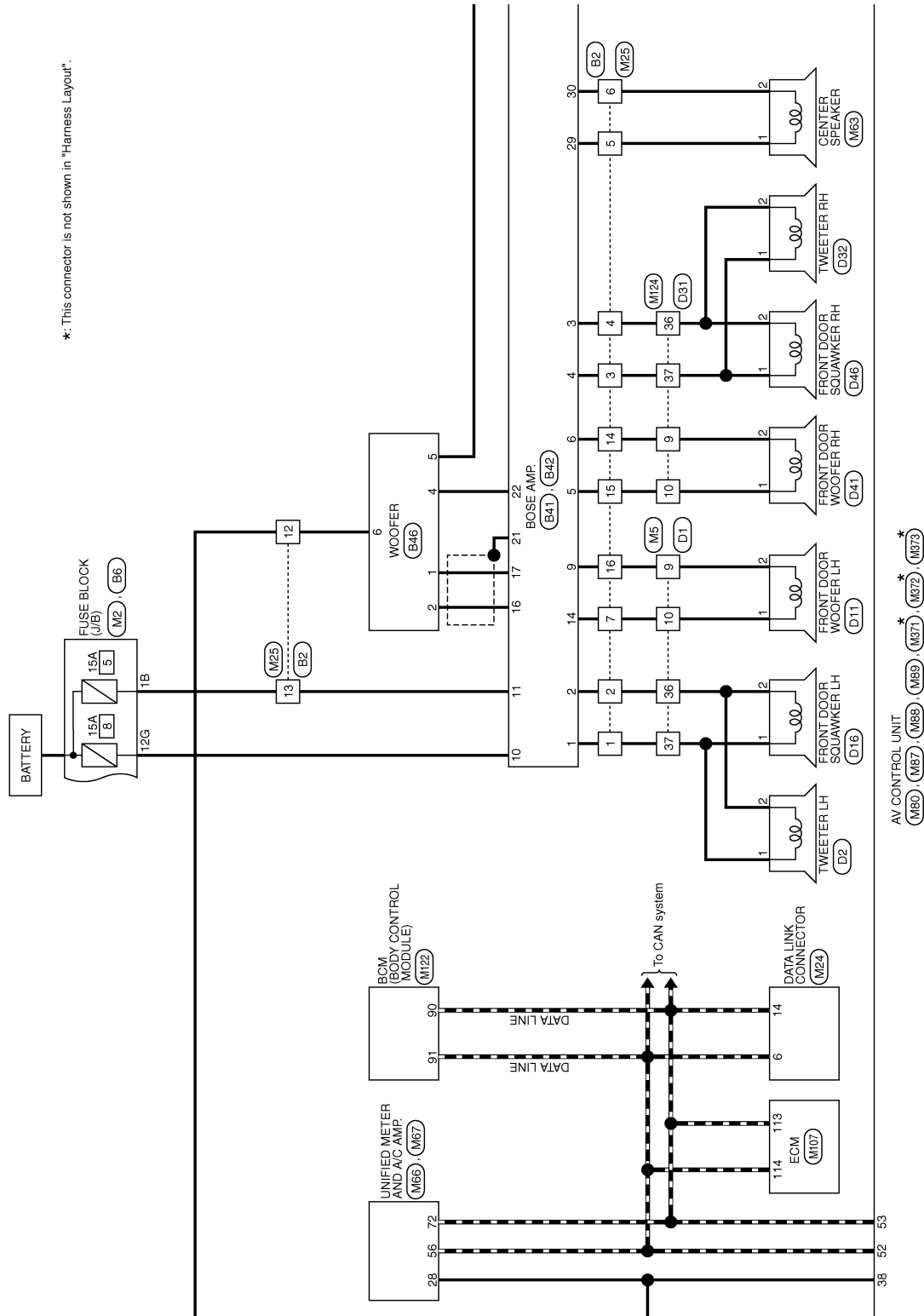
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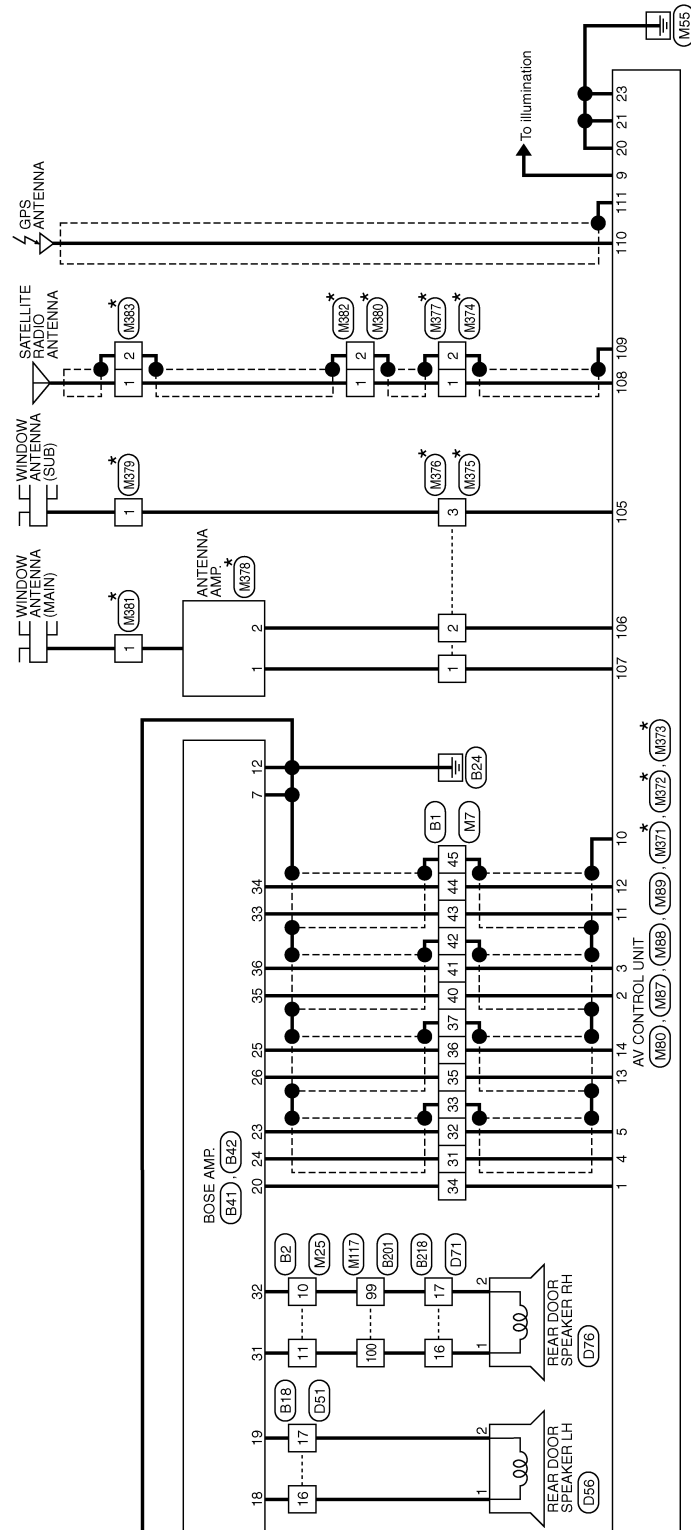
BOSE AMP.

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[BOSE AUDIO WITH NAVIGATION]



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



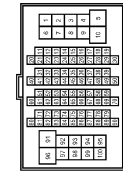
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BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color of Wire	Signal Name
31	V	-
32	SB	-
33	SHIELD	-
34	V	-
35	BR	-
36	Y	-
37	SHIELD	-
40	P	-
41	L	-
42	SHIELD	-
43	R	-

44	G	-
45	SHIELD	-
83	O	-
96	V	-

Connector No.	B2
Connector Name	WIRE TO WIRE
Connector Type	NS18FW-CS



Terminal No.	Color of Wire	Signal Name
1	L	-
2	W	-
3	V	-
4	LG	-
5	Y	-
6	G	-
7	B	-
10	Y	-
11	LG	-
12	Y	-
13	GR	-

Connector No.	B6
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FB-CS



Terminal No.	2G	12G
Color of Wire	GR	Y
Signal Name	-	-

Connector No.	B14
Connector Name	PARKING BRAKE SWITCH
Connector Type	P01FB-A



Terminal No.	1
Color of Wire	V
Signal Name	-

Connector No.	B18
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-HSB



Terminal No.	16	17
Color of Wire	L	P
Signal Name	- [With BOSE system]	- [With BOSE system]

Connector No.	B27
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS



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

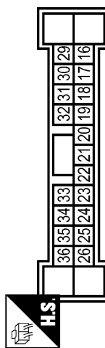
BOSE AMP.

< ECU DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B41
Connector Name	BOSE AMP.
Connector Type	SCA11FBR-SGA4



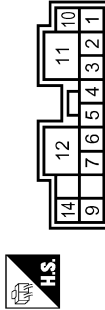
Terminal No.	Color of Wire	Signal Name
16	SB	SOUND SIGNAL WOOFER (+)
17	V	SOUND SIGNAL WOOFER (-)
18	L	SOUND SIGNAL REAR DOOR LH (+)
19	P	SOUND SIGNAL REAR DOOR LH (-)
20	V	AMP ON SIGNAL
21	SHIELD	SHIELD
22	GR	WOOFER AMP ON SIGNAL
23	SB	SOUND SIGNAL REAR LH (-)
24	V	SOUND SIGNAL REAR LH (+)
25	Y	SOUND SIGNAL REAR RH (-)
26	BR	SOUND SIGNAL REAR RH (+)

Connector No.	B43
Connector Name	OD CHANGER
Connector Type	A10FW



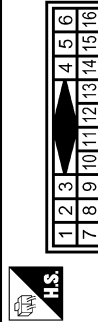
Terminal No.	Color of Wire	Signal Name
1	W	SOUND SIGNAL LH (-)
2	R	SOUND SIGNAL LH (+)
3	G	SOUND SIGNAL RH (-)
4	B	SOUND SIGNAL RH (+)
5	SHIELD	SHIELD
6	SHIELD	SHIELD
8	P	REQUEST (OD->CONT)
9	L	COMM (OD->CONT)
10	G	COMM (CONT->OD)
12	Y	BATTERY
16	V	ACC

29	Y	SOUND SIGNAL CENTER (+)
30	G	SOUND SIGNAL CENTER (-)
31	LG	SOUND SIGNAL REAR DOOR RH (+)
32	Y	SOUND SIGNAL REAR DOOR RH (-)
33	R	SOUND SIGNAL FRONT RH (+)
34	G	SOUND SIGNAL FRONT RH (-)
35	P	SOUND SIGNAL FRONT LH (+)
36	L	SOUND SIGNAL FRONT LH (-)



Terminal No.	Color of Wire	Signal Name
1	L	FRONT DOOR SQUAWKER LH (+)
2	W	FRONT DOOR SQUAWKER LH (-)
3	LG	FRONT DOOR SQUAWKER RH (+)
4	V	FRONT DOOR SQUAWKER RH (-)
5	G	FRONT DOOR WOOFER RH (+)
6	R	FRONT DOOR WOOFER RH (-)
7	B	GND
9	W	FRONT DOOR WOOFER LH (-)
10	Y	BATTERY
11	GR	BATTERY
12	B	GND

Connector No.	B48
Connector Name	WIRE TO WIRE
Connector Type	A10MW



Terminal No.	Color of Wire	Signal Name
1	V	-
3	Y	-
4	SHIELD	-
5	B	-
6	R	-
10	G	-
11	L	-
12	P	-
14	SHIELD	-
15	G	-
16	W	-

14	B	FRONT DOOR WOOFER LH (+)

Connector No.	B42
Connector Name	BOSE AMP.
Connector Type	SGA12FBR-SJA2



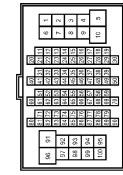
Connector No.	B66
Connector Name	WIRE TO WIRE
Connector Type	TH08MW-RH



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

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-TM44



Terminal No.	Color of Wire	Signal Name
51	V	-
52	G	-
53	R	-
54	B	-
60	L	-
81	LG	-
82	W	-
83	Y	-
64	BR	-
65	L	-
66	R	-

67	O	-
71	Y	-
72	G	-
73	L	-
80	V	-
81	SHIELD	-
82	P	-
83	SHIELD	-
84	W	- [With CD auto-changer]
85	G	- [With CD auto-changer]
86	R	-
87	B	-
99	P	-
100	L	-



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

Connector No.	B210
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-NH

Connector No.	B218
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8



Terminal No.	Color of Wire	Signal Name
16	L	-
17	P	-

Connector No.	B239
Connector Name	WIRE TO WIRE
Connector Type	AI0FW

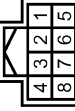


Connector No.	B241
Connector Name	CAMERA CONTROL UNIT
Connector Type	TH83FW-NH



20	G	AV COMM (H)
22	GR	REVERSE
23	L	SENSOR SIGNAL 1
24	R	SENSOR SIGNAL 2
25	O	SENSOR SIGNAL 3
26	V	VEHICLE SPEED (3-PULSE)
29	SB	IGNITION
30	LG	ACC
31	B	GND
32	L	BATTERY

Connector No.	B243
Connector Name	WIRE TO WIRE
Connector Type	TH88FW-NH



Terminal No.	Color of Wire	Signal Name
1	V	-
3	Y	-
4	SHIELD	-
5	B	-
6	R	-
10	P	-
11	L	-
12	G	-
14	SHIELD	-
15	G	-
16	W	-

5	SHIELD	SHIELD
6	B	CAMERA IMAGE SIGNAL
7	W	GND
8	R	CAMERA ON SIGNAL
11	SHIELD	SHIELD
12	W	CAMERA IMAGE SIGNAL
13	B	CONTROL SIGNAL
14	W	CONNECTION RECOGNITION
17	BR	AV COMM (L)
18	Y	AV COMM (H)
19	R	AV COMM (L)

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

JCNWA0055GE

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B301
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



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



1	2	3	4

Connector No.	B305
Connector Name	REAR VIEW CAMERA
Connector Type	TH04MW-NH



1	2	3	4

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



15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
44	43	42	41	40	39	38	37	36	35	34	33	32	31	30
29	28	27	26	25	24	23	22	21	20	19	18	17	16	15



2	1

Connector No.	D2
Connector Name	TWEETER LH
Connector Type	TK02MBR-P



2	1

Terminal No.	Color of Wire	Signal Name
13	SHIELD	-
14	Y	-
15	L	-
16	R	-

Terminal No.	Color of Wire	Signal Name
1	R	CAMERA ON SIGNAL
2	L	GND
3	Y	CAMERA IMAGE SIGNAL
4	SHIELD	SHIELD

Terminal No.	Color of Wire	Signal Name
9	R	-
10	G	-
36	W	-
37	L	-

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

Connector No.	D11
Connector Name	FRONT DOOR WOOFER LH
Connector Type	NS02FW-CS



2	1

Connector No.	D16
Connector Name	FRONT DOOR SQUAWKER LH
Connector Type	TK02FBR



2	1

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



15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
44	43	42	41	40	39	38	37	36	35	34	33	32	31	30
29	28	27	26	25	24	23	22	21	20	19	18	17	16	15



2	1

Connector No.	D32
Connector Name	TWEETER RH
Connector Type	TK02MBR-P



2	1

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

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

Terminal No.	Color of Wire	Signal Name
9	R	-
10	G	-
36	W	-
37	L	-

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

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BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	D41
Connector Name	FRONT DOOR WOOFER RH
Connector Type	NS02FW-CS



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

Connector No.	D46
Connector Name	FRONT DOOR SQUAWKER RH
Connector Type	TK10MW-NS8



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

Connector No.	D51
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Terminal No.	Color of Wire	Signal Name
16	LG	-
17	Y	-

Connector No.	D56
Connector Name	REAR DOOR SPEAKER LH (With BOSE system)
Connector Type	NS02FBR-CS



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

Connector No.	D71
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Terminal No.	Color of Wire	Signal Name
16	L	-
17	P	-

Connector No.	D76
Connector Name	REAR DOOR SPEAKER RH (With BOSE system)
Connector Type	NS02FBR-CS



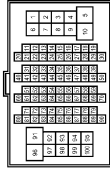
Terminal No.	Color of Wire	Signal Name
1	L	-
2	P	-

Connector No.	E5
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	TH20FW-CS12-M4-1V



Terminal No.	Color of Wire	Signal Name
25	G	-

Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color of Wire	Signal Name
18	O	-
46	LG	-
95	Y	-

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BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	E107
Connector Name	PARKING BRAKE SWITCH (A/T)
Connector Type	TB01FW



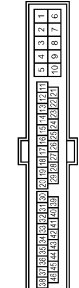
Connector No.	F51
Connector Name	A/T ASSEMBLY
Connector Type	RK10FG-DGY



Connector No.	F56
Connector Name	BACK-UP LAMP SWITCH
Connector Type	RK02FB



Connector No.	F103
Connector Name	WIRE TO WIRE
Connector Type	TK38FW-NS10



Terminal No.	1
Color of Wire	O
Signal Name	-

Terminal No.	7
Color of Wire	R
Signal Name	-

Terminal No.	1
Color of Wire	R
Signal Name	-

Terminal No.	31
Color of Wire	R
Signal Name	-

Connector No.	F151
Connector Name	TOM (TRANSMISSION CONTROL MODULE)
Connector Type	SP10FBGY



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



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



Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FW-CS



Terminal No.	7
Color of Wire	O
Signal Name	REV LAMP RLY

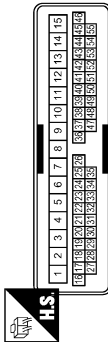
Terminal No.	2A
Color of Wire	G
Signal Name	-

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

Terminal No.	12C
Color of Wire	R
Signal Name	-

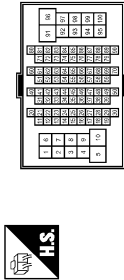
BOSE AUDIO WITH NAVIGATION SYSTEM

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



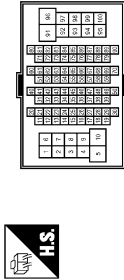
Terminal No.	Color of Wire	Signal Name
9	W	-
10	B	-
36	W	-
37	L	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



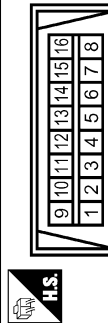
Terminal No.	Color of Wire	Signal Name
18	V	-
46	G	-
95	Y	-

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



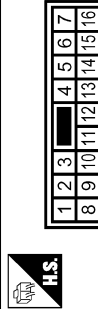
Terminal No.	Color of Wire	Signal Name
31	V	-
32	SB	-
33	SHIELD	-
34	V	-
35	BR	-
36	Y	-
37	SHIELD	-
40	P	-
41	L	-
42	SHIELD	-
43	R	-

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



Terminal No.	Color of Wire	Signal Name
6	L	-
14	P	-

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



Terminal No.	Color of Wire	Signal Name
1	L	-
2	W	-
3	BR	-
4	R	-
5	L	-
6	LG	-
7	B	-
10	P	-
11	L	-
12	Y	-
13	SB	-

Terminal No.	14
Terminal No.	15
Terminal No.	16

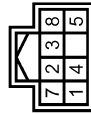
Connector No.	M38
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08GY-1V



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

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M37
Connector Name	STEERING ANGLE SENSOR
Connector Type	TH8FW-NH



Terminal No.	Color of Wire	Signal Name
3	L	SENSOR1
4	BR	SENSOR2
5	O	SENSOR3
7	B	GND
8	G	IGN

Connector No.	M63
Connector Name	CENTER SPEAKER
Connector Type	TK02FBR



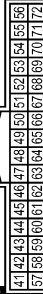
Terminal No.	Color of Wire	Signal Name
1	L	-
2	LG	-

Connector No.	M66
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH40FW-NH



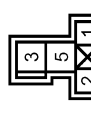
Terminal No.	Color of Wire	Signal Name
28	R	VEHICLE SPEED (8-PUL SE)

Connector No.	M67
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH32FW-NH

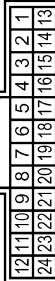


Terminal No.	Color of Wire	Signal Name
56	L	CAN-H
72	P	CAN-L

Connector No.	M69
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS02FL-M2

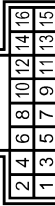


Connector No.	M71
Connector Name	DISPLAY UNIT
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name
13	B	GND [With NAVI]
14	SHIELD	SHIELD [With NAVI]
15	G	AUX IMAGE SIGNAL [With NAVI]
17	L	RGB (R/RED) SIGNAL [With NAVI]
18	Y	RGB (B/BLUE) SIGNAL [With NAVI]
19	Y	RGB SYNC [With NAVI]
20	W	VP [With NAVI]
21	SHIELD	SHIELD
22	Y	COMM (DISP->CONT) [With NAVI]
23	SHIELD	SHIELD

Connector No.	M72
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH18FW-NH



Terminal No.	Color of Wire	Signal Name
1	R	-
2	W	-
3	LG	-
5	O	-

Terminal No.	Color of Wire	Signal Name
1	B	GND
2	Y	BATTERY [With NAVI]
3	V	ACC [With NAVI]
4	SHIELD	SHIELD [With NAVI]
5	R	AUX IMAGE GND [With NAVI]
6	O	RGB (GREEN) SIGNAL [With NAVI]
7	SHIELD	SHIELD
8	R	HP
9	B	RGB AREA (VS) SIGNAL
11	BR	COMM (CONT->DISP) [With NAVI]
12	W	CAMERA IMAGE SIGNAL

Terminal No.	Color of Wire	Signal Name
1	B	GND
3	V	ACC
6	LG	AV COMM (H)
8	V	AV COMM (L)
9	BR	SW GND
14	SB	EJECT SIGNAL

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M80
Connector Name	AV CONTROL UNIT
Connector Type	TH18FW-CS2



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

13	BR	SOUND SIGNAL REAR RH (+)
14	Y	SOUND SIGNAL REAR RH (-)
15	B	STRG SW GND
16	L	STRG SW B
19	Y	BATTERY
20	B	GND

Terminal No.	Color of Wire	Signal Name
1	V	AMP ON SIGNAL
2	P	SOUND SIGNAL FRONT LH (+)
3	L	SOUND SIGNAL FRONT LH (-)
4	V	SOUND SIGNAL REAR LH (+)
5	SB	SOUND SIGNAL REAR LH (-)
6	P	STRG SW A
7	V	ACC
9	R	ILLUMINATION
10	SHIELD	SHIELD
11	R	SOUND SIGNAL FRONT RH (+)
12	G	SOUND SIGNAL FRONT RH (-)

Connector No.	M88
Connector Name	AV CONTROL UNIT
Connector Type	TH12FW-RH



62	64	66	68	70	72
61	63	65	67	69	71

Terminal No.	Color of Wire	Signal Name
61	L	RGB (RED) SIGNAL
62	O	RGB (GREEN) SIGNAL
63	V	RGB (BLUE) SIGNAL
64	SHIELD	SHIELD
65	Y	RGB SYNC
66	SHIELD	SHIELD
67	B	RGB AREA (YS) SIGNAL
68	R	HP
69	W	VP
70	BR	COMM (CONT->DISP)
71	Y	COMM (DISP->CONT)

Connector No.	M87
Connector Name	AV CONTROL UNIT
Connector Type	TH40FW-RH



21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37

Terminal No.	Color of Wire	Signal Name
21	B	GND
22	Y	BATTERY
23	B	GND
24	Y	BATTERY
25	V	ACC
26	G	MICROPHONE VCC
27	SHIELD	MICROPHONE GND
28	R	MICROPHONE SIGNAL
35	G	IGNITION
36	V	PARKING BRAKE
37	O	REVERSE

Connector No.	M89
Connector Name	AV CONTROL UNIT
Connector Type	TH32FW-RH



73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88
89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104

Terminal No.	Color of Wire	Signal Name
73	B	SOUND SIGNAL LH (+)
74	G	SOUND SIGNAL RH (+)
75	SHIELD	SHIELD
76	W	REQUEST (CD->CONT)
77	R	COMM (CONT->CD)
85	SB	EJECT SIGNAL
86	SHIELD	SHIELD
87	W	SOUND SIGNAL LH (+)
88	B	SOUND SIGNAL GND
89	W	SOUND SIGNAL LH (-)
90	R	SOUND SIGNAL RH (-)

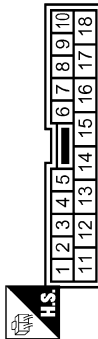
38	R	VEHICLE SPEED (6-PULSE)
40	W	CONNECTION RECOGNITION
48	G	AV COMM (H)
49	R	AV COMM (L)
50	V	AV COMM (H)
51	LG	AV COMM (L)
52	L	CAN-H
53	P	CAN-L

91	SHIELD	SHIELD
93	B	COMM (CD->CONT)
102	BR	SW GND
103	R	SOUND SIGNAL RH (+)

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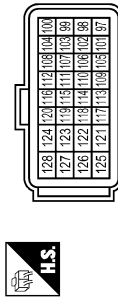
BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M106
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



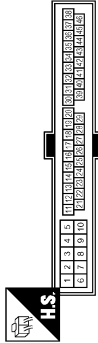
Terminal No.	Color of Wire	Signal Name
1	R	- [With NAVI]
2	G	- [With NAVI]
3	SHIELD	- [With NAVI]

Connector No.	M107
Connector Name	ECM
Connector Type	MAA24FGY-MEAB-LH-Z



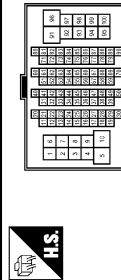
Terminal No.	Color of Wire	Signal Name
113	P	VHECAN LI
114	L	VHECAN HI

Connector No.	M116
Connector Name	WIRE TO WIRE
Connector Type	TK38MW-NS10



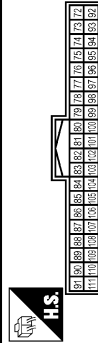
Terminal No.	Color of Wire	Signal Name
31	W	-
32	LG	-
41	O	-

Connector No.	M117
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



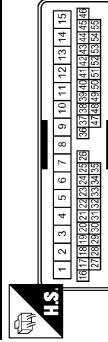
Terminal No.	Color of Wire	Signal Name
51	V	-
52	G	-
53	R	-
54	B	-
60	Y	-
61	V	-
62	W	-
63	Y	-
64	BR	-
65	L	-
66	BR	-

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40EP-NH



Terminal No.	Color of Wire	Signal Name
90	P	CAN-L
91	L	CAN-H

Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



Terminal No.	Color of Wire	Signal Name
9	R	-
10	G	-
36	R	-
37	BR	-

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M145
Connector Name	WIRE TO WIRE
Connector Type	TH04MW-NH



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

Connector No.	M154
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A08FW



Terminal No.	Color of Wire	Signal Name
1	R	SOUND SIGNAL RH (+) [With NAVI]
2	B	SOUND SIGNAL GND
3	W	SOUND SIGNAL LH (+) [With NAVI]
7	G	AUX IMAGE SIGNAL
8	R	AUX IMAGE GND

Connector No.	M155
Connector Name	WIRE TO WIRE
Connector Type	TH05FW-NH



Terminal No.	Color of Wire	Signal Name
1	SHIELD	-
2	B	[With NAVI]
3	R	[With NAVI]
4	W	[With NAVI]
5	B	-
6	SHIELD	-
7	G	-
8	R	-

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



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

Connector No.	M381
Connector Name	WIRE TO WIRE
Connector Type	TH08MW-NH



Terminal No.	Color of Wire	Signal Name
1	SHIELD	-
2	B	-
3	R	- [With NAVI]
4	W	- [With NAVI]
5	SHIELD	-
6	SHIELD	-
7	G	-
8	R	-

Connector No.	M382
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A08FW



Terminal No.	Color of Wire	Signal Name
1	R	SOUND SIGNAL RH (+) [With NAVI]
2	B	SOUND SIGNAL GND
3	W	SOUND SIGNAL LH (+) [With NAVI]
7	G	AUX IMAGE SIGNAL
8	R	AUX IMAGE GND

Connector No.	M371
Connector Name	AV CONTROL UNIT
Connector Type	GT13SH-2/1S-HU



Terminal No.	Color of Wire	Signal Name
105	-	FM SUB
106	-	AM-FM MAIN
107	-	ANETNA AMP. ON SIGNAL

Connector No.	M372
Connector Name	AV CONTROL UNIT
Connector Type	FAKRA JACK



Terminal No.	Color of Wire	Signal Name
108	-	SAETLITE ANTENNA
109	SHIELD	SHIELD

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M373
Connector Name	AV CONTROL UNIT
Connector Type	GT6-1S-HU



Terminal No.	Color of Wire	Signal Name
110	-	GPS ANTENNA
111	SHIELD	SHIELD

Connector No.	M374
Connector Name	WIRE TO WIRE
Connector Type	GT16C-1PP-HU



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

Connector No.	M375
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1S-HU



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

Connector No.	M376
Connector Name	WIRE TO WIRE
Connector Type	GT14SCN-2/1PP-HU



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

Connector No.	M377
Connector Name	WIRE TO WIRE
Connector Type	GT18C-1S-HU



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

Connector No.	M378
Connector Name	ANTENNA AMP.
Connector Type	GT13SC-1/1S-HU



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

Connector No.	M379
Connector Name	WINDOW ANTENNA(SUB)
Connector Type	P01FB-A



Terminal No.	Color of Wire	Signal Name
1	-	-

Connector No.	M380
Connector Name	WIRE TO WIRE
Connector Type	GT16-1PP-HU



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

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M381
Connector Name	WINDOW ANTENNA(MAIN)
Connector Type	P01FE-A



Terminal No.	Color of Wire	Signal Name
1	-	-

Connector No.	M382
Connector Name	WIRE TO WIRE
Connector Type	GT16C-1S-HU



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

Connector No.	M383
Connector Name	SATELLITE RADIO TUNER
Connector Type	GT16C-1PP-HU



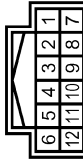
Terminal No.	Color of Wire	Signal Name
1	-	-
2	SHIELD	-

Connector No.	RI1
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8



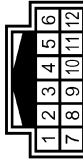
Terminal No.	Color of Wire	Signal Name
1	R	- [With NAV]
2	G	- [With NAV]
3	SHIELD	-

Connector No.	R2
Connector Name	WIRE TO WIRE
Connector Type	TH12FW-NH



Terminal No.	Color of Wire	Signal Name
3	SHIELD	-
4	R	-
5	G	-

Connector No.	RI1
Connector Name	WIRE TO WIRE
Connector Type	TH12MW-NH



Terminal No.	Color of Wire	Signal Name
3	SHIELD	-
4	R	-
5	G	-

Connector No.	RI7
Connector Name	MICROPHONE
Connector Type	TK34FW



Terminal No.	Color of Wire	Signal Name
1	R	MICROPHONE SIGNAL
2	SHIELD	SHIELD
4	G	MICROPHONE VCC

CAMERA CONTROL UNIT

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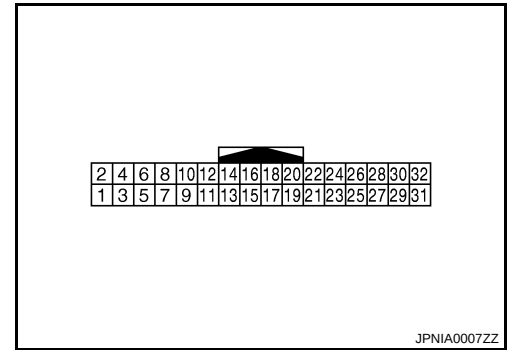
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CAMERA CONTROL UNIT

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TERMINAL LAYOUT



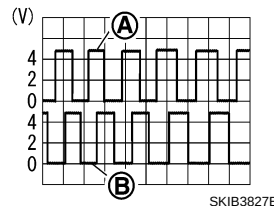
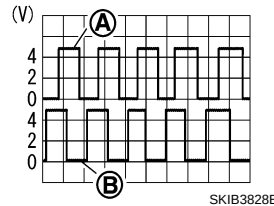
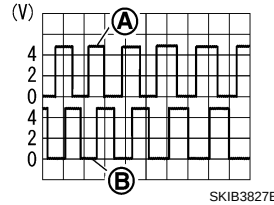
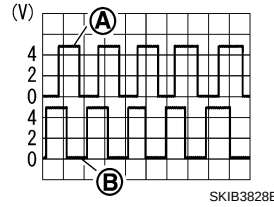
PHYSICAL VALUES

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
5	—	Shield	—	—	—	—
6 (B)	Ground	Camera image signal	Input	Ignition switch ON	At rear view camera image displayed	
7 (W)	Ground	GND	—	Ignition switch ON	—	0 V
8 (R)	Ground	Camera ON signal	Output	Ignition switch ON	R position	6 V
					Other than R position	0 V
11	—	Shield	—	—	—	—
12 (W)	Ground	Camera image signal	Output	Ignition switch ON	At rear view camera image displayed	
13 (B)	Ground	Control signal	—	Ignition switch ON	—	0 V
14 (W)	Ground	Camera-connection recog- nition signal	—	Ignition switch ON	Connected to camera con- trol unit connector	0 V
					Not connected to camera control unit connector	5 V
17 (BR)	—	AV communication signal (L)	Input/ Output	—	—	—

CAMERA CONTROL UNIT

< ECU DIAGNOSIS >

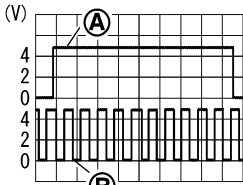
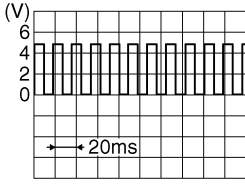
[BOSE AUDIO WITH NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
18 (Y)	—	AV communication signal (H)	Input/ Output	—	—	—
19 (R)	—	AV communication signal (L)	Input/ Output	—	—	—
20 (G)	—	AV communication signal (H)	Input/ Output	—	—	—
22 (GR)	Ground	Reverse signal	Input	Ignition switch ON	R position	12 V
				Other than R position	0 V	
23 (L)	Ground	Sensor signal 1	Input	Ignition switch ON	Turn the steering to the right	 A: Sensor signal 1 B: Sensor signal 2
					Turn the steering to the left	 A: Sensor signal 1 B: Sensor signal 2
24 (R)	Ground	Sensor signal 2	Input	Ignition switch ON	Turn the steering to the right	 A: Sensor signal 1 B: Sensor signal 2
					Turn the steering to the left	 A: Sensor signal 1 B: Sensor signal 2

CAMERA CONTROL UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
25 (O)	Ground	Sensor signal 3	Input	Ignition switch ON	Turn the steering around the neutral position	 A: Sensor signal 3 B: Sensor signal 1
26 (V)	Ground	Vehicle speed signal (8-pulse)	Input	Ignition switch ON	When vehicle speed is ap- prox. 40 km/h (25 MPH)	
29 (SB)	Ground	Ignition signal	Input	Ignition switch ON	—	Battery voltage
30 (LG)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
31 (B)	Ground	GND	—	Ignition switch ON	—	0 V
32 (L)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage

Wiring Diagram — BOSE AUDIO WITH NAVIGATION SYSTEM —

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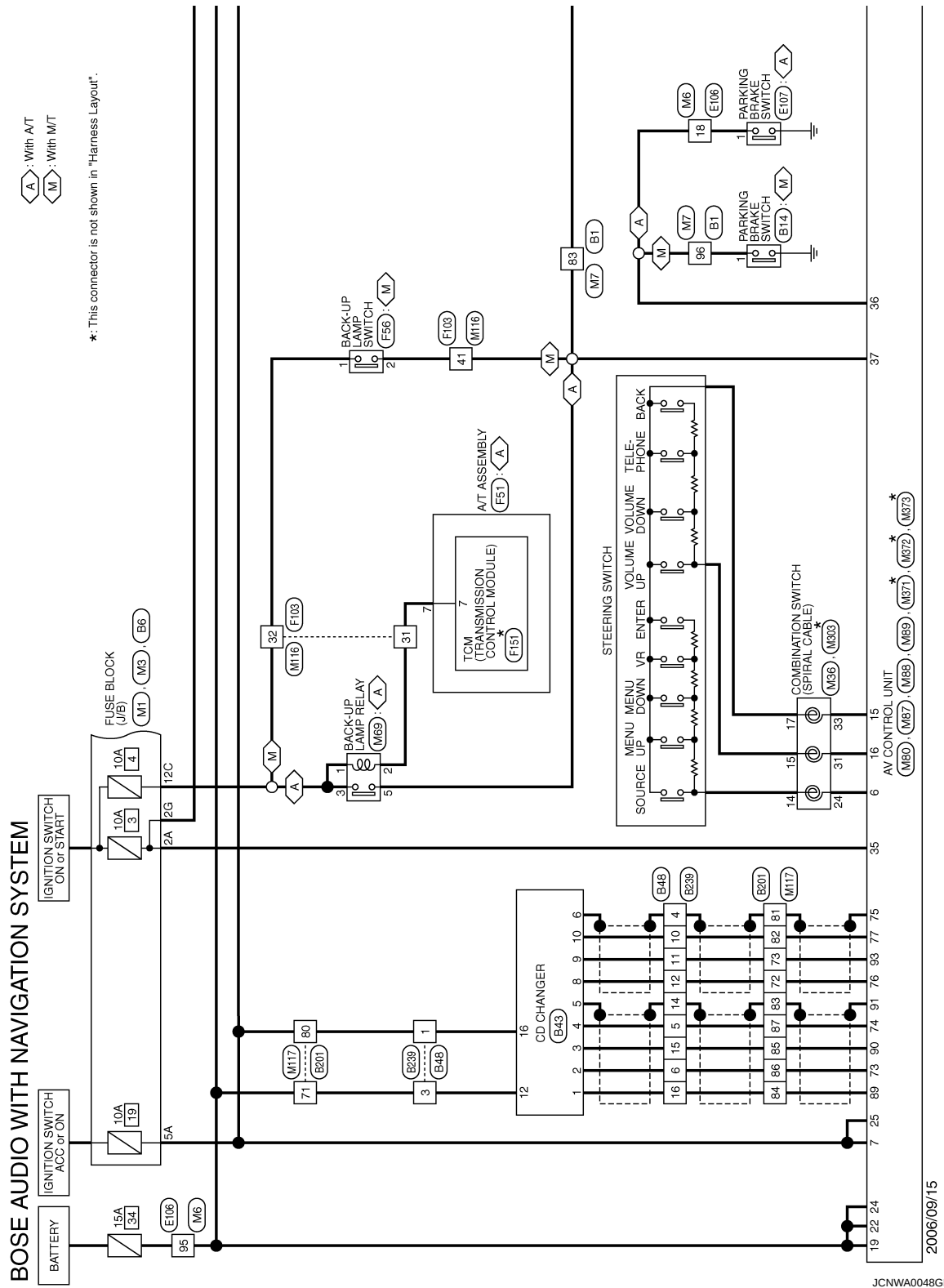
NOTE:

CAMERA CONTROL UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

The name MULTIFUNCTION SWITCH indicates the integration of PRESET SWITCH and MULTIFUNCTION SWITCH virtually.



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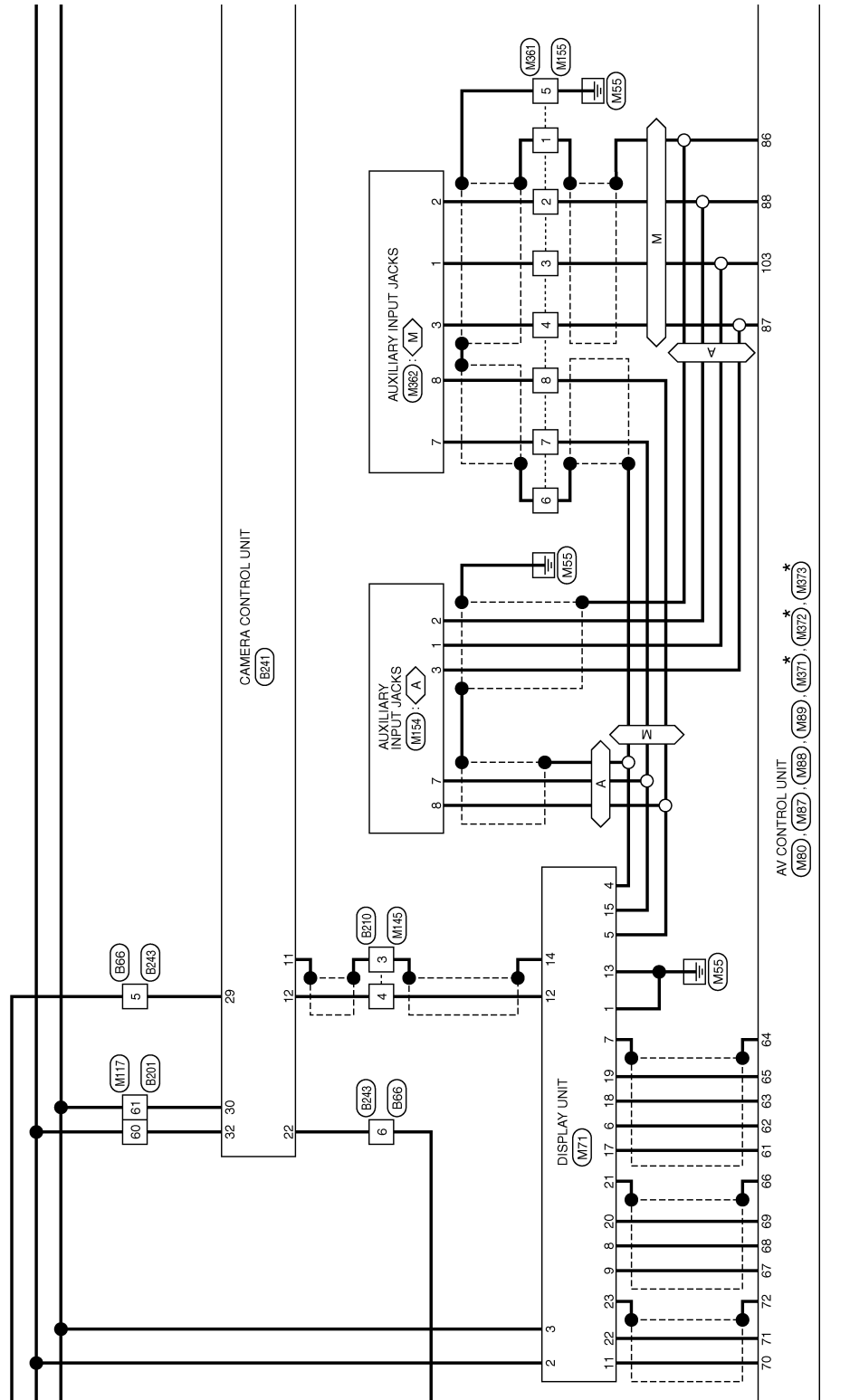
CAMERA CONTROL UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

A : With A/T
M : With M/T

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



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A
B
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D
E
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I
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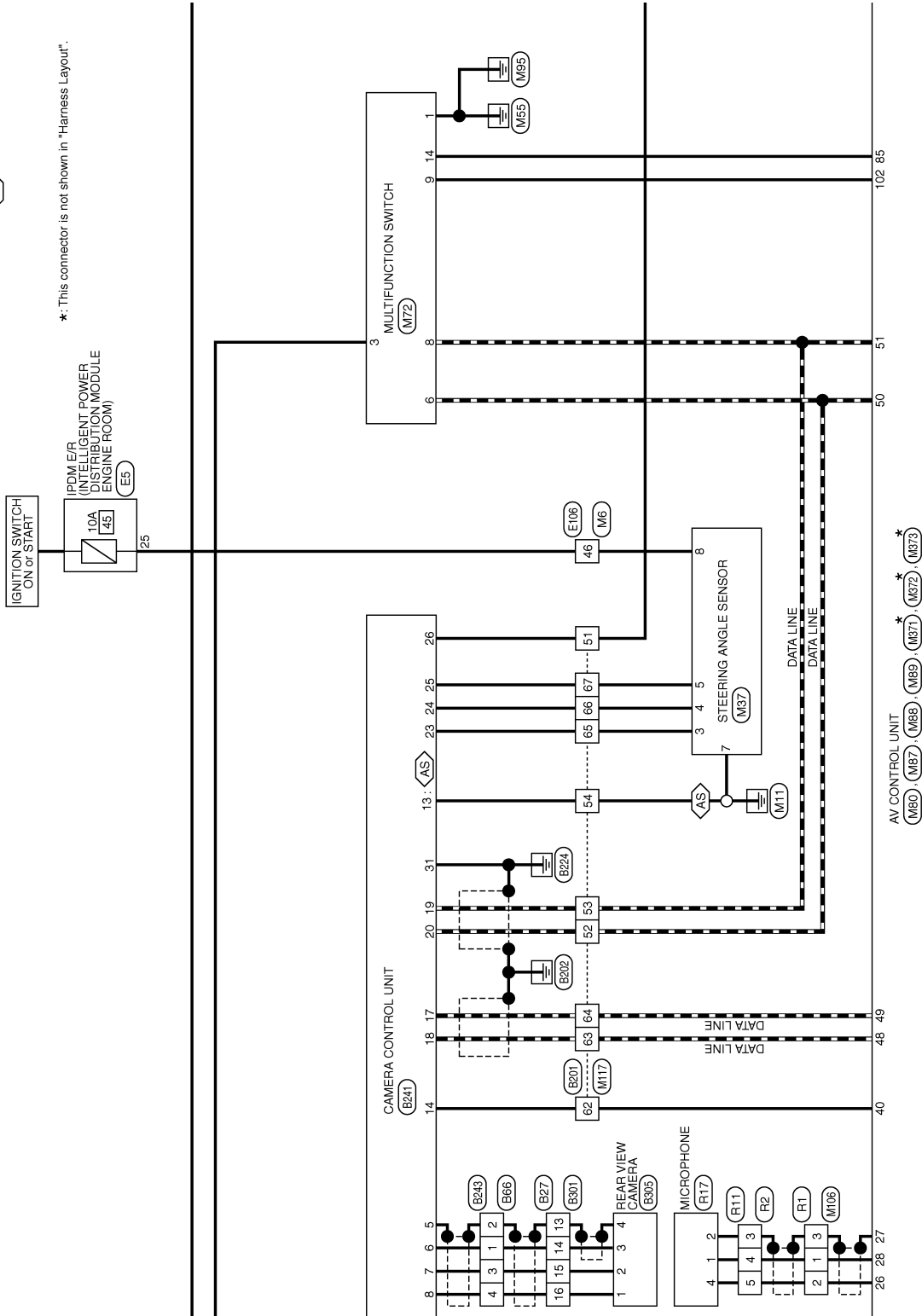
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CAMERA CONTROL UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

AS With 4WAS



JCNWA0050GE

[BOSE AUDIO WITH NAVIGATION]

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AM
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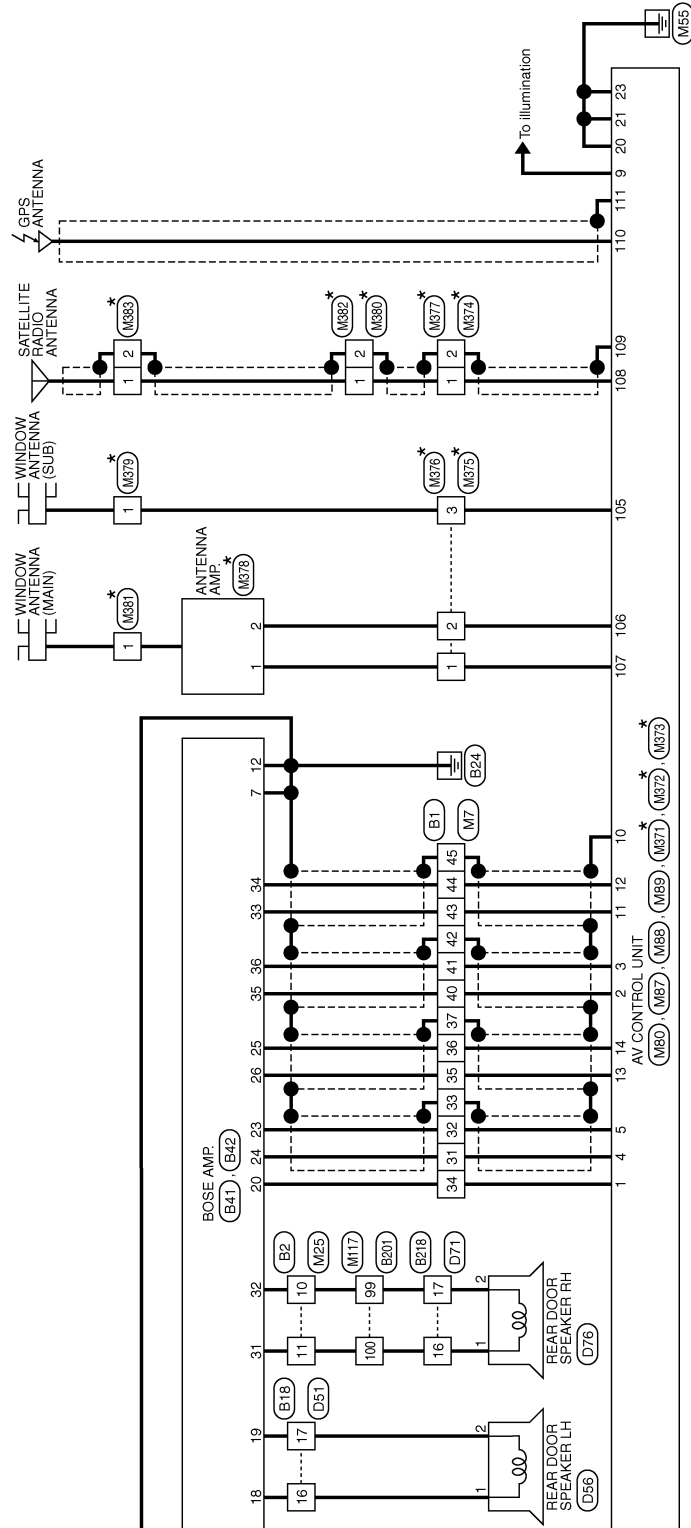


CAMERA CONTROL UNIT

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[BOSE AUDIO WITH NAVIGATION]

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



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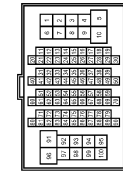
CAMERA CONTROL UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color of Wire	Signal Name
31	V	-
32	SB	-
33	SHIELD	-
34	V	-
35	BR	-
36	Y	-
37	SHIELD	-
40	P	-
41	L	-
42	SHIELD	-
43	R	-

44	G	-
45	SHIELD	-
83	O	-
96	V	-

Connector No.	B2
Connector Name	WIRE TO WIRE
Connector Type	NS18FW-CS



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

Terminal No.	Color of Wire	Signal Name
1	L	-
2	W	-
3	V	-
4	LG	-
5	Y	-
6	G	-
7	B	-
10	Y	-
11	LG	-
12	Y	-
13	GR	-

Connector No.	B6
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FB-CS



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

Connector No.	B14
Connector Name	PARKING BRAKE SWITCH
Connector Type	P01FB-A



1

Connector No.	B18
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS



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

Connector No.	B27
Connector Name	WIRE TO WIRE
Connector Type	NS18MW-CS



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

Terminal No.	Color of Wire	Signal Name
2G	GR	-
12G	Y	-

Terminal No.	Color of Wire	Signal Name
1	V	-

Terminal No.	Color of Wire	Signal Name
16	L	- [With BOSE system]
17	P	- [With BOSE system]

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

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A
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P

AV

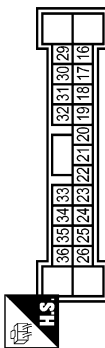
CAMERA CONTROL UNIT

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[BOSE AUDIO WITH NAVIGATION]

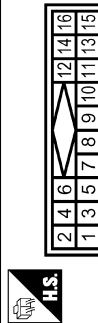
BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B41
Connector Name	BOSE AMP.
Connector Type	SCA1FBR-SGA4



Terminal No.	Color of Wire	Signal Name
16	SB	SOUND SIGNAL WOOFER (+)
17	V	SOUND SIGNAL WOOFER (-)
18	L	SOUND SIGNAL REAR DOOR LH (+)
19	P	SOUND SIGNAL REAR DOOR LH (-)
20	V	AMP ON SIGNAL
21	SHIELD	SHIELD
22	GR	WOOFER AMP- ON SIGNAL
23	SB	SOUND SIGNAL REAR LH (-)
24	V	SOUND SIGNAL REAR LH (+)
25	Y	SOUND SIGNAL REAR RH (-)
26	BR	SOUND SIGNAL REAR RH (+)

Connector No.	B43
Connector Name	OD CHANGER
Connector Type	A1R1W

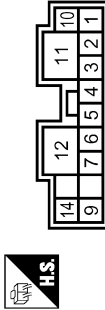


Terminal No.	Color of Wire	Signal Name
1	W	SOUND SIGNAL LH (-)
2	R	SOUND SIGNAL LH (+)
3	G	SOUND SIGNAL RH (-)
4	B	SOUND SIGNAL RH (+)
5	SHIELD	SHIELD
6	SHIELD	SHIELD
8	P	REQUEST (OD->CONT)
9	L	COMM (OD->CONT)
10	G	COMM (CONT->OD)
12	Y	BATTERY
16	V	ACC

29	Y	SOUND SIGNAL CENTER (+)
30	G	SOUND SIGNAL CENTER (-)
31	LG	SOUND SIGNAL REAR DOOR RH (+)
32	Y	SOUND SIGNAL REAR DOOR RH (-)
33	R	SOUND SIGNAL FRONT RH (+)
34	G	SOUND SIGNAL FRONT RH (-)
35	P	SOUND SIGNAL FRONT LH (+)
36	L	SOUND SIGNAL FRONT LH (-)

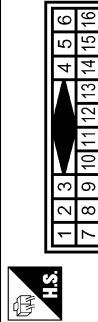


Connector No.	B42
Connector Name	BOSE AMP.
Connector Type	SGA12FBR-SJA2



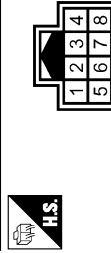
Terminal No.	Color of Wire	Signal Name
1	L	FRONT DOOR SQUAWKER LH (+)
2	W	FRONT DOOR SQUAWKER LH (-)
3	LG	FRONT DOOR SQUAWKER RH (+)
4	V	FRONT DOOR SQUAWKER RH (-)
5	G	FRONT DOOR WOOFER RH (+)
6	R	FRONT DOOR WOOFER RH (-)
7	B	GND
9	W	FRONT DOOR WOOFER LH (-)
10	Y	BATTERY
11	GR	BATTERY
12	B	GND

Connector No.	B48
Connector Name	WIRE TO WIRE
Connector Type	A18MW



Terminal No.	Color of Wire	Signal Name
1	V	-
3	Y	-
4	SHIELD	-
5	B	-
6	R	-
10	G	-
11	L	-
12	P	-
14	SHIELD	-
15	G	-
16	W	-

Connector No.	B66
Connector Name	WIRE TO WIRE
Connector Type	TH68MW-RH



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

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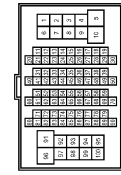
CAMERA CONTROL UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

BOSE AUDIO WITH NAVIGATION SYSTEM

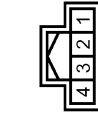
Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color of Wire	Signal Name
51	V	-
52	G	-
53	R	-
54	B	-
55	L	-
56	LG	-
57	W	-
58	Y	-
59	BR	-
60	L	-
61	R	-

67	O	-
71	Y	-
72	G	-
73	L	-
80	V	-
81	SHIELD	-
82	P	-
83	SHIELD	-
84	W	- [With CD auto changer]
85	G	- [With CD auto changer]
86	R	-
87	B	-
99	P	-
100	L	-

Connector No.	B210
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-NH



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

Connector No.	B218
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8

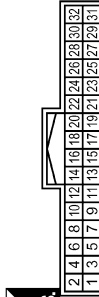


Terminal No.	Color of Wire	Signal Name
16	L	-
17	P	-

Connector No.	B239
Connector Name	WIRE TO WIRE
Connector Type	A10FW

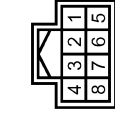


Connector No.	B241
Connector Name	CAMERA CONTROL UNIT
Connector Type	TH32FW-NH



20	G	AV COMM (H)
22	GR	REVERSE
23	L	SENSOR SIGNAL 1
24	R	SENSOR SIGNAL 2
25	O	SENSOR SIGNAL 3
26	V	VEHICLE SPEED (3-PULSE)
29	SB	IGNITION
30	LG	ACC
31	B	GND
32	L	BATTERY

Connector No.	B243
Connector Name	WIRE TO WIRE
Connector Type	TH08FW-NH



Terminal No.	Color of Wire	Signal Name
1	V	-
3	Y	-
4	SHIELD	-
5	B	-
6	R	-
10	P	-
11	L	-
12	G	-
14	SHIELD	-
15	G	-
16	W	-

5	SHIELD	SHIELD
6	B	CAMERA IMAGE SIGNAL
7	W	GND
8	R	CAMERA ON SIGNAL
11	SHIELD	SHIELD
12	W	CAMERA IMAGE SIGNAL
13	B	CONTROL SIGNAL
14	W	CONNECTION RECOGNITION
17	BR	AV COMM (L)
18	Y	AV COMM (H)
19	R	AV COMM (L)

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

CAMERA CONTROL UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B301
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



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

Terminal No.	Color of Wire	Signal Name
13	SHIELD	-
14	Y	-
15	L	-
16	R	-

Connector No.	B305
Connector Name	REAR VIEW CAMERA
Connector Type	TH04MW-NH



1	2	3	4

Terminal No.	Color of Wire	Signal Name
1	R	CAMERA ON SIGNAL
2	L	GND
3	Y	CAMERA IMAGE SIGNAL
4	SHIELD	SHIELD

Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Type	TH40FY-CS15



15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
46	44	44	44	44	44	44	44	44	44	44	44	44	44	44
38	38	38	38	38	38	38	38	38	38	38	38	38	38	38

Terminal No.	Color of Wire	Signal Name
9	R	-
10	G	-
36	W	-
37	L	-

Connector No.	D2
Connector Name	TWEETER LH
Connector Type	TK02MBR-P



2	1

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

Connector No.	D11
Connector Name	FRONT DOOR WOOFER LH
Connector Type	NS02FW-CS



2	1

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

Connector No.	D16
Connector Name	FRONT DOOR SQUAWKER LH
Connector Type	TK02FBR



2	1

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

Connector No.	D31
Connector Name	WIRE TO WIRE
Connector Type	TH40FY-CS15



15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
46	44	44	44	44	44	44	44	44	44	44	44	44	44	44
38	38	38	38	38	38	38	38	38	38	38	38	38	38	38

Terminal No.	Color of Wire	Signal Name
9	R	-
10	G	-
36	W	-
37	L	-

Connector No.	D32
Connector Name	TWEETER RH
Connector Type	TK02MBR-P



2	1

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

CAMERA CONTROL UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	D41
Connector Name	FRONT DOOR WOOFER RH
Connector Type	NS02FW-CS



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

Connector No.	D46
Connector Name	FRONT DOOR SQUAWKER RH
Connector Type	TK02FBR



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

Connector No.	D51
Connector Name	WIRE TO WIRE
Connector Type	TK0MW-NS8



Terminal No.	Color of Wire	Signal Name
16	LG	-
17	Y	-

Connector No.	D56
Connector Name	REAR DOOR SPEAKER LH (With BOSE system)
Connector Type	NS02FBR-CS



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

Connector No.	D71
Connector Name	WIRE TO WIRE
Connector Type	TK0MW-NS8



Terminal No.	Color of Wire	Signal Name
16	L	-
17	P	-

Connector No.	D76
Connector Name	REAR DOOR SPEAKER RH (With BOSE system)
Connector Type	NS02FBR-CS



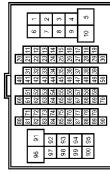
Terminal No.	Color of Wire	Signal Name
1	L	-
2	P	-

Connector No.	E5
Connector Name	IPDM E/R INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)
Connector Type	TH20FW-CS/2-M4-1V



Terminal No.	Color of Wire	Signal Name
25	G	-

Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH60FW-CS/16-TM4



Terminal No.	Color of Wire	Signal Name
18	O	-
46	LG	-
85	Y	-

CAMERA CONTROL UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	E107
Connector Name	PARKING BRAKE SWITCH (A/T)
Connector Type	TBD1FW



Terminal No.	Color of Wire	Signal Name
1	O	-

Connector No.	F51
Connector Name	A/T ASSEMBLY
Connector Type	RK10FG-DGY



Terminal No.	Color of Wire	Signal Name
7	R	-

Connector No.	F56
Connector Name	BACK-UP LAMP SWITCH
Connector Type	RK02FE



Terminal No.	Color of Wire	Signal Name
1	R	-
2	O	-

Connector No.	F103
Connector Name	WIRE TO WIRE
Connector Type	TK38FW-NS10



Terminal No.	Color of Wire	Signal Name
31	R	-
32	R	-
41	O	-

Connector No.	F151
Connector Name	TOM (TRANSMISSION CONTROL MODULE)
Connector Type	SP10FBGY



Terminal No.	Color of Wire	Signal Name
7	O	REV LAMP RLY

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS08FW-M2



Terminal No.	Color of Wire	Signal Name
2A	G	-
5A	V	-

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



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

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FW-GS



Terminal No.	Color of Wire	Signal Name
12C	R	-

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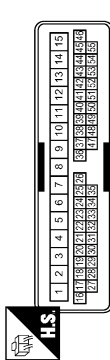
CAMERA CONTROL UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

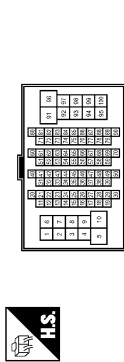
BOSE AUDIO WITH NAVIGATION SYSTEM

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



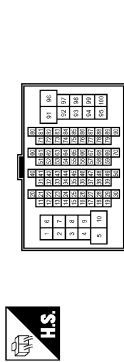
Terminal No.	Color of Wire	Signal Name
9	W	-
10	B	-
36	W	-
37	L	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



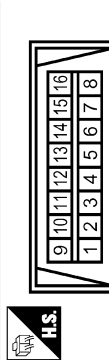
Terminal No.	Color of Wire	Signal Name
18	V	-
46	G	-
95	Y	-

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



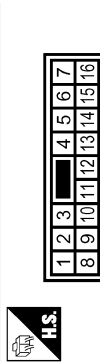
Terminal No.	Color of Wire	Signal Name
31	V	-
32	SB	-
33	SHIELD	-
34	V	-
35	BR	-
36	Y	-
37	SHIELD	-
40	P	-
41	L	-
42	SHIELD	-
43	R	-

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



Terminal No.	Color of Wire	Signal Name
6	L	-
14	P	-

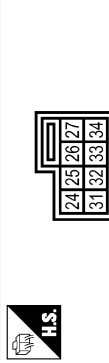
Connector No.	M25
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS



Terminal No.	Color of Wire	Signal Name
1	L	-
2	W	-
3	BR	-
4	R	-
5	L	-
6	LG	-
7	B	-
10	P	-
11	L	-
12	Y	-
13	SB	-

Terminal No.	14
Color of Wire	R
Signal Name	-
Terminal No.	15
Color of Wire	G
Signal Name	-
Terminal No.	16
Color of Wire	W
Signal Name	-

Connector No.	M36
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY-1V



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

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CAMERA CONTROL UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M37
Connector Name	STEERING ANGLE SENSOR
Connector Type	TH08FW-NH



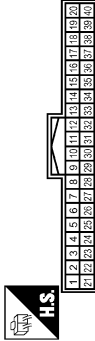
Terminal No.	Color of Wire	Signal Name
3	L	SENSOR1
4	BR	SENSOR2
5	O	SENSOR3
7	B	GND
8	G	IGN

Connector No.	M63
Connector Name	CENTER SPEAKER
Connector Type	TK02FBR



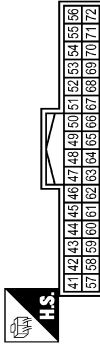
Terminal No.	Color of Wire	Signal Name
1	L	-
2	LG	-

Connector No.	M66
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH40FW-NH



Terminal No.	Color of Wire	Signal Name
28	R	VEHICLE SPEED (8-PULSE)

Connector No.	M67
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH32FW-NH

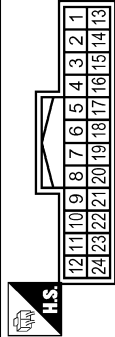


Terminal No.	Color of Wire	Signal Name
56	L	CAN-H
72	P	CAN-L

Connector No.	M69
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS02FL-M2

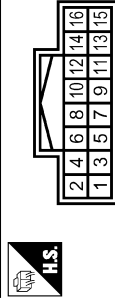


Connector No.	M71
Connector Name	DISPLAY UNIT
Connector Type	TH24FW-NH



13	B	GND [With NAVI]
14	SHIELD	SHIELD [With NAVI]
15	G	AUX IMAGE SIGNAL [With NAVI]
17	L	RGB (RED) SIGNAL [With NAVI]
18	V	RGB (BLUE) SIGNAL [With NAVI]
19	Y	RGB STRG [With NAVI]
20	W	VP [With NAVI]
21	SHIELD	SHIELD
22	Y	COMM (DISP->CONT) [With NAVI]
23	SHIELD	SHIELD

Connector No.	M72
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH18FW-NH



Terminal No.	Color of Wire	Signal Name
1	R	-
2	W	-
3	LG	-
5	O	-

Terminal No.	Color of Wire	Signal Name
1	B	GND
2	Y	BATTERY [With NAVI]
3	V	ACC [With NAVI]
4	SHIELD	SHIELD [With NAVI]
5	R	AUX IMAGE GND [With NAVI]
6	O	RGB (GREEN) SIGNAL [With NAVI]
7	SHIELD	SHIELD
8	R	HP
9	B	RGB AREA (VS) SIGNAL
11	BR	COMM (CONT->DISP) [With NAVI]
12	W	CAMERA IMAGE SIGNAL

Terminal No.	Color of Wire	Signal Name
1	B	GND
3	V	ACC
6	LG	AV COMM (H)
8	V	AV COMM (L)
9	BR	SVT GND
14	SB	EJECT SIGNAL

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CAMERA CONTROL UNIT

[BOSE AUDIO WITH NAVIGATION]

< ECU DIAGNOSIS >

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M80
Connector Name	AV CONTROL UNIT
Connector Type	TH18FW-CS2

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

13	BR	SOUND SIGNAL-REAR RH (+)
14	Y	SOUND SIGNAL-REAR RH (-)
15	B	STRG SW GND
16	L	STRG SW B
19	Y	BATTERY
20	B	GND

Terminal No.	Color of Wire	Signal Name
1	V	AMP ON SIGNAL
2	P	SOUND SIGNAL FRONT LH (+)
3	L	SOUND SIGNAL FRONT LH (-)
4	V	SOUND SIGNAL REAR LH (+)
5	SB	SOUND SIGNAL REAR LH (-)
6	P	STRG SW A
7	V	ACC
9	R	ILLUMINATION
10	SHIELD	SHIELD
11	R	SOUND SIGNAL FRONT RH (+)
12	G	SOUND SIGNAL FRONT RH (-)

Connector No.	M88
Connector Name	AV CONTROL UNIT
Connector Type	TH12FW-RH

62	64	66	68	70	72
61	63	65	67	69	71

Terminal No.	Color of Wire	Signal Name
61	L	RGB (RED) SIGNAL
62	O	RGB (GREEN) SIGNAL
63	V	RGB (BLUE) SIGNAL
64	SHIELD	SHIELD
65	Y	RGB SYNC
66	SHIELD	SHIELD
67	B	RGB AREA (VS) SIGNAL
68	R	HP
69	W	VP
70	BR	COMM (CONT->DISP)
71	Y	COMM (DISP->CONT)

Connector No.	M87
Connector Name	AV CONTROL UNIT
Connector Type	TH40FW-RH

21	22	23	24	25	26	27	28	35	36	37
21	22	23	24	25	26	27	28	35	36	37

Terminal No.	Color of Wire	Signal Name
21	B	GND
22	Y	BATTERY
23	B	GND
24	Y	BATTERY
25	V	ACC
26	G	MICROPHONE VCC
27	SHIELD	MICROPHONE GND
28	R	MICROPHONE SIGNAL
35	G	IGNITION
36	V	PARKING BRAKE
37	O	REVERSE

Connector No.	M89
Connector Name	AV CONTROL UNIT
Connector Type	TH32FW-RH

73	74	75	76	77	79	80	81	82	83	84	85	86	87	88
89	90	91	92	93	94	95	96	97	98	99	100	101	102	103

Terminal No.	Color of Wire	Signal Name
73	B	SOUND SIGNAL LH (+)
74	G	SOUND SIGNAL RH (+)
75	SHIELD	SHIELD
76	W	REQUEST (CD->CONT)
77	R	COMM (CONT->CD)
85	SB	EJECT SIGNAL
86	SHIELD	SHIELD
87	W	SOUND SIGNAL LH (+)
88	B	SOUND SIGNAL GND
89	W	SOUND SIGNAL LH (-)
90	R	SOUND SIGNAL RH (-)

91	SHIELD	SHIELD
93	B	COMM (CD->CONT)
102	BR	SW GND
103	R	SOUND SIGNAL RH (+)

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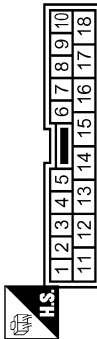
CAMERA CONTROL UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

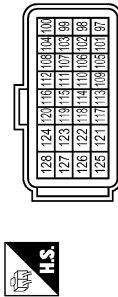
BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M106
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



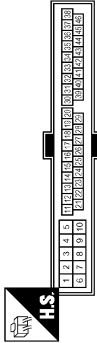
Terminal No.	Color of Wire	Signal Name
1	R	- [With NAV]
2	G	- [With NAV]
3	SHIELD	- [With NAV]

Connector No.	M107
Connector Name	ECM
Connector Type	MAA24FGY-MEAB-LH-Z



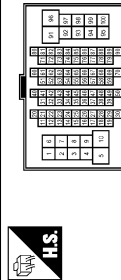
Terminal No.	Color of Wire	Signal Name
113	P	VHECAN L1
114	L	VHECAN H1

Connector No.	M116
Connector Name	WIRE TO WIRE
Connector Type	TK38MW-NS10



Terminal No.	Color of Wire	Signal Name
31	W	-
32	LG	-
41	O	-

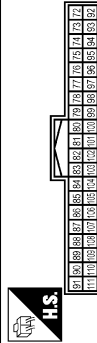
Connector No.	M117
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name
51	V	-
52	G	-
53	R	-
54	B	-
60	Y	-
61	V	-
62	W	-
63	Y	-
64	BR	-
65	L	-
66	BR	-

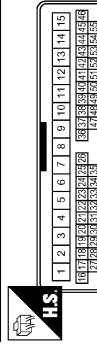
67	O	-
71	Y	-
72	W	-
73	B	-
80	V	-
81	SHIELD	-
82	R	-
83	SHIELD	-
84	W	-
85	R	-
86	B	-
87	G	-
99	P	-
100	L	-

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH



Terminal No.	Color of Wire	Signal Name
90	P	CAN-L
91	L	CAN-H

Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



Terminal No.	Color of Wire	Signal Name
9	R	-
10	G	-
36	R	-
37	BR	-

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CAMERA CONTROL UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M145
Connector Name	WIRE TO WIRE
Connector Type	TH08MW-NH



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

Connector No.	M154
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A08FW



Terminal No.	Color of Wire	Signal Name
1	R	SOUND SIGNAL RH (+) [With NAVI]
2	B	SOUND SIGNAL GND
3	W	SOUND SIGNAL LH (+) [With NAVI]
7	G	AUX IMAGE SIGNAL
8	R	AUX IMAGE GND

Connector No.	M155
Connector Name	WIRE TO WIRE
Connector Type	TH08FW-NH



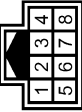
Terminal No.	Color of Wire	Signal Name
1	SHIELD	-
2	B	[With NAVI]
3	R	[With NAVI]
4	W	[With NAVI]
5	B	-
6	SHIELD	-
7	G	-
8	R	-

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



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

Connector No.	M361
Connector Name	WIRE TO WIRE
Connector Type	TH08MW-NH



Terminal No.	Color of Wire	Signal Name
1	SHIELD	-
2	B	-
3	R	- [With NAVI]
4	W	- [With NAVI]
5	SHIELD	-
6	SHIELD	-
7	G	-
8	R	-

Connector No.	M362
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A08FW



Terminal No.	Color of Wire	Signal Name
1	R	SOUND SIGNAL RH (+) [With NAVI]
2	B	SOUND SIGNAL GND
3	W	SOUND SIGNAL LH (+) [With NAVI]
7	G	AUX IMAGE SIGNAL
8	R	AUX IMAGE GND

Connector No.	M371
Connector Name	AV CONTROL UNIT
Connector Type	GT13SH-2/1S-HU



Terminal No.	Color of Wire	Signal Name
105	-	FM SUB
106	-	AM-FM MAIN
107	-	ANETNA AMP-ON SIGNAL

Connector No.	M372
Connector Name	AV CONTROL UNIT
Connector Type	FAKRA JACK



Terminal No.	Color of Wire	Signal Name
108	-	SAETLITE ANTENNA
109	SHIELD	SHIELD

CAMERA CONTROL UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M373
Connector Name	AV CONTROL UNIT
Connector Type	GT6-1S-HU



Terminal No.	Color of Wire	Signal Name
110	-	GPS ANTENNA
111	SHIELD	SHIELD

Connector No.	M374
Connector Name	WIRE TO WIRE
Connector Type	GT16C-1PP-HU



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

Connector No.	M375
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1S-HU



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

Connector No.	M376
Connector Name	WIRE TO WIRE
Connector Type	GT13SCN-2/1PP-HU



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

Connector No.	M377
Connector Name	WIRE TO WIRE
Connector Type	GT16C-1S-HU



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

Connector No.	M378
Connector Name	ANTENNA AMP.
Connector Type	GT13SC-1/1S-HU



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

Connector No.	M379
Connector Name	WINDOW ANTENNA(SUB)
Connector Type	P01FB-A



Terminal No.	Color of Wire	Signal Name
1	-	-

Connector No.	M380
Connector Name	WIRE TO WIRE
Connector Type	GT16-1PP-HU



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

CAMERA CONTROL UNIT

< ECU DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M381
Connector Name	WINDOW ANTENNA(MAIN)
Connector Type	P01FE-A



Terminal No.	Color of Wire	Signal Name
1	-	-

Connector No.	M382
Connector Name	WIRE TO WIRE
Connector Type	GT16C-1S-HU



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

Connector No.	M383
Connector Name	SATELLITE RADIO TUNER
Connector Type	GT16C-1PP-HU



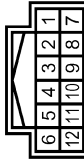
Terminal No.	Color of Wire	Signal Name
1	-	-
2	SHIELD	-

Connector No.	R1
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8



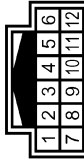
Terminal No.	Color of Wire	Signal Name
1	R	- [With NAV]
2	G	- [With NAV]
3	SHIELD	-

Connector No.	R2
Connector Name	WIRE TO WIRE
Connector Type	TH12FW-NH



Terminal No.	Color of Wire	Signal Name
3	SHIELD	-
4	R	-
5	G	-

Connector No.	R11
Connector Name	WIRE TO WIRE
Connector Type	TH12MW-NH



Terminal No.	Color of Wire	Signal Name
3	SHIELD	-
4	R	-
5	G	-

Connector No.	R17
Connector Name	MICROPHONE
Connector Type	TK04FW



Terminal No.	Color of Wire	Signal Name
1	R	MICROPHONE SIGNAL
2	SHIELD	SHIELD
4	G	MICROPHONE VCC

A
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AV

CD CHANGER

< ECU DIAGNOSIS >

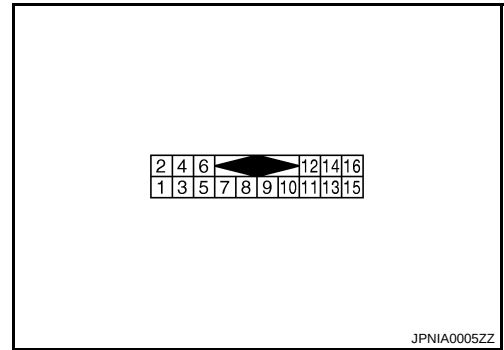
[BOSE AUDIO WITH NAVIGATION]

CD CHANGER

Reference Value

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TERMINAL LAYOUT



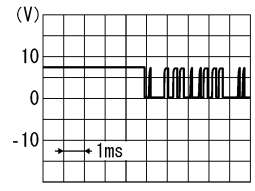
PHYSICAL VALUES

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
2 (R)	1 (W)	CD changer sound signal LH	Output	Ignition switch ON	When CD change mode is selected	SKIB3609E
4 (B)	3 (G)	CD changer sound signal RH	Output	Ignition switch ON	When CD change mode is selected	SKIB3609E
5	—	Shield	—	—	—	—
6	—	Shield	—	—	—	—
8 (P)	Ground	Request signal (CD→CONT)	Output	Ignition switch ON	When CD change mode is selected	SKIA9299J
9 (L)	Ground	Communication signal (CD→CONT)	Output	Ignition switch ON	When CD change mode is selected	SKIA9300J

CD CHANGER

< ECU DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	—	Signal name	Input/ Output			
10 (G)	Ground	Communication signal (CONT→CD)	Input	Ignition switch ON	When CD change mode is selected	
12 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
16 (V)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage

Wiring Diagram — BOSE AUDIO WITH NAVIGATION SYSTEM —

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NOTE:

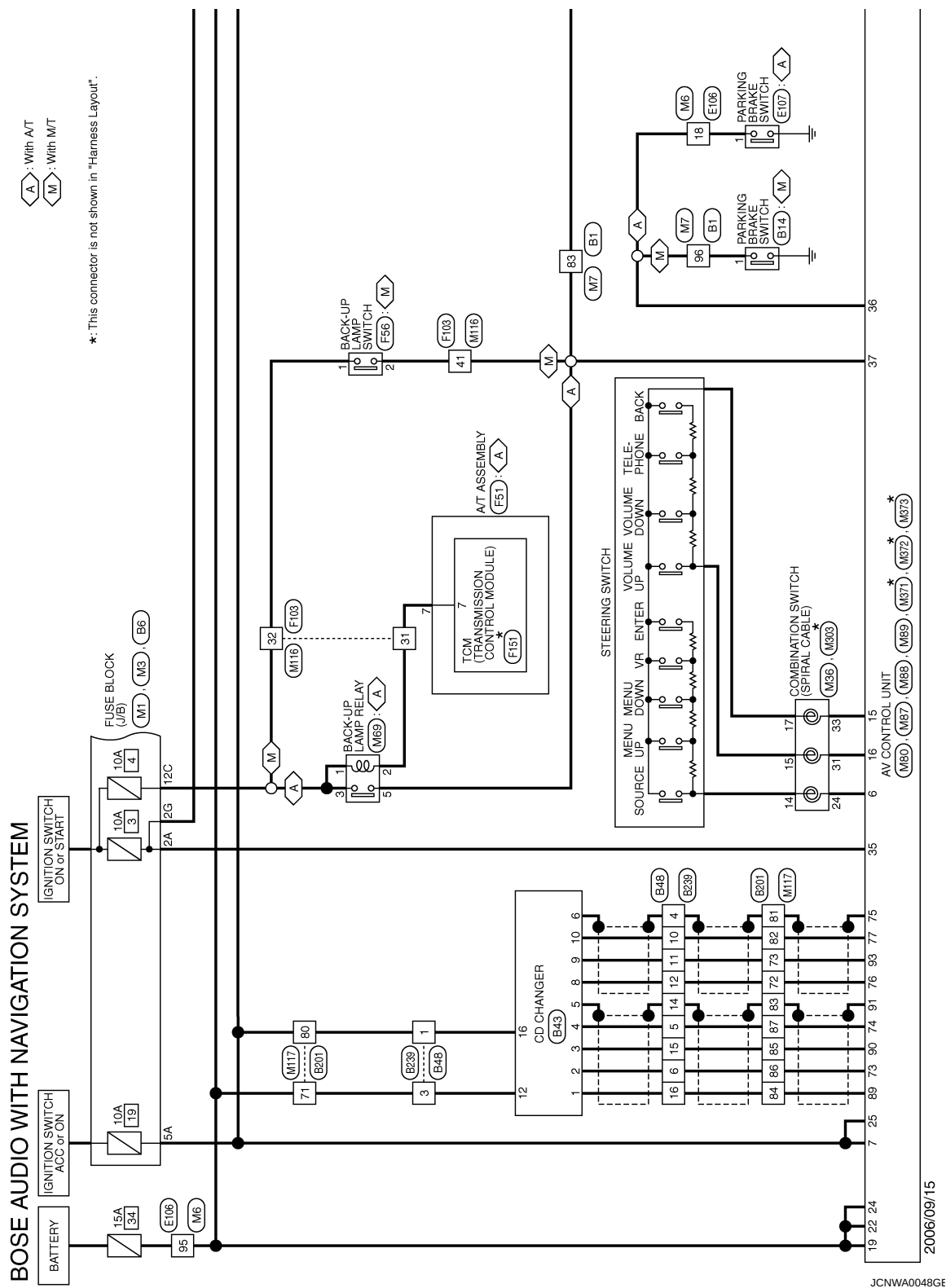
AV

CD CHANGER

< ECU DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

The name MULTIFUNCTION SWITCH indicates the integration of PRESET SWITCH and MULTIFUNCTION SWITCH virtually.



AV-497

Revision: October 2006

2007 G35 Sedan



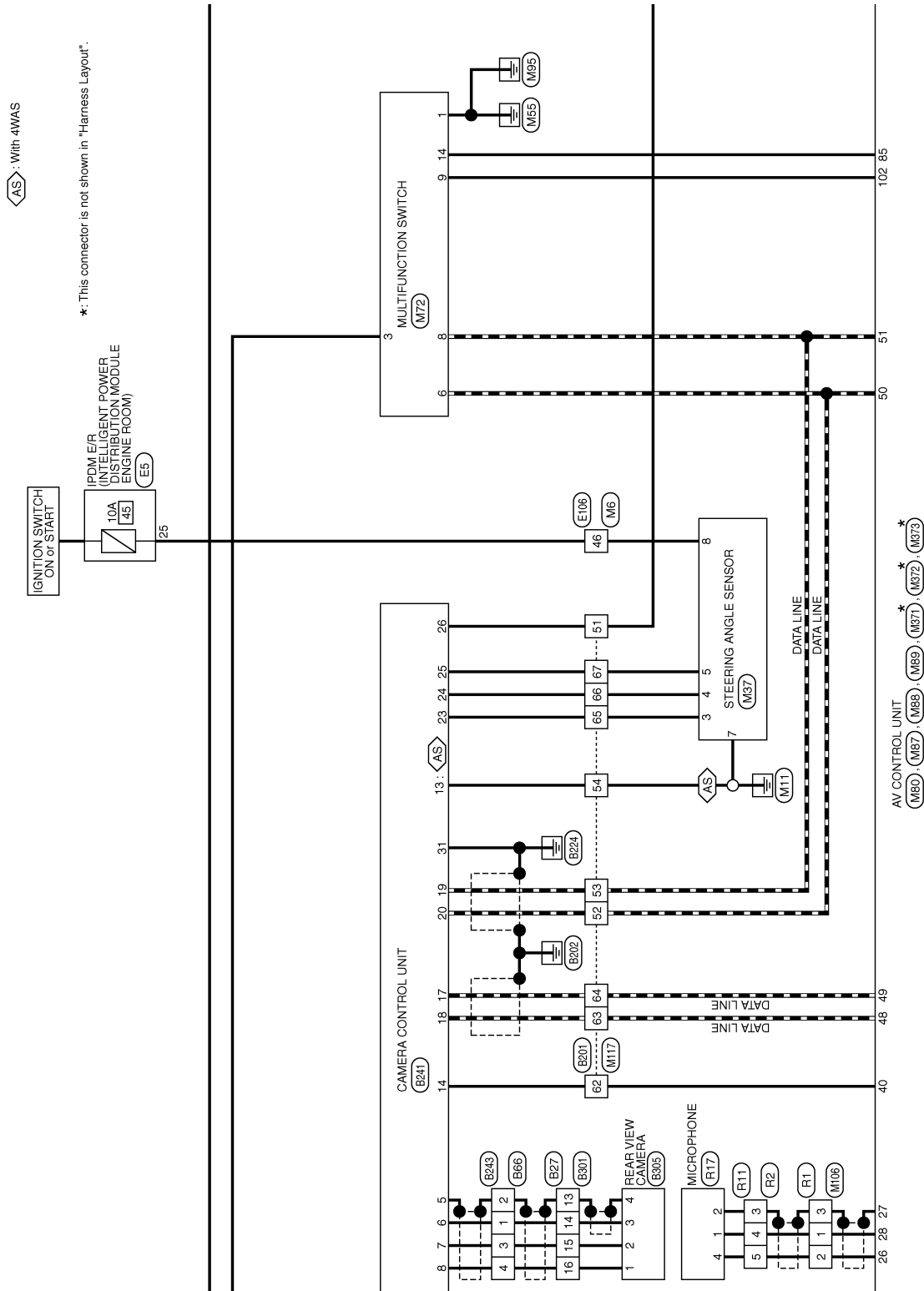
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CD CHANGER

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[BOSE AUDIO WITH NAVIGATION]

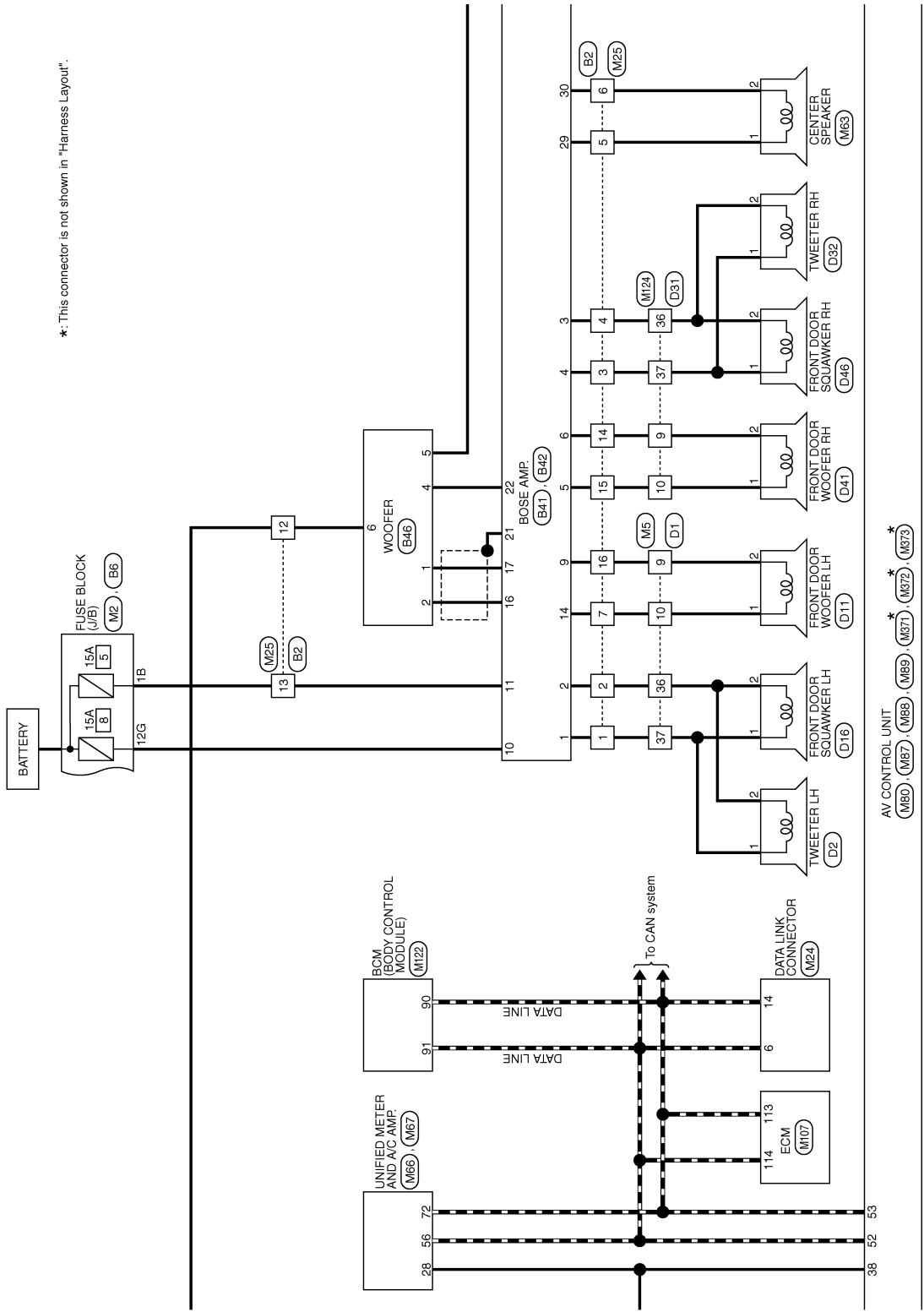


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CD CHANGER

< ECU DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]



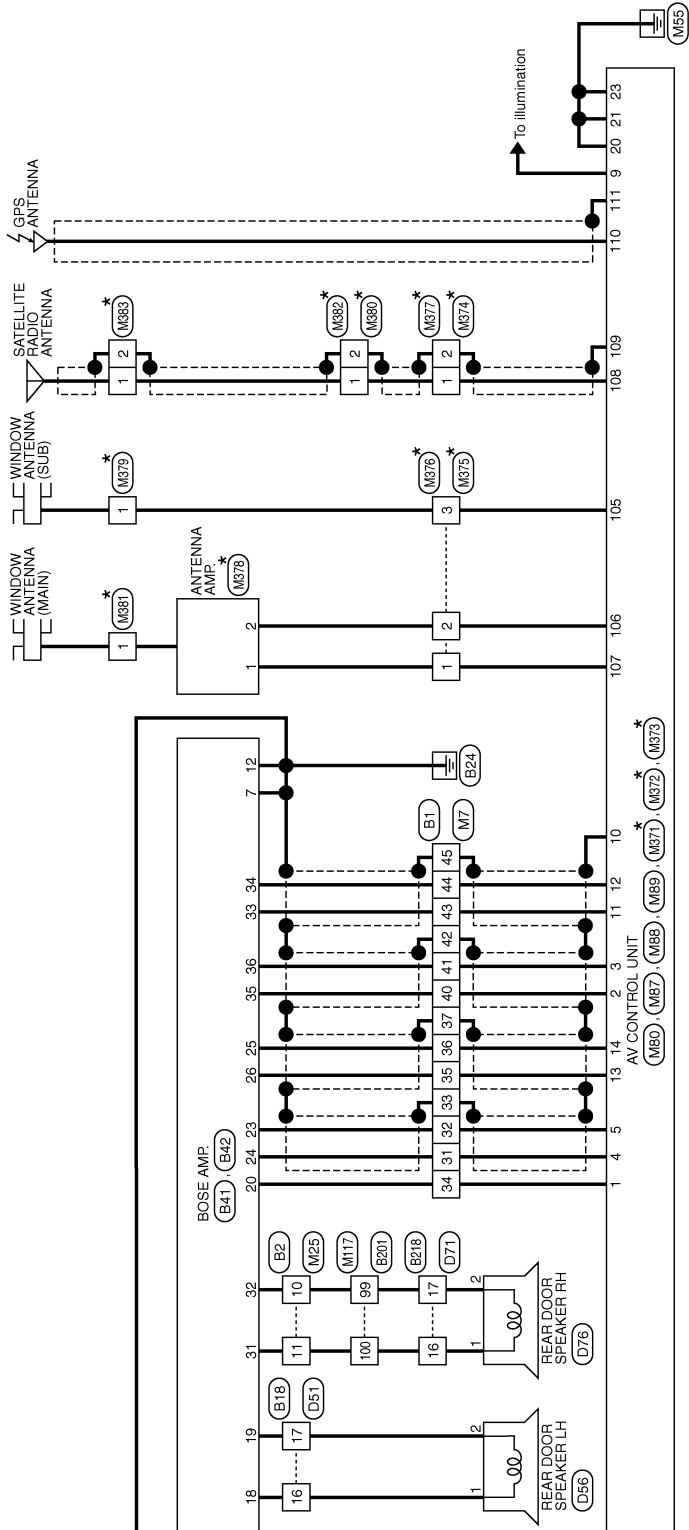
★: This connector is not shown in "Harness Layout".

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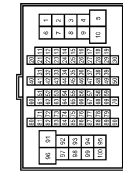
*: This connector is not shown in "Harness Layout".



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BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color of Wire	Signal Name
31	V	-
32	SB	-
33	SHIELD	-
34	V	-
35	BR	-
36	Y	-
37	SHIELD	-
40	P	-
41	L	-
42	SHIELD	-
43	R	-

44	G	-
45	SHIELD	-
83	O	-
96	V	-

Connector No.	B2
Connector Name	WIRE TO WIRE
Connector Type	NS18FW-CS



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

Terminal No.	Color of Wire	Signal Name
1	L	-
2	W	-
3	V	-
4	LG	-
5	Y	-
6	G	-
7	B	-
10	Y	-
11	LG	-
12	Y	-
13	GR	-

Connector No.	B6
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FB-CS



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

Connector No.	B14
Connector Name	PARKING BRAKE SWITCH
Connector Type	P01FB-A



1

Connector No.	B18
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS



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

Connector No.	B27
Connector Name	WIRE TO WIRE
Connector Type	NS18MW-CS



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

Terminal No.	Color of Wire	Signal Name
2G	GR	-
12G	Y	-

Terminal No.	Color of Wire	Signal Name
1	V	-

Terminal No.	Color of Wire	Signal Name
16	L	- [With BOSE system]
17	P	- [With BOSE system]

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

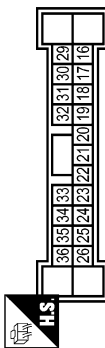
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AV

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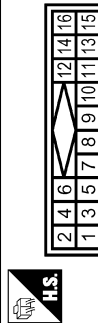
BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B41
Connector Name	BOSE AMP.
Connector Type	SCA10FBR-SGA4



Terminal No.	Color of Wire	Signal Name
16	SB	SOUND SIGNAL WOOFER (+)
17	V	SOUND SIGNAL WOOFER (-)
18	L	SOUND SIGNAL REAR DOOR LH (+)
19	P	SOUND SIGNAL REAR DOOR LH (-)
20	V	AMP ON SIGNAL
21	SHIELD	SHIELD
22	GR	WOOFER AMP- ON SIGNAL
23	SB	SOUND SIGNAL REAR LH (-)
24	V	SOUND SIGNAL REAR LH (+)
25	Y	SOUND SIGNAL REAR RH (-)
26	BR	SOUND SIGNAL REAR RH (+)

Connector No.	B43
Connector Name	CD CHANGER
Connector Type	A10FW

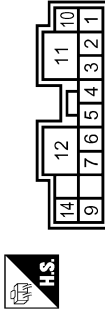


Terminal No.	Color of Wire	Signal Name
1	W	SOUND SIGNAL LH (-)
2	R	SOUND SIGNAL LH (+)
3	G	SOUND SIGNAL RH (-)
4	B	SOUND SIGNAL RH (+)
5	SHIELD	SHIELD
6	SHIELD	SHIELD
8	P	REQUEST (OD->CONT)
9	L	COMM (OD->CONT)
10	G	COMM (CONT->OD)
12	Y	BATTERY
16	V	ACC

29	Y	SOUND SIGNAL CENTER (+)
30	G	SOUND SIGNAL CENTER (-)
31	LG	SOUND SIGNAL REAR DOOR RH (+)
32	Y	SOUND SIGNAL REAR DOOR RH (-)
33	R	SOUND SIGNAL FRONT RH (+)
34	G	SOUND SIGNAL FRONT RH (-)
35	P	SOUND SIGNAL FRONT LH (+)
36	L	SOUND SIGNAL FRONT LH (-)

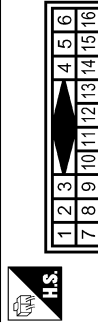


Connector No.	B42
Connector Name	BOSE AMP.
Connector Type	SGA12FBR-SJA2



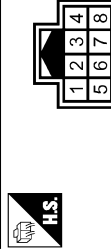
Terminal No.	Color of Wire	Signal Name
1	L	FRONT DOOR SQUAWKER LH (+)
2	W	FRONT DOOR SQUAWKER LH (-)
3	LG	FRONT DOOR SQUAWKER RH (+)
4	V	FRONT DOOR SQUAWKER RH (-)
5	G	FRONT DOOR WOOFER RH (+)
6	R	FRONT DOOR WOOFER RH (-)
7	B	GND
9	W	FRONT DOOR WOOFER LH (-)
10	Y	BATTERY
11	GR	BATTERY
12	B	GND

Connector No.	B48
Connector Name	WIRE TO WIRE
Connector Type	A10MW



Terminal No.	Color of Wire	Signal Name
1	V	-
3	Y	-
4	SHIELD	-
5	B	-
6	R	-
10	G	-
11	L	-
12	P	-
14	SHIELD	-
15	G	-
16	W	-

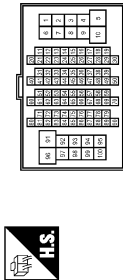
Connector No.	B66
Connector Name	WIRE TO WIRE
Connector Type	TH08MW-RH



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

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color of Wire	Signal Name
51	V	-
52	G	-
53	R	-
54	B	-
55	L	-
56	LG	-
57	W	-
58	Y	-
59	BR	-
60	L	-
61	R	-

Connector No.	B239
Connector Name	WIRE TO WIRE
Connector Type	AI0FW



Terminal No.	Color of Wire	Signal Name
1	V	-
2	Y	-
3	SHIELD	-
4	B	-
5	R	-
6	P	-
7	L	-
8	G	-
9	SHIELD	-
10	G	-
11	Y	-
12	BR	-
13	L	-
14	R	-
15	W	-

67	O	-
71	Y	-
72	G	-
73	L	-
80	V	-
81	SHIELD	-
82	P	-
83	SHIELD	-
84	W	- [With CD auto changer]
85	G	- [With CD auto changer]
86	R	-
87	B	-
99	P	-
100	L	-

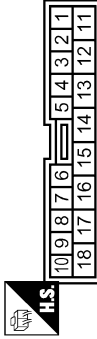
Terminal No.	Color of Wire	Signal Name
3	SHIELD	-
4	W	-

Connector No.	B210
Connector Name	WIRE TO WIRE
Connector Type	TH04FW-NH



Terminal No.	Color of Wire	Signal Name
16	L	-
17	P	-

Connector No.	B218
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8



20	G	AV COMM (H)
22	GR	REVERSE
23	L	SENSOR SIGNAL 1
24	R	SENSOR SIGNAL 2
25	O	SENSOR SIGNAL 3
26	V	VEHICLE SPEED (3-PULSE)
29	SB	IGNITION
30	LG	ACC
31	B	GND
32	L	BATTERY

Connector No.	B243
Connector Name	WIRE TO WIRE
Connector Type	TH08FW-NH



Terminal No.	Color of Wire	Signal Name
5	SHIELD	SHIELD
6	B	CAMERA IMAGE SIGNAL
7	W	GND
8	R	CAMERA ON SIGNAL
11	SHIELD	SHIELD
12	W	CAMERA IMAGE SIGNAL
13	B	CONTROL SIGNAL
14	W	CONNECTION RECOGNITION
17	BR	AV COMM (L)
18	Y	AV COMM (H)
19	R	AV COMM (L)

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

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B301
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



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

Terminal No.	Color of Wire	Signal Name
13	SHIELD	-
14	Y	-
15	L	-
16	R	-

Connector No.	B305
Connector Name	REAR VIEW CAMERA
Connector Type	TH04MW-NH



1	2	3	4

Terminal No.	Color of Wire	Signal Name
1	R	CAMERA ON SIGNAL
2	L	GND
3	Y	CAMERA IMAGE SIGNAL
4	SHIELD	SHIELD

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



15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
46	44	43	42	41	40	39	38	37	36	35	34	33	32	31
30	29	28	27	26	25	24	23	22	21	20	19	18	17	16

Terminal No.	Color of Wire	Signal Name
9	R	-
10	G	-
36	W	-
37	L	-

Connector No.	D2
Connector Name	TWEETER LH
Connector Type	TK02MBR-P



2	1

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

Connector No.	D11
Connector Name	FRONT DOOR WOOFER LH
Connector Type	NS02FW-CS



2	1

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

Connector No.	D16
Connector Name	FRONT DOOR SQUAWKER LH
Connector Type	TK02FBR



2	1

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

Connector No.	D31
Connector Name	WIRE TO WIRE
Connector Type	TH40FY-CS15



15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
46	44	43	42	41	40	39	38	37	36	35	34	33	32	31
30	29	28	27	26	25	24	23	22	21	20	19	18	17	16

Terminal No.	Color of Wire	Signal Name
9	R	-
10	G	-
36	W	-
37	L	-

Connector No.	D32
Connector Name	TWEETER RH
Connector Type	TK02MBR-P



2	1

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

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BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	D41
Connector Name	FRONT DOOR WOOFER RH
Connector Type	NS02FW-CS



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

Connector No.	D46
Connector Name	FRONT DOOR SQUAWKER RH
Connector Type	TK02FBR



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

Connector No.	D51
Connector Name	WIRE TO WIRE
Connector Type	TK0MW-NS8



Terminal No.	Color of Wire	Signal Name
16	LG	-
17	Y	-

Connector No.	D56
Connector Name	REAR DOOR SPEAKER LH (With BOSE system)
Connector Type	NS02FBR-CS



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

Connector No.	D71
Connector Name	WIRE TO WIRE
Connector Type	TK0MW-NS8



Terminal No.	Color of Wire	Signal Name
16	L	-
17	P	-

Connector No.	D76
Connector Name	REAR DOOR SPEAKER RH (With BOSE system)
Connector Type	NS02FBR-CS



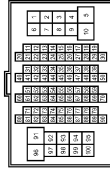
Terminal No.	Color of Wire	Signal Name
1	L	-
2	P	-

Connector No.	E5
Connector Name	IPDM E/R INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)
Connector Type	TH20FW-CS/2-M4-1V



Terminal No.	Color of Wire	Signal Name
25	G	-

Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH60FW-CS/16-TM4



Terminal No.	Color of Wire	Signal Name
18	O	-
46	LG	-
85	Y	-

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	E107
Connector Name	PARKING BRAKE SWITCH (A/T)
Connector Type	TBD1FW



Terminal No.	1	Color of Wire	O	Signal Name	-

Connector No.	F51
Connector Name	A/T ASSEMBLY
Connector Type	RK10FG-DGY



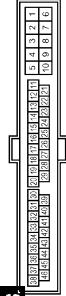
Terminal No.	7	Color of Wire	R	Signal Name	-

Connector No.	F56
Connector Name	BACK-UP LAMP SWITCH
Connector Type	RK02FE



Terminal No.	2	Color of Wire	O	Signal Name	-

Connector No.	F103
Connector Name	WIRE TO WIRE
Connector Type	TK38FW-NS10



Terminal No.	31	Color of Wire	R	Signal Name	-
	32	Color of Wire	R	Signal Name	-
	41	Color of Wire	O	Signal Name	-

Connector No.	F151
Connector Name	TOM (TRANSMISSION CONTROL MODULE)
Connector Type	SP10FBGY



Terminal No.	7	Color of Wire	O	Signal Name	REV LAMP RLY

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS08FW-M2



Terminal No.	2A	Color of Wire	G	Signal Name	-
	5A	Color of Wire	V	Signal Name	-

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



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

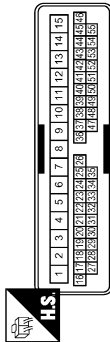
Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FW-GS



Terminal No.	12C	Color of Wire	R	Signal Name	-

BOSE AUDIO WITH NAVIGATION SYSTEM

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



Terminal No.	Color of Wire	Signal Name
9	W	-
10	B	-
36	W	-
37	L	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



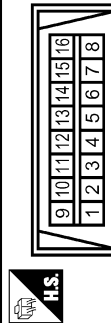
Terminal No.	Color of Wire	Signal Name
18	V	-
46	G	-
95	Y	-

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



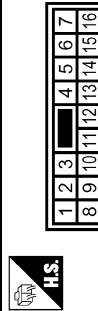
Terminal No.	Color of Wire	Signal Name
31	V	-
32	SB	-
33	SHIELD	-
34	V	-
35	BR	-
36	Y	-
37	SHIELD	-
40	P	-
41	L	-
42	SHIELD	-
43	R	-

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



Terminal No.	Color of Wire	Signal Name
6	L	-
14	P	-

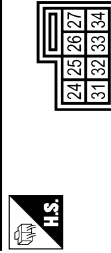
Connector No.	M25
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS



Terminal No.	Color of Wire	Signal Name
1	L	-
2	W	-
3	BR	-
4	R	-
5	L	-
6	LG	-
7	B	-
10	P	-
11	L	-
12	Y	-
13	SB	-

Terminal No.	14
Terminal No.	15
Terminal No.	16

Connector No.	M36
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY-1V



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

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BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M37
Connector Name	STEERING ANGLE SENSOR
Connector Type	TH08FW-NH



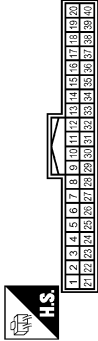
Terminal No.	Color of Wire	Signal Name
3	L	SENSOR1
4	BR	SENSOR2
5	O	SENSOR3
7	B	GND
8	G	IGN

Connector No.	M63
Connector Name	CENTER SPEAKER
Connector Type	TK02FBR



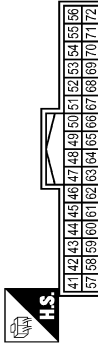
Terminal No.	Color of Wire	Signal Name
1	L	-
2	LG	-

Connector No.	M66
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH40FW-NH



Terminal No.	Color of Wire	Signal Name
28	R	VEHICLE SPEED (8-PULSE)

Connector No.	M67
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH32FW-NH



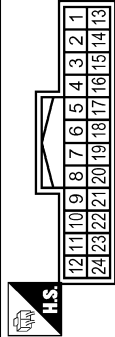
Terminal No.	Color of Wire	Signal Name
56	L	CAN-H
72	P	CAN-L

Connector No.	M69
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS02FL-M2



Terminal No.	Color of Wire	Signal Name
1	R	-
2	W	-
3	LG	-
5	O	-

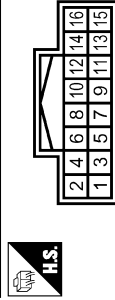
Connector No.	M71
Connector Name	DISPLAY UNIT
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name
1	B	GND
2	Y	BATTERY [With NAVI]
3	V	ACC [With NAVI]
4	SHIELD	SHIELD [With NAVI]
5	R	AUX IMAGE GND [With NAVI]
6	O	RGB (GREEN) SIGNAL [With NAVI]
7	SHIELD	SHIELD
8	R	HP
9	B	RGB AREA (VS) SIGNAL
11	BR	COMM (CONT->DISP) [With NAVI]
12	W	CAMERA IMAGE SIGNAL

13	B	GND [With NAVI]
14	SHIELD	SHIELD [With NAVI]
15	G	AUX IMAGE SIGNAL [With NAVI]
17	L	RGB (RED) SIGNAL [With NAVI]
18	V	RGB (BLUE) SIGNAL [With NAVI]
19	Y	RGB STRG [With NAVI]
20	W	VP [With NAVI]
21	SHIELD	SHIELD
22	Y	COMM (DISP->CONT) [With NAVI]
23	SHIELD	SHIELD

Connector No.	M72
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH18FW-NH



Terminal No.	Color of Wire	Signal Name
1	B	GND
3	V	ACC
6	LG	AV COMM (H)
8	V	AV COMM (L)
9	BR	SW GND
14	SB	EJECT SIGNAL

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BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M80
Connector Name	AV CONTROL UNIT
Connector Type	TH18FW-CS2



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

13	BR	SOUND SIGNAL-REAR RH (+)
14	Y	SOUND SIGNAL-REAR RH (-)
15	B	STRG SW GND
16	L	STRG SW B
19	Y	BATTERY
20	B	GND

Terminal No.	Color of Wire	Signal Name
1	V	AMP ON SIGNAL
2	P	SOUND SIGNAL FRONT LH (+)
3	L	SOUND SIGNAL FRONT LH (-)
4	V	SOUND SIGNAL REAR LH (+)
5	SB	SOUND SIGNAL REAR LH (-)
6	P	STRG SW A
7	V	ACC
9	R	ILLUMINATION
10	SHIELD	SHIELD
11	R	SOUND SIGNAL FRONT RH (+)
12	G	SOUND SIGNAL FRONT RH (-)

Connector No.	M88
Connector Name	AV CONTROL UNIT
Connector Type	TH12FW-RH



62	64	66	68	70	72
61	63	65	67	69	71

Terminal No.	Color of Wire	Signal Name
61	L	RGB (RED) SIGNAL
62	O	RGB (GREEN) SIGNAL
63	V	RGB (BLUE) SIGNAL
64	SHIELD	SHIELD
65	Y	RGB SYNC
66	SHIELD	SHIELD
67	B	RGB AREA (VS) SIGNAL
68	R	HP
69	W	VP
70	BR	COMM (CONT->DISP)
71	Y	COMM (DISP->CONT)

Connector No.	M87
Connector Name	AV CONTROL UNIT
Connector Type	TH40FW-RH



21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53

Terminal No.	Color of Wire	Signal Name
21	B	GND
22	Y	BATTERY
23	B	GND
24	Y	BATTERY
25	V	ACC
26	G	MICROPHONE VCC
27	SHIELD	MICROPHONE GND
28	R	MICROPHONE SIGNAL
35	G	IGNITION
36	V	PARKING BRAKE
37	O	REVERSE

Connector No.	M89
Connector Name	AV CONTROL UNIT
Connector Type	TH32FW-RH



73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88
89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104

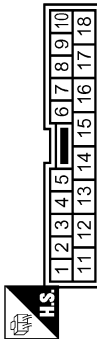
Terminal No.	Color of Wire	Signal Name
73	B	SOUND SIGNAL LH (+)
74	G	SOUND SIGNAL RH (+)
75	SHIELD	SHIELD
76	W	REQUEST (CD->CONT)
77	R	COMM (CONT->CD)
85	SB	EJECT SIGNAL
86	SHIELD	SHIELD
87	W	SOUND SIGNAL LH (+)
88	B	SOUND SIGNAL GND
89	W	SOUND SIGNAL LH (-)
90	R	SOUND SIGNAL RH (-)

91	SHIELD	SHIELD
93	B	COMM (CD->CONT)
102	BR	SW GND
103	R	SOUND SIGNAL RH (+)

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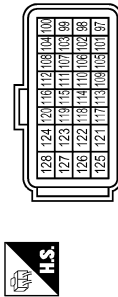
BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M106
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



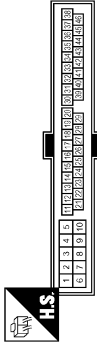
Terminal No.	Color of Wire	Signal Name
1	R	- [With NAV]
2	G	- [With NAV]
3	SHIELD	- [With NAV]

Connector No.	M107
Connector Name	ECM
Connector Type	MAA24FGY-MEAB-LH-Z



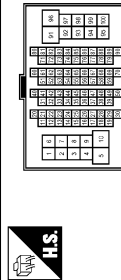
Terminal No.	Color of Wire	Signal Name
113	P	VHECAN L1
114	L	VHECAN H1

Connector No.	M116
Connector Name	WIRE TO WIRE
Connector Type	TK38MW-NS10



Terminal No.	Color of Wire	Signal Name
31	W	-
32	LG	-
41	O	-

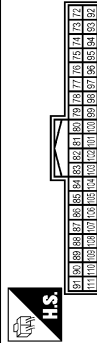
Connector No.	M117
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name
51	V	-
52	G	-
53	R	-
54	B	-
60	Y	-
61	V	-
62	W	-
63	Y	-
64	BR	-
65	L	-
66	BR	-

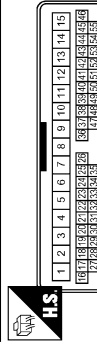
67	O	-
71	Y	-
72	W	-
73	B	-
80	V	-
81	SHIELD	-
82	R	-
83	SHIELD	-
84	W	-
85	R	-
86	B	-
87	G	-
99	P	-
100	L	-

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH



Terminal No.	Color of Wire	Signal Name
90	P	CAN L
91	L	CAN H

Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



Terminal No.	Color of Wire	Signal Name
9	R	-
10	G	-
36	R	-
37	BR	-

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M145
Connector Name	WIRE TO WIRE
Connector Type	TH08MW-NH



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

Connector No.	M154
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A08FW



Terminal No.	Color of Wire	Signal Name
1	R	SOUND SIGNAL RH (+) [With NAVI]
2	B	SOUND SIGNAL GND
3	W	SOUND SIGNAL LH (+) [With NAVI]
4	G	AUX IMAGE SIGNAL
7	R	AUX IMAGE GND
8	R	AUX IMAGE GND

Connector No.	M155
Connector Name	WIRE TO WIRE
Connector Type	TH08FW-NH



Terminal No.	Color of Wire	Signal Name
1	SHIELD	-
2	B	[With NAVI]
3	R	[With NAVI]
4	W	[With NAVI]
5	B	-
6	SHIELD	-
7	G	-
8	R	-

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



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

Connector No.	M361
Connector Name	WIRE TO WIRE
Connector Type	TH08MW-NH



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

Connector No.	M362
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A08FW



Terminal No.	Color of Wire	Signal Name
1	R	SOUND SIGNAL RH (+) [With NAVI]
2	B	SOUND SIGNAL GND
3	W	SOUND SIGNAL LH (+) [With NAVI]
4	G	AUX IMAGE SIGNAL
7	R	AUX IMAGE GND
8	R	AUX IMAGE GND

Connector No.	M371
Connector Name	AV CONTROL UNIT
Connector Type	GT13SH-2/1S-HU



Terminal No.	Color of Wire	Signal Name
105	-	FM SUB
106	-	AM-FM MAIN
107	-	ANETNA AMP-ON SIGNAL

Connector No.	M372
Connector Name	AV CONTROL UNIT
Connector Type	FAKRA JACK



Terminal No.	Color of Wire	Signal Name
108	-	SHIELD
109	SHIELD	SHIELD

JCNWA0063GE

A
B
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AV

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M373
Connector Name	AV CONTROL UNIT
Connector Type	GT6-1S-HU



Terminal No.	Color of Wire	Signal Name
110	-	GPS ANTENNA
111	SHIELD	SHIELD

Connector No.	M374
Connector Name	WIRE TO WIRE
Connector Type	GT16C-1PP-HU



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

Connector No.	M375
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1S-HU



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

Connector No.	M376
Connector Name	WIRE TO WIRE
Connector Type	GT13SCN-2/1PP-HU



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

Connector No.	M377
Connector Name	WIRE TO WIRE
Connector Type	GT16C-1S-HU



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

Connector No.	M378
Connector Name	ANTENNA AMP.
Connector Type	GT13SC-1/1S-HU



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

Connector No.	M379
Connector Name	WINDOW ANTENNA(SUB)
Connector Type	P01FB-A



Terminal No.	Color of Wire	Signal Name
1	-	-

Connector No.	M380
Connector Name	WIRE TO WIRE
Connector Type	GT16-1PP-HU



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

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M381
Connector Name	WINDOW ANTENNA(MAIN)
Connector Type	P01FE-A



Terminal No.	Color of Wire	Signal Name
1	-	-

Connector No.	M382
Connector Name	WIRE TO WIRE
Connector Type	GT16C-1S-HU



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

Connector No.	M383
Connector Name	SATELLITE RADIO TUNER
Connector Type	GT16C-1PP-HU



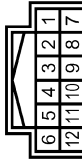
Terminal No.	Color of Wire	Signal Name
1	-	-
2	SHIELD	-

Connector No.	R1
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8



Terminal No.	Color of Wire	Signal Name
1	R	- [With NAV]
2	G	- [With NAV]
3	SHIELD	-

Connector No.	R2
Connector Name	WIRE TO WIRE
Connector Type	TH12FW-NH



Terminal No.	Color of Wire	Signal Name
3	SHIELD	-
4	R	-
5	G	-

Connector No.	R11
Connector Name	WIRE TO WIRE
Connector Type	TH12MW-NH



Terminal No.	Color of Wire	Signal Name
3	SHIELD	-
4	R	-
5	G	-

Connector No.	R17
Connector Name	MICROPHONE
Connector Type	TK04FW



Terminal No.	Color of Wire	Signal Name
1	R	MICROPHONE SIGNAL
2	SHIELD	SHIELD
4	G	MICROPHONE VCC

SYMPTOM DIAGNOSIS

MULTI AV SYSTEM SYMPTOMS

Symptom Table

INFOID:000000000964901

Related to navigation

Symptoms	Check items	Possible malfunction location / Action to take
Multifunction switch and preset switch operation does not work.	- All switches cannot be operated "Multi AV" is displayed on system selection display when the CONSULT-III is initialized.	Perform CONSULT-III self-diagnosis. Refer to AV-347, "CONSULT - III Function" .
	- All switches cannot be operated "Multi AV" is not displayed on system selection screen when the CONSULT-III is initialized.	Multifunction switch power supply and ground circuit Refer to AV-380, "MULTIFUNCTION SWITCH : Diagnosis Procedure" .
	Only specified switch cannot be operated	- Perform CONSULT-III self-diagnosis. Refer to AV-347, "CONSULT - III Function". - No malfunction - multifunction switch (AV-541, "Exploded View") - preset switch (AV-542, "Exploded View") • When malfunction is detected (AV-347, "CONSULT - III Function")
Fuel economy display, vehicle setting operation is abnormal	There is malfunction in the CONSULT-III self-diagnosis result	Perform detected DTC self-diagnosis. (AV-347, "CONSULT - III Function")
	There is no malfunction in the self-diagnosis results	Ignition signal (AV-379, "AV CONTROL UNIT : Diagnosis Procedure")
Guide sound is not heard.	On the setting display select "system sound (guide sound volume, etc.)," and confirm that guide sound is ON.	Voice guidance signal circuit
Satellite radio is not received.	There is malfunction in the CONSULT-III self-diagnosis result	Perform detected DTC self-diagnosis. (AV-347, "CONSULT - III Function")
	There is no malfunction in the CONSULT-III self-diagnosis result	Perform the following procedures. - Check satellite radio antenna mounting nut for looseness. NOTE: Tightening torque: 6.5 N·m (0.66 kg-m, 58 in-lb) - Visually check for satellite radio antenna feeder. - Replace satellite radio antenna. (AV-540, "Exploded View") - Replace the AV control unit. (AV-530, "Exploded View")

Related to HANDS FREE PHONE

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

Trouble diagnosis chart by symptom

MULTI AV SYSTEM SYMPTOMS

[BOSE AUDIO WITH NAVIGATION]

< SYMPTOM DIAGNOSIS >

Symptoms	Check items	Probable malfunction location
Does not recognize cellular phone connection. (no connection is displayed on the display at the guide.)	Repeat the registration of cellular phone.	AV control unit (AV-530, "Exploded View")
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.	AV control unit (AV-530, "Exploded View")
The other party's voice cannot be heard by hands free phone.	Check the "microphone speaker "in Inspection & Adjustment Mode if sound is heard.	AV control unit (AV-530, "Exploded View")
	Check the "microphone speaker "in Inspection & Adjustment Mode if sound is not heard.	TEL voice signal circuit
Originating sound is not heard by the other party with hands free phone communication.	Sound operation function is normal.	AV control unit (AV-530, "Exploded View")
	Sound operation function does not work.	Microphone signal circuit (AV-392, "Diagnosis Procedure")

Related to CAMERA

Trouble diagnosis chart by symptom

Symptoms	Check items	Probable malfunction location
Camera image is not displayed (displayed in black and nothing can be displayed)	AUX image is not displayed.	Horizontal synchronizing (HP) signal circuit (AV-388, "Diagnosis Procedure")
Camera image is not shown. (Vehicle width and possible route line is displayed.)	—	- camera image signal circuit (rear view camera to camera control unit) (AV-393, "Diagnosis Procedure") - Rear view camera ON signal (AV-394, "Diagnosis Procedure")
Camera image is not displayed. (Only warning message under area is displayed)	There is malfunction in the CONSULT-III self-diagnosis result	Perform detected DTC self-diagnosis. (AV-347, "CONSULT - III Function")
	AUX image is normal.	Camera image signal circuit (camera control unit to display unit) (AV-395, "Diagnosis Procedure")
	AUX image is not displayed.	RGB area (YS) signal circuit (AV-387, "Diagnosis Procedure")
	Select "Camera Cont." of confirmation/ Adjustment mode, Reverse Sensor is not turned ON at "Connection Confirmation".	Reverse signal (camera control unit)
	Select "Camera Cont." of confirmation/ Adjustment mode, all signals are "OFF" all the time at "Connection Confirmation" (except for Side View)	Ignition signal (AV-379, "AV CONTROL UNIT : Diagnosis Procedure")
CAMERA image is rolling.	AUX image is also rolling.	Vertical synchronizing (VP) signal circuit (AV-389, "Diagnosis Procedure")
Camera image does not switch.	Malfunction of self-diagnosis result is indicated.	Camera-connection recognition signal circuit (AV-376, "Diagnosis Procedure")
	Malfunction of self-diagnosis result is not indicated.	Reverse signal (AV control unit)

MULTI AV SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

Symptoms	Check items	Probable malfunction location
Possible route line is indicated abnormally when camera image is displayed.	"The steer. Angle Sensor" is turns ON at "Connection Confirmation" of on board diagnosis item "Camera Cont." turns ON.	Sensor signal 3 circuit (AV-396, "Diagnosis Procedure")
	"The steering angle sensor" is turns ON at "of connection Confirmation" of on board diagnosis item "Camera Cont." does not turn ON.	- Sensor signal 1 circuit (AV-398, "Diagnosis Procedure") - Sensor signal 2 circuit (AV-398, "Diagnosis Procedure")

Related to RGB image

Trouble diagnosis chart by symptom

Symptoms	Check items	Possible malfunction location / Action to take
RGB image is not shown.	- All RGB images are not shown. "Multi AV" is displayed on system selection display when the CONSULT-III is initialized.	Perform CONSULT-III self-diagnosis. (AV-347, "CONSULT - III Function")
	- All RGB images are not shown. "Multi AV" is not displayed on system selection screen when the CONSULT-III is initialized.	AV control unit power supply and ground circuit (AV-379, "AV CONTROL UNIT : Diagnosis Procedure")
Color of RGB image is not proper.	Light blue (Cyan) tint	RGB signal (R: red) circuit (AV-383, "Diagnosis Procedure")
	Purple (Magenta) tint	RGB signal (G: green) circuit (AV-384, "Diagnosis Procedure")
	Screen looks yellowish	RGB signal (B: blue) circuit (AV-385, "Diagnosis Procedure")
RGB screen is rolling.	—	RGB synchronizing signal circuit (AV-386, "Diagnosis Procedure")

Related to Voice control

Trouble diagnosis chart by symptom

Symptoms	Check items	Probable malfunction location
The voice cannot be controlled even if the voice control screen is displayed	Voice sounds at "Voice Microphone Test" of Confirmation/Adjustment mode	AV control unit (AV-530, "Exploded View")
	Voice does not sound at "Voice Microphone Test" of Confirmation/Adjustment mode.	Microphone signal circuit (AV-392, "Diagnosis Procedure")
The voice cannot be controlled (Voice control screen is not displayed)	Steering switch's "SOURCE", "MENU UP", "MENU DOWN switch works," "ENTER" but "⏏" it does not work.	Steering switch (ST-15, "Exploded View")
	Steering switch's "SOURCE", "MENU UP", "MENU DOWN", "⏏", "ENTER" switches do not work.	Steering switch signal A circuit (AV-399, "Diagnosis Procedure")
	All steering switches do not work.	Steering switch signal GND circuit (AV-403, "Diagnosis Procedure")

Related to AUDIO

Trouble diagnosis chart by symptom

Symptoms	Check items	Possible malfunction location / Action to take
The CD cannot be removed.	—	CD eject signal circuit (AV-391, "Diagnosis Procedure")
It cannot be switched to CD changer mode.	The CD changer magazine can be removed	- Request signal circuit - Communication signal circuit
	The CD changer magazine cannot be removed.	CD changer power supply and ground circuit (AV-382, "CD CHANGER : Diagnosis Procedure")

MULTI AV SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

Symptoms	Check items	Possible malfunction location / Action to take
Audio sound is not heard.	No sound from all speakers	- BOSE amp. power supply and ground circuit (AV-381, "BOSE AMP. : Diagnosis Procedure") - Amp. ON signal
	Sound is not heard from woofer.	- Sound signal woofer circuit - Woofer amp. ON signal
	Sound is not heard from center speaker.	Sound signal center speaker circuit
	Sound is not heard only from the specific places (RH front, RH rear, LH front and LH rear).	Sound signal circuit of suspect system
	Only the sound of CD changer mode is not heard	CD changer sound signal circuit

Related to STEERING SWITCH

Trouble diagnosis chart by symptom

Symptoms	Probable malfunction location
None of the steering switch operations work.	Steering switch signal GND circuit (AV-403, "Diagnosis Procedure")
Only specified switch (1) cannot be operated	Steering switch (ST-15, "Exploded View")
Steering switch's "SOURCE", "MENU UP", "MENU DOWN", "  , "ENTER" switches do not work.	Steering switch signal A circuit (AV-399, "Diagnosis Procedure")
Steering switch's "  , "VOL UP", "VOL DOWN", "  " switches do not work.	Steering switch signal B circuit (AV-401, "Diagnosis Procedure")

Related to AUXILIARY INPUT

NOTE:

Check that there is no malfunction of AUX equipment main body before performing a diagnosis.

Trouble diagnosis chart by symptom

Symptoms	Check items	Probable malfunction location
No voice sound is heard when AUX mode is selected.	Voice sound is heard when other modes are selected.	AUX sound signal circuit (auxiliary input jacks to AV control unit)
Image is not displayed when AUX mode is selected.	Camera image is displayed.	AUX image signal circuit (AV-390, "Diagnosis Procedure")

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AV

NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

NORMAL OPERATING CONDITION

Description

INFOID:000000000964902

BASIC OPERATIONS

Symptom	Possible cause	Possible solution
No image is displayed.	The brightness is at the lowest setting.	Adjust the brightness of the display.
	The system in the video mode.	Push <DISC-AUX> to change the mode.
	The display is turned off.	Push <Day/Night> to turn on the display.
No voice guidance is available. Or The volume is too high or too low.	The volume is not set correctly, or it is turned off.	Adjust the volume of voice guidance.
	Voice guidance is not provided for certain streets (roads displayed in gray).	This is not a malfunction.
No map is displayed on the screen.	A screen other than map screen is displayed.	Push <MAP> .
The screen is too dim. The movement is slow.	The temperature in the interior of the vehicle is low.	Wait until the interior of the vehicle has warmed up.
Some pixels in the display are darker or brighter than others.	This condition is an inherent characteristic of liquid crystal displays.	This is not a malfunction.
Some menu items cannot be selected.	Some menu items become unavailable while the vehicle is driven.	Park the vehicle in a safe location, and then operate the navigation system.

NOTE:

Locations stored in the Address Book and other memory functions may be lost if the vehicle's battery is disconnected or becomes discharged. If this occurs, service the vehicle's battery as necessary and re-enter the information in the Address Book.

RELATED TO VOICE RECOGNITION

Related to basic operation

Symptom	Possible cause	Possible solution
The system does not recognize your command. or The system recognizes your command incorrectly	The interior of the vehicle is too noisy.	Close the windows or have other occupants quiet.
	The volume of your voice is too low.	Speak louder
	The volume if your voice is too loud.	Speak softer
	Your pronunciation is unclear	Speak clearly
	You are speaking before the voice recognition made is ready	Push and release "⏏" switch on the steering switch, and speak a command after the tone sounds
	8 seconds or more have passed after you pushed and released "⏏" switch on the steering switch.	Make sure to speak a command within 8 seconds after you push and release "⏏" switch on the steering switch.
	Only a limited range of voice commands is usable for each screen.	Use a correct voice command appropriate for the current screen
	The speed of the fan of the air conditioner is too loud.	If the air conditioner is set to "Auto", the fan speed is automatically lowered and voice commands can be recognized more easily. Lower the fan speed as necessary or set the air conditioner to "Auto".

Related to item choice

The system should respond correctly to all voice commands without difficulty. If problems are encountered, follow the solutions given in this guide for the appropriate error.

Where the solutions are listed by number, try each solution in turn, starting with number one, until the problem is resolved.

NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

Symptom/ error message	Solution
Displays "COMMAND NOT RECOGNIZED" or the system fails to interpret the command correctly.	1. Ensure that the command format is valid.
	2. Speak clearly without pausing between words and at a level appropriate to the ambient noise level.
	3. Ensure that the ambient noise level is not excessive, for example, windows open or defrost on. NOTE: If it is too noisy to use the phone, it is likely that voice commands will not be recognized.
	4. If optional words of the command have been omitted, then command should be tried with these in place.
The system consistently selects the wrong voicetag	1. Ensure that the voicetag requested matches what was originally stored. This can be confirmed by giving the Addressbook Directory or Phone Directory command.
	2. Replace one of the voicetags being confused with a different voicetag.

Related to telephone

The system should respond correctly to all voice commands without difficulty. If problems are encountered, try the following solutions.

Where the solutions are listed by number, try each solution in turn, starting with number 1, until the problem is resolves.

Symptom	Solution
System fails to interpret the command correctly.	1. Ensure that the command is valid.
	2. Ensure that the command is spoken after the tone.
	3. Speak clearly without pausing between words and at level appropriate to the ambient noise level in the vehicle.
	4. Ensure that the ambient noise level is not excessive (for example, windows open or defroster on), NOTE: If it is too noisy to use the phone, it is likely that the voice commands will be recognized.
	5. If more than one command was said at a time, try saying the commands separately.
	6. If the system consistently fails to recognize commands, the voice training procedure should be carried out to improve the recognition response for the speaker. See "Speaker adaptation (SA) mode" earlier in this section. Refer to "OWNER'S MANUAL".
The system consistently selects the wrong voicetag	1. Ensure that the phone book entry name requested matches what was originally stored. This can be confirmed by using the "List Names" command.
	2. Replace one of the names being confused with a new name.

RELATED TO AUDIO

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

NOTE:

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

NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

Symptom	Cause and Counter measure
Cannot play	Check if the CD/CF was inserted correctly.
	Check if the CD/CF is scratched or dirty.
	Check if there is condensation inside the player, and if there is, wait until the condensation is gone (about 1 hour) before using the player.
	If there is a temperature increase error, the player will play correctly after it returns to the normal temperature.
	If there is a mixture of music CD files (CD-DA data) and MP3/WMA files on a CD, only the music CD files (CD-DA data) will be played.
	Files with extensions other than ".MP3", ".WMA", ".mp3", or ".wma" cannot be played. In addition, the character codes and number of characters for folder names and file names should be in compliance with the specifications.
	Check if the disc or the file is generated in an irregular format, This may occur depending on the variation or the setting of MP3/WMA writing applications or other text editing applications.
	Check if the finalization process, such as session close and disc close, is done for the disc.
Poor sound quality	Check if the CD/CF is scratched or dirty.
It takes a relatively long time before the music starts playing.	If there are many folder or file levels on the MP3/WMA CD/CF, or if it is a multisession disc, some time may be required before the music starts playing.
Music cuts off or skips	The writing software and hardware combination might not match, or the writing speed, writing depth, writing width might not match the specifications. Try using the slowest writing speed.
Skipping with high bit rate files	Skipping may occur with large quantities if data such as for high bit rate data.
Move immediately to the next song when playing	When a non-MP3/WMA file has been given an extension of ".MP3", ".WMA", ".mp3", or ".wma", or when play is prohibited by copyright protection, the player will skip to the next song.
The songs do not play back in the desired order.	The playback order is the order in which the files were written by the software, so the files might not play in the desired order.

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

NOTE:

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

RELATED TO VEHICLE ICON

Symptom	Possible cause	Possible solution
Names of roads differ between Plan View and Birdview™.	This is because the quantity of the displayed information is reduced so that the screen does not become too crowded. There is also a chance that names of the roads may be displayed multiple times, and the names appearing on the screen may be different because of a processing procedure.	This is not a malfunction.
The vehicle icon is not displayed in the correct position.	The vehicle was transported after the ignition switch was pushed off, for example, by a ferry or car transporter.	Drive the vehicle for a while on a road where GPS signals can be received.
	The position and direction of the vehicle icon may be incorrect depending on the driving environments and the levels of positioning accuracy of the navigation system.	This is not a malfunction. Drive the vehicle for a while to automatically correct the position and direction of the vehicle icon.
When the vehicle is traveling on a new road, the vehicle icon is located on another road nearby.	Because the new road is not stored in the map data, the system automatically places the vehicle icon on the nearest road available.	Updated road information will be included in the next version of the map data.

NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

Symptom	Possible cause	Possible solution
The screen does not switch to the night screen even after turning on the headlights.	The daytime screen was set the last time the headlights were turned on.	Set the screen to the night screen mode using <Day/Night> when you turn on the headlights.
The map does not scroll even when the vehicle is moving.	The current location map screen is not displayed.	Push <MAP> .
The vehicle icon is not displayed.	The current location map screen is not displayed.	Push <MAP> .
The location of the vehicle icon is misaligned from the actual position.	When using tire chains or replacing the tires, speed calculations based on the speed sensor may be incorrect.	Drive the vehicle for a while (at approximately 19 MPH for about 30 minutes) to automatically correct the vehicle icon position. If this does not correct the vehicle icon position, contact an INFINITI dealer.
	The map data has a mistake or is incomplete (the vehicle icon position is always misaligned in the same area).	Updated road information will be included in the next version of the map data.

RELATED TO ROUTE CALCULATION AND VISUAL GUIDANCE

Symptom	Possible cause	Possible solution
Waypoints are not included in the auto reroute calculation.	Waypoints that you have already passed are not included in the auto reroute calculation.	If you want to go to that waypoint again, you need to edit the route.
Route information is not displayed.	Route calculation has not yet been performed.	Set the destination and perform route calculation.
	You are not driving on the suggested route.	Drive on the suggested route.
	Route guidance is set to off.	Turn on route guidance.
	Route information is not provided for certain types of roads (roads displayed in gray).	This is not a malfunction.
The auto reroute calculation (or detour calculation) suggests the same route as the one previously suggested.	Route calculations took priority conditions into consideration, but the same route was calculated.	This is not a malfunction.
A waypoint cannot be added.	Five waypoints are already set on the route, including ones that you have already passed.	A maximum of 5 waypoints can be set on the route. If you want to go to 6 or more waypoints, perform route calculations multiple times as necessary.
The suggested route is not displayed.	Roads near the destination cannot be calculated.	Reset the destination to a main or ordinary road, and recalculate the route.
	The starting point and destination are too close.	Set a more distant destination.
	The starting point and destination are too far away.	Divide your trip by selecting one or two intermediate destinations, and perform route calculations multiple times.
	There are time restricted roads (by the day of the week, by time) near the current vehicle location or destination.	Set [Use Time Restricted Roads] to off.
The part of the route that you have already passed is deleted.	A route is managed by sections between waypoints. If you passed the first waypoint, the section between the starting point and the waypoint is deleted. (It may not be deleted depending on the area.)	This is not a malfunction.
An indirect route is suggested.	If there are restrictions (such as one-way streets) on roads close to the starting point or destination, the system may suggest an indirect route.	Adjust the location of the starting of the starting point or destination.
	The system may suggest an indirect route because route calculation does not take into consideration some areas such as narrow streets (gray roads.)	Reset the destination to a main or ordinary road, and recalculate the route.

NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

Symptom	Possible cause	Possible solution
The landmark information does not correspond to the actual information.	This may be caused by insufficient or incorrect map data.	Updated information will be included in the next version of the data.
The suggested route does not exactly connect to the starting point, waypoints, or destination.	There is no data for route calculation closes to these locations.	Set the starting point, waypoints and destination on a main road, and perform route calculation.

RELATED TO VOICE GUIDANCE

Symptom	Possible cause	Possible solution
Voice guidance is not available	Voice guidance is only available at certain intersections marked with ? In some case, voice guidance is not available even when the vehicle should make a turn.	This is not a malfunction.
	The vehicle has deviated from the suggested route.	Go back to the suggested route or request route calculation again
	Voice guide is set to off.	Turn on voice guidance.
	Route guidance is set to off.	Turn on voice guidance.
The guidance contact does not correspond to the actual condition.	The contact of voice guidance may vary, depending on the types of intersections at which turn are made.	Follow all traffic rules and regulations.

RELATED TO TRAFFIC INFORMATION

Symptom	Possible cause	Possible solution
The traffic information is not displayed	The traffic information is not set to on.	Set the traffic information to on.
	You are in an area where traffic information is not available	Scroll to an area where traffic information is available
	You have not subscribed to XM NavTraffic or, your subscription to XM NavTraffic has expired.	Check your subscription status of XM NavTraffic.
	The map scale is set at a level where the display of icons is impossible.	Check that the map scale is set at a level in which the display of icons is possible.
With the automatic detour route search ON, no detour route is set to avoid congested areas.	There is no faster route compared to the current route, based on the road network and traffic information.	The automatic detour search is not intended for avoiding traffic jams. It searches for the fastest route taking into consideration such things as traffic jams.
The route does not avoid road section with traffic information stating it is closed due to road construction.	The navigation system is designed not to avoid this event because the actual period of closure may differ from the declared roadwork period.	Observe the actual road condition and follow the instructions on road for detour when necessary. If the road closure is for certain, use detour function and set the detour distance to avoid the closed road section.
Traffic information displayed differs from information from other media (e.g. radio).	Other media may use different information sources.	Observe the actual road conditions and regulations. Always observe safe driving practices and follow all traffic regulations.

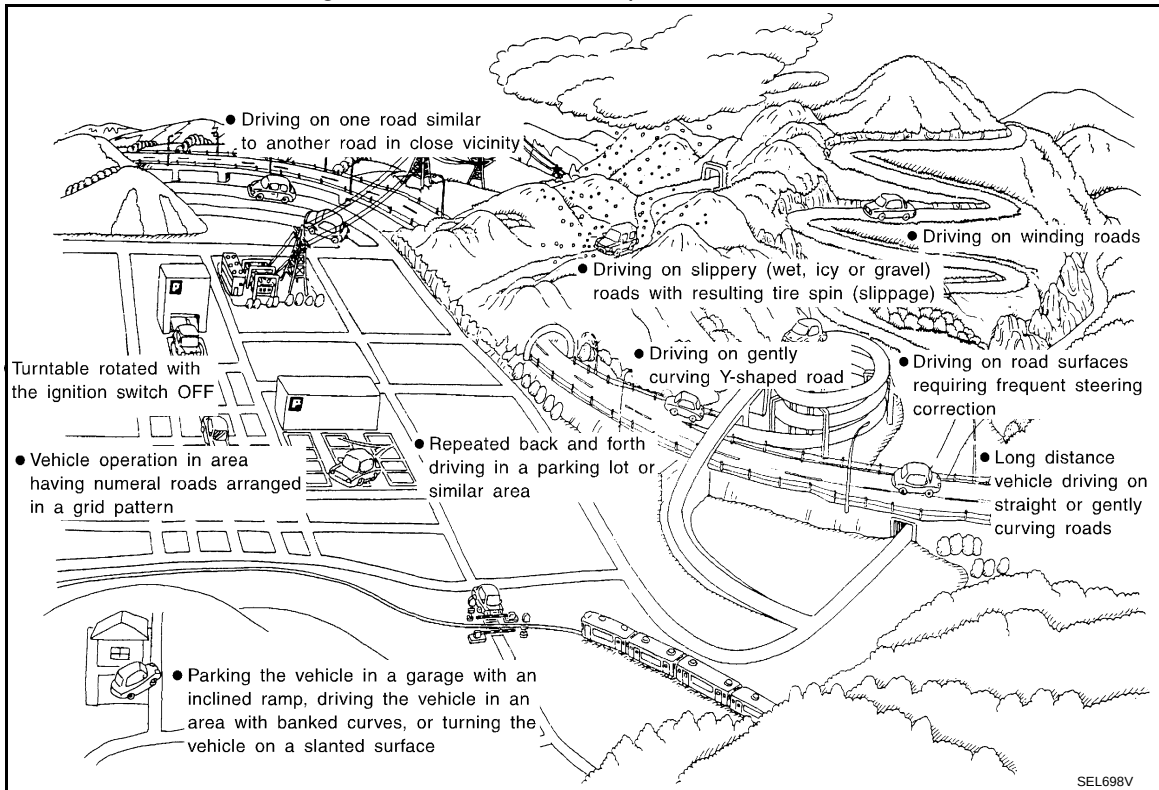
EXAMPLES OF VEHICLE MARK DISPLACEMENT

NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

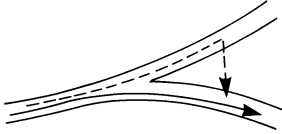
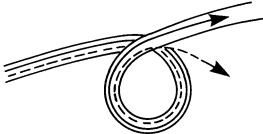
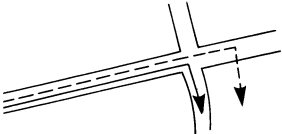
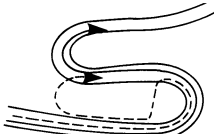
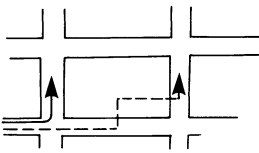
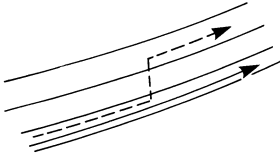
Vehicle's travel amount is calculated by reading its travel distance and turning angle. Therefore, if the vehicle is driven in the following manner, an error will occur in the vehicle's current location display. If correct location has not been restored after driving the vehicle for a while, perform location correction.



NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

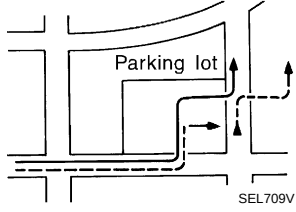
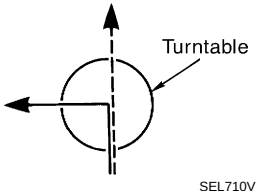
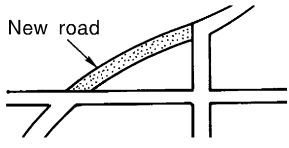
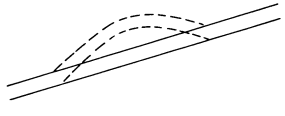
[BOSE AUDIO WITH NAVIGATION]

	Cause (condition)	Driving condition	Remarks (correction, etc.)
Road pattern	Y-intersections  ELK0192D	At a Y intersection or similar gradual division of roads, mistakes in the direction of travel deduced by the sensor may result in the vehicle mark appearing on the wrong road.	If after traveling 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 gentle curve road 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 turned at a corner.	
	Switchback turn  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 at where roads are laid out in a grid pattern, 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.	

NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

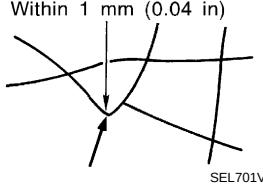
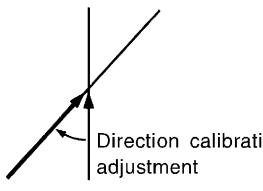
	Cause (condition)	Driving condition	Remarks (correction, etc.)
Place	In a parking lot  SEL709V	When driving in a parking lot, or other location where there are no roads on the map, matching may place the vehicle mark on a nearby road. When the vehicle returns to the road, the vehicle mark may have deviated from the correct location. When driving in circle or turning the steering wheel repeatedly, direction errors accumulate, and the vehicle mark may deviate from the correct location.	If after traveling about 10 km (6 miles) the correct location has not been restored, perform location correction and, if necessary, direction correction.
	Turntable  SEL710V	When the ignition switch is off, the navigation system cannot get the signal from the gyroscope (angular speed sensor). Therefore, the displayed direction may be wrong and the correct road may not be easily returned to after rotating the vehicle on a turntable with the ignition off.	
	Slippery roads	On snow, wet roads, gravel, or other roads where tires may slip easily, accumulated mileage errors may cause the vehicle mark to deviate from the correct road.	
	Slopes	When parking in sloped garages, when traveling on banked roads, or in other cases where the vehicle turns when tilted, an error in the turning angle will occur, and the vehicle mark may deviate from the road.	
Map data	Road not displayed on the map screen  SEL699V	When driving on new roads or other roads not displayed on the map screen, map matching does not function correctly and matches the location to a nearby road. When the vehicle returns to a road which is on the map, the vehicle mark may deviate from the correct road.	
	Different road pattern (Changed due to repair)  ELK0201D	If the road pattern stored in the map data and the actual road pattern are different, map matching does not function correctly and matches the location to a nearby road. The vehicle mark may deviate from the correct road.	
Vehicle	Use of tire chains	When tire chains are used, the mileage is not correctly detected, and the vehicle mark may deviate from the correct road.	Drive the vehicle for a while. If the distance is still deviated, adjust it by using the distance adjustment function. (If the tire chain is removed, recover the original value.)

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NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

Cause (condition)		Driving condition	Remarks (correction, etc.)
Precautions for driving	Just after the engine is started	If the vehicle is driven off 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 vehicle mark may deviate from the correct road.	Stop and adjust the orientation.
	Abusive driving	Spinning the wheels or engaging in other kinds of abusive driving may result in the system being unable to perform correct detection, and may cause the vehicle mark to deviate from the correct road.	If after traveling 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. 1 mm (0.04 in). 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.

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

NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[BOSE AUDIO WITH NAVIGATION]

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.

A

WHEN DRIVING ON SAME ROAD, SOMETIMES VEHICLE MARK IS IN RIGHT PLACE AND SOMETIMES IT IS 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.

B

C

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.

D

E

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.

F

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.

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PRECAUTION

PRECAUTIONS

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

INFOID:000000000964903

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the SRS and SB section of this Service Manual.

WARNING:

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SRS 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.

Precaution for Trouble Diagnosis

INFOID:000000000964904

AV COMMUNICATION SYSTEM

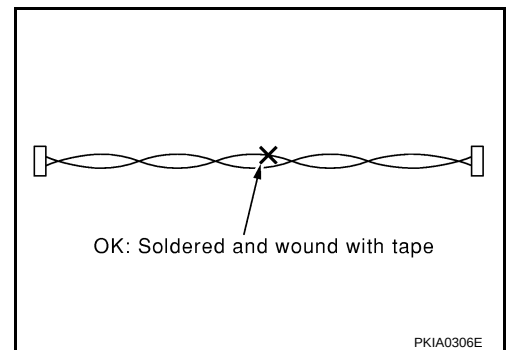
- Do not apply voltage of 7.0 V or higher to the measurement terminals.
- Use the tester with its open terminal voltage being 7.0 V or less.
- Be sure to turn ignition switch OFF and disconnect the battery cable from the negative terminal before checking the circuit.

Precaution for Harness Repair

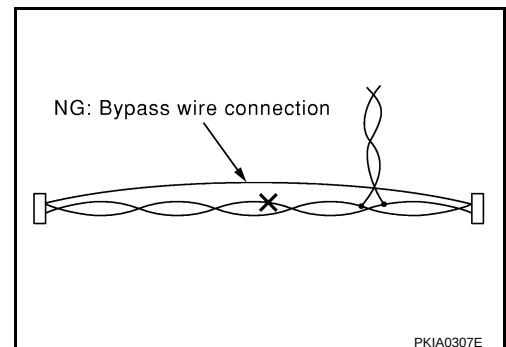
INFOID:000000000964905

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.)

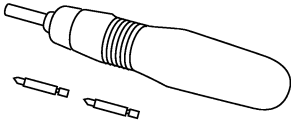


PREPARATION

PREPARATION

Commercial Service Tools

INFOID:000000000964906

Tool name	Description
Power tool	Loosening bolts and nuts
 PBIC0191E	

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ON-VEHICLE REPAIR

AV CONTROL UNIT

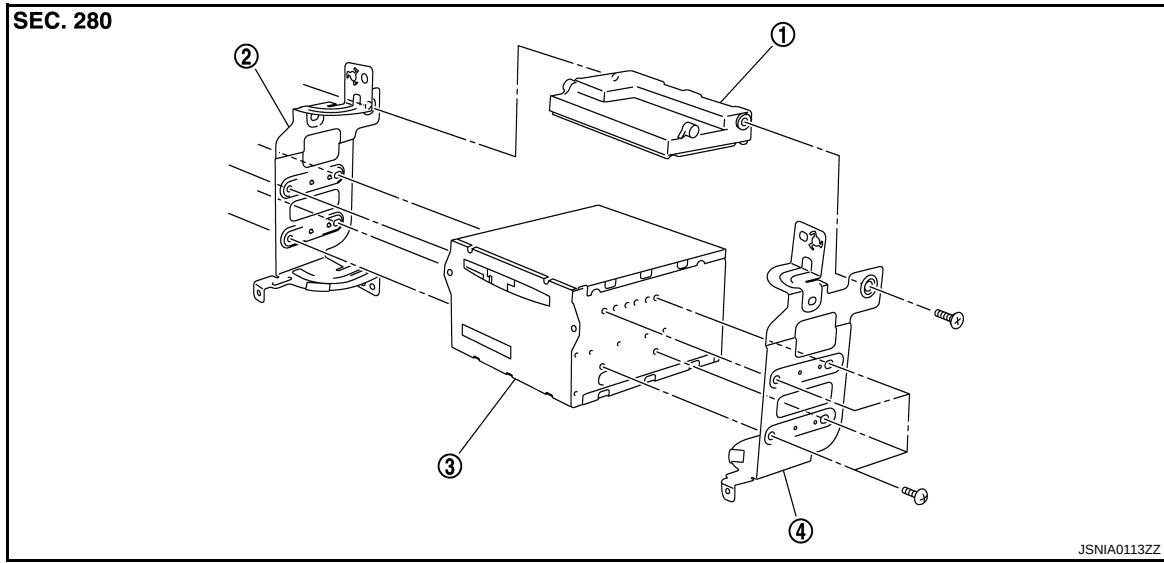
Exploded View

INFOID:000000000964907

REMOVAL

Refer to [IP-11. "Exploded View"](#).

DISASSEMBLY



1. Unified meter and A/C amp.	2. Bracket LH	3. AV control unit
4. Bracket RH		

Removal and Installation

INFOID:000000000964908

REMOVAL

1. Remove Display unit.
2. Remove AV control unit with a unified meter and A/C amp. as a single unit from the body.
3. Remove bracket screws, and then remove AV control unit.

INSTALLATION

Installation is the reverse order of removal.

DISPLAY UNIT

Exploded View

INFOID:0000000000964909

Refer to [IP-11, "Exploded View"](#).

Removal and Installation

INFOID:0000000000964910

REMOVAL

1. Remove cluster lid C. Refer to [IP-11, "Exploded View"](#).
2. Remove display unit with bracket as a single unit.

INSTALLATION

Installation is the reverse order of removal.

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FRONT DOOR SQUAWKER

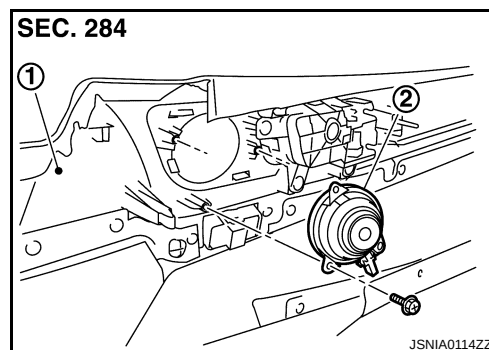
< ON-VEHICLE REPAIR >

[BOSE AUDIO WITH NAVIGATION]

FRONT DOOR SQUAWKER

Exploded View

INFOID:0000000000964911



1. Door finisher
2. Front door squawker

Removal and Installation

INFOID:0000000000964912

REMOVAL

1. Remove front door finisher. Refer to [INT-10, "Exploded View"](#).
2. Remove front door squawker from door finisher.

INSTALLATION

Installation is the reverse order of removal.

FRONT DOOR WOOFER

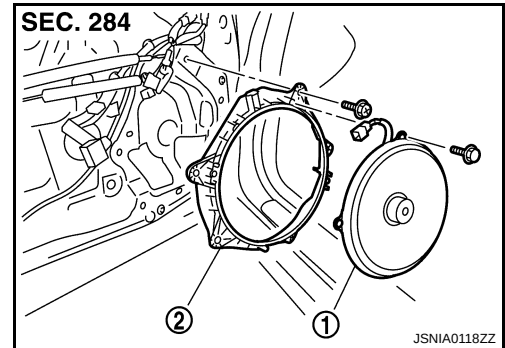
< ON-VEHICLE REPAIR >

[BOSE AUDIO WITH NAVIGATION]

FRONT DOOR WOOFER

Exploded View

INFOID:0000000000964913



1. Front door woofer
2. Woofer bracket

Removal and Installation

INFOID:0000000000964914

REMOVAL

1. Remove front door finisher. Refer to [INT-10. "Exploded View"](#).
2. Remove front door woofer from woofer bracket.

INSTALLATION

Installation is the reverse order of removal.

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REAR DOOR SPEAKER

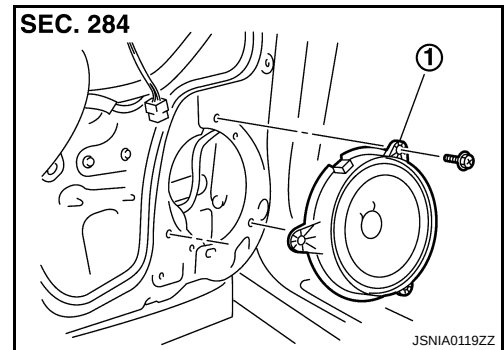
< ON-VEHICLE REPAIR >

[BOSE AUDIO WITH NAVIGATION]

REAR DOOR SPEAKER

Exploded View

INFOID:000000000964915



1. Rear door speaker

Removal and Installation

INFOID:000000000964916

REMOVAL

1. Remove rear door finisher. Refer to [INT-10, "Exploded View"](#).
2. Remove rear door speaker from rear door.

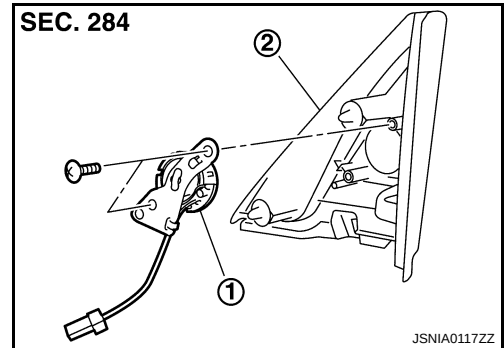
INSTALLATION

Installation is the reverse order of removal.

TWEETER

Exploded View

INFOID:0000000000964917



1. Tweeter
2. Corner cover inner

Removal and Installation

INFOID:0000000000964918

REMOVAL

1. Remove front door finisher, and then remove corner cover inner. Refer to [INT-10, "Exploded View"](#).
2. Remove tweeter from corner cover inner.

INSTALLATION

Installation is the reverse order of removal.

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AV

CENTER SPEAKER

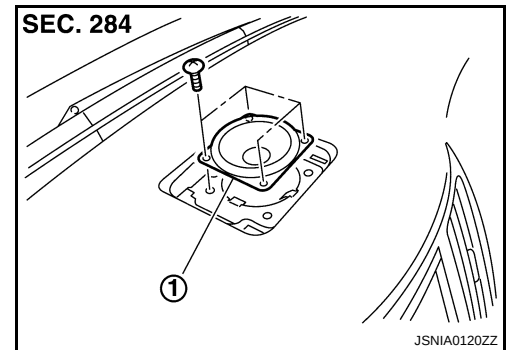
< ON-VEHICLE REPAIR >

[BOSE AUDIO WITH NAVIGATION]

CENTER SPEAKER

Exploded View

INFOID:000000000964919



1. Center speaker

Removal and Installation

INFOID:000000000964920

REMOVAL

1. Remove upper grille, and then remove center speaker. Refer to [INT-10. "Exploded View"](#).

INSTALLATION

Installation is the reverse order of removal.

WOOFER

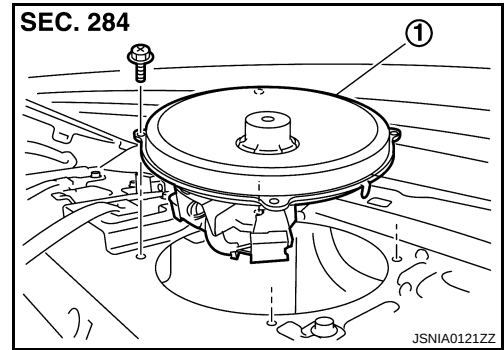
< ON-VEHICLE REPAIR >

[BOSE AUDIO WITH NAVIGATION]

WOOFER

Exploded View

INFOID:000000000964921



1. Woofer

Removal and Installation

INFOID:000000000964922

REMOVAL

1. Remove rear parcel shelf finisher. Refer to [INT-18, "Exploded View"](#).
2. Remove woofer from rear parcel shelf.

INSTALLATION

Installation is the reverse order of removal.

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BOSE AMP.

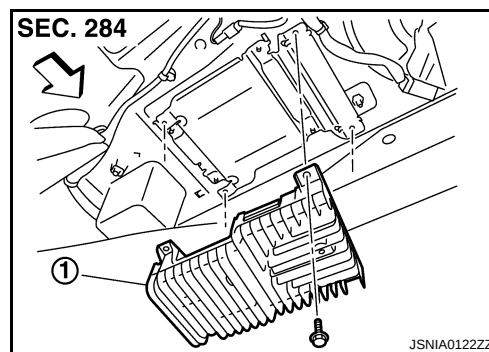
< ON-VEHICLE REPAIR >

[BOSE AUDIO WITH NAVIGATION]

BOSE AMP.

Exploded View

INFOID:000000000964923



1. BOSE amp.

Removal and Installation

INFOID:000000000964924

REMOVAL

1. Remove trunk front finisher. Refer to [INT-26, "Exploded View"](#).
2. Remove BOSE amp. from rear parcel shelf.

INSTALLATION

Installation is the reverse order of removal.

ANTENNA AMP.

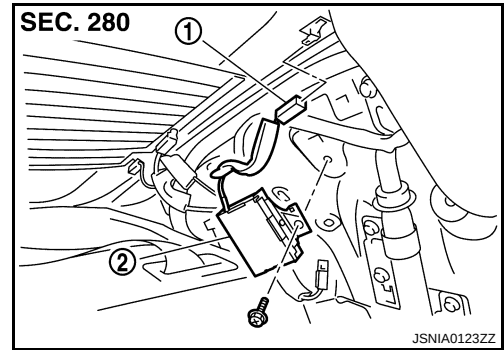
< ON-VEHICLE REPAIR >

[BOSE AUDIO WITH NAVIGATION]

ANTENNA AMP.

Exploded View

INFOID:0000000000964925



1. AM-FM main connector
2. Antenna amp.

Removal and Installation

INFOID:0000000000964926

REMOVAL

1. Remove rear pillar finisher LH. Refer to [INT-13, "Exploded View"](#).
2. Remove antenna amp. from rear pillar LH.

INSTALLATION

Installation is the reverse order of removal.

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SATELLITE RADIO ANTENNA

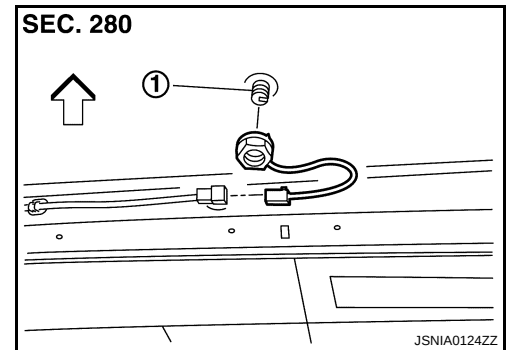
< ON-VEHICLE REPAIR >

[BOSE AUDIO WITH NAVIGATION]

SATELLITE RADIO ANTENNA

Exploded View

INFOID:000000000964927



1. Satellite radio antenna

Removal and Installation

INFOID:000000000964928

REMOVAL

1. Remove head lining assembly (rear) to secure work space between vehicle and headlining. Refer to [INT-22, "Exploded View"](#).
2. Remove nuts, and then remove satellite radio antenna from roof panel.

INSTALLATION

Installation is the reverse order of removal.

Roof antenna mounting nut  : 6.5 N·m (0.66 kg-m, 58 in-lb)

CAUTION:

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

MULTIFUNCTION SWITCH

< ON-VEHICLE REPAIR >

[BOSE AUDIO WITH NAVIGATION]

MULTIFUNCTION SWITCH

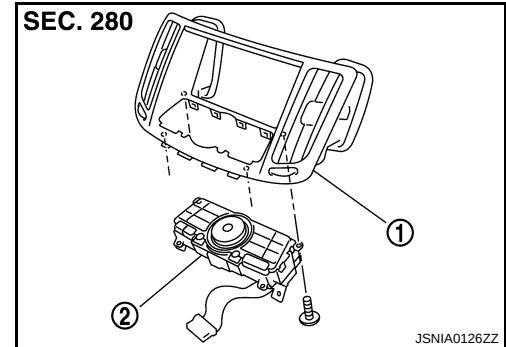
Exploded View

INFOID:000000000964929

REMOVAL

Refer to [IP-11, "Exploded View"](#).

DISASSEMBLY



1. Center ventilator grille
2. Multifunction switch

Removal and Installation

INFOID:000000000964930

REMOVAL

1. Remove cluster lid C. Refer to [IP-11, "Exploded View"](#).
2. Remove multi function switch with center ventilator grille as a single unit.
3. Remove multi function switch from center ventilator.

INSTALLATION

Installation is the reverse order of removal.

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PRESET SWITCH

< ON-VEHICLE REPAIR >

[BOSE AUDIO WITH NAVIGATION]

PRESET SWITCH

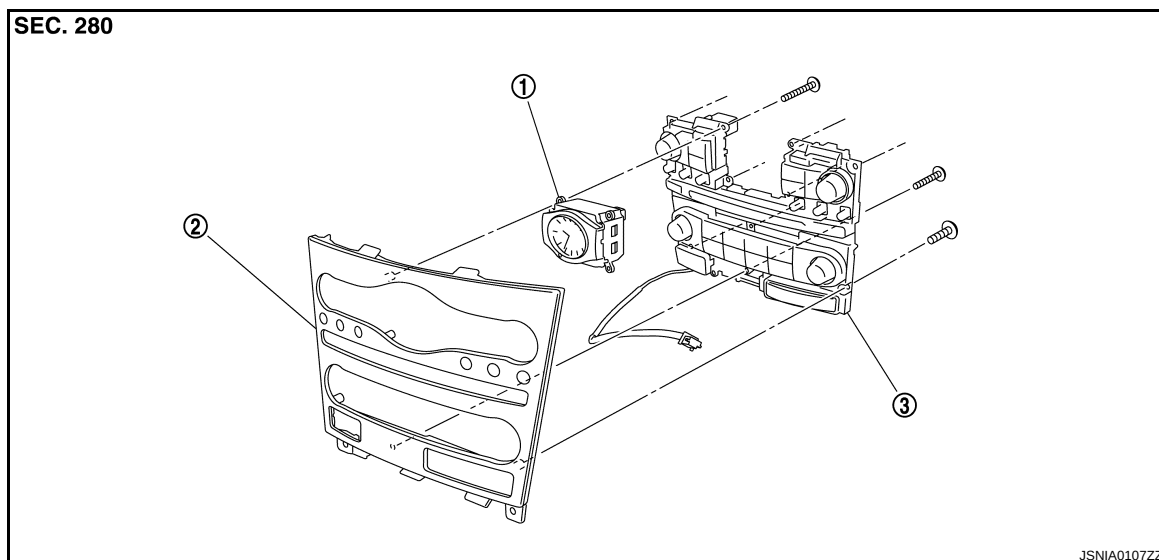
Exploded View

INFOID:000000000964931

REMOVAL

Refer to [IP-11, "Exploded View"](#).

DISASSEMBLY



1. Clock

2. Cluster lid C

3. Preset switch

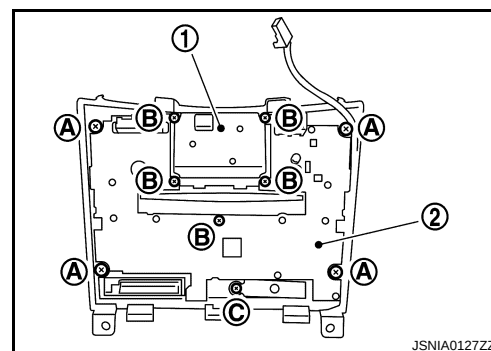
Removal and Installation

INFOID:000000000964932

REMOVAL

1. Remove cluster lid C. Refer to [IP-11, "Exploded View"](#).
2. Remove preset switch (2) from cluster lid C.

- 1. Clock
- A. Screw
- B. Screw
- C. Screw



INSTALLATION

Installation is the reverse order of removal.

NOTE:

When installing preset switch, do not allow the print wire that connects preset switch and multifunction switch to get caught in between AV control unit and preset switch.

STEERING SWITCH

Exploded View

INFOID:000000000964933

Refer to [ST-15, "Exploded View"](#).

Removal and Installation

INFOID:000000000964934

REMOVAL

Refer to [ST-15, "Removal and Installation"](#).

INSTALLATION

Installation is the reverse order of removal.

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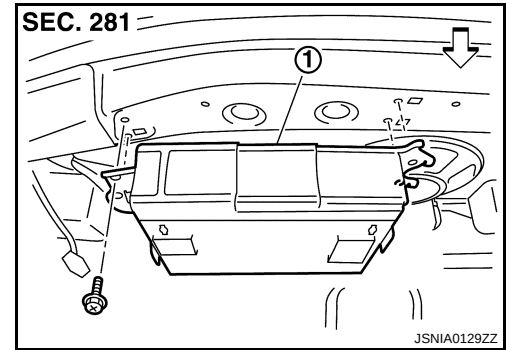
O

P

CD CHANGER

Exploded View

INFOID:000000000964935



1. CD changer

⇐ Vehicle front

Removal and Installation

INFOID:000000000964936

REMOVAL

1. Remove trunk front finisher. Refer to [INT-26. "Exploded View"](#).
2. Remove CD changer from rear parcel shelf.

INSTALLATION

Installation is the reverse order of removal.

AUXILIARY INPUT JACKS

< ON-VEHICLE REPAIR >

[BOSE AUDIO WITH NAVIGATION]

AUXILIARY INPUT JACKS

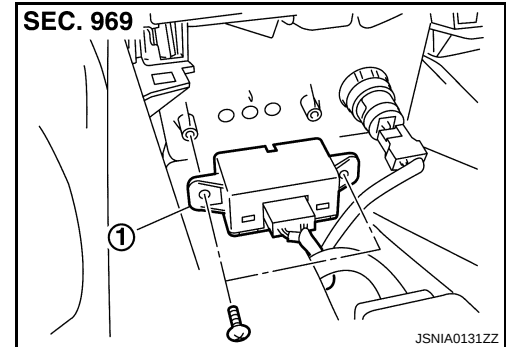
Exploded View

INFOID:000000000964937

REMOVAL

Refer to [JP-22, "Exploded View"](#).

DISASSEMBLY



1. Auxiliary input jacks

Removal and Installation

INFOID:000000000964938

REMOVAL

1. Remove center console. (M/T models) Refer to [INT-20, "Exploded View"](#).
Remove center console cup. (A/T models) Refer to [INT-20, "Exploded View"](#).
2. Remove auxiliary input jacks from center console. (M/T models)
Remove auxiliary input jacks from center console cup. (A/T models)

INSTALLATION

Installation is the reverse order of removal.

A
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MICROPHONE

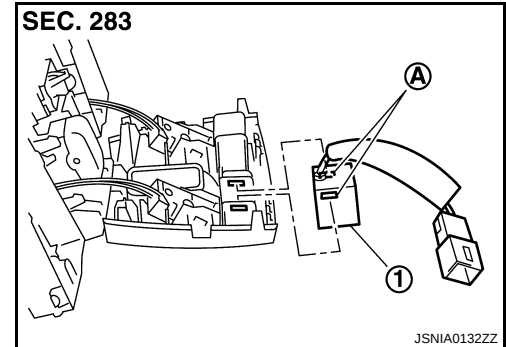
Exploded View

INFOID:000000000964939

REMOVAL

Refer to [INL-96, "Exploded View"](#).

DISASSEMBLY



- 1. Microphone
- A. Pawl

Removal and Installation

INFOID:000000000964940

REMOVAL

1. Remove map lamp. Refer to [INL-96, "Exploded View"](#).
2. Remove microphone from map lamp.

INSTALLATION

Installation is the reverse order of removal.



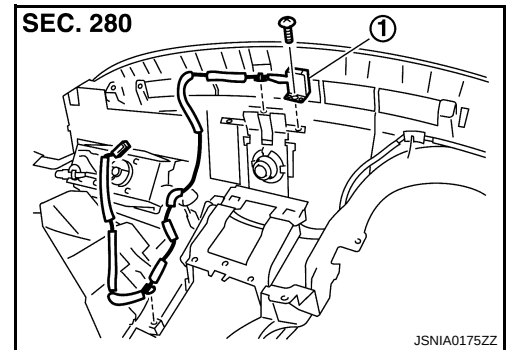
GPS ANTENNA

< ON-VEHICLE REPAIR >

[BOSE AUDIO WITH NAVIGATION]

REMOVAL

1. Remove instrument panel. Refer to [IP-11, "Exploded View"](#).
2. Remove GPS antenna (1) from instrument panel.



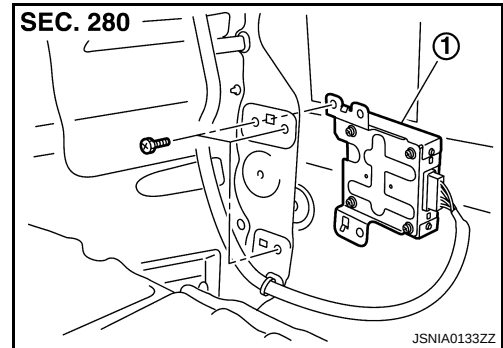
INSTALLATION

Installation is the reverse order of removal.

CAMERA CONTROL UNIT

Exploded View

INFOID:000000000964944



1. Camera control unit

Removal and Installation

INFOID:000000000964945

REMOVAL

1. Remove trunk side finisher (RH), and then remove camera control unit. Refer to [INT-26, "Exploded View"](#).

INSTALLATION

Installation is the reverse order of removal.

Adjustment

INFOID:000000000964946

ADJUSTMENT

There may be a misalignment of possible route line center position of rear view monitor after removing camera control unit. Therefore, correct neutral position with the following procedure.

1. Steer the steering wheel to the leftmost and rightmost ends.
2. Drive vehicle at 30 km/h (18.6 MPH) min. speed at least 100 m (328.1 ft).

REAR VIEW CAMERA

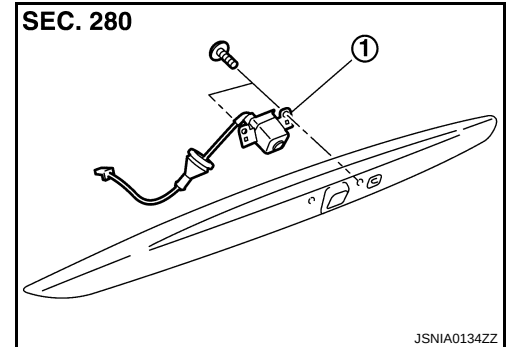
Exploded View

INFOID:000000000964947

REMOVAL

Refer to [EXT-35, "Exploded View"](#).

DISASSEMBLY



1. Rear view camera

Removal and Installation

INFOID:000000000964948

REMOVAL

1. Remove trunk lid finisher outer. Refer to [EXT-35, "Exploded View"](#).
2. Remove rear view camera from trunk lid finisher outer.

INSTALLATION

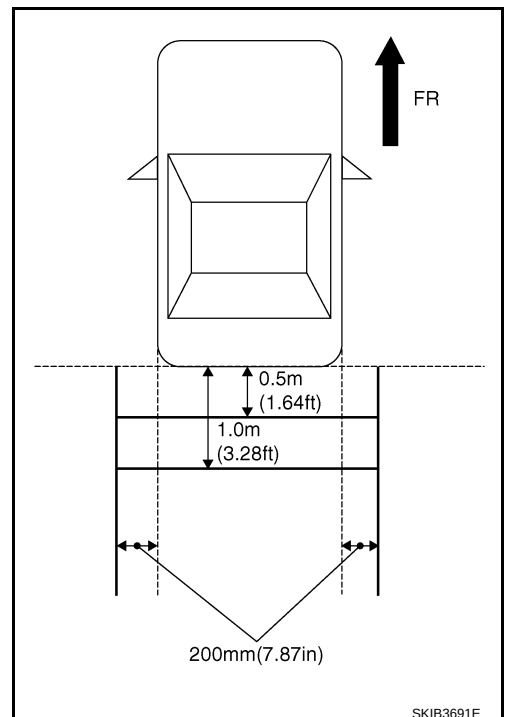
Installation is the reverse order of removal.

Adjustment

INFOID:000000000964949

Adjust the guide line position if the guide line position is shifted after installing the rear view camera.

1. Draw lines on rearward area of the vehicle passing through the following points: 20 cm (7.87 in) from both sides of the vehicle, and 0.5 m (1.64 ft), 1.0 m (3.28 ft) from the rear end of the bumper.
2. Set into "Adjust offset of rear view camera" mode of Confirmation / Adjustment mode.



REAR VIEW CAMERA

< ON-VEHICLE REPAIR >

[BOSE AUDIO WITH NAVIGATION]

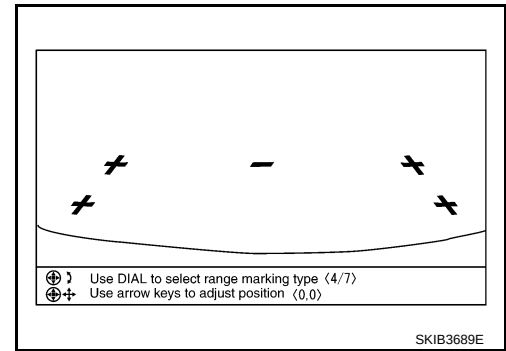
3. Rotate the center dial, and then select the guiding line pattern so that its angle is aligned with the correction line of the rear of the vehicle.

Selected pattern : 7

4. Make fine adjustment to the correction line of the rear of the vehicle with up/down/left/right switches so that its position is aligned with the guiding line. Press “”

Up/Down adjustment range : -20 - 20

Left/Right adjustment range : -20 - 20



CAUTION:

Never operate other function such as pressing BACK while writing index data.

If Confirmation/Adjustment mode does not function in the above procedure, perform one of the following service to adjust the index again.

- Remove battery for five min. Then reconnect battery.
- Remove camera control unit connector for five min. Then reconnect camera control unit connector.

STEERING ANGLE SENSOR

< ON-VEHICLE REPAIR >

[BOSE AUDIO WITH NAVIGATION]

STEERING ANGLE SENSOR

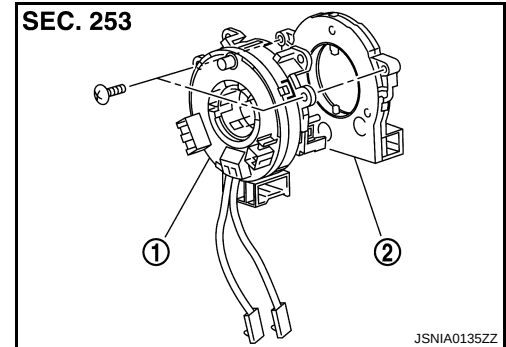
Exploded View

INFOID:000000000964950

REMOVAL

Refer to [SR-7, "Exploded View"](#).

DISASSEMBLY



1. Spiral cable
2. Steering angle sensor

Removal and Installation

INFOID:000000000964951

REMOVAL

1. Remove spiral cable.
2. Remove steering angle sensor from spiral cable.

INSTALLATION

Installation is the reverse order of removal.

Adjustment

INFOID:000000000964952

Perform 4WAS front actuator adjustment. Refer to [STC-27, "4WAS FRONT ACTUATOR NEUTRAL POSITION ADJUSTMENT : Description"](#).

ANTENNA FEEDER (RADIO)

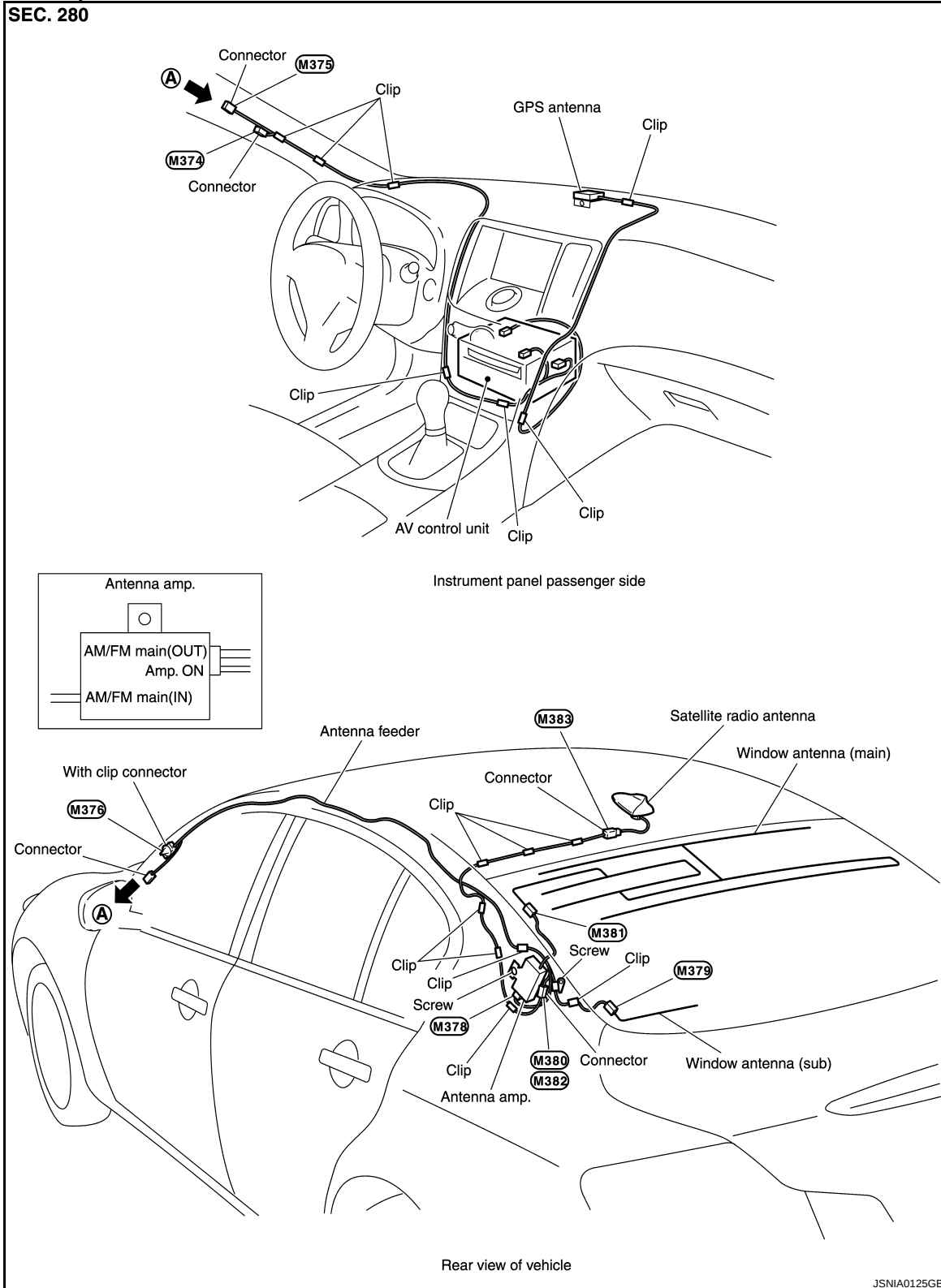
< ON-VEHICLE REPAIR >

[BOSE AUDIO WITH NAVIGATION]

ANTENNA FEEDER (RADIO)

Harness Layout

INFOID:0000000000964953



ANTENNA FEEDER (SATELLITE RADIO)

< ON-VEHICLE REPAIR >

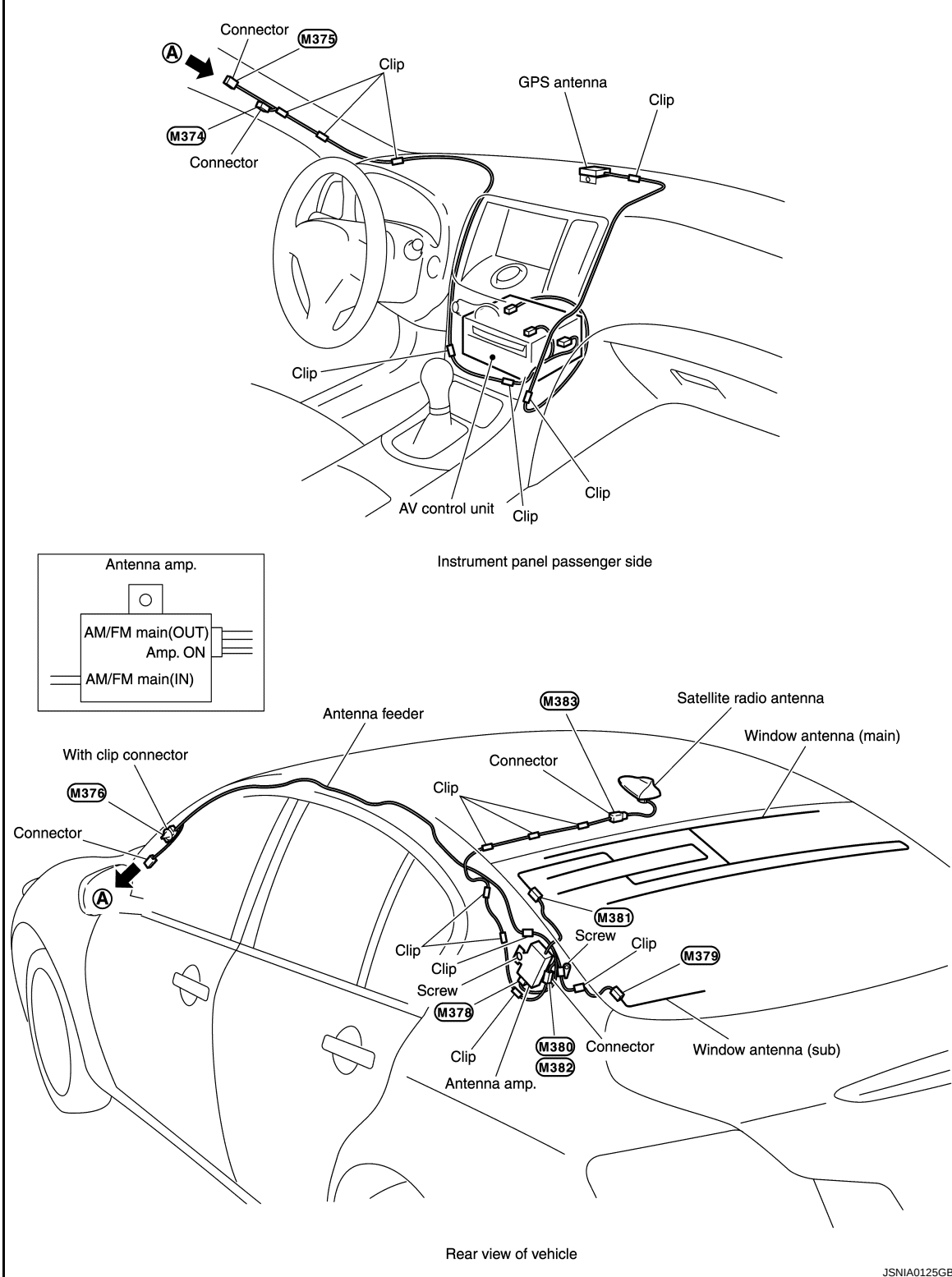
[BOSE AUDIO WITH NAVIGATION]

ANTENNA FEEDER (SATELLITE RADIO)

Harness Layout

INFOID:0000000000964954

SEC. 280



ANTENNA FEEDER (GPS)

< ON-VEHICLE REPAIR >

[BOSE AUDIO WITH NAVIGATION]

ANTENNA FEEDER (GPS)

Harness Layout

INFOID:0000000000964955

