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AUDIO, VISUAL & NAVIGATION SYSTEM

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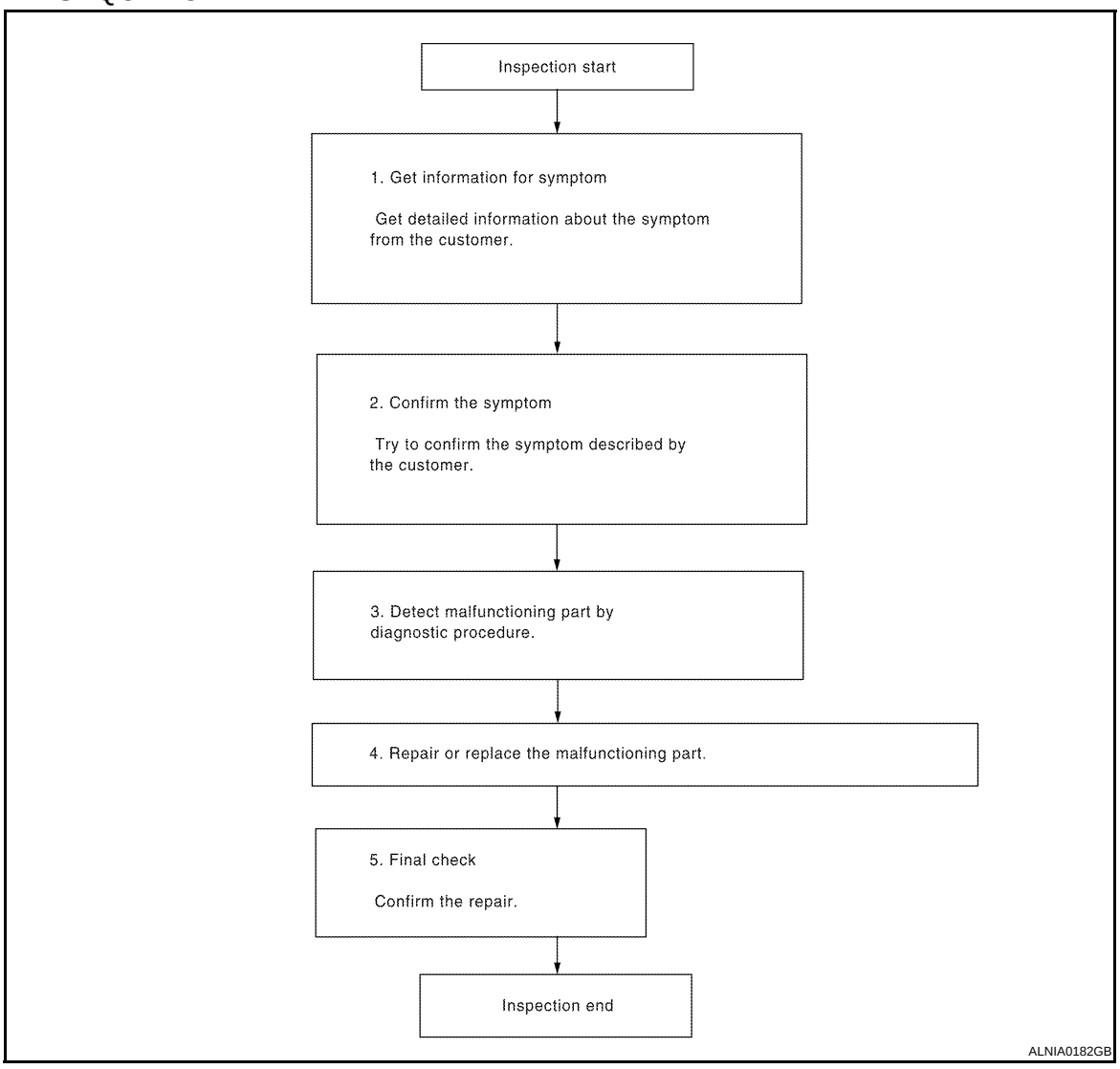
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:0000000003765587

OVERALL SEQUENCE



DETAILED FLOW

1.GET INFORMATION FOR SYMPTOM

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

>> GO TO 2.

2.CONFIRM THE SYMPTOM

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

>> GO TO 3.

3.DETECT MALFUNCTIONING PART BY DIAGNOSTIC PROCEDURE

Inspect according to Diagnostic Procedure of the system.

Is a malfunctioning part detected?

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

4. REPAIR OR REPLACE THE MALFUNCTIONING PART

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

>> GO TO 5.

5. FINAL CHECK

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

Has the symptom been repaired?

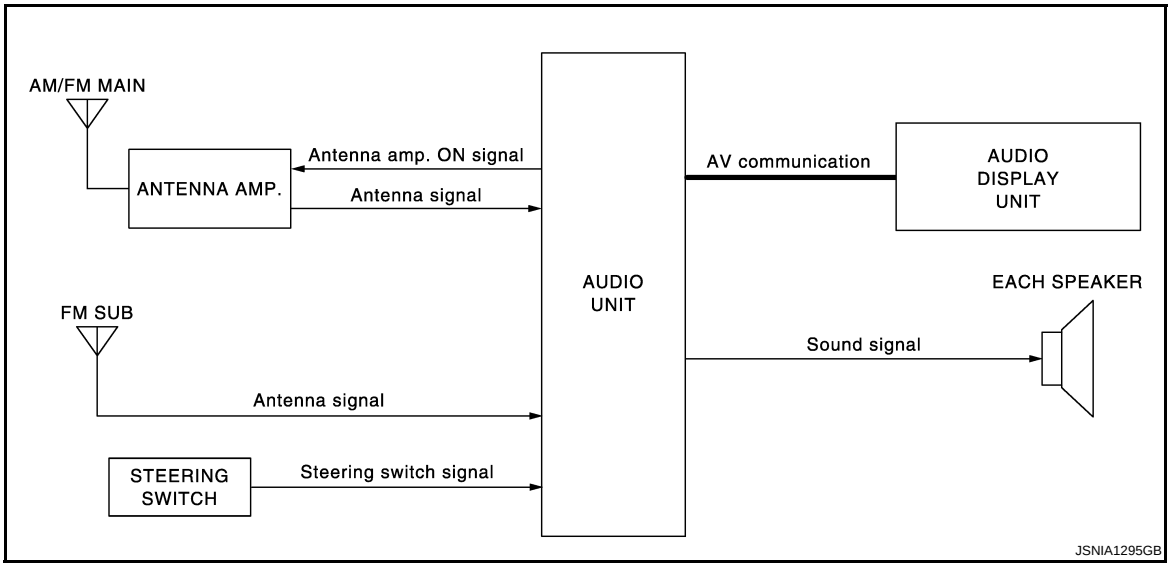
YES >> INSPECTION END
NO >> GO TO 2.

FUNCTION DIAGNOSIS

AUDIO SYSTEM

System Diagram

INFOID:0000000003765588



System Description

INFOID:0000000003765589

AUDIO SYSTEM

The audio system consists of the following components.

- Audio unit
- Antenna amp.
- Glass antenna
- Steering switch
- Front door speakers
- Rear door speakers
- Front squawkers
- Audio display unit

AM/FM Radio Mode

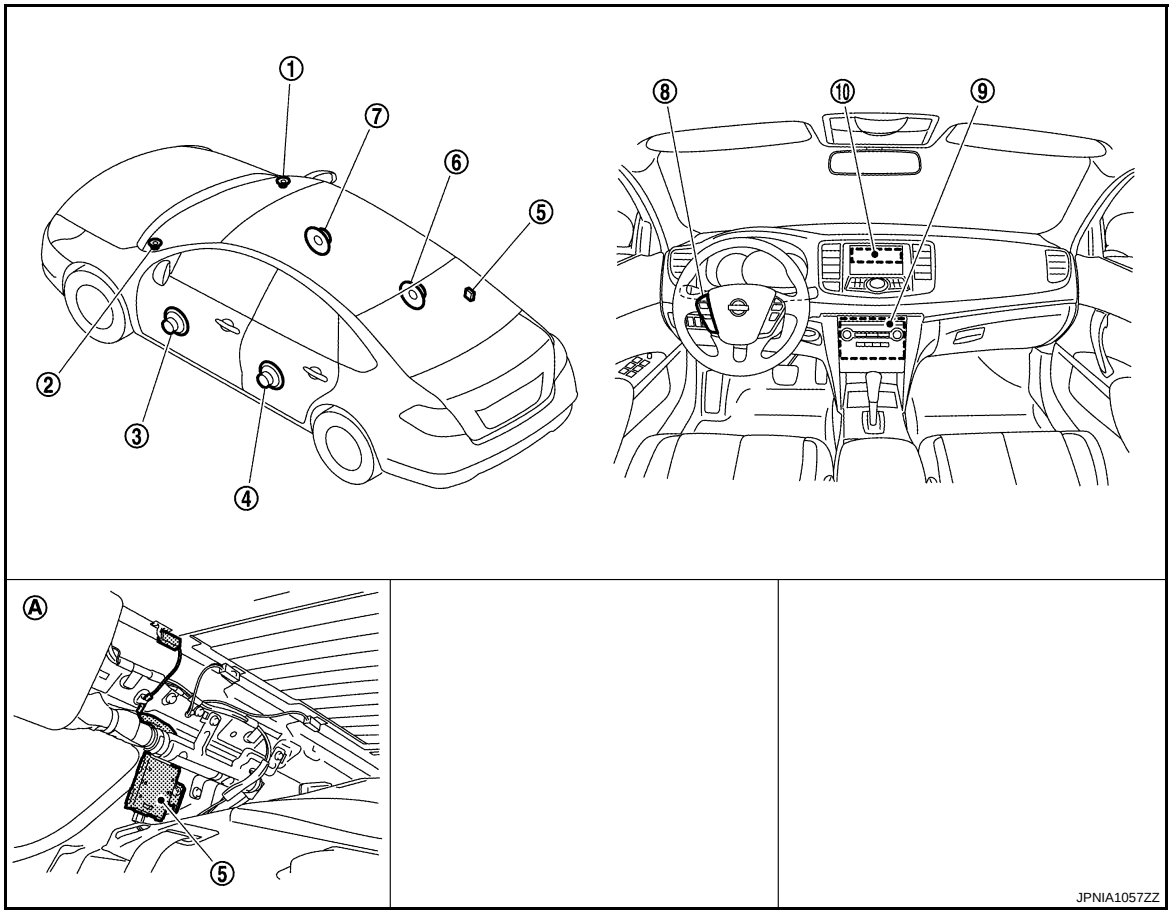
- AM/FM radio tuner is integrated into audio unit.
- When AM/FM radio waves are received by rear window glass antenna, the radio waves are amplified by an antenna amp. to input them to audio unit. Sound signals are output to each speaker for the audio unit. The FM sub antenna is installed on the rear window glass and the audio unit is received.

CD Mode

- The audio unit has CD function.
- The audio unit outputs sound signals to each speaker when CD is inserted into the audio unit.

Component Parts Location

INFOID:0000000003765590



1. Front squawker RH
2. Front squawker LH
3. Front door speaker LH
4. Rear door speaker LH
5. Antenna amp.
6. Rear door speaker RH
7. Front door speaker RH
8. Steering switch
9. Audio unit
10. Audio display unit

A. Within rear pillar finisher RH

Component Description

INFOID:0000000003765591

Part name	Description
AUDIO UNIT	• Has radio function and CD playing function. • Sound signals are output to each speaker.
AUDIO DISPLAY UNIT	Display images are controlled by AV communication from audio unit.
FRONT DOOR SPEAKER	• Outputs sound signals from audio unit. • Outputs sound (mid and low range).
REAR DOOR SPEAKER	• Outputs sound signals from audio unit. • Outputs sound (mid and low range).
FRONT SQUAWKER	• Outputs sound signals from audio unit. • Outputs sound (high and mid range).
STEERING SWITCH	Steering switch signals (operation signals) are output to audio unit.
ANTENNA AMP.	• Radio signal received by glass antenna is amplified and transmitted to audio unit. • Power (antenna amp. ON signal) is supplied from audio unit.

DIAGNOSIS SYSTEM (AUDIO UNIT)

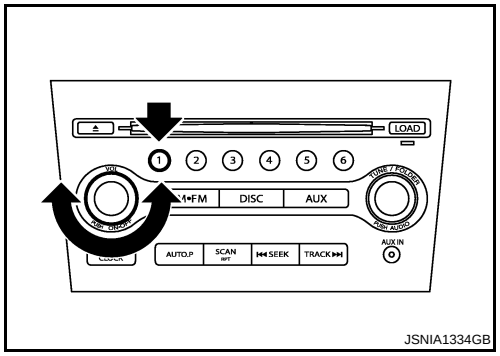
Diagnosis Description

INFOID:0000000003765592

Self-diagnosis mode can perform the following items.
- Versions display
- Channel check diagnosis
- Key check diagnosis
- AV communication diagnosis

VERSIONS DISPLAY FUNCTION

1. Turn ignition switch ON.
2. Turn the audio unit off.
3. While pressing “1” button, turn volume control dial clockwise or counterclockwise for 30 clicks or more.



JSNIA1334GB

4. Diagnosis default screen of audio display unit is displayed.
   NOTE:
   Diagnosis default screen = All icons and segments of the audio display unit are turned on.
5. Pressing the AUDIO switch briefly displays the version display mode. Pressing the AUDIO switch briefly switches to each version display. Pressing and holding the AUDIO switch when displaying each software version returns to the diagnosis default screen.

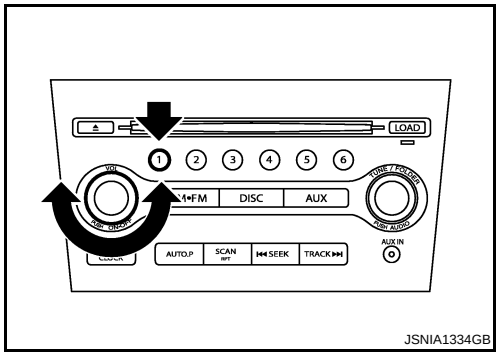
Version display item

Mode		Description
Versions display	Software V######	Audio unit software version is displayed.
	Hardware V######	Audio unit hardware version is displayed.
	Disp HW V######	Display unit hardware version is displayed.
	CD Mech V######	Audio unit CD mechanism version is displayed.
	EEPROM V######	Audio unit EEPROM version is displayed.
	Disp SW V######	Display unit software version is displayed.

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

CHANNEL CHECK DIAGNOSIS FUNCTION

1. Turn ignition switch ON.
2. Turn the audio unit off.
3. While pressing the “1” button, turn the volume control dial clockwise or counterclockwise for 30 clicks or more.



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4. The diagnosis default screen of audio display unit is displayed.
NOTE:
Diagnosis default screen = All icons and segments of the audio display unit are turned on.
5. Turning the TUNE/FOLDER dial clockwise displays the channel check mode. Pressing and holding the AUDIO switch during each channel check or waiting approximately 1 second after finishing all channel checks returns to the diagnosis default screen.

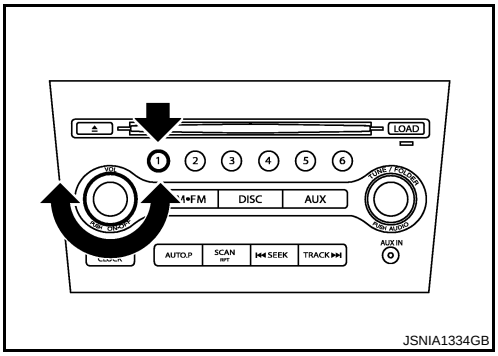
Channel check item

Mode		Description
Channel check	Channel Check Front Left	Connection of a speaker can be confirmed by test tone.
	Channel Check Rear Left	
	Channel Check Rear Right	
	Channel Check Front Right	

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

KEY CHECK DIAGNOSIS FUNCTION

1. Turn ignition switch ON.
2. Turn the audio unit off.
3. While pressing the “1” button, turn the volume control dial clockwise or counterclockwise for 30 clicks or more.



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4. The diagnosis default screen of audio display unit is displayed.
NOTE:
Diagnosis default screen = All icons and segments of the audio display unit are turned on.
5. Turning the TUNE/FOLDER dial counterclockwise displays the key check mode, and the pressed switch name is shown. Pressing and holding the AUDIO switch during the key check returns to the diagnosis default screen.

Key check item (audio)

Mode	Display item	Switch name
Key check	EJECT	“EJECT” switch
	LOAD	“LOAD” switch
	POWER	“ON·OFF” switch
	VOLUME up	“VOL up” switch
	VOLUME down	“VOL down” switch
	1	Preset button “1” switch
	2	Preset button “2” switch
	3	Preset button “3” switch
	4	Preset button “4” switch
	5	Preset button “5” switch
	6	Preset button “6” switch
	AM·FM	“AM·FM” switch
	DISC	“DISC” switch
	AUX	“AUX” switch
	AUDIO	“AUDIO” switch
	TUNE/FOLDER up	“TUNE/FOLDER up” switch
	TUNE/FOLDER down	“TUNE/FOLDER up” switch
	DISP CLOCK	“DISP CLOCK” switch
	AUTO.P	“AUTO.P”” switch
	SCAN/RPT	“SCAN RPT” switch
	SEEK/TRACK down	“SEEK” switch
	SEEK/TRACK up	“TRACK” switch

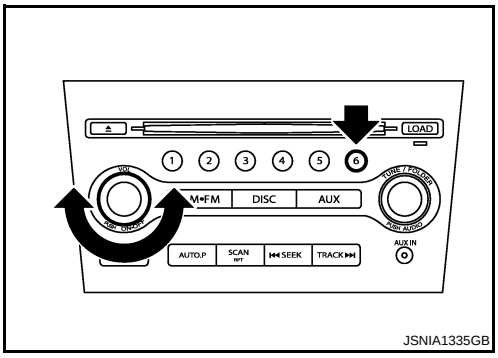
Key check item (steering switch)

Mode	Display item	Switch name
Key check	STR SOURCE	“SOURCE” switch
	STR VOL UP	“VOL up” switch
	STR VOL DOWN	“VOL down” switch
	STR UP	“SEEK up” switch
	STR DOWN	“SEEK down” switch

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

AV COMMUNICATION DIAGNOSIS FUNCTION

1. Turn ignition switch ON.
2. Turn the audio unit off.
3. While pressing the “6” button, turn the volume control dial clockwise or counterclockwise for 30 clicks or more.



JSNIA1335GB

4. Returns to diagnosis default screen and displays “AV DIAGNOSIS”.

5. Pressing the AUDIO switch briefly displays the AV communication diagnosis mode. Pressing the AUDIO switch briefly again switches to each AV communication display.

AV communication diagnosis item

Display item			Description
AV communication item	Current	Past	
TRANSMIT	OK / UN	OK / 0 –39	The communication condition and error counter from the audio unit to the audio display unit are displayed.
DISP	OK / UN	OK / 0 –39	The communication condition and error counter from the audio display unit to the audio unit.
DISP MPDT	OK / UN	OK / 0 –39	
NO HISTORY BTHF	—	—	Not used.
AV TROUBLE DEL	—	—	The error record can be deleted.

6. Pressing the TRACK switch displays the confirmation screen of “delete error record”. Press the SEEK switch if returning from RECORD DEL YES? to RECORD DEL NO?
   The item is automatically determined approximately 6 seconds after it is displayed. Then the display returns to AV TROUBLE DEL display item.

Display item	Description
RECORD DEL NO?	Does not delete error record.
RECORD DEL YES?	Deletes error record.

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

COMPONENT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT

AUDIO UNIT

AUDIO UNIT : Diagnosis Procedure

INFOID:0000000003765593

1.CHECK FUSE

Check for blown fuses.

Power source	Fuse No.
Battery	31
Ignition switch ACC or ON	19

Is the inspection result normal?

YES >> GO TO 2.
NO >> Be sure to eliminate the cause of malfunction before installing new fuse.

2.CHECK POWER SUPPLY CIRCUIT

Check voltage between audio unit harness connectors and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Value (Approx.)
Battery power supply	M46	19	OFF	Battery voltage
ACC power supply		7	ACC	

Is the inspection result normal?

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

STEERING SWITCH SIGNAL A CIRCUIT

Description

INFOID:0000000003765594

Transmits the steering switch signal to audio unit.

Diagnosis Procedure

INFOID:0000000003765595

1.CHECK STEERING SWITCH SIGNAL A CIRCUIT

1. Disconnect audio unit connector and spiral cable connector.
2. Check continuity between audio unit harness connector and spiral cable harness connector.

Audio unit		Spiral cable		Continuity
Connector	Terminal	Connector	Terminal	
M46	6	M33	24	Existed

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

Audio unit		—	Continuity
Connector	Terminal		
M46	6	Ground	Not existed

Is the inspection result normal?

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

2.CHECK SPIRAL CABLE

Check spiral cable.

Is the inspection result normal?

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

3.CHECK AUDIO UNIT VOLTAGE

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

(+)		(–)		Voltage
Audio unit				
Connector	Terminal	Connector	Terminal	
M46	6	M46	15	Approx. 5.0 V

Is the inspection result normal?

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

4.CHECK STEERING SWITCH

1. Turn ignition switch OFF.
2. Check steering switch. Refer to AV-21, "Component Inspection".

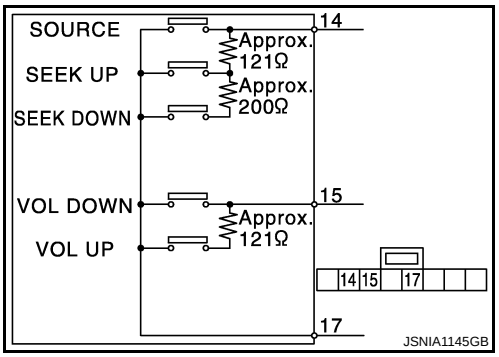
Is the inspection result normal?

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

Component Inspection

INFOID:0000000003765596

Measure the resistance between the steering switch connector terminals.



Standard

Steering switch				Condition	Resistance Ω
Connector	Terminals	Connector	Terminal		
M303	14	M303	17	SEEK DOWN switch ON	315 – 327
				SEEK UP switch ON	119 – 123
				SOURCE switch ON	0
	15			VOL UP switch ON	119 – 123
				VOL DOWN switch ON	0

STEERING SWITCH SIGNAL B CIRCUIT

Description

INFOID:0000000003765597

Transmits the steering switch signal to audio unit.

Diagnosis Procedure

INFOID:0000000003765598

1.CHECK STEERING SWITCH SIGNAL B CIRCUIT

1. Disconnect audio unit connector and spiral cable connector.
2. Check continuity between audio unit harness connector and spiral cable harness connector.

Audio unit		Spiral cable		Continuity
Connector	Terminal	Connector	Terminal	
M46	16	M33	31	Existed

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

Audio unit		—	Continuity
Connector	Terminal		
M46	16	Ground	Not existed

Is the inspection result normal?

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

2.CHECK SPIRAL CABLE

Check spiral cable.

Is the inspection result normal?

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

3.CHECK AUDIO UNIT VOLTAGE

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

(+)		(–)		Voltage
Audio unit				
Connector	Terminal	Connector	Terminal	
M46	16	M46	15	Approx. 5.0 V

Is the inspection result normal?

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

4.CHECK STEERING SWITCH

1. Turn ignition switch OFF.
2. Check steering switch. Refer to AV-23, "Component Inspection".

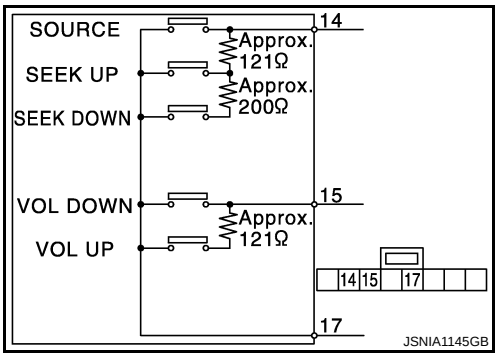
Is the inspection result normal?

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

Component Inspection

INFOID:0000000003765599

Measure the resistance between the steering switch connector terminals.



Standard

Steering switch				Condition	Resistance Ω
Connector	Terminals	Connector	Terminal		
M303	14	M303	17	SEEK DOWN switch ON	315 – 327
				SEEK UP switch ON	119 – 123
				SOURCE switch ON	0
	15			VOL UP switch ON	119 – 123
				VOL DOWN switch ON	0

STEERING SWITCH SIGNAL GND CIRCUIT

Description

INFOID:0000000003765600

Transmits the steering switch signal to audio unit.

Diagnosis Procedure

INFOID:0000000003765601

1.CHECK STEERING SWITCH SIGNAL GND CIRCUIT

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

Audio unit		Spiral cable		Continuity
Connector	Terminal	Connector	Terminal	
M46	15	M33	33	Existed

Is the inspection result normal?

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

2.CHECK SPIRAL CABLE

Check spiral cable.

Is the inspection result normal?

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

3.CHECK GROUND CIRCUIT

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

Audio unit		—	Continuity
Connector	Terminal		
M46	15	Ground	Existed

Is the inspection result normal?

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

4.CHECK STEERING SWITCH

1. Turn ignition switch OFF.
2. Check steering switch. Refer to AV-25, "Component Inspection".

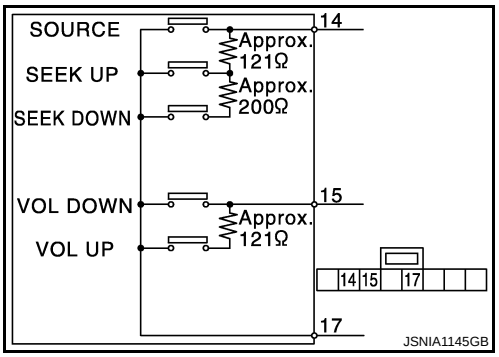
Is the inspection result normal?

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

Component Inspection

INFOID:0000000003765602

Measure the resistance between the steering switch connector terminals.



Standard

Steering switch				Condition	Resistance Ω
Connector	Terminals	Connector	Terminal		
M303	14	M303	17	SEEK DOWN switch ON	315 – 327
				SEEK UP switch ON	119 – 123
				SOURCE switch ON	0
	15			VOL UP switch ON	119 – 123
				VOL DOWN switch ON	0

ECU DIAGNOSIS

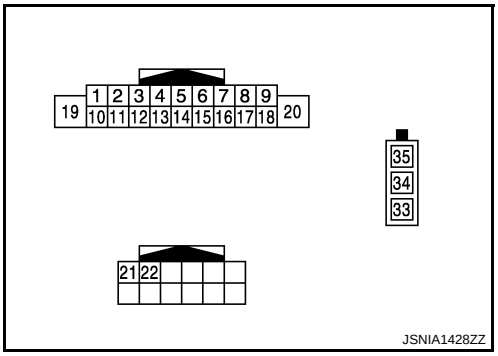
AUDIO UNIT

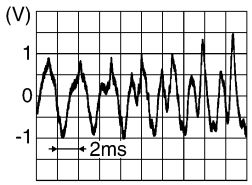
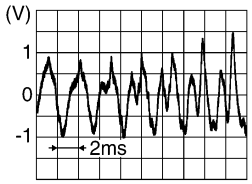
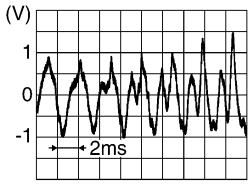
Reference Values

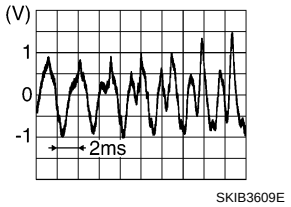
INFOID:0000000003765603

TERMINAL LAYOUT

PHYSICAL VALUES

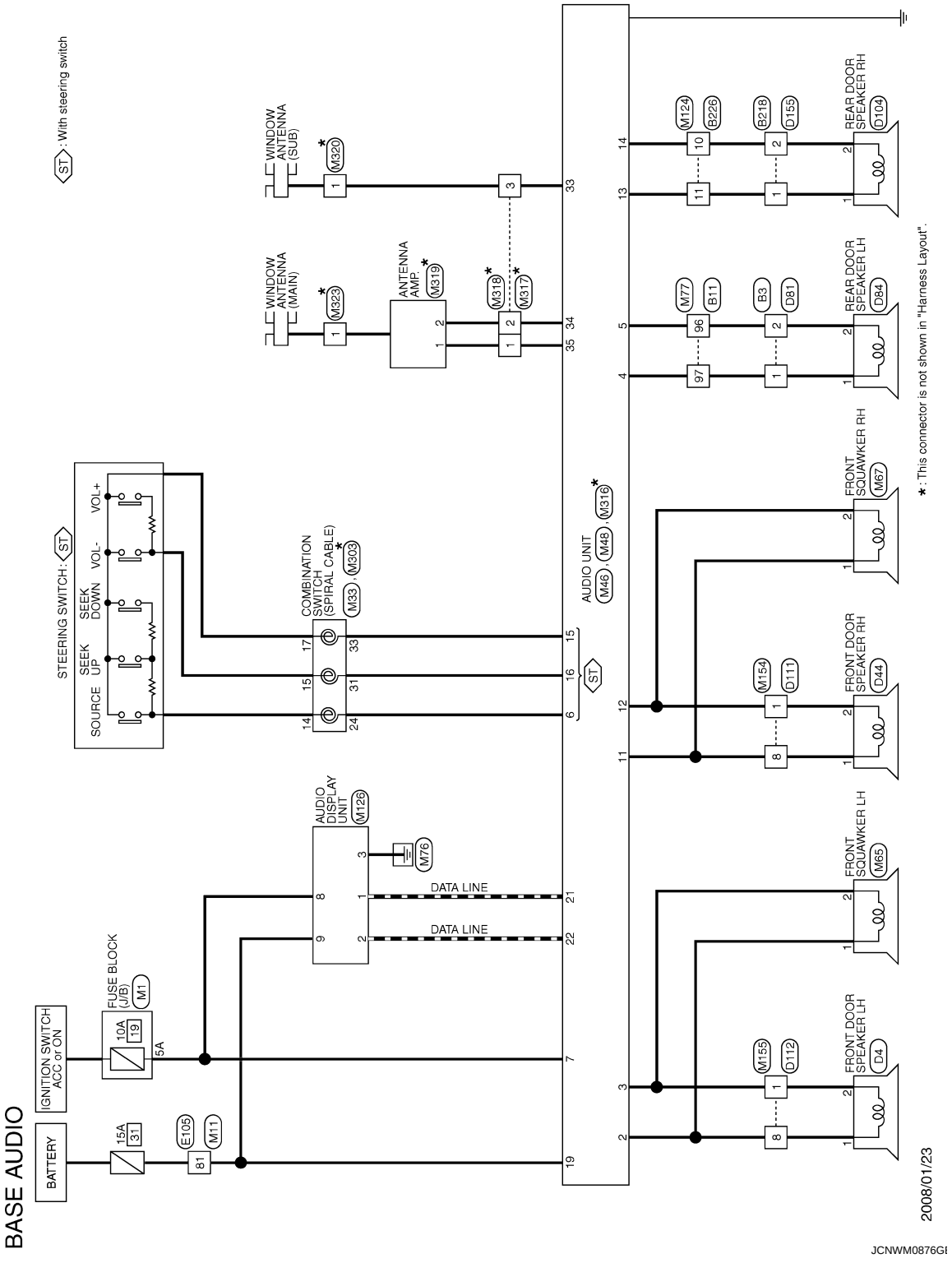


Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
2 (W)	3 (B)	Sound signal front LH	Output	Ignition switch ON	Sound output.	 SKIB3609E
4 (O/B)	5 (W/R)	Sound signal rear LH	Output	Ignition switch ON	Sound output.	 SKIB3609E
6 (W/G)	15 (L/B)	Steering switch signal A	Input	Ignition switch ON	Keep pressing SOURCE switch.	0 V
					Keep pressing △ switch.	1.0 V
					Keep pressing ▽ switch.	2.0 V
					Except for above.	5.0 V
7 (V/W)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
11 (B/W)	12 (BR)	Sound signal front RH	Output	Ignition switch ON	Sound output.	 SKIB3609E

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
13 (L)	14 (B/W)	Sound signal rear RH	Output	Ignition switch ON	Sound output.	 SKIB3609E
15 (L/B)	Ground	Steering switch signal ground	—	Ignition switch ON	—	0 V
16 (GR/L)	15 (L/B)	Steering switch signal B	Input	Ignition switch ON	Keep pressing VOL DOWN switch.	0 V
					Keep pressing VOL UP switch.	1.0 V
					Except for above.	5.0 V
19 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
21 (R)	Ground	AV communication signal (L)	Input/ Output	—	—	—
22 (L)	Ground	AV communication signal (H)	Input/ Output	—	—	—
33	—	FM sub	Input	—	—	—
34	—	AM-FM main	Input	—	—	—
35	Ground	Antenna amp. ON signal	Output	Ignition switch ACC	—	12.0 V

Wiring Diagram — BASE AUDIO —

INFOID:0000000003765604



BASE AUDIO

Connector No.	B3
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS

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

Connector No.	D4
Connector Name	FRONT DOOR SPEAKER LH (WITHOUT BOSE SYSTEM)
Connector Type	NS02FW-CS

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

Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS19





Terminal No.	Color of Wire	Signal Name [Specification]
96	B	– [Without BOSE system]
97	W	– [Without BOSE system]

Connector No.	D44
Connector Name	FRONT DOOR SPEAKER RH (WITHOUT BOSE SYSTEM)
Connector Type	NS02FW-CS

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

Connector No.	B218
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS





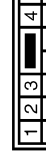
Terminal No.	Color of Wire	Signal Name [Specification]
1	L	–
2	O	–

Connector No.	D81
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS



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

Connector No.	B226
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
10	O	– [Without BOSE system]
11	L	– [Without BOSE system]

Connector No.	D84
Connector Name	REAR DOOR SPEAKER LH (WITHOUT BOSE SYSTEM)
Connector Type	NS02FW-CS

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

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BASE AUDIO

Connector No.	D104
Connector Name	REAR DOOR SPEAKER RH (WITHOUT BOSE SYSTEM)
Connector Type	NS02FW-CS



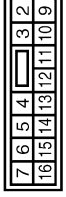
Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–
2	P	–

Connector No.	D111
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	–[Without BOSE system]
8	W	–[Without BOSE system]

Connector No.	D112
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



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

Connector No.	D155
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS



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

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH70MW-CS10-M3

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

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

Terminal No.	Color of Wire	Signal Name [Specification]
5A	V/O	–

Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Type	TH70FW-CS10-M3

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

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

Terminal No.	Color of Wire	Signal Name [Specification]
24	W/G	–
31	GR/L	–
33	L/B	–

JCNWM0878GI

BASE AUDIO

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

Terminal No.	Color of Wire	Signal Name [Specification]
2	W	SOUND SIGNAL FRONT LH (+)
3	B	SOUND SIGNAL FRONT LH (−)
4	O/B	SOUND SIGNAL REAR LH (+)
5	W/R	SOUND SIGNAL REAR LH (−)
6	W/G	STRG SW A
7	V/W	ACC
11	B/W	SOUND SIGNAL FRONT RH (+)
12	BR	SOUND SIGNAL FRONT RH (−)
13	L	SOUND SIGNAL REAR RH (+)
14	B/W	SOUND SIGNAL REAR RH (−)
15	L/B	STRG SW GND

Connector No.	M67
Connector Name	FRONT SQUAWKER RH
Connector Type	TK02FBR

Terminal No.	Color of Wire	Signal Name [Specification]
1	B/W	–[With base audio without display system]
2	BR	–[Without BOSE system]

16	GR/L	STRG SW B
19	Y	BAT

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS19

Terminal No.	Color of Wire	Signal Name [Specification]
96	W/R	–
97	O/B	–

Connector No.	M48
Connector Name	AUDIO UNIT
Connector Type	TH12FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
21	R	AV COMM (L)
22	L	AV COMM (H)

Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
10	B/W	–[Without BOSE system]
11	L	–[Without BOSE system]

Connector No.	M65
Connector Name	FRONT SQUAWKER LH
Connector Type	TK02FBR

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

Connector No.	M126
Connector Name	AUDIO DISPLAY UNIT
Connector Type	TH12FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	AV COMM (L)
2	L	AV COMM (H)
3	B/W	GND
8	V/Y	ACC
9	Y	BAT

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BASE AUDIO

Connector No.	M154
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
1	BR	-[Without BOSE system]
8	B/W	-[Without BOSE system]

Connector No.	M155
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	-[Without BOSE system]
8	W	-[Without BOSE system]

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



Terminal No.	Color of Wire	Signal Name [Specification]
14	–	–
15	–	–
17	–	–

Connector No.	M316
Connector Name	AUDIO UNIT
Connector Type	GT13SH-2/1S-HU



Terminal No.	Color of Wire	Signal Name [Specification]
33	–	FM SUB
34	–	AM-FM MAIN
35	–	ANTENNA AMP.ON SIG

Connector No.	M317
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1PP-HU

Terminal No.	Color of Wire	Signal Name [Specification]
1	–	–
2	–	–
3	–	–

Connector No.	M318
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1S-HU

Terminal No.	Color of Wire	Signal Name [Specification]
1	–	–
2	–	–
3	–	–

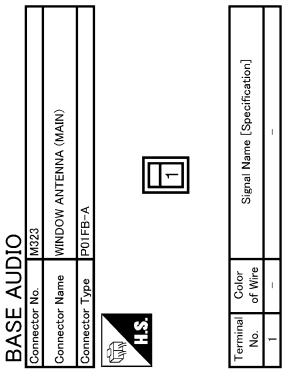
Connector No.	M319
Connector Name	ANTENNA AMP.
Connector Type	GT13SC-1/1S-HU

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

Connector No.	M320
Connector Name	WINDOW ANTENNA (SUB)
Connector Type	P01FB-A

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

JCNWM0880GB



JCNWM0881GI

SYMPTOM DIAGNOSIS

AUDIO SYSTEM SYMPTOMS

Symptom Table

INFOID:0000000003765605

RELATED TO AUDIO

Symptoms	Check items	Possible malfunction location / Action to take
Audio sound is not heard.	No sound from all speakers.	Audio unit malfunction. Refer to AV-37, "Exploded View".
	There is no sound from one of speakers.	Sound signal malfunction between audio unit and speaker on the side where there is no sound.
AM/FM radio is not received.	Other audio sounds are normal.	• Antenna amp. ON signal circuit • Antenna feeder • Glass antenna
Audio display does not work.	—	• Audio display power supply and ground circuits. • AV communication circuits between audio unit and audio display.

RELATED TO STEERING SWITCH

Symptoms	Inspection location / Probable malfunction location
None of the steering switch operations work.	Steering switch signal GND circuit Refer to AV-24, "Diagnosis Procedure".
Only specified switch (1) cannot be operated.	Steering switch Refer to AV-42, "Exploded View".
“SOURCE”, “SEEK UP”, “SEEK DOWN” switches of steering switch are not operational.	Steering switch signal A circuit Refer to AV-20, "Diagnosis Procedure".
”VOL UP“, “VOL DOWN” switches of steering switch are not operational.	Steering switch signal B circuit Refer to AV-22, "Diagnosis Procedure".

NORMAL OPERATING CONDITION

Description

INFOID:0000000003765606

NOTE:
- Audio operation information, refer to Owner's Manual.
- The majority of the audio concerns are the result of outside causes (bad CD, electromagnetic interference, etc.).

NOISE

The following noise results from variations in field strength, such as fading noise and multi-path noise, or external noise from trains and other sources. It is not a malfunction.
- Fading noise: This noise occurs because of variations in the field strength in a narrow range due to mountains or buildings blocking the signal.
- Multi-path noise: This noise results from the waves sent directly from the broadcast station arriving at the antenna at a different time from the waves that reflect off mountains or buildings.

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

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

Types of Noise and Possible Causes

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

PRECAUTION

PRECAUTIONS

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

INFOID:0000000003960541

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

WARNING:

- **To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.**
- **Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the “SRS AIRBAG”.**
- **Never use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.**

Precaution for Trouble Diagnosis

INFOID:0000000003765608

AV COMMUNICATION SYSTEM

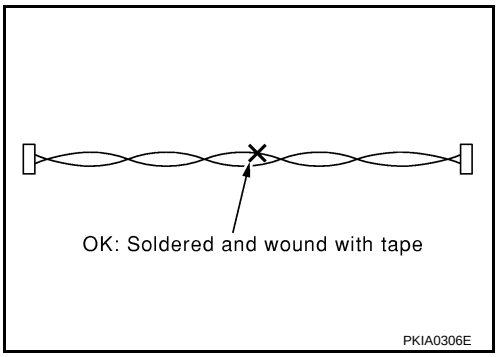
- Do not apply voltage of 7.0 V or higher to the measurement terminals.
- Use the tester with its open terminal voltage at 7.0 V or less.
- Turn ignition switch OFF and disconnect the battery cable from the negative terminal before checking the circuit.

Precaution for Harness Repair

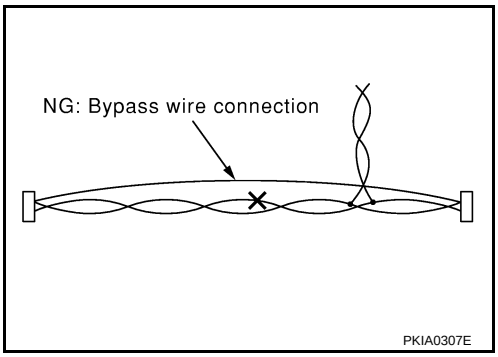
INFOID:0000000003765609

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.)



ON-VEHICLE REPAIR

AUDIO UNIT

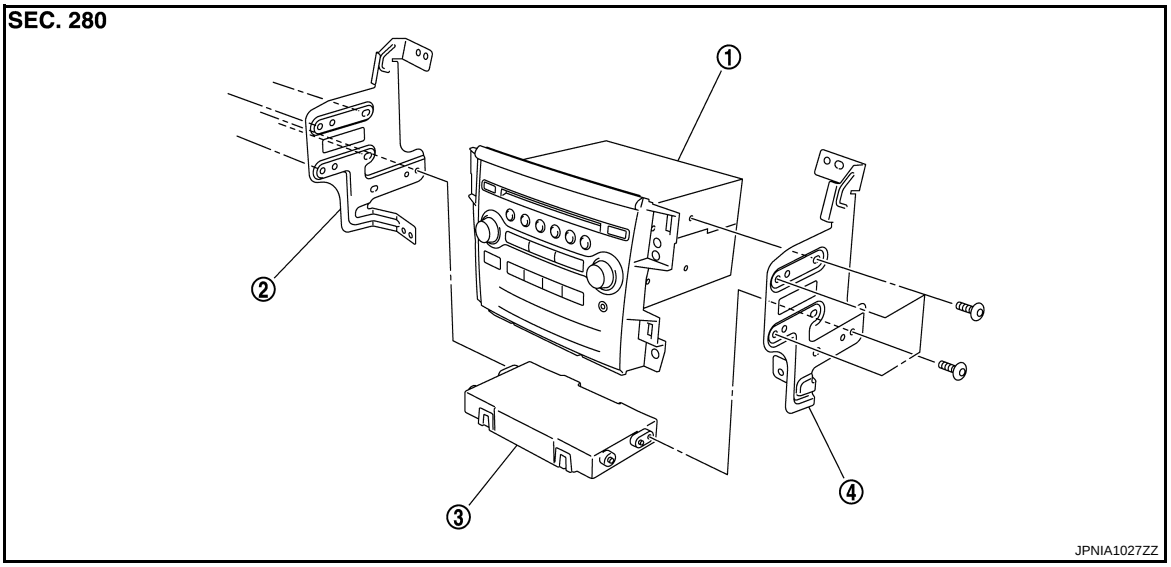
Exploded View

INFOID:0000000003765611

REMOVAL

Refer to IP-11, "Exploded View".

DISASSEMBLY



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

Removal and Installation

INFOID:0000000003765612

REMOVAL

1. Remove instrument finisher C. Refer to IP-12, "Removal and Installation".
2. Remove cluster lid D. Refer to IP-12, "Removal and Installation".
3. Remove audio unit with an A/C auto amp. as a single unit from the body.
4. Remove bracket screws, and then remove audio unit.

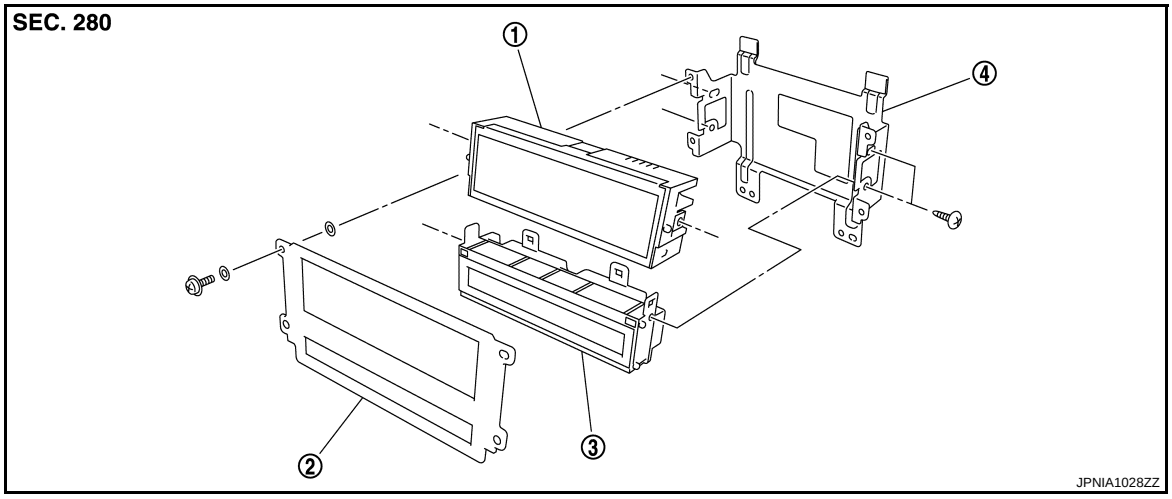
INSTALLATION

Install in the reverse order of removal.

AUDIO DISPLAY

Exploded View

INFOID:0000000003765613



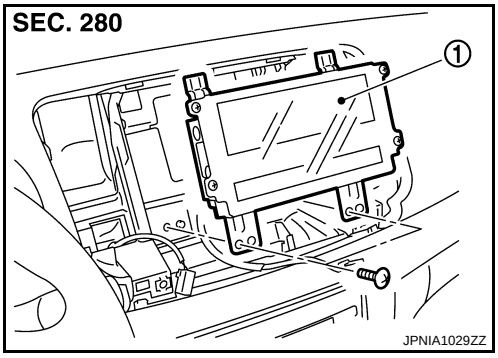
1. Audio display unit
2. Front cover
3. A/C display
4. Bracket

Removal and Installation

INFOID:0000000003765614

REMOVAL

1. Remove cluster lid D. Refer to IP-12, "Removal and Installation".
2. Remove audio display unit and A/C display with bracket as a single unit (1).
3. Remove bracket screws, and then remove audio display unit.



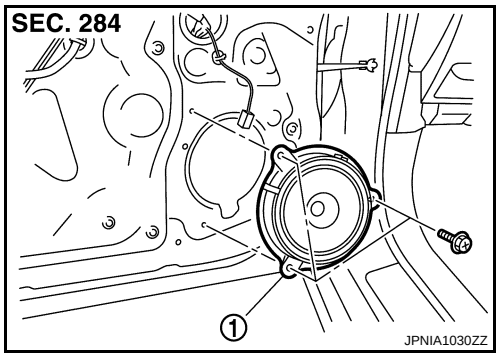
INSTALLATION

Install in the reverse order of removal.

FRONT DOOR SPEAKER

Exploded View

INFOID:0000000003765615



1. Front door speaker

Removal and Installation

INFOID:0000000003765616

REMOVAL

1. Remove front door finisher. Refer to INT-30, "DRIVER SIDE : Removal and Installation" (driver side) or INT-33, "PASSENGER SIDE : Removal and Installation" (passenger side).
2. Remove front door speaker screws, then disconnect front door speaker connector and remove front door speaker.

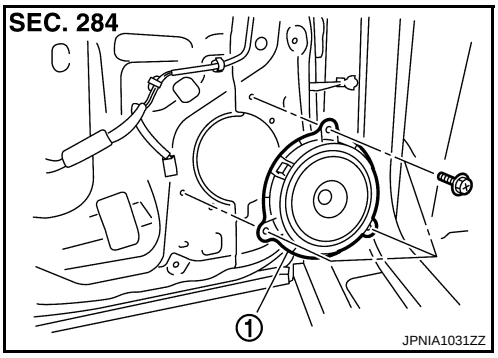
INSTALLATION

Install in the reverse order of removal.

REAR DOOR SPEAKER

Exploded View

INFOID:0000000003765617



1. Rear door speaker

Removal and Installation

INFOID:0000000003765618

REMOVAL

1. Remove rear door finisher. Refer to INT-36, "Removal and Installation".
2. Remove rear door speaker screws, then disconnect rear door speaker connector and remove rear door speaker.

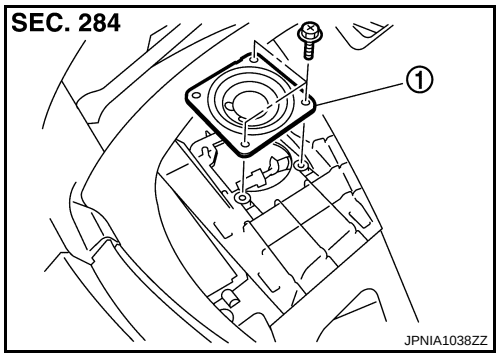
INSTALLATION

Install in the reverse order of removal.

FRONT SQUAWKER

Exploded View

INFOID:0000000003765619



1. Front squawker

Removal and Installation

INFOID:0000000003765620

REMOVAL

1. Remove speaker grille. Refer to IP-12, "Removal and Installation".
2. Remove front squawker screws, lift up the front squawker and disconnect front squawker connector. Then remove the front squawker.

INSTALLATION

Install in the reverse order of removal.

STEERING SWITCH

Exploded View

INFOID:0000000003765621

Refer to ST-12, "Exploded View".

Removal and Installation

INFOID:0000000003765622

REMOVAL

Refer to ST-12, "Removal and Installation".

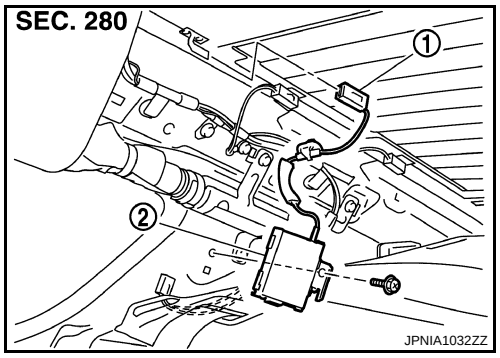
INSTALLATION

Install in the reverse order of removal.

ANTENNA AMP.

Exploded View

INFOID:0000000003765623



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

Removal and Installation

INFOID:0000000003765624

REMOVAL

1. Remove rear side pillar finisher. Refer to INT-39, "Removal and Installation".
2. Disconnect antenna feeder connector and clip.
3. Remove antenna amp. mounting nut, disconnect the antenna amp. connector.
4. Remove antenna amp.

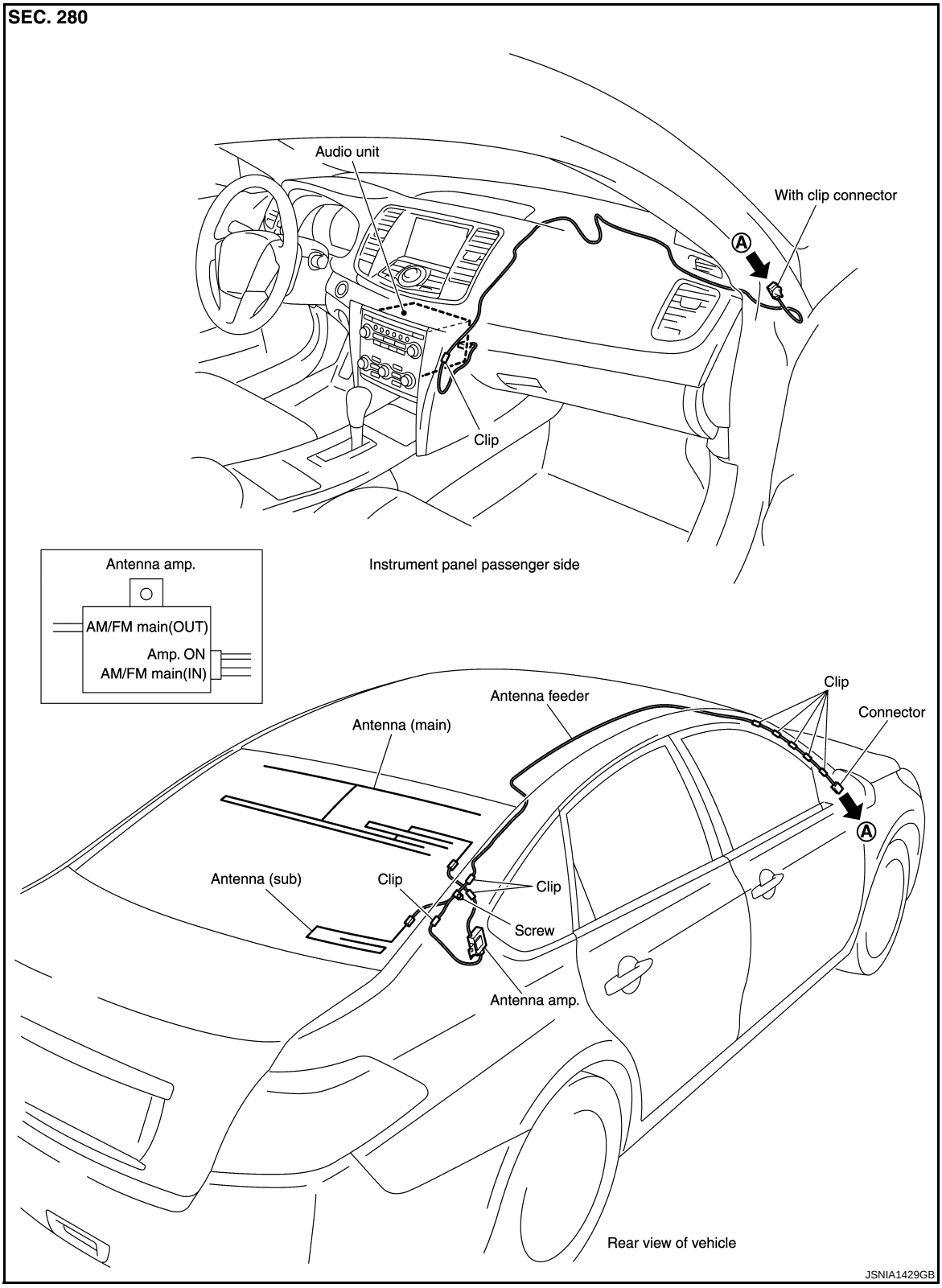
INSTALLATION

Installation is the reverse order of removal.

ANTENNA FEEDER (RADIO)

Harness Layout

INFOID:0000000003765625



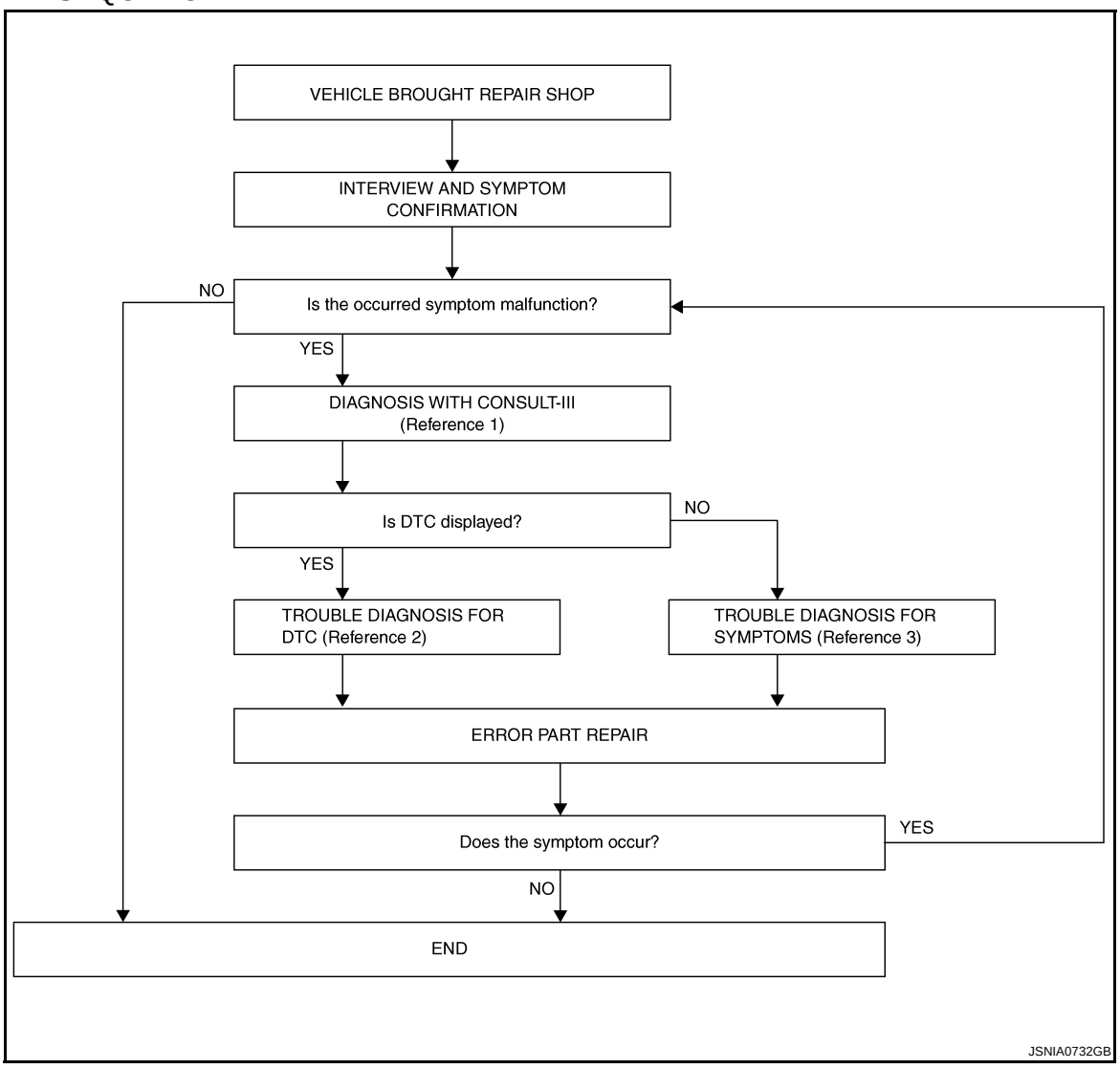
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:0000000003882692

OVERALL SEQUENCE



- Reference 1··· Refer to AV-68, "CONSULT-III Function (MULTI AV)".
- Reference 2··· Refer to AV-126, "DTC Index".
- Reference 3··· Refer to AV-164, "Symptom Table".

DETAILED FLOW

1. INTERVIEW AND SYMPTOM CONFIRMATION

Check the malfunction symptoms by performing the following items.
- Interview the customer to obtain the malfunction information (conditions and environment when the malfunction occurred).
- Check the symptom.

Is the occurred symptom malfunction?

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

2. DIAGNOSIS WITH CONSULT-III

1. Connect CONSULT-III and perform a self-diagnosis for “MULTI AV”. Refer to AV-68, "CONSULT-III Function (MULTI AV)".
   NOTE:
   Skip to step 4 of the diagnosis procedure if “MULTI AV” is not displayed.
2. Check if any DTC is displayed in the self-diagnosis results.

Is DTC displayed?

YES >> GO TO 3.
NO >> GO TO 4.

3. TROUBLE DIAGNOSIS FOR DTC

1. Check the DTC indicated in the self-diagnosis results.
2. Perform the relevant diagnosis referring to the DTC Index. Refer to AV-126, "DTC Index".

>> GO TO 5.

4. TROUBLE DIAGNOSIS FOR SYMPTOMS

Perform the relevant diagnosis referring to the diagnosis chart by symptom. Refer to AV-164, "Symptom Table".

>> GO TO 5.

5. ERROR PART REPAIR

1. Repair or replace the identified malfunctioning parts.
2. Perform a self-diagnosis for “MULTI AV” with CONSULT-III.
   NOTE:
   Erase the stored self-diagnosis results after repairing or replacing the relevant components if any DTC has been indicated in the self-diagnosis results.
3. Check that the symptom does not occur.

Does the symptom occur?

YES >> GO TO 1.
NO >> INSPECTION END

INSPECTION AND ADJUSTMENT

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description

INFOID:0000000003882693

WITH AROUND VIEW MONITOR

Always correct the center position of the predicted course line after disconnecting the battery negative terminal.

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement

INFOID:0000000003882694

1.CORRECTION OF CENTER POSITION OF PREDICTED COURSE LINE

Refer to the following for details.

>> Refer to AV-47, "PREDICTED COURSE LINE CENTER POSITION ADJUSTMENT : Special Repair Requirement".

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description

INFOID:0000000003882695

When camera control unit is replaced, the center position of predicted course line shall be corrected.

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement

INFOID:0000000003882696

1.CORRECTION OF CENTER POSITION OF PREDICTED COURSE LINE

Refer to the following for details.

>> Refer to AV-47, "PREDICTED COURSE LINE CENTER POSITION ADJUSTMENT : Special Repair Requirement".

PREDICTED COURSE LINE CENTER POSITION ADJUSTMENT

PREDICTED COURSE LINE CENTER POSITION ADJUSTMENT : Description

INFOID:0000000003882697

Adjust the center position of the possible route line of the rear view monitor if it is shifted.

PREDICTED COURSE LINE CENTER POSITION ADJUSTMENT : Special Repair Requirement

INFOID:0000000003882698

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.

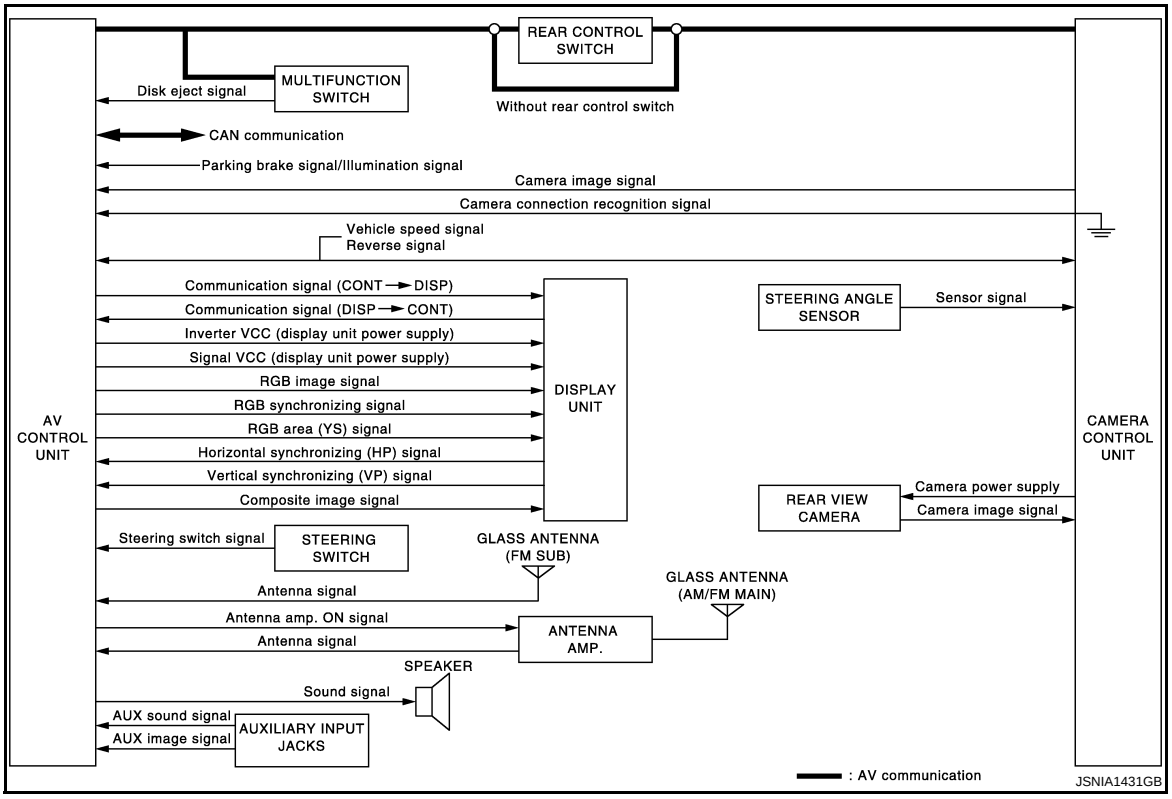
>> END

FUNCTION DIAGNOSIS

MULTI AV SYSTEM

System Diagram

INFOID:0000000003882699



NOTE:

- The name MULTIFUNCTION SWITCH indicates the integration of PRESET SWITCH and MULTIFUNCTION SWITCH virtually.
- A radio antenna base integrated with radio antenna amp. is adopted.
- Woofer illustrated in the above figure, integrates two woofers and a woofer amp.

System Description

INFOID:0000000003882700

Multi AV system means that the following systems are integrated.

System name	System explanation
AUDIO SYSTEM	AV-53, "System Diagram"
REAR VIEW MONITOR SYSTEM	AV-56, "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 and combination meter. • AV control unit is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.
AUXILIARY INPUT SYSTEM	Refer to “AUXILIARY INPUT SYSTEM” shown below.

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

- AV control unit is connected with display unit and serial communication, and it transmits the required signal of display and display control and receives the response signal from display unit.

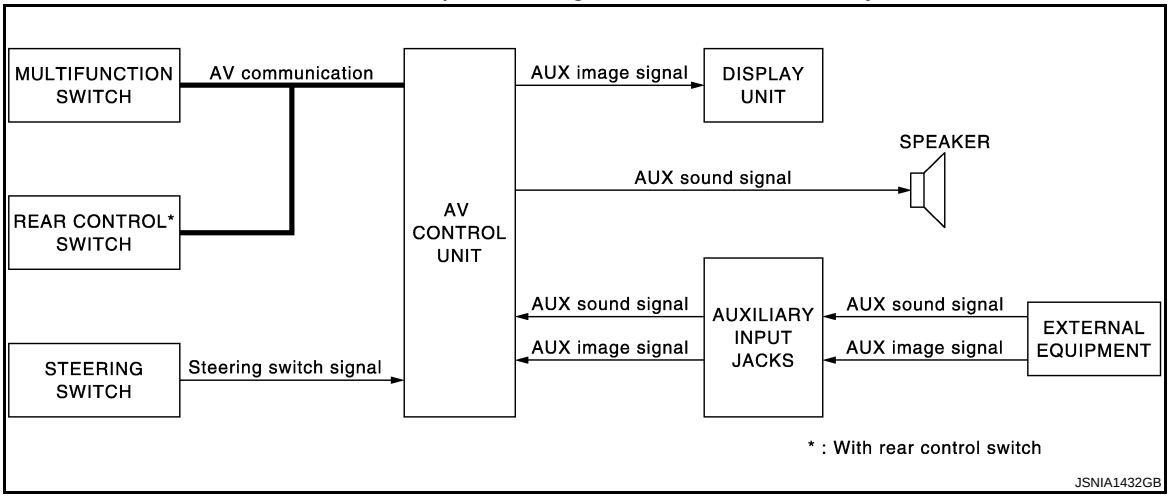
NOTE:

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

- CONSULT-III self diagnosis: Refer to AV-68, "CONSULT-III Function (MULTI AV)".
- On board self diagnosis: Refer to AV-60, "Diagnosis Description".

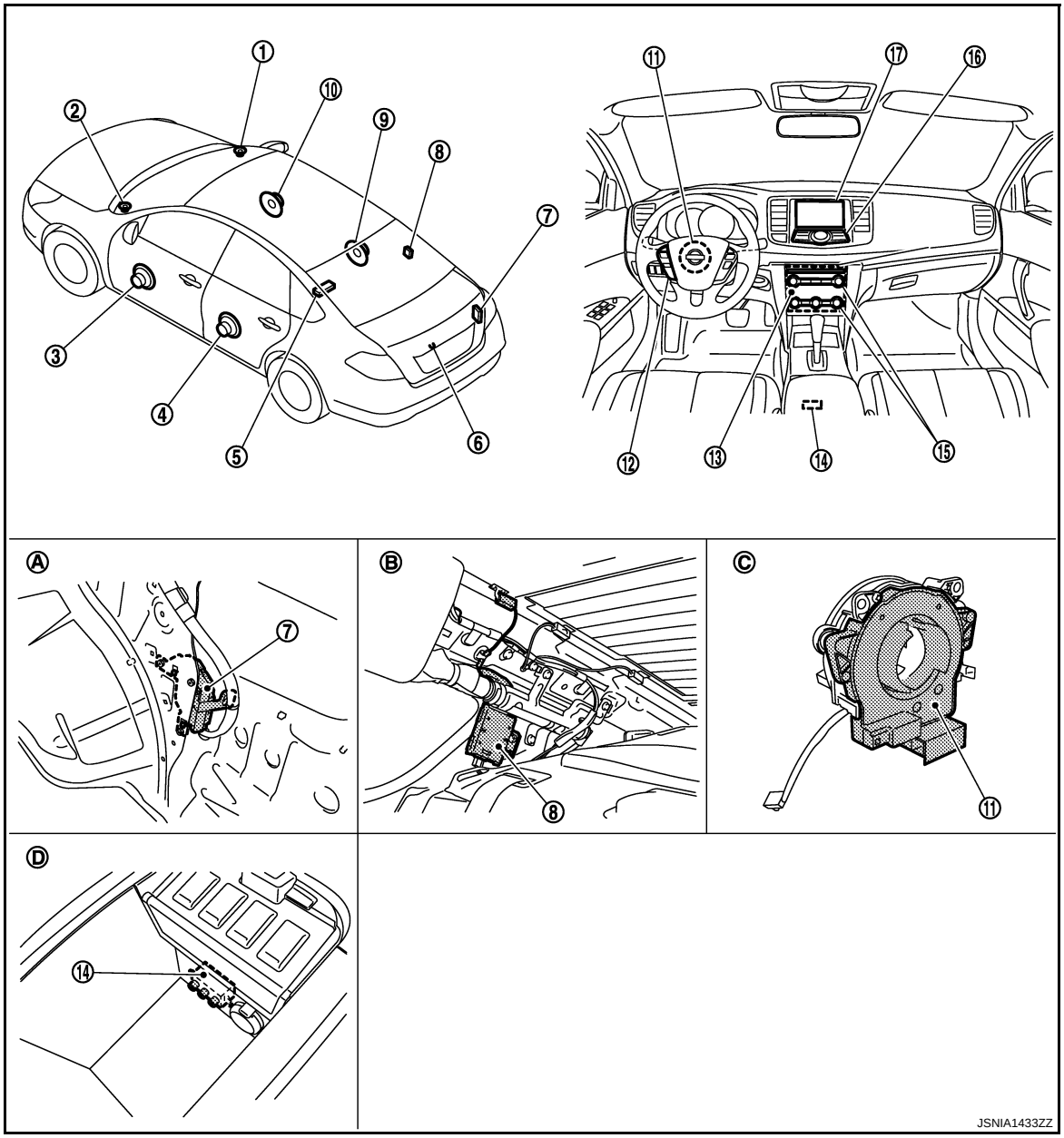
AUXILIARY INPUT SYSTEM

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



Component Parts Location

INFOID:0000000003882701



1. Front squawker RH
2. Front squawker LH
3. Front door speaker LH
4. Rear door speaker LH
5. Rear control switch
6. Rear view camera
7. Camera control unit
8. Antenna amp.
9. Rear door speaker RH
10. Front door speaker RH
11. Steering angle sensor
12. Steering switch
13. AV control unit
14. Auxiliary input jacks
15. Preset switch
16. Multifunction switch
17. Display unit

A. Trunk room side RH
B. Within rear pillar finisher RH
C. Spiral cable part
D. In center console

Component Description

INFOID:0000000003882702

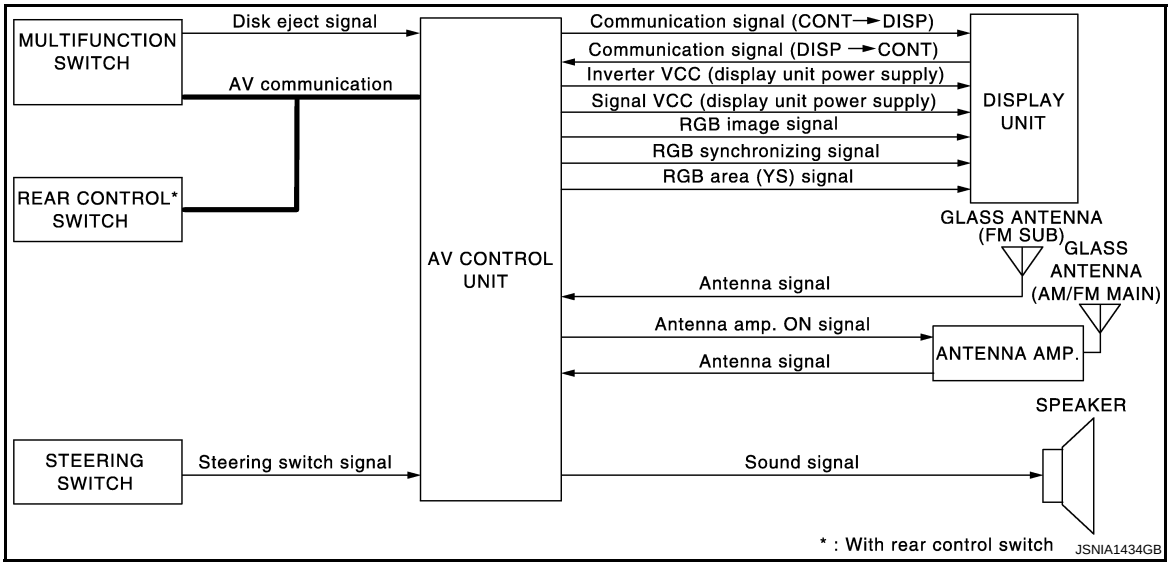
Part name	Description
AV CONTROL UNIT	• It is the master unit of the MULTI AV system, and it is connected to each control unit by communication. It operates each system according to communication signals from the AV control unit. • AV control unit includes audio function and vehicle information function. • It is connected to ECM and combination meter via CAN communication to obtain necessary information for the vehicle information function. • It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function. • AUX image signal is input from auxiliary jacks. • Camera image signal is input from camera control unit. • Composite image (AUX and camera images) signal is output to display unit. • AUX sound signal is input from the auxiliary jacks. • Power (signal VCC and inverter VCC) is transmitted to front display unit.
DISPLAY UNIT	• Display image is controlled by the serial communication from AV control unit. • It receives the power (signal VCC and inverter VCC) from the AV control unit and operates. • RGB image signal is input from AV control unit (RGB, RGB area and RGB synchronizing). • Composite image (AUX and camera images) signal is input from AV control unit. • Synchronize signal (HP, VP) is output to AV control unit.
FRONT SPEAKER	• Outputs sound signal from front speaker. • Outputs sound (mid and low range).
REAR SPEAKER	• Outputs sound signal from rear speaker. • Outputs sound (mid and low range).
FRONT SQUAWKER	• Outputs sound signal from front squawker. • Outputs sound (high and mid range).
MULTIFUNCTION SWITCH	• Operation panel is equipped with the centralized switch where camera, audio and auxiliary input operations are integrated. • The multifunction switch is connected to the preset switch by wiring harness, and it transmits the operation signal to the preset switch.
PRESET SWITCH	• Operation panel is equipped with the centralized switch where audio and air conditioner operations are integrated. • The preset switch is connected via AV communication, and it transmits the operation signals of the preset switch and multifunction switch. • The disk ejection operating signal is performed by wiring harness.
CAMERA CONTROL UNIT	• Camera image signal is input from rear view camera. Camera image signal output to AV control unit. • Power supply is transmitted to rear view camera. • AV control unit recognizes the presence of camera system with camera connection recognition signal. • Camera control unit is connected via AV communication.
REAR VIEW CAMERA	• The image of vehicle rear view is transmitted to camera control unit. • It receives the power supply from the camera control unit and operates.
STEERING ANGLE SENSOR	Sensor signal (steering angle) is transmitted to camera control unit.
STEERING SWITCH	• The operations 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 unit. • The sound signal of the auxiliary input is output via the AV control unit to the each speaker.

Part name	Description
REAR CONTROL SWITCH	• Operations for audio, etc. are possible. • The rear control switch is connected via AV communication, and it transmits the operation signals of the rear control switch.
ANTENNA AMP.	• Radio signal received by glass antenna is amplified and transmitted to AV control unit. • Power (antenna amp ON signal) is supplied from AV control unit.

AUDIO SYSTEM

System Diagram

INFOID:0000000003882703



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

System Description

INFOID:0000000003882704

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

Function
AM/FM radio
CD

FUNCTION DESCRIPTION

Operating Signal

Operation of the audio system can be performed via the multifunction switch, preset switch, rear control switch or steering switch.

- Operating signal is transmitted to AV control unit via AV communication when it is operated by multifunction switch, preset switch or rear control switch. The CD ejection operating signal is performed by hard-wire.
- 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 by the communication signal between the display unit and the AV control unit.
- The image signal to display operating condition is performed by RGB image signal, RGB area signal and RGB image synchronizing signal.

AM/FM Radio Mode

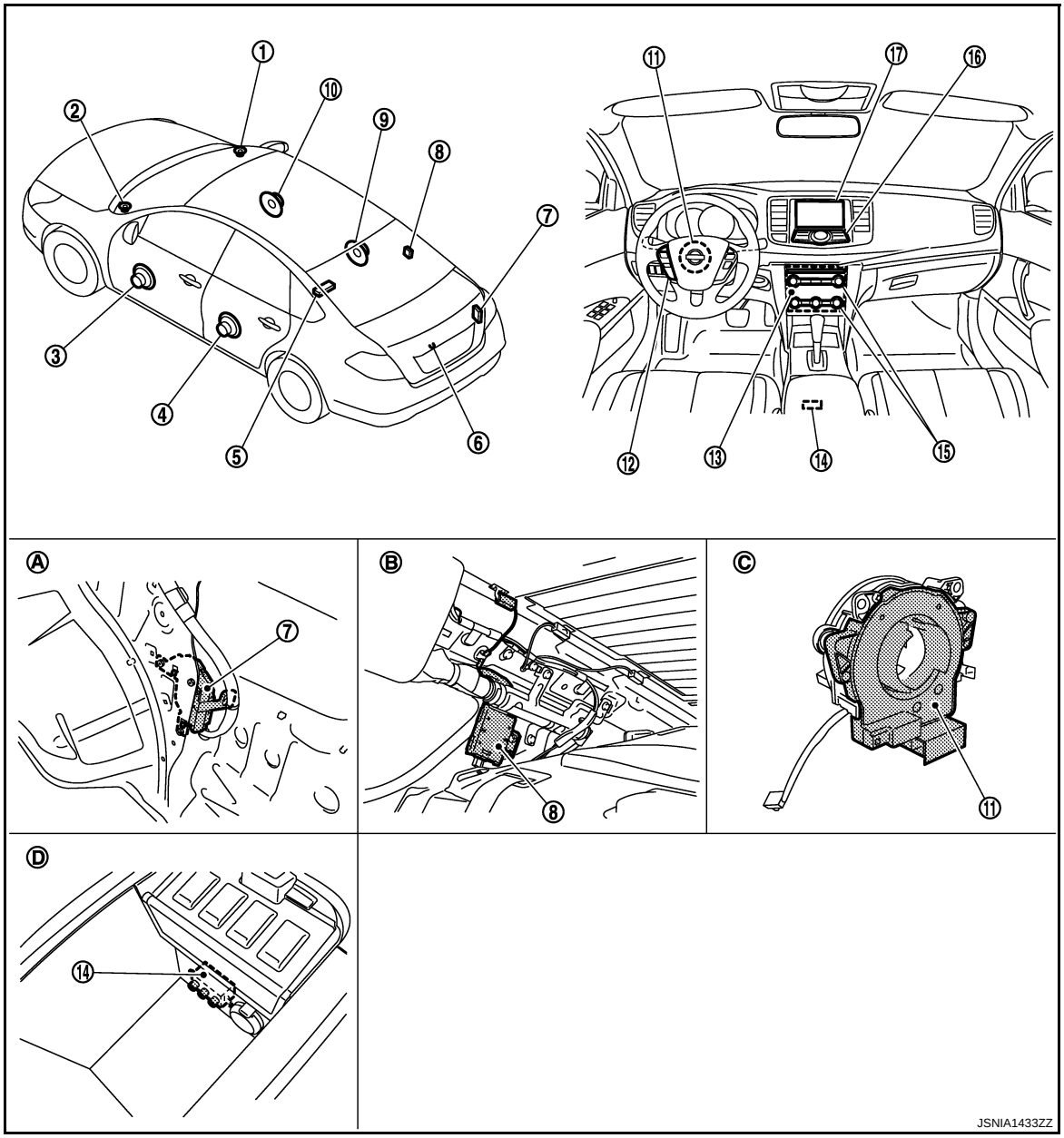
- AM/FM radio tuner is built into AV control unit.
- AM/FM radio wave is received by glass antenna, next it is amplified by antenna amp., and finally it is input to AV control unit. The FM sub antenna is installed on the rear window glass and the AV control unit is received.
- Sound signal is input to AV control unit, and AV control unit outputs to each speaker.

CD Mode

- CD function is built into AV control unit.
- AV control unit outputs sound signal to each speaker when CD is inserted to AV control unit.

Component Parts Location

INFOID:0000000003885180



1. Front squawker RH
2. Front squawker LH
3. Front door speaker LH
4. Rear door speaker LH
5. Rear control switch
6. Rear view camera
7. Camera control unit
8. Antenna amp.
9. Rear door speaker RH
10. Front door speaker RH
11. Steering angle sensor
12. Steering switch
13. AV control unit
14. Auxiliary input jacks
15. Preset switch
16. Multifunction switch
17. Display unit

A. Trunk room side RH
B. Within rear pillar finisher RH
C. Spiral cable part
D. In center console

Component Description

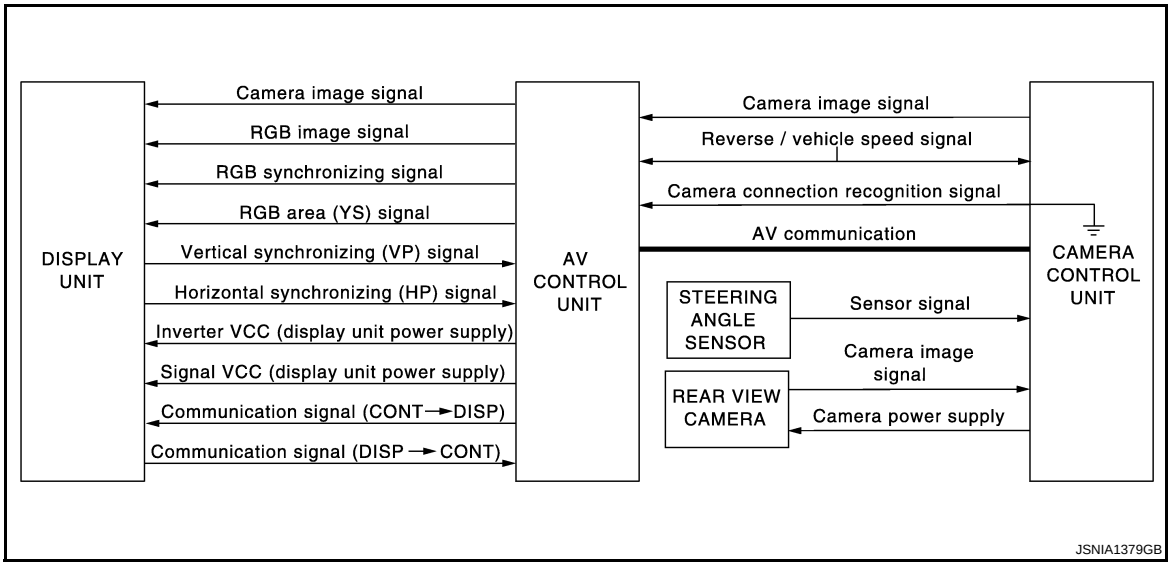
INFOID:0000000003791248

Part name	Description
AV CONTROL UNIT	• The AM/FM receiving function and the CD playing function are equipped. • Sound signal is transmitted 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 SPEAKER	• Outputs sound signal from front speaker. • Outputs sound (mid and low range).
REAR SPEAKER	• Outputs sound signal from rear speaker. • Outputs sound (mid and low range).
FRONT SQUAWKER	• Outputs sound signal from front squawker. • Outputs sound (high and mid range).
MULTIFUNCTION SWITCH	• Each audio operation can be operated. • The multifunction switch is connected to the preset switch by wiring harness, and it transmits the operation signal to the preset switch.
PRESET SWITCH	• Each audio operation can be operated. • The preset switch is connected via AV communication, and it transmits the operation signals of the preset switch and multifunction switch. • The disk ejection operating signal is performed by hard-wire.
STEERING SWITCH	• Each audio operation can be operated. • Steering switch signal (operation signal) is output to AV control unit.
REAR CONTROL SWITCH	• Each audio operation can be operated. • The rear control switch is connected via AV communication, and it transmits the operation signals of the rear control switch.
ANTENNA AMP.	• Radio signal received by glass antenna is amplified and transmitted to AV control unit. • Power (antenna amp. ON signal) is supplied from AV control unit.

REAR VIEW MONITOR SYSTEM

System Diagram

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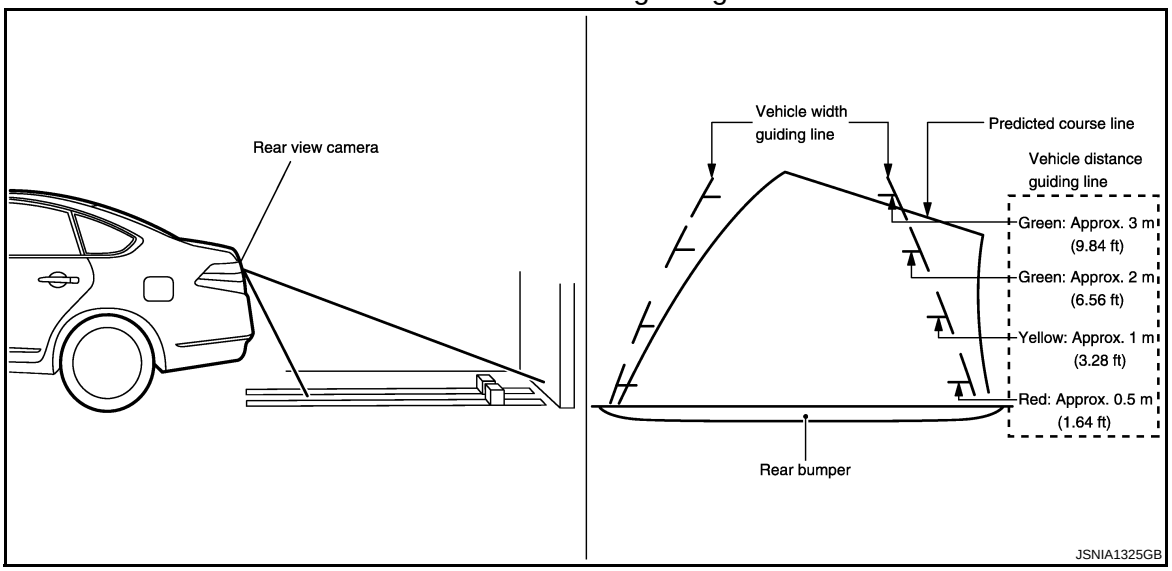
System Description

INFOID:0000000003882708

CAMERA IMAGE OPERATION PRINCIPLE

- Power is supplied to rear view camera from camera control unit and the rear view camera outputs the camera image to camera control unit when selector lever is set to reverse position and the reverse signal on camera control unit is input.
- Camera control unit superimposes the guiding line and predicted course line to the image from rear view camera and outputs to display unit. In this case, the reverse signal is also input to AV control unit. Therefore, AV control unit recognizes the selector lever as in the reverse position. And then AV control unit switches the image displayed by the communication signal between AV control unit and display unit with the camera image.
- AV control unit outputs camera image signal that is inputted from camera control unit to display unit.
- Camera control unit controls the direction and distance of predicted course line according to the sensor signal from steering angle sensor.
- 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 rear view camera is equipped.

Rear view monitor guiding line



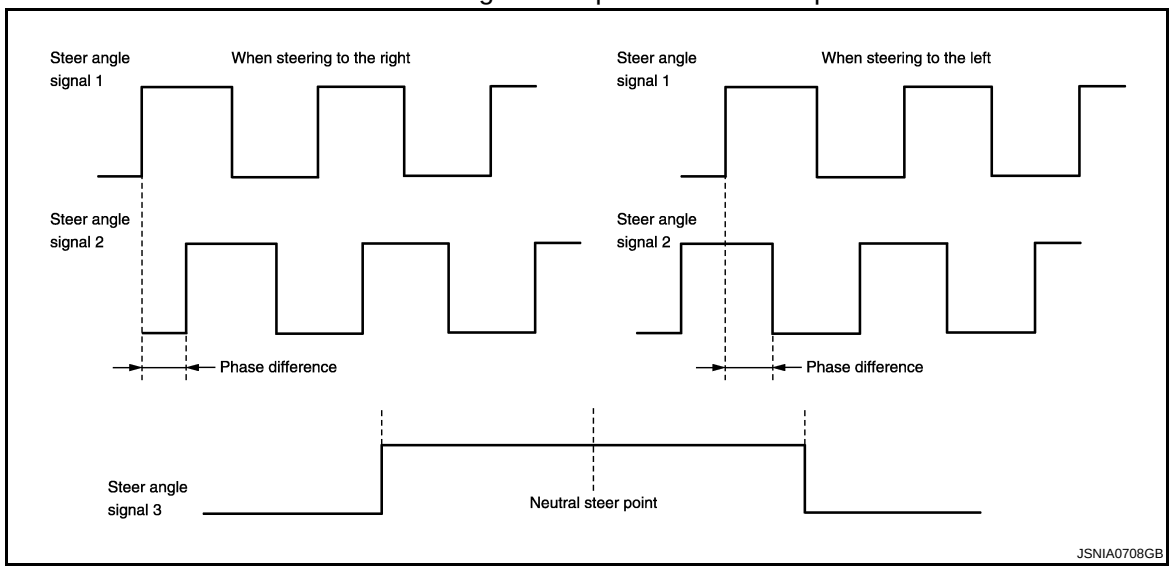
PREDICTED COURSE LINE OPERATION PRINCIPLE

Detection Of Steering Rotation Direction

Camera control unit detects the rotation direction of steering according to the phase difference of two pairs of pulse signals (sensor signal 1 and sensor signal 2) input from steering angle sensor.

Detection Of Steering Neutral Position

The sensor signal 3 input from steering angle sensor is generated at 1 pulse per 1 rotation of the steering wheel. Camera control unit detects the steering neutral position from this pulse.

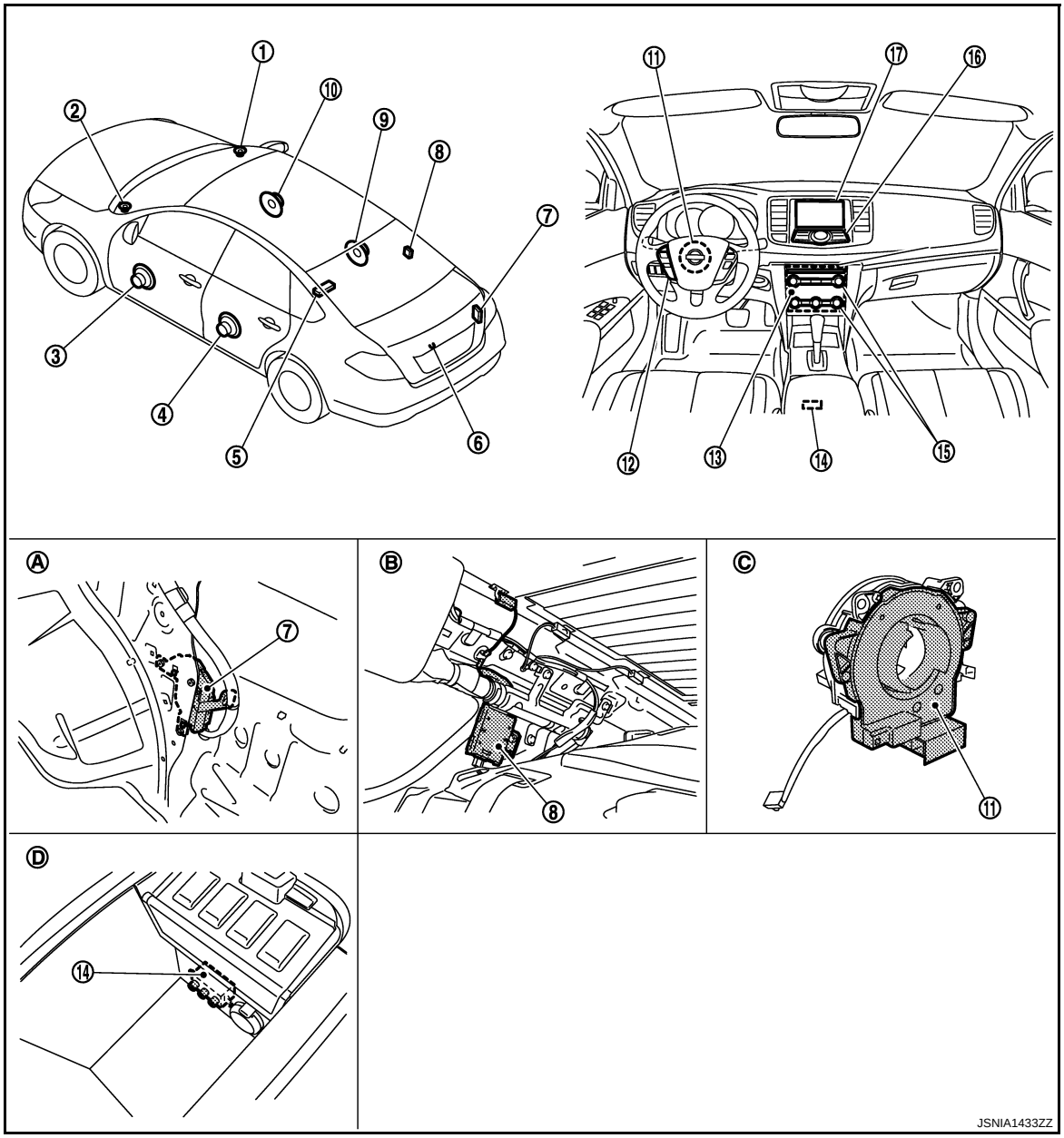


Correction Of Steering Neutral Position

Camera control unit corrects the steering neutral position during driving according to the vehicle speed signal and sensor signal.

Component Parts Location

INFOID:0000000003885182



1. Front squawker RH
2. Front squawker LH
3. Front door speaker LH
4. Rear door speaker LH
5. Rear control switch
6. Rear view camera
7. Camera control unit
8. Antenna amp.
9. Rear door speaker RH
10. Front door speaker RH
11. Steering angle sensor
12. Steering switch
13. AV control unit
14. Auxiliary input jacks
15. Preset switch
16. Multifunction switch
17. Display unit

A. Trunk room side RH
B. Within rear pillar finisher RH
C. Spiral cable part
D. In center console

Component Description

INFOID:0000000003885184

Part name	Description
AV CONTROL UNIT	• Image on display is transmitted to rear view monitor image by serial communication between AV control unit and display unit. • AV control unit recognizes the presence of camera system with camera connection recognition signal.
DISPLAY UNIT	• Camera image signal is input from AV control unit. • Rear view monitor image is changed by serial communication from AV control unit.
CAMERA CONTROL UNIT	• Camera image signal is input from rear view camera. Camera image signal is output to AV control unit. • Power supply is transmitted to rear view camera. • Superimposes the guiding line and predicted course line to the camera image that outputs to AV control unit. • Inputs the sensor signal from steering angle sensor, and then controls the predicted course line. • Camera control unit is connected via AV communication.
REAR VIEW CAMERA	• The image of vehicle rear view is transmitted to camera control unit. • It receives power supply from camera control unit and operates.
STEERING ANGLE SENSOR	Steering signal necessary for predicted course line control is transmitted to camera control unit.

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

Diagnosis Description

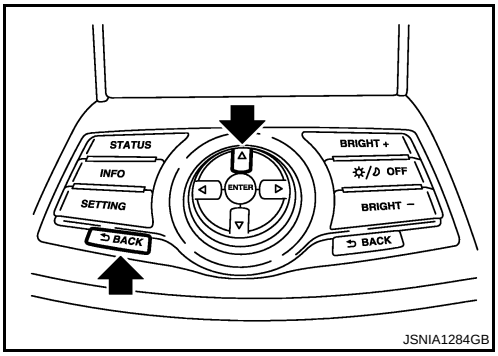
INFOID:0000000003882711

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. Then the buzzer sounds, all indicators of the preset switch illuminate, and the self-diagnosis mode starts.
- The continuity of each switch at the ON position can be checked by pressing the switch. The buzzer sounds if the switch is normal.
  NOTE:
  The hazard switch and disk eject switch cannot be checked.



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Finishing Self-diagnosis Mode

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

MULTI AV SYSTEM ON BOARD DIAGNOSIS FUNCTION

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

ON BOARD DIAGNOSIS

Description

- The trouble diagnosis function has a self-diagnosis mode for conducting trouble diagnosis automatically and a confirmation/adjustment mode for operating manually.
- 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

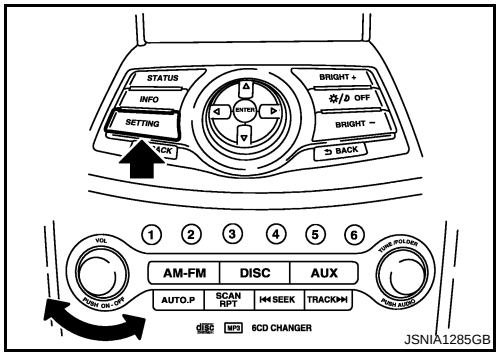
Mode	Description
Self Diagnosis	• AV control unit diagnosis. • Diagnoses the connections across system components.

Mode		Description
Confirmation/ Adjustment	Display Diagnosis	The following check functions are available: color tone check by color bar display, light and shade check by grey scale display and touch panel calibration response check.
	Vehicle Signals	Diagnosis of signals can be performed for vehicle speed, parking brake, lights, ignition switch, and reverse.
	Speaker Test	The connection of a speaker can be confirmed by test tone.
	Climate Control*	Not used.
	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.
	Camera Cont.	It can perform the confirmation of a signal connection to the camera control unit, the calibration of each camera, Correct Draw Line of Camera Image, and Fine Tuning of Birds-Eye View. Refer to AV-60, "Diagnosis Description".
	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.

NOTE:
*:On-board self-diagnosis is not supported. Only CONSULT-III is supported.

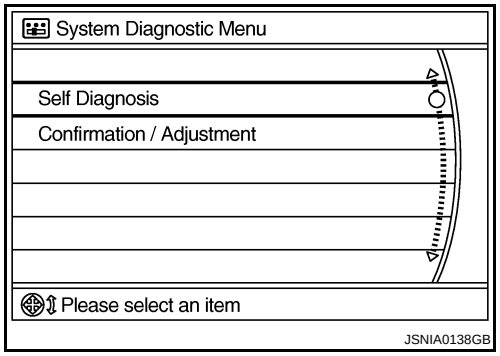
STARTING PROCEDURE

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



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



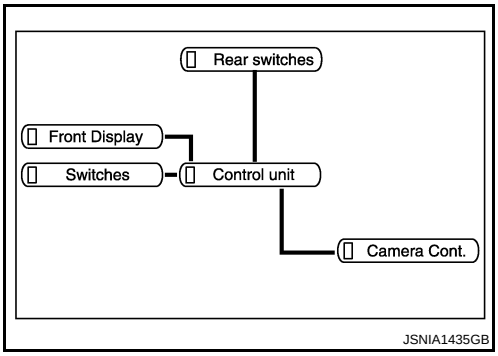
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SELF-DIAGNOSIS MODE

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.

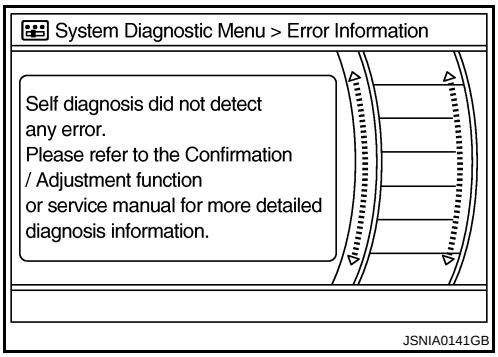
2. Diagnosis results are displayed after the self-diagnosis is completed. The unit names and the connection lines are color-coded according to the diagnostic results.



Diagnosis results	Unit	Connection line
Normal	Green	Green
Connection malfunction	Gray	Yellow
Unit malfunction 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-170, "Removal and Installation".

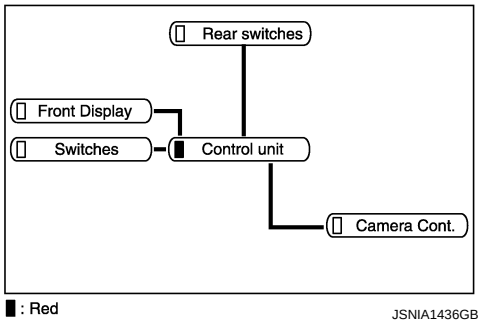
- If multiple errors occur at the same time for a single unit, the screen switch colors are determined according to the following order of priority: red > yellow > gray.
- The comments of the self-diagnosis results can be viewed with a component in the diagnosis result screen.

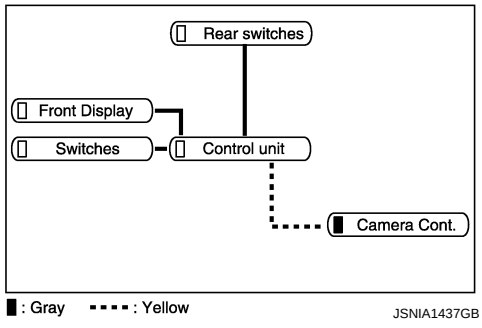
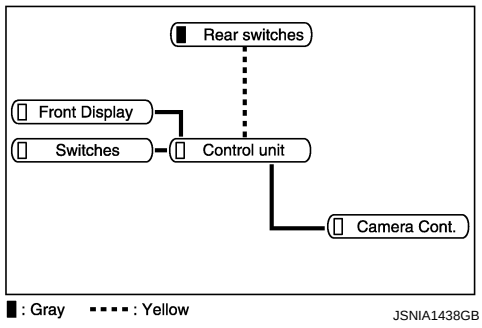


SELF-DIAGNOSIS RESULTS

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

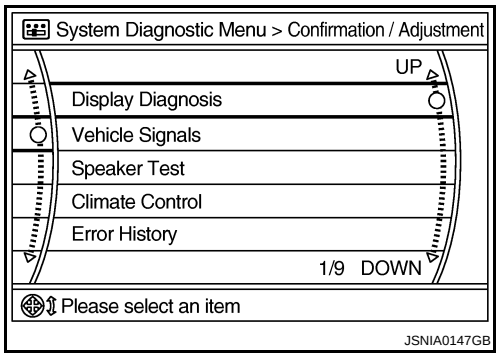
Self-diagnosis Result Chart

Area with yellow connection lines	Description	Possible malfunction location / Action to take
 : Red JSNIA1436GB **NOTE:** When a control unit malfunction is detected (red in unit display), connection malfunctions with other connection unit may be displayed.	Malfunction is detected in AV control unit power supply and ground circuits	Check AV control unit power supply and ground circuits. When detecting no malfunction in those components, replace AV control unit.
“Self-Diagnosis did not run because of a control unit malfunction”		

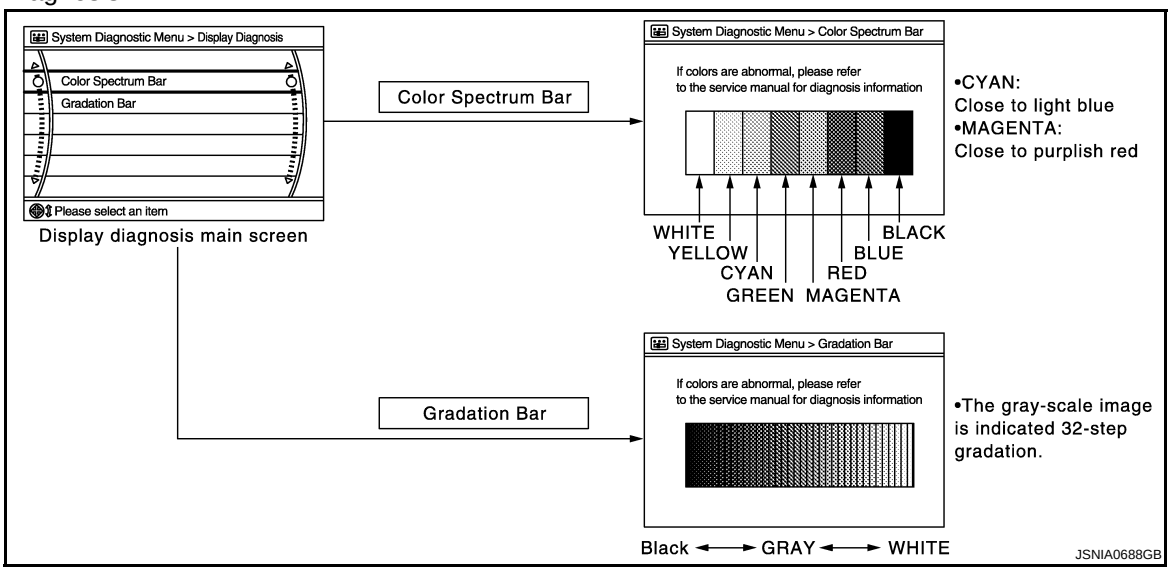
Area with yellow connection lines	Description	Possible malfunction location / Action to take
	Malfunction is detected in camera connection recognition signal circuit.	Camera connection recognition signal circuit.
	When either one of the following items is detected: • rear control switch power supply and ground circuits are malfunctioning. • AV communication signal between AV control unit and rear control switch is malfunctioning. • malfunction is detected in AV communication circuits between AV control unit and multifunction switch.	• Rear control switch power supply and ground circuits. • AV communication circuits between AV control unit and multifunction switch.

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.



Display Diagnosis

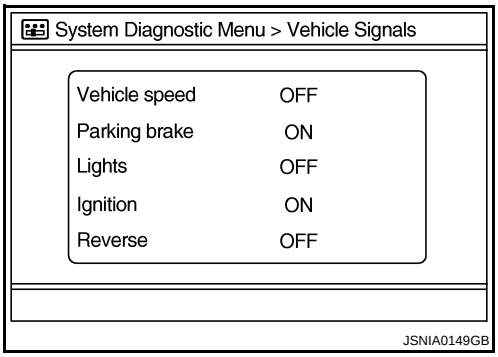


The tint of the color bar indication is as per the following list if RGB signal error is detected.

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.
	OFF	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	Shift the selector lever to “R” position	Changes in indication may be delayed by approximately 1.5 seconds. This is normal.
	OFF	Shift the selector lever other than “R” position	

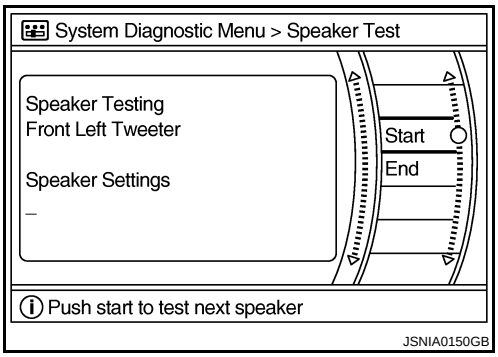
Speaker Test

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

NOTE:

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

Squawker : 3 kHz
Front speaker : 300 Hz
Rear speaker : 1 kHz



Climate Control

On-board self-diagnosis is not supported. Only CONSULT-III is supported.

Refer to HAC-156, "WITHOUT INTELLIGENT AIR CONDITIONER SYSTEM : CONSULT-III Function"for details.

Camera Cont.

Refer to AV-56, "System Description".

Error History

The self-diagnosis results are judged depending on whether any error occurs from when “Self-diagnosis” is selected until the self-diagnosis results are displayed.
However, the diagnosis results are judged normal if an error has occurred before the ignition switch is turned ON and then no error has occurred until the self-diagnosis start. Check the “Error Record” to detect any error that may have occurred before the self-diagnosis start because of this situation.
The error record displays the time and place of the most recent occurrence of that error. However, take note of the following points.

- 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.

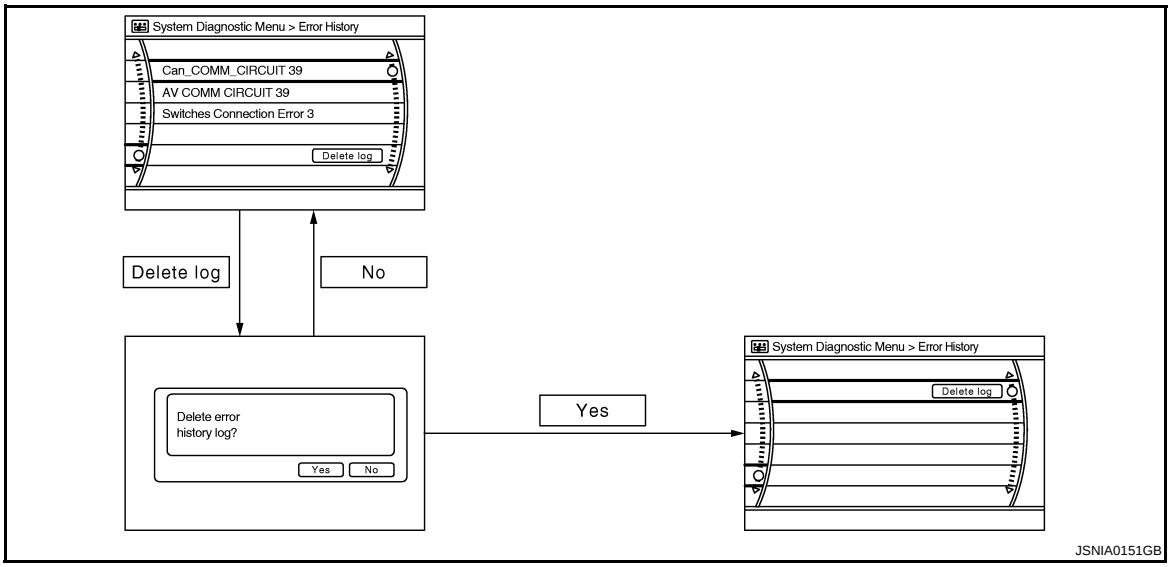
Count up method A

- 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



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

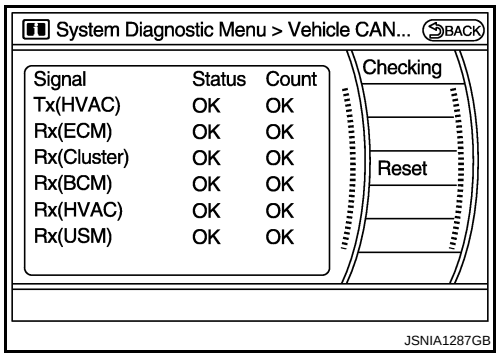
Error item	Description	Possible malfunction factor/Action to take
CAN COMM CIRCUIT	CAN communication malfunction is detected.	Perform diagnosis with CONSULT-III, and then repair the malfunctioning parts according to the diagnosis results.

Error item	Description	Possible malfunction factor/Action to take
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	When either one of the following items is detected: • display unit power supply and ground circuits are malfunctioning. • serial communication circuits between display unit and AV control unit are malfunctioning. • serial communication signal between display unit and AV control unit is malfunctioning.	• Display unit power supply and ground circuits • Serial communication circuits between display unit and AV control unit
Camera Cont. Unit Connection Error	Camera connection recognition signal circuits malfunction is detected.	Camera connection recognition signal circuit
AV COMM CIRCUIT	Rear control switch power supply and ground circuits malfunction are detected.	Rear control switch power supply and ground circuits.
• AV COMM CIRCUIT • Switches Connection Error	When either one of the following items is detected: • multifunction switch power supply and ground circuits are malfunctioning. • AV communication circuits between AV control unit and multifunction switch are malfunctioning. • AV communication signal between AV control unit and multifunction switch is malfunctioning.	• Multifunction switch power supply and ground circuits • AV communication circuits between AV control unit and multifunction switch

Error item	Description	Possible malfunction factor/Action to take
• AV COMM CIRCUIT • Rear view Camera connection Error	With rear control switch When either one of the following items is detected: • camera control unit power supply and ground circuits are malfunctioning. • AV communication signal between AV control unit and Camera control unit is malfunctioning. • AV communication circuits between multifunction switch and rear control switch are malfunctioning. • AV communication circuits between rear control switch and camera control unit are malfunctioning.	• Camera control unit power supply and ground circuits • AV communication circuits between multifunction switch and rear control switch • AV communication circuits between rear control switch and camera control unit
	Without rear control switch When either one of the following items is detected: • camera control unit power supply and ground circuits are malfunctioning. • AV communication circuits between AV control unit and camera control unit is malfunctioning. • AV communication signal between AV control unit and camera control unit is malfunctioning.	• Camera control unit power supply and ground circuits • AV communication circuits between multifunction switch and camera control unit
• AV COMM CIRCUIT • Switches Connection Error • Rear view Camera connection Error	When either one of the following items is detected: • AV communication circuits between AV control unit and multifunction switch are malfunctioning. • AV communication signal between AV control unit and multifunction switch is malfunctioning.	AV communication circuits between AV control unit and multifunction switch

Vehicle CAN Diagnosis

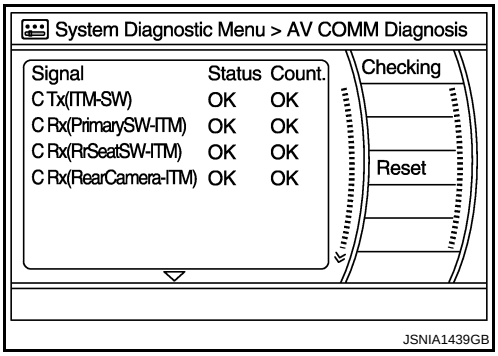
- CAN communication status and error counter is displayed.
- The error counter displays “OK” if any malfunction was not detected in the past and displays “0” if a malfunction is detected. It increases by 1 if the condition is normal at the next ignition switch ON cycle. The upper limit of the counter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

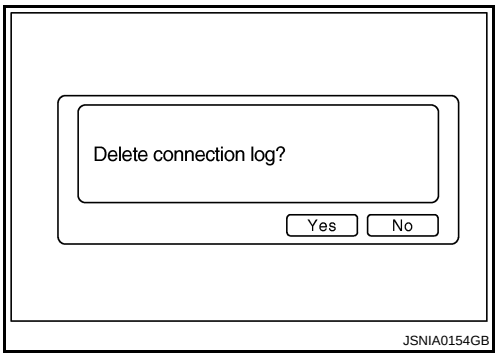
- Displays the communication status between AV control unit (master unit) and each unit.
- The error counter displays “OK” if any malfunction was not detected in the past and displays “0” if a malfunction is detected. It increases by 1 if the condition is normal at the next ignition switch ON cycle. 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(RrSeatSW–ITM)	OK / UNKWN	OK / 0 – 39
C Rx(RearCamera–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)



CONSULT-III Function (MULTI AV)

INFOID:0000000003882712

CONSULT-III FUNCTIONS

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

Diagnosis mode	Description
Ecu Identification	The part number of AV control unit can be checked.
Self Diagnostic Result	Performs a diagnosis on the AV control unit and a connection diagnosis for the communication circuit of the Multi AV system, and displays the current and past malfunctions collectively.
Data Monitor	The diagnosis of vehicle signal that is input to the AV control unit can be performed.

AV COMMUNICATION

When “AV communication” of “CAN Diag Support Monitor” is selected, the following function will be performed.

AV communication	AV&NAVI C/U	Displays the communication status from AV control unit to each unit as well as the error counter.
	AUDIO	Displays the AV control unit communication status and the error counter.

SELF-DIAGNOSIS RESULTS

- In CONSULT-III self-diagnosis, self-diagnosis results and error history are displayed collectively.
- 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 Results Display Item

Error item	Detection logic	Possible malfunction factor/Action to take
CAN COMM CIRCUIT [U1000]	CAN communication malfunction is detected.	Refer to AV-72, "Diagnosis Procedure".

Error item	Detection logic	Possible malfunction factor/Action to take
CONTROL UNIT (CAN) [U1010]	CAN initial diagnosis malfunction is detected.	Replace the AV control unit. Refer to AV-170, "Removal and Installation".
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]	When either one of the following items is detected: • display unit power supply and ground circuits are malfunctioning. • serial communication circuits between display unit and AV control unit are malfunctioning. • serial communication signal between display unit and AV control unit is malfunctioning.	• Display unit power supply and ground circuits Refer to AV-82, "DISPLAY UNIT : Diagnosis Procedure". • Serial communication circuits between display unit and AV control unit
CAMERA CONT. CONN [U1250]	A malfunction is detected in camera connection recognition signal circuit.	Camera connection recognition signal circuit Refer to AV-79, "Diagnosis Procedure".
• AV COMM CIRCUIT [U1300] • SWITCH CONN [U1240]	When either one of the following items is detected: • multifunction switch power supply and ground circuits are malfunctioning. • AV communication circuits between AV control unit and multifunction switch are malfunctioning. • AV communication signal between AV control unit and multifunction switch is malfunctioning.	• Multifunction switch power supply and ground circuits refer to AV-83, "MULTIFUNCTION SWITCH : Diagnosis Procedure". • AV communication circuits between AV control unit and multifunction switch

Error item	Detection logic	Possible malfunction factor/Action to take
• AV COMM CIRCUIT [U1300] • REAR-CAMERA LAN CONN [U1252]	With rear control switch When either one of the following items is detected: • camera control unit power supply and ground circuits are malfunctioning. • AV communication signal between AV control unit and Camera control unit is malfunctioning. • AV communication circuits between multifunction switch and rear control switch are malfunctioning. • AV communication circuits between rear control switch and camera control unit are malfunctioning.	• Camera control unit power supply and ground circuits Refer to AV-84, "CAMERA CONTROL UNIT : Diagnosis Procedure". • AV communication circuits between multifunction switch and rear control switch • AV communication circuits between rear control switch and camera control unit
	Without rear control switch When either one of the following items is detected: • camera control unit power supply and ground circuits are malfunctioning. • AV communication circuits between AV control unit and camera control unit is malfunctioning. • AV communication signal between AV control unit and camera control unit is malfunctioning.	• Camera control unit power supply and ground circuits Refer to AV-84, "CAMERA CONTROL UNIT : Diagnosis Procedure". • AV communication circuits between multifunction switch and camera control unit
• AV COMM CIRCUIT [U1300] • SWITCH CONN [U1240] • REAR-CAMERA LAN CONN [U1252]	When either one of the following items is detected: • AV communication circuits between AV control unit and multifunction switch are malfunctioning. • AV communication signal between AV control unit and multifunction switch is malfunctioning.	AV communication circuits 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.

Display Item	Display	Vehicle status	Remarks
VHCL SPD SIG	On	Vehicle speed >0 km/h (0 MPH)	Changes in indication may be delayed. This is normal.
	Off	Vehicle speed =0 km/h (0 MPH)	
PKB SIG	On	Parking brake is applied.	
	Off	Parking brake is released.	
ILLUM SIG	On	Block the light beam from the auto light optical sensor when the light switch is ON .	—
	Off	Expose the auto light optical sensor to light when the light switch 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	

COMPONENT DIAGNOSIS

U1000 CAN COMM CIRCUIT

Description

INFOID:0000000003882713

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-22, "CAN Communication Signal Chart".

DTC Logic

INFOID:0000000003882714

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:0000000003882715

1.PERFORM SELF DIAGNOSTIC

1. Turn ignition switch ON and wait for 2 seconds or more.
2. Check “Self Diagnostic Result” of “MULTI AV”.

Is “CAN COMM CIRCUIT” displayed?

YES >> Refer to “LAN system”. Refer to LAN-14, "Trouble Diagnosis Flow Chart".
NO >> Refer to GI section. Refer to GI-35, "Intermittent Incident".

U1010 CONTROL UNIT (CAN)

Description

INFOID:0000000003882716

Initial diagnosis of AV control unit.

DTC Logic

INFOID:0000000003882717

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:0000000003882718

1.REPLACE AV CONTROL UNIT

When DTC U1010 is detected, replace AV control unit.

>> INSPECTION END

U1310 AV CONTROL UNIT

Description

INFOID:0000000003882719

Replace the AV control unit if this DTC is displayed. Refer to AV-170, "Removal and Installation".

Part name	Description
AV CONTROL UNIT	• It is the master unit of the MULTI AV system, and it is connected to each control unit by communication. It operates each system according to communication signals from the AV control unit. • AV control unit includes audio function and vehicle information function. • It is connected to ECM and combination meter via CAN communication to obtain necessary information for the vehicle information function. • It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function. • AUX image signal is input from auxiliary jacks. • Camera image signal is input from camera control unit. • Composite image (AUX and camera images) signal is output to display unit. • AUX sound signal is input from the auxiliary jacks. • Power (signal VCC and inverter VCC) is transmitted to front display unit.

DTC Logic

INFOID:0000000003882720

DTC DETECTION LOGIC

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

U1200 AV CONTROL UNIT

Description

INFOID:0000000003882721

Replace the AV control unit if this DTC is displayed. Refer to AV-170, "Removal and Installation".

Part name	Description
AV CONTROL UNIT	• It is the master unit of the MULTI AV system, and it is connected to each control unit by communication. It operates each system according to communication signals from the AV control unit. • AV control unit includes audio function and vehicle information function. • It is connected to ECM and combination meter via CAN communication to obtain necessary information for the vehicle information function. • It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function. • AUX image signal is input from auxiliary jacks. • Camera image signal is input from camera control unit. • Composite image (AUX and camera images) signal is output to display unit. • AUX sound signal is input from the auxiliary jacks. • Power (signal VCC and inverter VCC) is transmitted to front display unit.

DTC Logic

INFOID:0000000003882722

DTC DETECTION LOGIC

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

U1216 AV CONTROL UNIT

Description

INFOID:0000000003882723

Replace the AV control unit if this DTC is displayed. Refer to AV-170, "Removal and Installation".

Part name	Description
AV CONTROL UNIT	• It is the master unit of the MULTI AV system, and it is connected to each control unit by communication. It operates each system according to communication signals from the AV control unit. • AV control unit includes audio function and vehicle information function. • It is connected to ECM and combination meter via CAN communication to obtain necessary information for the vehicle information function. • It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function. • AUX image signal is input from auxiliary jacks. • Camera image signal is input from camera control unit. • Composite image (AUX and camera images) signal is output to display unit. • AUX sound signal is input from the auxiliary jacks. • Power (signal VCC and inverter VCC) is transmitted to front display unit.

DTC Logic

INFOID:0000000003882724

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

Description

INFOID:0000000003882725

Part name	Description
DISPLAY UNIT	• Display image is controlled by the serial communication from AV control unit. • It receives the power (signal VCC and inverter VCC) from the AV control unit and operates. • RGB image signal is input from AV control unit (RGB, RGB area and RGB synchronizing). • Composite image (DVD, AUX and camera images) signal is input from AV control unit. • Synchronize signal (HP, VP) is output to AV control unit.

DTC Logic

INFOID:0000000003882726

DTC DETECTION LOGIC

DTC	Display contents of CONSULT-III	DTC Detection Condition	Possible causes
U1243	FRONT DISP CONN [U1243]	When either one of the following items is detected: • display unit power supply and ground circuits are malfunctioning. • serial communication circuits between display unit and AV control unit are malfunctioning. • serial communication signal between display unit and AV control unit is malfunctioning.	• Display unit power supply and ground circuits. • Serial communication circuits between display unit and AV control unit

Diagnosis Procedure

INFOID:0000000003901200

1.CHECK DISPLAY UNIT POWER SUPPLY AND GROUND CIRCUIT

Check display unit power supply and ground circuit. Refer to AV-82, "DISPLAY UNIT : Diagnosis Procedure".

Is inspection result normal?

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 and AV control unit harness connector.

Display unit		AV control unit		Continuity
Connector	Terminals	Connector	Terminals	
M49	11	M129	56	Existed
	22		44	

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

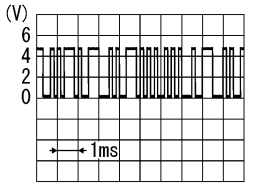
Display unit		Ground	Continuity
Connector	Terminals		
M49	11		Not existed
	22		

Is inspection result normal?

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 and ground using an oscilloscope.

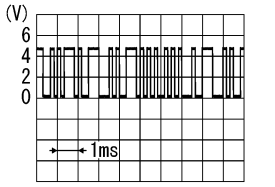
(+)		(–)	Condition	Reference value
Display unit				
Connector	Terminal			
M49	11	Ground	When adjusting display brightness.	 PKIB5039J

Is inspection result normal?

YES >> GO TO 4.
NO >> Replace AV control unit.

4.CHECK COMMUNICATION SIGNAL

Check signal between display unit harness connector terminal and ground using an oscilloscope.

(+)		(–)	Condition	Reference value
Display unit				
Connector	Terminal			
M49	22	Ground	When adjusting display brightness.	 PKIB5039J

Is inspection result normal?

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

U1250 CAMERA CONTROL UNIT

Description

INFOID:0000000003882728

Part name	Description
CAMERA CONTROL UNIT	• Camera image signal is input from rear view camera. Camera image signal output to AV control unit. • Power supply is transmitted to rear view camera. • AV control unit recognizes the presence of camera system with camera connection recognition signal. • Camera control unit is connected via AV communication.

DTC Logic

INFOID:0000000003882729

DTC	Display contents of CONSULT-III	DTC Detection Condition	Possible causes
U1250	CAMERA CONT. CONN [U1250]	Malfunction is detected in camera connection recognition signal circuit.	Camera connection recognition signal circuit.

Diagnosis Procedure

INFOID:0000000003901201

1.CHECK CONTINUITY RECOGNITION SIGNAL CIRCUIT

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

AV control unit		Camera control unit		Continuity
Connector	Terminals	Connector	Terminals	
M130	68	B251	14	Existed

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

AV control unit		Ground	Continuity
Connector	Terminals		
M130	68		Not existed

Is inspection result normal?

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

2.CHECK AV CONTROL UNIT VOLTAGE

1. Connect AV control unit connector and camera control unit connector.
2. Turn ignition switch ON.
3. Check signal between AV control unit harness connector terminal and ground using an oscilloscope.

(+)		(–)	Condition	Voltage (Approx.)
AV control unit				
Connector	Terminal			
M130	68	Ground	Connected camera control unit connector	0 V
			Disconnect camera control unit connector	5 V

Is inspection result normal?

YES >> Replace AV control unit.

NO >> Replace camera control unit.

U1300 AV COMM CIRCUIT

Description

INFOID:0000000003882731

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]	When either one of the following items is detected: • multifunction switch power supply and ground circuits are malfunctioning. • AV communication circuits between AV control unit and multifunction switch are malfunctioning. • AV communication signal between AV control unit and multifunction switch is malfunctioning.	• Multifunction switch power supply and ground circuits Refer toAV-83, "MULTIFUNCTION SWITCH : Diagnosis Procedure". • AV communication circuits between AV control unit and multifunction switch
U1300 U1252	• AV COMM CIRCUIT [U1300] • REAR-CAMERA LAN CONN [U1252]	With rear control switch When either one of the following items is detected: • camera control unit power supply and ground circuits are malfunctioning. • AV communication signal between AV control unit and camera control unit is malfunctioning. • AV communication circuits between multifunction switch and rear control switch are malfunctioning. • AV communication circuits between rear control switch and camera control unit are malfunctioning.	• Camera control unit power supply and ground circuits Refer to AV-84, "CAMERA CONTROL UNIT : Diagnosis Procedure". • AV communication circuits between multifunction switch and rear control switch • AV communication circuits between rear control switch and camera control unit
		Without rear control switch When either one of the following items is detected: • camera control unit power supply and ground circuits are malfunctioning. • malfunction is detected in AV communication circuits between multifunction switch and camera control unit. • AV communication signal between AV control unit and multifunction switch is malfunctioning.	• Camera control unit power supply and ground circuits Refer to AV-84, "CAMERA CONTROL UNIT : Diagnosis Procedure". • AV communication circuits between multifunction switch and camera control unit
U1300 U1240 U1252	• AV COMM CIRCUIT [U1300] • SWITCH CONN [U1240] • REAR-CAMERA LAN CONN [U1252]	When either one of the following items is detected: • AV communication circuits between AV control unit and multifunction switch are malfunctioning. • AV communication signal between AV control unit and multifunction switch is malfunctioning.	AV communication circuits between AV control unit and multifunction switch

POWER SUPPLY AND GROUND CIRCUIT

AV CONTROL UNIT

AV CONTROL UNIT : Diagnosis Procedure

INFOID:0000000003901202

1.CHECK FUSE

Check for blown fuses.

Power source	Fuse No.
Battery	31
Ignition switch ACC or ON	19
Ignition switch ON or START	4

Is inspection result normal?

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	Voltage (Approx.)
Battery power supply	M127	19	OFF	Battery voltage
ACC power supply		7	ACC	
Ignition signal	M131	104	ON	

Is inspection result normal?

YES >> GO TO 3.
NO >> Check harness between AV control unit and fuse.

3.CHECK GROUND CIRCUIT

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

Signal name	Connector No.	Terminal No.	Ignition switch position	Continuity
Ground	M127	20	OFF	Existed
	M131	85		

Is inspection result normal?

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

DISPLAY UNIT

DISPLAY UNIT : Diagnosis Procedure

INFOID:0000000003901446

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	Voltage (Approx.)
Inverter VCC	M49	2	ACC	9 V
Signal VCC		3		

Is inspection result normal?

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

2.CHECK GROUND CIRCUIT

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 and AV control unit harness connector.

Signal name	Display unit		AV control unit		Continuity
	Connector No.	Terminal No.	Connector No.	Terminal No.	
Ground	M49	2	M129	59	Existed
		3		47	

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

Signal name	Display unit		Ground	Continuity
	Connector No.	Terminal No.		
Inverter VCC	M49	2		Not existed
Signal VCC		3		

Is inspection result normal?

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	Voltage (Approx.)
Inverter VCC	M129	59	ACC	9 V
Signal VCC		47		

Is inspection result normal?

YES >> INSPECTED END.
NO >> Replace AV control unit.

4.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	Display unit		Ground	Continuity
	Connector No.	Terminal No.		
Ground	M49	1		Existed

Is inspection result normal?

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

MULTIFUNCTION SWITCH

MULTIFUNCTION SWITCH : Diagnosis Procedure

INFOID:0000000003901204

1.CHECK FUSE

Check for blown fuses.

Power source	Fuse No.
Ignition switch ACC or ON	19

Is inspection result normal?

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	Voltage (Approx.)
ACC power supply	M125	3	ACC	Battery voltage

Is inspection result normal?

YES >> GO TO 3.
NO >> Check harness between multifunction switch and fuse.

3.CHECK GROUND CIRCUIT

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

Signal name	Connector No.	Terminal No.	Ignition switch position	Continuity
Ground	M125	1	OFF	Existed

Is inspection result normal?

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

CAMERA CONTROL UNIT

CAMERA CONTROL UNIT : Diagnosis Procedure

INFOID:0000000003901205

1.CHECK FUSE

Check for blown fuses.

Power source	Fuse No.
Battery	31
Ignition switch ACC	19

Is inspection result normal?

YES >> GO TO 2.
NO >> Be sure to eliminate cause of malfunction before installing new fuse.

2.CHECK POWER SUPPLY CIRCUITS

Check voltage between camera control unit harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Voltage (Approx.)
Battery power supply	B251	32	OFF	Battery voltage
ACC power supply		30	ACC	

Is inspection result normal?

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	B251	31	OFF	Existed

Is inspection result normal?

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

RGB (R: RED) SIGNAL CIRCUIT (AV CONTROL UNIT TO DISPLAY UNIT)

Description

INFOID:0000000003882739

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

Diagnosis Procedure

INFOID:0000000003901206

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 and AV control unit harness connector.

Display unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M49	17	M129	40	Existed

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

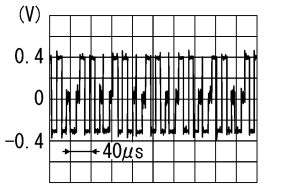
Display unit		Ground	Continuity
Connector	Terminal		
M49	17		Not existed

Is inspection result normal?

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 and ground using an oscilloscope.

(+)		(–)	Condition	Reference value
Display unit				
Connector	Terminal			
M49	17	Ground	Start Confirmation / Adjustment mode, and then display color bar by selecting “Color Spectrum Bar” on DISPLAY DIAGNOSIS screen.	

SKIB2238J

Is inspection result normal?

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

RGB (G: GREEN) SIGNAL CIRCUIT (AV CONTROL UNIT TO DISPLAY UNIT)

Description

INFOID:0000000003882741

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

Diagnosis Procedure

INFOID:0000000003901207

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 and AV control unit harness connector.

Display unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M49	6	M129	39	Existed

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

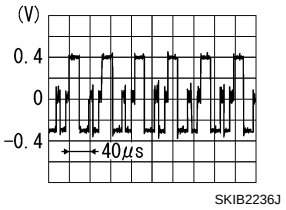
Display unit		Ground	Continuity
Connector	Terminal		
M49	6		Not existed

Is inspection result normal?

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 and ground using an oscilloscope.

(+)		(–)	Condition	Reference value
Display unit				
Connector	Terminal			
M49	6	Ground	Start Confirmation / Adjustment mode, and then display color bar by selecting “Color Spectrum Bar” on DISPLAY DIAGNOSIS screen.	

SKIB2236J

Is inspection result normal?

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

RGB (B: BLUE) SIGNAL CIRCUIT (AV CONTROL UNIT TO DISPLAY UNIT)

Description

INFOID:0000000003882743

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

Diagnosis Procedure

INFOID:0000000003901208

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 and AV control unit harness connector.

Display unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M49	18	M129	38	Existed

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

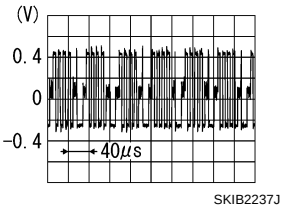
Display unit		Ground	Continuity
Connector	Terminal		
M49	18		Not existed

Is inspection result normal?

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 and ground using an oscilloscope.

(+)		(–)	Condition	Reference value
Display unit				
Connector	Terminal			
M49	18	Ground	Start Confirmation / Adjustment mode, and then display color bar by selecting “Color Spectrum Bar” on DISPLAY DIAGNOSIS screen.	

SKIB2237J

Is inspection result normal?

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

RGB SYNCHRONIZING SIGNAL CIRCUIT (AV CONTROL UNIT TO DISPLAY UNIT)

Description

INFOID:0000000003882745

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

Diagnosis Procedure

INFOID:0000000003901209

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 and AV control unit harness connector.

Display unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M49	19	M129	41	Existed

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

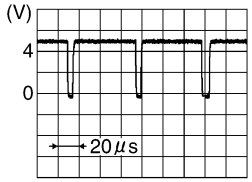
Display unit		Ground	Continuity
Connector	Terminal		
M49	19		Not existed

Is inspection result normal?

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 and ground using an oscilloscope.

(+) Display unit		(–)	Condition	Reference value
Connector	Terminal			
M49	19	Ground	—	 SKIB3603E

Is inspection result normal?

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

RGB AREA (YS) SIGNAL CIRCUIT

Description

INFOID:0000000003882747

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

Diagnosis Procedure

INFOID:0000000003901210

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 and AV control unit harness connector.

Display unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M49	9	M129	43	Existed

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

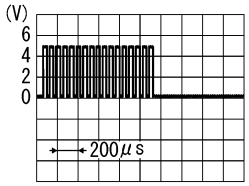
Display unit		Ground	Continuity
Connector	Terminal		
M49	9		Not existed

Is inspection result normal?

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 and ground using an oscilloscope.

(+) Display unit		(–)	Condition	Reference value
Connector	Terminal			
M49	9	Ground	When RGB image is displayed.	Approx. 5 V
			When AUX image is displayed.	 PKIB4948J

Is inspection result normal?

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

HORIZONTAL SYNCHRONIZING (HP) SIGNAL CIRCUIT

Description

INFOID:0000000003882749

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:0000000003901211

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 and AV control unit harness connector.

Display unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M49	8	M129	45	Existed

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

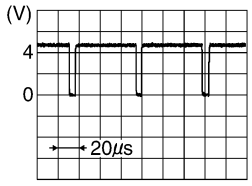
Display unit		Ground	Continuity
Connector	Terminal		
M49	8		Not existed

Is inspection result normal?

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 and ground using an oscilloscope.

(+) Display unit		(–)	Condition	Reference value
Connector	Terminal			
M49	8	Ground	—	

SKIB3601E

Is inspection result normal?

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

VERTICAL SYNCHRONIZING (VP) SIGNAL CIRCUIT

Description

INFOID:0000000003882751

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:0000000003901212

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 and AV control unit harness connector.

Display unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M49	20	M129	57	Existed

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

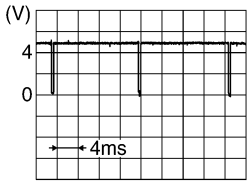
Display unit		Ground	Continuity
Connector	Terminal		
M49	20		Not existed

Is inspection result normal?

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 and ground using an oscilloscope.

(+)		(–)	Condition	Reference value
Display unit				
Connector	Terminal			
M49	20	Ground	—	

SKIB3598E

Is inspection result normal?

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

AUX IMAGE SIGNAL CIRCUIT

Description

INFOID:0000000003882753

Transmits the image signal of external device from auxiliary input jacks to AV control unit.

Diagnosis Procedure

INFOID:0000000003882754

1.CHECK CONTINUITY AUX IMAGE SIGNAL CIRCUIT

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 and AV control unit harness connector.

Auxiliary input jacks		AV control unit		Continuity
Connector	Terminals	Connector	Terminals	
M253	7	M130	66	Existed
	8		74	

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

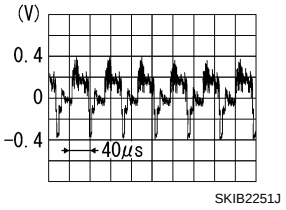
Auxiliary input jacks		Ground	Continuity
Connector	Terminal		
M253	7		Not existed

Is inspection result normal?

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

2.CHECK AUX IMAGE SIGNAL

1. Connect auxiliary input jacks connector and AV control unit connector.
2. Turn ignition switch ON.
3. Make AUX image signal being input.
4. Check signal between auxiliary input jacks harness connector using an oscilloscope.

(+)		(–)		Condition	Reference value
Auxiliary input jacks		Auxiliary input jacks			
Connector	Terminal	Connector	Terminal		
M253	7	M253	8	When AUX image is displayed.	

SKIB2251J

Is inspection result normal?

YES >> Replace AV control unit.
NO >> Check that there is no malfunction in the external device.

DISK EJECT SIGNAL CIRCUIT

Description

INFOID:0000000003882755

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

Diagnosis Procedure

INFOID:0000000003901213

1.CHECK CONTINUITY DISK EJECT SIGNAL CIRCUIT

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

Multifunction switch		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M125	14	M131	103	Existed

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

Multifunction switch		Ground	Continuity
Connector	Terminal		
M125	14		Not existed

Is inspection result normal?

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 and ground.

(+)		(–)	Condition	Reference value
AV control unit				
Connector	Terminal			
M131	103	Ground	Pressing the eject switch.	0 V
			Except for above.	3.3 V

Is inspection result normal?

YES >> Replace preset switch.
NO >> Replace AV control unit.

REAR VIEW CAMERA POWER SUPPLY

Description

INFOID:0000000003882757

- 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 AV control unit.

Diagnosis Procedure

INFOID:0000000003901214

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 and rear view camera harness connector.

Camera control unit		Rear view camera		Continuity
Connector	Terminal	Connector	Terminal	
B251	8	T103	1	Existed

4. Check continuity between camera control unit harness connector and ground.

Camera control unit		Ground	Continuity
Connector	Terminal		
B251	8		Not existed

Is inspection result normal?

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 and ground.

(+)		(–)	Condition	Voltage (Approx.)
Camera control unit				
Connector	Terminal			
B251	8	Ground	Selector lever in R position.	6.0 V
			Other than selector lever in R position.	0 V

Is inspection result normal?

YES >> Replace rear view camera.
NO >> Replace camera control unit.

CAMERA IMAGE SIGNAL CIRCUIT

Description

INFOID:0000000003882759

- 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:0000000003901215

1.CHECK CONTINUITY CAMERA IMAGE SIGNAL CIRCUIT

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

Camera control unit		AV control unit		Continuity
Connector	Terminals	Connector	Terminals	
B251	11	M130	64	Existed
	12		65	

4. Check continuity between camera control unit harness connector and ground.

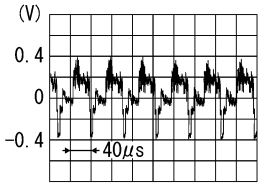
Camera control unit		Ground	Continuity
Connector	Terminal		
B251	12		Not existed

Is inspection result normal?

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

2.CHECK CAMERA IMAGE SIGNAL

1. Connect camera control unit connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check signal between camera control unit harness connector using an oscilloscope.

(+)		(–)	Condition	Reference value
Camera control unit				
Connector	Terminal			
B251	12	Ground	When rear view camera image is displayed.	

SKIB2251J

Is inspection result normal?

YES >> Replace AV control unit.
NO >> Replace camera control unit.

COMPOSITE IMAGE SIGNAL CIRCUIT

Description

INFOID:0000000003882761

AV control unit that inputs the camera image signal and AUX image signal transmits the composite image signal to the display unit.

Diagnosis Procedure

INFOID:0000000003901216

1.CHECK CONTINUITY COMPOSITE IMAGE SIGNAL CIRCUIT (AV CONTROL UNIT TO DISPLAY UNIT)

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

AV control unit		Display unit		Continuity
Connector	Terminals	Connector	Terminals	
M129	36	M49	15	Existed
	37		5	

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

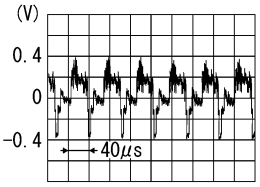
AV control unit		Ground	Continuity
Connector	Terminal		
M129	36		Not existed

Is inspection result normal?

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

2.CHECK COMPOSITE IMAGE SIGNAL (AV CONTROL UNIT TO DISPLAY UNIT)

1. Connect AV control unit connector and display unit connector.
2. Turn ignition switch ON.
3. Check signal between AV control unit harness connector using an oscilloscope.

(+)		(–)	Condition	Reference value
AV control unit				
Connector	Terminal			
M129	36	Ground	When AUX or camera image is displayed.	

SKIB2251J

Is inspection result normal?

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

STEERING ANGLE SENSOR SIGNAL CIRCUIT

Description

INFOID:0000000003939943

- 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:0000000003939944

1.CHECK CONTINUITY STEERING ANGLE SENSOR SIGNAL 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 and steering angle sensor harness connector.

Camera control unit		Steering angle sensor		Continuity
Connector	Terminals	Connector	Terminals	
B251	23	M30	3	Existed
	24		6	
	25		8	

4. Check continuity between camera control unit harness connector and ground.

Camera control unit		Ground	Continuity
Connector	Terminals		
B251	23	Ground	Not existed
	24		
	25		

Is inspection result normal?

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

2.CHECK SIGNAL SENSOR SIGNAL

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

(+)		(–)	Voltage (Approx.)
Camera control unit			
Connector	Terminals		
B251	23	Ground	5.0 V
	24		
	25		

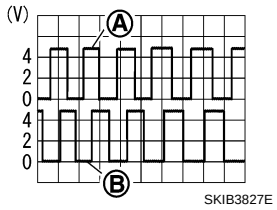
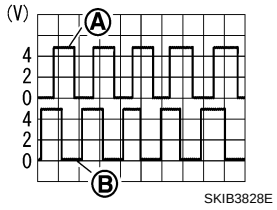
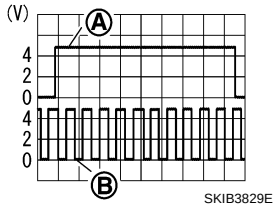
Is inspection result normal?

YES >> GO TO 3.
NO >> Replace camera control unit.

3.CHECK SIGNAL SENSOR SIGNAL

1. Turn ignition switch OFF.
2. Connect steering angle sensor connector.

3. Turn ignition switch ON.
4. Check signal between camera control unit harness connector and ground.

(+) Camera control unit		(–)	Condition	Reference value
Connector	Terminals			
B251	23, 24	Ground	Turn the steering to the right	 SKIB3827E A: Sensor signal 1 B: Sensor signal 2
			Turn the steering to the left	 SKIB3828E A: Sensor signal 1 B: Sensor signal 2
	25	Ground	Turn the steering around the neutral position	 SKIB3829E A: Sensor signal 3 B: Sensor signal 1

Is inspection result normal?

YES >> INSPECTION END
NO >> Replace steering angle sensor.

STEERING SWITCH SIGNAL A CIRCUIT

Description

INFOID:0000000003939934

Transmits the steering switch signal to AV control unit.

Diagnosis Procedure

INFOID:0000000003939935

1.CHECK STEERING SWITCH SIGNAL A CIRCUIT

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

AV control unit		Spiral cable		Continuity
Connector	Terminal	Connector	Terminal	
M127	6	M33	24	Existed

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

AV control unit		Ground	Continuity
Connector	Terminal		
M127	6		Not existed

Is inspection result normal?

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

2.CHECK SPIRAL CABLE

Check spiral cable.

Is inspection result normal?

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

3.CHECK AV CONTROL UNIT VOLTAGE

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

(+)		(–)		Voltage (Approx.)
AV control unit		AV control unit		
Connector	Terminal	Connector	Terminal	
M127	6	M127	15	3.3 V

Is inspection result normal?

YES >> GO TO 4.
NO >> Replace AV control unit.

4.CHECK STEERING SWITCH

1. Turn ignition switch OFF.
2. Check steering switch. Refer to AV-101, "Component Inspection".

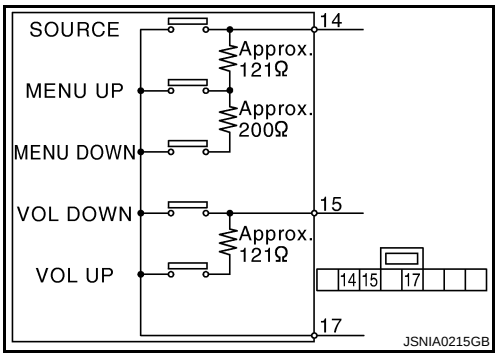
Is inspection result normal?

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

Component Inspection

INFOID:0000000003939936

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



Standard

Steering switch				Condition	Resistance Ω
Connector	Terminal	Connector	Terminal		
M303	14	M303	17	MENU DOWN switch ON	315 – 327
				MENU UP switch ON	119 – 123
				SOURCE switch ON	1
	15			VOL UP switch ON	119 – 123
				VOL DOWN switch ON	1

STEERING SWITCH SIGNAL B CIRCUIT

Description

INFOID:0000000003939937

Transmits the steering switch signal to AV control unit.

Diagnosis Procedure

INFOID:0000000003939938

1.CHECK STEERING SWITCH SIGNAL B CIRCUIT

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

AV control unit		Spiral cable		Continuity
Connector	Terminal	Connector	Terminal	
M127	16	M33	31	Existed

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

AV control unit		Ground	Continuity
Connector	Terminal		
M127	16		Not existed

Is inspection result normal?

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

2.CHECK SPIRAL CABLE

Check spiral cable.

Is inspection result normal?

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

3.CHECK AV CONTROL UNIT VOLTAGE

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

(+)		(–)		Voltage (Approx.)
AV control unit		AV control unit		
Connector	Terminal	Connector	Terminal	
M127	16	M127	15	3.3 V

Is inspection result normal?

YES >> GO TO 4.
NO >> Replace AV control unit.

4.CHECK STEERING SWITCH

1. Turn ignition switch OFF.
2. Check steering switch. Refer to AV-103, "Component Inspection".

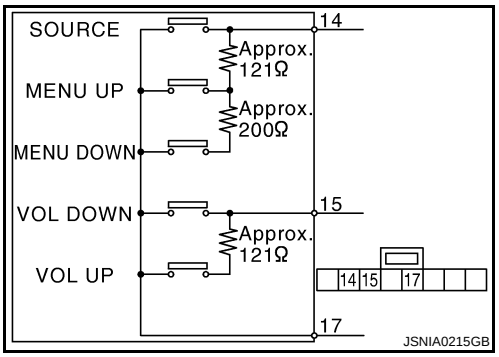
Is inspection result normal?

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

Component Inspection

INFOID:0000000003939939

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



Standard

Steering switch				Condition	Resistance Ω
Connector	Terminal	Connector	Terminal		
M303	14	M303	17	MENU DOWN switch ON	315 – 327
				MENU UP switch ON	119 – 123
				SOURCE switch ON	1
	15			VOL UP switch ON	119 – 123
				VOL DOWN switch ON	1

STEERING SWITCH SIGNAL GND CIRCUIT

Description

INFOID:0000000003939940

Transmits the steering switch signal to AV control unit.

Diagnosis Procedure

INFOID:0000000003939941

1.CHECK STEERING SWITCH SIGNAL GND CIRCUIT

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

AV control unit		Spiral cable		Continuity
Connector	Terminal	Connector	Terminal	
M127	15	M33	33	Existed

4. Connect AV control unit connector.

Is inspection result normal?

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

2.CHECK SPIRAL CABLE

Check spiral cable.

Is inspection result normal?

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

3.CHECK GROUND CIRCUIT

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

AV control unit		Ground	Continuity
Connector	Terminal		
M127	15		Existed

Is inspection result normal?

YES >> GO TO 4.
NO >> Replace AV control unit.

4.CHECK STEERING SWITCH

Check steering switch. Refer to AV-105, "Component Inspection".

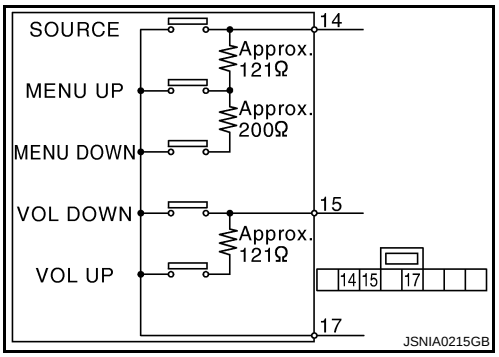
Is inspection result normal?

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

Component Inspection

INFOID:0000000003939942

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



Standard

Steering switch				Condition	Resistance Ω
Connector	Terminal	Connector	Terminal		
M303	14	M303	17	MENU DOWN switch ON	315 – 327
				MENU UP switch ON	119 – 123
				SOURCE switch ON	1
	15			VOL UP switch ON	119 – 123
				VOL DOWN switch ON	1

ECU DIAGNOSIS

AV CONTROL UNIT

Reference Value

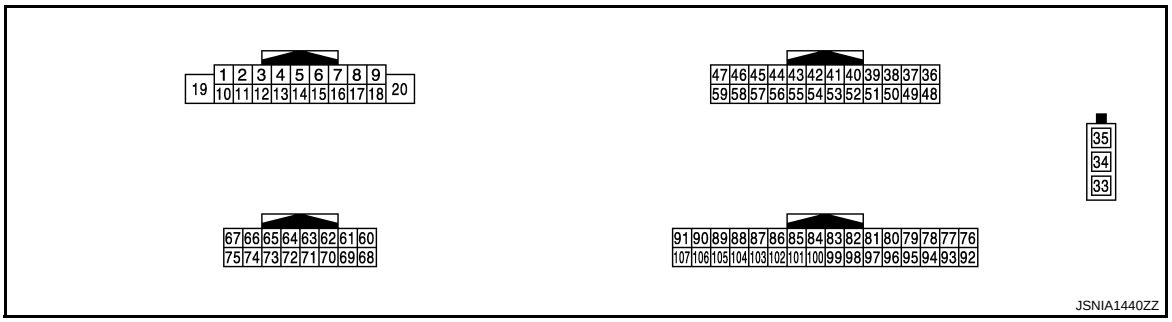
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VALUES ON THE DIAGNOSIS TOOL

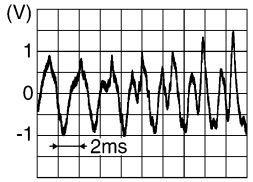
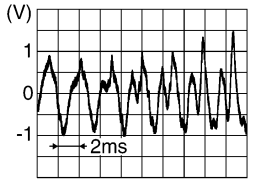
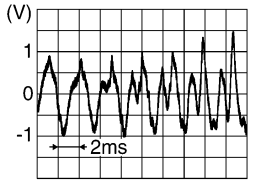
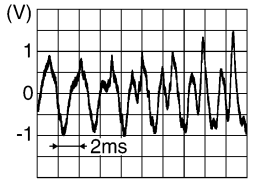
CONSULT-III data monitor item

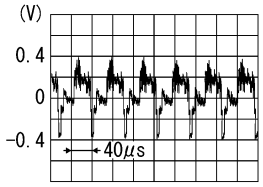
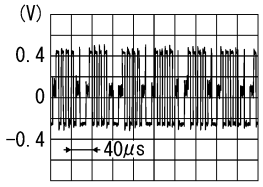
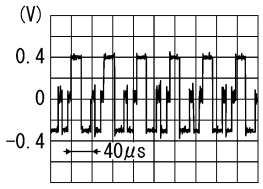
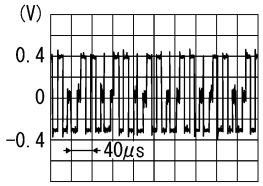
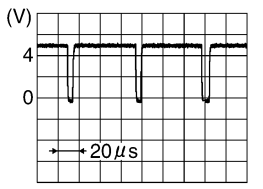
Display Item	Display	Vehicle status	Remarks
VHCL SPD SIG	On	Vehicle speed >0 km/h (0 MPH)	Changes in indication may be delayed. This is normal.
	Off	Vehicle speed =0 km/h (0 MPH)	
PKB SIG	On	Parking brake is applied.	Changes in indication may be delayed. This is normal.
	Off	Parking brake is released.	
ILLUM SIG	On	Light switch ON.	—
	Off	Light switch OFF.	
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.	

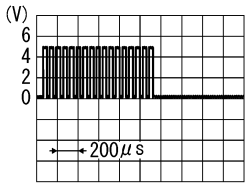
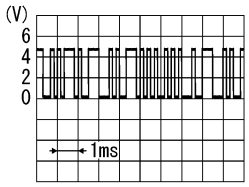
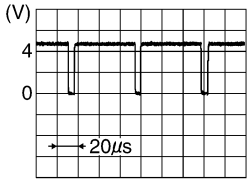
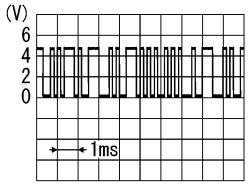
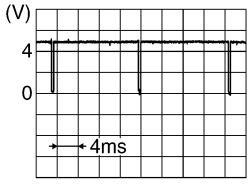
TERMINAL LAYOUT

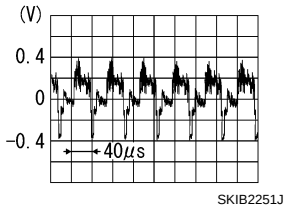
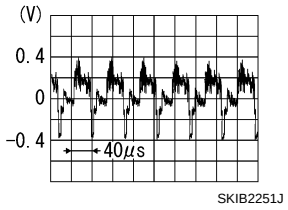
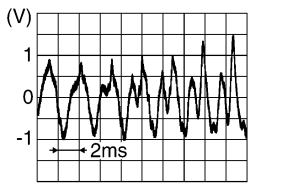


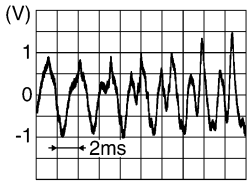
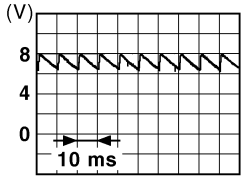
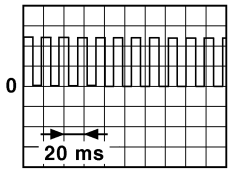
PHYSICAL VALUES

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
2 (W)	3 (B)	Sound signal front LH	Output	Ignition switch ON	Sound output.	 SKIB3609E
4 (O/B)	5 (W/R)	Sound signal rear LH	Output	Ignition switch ON	Sound output.	 SKIB3609E
6 (W/G)	15 (L/B)	Steering switch signal A	Input	Ignition switch ON	Keep pressing SOURCE switch.	0 V
					Keep pressing △ switch.	0.7 V
					Keep pressing ▽ switch.	1.3 V
					Except for above.	3.3 V
7 (V/W)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
9 (R/L)	Ground	Illumination signal	Input	Ignition switch OFF	Lighting switch is OFF.	0 V
					Lighting switch is ON.	12.0 V
11 (B/W)	12 (BR)	Sound signal front RH	Output	Ignition switch ON	Sound output.	 SKIB3609E
13 (L)	14 (B/W)	Sound signal rear RH	Output	Ignition switch ON	Sound output.	 SKIB3609E
15 (L/B)	Ground	Steering switch signal ground	—	Ignition switch ON	—	0 V
16 (GR/L)	15 (L/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

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/W)	Ground	Ground	—	Ignition switch ON	—	0 V
33	—	FM sub	Input	—	—	—
34	—	AM–FM main	Input	—	—	—
35	Ground	Antenna amp. ON signal	Output	Ignition switch ACC	—	12.0 V
36 (B)	Ground	Composite image signal	Output	Ignition switch ON	When camera image or AUX image is displayed.	 SKIB2251J
37 (W)	Ground	Composite image signal ground	—	Ignition switch ON	—	0 V
38 (B)	Ground	RGB image 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
39 (R)	Ground	RGB image 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
40 (W)	Ground	RGB image 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
41 (G)	Ground	RGB synchronizing signal	Output	Ignition switch ON	—	 SKIB3603E

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
42	—	RGB synchronizing signal shield	—	—	—	—
43 (B)	Ground	RGB area (YS) signal	Output	Ignition switch ON	When RGB image is displayed.	5.0 V
					When camera image or AUX image is displayed.	 PKIB4948J
44 (G)	Ground	Communication signal (DISP→CONT)	Input	Ignition switch ON	When adjusting display brightness.	 PKIB5039J
45 (W)	Ground	Horizontal synchronizing (HP) signal	Input	Ignition switch ON	—	 SKIB3601E
46 (LG)	Ground	Signal ground	—	Ignition switch ACC	—	—
47 (O)	Ground	Signal VCC	Output	Ignition switch ACC	—	9.0 V
49	—	Shield	—	—	—	—
50	—	RGB signal Shield	—	—	—	—
55	—	Shield	—	—	—	—
56 (R)	Ground	Communication signal (CONT→DISP)	Output	Ignition switch ON	When adjusting display brightness.	 PKIB5039J
57 (R)	Ground	Vertical synchronizing (VP) signal	Input	Ignition switch ON	—	 SKIB3598E

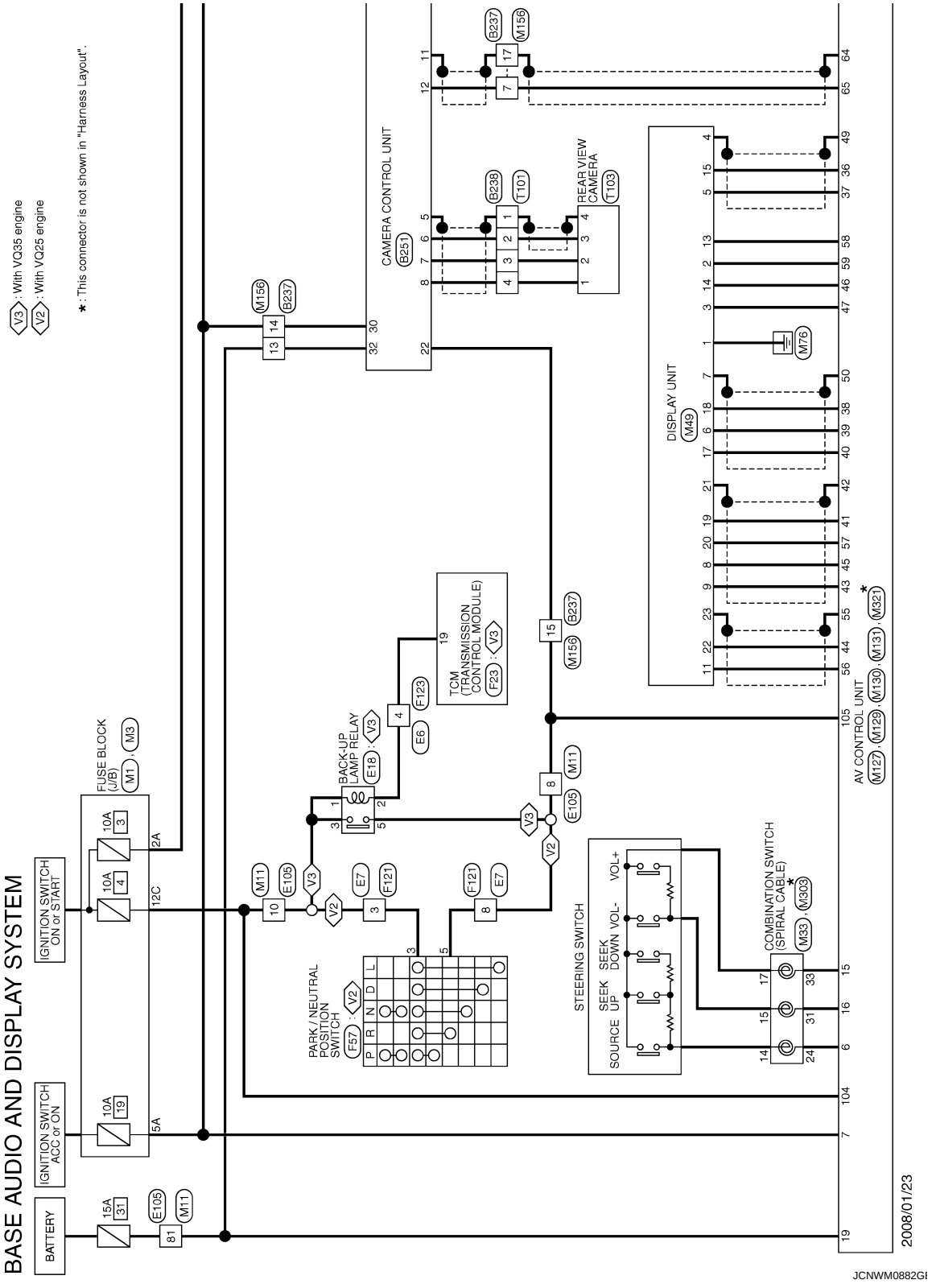
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
58 (BR)	Ground	Inverter ground	—	Ignition switch ACC	—	—
59 (Y)	Ground	Inverter VCC	Output	Ignition switch ACC	—	9.0 V
64	—	Camera image signal shield	—	—	—	—
65 (Y)	Ground	Camera image signal	Input	Ignition switch ON	When camera image is displayed.	 SKIB2251J
66 (G)	Ground	Composite (AUX) image signal	Input	Ignition switch ON	When AUX image is displayed.	 SKIB2251J
68 (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.	5.0 V
73	—	Composite image signal shield	—	—	—	—
74 (V)	Ground	Composite (AUX) image signal ground	—	Ignition switch ON	—	0 V
85 (B/W)	Ground	Ground	—	Ignition switch ON	—	0 V
86 (L)	—	CAN–H	Input/ Output	—	—	—
87 (P)	—	CAN–L	Input/ Output	—	—	—
88 (W)	—	AV communication signal (H)	Input/ Output	—	—	—
89 (B)	—	AV communication signal (L)	Input/ Output	—	—	—
95 (W)	97 (R)	AUX sound signal RH	Input	Ignition switch ON	AUX sound input.	 SKIB3609E

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
96 (B)	97 (R)	AUX sound signal LH	Input	Ignition switch ON	AUX sound input.	 SKIB3609E
101 (BR)	Ground	Switch ground	—	Ignition switch ON	—	0 V
103 (SB)	Ground	Disk eject signal	Input	Ignition switch ON	Pressing the eject switch.	0 V
					Except for above.	3.3 V
104 (O)	Ground	Ignition signal	Input	Ignition switch ON	—	Battery voltage
105 (P/B)	Ground	Reverse signal	Input	Ignition switch ON	Selector lever in R position.	12.0 V
					Other than selector lever in R position.	0 V
106 (G/R)	Ground	Parking brake signal	Input	Ignition switch ON	Parking brake ON.	0 V
					Parking brake OFF.	 JSNIA0007GB
107 (V/W)	Ground	Vehicle speed signal (8-pulse)	Input	Ignition switch ON	When vehicle speed is approx. 40 km/h (25MPH).	**NOTE:** The maximum voltage varies depending on the specification (destination unit).  JSNIA0012GB
111	—	Shield	—	—	—	—

*:Stereo sounds are input only when the 2 channel stereo sound is played.

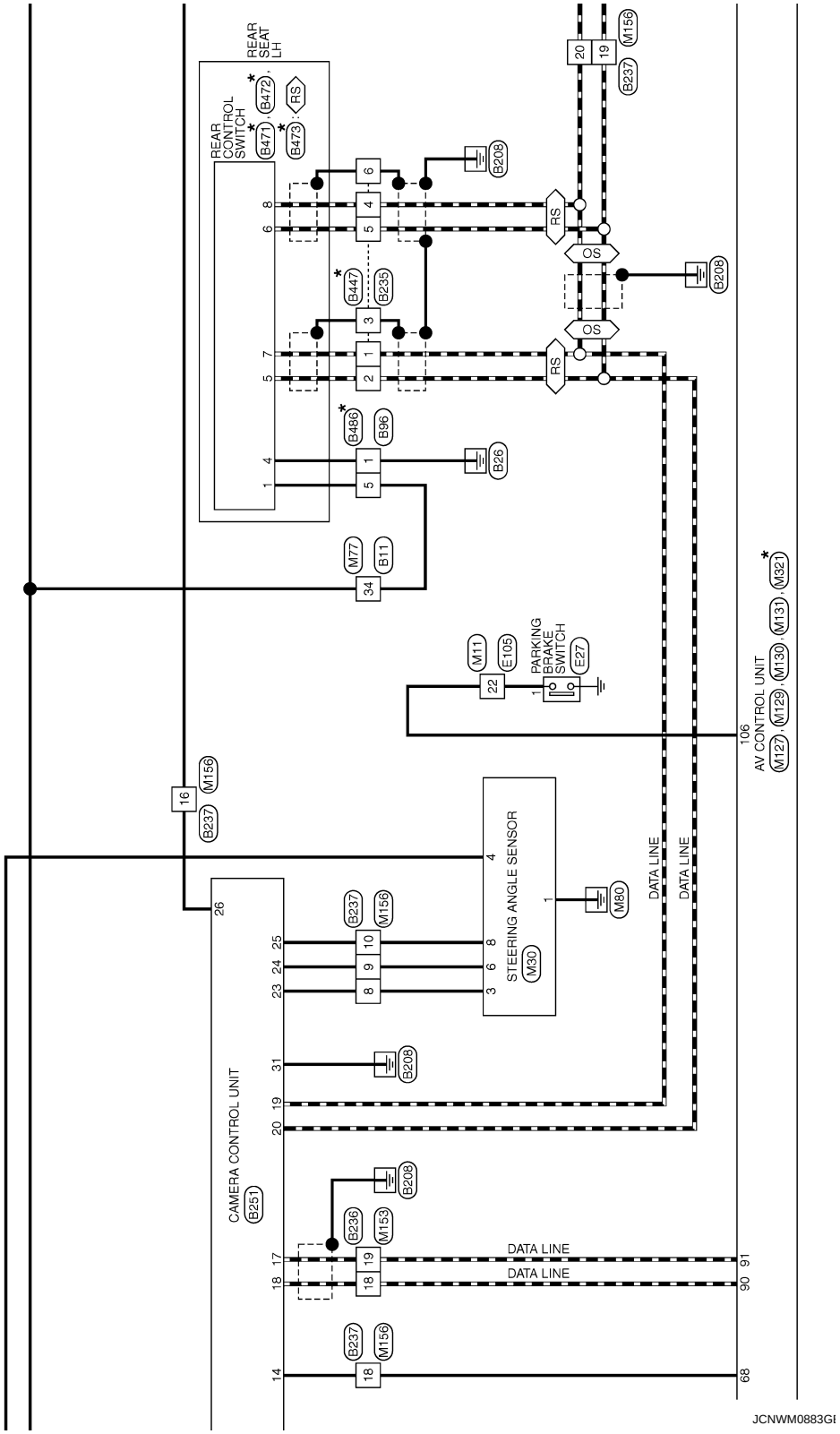
Wiring Diagram — BASE AUDIO AND DISPLAY SYSTEM —

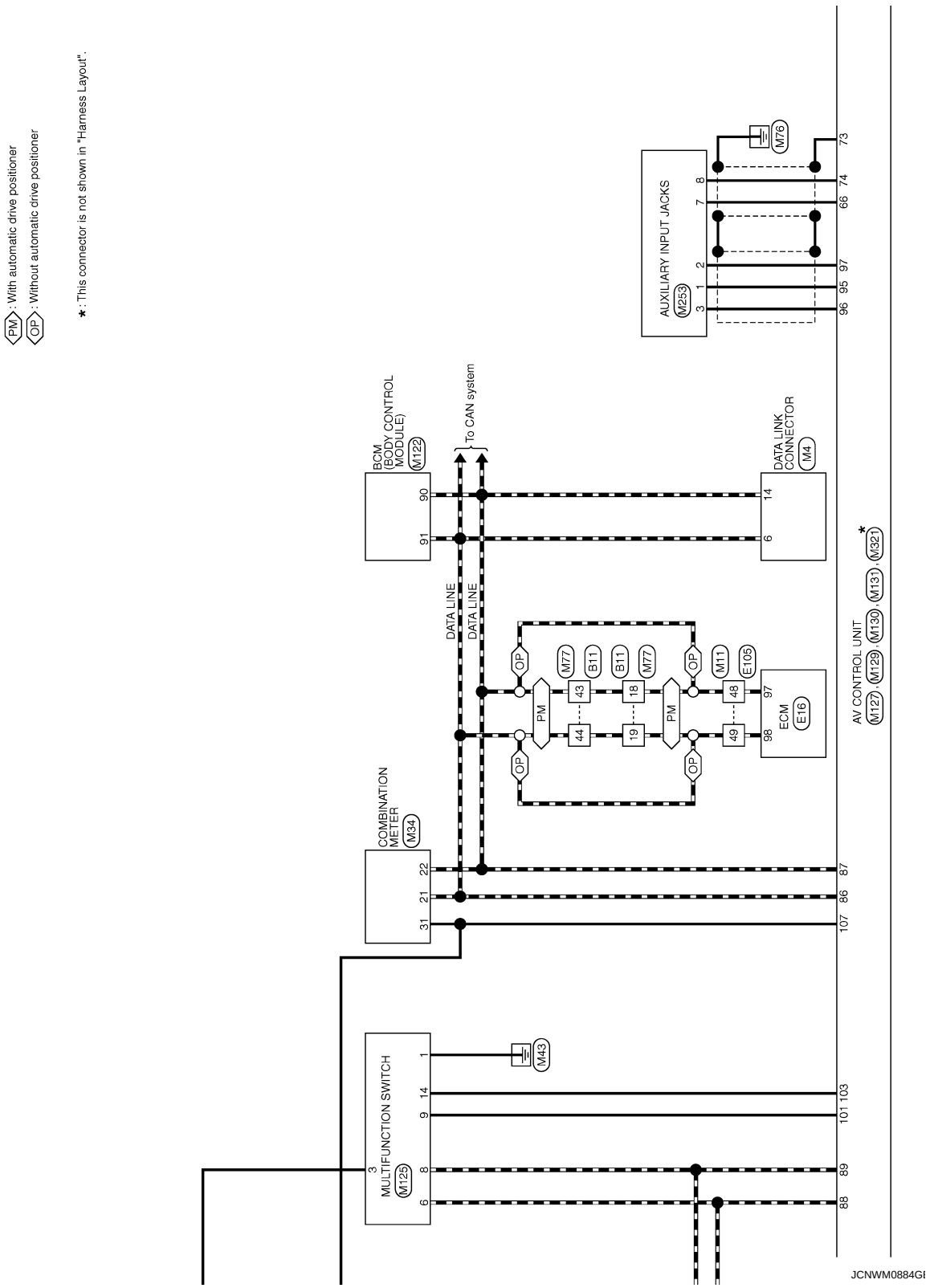
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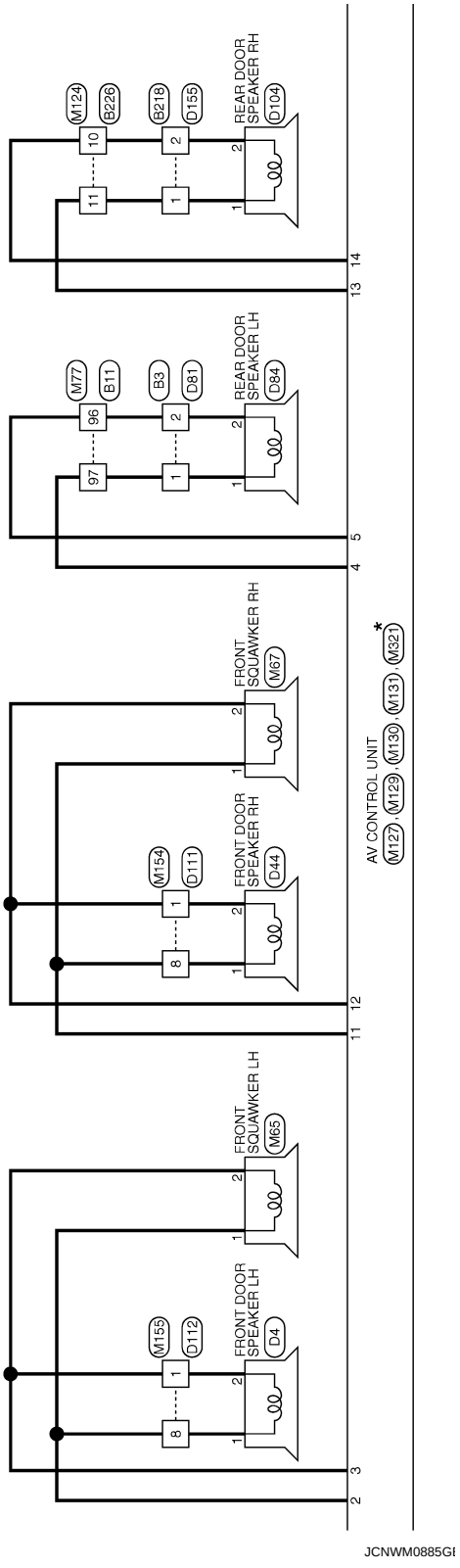
RS : With rear control switch
OS : Without rear control switch

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

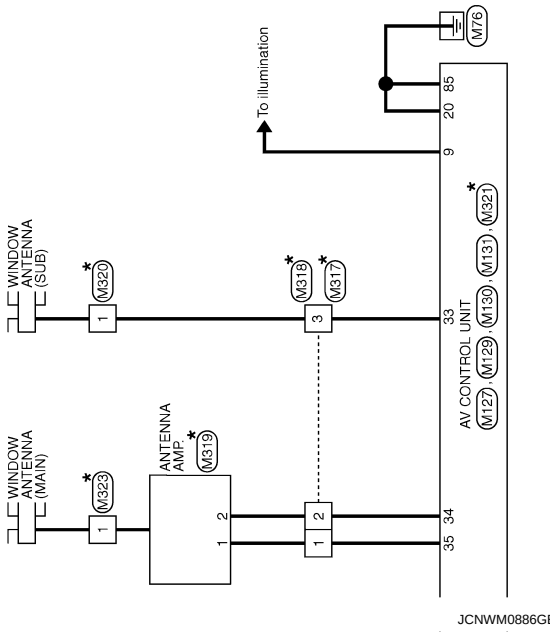



PM : With automatic drive positioner
OP : Without automatic drive positioner
*: This connector is not shown in "Harness Layout".
AUXILIARY INPUT JACKS
M253
M76
BCM (BODY CONTROL MODULE)
M122
To CAN system
DATA LINK CONNECTOR
M4
DATA LINE
DATA LINE
COMBINATION METER
M34
MULTIFUNCTION SWITCH
M125
M43
ECM
E16
AV CONTROL UNIT
M127, M129, M130, M131, M321
JCNWM0884GB

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

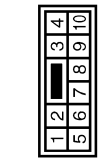


*: This connector is not shown in "Harness Layout".



BASE AUDIO AND DISPLAY SYSTEM

Connector No.	B3
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS



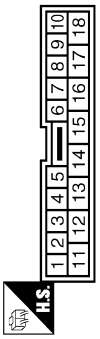
Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-[Without BOSE system]
2	B	-[Without BOSE system]

Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS19



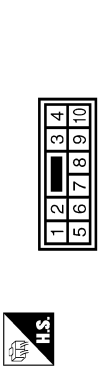
Terminal No.	Color of Wire	Signal Name [Specification]
18	P	-
19	L	-
34	G	-
43	P	-
44	L	-
96	B	-[Without BOSE system]
97	W	-[Without BOSE system]

Connector No.	B96
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



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

Connector No.	B218
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS

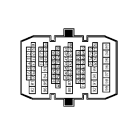


Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	O	-

Connector No.	B226
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
10	O	-[Without BOSE system]
11	L	-[Without BOSE system]

Connector No.	B235
Connector Name	WIRE TO WIRE
Connector Type	SD02MGY



Terminal No.	Color of Wire	Signal Name [Specification]
1	P	-
2	L	-
3	SHIELD	-
4	G	-
5	R	-
6	SHIELD	-

Connector No.	B236
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
18	L/R	-[With base audio and display system]
19	L/G	-[With base audio and display system]

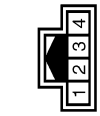
JCNWM0887GB

BASE AUDIO AND DISPLAY SYSTEM

Connector No.	B237
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
7	BR	–
8	G	–
9	SB	–
10	O	–
13	Y	–
14	V	–
15	W	–
16	O	–
17	SHIELD	–
18	GR	–
19	R	–[With rear control switch]
19	L	–[Without rear control switch]
20	G	–[With rear control switch]
20	P	–[Without rear control switch]

Connector No.	B238
Connector Name	WIRE TO WIRE
Connector Type	TH04MW-NH



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

Connector No.	B251
Connector Name	CAMERA CONTROL UNIT
Connector Type	TH32FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
5	SHIELD	SHIELD
6	B	CAMERA IMAGE SIGNAL
7	W	REAR VIEW CAMERA GND
8	R	REAR CAMERA ON
11	SHIELD	SHIELD
12	BR	CAMERA IMAGE SIGNAL
14	GR	CAMERA CONNECTING RECOGNITION SIGNAL
17	L/G	AV COMM(L) [With BOSE audio system]
18	L/R	AV COMM(H) [With BOSE audio system]
19	P	AV COMM(L)
20	L	AV COMM(H)
22	W	REVERSE SIGNAL
23	G	STRG SENSOR1
24	SB	STRG SENSOR2
25	O	STRG SENSOR3
26	O	VHICLE SPEED SIGNAL(8P)
30	V	ACC
31	B/R	GND
32	Y	BAT

Connector No.	B447
Connector Name	WIRE TO WIRE
Connector Type	SD02FGY

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–
2	B	–
3	SHIELD	–
4	Y	–
5	G	–
6	SHIELD	–

Connector No.	B471
Connector Name	REAR CONTROL SWITCH
Connector Type	TH04FW

Terminal No.	Color of Wire	Signal Name [Specification]
1	R/Y	–
4	Y	–

JCNWM0888GB

BASE AUDIO AND DISPLAY SYSTEM

Connector No.	B472
Connector Name	REAR CONTROL SWITCH
Connector Type	SD01FGY

Terminal No.	Color of Wire	Signal Name [Specification]
5	G	–
7	Y	–

Connector No.	B473
Connector Name	REAR CONTROL SWITCH
Connector Type	SD01MGY

Terminal No.	Color of Wire	Signal Name [Specification]
6	B	–
8	W	–

Connector No.	B486
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8

Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	–
5	R/Y	–

Connector No.	D4
Connector Name	FRONT DOOR SPEAKER LH (WITHOUT BOSE SYSTEM)
Connector Type	NS02FW-CS

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

Connector No.	D44
Connector Name	FRONT DOOR SPEAKER RH (WITHOUT BOSE SYSTEM)
Connector Type	NS02FW-CS

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

Connector No.	D81
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS

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

Connector No.	D84
Connector Name	REAR DOOR SPEAKER LH (WITHOUT BOSE SYSTEM)
Connector Type	NS02FW-CS

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

Connector No.	D104
Connector Name	REAR DOOR SPEAKER RH (WITHOUT BOSE SYSTEM)
Connector Type	NS02FW-CS

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

JCNWM0889GB

BASE AUDIO AND DISPLAY SYSTEM

Connector No.	D111
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



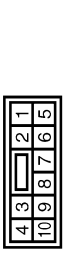
Terminal No.	Color of Wire	Signal Name [Specification]
1	B	-[Without BOSE system]
8	W	-[Without BOSE system]

Connector No.	D112
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



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

Connector No.	D155
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	P	-[Without BOSE system]

Connector No.	E6
Connector Name	WIRE TO WIRE
Connector Type	TK16MGY-1V



Terminal No.	Color of Wire	Signal Name [Specification]
4	R	-

Connector No.	E7
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
3	LG	-
8	R	-

Connector No.	E16
Connector Name	ECM
Connector Type	RH24FB-RZ8-L-LH

Terminal No.	Color of Wire	Signal Name [Specification]
97	P	VEHCAN-L
98	L	VEHCAN-H

Connector No.	E18
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS02FL-M2-LC

Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	-
2	R	-
3	LG	-
5	R	-

Connector No.	E27
Connector Name	PARKING BRAKE SWITCH
Connector Type	P01FB-A

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

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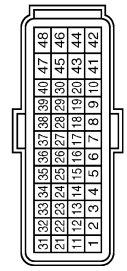
BASE AUDIO AND DISPLAY SYSTEM

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH70MW-CS10-M3



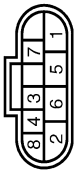
Terminal No.	Color of Wire	Signal Name [Specification]
8	R	–
10	LG	–
22	P	–
48	P	–
49	L	–
81	Y	–

Connector No.	F23
Connector Name	TCM (TRANSMISSION CONTROL MODULE)
Connector Type	RH40FB-RZ8-L-RH



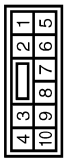
Terminal No.	Color of Wire	Signal Name [Specification]
19	G/B	REV LAMP RELAY

Connector No.	F57
Connector Name	PARK / NEUTRAL POSITION SWITCH
Connector Type	YDX06FB-HS4



Terminal No.	Color of Wire	Signal Name [Specification]
3	LG	–
5	P/B	–

Connector No.	F121
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS



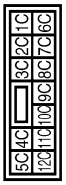
Terminal No.	Color of Wire	Signal Name [Specification]
3	O	–
8	R	–

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



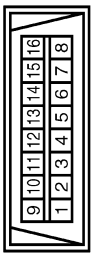
Terminal No.	Color of Wire	Signal Name [Specification]
2A	G/O	–
5A	V/O	–

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



Terminal No.	Color of Wire	Signal Name [Specification]
12C	O	–

Connector No.	M4
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



Terminal No.	Color of Wire	Signal Name [Specification]
6	L	–
14	P	–

Connector No.	F123
Connector Name	WIRE TO WIRE
Connector Type	TK16FGY-1V



Terminal No.	Color of Wire	Signal Name [Specification]
4	G/B	–

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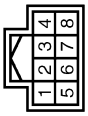
BASE AUDIO AND DISPLAY SYSTEM

Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Type	TH70FW-CS10-M3



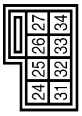
Terminal No.	Color of Wire	Signal Name [Specification]
8	P/B	–
10	O	–
22	G/R	–
48	P	–
49	L	–
81	Y	–

Connector No.	M30
Connector Name	STEERING ANGLE SENSOR
Connector Type	TH08FW-NH



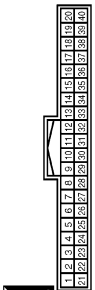
Terminal No.	Color of Wire	Signal Name [Specification]
1	B	–
3	L/Y	–
4	G	–
6	B/R	–
8	O	–

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



Terminal No.	Color of Wire	Signal Name [Specification]
24	W/G	–
31	GR/L	–
33	L/B	–

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	TH40FW-NH



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

Connector No.	M49
Connector Name	DISPLAY UNIT
Connector Type	TH24FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
1	B/W	GND
2	Y	INV VCC
3	O	3S VCC (With BOSE system without navigation system or base audio and display system)
4	SHIELD	COMPOSIT IMAGE SIGNAL SHIELD
5	W	COMPOSIT IMAGE SIGNAL GND
6	R	RGB (G:GREEN)
7	SHIELD	RGB GND
8	W	HP
9	B	YS
11	R	COMM (CONT->DISP)
13	BR	3V GND (With BOSE system without navigation system or base audio and display system)
14	LG	SIG GND
15	B	COMPOSIT IMAGE SIGNAL
17	W	RGB (R:RED)
18	B	RGB (B:BLUE)
19	G	RGB SYNC
20	R	VP
21	SHIELD	RGB SYNC GND
22	G	COMM (DISP->CONT)
23	SHIELD	SHIELD

Connector No.	M65
Connector Name	FRONT SQUAWKER LH
Connector Type	TK02FBR



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

Connector No.	M67
Connector Name	FRONT SQUAWKER RH
Connector Type	TK02FBR



Terminal No.	Color of Wire	Signal Name [Specification]
1	G/W	–[With base audio and display system]
2	BR	–[Without BOSE system]

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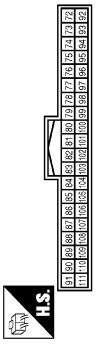
BASE AUDIO AND DISPLAY SYSTEM

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS19



Terminal No.	Color of Wire	Signal Name [Specification]
18	P	–
19	L	–
34	V/R	–
43	P	–
44	L	–
96	W/R	–
97	O/B	–

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



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

Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
10	B/W	–[Without BOSE system]
11	L	–[Without BOSE system]

Connector No.	M125
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH16FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
3	V/R	ACC
6	W	M-CAN H
8	B	M-CAN L
9	BR	SW GND
14	SB	CD/DVD EJECT

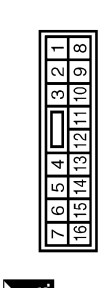
Terminal No.	Color of Wire	Signal Name [Specification]
15	L/B	STRG SW GND
16	GR/L	STRG SW B
19	Y	BAT
20	B/W	GND

Connector No.	M127
Connector Name	AV CONTROL UNIT
Connector Type	TH18FW-CS2

Terminal No.	Color of Wire	Signal Name [Specification]
2	W	SOUND SIGNAL FRONT LH (+) [Without BOSE audio system]
3	B	SOUND SIGNAL FRONT LH (-) [Without BOSE audio system]
4	O/B	SOUND SIGNAL REAR LH (+) [Without BOSE audio system]
5	W/R	SOUND SIGNAL REAR LH (-) [Without BOSE audio system]
6	W/G	STRG SW A
7	V/W	ACC
9	R/L	ILL
11	B/W	SOUND SIGNAL FRONT RH (+) [Without BOSE audio system]
12	BR	SOUND SIGNAL FRONT RH (-) [Without BOSE audio system]
13	L	SOUND SIGNAL REAR RH (+) [Without BOSE audio system]
14	B/W	SOUND SIGNAL REAR RH (-) [Without BOSE audio system]

Terminal No.	Color of Wire	Signal Name [Specification]
47	O	SIG VCC
49	SHIELD	COMP OUT SHIELD
50	SHIELD	RGB GND
55	SHIELD	SHIELD
56	R	COMM (CONT->DISP)
57	R	VP
58	BR	INV GND
59	Y	INV VCC

Connector No.	M129
Connector Name	AV CONTROL UNIT
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
36	B	COMPOSIT IMAGE SIGNAL
37	W	COMPOSIT IMAGE SIGNAL GND
38	B	RGB (B:BLUE)
39	R	RGB (G:GREEN)
40	W	RGB (R:RED)
41	G	RGB SYNC
42	SHIELD	RGB SYNC GND
43	B	YS
44	G	COMM (DISP->CONT)
45	W	HP
46	LG	SIG GND

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BASE AUDIO AND DISPLAY SYSTEM

Connector No.	M130
Connector Name	AV CONTROL UNIT
Connector Type	TH16FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
64	SHIELD	CAMERA IMAGE SIGNAL GND
65	Y	CAMERA IMAGE SIGNAL
66	G	COMPOSIT IMAGE SIGNAL [With base audio and display system]
68	W	CAMERA CONNECTION RECOGNITION SIGNAL
73	SHIELD	COMPOSIT IMAGE SIGNAL SHIELD
74	V	COMPOSIT IMAGE SIGNAL GND [With base audio and display system]

Connector No.	M131
Connector Name	AV CONTROL UNIT
Connector Type	TH32FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
85	B/W	GND
86	L	CAN-H
87	P	CAN-L
88	W	AV COMM (H)
89	B	AV COMM (L)
90	L	AV COMM (H)
91	R	AV COMM (L)
95	W	AUX SOUND SIGNAL RH [Display and audio system]
96	B	AUX SOUND SIGNAL LH [Display and audio system]
97	R	AUX GND [Display and audio system]
101	BR	9V (AM) [With BOSE system without navigation system or base audio and display system]

Connector No.	M153
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
18	L	–
19	R	–[With base audio and display system]

103	SB	DISC EJECT SIG
104	O	IGN
105	P/B	REVERSE SIG
106	G/R	PKB SIG
107	V/W	VEHICLE SPEED SIG (8P)

Connector No.	M154
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
1	BR	–[Without BOSE system]
8	B/W	–[Without BOSE system]

Connector No.	M155
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	–[Without BOSE system]
8	W	–[Without BOSE system]

Connector No.	M156
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
7	Y	–
8	L/Y	–
9	B/R	–
10	O	–
13	Y	–
14	V	–
15	P/B	–
16	V/W	–
17	SHIELD	–
18	W	–
19	W	–

20	B	–

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BASE AUDIO AND DISPLAY SYSTEM

Connector No.	M253
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A08FW

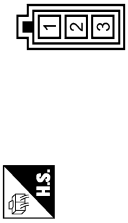
Terminal No.	Color of Wire	Signal Name [Specification]
1	W	AUX SOUND SIGNAL RH (+)
2	R	GND
3	B	AUX SOUND SIGNAL LH (+)
7	G	AUX IMAGE SIGNAL (+)
8	V	AUX IMAGE SIGNAL (-)

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



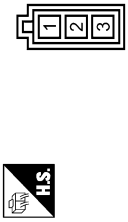
Terminal No.	Color of Wire	Signal Name [Specification]
14	–	–
15	–	–
17	–	–

Connector No.	M317
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1PP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	–	–
2	–	–
3	–	–

Connector No.	M318
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1S-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	–	–
2	–	–
3	–	–

Connector No.	M319
Connector Name	ANTENNA AMP.
Connector Type	GT13SC-1/1S-HU



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

Connector No.	M320
Connector Name	WINDOW ANTENNA (SUB)
Connector Type	P01FB-A



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

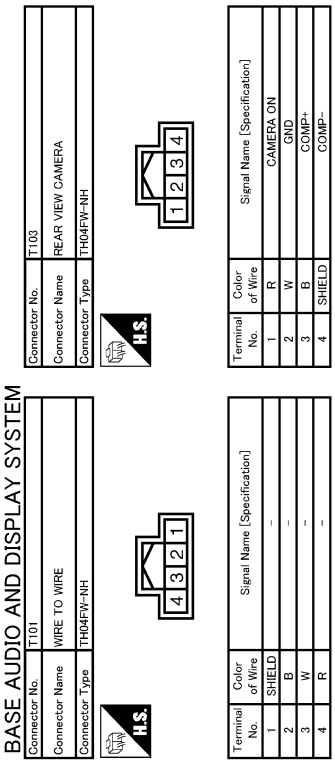
Connector No.	M321
Connector Name	AV CONTROL UNIT
Connector Type	GT13SH-2/1S-HU

Terminal No.	Color of Wire	Signal Name [Specification]
33	–	FM SUB
34	–	AM-FM MAIN
35	–	ANTENNA AMP ON SIG

Connector No.	M323
Connector Name	WINDOW ANTENNA (MAIN)
Connector Type	P01FB-A

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

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JCNWM0896GI

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

DTC Index

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SELF-DIAGNOSIS RESULTS DISPLAY ITEM

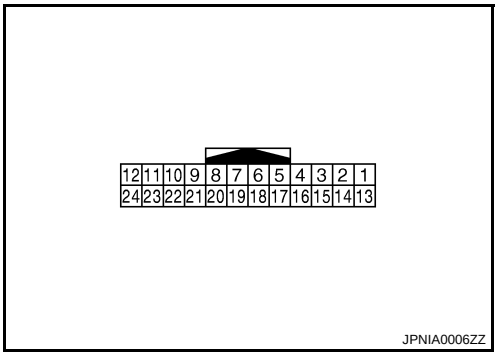
DTC	Display item	Refer to
U1000	CAN COMM CIRCUIT [U1000]	AV-72, "Diagnosis Procedure"
U1010	CONTROL UNIT (CAN) [U1010]	AV-73, "Diagnosis Procedure"
U1310	CONTROL UNIT (AV) [U1310]	AV-74, "DTC Logic"
U1200	Control Unit FLASH-ROM [U1200]	AV-75, "DTC Logic"
U1216	CAN CONT [U1216]	AV-76, "DTC Logic"
U1243	FRONT DISP CONN [U1243]	AV-77, "Diagnosis Procedure"
U1250	CAMERA CONT. CONN [U1250]	AV-84, "CAMERA CONTROL UNIT : Diagnosis Procedure"
U1300 U1240	• AV COMM CIRCUIT [U1300] • SWITCH CONN [U1240]	AV-81, "Description"
U1300 U124E	• AV COMM CIRCUIT [U1300] • AMP CONN [U124E]	AV-81, "Description"
U1300 U1248	• AV COMM CIRCUIT [U1300] • DVD DECK CONN [U1248]	AV-81, "Description"
U1300 U1248 U124E	• AV COMM CIRCUIT [U1300] • DVD DECK CONN [U1248] • AMP CONN [U124E]	AV-81, "Description"
U1300 U1248 U124E U1252	• AV COMM CIRCUIT [U1300] • DVD DECK CONN [U1248] • AMP CONN [U124E] • REAR-CAMERA LAN CONN [U1252]	AV-81, "Description"

DISPLAY UNIT

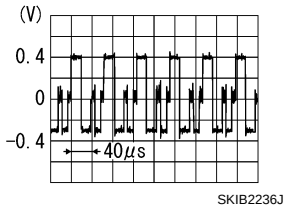
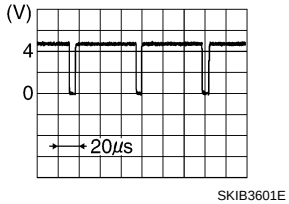
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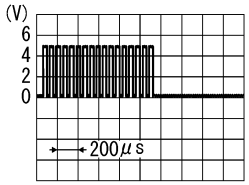
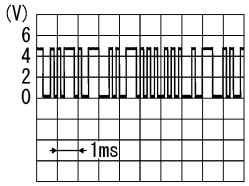
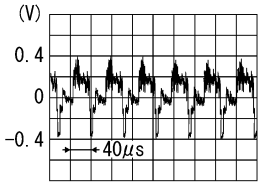
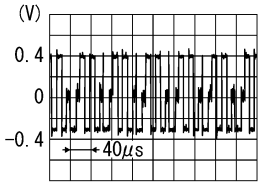
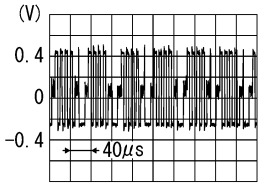
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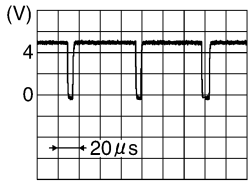
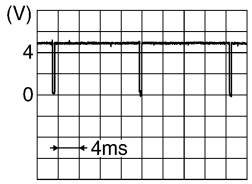
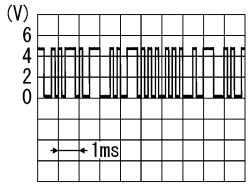
TERMINAL LAYOUT



PHYSICAL VALUES

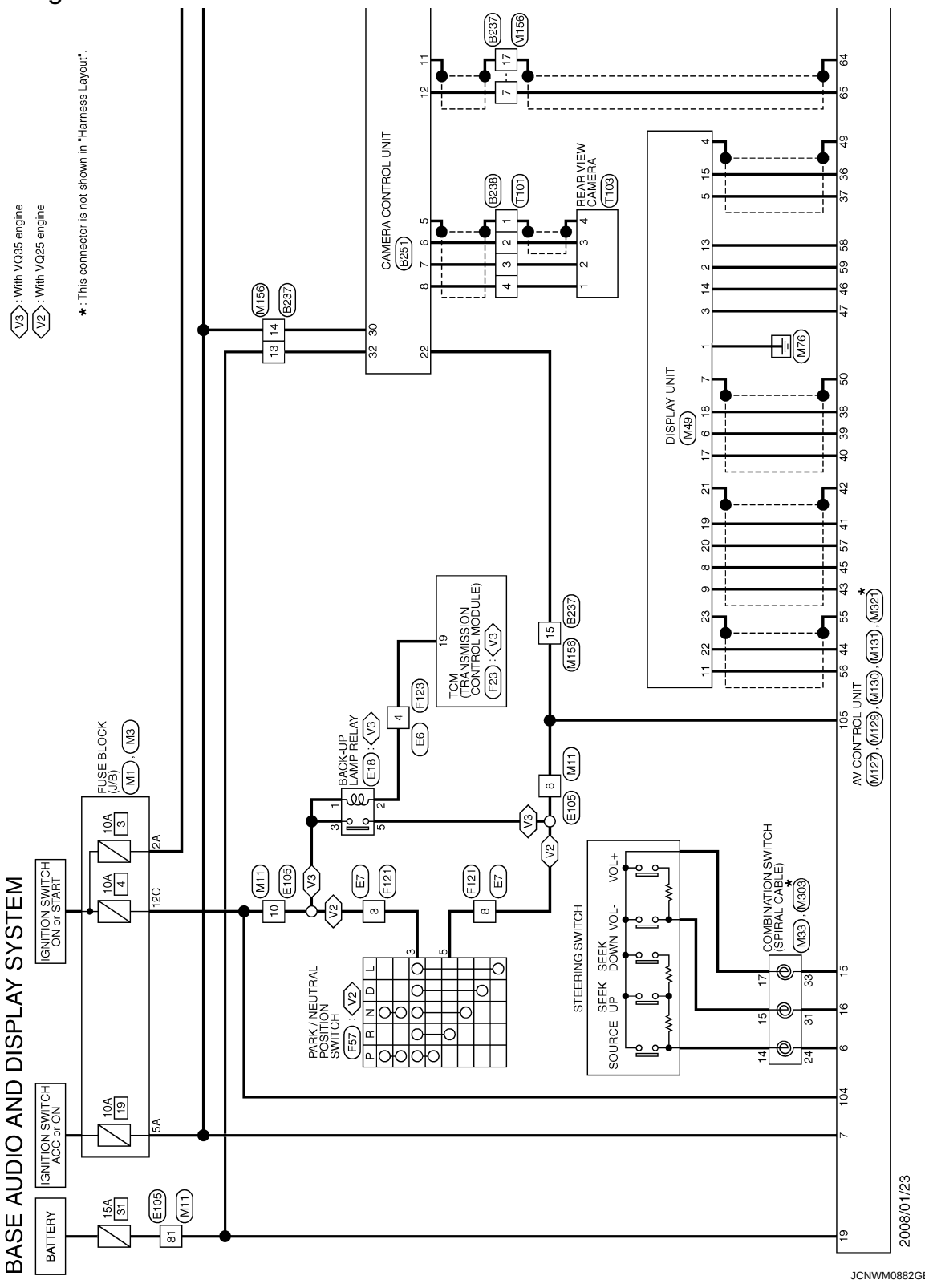
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
1 (B/W)	Ground	Ground	—	Ignition switch ON	—	0 V
2 (Y)	Ground	Inverter VCC	Input	ignition switch ACC	—	9.0 V
3 (O)	Ground	Signal VCC	Input	Ignition switch ACC	—	9.0 V
4	—	Composite image signal shield	—	—	—	—
5 (W)	Ground	Composite image signal ground	—	Ignition switch ON	—	0 V
6 (R)	Ground	RGB image signal (G: green)	Input	Ignition switch ON	Start confirmation/adjustment mode, and then display color bar by selecting “Color Spectrum Bar” on DISPLAY DIAGNOSIS screen.	 SKIB2236J
7	—	RGB ground	—	—	—	—
8 (W)	Ground	Horizontal synchronizing (HP) signal	Output	Ignition switch ON	—	 SKIB3601E

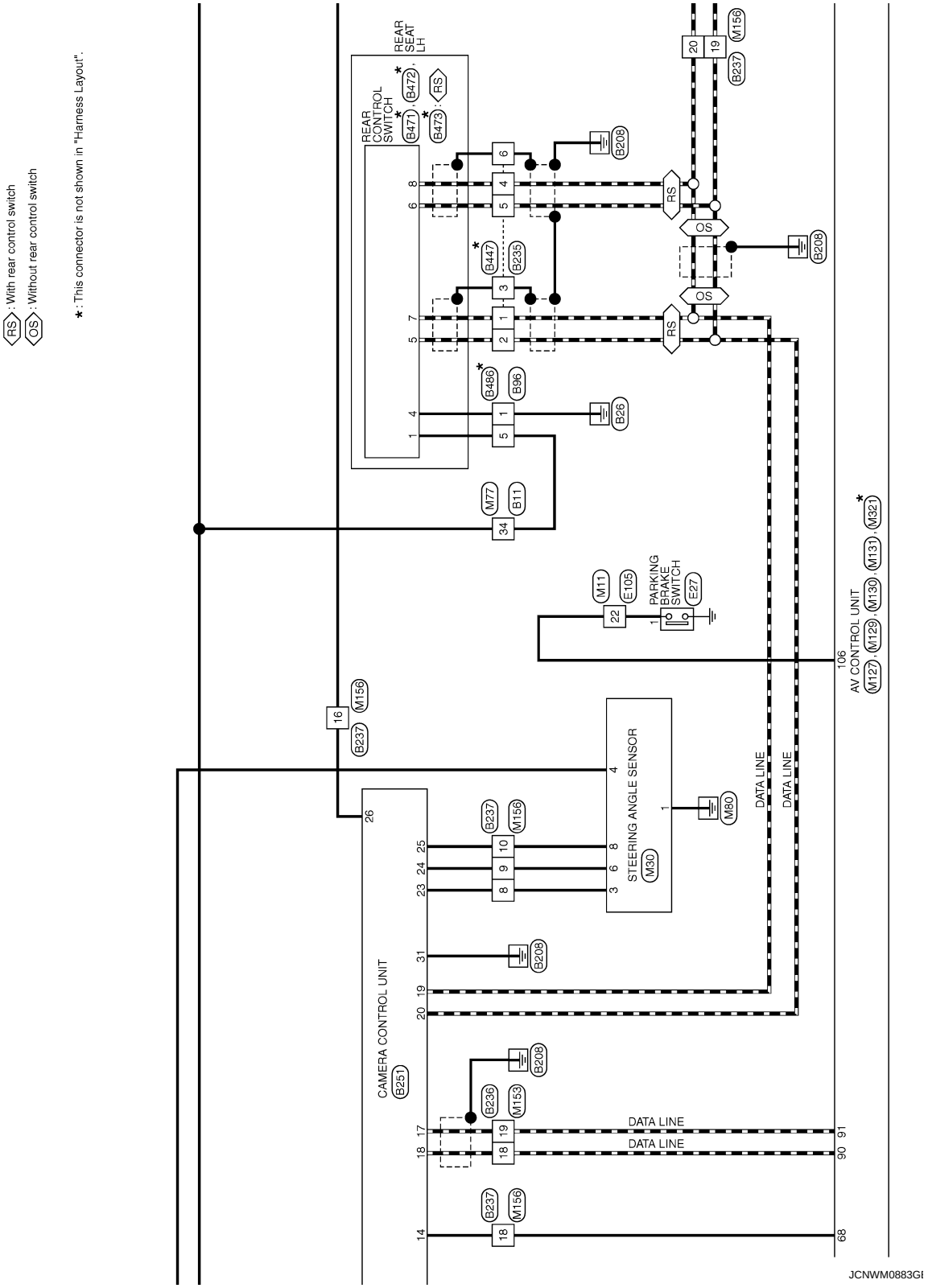
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
9 (B)	Ground	RGB area (YS) signal	Input	Ignition switch ON	When RGB image is displayed.	5.0 V
					When camera image, DVD image or AUX image is displayed.	 PKIB4948J
11 (R)	Ground	Communication signal (CONT→DISP)	Input	Ignition switch ON	When adjusting display brightness.	 PKIB5039J
13 (BR)	Ground	Inverter ground	—	Ignition switch ON	—	0 V
14 (LG)	Ground	Signal ground	—	Ignition switch ON	—	0 V
15 (B)	Ground	Composite image signal	Input	Ignition switch ON	When rear view camera image, DVD image or AUX image is displayed.	 SKIB2251J
17 (W)	Ground	RGB image signal (R: red)	Input	Ignition switch ON	Start confirmation/adjustment mode, and then display color bar by selecting “Color Spectrum Bar” on DISPLAY DIAGNOSIS screen.	 SKIB2238J
18 (B)	Ground	RGB image signal (B: blue)	Input	Ignition switch ON	Start confirmation/adjustment mode, and then display color bar by selecting“Color Spectrum Bar” on DISPLAY DIAGNOSIS screen.	 SKIB2237J

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

Wiring Diagram — BASE AUDIO AND DISPLAY SYSTEM —

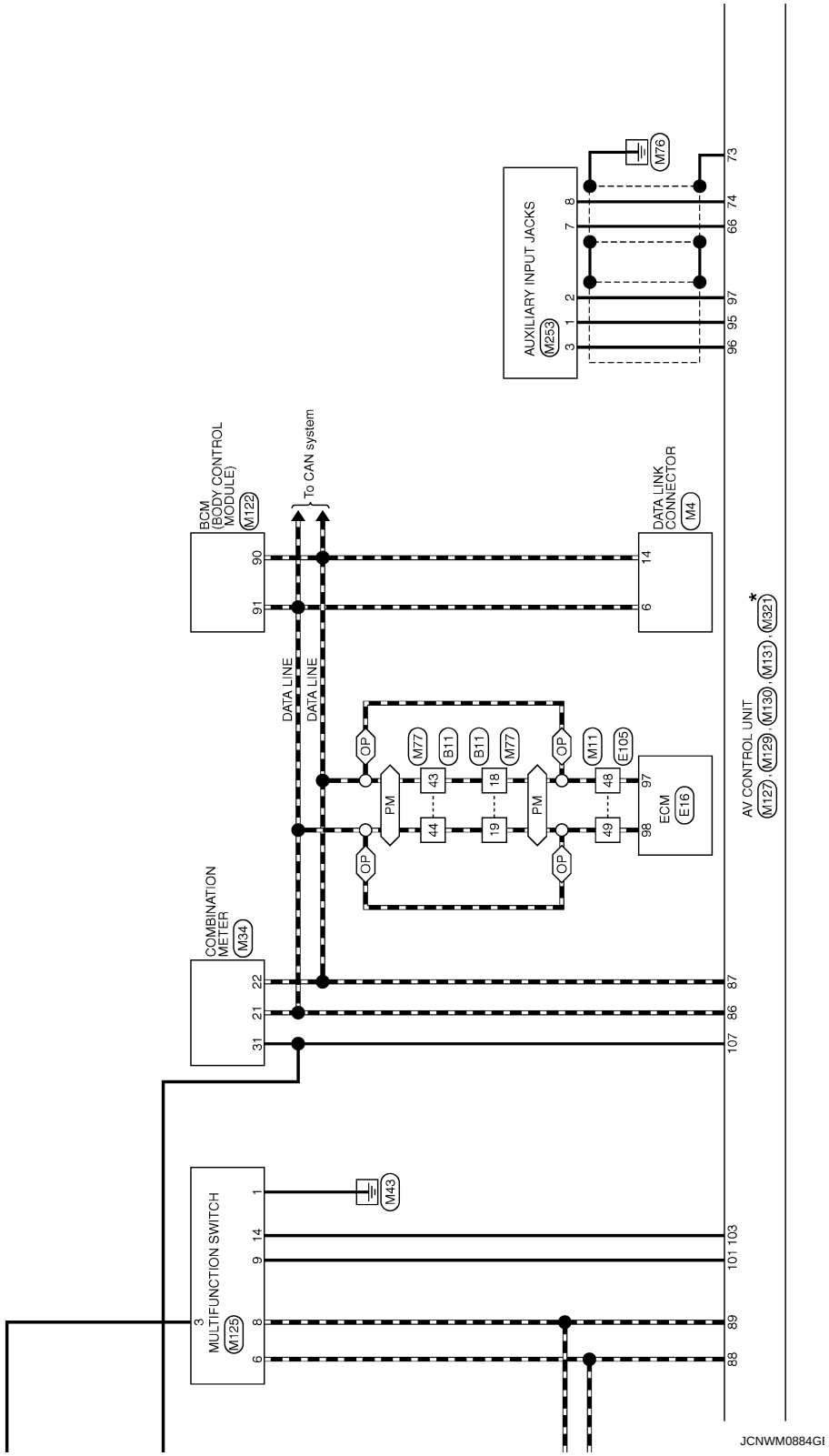
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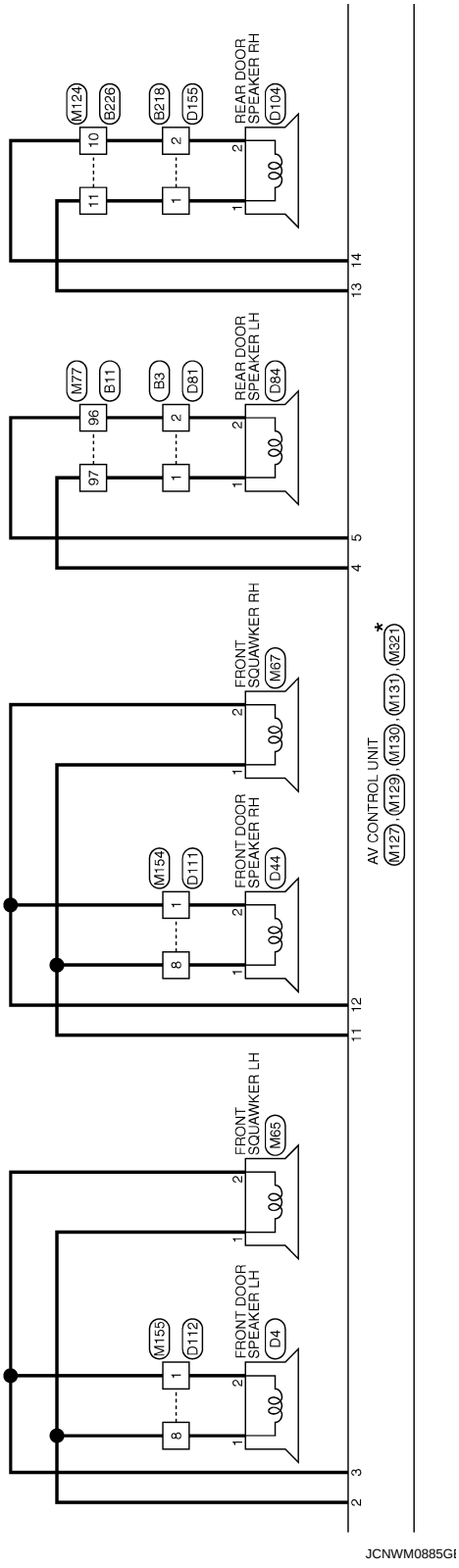

RS : With rear control switch
OS : Without rear control switch
*: This connector is not shown in "Harness Layout".
REAR SEAT LH
REAR CONTROL SWITCH
B472
B471
B473
RS
B208
B447
B235
OS
B486
B96
B26
M77
B11
PARKING BRAKE SWITCH
M11
E105
E27
M156
B237
STEERING ANGLE SENSOR
M30
M80
DATA LINE
CAMERA CONTROL UNIT
B251
B236
M153
AV CONTROL UNIT
M127
M129
M130
M131
M321
JCNWM0883GB

PM : With automatic drive positioner
OP : Without automatic drive positioner

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

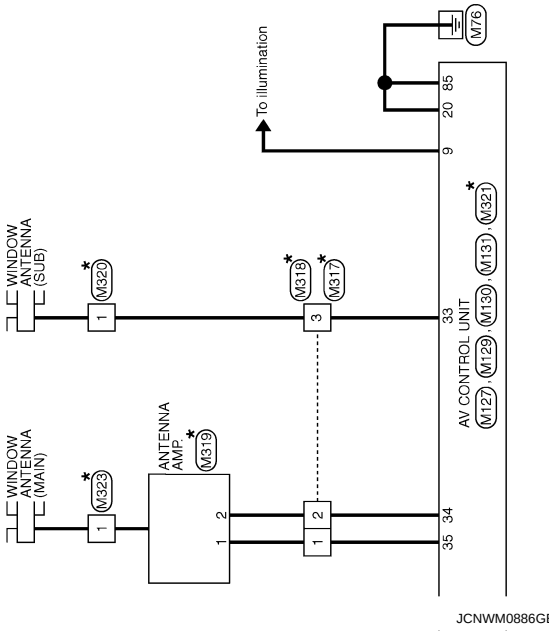


*: This connector is not shown in "Harness Layout".



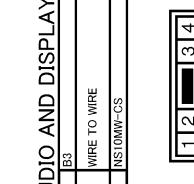
A
B
C
D
E
F
G
H
I
J
K
L
M
AV
O
P

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



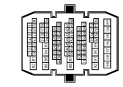
BASE AUDIO AND DISPLAY SYSTEM

Connector No.	B3
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS



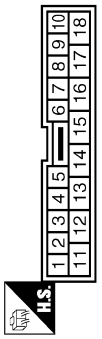
Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–[Without BOSE system]
2	B	–[Without BOSE system]

Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS19



Terminal No.	Color of Wire	Signal Name [Specification]
18	P	–
19	L	–
34	G	–
43	P	–
44	L	–
96	B	–[Without BOSE system]
97	W	–[Without BOSE system]

Connector No.	B96
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



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

Connector No.	B218
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS



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

Connector No.	B226
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
10	O	–[Without BOSE system]
11	L	–[Without BOSE system]

Connector No.	B235
Connector Name	WIRE TO WIRE
Connector Type	SD02MGY

Terminal No.	Color of Wire	Signal Name [Specification]
1	P	–
2	L	–
3	SHIELD	–
4	G	–
5	R	–
6	SHIELD	–

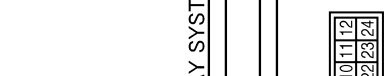
Connector No.	B236
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
18	L/R	–[With base audio and display system]
19	L/G	–[With base audio and display system]

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BASE AUDIO AND DISPLAY SYSTEM

Connector No.	B237
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
7	BR	–
8	G	–
9	SB	–
10	O	–
13	Y	–
14	V	–
15	W	–
16	O	–
17	SHIELD	–
18	GR	–
19	R	–[With rear control switch]
19	L	–[Without rear control switch]
20	G	–[With rear control switch]
20	P	–[Without rear control switch]

Connector No.	B251
Connector Name	CAMERA CONTROL UNIT
Connector Type	TH32FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
5	SHIELD	SHIELD
6	B	CAMERA IMAGE SIGNAL
7	W	REAR VIEW CAMERA GND
8	R	REAR CAMERA ON
11	SHIELD	SHIELD
12	BR	CAMERA IMAGE SIGNAL
14	GR	CAMERA CONNECTING RECOGNITION SIGNAL
17	L/G	AV COMM(L) [With BOSE audio system]
18	L/R	AV COMM(H) [With BOSE audio system]
19	P	AV COMM(L)
20	L	AV COMM(H)
22	W	REVERSE SIGNAL
23	G	STRG SENSOR1
24	SB	STRG SENSOR2
25	O	STRG SENSOR3
26	O	VHICLE SPEED SIGNAL(8P)
30	V	ACC
31	B/R	GND
32	Y	BAT

Connector No.	B238
Connector Name	WIRE TO WIRE
Connector Type	TH04MW-NH

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

Connector No.	B447
Connector Name	WIRE TO WIRE
Connector Type	SD02FGY

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–
2	B	–
3	SHIELD	–
4	Y	–
5	G	–
6	SHIELD	–

Connector No.	B471
Connector Name	REAR CONTROL SWITCH
Connector Type	TH04FW

Terminal No.	Color of Wire	Signal Name [Specification]
1	R/Y	–
4	Y	–

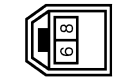
JCNWM0888GB

BASE AUDIO AND DISPLAY SYSTEM

Connector No.	B472
Connector Name	REAR CONTROL SWITCH
Connector Type	SD01FGY

Terminal No.	Color of Wire	Signal Name [Specification]
5	G	–
7	Y	–

Connector No.	B473
Connector Name	REAR CONTROL SWITCH
Connector Type	SD01MGY



Terminal No.	Color of Wire	Signal Name [Specification]
6	B	–
8	W	–

Connector No.	B486
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8



Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	–
5	R/Y	–

Connector No.	D4
Connector Name	FRONT DOOR SPEAKER LH (WITHOUT BOSE SYSTEM)
Connector Type	NS02FW-CS



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

Connector No.	D44
Connector Name	FRONT DOOR SPEAKER RH (WITHOUT BOSE SYSTEM)
Connector Type	NS02FW-CS



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

Connector No.	D81
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS

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

Connector No.	D84
Connector Name	REAR DOOR SPEAKER LH (WITHOUT BOSE SYSTEM)
Connector Type	NS02FW-CS

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

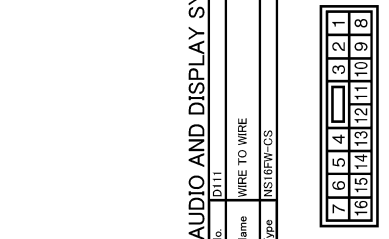
Connector No.	D104
Connector Name	REAR DOOR SPEAKER RH (WITHOUT BOSE SYSTEM)
Connector Type	NS02FW-CS

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

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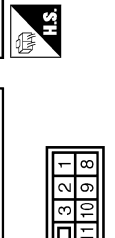
BASE AUDIO AND DISPLAY SYSTEM

Connector No.	D111
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



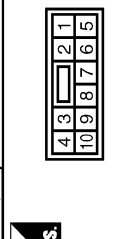
Terminal No.	Color of Wire	Signal Name [Specification]
1	B	-[Without BOSE system]
8	W	-[Without BOSE system]

Connector No.	D112
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



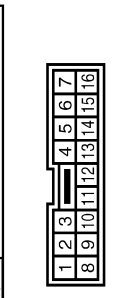
Terminal No.	Color of Wire	Signal Name [Specification]
1	B	-
8	W	-

Connector No.	D155
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	P	-[Without BOSE system]

Connector No.	E6
Connector Name	WIRE TO WIRE
Connector Type	TK16MGY-1V



Terminal No.	Color of Wire	Signal Name [Specification]
4	R	-

Connector No.	E7
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
3	LG	-
8	R	-

Connector No.	E16
Connector Name	ECM
Connector Type	RH24FB-R28-1-LH

Terminal No.	Color of Wire	Signal Name [Specification]
97	P	VEHCAN-L
98	L	VEHCAN-H

Connector No.	E18
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS02FL-M2-LC

Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	-
2	R	-
3	LG	-
5	R	-

Connector No.	E27
Connector Name	PARKING BRAKE SWITCH
Connector Type	P01FB-A

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

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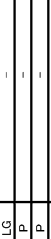
BASE AUDIO AND DISPLAY SYSTEM

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH70MW-CS10-M3



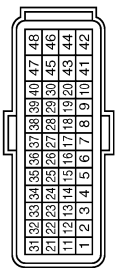
Terminal No.	Color of Wire	Signal Name [Specification]
8	R	–
10	LG	–
22	P	–
48	P	–
49	L	–
81	Y	–

Connector No.	F123
Connector Name	WIRE TO WIRE
Connector Type	TK16FGY-1V



Terminal No.	Color of Wire	Signal Name [Specification]
4	G/B	–

Connector No.	F23
Connector Name	TCM (TRANSMISSION CONTROL MODULE)
Connector Type	RH40FB-RZ8-L-RH

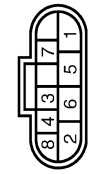


Terminal No.	Color of Wire	Signal Name [Specification]
19	G/B	REV LAMP RELAY

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

Terminal No.	Color of Wire	Signal Name [Specification]
2A	G/O	–
5A	V/O	–

Connector No.	F57
Connector Name	PARK / NEUTRAL POSITION SWITCH
Connector Type	YDX06FB-HS4



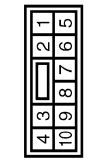
Terminal No.	Color of Wire	Signal Name [Specification]
3	LG	–
5	P/B	–

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



Terminal No.	Color of Wire	Signal Name [Specification]
12C	O	–

Connector No.	F121
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS



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

Connector No.	M4
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



Terminal No.	Color of Wire	Signal Name [Specification]
6	L	–
14	P	–

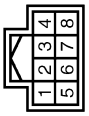
JCNWM0891GB

BASE AUDIO AND DISPLAY SYSTEM

Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Type	TH70FW-CS10-M3

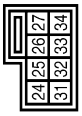
Terminal No.	Color of Wire	Signal Name [Specification]
8	P/B	–
10	O	–
22	G/R	–
48	P	–
49	L	–
81	Y	–

Connector No.	M30
Connector Name	STEERING ANGLE SENSOR
Connector Type	TH08FW-NH



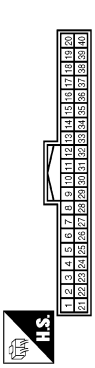
Terminal No.	Color of Wire	Signal Name [Specification]
1	B	–
3	L/Y	–
4	G	–
6	B/R	–
8	O	–

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



Terminal No.	Color of Wire	Signal Name [Specification]
24	W/G	–
31	GR/L	–
33	L/B	–

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	TH40FW-NH



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

Connector No.	M49
Connector Name	DISPLAY UNIT
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	B/W	GND
2	Y	INV VCC
3	O	3S) VCC (With BOSE system without navigation system or base audio and display system)
4	SHIELD	COMPOSIT IMAGE SIGNAL SHIELD
5	W	COMPOSIT IMAGE SIGNAL GND
6	R	RGB (G:GREEN)
7	SHIELD	RGB GND
8	W	HP
9	B	YS
11	R	COMM (CONT->DISP)
13	BR	INV VCC (With BOSE system without navigation system or base audio and display system)

14	LG	SIG GND
15	B	COMPOSIT IMAGE SIGNAL
17	W	RGB (R:RED)
18	B	RGB (B:BLUE)
19	G	RGB SYNC
20	R	VP
21	SHIELD	RGB SYNC GND
22	G	COMM (DISP->CONT)
23	SHIELD	SHIELD

Connector No.	M65
Connector Name	FRONT SQUAWKER LH
Connector Type	TK02FBR



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

Connector No.	M67
Connector Name	FRONT SQUAWKER RH
Connector Type	TK02FBR



Terminal No.	Color of Wire	Signal Name [Specification]
1	G/W	–[With base audio and display system]
2	BR	–[Without BOSE system]

JCNWM0892GI

BASE AUDIO AND DISPLAY SYSTEM

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS19

Terminal No.	Color of Wire	Signal Name [Specification]
18	P	–
19	L	–
34	V/R	–
43	P	–
44	L	–
96	W/R	–
97	O/B	–

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

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

Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
10	B/W	–[Without BOSE system]
11	L	–[Without BOSE system]

Connector No.	M125
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH16FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
3	V/R	ACC
6	W	M-CAN H
8	B	M-CAN L
9	BR	SW GND
14	SB	CD(DVD) EJECT
47	O	SIG VCC
49	SHIELD	COMP OUT SHIELD
50	SHIELD	RGB GND
55	SHIELD	SHIELD
56	R	COMM (CONT->DISP)
57	R	VP
58	BR	INV GND
59	Y	INV VCC

Connector No.	M127
Connector Name	AV CONTROL UNIT
Connector Type	TH18FW-CS2

Terminal No.	Color of Wire	Signal Name [Specification]
2	W	SOUND SIGNAL FRONT LH (+) [Without BOSE audio system]
3	B	SOUND SIGNAL FRONT LH (-) [Without BOSE audio system]
4	O/B	SOUND SIGNAL REAR LH (+) [Without BOSE audio system]
5	W/R	SOUND SIGNAL REAR LH (-) [Without BOSE audio system]
6	W/G	STRG SW A
7	V/W	ACC
9	R/L	ILL
11	B/W	SOUND SIGNAL FRONT RH (+) [Without BOSE audio system]
12	BR	SOUND SIGNAL FRONT RH (-) [Without BOSE audio system]
13	L	SOUND SIGNAL REAR RH (+) [Without BOSE audio system]
14	B/W	SOUND SIGNAL REAR RH (-) [Without BOSE audio system]
15	L/B	STRG SW GND
16	GR/L	STRG SW B
19	Y	BAT
20	B/W	GND

Connector No.	M129
Connector Name	AV CONTROL UNIT
Connector Type	TH24FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
36	B	COMPOSIT IMAGE SIGNAL
37	W	COMPOSIT IMAGE SIGNAL GND
38	B	RGB (B:BLUE)
39	R	RGB (G:GREEN)
40	W	RGB (R:RED)
41	G	RGB SYNC
42	SHIELD	RGB SYNC GND
43	B	YS
44	G	COMM (DISP->CONT)
45	W	HP
46	LG	SIG GND

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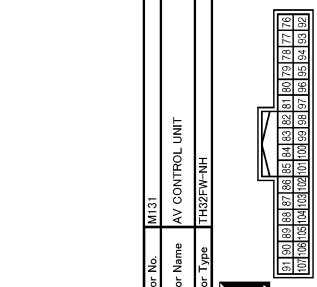
BASE AUDIO AND DISPLAY SYSTEM

Connector No.	M130
Connector Name	AV CONTROL UNIT
Connector Type	TH16FW-NH

67	66	65	64	63	62	61	60
75	74	73	72	71	70	69	68

Terminal No.	Color of Wire	Signal Name [Specification]
64	SHIELD	CAMERA IMAGE SIGNAL GND
65	Y	CAMERA IMAGE SIGNAL
66	G	COMPOSIT (AUX) IMAGE SIGNAL [With base audio and display system]
68	W	CAMERA CONNECTION RECOGINATION SIGNAL
73	SHIELD	COMPOSIT IMAGE SIGNAL SHIELD
74	V	COMPOSIT (AUX) IMAGE SIGNAL GND [With base audio and display system]

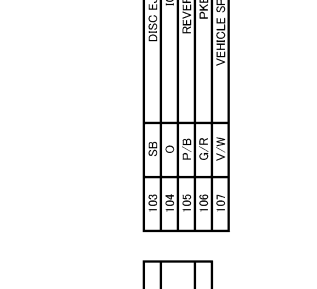
Connector No.	M131
Connector Name	AV CONTROL UNIT
Connector Type	TH32FW-NH



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 [Specification]
85	B/W	GND
86	L	CAN-H
87	P	CAN-L
88	W	AV COMM (H)
89	B	AV COMM (L)
90	L	AV COMM (H)
91	R	AV COMM (L)
95	W	AUX SOUND SIGNAL RH [Display and audio system]
96	B	AUX SOUND SIGNAL LH [Display and audio system]
97	R	AUX GND [Display and audio system]
101	BR	9V GND [With BOSE system without navigation system or base audio and display system]

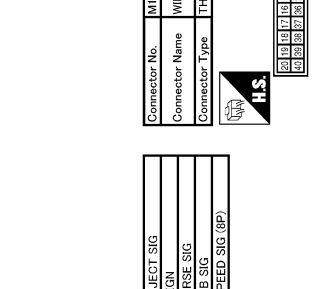
Connector No.	M154
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS



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

Terminal No.	Color of Wire	Signal Name [Specification]
1	BR	–[Without BOSE system]
8	B/W	–[Without BOSE system]

Connector No.	M155
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS

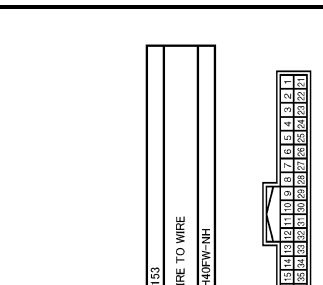


1	2	3		4	5	6	7
8	9	10	11	12	13	14	15	16

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	–[Without BOSE system]
8	W	–[Without BOSE system]

103	SB	DISC EJECT SIG
104	O	IGN
105	P/B	REVERSE SIG
106	G/R	PKB SIG
107	V/W	VEHICLE SPEED SIG (8P)

Connector No.	M156
Connector Name	WIRE TO WIRE
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

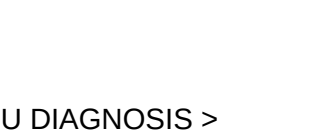
Terminal No.	Color of Wire	Signal Name [Specification]
7	Y	–
8	L/Y	–
9	B/R	–
10	O	–
13	Y	–
14	V	–
15	P/B	–
16	V/W	–
17	SHIELD	–
18	W	–
19	W	–

Connector No.	M153
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-NH

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

Terminal No.	Color of Wire	Signal Name [Specification]
18	L	–
19	R	–[With base audio and display system]

Connector No.	M157
Connector Name	WIRE TO WIRE
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

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

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BASE AUDIO AND DISPLAY SYSTEM

Connector No.	M253
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A08FW

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	AUX SOUND SIGNAL RH (+)
2	R	GND
3	B	AUX SOUND SIGNAL LH (+)
7	G	AUX IMAGE SIGNAL (+)
8	V	AUX IMAGE SIGNAL (-)

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

Terminal No.	Color of Wire	Signal Name [Specification]
14	–	–
15	–	–
17	–	–

Connector No.	M317
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1PP-HU

Terminal No.	Color of Wire	Signal Name [Specification]
1	–	–
2	–	–
3	–	–

Connector No.	M318
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1S-HU

Terminal No.	Color of Wire	Signal Name [Specification]
1	–	–
2	–	–
3	–	–

Connector No.	M319
Connector Name	ANTENNA AMP.
Connector Type	GT13SC-1/1S-HU

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

Connector No.	M320
Connector Name	WINDOW ANTENNA (SUB)
Connector Type	P01FB-A

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

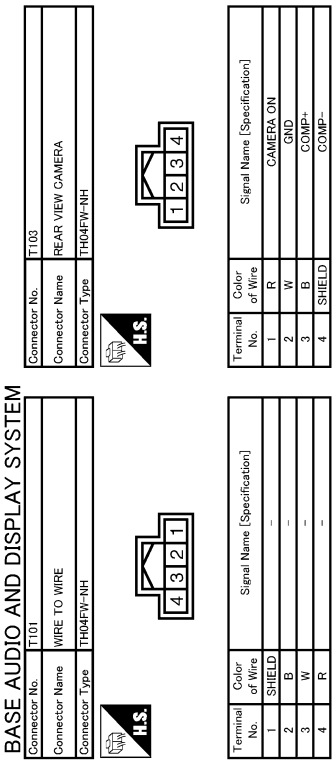
Connector No.	M321
Connector Name	AV CONTROL UNIT
Connector Type	GT13SH-2/1S-HU

Terminal No.	Color of Wire	Signal Name [Specification]
33	–	FM SUB
34	–	AM-FM MAIN
35	–	ANTENNA AMP ON SIG

Connector No.	M323
Connector Name	WINDOW ANTENNA (MAIN)
Connector Type	P01FB-A

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

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JCNWM0896GI

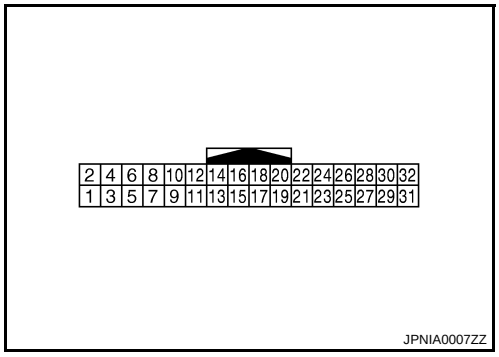
NOTE:
The name MULTIFUNCTION SWITCH indicates the integration of PRESET SWITCH and MULTIFUNCTION SWITCH virtually.

CAMERA CONTROL UNIT

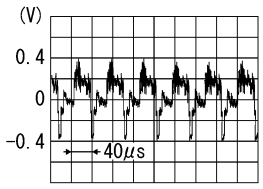
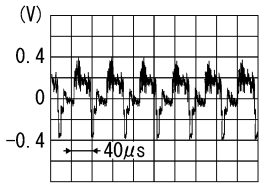
Reference Values

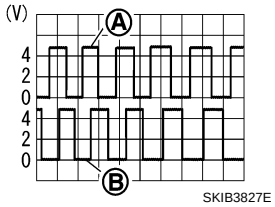
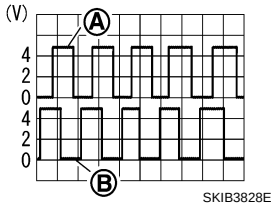
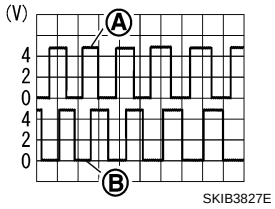
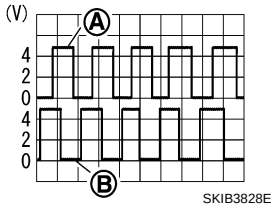
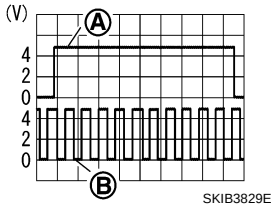
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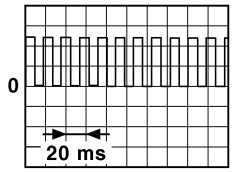
TERMINAL LAYOUT



PHYSICAL VALUES

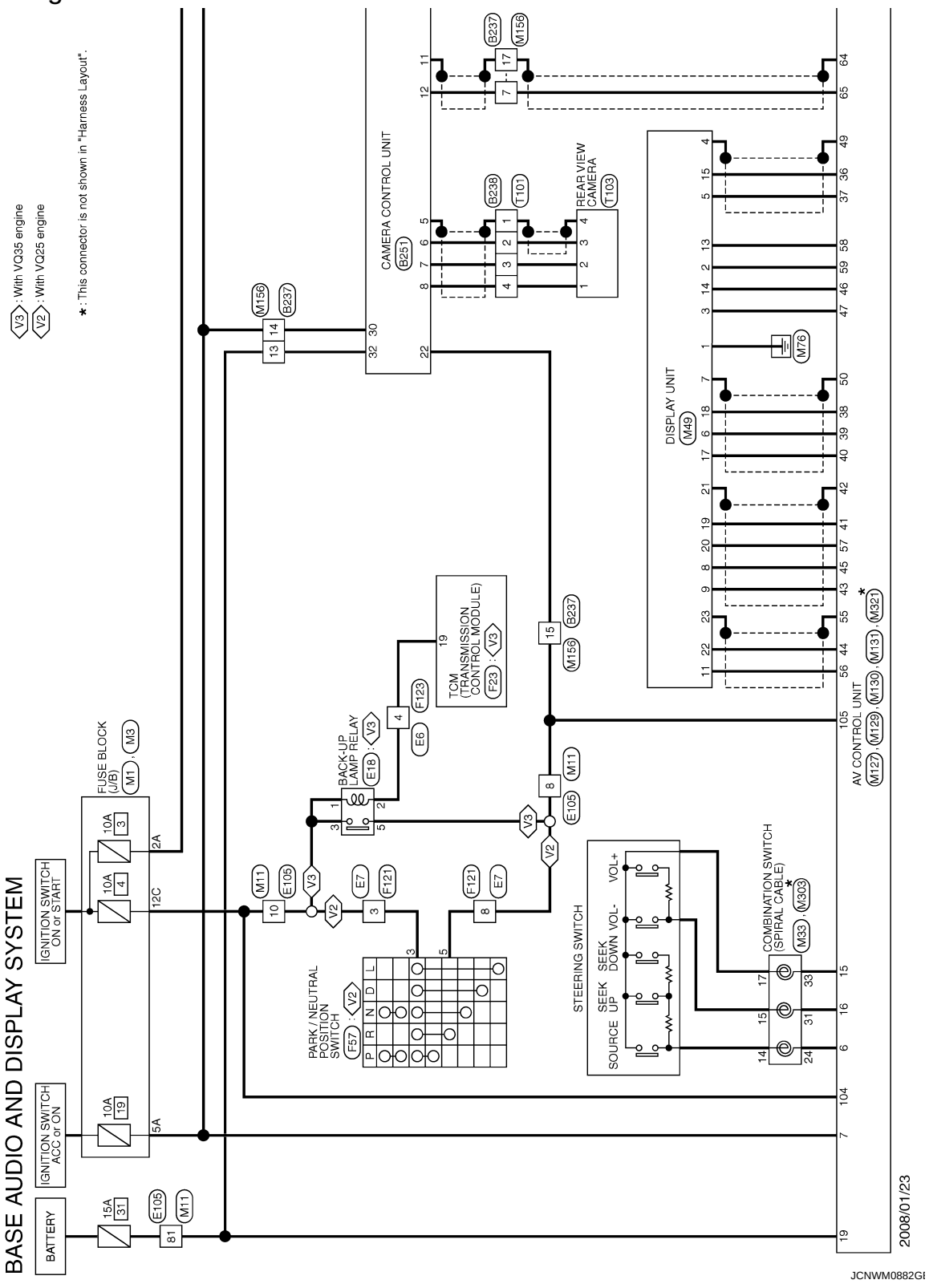
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
5	—	Shield	—	—	—	—
6 (B)	Ground	Camera image signal	Input	Ignition switch ON	When rear view camera image is displayed.	 SKIB2251J
7 (W)	Ground	Rear view camera ground	—	Ignition switch ON	—	0 V
8 (R)	Ground	Camera power supply	Output	Ignition switch ON	Selector lever in R position.	6.0 V
					Other than selector lever in R position.	0 V
11	—	Shield	—	—	—	—
12 (BR)	Ground	Camera image signal	Output	Ignition switch ON	When rear view camera image is displayed.	 SKIB2251J
14 (GR)	Ground	Camera connection recognition signal	Output	Ignition switch ON	Connected to camera control unit connector.	0 V
					Not connected to camera control unit connector.	5.0 V
19 (P)	—	AV communication signal (L)	Input/ Output	—	—	—
20 (L)	—	AV communication signal (H)	Input/ Output	—	—	—

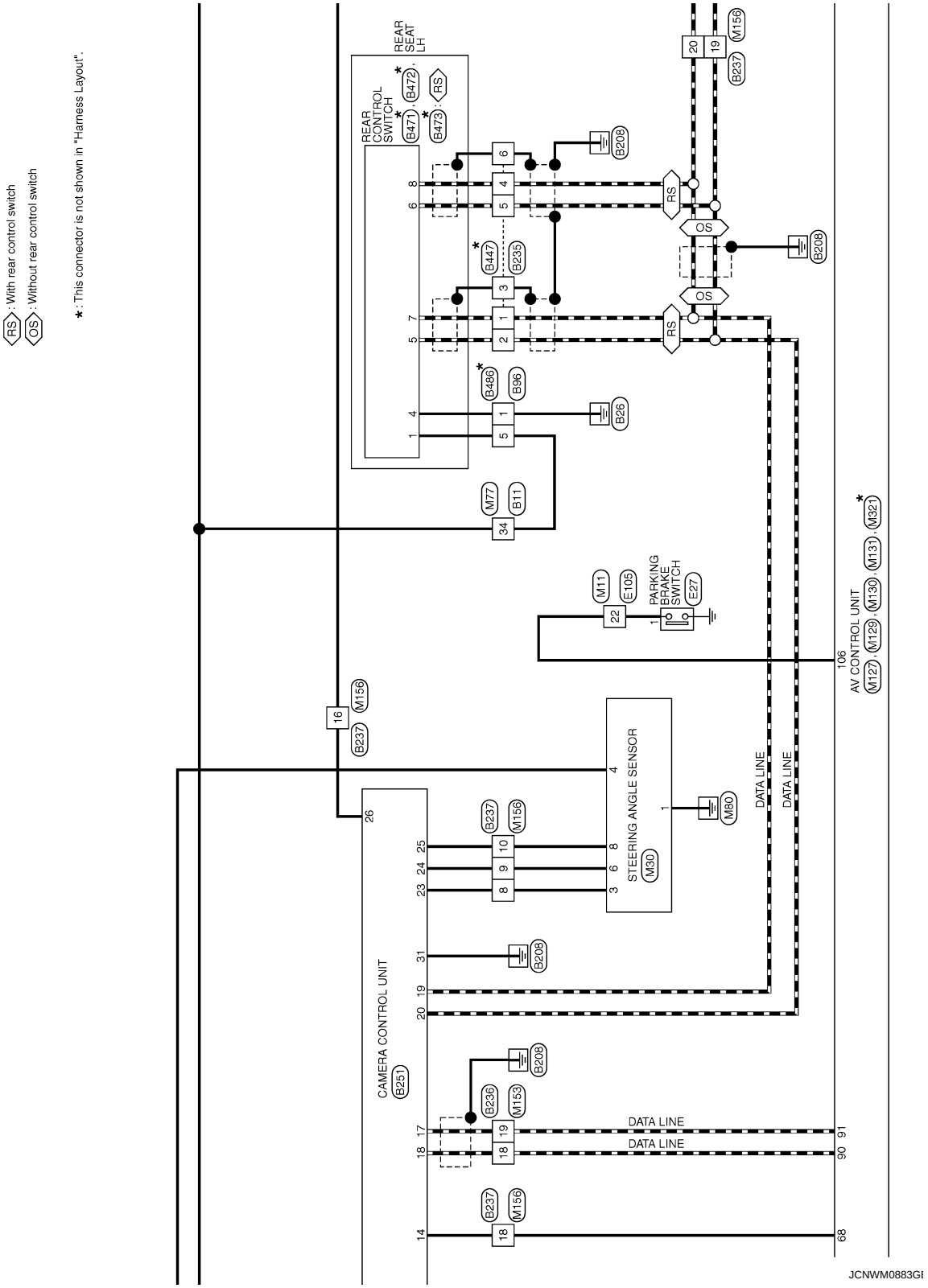
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
22 (W)	Ground	Reverse signal	Input	Ignition switch ON	Selector lever in R position.	12.0 V
					Other than selector lever in R position.	0 V
23 (G)	Ground	Sensor signal 1	Input	Ignition switch ON	Turn the steering to the right.	 SKIB3827E A: Sensor signal 1 B: Sensor signal 2
					Turn the steering to the left.	 SKIB3828E A: Sensor signal 1 B: Sensor signal 2
24 (SB)	Ground	Sensor signal 2	Input	Ignition switch ON	Turn the steering to the right.	 SKIB3827E A: Sensor signal 1 B: Sensor signal 2
					Turn the steering to the left.	 SKIB3828E A: Sensor signal 1 B: Sensor signal 2
25 (O)	Ground	Sensor signal 3	Input	Ignition switch ON	Turn the steering around the neutral position.	 SKIB3829E A: Sensor signal 3 B: Sensor signal 1

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
26 (O)	Ground	Vehicle speed signal (8-pulse)	Input	Ignition switch ON	When vehicle speed is approx. 40 km/h (25 MPH).	**NOTE:** The maximum voltage varies depending on the specification (destination unit).  JSNIA0012GB
30 (V)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
31 (B/R)	Ground	Ground	—	Ignition switch ON	—	0 V
32 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage

Wiring Diagram — BASE AUDIO AND DISPLAY SYSTEM —

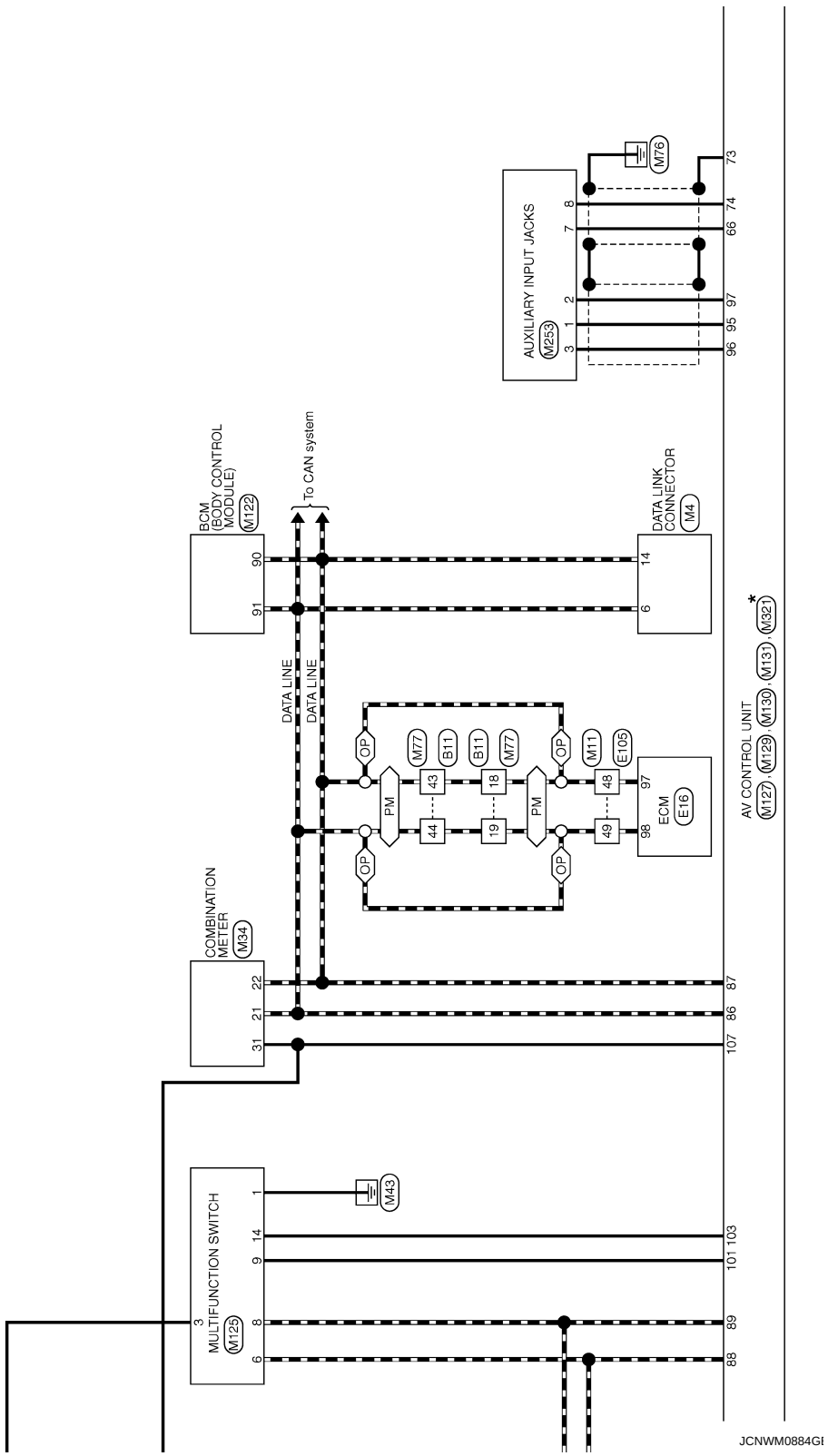
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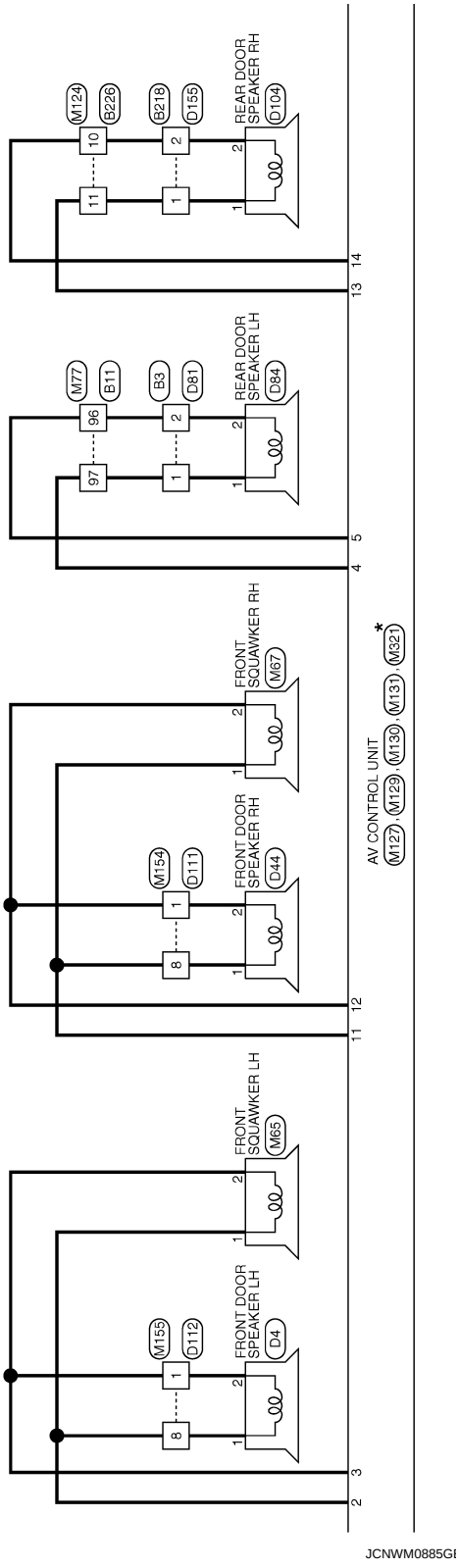

RS : With rear control switch
OS : Without rear control switch
*: This connector is not shown in "Harness Layout".
REAR SEAT LH
REAR CONTROL SWITCH
B471, B472, B473
RS
B208
B447
B235
OS
B486
B96
B26
M77
B11
34
M11
E105
22
PARKING BRAKE SWITCH
E27
106
AV CONTROL UNIT
M127, M129, M130, M131, M321
M156
B237
20
19
16
STEERING ANGLE SENSOR
M30
M80
DATA LINE
CAMERA CONTROL UNIT
B251
B236
M153
JCNWM0883GB

PM : With automatic drive positioner
OP : Without automatic drive positioner

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

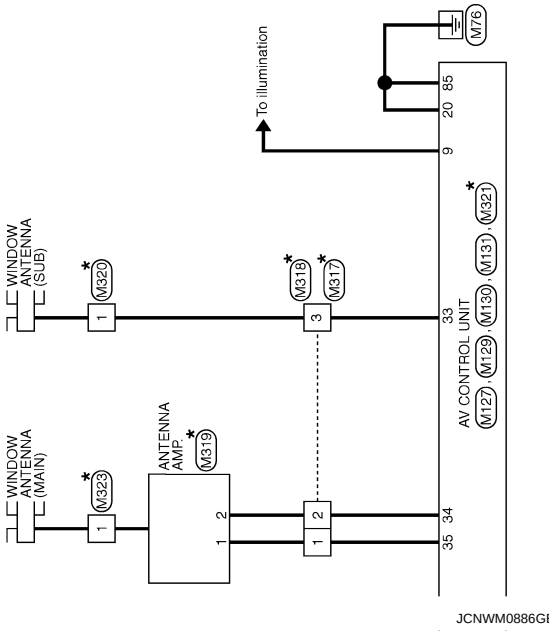


*: This connector is not shown in "Harness Layout".



JCNWM0885GB

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



BASE AUDIO AND DISPLAY SYSTEM

Connector No.	B3
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS

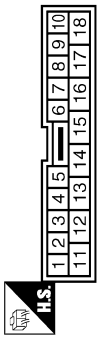
Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–[Without BOSE system]
2	B	–[Without BOSE system]

Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS19



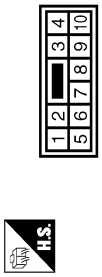
Terminal No.	Color of Wire	Signal Name [Specification]
18	P	–
19	L	–
34	G	–
43	P	–
44	L	–
96	B	–[Without BOSE system]
97	W	–[Without BOSE system]

Connector No.	B96
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



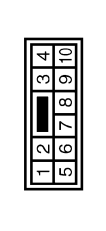
Terminal No.	Color of Wire	Signal Name [Specification]
1	B	–
5	G	–

Connector No.	B218
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS



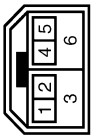
Terminal No.	Color of Wire	Signal Name [Specification]
1	L	–
2	O	–

Connector No.	B226
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS



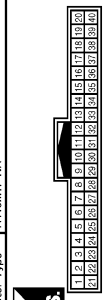
Terminal No.	Color of Wire	Signal Name [Specification]
10	O	–[Without BOSE system]
11	L	–[Without BOSE system]

Connector No.	B235
Connector Name	WIRE TO WIRE
Connector Type	SD02MGY



Terminal No.	Color of Wire	Signal Name [Specification]
1	P	–
2	L	–
3	SHIELD	–
4	G	–
5	R	–
6	SHIELD	–

Connector No.	B236
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-NH

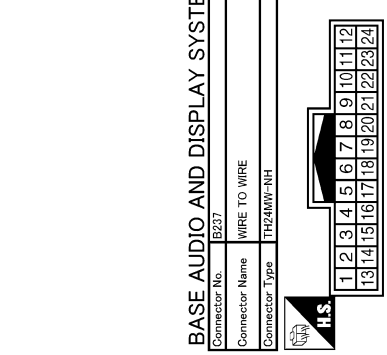


Terminal No.	Color of Wire	Signal Name [Specification]
18	L/R	–[With base audio and display system]
19	L/G	–[With base audio and display system]

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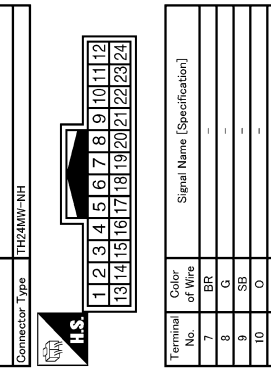
BASE AUDIO AND DISPLAY SYSTEM

Connector No.	B237
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
7	BR	–
8	G	–
9	SB	–
10	O	–
13	Y	–
14	V	–
15	W	–
16	O	–
17	SHIELD	–
18	GR	–
19	R	–[With rear control switch]
19	L	–[Without rear control switch]
20	G	–[With rear control switch]
20	P	–[Without rear control switch]

Connector No.	B251
Connector Name	CAMERA CONTROL UNIT
Connector Type	TH32FW-NH



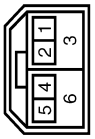
Terminal No.	Color of Wire	Signal Name [Specification]
5	SHIELD	SHIELD
6	B	CAMERA IMAGE SIGNAL
7	W	REAR VIEW CAMERA GND
8	R	REAR CAMERA ON
11	SHIELD	SHIELD
12	BR	CAMERA IMAGE SIGNAL
14	GR	CAMERA CONNECTING RECOGNITION SIGNAL
17	L/G	AV COMM(L) [With BOSE audio system]
18	L/R	AV COMM(H) [With BOSE audio system]
19	P	AV COMM(L)
20	L	AV COMM(H)
22	W	REVERSE SIGNAL
23	G	STRG SENSOR1
24	SB	STRG SENSOR2
25	O	STRG SENSOR3
26	O	VHICLE SPEED SIGNAL(8P)
30	V	ACC
31	B/R	GND
32	Y	BAT

Connector No.	B238
Connector Name	WIRE TO WIRE
Connector Type	TH04MW-NH



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

Connector No.	B447
Connector Name	WIRE TO WIRE
Connector Type	SD02FGY



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–
2	B	–
3	SHIELD	–
4	Y	–
5	G	–
6	SHIELD	–

Connector No.	B471
Connector Name	REAR CONTROL SWITCH
Connector Type	TH04FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	R/Y	–
4	Y	–

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BASE AUDIO AND DISPLAY SYSTEM

Connector No.	B472
Connector Name	REAR CONTROL SWITCH
Connector Type	SD01FGY

Terminal No.	Color of Wire	Signal Name [Specification]
5	G	–
7	Y	–

Connector No.	B473
Connector Name	REAR CONTROL SWITCH
Connector Type	SD01MGY



Terminal No.	Color of Wire	Signal Name [Specification]
6	B	–
8	W	–

Connector No.	B486
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8



Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	–
5	R/Y	–

Connector No.	D4
Connector Name	FRONT DOOR SPEAKER LH (WITHOUT BOSE SYSTEM)
Connector Type	NS02FW-CS



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

Connector No.	D44
Connector Name	FRONT DOOR SPEAKER RH (WITHOUT BOSE SYSTEM)
Connector Type	NS02FW-CS

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

Connector No.	D81
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS

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

Connector No.	D84
Connector Name	REAR DOOR SPEAKER LH (WITHOUT BOSE SYSTEM)
Connector Type	NS02FW-CS

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

Connector No.	D104
Connector Name	REAR DOOR SPEAKER RH (WITHOUT BOSE SYSTEM)
Connector Type	NS02FW-CS

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

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BASE AUDIO AND DISPLAY SYSTEM

Connector No.	D111
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS

H.S.

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

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	-[Without BOSE system]
8	W	-[Without BOSE system]

Connector No.	D112
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS

H.S.

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

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

Connector No.	D155
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS

H.S.

4	3		2	1
10	9	8	7	6	5

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	P	-[Without BOSE system]

Connector No.	E6
Connector Name	WIRE TO WIRE
Connector Type	TK16MGY-1V

H.S.

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

Terminal No.	Color of Wire	Signal Name [Specification]
4	R	-

Connector No.	E7
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS

H.S.

1	2		3	4
5	6	7	8	9	10

Terminal No.	Color of Wire	Signal Name [Specification]
3	LG	-
8	R	-

Connector No.	E16
Connector Name	ECM
Connector Type	RH24FB-R28-1-LH

H.S.

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

Terminal No.	Color of Wire	Signal Name [Specification]
97	P	VEHCAN-L
98	L	VEHCAN-H

Connector No.	E18
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS02FL-M2-LC

H.S.

5	
3	
2	1

Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	-
2	R	-
3	LG	-
5	R	-

Connector No.	E27
Connector Name	PARKING BRAKE SWITCH
Connector Type	P01FB-A

H.S.

1

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

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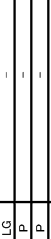
BASE AUDIO AND DISPLAY SYSTEM

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH70MW-CS10-M3



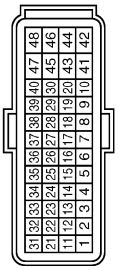
Terminal No.	Color of Wire	Signal Name [Specification]
8	R	–
10	LG	–
22	P	–
48	P	–
49	L	–
81	Y	–

Connector No.	F123
Connector Name	WIRE TO WIRE
Connector Type	TK16FGY-1V



Terminal No.	Color of Wire	Signal Name [Specification]
4	G/B	–

Connector No.	F23
Connector Name	TCM (TRANSMISSION CONTROL MODULE)
Connector Type	RH40FB-RZ8-L-RH

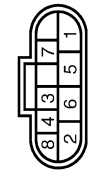


Terminal No.	Color of Wire	Signal Name [Specification]
19	G/B	REV LAMP RELAY

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

Terminal No.	Color of Wire	Signal Name [Specification]
2A	G/O	–
5A	V/O	–

Connector No.	F57
Connector Name	PARK / NEUTRAL POSITION SWITCH
Connector Type	YDX06FB-HS4



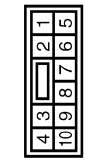
Terminal No.	Color of Wire	Signal Name [Specification]
3	LG	–
5	P/B	–

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



Terminal No.	Color of Wire	Signal Name [Specification]
12C	O	–

Connector No.	F121
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS



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

Connector No.	M4
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



Terminal No.	Color of Wire	Signal Name [Specification]
6	L	–
14	P	–

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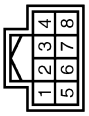
BASE AUDIO AND DISPLAY SYSTEM

Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Type	TH70FW-CS10-M3



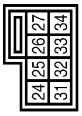
Terminal No.	Color of Wire	Signal Name [Specification]
8	P/B	–
10	O	–
22	G/R	–
48	P	–
49	L	–
81	Y	–

Connector No.	M30
Connector Name	STEERING ANGLE SENSOR
Connector Type	TH08FW-NH



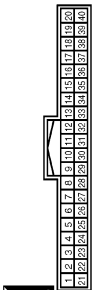
Terminal No.	Color of Wire	Signal Name [Specification]
1	B	–
3	L/Y	–
4	G	–
6	B/R	–
8	O	–

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



Terminal No.	Color of Wire	Signal Name [Specification]
24	W/G	–
31	GR/L	–
33	L/B	–

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	TH40FW-NH



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

Connector No.	M49
Connector Name	DISPLAY UNIT
Connector Type	TH24FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
1	B/W	GND
2	Y	INV VCC
3	O	3D VCC [With BOSE system without navigation system or base audio and display system]
4	SHIELD	COMPOSIT IMAGE SHIELD
5	W	COMPOSIT IMAGE SIGNAL GND
6	R	RGB (G:GREEN)
7	SHIELD	RGB GND
8	W	HP
9	B	YS
11	R	COMM (CONT->DISP)
13	BR	INV VCC [With BOSE system without navigation system or base audio and display system]

14	LG	SIG GND
15	B	COMPOSIT IMAGE SIGNAL
17	W	RGB (R:RED)
18	B	RGB (B:BLUE)
19	G	RGB SYNC
20	R	VP
21	SHIELD	RGB SYNC GND
22	G	COMM (DISP->CONT)
23	SHIELD	SHIELD

Connector No.	M65
Connector Name	FRONT SQUAWKER LH
Connector Type	TK02FBR



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

Connector No.	M67
Connector Name	FRONT SQUAWKER RH
Connector Type	TK02FBR



Terminal No.	Color of Wire	Signal Name [Specification]
1	G/W	–[With base audio and display system]
2	BR	–[Without BOSE system]

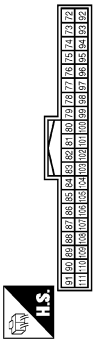
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BASE AUDIO AND DISPLAY SYSTEM

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS19

Terminal No.	Color of Wire	Signal Name [Specification]
18	P	–
19	L	–
34	V/R	–
43	P	–
44	L	–
96	W/R	–
97	O/B	–

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



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

Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
10	B/W	–[Without BOSE system]
11	L	–[Without BOSE system]

Connector No.	M125
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH16FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
3	V/R	ACC
6	W	M-CAN H
8	B	M-CAN L
9	BR	SW GND
14	SB	CD(DVD) EJECT

Terminal No.	Color of Wire	Signal Name [Specification]
15	L/B	STRG SW GND
16	GR/L	STRG SW B
19	Y	BAT
20	B/W	GND

Connector No.	M129
Connector Name	AV CONTROL UNIT
Connector Type	TH24FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
36	B	COMPOSIT IMAGE SIGNAL
37	W	COMPOSIT IMAGE SIGNAL GND
38	B	RGB (B:BLUE)
39	R	RGB (G:GREEN)
40	W	RGB (R:RED)
41	G	RGB SYNC
42	SHIELD	RGB SYNC GND
43	B	YS
44	G	COMM (DISP->CONT)
45	W	HP
46	LG	SIG GND

Terminal No.	Color of Wire	Signal Name [Specification]
47	O	SIG VCC
49	SHIELD	COMP OUT SHIELD
50	SHIELD	RGB GND
55	SHIELD	SHIELD
56	R	COMM (CONT->DISP)
57	R	VP
58	BR	INV GND
59	Y	INV VCC

Connector No.	M127
Connector Name	AV CONTROL UNIT
Connector Type	TH18FW-CS2

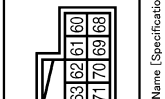


Terminal No.	Color of Wire	Signal Name [Specification]
2	W	SOUND SIGNAL FRONT LH (+) [Without BOSE audio system]
3	B	SOUND SIGNAL FRONT LH (-) [Without BOSE audio system]
4	O/B	SOUND SIGNAL REAR LH (+) [Without BOSE audio system]
5	W/R	SOUND SIGNAL REAR LH (-) [Without BOSE audio system]
6	W/G	STRG SW A
7	V/W	ACC
9	R/L	ILL
11	B/W	SOUND SIGNAL FRONT RH (+) [Without BOSE audio system]
12	BR	SOUND SIGNAL FRONT RH (-) [Without BOSE audio system]
13	L	SOUND SIGNAL REAR RH (+) [Without BOSE audio system]
14	B/W	SOUND SIGNAL REAR RH (-) [Without BOSE audio system]

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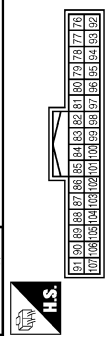
BASE AUDIO AND DISPLAY SYSTEM

Connector No.	M130
Connector Name	AV CONTROL UNIT
Connector Type	TH16FW-NH



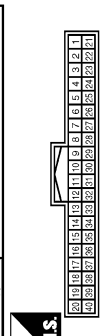
Terminal No.	Color of Wire	Signal Name [Specification]
64	SHIELD	CAMERA IMAGE SIGNAL GND
65	Y	CAMERA IMAGE SIGNAL
66	G	COMPOSIT [AUX IMAGE SIGNAL (With base audio and display system)]
68	W	CAMERA CONNECTION RECOGNITION SIGNAL
73	SHIELD	COMPOSIT IMAGE SIGNAL SHIELD
74	V	COMPOSIT [AUX IMAGE SIGNAL GND (With base audio and display system)]

Connector No.	M131
Connector Name	AV CONTROL UNIT
Connector Type	TH32FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
85	B/W	GND
86	L	CAN-H
87	P	CAN-L
88	W	AV COMM (H)
89	B	AV COMM (L)
90	L	AV COMM (H)
91	R	AV COMM (L)
95	W	AUX SOUND SIGNAL RH [Display and audio system]
96	B	AUX SOUND SIGNAL LH [Display and audio system]
97	R	AUX GND [Display and audio system]
101	BR	[W/ GND (With BOSE system without navigation system or base audio and display system)]

Connector No.	M153
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
18	L	–
19	R	–[With base audio and display system]

103	SB	DISC EJECT SIG
104	O	IGN
105	P/B	REVERSE SIG
106	G/R	PKB SIG
107	V/W	VEHICLE SPEED SIG (8P)

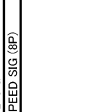
Connector No.	M154
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
1	BR	–[Without BOSE system]
8	B/W	–[Without BOSE system]

Connector No.	M155
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	–[Without BOSE system]
8	W	–[Without BOSE system]

Connector No.	M156
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



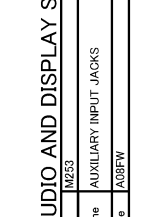
Terminal No.	Color of Wire	Signal Name [Specification]
7	Y	–
8	L/Y	–
9	B/R	–
10	O	–
13	Y	–
14	V	–
15	P/B	–
16	V/W	–
17	SHIELD	–
18	W	–
19	W	–

20	B	–

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BASE AUDIO AND DISPLAY SYSTEM

Connector No.	M253
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A08FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	AUX SOUND SIGNAL RH (+)
2	R	GND
3	B	AUX SOUND SIGNAL LH (+)
7	G	AUX IMAGE SIGNAL (+)
8	V	AUX IMAGE SIGNAL (-)

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



Terminal No.	Color of Wire	Signal Name [Specification]
14	–	–
15	–	–
17	–	–

Connector No.	M319
Connector Name	ANTENNA AMP.
Connector Type	GT13SC-1/1S-HU



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

Connector No.	M320
Connector Name	WINDOW ANTENNA (SUB)
Connector Type	P01FB-A



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

Connector No.	M317
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1PP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	–	–
2	–	–
3	–	–

Connector No.	M321
Connector Name	AV CONTROL UNIT
Connector Type	GT13SH-2/1S-HU

Terminal No.	Color of Wire	Signal Name [Specification]
33	–	FM SUB
34	–	AM-FM MAIN
35	–	ANTENNA AMP ON SIG

Connector No.	M318
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1S-HU

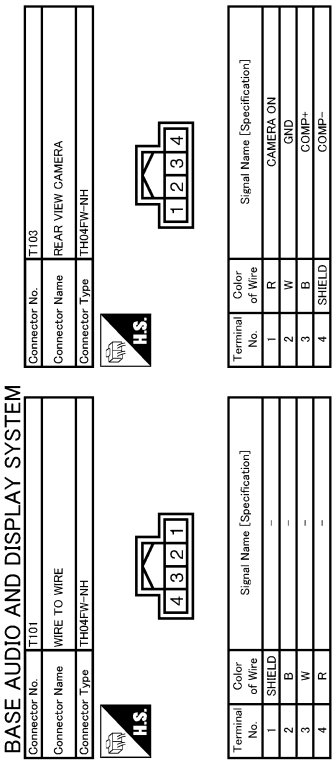


Terminal No.	Color of Wire	Signal Name [Specification]
1	–	–
2	–	–
3	–	–

Connector No.	M323
Connector Name	WINDOW ANTENNA (MAIN)
Connector Type	P01FB-A

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

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

SYMPTOM DIAGNOSIS

MULTI AV SYSTEM SYMPTOMS

Symptom Table

INFOID:0000000003882785

RELATED TO VEHICLE INFORMATION

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-68, "CONSULT-III Function (MULTI AV)".
	• All switches cannot be operated • “Multi AV” is not displayed on system selection screen when the CONSULT-III is initialized.	AV control unit power supply and ground circuits malfunction. Refer to AV-82, "AV CONTROL UNIT : Diagnosis Procedure".
	Only specified switch cannot be operated	Multifunction switch or preset switch malfunction. Replace multifunction switch or preset switch. For multifunction switch, refer to AV-176, "Removal and Installation". For preset switch, refer to AV-177, "Removal and Installation".
Fuel economy display, vehicle setting operation is abnormal	There is malfunction in the CONSULT-III self-diagnosis result	Perform detected DTC self-diagnosis.
	There is no malfunction in the self-diagnosis results	Ignition signal. Refer to AV-82, "AV CONTROL UNIT : Diagnosis Procedure".

RELATED TO REAR VIEW MONITOR

Symptoms	Check items	Probable malfunction location / Action to take
It cannot be switched to rear view monitor even when the selector lever is in the reverse position.	There is malfunction in the CONSULT-III self-diagnosis result.	Perform CONSULT-III self-diagnosis. Refer to AV-68, "CONSULT-III Function (MULTI AV)".
	There is not malfunction in the CONSULT-III self-diagnosis result.	Reverse signal circuit malfunction.(AV control unit)
Camera image is not shown.	AUX images are normal.	• Rear view camera power supply circuit malfunction. Refer to AV-84, "CAMERA CONTROL UNIT : Diagnosis Procedure". • Camera image signal circuit malfunction. Refer to AV-96, "Diagnosis Procedure".
Possible route line is indicated abnormally when camera image is displayed.	The “Steer. Angle Sensor” is not turned ON at “Connection Confirmation” of “Camera Cont.”	Steering angle sensor signal circuits. Refer to AV-98, "Diagnosis Procedure".
Camera image is rolling.	AUX image is rolling	• Horizontal synchronizing (HP) signal circuit malfunction between AV control unit and display unit. Refer to AV-91, "Diagnosis Procedure". • Vertical synchronizing (VP) signal circuit malfunction between AV control unit and display unit. Refer to AV-92, "Diagnosis Procedure".

RELATED TO RGB IMAGE

Symptoms	Check items	Possible malfunction location / Action to take
RGB image is not shown.	• All RGB images are not shown. • Composite images are not displayed.(camera and AUX image)	• Display unit power supply and ground circuit malfunction. Refer to AV-82, "DISPLAY UNIT : Diagnosis Procedure". • Communication Circuit malfunction between AV control unit and display unit. Perform CONSULT-III self-diagnosis. Refer to AV-68, "CONSULT-III Function (MULTI AV)".
	• All RGB images are not shown. • Camera image is normal. • AUX images are not displayed.	Perform CONSULT-III self-diagnosis. Refer to AV-68, "CONSULT-III Function (MULTI AV)".
	• 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 malfunction. Refer to AV-82, "AV CONTROL UNIT : Diagnosis Procedure".
	• All RGB images are not shown. • Composite images are normal. (camera and AUX image)	RGB area (YS) signal circuit malfunction. Refer to AV-90, "Diagnosis Procedure".
Color of RGB image is not proper. (All RGB image)	Light blue (Cyan) tint.	RGB signal (R: red) circuit malfunction between AV control unit and display unit. Refer to AV-86, "Diagnosis Procedure".
	Purple (Magenta) tint.	RGB signal (G: green) circuit malfunction between AV control unit and display unit. Refer to AV-87, "Diagnosis Procedure".
	Screen looks yellowish.	RGB signal (B: blue) circuit malfunction between AV control unit and display unit. Refer to AV-88, "Diagnosis Procedure".
RGB screen is rolling.	All RGB screen is rolling.	RGB synchronizing signal circuit malfunction between AV control unit and display unit. Refer to AV-89, "Diagnosis Procedure".

RELATED TO AUDIO

Symptoms	Check items	Possible malfunction location / Action to take
The CD cannot be removed.	—	Disk eject signal circuit. Refer to AV-94, "Diagnosis Procedure".
Audio sound is not heard.	No sound from all speakers.	Perform CONSULT-III self-diagnosis. Refer to AV-68, "CONSULT-III Function (MULTI AV)"
	Sound is not heard only from the specific places (RH front, RH rear, LH front and LH rear).	Sound signal circuit of suspect system
AM/FM radio is not received.	Other audio sounds are normal.	Antenna amp. ON 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. Refer toAV-105, "Component Inspection".
Only specified switch cannot be operated	Replace steering switch. Refer to ST-12, "Exploded View".
Steering switch's “SOURCE”, “MENU UP”, “MENU DOWN” switches do not work.	Steering switch signal A circuit. Refer to AV-100, "Diagnosis Procedure".
Steering switch's “VOL UP”, “VOL DOWN” switches do not work.	Steering switch signal B circuit. Refer to AV-102, "Diagnosis Procedure".

RELATED TO AUXILIARY INPUT

NOTE:

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

Symptoms	Check items	Probable malfunction location
No voice sound is heard when AUX mode is selected.	Voice sound is heard when other modes are selected.	AUX sound signal circuits malfunction between auxiliary input jacks and AV control unit.
AUX image is not displayed	displayed in black and nothing can be displayed	• RGB area synchronizing (YS) signal circuit malfunction between AV control unit and display unit. Refer to AV-90, "Diagnosis Procedure". • Horizontal synchronizing (HP) signal circuit malfunction between AV control unit and display unit. Refer to AV-91, "Diagnosis Procedure". • Vertical synchronizing (VP) signal circuit malfunction between AV control unit and display unit. Refer to AV-92, "Diagnosis Procedure".
	Camera image is normal.	AUX image signal circuit malfunction between auxiliary input jacks and AV control unit. Refer to AV-93, "Diagnosis Procedure".

RELATED TO REAR CONTROL SWITCH

Symptoms	Check items	Probable malfunction location
None of the rear control switch operations work.	—	Perform CONSULT-III self-diagnosis. Refer to AV-68, "CONSULT-III Function (MULTI AV)".

NORMAL OPERATING CONDITION

Description

INFOID:0000000003882786

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 red 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.
	Check if the CD is protected by copyright.
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.

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:0000000003960542

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

WARNING:

- **To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.**
- **Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the “SRS AIRBAG”.**
- **Never use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.**

Precaution for Trouble Diagnosis

INFOID:0000000003882788

AV COMMUNICATION SYSTEM

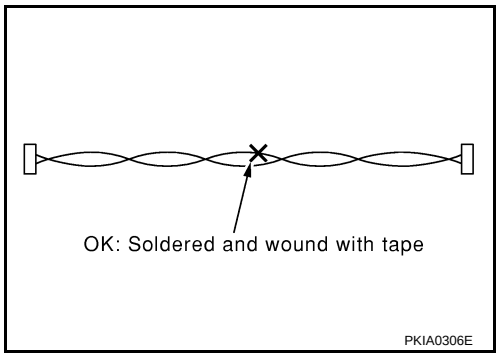
- Do not apply voltage of 7.0 V or higher to the measurement terminals.
- Use the tester with its open terminal voltage being 7.0 V or less.
- Be sure to turn ignition switch OFF and disconnect the battery cable from the negative terminal before checking the circuit.

Precaution for Harness Repair

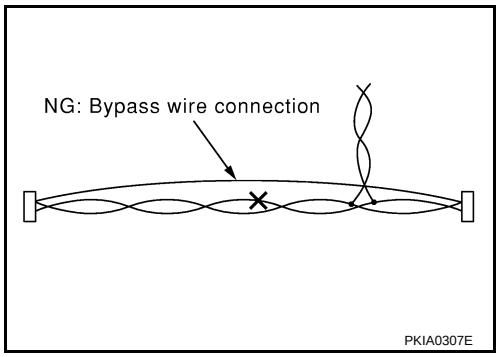
INFOID:0000000003882789

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.)



ON-VEHICLE REPAIR

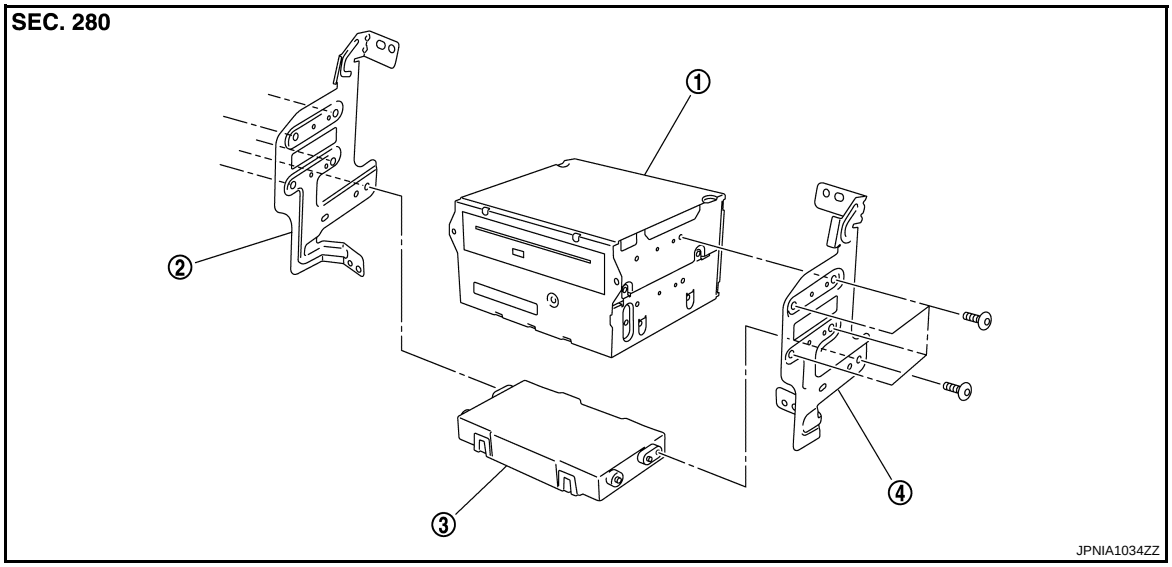
AV CONTROL UNIT

Exploded View

INFOID:0000000003940154

REMOVAL
Refer to IP-11, "Exploded View".

DISASSEMBLY



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

Removal and Installation

INFOID:0000000003940155

REMOVAL

1. Remove instrument finisher C. Refer to IP-12, "Removal and Installation".
2. Remove cluster lid D. Refer to IP-12, "Removal and Installation".
3. Remove AV control unit with A/C amp. as a single unit from the body.
4. Remove bracket screws, and then remove AV control unit.

INSTALLATION
Installation is the reverse order of removal.

DISPLAY UNIT

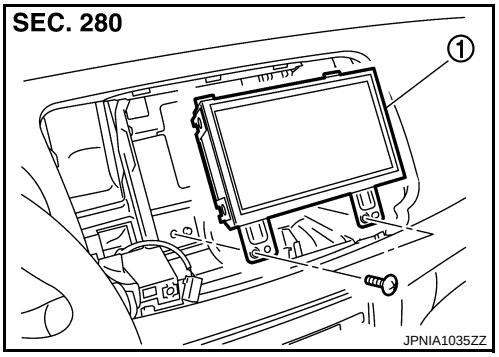
Exploded View

INFOID:0000000003940156

REMOVAL

Refer to IP-11, "Exploded View".

DISASSEMBLY



1. Display unit

Removal and Installation

INFOID:0000000003940157

REMOVAL

1. Remove cluster lid D. Refer to IP-12, "Removal and Installation".
2. Remove display unit mounting screws, and then disconnect the display unit connector.
3. Remove display unit.

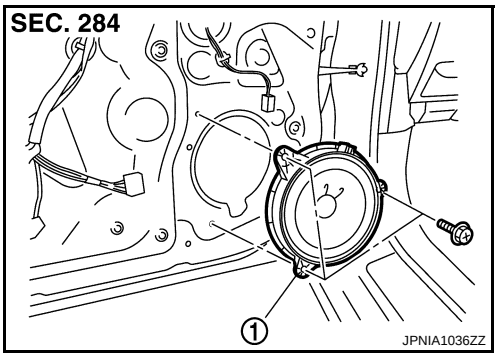
INSTALLATION

Installation is the reverse order of removal.

FRONT DOOR SPEAKER

Exploded View

INFOID:0000000003940158



1. Front door speaker

Removal and Installation

INFOID:0000000003940159

REMOVAL

1. Remove front door finisher. Refer to INT-30, "DRIVER SIDE : Removal and Installation" (driver side) or INT-33, "PASSENGER SIDE : Removal and Installation" (passenger side).
2. Remove front door speaker mounting bolts, disconnect the front door speaker connector.
3. Remove front door speaker.

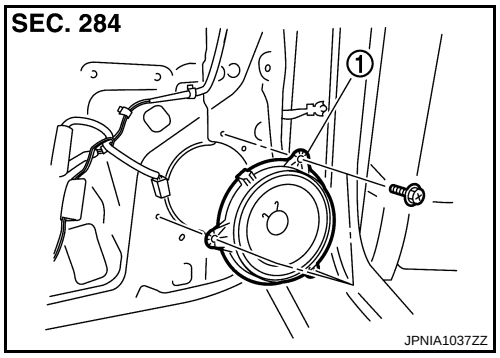
INSTALLATION

Installation is the reverse order of removal.

REAR DOOR SPEAKER

Exploded View

INFOID:0000000003940160



1. Rear door speaker

Removal and Installation

INFOID:0000000003940161

REMOVAL

1. Remove rear door finisher. Refer to INT-36, "Removal and Installation".
2. Remove rear door speaker mounting bolts, disconnect the rear door speaker connector.
3. Remove rear door speaker.

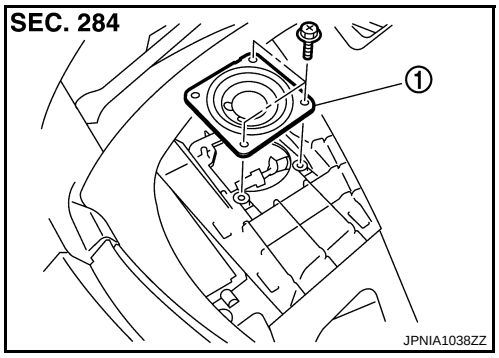
INSTALLATION

Installation is the reverse order of removal.

FRONT SQUAWKER

Exploded View

INFOID:0000000003940162



1. Front squawker

Removal and Installation

INFOID:0000000003940163

REMOVAL

1. Remove the speaker grille with squawker. Refer to IP-12, "Removal and Installation".
2. Remove front squawker mounting screws, lift up the front squawker and disconnect front squawker connector.
3. Remove front squawker.

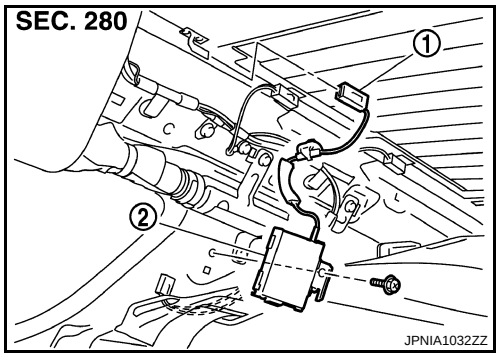
INSTALLATION

Installation is the reverse order of removal.

ANTENNA AMP.

Exploded View

INFOID:0000000003940164



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

Removal and Installation

INFOID:0000000003940165

REMOVAL

1. Remove rear side pillar finisher. Refer to INT-39, "Removal and Installation".
2. Disconnect antenna feeder connector and clip.
3. Remove antenna amp. mounting nut, disconnect the antenna amp. connector.
4. Remove antenna amp.

INSTALLATION

Installation is the reverse order of removal.

MULTIFUNCTION SWITCH

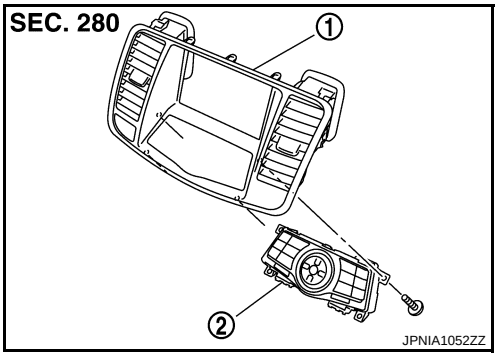
Exploded View

INFOID:0000000003940166

REMOVAL

Refer to IP-11, "Exploded View".

DISASSEMBLY



1. Cluster lid D
2. Multifunction switch

Removal and Installation

INFOID:0000000003940167

REMOVAL

1. Remove cluster lid D. Refer to IP-12, "Removal and Installation".
2. Remove multifunction switch mounting screws.
3. Remove multifunction switch.

INSTALLATION

Installation is the reverse order of removal.

PRESET SWITCH

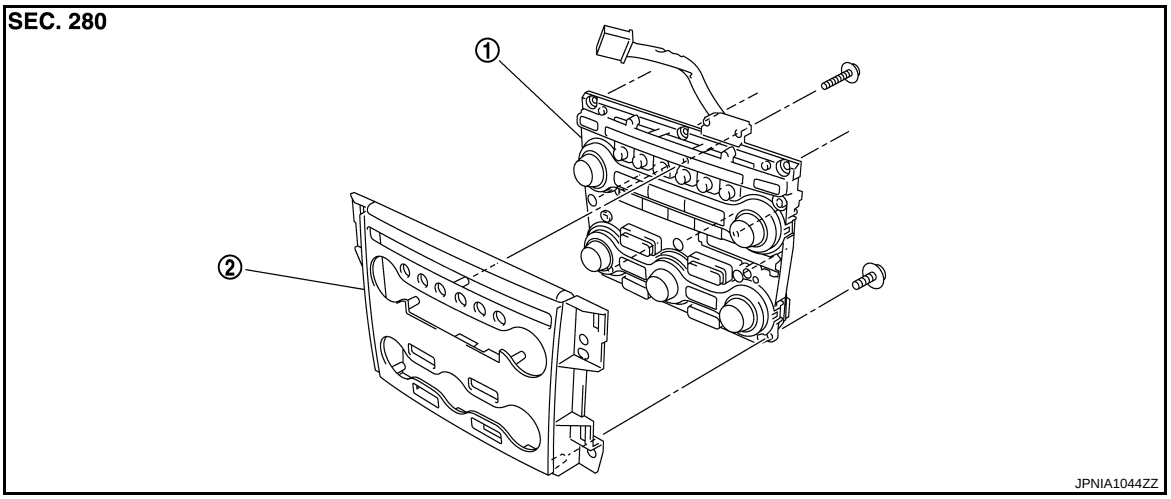
Exploded View

INFOID:0000000003940168

REMOVAL

Refer to IP-11, "Exploded View".

DISASSEMBLY



1. Preset switch
2. Cluster lid C

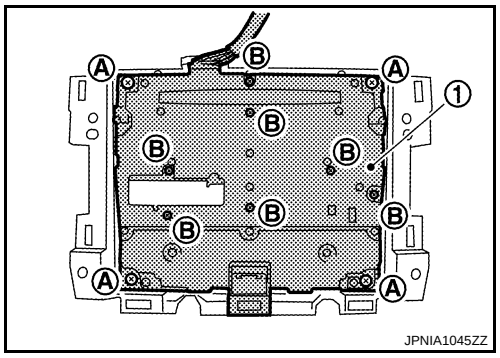
Removal and Installation

INFOID:0000000003940169

REMOVAL

1. Remove cluster lid C. Refer to IP-12, "Removal and Installation".
2. Remove preset switch mounting screws.
3. Remove preset switch.

1. Preset switch
A. Screw
B. 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.

REAR CONTROL SWITCH

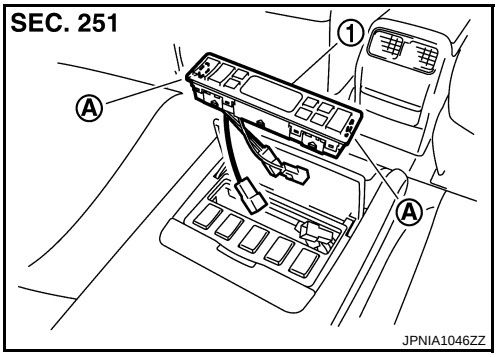
Exploded View

INFOID:0000000003940170

REMOVAL

Refer to SE-98, "Exploded View".

DISASSEMBLY



1. Rear control switch
A. Clip

Removal and Installation

INFOID:0000000003940171

REMOVAL

1. Remove rear control switch, stretching pawls of armrest assembly.
2. Disconnect rear control switch connector.
3. Remove rear control switch.

INSTALLATION

Installation is the reverse order of removal.

AUXILIARY INPUT JACKS

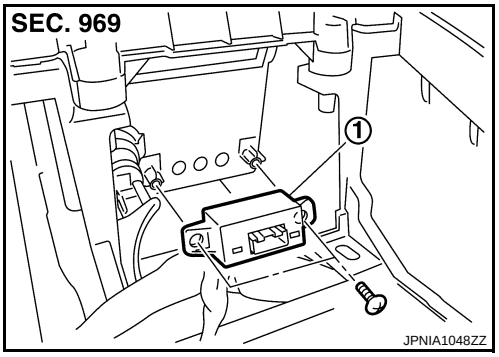
Exploded View

INFOID:0000000003940172

REMOVAL

Refer to IP-22, "Removal and Installation".

DISASSEMBLY



1. Auxiliary input jacks

Removal and Installation

INFOID:0000000003940173

REMOVAL

1. Remove console finisher. Refer to IP-22, "Removal and Installation".
2. Remove auxiliary mounting screws.
3. Remove auxiliary input jacks.

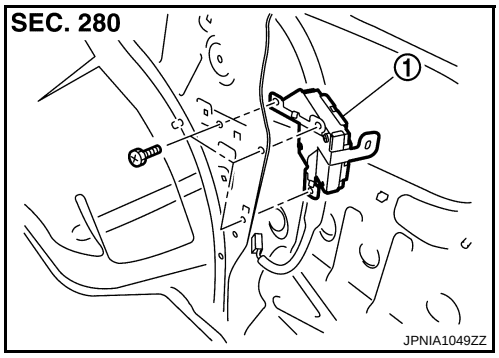
INSTALLATION

Installation is the reverse order of removal.

CAMERA CONTROL UNIT

Exploded View

INFOID:0000000003940174



1. Camera control unit

Removal and Installation

INFOID:0000000003940175

REMOVAL

1. Remove rear wheelhouse finisher RH. Refer to INT-57, "Removal and Installation".
2. Remove camera control unit mounting screws, disconnect the camera control unit connector.
3. Remove camera control unit.

INSTALLATION

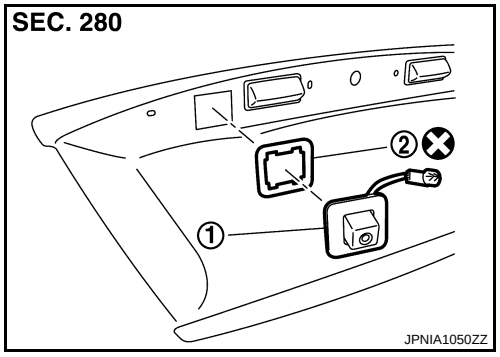
1. Installation is the reverse order of removal.
2. Perform predicted course line center position adjustment. Refer to AV-47, "PREDICTED COURSE LINE CENTER POSITION ADJUSTMENT : Special Repair Requirement".

REAR VIEW CAMERA

Exploded View

INFOID:0000000003940176

DISASSEMBLY



1. Rear view camera
2. Seal

Refer to GI-4, "Components" for symbols in the figure.

Removal and Installation

INFOID:0000000003940177

REMOVAL

1. Remove trunk lid finisher inner. Refer to INT-59, "Removal and Installation".
2. Remove trunk lid finisher. Refer to EXT-38, "Removal and Installation".
3. Remove rear view camera mounting clip, disconnect the rear view camera connector.
4. Remove rear view camera.

INSTALLATION

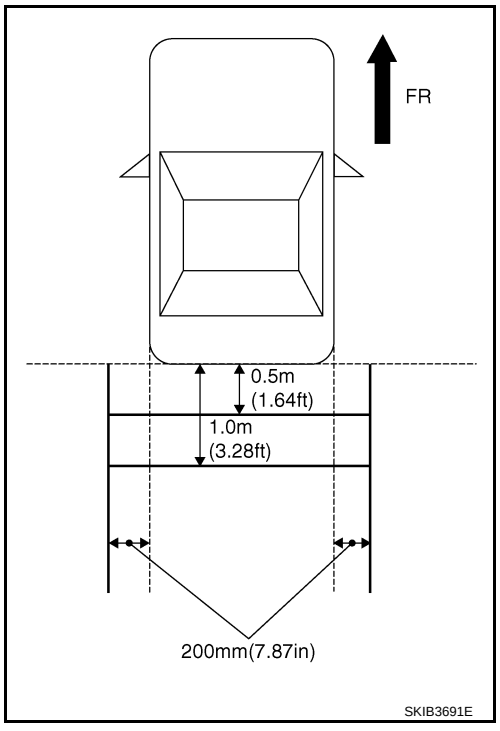
1. Installation is the reverse order of removal.

Adjustment

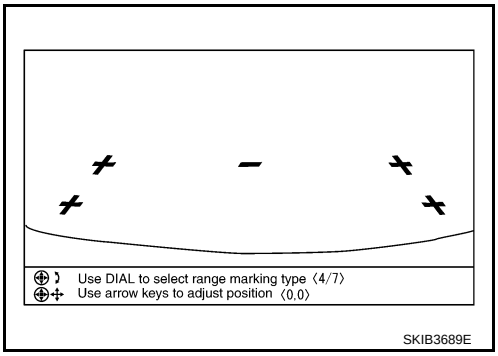
INFOID:0000000003970920

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: 200 mm (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.



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. Fine adjust the guiding line so that its position is aligned to the correction line by pressing the up/down/left/right switches.
Pressing “ENTER” enable the camera control unit to memory the adjusted guiding line position.

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

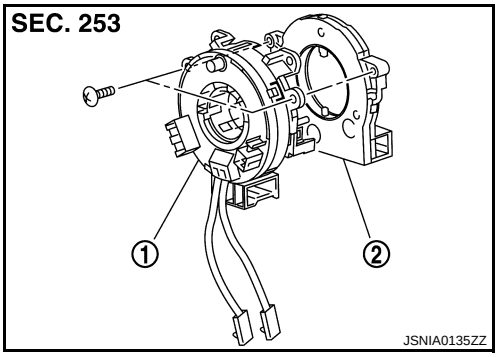
Exploded View

INFOID:0000000003940179

REMOVAL

Refer to SR-9, "Exploded View".

DISASSEMBLY



1. Spiral cable
2. Steering angle sensor

Removal and Installation

INFOID:0000000003940180

REMOVAL

1. Remove spiral cable.
2. Remove steering angle sensor mounting screws.
3. Remove steering angle sensor.

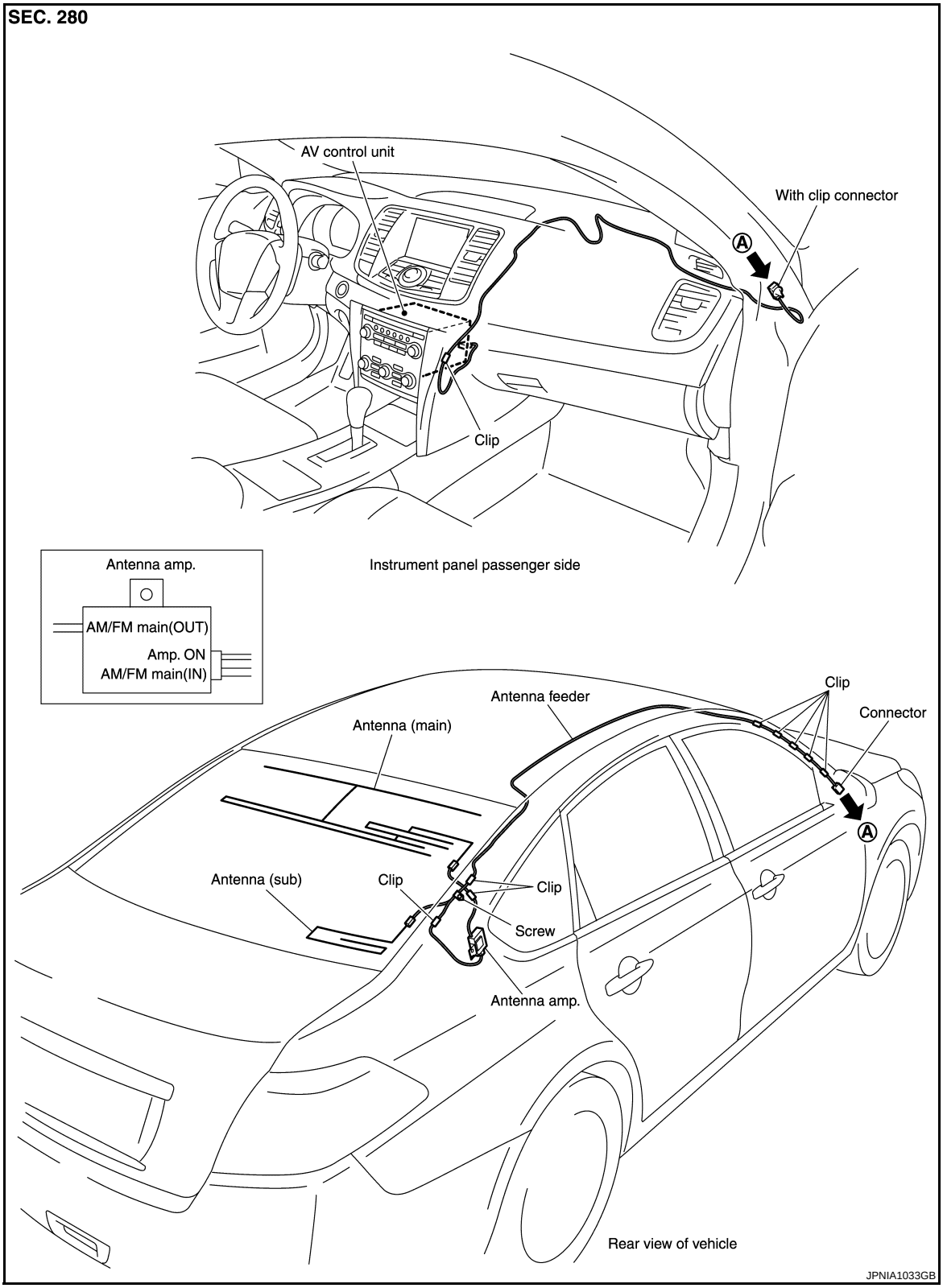
INSTALLATION

Installation is the reverse order of removal.

ANTENNA FEEDER (RADIO)

Harness Layout

INFOID:0000000003882826



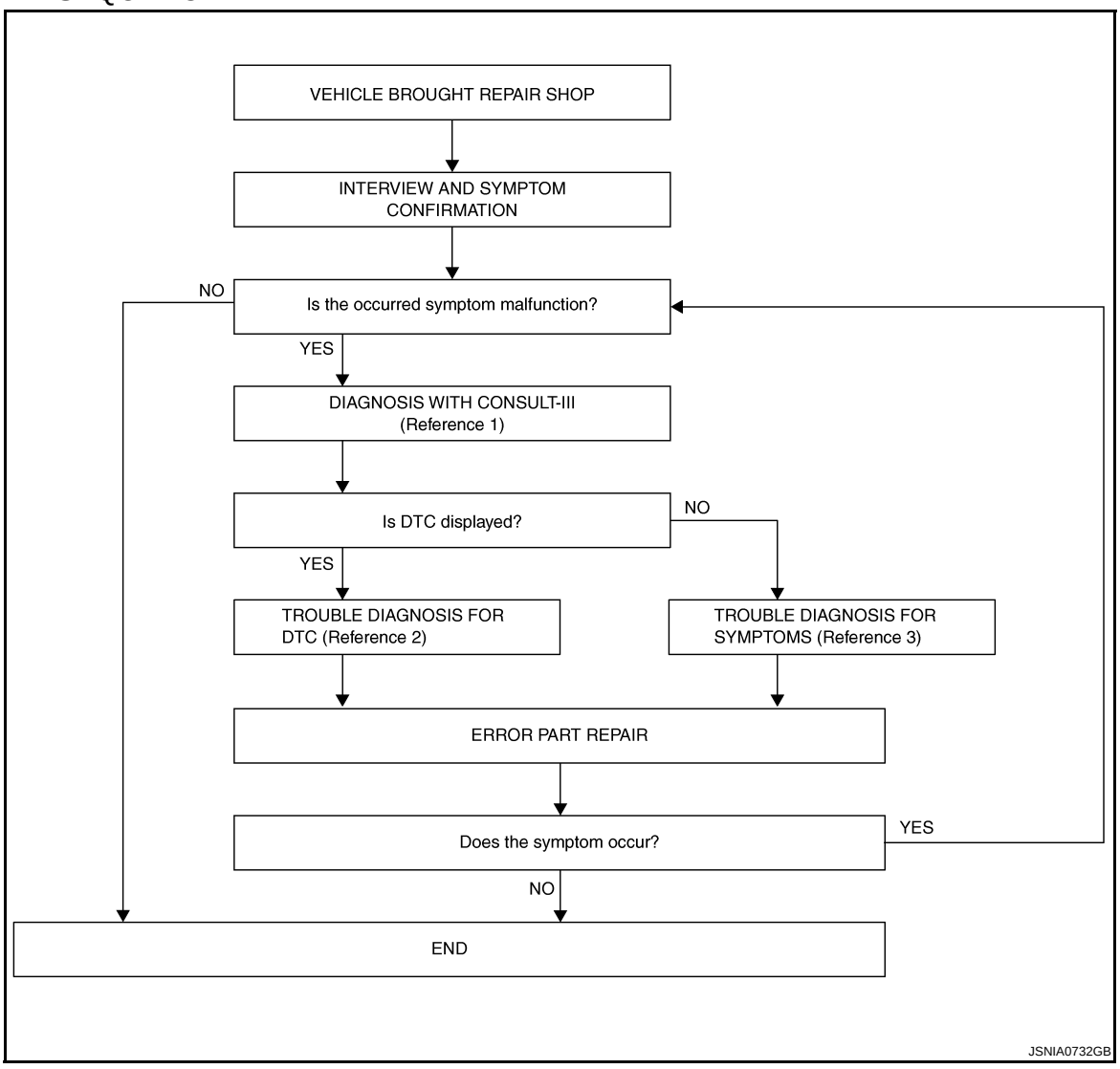
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:0000000003765632

OVERALL SEQUENCE



- Reference 1··· Refer to AV-211, "CONSULT-III Function (MULTI AV)".
- Reference 2··· Refer to AV-284, "DTC Index".
- Reference 3··· Refer to AV-372, "Symptom Table".

DETAILED FLOW

1. INTERVIEW AND SYMPTOM CONFIRMATION

Check the malfunction symptoms by performing the following items.
- Interview the customer to obtain the malfunction information (conditions and environment when the malfunction occurred).
- Check the symptom.

Is the occurred symptom malfunction?

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

2. DIAGNOSIS WITH CONSULT-III

1. Connect CONSULT-III and perform a self-diagnosis for “MULTI AV”. Refer to AV-211, "CONSULT-III Function (MULTI AV)".
   NOTE:
   Skip to step 4 of the diagnosis procedure if “MULTI AV” is not displayed.
2. Check if any DTC is displayed in the self-diagnosis results.

Is DTC displayed?

YES >> GO TO 3.
NO >> GO TO 4.

3. TROUBLE DIAGNOSIS FOR DTC

1. Check the DTC indicated in the self-diagnosis results.
2. Perform the relevant diagnosis referring to the DTC Index. Refer to AV-284, "DTC Index".

>> GO TO 5.

4. TROUBLE DIAGNOSIS FOR SYMPTOMS

Perform the relevant diagnosis referring to the diagnosis chart by symptom. Refer to AV-372, "Symptom Table".

>> GO TO 5.

5. ERROR PART REPAIR

1. Repair or replace the identified malfunctioning parts.
2. Perform a self-diagnosis for “MULTI AV” with CONSULT-III.
   NOTE:
   Erase the stored self-diagnosis results after repairing or replacing the relevant components if any DTC has been indicated in the self-diagnosis results.
3. Check that the symptom does not occur.

Does the symptom occur?

YES >> GO TO 1.
NO >> INSPECTION END

INSPECTION AND ADJUSTMENT

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description

INFOID:0000000003765633

WITH AROUND VIEW MONITOR

Always correct the center position of the predicted course line after disconnecting the battery negative terminal.

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement

INFOID:0000000003765634

1.CORRECTION OF CENTER POSITION OF PREDICTED COURSE LINE

Refer to the following for details.

>> Refer to AV-187, "PREDICTED COURSE LINE CENTER POSITION ADJUSTMENT : Special Repair Requirement".

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description

INFOID:0000000003765635

When camera control unit is replaced, the center position of predicted course line shall be corrected.

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement

INFOID:0000000003765636

1.CORRECTION OF CENTER POSITION OF PREDICTED COURSE LINE

Refer to the following for details.

>> Refer to AV-187, "PREDICTED COURSE LINE CENTER POSITION ADJUSTMENT : Special Repair Requirement".

PREDICTED COURSE LINE CENTER POSITION ADJUSTMENT

PREDICTED COURSE LINE CENTER POSITION ADJUSTMENT : Description

INFOID:0000000003765637

Adjust the center position of the possible route line of the rear view monitor if it is shifted.

PREDICTED COURSE LINE CENTER POSITION ADJUSTMENT : Special Repair Requirement

INFOID:0000000003765638

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.

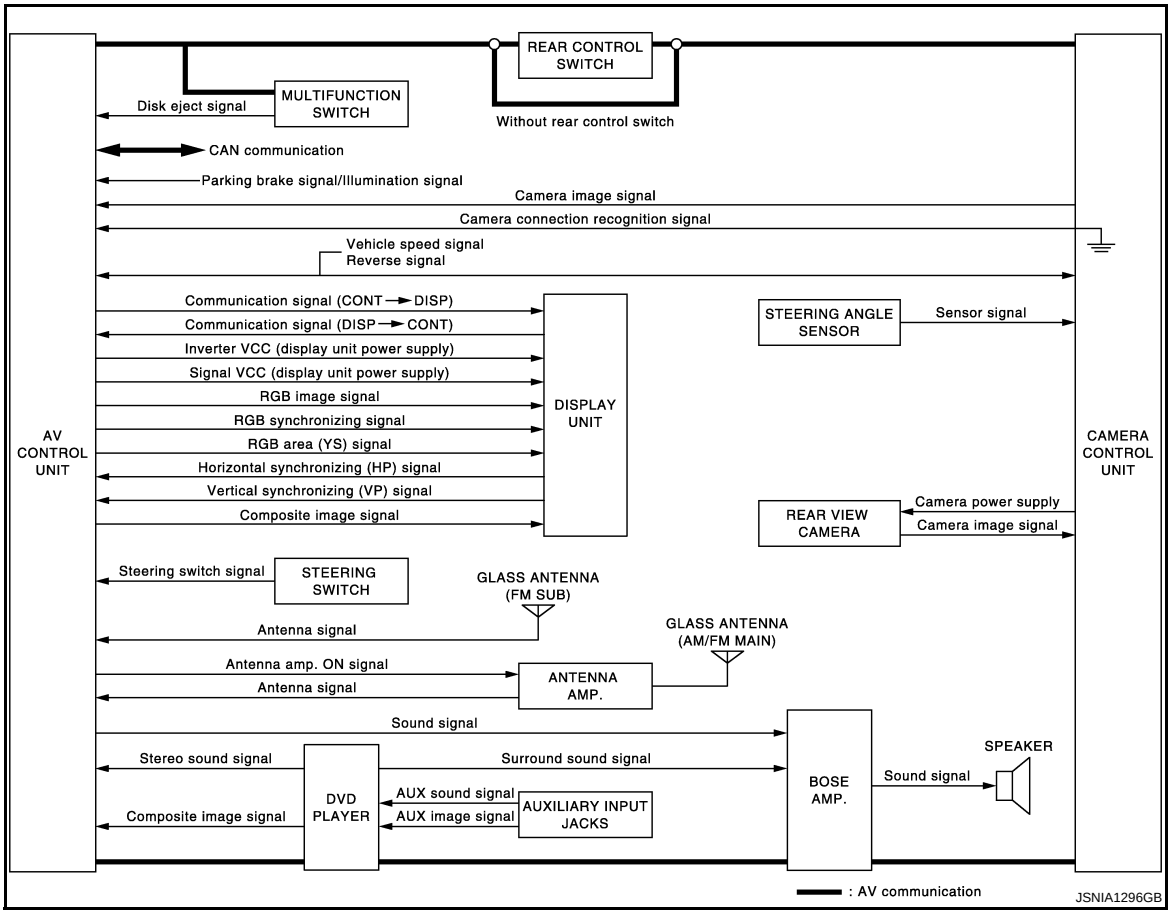
>> END

FUNCTION DIAGNOSIS

MULTI AV SYSTEM

System Diagram

INFOID:0000000003765641



NOTE:

- The name MULTIFUNCTION SWITCH indicates the integration of PRESET SWITCH and MULTIFUNCTION SWITCH virtually.
- A radio antenna base integrated with radio antenna amp. is adopted.
- Woofer illustrated in the above figure, integrates two woofers and a woofer amp.

System Description

INFOID:0000000003791244

Multi AV system means that the following systems are integrated.

System name	System explanation
AUDIO SYSTEM	AV-193, "System Diagram"
REAR VIEW MONITOR SYSTEM	AV-196, "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 and combination meter. • AV control unit is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.
DVD ENTERTAINMENT SYSTEM	Refer to the following “DVD ENTERTAINMENT SYSTEM”.
AUXILIARY INPUT SYSTEM	Refer to “AUXILIARY INPUT SYSTEM” shown below.

- AV control unit controls by transmitting/receiving data one by one with each unit (slave unit) that configures them completely as a master unit by connecting between units that configure MULTI AV system with two AV communication lines (H, L).

- Two AV communication lines (H, L) adopt a twisted pair line that is resistant to noise.
- AV control unit is connected by CAN communication, and it receives data signal from ECM, combination meter. It computes and displays fuel economy information value with the obtained information. Transmitting/ receiving of data signal is performed by BCM. Also, it transmits the required signal of vehicle setting and receives the response signal.
- AV control unit is connected with display unit and serial communication, and it transmits the required signal of display and display control and receives the response signal from display unit.

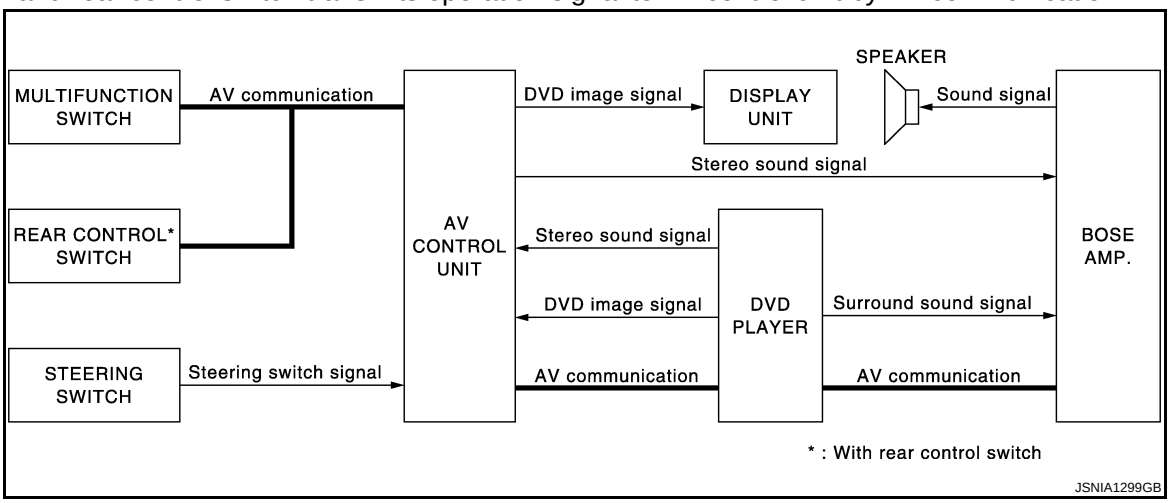
NOTE:

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

- CONSULT-III self diagnosis: Refer to AV-211, "CONSULT-III Function (MULTI AV)".
- On board self diagnosis: Refer to AV-200, "Diagnosis Description".

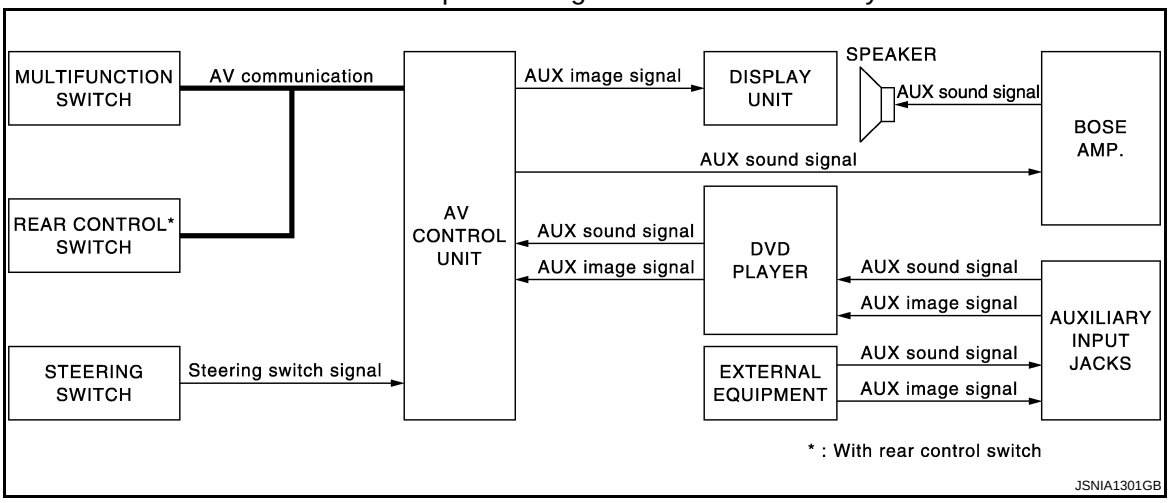
DVD ENTERTAINMENT SYSTEM

- DVD player is connected with AV control unit via AV communication, and controlled by AV control unit.
- DVD image signal is output from DVD player to display unit via AV control unit.
- DVD stereo (2ch) sound signal is output from DVD player to each speaker via AV control unit and BOSE amp.
- DVD surround (5.1ch) sound signal is output from DVD player to each speaker via BOSE amp.
- Operation can be performed with multifunction switch, steering switch and rear control switch. Multifunction switch and rear control switch transmits operation signal to AV control unit by AV communication.



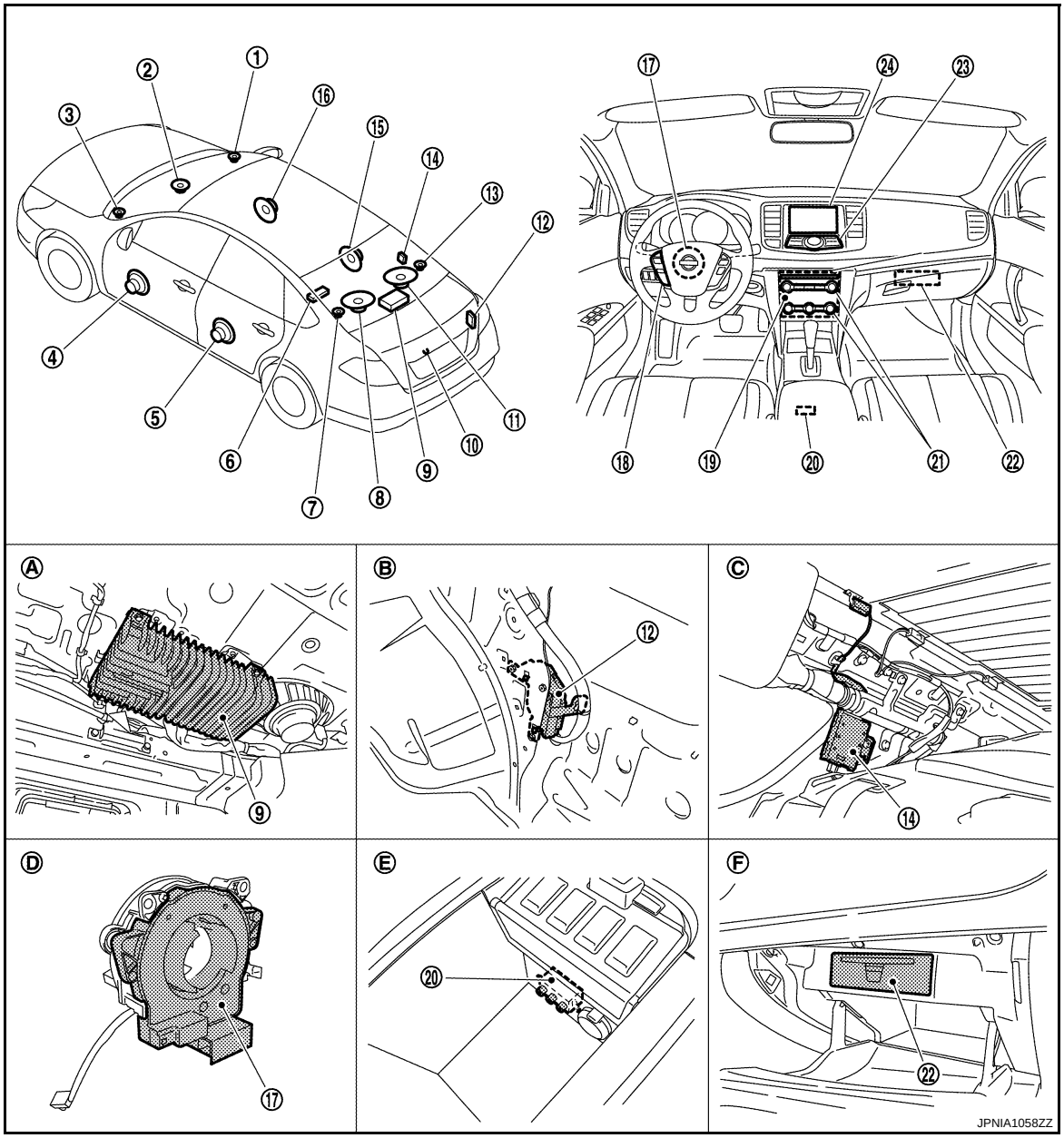
AUXILIARY INPUT SYSTEM

- 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, steering switch and rear control switch. Multifunction switch and rear control switch transmits operation signal to AV control unit by AV communication.



Component Parts Location

INFOID:0000000003765643



1. Front squawker RH
2. Center speaker
3. Front squawker LH
4. Front door speaker LH
5. Rear door speaker LH
6. Rear control switch
7. Rear squawker LH
8. Woofer LH
9. BOSE amp.
10. Rear view camera
11. Woofer RH
12. Camera control unit
13. Rear squawker RH
14. Antenna amp.
15. Rear door speaker RH
16. Front door speaker RH
17. Steering angle sensor
18. Steering switch
19. AV control unit
20. Auxiliary input jacks
21. Preset switch
22. DVD player
23. Multifunction switch
24. Display unit

A. Trunk room upper RH
B. Trunk room side RH
C. Within rear pillar finisher RH
D. Spiral cable part
E. In center console
F. In grove box

Component Description

INFOID:0000000003791245

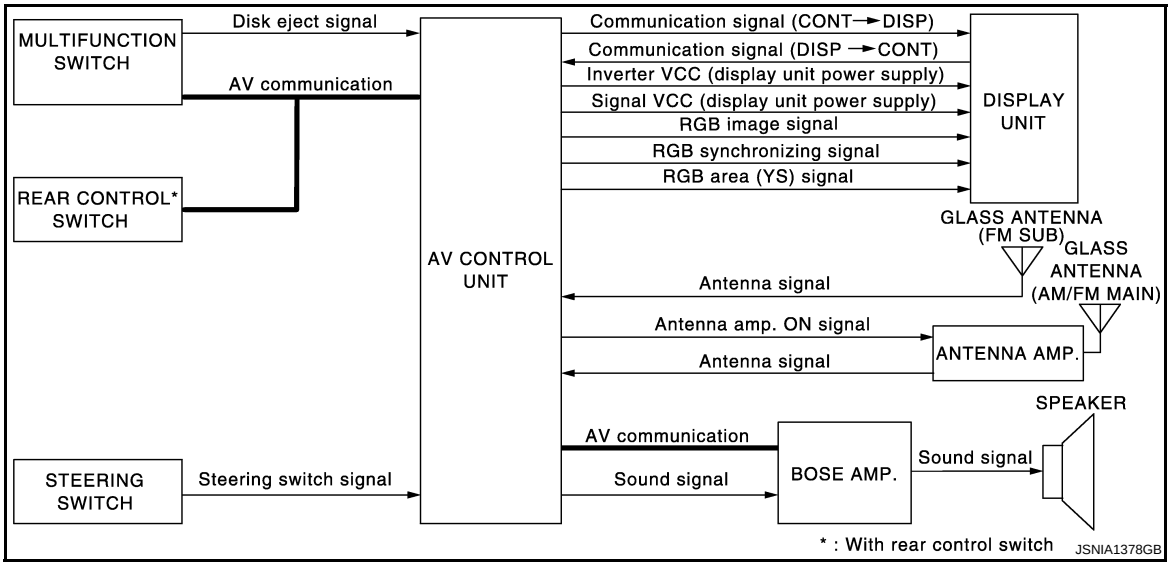
Part name	Description
AV CONTROL UNIT	• It is the master unit of the MULTI AV system, and it is connected to each control unit by communication. It operates each system according to communication signals from the AV control unit. • AV control unit includes audio function and vehicle information function. • It is connected to ECM and combination meter via CAN communication to obtain necessary information for the vehicle information function. • It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function. • Composite image signal (AUX and DVD images) is input from DVD player. • Camera image signal is input from camera control unit. • Composite image (DVD, AUX and camera images) signal is output to display unit. • Sound signal (DVD and AUX sounds) is input from the DVD player. • Power (signal VCC and inverter VCC) is transmitted to front display unit.
DISPLAY UNIT	• Display image is controlled by the serial communication from AV control unit. • It receives the power (signal VCC and inverter VCC) from the AV control unit and operates. • RGB image signal is input from AV control unit (RGB, RGB area and RGB synchronizing). • Composite image (DVD, AUX and camera images) signal is input from AV control unit. • Synchronize signal (HP, VP) is output to AV control unit.
BOSE AMP.	Inputs sound signal from AV control unit and DVD player, and outputs sound signal to woofer and each speaker.
WOOFER	• Outputs sound signal from BOSE amp. • Outputs low frequency sound.
FRONT SPEAKER	• Outputs sound signal from BOSE amp. • Outputs sound (mid and low range).
REAR SPEAKER	• Outputs sound signal from BOSE amp. • Outputs sound (mid and low range).
FRONT SQUAWKER	• Outputs sound signal from BOSE amp. • Outputs sound (high and mid range).
REAR SQUAWKER	• Outputs sound signal from BOSE amp. • Outputs sound (high and mid range).
CENTER SPEAKER	• Outputs sound signal from BOSE amp. • Outputs sound (high and mid range).
MULTIFUNCTION SWITCH	• Operation panel is equipped with the centralized switch where camera, audio, DVD and auxiliary input operations are integrated. • The multifunction switch is connected to the preset switch by wiring harness, and it transmits the operation signal to the preset switch.
PRESET SWITCH	• Operation panel is equipped with the centralized switch where audio and air conditioner operations are integrated. • The preset switch is connected via AV communication, and it transmits the operation signals of the preset switch and multifunction switch. • The disk ejection operating signal is performed by wiring harness.
CAMERA CONTROL UNIT	• Camera image signal is input from rear view camera. Camera image signal output to AV control unit. • Power supply is transmitted to rear view camera. • AV control unit recognizes the presence of camera system with camera connection recognition signal. • Camera control unit is connected via AV communication.
REAR VIEW CAMERA	• The image of vehicle rear view is transmitted to camera control unit. • It receives the power supply from the camera control unit and operates.
STEERING ANGLE SENSOR	Sensor signal (steering angle) is transmitted to camera control unit.

Part name	Description
MICROPHONE	• Used for hands-free phone operation. • Mic. signal is transmitted to NAVI control unit • Power (Mic. VCC) is supplied from NAVI control unit.
STEERING SWITCH	• The operations of audio, etc. can be performed. • Steering switch signal (operation signal) is output to AV control unit.
DVD PLAYER	It transmits the playback DVD image signal and DVD sound signal to the AV control unit.
AUXILIARY INPUT JACKS	• The image signal of the auxiliary input is output via the DVD player and AV control unit to the display unit. • The sound signal of the auxiliary input is output via the DVD player and AV control unit to the BOSE amp. 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.
REAR CONTROL SWITCH	• Operations for audio, etc. are possible. • The rear control switch is connected via AV communication, and it transmits the operation signals of the rear control switch.
ANTENNA AMP.	• Radio signal received by glass antenna is amplified and transmitted to AV control unit. • Power (antenna amp ON signal) is supplied from AV control unit.

AUDIO SYSTEM

System Diagram

INFOID:0000000003791246



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

System Description

INFOID:0000000003791247

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

Function
AM/FM radio
CD

FUNCTION DESCRIPTION

Operating Signal

Operation of the audio system can be performed via the multifunction switch, preset switch, rear control switch or steering switch.

- Operating signal is transmitted to AV control unit via AV communication when it is operated by multifunction switch, preset switch or rear control switch. The CD ejection operating signal is performed by hard-wire.
- 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 by the communication signal between the display unit and the AV control unit.
- The image signal to display operating condition is performed by RGB image signal, RGB area signal and RGB image synchronizing signal.

AM/FM Radio Mode

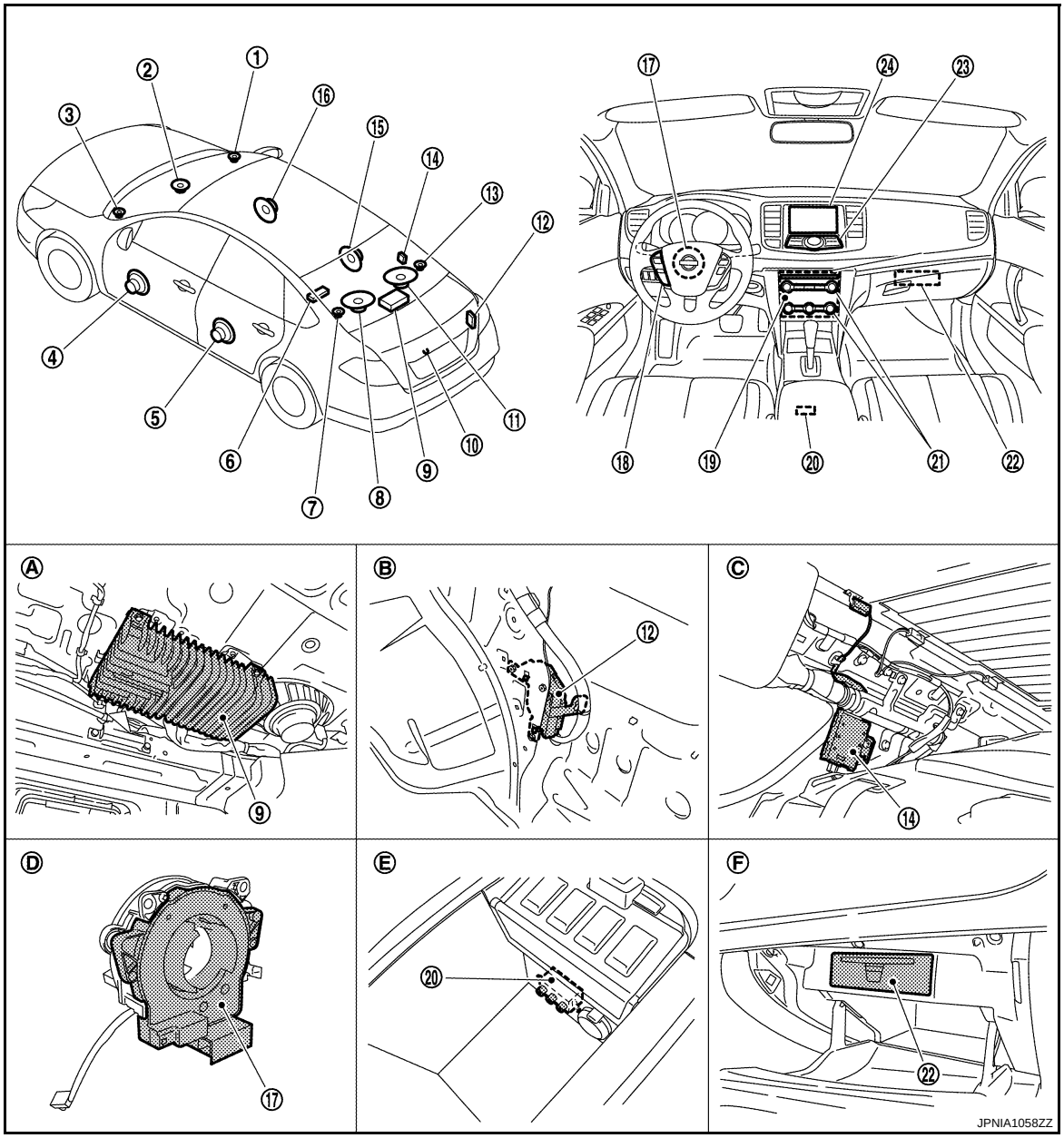
- AM/FM radio tuner is built into AV control unit.
- AM/FM radio wave is received by glass antenna, next it is amplified by antenna amp., and finally it is input to AV control unit. The FM sub antenna is installed on the rear window glass and the AV control unit is received.
- Sound signal is input to BOSE amp. and BOSE amp. outputs to woofer and each speaker for AV control unit.

CD Mode

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

Component Parts Location

INFOID:0000000003791252



1. Front squawker RH
2. Center speaker
3. Front squawker LH
4. Front door speaker LH
5. Rear door speaker LH
6. Rear control switch
7. Rear squawker LH
8. Woofer LH
9. BOSE amp.
10. Rear view camera
11. Woofer RH
12. Camera control unit
13. Rear squawker RH
14. Antenna amp.
15. Rear door speaker RH
16. Front door speaker RH
17. Steering angle sensor
18. Steering switch
19. AV control unit
20. Auxiliary input jacks
21. Preset switch
22. DVD player
23. Multifunction switch
24. Display unit

A. Trunk room upper RH
B. Trunk room side RH
C. Within rear pillar finisher RH
D. Spiral cable part
E. In center console
F. In grove box

Component Description

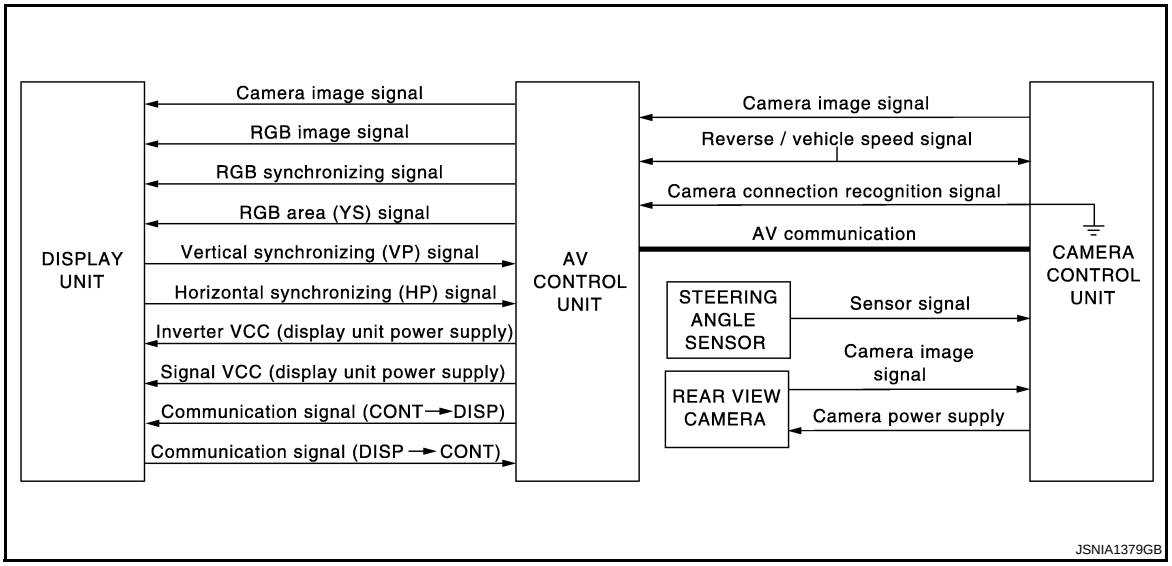
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Part name	Description
AV CONTROL UNIT	• The AM/FM receiving function and the CD playing function are equipped. • Sound signal is transmitted to BOSE amp.
DISPLAY UNIT	• Display image is controlled by the serial communication from AV control unit. • RGB image signal (audio operation condition) is input from AV control unit.
BOSE AMP.	Inputs sound signal from AV control unit, and outputs sound signal to woofer and each speaker.
WOOFER	• Outputs sound signal from BOSE amp. • Outputs low frequency sound.
FRONT SPEAKER	• Outputs sound signal from BOSE amp. • Outputs sound (mid and low range).
REAR SPEAKER	• Outputs sound signal from BOSE amp. • Outputs sound (mid and low range).
FRONT SQUAWKER	• Outputs sound signal from BOSE amp. • Outputs sound (high and mid range).
REAR SQUAWKER	• Outputs sound signal from BOSE amp. • Outputs sound (high and mid range).
CENTER SPEAKER	• Outputs sound signal from BOSE amp. • Outputs sound (high and mid range).
MULTIFUNCTION SWITCH	• Each audio operation can be operated. • The multifunction switch is connected to the preset switch by wiring harness, and it transmits the operation signal to the preset switch.
PRESET SWITCH	• Each audio operation can be operated. • The preset switch is connected via AV communication, and it transmits the operation signals of the preset switch and multifunction switch. • The disk ejection operating signal is performed by hard-wire.
STEERING SWITCH	• Each audio operation can be operated. • Steering switch signal (operation signal) is output to AV control unit.
REAR CONTROL SWITCH	• Each audio operation can be operated. • The rear control switch is connected via AV communication, and it transmits the operation signals of the rear control switch.
ANTENNA AMP.	• Radio signal received by glass antenna is amplified and transmitted to AV control unit. • Power (antenna amp. ON signal) is supplied from AV control unit.

REAR VIEW MONITOR SYSTEM

System Diagram

INFOID:0000000003791249



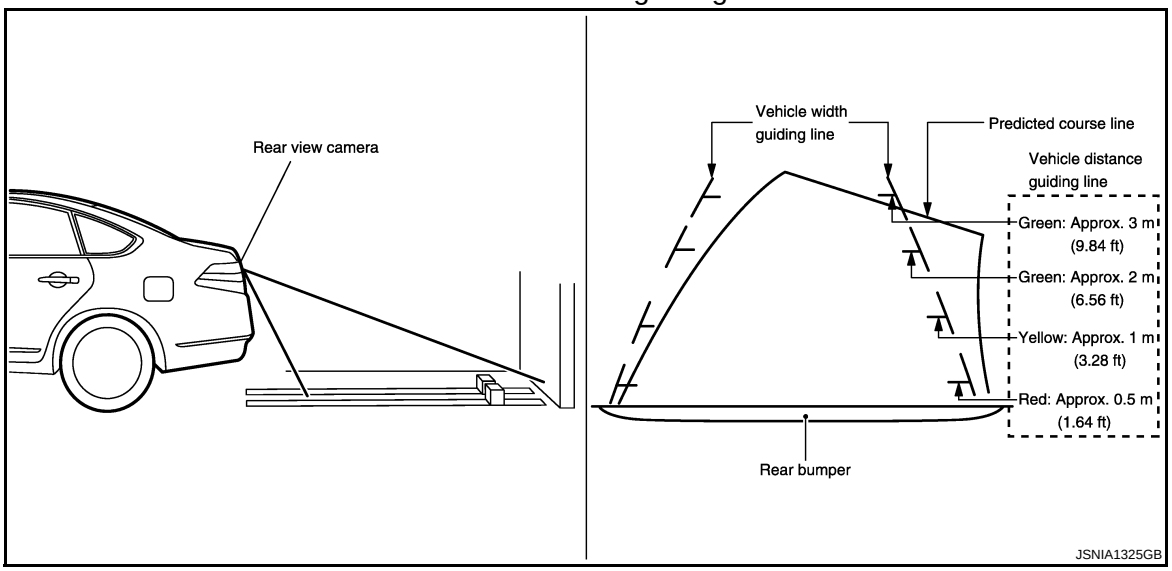
System Description

INFOID:0000000003791250

CAMERA IMAGE OPERATION PRINCIPLE

- Power is supplied to rear view camera from camera control unit and the rear view camera outputs the camera image to camera control unit when selector lever is set to reverse position and the reverse signal on camera control unit is input.
- Camera control unit superimposes the guiding line and predicted course line to the image from rear view camera and outputs to display unit. In this case, the reverse signal is also input to AV control unit. Therefore, AV control unit recognizes the selector lever as in the reverse position. And then AV control unit switches the image displayed by the communication signal between AV control unit and display unit with the camera image.
- AV control unit outputs camera image signal that is inputted from camera control unit to display unit.
- Camera control unit controls the direction and distance of predicted course line according to the sensor signal from steering angle sensor.
- 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 rear view camera is equipped.

Rear view monitor guiding line



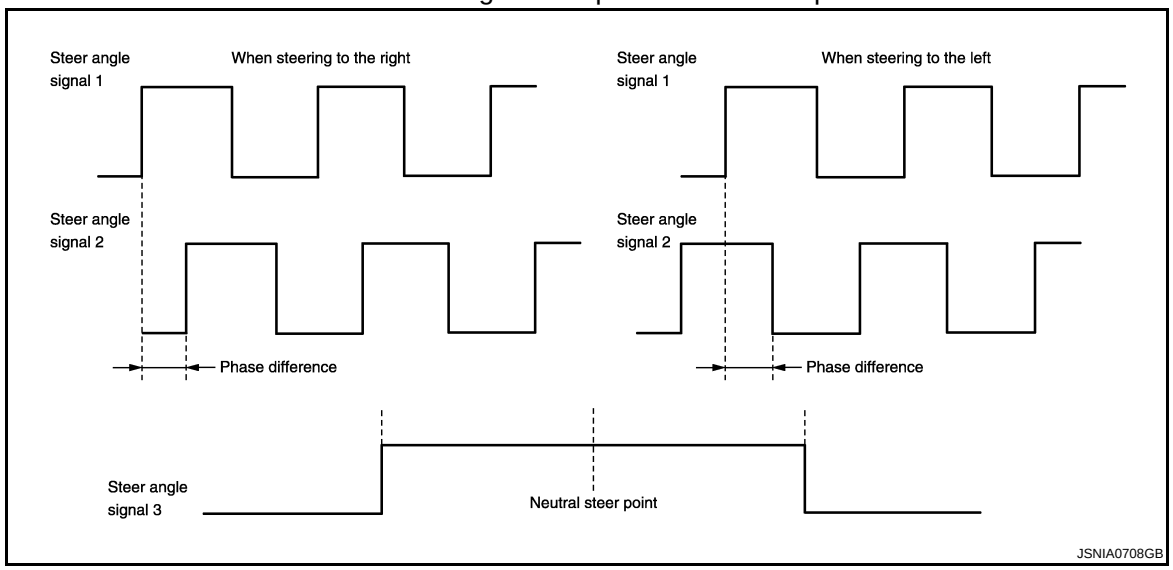
PREDICTED COURSE LINE OPERATION PRINCIPLE

Detection Of Steering Rotation Direction

Camera control unit detects the rotation direction of steering according to the phase difference of two pairs of pulse signals (sensor signal 1 and sensor signal 2) input from steering angle sensor.

Detection Of Steering Neutral Position

The sensor signal 3 input from steering angle sensor is generated at 1 pulse per 1 rotation of the steering wheel. Camera control unit detects the steering neutral position from this pulse.

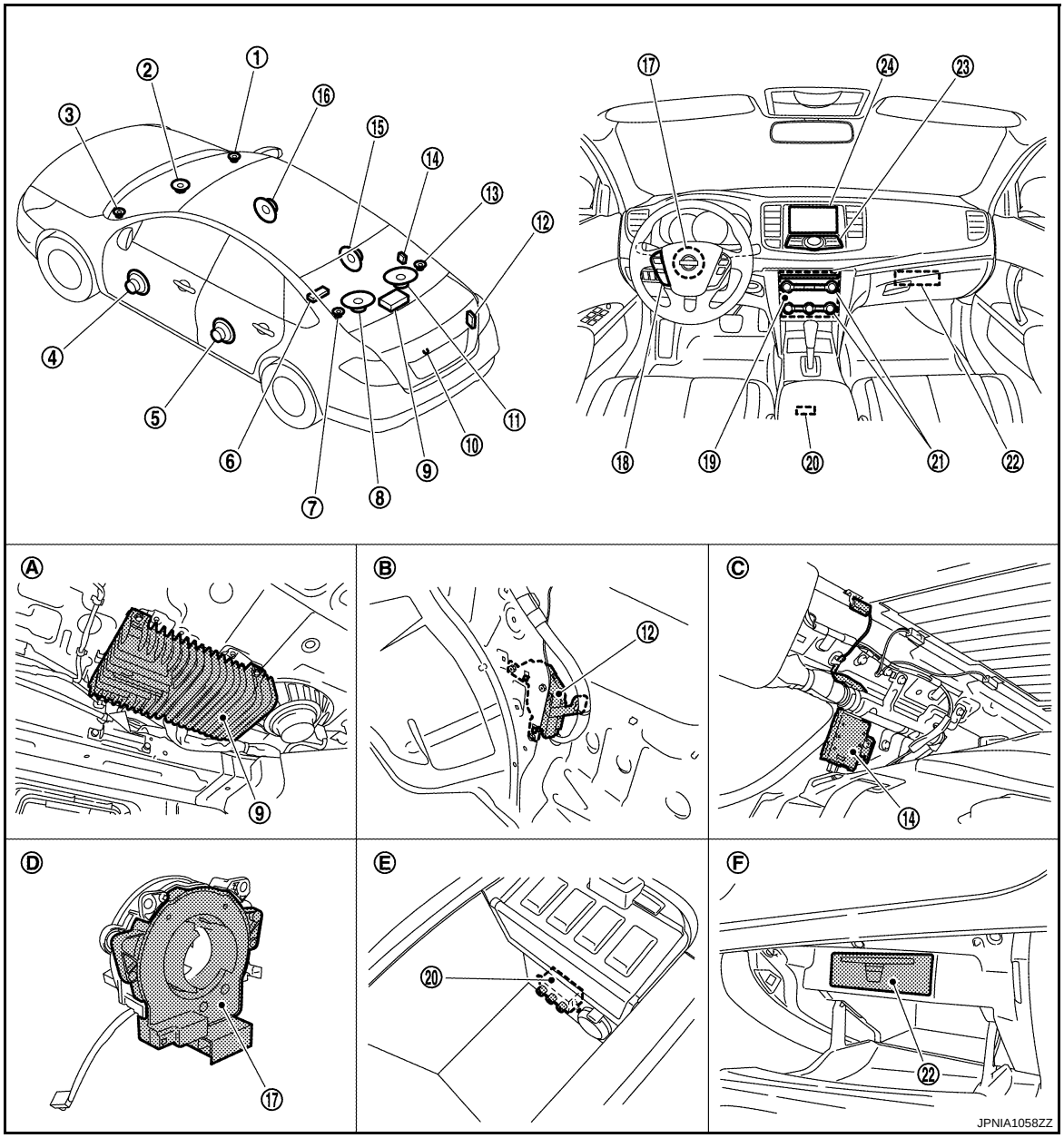


Correction Of Steering Neutral Position

Camera control unit corrects the steering neutral position during driving according to the vehicle speed signal and sensor signal.

Component Parts Location

INFOID:0000000003791258



1. Front squawker RH
2. Center speaker
3. Front squawker LH
4. Front door speaker LH
5. Rear door speaker LH
6. Rear control switch
7. Rear squawker LH
8. Woofer LH
9. BOSE amp.
10. Rear view camera
11. Woofer RH
12. Camera control unit
13. Rear squawker RH
14. Antenna amp.
15. Rear door speaker RH
16. Front door speaker RH
17. Steering angle sensor
18. Steering switch
19. AV control unit
20. Auxiliary input jacks
21. Preset switch
22. DVD player
23. Multifunction switch
24. Display unit

A. Trunk room upper RH
B. Trunk room side RH
C. Within rear pillar finisher RH
D. Spiral cable part
E. In center console
F. In grove box

Component Description

INFOID:0000000003791251

Part name	Description
AV CONTROL UNIT	• Image on display is transmitted to rear view monitor image by serial communication between AV control unit and display unit. • AV control unit recognizes the presence of camera system with camera connection recognition signal.
DISPLAY UNIT	• Camera image signal is input from AV control unit. • Rear view monitor image is changed by serial communication from AV control unit.
CAMERA CONTROL UNIT	• Camera image signal is input from rear view camera. Camera image signal is output to AV control unit. • Power supply is transmitted to rear view camera. • Superimposes the guiding line and predicted course line to the camera image that outputs to AV control unit. • Inputs the sensor signal from steering angle sensor, and then controls the predicted course line. • Camera control unit is connected via AV communication.
REAR VIEW CAMERA	• The image of vehicle rear view is transmitted to camera control unit. • It receives power supply from camera control unit and operates.
STEERING ANGLE SENSOR	Steering signal necessary for predicted course line control is transmitted to camera control unit.

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

Diagnosis Description

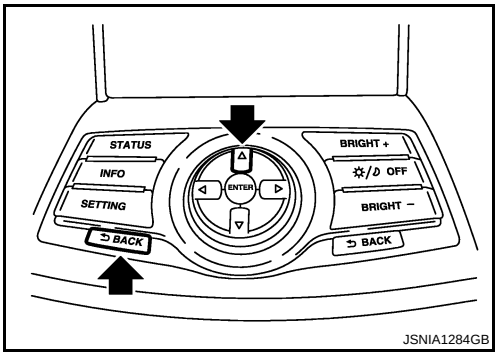
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MULTIFUNCTION SWITCH AND PRESET SWITCH SELF-DIAGNOSIS FUNCTION

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. Then the buzzer sounds, all indicators of the preset switch illuminate, and the self-diagnosis mode starts.
- The continuity of each switch at the ON position can be checked by pressing the switch. The buzzer sounds if the switch is normal.
  NOTE:
  The hazard switch and disk eject switch cannot be checked.



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Finishing Self-diagnosis Mode

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

MULTI AV SYSTEM ON BOARD DIAGNOSIS FUNCTION

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

ON BOARD DIAGNOSIS

Description

- The trouble diagnosis function has a self-diagnosis mode for conducting trouble diagnosis automatically and a confirmation/adjustment mode for operating manually.
- 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

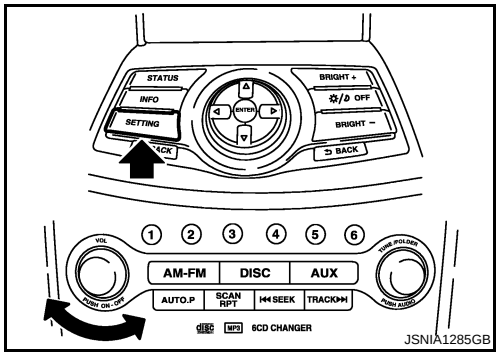
Mode	Description
Self Diagnosis	• AV control unit diagnosis. • Diagnoses the connections across system components.

Mode		Description
Confirmation/ Adjustment	Display Diagnosis	The following check functions are available: color tone check by color bar display, light and shade check by grey scale display and touch panel calibration response check.
	Vehicle Signals	Diagnosis of signals can be performed for vehicle speed, parking brake, lights, ignition switch, and reverse.
	Speaker Test	The connection of a speaker can be confirmed by test tone.
	Climate Control*	Not used.
	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.
	Camera Cont.	It can perform the confirmation of a signal connection to the camera control unit, the calibration of each camera, Correct Draw Line of Camera Image, and Fine Tuning of Birds-Eye View. Refer to AV-200, "Diagnosis Description".
	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.

NOTE:
*:On-board self-diagnosis is not supported. Only CONSULT-III is supported.

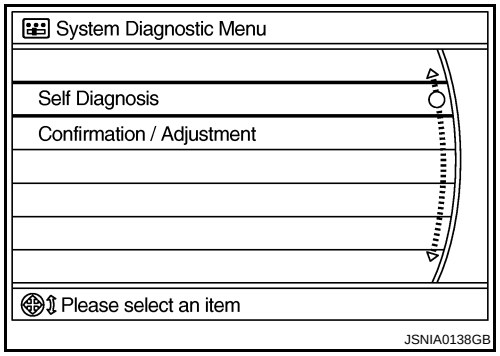
STARTING PROCEDURE

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



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



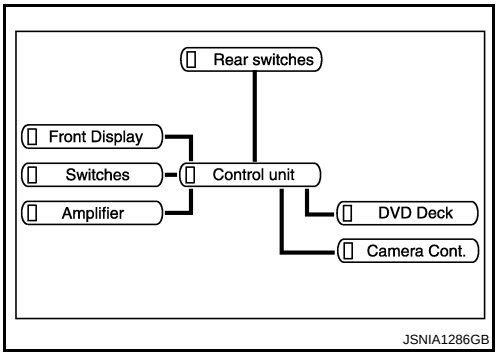
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SELF-DIAGNOSIS MODE

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.

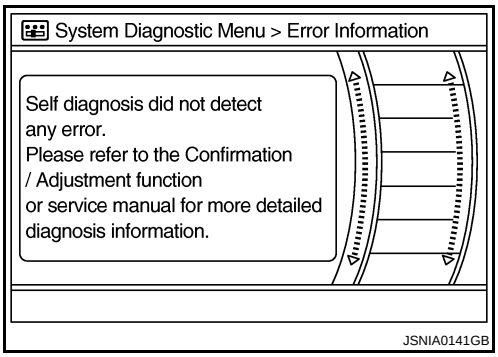
2. Diagnosis results are displayed after the self-diagnosis is completed. The unit names and the connection lines are color-coded according to the diagnostic results.



Diagnosis results	Unit	Connection line
Normal	Green	Green
Connection malfunction	Gray	Yellow
Unit malfunction 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-378, "Removal and Installation".

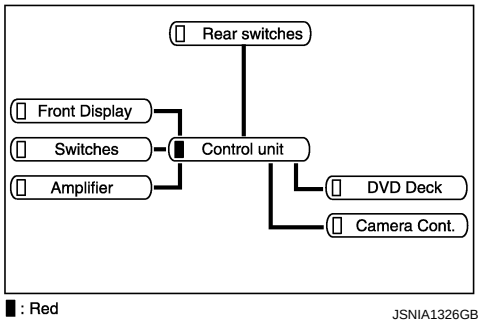
- If multiple errors occur at the same time for a single unit, the screen switch colors are determined according to the following order of priority: red > yellow > gray.
- The comments of the self-diagnosis results can be viewed with a component in the diagnosis result screen.

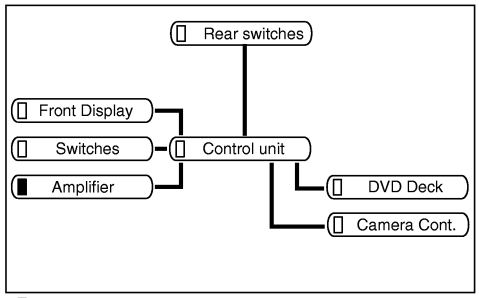
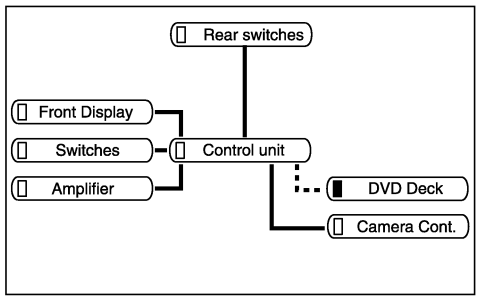
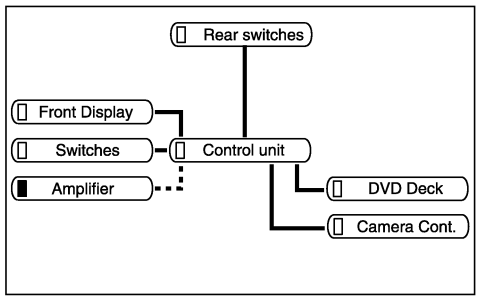
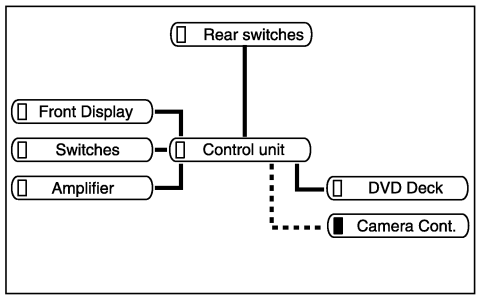


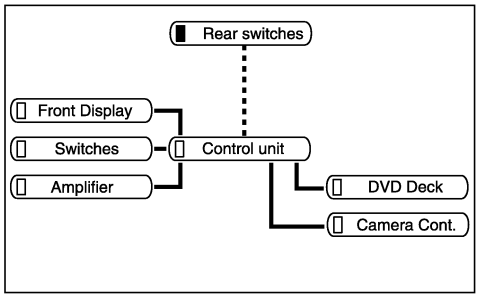
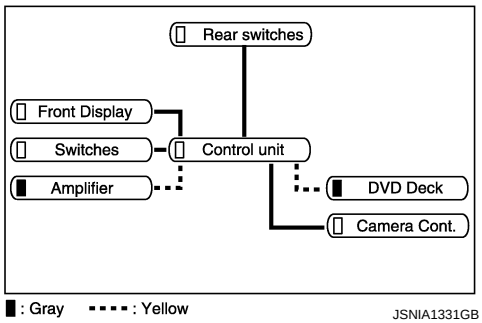
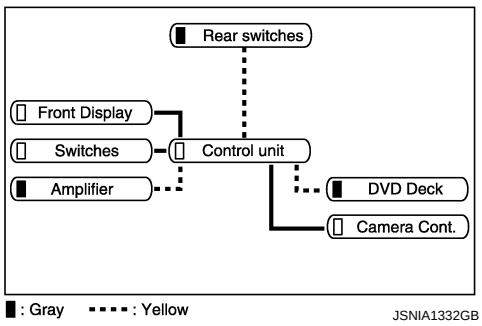
SELF-DIAGNOSIS RESULTS

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

Self-diagnosis Result Chart

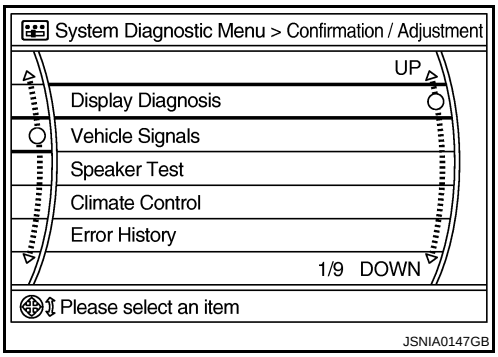
Area with yellow connection lines	Description	Possible malfunction location / Action to take
 : Red JSNIA1326GB **NOTE:** When a control unit malfunction is detected (red in unit display), connection malfunctions with other connection unit may be displayed.	Malfunction is detected in AV control unit power supply and ground circuits	Check AV control unit power supply and ground circuits. When detecting no malfunction in those components, replace AV control unit.
“Self-Diagnosis did not run because of a control unit malfunction”		

Area with yellow connection lines	Description	Possible malfunction location / Action to take
	When either one of the following items is detected: • BOSE amp. malfunction is detected. • sound signal circuits between BOSE amp. and each speaker is malfunctioning.	• Replace BOSE amp. • Malfunctioning speaker circuits
	When either one of the following items is detected: • DVD player power supply and ground circuits are malfunctioning. • AV communication circuits between BOSE amp. and DVD player are malfunctioning. • AV communication signal between AV control unit and DVD player is malfunctioning.	• DVD player power supply and ground circuits • AV communication circuits between BOSE amp. and DVD player
	When either one of the following items is detected: • BOSE amp. power supply and ground circuits are malfunctioning. • AV communication signal between AV control unit and BOSE amp. is malfunctioning.	BOSE amp. power supply and ground circuits
	Camera connection recognition signal circuit is detected.	Camera connection recognition signal circuit

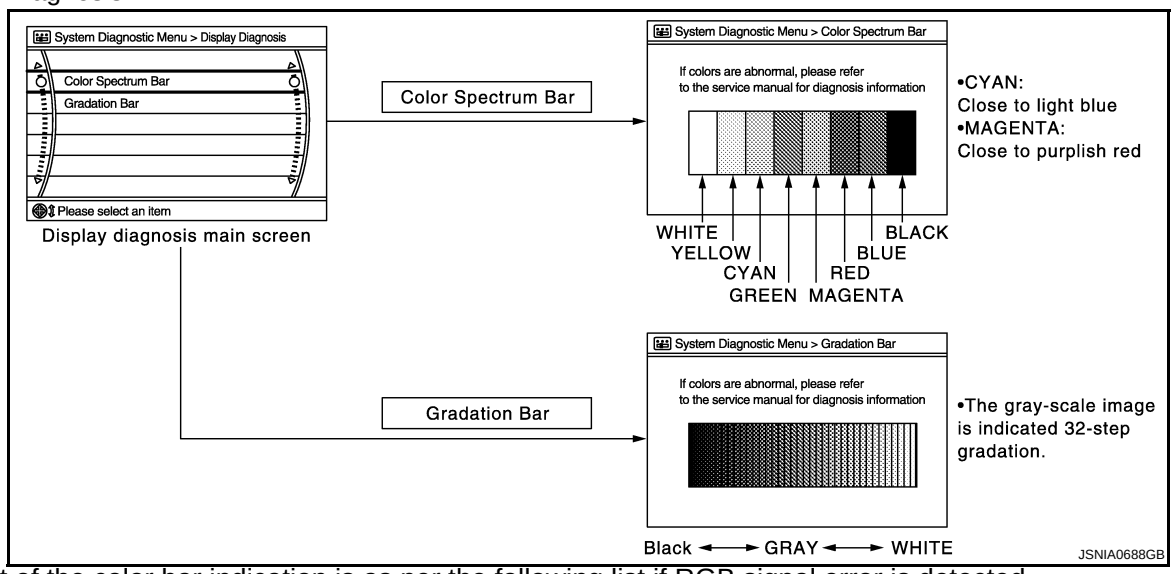
Area with yellow connection lines	Description	Possible malfunction location / Action to take
	When either one of the following items is detected: • rear control switch power supply and ground circuits are malfunctioning. • AV communication signal between AV control unit and rear control switch is malfunctioning.	Rear control switch power supply and ground circuits
	With rear control switch When either one of the following items is detected: • malfunction is detected in AV communication circuits between rear control switch and camera control unit. • malfunction is detected in AV communication circuits between camera control unit and BOSE amp.	• AV communication circuits between rear control switch and camera control unit • AV communication circuits between camera control unit and BOSE amp.
	Without rear control switch When either one of the following items is detected: • malfunction is detected in AV communication circuits between multifunction switch and camera control unit. • malfunction is detected in AV communication circuits between camera control unit and BOSE amp.	• AV communication circuits between multifunction switch and camera control unit • AV communication circuits between camera control unit and BOSE amp.
	Malfunction is detected in AV communication circuits between AV control unit and multifunction switch.	AV communication circuits between AV control unit and multifunction switch

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.



Display Diagnosis

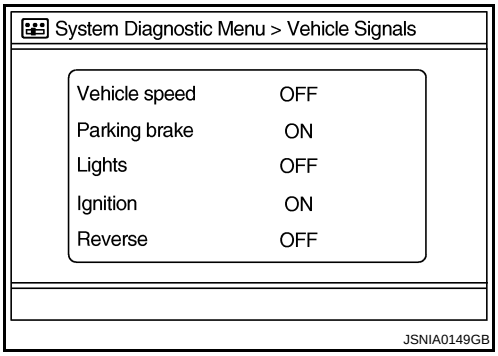


The tint of the color bar indication is as per the following list if RGB signal error is detected.

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.
	OFF	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	Shift the selector lever to “R” position	Changes in indication may be delayed by approximately 1.5 seconds. This is normal.
	OFF	Shift the selector lever other than “R” position	

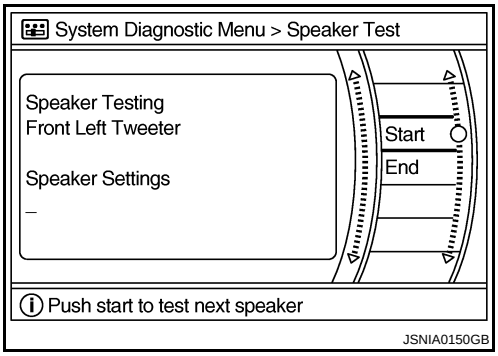
Speaker Test

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

NOTE:

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

Squawker	**: 3 kHz**
Front speaker	**: 300 Hz**
Rear speaker	**: 1 kHz**



Climate Control

On-board self-diagnosis is not supported. Only CONSULT-III is supported.

Refer to HAC-156, "WITHOUT INTELLIGENT AIR CONDITIONER SYSTEM : CONSULT-III Function" for details.

Camera Cont.

Refer to AV-196, "System Description".

Error History

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

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

The error record displays the time and place of the most recent occurrence of that error. However, take note of the following points.

- 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.

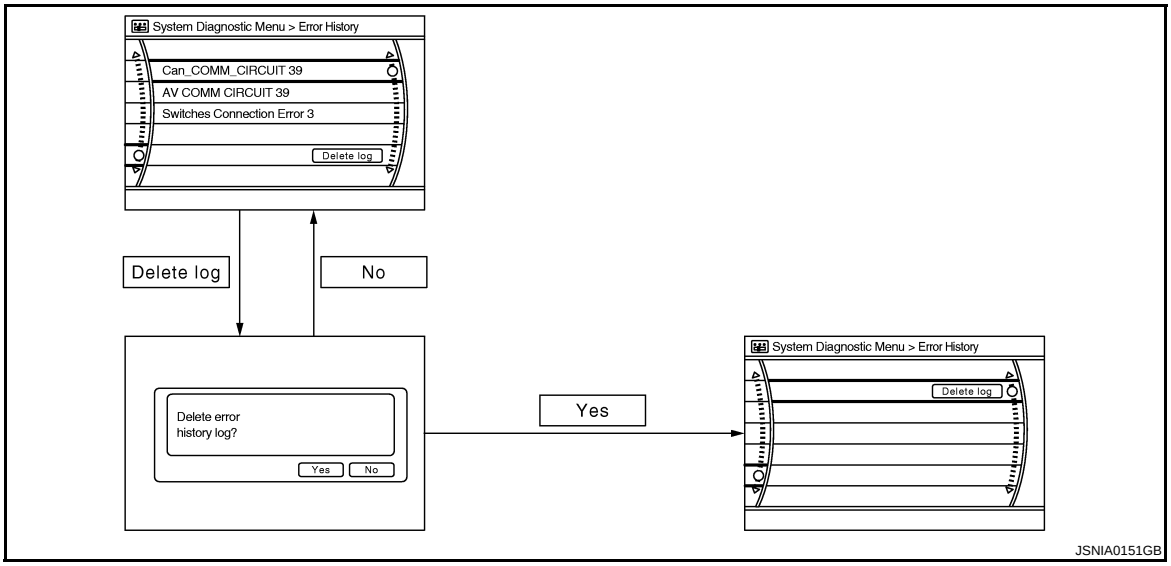
Count up method A

- 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



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.
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		
Amplifier Temperature Error	BOSE amp. malfunction is detected.	Replace the BOSE amp.
Front Display Connection Error	When either one of the following items is detected: • display unit power supply and ground circuits are malfunctioning. • serial communication circuits between display unit and AV control unit are malfunctioning. • serial communication signal between display unit and AV control unit is malfunctioning.	• Display unit power supply and ground circuits. • Serial communication circuits between display unit and AV control unit.
Camera Cont. Unit Connection Error	A malfunction is detected in camera connection recognition signal circuit.	Camera connection recognition signal circuit.
Center speaker OUT: open	Sound signal center speaker circuit is open.	Check sound signal center speaker circuit.
Center speaker OUT: short	Sound signal center speaker circuit is shorted between center speaker signal (+) and center speaker signal (-).	Check sound signal center speaker circuit.
Center speaker OUT: short to ground	Sound signal center speaker circuit to ground is shorted.	Check sound signal center speaker circuit.
Center speaker OUT: short to battery	Sound signal center speaker circuit to battery is shorted.	Check sound signal center speaker circuit.
FR speaker OUT: open	Sound signal front speaker RH circuit is open.	Check sound signal front speaker RH circuit.

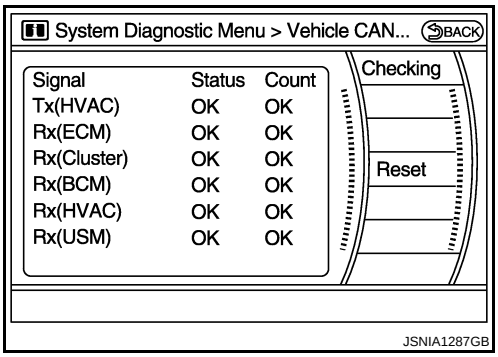
Error item	Description	Possible malfunction factor/Action to take
FR speaker OUT: short	Sound signal front speaker RH circuit is shorted between front speaker RH signal (+) and front speaker RH signal (-).	Check sound signal front speaker RH circuit.
FR speaker OUT: short to ground	Sound signal front speaker RH circuit to ground is shorted.	Check sound signal front speaker RH circuit.
FR speaker OUT: short to battery	Sound signal front speaker RH circuit to battery is shorted.	Check sound signal front speaker RH circuit.
RR speaker OUT: open	Sound signal rear speaker RH circuit is open.	Check sound signal rear speaker RH circuit.
RR speaker OUT: short	Sound signal rear speaker RH circuit is shorted between rear speaker LH signal (+) and rear speaker LH signal (-).	Check sound signal rear speaker RH circuit.
RR speaker OUT: short to ground	Sound signal rear speaker RH circuit to ground is shorted.	Check sound signal rear speaker RH circuit.
RR speaker OUT: short to battery	Sound signal rear speaker RH circuit to battery is shorted.	Check sound signal rear speaker RH circuit.
RR Woofer OUT: open	Sound signal woofer RH circuit is open.	Check sound signal woofer RH circuit.
RR Woofer OUT: short	Sound signal woofer RH circuit is shorted between woofer RH signal (+) and woofer RH signal (-).	Check sound signal woofer RH circuit.
RR Woofer OUT: short to ground	Sound signal woofer RH circuit to ground is shorted.	Check sound signal woofer RH circuit.
RR Woofer OUT: short to battery	Sound signal woofer RH circuit to battery is shorted.	Check sound signal woofer RH circuit.
RL Woofer OUT: open	Sound signal woofer LH circuit is open.	Check sound signal woofer LH circuit.
RL Woofer OUT: short	Sound signal woofer LH circuit is shorted between woofer LH signal (+) and woofer LH signal (-).	Check sound signal woofer LH circuit.
RL Woofer OUT: short to ground	Sound signal woofer LH circuit to ground is shorted.	Check sound signal woofer LH circuit.
RL Woofer OUT: short to battery	Sound signal woofer LH circuit to battery is shorted.	Check sound signal woofer LH circuit.
RL speaker OUT: open	Sound signal rear speaker LH circuit is open.	Check sound signal rear speaker LH circuit.
RL speaker OUT: short	Sound signal rear speaker LH circuit is shorted between rear speaker LH signal (+) and rear speaker LH signal (-).	Check sound signal rear speaker LH circuit.
RL speaker OUT: short to ground	Sound signal rear speaker LH circuit to ground is shorted.	Check sound signal rear speaker LH circuit.
RL speaker OUT: short to battery	Sound signal rear speaker LH circuit to battery is shorted.	Check sound signal rear speaker LH circuit.
FL speaker OUT: open	Sound signal front speaker LH circuit is open.	Check sound signal front speaker LH circuit.
FL speaker OUT: short	Sound signal front speaker LH circuit is shorted between front speaker LH signal (+) and front speaker LH signal (-).	Check sound signal front speaker LH circuit.
FL speaker OUT: short to ground	Sound signal front speaker LH circuit to ground is shorted.	Check sound signal front speaker LH circuit.
FL speaker OUT: short to battery	Sound signal front speaker LH circuit to battery is shorted.	Check sound signal front speaker LH circuit.
FL tweeter OUT: open	Sound signal front squawker LH circuit is open.	Check sound signal front squawker LH circuit.

Error item	Description	Possible malfunction factor/Action to take
FL tweeter OUT: short	Sound signal front squawker LH circuit is shorted between front squawker LH signal (+) and front squawker LH signal (-).	Check sound signal front squawker LH circuit.
FL tweeter OUT: short to ground	Sound signal front squawker LH circuit to ground is shorted.	Check sound signal front squawker LH circuit.
FL tweeter OUT: short to battery	Sound signal front squawker LH circuit to battery is shorted.	Check sound signal front squawker LH circuit.
FR tweeter OUT: open	Sound signal front squawker RH circuit is open.	Check sound signal front squawker RH circuit.
FR tweeter OUT: short	Sound signal front squawker RH circuit is shorted between front squawker RH signal (+) and front squawker RH signal (-).	Check sound signal front squawker RH circuit.
FR tweeter OUT: short to ground	Sound signal front squawker RH circuit to ground is shorted.	Check sound signal front squawker RH circuit.
FR tweeter OUT: short to battery	Sound signal front squawker RH circuit to battery is shorted.	Check sound signal front squawker RH circuit.
AV COMM CIRCUIT	Rear control switch power supply and ground circuits malfunction are detected.	Rear control switch power supply and ground circuits.
• AV COMM CIRCUIT • Switches Connection Error	When either one of the following items is detected: • multifunction switch power supply and ground circuits are malfunctioning. • AV communication circuits between AV control unit and multifunction switch are malfunctioning. • AV communication signal between AV control unit and multifunction switch is malfunctioning.	• Multifunction switch power supply and ground circuits. • AV communication circuits between AV control unit and multifunction switch.
• AV COMM CIRCUIT • Amplifier Connection Error	When either one of the following items is detected: • BOSE amp. power supply and ground circuits are malfunctioning. • AV communication signal between AV control unit and BOSE amp. is malfunctionning.	BOSE amp. power supply and ground circuits.
• AV COMM CIRCUIT • DVD Deck Connection Error	When either one of the following items is detected: • DVD player power supply and ground circuits are malfunctioning. • AV communication circuits between BOSE amp. and DVD player are malfunctioning. • AV communication signal between AV control unit and DVD player is malfunctioning.	• DVD player power supply and ground circuits. • AV communication circuits between BOSE amp. and DVD player.
• AV COMM CIRCUIT • DVD Deck Connection Error • Amplifier Connection Error	When either one of the following items is detected: • AV communication circuits between camera control unit and BOSE amp. are malfunctioning. • AV communication signal between AV control unit and BOSE amp. is malfunctioning.	AV communication circuits between camera control unit and BOSE amp.

Error item	Description	Possible malfunction factor/Action to take
• AV COMM CIRCUIT • DVD Deck Connection Error • Amplifier Connection Error • Rear view Camera connection Error	With rear control switch When either one of the following items is detected: • malfunction is detected in AV communication circuits between rear control switch and camera control unit. • malfunction is detected in AV communication circuits between camera control unit and NAVI control unit.	• AV communication circuits between multifunction switch and rear control switch. • AV communication circuits between rear control switch and camera control unit.
	Without rear control switch When either one of the following items is detected: • malfunction is detected in AV communication circuits between multifunction switch and camera control unit. • malfunction is detected in AV communication circuits between camera control unit and NAVI control unit.	AV communication circuits between multifunction switch and camera control unit.
• AV COMM CIRCUIT • Switches Connection Error • DVD Deck Connection Error • Amplifier Connection Error • Rear view Camera connection Error	When either one of the following items is detected: • AV communication circuits between AV control unit and multifunction switch are malfunctioning. • AV communication signal between AV control unit and multifunction switch is malfunctioning.	AV communication circuits between AV control unit and multifunction switch.

Vehicle CAN Diagnosis

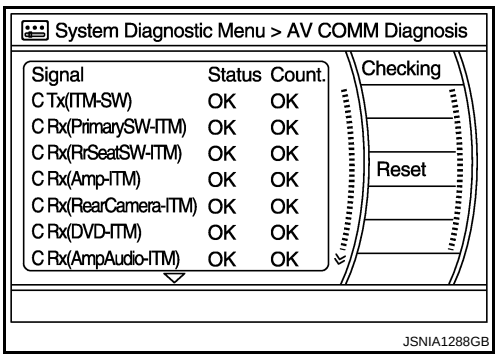
- CAN communication status and error counter is displayed.
- The error counter displays "OK" if any malfunction was not detected in the past and displays "0" if a malfunction is detected. It increases by 1 if the condition is normal at the next ignition switch ON cycle. The upper limit of the counter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

- 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.

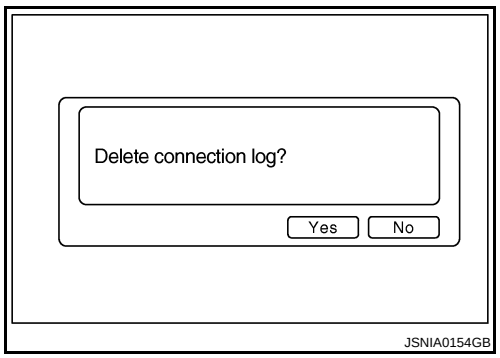


Items	Status (Current)	Counter (Past)
C Tx(ITM–SW)	OK / UNKWN	OK / 0 – 39
C Rx(PrimarySW–ITM)	OK / UNKWN	OK / 0 – 39

Items	Status (Current)	Counter (Past)
C Rx(RrSeatSW–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(DVD–ITM)	OK / UNKWN	OK / 0 – 39
C Rx(AmpAudio–ITM)	OK / UNKWN	OK / 0 – 39
C Rx(DVDAudio–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)



CONSULT-III Function (MULTI AV)

INFOID:0000000003765658

CONSULT-III FUNCTIONS

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

Diagnosis mode	Description
Ecu Identification	The part number of AV control unit can be checked.
Self Diagnostic Result	Performs a diagnosis on the AV control unit and a connection diagnosis for the communication circuit of the Multi AV system, and displays the current and past malfunctions collectively.
Data Monitor	The diagnosis of vehicle signal that is input to the AV control unit can be performed.

AV COMMUNICATION

When “AV communication” of “CAN Diag Support Monitor” is selected, the following function will be performed.

AV communication	AV&NAVI C/U	Displays the communication status from AV control unit to each unit as well as the error counter.
	AUDIO	Displays the AV control unit communication status and the error counter.

SELF-DIAGNOSIS RESULTS

- In CONSULT-III self-diagnosis, self-diagnosis results and error history are displayed collectively.
- 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 Results Display Item

Error item	Detection logic	Possible malfunction factor/Action to take
CAN COMM CIRCUIT [U1000]	CAN communication malfunction is detected.	Refer to AV-216, "Diagnosis Procedure".
CONTROL UNIT (CAN) [U1010]	CAN initial diagnosis malfunction is detected.	Replace the AV control unit. Refer toAV-378, "Removal and Installation" AV-378, "Removal and Installation".
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]		

Error item	Detection logic	Possible malfunction factor/Action to take
AMP TEMP [U1231]	BOSE amp. is detected.	Replace the BOSE amp. Refer to AV-386, "Removal and Installation".
FRONT DISP CONN [U1243]	When either one of the following items is detected: • display unit power supply and ground circuits are malfunctioning. • serial communication circuits between display unit and AV control unit are malfunctioning. • serial communication signal between display unit and AV control unit is malfunctioning.	• Display unit power supply and ground circuits Refer to AV-222, "Diagnosis Procedure". • Serial communication circuits between display unit and AV control unit
CAMERA CONT. CONN [U1250]	Camera connection recognition signal circuit malfunction is detected.	Camera connection recognition signal circuit Refer to AV-224, "Diagnosis Procedure".
CENTER SP OPEN [U1260]	Sound signal center speaker circuit is open.	Check sound signal center speaker circuit.
CENTER SP SHORT [U1261]	Sound signal center speaker circuit is shorted between center speaker signal (+) and center speaker signal (-).	Check sound signal center speaker circuit.
CENTER SP GND-SHORT [U1262]	Sound signal center speaker circuit to ground is shorted.	Check sound signal center speaker circuit.
CENTER SP VB-SHORT [U1263]	Sound signal center speaker circuit to battery is shorted.	Check sound signal center speaker circuit.
FR-DOOR SP OPEN [U1264]	Sound signal front speaker RH circuit is open.	Check sound signal front speaker RH circuit.
FR-DOOR SP SHORT [U1265]	Sound signal front speaker RH circuit is shorted between front speaker RH signal (+) and front speaker RH signal (-).	Check sound signal front speaker RH circuit.
FR-DOOR SP GND-SHORT [U1266]	Sound signal front speaker RH circuit to ground is shorted.	Check sound signal front speaker RH circuit.
FR-DOOR SP VB-SHORT [U1267]	Sound signal front speaker RH circuit to battery is shorted.	Check sound signal front speaker RH circuit.
RR-SP/FR-WOOFER OPEN [U1268]	Sound signal rear speaker RH circuit is open.	Check sound signal rear speaker RH circuit.
RR-SP/FR-WOOFER SHORT [U1269]	Sound signal rear speaker RH circuit is shorted between rear speaker LH signal (+) and rear speaker LH signal (-).	Check sound signal rear speaker RH circuit.
RR-SP/FR-WOOFER GND-SHORT [U126A]	Sound signal rear speaker RH circuit to ground is shorted.	Check sound signal rear speaker RH circuit.
RR-SP/FR-WOOFER VB-SHORT [U126B]	Sound signal rear speaker RH circuit to battery is shorted.	Check sound signal rear speaker RH circuit.
RR-SURROUND SP OPEN [U126C]	Sound signal woofer RH circuit is open.	Check sound signal woofer RH circuit.
RR-SURROUND SP SHORT [U126D]	Sound signal woofer RH circuit is shorted between woofer RH signal (+) and woofer RH signal (-).	Check sound signal woofer RH circuit.
RR-SURROUND SP GND-SHORT [U126E]	Sound signal woofer RH circuit to ground is shorted.	Check sound signal woofer RH circuit.
RR-SURROUND SP VB-SHORT [U126F]	Sound signal woofer RH circuit to battery is shorted.	Check sound signal woofer RH circuit.
RL-SURROUND SP OPEN [U1274]	Sound signal woofer LH circuit is open.	Check sound signal woofer LH circuit.
RL-SURROUND SP SHORT [U1275]	Sound signal woofer LH circuit is shorted between woofer LH signal (+) and woofer LH signal (-).	Check sound signal woofer LH circuit.

Error item	Detection logic	Possible malfunction factor/Action to take
RL-SURROUND SP GND-SHORT [U1276]	Sound signal woofer LH circuit to ground is shorted.	Check sound signal woofer LH circuit.
RL-SURROUND SP VB-SHORT [U1277]	Sound signal woofer LH circuit to battery is shorted.	Check sound signal woofer LH circuit.
RL-SP/FL-WOOFER OPEN [U1278]	Sound signal rear speaker LH circuit is open.	Check sound signal rear speaker LH circuit.
RL-SP/FL-WOOFER SHORT [U1279]	Sound signal rear speaker LH circuit is shorted between rear speaker LH signal (+) and rear speaker LH signal (-).	Check sound signal rear speaker LH circuit.
RL-SP/FL-WOOFER GND-SHORT [U127A]	Sound signal rear speaker LH circuit to ground is shorted.	Check sound signal rear speaker LH circuit.
RL-SP/FL-WOOFER VB-SHORT [U127B]	Sound signal rear speaker LH circuit to battery is shorted.	Check sound signal rear speaker LH circuit.
FL-DOOR SP OPEN [U127C]	Sound signal front speaker LH circuit is open.	Check sound signal front speaker LH circuit.
FL-DOOR SP SHORT [U127D]	Sound signal front speaker LH circuit is shorted between front speaker LH signal (+) and front speaker LH signal (-).	Check sound signal front speaker LH circuit.
FL-DOOR SP GND-SHORT [U127E]	Sound signal front speaker LH circuit to ground is shorted.	Check sound signal front speaker LH circuit.
FL-DOOR SP VB-SHORT [U127F]	Sound signal front speaker LH circuit to battery is shorted.	Check sound signal front speaker LH circuit.
FR-TWEETER OPEN [U1294]	Sound signal front squawker RH circuit is open.	Check sound signal front squawker RH circuit.
FR-TWEETER SHORT [U1295]	Sound signal front squawker RH circuit is shorted between front squawker RH signal (+) and front squawker RH signal (-).	Check sound signal front squawker RH circuit.
FR-TWEETER GND-SHORT [U1296]	Sound signal front squawker RH circuit to ground is shorted.	Check sound signal front squawker RH circuit.
FR-TWEETER VB-SHORT [U1297]	Sound signal front squawker RH circuit to battery is shorted.	Check sound signal front squawker RH circuit.
FL-TWEETER OPEN [U1298]	Sound signal front squawker LH circuit is open.	Check sound signal front squawker LH circuit.
FL-TWEETER SHORT [U1299]	Sound signal front squawker LH circuit is shorted between front squawker LH signal (+) and front squawker LH signal (-).	Check sound signal front squawker LH circuit.
FL-TWEETER GND-SHORT [U129A]	Sound signal front squawker LH circuit to ground is shorted.	Check sound signal front squawker LH circuit.
FL-TWEETER VB-SHORT [U129B]	Sound signal front squawker LH circuit to battery is shorted.	Check sound signal front squawker LH circuit.
• AV COMM CIRCUIT [U1300] • SWITCH CONN [U1240]	When either one of the following items is detected: • Multifunction switch power supply and ground circuits are malfunctioning. • AV communication circuits between AV control unit and multifunction switch are malfunctioning. • AV communication signal between AV control unit and multifunction switch is malfunctioning.	• Multifunction switch power supply and ground circuits refer to AV-237, "MULTIFUNCTION SWITCH : Diagnosis Procedure". • AV communication circuits between AV control unit and multifunction switch

Error item	Detection logic	Possible malfunction factor/Action to take
• AV COMM CIRCUIT [U1300] • AMP CONN [U124E]	When either one of the following items is detected: • BOSE amp. power supply and ground circuits are malfunctioning. • AV communication signal between AV control unit and BOSE amp. is malfunctioning.	BOSE amp. power supply and ground circuits Refer to AV-238, "BOSE AMP. : Diagnosis Procedure".
• AV COMM CIRCUIT [U1300] • DVD DECK CONN [U1248]	When either one of the following items is detected: • DVD player power supply and ground circuits are malfunctioning. • AV communication circuits between BOSE amp. and DVD player are malfunctioning. • AV communication signal between AV control unit and DVD player is malfunctioning.	• DVD player power supply and ground circuits Refer to AV-239, "DVD PLAYER : Diagnosis Procedure" • AV communication circuits between BOSE amp. and DVD player
• AV COMM CIRCUIT [U1300] • AMP CONN [U1252]	When either one of the following items is detected: • camera control unit power supply and ground circuits are malfunctioning. • AV communication signal between AV control unit and Camera control unit is malfunctioning.	Camera control unit power supply and ground circuits Refer to AV-239, "CAMERA CONTROL UNIT : Diagnosis Procedure".
• AV COMM CIRCUIT [U1300] • DVD DECK CONN [U1248] • AMP CONN [U124E]	When either one of the following items is detected: • AV communication circuits between camera control unit and BOSE amp. are malfunctioning. • AV communication signal between AV control unit and BOSE amp. is malfunctioning.	AV communication circuits between camera control unit and BOSE amp.
• AV COMM CIRCUIT [U1300] • DVD DECK CONN [U1248] • AMP CONN [U124E] • REAR-CAMERA LAN CONN [U1252]	With rear control switch When either one of the following items is detected: • malfunction is detected in AV communication circuits between rear control switch and camera control unit. • malfunction is detected in AV communication circuits between camera control unit and NAVI control unit.	• AV communication circuits between multifunction switch and rear control switch • AV communication circuits between rear control switch and camera control unit
	Without rear control switch When either one of the following items is detected: • malfunction is detected in AV communication circuits between multifunction switch and camera control unit. • malfunction is detected in AV communication circuits between camera control unit and NAVI control unit.	AV communication circuits between multifunction switch and camera control unit
• AV COMM CIRCUIT [U1300] • SWITCH CONN [U1240] • DVD DECK CONN [U1248] • AMP CONN [U124E] • REAR-CAMERA LAN CONN [U1252]	When either one of the following items is detected: • AV communication circuits between AV control unit and multifunction switch are malfunctioning. • AV communication signal between AV control unit and multifunction switch is malfunctioning.	AV communication circuits 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.

Display Item	Display	Vehicle status	Remarks
VHCL SPD SIG	On	Vehicle speed >0 km/h (0 MPH)	Changes in indication may be delayed. This is normal.
	Off	Vehicle speed =0 km/h (0 MPH)	
PKB SIG	On	Parking brake is applied.	
	Off	Parking brake is released.	
ILLUM SIG	On	Block the light beam from the auto light optical sensor when the light switch is ON .	—
	Off	Expose the auto light optical sensor to light when the light switch 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	

COMPONENT DIAGNOSIS

U1000 CAN COMM CIRCUIT

Description

INFOID:0000000003765661

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-22, "CAN Communication Signal Chart".

DTC Logic

INFOID:0000000003765662

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:0000000003765663

1.PERFORM SELF DIAGNOSTIC

1. Turn ignition switch ON and wait for 2 seconds or more.
2. Check “Self Diagnostic Result” of “MULTI AV”.

Is “CAN COMM CIRCUIT” displayed?

YES >> Refer to “LAN system”. Refer to LAN-14, "Trouble Diagnosis Flow Chart".
NO >> Refer to GI section. Refer to GI-35, "Intermittent Incident".

U1010 CONTROL UNIT (CAN)

Description

INFOID:0000000003765664

Initial diagnosis of AV control unit.

DTC Logic

INFOID:0000000003765665

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:0000000003765666

1.REPLACE AV CONTROL UNIT

When DTC U1010 is detected, replace AV control unit.

>> INSPECTION END

U1310 AV CONTROL UNIT

Description

INFOID:0000000003765667

Replace the AV control unit if this DTC is displayed. Refer to AV-378, "Removal and Installation".

Part name	Description
AV CONTROL UNIT	• It is the master unit of the MULTI AV system, and it is connected to each control unit by communication. It operates each system according to communication signals from the AV control unit. • AV control unit includes audio function and vehicle information function. • It is connected to ECM and combination meter. via CAN communication to obtain necessary information for the vehicle information function. • It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function. • Composite image signal (AUX and DVD images) is input from DVD player. • Camera image signal is input from camera control unit. • Composite image (DVD, AUX and camera images) signal is output to display unit. • Sound signal (DVD and AUX sounds) is input from the DVD player. • Power (signal VCC and inverter VCC) is transmitted to front display unit.

DTC Logic

INFOID:0000000003765668

DTC DETECTION LOGIC

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

U1200 AV CONTROL UNIT

Description

INFOID:0000000003765669

Replace the AV control unit if this DTC is displayed. Refer to AV-378, "Removal and Installation".

Part name	Description
AV CONTROL UNIT	• It is the master unit of the MULTI AV system, and it is connected to each control unit by communication. It operates each system according to communication signals from the AV control unit. • AV control unit includes audio function and vehicle information function. • It is connected to ECM and combination meter. via CAN communication to obtain necessary information for the vehicle information function. • It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function. • Composite image signal (AUX and DVD images) is input from DVD player. • Camera image signal is input from camera control unit. • Composite image (DVD, AUX and camera images) signal is output to display unit. • Sound signal (DVD and AUX sounds) is input from the DVD player. • Power (signal VCC and inverter VCC) is transmitted to front display unit.

DTC Logic

INFOID:0000000003765670

DTC DETECTION LOGIC

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

U1216 AV CONTROL UNIT

Description

INFOID:0000000003765671

Replace the AV control unit if this DTC is displayed. Refer to AV-378, "Removal and Installation".

Part name	Description
AV CONTROL UNIT	• It is the master unit of the MULTI AV system, and it is connected to each control unit by communication. It operates each system according to communication signals from the AV control unit. • AV control unit includes audio function and vehicle information function. • It is connected to ECM and combination meter. via CAN communication to obtain necessary information for the vehicle information function. • It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function. • Composite image signal (AUX and DVD images) is input from DVD player. • Camera image signal is input from camera control unit. • Composite image (DVD, AUX and camera images) signal is output to display unit. • Sound signal (DVD and AUX sounds) is input from the DVD player. • Power (signal VCC and inverter VCC) is transmitted to front display unit.

DTC Logic

INFOID:0000000003765672

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.

U1231 BOSE AMP.

Description

INFOID:0000000003900431

Replace the BOSE amp. if this DTC is displayed. Refer to AV-386, "Removal and Installation".

Part name	Description
BOSE AMP.	Inputs sound signal from AV control unit and DVD player, and outputs sound signal to woofer and each speaker.

DTC Logic

INFOID:0000000003900432

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1231	AMP TEMP [U1231]	Internal malfunction of BOSE amp. is detected.	Replace BOSE amp.

U1243 DISPLAY UNIT

Description

INFOID:0000000003765673

Part name	Description
DISPLAY UNIT	• Display image is controlled by the serial communication from AV control unit. • It receives the power (signal VCC and inverter VCC) from the AV control unit and operates. • RGB image signal is input from AV control unit (RGB, RGB area and RGB synchronizing). • Composite image (DVD, AUX and camera images) signal is input from AV control unit. • Synchronize signal (HP, VP) is output to AV control unit.

DTC Logic

INFOID:0000000003765674

DTC DETECTION LOGIC

DTC	Display contents of CONSULT-III	DTC Detection Condition	Possible causes
U1243	FRONT DISP CONN [U1243]	When either one of the following items is detected: • display unit power supply and ground circuits are malfunctioning. • serial communication circuits between display unit and AV control unit are malfunctioning. • serial communication signal between display unit and AV control unit is malfunctioning.	• Display unit power supply and ground circuits. • Serial communication circuits between display unit and AV control unit

Diagnosis Procedure

INFOID:0000000003901175

1.CHECK DISPLAY UNIT POWER SUPPLY AND GROUND CIRCUIT

Check display unit power supply and ground circuit. Refer to AV-236, "DISPLAY UNIT : Diagnosis Procedure".

Is inspection result normal?

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 and AV control unit harness connector.

Display unit		AV control unit		Continuity
Connector	Terminals	Connector	Terminals	
M49	11	M129	56	Existed
	22		44	

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

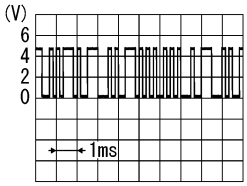
Display unit		Ground	Continuity
Connector	Terminals		
M49	11		Not existed
	22		

Is inspection result normal?

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 and ground using an oscilloscope.

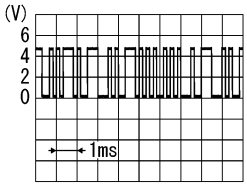
(+)		(–)	Condition	Reference value
Display unit				
Connector	Terminal			
M49	11	Ground	When adjusting display brightness.	 PKIB5039J

Is inspection result normal?

YES >> GO TO 4.
NO >> Replace AV control unit.

4.CHECK COMMUNICATION SIGNAL

Check signal between display unit harness connector terminal and ground using an oscilloscope.

(+)		(–)	Condition	Reference value
Display unit				
Connector	Terminal			
M49	22	Ground	When adjusting display brightness.	 PKIB5039J

Is inspection result normal?

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

U1250 CAMERA CONTROL UNIT

Description

INFOID:0000000003838244

Part name	Description
CAMERA CONTROL UNIT	• Camera image signal is input from rear view camera. Camera image signal output to AV control unit. • Power supply is transmitted to rear view camera. • AV control unit recognizes the presence of camera system with camera connection recognition signal. • Camera control unit is connected via AV communication.

DTC Logic

INFOID:0000000003838245

DTC	Display contents of CONSULT-III	DTC Detection Condition	Possible causes
U1250	CAMERA CONT. CONN [U1250]	Malfunction is detected in camera connection recognition signal circuit.	Camera connection recognition signal circuit.

Diagnosis Procedure

INFOID:0000000003901177

1.CHECK CONTINUITY RECOGNITION SIGNAL CIRCUIT

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

AV control unit		Camera control unit		Continuity
Connector	Terminals	Connector	Terminals	
M130	68	B251	14	Existed

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

AV control unit		Ground	Continuity
Connector	Terminals		
M130	68		Not existed

Is inspection result normal?

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

2.CHECK AV CONTROL UNIT VOLTAGE

1. Connect AV control unit connector and camera control unit connector.
2. Turn ignition switch ON.
3. Check signal between AV control unit harness connector terminal and ground using an oscilloscope.

(+)		(–)	Condition	Voltage (Approx.)
AV control unit				
Connector	Terminal			
M130	68	Ground	Connected camera control unit connector	0 V
			Disconnect camera control unit connector	5 V

Is inspection result normal?

YES >> Replace AV control unit.

NO >> Replace camera control unit.

U1260, U1261, U1262, U1263 CENTER SPEAKER

Description

INFOID:0000000003901588

Part name	Description
CENTER SPEAKER	• Outputs sound signal from BOSE amp. • Outputs sound (high and mid range).

DTC Logic

INFOID:0000000003901589

DTC DETECTION LOGIC

DTC	Display contents of CONSULT-III	DTC Detection Condition	Possible causes
U1260	CENTER SP OPEN [U1260]	Sound signal center speaker circuit is open.	Check sound signal center speaker circuit.
U1261	CENTER SP SHORT [U1261]	Sound signal center speaker circuit is shorted between center speaker signal (+) and center speaker signal (-).	Check sound signal center speaker circuit.
U1262	CENTER SP GND-SHORT [U1262]	Sound signal center speaker circuit to ground is shorted.	Check sound signal center speaker circuit.
U1263	CENTER SP VB-SHORT [U1263]	Sound signal center speaker circuit to battery is shorted.	Check sound signal center speaker circuit.

Diagnosis Procedure

INFOID:0000000003901590

1.PERFORM THE SELF-DIAGNOSIS

1. Delete the self-diagnosis results. Turn ignition switch OFF.
2. Turn ignition switch ON. perform the self-diagnosis again.
3. Check that the DTC is detected again.

Is any DTC detected?

YES >> Repair sound signal center speaker circuit harness or connector.
NO >> Refer to GI section. Refer to GI-35, "Intermittent Incident".

U1264, U1265, U1266, U1267 FRONT RIGHT DOOR SPEAKER

Description

INFOID:0000000003901591

Part name	Description
FRONT RIGHT DOOR SPEAKER	• Outputs sound signal from BOSE amp. • Outputs sound (mid and low range).

DTC Logic

INFOID:0000000003901592

DTC DETECTION LOGIC

DTC	Display contents of CONSULT-III	DTC Detection Condition	Possible causes
U1264	FR-DOOR SP OPEN [U1264]	Sound signal front speaker RH circuit is open.	Check sound signal front speaker RH circuit.
U1265	FR-DOOR SP SHORT [U1265]	Sound signal front speaker RH circuit is shorted between front speaker RH signal (+) and front speaker RH signal (-).	Check sound signal front speaker RH circuit.
U1266	FR-DOOR SP GND-SHORT [U1266]	Sound signal front speaker RH circuit to ground is shorted.	Check sound signal front speaker RH circuit.
U1267	FR-DOOR SP VB-SHORT [U1267]	Sound signal front speaker RH circuit to battery is shorted.	Check sound signal front speaker RH circuit.

Diagnosis Procedure

INFOID:0000000003901593

1.PERFORM THE SELF-DIAGNOSIS

1. Delete the self-diagnosis results. Turn ignition switch OFF.
2. Turn ignition switch ON. perform the self-diagnosis again.
3. Check that the DTC is detected again.

Is any DTC detected?

YES >> Repair sound signal front speaker RH circuit harness or connector.
NO >> Refer to GI section. Refer to GI-35, "Intermittent Incident".

U1268, U1269, U126A, U126B REAR RIGHT DOOR SPEAKER

Description

INFOID:0000000003901594

Part name	Description
REAR RIGHT DOOR SPEAKER	• Outputs sound signal from BOSE amp. • Outputs sound (mid and low range).

DTC Logic

INFOID:0000000003901595

DTC DETECTION LOGIC

DTC	Display contents of CONSULT-III	DTC Detection Condition	Possible causes
U1268	RR-SP/FR-WOOFER OPEN [U1268]	Sound signal rear speaker LH circuit is open.	Check sound signal rear speaker LH circuit.
U1269	RR-SP/FR-WOOFER SHORT [U1269]	Sound signal rear speaker LH circuit is shorted between rear speaker LH signal (+) and rear speaker LH signal (-).	Check sound signal rear speaker LH circuit.
U126A	RR-SP/FR-WOOFER GND- SHORT [U126A]	Sound signal rear speaker LH circuit to ground is shorted.	Check sound signal rear speaker LH circuit.
U126B	RR-SP/FR-WOOFER VB-SHORT [U126B]	Sound signal rear speaker LH circuit to battery is shorted.	Check sound signal rear speaker LH circuit.

Diagnosis Procedure

INFOID:0000000003901596

1. PERFORM THE SELF-DIAGNOSIS

1. Delete the self-diagnosis results. Turn ignition switch OFF.
2. Turn ignition switch ON. perform the self-diagnosis again.
3. Check that the DTC is detected again.

Is any DTC detected?

YES >> Repair sound signal rear speaker RH circuit harness or connector.
NO >> Refer to GI section. Refer to GI-35, "Intermittent Incident".

U126C, U126D, U126E, U126F REAR RIGHT SQUAWKER/ RIGHT WOOFER

Description

INFOID:0000000003901597

Part name	Description
REAR RIGHT SQUAWKER	• Outputs sound signal from BOSE amp. • Outputs sound (high and mid range).
RIGHT WOOFER	• Outputs sound signal from BOSE amp. • Outputs low frequency sound.

DTC Logic

INFOID:0000000003901598

DTC DETECTION LOGIC

DTC	Display contents of CONSULT-III	DTC Detection Condition	Possible causes
U126C	RR-SURROUND SP OPEN [U126C]	Sound signal woofer RH circuit is open.	Check sound signal woofer RH circuit.
U126D	RR-SURROUND SP SHORT [U12D1]	Sound signal woofer RH circuit is shorted between woofer RH signal (+) and woofer RH signal (-).	Check sound signal woofer RH circuit.
U126E	RR-SURROUND SP GND- SHORT [U126E]	Sound signal woofer RH circuit to ground is shorted.	Check sound signal woofer RH circuit.
U126F	RR-SURROUND SP VB-SHORT [U126F]	Sound signal woofer RH circuit to battery is shorted.	Check sound signal woofer RH circuit.

Diagnosis Procedure

INFOID:0000000003901599

1. PERFORM THE SELF-DIAGNOSIS

1. Delete the self-diagnosis results. Turn ignition switch OFF.
2. Turn ignition switch ON. perform the self-diagnosis again.
3. Check that the DTC is detected again.

Is any DTC detected?

YES >> Repair sound signal woofer RH circuit harness or connector.
NO >> Refer to GI section. Refer to GI-35, "Intermittent Incident".

U1274, U1275, U1276, U1277 REAR LEFT SQUAWKER/LEFT WOOFER

Description

INFOID:0000000003901600

Part name	Description
REAR RIGHT SQUAWKER	• Outputs sound signal from BOSE amp. • Outputs sound (high and mid range).
RIGHT WOOFER	• Outputs sound signal from BOSE amp. • Outputs low frequency sound.

DTC Logic

INFOID:0000000003901601

DTC DETECTION LOGIC

DTC	Display contents of CONSULT-III	DTC Detection Condition	Possible causes
U1274	RL-SURROUND SP OPEN [U1274]	Sound signal woofer LH circuit is open.	Check sound signal woofer LH circuit.
U1275	RL-SURROUND SP SHORT [U1275]	Sound signal woofer LH circuit is shorted between woofer LH signal (+) and woofer LH signal (-).	Check sound signal woofer LH circuit.
U1276	RL-SURROUND SP GND- SHORT [U1276]	Sound signal woofer LH circuit to ground is shorted.	Check sound signal woofer LH circuit.
U1277	RL-SURROUND SP VB-SHORT [U1277]	Sound signal woofer LH circuit to battery is shorted.	Check sound signal woofer LH circuit.

Diagnosis Procedure

INFOID:0000000003901602

1.PERFORM THE SELF-DIAGNOSIS

1. Delete the self-diagnosis results. Turn ignition switch OFF.
2. Turn ignition switch ON. perform the self-diagnosis again.
3. Check that the DTC is detected again.

Is any DTC detected?

YES >> Repair sound signal woofer LH circuit harness or connector.
NO >> Refer to GI section. Refer to GI-35, "Intermittent Incident".

U1278, U1279, U127A, U127B REAR LEFT DOOR SPEAKER

Description

INFOID:0000000003901603

Part name	Description
REAR LEFT DOOR SPEAKER	• Outputs sound signal from BOSE amp. • Outputs sound (mid and low range).

DTC Logic

INFOID:0000000003901604

DTC DETECTION LOGIC

DTC	Display contents of CONSULT-III	DTC Detection Condition	Possible causes
U1278	RL- SP/FL-WOOFER OPEN [U1278]	Sound signal rear speaker LH circuit is open.	Check sound signal rear speaker LH circuit.
U1279	RL- SP/FL-WOOFER SHORT [U1279]	Sound signal rear speaker LH circuit is shorted between rear speaker LH signal (+) and rear speaker LH signal (-).	Check sound signal rear speaker LH circuit.
U127A	RL- SP/FL-WOOFER GND- SHORT [U127A]	Sound signal rear speaker LH circuit to ground is shorted.	Check sound signal rear speaker LH circuit.
U127B	RL- SP/FL-WOOFER VB-SHORT [U127B]	Sound signal rear speaker LH circuit to battery is shorted.	Check sound signal rear speaker LH circuit.

Diagnosis Procedure

INFOID:0000000003901605

1. PERFORM THE SELF-DIAGNOSIS

1. Delete the self-diagnosis results. Turn ignition switch OFF.
2. Turn ignition switch ON. perform the self-diagnosis again.
3. Check that the DTC is detected again.

Is any DTC detected?

YES >> Repair sound signal rear speaker LH circuit harness or connector.
NO >> Refer to GI section. Refer to GI-35, "Intermittent Incident".

U127C, U127D, U127E, U127F FRONT LEFT DOOR SPEAKER

Description

INFOID:0000000003901606

Part name	Description
FRONT LEFT DOOR SPEAKER	• Outputs sound signal from BOSE amp. • Outputs sound (mid and low range).

DTC Logic

INFOID:0000000003901607

DTC DETECTION LOGIC

DTC	Display contents of CONSULT-III	DTC Detection Condition	Possible causes
U127C	FL- DOOR SP OPEN [U127C]	Sound signal front speaker LH circuit is open.	Check sound signal front speaker LH circuit.
U127D	FL- DOOR SP SHORT [U127D]	Sound signal front speaker LH circuit is shorted between front speaker LH signal (+) and front speaker LH signal (-).	Check sound signal front speaker LH circuit.
U127E	FL- DOOR SP GND-SHORT [U127E]	Sound signal front speaker LH circuit to ground is shorted.	Check sound signal front speaker LH circuit.
U127F	FL- DOOR SP VB-SHORT [U127F]	Sound signal front speaker LH circuit to battery is shorted.	Check sound signal front speaker LH circuit.

Diagnosis Procedure

INFOID:0000000003901608

1.PERFORM THE SELF-DIAGNOSIS

1. Delete the self-diagnosis results. Turn ignition switch OFF.
2. Turn ignition switch ON. perform the self-diagnosis again.
3. Check that the DTC is detected again.

Is any DTC detected?

YES >> Repair sound signal front speaker LH circuit harness or connector.
NO >> Refer to GI section. Refer to GI-35, "Intermittent Incident".

U1294, U1295, U1296, U1297 FRONT RIGHT SQUAWKER

Description

INFOID:0000000003901609

Part name	Description
FRONT RIGHT SQUAWKER	• Outputs sound signal from BOSE amp. • Outputs sound (high and mid range).

DTC Logic

INFOID:0000000003901610

DTC DETECTION LOGIC

DTC	Display contents of CONSULT-III	DTC Detection Condition	Possible causes
U1294	FR-TWEETER OPEN [U1294]	Sound signal front squawker RH circuit is open.	Check sound signal front squawker RH circuit.
U1295	FR-TWEETER SHORT [U1295]	Sound signal front squawker RH circuit is shorted between front squawker RH signal (+) and front squawker RH signal (-).	Check sound signal front squawker RH circuit.
U1296	FR-TWEETER GND-SHORT [U1296]	Sound signal front squawker RH circuit to ground is shorted.	Check sound signal front squawker RH circuit.
U1297	FR-TWEETER VB-SHORT [U1297]	Sound signal front squawker RH circuit to battery is shorted.	Check sound signal front squawker RH circuit.

Diagnosis Procedure

INFOID:0000000003901611

1.PERFORM THE SELF-DIAGNOSIS

1. Delete the self-diagnosis results. Turn ignition switch OFF.
2. Turn ignition switch ON. perform the self-diagnosis again.
3. Check that the DTC is detected again.

Is any DTC detected?

YES >> Repair sound signal front squawker RH circuit harness or connector.
NO >> Refer to GI section. Refer to GI-35, "Intermittent Incident".

U1298, U1299, U129A, U129B FRONT LEFT SQUAWKER

Description

INFOID:0000000003901612

Part name	Description
FRONT LEFT SQUAWKER	• Outputs sound signal from BOSE amp. • Outputs sound (high and mid range).

DTC Logic

INFOID:0000000003901613

DTC DETECTION LOGIC

DTC	Display contents of CONSULT-III	DTC Detection Condition	Possible causes
U1298	FR-TWEETER OPEN [U1298]	Sound signal front squawker LH circuit is open.	Check sound signal front squawker LH circuit.
U1299	FR-TWEETER SHORT [U1299]	Sound signal front squawker LH circuit is shorted between front squawker LH signal (+) and front squawker LH signal (-).	Check sound signal front squawker LH circuit.
U129A	FR-TWEETER GND-SHORT [U129A]	Sound signal front squawker LH circuit to ground is short-ed.	Check sound signal front squawker LH circuit.
U129B	FR-TWEETER VB-SHORT [U129B]	Sound signal front squawker LH circuit to battery is short-ed.	Check sound signal front squawker LH circuit.

Diagnosis Procedure

INFOID:0000000003901614

1.PERFORM THE SELF-DIAGNOSIS

1. Delete the self-diagnosis results. Turn ignition switch OFF.
2. Turn ignition switch ON. perform the self-diagnosis again.
3. Check that the DTC is detected again.

Is any DTC detected?

YES >> Repair sound signal front squawker LH circuit harness or connector.
NO >> Refer to GI section. Refer to GI-35, "Intermittent Incident".

U1300 AV COMM CIRCUIT

Description

INFOID:0000000003765676

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]	When either one of the following items is detected: • multifunction switch power supply and ground circuits are malfunctioning. • AV communication circuits between AV control unit and multifunction switch are malfunctioning. • AV communication signal between AV control unit and multifunction switch is malfunctioning.	• Multifunction switch power supply and ground circuits. Refer to AV-237, "MULTIFUNCTION SWITCH : Diagnosis Procedure". • AV communication circuits between AV control unit and multifunction switch.
U1300 U1248	• AV COMM CIRCUIT [U1300] • DVD DECK CONN [U1248]	When either one of the following items is detected: • DVD player power supply and ground circuits are malfunctioning. • AV communication circuits between BOSE amp. and DVD player are malfunctioning. • AV communication signal between AV control unit and DVD player is malfunctioning.	• DVD player power supply and ground circuits. Refer to AV-239, "DVD PLAYER : Diagnosis Procedure". • AV communication circuits between BOSE amp. and DVD player.
U1300 U124E	• AV COMM CIRCUIT [U1300] • AMP CONN [U124E]	When either one of the following items is detected: • BOSE amp. power supply and ground circuits are malfunctioning. • AV communication signal between AV control unit and BOSE amp. is malfunctioned.	BOSE amp. power supply and ground circuits. Refer to AV-238, "BOSE AMP. : Diagnosis Procedure".
U1300 U1252	• AV COMM CIRCUIT [U1300] • REAR-CAMERA LAN CONN [U1252]	Camera control unit power supply and ground circuits are malfunctioning.	Camera control unit power supply and ground circuits. Refer to AV-239, "CAMERA CONTROL UNIT : Diagnosis Procedure"
U1300 U1248 U124E	• AV COMM CIRCUIT [U1300] • DVD DECK CONN [U1248] • AMP CONN [U124E]	When either one of the following items is detected: • AV communication circuits between NAVI control unit and BOSE amp. are malfunctioning. • AV communication signal between NAVI control unit and BOSE amp. is malfunctioning.	AV communication circuits between NAVI control unit and BOSE amp.
U1300 U1248 U124E U1252	• AV COMM CIRCUIT [U1300] • DVD DECK CONN [U1248] • AMP CONN [U124E] • REAR-CAMERA LAN CONN [U1252]	With rear control switch When either one of the following items is detected: • malfunction is detected in AV communication circuits between rear control switch and camera control unit. • malfunction is detected in AV communication circuits between camera control unit and BOSE amp.	• AV communication circuits between multifunction switch and rear control switch. • AV communication circuits between rear control switch and camera control unit.
		Without rear control switch When either one of the following items is detected: • malfunction is detected in AV communication circuits between multifunction switch and camera control unit. • malfunction is detected in AV communication circuits between camera control unit and BOSE amp.	AV communication circuits between multifunction switch and camera control unit.
U1300 U1240 U1248 U124E U1252	• AV COMM CIRCUIT [U1300] • SWITCH CONN [U1240] • DVD DECK CONN [U1248] • AMP CONN [U124E] • REAR-CAMERA LAN CONN [U1252]	When either one of the following items is detected: • AV communication circuits between AV control unit and multifunction switch are malfunctioning. • AV communication signal between AV control unit and multifunction switch is malfunctioning.	AV communication circuits between AV control unit and multifunction switch.

POWER SUPPLY AND GROUND CIRCUIT

AV CONTROL UNIT

AV CONTROL UNIT : Diagnosis Procedure

INFOID:0000000003901178

1.CHECK FUSE

Check for blown fuses.

Power source	Fuse No.
Battery	31
Ignition switch ACC or ON	19
Ignition switch ON or START	4

Is inspection result normal?

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	Voltage (Approx.)
Battery power supply	M127	19	OFF	Battery voltage
ACC power supply		7	ACC	
Ignition signal	M131	104	ON	

Is inspection result normal?

YES >> GO TO 3.
NO >> Check harness between AV control unit and fuse.

3.CHECK GROUND CIRCUIT

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

Signal name	Connector No.	Terminal No.	Ignition switch position	Continuity
Ground	M127	20	OFF	Existed
	M131	85		

Is inspection result normal?

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

DISPLAY UNIT

DISPLAY UNIT : Diagnosis Procedure

INFOID:0000000003901179

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	Voltage (Approx.)
Inverter VCC	M49	2	ACC	9 V
Signal VCC		3		

Is inspection result normal?

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

2.CHECK GROUND CIRCUIT

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 and AV control unit harness connector.

Signal name	Display unit		AV control unit		Continuity
	Connector No.	Terminal No.	Connector No.	Terminal No.	
Ground	M49	2	M129	59	Existed
		3		47	

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

Signal name	Display unit		Ground	Continuity
	Connector No.	Terminal No.		
Inverter VCC	M49	2		Not existed
Signal VCC		3		

Is inspection result normal?

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	Voltage (Approx.)
Inverter VCC	M129	59	ACC	9 V
Signal VCC		47		

Is inspection result normal?

YES >> INSPECTED END.
NO >> Replace AV control unit.

4.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	Display unit		Ground	Continuity
	Connector No.	Terminal No.		
Ground	M49	1		Existed

Is inspection result normal?

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

MULTIFUNCTION SWITCH

MULTIFUNCTION SWITCH : Diagnosis Procedure

INFOID:0000000003901181

1.CHECK FUSE

Check for blown fuses.

Power source	Fuse No.
Ignition switch ACC or ON	19

Is inspection result normal?

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	Voltage (Approx.)
ACC power supply	M125	3	ACC	Battery voltage

Is inspection result normal?

YES >> GO TO 3.
NO >> Check harness between multifunction switch and fuse.

3.CHECK GROUND CIRCUIT

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

Signal name	Connector No.	Terminal No.	Ignition switch position	Continuity
Ground	M125	1	OFF	Existed

Is inspection result normal?

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

BOSE AMP.

BOSE AMP. : Diagnosis Procedure

INFOID:0000000003901182

1.CHECK FUSE

Check for blown fuses.

Power source	Fuse No.
Battery	32, 33
Ignition switch ACC	19

Is the inspection result normal?

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	Voltage (Approx.)
Battery power supply	B224	10	OFF	Battery voltage
		11		
ACC power supply	B225	20	ACC	

Is the inspection result normal?

YES >> GO TO 3.
NO >> Check harness between BOSE amp. and fuse.

3.CHECK GROUND CIRCUIT

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

Signal name	Connector No.	Terminal No.	Ignition switch position	Continuity
Ground	B224	7	OFF	Existed
		12		

Is the inspection result normal?

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

CAMERA CONTROL UNIT

CAMERA CONTROL UNIT : Diagnosis Procedure

INFOID:0000000003901183

1.CHECK FUSE

Check for blown fuses.

Power source	Fuse No.
Battery	31
Ignition switch ACC	19

Is inspection result normal?

YES >> GO TO 2.
NO >> Be sure to eliminate cause of malfunction before installing new fuse.

2.CHECK POWER SUPPLY CIRCUITS

Check voltage between camera control unit harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Voltage (Approx.)
Battery power supply	B251	32	OFF	Battery voltage
ACC power supply		30	ACC	

Is inspection result normal?

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	B251	31	OFF	Existed

Is inspection result normal?

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

DVD PLAYER

DVD PLAYER : Diagnosis Procedure

INFOID:0000000003901184

1.CHECK FUSE

Check for blown fuses.

Power source	Fuse No.
Battery	31
Ignition switch ACC or ON	19

Is inspection result normal?

YES >> GO TO 2.
NO >> Be sure to eliminate cause of malfunction before installing new fuse.

2.CHECK POWER SUPPLY CIRCUIT

Check voltage between DVD player harness connectors and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Voltage (Approx.)
Battery power supply	M254	2	OFF	Battery voltage
ACC power supply		4	ACC	

Is inspection result normal?

YES >> GO TO 3.
NO >> Check harness between DVD player and fuse.

3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect DVD player connectors.
3. Check continuity between DVD player harness connectors and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Continuity
Ground	M254	1	OFF	Existed

Is inspection result normal?

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

RGB (R: RED) SIGNAL CIRCUIT (AV CONTROL UNIT TO DISPLAY UNIT)

Description

INFOID:0000000003765703

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

Diagnosis Procedure

INFOID:0000000003901185

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 and AV control unit harness connector.

Display unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M49	17	M129	40	Existed

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

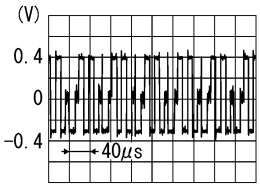
Display unit		Ground	Continuity
Connector	Terminal		
M49	17		Not existed

Is inspection result normal?

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 and ground using an oscilloscope.

(+) Display unit		(–)	Condition	Reference value
Connector	Terminal			
M49	17	Ground	Start Confirmation / Adjustment mode, and then display color bar by selecting “Color Spectrum Bar” on DISPLAY DIAGNOSIS screen.	 SKIB2238J

Is inspection result normal?

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

RGB (G: GREEN) SIGNAL CIRCUIT (AV CONTROL UNIT TO DISPLAY UNIT)

Description

INFOID:0000000003765705

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

Diagnosis Procedure

INFOID:0000000003901186

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 and AV control unit harness connector.

Display unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M49	6	M129	39	Existed

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

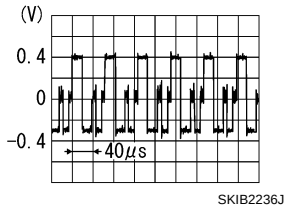
Display unit		Ground	Continuity
Connector	Terminal		
M49	6		Not existed

Is inspection result normal?

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 and ground using an oscilloscope.

(+) Display unit		(–)	Condition	Reference value
Connector	Terminal			
M49	6	Ground	Start Confirmation / Adjustment mode, and then display color bar by selecting “Color Spectrum Bar” on DISPLAY DIAGNOSIS screen.	 SKIB2236J

Is inspection result normal?

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

RGB (B: BLUE) SIGNAL CIRCUIT (AV CONTROL UNIT TO DISPLAY UNIT)

Description

INFOID:0000000003765707

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

Diagnosis Procedure

INFOID:0000000003901187

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 and AV control unit harness connector.

Display unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M49	18	M129	38	Existed

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

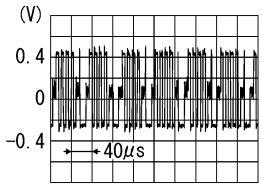
Display unit		Ground	Continuity
Connector	Terminal		
M49	18		Not existed

Is inspection result normal?

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 and ground using an oscilloscope.

(+) Display unit		(–)	Condition	Reference value
Connector	Terminal			
M49	18	Ground	Start Confirmation / Adjustment mode, and then display color bar by selecting “Color Spectrum Bar” on DISPLAY DIAGNOSIS screen.	 SKIB2237J

Is inspection result normal?

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

RGB SYNCHRONIZING SIGNAL CIRCUIT (AV CONTROL UNIT TO DISPLAY UNIT)

Description

INFOID:0000000003765709

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

Diagnosis Procedure

INFOID:0000000003901188

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 and AV control unit harness connector.

Display unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M49	19	M129	41	Existed

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

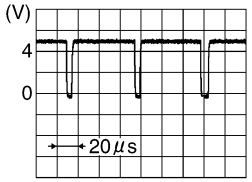
Display unit		Ground	Continuity
Connector	Terminal		
M49	19		Not existed

Is inspection result normal?

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 and ground using an oscilloscope.

(+) Display unit		(–)	Condition	Reference value
Connector	Terminal			
M49	19	Ground	—	

SKIB3603E

Is inspection result normal?

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

RGB AREA (YS) SIGNAL CIRCUIT

Description

INFOID:0000000003765711

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

Diagnosis Procedure

INFOID:0000000003901189

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 and AV control unit harness connector.

Display unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M49	9	M129	43	Existed

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

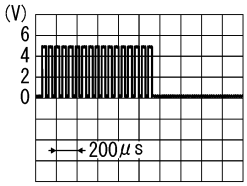
Display unit		Ground	Continuity
Connector	Terminal		
M49	9		Not existed

Is inspection result normal?

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 and ground using an oscilloscope.

(+) Display unit		(–)	Condition	Reference value
Connector	Terminal			
M49	9	Ground	When RGB image is displayed.	Approx. 5 V
			When AUX image is displayed.	 PKIB4948J

Is inspection result normal?

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

HORIZONTAL SYNCHRONIZING (HP) SIGNAL CIRCUIT

Description

INFOID:0000000003765713

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:0000000003901190

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 and AV control unit harness connector.

Display unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M49	8	M129	45	Existed

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

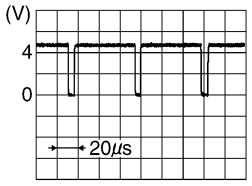
Display unit		Ground	Continuity
Connector	Terminal		
M49	8		Not existed

Is inspection result normal?

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 and ground using an oscilloscope.

(+)		(–)	Condition	Reference value
Display unit				
Connector	Terminal			
M49	8	Ground	—	

SKIB3601E

Is inspection result normal?

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

VERTICAL SYNCHRONIZING (VP) SIGNAL CIRCUIT

Description

INFOID:0000000003765715

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:0000000003901191

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 and AV control unit harness connector.

Display unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M49	20	M129	57	Existed

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

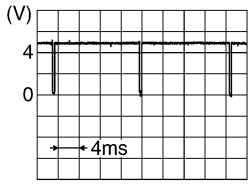
Display unit		Ground	Continuity
Connector	Terminal		
M49	20		Not existed

Is inspection result normal?

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 and ground using an oscilloscope.

(+) Display unit		(–)	Condition	Reference value
Connector	Terminal			
M49	20	Ground	—	

SKIB3598E

Is inspection result normal?

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

AUX IMAGE SIGNAL CIRCUIT

Description

INFOID:0000000003765717

Transmits the image signal of external device from auxiliary input jacks to AV control unit.

Diagnosis Procedure

INFOID:0000000003901192

1.CHECK CONTINUITY AUX IMAGE SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect auxiliary input jacks connector and DVD player connector.
3. Check continuity between auxiliary input jacks harness connector and DVD player harness connector.

Auxiliary input jacks		DVD player		Continuity
Connector	Terminals	Connector	Terminals	
M253	7	M254	8	Existed
	8		10	

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

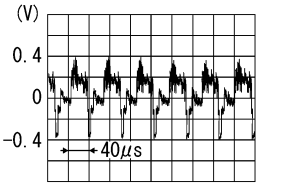
Auxiliary input jacks		Ground	Continuity
Connector	Terminal		
M253	7		Not existed

Is inspection result normal?

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

2.CHECK AUX IMAGE SIGNAL

1. Connect auxiliary input jacks connector and DVD player connector.
2. Turn ignition switch ON.
3. Make AUX image signal being input.
4. Check signal between auxiliary input jacks harness connector using an oscilloscope.

(+)		(–)		Condition	Reference value
Auxiliary input jacks		Auxiliary input jacks			
Connector	Terminal	Connector	Terminal		
M253	7	M253	8	When AUX image is displayed.	

SKIB2251J

Is inspection result normal?

YES >> Replace DVD player.
NO >> Check that there is no malfunction in the external device.

DISK EJECT SIGNAL CIRCUIT

Description

INFOID:0000000003765719

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

Diagnosis Procedure

INFOID:0000000003901193

1.CHECK CONTINUITY DISK EJECT SIGNAL CIRCUIT

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

Multifunction switch		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M125	14	M131	103	Existed

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

Multifunction switch		Ground	Continuity
Connector	Terminal		
M125	14		Not existed

Is inspection result normal?

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 and ground.

(+)		(–)	Condition	Reference value
AV control unit				
Connector	Terminal			
M131	103	Ground	Pressing the eject switch.	0 V
			Except for above.	3.3 V

Is inspection result normal?

YES >> Replace preset switch.
NO >> Replace AV control unit.

REAR VIEW CAMERA POWER SUPPLY

Description

INFOID:0000000003838249

- 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 AV control unit.

Diagnosis Procedure

INFOID:0000000003901194

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 and rear view camera harness connector.

Camera control unit		Rear view camera		Continuity
Connector	Terminal	Connector	Terminal	
B251	8	T103	1	Existed

4. Check continuity between camera control unit harness connector and ground.

Camera control unit		Ground	Continuity
Connector	Terminal		
B251	8		Not existed

Is inspection result normal?

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 and ground.

(+)		(–)	Condition	Voltage (Approx.)
Camera control unit				
Connector	Terminal			
B251	8	Ground	Selector lever in R position.	6.0 V
			Other than selector lever in R position.	0 V

Is inspection result normal?

YES >> Replace rear view camera.
NO >> Replace camera control unit.

CAMERA IMAGE SIGNAL CIRCUIT

Description

INFOID:0000000003765723

- 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 AV control unit.

Diagnosis Procedure

INFOID:0000000003901195

1.CHECK CONTINUITY CAMERA IMAGE SIGNAL CIRCUIT

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

Camera control unit		AV control unit		Continuity
Connector	Terminals	Connector	Terminals	
B251	11	M130	64	Existed
	12		65	

4. Check continuity between camera control unit harness connector and ground.

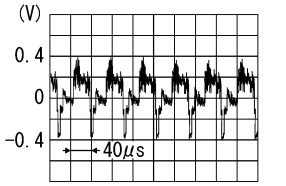
Camera control unit		Ground	Continuity
Connector	Terminal		
B251	12		Not existed

Is inspection result normal?

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

2.CHECK CAMERA IMAGE SIGNAL

1. Connect camera control unit connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check signal between camera control unit harness connector using an oscilloscope.

(+)		(–)	Condition	Reference value
Camera control unit				
Connector	Terminal			
B251	12	Ground	When rear view camera image is displayed.	

SKIB2251J

Is inspection result normal?

YES >> Replace AV control unit.
NO >> Replace camera control unit.

COMPOSITE IMAGE SIGNAL CIRCUIT

Description

INFOID:0000000003765725

AV control unit that inputs the camera image signal and AUX image signal transmits the composite image signal to the display unit.

Diagnosis Procedure

INFOID:0000000003901196

1.CHECK CONTINUITY COMPOSITE IMAGE SIGNAL CIRCUIT (AV CONTROL UNIT TO DISPLAY UNIT)

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

AV control unit		Display unit		Continuity
Connector	Terminals	Connector	Terminals	
M129	36	M49	15	Existed
	37		5	

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

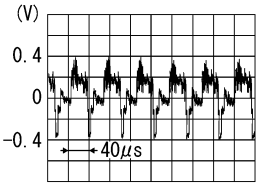
AV control unit		Ground	Continuity
Connector	Terminal		
M129	36		Not existed

Is inspection result normal?

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

2.CHECK COMPOSITE IMAGE SIGNAL (AV CONTROL UNIT TO DISPLAY UNIT)

1. Connect AV control unit connector and display unit connector.
2. Turn ignition switch ON.
3. Check signal between AV control unit harness connector using an oscilloscope.

(+)		(–)	Condition	Reference value
AV control unit		Ground		
Connector	Terminal			
M129	36		When AUX or camera image is displayed.	

SKIB2251J

Is inspection result normal?

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

STEERING ANGLE SENSOR SIGNAL CIRCUIT

Description

INFOID:0000000003765727

- 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:0000000003901197

1.CHECK CONTINUITY STEERING ANGLE SENSOR SIGNAL 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 and steering angle sensor harness connector.

Camera control unit		Steering angle sensor		Continuity
Connector	Terminals	Connector	Terminals	
B251	23	M30	3	Existed
	24		6	
	25		8	

4. Check continuity between camera control unit harness connector and ground.

Camera control unit		Ground	Continuity
Connector	Terminals		
B251	23	Ground	Not existed
	24		
	25		

Is inspection result normal?

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

2.CHECK SIGNAL SENSOR SIGNAL

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

(+)		(–)	Voltage (Approx.)
Camera control unit			
Connector	Terminals		
B251	23	Ground	5.0 V
	24		
	25		

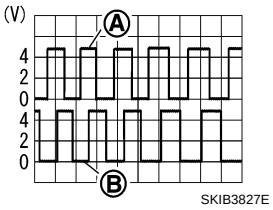
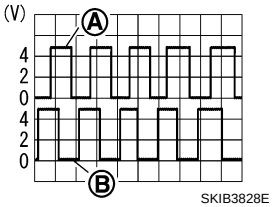
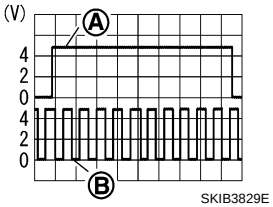
Is inspection result normal?

YES >> GO TO 3.
NO >> Replace camera control unit.

3.CHECK SIGNAL SENSOR SIGNAL

1. Turn ignition switch OFF.
2. Connect steering angle sensor connector.

3. Turn ignition switch ON.
4. Check signal between camera control unit harness connector and ground.

(+)		(–)	Condition	Reference value
Camera control unit				
Connector	Terminals			
B251	23, 24	Ground	Turn the steering to the right	 SKIB3827E A: Sensor signal 1 B: Sensor signal 2
			Turn the steering to the left	 SKIB3828E A: Sensor signal 1 B: Sensor signal 2
	25	Ground	Turn the steering around the neutral position	 SKIB3829E A: Sensor signal 3 B: Sensor signal 1

Is inspection result normal?

YES >> INSPECTION END
NO >> Replace steering angle sensor.

STEERING SWITCH SIGNAL A CIRCUIT

Description

INFOID:0000000003765729

Transmits the steering switch signal to AV control unit.

Diagnosis Procedure

INFOID:0000000003765730

1.CHECK STEERING SWITCH SIGNAL A CIRCUIT

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

AV control unit		Spiral cable		Continuity
Connector	Terminal	Connector	Terminal	
M127	6	M33	24	Existed

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

AV control unit		Ground	Continuity
Connector	Terminal		
M127	6		Not existed

Is inspection result normal?

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

2.CHECK SPIRAL CABLE

Check spiral cable.

Is inspection result normal?

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

3.CHECK AV CONTROL UNIT VOLTAGE

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

(+)		(–)		Voltage (Approx.)
AV control unit		AV control unit		
Connector	Terminal	Connector	Terminal	
M127	6	M127	15	3.3 V

Is inspection result normal?

YES >> GO TO 4.
NO >> Replace AV control unit.

4.CHECK STEERING SWITCH

1. Turn ignition switch OFF.
2. Check steering switch. Refer to AV-256, "Component Inspection".

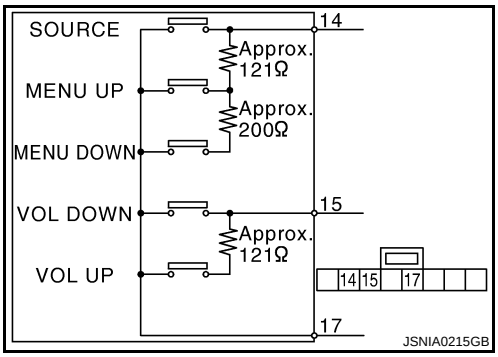
Is inspection result normal?

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

Component Inspection

INFOID:0000000003765731

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



Standard

Steering switch				Condition	Resistance Ω
Connector	Terminal	Connector	Terminal		
M303	14	M303	17	MENU DOWN switch ON	315 – 327
				MENU UP switch ON	119 – 123
				SOURCE switch ON	1
	15			VOL UP switch ON	119 – 123
				VOL DOWN switch ON	1

STEERING SWITCH SIGNAL B CIRCUIT

Description

INFOID:0000000003765732

Transmits the steering switch signal to AV control unit.

Diagnosis Procedure

INFOID:0000000003765733

1.CHECK STEERING SWITCH SIGNAL B CIRCUIT

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

AV control unit		Spiral cable		Continuity
Connector	Terminal	Connector	Terminal	
M127	16	M33	31	Existed

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

AV control unit		Ground	Continuity
Connector	Terminal		
M127	16		Not existed

Is inspection result normal?

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

2.CHECK SPIRAL CABLE

Check spiral cable.

Is inspection result normal?

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

3.CHECK AV CONTROL UNIT VOLTAGE

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

(+)		(–)		Voltage (Approx.)
AV control unit		AV control unit		
Connector	Terminal	Connector	Terminal	
M127	16	M127	15	3.3 V

Is inspection result normal?

YES >> GO TO 4.
NO >> Replace AV control unit.

4.CHECK STEERING SWITCH

1. Turn ignition switch OFF.
2. Check steering switch. Refer to AV-258, "Component Inspection".

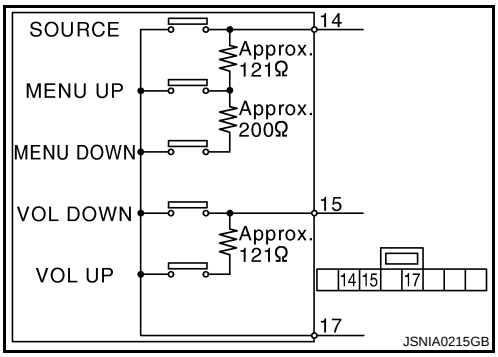
Is inspection result normal?

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

Component Inspection

INFOID:0000000003765734

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



Standard

Steering switch				Condition	Resistance Ω
Connector	Terminal	Connector	Terminal		
M303	14	M303	17	MENU DOWN switch ON	315 – 327
				MENU UP switch ON	119 – 123
				SOURCE switch ON	1
	15			VOL UP switch ON	119 – 123
				VOL DOWN switch ON	1

STEERING SWITCH SIGNAL GND CIRCUIT

Description

INFOID:0000000003765735

Transmits the steering switch signal to AV control unit.

Diagnosis Procedure

INFOID:0000000003765736

1.CHECK STEERING SWITCH SIGNAL GND CIRCUIT

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

AV control unit		Spiral cable		Continuity
Connector	Terminal	Connector	Terminal	
M127	15	M33	33	Existed

4. Connect AV control unit connector.

Is inspection result normal?

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

2.CHECK SPIRAL CABLE

Check spiral cable.

Is inspection result normal?

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

3.CHECK GROUND CIRCUIT

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

AV control unit		Ground	Continuity
Connector	Terminal		
M127	15		Existed

Is inspection result normal?

YES >> GO TO 4.
NO >> Replace AV control unit.

4.CHECK STEERING SWITCH

Check steering switch. Refer to AV-260, "Component Inspection".

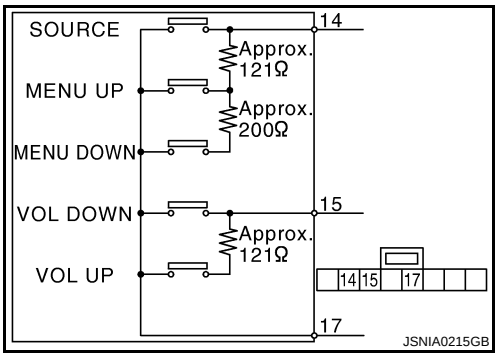
Is inspection result normal?

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

Component Inspection

INFOID:0000000003765737

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



Standard

Steering switch				Condition	Resistance Ω
Connector	Terminal	Connector	Terminal		
M303	14	M303	17	MENU DOWN switch ON	315 – 327
				MENU UP switch ON	119 – 123
				SOURCE switch ON	1
	15			VOL UP switch ON	119 – 123
				VOL DOWN switch ON	1

ECU DIAGNOSIS

AV CONTROL UNIT

Reference Value

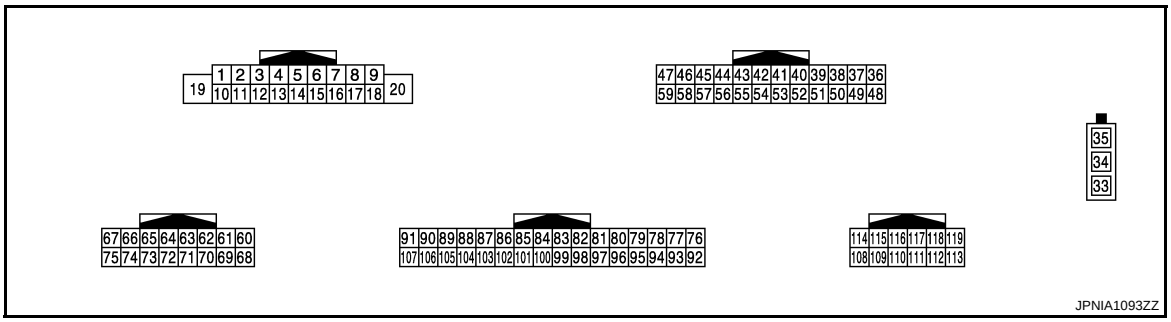
INFOID:0000000003765757

VALUES ON THE DIAGNOSIS TOOL

CONSULT-III data monitor item

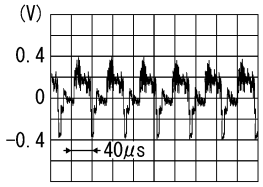
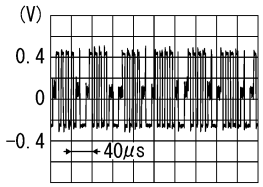
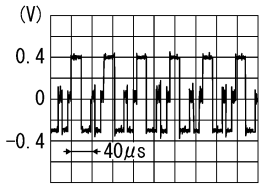
Display Item	Display	Vehicle status	Remarks
VHCL SPD SIG	On	Vehicle speed >0 km/h (0 MPH)	Changes in indication may be delayed. This is normal.
	Off	Vehicle speed =0 km/h (0 MPH)	
PKB SIG	On	Parking brake is applied.	Changes in indication may be delayed. This is normal.
	Off	Parking brake is released.	
ILLUM SIG	On	Light switch ON.	—
	Off	Light switch OFF.	
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.	

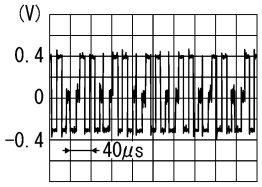
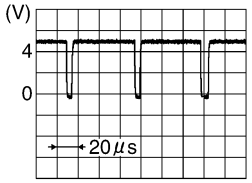
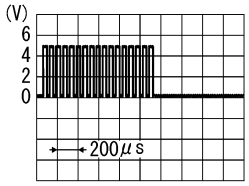
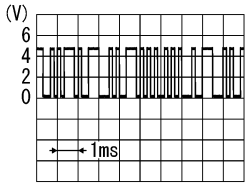
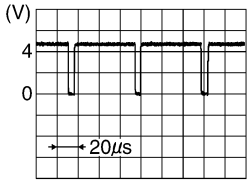
TERMINAL LAYOUT

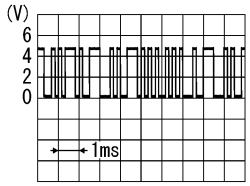
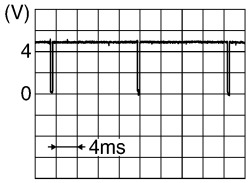
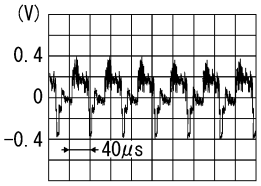
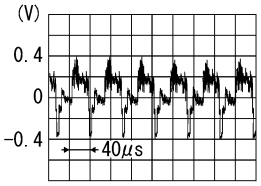


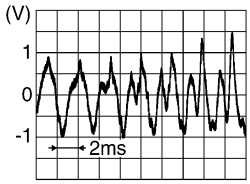
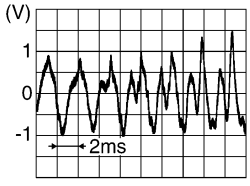
PHYSICAL VALUES

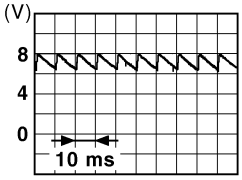
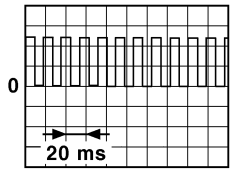
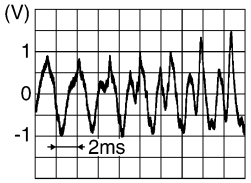
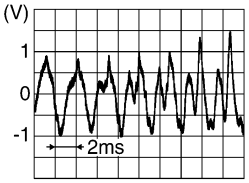
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
6 (W/G)	15 (L/B)	Steering switch signal A	Input	Ignition switch ON	Keep pressing SOURCE switch.	0 V
					Keep pressing △ switch.	0.7 V
					Keep pressing ▽ switch.	1.3 V
					Except for above.	3.3 V
7 (V/W)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
9 (R/L)	Ground	Illumination signal	Input	Ignition switch OFF	Lighting switch is OFF.	0 V
					Lighting switch is ON.	12.0 V

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
15 (L/B)	Ground	Steering switch signal ground	—	Ignition switch ON	—	0 V
16 (GR/L)	15 (L/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
19 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
20 (B/W)	Ground	Ground	—	Ignition switch ON	—	0 V
33	—	FM sub	Input	—	—	—
34	—	AM–FM main	Input	—	—	—
35	Ground	Antenna amp. ON signal	Output	Ignition switch ACC	—	12.0 V
36 (B)	Ground	Composite image signal	Output	Ignition switch ON	When camera image, DVD image or AUX image is displayed.	 SKIB2251J
37 (W)	Ground	Composite image signal ground	—	Ignition switch ON	—	0 V
38 (B)	Ground	RGB image 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
39 (R)	Ground	RGB image 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

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
40 (W)	Ground	RGB image 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
41 (G)	Ground	RGB synchronizing signal	Output	Ignition switch ON	—	 SKIB3603E
42	—	RGB synchronizing signal shield	—	—	—	—
43 (B)	Ground	RGB area (YS) signal	Output	Ignition switch ON	When RGB image is displayed.	5.0 V
					When camera image, DVD image or AUX image is displayed.	 PKIB4948J
44 (G)	Ground	Communication signal (DISP→CONT)	Input	Ignition switch ON	When adjusting display brightness.	 PKIB5039J
45 (W)	Ground	Horizontal synchronizing (HP) signal	Input	Ignition switch ON	—	 SKIB3601E
46 (LG)	Ground	Signal ground	—	Ignition switch ACC	—	—
47 (O)	Ground	Signal VCC	Output	Ignition switch ACC	—	9.0 V
49	—	Shield	—	—	—	—
50	—	RGB signal Shield	—	—	—	—
55	—	Shield	—	—	—	—

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
56 (R)	Ground	Communication signal (CONT→DISP)	Output	Ignition switch ON	When adjusting display brightness.	 PKIB5039J
57 (R)	Ground	Vertical synchronizing (VP) signal	Input	Ignition switch ON	—	 SKIB3598E
58 (BR)	Ground	Inverter ground	—	Ignition switch ACC	—	—
59 (Y)	Ground	Inverter VCC	Output	Ignition switch ACC	—	9.0 V
64	—	Camera image signal shield	—	—	—	—
65 (Y)	Ground	Camera image signal	Input	Ignition switch ON	When camera image is displayed.	 SKIB2251J
66 (V)	Ground	Composite (DVD and AUX) image signal	Input	Ignition switch ON	When DVD image or AUX image is displayed.	 SKIB2251J
68 (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.	5.0 V
73	—	Composite image signal shield	—	—	—	—
74 (G)	Ground	Composite (DVD and AUX) image signal ground	—	Ignition switch ON	—	0 V

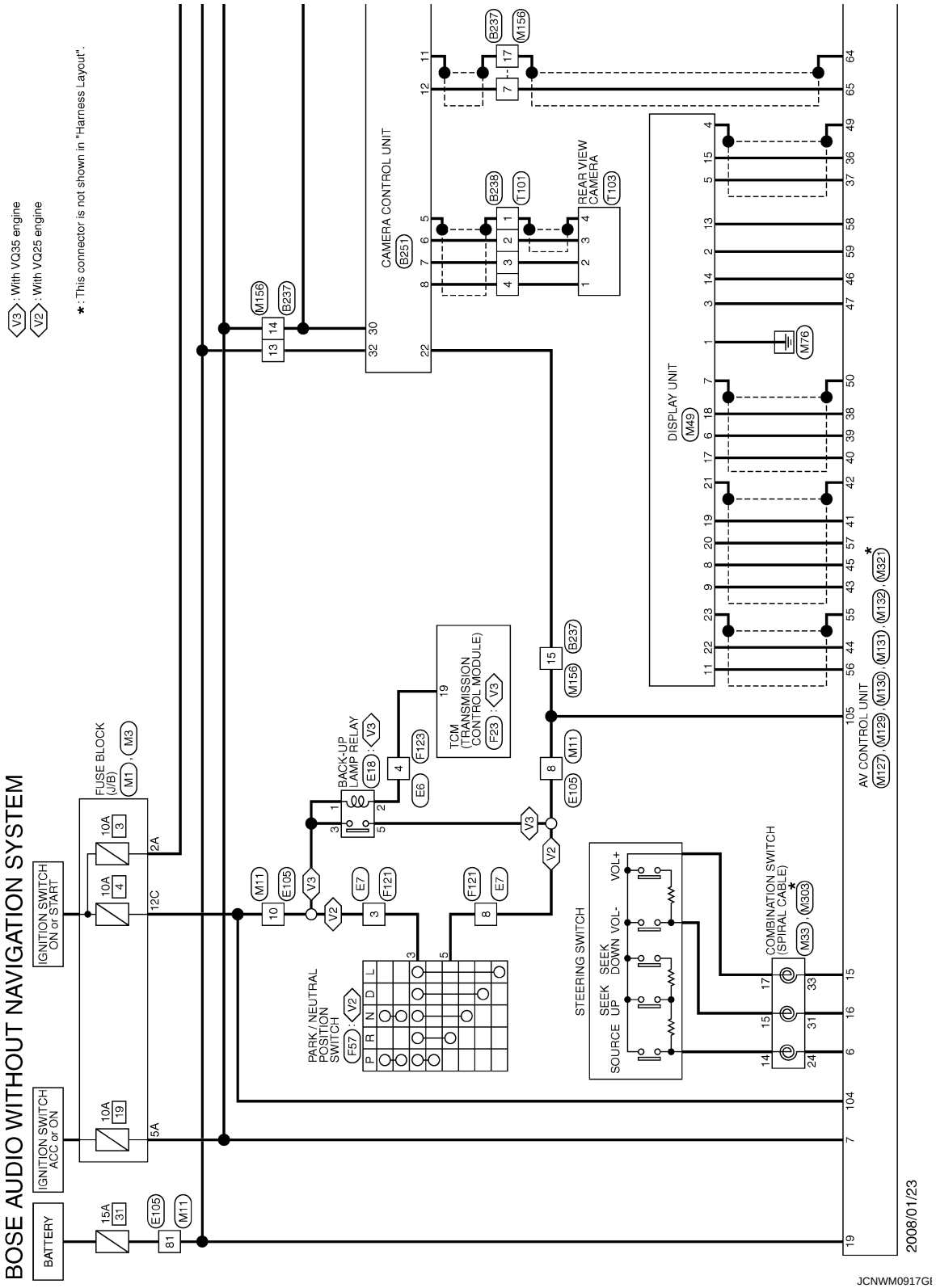
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
83 (R)	82 (W)	Stereo (DVD and AUX) sound signal RH	Input	Ignition switch ON	DVD* and AUX sound output.	 SKIB3609E
85 (B/W)	Ground	Ground	—	Ignition switch ON	—	0 V
86 (L)	—	CAN–H	Input/ Output	—	—	—
87 (P)	—	CAN–L	Input/ Output	—	—	—
88 (W)	—	AV communication signal (H)	Input/ Output	—	—	—
89 (B)	—	AV communication signal (L)	Input/ Output	—	—	—
90 (L)	—	AV communication signal (H)	Input/ Output	—	—	—
91 (R)	—	AV communication signal (L)	Input/ Output	—	—	—
99 (B)	98 (G)	Stereo (DVD and AUX) sound signal LH	Input	Ignition switch ON	DVD* or AUX sound output.	 SKIB3609E
100	—	Shield	—	—	—	—
101 (BR)	Ground	Switch ground	—	Ignition switch ON	—	0 V
103 (SB)	Ground	Disk eject signal	Input	Ignition switch ON	Pressing the eject switch.	0 V
					Except for above.	3.3 V
104 (O)	Ground	Ignition signal	Input	Ignition switch ON	—	Battery voltage
105 (P/B)	Ground	Reverse signal	Input	Ignition switch ON	Selector lever in R position.	12.0 V
					Other than selector lever in R position.	0 V

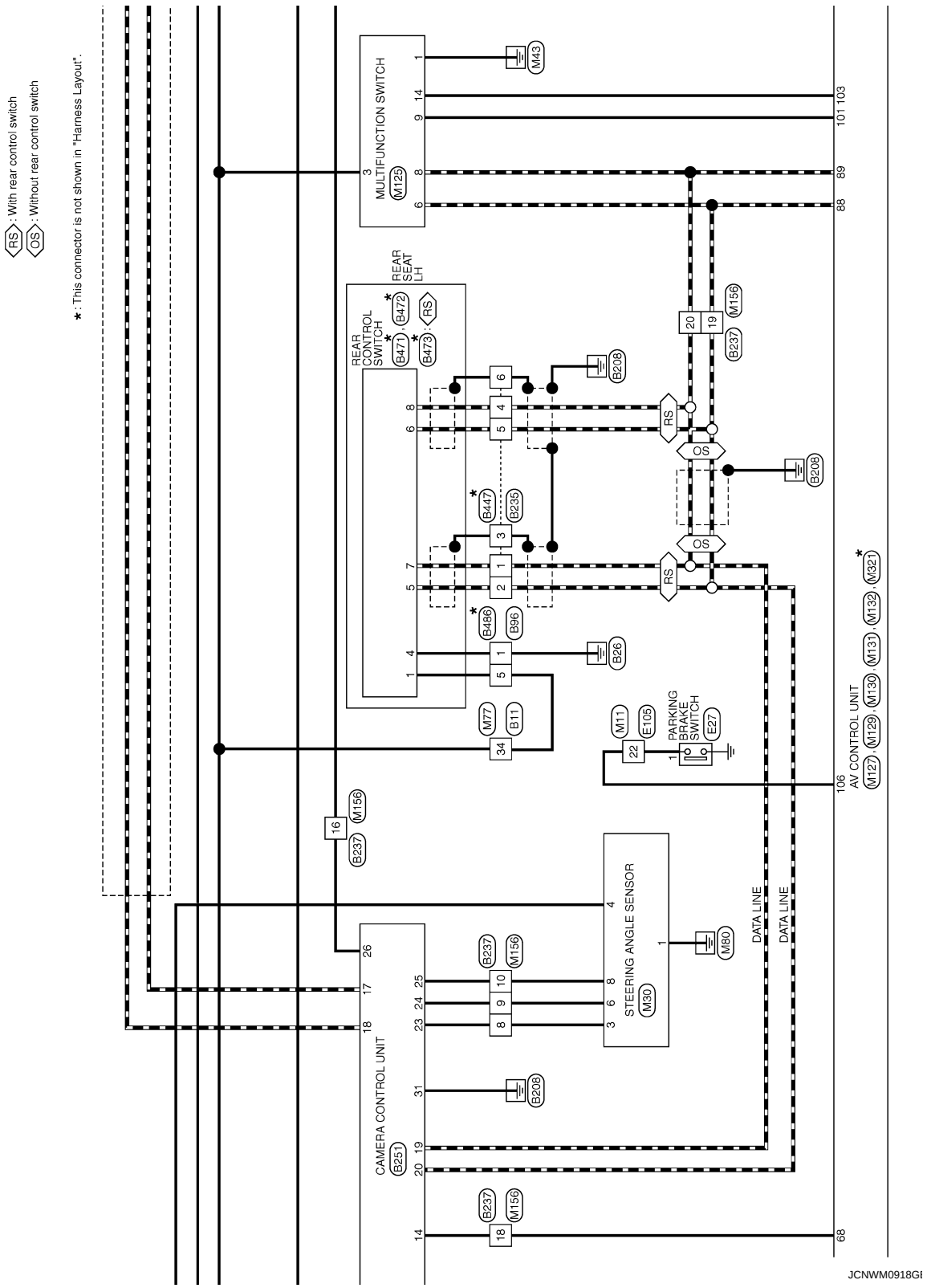
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
106 (G/R)	Ground	Parking brake signal	Input	Ignition switch ON	Parking brake ON.	0 V
					Parking brake OFF.	 JSNIA0007GB
107 (V/W)	Ground	Vehicle speed signal (8-pulse)	Input	Ignition switch ON	When vehicle speed is approx. 40 km/h (25MPH).	**NOTE:** The maximum voltage varies depending on the specification (destination unit).  JSNIA0012GB
109 (W)	115 (B)	Stereo sound signal front RH	Output	Ignition switch ON	Audio output	 SKIB3609E
111	—	Shield	—	—	—	—
113 (W)	119 (B)	Stereo sound signal LH	Output	Ignition switch ON	Audio output	 SKIB3609E

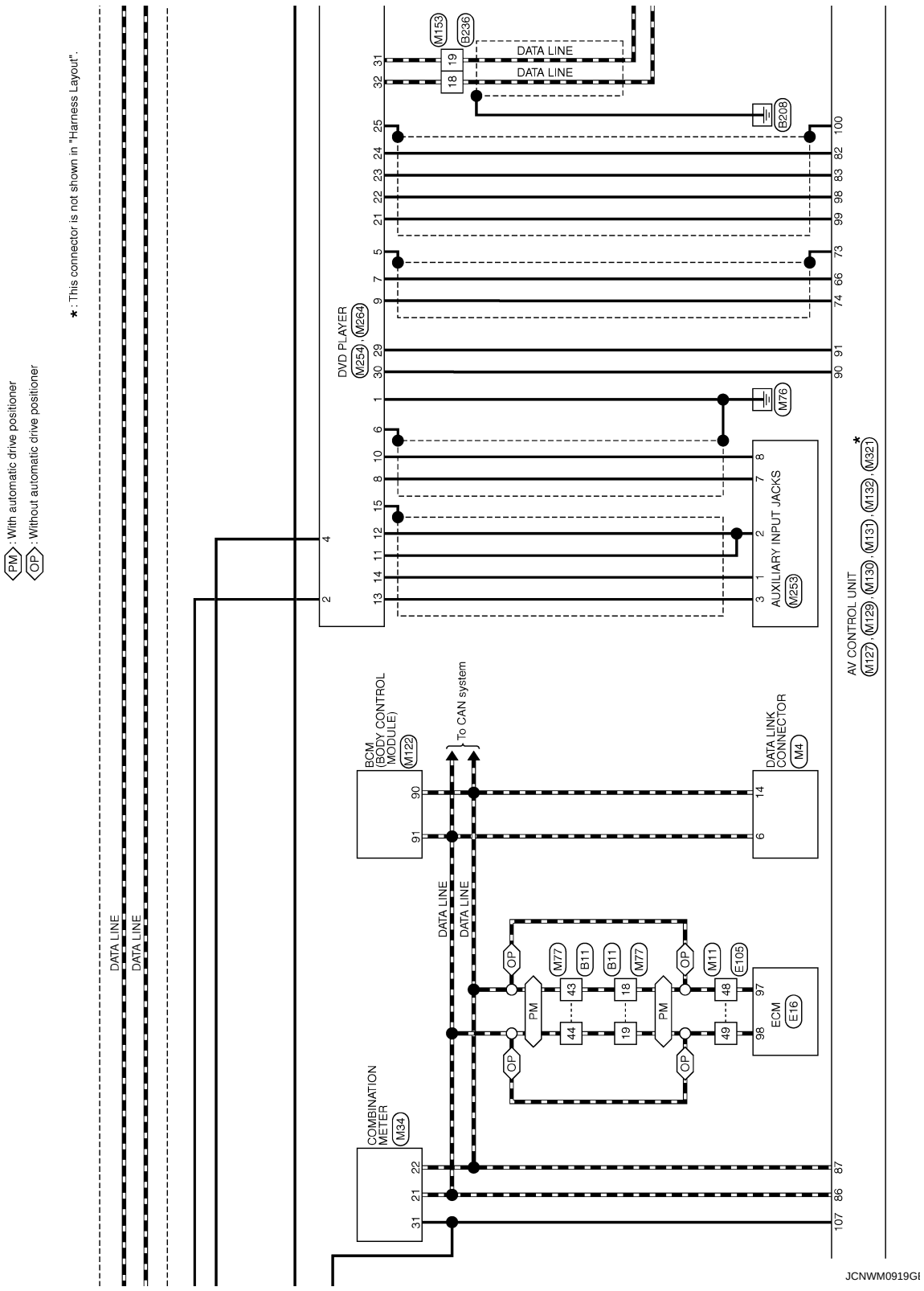
*:Stereo sounds are input only when the 2 channel stereo sound is played.

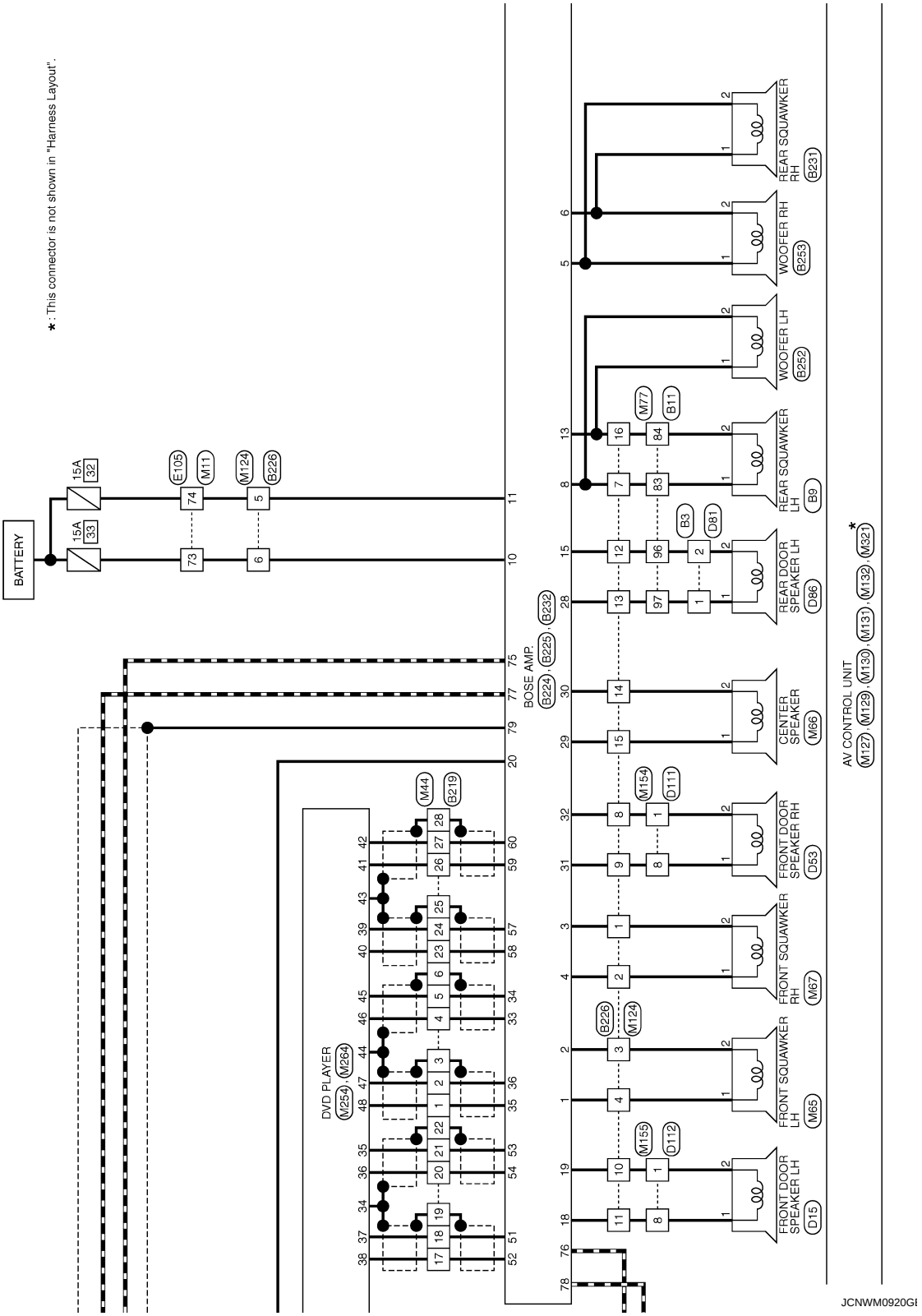
Wiring Diagram — BOSE AUDIO WITHOUT NAVIGATION SYSTEM —

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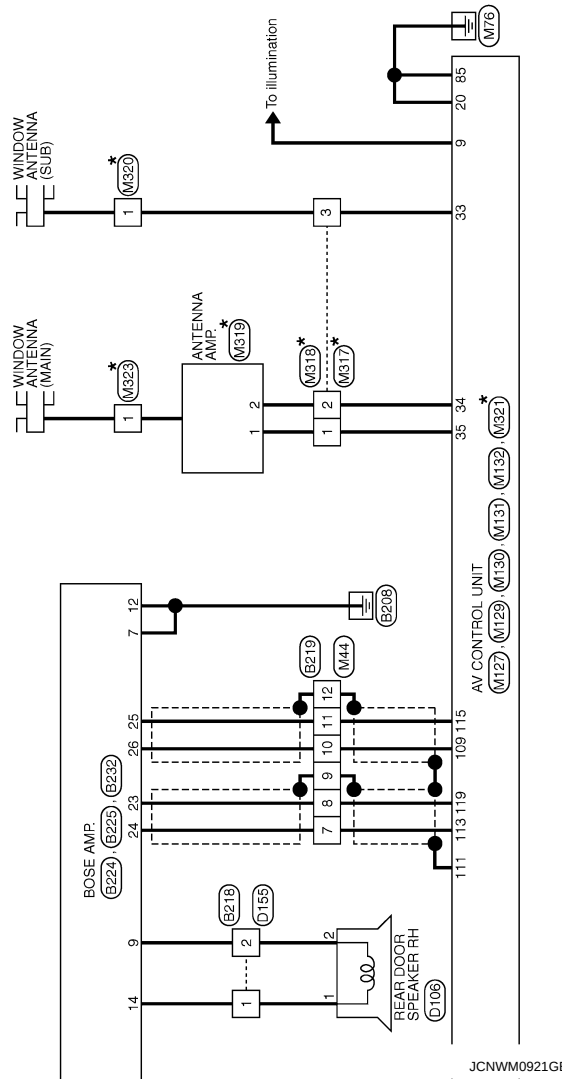



RS : With rear control switch
OS : Without rear control switch
*: This connector is not shown in "Harness Layout".
MULTIFUNCTION SWITCH
M125
M43
REAR SEAT LH
REAR CONTROL SWITCH
B471
B472
B473
RS
B447
B235
B486
B96
B26
B208
M156
B237
M77
B11
M11
E105
PARKING BRAKE SWITCH
E27
STEERING ANGLE SENSOR
M30
M80
CAMERA CONTROL UNIT
B251
DATA LINE
DATA LINE
AV CONTROL UNIT
M127, M129, M130, M131, M132, M321
101 103
89
88
106
68
JCNWM0918GB

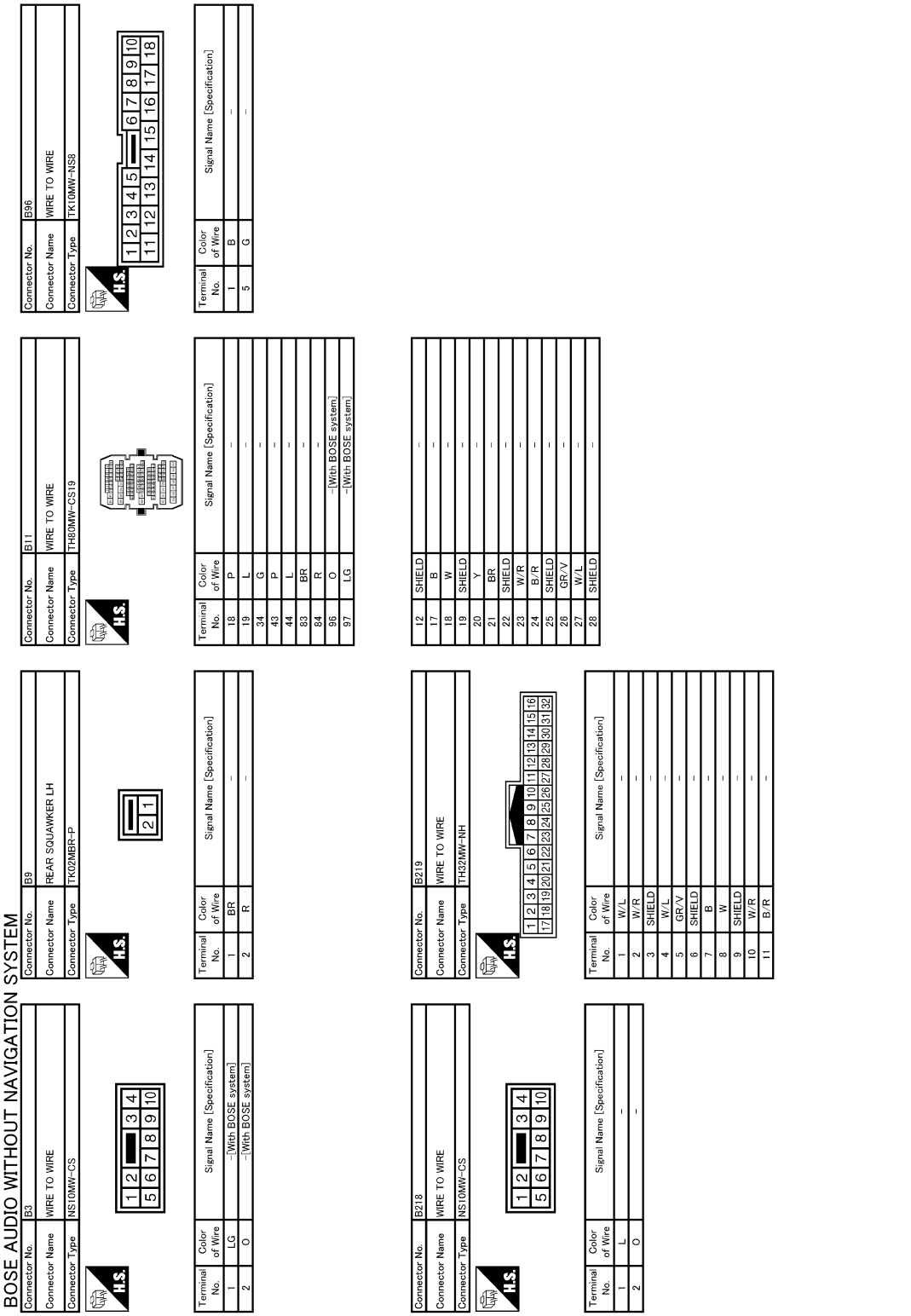

PM : With automatic drive positioner
OP : Without automatic drive positioner
*: This connector is not shown in "Harness Layout".
DATA LINE
DATA LINE
DATA LINE
DATA LINE
DATA LINE
DATA LINE
M153
B236
B208
DVD PLAYER
M254, M264
M76
AUXILIARY INPUT JACKS
M253
AV CONTROL UNIT
M127, M129, M130, M131, M132, M321
BCM (BODY CONTROL MODULE)
M122
To CAN system
DATA LINK CONNECTOR
M4
COMBINATION METER
M34
ECM
E16
M77
B11
B11
M77
M11
E105
PM
OP
JCNWM0919GB


*: This connector is not shown in "Harness Layout".
BATTERY
15A 32
15A 33
E105
M11
M124
B226
BOSE AMP.
B224, B225, B232
DVD PLAYER
M254, M264
M44
B219
FRONT DOOR SPEAKER LH
D15
FRONT SQUAWKER LH
M65
FRONT SQUAWKER RH
M67
FRONT DOOR SPEAKER RH
D53
CENTER SPEAKER
M66
REAR DOOR SPEAKER LH
D86
REAR SQUAWKER LH
B9
WOOFER LH
B252
WOOFER RH
B253
REAR SQUAWKER RH
B231
AV CONTROL UNIT
M127, M129, M130, M131, M132, M321
JCNWM0920GB

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



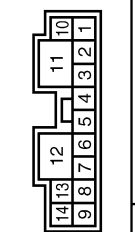
BOSE AUDIO WITHOUT NAVIGATION SYSTEM



JCNWM0922GB

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B224
Connector Name	BOSE AMP.
Connector Type	SGA12FBR-SJA2



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

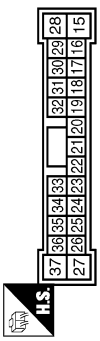
Connector No.	B226
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS



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

I2	B
I3	R
I4	L

Connector No.	B225
Connector Name	BOSE AMP.
Connector Type	SGA19FBR-SGA4

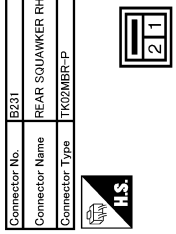


Terminal No.	Color of Wire	Signal Name [Specification]
15	R	SOUND SIGNAL REAR SPEAKER LH (–)
18	W	SOUND SIGNAL FRONT SPEAKER LH (+)
19	B	SOUND SIGNAL FRONT SPEAKER LH (–)
20	V	ACC
23	W	STEREO SOUND SIGNAL LH (–)
24	B	STEREO SOUND SIGNAL LH (+)
25	B/R	STEREO SOUND SIGNAL RH (–)
26	W/R	STEREO SOUND SIGNAL RH (+)
28	G	SOUND SIGNAL REAR SPEAKER LH (+)
29	V	SOUND SIGNAL CENTER SPEAKER (+)
30	P	SOUND SIGNAL CENTER SPEAKER (–)

31	BR	SOUND SIGNAL FRONT SPEAKER RH (+)
32	Y	SOUND SIGNAL FRONT SPEAKER RH (–)
33	W/L	RR SURROUND SOUND SIGNAL RH (+)
34	GR/V	RR SURROUND SOUND SIGNAL RH (–)
35	W/L	RR SURROUND SOUND SIGNAL LH (+)
36	W/R	RR SURROUND SOUND SIGNAL LH (–)

I2	R
I3	G
I4	P
I5	V
I6	R

Connector No.	B231
Connector Name	REAR SOUAWKER RH
Connector Type	TK02MBR-P



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

JCNWM0923GB

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B232
Connector Name	BOSE AMP.
Connector Type	TH40FW-NH

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

Terminal No.	Color of Wire	Signal Name [Specification]
51	W	FR SURROUND SOUND SIGNAL LH (-)
52	B	FR SURROUND SOUND SIGNAL LH (+)
53	BR	FR SURROUND SOUND SIGNAL RH (-)
54	Y	FR SURROUND SOUND SIGNAL RH (+)
57	B/R	CENTER SURROUND SOUND SIGNAL (-)
58	W/R	CENTER SURROUND SOUND SIGNAL (+)
59	GR/V	SURROUND SOUND SIGNAL LFE (-)
60	W/L	SURROUND SOUND SIGNAL LFE (+)
75	L/G	AV COMM (L) [Without navigation system]
76	P	AV COMM (L)
77	L/R	AV COMM (H) [Without navigation system]
78	L	AV COMM (H)
79	SHIELD	SHIELD

Connector No.	B237
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-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

Terminal No.	Color of Wire	Signal Name [Specification]
7	BR	-
8	G	-
9	SB	-
10	O	-
13	Y	-
14	V	-
15	W	-
16	O	-
17	SHIELD	-
18	GR	-
19	R	-[With rear control switch]
19	L	-[Without rear control switch]
20	G	-[With rear control switch]
20	P	-[Without rear control switch]

Connector No.	B235
Connector Name	WIRE TO WIRE
Connector Type	SD02MGY

1	2	4	5
3		6	

Terminal No.	Color of Wire	Signal Name [Specification]
1	P	-
2	L	-
3	SHIELD	-
4	G	-
5	R	-
6	SHIELD	-

Connector No.	B238
Connector Name	WIRE TO WIRE
Connector Type	TH04MW-NH

1	2	3	4

Terminal No.	Color of Wire	Signal Name [Specification]
1	SHIELD	-
2	B	-
3	W	-
4	R	-

Connector No.	B236
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-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 [Specification]
18	L	-[With BOSE system]
19	P	-[With BOSE system]

JCNWM0924GB

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B251
Connector Name	CAMERA CONTROL UNIT
Connector Type	TH32FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
5	SHIELD	SHIELD
6	B	–
7	W	CAMERA IMAGE SIGNAL
8	R	REAR VIEW CAMERA GND
11	SHIELD	REAR CAMERA ON
12	BR	SHIELD
14	GR	CAMERA IMAGE SIGNAL
17	L/G	CAMERA CONNECTING RECOGNITION SIGNAL
18	L/R	AV COMM(L) [With BOSE audio system]
19	P	AV COMM(H) [With BOSE audio system]
20	L	AV COMM(L)
22	W	AV COMM(H)
23	G	REVERSE SIGNAL
24	SB	STRG SENSOR1
25	O	STRG SENSOR2
26	O	STRG SENSOR3
30	V	VHICLE SPEED SIGNAL(8P)
31	B/R	ACC
32	Y	GND

Connector No.	B252
Connector Name	WOOFER LH
Connector Type	NS02FW-CS



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

Connector No.	B253
Connector Name	WOOFER RH
Connector Type	NS02FW-CS



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

Connector No.	B447
Connector Name	WIRE TO WIRE
Connector Type	SD02FGY

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–
2	B	–
3	SHIELD	–
4	Y	–
5	G	–
6	SHIELD	–

Connector No.	B471
Connector Name	REAR CONTROL SWITCH
Connector Type	TH04FW

Terminal No.	Color of Wire	Signal Name [Specification]
1	R/Y	–
4	Y	–

Connector No.	B472
Connector Name	REAR CONTROL SWITCH
Connector Type	SD01FGY

Terminal No.	Color of Wire	Signal Name [Specification]
5	G	–
7	Y	–

Connector No.	B473
Connector Name	REAR CONTROL SWITCH
Connector Type	SD01MGY

Terminal No.	Color of Wire	Signal Name [Specification]
6	B	–
8	W	–

JCNWM0925GB

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B406
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8

Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	–
5	R/Y	–

Connector No.	D15
Connector Name	FRONT DOOR SPEAKER LH (WITH BOSE SYSTEM)
Connector Type	NS02FBR-CS

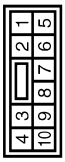


Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–
2	B	–

Connector No.	D53
Connector Name	FRONT DOOR SPEAKER RH (WITH BOSE SYSTEM)
Connector Type	NS02FBR-CS

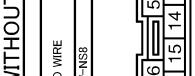
Terminal No.	Color of Wire	Signal Name [Specification]
1	B	–
2	W	–

Connector No.	D81
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS



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

Connector No.	D86
Connector Name	REAR DOOR SPEAKER LH (WITH BOSE SYSTEM)
Connector Type	NS02FBR-CS



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

Connector No.	D106
Connector Name	REAR DOOR SPEAKER RH (WITH BOSE SYSTEM)
Connector Type	NS02FBR-CS

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

Connector No.	D111
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–[With BOSE system]
8	B	–[With BOSE system]

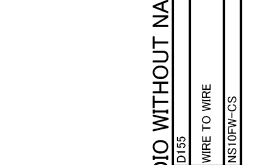
Connector No.	D112
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS

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

JCNWM0926GB

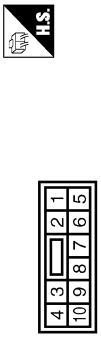
BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	D155
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS



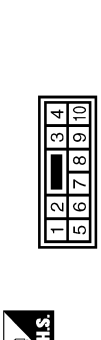
Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–
2	B	–[With BOSE system]

Connector No.	E6
Connector Name	WIRE TO WIRE
Connector Type	TK16MGY-1V



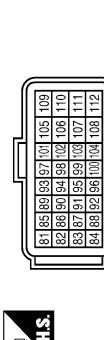
Terminal No.	Color of Wire	Signal Name [Specification]
4	R	–

Connector No.	E7
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS



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

Connector No.	E16
Connector Name	ECM
Connector Type	RH24FB-RZ8-L-LH



Terminal No.	Color of Wire	Signal Name [Specification]
97	P	VEHCAN-L
98	L	VEHCAN-H

Connector No.	E18
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS02FL-M2-LG

Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	–
2	R	–
3	LG	–
5	R	–

Connector No.	E27
Connector Name	PARKING BRAKE SWITCH
Connector Type	P01FB-A

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

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH70MW-CS10-M3

Terminal No.	Color of Wire	Signal Name [Specification]
8	R	–
10	LG	–
22	P	–
48	P	–
49	L	–
73	R	–
74	BR	–
81	Y	–

Connector No.	F23
Connector Name	TCM (TRANSMISSION CONTROL MODULE)
Connector Type	RH40FB-RZ8-L-RH

Terminal No.	Color of Wire	Signal Name [Specification]
19	G/B	REV LAMP RELAY

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BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	F57
Connector Name	PARK / NEUTRAL POSITION SWITCH
Connector Type	YDX06FB-HS4

Terminal No.	Color of Wire	Signal Name [Specification]
3	LG	–
5	P/B	–

Connector No.	F121
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS

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

Connector No.	F123
Connector Name	WIRE TO WIRE
Connector Type	TK16FGY-1V

Terminal No.	Color of Wire	Signal Name [Specification]
4	G/B	–

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS08FW-M2

Terminal No.	Color of Wire	Signal Name [Specification]
2A	G/O	–
5A	V/O	–

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

Terminal No.	Color of Wire	Signal Name [Specification]
12C	O	–

Connector No.	M4
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW

Terminal No.	Color of Wire	Signal Name [Specification]
6	L	–
14	P	–

Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Type	TH70FW-CS10-M3

Terminal No.	Color of Wire	Signal Name [Specification]
8	P/B	–
10	O	–
22	G/R	–
48	P	–
49	L	–
73	B/R	–
74	BR	–
81	Y	–

Connector No.	M30
Connector Name	STEERING ANGLE SENSOR
Connector Type	TH08FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	–
3	L/Y	–
4	G	–
6	B/R	–
8	O	–

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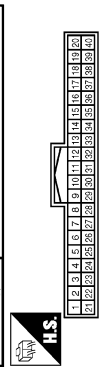
BOSE AUDIO WITHOUT NAVIGATION SYSTEM

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



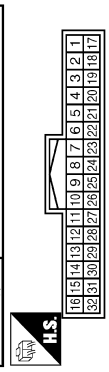
Terminal No.	Color of Wire	Signal Name [Specification]
24	W/G	–
31	GR/L	–
33	L/B	–

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	TH40FW-NH



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

Connector No.	M44
Connector Name	WIRE TO WIRE
Connector Type	TH32FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–
2	B	–
3	SHIELD	–
4	W	–
5	B	–
6	SHIELD	–
7	W	–
8	B	–
9	SHIELD	–
10	W	–
11	B	–
12	SHIELD	–
17	W	–
18	B	–
19	SHIELD	–
20	W	–
21	B	–
22	SHIELD	–
23	W	–
24	B	–
25	SHIELD	–
26	R	–
27	L	–
28	SHIELD	–

Connector No.	M49
Connector Name	DISPLAY UNIT
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	B/W	GND
2	Y	INV VCC
3	O	3G VCC (With BOSE system without navigation system or base audio and display system)
4	SHIELD	COMPOSIT IMAGE SIGNAL SHIELD
5	W	COMPOSIT IMAGE SIGNAL GND
6	R	RGB (G:GREEN)
7	SHIELD	RGB GND
8	W	HP
9	B	YS
11	R	COMM (CONT->DISP)
13	BR	INV GND (With BOSE system without navigation system or base audio and display system)
14	LG	SIG GND
15	B	COMPOSIT IMAGE SIGNAL
17	W	RGB (R:RED)
18	B	RGB (B:BLUE)
19	G	RGB SYNC
20	R	VP
21	SHIELD	RGB SYNC GND
22	G	COMM (DISP->CONT)
23	SHIELD	SHIELD

Connector No.	M65
Connector Name	FRONT SQUAWKER LH
Connector Type	TK02FBR



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

Connector No.	M66
Connector Name	CENTER SPEAKER
Connector Type	TK02FBR



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

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BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M67
Connector Name	FRONT SQUAWKER RH
Connector Type	TK02FBR



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

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS19



Terminal No.	Color of Wire	Signal Name [Specification]
18	P	-
19	L	-
34	V/R	-
43	P	-
44	L	-
83	G/B	-
84	W/B	-
96	W/R	-
97	O/B	-

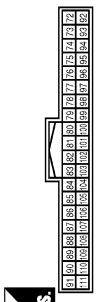
Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	G	-
3	B	-
4	W	-
5	BR	-
6	B/R	-
7	G/B	-
8	G	-
9	R	-
10	O	-[With BOSE system]
11	B/P	-[With BOSE system]

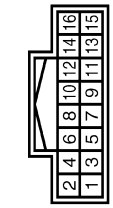
Terminal No.	Color of Wire	Signal Name [Specification]
12	W/R	-
13	O/B	-
14	R	-
15	G	-
16	W/B	-

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



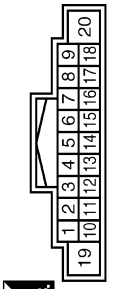
Terminal No.	Color of Wire	Signal Name [Specification]
90	P	CAN-L
91	L	CAN-H

Connector No.	M125
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH16FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
3	V/R	ACC
6	W	M-CAN H
8	B	M-CAN L
9	BR	SW GND
14	SB	CD(DVD) EJECT

Connector No.	M127
Connector Name	AV CONTROL UNIT
Connector Type	TH18FW-CS2



Terminal No.	Color of Wire	Signal Name [Specification]
6	W/G	STRG SW A
7	V/W	ACC
9	R/L	ILL
15	L/B	STRG SW GND
16	GR/L	STRG SW B
19	Y	BAT
20	B/W	GND

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BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M129
Connector Name	AV CONTROL UNIT
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
36	B	COMPOSIT IMAGE SIGNAL
37	W	COMPOSIT IMAGE SIGNAL GND
38	B	RGB (B:BLUE)
39	R	RGB (G:GREEN)
40	W	RGB (R:RED)
41	G	RGB SYNC
42	SHIELD	RGB SYNC GND
43	B	YS
44	G	COMM (DISP->CONT)
45	W	HP
46	LG	STG GND

Terminal No.	Color of Wire	Signal Name [Specification]
47	O	SIG VCC
49	SHIELD	COMP OUT SHIELD
50	SHIELD	RGB GND
55	SHIELD	SHIELD
56	R	COMM (CONT->DISP)
57	R	VP
58	BR	INV GND
59	Y	INV VCC

Connector No.	M130
Connector Name	AV CONTROL UNIT
Connector Type	TH16FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
64	SHIELD	CAMERA IMAGE SIGNAL GND
65	Y	CAMERA IMAGE SIGNAL
66	V	COMPOSIT (DVD AND AUX) IMAGE SIGNAL [With BOSE system]
68	W	CAMERA CONNECTION RECOGNITION SIGNAL
73	SHIELD	COMPOSIT IMAGE SIGNAL SHIELD
74	G	COMPOSIT (DVD AND AUX) IMAGE SIGNAL GND [With BOSE system]

Connector No.	M131
Connector Name	AV CONTROL UNIT
Connector Type	TH32FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
82	W	STEREO (DVD AND AUX) SOUND SIGNAL RH (-) [With BOSE audio system]
83	R	STEREO (DVD AND AUX) SOUND SIGNAL RH (+) [With BOSE audio system]
85	B/W	GND
86	L	CAN-H
87	P	CAN-L
88	W	AV COMM (H)
89	B	AV COMM (L)
90	L	AV COMM (H)
91	R	AV COMM (L)
98	G	STEREO (DVD AND AUX) SOUND SIGNAL LH (-) [With BOSE audio system]
99	B	STEREO (DVD AND AUX) SOUND SIGNAL LH (+) [With BOSE audio system]

100	SHIELD	STEREO SOUND SIGNAL SHIELD [With BOSE audio system]
101	BR	SP MID [With BOSE system without navigation system or base audio stereo system]
103	SB	DISC EJECT SIG
104	O	IGN
105	P/B	REVERSE SIG
106	G/R	PKB SIG
107	V/W	VEHICLE SPEED SIG (8P)

Connector No.	M132
Connector Name	AV CONTROL UNIT (WITH BOSE SYSTEM)
Connector Type	TH12FW-NH

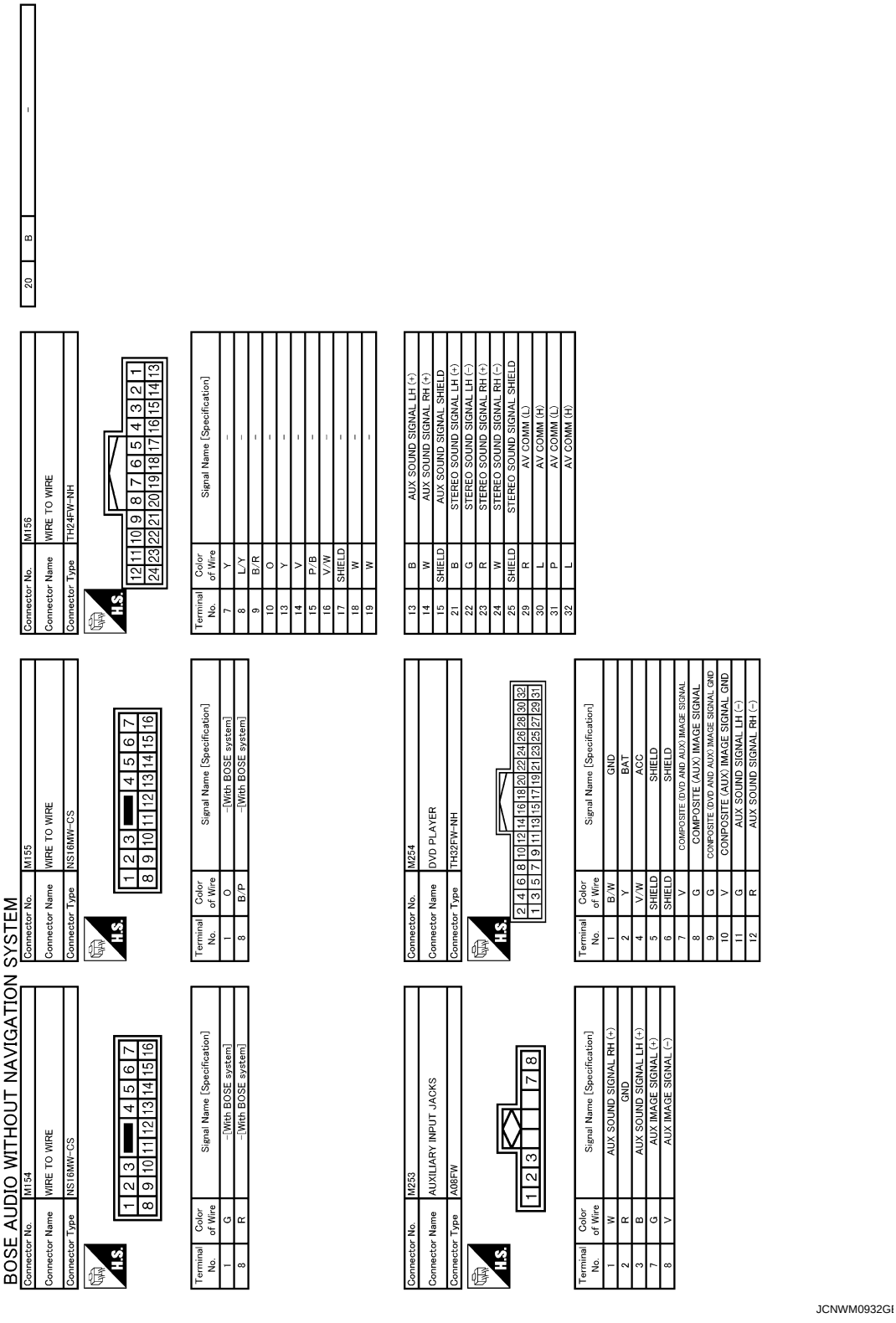
Terminal No.	Color of Wire	Signal Name [Specification]
109	W	STEREO SOUND SIGNAL RH (-) [With BOSE audio system]
111	SHIELD	SHIELD
113	W	STEREO SOUND SIGNAL LH (+) [With BOSE audio system]
115	B	STEREO SOUND SIGNAL RH (-) [With BOSE audio system]
119	B	STEREO SOUND SIGNAL LH (-) [With BOSE audio system]

Connector No.	M153
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
18	L	–
19	P	–[With BOSE system]

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BOSE AUDIO WITHOUT NAVIGATION SYSTEM



JCNWM0932GB

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M264
Connector Name	DVD PLAYER
Connector Type	TH16FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
34	SHIELD	SHIELD
35	B	FR SURROUND SOUND SIGNAL RH (-)
36	W	FR SURROUND SOUND SIGNAL RH (+)
37	B	FR SURROUND SOUND SIGNAL LH (-)
38	W	FR SURROUND SOUND SIGNAL LH (+)
39	B	CENTER SURROUND SOUND SIGNAL (-)
40	W	CENTER SURROUND SOUND SIGNAL (+)
41	R	SORROUND SOUND SIGNAL LFE (-)
42	L	SORROUND SOUND SIGNAL LFE (+)
43	SHIELD	SHIELD
44	SHIELD	SHIELD

Connector No.	M318
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1S-HU

Terminal No.	Color of Wire	Signal Name [Specification]
1	–	–
2	–	–
3	–	–

Connector No.	M319
Connector Name	ANTENNA AMP.
Connector Type	GT13SC-1/1S-HU

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

Connector No.	M320
Connector Name	WINDOW ANTENNA (SUB)
Connector Type	P01FB-A

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

Connector No.	M321
Connector Name	AV CONTROL UNIT
Connector Type	GT13SH-2/1S-HU

Terminal No.	Color of Wire	Signal Name [Specification]
33	–	FM SUB
34	–	AM-FM MAIN
35	–	ANTENNA AMP ON SIG

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

Terminal No.	Color of Wire	Signal Name [Specification]
14	–	–
15	–	–
17	–	–

Connector No.	M317
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1PP-HU

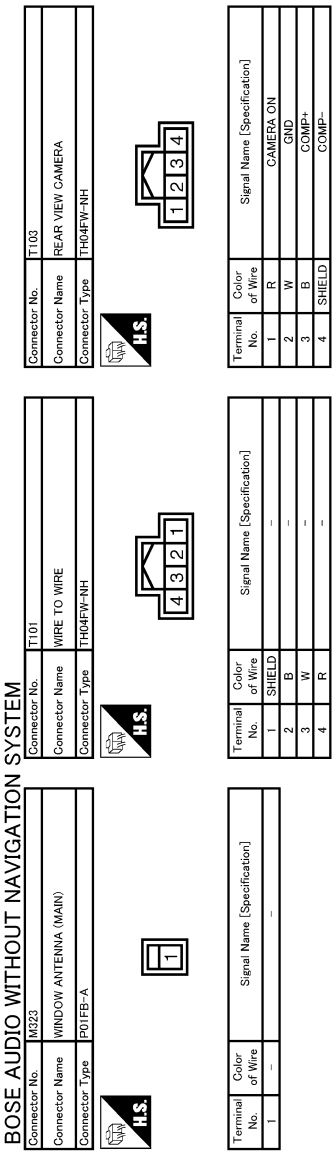
Terminal No.	Color of Wire	Signal Name [Specification]
1	–	–
2	–	–
3	–	–

Connector No.	M318
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1S-HU

Terminal No.	Color of Wire	Signal Name [Specification]
1	–	–
2	–	–
3	–	–

45	B	RR SURROUND SOUND SIGNAL RH (-)
46	W	RR SURROUND SOUND SIGNAL RH (+)
47	B	RR SURROUND SOUND SIGNAL LH (-)
48	W	RR SURROUND SOUND SIGNAL LH (+)

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JCNWM0934GI

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

DTC Index

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SELF-DIAGNOSIS RESULTS DISPLAY ITEM

DTC	Display item	Refer to
U1000	CAN COMM CIRCUIT [U1000]	AV-216, "Diagnosis Procedure"
U1010	CONTROL UNIT (CAN) [U1010]	AV-217, "Diagnosis Procedure"
U1310	CONTROL UNIT (AV) [U1310]	AV-218, "DTC Logic"
U1200	Control Unit FLASH-ROM [U1200]	AV-219, "DTC Logic"
U1216	CAN CONT [U1216]	AV-220, "DTC Logic"
U1231	AMP TEMP [U1231]	AV-221, "DTC Logic"
U1243	FRONT DISP CONN [U1243]	AV-222, "Diagnosis Procedure"
U1250	CAMERA CONT. CONN [U1250]	AV-224, "Diagnosis Procedure"
U1260	CENTER SP OPEN [U1260]	AV-226, "Diagnosis Procedure"
U1261	CENTER SP SHORT [U1261]	AV-226, "Diagnosis Procedure"
U1262	CENTER SP GND-SHORT [U1262]	AV-226, "Diagnosis Procedure"
U1263	CENTER SP VB-SHORT [U1263]	AV-226, "Diagnosis Procedure"
U1264	FR-DOOR SP OPEN [U1264]	AV-227, "Diagnosis Procedure"
U1265	FR-DOOR SP SHORT [U1265]	AV-227, "Diagnosis Procedure"
U1266	FR-DOOR SP GND-SHORT [U1266]	AV-227, "Diagnosis Procedure"
U1267	FR-DOOR SP VB-SHORT [U1267]	AV-227, "Diagnosis Procedure"
U1268	RR-SP/FR-WOOFER OPEN [U1268]	AV-228, "Diagnosis Procedure"
U1269	RR-SP/FR-WOOFER SHORT [U1269]	AV-228, "Diagnosis Procedure"
U126A	RR-SP/FR-WOOFER GND-SHORT [U126A]	AV-228, "Diagnosis Procedure"
U126B	RR-SP/FR-WOOFER VB-SHORT [U126B]	AV-228, "Diagnosis Procedure"
U126C	RR-SURROUND SP OPEN [U126C]	AV-229, "Diagnosis Procedure"
U126D	RR-SURROUND SP SHORT [U126D]	AV-229, "Diagnosis Procedure"
U126E	RR-SURROUND SP GND-SHORT [U126E]	AV-229, "Diagnosis Procedure"
U126F	RR-SURROUND SP VB-SHORT [U126F]	AV-229, "Diagnosis Procedure"
U1274	RL-SURROUND SP OPEN [U1274]	AV-230, "Diagnosis Procedure"
U1275	RL-SURROUND SP SHORT [U1275]	AV-230, "Diagnosis Procedure"
U1276	RL-SURROUND SP GND-SHORT [U1276]	AV-230, "Diagnosis Procedure"
U1277	RL-SURROUND SP VB-SHORT [U1277]	AV-230, "Diagnosis Procedure"
U1278	RL-SP/FL-WOOFER OPEN [U1278]	AV-231, "Diagnosis Procedure"
U1279	RL-SP/FL-WOOFER SHORT [U1279]	AV-231, "Diagnosis Procedure"
U127A	RL-SP/FL-WOOFER GND-SHORT [U127A]	AV-231, "Diagnosis Procedure"
U127B	RL-SP/FL-WOOFER VB-SHORT [U127B]	AV-231, "Diagnosis Procedure"
U127C	FL-DOOR SP OPEN [U127C]	AV-232, "Diagnosis Procedure"
U127D	FL-DOOR SP SHORT [U127D]	AV-232, "Diagnosis Procedure"
U127E]	FL-DOOR SP GND-SHORT [U127E]	AV-232, "Diagnosis Procedure"
U127F	FL-DOOR SP VB-SHORT [U127F]	AV-232, "Diagnosis Procedure"
U1294	FR-TWEETER OPEN [U1294]	AV-233, "Diagnosis Procedure"
U1295	FR-TWEETER SHORT [U1295]	AV-233, "Diagnosis Procedure"
U1296	FR-TWEETER GND-SHORT [U1296]	AV-233, "Diagnosis Procedure"
U1297	FR-TWEETER VB-SHORT [U1297]	AV-233, "Diagnosis Procedure"
U1298	FL-TWEETER OPEN [U1298]	AV-234, "Diagnosis Procedure"
U1299	FL-TWEETER SHORT [U1299]	AV-234, "Diagnosis Procedure"
U129A	FL-TWEETER GND-SHORT [U129A]	AV-234, "Diagnosis Procedure"

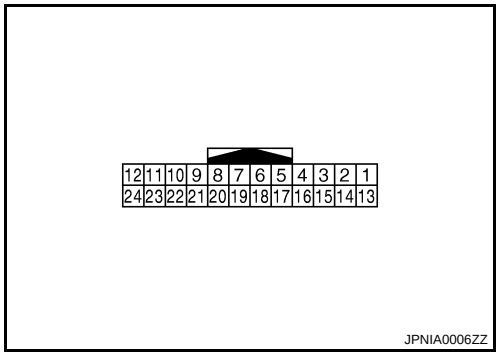
DTC	Display item	Refer to
U129B	FL-TWEETER VB-SHORT [U129B]	AV-234, "Diagnosis Procedure"
U1300 U1240	• AV COMM CIRCUIT [U1300] • SWITCH CONN [U1240]	AV-235, "Description"
U1300 U124E	• AV COMM CIRCUIT [U1300] • AMP CONN [U124E]	AV-235, "Description"
U1300 U1248	• AV COMM CIRCUIT [U1300] • DVD DECK CONN [U1248]	AV-235, "Description"
U1300 U1248 U124E	• AV COMM CIRCUIT [U1300] • DVD DECK CONN [U1248] • AMP CONN [U124E]	AV-235, "Description"
U1300 U1248 U124E U1252	• AV COMM CIRCUIT [U1300] • DVD DECK CONN [U1248] • AMP CONN [U124E] • REAR-CAMERA LAN CONN [U1252]	AV-235, "Description"

DISPLAY UNIT

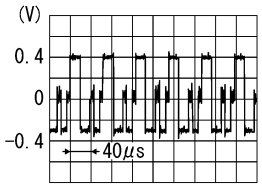
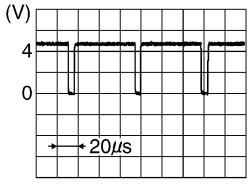
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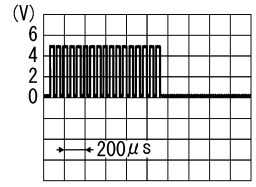
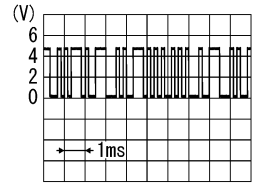
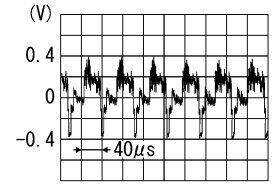
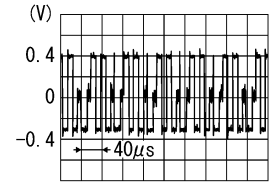
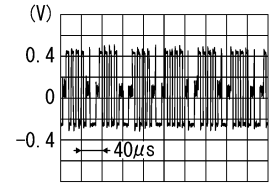
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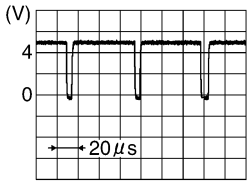
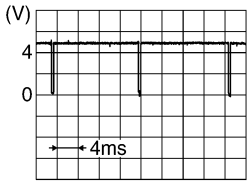
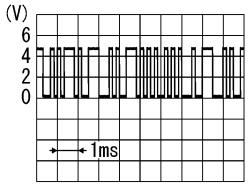
TERMINAL LAYOUT



PHYSICAL VALUES

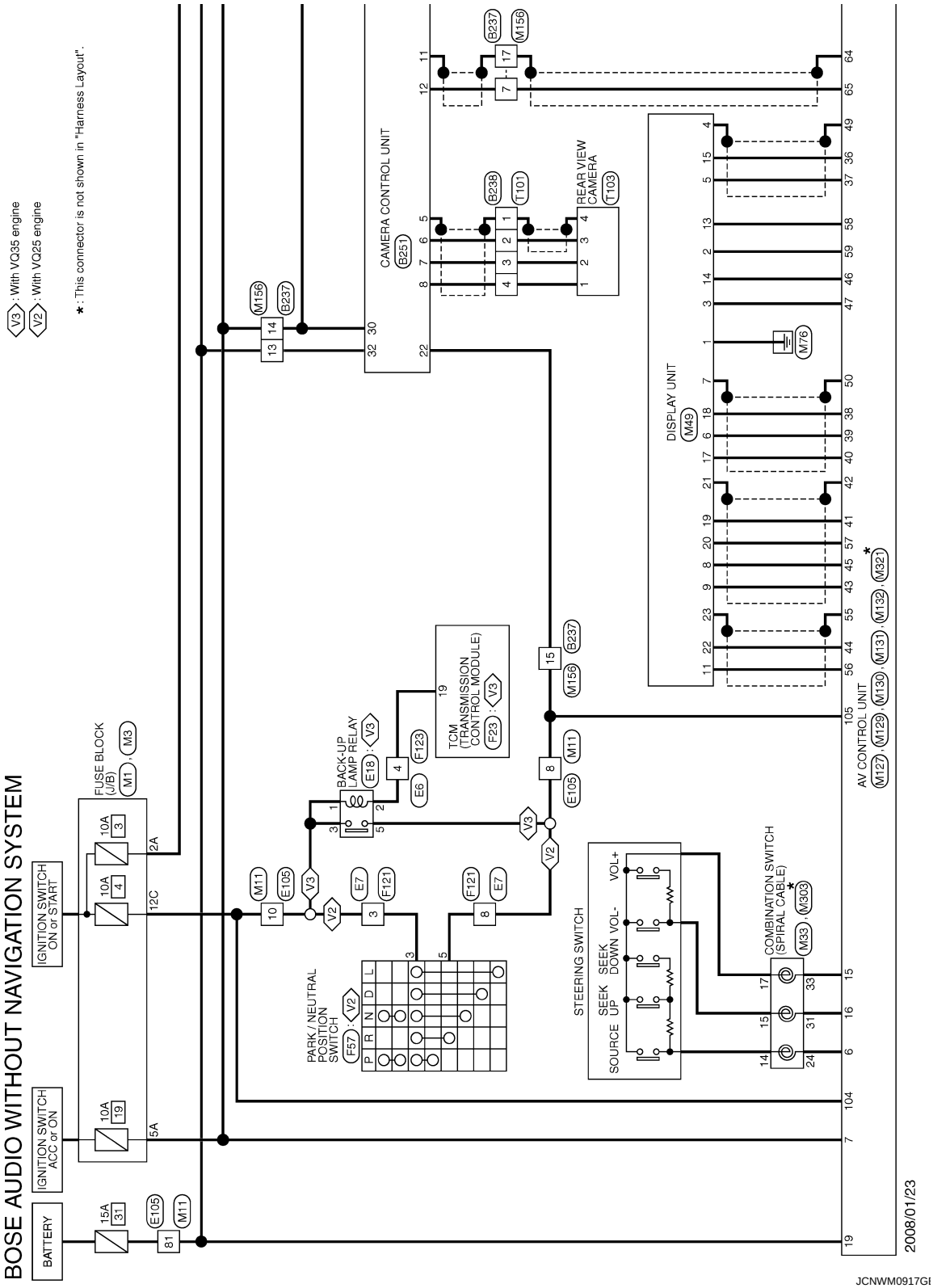
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
1 (B/W)	Ground	Ground	—	Ignition switch ON	—	0 V
2 (Y)	Ground	Inverter VCC	Input	ignition switch ACC	—	9.0 V
3 (O)	Ground	Signal VCC	Input	Ignition switch ACC	—	9.0 V
4	—	Composite image signal shield	—	—	—	—
5 (W)	Ground	Composite image signal ground	—	Ignition switch ON	—	0 V
6 (R)	Ground	RGB image signal (G: green)	Input	Ignition switch ON	Start confirmation/adjustment mode, and then display color bar by selecting “Color Spectrum Bar” on DISPLAY DIAGNOSIS screen.	 SKIB2236J
7	—	RGB ground	—	—	—	—
8 (W)	Ground	Horizontal synchronizing (HP) signal	Output	Ignition switch ON	—	 SKIB3601E

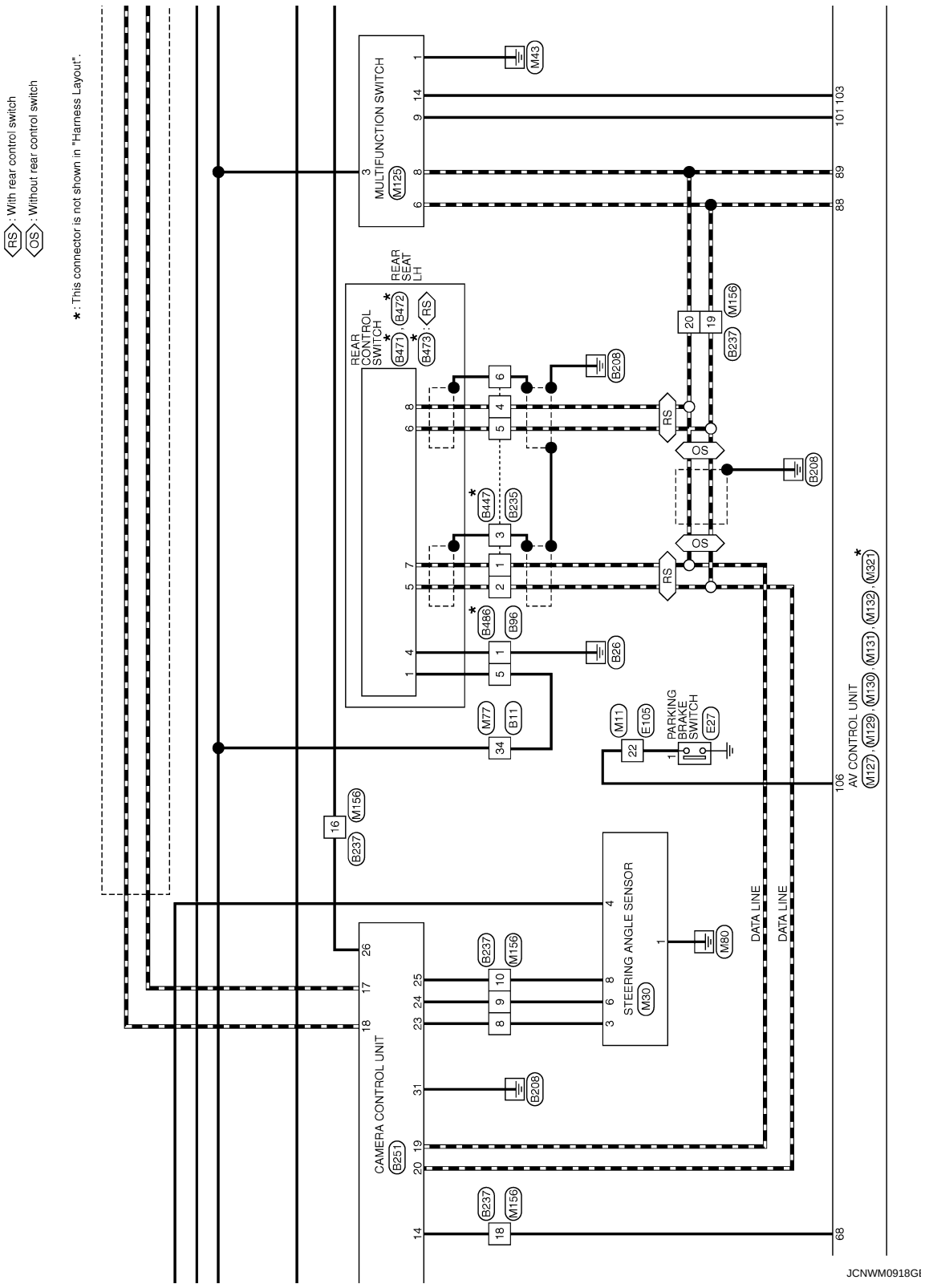
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
9 (B)	Ground	RGB area (YS) signal	Input	Ignition switch ON	When RGB image is displayed.	5.0 V
					When camera image, DVD image or AUX image is displayed.	 PKIB4948J
11 (R)	Ground	Communication signal (CONT→DISP)	Input	Ignition switch ON	When adjusting display brightness.	 PKIB5039J
13 (BR)	Ground	Inverter ground	—	Ignition switch ON	—	0 V
14 (LG)	Ground	Signal ground	—	Ignition switch ON	—	0 V
15 (B)	Ground	Composite image signal	Input	Ignition switch ON	When rear view camera image, DVD image or AUX image is displayed.	 SKIB2251J
17 (W)	Ground	RGB image signal (R: red)	Input	Ignition switch ON	Start confirmation/adjustment mode, and then display color bar by selecting “Color Spectrum Bar” on DISPLAY DIAGNOSIS screen.	 SKIB2238J
18 (B)	Ground	RGB image signal (B: blue)	Input	Ignition switch ON	Start confirmation/adjustment mode, and then display color bar by selecting“Color Spectrum Bar” on DISPLAY DIAGNOSIS screen.	 SKIB2237J

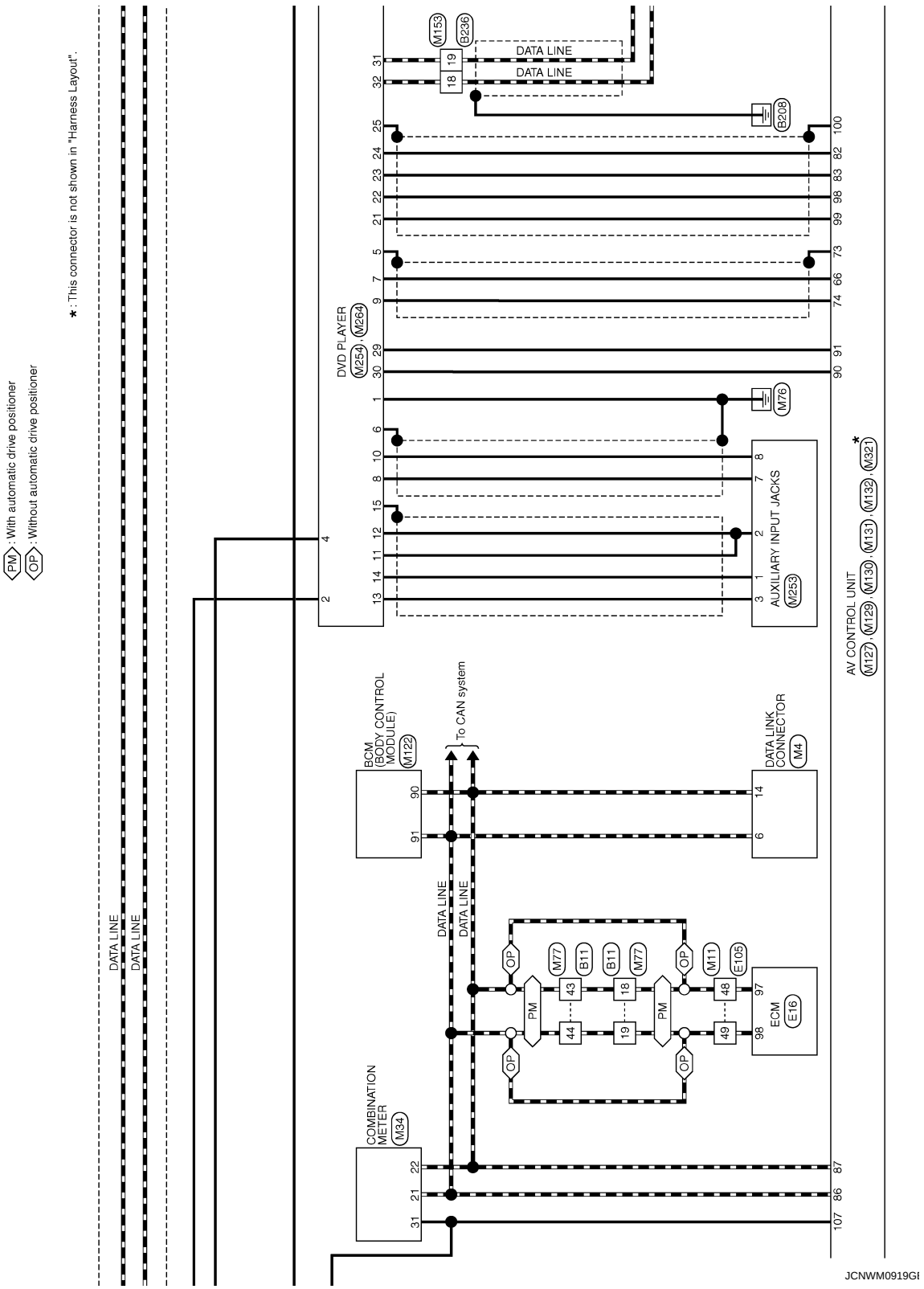
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
19 (G)	Ground	RGB synchronizing signal	Input	Ignition switch ON	—	 SKIB3603E
20 (R)	Ground	Vertical synchronizing (VP) signal	Output	Ignition switch ON	—	 SKIB3598E
21	—	RGB synchronizing ground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

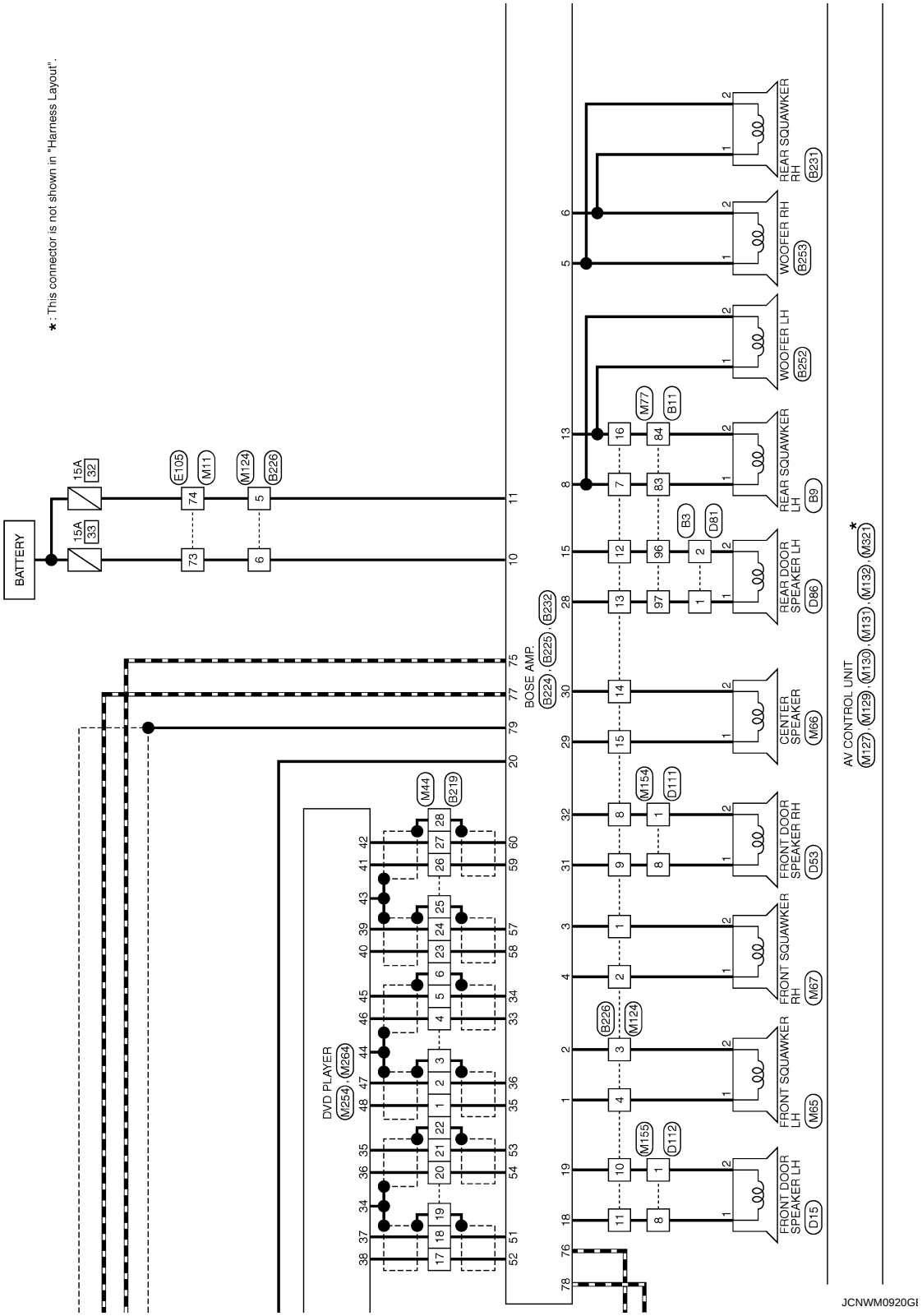
Wiring Diagram — BOSE AUDIO WITHOUT NAVIGATION SYSTEM —

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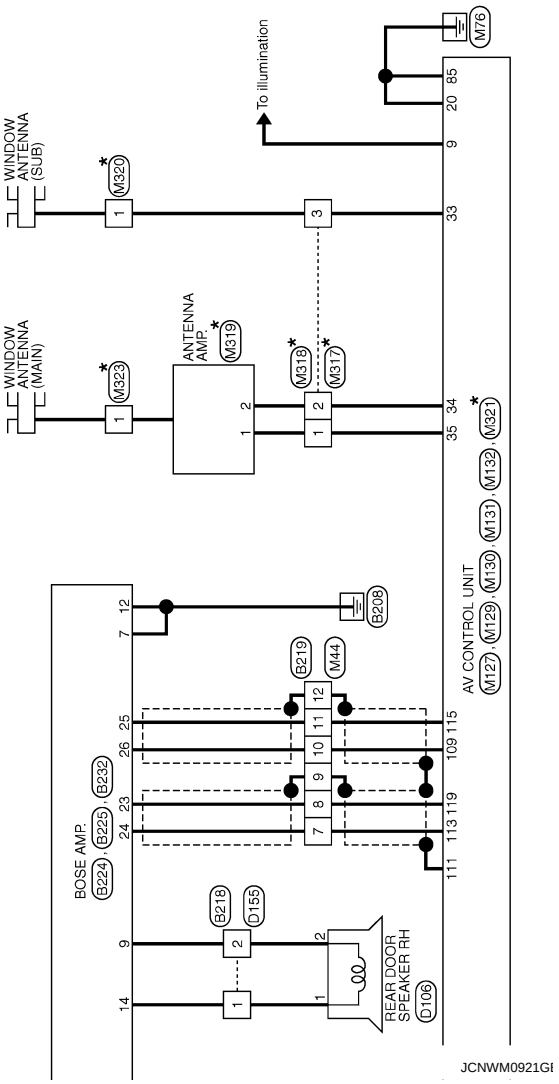



RS : With rear control switch
OS : Without rear control switch
* : This connector is not shown in "Harness Layout".
MULTIFUNCTION SWITCH
M125
M43
REAR SEAT LH
REAR CONTROL SWITCH
B471
B472
B473
RS
B208
B447
B235
B486
B96
B26
M77
B11
M11
E106
PARKING BRAKE SWITCH
E27
M156
B237
20
19
OS
M321
M131
M132
M129
M130
M127
AV CONTROL UNIT
106
101 103
89
88
68
STEERING ANGLE SENSOR
M30
M80
DATA LINE
CAMERA CONTROL UNIT
B251
31
JCNWM0918GB


PM : With automatic drive positioner
OP : Without automatic drive positioner
*: This connector is not shown in "Harness Layout".
DATA LINE
DATA LINE
DATA LINE
DATA LINE
DATA LINE
DATA LINE
DVD PLAYER
M254, M264
AUXILIARY INPUT JACKS
M253
M153
B236
B208
M76
AV CONTROL UNIT
M127, M129, M130, M131, M132, M321
BCM
(BODY CONTROL MODULE)
M122
To CAN system
DATA LINK CONNECTOR
M4
COMBINATION METER
M34
ECM
E16
M77
B11
B11
M77
M11
E105
PM
OP
JCNWM0919GB


★: This connector is not shown in "Harness Layout".
BATTERY
15A 32
15A 33
E105
M11
M124
B226
BOSE AMP.
B224, B225, B232
DVD PLAYER
M254, M264
M44
B219
FRONT DOOR SPEAKER LH D15
FRONT SQUAWKER LH M65
FRONT SQUAWKER RH M67
FRONT DOOR SPEAKER RH D53
CENTER SPEAKER M66
REAR DOOR SPEAKER LH D86
REAR SQUAWKER LH B9
WOOFER LH B252
WOOFER RH B253
REAR SQUAWKER RH B231
AV CONTROL UNIT
M127, M129, M130, M131, M132, M321
JCNWM0920GB

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



BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B3
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS

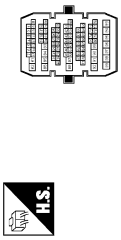
Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	–[With BOSE system]
2	O	–[With BOSE system]

Connector No.	B9
Connector Name	REAR SQUAWKER LH
Connector Type	TK02MBR-P



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

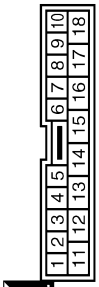
Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS19



Terminal No.	Color of Wire	Signal Name [Specification]
18	P	–
19	L	–
34	G	–
43	P	–
44	L	–
83	BR	–
84	R	–
96	O	–[With BOSE system]
97	LG	–[With BOSE system]

Terminal No.	Color of Wire	Signal Name [Specification]
12	SHIELD	–
17	B	–
18	W	–
19	SHIELD	–
20	Y	–
21	BR	–
22	SHIELD	–
23	W/R	–
24	B/R	–
25	SHIELD	–
26	GR/V	–
27	W/L	–
28	SHIELD	–

Connector No.	B96
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



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

Connector No.	B218
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS

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

Connector No.	B219
Connector Name	WIRE TO WIRE
Connector Type	TH32MW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
1	W/L	–
2	W/R	–
3	SHIELD	–
4	W/L	–
5	GR/V	–
6	SHIELD	–
7	B	–
8	W	–
9	SHIELD	–
10	W/R	–
11	B/R	–

JCNWM0922GB

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B224
Connector Name	BOSE AMP.
Connector Type	SGA12FBR-SJA2

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

Connector No.	B226
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS

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

I2	B	GND
I3	R	SOUND SIGNAL WOOFER LH (+)
I4	L	SOUND SIGNAL REAR SPEAKER RH (+)

Connector No.	B225
Connector Name	BOSE AMP.
Connector Type	SGA19FBR-SGA4

Terminal No.	Color of Wire	Signal Name [Specification]
15	R	SOUND SIGNAL REAR SPEAKER LH (–)
18	W	SOUND SIGNAL FRONT SPEAKER LH (+)
19	B	SOUND SIGNAL FRONT SPEAKER LH (–)
20	V	ACC
23	W	STEREO SOUND SIGNAL LH (+)
24	B	STEREO SOUND SIGNAL LH (+)
25	B/R	STEREO SOUND SIGNAL RH (–)
26	W/R	STEREO SOUND SIGNAL RH (+)
28	G	SOUND SIGNAL REAR SPEAKER LH (+)
29	V	SOUND SIGNAL CENTER SPEAKER (+)
30	P	SOUND SIGNAL CENTER SPEAKER (–)

I2	R	–
I3	G	–
I4	P	–
I5	V	–
I6	R	–

Connector No.	B231
Connector Name	REAR SQUAWKER RH
Connector Type	TK02MBR-P

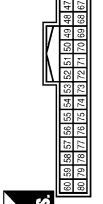
Terminal No.	Color of Wire	Signal Name [Specification]
1	BR	–
2	Y	–

31	BR	SOUND SIGNAL FRONT SPEAKER RH (+)
32	Y	SOUND SIGNAL FRONT SPEAKER RH (–)
33	W/L	RR SURROUND SOUND SIGNAL RH (+)
34	GR/V	RR SURROUND SOUND SIGNAL RH (–)
35	W/L	RR SURROUND SOUND SIGNAL LH (+)
36	W/R	RR SURROUND SOUND SIGNAL LH (–)

JCNWM0923GB

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

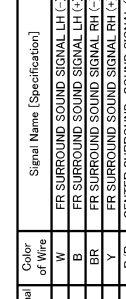
Connector No.	B232
Connector Name	BOSE AMP.
Connector Type	TH40FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
51	W	FR SURROUND SOUND SIGNAL LH (-)
52	B	FR SURROUND SOUND SIGNAL LH (+)
53	BR	FR SURROUND SOUND SIGNAL RH (-)
54	Y	FR SURROUND SOUND SIGNAL RH (+)
57	B/R	CENTER SURROUND SOUND SIGNAL (-)
58	W/R	CENTER SURROUND SOUND SIGNAL (+)
59	GR/V	SURROUND SOUND SIGNAL LFE (-)
60	W/L	SURROUND SOUND SIGNAL LFE (+)
75	L/G	AV COMM (L) [Without navigation system]
76	P	AV COMM (L)
77	L/R	AV COMM (H) [Without navigation system]

78	L	AV COMM (H)
79	SHIELD	SHIELD

Connector No.	B237
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
7	BR	-
8	G	-
9	SB	-
10	O	-
13	Y	-
14	V	-
15	W	-
16	O	-
17	SHIELD	-
18	GR	-
19	R	-[With rear control switch]

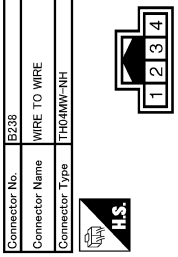
19	L	-[Without rear control switch]
20	G	-[With rear control switch]
20	P	-[Without rear control switch]

Connector No.	B235
Connector Name	WIRE TO WIRE
Connector Type	SD02MGY



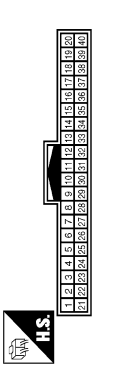
Terminal No.	Color of Wire	Signal Name [Specification]
1	P	-
2	L	-
3	SHIELD	-
4	G	-
5	R	-
6	SHIELD	-

Connector No.	B238
Connector Name	WIRE TO WIRE
Connector Type	TH04MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	SHIELD	-
2	B	-
3	W	-
4	R	-

Connector No.	B236
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-NH



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

JCNWM0924GB

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B251
Connector Name	CAMERA CONTROL UNIT
Connector Type	TH32FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
5	SHIELD	–
6	B	–
7	W	–
8	R	–
11	SHIELD	–
12	BR	–
14	GR	–
17	L/G	–
18	L/R	–
19	P	–
20	L	–

22	W	REVERSE SIGNAL
23	G	STRG SENSOR1
24	SB	STRG SENSOR2
25	O	STRG SENSOR3
26	O	VHICLE SPEED SIGNAL(8P)
30	V	ACC
31	B/R	GND
32	Y	BAT

Connector No.	B252
Connector Name	WOOFER LH
Connector Type	NS02FW-CS

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

Connector No.	B253
Connector Name	WOOFER RH
Connector Type	NS02FW-CS

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

Connector No.	B447
Connector Name	WIRE TO WIRE
Connector Type	SD02FGY

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–
2	B	–
3	SHIELD	–
4	Y	–
5	G	–
6	SHIELD	–

Connector No.	B471
Connector Name	REAR CONTROL SWITCH
Connector Type	TH04FW

Terminal No.	Color of Wire	Signal Name [Specification]
1	R/Y	–
4	Y	–

Connector No.	B472
Connector Name	REAR CONTROL SWITCH
Connector Type	SD01FGY

Terminal No.	Color of Wire	Signal Name [Specification]
5	G	–
7	Y	–

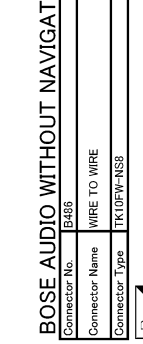
Connector No.	B473
Connector Name	REAR CONTROL SWITCH
Connector Type	SD01MGY

Terminal No.	Color of Wire	Signal Name [Specification]
6	B	–
8	W	–

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BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B486
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8



Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	–
5	R/Y	–

Connector No.	D15
Connector Name	FRONT DOOR SPEAKER LH (WITH BOSE SYSTEM)
Connector Type	NS02FBR-CS



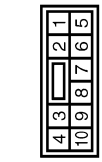
Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–
2	B	–

Connector No.	D53
Connector Name	FRONT DOOR SPEAKER RH (WITH BOSE SYSTEM)
Connector Type	NS02FBR-CS



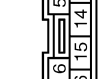
Terminal No.	Color of Wire	Signal Name [Specification]
1	B	–
2	W	–

Connector No.	D81
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS



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

Connector No.	D86
Connector Name	REAR DOOR SPEAKER LH (WITH BOSE SYSTEM)
Connector Type	NS02FBR-CS



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

Connector No.	D106
Connector Name	REAR DOOR SPEAKER RH (WITH BOSE SYSTEM)
Connector Type	NS02FBR-CS

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

Connector No.	D111
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–[With BOSE system]
8	B	–[With BOSE system]

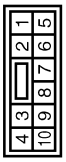
Connector No.	D112
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS

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

JCNWM0926GB

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	D155
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–
2	B	–[With BOSE system]

Connector No.	E6
Connector Name	WIRE TO WIRE
Connector Type	TK16MGY-1V





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

Connector No.	E18
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS02FL-M2-LC

Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	–
2	R	–
3	LG	–
5	R	–

Connector No.	E27
Connector Name	PARKING BRAKE SWITCH
Connector Type	P01FB-A

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

Connector No.	E7
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS

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

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH70MW-CS10-M3

Terminal No.	Color of Wire	Signal Name [Specification]
8	R	–
10	LG	–
22	P	–
48	P	–
49	L	–
73	R	–
74	BR	–
81	Y	–

Connector No.	E16
Connector Name	ECM
Connector Type	RH24FB-RZ8-L-LH

Terminal No.	Color of Wire	Signal Name [Specification]
97	P	VEHCAN-L
98	L	VEHCAN-H

Connector No.	F23
Connector Name	TCM (TRANSMISSION CONTROL MODULE)
Connector Type	RH40FB-RZ8-L-RH

Terminal No.	Color of Wire	Signal Name [Specification]
19	G/B	REV LAMP RELAY

JCNWM0927GB

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	F57
Connector Name	PARK / NEUTRAL POSITION SWITCH
Connector Type	YDX06FB-HS4

Terminal No.	Color of Wire	Signal Name [Specification]
3	LG	–
5	P/B	–

Connector No.	F121
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS

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

Connector No.	F123
Connector Name	WIRE TO WIRE
Connector Type	TK16FGY-1V

Terminal No.	Color of Wire	Signal Name [Specification]
4	G/B	–

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS08FW-M2

Terminal No.	Color of Wire	Signal Name [Specification]
2A	G/O	–
5A	V/O	–

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

Terminal No.	Color of Wire	Signal Name [Specification]
12C	O	–

Connector No.	M4
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW

Terminal No.	Color of Wire	Signal Name [Specification]
6	L	–
14	P	–

Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Type	TH70FW-CS10-M3

Terminal No.	Color of Wire	Signal Name [Specification]
8	P/B	–
10	O	–
22	G/R	–
48	P	–
49	L	–
73	B/R	–
74	BR	–
81	Y	–

Connector No.	M30
Connector Name	STEERING ANGLE SENSOR
Connector Type	TH08FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	–
3	L/Y	–
4	G	–
6	B/R	–
8	O	–

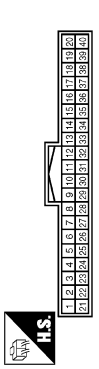
JCNWM0928GB

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

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

Terminal No.	Color of Wire	Signal Name [Specification]
24	W/G	–
31	GR/L	–
33	L/B	–

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	TH40FW-NH

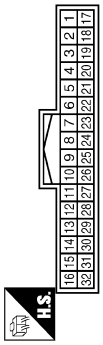


Terminal No.	Color of Wire	Signal Name [Specification]
21	L	CAN-H
22	P	CAN-L
31	V/W	VEHICLE SPEED SIGNAL (8-PULSE)

Connector No.	M49
Connector Name	DISPLAY UNIT
Connector Type	TH24FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
1	B/W	GND
2	Y	INV VCC
3	O	3G VCC (With BOSE system without navigation system or base audio and display system)
4	SHIELD	COMPOSIT IMAGE SIGNAL SHIELD
5	W	COMPOSIT IMAGE SIGNAL GND
6	R	RGB (G:GREEN)
7	SHIELD	RGB GND
8	W	HP
9	B	YS
11	R	COMM (CONT->DISP)
13	BR	3V GND (With BOSE system without navigation system or base audio and display system)
14	LG	SIG GND
15	B	COMPOSIT IMAGE SIGNAL
17	W	RGB (R:RED)
18	B	RGB (B:BLUE)
19	G	RGB SYNC
20	R	VP
21	SHIELD	RGB SYNC GND
22	G	COMM (DISP->CONT)
23	SHIELD	SHIELD

Connector No.	M44
Connector Name	WIRE TO WIRE
Connector Type	TH32FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–
2	B	–
3	SHIELD	–
4	W	–
5	B	–
6	SHIELD	–
7	W	–
8	B	–
9	SHIELD	–
10	W	–
11	B	–
12	SHIELD	–
17	W	–
18	B	–
19	SHIELD	–
20	W	–
21	B	–
22	SHIELD	–
23	W	–
24	B	–
25	SHIELD	–
26	R	–
27	L	–
28	SHIELD	–

Connector No.	M65
Connector Name	FRONT SQUAWKER LH
Connector Type	TK02FBR



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

Connector No.	M66
Connector Name	CENTER SPEAKER
Connector Type	TK02FBR



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

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BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M67
Connector Name	FRONT SQUAWKER RH
Connector Type	TK02FBR

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

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS19



Terminal No.	Color of Wire	Signal Name [Specification]
18	P	–
19	L	–
34	V/R	–
43	P	–
44	L	–
83	G/B	–
84	W/B	–
96	W/R	–
97	O/B	–

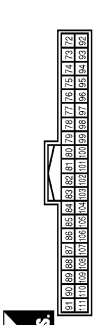
Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



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

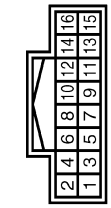
Terminal No.	Color of Wire	Signal Name [Specification]
12	W/R	–
13	O/B	–
14	R	–
15	G	–
16	W/B	–

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



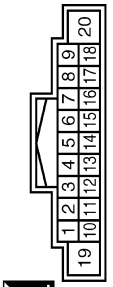
Terminal No.	Color of Wire	Signal Name [Specification]
90	P	CAN-L
91	L	CAN-H

Connector No.	M125
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH16FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
3	V/R	ACC
6	W	M-CAN H
8	B	M-CAN L
9	BR	SW GND
14	SB	CD(DVD) EJECT

Connector No.	M127
Connector Name	AV CONTROL UNIT
Connector Type	TH18FW-CS2



Terminal No.	Color of Wire	Signal Name [Specification]
6	W/G	STRG SW A
7	V/W	ACC
9	R/L	ILL
15	L/B	STRG SW GND
16	GR/L	STRG SW B
19	Y	BAT
20	B/W	GND

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BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M129
Connector Name	AV CONTROL UNIT
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
36	B	COMPOSIT IMAGE SIGNAL
37	W	COMPOSIT IMAGE SIGNAL GND
38	B	RGB (B:BLUE)
39	R	RGB (G:GREEN)
40	W	RGB (R:RED)
41	G	RGB SYNC
42	SHIELD	RGB SYNC GND
43	B	YS
44	G	COMM (DISP->)CONT)
45	W	HP
46	LG	SIG GND

Terminal No.	Color of Wire	Signal Name [Specification]
47	O	SIG VCC
49	SHIELD	COMP OUT SHIELD
50	SHIELD	RGB GND
55	SHIELD	SHIELD
56	R	COMM (CONT->DISP)
57	R	VP
58	BR	INV GND
59	Y	INV VCC

Connector No.	M130
Connector Name	AV CONTROL UNIT
Connector Type	TH16FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
64	SHIELD	CAMERA IMAGE SIGNAL GND
65	Y	CAMERA IMAGE SIGNAL
66	V	COMPOSIT (DVD AND AUX) IMAGE SIGNAL (With BOSE system)
68	W	CAMERA CONNECTION RECOGNITION SIGNAL
73	SHIELD	COMPOSIT IMAGE SIGNAL SHIELD
74	G	COMPOSIT (DVD AND AUX) IMAGE SIGNAL GND (With BOSE system)

Connector No.	M131
Connector Name	AV CONTROL UNIT
Connector Type	TH32FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
82	W	STEREO (DVD AND AUX) SOUND SIGNAL RH (-) [With BOSE audio system]
83	R	STEREO (DVD AND AUX) SOUND SIGNAL RH (+) [With BOSE audio system]
85	B/W	GND
86	L	CAN-H
87	P	CAN-L
88	W	AV COMM (H)
89	B	AV COMM (L)
90	L	AV COMM (H)
91	R	AV COMM (L)
98	G	STEREO (DVD AND AUX) SOUND SIGNAL LH (-) [With BOSE audio system]
99	B	STEREO (DVD AND AUX) SOUND SIGNAL LH (+) [With BOSE audio system]

Terminal No.	Color of Wire	Signal Name [Specification]
100	SHIELD	STEREO SOUND SIGNAL SHIELD [With BOSE audio system]
101	BR	5W AMP [With BOSE system without navigation system or base audio and stereo system]
103	SB	DISC EJECT SIG
104	O	IGN
105	P/B	REVERSE SIG
106	G/R	PKB SIG
107	V/W	VEHICLE SPEED SIG (8P)

Connector No.	M132
Connector Name	AV CONTROL UNIT (WITH BOSE SYSTEM)
Connector Type	TH12FW-NH

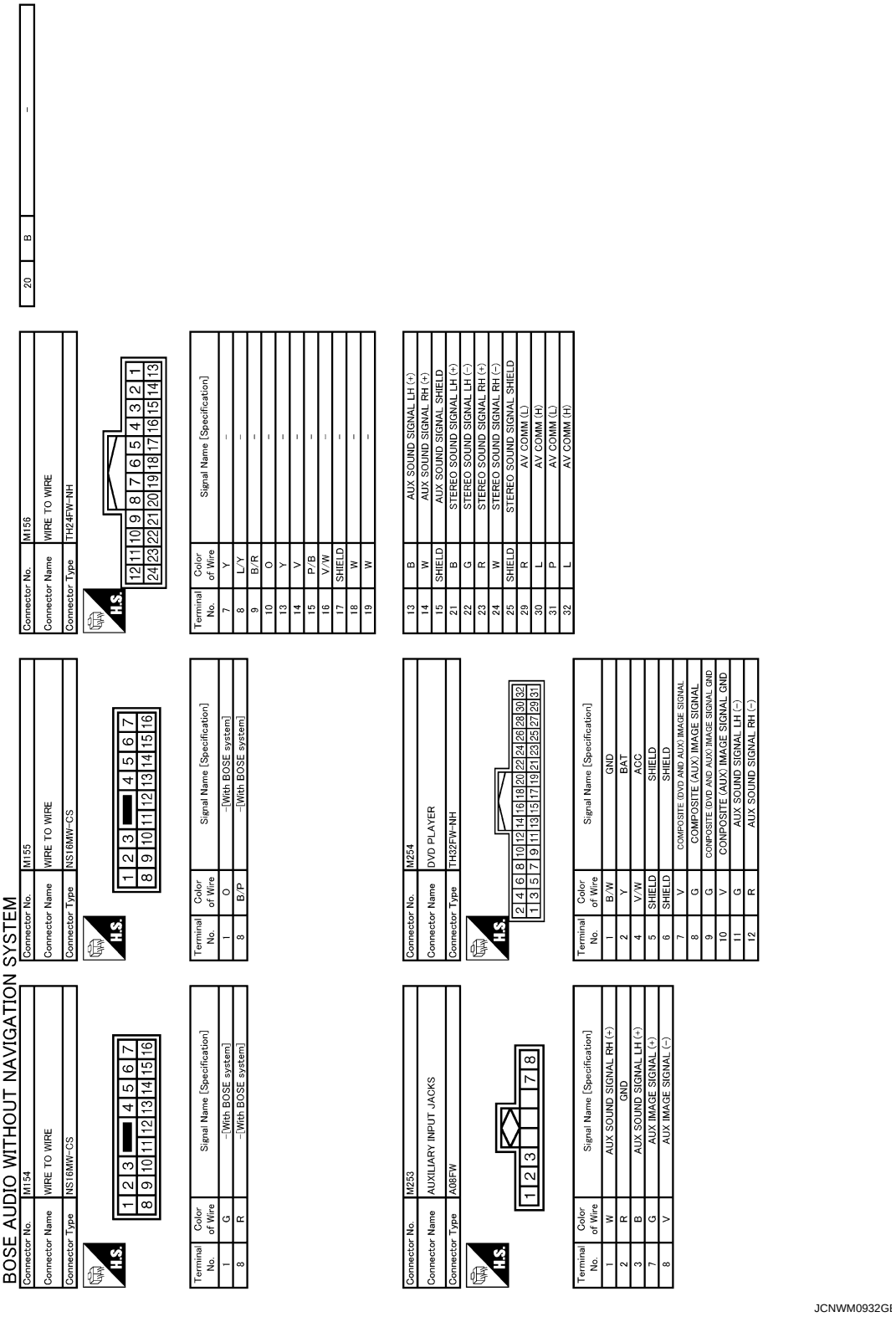
Terminal No.	Color of Wire	Signal Name [Specification]
109	W	STEREO SOUND SIGNAL RH (+) [With BOSE audio system]
111	SHIELD	SHIELD
113	W	STEREO SOUND SIGNAL LH (+) [With BOSE audio system]
115	B	STEREO SOUND SIGNAL RH (-) [With BOSE audio system]
119	B	STEREO SOUND SIGNAL LH (-) [With BOSE audio system]

Connector No.	M153
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
18	L	–
19	P	[With BOSE system]

JCNWM0931GB

BOSE AUDIO WITHOUT NAVIGATION SYSTEM



JCNWM0932GB

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M264
Connector Name	DVD PLAYER
Connector Type	TH16FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
34	SHIELD	SHIELD
35	B	FR SURROUND SOUND SIGNAL RH (-)
36	W	FR SURROUND SOUND SIGNAL RH (+)
37	B	FR SURROUND SOUND SIGNAL LH (-)
38	W	FR SURROUND SOUND SIGNAL LH (+)
39	B	CENTER SURROUND SOUND SIGNAL (-)
40	W	CENTER SURROUND SOUND SIGNAL (+)
41	R	SORROUND SOUND SIGNAL LFE (-)
42	L	SORROUND SOUND SIGNAL LFE (+)
43	SHIELD	SHIELD
44	SHIELD	SHIELD
45	B	RR SURROUND SOUND SIGNAL RH (-)
46	W	RR SURROUND SOUND SIGNAL RH (+)
47	B	RR SURROUND SOUND SIGNAL LH (-)
48	W	RR SURROUND SOUND SIGNAL LH (+)

Connector No.	M318
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1S-HU

Terminal No.	Color of Wire	Signal Name [Specification]
1	–	–
2	–	–
3	–	–

Connector No.	M319
Connector Name	ANTENNA AMP.
Connector Type	GT13SC-1/1S-HU

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

Connector No.	M320
Connector Name	WINDOW ANTENNA (SUB)
Connector Type	P01FB-A

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

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

Terminal No.	Color of Wire	Signal Name [Specification]
14	–	–
15	–	–
17	–	–

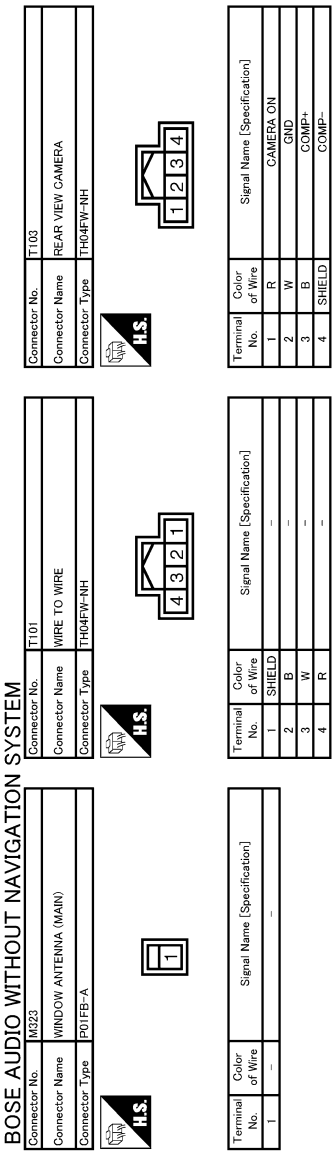
Connector No.	M321
Connector Name	AV CONTROL UNIT
Connector Type	GT13SH-2/1S-HU

Terminal No.	Color of Wire	Signal Name [Specification]
33	–	FM SUB
34	–	AM-FM MAIN
35	–	ANTENNA AMP ON SIG

Connector No.	M317
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1PP-HU

Terminal No.	Color of Wire	Signal Name [Specification]
1	–	–
2	–	–
3	–	–

JCNWM0933GB



JCNWM0934GI

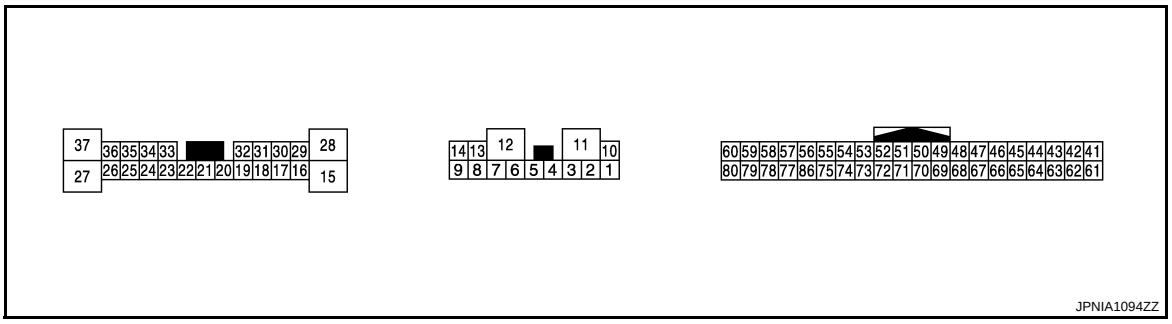
NOTE:
The name MULTIFUNCTION SWITCH indicates the integration of PRESET SWITCH and MULTIFUNCTION SWITCH virtually.

BOSE AMP.

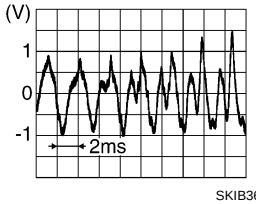
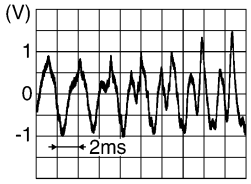
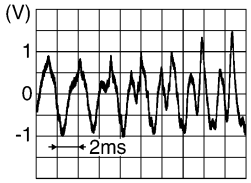
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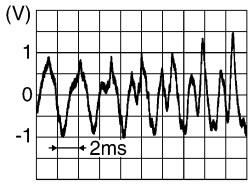
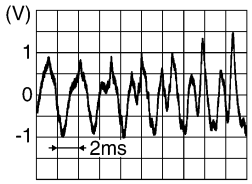
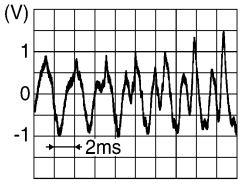
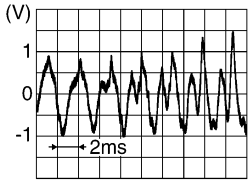
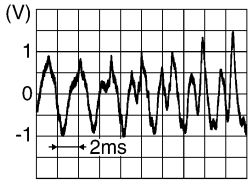
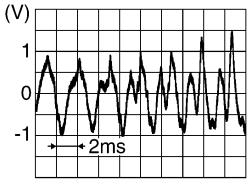
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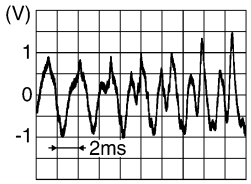
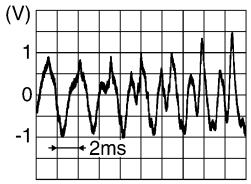
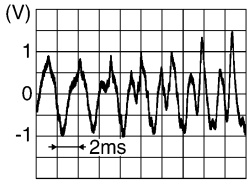
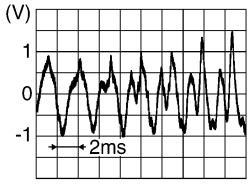
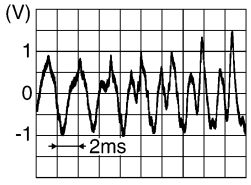
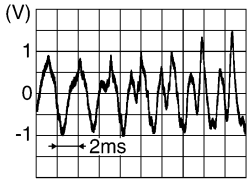
TERMINAL LAYOUT

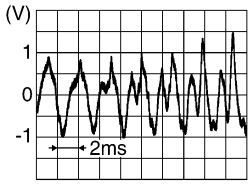
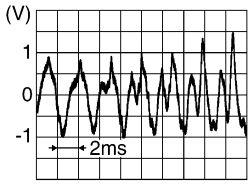
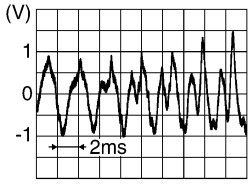


PHYSICAL VALUES

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
1 (LG)	2 (V)	Sound signal front squawker LH	Output	Ignition switch ON	Audio output	 SKIB3609E
4 (P)	3 (L)	Sound signal front squawker RH	Output	Ignition switch ON	Audio output	 SKIB3609E
5 (Y)	6 (BR)	Sound signal woofer RH	Output	Ignition switch ON	Audio output	 SKIB3609E
7 (B)	Ground	Ground	—	Ignition switch ON	—	0 V
10 (SB)	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	Ground	—	Ignition switch ON	—	0 V

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
13 (R)	8 (BR)	Sound signal woofer LH	Output	Ignition switch ON	Audio output	 SKIB3609E
14 (L)	9 (O)	Sound signal rear speaker RH	Output	Ignition switch ON	Audio output	 SKIB3609E
18 (W)	19 (B)	Sound signal front speaker LH	Output	Ignition switch ON	Audio output	 SKIB3609E
20 (V)	Ground	ACC power supply	Input	Ignition switch ACC	—	12.0 V
24 (B)	23 (W)	Stereo sound signal front LH	Input	Ignition switch ON	Audio output	 SKIB3609E
26 (W/R)	25 (B/R)	Stereo sound signal front RH	Input	Ignition switch ON	Audio output	 SKIB3609E
28 (G)	15 (R)	Sound signal rear speaker LH	Output	Ignition switch ON	Audio output	 SKIB3609E

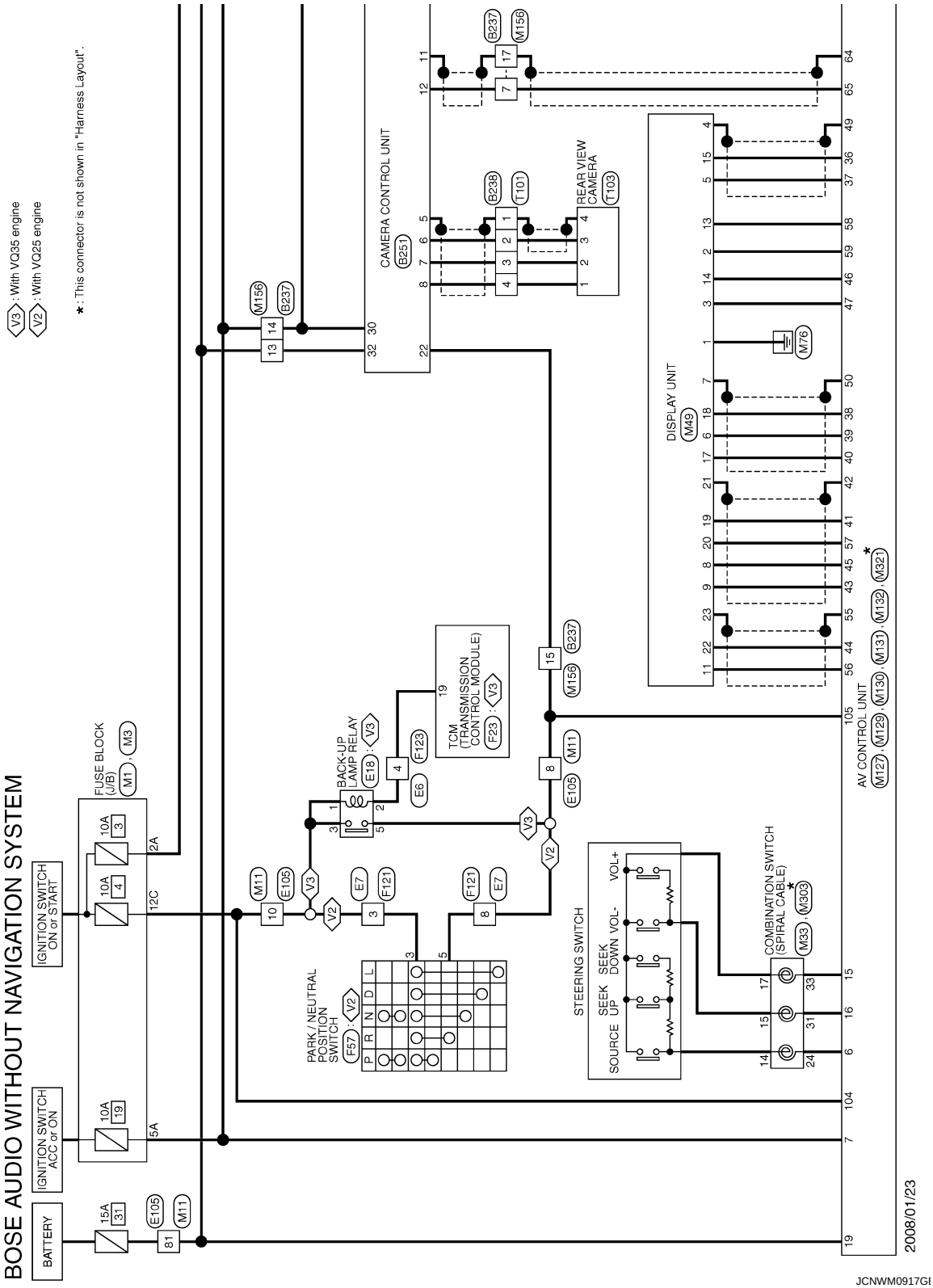
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
29 (V)	30 (P)	Sound signal center speaker	Output	Ignition switch ON	Audio output	 SKIB3609E
31 (BR)	32 (Y)	Sound signal front speaker RH	Output	Ignition switch ON	Audio output	 SKIB3609E
33 (W/L)	34 (GR/V)	Surround sound signal rear RH	Input	Ignition switch ON	When DVD is playing.*	 SKIB3609E
35 (W/L)	36 (W/R)	Surround sound signal rear LH	Input	Ignition switch ON	When DVD is playing.*	 SKIB3609E
52 (B)	51 (W)	Surround sound signal front LH	Input	Ignition switch ON	When DVD is playing.*	 SKIB3609E
54 (Y)	53 (BR)	Surround sound signal front RH	Input	Ignition switch ON	When DVD is playing.*	 SKIB3609E

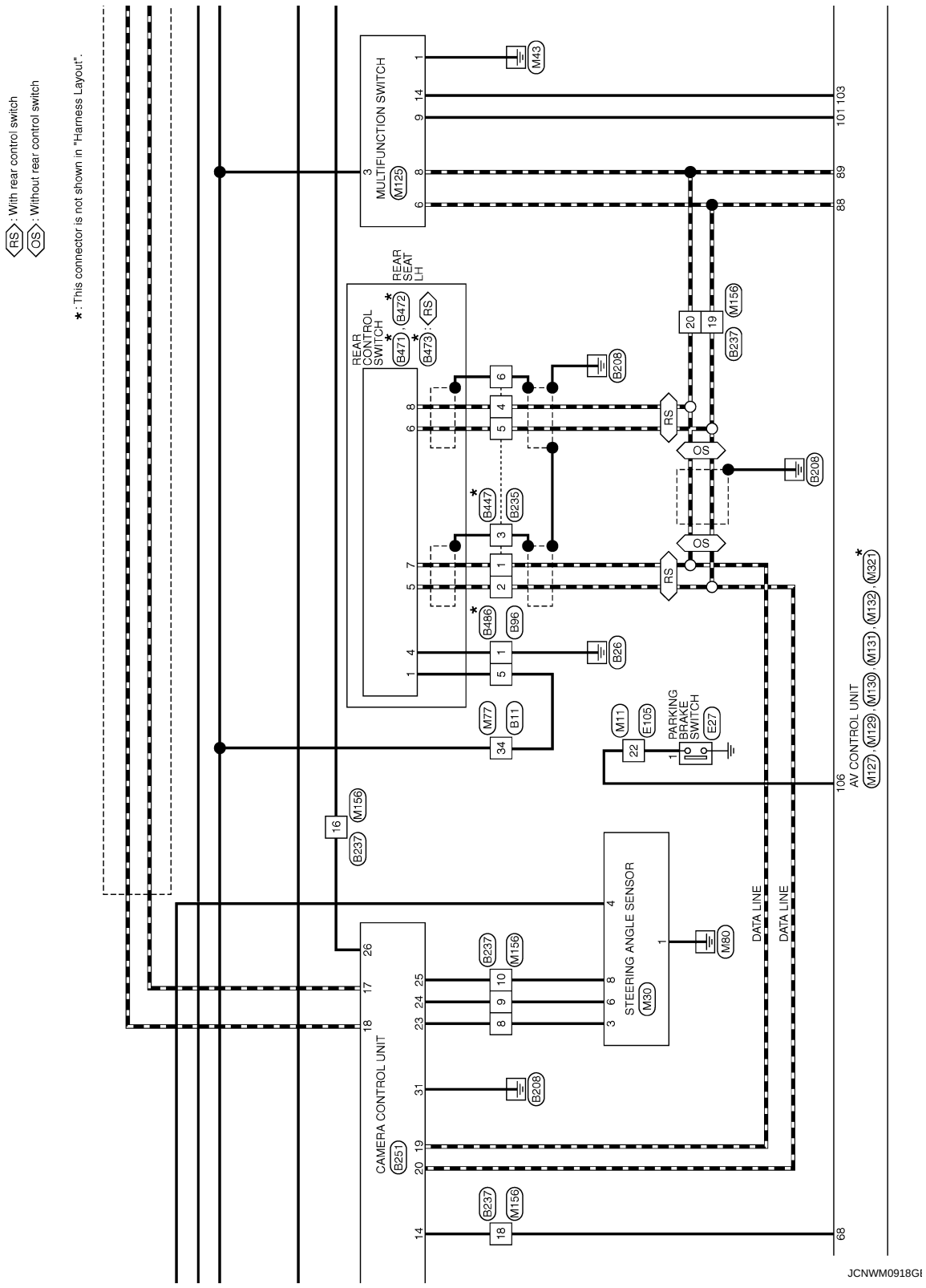
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
56 (W/L)	55 (W/R)	Voice guidance signal	Input	Ignition switch ON	When inputting voice guidance.	 SKIB3609E
58 (W/R)	57 (B/R)	Surround sound signal center	Input	Ignition switch ON	When DVD is playing.*	 SKIB3609E
59 (GR/V)	60 (W/L)	Surround sound signal center	Input	Ignition switch ON	When DVD is playing.*	 SKIB3609E
75 (P)	—	AV communication signal (L)	—	—	—	—
76 (P)	—	AV communication signal (L)	—	—	—	—
77 (L)	—	AV communication signal (H)	—	—	—	—
78 (L)	—	AV communication signal (H)	—	—	—	—
79	—	Shield	—	—	—	—

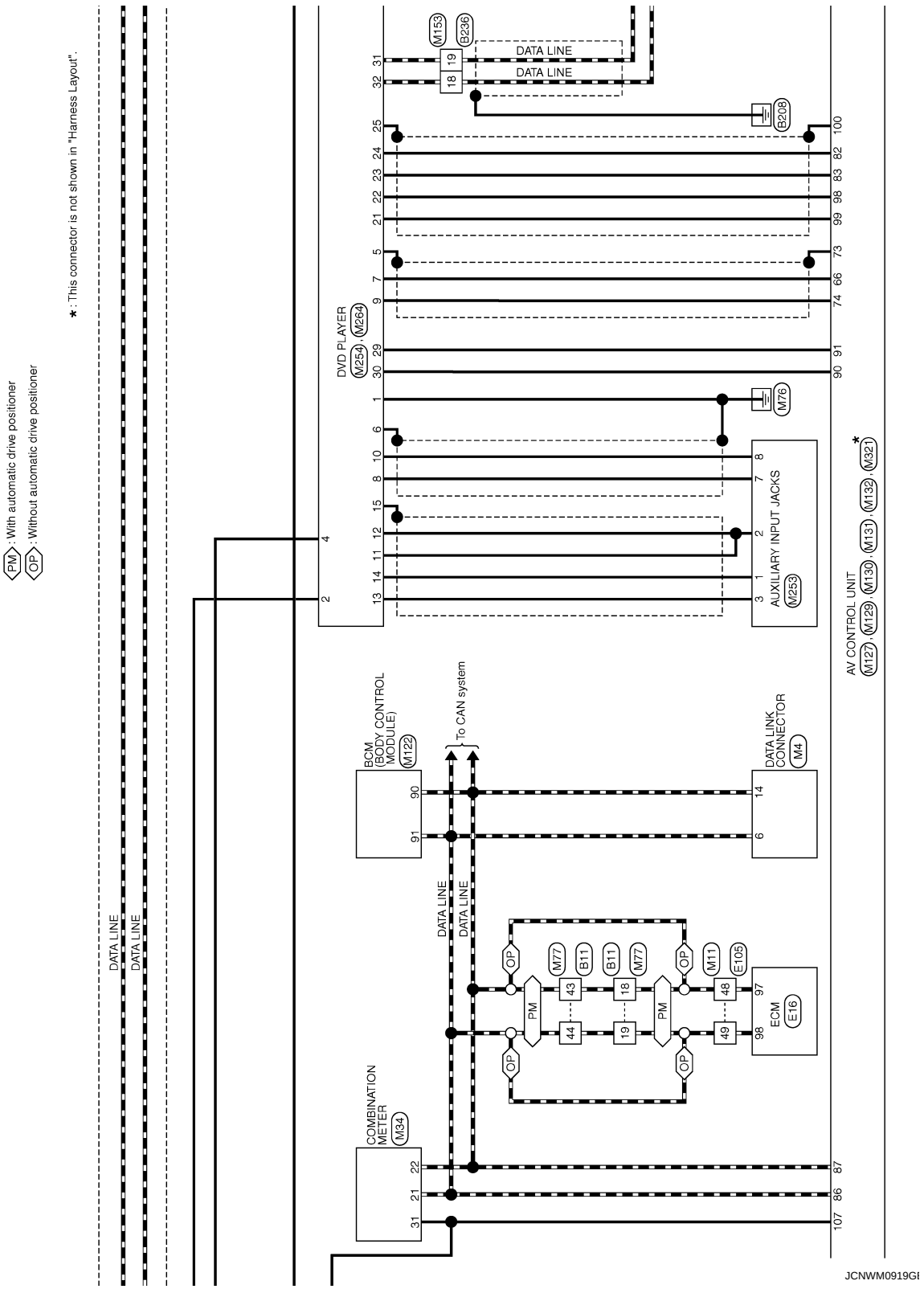
*: All surround sounds are input only when the 5.1 channel surround sound is played.

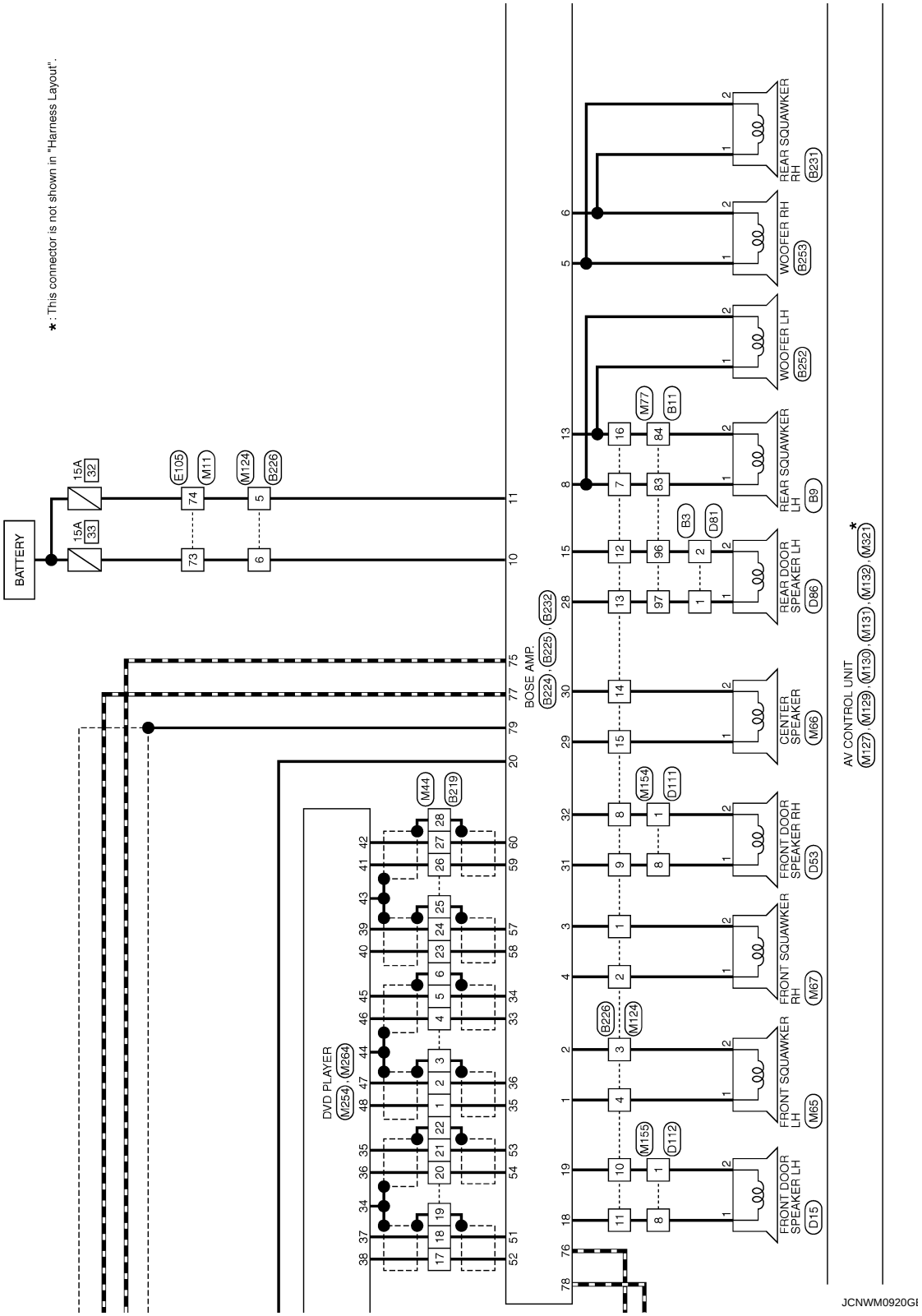
Wiring Diagram — BOSE AUDIO WITHOUT NAVIGATION SYSTEM —

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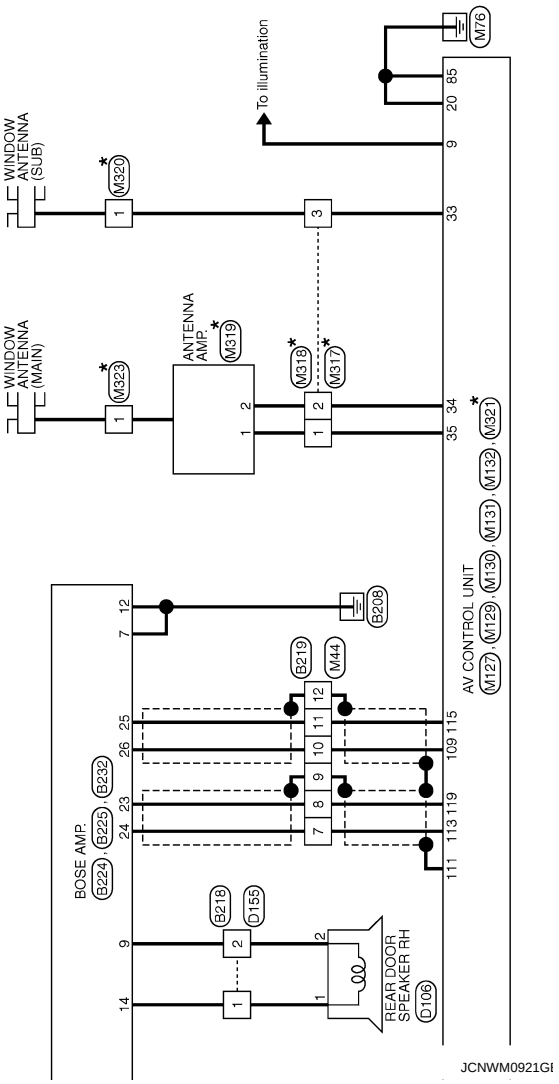



RS : With rear control switch
OS : Without rear control switch
* : This connector is not shown in "Harness Layout".
MULTIFUNCTION SWITCH
M125
M43
REAR SEAT LH
REAR CONTROL SWITCH
B471
B472
B473
RS
B208
M156
B237
B447
B235
B486
B96
B26
M77
B11
M11
E106
PARKING BRAKE SWITCH
E27
AV CONTROL UNIT
M127, M129, M130, M131, M132, M321
STEERING ANGLE SENSOR
M30
M80
CAMERA CONTROL UNIT
B251
DATA LINE
DATA LINE
JCNWM0918GB


PM : With automatic drive positioner
OP : Without automatic drive positioner
*: This connector is not shown in "Harness Layout".
DATA LINE
DATA LINE
DATA LINE
DATA LINE
DATA LINE
DATA LINE
DVD PLAYER
M254, M264
AUXILIARY INPUT JACKS
M253
M153
B236
B208
M76
AV CONTROL UNIT
M127, M129, M130, M131, M132, M321
BCM
(BODY CONTROL MODULE)
M122
To CAN system
DATA LINK CONNECTOR
M4
COMBINATION METER
M34
ECM
E16
M77
B11
B11
M77
M11
E105
PM
OP
JCNWM0919GB


★: This connector is not shown in "Harness Layout".
BATTERY
15A 32
15A 33
E105
M11
M124
B226
BOSE AMP.
B224, B225, B232
DVD PLAYER
M254, M264
M44
B219
FRONT DOOR SPEAKER LH D15
FRONT SQUAWKER LH M65
FRONT SQUAWKER RH M67
FRONT DOOR SPEAKER RH D53
CENTER SPEAKER M66
REAR DOOR SPEAKER LH D86
REAR SQUAWKER LH B9
WOOFER LH B252
WOOFER RH B253
REAR SQUAWKER RH B231
AV CONTROL UNIT
M127, M129, M130, M131, M132, M321
JCNWM0920GB

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



BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B3
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS

H.S.

1	2	3	4
5	6	7	8	9	10
---	---	---	---	---	---

Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	–[With BOSE system]
2	O	–[With BOSE system]

Connector No.	B9
Connector Name	REAR SQUAWKER LH
Connector Type	TK02MBR-P

H.S.

2	1

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

Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS19

H.S.



Terminal No.	Color of Wire	Signal Name [Specification]
18	P	–
19	L	–
34	G	–
43	P	–
44	L	–
83	BR	–
84	R	–
96	O	–[With BOSE system]
97	LG	–[With BOSE system]

12	SHIELD	–
17	B	–
18	W	–
19	SHIELD	–
20	Y	–
21	BR	–
22	SHIELD	–
23	W/R	–
24	B/R	–
25	SHIELD	–
26	GR/V	–
27	W/L	–
28	SHIELD	–

Connector No.	B96
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8

H.S.

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 [Specification]
1	B	–
5	G	–

Connector No.	B218
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS

H.S.

1	2	3	4
5	6	7	8	9	10
---	---	---	---	---	---

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

Connector No.	B219
Connector Name	WIRE TO WIRE
Connector Type	TH32MW-NH

H.S.

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

Terminal No.	Color of Wire	Signal Name [Specification]
1	W/L	–
2	W/R	–
3	SHIELD	–
4	W/L	–
5	GR/V	–
6	SHIELD	–
7	B	–
8	W	–
9	SHIELD	–
10	W/R	–
11	B/R	–

JCNWM0922GB

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B224
Connector Name	BOSE AMP.
Connector Type	SGA12FBR-SJA2

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

Connector No.	B226
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	-
3	V	-
4	LG	-
5	GR	-
6	SB	-
7	BR	-
8	Y	-
9	BR	-
10	B	-[With BOSE system]
11	W	-[With BOSE system]

I2	B	GND
I3	R	SOUND SIGNAL WOOFER LH (+)
I4	L	SOUND SIGNAL REAR SPEAKER RH (+)

I2	R	-
I3	G	-
I4	P	-
I5	V	-
I6	R	-

Connector No.	B225
Connector Name	BOSE AMP.
Connector Type	SGA19FBR-SGA4

Terminal No.	Color of Wire	Signal Name [Specification]
15	R	SOUND SIGNAL REAR SPEAKER LH (-)
18	W	SOUND SIGNAL FRONT SPEAKER LH (+)
19	B	SOUND SIGNAL FRONT SPEAKER LH (-)
20	V	ACC
23	W	STEREO SOUND SIGNAL LH (+)
24	B	STEREO SOUND SIGNAL LH (+)
25	B/R	STEREO SOUND SIGNAL RH (-)
26	W/R	STEREO SOUND SIGNAL RH (+)
28	G	SOUND SIGNAL REAR SPEAKER LH (+)
29	V	SOUND SIGNAL CENTER SPEAKER (+)
30	P	SOUND SIGNAL CENTER SPEAKER (-)

31	BR	SOUND SIGNAL FRONT SPEAKER RH (+)
32	Y	SOUND SIGNAL FRONT SPEAKER RH (-)
33	W/L	RR SURROUND SOUND SIGNAL RH (+)
34	GR/V	RR SURROUND SOUND SIGNAL RH (-)
35	W/L	RR SURROUND SOUND SIGNAL LH (+)
36	W/R	RR SURROUND SOUND SIGNAL LH (-)

Connector No.	B231
Connector Name	REAR SQUAWKER RH
Connector Type	TK02MBR-P

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

JCNWM0923GB

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B232
Connector Name	BOSE AMP.
Connector Type	TH40FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
51	W	FR SURROUND SOUND SIGNAL LH (-)
52	B	FR SURROUND SOUND SIGNAL LH (+)
53	BR	FR SURROUND SOUND SIGNAL RH (-)
54	Y	FR SURROUND SOUND SIGNAL RH (+)
57	B/R	CENTER SURROUND SOUND SIGNAL (-)
58	W/R	CENTER SURROUND SOUND SIGNAL (+)
59	GR/V	SURROUND SOUND SIGNAL LFE (-)
60	W/L	SURROUND SOUND SIGNAL LFE (+)
75	L/G	AV COMM (L) [Without navigation system]
76	P	AV COMM (L)
77	L/R	AV COMM (H) [Without navigation system]

78	L	AV COMM (H)
79	SHIELD	SHIELD

Connector No.	B237
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
7	BR	-
8	G	-
9	SB	-
10	O	-
13	Y	-
14	V	-
15	W	-
16	O	-
17	SHIELD	-
18	GR	-
19	R	-[With rear control switch]

19	L	-[Without rear control switch]
20	G	-[With rear control switch]
20	P	-[Without rear control switch]

Connector No.	B235
Connector Name	WIRE TO WIRE
Connector Type	SD02MGY

Terminal No.	Color of Wire	Signal Name [Specification]
1	P	-
2	L	-
3	SHIELD	-
4	G	-
5	R	-
6	SHIELD	-

Connector No.	B238
Connector Name	WIRE TO WIRE
Connector Type	TH04MW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
1	SHIELD	-
2	B	-
3	W	-
4	R	-

Connector No.	B236
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-NH

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

JCNWM0924GB

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B251
Connector Name	CAMERA CONTROL UNIT
Connector Type	TH32FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
5	SHIELD	SHIELD
6	B	CAMERA IMAGE SIGNAL
7	W	REAR VIEW CAMERA GND
8	R	REAR CAMERA ON
11	SHIELD	SHIELD
12	BR	CAMERA IMAGE SIGNAL
14	GR	CAMERA CONNECTING RECOGNITION SIGNAL
17	L/G	AV COMM(L) [With BOSE audio system]
18	L/R	AV COMM(H) [With BOSE audio system]
19	P	AV COMM(L)
20	L	AV COMM(H)
22	W	REVERSE SIGNAL
23	G	STRG SENSOR1
24	SB	STRG SENSOR2
25	O	STRG SENSOR3
26	O	VHICLE SPEED SIGNAL(8P)
30	V	ACC
31	B/R	GND
32	Y	BAT

Connector No.	B447
Connector Name	WIRE TO WIRE
Connector Type	SD02FGY

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–
2	B	–
3	SHIELD	–
4	Y	–
5	G	–
6	SHIELD	–

Connector No.	B471
Connector Name	REAR CONTROL SWITCH
Connector Type	TH04FW

Terminal No.	Color of Wire	Signal Name [Specification]
1	R/Y	–
4	Y	–

Connector No.	B252
Connector Name	WOOFER LH
Connector Type	NS02FW-CS

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

Connector No.	B472
Connector Name	REAR CONTROL SWITCH
Connector Type	SD01FGY

Terminal No.	Color of Wire	Signal Name [Specification]
5	G	–
7	Y	–

Connector No.	B253
Connector Name	WOOFER RH
Connector Type	NS02FW-CS

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

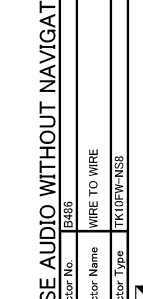
Connector No.	B473
Connector Name	REAR CONTROL SWITCH
Connector Type	SD01MGY

Terminal No.	Color of Wire	Signal Name [Specification]
6	B	–
8	W	–

JCNWM0925GB

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B486
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8



Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	–
5	R/Y	–

Connector No.	D15
Connector Name	FRONT DOOR SPEAKER LH (WITH BOSE SYSTEM)
Connector Type	NS02FBR-CS



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

Connector No.	D53
Connector Name	FRONT DOOR SPEAKER RH (WITH BOSE SYSTEM)
Connector Type	NS02FBR-CS



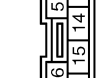
Terminal No.	Color of Wire	Signal Name [Specification]
1	B	–
2	W	–

Connector No.	D81
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS



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

Connector No.	D86
Connector Name	REAR DOOR SPEAKER LH (WITH BOSE SYSTEM)
Connector Type	NS02FBR-CS



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

Connector No.	D106
Connector Name	REAR DOOR SPEAKER RH (WITH BOSE SYSTEM)
Connector Type	NS02FBR-CS

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

Connector No.	D111
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–[With BOSE system]
8	B	–[With BOSE system]

Connector No.	D112
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS

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

JCNWM0926GB

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	D155
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–
2	B	–[With BOSE system]

Connector No.	E6
Connector Name	WIRE TO WIRE
Connector Type	TK16MGY-1V

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

Connector No.	E7
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS

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

Connector No.	E16
Connector Name	ECM
Connector Type	RH24FB-RZ8-L-LH

Terminal No.	Color of Wire	Signal Name [Specification]
97	P	VEHCAN-L
98	L	VEHCAN-H

Connector No.	E18
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS02FL-M2-LC

Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	–
2	R	–
3	LG	–
5	R	–

Connector No.	E27
Connector Name	PARKING BRAKE SWITCH
Connector Type	P01FB-A

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

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH70MW-CS10-M3

Terminal No.	Color of Wire	Signal Name [Specification]
8	R	–
10	LG	–
22	P	–
48	P	–
49	L	–
73	R	–
74	BR	–
81	Y	–

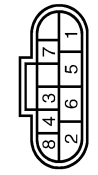
Connector No.	F23
Connector Name	TCM (TRANSMISSION CONTROL MODULE)
Connector Type	RH40FB-RZ8-L-RH

Terminal No.	Color of Wire	Signal Name [Specification]
19	G/B	REV LAMP RELAY

JCNWM0927GB

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	F57
Connector Name	PARK / NEUTRAL POSITION SWITCH
Connector Type	YDX06FB-HS4



Terminal No.	Color of Wire	Signal Name [Specification]
3	LG	–
5	P/B	–

Connector No.	F121
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS

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

Connector No.	F123
Connector Name	WIRE TO WIRE
Connector Type	TK16FGY-1V



Terminal No.	Color of Wire	Signal Name [Specification]
4	G/B	–

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS08FW-M2

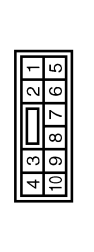


Terminal No.	Color of Wire	Signal Name [Specification]
2A	G/O	–
5A	V/O	–

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

Terminal No.	Color of Wire	Signal Name [Specification]
12C	O	–

Connector No.	M4
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



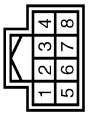
Terminal No.	Color of Wire	Signal Name [Specification]
6	L	–
14	P	–

Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Type	TH70FW-CS10-M3



Terminal No.	Color of Wire	Signal Name [Specification]
8	P/B	–
10	O	–
22	G/R	–
48	P	–
49	L	–
73	B/R	–
74	BR	–
81	Y	–

Connector No.	M30
Connector Name	STEERING ANGLE SENSOR
Connector Type	TH08FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	–
3	L/Y	–
4	G	–
6	B/R	–
8	O	–

JCNWM0928GB

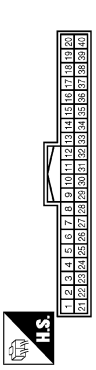
BOSE AUDIO WITHOUT NAVIGATION SYSTEM

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



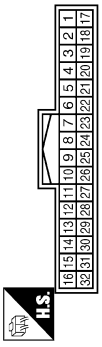
Terminal No.	Color of Wire	Signal Name [Specification]
24	W/G	–
31	GR/L	–
33	L/B	–

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	TH40FW-NH



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

Connector No.	M44
Connector Name	WIRE TO WIRE
Connector Type	TH32FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–
2	B	–
3	SHIELD	–
4	W	–
5	B	–
6	SHIELD	–
7	W	–
8	B	–
9	SHIELD	–
10	W	–
11	B	–
12	SHIELD	–
17	W	–
18	B	–
19	SHIELD	–
20	W	–
21	B	–
22	SHIELD	–
23	W	–
24	B	–
25	SHIELD	–
26	R	–
27	L	–
28	SHIELD	–

Connector No.	M49
Connector Name	DISPLAY UNIT
Connector Type	TH24FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
1	B/W	GND
2	Y	INV VCC
3	O	3SI VCC (With BOSE system without navigation system or base audio and display system)
4	SHIELD	COMPOSIT IMAGE SIGNAL SHIELD
5	W	COMPOSIT IMAGE SIGNAL GND
6	R	RGB (G:GREEN)
7	SHIELD	RGB GND
8	W	HP
9	B	YS
11	R	COMM (CONT->DISP)
13	BR	INV GND (With BOSE system without navigation system or base audio and display system)
14	LG	SIG GND
15	B	COMPOSIT IMAGE SIGNAL
17	W	RGB (R:RED)
18	B	RGB (B:BLUE)
19	G	RGB SYNC
20	R	VP
21	SHIELD	RGB SYNC GND
22	G	COMM (DISP->CONT)
23	SHIELD	SHIELD

Connector No.	M65
Connector Name	FRONT SQUAWKER LH
Connector Type	TK02FBR



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

Connector No.	M66
Connector Name	CENTER SPEAKER
Connector Type	TK02FBR



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

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BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M67
Connector Name	FRONT SQUAWKER RH
Connector Type	TK02FBR



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

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS19



Terminal No.	Color of Wire	Signal Name [Specification]
18	P	–
19	L	–
34	V/R	–
43	P	–
44	L	–
83	G/B	–
84	W/B	–
96	W/R	–
97	O/B	–

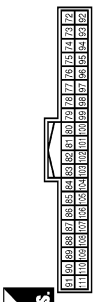
Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



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

Terminal No.	Color of Wire	Signal Name [Specification]
12	W/R	–
13	O/B	–
14	R	–
15	G	–
16	W/B	–

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



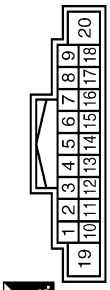
Terminal No.	Color of Wire	Signal Name [Specification]
90	P	CAN-L
91	L	CAN-H

Connector No.	M125
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH16FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
3	V/R	ACC
6	W	M-CAN H
8	B	M-CAN L
9	BR	SW GND
14	SB	CD(DVD) EJECT

Connector No.	M127
Connector Name	AV CONTROL UNIT
Connector Type	TH18FW-CS2



Terminal No.	Color of Wire	Signal Name [Specification]
6	W/G	STRG SW A
7	V/W	ACC
9	R/L	ILL
15	L/B	STRG SW GND
16	GR/L	STRG SW B
19	Y	BAT
20	B/W	GND

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BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M129
Connector Name	AV CONTROL UNIT
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
36	B	COMPOSIT IMAGE SIGNAL
37	W	COMPOSIT IMAGE SIGNAL GND
38	B	RGB (B:BLUE)
39	R	RGB (G:GREEN)
40	W	RGB (R:RED)
41	G	RGB SYNC
42	SHIELD	RGB SYNC GND
43	B	YS
44	G	COMM (DISP->CONT)
45	W	HP
46	LG	SIG GND

Connector No.	M130
Connector Name	AV CONTROL UNIT
Connector Type	TH16FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
64	SHIELD	CAMERA IMAGE SIGNAL GND
65	Y	CAMERA IMAGE SIGNAL
66	V	COMPOSIT (DVD AND AUX) IMAGE SIGNAL (With BOSE system)
68	W	CAMERA CONNECTION RECOGNITION SIGNAL
73	SHIELD	COMPOSIT IMAGE SIGNAL SHIELD
74	G	COMPOSIT (DVD AND AUX) IMAGE SIGNAL GND (With BOSE system)

Connector No.	M131
Connector Name	AV CONTROL UNIT
Connector Type	TH32FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
82	W	STEREO (DVD AND AUX) SOUND SIGNAL RH (-) (With BOSE audio system)
83	R	STEREO (DVD AND AUX) SOUND SIGNAL RH (+) (With BOSE audio system)
85	B/W	GND
86	L	CAN-H
87	P	CAN-L
88	W	AV COMM (H)
89	B	AV COMM (L)
90	L	AV COMM (H)
91	R	AV COMM (L)
98	G	STEREO (DVD AND AUX) SOUND SIGNAL LH (-) (With BOSE audio system)
99	B	STEREO (DVD AND AUX) SOUND SIGNAL LH (+) (With BOSE audio system)

47	O	SIG VCC
49	SHIELD	COMP OUT SHIELD
50	SHIELD	RGB GND
55	SHIELD	SHIELD
56	R	COMM (CONT->DISP)
57	R	VP
58	BR	INV GND
59	Y	INV VCC

100	SHIELD	STEREO SOUND SIGNAL SHIELD (With BOSE audio system)
101	BR	SW VOICE (With BOSE system without navigation system or base audio and stereo system)
103	SB	DISC EJECT SIG
104	O	IGN
105	P/B	REVERSE SIG
106	G/R	PKB SIG
107	V/W	VEHICLE SPEED SIG (8P)

Connector No.	M132
Connector Name	AV CONTROL UNIT (WITH BOSE SYSTEM)
Connector Type	TH12FW-NH

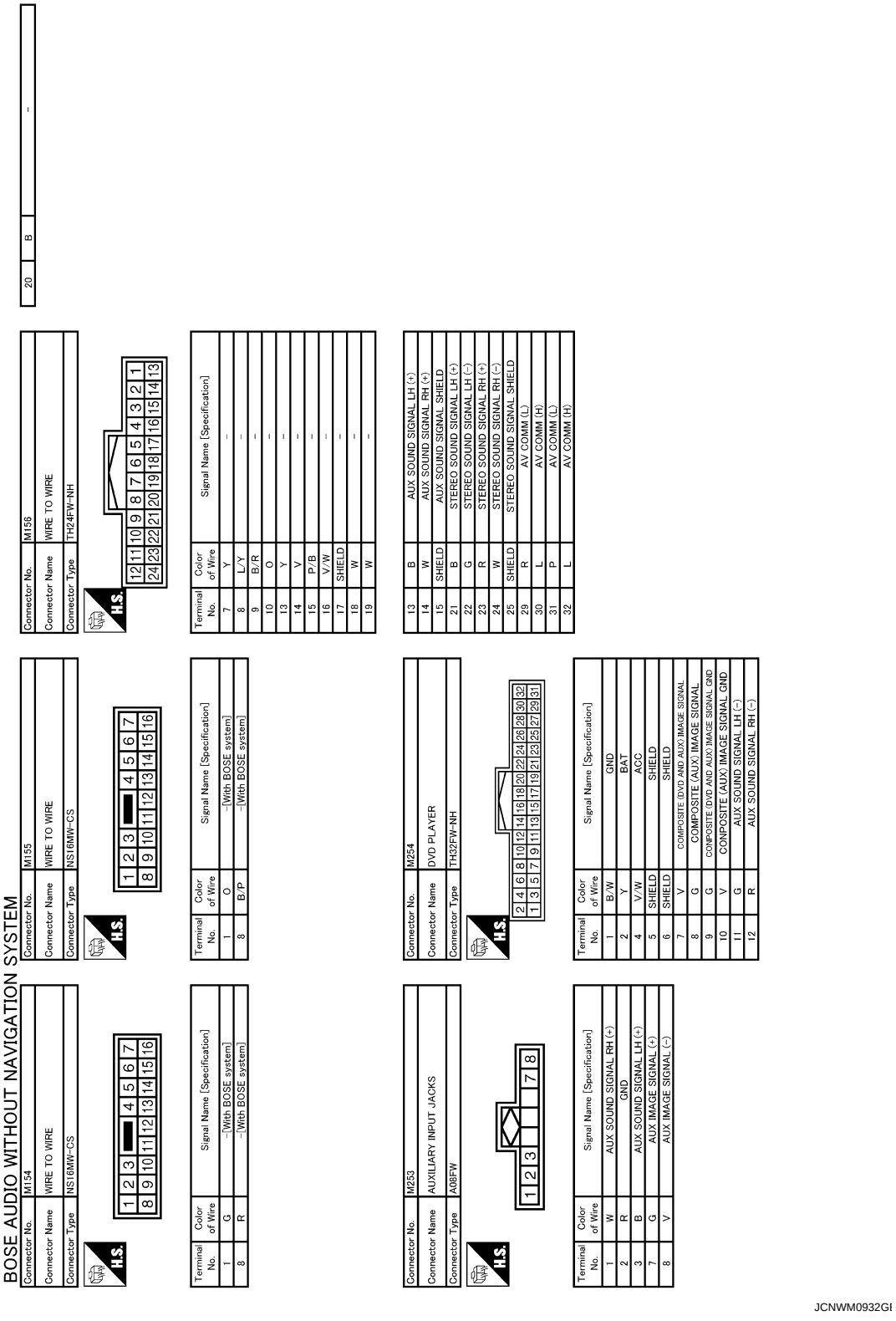
Terminal No.	Color of Wire	Signal Name [Specification]
109	W	STEREO SOUND SIGNAL RH (-) (With BOSE audio system)
111	SHIELD	SHIELD
113	W	STEREO SOUND SIGNAL LH (+) (With BOSE audio system)
115	B	STEREO SOUND SIGNAL RH (-) (With BOSE audio system)
119	B	STEREO SOUND SIGNAL LH (-) (With BOSE audio system)

Connector No.	M153
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
18	L	–
19	P	[With BOSE system]

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BOSE AUDIO WITHOUT NAVIGATION SYSTEM



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BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M264
Connector Name	DVD PLAYER
Connector Type	TH16FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
34	SHIELD	SHIELD
35	B	FR SURROUND SOUND SIGNAL RH (-)
36	W	FR SURROUND SOUND SIGNAL RH (+)
37	B	FR SURROUND SOUND SIGNAL LH (-)
38	W	FR SURROUND SOUND SIGNAL LH (+)
39	B	CENTER SURROUND SOUND SIGNAL (-)
40	W	CENTER SURROUND SOUND SIGNAL (+)
41	R	SORROUND SOUND SIGNAL LFE (-)
42	L	SORROUND SOUND SIGNAL LFE (+)
43	SHIELD	SHIELD
44	SHIELD	SHIELD
45	B	RR SURROUND SOUND SIGNAL RH (-)
46	W	RR SURROUND SOUND SIGNAL RH (+)
47	B	RR SURROUND SOUND SIGNAL LH (-)
48	W	RR SURROUND SOUND SIGNAL LH (+)

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

Terminal No.	Color of Wire	Signal Name [Specification]
14	–	–
15	–	–
17	–	–

Connector No.	M317
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1PP-HU

Terminal No.	Color of Wire	Signal Name [Specification]
1	–	–
2	–	–
3	–	–

Connector No.	M318
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1S-HU

Terminal No.	Color of Wire	Signal Name [Specification]
1	–	–
2	–	–
3	–	–

Connector No.	M319
Connector Name	ANTENNA AMP.
Connector Type	GT13SC-1/1S-HU

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

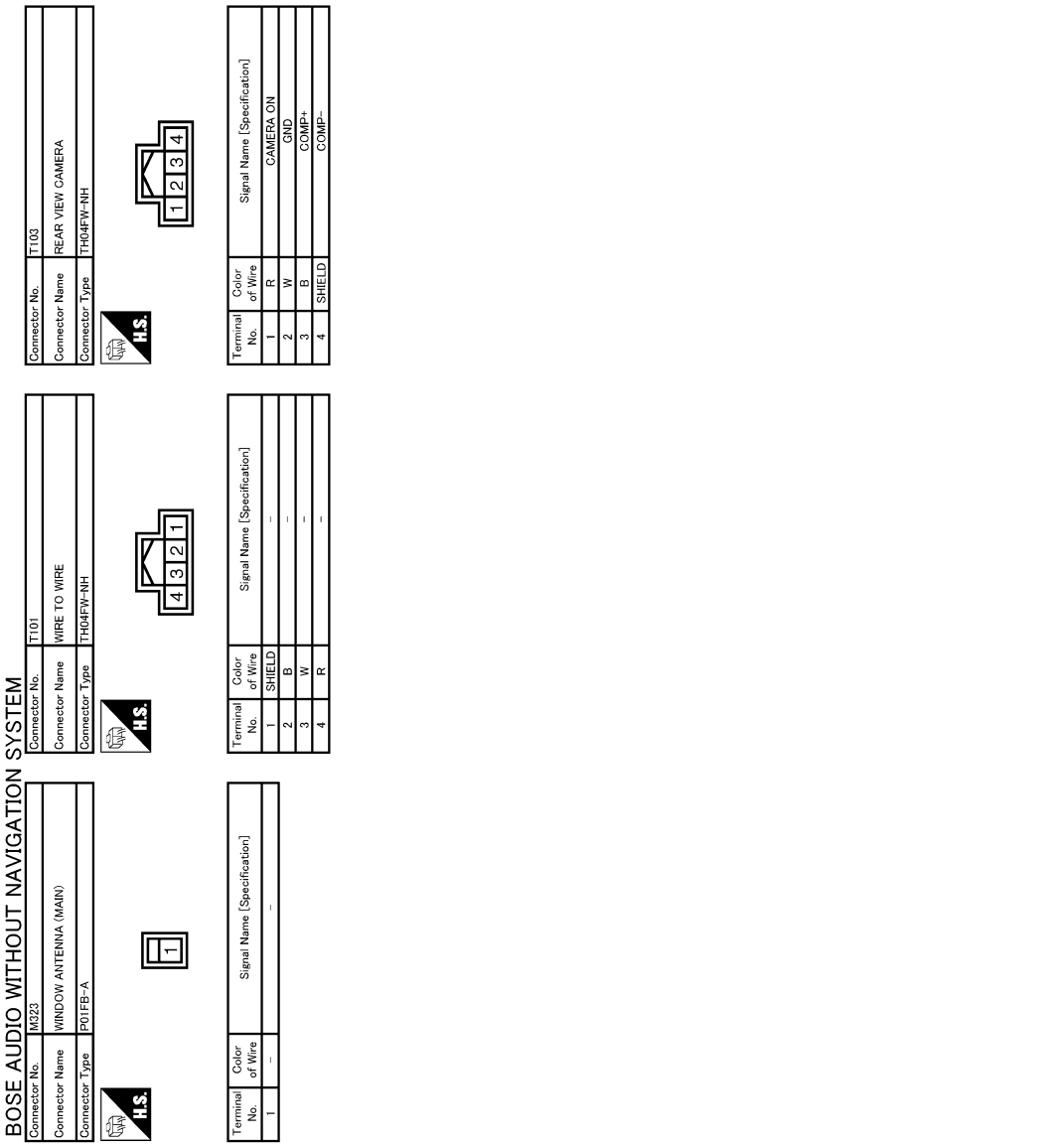
Connector No.	M320
Connector Name	WINDOW ANTENNA (SUB)
Connector Type	P01FB-A

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

Connector No.	M321
Connector Name	AV CONTROL UNIT
Connector Type	GT13SH-2/1S-HU

Terminal No.	Color of Wire	Signal Name [Specification]
33	–	FM SUB
34	–	AM-FM MAIN
35	–	ANTENNA AMP ON SIG

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JCNWM0934GI

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

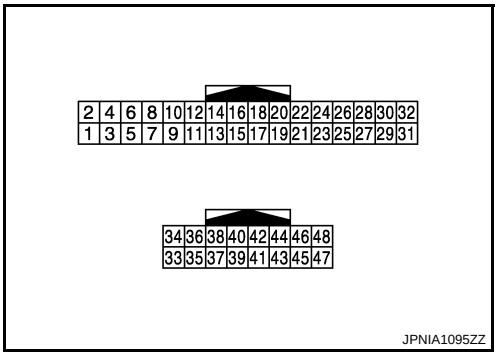
DVD PLAYER

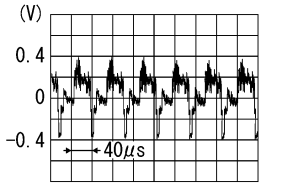
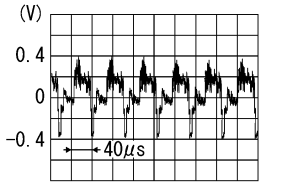
Reference Values

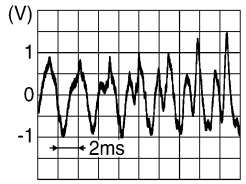
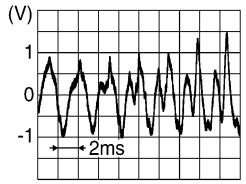
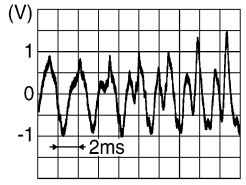
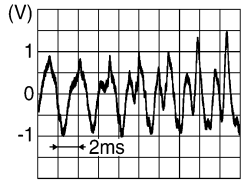
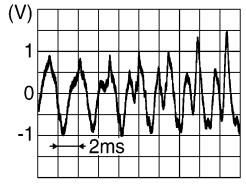
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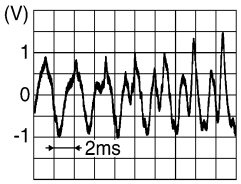
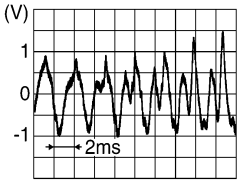
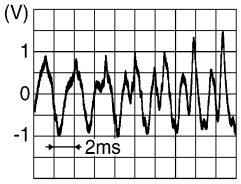
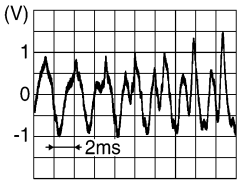
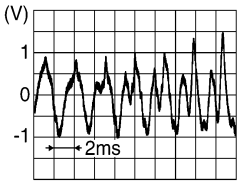
TERMINAL LAYOUT

PHYSICAL VALUES



Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
1 (B/W)	Ground	Ground	—	Ignition switch ON	—	0 V
2 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
3 (R/L)	Ground	Illumination signal	Input	Ignition switch OFF	Lighting switch is OFF.	0 V
					Lighting switch is ON.	12.0 V
4 (V/W)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
5	—	Shield	—	—	—	—
6	—	Shield	—	—	—	—
7 (V)	Ground	Composite (DVD and AUX) image signal	Output	Ignition switch ON	When DVD image or AUX image is displayed.	 SKIB2251J
8 (G)	Ground	Composite (AUX) image signal	Output	Ignition switch ON	When AUX image is displayed.	 SKIB2251J
9 (G)	Ground	Composite (DVD and AUX) image signal ground	—	Ignition switch ON	—	0 V
10 (V)	Ground	Composite image (AUX) signal ground	—	Ignition switch ON	—	0 V

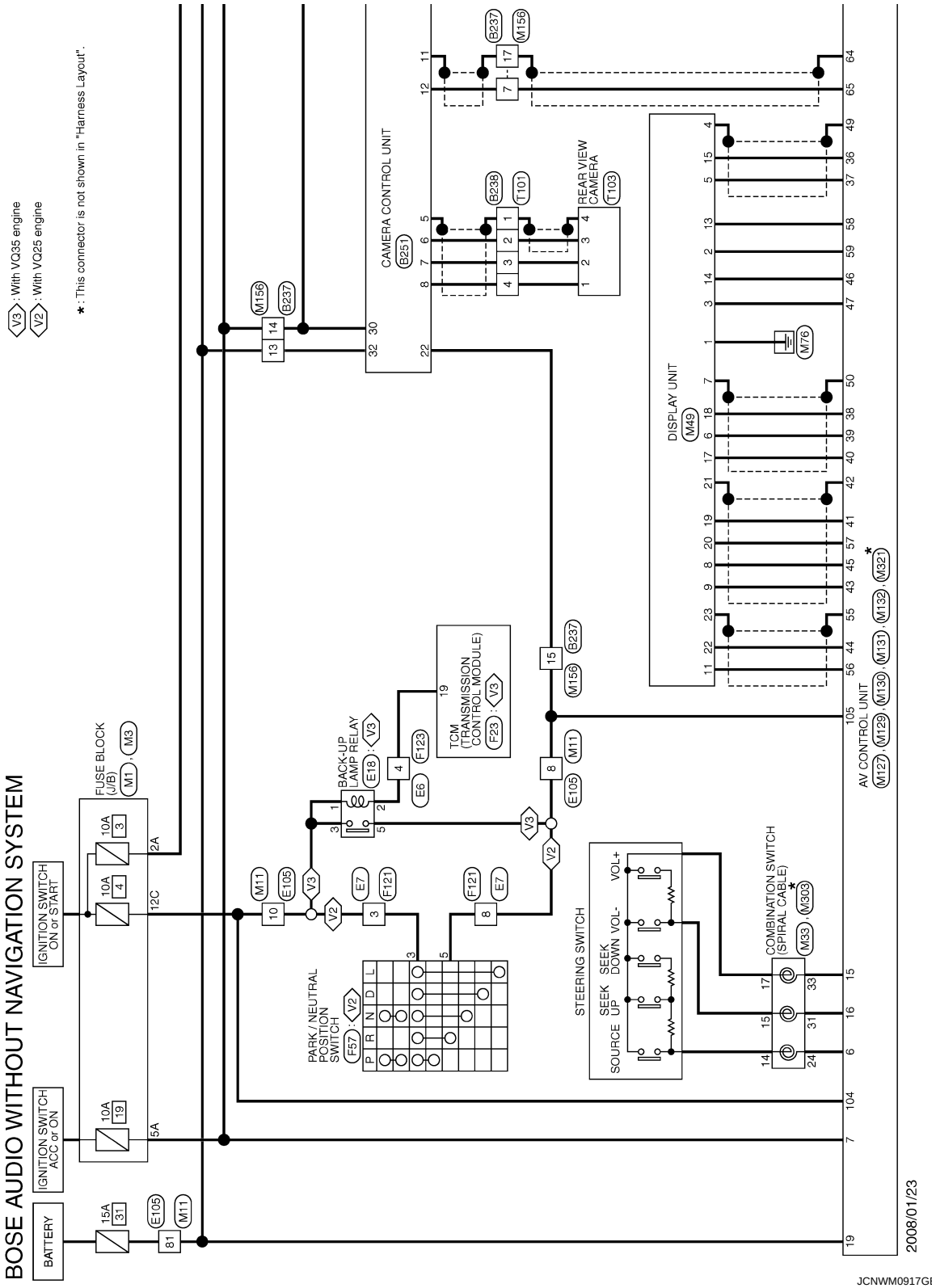
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
13 (B)	11 (G)	AUX sound signal LH	Input	Ignition switch ON	AUX sound output.	 SKIB3609E
14 (W)	12 (R)	AUX sound signal RH	Input	Ignition switch ON	AUX sound output.	 SKIB3609E
15	—	AUX sound signal shield	—	—	—	—
21 (B)	22 (G)	Stereo (DVD and AUX sound) sound signal LH	Output	Ignition switch ON	DVD[*1] or AUX sound output.	 SKIB3609E
23 (R)	24 (W)	Stereo (DVD and AUX sound) sound signal RH	Output	Ignition switch ON	DVD[*1] or AUX sound output.	 SKIB3609E
25	—	Stereo sound signal shield	—	—	—	—
29 (R)	—	AV communication signal (L)	Input/ Output	—	—	—
30 (L)	—	AV communication signal (H)	Input/ Output	—	—	—
31 (P)	—	AV communication signal (L)	Input/ Output	—	—	—
32 (L)	—	AV communication signal (H)	Input/ Output	—	—	—
34	—	Shield	—	—	—	—
36 (W)	35 (B)	Surround sound signal front RH	Output	Ignition switch ON	DVD sound output.[*2]	 SKIB3609E

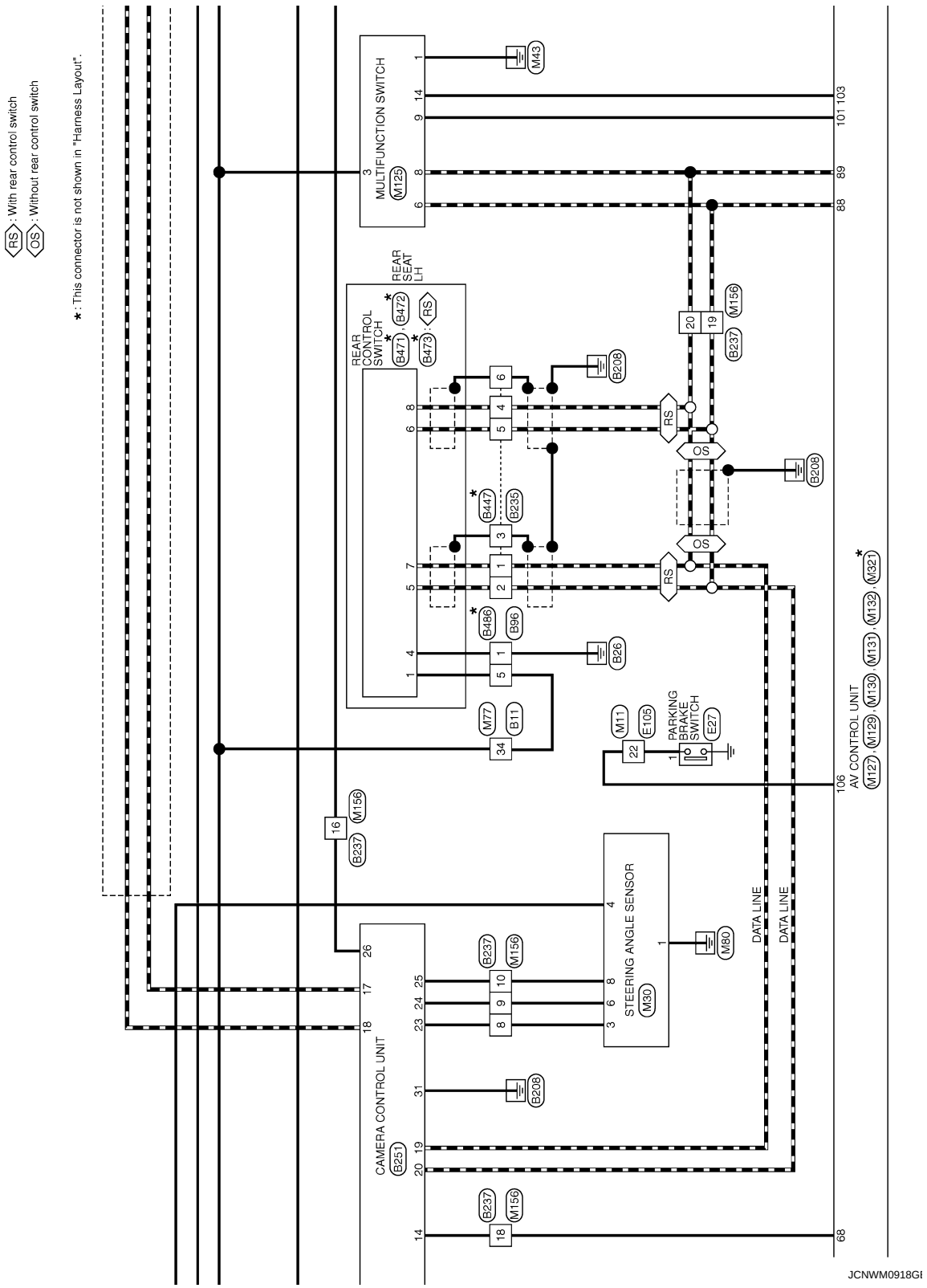
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
38 (W)	37 (B)	Surround sound signal front LH	Output	Ignition switch ON	DVD sound output.*2	 SKIB3609E
40 (W)	39 (B)	Surround sound signal center	Output	Ignition switch ON	DVD sound output.*2	 SKIB3609E
42 (L)	41 (R)	Surround sound signal woofer	Output	Ignition switch ON	DVD sound output.*2	 SKIB3609E
43	—	Shield	—	—	—	—
44	—	Shield	—	—	—	—
46 (W)	45 (B)	Surround sound signal rear RH	Output	Ignition switch ON	DVD sound output.*2	 SKIB3609E
48 (W)	47 (B)	Surround sound signal rear LH	Output	Ignition switch ON	DVD sound output.*2	 SKIB3609E

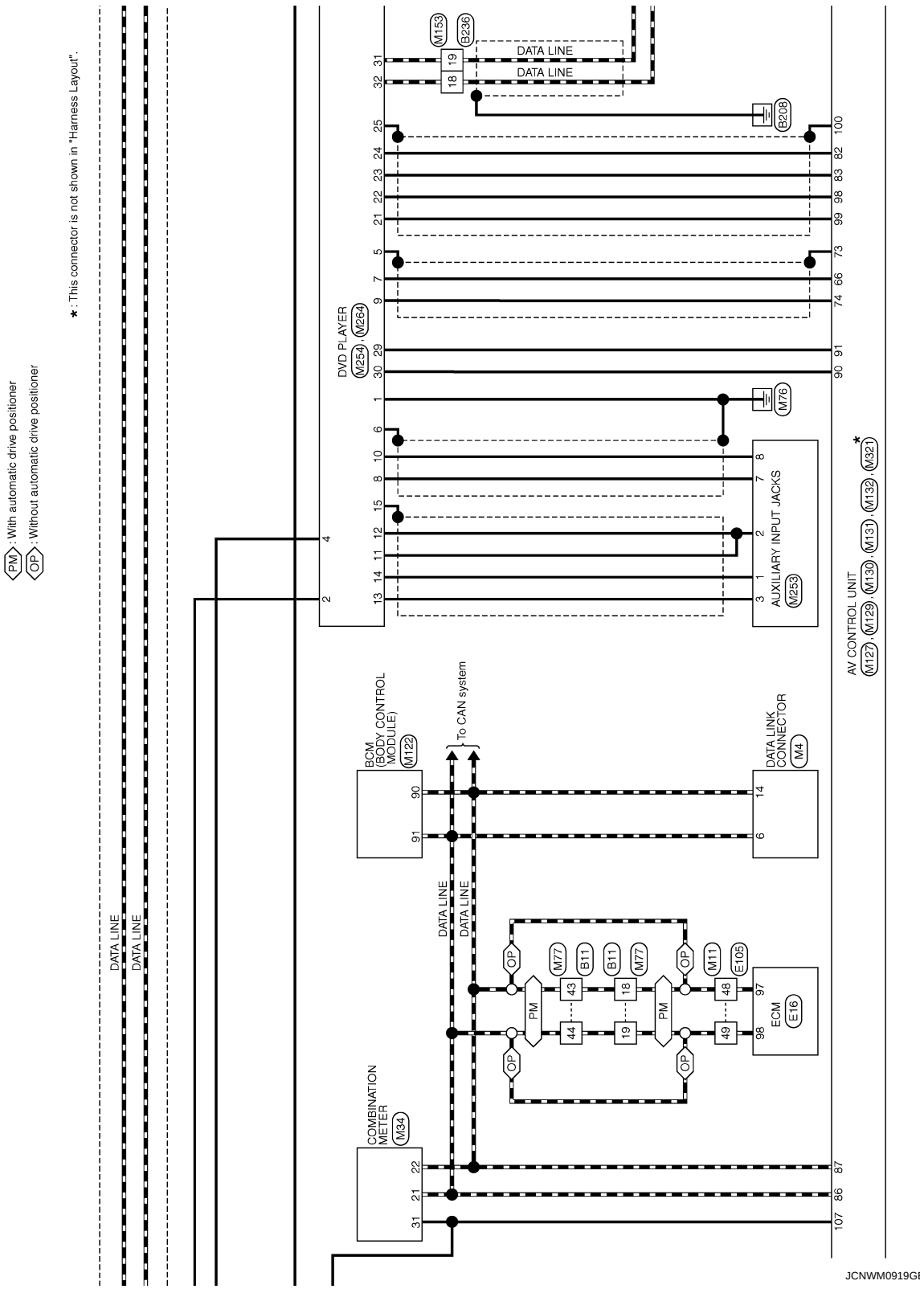
- *1: Stereo sounds are input only when the 2 channel stereo sound is played.
- *2: All surround sounds are input only when the 5.1 channel surround sound is played.

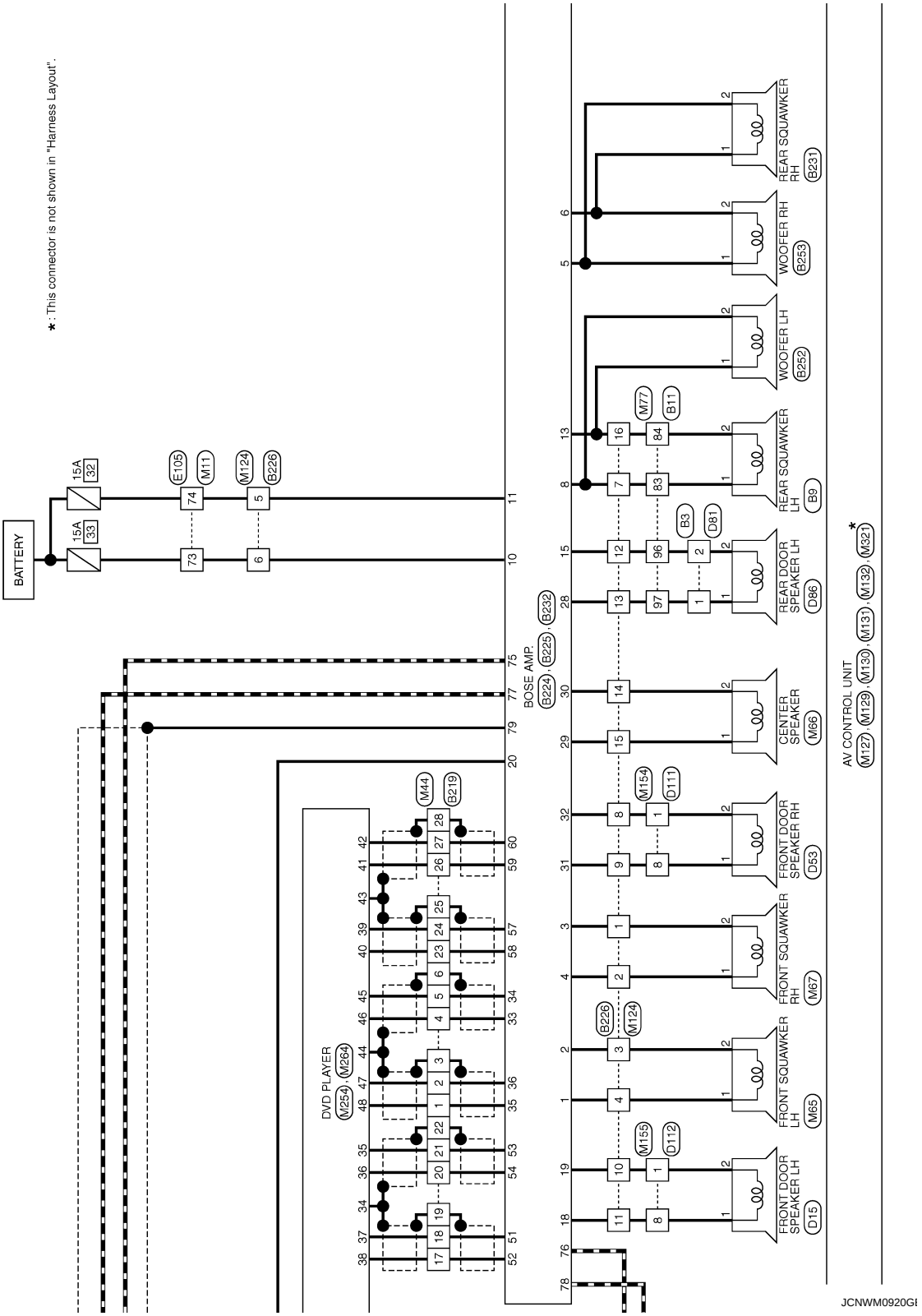
Wiring Diagram — BOSE AUDIO WITHOUT NAVIGATION SYSTEM —

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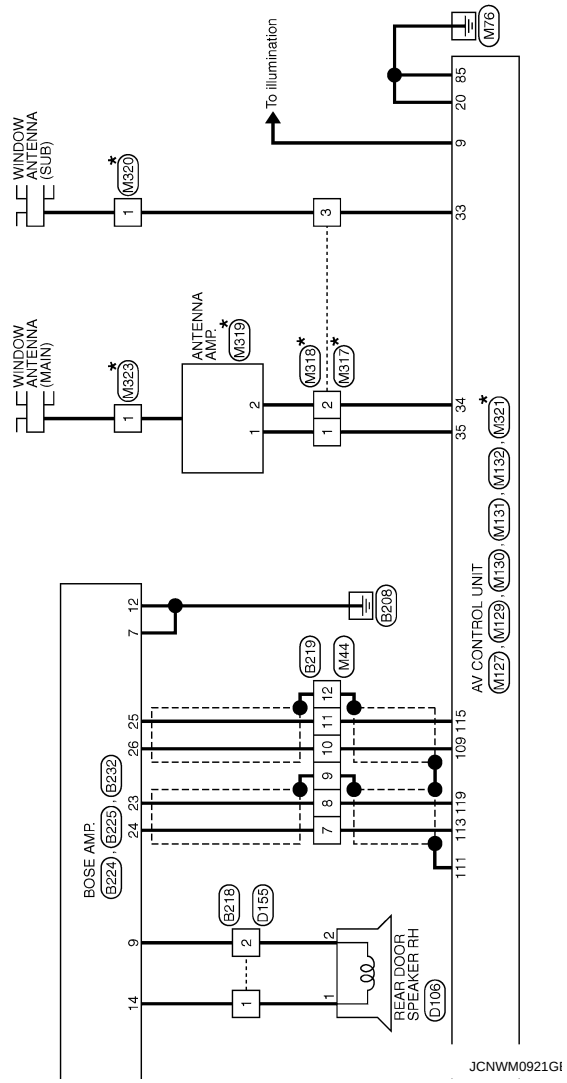



RS : With rear control switch
OS : Without rear control switch
*: This connector is not shown in "Harness Layout".
MULTIFUNCTION SWITCH
M125
M43
REAR SEAT LH
REAR CONTROL SWITCH
B471
B472
B473
RS
B447
B235
B486
B96
B26
B208
M156
B237
M77
B11
M11
E105
PARKING BRAKE SWITCH
E27
AV CONTROL UNIT
M127, M129, M130, M131, M132, M321
STEERING ANGLE SENSOR
M30
M80
CAMERA CONTROL UNIT
B251
DATA LINE
DATA LINE
JCNWM0918GB


PM : With automatic drive positioner
OP : Without automatic drive positioner
*: This connector is not shown in "Harness Layout".
DATA LINE
DATA LINE
DATA LINE
DATA LINE
DATA LINE
DATA LINE
DVD PLAYER
(M254), (M264)
AUXILIARY INPUT JACKS
M253
AV CONTROL UNIT
(M127), (M129), (M130), (M131), (M132), (M321)*
BCM
(BODY CONTROL MODULE)
M122
To CAN system
DATA LINK CONNECTOR
M4
COMBINATION METER
M34
ECM
E16
M153
B236
B208
M76
M77
B11
B11
M77
M11
E105
PM
OP
JCNWM0919GB

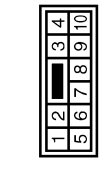

*: This connector is not shown in "Harness Layout".
BATTERY
15A 32
15A 33
E105
M11
M124
B226
74
73
5
6
11
10
BOSE AMP.
B224, B225, B232
75
77
79
20
DVD PLAYER
M254, M264
M44
B219
42
60
41
59
43
57
39
58
40
34
45
33
46
36
44
35
47
48
53
35
54
36
34
51
37
38
52
76
78
B226
M124
M155
D112
M154
D111
M77
B11
B3
D81
FRONT SQUAWKER LH
M65
FRONT SQUAWKER RH
M67
FRONT DOOR SPEAKER LH
D15
FRONT DOOR SPEAKER RH
D53
CENTER SPEAKER
M66
REAR DOOR SPEAKER LH
D86
REAR SQUAWKER LH
B9
WOOFER LH
B252
WOOFER RH
B253
REAR SQUAWKER RH
B231
AV CONTROL UNIT
M127, M129, M130, M131, M132, M321
*
JCNWM0920GB

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



BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B3
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS

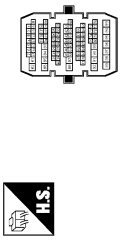


Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	-[With BOSE system]
2	O	-[With BOSE system]

Connector No.	B9
Connector Name	REAR SQUAWKER LH
Connector Type	TK02MBR-P

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

Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS19



Terminal No.	Color of Wire	Signal Name [Specification]
18	P	-
19	L	-
34	G	-
43	P	-
44	L	-
83	BR	-
84	R	-
96	O	-[With BOSE system]
97	LG	-[With BOSE system]

Terminal No.	Color of Wire	Signal Name [Specification]
12	SHIELD	-
17	B	-
18	W	-
19	SHIELD	-
20	Y	-
21	BR	-
22	SHIELD	-
23	W/R	-
24	B/R	-
25	SHIELD	-
26	GR/V	-
27	W/L	-
28	SHIELD	-

Connector No.	B96
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



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

Connector No.	B218
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS

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

Connector No.	B219
Connector Name	WIRE TO WIRE
Connector Type	TH32MW-NH

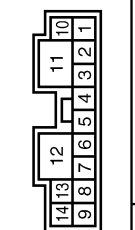


Terminal No.	Color of Wire	Signal Name [Specification]
1	W/L	-
2	W/R	-
3	SHIELD	-
4	W/L	-
5	GR/V	-
6	SHIELD	-
7	B	-
8	W	-
9	SHIELD	-
10	W/R	-
11	B/R	-

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BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B224
Connector Name	BOSE AMP.
Connector Type	SGA12FBR-SJA2



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

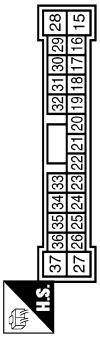
Connector No.	B226
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS

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

Connector No.	B224
Connector Name	BOSE AMP.
Connector Type	SGA12FBR-SJA2

Terminal No.	Color of Wire	Signal Name [Specification]
12	B	GND
13	R	SOUND SIGNAL WOOFER LH (+)
14	L	SOUND SIGNAL REAR SPEAKER RH (+)

Connector No.	B225
Connector Name	BOSE AMP.
Connector Type	SGA19FBR-SGA4



Terminal No.	Color of Wire	Signal Name [Specification]
15	R	SOUND SIGNAL REAR SPEAKER LH (–)
18	W	SOUND SIGNAL FRONT SPEAKER LH (+)
19	B	SOUND SIGNAL FRONT SPEAKER LH (–)
20	V	ACC
23	W	STEREO SOUND SIGNAL LH (–)
24	B	STEREO SOUND SIGNAL LH (+)
25	B/R	STEREO SOUND SIGNAL RH (–)
26	W/R	STEREO SOUND SIGNAL RH (+)
28	G	SOUND SIGNAL REAR SPEAKER LH (+)
29	V	SOUND SIGNAL CENTER SPEAKER (+)
30	P	SOUND SIGNAL CENTER SPEAKER (–)
31	BR	SOUND SIGNAL FRONT SPEAKER RH (+)
32	Y	SOUND SIGNAL FRONT SPEAKER RH (–)
33	W/L	RR SURROUND SOUND SIGNAL RH (+)
34	GR/V	RR SURROUND SOUND SIGNAL RH (–)
35	W/L	RR SURROUND SOUND SIGNAL LH (+)
36	W/R	RR SURROUND SOUND SIGNAL LH (–)

Connector No.	B231
Connector Name	REAR SOUAWKER RH
Connector Type	TK02MBR-P



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

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B232
Connector Name	BOSE AMP.
Connector Type	TH40FW-NH

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

Terminal No.	Color of Wire	Signal Name [Specification]
51	W	FR SURROUND SOUND SIGNAL LH (-)
52	B	FR SURROUND SOUND SIGNAL LH (+)
53	BR	FR SURROUND SOUND SIGNAL RH (-)
54	Y	FR SURROUND SOUND SIGNAL RH (+)
57	B/R	CENTER SURROUND SOUND SIGNAL (-)
58	W/R	CENTER SURROUND SOUND SIGNAL (+)
59	GR/V	SURROUND SOUND SIGNAL LFE (-)
60	W/L	SURROUND SOUND SIGNAL LFE (+)
75	L/G	AV COMM (L) [Without navigation system]
76	P	AV COMM (L)
77	L/R	AV COMM (H) [Without navigation system]

Connector No.	B237
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-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

Terminal No.	Color of Wire	Signal Name [Specification]
7	BR	-
8	G	-
9	SB	-
10	O	-
13	Y	-
14	V	-
15	W	-
16	O	-
17	SHIELD	-
18	GR	-
19	R	-[With rear control switch]

78	L	AV COMM (H)
79	SHIELD	SHIELD

19	L	-[Without rear control switch]
20	G	-[With rear control switch]
20	P	-[Without rear control switch]

Connector No.	B235
Connector Name	WIRE TO WIRE
Connector Type	SD02MGY

1	2	4	5
3		6	

Terminal No.	Color of Wire	Signal Name [Specification]
1	P	-
2	L	-
3	SHIELD	-
4	G	-
5	R	-
6	SHIELD	-

Connector No.	B238
Connector Name	WIRE TO WIRE
Connector Type	TH04MW-NH

1	2	3	4

Terminal No.	Color of Wire	Signal Name [Specification]
1	SHIELD	-
2	B	-
3	W	-
4	R	-

Connector No.	B236
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-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 [Specification]
18	L	-[With BOSE system]
19	P	-[With BOSE system]

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BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B251
Connector Name	CAMERA CONTROL UNIT
Connector Type	TH32FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
5	SHIELD	SHIELD
6	B	–
7	W	CAMERA IMAGE SIGNAL
8	R	REAR VIEW CAMERA GND
11	SHIELD	REAR CAMERA ON
12	BR	SHIELD
14	GR	CAMERA IMAGE SIGNAL
17	L/G	CAMERA CONNECTING RECOGNITION SIGNAL
18	L/R	AV COMM(L) [With BOSE audio system]
19	P	AV COMM(H) [With BOSE audio system]
20	L	AV COMM(L)
		AV COMM(H)

Connector No.	B252
Connector Name	WOOFER LH
Connector Type	NS02FW-CS

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

Connector No.	B253
Connector Name	WOOFER RH
Connector Type	NS02FW-CS

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

Connector No.	B447
Connector Name	WIRE TO WIRE
Connector Type	SD02FGY

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–
2	B	–
3	SHIELD	–
4	Y	–
5	G	–
6	SHIELD	–

Connector No.	B471
Connector Name	REAR CONTROL SWITCH
Connector Type	TH04FW

Terminal No.	Color of Wire	Signal Name [Specification]
1	R/Y	–
4	Y	–

Connector No.	B472
Connector Name	REAR CONTROL SWITCH
Connector Type	SD01FGY

Terminal No.	Color of Wire	Signal Name [Specification]
5	G	–
7	Y	–

Connector No.	B473
Connector Name	REAR CONTROL SWITCH
Connector Type	SD01MGY

Terminal No.	Color of Wire	Signal Name [Specification]
6	B	–
8	W	–

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BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B406
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8

Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	–
5	R/Y	–

Connector No.	D15
Connector Name	FRONT DOOR SPEAKER LH (WITH BOSE SYSTEM)
Connector Type	NS02FBR-CS

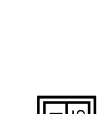


Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–
2	B	–

Connector No.	D53
Connector Name	FRONT DOOR SPEAKER RH (WITH BOSE SYSTEM)
Connector Type	NS02FBR-CS

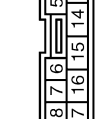
Terminal No.	Color of Wire	Signal Name [Specification]
1	B	–
2	W	–

Connector No.	D81
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS



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

Connector No.	D86
Connector Name	REAR DOOR SPEAKER LH (WITH BOSE SYSTEM)
Connector Type	NS02FBR-CS



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

Connector No.	D106
Connector Name	REAR DOOR SPEAKER RH (WITH BOSE SYSTEM)
Connector Type	NS02FBR-CS



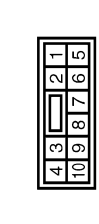
Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–
2	B	–

Connector No.	D111
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–[With BOSE system]
8	B	–[With BOSE system]

Connector No.	D112
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



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

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BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	D155
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–
2	B	–[With BOSE system]

Connector No.	E6
Connector Name	WIRE TO WIRE
Connector Type	TK16MGY-1V

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

Connector No.	E7
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS

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

Connector No.	E16
Connector Name	ECM
Connector Type	RH24FB-RZ8-L-LH



Terminal No.	Color of Wire	Signal Name [Specification]
97	P	VEHCAN-L
98	L	VEHCAN-H

Connector No.	E18
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS02FL-M2-LG

Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	–
2	R	–
3	LG	–
5	R	–

Connector No.	E27
Connector Name	PARKING BRAKE SWITCH
Connector Type	P01FB-A

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

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH70MW-CS10-M3

Terminal No.	Color of Wire	Signal Name [Specification]
8	R	–
10	LG	–
22	P	–
48	P	–
49	L	–
73	R	–
74	BR	–
81	Y	–

Connector No.	F23
Connector Name	TCM (TRANSMISSION CONTROL MODULE)
Connector Type	RH40FB-RZ8-L-RH

Terminal No.	Color of Wire	Signal Name [Specification]
19	G/B	REV LAMP RELAY

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BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	F57
Connector Name	PARK / NEUTRAL POSITION SWITCH
Connector Type	YDX06FB-HS4

Terminal No.	Color of Wire	Signal Name [Specification]
3	LG	–
5	P/B	–

Connector No.	F121
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS

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

Connector No.	F123
Connector Name	WIRE TO WIRE
Connector Type	TK16FGY-1V

Terminal No.	Color of Wire	Signal Name [Specification]
4	G/B	–

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS08FW-M2

Terminal No.	Color of Wire	Signal Name [Specification]
2A	G/O	–
5A	V/O	–

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

Terminal No.	Color of Wire	Signal Name [Specification]
12C	O	–

Connector No.	M4
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW

Terminal No.	Color of Wire	Signal Name [Specification]
6	L	–
14	P	–

Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Type	TH70FW-CS10-M3

Terminal No.	Color of Wire	Signal Name [Specification]
8	P/B	–
10	O	–
22	G/R	–
48	P	–
49	L	–
73	B/R	–
74	BR	–
81	Y	–

Connector No.	M30
Connector Name	STEERING ANGLE SENSOR
Connector Type	TH08FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	–
3	L/Y	–
4	G	–
6	B/R	–
8	O	–

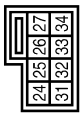
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BOSE AUDIO WITHOUT NAVIGATION SYSTEM

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

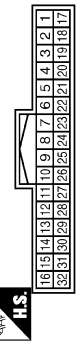
Terminal No.	Color of Wire	Signal Name [Specification]
24	W/G	–
31	GR/L	–
33	L/B	–

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	TH40FW-NH



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

Connector No.	M44
Connector Name	WIRE TO WIRE
Connector Type	TH32FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–
2	B	–
3	SHIELD	–
4	W	–
5	B	–
6	SHIELD	–
7	W	–
8	B	–
9	SHIELD	–
10	W	–
11	B	–

12	SHIELD	–
17	W	–
18	B	–
19	SHIELD	–
20	W	–
21	B	–
22	SHIELD	–
23	W	–
24	B	–
25	SHIELD	–
26	R	–
27	L	–
28	SHIELD	–

Connector No.	M49
Connector Name	DISPLAY UNIT
Connector Type	TH24FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
1	B/W	GND
2	Y	INV VCC
3	O	3G VCC (With BOSE system without navigation system or base audio and display system)
4	SHIELD	COMPOSIT IMAGE SIGNAL SHIELD
5	W	COMPOSIT IMAGE SIGNAL GND
6	R	RGB (G:GREEN)
7	SHIELD	RGB GND
8	W	HP
9	B	YS
11	R	COMM (CONT->DISP)
13	BR	INV VCC (With BOSE system without navigation system or base audio and display system)
14	LG	SIG GND
15	B	COMPOSIT IMAGE SIGNAL
17	W	RGB (R:RED)
18	B	RGB (B:BLUE)
19	G	RGB SYNC
20	R	VP
21	SHIELD	RGB SYNC GND
22	G	COMM (DISP->CONT)
23	SHIELD	SHIELD

Connector No.	M65
Connector Name	FRONT SQUAWKER LH
Connector Type	TK02FBR

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

Connector No.	M66
Connector Name	CENTER SPEAKER
Connector Type	TK02FBR

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

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BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M67
Connector Name	FRONT SQUAWKER RH
Connector Type	TK02FBR



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

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS19



Terminal No.	Color of Wire	Signal Name [Specification]
18	P	-
19	L	-
34	V/R	-
43	P	-
44	L	-
83	G/B	-
84	W/B	-
96	W/R	-
97	O/B	-

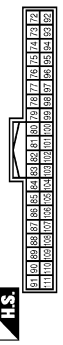
Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	G	-
3	B	-
4	W	-
5	BR	-
6	B/R	-
7	G/B	-
8	G	-
9	R	-
10	O	-[With BOSE system]
11	B/P	-[With BOSE system]

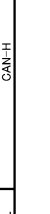
Terminal No.	Color of Wire	Signal Name [Specification]
12	W/R	-
13	O/B	-
14	R	-
15	G	-
16	W/B	-

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



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

Connector No.	M125
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH16FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
3	V/R	ACC
6	W	M-CAN H
8	B	M-CAN L
9	BR	SW GND
14	SB	CD(DVD) EJECT

Connector No.	M127
Connector Name	AV CONTROL UNIT
Connector Type	TH18FW-CS2

Terminal No.	Color of Wire	Signal Name [Specification]
6	W/G	STRG SW A
7	V/W	ACC
9	R/L	ILL
15	L/B	STRG SW GND
16	GR/L	STRG SW B
19	Y	BAT
20	B/W	GND

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BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M129
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 [Specification]
36	B	COMPOSIT IMAGE SIGNAL
37	W	COMPOSIT IMAGE SIGNAL GND
38	B	RGB (B:BLUE)
39	R	RGB (G:GREEN)
40	W	RGB (R:RED)
41	G	RGB SYNC
42	SHIELD	RGB SYNC GND
43	B	YS
44	G	COMM (DISP->CONT)
45	W	HP
46	LG	STG GND

Connector No.	M130
Connector Name	AV CONTROL UNIT
Connector Type	TH16FW-NH

67	66	65	64	63	62	61	60
75	74	73	72	71	70	69	68

Terminal No.	Color of Wire	Signal Name [Specification]
64	SHIELD	CAMERA IMAGE SIGNAL GND
65	Y	CAMERA IMAGE SIGNAL
66	V	COMPOSIT (DVD AND AUX) IMAGE SIGNAL [With BOSE system]
68	W	CAMERA CONNECTION RECOGNITION SIGNAL
73	SHIELD	COMPOSIT IMAGE SIGNAL SHIELD
74	G	COMPOSIT (DVD AND AUX) IMAGE SIGNAL GND [With BOSE system]

Connector No.	M131
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 [Specification]
82	W	STEREO (DVD AND AUX) SOUND SIGNAL RH (-) [With BOSE audio system]
83	R	STEREO (DVD AND AUX) SOUND SIGNAL RH (+) [With BOSE audio system]
85	B/W	GND
86	L	CAN-H
87	P	CAN-L
88	W	AV COMM (H)
89	B	AV COMM (L)
90	L	AV COMM (H)
91	R	AV COMM (L)
98	G	STEREO (DVD AND AUX) SOUND SIGNAL LH (-) [With BOSE audio system]
99	B	STEREO (DVD AND AUX) SOUND SIGNAL LH (+) [With BOSE audio system]

47	O	SIG VCC
49	SHIELD	COMP OUT SHIELD
50	SHIELD	RGB GND
55	SHIELD	SHIELD
56	R	COMM (CONT->DISP)
57	R	VP
58	BR	INV GND
59	Y	INV VCC

100	SHIELD	STEREO SOUND SIGNAL SHIELD [With BOSE audio system]
101	BR	BR [With BOSE system without navigation system or base unit (less 6 discs) system]
103	SB	DISC EJECT SIG
104	O	IGN
105	P/B	REVERSE SIG
106	G/R	PKB SIG
107	V/W	VEHICLE SPEED SIG (8P)

Connector No.	M132
Connector Name	AV CONTROL UNIT (WITH BOSE SYSTEM)
Connector Type	TH12FW-NH

114	115	116	117	118	119
108	109	110	111	112	113

Terminal No.	Color of Wire	Signal Name [Specification]
109	W	STEREO SOUND SIGNAL RH (+) [With BOSE audio system]
111	SHIELD	SHIELD
113	W	STEREO SOUND SIGNAL LH (+) [With BOSE audio system]
115	B	STEREO SOUND SIGNAL RH (-) [With BOSE audio system]
119	B	STEREO SOUND SIGNAL LH (-) [With BOSE audio system]

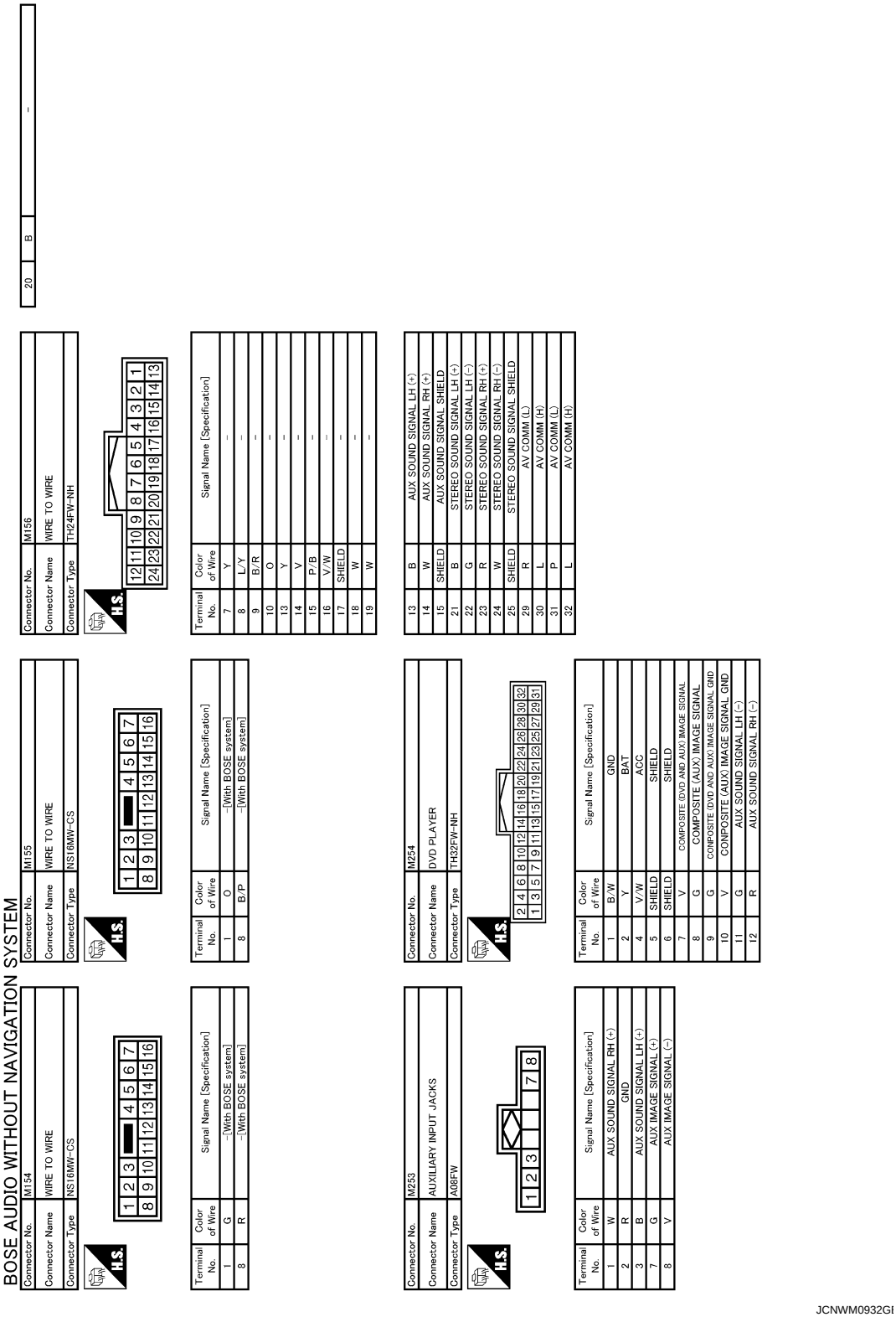
Connector No.	M153
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-NH

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

Terminal No.	Color of Wire	Signal Name [Specification]
18	L	–
19	P	–[With BOSE system]

JCNWM0931GB

BOSE AUDIO WITHOUT NAVIGATION SYSTEM



JCNWM0932GB

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M264
Connector Name	DVD PLAYER
Connector Type	TH16FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
34	SHIELD	SHIELD
35	B	FR SURROUND SOUND SIGNAL RH (-)
36	W	FR SURROUND SOUND SIGNAL RH (+)
37	B	FR SURROUND SOUND SIGNAL LH (-)
38	W	FR SURROUND SOUND SIGNAL LH (+)
39	B	CENTER SURROUND SOUND SIGNAL (-)
40	W	CENTER SURROUND SOUND SIGNAL (+)
41	R	SORROUND SOUND SIGNAL LFE (-)
42	L	SORROUND SOUND SIGNAL LFE (+)
43	SHIELD	SHIELD
44	SHIELD	SHIELD

45	B	RR SURROUND SOUND SIGNAL RH (-)
46	W	RR SURROUND SOUND SIGNAL RH (+)
47	B	RR SURROUND SOUND SIGNAL LH (-)
48	W	RR SURROUND SOUND SIGNAL LH (+)

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

Terminal No.	Color of Wire	Signal Name [Specification]
14	–	–
15	–	–
17	–	–

Connector No.	M317
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1PP-HU

Terminal No.	Color of Wire	Signal Name [Specification]
1	–	–
2	–	–
3	–	–

Connector No.	M318
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1S-HU

Terminal No.	Color of Wire	Signal Name [Specification]
1	–	–
2	–	–
3	–	–

Connector No.	M319
Connector Name	ANTENNA AMP.
Connector Type	GT13SC-1/1S-HU

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

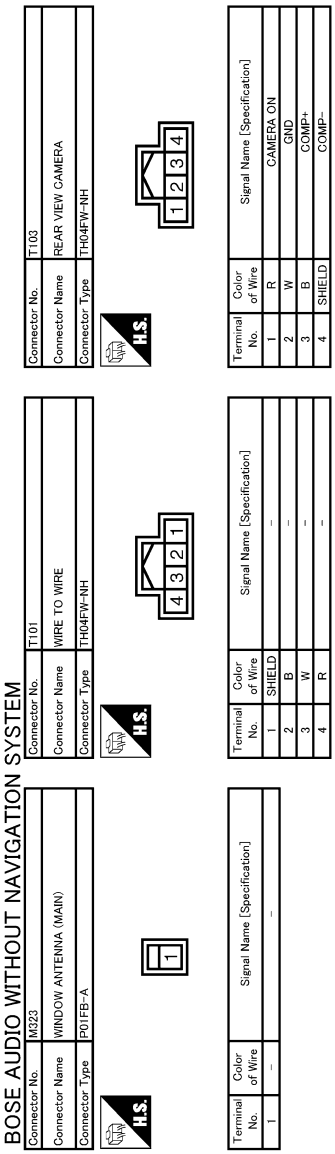
Connector No.	M320
Connector Name	WINDOW ANTENNA (SUB)
Connector Type	P01FB-A

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

Connector No.	M321
Connector Name	AV CONTROL UNIT
Connector Type	GT13SH-2/1S-HU

Terminal No.	Color of Wire	Signal Name [Specification]
33	–	FM SUB
34	–	AM-FM MAIN
35	–	ANTENNA AMP ON SIG

JCNWM0933GB



JCNWM0934GI

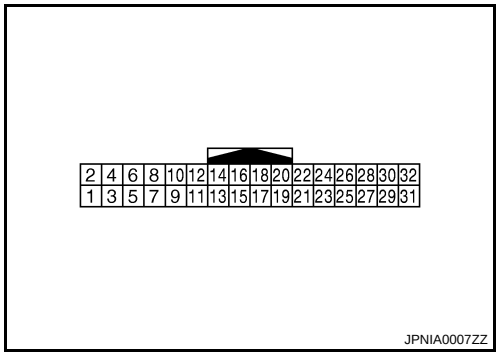
NOTE:
The name MULTIFUNCTION SWITCH indicates the integration of PRESET SWITCH and MULTIFUNCTION SWITCH virtually.

CAMERA CONTROL UNIT

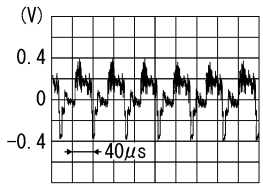
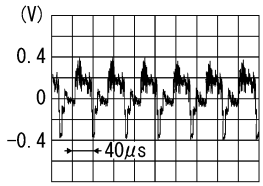
Reference Values

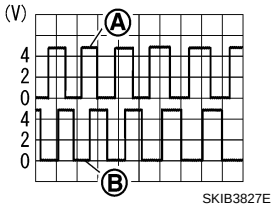
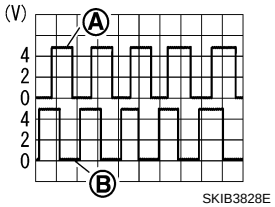
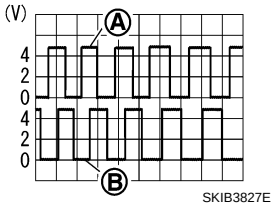
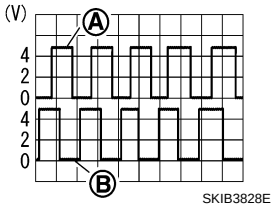
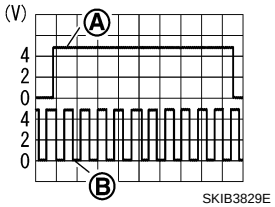
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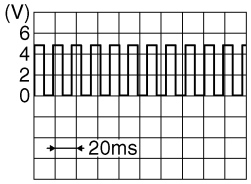
TERMINAL LAYOUT



PHYSICAL VALUES

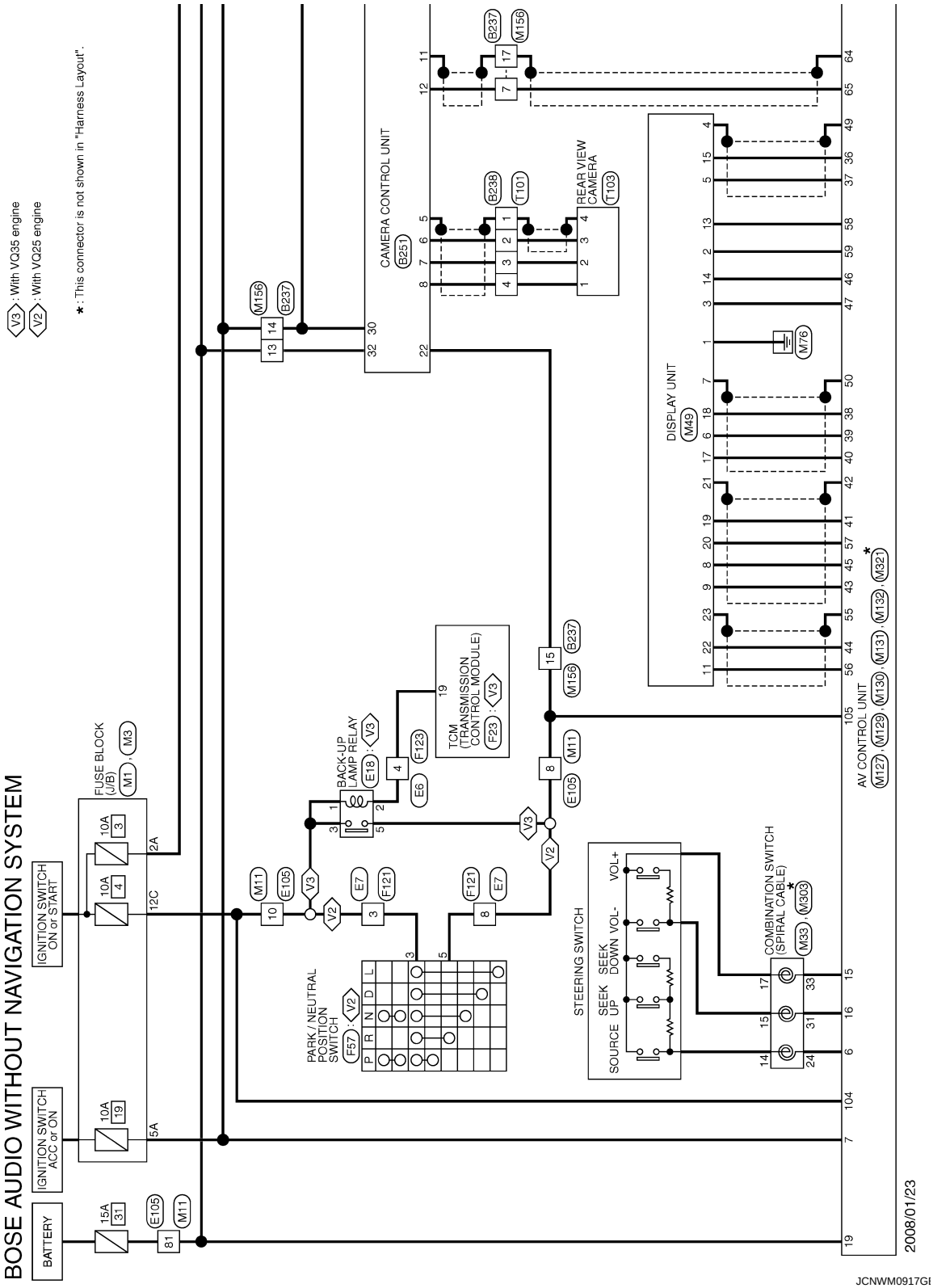
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
5	—	Shield	—	—	—	—
6 (B)	Ground	Camera image signal	Input	Ignition switch ON	When rear view camera image is displayed.	 SKIB2251J
7 (W)	Ground	Rear view camera ground	—	Ignition switch ON	—	0 V
8 (R)	Ground	Camera power supply	Output	Ignition switch ON	Selector lever in R position.	6.0 V
					Other than selector lever in R position.	0 V
11	—	Shield	—	—	—	—
12 (BR)	Ground	Camera image signal	Output	Ignition switch ON	When rear view camera image is displayed.	 SKIB2251J
14 (GR)	Ground	Camera connection recognition signal	Output	Ignition switch ON	Connected to camera control unit connector.	0 V
					Not connected to camera control unit connector.	5.0 V
17 (L/G)	—	AV communication signal (L)	Input/ Output	—	—	—
18 (L/R)	—	AV communication signal (H)	Input/ Output	—	—	—
19 (P)	—	AV communication signal (L)	Input/ Output	—	—	—

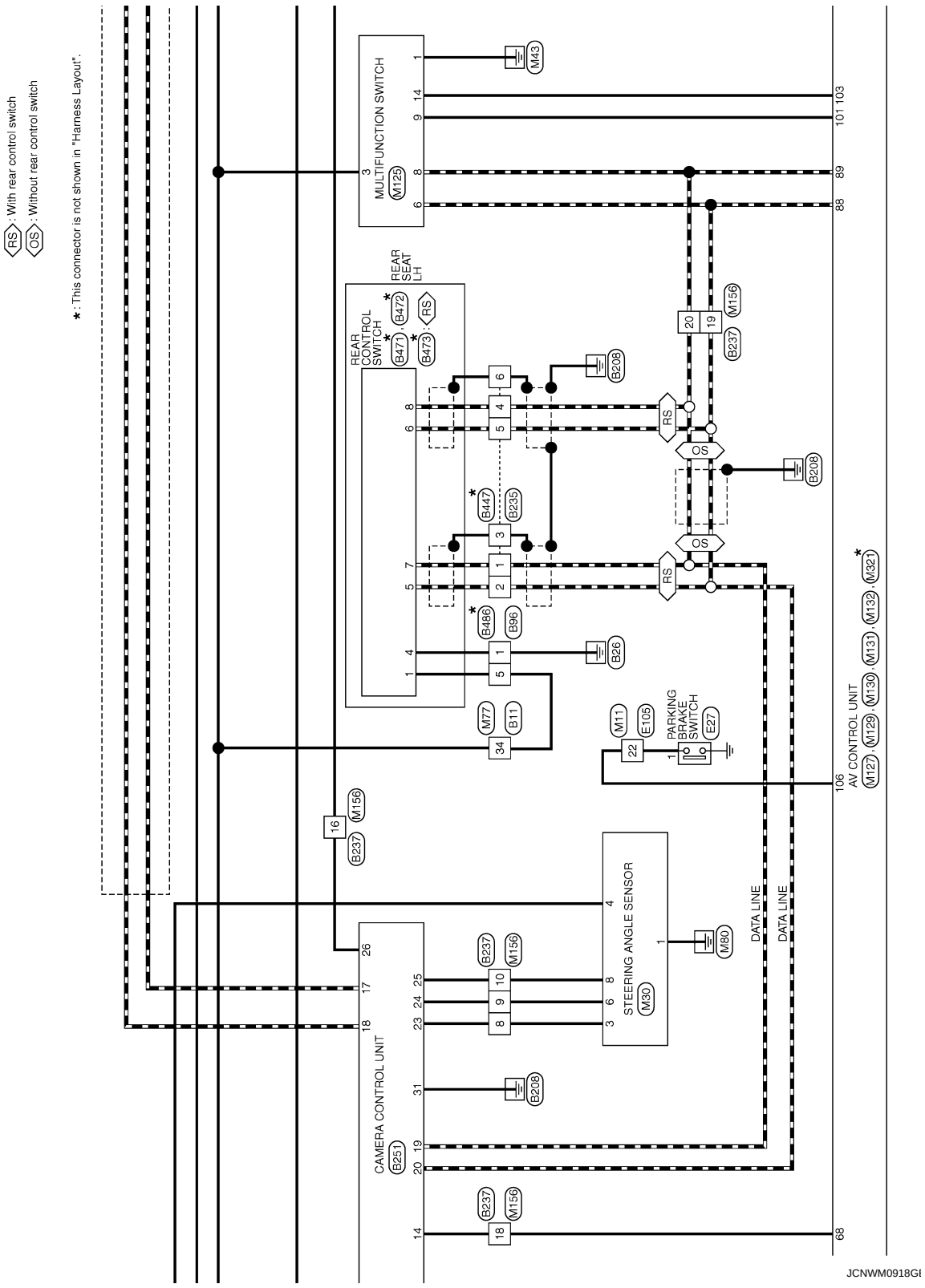
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
20 (L)	—	AV communication signal (H)	Input/ Output	—	—	—
22 (W)	Ground	Reverse signal	Input	Ignition switch ON	Selector lever in R position.	12.0 V
					Other than selector lever in R position.	0 V
23 (G)	Ground	Sensor signal 1	Input	Ignition switch ON	Turn the steering to the right.	 SKIB3827E A: Sensor signal 1 B: Sensor signal 2
					Turn the steering to the left.	 SKIB3828E A: Sensor signal 1 B: Sensor signal 2
24 (SB)	Ground	Sensor signal 2	Input	Ignition switch ON	Turn the steering to the right.	 SKIB3827E A: Sensor signal 1 B: Sensor signal 2
					Turn the steering to the left.	 SKIB3828E A: Sensor signal 1 B: Sensor signal 2
25 (O)	Ground	Sensor signal 3	Input	Ignition switch ON	Turn the steering around the neutral position.	 SKIB3829E A: Sensor signal 3 B: Sensor signal 1

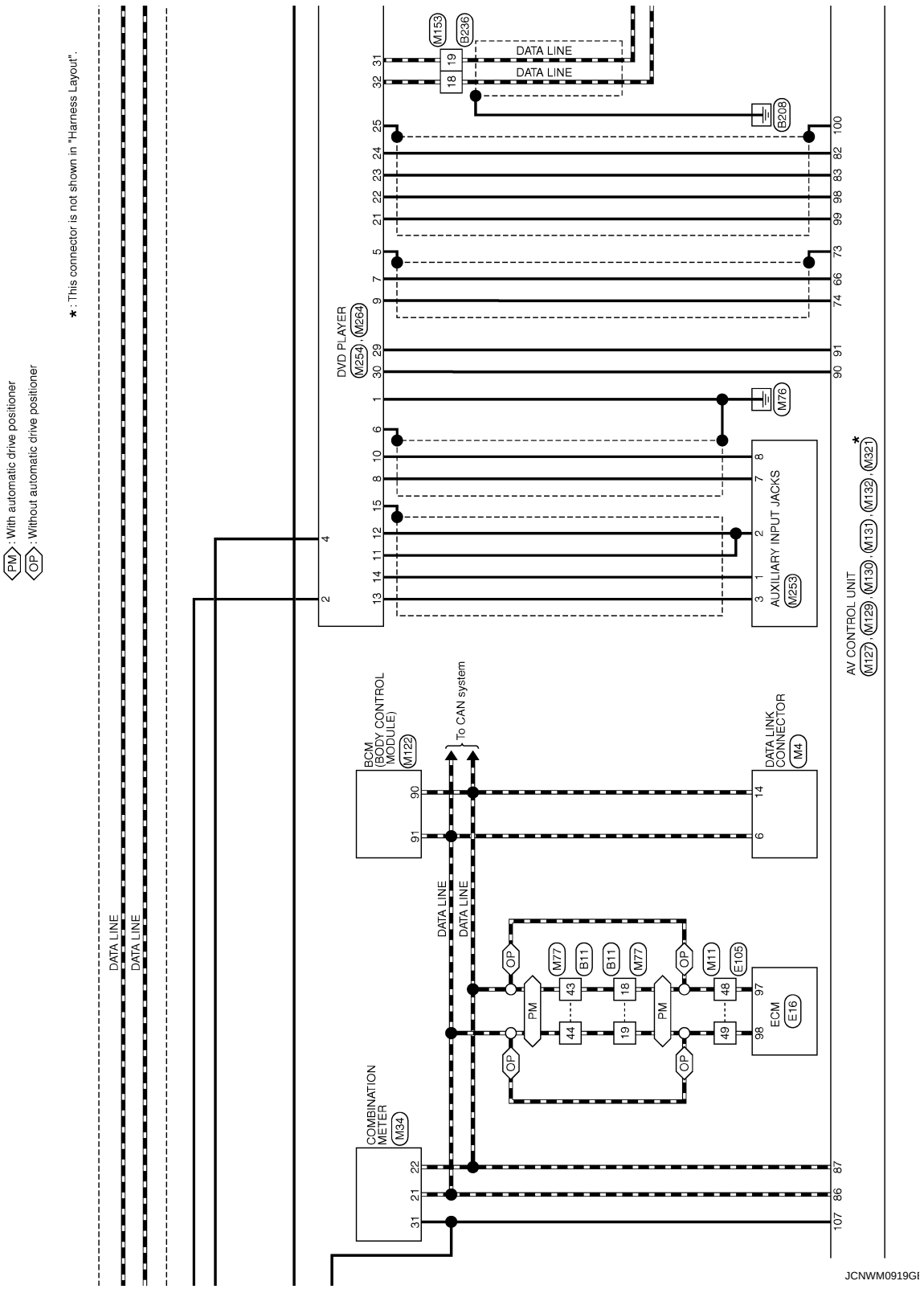
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
26 (O)	Ground	Vehicle speed signal (8-pulse)	Input	Ignition switch ON	When vehicle speed is approx. 40 km/h (25 MPH).	**NOTE:** The maximum voltage varies depending on the specification (destination unit).  SKIA6649J
30 (V)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
31 (B/R)	Ground	Ground	—	Ignition switch ON	—	0 V
32 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage

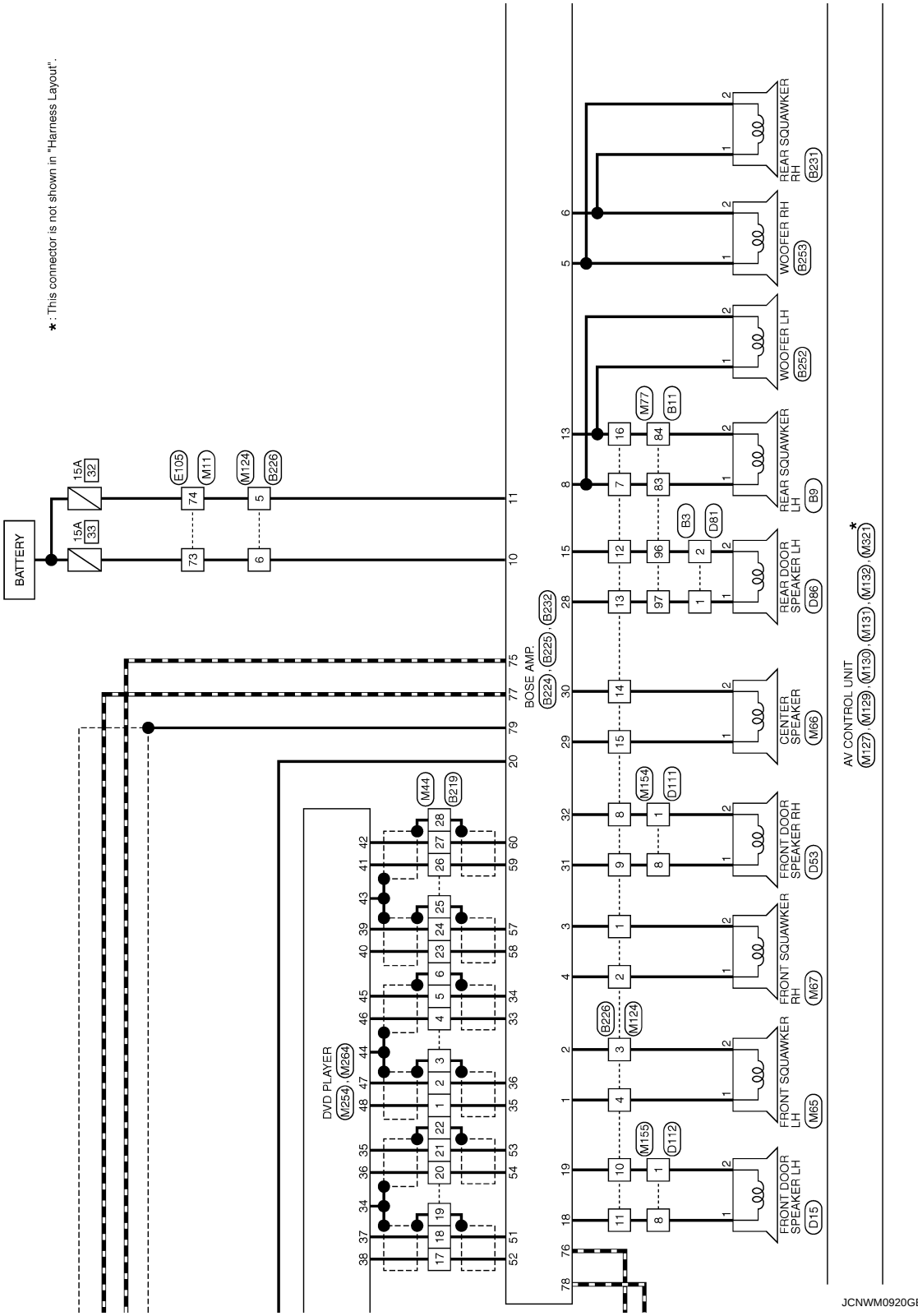
Wiring Diagram — BOSE AUDIO WITHOUT NAVIGATION SYSTEM —

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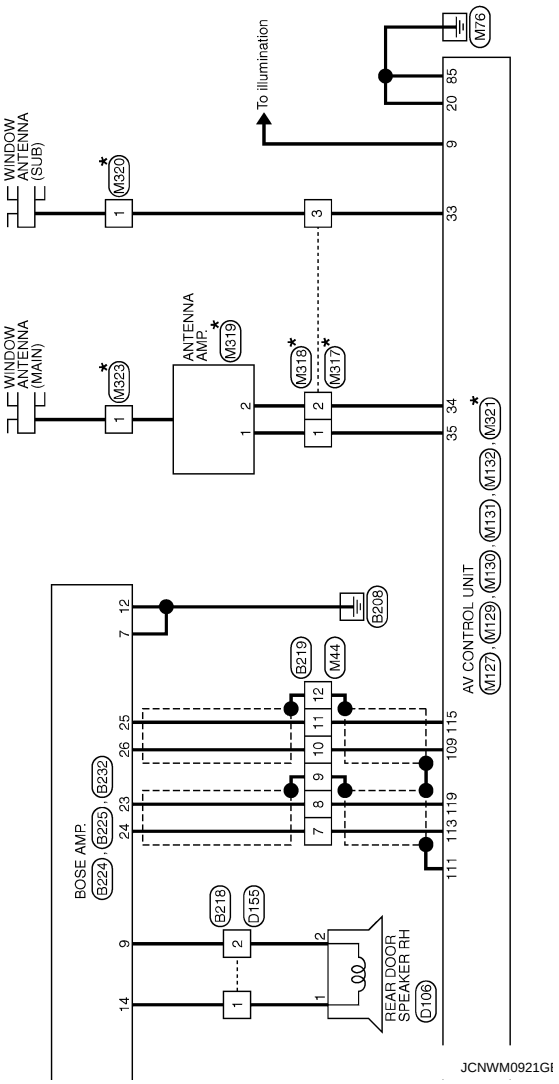



RS : With rear control switch
OS : Without rear control switch
* : This connector is not shown in "Harness Layout".
MULTIFUNCTION SWITCH
M125
M43
REAR SEAT LH
REAR CONTROL SWITCH
B471
B472
B473
RS
B208
B447
B235
B486
B96
B26
M77
B11
M11
E105
PARKING BRAKE SWITCH
E27
M156
B237
20
19
OS
M321
M131
M132
M129
M130
M127
AV CONTROL UNIT
106
68
STEERING ANGLE SENSOR
M30
M80
DATA LINE
CAMERA CONTROL UNIT
B251
31
JCNWM0918GB


PM : With automatic drive positioner
OP : Without automatic drive positioner
*: This connector is not shown in "Harness Layout".
DATA LINE
DATA LINE
DATA LINE
DATA LINE
DATA LINE
DATA LINE
DVD PLAYER
M254, M264
AUXILIARY INPUT JACKS
M253
M153
B236
B208
M76
AV CONTROL UNIT
M127, M129, M130, M131, M132, M321
BCM
(BODY CONTROL MODULE)
M122
To CAN system
DATA LINK CONNECTOR
M4
COMBINATION METER
M34
ECM
E16
M77
B11
B11
M77
M11
E105
PM
OP
JCNWM0919GB

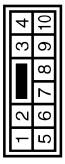

*: This connector is not shown in "Harness Layout".
BATTERY
15A 32
15A 33
E105
M11
M124
B226
BOSE AMP.
B224, B225, B232
DVD PLAYER
M254, M264
M44
B219
FRONT DOOR SPEAKER LH D15
FRONT SQUAWKER LH M65
FRONT SQUAWKER RH M67
FRONT DOOR SPEAKER RH D53
CENTER SPEAKER M66
REAR DOOR SPEAKER LH D86
REAR SQUAWKER LH B9
WOOFER LH B252
WOOFER RH B253
REAR SQUAWKER RH B231
AV CONTROL UNIT
M127, M129, M130, M131, M132, M321
JCNWM0920GB

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



BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B3
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS



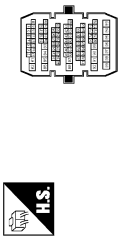
Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	–[With BOSE system]
2	O	–[With BOSE system]

Connector No.	B9
Connector Name	REAR SQUAWKER LH
Connector Type	TK02MBR-P



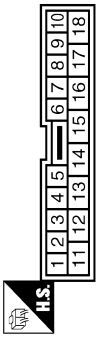
Terminal No.	Color of Wire	Signal Name [Specification]
1	BR	–
2	R	–

Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS19



Terminal No.	Color of Wire	Signal Name [Specification]
18	P	–
19	L	–
34	G	–
43	P	–
44	L	–
83	BR	–
84	R	–
96	O	–[With BOSE system]
97	LG	–[With BOSE system]

Connector No.	B96
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



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

Connector No.	B218
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS

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

Connector No.	B219
Connector Name	WIRE TO WIRE
Connector Type	TH32MW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
1	W/L	–
2	W/R	–
3	SHIELD	–
4	W/L	–
5	GR/V	–
6	SHIELD	–
7	B	–
8	W	–
9	SHIELD	–
10	W/R	–
11	B/R	–
12	SHIELD	–
17	B	–
18	W	–
19	SHIELD	–
20	Y	–
21	BR	–
22	SHIELD	–
23	W/R	–
24	B/R	–
25	SHIELD	–
26	GR/V	–
27	W/L	–
28	SHIELD	–

JCNWM0922GB

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B224
Connector Name	BOSE AMP.
Connector Type	SGA12FBR-SJA2

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

Connector No.	B226
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	P	-
3	V	-
4	LG	-
5	GR	-
6	SB	-
7	BR	-
8	Y	-
9	BR	-
10	B	-[With BOSE system]
11	W	-[With BOSE system]

I2	B	GND
I3	R	SOUND SIGNAL WOOFER LH (+)
I4	L	SOUND SIGNAL REAR SPEAKER RH (+)

Connector No.	B225
Connector Name	BOSE AMP.
Connector Type	SGA19FBR-SGA4

Terminal No.	Color of Wire	Signal Name [Specification]
15	R	SOUND SIGNAL REAR SPEAKER LH (-)
18	W	SOUND SIGNAL FRONT SPEAKER LH (+)
19	B	SOUND SIGNAL FRONT SPEAKER LH (-)
20	V	ACC
23	W	STEREO SOUND SIGNAL LH (+)
24	B	STEREO SOUND SIGNAL LH (+)
25	B/R	STEREO SOUND SIGNAL RH (-)
26	W/R	STEREO SOUND SIGNAL RH (+)
28	G	SOUND SIGNAL REAR SPEAKER LH (+)
29	V	SOUND SIGNAL CENTER SPEAKER (+)
30	P	SOUND SIGNAL CENTER SPEAKER (-)

I2	R	-
I3	G	-
I4	P	-
I5	V	-
I6	R	-

Connector No.	B231
Connector Name	REAR SQUAWKER RH
Connector Type	TK02MBR-P

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

31	BR	SOUND SIGNAL FRONT SPEAKER RH (+)
32	Y	SOUND SIGNAL FRONT SPEAKER RH (-)
33	W/L	RR SURROUND SOUND SIGNAL RH (+)
34	GR/V	RR SURROUND SOUND SIGNAL RH (-)
35	W/L	RR SURROUND SOUND SIGNAL LH (+)
36	W/R	RR SURROUND SOUND SIGNAL LH (-)

JCNWM0923GB

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B232
Connector Name	BOSE AMP.
Connector Type	TH40FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
51	W	FR SURROUND SOUND SIGNAL LH (-)
52	B	FR SURROUND SOUND SIGNAL LH (+)
53	BR	FR SURROUND SOUND SIGNAL RH (-)
54	Y	FR SURROUND SOUND SIGNAL RH (+)
57	B/R	CENTER SURROUND SOUND SIGNAL (-)
58	W/R	CENTER SURROUND SOUND SIGNAL (+)
59	GR/V	SURROUND SOUND SIGNAL LFE (-)
60	W/L	SURROUND SOUND SIGNAL LFE (+)
75	L/G	AV COMM (L) [Without navigation system]
76	P	AV COMM (L)
77	L/R	AV COMM (H) [Without navigation system]

78	L	AV COMM (H)
79	SHIELD	SHIELD

Connector No.	B237
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
7	BR	-
8	G	-
9	SB	-
10	O	-
13	Y	-
14	V	-
15	W	-
16	O	-
17	SHIELD	-
18	GR	-
19	R	-[With rear control switch]

19	L	-[Without rear control switch]
20	G	-[With rear control switch]
20	P	-[Without rear control switch]

Connector No.	B235
Connector Name	WIRE TO WIRE
Connector Type	SD02MGY

Terminal No.	Color of Wire	Signal Name [Specification]
1	P	-
2	L	-
3	SHIELD	-
4	G	-
5	R	-
6	SHIELD	-

Connector No.	B238
Connector Name	WIRE TO WIRE
Connector Type	TH04MW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
1	SHIELD	-
2	B	-
3	W	-
4	R	-

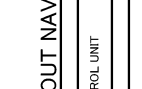
Connector No.	B236
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-NH

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

JCNWM0924GB

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B251
Connector Name	CAMERA CONTROL UNIT
Connector Type	TH32FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
5	SHIELD	SHIELD
6	B	CAMERA IMAGE SIGNAL
7	W	REAR VIEW CAMERA GND
8	R	REAR CAMERA ON
11	SHIELD	SHIELD
12	BR	CAMERA IMAGE SIGNAL
14	GR	CAMERA CONNECTING RECOGNITION SIGNAL
17	L/G	AV COMM(L) [With BOSE audio system]
18	L/R	AV COMM(H) [With BOSE audio system]
19	P	AV COMM(L)
20	L	AV COMM(H)
22	W	REVERSE SIGNAL
23	G	STRG SENSOR1
24	SB	STRG SENSOR2
25	O	STRG SENSOR3
26	O	VHICLE SPEED SIGNAL(8P)
30	V	ACC
31	B/R	GND
32	Y	BAT

Connector No.	B252
Connector Name	WOOFER LH
Connector Type	NS02FW-CS



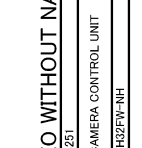
Terminal No.	Color of Wire	Signal Name [Specification]
1	R	–
2	BR	–

Connector No.	B253
Connector Name	WOOFER RH
Connector Type	NS02FW-CS



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

Connector No.	B447
Connector Name	WIRE TO WIRE
Connector Type	SD02FGY



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–
2	B	–
3	SHIELD	–
4	Y	–
5	G	–
6	SHIELD	–

Connector No.	B471
Connector Name	REAR CONTROL SWITCH
Connector Type	TH04FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	R/Y	–
4	Y	–

Connector No.	B472
Connector Name	REAR CONTROL SWITCH
Connector Type	SD01FGY

Terminal No.	Color of Wire	Signal Name [Specification]
5	G	–
7	Y	–

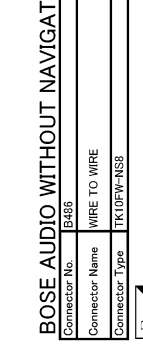
Connector No.	B473
Connector Name	REAR CONTROL SWITCH
Connector Type	SD01MGY

Terminal No.	Color of Wire	Signal Name [Specification]
6	B	–
8	W	–

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BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	B486
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8



Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	–
5	R/Y	–

Connector No.	D15
Connector Name	FRONT DOOR SPEAKER LH (WITH BOSE SYSTEM)
Connector Type	NS02FBR-CS



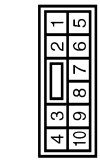
Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–
2	B	–

Connector No.	D53
Connector Name	FRONT DOOR SPEAKER RH (WITH BOSE SYSTEM)
Connector Type	NS02FBR-CS



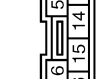
Terminal No.	Color of Wire	Signal Name [Specification]
1	B	–
2	W	–

Connector No.	D81
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS



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

Connector No.	D86
Connector Name	REAR DOOR SPEAKER LH (WITH BOSE SYSTEM)
Connector Type	NS02FBR-CS



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

Connector No.	D106
Connector Name	REAR DOOR SPEAKER RH (WITH BOSE SYSTEM)
Connector Type	NS02FBR-CS

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

Connector No.	D111
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–[With BOSE system]
8	B	–[With BOSE system]

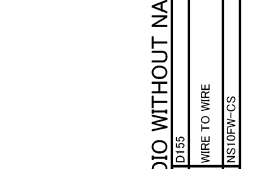
Connector No.	D112
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS

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

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BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	D155
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–
2	B	–[With BOSE system]

Connector No.	E6
Connector Name	WIRE TO WIRE
Connector Type	TK16MGY-1V



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

Connector No.	E18
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS02FL-M2-LG

Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	–
2	R	–
3	LG	–
5	R	–

Connector No.	E27
Connector Name	PARKING BRAKE SWITCH
Connector Type	P01FB-A

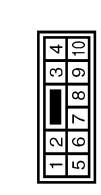
Terminal No.	Color of Wire	Signal Name [Specification]
1	P	–

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH70MW-CS10-M3



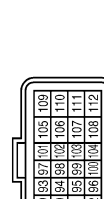
Terminal No.	Color of Wire	Signal Name [Specification]
8	R	–
10	LG	–
22	P	–
48	P	–
49	L	–
73	R	–
74	BR	–
81	Y	–

Connector No.	E7
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS



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

Connector No.	E16
Connector Name	ECM
Connector Type	RH24FB-RZ8-L-LH



Terminal No.	Color of Wire	Signal Name [Specification]
97	P	VEHCAN-L
98	L	VEHCAN-H

Connector No.	F23
Connector Name	TCM (TRANSMISSION CONTROL MODULE)
Connector Type	RH40FB-RZ8-L-RH

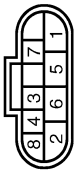


Terminal No.	Color of Wire	Signal Name [Specification]
19	G/B	REV LAMP RELAY

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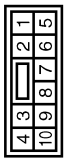
BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	F57
Connector Name	PARK / NEUTRAL POSITION SWITCH
Connector Type	YDX06FB-HS4



Terminal No.	Color of Wire	Signal Name [Specification]
3	LG	–
5	P/B	–

Connector No.	F121
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS



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

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

Terminal No.	Color of Wire	Signal Name [Specification]
12C	O	–

Connector No.	M4
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW

Terminal No.	Color of Wire	Signal Name [Specification]
6	L	–
14	P	–

Connector No.	F123
Connector Name	WIRE TO WIRE
Connector Type	TK16FGY-1V



Terminal No.	Color of Wire	Signal Name [Specification]
4	G/B	–

Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Type	TH70FW-CS10-M3

Terminal No.	Color of Wire	Signal Name [Specification]
8	P/B	–
10	O	–
22	G/R	–
48	P	–
49	L	–
73	B/R	–
74	BR	–
81	Y	–

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS08FW-M2



Terminal No.	Color of Wire	Signal Name [Specification]
2A	G/O	–
5A	V/O	–

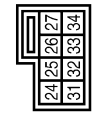
Connector No.	M30
Connector Name	STEERING ANGLE SENSOR
Connector Type	TH08FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	–
3	L/Y	–
4	G	–
6	B/R	–
8	O	–

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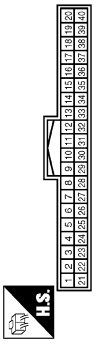
BOSE AUDIO WITHOUT NAVIGATION SYSTEM

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



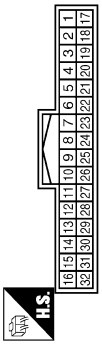
Terminal No.	Color of Wire	Signal Name [Specification]
24	W/G	–
31	GR/L	–
33	L/B	–

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	TH40FW-NH



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

Connector No.	M44
Connector Name	WIRE TO WIRE
Connector Type	TH32FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–
2	B	–
3	SHIELD	–
4	W	–
5	B	–
6	SHIELD	–
7	W	–
8	B	–
9	SHIELD	–
10	W	–
11	B	–

12	SHIELD	–
17	W	–
18	B	–
19	SHIELD	–
20	W	–
21	B	–
22	SHIELD	–
23	W	–
24	B	–
25	SHIELD	–
26	R	–
27	L	–
28	SHIELD	–

Connector No.	M49
Connector Name	DISPLAY UNIT
Connector Type	TH24FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
1	B/W	GND
2	Y	INV VCC
3	O	3S VCC (With BOSE system without navigation system or base audio and display system)
4	SHIELD	COMPOSIT IMAGE SIGNAL SHIELD
5	W	COMPOSIT IMAGE SIGNAL GND
6	R	RGB (G:GREEN)
7	SHIELD	RGB GND
8	W	HP
9	B	YS
11	R	COMM (CONT->DISP)
13	BR	3V GND (With BOSE system without navigation system or base audio and display system)
14	LG	SIG GND
15	B	COMPOSIT IMAGE SIGNAL
17	W	RGB (R:RED)
18	B	RGB (B:BLUE)
19	G	RGB SYNC
20	R	VP
21	SHIELD	RGB SYNC GND
22	G	COMM (DISP->CONT)
23	SHIELD	SHIELD

Connector No.	M65
Connector Name	FRONT SQUAWKER LH
Connector Type	TK02FBR



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

Connector No.	M66
Connector Name	CENTER SPEAKER
Connector Type	TK02FBR



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

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BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M67
Connector Name	FRONT SQUAWKER RH
Connector Type	TK02FBR



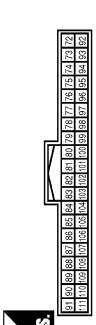
Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-[With BOSE system]
2	R	-[With BOSE system]

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS19



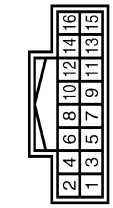
Terminal No.	Color of Wire	Signal Name [Specification]
18	P	-
19	L	-
34	V/R	-
43	P	-
44	L	-
83	G/B	-
84	W/B	-
96	W/R	-
97	O/B	-

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



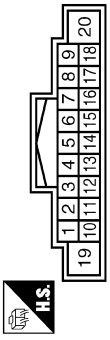
Terminal No.	Color of Wire	Signal Name [Specification]
90	P	CAN-L
91	L	CAN-H

Connector No.	M125
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH16FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
3	V/R	ACC
6	W	M-CAN H
8	B	M-CAN L
9	BR	SW GND
14	SB	CD(DVD) EJECT

Connector No.	M127
Connector Name	AV CONTROL UNIT
Connector Type	TH18FW-CS2



Terminal No.	Color of Wire	Signal Name [Specification]
6	W/G	STRG SW A
7	V/W	ACC
9	R/L	ILL
15	L/B	STRG SW GND
16	GR/L	STRG SW B
19	Y	BAT
20	B/W	GND

Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
12	W/R	-
13	O/B	-
14	R	-
15	G	-
16	W/B	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	G	-
3	B	-
4	W	-
5	BR	-
6	B/R	-
7	G/B	-
8	G	-
9	R	-
10	O	-[With BOSE system]
11	B/P	-[With BOSE system]

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BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M129
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 [Specification]
36	B	COMPOSIT IMAGE SIGNAL
37	W	COMPOSIT IMAGE SIGNAL GND
38	B	RGB (B:BLUE)
39	R	RGB (G:GREEN)
40	W	RGB (R:RED)
41	G	RGB SYNC
42	SHIELD	RGB SYNC GND
43	B	YS
44	G	COMM (DISP->CONT)
45	W	HP
46	LG	SIG GND

47	O	SIG VCC
49	SHIELD	COMP OUT SHIELD
50	SHIELD	RGB GND
55	SHIELD	SHIELD
56	R	COMM (CONT->DISP)
57	R	VP
58	BR	INV GND
59	Y	INV VCC

Connector No.	M130
Connector Name	AV CONTROL UNIT
Connector Type	TH16FW-NH



67	66	65	64	63	62	61	60
75	74	73	72	71	70	69	68

Terminal No.	Color of Wire	Signal Name [Specification]
64	SHIELD	CAMERA IMAGE SIGNAL GND
65	Y	CAMERA IMAGE SIGNAL
66	V	COMPOSIT (DVD AND AUX) IMAGE SIGNAL [With BOSE system]
68	W	CAMERA CONNECTION RECOGNITION SIGNAL
73	SHIELD	COMPOSIT IMAGE SIGNAL SHIELD
74	G	COMPOSIT (DVD AND AUX) IMAGE SIGNAL GND [With BOSE system]

Connector No.	M131
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 [Specification]
82	W	STEREO (DVD AND AUX) SOUND SIGNAL RH (-) [With BOSE audio system]
83	R	STEREO (DVD AND AUX) SOUND SIGNAL RH (+) [With BOSE audio system]
85	B/W	GND
86	L	CAN-H
87	P	CAN-L
88	W	AV COMM (H)
89	B	AV COMM (L)
90	L	AV COMM (H)
91	R	AV COMM (L)
98	G	STEREO (DVD AND AUX) SOUND SIGNAL LH (-) [With BOSE audio system]
99	B	STEREO (DVD AND AUX) SOUND SIGNAL LH (+) [With BOSE audio system]

100	SHIELD	STEREO SOUND SIGNAL SHIELD [With BOSE audio system]
101	BR	SW VOICE [With BOSE system without navigation system or base audio and stereo system]
103	SB	DISC EJECT SIG
104	O	IGN
105	P/B	REVERSE SIG
106	G/R	PKB SIG
107	V/W	VEHICLE SPEED SIG (8P)

Connector No.	M132
Connector Name	AV CONTROL UNIT (WITH BOSE SYSTEM)
Connector Type	TH12FW-NH

114	115	116	117	118	119
108	109	110	111	112	113

Terminal No.	Color of Wire	Signal Name [Specification]
109	W	STEREO SOUND SIGNAL RH (-) [With BOSE audio system]
111	SHIELD	SHIELD
113	W	STEREO SOUND SIGNAL LH (+) [With BOSE audio system]
115	B	STEREO SOUND SIGNAL RH (-) [With BOSE audio system]
119	B	STEREO SOUND SIGNAL LH (-) [With BOSE audio system]

Connector No.	M153
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-NH

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

Terminal No.	Color of Wire	Signal Name [Specification]
18	L	–
19	P	[With BOSE system]

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BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M154
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS

H.S.

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

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	–[With BOSE system]
8	R	–[With BOSE system]

Connector No.	M155
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS

H.S.

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

Terminal No.	Color of Wire	Signal Name [Specification]
1	O	–[With BOSE system]
8	B/P	–[With BOSE system]

Connector No.	M156
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH

H.S.

12	11	10	9	8	7	6	5	4	3	2	1
24	23	22	21	20	19	18	17	16	15	14	13

Terminal No.	Color of Wire	Signal Name [Specification]
7	Y	–
8	L/Y	–
9	B/R	–
10	O	–
13	Y	–
14	V	–
15	P/B	–
16	V/W	–
17	SHIELD	–
18	W	–
19	W	–

13	B	AUX SOUND SIGNAL LH (+)
14	W	AUX SOUND SIGNAL RH (+)
15	SHIELD	AUX SOUND SIGNAL SHIELD
21	B	STEREO SOUND SIGNAL LH (+)
22	G	STEREO SOUND SIGNAL LH (–)
23	R	STEREO SOUND SIGNAL RH (+)
24	W	STEREO SOUND SIGNAL RH (–)
25	SHIELD	STEREO SOUND SIGNAL SHIELD
29	R	AV COMM (L)
30	L	AV COMM (H)
31	P	AV COMM (L)
32	L	AV COMM (H)

20	B	–

Connector No.	M253
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A08FW

H.S.

1	2	3				7	8

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	AUX SOUND SIGNAL RH (+)
2	R	GND
3	B	AUX SOUND SIGNAL LH (+)
7	G	AUX IMAGE SIGNAL (+)
8	V	AUX IMAGE SIGNAL (–)

Connector No.	M254
Connector Name	DVD PLAYER
Connector Type	TH32FW-NH

H.S.

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 [Specification]
1	B /W	GND
2	Y	BAT
4	V/W	ACC
5	SHIELD	SHIELD
6	SHIELD	SHIELD
7	V	COMPOSITE (DVD AND AUX) IMAGE SIGNAL
8	G	COMPOSITE (AUX) IMAGE SIGNAL
9	G	CONPOSITE (DVD AND AUX) IMAGE SIGNAL GND
10	V	CONPOSITE (AUX) IMAGE SIGNAL GND
11	G	AUX SOUND SIGNAL LH (–)
12	R	AUX SOUND SIGNAL RH (–)

JCNWM0932GB

BOSE AUDIO WITHOUT NAVIGATION SYSTEM

Connector No.	M264
Connector Name	DVD PLAYER
Connector Type	TH16FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
34	SHIELD	SHIELD
35	B	FR SURROUND SOUND SIGNAL RH (-)
36	W	FR SURROUND SOUND SIGNAL RH (+)
37	B	FR SURROUND SOUND SIGNAL LH (-)
38	W	FR SURROUND SOUND SIGNAL LH (+)
39	B	CENTER SURROUND SOUND SIGNAL (-)
40	W	CENTER SURROUND SOUND SIGNAL (+)
41	R	SORROUND SOUND SIGNAL LFE (-)
42	L	SORROUND SOUND SIGNAL LFE (+)
43	SHIELD	SHIELD
44	SHIELD	SHIELD
45	B	RR SURROUND SOUND SIGNAL RH (-)
46	W	RR SURROUND SOUND SIGNAL RH (+)
47	B	RR SURROUND SOUND SIGNAL LH (-)
48	W	RR SURROUND SOUND SIGNAL LH (+)

Connector No.	M318
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1S-HU

Terminal No.	Color of Wire	Signal Name [Specification]
1	–	–
2	–	–
3	–	–

Connector No.	M319
Connector Name	ANTENNA AMP.
Connector Type	GT13SC-1/1S-HU

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

Connector No.	M320
Connector Name	WINDOW ANTENNA (SUB)
Connector Type	P01FB-A

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

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

Terminal No.	Color of Wire	Signal Name [Specification]
14	–	–
15	–	–
17	–	–

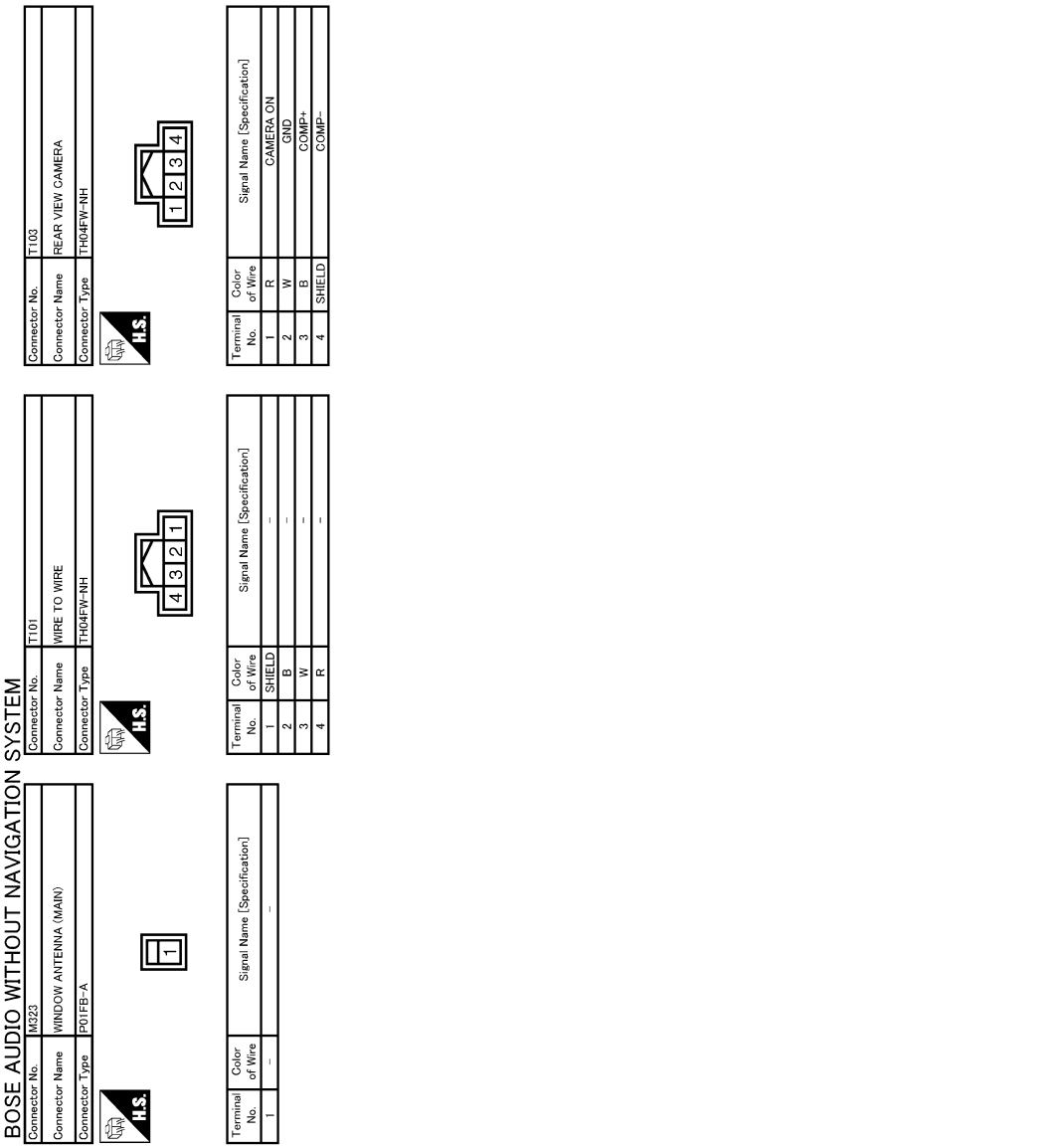
Connector No.	M317
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1PP-HU

Terminal No.	Color of Wire	Signal Name [Specification]
1	–	–
2	–	–
3	–	–

Connector No.	M321
Connector Name	AV CONTROL UNIT
Connector Type	GT13SH-2/1S-HU

Terminal No.	Color of Wire	Signal Name [Specification]
33	–	FM SUB
34	–	AM-FM MAIN
35	–	ANTENNA AMP ON SIG

JCNWM0933GB



JCNWM0934GI

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

SYMPTOM DIAGNOSIS

MULTI AV SYSTEM SYMPTOMS

Symptom Table

INFOID:0000000003765766

RELATED TO VEHICLE INFORMATION

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-211, "CONSULT-III Function (MULTI AV)".
	• All switches cannot be operated • “Multi AV” is not displayed on system selection screen when the CONSULT-III is initialized.	AV control unit power supply and ground circuits malfunction. Refer to AV-236, "AV CONTROL UNIT : Diagnosis Procedure".
	Only specified switch cannot be operated	Multifunction switch or preset switch malfunction. Replace multifunction switch or preset switch. For multifunction switch, refer to AV-378, "Removal and Installation". For preset switch, Refer to AV-389, "Removal and Installation".
Fuel economy display, vehicle setting operation is abnormal	There is malfunction in the CONSULT-III self-diagnosis result	Perform detected DTC self-diagnosis.
	There is no malfunction in the self-diagnosis results	Ignition signal. Refer to AV-236, "AV CONTROL UNIT : Diagnosis Procedure".

RELATED TO REAR VIEW MONITOR

Symptoms	Check items	Probable malfunction location / Action to take
It cannot be switched to rear view monitor even when the selector lever is in the reverse position.	There is malfunction in the CONSULT-III self-diagnosis result.	Perform CONSULT-III self-diagnosis. Refer to AV-211, "CONSULT-III Function (MULTI AV)".
	There is not malfunction in the CONSULT-III self-diagnosis result.	Reverse signal circuit malfunction.(AV control unit)
Camera image is not shown.	DVD and AUX images are normal.	• Rear view camera power supply circuit malfunction. Refer to AV-250, "Diagnosis Procedure". • Camera image signal circuit malfunction. Refer to AV-251, "Diagnosis Procedure".
Possible route line is indicated abnormally when camera image is displayed.	The “Steer. Angle Sensor” is not turned ON at “Connection Confirmation” of “Camera Cont.”	Steering angle sensor signal circuits. Refer to AV-253, "Diagnosis Procedure".
Camera image is rolling.	AUX image is rolling	• Horizontal synchronizing (HP) signal circuit malfunction between AV control unit and display unit. Refer to AV-246, "Diagnosis Procedure". • Vertical synchronizing (VP) signal circuit malfunction between AV control unit and display unit. Refer to AV-247, "Diagnosis Procedure".

RELATED TO RGB IMAGE

Symptoms	Check items	Possible malfunction location / Action to take
RGB image is not shown.	• All RGB images are not shown. • Composite images are not displayed.(camera and DVD and AUX image)	• Display unit power supply and ground circuit malfunction. Refer to AV-236, "DISPLAY UNIT : Diagnosis Procedure". • Communication circuit malfunction between AV control unit and display unit. Perform CONSULT-III self-diagnosis. Refer to AV-211, "CONSULT-III Function (MULTI AV)".
	• All RGB images are not shown. • Camera image is normal. • DVD and AUX images are not displayed.	Perform CONSULT-III self-diagnosis. Refer to AV-211, "CONSULT-III Function (MULTI AV)".
	• 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 malfunction. Refer to AV-236, "AV CONTROL UNIT : Diagnosis Procedure".
	• All RGB images are not shown. • Composite images are normal. (camera and DVD and AUX image)	RGB area (YS) signal circuit malfunction. Refer to AV-245, "Diagnosis Procedure".
Color of RGB image is not proper. (All RGB image)	Light blue (Cyan) tint.	RGB signal (R: red) circuit malfunction between AV control unit and display unit. Refer to AV-241, "Diagnosis Procedure".
	Purple (Magenta) tint.	RGB signal (G: green) circuit malfunction between AV control unit and display unit. Refer to AV-242, "Diagnosis Procedure".
	Screen looks yellowish.	RGB signal (B: blue) circuit malfunction between AV control unit and display unit. Refer AV-243, "Diagnosis Procedure".
RGB screen is rolling.	All RGB screen is rolling.	RGB synchronizing signal circuit malfunction between AV control unit and display unit. Refer to AV-244, "Diagnosis Procedure".

RELATED TO AUDIO

Symptoms	Check items	Possible malfunction location / Action to take
The CD cannot be removed.	—	Disk eject signal circuit. Refer to AV-249, "Diagnosis Procedure".
Audio sound is not heard.	No sound from all speakers.	• Perform CONSULT-III self-diagnosis. Refer to AV-211, "CONSULT-III Function (MULTI AV)" • BOSE amp. power supply and ground circuits malfunction. Refer to AV-238, "BOSE AMP. : Diagnosis Procedure".
	• No sound from all speakers. • It dose not change to "DVD" mode.	Perform CONSULT-III self-diagnosis. Refer to AV-211, "CONSULT-III Function (MULTI AV)"
	Sound is not heard only from the specific places.	
AM/FM radio is not received.	Other audio sounds are normal.	Antenna amp. ON 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. Refer to AV-259, "Diagnosis Procedure".
Only specified switch cannot be operated	Replace steering switch. Refer to AV-396, "Removal and Installation".

Symptoms	Probable malfunction location
Steering switch's “SOURCE”, “MENU UP”, “MENU DOWN” switches do not work.	Steering switch signal A circuit. Refer to AV-255, "Diagnosis Procedure".
Steering switch's “VOL UP”, “VOL DOWN” switches do not work.	Steering switch signal B circuit. Refer to AV-257, "Diagnosis Procedure".

RELATED TO DVD

Symptoms	Check items	Probable malfunction location
DVD image is not displayed	Displayed in black and nothing displayed.	• Composite image signal circuit malfunction between AV control unit and display unit. Refer to AV-252, "Diagnosis Procedure" • RGB area synchronizing (YS) signal circuit malfunction between AV control unit and display unit. Refer to AV-245, "Diagnosis Procedure" • Horizontal synchronizing (HP) signal circuit malfunction between AV control unit and display unit. Refer to AV-246, "Diagnosis Procedure". • Vertical synchronizing (VP) signal circuit malfunction between AV control unit and display unit. Refer to AV-247, "Diagnosis Procedure".
It dose not change to "DVD" mode.	LED lump of DVD player is not turned on.	DVD player power supply and ground circuits malfunction. Refer to AV-239, "DVD PLAYER : Diagnosis Procedure".
	LED lump of DVD player is not turned on.	Perform CONSULT-III self-diagnosis. Refer to AV-211, "CONSULT-III Function (MULTI AV)"

RELATED TO AUXILIARY INPUT

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

Symptoms	Check items	Probable malfunction location
No voice sound is heard when AUX mode is selected.	Voice sound is heard when other modes are selected.	AUX sound signal circuits malfunction between auxiliary input jacks and AV control unit.
AUX image is not displayed	Displayed in black and nothing can be displayed	• RGB area synchronizing (YS) signal circuit malfunction between AV control unit and display unit. Refer to AV-245, "Diagnosis Procedure". • Horizontal synchronizing (HP) signal circuit malfunction between AV control unit and display unit. Refer to AV-246, "Diagnosis Procedure". • Vertical synchronizing (VP) signal circuit malfunction between AV control unit and display unit. Refer to AV-247, "Diagnosis Procedure".
	• DVD image is normal. • Menu image is normal.	AUX image signal circuit malfunction between DVD player and auxiliary input jacks. Refer to AV-248, "Diagnosis Procedure".

RELATED TO REAR CONTROL SWITCH

Symptoms	Check items	Probable malfunction location
None of the rear control switch operations work.	—	Perform CONSULT-III self-diagnosis. Refer to AV-211, "CONSULT-III Function (MULTI AV)".

NORMAL OPERATING CONDITION

Description

INFOID:0000000003765767

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 red 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.
	Check if the CD is protected by copyright.
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 multi session 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.

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:0000000003960543

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

WARNING:

- **To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.**
- **Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the “SRS AIRBAG”.**
- **Never use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.**

Precaution for Trouble Diagnosis

INFOID:0000000003765769

AV COMMUNICATION SYSTEM

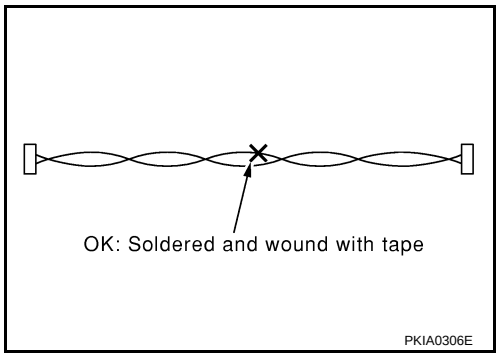
- Do not apply voltage of 7.0 V or higher to the measurement terminals.
- Use the tester with its open terminal voltage being 7.0 V or less.
- Be sure to turn ignition switch OFF and disconnect the battery cable from the negative terminal before checking the circuit.

Precaution for Harness Repair

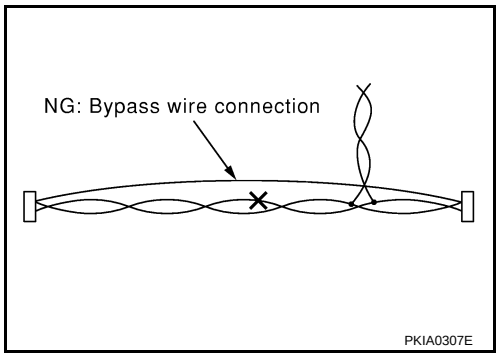
INFOID:0000000003765770

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.)



ON-VEHICLE REPAIR

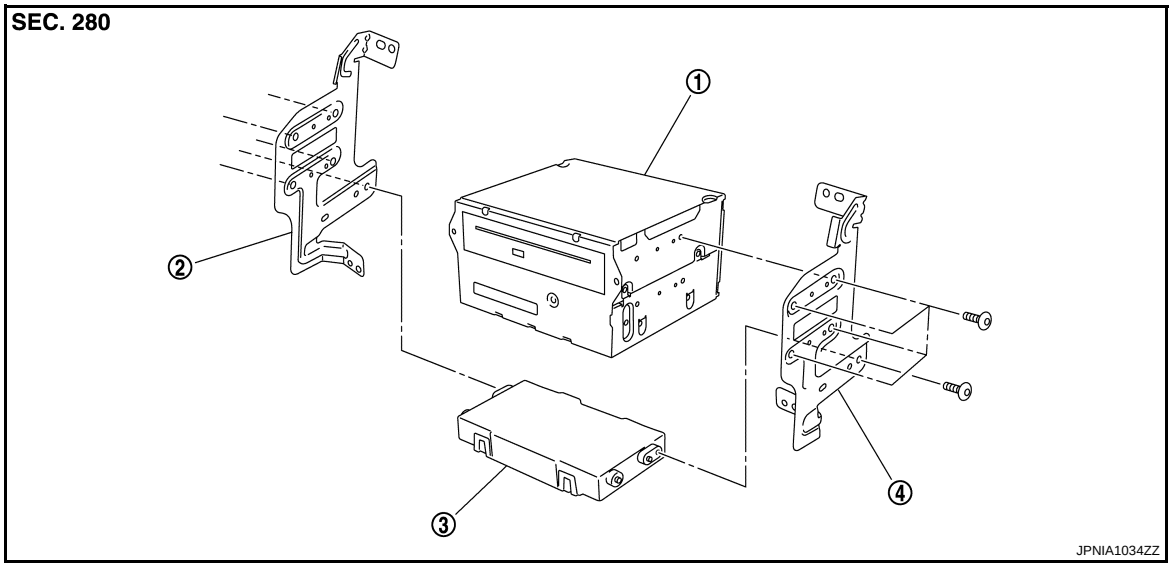
AV CONTROL UNIT

Exploded View

INFOID:0000000003838325

REMOVAL
Refer to IP-11, "Exploded View".

DISASSEMBLY



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

Removal and Installation

INFOID:0000000003838326

REMOVAL

1. Remove instrument finisher C. Refer to IP-12, "Removal and Installation".
2. Remove cluster lid D. Refer to IP-12, "Removal and Installation".
3. Remove AV control unit with A/C amp. as a single unit from the body.
4. Remove bracket screws, and then remove AV control unit.

INSTALLATION
Installation is the reverse order of removal.

DISPLAY UNIT

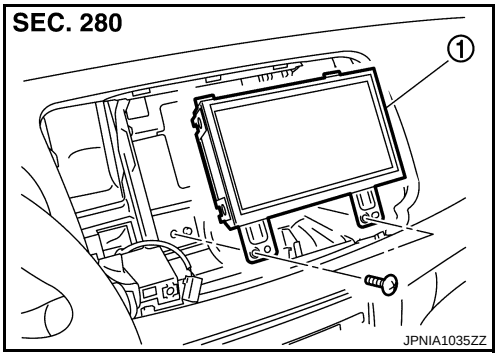
Exploded View

INFOID:0000000003838329

REMOVAL

Refer to IP-11, "Exploded View".

DISASSEMBLY



1. Display unit

Removal and Installation

INFOID:0000000003838330

REMOVAL

1. Remove cluster lid D. Refer to IP-11, "Exploded View".
2. Remove display unit mounting screws, and then disconnect the display unit connector.
3. Remove display unit.

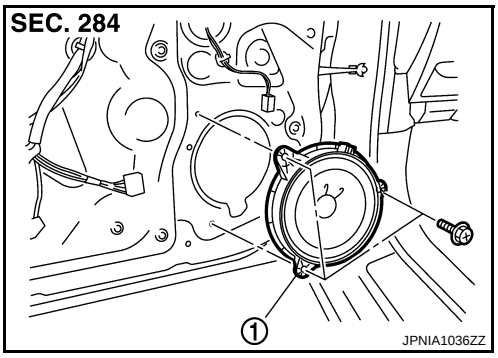
INSTALLATION

Installation is the reverse order of removal.

FRONT DOOR SPEAKER

Exploded View

INFOID:0000000003838331



1. Front door speaker

Removal and Installation

INFOID:0000000003838332

REMOVAL

1. Remove front door finisher. Refer to INT-30, "DRIVER SIDE : Removal and Installation" (driver side) or INT-33, "PASSENGER SIDE : Removal and Installation" (passenger side).
2. Remove front door speaker mounting bolts, disconnect the front door speaker connector.
3. Remove front door speaker.

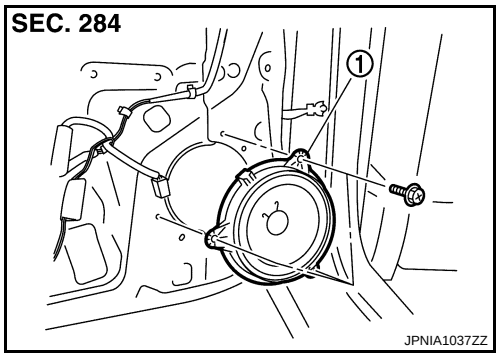
INSTALLATION

Installation is the reverse order of removal.

REAR DOOR SPEAKER

Exploded View

INFOID:0000000003838333



1. Rear door speaker

Removal and Installation

INFOID:0000000003838334

REMOVAL

1. Remove rear door finisher. Refer to INT-36, "Removal and Installation".
2. Remove rear door speaker mounting bolts, disconnect the rear door speaker connector.
3. Remove rear door speaker.

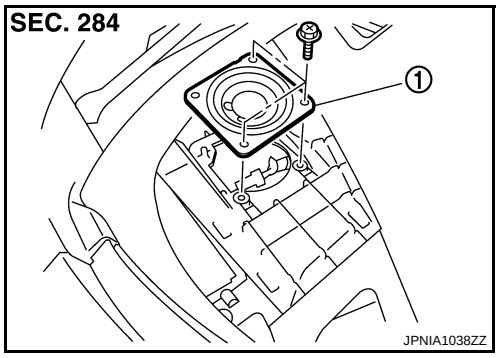
INSTALLATION

Installation is the reverse order of removal.

FRONT SQUAWKER

Exploded View

INFOID:0000000003838335



1. Front squawker

Removal and Installation

INFOID:0000000003838336

REMOVAL

1. Remove the speaker grille with squawker. Refer to IP-11, "Exploded View".
2. Remove front squawker mounting screws, lift up the front squawker and disconnect front squawker connector.
3. Remove front squawker.

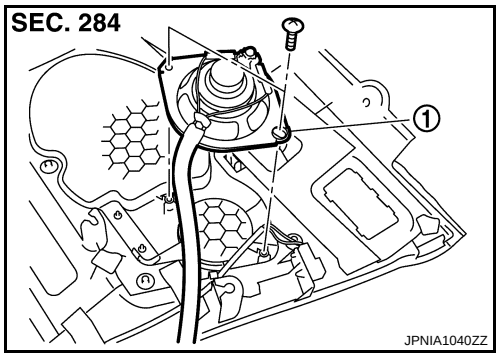
INSTALLATION

Installation is the reverse order of removal.

REAR SQUAWKER

Exploded View

INFOID:0000000003838337



1. Rear squawker

Removal and Installation

INFOID:0000000003838338

REMOVAL

1. Remove rear parcel shelf finisher. Refer to INT-43, "Removal and Installation".
2. Remove rear squawker mounting screws.
3. Remove rear squawker.

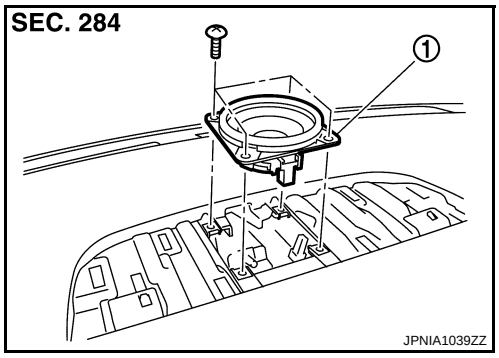
INSTALLATION

Installation is the reverse order of removal.

CENTER SPEAKER

Exploded View

INFOID:0000000003838339



1. Center speaker

Removal and Installation

INFOID:0000000003838340

REMOVAL

1. Remove center speaker grille. Refer to IP-11, "Exploded View".
2. Remove center speaker mounting screws, lift up the center speaker and disconnect center speaker connector.
3. Remove center speaker.

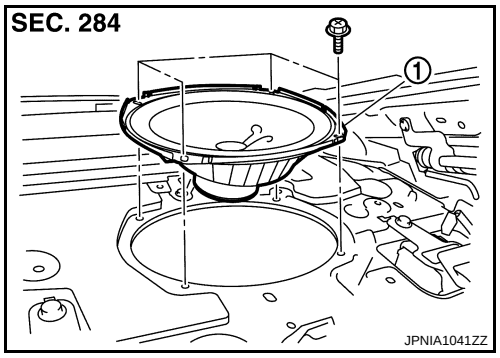
INSTALLATION

Installation is the reverse order of removal.

WOOFER

Exploded View

INFOID:0000000003838341



1. Woofer

Removal and Installation

INFOID:0000000003838342

REMOVAL

1. Remove rear parcel shelf finisher. Refer to INT-43, "Removal and Installation".
2. Remove woofer mounting bolts, lift up the woofer and disconnect woofer connector.
3. Remove woofer.

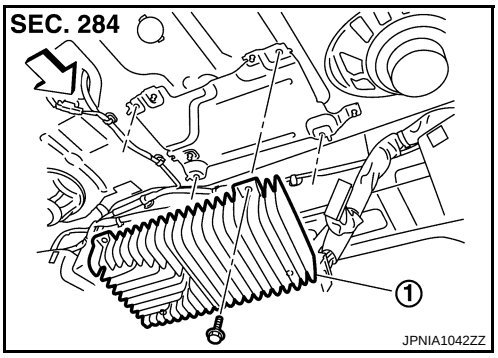
INSTALLATION

Installation is the reverse order of removal.

BOSE AMP.

Exploded View

INFOID:0000000003838343



⇦: Vehicle front
1. BOSE amp.

Removal and Installation

INFOID:0000000003838344

REMOVAL

1. Remove trunk front finisher upper. Refer to INT-57, "Removal and Installation".
2. Remove BOSE amp. mounting bolts, disconnect the BOSE amp. connector.
3. Remove BOSE amp.

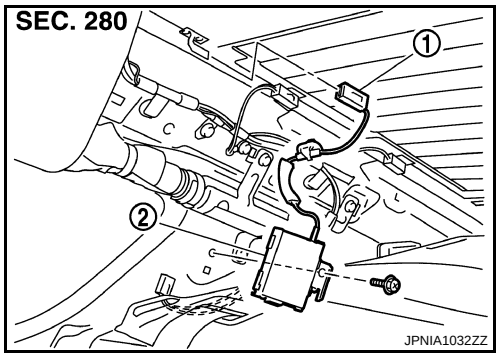
INSTALLATION

Installation is the reverse order of removal.

ANTENNA AMP.

Exploded View

INFOID:0000000003838345



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

Removal and Installation

INFOID:0000000003838346

REMOVAL

1. Remove rear side pillar finisher. Refer to INT-39, "Removal and Installation".
2. Disconnect antenna feeder connector and clip.
3. Remove antenna amp. mounting nut, disconnect the antenna amp. connector.
4. Remove antenna amp.

INSTALLATION

Installation is the reverse order of removal.

MULTIFUNCTION SWITCH

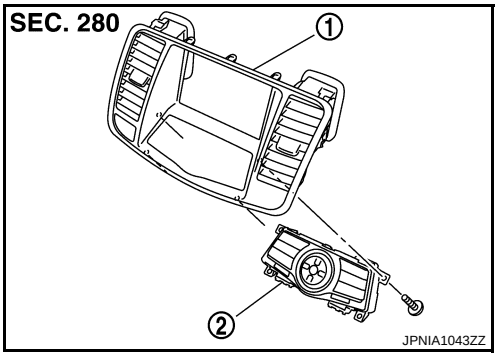
Exploded View

INFOID:0000000003838347

REMOVAL

Refer to IP-11, "Exploded View".

DISASSEMBLY



1. Cluster lid D
2. Multifunction switch

Removal and Installation

INFOID:0000000003838348

REMOVAL

1. Remove cluster lid D. Refer to IP-11, "Exploded View".
2. Remove multifunction switch mounting screws.
3. Remove multifunction switch.

INSTALLATION

Installation is the reverse order of removal.

PRESET SWITCH

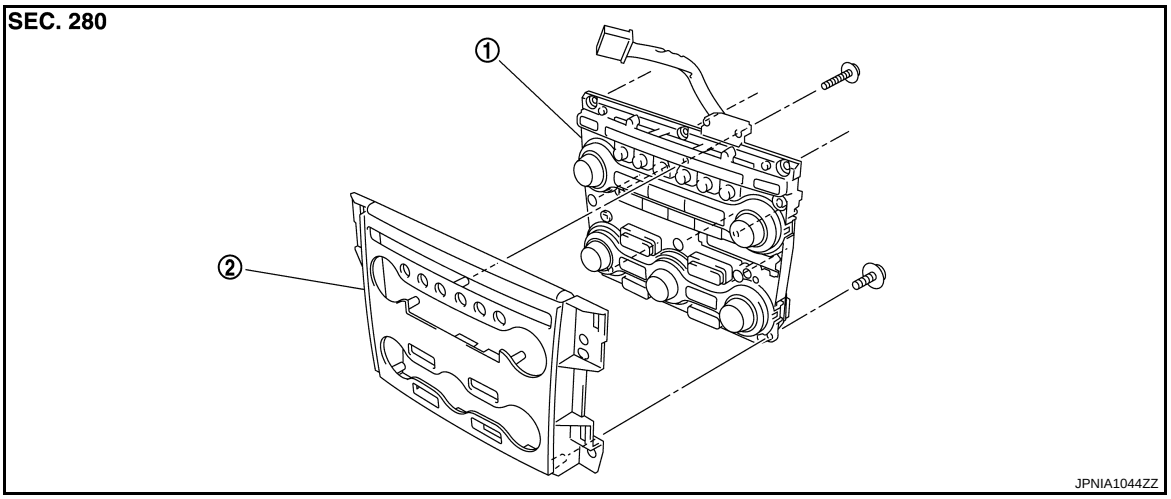
Exploded View

INFOID:0000000003838349

REMOVAL

Refer to IP-11, "Exploded View".

DISASSEMBLY



1. Preset switch
2. Cluster lid C

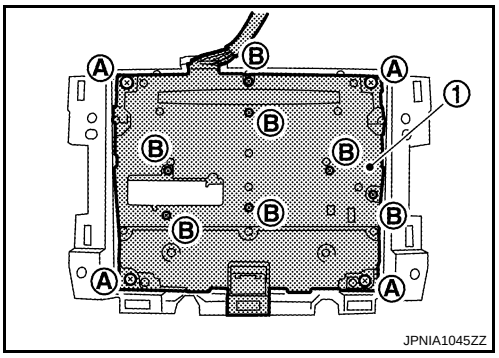
Removal and Installation

INFOID:0000000003838350

REMOVAL

1. Remove cluster lid C. Refer to IP-12, "Removal and Installation".
2. Remove preset switch mounting screws.
3. Remove preset switch.

1. Preset switch
A. Screw
B. 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.

REAR CONTROL SWITCH

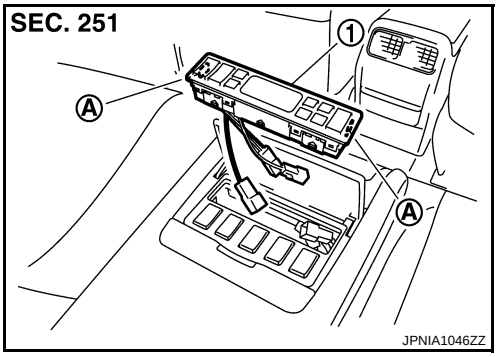
Exploded View

INFOID:0000000003838351

REMOVAL

Refer to SE-98, "Exploded View".

DISASSEMBLY



1. Rear control switch
A. Clip

Removal and Installation

INFOID:0000000003838352

REMOVAL

1. Remove rear control switch, stretching pawls of armrest assembly.
2. Disconnect rear control switch connector.
3. Remove rear control switch.

INSTALLATION

Installation is the reverse order of removal.

DVD PLAYER

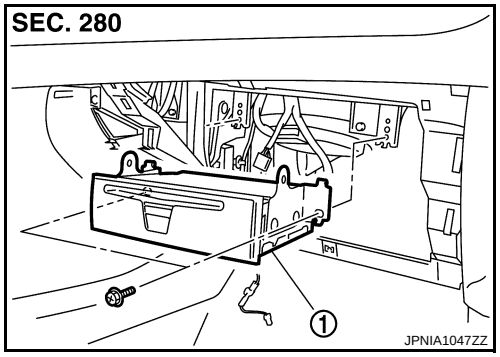
Exploded View

INFOID:0000000003838353

REMOVAL

Refer to IP-11, "Exploded View".

DISASSEMBLY



1. DVD player

Removal and Installation

INFOID:0000000003838354

REMOVAL

1. Remove grove box. Refer to IP-12, "Removal and Installation"
2. Remove DVD player mounting screw, disconnect the DVD player connector.
3. Remove DVD player.

INSTALLATION

Installation is the reverse order of removal.

AUXILIARY INPUT JACKS

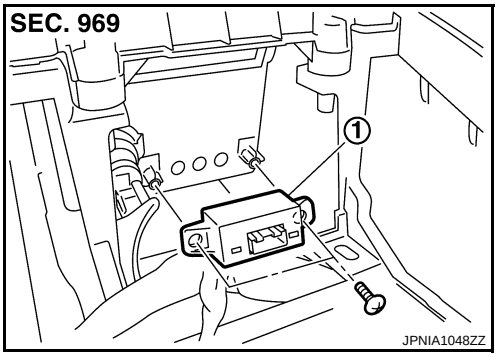
Exploded View

INFOID:0000000003838355

REMOVAL

Refer to IP-22, "Removal and Installation".

DISASSEMBLY



1. Auxiliary input jacks

Removal and Installation

INFOID:0000000003838356

REMOVAL

1. Remove console finisher. Refer to IP-22, "Exploded View".
2. Remove auxiliary mounting screws.
3. Remove auxiliary input jacks.

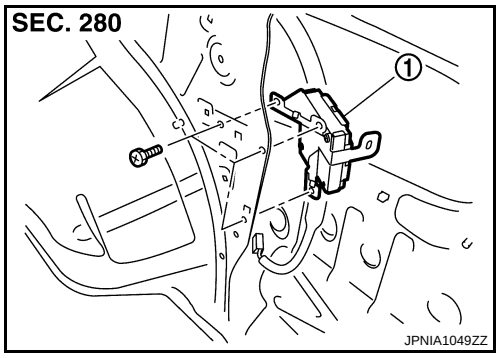
INSTALLATION

Installation is the reverse order of removal.

CAMERA CONTROL UNIT

Exploded View

INFOID:0000000003838365



1. Camera control unit

Removal and Installation

INFOID:0000000003838366

REMOVAL

1. Remove rear wheelhouse finisher RH. Refer to INT-57, "Removal and Installation".
2. Remove camera control unit mounting screws, disconnect the camera control unit connector.
3. Remove camera control unit.

INSTALLATION

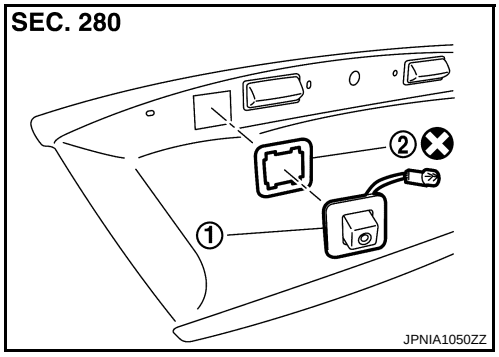
1. Installation is the reverse order of removal.
2. Perform predicted course line center position adjustment. Refer to AV-187, "PREDICTED COURSE LINE CENTER POSITION ADJUSTMENT : Special Repair Requirement".

REAR VIEW CAMERA

Exploded View

INFOID:0000000003902723

DISASSEMBLY



1. Rear view camera
2. Seal

Refer to GI-4, "Components" for symbols in the figure.

Removal and Installation

INFOID:0000000003902724

REMOVAL

1. Remove trunk lid finisher inner. Refer to INT-59, "Removal and Installation".
2. Remove trunk lid finisher. Refer to EXT-38, "Removal and Installation".
3. Remove rear view camera mounting clip, disconnect the rear view camera connector.
4. Remove rear view camera.

INSTALLATION

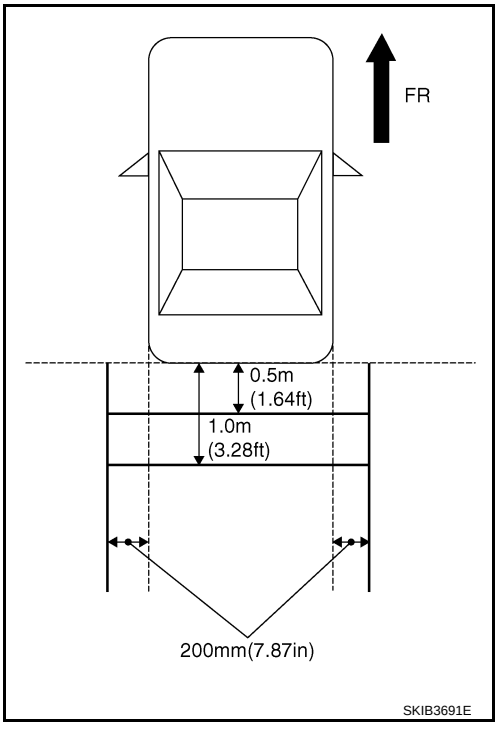
1. Installation is the reverse order of removal.

Adjustment

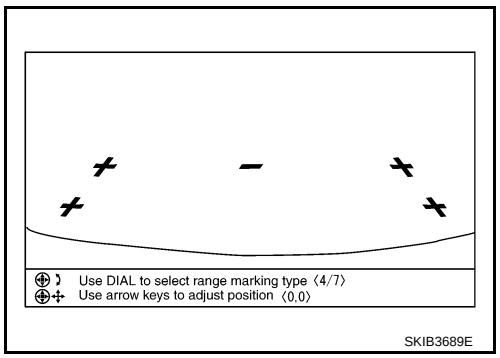
INFOID:0000000003970795

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: 200 mm (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.



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. Fine adjust the guiding line so that its position is aligned to the correction line by pressing the up/down/left/right switches.
Pressing “ENTER” enable the camera control unit to memory the adjusted guiding line position.

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

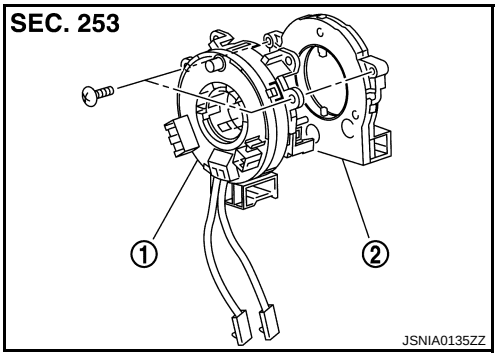
Exploded View

INFOID:0000000003838369

REMOVAL

Refer to SR-9, "Exploded View".

DISASSEMBLY



1. Spiral cable
2. Steering angle sensor

Removal and Installation

INFOID:0000000003838370

REMOVAL

1. Remove spiral cable.
2. Remove steering angle sensor mounting screws.
3. Remove steering angle sensor.

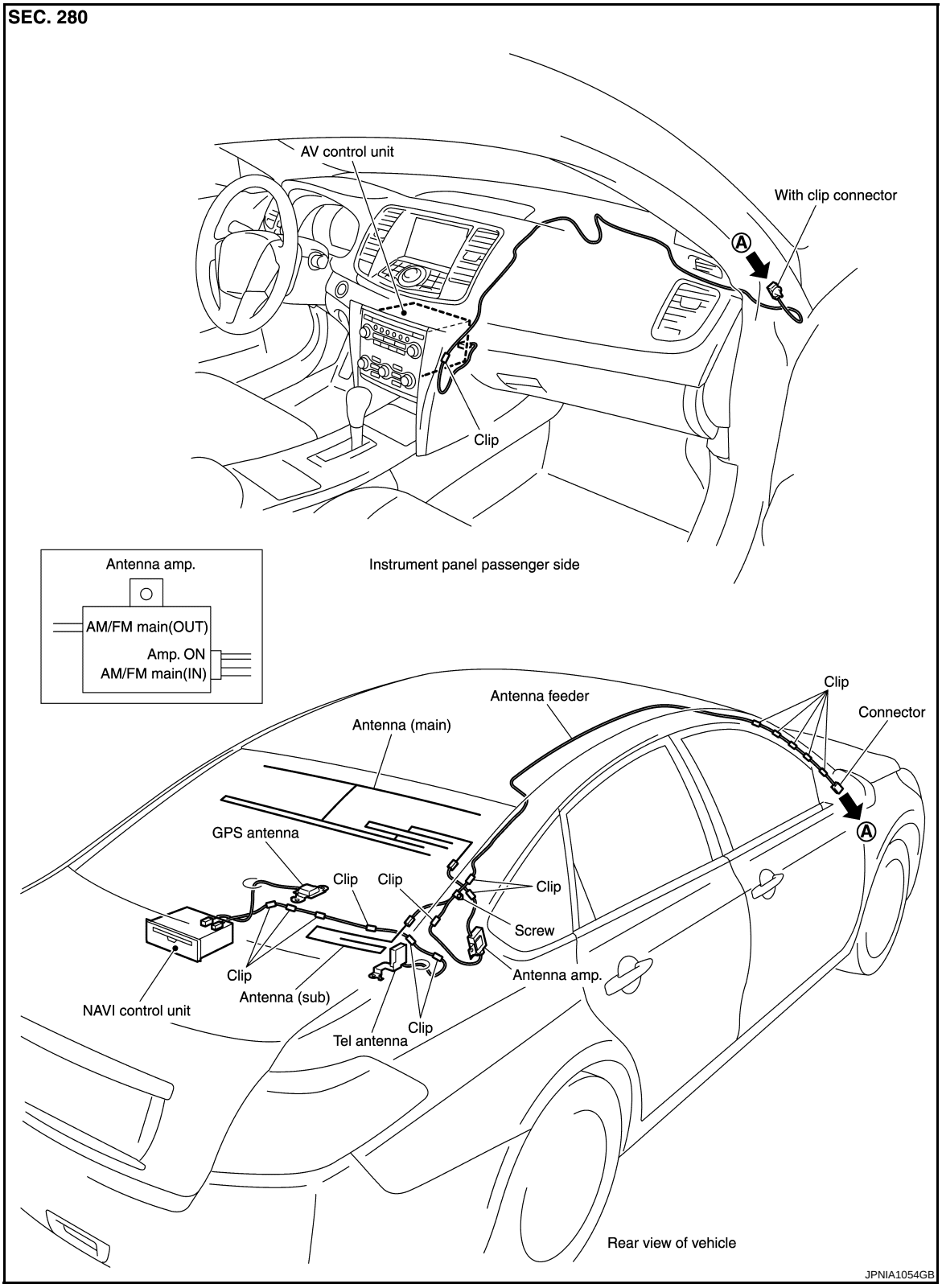
INSTALLATION

Installation is the reverse order of removal.

ANTENNA FEEDER (RADIO)

Harness Layout

INFOID:0000000003838371



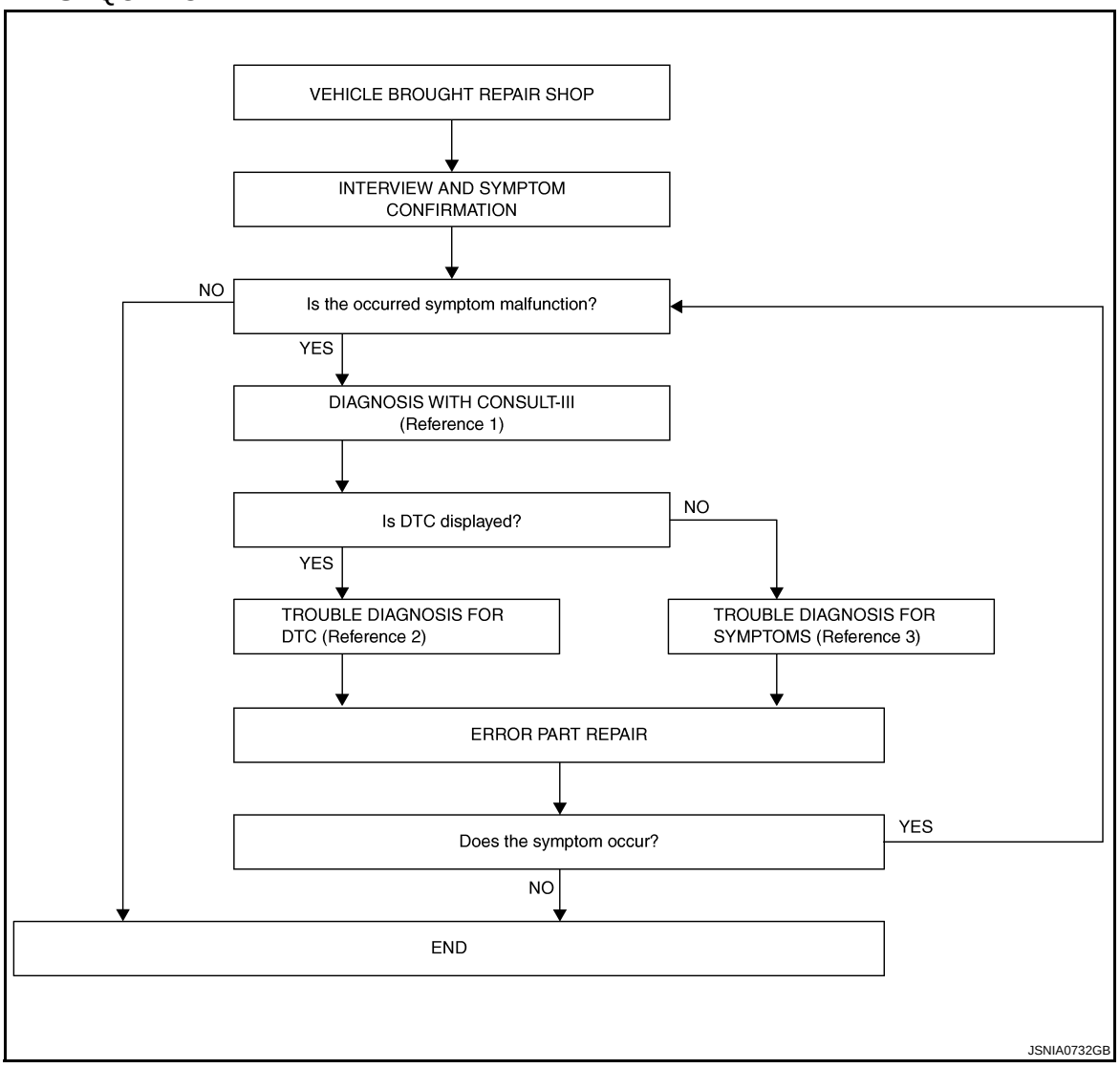
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:0000000003765818

OVERALL SEQUENCE



- Reference 1··· Refer to AV-434, "CONSULT-III Function (MULTI AV)".
- Reference 2··· Refer to AV-521, "DTC Index".
- Reference 3··· Refer to AV-640, "Symptom Table".

DETAILED FLOW

1.INTERVIEW AND SYMPTOM CONFIRMATION

Check the malfunction symptoms by performing the following items.
- Interview the customer to obtain the malfunction information (conditions and environment when the malfunction occurred).
- Check the symptom.

Is the occurred symptom malfunction?

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

2.DIAGNOSIS WITH CONSULT-III

1. Connect CONSULT-III and perform a self-diagnosis for “MULTI AV”. Refer to AV-434, "CONSULT-III Function (MULTI AV)".
   NOTE:
   Skip to step 4 of the diagnosis procedure if “MULTI AV” is not displayed.
2. Check if any DTC is displayed in the self-diagnosis results.

Is DTC displayed?

YES >> GO TO 3.
NO >> GO TO 4.

3. TROUBLE DIAGNOSIS FOR DTC

1. Check the DTC indicated in the self-diagnosis results.
2. Perform the relevant diagnosis referring to the DTC Index. Refer to AV-521, "DTC Index".

>> GO TO 5.

4. TROUBLE DIAGNOSIS FOR SYMPTOMS

Perform the relevant diagnosis referring to the diagnosis chart by symptom. Refer to AV-640, "Symptom Table".

>> GO TO 5.

5. ERROR PART REPAIR

1. Repair or replace the identified malfunctioning parts.
2. Perform a self-diagnosis for “MULTI AV” with CONSULT-III.
   NOTE:
   Erase the stored self-diagnosis results after repairing or replacing the relevant components if any DTC has been indicated in the self-diagnosis results.
3. Check that the symptom does not occur.

Does the symptom occur?

YES >> GO TO 1.
NO >> INSPECTION END

INSPECTION AND ADJUSTMENT

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description

INFOID:0000000003778340

WITH REAR VIEW MONITOR

Always correct the center position of the predicted course line after disconnecting the battery negative terminal.

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement

INFOID:0000000003778341

1.CORRECTION OF CENTER POSITION OF PREDICTED COURSE LINE

Refer to the following for details.

>> Refer to AV-400, "PREDICTED COURSE LINE CENTER POSITION ADJUSTMENT : Special Repair Requirement".

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description

INFOID:0000000003778342

When camera control unit is replaced, the center position of predicted course line shall be corrected.

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement

INFOID:0000000003778343

1.CORRECTION OF CENTER POSITION OF PREDICTED COURSE LINE

Refer to the following for details.

>> Refer to AV-400, "PREDICTED COURSE LINE CENTER POSITION ADJUSTMENT : Special Repair Requirement".

PREDICTED COURSE LINE CENTER POSITION ADJUSTMENT

PREDICTED COURSE LINE CENTER POSITION ADJUSTMENT : Description

INFOID:0000000003778344

Adjust the center position of the predicted course line of the rear view monitor if it is shifted.

PREDICTED COURSE LINE CENTER POSITION ADJUSTMENT : Special Repair Requirement

INFOID:0000000003778345

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.

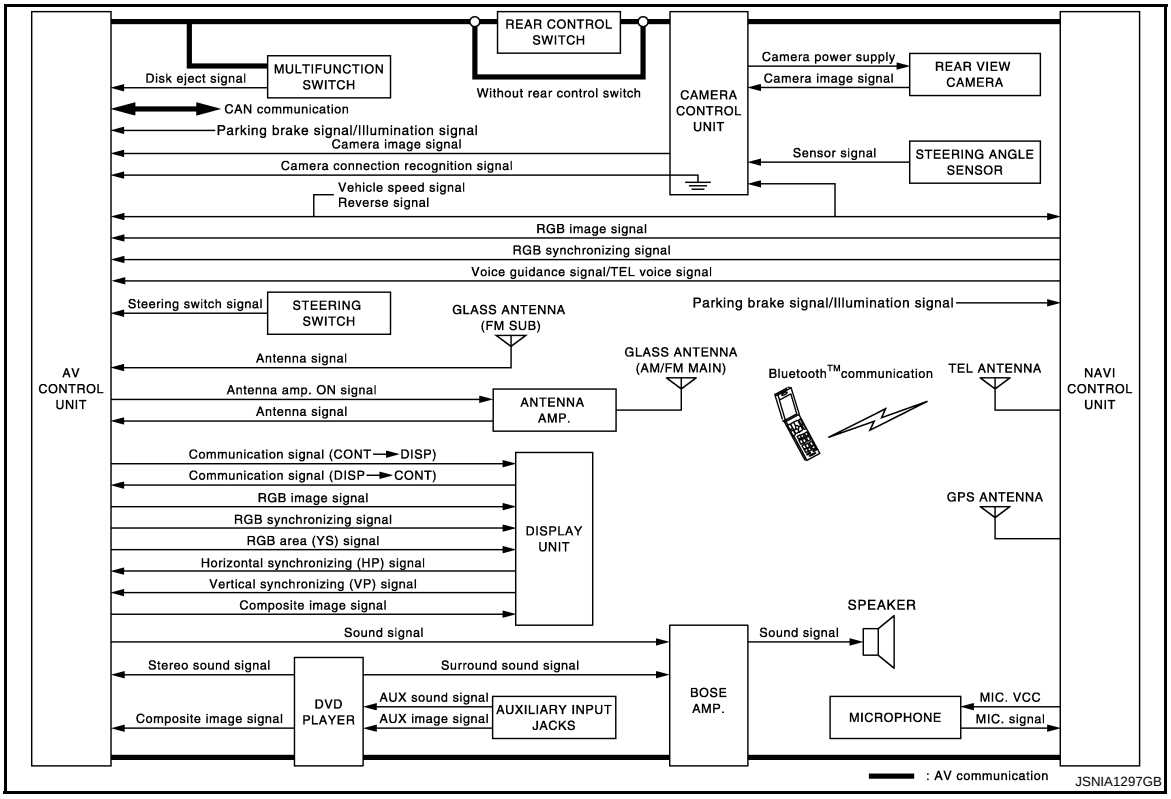
>> END

FUNCTION DIAGNOSIS

MULTI AV SYSTEM

System Diagram

INFOID:0000000003765827



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

System Description

INFOID:0000000003765828

Multi AV system means that the following systems are integrated.

System name	System explanation
NAVIGATION SYSTEM	AV-410, "System Description"
AUDIO SYSTEM	AV-407, "System Diagram"
REAR VIEW MONITOR SYSTEM	AV-415, "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 and combination meter. • AV control unit is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function.
HANDS-FREE PHONE SYSTEM	Refer to the following “HANDS-FREE PHONE SYSTEM”.
DVD ENTERTAINMENT SYSTEM	Refer to the following “DVD ENTERTAINMENT SYSTEM”.
AUXILIARY INPUT SYSTEM	Refer to “AUXILIARY INPUT SYSTEM” shown below.
TOUCH PANEL SYSTEM	Refer to the following “TOUCH PANEL SYSTEM”.

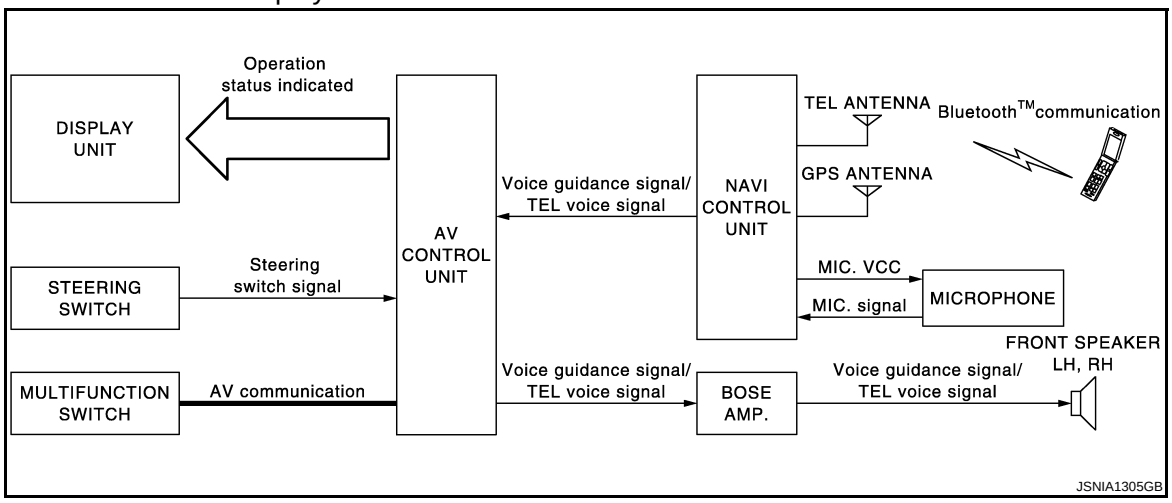
- AV control unit controls by transmitting/receiving data one by one with each unit (slave unit) that configures them completely as a master unit by connecting between units that configure MULTI AV system with two AV communication lines (H, L).
- Two AV communication lines (H, L) adopt a twisted pair line that is resistant to noise.

- AV control unit is connected by CAN communication, and it receives data signal from ECM, combination meter. It computes and displays fuel economy information value with the obtained information. Transmitting/ receiving of data signal is performed by BCM. Also, it transmits the required signal of vehicle setting and receives the response signal.
- AV control unit is connected with display unit and serial communication, and it transmits the required signal of display and display control and receives the response signal from display unit.

NOTE:
AV control unit can perform CONSULT-III self-operating function and on board self-diagnosis.
- CONSULT-III self diagnosis: Refer to AV-434, "CONSULT-III Function (MULTI AV)".
- On board self diagnosis: Refer to AV-419, "Diagnosis Description".

HANDS-FREE PHONE SYSTEM

- Hands-free communication can be operated by connecting using Bluetooth™ communication with cellular phone.
- Operation is performed by display unit (touch panel), multifunction switch or steering switch, and operating condition is indicated on display unit.



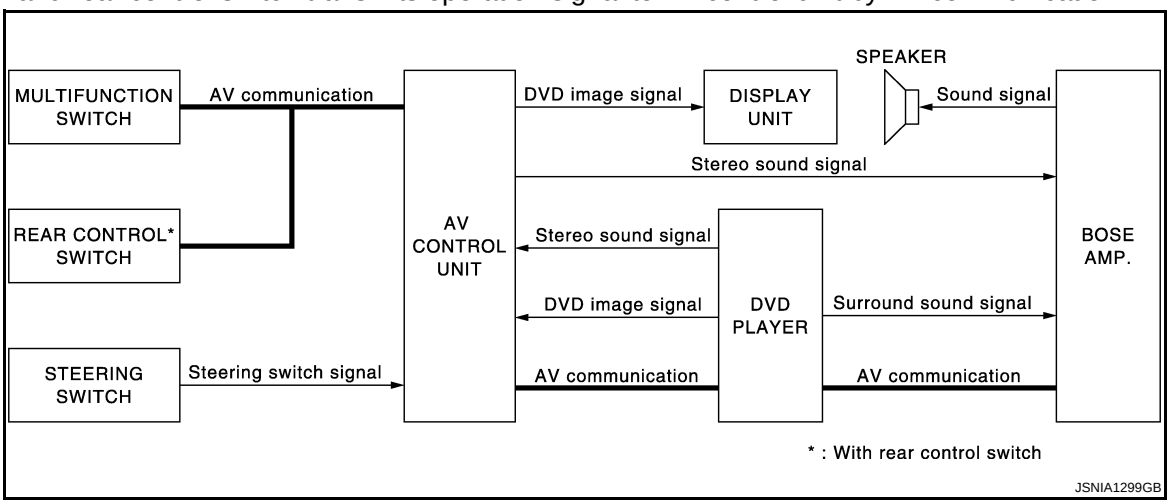
When a call is originated
Spoken voice sound output from the microphone (Mic. Signal) is input to NAVI control unit. NAVI control unit outputs to cellular phone via TEL antenna with Bluetooth™ communication as a TEL voice signal. Voice sound is then heard at the other party.

When receiving a call
Voice sound is input to own cellular phone from the other party. The cellular phone outputs the voice signal to TEL antenna by establishing Bluetooth™ communication. The signal from TEL antenna is sent to front speaker via NAVI control unit, AV control unit, and BOSE amp.

DVD ENTERTAINMENT SYSTEM

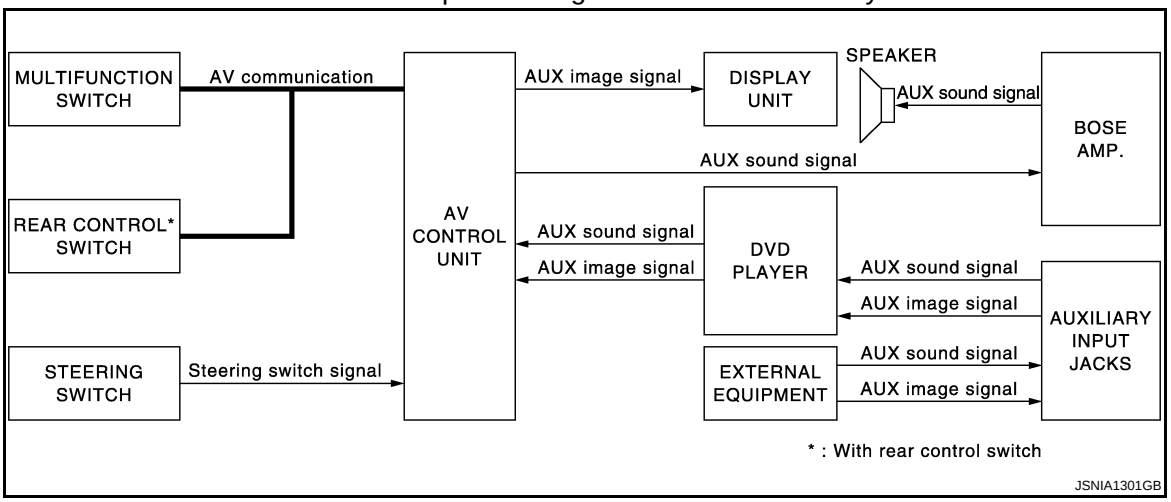
- DVD player is connected with AV control unit via AV communication, and controlled by AV control unit.
- DVD image signal is output from DVD player to display unit via AV control unit.
- DVD stereo (2ch) sound signal is output from DVD player to each speaker via AV control unit and BOSE amp.
- DVD surround (5.1ch) sound signal is output from DVD player to each speaker via BOSE amp.

- Operation can be performed with multifunction switch, steering switch and rear control switch. Multifunction switch and rear control switch transmits operation signal to AV control unit by AV communication.



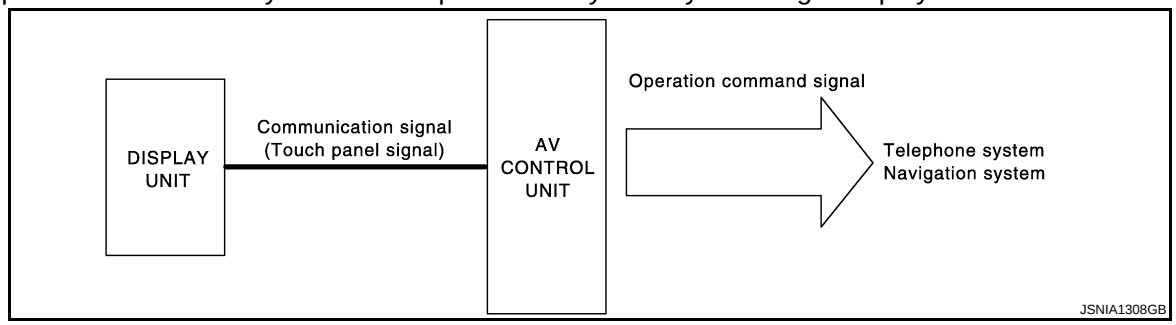
AUXILIARY INPUT SYSTEM

- 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, steering switch and rear control switch. Multifunction switch and rear control switch transmits operation signal to AV control unit by AV communication.



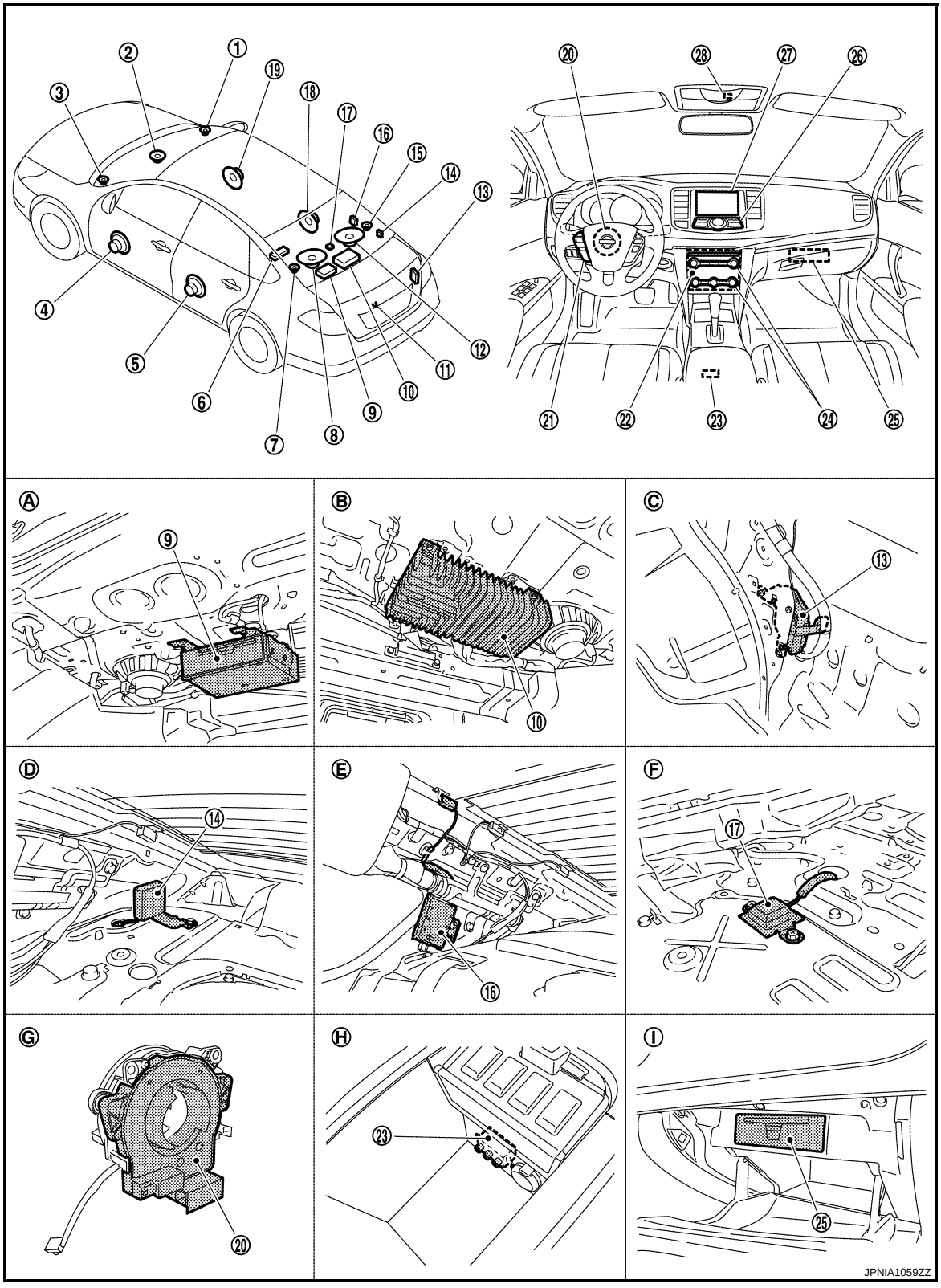
TOUCH PANEL SYSTEM

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



Component Parts Location

INFOID:0000000003765829



1. Front squawker RH
2. Center speaker
3. Front squawker LH
4. Front door speaker LH
5. Rear door speaker LH
6. Rear control switch
7. Rear squawker LH
8. Woofer LH
9. NAVI control unit
10. BOSE amp.
11. Rear view camera
12. Woofer RH

13. Camera control unit
14. TEL antenna
15. Rear squawker RH
16. Antenna amp.
17. GPS antenna
18. Rear door speaker RH
19. Front door speaker RH
20. Steering angle sensor
21. Steering switch
22. AV control unit
23. Auxiliary input jacks
24. Preset switch
25. DVD player
26. Multifunction switch
27. Display unit
28. Microphone

A. Trunk room upper LH
B. Trunk room upper RH
C. Trunk room side RH
D. Within rear pillar finisher RH
E. Within rear pillar finisher RH
F. Within rear parcel shelf finisher
G. Spiral cable part
H. In center console
I. In grove box

Component Description

INFOID:0000000003765830

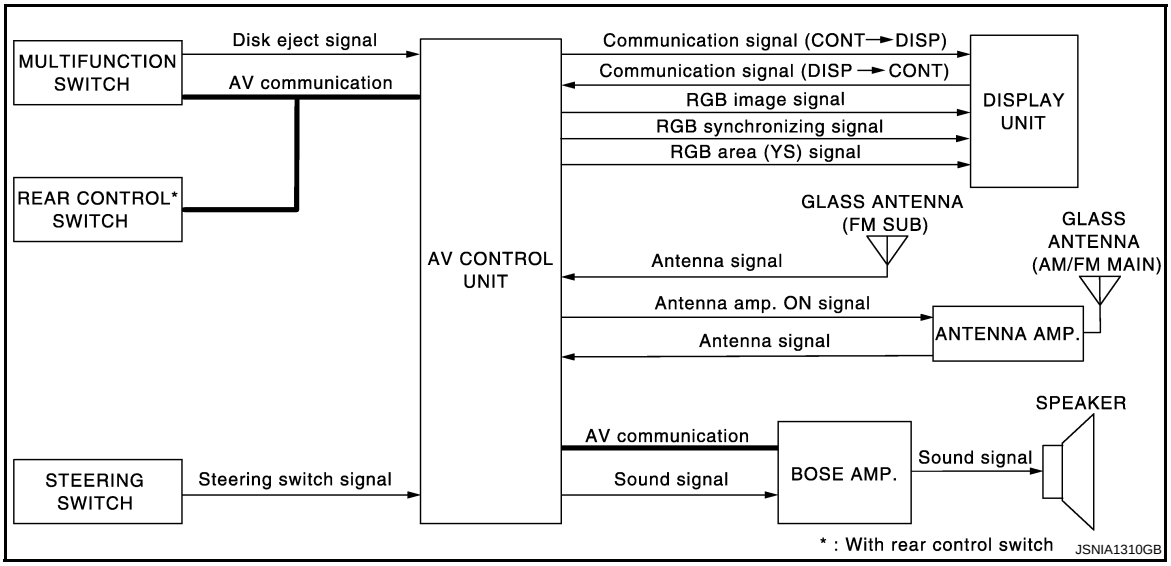
Part name	Description
AV CONTROL UNIT	• It is the master unit of the MULTI AV system, and it is connected to each control unit by communication. It operates each system according to communication signals from the AV control unit. • AV control unit includes audio function and vehicle information function. • It is connected to ECM and combination meter. via CAN communication to obtain necessary information for the vehicle information function. • It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function. • Composite image signal (AUX and DVD images) is input from DVD player. • Camera image signal is input from camera control unit. • Composite image (DVD, AUX and camera images) signal is output to display unit. • Sound signal (DVD and AUX sounds) is input from the DVD player.
NAVI CONTROL UNIT	• Map data can be read from the Map DVD-ROM by installing Map DVD-ROM. • The NAVI control unit sends map data to the AV control unit. • The NAVI control unit includes the hands-free phone and navigation functions. • The NAVI control unit transmits navigation and hands-free phone related images to AV control unit. • It includes the TEL adapter and Bluetooth™ function.
Map DVD-ROM	A collection of map data.
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). • Composite image (DVD, AUX and camera images) signal is input from AV 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 sound signal from AV control unit and DVD player, and outputs sound signal to woofer and each speaker.
WOOFER	• Outputs sound signal from BOSE amp. • Outputs low frequency sound.
FRONT SPEAKER	• Outputs sound signal from BOSE amp. • Outputs sound (mid and low range).
REAR SPEAKER	• Outputs sound signal from BOSE amp. • Outputs sound (mid and low range).
FRONT SQUAWKER	• Outputs sound signal from BOSE amp. • Outputs sound (high and mid range).
REAR SQUAWKER	• Outputs sound signal from BOSE amp. • Outputs sound (high and mid range).
CENTER SPEAKER	• Outputs sound signal from BOSE amp. • Outputs sound (high and mid range).

Part name	Description
MULTIFUNCTION SWITCH	• Operation panel is equipped with the centralized switch where camera, audio, DVD and AUX input operations are integrated. • The multifunction switch is connected to the preset switch by wiring harness, and it transmits the operation signal to the preset switch.
PRESET SWITCH	• Operation panel is equipped with the centralized switch where audio and air conditioner operations are integrated. • The preset switch is connected via AV communication, and it transmits the operation signals of the preset switch and multifunction switch. • The disk ejection operating signal is performed by wiring harness.
CAMERA CONTROL UNIT	• Camera image signal is input from rear view camera. Camera image signal output to AV control unit. • Power supply is transmitted to rear view camera. • AV control unit recognizes the presence of camera system with camera connection recognition signal. • Camera control unit is connected via AV communication.
REAR VIEW CAMERA	• The image of vehicle rear view is transmitted to camera control unit. • It receives the power supply from the camera control unit and operates.
STEERING ANGLE SENSOR	Sensor signal (steering angle) is transmitted to camera control unit.
MICROPHONE	• Used for hands-free phone operation. • Mic. signal is transmitted to NAVI control unit • Power (Mic. VCC) is supplied from NAVI control unit.
STEERING SWITCH	• Enables audio operations, etc. • Steering switch signal (operation signal) is output to AV control unit.
DVD PLAYER	It transmits the playback DVD image signal and DVD sound signal to the AV control unit.
AUXILIARY INPUT JACKS	• The image signal of the auxiliary input is output via the DVD player and AV control unit to the display unit. • The sound signal of the auxiliary input is output via the DVD player and AV control unit to the BOSE amp. • 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.
REAR CONTROL SWITCH	• Enables audio operations, etc. • The rear control switch is connected via AV communication, and it transmits the operation signals of the rear control switch.
ANTENNA AMP.	• Radio signal received by glass antenna is amplified and transmitted to AV control unit. • Power (antenna amp ON signal) is supplied from AV control unit.
GPS ANTENNA	GPS signal is received and transmitted to NAVI control unit.
TEL ANTENNA	TEL voice signal is received and transmitted to NAVI control unit.

AUDIO SYSTEM

System Diagram

INFOID:0000000003765831



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

System Description

INFOID:0000000003765832

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

Function
AM/FM radio
CD

FUNCTION DESCRIPTION

Operating Signal

Operation of the audio system can be performed via the multifunction switch, preset switch, rear control switch or steering switch.

- Operating signal is transmitted to AV control unit via AV communication when it is operated by multifunction switch, preset switch or rear control switch. The CD ejection operating signal is performed by hard-wire.
- 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 by the communication signal between the display unit and the AV control unit.
- The image signal to display operating condition is performed by RGB image signal, RGB area signal and RGB image synchronizing signal.

AM/FM Radio Mode

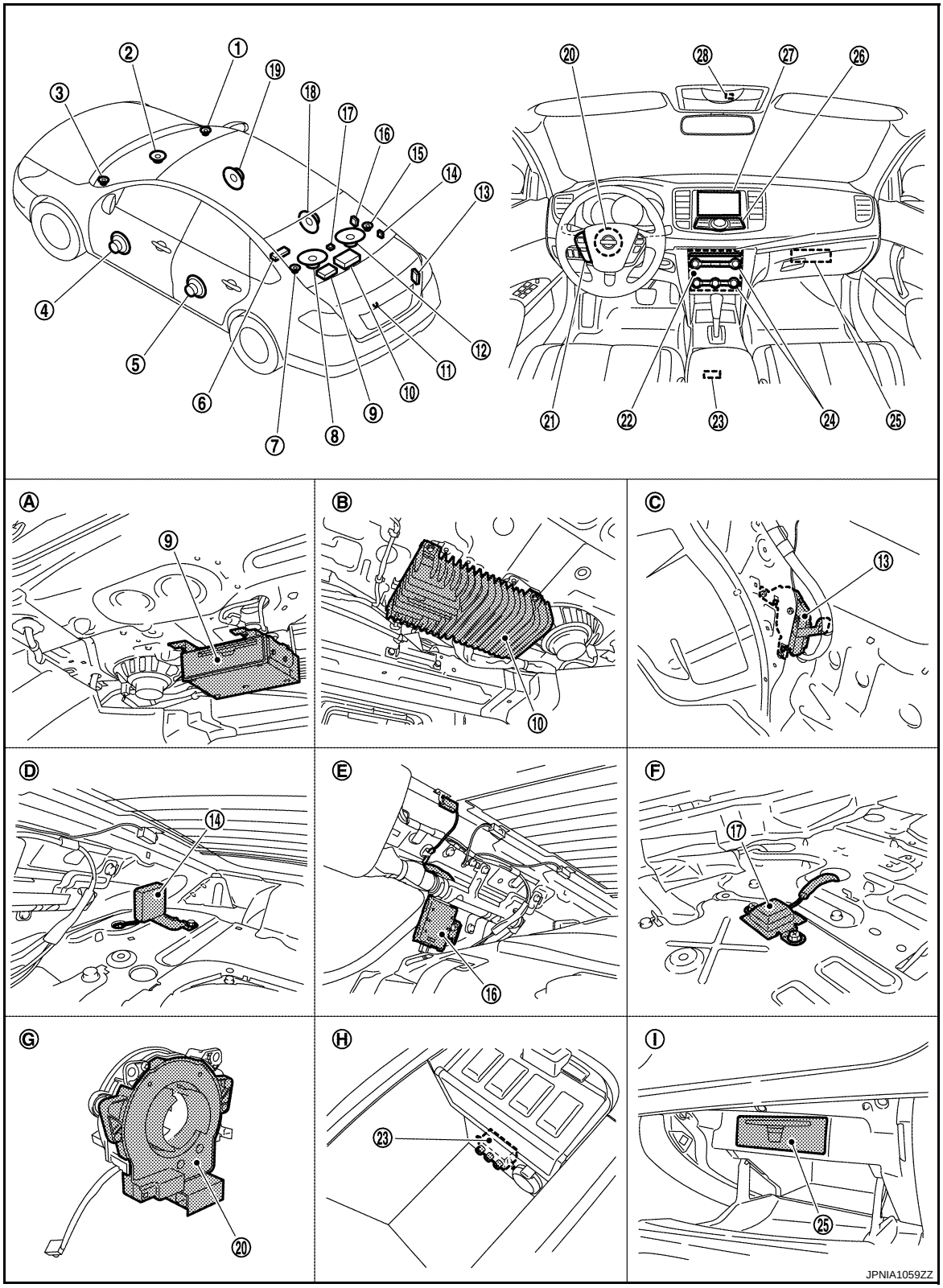
- AM/FM radio tuner is built into AV control unit.
- AM/FM radio wave is received by glass antenna, next it is amplified by antenna amp., and finally it is input to AV control unit. The FM sub antenna is installed on the rear window glass and the AV control unit is received.
- Sound signal is input to BOSE amp. and BOSE amp. outputs to woofer and each speaker for AV control unit.

CD Mode

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

Component Parts Location

INFOID:0000000003777846



1. Front squawker RH
2. Center speaker
3. Front squawker LH
4. Front door speaker LH
5. Rear door speaker LH
6. Rear control switch
7. Rear squawker LH
8. Woofer LH
9. NAVI control unit
10. BOSE amp.
11. Rear view camera
12. Woofer RH

13. Camera control unit
14. TEL antenna
15. Rear squawker RH
16. Antenna amp.
17. GPS antenna
18. Rear door speaker RH
19. Front door speaker RH
20. Steering angle sensor
21. Steering switch
22. AV control unit
23. Auxiliary input jacks
24. Preset switch
25. DVD player
26. Multifunction switch
27. Display unit
28. Microphone

A. Trunk room upper LH
B. Trunk room upper RH
C. Trunk room side RH
D. Within rear pillar finisher RH
E. Within rear pillar finisher RH
F. Within rear parcel shelf finisher
G. Spiral cable part
H. In center console
I. In grove box

Component Description

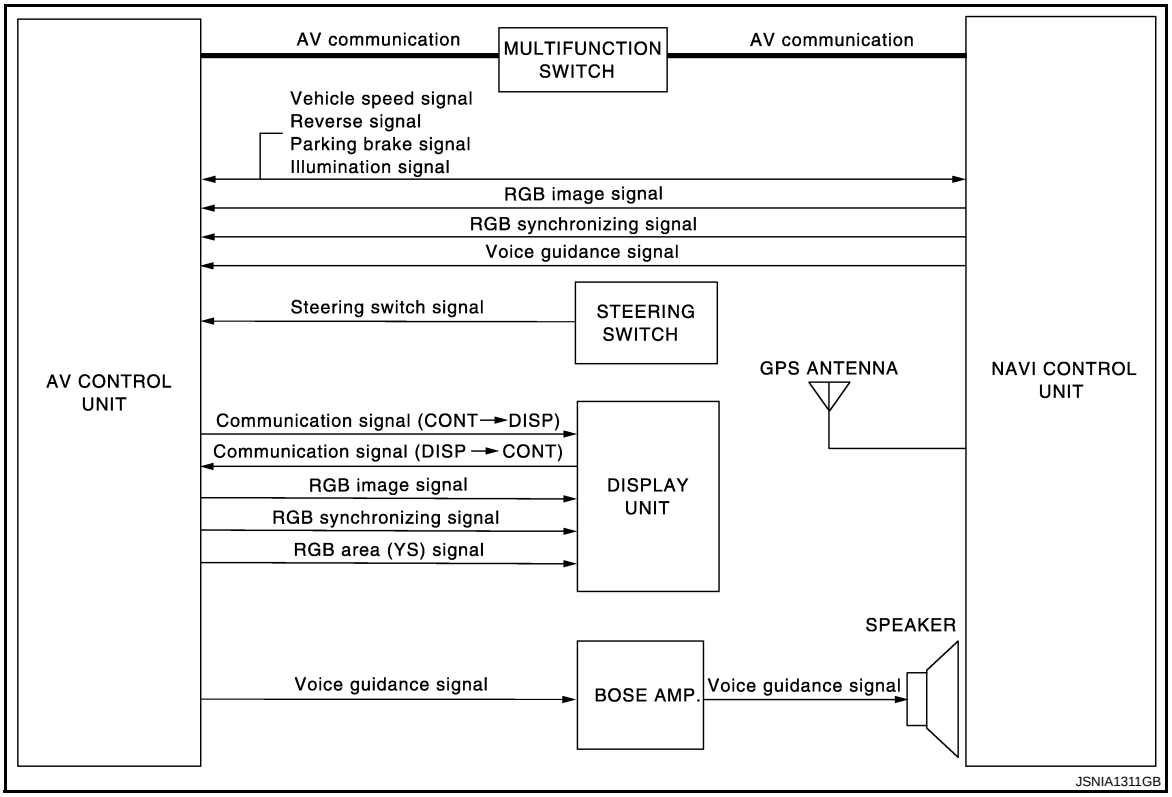
INFOID:0000000003765834

Part name	Description
AV CONTROL UNIT	• The AM/FM receiving function and the CD playing function are equipped. • Sound signal is transmitted to BOSE amp.
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 sound signal from AV control unit, and outputs sound signal to woofer and each speaker.
WOOFER	• Outputs sound signal from BOSE amp. • Outputs low frequency sound.
FRONT SPEAKER	• Outputs sound signal from BOSE amp. • Outputs sound (mid and low range).
REAR SPEAKER	• Outputs sound signal from BOSE amp. • Outputs sound (mid and low range).
FRONT SQUAWKER	• Outputs sound signal from BOSE amp. • Outputs sound (high and mid range).
REAR SQUAWKER	• Outputs sound signal from BOSE amp. • Outputs sound (high and mid range).
CENTER SPEAKER	• Outputs sound signal from BOSE amp. • Outputs sound (high and mid range).
MULTIFUNCTION SWITCH	• Each audio operation can be operated. • The multifunction switch is connected to the preset switch by wiring harness, and it transmits the operation signal to the preset switch.
PRESET SWITCH	• Each audio operation can be operated. • The preset switch is connected via AV communication, and it transmits the operation signals of the preset switch and multifunction switch. • The disk ejection operating signal is performed by hard-wire.
STEERING SWITCH	• Each audio operation can be operated. • Steering switch signal (operation signal) is output to AV control unit.
REAR CONTROL SWITCH	• Each audio operation can be operated. • The rear control switch is connected via AV communication, and it transmits the operation signals of the rear control switch.
ANTENNA AMP.	• Radio signal received by glass antenna is amplified and transmitted to AV control unit. • Power (antenna amp. ON signal) is supplied from AV control unit.

NAVIGATION SYSTEM

System Diagram

INFOID:0000000003765835



System Description

INFOID:0000000003765836

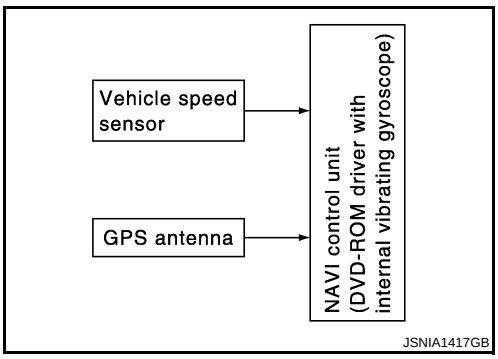
DESCRIPTION

- The navigation system can be operated by display (touch panel), multifunction switch or steering switch. Each operation signal is input to AV control unit. AV control unit communicates with NAVI control unit via AV communication, and controls the navigation system.
- Guide sound during the operation of the navigation system is output from NAVI control unit to front speaker through AV control unit and BOSE amp.
- NAVI control unit calculates the vehicle location based on the signals from GYRO (angle speed sensor), vehicle sensor, and GPS satellite, as well as the map data from Map DVD-ROM. It transmits the map image signal (RGB image, RGB area, and the synchronizing RGB image) to display through AV control unit.

POSITION DETECTION PRINCIPLE

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

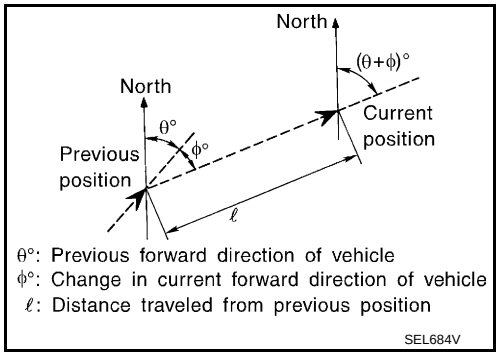
- Travel distance of the vehicle as determined by the vehicle speed sensor
- Turning angle of the vehicle as determined by the gyroscope (angular velocity sensor)
- Direction of vehicle travel as determined by the GPS antenna (GPS information)



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

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

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



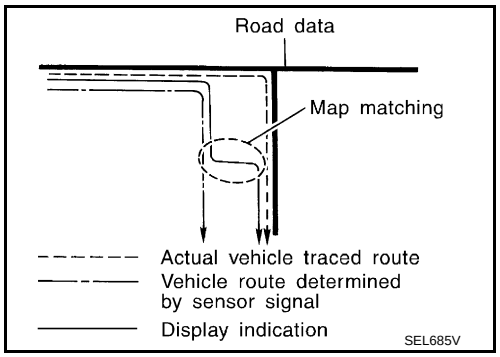
Type	Advantage	Disadvantage
Gyroscope (angular velocity sensor)	Can detect the vehicle's turning angle quite accurately.	Direction errors may accumulate when vehicle is driven for long distances without stopping.
GPS antenna (GPS information)	Can detect the vehicle's travel direction (North/South/East/West).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

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

MAP-MATCHING

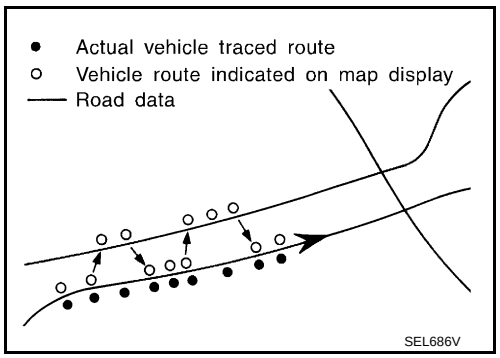
Map-matching compares a current location detected by the method in the “Location Detection Principle” with a road map data from Map DVD-ROM stored in DVD-ROM drive.

NOTE:
The road map data is based on data stored in the map DVD-ROM.

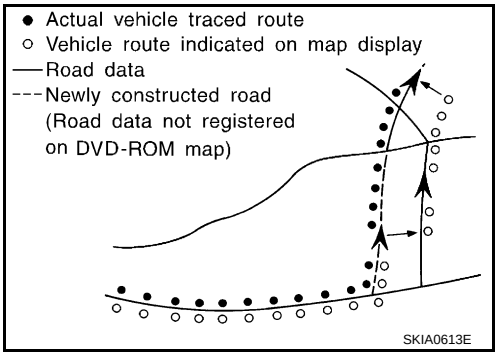


The vehicle position may not be corrected under the following circumstances and after driving for a certain time when GPS information is difficult to receive. In this case, the vehicle mark on the display must be corrected manually.

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



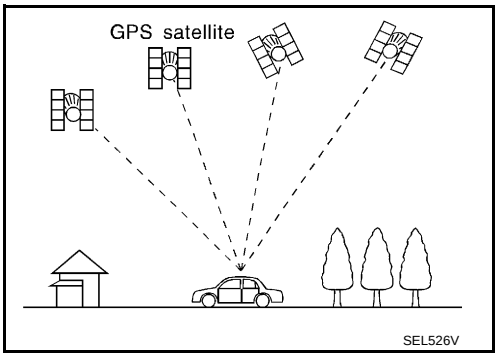
- Map-matching does not function correctly when a road on which the vehicle is driving is new and not recorded in the map DVD-ROM, or when road pattern stored in the map data and the actual road pattern are different due to repair.
  The map-matching function may find another road and position the vehicle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



GPS (GLOBAL POSITIONING SYSTEM)

GPS (Global Positioning System) was 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 (13,100miles).

The GPS receiver calculates the vehicle's position in three dimensions (latitude/longitude/altitude) according to the time lag of the radio waves received from four or more GPS satellites (three-dimensional positioning). The GPS receiver calculates the vehicle's position in two dimensions (latitude/longitude), utilizing the altitude data calculated previously with radio waves from four or more GPS satellites (two-dimensional positioning) if radio waves were received only from three GPS satellites.



Position correction by GPS is not available while the vehicle is stopped.

Accuracy of GPS will deteriorate under the following conditions:

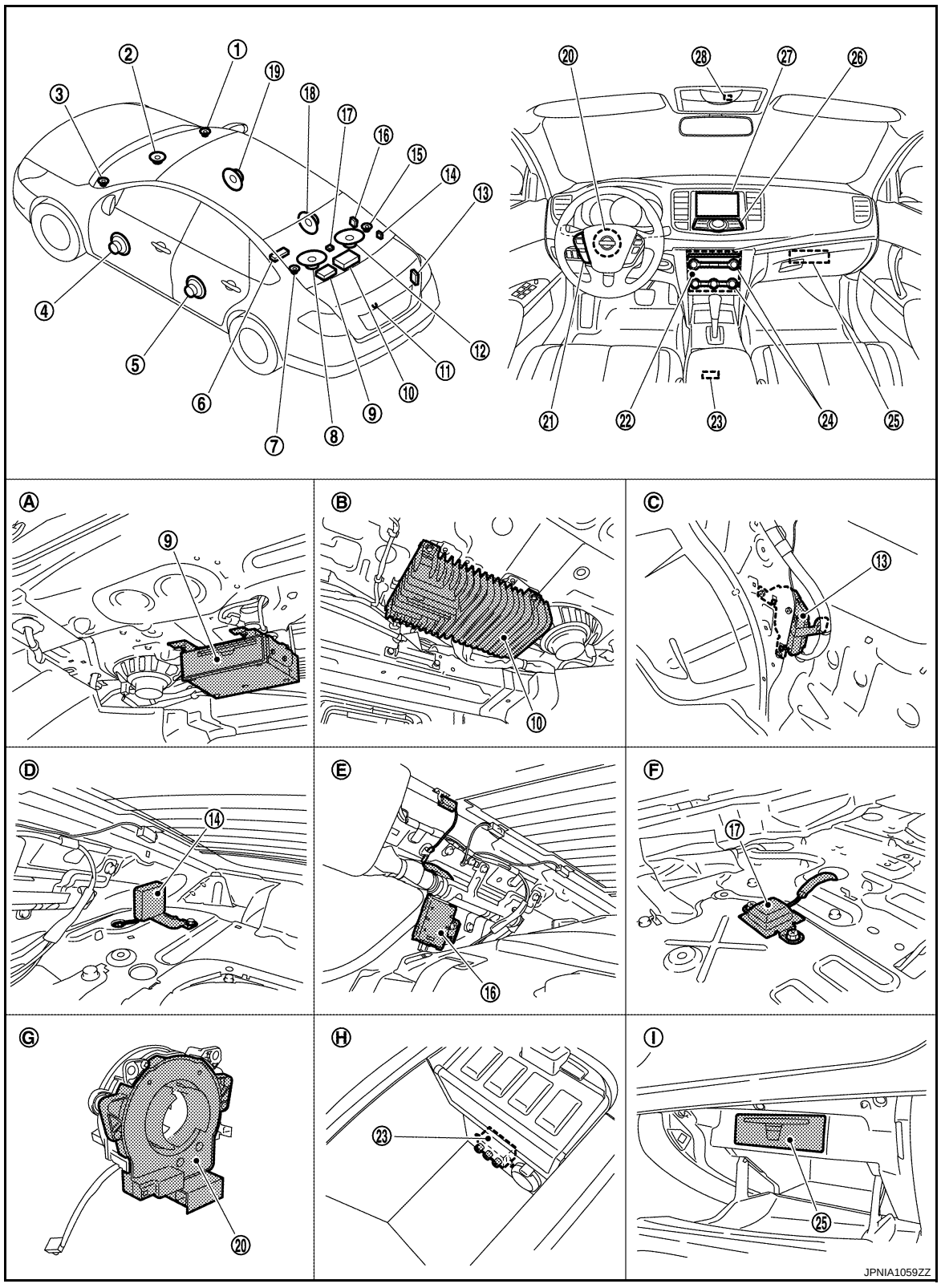
- In two-dimensional positioning, GPS accuracy will deteriorate when altitude of the vehicle position changes.
- The accuracy can be even lower depending on the arrangement of the GPS satellites utilized for the positioning.
- Position detection is not possible when vehicle is in an area where radio waves from the GPS satellite do not reach, such as in a tunnel, parking lot in a building, and under an elevated highway. Radio waves from the GPS satellites may not be received when some object is located over the GPS antenna.

NOTE:

- Even a high-precision three dimensional positioning, the detection result has an error about 10 m (30ft).
- Because the signals of GPS satellite is controlled by the Tracking and Control Center in the United States, the accuracy may be degraded lower intentionally or the radio waves may stop.

Component Parts Location

INFOID:0000000003777930



1. Front squawker RH
2. Center speaker
3. Front squawker LH
4. Front door speaker LH
5. Rear door speaker LH
6. Rear control switch
7. Rear squawker LH
8. Woofer LH
9. NAVI control unit
10. BOSE amp.
11. Rear view camera
12. Woofer RH

13. Camera control unit
14. TEL antenna
15. Rear squawker RH
16. Antenna amp.
17. GPS antenna
18. Rear door speaker RH
19. Front door speaker RH
20. Steering angle sensor
21. Steering switch
22. AV control unit
23. Auxiliary input jacks
24. Preset switch
25. DVD player
26. Multifunction switch
27. Display unit
28. Microphone

A. Trunk room upper LH
B. Trunk room upper RH
C. Trunk room side RH
D. Within rear pillar finisher RH
E. Within rear pillar finisher RH
F. Within rear parcel shelf finisher
G. Spiral cable part
H. In center console
I. In grove box

Component Description

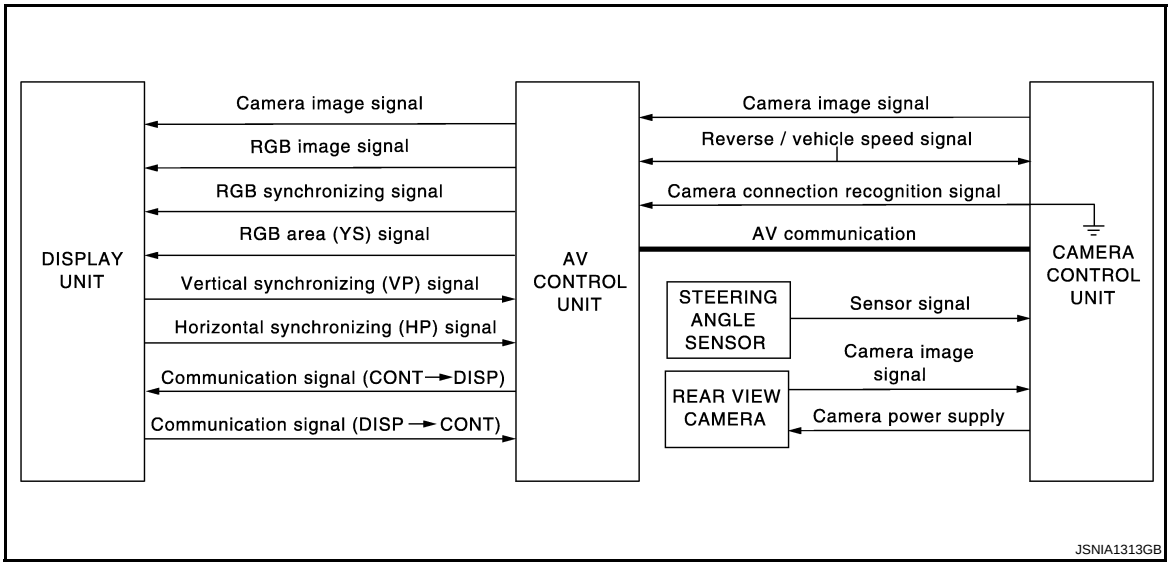
INFOID:0000000003765838

Part name	Description
AV CONTROL UNIT	• It is the master unit that controls each operation of the Navigation system. • The RGB signal (map information) is output to the display unit. • The voice guidance signal is output to the BOSE amp.
NAVI CONTROL UNIT	• Map data can be read from the Map DVD-ROM by installing Map DVD-ROM. • NAVI control unit sends map data to AV control unit. • The voice guidance signal is output to the AV control unit.
Map DVD-ROM	A collection of map data.
DISPLAY UNIT	• Map image signal is input from NAVI control unit via AV control unit. • 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 SPEAKER	Voice guidance signal from BOSE amp. is output.
FRONT SQUAWKER	
MULTIFUNCTION SWITCH	• Each operation of navigation can be performed. • The multifunction switch is connected to the preset switch by wiring harness, and it transmits the operation signal to the preset switch.
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 NAVI control unit.

REAR VIEW MONITOR SYSTEM

System Diagram

INFOID:0000000003775050



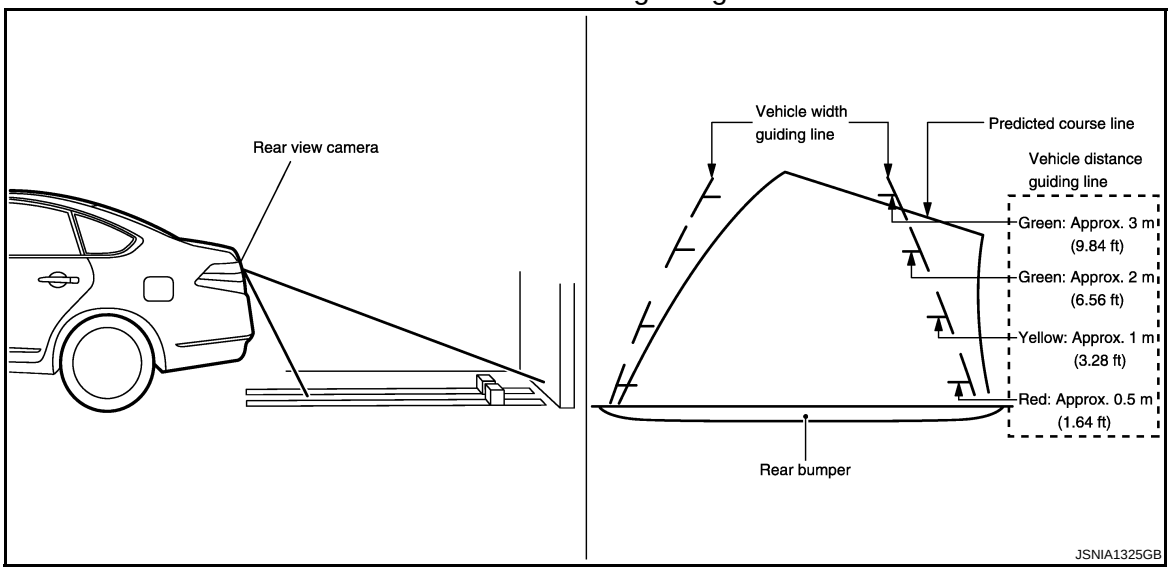
System Description

INFOID:0000000003775051

CAMERA IMAGE OPERATION PRINCIPLE

- Power is supplied to rear view camera from camera control unit and the rear view camera outputs the camera image to camera control unit when selector lever is set to reverse position and the reverse signal on camera control unit is input.
- Camera control unit superimposes the guiding line and predicted course line to the image from rear view camera and outputs to display unit. In this case, the reverse signal is also input to AV control unit. Therefore, AV control unit recognizes the selector lever as in the reverse position. And then AV control unit switches the image displayed by the communication signal between AV control unit and display unit with the camera image.
- AV control unit outputs camera image signal that is inputted from camera control unit to display unit.
- Camera control unit controls the direction and distance of predicted course line according to the sensor signal from steering angle sensor.
- 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 rear view camera is equipped.

Rear view monitor guiding line



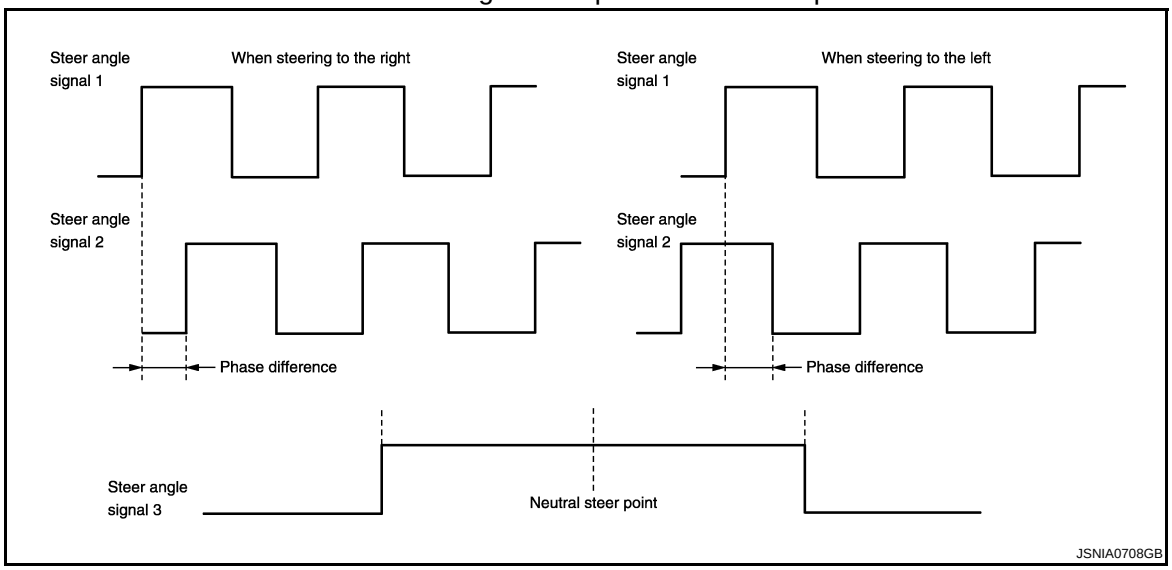
PREDICTED COURSE LINE OPERATION PRINCIPLE

Detection Of Steering Rotation Direction

Camera control unit detects the rotation direction of steering according to the phase difference of two pairs of pulse signals (sensor signal 1 and sensor signal 2) input from steering angle sensor.

Detection Of Steering Neutral Position

The sensor signal 3 input from steering angle sensor is generated at 1 pulse per 1 rotation of the steering wheel. Camera control unit detects the steering neutral position from this pulse.

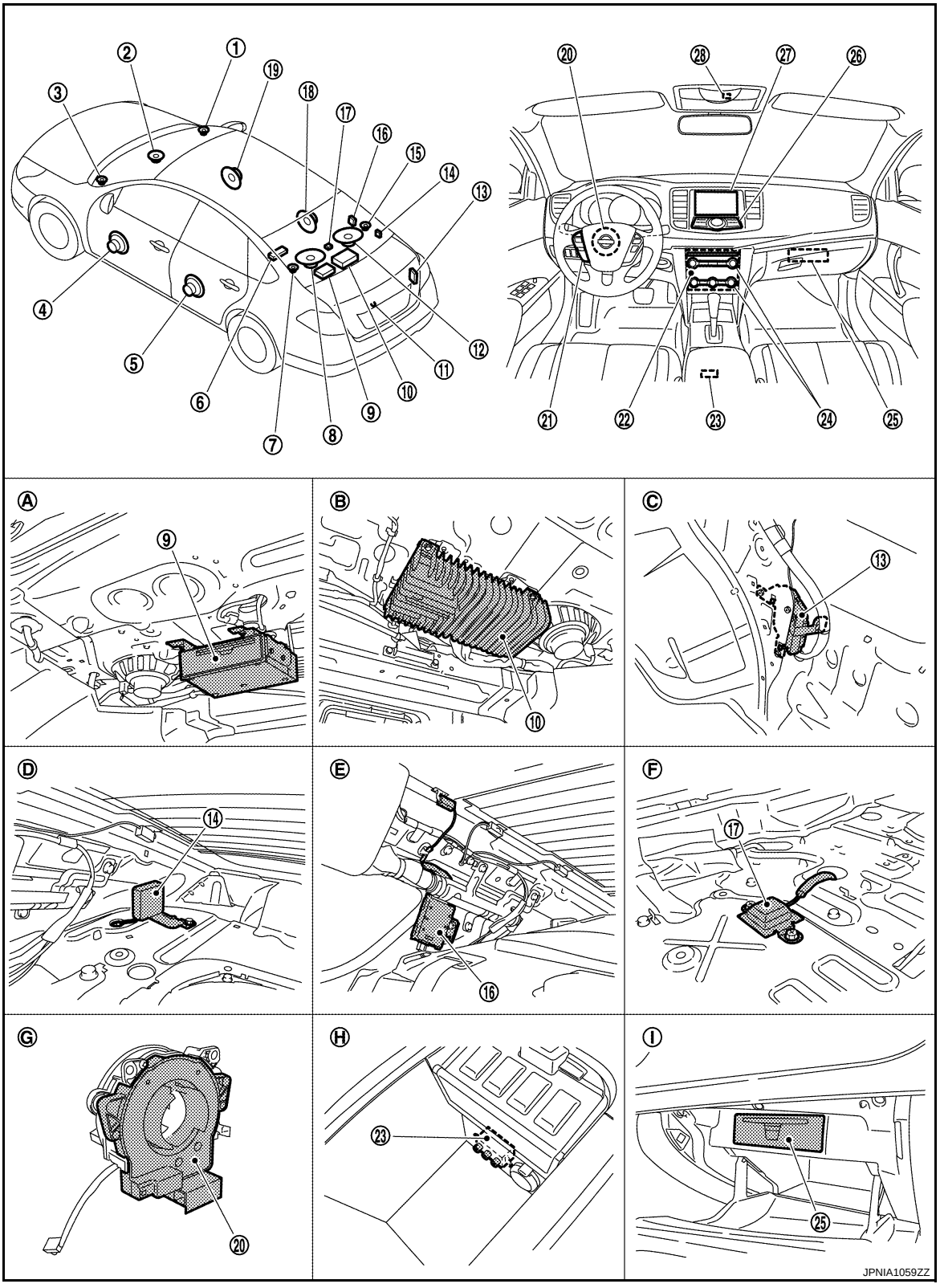


Correction Of Steering Neutral Position

Camera control unit corrects the steering neutral position during driving according to the vehicle speed signal and sensor signal.

Component Parts Location

INFOID:0000000003777941



1. Front squawker RH
2. Center speaker
3. Front squawker LH
4. Front door speaker LH
5. Rear door speaker LH
6. Rear control switch
7. Rear squawker LH
8. Woofer LH
9. NAVI control unit
10. BOSE amp.
11. Rear view camera
12. Woofer RH

13. Camera control unit
14. TEL antenna
15. Rear squawker RH
16. Antenna amp.
17. GPS antenna
18. Rear door speaker RH
19. Front door speaker RH
20. Steering angle sensor
21. Steering switch
22. AV control unit
23. Auxiliary input jacks
24. Preset switch
25. DVD player
26. Multifunction switch
27. Display unit
28. Microphone

A. Trunk room upper LH
B. Trunk room upper RH
C. Trunk room side RH
D. Within rear pillar finisher RH
E. Within rear pillar finisher RH
F. Within rear parcel shelf finisher
G. Spiral cable part
H. In center console
I. In grove box

Component Description

INFOID:0000000003775053

Part name	Description
AV CONTROL UNIT	• Image on display is transmitted to rear view monitor image by serial communication between AV control unit and display unit. • AV control unit recognizes the presence of camera system with camera connection recognition signal.
DISPLAY UNIT	• Camera image signal is input from AV control unit. • Rear view monitor image is changed by serial communication from AV control unit.
CAMERA CONTROL UNIT	• Camera image signal is input from rear view camera. Camera image signal is output to AV control unit. • Power supply is transmitted to rear view camera. • Superimposes the guiding line and predicted course line to the camera image that outputs to AV control unit. • Inputs the sensor signal from steering angle sensor, and then controls the predicted course line. • Camera control unit is connected via AV communication.
REAR VIEW CAMERA	• The image of vehicle rear view is transmitted to camera control unit. • It receives power supply from camera control unit and operates.
STEERING ANGLE SENSOR	Steering signal necessary for predicted course line control is transmitted to camera control unit.

DIAGNOSIS SYSTEM (AV CONTROL UNIT)

Diagnosis Description

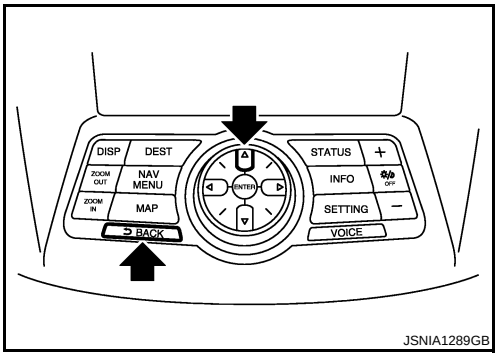
INFOID:0000000003765847

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.
  NOTE:
  The hazard switch and disk 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.
- The self-diagnosis mode performs diagnoses on the AV control unit and NAVI control unit, connections between system components as well as connections between NAVI control unit and GPS antenna and between NAVI control unit and TEL 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

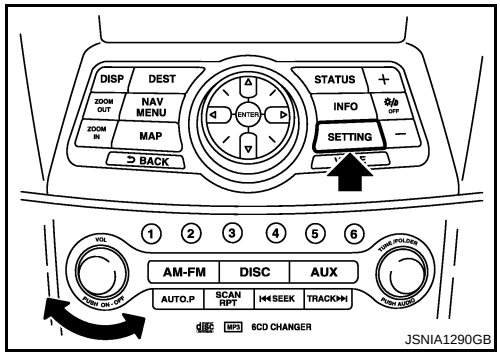
Mode	Description
Self Diagnosis	• AV control unit diagnosis. • NAVI control unit diagnosis. • Diagnoses the connections across system components, between NAVI control unit and GPS antenna and between NAVI control unit and TEL antenna.

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.
	Navigation/Phone	Handsfree Voice Microphone Test	Microphone speaker check can be performed.
		Color Spectrum Bar	A color tone can be checked by the color bar display.
		Gradation Bar	A light and shade can be checked by the gray scale display.
		Touch Panel	Touch panel response check can be performed.
		Vehicle Signals	Diagnosis of signals can be performed for vehicle speed, parking brake, lights, and reverse.
		Confirm/Change Bluetooth Passkey	The passkey can be checked and changed.
		Confirm/Change Bluetooth Device Name	The device name can be checked and changed.
		Handsfree Sound Quality Set	Not available.
	Speaker Test		The connection of a speaker can be confirmed by test tone.
	Climate Control*		Not used.
	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.
	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.
	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.

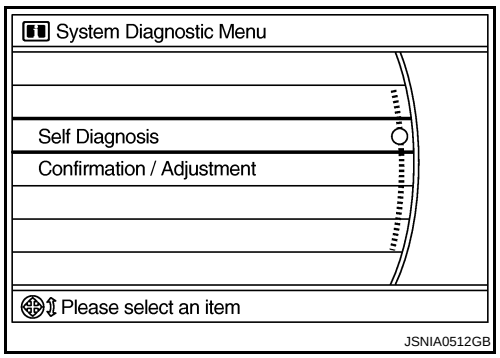
NOTE:
*: On-board self-diagnosis is not supported. Only CONSULT-III is supported.

STARTING PROCEDURE

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



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



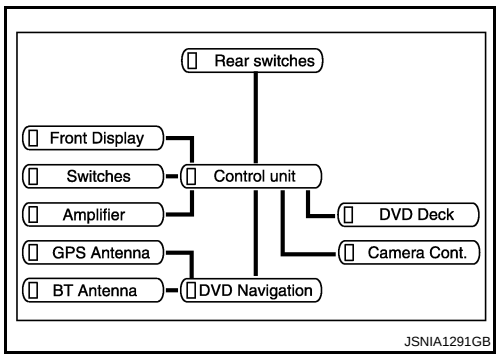
SELF-DIAGNOSIS MODE

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.

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

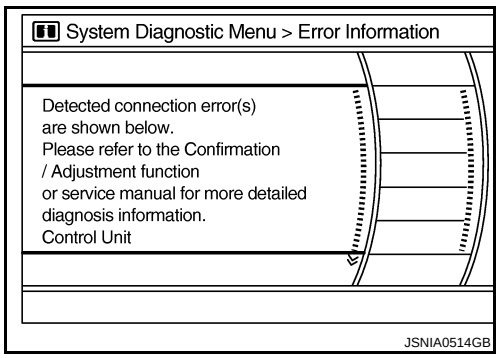
Diagnosis results	Unit	Connection line
Normal	Green	Green
Connection malfunction	Gray	Yellow
Unit malfunction Note	Red	Green



NOTE:

- In case of connection malfunction of GPS or TEL antenna, diagnosis result follows “unit malfunction” way to display.
- 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-648, "Exploded View".

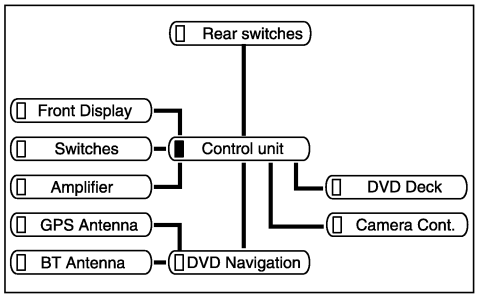
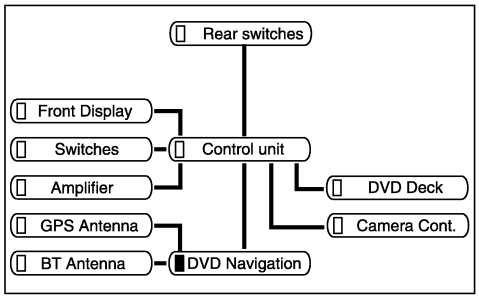
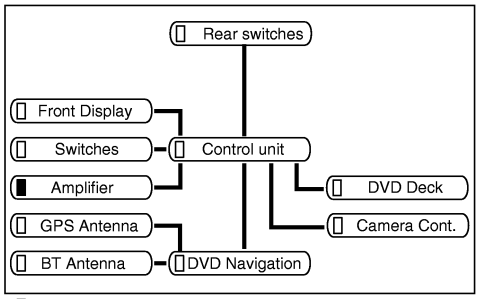
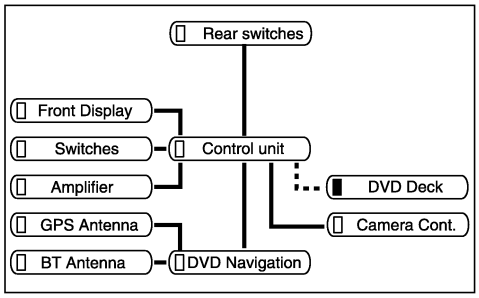
- The comments of the self-diagnosis results can be viewed with a component in the diagnosis result screen.

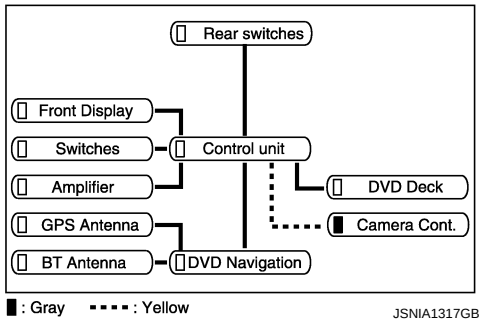
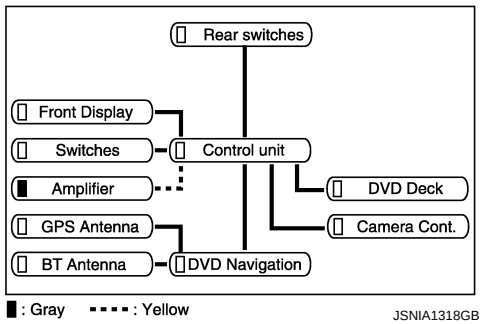
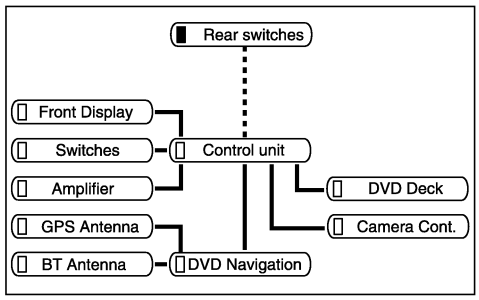
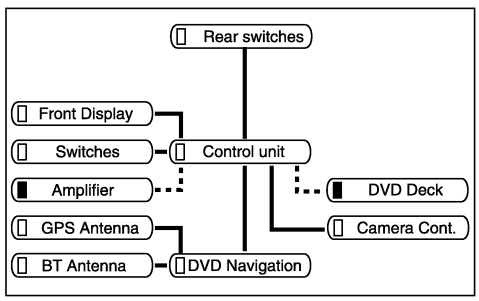


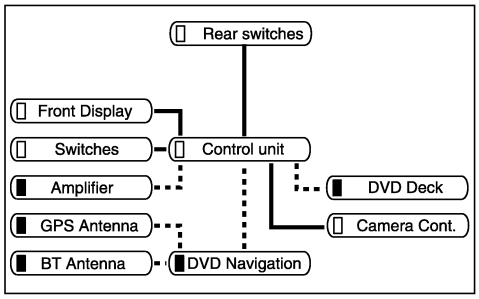
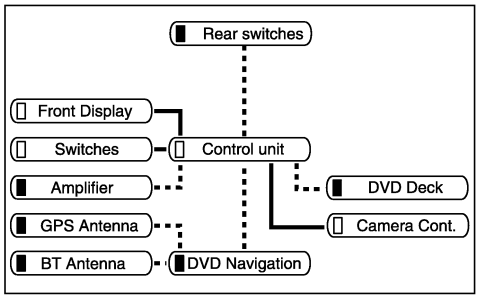
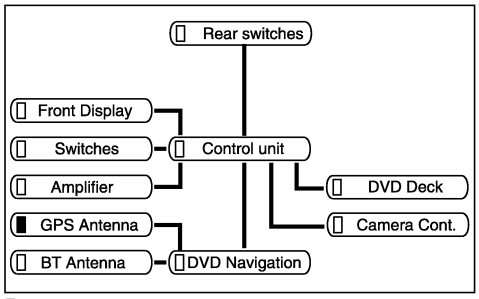
SELF-DIAGNOSIS RESULTS

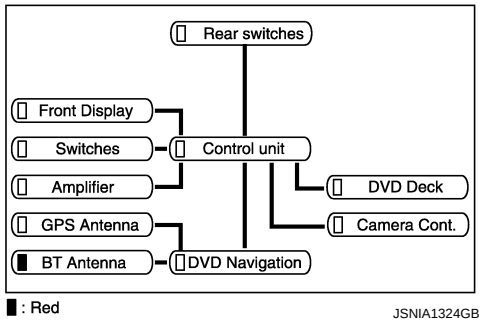
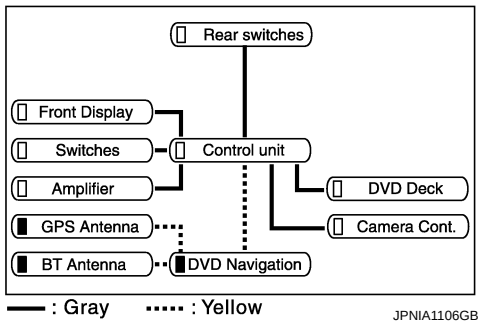
- Check the applicable display at the following table, and then repair the malfunctioning parts.
- The self-diagnosis mode allows the technician to diagnose the connection in the communication line between AV control unit and each unit and the internal operation of the AV control unit.
- Because the 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 Result Chart

Area with yellow connection lines	Description	Possible malfunction location / Action to take
 : Red JSNIA1314GB **NOTE:** When a control unit malfunction is detected (red in unit display), connection malfunctions with other connection unit may be displayed. "Self-Diagnosis did not run because of a control unit malfunction"	Malfunction is detected in AV control unit power supply and ground circuits.	Check AV control unit power supply and ground circuits. When detecting no malfunction in those components, replace AV control unit.
 : Red JSNIA1315GB	NAVI control unit malfunction is detected.	Replace NAVI control unit.
 : Red JPNIA1091GB	When either one of the following items is detected: • BOSE amp. malfunction is detected. • sound signal circuits between BOSE amp. and each speaker is malfunctioning.	• Replace BOSE amp. • Malfunctioning speaker circuits
 : Gray : Yellow JSNIA1316GB	When either one of the following items is detected: • DVD player power supply and ground circuits are malfunctioning. • AV communication circuits between BOSE amp. and DVD player are malfunctioning. • AV communication signal between AV control unit and DVD player is malfunctioning.	• DVD player power supply and ground circuits • AV communication circuits between BOSE amp. and DVD player

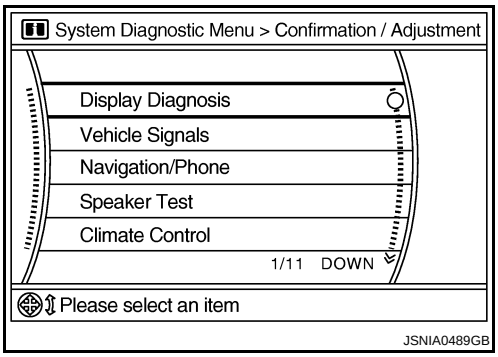
Area with yellow connection lines	Description	Possible malfunction location / Action to take
 JSNIA1317GB	Camera connection recognition signal circuit is detected.	Camera connection recognition signal circuit
 JSNIA1318GB	When either one of the following items is detected: • BOSE amp. power supply and ground circuits are malfunctioning. • AV communication signal between AV control unit and BOSE amp. is malfunctioning.	BOSE amp. power supply and ground circuits
 JSNIA1319GB	When either one of the following items is detected: • rear control switch power supply and ground circuits are malfunctioning. • AV communication signal between AV control unit and rear control switch is malfunctioning.	Rear control switch power supply and ground circuits
 JSNIA1320GB	Malfunction is detected in AV communication circuits between NAVI control unit and BOSE amp.	AV communication circuits between NAVI control unit and BOSE amp.

Area with yellow connection lines	Description	Possible malfunction location / Action to take
 JSNIA1321GB	With rear control switch When either one of the following items is detected: • malfunction is detected in AV communication circuits between rear control switch and camera control unit. • malfunction is detected in AV communication circuits between camera control unit and NAVI control unit.	• AV communication circuits between rear control switch and camera control unit • AV communication circuits between camera control unit and NAVI control unit
	Without rear control switch When either one of the following items is detected: • malfunction is detected in AV communication circuits between multifunction switch and camera control unit. • malfunction is detected in AV communication circuits between camera control unit and NAVI control unit.	• AV communication circuits between multifunction switch and camera control unit • AV communication circuits between camera control unit and NAVI control unit
 JSNIA1322GB	Malfunction is detected in AV communication circuits between multifunction switch and rear control switch.	AV communication circuits between multifunction switch and rear control switch
 JSNIA1323GB	GPS antenna connection malfunction is detected.	Replace GPS antenna.

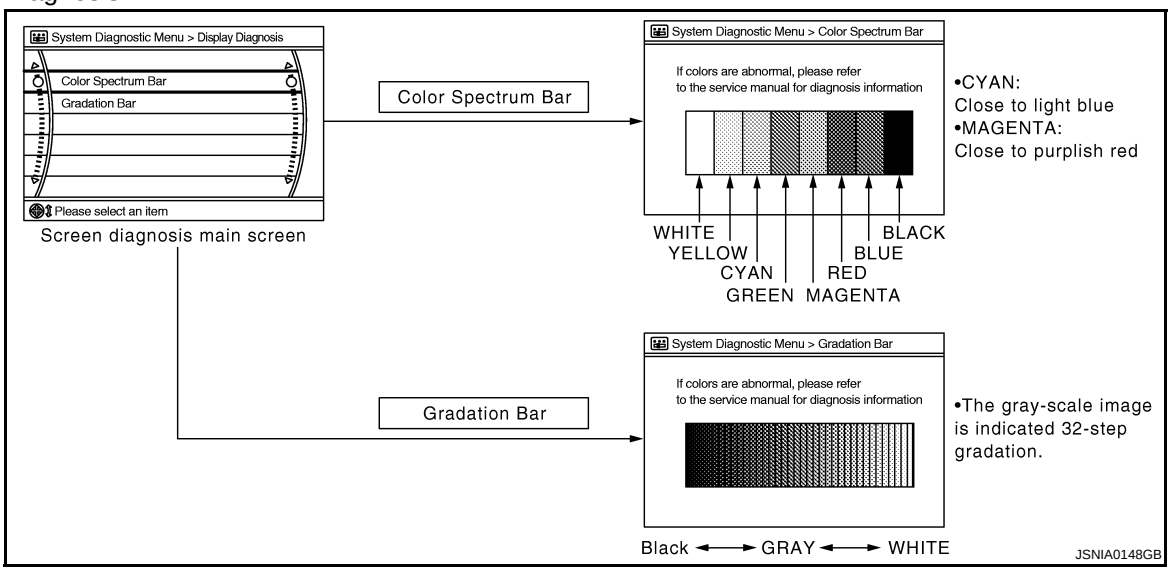
Area with yellow connection lines	Description	Possible malfunction location / Action to take
	TEL antenna connection malfunction is detected.	Replace TEL antenna.
	NAVI control unit power supply and ground circuits are malfunctioning.	NAVI control unit power supply and ground circuits.

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.



Display Diagnosis

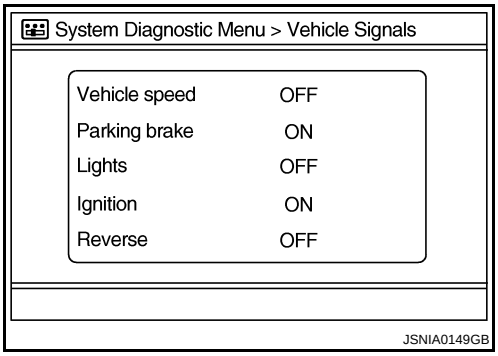


The tint of the color bar indication is as per the following list if RGB signal error is detected.

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 AV control unit.

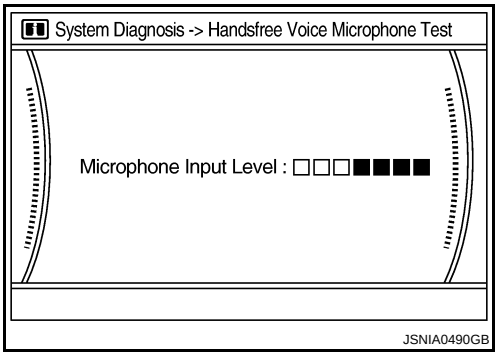


Diagnosis item	Display	Vehicle status	Remarks
Vehicle speed	ON	Vehicle speed > 0 km/h (0 MPH)	Changes in indication may be delayed. This is normal.
		Vehicle speed = 0 km/h (0 MPH)	
Parking brake	ON	Parking brake is applied.	
	OFF	Parking brake is released.	
Lights	ON	Light switch ON.	—
	OFF	Light switch 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. This is normal.
	OFF	Selector lever in any position other than R.	

Navigation/Phone

Handsfree Voice Microphone Test

- Microphone speaker check can be performed. A microphone input level is displayed.

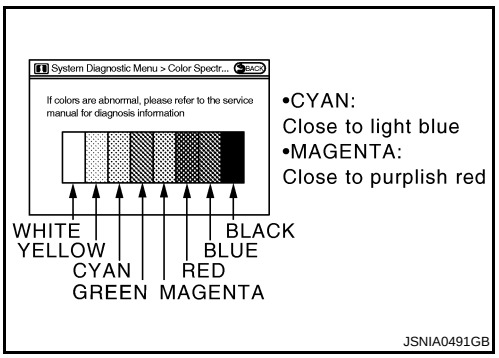


Color Spectrum Bar

- A color tone can be checked by the color bar display.

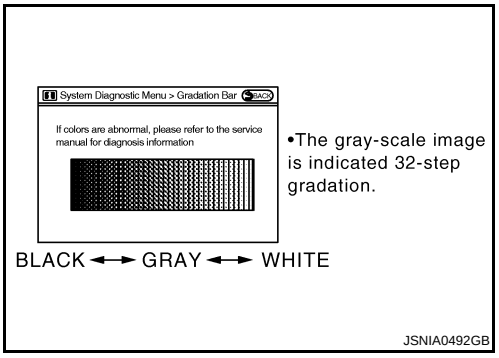
NOTE:
The tint of the color bar indication is as per the following list if RGB signal error is detected.

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



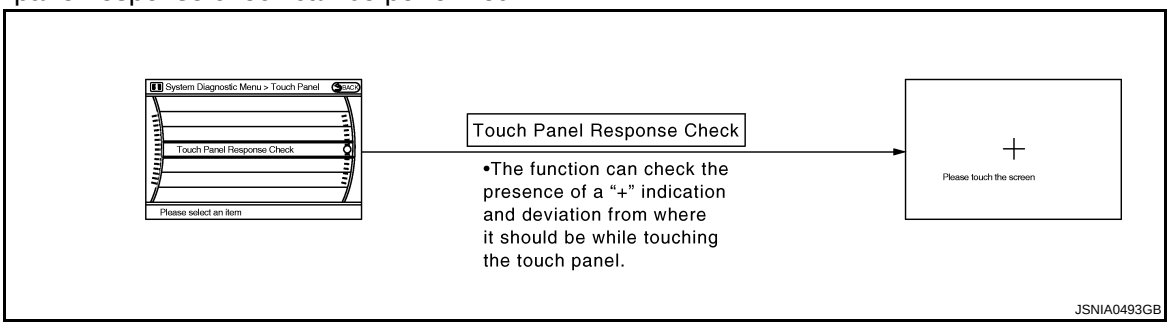
Gradation Bar

- A color tone can be checked by the color bar display.



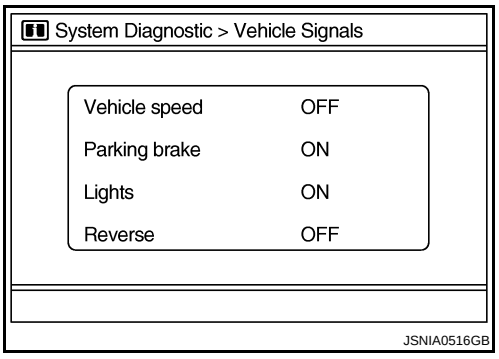
Touch Panel

- Touch panel response check can be performed.



Vehicle Signals

- A comparison check can be made of each actual vehicle signal and the signals recognized by the NAVI control unit.

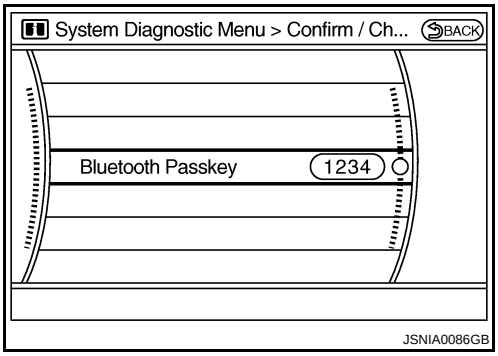


Diagnosis item	Display	Vehicle status	Remarks
Vehicle speed	ON	Vehicle speed > 0 km/h (0 MPH)	Changes in indication may be delayed. This is normal.
	OFF	Vehicle speed = 0 km/h (0 MPH)	
Parking brake	ON	Parking brake is applied.	
	OFF	Parking brake is released.	

Diagnosis item	Display	Vehicle status	Remarks
Lights	ON	Light switch ON.	—
	OFF	Light switch OFF.	
Reverse	ON	Selector lever in R position.	Changes in indication may be delayed. This is normal.
	OFF	Selector lever in any position other than R.	

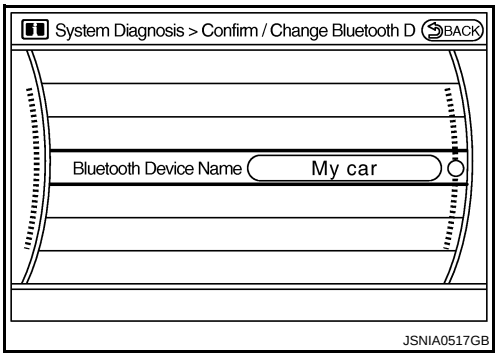
Confirm/Change Bluetooth Passkey

- The passkey of Bluetooth can be confirmed and changed.
- The passkey can be changed by four to eight digits within the number of 0 to 9.



Confirm/Change Bluetooth Device Name

- The device name of Bluetooth can be confirmed and changed.
- The device name can be changed within the range of twenty digits of alphabets and codes.



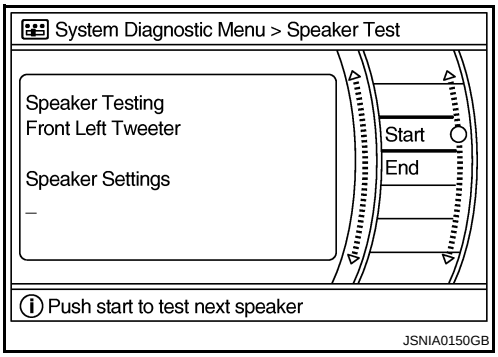
Speaker Test

Select “SPEAKER TEST” 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

On-board self-diagnosis is not supported. Only CONSULT-III is supported.

Refer to HAC-159, "WITH INTELLIGENT AIR CONDITIONER SYSTEM : CONSULT-III Function" 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 switch is turned ON and then no error has occurred until the self-diagnosis start. Check the “Error Record” to detect any error that may have occurred before the self-diagnosis start because of this situation.

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

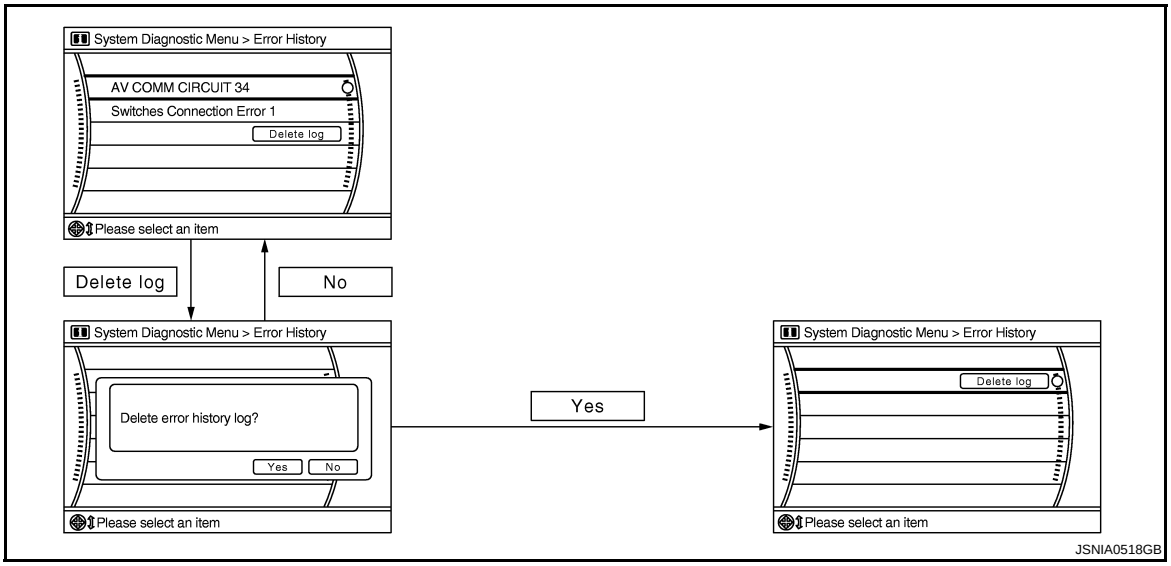
Count up method A

- 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



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.
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		
Amplifier Temperature Error	BOSE amp. malfunction is detected.	Replace the BOSE amp.
Front Display Connection Error	When either one of the following items is detected: • display unit power supply and ground circuits are malfunctioning. • serial communication circuits between display unit and AV control unit are malfunctioning. • serial communication signal between display unit and AV control unit is malfunctioning.	• Display unit power supply and ground circuits. • Serial communication circuits between display unit and AV control unit.

Error item	Description	Possible malfunction factor/Action to take
Camera Cont. Unit Connection Error	Camera connection recognition signal circuit is detected.	Camera connection recognition signal circuit.
Center speaker OUT: open	Sound signal center speaker circuit is open.	Check sound signal center speaker circuit.
Center speaker OUT: short	Sound signal center speaker circuit is shorted between center speaker signal (+) and center speaker signal (-).	Check sound signal center speaker circuit.
Center speaker OUT: short to ground	Sound signal center speaker circuit to ground is shorted.	Check sound signal center speaker circuit.
Center speaker OUT: short to battery	Sound signal center speaker circuit to battery is shorted.	Check sound signal center speaker circuit.
FR speaker OUT: open	Sound signal front speaker RH circuit is open.	Check sound signal front speaker RH circuit.
FR speaker OUT: short	Sound signal front speaker RH circuit is shorted between front speaker RH signal (+) and front speaker RH signal (-).	Check sound signal front speaker RH circuit.
FR speaker OUT: short to ground	Sound signal front speaker RH circuit to ground is shorted.	Check sound signal front speaker RH circuit.
FR speaker OUT: short to battery	Sound signal front speaker RH circuit to battery is shorted.	Check sound signal front speaker RH circuit.
RR speaker OUT: open	Sound signal rear speaker RH circuit is open.	Check sound signal rear speaker RH circuit.
RR speaker OUT: short	Sound signal rear speaker RH circuit is shorted between rear speaker LH signal (+) and rear speaker LH signal (-).	Check sound signal rear speaker RH circuit.
RR speaker OUT: short to ground	Sound signal rear speaker RH circuit to ground is shorted.	Check sound signal rear speaker RH circuit.
RR speaker OUT: short to battery	Sound signal rear speaker RH circuit to battery is shorted.	Check sound signal rear speaker RH circuit.
RR Woofer OUT: open	Sound signal woofer RH circuit is open.	Check sound signal woofer RH circuit.
RR Woofer OUT: short	Sound signal woofer RH circuit is shorted between woofer RH signal (+) and woofer RH signal (-).	Check sound signal woofer RH circuit.
RR Woofer OUT: short to ground	Sound signal woofer RH circuit to ground is shorted.	Check sound signal woofer RH circuit.
RR Woofer OUT: short to battery	Sound signal woofer RH circuit to battery is shorted.	Check sound signal woofer RH circuit.
RL Woofer OUT: open	Sound signal woofer LH circuit is open.	Check sound signal woofer LH circuit.
RL Woofer OUT: short	Sound signal woofer LH circuit is shorted between woofer LH signal (+) and woofer LH signal (-).	Check sound signal woofer LH circuit.
RL Woofer OUT: short to ground	Sound signal woofer LH circuit to ground is shorted.	Check sound signal woofer LH circuit.
RL Woofer OUT: short to battery	Sound signal woofer LH circuit to battery is shorted.	Check sound signal woofer LH circuit.
RL speaker OUT: open	Sound signal rear speaker LH circuit is open.	Check sound signal rear speaker LH circuit.
RL speaker OUT: short	Sound signal rear speaker LH circuit is shorted between rear speaker LH signal (+) and rear speaker LH signal (-).	Check sound signal rear speaker LH circuit.
RL speaker OUT: short to ground	Sound signal rear speaker LH circuit to ground is shorted.	Check sound signal rear speaker LH circuit.
RL speaker OUT: short to battery	Sound signal rear speaker LH circuit to battery is shorted.	Check sound signal rear speaker LH circuit.

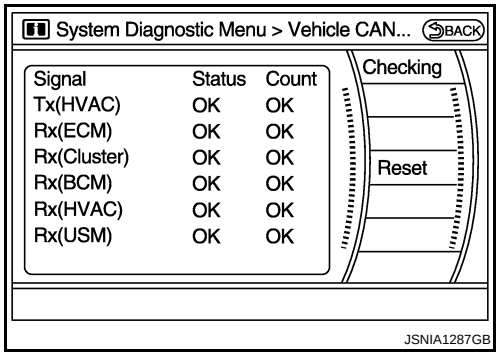
Error item	Description	Possible malfunction factor/Action to take
FL speaker OUT: open	Sound signal front speaker LH circuit is open.	Check sound signal front speaker LH circuit.
FL speaker OUT: short	Sound signal front speaker LH circuit is shorted between front speaker LH signal (+) and front speaker LH signal (-).	Check sound signal front speaker LH circuit.
FL speaker OUT: short to ground	Sound signal front speaker LH circuit to ground is shorted.	Check sound signal front speaker LH circuit.
FL speaker OUT: short to battery	Sound signal front speaker LH circuit to battery is shorted.	Check sound signal front speaker LH circuit.
FL tweeter OUT: open	Sound signal front squawker LH circuit is open.	Check sound signal front squawker LH circuit.
FL tweeter OUT: short	Sound signal front squawker LH circuit is shorted between front squawker LH signal (+) and front squawker LH signal (-).	Check sound signal front squawker LH circuit.
FL tweeter OUT: short to ground	Sound signal front squawker LH circuit to ground is shorted.	Check sound signal front squawker LH circuit.
FL tweeter OUT: short to battery	Sound signal front squawker LH circuit to battery is shorted.	Check sound signal front squawker LH circuit.
FR tweeter OUT: open	Sound signal front squawker RH circuit is open.	Check sound signal front squawker RH circuit.
FR tweeter OUT: short	Sound signal front squawker RH circuit is shorted between front squawker RH signal (+) and front squawker RH signal (-).	Check sound signal front squawker RH circuit.
FR tweeter OUT: short to ground	Sound signal front squawker RH circuit to ground is shorted.	Check sound signal front squawker RH circuit.
FR tweeter OUT: short to battery	Sound signal front squawker RH circuit to battery is shorted.	Check sound signal front squawker RH circuit.
GPS Antenna Error	GPS antenna connection malfunction is detected.	Replace the GPS antenna.
DVD Navi Internal Error	NAVI control unit malfunction is detected.	Replace the NAVI control unit.
Bluetooth module Error	TEL antenna connection malfunction is detected.	TEL antenna.
AV COMM CIRCUIT	Rear control switch power supply and ground circuits malfunction are detected.	Rear control switch power supply and ground circuits.
• AV COMM CIRCUIT • Switches Connection Error	When either one of the following items is detected: • multifunction switch power supply and ground circuits are malfunctioning. • AV communication circuits between AV control unit and multifunction switch are malfunctioning. • AV communication signal between AV control unit and multifunction switch is malfunctioning.	• Multifunction switch power supply and ground circuits. • AV communication circuits between AV control unit and multifunction switch.
• AV COMM CIRCUIT • DVD Navi Unit Connection Error	NAVI control unit power supply and ground circuits are malfunctioning.	NAVI control unit power supply and ground circuits.
• AV COMM CIRCUIT • Amplifier Connection Error	When either one of the following items is detected: • BOSE amp. power supply and ground circuits are malfunctioning. • AV communication signal between AV control unit and BOSE amp is malfunctioning.	BOSE amp. power supply and ground circuits.

Error item	Description	Possible malfunction factor/Action to take
• AV COMM CIRCUIT • Rear view Camera connection Error	When either one of the following items is detected: • camera control unit power supply and ground circuits are malfunctioning. • AV communication signal between AV control unit and camera control unit is malfunctioning.	Camera control unit power supply and ground circuits.
• AV COMM CIRCUIT • DVD Deck Connection Error	When either one of the following items is detected: • DVD player power supply and ground circuits are malfunctioning. • AV communication circuits between BOSE amp. and DVD player are malfunctioning. • AV communication signal between AV control unit and DVD player is malfunctioning.	• DVD player power supply and ground circuits. • AV communication circuits between BOSE amp. and DVD player.
• AV COMM CIRCUIT • DVD Deck Connection Error • Amplifier Connection Error	When either one of the following items is detected: • AV communication circuits between NAVI control unit and BOSE amp. are malfunctioning. • AV communication signal between AV control unit and BOSE amp. is malfunctioning.	AV communication circuits between NAVI control unit and BOSE amp.
• AV COMM CIRCUIT • DVD Deck Connection Error • Amplifier Connection Error • DVD Navi Unit Connection Error	When either one of the following items is detected: • AV communication circuits between camera control unit and NAVI control unit are malfunctioning. • AV communication signal between AV control unit and NAVI control unit is malfunctioning.	AV communication circuits between camera control unit and NAVI control unit.
• AV COMM CIRCUIT • DVD Deck Connection Error • Amplifier Connection Error • Rear view Camera connection Error • DVD Navi Unit Connection Error	With rear control switch When either one of the following items is detected: • malfunction is detected in AV communication circuits between rear control switch and camera control unit. • malfunction is detected in AV communication circuits between camera control unit and NAVI control unit.	• AV communication circuits between multifunction switch and rear control switch. • AV communication circuits between rear control switch and camera control unit.
	Without rear control switch When either one of the following items is detected: • malfunction is detected in AV communication circuits between multifunction switch and camera control unit. • malfunction is detected in AV communication circuits between camera control unit and NAVI control unit.	AV communication circuits between multifunction switch and camera control unit.
• AV COMM CIRCUIT • Switches Connection Error • DVD Deck Connection Error • Amplifier Connection Error • DVD Navi Unit Connection Error • Rear view Camera connection Error	When either one of the following items is detected: • AV communication circuits between AV control unit and multifunction switch are malfunctioning. • AV communication signal between AV control unit and multifunction switch are malfunctioning.	AV communication circuits between AV control unit and multifunction switch.

Camera Cont.
Refer to AV-419, "Diagnosis Description".

Vehicle CAN Diagnosis

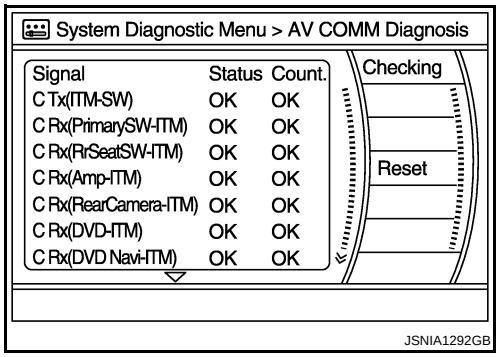
- CAN communication status and error counter is displayed.
- The error counter displays “OK” if any malfunction was not detected in the past and displays “0” if a malfunction is detected. It increases by 1 if the condition is normal at the next ignition switch ON cycle. The upper limit of the counter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

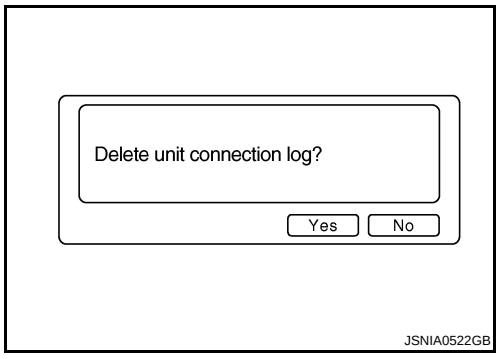
- Displays the communication status between AV control unit (master unit) and each unit.
- The error counter displays “OK” if any malfunction was not detected in the past and displays “0” if a malfunction is detected. It increases by 1 if the condition is normal at the next ignition switch ON cycle. 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(RrSeatSW–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(DVD–ITM)	OK / UNKWN	OK / 0 – 39
C Rx(DVDNavi–ITM)	OK / UNKWN	OK / 0 – 39
C Rx(AmpAudio–ITM)	OK / UNKWN	OK / 0 – 39
C Rx(DVDAudio–ITM)	OK / UNKWN	OK / 0 – 39

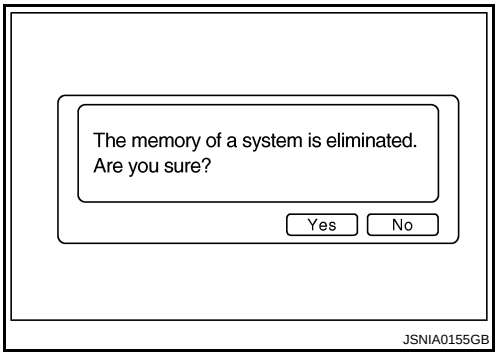
Delete Unit Connection Log

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 (MULTI AV)

INFOID:0000000003765848

CONSULT-III FUNCTIONS

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

CAUTION:

Be sure to turn the ignition switch OFF once after using CONSULT-III. (Navigation system may malfunction if normally used when the ignition switch is not turned OFF after using CONSULT-III.)

Diagnosis mode	Description
Ecu Identification	The part number of AV control unit can be checked.
Self Diagnostic Result	Performs a diagnosis on the AV control unit and a connection diagnosis for the communication circuit of the Multi AV system, and displays the current and past malfunctions collectively.
Data Monitor	The diagnosis of vehicle signal that is input to the AV control unit can be performed.

AV COMMUNICATION

When “AV communication” of “CAN Diag Support Monitor” is selected, the following function will be performed.

AV communication	AV&NAVI C/U	Displays the communication status from AV control unit to each unit as well as the error counter.
	AUDIO	Displays the AV control unit communication status and the error counter.

ECU IDENTIFICATION

The part number of AV control unit is displayed.

SELF DIAGNOSTIC RESULT

- In CONSULT-III self-diagnosis, self-diagnosis results and error history are displayed collectively.
- 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 Results Display Item

Error item	Detection logic	Possible malfunction factor/Action to take
CAN COMM CIRCUIT [U1000]	CAN communication malfunction is detected.	Refer to AV-440, "Diagnosis Procedure".
CONTROL UNIT (CAN) [U1010]	CAN initial diagnosis malfunction is detected.	Replace the AV control unit. Refer to AV-648, "Removal and Installation".
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]		
AMP TEMP [U1231]	BOSE amp. is detected.	Replace the BOSE amp. Refer to AV-657, "Removal and Installation".

Error item	Detection logic	Possible malfunction factor/Action to take
FRONT DISP CONN [U1243]	When either one of the following items is detected: • display unit power supply and ground circuits are malfunctioning. • serial communication circuits between display unit and AV control unit are malfunctioning. • serial communication signal between display unit and AV control unit is malfunctioning.	• Display unit power supply and ground circuits. Refer toAV-465, "DISPLAY UNIT : Diagnosis Procedure". • Serial communication circuits between display unit and AV control unit
CAMERA CONT. CONN [U1250]	Camera connection recognition signal circuit malfunction is detected.	Camera connection recognition signal circuit. Refer to AV-448, "Diagnosis Procedure".
CENTER SP OPEN [U1260]	Sound signal center speaker circuit is open.	Check sound signal center speaker circuit.
CENTER SP SHORT [U1261]	Sound signal center speaker circuit is shorted between center speaker signal (+) and center speaker signal (-).	Check sound signal center speaker circuit.
CENTER SP GND-SHORT [U1262]	Sound signal center speaker circuit to ground is shorted.	Check sound signal center speaker circuit.
CENTER SP VB-SHORT [U1263]	Sound signal center speaker circuit to battery is shorted.	Check sound signal center speaker circuit.
FR-DOOR SP OPEN [U1264]	Sound signal front speaker RH circuit is open.	Check sound signal front speaker RH circuit.
FR-DOOR SP SHORT [U1265]	Sound signal front speaker RH circuit is shorted between front speaker RH signal (+) and front speaker RH signal (-).	Check sound signal front speaker RH circuit.
FR-DOOR SP GND-SHORT [U1266]	Sound signal front speaker RH circuit to ground is shorted.	Check sound signal front speaker RH circuit.
FR-DOOR SP VB-SHORT [U1267]	Sound signal front speaker RH circuit to battery is shorted.	Check sound signal front speaker RH circuit.
RR-SP/FR-WOOFER OPEN [U1268]	Sound signal rear speaker LH circuit is open.	Check sound signal rear speaker LH circuit.
RR-SP/FR-WOOFER SHORT [U1269]	Sound signal rear speaker LH circuit is shorted between rear speaker LH signal (+) and rear speaker LH signal (-).	Check sound signal rear speaker LH circuit.
RR-SP/FR-WOOFER GND-SHORT [U126A]	Sound signal rear speaker LH circuit to ground is shorted.	Check sound signal rear speaker LH circuit.
RR-SP/FR-WOOFER VB-SHORT [U126B]	Sound signal rear speaker LH circuit to battery is shorted.	Check sound signal rear speaker LH circuit.
RR-SURROUND SP OPEN [U126C]	Sound signal woofer RH circuit is open.	Check sound signal woofer RH circuit.
RR-SURROUND SP SHORT [U126D]	Sound signal woofer RH circuit is shorted between woofer RH signal (+) and woofer RH signal (-).	Check sound signal woofer RH circuit.
RR-SURROUND SP GND-SHORT [U126E]	Sound signal woofer RH circuit to ground is shorted.	Check sound signal woofer RH circuit.
RR-SURROUND SP VB-SHORT [U126F]	Sound signal woofer RH circuit to battery is shorted.	Check sound signal woofer RH circuit.
RL-SURROUND SP OPEN [U1274]	Sound signal woofer LH circuit is open.	Check sound signal woofer LH circuit.
RL-SURROUND SP SHORT [U1275]	Sound signal woofer LH circuit is shorted between woofer LH signal (+) and woofer LH signal (-).	Check sound signal woofer LH circuit.
RL-SURROUND SP GND-SHORT [U1276]	Sound signal woofer LH circuit to ground is shorted.	Check sound signal woofer LH circuit.

Error item	Detection logic	Possible malfunction factor/Action to take
RL-SURROUND SP VB-SHORT [U1277]	Sound signal woofer LH circuit to battery is shorted.	Check sound signal woofer LH circuit.
RL-SP/FL-WOOFER OPEN [U1278]	Sound signal rear speaker LH circuit is open.	Check sound signal rear speaker LH circuit.
RL-SP/FL-WOOFER SHORT [U1279]	Sound signal rear speaker LH circuit is shorted between rear speaker LH signal (+) and rear speaker LH signal (-).	Check sound signal rear speaker LH circuit.
RL-SP/FL-WOOFER GND-SHORT [U127A]	Sound signal rear speaker LH circuit to ground is shorted.	Check sound signal rear speaker LH circuit.
RL-SP/FL-WOOFER VB-SHORT [U127B]	Sound signal rear speaker LH circuit to battery is shorted.	Check sound signal rear speaker LH circuit.
FL-DOOR SP OPEN [U127C]	Sound signal front speaker LH circuit is open.	Check sound signal front speaker LH circuit.
FL-DOOR SP SHORT [U127D]	Sound signal front speaker LH circuit is shorted between front speaker LH signal (+) and front speaker LH signal (-).	Check sound signal front speaker LH circuit.
FL-DOOR SP GND-SHORT [U127E]	Sound signal front speaker LH circuit to ground is shorted.	Check sound signal front speaker LH circuit.
FL-DOOR SP VB-SHORT [U127F]	Sound signal front speaker LH circuit to battery is shorted.	Check sound signal front speaker LH circuit.
FR-TWEETER OPEN [U1294]	Sound signal front squawker RH circuit is open.	Check sound signal front squawker RH circuit.
FR-TWEETER SHORT [U1295]	Sound signal front squawker RH circuit is shorted between front squawker RH signal (+) and front squawker RH signal (-).	Check sound signal front squawker RH circuit.
FR-TWEETER GND-SHORT [U1296]	Sound signal front squawker RH circuit to ground is shorted.	Check sound signal front squawker RH circuit.
FR-TWEETER VB-SHORT [U1297]	Sound signal front squawker RH circuit to battery is shorted.	Check sound signal front squawker RH circuit.
FL-TWEETER OPEN [U1298]	Sound signal front squawker LH circuit is open.	Check sound signal front squawker LH circuit.
FL-TWEETER SHORT [U1299]	Sound signal front squawker LH circuit is shorted between front squawker LH signal (+) and front squawker LH signal (-).	Check sound signal front squawker LH circuit.
FL-TWEETER GND-SHORT [U129A]	Sound signal front squawker LH circuit to ground is shorted.	Check sound signal front squawker LH circuit.
FL-TWEETER VB-SHORT [U129B]	Sound signal front squawker LH circuit to battery is shorted.	Check sound signal front squawker LH circuit.
GPS ANTENNA CONN [U12A0]	GPS antenna connection malfunction is detected.	GPS antenna. Refer to AV-459, "Diagnosis Procedure".
NAVI INTERNAL ERR [U12A1]	NAVI control unit malfunction is detected.	Replace the NAVI control unit. Refer to AV-649, "Removal and Installation".
BT ANTENNA CONN [U12A2]	TEL antenna connection malfunction is detected.	TEL antenna. Refer to AV-461, "Diagnosis Procedure".
• AV COMM CIRCUIT [U1300] • SWITCH CONN [U1240]	When either one of the following items is detected: • multifunction switch power supply and ground circuits are malfunctioning. • AV communication circuits between AV control unit and multifunction switch are malfunctioning. • AV communication signal between AV control unit and multifunction switch is malfunctioning.	• Multifunction switch power supply and ground circuits. Refer to AV-466, "MULTIFUNCTION SWITCH : Diagnosis Procedure". • AV communication circuits between AV control unit and multifunction switch.

Error item	Detection logic	Possible malfunction factor/Action to take
• AV COMM CIRCUIT [U1300] • DVD DECK CONN [U1248]	When either one of the following items is detected: • DVD player power supply and ground circuits are malfunctioning. • AV communication circuits between BOSE amp. and DVD player are malfunctioning. • AV communication signal between AV control unit and DVD player is malfunctioning.	• DVD player power supply and ground circuits. Refer to AV-468, "DVD PLAYER : Diagnosis Procedure". • AV communication circuits between BOSE amp. and DVD player.
• AV COMM CIRCUIT [U1300] • AMP CONN [U124E]	When either one of the following items is detected: • BOSE amp. power supply and ground circuits are malfunctioning. • AV communication signal between AV control unit and BOSE amp. is malfunctioning	BOSE amp. power supply and ground circuits. Refer to AV-466, "BOSE AMP. : Diagnosis Procedure".
• AV COMM CIRCUIT [U1300] • REAR-CAMERA LAN CONN [U1252]	When either one of the following items is detected: • camera control unit power supply and ground circuits are malfunctioning. • AV communication signal between AV control unit and camera control unit is malfunctioning.	Camera control unit power supply and ground circuits. Refer to AV-467, "CAMERA CONTROL UNIT : Diagnosis Procedure".
• AV COMM CIRCUIT [U1300] • DVD NAVI CONN [U125D]	NAVI control unit power supply and ground circuits are malfunctioning.	NAVI control unit power supply and ground circuits. Refer to AV-464, "NAVI CONTROL UNIT : Diagnosis Procedure".
• AV COMM CIRCUIT [U1300] • DVD DECK CONN [U1248] • AMP CONN [U124E]	When either one of the following items is detected: • AV communication circuits between NAVI control unit and BOSE amp is malfunctioning. • AV communication signal between AV control unit and BOSE amp. is maifunctioning.	AV communication circuits between NAVI control unit and BOSE amp.
• AV COMM CIRCUIT [U1300] • DVD DECK CONN [U1248] • AMP CONN [U124E] • DVD NAVI CONN [U125D]	When either one of the following items is detected: • AV communication circuits between camera control unit and NAVI control unit is malfunctioning. • AV communication signal between AV control unit and NAVI control unit is malfunctioning.	AV communication circuits between camera control unit and NAVI control unit.

Error item	Detection logic	Possible malfunction factor/Action to take
• AV COMM CIRCUIT [U1300] • DVD DECK CONN [U1248] • AMP CONN [U124E] • REAR-CAMERA LAN CONN [U1252] • DVD NAVI CONN [U125D]	With rear control switch When either one of the following items is detected: • malfunction is detected in AV communication circuits between rear control switch and camera control unit. • malfunction is detected in AV communication circuits between camera control unit and NAVI control unit.	• AV communication circuits between multifunction switch and rear control switch. • AV communication circuits between rear control switch and camera control unit.
	Without rear control switch When either one of the following items is detected: • malfunction is detected in AV communication circuits between multifunction switch and camera control unit. • malfunction is detected in AV communication circuits between camera control unit and NAVI control unit.	AV communication circuits between multifunction switch and camera control unit.
• AV COMM CIRCUIT [U1300] • SWITCH CONN [U1240] • DVD DECK CONN [U1248] • AMP CONN [U124E] • REAR-CAMERA LAN CONN [U1252] • DVD NAVI CONN [U125D]	When either one of the following items is detected: • AV communication circuits between AV control unit and multifunction switch are malfunctioning. • AV communication signal between AV control unit and multifunction switch is malfunctioning.	AV communication circuits 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.

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	Light switch ON.	—
	Off	Light switch OFF.	
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	

COMPONENT DIAGNOSIS

U1000 CAN COMM CIRCUIT

Description

INFOID:0000000003765851

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-22, "CAN Communication Signal Chart".

DTC Logic

INFOID:0000000003765852

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:0000000003765853

1.PERFORM SELF DIAGNOSTIC

1. Turn ignition switch ON and wait for 2 seconds or more.
2. Check “Self Diagnostic Result” of “MULTI AV”.

Is “CAN COMM CIRCUIT” displayed?

YES >> Refer to “LAN system”. Refer to LAN-14, "Trouble Diagnosis Flow Chart".
NO >> Refer to GI section. Refer to GI-35, "Intermittent Incident".

U1010 CONTROL UNIT (CAN)

Description

INFOID:0000000003765854

Initial diagnosis of AV control unit.

DTC Logic

INFOID:0000000003765855

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:0000000003765856

1.REPLACE AV CONTROL UNIT

When DTC U1010 is detected, replace AV control unit.

>> INSPECTION END

U1310 AV CONTROL UNIT

Description

INFOID:0000000003765857

Replace the AV control unit if this DTC is displayed. Refer to AV-648, "Removal and Installation".

Part name	Description
AV CONTROL UNIT	• It is the master unit of the MULTI AV system, and it is connected to each control unit by communication. It operates each system according to communication signals from the AV control unit. • AV control unit includes audio function and vehicle information function. • It is connected to ECM and combination meter. via CAN communication to obtain necessary information for the vehicle information function. • It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function. • Composite image signal (AUX and DVD images) is input from DVD player. • Camera image signal is input from camera control unit. • Composite image (DVD, AUX and camera images) signal is output to display unit. • Sound signal (DVD and AUX sounds) is input from the DVD player.

DTC Logic

INFOID:0000000003765858

DTC DETECTION LOGIC

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

U1200 AV CONTROL UNIT

Description

INFOID:0000000003820986

Replace the AV control unit if this DTC is displayed. Refer to AV-648, "Removal and Installation".

Part name	Description
AV CONTROL UNIT	• It is the master unit of the MULTI AV system, and it is connected to each control unit by communication. It operates each system according to communication signals from the AV control unit. • AV control unit includes audio function and vehicle information function. • It is connected to ECM and combination meter. via CAN communication to obtain necessary information for the vehicle information function. • It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function. • Composite image signal (AUX and DVD images) is input from DVD player. • Camera image signal is input from camera control unit. • Composite image (DVD, AUX and camera images) signal is output to display unit. • Sound signal (DVD and AUX sounds) is input from the DVD player.

DTC Logic

INFOID:0000000003765860

DTC DETECTION LOGIC

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

U1216 AV CONTROL UNIT

Description

INFOID:0000000003820987

Replace the AV control unit if this DTC is displayed. Refer to AV-648, "Removal and Installation".

Part name	Description
AV CONTROL UNIT	• It is the master unit of the MULTI AV system, and it is connected to each control unit by communication. It operates each system according to communication signals from the AV control unit. • AV control unit includes audio function and vehicle information function. • It is connected to ECM and combination meter. via CAN communication to obtain necessary information for the vehicle information function. • It is connected to BCM via CAN communication transmitting/receiving for the vehicle settings function. • Composite image signal (AUX and DVD images) is input from DVD player. • Camera image signal is input from camera control unit. • Composite image (DVD, AUX and camera images) signal is output to display unit. • Sound signal (DVD and AUX sounds) is input from the DVD player.

DTC Logic

INFOID:0000000003765862

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.

U1231 BOSE AMP.

Description

INFOID:0000000003900426

Replace the BOSE amp. if this DTC is displayed. Refer to AV-657, "Removal and Installation".

Part name	Description
BOSE AMP.	Inputs sound signal from AV control unit and DVD player, and outputs sound signal to woofer and each speaker.

DTC Logic

INFOID:0000000003900427

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1231	AMP TEMP [U1231]	Internal malfunction of BOSE amp. is detected.	Replace BOSE amp.

U1243 DISPLAY UNIT

Description

INFOID:0000000003765863

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). • Composite image (DVD, AUX and camera images) signal is input from AV 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:0000000003765864

DTC DETECTION LOGIC

DTC	Display contents of CONSULT-III	DTC Detection Condition	Possible causes
U1243	FRONT DISP CONN [U1243]	When either one of the following items is detected: • display unit power supply and ground circuits are malfunctioning. • serial communication circuits between display unit and AV control unit are malfunctioning. • serial communication signal between display unit and AV control unit is malfunctioning.	• Display unit power supply and ground circuits. • Serial communication circuits between display unit and AV control unit

Diagnosis Procedure

INFOID:0000000003765865

1.CHECK DISPLAY UNIT POWER SUPPLY AND GROUND CIRCUIT

Check display unit power supply and ground circuit. Refer to AV-465, "DISPLAY UNIT : Diagnosis Procedure".

Is inspection result normal?

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 and AV control unit harness connector.

Display unit		AV control unit		Continuity
Connector	Terminals	Connector	Terminals	
M49	11	M129	56	Existed
	22		44	

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

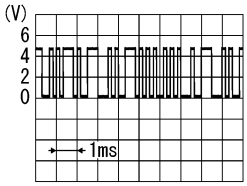
Display unit		Ground	Continuity
Connector	Terminals		
M49	11		Not existed
	22		

Is inspection result normal?

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 and ground using an oscilloscope.

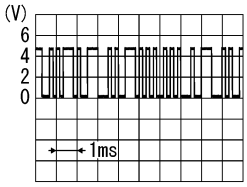
(+)		(–)	Condition	Reference value
Display unit				
Connector	Terminal			
M49	11	Ground	When adjusting display brightness.	 PKIB5039J

Is inspection result normal?

YES >> GO TO 4.
NO >> Replace AV control unit.

4.CHECK COMMUNICATION SIGNAL

Check signal between display unit harness connector terminal and ground using an oscilloscope.

(+)		(–)	Condition	Reference value
Display unit				
Connector	Terminal			
M49	22	Ground	When adjusting display brightness.	 PKIB5039J

Is inspection result normal?

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

U1250 CAMERA CONTROL UNIT

Description

INFOID:0000000003821336

Part name	Description
CAMERA CONTROL UNIT	• Camera image signal is input from rear view camera. Camera image signal output to AV control unit. • Power supply is transmitted to rear view camera. • AV control unit recognizes the presence of camera system with camera connection recognition signal. • Camera control unit is connected via AV communication.

DTC Logic

INFOID:0000000003821337

DTC	Display contents of CONSULT-III	DTC Detection Condition	Possible causes
U1250	CAMERA CONT. CONN [U1250]	Malfunction is detected in camera connection recognition signal circuit.	Camera connection recognition signal circuit.

Diagnosis Procedure

INFOID:0000000003821341

1.CHECK CONTINUITY RECOGNITION SIGNAL CIRCUIT

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

AV control unit		Camera control unit		Continuity
Connector	Terminals	Connector	Terminals	
M130	68	B251	14	Existed

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

AV control unit		Ground	Continuity
Connector	Terminals		
M130	68		Not existed

Is inspection result normal?

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

2.CHECK AV CONTROL UNIT VOLTAGE

1. Connect AV control unit connector and camera control unit connector.
2. Turn ignition switch ON.
3. Check signal between AV control unit harness connector terminal and ground using an oscilloscope.

(+)		(–)	Condition	Voltage (Approx.)
AV control unit				
Connector	Terminal			
M130	68	Ground	Connected camera control unit connector	0 V
			Disconnect camera control unit connector	5 V

Is inspection result normal?

YES >> Replace AV control unit.

NO >> Replace camera control unit.

U1260, U1261, U1262, U1263 CENTER SPEAKER

Description

INFOID:0000000003900582

Part name	Description
CENTER SPEAKER	• Outputs sound signal from BOSE amp. • Outputs sound (high and mid range).

DTC Logic

INFOID:0000000003900583

DTC DETECTION LOGIC

DTC	Display contents of CONSULT-III	DTC Detection Condition	Possible causes
U1260	CENTER SP OPEN [U1260]	Sound signal center speaker circuit is open.	Check sound signal center speaker circuit.
U1261	CENTER SP SHORT [U1261]	Sound signal center speaker circuit is shorted between center speaker signal (+) and center speaker signal (-).	Check sound signal center speaker circuit.
U1262	CENTER SP GND-SHORT [U1262]	Sound signal center speaker circuit to ground is shorted.	Check sound signal center speaker circuit.
U1263	CENTER SP VB-SHORT [U1263]	Sound signal center speaker circuit to battery is shorted.	Check sound signal center speaker circuit.

Diagnosis Procedure

INFOID:0000000003900584

1.PERFORM THE SELF-DIAGNOSIS

1. Delete the self-diagnosis results. Turn ignition switch OFF.
2. Turn ignition switch ON. perform the self-diagnosis again.
3. Check that the DTC is detected again.

Is any DTC detected?

YES >> Repair sound signal center speaker circuit harness or connector.
NO >> Refer to GI section. Refer to GI-35, "Intermittent Incident".

U1264, U1265, U1266, U1267 FRONT RIGHT DOOR SPEAKER

Description

INFOID:0000000003900702

Part name	Description
FRONT RIGHT DOOR SPEAKER	• Outputs sound signal from BOSE amp. • Outputs sound (mid and low range).

DTC Logic

INFOID:0000000003900703

DTC DETECTION LOGIC

DTC	Display contents of CONSULT-III	DTC Detection Condition	Possible causes
U1264	FR-DOOR SP OPEN [U1264]	Sound signal front speaker RH circuit is open.	Check sound signal front speaker RH circuit.
U1265	FR-DOOR SP SHORT [U1265]	Sound signal front speaker RH circuit is shorted between front speaker RH signal (+) and front speaker RH signal (-).	Check sound signal front speaker RH circuit.
U1266	FR-DOOR SP GND-SHORT [U1266]	Sound signal front speaker RH circuit to ground is short-ed.	Check sound signal front speaker RH circuit.
U1267	FR-DOOR SP VB-SHORT [U1267]	Sound signal front speaker RH circuit to battery is short-ed.	Check sound signal front speaker RH circuit.

Diagnosis Procedure

INFOID:0000000003900704

1.PERFORM THE SELF-DIAGNOSIS

1. Delete the self-diagnosis results. Turn ignition switch OFF.
2. Turn ignition switch ON. perform the self-diagnosis again.
3. Check that the DTC is detected again.

Is any DTC detected?

YES >> Repair sound signal front speaker RH circuit harness or connector.
NO >> Refer to GI section. Refer to GI-35, "Intermittent Incident".

U1268, U1269, U126A, U126B REAR RIGHT DOOR SPEAKER

Description

INFOID:0000000003900739

Part name	Description
REAR RIGHT DOOR SPEAKER	• Outputs sound signal from BOSE amp. • Outputs sound (mid and low range).

DTC Logic

INFOID:0000000003900740

DTC DETECTION LOGIC

DTC	Display contents of CONSULT-III	DTC Detection Condition	Possible causes
U1268	RR-SP/FR-WOOFER OPEN [U1268]	Sound signal rear speaker LH circuit is open.	Check sound signal rear speaker LH circuit.
U1269	RR-SP/FR-WOOFER SHORT [U1269]	Sound signal rear speaker LH circuit is shorted between rear speaker LH signal (+) and rear speaker LH signal (-).	Check sound signal rear speaker LH circuit.
U126A	RR-SP/FR-WOOFER GND- SHORT [U126A]	Sound signal rear speaker LH circuit to ground is shorted.	Check sound signal rear speaker LH circuit.
U126B	RR-SP/FR-WOOFER VB-SHORT [U126B]	Sound signal rear speaker LH circuit to battery is shorted.	Check sound signal rear speaker LH circuit.

Diagnosis Procedure

INFOID:0000000003900741

1.PERFORM THE SELF-DIAGNOSIS

1. Delete the self-diagnosis results. Turn ignition switch OFF.
2. Turn ignition switch ON. perform the self-diagnosis again.
3. Check that the DTC is detected again.

Is any DTC detected?

YES >> Repair sound signal rear speaker RH circuit harness or connector.
NO >> Refer to GI section. Refer to GI-35, "Intermittent Incident".

U126C, U126D, U126E, U126F REAR RIGHT SQUAWKER/ RIGHT WOOFER

Description

INFOID:0000000003901239

Part name	Description
REAR RIGHT SQUAWKER	• Outputs sound signal from BOSE amp. • Outputs sound (high and mid range).
RIGHT WOOFER	• Outputs sound signal from BOSE amp. • Outputs low frequency sound.

DTC Logic

INFOID:0000000003901240

DTC DETECTION LOGIC

DTC	Display contents of CONSULT-III	DTC Detection Condition	Possible causes
U126C	RR-SURROUND SP OPEN [U126C]	Sound signal woofer RH circuit is open.	Check sound signal woofer RH circuit.
U126D	RR-SURROUND SP SHORT [U12D1]	Sound signal woofer RH circuit is shorted between woofer RH signal (+) and woofer RH signal (-).	Check sound signal woofer RH circuit.
U126E	RR-SURROUND SP GND- SHORT [U126E]	Sound signal woofer RH circuit to ground is shorted.	Check sound signal woofer RH circuit.
U126F	RR-SURROUND SP VB-SHORT [U126F]	Sound signal woofer RH circuit to battery is shorted.	Check sound signal woofer RH circuit.

Diagnosis Procedure

INFOID:0000000003901241

1. PERFORM THE SELF-DIAGNOSIS

1. Delete the self-diagnosis results. Turn ignition switch OFF.
2. Turn ignition switch ON. perform the self-diagnosis again.
3. Check that the DTC is detected again.

Is any DTC detected?

YES >> Repair sound signal woofer RH circuit harness or connector.
NO >> Refer to GI section. Refer to GI-35, "Intermittent Incident".

U1274, U1275, U1276, U1277 REAR LEFT SQUAWKER/LEFT WOOFER

Description

INFOID:0000000003901443

Part name	Description
REAR RIGHT SQUAWKER	• Outputs sound signal from BOSE amp. • Outputs sound (high and mid range).
RIGHT WOOFER	• Outputs sound signal from BOSE amp. • Outputs low frequency sound.

DTC Logic

INFOID:0000000003901444

DTC DETECTION LOGIC

DTC	Display contents of CONSULT-III	DTC Detection Condition	Possible causes
U1274	RL-SURROUND SP OPEN [U1274]	Sound signal woofer LH circuit is open.	Check sound signal woofer LH circuit.
U1275	RL-SURROUND SP SHORT [U1275]	Sound signal woofer LH circuit is shorted between woofer LH signal (+) and woofer LH signal (-).	Check sound signal woofer LH circuit.
U1276	RL-SURROUND SP GND- SHORT [U1276]	Sound signal woofer LH circuit to ground is shorted.	Check sound signal woofer LH circuit.
U1277	RL-SURROUND SP VB-SHORT [U1277]	Sound signal woofer LH circuit to battery is shorted.	Check sound signal woofer LH circuit.

Diagnosis Procedure

INFOID:0000000003901445

1.PERFORM THE SELF-DIAGNOSIS

1. Delete the self-diagnosis results. Turn ignition switch OFF.
2. Turn ignition switch ON. perform the self-diagnosis again.
3. Check that the DTC is detected again.

Is any DTC detected?

YES >> Repair sound signal woofer LH circuit harness or connector.
NO >> Refer to GI section. Refer to GI-35, "Intermittent Incident".

U1278, U1279, U127A, U127B REAR LEFT DOOR SPEAKER

Description

INFOID:0000000003901450

Part name	Description
REAR LEFT DOOR SPEAKER	• Outputs sound signal from BOSE amp. • Outputs sound (mid and low range).

DTC Logic

INFOID:0000000003901451

DTC DETECTION LOGIC

DTC	Display contents of CONSULT-III	DTC Detection Condition	Possible causes
U1278	RL- SP/FL-WOOFER OPEN [U1278]	Sound signal rear speaker LH circuit is open.	Check sound signal rear speaker LH circuit.
U1279	RL- SP/FL-WOOFER SHORT [U1279]	Sound signal rear speaker LH circuit is shorted between rear speaker LH signal (+) and rear speaker LH signal (-).	Check sound signal rear speaker LH circuit.
U127A	RL- SP/FL-WOOFER GND- SHORT [U127A]	Sound signal rear speaker LH circuit to ground is shorted.	Check sound signal rear speaker LH circuit.
U127B	RL- SP/FL-WOOFER VB-SHORT [U127B]	Sound signal rear speaker LH circuit to battery is shorted.	Check sound signal rear speaker LH circuit.

Diagnosis Procedure

INFOID:0000000003901452

1. PERFORM THE SELF-DIAGNOSIS

1. Delete the self-diagnosis results. Turn ignition switch OFF.
2. Turn ignition switch ON. perform the self-diagnosis again.
3. Check that the DTC is detected again.

Is any DTC detected?

YES >> Repair sound signal rear speaker LH circuit harness or connector.
NO >> Refer to GI section. Refer to GI-35, "Intermittent Incident".

U127C, U127D, U127E, U127F FRONT LEFT DOOR SPEAKER

Description

INFOID:0000000003901474

Part name	Description
FRONT LEFT DOOR SPEAKER	• Outputs sound signal from BOSE amp. • Outputs sound (mid and low range).

DTC Logic

INFOID:0000000003901475

DTC DETECTION LOGIC

DTC	Display contents of CONSULT-III	DTC Detection Condition	Possible causes
U127C	FL- DOOR SP OPEN [U127C]	Sound signal front speaker LH circuit is open.	Check sound signal front speaker LH circuit.
U127D	FL- DOOR SP SHORT [U127D]	Sound signal front speaker LH circuit is shorted between front speaker LH signal (+) and front speaker LH signal (-).	Check sound signal front speaker LH circuit.
U127E	FL- DOOR SP GND-SHORT [U127E]	Sound signal front speaker LH circuit to ground is shorted.	Check sound signal front speaker LH circuit.
U127F	FL- DOOR SP VB-SHORT [U127F]	Sound signal front speaker LH circuit to battery is shorted.	Check sound signal front speaker LH circuit.

Diagnosis Procedure

INFOID:0000000003901476

1.PERFORM THE SELF-DIAGNOSIS

1. Delete the self-diagnosis results. Turn ignition switch OFF.
2. Turn ignition switch ON. perform the self-diagnosis again.
3. Check that the DTC is detected again.

Is any DTC detected?

YES >> Repair sound signal front speaker LH circuit harness or connector.
NO >> Refer to GI section. Refer to GI-35, "Intermittent Incident".

U1294, U1295, U1296, U1297 FRONT RIGHT SQUAWKER

Description

INFOID:0000000003901488

Part name	Description
FRONT RIGHT SQUAWKER	• Outputs sound signal from BOSE amp. • Outputs sound (high and mid range).

DTC Logic

INFOID:0000000003901489

DTC DETECTION LOGIC

DTC	Display contents of CONSULT-III	DTC Detection Condition	Possible causes
U1294	FR-TWEETER OPEN [U1294]	Sound signal front squawker RH circuit is open.	Check sound signal front squawker RH circuit.
U1295	FR-TWEETER SHORT [U1295]	Sound signal front squawker RH circuit is shorted between front squawker RH signal (+) and front squawker RH signal (-).	Check sound signal front squawker RH circuit.
U1296	FR-TWEETER GND-SHORT [U1296]	Sound signal front squawker RH circuit to ground is shorted.	Check sound signal front squawker RH circuit.
U1297	FR-TWEETER VB-SHORT [U1297]	Sound signal front squawker RH circuit to battery is shorted.	Check sound signal front squawker RH circuit.

Diagnosis Procedure

INFOID:0000000003901490

1.PERFORM THE SELF-DIAGNOSIS

1. Delete the self-diagnosis results. Turn ignition switch OFF.
2. Turn ignition switch ON. perform the self-diagnosis again.
3. Check that the DTC is detected again.

Is any DTC detected?

YES >> Repair sound signal front squawker RH circuit harness or connector.
NO >> Refer to GI section. Refer to GI-35, "Intermittent Incident".

U1298, U1299, U129A, U129B FRONT LEFT SQUAWKER

Description

INFOID:0000000003901535

Part name	Description
FRONT LEFT SQUAWKER	• Outputs sound signal from BOSE amp. • Outputs sound (high and mid range).

DTC Logic

INFOID:0000000003901536

DTC DETECTION LOGIC

DTC	Display contents of CONSULT-III	DTC Detection Condition	Possible causes
U1298	FR-TWEETER OPEN [U1298]	Sound signal front squawker LH circuit is open.	Check sound signal front squawker LH circuit.
U1299	FR-TWEETER SHORT [U1299]	Sound signal front squawker LH circuit is shorted between front squawker LH signal (+) and front squawker LH signal (-).	Check sound signal front squawker LH circuit.
U129A	FR-TWEETER GND-SHORT [U129A]	Sound signal front squawker LH circuit to ground is short-ed.	Check sound signal front squawker LH circuit.
U129B	FR-TWEETER VB-SHORT [U129B]	Sound signal front squawker LH circuit to battery is short-ed.	Check sound signal front squawker LH circuit.

Diagnosis Procedure

INFOID:0000000003901537

1.PERFORM THE SELF-DIAGNOSIS

1. Delete the self-diagnosis results. Turn ignition switch OFF.
2. Turn ignition switch ON. perform the self-diagnosis again.
3. Check that the DTC is detected again.

Is any DTC detected?

YES >> Repair sound signal front squawker LH circuit harness or connector.
NO >> Refer to GI section. Refer to GI-35, "Intermittent Incident".

U12A0 GPS ANTENNA

Description

INFOID:0000000003765866

Part name	Description
GPS ANTENNA	GPS signal is received and transmitted to NAVI control unit.

DTC Logic

INFOID:0000000003765867

DTC DETECTION LOGIC

DTC	Display contents of CONSULT-III	DTC Detection Condition	Possible causes
U12A0	GPS ANTENNA CONN [U12A0]	GPS antenna connection malfunction is detected.	GPS antenna.

Diagnosis Procedure

INFOID:0000000003765868

1.GPS ANTENNA CHECK

Visually check GPS antenna and antenna feeder.

Is inspection result normal?

YES >> GO TO 2.
NO >> Repair malfunctioning parts.

2.CHECK NAVI CONTROL UNIT VOLTAGE

1. Turn ignition switch OFF.
2. Disconnect GPS antenna connector.
3. Turn ignition switch ON.
4. Check voltage between NAVI control unit terminal and ground.

(+)		(–)	Voltage (Approx.)
NAVI control unit			
Connector	Terminal		
B474	49	Ground	5.0 V

Is inspection result normal?

YES >> Replace GPS antenna.
NO >> Replace NAVI control unit.

U12A1 NAVI CONTROL UNIT

Description

INFOID:0000000003765869

Replace the NAVI control unit if this DTC is displayed. Refer to AV-649, "Removal and Installation".

Part name	Description
NAVI CONTROL UNIT	• Map data can be read from the Map DVD-ROM by installing Map DVD-ROM. • The NAVI control unit sends map data to the AV control unit. • The NAVI control unit includes the hands-free phone and navigation functions. • The NAVI control unit transmits navigation and hands-free phone related images to AV control unit. • It includes the TEL adapter and Bluetooth™ function.
Map DVD-ROM	A collection of map data.

DTC Logic

INFOID:0000000003765870

DTC DETECTION LOGIC

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U12A1	NAVI INTERNAL ERR [U12A1]	NAVI control unit malfunction is detected.	Replace the NAVI control unit.

U12A2 TEL ANTENNA

Description

INFOID:0000000003765871

Part name	Description
TEL ANTENNA	TEL voice signal is received and transmitted to NAVI control unit.

DTC Logic

INFOID:0000000003765872

DTC DETECTION LOGIC

DTC	Display contents of CONSULT-III	DTC Detection Condition	Possible causes
U12A2	BT ANTENNA CONN [U12A2]	TEL antenna connection malfunction is detected.	TEL antenna

Diagnosis Procedure

INFOID:0000000003765873

1.TEL ANTENNA CHECK

Visually check TEL antenna and antenna feeder.

Is inspection result normal?

YES >> GO TO 2.
NO >> Repair malfunctioning parts.

2.CHECK NAVI CONTROL UNIT VOLTAGE

1. Turn ignition switch OFF.
2. Disconnect TEL antenna connector.
3. Turn ignition switch ON.
4. Check voltage between NAVI control unit terminal and ground.

(+)		(–)	Voltage (Approx.)
NAVI control unit			
Connector	Terminal		
B475	51	Ground	3.3 V

Is inspection result normal?

YES >> Replace TEL antenna.
NO >> Replace NAVI control unit.

U1300 AV COMM CIRCUIT

Description

INFOID:0000000003765874

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]	When either one of the following items is detected: • multifunction switch power supply and ground circuits are malfunctioning. • AV communication circuits between AV control unit and multifunction switch are malfunctioning. • AV communication signal between AV control unit and multifunction switch is malfunctioning.	• Multifunction switch power supply and ground circuits. Refer to AV-466, "MULTIFUNCTION SWITCH : Diagnosis Procedure". • AV communication circuits between AV control unit and multifunction switch.
U1300 U1248	• AV COMM CIRCUIT [U1300] • DVD DECK CONN [U1248]	When either one of the following items is detected: • DVD player power supply and ground circuits are malfunctioning. • AV communication circuits between BOSE amp. and DVD player are malfunctioning. • AV communication signal between AV control unit and DVD player is malfunctioning.	• DVD player power supply and ground circuits. Refer to AV-468, "DVD PLAYER : Diagnosis Procedure". • AV communication circuits between BOSE amp. and DVD player.
U1300 U124E	• AV COMM CIRCUIT [U1300] • AMP CONN [U124E]	When either one of the following items is detected: • BOSE amp. power supply and ground circuits are malfunctioning. • AV communication signal between AV control unit and BOSE amp. is malfunctioning.	BOSE amp. power supply and ground circuits. Refer to AV-466, "BOSE AMP. : Diagnosis Procedure".
U1300 U1252	• AV COMM CIRCUIT [U1300] • REAR-CAMERA LAN CONN [U1252]	When either one of the following items is detected: • camera control unit power supply and ground circuits are malfunctioning. • AV communication signal between AV control unit and camera control unit is malfunctioning.	Camera control unit power supply and ground circuits. Refer to AV-467, "CAMERA CONTROL UNIT : Diagnosis Procedure".
U1300 U125D	• AV COMM CIRCUIT [U1300] • DVD NAVI CONN [U125D]	NAVI control unit power supply and ground circuits are malfunctioning.	NAVI control unit power supply and ground circuits. Refer to AV-464, "NAVI CONTROL UNIT : Diagnosis Procedure".
U1300 U1248 U124E	• AV COMM CIRCUIT [U1300] • DVD DECK CONN [U1248] • AMP CONN [U124E]	When either one of the following items is detected: • AV communication circuits between NAVI control unit and BOSE amp. are malfunctioning. • AV communication signal between NAVI control unit and BOSE amp. is malfunctioning.	AV communication circuits between NAVI control unit and BOSE amp.
U1300 U1248 U124E U125D	• AV COMM CIRCUIT [U1300] • DVD DECK CONN [U1248] • AMP CONN [U124E] • DVD NAVI CONN [U125D]	When either one of the following items is detected: • AV communication circuits between camera control unit and NAVI control unit are malfunctioning. • AV communication signal between camera control unit and NAVI control unit is malfunctioning.	AV communication circuits between camera control unit and NAVI control unit.

DTC	Display contents of CONSULT-III	Description	Possible malfunction factor/Action to take
U1300 U1248 U124E U1252 U125D	• AV COMM CIRCUIT [U1300] • DVD DECK CONN [U1248] • AMP CONN [U124E] • REAR-CAMERA LAN CONN [U1252] • DVD NAVI CONN [U125D]	With rear control switch When either one of the following items is detected: • malfunction is detected in AV communication circuits between rear control switch and camera control unit. • malfunction is detected in AV communication circuits between camera control unit and NAVI control unit.	• AV communication circuits between multifunction switch and rear control switch. • AV communication circuits between rear control switch and camera control unit.
		Without rear control switch When either one of the following items is detected: • malfunction is detected in AV communication circuits between multifunction switch and camera control unit. • malfunction is detected in AV communication circuits between camera control unit and NAVI control unit.	AV communication circuits between multifunction switch and camera control unit.
U1300 U1240 U1248 U124E U1252 U125D	• AV COMM CIRCUIT [U1300] • SWITCH CONN [U1240] • DVD DECK CONN [U1248] • AMP CONN [U124E] • REAR-CAMERA LAN CONN [U1252] • DVD NAVI CONN [U125D]	When either one of the following items is detected: • AV communication circuits between AV control unit and multifunction switch are malfunctioning. • AV communication signal between AV control unit and multifunction switch is malfunctioning.	AV communication circuits between AV control unit and multifunction switch.

POWER SUPPLY AND GROUND CIRCUIT

AV CONTROL UNIT

AV CONTROL UNIT : Diagnosis Procedure

INFOID:0000000003765895

1.CHECK FUSE

Check for blown fuses.

Power source	Fuse No.
Battery	31
Ignition switch ACC or ON	19
Ignition switch ON or START	4

Is inspection result normal?

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	Voltage (Approx.)
Battery power supply	M127	19	OFF	Battery voltage
ACC power supply		7	ACC	
Ignition signal	M131	104	ON	

Is inspection result normal?

YES >> GO TO 3.
NO >> Check harness between AV control unit and fuse.

3.CHECK GROUND CIRCUIT

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

Signal name	Connector No.	Terminal No.	Ignition switch position	Continuity
Ground	M127	20	OFF	Existed
	M131	85		

Is inspection result normal?

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

NAVI CONTROL UNIT

NAVI CONTROL UNIT : Diagnosis Procedure

INFOID:0000000003765896

1.CHECK FUSE

Check for blown fuses.

Power source	Fuse No.
Battery	31
Ignition switch ACC or ON	19

Is inspection result normal?

YES >> GO TO 2.
NO >> Be sure to eliminate cause of malfunction before installing new fuse.

2.CHECK POWER SUPPLY CIRCUIT

Check voltage between NAVI control unit harness connectors and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Voltage (Approx.)
Battery power supply	B254	1	OFF	Battery voltage
ACC power supply		3	ACC	

Is inspection result normal?

YES >> GO TO 3.
NO >> Check harness between NAVI control unit and fuse.

3.CHECK GROUND CIRCUIT

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

Signal name	Connector No.	Terminal No.	Ignition switch position	Continuity
Ground	B254	2	OFF	Existed

Is inspection result normal?

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

DISPLAY UNIT

DISPLAY UNIT : Diagnosis Procedure

INFOID:0000000003765897

1.CHECK FUSE

Check for blown fuses.

Power source	Fuse No.
Battery	31
Ignition switch ACC or ON	19

Is inspection result normal?

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	Voltage (Approx.)
Battery power supply	M49	2	OFF	Battery voltage
ACC power supply		3	ACC	

Is inspection result normal?

YES >> GO TO 3.
NO >> Check harness between display unit and fuse.

3.CHECK GROUND CIRCUIT

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

Signal name	Connector No.	Terminal No.	Ignition switch position	Continuity
Ground	M49	1	OFF	Existed
		13		

Is inspection result normal?

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

MULTIFUNCTION SWITCH

MULTIFUNCTION SWITCH : Diagnosis Procedure

INFOID:0000000003765898

1.CHECK FUSE

Check for blown fuses.

Power source	Fuse No.
Ignition switch ACC or ON	19

Is inspection result normal?

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	Voltage (Approx.)
ACC power supply	M125	3	ACC	Battery voltage

Is inspection result normal?

YES >> GO TO 3.
NO >> Check harness between multifunction switch and fuse.

3.CHECK GROUND CIRCUIT

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

Signal name	Connector No.	Terminal No.	Ignition switch position	Continuity
Ground	M125	1	OFF	Existed

Is inspection result normal?

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

BOSE AMP.

BOSE AMP. : Diagnosis Procedure

INFOID:0000000003765899

1.CHECK FUSE

Check for blown fuses.

Power source	Fuse No.
Battery	32, 33
Ignition switch ACC	19

Is the inspection result normal?

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	Voltage (Approx.)
Battery power supply	B224	10	OFF	Battery voltage
		11		
ACC power supply	B225	20	ACC	

Is the inspection result normal?

YES >> GO TO 3.
NO >> Check harness between BOSE amp. and fuse.

3.CHECK GROUND CIRCUIT

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

Signal name	Connector No.	Terminal No.	Ignition switch position	Continuity
Ground	B224	7	OFF	Existed
		12		

Is the inspection result normal?

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

CAMERA CONTROL UNIT

CAMERA CONTROL UNIT : Diagnosis Procedure

INFOID:0000000003765900

1.CHECK FUSE

Check for blown fuses.

Power source	Fuse No.
Battery	31
Ignition switch ACC	19

Is inspection result normal?

YES >> GO TO 2.
NO >> Be sure to eliminate cause of malfunction before installing new fuse.

2.CHECK POWER SUPPLY CIRCUITS

Check voltage between camera control unit harness connector and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Voltage (Approx.)
Battery power supply	B251	32	OFF	Battery voltage
ACC power supply		30	ACC	

Is inspection result normal?

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	B251	31	OFF	Existed

Is inspection result normal?

YES >> INSPECTION END

NO >> Repair harness or connector.

DVD PLAYER

DVD PLAYER : Diagnosis Procedure

INFOID:0000000003794711

1.CHECK FUSE

Check for blown fuses.

Power source	Fuse No.
Battery	31
Ignition switch ACC or ON	19

Is inspection result normal?

YES >> GO TO 2.
NO >> Be sure to eliminate cause of malfunction before installing new fuse.

2.CHECK POWER SUPPLY CIRCUIT

Check voltage between DVD player harness connectors and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Voltage (Approx.)
Battery power supply	M254	2	OFF	Battery voltage
ACC power supply		4	ACC	

Is inspection result normal?

YES >> GO TO 3.
NO >> Check harness between DVD player and fuse.

3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect DVD player connectors.
3. Check continuity between DVD player harness connectors and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Continuity
Ground	M254	1	OFF	Existed

Is inspection result normal?

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

RGB (R: RED) SIGNAL CIRCUIT (AV CONTROL UNIT TO DISPLAY UNIT)

Description

INFOID:0000000003765902

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

Diagnosis Procedure

INFOID:0000000003765903

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 and AV control unit harness connector.

Display unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M49	17	M129	40	Existed

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

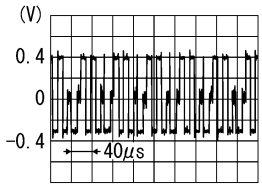
Display unit		Ground	Continuity
Connector	Terminal		
M49	17		Not existed

Is inspection result normal?

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 and ground using an oscilloscope.

(+) Display unit		(–)	Condition	Reference value
Connector	Terminal			
M49	17	Ground	Start Confirmation / Adjustment mode, and then display color bar by selecting “Color Spectrum Bar” on DISPLAY DIAGNOSIS screen.	 SKIB2238J

Is inspection result normal?

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

RGB (G: GREEN) SIGNAL CIRCUIT (AV CONTROL UNIT TO DISPLAY UNIT)

Description

INFOID:0000000003765904

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

Diagnosis Procedure

INFOID:0000000003765905

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 and AV control unit harness connector.

Display unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M49	6	M129	39	Existed

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

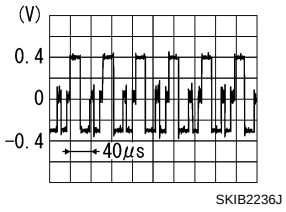
Display unit		Ground	Continuity
Connector	Terminal		
M49	6		Not existed

Is inspection result normal?

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 and ground using an oscilloscope.

(+)		(–)	Condition	Reference value
Display unit				
Connector	Terminal			
M49	6	Ground	Start Confirmation / Adjustment mode, and then display color bar by selecting “Color Spectrum Bar” on DISPLAY DIAGNOSIS screen.	

SKIB2236J

Is inspection result normal?

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

RGB (B: BLUE) SIGNAL CIRCUIT (AV CONTROL UNIT TO DISPLAY UNIT)

Description

INFOID:0000000003765906

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

Diagnosis Procedure

INFOID:0000000003765907

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 and AV control unit harness connector.

Display unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M49	18	M129	38	Existed

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

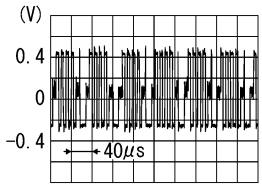
Display unit		Ground	Continuity
Connector	Terminal		
M49	18		Not existed

Is inspection result normal?

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 and ground using an oscilloscope.

(+) Display unit		(–)	Condition	Reference value
Connector	Terminal			
M49	18	Ground	Start Confirmation / Adjustment mode, and then display color bar by selecting “Color Spectrum Bar” on DISPLAY DIAGNOSIS screen.	 SKIB2237J

Is inspection result normal?

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

RGB SYNCHRONIZING SIGNAL CIRCUIT (AV CONTROL UNIT TO DISPLAY UNIT)

Description

INFOID:0000000003765908

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

Diagnosis Procedure

INFOID:0000000003765909

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 and AV control unit harness connector.

Display unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M49	19	M129	41	Existed

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

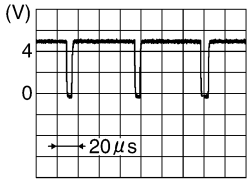
Display unit		Ground	Continuity
Connector	Terminal		
M49	19		Not existed

Is inspection result normal?

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 and ground using an oscilloscope.

(+)		(–)	Condition	Reference value
Display unit				
Connector	Terminal			
M49	19	Ground	—	

SKIB3603E

Is inspection result normal?

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

RGB AREA (YS) SIGNAL CIRCUIT

Description

INFOID:0000000003765910

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

Diagnosis Procedure

INFOID:0000000003765911

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 and AV control unit harness connector.

Display unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M49	9	M129	43	Existed

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

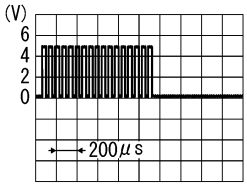
Display unit		Ground	Continuity
Connector	Terminal		
M49	9		Not existed

Is inspection result normal?

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 and ground using an oscilloscope.

(+) Display unit		(–)	Condition	Reference value
Connector	Terminal			
M49	9	Ground	When RGB image is displayed.	Approx. 5 V
			When AUX image is displayed.	 PKIB4948J

Is inspection result normal?

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

HORIZONTAL SYNCHRONIZING (HP) SIGNAL CIRCUIT

Description

INFOID:0000000003765912

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:0000000003765913

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 and AV control unit harness connector.

Display unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M49	8	M129	45	Existed

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

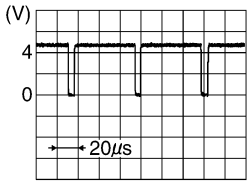
Display unit		Ground	Continuity
Connector	Terminal		
M49	8		Not existed

Is inspection result normal?

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 and ground using an oscilloscope.

(+)		(–)	Condition	Reference value
Display unit				
Connector	Terminal			
M49	8	Ground	—	

SKIB3601E

Is inspection result normal?

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

VERTICAL SYNCHRONIZING (VP) SIGNAL CIRCUIT

Description

INFOID:0000000003765914

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:0000000003765915

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 and AV control unit harness connector.

Display unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M49	20	M129	57	Existed

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

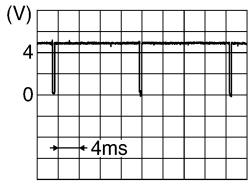
Display unit		Ground	Continuity
Connector	Terminal		
M49	20		Not existed

Is inspection result normal?

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 and ground using an oscilloscope.

(+) Display unit		(–)	Condition	Reference value
Connector	Terminal			
M49	20	Ground	—	

SKIB3598E

Is inspection result normal?

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

RGB (R: RED) SIGNAL CIRCUIT (NAVI CONTROL UNIT TO AV CONTROL UNIT)

Description

INFOID:0000000003765916

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

Diagnosis Procedure

INFOID:0000000003765917

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

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

NAVI control unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
B255	19	M130	63	Existed

4. Check continuity between NAVI control unit harness connector and ground.

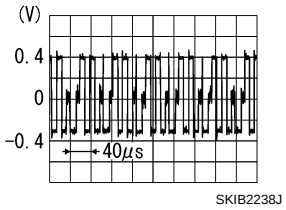
NAVI control unit		Ground	Continuity
Connector	Terminal		
B255	19		Not existed

Is inspection result normal?

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

2.CHECK RGB (R: RED) SIGNAL

1. Connect NAVI control unit connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check signal between NAVI control unit harness connector terminal and ground using an oscilloscope.

(+)		(–)	Condition	Reference value
NAVI control unit				
Connector	Terminal			
B255	19	Ground	Start Confirmation / Adjustment mode, and then display color bar by selecting “Color Spectrum Bar” on Navigation/Phone screen.	

SKIB2238J

Is inspection result normal?

YES >> Replace AV control unit.
NO >> Replace NAVI control unit.

RGB (G: GREEN) SIGNAL CIRCUIT (NAVI CONTROL UNIT TO AV CONTROL UNIT)

Description

INFOID:0000000003765918

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

Diagnosis Procedure

INFOID:0000000003765919

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

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

NAVI control unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
B255	20	M130	71	Existed

4. Check continuity between NAVI control unit harness connector and ground.

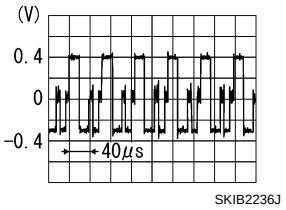
NAVI control unit		Ground	Continuity
Connector	Terminal		
B255	20		Not existed

Is inspection result normal?

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

2.CHECK RGB (G: GREEN) SIGNAL

1. Connect NAVI control unit connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check signal between NAVI control unit harness connector terminal and ground using an oscilloscope.

(+) NAVI control unit		(–)	Condition	Reference value
Connector	Terminal			
B255	20	Ground	Start Confirmation / Adjustment mode, and then display color bar by selecting “Color Spectrum Bar” on Navigation/Phone screen.	

SKIB2236J

Is inspection result normal?

YES >> Replace AV control unit.
NO >> Replace NAVI control unit.

RGB (B: BLUE) SIGNAL CIRCUIT (NAVI CONTROL UNIT TO AV CONTROL UNIT)

Description

INFOID:0000000003765920

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

Diagnosis Procedure

INFOID:0000000003765921

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

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

NAVI control unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
B255	21	M130	62	Existed

4. Check continuity between NAVI control unit harness connector and ground.

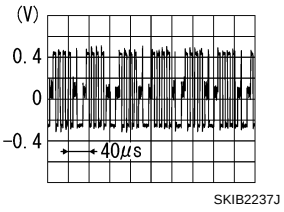
NAVI control unit		Ground	Continuity
Connector	Terminal		
B255	21		Not existed

Is inspection result normal?

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

2.CHECK RGB (B: BLUE) SIGNAL

1. Connect NAVI control unit connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check signal between NAVI control unit harness connector terminal and ground using an oscilloscope.

(+)		(–)	Condition	Reference value
NAVI control unit				
Connector	Terminal			
B255	21	Ground	Start Confirmation / Adjustment mode, and then display color bar by selecting “Color Spectrum Bar” on Navigation/Phone screen.	

SKIB2237J

Is inspection result normal?

YES >> Replace AV control unit.
NO >> Replace NAVI control unit.

RGB SYNCHRONIZING SIGNAL CIRCUIT (NAVI CONTROL UNIT TO AV CONTROL UNIT)

Description

INFOID:0000000003765922

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

Diagnosis Procedure

INFOID:0000000003765923

1.CHECK CONTINUITY RGB SYNCHRONIZING SIGNAL CIRCUIT

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

NAVI control unit		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
B255	23	M130	60	Existed

4. Check continuity between NAVI control unit harness connector and ground.

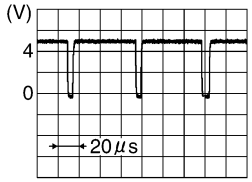
NAVI control unit		Ground	Continuity
Connector	Terminal		
B255	23		Not existed

Is inspection result normal?

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

2.CHECK RGB SYNCHRONIZING SIGNAL

1. Connect NAVI control unit connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check signal between NAVI control unit harness connector terminal and ground using an oscilloscope.

(+) NAVI control unit		(–)	Condition	Reference value
Connector	Terminal			
B255	23	Ground	—	

SKIB3603E

Is inspection result normal?

YES >> Replace AV control unit.
NO >> Replace NAVI control unit.

AUX IMAGE SIGNAL CIRCUIT

Description

INFOID:0000000003765924

Transmits the image signal of external device from auxiliary input jacks to AV control unit.

Diagnosis Procedure

INFOID:0000000003765925

1.CHECK CONTINUITY AUX IMAGE SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect auxiliary input jacks connector and DVD player connector.
3. Check continuity between auxiliary input jacks harness connector and DVD player harness connector.

Auxiliary input jacks		DVD player		Continuity
Connector	Terminals	Connector	Terminals	
M253	7	M254	8	Existed
	8		10	

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

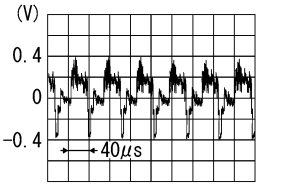
Auxiliary input jacks		Ground	Continuity
Connector	Terminal		
M253	7		Not existed

Is inspection result normal?

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

2.CHECK AUX IMAGE SIGNAL

1. Connect auxiliary input jacks connector and DVD player connector.
2. Turn ignition switch ON.
3. Make AUX image signal being input.
4. Check signal between auxiliary input jacks harness connector using an oscilloscope.

(+)		(–)		Condition	Reference value
Auxiliary input jacks		Auxiliary input jacks			
Connector	Terminal	Connector	Terminal		
M253	7	M253	8	When AUX image is displayed.	

SKIB2251J

Is inspection result normal?

YES >> Replace DVD player.
NO >> Check that there is no malfunction in the external device.

DISK EJECT SIGNAL CIRCUIT

Description

INFOID:0000000003765926

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

Diagnosis Procedure

INFOID:0000000003765927

1.CHECK CONTINUITY DISK EJECT SIGNAL CIRCUIT

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

Multifunction switch		AV control unit		Continuity
Connector	Terminal	Connector	Terminal	
M125	14	M131	103	Existed

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

Multifunction switch		Ground	Continuity
Connector	Terminal		
M125	14		Not existed

Is inspection result normal?

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 and ground.

(+)		(–)	Condition	Reference value
AV control unit				
Connector	Terminal			
M131	103	Ground	Pressing the eject switch.	0 V
			Except for above.	3.3 V

Is inspection result normal?

YES >> Replace preset switch.
NO >> Replace AV control unit.

MICROPHONE SIGNAL CIRCUIT

Description

INFOID:0000000003765928

Supply power from NAVI control unit to microphone. The microphone transmits the sound voice to the NAVI control unit.

Diagnosis Procedure

INFOID:0000000003765929

1.CHECK CONTINUITY BETWEEN NAVI CONTROL UNIT AND MICROPHONE CIRCUIT

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

NAVI control unit		Microphone		Continuity
Connector	Terminals	Connector	Terminals	
B255	39	R20	4	Existed
	41		1	
	42		2	

4. Check continuity between NAVI control unit harness connector and ground.

NAVI control unit		Ground	Continuity
Connector	Terminals		
B255	39		Not existed
	41		

Is inspection result normal?

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

2.CHECK VOLTAGE MICROPHONE VCC

1. Connect NAVI control unit connector.
2. Turn ignition switch ON.
3. Check voltage between NAVI control unit harness connector.

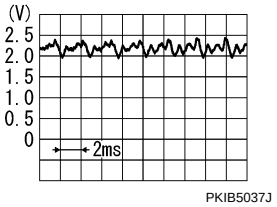
(+)		(–)		Voltage (Approx.)
NAVI control unit		NAVI control unit		
Connector	Terminals	Connector	Terminals	
B255	39	B255	42	5 V

Is inspection result normal?

YES >> GO TO 3.
NO >> Replace NAVI control unit.

3.CHECK MICROPHONE SIGNAL

1. Turn ignition switch OFF.
2. Connect microphone connector.
3. Turn ignition switch ON.
4. Check signal between NAVI control unit harness connector using an oscilloscope.

(+)		(–)		Condition	Reference value
NAVI control unit		NAVI control unit			
Connector	Terminal	Connector	Terminal		
B255	41	B255	42	Give a voice.	

PKIB5037J

Is inspection result normal?

YES >> Replace NAVI control unit.
NO >> Replace microphone.

REAR VIEW CAMERA POWER SUPPLY

Description

INFOID:0000000003821352

- 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 AV control unit.

Diagnosis Procedure

INFOID:0000000003821353

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 and rear view camera harness connector.

Camera control unit		Rear view camera		Continuity
Connector	Terminal	Connector	Terminal	
B251	8	T103	1	Existed

4. Check continuity between camera control unit harness connector and ground.

Camera control unit		Ground	Continuity
Connector	Terminal		
B251	8		Not existed

Is inspection result normal?

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 and ground.

(+)		(–)	Condition	Voltage (Approx.)
Camera control unit				
Connector	Terminal			
B251	8	Ground	Selector lever in R position.	6.0 V
			Other than selector lever in R position.	0 V

Is inspection result normal?

YES >> Replace rear view camera.
NO >> Replace camera control unit.

CAMERA IMAGE SIGNAL CIRCUIT

Description

INFOID:0000000003765932

- 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 AV control unit.

Diagnosis Procedure

INFOID:0000000003765933

1.CHECK CONTINUITY CAMERA IMAGE SIGNAL CIRCUIT

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

Camera control unit		AV control unit		Continuity
Connector	Terminals	Connector	Terminals	
B251	11	M130	64	Existed
	12		65	

4. Check continuity between camera control unit harness connector and ground.

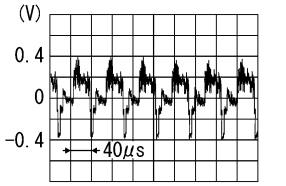
Camera control unit		Ground	Continuity
Connector	Terminal		
B251	12		Not existed

Is inspection result normal?

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

2.CHECK CAMERA IMAGE SIGNAL

1. Connect camera control unit connector and AV control unit connector.
2. Turn ignition switch ON.
3. Check signal between camera control unit harness connector using an oscilloscope.

(+)		(–)	Condition	Reference value
Camera control unit				
Connector	Terminal			
B251	12	Ground	When rear view camera image is displayed.	

SKIB2251J

Is inspection result normal?

YES >> Replace AV control unit.
NO >> Replace camera control unit.

COMPOSITE IMAGE SIGNAL CIRCUIT

Description

INFOID:0000000003765934

AV control unit that inputs the camera image signal and AUX image signal transmits the composite image signal to the display unit.

Diagnosis Procedure

INFOID:0000000003765935

1.CHECK CONTINUITY COMPOSITE IMAGE SIGNAL CIRCUIT (AV CONTROL UNIT TO DISPLAY UNIT)

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

AV control unit		Display unit		Continuity
Connector	Terminals	Connector	Terminals	
M129	36	M49	15	Existed
	37		5	

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

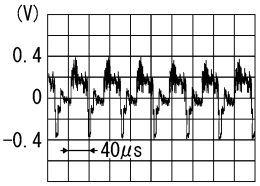
AV control unit		Ground	Continuity
Connector	Terminal		
M129	36		Not existed

Is inspection result normal?

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

2.CHECK COMPOSITE IMAGE SIGNAL (AV CONTROL UNIT TO DISPLAY UNIT)

1. Connect AV control unit connector and display unit connector.
2. Turn ignition switch ON.
3. Check signal between AV control unit harness connector using an oscilloscope.

(+)		(–)	Condition	Reference value
AV control unit				
Connector	Terminal			
M129	36	Ground	When AUX or camera image is displayed.	

SKIB2251J

Is inspection result normal?

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

STEERING ANGLE SENSOR SIGNAL CIRCUIT

Description

INFOID:0000000003765936

- 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:0000000003765937

1.CHECK CONTINUITY STEERING ANGLE SENSOR SIGNAL 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 and steering angle sensor harness connector.

Camera control unit		Steering angle sensor		Continuity
Connector	Terminals	Connector	Terminals	
B251	23	M30	3	Existed
	24		6	
	25		8	

4. Check continuity between camera control unit harness connector and ground.

Camera control unit		Ground	Continuity
Connector	Terminals		
B251	23	Ground	Not existed
	24		
	25		

Is inspection result normal?

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

2.CHECK SIGNAL SENSOR SIGNAL

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

(+)		(–)	Voltage (Approx.)
Camera control unit			
Connector	Terminals		
B251	23	Ground	5.0 V
	24		
	25		

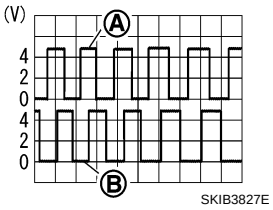
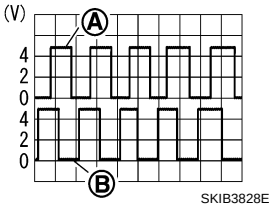
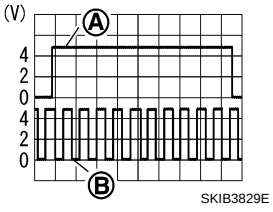
Is inspection result normal?

YES >> GO TO 3.
NO >> Replace camera control unit.

3.CHECK SIGNAL SENSOR SIGNAL

1. Turn ignition switch OFF.
2. Connect steering angle sensor connector.

3. Turn ignition switch ON.
4. Check signal between camera control unit harness connector and ground.

(+)		(–)	Condition	Reference value
Camera control unit				
Connector	Terminals			
B251	23, 24	Ground	Turn the steering to the right	 SKIB3827E A: Sensor signal 1 B: Sensor signal 2
			Turn the steering to the left	 SKIB3828E A: Sensor signal 1 B: Sensor signal 2
	25	Ground	Turn the steering around the neutral position	 SKIB3829E A: Sensor signal 3 B: Sensor signal 1

Is inspection result normal?

YES >> INSPECTION END
NO >> Replace steering angle sensor.

STEERING SWITCH SIGNAL A CIRCUIT

Description

INFOID:0000000003765938

Transmits the steering switch signal to AV control unit.

Diagnosis Procedure

INFOID:0000000003765939

1.CHECK STEERING SWITCH SIGNAL A CIRCUIT

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

AV control unit		Spiral cable		Continuity
Connector	Terminal	Connector	Terminal	
M127	6	M33	24	Existed

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

AV control unit		Ground	Continuity
Connector	Terminal		
M127	6		Not existed

Is inspection result normal?

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

2.CHECK SPIRAL CABLE

Check spiral cable.

Is inspection result normal?

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

3.CHECK AV CONTROL UNIT VOLTAGE

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

(+)		(–)		Voltage (Approx.)
AV control unit		AV control unit		
Connector	Terminal	Connector	Terminal	
M127	6	M127	15	3.5 V

Is inspection result normal?

YES >> GO TO 4.
NO >> Replace AV control unit.

4.CHECK STEERING SWITCH

1. Turn ignition switch OFF.
2. Check steering switch. Refer to AV-490, "Component Inspection".

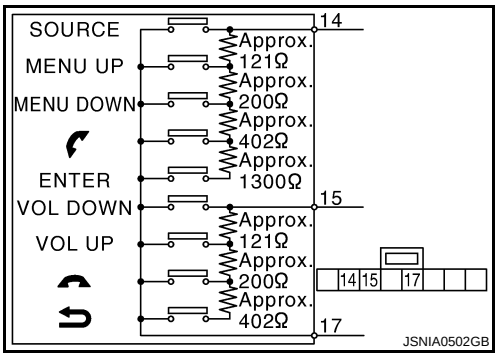
Is inspection result normal?

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

Component Inspection

INFOID:0000000003765940

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



Standard

Steering switch				Condition	Resistance Ω
Connector	Terminal	Connector	Terminal		
M303	14	M303	17	ENTER switch ON	1983 – 2063
				switch ON	709 – 737
				MENU DOWN switch ON	315 – 327
				MENU UP switch ON	119 – 123
				SOURCE switch ON	1
	15			switch ON	709 – 737
				switch ON	315 – 327
				VOL UP switch ON	119 – 123
				VOL DOWN switch ON	1

STEERING SWITCH SIGNAL B CIRCUIT

Description

INFOID:0000000003765941

Transmits the steering switch signal to AV control unit.

Diagnosis Procedure

INFOID:0000000003765942

1.CHECK STEERING SWITCH SIGNAL B CIRCUIT

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

AV control unit		Spiral cable		Continuity
Connector	Terminal	Connector	Terminal	
M127	16	M33	31	Existed

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

AV control unit		Ground	Continuity
Connector	Terminal		
M127	16		Not existed

Is inspection result normal?

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

2.CHECK SPIRAL CABLE

Check spiral cable.

Is inspection result normal?

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

3.CHECK AV CONTROL UNIT VOLTAGE

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

(+)		(–)		Voltage (Approx.)
AV control unit		AV control unit		
Connector	Terminal	Connector	Terminal	
M127	16	M127	15	3.5 V

Is inspection result normal?

YES >> GO TO 4.
NO >> Replace AV control unit.

4.CHECK STEERING SWITCH

1. Turn ignition switch OFF.
2. Check steering switch. Refer to AV-492, "Component Inspection".

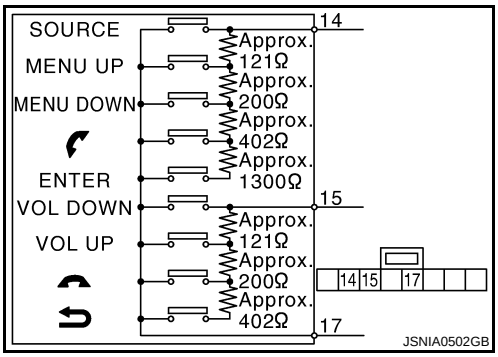
Is inspection result normal?

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

Component Inspection

INFOID:0000000003765943

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



Standard

Steering switch				Condition	Resistance Ω
Connector	Terminal	Connector	Terminal		
M303	14	M303	17	ENTER switch ON	1983 – 2063
				switch ON	709 – 737
				MENU DOWN switch ON	315 – 327
				MENU UP switch ON	119 – 123
				SOURCE switch ON	1
	15			switch ON	709 – 737
				switch ON	315 – 327
				VOL UP switch ON	119 – 123
				VOL DOWN switch ON	1

STEERING SWITCH SIGNAL GND CIRCUIT

Description

INFOID:0000000003765944

Transmits the steering switch signal to AV control unit.

Diagnosis Procedure

INFOID:0000000003765945

1.CHECK STEERING SWITCH SIGNAL GND CIRCUIT

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

AV control unit		Spiral cable		Continuity
Connector	Terminal	Connector	Terminal	
M127	15	M33	33	Existed

4. Connect AV control unit connector.

Is inspection result normal?

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

2.CHECK SPIRAL CABLE

Check spiral cable.

Is inspection result normal?

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

3.CHECK GROUND CIRCUIT

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

AV control unit		Ground	Continuity
Connector	Terminal		
M127	15		Existed

Is inspection result normal?

YES >> GO TO 4.
NO >> Replace AV control unit.

4.CHECK STEERING SWITCH

Check steering switch. Refer to AV-494, "Component Inspection".

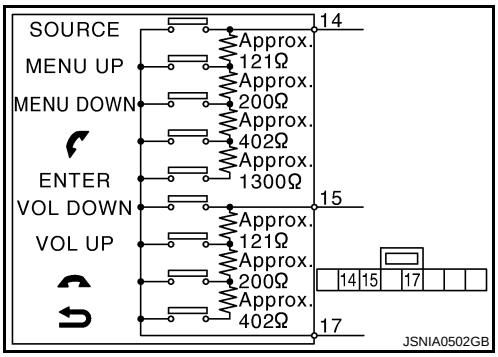
Is inspection result normal?

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

Component Inspection

INFOID:0000000003765946

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



Standard

Steering switch				Condition	Resistance Ω
Connector	Terminal	Connector	Terminal		
M303	14	M303	17	ENTER switch ON	1983 – 2063
				switch ON	709 – 737
				MENU DOWN switch ON	315 – 327
				MENU UP switch ON	119 – 123
				SOURCE switch ON	1
	15			switch ON	709 – 737
				switch ON	315 – 327
				VOL UP switch ON	119 – 123
				VOL DOWN switch ON	1

ECU DIAGNOSIS

AV CONTROL UNIT

Reference Value

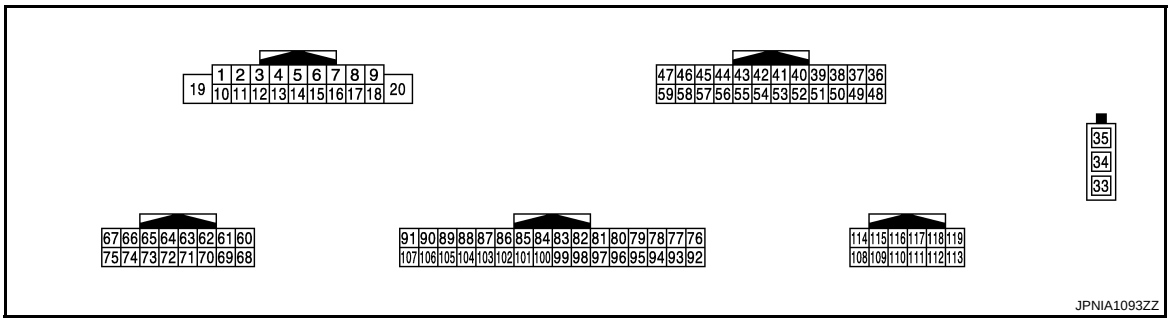
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VALUES ON THE DIAGNOSIS TOOL

CONSULT-III data monitor item

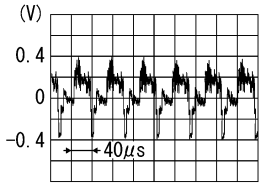
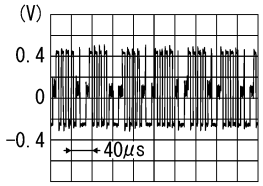
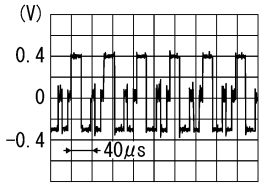
Display Item	Display	Vehicle status	Remarks
VHCL SPD SIG	On	Vehicle speed >0 km/h (0 MPH)	Changes in indication may be delayed. This is normal.
	Off	Vehicle speed =0 km/h (0 MPH)	
PKB SIG	On	Parking brake is applied.	Changes in indication may be delayed. This is normal.
	Off	Parking brake is released.	
ILLUM SIG	On	Light switch ON.	—
	Off	Light switch OFF.	
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.	

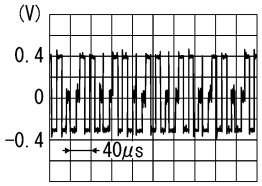
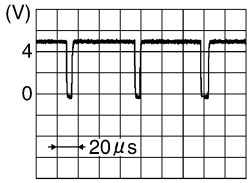
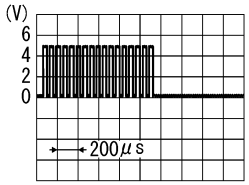
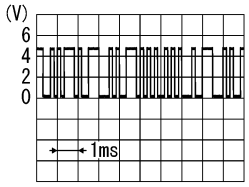
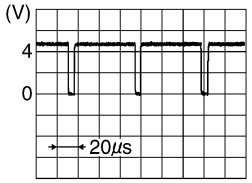
TERMINAL LAYOUT

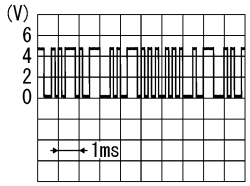
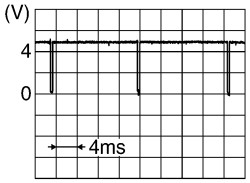
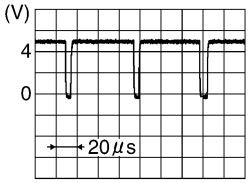
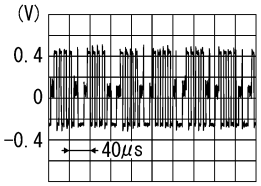
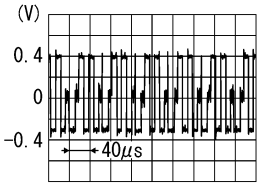
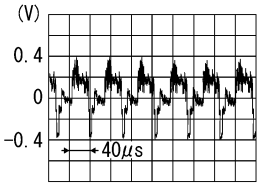


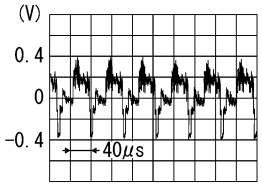
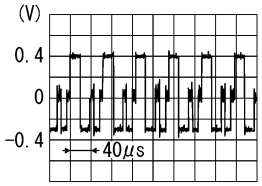
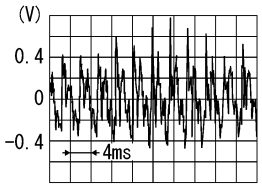
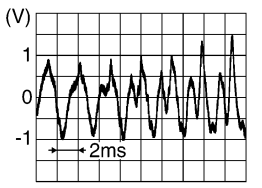
PHYSICAL VALUES

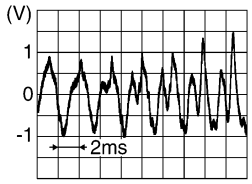
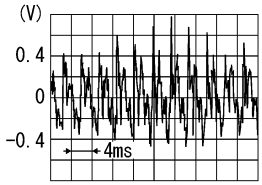
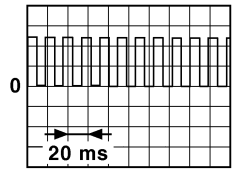
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
6 (W/G)	15 (L/B)	Steering switch signal A	Input	Ignition switch ON	Keep pressing SOURCE switch.	0 V
					Keep pressing △ switch.	0.8 V
					Keep pressing ▽ switch.	1.5 V
					Keep pressing switch.	2.1 V
					Keep pressing ENTER switch.	2.8 V
					Except for above.	3.5 V
7 (V/W)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
9 (R/L)	Ground	Illumination signal	Input	Ignition switch OFF	Lighting switch is OFF.	0 V
					Lighting switch is ON.	12.0 V

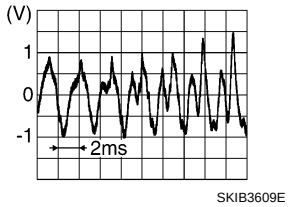
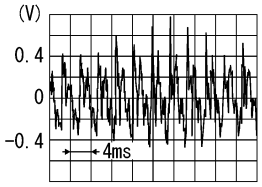
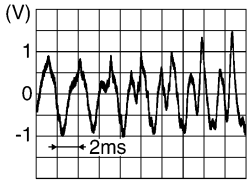
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
15 (L/B)	Ground	Steering switch signal ground	—	Ignition switch ON	—	0 V
16 (GR/L)	15 (L/B)	Steering switch signal B	Input	Ignition switch ON	Keep pressing VOL DOWN switch.	0 V
					Keep pressing VOL UP switch.	0.8 V
					Keep pressing switch.	1.5 V
					Keep pressing switch.	2.1 V
					Except for above.	3.5 V
19 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
20 (B/W)	Ground	Ground	—	Ignition switch ON	—	0 V
33	—	FM sub	Input	—	—	—
34	—	AM–FM main	Input	—	—	—
35	Ground	Antenna amp. ON signal	Output	Ignition switch ACC	—	12.0 V
36 (B)	Ground	Composite image signal	Output	Ignition switch ON	When camera image or AUX image is displayed.	 SKIB2251J
37 (W)	Ground	Composite image ground	—	Ignition switch ON	—	0 V
38 (B)	Ground	RGB image 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
39 (R)	Ground	RGB image 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

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
40 (W)	Ground	RGB image 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
41 (G)	Ground	RGB synchronizing signal	Output	Ignition switch ON	—	 SKIB3603E
42	Ground	RGB synchronizing ground	—	—Ignition switch ON	—	0 V
43 (B)	Ground	RGB area (YS) signal	Output	Ignition switch ON	When RGB image is displayed.	5.0 V
					When camera image or AUX image is displayed.	 PKIB4948J
44 (G)	Ground	Communication signal (DISP→CONT)	Input	Ignition switch ON	When adjusting display brightness.	 PKIB5039J
45 (W)	Ground	Horizontal synchronizing (HP) signal	Input	Ignition switch ON	—	 SKIB3601E
49	—	Shield	—	—	—	—
50	Ground	RGB ground	—	—Ignition switch ON	—	0 V
55	Ground	Shield	—	—	—	—

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
56 (R)	Ground	Communication signal (CONT→DISP)	Output	Ignition switch ON	When adjusting display brightness.	 PKIB5039J
57 (R)	Ground	Vertical synchronizing (VP) signal	Input	Ignition switch ON	—	 SKIB3598E
60 (O)	Ground	RGB synchronizing signal	Input	Ignition switch ON	—	 SKIB3603E
61	Ground	RGB synchronizing signal ground	—	Ignition switch ON	—	0 V
62 (W)	Ground	RGB image signal (B: blue)	Input	Ignition switch ON	Start confirmation/adjustment mode, and then display color bar by selecting “Color Spectrum Bar” on Navigation/Phone screen.	 SKIB2237J
63 (R)	Ground	RGB image signal (R: red)	Input	Ignition switch ON	Start confirmation/adjustment mode, and then display color bar by selecting “Color Spectrum Bar” on Navigation/Phone screen.	 SKIB2238J
64	Ground	camera image ground	—	Ignition switch ON	—	0 V
65 (Y)	Ground	Camera image signal	Input	Ignition switch ON	When camera image is displayed.	 SKIB2251J

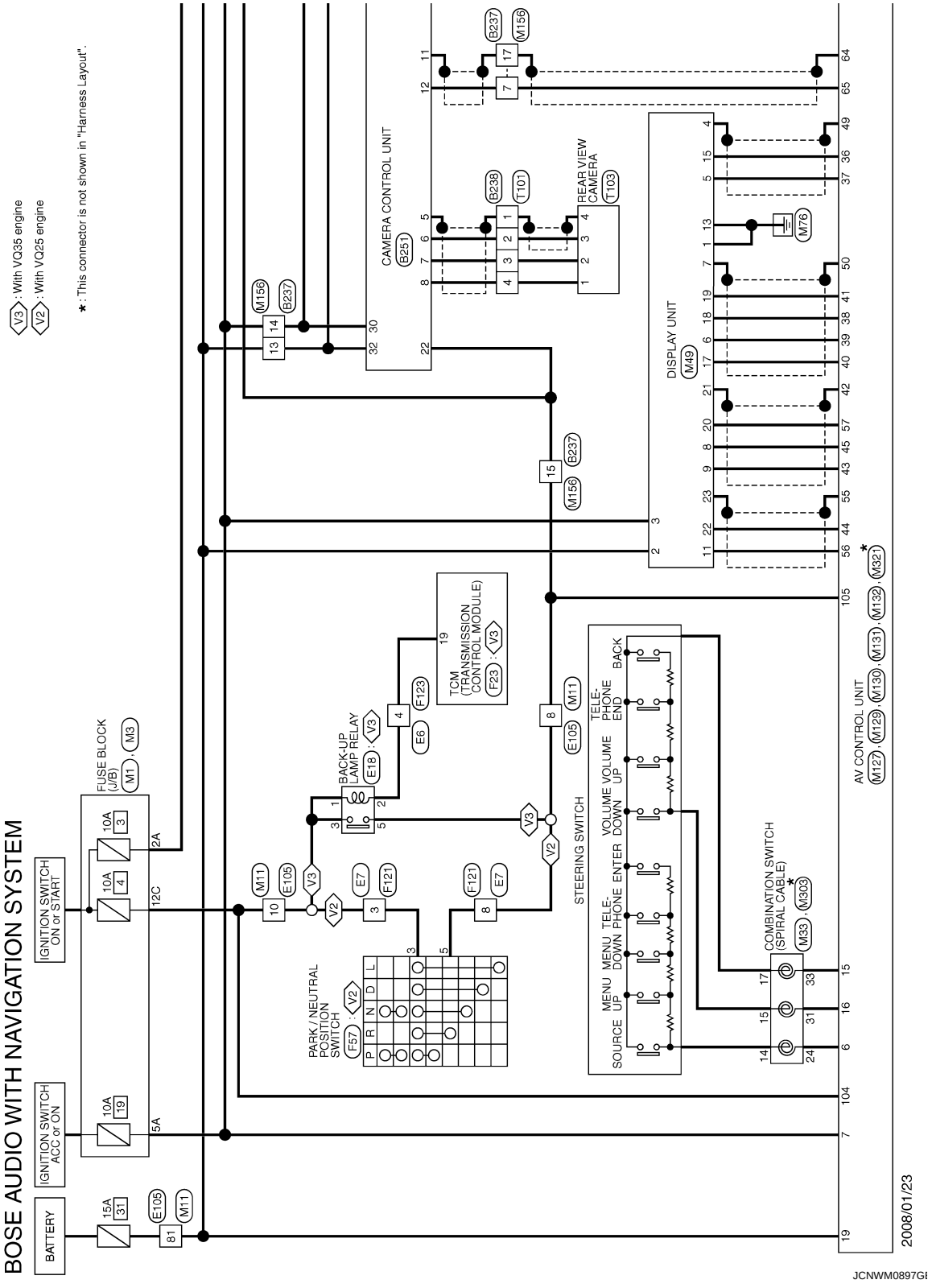
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
66 (V)	Ground	Composite (DVD and AUX) image signal	Input	Ignition switch ON	When AUX image is displayed.	 SKIB2251J
68 (W)	Ground	Camera connection recognition signal	Input	Ignition switch ON	Connected to camera control unit connector	0 V
					Not connected to camera control unit connector	5 V
70 (B)	Ground	RGB ground	—	Ignition switch ON	—	0 V
71 (G)	Ground	RGB image signal (G: green)	Input	Ignition switch ON	Start confirmation/adjustment mode, and then display color bar by selecting “Color Spectrum Bar” on Navigation/Phone screen.	 SKIB2236J
73	—	Composite image signal ground	—	—	—	—
74 (G)	Ground	Composite (DVD and AUX) image signal ground	—	Ignition switch ON	—	0 V
78 (BR)	Ground	Switch ground	—	Ignition switch ON	—	0 V
80 (B)	79 (W)	TEL voice signal	Input	Ignition switch ON	TEL voice output.	 SKIB1990E
81	—	Tel voice shield	—	—	—	—
83 (R)	82 (W)	Stereo (DVD and AUX) sound signal RH	Input	Ignition switch ON	DVD sound signal or AUX sound signal input	 SKIB3609E
84	—	Voice guidance shield	—	—	—	—
85 (B/W)	Ground	Ground	—	Ignition switch ON	—	0 V

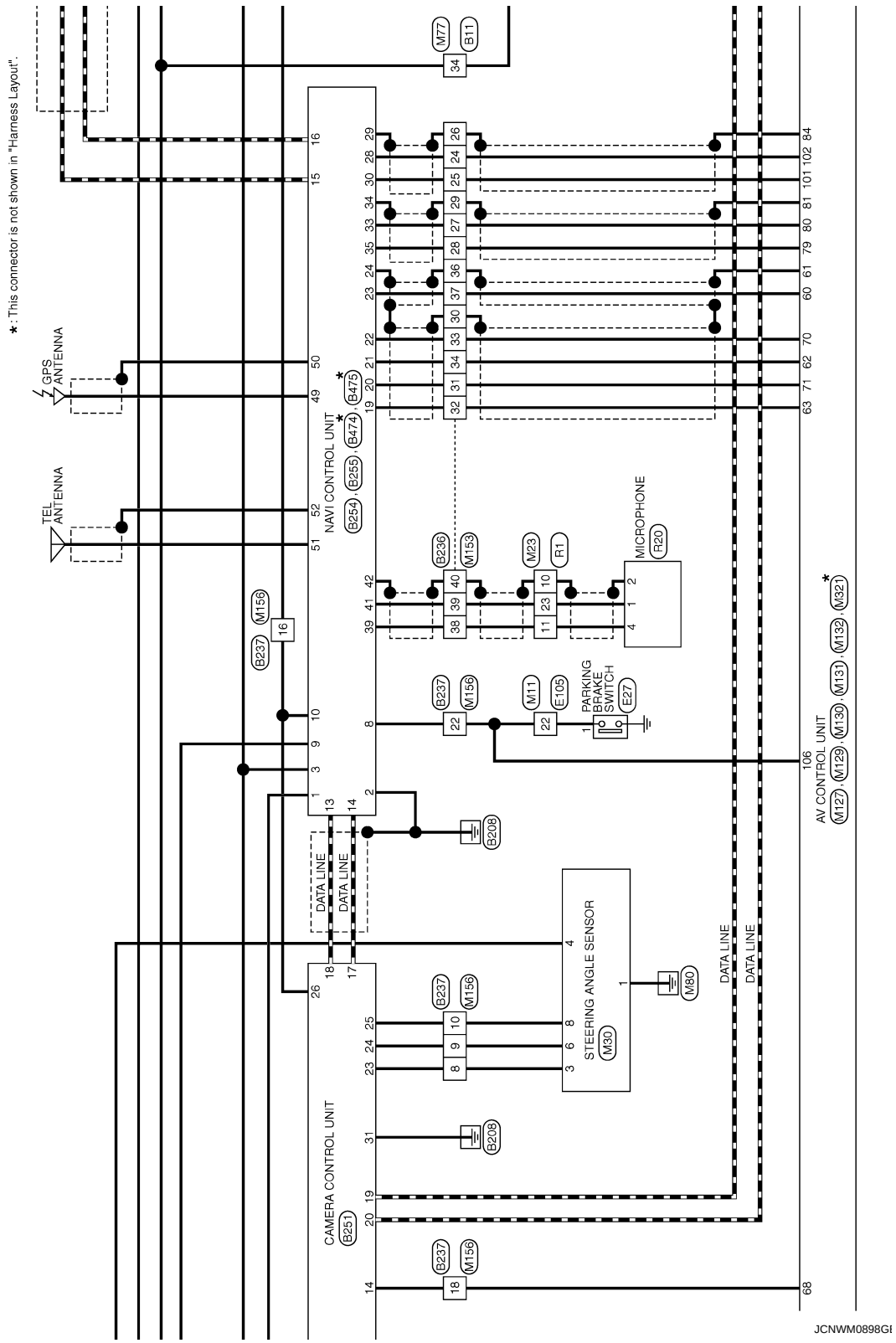
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
86 (L)	—	CAN–H	Input/ Output	—	—	—
87 (P)	—	CAN–L	Input/ Output	—	—	—
88 (W)	—	AV communication signal (H)	Input/ Output	—	—	—
89 (B)	—	AV communication signal (L)	Input/ Output	—	—	—
90 (L)	—	AV communication signal (H)	Input/ Output	—	—	—
91 (R)	—	AV communication signal (L)	Input/ Output	—	—	—
99 (B)	98 (G)	Stereo (DVD and AUX) sound signal LH	Input	Ignition switch ON	DVD sound signal or AUX sound input.	 SKIB3609E
100	—	Stereo (DVD and AUX) sound signal shield	—	—	—	—
102 (L)	101 (P)	Voice guidance signal	Input	Ignition switch ON	Voice guidance output.	 SKIB1990E
103 (SB)	Ground	Disk eject signal	Input	Ignition switch ON	Pressing the eject switch.	0 V
					Except for above.	3.3 V
104 (O)	Ground	Ignition signal	Input	Ignition switch ON	—	Battery voltage
105 (P/B)	Ground	Reverse signal	Input	Ignition switch ON	R position.	12.0 V
					Other than R position.	0 V
106 (G/R)	Ground	Parking brake signal	Input	Ignition switch ON	Parking brake ON.	0 V
					Parking brake OFF.	5 V
107 (V/W)	Ground	Vehicle speed signal (8-pulse)	Input	Ignition switch ON	When vehicle speed is approx. 40 km/h (25MPH).	**NOTE:** The maximum voltage varies depending on the specification (destination unit).  JSNIA0012GB

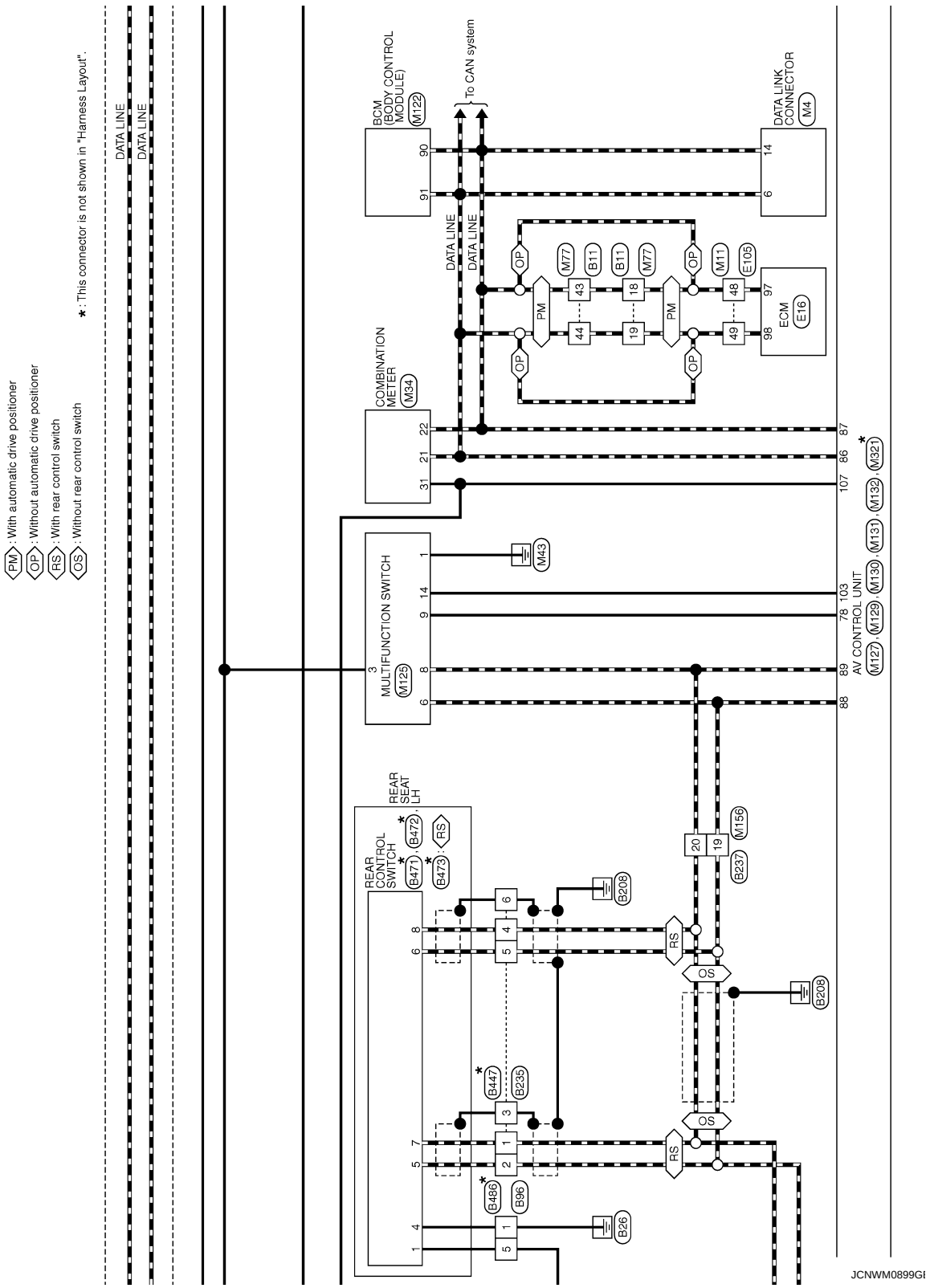
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
109 (W)	115 (B)	Stereo sound signal front RH	Output	Ignition switch ON	Sound output.	 SKIB3609E
111	—	Shield	—	—	—	—
112 (BR)	118 (Y)	Voice guidance signal	Output	Ignition switch ON	Voice guidance output.	 SKIB1990E
113 (W)	119 (B)	Stereo sound signal front LH	Output	Ignition switch ON	Sound output.	 SKIB3609E

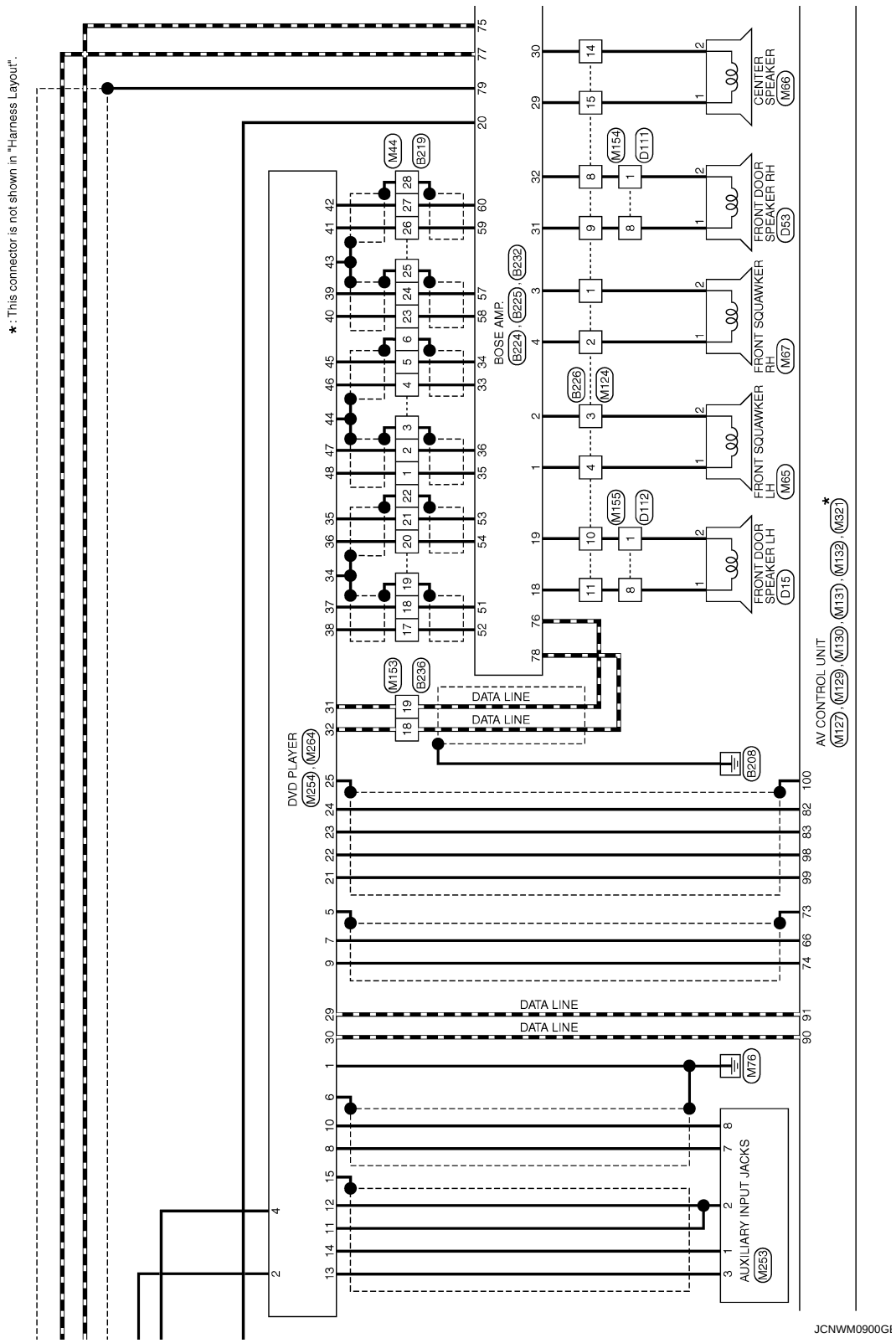
Wiring Diagram — BOSE AUDIO WITH NAVIGATION SYSTEM —

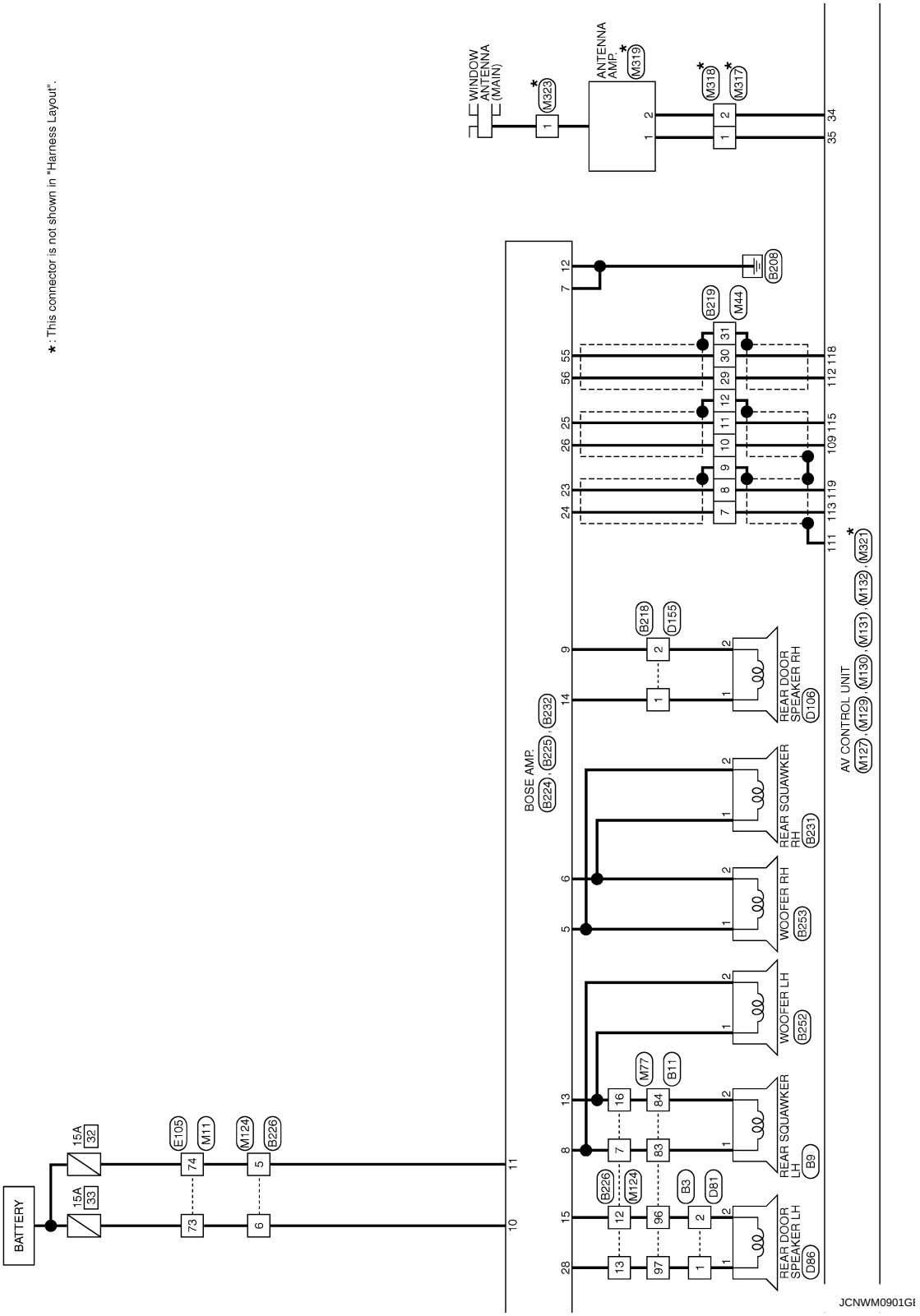
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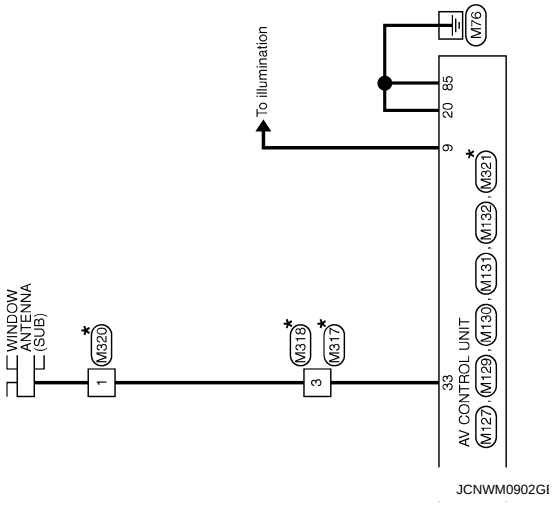

*: This connector is not shown in "Harness Layout".
GPS ANTENNA
TEL ANTENNA
NAVI CONTROL UNIT
B474, B475, B254, B255
CAMERA CONTROL UNIT
B251
AV CONTROL UNIT
M127, M129, M130, M131, M132, M321
MICROPHONE
R20
PARKING BRAKE SWITCH
E27
STEERING ANGLE SENSOR
M30
DATA LINE
DATA LINE
DATA LINE
DATA LINE
JCNWM0898GB


PM : With automatic drive positioner
OP : Without automatic drive positioner
RS : With rear control switch
OS : Without rear control switch
*: This connector is not shown in "Harness Layout".
DATA LINE
DATA LINE
BCM (BODY CONTROL MODULE) M122
To CAN system
DATA LINK CONNECTOR M4
COMBINATION METER M34
ECM E16
MULTIFUNCTION SWITCH M125
AV CONTROL UNIT M127, M129, M130, M131, M132, M321
REAR CONTROL SWITCH B471, B472, B473
REAR SEAT LH
B208
B237
M156
B447
B235
B486
B96
B26
M43
JCNWM0899GB


*: This connector is not shown in "Harness Layout".
BOSE AMP.
B224, B225, B232
B226
M124
M44
B219
M153
B236
DVD PLAYER
M254, M264
DATA LINE
DATA LINE
DATA LINE
DATA LINE
B208
M76
AUXILIARY INPUT JACKS
M253
CENTER SPEAKER
M66
FRONT DOOR SPEAKER RH
D53
M154
D111
FRONT SQUAWKER RH
M67
FRONT SQUAWKER LH
M65
M155
D112
FRONT DOOR SPEAKER LH
D15
AV CONTROL UNIT
M127, M129, M130, M131, M132, M321
*
JCNWM0900GB

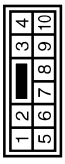

*: This connector is not shown in "Harness Layout".
BATTERY
15A 32
15A 33
E105
M11
M124
B226
74
73
5
6
11
10
WINDOW ANTENNA (MAIN)
M323
ANTENNA AMP.
M319
M318
M317
35 34
B208
B219
M44
31 30 29 12 11 10 9 8 7
56 55 25 26 23 24
112 118 109 115 113 119 111
AV CONTROL UNIT
M127, M129, M130, M131, M132, M321
BOSE AMP.
B224, B225, B232
B218
D155
REAR DOOR SPEAKER RH
D106
REAR SQUAWKER RH
B231
WOOFER RH
B253
WOOFER LH
B252
REAR SQUAWKER LH
B9
M77
B11
B226
M124
B3
D81
REAR DOOR SPEAKER LH
D86
JCNWM0901GB

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



BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B3
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS



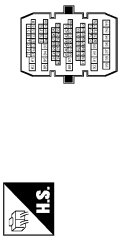
Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	–[With BOSE system]
2	O	–[With BOSE system]

Connector No.	B9
Connector Name	REAR SQUAWKER LH
Connector Type	TK02MBR-P



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

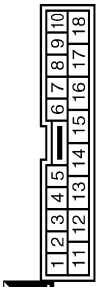
Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS19



Terminal No.	Color of Wire	Signal Name [Specification]
18	P	–
19	L	–
34	G	–
43	P	–
44	L	–
83	BR	–
84	R	–
96	O	–[With BOSE system]
97	LG	–[With BOSE system]

Terminal No.	Color of Wire	Signal Name [Specification]
12	SHIELD	–
17	B	–
18	W	–
19	SHIELD	–
20	Y	–
21	BR	–
22	SHIELD	–
23	W/R	–
24	B/R	–
25	SHIELD	–
26	GR/V	–
27	W/L	–
28	SHIELD	–
29	W/L	–
30	W/R	–
31	SHIELD	–

Connector No.	B96
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



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

Connector No.	B218
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS

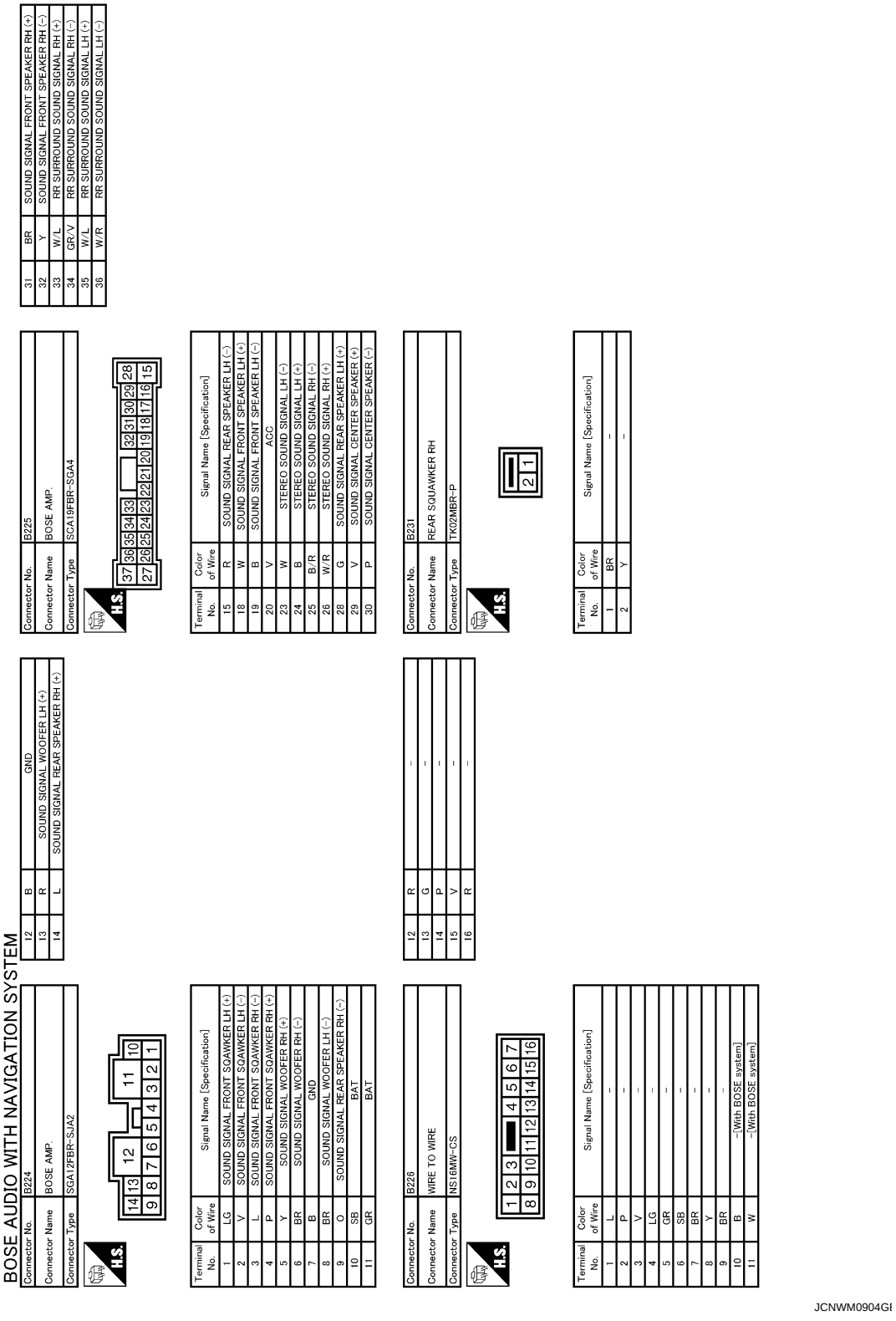
Terminal No.	Color of Wire	Signal Name [Specification]
1	L	–
2	O	–

Connector No.	B219
Connector Name	WIRE TO WIRE
Connector Type	TH32MW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
1	W/L	–
2	W/R	–
3	SHIELD	–
4	W/L	–
5	GR/V	–
6	SHIELD	–
7	B	–
8	W	–
9	SHIELD	–
10	W/R	–
11	B/R	–

JCNWM0903GB

BOSE AUDIO WITH NAVIGATION SYSTEM



JCNWM0904GI

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B232
Connector Name	BOSE AMP.
Connector Type	TH40FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
51	W	FR SURROUND SOUND SIGNAL LH (-)
52	B	FR SURROUND SOUND SIGNAL LH (+)
53	BR	FR SURROUND SOUND SIGNAL RH (-)
54	Y	FR SURROUND SOUND SIGNAL RH (+)
55	W/R	VOICE GUIDANCE SIGNAL (-)
56	W/L	VOICE GUIDANCE SIGNAL (+)
57	B/R	CENTER SURROUND SOUND SIGNAL (-)
58	W/R	CENTER SURROUND SOUND SIGNAL (+)
59	GR/V	SURROUND SOUND SIGNAL LFE (-)
60	W/L	SURROUND SOUND SIGNAL LFE (+)
75	P	AV COMM (L) [With navigation system]
76	P	AV COMM (L)
77	L	AV COMM (H) [With navigation system]
78	L	AV COMM (H)
79	SHIELD	SHIELD

Connector No.	B235
Connector Name	WIRE TO WIRE
Connector Type	SD02MGY

Terminal No.	Color of Wire	Signal Name [Specification]
1	P	–
2	L	–
3	SHIELD	–
4	G	–
5	R	–
6	SHIELD	–

Connector No.	B236
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-NH

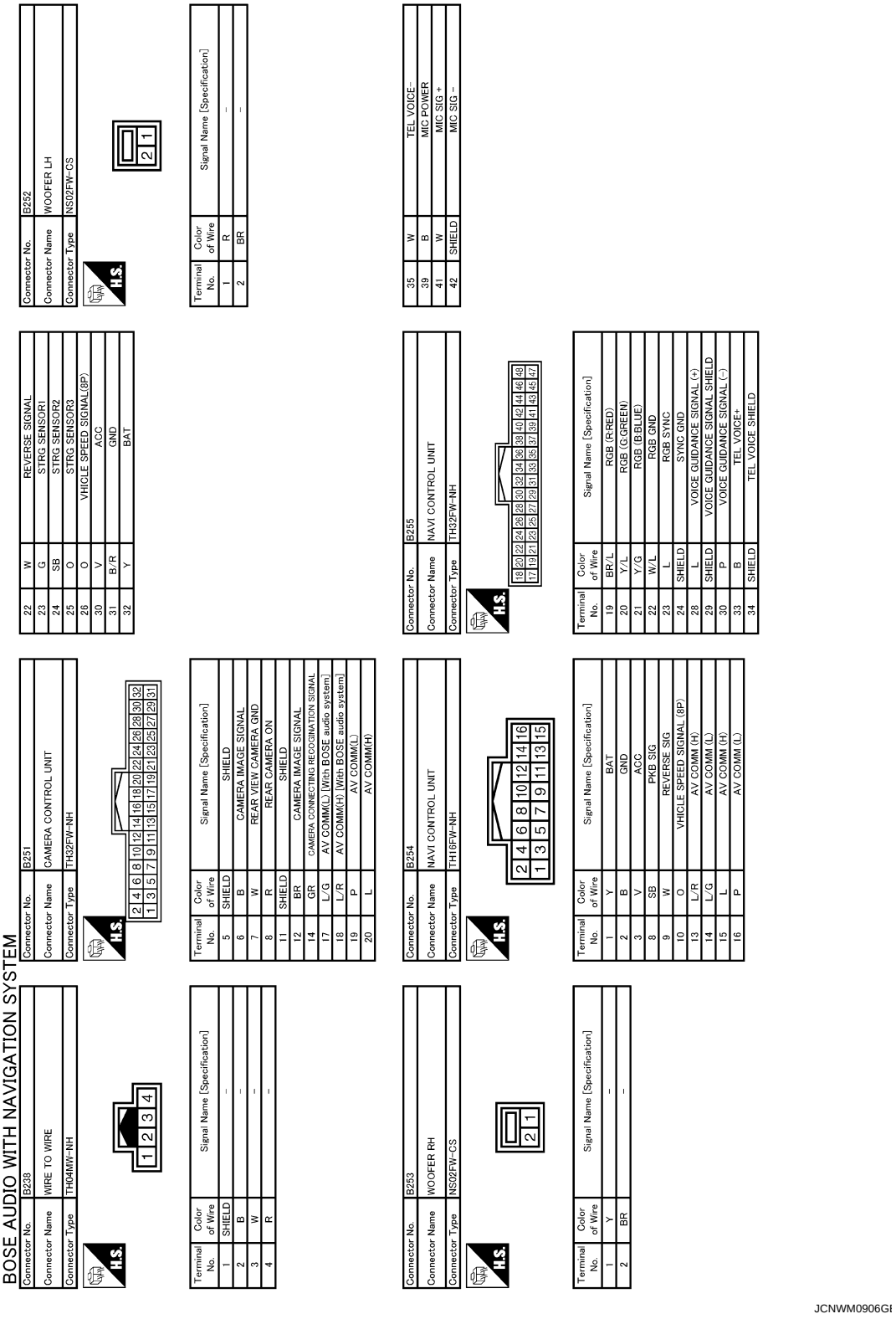
Terminal No.	Color of Wire	Signal Name [Specification]
18	L	–[With BOSE system]
19	P	–[With BOSE system]
24	L	–
25	P	–
26	SHIELD	–
27	B	–
28	W	–
29	SHIELD	–
30	SHIELD	–
31	Y/L	–
32	BR/L	–
33	W/L	–
34	Y/G	–
36	SHIELD	–
37	L	–
38	B	–
39	W	–
40	SHIELD	–

Connector No.	B237
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
7	BR	–
8	G	–
9	SB	–
10	O	–
13	Y	–
14	V	–
15	W	–
16	O	–
17	SHIELD	–
18	GR	–
19	R	–[With rear control switch]
19	L	–[Without rear control switch]
20	G	–[With rear control switch]
20	P	–[Without rear control switch]
22	SB	–

JCNWM0905GB

BOSE AUDIO WITH NAVIGATION SYSTEM



JCNWM0906GB

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B447
Connector Name	WIRE TO WIRE
Connector Type	SD02FGY



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–
2	B	–
3	SHIELD	–
4	Y	–
5	G	–
6	SHIELD	–

Connector No.	B471
Connector Name	REAR CONTROL SWITCH
Connector Type	TH04FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	R/Y	–
4	Y	–

Connector No.	B472
Connector Name	REAR CONTROL SWITCH
Connector Type	SD01FGY



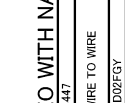
Terminal No.	Color of Wire	Signal Name [Specification]
5	G	–
7	Y	–

Connector No.	B473
Connector Name	REAR CONTROL SWITCH
Connector Type	SD01MGY



Terminal No.	Color of Wire	Signal Name [Specification]
6	B	–
8	W	–

Connector No.	B474
Connector Name	NAVI CONTROL UNIT
Connector Type	GT5-1S-HU



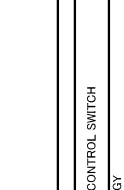
Terminal No.	Color of Wire	Signal Name [Specification]
49	–	GPS ANTENNA SIGNAL
50	–	SHIELD

Connector No.	B475
Connector Name	NAVI CONTROL UNIT
Connector Type	GT16C-1S-HU



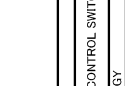
Terminal No.	Color of Wire	Signal Name [Specification]
51	–	TEL ANTENNA SIGNAL
52	–	SHIELD

Connector No.	B486
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8



Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	–
5	R/Y	–

Connector No.	D15
Connector Name	FRONT DOOR SPEAKER LH (WITH BOSE SYSTEM)
Connector Type	NS02FBR-CS



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

JCNWM0907GB

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	D53
Connector Name	FRONT DOOR SPEAKER RH (WITH BOSE SYSTEM)
Connector Type	NS02FBR-CS



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

Connector No.	D81
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS



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

Connector No.	D86
Connector Name	REAR DOOR SPEAKER LH (WITH BOSE SYSTEM)
Connector Type	NS02FBR-CS



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

Connector No.	D106
Connector Name	REAR DOOR SPEAKER RH (WITH BOSE SYSTEM)
Connector Type	NS02FBR-CS



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

Connector No.	D111
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–[With BOSE system]
8	B	–[With BOSE system]

Connector No.	D112
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS

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

Connector No.	D155
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–
2	B	–[With BOSE system]

Connector No.	E6
Connector Name	WIRE TO WIRE
Connector Type	TK16MGY-1V

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

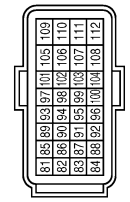
JCNWM0908GB

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	E7
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS

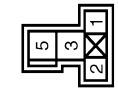
Terminal No.	Color of Wire	Signal Name [Specification]
3	LG	–
8	R	–

Connector No.	E16
Connector Name	ECM
Connector Type	RH24FB-RZ8-L-LH



Terminal No.	Color of Wire	Signal Name [Specification]
97	P	VEHCAN-L
98	L	VEHCAN-H

Connector No.	E18
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS02FL-MZ-LC



Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	–
2	R	–
3	LG	–
5	R	–

Connector No.	E27
Connector Name	PARKING BRAKE SWITCH
Connector Type	P01FB-A



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

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH70MW-CS10-M3

Terminal No.	Color of Wire	Signal Name [Specification]
8	R	–
10	LG	–
22	P	–
48	P	–
49	L	–
73	R	–
74	BR	–
81	Y	–

Connector No.	F23
Connector Name	TCM (TRANSMISSION CONTROL MODULE)
Connector Type	RH40FB-RZ8-L-RH

Terminal No.	Color of Wire	Signal Name [Specification]
19	G/B	REV LAMP RELAY

Connector No.	F57
Connector Name	PARK / NEUTRAL POSITION SWITCH
Connector Type	YDX06FB-HS4

Terminal No.	Color of Wire	Signal Name [Specification]
3	LG	–
5	P/B	–

Connector No.	F121
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS

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

JCNWM0909GB

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	F123
Connector Name	WIRE TO WIRE
Connector Type	TK16FGY-1V



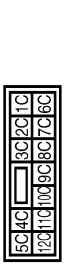
Terminal No.	Color of Wire	Signal Name [Specification]
4	G/B	–

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



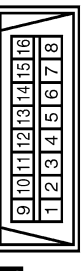
Terminal No.	Color of Wire	Signal Name [Specification]
2A	G/O	–
5A	V/O	–

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



Terminal No.	Color of Wire	Signal Name [Specification]
12C	O	–

Connector No.	M4
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



Terminal No.	Color of Wire	Signal Name [Specification]
6	L	–
14	P	–

Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Type	TH70FW-CS10-M3

Terminal No.	Color of Wire	Signal Name [Specification]
8	P/B	–
10	O	–
22	G/R	–
48	P	–
49	L	–
73	B/R	–
74	BR	–
81	Y	–

Connector No.	M23
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
10	SHIELD	–
11	R	–
23	G	–

Connector No.	M30
Connector Name	STEERING ANGLE SENSOR
Connector Type	TH08FW-NH

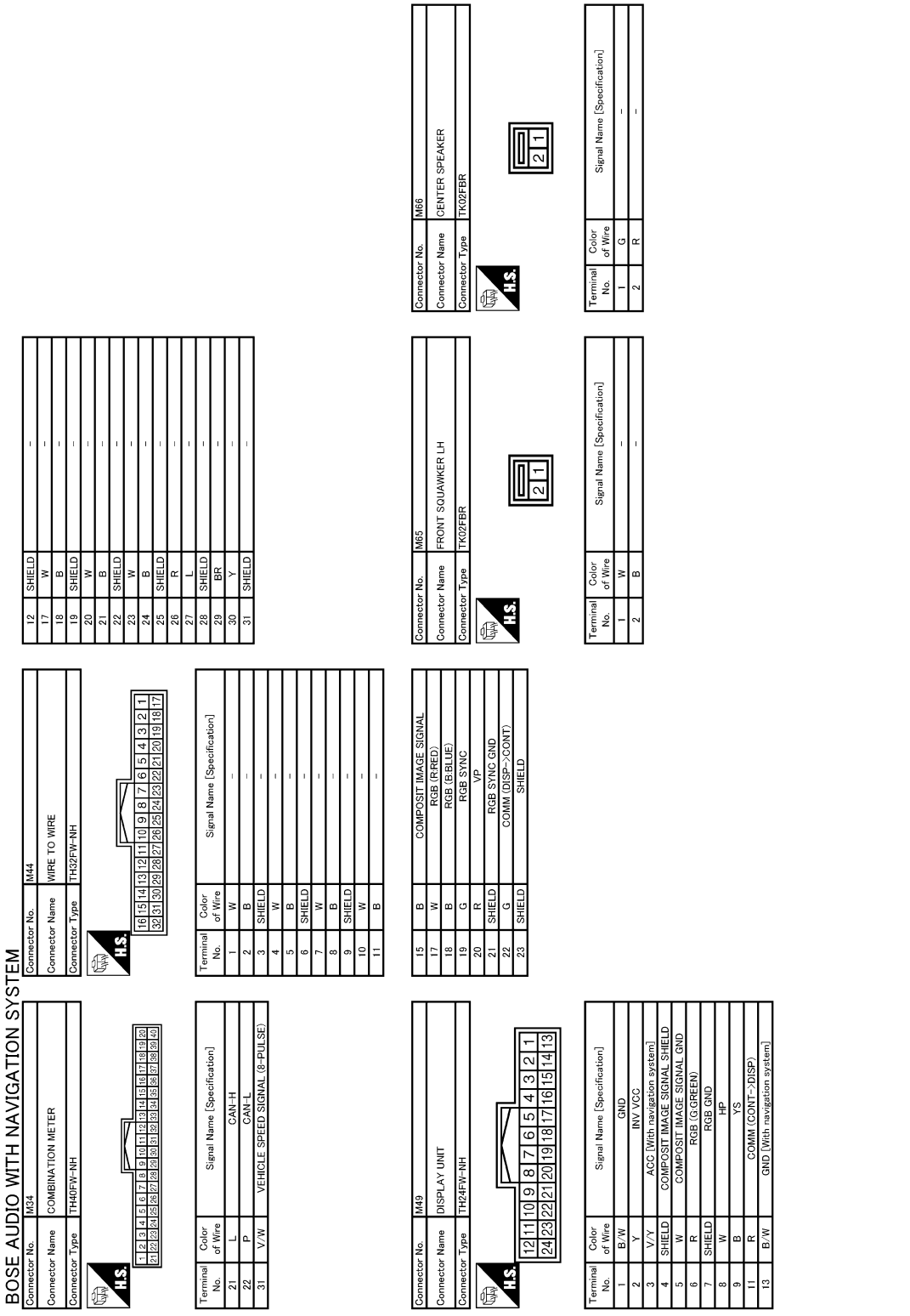
Terminal No.	Color of Wire	Signal Name [Specification]
1	B	–
3	L/Y	–
4	G	–
6	B/R	–
8	O	–

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

Terminal No.	Color of Wire	Signal Name [Specification]
24	W/G	–
31	GR/L	–
33	L/B	–

JCNWM0910GB

BOSE AUDIO WITH NAVIGATION SYSTEM



JCNWM0911GE

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M67
Connector Name	FRONT SQUAWKER RH
Connector Type	TK02FBR

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

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS19



Terminal No.	Color of Wire	Signal Name [Specification]
18	P	–
19	L	–
34	V/R	–
43	P	–
44	L	–
83	G/B	–
84	W/B	–
96	W/R	–
97	O/B	–

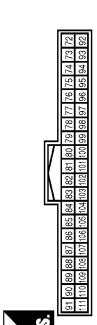
Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



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

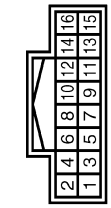
Terminal No.	Color of Wire	Signal Name [Specification]
12	W/R	–
13	O/B	–
14	R	–
15	G	–
16	W/B	–

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



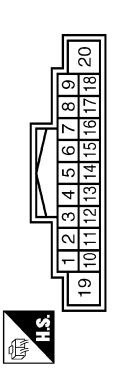
Terminal No.	Color of Wire	Signal Name [Specification]
90	P	CAN-L
91	L	CAN-H

Connector No.	M125
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH16FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
3	V/R	ACC
6	W	M-CAN H
8	B	M-CAN L
9	BR	SW GND
14	SB	CD(DVD) EJECT

Connector No.	M127
Connector Name	AV CONTROL UNIT
Connector Type	TH18FW-CS2



Terminal No.	Color of Wire	Signal Name [Specification]
6	W/G	STRG SW A
7	V/W	ACC
9	R/L	ILL
15	L/B	STRG SW GND
16	GR/L	STRG SW B
19	Y	BAT
20	B/W	GND

JCNWM0912GB

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M129
Connector Name	AV CONTROL UNIT
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
36	B	COMPOSIT IMAGE SIGNAL
37	W	COMPOSIT IMAGE SIGNAL GND
38	B	RGB (B:BLUE)
39	R	RGB (G:GREEN)
40	W	RGB (R:RED)
41	G	RGB SYNC
42	SHIELD	RGB SYNC GND
43	B	YS
44	G	COMM (DISP->)CONT)
45	W	HP
49	SHIELD	COMP OUT SHIELD

Connector No.	M131
Connector Name	AV CONTROL UNIT
Connector Type	TH32FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
78	BR	SW GND [With navigation system]
79	W	TEL VOICE- [With navigation system]
80	B	TEL VOICE+ [With navigation system]
81	SHIELD	VOICE SHIELD [With navigation system]
82	W	STEREO (DVD AND AUX) SOUND SIGNAL RH (-) [With BOSE audio system]
83	R	STEREO (DVD AND AUX) SOUND SIGNAL RH (+) [With BOSE audio system]
84	SHIELD	VOICE SHIELD [With navigation system]
85	B/W	GND
86	L	CAN-H
87	P	CAN-L
88	W	AV COMM (H)
89	B	AV COMM (L)
90	L	AV COMM (H)
91	R	AV COMM (L)
98	G	STEREO (DVD AND AUX) SOUND SIGNAL LH (-) [With BOSE audio system]
99	B	STEREO (DVD AND AUX) SOUND SIGNAL LH (+) [With BOSE audio system]
100	SHIELD	STEREO SOUND SIGNAL SHIELD [With BOSE audio system]
101	P	GUIDE VOICE- [With navigation system]
102	L	GUIDE VOICE+ [With navigation system]
103	SB	DISC EJECT SIG
104	O	IGN
105	P/B	REVERSE SIG
106	G/R	PKB SIG
107	V/W	VEHICLE SPEED SIG (8P)

Connector No.	M130
Connector Name	AV CONTROL UNIT
Connector Type	TH16FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
60	O	RGB SYNC [With navigation system]
61	SHIELD	RGB SYNC GND [With navigation system]
62	W	RGB(B:BLUE) [With navigation system]
63	R	RGB(R:RED) [With navigation system]
64	SHIELD	CAMERA IMAGE SIGNAL GND
65	Y	CAMERA IMAGE SIGNAL
66	V	COMPOSIT (DVD AND AUX) IMAGE SIGNAL [With BOSE system]
68	W	CAMERA CONNECTION RECOGNATION SIGNAL
70	B	RGB GND
71	G	RGB (G:GREEN) [With navigation system]
73	SHIELD	COMPOSIT IMAGE SIGNAL SHIELD

Connector No.	M132
Connector Name	AV CONTROL UNIT (WITH BOSE SYSTEM)
Connector Type	TH12FW-NH

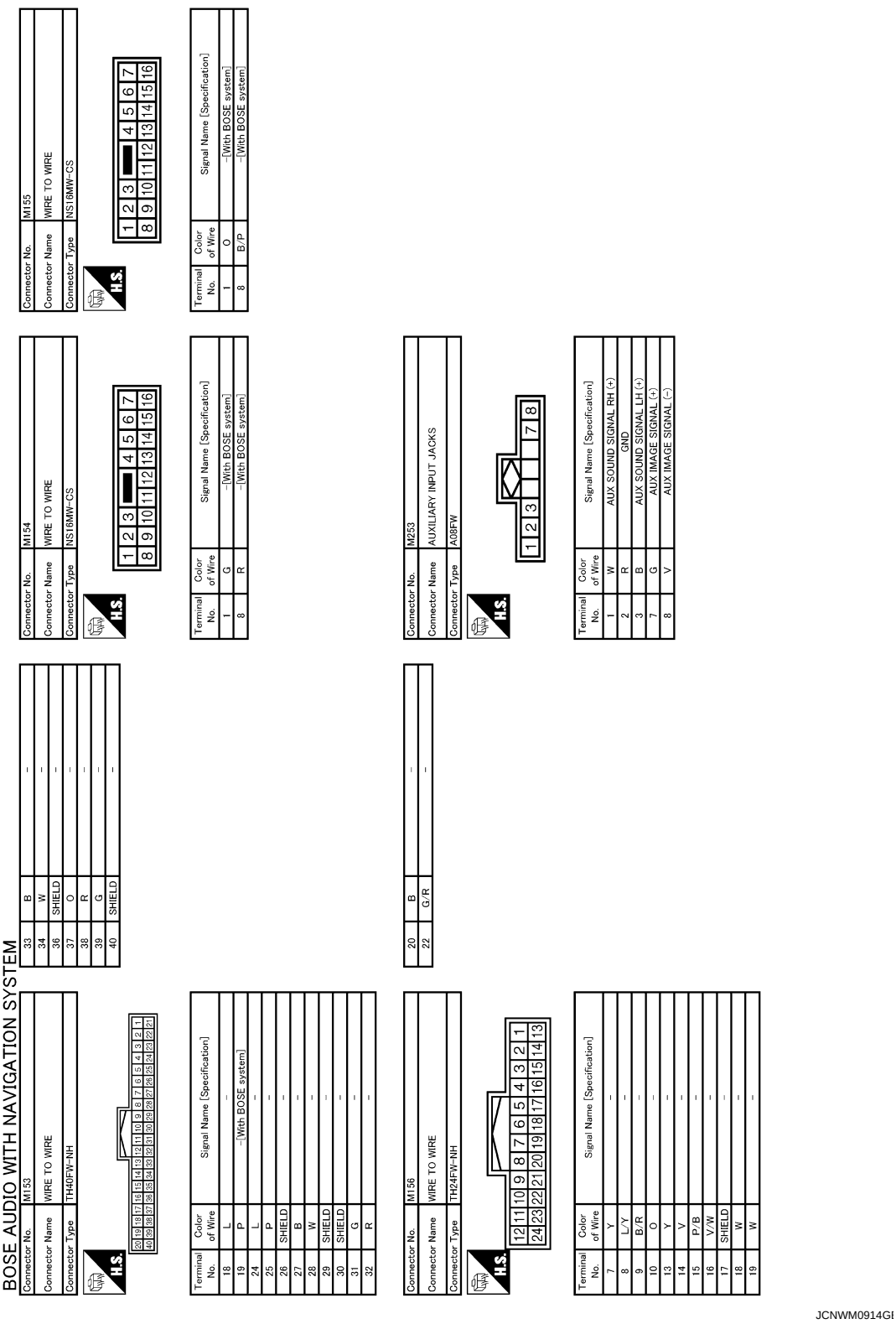


Terminal No.	Color of Wire	Signal Name [Specification]
109	W	STEREO SOUND SIGNAL RH (+) [With BOSE audio system]
111	SHIELD	SHIELD
112	BR	GUIDE OUT+
113	W	STEREO SOUND SIGNAL LH (+) [With BOSE audio system]
115	B	STEREO SOUND SIGNAL RH (-) [With BOSE audio system]
118	Y	GUIDE OUT-
119	B	STEREO SOUND SIGNAL LH (-) [With BOSE audio system]

74	G	COMPOSIT (DVD AND AUX) IMAGE SIGNAL GND [With BOSE system]

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BOSE AUDIO WITH NAVIGATION SYSTEM



JCNWM0914GB

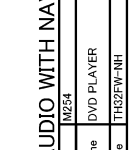
BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M254
Connector Name	DVD PLAYER
Connector Type	TH32FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	B/W	GND
2	Y	BAT
4	V/W	ACC
5	SHIELD	SHIELD
6	SHIELD	SHIELD
7	V	COMPOSITE (DVD AND AUX) IMAGE SIGNAL
8	G	COMPOSITE (AUX) IMAGE SIGNAL
9	G	COMPOSITE (DVD AND AUX) IMAGE SIGNAL GND
10	V	CONPOSITE (AUX) IMAGE SIGNAL GND
11	G	AUX SOUND SIGNAL LH (-)
12	R	AUX SOUND SIGNAL RH (-)
13	B	AUX SOUND SIGNAL LH (+)
14	W	AUX SOUND SIGNAL RH (+)
15	SHIELD	AUX SOUND SIGNAL SHIELD
21	B	STEREO SOUND SIGNAL LH (+)
22	G	STEREO SOUND SIGNAL LH (-)
23	R	STEREO SOUND SIGNAL RH (+)
24	W	STEREO SOUND SIGNAL RH (-)
25	SHIELD	STEREO SOUND SIGNAL SHIELD
29	R	AV COMM (L)
30	L	AV COMM (H)
31	P	AV COMM (L)
32	L	AV COMM (H)

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



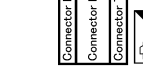
Terminal No.	Color of Wire	Signal Name [Specification]
14	–	–
15	–	–
17	–	–

Connector No.	M317
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1PP-HU



Terminal No.	Color of Wire	Signal Name [Specification]
1	–	–
2	–	–
3	–	–

Connector No.	M264
Connector Name	DVD PLAYER
Connector Type	TH16FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
34	SHIELD	SHIELD
35	B	FR SURROUND SOUND SIGNAL RH (-)
36	W	FR SURROUND SOUND SIGNAL RH (+)
37	B	FR SURROUND SOUND SIGNAL LH (-)
38	W	FR SURROUND SOUND SIGNAL LH (+)
39	B	CENTER SURROUND SOUND SIGNAL (-)
40	W	CENTER SURROUND SOUND SIGNAL (+)
41	R	SORROUND SOUND SIGNAL LFE (-)
42	L	SORROUND SOUND SIGNAL LFE (+)
43	SHIELD	SHIELD
44	SHIELD	SHIELD
45	B	RR SURROUND SOUND SIGNAL RH (-)
46	W	RR SURROUND SOUND SIGNAL RH (+)
47	B	RR SURROUND SOUND SIGNAL LH (-)
48	W	RR SURROUND SOUND SIGNAL LH (+)

Connector No.	M318
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1S-HU

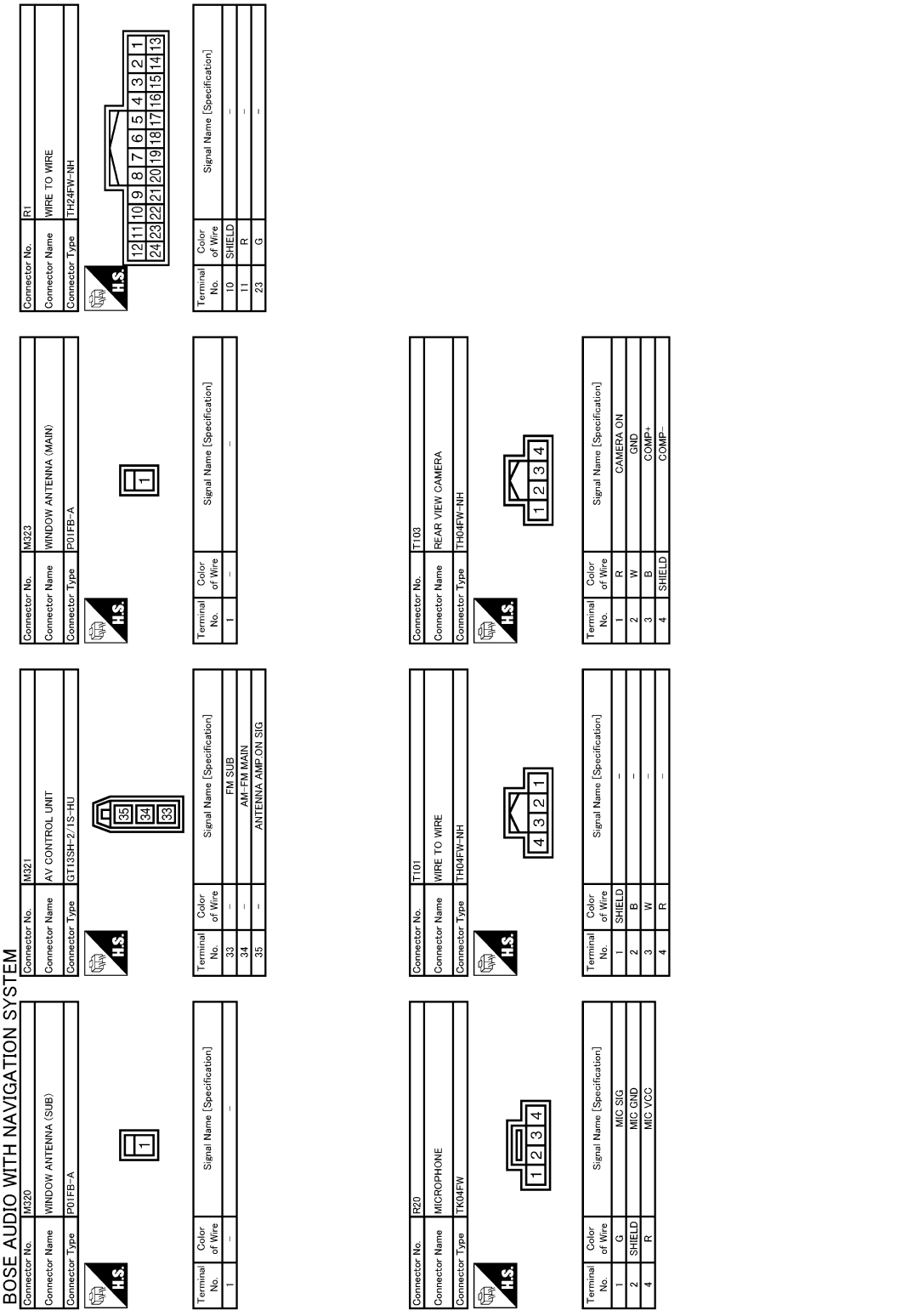
Terminal No.	Color of Wire	Signal Name [Specification]
1	–	–
2	–	–
3	–	–

Connector No.	M319
Connector Name	ANTENNA AMP.
Connector Type	GT13SC-1/1S-HU

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

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BOSE AUDIO WITH NAVIGATION SYSTEM



JCNWM0916GI

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

DTC Index

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SELF-DIAGNOSIS RESULTS DISPLAY ITEM

DTC	Display item	Refer to
U1000	CAN COMM CIRCUIT [U1000]	AV-440, "Diagnosis Procedure"
U1010	CONTROL UNIT (CAN) [U1010]	AV-441, "Diagnosis Procedure"
U1310	CONTROL UNIT (AV) [U1310]	AV-442, "DTC Logic"
U1200	Control Unit FLASH-ROM [U1200]	AV-443, "DTC Logic"
U1216	CAN CONT [U1216]	AV-444, "DTC Logic"
U1231	AMP TEMP [U1231]	AV-445, "DTC Logic"
U1243	FRONT DISP CONN [U1243]	AV-446, "Diagnosis Procedure"
U1250	CAMERA CONT. CONN [U1250]	AV-448, "Diagnosis Procedure"
U1260	CENTER SP OPEN [U1260]	AV-450, "Diagnosis Procedure"
U1261	CENTER SP SHORT [U1261]	AV-450, "Diagnosis Procedure"
U1262	CENTER SP GND-SHORT [U1262]	AV-450, "Diagnosis Procedure"
U1263	CENTER SP VB-SHORT [U1263]	AV-450, "Diagnosis Procedure"
U1264	FR-DOOR SP OPEN [U1264]	AV-451, "Diagnosis Procedure"
U1265	FR-DOOR SP SHORT [U1265]	AV-451, "Diagnosis Procedure"
U1266	FR-DOOR SP GND-SHORT [U1266]	AV-451, "Diagnosis Procedure"
U1267	FR-DOOR SP VB-SHORT [U1267]	AV-451, "Diagnosis Procedure"
U1268	RR-SP/FR-WOOFER OPEN [U1268]	AV-452, "Diagnosis Procedure"
U1269	RR-SP/FR-WOOFER SHORT [U1269]	AV-452, "Diagnosis Procedure"
U126A	RR-SP/FR-WOOFER GND-SHORT [U126A]	AV-452, "Diagnosis Procedure"
U126B	RR-SP/FR-WOOFER VB-SHORT [U126B]	AV-452, "Diagnosis Procedure"
U126C	RR-SURROUND SP OPEN [U126C]	AV-453, "Diagnosis Procedure"
U126D	RR-SURROUND SP SHORT [U126D]	AV-453, "Diagnosis Procedure"
U126E	RR-SURROUND SP GND-SHORT [U126E]	AV-453, "Diagnosis Procedure"
U126F	RR-SURROUND SP VB-SHORT [U126F]	AV-453, "Diagnosis Procedure"
U1274	RL-SURROUND SP OPEN [U1274]	AV-454, "Diagnosis Procedure"
U1275	RL-SURROUND SP SHORT [U1275]	AV-454, "Diagnosis Procedure"
U1276	RL-SURROUND SP GND-SHORT [U1276]	AV-454, "Diagnosis Procedure"
U1277	RL-SURROUND SP VB-SHORT [U1277]	AV-454, "Diagnosis Procedure"
U1278	RL-SP/FL-WOOFER OPEN [U1278]	AV-455, "Diagnosis Procedure"
U1279	RL-SP/FL-WOOFER SHORT [U1279]	AV-455, "Diagnosis Procedure"
U127A	RL-SP/FL-WOOFER GND-SHORT [U127A]	AV-455, "Diagnosis Procedure"
U127B	RL-SP/FL-WOOFER VB-SHORT [U127B]	AV-455, "Diagnosis Procedure"
U127C	FL-DOOR SP OPEN [U127C]	AV-456, "Diagnosis Procedure"
U127D	FL-DOOR SP SHORT [U127D]	AV-456, "Diagnosis Procedure"
U127E]	FL-DOOR SP GND-SHORT [U127E]	AV-456, "Diagnosis Procedure"
U127F	FL-DOOR SP VB-SHORT [U127F]	AV-456, "Diagnosis Procedure"
U1294	FR-TWEETER OPEN [U1294]	AV-457, "Diagnosis Procedure"
U1295	FR-TWEETER SHORT [U1295]	AV-457, "Diagnosis Procedure"
U1296	FR-TWEETER GND-SHORT [U1296]	AV-457, "Diagnosis Procedure"
U1297	FR-TWEETER VB-SHORT [U1297]	AV-457, "Diagnosis Procedure"
U1298	FL-TWEETER OPEN [U1298]	AV-458, "Diagnosis Procedure"

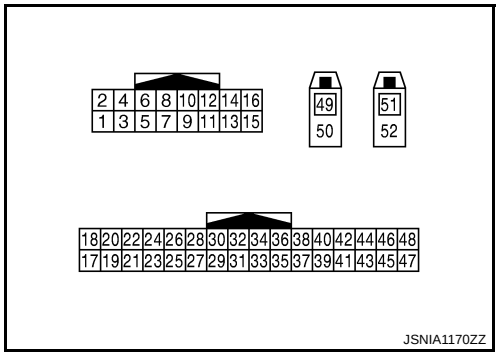
DTC	Display item	Refer to
U1299	FL-TWEETER SHORT [U1299]	AV-458, "Diagnosis Procedure"
U129A	FL-TWEETER GND-SHORT [U129A]	AV-458, "Diagnosis Procedure"
U129B	FL-TWEETER VB-SHORT [U129B]	AV-458, "Diagnosis Procedure"
U12A0	GPS ANTENNA CONN [U12A0]	AV-459, "Diagnosis Procedure"
U12A1	NAVI INTERNAL ERR [U12A1]	AV-460, "DTC Logic"
U12A2	BT ANTENNA CONN [U12A2]	AV-461, "Diagnosis Procedure"
U1300 U1240	• AV COMM CIRCUIT [U1300] • SWITCH CONN [U1240]	AV-462, "Description"
U1300 U125D	• AV COMM CIRCUIT [U1300] • DVD NAVI CONN [U125D]	AV-462, "Description"
U1300 U124E	• AV COMM CIRCUIT [U1300] • AMP CONN [U124E]	AV-462, "Description"
U1300 U1248	• AV COMM CIRCUIT [U1300] • DVD DECK CONN [U1248]	AV-462, "Description"
U1300 U1248 U124E	• AV COMM CIRCUIT [U1300] • DVD DECK CONN [U1248] • AMP CONN [U124E]	AV-462, "Description"
U1300 U1248 U124E U125D	• AV COMM CIRCUIT [U1300] • DVD DECK CONN [U1248] • AMP CONN [U124E] • DVD NAVI CONN [U125D]	AV-462, "Description"
U1300 U1248 U124E U125D U1252	• AV COMM CIRCUIT [U1300] • DVD DECK CONN [U1248] • AMP CONN [U124E] • DVD NAVI CONN [U125D] • REAR-CAMERA LAN CONN [U1252]	AV-462, "Description"

NAVI CONTROL UNIT

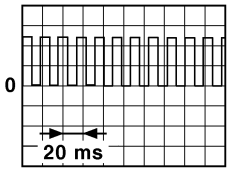
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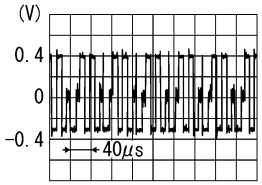
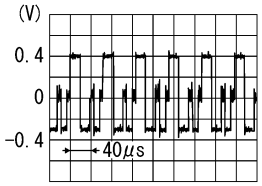
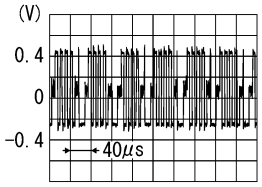
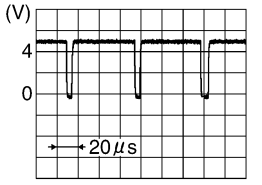
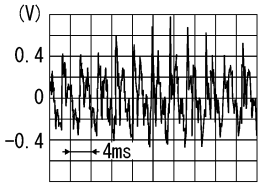
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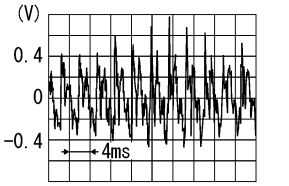
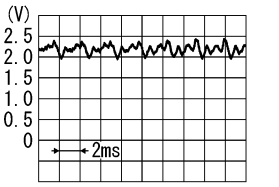
TERMINAL LAYOUT



PHYSICAL VALUES

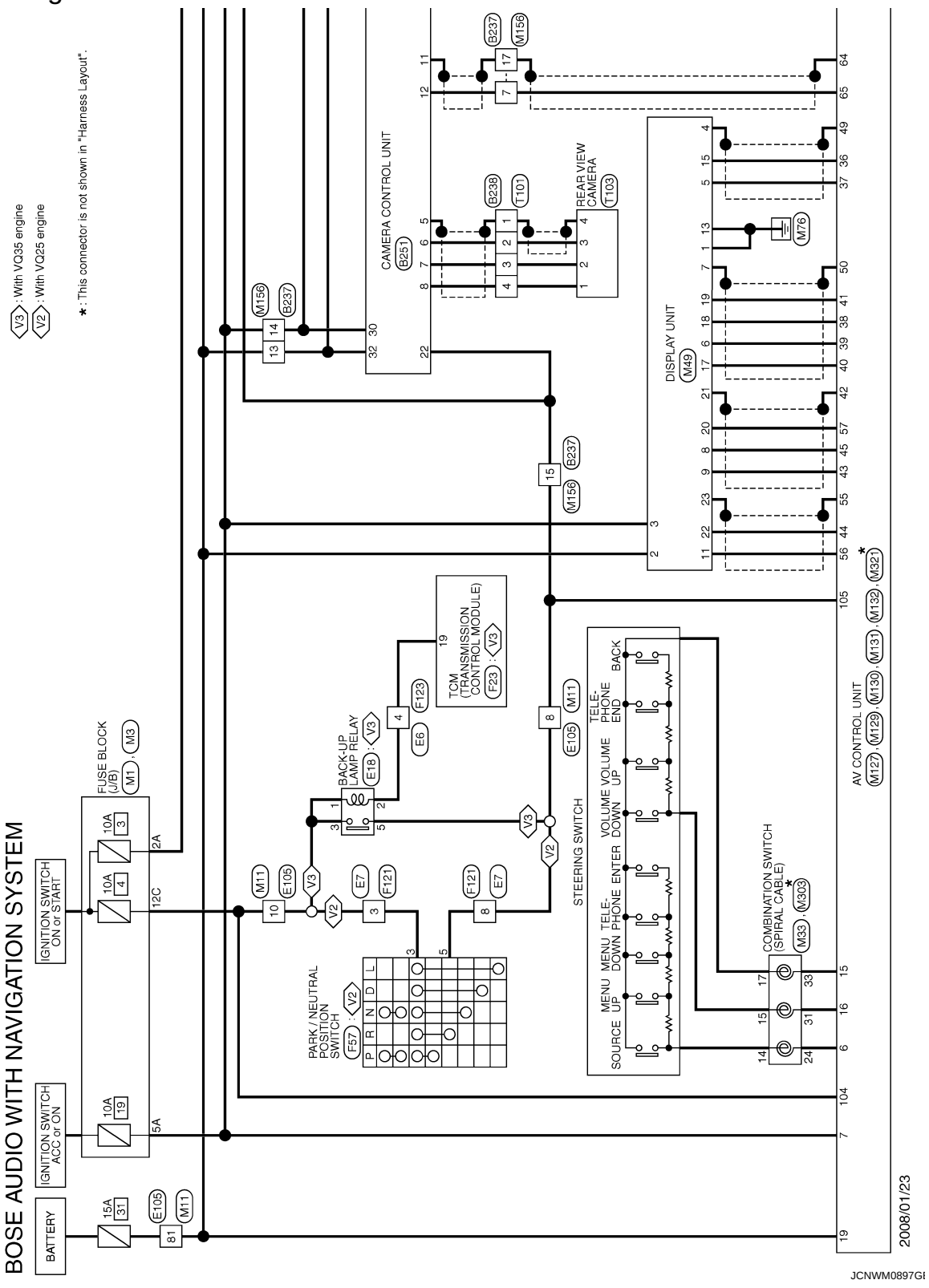
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
1 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
2 (B)	Ground	Ground	—	Ignition switch ON	—	0 V
3 (V)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
6 (BR)	Ground	Illumination signal	Input	OFF	Lighting switch is OFF.	0 V
					Lighting switch is ON.	12.0 V
8 (SB)	Ground	Parking brake signal	Input	Ignition switch ON	Parking brake ON.	0 V
					Parking brake OFF.	5 V
9 (W)	Ground	Reverse signal	Input	Ignition switch ON	R position.	12.0 V
					Other than R position.	0 V
10 (O)	Ground	vehicle speed signal (8-pulse)	Input	Ignition switch ON	When vehicle speed is approx. 40 km/h (25MPH).	**NOTE:** The maximum voltage varies depending on the specification (destination unit).  JSNIA0012GB
13 (L/R)	—	AV communication signal (H)	Input/ Output	—	—	—
14 (L/G)	—	AV communication signal (L)	Input/ Output	—	—	—
15 (L)	—	AV communication signal (H)	Input/ Output	—	—	—

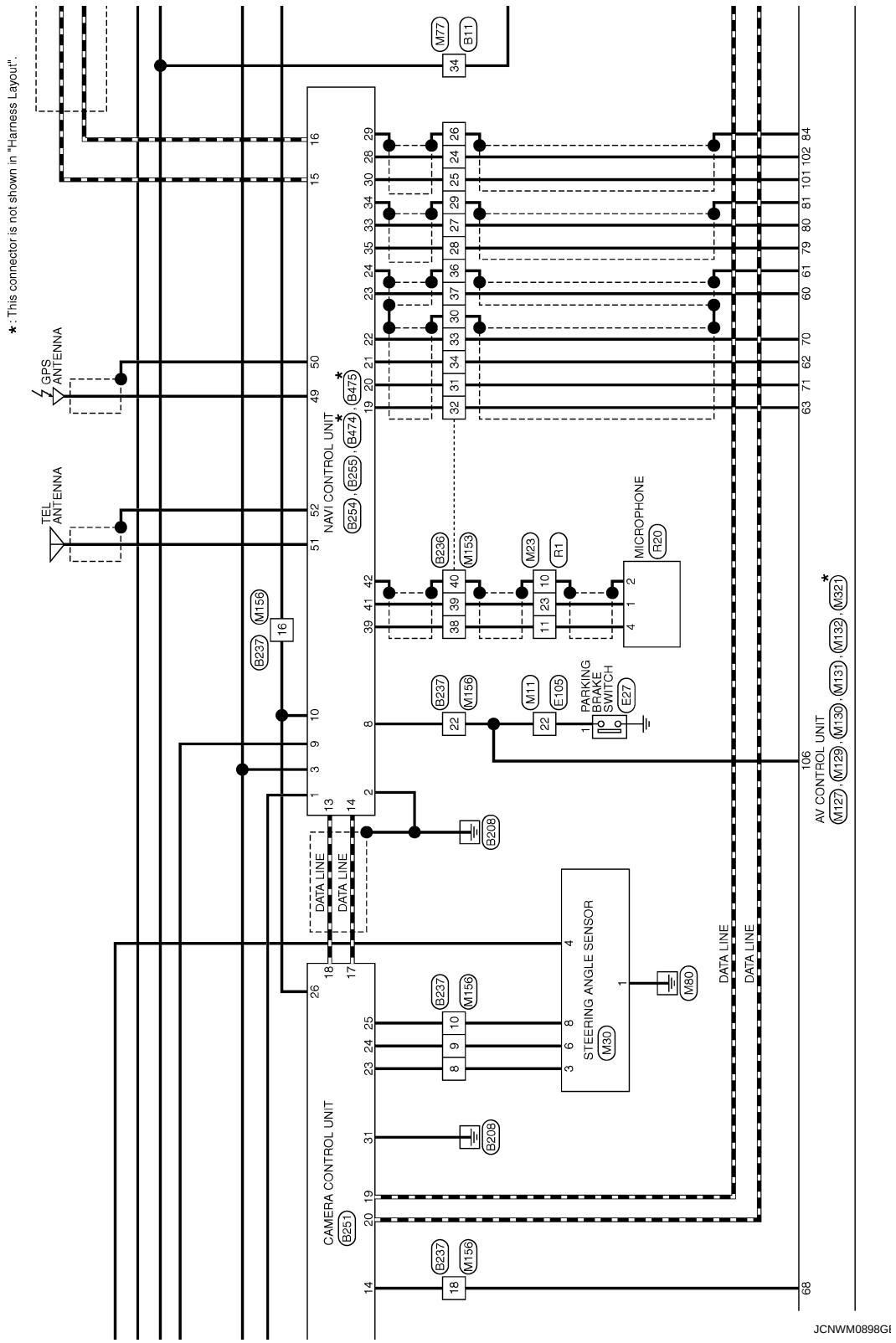
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
16 (P)	—	AV communication signal (L)	Input/ Output	—	—	—
19 (BR/L)	Ground	RGB image signal (R: red)	Output	Ignition switch ON	Start confirmation/adjustment mode, and then display color bar by selecting “Color Spectrum Bar” on Navigation/Phone screen.	 SKIB2238J
20 (Y/L)	Ground	RGB image signal (G: green)	Output	Ignition switch ON	Start confirmation/adjustment mode, and then display color bar by selecting “Color Spectrum Bar” on Navigation/Phone screen.	 SKIB2236J
21 (Y/G)	Ground	RGB image signal (B: blue)	Output	Ignition switch ON	Start confirmation/adjustment mode, and then display color bar by selecting “Color Spectrum Bar” on Navigation/Phone screen.	 SKIB2237J
22 (W/L)	Ground	RGB ground	—	Ignition switch ON	—	0 V
23 (L)	Ground	RGB synchronizing signal	Output	Ignition switch ON	—	 SKIB3603E
24	Ground	RGB synchronizing signal ground	—	Ignition switch ON	—	0 V
28 (L)	30 (P)	Voice guidance signal	Output	Ignition switch ON	Voice guidance output.	 SKIB1990E
29	—	Shield	—	—	—	—

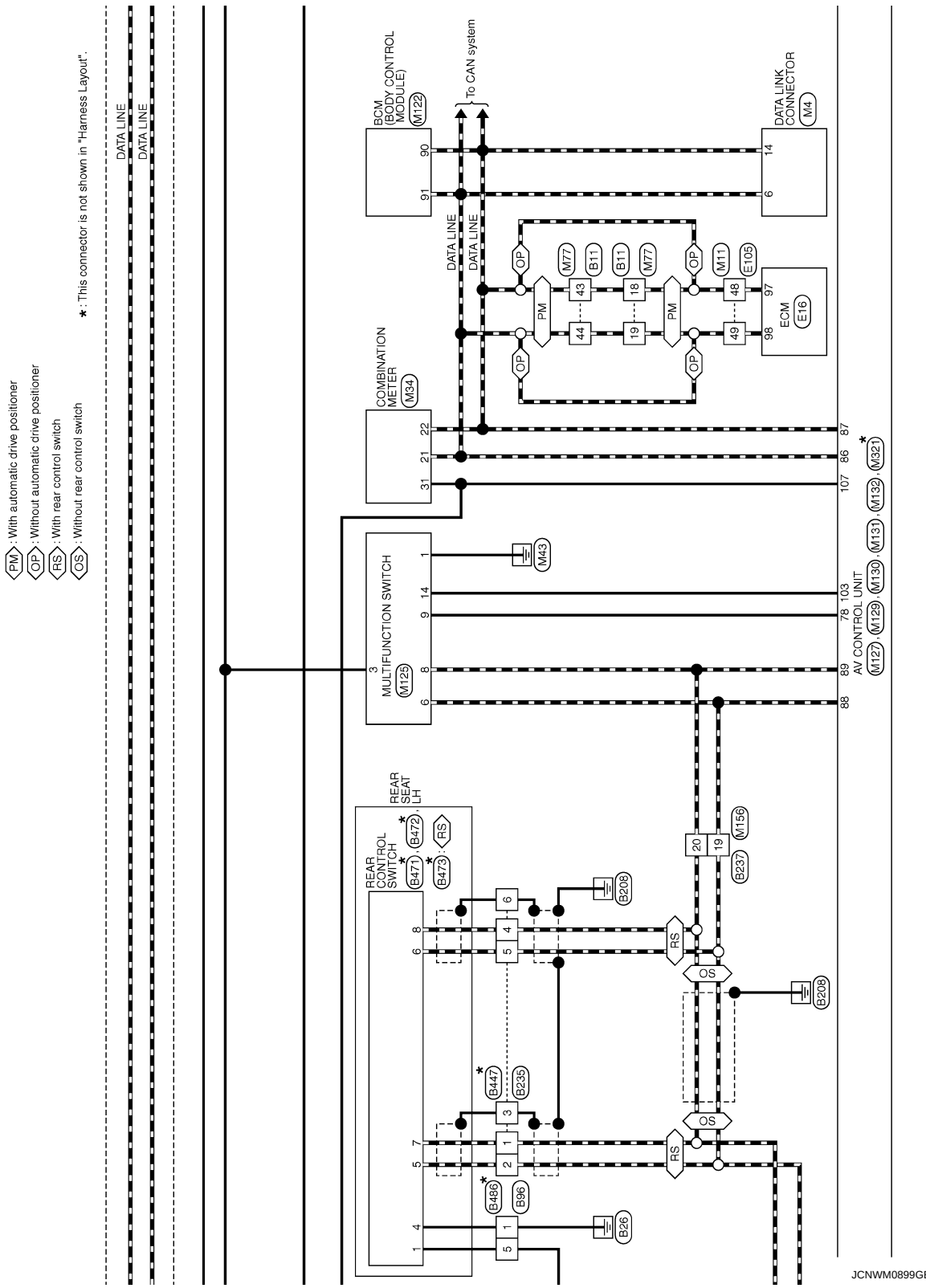
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
33 (B)	35 (W)	TEL voice signal	Output	Ignition switch ON	TEL voice output.	 SKIB1990E
34	—	Shield	—	—	—	—
39 (B)	42	Microphone VCC	Output	Ignition switch ON	—	5.0 V
41 (W)	42	Microphone signal	Input	Ignition switch ON	Give a voice.	 PKIB5037J
42	—	Microphone signal shield	—	—	—	—
49	Ground	GPS antenna signal	Input	Ignition switch ON	Not connected to GPS antenna connector.	5.0 V
50	—	Shield	—	—	—	—
51	Ground	TEL antenna signal	Input/ Output	Ignition switch ON	Not connected to TEL antenna connector.	3.3 V
52	—	Shield	—	—	—	—

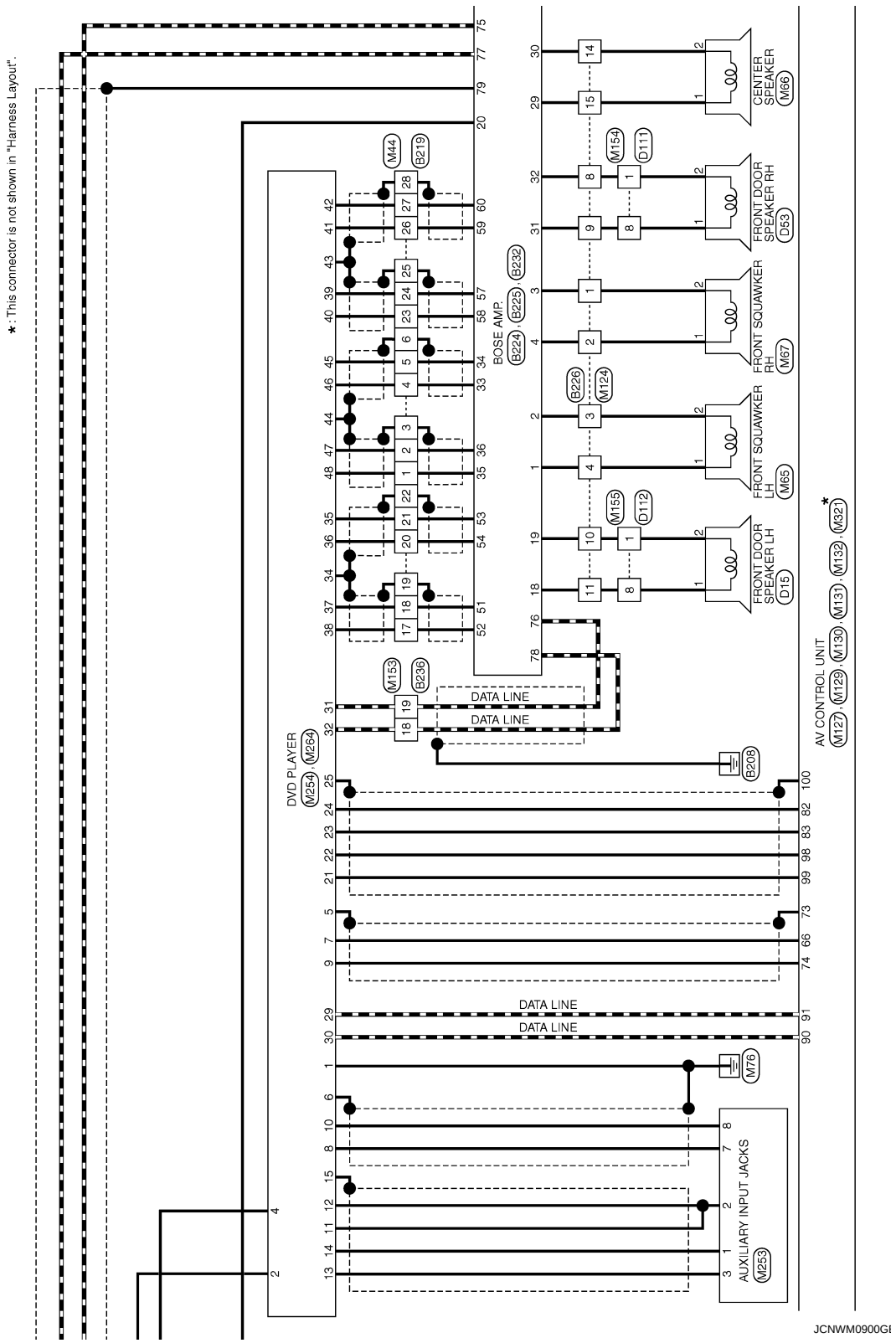
Wiring Diagram — BOSE AUDIO WITH NAVIGATION SYSTEM —

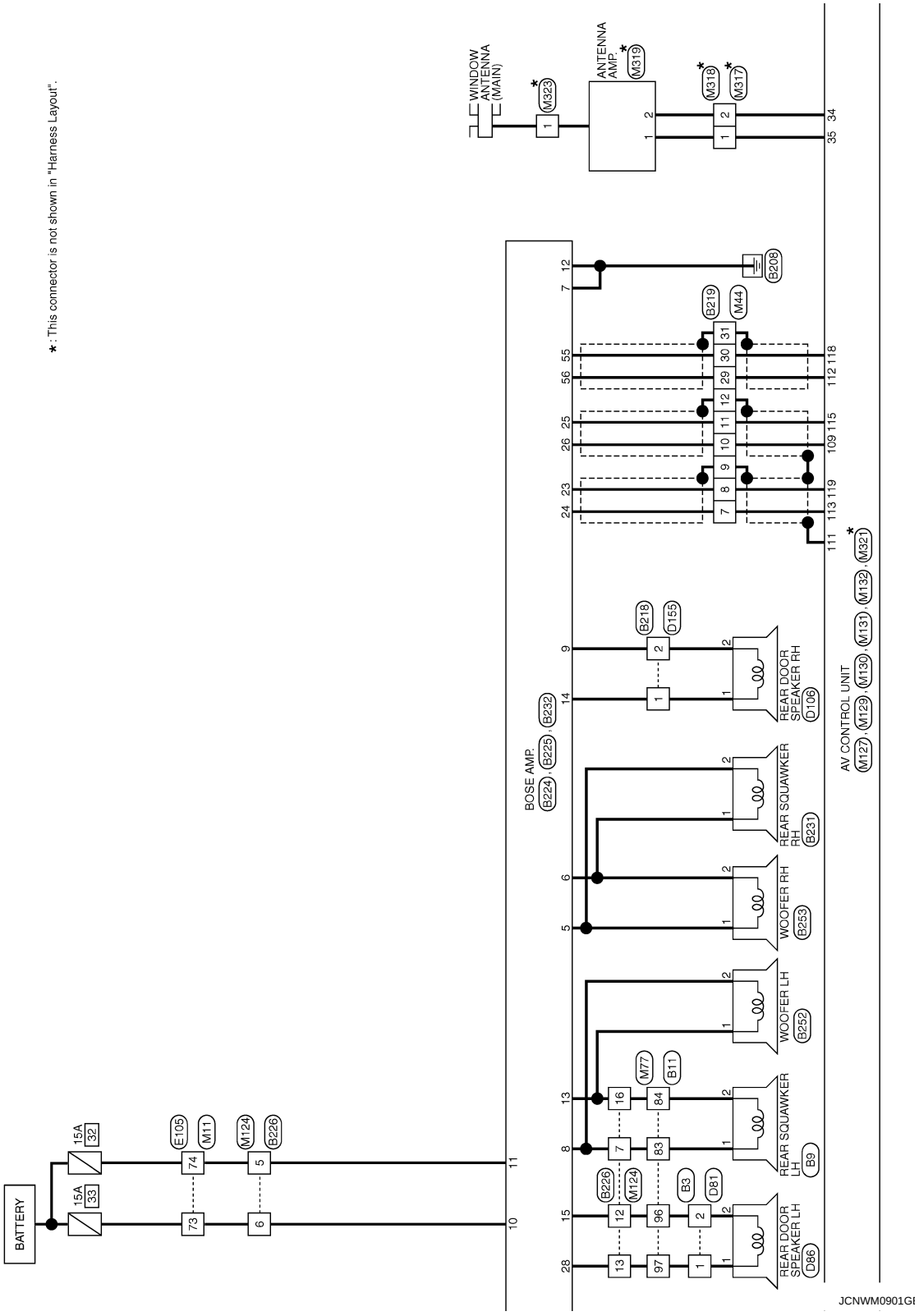
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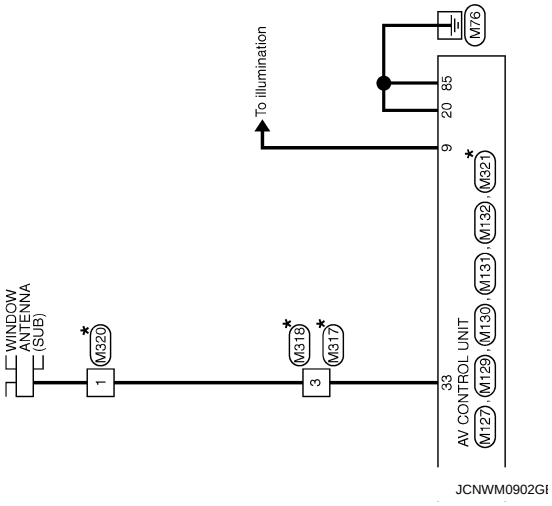

*: This connector is not shown in "Harness Layout".
GPS ANTENNA
TEL ANTENNA
NAVI CONTROL UNIT
B254, B255, B474, B475
MICROPHONE
R20
PARKING BRAKE SWITCH
E27
STEERING ANGLE SENSOR
M30
CAMERA CONTROL UNIT
B251
AV CONTROL UNIT
M127, M129, M130, M131, M132, M321
DATA LINE
DATA LINE
DATA LINE
JCNWM0898GB


PM : With automatic drive positioner
OP : Without automatic drive positioner
RS : With rear control switch
OS : Without rear control switch
★: This connector is not shown in "Harness Layout".
DATA LINE
DATA LINE
DATA LINE
DATA LINE
BCM (BODY CONTROL MODULE) M122
To CAN system
DATA LINK CONNECTOR M4
COMBINATION METER M34
ECM E16
MULTIFUNCTION SWITCH M125
M43
AV CONTROL UNIT (M127), (M129), (M130), (M131), (M132), (M321)
REAR SEAT LH
REAR CONTROL SWITCH (B471), ★(B472), ★(B473) : RS
B208
B237
M156
B447
B235
B486
B96
B26
JCNWM0899GB


*: This connector is not shown in "Harness Layout".
BOSE AMP.
B224, B225, B232
M44
B219
B226
M124
M153
B236
M154
D111
M155
D112
DVD PLAYER
M254, M264
AUXILIARY INPUT JACKS
M253
AV CONTROL UNIT
M127, M129, M130, M131, M132, M321
*
CENTER SPEAKER
M66
FRONT DOOR SPEAKER RH
D53
FRONT SQUAWKER RH
M67
FRONT SQUAWKER LH
M65
FRONT DOOR SPEAKER LH
D15
B208
M76
DATA LINE
DATA LINE
DATA LINE
DATA LINE
JCNWM0900GB

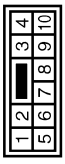

*: This connector is not shown in "Harness Layout".
WINDOW ANTENNA (MAIN)
M323
ANTENNA AMP.
M319
M318
M317
B208
B219
M44
BOSE AMP.
B224, B225, B232
AV CONTROL UNIT
M127, M129, M130, M131, M132, M321
REAR DOOR SPEAKER RH
D106
B218
D155
REAR SQUAWKER RH
B231
WOOFER RH
B253
WOOFER LH
B252
REAR SQUAWKER LH
B9
M77
B11
REAR DOOR SPEAKER LH
D86
B226
M124
B3
D81
BATTERY
15A 32
15A 33
E105
M11
M124
B226
JCNWM0901GB

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



BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B3
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS



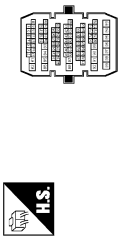
Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	–[With BOSE system]
2	O	–[With BOSE system]

Connector No.	B9
Connector Name	REAR SQUAWKER LH
Connector Type	TK02MBR-P



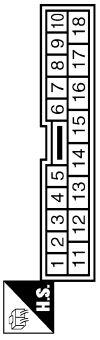
Terminal No.	Color of Wire	Signal Name [Specification]
1	BR	–
2	R	–

Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS19



Terminal No.	Color of Wire	Signal Name [Specification]
18	P	–
19	L	–
34	G	–
43	P	–
44	L	–
83	BR	–
84	R	–
96	O	–[With BOSE system]
97	LG	–[With BOSE system]

Connector No.	B96
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



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

Connector No.	B218
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS

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

Connector No.	B219
Connector Name	WIRE TO WIRE
Connector Type	TH32MW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
1	W/L	–
2	W/R	–
3	SHIELD	–
4	W/L	–
5	GR/V	–
6	SHIELD	–
7	B	–
8	W	–
9	SHIELD	–
10	W/R	–
11	B/R	–
12	SHIELD	–
17	B	–
18	W	–
19	SHIELD	–
20	Y	–
21	BR	–
22	SHIELD	–
23	W/R	–
24	B/R	–
25	SHIELD	–
26	GR/V	–
27	W/L	–
28	SHIELD	–
29	W/L	–
30	W/R	–
31	SHIELD	–

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BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B224
Connector Name	BOSE AMP.
Connector Type	SGA12FBR-SJA2

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

Connector No.	B226
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS

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

I2	B	GND
I3	R	SOUND SIGNAL WOOFER LH (+)
I4	L	SOUND SIGNAL REAR SPEAKER RH (+)

Connector No.	B225
Connector Name	BOSE AMP.
Connector Type	SGA19FBR-SGA4

Terminal No.	Color of Wire	Signal Name [Specification]
15	R	SOUND SIGNAL REAR SPEAKER LH (–)
18	W	SOUND SIGNAL FRONT SPEAKER LH (+)
19	B	SOUND SIGNAL FRONT SPEAKER LH (–)
20	V	ACC
23	W	STEREO SOUND SIGNAL LH (+)
24	B	STEREO SOUND SIGNAL LH (+)
25	B/R	STEREO SOUND SIGNAL RH (–)
26	W/R	STEREO SOUND SIGNAL RH (+)
28	G	SOUND SIGNAL REAR SPEAKER LH (+)
29	V	SOUND SIGNAL CENTER SPEAKER (+)
30	P	SOUND SIGNAL CENTER SPEAKER (–)

I2	R	–
I3	G	–
I4	P	–
I5	V	–
I6	R	–

Connector No.	B231
Connector Name	REAR SQUAWKER RH
Connector Type	TK02MBR-P

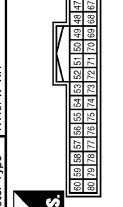
Terminal No.	Color of Wire	Signal Name [Specification]
1	BR	–
2	Y	–

31	BR	SOUND SIGNAL FRONT SPEAKER RH (+)
32	Y	SOUND SIGNAL FRONT SPEAKER RH (–)
33	W/L	RR SURROUND SOUND SIGNAL RH (+)
34	GR/V	RR SURROUND SOUND SIGNAL RH (–)
35	W/L	RR SURROUND SOUND SIGNAL LH (+)
36	W/R	RR SURROUND SOUND SIGNAL LH (–)

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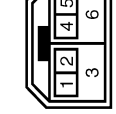
BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B232
Connector Name	BOSE AMP.
Connector Type	TH40FW-NH



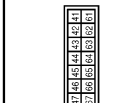
Terminal No.	Color of Wire	Signal Name [Specification]
51	W	FR SURROUND SOUND SIGNAL LH (–)
52	B	FR SURROUND SOUND SIGNAL LH (+)
53	BR	FR SURROUND SOUND SIGNAL RH (–)
54	Y	FR SURROUND SOUND SIGNAL RH (+)
55	W/R	VOICE GUIDANCE SIGNAL (–)
56	W/L	VOICE GUIDANCE SIGNAL (+)
57	B/R	CENTER SURROUND SOUND SIGNAL (–)
58	W/R	CENTER SURROUND SOUND SIGNAL (+)
59	GR/V	SURROUND SOUND SIGNAL LFE (–)
60	W/L	SURROUND SOUND SIGNAL LFE (+)
75	P	AV COMM (L) [With navigation system]
76	P	AV COMM (L)
77	L	AV COMM (H) [With navigation system]
78	L	AV COMM (H)
79	SHIELD	SHIELD

Connector No.	B235
Connector Name	WIRE TO WIRE
Connector Type	SD02MGY



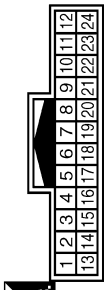
Terminal No.	Color of Wire	Signal Name [Specification]
1	P	–
2	L	–
3	SHIELD	–
4	G	–
5	R	–
6	SHIELD	–

Connector No.	B236
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
18	L	–[With BOSE system]
19	P	–[With BOSE system]
24	L	–
25	P	–
26	SHIELD	–
27	B	–
28	W	–
29	SHIELD	–
30	SHIELD	–
31	Y/L	–
32	BR/L	–
33	W/L	–
34	Y/G	–
36	SHIELD	–
37	L	–
38	B	–
39	W	–
40	SHIELD	–

Connector No.	B237
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
7	BR	–
8	G	–
9	SB	–
10	O	–
13	Y	–
14	V	–
15	W	–
16	O	–
17	SHIELD	–
18	GR	–
19	R	–[With rear control switch]
19	L	–[Without rear control switch]
20	G	–[With rear control switch]
20	P	–[Without rear control switch]
22	SB	–

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BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B238
Connector Name	WIRE TO WIRE
Connector Type	TH04MW-NH

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

Connector No.	B251
Connector Name	CAMERA CONTROL UNIT
Connector Type	TH32FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
5	SHIELD	SHIELD
6	B	CAMERA IMAGE SIGNAL
7	W	REAR VIEW CAMERA GND
8	R	REAR CAMERA ON
11	SHIELD	SHIELD
12	BR	CAMERA IMAGE SIGNAL
14	GR	CAMERA CONNECTING RECOGNATION SIGNAL
17	L/G	AV COMM(L) [With BOSE audio system]
18	L/R	AV COMM(H) [With BOSE audio system]
19	P	AV COMM(L)
20	L	AV COMM(H)

Connector No.	B253
Connector Name	WOOFER RH
Connector Type	NS02FW-CS

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

Connector No.	B254
Connector Name	NAVI CONTROL UNIT
Connector Type	TH16FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	BAT
2	B	GND
3	V	ACC
8	SB	PKB SIG
9	W	REVERSE SIG
10	O	VHICLE SPEED SIGNAL (8P)
13	L/R	AV COMM (H)
14	L/G	AV COMM (L)
15	L	AV COMM (H)
16	P	AV COMM (L)

22	W	REVERSE SIGNAL
23	G	STRG SENSOR1
24	SB	STRG SENSOR2
25	O	STRG SENSOR3
26	O	VHICLE SPEED SIGNAL(8P)
30	V	ACC
31	B/R	GND
32	Y	BAT

Connector No.	B255
Connector Name	NAVI CONTROL UNIT
Connector Type	TH32FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
19	BR/L	RGB (R-RED)
20	Y/L	RGB (G-GREEN)
21	Y/G	RGB (B-BLUE)
22	W/L	RGB GND
23	L	RGB SYNC
24	SHIELD	SYNC GND
28	L	VOICE GUIDANCE SIGNAL (+)
29	SHIELD	VOICE GUIDANCE SIGNAL SHIELD
30	P	VOICE GUIDANCE SIGNAL (–)
33	B	TEL VOICE+
34	SHIELD	TEL VOICE SHIELD

Connector No.	B252
Connector Name	WOOFER LH
Connector Type	NS02FW-CS

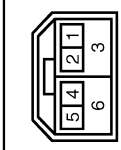
Terminal No.	Color of Wire	Signal Name [Specification]
1	R	–
2	BR	–

35	W	TEL VOICE–
39	B	MIC POWER
41	W	MIC SIG +
42	SHIELD	MIC SIG –

JCNWM0906GB

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B447
Connector Name	WIRE TO WIRE
Connector Type	SD02FGY



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–
2	B	–
3	SHIELD	–
4	Y	–
5	G	–
6	SHIELD	–

Connector No.	B471
Connector Name	REAR CONTROL SWITCH
Connector Type	TH04FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	R/Y	–
4	Y	–

Connector No.	B472
Connector Name	REAR CONTROL SWITCH
Connector Type	SD01FGY



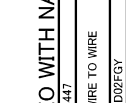
Terminal No.	Color of Wire	Signal Name [Specification]
5	G	–
7	Y	–

Connector No.	B473
Connector Name	REAR CONTROL SWITCH
Connector Type	SD01MGY



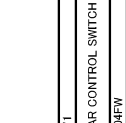
Terminal No.	Color of Wire	Signal Name [Specification]
6	B	–
8	W	–

Connector No.	B474
Connector Name	NAVI CONTROL UNIT
Connector Type	GT5-1S-HU



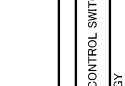
Terminal No.	Color of Wire	Signal Name [Specification]
49	–	GPS ANTENNA SIGNAL
50	–	SHIELD

Connector No.	B475
Connector Name	NAVI CONTROL UNIT
Connector Type	GT16C-1S-HU



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

Connector No.	B486
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8



Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	–
5	R/Y	–

Connector No.	D15
Connector Name	FRONT DOOR SPEAKER LH (WITH BOSE SYSTEM)
Connector Type	NS02FBR-CS

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

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BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	D53
Connector Name	FRONT DOOR SPEAKER RH (WITH BOSE SYSTEM)
Connector Type	NS02FBR-CS

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

Connector No.	D111
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–[With BOSE system]
8	B	–[With BOSE system]

Connector No.	D81
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS

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

Connector No.	D112
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS

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

Connector No.	D86
Connector Name	REAR DOOR SPEAKER LH (WITH BOSE SYSTEM)
Connector Type	NS02FBR-CS

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

Connector No.	D155
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–
2	B	–[With BOSE system]

Connector No.	D106
Connector Name	REAR DOOR SPEAKER RH (WITH BOSE SYSTEM)
Connector Type	NS02FBR-CS

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

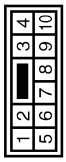
Connector No.	E6
Connector Name	WIRE TO WIRE
Connector Type	TK16MGY-1V

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

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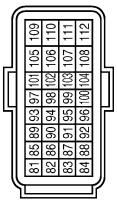
BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	E7
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS



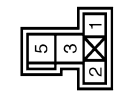
Terminal No.	Color of Wire	Signal Name [Specification]
3	LG	–
8	R	–

Connector No.	E16
Connector Name	ECM
Connector Type	RH24FB-R28-L-LH



Terminal No.	Color of Wire	Signal Name [Specification]
97	P	VEHCAN-L
98	L	VEHCAN-H

Connector No.	E18
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS02FL-M2-LC



Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	–
2	R	–
3	LG	–
5	R	–

Connector No.	E27
Connector Name	PARKING BRAKE SWITCH
Connector Type	P01FB-A



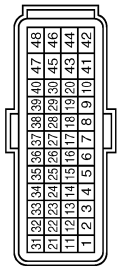
Terminal No.	Color of Wire	Signal Name [Specification]
1	P	–

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH70MW-CS10-M3



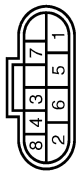
Terminal No.	Color of Wire	Signal Name [Specification]
8	R	–
10	LG	–
22	P	–
48	P	–
49	L	–
73	R	–
74	BR	–
81	Y	–

Connector No.	F23
Connector Name	TCM (TRANSMISSION CONTROL MODULE)
Connector Type	RH40FB-R28-L-RH



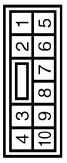
Terminal No.	Color of Wire	Signal Name [Specification]
19	G/B	REV LAMP RELAY

Connector No.	F57
Connector Name	PARK / NEUTRAL POSITION SWITCH
Connector Type	YDX06FB-HS4



Terminal No.	Color of Wire	Signal Name [Specification]
3	LG	–
5	P/B	–

Connector No.	F121
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS



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

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BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	F123
Connector Name	WIRE TO WIRE
Connector Type	TK16FGY-1V

Terminal No.	Color of Wire	Signal Name [Specification]
4	G/B	–

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

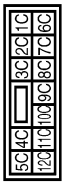




Terminal No.	Color of Wire	Signal Name [Specification]
2A	G/O	–
5A	V/O	–

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

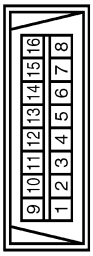




Terminal No.	Color of Wire	Signal Name [Specification]
12C	O	–

Connector No.	M4
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW





Terminal No.	Color of Wire	Signal Name [Specification]
6	L	–
14	P	–

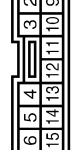
Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Type	TH70FW-CS10-M3



Terminal No.	Color of Wire	Signal Name [Specification]
8	P/B	–
10	O	–
22	G/R	–
48	P	–
49	L	–
73	B/R	–
74	BR	–
81	Y	–

Connector No.	M23
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH

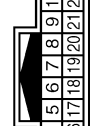




Terminal No.	Color of Wire	Signal Name [Specification]
10	SHIELD	–
11	R	–
23	G	–

Connector No.	M30
Connector Name	STEERING ANGLE SENSOR
Connector Type	TH08FW-NH

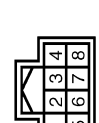




Terminal No.	Color of Wire	Signal Name [Specification]
1	B	–
3	L/Y	–
4	G	–
6	B/R	–
8	O	–

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





Terminal No.	Color of Wire	Signal Name [Specification]
24	W/G	–
31	GR/L	–
33	L/B	–

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BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	TH40FW-NH



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

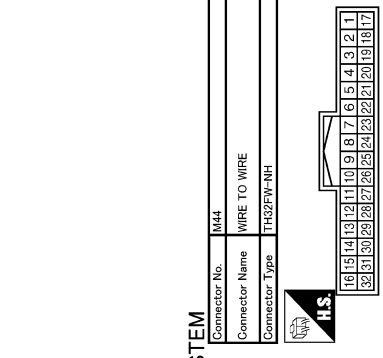
Connector No.	M44
Connector Name	WIRE TO WIRE
Connector Type	TH32FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–
2	B	–
3	SHIELD	–
4	W	–
5	B	–
6	SHIELD	–
7	W	–
8	B	–
9	SHIELD	–
10	W	–
11	B	–
12	SHIELD	–
17	W	–
18	B	–
19	SHIELD	–
20	W	–
21	B	–
22	SHIELD	–
23	W	–
24	B	–
25	SHIELD	–
26	R	–
27	L	–
28	SHIELD	–
29	BR	–
30	Y	–
31	SHIELD	–

Connector No.	M49
Connector Name	DISPLAY UNIT
Connector Type	TH24FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
1	B/W	GND
2	Y	INV VCC
3	V/Y	ACC [With navigation system]
4	SHIELD	COMPOSIT IMAGE SIGNAL SHIELD
5	W	COMPOSIT IMAGE SIGNAL GND
6	R	RGB (G/GREEN)
7	SHIELD	RGB GND
8	W	HP
9	B	YS
11	R	COMM (CONT->DISP)
13	B/W	GND [With navigation system]
15	B	COMPOSIT IMAGE SIGNAL
17	W	RGB (R/RED)
18	B	RGB (B/BLUE)
19	G	RGB SYNC
20	R	VP
21	SHIELD	RGB SYNC GND
22	G	COMM (DISP->CONT)
23	SHIELD	SHIELD

Connector No.	M65
Connector Name	FRONT SQUAWKER LH
Connector Type	TK02FBR



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

Connector No.	M66
Connector Name	CENTER SPEAKER
Connector Type	TK02FBR

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

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BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M67
Connector Name	FRONT SQUAWKER RH
Connector Type	TK02FBR

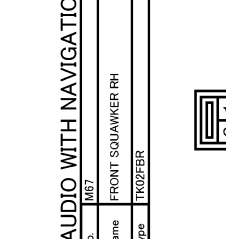
Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-[With BOSE system]
2	R	-[With BOSE system]

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS19



Terminal No.	Color of Wire	Signal Name [Specification]
18	P	-
19	L	-
34	V/R	-
43	P	-
44	L	-
83	G/B	-
84	W/B	-
96	W/R	-
97	O/B	-

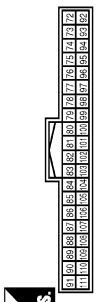
Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	G	-
3	B	-
4	W	-
5	BR	-
6	B/R	-
7	G/B	-
8	G	-
9	R	-
10	O	-[With BOSE system]
11	B/P	-[With BOSE system]

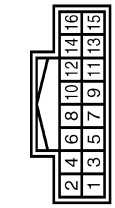
Terminal No.	Color of Wire	Signal Name [Specification]
12	W/R	-
13	O/B	-
14	R	-
15	G	-
16	W/B	-

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



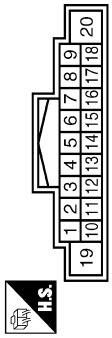
Terminal No.	Color of Wire	Signal Name [Specification]
90	P	CAN-L
91	L	CAN-H

Connector No.	M125
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH16FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
3	V/R	ACC
6	W	M-CAN H
8	B	M-CAN L
9	BR	SW GND
14	SB	CD(DVD) EJECT

Connector No.	M127
Connector Name	AV CONTROL UNIT
Connector Type	TH18FW-CS2



Terminal No.	Color of Wire	Signal Name [Specification]
6	W/G	STRG SW A
7	V/W	ACC
9	R/L	ILL
15	L/B	STRG SW GND
16	GR/L	STRG SW B
19	Y	BAT
20	B/W	GND

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BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M129
Connector Name	AV CONTROL UNIT
Connector Type	TH24FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
36	B	COMPOSIT IMAGE SIGNAL
37	W	COMPOSIT IMAGE SIGNAL GND
38	B	RGB (B:BLUE)
39	R	RGB (G:GREEN)
40	W	RGB (R:RED)
41	G	RGB SYNC
42	SHIELD	RGB SYNC GND
43	B	YS
44	G	COMM (DISP->CONT)
45	W	HP
49	SHIELD	COMP OUT SHIELD

50	SHIELD	RGB GND
55	SHIELD	SHIELD
56	R	COMM (CONT->DISP)
57	R	VP

Connector No.	M131
Connector Name	AV CONTROL UNIT
Connector Type	TH32FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
78	BR	SW GND [With navigation system]
79	W	TEL VOICE– [With navigation system]
80	B	TEL VOICE+ [With navigation system]
81	SHIELD	VOICE SHIELD [With navigation system]
82	W	STEREO DVD AND AUX SOUND SIGNAL RH (-) [With BOSE audio system]
83	R	STEREO DVD AND AUX SOUND SIGNAL RH (+) [With BOSE audio system]
84	SHIELD	VOICE SHIELD [With navigation system]
85	B/W	GND
86	L	CAN-H
87	P	CAN-L
88	W	AV COMM (H)

89	B	AV COMM (L)
90	L	AV COMM (H)
91	R	AV COMM (L)
98	G	STEREO DVD AND AUX SOUND SIGNAL LH (-) [With BOSE audio system]
99	B	STEREO DVD AND AUX SOUND SIGNAL LH (+) [With BOSE audio system]
100	SHIELD	STEREO SOUND SIGNAL SHIELD [With BOSE audio system]
101	P	GUIDE VOICE– [With navigation system]
102	L	GUIDE VOICE+ [With navigation system]
103	SB	DISC EJECT SIG
104	O	IGN
105	P/B	REVERSE SIG
106	G/R	PKB SIG
107	V/W	VEHICLE SPEED SIG (8P)

Connector No.	M130
Connector Name	AV CONTROL UNIT
Connector Type	TH16FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
60	O	RGB SYNC [With navigation system]
61	SHIELD	RGB SYNC GND [With navigation system]
62	W	RGB(B:BLUE) [With navigation system]
63	R	RGB(R:RED) [With navigation system]
64	SHIELD	CAMERA IMAGE SIGNAL GND
65	Y	CAMERA IMAGE SIGNAL
66	V	COMPOSIT (DVD AND AUX) IMAGE SIGNAL [With BOSE system]
68	W	CAMERA CONNECTION RECOGNITION SIGNAL
70	B	RGB GND
71	G	RGB (G:GREEN) [With navigation system]
73	SHIELD	COMPOSIT IMAGE SIGNAL SHIELD

74	G	COMPOSIT (DVD AND AUX) IMAGE SIGNAL GND [With BOSE system]

Connector No.	M132
Connector Name	AV CONTROL UNIT (WITH BOSE SYSTEM)
Connector Type	TH12FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
109	W	STEREO SOUND SIGNAL RH (-) [With BOSE audio system]
111	SHIELD	SHIELD
112	BR	GUIDE OUT–
113	W	STEREO SOUND SIGNAL LH (+) [With BOSE audio system]
115	B	STEREO SOUND SIGNAL RH (-) [With BOSE audio system]
118	Y	GUIDE OUT–
119	B	STEREO SOUND SIGNAL LH (-) [With BOSE audio system]

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BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M153
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
18	L	–
19	P	–[With BOSE system]
24	L	–
25	P	–
26	SHIELD	–
27	B	–
28	W	–
29	SHIELD	–
30	SHIELD	–
31	G	–
32	R	–
33	B	–
34	W	–
36	SHIELD	–
37	O	–
38	R	–
39	G	–
40	SHIELD	–

Connector No.	M154
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS



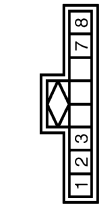
Terminal No.	Color of Wire	Signal Name [Specification]
1	G	–[With BOSE system]
8	R	–[With BOSE system]

Connector No.	M155
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	O	–[With BOSE system]
8	B/P	–[With BOSE system]

Connector No.	M253
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A08FW



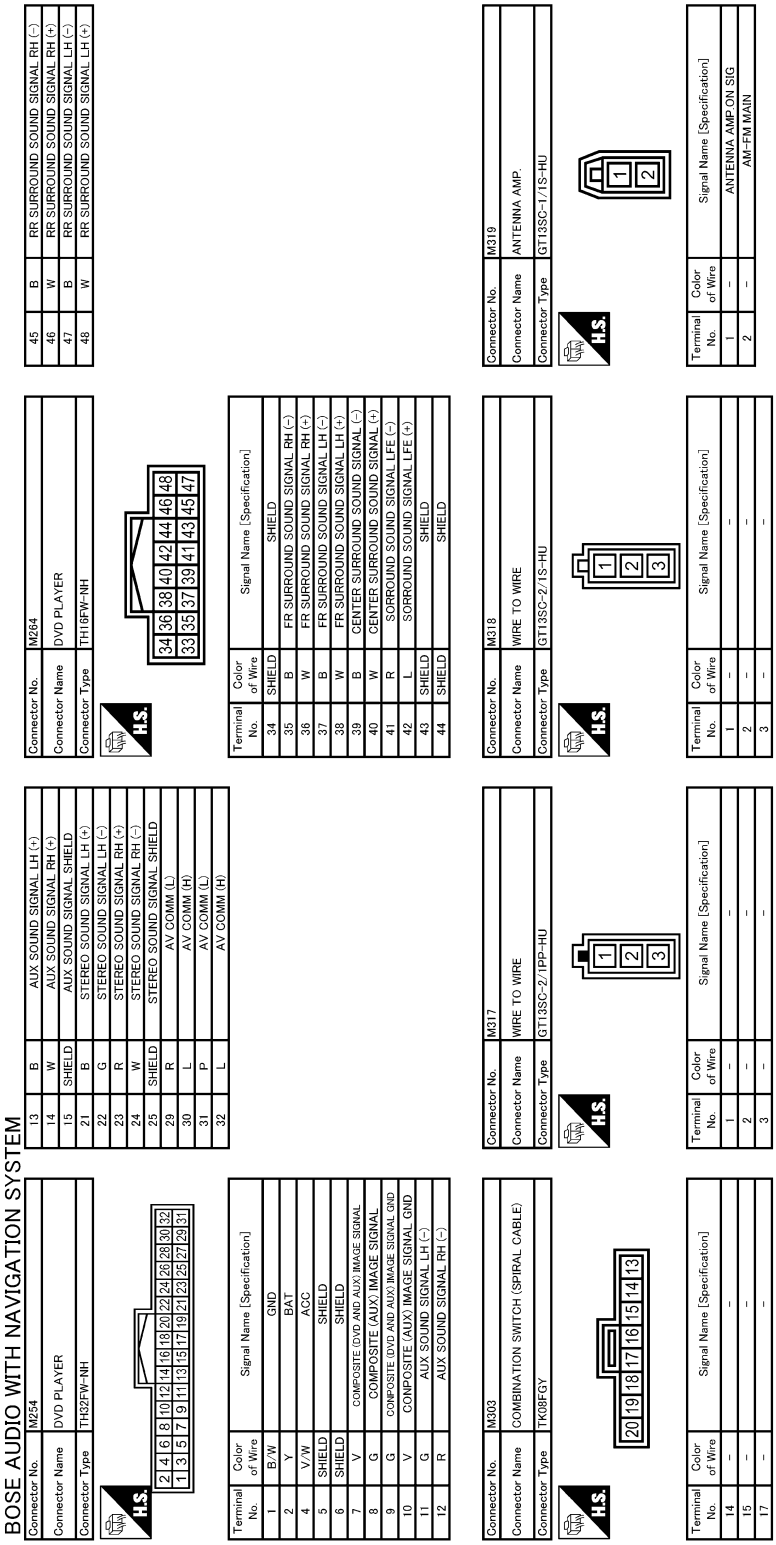
Terminal No.	Color of Wire	Signal Name [Specification]
1	W	AUX SOUND SIGNAL RH (+)
2	R	GND
3	B	AUX SOUND SIGNAL LH (+)
7	G	AUX IMAGE SIGNAL (+)
8	V	AUX IMAGE SIGNAL (–)

Connector No.	M156
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH

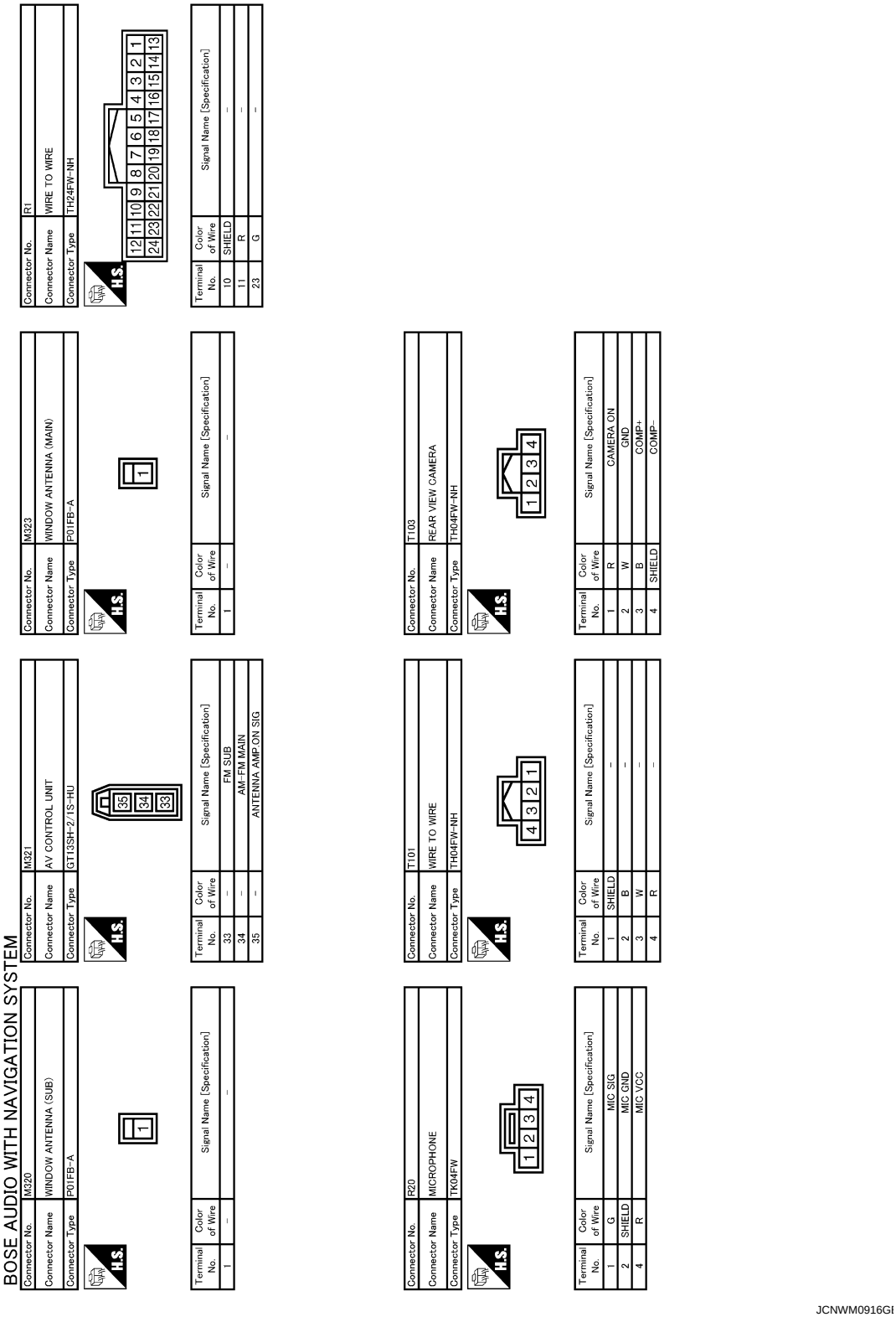
Terminal No.	Color of Wire	Signal Name [Specification]
7	Y	–
8	L/Y	–
9	B/R	–
10	O	–
13	Y	–
14	V	–
15	P/B	–
16	V/W	–
17	SHIELD	–
18	W	–
19	W	–
20	B	–
22	G/R	–

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BOSE AUDIO WITH NAVIGATION SYSTEM



JCNWM0915GB



JCNWM0916GI

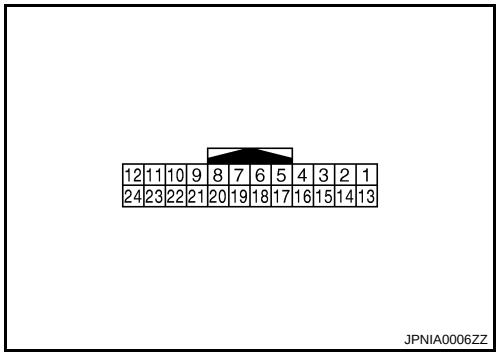
NOTE:
The name MULTIFUNCTION SWITCH indicates the integration of PRESET SWITCH and MULTIFUNCTION SWITCH virtually.

DISPLAY UNIT

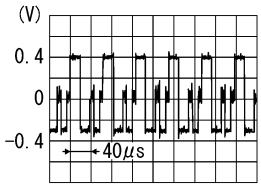
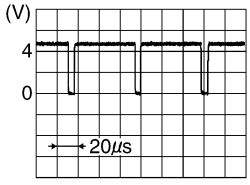
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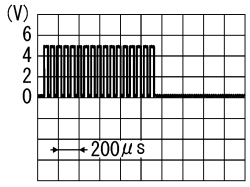
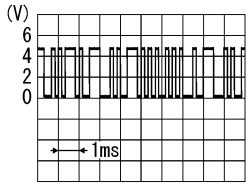
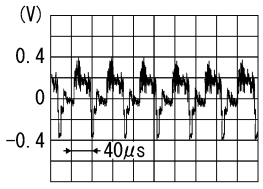
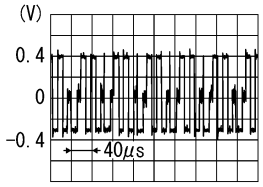
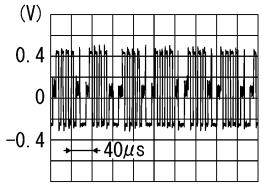
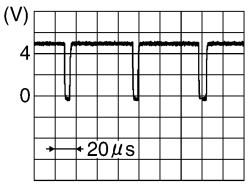
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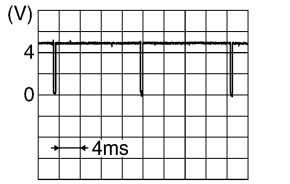
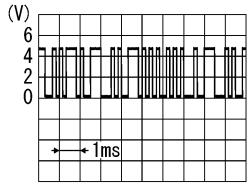
TERMINAL LAYOUT



PHYSICAL VALUES

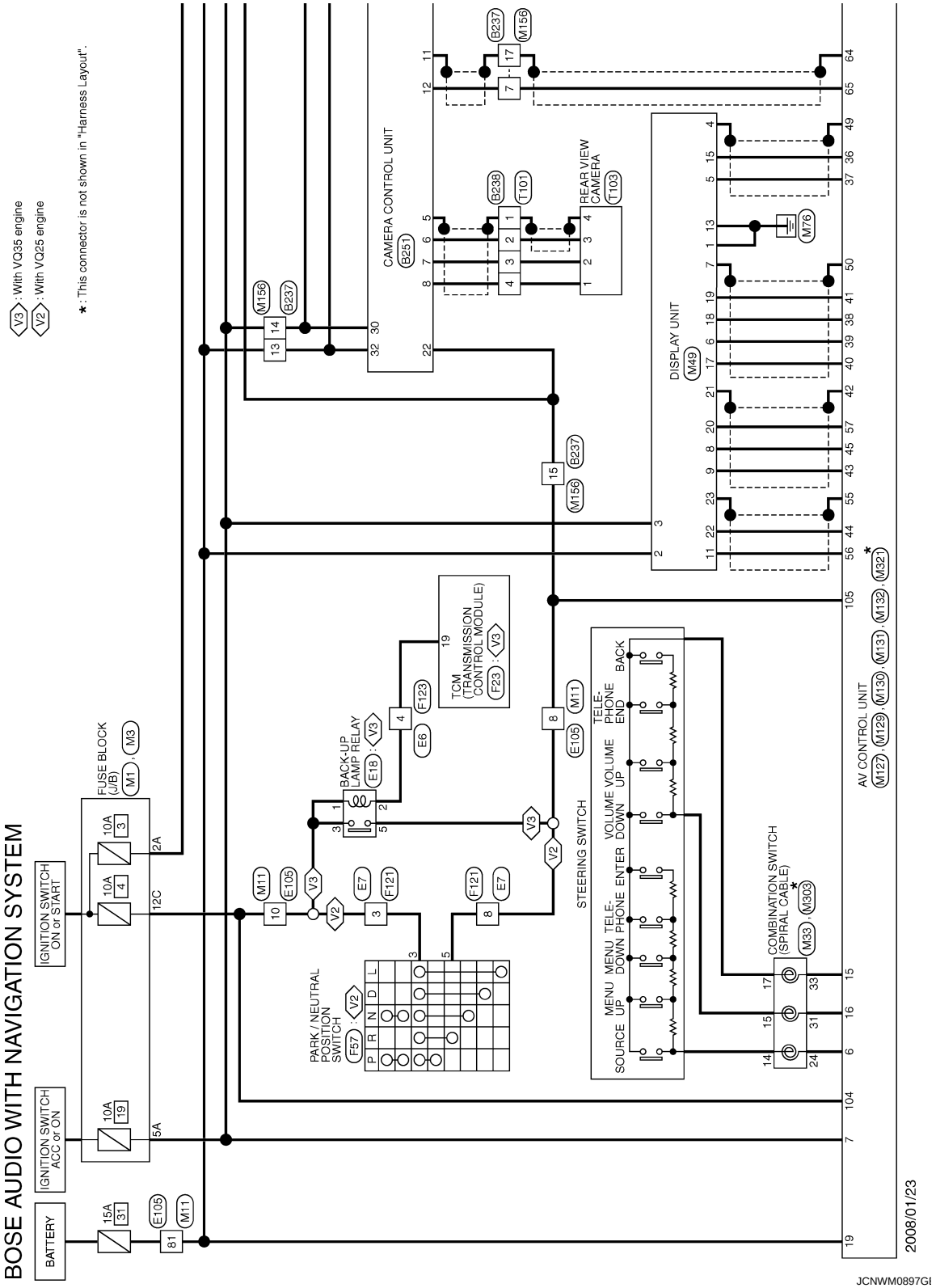
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
1 (B/W)	Ground	Ground	—	Ignition switch ON	—	0 V
2 (Y)	Ground	Battery power supply	Input	ignition switch OFF	—	Battery voltage
3 (V/Y)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
4	—	Composite image shield	—	—	—	—
5 (W)	Ground	Composite image ground	—	Ignition switch ON	—	0 V
6 (R)	Ground	RGB image signal (G: green)	Input	Ignition switch ON	Start confirmation/adjustment mode, and then display color bar by selecting “Color Spectrum Bar” on DISPLAY DIAGNOSIS screen.	 SKIB2236J
7	—	RGB image ground	—	Ignition switch ON	—	0 V
8 (W)	Ground	Horizontal synchronizing (HP) signal	Output	Ignition switch ON	—	 SKIB3601E

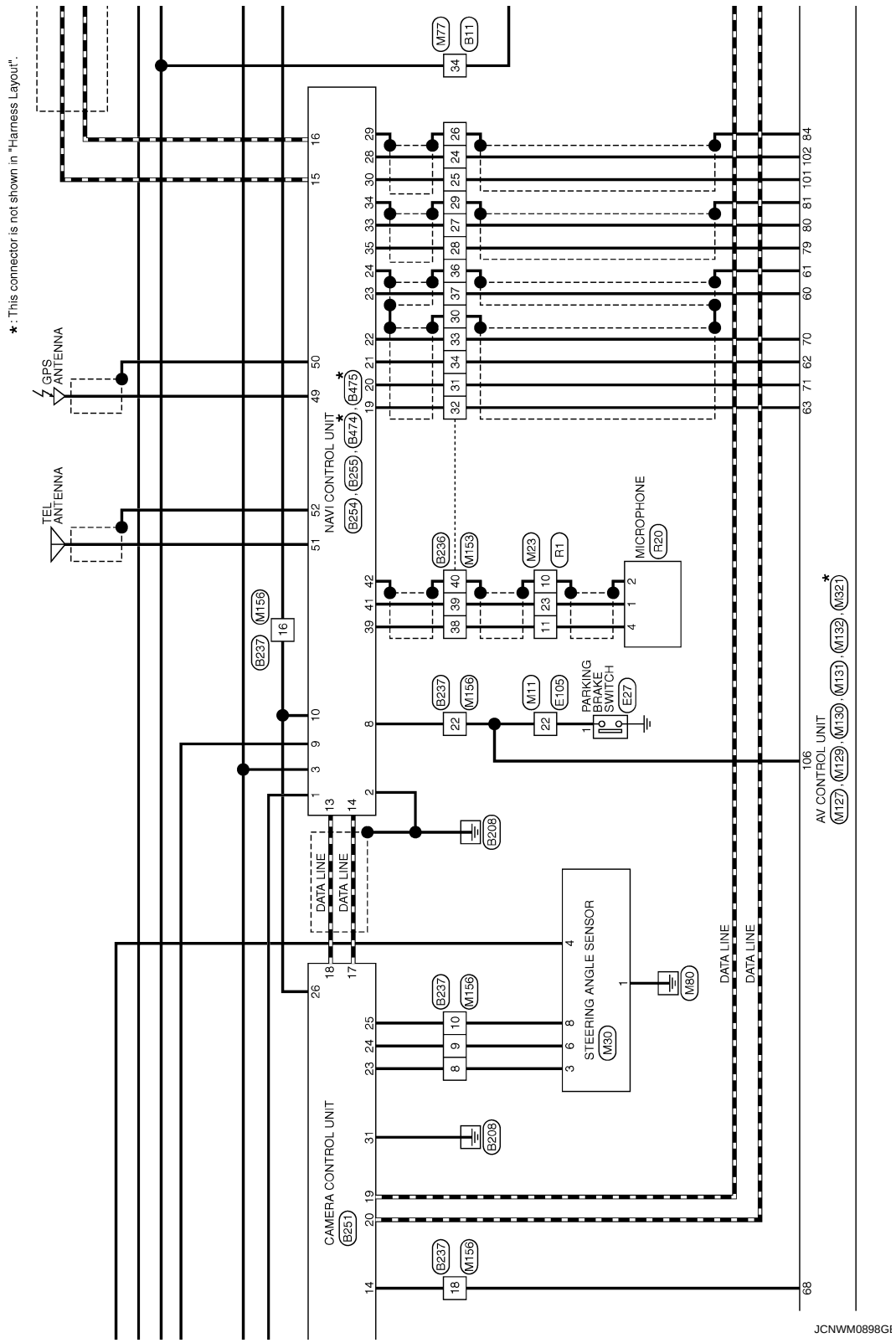
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
9 (B)	Ground	RGB area (YS) signal	Input	Ignition switch ON	When RGB image is displayed.	5.0 V
					When camera image or AUX image is displayed.	 PKIB4948J
11 (R)	Ground	Communication signal (CONT→DISP)	Input	Ignition switch ON	When adjusting display brightness.	 PKIB5039J
13 (B/W)	Ground	Ground	—	Ignition switch ON	—	0 V
15 (B)	Ground	Composite image signal	Input	Ignition switch ON	When rear view camera image or AUX image is displayed.	 SKIB2251J
17 (W)	Ground	RGB image signal (R: red)	Input	Ignition switch ON	Start confirmation/adjustment mode, and then display color bar by selecting “Color Spectrum Bar” on DISPLAY DIAGNOSIS screen.	 SKIB2238J
18 (B)	Ground	RGB image signal (B: blue)	Input	Ignition switch ON	Start confirmation/adjustment mode, and then display color bar by selecting“Color Spectrum Bar” on DISPLAY DIAGNOSIS screen.	 SKIB2237J
19 (G)	Ground	RGB synchronizing signal	Input	Ignition switch ON	—	 SKIB3603E

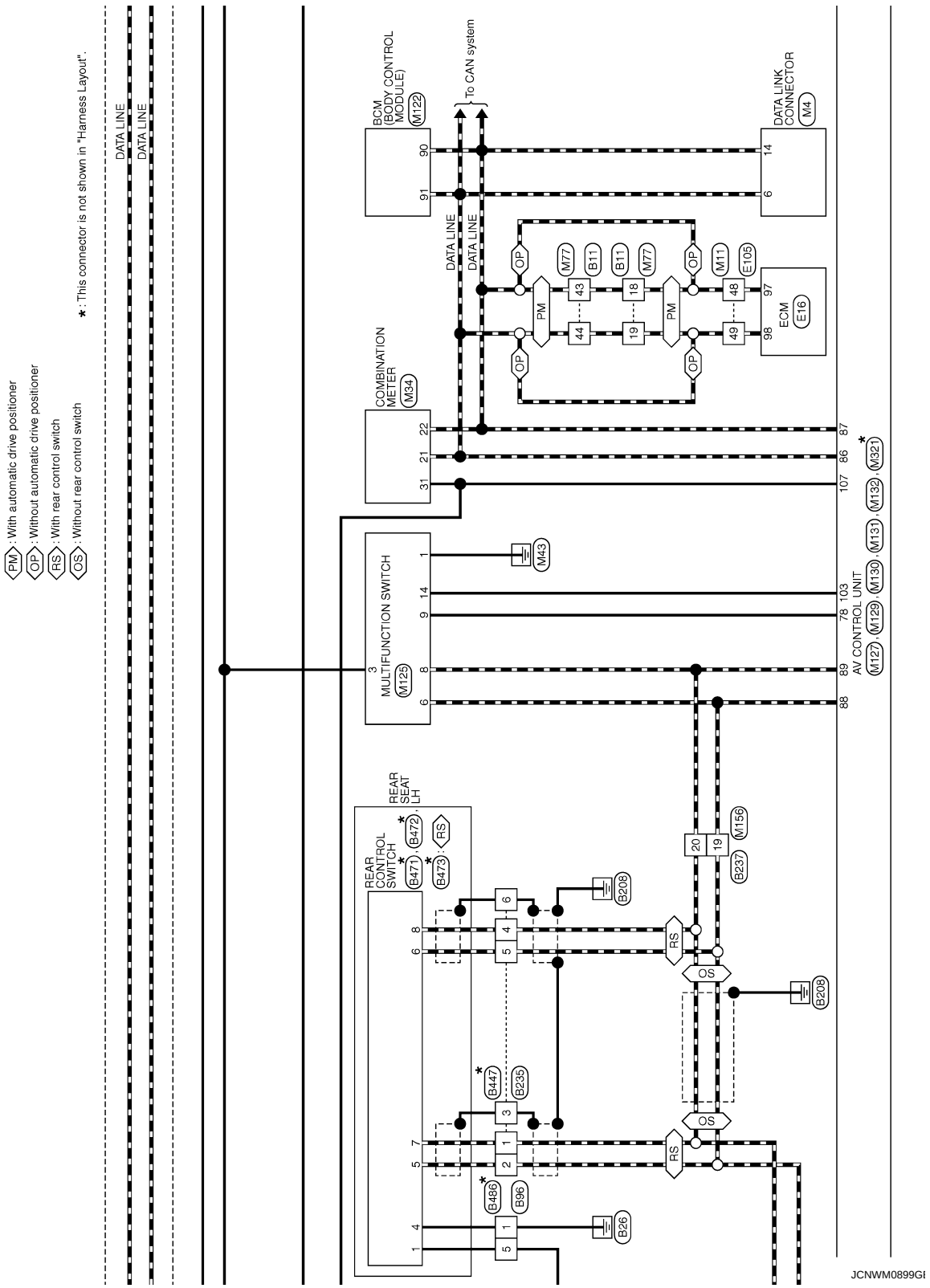
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
20 (R)	Ground	Vertical synchronizing (VP) signal	Output	Ignition switch ON	—	 SKIB3598E
21	Ground	RGB synchronizing ground	—	—	—	—
22 (G)	Ground	Communication signal (DISP→CONT)	Output	Ignition switch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

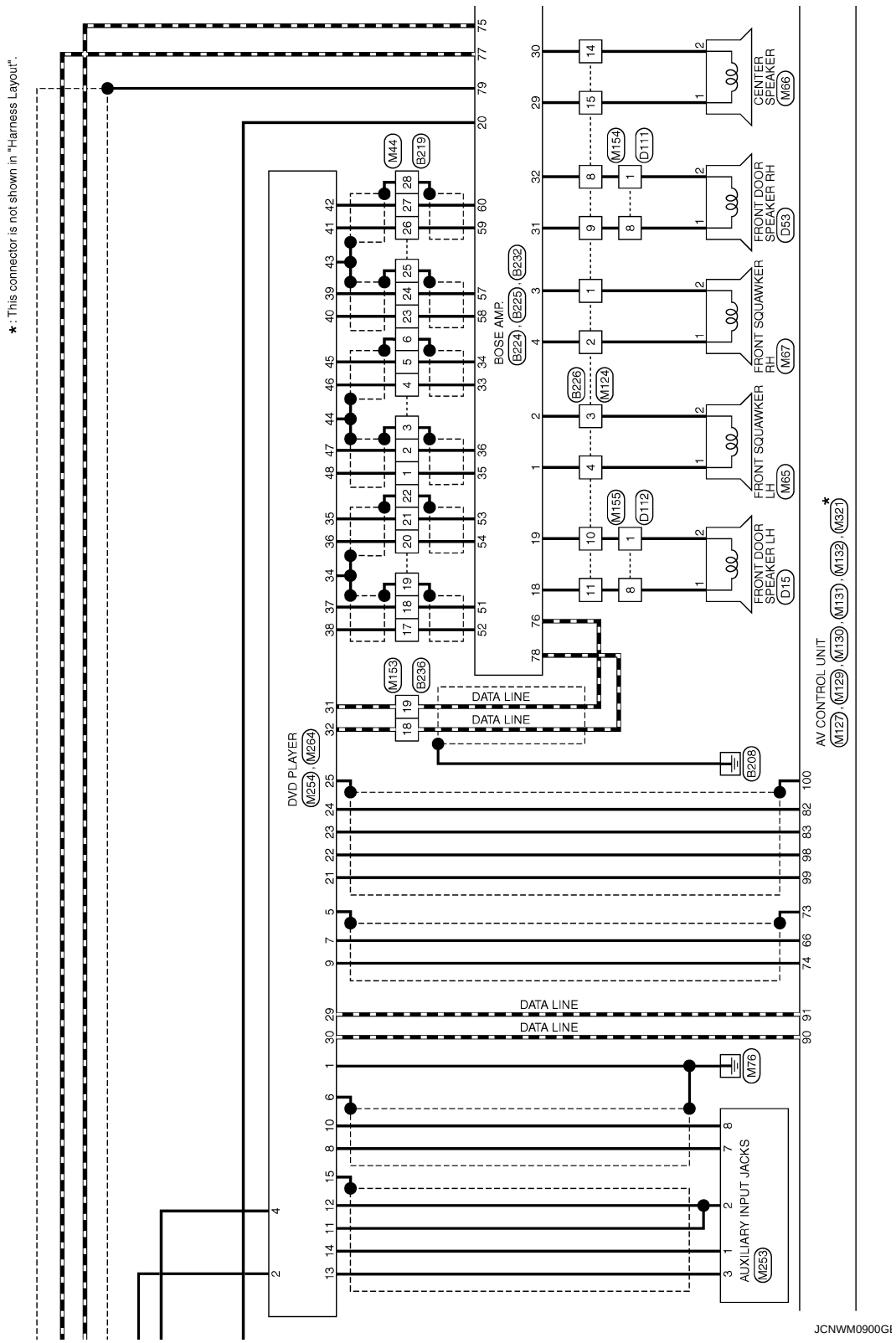
Wiring Diagram — BOSE AUDIO WITH NAVIGATION SYSTEM —

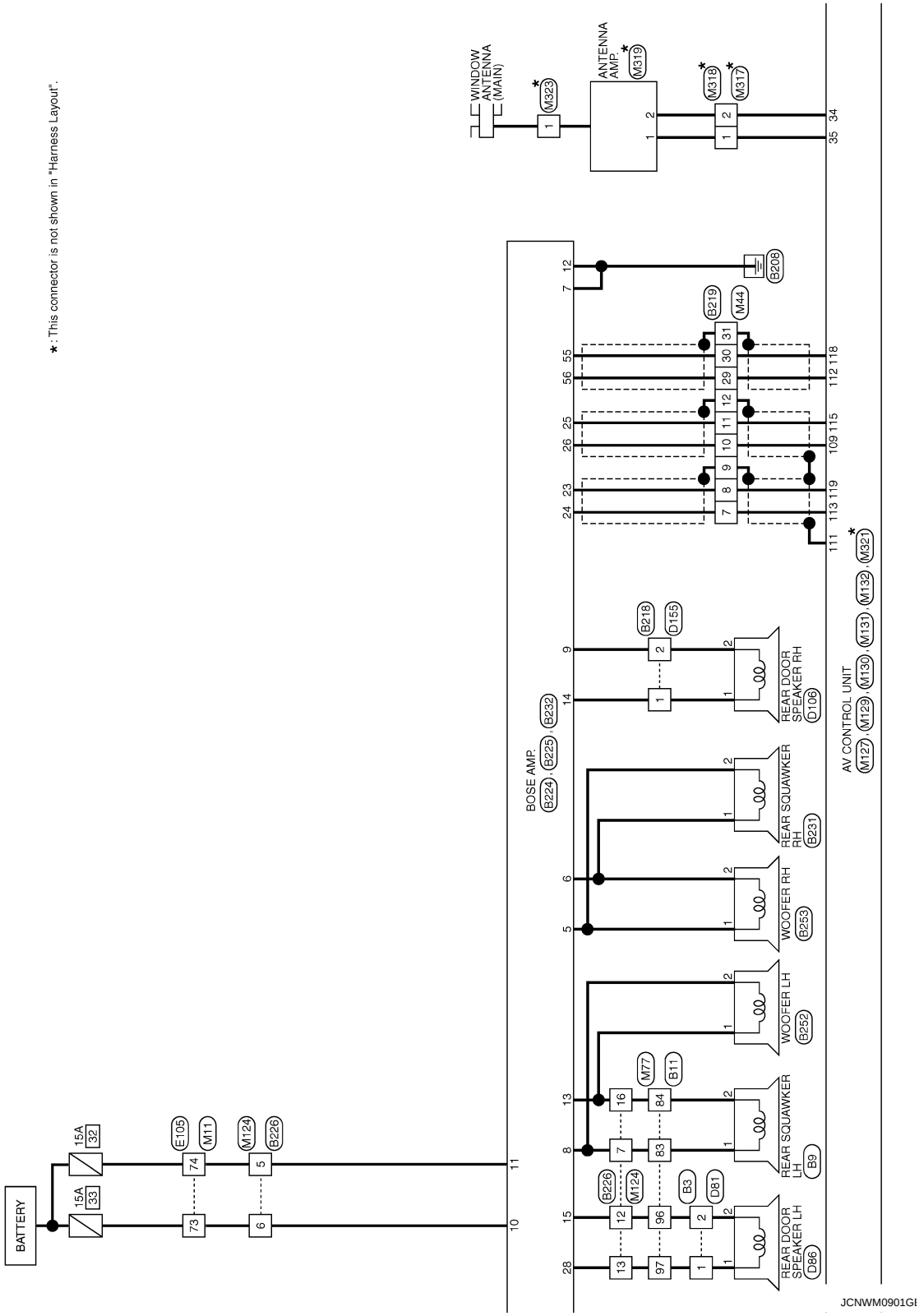
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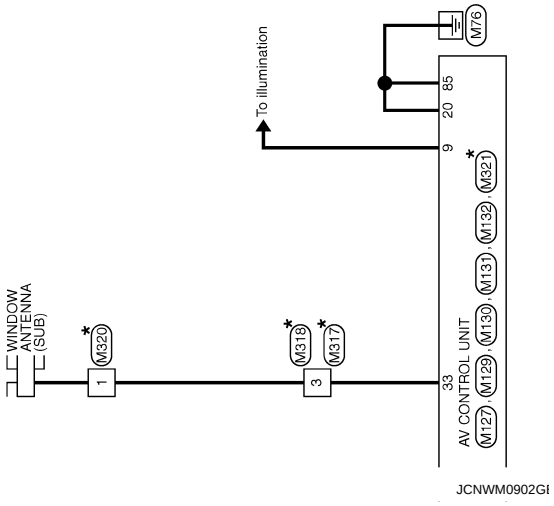

*: This connector is not shown in "Harness Layout".
GPS ANTENNA
TEL ANTENNA
NAVI CONTROL UNIT
B475, B474, B255, B254
MICROPHONE
R20
PARKING BRAKE SWITCH
E27
STEERING ANGLE SENSOR
M30
CAMERA CONTROL UNIT
B251
AV CONTROL UNIT
M127, M129, M130, M131, M132, M321
DATA LINE
DATA LINE
DATA LINE
DATA LINE
JCNWM0898GB


PM : With automatic drive positioner
OP : Without automatic drive positioner
RS : With rear control switch
OS : Without rear control switch
*: This connector is not shown in "Harness Layout".
DATA LINE
DATA LINE
BCM (BODY CONTROL MODULE) M122
To CAN system
DATA LINK CONNECTOR M4
COMBINATION METER M34
ECM E16
MULTIFUNCTION SWITCH M125
AV CONTROL UNIT (M127), (M129), (M130), (M131), (M132), (M321)
REAR SEAT LH
REAR CONTROL SWITCH (B471), *(B472), *(B473)
M43
M156
B237
B208
B235
B447
B486
B96
B26
JCNWM0899GB


*: This connector is not shown in "Harness Layout".
BOSE AMP.
B224, B225, B232
B226
M124
M44
B219
M153
B236
DATA LINE
DATA LINE
DVD PLAYER
M254, M264
B208
DATA LINE
DATA LINE
M76
AUXILIARY INPUT JACKS
M253
CENTER SPEAKER
M66
FRONT DOOR SPEAKER RH
D53
M154
D111
FRONT SQUAWKER RH
M67
FRONT SQUAWKER LH
M65
M155
D112
FRONT DOOR SPEAKER LH
D15
AV CONTROL UNIT
M127, M129, M130, M131, M132, M321
*
JCNWM0900GB

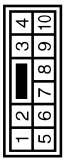

*: This connector is not shown in "Harness Layout".
BATTERY
15A 32
15A 33
E105
M11
M124
B226
74
73
5
6
11
10
BOSE AMP.
B224, B225, B232
AV CONTROL UNIT
M127, M129, M130, M131, M132, M321
WINDOW ANTENNA (MAIN)
M323
ANTENNA AMP.
M319
M318
M317
B208
B219
M44
B218
D155
REAR DOOR SPEAKER RH
D106
REAR SQUAWKER RH
B231
WOOFER RH
B253
WOOFER LH
B252
REAR SQUAWKER LH
B9
M77
B11
B3
D81
REAR DOOR SPEAKER LH
D86
JCNWM0901GB

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



BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B3
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS



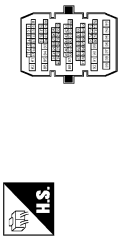
Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	–[With BOSE system]
2	O	–[With BOSE system]

Connector No.	B9
Connector Name	REAR SQUAWKER LH
Connector Type	TK02MBR-P



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

Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS19



Terminal No.	Color of Wire	Signal Name [Specification]
18	P	–
19	L	–
34	G	–
43	P	–
44	L	–
83	BR	–
84	R	–
96	O	–[With BOSE system]
97	LG	–[With BOSE system]
12	SHIELD	–
17	B	–
18	W	–
19	SHIELD	–
20	Y	–
21	BR	–
22	SHIELD	–
23	W/R	–
24	B/R	–
25	SHIELD	–
26	GR/V	–
27	W/L	–
28	SHIELD	–
29	W/L	–
30	W/R	–
31	SHIELD	–

Connector No.	B96
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



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

Connector No.	B218
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS

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

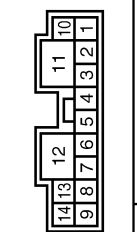
Connector No.	B219
Connector Name	WIRE TO WIRE
Connector Type	TH32MW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
1	W/L	–
2	W/R	–
3	SHIELD	–
4	W/L	–
5	GR/V	–
6	SHIELD	–
7	B	–
8	W	–
9	SHIELD	–
10	W/R	–
11	B/R	–

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BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B224
Connector Name	BOSE AMP.
Connector Type	SGA12FBR-SJA2



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

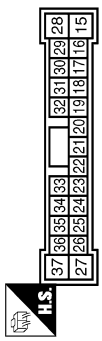
Connector No.	B226
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS



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

I2	B	GND
I3	R	SOUND SIGNAL WOOFER LH (+)
I4	L	SOUND SIGNAL REAR SPEAKER RH (+)

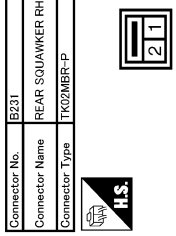
Connector No.	B225
Connector Name	BOSE AMP.
Connector Type	SCA19FBR-SGA4



Terminal No.	Color of Wire	Signal Name [Specification]
15	R	SOUND SIGNAL REAR SPEAKER LH (–)
18	W	SOUND SIGNAL FRONT SPEAKER LH (+)
19	B	SOUND SIGNAL FRONT SPEAKER LH (–)
20	V	ACC
23	W	STEREO SOUND SIGNAL LH (–)
24	B	STEREO SOUND SIGNAL LH (+)
25	B/R	STEREO SOUND SIGNAL RH (–)
26	W/R	STEREO SOUND SIGNAL RH (+)
28	G	SOUND SIGNAL REAR SPEAKER LH (+)
29	V	SOUND SIGNAL CENTER SPEAKER (+)
30	P	SOUND SIGNAL CENTER SPEAKER (–)

I2	R	–
I3	G	–
I4	P	–
I5	V	–
I6	R	–

Connector No.	B231
Connector Name	REAR SOUAWKER RH
Connector Type	TK02MBR-P



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

31	BR	SOUND SIGNAL FRONT SPEAKER RH (+)
32	Y	SOUND SIGNAL FRONT SPEAKER RH (–)
33	W/L	RR SURROUND SOUND SIGNAL RH (+)
34	GR/V	RR SURROUND SOUND SIGNAL RH (–)
35	W/L	RR SURROUND SOUND SIGNAL LH (+)
36	W/R	RR SURROUND SOUND SIGNAL LH (–)

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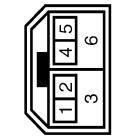
BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B232
Connector Name	BOSE AMP.
Connector Type	TH40FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
51	W	FR SURROUND SOUND SIGNAL LH (-)
52	B	FR SURROUND SOUND SIGNAL LH (+)
53	BR	FR SURROUND SOUND SIGNAL RH (-)
54	Y	FR SURROUND SOUND SIGNAL RH (+)
55	W/R	VOICE GUIDANCE SIGNAL (-)
56	W/L	VOICE GUIDANCE SIGNAL (+)
57	B/R	CENTER SURROUND SOUND SIGNAL (-)
58	W/R	CENTER SURROUND SOUND SIGNAL (+)
59	GR/V	SURROUND SOUND SIGNAL LFE (-)
60	W/L	SURROUND SOUND SIGNAL LFE (+)
75	P	AV COMM (L) [With navigation system]
76	P	AV COMM (L)
77	L	AV COMM (H) [With navigation system]
78	L	AV COMM (H)
79	SHIELD	SHIELD

Connector No.	B235
Connector Name	WIRE TO WIRE
Connector Type	SD02MGY



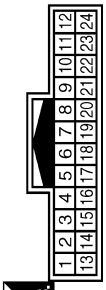
Terminal No.	Color of Wire	Signal Name [Specification]
1	P	–
2	L	–
3	SHIELD	–
4	G	–
5	R	–
6	SHIELD	–

Connector No.	B236
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
18	L	–[With BOSE system]
19	P	–[With BOSE system]
24	L	–
25	P	–
26	SHIELD	–
27	B	–
28	W	–
29	SHIELD	–
30	SHIELD	–
31	Y/L	–
32	BR/L	–
33	W/L	–
34	Y/G	–
36	SHIELD	–
37	L	–
38	B	–
39	W	–
40	SHIELD	–

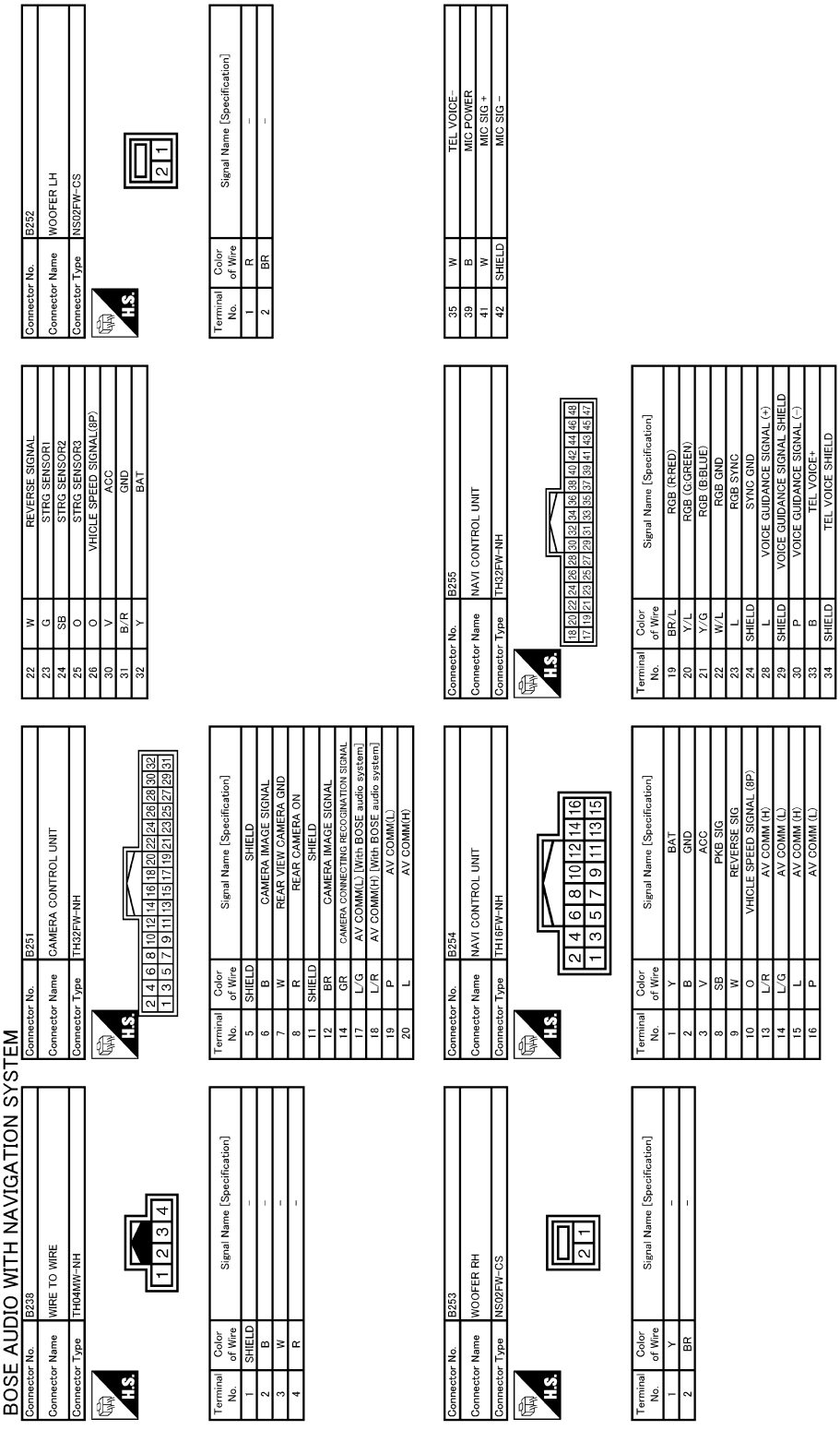
Connector No.	B237
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
7	BR	–
8	G	–
9	SB	–
10	O	–
13	Y	–
14	V	–
15	W	–
16	O	–
17	SHIELD	–
18	GR	–
19	R	–[With rear control switch]
19	L	–[Without rear control switch]
20	G	–[With rear control switch]
20	P	–[Without rear control switch]
22	SB	–

JCNWM0905GB

BOSE AUDIO WITH NAVIGATION SYSTEM



JCNWM0906GB

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B447
Connector Name	WIRE TO WIRE
Connector Type	SD02FGY

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–
2	B	–
3	SHIELD	–
4	Y	–
5	G	–
6	SHIELD	–

Connector No.	B471
Connector Name	REAR CONTROL SWITCH
Connector Type	TH04FW

Terminal No.	Color of Wire	Signal Name [Specification]
1	R/Y	–
4	Y	–

Connector No.	B472
Connector Name	REAR CONTROL SWITCH
Connector Type	SD01FGY

Terminal No.	Color of Wire	Signal Name [Specification]
5	G	–
7	Y	–

Connector No.	B473
Connector Name	REAR CONTROL SWITCH
Connector Type	SD01MGY

Terminal No.	Color of Wire	Signal Name [Specification]
6	B	–
8	W	–

Connector No.	B474
Connector Name	NAVI CONTROL UNIT
Connector Type	GT5-1S-HU

Terminal No.	Color of Wire	Signal Name [Specification]
49	–	GPS ANTENNA SIGNAL
50	–	SHIELD

Connector No.	B475
Connector Name	NAVI CONTROL UNIT
Connector Type	GT16C-1S-HU

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

Connector No.	B486
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8

Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	–
5	R/Y	–

Connector No.	D15
Connector Name	FRONT DOOR SPEAKER LH (WITH BOSE SYSTEM)
Connector Type	NS02FBR-CS

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

JCNWM0907GI

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	D53
Connector Name	FRONT DOOR SPEAKER RH (WITH BOSE SYSTEM)
Connector Type	NS02FBR-CS



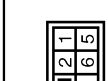
Terminal No.	Color of Wire	Signal Name [Specification]
1	B	–
2	W	–

Connector No.	D81
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS



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

Connector No.	D86
Connector Name	REAR DOOR SPEAKER LH (WITH BOSE SYSTEM)
Connector Type	NS02FBR-CS



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

Connector No.	D106
Connector Name	REAR DOOR SPEAKER RH (WITH BOSE SYSTEM)
Connector Type	NS02FBR-CS



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

Connector No.	D111
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–[With BOSE system]
8	B	–[With BOSE system]

Connector No.	D112
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



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

Connector No.	D155
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–
2	B	–[With BOSE system]

Connector No.	E6
Connector Name	WIRE TO WIRE
Connector Type	TK16MGY-1V

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

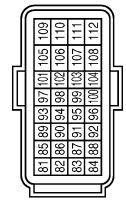
JCNWM0908GB

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	E7
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS

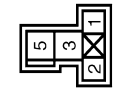
Terminal No.	Color of Wire	Signal Name [Specification]
3	LG	–
8	R	–

Connector No.	E16
Connector Name	ECM
Connector Type	RH24FB-RZ8-L-LH



Terminal No.	Color of Wire	Signal Name [Specification]
97	P	VEHCAN-L
98	L	VEHCAN-H

Connector No.	E18
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS02FL-M2-LC



Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	–
2	R	–
3	LG	–
5	R	–

Connector No.	E27
Connector Name	PARKING BRAKE SWITCH
Connector Type	P01FB-A

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

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH70MW-CS10-M3

Terminal No.	Color of Wire	Signal Name [Specification]
8	R	–
10	LG	–
22	P	–
48	P	–
49	L	–
73	R	–
74	BR	–
81	Y	–

Connector No.	F23
Connector Name	TCM (TRANSMISSION CONTROL MODULE)
Connector Type	RH40FB-RZ8-L-RH

Terminal No.	Color of Wire	Signal Name [Specification]
19	G/B	REV LAMP RELAY

Connector No.	F57
Connector Name	PARK / NEUTRAL POSITION SWITCH
Connector Type	YDX06FB-HS4

Terminal No.	Color of Wire	Signal Name [Specification]
3	LG	–
5	P/B	–

Connector No.	F121
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS

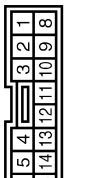


Terminal No.	Color of Wire	Signal Name [Specification]
3	O	–
8	R	–

JCNWM0909GB

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	F123
Connector Name	WIRE TO WIRE
Connector Type	TK16FGY-1V



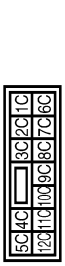
Terminal No.	Color of Wire	Signal Name [Specification]
4	G/B	–

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



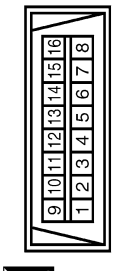
Terminal No.	Color of Wire	Signal Name [Specification]
2A	G/O	–
5A	V/O	–

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



Terminal No.	Color of Wire	Signal Name [Specification]
12C	O	–

Connector No.	M4
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



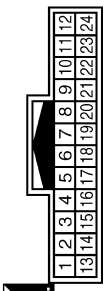
Terminal No.	Color of Wire	Signal Name [Specification]
6	L	–
14	P	–

Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Type	TH70FW-CS10-M3



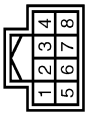
Terminal No.	Color of Wire	Signal Name [Specification]
8	P/B	–
10	O	–
22	G/R	–
48	P	–
49	L	–
73	B/R	–
74	BR	–
81	Y	–

Connector No.	M23
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



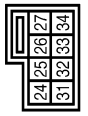
Terminal No.	Color of Wire	Signal Name [Specification]
10	SHIELD	–
11	R	–
23	G	–

Connector No.	M30
Connector Name	STEERING ANGLE SENSOR
Connector Type	TH08FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	–
3	L/Y	–
4	G	–
6	B/R	–
8	O	–

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

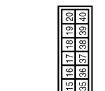


Terminal No.	Color of Wire	Signal Name [Specification]
24	W/G	–
31	GR/L	–
33	L/B	–

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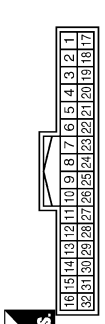
BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	TH40FW-NH



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

Connector No.	M44
Connector Name	WIRE TO WIRE
Connector Type	TH32FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–
2	B	–
3	SHIELD	–
4	W	–
5	B	–
6	SHIELD	–
7	W	–
8	B	–
9	SHIELD	–
10	W	–
11	B	–
12	SHIELD	–
17	W	–
18	B	–
19	SHIELD	–
20	W	–
21	B	–
22	SHIELD	–
23	W	–
24	B	–
25	SHIELD	–
26	R	–
27	L	–
28	SHIELD	–
29	BR	–
30	Y	–
31	SHIELD	–

Connector No.	M49
Connector Name	DISPLAY UNIT
Connector Type	TH24FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
1	B/W	GND
2	Y	INV VCC
3	V/Y	ACC [With navigation system]
4	SHIELD	COMPOSIT IMAGE SIGNAL SHIELD
5	W	COMPOSIT IMAGE SIGNAL GND
6	R	RGB (G:GREEN)
7	SHIELD	RGB GND
8	W	HP
9	B	YS
11	R	COMM (CONT->DISP)
13	B/W	GND [With navigation system]
15	B	COMPOSIT IMAGE SIGNAL
17	W	RGB (R:RED)
18	B	RGB (B:BLUE)
19	G	RGB SYNC
20	R	VP
21	SHIELD	RGB SYNC GND
22	G	COMM (DISP->CONT)
23	SHIELD	SHIELD

Connector No.	M65
Connector Name	FRONT SQUAWKER LH
Connector Type	TK02FBR



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

Connector No.	M66
Connector Name	CENTER SPEAKER
Connector Type	TK02FBR



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

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BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M67
Connector Name	FRONT SQUAWKER RH
Connector Type	TK02FBR



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

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS19



Terminal No.	Color of Wire	Signal Name [Specification]
18	P	–
19	L	–
34	V/R	–
43	P	–
44	L	–
83	G/B	–
84	W/B	–
96	W/R	–
97	O/B	–

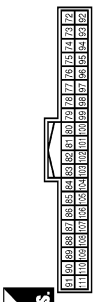
Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



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

Terminal No.	Color of Wire	Signal Name [Specification]
12	W/R	–
13	O/B	–
14	R	–
15	G	–
16	W/B	–

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



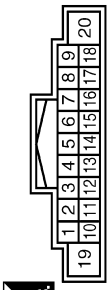
Terminal No.	Color of Wire	Signal Name [Specification]
90	P	CAN-L
91	L	CAN-H

Connector No.	M125
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH16FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
3	V/R	ACC
6	W	M-CAN H
8	B	M-CAN L
9	BR	SW GND
14	SB	CD(DVD) EJECT

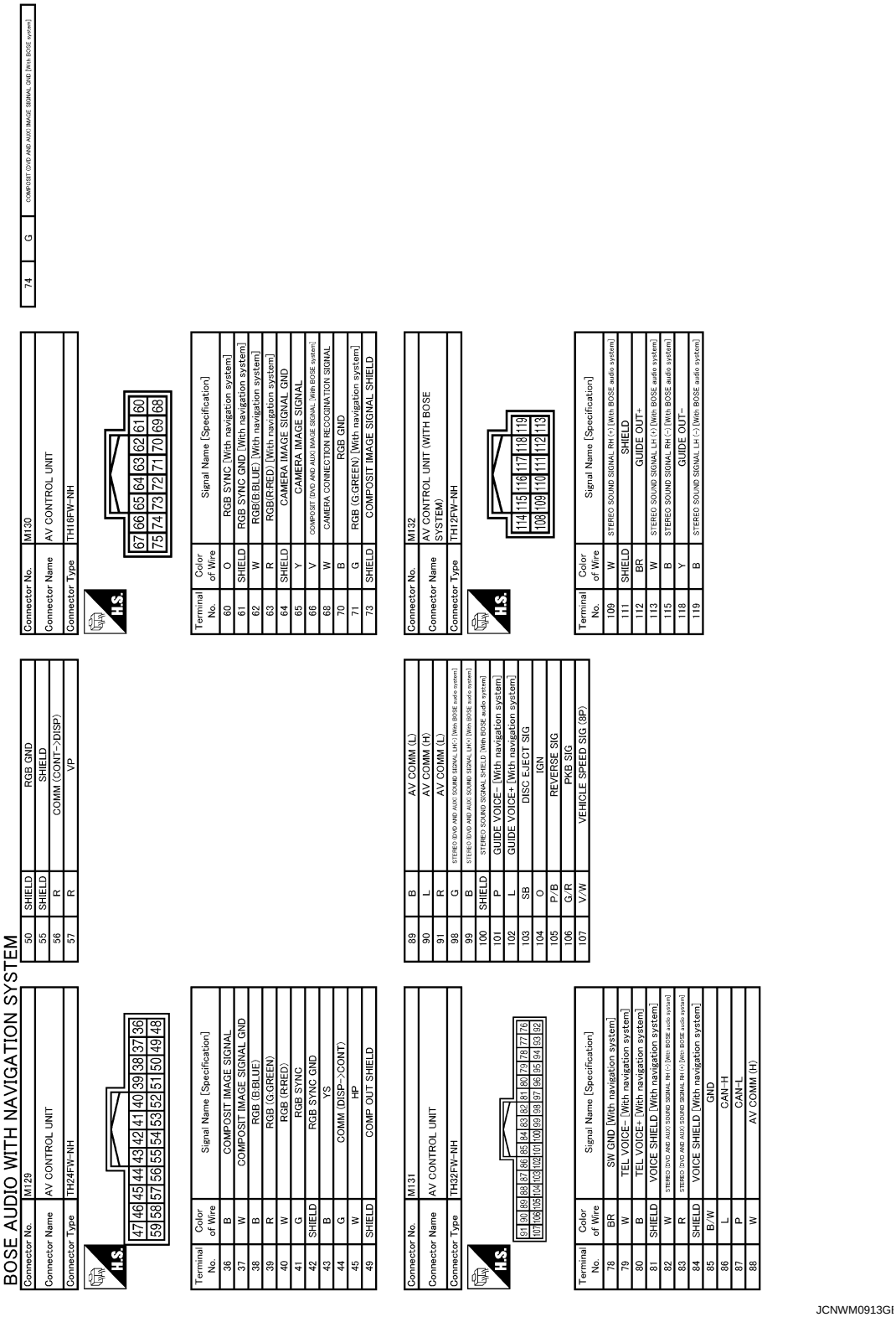
Connector No.	M127
Connector Name	AV CONTROL UNIT
Connector Type	TH18FW-CS2



Terminal No.	Color of Wire	Signal Name [Specification]
6	W/G	STRG SW A
7	V/W	ACC
9	R/L	ILL
15	L/B	STRG SW GND
16	GR/L	STRG SW B
19	Y	BAT
20	B/W	GND

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BOSE AUDIO WITH NAVIGATION SYSTEM



Terminal No.	Color of Wire	Signal Name [Specification]
36	B	COMPOSIT IMAGE SIGNAL
37	W	COMPOSIT IMAGE SIGNAL GND
38	B	RGB (B:BLUE)
39	R	RGB (G:GREEN)
40	W	RGB (R:RED)
41	G	RGB SYNC
42	SHIELD	RGB SYNC GND
43	B	YS
44	G	COMM (DISP->)CONT)
45	W	HP
49	SHIELD	COMP OUT SHIELD
50	SHIELD	RGB GND
55	SHIELD	SHIELD
56	R	COMM (CONT->DISP)
57	R	VP

Terminal No.	Color of Wire	Signal Name [Specification]
60	O	RGB SYNC [With navigation system]
61	SHIELD	RGB SYNC GND [With navigation system]
62	W	RGB(B:BLUE) [With navigation system]
63	R	RGB(R:RED) [With navigation system]
64	SHIELD	CAMERA IMAGE SIGNAL GND
65	Y	CAMERA IMAGE SIGNAL
66	V	COMPOSIT (DVD AND AUX) IMAGE SIGNAL [With BOSE system]
68	W	CAMERA CONNECTION RECOGNATION SIGNAL
70	B	RGB GND
71	G	RGB (G:GREEN) [With navigation system]
73	SHIELD	COMPOSIT IMAGE SIGNAL SHIELD

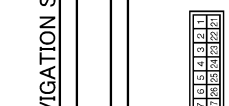
Terminal No.	Color of Wire	Signal Name [Specification]
78	BR	SW GND [With navigation system]
79	W	TEL VOICE- [With navigation system]
80	B	TEL VOICE+ [With navigation system]
81	SHIELD	VOICE SHIELD [With navigation system]
82	W	STEREO (DVD AND AUX) SOUND SIGNAL RH (-) [With BOSE audio system]
83	R	STEREO (DVD AND AUX) SOUND SIGNAL RH (+) [With BOSE audio system]
84	SHIELD	VOICE SHIELD [With navigation system]
85	B/W	GND
86	L	CAN-H
87	P	CAN-L
88	W	AV COMM (H)
89	B	AV COMM (L)
90	L	AV COMM (H)
91	R	AV COMM (L)
98	G	STEREO (DVD AND AUX) SOUND SIGNAL LH (-) [With BOSE audio system]
99	B	STEREO (DVD AND AUX) SOUND SIGNAL LH (+) [With BOSE audio system]
100	SHIELD	STEREO SOUND SIGNAL SHIELD [With BOSE audio system]
101	P	GUIDE VOICE- [With navigation system]
102	L	GUIDE VOICE+ [With navigation system]
103	SB	DISC EJECT SIG
104	O	IGN
105	P/B	REVERSE SIG
106	G/R	PKB SIG
107	V/W	VEHICLE SPEED SIG (8P)

Terminal No.	Color of Wire	Signal Name [Specification]
109	W	STEREO SOUND SIGNAL RH (+) [With BOSE audio system]
111	SHIELD	SHIELD
112	BR	GUIDE OUT+
113	W	STEREO SOUND SIGNAL LH (+) [With BOSE audio system]
115	B	STEREO SOUND SIGNAL RH (-) [With BOSE audio system]
118	Y	GUIDE OUT-
119	B	STEREO SOUND SIGNAL LH (-) [With BOSE audio system]

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BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M153
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
18	L	–
19	P	–[With BOSE system]
24	L	–
25	P	–
26	SHIELD	–
27	B	–
28	W	–
29	SHIELD	–
30	SHIELD	–
31	G	–
32	R	–
33	B	–
34	W	–
36	SHIELD	–
37	O	–
38	R	–
39	G	–
40	SHIELD	–

Connector No.	M154
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	–[With BOSE system]
8	R	–[With BOSE system]

Connector No.	M155
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS

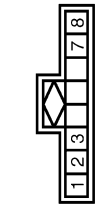


Terminal No.	Color of Wire	Signal Name [Specification]
1	O	–[With BOSE system]
8	B/P	–[With BOSE system]

Connector No.	M156
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
7	Y	–
8	L/Y	–
9	B/R	–
10	O	–
13	Y	–
14	V	–
15	P/B	–
16	V/W	–
17	SHIELD	–
18	W	–
19	W	–
20	B	–
22	G/R	–

Connector No.	M253
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A08FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	AUX SOUND SIGNAL RH (+)
2	R	GND
3	B	AUX SOUND SIGNAL LH (+)
7	G	AUX IMAGE SIGNAL (+)
8	V	AUX IMAGE SIGNAL (–)

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BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M254
Connector Name	DVD PLAYER
Connector Type	TH32FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
1	B/W	GND
2	Y	BAT
4	V/W	ACC
5	SHIELD	SHIELD
6	SHIELD	SHIELD
7	V	COMPOSITE (DVD AND AUX) IMAGE SIGNAL
8	G	COMPOSITE (AUX) IMAGE SIGNAL
9	G	COMPOSITE (DVD AND AUX) IMAGE SIGNAL GND
10	V	CONPOSITE (AUX) IMAGE SIGNAL GND
11	G	AUX SOUND SIGNAL LH (-)
12	R	AUX SOUND SIGNAL RH (-)
13	B	AUX SOUND SIGNAL LH (+)
14	W	AUX SOUND SIGNAL RH (+)
15	SHIELD	AUX SOUND SIGNAL SHIELD
21	B	STEREO SOUND SIGNAL LH (+)
22	G	STEREO SOUND SIGNAL LH (-)
23	R	STEREO SOUND SIGNAL RH (+)
24	W	STEREO SOUND SIGNAL RH (-)
25	SHIELD	STEREO SOUND SIGNAL SHIELD
29	R	AV COMM (L)
30	L	AV COMM (H)
31	P	AV COMM (L)
32	L	AV COMM (H)

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

Terminal No.	Color of Wire	Signal Name [Specification]
14	–	–
15	–	–
17	–	–

Connector No.	M317
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1PP-HU

Terminal No.	Color of Wire	Signal Name [Specification]
1	–	–
2	–	–
3	–	–

Connector No.	M264
Connector Name	DVD PLAYER
Connector Type	TH16FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
34	SHIELD	SHIELD
35	B	FR SURROUND SOUND SIGNAL RH (-)
36	W	FR SURROUND SOUND SIGNAL RH (+)
37	B	FR SURROUND SOUND SIGNAL LH (-)
38	W	FR SURROUND SOUND SIGNAL LH (+)
39	B	CENTER SURROUND SOUND SIGNAL (-)
40	W	CENTER SURROUND SOUND SIGNAL (+)
41	R	SORROUND SOUND SIGNAL LFE (-)
42	L	SORROUND SOUND SIGNAL LFE (+)
43	SHIELD	SHIELD
44	SHIELD	SHIELD
45	B	RR SURROUND SOUND SIGNAL RH (-)
46	W	RR SURROUND SOUND SIGNAL RH (+)
47	B	RR SURROUND SOUND SIGNAL LH (-)
48	W	RR SURROUND SOUND SIGNAL LH (+)

Connector No.	M318
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1S-HU

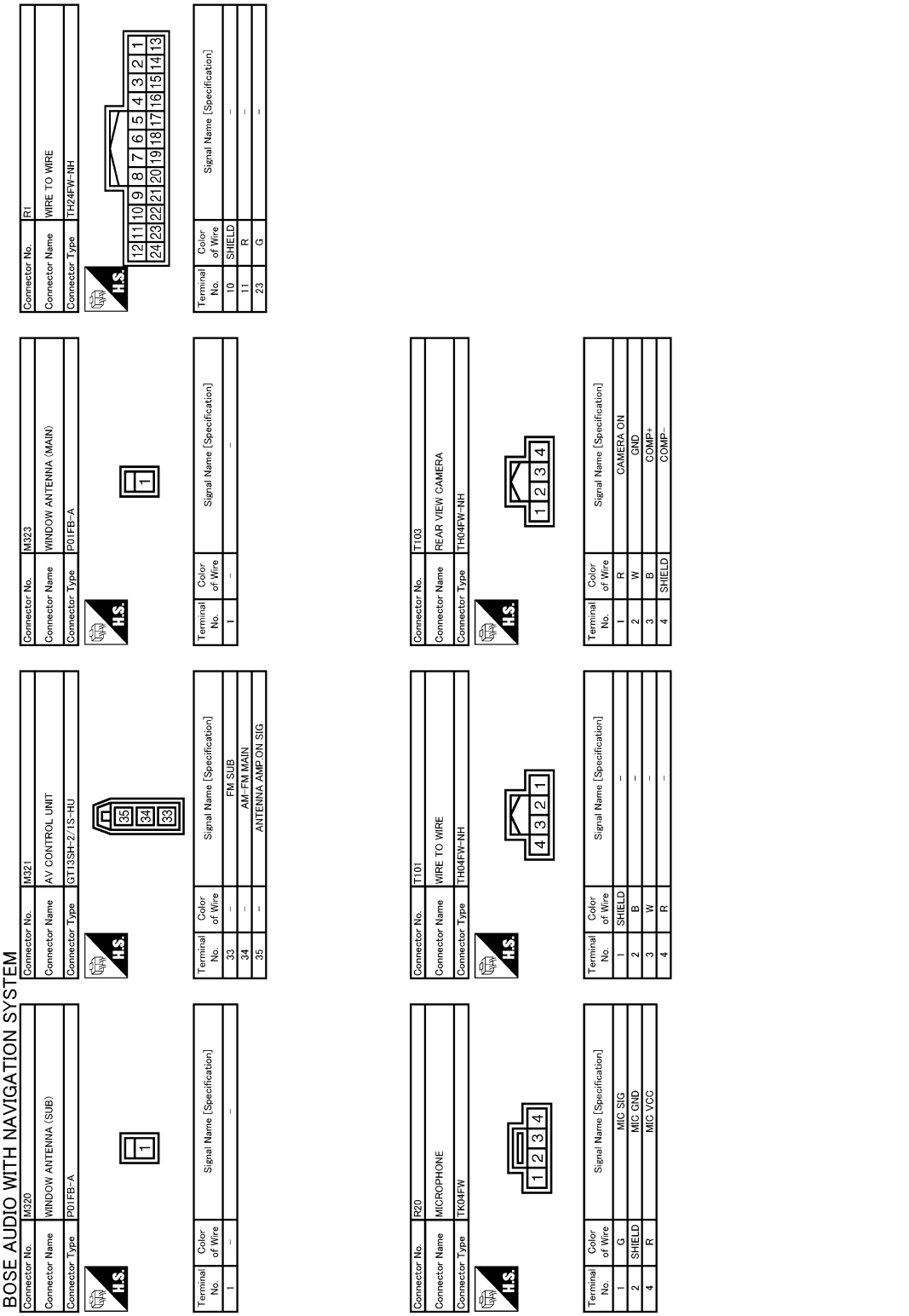
Terminal No.	Color of Wire	Signal Name [Specification]
1	–	–
2	–	–
3	–	–

Connector No.	M319
Connector Name	ANTENNA AMP.
Connector Type	GT13SC-1/1S-HU

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

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BOSE AUDIO WITH NAVIGATION SYSTEM



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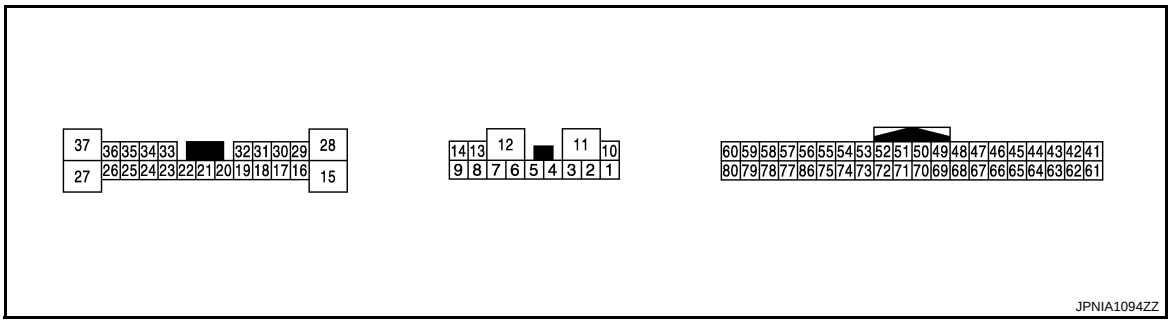
NOTE:
The name MULTIFUNCTION SWITCH indicates the integration of PRESET SWITCH and MULTIFUNCTION SWITCH virtually.

BOSE AMP.

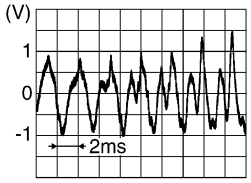
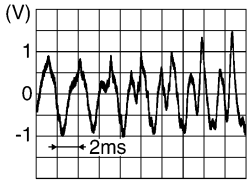
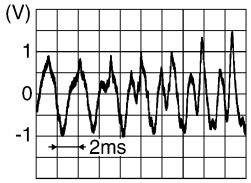
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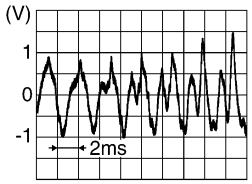
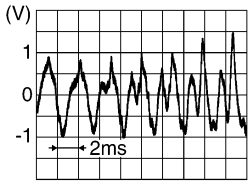
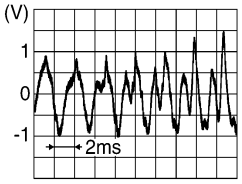
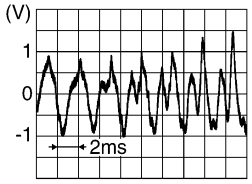
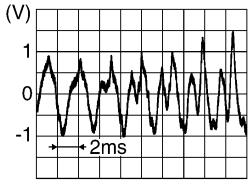
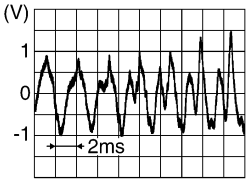
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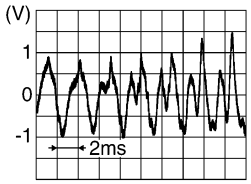
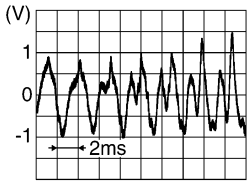
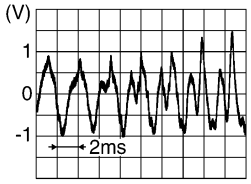
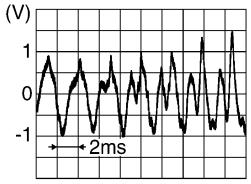
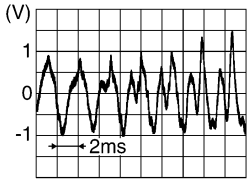
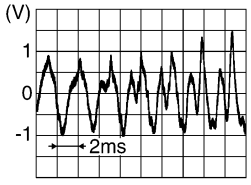
TERMINAL LAYOUT

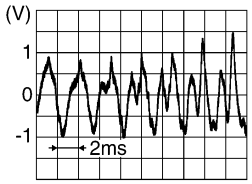
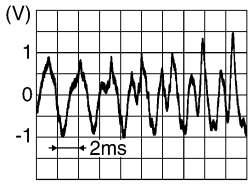
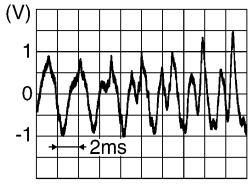


PHYSICAL VALUES

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
1 (LG)	2 (V)	Sound signal front squawker LH	Output	Ignition switch ON	Audio output	 SKIB3609E
4 (P)	3 (L)	Sound signal front squawker RH	Output	Ignition switch ON	Audio output	 SKIB3609E
5 (Y)	6 (BR)	Sound signal woofer RH	Output	Ignition switch ON	Audio output	 SKIB3609E
7 (B)	Ground	Ground	—	Ignition switch ON	—	0 V
10 (SB)	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	Ground	—	Ignition switch ON	—	0 V

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
13 (R)	8 (BR)	Sound signal woofer LH	Output	Ignition switch ON	Audio output	 SKIB3609E
14 (L)	9 (O)	Sound signal rear speaker RH	Output	Ignition switch ON	Audio output	 SKIB3609E
18 (W)	19 (B)	Sound signal front speaker LH	Output	Ignition switch ON	Audio output	 SKIB3609E
20 (V)	Ground	ACC power supply	Input	Ignition switch ACC	—	12.0 V
24 (B)	23 (W)	Stereo sound signal front LH	Input	Ignition switch ON	Audio output	 SKIB3609E
26 (W/R)	25 (B/R)	Stereo sound signal front RH	Input	Ignition switch ON	Audio output	 SKIB3609E
28 (G)	15 (R)	Sound signal rear speaker LH	Output	Ignition switch ON	Audio output	 SKIB3609E

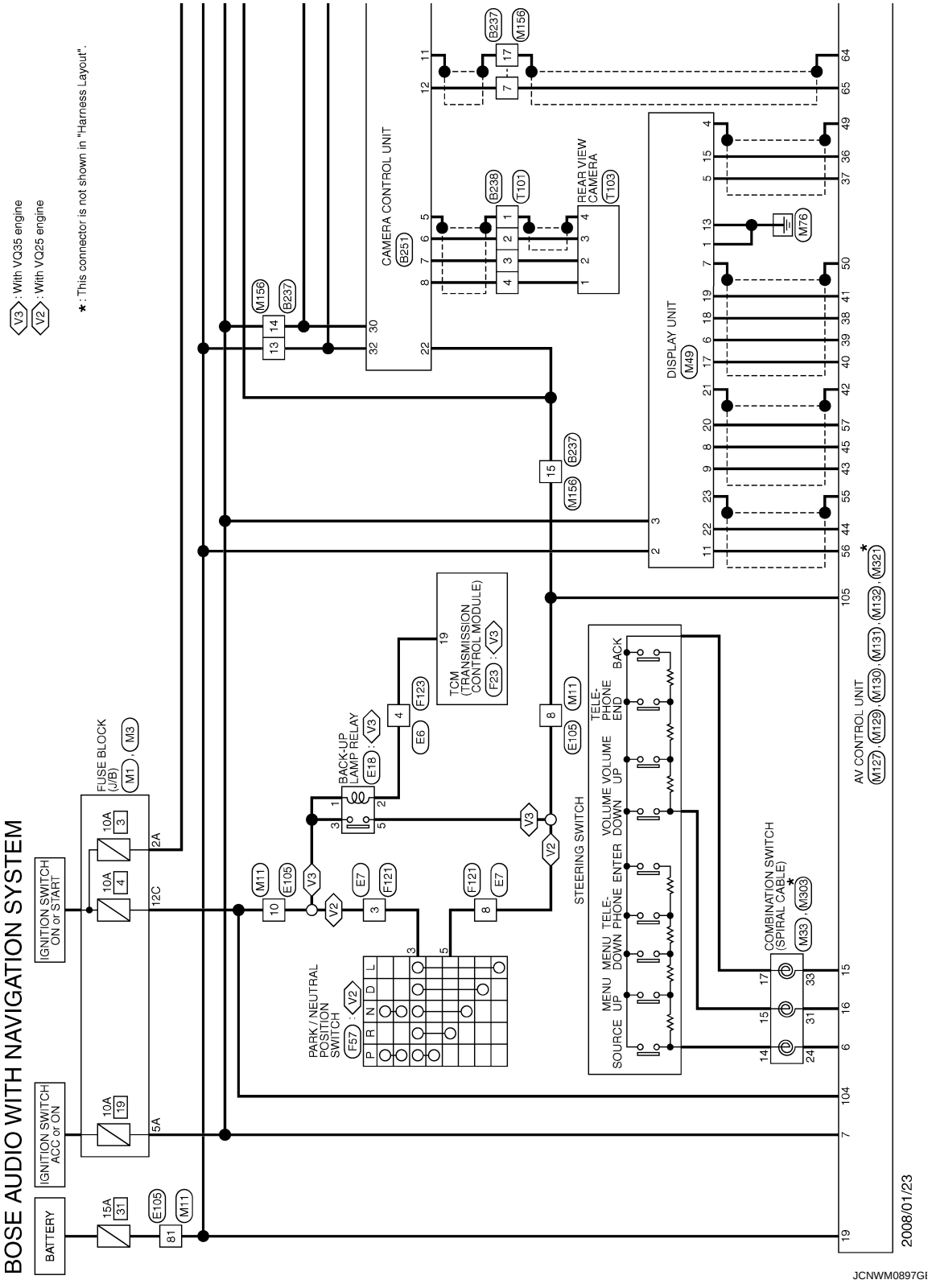
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
29 (V)	30 (P)	Sound signal center speaker	Output	Ignition switch ON	Audio output	 SKIB3609E
31 (BR)	32 (Y)	Sound signal front speaker RH	Output	Ignition switch ON	Audio output	 SKIB3609E
33 (W/L)	34 (GR/V)	Surround sound signal rear RH	Input	Ignition switch ON	When DVD is playing.*	 SKIB3609E
35 (W/L)	36 (W/R)	Surround sound signal rear LH	Input	Ignition switch ON	When DVD is playing.*	 SKIB3609E
52 (B)	51 (W)	Surround sound signal front LH	Input	Ignition switch ON	When DVD is playing.*	 SKIB3609E
54 (Y)	53 (BR)	Surround sound signal front RH	Input	Ignition switch ON	When DVD is playing.*	 SKIB3609E

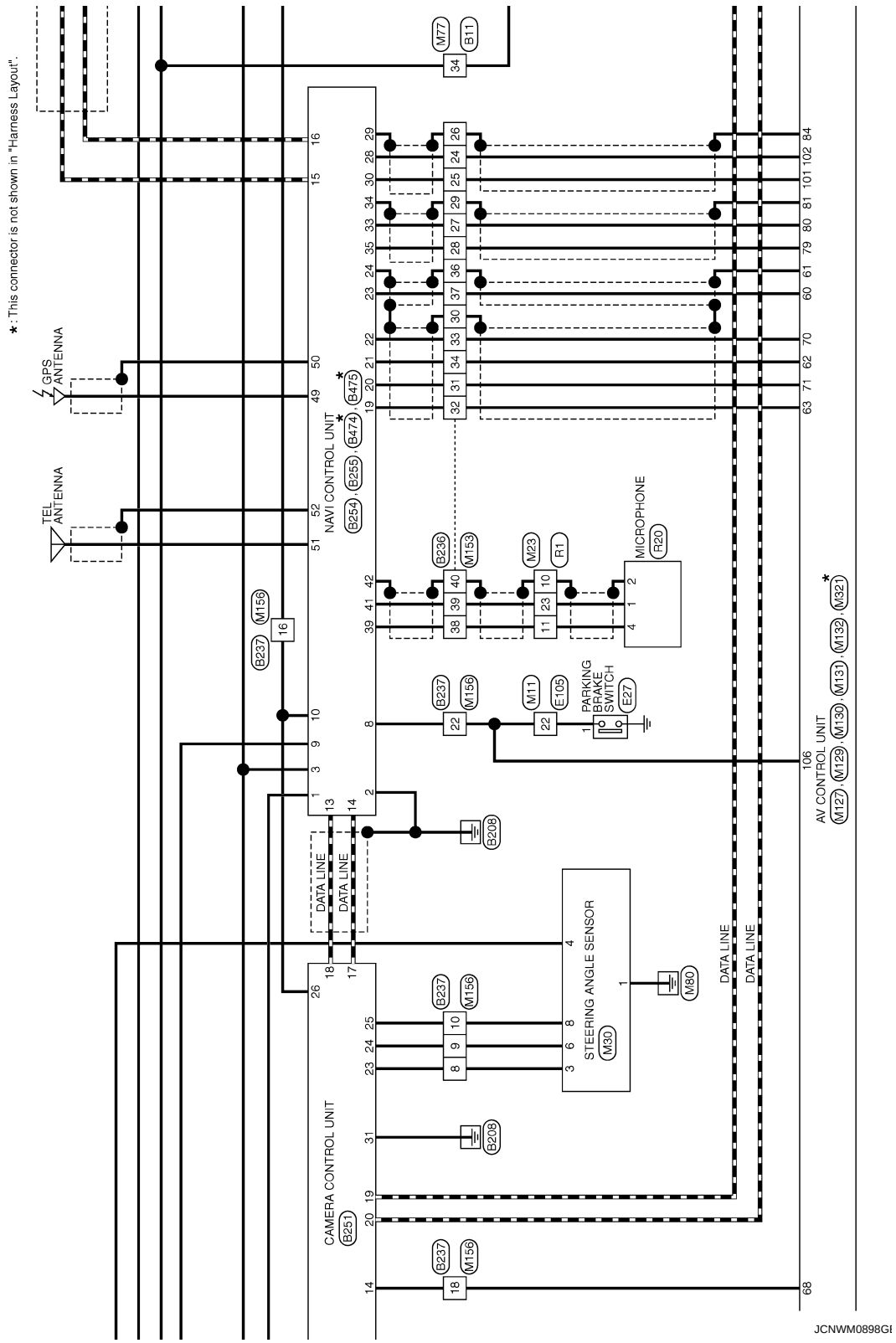
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
56 (W/L)	55 (W/R)	Voice guidance signal	Input	Ignition switch ON	When inputting voice guidance.	 SKIB3609E
58 (W/R)	57 (B/R)	Surround sound signal center	Input	Ignition switch ON	When DVD is playing.*	 SKIB3609E
59 (GR/V)	60 (W/L)	Surround sound signal center	Input	Ignition switch ON	When DVD is playing.*	 SKIB3609E
75 (P)	—	AV communication signal (L)	—	—	—	—
76 (P)	—	AV communication signal (L)	—	—	—	—
77 (L)	—	AV communication signal (H)	—	—	—	—
78 (L)	—	AV communication signal (H)	—	—	—	—
79	—	Shield	—	—	—	—

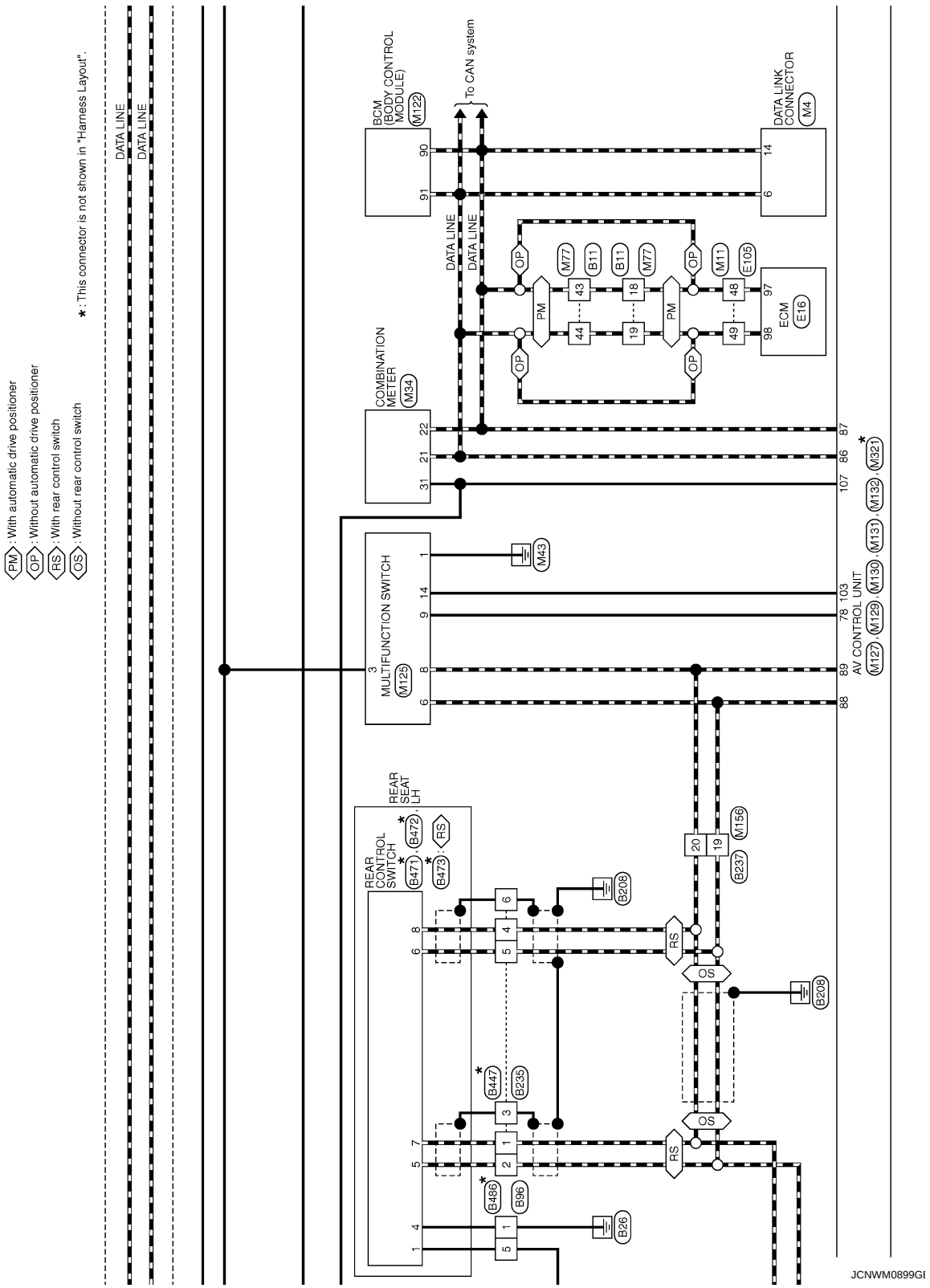
*: All surround sounds are input only when the 5.1 channel surround sound is played.

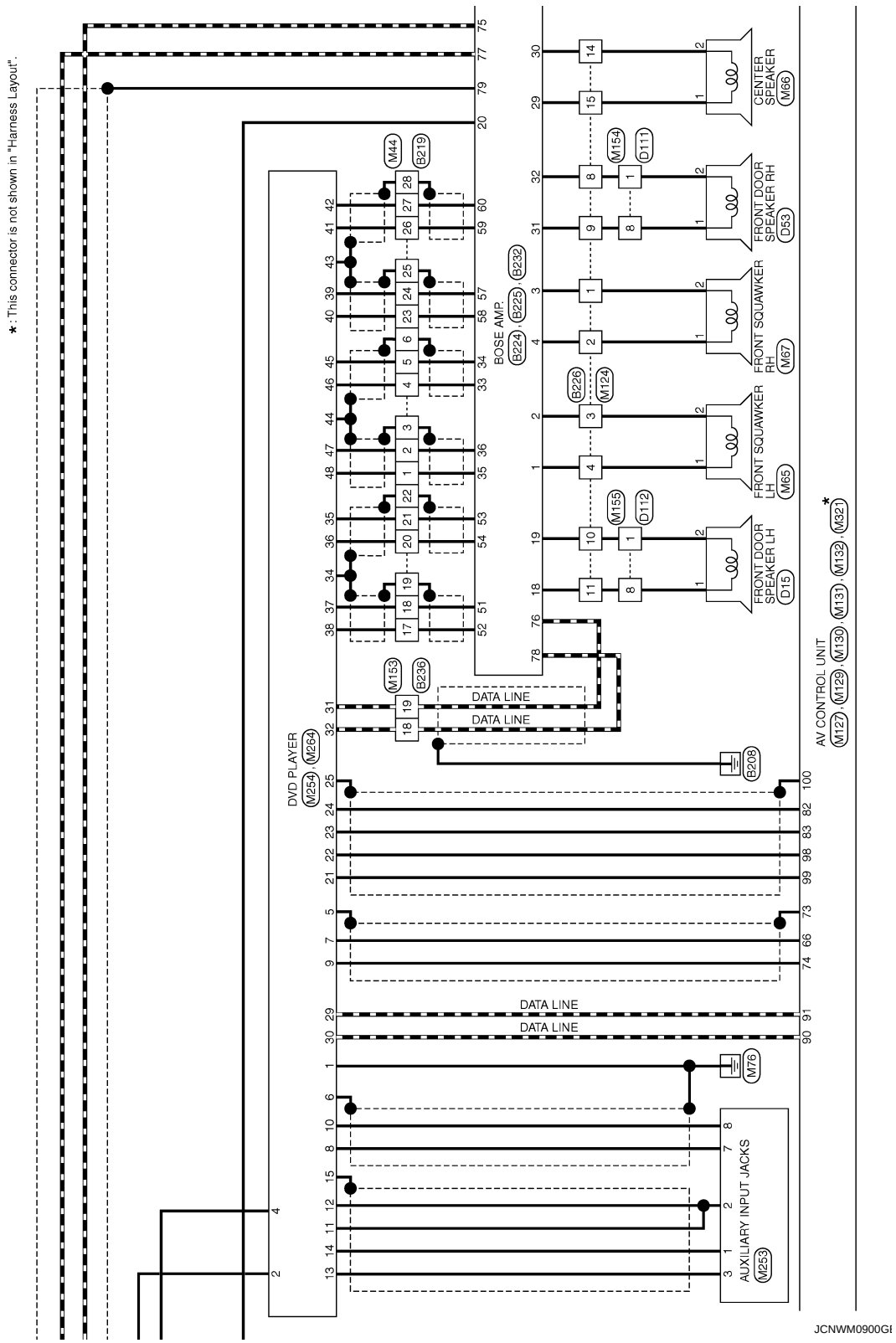
Wiring Diagram — BOSE AUDIO WITH NAVIGATION SYSTEM —

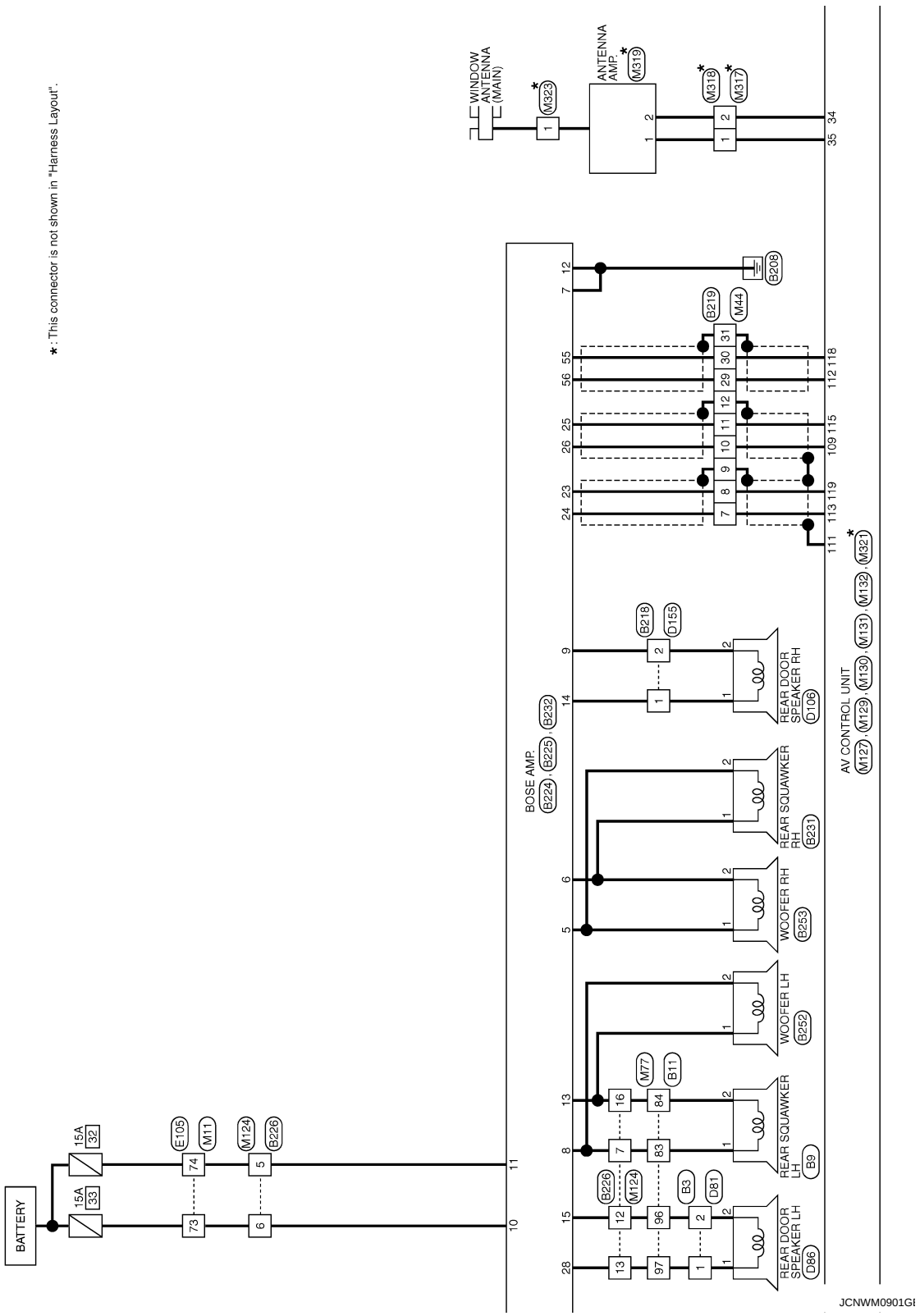
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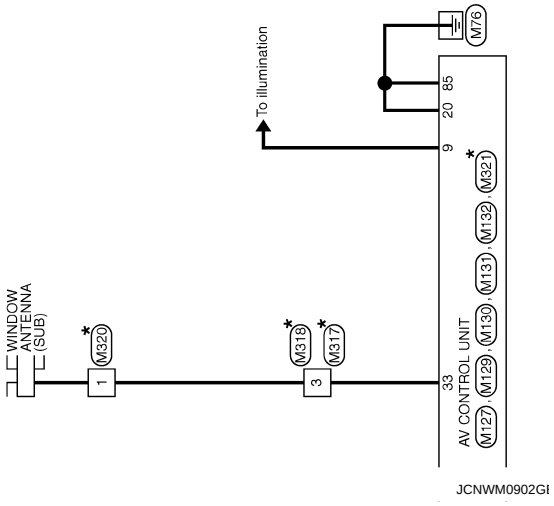

*: This connector is not shown in "Harness Layout".
GPS ANTENNA
TEL ANTENNA
NAVI CONTROL UNIT
(B474), (B475), (B255), (B254)
MICROPHONE
R20
PARKING BRAKE SWITCH
E27
AV CONTROL UNIT
(M127), (M129), (M130), (M131), (M132), (M321)
STEERING ANGLE SENSOR
M30
CAMERA CONTROL UNIT
B251
DATA LINE
DATA LINE
DATA LINE
DATA LINE
JCNWM0898GB


PM : With automatic drive positioner
OP : Without automatic drive positioner
RS : With rear control switch
OS : Without rear control switch
*: This connector is not shown in "Harness Layout".
DATA LINE
DATA LINE
BCM (BODY CONTROL MODULE) M122
To CAN system
DATA LINK CONNECTOR M4
COMBINATION METER M34
ECM E16
MULTIFUNCTION SWITCH M125
AV CONTROL UNIT
REAR SEAT LH
REAR CONTROL SWITCH
JCNWM0899GB


*: This connector is not shown in "Harness Layout".
BOSE AMP.
B224, B225, B232
B226
M124
M44
B219
M153
B236
DATA LINE
DATA LINE
DVD PLAYER
M254, M264
B208
DATA LINE
DATA LINE
M76
AUXILIARY INPUT JACKS
M253
CENTER SPEAKER
M66
FRONT DOOR SPEAKER RH
D53
M154
D111
FRONT SQUAWKER RH
M67
FRONT SQUAWKER LH
M65
M155
D112
FRONT DOOR SPEAKER LH
D15
AV CONTROL UNIT
M127, M129, M130, M131, M132, M321
*
JCNWM0900GB

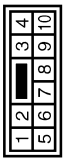

*: This connector is not shown in "Harness Layout".
BATTERY
15A 32
15A 33
E105
M11
M124
B226
74
73
5
6
11
10
BOSE AMP.
B224, B225, B232
WINDOW ANTENNA (MAIN)
M323
ANTENNA AMP.
M319
M318
M317
B208
B219
M44
AV CONTROL UNIT
M127, M129, M130, M131, M132, M321
B218
D155
REAR DOOR SPEAKER RH
D106
REAR SQUAWKER RH
B231
WOOFER RH
B253
WOOFER LH
B252
REAR SQUAWKER LH
B9
M77
B11
B3
D81
REAR DOOR SPEAKER LH
D86
B226
M124
JCNWM0901GB

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



BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B3
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS



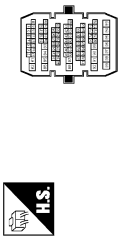
Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	–[With BOSE system]
2	O	–[With BOSE system]

Connector No.	B9
Connector Name	REAR SQUAWKER LH
Connector Type	TK02MBR-P



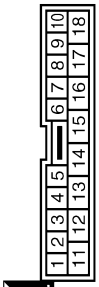
Terminal No.	Color of Wire	Signal Name [Specification]
1	BR	–
2	R	–

Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS19



Terminal No.	Color of Wire	Signal Name [Specification]
18	P	–
19	L	–
34	G	–
43	P	–
44	L	–
83	BR	–
84	R	–
96	O	–[With BOSE system]
97	LG	–[With BOSE system]

Connector No.	B96
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



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

Connector No.	B218
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS

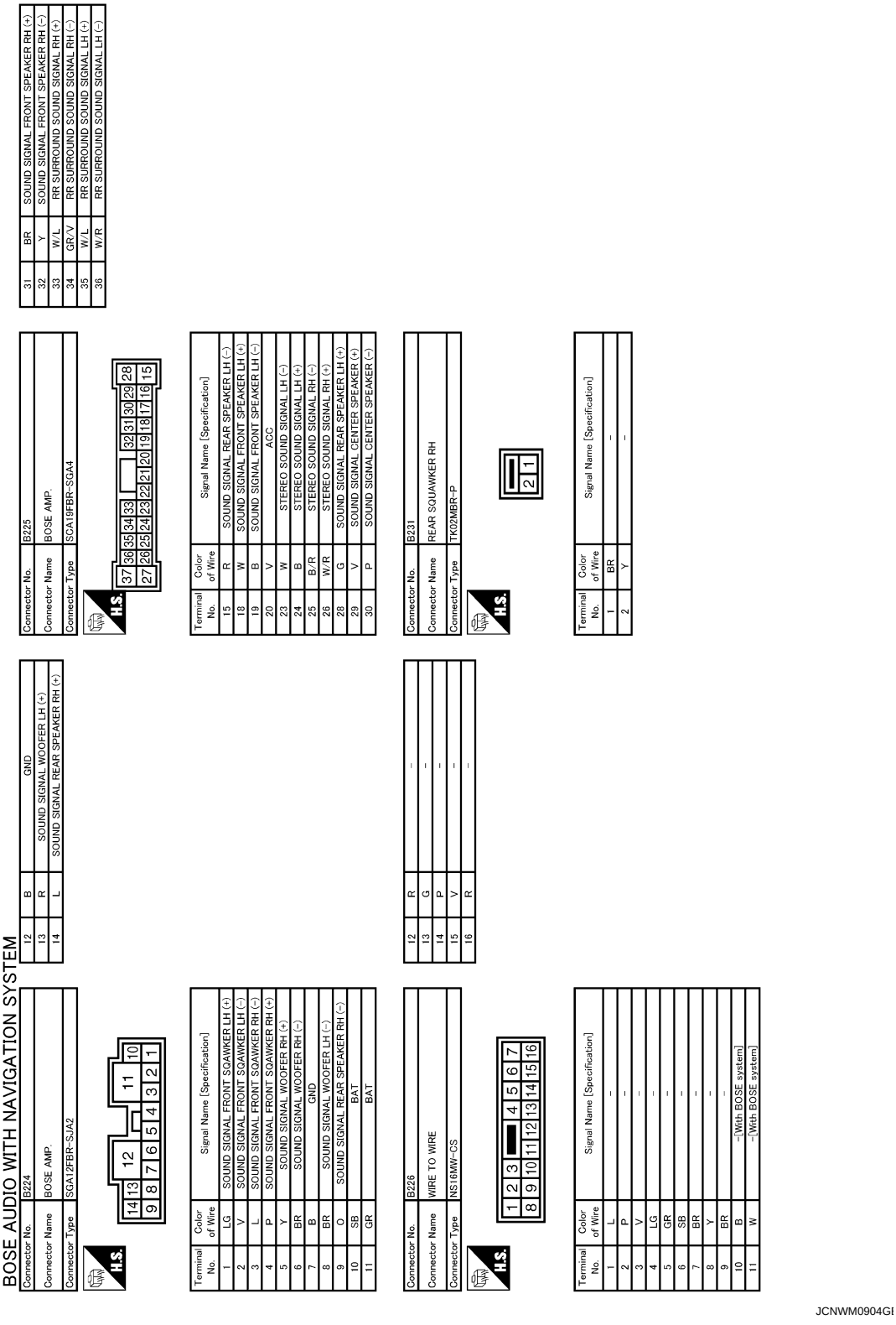
Terminal No.	Color of Wire	Signal Name [Specification]
1	L	–
2	O	–

Connector No.	B219
Connector Name	WIRE TO WIRE
Connector Type	TH32MW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
1	W/L	–
2	W/R	–
3	SHIELD	–
4	W/L	–
5	GR/V	–
6	SHIELD	–
7	B	–
8	W	–
9	SHIELD	–
10	W/R	–
11	B/R	–
12	SHIELD	–
17	B	–
18	W	–
19	SHIELD	–
20	Y	–
21	BR	–
22	SHIELD	–
23	W/R	–
24	B/R	–
25	SHIELD	–
26	GR/V	–
27	W/L	–
28	SHIELD	–
29	W/L	–
30	W/R	–
31	SHIELD	–

JCNWM0903GB

BOSE AUDIO WITH NAVIGATION SYSTEM



JCNWM0904GB

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B232
Connector Name	BOSE AMP.
Connector Type	TH40FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
51	W	FR SURROUND SOUND SIGNAL LH (-)
52	B	FR SURROUND SOUND SIGNAL LH (+)
53	BR	FR SURROUND SOUND SIGNAL RH (-)
54	Y	FR SURROUND SOUND SIGNAL RH (+)
55	W/R	VOICE GUIDANCE SIGNAL (-)
56	W/L	VOICE GUIDANCE SIGNAL (+)
57	B/R	CENTER SURROUND SOUND SIGNAL (-)
58	W/R	CENTER SURROUND SOUND SIGNAL (+)
59	GR/V	SURROUND SOUND SIGNAL LFE (-)
60	W/L	SURROUND SOUND SIGNAL LFE (+)
75	P	AV COMM (L) [With navigation system]
76	P	AV COMM (L) [With navigation system]
77	L	AV COMM (H) [With navigation system]
78	L	AV COMM (H)
79	SHIELD	SHIELD

Connector No.	B235
Connector Name	WIRE TO WIRE
Connector Type	SD02MGY

Terminal No.	Color of Wire	Signal Name [Specification]
1	P	–
2	L	–
3	SHIELD	–
4	G	–
5	R	–
6	SHIELD	–

Connector No.	B236
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-NH

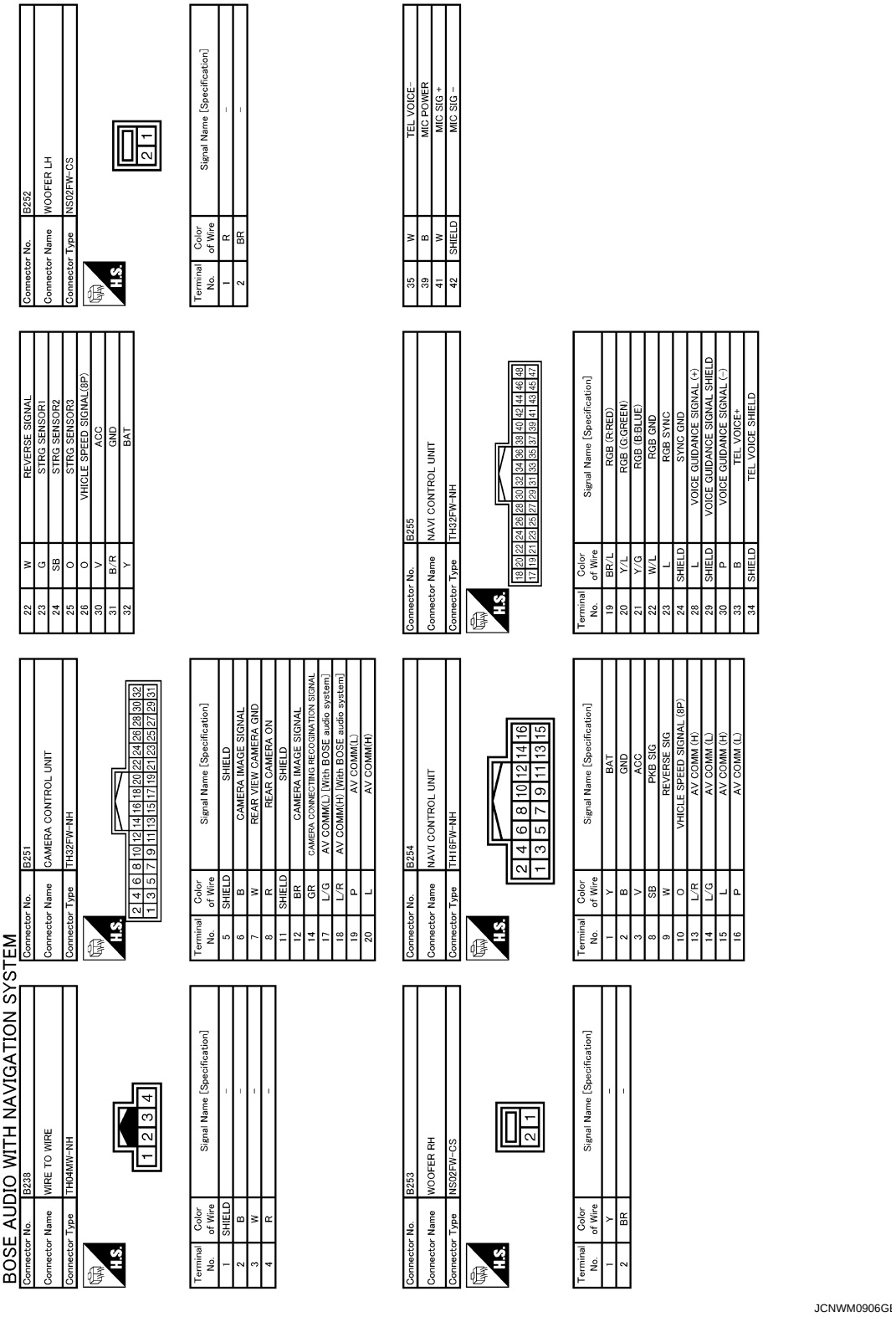
Terminal No.	Color of Wire	Signal Name [Specification]
18	L	–[With BOSE system]
19	P	–[With BOSE system]
24	L	–
25	P	–
26	SHIELD	–
27	B	–
28	W	–
29	SHIELD	–
30	SHIELD	–
31	Y/L	–
32	BR/L	–
33	W/L	–
34	Y/G	–
36	SHIELD	–
37	L	–
38	B	–
39	W	–
40	SHIELD	–

Connector No.	B237
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
7	BR	–
8	G	–
9	SB	–
10	O	–
13	Y	–
14	V	–
15	W	–
16	O	–
17	SHIELD	–
18	GR	–
19	R	–[With rear control switch]
19	L	–[Without rear control switch]
20	G	–[With rear control switch]
20	P	–[Without rear control switch]
22	SB	–

JCNWM0905GB

BOSE AUDIO WITH NAVIGATION SYSTEM



JCNWM0906GB

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B447
Connector Name	WIRE TO WIRE
Connector Type	SD02FGY

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–
2	B	–
3	SHIELD	–
4	Y	–
5	G	–
6	SHIELD	–

Connector No.	B471
Connector Name	REAR CONTROL SWITCH
Connector Type	TH04FW

Terminal No.	Color of Wire	Signal Name [Specification]
1	R/Y	–
4	Y	–

Connector No.	B472
Connector Name	REAR CONTROL SWITCH
Connector Type	SD01FGY

Terminal No.	Color of Wire	Signal Name [Specification]
5	G	–
7	Y	–

Connector No.	B473
Connector Name	REAR CONTROL SWITCH
Connector Type	SD01MGY

Terminal No.	Color of Wire	Signal Name [Specification]
6	B	–
8	W	–

Connector No.	B474
Connector Name	NAVI CONTROL UNIT
Connector Type	GT5-1S-HU

Terminal No.	Color of Wire	Signal Name [Specification]
49	–	GPS ANTENNA SIGNAL
50	–	SHIELD

Connector No.	B475
Connector Name	NAVI CONTROL UNIT
Connector Type	GT16C-1S-HU

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

Connector No.	B486
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8

Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	–
5	R/Y	–

Connector No.	D15
Connector Name	FRONT DOOR SPEAKER LH (WITH BOSE SYSTEM)
Connector Type	NS02FBR-CS

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

JCNWM0907GI

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	D53
Connector Name	FRONT DOOR SPEAKER RH (WITH BOSE SYSTEM)
Connector Type	NS02FBR-CS

H.S.

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

Connector No.	D81
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS

H.S.

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

Connector No.	D86
Connector Name	REAR DOOR SPEAKER LH (WITH BOSE SYSTEM)
Connector Type	NS02FBR-CS

H.S.

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

Connector No.	D106
Connector Name	REAR DOOR SPEAKER RH (WITH BOSE SYSTEM)
Connector Type	NS02FBR-CS

H.S.

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

Connector No.	D111
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–[With BOSE system]
8	B	–[With BOSE system]

Connector No.	D112
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS

H.S.

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

Connector No.	D155
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–
2	B	–[With BOSE system]

Connector No.	E6
Connector Name	WIRE TO WIRE
Connector Type	TK16MGY-1V

H.S.

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

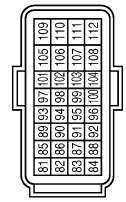
JCNWM0908GI

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	E7
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS

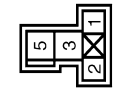
Terminal No.	Color of Wire	Signal Name [Specification]
3	LG	–
8	R	–

Connector No.	E16
Connector Name	ECM
Connector Type	RH24FB-RZ8-L-LH



Terminal No.	Color of Wire	Signal Name [Specification]
97	P	VEHCAN-L
98	L	VEHCAN-H

Connector No.	E18
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS02FL-M2-LC



Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	–
2	R	–
3	LG	–
5	R	–

Connector No.	E27
Connector Name	PARKING BRAKE SWITCH
Connector Type	P01FB-A

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

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH70MW-CS10-M3

Terminal No.	Color of Wire	Signal Name [Specification]
8	R	–
10	LG	–
22	P	–
48	P	–
49	L	–
73	R	–
74	BR	–
81	Y	–

Connector No.	F23
Connector Name	TCM (TRANSMISSION CONTROL MODULE)
Connector Type	RH40FB-RZ8-L-RH

Terminal No.	Color of Wire	Signal Name [Specification]
19	G/B	REV LAMP RELAY

Connector No.	F57
Connector Name	PARK / NEUTRAL POSITION SWITCH
Connector Type	YDX06FB-HS4

Terminal No.	Color of Wire	Signal Name [Specification]
3	LG	–
5	P/B	–

Connector No.	F121
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS

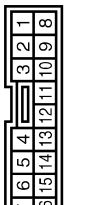


Terminal No.	Color of Wire	Signal Name [Specification]
3	O	–
8	R	–

JCNWM0909GB

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	F123
Connector Name	WIRE TO WIRE
Connector Type	TK16FGY-1V



Terminal No.	Color of Wire	Signal Name [Specification]
4	G/B	–

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

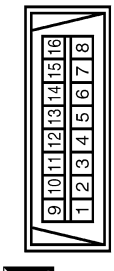
Terminal No.	Color of Wire	Signal Name [Specification]
2A	G/O	–
5A	V/O	–

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



Terminal No.	Color of Wire	Signal Name [Specification]
12C	O	–

Connector No.	M4
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



Terminal No.	Color of Wire	Signal Name [Specification]
6	L	–
14	P	–

Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Type	TH70FW-CS10-M3



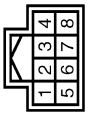
Terminal No.	Color of Wire	Signal Name [Specification]
8	P/B	–
10	O	–
22	G/R	–
48	P	–
49	L	–
73	B/R	–
74	BR	–
81	Y	–

Connector No.	M23
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



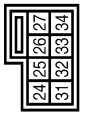
Terminal No.	Color of Wire	Signal Name [Specification]
10	SHIELD	–
11	R	–
23	G	–

Connector No.	M30
Connector Name	STEERING ANGLE SENSOR
Connector Type	TH08FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	–
3	L/Y	–
4	G	–
6	B/R	–
8	O	–

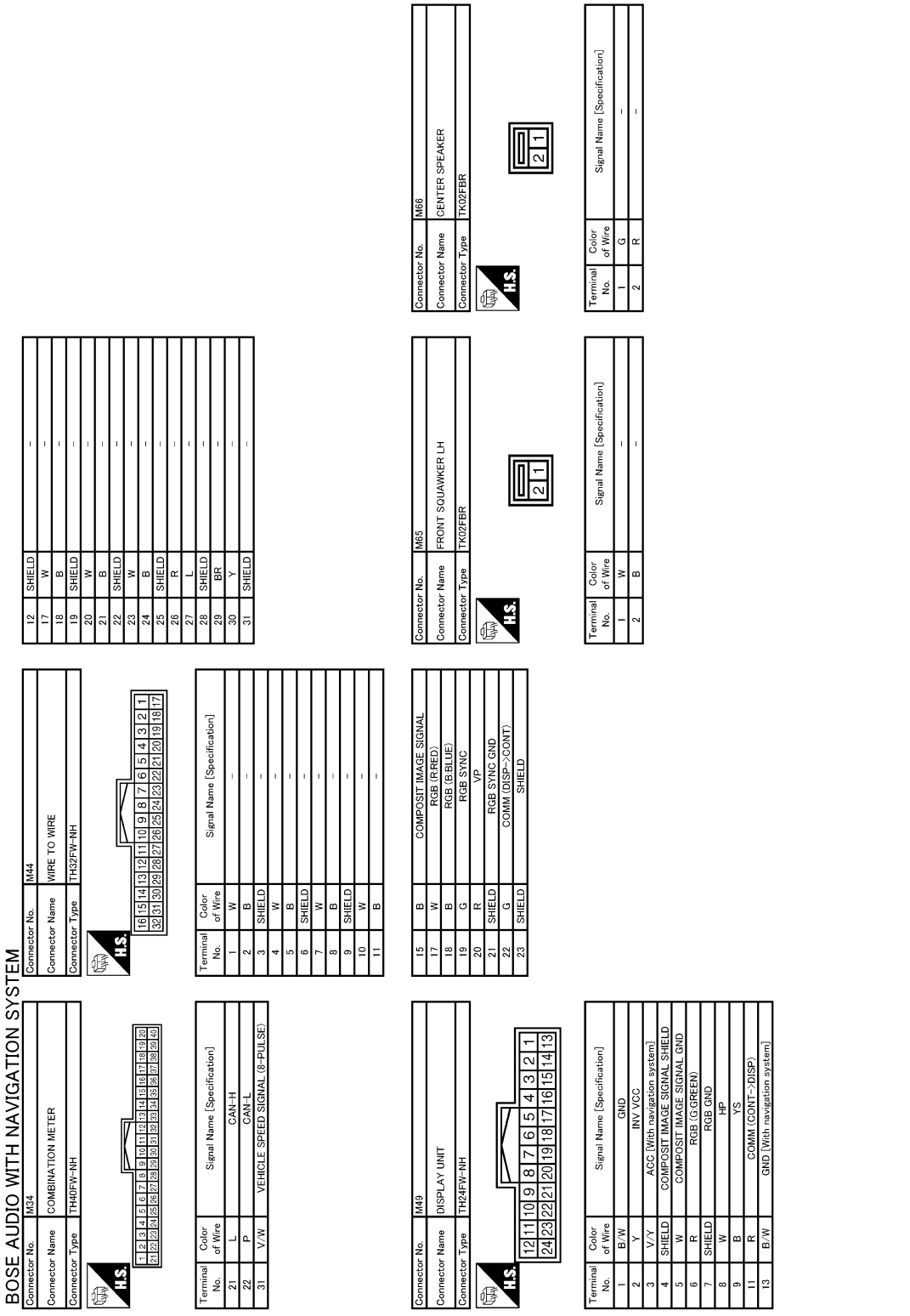
Connector No.	M33
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY-1V



Terminal No.	Color of Wire	Signal Name [Specification]
24	W/G	–
31	GR/L	–
33	L/B	–

JCNWM0910GB

BOSE AUDIO WITH NAVIGATION SYSTEM



JCNWM0911GE

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M67
Connector Name	FRONT SQUAWKER RH
Connector Type	TK02FBR



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

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS19



Terminal No.	Color of Wire	Signal Name [Specification]
18	P	–
19	L	–
34	V/R	–
43	P	–
44	L	–
83	G/B	–
84	W/B	–
96	W/R	–
97	O/B	–

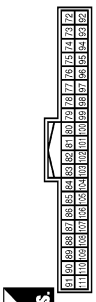
Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



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

Terminal No.	Color of Wire	Signal Name [Specification]
12	W/R	–
13	O/B	–
14	R	–
15	G	–
16	W/B	–

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



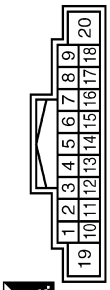
Terminal No.	Color of Wire	Signal Name [Specification]
90	P	CAN-L
91	L	CAN-H

Connector No.	M125
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH16FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
3	V/R	ACC
6	W	M-CAN H
8	B	M-CAN L
9	BR	SW GND
14	SB	CD(DVD) EJECT

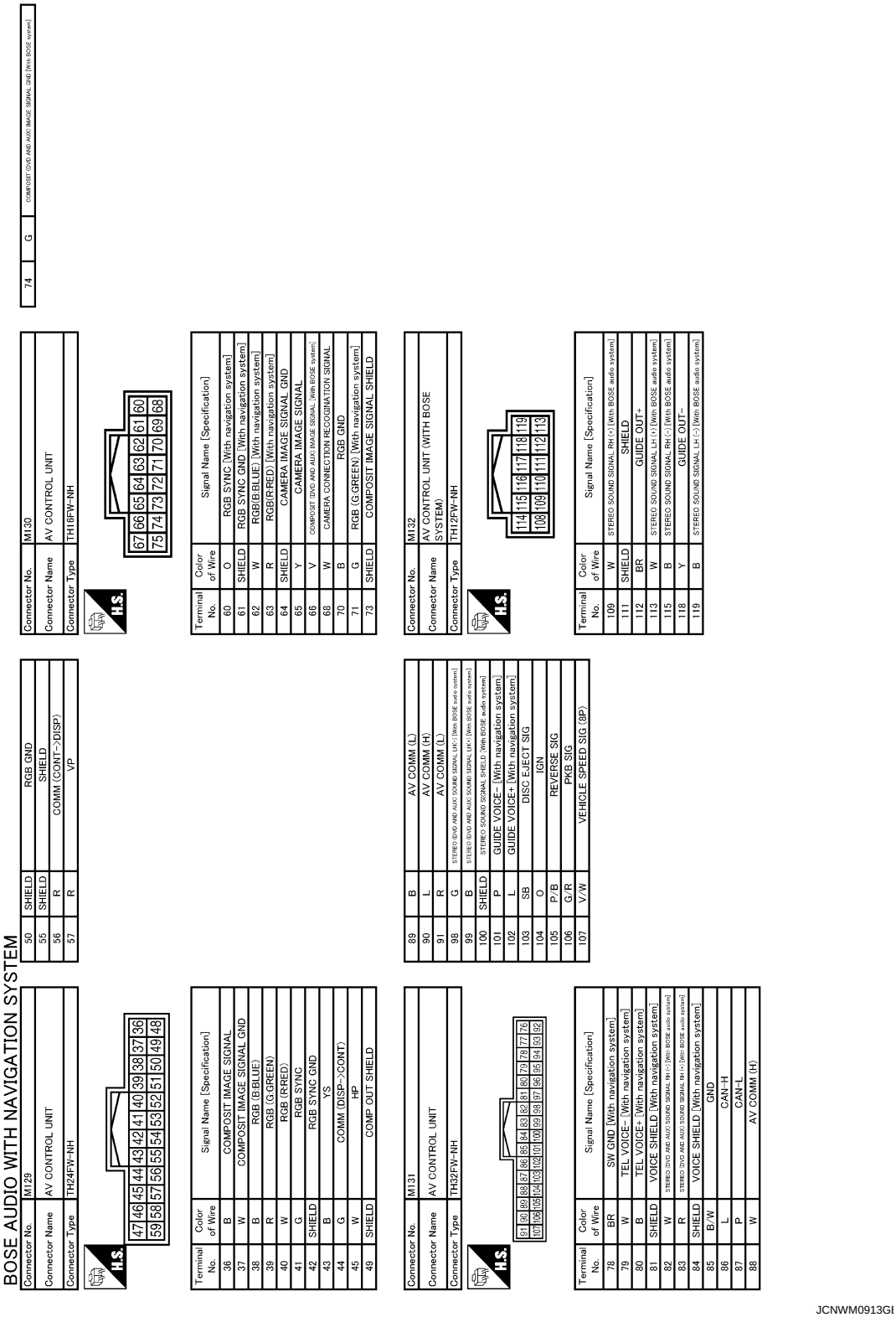
Connector No.	M127
Connector Name	AV CONTROL UNIT
Connector Type	TH18FW-CS2



Terminal No.	Color of Wire	Signal Name [Specification]
6	W/G	STRG SW A
7	V/W	ACC
9	R/L	ILL
15	L/B	STRG SW GND
16	GR/L	STRG SW B
19	Y	BAT
20	B/W	GND

JCNWM0912GB

BOSE AUDIO WITH NAVIGATION SYSTEM



JCNWM0913GB

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M153
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-NH

H.S.

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

Terminal No.	Color of Wire	Signal Name [Specification]
18	L	–
19	P	–[With BOSE system]
24	L	–
25	P	–
26	SHIELD	–
27	B	–
28	W	–
29	SHIELD	–
30	SHIELD	–
31	G	–
32	R	–

33	B	–
34	W	–
36	SHIELD	–
37	O	–
38	R	–
39	G	–
40	SHIELD	–

Connector No.	M154
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS

H.S.

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

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	–[With BOSE system]
8	R	–[With BOSE system]

Connector No.	M155
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS

H.S.

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

Terminal No.	Color of Wire	Signal Name [Specification]
1	O	–[With BOSE system]
8	B/P	–[With BOSE system]

Connector No.	M156
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH

H.S.

12	11	10	9	8	7	6	5	4	3	2	1
24	23	22	21	20	19	18	17	16	15	14	13

Terminal No.	Color of Wire	Signal Name [Specification]
7	Y	–
8	L/Y	–
9	B/R	–
10	O	–
13	Y	–
14	V	–
15	P/B	–
16	V/W	–
17	SHIELD	–
18	W	–
19	W	–

20	B	–
22	G/R	–

Connector No.	M253
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A08FW

H.S.

1	2	3				7	8

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	AUX SOUND SIGNAL RH (+)
2	R	GND
3	B	AUX SOUND SIGNAL LH (+)
7	G	AUX IMAGE SIGNAL (+)
8	V	AUX IMAGE SIGNAL (–)

JCNWM0914GB

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M254
Connector Name	DVD PLAYER
Connector Type	TH32FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
1	B/W	GND
2	Y	BAT
4	V/W	ACC
5	SHIELD	SHIELD
6	SHIELD	SHIELD
7	V	COMPOSITE (DVD AND AUX) IMAGE SIGNAL
8	G	COMPOSITE (AUX) IMAGE SIGNAL
9	G	COMPOSITE (DVD AND AUX) IMAGE SIGNAL GND
10	V	CONPOSITE (AUX) IMAGE SIGNAL GND
11	G	AUX SOUND SIGNAL LH (-)
12	R	AUX SOUND SIGNAL RH (-)
13	B	AUX SOUND SIGNAL LH (+)
14	W	AUX SOUND SIGNAL RH (+)
15	SHIELD	AUX SOUND SIGNAL SHIELD
21	B	STEREO SOUND SIGNAL LH (+)
22	G	STEREO SOUND SIGNAL LH (-)
23	R	STEREO SOUND SIGNAL RH (+)
24	W	STEREO SOUND SIGNAL RH (-)
25	SHIELD	STEREO SOUND SIGNAL SHIELD
29	R	AV COMM (L)
30	L	AV COMM (H)
31	P	AV COMM (L)
32	L	AV COMM (H)

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

Terminal No.	Color of Wire	Signal Name [Specification]
14	–	–
15	–	–
17	–	–

Connector No.	M317
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1PP-HU

Terminal No.	Color of Wire	Signal Name [Specification]
1	–	–
2	–	–
3	–	–

Connector No.	M264
Connector Name	DVD PLAYER
Connector Type	TH16FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
34	SHIELD	SHIELD
35	B	FR SURROUND SOUND SIGNAL RH (-)
36	W	FR SURROUND SOUND SIGNAL RH (+)
37	B	FR SURROUND SOUND SIGNAL LH (-)
38	W	FR SURROUND SOUND SIGNAL LH (+)
39	B	CENTER SURROUND SOUND SIGNAL (-)
40	W	CENTER SURROUND SOUND SIGNAL (+)
41	R	SORROUND SOUND SIGNAL LFE (-)
42	L	SORROUND SOUND SIGNAL LFE (+)
43	SHIELD	SHIELD
44	SHIELD	SHIELD
45	B	RR SURROUND SOUND SIGNAL RH (-)
46	W	RR SURROUND SOUND SIGNAL RH (+)
47	B	RR SURROUND SOUND SIGNAL LH (-)
48	W	RR SURROUND SOUND SIGNAL LH (+)

Connector No.	M318
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1S-HU

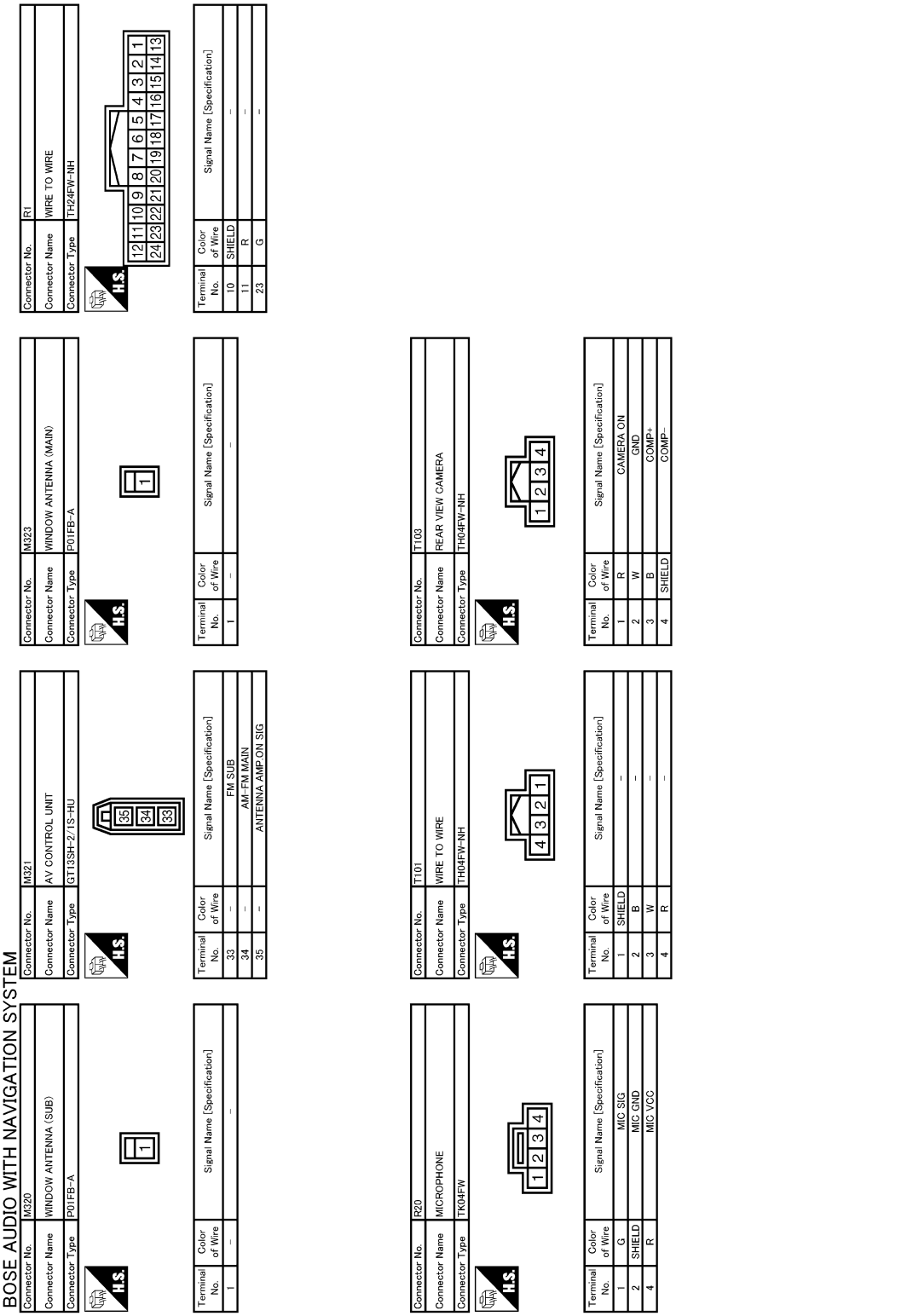
Terminal No.	Color of Wire	Signal Name [Specification]
1	–	–
2	–	–
3	–	–

Connector No.	M319
Connector Name	ANTENNA AMP.
Connector Type	GT13SC-1/1S-HU

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

JCNWM0915GB

BOSE AUDIO WITH NAVIGATION SYSTEM



JCNWM0916GI

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

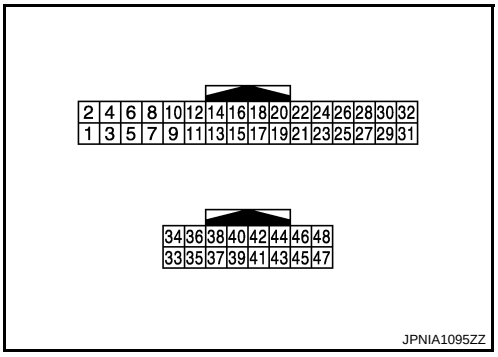
DVD PLAYER

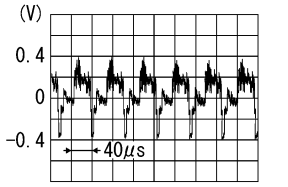
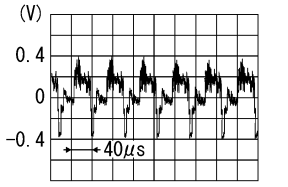
Reference Values

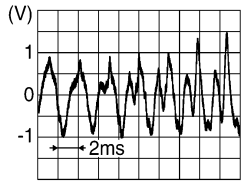
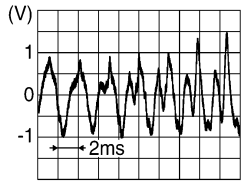
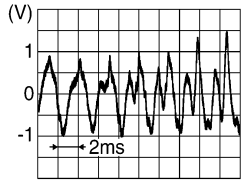
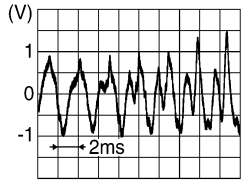
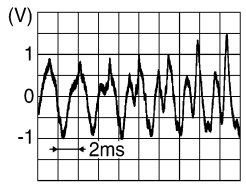
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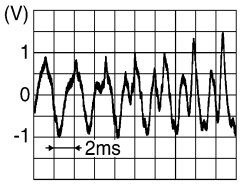
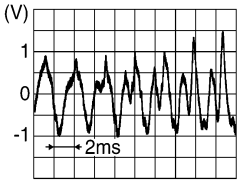
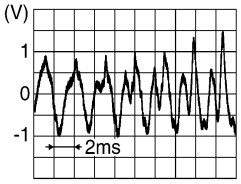
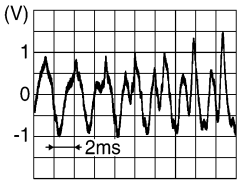
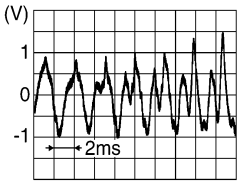
TERMINAL LAYOUT

PHYSICAL VALUES



Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
1 (B/W)	Ground	Ground	—	Ignition switch ON	—	0 V
2 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
3 (R/L)	Ground	Illumination signal	Input	Ignition switch OFF	Lighting switch is OFF.	0 V
					Lighting switch is ON.	12.0 V
4 (V/W)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
5	—	Shield	—	—	—	—
6	—	Shield	—	—	—	—
7 (V)	Ground	Composite (DVD and AUX) image signal	Output	Ignition switch ON	When DVD image or AUX image is displayed.	 SKIB2251J
8 (G)	Ground	Composite (AUX) image signal	Output	Ignition switch ON	When AUX image is displayed.	 SKIB2251J
9 (G)	Ground	Composite (DVD and AUX) image signal ground	—	Ignition switch ON	—	0 V
10 (V)	Ground	Composite image (AUX) signal ground	—	Ignition switch ON	—	0 V

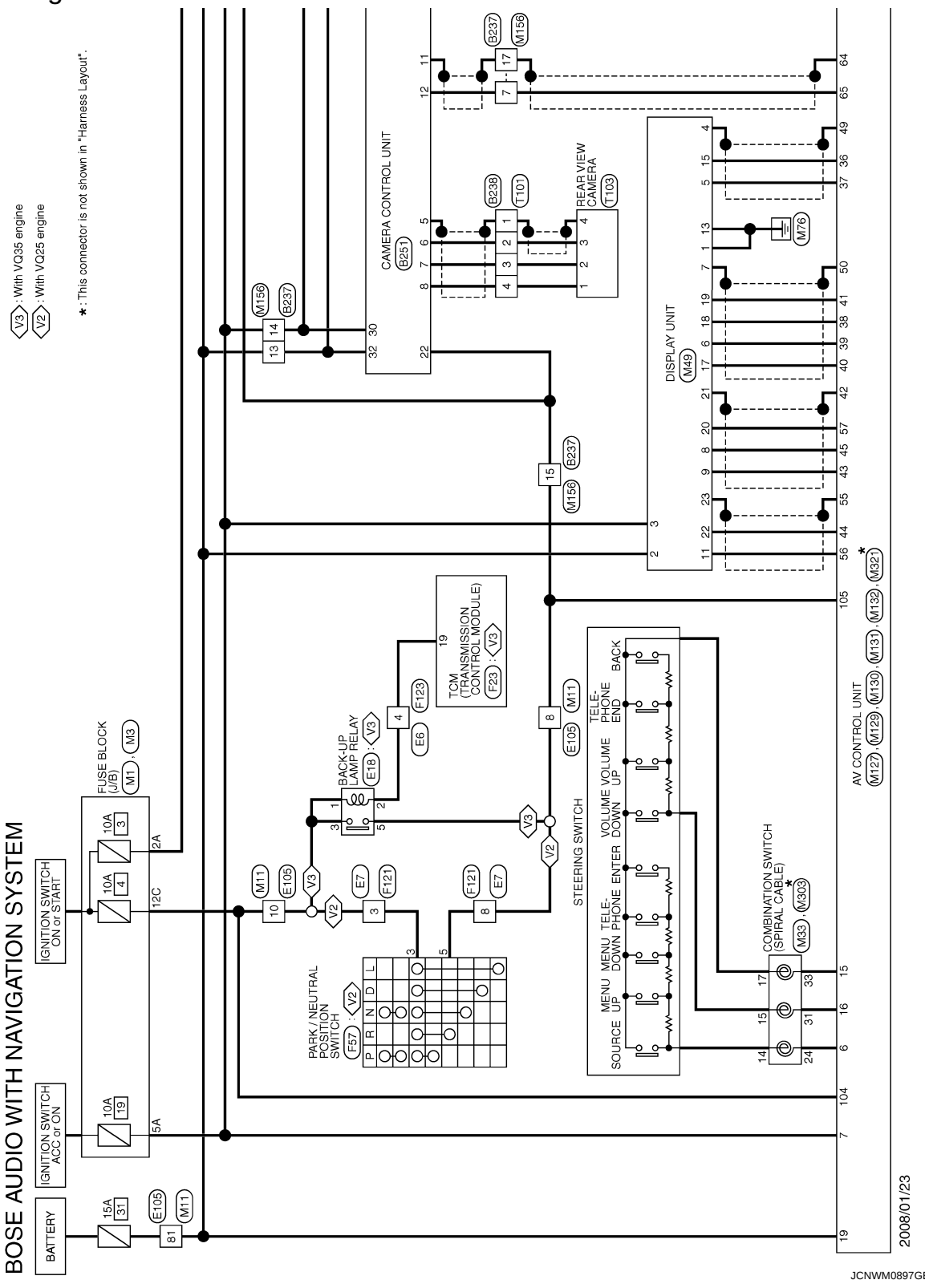
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
13 (B)	11 (G)	AUX sound signal LH	Input	Ignition switch ON	AUX sound output.	 SKIB3609E
14 (W)	12 (R)	AUX sound signal RH	Input	Ignition switch ON	AUX sound output.	 SKIB3609E
15	—	AUX sound signal shield	—	—	—	—
21 (B)	22 (G)	Stereo (DVD and AUX sound) sound signal LH	Output	Ignition switch ON	DVD[*1] or AUX sound output.	 SKIB3609E
23 (R)	24 (W)	Stereo (DVD and AUX sound) sound signal RH	Output	Ignition switch ON	DVD[*1] or AUX sound output.	 SKIB3609E
25	—	Stereo sound signal shield	—	—	—	—
29 (R)	—	AV communication signal (L)	Input/ Output	—	—	—
30 (L)	—	AV communication signal (H)	Input/ Output	—	—	—
31 (P)	—	AV communication signal (L)	Input/ Output	—	—	—
32 (L)	—	AV communication signal (H)	Input/ Output	—	—	—
34	—	Shield	—	—	—	—
36 (W)	35 (B)	Surround sound signal front RH	Output	Ignition switch ON	DVD sound output.[*2]	 SKIB3609E

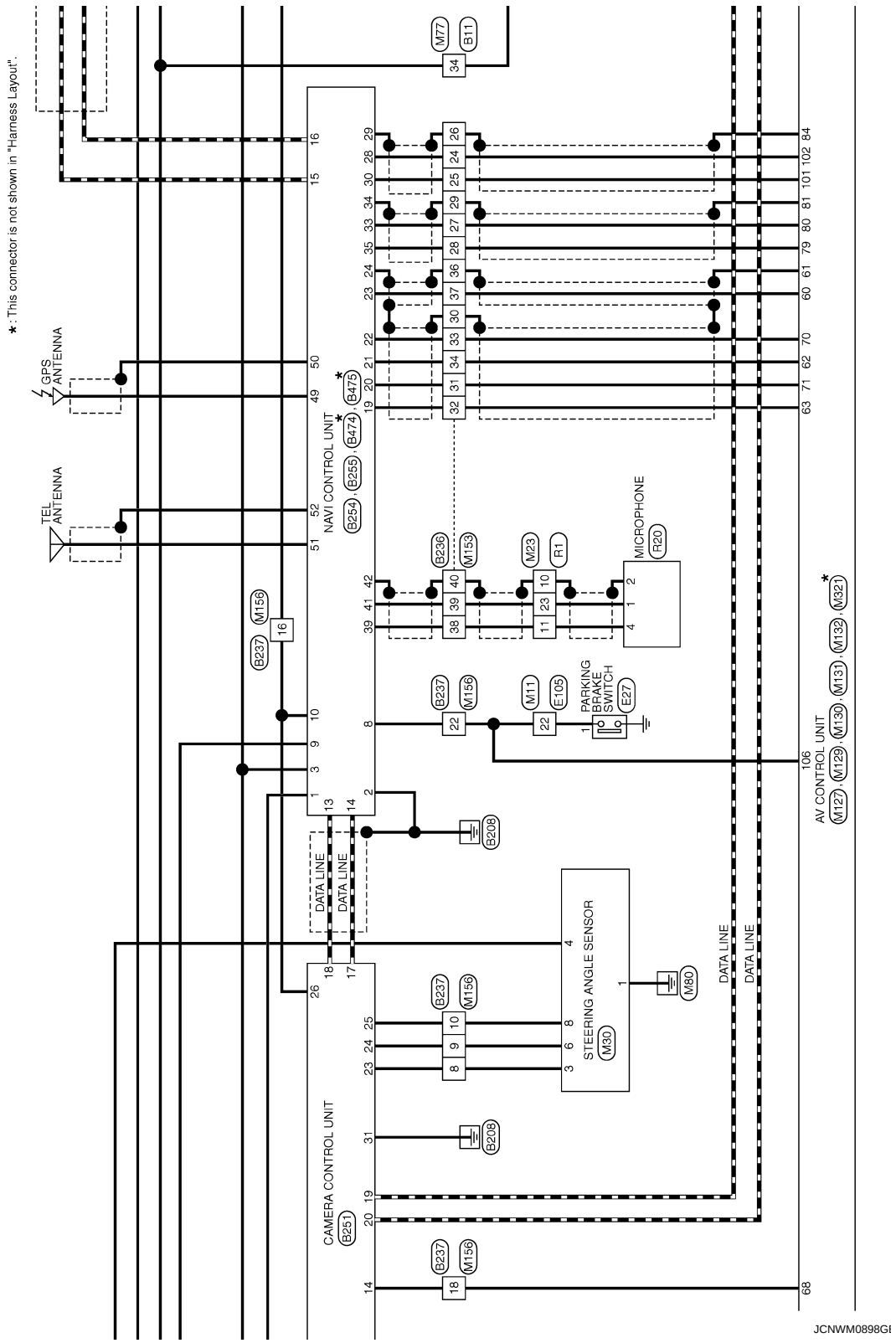
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
38 (W)	37 (B)	Surround sound signal front LH	Output	Ignition switch ON	DVD sound output.*2	 SKIB3609E
40 (W)	39 (B)	Surround sound signal center	Output	Ignition switch ON	DVD sound output.*2	 SKIB3609E
42 (L)	41 (R)	Surround sound signal woofer	Output	Ignition switch ON	DVD sound output.*2	 SKIB3609E
43	—	Shield	—	—	—	—
44	—	Shield	—	—	—	—
46 (W)	45 (B)	Surround sound signal rear RH	Output	Ignition switch ON	DVD sound output.*2	 SKIB3609E
48 (W)	47 (B)	Surround sound signal rear LH	Output	Ignition switch ON	DVD sound output.*2	 SKIB3609E

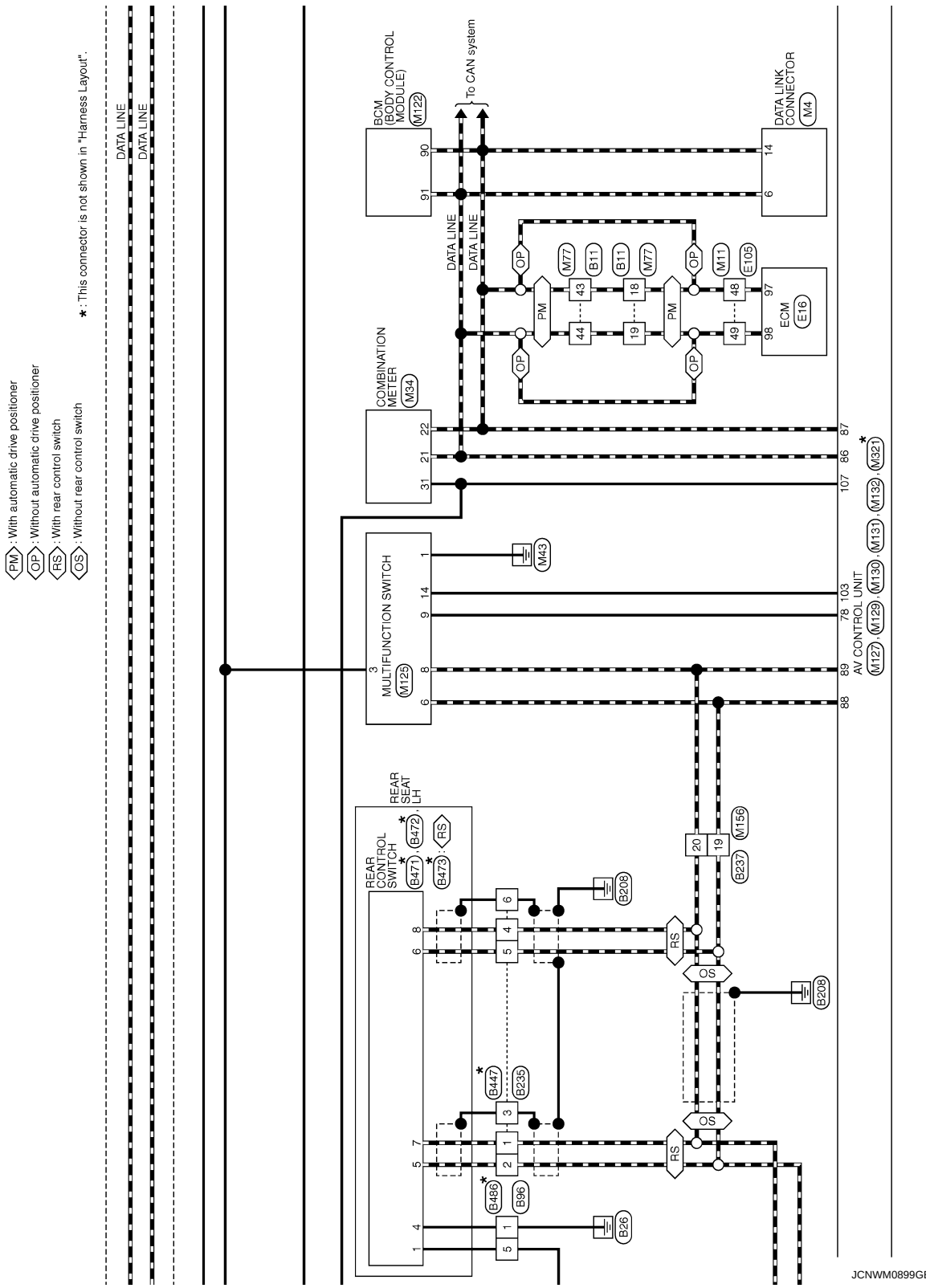
- *1: Stereo sounds are input only when the 2 channel stereo sound is played.
- *2: All surround sounds are input only when the 5.1 channel surround sound is played.

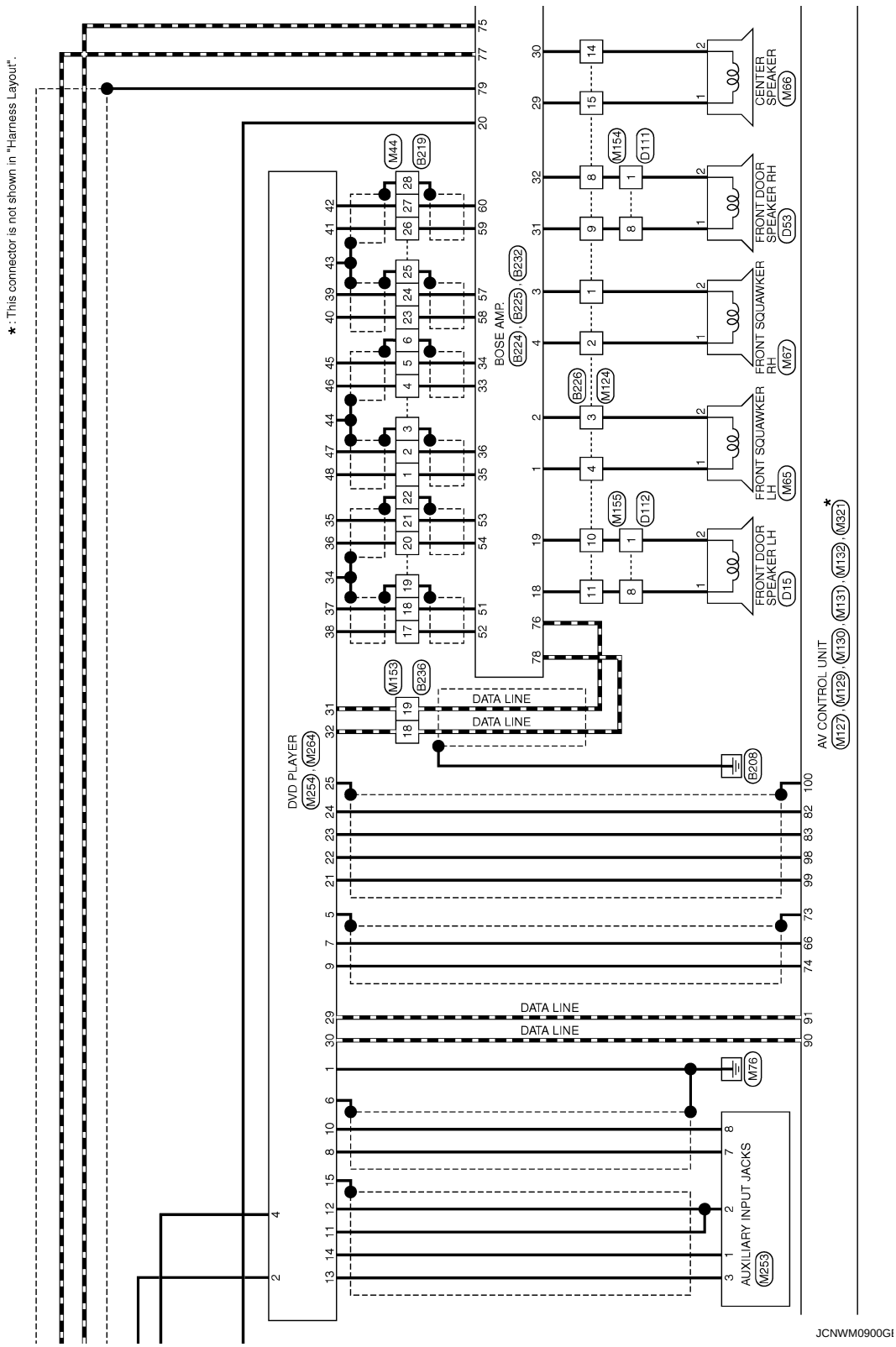
Wiring Diagram — BOSE AUDIO WITH NAVIGATION SYSTEM —

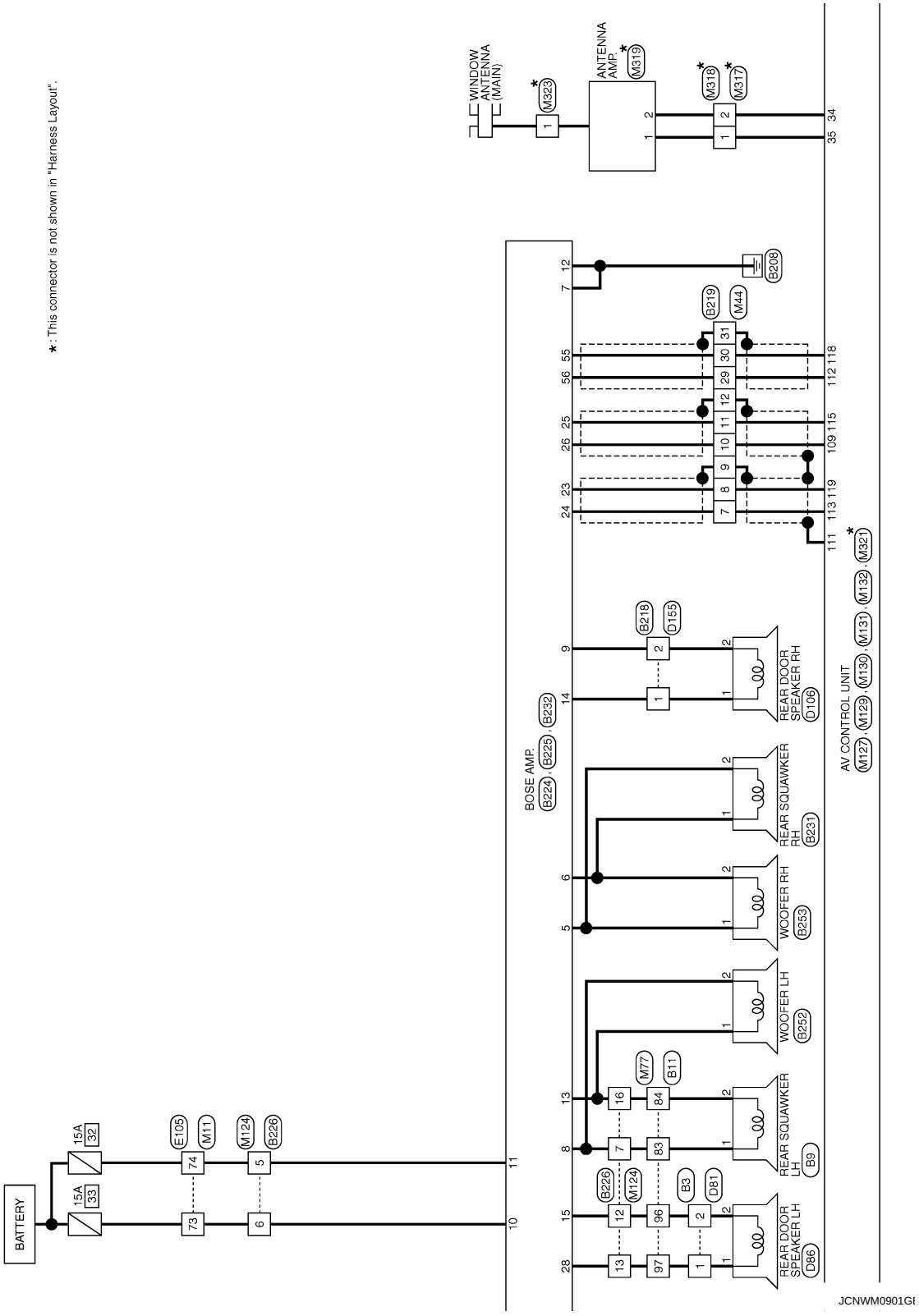
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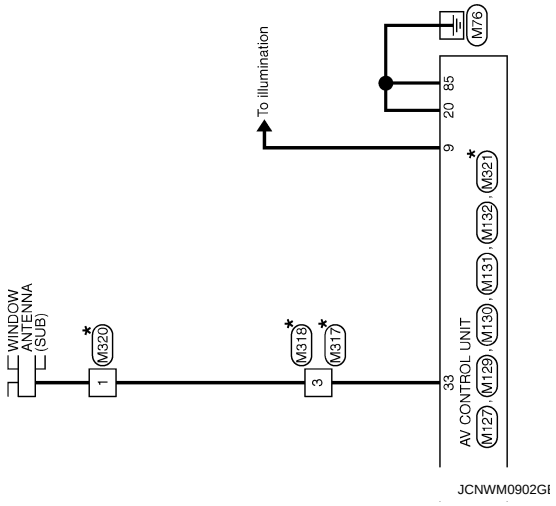

*: This connector is not shown in "Harness Layout".
GPS ANTENNA
TEL ANTENNA
NAVI CONTROL UNIT
B254, B255, B474, B475
MICROPHONE
R20
PARKING BRAKE SWITCH
E27
STEERING ANGLE SENSOR
M30
CAMERA CONTROL UNIT
B251
AV CONTROL UNIT
M127, M129, M130, M131, M132, M321
DATA LINE
DATA LINE
DATA LINE
JCNWM0898GB


PM : With automatic drive positioner
OP : Without automatic drive positioner
RS : With rear control switch
OS : Without rear control switch
★ : This connector is not shown in "Harness Layout".
DATA LINE
DATA LINE
BCM (BODY CONTROL MODULE) M122
To CAN system
DATA LINK CONNECTOR M4
COMBINATION METER M34
ECM E16
MULTIFUNCTION SWITCH M125
M43
AV CONTROL UNIT
REAR SEAT LH
REAR CONTROL SWITCH
B208
B26
M156
B237
B447
B235
B486
B96
JCNWM0899GB


*: This connector is not shown in "Harness Layout".
DVD PLAYER
M254, M264
BOSE AMP.
B224, B225, B232
AV CONTROL UNIT
M127, M129, M130, M131, M132, M321
AUXILIARY INPUT JACKS
M253
CENTER SPEAKER
M66
FRONT DOOR SPEAKER RH
D53
FRONT SQUAWKER RH
M67
FRONT SQUAWKER LH
M65
FRONT DOOR SPEAKER LH
D15
M44
B219
M153
B236
M154
D111
B226
M124
M155
D112
B208
M76
DATA LINE
DATA LINE
DATA LINE
DATA LINE
JCNWM0900GB

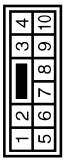

∗: This connector is not shown in "Harness Layout".
BATTERY
15A 32
15A 33
E105
M11
M124
B226
WINDOW ANTENNA (MAIN)
M323
ANTENNA AMP.
M319
M318
M317
B208
B219
M44
BOSE AMP.
B224, B225, B232
AV CONTROL UNIT
M127, M129, M130, M131, M132, M321
B218
D155
REAR DOOR SPEAKER RH
D106
REAR SQUAWKER RH
B231
WOOFER RH
B253
WOOFER LH
B252
REAR SQUAWKER LH
B9
M77
B11
B3
D81
REAR DOOR SPEAKER LH
D86
JCNWM0901GB

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



BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B3
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	–[With BOSE system]
2	O	–[With BOSE system]

Connector No.	B9
Connector Name	REAR SQUAWKER LH
Connector Type	TK02MBR-P



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

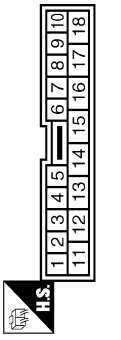
Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS19



Terminal No.	Color of Wire	Signal Name [Specification]
18	P	–
19	L	–
34	G	–
43	P	–
44	L	–
83	BR	–
84	R	–
96	O	–[With BOSE system]
97	LG	–[With BOSE system]

12	SHIELD	–
17	B	–
18	W	–
19	SHIELD	–
20	Y	–
21	BR	–
22	SHIELD	–
23	W/R	–
24	B/R	–
25	SHIELD	–
26	GR/V	–
27	W/L	–
28	SHIELD	–
29	W/L	–
30	W/R	–
31	SHIELD	–

Connector No.	B96
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



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

Connector No.	B218
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS

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

Connector No.	B219
Connector Name	WIRE TO WIRE
Connector Type	TH32MW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
1	W/L	–
2	W/R	–
3	SHIELD	–
4	W/L	–
5	GR/V	–
6	SHIELD	–
7	B	–
8	W	–
9	SHIELD	–
10	W/R	–
11	B/R	–

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BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B224
Connector Name	BOSE AMP.
Connector Type	SGA12FBR-SJA2

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

Connector No.	B226
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS

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

I2	B	GND
I3	R	SOUND SIGNAL WOOFER LH (+)
I4	L	SOUND SIGNAL REAR SPEAKER RH (+)

Connector No.	B225
Connector Name	BOSE AMP.
Connector Type	SGA19FBR-SGA4

Terminal No.	Color of Wire	Signal Name [Specification]
15	R	SOUND SIGNAL REAR SPEAKER LH (–)
18	W	SOUND SIGNAL FRONT SPEAKER LH (+)
19	B	SOUND SIGNAL FRONT SPEAKER LH (–)
20	V	ACC
23	W	STEREO SOUND SIGNAL LH (+)
24	B	STEREO SOUND SIGNAL LH (+)
25	B/R	STEREO SOUND SIGNAL RH (–)
26	W/R	STEREO SOUND SIGNAL RH (+)
28	G	SOUND SIGNAL REAR SPEAKER LH (+)
29	V	SOUND SIGNAL CENTER SPEAKER (+)
30	P	SOUND SIGNAL CENTER SPEAKER (–)

31	BR	SOUND SIGNAL FRONT SPEAKER RH (+)
32	Y	SOUND SIGNAL FRONT SPEAKER RH (–)
33	W/L	RR SURROUND SOUND SIGNAL RH (+)
34	GR/V	RR SURROUND SOUND SIGNAL RH (–)
35	W/L	RR SURROUND SOUND SIGNAL LH (+)
36	W/R	RR SURROUND SOUND SIGNAL LH (–)

I2	R	–
I3	G	–
I4	P	–
I5	V	–
I6	R	–

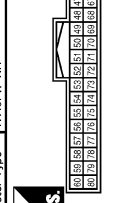
Connector No.	B231
Connector Name	REAR SQUAWKER RH
Connector Type	TK02MBR-P

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

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BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B232
Connector Name	BOSE AMP.
Connector Type	TH40FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
51	W	FR SURROUND SOUND SIGNAL LH (-)
52	B	FR SURROUND SOUND SIGNAL LH (+)
53	BR	FR SURROUND SOUND SIGNAL RH (-)
54	Y	FR SURROUND SOUND SIGNAL RH (+)
55	W/R	VOICE GUIDANCE SIGNAL (-)
56	W/L	VOICE GUIDANCE SIGNAL (+)
57	B/R	CENTER SURROUND SOUND SIGNAL (-)
58	W/R	CENTER SURROUND SOUND SIGNAL (+)
59	GR/V	SURROUND SOUND SIGNAL LFE (-)
60	W/L	SURROUND SOUND SIGNAL LFE (+)
75	P	AV COMM (L) [With navigation system]
76	P	AV COMM (L)
77	L	AV COMM (H) [With navigation system]
78	L	AV COMM (H)
79	SHIELD	SHIELD

Connector No.	B235
Connector Name	WIRE TO WIRE
Connector Type	SD02MGY

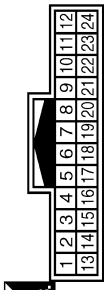


Terminal No.	Color of Wire	Signal Name [Specification]
1	P	–
2	L	–
3	SHIELD	–
4	G	–
5	R	–
6	SHIELD	–

Connector No.	B236
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
18	L	–[With BOSE system]
19	P	–[With BOSE system]
24	L	–
25	P	–
26	SHIELD	–
27	B	–
28	W	–
29	SHIELD	–
30	SHIELD	–
31	Y/L	–
32	BR/L	–
33	W/L	–
34	Y/G	–
36	SHIELD	–
37	L	–
38	B	–
39	W	–
40	SHIELD	–

Connector No.	B237
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
7	BR	–
8	G	–
9	SB	–
10	O	–
13	Y	–
14	V	–
15	W	–
16	O	–
17	SHIELD	–
18	GR	–
19	R	–[With rear control switch]
19	L	–[Without rear control switch]
20	G	–[With rear control switch]
20	P	–[Without rear control switch]
22	SB	–

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BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B238
Connector Name	WIRE TO WIRE
Connector Type	TH04MW-NH

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

Connector No.	B251
Connector Name	CAMERA CONTROL UNIT
Connector Type	TH32FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
5	SHIELD	SHIELD
6	B	CAMERA IMAGE SIGNAL
7	W	REAR VIEW CAMERA GND
8	R	REAR CAMERA ON
11	SHIELD	SHIELD
12	BR	CAMERA IMAGE SIGNAL
14	GR	CAMERA CONNECTING RECOGNATION SIGNAL
17	L/G	AV COMM(L) [With BOSE audio system]
18	L/R	AV COMM(H) [With BOSE audio system]
19	P	AV COMM(L)
20	L	AV COMM(H)

Terminal No.	Color of Wire	Signal Name [Specification]
22	W	REVERSE SIGNAL
23	G	STRG SENSOR1
24	SB	STRG SENSOR2
25	O	STRG SENSOR3
26	O	VHICLE SPEED SIGNAL(8P)
30	V	ACC
31	B/R	GND
32	Y	BAT

Connector No.	B252
Connector Name	WOOFER LH
Connector Type	NS02FW-CS



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

Connector No.	B253
Connector Name	WOOFER RH
Connector Type	NS02FW-CS

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

Connector No.	B254
Connector Name	NAVI CONTROL UNIT
Connector Type	TH16FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	BAT
2	B	GND
3	V	ACC
8	SB	PKB SIG
9	W	REVERSE SIG
10	O	VHICLE SPEED SIGNAL (8P)
13	L/R	AV COMM (H)
14	L/G	AV COMM (L)
15	L	AV COMM (H)
16	P	AV COMM (L)

Connector No.	B255
Connector Name	NAVI CONTROL UNIT
Connector Type	TH32FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
19	BR/L	RGB (R-RED)
20	Y/L	RGB (G-GREEN)
21	Y/G	RGB (B-BLUE)
22	W/L	RGB GND
23	L	RGB SYNC
24	SHIELD	SYNC GND
28	L	VOICE GUIDANCE SIGNAL (+)
29	SHIELD	VOICE GUIDANCE SIGNAL SHIELD
30	P	VOICE GUIDANCE SIGNAL (–)
33	B	TEL VOICE+
34	SHIELD	TEL VOICE SHIELD

Terminal No.	Color of Wire	Signal Name [Specification]
35	W	TEL VOICE–
39	B	MIC POWER
41	W	MIC SIG +
42	SHIELD	MIC SIG –

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BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B447
Connector Name	WIRE TO WIRE
Connector Type	SD02FGY

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–
2	B	–
3	SHIELD	–
4	Y	–
5	G	–
6	SHIELD	–

Connector No.	B471
Connector Name	REAR CONTROL SWITCH
Connector Type	TH04FW

Terminal No.	Color of Wire	Signal Name [Specification]
1	R/Y	–
4	Y	–

Connector No.	B472
Connector Name	REAR CONTROL SWITCH
Connector Type	SD01FGY

Terminal No.	Color of Wire	Signal Name [Specification]
5	G	–
7	Y	–

Connector No.	B473
Connector Name	REAR CONTROL SWITCH
Connector Type	SD01MGY

Terminal No.	Color of Wire	Signal Name [Specification]
6	B	–
8	W	–

Connector No.	B474
Connector Name	NAVI CONTROL UNIT
Connector Type	GT5-1S-HU

Terminal No.	Color of Wire	Signal Name [Specification]
49	–	GPS ANTENNA SIGNAL
50	–	SHIELD

Connector No.	B475
Connector Name	NAVI CONTROL UNIT
Connector Type	GT16C-1S-HU

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

Connector No.	B486
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8

Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	–
5	R/Y	–

Connector No.	D15
Connector Name	FRONT DOOR SPEAKER LH (WITH BOSE SYSTEM)
Connector Type	NS02FBR-CS

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

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BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	D53
Connector Name	FRONT DOOR SPEAKER RH (WITH BOSE SYSTEM)
Connector Type	NS02FBR-CS

H.S.

2	1

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

Connector No.	D81
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS

H.S.

4	3	2	1
10	9	8	7	6	5

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

Connector No.	D86
Connector Name	REAR DOOR SPEAKER LH (WITH BOSE SYSTEM)
Connector Type	NS02FBR-CS

H.S.

2	1

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

Connector No.	D106
Connector Name	REAR DOOR SPEAKER RH (WITH BOSE SYSTEM)
Connector Type	NS02FBR-CS

H.S.

2	1

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

Connector No.	D111
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS

H.S.

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

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–[With BOSE system]
8	B	–[With BOSE system]

Connector No.	D112
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS

H.S.

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

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

Connector No.	D155
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS

H.S.

4	3	2	1
10	9	8	7	6	5

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–
2	B	–[With BOSE system]

Connector No.	E6
Connector Name	WIRE TO WIRE
Connector Type	TK16MGY-1V

H.S.

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

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

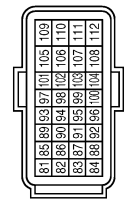
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BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	E7
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS

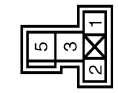
Terminal No.	Color of Wire	Signal Name [Specification]
3	LG	–
8	R	–

Connector No.	E16
Connector Name	ECM
Connector Type	RH24FB-R28-L-LH



Terminal No.	Color of Wire	Signal Name [Specification]
97	P	VEHCAN-L
98	L	VEHCAN-H

Connector No.	E18
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS02FL-M2-LC



Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	–
2	R	–
3	LG	–
5	R	–

Connector No.	E27
Connector Name	PARKING BRAKE SWITCH
Connector Type	P01FB-A



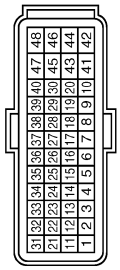
Terminal No.	Color of Wire	Signal Name [Specification]
1	P	–

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH70MW-CS10-M3



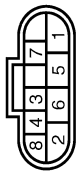
Terminal No.	Color of Wire	Signal Name [Specification]
8	R	–
10	LG	–
22	P	–
48	P	–
49	L	–
73	R	–
74	BR	–
81	Y	–

Connector No.	F23
Connector Name	TCM (TRANSMISSION CONTROL MODULE)
Connector Type	RH40FB-R28-L-RH



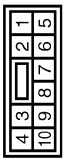
Terminal No.	Color of Wire	Signal Name [Specification]
19	G/B	REV LAMP RELAY

Connector No.	F57
Connector Name	PARK / NEUTRAL POSITION SWITCH
Connector Type	YDX06FB-HS4



Terminal No.	Color of Wire	Signal Name [Specification]
3	LG	–
5	P/B	–

Connector No.	F121
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS



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

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BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	F123
Connector Name	WIRE TO WIRE
Connector Type	TK16FGY-1V

Terminal No.	Color of Wire	Signal Name [Specification]
4	G/B	–

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

Terminal No.	Color of Wire	Signal Name [Specification]
2A	G/O	–
5A	V/O	–

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

Terminal No.	Color of Wire	Signal Name [Specification]
12C	O	–

Connector No.	M4
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW

Terminal No.	Color of Wire	Signal Name [Specification]
6	L	–
14	P	–

Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Type	TH70FW-CS10-M3

Terminal No.	Color of Wire	Signal Name [Specification]
8	P/B	–
10	O	–
22	G/R	–
48	P	–
49	L	–
73	B/R	–
74	BR	–
81	Y	–

Connector No.	M23
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
10	SHIELD	–
11	R	–
23	G	–

Connector No.	M30
Connector Name	STEERING ANGLE SENSOR
Connector Type	TH08FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	–
3	L/Y	–
4	G	–
6	B/R	–
8	O	–

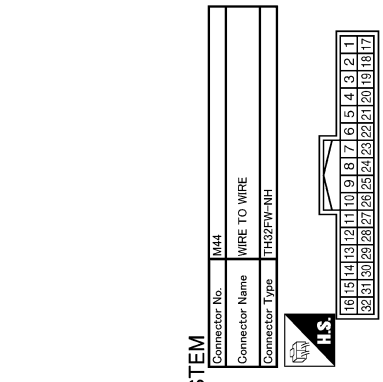
Connector No.	M33
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY-1V

Terminal No.	Color of Wire	Signal Name [Specification]
24	W/G	–
31	GR/L	–
33	L/B	–

JCNWM0910GB

BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	TH40FW-NH

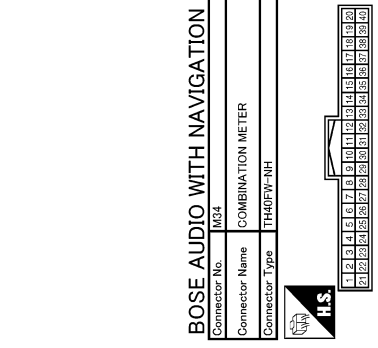


Terminal No.	Color of Wire	Signal Name [Specification]
21	L	CAN-H
22	P	CAN-L
31	V/W	VEHICLE SPEED SIGNAL (8-PULSE)

Connector No.	M44
Connector Name	WIRE TO WIRE
Connector Type	TH32FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–
2	B	–
3	SHIELD	–
4	W	–
5	B	–
6	SHIELD	–
7	W	–
8	B	–
9	SHIELD	–
10	W	–
11	B	–
12	SHIELD	–
17	W	–
18	B	–
19	SHIELD	–
20	W	–
21	B	–
22	SHIELD	–
23	W	–
24	B	–
25	SHIELD	–
26	R	–
27	L	–
28	SHIELD	–
29	BR	–
30	Y	–
31	SHIELD	–

Connector No.	M49
Connector Name	DISPLAY UNIT
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	B/W	GND
2	Y	INV VCC
3	V/Y	ACC [With navigation system]
4	SHIELD	COMPOSIT IMAGE SIGNAL SHIELD
5	W	COMPOSIT IMAGE SIGNAL GND
6	R	RGB (G/GREEN)
7	SHIELD	RGB GND
8	W	HP
9	B	YS
11	R	COMM (CONT->DISP)
13	B/W	GND [With navigation system]
15	B	COMPOSIT IMAGE SIGNAL
17	W	RGB (R/RED)
18	B	RGB (B/BLUE)
19	G	RGB SYNC
20	R	VP
21	SHIELD	RGB SYNC GND
22	G	COMM (DISP->CONT)
23	SHIELD	SHIELD

Connector No.	M65
Connector Name	FRONT SQUAWKER LH
Connector Type	TK02FBR

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

Connector No.	M66
Connector Name	CENTER SPEAKER
Connector Type	TK02FBR

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

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BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M67
Connector Name	FRONT SQUAWKER RH
Connector Type	TK02FBR



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

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS19



Terminal No.	Color of Wire	Signal Name [Specification]
18	P	–
19	L	–
34	V/R	–
43	P	–
44	L	–
83	G/B	–
84	W/B	–
96	W/R	–
97	O/B	–

Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



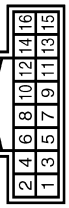
Terminal No.	Color of Wire	Signal Name [Specification]
12	W/R	–
13	O/B	–
14	R	–
15	G	–
16	W/B	–

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



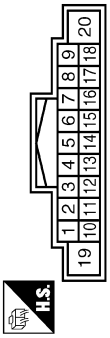
Terminal No.	Color of Wire	Signal Name [Specification]
90	P	CAN-L
91	L	CAN-H

Connector No.	M125
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH16FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
3	V/R	ACC
6	W	M-CAN H
8	B	M-CAN L
9	BR	SW GND
14	SB	CD(DVD) EJECT

Connector No.	M127
Connector Name	AV CONTROL UNIT
Connector Type	TH18FW-CS2



Terminal No.	Color of Wire	Signal Name [Specification]
6	W/G	STRG SW A
7	V/W	ACC
9	R/L	ILL
15	L/B	STRG SW GND
16	GR/L	STRG SW B
19	Y	BAT
20	B/W	GND

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

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BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M129
Connector Name	AV CONTROL UNIT
Connector Type	TH24FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
36	B	COMPOSIT IMAGE SIGNAL
37	W	COMPOSIT IMAGE SIGNAL GND
38	B	RGB (B/BLUE)
39	R	RGB (G/GREEN)
40	W	RGB (R/RED)
41	G	RGB SYNC
42	SHIELD	RGB SYNC GND
43	B	YS
44	G	COMM (DISP->CONT)
45	W	HP
49	SHIELD	COMP OUT SHIELD

Connector No.	M131
Connector Name	AV CONTROL UNIT
Connector Type	TH32FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
78	BR	SW GND [With navigation system]
79	W	TEL VOICE– [With navigation system]
80	B	TEL VOICE+ [With navigation system]
81	SHIELD	VOICE SHIELD [With navigation system]
82	W	STEREO (DVD AND AUX) SOUND SIGNAL RH (-) [With BOSE audio system]
83	R	STEREO (DVD AND AUX) SOUND SIGNAL RH (+) [With BOSE audio system]
84	SHIELD	VOICE SHIELD [With navigation system]
85	B/W	GND
86	L	CAN-H
87	P	CAN-L
88	W	AV COMM (H)

Connector No.	M130
Connector Name	AV CONTROL UNIT
Connector Type	TH16FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
60	O	RGB SYNC [With navigation system]
61	SHIELD	RGB SYNC GND [With navigation system]
62	W	RGB(B/BLUE) [With navigation system]
63	R	RGB(R/RED) [With navigation system]
64	SHIELD	CAMERA IMAGE SIGNAL GND
65	Y	CAMERA IMAGE SIGNAL
66	V	COMPOSIT (DVD AND AUX) IMAGE SIGNAL [With BOSE system]
68	W	CAMERA CONNECTION RECOGNITION SIGNAL
70	B	RGB GND
71	G	RGB (G/GREEN) [With navigation system]
73	SHIELD	COMPOSIT IMAGE SIGNAL SHIELD

Connector No.	M132
Connector Name	AV CONTROL UNIT (WITH BOSE SYSTEM)
Connector Type	TH12FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
109	W	STEREO SOUND SIGNAL RH (+) [With BOSE audio system]
111	SHIELD	SHIELD
112	BR	GUIDE OUT+
113	W	STEREO SOUND SIGNAL LH (+) [With BOSE audio system]
115	B	STEREO SOUND SIGNAL RH (-) [With BOSE audio system]
118	Y	GUIDE OUT–
119	B	STEREO SOUND SIGNAL LH (-) [With BOSE audio system]

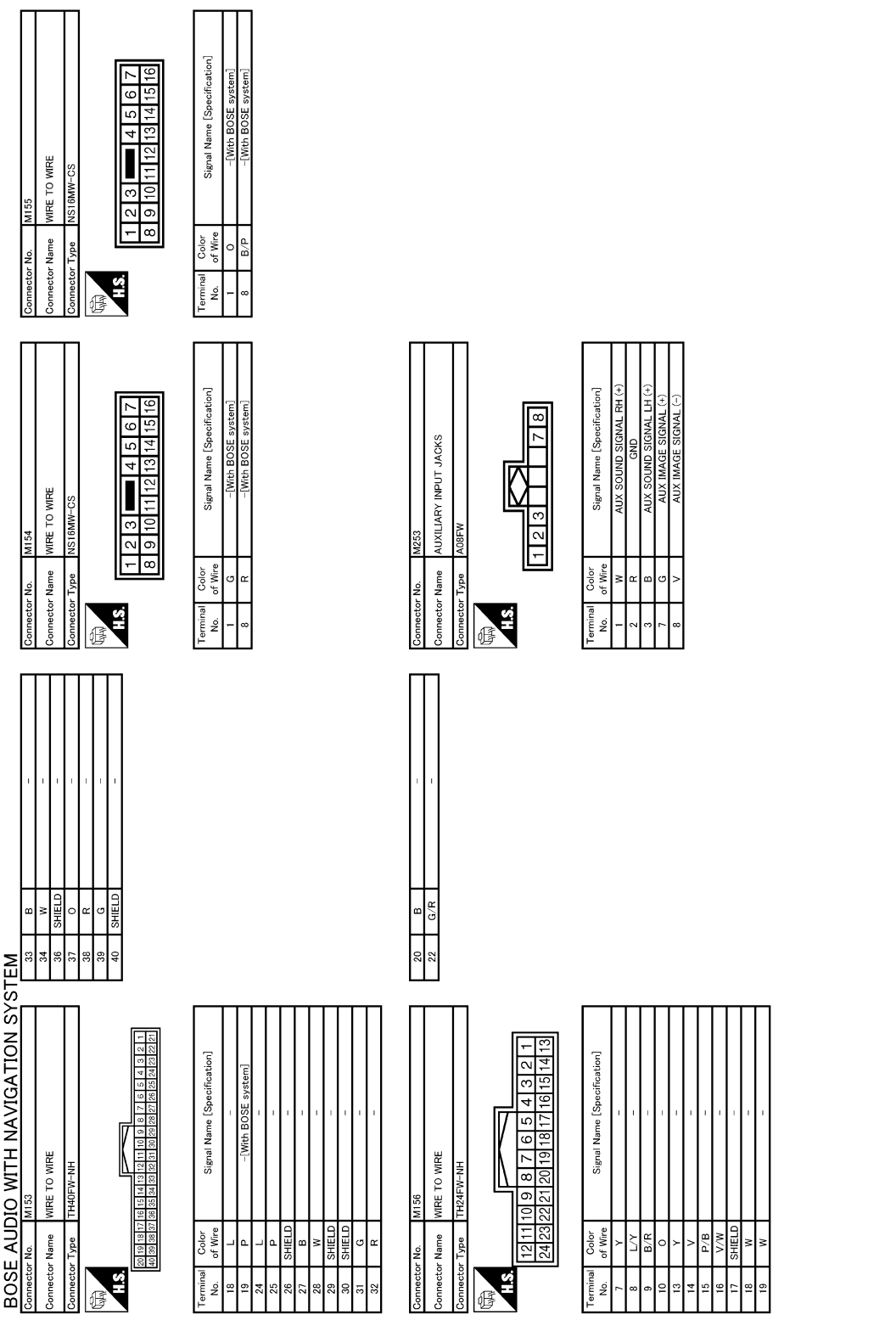
74	G	COMPOSIT (DVD AND AUX) IMAGE SIGNAL GND [With BOSE system]

90	SHIELD	RGB GND
55	SHIELD	SHIELD
56	R	COMM (CONT->DISP)
57	R	VP

89	B	AV COMM (L)
90	L	AV COMM (H)
91	R	AV COMM (L)
98	G	STEREO (DVD AND AUX) SOUND SIGNAL LH (-) [With BOSE audio system]
99	B	STEREO (DVD AND AUX) SOUND SIGNAL LH (+) [With BOSE audio system]
100	SHIELD	STEREO SOUND SIGNAL SHIELD [With BOSE audio system]
101	P	GUIDE VOICE– [With navigation system]
102	L	GUIDE VOICE+ [With navigation system]
103	SB	DISC EJECT SIG
104	O	IGN
105	P/B	REVERSE SIG
106	G/R	PKB SIG
107	V/W	VEHICLE SPEED SIG (8P)

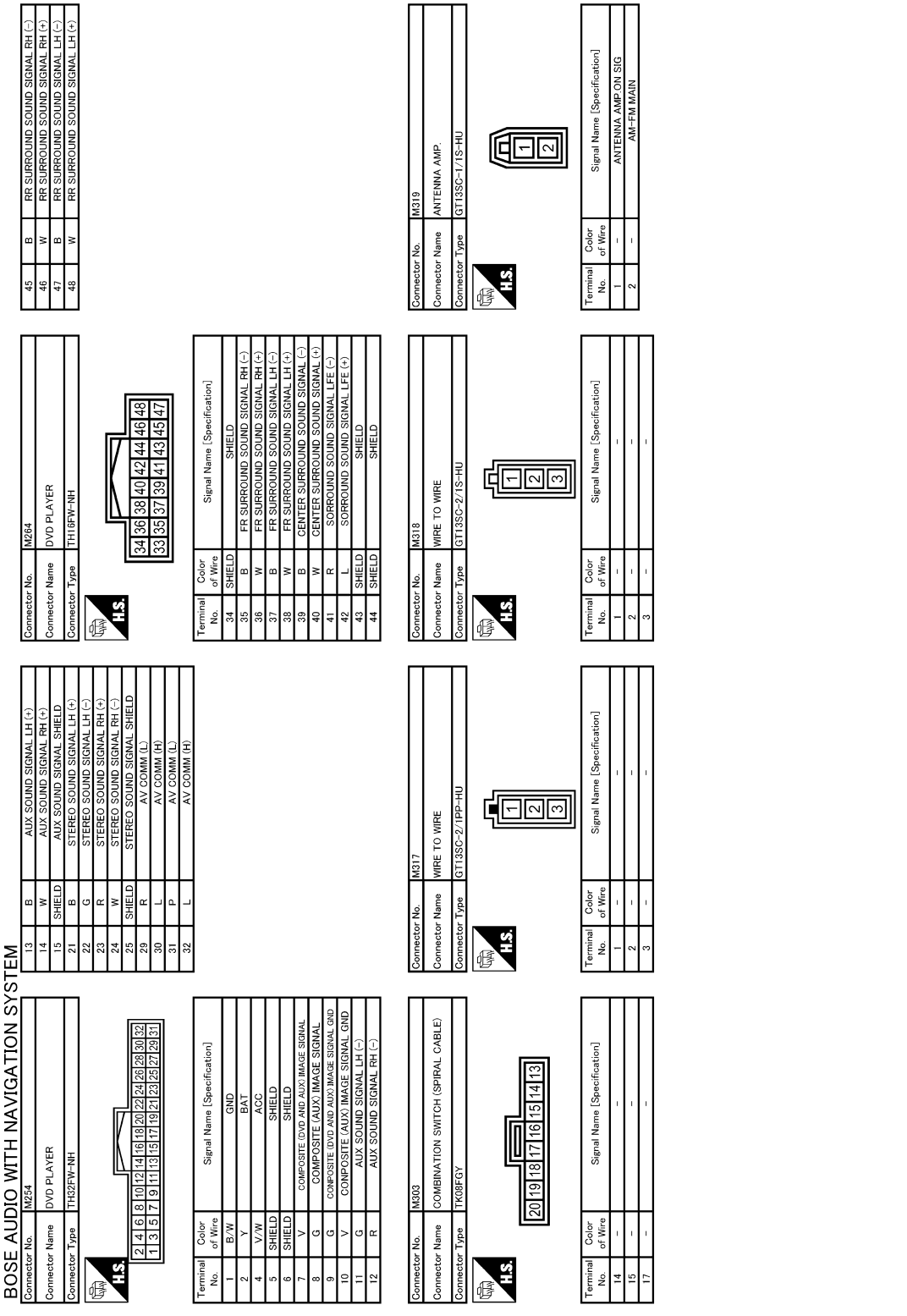
JCNWM0913GB

BOSE AUDIO WITH NAVIGATION SYSTEM

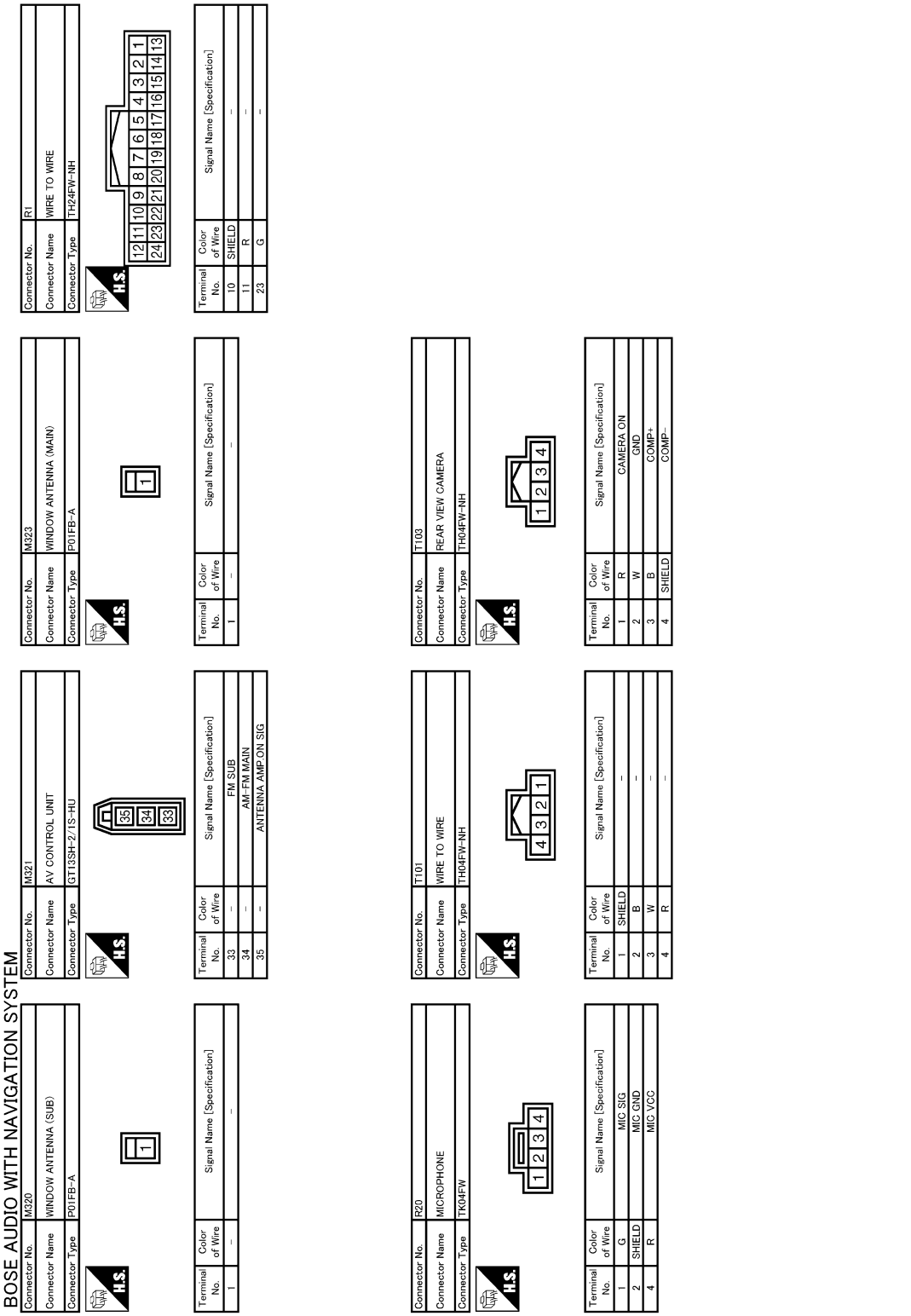


JCNWM0914GB

BOSE AUDIO WITH NAVIGATION SYSTEM



JCNWM0915GB



JCNWM0916GI

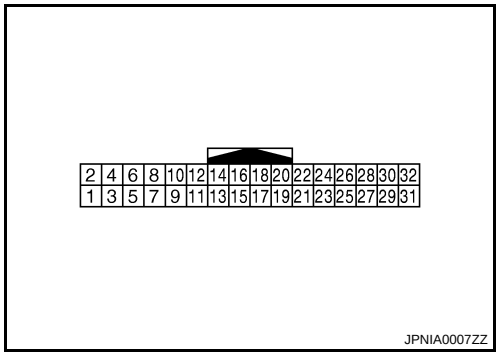
NOTE:
The name MULTIFUNCTION SWITCH indicates the integration of PRESET SWITCH and MULTIFUNCTION SWITCH virtually.

CAMERA CONTROL UNIT

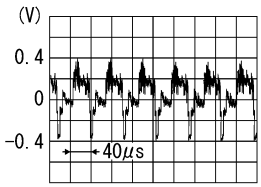
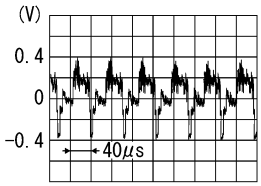
Reference Values

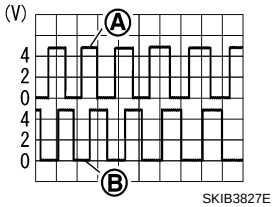
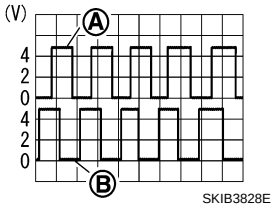
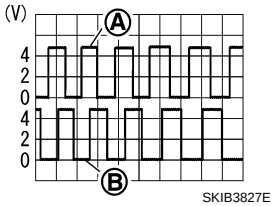
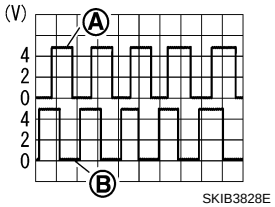
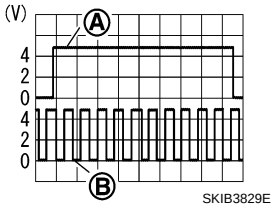
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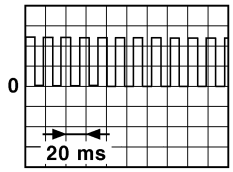
TERMINAL LAYOUT



PHYSICAL VALUES

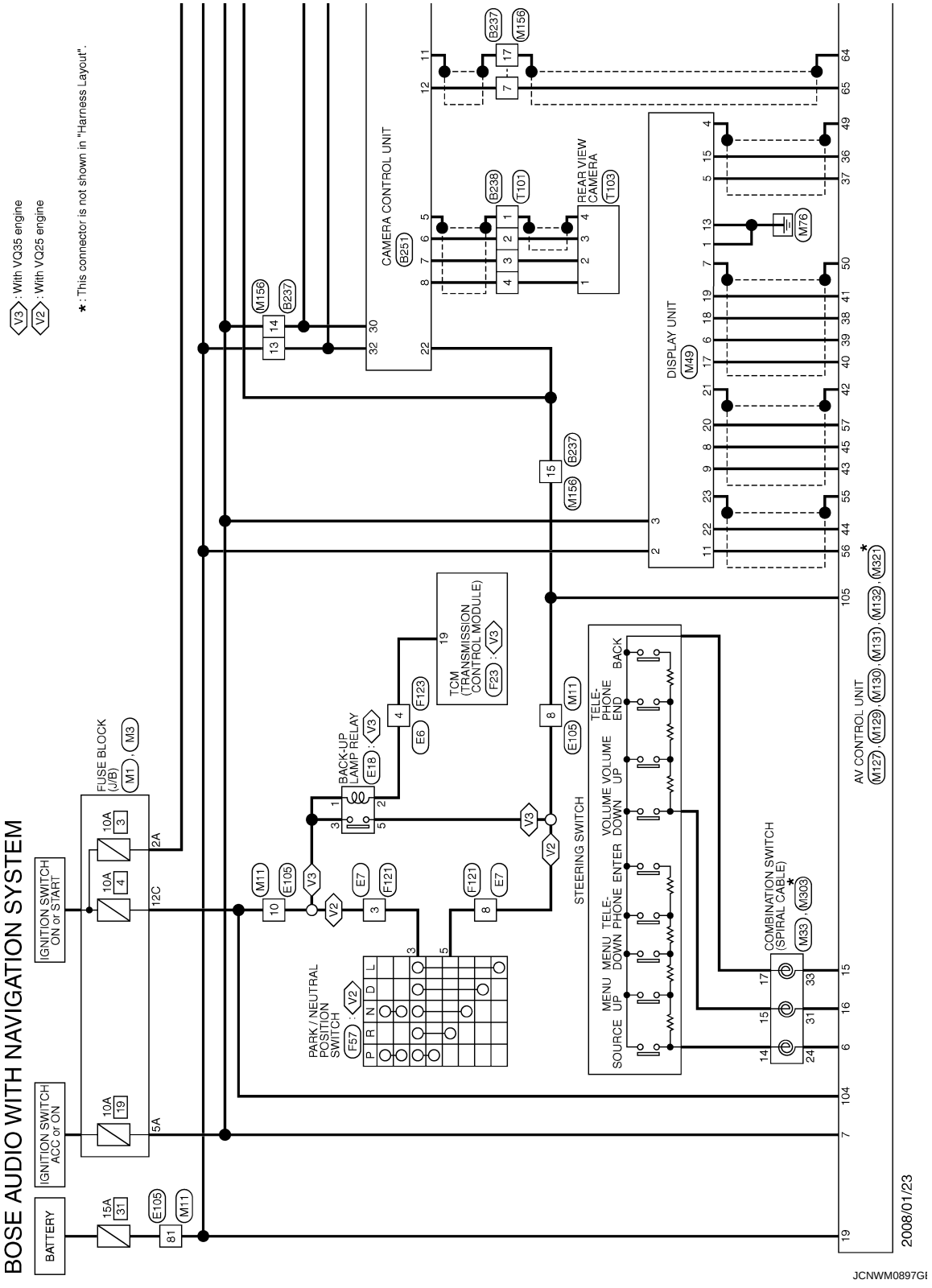
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
5	—	Shield	—	—	—	—
6 (B)	Ground	Camera image signal	Input	Ignition switch ON	When rear view camera image is displayed.	 SKIB2251J
7 (W)	Ground	Rear view camera ground	—	Ignition switch ON	—	0 V
8 (R)	Ground	Camera power supply	Output	Ignition switch ON	Selector lever in R position.	6.0 V
					Other than selector lever in R position.	0 V
11	—	Shield	—	—	—	—
12 (BR)	Ground	Camera image signal	Output	Ignition switch ON	When rear view camera image is displayed.	 SKIB2251J
14 (GR)	Ground	Camera connection recognition signal	Output	Ignition switch ON	Connected to camera control unit connector.	0 V
					Not connected to camera control unit connector.	5.0 V
17 (L/G)	—	AV communication signal (L)	Input/ Output	—	—	—
18 (L/R)	—	AV communication signal (H)	Input/ Output	—	—	—
19 (P)	—	AV communication signal (L)	Input/ Output	—	—	—

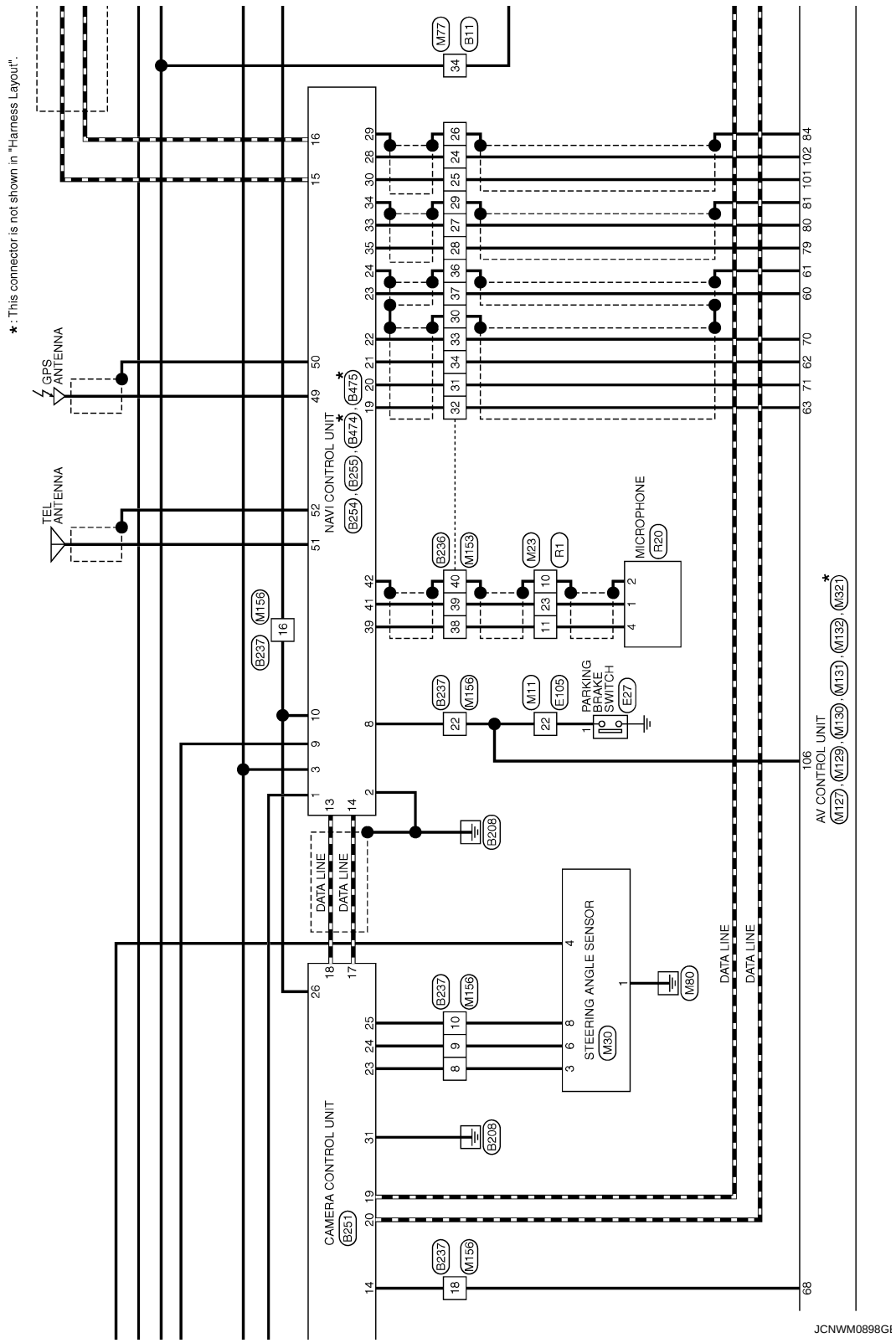
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
20 (L)	—	AV communication signal (H)	Input/ Output	—	—	—
22 (W)	Ground	Reverse signal	Input	Ignition switch ON	Selector lever in R position.	12.0 V
					Other than selector lever in R position.	0 V
23 (G)	Ground	Sensor signal 1	Input	Ignition switch ON	Turn the steering to the right.	 SKIB3827E A: Sensor signal 1 B: Sensor signal 2
					Turn the steering to the left.	 SKIB3828E A: Sensor signal 1 B: Sensor signal 2
24 (SB)	Ground	Sensor signal 2	Input	Ignition switch ON	Turn the steering to the right.	 SKIB3827E A: Sensor signal 1 B: Sensor signal 2
					Turn the steering to the left.	 SKIB3828E A: Sensor signal 1 B: Sensor signal 2
25 (O)	Ground	Sensor signal 3	Input	Ignition switch ON	Turn the steering around the neutral position.	 SKIB3829E A: Sensor signal 3 B: Sensor signal 1

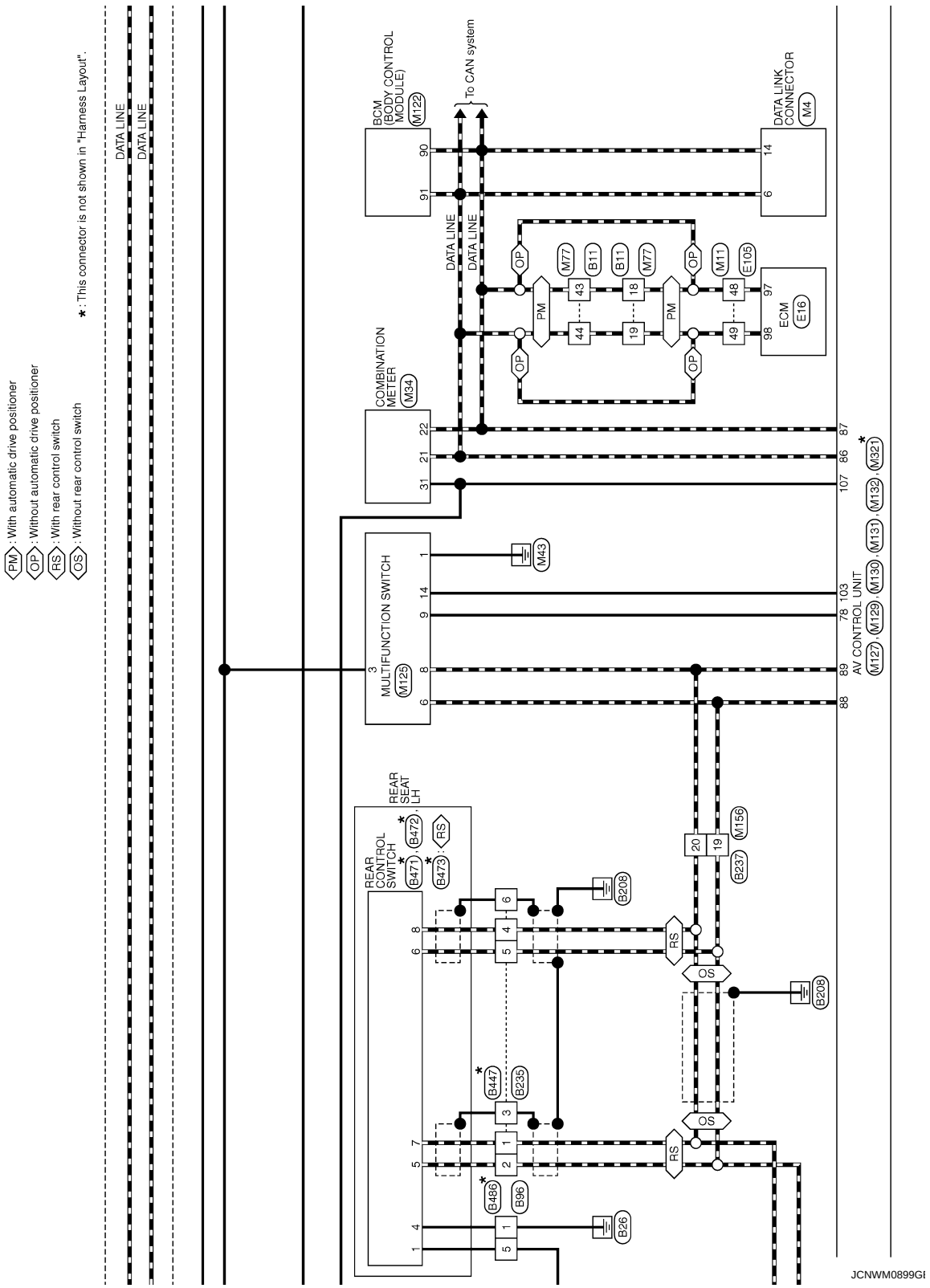
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
26 (O)	Ground	Vehicle speed signal (8-pulse)	Input	Ignition switch ON	When vehicle speed is approx. 40 km/h (25 MPH).	**NOTE:** The maximum voltage varies depending on the specification (destination unit).  JSNIA0012GB
30 (V)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
31 (B/R)	Ground	Ground	—	Ignition switch ON	—	0 V
32 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage

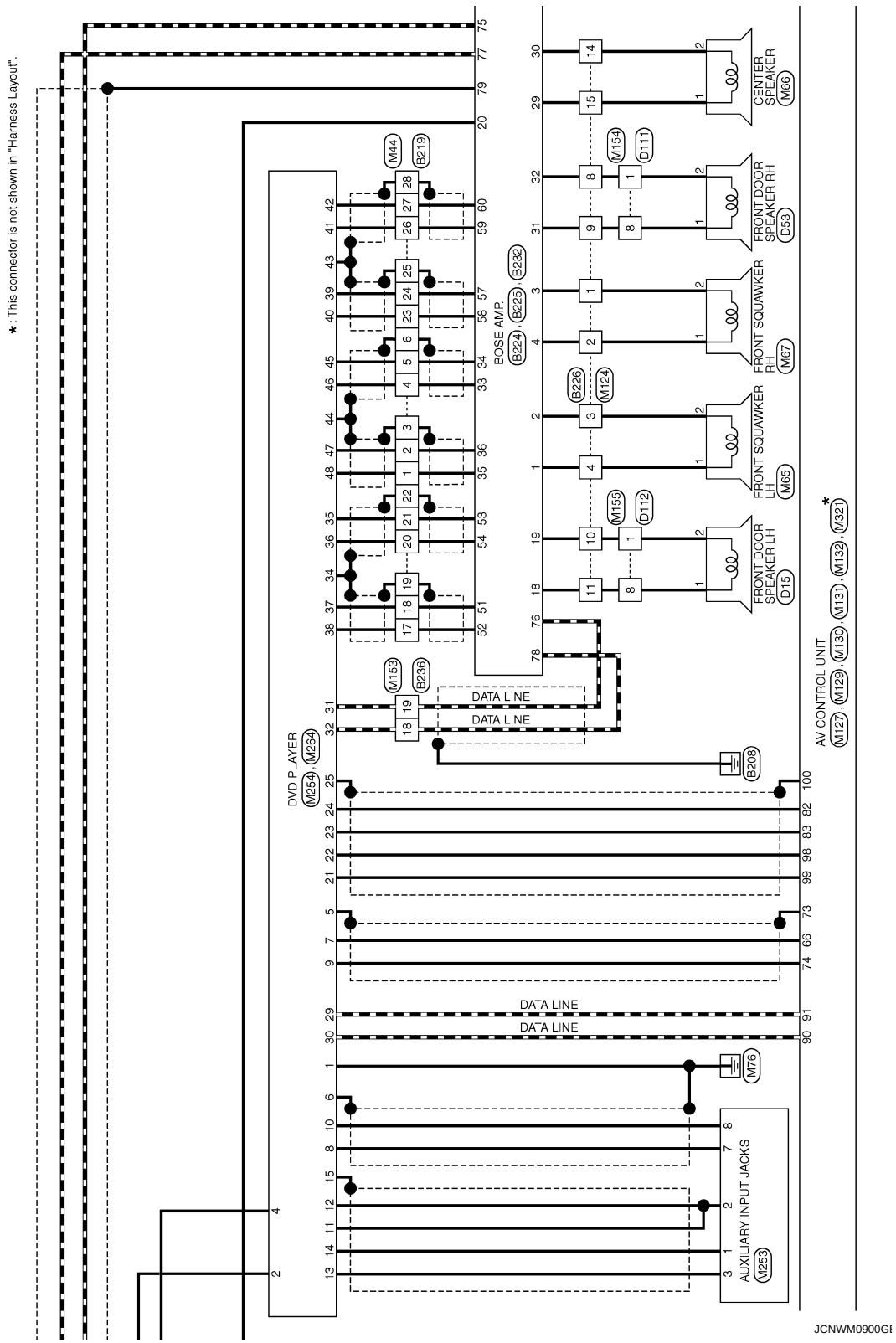
Wiring Diagram — BOSE AUDIO WITH NAVIGATION SYSTEM —

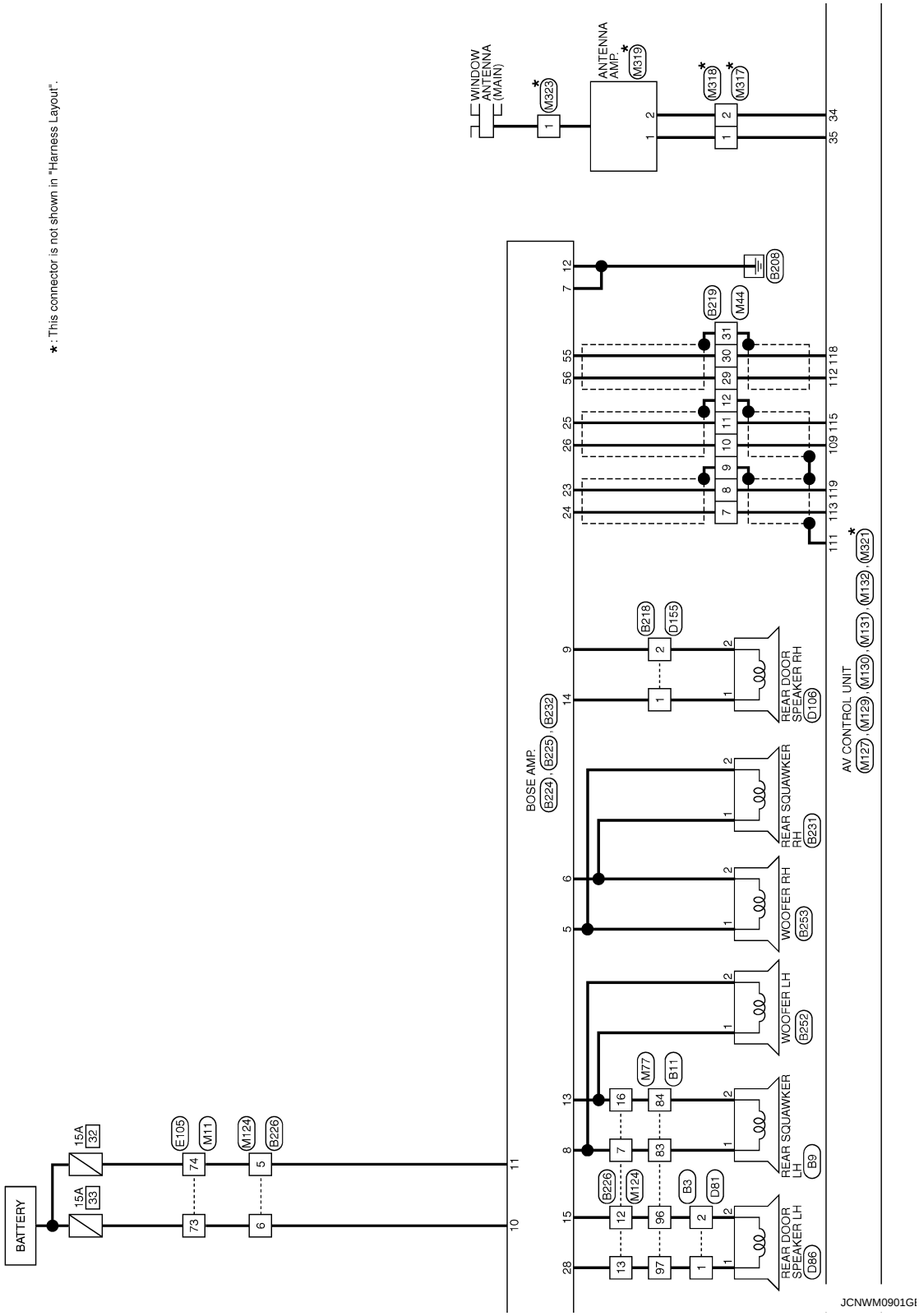
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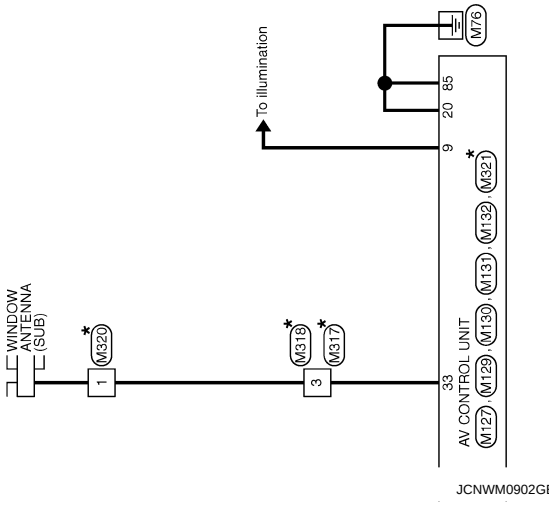

*: This connector is not shown in "Harness Layout".
GPS ANTENNA
TEL ANTENNA
NAVI CONTROL UNIT
B475, B474, B255, B254
MICROPHONE
R20
PARKING BRAKE SWITCH
E27
STEERING ANGLE SENSOR
M30
CAMERA CONTROL UNIT
B251
AV CONTROL UNIT
M127, M129, M130, M131, M132, M321
DATA LINE
B208
M80
JCNWM0898GB


PM : With automatic drive positioner
OP : Without automatic drive positioner
RS : With rear control switch
OS : Without rear control switch
*: This connector is not shown in "Harness Layout".
DATA LINE
DATA LINE
BCM (BODY CONTROL MODULE) M122
To CAN system
DATA LINK CONNECTOR M4
COMBINATION METER M34
ECM E16
MULTIFUNCTION SWITCH M125
AV CONTROL UNIT (M127), (M129), (M130), (M131), (M132), (M321)
REAR SEAT LH
REAR CONTROL SWITCH (B471), (B472), (B473)
M43
B208
B237
M156
B447
B235
B486
B96
B26
JCNWM0899GB


*: This connector is not shown in "Harness Layout".
BOSE AMP.
B224, B225, B232
B226
M124
M155
D112
M154
D111
CENTER SPEAKER
M66
FRONT DOOR SPEAKER RH
D53
FRONT SQUAWKER RH
M67
FRONT SQUAWKER LH
M65
FRONT DOOR SPEAKER LH
D15
M44
B219
M153
B236
DATA LINE
DATA LINE
DVD PLAYER
M254, M264
B208
AV CONTROL UNIT
M127, M129, M130, M131, M132, M321
DATA LINE
DATA LINE
M76
AUXILIARY INPUT JACKS
M253
JCNWM0900GB

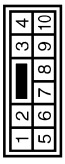

*: This connector is not shown in "Harness Layout".
BATTERY
15A 32
15A 33
E105
M11
M124
B226
74
73
5
6
11
10
WINDOW ANTENNA (MAIN)
M323
ANTENNA AMP.
M319
M318
M317
35 34
B208
B219
M44
31 30 29 12 11 10 9 8 7
12 7
55 56
25 26
23 24
118 112
115 109
119 113
111
M321
AV CONTROL UNIT
M127, M129, M130, M131, M132
BOSE AMP.
B224, B225, B232
B218
D155
REAR DOOR SPEAKER RH
D106
REAR SQUAWKER RH
B231
WOOFER RH
B253
WOOFER LH
B252
REAR SQUAWKER LH
B9
M77
B11
B226
M124
B3
D81
REAR DOOR SPEAKER LH
D86
JCNWM0901GB

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



BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B3
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	–[With BOSE system]
2	O	–[With BOSE system]

Connector No.	B9
Connector Name	REAR SQUAWKER LH
Connector Type	TK02MBR-P



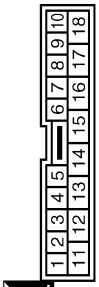
Terminal No.	Color of Wire	Signal Name [Specification]
1	BR	–
2	R	–

Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS19



Terminal No.	Color of Wire	Signal Name [Specification]
18	P	–
19	L	–
34	G	–
43	P	–
44	L	–
83	BR	–
84	R	–
96	O	–[With BOSE system]
97	LG	–[With BOSE system]

Connector No.	B96
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



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

Connector No.	B218
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS

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

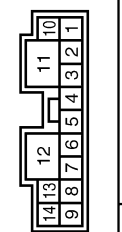
Connector No.	B219
Connector Name	WIRE TO WIRE
Connector Type	TH32MW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
1	W/L	–
2	W/R	–
3	SHIELD	–
4	W/L	–
5	GR/V	–
6	SHIELD	–
7	B	–
8	W	–
9	SHIELD	–
10	W/R	–
11	B/R	–
12	SHIELD	–
17	B	–
18	W	–
19	SHIELD	–
20	Y	–
21	BR	–
22	SHIELD	–
23	W/R	–
24	B/R	–
25	SHIELD	–
26	GR/V	–
27	W/L	–
28	SHIELD	–
29	W/L	–
30	W/R	–
31	SHIELD	–

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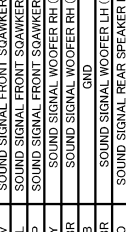
BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B224
Connector Name	BOSE AMP.
Connector Type	SGA12FBR-SJA2



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

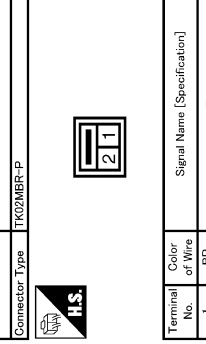
Connector No.	B226
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS



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

12	B	GND
13	R	SOUND SIGNAL WOOFER LH (+)
14	L	SOUND SIGNAL REAR SPEAKER RH (+)

Connector No.	B225
Connector Name	BOSE AMP.
Connector Type	SGA19FBR-SGA4



Terminal No.	Color of Wire	Signal Name [Specification]
15	R	SOUND SIGNAL REAR SPEAKER LH (–)
18	W	SOUND SIGNAL FRONT SPEAKER LH (+)
19	B	SOUND SIGNAL FRONT SPEAKER LH (–)
20	V	ACC
23	W	STEREO SOUND SIGNAL LH (–)
24	B	STEREO SOUND SIGNAL LH (+)
25	B/R	STEREO SOUND SIGNAL RH (–)
26	W/R	STEREO SOUND SIGNAL RH (+)
28	G	SOUND SIGNAL REAR SPEAKER LH (+)
29	V	SOUND SIGNAL CENTER SPEAKER (+)
30	P	SOUND SIGNAL CENTER SPEAKER (–)
31	BR	SOUND SIGNAL FRONT SPEAKER RH (+)
32	Y	SOUND SIGNAL FRONT SPEAKER RH (–)
33	W/L	RR SURROUND SOUND SIGNAL RH (+)
34	GR/V	RR SURROUND SOUND SIGNAL RH (–)
35	W/L	RR SURROUND SOUND SIGNAL LH (+)
36	W/R	RR SURROUND SOUND SIGNAL LH (–)

I2	R	–
I3	G	–
I4	P	–
I5	V	–
I6	R	–

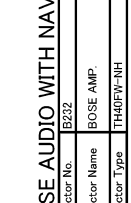
Connector No.	B231
Connector Name	REAR SQUAWKER RH
Connector Type	TK02MBR-P

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

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BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B232
Connector Name	BOSE AMP.
Connector Type	TH40FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
51	W	FR SURROUND SOUND SIGNAL LH (-)
52	B	FR SURROUND SOUND SIGNAL LH (+)
53	BR	FR SURROUND SOUND SIGNAL RH (-)
54	Y	FR SURROUND SOUND SIGNAL RH (+)
55	W/R	VOICE GUIDANCE SIGNAL (-)
56	W/L	VOICE GUIDANCE SIGNAL (+)
57	B/R	CENTER SURROUND SOUND SIGNAL (-)
58	W/R	CENTER SURROUND SOUND SIGNAL (+)
59	GR/V	SURROUND SOUND SIGNAL LFE (-)
60	W/L	SURROUND SOUND SIGNAL LFE (+)
75	P	AV COMM (L) [With navigation system]
76	P	AV COMM (L) [With navigation system]
77	L	AV COMM (H) [With navigation system]
78	L	AV COMM (H)
79	SHIELD	SHIELD

Connector No.	B235
Connector Name	WIRE TO WIRE
Connector Type	SD02MGY



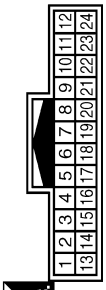
Terminal No.	Color of Wire	Signal Name [Specification]
1	P	–
2	L	–
3	SHIELD	–
4	G	–
5	R	–
6	SHIELD	–

Connector No.	B236
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
18	L	–[With BOSE system]
19	P	–[With BOSE system]
24	L	–
25	P	–
26	SHIELD	–
27	B	–
28	W	–
29	SHIELD	–
30	SHIELD	–
31	Y/L	–
32	BR/L	–
33	W/L	–
34	Y/G	–
36	SHIELD	–
37	L	–
38	B	–
39	W	–
40	SHIELD	–

Connector No.	B237
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
7	BR	–
8	G	–
9	SB	–
10	O	–
13	Y	–
14	V	–
15	W	–
16	O	–
17	SHIELD	–
18	GR	–
19	R	–[With rear control switch]
19	L	–[Without rear control switch]
20	G	–[With rear control switch]
20	P	–[Without rear control switch]
22	SB	–

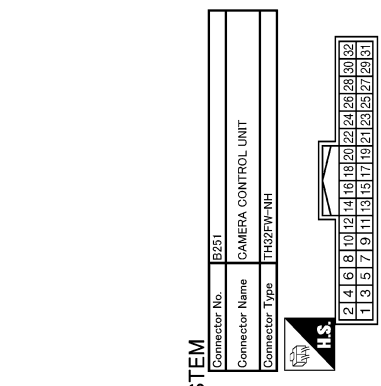
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BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B238
Connector Name	WIRE TO WIRE
Connector Type	TH04MW-NH

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

Connector No.	B251
Connector Name	CAMERA CONTROL UNIT
Connector Type	TH32FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
5	SHIELD	SHIELD
6	B	CAMERA IMAGE SIGNAL
7	W	REAR VIEW CAMERA GND
8	R	REAR CAMERA ON
11	SHIELD	SHIELD
12	BR	CAMERA IMAGE SIGNAL
14	GR	CAMERA CONNECTING RECOGNITION SIGNAL
17	L/G	AV COMM(L) [With BOSE audio system]
18	L/R	AV COMM(H) [With BOSE audio system]
19	P	AV COMM(L)
20	L	AV COMM(H)

Connector No.	B252
Connector Name	WOOFER LH
Connector Type	NS02FW-CS



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

Connector No.	B253
Connector Name	WOOFER RH
Connector Type	NS02FW-CS

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

Connector No.	B254
Connector Name	NAVI CONTROL UNIT
Connector Type	TH16FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	BAT
2	B	GND
3	V	ACC
8	SB	PKB SIG
9	W	REVERSE SIG
10	O	VHICLE SPEED SIGNAL (8P)
13	L/R	AV COMM (H)
14	L/G	AV COMM (L)
15	L	AV COMM (H)
16	P	AV COMM (L)

22	W	REVERSE SIGNAL
23	G	STRG SENSOR1
24	SB	STRG SENSOR2
25	O	STRG SENSOR3
26	O	VHICLE SPEED SIGNAL(8P)
30	V	ACC
31	B/R	GND
32	Y	BAT

Connector No.	B255
Connector Name	NAVI CONTROL UNIT
Connector Type	TH32FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
19	BR/L	RGB (R:RED)
20	Y/L	RGB (G:GREEN)
21	Y/G	RGB (B:BLUE)
22	W/L	RGB GND
23	L	RGB SYNC
24	SHIELD	SYNC GND
28	L	VOICE GUIDANCE SIGNAL (+)
29	SHIELD	VOICE GUIDANCE SIGNAL SHIELD
30	P	VOICE GUIDANCE SIGNAL (-)
33	B	TEL VOICE+
34	SHIELD	TEL VOICE SHIELD
35	W	TEL VOICE-
39	B	MIC POWER
41	W	MIC SIG +
42	SHIELD	MIC SIG –

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BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	B447
Connector Name	WIRE TO WIRE
Connector Type	SD02FGY

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–
2	B	–
3	SHIELD	–
4	Y	–
5	G	–
6	SHIELD	–

Connector No.	B471
Connector Name	REAR CONTROL SWITCH
Connector Type	TH04FW

Terminal No.	Color of Wire	Signal Name [Specification]
1	R/Y	–
4	Y	–

Connector No.	B472
Connector Name	REAR CONTROL SWITCH
Connector Type	SD01FGY

Terminal No.	Color of Wire	Signal Name [Specification]
5	G	–
7	Y	–

Connector No.	B473
Connector Name	REAR CONTROL SWITCH
Connector Type	SD01MGY

Terminal No.	Color of Wire	Signal Name [Specification]
6	B	–
8	W	–

Connector No.	B474
Connector Name	NAVI CONTROL UNIT
Connector Type	GT5-1S-HU

Terminal No.	Color of Wire	Signal Name [Specification]
49	–	GPS ANTENNA SIGNAL
50	–	SHIELD

Connector No.	B475
Connector Name	NAVI CONTROL UNIT
Connector Type	GT16C-1S-HU

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

Connector No.	B486
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8

Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	–
5	R/Y	–

Connector No.	D15
Connector Name	FRONT DOOR SPEAKER LH (WITH BOSE SYSTEM)
Connector Type	NS02FBR-CS

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

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BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	D53
Connector Name	FRONT DOOR SPEAKER RH (WITH BOSE SYSTEM)
Connector Type	NS02FBR-CS

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

Connector No.	D81
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS

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

Connector No.	D111
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–[With BOSE system]
8	B	–[With BOSE system]

Connector No.	D112
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS

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

Connector No.	D86
Connector Name	REAR DOOR SPEAKER LH (WITH BOSE SYSTEM)
Connector Type	NS02FBR-CS

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

Connector No.	D155
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–
2	B	–[With BOSE system]

Connector No.	D106
Connector Name	REAR DOOR SPEAKER RH (WITH BOSE SYSTEM)
Connector Type	NS02FBR-CS

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

Connector No.	E6
Connector Name	WIRE TO WIRE
Connector Type	TK16MGY-1V



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

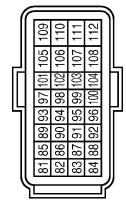
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BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	E7
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS

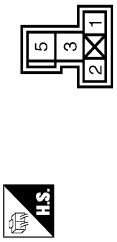
Terminal No.	Color of Wire	Signal Name [Specification]
3	LG	–
8	R	–

Connector No.	E16
Connector Name	ECM
Connector Type	RH24FB-RZ8-L-LH



Terminal No.	Color of Wire	Signal Name [Specification]
97	P	VEHCAN-L
98	L	VEHCAN-H

Connector No.	E18
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS02FL-MZ-LC



Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	–
2	R	–
3	LG	–
5	R	–

Connector No.	E27
Connector Name	PARKING BRAKE SWITCH
Connector Type	P01FB-A



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

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH70MW-CS10-M3

Terminal No.	Color of Wire	Signal Name [Specification]
8	R	–
10	LG	–
22	P	–
48	P	–
49	L	–
73	R	–
74	BR	–
81	Y	–

Connector No.	F23
Connector Name	TCM (TRANSMISSION CONTROL MODULE)
Connector Type	RH40FB-RZ8-L-RH

Terminal No.	Color of Wire	Signal Name [Specification]
19	G/B	REV LAMP RELAY

Connector No.	F57
Connector Name	PARK / NEUTRAL POSITION SWITCH
Connector Type	YDX06FB-HS4

Terminal No.	Color of Wire	Signal Name [Specification]
3	LG	–
5	P/B	–

Connector No.	F121
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS

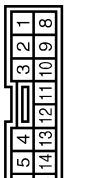


Terminal No.	Color of Wire	Signal Name [Specification]
3	O	–
8	R	–

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BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	F123
Connector Name	WIRE TO WIRE
Connector Type	TK16FGY-1V



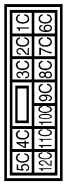
Terminal No.	Color of Wire	Signal Name [Specification]
4	G/B	–

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



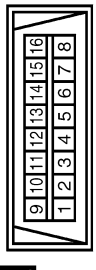
Terminal No.	Color of Wire	Signal Name [Specification]
2A	G/O	–
5A	V/O	–

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



Terminal No.	Color of Wire	Signal Name [Specification]
12C	O	–

Connector No.	M4
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



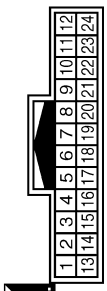
Terminal No.	Color of Wire	Signal Name [Specification]
6	L	–
14	P	–

Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Type	TH70FW-CS10-M3



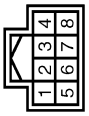
Terminal No.	Color of Wire	Signal Name [Specification]
8	P/B	–
10	O	–
22	G/R	–
48	P	–
49	L	–
73	B/R	–
74	BR	–
81	Y	–

Connector No.	M23
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
10	SHIELD	–
11	R	–
23	G	–

Connector No.	M30
Connector Name	STEERING ANGLE SENSOR
Connector Type	TH08FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	–
3	L/Y	–
4	G	–
6	B/R	–
8	O	–

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



Terminal No.	Color of Wire	Signal Name [Specification]
24	W/G	–
31	GR/L	–
33	L/B	–

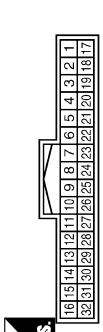
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BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	TH40FW-NH

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

Connector No.	M44
Connector Name	WIRE TO WIRE
Connector Type	TH32FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–
2	B	–
3	SHIELD	–
4	W	–
5	B	–
6	SHIELD	–
7	W	–
8	B	–
9	SHIELD	–
10	W	–
11	B	–
12	SHIELD	–
17	W	–
18	B	–
19	SHIELD	–
20	W	–
21	B	–
22	SHIELD	–
23	W	–
24	B	–
25	SHIELD	–
26	R	–
27	L	–
28	SHIELD	–
29	BR	–
30	Y	–
31	SHIELD	–

Connector No.	M49
Connector Name	DISPLAY UNIT
Connector Type	TH24FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
1	B/W	GND
2	Y	INV VCC
3	V/Y	ACC [With navigation system]
4	SHIELD	COMPOSIT IMAGE SIGNAL SHIELD
5	W	COMPOSIT IMAGE SIGNAL GND
6	R	RGB (G:GREEN)
7	SHIELD	RGB GND
8	W	HP
9	B	YS
11	R	COMM (CONT->DISP)
13	B/W	GND [With navigation system]
15	B	COMPOSIT IMAGE SIGNAL
17	W	RGB (R:RED)
18	B	RGB (B:BLUE)
19	G	RGB SYNC
20	R	VP
21	SHIELD	RGB SYNC GND
22	G	COMM (DISP->CONT)
23	SHIELD	SHIELD

Connector No.	M65
Connector Name	FRONT SQUAWKER LH
Connector Type	TK02FBR

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

Connector No.	M66
Connector Name	CENTER SPEAKER
Connector Type	TK02FBR

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

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BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M67
Connector Name	FRONT SQUAWKER RH
Connector Type	TK02FBR



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

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS19



Terminal No.	Color of Wire	Signal Name [Specification]
18	P	–
19	L	–
34	V/R	–
43	P	–
44	L	–
83	G/B	–
84	W/B	–
96	W/R	–
97	O/B	–

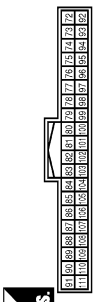
Connector No.	M124
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



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

Terminal No.	Color of Wire	Signal Name [Specification]
12	W/R	–
13	O/B	–
14	R	–
15	G	–
16	W/B	–

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



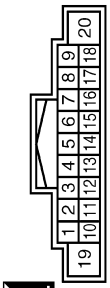
Terminal No.	Color of Wire	Signal Name [Specification]
90	P	CAN-L
91	L	CAN-H

Connector No.	M125
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH16FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
3	V/R	ACC
6	W	M-CAN H
8	B	M-CAN L
9	BR	SW GND
14	SB	CD(DVD) EJECT

Connector No.	M127
Connector Name	AV CONTROL UNIT
Connector Type	TH18FW-CS2



Terminal No.	Color of Wire	Signal Name [Specification]
6	W/G	STRG SW A
7	V/W	ACC
9	R/L	ILL
15	L/B	STRG SW GND
16	GR/L	STRG SW B
19	Y	BAT
20	B/W	GND

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BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M129
Connector Name	AV CONTROL UNIT
Connector Type	TH24FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
36	B	COMPOSIT IMAGE SIGNAL
37	W	COMPOSIT IMAGE SIGNAL GND
38	B	RGB (B:BLUE)
39	R	RGB (G:GREEN)
40	W	RGB (R:RED)
41	G	RGB SYNC
42	SHIELD	RGB SYNC GND
43	B	YS
44	G	COMM (DISP->CONT)
45	W	HP
49	SHIELD	COMP OUT SHIELD
50	SHIELD	RGB GND
55	SHIELD	SHIELD
56	R	COMM (CONT->DISP)
57	R	VP

Connector No.	M130
Connector Name	AV CONTROL UNIT
Connector Type	TH16FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
60	O	RGB SYNC [With navigation system]
61	SHIELD	RGB SYNC GND [With navigation system]
62	W	RGB(B:BLUE) [With navigation system]
63	R	RGB(R:RED) [With navigation system]
64	SHIELD	CAMERA IMAGE SIGNAL GND
65	Y	CAMERA IMAGE SIGNAL
66	V	COMPOSIT (DVD AND AUX) IMAGE SIGNAL [With BOSE system]
68	W	CAMERA CONNECTION RECOGNATION SIGNAL
70	B	RGB GND
71	G	RGB (G:GREEN) [With navigation system]
73	SHIELD	COMPOSIT IMAGE SIGNAL SHIELD
74	G	COMPOSIT (DVD AND AUX) IMAGE SIGNAL GND [With BOSE system]

Connector No.	M131
Connector Name	AV CONTROL UNIT
Connector Type	TH32FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
78	BR	SW GND [With navigation system]
79	W	TEL VOICE- [With navigation system]
80	B	TEL VOICE+ [With navigation system]
81	SHIELD	VOICE SHIELD [With navigation system]
82	W	STEREO (DVD AND AUX) SOUND SIGNAL RH (-) [With BOSE audio system]
83	R	STEREO (DVD AND AUX) SOUND SIGNAL RH (+) [With BOSE audio system]
84	SHIELD	VOICE SHIELD [With navigation system]
85	B/W	GND
86	L	CAN-H
87	P	CAN-L
88	W	AV COMM (H)
89	B	AV COMM (L)
90	L	AV COMM (H)
91	R	AV COMM (L)
98	G	STEREO (DVD AND AUX) SOUND SIGNAL LH (-) [With BOSE audio system]
99	B	STEREO (DVD AND AUX) SOUND SIGNAL LH (+) [With BOSE audio system]
100	SHIELD	STEREO SOUND SIGNAL SHIELD [With BOSE audio system]
101	P	GUIDE VOICE- [With navigation system]
102	L	GUIDE VOICE+ [With navigation system]
103	SB	DISC EJECT SIG
104	O	IGN
105	P/B	REVERSE SIG
106	G/R	PKB SIG
107	V/W	VEHICLE SPEED SIG (8P)

Connector No.	M132
Connector Name	AV CONTROL UNIT (WITH BOSE SYSTEM)
Connector Type	TH12FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
109	W	STEREO SOUND SIGNAL RH (+) [With BOSE audio system]
111	SHIELD	SHIELD
112	BR	GUIDE OUT+
113	W	STEREO SOUND SIGNAL LH (+) [With BOSE audio system]
115	B	STEREO SOUND SIGNAL RH (-) [With BOSE audio system]
118	Y	GUIDE OUT-
119	B	STEREO SOUND SIGNAL LH (-) [With BOSE audio system]

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BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M153
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-NH

H.S.

80	79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64	63	62	61
40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21

Terminal No.	Color of Wire	Signal Name [Specification]
18	L	–
19	P	–[With BOSE system]
24	L	–
25	P	–
26	SHIELD	–
27	B	–
28	W	–
29	SHIELD	–
30	SHIELD	–
31	G	–
32	R	–

33	B	–
34	W	–
36	SHIELD	–
37	O	–
38	R	–
39	G	–
40	SHIELD	–

Connector No.	M154
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS

H.S.

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

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	–[With BOSE system]
8	R	–[With BOSE system]

Connector No.	M155
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS

H.S.

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

Terminal No.	Color of Wire	Signal Name [Specification]
1	O	–[With BOSE system]
8	B/P	–[With BOSE system]

20	B	–
22	G/R	–

Connector No.	M253
Connector Name	AUXILIARY INPUT JACKS
Connector Type	A08FW

H.S.

1	2	3				7	8

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	AUX SOUND SIGNAL RH (+)
2	R	GND
3	B	AUX SOUND SIGNAL LH (+)
7	G	AUX IMAGE SIGNAL (+)
8	V	AUX IMAGE SIGNAL (–)

Connector No.	M156
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH

H.S.

12	11	10	9	8	7	6	5	4	3	2	1
24	23	22	21	20	19	18	17	16	15	14	13

Terminal No.	Color of Wire	Signal Name [Specification]
7	Y	–
8	L/Y	–
9	B/R	–
10	O	–
13	Y	–
14	V	–
15	P/B	–
16	V/W	–
17	SHIELD	–
18	W	–
19	W	–

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BOSE AUDIO WITH NAVIGATION SYSTEM

Connector No.	M254
Connector Name	DVD PLAYER
Connector Type	TH32FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
1	B/W	GND
2	Y	BAT
4	V/W	ACC
5	SHIELD	SHIELD
6	SHIELD	SHIELD
7	V	COMPOSITE (DVD AND AUX) IMAGE SIGNAL
8	G	COMPOSITE (AUX) IMAGE SIGNAL
9	G	COMPOSITE (DVD AND AUX) IMAGE SIGNAL GND
10	V	CONPOSITE (AUX) IMAGE SIGNAL GND
11	G	AUX SOUND SIGNAL LH (-)
12	R	AUX SOUND SIGNAL RH (-)
13	B	AUX SOUND SIGNAL LH (+)
14	W	AUX SOUND SIGNAL RH (+)
15	SHIELD	AUX SOUND SIGNAL SHIELD
21	B	STEREO SOUND SIGNAL LH (+)
22	G	STEREO SOUND SIGNAL LH (-)
23	R	STEREO SOUND SIGNAL RH (+)
24	W	STEREO SOUND SIGNAL RH (-)
25	SHIELD	STEREO SOUND SIGNAL SHIELD
29	R	AV COMM (L)
30	L	AV COMM (H)
31	P	AV COMM (L)
32	L	AV COMM (H)

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

Terminal No.	Color of Wire	Signal Name [Specification]
14	–	–
15	–	–
17	–	–

Connector No.	M317
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1PP-HU

Terminal No.	Color of Wire	Signal Name [Specification]
1	–	–
2	–	–
3	–	–

Connector No.	M264
Connector Name	DVD PLAYER
Connector Type	TH16FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
34	SHIELD	SHIELD
35	B	FR SURROUND SOUND SIGNAL RH (-)
36	W	FR SURROUND SOUND SIGNAL RH (+)
37	B	FR SURROUND SOUND SIGNAL LH (-)
38	W	FR SURROUND SOUND SIGNAL LH (+)
39	B	CENTER SURROUND SOUND SIGNAL (-)
40	W	CENTER SURROUND SOUND SIGNAL (+)
41	R	SORROUND SOUND SIGNAL LFE (-)
42	L	SORROUND SOUND SIGNAL LFE (+)
43	SHIELD	SHIELD
44	SHIELD	SHIELD
45	B	RR SURROUND SOUND SIGNAL RH (-)
46	W	RR SURROUND SOUND SIGNAL RH (+)
47	B	RR SURROUND SOUND SIGNAL LH (-)
48	W	RR SURROUND SOUND SIGNAL LH (+)

Connector No.	M318
Connector Name	WIRE TO WIRE
Connector Type	GT13SC-2/1S-HU

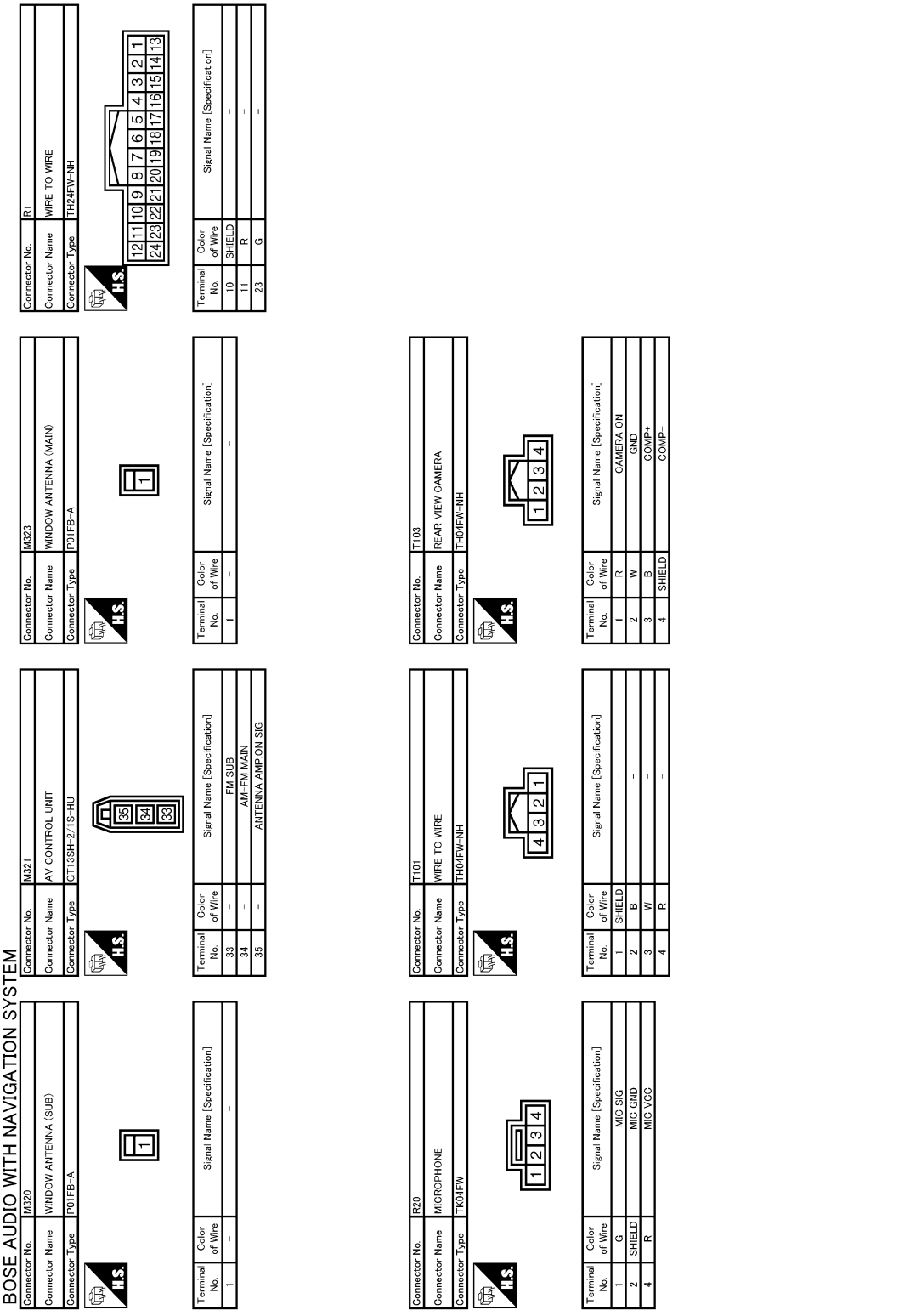
Terminal No.	Color of Wire	Signal Name [Specification]
1	–	–
2	–	–
3	–	–

Connector No.	M319
Connector Name	ANTENNA AMP.
Connector Type	GT13SC-1/1S-HU

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

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BOSE AUDIO WITH NAVIGATION SYSTEM



JCNWM0916GI

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

SYMPTOM DIAGNOSIS

MULTI AV SYSTEM SYMPTOMS

Symptom Table

INFOID:0000000003765976

RELATED TO BASIC 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 on system selection screen when the CONSULT-III is started.	Perform CONSULT-III self-diagnosis. Refer to AV-434, "CONSULT-III Function (MULTI AV)".
	• All switches cannot be operated • “MULTI AV” is not displayed on system selection screen when the CONSULT-III is started.	AV control unit power supply and ground circuit malfunction. Refer to AV-464, "AV CONTROL UNIT : Diagnosis Procedure".
	Only specified switch cannot be operated.	Multifunction switch or preset switch malfunction. Replace multifunction switch or preset switch. For multifunction switch, refer to AV-659, "Removal and Installation". For preset switch, refer to AV-660, "Removal and Installation".
Fuel economy display, vehicle setting operation is abnormal.	There is malfunction in the CONSULT-III self-diagnosis result.	Perform detected DTC diagnosis.
	There is no malfunction in the self-diagnosis results.	Ignition signal circuit malfunction. Refer to AV-464, "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 malfunction.

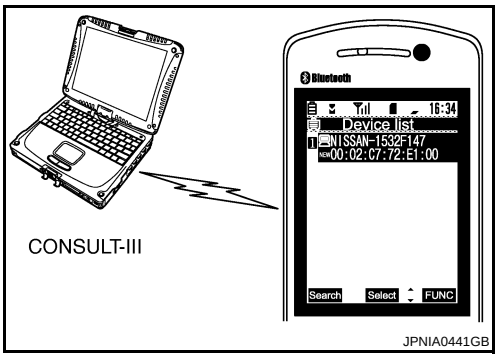
RELATED TO HANDS FREE PHONE

- 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.

Simple check for Bluetooth™ communication

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

1. Turn on a cellular phone, not connecting Bluetooth™ communication.
2. Start CONSULT-III, then start Windows®.
3. Set CONSULT-III near a cellular phone.
4. When operated Bluetooth™ registration by cellular phone, check if CONSULT-III* would be displayed on the device name.
   (If other Bluetooth™ device is located near cellular phone, a name of the device would be displayed also.)
   NOTE:
   *:Displayed device name is “NISSAN-********”.



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

Symptoms	Check items	Possible malfunction location / Action to take
Does not recognize cellular phone connection. (no connection is displayed on the display at the guide.)	There is malfunction in the CONSULT-III self-diagnosis result.	Perform detected DTC diagnosis.
	There is no malfunction in the CONSULT-III self-diagnosis results.	Repeat the registration of cellular phone.
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.	NAVI control unit malfunction. Replace NAVI control unit. Refer to AV-649, "Removal and Installation".
The other party's voice cannot be heard by hands free phone.	Check the “Handsfree Voice Microphone Test”in Confirmation/Adjustment mode if sound is heard. Refer to AV-419, "Diagnosis Description".	NAVI control unit malfunction. Replace NAVI control unit. Refer to AV-649, "Removal and Installation".
	Check the “Handsfree Voice Microphone Test”in Confirmation/Adjustment mode if sound is not heard. Refer to AV-419, "Diagnosis Description"	TEL voice signal circuit.
Originating sound is not heard by the other party with hands free phone communication.	Sound operation function is normal.	NAVI control unit malfunction. Replace NAVI control unit. Refer to AV-649, "Removal and Installation".
	Sound operation function does not work.	Microphone signal circuit malfunction. Refer to AV-482, "Diagnosis Procedure".

RELATED TO REAR VIEW MONITOR

Symptoms	Check items	Probable malfunction location / Action to take
It cannot be switched to rear view monitor even when the selector lever is in the reverse position.	There is malfunction in the CONSULT-III self-diagnosis result.	Perform CONSULT-III self-diagnosis. Refer to AV-434, "CONSULT-III Function (MULTI AV)".
	There is not malfunction in the CONSULT-III self-diagnosis result.	Reverse signal circuit malfunction.(AV control unit)
Camera image is not shown.	DVD and AUX images are normal.	• Rear view camera power supply circuit malfunction. Refer to AV-484, "Diagnosis Procedure". • Camera image signal circuit malfunction. Refer to AV-485, "Diagnosis Procedure".
Possible route line is indicated abnormally when camera image is displayed.	The “Steer. Angle Sensor” is not turned ON at “Connection Confirmation” of “Camera Cont.”	Steering angle sensor signal circuits. Refer to AV-487, "Diagnosis Procedure".
Camera image is rolling.	AUX image is rolling	• Horizontal synchronizing (HP) signal circuit malfunction between AV control unit and display unit. Refer to AV-474, "Diagnosis Procedure". • Vertical synchronizing (VP) signal circuit malfunction between AV control unit and display unit. Refer to AV-475, "Diagnosis Procedure".

RELATED TO RGB IMAGE

Symptoms	Check items	Possible malfunction location / Action to take
RGB image is not shown.	• All RGB images are not shown. • Composite images are not displayed.(camera and DVD and AUX image) • voice sound is heard.	• Display unit power supply and ground circuit malfunction. Refer to AV-465, "DISPLAY UNIT : Diagnosis Procedure". • Communication Circuit malfunction between AV control unit and display unit. Perform CONSULT-III self-diagnosis. Refer to AV-434, "CONSULT-III Function (MULTI AV)".
	• All RGB images are not shown. • Camera image is normal. • DVD and AUX images are not displayed.	Perform CONSULT-III self-diagnosis. Refer to AV-434, "CONSULT-III Function (MULTI AV)".
	• 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 malfunction. Refer to AV-464, "AV CONTROL UNIT : Diagnosis Procedure".
	• All RGB images are not shown. • Composite images are normal. (camera and DVD and AUX image)	RGB area (YS) signal circuit malfunction. Refer to AV-473, "Diagnosis Procedure".
Map image is not shown.	Composite images are normal.(camera and DVD and AUX image)	NAVI control unit power supply and ground circuit malfunction. Refer to AV-464, "NAVI CONTROL UNIT : Diagnosis Procedure"
	• Camera image is normal. • DVD and AUX images are not displayed. • Audio sound is not heard.	Perform CONSULT-III self-diagnosis. Refer to AV-434, "CONSULT-III Function (MULTI AV)".
Color of RGB image is not proper. (All RGB image)	Light blue (Cyan) tint.	RGB signal (R: red) circuit malfunction between AV control unit and display unit. Refer to AV-469, "Diagnosis Procedure".
	Purple (Magenta) tint.	RGB signal (G: green) circuit malfunction between AV control unit and display unit. Refer to AV-470, "Diagnosis Procedure".
	Screen looks yellowish.	RGB signal (B: blue) circuit malfunction between AV control unit and display unit. Refer AV-478, "Diagnosis Procedure".
Color of RGB image is not proper. (NAVI image only)	Light blue (Cyan) tint.	RGB signal (R: red) circuit malfunction between NAVI control unit and AV control unit. Refer to AV-476, "Diagnosis Procedure".
	Purple (Magenta) tint.	RGB signal (G: green) circuit malfunction between NAVI control unit and AV control unit. Refer to AV-477, "Diagnosis Procedure".
	Screen looks yellowish.	RGB signal (B: blue) circuit malfunction between NAVI control unit and AV control unit. Refer to AV-478, "Diagnosis Procedure".
RGB screen is rolling.	All RGB screen is rolling.	RGB synchronizing signal circuit malfunction between AV control unit and display unit. Refer to AV-472, "Diagnosis Procedure".
	Only NAVI screen is rolling.	RGB synchronizing signal circuit malfunction between NAVI control unit and AV control unit. Refer to AV-479, "Diagnosis Procedure".

RELATED TO AUDIO

Symptoms	Check items	Possible malfunction location / Action to take
The CD cannot be removed.	—	Disk eject signal circuit. Refer to AV-481, "Diagnosis Procedure".
Audio sound is not heard.	No sound from all speakers.	• Perform CONSULT-III self-diagnosis. Refer to AV-434, "CONSULT-III Function (MULTI AV)" • BOSE amp. power supply and ground circuits malfunction. Refer to AV-466, "BOSE AMP. : Diagnosis Procedure".
	• No sound from all speakers. • It dose not change to “DVD” mode.	Perform CONSULT-III self-diagnosis. Refer to AV-434, "CONSULT-III Function (MULTI AV)"
	Sound is not heard only from the specific places.	
AM/FM radio is not received.	Other audio sounds are normal.	Antenna amp. ON signal circuit.

RELATED TO STEERING SWITCH

Symptoms	Probable malfunction location
None of the steering switch operations work.	Steering switch signal GND circuit malfunction. Refer to AV-493, "Diagnosis Procedure".
Only specified switch (1) cannot be operated.	Steering switch malfunction. Replace steering switch.
Steering switch's “SOURCE”, “MENU UP”, “MENU DOWN”, “ ”, “ENTER” switches do not work.	Steering switch signal A circuit malfunction. Refer to AV-489, "Diagnosis Procedure".
Steering switch's “ ”, “VOL UP”, “VOL DOWN”, “ ” switches do not work.	Steering switch signal B circuit malfunction. Refer to AV-491, "Diagnosis Procedure".

RELATED TO DVD

Symptoms	Check items	Probable malfunction location
DVD image is not displayed	Displayed in black and nothing displayed.	• Composite image signal circuit malfunction between AV control unit and display unit. Refer to AV-486, "Diagnosis Procedure" • RGB area synchronizing (YS) signal circuit malfunction between AV control unit and display unit. Refer to AV-473, "Diagnosis Procedure" • Horizontal synchronizing (HP) signal circuit malfunction between AV control unit and display unit. Refer to AV-474, "Diagnosis Procedure". • Vertical synchronizing (VP) signal circuit malfunction between AV control unit and display unit. Refer to AV-475, "Diagnosis Procedure".
It dose not change to “DVD” mode.	LED lump of DVD player is not turned on.	DVD player power supply and ground circuits malfunction. Refer to AV-468, "DVD PLAYER : Diagnosis Procedure".
	LED lump of DVD player is not turned on.	Perform CONSULT-III self-diagnosis. Refer to AV-434, "CONSULT-III Function (MULTI AV)"

RELATED TO AUXILIARY INPUT

NOTE:

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

Symptoms	Check items	Probable malfunction location
No voice sound is heard when AUX mode is selected.	Voice sound is heard when other modes are selected.	AUX sound signal circuits malfunction between auxiliary input jacks and AV control unit.
AUX image is not displayed	displayed in black and nothing can be displayed	• RGB area synchronizing (YS) signal circuit malfunction between AV control unit and display unit. Refer to AV-473, "Diagnosis Procedure". • Horizontal synchronizing (HP) signal circuit malfunction between AV control unit and display unit. Refer to AV-474, "Diagnosis Procedure". • Vertical synchronizing (VP) signal circuit malfunction between AV control unit and display unit. Refer to AV-475, "Diagnosis Procedure".
	• DVD image is normal. • Menu image is normal.	AUX image signal circuit malfunction between DVD player and auxiliary input jacks. Refer to AV-480, "Diagnosis Procedure".

RELATED TO REAR CONTROL SWITCH

Symptoms	Check items	Probable malfunction location
None of the rear control switch operations work.	—	Perform CONSULT-III self-diagnosis. Refer to AV-434, "CONSULT-III Function (MULTI AV)".

NORMAL OPERATING CONDITION

Description

INFOID:0000000003765977

NOTE:
For Navigation system operation information, refer to Navigation system Owner's Manual.

BASIC OPERATIONS

Symptom	Possible cause	Possible solution
No image is displayed.	The brightness is at the lowest setting.	Adjust the brightness of the display.
	The system in the video mode.	Push **<DISC>** to change the mode.
	The display is turned off.	Push **<☀/☽>** 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 red 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.
	Check if the CD is protected by copyright.
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 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.

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.

RELATED TO NAVIGATION

As a result of a slight operating error, a normal symptom might be taken as a malfunction. Therefore, at first, please check for yourself as per the following table.

Symptom	Possible cause	Possible solution
The map does not scroll even when the vehicle is moving.	The display is not set to the current location map.	Set the display to the current location map.
The vehicle icon is not displayed.	The display is not set to the current location map.	Set the display to the current location map.
The GPS icon is not displayed.	GPS signal cannot be received.	Move the vehicle to an open area without obstacle. If an object is placed on the upper area of GPS antenna, remove it.
No voice guidance is available.	The route guidance was cancelled.	If the route destination guidance has been cancelled, reactivate the route guidance.
	The volume is set very low.	Adjust the volume of your voice guidance.
Some pixels in the display are darker or brighter than others.	This is an inherent characteristic of liquid crystal displays. Although the liquid crystal display is manufactured with a technology of very high accuracy and it has more than 99.99% effective pixels, a chip or a permanent lighting of pixels might occur at 0.01% or less.	Please continue using the NAVI system, as it is not a malfunction.
A mottle remains for a while after turning the ignition switch ON.	When it is cold, due to the characteristics of the liquid crystal display backlight, a brightness mottle might occur.	It will disappear a few minutes later when the backlight is warmed-up.
The screen is not clear.	The adjustment of the contrast or the brightness is inadequate.	Adjust the contrast and the brightness of the display.
The vehicle icon is not displayed in the correct location. (The location of the vehicle icon is misaligned from the actual position.)	The vehicle icon might be misaligned from the actual position due to the satellite condition, the vehicle condition (driving location or driving condition), etc. Also, when the vehicle is traveling on a road whose information is not stored in the map data, a new road for example, the vehicle icon might be misaligned from the actual position.	Drive the vehicle for a while. The current location is automatically corrected using the map-matching and GPS information. (It may take a few minutes.) If the GPS information is not used and the current location is not corrected automatically, park the vehicle in a safe location, and then correct the current vehicle location.

PRECAUTION

PRECAUTIONS

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

INFOID:0000000003960544

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

WARNING:

- **To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.**
- **Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the “SRS AIRBAG”.**
- **Never use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.**

Precaution for Trouble Diagnosis

INFOID:0000000003765979

AV COMMUNICATION SYSTEM

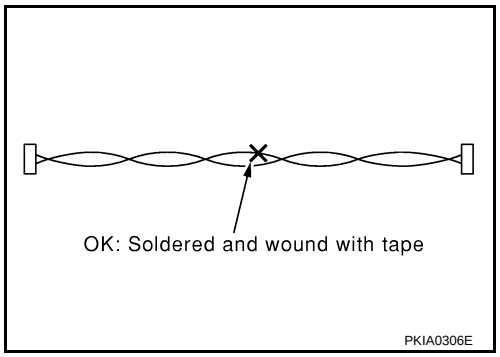
- Do not apply voltage of 7.0 V or higher to the measurement terminals.
- Use the tester with its open terminal voltage being 7.0 V or less.
- Be sure to turn ignition switch OFF and disconnect the battery cable from the negative terminal before checking the circuit.

Precaution for Harness Repair

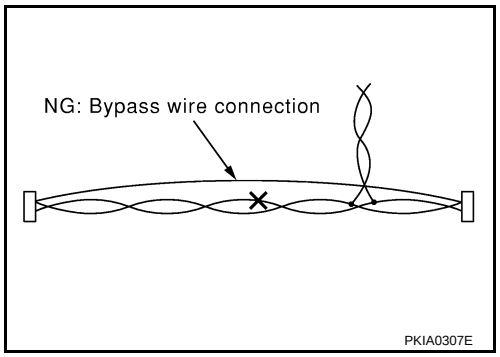
INFOID:0000000003765980

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.)



ON-VEHICLE REPAIR

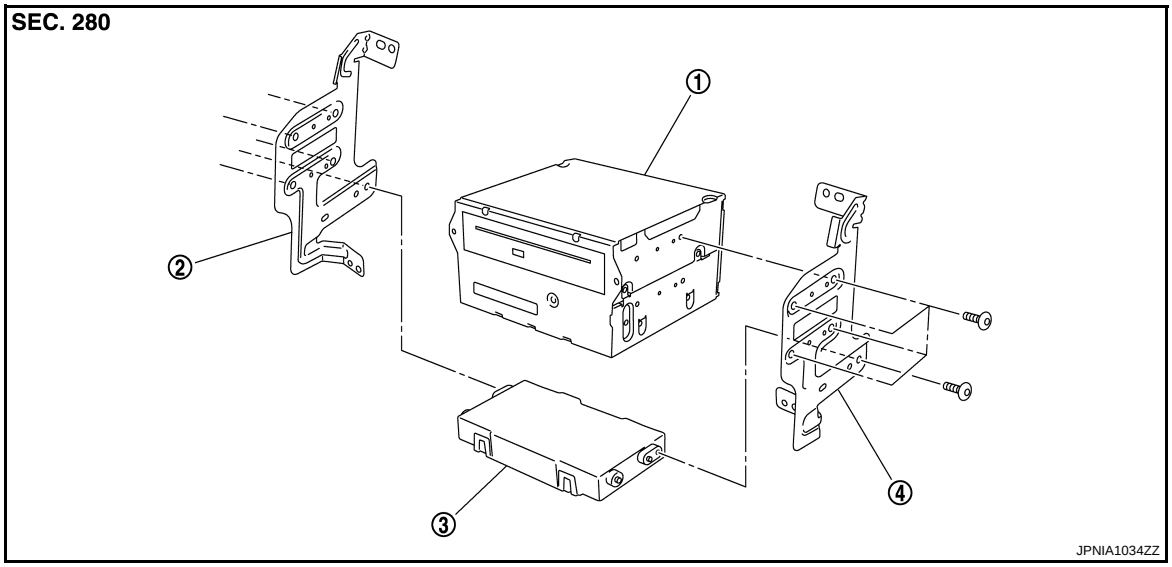
AV CONTROL UNIT

Exploded View

INFOID:0000000003765981

REMOVAL
Refer to IP-11, "Exploded View".

DISASSEMBLY



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

Removal and Installation

INFOID:0000000003765982

REMOVAL

1. Remove instrument finisher C. Refer to IP-12, "Removal and Installation".
2. Remove cluster lid D. Refer to IP-12, "Removal and Installation".
3. Remove AV control unit with A/C amp. as a single unit from the body.
4. Remove bracket screws, and then remove AV control unit.

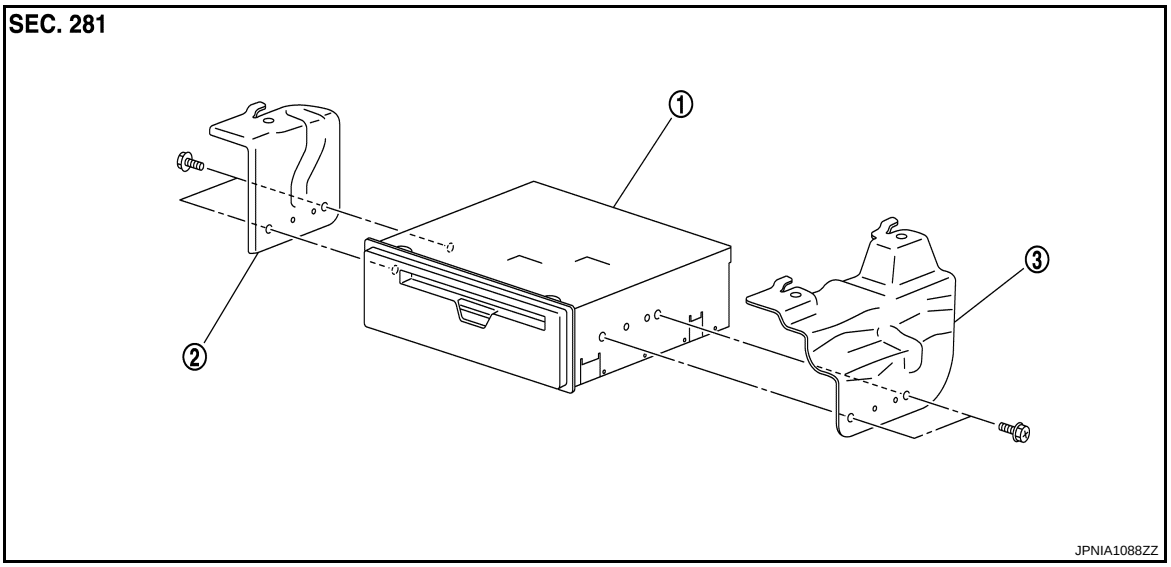
INSTALLATION
Installation is the reverse order of removal.

NAVI CONTROL UNIT

Exploded View

INFOID:0000000003765983

DISASSEMBLY



1. NAVI control unit
2. Bracket LH
3. Bracket RH

Removal and Installation

INFOID:0000000003765984

REMOVAL

1. Remove NAVI control unit mounting screws.
2. Disconnect NAVI control unit connector and remove the NAVI control unit.

INSTALLATION

Install in the reverse order of removal.

DISPLAY UNIT

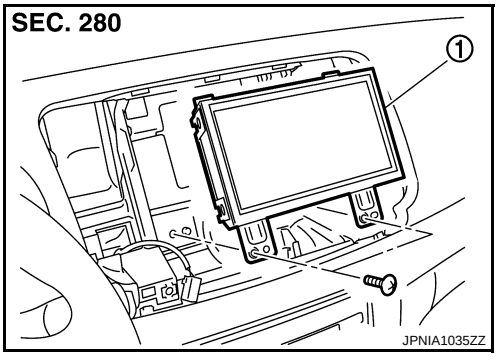
Exploded View

INFOID:0000000003765985

REMOVAL

Refer to IP-11, "Exploded View".

DISASSEMBLY



1. Display unit

Removal and Installation

INFOID:0000000003765986

REMOVAL

1. Remove cluster lid D. Refer to IP-12, "Removal and Installation".
2. Remove display unit mounting screws, and then disconnect the display unit connector.
3. Remove display unit.

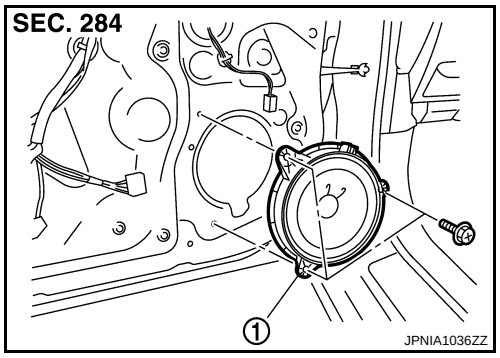
INSTALLATION

Installation is the reverse order of removal.

FRONT DOOR SPEAKER

Exploded View

INFOID:0000000003765987



1. Front door speaker

Removal and Installation

INFOID:0000000003765988

REMOVAL

1. Remove front door finisher. Refer to INT-30, "DRIVER SIDE : Removal and Installation" (driver side) or INT-33, "PASSENGER SIDE : Removal and Installation" (passenger side).
2. Remove front door speaker mounting bolts, disconnect the front door speaker connector.
3. Remove front door speaker.

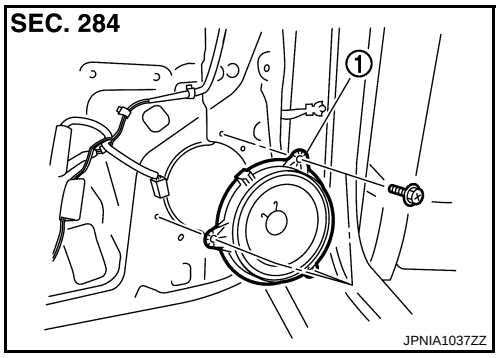
INSTALLATION

Installation is the reverse order of removal.

REAR DOOR SPEAKER

Exploded View

INFOID:0000000003765989



1. Rear door speaker

Removal and Installation

INFOID:0000000003765990

REMOVAL

1. Remove rear door finisher. Refer to INT-36, "Removal and Installation".
2. Remove rear door speaker mounting bolts, disconnect the rear door speaker connector.
3. Remove rear door speaker.

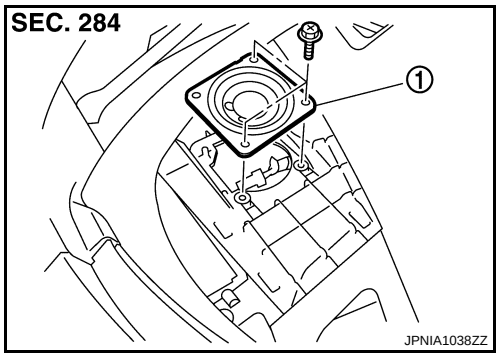
INSTALLATION

Installation is the reverse order of removal.

FRONT SQUAWKER

Exploded View

INFOID:0000000003765991



1. Front squawker

Removal and Installation

INFOID:0000000003765992

REMOVAL

1. Remove the speaker grille with squawker. Refer to IP-12, "Removal and Installation".
2. Remove front squawker mounting screws, lift up the front squawker and disconnect front squawker connector.
3. Remove front squawker.

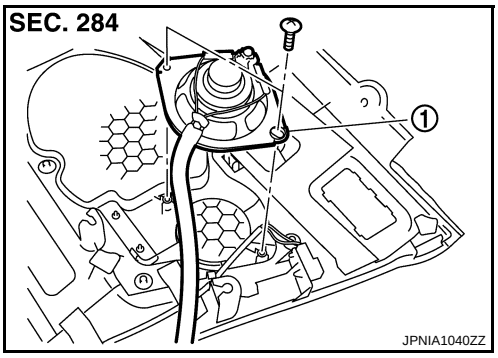
INSTALLATION

Installation is the reverse order of removal.

REAR SQUAWKER

Exploded View

INFOID:0000000003765993



1. Rear squawker

Removal and Installation

INFOID:0000000003765994

REMOVAL

1. Remove rear parcel shelf finisher. Refer to INT-43, "Removal and Installation".
2. Remove rear squawker mounting screws.
3. Remove rear squawker.

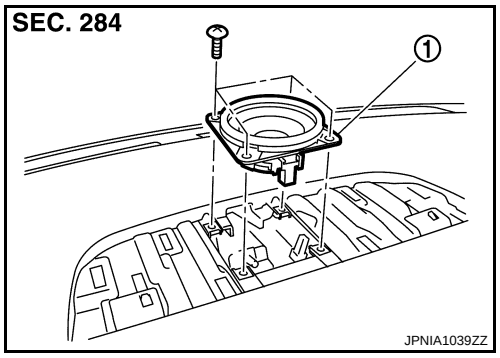
INSTALLATION

Installation is the reverse order of removal.

CENTER SPEAKER

Exploded View

INFOID:0000000003765995



1. Center speaker

Removal and Installation

INFOID:0000000003765996

REMOVAL

1. Remove center speaker grille. Refer to IP-12, "Removal and Installation".
2. Remove center speaker mounting screws, lift up the center speaker and disconnect center speaker connector.
3. Remove center speaker.

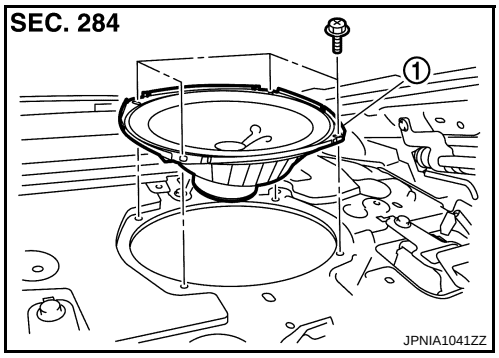
INSTALLATION

Installation is the reverse order of removal.

WOOFER

Exploded View

INFOID:0000000003765997



1. Woofer

Removal and Installation

INFOID:0000000003765998

REMOVAL

1. Remove rear parcel shelf finisher. Refer to INT-43, "Removal and Installation".
2. Remove woofer mounting bolts, lift up the woofer and disconnect woofer connector.
3. Remove woofer.

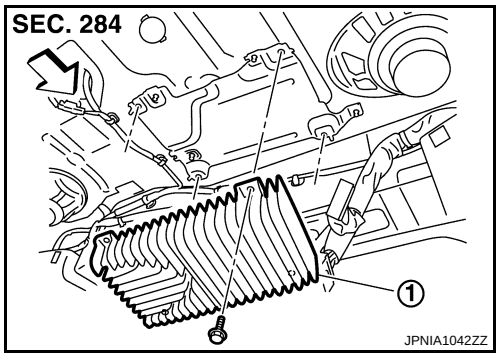
INSTALLATION

Installation is the reverse order of removal.

BOSE AMP.

Exploded View

INFOID:0000000003765999



⇦: Vehicle front
1. BOSE amp.

Removal and Installation

INFOID:0000000003766000

REMOVAL

1. Remove trunk front finisher upper. Refer to INT-57, "Removal and Installation".
2. Remove BOSE amp. mounting bolts, disconnect the BOSE amp. connector.
3. Remove BOSE amp.

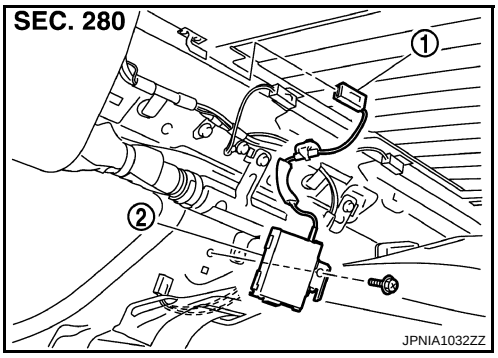
INSTALLATION

Installation is the reverse order of removal.

ANTENNA AMP.

Exploded View

INFOID:0000000003766001



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

Removal and Installation

INFOID:0000000003766002

REMOVAL

1. Remove rear side pillar finisher. Refer to INT-39, "Removal and Installation".
2. Disconnect antenna feeder connector and clip.
3. Remove antenna amp. mounting nut, disconnect the antenna amp. connector.
4. Remove antenna amp.

INSTALLATION

Installation is the reverse order of removal.

MULTIFUNCTION SWITCH

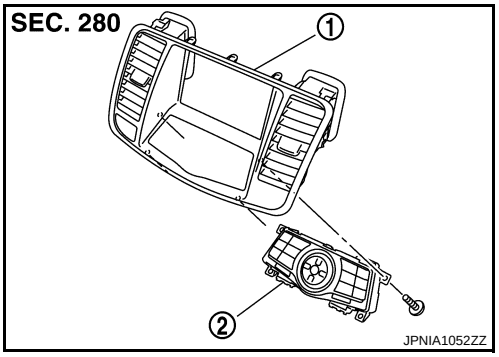
Exploded View

INFOID:0000000003766003

REMOVAL

Refer to IP-11, "Exploded View".

DISASSEMBLY



1. Cluster lid D
2. Multifunction switch

Removal and Installation

INFOID:0000000003766004

REMOVAL

1. Remove cluster lid D. Refer to IP-12, "Removal and Installation".
2. Remove multifunction switch mounting screws.
3. Remove multifunction switch.

INSTALLATION

Installation is the reverse order of removal.

PRESET SWITCH

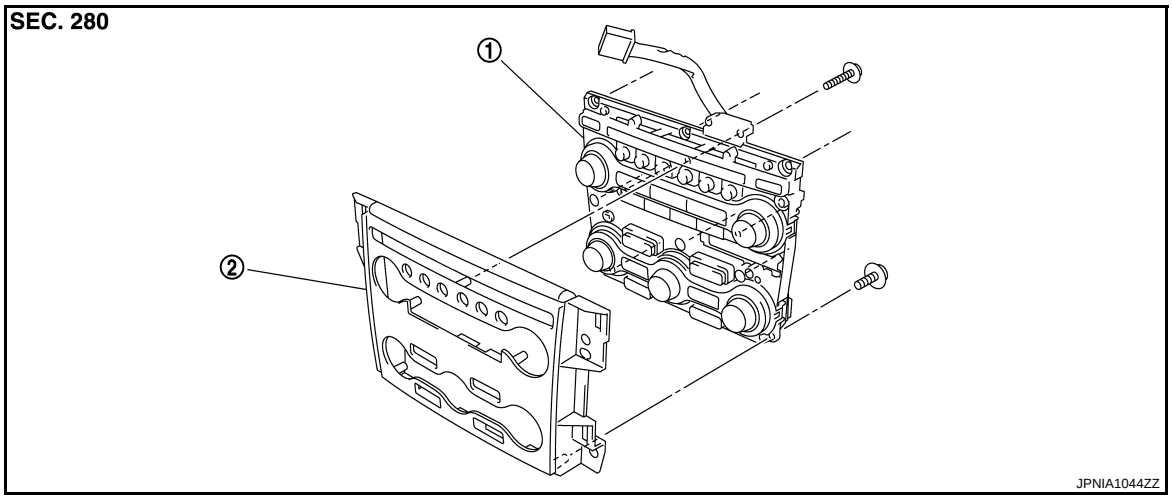
Exploded View

INFOID:0000000003766005

REMOVAL

Refer to IP-11, "Exploded View".

DISASSEMBLY



1. Preset switch
2. Cluster lid C

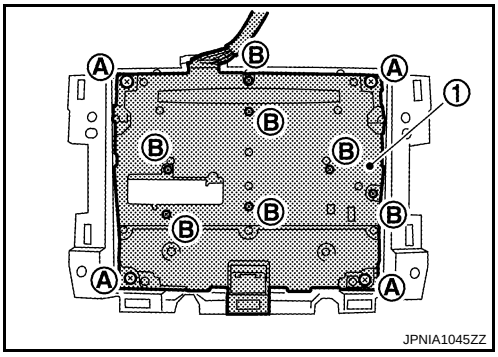
Removal and Installation

INFOID:0000000003766006

REMOVAL

1. Remove cluster lid C. Refer to IP-12, "Removal and Installation".
2. Remove preset switch mounting screws.
3. Remove preset switch.

1. Preset switch
A. Screw
B. 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.

REAR CONTROL SWITCH

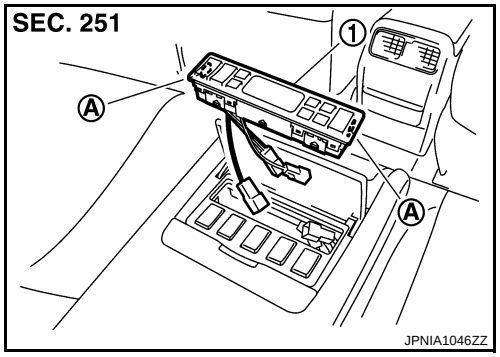
Exploded View

INFOID:0000000003824769

REMOVAL

Refer to SE-98, "Exploded View".

DISASSEMBLY



1. Rear control switch
A. Clip

Removal and Installation

INFOID:0000000003824770

REMOVAL

1. Remove rear control switch, stretching pawls of armrest assembly.
2. Disconnect rear control switch connector.
3. Remove rear control switch.

INSTALLATION

Installation is the reverse order of removal.

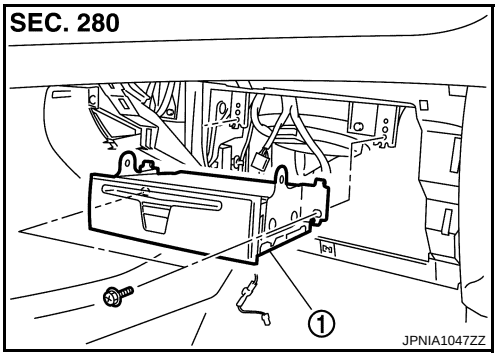
DVD PLAYER

Exploded View

INFOID:0000000003824765

REMOVAL
Refer to IP-11, "Exploded View".

DISASSEMBLY



1. DVD player

Removal and Installation

INFOID:0000000003824766

REMOVAL

1. Remove grove box. Refer to IP-12, "Removal and Installation"
2. Remove DVD player mounting screw, disconnect the DVD player connector.
3. Remove DVD player.

INSTALLATION
Installation is the reverse order of removal.

AUXILIARY INPUT JACKS

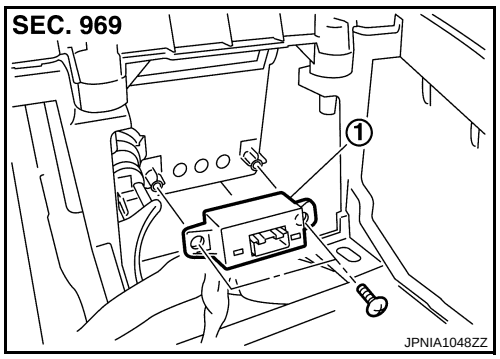
Exploded View

INFOID:0000000003766007

REMOVAL

Refer to IP-22, "Removal and Installation".

DISASSEMBLY



1. Auxiliary input jacks

Removal and Installation

INFOID:0000000003766008

REMOVAL

1. Remove console finisher. Refer to IP-22, "Removal and Installation".
2. Remove auxiliary mounting screws.
3. Remove auxiliary input jacks.

INSTALLATION

Installation is the reverse order of removal.

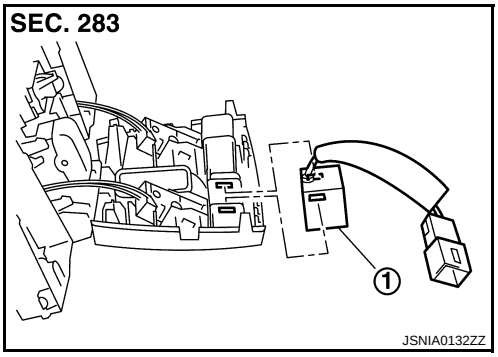
MICROPHONE

Exploded View

INFOID:0000000003766009

REMOVAL
Refer to INL-89, "Exploded View".

DISASSEMBLY



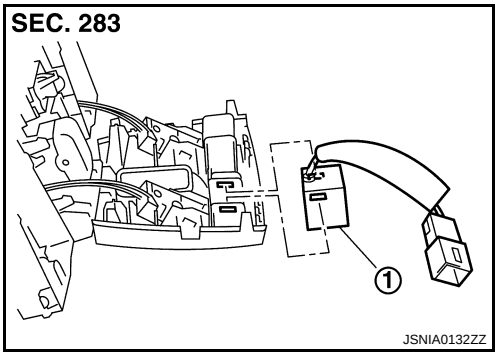
1. Microphone

Removal and Installation

INFOID:0000000003766010

REMOVAL

1. Remove map lamp assembly. Refer to INL-89, "Removal and Installation".
2. Remove microphone(1), stretching pawls of map lamp assembly.



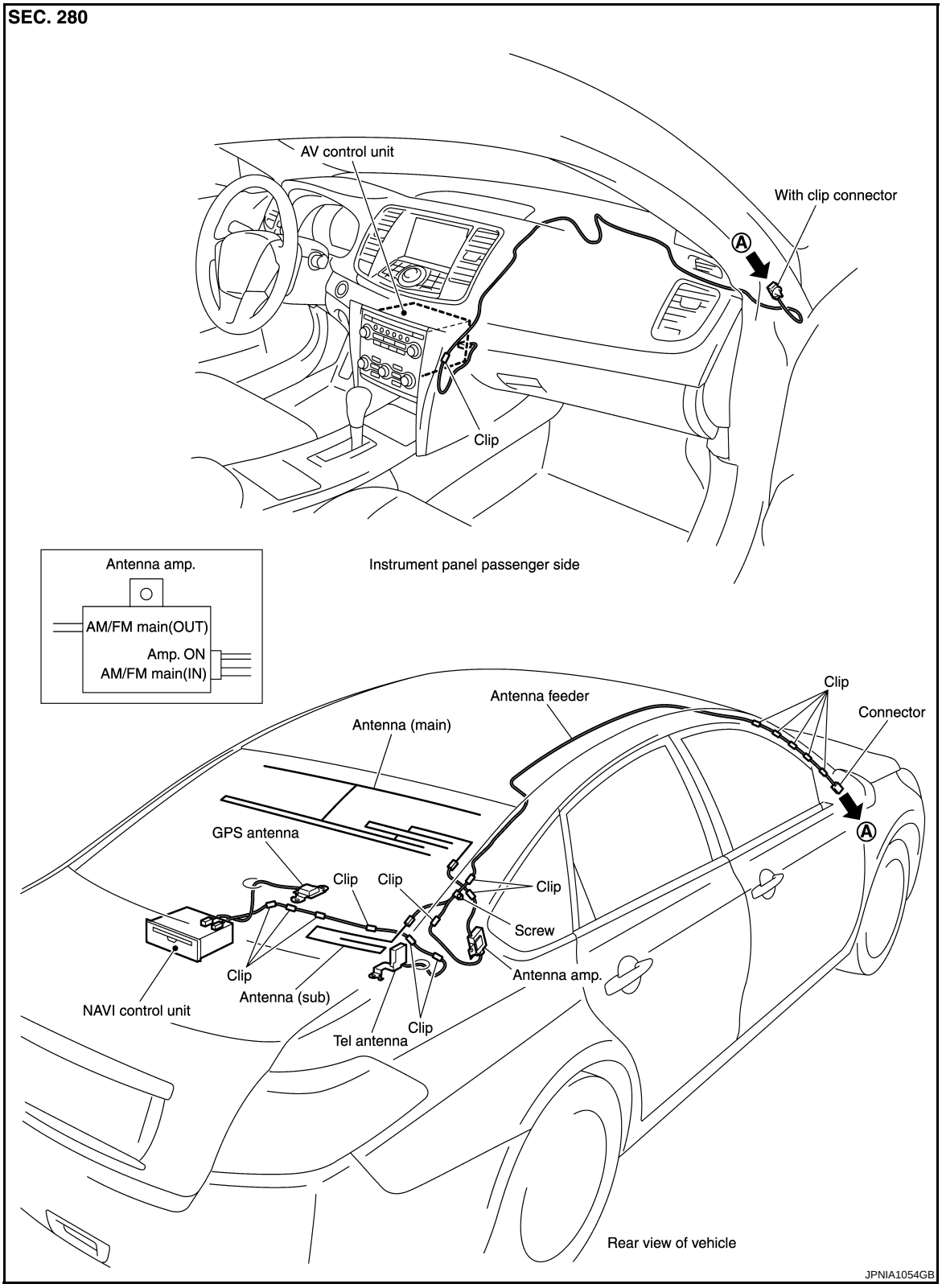
INSTALLATION
Installation is the reverse order of removal.

GPS ANTENNA

Harness Layout

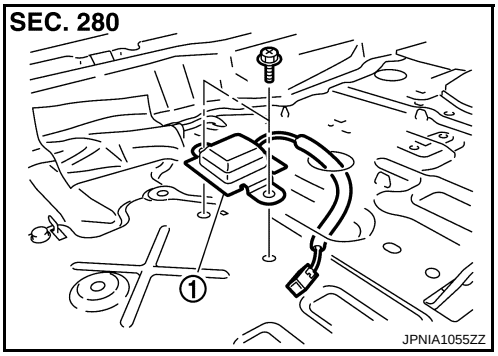
INFOID:0000000003766011

SEC. 280



Exploded View

INFOID:0000000003766012



1. GPS antenna

Removal and Installation

INFOID:0000000003766013

REMOVAL

1. Remove rear parcel shelf finisher. Refer to INT-43, "Removal and Installation".
2. Remove GPS antenna mounting screws, disconnect GPS antenna connector.
3. Remove GPS antenna.

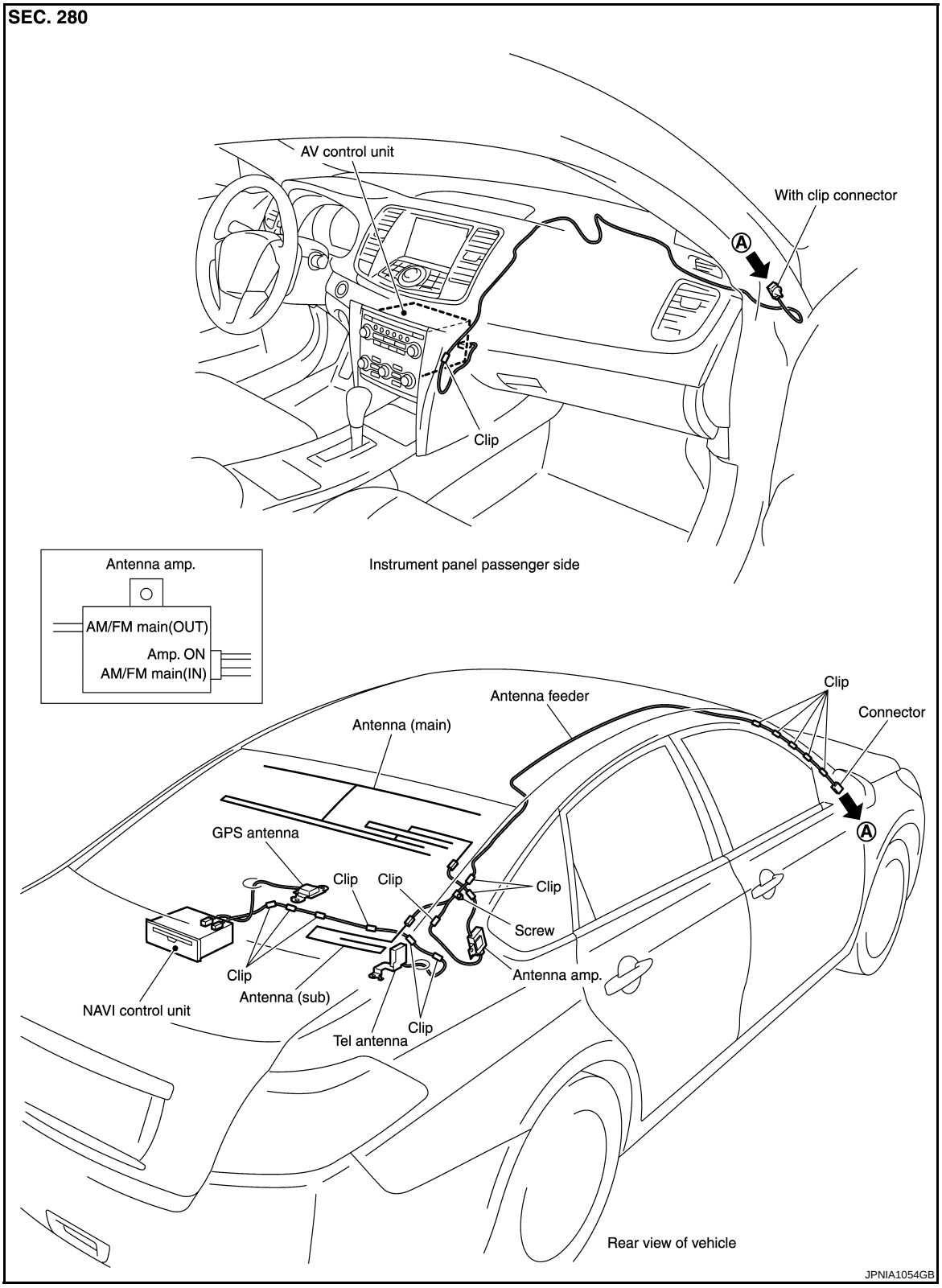
INSTALLATION

Install in the reverse order of removal.

TEL ANTENNA

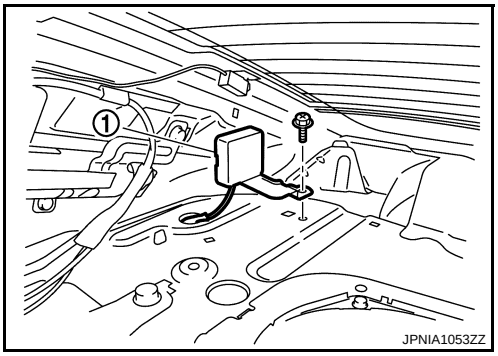
Harness Layout

INFOID:0000000003766014



Exploded View

INFOID:0000000003766015



1. TEL antenna

Removal and Installation

INFOID:0000000003766016

REMOVAL

1. Remove rear parcel shelf finisher. Refer to INT-43, "Removal and Installation".
2. Remove trunk front finisher. Refer toINT-57, "Removal and Installation".
3. Remove TEL antenna mounting nit, disconnect the TEL antenna connector.
4. Remove TEL antenna.

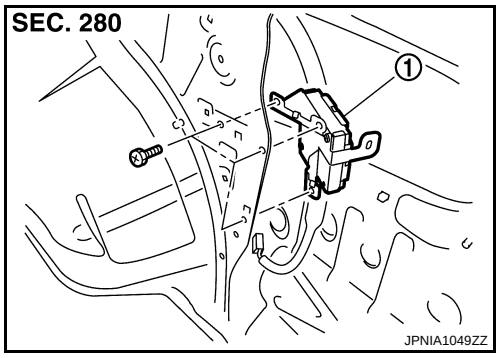
INSTALLATION

Install in the reverse order of removal.

CAMERA CONTROL UNIT

Exploded View

INFOID:0000000003766017



1. Camera control unit

Removal and Installation

INFOID:0000000003766018

REMOVAL

1. Remove rear wheelhouse finisher RH. Refer to INT-57, "Removal and Installation".
2. Remove camera control unit mounting screws, disconnect the camera control unit connector.
3. Remove camera control unit.

INSTALLATION

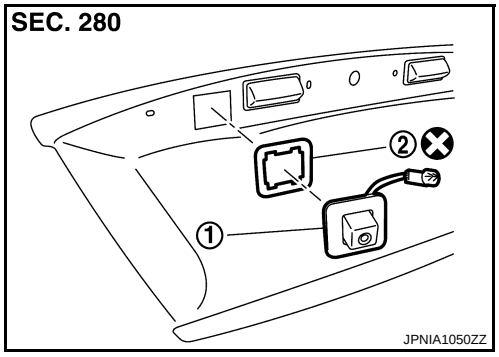
1. Installation is the reverse order of removal.
2. Perform predicted course line center position adjustment. Refer to AV-400, "PREDICTED COURSE LINE CENTER POSITION ADJUSTMENT : Special Repair Requirement".

REAR VIEW CAMERA

Exploded View

INFOID:0000000003766021

DISASSEMBLY



1. Rear view camera
2. Seal

Refer to GI-4, "Components" for symbols in the figure.

Removal and Installation

INFOID:0000000003766022

REMOVAL

1. Remove trunk lid finisher inner. Refer to INT-59, "Removal and Installation".
2. Remove trunk lid finisher. Refer to EXT-38, "Removal and Installation".
3. Remove rear view camera mounting clip, disconnect the rear view camera connector.
4. Remove rear view camera.

INSTALLATION

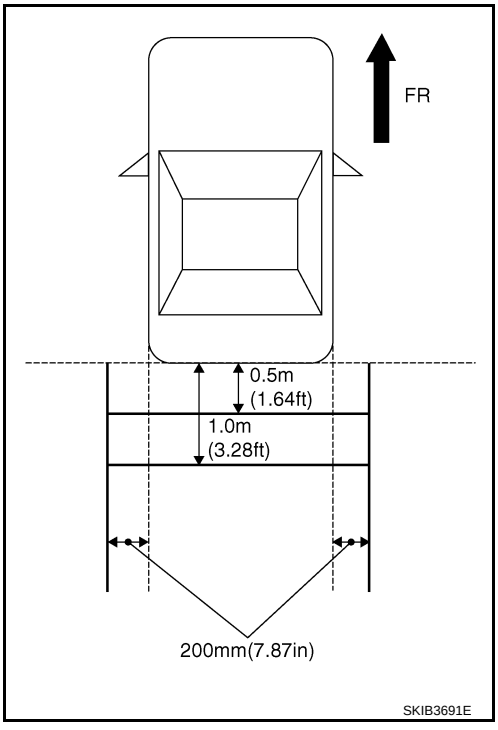
1. Installation is the reverse order of removal.

Adjustment

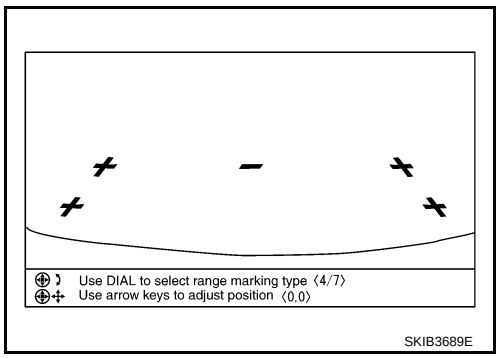
INFOID:0000000003901754

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: 200 mm (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.



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. Fine adjust the guiding line so that its position is aligned to the correction line by pressing the up/down/left/right switches.
Pressing “ENTER” enable the camera control unit to memory the adjusted guiding line position.

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

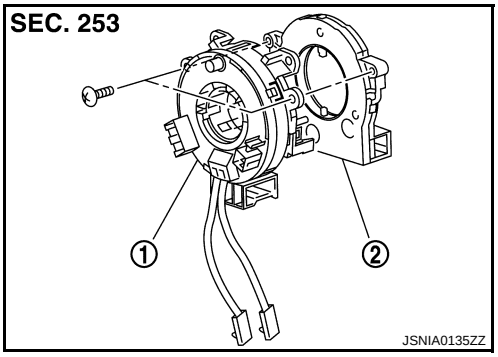
Exploded View

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REMOVAL

Refer to SR-9, "Exploded View".

DISASSEMBLY



1. Spiral cable
2. Steering angle sensor

Removal and Installation

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REMOVAL

1. Remove spiral cable.
2. Remove steering angle sensor mounting screws.
3. Remove steering angle sensor.

INSTALLATION

Installation is the reverse order of removal.

ANTENNA FEEDER (RADIO)

Harness Layout

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