SECTION AV
AUDIO, VISUAL & NAVIGATION SYSTEM

CONTENTS

AUDIO WITH NAVIGATION

BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:0000000001092892

DETAILED FLOW

1.CHECK SYMPTOM

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

>> GO TO 2.

2.PERFORM DIAGNOSIS BY SYMPTOM

Perform the relevant diagnosis referring to the diagnosis chart by symptom. Refer to AV-33, "Symptom Table".

>> GO TO 3.

3.REPAIR OR REPLACE MALFUNCTIONING PARTS

Repair or replace the malfunctioning parts.

>> GO TO 4.

4.FINAL CHECK

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

Is there any symptom?

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

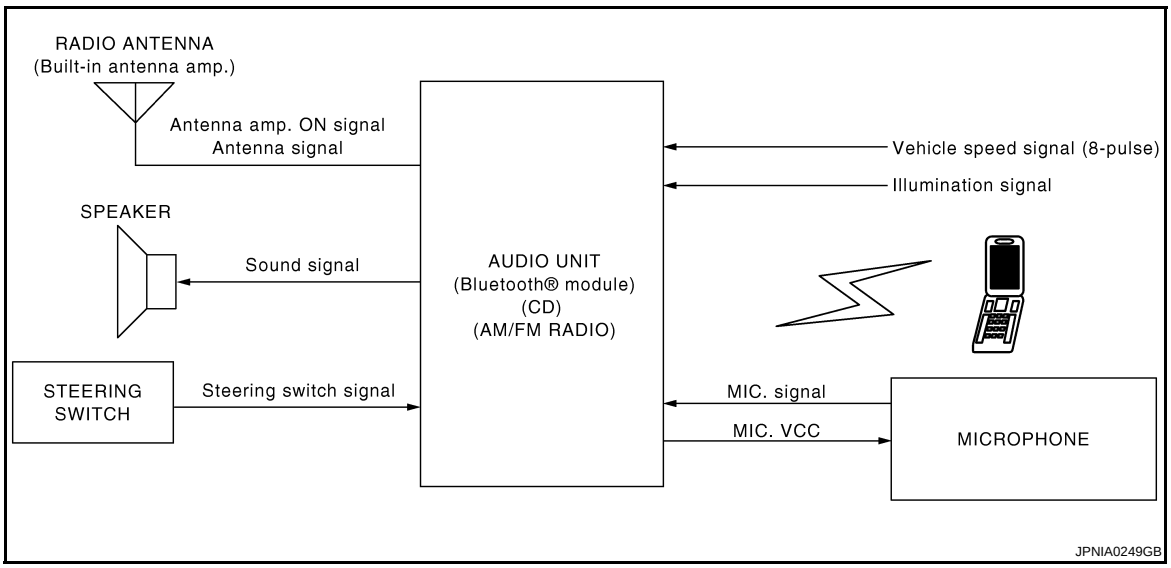
FUNCTION DIAGNOSIS

AUDIO SYSTEM

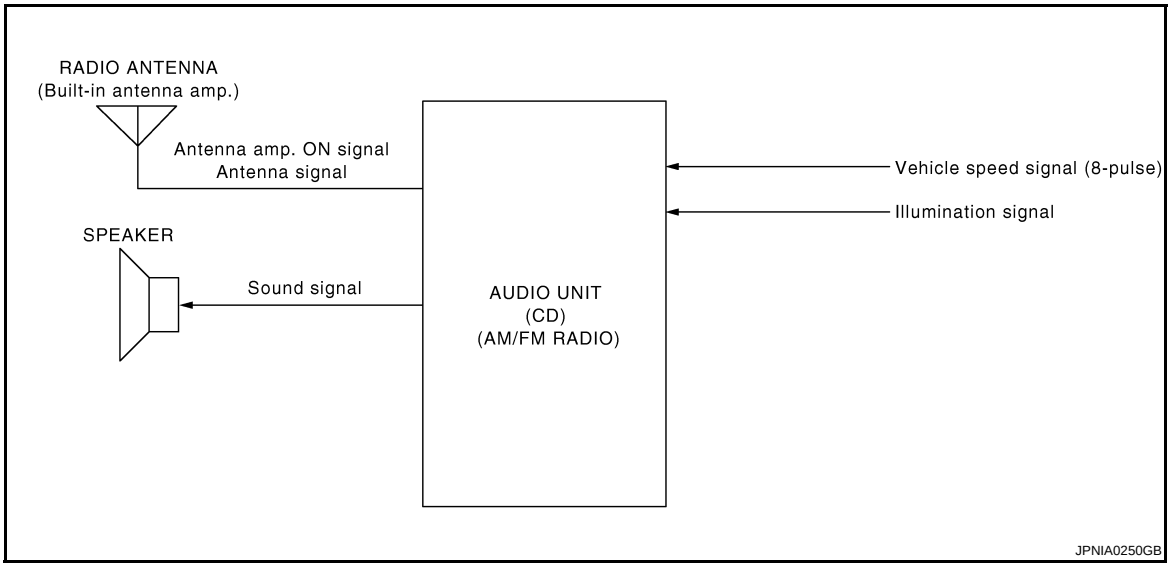
System Diagram

INFOID:0000000001092893

WITH HANDS-FREE PHONE SYSTEM



WITHOUT HANDS-FREE PHONE SYSTEM



System Description

INFOID:0000000001092894

The audio system is equipped with following function. Each function is operated with audio switch or steering switch (with hands-free phone system).

Function
AM/FM radio
CD
HANDS-FREE PHONE (WITH HANDS-FREE PHONE SYSTEM)

FUNCTION DESCRIPTION

Operating signal

Audio system operation can be performed with audio switch or steering switch (with hands-free phone system).

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

CD Mode
- CD function is built into audio unit.
- Audio unit outputs audio signal to each speaker when CD is inserted to audio unit.

Hands-free Phone System (with hands-free phone system)
- Hands-free communication can be operated by connecting using Bluetooth® with cellular phone.
- Operation is performed by steering switch.

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

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

SPEED SENSITIVE VOLUME

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

NATS AUDIO LINK

Description

The link with the NATS IMMU implies that the audio unit can basically only be operated if connected to the matching NATS IMMU to which the audio unit was initially fitted on the production line.
Since radio operation is impossible after the link with the NATS is disrupted, theft of the audio unit is basically useless since special equipment is required to reset the audio unit.

Initialization Process for Audio Units That Are Linked to the NATS IMMU

New audio units will be delivered to the factories in the “NEW” state, i.e. ready to be linked with the vehicle's NATS. When the audio unit in “NEW” state is first switched on at the factory, it will start up communication with the vehicle's immobilizer control unit (IMMU) and send a code (the “Audio Unit Code”) to the IMMU. The IMMU will then store this code, which is unique to each audio unit, in its (permanent) memory.
Upon receipt of the code by the IMMU, the NATS will confirm correct receipt of the audio unit code to the audio unit. Hereafter, the audio unit will operate as normal.
During the initialization process, “NEW” is displayed on the audio unit display. Normally though, communication between audio unit and IMMU takes such a short time (300 ms) that the audio unit seems to switch on directly without showing “NEW” on its display.

Normal Operation

Each time the audio unit is switched on afterwards, the audio unit code will be verified between the audio unit and the NATS before the audio unit becomes operational. During the code verification process, “WAIT” is shown on the audio unit display. Again, the communication takes such a short time (300 ms) that the audio unit seems to switch on directly without showing “WAIT” on its display.

When The Radio Is Locked

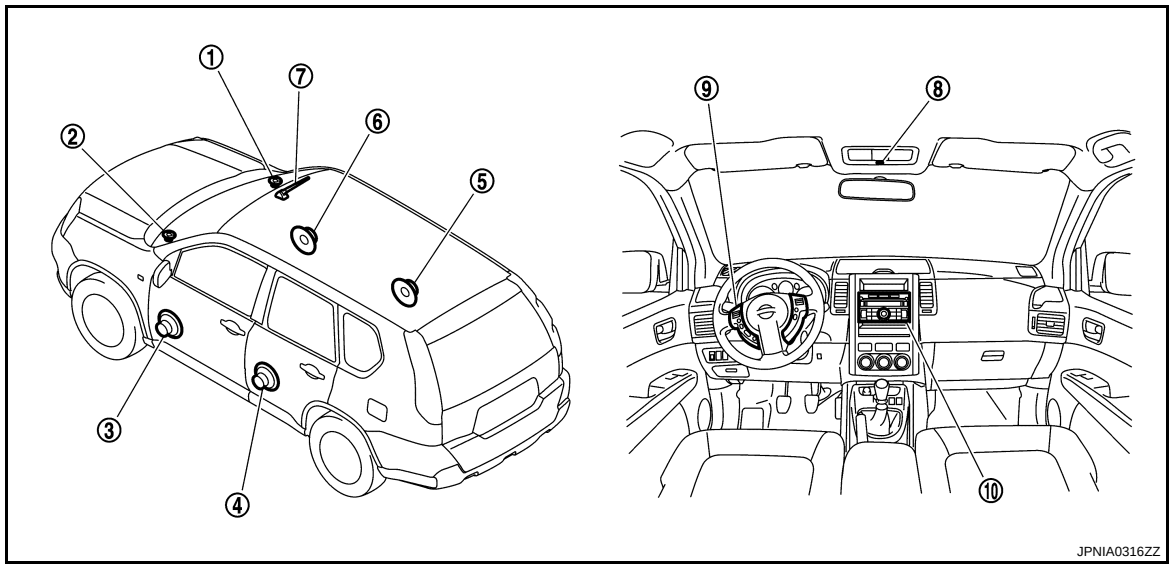
In case of the audio unit being linked with the vehicle's NATS (immobilizer system), disconnection of the link between the audio unit and the IMMU will cause the audio unit to switch into the lock (“SECURE”) mode in which the audio unit is fully inoperative. Hence, repair of the audio unit is basically impossible, unless the audio unit is reset to the “NEW” state for which special decoding equipment is required.
Clarion has provided their authorized service representatives with so called “decoder boxes” which can bring the audio unit back to the “NEW” state, enabling the audio unit to be switched on after which repair can be performed. Subsequently, when the repaired audio unit is delivered to the final user again, it will be in the “NEW” state to enable re-linking the audio unit to the vehicle's immobilizer system. As a result of the above, repair of the audio unit can only be done by an authorized Clarion representative (when the owner of the vehicle requests repair and can show personal identification).

Service Procedure

Item	Service procedure	Description
Battery disconnection	No additional action required.	–
Radio needs repair	Repair needs to be done by authorized representative of radio manufacturer since radio cannot be operated unless it is reset to NEW state, using special decoding equipment.	–
Replacement of radio by new part	No additional action required.	Radio is delivered in “NEW” state.
Transferring radio to another vehicle/replacement of radio by an old part	Radio needs to be reset to NEW state by authorized representative of radio manufacturer.	–
Replacement of IMMU	Radio needs to be reset to NEW state by authorized representative of Clarion.	After switching on the radio, it will display “SECURE” after 1 minute.
No communication from IMMU to radio	1. Check NATS system if NATS is malfunctioning. 2. Reset radio to “NEW” state by authorized representative of Clarion after NATS is repaired.	The radio will display “SECURE” after 1 minute after switching on the radio. Further use of radio is impossible until communication is established again, or after radio is reset by authorized representative of Clarion.
When initialized between ECM and IMMU.	Radio needs to be reset to “NEW” status by authorized representative of Clarion.	It will display “SECURE” after 1 minute after switching on the radio.

Component Parts Location

INFOID:0000000001092895



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

*: With hands-free phone system

Component Description

INFOID:0000000001092896

Part name	Description
AUDIO UNIT	• Operational switch of audio system is integrated. • Receiving function of AM/FM radio, replaying function of CD and hands-free phone function are integrated. • Audio signals are output to each speaker.
FRONT DOOR SPEAKER	• Outputs sound signal from audio unit. • Outputs high, mid and low range sounds.
REAR DOOR SPEAKER	• Outputs sound signal from audio unit. • Outputs high, mid and low range sounds.
TWEETER	• Outputs sound signal from audio unit. • Outputs high range sound.
STEERING SWITCH*	• Operations for audio and hands-free phone are possible. • Steering switch signal (operation signal) is output to audio unit.
MICROPHONE*	• Used for hands-free phone operation. • Mic. signal is sent to audio unit. • Power (Mic. VCC) is supplied from audio unit.
RADIO ANTENNA (Built-in antenna amp.)	• Radio signal received by radio antenna is amplified and sent to audio unit. • Power (antenna amp ON signal) is supplied from audio unit.

*: With hands-free phone system

DIAGNOSIS SYSTEM (AUDIO UNIT)

Diagnosis Description (With Hands-free Phone System)

INFOID:0000000001178860

AUDIO UNIT ON BOARD DIAGNOSIS FUNCTION

Audio unit can perform a test for the microphone used for the hands-free phone system.

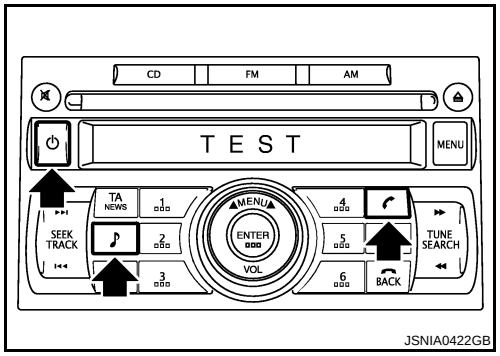
ON BOARD DIAGNOSIS

Description

- Speaker's voice is output from the speaker by speaking into the microphone in the microphone test mode. This allows function validation of the microphone.
- If no voice can be output from the speaker for a microphone test even when audio functions other than Hands-free Phone System are normal, check the microphone.

STARTING PROCEDURE

1. Start the engine.
2. Turn the audio system OFF.
3. With both "♪" button and "✆" button pressed, turn ON the audio system.
4. Audio unit display shows "TEST", and microphone test mode starts.
5. Speak into the microphone to check functions of microphone.
6. Microphone test mode exits when the audio system is turned OFF.



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NOTE:
Volume can be adjusted during microphone tests.

COMPONENT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT

AUDIO UNIT

AUDIO UNIT : Diagnosis Procedure

INFOID:0000000001092897

1.CHECK FUSE

Check for blown fuses.

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

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 audio unit harness connectors and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Value (Approx.)
Battery power supply	M46	19	OFF	12 V
ACC power supply	M46	7	ACC	12 V

Is inspection result normal?

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

MICROPHONE SIGNAL CIRCUIT

Description

INFOID:0000000001092898

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

Diagnosis Procedure

INFOID:0000000001092899

1.CHECK CONTINUITY BETWEEN AUDIO UNIT AND MICROPHONE CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect audio unit connector and microphone connector.
3. Check continuity between audio unit harness connector terminals 35, 36, 37 and microphone harness connector terminals 1, 2, 4.

35 - 1	**: Continuity should exist.**
36 - 2	**: Continuity should exist.**
37 - 4	**: Continuity should exist.**

4. Check continuity between audio unit harness connector terminals 35, 37 and ground.

35, 37 - Ground	**: Continuity should not exist.**

Is inspection result normal?

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

2.CHECK VOLTAGE MICROPHONE VCC

1. Connect audio unit connector.
2. Turn ignition switch ON.
3. Check voltage between audio unit harness connector terminal 37 and ground.

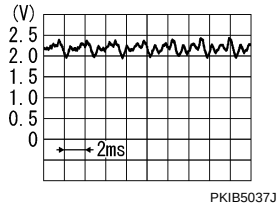
37 - ground	**: Approx. 5 V**

Is inspection result normal?

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

3.CHECK MICROPHONE SIGNAL

1. Connect microphone connector.
2. Check signal between audio unit harness connector terminals 35 and 36.

35 - 36	 PKIB5037J

Is inspection result normal?

YES >> Replace audio unit.
NO >> Replace microphone.

STEERING SWITCH SIGNAL A CIRCUIT

Description

INFOID:0000000001092900

Transmits the steering switch signal to audio unit.

Diagnosis Procedure

INFOID:0000000001092901

1.CHECK STEERING SWITCH SIGNAL A CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect audio unit connector and spiral cable connector.
3. Check continuity between audio unit harness connector terminal 6 and spiral cable harness connector terminal 24.

6 - 24 : Continuity should exist.

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

6 - Ground : Continuity should not exist.

Is inspection result 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 AUDIO UNIT VOLTAGE

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

6 - 15 : Approx. 5 V

Is 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-14, "Component Inspection".

Is inspection result normal?

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

Component Inspection

INFOID:0000000001092902

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

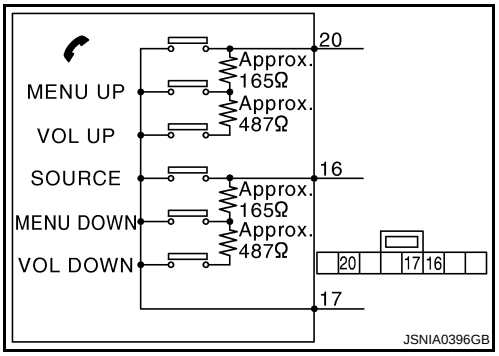
Standard

Between terminals 20 and 17

VOL UP switch ON	**: 634 – 665 Ω**
MENU UP switch ON	**: 162 – 168 Ω**
switch ON	**: 0 Ω**

Between terminals 16 and 17

VOL DOWN switch ON	**: 634 – 665 Ω**
MENU DOWN switch ON	**: 162 – 168 Ω**
SOURCE switch ON	**: 0 Ω**



STEERING SWITCH SIGNAL B CIRCUIT

Description

INFOID:0000000001117158

Transmits the steering switch signal to audio unit.

Diagnosis Procedure

INFOID:0000000001092904

1.CHECK STEERING SWITCH SIGNAL B CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect audio unit connector and spiral cable connector.
3. Check continuity between audio unit harness connector terminal 16 and spiral cable harness connector terminal 32.

16 - 32 : Continuity should exist.

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

16 - Ground : Continuity should not exist.

Is inspection result 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 AUDIO UNIT VOLTAGE

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

16 - 15 : Approx. 5 V

Is 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-16, "Component Inspection".

Is inspection result normal?

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

Component Inspection

INFOID:0000000001117160

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

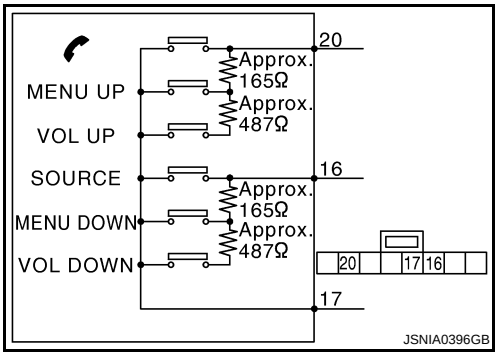
Standard

Between terminals 20 and 17

VOL UP switch ON	**: 634 – 665 Ω**
MENU UP switch ON	**: 162 – 168 Ω**
switch ON	**: 0 Ω**

Between terminals 16 and 17

VOL DOWN switch ON	**: 634 – 665 Ω**
MENU DOWN switch ON	**: 162 – 168 Ω**
SOURCE switch ON	**: 0 Ω**



STEERING SWITCH SIGNAL GND CIRCUIT

Description

INFOID:0000000001117159

Transmits the steering switch signal to audio unit.

Diagnosis Procedure

INFOID:0000000001092907

1.CHECK STEERING SWITCH SIGNAL GND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect audio unit connector and spiral cable connector.
3. Check continuity between audio unit harness connector terminal 15 and spiral cable harness connector terminal 31.

15 - 31 : Continuity should exist.

Is inspection result 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 audio unit connector.
2. Check continuity between audio unit harness connector terminal 15 and ground.

15 - Ground : Continuity should exist.

Is inspection result normal?

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

4.CHECK STEERING SWITCH

1. Check steering switch. Refer to AV-18, "Component Inspection".

Is inspection result normal?

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

Component Inspection

INFOID:0000000001117161

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

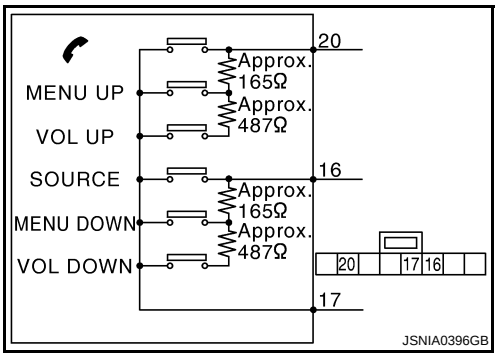
Standard

Between terminals 20 and 17

VOL UP switch ON	**: 634 – 665 Ω**
MENU UP switch ON	**: 162 – 168 Ω**
switch ON	**: 0 Ω**

Between terminals 16 and 17

VOL DOWN switch ON	**: 634 – 665 Ω**
MENU DOWN switch ON	**: 162 – 168 Ω**
SOURCE switch ON	**: 0 Ω**



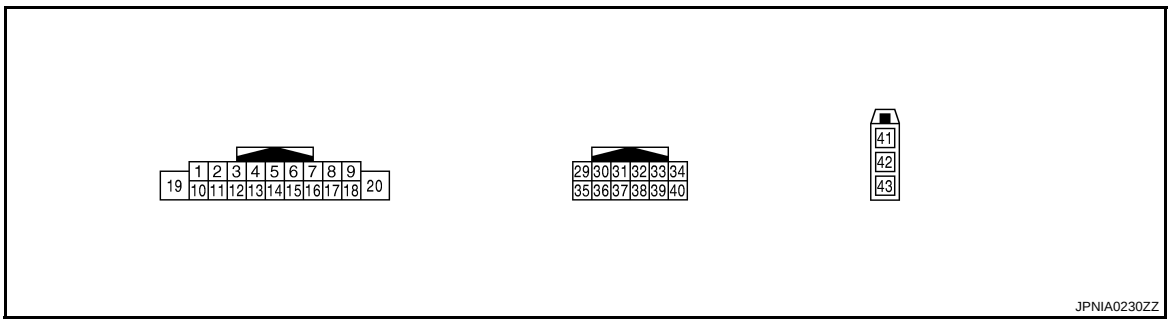
ECU DIAGNOSIS

AUDIO UNIT

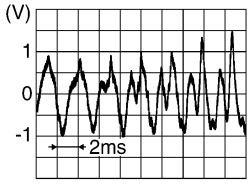
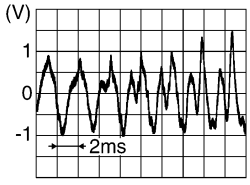
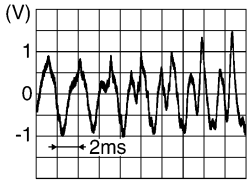
Reference Value

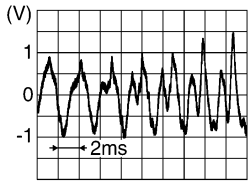
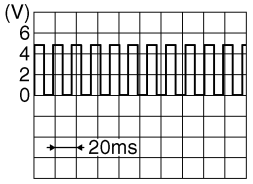
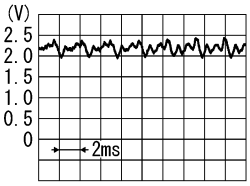
INFOID:0000000001092909

TERMINAL LAYOUT



PHYSICAL VALUES

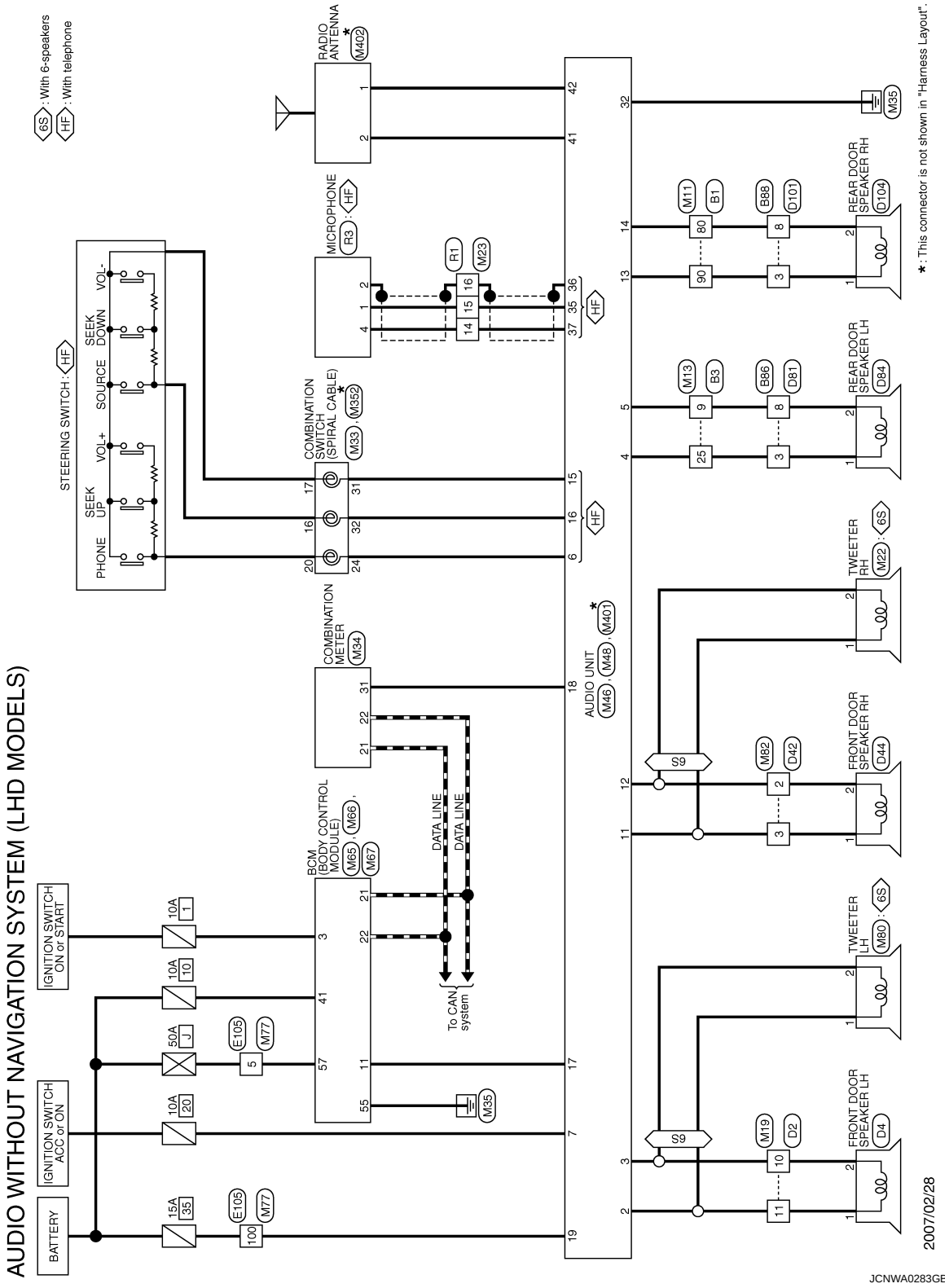
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
2 (W)	3 (P)	Sound signal front LH	Output	Ignition switch ON	Voice output	 SKIB3609E
4 (LG)	5 (R)	Sound signal rear LH	Output	Ignition switch ON	Voice output	 SKIB3609E
6* (V)	15* (GR)	Steering switch signal A	Input	Ignition switch ON	Keep pressing switch.	0 V
					Keep pressing MENU UP switch.	1.7 V
					Keep pressing VOL UP switch.	3.3 V
					Except for above.	5 V
7 (SB)	Ground	ACC power supply	Input	Ignition switch ACC	–	Battery voltage
11 (G)	12 (R)	Sound signal front RH	Output	Ignition switch ON	Voice output	 SKIB3609E

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
13 (BR)	14 (Y)	Sound signal rear RH	Output	Ignition switch ON	Voice output	 SKIB3609E
15* (GR)	Ground	Steering switch signal GND	—	Ignition switch ON	—	0 V
16* (O)	15* (GR)	Steering switch signal B	Input	Ignition switch ON	Keep pressing SOURCE switch.	0 V
					Keep pressing MENU DOWN switch.	1.7 V
					Keep pressing VOL DOWN switch.	3.3 V
					Except for above.	5 V
17 (B)	—	Immobilizer	—	—	—	—
18 (V)	Ground	Vehicle speed signal (8-pulse)	Input	Ignition switch ON	When vehicle speed is approx. 40 km/h (25MPH)	 SKIA6649J
19 (BR)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
32 (B)	Ground	Control signal	—	Ignition switch ON	—	0 V
35* (G)	36*	Microphone signal	Input	Ignition switch ON	Sounds	 PKIB5037J
36*	Ground	Mic. GND	—	Ignition switch ON	—	0 V
37* (R)	36*	Microphone VCC	Output	Ignition switch ON	—	5 V
41	Ground	Antenna amp. ON signal	Output	Ignition switch ACC	—	12 V
42	—	Antenna signal	Input	—	—	—

*: With hands-free phone system

Wiring Diagram—AUDIO WITHOUT NAVIGATION SYSTEM (LHD MODELS)—

INFOID:0000000001092910



AUDIO WITHOUT NAVIGATION SYSTEM (LHD MODELS)

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

Terminal No.	Color of Wire	Signal Name [Specification]
80	GR	–
90	LG	–

Connector No.	B3
Connector Name	WIRE TO WIRE
Connector Type	TH32MW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
9	R	–
25	W	–

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

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

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

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

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

Terminal No.	Color of Wire	Signal Name [Specification]
10	P	–
11	W	–

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

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

Connector No.	D42
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS

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

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

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

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AUDIO WITHOUT NAVIGATION SYSTEM (LHD MODELS)

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

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

Connector No.	D84
Connector Name	REAR DOOR SPEAKER LH
Connector Type	NS02FW-CS

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

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

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

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

Terminal No.	Color of Wire	Signal Name [Specification]
80	Y	–
90	BR	–

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

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

Connector No.	D104
Connector Name	REAR DOOR SPEAKER RH
Connector Type	NS02FW-CS

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

Connector No.	M13
Connector Name	WIRE TO WIRE
Connector Type	TH32FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
9	R	–
25	LG	–

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

Terminal No.	Color of Wire	Signal Name [Specification]
10	P	–
11	W	–

JCNWA0285GE

AUDIO WITHOUT NAVIGATION SYSTEM (LHD MODELS)

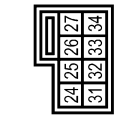
Connector No.	M22
Connector Name	TWEETER RH
Connector Type	TK02FBR

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

Connector No.	M23
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH

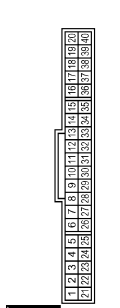
Terminal No.	Color of Wire	Signal Name [Specification]
14	R	–
15	G	–
16	SHIELD	–

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



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

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	SAB40FW



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

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

Terminal No.	Color of Wire	Signal Name [Specification]
2	W	FR LH SP+
3	P	FR LH SP–
4	LG	RR LH SP+
5	R	RR LH SP–
6	V	STRG SW A
7	SB	ACC
11	G	FR RH SP+
12	R	FR RH SP–
13	BR	RR RH SP+
14	Y	RR RH SP–
15	GR	STRG SW GND
16	O	STRG SW B
17	B	IMMOBI
18	V	SPEED(8PULSE)
19	BR	BAT

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

Terminal No.	Color of Wire	Signal Name [Specification]
32	B	CONTROL SIGNAL [Without navigation system]
35	G	MIC. SIGNAL
36	SHIELD	MIC. GND
37	R	MIC. VCC [Without navigation system]

Connector No.	M65
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	AAB40FB

Terminal No.	Color of Wire	Signal Name [Specification]
3	W	IGN SW
11	B	AUDIO DONGLE LINK(SIGNAL)
21	P	CAN-L
22	L	CAN-H

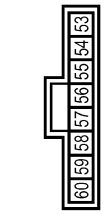
JCNWA0286GE

AUDIO WITHOUT NAVIGATION SYSTEM (LHD MODELS)

Connector No.	M66
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FEA12FBR

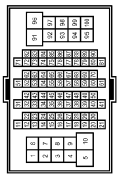
Terminal No.	Color of Wire	Signal Name [Specification]
41	LG	BAT(FUSE)

Connector No.	M67
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FHA08FB



Terminal No.	Color of Wire	Signal Name [Specification]
55	B	GND
57	Y	BAT(F/L)

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



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

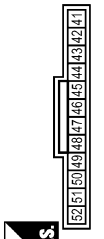
Connector No.	M80
Connector Name	TWEETER LH
Connector Type	TK02FBR

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

Connector No.	M82
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS

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

Connector No.	M352
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08MGY-X



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

Connector No.	M401
Connector Name	AUDIO UNIT
Connector Type	GT 13 SHA

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

Connector No.	M402
Connector Name	RADIO ANTENNA
Connector Type	GT13SSN-1

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

JCNWA0287GE

AUDIO WITHOUT NAVIGATION SYSTEM (LHD MODELS)

Connector No.	R1
Connector Name	WIRE TO WIRE
Connector Type	TH16MW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
14	R	–
15	G	–
16	SHIELD	–

Connector No.	R3
Connector Name	MICROPHONE
Connector Type	TK04FW

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	MIC. SIGNAL
2	SHIELD	MIC. GND
4	R	MIC. VCC

JCNWA0288GE

Wiring Diagram—AUDIO WITHOUT NAVIGATION SYSTEM (RHD MODELS)—

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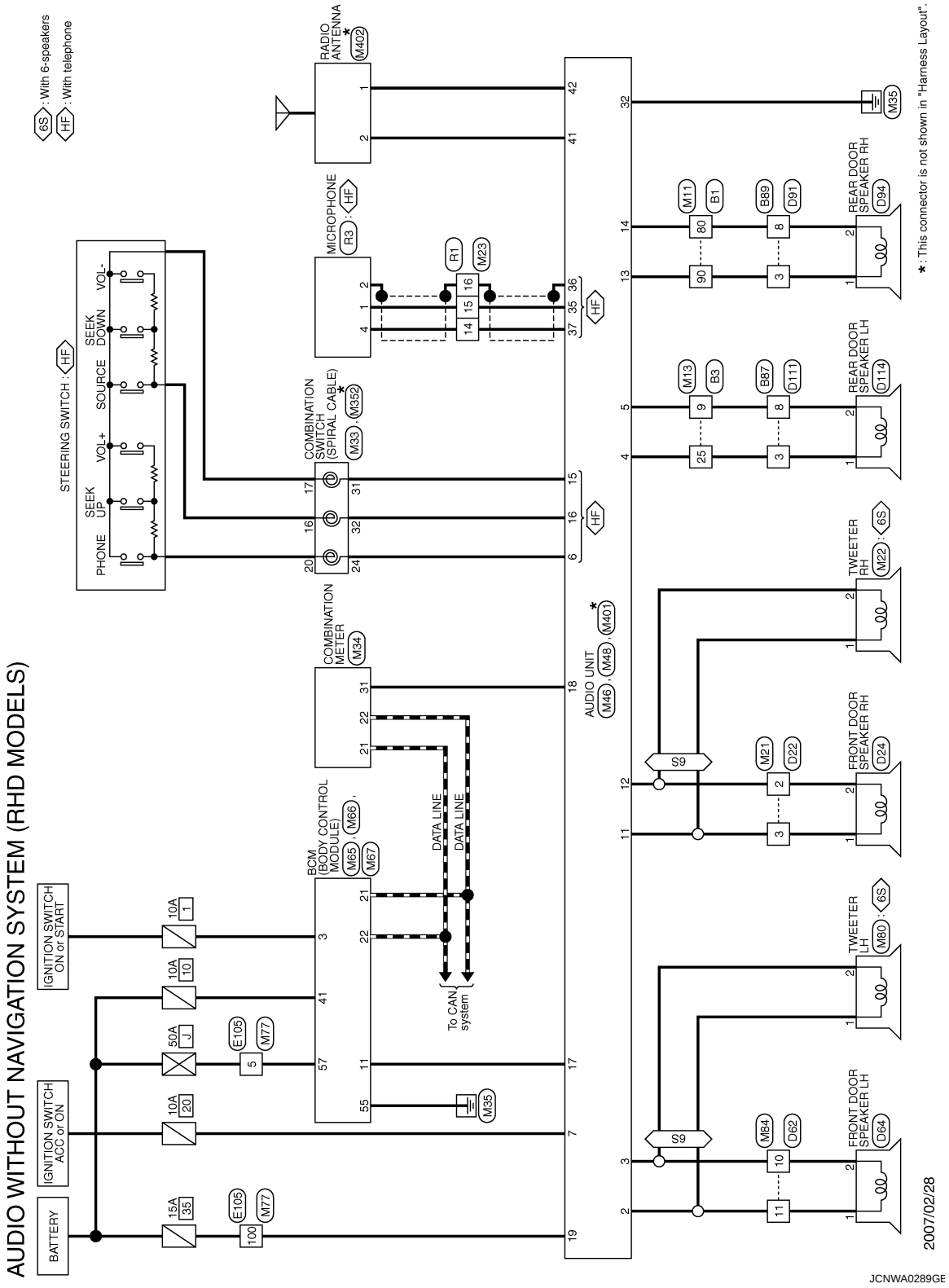


AUDIO WITHOUT NAVIGATION SYSTEM (RHD MODELS)

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

Terminal No.	Color of Wire	Signal Name [Specification]
80	GR	–
90	LG	–

Connector No.	B3
Connector Name	WIRE TO WIRE
Connector Type	TH32MW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
9	R	–
25	W	–

Connector No.	B87
Connector Name	WIRE TO WIRE
Connector Type	NS12MW-CS

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

Connector No.	B89
Connector Name	WIRE TO WIRE
Connector Type	NS12MW-CS

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

Connector No.	D22
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS

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

Connector No.	D24
Connector Name	FRONT DOOR SPEAKER RH
Connector Type	NS02FW-CS

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

Connector No.	D52
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
10	P	–
11	W	–

Connector No.	D64
Connector Name	FRONT DOOR SPEAKER LH
Connector Type	NS02FW-CS

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

JCNWA0290GE

AUDIO WITHOUT NAVIGATION SYSTEM (RHD MODELS)

Connector No.	D91
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS

H.S.

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

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

Connector No.	D94
Connector Name	REAR DOOR SPEAKER RH
Connector Type	NS02FW-CS

H.S.

2	1

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

Connector No.	D111
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS

H.S.

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

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

Connector No.	D114
Connector Name	REAR DOOR SPEAKER LH
Connector Type	NS02FW-CS

H.S.

2	1

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

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

H.S.

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

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

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
80	Y	–
90	BR	–

Connector No.	M13
Connector Name	WIRE TO WIRE
Connector Type	TH32FW-NH

H.S.

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

Terminal No.	Color of Wire	Signal Name [Specification]
9	R	–
25	LG	–

Connector No.	M21
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]
2	R	–
3	G	–

JCNWA0291GE

AUDIO WITHOUT NAVIGATION SYSTEM (RHD MODELS)

Connector No.	M22
Connector Name	TWEETER RH
Connector Type	TK02FBR

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

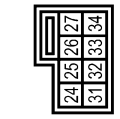
Connector No.	M23
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
14	R	–
15	G	–
16	SHIELD	–

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

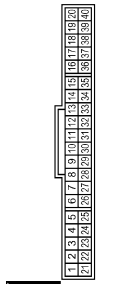
Terminal No.	Color of Wire	Signal Name [Specification]
2	W	FR LH SP+
3	P	FR LH SP–
4	LG	RR LH SP+
5	R	RR LH SP–
6	V	STRG SW A
7	SB	ACC
11	G	FR RH SP+
12	R	FR RH SP–
13	BR	RR RH SP+
14	Y	RR RH SP–
15	GR	STRG SW GND
16	O	STRG SW B
17	B	IMMOBI
18	V	SPEED(8PULSE)
19	BR	BAT

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



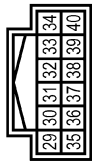
Terminal No.	Color of Wire	Signal Name [Specification]
24	V	–
31	GR	–
32	O	–

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	SAB40FW



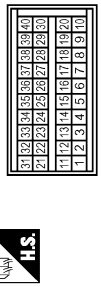
Terminal No.	Color of Wire	Signal Name [Specification]
21	L	CAN-H
22	P	CAN-L
31	V	VEHICLE SPEED (8–PULSE)

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



Terminal No.	Color of Wire	Signal Name [Specification]
32	B	CONTROL SIGNAL [Without navigation system]
35	G	MIC. SIGNAL
36	SHIELD	MIC. GND
37	R	MIC. VCC [Without navigation system]

Connector No.	M65
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	AAB40FB

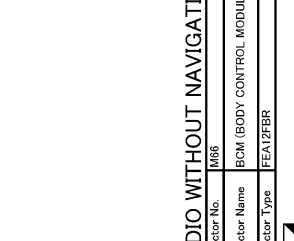


Terminal No.	Color of Wire	Signal Name [Specification]
3	W	IGN SW
11	B	AUDIO DONGLE LINK(SIGNAL)
21	P	CAN-L
22	L	CAN-H

JCNWA0292GE

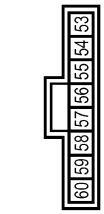
AUDIO WITHOUT NAVIGATION SYSTEM (RHD MODELS)

Connector No.	M66
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FEA12FBR



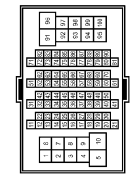
Terminal No.	Color of Wire	Signal Name [Specification]
41	LG	BAT(FUSE)

Connector No.	M67
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FHA08FB



Terminal No.	Color of Wire	Signal Name [Specification]
55	B	GND
57	Y	BAT(F/L)

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



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

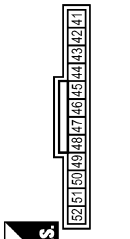
Connector No.	M80
Connector Name	TWEETER LH
Connector Type	TK02FBR

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

Connector No.	M84
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
10	P	–
11	W	–

Connector No.	M352
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08MGY-X



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

Connector No.	M401
Connector Name	AUDIO UNIT
Connector Type	GT 13 SHA

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

Connector No.	M402
Connector Name	RADIO ANTENNA
Connector Type	GT13SSN-1

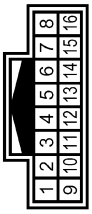
Terminal No.	Color of Wire	Signal Name [Specification]
1	–	–
2	–	–

JCNWA0293GE

AUDIO WITHOUT NAVIGATION SYSTEM (RHD MODELS)

Connector No.	R1
Connector Name	WIRE TO WIRE
Connector Type	TH16MW-NH

H.S.



Terminal No.	Color of Wire	Signal Name [Specification]
14	R	–
15	G	–
16	SHIELD	–

Connector No.	R3
Connector Name	MICROPHONE
Connector Type	TK04FW

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	MIC. SIGNAL
2	SHIELD	MIC. GND
4	R	MIC. VCC

JCNWA0294GE

SYMPTOM DIAGNOSIS

MULTI AV SYSTEM SYMPTOMS

Symptom Table

INFOID:0000000001092911

RELATED TO AUDIO

Symptom	Check items	Possible malfunction location / Action to take
Audio sound is not heard.	No sound from all speakers	Audio unit (AV-37, "Exploded View")
	Sound is not heard only from the specific places (front RH, rear RH, front LH and rear LH).	Sound signal circuit of suspect system

RELATED TO HANDS-FREE PHONE (WITH HANDS-FREE PHONE SYSTEM)

- Check that the cellular phone is corresponding type (Bluetooth® enabled) when the hands free related malfunction vehicle is in service before performing a diagnosis.
- There is a case that malfunction occurs due to the version change of the phone type, etc. even though it is a corresponding type. Therefore, confirm it by changing the cellular phone to another corresponding type phone, and check that it operates normally. It is necessary to distinguish whether the cause is the vehicle or cellular phone. Check to ensure the customer's phone is supported by checking the phone compatibility for the hands free system.

Trouble diagnosis chart by symptom

Symptoms	Check items	Possible malfunction location / Action to take
Does not recognize cellular phone connection.	Repeat the registration of cellular phone.	Audio unit (AV-37, "Exploded View")
Hands-free phone cannot be activated.	• 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.	Audio unit (AV-37, "Exploded View")
The other party's voice cannot be heard by hands-free phone.	No sound from all speakers	Audio unit (AV-37, "Exploded View")
	Sound is not heard only from the specific places (front RH or front LH).	Sound signal circuit (TEL voice)
Originating sound is not heard by the other party with hands-free phone communication.	Microphone test is normal.	Audio unit (AV-37, "Exploded View")
	A microphone is not usable on a microphone test.	Microphone signal circuit (AV-13, "Diagnosis Procedure")

NOTE:

Regarding microphone test, refer to AV-11, "Diagnosis Description (With Hands-free Phone System)".

RELATED TO STEERING SWITCH (WITH HANDS-FREE PHONE SYSTEM)

Symptoms	Possible malfunction location / Action to take
All steering switches are not operated.	Steering switch signal ground circuit (AV-18, "Diagnosis Procedure")
Only specified switch cannot be operated.	Steering switch (AV-41, "Exploded View")
“MENU UP”, “VOL UP” and “ ” switches are not operated.	Steering switch signal A circuit (AV-14, "Diagnosis Procedure")
“SOURCE”, “MENU DOWN” and “VOL DOWN” switches are not operated.	Steering switch signal B circuit (AV-16, "Diagnosis Procedure")

NORMAL OPERATING CONDITION

Description

INFOID:0000000001092912

RELATED TO AUDIO

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

NOTE:

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

Symptoms	Cause and counter measure
Cannot play	Check that the CD was inserted correctly.
	Check that the CD is scratched or dirty.
	Check that there is condensation inside the player, and if there is, wait until the condensation is gone (about 1 hour) before using the player.
	The player will play correctly after it returns to the normal temperature if there is a temperature increase error.
	Only the music CD files (CD-DA data) will be played if there is a mixture of music CD files (CD-DA data) and MP3/WMA files on a CD.
	Files with extensions other than ".MP3", ".WMA", ".mp3", or ".wma" cannot be played.
	Check that the finalization process, such as session close and disc close, is done for the disc.
	Check that the CD is protected by copyright.
Poor sound quality	Check that the CD is scratched or dirty.
It takes a relatively long time before the music starts playing.	If there are many folder or file levels on the MP3/WMA CD, or if it is a multisession disc, some time may be required before the music starts playing.
The songs do not play back in the desired order.	The playback order is the order in which the files were written by the software, so the files might not play in the desired order.

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

NOTE:

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

RELATED TO TELEPHONE (WITH HANDS-FREE PHONE SYSTEM)

Symptoms	Cause and counter measure
Intermittent voice turbulence occurs between buildings.	Surrounded by buildings, cell phones may have a poor reception due to radio waves irregular reflection or interception.
Noise interference occurs under the railroad overpass or near high-tension wires, traffic lights, or neon signs.	Noise waves from these may be mixed into radio waves.
Booming noises are mixed into audio.	Radio waves from the cell phone may be mixed into audio.
No sound can be heard: • Voice from the party on the other end of the line cannot be heard. • No ring tone.	• Check that the key switch is not set to ON or ACC. • Check that sound volume (VOL) is not set to minimum. • Check that the connection of Bluetooth® is normal. • Adjust cell phone ring tone and volume. Volume levels of ring tone and voice on the phone depend on the volume setting of the cell phone, according to the model.

Symptoms	Cause and counter measure
Voice cannot be transmitted to the party on the other end of the line.	Check that the connection of Bluetooth® is normal.
Telephone call does not get through.	• Check that the cell phone is not locked. • Check that the connection of Bluetooth® is normal. • Check that the telephone call is made in the area within the telecommunications carrier service area. • Check that the area is not a blind area.
The party on the other end of the line hears noises while talking on a hand-held cell phone.	The party on the other end of the line may hear noises depending on where the cell phone is placed.
Bluetooth® has a slow connection after ignition switch ON.	Some models take time for standby.
Sound level of voice is different from that of ringing sounds or ring tone.	This model allows separate settings for sound levels of ringing sounds, ring tone, and voice.
The number of electric field reception bars of the audio unit is different from that of the cell phone. Or telephone call does not get through even when transmitting with the reception bar displayed.	Specifications regarding the number of electric field reception bars differ from cell phone to cell phone. (Reception bar of the audio unit is the guideline.)
The party on the other end of the line hears muffled sounds while talking on the phone.	Ambient sounds through the microphone make muffled sounds after conversion peculiar to digital devices.

PRECAUTION

PRECAUTIONS

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

INFOID:0000000001312060

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

WARNING:

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

ON-VEHICLE REPAIR

AUDIO UNIT

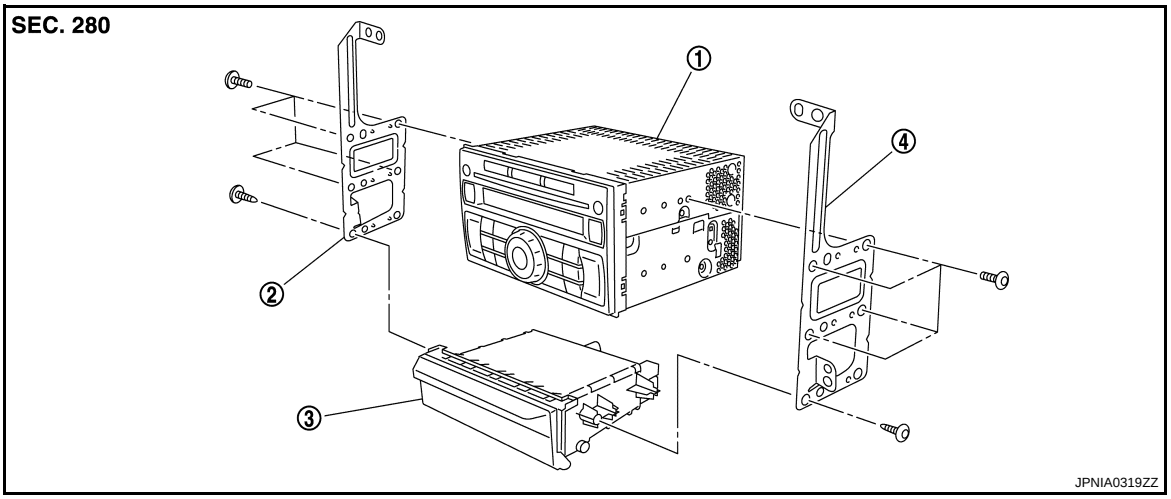
Exploded View

INFOID:0000000001092914

REMOVAL

Refer to IP-11, "Exploded View".

DISASSEMBLY



1. Audio unit
2. Bracket LH
3. Pocket deck
4. Bracket RH

Removal and Installation

INFOID:0000000001092915

REMOVAL

1. Remove cluster lid C. Refer to IP-11, "Exploded View".
2. Remove audio unit with a pocket deck as a single unit from the body.
3. Remove bracket screws, and then remove audio unit.

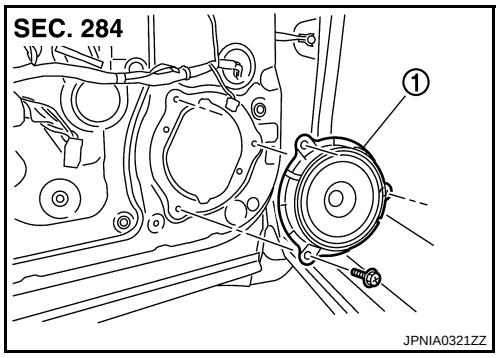
INSTALLATION

Install in the reverse order of removal.

FRONT DOOR SPEAKER

Exploded View

INFOID:0000000001092916



1. Front door speaker

Removal and Installation

INFOID:0000000001092917

REMOVAL

1. Remove front door finisher. Refer to INT-10, "FRONT DOOR FINISHER : Exploded View".
2. Remove front door speaker.

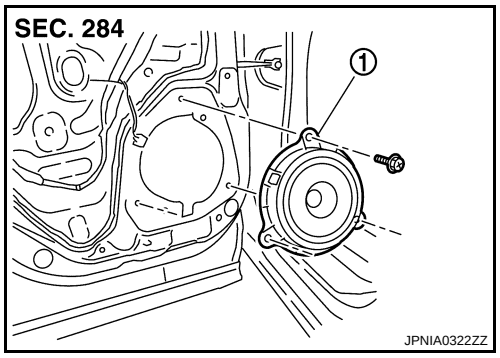
INSTALLATION

Install in the reverse order of removal.

REAR DOOR SPEAKER

Exploded View

INFOID:0000000001092918



1. Rear door speaker

Removal and Installation

INFOID:0000000001092919

REMOVAL

1. Remove rear door finisher. Refer to INT-13, "REAR DOOR FINISHER : Exploded View".
2. Remove rear door speaker.

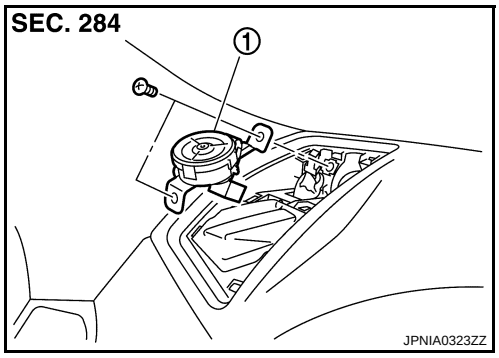
INSTALLATION

Install in the reverse order of removal.

TWEETER

Exploded View

INFOID:0000000001092920



1. Tweeter

Removal and Installation

INFOID:0000000001092921

REMOVAL

1. Remove speaker grille. Refer to IP-11, "Exploded View".
2. Remove tweeter.

INSTALLATION

Install in the reverse order of removal.

STEERING SWITCH

Exploded View

INFOID:0000000001092922

Refer to SR-5, "Exploded View".

Removal and Installation

INFOID:0000000001092923

REMOVAL

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

INSTALLATION

Install in the reverse order of removal.

MICROPHONE

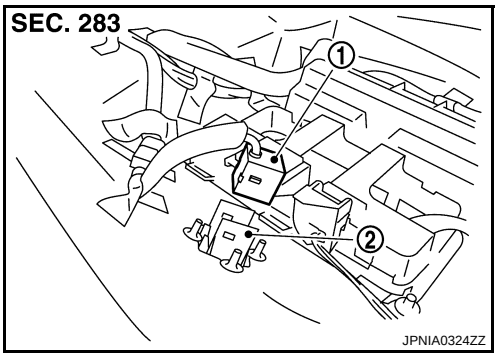
Exploded View

INFOID:0000000001092924

REMOVAL

Refer to INT-22, "NORMAL ROOF : Exploded View" (Normal roof), INT-25, "SUNROOF : Exploded View" (Sunroof).

DISASSEMBLY



1. Microphone
2. Microphone cover

Removal and Installation

INFOID:0000000001092925

REMOVAL

1. Remove headlining assembly. Refer to INT-22, "NORMAL ROOF : Exploded View" (Normal roof), INT-25, "SUNROOF : Exploded View" (Sunroof).
2. Remove microphone.

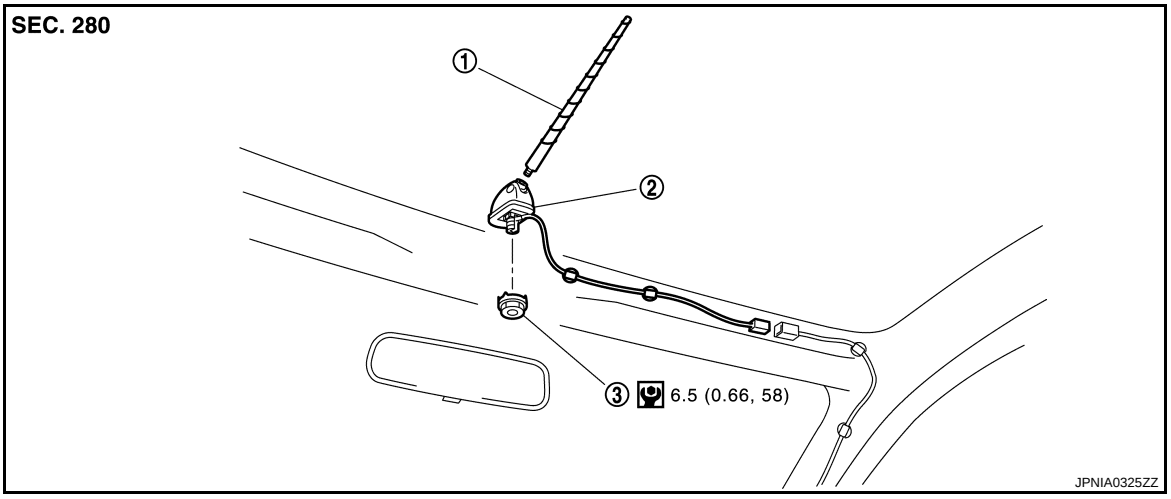
INSTALLATION

Install in the reverse order of removal.

RADIO ANTENNA

Exploded View

INFOID:0000000001092926



1. Antenna rod
2. Antenna base
3. Nut

Refer to GI-4, "Components" for symbols not described on the above.

Removal and Installation

INFOID:0000000001092927

REMOVAL

1. Remove headlining assembly. Refer to INT-22, "NORMAL ROOF : Exploded View" (Normal roof), INT-25, "SUNROOF : Exploded View" (Sunroof).
2. Remove antenna base and antenna rod.

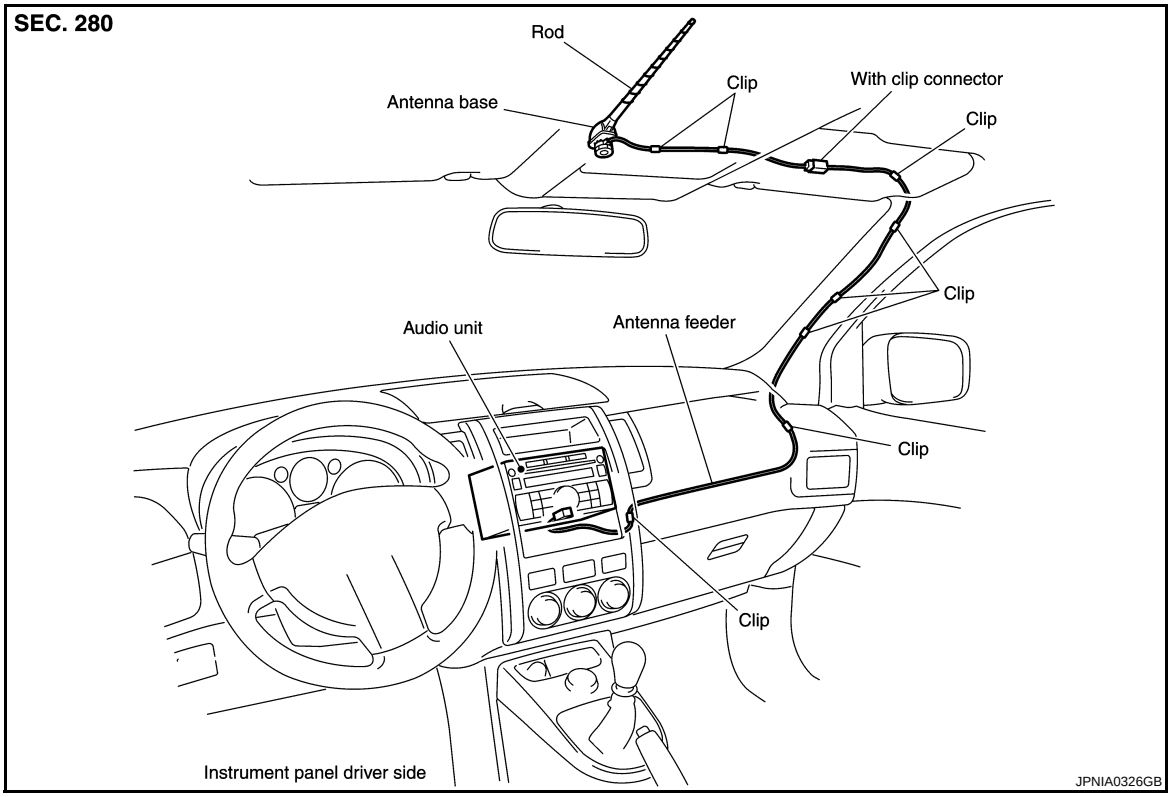
INSTALLATION

Install in the reverse order of removal.

ANTENNA FEEDER (RADIO)

Harness Layout

INFOID:0000000001092928



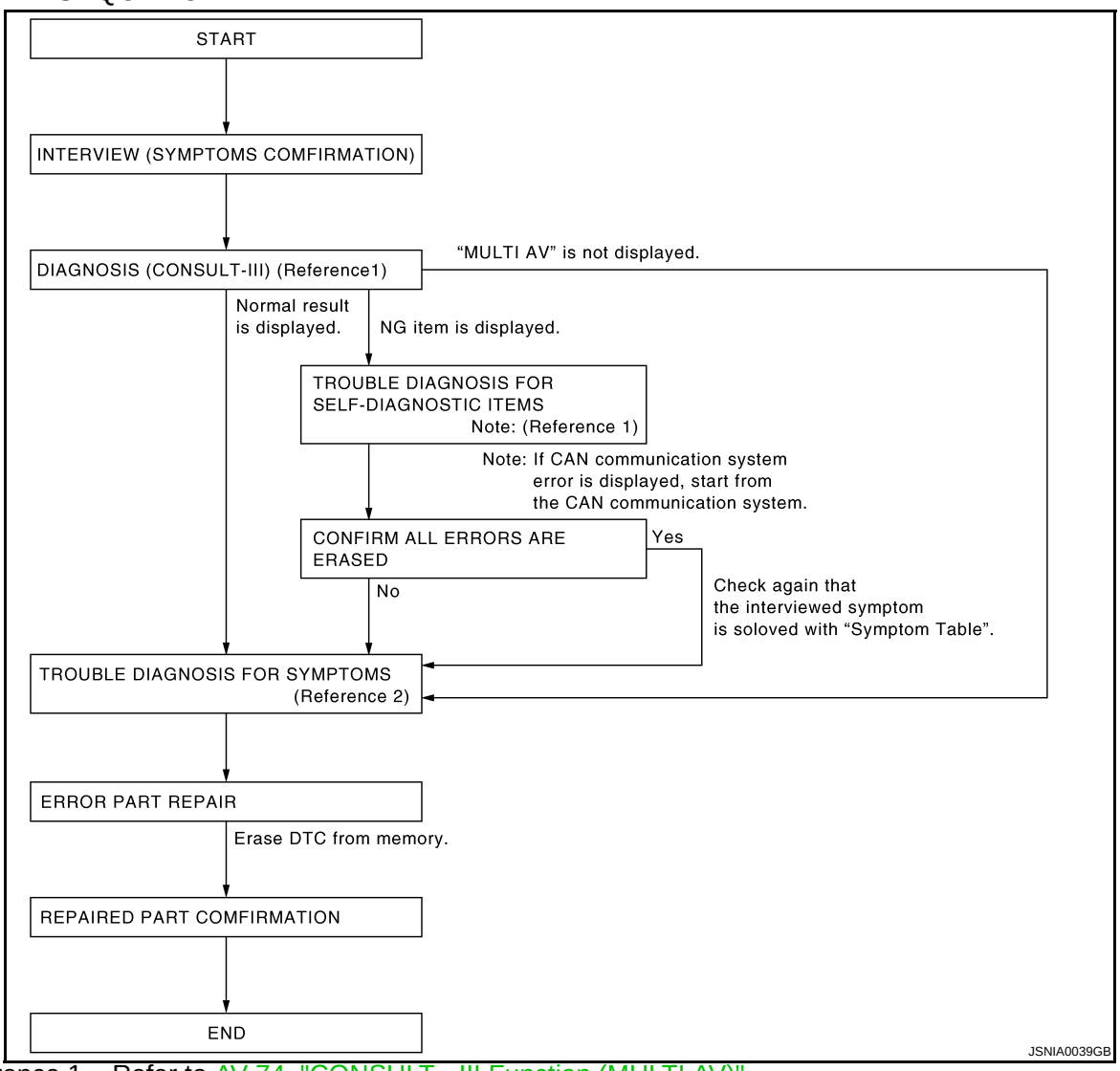
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:0000000001092929

OVERALL SEQUENCE



- Reference 1··· Refer to AV-74, "CONSULT - III Function (MULTI AV)".
- Reference 2··· Refer to AV-248, "Symptom Table".

DETAILED FLOW

1.CHECK SYMPTOM

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

>> GO TO 2.

2.SELF-DIAGNOSIS (CONSULT-III)

1. Connect CONSULT-III and perform a self-diagnosis for “MULTI AV”.
   NOTE:
   Skip to step 4 of the diagnosis procedure if “MULTI AV” is not displayed.
2. Check that any DTC No. is displayed in the self-diagnosis results.

Is any DTC No. displayed?

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

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

1. Check the DTC No. indicated in the self-diagnosis results.
2. Perform the relevant diagnosis referring to the DTC Index. Refer to AV-159, "DTC Index".

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

>> GO TO 5.

4. PERFORM DIAGNOSIS BY SYMPTOM

Perform the relevant diagnosis referring to the diagnosis chart by symptom. Refer to AV-248, "Symptom Table".

>> GO TO 5.

5. REPAIR OR REPLACE MALFUNCTIONING PARTS

Repair or replace the identified malfunctioning parts.

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

>> GO TO 6.

6. CHECK AFTER REPAIR

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

Is any DTC No. displayed?

YES >> GO TO 3.
NO >> GO TO 7.

7. FINAL CHECK

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

Is there any symptom?

YES >> GO TO 4.
NO >> INSPECTION END

INSPECTION AND ADJUSTMENT

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description

INFOID:0000000001094790

Always correct the center position of the rear view monitor's possible route line after disconnecting the battery negative terminal.

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement

INFOID:0000000001094791

1. CORRECTION OF CENTER POSITION OF REAR VIEW MONITOR'S POSSIBLE ROUTE LINE

Refer to the following for details.

>> Refer to AV-47, "REAR VIEW MONITOR POSSIBLE ROUTE LINE CENTER POSITION ADJUSTMENT : Special Repair Requirement".

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description

INFOID:0000000001094792

When camera control unit is replaced, the center position of rear view monitor possible route line shall be corrected.

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement

INFOID:0000000001115045

1. CORRECTION OF CENTER POSITION OF REAR VIEW MONITOR'S POSSIBLE ROUTE LINE

Refer to the following for details.

>> Refer to AV-47, "REAR VIEW MONITOR POSSIBLE ROUTE LINE CENTER POSITION ADJUSTMENT : Special Repair Requirement".

REAR VIEW MONITOR POSSIBLE ROUTE LINE CENTER POSITION ADJUSTMENT

REAR VIEW MONITOR POSSIBLE ROUTE LINE CENTER POSITION ADJUSTMENT : Description

INFOID:0000000001094794

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

REAR VIEW MONITOR POSSIBLE ROUTE LINE CENTER POSITION ADJUSTMENT : Special Repair Requirement

INFOID:0000000001094795

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.

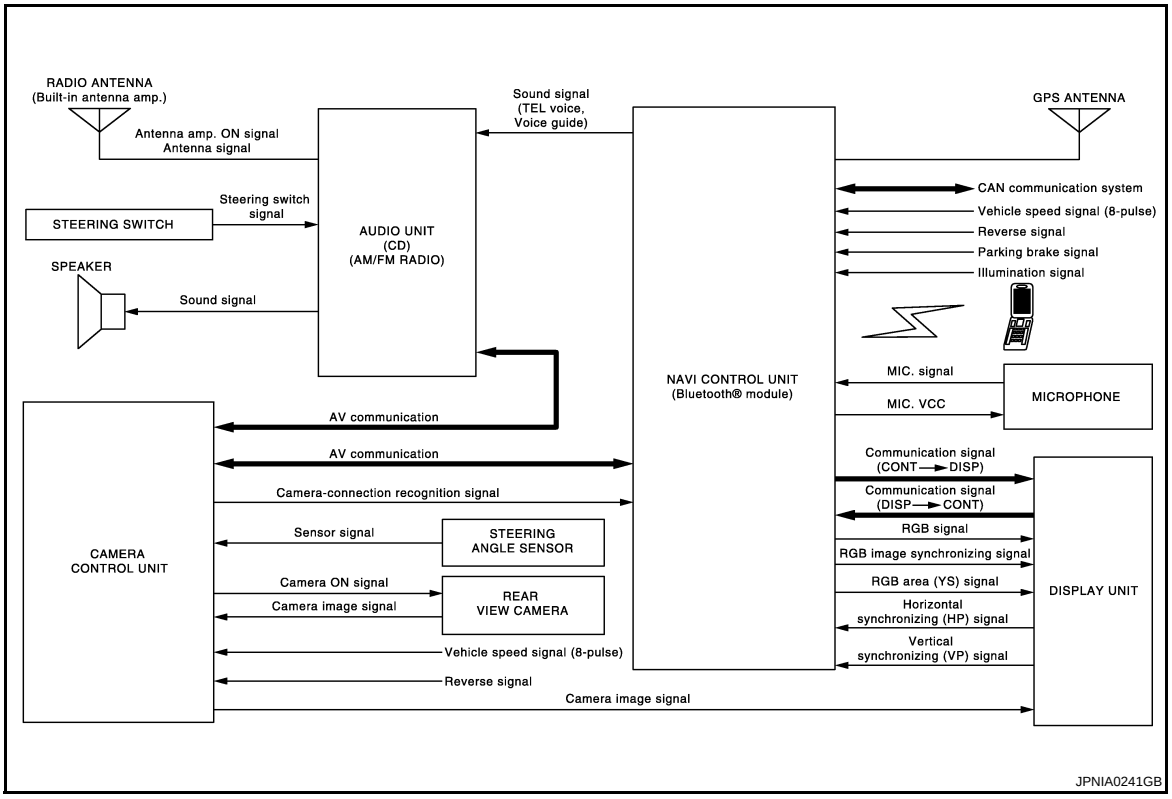
>> END

FUNCTION DIAGNOSIS

MULTI AV SYSTEM

System Diagram

INFOID:0000000001092930



System Description

INFOID:0000000001092931

Multi AV system means that the following systems are integrated.

System name	System explanation
NAVIGATION SYSTEM	AV-52, "System Description"
AUDIO SYSTEM	AV-60, "System Description"
REAR VIEW MONITOR SYSTEM	AV-57, "System Description"
VEHICLE INFORMATION SYSTEM	• Status of audio, maintenance and navigation is displayed. • NAVI control unit displays the maintenance information while receiving data signal through CAN communication from combination meter.
HANDS-FREE PHONE SYSTEM	Refer to the following “HANDS-FREE PHONE SYSTEM”.
ANTI-THEFT SYSTEM	This system verifies the immobilizer ID by CAN communication between NAVI control unit and BCM every time the ignition switch is turned to “ACC” position. Multi AV system can be permitted to operate only when the verification has successfully processed.

- Two AV communication lines (H, L) connect between units that configure MULTI AV system. NAVI control unit controls by sending/receiving data one by one with each unit (slave unit) that configures them completely as a master unit.
- Two AV communication lines (H, L) adopt a twisted pair line that is resistant to noise.
- NAVI 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. Sending/receiving of data signal is performed by BCM. Also, it sends the required signal of vehicle setting and receives the response signal.

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

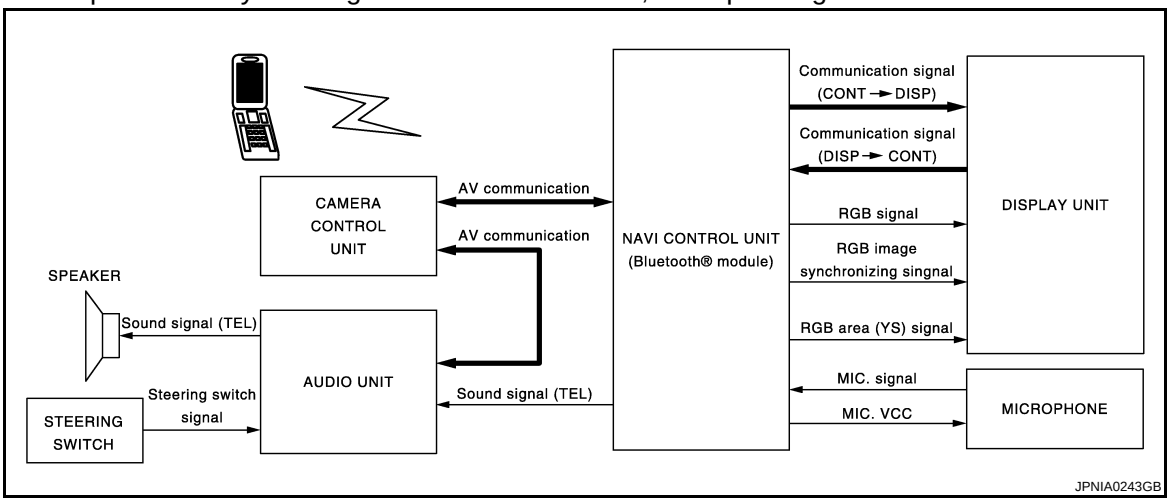
NOTE:

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

- CONSULT-III self diagnosis: Refer to AV-74, "CONSULT - III Function (MULTI AV)".
- On board self diagnosis: Refer to AV-63, "Diagnosis Description".

HANDS-FREE PHONE SYSTEM

- Hands-free communication can be operated by connecting using Bluetooth® with cellular phone.
- Operation is performed by steering switch or audio switch, and operating condition is indicated on display.



When a call is originated

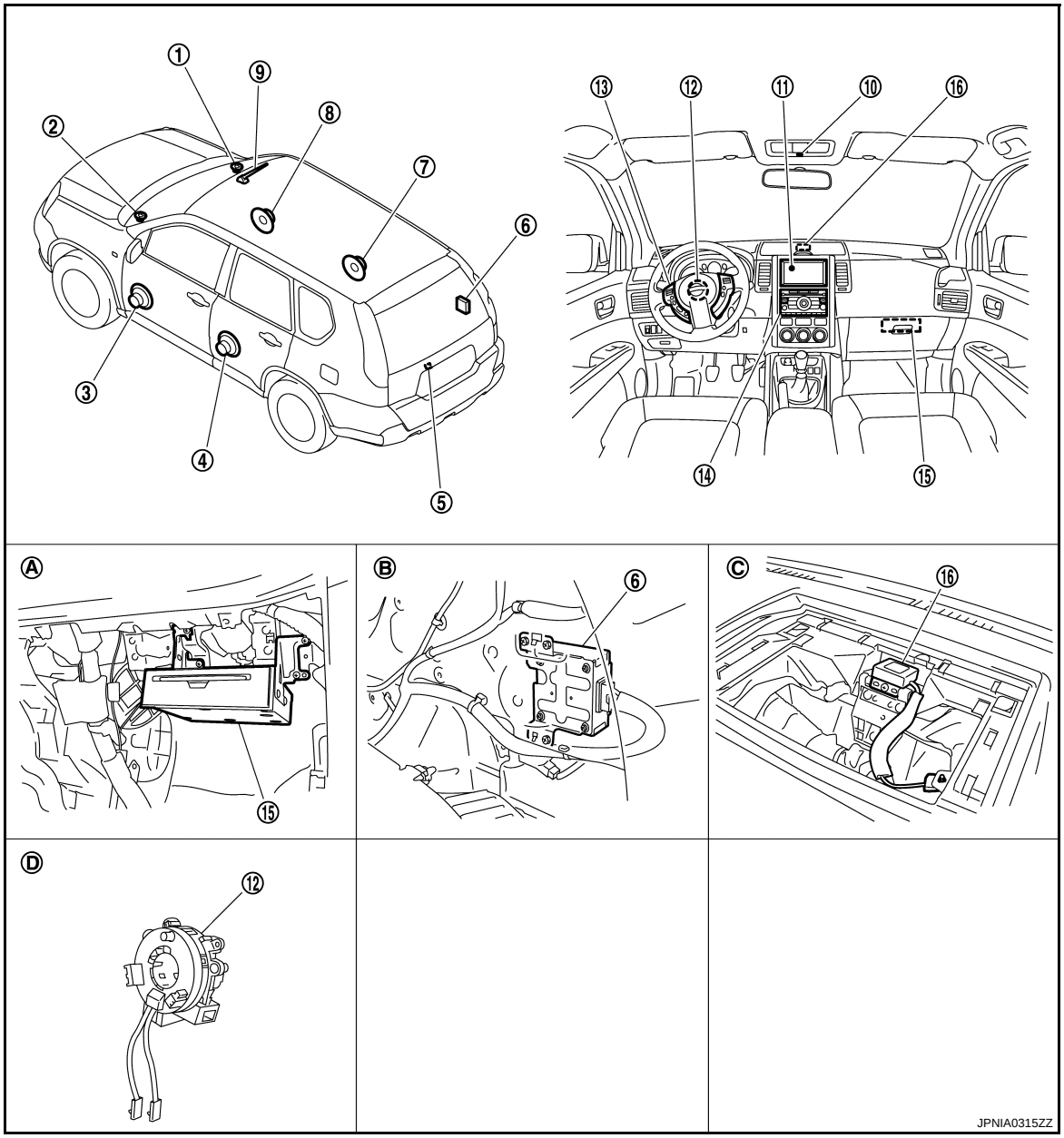
Spoken voice sound output from the microphone (mic. signal) is input to NAVI control unit. NAVI control unit outputs to cellular phone with Bluetooth® communication as a TEL voice signal. Voice sound is then heard at the other party.

When receiving a call

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

Component Parts Location

INFOID:0000000001092932



1. Tweeter RH
2. Tweeter LH
3. Front door speaker LH
4. Rear door speaker LH
5. Rear view camera
6. Camera control unit
7. Rear door speaker RH
8. Front door speaker RH
9. Radio antenna
10. Microphone
11. Display unit
12. Steering angle sensor
13. Steering switch
14. Audio unit
15. NAVI control unit
16. GPS antenna

A. Inside glove box
B. Trunk room RH
C. Back of a display unit
D. Spiral cable part

Component Description

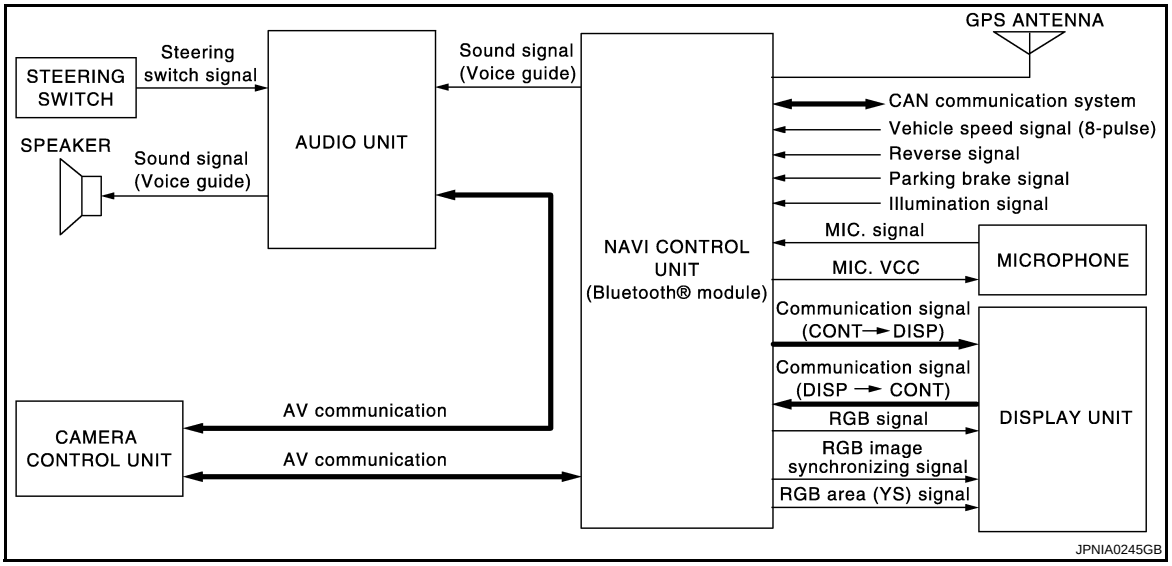
INFOID:0000000001092933

Part name	Description
NAVI CONTORL UNIT	• Map data can be read from the Map DVD-ROM by installing Map DVD-ROM. • It is the master unit of the MULTI AV system, and it is connected to each control unit by means of communication. It operates each system according to communication signals from the NAVI control unit. • The NAVI control unit includes the audio, hands-free phone, navigation, and vehicle information functions. • The NAVI control unit displays the maintenance information while receiving data signal through CAN communication from combination meter. • It inputs the illumination signals that are required for the display dimming control. • It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).
MAP DVD-ROM	A collection of Map data.
DISPLAY UNIT	• Display image is controlled by the serial communication from NAVI control unit. • RGB image signal is input from NAVI control unit (RGB, RGB area and RGB synchronizing). Camera image signal is input from camera control unit. • Synchronize signal (HP, VP) is output to NAVI control unit.
AUDIO UNIT	• Operational switch of MULTI AV system is integrated. • Audio unit are connected to NAVI control unit with AV communication via camera control unit. Operating signals of the switch are sent to the NAVI control unit.
FRONT DOOR SPEAKER	• Outputs sound signal from audio unit. • Outputs high, mid and low range sounds.
REAR DOOR SPEAKER	• Outputs sound signal from audio unit. • Outputs high, mid and low range sounds.
TWEETER	• Outputs sound signal from audio unit. • Outputs high range sound.
CAMERA CONTROL UNIT	• Camera image signal is input from rear view camera, and camera image is indicated on the display. • Power (camera ON signal) is sent to rear view camera. • Controlled by AV communication sent from NAVI control unit. • NAVI control unit recognizes the presence of camera system with camera connection recognition signal.
REAR VIEW CAMERA	The image of vehicle rear view is sent to camera control unit.
STEERING ANGLE SENSOR	Sensor signal (steering angle) is sent to camera control unit.
STEERING SWITCH	• Operations for audio, hands-free phone and navigation, etc. are possible. • Steering switch signal (operation signal) is output to audio unit.
MICROPHONE	• Used for hands-free phone operation. • Mic. signal is sent to NAVI control unit. • Power (Mic. VCC) is supplied from NAVI control unit.
GPS ANTENNA	GPS signal is received and sent to NAVI control unit.
RADIO ANTENNA (Built-in antenna amp.)	• Radio signal received by radio antenna is amplified and sent to audio unit. • Power (antenna amp. ON signal) is supplied from audio unit.

NAVIGATION SYSTEM

System Diagram

INFOID:0000000001092934



System Description

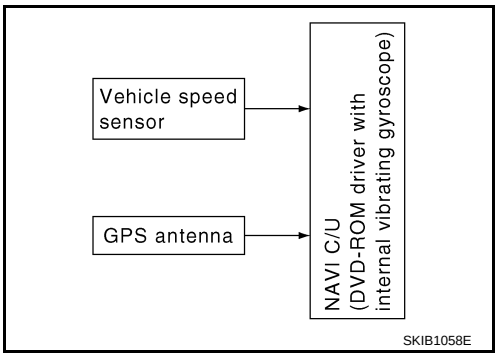
INFOID:0000000001092935

NAVIGATION SYSTEM

Location Detection Principle

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

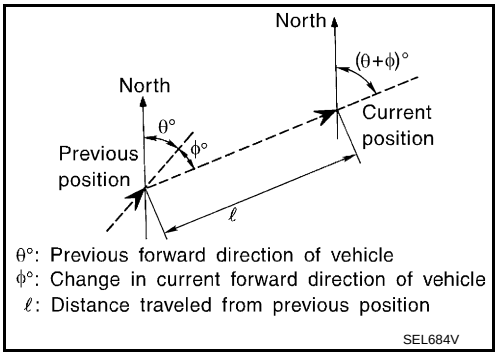
- Travel distance of the vehicle as determined by the vehicle speed sensor
- Turning angle of the vehicle as determined by the gyroscope (angular velocity sensor)
- Direction of vehicle travel as determined by the GPS antenna (GPS information)



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.

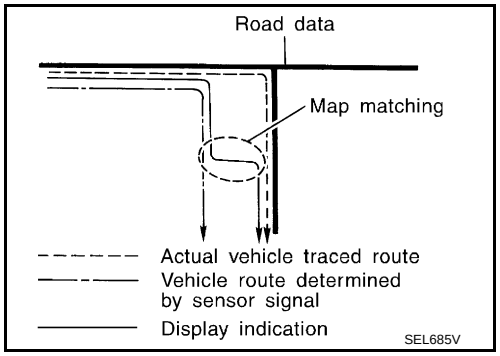
More accurate traveling direction is detected because priorities are set for the signals from these two devices according to the situation.

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.

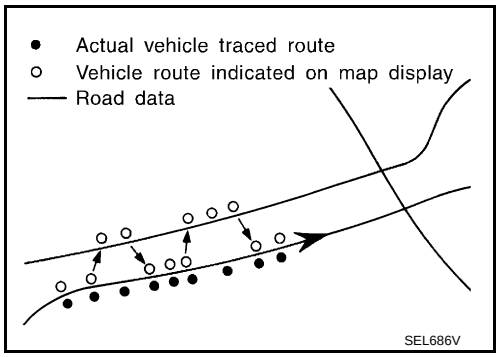
NOTE:

The road map data is based on data stored in the map DVD-ROM.

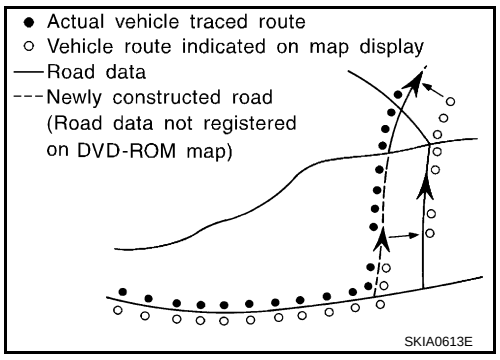


The vehicle position may not be corrected under the following circumstances and after driving for a certain time when GPS information is difficult to receive. In this case, the vehicle mark on the display must be corrected manually.

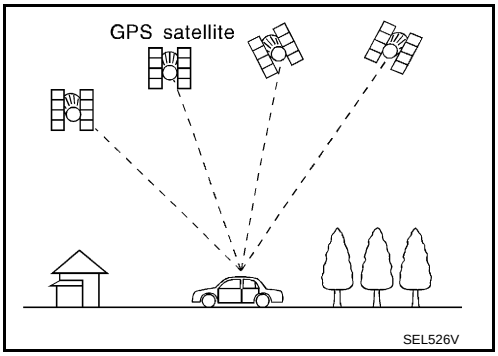
- In map-matching, alternative routes to reach the destination will be shown and prioritized, after the road on which the vehicle is currently driven has been judged and the vehicle mark has been repositioned.
  Alternative routes will be shown in different order of priority, and the incorrect road can 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.

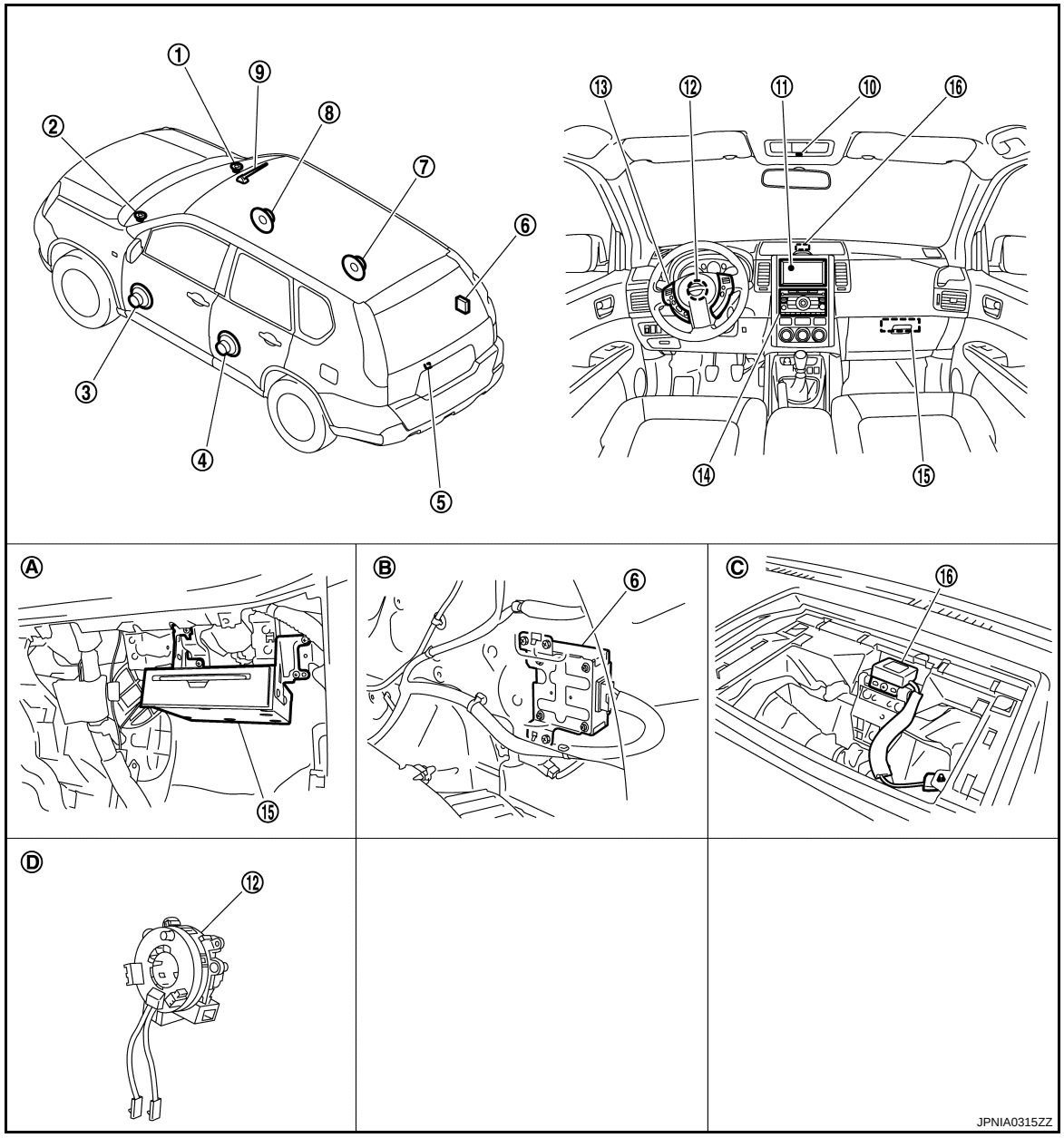
NOTE:

- 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.

Traffic Information (RDS-TMC)
NOTE: RDS-TMC tuner is built-in audio unit.
The traffic information broadcast allows to you to avoid delays due to traffic incidents.
Traffic jams, roadwork, closed roads around your current location, etc. are represented graphically on the map by icons depicting the nature of the event.
Incidents on the route are automatically brought to your attention when they are approached.
The Traffic Information feature gives you the opportunity to forecast traffic incidents, determine how serious they are, via the guidance mode, and allows you to detour around traffic incidents.
The navigation system receives traffic information from best available sources and enables the RDS-TMC (Radio Data System-Traffic Information Channel) to inform and guide you.
The RDS-TMC broadcast is fed by an audio unit so that you can still tune your radio station while Traffic Information is being broadcasted.

Component Parts Location

INFOID:0000000001093556



1. Tweeter RH
2. Tweeter LH
3. Front door speaker LH
4. Rear door speaker LH
5. Rear view camera
6. Camera control unit
7. Rear door speaker RH
8. Front door speaker RH
9. Radio antenna
10. Microphone
11. Display unit
12. Steering angle sensor
13. Steering switch
14. Audio unit
15. NAVI control unit
16. GPS antenna

A. Inside glove box
B. Trunk room RH
C. Back of a display unit
D. Spiral cable part

Component Description

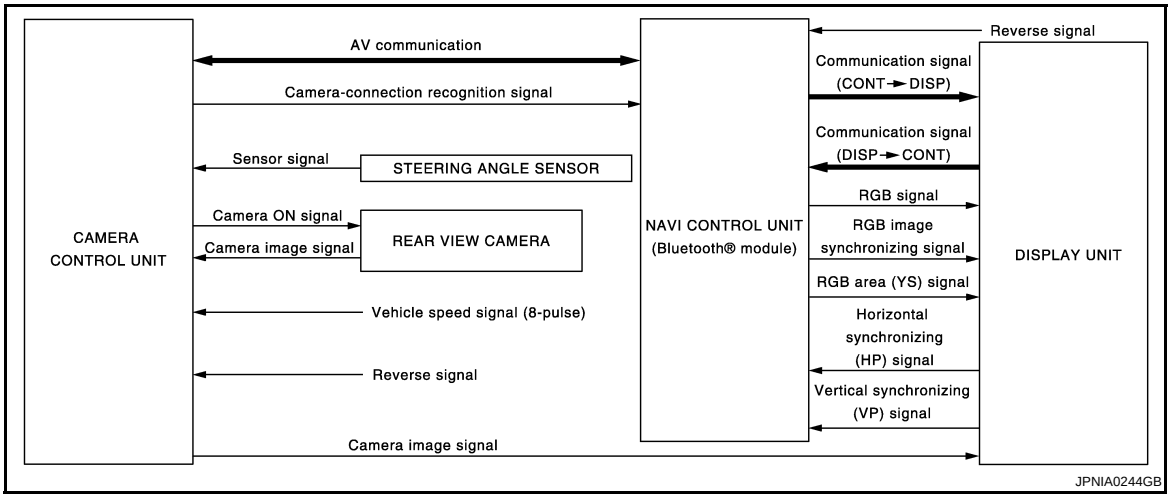
INFOID:0000000001092937

Part name	Description
NAVI CONTORL UNIT	• The master unit controls each operation of the Navigation system. • Map data can be read from the Map DVD-ROM by installing Map DVD-ROM. • The RGB signal (map information) is output to the display. • The voice guidance signal is output to the audio unit.
MAP DVD-ROM	A collection of Map data
DISPLAY UNIT	Map image signal is input from NAVI control unit, and it is indicated on the display.
AUDIO UNIT	• Voice guidance signal is input from NAVI control unit, and voice guidance is output to front LH/RH speakers. • Each operation of navigation can be performed.
FRONT DOOR SPEAKER	Voice guidance signal from audio unit is output.
TWEETER	
STEERING SWITCH	• Each operation of navigation, etc. can be performed. • Switch operating signal is output to NAVI control unit via audio unit and camera control unit with AV communication.
GPS ANTENNA	GPS signal is received and is output to NAVI control unit.

REAR VIEW MONITOR SYSTEM

System Diagram

INFOID:0000000001092938



System Description

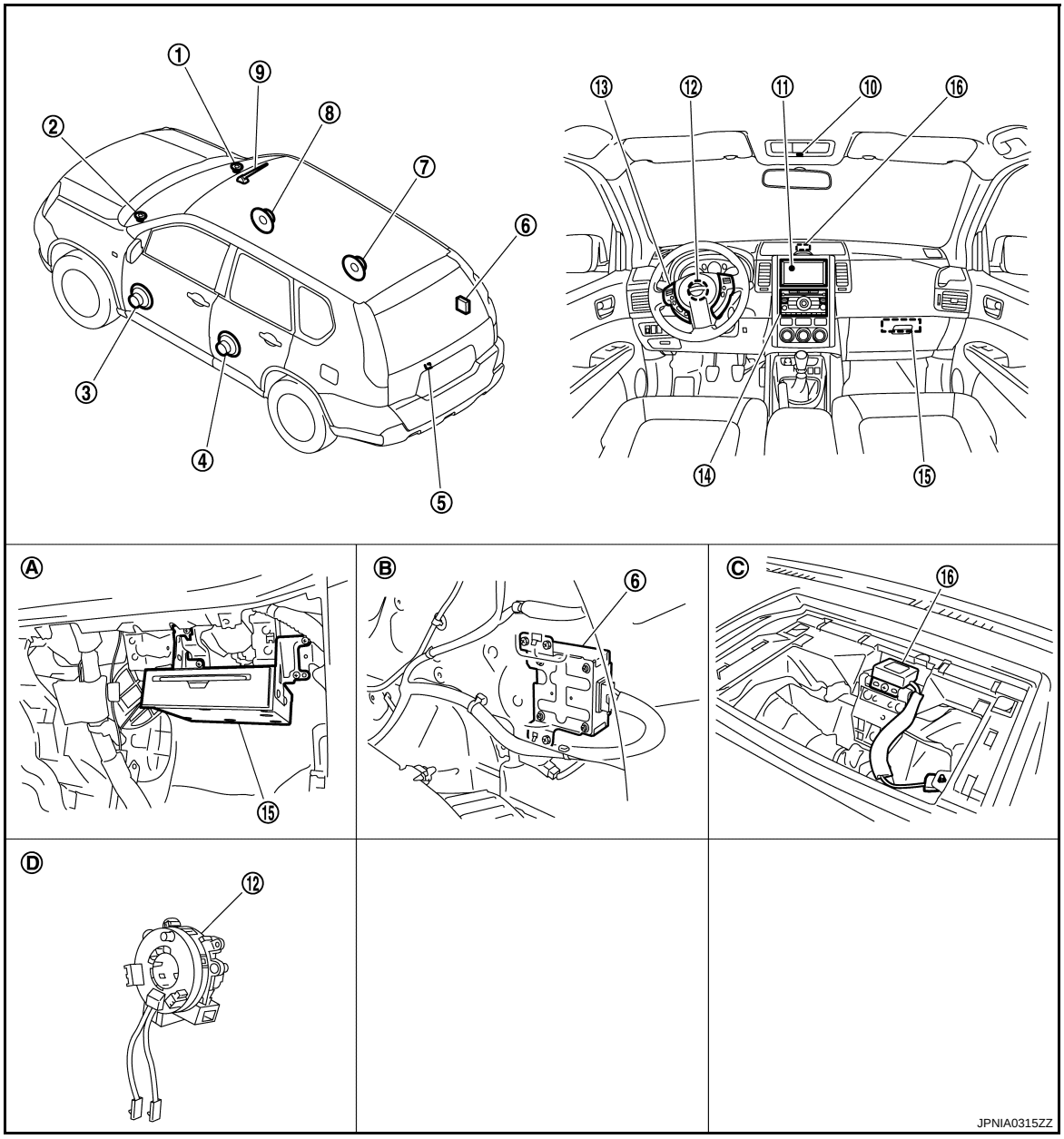
INFOID:0000000001094472

Camera image operation principle

- Power is supplied to rear view camera from camera control unit and outputs camera image signal to camera control unit when shift position is set to R position and the reverse signal on camera control unit is input.
- Camera control unit synthesizes guide lines and possible route lines with camera image signal from rear view camera, and transmits camera image signal to the display. In this case, since the reverse signal is also input to NAVI control unit, the NAVI control unit recognizes the shift position as in R position, and it switches communication signal between NAVI control unit and display unit, and image that is displayed on the display unit by RGB signal with rear view monitor image. In addition, possible route lines are controlled by original sensor signal from steering angle sensor.
- The NAVI control unit determines whether rear view camera is equipped or not, based on the presence of camera connection recognition signal. It switches to rear view monitor image at the time of reverse signal input when it is not equipped.
- Warning message under the rear view monitor display is described by NAVI control unit.
- NAVI control unit is connected in communication with camera control unit and display unit, and it controls operation of rear view monitor system.

Component Parts Location

INFOID:0000000001093555



1. Tweeter RH
2. Tweeter LH
3. Front door speaker LH
4. Rear door speaker LH
5. Rear view camera
6. Camera control unit
7. Rear door speaker RH
8. Front door speaker RH
9. Radio antenna
10. Microphone
11. Display unit
12. Steering angle sensor
13. Steering switch
14. Audio unit
15. NAVI control unit
16. GPS antenna

A. Inside glove box
B. Trunk room RH
C. Back of a display unit
D. Spiral cable part

Component Description

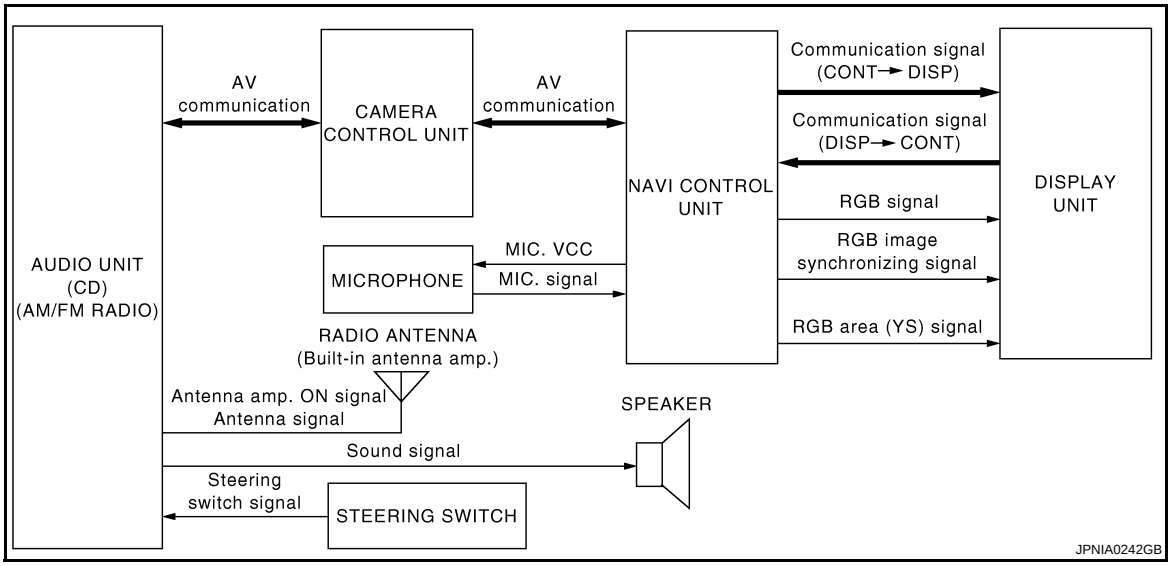
INFOID:0000000001094699

Part name	Description
NAVI CONTORL UNIT	• Image on display is changed to rear view monitor with the communication for camera control unit and display unit. • Warning displayed in rear view monitor image is illustrated.
DISPLAY UNIT	• Camera image signal is sent from camera control unit, and RGB signal for warning display is sent from NAVI control unit. • Rear view monitor image is changed with the communication for NAVI control unit.
CAMERA CONTROL UNIT	• Camera image signal is input from rear view camera, and camera image is indicated on the display. • Power (camera ON signal) is sent to rear view camera. • Controlled by AV communication sent from NAVI control unit. • NAVI control unit recognizes the presence of camera system with camera connection recognition signal.
REAR VIEW CAMERA	The image of vehicle rear view is sent to camera control unit.
STEERING ANGLE SENSOR	Steering signal necessary for possible route line control is sent to camera control unit.

AUDIO SYSTEM

System Diagram

INFOID:0000000001092942



System Description

INFOID:0000000001092943

The audio system is equipped with following function. Each function is operated with audio switch or steering switch. Operation status of AUDIO is indicated at display.

Function
AM/FM radio
CD

FUNCTION DESCRIPTION

Operating signal

Audio system operation can be performed with audio switch or steering switch.

Screen display

- Switching of display is performed with serial communication between display and NAVI control unit.
- The image signal to display operating condition is performed with RGB signal, RGB area signal and RGB image synchronizing signal.

AM/FM Radio Mode

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

CD Mode

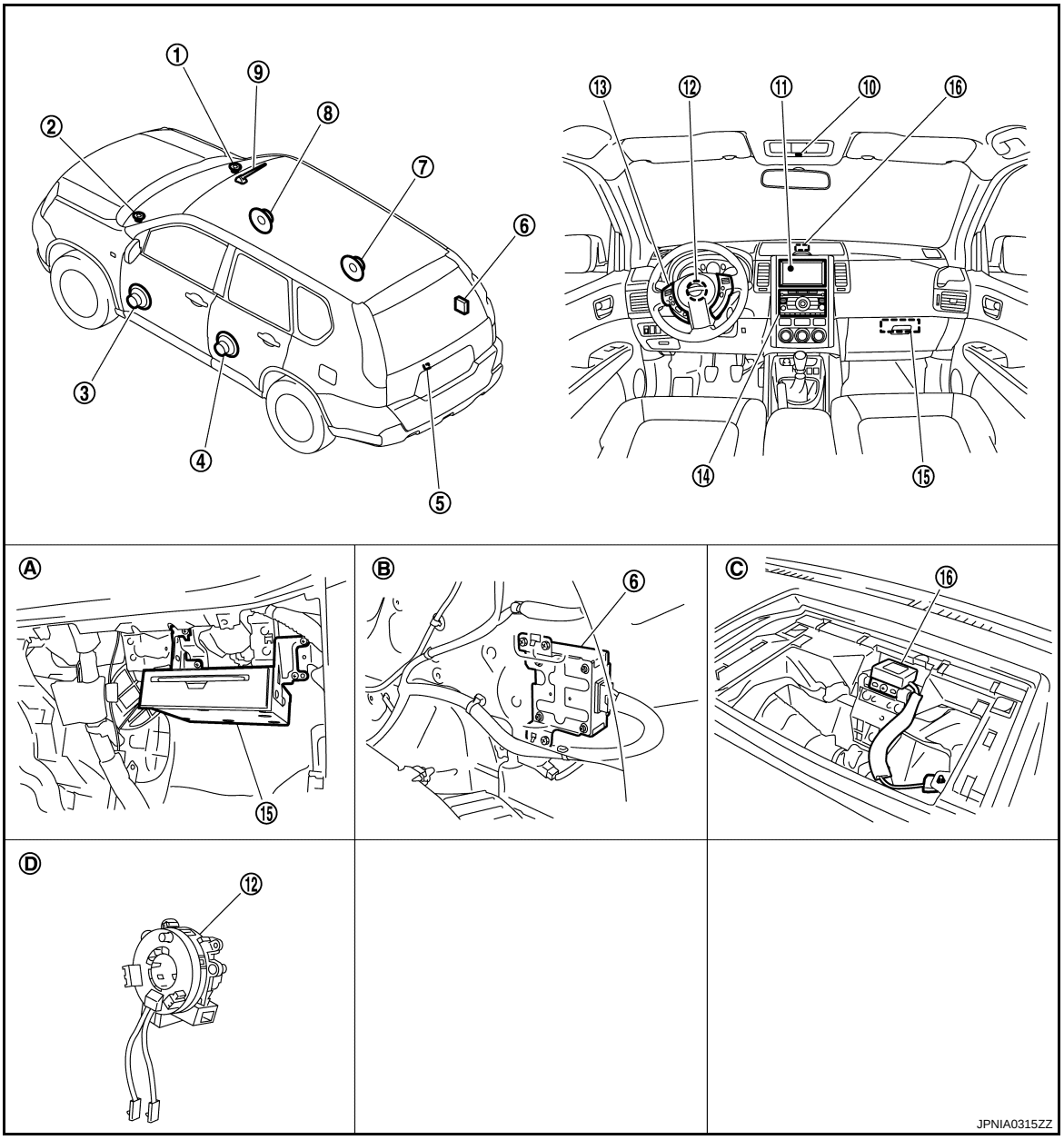
- CD function is built into audio unit.
- Audio unit outputs audio signal to each speaker when CD is inserted to audio unit.

SPEED SENSITIVE VOLUME

- Volume level of this system gone up and down automatically in proportion to the vehicle speed. And the control level can be selected by the customer.
- The audio unit inputs the vehicle signal that is sent from combination meter via CAN communication through NAVI control unit.

Component Parts Location

INFOID:0000000001093557



1. Tweeter RH
2. Tweeter LH
3. Front door speaker LH
4. Rear door speaker LH
5. Rear view camera
6. Camera control unit
7. Rear door speaker RH
8. Front door speaker RH
9. Radio antenna
10. Microphone
11. Display unit
12. Steering angle sensor
13. Steering switch
14. Audio unit
15. NAVI control unit
16. GPS antenna

A. Inside glove box
B. Trunk room RH
C. Back of a display unit
D. Spiral cable part

Component Description

INFOID:0000000001092945

Part name	Description
AUDIO UNIT	• Operational switch of audio system is integrated. • Receiving function of AM/FM radio, replaying function of CD are integrated. • Audio signals are output to each speaker.
DISPLAY UNIT	• Display image is controlled by the serial communication from NAVI control unit. • RGB image signal (audio operation condition) is input from NAVI control unit.
FRONT DOOR SPEAKER	• Outputs sound signal from audio unit. • Outputs high, mid and low range sounds.
REAR DOOR SPEAKER	• Outputs sound signal from audio unit. • Outputs high, mid and low range sounds.
TWEETER	• Outputs sound signal from audio unit. • Outputs high range sound.
STEERING SWITCH	• Each audio operation can be operated. • Steering switch signal (operation signal) is output to audio unit.
RADIO ANTENNA (Built-in antenna amp.)	• Radio signal received by radio antenna is amplified and sent to audio unit. • Power (antenna amp. ON signal) is supplied from audio unit.

DIAGNOSIS SYSTEM (NAVI CONTROL UNIT)

Diagnosis Description

INFOID:0000000001092946

MULTI AV SYSTEM on board diagnosis function

- The NAVI control unit diagnosis function starts up with audio switch operation and the NAVI 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 NAVI control unit, connections between system components as well as connections between NAVI control unit and GPS 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).

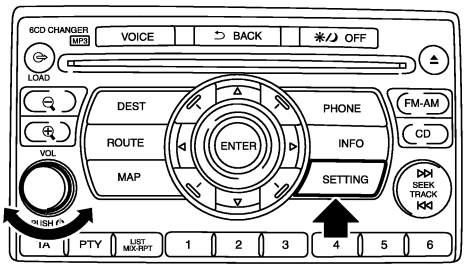
On board diagnosis item

Mode			Description
Self Diagnosis			• NAVI control unit diagnosis • Diagnoses the connections across system components, between NAVI control unit and GPS antenna.
Confirmation/ Adjustment	Display Diagnosis		The following check functions are available: color tone check by color bar display, light and shade check by gray scale display.
	Vehicle Signals		Diagnosis of signals can be performed for vehicle speed, parking brake, lights, ignition, and reverse.
	Speaker Test		The connection of a speaker can be confirmed by test tone.
	Navigation	Steering Angle Adjustment	A difference can be adjusted between the actual turning angle and the vehicle mark turning angle.
		Speed Calibration	A difference can be adjusted between the current location mark and the actual location.
	Error History		The system malfunction and the frequency when occurred in the past are displayed. The time and place that the selected malfunction last occurred are displayed when the malfunctioning item is selected.
	Vehicle CAN Diagnosis		The transmitting/receiving of CAN communication can be monitored.
	AV COMM Diagnosis		The communication condition of each unit of Multi AV system can be monitored.
	Handsfree Phone		The received volume adjustment of hands-free phone, microphone speaker check, and erase memory can be performed.
	Camera Cont.		The signal connected to camera control unit can be checked and the guiding line position that overlaps rear view camera image can be adjusted.
	Bluetooth		The passkey and the device name can be checked and changed.
	Delete Unit Connection Log		Erase the connection history of unit and error history.
	Feature Restriction Setting		Operations of navigation system while driving can be restricted by using this function.

STARTING PROCEDURE

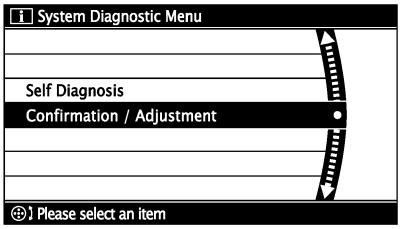
1. Start the engine.
2. Turn the audio system OFF.

3. Turn the volume control dial clockwise or counterclockwise for 40 clicks or more while pushing the “SETTING” button. (A short beep will be heard when the self-diagnosis mode is started.)
   • Shifting from current screen to previous screen is performed by pushing “BACK” button.



JSNIA0525GB

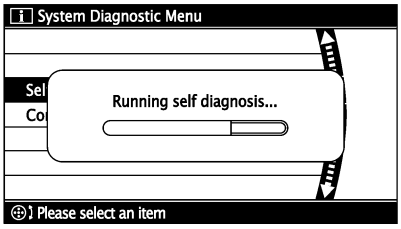
4. The trouble diagnosis initial screen is displayed, and then the items of “Self Diagnosis” and “Confirmation / Adjustment” can be selected.



SKIB3961E

Self-diagnosis mode

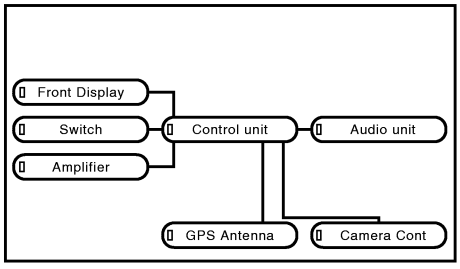
1. Start the self-diagnosis function. Then select “Self Diagnosis”.
- Self-diagnosis subdivision screen is displayed, and the self-diagnosis mode starts.
- The bar graph visible on the center of the self-diagnosis subdivision screen indicates progress of the trouble diagnosis.



SKIB3657E

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
DVD drive undiagnosed	Gray	Green
DVD-ROM and DVD-ROM drive malfunction	Yellow	Green
Unit malfunction Note	Red	Green



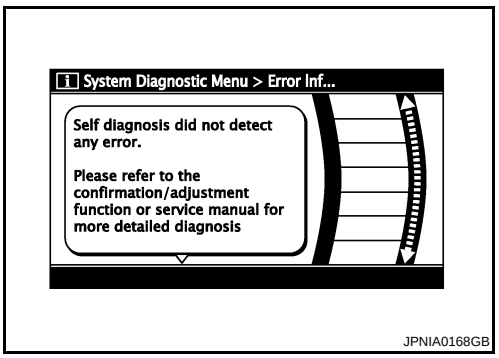
SKIB9021E

NOTE:

• Only the control unit (NAVI control unit) is displayed in red.

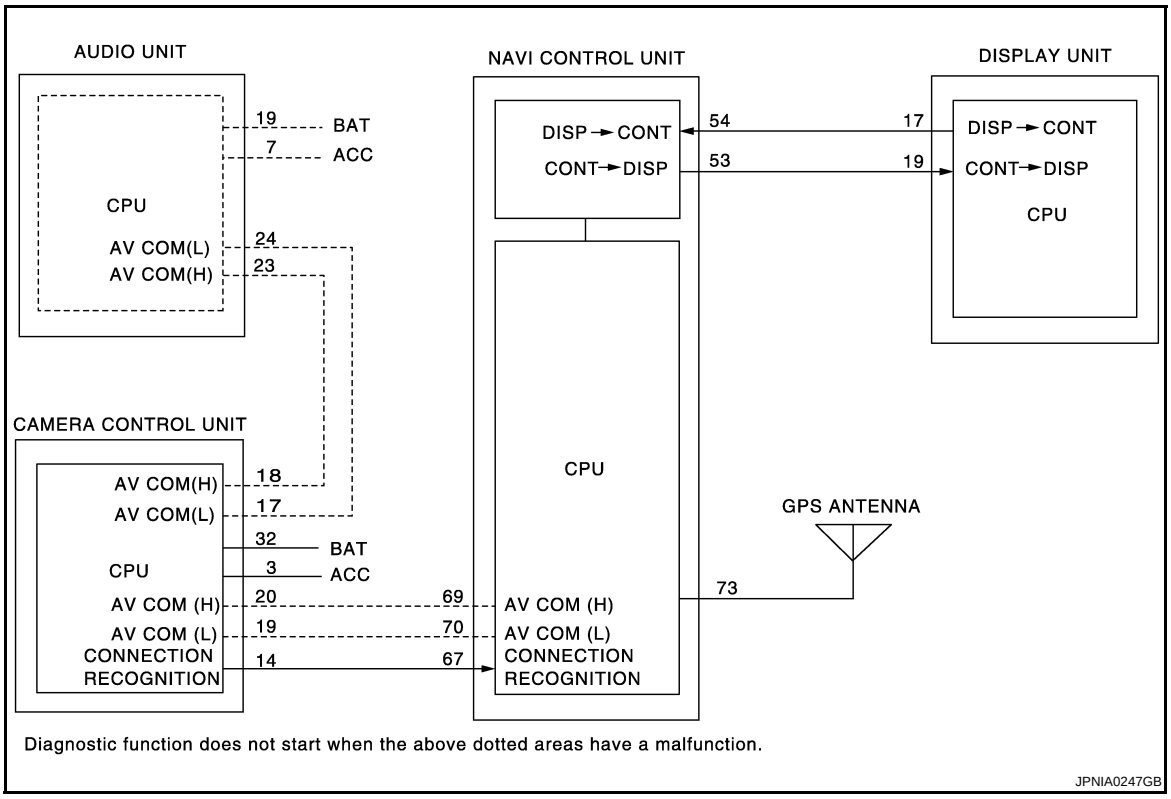
- The screen switch colors are determined according to the following order of priority: red > yellow > gray if multiple errors occur at the same time for a single unit.

- The comments of the self-diagnosis results can be viewed with a component in the diagnosis result screen.



Detection range of self-diagnosis mode

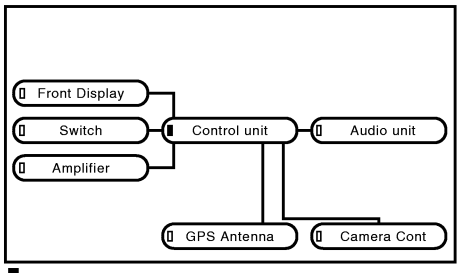
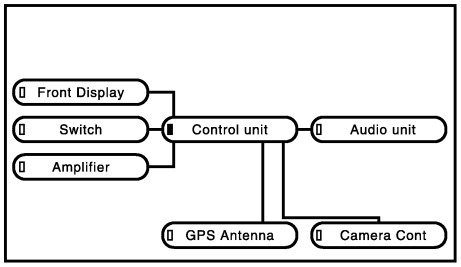
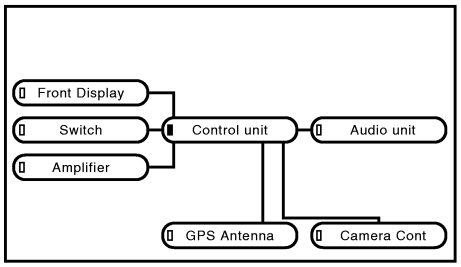
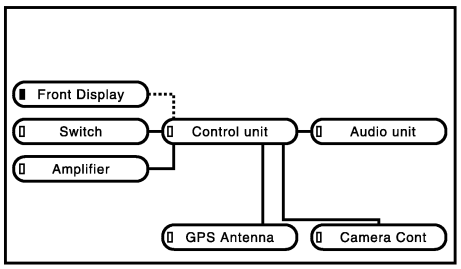
- The self-diagnosis mode allows the technician to diagnose the connection in the communication line between NAVI control unit and each unit and the internal operation of the NAVI control unit.
- Because the start condition of diagnosis function is a switch operation, the on board diagnosis function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

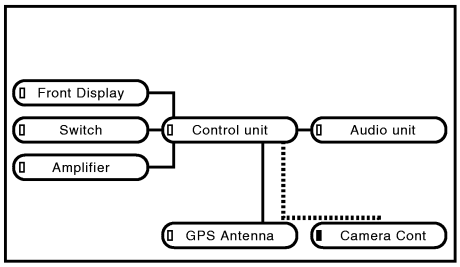
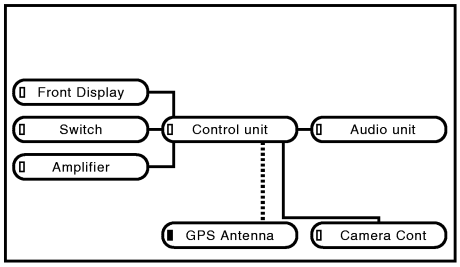
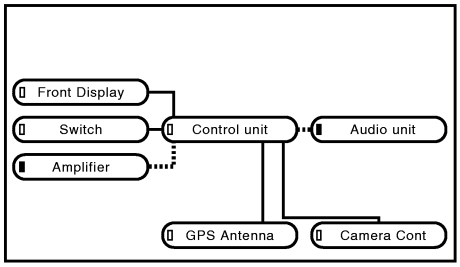


Self-diagnosis results

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

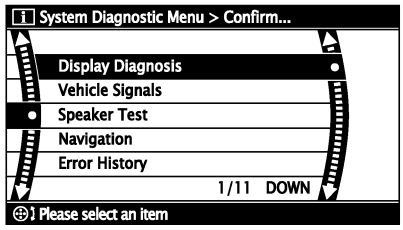
Self-diagnosis result chart

Area with yellow connection lines	Description	Possible malfunction location / Action to take
 : Red SKIB9022E	NAVI control unit malfunction is detected.	NAVI control unit
 : Yellow JSNIA0380GB	• Malfunction is detected on DVD-ROM drive pickup lens in NAVI control unit. • There is dirt and damage on the map disc.	• Map disc • NAVI control unit
 : Gray SKIB9024E	DVD-ROM not inserted is detected.	Insert map disc
 : Gray ····· : Yellow JSNIA0381GB	• Malfunction is detected on communication circuit between NAVI control unit and display unit. • Malfunction is detected on communication signal between NAVI control unit and display unit.	Communication circuit between NAVI control unit and display unit.

Area with yellow connection lines	Description	Possible malfunction location / Action to take
 : Gray JSNIA0445GB	• A malfunction is detected in Camera-connection recognition signal circuit. • Camera control unit power supply and ground circuit malfunction is detected • Malfunction is detected on communication signal between NAVI control unit and camera control unit.	• Camera connection recognition signal circuit • Camera control unit power supply and ground circuit • NAVI control unit • Camera control unit
 : Gray : Yellow SKIB9028E	GPS antenna connection malfunction is detected.	• GPS antenna • GPS antenna feeder
 : Gray : Yellow SKIB9025E	Malfunction is detected on communication signal between NAVI control unit and audio unit.	• NAVI control unit • Audio unit

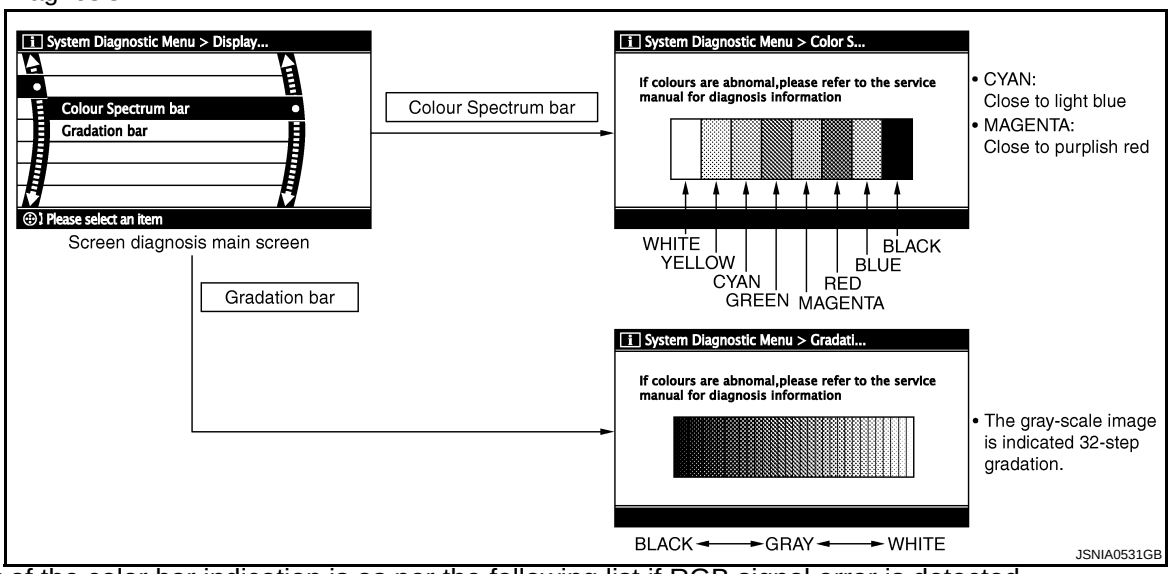
COMFIRMATON/ADJUSTMENT MODE

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.



SKIB4658E

Display Diagnosis

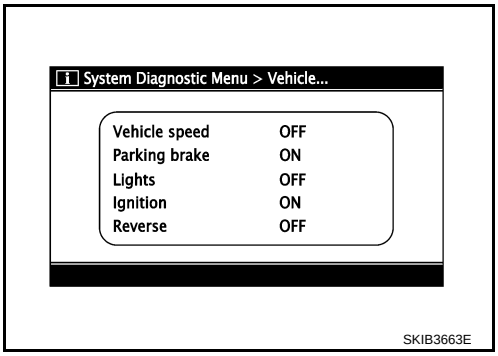


The tint of the color bar indication is as per the following list if RGB signal error is detected.

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. This is normal.
	OFF	Vehicle speed = 0 km/h (0 MPH)	
	—	Ignition switch ACC	
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	
	—	Ignition switch ACC	

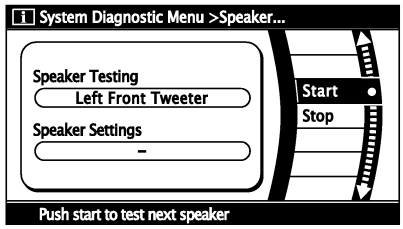
Speaker Test

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 “Stop” 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**

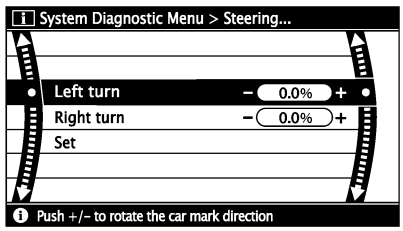


SKIB4686E

Navigation

STEERING ANGLE ADJUSTMENT

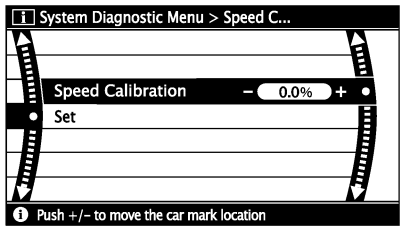
The steering angle output value detected with the gyroscope is adjusted.



SKIB3684E

SPEED CALIBRATION

During normal driving, distance error caused by tire wear and tire pressure change is automatically adjusted for by the automatic distance correction function. This function, on the other hand, is for immediate adjustment, in cases such as driving with tire chain fitted on tires.



SKIB3685E

ERROR HISTORY

The diagnostic results of “Self-diagnosis” determine if any malfunction occurred between selecting “Self-diagnosis” and displaying “Self-diagnostic Results”.

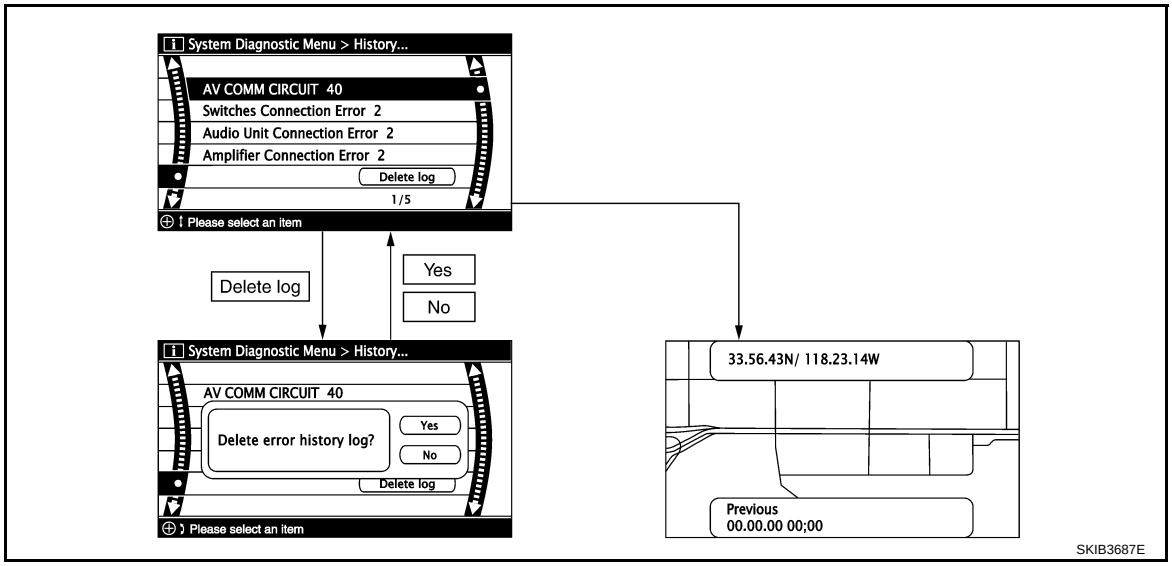
The trouble diagnosis result will be judged normal if an error occurred before the ignition switch was turned ON and does not occur again until “Self-diagnosis” is completed. Therefore, errors in the past which cannot be found by “Self-diagnosis”, must be found by checking the “Error record”.

The error history shows the error occurrence frequency in past. The frequency of occurrence is displayed by 2 types: the count down type and the count up type. Select either type according to the error item.

In “Error History” of models with NAVI, time and place that the selected error last occurred are displayed. Be careful about the following.

- The correct date of occurrence may not be able to be displayed if there is a malfunction with the GPS antenna circuit board in the NAVI control unit.
- 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.

Transition Screen



Count Down Type
- Set the counter to 40 when the error is detected. The counter decreases by 1 if the system is normal when turning the ignition switch ON.
- The lower limit of the counter is 1. It can be reset to 0 by “Delete log” switch or CONSULT-III.

Count Up Type
- The counter increases 1 when the ignition switch is turned ON and the error is detected. The counter does not decrease even if it is normal when the ignition switch is turned ON the next time.
- The upper limit of the counter is 50. 51 or more is displayed as 50. It can be reset to 0 by “Delete log” switch or CONSULT-III.

Display type of occurrence frequency	Error history display item
Count down type	CAN_COMM_CIRCUIT, CONTROL UNIT (CAN), AV COMM CIRCUIT, CONTROL UNIT (AV)
Count up type	Other than the above

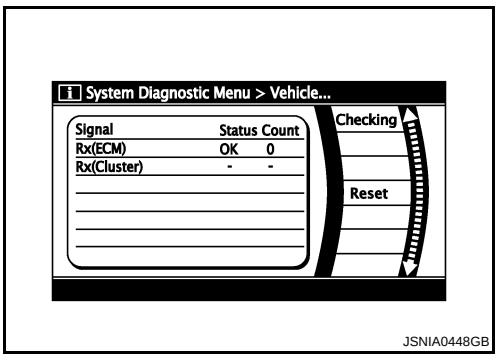
Error Item
- Some error items may be displayed simultaneously according to the cause. The detection of the cause can be performed by the combination of display items if some error items are displayed simultaneously.

Error item	Description	Possible cause/Action to take
CAN_COMM_CIRCUIT	CAN communication malfunction is detected.	Perform the diagnosis using CONSULT-III, and then repair the malfunctioning parts based on diagnostic results. Refer to AV-74, "CONSULT - III Function (MULTI AV)".
CONTROL UNIT (CAN)	CAN initial diagnosis malfunction is detected.	NAVI control unit
CONTROL UNIT (AV)	AV communication circuit initial diagnosis malfunction is detected.	NAVI control unit
• AV COMM CIRCUIT • Switches Connection Error • Audio Unit Connection Error • Amplifier Connection Error • RDS-TMC Error	• Audio unit power supply and ground circuit malfunction is detected. • Malfunction is detected on communication circuit between audio unit and camera control unit. • Malfunction is detected on communication signal between audio unit and NAVI control unit.	• Audio unit power supply and ground circuit • Communication circuit between audio unit and camera control unit • NAVI control unit • Audio unit

Error item	Description	Possible cause/Action to take
• AV COMM CIRCUIT • Switches Connection Error • Audio Unit Connection Error • Amplifier Connection Error • RDS-TMC Error • Rear view Camera Connection Error	• Malfunction is detected on communication circuit between camera control unit and NAVI control unit.	Communication circuit between camera control unit and NAVI control unit
• AV COMM CIRCUIT • Rear view Camera Connection Error	• Camera control unit power supply and ground circuit malfunction is detected. • Malfunction is detected on communication signal between camera control unit and NAVI control unit.	• Camera control unit power supply and ground circuit • NAVI control unit • Camera control unit
Front Display Connection Error	• Display unit power supply and ground circuit malfunction is detected. • Malfunction is detected on communication circuit between display unit and NAVI control unit. • Malfunction is detected on communication signal between display unit and NAVI control unit.	• Display unit power supply and ground circuit • Communication circuit between display unit and NAVI control unit
GPS Antenna Error	GPS antenna connection malfunction is detected.	• GPS antenna feeder • GPS antenna
Camera Control Unit Connection Error	Camera and connection recognition signal circuit malfunction is detected.	Camera-connection recognition signal circuit
FLASH-ROM Error Of Control Unit	NAVI control unit malfunction is detected.	NAVI control unit
Connection Of Gyro	NAVI control unit malfunction is detected.	NAVI control unit
GPS Communication Error	GPS malfunction is detected.	Intermittent malfunction caused by strong radio interference may be detected if the symptoms such as the GPS receipt malfunction occur. Replace NAVI control unit if the malfunction always occurs.
GPS ROM Error		
GPS RAM Error		
GPS RTC Error		
DVD-ROM Communication Error	• Malfunction is detected on DVD-ROM drive pickup lens in NAVI control unit. • There is dirt and damage on the map disc.	• Map disc • NAVI control unit
DVD-ROM Read Error		
DVD-ROM Disc Error		
DVD-ROM Mechanism not Detected		
DVD-ROM Mechanism Error		
DVD-ROM Focus Error		
DVD-ROM TOC Error		
DVD-ROM Seek Error		
DVD-ROM Error Correction Error		
DVD-ROM Data Transfer Error		
DVD-ROM Data Error		
DVD-ROM Time-out		
DVD-ROM Loading / Eject Error		
CAN Controller Memory Error	NAVI control unit malfunction is detected.	NAVI control unit
Bluetooth Module Connection Error		

Vehicle CAN Diagnosis

- CAN communication status and error counter is displayed.
- Error counter displays 0 if any malfunction is not detected in the past. It displays 40 if the malfunction is detected. It displays 39 when turning the ignition switch ON and it is normal. The lower limit of the counter is 1.
- The error counter displays 0 if it resets.



JSNIA0448GB

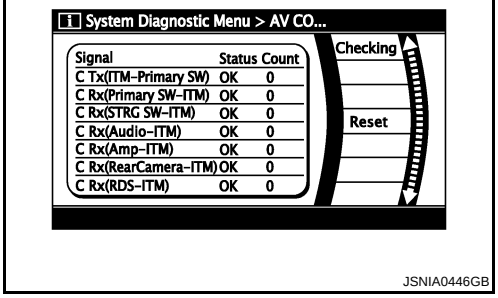
Items	Display (Current)	Malfunction counter (Past)
Rx (ECM)	OK / ???	0 – 40
Rx (Cluster)	—	—

NOTE:

"???" indicates UNKWN.

AV COMM Diagnosis

- Displays the communication status between NAVI control unit (master unit) and each unit.
- The error counter displays 0 if any malfunction was not detected in the past. It displays 40 if the malfunction is detected. It displays 39 when turning the ignition switch ON and it is normal. The lower limit of the counter is 1.
- The error counter is erased if it resets.



JSNIA0446GB

Items	Status (Current)	Counter (Past)
C Tx(ITM–PrimarySW)	OK / ???	0 – 40
C Rx(PrimarySW–ITM)	OK / ???	0 – 40
C Rx(STRG SW–ITM)	OK / ???	0 – 40
C Rx (Audio–ITM)	OK / ???	0 – 40
C Rx(Amp–ITM)	OK / ???	0 – 40
C Rx(RearCamera–ITM)	OK / ???	0 – 40
C Rx(RDS–ITM)	OK / ???	0 – 40

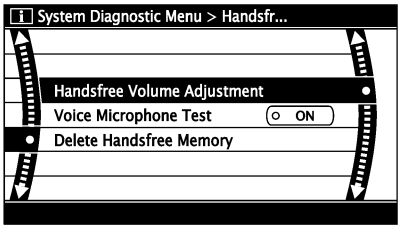
ITM: NAVI control unit

NOTE:

"???" indicates UNKWN.

Handsfree Phone

The hands-free phone reception volume adjustment, microphone and speaker test, and memory erase functions are also available.



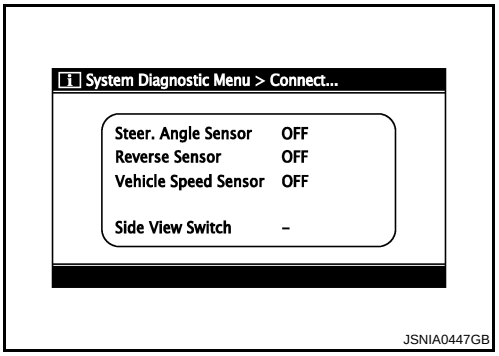
SKIB3668E

Camera Cont.

The two functions of "Connection Confirmation" and "Adjust offset of rear view camera" are available.

CONNECTION CONFIRAMATION

The steering angle sensor, reverse signal and vehicle speed sensor can be inspected.



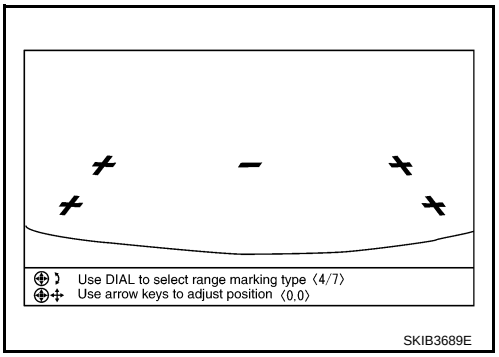
Diagnosis item	Display	Vehicle status
Steer. Angle Sensor	ON	When steering the vehicle with ignition switch ON (remains ON until connection mode is stopped when it is turned ON)
	OFF	• Ignition switch at ACC • No steering with ignition switch ON
	—	Malfunction detected in camera-connection recognition signal
Reverse Sensor	ON	Selector lever is in “R” with ignition switch ON.
	OFF	• Ignition switch at ACC • Selector lever is in position other than “R” with ignition switch ON.
	—	Malfunction detected in camera-connection recognition signal
Vehicle Speed Sensor	ON	Vehicle speed is more than 0 km/h with ignition switch ON
	OFF	• Ignition switch at ACC • Vehicle speed is 0 km/h with ignition switch ON
	—	Malfunction detected in camera-connection recognition signal
Side View Switch	—	—

ADJUST OFFSET OF REAR VIEW CAMERA

Use this mode to adjust the guide line display position of the rear view monitor if necessary after removing the rear view monitor camera.

NOTE:

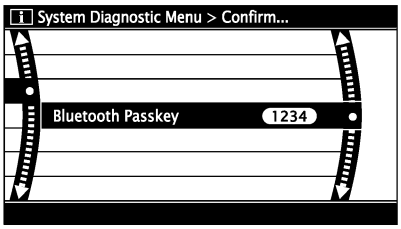
The number on the top left of the screen has no relation to diagnosis and adjustment.



Bluetooth

Confirmation/Change Passkey

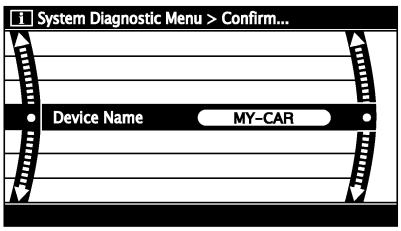
- The passkey of Bluetooth can be confirmed and changed.
- The passkey can be changed by four digits within 0 to 9.



SKIB3669E

Confirmation/Change Device Name

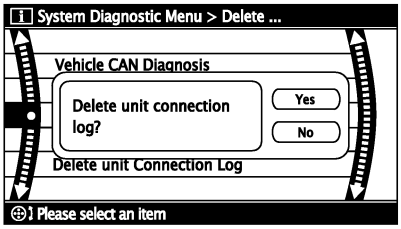
- The device name of Bluetooth can be confirmed and changed.
- The device name can be changed by sixteen digits within A to Z (small character can be used) and - (hyphen).



JSNIA0526GB

Delete Unit Connection Log

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



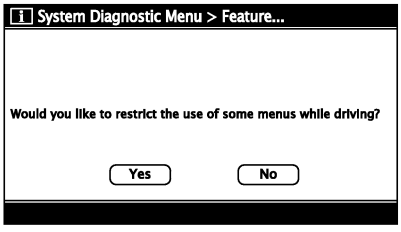
JPNIA0172GB

Feature Restriction Setting

Operations of navigation system that are performed while driving can be restricted by using this function.

CAUTION:

Once operational restrictions are imposed, they can not be cancelled even when the software is updated or the language-switching program is loaded.



JSNIA0345GB

CONSULT - III Function (MULTI AV)

INFOID:0000000001092947

CONSULT-III functions

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

Diagnosis mode	Description
Ecu Identification	The part number of NAVI control unit can be checked.
Self Diagnostic Result	Performs a diagnosis on the NAVI 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 NAVI 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 NAVI control unit to each unit as well as the error counter.
	AUDIO	Displays the NAVI control unit communication status and the error counter.

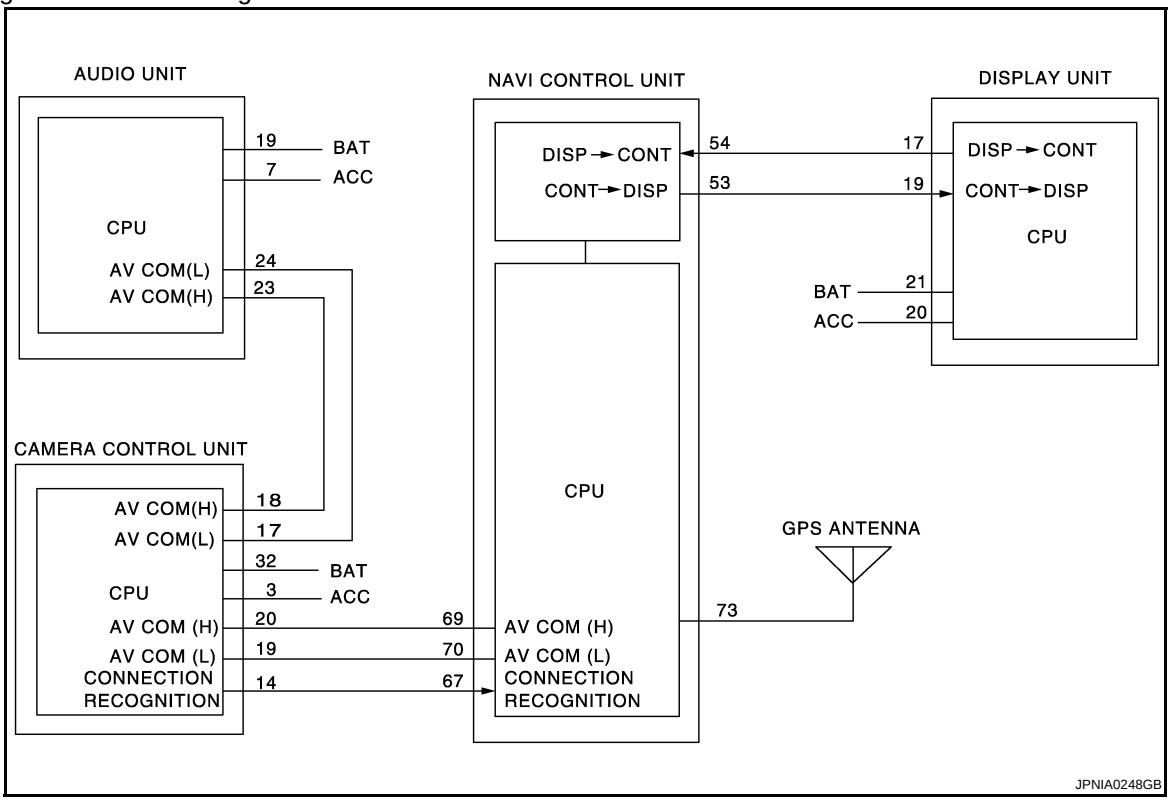
ECU IDENTIFICATION

The part number of NAVI control unit is displayed.

SELF DIAGNOSIS RESULT

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

Self-diagnosis detection range



Self-diagnosis results display item

Error item	Description	Possible cause/Action to take
CAN COMM CIRCUIT[U1000]	CAN communication malfunction is detected.	Refer to AV-78, "Diagnosis Procedure".
CONTROL UNIT (CAN) [U1010]	CAN initial diagnosis malfunction is detected.	NAVI control unit
CONTROL UNIT (AV) [U1310]	AV communication circuit initial diagnosis malfunction is detected.	NAVI control unit

Error item	Description	Possible cause/Action to take
• AV COMM CIRCUIT [U1300] • SWITCH CONN [U1240] • AUDIO H/U CONN [U1249] • AMP CONN [U124E] • RDS CONN [U124F]	• Audio unit power supply and ground circuit malfunction is detected. • Malfunction is detected on communication circuit between audio unit and camera control unit. • Malfunction is detected on communication signal between audio unit and NAVI control unit.	• Audio unit power supply and ground circuit • Communication circuit between audio unit and camera control unit • NAVI control unit • Audio unit
• AV COMM CIRCUIT [U1300] • SWITCH CONN [U1240] • AUDIO H/U CONN [U1249] • AMP CONN [U124E] • RDS CONN [U124F] • REAR-CAMERA LAN CONN [U1252]	Malfunction is detected on communication circuit between camera control unit and NAVI control unit.	Communication circuit between camera control unit and NAVI control unit
• AV COMM CIRCUIT [U1300] • REAR-CAMERA LAN CONN [U1252]	• Camera control unit power supply and ground circuit malfunction is detected. • Malfunction is detected on communication signal between camera control unit and NAVI control unit.	• Camera control unit power supply and ground circuit • NAVI control unit • Camera control unit
FRONT DISP CONN [U1243]	• Display unit power supply and ground circuit malfunction is detected. • Malfunction is detected on communication circuit between display unit and NAVI control unit. • Malfunction is detected on communication signal between display unit and NAVI control unit.	• Display unit power supply and ground circuit • Communication circuit between display unit and NAVI control unit
GPS ANTENNA CONN [U1244]	GPS antenna connection malfunction is detected.	• GPS antenna feeder • GPS antenna
CAMERA CONT. CONN [U1250]	Camera and connection recognition signal circuit malfunction is detected.	Camera-connection recognition signal circuit
Control Unit FLASH-ROM [U1200]	NAVI control unit malfunction is detected.	NAVI control unit
Gyro NO CONN [U1201]	NAVI control unit malfunction is detected.	NAVI control unit
GPS COMM [U1204]	GPS malfunction is detected.	Intermittent malfunction caused by strong radio interference may be detected if the symptoms such as the GPS receipt malfunction occur. Replace NAVI control unit if the malfunction always occurs.
GPS ROM [U1205]		
GPS RAM [U1206]		
GPS RTC [U1207]		

Error item	Description	Possible cause/Action to take
DVD-ROM COMM [U1208]	• Malfunction is detected on DVD-ROM drive pickup lens in NAVI control unit. • There is dirt and damage on the map disc.	• Map disc • NAVI control unit
DVD-ROM READ [U1209]		
DVD-ROM DISC [U120A]		
DVD-ROM MECHA DETECT [U120C]		
DVD-ROM DRIVE MECHA [U120D]		
DVD-ROM FOCUS [U120E]		
DVD-ROM TOC [U120F]		
DVD-ROM SEEK [U1210]		
DVD-ROM ERR CORRECTION [U1211]		
DVD-ROM DATA FORWARD [U1212]		
DVD-ROM DATA [U1213]		
DVD-ROM TIMEOUT [U1214]		
DVD-ROM LOAD [U1215]		
CAN CONT [U1216]	NAVI control unit malfunction is detected.	NAVI control unit
BLUETOOTH CONN [U1217]		

DATA MONITOR

ALL SIGNALS
- Displays the status of the following vehicle signals inputted to the NAVI 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.	Changes in indication may be delayed. This is normal.
	OFF	Parking brake is released.	
ILLUM SIG	ON	Lighting switch ON	—
	OFF	Lighting 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:0000000001092949

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 line, CAN-L line) 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-25, "CAN Communication Signal Chart".

DTC Logic

INFOID:0000000001092950

DTC DETECTION LOGIC

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

Diagnosis Procedure

INFOID:0000000001092951

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-13, "Trouble Diagnosis Flow Chart".
NO >> Refer to GI section. Refer to GI-39, "Intermittent Incident".

U1010 CONTROL UNIT (CAN)

Description

INFOID:0000000001092952

Initial diagnosis of NAVI control unit.

DTC Logic

INFOID:0000000001092953

DTC DETECTION LOGIC

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

Diagnosis Procedure

INFOID:0000000001092954

1.REPLACE NAVI CONTROL UNIT

Replace NAVI control unit when DTC U1010 is detected.

>> INSPECTION END

U1310 NAVI CONTROL UNIT

Description

INFOID:0000000001092955

Replace the NAVI control unit if this DTC is displayed. Refer to AV-257, "Exploded View".

Part name	Description
NAVI CONTORL UNIT	• Map data can be read from the Map DVD-ROM by installing Map DVD-ROM. • It is the master unit of the MULTI AV system, and it is connected to each control unit by means of communication. It operates each system according to communication signals from the NAVI control unit. • The NAVI control unit includes the audio, hands-free phone, navigation, and vehicle information functions. • The NAVI control unit displays the maintenance information while receiving data signal through CAN communication from combination meter. • It inputs the illumination signals that are required for the display dimming control. • It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).

DTC Logic

INFOID:0000000001092956

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 NAVI control unit.

U1200 NAVI CONTROL UNIT

Description

INFOID:0000000001115047

Replace the NAVI control unit if this DTC is displayed. Refer to AV-257, "Exploded View".

Part name	Description
NAVI CONTORL UNIT	• Map data can be read from the Map DVD-ROM by installing Map DVD-ROM. • It is the master unit of the MULTI AV system, and it is connected to each control unit by means of communication. It operates each system according to communication signals from the NAVI control unit. • The NAVI control unit includes the audio, hands-free phone, navigation, and vehicle information functions. • The NAVI control unit displays the maintenance information while receiving data signal through CAN communication from combination meter. • It inputs the illumination signals that are required for the display dimming control. • It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).

DTC Logic

INFOID:0000000001092958

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

U1201 NAVI CONTROL UNIT

Description

INFOID:0000000001115048

Replace the NAVI control unit if this DTC is displayed. Refer to AV-257, "Exploded View".

Part name	Description
NAVI CONTORL UNIT	• Map data can be read from the Map DVD-ROM by installing Map DVD-ROM. • It is the master unit of the MULTI AV system, and it is connected to each control unit by means of communication. It operates each system according to communication signals from the NAVI control unit. • The NAVI control unit includes the audio, hands-free phone, navigation, and vehicle information functions. • The NAVI control unit displays the maintenance information while receiving data signal through CAN communication from combination meter. • It inputs the illumination signals that are required for the display dimming control. • It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).

DTC Logic

INFOID:0000000001092960

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1201	GYRO NO CONN [U1201]	Internal malfunction of NAVI control unit (gyrocompass disconnection) is detected.	Replace NAVI control unit.

U1216 NAVI CONTROL UNIT

Description

INFOID:0000000001115049

Replace the NAVI control unit if this DTC is displayed. Refer to AV-257, "Exploded View".

Part name	Description
NAVI CONTORL UNIT	• Map data can be read from the Map DVD-ROM by installing Map DVD-ROM. • It is the master unit of the MULTI AV system, and it is connected to each control unit by means of communication. It operates each system according to communication signals from the NAVI control unit. • The NAVI control unit includes the audio, hands-free phone, navigation, and vehicle information functions. • The NAVI control unit displays the maintenance information while receiving data signal through CAN communication from combination meter. • It inputs the illumination signals that are required for the display dimming control. • It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).

DTC Logic

INFOID:0000000001092962

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

U1217 NAVI CONTROL UNIT

Description

INFOID:0000000001115050

Replace the NAVI control unit if this DTC is displayed. Refer to AV-257, "Exploded View".

Part name	Description
NAVI CONTORL UNIT	• Map data can be read from the Map DVD-ROM by installing Map DVD-ROM. • It is the master unit of the MULTI AV system, and it is connected to each control unit by means of communication. It operates each system according to communication signals from the NAVI control unit. • The NAVI control unit includes the audio, hands-free phone, navigation, and vehicle information functions. • The NAVI control unit displays the maintenance information while receiving data signal through CAN communication from combination meter. • It inputs the illumination signals that are required for the display dimming control. • It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).

DTC Logic

INFOID:0000000001092964

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1217	BLUETOOTH MODULE CONN [U1217]	Internal malfunction of NAVI control unit (Bluetooth module connection malfunction) is detected.	Replace NAVI control unit.

U1204 GPS

Description

INFOID:0000000001092965

An intermittent error caused by strong radio interference may be detected unless any symptoms (GPS reception error, etc.) occur. Replace the NAVI control unit if the malfunction occurs constantly. Refer to AV-257, "Exploded View".

Part name	Description
NAVI CONTORL UNIT	• Map data can be read from the Map DVD-ROM by installing Map DVD-ROM. • It is the master unit of the MULTI AV system, and it is connected to each control unit by means of communication. It operates each system according to communication signals from the NAVI control unit. • The NAVI control unit includes the audio, hands-free phone, navigation, and vehicle information functions. • The NAVI control unit displays the maintenance information while receiving data signal through CAN communication from combination meter. • It inputs the illumination signals that are required for the display dimming control. • It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).

DTC Logic

INFOID:0000000001092966

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1204	GPS CONN [U1204]	Internal malfunction of NAVI control unit (GPS malfunction) is detected.	Replace NAVI control unit.

Diagnosis Procedure

INFOID:0000000001092967

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 >> Replace NAVI control unit.
NO >> The intermittent malfunction caused by strong radio interference can be detected.

U1205 GPS

Description

INFOID:0000000001115056

An intermittent error caused by strong radio interference may be detected unless any symptoms (GPS reception error, etc.) occur. Replace the NAVI control unit if the malfunction occurs constantly. Refer to AV-257, "Exploded View".

Part name	Description
NAVI CONTORL UNIT	• Map data can be read from the Map DVD-ROM by installing Map DVD-ROM. • It is the master unit of the MULTI AV system, and it is connected to each control unit by means of communication. It operates each system according to communication signals from the NAVI control unit. • The NAVI control unit includes the audio, hands-free phone, navigation, and vehicle information functions. • The NAVI control unit displays the maintenance information while receiving data signal through CAN communication from combination meter. • It inputs the illumination signals that are required for the display dimming control. • It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).

DTC Logic

INFOID:0000000001092969

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1205	GPS ROM [U1205]	Internal malfunction of NAVI control unit (GPS malfunction) is detected.	Replace NAVI control unit.

Diagnosis Procedure

INFOID:0000000001115062

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 >> Replace NAVI control unit.
NO >> The intermittent malfunction caused by strong radio interference can be detected.

U1206 GPS

Description

INFOID:0000000001115057

An intermittent error caused by strong radio interference may be detected unless any symptoms (GPS reception error, etc.) occur. Replace the NAVI control unit if the malfunction occurs constantly. Refer to AV-257, "Exploded View".

Part name	Description
NAVI CONTORL UNIT	• Map data can be read from the Map DVD-ROM by installing Map DVD-ROM. • It is the master unit of the MULTI AV system, and it is connected to each control unit by means of communication. It operates each system according to communication signals from the NAVI control unit. • The NAVI control unit includes the audio, hands-free phone, navigation, and vehicle information functions. • The NAVI control unit displays the maintenance information while receiving data signal through CAN communication from combination meter. • It inputs the illumination signals that are required for the display dimming control. • It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).

DTC Logic

INFOID:0000000001092972

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1206	GPS RAM [U1206]	Internal malfunction of NAVI control unit (GPS malfunction) is detected.	Replace NAVI control unit.

Diagnosis Procedure

INFOID:0000000001115065

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 >> Replace NAVI control unit.
NO >> The intermittent malfunction caused by strong radio interference can be detected.

U1207 GPS

Description

INFOID:0000000001115059

An intermittent error caused by strong radio interference may be detected unless any symptoms (GPS reception error, etc.) occur. Replace the NAVI control unit if the malfunction occurs constantly. Refer to AV-257, "Exploded View".

Part name	Description
NAVI CONTORL UNIT	• Map data can be read from the Map DVD-ROM by installing Map DVD-ROM. • It is the master unit of the MULTI AV system, and it is connected to each control unit by means of communication. It operates each system according to communication signals from the NAVI control unit. • The NAVI control unit includes the audio, hands-free phone, navigation, and vehicle information functions. • The NAVI control unit displays the maintenance information while receiving data signal through CAN communication from combination meter. • It inputs the illumination signals that are required for the display dimming control. • It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).

DTC Logic

INFOID:0000000001092975

DTC	Display contents of CONSULT-III	DTC Detection Condition	Action to take
U1207	GPS RTC [U1207]	Internal malfunction of NAVI control unit (GPS malfunction) is detected.	Replace NAVI control unit.

Diagnosis Procedure

INFOID:0000000001115066

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 >> Replace NAVI control unit.
NO >> The intermittent malfunction caused by strong radio interference can be detected.

U1208 NAVI CONTROL UNIT

Description

INFOID:0000000001092977

Part name	Description
NAVI CONTORL UNIT	• Map data can be read from the Map DVD-ROM by installing Map DVD-ROM. • It is the master unit of the MULTI AV system, and it is connected to each control unit by means of communication. It operates each system according to communication signals from the NAVI control unit. • The NAVI control unit includes the audio, hands-free phone, navigation, and vehicle information functions. • The NAVI control unit displays the maintenance information while receiving data signal through CAN communication from combination meter. • It inputs the illumination signals that are required for the display dimming control. • It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).
MAP DVD-ROM	A collection of Map data.

DTC Logic

INFOID:0000000001092978

DTC	Display contents of CONSULT-III	DTC Detection Condition	Probable malfunction location
U1208	DVD-ROM COMM [U1208]	• Malfunction is detected on DVD-ROM drive pickup lens in NAVI control unit. • There is dirt and damage on the map disc.	• Map disc • NAVI control unit

Diagnosis Procedure

INFOID:0000000001092979

1.PERFORM THE SELF-DIAGNOSIS

1. Delete the self-diagnosis results. Turn ignition switch OFF.
2. Turn ignition switch ON. Replace map DVD-ROM with a normal one.
3. Perform the self-diagnosis again.
4. Check that the DTC is detected again.

Is any DTC detected?

YES >> Replace NAVI control unit.
NO >> Replace Map disc.

U1209 NAVI CONTROL UNIT

Description

INFOID:0000000001115086

Part name	Description
NAVI CONTORL UNIT	• Map data can be read from the Map DVD-ROM by installing Map DVD-ROM. • It is the master unit of the MULTI AV system, and it is connected to each control unit by means of communication. It operates each system according to communication signals from the NAVI control unit. • The NAVI control unit includes the audio, hands-free phone, navigation, and vehicle information functions. • The NAVI control unit displays the maintenance information while receiving data signal through CAN communication from combination meter. • It inputs the illumination signals that are required for the display dimming control. • It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).
MAP DVD-ROM	A collection of Map data.

DTC Logic

INFOID:0000000001092981

DTC	Display contents of CONSULT-III	DTC Detection Condition	Probable malfunction location
U1209	DVD-ROM READ [U1209]	• Malfunction is detected on DVD-ROM drive pickup lens in NAVI control unit. • There is dirt and damage on the map disc.	• Map disc • NAVI control unit

Diagnosis Procedure

INFOID:0000000001115087

1.PERFORM THE SELF-DIAGNOSIS

1. Delete the self-diagnosis results. Turn ignition switch OFF.
2. Turn ignition switch ON. Replace map DVD-ROM with a normal one.
3. Perform the self-diagnosis again.
4. Check that the DTC is detected again.

Is any DTC detected?

YES >> Replace NAVI control unit.
NO >> Replace Map disc.

U120A NAVI CONTROL UNIT

Description

INFOID:0000000001115088

Part name	Description
NAVI CONTORL UNIT	• Map data can be read from the Map DVD-ROM by installing Map DVD-ROM. • It is the master unit of the MULTI AV system, and it is connected to each control unit by means of communication. It operates each system according to communication signals from the NAVI control unit. • The NAVI control unit includes the audio, hands-free phone, navigation, and vehicle information functions. • The NAVI control unit displays the maintenance information while receiving data signal through CAN communication from combination meter. • It inputs the illumination signals that are required for the display dimming control. • It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).
MAP DVD-ROM	A collection of Map data.

DTC Logic

INFOID:0000000001092984

DTC	Display contents of CONSULT-III	DTC Detection Condition	Probable malfunction location
U120A	DVD-ROM DISC [U120A]	• Malfunction is detected on DVD-ROM drive pickup lens in NAVI control unit. • There is dirt and damage on the map disc.	• Map disc • NAVI control unit

Diagnosis Procedure

INFOID:0000000001115089

1.PERFORM THE SELF-DIAGNOSIS

1. Delete the self-diagnosis results. Turn ignition switch OFF.
2. Turn ignition switch ON. Replace map DVD-ROM with a normal one.
3. Perform the self-diagnosis again.
4. Check that the DTC is detected again.

Is any DTC detected?

YES >> Replace NAVI control unit.
NO >> Replace Map disc.

U120C NAVI CONTROL UNIT

Description

INFOID:0000000001115090

Part name	Description
NAVI CONTORL UNIT	• Map data can be read from the Map DVD-ROM by installing Map DVD-ROM. • It is the master unit of the MULTI AV system, and it is connected to each control unit by means of communication. It operates each system according to communication signals from the NAVI control unit. • The NAVI control unit includes the audio, hands-free phone, navigation, and vehicle information functions. • The NAVI control unit displays the maintenance information while receiving data signal through CAN communication from combination meter. • It inputs the illumination signals that are required for the display dimming control. • It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).
MAP DVD-ROM	A collection of Map data.

DTC Logic

INFOID:0000000001092987

DTC	Display contents of CONSULT-III	DTC Detection Condition	Probable malfunction location
U120C	DVD-ROM MECHA DETECT [U120C]	• Malfunction is detected on DVD-ROM drive pickup lens in NAVI control unit. • There is dirt and damage on the map disc.	• Map disc • NAVI control unit

Diagnosis Procedure

INFOID:0000000001115091

1.PERFORM THE SELF-DIAGNOSIS

1. Delete the self-diagnosis results. Turn ignition switch OFF.
2. Turn ignition switch ON. Replace map DVD-ROM with a normal one.
3. Perform the self-diagnosis again.
4. Check that the DTC is detected again.

Is any DTC detected?

YES >> Replace NAVI control unit.
NO >> Replace Map disc.

U120D NAVI CONTROL UNIT

Description

INFOID:0000000001115092

Part name	Description
NAVI CONTORL UNIT	• Map data can be read from the Map DVD-ROM by installing Map DVD-ROM. • It is the master unit of the MULTI AV system, and it is connected to each control unit by means of communication. It operates each system according to communication signals from the NAVI control unit. • The NAVI control unit includes the audio, hands-free phone, navigation, and vehicle information functions. • The NAVI control unit displays the maintenance information while receiving data signal through CAN communication from combination meter. • It inputs the illumination signals that are required for the display dimming control. • It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).
MAP DVD-ROM	A collection of Map data.

DTC Logic

INFOID:0000000001092990

DTC	Display contents of CONSULT-III	DTC Detection Condition	Probable malfunction location
U120D	DVD-ROM DRIVE MECHA [U120D]	• Malfunction is detected on DVD-ROM drive pickup lens in NAVI control unit. • There is dirt and damage on the map disc.	• Map disc • NAVI control unit

Diagnosis Procedure

INFOID:0000000001115093

1.PERFORM THE SELF-DIAGNOSIS

1. Delete the self-diagnosis results. Turn ignition switch OFF.
2. Turn ignition switch ON. Replace map DVD-ROM with a normal one.
3. Perform the self-diagnosis again.
4. Check that the DTC is detected again.

Is any DTC detected?

YES >> Replace NAVI control unit.
NO >> Replace Map disc.

U120E NAVI CONTROL UNIT

Description

INFOID:0000000001115122

Part name	Description
NAVI CONTORL UNIT	• Map data can be read from the Map DVD-ROM by installing Map DVD-ROM. • It is the master unit of the MULTI AV system, and it is connected to each control unit by means of communication. It operates each system according to communication signals from the NAVI control unit. • The NAVI control unit includes the audio, hands-free phone, navigation, and vehicle information functions. • The NAVI control unit displays the maintenance information while receiving data signal through CAN communication from combination meter. • It inputs the illumination signals that are required for the display dimming control. • It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).
MAP DVD-ROM	A collection of Map data.

DTC Logic

INFOID:0000000001092993

DTC	Display contents of CONSULT-III	DTC Detection Condition	Probable malfunction location
U120E	DVD-ROM FOCUS [U120E]	• Malfunction is detected on DVD-ROM drive pickup lens in NAVI control unit. • There is dirt and damage on the map disc.	• Map disc • NAVI control unit

Diagnosis Procedure

INFOID:0000000001115123

1.PERFORM THE SELF-DIAGNOSIS

1. Delete the self-diagnosis results. Turn ignition switch OFF.
2. Turn ignition switch ON. Replace map DVD-ROM with a normal one.
3. Perform the self-diagnosis again.
4. Check that the DTC is detected again.

Is any DTC detected?

YES >> Replace NAVI control unit.
NO >> Replace Map disc.

U120F NAVI CONTROL UNIT

Description

INFOID:0000000001115124

Part name	Description
NAVI CONTORL UNIT	• Map data can be read from the Map DVD-ROM by installing Map DVD-ROM. • It is the master unit of the MULTI AV system, and it is connected to each control unit by means of communication. It operates each system according to communication signals from the NAVI control unit. • The NAVI control unit includes the audio, hands-free phone, navigation, and vehicle information functions. • The NAVI control unit displays the maintenance information while receiving data signal through CAN communication from combination meter. • It inputs the illumination signals that are required for the display dimming control. • It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).
MAP DVD-ROM	A collection of Map data.

DTC Logic

INFOID:0000000001092996

DTC	Display contents of CONSULT-III	DTC Detection Condition	Probable malfunction location
U120F	DVD-ROM TOC [U120F]	• Malfunction is detected on DVD-ROM drive pickup lens in NAVI control unit. • There is dirt and damage on the map disc.	• Map disc • NAVI control unit

Diagnosis Procedure

INFOID:0000000001115125

1.PERFORM THE SELF-DIAGNOSIS

1. Delete the self-diagnosis results. Turn ignition switch OFF.
2. Turn ignition switch ON. Replace map DVD-ROM with a normal one.
3. Perform the self-diagnosis again.
4. Check that the DTC is detected again.

Is any DTC detected?

YES >> Replace NAVI control unit.
NO >> Replace Map disc.

U1210 NAVI CONTROL UNIT

Description

INFOID:0000000001115126

Part name	Description
NAVI CONTORL UNIT	• Map data can be read from the Map DVD-ROM by installing Map DVD-ROM. • It is the master unit of the MULTI AV system, and it is connected to each control unit by means of communication. It operates each system according to communication signals from the NAVI control unit. • The NAVI control unit includes the audio, hands-free phone, navigation, and vehicle information functions. • The NAVI control unit displays the maintenance information while receiving data signal through CAN communication from combination meter. • It inputs the illumination signals that are required for the display dimming control. • It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).
MAP DVD-ROM	A collection of Map data.

DTC Logic

INFOID:0000000001092999

DTC	Display contents of CONSULT-III	DTC Detection Condition	Probable malfunction location
U1210	DVD-ROM SEEK [U1210]	• Malfunction is detected on DVD-ROM drive pickup lens in NAVI control unit. • There is dirt and damage on the map disc.	• Map disc • NAVI control unit

Diagnosis Procedure

INFOID:0000000001115127

1.PERFORM THE SELF-DIAGNOSIS

1. Delete the self-diagnosis results. Turn ignition switch OFF.
2. Turn ignition switch ON. Replace map DVD-ROM with a normal one.
3. Perform the self-diagnosis again.
4. Check that the DTC is detected again.

Is any DTC detected?

YES >> Replace NAVI control unit.
NO >> Replace Map disc.

U1211 NAVI CONTROL UNIT

Description

INFOID:0000000001115128

Part name	Description
NAVI CONTORL UNIT	• Map data can be read from the Map DVD-ROM by installing Map DVD-ROM. • It is the master unit of the MULTI AV system, and it is connected to each control unit by means of communication. It operates each system according to communication signals from the NAVI control unit. • The NAVI control unit includes the audio, hands-free phone, navigation, and vehicle information functions. • The NAVI control unit displays the maintenance information while receiving data signal through CAN communication from combination meter. • It inputs the illumination signals that are required for the display dimming control. • It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).
MAP DVD-ROM	A collection of Map data.

DTC Logic

INFOID:0000000001093002

DTC	Display contents of CONSULT-III	DTC Detection Condition	Probable malfunction location
U1211	DVD-ROM ERR CORRECTION [U1211]	• Malfunction is detected on DVD-ROM drive pickup lens in NAVI control unit. • There is dirt and damage on the map disc.	• Map disc • NAVI control unit

Diagnosis Procedure

INFOID:0000000001115129

1.PERFORM THE SELF-DIAGNOSIS

1. Delete the self-diagnosis results. Turn ignition switch OFF.
2. Turn ignition switch ON. Replace map DVD-ROM with a normal one.
3. Perform the self-diagnosis again.
4. Check that the DTC is detected again.

Is any DTC detected?

YES >> Replace NAVI control unit.
NO >> Replace Map disc.

U1212 NAVI CONTROL UNIT

Description

INFOID:0000000001115130

Part name	Description
NAVI CONTORL UNIT	• Map data can be read from the Map DVD-ROM by installing Map DVD-ROM. • It is the master unit of the MULTI AV system, and it is connected to each control unit by means of communication. It operates each system according to communication signals from the NAVI control unit. • The NAVI control unit includes the audio, hands-free phone, navigation, and vehicle information functions. • The NAVI control unit displays the maintenance information while receiving data signal through CAN communication from combination meter. • It inputs the illumination signals that are required for the display dimming control. • It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).
MAP DVD-ROM	A collection of Map data.

DTC Logic

INFOID:0000000001093005

DTC	Display contents of CONSULT-III	DTC Detection Condition	Probable malfunction location
U1212	DVD-ROM DATA FORWARD [U1212]	• Malfunction is detected on DVD-ROM drive pickup lens in NAVI control unit. • There is dirt and damage on the map disc.	• Map disc • NAVI control unit

Diagnosis Procedure

INFOID:0000000001115131

1.PERFORM THE SELF-DIAGNOSIS

1. Delete the self-diagnosis results. Turn ignition switch OFF.
2. Turn ignition switch ON. Replace map DVD-ROM with a normal one.
3. Perform the self-diagnosis again.
4. Check that the DTC is detected again.

Is any DTC detected?

YES >> Replace NAVI control unit.
NO >> Replace Map disc.

U1213 NAVI CONTROL UNIT

Description

INFOID:0000000001115132

Part name	Description
NAVI CONTORL UNIT	• Map data can be read from the Map DVD-ROM by installing Map DVD-ROM. • It is the master unit of the MULTI AV system, and it is connected to each control unit by means of communication. It operates each system according to communication signals from the NAVI control unit. • The NAVI control unit includes the audio, hands-free phone, navigation, and vehicle information functions. • The NAVI control unit displays the maintenance information while receiving data signal through CAN communication from combination meter. • It inputs the illumination signals that are required for the display dimming control. • It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).
MAP DVD-ROM	A collection of Map data.

DTC Logic

INFOID:0000000001093008

DTC	Display contents of CONSULT-III	DTC Detection Condition	Probable malfunction location
U1213	DVD-ROM DATA [U1213]	• Malfunction is detected on DVD-ROM drive pickup lens in NAVI control unit. • There is dirt and damage on the map disc.	• Map disc • NAVI control unit

Diagnosis Procedure

INFOID:0000000001115133

1.PERFORM THE SELF-DIAGNOSIS

1. Delete the self-diagnosis results. Turn ignition switch OFF.
2. Turn ignition switch ON. Replace map DVD-ROM with a normal one.
3. Perform the self-diagnosis again.
4. Check that the DTC is detected again.

Is any DTC detected?

YES >> Replace NAVI control unit.
NO >> Replace Map disc.

U1214 NAVI CONTROL UNIT

Description

INFOID:0000000001115134

Part name	Description
NAVI CONTORL UNIT	• Map data can be read from the Map DVD-ROM by installing Map DVD-ROM. • It is the master unit of the MULTI AV system, and it is connected to each control unit by means of communication. It operates each system according to communication signals from the NAVI control unit. • The NAVI control unit includes the audio, hands-free phone, navigation, and vehicle information functions. • The NAVI control unit displays the maintenance information while receiving data signal through CAN communication from combination meter. • It inputs the illumination signals that are required for the display dimming control. • It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).
MAP DVD-ROM	A collection of Map data.

DTC Logic

INFOID:0000000001093011

DTC	Display contents of CONSULT-III	DTC Detection Condition	Probable malfunction location
U1214	DVD-ROM TIMEOUT [U1214]	• Malfunction is detected on DVD-ROM drive pickup lens in NAVI control unit. • There is dirt and damage on the map disc.	• Map disc • NAVI control unit

Diagnosis Procedure

INFOID:0000000001115135

1.PERFORM THE SELF-DIAGNOSIS

1. Delete the self-diagnosis results. Turn ignition switch OFF.
2. Turn ignition switch ON. Replace map DVD-ROM with a normal one.
3. Perform the self-diagnosis again.
4. Check that the DTC is detected again.

Is any DTC detected?

YES >> Replace NAVI control unit.
NO >> Replace Map disc.

U1215 NAVI CONTROL UNIT

Description

INFOID:0000000001115136

Part name	Description
NAVI CONTORL UNIT	• Map data can be read from the Map DVD-ROM by installing Map DVD-ROM. • It is the master unit of the MULTI AV system, and it is connected to each control unit by means of communication. It operates each system according to communication signals from the NAVI control unit. • The NAVI control unit includes the audio, hands-free phone, navigation, and vehicle information functions. • The NAVI control unit displays the maintenance information while receiving data signal through CAN communication from combination meter. • It inputs the illumination signals that are required for the display dimming control. • It inputs the signals for driving status recognition (vehicle speed, reverse and parking brake).
MAP DVD-ROM	A collection of Map data.

DTC Logic

INFOID:0000000001093014

DTC	Display contents of CONSULT-III	DTC Detection Condition	Probable malfunction location
U1215	DVD-ROM LOAD [U1215]	• Malfunction is detected on DVD-ROM drive pickup lens in NAVI control unit. • There is dirt and damage on the map disc.	• Map disc • NAVI control unit

Diagnosis Procedure

INFOID:0000000001115137

1.PERFORM THE SELF-DIAGNOSIS

1. Delete the self-diagnosis results. Turn ignition switch OFF.
2. Turn ignition switch ON. Replace map DVD-ROM with a normal one.
3. Perform the self-diagnosis again.
4. Check that the DTC is detected again.

Is any DTC detected?

YES >> Replace NAVI control unit.
NO >> Replace Map disc.

U1243 DISPLAY UNIT

Description

INFOID:0000000001093016

Part name	Description
DISPLAY UNIT	• Display image is controlled by the serial communication from NAVI control unit. • RGB image signal is input from NAVI control unit (RGB, RGB area and RGB synchronizing). Camera image signal is input from camera control unit. • Synchronize signal (HP, VP) is output to NAVI control unit.

DTC Logic

INFOID:0000000001093017

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

Diagnosis Procedure

INFOID:0000000001093018

1.CHECK DISPLAY UNIT POWER SUPPLY AND GROUND CIRCUIT

Check display unit power supply and ground circuit. Refer to AV-108, "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 NAVI control unit connector.
3. Check continuity between display unit harness connector terminals 17, 19 and NAVI control unit harness connector terminals 54, 53.

17 - 54 : Continuity should exist.
19 - 53 : Continuity should exist.

4. Check continuity between display unit harness connector terminals 17, 19 and ground.

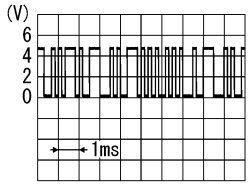
17, 19 - Ground : Continuity should not exist.

Is inspection result normal?

YES >> GO TO 3.
NO >> Repair harness or connector.

3.CHECK COMMUNICATION SIGNAL

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

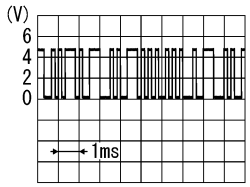
17 - Ground	 PKIB5039J

Is inspection result normal?

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

4. CHECK COMMUNICATION SIGNAL

Check signal between display unit harness connector terminal 19 and ground.

19 - Ground	 PKIB5039J

Is inspection result normal?

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

U1244 GPS ANTENNA

Description

INFOID:0000000001093019

Part name	Description
GPS ANTENNA	GPS signal is received and sent to NAVI control unit.

DTC Logic

INFOID:0000000001093020

DTC	Display contents of CONSULT-III	DTC Detection Condition	Possible causes
U1244	GPS ANTENNA CONN [U1244]	GPS antenna connection malfunction is detected	GPS antenna disconnection

Diagnosis Procedure

INFOID:0000000001093021

1.CHECK GPS ANTENNA

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. Disconnect GPS antenna connector.
2. Turn ignition switch ON.
3. Check voltage between NAVI control unit terminal 73 and ground.

73 - Ground : Approx. 5 V

Is inspection result normal?

YES >> INSPECTION END
NO >> Replace NAVI control unit.

U1250 CAMERA CONTROL UNIT

Description

INFOID:0000000001093022

Part name	Description
CAMERA CONTROL UNIT	• Camera image signal is input from rear view camera, and camera image is indicated on the display. • Power (camera ON signal) is sent to rear view camera. • Controlled by AV communication sent from NAVI control unit. • NAVI control unit recognizes the presence of camera system with camera connection recognition signal.

DTC Logic

INFOID:0000000001093023

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

Diagnosis Procedure

INFOID:0000000001093024

1.CHECK CAMERA-CONNECTION RECOGNITION SIGNAL CIRCUIT

1. Disconnect NAVI control unit connector and camera control unit connector.
2. Check continuity between NAVI control unit harness connector terminal 67 and camera control unit harness connector terminal 14.

67 - 14 : Continuity should exist.

Is inspection result normal?

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

2.CHECK NAVI CONTROL UNIT VOLTAGE

1. Connect NAVI control unit connector.
2. Turn ignition switch ON.
3. Check voltage between NAVI control unit harness connector terminal 67 and ground.

67 - Ground : Approx. 5 V

Is inspection result normal?

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

U1300 AV COMM CIRCUIT

Description

INFOID:0000000001093025

U1300 is indicated when malfunction occurs in communication signal of multi AV system. It is indicated simultaneously, without fail, with the malfunction of control units connected to NAVI control unit with communication line. It determines 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 U1249 U124E U124F	• AV COMM CIRCUIT [U1300] • SWITCH CONN [U1240] • AUDIO H/U CONN [U1249] • AMP CONN [U124E] • RDS CONN [U124F]	• Audio unit power supply and ground circuit malfunction is detected. • Malfunction is detected on communication circuit between audio unit and camera control unit. • Malfunction is detected on communication signal between audio unit and NAVI control unit.	• Audio unit power supply and ground circuits Refer to AV-107, "AUDIO UNIT : Diagnosis Procedure". • Communication circuit between audio unit and camera control unit • NAVI control unit
U1300 U1240 U1249 U124E U124F U1252	• AV COMM CIRCUIT [U1300] • SWITCH CONN [U1240] • AUDIO H/U CONN [U1249] • AMP CONN [U124E] • RDS CONN [U124F] • REAR-CAMERA LAN CONN [U1252]	Malfunction is detected on communication circuit between camera control unit and NAVI control unit.	Communication circuit between camera control unit and NAVI control unit
U1300 U1252	• AV COMM CIRCUIT [U1300] • REAR-CAMERA LAN CONN [U1252]	• Camera control unit power supply and ground circuit malfunction is detected. • Malfunction is detected on communication signal between camera control unit and NAVI control unit.	• Camera control unit power supply and ground circuit • NAVI control unit • Camera control unit

POWER SUPPLY AND GROUND CIRCUIT

NAVI CONTROL UNIT

NAVI CONTROL UNIT : Diagnosis Procedure

INFOID:0000000001093026

1.CHECK FUSE

Check for blown fuses.

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

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	Value (Approx.)
Battery power supply	M71	2	OFF	12 V
ACC power supply	M71	5	ACC	12 V
Ignition signal	M72	63	ON	12 V

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 connector and ground.

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

Is inspection result normal?

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

AUDIO UNIT

AUDIO UNIT : Diagnosis Procedure

INFOID:0000000001093027

1.CHECK FUSE

Check for blown fuses.

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

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 audio unit harness connectors and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Value (Approx.)
Battery power supply	M46	19	OFF	12 V
ACC power supply	M46	7	ACC	12 V

Is inspection result normal?

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

DISPLAY UNIT

DISPLAY UNIT : Diagnosis Procedure

INFOID:0000000001093028

1.CHECK FUSE

Check for blown fuses.

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

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 connectors and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Value (Approx.)
Battery power supply	M49	21	OFF	12 V
ACC power supply	M49	20	ACC	12 V

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	23	OFF	Continuity should exist.

Is inspection result normal?

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

CAMERA CONTROL UNIT

CAMERA CONTROL UNIT : Diagnosis Procedure

INFOID:0000000001093029

1.CHECK FUSE

Check for blown fuses.

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

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 camera control unit harness connectors and ground.

Signal name	Connector No.	Terminal No.	Ignition switch position	Value (Approx.)
Battery power supply	B60	32	OFF	12 V
ACC power supply	B60	30	ACC	12 V

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
Control signal	B60	13	OFF	Continuity should exist.
Ground		31		

Is inspection result normal?

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

RGB (R: RED) SIGNAL CIRCUIT

Description

INFOID:0000000001093030

Transmits the image displayed with NAVI control unit with RGB signal to the display unit.

Diagnosis Procedure

INFOID:0000000001117246

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

1. Turn ignition switch OFF.
2. Disconnect display unit connector and NAVI control unit connector.
3. Check continuity between display unit harness connector terminal 1 and NAVI control unit harness connector terminal 44.

1 - 44 : Continuity should exist.

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

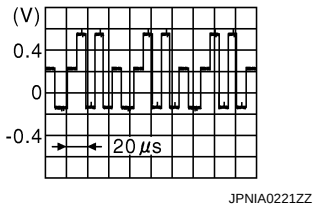
1 - Ground : Continuity should not exist.

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 NAVI control unit connector.
2. Turn ignition switch ON.
3. Start “Confirmation / Adjustment Mode”, and then display color bar by selecting“Color Spectrum Bar” on DISPLAY DIAGNOSIS screen.
4. Check signal between display unit harness connector terminal 1 and 8.

1 - 8	 JPNIA0221ZZ

Is inspection result normal?

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

RGB (G: GREEN) SIGNAL CIRCUIT

Description

INFOID:0000000001093032

Transmits the image displayed with NAVI control unit with RGB signal to the display unit.

Diagnosis Procedure

INFOID:0000000001117247

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

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

3 - 45 : Continuity should exist.

4. Check continuity between display unit harness connector terminal 3 and ground.

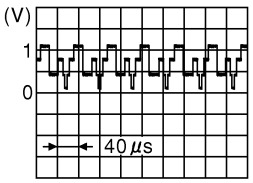
3 - Ground : Continuity should not exist.

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 NAVI control unit connector.
2. Turn ignition switch ON.
3. Start “Confirmation / Adjustment Mode”, and then display color bar by selecting “Color Spectrum Bar” on DISPLAY DIAGNOSIS screen.
4. Check signal between display unit harness connector terminal 3 and 8.

3 - 8	 JPNIA0222ZZ

Is inspection result normal?

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

RGB (B: BLUE) SIGNAL CIRCUIT

Description

INFOID:0000000001093034

Transmits the image displayed with NAVI control unit with RGB signal to the display unit.

Diagnosis Procedure

INFOID:0000000001117248

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

1. Turn ignition switch OFF.
2. Disconnect display unit connector and NAVI control unit connector.
3. Check continuity between display unit harness connector terminal 5 and NAVI control unit harness connector terminal 46.

5 - 46 : Continuity should exist.

4. Check continuity between display unit harness connector terminal 5 and ground.

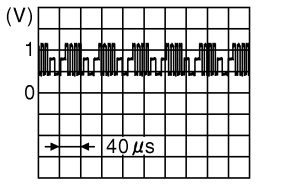
5 - Ground : Continuity should not exist.

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 NAVI control unit connector.
2. Turn ignition switch ON.
3. Start “Confirmation / Adjustment Mode”, and then display color bar by selecting “Color Spectrum Bar” on DISPLAY DIAGNOSIS screen.
4. Check signal between display unit harness connector terminal 5 and 8.

5 - 8	 JPNIA0223ZZ

Is inspection result normal?

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

RGB SYNCHRONIZING SIGNAL CIRCUIT

Description

INFOID:0000000001093036

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

Diagnosis Procedure

INFOID:0000000001093037

1.CHECK CONTINUITY RGB SYNCHRONIZING SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect display unit connector and NAVI control unit connector.
3. Check continuity between display unit harness connector terminal 7 and NAVI control unit harness connector terminal 48.

7 - 48 : Continuity should exist.

4. Check continuity between display unit harness connector terminal 7 and ground.

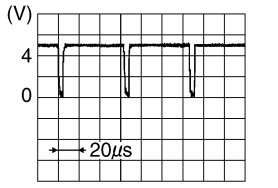
7 - Ground : Continuity should not exist.

Is inspection result normal?

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

2.CHECK RGB SYNCHRONIZING SIGNAL

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

7 - Ground	 SKIB0825E

Is inspection result normal?

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

RGB AREA (YS) SIGNAL CIRCUIT

Description

INFOID:0000000001093038

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

Diagnosis Procedure

INFOID:0000000001093039

1.CHECK CONTINUITY RGB AREA (YS) SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect display unit connector and NAVI control unit connector.
3. Check continuity between display unit harness connector terminal 2 and NAVI control unit harness connector terminal 50.

2 - 50 : Continuity should exist.

4. Check continuity between display unit harness connector terminal 2 and ground.

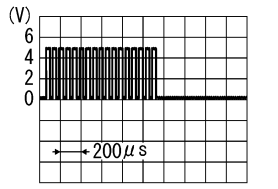
2 - Ground : Continuity should not exist.

Is inspection result normal?

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

2.CHECK RGB SYNCHRONIZING SIGNAL

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

2 - Ground	At RGB image displayed	: Approx. 5 V
	At rear view camera image displayed	 PKIB4948J

Is inspection result normal?

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

HORIZONTAL SYNCHRONIZING (HP) SIGNAL CIRCUIT

Description

INFOID:0000000001093040

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

Diagnosis Procedure

INFOID:0000000001093041

1. CHECK CONTINUITY HORIZONTAL SYNCHRONIZING (HP) SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect display unit connector and NAVI control unit connector.
3. Check continuity between display unit harness connector terminal 4 and NAVI control unit harness connector terminal 51.

4 - 51 : Continuity should exist.

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

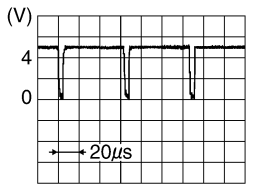
4 - Ground : Continuity should not exist.

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 NAVI control unit connector.
2. Turn ignition switch ON.
3. Check signal between display unit harness connector terminal 4 and ground.

4 - Ground	 SKIB0825E

Is inspection result normal?

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

VERTICAL SYNCHRONIZING (VP) SIGNAL CIRCUIT

Description

INFOID:0000000001093042

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

Diagnosis Procedure

INFOID:0000000001093043

1.CHECK CONTINUITY VERTICAL SYNCHRONIZING (VP) SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect display unit connector and NAVI control unit connector.
3. Check continuity between display unit harness connector terminal 6 and NAVI control unit harness connector terminal 52.

6 - 52 : Continuity should exist.

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

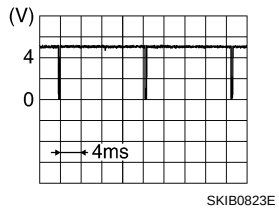
6 - Ground : Continuity should not exist.

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

6 - Ground	 SKIB0823E

Is inspection result normal?

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

MICROPHONE SIGNAL CIRCUIT

Description

INFOID:0000000001093044

Supplies power from NAVI control unit to microphone. The microphone transmits the sound voice to the NAVI control unit.

Diagnosis Procedure

INFOID:0000000001093045

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 terminals 6, 7, 8 and microphone harness connector terminals 4, 2, 1.

6 - 4	**: Continuity should exist.**
7 - 2	**: Continuity should exist.**
8 - 1	**: Continuity should exist.**

4. Check continuity between NAVI control unit harness connector terminals 6, 8 and ground.

6, 8 - Ground	**: Continuity should not exist.**

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 terminals 6 and 7.

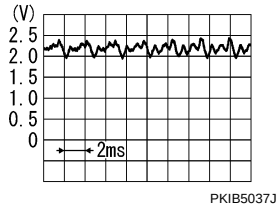
6 - 7	**: Approx. 5 V**

Is inspection result normal?

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

3.CHECK MICROPHONE SIGNAL

1. Connect microphone connector.
2. Check signal between NAVI control unit harness connector terminals 8 and 7.

8 - 7	 PKIB5037J

Is inspection result normal?

YES >> Replace NAVI control unit.
NO >> Replace microphone.

CAMERA IMAGE SIGNAL CIRCUIT (REAR VIEW CAMERA TO CAMERA CONTROL UNIT)

Description

INFOID:0000000001093046

- 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:0000000001117249

1.CHECK CONTINUITY CAMERA IMAGE SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect camera control unit connector and rear view camera connector.
3. Check continuity between camera control unit harness connector terminal 6 and rear view camera harness connector terminal 3.

6 - 3 : Continuity should exist.

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

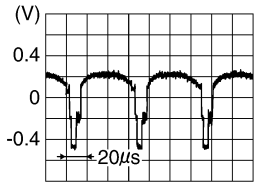
6 - Ground : Continuity should not exist.

Is inspection result normal?

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

2.CHECK CAMERA IMAGE SIGNAL

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

6 - Ground	At rear view camera image displayed	 SKIB0827E

Is inspection result normal?

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

CAMERA IMAGE SIGNAL CIRCUIT (CAMERA CONTROL UNIT TO DISPLAY UNIT)

Description

INFOID:0000000001093048

- 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:0000000001117250

1.CHECK CONTINUITY CAMERA IMAGE SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect camera control unit connector and display unit connector.
3. Check continuity between camera control unit harness connector terminal 12, 11 and display unit harness connector terminal 11, 12.

12 - 11 : Continuity should exist.
11 - 12 : Continuity should exist.

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

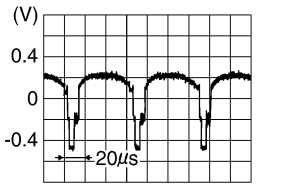
12 - Ground : Continuity should not exist.

Is inspection result normal?

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

2.CHECK CAMERA IMAGE SIGNAL

1. Connect camera control unit connector and display unit connector.
2. Turn ignition switch ON.
3. Check signal between camera control unit harness connector terminal 12 and ground.

12 - Ground	At rear view camera image displayed	 SKIB0827E

Is inspection result normal?

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

CAMERA ON SIGNAL CIRCUIT

Description

INFOID:0000000001093050

- 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:0000000001117251

1.CHECK CONTINUITY CAMERA ON SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect camera control unit connector and rear view camera connector.
3. Check continuity between camera control unit harness connector terminal 8 and rear view camera harness connector terminal 1.

8 - 1 : Continuity should exist.

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

8 - Ground : Continuity should not exist.

Is inspection result 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. Shift the selector lever to “R” position.
4. Check signal between camera control unit harness connector terminal 8 and ground.

8 - Ground : Approx. 6 V

Is inspection result normal?

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

STEERING ANGLE SENSOR SIGNAL 1, 2 CIRCUIT

Description

INFOID:0000000001114968

- 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:0000000001114969

1. CHECK CONTINUITY STEERING ANGLE SENSOR SIGNAL 1, 2 CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect camera control unit connector and steering angle sensor connector.
3. Check continuity between camera control unit harness connector terminals 23, 24 and steering angle sensor harness connector terminals 7, 6.

23 - 7	**: Continuity should exist.**
24 - 6	**: Continuity should exist.**

4. Check continuity between camera control unit harness connector terminals 23, 24 and ground.

23, 24 - Ground	**: Continuity should not exist.**

Is inspection result normal?

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

2. CHECK SIGNAL SENSOR SIGNAL 1, 2

1. Connect camera control unit connector.
2. Turn ignition switch ON.
3. Check voltage between camera control unit harness connector terminals 23, 24 and ground.

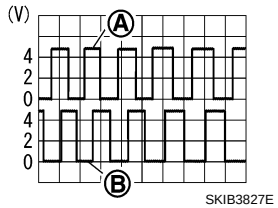
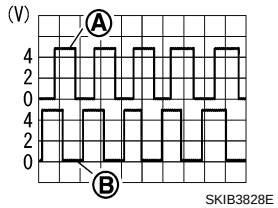
23 - Ground	**: Approx. 5 V**
24 - Ground	**: Approx. 5 V**

Is inspection result normal?

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

3. CHECK SIGNAL SENSOR SIGNAL 1, 2

1. Connect steering angle sensor connector.
2. Check signal between camera control unit harness connector terminal 23, 24 and ground.

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

Is inspection result normal?

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

STEERING ANGLE SENSOR SIGNAL 3 CIRCUIT

Description

INFOID:0000000001115138

- 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:0000000001114971

1.CHECK CONTINUITY STEERING ANGLE SENSOR SIGNAL 3 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 terminal 25 and steering angle sensor harness connector terminal 5.

25 - 5 : Continuity should exist.

4. Check continuity between camera control unit harness connector terminal 25 and ground.

25 - Ground : Continuity should not exist.

Is inspection result normal?

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

2.CHECK SIGNAL SENSOR SIGNAL 3

1. Connect camera control unit connector.
2. Turn ignition switch ON.
3. Check voltage between camera control unit harness connector terminal 25 and ground.

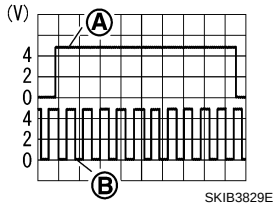
25 - Ground : Approx. 5 V

Is inspection result normal?

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

3.CHECK SIGNAL SENSOR SIGNAL 3

1. Connect steering angle sensor connector.
2. Check signal between camera control unit harness connector terminal 25 and ground.

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:0000000001093052

Transmits the steering switch signal to audio unit.

Diagnosis Procedure

INFOID:0000000001093053

1.CHECK STEERING SWITCH SIGNAL A CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect audio unit connector and spiral cable connector.
3. Check continuity between audio unit harness connector terminal 6 and spiral cable harness connector terminal 24.

6 - 24 : Continuity should exist.

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

6 - Ground : Continuity should not exist.

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 AUDIO UNIT VOLTAGE

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

6 - 15 : Approx. 5 V

Is 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-124, "Component Inspection".

Is inspection result normal?

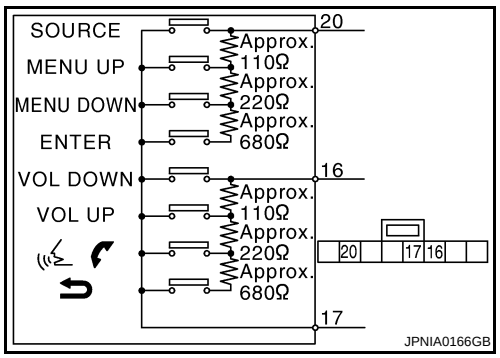
YES >> INSPECTION END
NO >> Replace steering switch.

Component Inspection

INFOID:0000000001093054

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

Standard



Between terminals 20 and 17

ENTER switch ON	**: 990 – 1030 Ω**
MENU DOWN switch ON	**: 324 – 336 Ω**
MENU UP switch ON	**: 108 – 112 Ω**
SOURCE switch ON	**: 0 Ω**

Between terminals 16 and 17

↩ switch ON	**: 990 – 1030 Ω**
📞 switch ON	**: 324 – 336 Ω**
VOL UP switch ON	**: 108 – 112 Ω**
VOL DOWN switch ON	**: 0 Ω**

STEERING SWITCH SIGNAL B CIRCUIT

Description

INFOID:0000000001115041

Transmits the steering switch signal to audio unit.

Diagnosis Procedure

INFOID:0000000001093056

1.CHECK STEERING SWITCH SIGNAL B CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect audio unit connector and spiral cable connector.
3. Check continuity between audio unit harness connector terminal 16 and spiral cable harness connector terminal 32.

16 - 32 : Continuity should exist.

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

16 - Ground : Continuity should not exist.

Is inspection result 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 AUDIO UNIT VOLTAGE

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

16 - 15 : Approx. 5 V

Is 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-126, "Component Inspection".

Is inspection result normal?

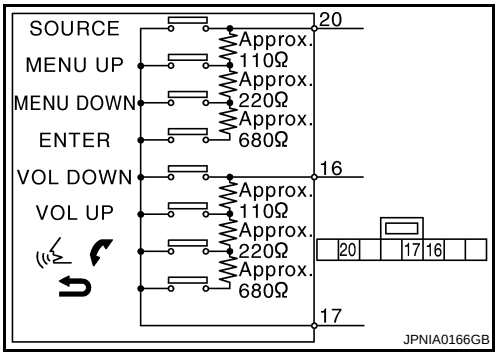
YES >> INSPECTION END
NO >> Replace steering switch.

Component Inspection

INFOID:0000000001115043

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

Standard



Between terminals 20 and 17

ENTER switch ON	**: 990 – 1030 Ω**
MENU DOWN switch ON	**: 324 – 336 Ω**
MENU UP switch ON	**: 108 – 112 Ω**
SOURCE switch ON	**: 0 Ω**

Between terminals 16 and 17

↩ switch ON	**: 990 – 1030 Ω**
📞 switch ON	**: 324 – 336 Ω**
VOL UP switch ON	**: 108 – 112 Ω**
VOL DOWN switch ON	**: 0 Ω**

STEERING SWITCH SIGNAL GND CIRCUIT

Description

INFOID:0000000001115042

Transmits the steering switch signal to audio unit.

Diagnosis Procedure

INFOID:0000000001093059

1.CHECK STEERING SWITCH SIGNAL GND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect audio unit connector and spiral cable connector.
3. Check continuity between audio unit harness connector terminal 15 and spiral cable harness connector terminal 31.

15 - 31 : Continuity should exist.

4. Connect audio 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 audio unit connector.
2. Check continuity between audio unit harness connector terminal 15 and ground.

15 - Ground : Continuity should exist.

Is inspection result normal?

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

4.CHECK STEERING SWITCH

1. Check steering switch. Refer to AV-128, "Component Inspection".

Is inspection result normal?

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

Component Inspection

INFOID:0000000001115044

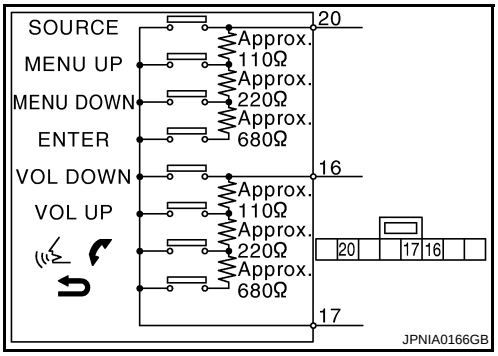
Measure the resistance between the steering switch connector terminals 20 to 17 and 16 to 17.

Standard

Between terminals 20 and 17

ENTER switch ON : 990 – 1030 Ω
MENU DOWN switch ON : 324 – 336 Ω
MENU UP switch ON : 108 – 112 Ω
SOURCE switch ON : 0 Ω

Between terminals 16 and 17



switch ON	: 990 – 1030 Ω
switch ON	: 324 – 336 Ω
VOL UP switch ON	: 108 – 112 Ω
VOL DOWN switch ON	: 0 Ω

ECU DIAGNOSIS

NAVI CONTROL UNIT

Reference Value

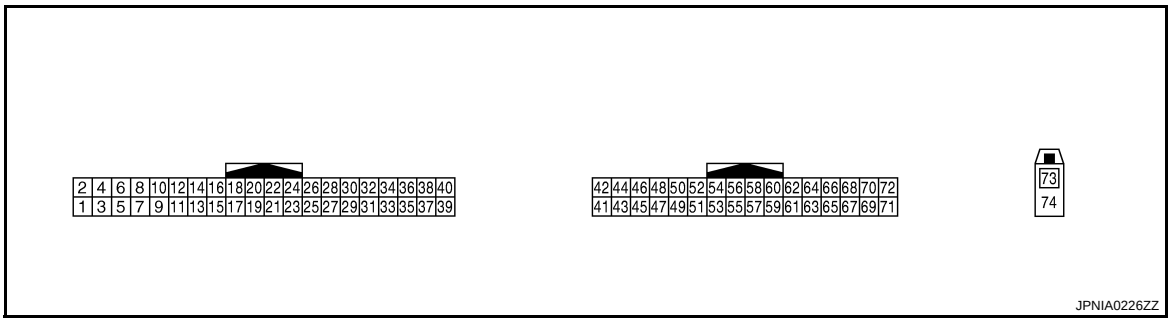
INFOID:0000000001093061

VALUES ON THE DIAGNOSIS TOOL

CONSULT-III data monitor item

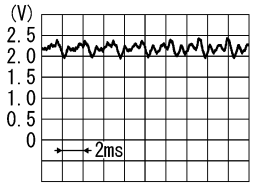
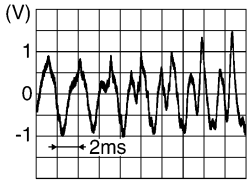
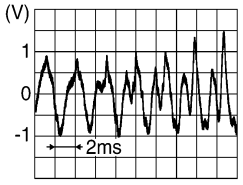
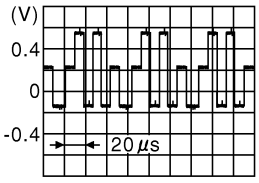
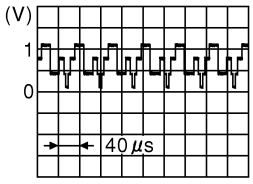
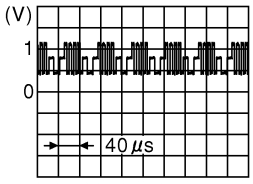
Display Item	Display	Vehicle status	Remarks
VHCL SPD SIG	ON	Vehicle speed >0 km/h (0 MPH)	Changes in indication may be delayed. This is normal.
	OFF	Vehicle speed =0 km/h (0 MPH)	
PKB SIG	ON	Parking brake is applied.	Changes in indication may be delayed. This is normal.
	OFF	Parking brake is released.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

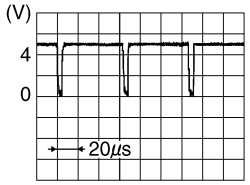
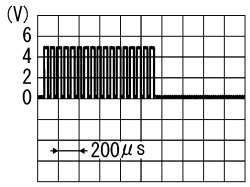
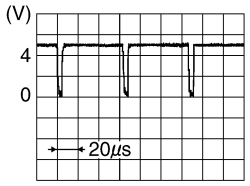
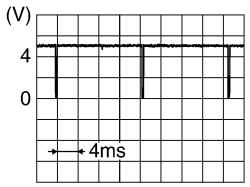
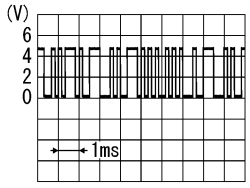
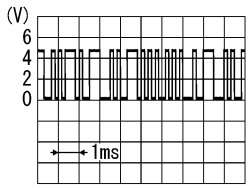
TERMINAL LAYOUT

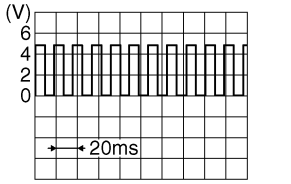


PHYSICAL VALUES

Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
1 (B)	Ground	GND	—	Ignition switch ON	—	0 V
2 (BR)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
5 (SB)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
6 (R)	7	Microphone VCC	Output	Ignition switch ON	—	5 V
7	Ground	Mic. GND	—	Ignition switch ON	—	0 V

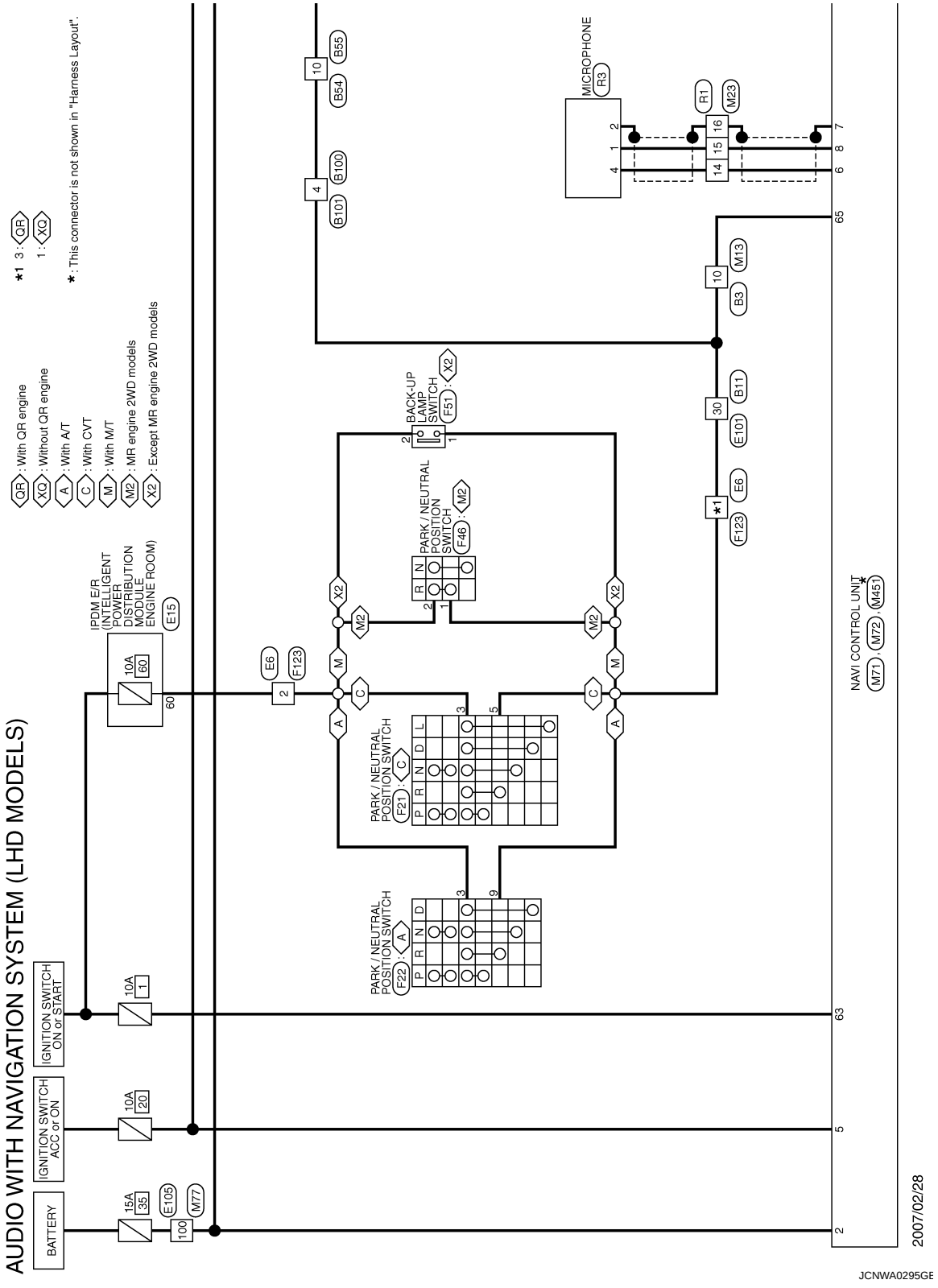
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
8 (G)	7	Microphone signal	Input	Ignition switch ON	Sounds	 PKIB5037J
9	—	Shield	—	—	—	—
10 (G)	11 (R)	TEL voice signal	Output	Ignition switch ON	TEL voice output	 SKIB3609E
12 (L)	14 (P)	Voice guidance signal	Output	Ignition switch ON	Voice guidance output	 SKIB3609E
13	—	Shield	—	—	—	—
44 (G)	47 (B)	RGB signal (R: red)	Output	Ignition switch ON	Start “Confirmation / Adjustment Mode”, and then display color bar by selecting “Color Spectrum Bar” on DISPLAY DIAGNOSIS screen.	 JPNIA0221ZZ
45 (R)	47 (B)	RGB signal (G: green)	Output	Ignition switch ON	Start “Confirmation / Adjustment Mode”, and then display color bar by selecting“Color Spectrum Bar” on DISPLAY DIAGNOSIS screen.	 JPNIA0222ZZ
46 (W)	47 (B)	RGB signal (B: blue)	Output	Ignition switch ON	Start “Confirmation / Adjustment Mode”, and then display color bar by selecting“Color Spectrum Bar” on DISPLAY DIAGNOSIS screen.	 JPNIA0223ZZ
47 (B)	Ground	RGB ground	—	Ignition switch ON	—	0 V

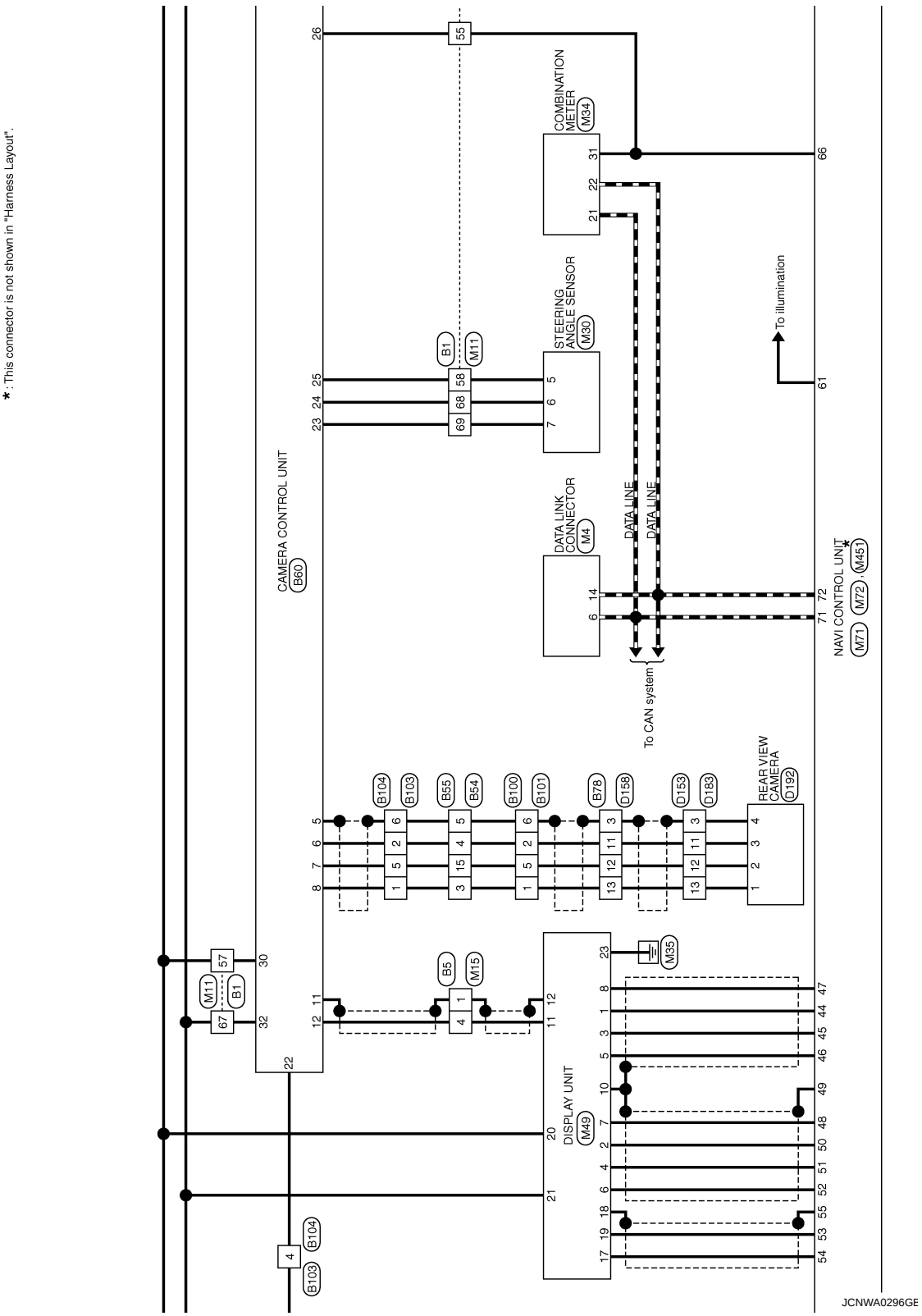
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
48 (L)	Ground	RGB synchronizing signal	Output	Ignition switch ON	—	 SKIB0825E
49	Ground	GND	—	Ignition switch ON	—	0 V
50 (G)	Ground	RGB area (YS) signal	Output	Ignition switch ON	At RGB image displayed	5 V
					At rear view camera image displayed	 PKIB4948J
51 (W)	Ground	Horizontal synchronizing (HP) signal	Input	Ignition switch ON	—	 SKIB0825E
52 (R)	Ground	Vertical synchronizing (VP) signal	Input	Ignition switch ON	—	 SKIB0823E
53 (L)	Ground	Communication signal (CONT→DISP)	Output	Ignition switch ON	When adjusting display brightness.	 PKIB5039J
54 (P)	Ground	Communication signal (DISP→CONT)	Input	Ignition switch ON	When adjusting display brightness.	 PKIB5039J
55	—	Shield	—	—	—	—

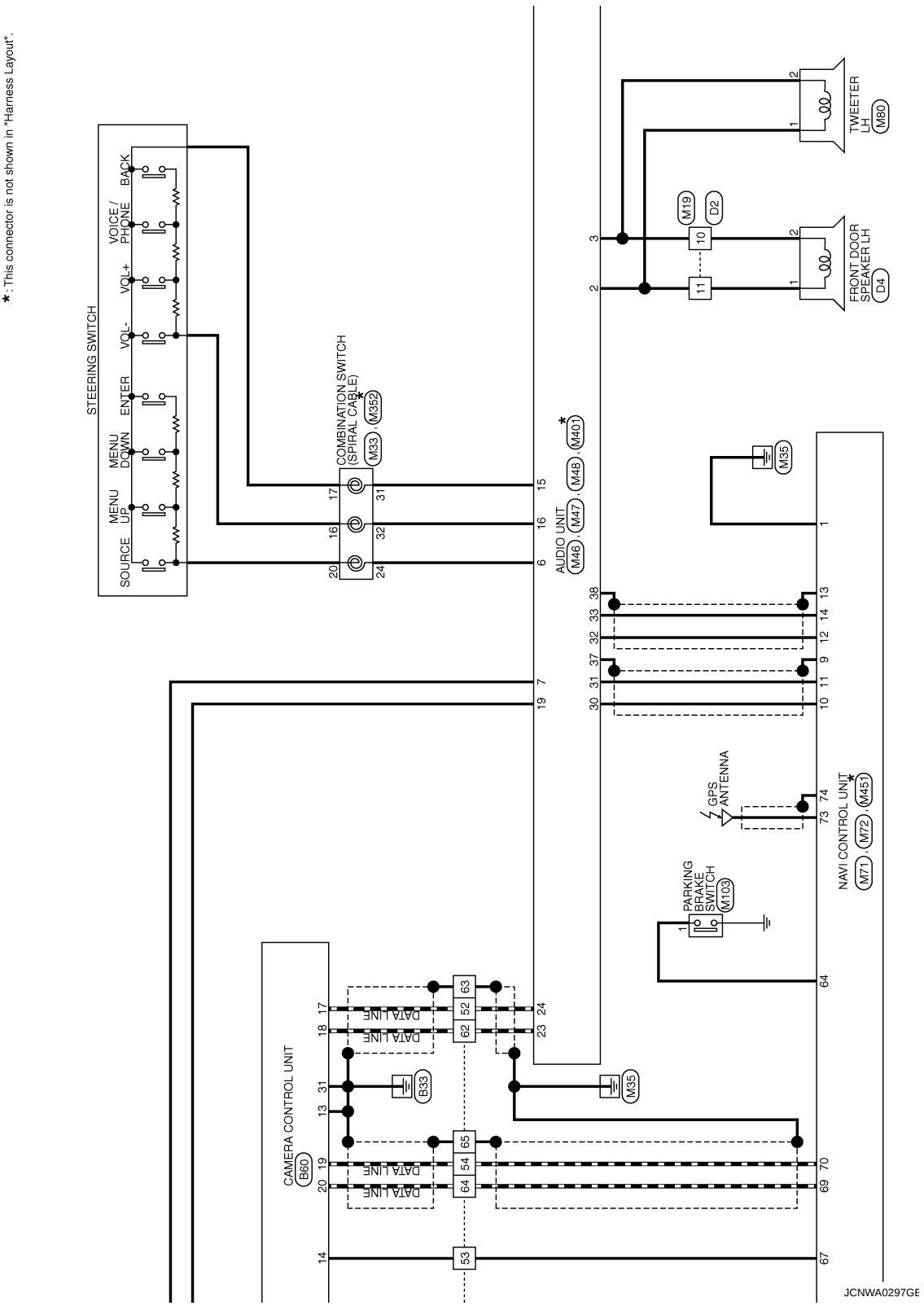
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
61 (R)	Ground	Illumination signal	Input	OFF	Lighting switch is OFF.	0 V
					Lighting switch is ON.	12 V
63 (W)	Ground	Ignition signal	Input	Ignition switch ON	—	Battery voltage
64 (GR)	Ground	Parking brake signal	Input	Ignition switch ON	Parking brake ON	0 V
					Parking brake OFF	12 V
65 (G)	Ground	Reverse signal	Input	Ignition switch ON	R position	12 V
					Other than R position	0 V
66 (V)	Ground	Vehicle speed signal (8-pulse)	Input	Ignition switch ON	When vehicle speed is approx. 40 km/h (25MPH)	 SKIA6649J
67 (L)	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
69 (L)	—	AV communication signal (H)	Input/ Output	—	—	—
70 (P)	—	AV communication signal (L)	Input/ Output	—	—	—
71 (L)	—	CAN–H	Input/ Output	—	—	—
72 (P)	—	CAN–L	Input/ Output	—	—	—
73	—	GPS antenna signal	Input	Ignition switch ACC	Not connected to GPS antenna connector	5 V
74	—	Shield	—	—	—	—

Wiring Diagram—AUDIO WITH NAVIGATION SYSTEM (LHD MODELS)—

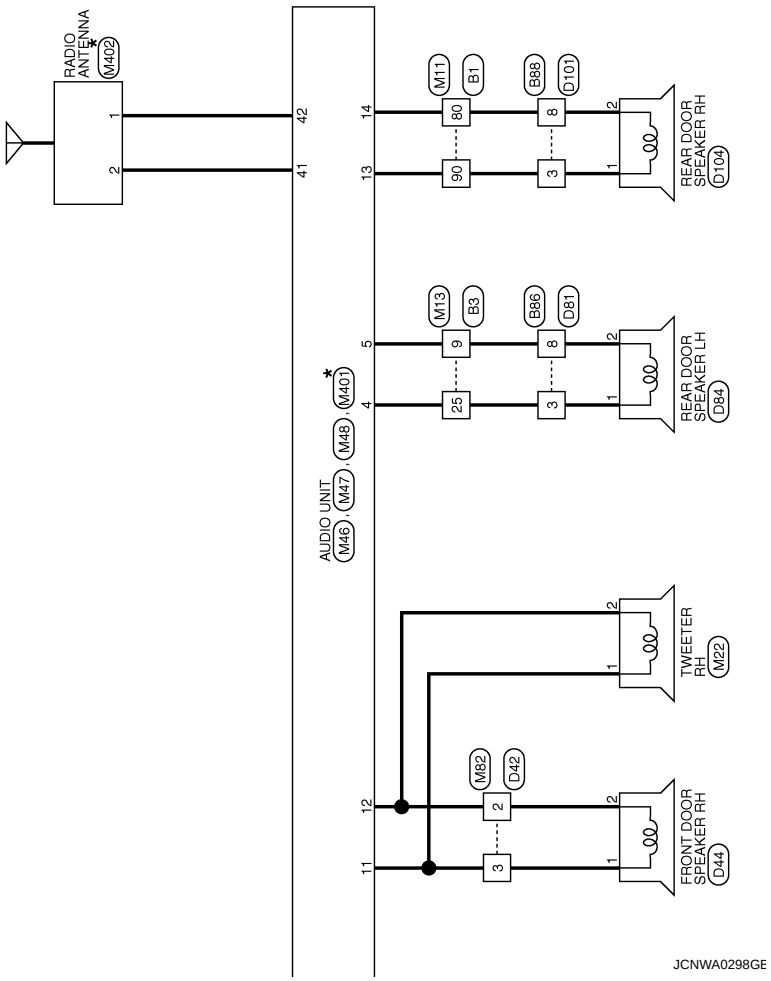
INFOID:0000000001093062




*: This connector is not shown in "Harness Layout".
CAMERA CONTROL UNIT
B60
COMBINATION METER
M34
STEERING ANGLE SENSOR
M30
DATA LINK CONNECTOR
M4
DATA LINE
DATA LINE
To illumination
To CAN system
NAVI CONTROL UNIT*
M71, M72, M451
REAR VIEW CAMERA
D192
DISPLAY UNIT
M49
M35
B1
M11
B5
M15
B104
B103
B55
B54
B100
B101
B78
D158
D153
D183
JCNWA0296GE


*: This connector is not shown in "Harness Layout".
STEERING SWITCH
SOURCE
MENU UP
MENU DOWN
ENTER
VOL-
VOL+
VOICE / PHONE
BACK
COMBINATION SWITCH (SPIRAL CABLE)
M33, M352
AUDIO UNIT
M46, M47, M48, M401
TWEETER LH
M80
FRONT DOOR SPEAKER LH
D4
M19
D2
M35
GPS ANTENNA
NAVI CONTROL UNIT
M71, M72, M451
PARKING BRAKE SWITCH
M103
CAMERA CONTROL UNIT
B60
B33
DATA LINE
JCNWA0297GE

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



AUDIO WITH NAVIGATION SYSTEM (LHD MODELS)

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

Terminal No.	Color of Wire	Signal Name [Specification]
52	P	–
53	GR	–
54	P	–
55	SB	–
57	W	–
58	O	–
62	L	–
63	SHIELD	–
64	L	–
65	SHIELD	–
67	R	–
68	LG	–
69	V	–
80	GR	–
90	LG	–

Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4

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

Connector No.	B54
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
3	G	–
4	Y	–
5	W	–
10	R	–
15	L	–

Connector No.	B3
Connector Name	WIRE TO WIRE
Connector Type	TH32MW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
9	R	–
10	G	–
25	W	–

Connector No.	B55
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
3	G	–
4	Y	–
5	W	–
10	R	–
15	L	–

Connector No.	B5
Connector Name	WIRE TO WIRE
Connector Type	TH04MW-NH

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

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AUDIO WITH NAVIGATION SYSTEM (LHD MODELS)

Connector No.	B60
Connector Name	CAMERA CONTROL UNIT
Connector Type	TH32FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
5	SHIELD	SHIELD
6	Y	CAMERA IMAGE SIGNAL
7	L	GND
8	G	CAMERA ON SIGNAL
11	SHIELD	SHIELD
12	Y	CAMERA IMAGE SIGNAL
13	B	CONTROL SIGNAL
14	GR	CAMERA-CONNECTION RECOGNITION SIGNAL
17	P	AV COMMUNICATION SIGNAL (L)
18	L	AV COMMUNICATION SIGNAL (H)
19	P	AV COMMUNICATION SIGNAL (L)
20	L	AV COMMUNICATION SIGNAL (H)
22	R	REV
23	V	SENSOR SIGNAL1
24	LG	SENSOR SIGNAL2
25	O	SENSOR SIGNAL3
26	SB	SPEED 8P
30	W	ACC
31	B	GND
32	R	BAT

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

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

Connector No.	B100
Connector Name	WIRE TO WIRE
Connector Type	TH08FW-NH

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

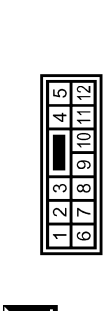
Connector No.	B101
Connector Name	WIRE TO WIRE
Connector Type	TH08MW-NH

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

Connector No.	B78
Connector Name	WIRE TO WIRE
Connector Type	TH16MW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
3	SHIELD	–
11	Y	–
12	L	–
13	G	–

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



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

Connector No.	B103
Connector Name	WIRE TO WIRE
Connector Type	TH08FW-NH

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

JCNWA0300GE

AUDIO WITH NAVIGATION SYSTEM (LHD MODELS)

Connector No.	B104
Connector Name	WIRE TO WIRE
Connector Type	TH08MW-NH

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

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

Terminal No.	Color of Wire	Signal Name [Specification]
10	P	–
11	W	–

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

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

Connector No.	D42
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS

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

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

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

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

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

Connector No.	D84
Connector Name	REAR DOOR SPEAKER LH
Connector Type	NS02FW-CS

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

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

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

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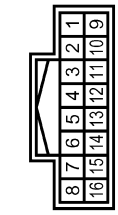
AUDIO WITH NAVIGATION SYSTEM (LHD MODELS)

Connector No.	D104
Connector Name	REAR DOOR SPEAKER RH
Connector Type	NS02FW-CS

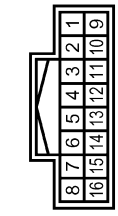
Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	–
2	GR	–

Connector No.	D153
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH



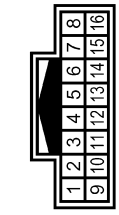
Terminal No.	Color of Wire	Signal Name [Specification]
3	SHIELD	–
11	Y	–
12	L	–
13	G	–

Connector No.	D158
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
3	SHIELD	–
11	Y	–
12	L	–
13	G	–

Connector No.	D183
Connector Name	WIRE TO WIRE
Connector Type	TH16MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
3	BR	–
11	Y	–
12	L	–
13	G	–

Connector No.	D192
Connector Name	REAR VIEW CAMERA
Connector Type	TK04MW

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	CAMERA ON
2	L	GND
3	Y	COMP-
4	BR	COMP-

Connector No.	E6
Connector Name	WIRE TO WIRE
Connector Type	TK24MW-1V

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	–[Without QR engine]
2	SB	–
3	G	–[With QR engine]

Connector No.	E15
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS16FW-CS

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

Connector No.	E101
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4

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

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AUDIO WITH NAVIGATION SYSTEM (LHD MODELS)

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

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

Connector No.	F21
Connector Name	PARK / NEUTRAL POSITION SWITCH
Connector Type	RK08FG

Terminal No.	Color of Wire	Signal Name [Specification]
3	SB	VIGN
5	G	R RANGE SWITCH

Connector No.	F22
Connector Name	PARK / NEUTRAL POSITION SWITCH
Connector Type	YAZAKI 7283-8700-30

Terminal No.	Color of Wire	Signal Name [Specification]
3	SB	VIGN
9	G	R RANGE SWITCH

Connector No.	F46
Connector Name	PARK / NEUTRAL POSITION SWITCH
Connector Type	FEA03FG

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

Connector No.	F51
Connector Name	BACK-UP LAMP SWITCH
Connector Type	RK02FB

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

Connector No.	F123
Connector Name	WIRE TO WIRE
Connector Type	TK24FW-1V

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	–[Without QR engine]
2	SB	–
3	G	–[With QR engine]

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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AUDIO WITH NAVIGATION SYSTEM (LHD MODELS)

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

Terminal No.	Color of Wire	Signal Name [Specification]
52	P	–
53	L	–
54	P	–
55	V	–
57	SB	–
58	O	–
62	L	–
63	SHIELD	–
64	L	–
65	SHIELD	–
67	BR	–
68	L	–
69	V	–
80	Y	–
90	BR	–

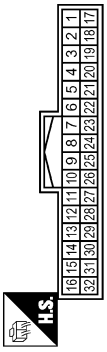
Connector No.	M19
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
10	P	–
11	W	–

Connector No.	M22
Connector Name	TWEETER RH
Connector Type	TK02FBR

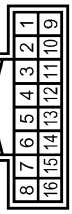
Terminal No.	Color of Wire	Signal Name [Specification]
1	G	–
2	R	–

Connector No.	M13
Connector Name	WIRE TO WIRE
Connector Type	TH32FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
9	R	–
10	G	–
25	LG	–

Connector No.	M23
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH

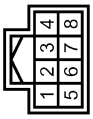


Terminal No.	Color of Wire	Signal Name [Specification]
14	R	–
15	G	–
16	SHIELD	–

Connector No.	M15
Connector Name	WIRE TO WIRE
Connector Type	TH04FW-NH

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

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



Terminal No.	Color of Wire	Signal Name [Specification]
5	O	SENS 3
6	L	SENS 2
7	V	SENS 1

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AUDIO WITH NAVIGATION SYSTEM (LHD MODELS)

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

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

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	SAB40FW

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

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

Terminal No.	Color of Wire	Signal Name [Specification]
2	W	FR LH SP+
3	P	FR LH SP-
4	LG	RR LH SP+
5	R	RR LH SP-
6	V	STRG SW A
7	SB	ACC
11	G	FR RH SP+
12	R	FR RH SP-
13	BR	RR RH SP+
14	Y	RR RH SP-
15	GR	STRG SW GND
16	O	STRG SW B
19	BR	BAT

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

Terminal No.	Color of Wire	Signal Name [Specification]
23	L	M-CAN H
24	P	M-CAN L

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

Terminal No.	Color of Wire	Signal Name [Specification]
30	G	TEL VOICE SIGNAL+
31	R	TEL VOICE SIGNAL-
32	L	VOICE GUIDANCE SIGNAL+[With navigation system]
33	P	VOICE GUIDANCE SIGNAL-
37	SHIELD	TEL VOICE SHIELD [With navigation system]
38	SHIELD	VOICE GUIDANCE SHIELD

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

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	RGB SIGNAL (R)
2	G	RGB AREA (YS) SIGNAL
3	R	RGB SIGNAL (G)
4	W	HORIZONTAL SYNCHRONIZING (HP) SIGNAL
5	W	RGB SIGNAL (B)
6	R	VERTICAL SYNCHRONIZING (VP) SIGNAL
7	L	RGB SYNCHRONIZING SIGNAL
8	B	GND
10	SHIELD	GND
11	Y	CAMERA IMAGE SIGNAL+
12	SHIELD	CAMERA IMAGE SIGNAL-
17	P	COMMUNICATION SIGNAL (DISP→CONT)
18	SHIELD	SHIELD
19	L	COMMUNICATION SIGNAL (CONT→DISP)
20	SB	ACC
21	BR	BAT
23	B	GND

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AUDIO WITH NAVIGATION SYSTEM (LHD MODELS)

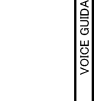
Connector No.	M71
Connector Name	NAVI CONTROL UNIT
Connector Type	TH40FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	BR	BAT
5	SB	ACC
6	R	MIC. VCC
7	SHIELD	MIC. GND
8	G	MIC. SIGNAL
9	SHIELD	TEL VOICE SHIELD
10	G	TEL VOICE SIGNAL+
11	R	TEL VOICE SIGNAL−
12	L	VOICE GUIDANCE SIGNAL+
13	SHIELD	VOICE GUIDANCE SHIELD

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

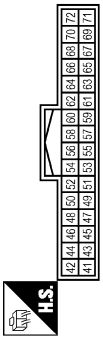
Terminal No.	Color of Wire	Signal Name [Specification]
100	BR	–

Connector No.	M80
Connector Name	TWEETER LH
Connector Type	TK02FBR



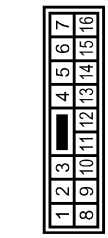
Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–
2	P	–

Connector No.	M72
Connector Name	NAVI CONTROL UNIT
Connector Type	TH32FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
44	G	RGB SIGNAL (R)
45	R	RGB SIGNAL (G)
46	W	RGB SIGNAL (B)
47	B	RGB GND
48	L	RGB SYNCHRONIZING SIGNAL
49	SHIELD	GND
50	G	RGB AREA (YS) SIGNAL
51	W	HORIZONTAL SYNCHRONIZING (HP) SIGNAL
52	R	VERTICAL SYNCHRONIZING (VP) SIGNAL
53	L	COMMUNICATION SIGNAL (CONT→DISP)
54	P	COMMUNICATION SIGNAL (DISP→CONT)
55	SHIELD	SHIELD
61	R	ILL
63	W	IGN
64	GR	PKB SIG
65	G	REVERSE SIG
66	V	SPEED(8PR)
67	L	CAMERA-CONNECTION RECOGNITION SIGNAL
69	L	AV COMMUNICATION SIGNAL (H)
70	P	AV COMMUNICATION SIGNAL (L)
71	L	CAN-H
72	P	CAN-L

Connector No.	M82
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS



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

Connector No.	M103
Connector Name	PARKING BRAKE SWITCH
Connector Type	P01FB-A

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

	I4	P	VOICE GUIDANCE SIGNAL−

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AUDIO WITH NAVIGATION SYSTEM (LHD MODELS)

Connector No.	M352
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08MGY-X

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

Connector No.	M401
Connector Name	AUDIO UNIT
Connector Type	GT 13 SHA

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

Connector No.	M402
Connector Name	RADIO ANTENNA
Connector Type	GT13SSN-1

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

Connector No.	M451
Connector Name	NAVI CONTROL UNIT
Connector Type	GT5S-1PP-HU

Terminal No.	Color of Wire	Signal Name [Specification]
73	–	GPS ANTENNA SIGNAL
74	SHIELD	SHIELD

Connector No.	R1
Connector Name	WIRE TO WIRE
Connector Type	TH16MW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
14	R	–
15	G	–
16	SHIELD	–

Connector No.	R3
Connector Name	MICROPHONE
Connector Type	TK04FW

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	MIC. SIGNAL
2	SHIELD	MIC. GND
4	R	MIC. VCC

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Wiring Diagram—AUDIO WITH NAVIGATION SYSTEM (RHD MODELS)—

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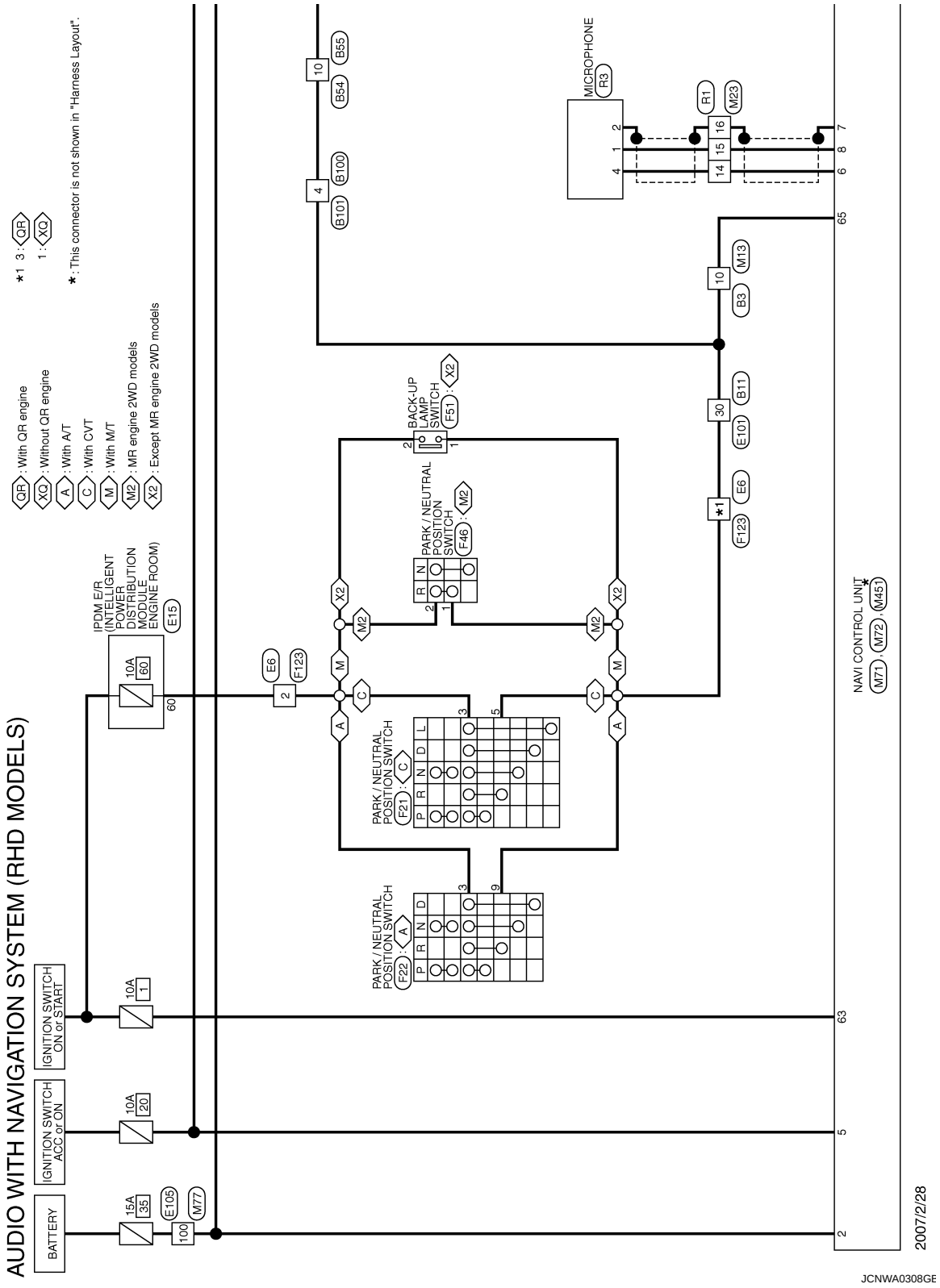
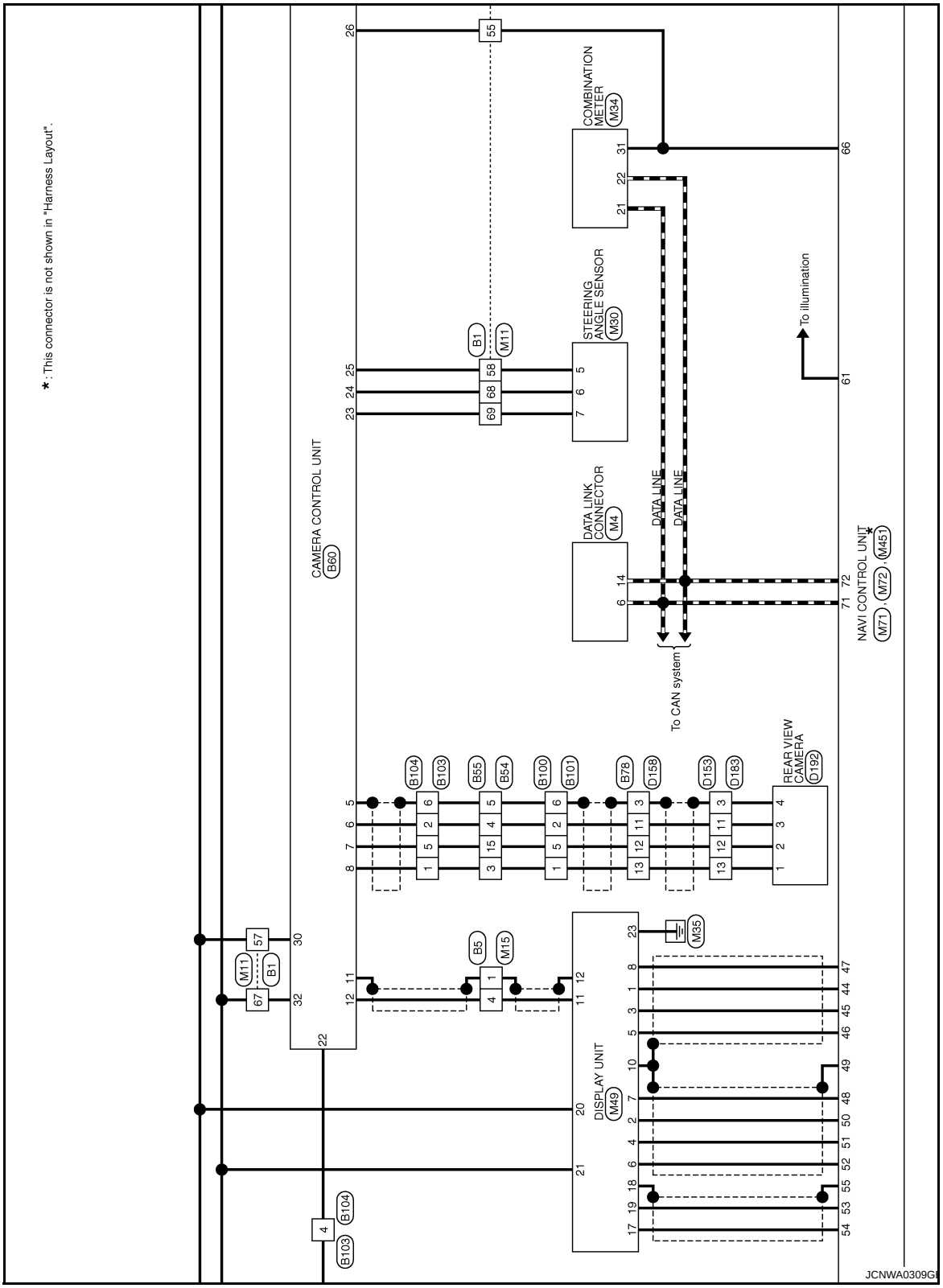
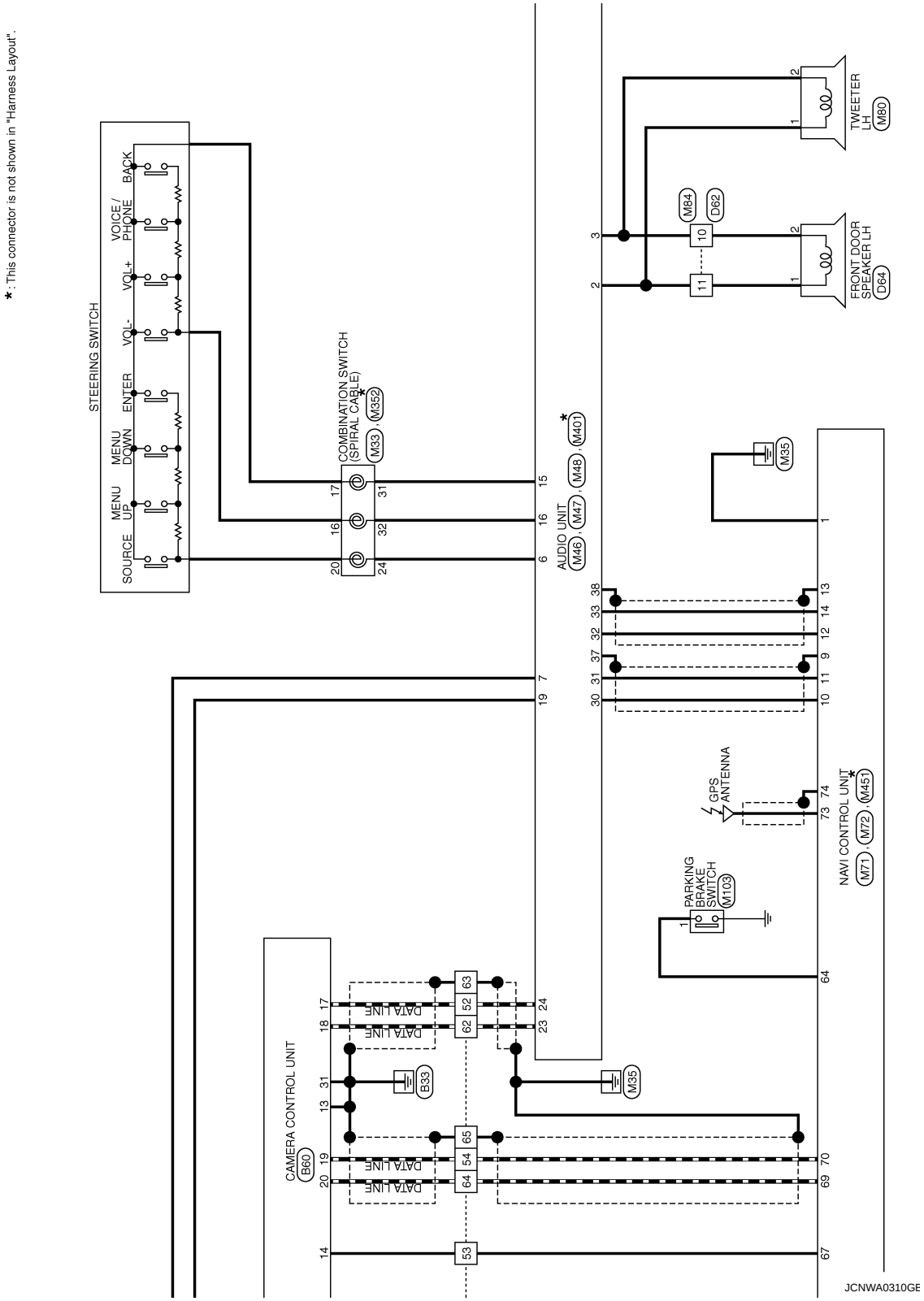
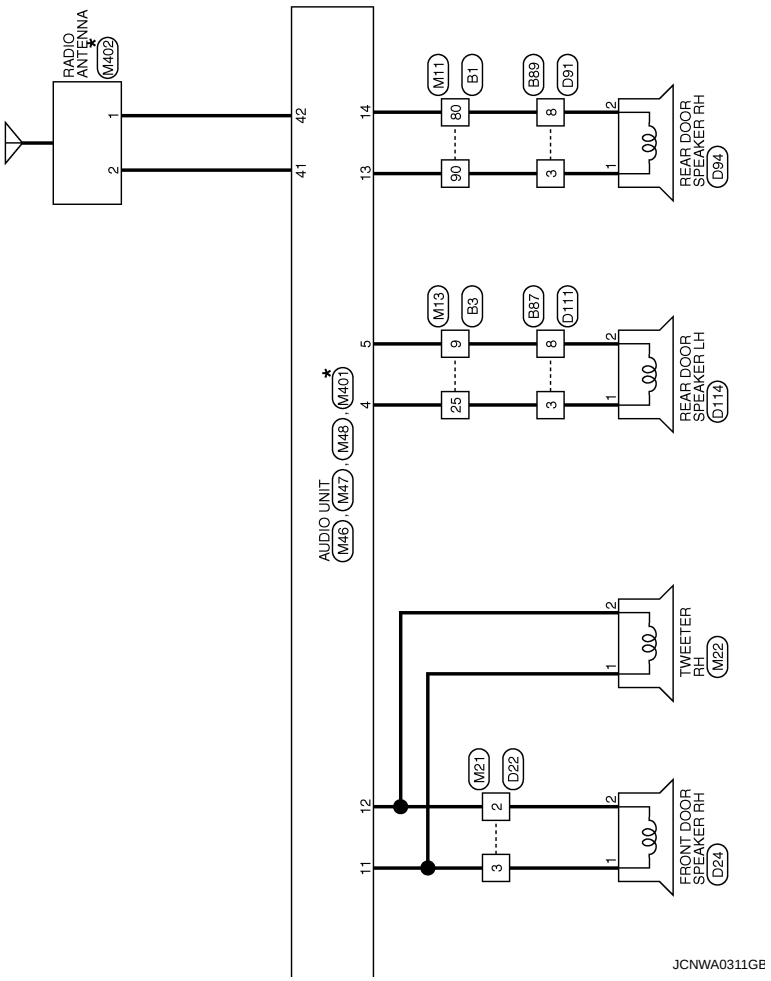



*: This connector is not shown in "Harness Layout".
CAMERA CONTROL UNIT
B60
COMBINATION METER
M34
STEERING ANGLE SENSOR
M30
DATA LINK CONNECTOR
M4
DATA LINE
DATA LINE
To CAN system
To illumination
NAVI CONTROL UNIT*
M71, M72, M451
REAR VIEW CAMERA
D192
DISPLAY UNIT
M49
B1
M11
B5
M15
B104
B103
B55
B54
B100
B101
B78
D158
D153
D183
M35
JCNWA0309GB


*: This connector is not shown in "Harness Layout".
STEERING SWITCH
SOURCE
MENU UP
MENU DOWN
ENTER
VOL-
VOL+
VOICE / PHONE
BACK
COMBINATION SWITCH (SPIRAL CABLE) * M33, M352
AUDIO UNIT * M46, M47, M48, M401
TWEETER LH M80
FRONT DOOR SPEAKER LH D64
M84
D62
M35
GPS ANTENNA
NAVI CONTROL UNIT * M71, M72, M451
PARKING BRAKE SWITCH M103
CAMERA CONTROL UNIT B60
B33
DATA LINE
JCNWA0310GE

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



AUDIO WITH NAVIGATION SYSTEM (RHD MODELS)

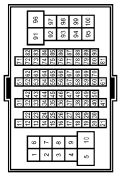
Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
52	P	–
53	GR	–
54	P	–
55	SB	–
57	W	–
58	O	–
62	L	–
63	SHIELD	–
64	L	–
65	SHIELD	–
67	R	–
68	LG	–
69	V	–
80	GR	–
90	LG	–

Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4

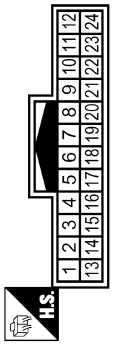
H.S.



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

Connector No.	B54
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH

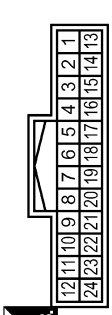
H.S.



Terminal No.	Color of Wire	Signal Name [Specification]
3	G	–
4	Y	–
5	W	–
10	R	–
15	L	–

Connector No.	B55
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH

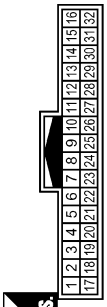
H.S.



Terminal No.	Color of Wire	Signal Name [Specification]
3	G	–
4	Y	–
5	W	–
10	R	–
15	L	–

Connector No.	B3
Connector Name	WIRE TO WIRE
Connector Type	TH32MW-NH

H.S.



Terminal No.	Color of Wire	Signal Name [Specification]
9	R	–
10	G	–
25	W	–

Connector No.	B5
Connector Name	WIRE TO WIRE
Connector Type	TH04MW-NH

H.S.

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

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AUDIO WITH NAVIGATION SYSTEM (RHD MODELS)

Connector No.	B60
Connector Name	CAMERA CONTROL UNIT
Connector Type	TH32FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
5	SHIELD	SHIELD
6	Y	CAMERA IMAGE SIGNAL
7	L	GND
8	G	CAMERA ON SIGNAL
11	SHIELD	SHIELD
12	Y	CAMERA IMAGE SIGNAL
13	B	CONTROL SIGNAL
14	GR	CAMERA-CONNECTION RECOGNITION SIGNAL
17	P	AV COMMUNICATION SIGNAL (L)
18	L	AV COMMUNICATION SIGNAL (H)
19	P	AV COMMUNICATION SIGNAL (L)
20	L	AV COMMUNICATION SIGNAL (H)
22	R	REV
23	V	SENSOR SIGNAL1
24	LG	SENSOR SIGNAL2
25	O	SENSOR SIGNAL3
26	SB	SPEED 8P
30	W	ACC
31	B	GND
32	R	BAT

Connector No.	B89
Connector Name	WIRE TO WIRE
Connector Type	NS12MW-CS

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

Connector No.	B100
Connector Name	WIRE TO WIRE
Connector Type	TH08FW-NH

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

Connector No.	B101
Connector Name	WIRE TO WIRE
Connector Type	TH08MW-NH

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

Connector No.	B78
Connector Name	WIRE TO WIRE
Connector Type	TH16MW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
3	SHIELD	–
11	Y	–
12	L	–
13	G	–

Connector No.	B87
Connector Name	WIRE TO WIRE
Connector Type	NS12MW-CS

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

Connector No.	B103
Connector Name	WIRE TO WIRE
Connector Type	TH08FW-NH

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

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AUDIO WITH NAVIGATION SYSTEM (RHD MODELS)

Connector No.	B104
Connector Name	WIRE TO WIRE
Connector Type	TH08MW-NH

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

Connector No.	D22
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS

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

Connector No.	D24
Connector Name	FRONT DOOR SPEAKER RH
Connector Type	NS02FW-CS

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

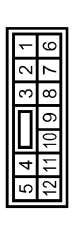
Connector No.	D62
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
10	P	–
11	W	–

Connector No.	D64
Connector Name	FRONT DOOR SPEAKER LH
Connector Type	NS02FW-CS

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

Connector No.	D91
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS

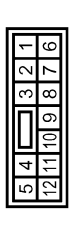


Terminal No.	Color of Wire	Signal Name [Specification]
3	LG	–
8	GR	–

Connector No.	D94
Connector Name	REAR DOOR SPEAKER RH
Connector Type	NS02FW-CS

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

Connector No.	D111
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS



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

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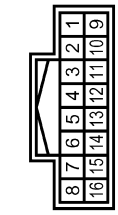
AUDIO WITH NAVIGATION SYSTEM (RHD MODELS)

Connector No.	D114
Connector Name	REAR DOOR SPEAKER LH
Connector Type	NS02FW-CS

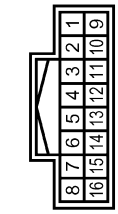
Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	–
2	GR	–

Connector No.	D153
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH



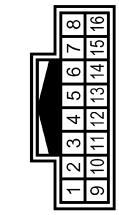
Terminal No.	Color of Wire	Signal Name [Specification]
3	SHIELD	–
11	Y	–
12	L	–
13	G	–

Connector No.	D158
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
3	SHIELD	–
11	Y	–
12	L	–
13	G	–

Connector No.	D183
Connector Name	WIRE TO WIRE
Connector Type	TH16MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
3	BR	–
11	Y	–
12	L	–
13	G	–

Connector No.	D192
Connector Name	REAR VIEW CAMERA
Connector Type	TK04MW

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	CAMERA ON
2	L	GND
3	Y	COMP-
4	BR	COMP-

Connector No.	E6
Connector Name	WIRE TO WIRE
Connector Type	TK24MW-1V

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	–[Without QR engine]
2	SB	–
3	G	–[With QR engine]

Connector No.	E15
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS16FW-CS

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

Connector No.	E101
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4

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

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AUDIO WITH NAVIGATION SYSTEM (RHD MODELS)

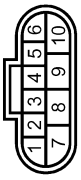
Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4

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

Connector No.	F21
Connector Name	PARK / NEUTRAL POSITION SWITCH
Connector Type	RK08FG

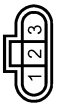
Terminal No.	Color of Wire	Signal Name [Specification]
3	SB	VIGN
5	G	R RANGE SWITCH

Connector No.	F22
Connector Name	PARK / NEUTRAL POSITION SWITCH
Connector Type	YAZAKI 7283-8700-30



Terminal No.	Color of Wire	Signal Name [Specification]
3	SB	VIGN
9	G	R RANGE SWITCH

Connector No.	F46
Connector Name	PARK / NEUTRAL POSITION SWITCH
Connector Type	FEA03FG



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

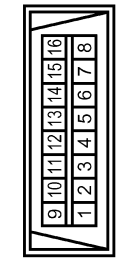
Connector No.	F51
Connector Name	BACK-UP LAMP SWITCH
Connector Type	RK02FB

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

Connector No.	F123
Connector Name	WIRE TO WIRE
Connector Type	TK24FW-1V

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	–[Without QR engine]
2	SB	–
3	G	–[With QR engine]

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



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

JCNWA0316GE

AUDIO WITH NAVIGATION SYSTEM (RHD MODELS)

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

Terminal No.	Color of Wire	Signal Name [Specification]
52	P	–
53	L	–
54	P	–
55	V	–
57	SB	–
58	O	–
62	L	–
63	SHIELD	–
64	L	–
65	SHIELD	–
67	BR	–
68	L	–
69	V	–
80	Y	–
90	BR	–

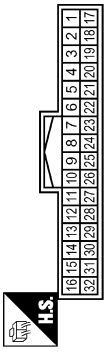
Connector No.	M21
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS

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

Connector No.	M22
Connector Name	TWEETER RH
Connector Type	TK02FBR

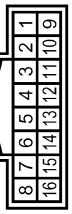
Terminal No.	Color of Wire	Signal Name [Specification]
1	G	–
2	R	–

Connector No.	M13
Connector Name	WIRE TO WIRE
Connector Type	TH32FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
9	R	–
10	G	–
25	LG	–

Connector No.	M23
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH

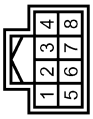


Terminal No.	Color of Wire	Signal Name [Specification]
14	R	–
15	G	–
16	SHIELD	–

Connector No.	M15
Connector Name	WIRE TO WIRE
Connector Type	TH04FW-NH

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

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



Terminal No.	Color of Wire	Signal Name [Specification]
5	O	SENS 3
6	L	SENS 2
7	V	SENS 1

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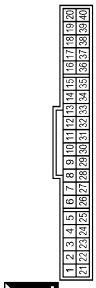
AUDIO WITH NAVIGATION SYSTEM (RHD MODELS)

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

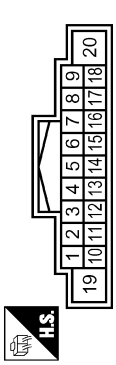
Terminal No.	Color of Wire	Signal Name [Specification]
24	V	–
31	GR	–
32	O	–

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	SAB40FW



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

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



Terminal No.	Color of Wire	Signal Name [Specification]
2	W	FR LH SP+
3	P	FR LH SP–
4	LG	RR LH SP+
5	R	RR LH SP–
6	V	STRG SW A
7	SB	ACC
11	G	FR RH SP+
12	R	FR RH SP–
13	BR	RR RH SP+
14	Y	RR RH SP–
15	GR	STRG SW GND
16	O	STRG SW B
19	BR	BAT

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

Terminal No.	Color of Wire	Signal Name [Specification]
23	L	M-CAN H
24	P	M-CAN L

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

Terminal No.	Color of Wire	Signal Name [Specification]
30	G	TEL VOICE SIGNAL+
31	R	TEL VOICE SIGNAL–
32	L	VOICE GUIDANCE SIGNAL+[With navigation system]
33	P	VOICE GUIDANCE SIGNAL–
37	SHIELD	TEL VOICE SHIELD [With navigation system]
38	SHIELD	VOICE GUIDANCE SHIELD

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

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	RGB SIGNAL (R)
2	G	RGB AREA (YS) SIGNAL
3	R	RGB SIGNAL (G)
4	W	HORIZONTAL SYNCHRONIZING (HP) SIGNAL
5	W	RGB SIGNAL (B)
6	R	VERTICAL SYNCHRONIZING (VP) SIGNAL
7	L	RGB SYNCHRONIZING SIGNAL
8	B	GND
10	SHIELD	GND
11	Y	CAMERA IMAGE SIGNAL+
12	SHIELD	CAMERA IMAGE SIGNAL–
17	P	COMMUNICATION SIGNAL (DISP→CONT)
18	SHIELD	SHIELD
19	L	COMMUNICATION SIGNAL (CONT→DISP)
20	SB	ACC
21	BR	BAT
23	B	GND

JCNWA0318GE

AUDIO WITH NAVIGATION SYSTEM (RHD MODELS)

Connector No.	M71
Connector Name	NAVI CONTROL UNIT
Connector Type	TH40FW-NH

H.S.

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

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	BR	BAT
5	SB	ACC
6	R	MIC. VCC
7	SHIELD	MIC. GND
8	G	MIC. SIGNAL
9	SHIELD	TEL VOICE SHIELD
10	G	TEL VOICE SIGNAL+
11	R	TEL VOICE SIGNAL−
12	L	VOICE GUIDANCE SIGNAL+
13	SHIELD	VOICE GUIDANCE SHIELD
14	P	VOICE GUIDANCE SIGNAL−

Connector No.	M72
Connector Name	NAVI CONTROL UNIT
Connector Type	TH32FW-NH

H.S.

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

Terminal No.	Color of Wire	Signal Name [Specification]
44	G	RGB SIGNAL (R)
45	R	RGB SIGNAL (G)
46	W	RGB SIGNAL (B)
47	B	RGB GND
48	L	RGB SYNCHRONIZING SIGNAL
49	SHIELD	GND
50	G	RGB AREA (YS) SIGNAL
51	W	HORIZONTAL SYNCHRONIZING (HP) SIGNAL
52	R	VERTICAL SYNCHRONIZING (VP) SIGNAL
53	L	COMMUNICATION SIGNAL (CONT→DISP)
54	P	COMMUNICATION SIGNAL (DISP→CONT)

55	SHIELD	SHIELD
61	R	ILL
63	W	IGN
64	GR	PKB SIG
65	G	REVERSE SIG
66	V	SPEED(8PR)
67	L	CAMERA-CONNECTION RECOGNITION SIGNAL
69	L	AV COMMUNICATION SIGNAL (H)
70	P	AV COMMUNICATION SIGNAL (L)
71	L	CAN-H
72	P	CAN-L

Connector No.	M103
Connector Name	PARKING BRAKE SWITCH
Connector Type	P01FB-A

H.S.

1

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

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

H.S.

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

Connector No.	M80
Connector Name	TWEETER LH
Connector Type	TK02FBR

H.S.

2	1

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

Connector No.	M84
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]
10	P	–
11	W	–

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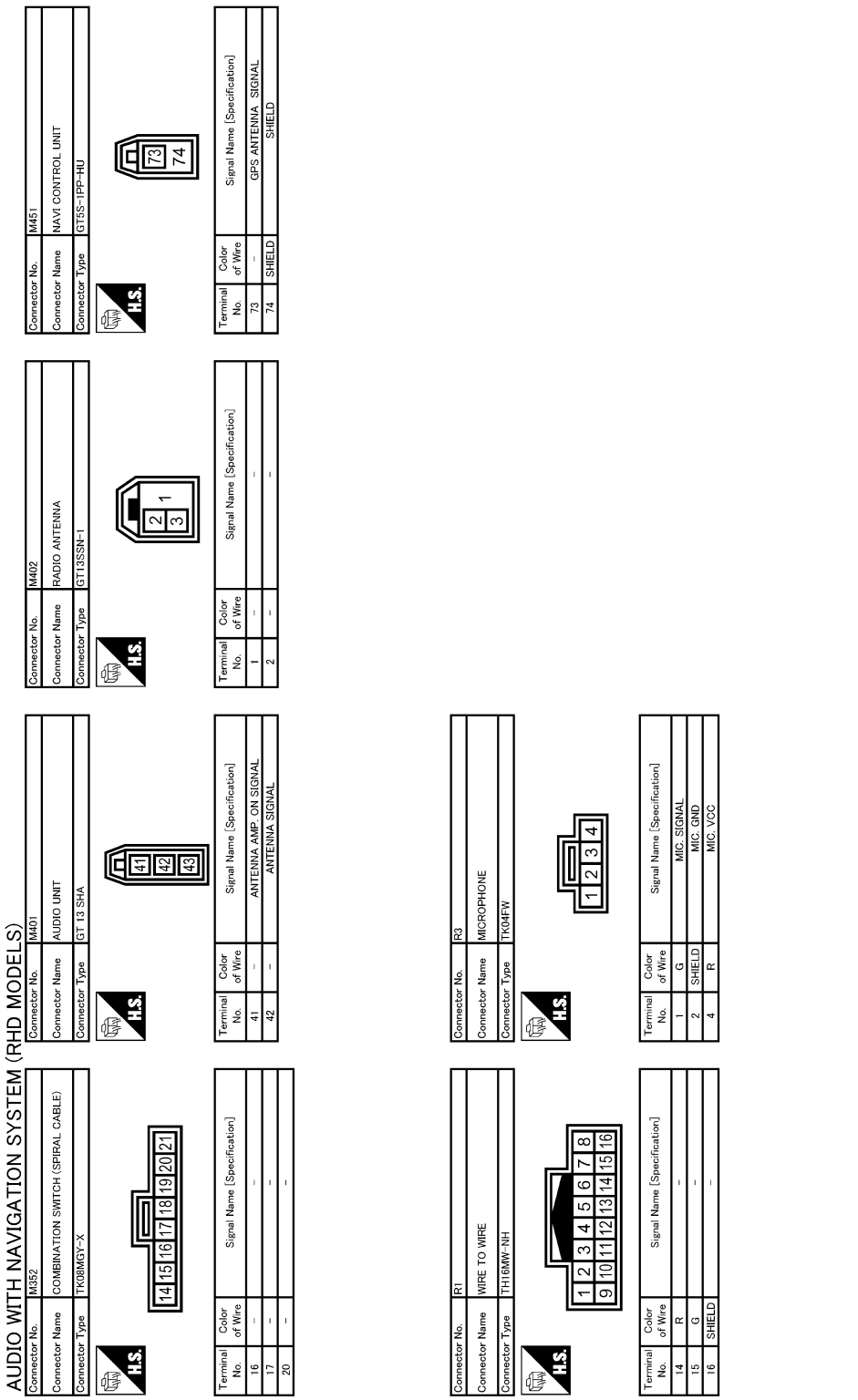


JCNWA0320GE

DTC Index

INFOID:0000000001093063

Self-diagnosis results display item

DTC	Error item	Refer to
U1000	CAN COMM CIRCUIT [U1000]	AV-78, "Diagnosis Procedure"
U1010	CONTROL UNIT (CAN) [U1010]	AV-79, "Diagnosis Procedure"

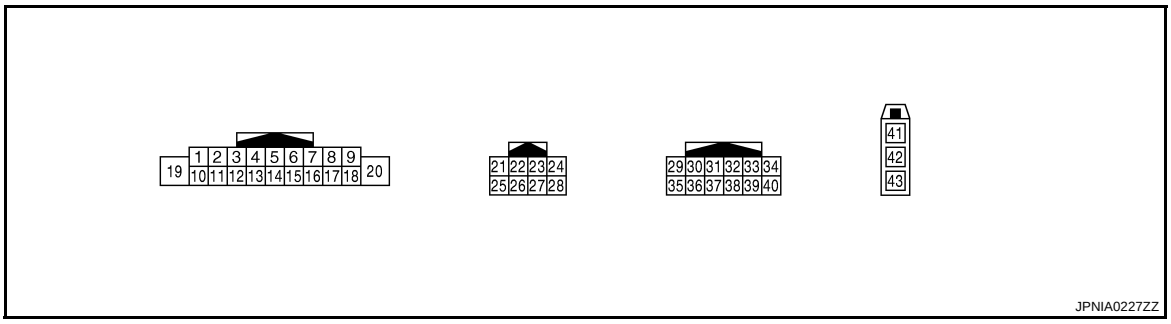
DTC	Error item	Refer to
U1310	CONTROL UNIT (AV) [U1310]	AV-80, "DTC Logic"
U1300 U1240 U1249 U124E U124F	AV COMM CIRCUIT [U1300] SWITCH CONN [U1240] AUDIO H/U CONN [U1249] AMP CONN [U124E] RDS CONN [U124F]	AV-106, "Description"
U1300 U1240 U1249 U124E U124F U1252	AV COMM CIRCUIT [U1300] SWITCH CONN [U1240] AUDIO H/U CONN [U1249] AMP CONN [U124E] RDS CONN [U124F] REAR-CAMERA LAN CONN [U1252]	AV-106, "Description"
U1300 U1252	AV COMM CIRCUIT [U1300] REAR-CAMERA LAN CONN [U1252]	AV-106, "Description"
U1243	FRONT DISP CONN [U1243]	AV-102, "Diagnosis Procedure"
U1244	GPS ANTENNA CONN [U1244]	AV-104, "Diagnosis Procedure"
U1250	CAMERA CONT. CONN [U1250]	AV-105, "Diagnosis Procedure"
U1200	Control Unit FLASH-ROM [U1200]	AV-81, "DTC Logic"
U1201	Gyro NO CONN [U1201]	AV-82, "DTC Logic"
U1204	GPS COMM [U1204]	AV-85, "Diagnosis Procedure"
U1205	GPS ROM [U1205]	AV-86, "Diagnosis Procedure"
U1206	GPS RAM [U1206]	AV-87, "Diagnosis Procedure"
U1207	GPS RTC [U1207]	AV-88, "Diagnosis Procedure"
U1208	DVD-ROM COMM [U1208]	AV-89, "Diagnosis Procedure"
U1209	DVD-ROM READ [U1209]	AV-90, "Diagnosis Procedure"
U120A	DVD-ROM DISC [U120A]	AV-91, "Diagnosis Procedure"
U120C	DVD-ROM MECHA DETECT [U120C]	AV-92, "Diagnosis Procedure"
U120D	DVD-ROM DRIVE MECHA [U120D]	AV-93, "Diagnosis Procedure"
U120E	DVD-ROM FOCUS [U120E]	AV-94, "Diagnosis Procedure"
U120F	DVD-ROM TOC [U120F]	AV-95, "Diagnosis Procedure"
U1210	DVD-ROM SEEK [U1210]	AV-96, "Diagnosis Procedure"
U1211	DVD-ROM ERR CORRECTION [U1211]	AV-97, "Diagnosis Procedure"
U1212	DVD-ROM DATA FORWARD [U1212]	AV-98, "Diagnosis Procedure"
U1213	DVD-ROM DATA [U1213]	AV-99, "Diagnosis Procedure"
U1214	DVD-ROM TIMEOUT [U1214]	AV-100, "Diagnosis Procedure"
U1215	DVD-ROM LOAD [U1215]	AV-101, "Diagnosis Procedure"
U1216	CAN CONT [U1216]	AV-83, "DTC Logic"
U1217	BLUETOOTH CONN [U1217]	AV-84, "DTC Logic"

AUDIO UNIT

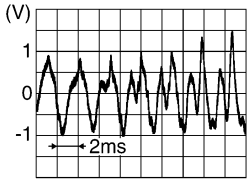
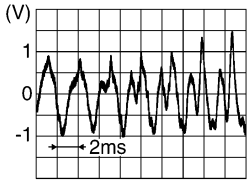
Reference Value

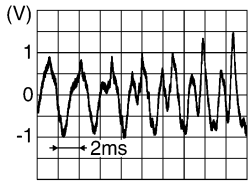
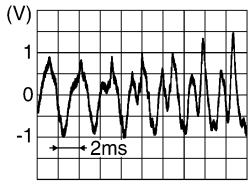
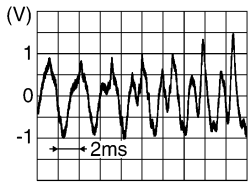
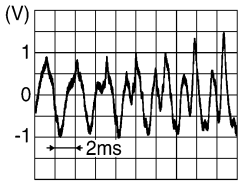
INFOID:0000000001093064

TERMINAL LAYOUT



PHYSICAL VALUES

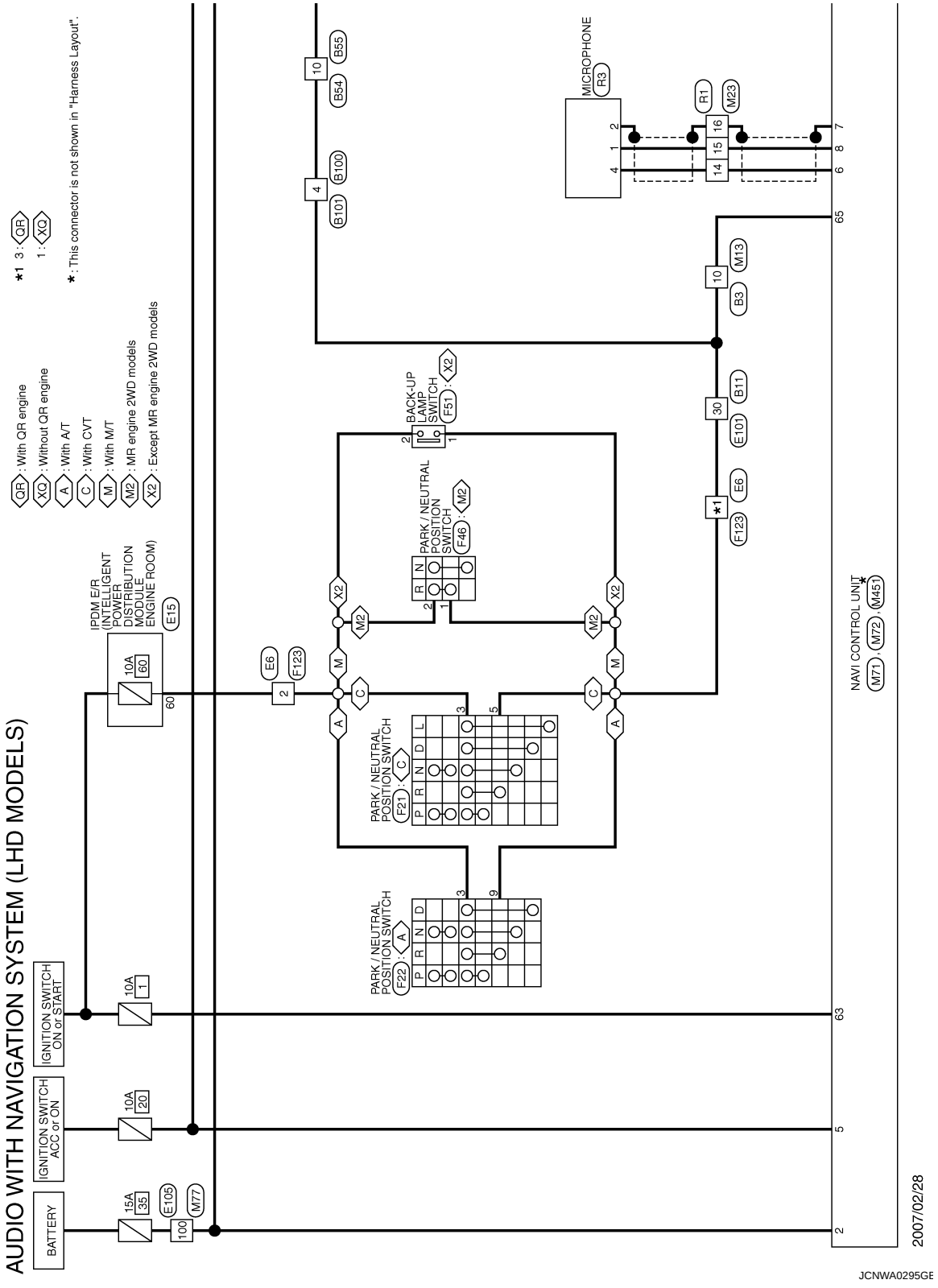
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
2 (W)	3 (P)	Sound signal front LH	Output	Ignition switch ON	Voice output	 SKIB3609E
4 (LG)	5 (R)	Sound signal rear LH	Output	Ignition switch ON	Voice output	 SKIB3609E
6 (V)	15 (GR)	Steering switch signal A	Input	Ignition switch ON	Keep pressing SOURCE switch.	0 V
					Keep pressing MENU UP switch.	1.27 V
					Keep pressing MENU DOWN switch.	2.53 V
					Keep pressing ENTER switch.	3.8 V
					Except for above.	5 V
7 (SB)	Ground	ACC power supply	Input	Ignition switch ACC	–	Battery voltage

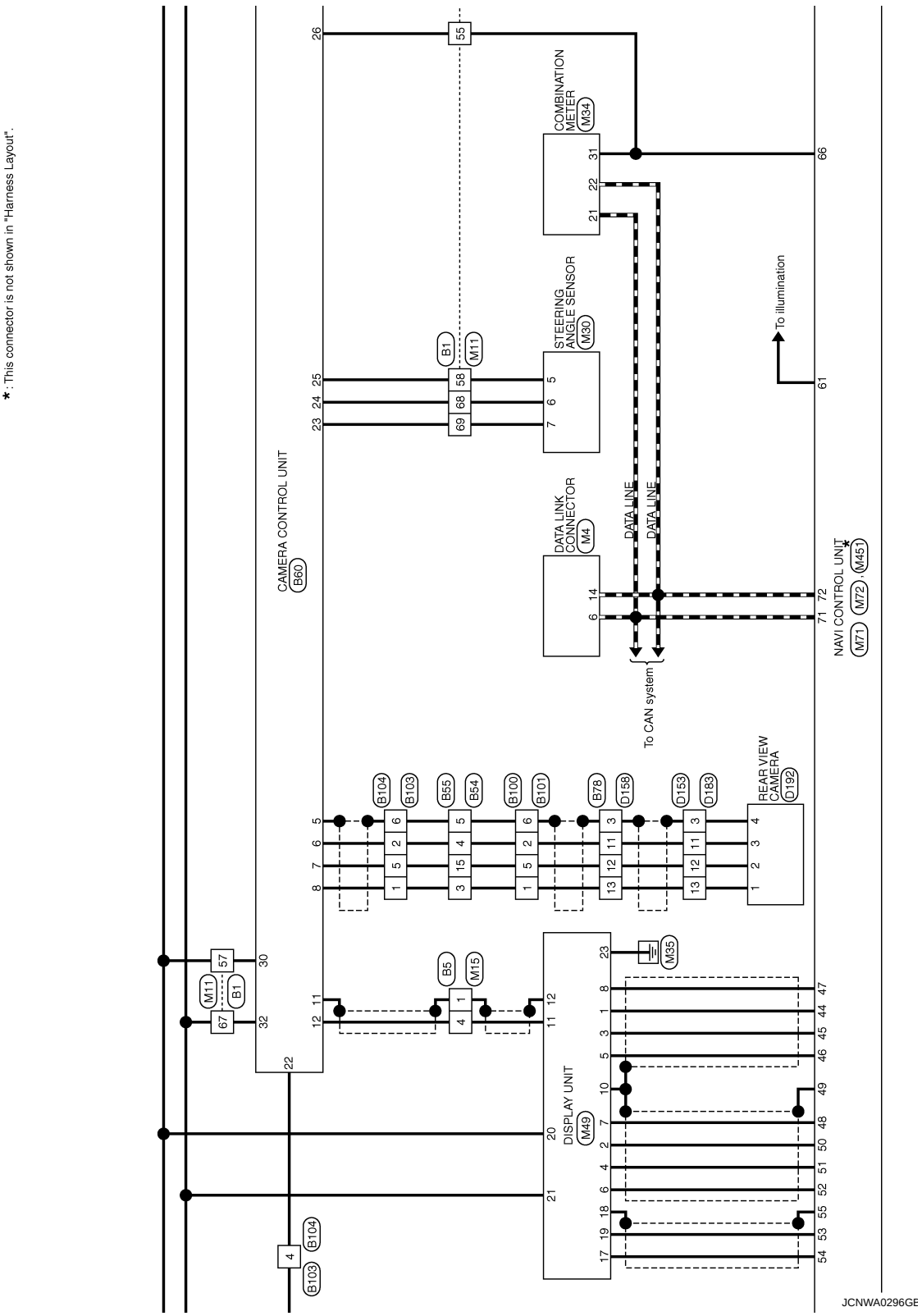
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
11 (G)	12 (R)	Sound signal front RH	Output	Ignition switch ON	Voice output	 SKIB3609E
13 (BR)	14 (Y)	Sound signal rear RH	Output	Ignition switch ON	Voice output	 SKIB3609E
15 (GR)	Ground	Steering switch signal GND	—	Ignition switch ON	—	0 V
16 (O)	15 (GR)	Steering switch signal B	Input	Ignition switch ON	Keep pressing VOL DOWN switch.	0 V
					Keep pressing VOL UP switch.	1.27 V
					Keep pressing switch.	2.53 V
					Keep pressing switch.	3.8 V
					Except for above.	5 V
19 (BR)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
23 (L)	—	AV communication signal (H)	Input/ Output	—	—	—
24 (P)	—	AV communication signal (L)	Input/ Output	—	—	—
30 (G)	31 (R)	TEL voice signal	Input	Ignition switch ON	TEL voice output	 SKIB3609E
32 (L)	33 (P)	Voice guidance signal	Input	Ignition switch ON	Voice guidance output	 SKIB3609E
37	—	Shield	—	—	—	—
38	—	Shield	—	—	—	—

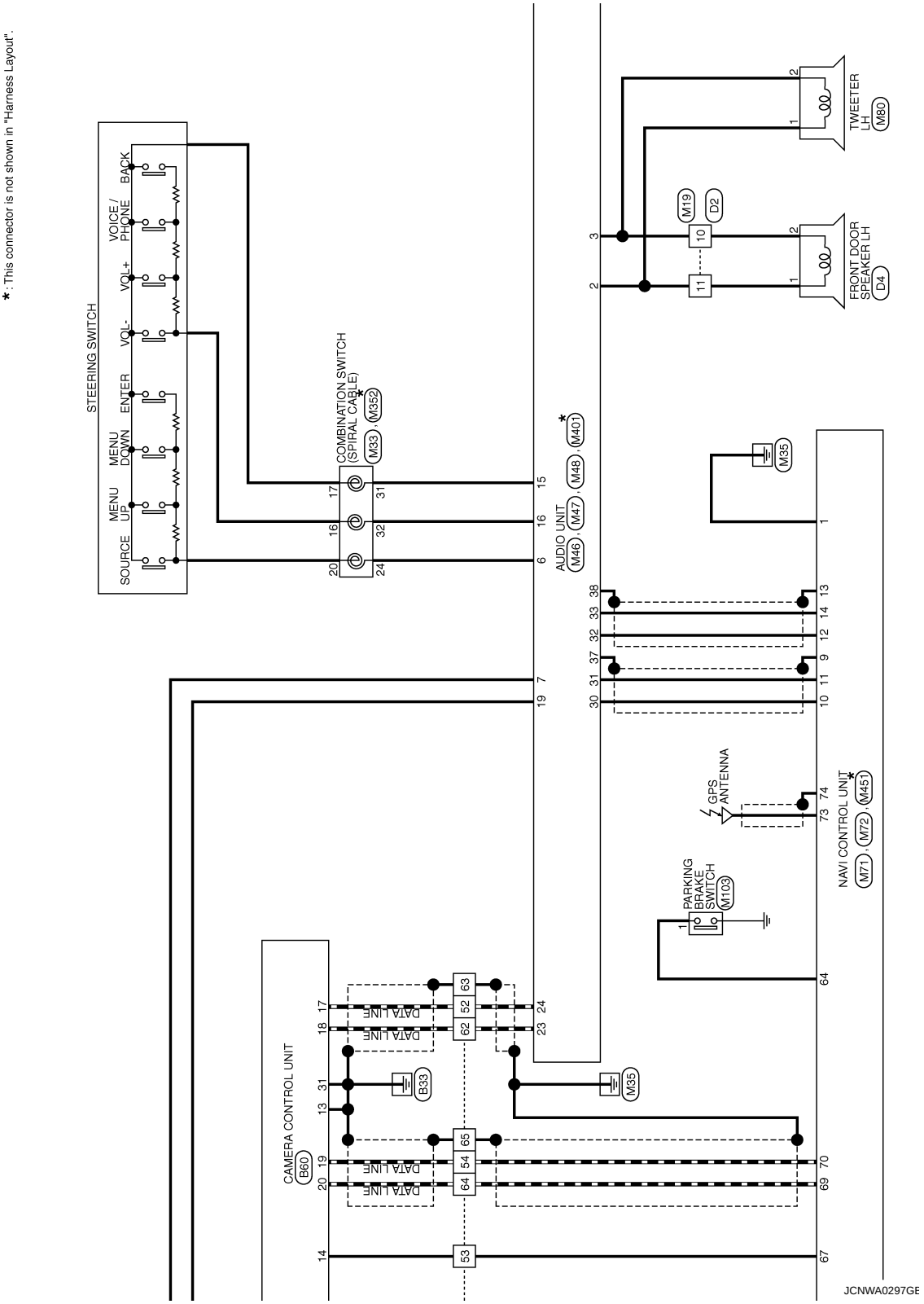
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
41	Ground	Antenna amp. ON signal	Output	Ignition switch ACC	—	12 V
42	—	Antenna signal	Input	—	—	—

Wiring Diagram—AUDIO WITH NAVIGATION SYSTEM (LHD MODELS)—

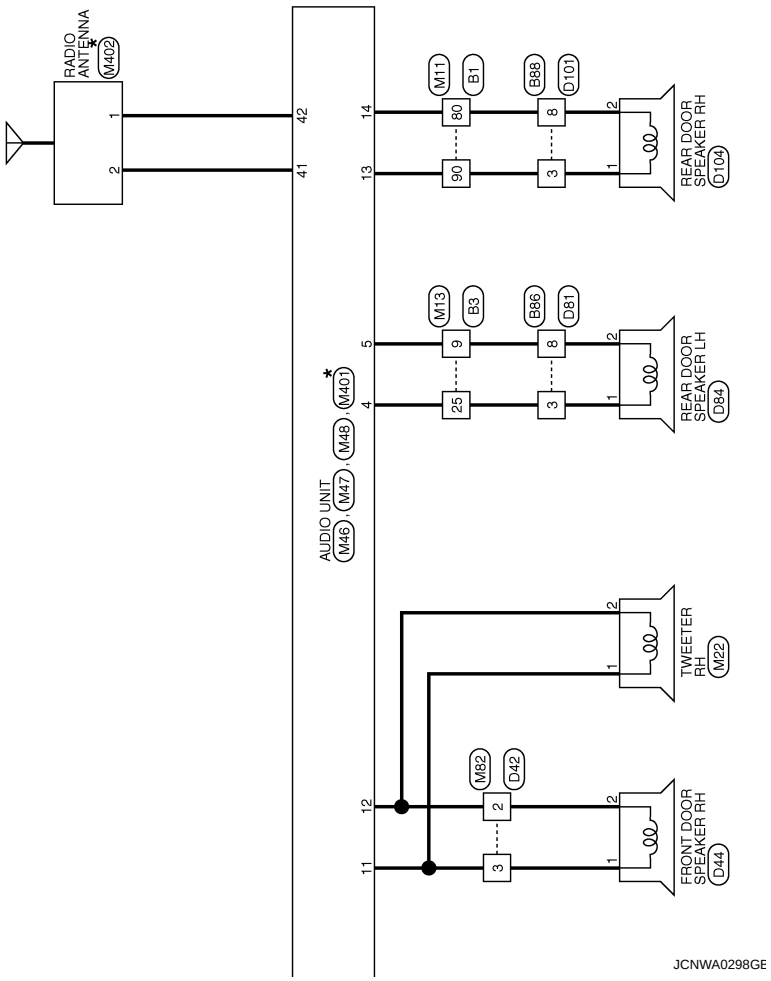
INFOID:0000000001537512




*: This connector is not shown in "Harness Layout".
CAMERA CONTROL UNIT
B60
COMBINATION METER
M34
STEERING ANGLE SENSOR
M30
DATA LINK CONNECTOR
M4
DATA LINE
DATA LINE
To CAN system
To illumination
NAVI CONTROL UNIT*
M71, M72, M451
REAR VIEW CAMERA
D192
DISPLAY UNIT
M49
M35
B1
M11
B5
M15
B104
B103
B55
B54
B100
B101
B78
D158
D153
D183
JCNWA0296GE


*: This connector is not shown in "Harness Layout".
STEERING SWITCH
SOURCE
MENU UP
MENU DOWN
ENTER
VOL-
VOL+
VOICE / PHONE
BACK
COMBINATION SWITCH (SPIRAL CABLE) *
M33, M352
AUDIO UNIT
M46, M47, M48, M401 *
TWEETER LH
M80
FRONT DOOR SPEAKER LH
D4
M19
D2
M35
GPS ANTENNA
NAVI CONTROL UNIT *
M71, M72, M451
PARKING BRAKE SWITCH
M103
CAMERA CONTROL UNIT
B60
B33
DATA LINE
JCNWA0297GE

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



AUDIO WITH NAVIGATION SYSTEM (LHD MODELS)

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

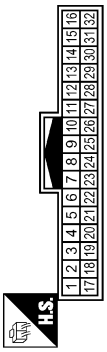
Terminal No.	Color of Wire	Signal Name [Specification]
52	P	–
53	GR	–
54	P	–
55	SB	–
57	W	–
58	O	–
62	L	–
63	SHIELD	–
64	L	–
65	SHIELD	–
67	R	–

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

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

Connector No.	B2		
	68	LG	–
Connector Name	69	V	–
	80	GR	–
Connector Type	90	LG	–

Connector No.	B3
Connector Name	WIRE TO WIRE
Connector Type	TH32MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
9	R	–
10	G	–
25	W	–

Connector No.	B4
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
3	G	–
4	Y	–
5	W	–
10	R	–
15	L	–

Connector No.	B5
Connector Name	WIRE TO WIRE
Connector Type	TH04MW-NH

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

Connector No.	B55
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
3	G	–
4	Y	–
5	W	–
10	R	–
15	L	–

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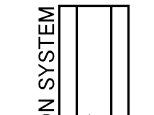
AUDIO WITH NAVIGATION SYSTEM (LHD MODELS)

Connector No.	B60
Connector Name	CAMERA CONTROL UNIT
Connector Type	TH32FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
5	SHIELD	SHIELD
6	Y	CAMERA IMAGE SIGNAL
7	L	GND
8	G	CAMERA ON SIGNAL
11	SHIELD	SHIELD
12	Y	CAMERA IMAGE SIGNAL
13	B	CONTROL SIGNAL
14	GR	CAMERA-CONNECTION RECOGNITION SIGNAL
17	P	AV COMMUNICATION SIGNAL (L)
18	L	AV COMMUNICATION SIGNAL (H)
19	P	AV COMMUNICATION SIGNAL (L)
20	L	AV COMMUNICATION SIGNAL (H)
22	R	REV
23	V	SENSOR SIGNAL1
24	LG	SENSOR SIGNAL2
25	O	SENSOR SIGNAL3
26	SB	SPEED 8P
30	W	ACC
31	B	GND
32	R	BAT

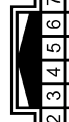
Connector No.	B88
Connector Name	WIRE TO WIRE
Connector Type	NS12MW-CS

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

Connector No.	B100
Connector Name	WIRE TO WIRE
Connector Type	TH08FW-NH

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

Connector No.	B101
Connector Name	WIRE TO WIRE
Connector Type	TH08MW-NH

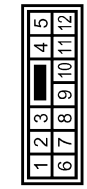


Terminal No.	Color of Wire	Signal Name [Specification]
1	G	–
2	Y	–
4	R	–
5	L	–
6	SHIELD	–

Connector No.	B78
Connector Name	WIRE TO WIRE
Connector Type	TH16MW-NH

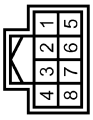
Terminal No.	Color of Wire	Signal Name [Specification]
3	SHIELD	–
11	Y	–
12	L	–
13	G	–

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



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

Connector No.	B103
Connector Name	WIRE TO WIRE
Connector Type	TH08FW-NH



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

JCNWA0300GE

AUDIO WITH NAVIGATION SYSTEM (LHD MODELS)

Connector No.	B104
Connector Name	WIRE TO WIRE
Connector Type	TH08MW-NH

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

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

Terminal No.	Color of Wire	Signal Name [Specification]
10	P	–
11	W	–

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

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

Connector No.	D42
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS

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

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

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

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

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

Connector No.	D84
Connector Name	REAR DOOR SPEAKER LH
Connector Type	NS02FW-CS

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

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

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

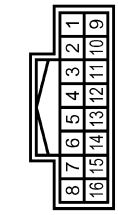
JCNWA0301GE

AUDIO WITH NAVIGATION SYSTEM (LHD MODELS)

Connector No.	D104
Connector Name	REAR DOOR SPEAKER RH
Connector Type	NS02FW-CS

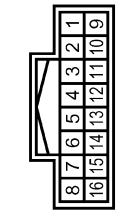
Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	–
2	GR	–

Connector No.	D153
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH



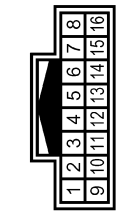
Terminal No.	Color of Wire	Signal Name [Specification]
3	SHIELD	–
11	Y	–
12	L	–
13	G	–

Connector No.	D158
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
3	SHIELD	–
11	Y	–
12	L	–
13	G	–

Connector No.	D183
Connector Name	WIRE TO WIRE
Connector Type	TH16MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
3	BR	–
11	Y	–
12	L	–
13	G	–

Connector No.	D192
Connector Name	REAR VIEW CAMERA
Connector Type	TK04MW

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	CAMERA ON
2	L	GND
3	Y	COMP+
4	BR	COMP–

Connector No.	E6
Connector Name	WIRE TO WIRE
Connector Type	TK24MW-1V

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	–[Without QR engine]
2	SB	–
3	G	–[With QR engine]

Connector No.	E15
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS16FW-CS

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

Connector No.	E101
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4

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

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AUDIO WITH NAVIGATION SYSTEM (LHD MODELS)

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

H.S.

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

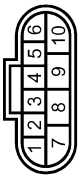
Connector No.	F21
Connector Name	PARK / NEUTRAL POSITION SWITCH
Connector Type	RK08FG

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
3	SB	VIGN
5	G	R RANGE SWITCH

Connector No.	F22
Connector Name	PARK / NEUTRAL POSITION SWITCH
Connector Type	YAZAKI 7283-8700-30

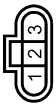
H.S.



Terminal No.	Color of Wire	Signal Name [Specification]
3	SB	VIGN
9	G	R RANGE SWITCH

Connector No.	F46
Connector Name	PARK / NEUTRAL POSITION SWITCH
Connector Type	FEA03FG

H.S.



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

Connector No.	F51
Connector Name	BACK-UP LAMP SWITCH
Connector Type	RK02FB

H.S.

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

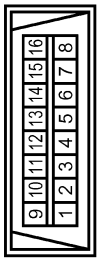
Connector No.	F123
Connector Name	WIRE TO WIRE
Connector Type	TK24FW-1V

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	–[Without QR engine]
2	SB	–
3	G	–[With QR engine]

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

H.S.



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

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AUDIO WITH NAVIGATION SYSTEM (LHD MODELS)

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

Terminal No.	Color of Wire	Signal Name [Specification]
52	P	–
53	L	–
54	P	–
55	V	–
57	SB	–
58	O	–
62	L	–
63	SHIELD	–
64	L	–
65	SHIELD	–
67	BR	–
68	L	–
69	V	–
80	Y	–
90	BR	–

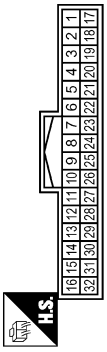
Connector No.	M19
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
10	P	–
11	W	–

Connector No.	M22
Connector Name	TWEETER RH
Connector Type	TK02FBR

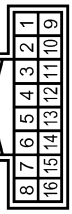
Terminal No.	Color of Wire	Signal Name [Specification]
1	G	–
2	R	–

Connector No.	M13
Connector Name	WIRE TO WIRE
Connector Type	TH32FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
9	R	–
10	G	–
25	LG	–

Connector No.	M23
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH

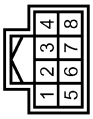


Terminal No.	Color of Wire	Signal Name [Specification]
14	R	–
15	G	–
16	SHIELD	–

Connector No.	M15
Connector Name	WIRE TO WIRE
Connector Type	TH04FW-NH

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

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



Terminal No.	Color of Wire	Signal Name [Specification]
5	O	SENS 3
6	L	SENS 2
7	V	SENS 1

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AUDIO WITH NAVIGATION SYSTEM (LHD MODELS)

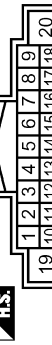
Connector No.	M33
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY-1V

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

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	SAB40FW

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

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



Terminal No.	Color of Wire	Signal Name [Specification]
2	W	FR LH SP+
3	P	FR LH SP-
4	LG	RR LH SP+
5	R	RR LH SP-
6	V	STRG SW A
7	SB	ACC
11	G	FR RH SP+
12	R	FR RH SP-
13	BR	RR RH SP+
14	Y	RR RH SP-
15	GR	STRG SW GND
16	O	STRG SW B
19	BR	BAT

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

Terminal No.	Color of Wire	Signal Name [Specification]
23	L	M-CAN H
24	P	M-CAN L

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

Terminal No.	Color of Wire	Signal Name [Specification]
30	G	TEL VOICE SIGNAL+
31	R	TEL VOICE SIGNAL-
32	L	VOICE GUIDANCE SIGNAL+[With navigation system]
33	P	VOICE GUIDANCE SIGNAL-
37	SHIELD	TEL VOICE SHIELD [With navigation system]
38	SHIELD	VOICE GUIDANCE SHIELD

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

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	RGB SIGNAL (R)
2	G	RGB AREA (YS) SIGNAL
3	R	RGB SIGNAL (G)
4	W	HORIZONTAL SYNCHRONIZING (HP) SIGNAL
5	W	RGB SIGNAL (B)
6	R	VERTICAL SYNCHRONIZING (VP) SIGNAL
7	L	RGB SYNCHRONIZING SIGNAL
8	B	GND
10	SHIELD	GND
11	Y	CAMERA IMAGE SIGNAL+
12	SHIELD	CAMERA IMAGE SIGNAL-
17	P	COMMUNICATION SIGNAL (DISP→CONT)
18	SHIELD	SHIELD
19	L	COMMUNICATION SIGNAL (CONT→DISP)
20	SB	ACC
21	BR	BAT
23	B	GND

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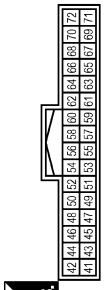
AUDIO WITH NAVIGATION SYSTEM (LHD MODELS)

Connector No.	M71
Connector Name	NAVI CONTROL UNIT
Connector Type	TH40FW-NH

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

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	BR	BAT
5	SB	ACC
6	R	MIC. VCC
7	SHIELD	MIC. GND
8	G	MIC. SIGNAL
9	SHIELD	TEL VOICE SHIELD
10	G	TEL VOICE SIGNAL+
11	R	TEL VOICE SIGNAL−
12	L	VOICE GUIDANCE SIGNAL+
13	SHIELD	VOICE GUIDANCE SHIELD
14	P	VOICE GUIDANCE SIGNAL−

Connector No.	M72
Connector Name	NAVI CONTROL UNIT
Connector Type	TH32FW-NH



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

Terminal No.	Color of Wire	Signal Name [Specification]
44	G	RGB SIGNAL (R)
45	R	RGB SIGNAL (G)
46	W	RGB SIGNAL (B)
47	B	RGB GND
48	L	RGB SYNCHRONIZING SIGNAL
49	SHIELD	GND
50	G	RGB AREA (YS) SIGNAL
51	W	HORIZONTAL SYNCHRONIZING (HP) SIGNAL
52	R	VERTICAL SYNCHRONIZING (VP) SIGNAL
53	L	COMMUNICATION SIGNAL (CONT→DISP)
54	P	COMMUNICATION SIGNAL (DISP→CONT)

55	SHIELD	SHIELD
61	R	ILL
63	W	IGN
64	GR	PKB SIG
65	G	REVERSE SIG
66	V	SPEED(8PR)
67	L	CAMERA-CONNECTION RECOGNITION SIGNAL
69	L	AV COMMUNICATION SIGNAL (H)
70	P	AV COMMUNICATION SIGNAL (L)
71	L	CAN-H
72	P	CAN-L

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

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

Connector No.	M80
Connector Name	TWEETER LH
Connector Type	TK02FBR

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

Connector No.	M82
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS

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

Connector No.	M103
Connector Name	PARKING BRAKE SWITCH
Connector Type	P01FB-A

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

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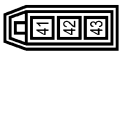
AUDIO WITH NAVIGATION SYSTEM (LHD MODELS)

Connector No.	M352
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08MGY-X

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

Connector No.	M401
Connector Name	AUDIO UNIT
Connector Type	GT 13 SHA



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

Connector No.	M402
Connector Name	RADIO ANTENNA
Connector Type	GT13SSN-1

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

Connector No.	M451
Connector Name	NAVI CONTROL UNIT
Connector Type	GT5S-1PP-HU

Terminal No.	Color of Wire	Signal Name [Specification]
73	–	GPS ANTENNA SIGNAL
74	SHIELD	SHIELD

Connector No.	R1
Connector Name	WIRE TO WIRE
Connector Type	TH16MW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
14	R	–
15	G	–
16	SHIELD	–

Connector No.	R3
Connector Name	MICROPHONE
Connector Type	TK04FW

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	MIC. SIGNAL
2	SHIELD	MIC. GND
4	R	MIC. VCC

JCNWA0307GE

Wiring Diagram—AUDIO WITH NAVIGATION SYSTEM (RHD MODELS)—

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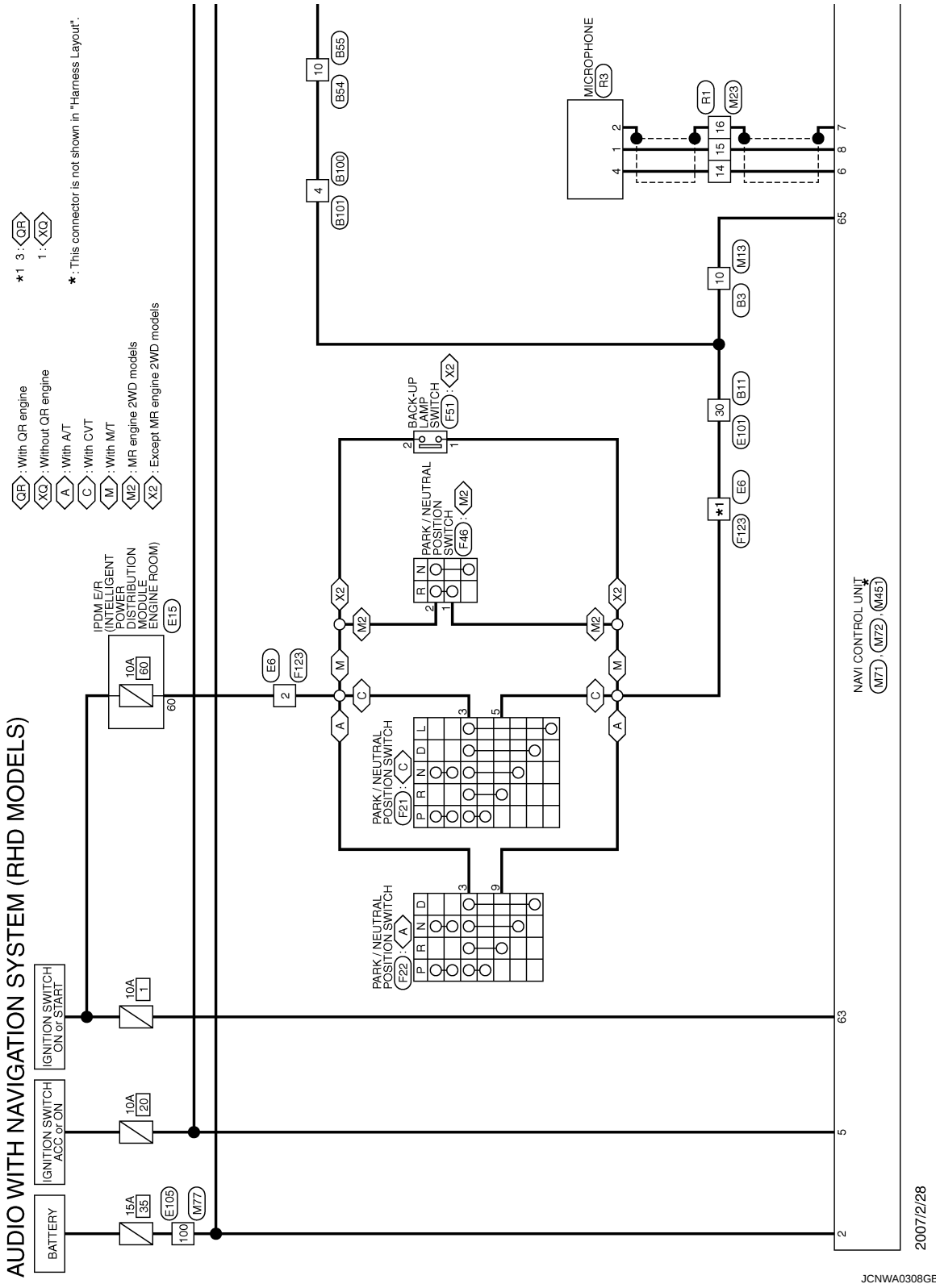
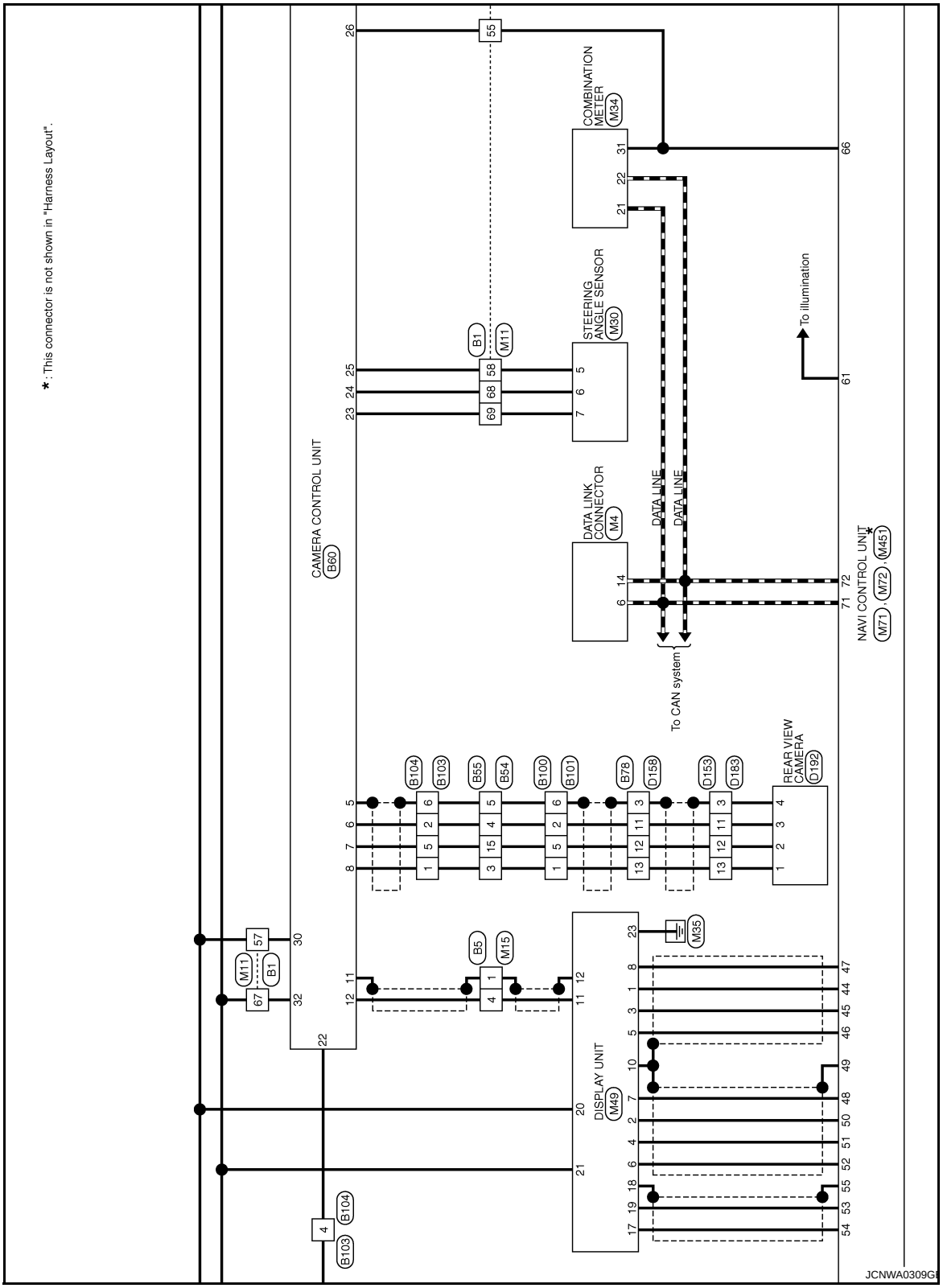
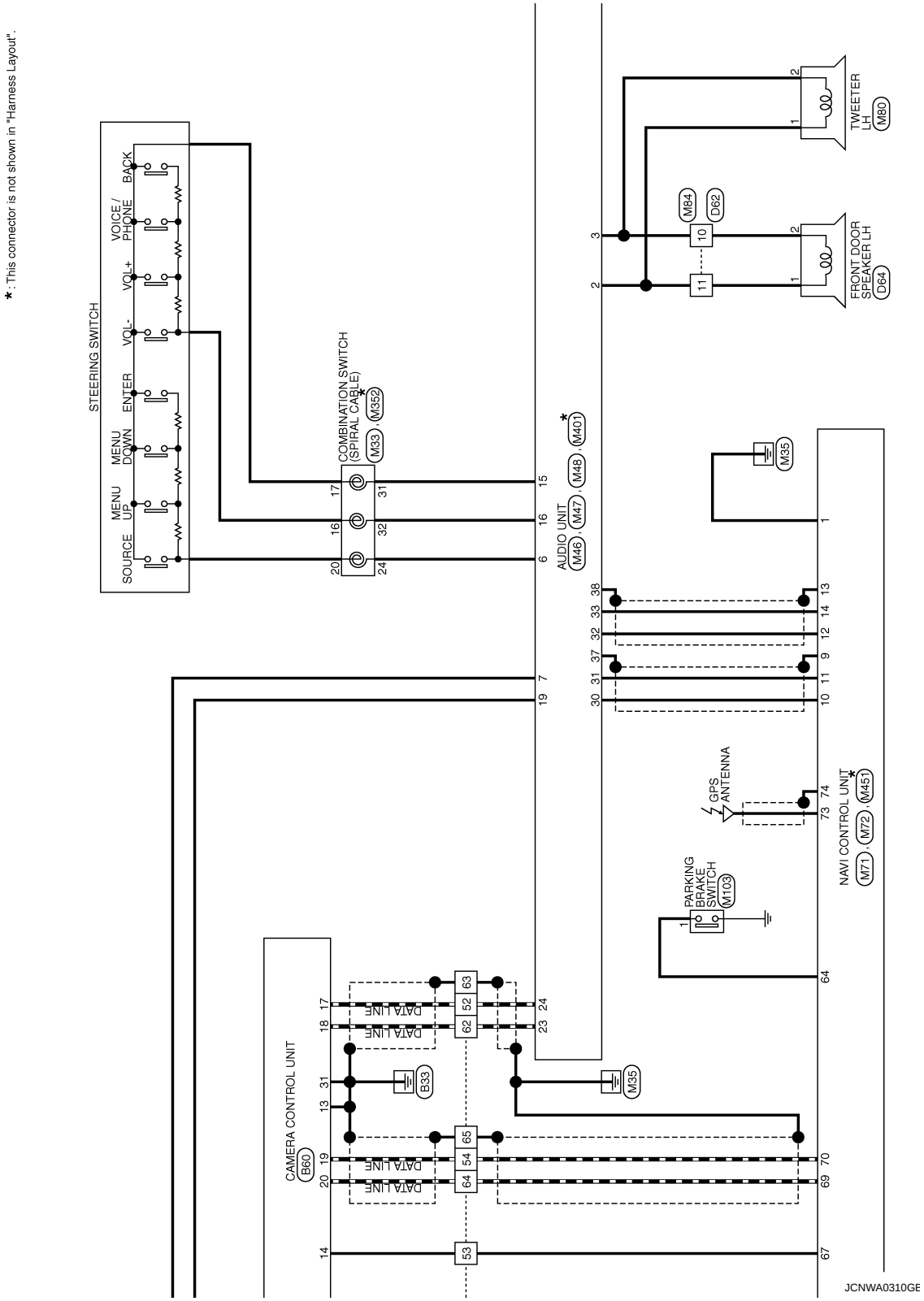
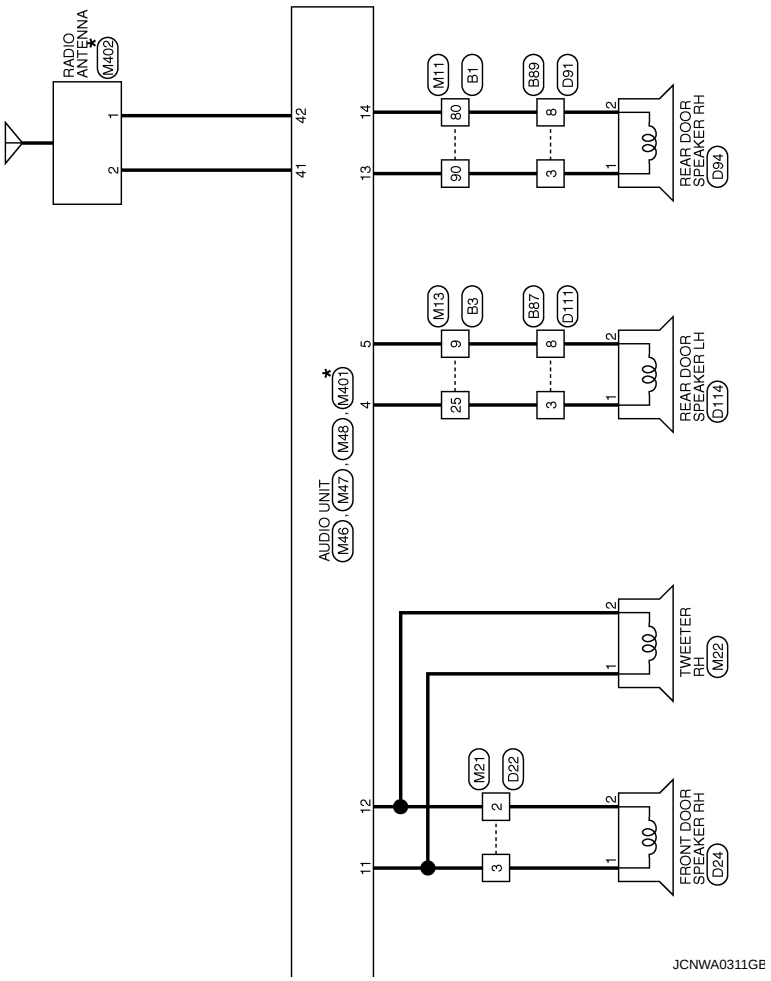



*: This connector is not shown in "Harness Layout".
CAMERA CONTROL UNIT
B60
COMBINATION METER
M34
STEERING ANGLE SENSOR
M30
DATA LINK CONNECTOR
M4
DATA LINE
DATA LINE
To illumination
To CAN system
NAVI CONTROL UNIT*
M71, M72, M451
REAR VIEW CAMERA
D192
DISPLAY UNIT
M49
B1
M11
B5
M15
B104
B103
B55
B54
B100
B101
B78
D158
D153
D183
M35
JCNWA0309GB


*: This connector is not shown in "Harness Layout".
STEERING SWITCH
SOURCE
MENU UP
MENU DOWN
ENTER
VOL-
VOL+
VOICE / PHONE
BACK
COMBINATION SWITCH (SPIRAL CABLE) * M33, M352
AUDIO UNIT M46, M47, M48, M401 *
TWEETER LH M80
FRONT DOOR SPEAKER LH D64
M84
D62
M35
GPS ANTENNA
NAVI CONTROL UNIT * M71, M72, M451
PARKING BRAKE SWITCH M103
CAMERA CONTROL UNIT B60
B33
DATA LINE
JCNWA0310GE

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



AUDIO WITH NAVIGATION SYSTEM (RHD MODELS)

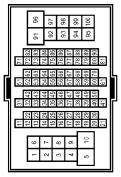
Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
52	P	–
53	GR	–
54	P	–
55	SB	–
57	W	–
58	O	–
62	L	–
63	SHIELD	–
64	L	–
65	SHIELD	–
67	R	–

Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4

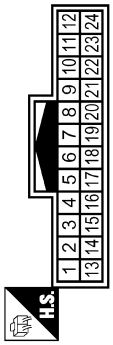
H.S.



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

Connector No.	B54
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH

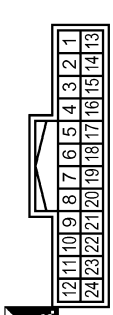
H.S.



Terminal No.	Color of Wire	Signal Name [Specification]
3	G	–
4	Y	–
5	W	–
10	R	–
15	L	–

Connector No.	B55
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH

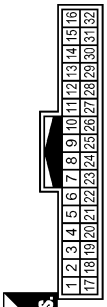
H.S.



Terminal No.	Color of Wire	Signal Name [Specification]
3	G	–
4	Y	–
5	W	–
10	R	–
15	L	–

Connector No.	B3
Connector Name	WIRE TO WIRE
Connector Type	TH32MW-NH

H.S.



Terminal No.	Color of Wire	Signal Name [Specification]
9	R	–
10	G	–
25	W	–

Connector No.	B5
Connector Name	WIRE TO WIRE
Connector Type	TH04MW-NH

H.S.

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

Connector No.	B1		
Connector Name	WIRE TO WIRE		
Connector Type	TH80MW-CS16-TM4		
	68	LG	–
	69	V	–
	80	GR	–
	90	LG	–

JCNWA0312GE

AUDIO WITH NAVIGATION SYSTEM (RHD MODELS)

Connector No.	B60
Connector Name	CAMERA CONTROL UNIT
Connector Type	TH32FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
5	SHIELD	SHIELD
6	Y	CAMERA IMAGE SIGNAL
7	L	GND
8	G	CAMERA ON SIGNAL
11	SHIELD	SHIELD
12	Y	CAMERA IMAGE SIGNAL
13	B	CONTROL SIGNAL
14	GR	CAMERA−CONNECTION RECOGNITION SIGNAL
17	P	AV COMMUNICATION SIGNAL (L)
18	L	AV COMMUNICATION SIGNAL (H)
19	P	AV COMMUNICATION SIGNAL (L)
20	L	AV COMMUNICATION SIGNAL (H)
22	R	REV
23	V	SENSOR SIGNAL1
24	LG	SENSOR SIGNAL2
25	O	SENSOR SIGNAL3
26	SB	SPEED 8P
30	W	ACC
31	B	GND
32	R	BAT

Connector No.	B89
Connector Name	WIRE TO WIRE
Connector Type	NS12MW-CS

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

Connector No.	B100
Connector Name	WIRE TO WIRE
Connector Type	TH08FW-NH

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

Connector No.	B101
Connector Name	WIRE TO WIRE
Connector Type	TH08MW-NH

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

Connector No.	B78
Connector Name	WIRE TO WIRE
Connector Type	TH16MW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
3	SHIELD	–
11	Y	–
12	L	–
13	G	–

Connector No.	B87
Connector Name	WIRE TO WIRE
Connector Type	NS12MW-CS

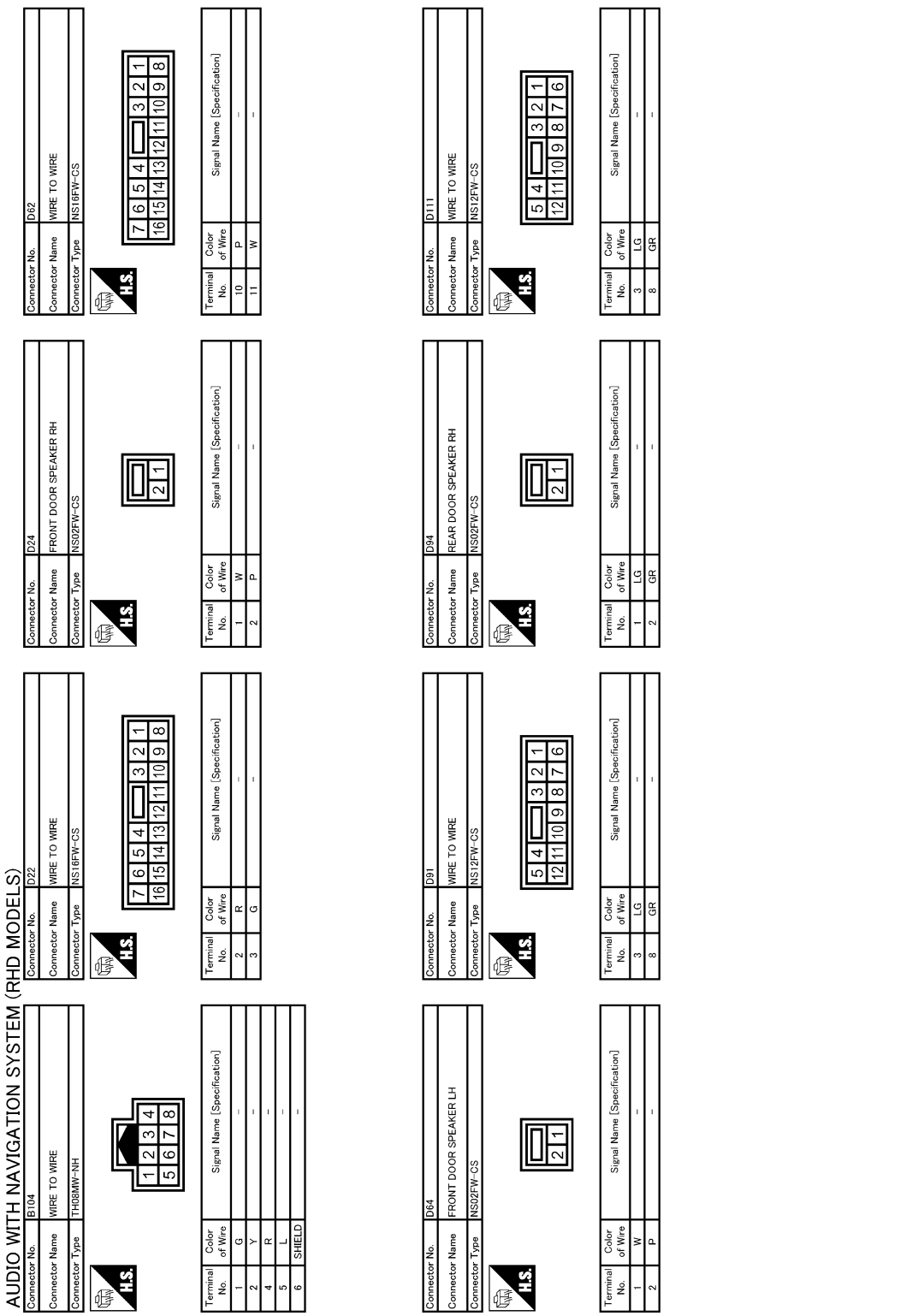
Terminal No.	Color of Wire	Signal Name [Specification]
3	W	–
8	R	–

Connector No.	B103
Connector Name	WIRE TO WIRE
Connector Type	TH08FW-NH

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

JCNWA0313GE

AUDIO WITH NAVIGATION SYSTEM (RHD MODELS)



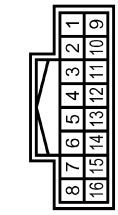
JCNWA0314GE

AUDIO WITH NAVIGATION SYSTEM (RHD MODELS)

Connector No.	D114
Connector Name	REAR DOOR SPEAKER LH
Connector Type	NS02FW-CS

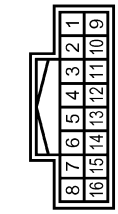
Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	–
2	GR	–

Connector No.	D153
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH



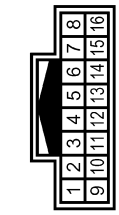
Terminal No.	Color of Wire	Signal Name [Specification]
3	SHIELD	–
11	Y	–
12	L	–
13	G	–

Connector No.	D158
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
3	SHIELD	–
11	Y	–
12	L	–
13	G	–

Connector No.	D183
Connector Name	WIRE TO WIRE
Connector Type	TH16MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
3	BR	–
11	Y	–
12	L	–
13	G	–

Connector No.	D192
Connector Name	REAR VIEW CAMERA
Connector Type	TK04MW

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	CAMERA ON
2	L	GND
3	Y	COMP-
4	BR	COMP-

Connector No.	E6
Connector Name	WIRE TO WIRE
Connector Type	TK24MW-1V

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	–[Without QR engine]
2	SB	–
3	G	–[With QR engine]

Connector No.	E15
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS16FW-CS

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

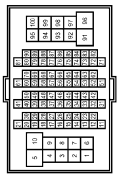
Connector No.	E101
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4

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

JCNWA0315GE

AUDIO WITH NAVIGATION SYSTEM (RHD MODELS)

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

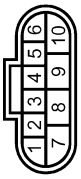


Terminal No.	Color of Wire	Signal Name [Specification]
100	SB	–

Connector No.	F21
Connector Name	PARK / NEUTRAL POSITION SWITCH
Connector Type	RK08FG

Terminal No.	Color of Wire	Signal Name [Specification]
3	SB	VIGN
5	G	R RANGE SWITCH

Connector No.	F22
Connector Name	PARK / NEUTRAL POSITION SWITCH
Connector Type	YAZAKI 7283-8700-30



Terminal No.	Color of Wire	Signal Name [Specification]
3	SB	VIGN
9	G	R RANGE SWITCH

Connector No.	F46
Connector Name	PARK / NEUTRAL POSITION SWITCH
Connector Type	FEA03FG

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

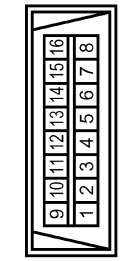
Connector No.	F51
Connector Name	BACK-UP LAMP SWITCH
Connector Type	RK02FB

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

Connector No.	F123
Connector Name	WIRE TO WIRE
Connector Type	TK24FW-1V

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	–[Without QR engine]
2	SB	–
3	G	–[With QR engine]

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



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

JCNWA0316GE

AUDIO WITH NAVIGATION SYSTEM (RHD MODELS)

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

Terminal No.	Color of Wire	Signal Name [Specification]
52	P	–
53	L	–
54	P	–
55	V	–
57	SB	–
58	O	–
62	L	–
63	SHIELD	–
64	L	–
65	SHIELD	–
67	BR	–
68	L	–
69	V	–
80	Y	–
90	BR	–

Connector No.	M21
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS

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

Connector No.	M22
Connector Name	TWEETER RH
Connector Type	TK02FBR

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

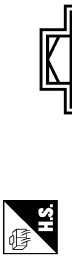
Connector No.	M13
Connector Name	WIRE TO WIRE
Connector Type	TH32FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
9	R	–
10	G	–
25	LG	–

Connector No.	M23
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
14	R	–
15	G	–
16	SHIELD	–

Connector No.	M15
Connector Name	WIRE TO WIRE
Connector Type	TH04FW-NH



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

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

Terminal No.	Color of Wire	Signal Name [Specification]
5	O	SENS 3
6	L	SENS 2
7	V	SENS 1

JCNWA0317GE

AUDIO WITH NAVIGATION SYSTEM (RHD MODELS)

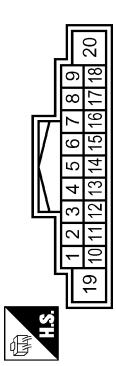
Connector No.	M33
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY-1V

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

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	SAB40FW

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

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



Terminal No.	Color of Wire	Signal Name [Specification]
2	W	FR LH SP+
3	P	FR LH SP–
4	LG	RR LH SP+
5	R	RR LH SP–
6	V	STRG SW A
7	SB	ACC
11	G	FR RH SP+
12	R	FR RH SP–
13	BR	RR RH SP+
14	Y	RR RH SP–
15	GR	STRG SW GND

16	O	STRG SW B
19	BR	BAT

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

Terminal No.	Color of Wire	Signal Name [Specification]
23	L	M-CAN H
24	P	M-CAN L

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

Terminal No.	Color of Wire	Signal Name [Specification]
30	G	TEL VOICE SIGNAL+
31	R	TEL VOICE SIGNAL–
32	L	VOICE GUIDANCE SIGNAL+[With navigation system]
33	P	VOICE GUIDANCE SIGNAL–
37	SHIELD	TEL VOICE SHIELD [With navigation system]
38	SHIELD	VOICE GUIDANCE SHIELD

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

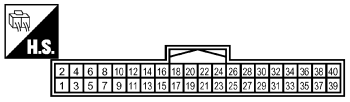
Terminal No.	Color of Wire	Signal Name [Specification]
1	G	RGB SIGNAL (R)
2	G	RGB AREA (YS) SIGNAL
3	R	RGB SIGNAL (G)
4	W	HORIZONTAL SYNCHRONIZING (HP) SIGNAL
5	W	RGB SIGNAL (B)
6	R	VERTICAL SYNCHRONIZING (VP) SIGNAL
7	L	RGB SYNCHRONIZING SIGNAL
8	B	GND
10	SHIELD	GND
11	Y	CAMERA IMAGE SIGNAL+
12	SHIELD	CAMERA IMAGE SIGNAL–

17	P	COMMUNICATION SIGNAL (DISP→CONT)
18	SHIELD	SHIELD
19	L	COMMUNICATION SIGNAL (CONT→DISP)
20	SB	ACC
21	BR	BAT
23	B	GND

JCNWA0318GE

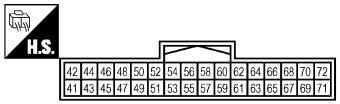
AUDIO WITH NAVIGATION SYSTEM (RHD MODELS)

Connector No.	M71
Connector Name	NAVI CONTROL UNIT
Connector Type	TH40FW-NH



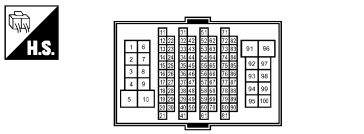
Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	BR	BAT
5	SB	ACC
6	R	MIC. VCC
7	SHIELD	MIC. GND
8	G	MIC. SIGNAL
9	SHIELD	TEL VOICE SHIELD
10	G	TEL VOICE SIGNAL+
11	R	TEL VOICE SIGNAL−
12	L	VOICE GUIDANCE SIGNAL+
13	SHIELD	VOICE GUIDANCE SHIELD
14	P	VOICE GUIDANCE SIGNAL−

Connector No.	M72
Connector Name	NAVI CONTROL UNIT
Connector Type	TH32FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
44	G	RGB SIGNAL (R)
45	R	RGB SIGNAL (G)
46	W	RGB SIGNAL (B)
47	B	RGB GND
48	L	RGB SYNCHRONIZING SIGNAL
49	SHIELD	GND
50	G	RGB AREA (YS) SIGNAL
51	W	HORIZONTAL SYNCHRONIZING (HP) SIGNAL
52	R	VERTICAL SYNCHRONIZING (VP) SIGNAL
53	L	COMMUNICATION SIGNAL (CONT→DISP)
54	P	COMMUNICATION SIGNAL (DISP→CONT)
55	SHIELD	SHIELD
61	R	ILL
63	W	IGN
64	GR	PKB SIG
65	G	REVERSE SIG
66	V	SPEED(8PR)
67	L	CAMERA-CONNECTION RECOGNITION SIGNAL
69	L	AV COMMUNICATION SIGNAL (H)
70	P	AV COMMUNICATION SIGNAL (L)
71	L	CAN-H
72	P	CAN-L

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

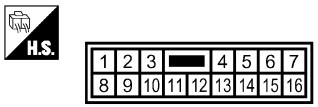


Terminal No.	Color of Wire	Signal Name [Specification]
100	BR	−

Connector No.	M80
Connector Name	TWEETER LH
Connector Type	TK02FBR

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

Connector No.	M84
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
10	P	−
11	W	−

Connector No.	M103
Connector Name	PARKING BRAKE SWITCH
Connector Type	P01FB-A

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

JCNWA0319GE

AUDIO WITH NAVIGATION SYSTEM (RHD MODELS)

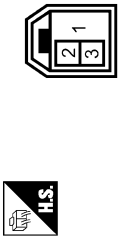
Connector No.	M352
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08MGY-X

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

Connector No.	M401
Connector Name	AUDIO UNIT
Connector Type	GT 13 SHA

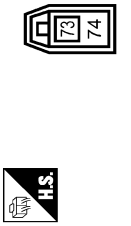
Terminal No.	Color of Wire	Signal Name [Specification]
41	–	ANTENNA AMP. ON SIGNAL
42	–	ANTENNA SIGNAL

Connector No.	M402
Connector Name	RADIO ANTENNA
Connector Type	GT13SSN-1



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

Connector No.	M451
Connector Name	NAVI CONTROL UNIT
Connector Type	GT5S-1PP-HU

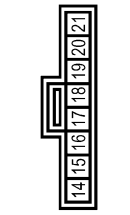


Terminal No.	Color of Wire	Signal Name [Specification]
73	–	GPS ANTENNA SIGNAL
74	SHIELD	SHIELD

Connector No.	R1
Connector Name	WIRE TO WIRE
Connector Type	TH16MW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
14	R	–
15	G	–
16	SHIELD	–

Connector No.	R3
Connector Name	MICROPHONE
Connector Type	TK04FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	MIC. SIGNAL
2	SHIELD	MIC. GND
4	R	MIC. VCC

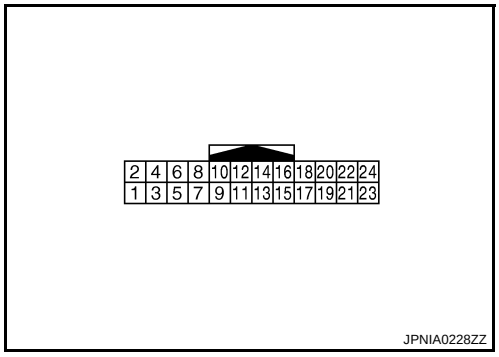
JCNWA0320GE

DISPLAY UNIT

Reference Value

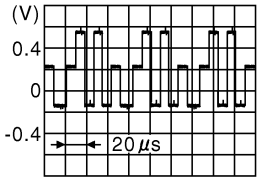
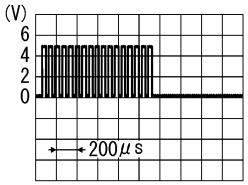
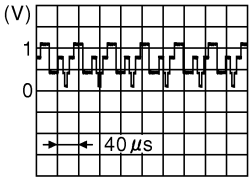
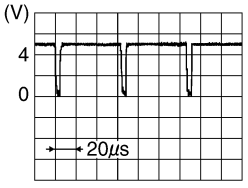
INFOID:0000000001093066

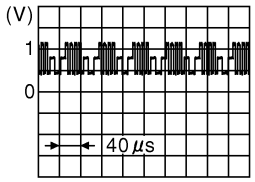
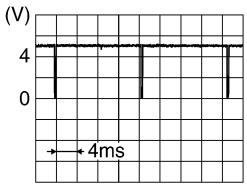
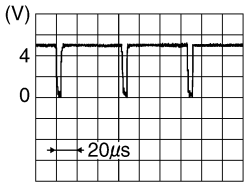
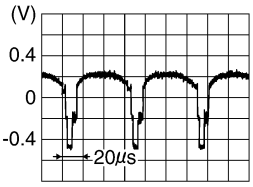
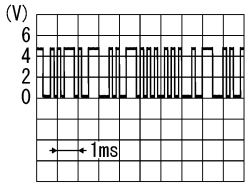
TERMINAL LAYOUT

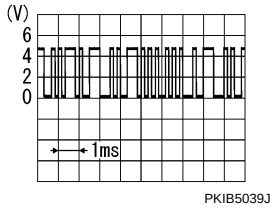


JPNIA0228ZZ

PHYSICAL VALUES

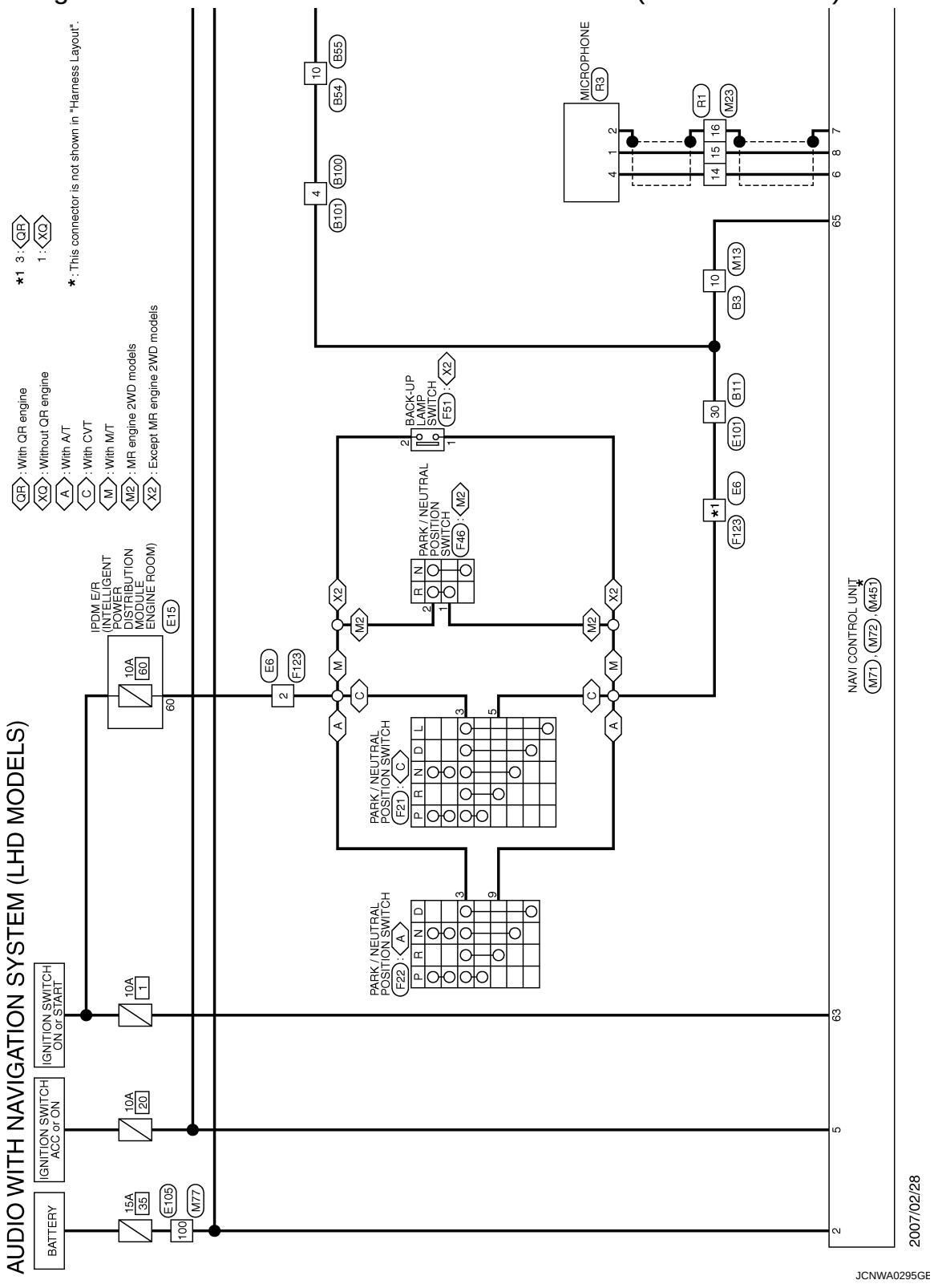
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
1 (G)	8 (B)	RGB signal (R: red)	Input	Ignition switch ON	Start “Confirmation / Adjustment Mode”, and then display color bar by selecting “Color Spectrum Bar” on DISPLAY DIAGNOSIS screen.	 JPNIA0221ZZ
2 (G)	Ground	RGB area (YS) signal	Input	Ignition switch ON	At RGB image displayed	5 V
					At rear view camera image displayed	 PKIB4948J
3 (R)	8 (B)	RGB 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.	 JPNIA0222ZZ
4 (W)	Ground	Horizontal synchronizing (HP) signal	Output	Ignition switch ON	—	 SKIB0825E

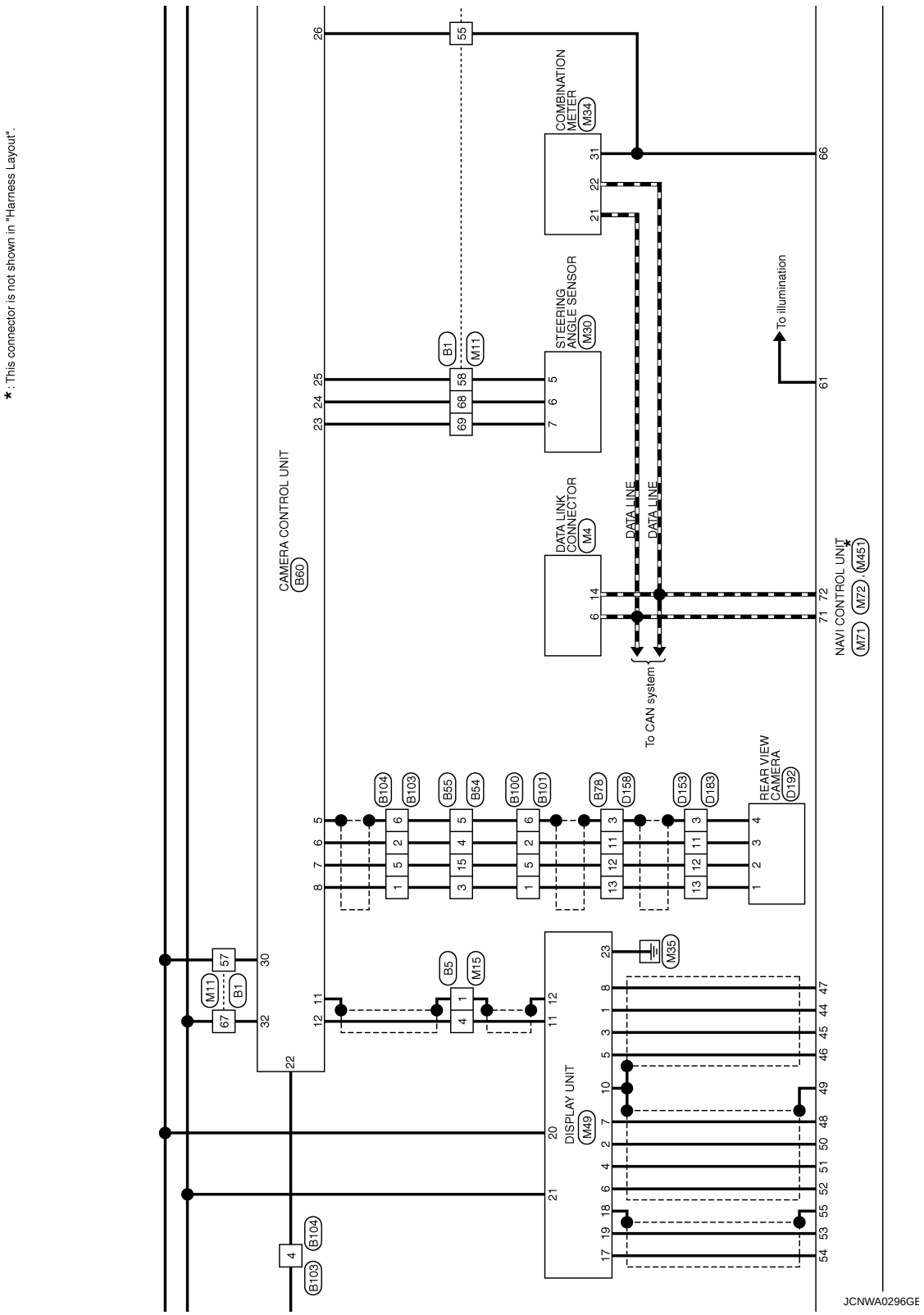
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
5 (W)	8 (B)	RGB signal (B: blue)	Input	Ignition switch ON	Start “Confirmation / Adjustment Mode”, and then display color bar by selecting “Color Spectrum Bar” on DISPLAY DIAGNOSIS screen.	 JPNIA0223ZZ
6 (R)	Ground	Vertical synchronizing (VP) signal	Output	Ignition switch ON	—	 SKIB0823E
7 (L)	Ground	RGB synchronizing signal	Input	Ignition switch ON	—	 SKIB0825E
8 (B)	Ground	RGB ground	—	Ignition switch ON	—	0 V
10	Ground	GND	—	Ignition switch ON	—	0 V
11 (Y)	12	Camera image signal	Input	Ignition switch ON	At rear view camera image displayed	 SKIB0827E
17 (P)	Ground	Communication signal (DISP→CONT)	Output	Ignition switch ON	When adjusting display brightness.	 PKIB5039J
18	—	Shield	—	—	—	—

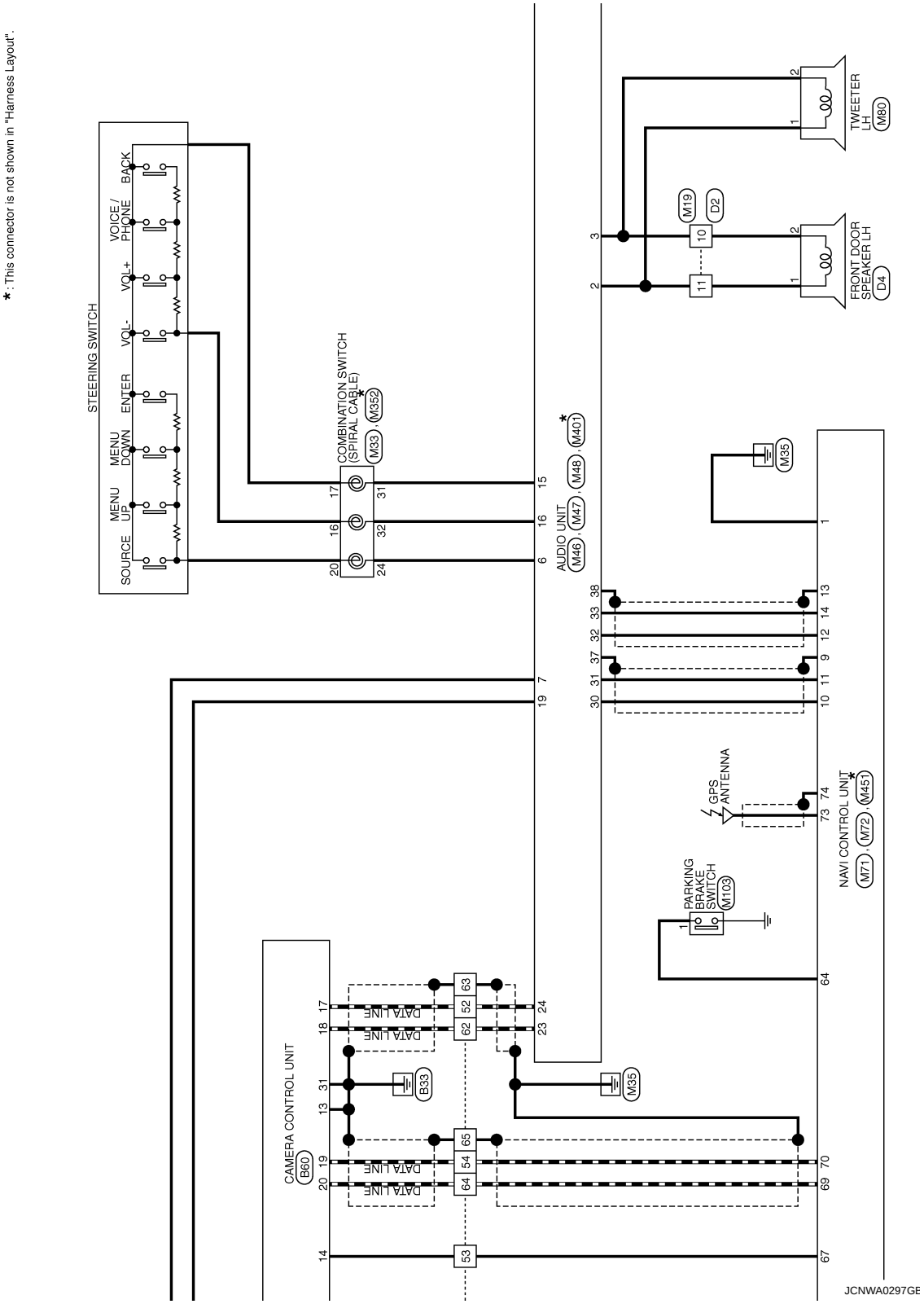
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
19 (L)	Ground	Communication signal (CONT→DISP)	Input	Ignition switch ON	When adjusting display brightness.	 PKIB5039J
20 (SB)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
21 (BR)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
23 (B)	Ground	GND	—	Ignition switch ON	—	0 V

Wiring Diagram—AUDIO WITH NAVIGATION SYSTEM (LHD MODELS)—

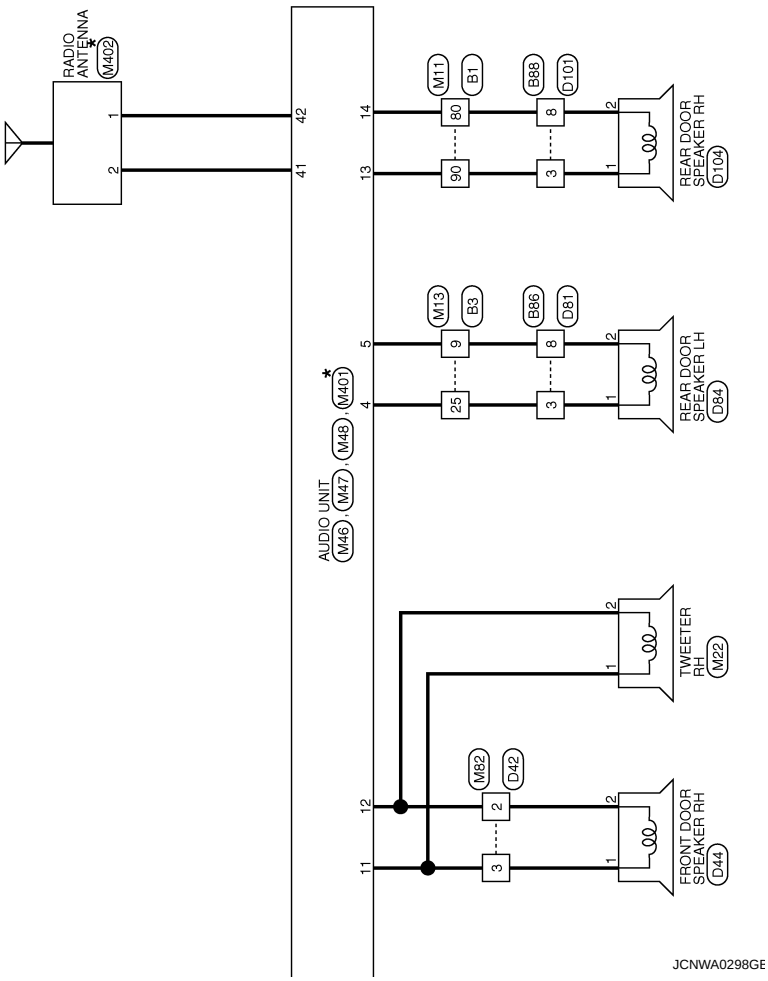
INFOID:0000000001537514




*: This connector is not shown in "Harness Layout".
CAMERA CONTROL UNIT
B60
COMBINATION METER
M34
STEERING ANGLE SENSOR
M30
DATA LINK CONNECTOR
M4
DATA LINE
DATA LINE
To CAN system
To illumination
NAVI CONTROL UNIT*
M71, M72, M451
REAR VIEW CAMERA
D192
DISPLAY UNIT
M49
M35
B1
M11
B5
M15
B104
B103
B55
B54
B100
B101
B78
D158
D153
D183
JCNWA0296GE


*: This connector is not shown in "Harness Layout".
STEERING SWITCH
SOURCE
MENU UP
MENU DOWN
ENTER
VOL-
VOL+
VOICE / PHONE
BACK
COMBINATION SWITCH (SPIRAL CABLE) *
M33, M352
AUDIO UNIT
M46, M47, M48, M401 *
TWEETER LH
M80
FRONT DOOR SPEAKER LH
D4
M19
D2
M35
GPS ANTENNA
NAVI CONTROL UNIT *
M71, M72, M451
PARKING BRAKE SWITCH
M103
CAMERA CONTROL UNIT
B60
B33
DATA LINE
JCNWA0297GE

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



AUDIO WITH NAVIGATION SYSTEM (LHD MODELS)

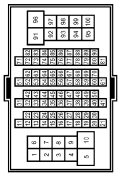
Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
52	P	–
53	GR	–
54	P	–
55	SB	–
57	W	–
58	O	–
62	L	–
63	SHIELD	–
64	L	–
65	SHIELD	–
67	R	–
68	LG	–
69	V	–
80	GR	–
90	LG	–

Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4

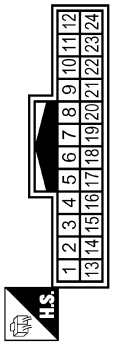
H.S.



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

Connector No.	B54
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH

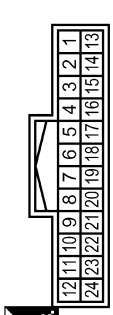
H.S.



Terminal No.	Color of Wire	Signal Name [Specification]
3	G	–
4	Y	–
5	W	–
10	R	–
15	L	–

Connector No.	B55
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH

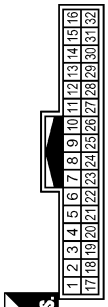
H.S.



Terminal No.	Color of Wire	Signal Name [Specification]
3	G	–
4	Y	–
5	W	–
10	R	–
15	L	–

Connector No.	B3
Connector Name	WIRE TO WIRE
Connector Type	TH32MW-NH

H.S.



Terminal No.	Color of Wire	Signal Name [Specification]
9	R	–
10	G	–
25	W	–

Connector No.	B5
Connector Name	WIRE TO WIRE
Connector Type	TH04MW-NH

H.S.

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

JCNWA0299GE

AUDIO WITH NAVIGATION SYSTEM (LHD MODELS)

Connector No.	B60
Connector Name	CAMERA CONTROL UNIT
Connector Type	TH32FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
5	SHIELD	SHIELD
6	Y	CAMERA IMAGE SIGNAL
7	L	GND
8	G	CAMERA ON SIGNAL
11	SHIELD	SHIELD
12	Y	CAMERA IMAGE SIGNAL
13	B	CONTROL SIGNAL
14	GR	CAMERA−CONNECTION RECOGNITION SIGNAL
17	P	AV COMMUNICATION SIGNAL (L)
18	L	AV COMMUNICATION SIGNAL (H)
19	P	AV COMMUNICATION SIGNAL (L)
20	L	AV COMMUNICATION SIGNAL (H)
22	R	REV
23	V	SENSOR SIGNAL1
24	LG	SENSOR SIGNAL2
25	O	SENSOR SIGNAL3
26	SB	SPEED 8P
30	W	ACC
31	B	GND
32	R	BAT

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

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

Connector No.	B100
Connector Name	WIRE TO WIRE
Connector Type	TH08FW-NH

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

Connector No.	B101
Connector Name	WIRE TO WIRE
Connector Type	TH08MW-NH

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

Connector No.	B78
Connector Name	WIRE TO WIRE
Connector Type	TH16MW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
3	SHIELD	–
11	Y	–
12	L	–
13	G	–

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

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

Connector No.	B103
Connector Name	WIRE TO WIRE
Connector Type	TH08FW-NH

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

JCNWA0300GE

AUDIO WITH NAVIGATION SYSTEM (LHD MODELS)

Connector No.	B104
Connector Name	WIRE TO WIRE
Connector Type	TH08MW-NH

H.S.

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

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

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
10	P	–
11	W	–

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

H.S.

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

Connector No.	D42
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS

H.S.

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

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

H.S.

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

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

H.S.

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

Connector No.	D84
Connector Name	REAR DOOR SPEAKER LH
Connector Type	NS02FW-CS

H.S.

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

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

H.S.

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

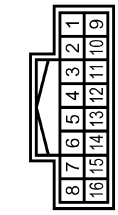
JCNWA0301GE

AUDIO WITH NAVIGATION SYSTEM (LHD MODELS)

Connector No.	D104
Connector Name	REAR DOOR SPEAKER RH
Connector Type	NS02FW-CS

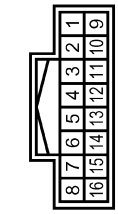
Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	–
2	GR	–

Connector No.	D153
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH



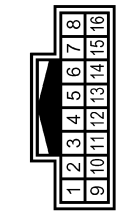
Terminal No.	Color of Wire	Signal Name [Specification]
3	SHIELD	–
11	Y	–
12	L	–
13	G	–

Connector No.	D158
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
3	SHIELD	–
11	Y	–
12	L	–
13	G	–

Connector No.	D183
Connector Name	WIRE TO WIRE
Connector Type	TH16MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
3	BR	–
11	Y	–
12	L	–
13	G	–

Connector No.	D192
Connector Name	REAR VIEW CAMERA
Connector Type	TK04MW

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	CAMERA ON
2	L	GND
3	Y	COMP-
4	BR	COMP-

Connector No.	E6
Connector Name	WIRE TO WIRE
Connector Type	TK24MW-1V

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	–[Without QR engine]
2	SB	–
3	G	–[With QR engine]

Connector No.	E15
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS16FW-CS

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

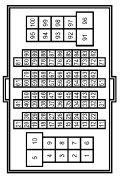
Connector No.	E101
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4

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

JCNWA0302GE

AUDIO WITH NAVIGATION SYSTEM (LHD MODELS)

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

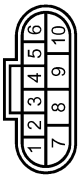


Terminal No.	Color of Wire	Signal Name [Specification]
100	SB	–

Connector No.	F21
Connector Name	PARK / NEUTRAL POSITION SWITCH
Connector Type	RK08FG

Terminal No.	Color of Wire	Signal Name [Specification]
3	SB	VIGN
5	G	R RANGE SWITCH

Connector No.	F22
Connector Name	PARK / NEUTRAL POSITION SWITCH
Connector Type	YAZAKI 7283-8700-30



Terminal No.	Color of Wire	Signal Name [Specification]
3	SB	VIGN
9	G	R RANGE SWITCH

Connector No.	F46
Connector Name	PARK / NEUTRAL POSITION SWITCH
Connector Type	FEA03FG

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

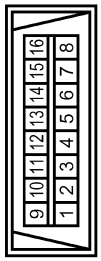
Connector No.	F51
Connector Name	BACK-UP LAMP SWITCH
Connector Type	RK02FB

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

Connector No.	F123
Connector Name	WIRE TO WIRE
Connector Type	TK24FW-1V

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	–[Without QR engine]
2	SB	–
3	G	–[With QR engine]

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



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

JCNWA0303GE

AUDIO WITH NAVIGATION SYSTEM (LHD MODELS)

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

Terminal No.	Color of Wire	Signal Name [Specification]
52	P	–
53	L	–
54	P	–
55	V	–
57	SB	–
58	O	–
62	L	–
63	SHIELD	–
64	L	–
65	SHIELD	–
67	BR	–
68	L	–
69	V	–
80	Y	–
90	BR	–

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

Terminal No.	Color of Wire	Signal Name [Specification]
10	P	–
11	W	–

Connector No.	M22
Connector Name	TWEETER RH
Connector Type	TK02FBR

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

Connector No.	M13
Connector Name	WIRE TO WIRE
Connector Type	TH32FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
9	R	–
10	G	–
25	LG	–

Connector No.	M23
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
14	R	–
15	G	–
16	SHIELD	–

Connector No.	M15
Connector Name	WIRE TO WIRE
Connector Type	TH04FW-NH

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

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

Terminal No.	Color of Wire	Signal Name [Specification]
5	O	SENS 3
6	L	SENS 2
7	V	SENS 1

JCNWA0304GE

AUDIO WITH NAVIGATION SYSTEM (LHD MODELS)

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

H.S.

24 25 26 27
31 32 33 34

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

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	SAB40FW

H.S.

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

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

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

H.S.

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

Terminal No.	Color of Wire	Signal Name [Specification]
2	W	FR LH SP+
3	P	FR LH SP–
4	LG	RR LH SP+
5	R	RR LH SP–
6	V	STRG SW A
7	SB	ACC
11	G	FR RH SP+
12	R	FR RH SP–
13	BR	RR RH SP+
14	Y	RR RH SP–
15	GR	STRG SW GND
16	O	STRG SW B
19	BR	BAT

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

H.S.

21 22 23 24
25 26 27 28

Terminal No.	Color of Wire	Signal Name [Specification]
23	L	M-CAN H
24	P	M-CAN L

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

H.S.

29 30 31 32 33 34
35 36 37 38 39 40

Terminal No.	Color of Wire	Signal Name [Specification]
30	G	TEL VOICE SIGNAL+
31	R	TEL VOICE SIGNAL–
32	L	VOICE GUIDANCE SIGNAL+ [With navigation system]
33	P	VOICE GUIDANCE SIGNAL–
37	SHIELD	TEL VOICE SHIELD [With navigation system]
38	SHIELD	VOICE GUIDANCE SHIELD

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

H.S.

2 4 6 8 10 12 14 16 18 20 22 24
1 3 5 7 9 11 13 15 17 19 21 23

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	RGB SIGNAL (R)
2	G	RGB AREA (YS) SIGNAL
3	R	RGB SIGNAL (G)
4	W	HORIZONTAL SYNCHRONIZING (HP) SIGNAL
5	W	RGB SIGNAL (B)
6	R	VERTICAL SYNCHRONIZING (VP) SIGNAL
7	L	RGB SYNCHRONIZING SIGNAL
8	B	GND
10	SHIELD	GND
11	Y	CAMERA IMAGE SIGNAL+
12	SHIELD	CAMERA IMAGE SIGNAL–
17	P	COMMUNICATION SIGNAL (DISP→CONT)
18	SHIELD	SHIELD
19	L	COMMUNICATION SIGNAL (CONT→DISP)
20	SB	ACC
21	BR	BAT
23	B	GND

JCNWA0305GE

AUDIO WITH NAVIGATION SYSTEM (LHD MODELS)

Connector No.	M71
Connector Name	NAVI CONTROL UNIT
Connector Type	TH40FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	BR	BAT
5	SB	ACC
6	R	MIC. VCC
7	SHIELD	MIC. GND
8	G	MIC. SIGNAL
9	SHIELD	TEL VOICE SHIELD
10	G	TEL VOICE SIGNAL+
11	R	TEL VOICE SIGNAL-
12	L	VOICE GUIDANCE SIGNAL+
13	SHIELD	VOICE GUIDANCE SHIELD
14	P	VOICE GUIDANCE SIGNAL-

Connector No.	M72
Connector Name	NAVI CONTROL UNIT
Connector Type	TH32FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
44	G	RGB SIGNAL (R)
45	R	RGB SIGNAL (G)
46	W	RGB SIGNAL (B)
47	B	RGB GND
48	L	RGB SYNCHRONIZING SIGNAL
49	SHIELD	GND
50	G	RGB AREA (YS) SIGNAL
51	W	HORIZONTAL SYNCHRONIZING (HP) SIGNAL
52	R	VERTICAL SYNCHRONIZING (VP) SIGNAL
53	L	COMMUNICATION SIGNAL (CONT→DISP)
54	P	COMMUNICATION SIGNAL (DISP→CONT)
55	SHIELD	SHIELD
61	R	ILL
63	W	IGN
64	GR	PKB SIG
65	G	REVERSE SIG
66	V	SPEED(8PR)
67	L	CAMERA-CONNECTION RECOGNITION SIGNAL
69	L	AV COMMUNICATION SIGNAL (H)
70	P	AV COMMUNICATION SIGNAL (L)
71	L	CAN-H
72	P	CAN-L

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

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

Connector No.	M80
Connector Name	TWEETER LH
Connector Type	TK02FBR

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

Connector No.	M82
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS

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

Connector No.	M103
Connector Name	PARKING BRAKE SWITCH
Connector Type	P01FB-A

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

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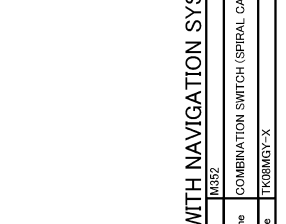
AUDIO WITH NAVIGATION SYSTEM (LHD MODELS)

Connector No.	M352
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08MGY-X

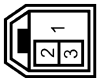


Terminal No.	Color of Wire	Signal Name [Specification]
16	–	–
17	–	–
20	–	–

Connector No.	M401
Connector Name	AUDIO UNIT
Connector Type	GT 13 SHA

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

Connector No.	M402
Connector Name	RADIO ANTENNA
Connector Type	GT13SSN-1

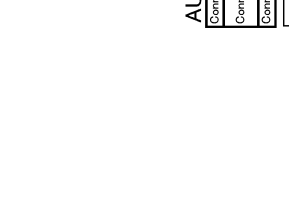


Terminal No.	Color of Wire	Signal Name [Specification]
1	–	–
2	–	–

Connector No.	M451
Connector Name	NAVI CONTROL UNIT
Connector Type	GT5S-1PP-HU

Terminal No.	Color of Wire	Signal Name [Specification]
73	–	GPS ANTENNA SIGNAL
74	SHIELD	SHIELD

Connector No.	R1
Connector Name	WIRE TO WIRE
Connector Type	TH16MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
14	R	–
15	G	–
16	SHIELD	–

Connector No.	R3
Connector Name	MICROPHONE
Connector Type	TK04FW

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	MIC. SIGNAL
2	SHIELD	MIC. GND
4	R	MIC. VCC

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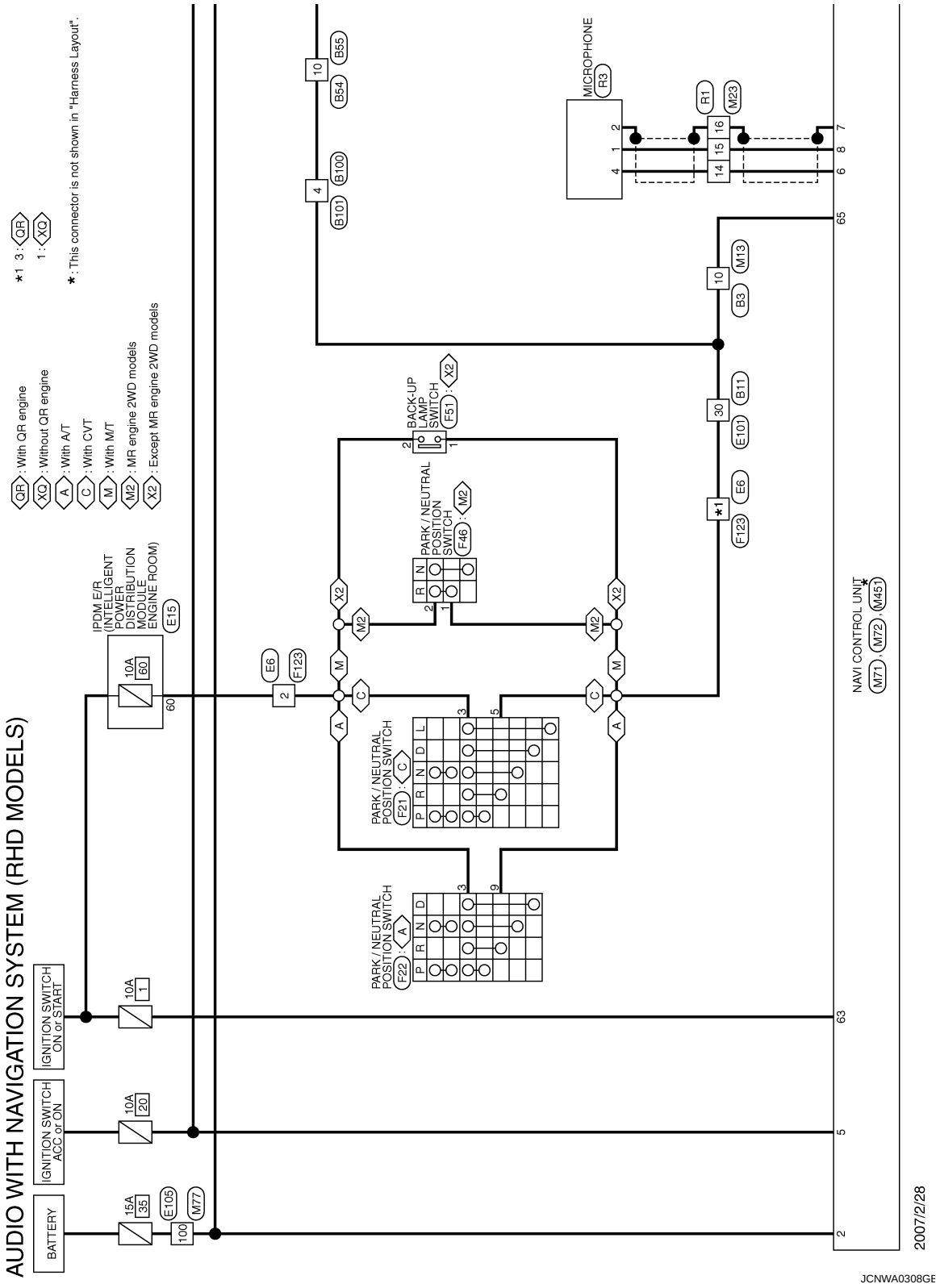
Wiring Diagram—AUDIO WITH NAVIGATION SYSTEM (RHD MODELS)—

INFOID:0000000001537515



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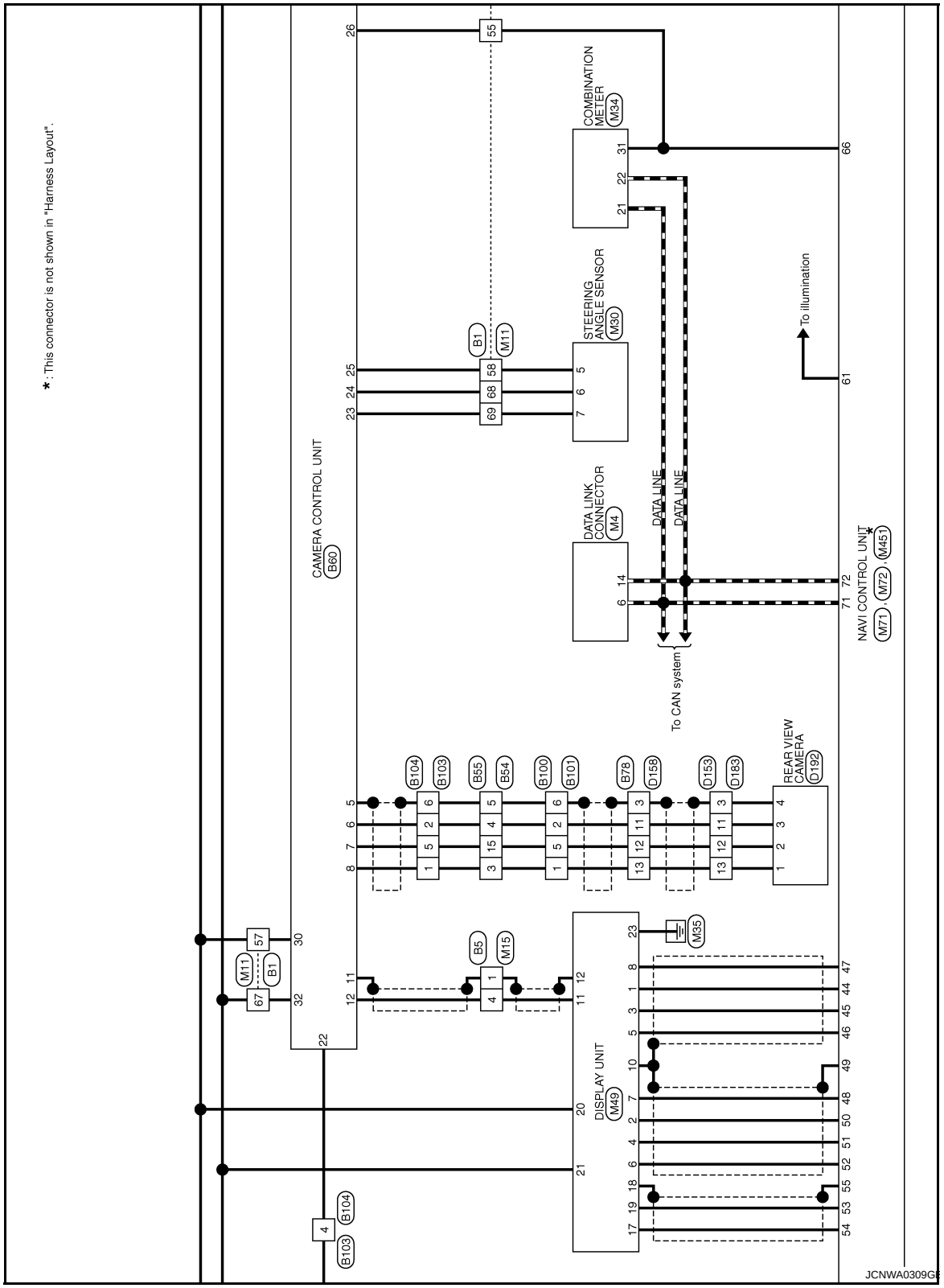
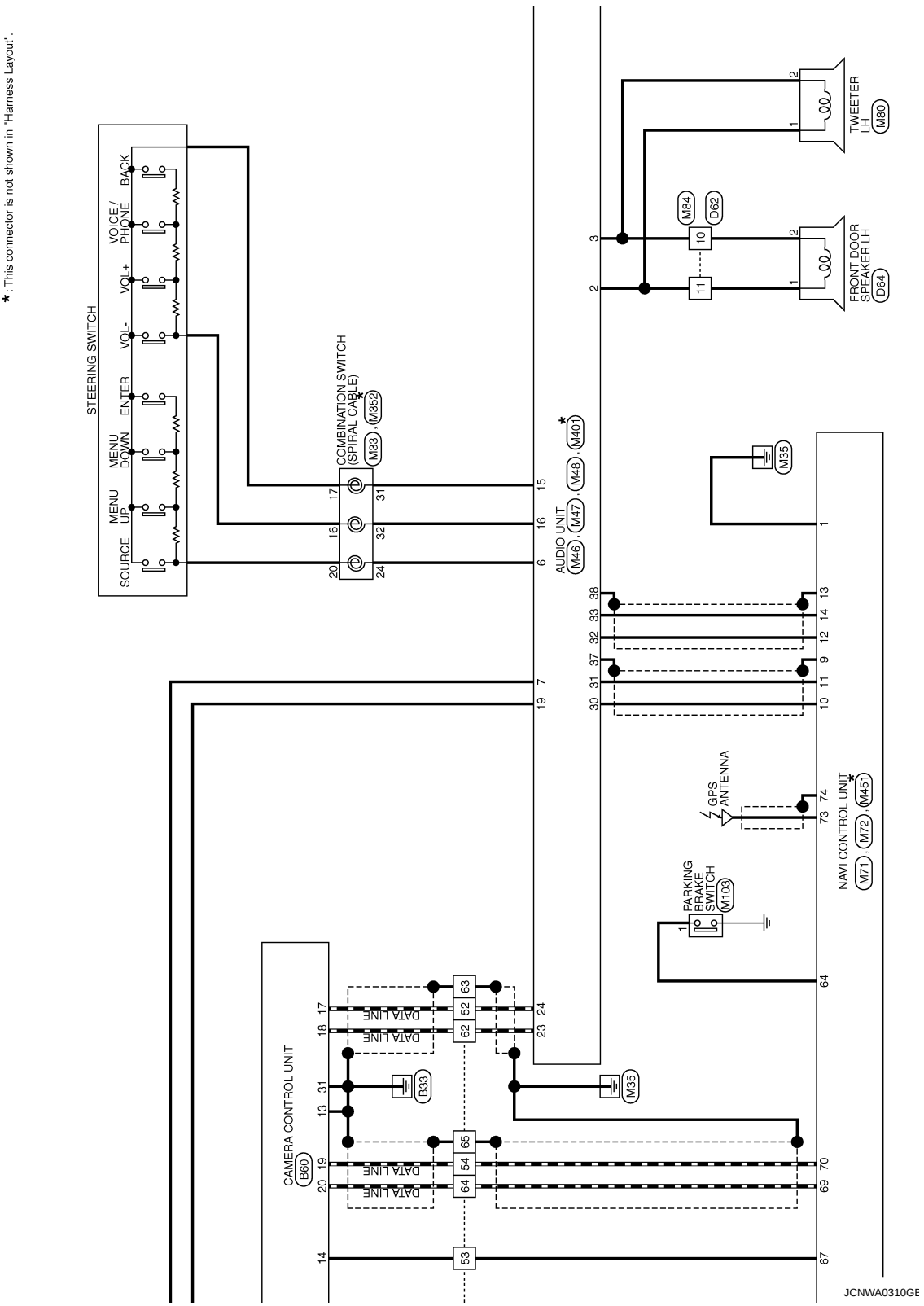
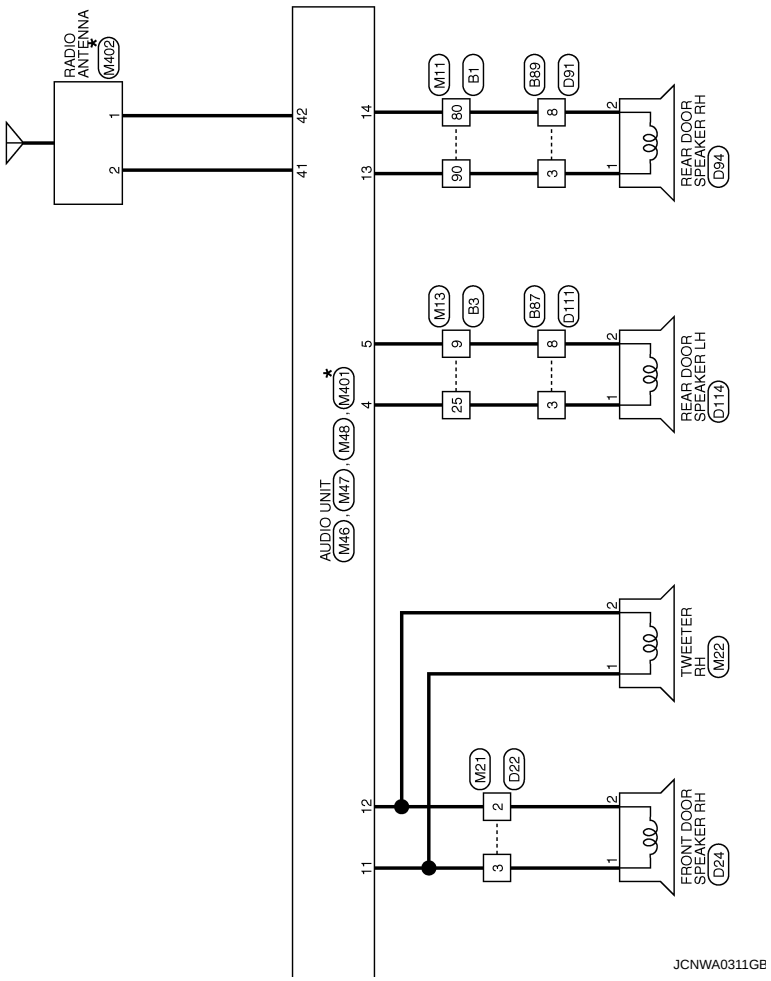

*: This connector is not shown in "Harness Layout".
CAMERA CONTROL UNIT
B60
COMBINATION METER
M34
STEERING ANGLE SENSOR
M30
DATA LINK CONNECTOR
M4
DATA LINE
DATA LINE
To illumination
To CAN system
NAVI CONTROL UNIT*
M71, M72, M451
REAR VIEW CAMERA
D192
DISPLAY UNIT
M49
M35
B1
M11
B5
M15
B104
B103
B55
B54
B100
B101
B78
D158
D153
D183
JCNWA0309GB


*: This connector is not shown in "Harness Layout".
STEERING SWITCH
SOURCE
MENU UP
MENU DOWN
ENTER
VOL-
VOL+
VOICE / PHONE
BACK
COMBINATION SWITCH (SPIRAL CABLE)
M33, M352
AUDIO UNIT
M46, M47, M48, *M401
TWEETER LH
M80
FRONT DOOR SPEAKER LH
D64
M84
D62
M35
GPS ANTENNA
NAVI CONTROL UNIT
M71, M72, *M451
PARKING BRAKE SWITCH
M103
CAMERA CONTROL UNIT
B60
B33
DATA LINE
JCNWA0310GE

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



AUDIO WITH NAVIGATION SYSTEM (RHD MODELS)

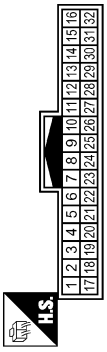
Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4

Terminal No.	Color of Wire	Signal Name [Specification]
52	P	–
53	GR	–
54	P	–
55	SB	–
57	W	–
58	O	–
62	L	–
63	SHIELD	–
64	L	–
65	SHIELD	–
67	R	–
68	LG	–
69	V	–
80	GR	–
90	LG	–

Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4

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

Connector No.	B3
Connector Name	WIRE TO WIRE
Connector Type	TH32MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
9	R	–
10	G	–
25	W	–

Connector No.	B5
Connector Name	WIRE TO WIRE
Connector Type	TH04MW-NH

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

Connector No.	B54
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
3	G	–
4	Y	–
5	W	–
10	R	–
15	L	–

Connector No.	B55
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
3	G	–
4	Y	–
5	W	–
10	R	–
15	L	–

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AUDIO WITH NAVIGATION SYSTEM (RHD MODELS)

Connector No.	B60
Connector Name	CAMERA CONTROL UNIT
Connector Type	TH32FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
5	SHIELD	SHIELD
6	Y	CAMERA IMAGE SIGNAL
7	L	GND
8	G	CAMERA ON SIGNAL
11	SHIELD	SHIELD
12	Y	CAMERA IMAGE SIGNAL
13	B	CONTROL SIGNAL
14	GR	CAMERA-CONNECTION RECOGNITION SIGNAL
17	P	AV COMMUNICATION SIGNAL (L)
18	L	AV COMMUNICATION SIGNAL (H)
19	P	AV COMMUNICATION SIGNAL (L)
20	L	AV COMMUNICATION SIGNAL (H)
22	R	REV
23	V	SENSOR SIGNAL1
24	LG	SENSOR SIGNAL2
25	O	SENSOR SIGNAL3
26	SB	SPEED 8P
30	W	ACC
31	B	GND
32	R	BAT

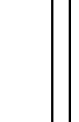
Connector No.	B89
Connector Name	WIRE TO WIRE
Connector Type	NS12MW-CS

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

Connector No.	B100
Connector Name	WIRE TO WIRE
Connector Type	TH08FW-NH

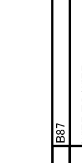
Terminal No.	Color of Wire	Signal Name [Specification]
1	G	–
2	Y	–
4	R	–
5	L	–
6	W	–

Connector No.	B101
Connector Name	WIRE TO WIRE
Connector Type	TH08MW-NH



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

Connector No.	B78
Connector Name	WIRE TO WIRE
Connector Type	TH16MW-NH

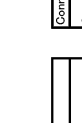


Terminal No.	Color of Wire	Signal Name [Specification]
3	SHIELD	–
11	Y	–
12	L	–
13	G	–

Connector No.	B87
Connector Name	WIRE TO WIRE
Connector Type	NS12MW-CS

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

Connector No.	B103
Connector Name	WIRE TO WIRE
Connector Type	TH08FW-NH



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

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AUDIO WITH NAVIGATION SYSTEM (RHD MODELS)

Connector No.	B104
Connector Name	WIRE TO WIRE
Connector Type	TH08MW-NH

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

Connector No.	D22
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS

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

Connector No.	D24
Connector Name	FRONT DOOR SPEAKER RH
Connector Type	NS02FW-CS

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

Connector No.	D62
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
10	P	–
11	W	–

Connector No.	D64
Connector Name	FRONT DOOR SPEAKER LH
Connector Type	NS02FW-CS

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

Connector No.	D91
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS

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

Connector No.	D94
Connector Name	REAR DOOR SPEAKER RH
Connector Type	NS02FW-CS

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

Connector No.	D111
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS

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

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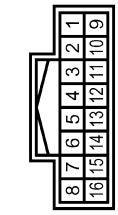
AUDIO WITH NAVIGATION SYSTEM (RHD MODELS)

Connector No.	D114
Connector Name	REAR DOOR SPEAKER LH
Connector Type	NS02FW-CS

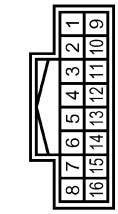
Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	–
2	GR	–

Connector No.	D153
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH



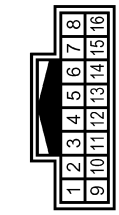
Terminal No.	Color of Wire	Signal Name [Specification]
3	SHIELD	–
11	Y	–
12	L	–
13	G	–

Connector No.	D158
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
3	SHIELD	–
11	Y	–
12	L	–
13	G	–

Connector No.	D183
Connector Name	WIRE TO WIRE
Connector Type	TH16MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
3	BR	–
11	Y	–
12	L	–
13	G	–

Connector No.	D192
Connector Name	REAR VIEW CAMERA
Connector Type	TK04MW

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	CAMERA ON
2	L	GND
3	Y	COMP+
4	BR	COMP–

Connector No.	E6
Connector Name	WIRE TO WIRE
Connector Type	TK24MW-1V

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	–[Without QR engine]
2	SB	–
3	G	–[With QR engine]

Connector No.	E15
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS16FW-CS

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

Connector No.	E101
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4

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

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AUDIO WITH NAVIGATION SYSTEM (RHD MODELS)

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

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

Connector No.	F21
Connector Name	PARK / NEUTRAL POSITION SWITCH
Connector Type	RK08FG

Terminal No.	Color of Wire	Signal Name [Specification]
3	SB	VIGN
5	G	R RANGE SWITCH

Connector No.	F22
Connector Name	PARK / NEUTRAL POSITION SWITCH
Connector Type	YAZAKI 7283-8700-30

Terminal No.	Color of Wire	Signal Name [Specification]
3	SB	VIGN
9	G	R RANGE SWITCH

Connector No.	F46
Connector Name	PARK / NEUTRAL POSITION SWITCH
Connector Type	FEA03FG

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

Connector No.	F51
Connector Name	BACK-UP LAMP SWITCH
Connector Type	RK02FB

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

Connector No.	F123
Connector Name	WIRE TO WIRE
Connector Type	TK24FW-1V

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	–[Without QR engine]
2	SB	–
3	G	–[With QR engine]

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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AUDIO WITH NAVIGATION SYSTEM (RHD MODELS)

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

Terminal No.	Color of Wire	Signal Name [Specification]
52	P	–
53	L	–
54	P	–
55	V	–
57	SB	–
58	O	–
62	L	–
63	SHIELD	–
64	L	–
65	SHIELD	–
67	BR	–
68	L	–
69	V	–
80	Y	–
90	BR	–

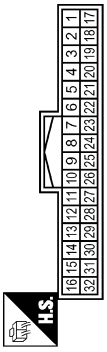
Connector No.	M21
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS

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

Connector No.	M22
Connector Name	TWEETER RH
Connector Type	TK02FBR

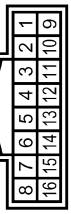
Terminal No.	Color of Wire	Signal Name [Specification]
1	G	–
2	R	–

Connector No.	M13
Connector Name	WIRE TO WIRE
Connector Type	TH32FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
9	R	–
10	G	–
25	LG	–

Connector No.	M23
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH

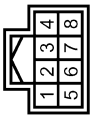


Terminal No.	Color of Wire	Signal Name [Specification]
14	R	–
15	G	–
16	SHIELD	–

Connector No.	M15
Connector Name	WIRE TO WIRE
Connector Type	TH04FW-NH

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

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



Terminal No.	Color of Wire	Signal Name [Specification]
5	O	SENS 3
6	L	SENS 2
7	V	SENS 1

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AUDIO WITH NAVIGATION SYSTEM (RHD MODELS)

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

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

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	SAB40FW

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

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

Terminal No.	Color of Wire	Signal Name [Specification]
2	W	FR LH SP+
3	P	FR LH SP-
4	LG	RR LH SP+
5	R	RR LH SP-
6	V	STRG SW A
7	SB	ACC
11	G	FR RH SP+
12	R	FR RH SP-
13	BR	RR RH SP+
14	Y	RR RH SP-
15	GR	STRG SW GND
16	O	STRG SW B
19	BR	BAT

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

Terminal No.	Color of Wire	Signal Name [Specification]
23	L	M-CAN H
24	P	M-CAN L

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

Terminal No.	Color of Wire	Signal Name [Specification]
30	G	TEL VOICE SIGNAL+
31	R	TEL VOICE SIGNAL-
32	L	VOICE GUIDANCE SIGNAL+[With navigation system]
33	P	VOICE GUIDANCE SIGNAL-
37	SHIELD	TEL VOICE SHIELD [With navigation system]
38	SHIELD	VOICE GUIDANCE SHIELD

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

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	RGB SIGNAL (R)
2	G	RGB AREA (YS) SIGNAL
3	R	RGB SIGNAL (G)
4	W	HORIZONTAL SYNCHRONIZING (HP) SIGNAL
5	W	RGB SIGNAL (B)
6	R	VERTICAL SYNCHRONIZING (VP) SIGNAL
7	L	RGB SYNCHRONIZING SIGNAL
8	B	GND
10	SHIELD	GND
11	Y	CAMERA IMAGE SIGNAL+
12	SHIELD	CAMERA IMAGE SIGNAL-
17	P	COMMUNICATION SIGNAL (DISP→CONT)
18	SHIELD	SHIELD
19	L	COMMUNICATION SIGNAL (CONT→DISP)
20	SB	ACC
21	BR	BAT
23	B	GND

JCNWA0318GE

AUDIO WITH NAVIGATION SYSTEM (RHD MODELS)

Connector No.	M71
Connector Name	NAVI CONTROL UNIT
Connector Type	TH40FW-NH

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

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	BR	BAT
5	SB	ACC
6	R	MIC. VCC
7	SHIELD	MIC. GND
8	G	MIC. SIGNAL
9	SHIELD	TEL VOICE SHIELD
10	G	TEL VOICE SIGNAL+
11	R	TEL VOICE SIGNAL−
12	L	VOICE GUIDANCE SIGNAL+
13	SHIELD	VOICE GUIDANCE SHIELD

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

Terminal No.	Color of Wire	Signal Name [Specification]
100	BR	−

I4	P	VOICE GUIDANCE SIGNAL−

Connector No.	M72
Connector Name	NAVI CONTROL UNIT
Connector Type	TH32FW-NH

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

Terminal No.	Color of Wire	Signal Name [Specification]
44	G	RGB SIGNAL (R)
45	R	RGB SIGNAL (G)
46	W	RGB SIGNAL (B)
47	B	RGB GND
48	L	RGB SYNCHRONIZING SIGNAL
49	SHIELD	GND
50	G	RGB AREA (YS) SIGNAL
51	W	HORIZONTAL SYNCHRONIZING (HP) SIGNAL
52	R	VERTICAL SYNCHRONIZING (VP) SIGNAL
53	L	COMMUNICATION SIGNAL (CONT→DISP)
54	P	COMMUNICATION SIGNAL (DISP→CONT)

Connector No.	M80
Connector Name	TWEETER LH
Connector Type	TK02FBR

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

Connector No.	M84
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]
10	P	−
11	W	−

55	SHIELD	SHIELD
61	R	ILL
63	W	IGN
64	GR	PKB SIG
65	G	REVERSE SIG
66	V	SPEED(8PR)
67	L	CAMERA-CONNECTION RECOGNITION SIGNAL
69	L	AV COMMUNICATION SIGNAL (H)
70	P	AV COMMUNICATION SIGNAL (L)
71	L	CAN-H
72	P	CAN-L

Connector No.	M103
Connector Name	PARKING BRAKE SWITCH
Connector Type	P01FB-A

1

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

JCNWA0319GE

AUDIO WITH NAVIGATION SYSTEM (RHD MODELS)

Connector No.	M352
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08MGY-X

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

Connector No.	M401
Connector Name	AUDIO UNIT
Connector Type	GT 13 SHA

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

Connector No.	M402
Connector Name	RADIO ANTENNA
Connector Type	GT13SSN-1

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

Connector No.	M451
Connector Name	NAVI CONTROL UNIT
Connector Type	GT5S-1PP-HU

Terminal No.	Color of Wire	Signal Name [Specification]
73	–	GPS ANTENNA SIGNAL
74	SHIELD	SHIELD

Connector No.	R1
Connector Name	WIRE TO WIRE
Connector Type	TH16MW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
14	R	–
15	G	–
16	SHIELD	–

Connector No.	R3
Connector Name	MICROPHONE
Connector Type	TK04FW

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	MIC. SIGNAL
2	SHIELD	MIC. GND
4	R	MIC. VCC

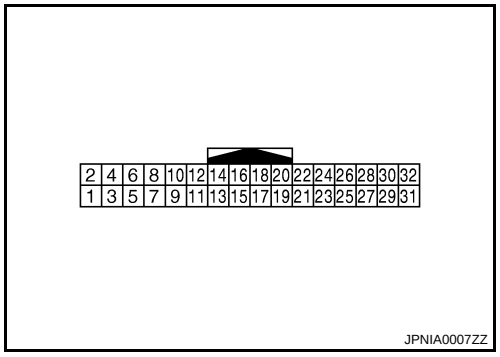
JCNWA0320GE

CAMERA CONTROL UNIT

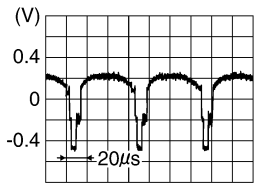
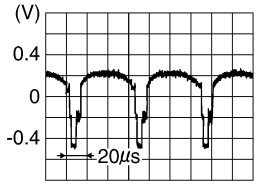
Reference Value

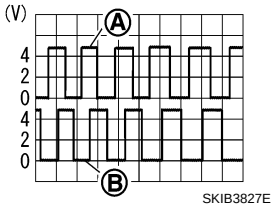
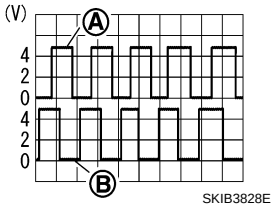
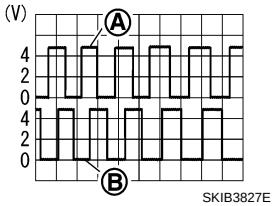
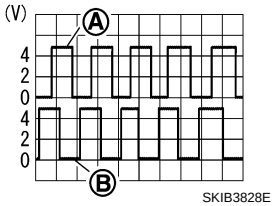
INFOID:0000000001116960

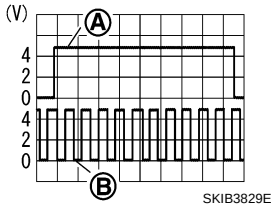
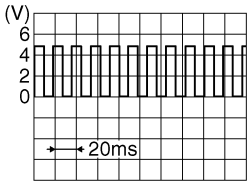
TERMINAL LAYOUT



PHYSICAL VALUES

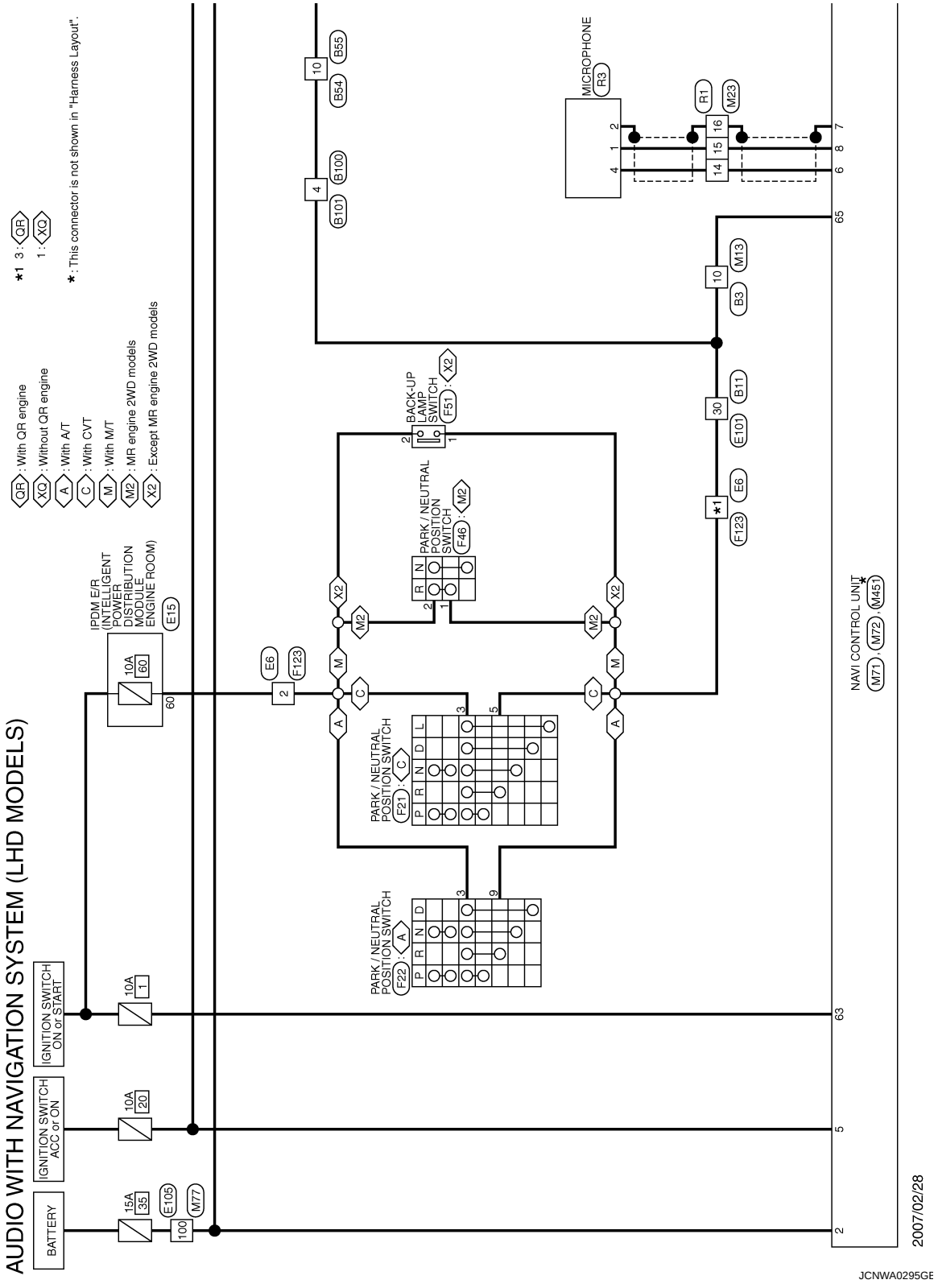
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
5	—	Shield	—	—	—	—
6 (Y)	Ground	Camera image signal	Input	Ignition switch ON	At rear view camera image displayed	 SKIB0827E
7 (L)	Ground	GND	—	Ignition switch ON	—	0 V
8 (G)	Ground	Camera ON signal	Output	Ignition switch ON	R position	6 V
					Other than R position	0 V
11	—	Shield	—	—	—	—
12 (Y)	Ground	Camera image signal	Output	Ignition switch ON	At rear view camera image displayed	 SKIB0827E
13 (B)	Ground	Control signal	—	Ignition switch ON	—	0 V
14 (GR)	Ground	Camera-connection recognition signal	—	Ignition switch ON	Connected to camera control unit connector	0 V
					Not connected to camera control unit connector	5 V
17 (P)	—	AV communication signal (L)	Input/ Output	—	—	—

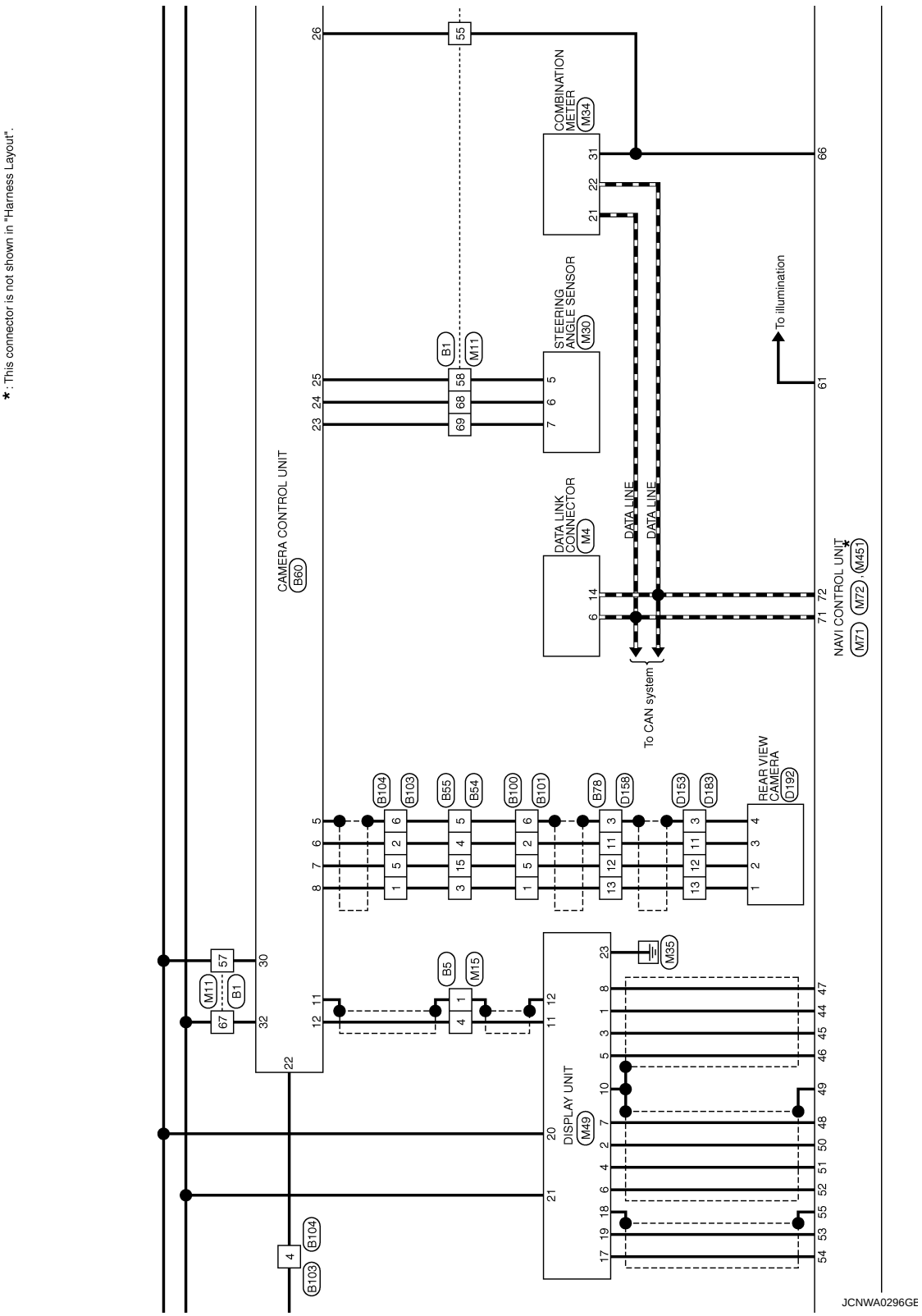
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
18 (L)	—	AV communication signal (H)	Input/ Output	—	—	—
19 (P)	—	AV communication signal (L)	Input/ Output	—	—	—
20 (L)	—	AV communication signal (H)	Input/ Output	—	—	—
22 (R)	Ground	Reverse signal	Input	Ignition switch ON	R position	12 V
					Other than R position	0 V
23 (V)	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 (LG)	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

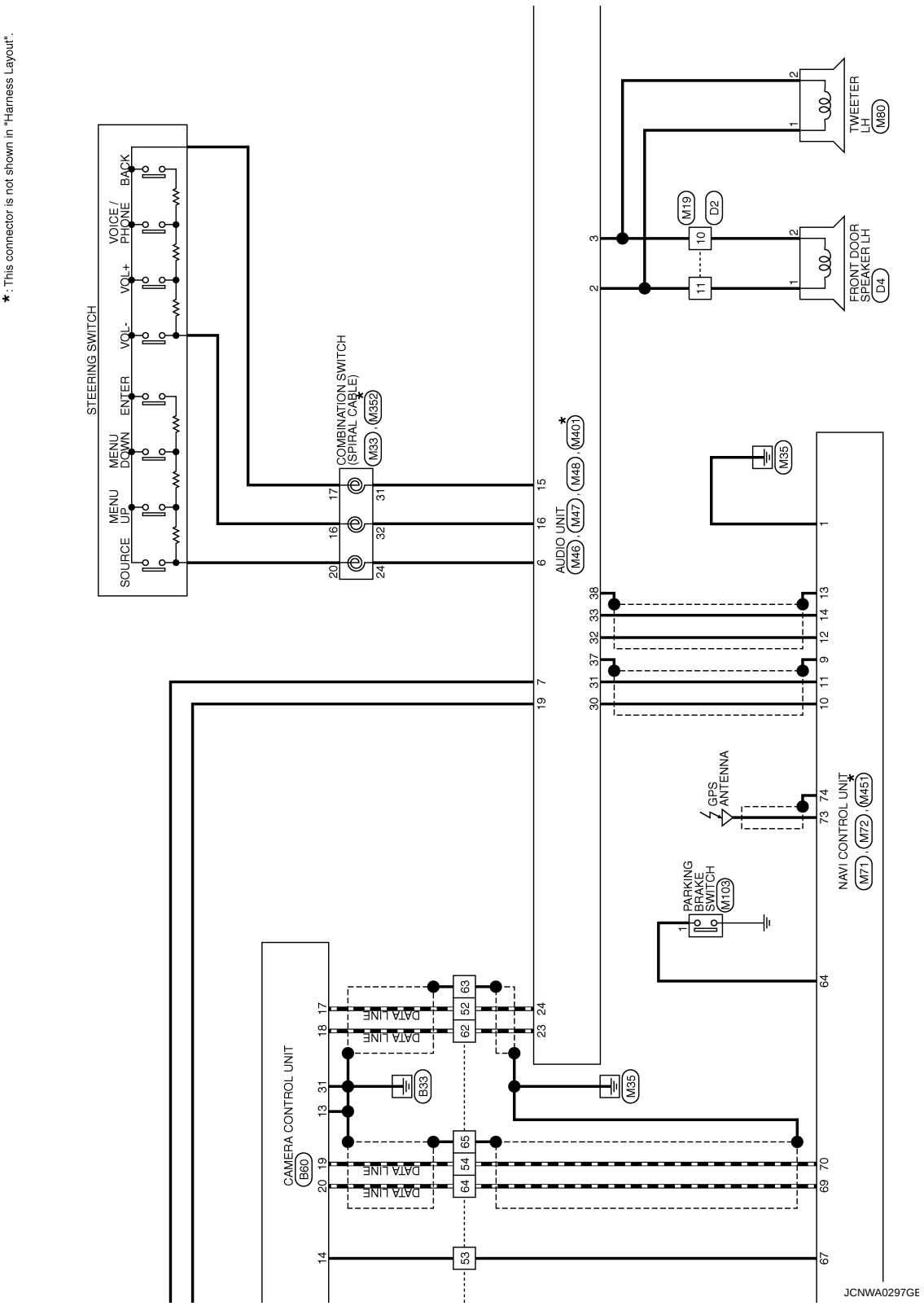
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	–	Signal name	Input/ Output			
25 (O)	Ground	Sensor signal 3	Input	Ignition switch ON	Turn the steering around the neutral position	 SKIB3829E A: Sensor signal 3 B: Sensor signal 1
26 (SB)	Ground	Vehicle speed signal (8-pulse)	Input	Ignition switch ON	When vehicle speed is approx. 40 km/h (25 MPH)	 SKIA6649J
30 (W)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
31 (B)	Ground	GND	—	Ignition switch ON	—	0 V
32 (R)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage

Wiring Diagram—AUDIO WITH NAVIGATION SYSTEM (LHD MODELS)—

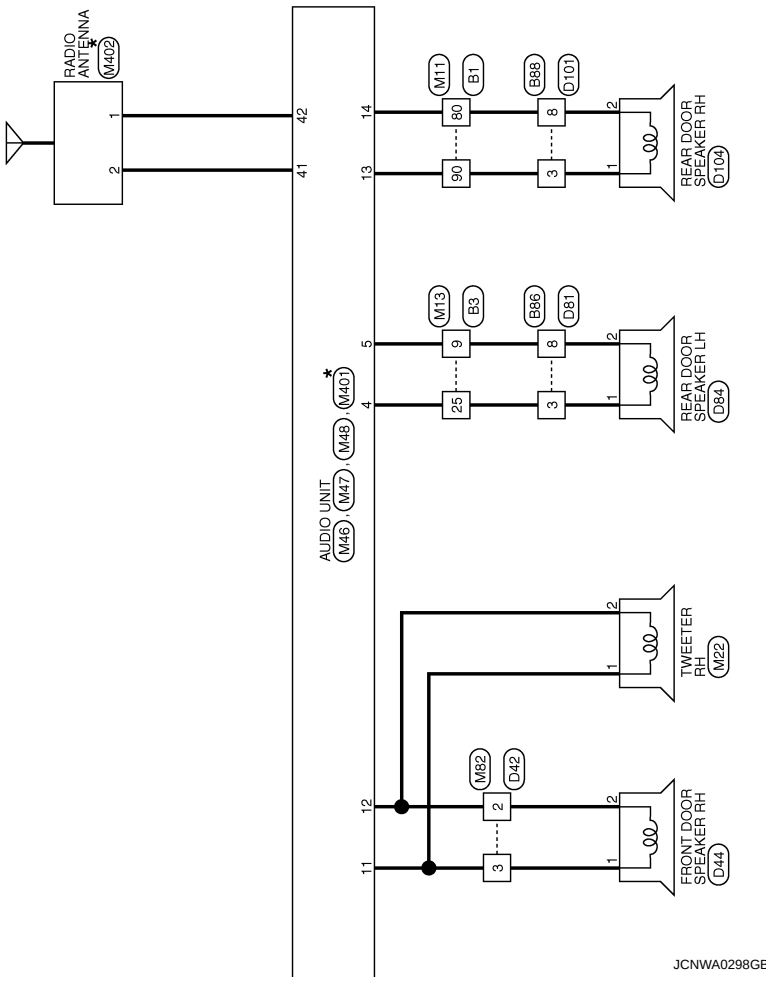
INFOID:0000000001537516




*: This connector is not shown in "Harness Layout".
CAMERA CONTROL UNIT
B60
COMBINATION METER
M34
STEERING ANGLE SENSOR
M30
DATA LINK CONNECTOR
M4
DATA LINE
DATA LINE
To CAN system
To illumination
NAVI CONTROL UNIT*
M71, M72, M451
REAR VIEW CAMERA
D192
DISPLAY UNIT
M49
M35
JCNWA0296GE


*: This connector is not shown in "Harness Layout".
STEERING SWITCH
SOURCE
MENU UP
MENU DOWN
ENTER
VOL-
VOL+
VOICE / PHONE
BACK
COMBINATION SWITCH (SPIRAL CABLE) *
M33, M352
AUDIO UNIT *
M46, M47, M48, M401
TWEETER LH
M80
FRONT DOOR SPEAKER LH
D4
M19
D2
M35
GPS ANTENNA
NAVI CONTROL UNIT *
M71, M72, M451
PARKING BRAKE SWITCH
M103
CAMERA CONTROL UNIT
B60
B33
DATA LINE
JCNWA0297GE

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



AUDIO WITH NAVIGATION SYSTEM (LHD MODELS)

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

Terminal No.	Color of Wire	Signal Name [Specification]
52	P	–
53	GR	–
54	P	–
55	SB	–
57	W	–
58	O	–
62	L	–
63	SHIELD	–
64	L	–
65	SHIELD	–
67	R	–

Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4

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

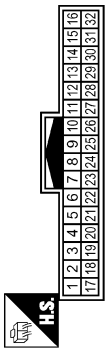
Connector No.	B2
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
68	LG	–
69	V	–
80	GR	–
90	LG	–

Connector No.	B54
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH

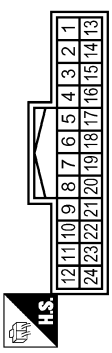
Terminal No.	Color of Wire	Signal Name [Specification]
3	G	–
4	Y	–
5	W	–
10	R	–
15	L	–

Connector No.	B3
Connector Name	WIRE TO WIRE
Connector Type	TH32MW-NH



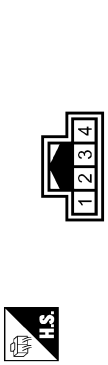
Terminal No.	Color of Wire	Signal Name [Specification]
9	R	–
10	G	–
25	W	–

Connector No.	B55
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
3	G	–
4	Y	–
5	W	–
10	R	–
15	L	–

Connector No.	B5
Connector Name	WIRE TO WIRE
Connector Type	TH04MW-NH



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

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AUDIO WITH NAVIGATION SYSTEM (LHD MODELS)

Connector No.	B60
Connector Name	CAMERA CONTROL UNIT
Connector Type	TH32FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
5	SHIELD	SHIELD
6	Y	CAMERA IMAGE SIGNAL
7	L	GND
8	G	CAMERA ON SIGNAL
11	SHIELD	SHIELD
12	Y	CAMERA IMAGE SIGNAL
13	B	CONTROL SIGNAL
14	GR	CAMERA-CONNECTION RECOGNITION SIGNAL
17	P	AV COMMUNICATION SIGNAL (L)
18	L	AV COMMUNICATION SIGNAL (H)
19	P	AV COMMUNICATION SIGNAL (L)
20	L	AV COMMUNICATION SIGNAL (H)
22	R	REV
23	V	SENSOR SIGNAL1
24	LG	SENSOR SIGNAL2
25	O	SENSOR SIGNAL3
26	SB	SPEED 8P
30	W	ACC
31	B	GND
32	R	BAT

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

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

Connector No.	B100
Connector Name	WIRE TO WIRE
Connector Type	TH08FW-NH

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

Connector No.	B101
Connector Name	WIRE TO WIRE
Connector Type	TH08MW-NH

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

Connector No.	B78
Connector Name	WIRE TO WIRE
Connector Type	TH16MW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
3	SHIELD	–
11	Y	–
12	L	–
13	G	–

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

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

Connector No.	B103
Connector Name	WIRE TO WIRE
Connector Type	TH08FW-NH

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

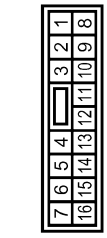
JCNWA0300GE

AUDIO WITH NAVIGATION SYSTEM (LHD MODELS)

Connector No.	B104
Connector Name	WIRE TO WIRE
Connector Type	TH08MW-NH

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

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

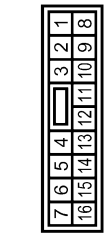


Terminal No.	Color of Wire	Signal Name [Specification]
10	P	–
11	W	–

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

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

Connector No.	D42
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



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

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

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

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

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

Connector No.	D84
Connector Name	REAR DOOR SPEAKER LH
Connector Type	NS02FW-CS

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

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

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

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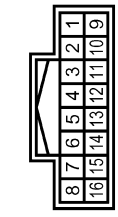
AUDIO WITH NAVIGATION SYSTEM (LHD MODELS)

Connector No.	D104
Connector Name	REAR DOOR SPEAKER RH
Connector Type	NS02FW-CS

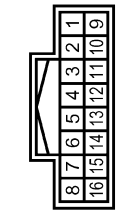
Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	–
2	GR	–

Connector No.	D153
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH



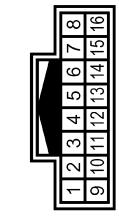
Terminal No.	Color of Wire	Signal Name [Specification]
3	SHIELD	–
11	Y	–
12	L	–
13	G	–

Connector No.	D158
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
3	SHIELD	–
11	Y	–
12	L	–
13	G	–

Connector No.	D183
Connector Name	WIRE TO WIRE
Connector Type	TH16MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
3	BR	–
11	Y	–
12	L	–
13	G	–

Connector No.	D192
Connector Name	REAR VIEW CAMERA
Connector Type	TK04MW

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	CAMERA ON
2	L	GND
3	Y	COMP-
4	BR	COMP-

Connector No.	E6
Connector Name	WIRE TO WIRE
Connector Type	TK24MW-1V

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	–[Without QR engine]
2	SB	–
3	G	–[With QR engine]

Connector No.	E15
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS16FW-CS

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

Connector No.	E101
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4

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

JCNWA0302GE

AUDIO WITH NAVIGATION SYSTEM (LHD MODELS)

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

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

Connector No.	F51
Connector Name	BACK-UP LAMP SWITCH
Connector Type	RK02FB

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

Connector No.	F21
Connector Name	PARK / NEUTRAL POSITION SWITCH
Connector Type	RK08FG

Terminal No.	Color of Wire	Signal Name [Specification]
3	SB	VIGN
5	G	R RANGE SWITCH

Connector No.	F123
Connector Name	WIRE TO WIRE
Connector Type	TK24FW-1V

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	–[Without QR engine]
2	SB	–
3	G	–[With QR engine]

Connector No.	F22
Connector Name	PARK / NEUTRAL POSITION SWITCH
Connector Type	YAZAKI 7283-8700-30

Terminal No.	Color of Wire	Signal Name [Specification]
3	SB	VIGN
9	G	R RANGE SWITCH

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.	F46
Connector Name	PARK / NEUTRAL POSITION SWITCH
Connector Type	FEA03FG

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

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AUDIO WITH NAVIGATION SYSTEM (LHD MODELS)

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

Terminal No.	Color of Wire	Signal Name [Specification]
52	P	–
53	L	–
54	P	–
55	V	–
57	SB	–
58	O	–
62	L	–
63	SHIELD	–
64	L	–
65	SHIELD	–
67	BR	–
68	L	–
69	V	–
80	Y	–
90	BR	–

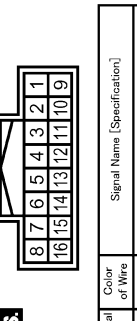
Connector No.	M19
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
10	P	–
11	W	–

Connector No.	M22
Connector Name	TWEETER RH
Connector Type	TK02FBR

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

Connector No.	M13
Connector Name	WIRE TO WIRE
Connector Type	TH32FW-NH

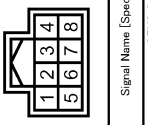


Terminal No.	Color of Wire	Signal Name [Specification]
9	R	–
10	G	–
25	LG	–

Connector No.	M23
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
14	R	–
15	G	–
16	SHIELD	–

Connector No.	M15
Connector Name	WIRE TO WIRE
Connector Type	TH04FW-NH



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

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

Terminal No.	Color of Wire	Signal Name [Specification]
5	O	SENS 3
6	L	SENS 2
7	V	SENS 1

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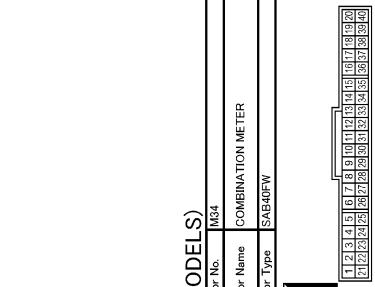
AUDIO WITH NAVIGATION SYSTEM (LHD MODELS)

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

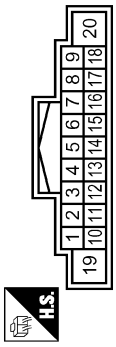
Terminal No.	Color of Wire	Signal Name [Specification]
24	V	–
31	GR	–
32	O	–

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	SAB40FW



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

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



Terminal No.	Color of Wire	Signal Name [Specification]
2	W	FR LH SP+
3	P	FR LH SP-
4	LG	RR LH SP+
5	R	RR LH SP-
6	V	STRG SW A
7	SB	ACC
11	G	FR RH SP+
12	R	FR RH SP-
13	BR	RR RH SP+
14	Y	RR RH SP-
15	GR	STRG SW GND
16	O	STRG SW B
19	BR	BAT

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

Terminal No.	Color of Wire	Signal Name [Specification]
23	L	M-CAN H
24	P	M-CAN L

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

Terminal No.	Color of Wire	Signal Name [Specification]
30	G	TEL VOICE SIGNAL+
31	R	TEL VOICE SIGNAL-
32	L	VOICE GUIDANCE SIGNAL+[With navigation system]
33	P	VOICE GUIDANCE SIGNAL-
37	SHIELD	TEL VOICE SHIELD [With navigation system]
38	SHIELD	VOICE GUIDANCE SHIELD

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

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	RGB SIGNAL (R)
2	G	RGB AREA (YS) SIGNAL
3	R	RGB SIGNAL (G)
4	W	HORIZONTAL SYNCHRONIZING (HP) SIGNAL
5	W	RGB SIGNAL (B)
6	R	VERTICAL SYNCHRONIZING (VP) SIGNAL
7	L	RGB SYNCHRONIZING SIGNAL
8	B	GND
10	SHIELD	GND
11	Y	CAMERA IMAGE SIGNAL+
12	SHIELD	CAMERA IMAGE SIGNAL-
17	P	COMMUNICATION SIGNAL (DISP→CONT)
18	SHIELD	SHIELD
19	L	COMMUNICATION SIGNAL (CONT→DISP)
20	SB	ACC
21	BR	BAT
23	B	GND

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AUDIO WITH NAVIGATION SYSTEM (LHD MODELS)

Connector No.	M71
Connector Name	NAVI CONTROL UNIT
Connector Type	TH40FW-NH

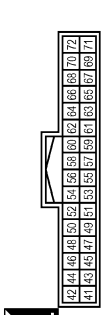
Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	BR	BAT
5	SB	ACC
6	R	MIC. VCC
7	SHIELD	MIC. GND
8	G	MIC. SIGNAL
9	SHIELD	TEL VOICE SHIELD
10	G	TEL VOICE SIGNAL+
11	R	TEL VOICE SIGNAL−
12	L	VOICE GUIDANCE SIGNAL+
13	SHIELD	VOICE GUIDANCE SHIELD

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

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

	I4	P	VOICE GUIDANCE SIGNAL−

Connector No.	M72
Connector Name	NAVI CONTROL UNIT
Connector Type	TH32FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
44	G	RGB SIGNAL (R)
45	R	RGB SIGNAL (G)
46	W	RGB SIGNAL (B)
47	B	RGB GND
48	L	RGB SYNCHRONIZING SIGNAL
49	SHIELD	GND
50	G	RGB AREA (YS) SIGNAL
51	W	HORIZONTAL SYNCHRONIZING (HP) SIGNAL
52	R	VERTICAL SYNCHRONIZING (VP) SIGNAL
53	L	COMMUNICATION SIGNAL (CONT→DISP)
54	P	COMMUNICATION SIGNAL (DISP→CONT)

Connector No.	M80
Connector Name	TWEETER LH
Connector Type	TK02FBR

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

Connector No.	M82
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS

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

55	SHIELD	SHIELD
61	R	ILL
63	W	IGN
64	GR	PKB SIG
65	G	REVERSE SIG
66	V	SPEED(8PR)
67	L	CAMERA-CONNECTION RECOGNITION SIGNAL
69	L	AV COMMUNICATION SIGNAL (H)
70	P	AV COMMUNICATION SIGNAL (L)
71	L	CAN-H
72	P	CAN-L

Connector No.	M103
Connector Name	PARKING BRAKE SWITCH
Connector Type	P01FB-A

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

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AUDIO WITH NAVIGATION SYSTEM (LHD MODELS)

Connector No.	M352
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08MGY-X

H.S.

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

Connector No.	M401
Connector Name	AUDIO UNIT
Connector Type	GT 13 SHA

H.S.

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

Connector No.	M402
Connector Name	RADIO ANTENNA
Connector Type	GT13SSN-1

H.S.

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

Connector No.	M451
Connector Name	NAVI CONTROL UNIT
Connector Type	GT5S-1PP-HU

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
73	–	GPS ANTENNA SIGNAL
74	SHIELD	SHIELD

Connector No.	R1
Connector Name	WIRE TO WIRE
Connector Type	TH16MW-NH

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
14	R	–
15	G	–
16	SHIELD	–

Connector No.	R3
Connector Name	MICROPHONE
Connector Type	TK04FW

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	MIC. SIGNAL
2	SHIELD	MIC. GND
4	R	MIC. VCC

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Wiring Diagram—AUDIO WITH NAVIGATION SYSTEM (RHD MODELS)—

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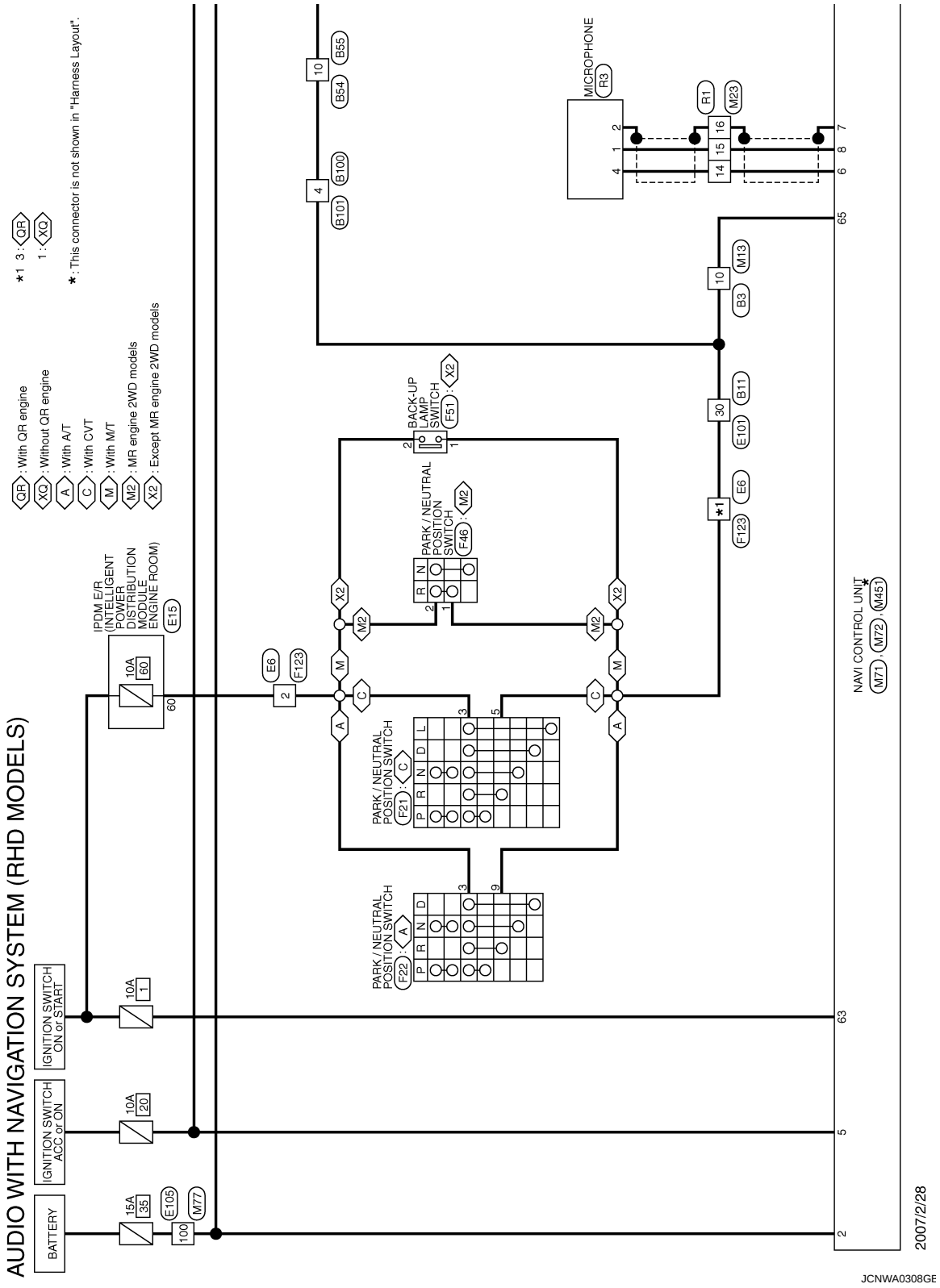
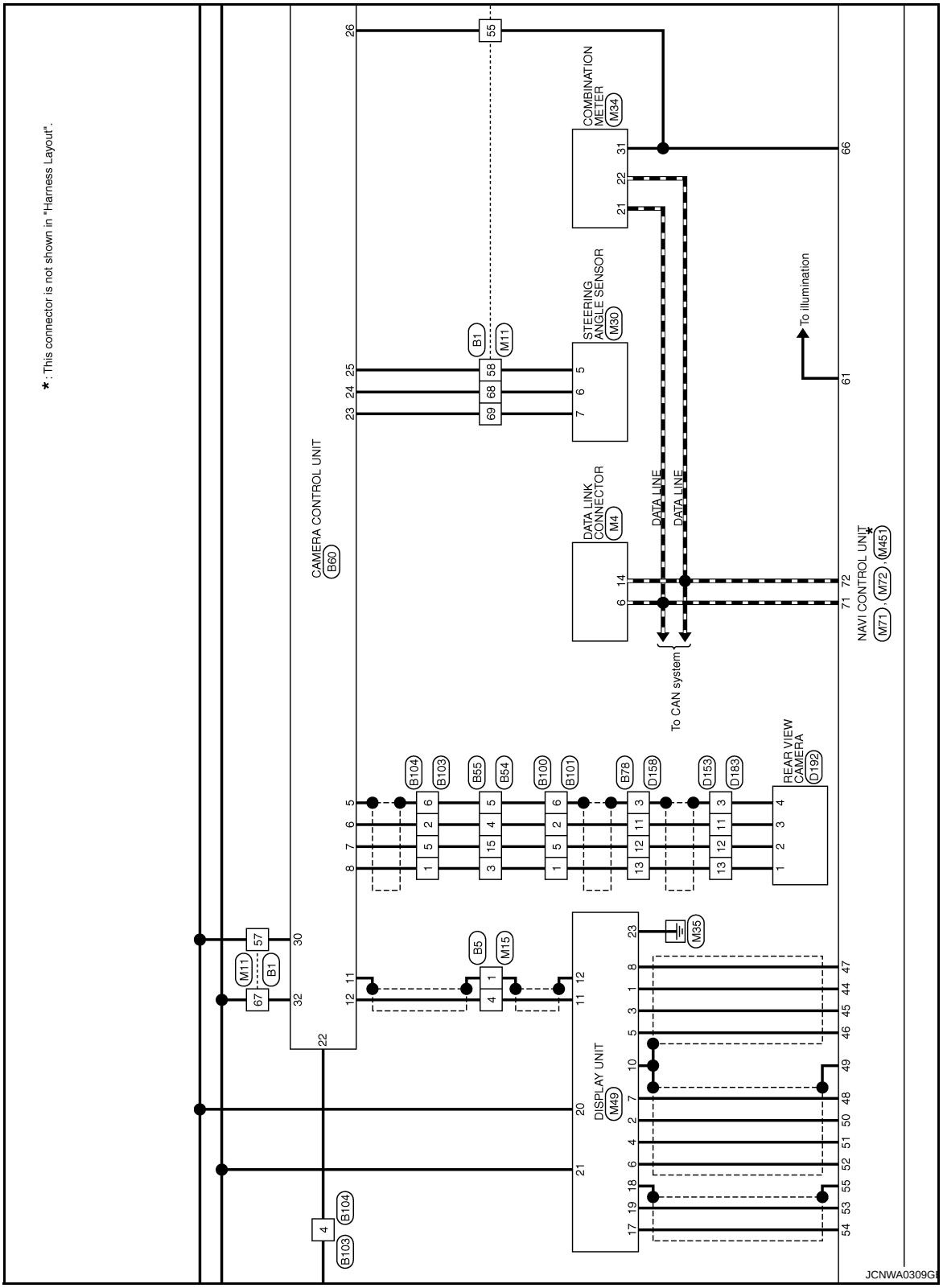
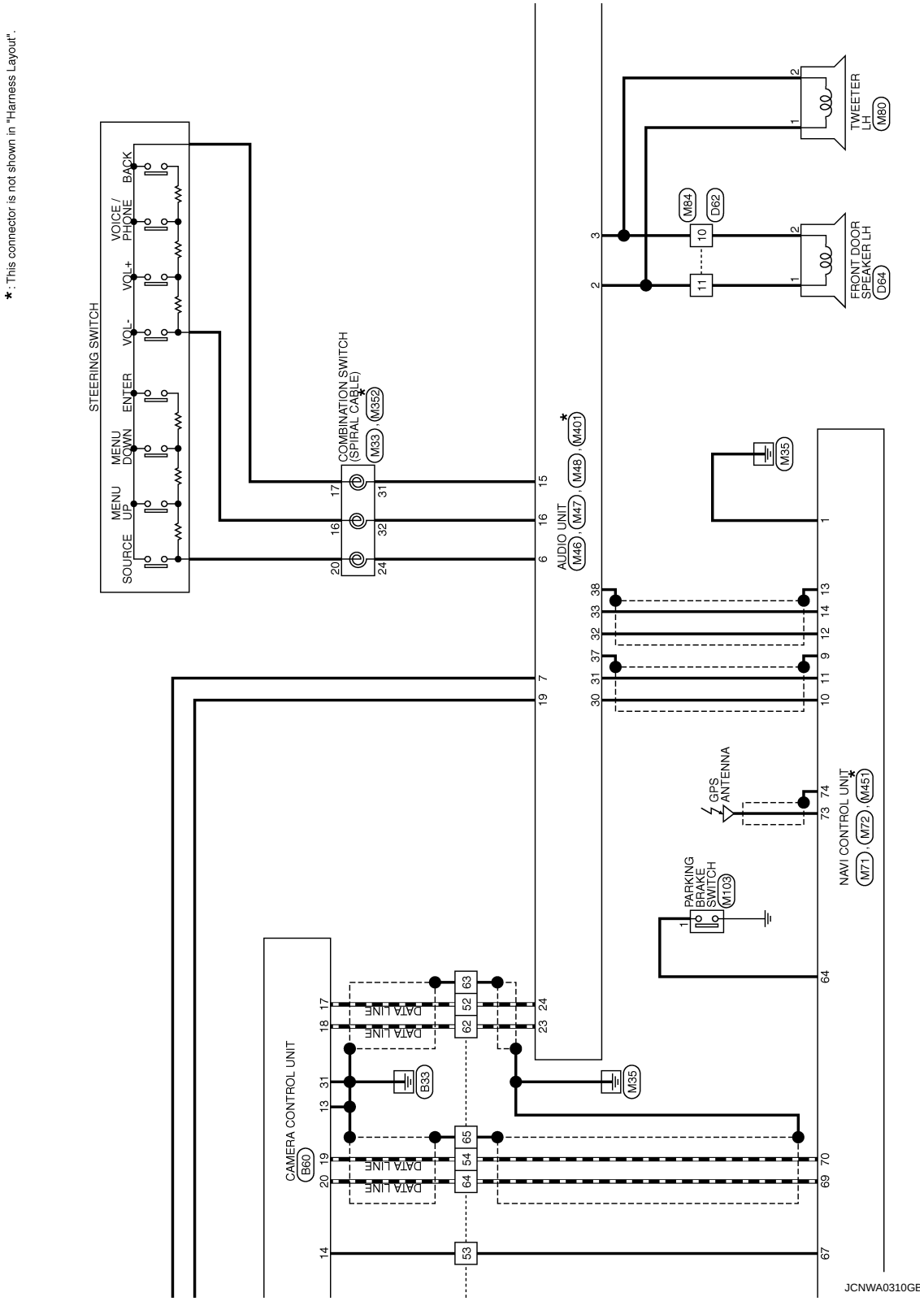
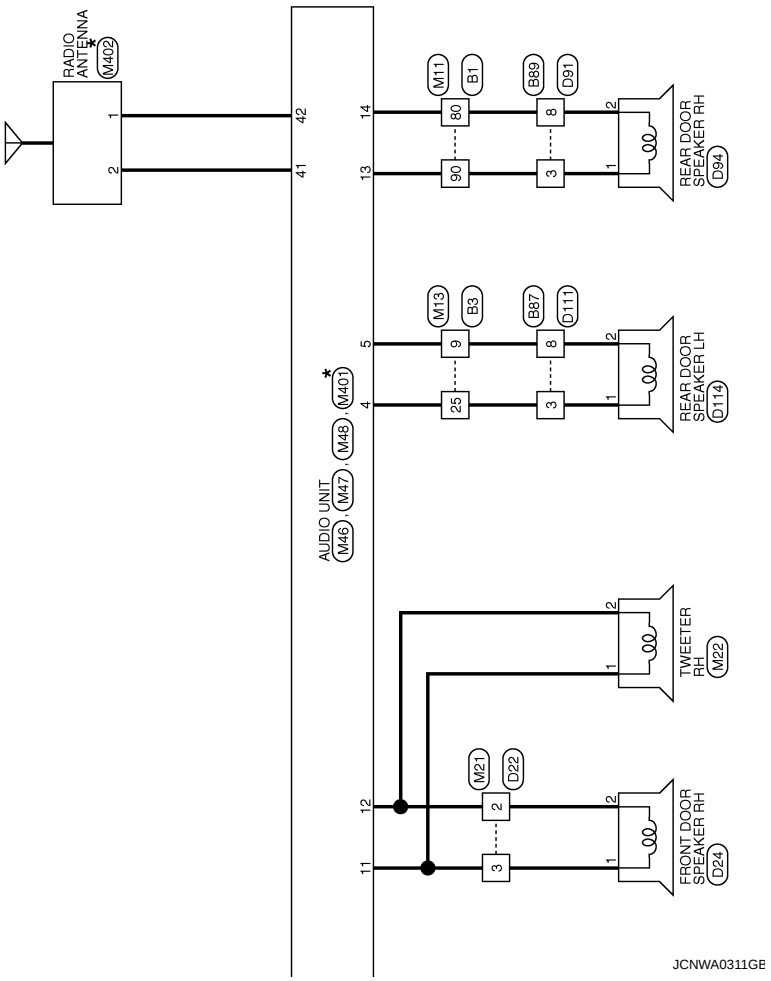



*: This connector is not shown in "Harness Layout".
CAMERA CONTROL UNIT
B60
COMBINATION METER
M34
STEERING ANGLE SENSOR
M30
DATA LINK CONNECTOR
M4
DATA LINE
DATA LINE
To CAN system
To illumination
NAVI CONTROL UNIT*
M71, M72, M451
REAR VIEW CAMERA
D192
DISPLAY UNIT
M49
B1
M11
B5
M15
B104
B103
B55
B54
B100
B101
B78
D158
D153
D183
M35
JCNWA0309GB


*: This connector is not shown in "Harness Layout".
STEERING SWITCH
SOURCE
MENU UP
MENU DOWN
ENTER
VOL-
VOL+
VOICE / PHONE
BACK
COMBINATION SWITCH (SPIRAL CABLE) * M33, M352
AUDIO UNIT M46, M47, M48, M401*
TWEETER LH M80
FRONT DOOR SPEAKER LH D64
M84
D62
M35
GPS ANTENNA
NAVI CONTROL UNIT * M71, M72, M451
PARKING BRAKE SWITCH M103
CAMERA CONTROL UNIT B60
B33
DATA LINE
JCNWA0310GE

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

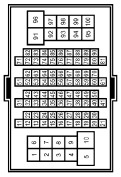


AUDIO WITH NAVIGATION SYSTEM (RHD MODELS)

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

Terminal No.	Color of Wire	Signal Name [Specification]
52	P	–
53	GR	–
54	P	–
55	SB	–
57	W	–
58	O	–
62	L	–
63	SHIELD	–
64	L	–
65	SHIELD	–
67	R	–

Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4

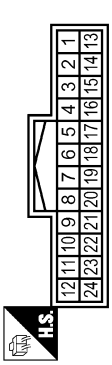


Terminal No.	Color of Wire	Signal Name [Specification]
30	G	–

Connector No.	B54
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH

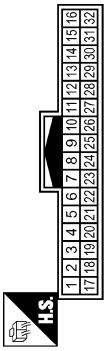
Terminal No.	Color of Wire	Signal Name [Specification]
3	G	–
4	Y	–
5	W	–
10	R	–
15	L	–

Connector No.	B55
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
3	G	–
4	Y	–
5	W	–
10	R	–
15	L	–

Connector No.	B3
Connector Name	WIRE TO WIRE
Connector Type	TH32MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
9	R	–
10	G	–
25	W	–

Connector No.	B5
Connector Name	WIRE TO WIRE
Connector Type	TH04MW-NH

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

68	LG	–
69	V	–
80	GR	–
90	LG	–

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AUDIO WITH NAVIGATION SYSTEM (RHD MODELS)

Connector No.	B60
Connector Name	CAMERA CONTROL UNIT
Connector Type	TH32FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
5	SHIELD	SHIELD
6	Y	CAMERA IMAGE SIGNAL
7	L	GND
8	G	CAMERA ON SIGNAL
11	SHIELD	SHIELD
12	Y	CAMERA IMAGE SIGNAL
13	B	CONTROL SIGNAL
14	GR	CAMERA−CONNECTION RECOGNITION SIGNAL
17	P	AV COMMUNICATION SIGNAL (L)
18	L	AV COMMUNICATION SIGNAL (H)
19	P	AV COMMUNICATION SIGNAL (L)
20	L	AV COMMUNICATION SIGNAL (H)
22	R	REV
23	V	SENSOR SIGNAL1
24	LG	SENSOR SIGNAL2
25	O	SENSOR SIGNAL3
26	SB	SPEED 8P
30	W	ACC
31	B	GND
32	R	BAT

Connector No.	B89
Connector Name	WIRE TO WIRE
Connector Type	NS12MW-CS

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

Connector No.	B100
Connector Name	WIRE TO WIRE
Connector Type	TH08FW-NH

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

Connector No.	B101
Connector Name	WIRE TO WIRE
Connector Type	TH08MW-NH

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

Connector No.	B78
Connector Name	WIRE TO WIRE
Connector Type	TH16MW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
3	SHIELD	–
11	Y	–
12	L	–
13	G	–

Connector No.	B87
Connector Name	WIRE TO WIRE
Connector Type	NS12MW-CS

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

Connector No.	B103
Connector Name	WIRE TO WIRE
Connector Type	TH08FW-NH

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

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AUDIO WITH NAVIGATION SYSTEM (RHD MODELS)

Connector No.	B104
Connector Name	WIRE TO WIRE
Connector Type	TH08MW-NH

H.S.

1	2	3	4
5	6	7	8

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

Connector No.	D64
Connector Name	FRONT DOOR SPEAKER LH
Connector Type	NS02FW-CS

H.S.

2	1

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

Connector No.	D22
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]
2	R	–
3	G	–

Connector No.	D91
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS

H.S.

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

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

Connector No.	D24
Connector Name	FRONT DOOR SPEAKER RH
Connector Type	NS02FW-CS

H.S.

2	1

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

Connector No.	D62
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]
10	P	–
11	W	–

Connector No.	D94
Connector Name	REAR DOOR SPEAKER RH
Connector Type	NS02FW-CS

H.S.

2	1

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

Connector No.	D111
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS

H.S.

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

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

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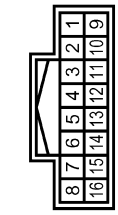
AUDIO WITH NAVIGATION SYSTEM (RHD MODELS)

Connector No.	D114
Connector Name	REAR DOOR SPEAKER LH
Connector Type	NS02FW-CS

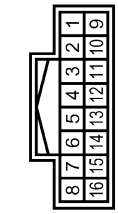
Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	–
2	GR	–

Connector No.	D153
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH



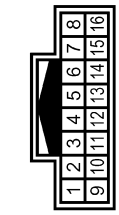
Terminal No.	Color of Wire	Signal Name [Specification]
3	SHIELD	–
11	Y	–
12	L	–
13	G	–

Connector No.	D158
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
3	SHIELD	–
11	Y	–
12	L	–
13	G	–

Connector No.	D183
Connector Name	WIRE TO WIRE
Connector Type	TH16MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
3	BR	–
11	Y	–
12	L	–
13	G	–

Connector No.	D192
Connector Name	REAR VIEW CAMERA
Connector Type	TK04MW

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	CAMERA ON
2	L	GND
3	Y	COMP-
4	BR	COMP-

Connector No.	E6
Connector Name	WIRE TO WIRE
Connector Type	TK24MW-1V

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	–[Without QR engine]
2	SB	–
3	G	–[With QR engine]

Connector No.	E15
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS16FW-CS

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

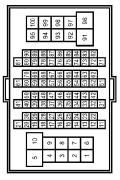
Connector No.	E101
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4

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

JCNWA0315GE

AUDIO WITH NAVIGATION SYSTEM (RHD MODELS)

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

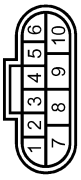


Terminal No.	Color of Wire	Signal Name [Specification]
100	SB	–

Connector No.	F21
Connector Name	PARK / NEUTRAL POSITION SWITCH
Connector Type	RK08FG

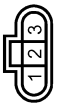
Terminal No.	Color of Wire	Signal Name [Specification]
3	SB	VIGN
5	G	R RANGE SWITCH

Connector No.	F22
Connector Name	PARK / NEUTRAL POSITION SWITCH
Connector Type	YAZAKI 7283-8700-30



Terminal No.	Color of Wire	Signal Name [Specification]
3	SB	VIGN
9	G	R RANGE SWITCH

Connector No.	F46
Connector Name	PARK / NEUTRAL POSITION SWITCH
Connector Type	FEA03FG



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

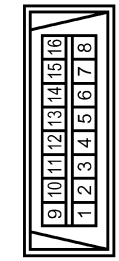
Connector No.	F51
Connector Name	BACK-UP LAMP SWITCH
Connector Type	RK02FB

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

Connector No.	F123
Connector Name	WIRE TO WIRE
Connector Type	TK24FW-1V

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	–[Without QR engine]
2	SB	–
3	G	–[With QR engine]

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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AUDIO WITH NAVIGATION SYSTEM (RHD MODELS)

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

Terminal No.	Color of Wire	Signal Name [Specification]
52	P	–
53	L	–
54	P	–
55	V	–
57	SB	–
58	O	–
62	L	–
63	SHIELD	–
64	L	–
65	SHIELD	–
67	BR	–
68	L	–
69	V	–
80	Y	–
90	BR	–

Connector No.	M21
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS

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

Connector No.	M22
Connector Name	TWEETER RH
Connector Type	TK02FBR

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

Connector No.	M13
Connector Name	WIRE TO WIRE
Connector Type	TH32FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
9	R	–
10	G	–
25	LG	–

Connector No.	M23
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
14	R	–
15	G	–
16	SHIELD	–

Connector No.	M15
Connector Name	WIRE TO WIRE
Connector Type	TH04FW-NH

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

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

Terminal No.	Color of Wire	Signal Name [Specification]
5	O	SENS 3
6	L	SENS 2
7	V	SENS 1

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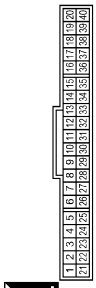
AUDIO WITH NAVIGATION SYSTEM (RHD MODELS)

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

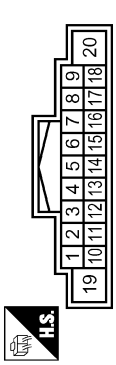
Terminal No.	Color of Wire	Signal Name [Specification]
24	V	–
31	GR	–
32	O	–

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	SAB40FW



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

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



Terminal No.	Color of Wire	Signal Name [Specification]
2	W	FR LH SP+
3	P	FR LH SP–
4	LG	RR LH SP+
5	R	RR LH SP–
6	V	STRG SW A
7	SB	ACC
11	G	FR RH SP+
12	R	FR RH SP–
13	BR	RR RH SP+
14	Y	RR RH SP–
15	GR	STRG SW GND
16	O	STRG SW B
19	BR	BAT

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

Terminal No.	Color of Wire	Signal Name [Specification]
23	L	M-CAN H
24	P	M-CAN L

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

Terminal No.	Color of Wire	Signal Name [Specification]
30	G	TEL VOICE SIGNAL+
31	R	TEL VOICE SIGNAL–
32	L	VOICE GUIDANCE SIGNAL+[With navigation system]
33	P	VOICE GUIDANCE SIGNAL–
37	SHIELD	TEL VOICE SHIELD [With navigation system]
38	SHIELD	VOICE GUIDANCE SHIELD

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

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	RGB SIGNAL (R)
2	G	RGB AREA (YS) SIGNAL
3	R	RGB SIGNAL (G)
4	W	HORIZONTAL SYNCHRONIZING (HP) SIGNAL
5	W	RGB SIGNAL (B)
6	R	VERTICAL SYNCHRONIZING (VP) SIGNAL
7	L	RGB SYNCHRONIZING SIGNAL
8	B	GND
10	SHIELD	GND
11	Y	CAMERA IMAGE SIGNAL+
12	SHIELD	CAMERA IMAGE SIGNAL–
17	P	COMMUNICATION SIGNAL (DISP→CONT)
18	SHIELD	SHIELD
19	L	COMMUNICATION SIGNAL (CONT→DISP)
20	SB	ACC
21	BR	BAT
23	B	GND

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AUDIO WITH NAVIGATION SYSTEM (RHD MODELS)

Connector No.	M71		
Connector Name	NAVI CONTROL UNIT		
Connector Type	TH40FW-NH		

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	BR	BAT
5	SB	ACC
6	R	MIC. VCC
7	SHIELD	MIC. GND
8	G	MIC. SIGNAL
9	SHIELD	TEL VOICE SHIELD
10	G	TEL VOICE SIGNAL+
11	R	TEL VOICE SIGNAL−
12	L	VOICE GUIDANCE SIGNAL+
13	SHIELD	VOICE GUIDANCE SHIELD
14	P	VOICE GUIDANCE SIGNAL−

Connector No.	M72
Connector Name	NAVI CONTROL UNIT
Connector Type	TH32FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
44	G	RGB SIGNAL (R)
45	R	RGB SIGNAL (G)
46	W	RGB SIGNAL (B)
47	B	RGB GND
48	L	RGB SYNCHRONIZING SIGNAL
49	SHIELD	GND
50	G	RGB AREA (YS) SIGNAL
51	W	HORIZONTAL SYNCHRONIZING (HP) SIGNAL
52	R	VERTICAL SYNCHRONIZING (VP) SIGNAL
53	L	COMMUNICATION SIGNAL (CONT→DISP)
54	P	COMMUNICATION SIGNAL (DISP→CONT)
55	SHIELD	SHIELD
61	R	ILL
63	W	IGN
64	GR	PKB SIG
65	G	REVERSE SIG
66	V	SPEED(8PR)
67	L	CAMERA-CONNECTION RECOGNITION SIGNAL
69	L	AV COMMUNICATION SIGNAL (H)
70	P	AV COMMUNICATION SIGNAL (L)
71	L	CAN-H
72	P	CAN-L

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

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

Connector No.	M80
Connector Name	TWEETER LH
Connector Type	TK02FBR

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

Connector No.	M84
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
10	P	–
11	W	–

Connector No.	M103
Connector Name	PARKING BRAKE SWITCH
Connector Type	P01FB-A

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

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AUDIO WITH NAVIGATION SYSTEM (RHD MODELS)

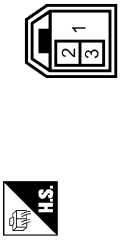
Connector No.	M352
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08MGY-X

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

Connector No.	M401
Connector Name	AUDIO UNIT
Connector Type	GT 13 SHA

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

Connector No.	M402
Connector Name	RADIO ANTENNA
Connector Type	GT13SSN-1



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

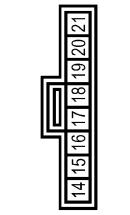
Connector No.	M451
Connector Name	NAVI CONTROL UNIT
Connector Type	GT5S-1PP-HU

Terminal No.	Color of Wire	Signal Name [Specification]
73	–	GPS ANTENNA SIGNAL
74	SHIELD	SHIELD

Connector No.	R1
Connector Name	WIRE TO WIRE
Connector Type	TH16MW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
14	R	–
15	G	–
16	SHIELD	–

Connector No.	R3
Connector Name	MICROPHONE
Connector Type	TK04FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	MIC. SIGNAL
2	SHIELD	MIC. GND
4	R	MIC. VCC

JCNWA0320GE

SYMPTOM DIAGNOSIS

MULTI AV SYSTEM SYMPTOMS

Symptom Table

INFOID:0000000001093070

RELATED TO NAVIGATION

NOTE:
Combined part of AV switch and audio unit.

Symptoms	Check items	Possible malfunction location/Action to take
AV switch cannot be operated. (All switches cannot be operated.)	"MULTI AV" is displayed on "SELECT SYSTEM" screen of CONSULT-III.	Perform the self-diagnosis using CONSULT-III. (AV-74, "CONSULT - III Function (MULTI AV)")
	"MULTI AV" is not displayed on "SELECT SYSTEM" screen of CONSULT-III.	• NAVI control unit power supply and ground circuit (AV-107, "NAVI CONTROL UNIT : Diagnosis Procedure") • Perform CAN diagnosis when "Please wait" is indicated on the screen for approximately 120 seconds after ignition switch ON. (LAN-13, "Trouble Diagnosis Flow Chart")
AV switch cannot be operated. (Only specified switch cannot be operated.)	CONSULT-III self-diagnosis detects a malfunction.	Perform the self-diagnosis using CONSULT-III. (AV-74, "CONSULT - III Function (MULTI AV)")
	CONSULT-III self-diagnosis does not detect a malfunction.	Audio unit (AV-256, "Exploded View")
Map screen is not displayed. (RGB image other than map is normal.)	–	Perform the self-diagnosis using CONSULT-III. (AV-74, "CONSULT - III Function (MULTI AV)")
Voice guidance is not heard.	–	Voice guidance signal circuit
Traffic information (RDS-TMC) is not received.	Radio broadcasts are not received.	• Radio antenna (AV-268, "Exploded View") • Antenna feeder (AV-270, "Harness Layout")

RELATED TO REAR VIEW MONITOR

Symptoms	Check items	Possible malfunction location/Action to take
Warning message under the display is not displayed at rear view monitor image.	–	• Horizontal synchronizing (HP) signal circuit (AV-115, "Diagnosis Procedure") • Vertical synchronizing (VP) signal circuit (AV-116, "Diagnosis Procedure") • RGB area (YS) signal circuit (AV-114, "Diagnosis Procedure")
Camera image is not shown.	Only warning message under the display is displayed.	• Camera image signal circuit (Between camera control unit and display unit) (AV-119, "Diagnosis Procedure") • Camera control unit power supply and ground circuit (AV-108, "CAMERA CONTROL UNIT : Diagnosis Procedure") • Camera control unit reverse signal circuit.
	Only warning message under the display, guide lines and possible route lines are displayed.	• Camera ON signal circuit (AV-120, "Diagnosis Procedure") • Camera image signal circuit (Between camera control unit and rear view camera) (AV-118, "Diagnosis Procedure")
	Warning message under the display is rolling.	Perform the self-diagnosis using CONSULT-III. (AV-74, "CONSULT - III Function (MULTI AV)")

Symptoms	Check items	Possible malfunction location/Action to take
Possible route line are incorrect.	Possible route line does not move.	steering angle sensor signal circuit. (Sensor signal 1 or 2) (AV-121, "Diagnosis Procedure")
	Center position of possible route line is incorrect.	steering angle sensor signal circuit. (Sensor signal 3) (AV-123, "Diagnosis Procedure")
It cannot be switched to rear view monitor.	CONSULT-III self-diagnosis detects a malfunction.	Perform the self-diagnosis using CONSULT-III (MULTI AV) (AV-74, "CONSULT - III Function (MULTI AV)").
	CONSULT-III self-diagnosis does not detect a malfunction.	NAVI control unit reverse signal circuit

RELATED TO AUDIO

Symptom	Check items	Possible malfunction location / Action to take
Audio sound is not heard.	No sound from all speakers	Audio unit (AV-256, "Exploded View")
	Sound is not heard only from the specific places (Front RH, rear RH, front LH and rear LH).	Sound signal circuit of suspect system

RELATED TO RGB IMAGE

Symptoms	Check items	Possible malfunction location/Action to take
Color of RGB image is not proper.	Light blue (Cyan) tint	RGB signal (R: red) circuit (AV-110, "Diagnosis Procedure")
	Purple (Magenta) tint and image is rolling.	RGB signal (G: green) circuit (AV-111, "Diagnosis Procedure")
	Screen looks yellowish.	RGB signal (B: blue) circuit (AV-112, "Diagnosis Procedure")
• RGB image is too dark. • RGB image is too fuzzy.	–	RGB ground circuit
RGB image is not displayed. (Nothing is displayed on the screen.)	“MULTI AV” is displayed on “SELECT SYSTEM” screen of CONSULT-III.	Perform the self-diagnosis using CONSULT-III (AV-74, "CONSULT - III Function (MULTI AV)").
	“MULTI AV” is not displayed on “SELECT SYSTEM” screen of CONSULT-III.	NAVI control unit power supply and ground circuit (AV-107, "NAVI CONTROL UNIT : Diagnosis Procedure")

RELATED TO VOICE ACTIVATED CONTROL

Symptoms	Check items	Possible malfunction location/Action to take
The voice cannot be controlled even if the voice control screen is displayed.	Voice sounds at “Speaker Test” and “Voice Microphone Test” of “Confirmation / Adjustment Mode”.	NAVI control unit (AV-257, "Exploded View")
	Voice does not sound at “Speaker Test” and “Voice Microphone Test” of “Confirmation / Adjustment Mode”.	• MIC. power supply circuit (AV-117, "Diagnosis Procedure") • Shield (MIC.) circuit (AV-117, "Diagnosis Procedure") • MIC. signal circuit (AV-117, "Diagnosis Procedure")

Symptoms	Check items	Possible malfunction location/Action to take
The voice cannot be controlled. (Voice control screen is not displayed.)	TEL operation screen is displayed by pressing and holding "" switch of steering switch.	NAVI control unit (AV-257, "Exploded View")
	• TEL operation screen is not displayed by pressing and holding "" switch of steering switch. • Other steering switches are normal.	Steering switch (AV-262, "Exploded View")
	"BACK", "VOL UP", "VOL DOWN" and "" switches of steering switch are not operated.	Steering switch signal B circuit (AV-126, "Diagnosis Procedure")
	All steering switches are not operated.	Steering switch signal ground circuit (AV-128, "Diagnosis Procedure")

RELATED TO HANDS FREE PHONE

- Check that the cellular phone is corresponding type (Bluetooth® enabled) when the hands free related malfunction vehicle is in service before performing a diagnosis.
- There is a case that malfunction occurs due to the version change of the phone type, etc. even though it is a corresponding type. Therefore, confirm it by changing the cellular phone to another corresponding type phone, and check that it operates normally. It is necessary to distinguish whether the cause is the vehicle or cellular phone. Check to ensure the customer's phone is supported by checking the phone compatibility for the hands free system.

Trouble diagnosis chart by symptom

Symptoms	Check items	Possible malfunction location/Action to take
Does not recognize cellular phone connection.	Repeat the registration of cellular phone.	NAVI control unit (AV-257, "Exploded View")
Hands free phone cannot be established.	• Hands free phone operation can be made, but the communication cannot be established. • Hands free phone operation can be performed, however, voice between each other cannot be heard during the conversation.	NAVI control unit (AV-257, "Exploded View")
The other party's voice cannot be heard by hands free phone.	Check the "Voice Microphone Test"in Confirmation/Adjustment Mode if sound is heard.	NAVI control unit (AV-257, "Exploded View")
	Check the "Voice Microphone Test"in Confirmation/Adjustment Mode if sound is not heard.	TEL voice signal circuit
Originating sound is not heard by the other party with hands free phone communication.	Sound operation function is normal.	NAVI control unit (AV-257, "Exploded View")
	Sound operation function does not work.	Microphone signal circuit (AV-117, "Diagnosis Procedure")

RELATED TO STEERING WHEEL SWITCH

Symptoms	Possible malfunction location/Action to take
All steering switches are not operated.	Steering switch signal ground circuit (AV-128, "Diagnosis Procedure")
Only specified switch cannot be operated.	Steering switch (AV-262, "Exploded View")
"ENTER", "MENU UP", "MENU DOWN" and "SOURCE" switches are not operated.	Steering switch signal A circuit (AV-124, "Diagnosis Procedure")
"BACK", "", "VOL UP" and "VOL DOWN" switches are not operated.	Steering switch signal B circuit (AV-126, "Diagnosis Procedure")

NORMAL OPERATING CONDITION

Description

INFOID:0000000001117252

NOTE:
For Navigation system operation information, refer to Navigation system Owner's Manual.

BASIC OPERATION

Symptoms	Possible cause	Possible solution
No image is displayed.	The brightness is at the lowest setting.	Adjust the brightness of the display.
	The display is turned off.	Push and hold ☀/☽ to turn on the display.
No voice guidance is available. The volume is too high or too low.	The volume is not set correctly, or it is turned off.	Adjust the volume of voice guidance.
	Volume guidance is not provided for narrow streets (roads displayed in gray).	This is not a malfunction.
No map is displayed on the screen.	The map DVD-ROM is not inserted, or it is inserted upside down.	Insert the map DVD-ROM correctly.
	A screen other than map screen is displayed.	Push “MAP”.
The screen is too dim. The movement is slow.	The temperature in the interior of the vehicle is low.	Wait until the interior of the vehicle has warmed up.
Some pixels in the display are darker or brighter than others.	This condition is an inherent characteristic of liquid crystal displays.	This is not a malfunction.
Some menu items cannot be selected.	Some menu items become unavailable while the vehicle is driven.	Park the vehicle in a safe location, and then operate the navigation system.

NOTE:
Locations stored in the Address Book and other memory functions may be lost if the vehicle's battery is disconnected or becomes discharged. Service the vehicle's battery as necessary and re-enter the information in the Address Book If this occurs.

VEHICLE ICON

Symptoms	Possible cause	Possible solution
Names of roads and locations differ between Plan view and Birdview™.	This is because the quantity of the displayed information is reduced so that the screen does not become too crowded. There is also a chance that names of the roads or locations may be displayed multiple times, and the names appearing on the screen may be different because of a processing procedure.	This is not a malfunction.
The vehicle icon is not displayed in the correct position.	The vehicle was transported after the ignition switch was turned off, for example, by a ferry or car transporter.	Drive the vehicle for a while on a road where GPS can be received.
	The position and direction of the vehicle may be incorrect depending on the driving environments and the levels of positioning accuracy of the navigation system.	This is not a malfunction. Drive the vehicle for a while to automatically correct the position and direction of the vehicle icon.
When the vehicle is traveling on a new road, the vehicle icon is located on another road nearby.	Because the new road is not stored in the map data, the system automatically places the vehicle ion on the nearest road available.	Updated road information will be included in the next version of the map DVD-ROM.
The screen does not switch to the night screen even after turning on the headlights.	The daytime screen was set the last time the headlights were turned on.	Set the screen to the night screen mode using when turning on the headlights.
The map does not scroll even when the vehicle is moving.	The current location map screen is not displayed.	Push “MAP”.
The vehicle icon is not displayed.	The current location map screen is not displayed.	Push “MAP”.

Symptoms	Possible cause	Possible solution
The GPS indicator on the screen remains gray.	GPS signals cannot be received depending on the vehicle location, such as in a parking garage, on a road that has numerous tall buildings, etc.	Drive on an open, straight road for a while.
	GPS signals cannot be received because objects are placed on top of the display.	Remove the objects from top of the display.
	A sufficient amount of GPS satellites are not available.	Wait for the satellites to move locations available for navigation system.
The location of vehicle icon is misaligned from the actual position.	Speed calculations based on the speed sensor may be incorrect when using tire chains or replacing the tires.	Drive the vehicle for a while (at approximately 30 km/h (19 MPH) for about 30 minutes) to automatically correct the vehicle icon position. Contact an NISSAN / INFINITI dealer if this does not correct the vehicle icon position.
	The map data has mistake or is incomplete (the vehicle icon position is always misaligned in the same area).	Updated road information will be included in the next version of the map DVD-ROM.

MAP DVD-ROM

Symptom	Possible cause	Possible solution
The message “Error” appears.	Map DVD-ROM is dirty or partially damaged.	Check the DVD-ROM and wipe it clean with a soft cloth.
		Replace the DVD-ROM if there is any damage.

ROUTE CALCULATION AND VISUAL GUIDANCE

Symptoms	Possible cause	Possible solution
In the auto reroute calculation, waypoints are not included.	Waypoints already passed are not included in the auto reroute calculation.	In case of going to that waypoints again, edit the route.
Route information is not displayed.	Route calculation has not yet been performed.	Set the destination and perform route calculation.
	The vehicle is not driven on the suggested route.	Drive on the suggested route.
	Route guidance is set to off.	Turn on route guidance.
	Route information is not provided for narrow streets (roads displayed in gray).	This is not a malfunction.
The auto reroute calculation (or detour calculation) suggests the same route as the one previously suggested.	Route calculation took priority conditions into consideration, but the same route was calculated.	This is not a malfunction.
A waypoint cannot be added.	Five waypoints are already set on the route, including ones that already passed.	A maximum of 5 waypoints can be set on the route. In case of going to 6 or more waypoints, perform route calculations multiple times as necessary.
The suggested route is not displayed.	Roads near the destination cannot be calculated.	Reset the destination to a main or ordinary road, and recalculate the route.
	The starting point and destination are too close.	Set a more distant destination.
	The starting point and destination are too far away.	Divide the way by selecting one or two intermediate destinations, and perform route calculations multiple times.
	There are time restricted roads (by day of week, by time) near the current vehicle location or destination.	Set Use Time Restricted Roads to off.
A part of the route is not displayed.	The suggested route includes narrow streets (roads displayed in gray).	This is not a malfunction.

Symptoms	Possible cause	Possible solution
The part of the route already passed is deleted.	A route is managed by sections between waypoints. The section between the starting point and the waypoint is deleted if you passed the first waypoint. (It may not be deleted depending on the area.)	This is not a malfunction.
An indirect route is suggested.	The system may suggest an indirect route if there are restrictions (such as one way streets) on roads close to the starting point or destination.	Adjust the location of the starting point or destination.
	The system may suggest an indirect route because route calculation does not take into consideration some areas such as narrow streets (gray roads).	Reset the destination to a main or ordinary road, and recalculate the route.
The landmark information does not correspond to the actual information.	This may be caused by insufficient or incorrect data on the DVD-ROM.	This is not a malfunction.
The suggested route does not exactly connect to the starting point, waypoints, or destination.	There is no data for route calculation closer to these locations.	Set the starting point, waypoints and destination on main road, and perform route calculation.

VOICE GUIDANCE

Symptoms	Possible cause	Possible solution
The voice guidance is not available.	Voice guidance is only available at certain intersections. In some cases, voice guidance is not available even when the vehicle should make a turn.	This is not a malfunction.
	The vehicle has deviated from the suggested route.	Go back to the suggested route or request route calculation again.
	Voice guidance is set to off.	Turn on the voice guidance.
	Route guidance is set to off.	Turn on the voice guidance.
The guidance content does not correspond to the actual condition.	The content of the voice guidance may vary, depending on the types of intersections at which turns are made.	Follow all traffic rules and regulations.

VOICE RECOGNITION

Symptom	Possible cause	Possible solution
The system does not recognize the command. The system recognizes the command incorrectly.	The interior of the vehicle is too noisy.	Close the windows or have other occupants be quiet.
	The volume of the voice is too low.	Speak louder.
	Pronunciation is unclear.	Speak clearly.
	Voice recognition mode is not yet ready to speak.	Push the release " " on the steering switch, and speak a command after the tone sounds.
	5 seconds or more have passed after pushed and released " " on the steering switch.	Make sure to speak a command within 5 seconds after push and release " " on the steering switch.
	Only a limited range of voice commands is usable for each screen.	Use a correct voice command appropriate for the current screen.

REAR VIEW MONITOR

Symptoms	Possible cause	Possible solution
Rear view monitor image is not displayed	Shift lever (M/T models) or selector lever (CVT or A/T models) is not in R position.	Shift lever (M/T models) or selector lever (CVT or A/T models) is in R position.

Symptoms	Possible cause	Possible solution
Rear view monitor image is not clear	Front glass of camera lens is dirty.	Dip a soft cloth into water and wipe the glass softly.
	There are raindrops, snow, etc.	Wipe it with a soft cloth softly.
	The sunlight or the headlight of following vehicle is shining directly to the camera lens.	It returns to the original condition if the light applied to the lens disappears.

PRECAUTION

PRECAUTIONS

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

INFOID:0000000001310054

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

WARNING:

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

Precaution for Trouble Diagnosis

INFOID:0000000001093073

AV COMMUNICATION SYSTEM

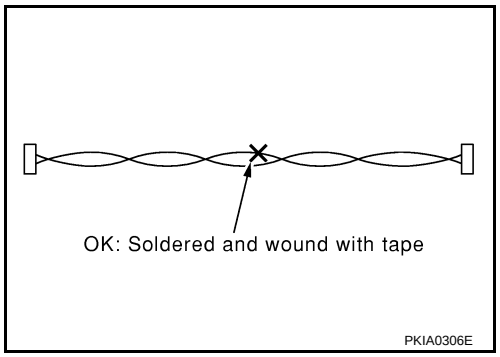
- Do not apply voltage of 7.0 V or higher to the measurement terminals.
- Use the tester with its open terminal voltage being 7.0 V or less.
- Be sure to turn ignition switch OFF and disconnect the battery cable from the negative terminal before checking the circuit.

Precaution for Harness Repair

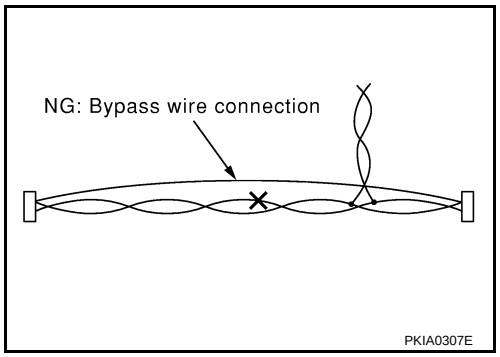
INFOID:0000000001093074

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

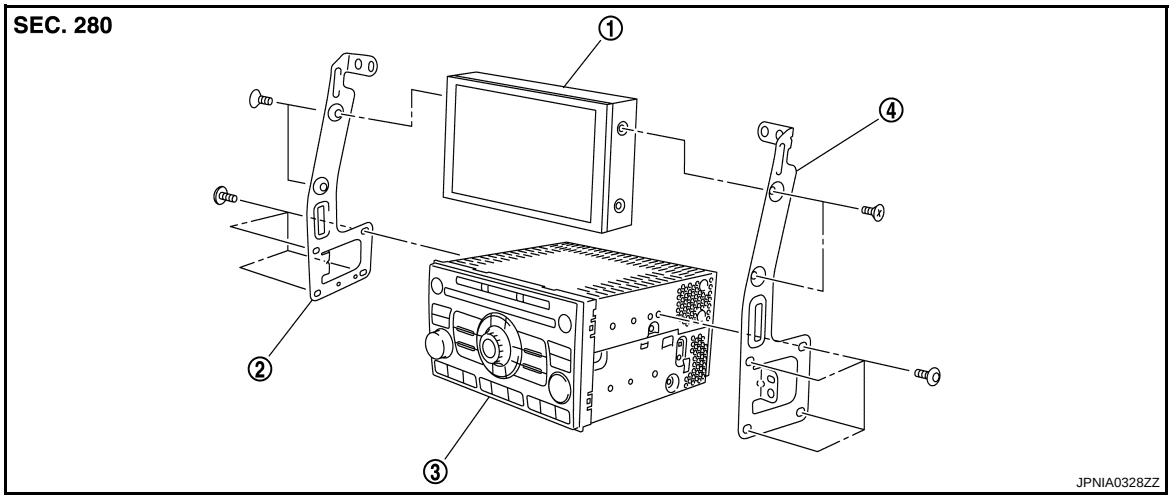
AUDIO UNIT

Exploded View

INFOID:0000000001117255

REMOVAL
Refer to IP-11, "Exploded View".

DISASSEMBLY



1. Display unit
2. Bracket LH
3. Audio unit
4. Bracket RH

Removal and Installation

INFOID:0000000001117256

REMOVAL

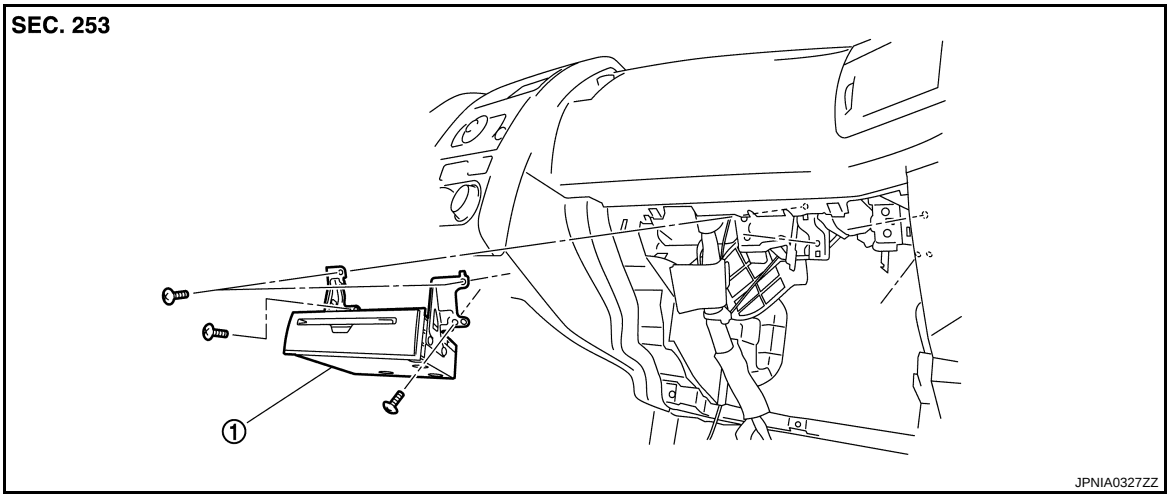
1. Remove cluster lid C. Refer to IP-11, "Exploded View".
2. Remove audio unit with a display unit as a single unit from body.
3. Remove bracket screws, and then remove audio unit.

INSTALLATION
Install in the reverse order of removal.

NAVI CONTROL UNIT

Exploded View

INFOID:0000000001117253



1. NAVI control unit

Removal and Installation

INFOID:0000000001117254

REMOVAL

1. Remove grove box. Refer to IP-11, "Exploded View".
2. Remove bracket screws, and then remove NAVI control unit with bracket.
3. Remove bracket screws, and then remove NAVI control unit.

INSTALLATION

Install in the reverse order of removal.

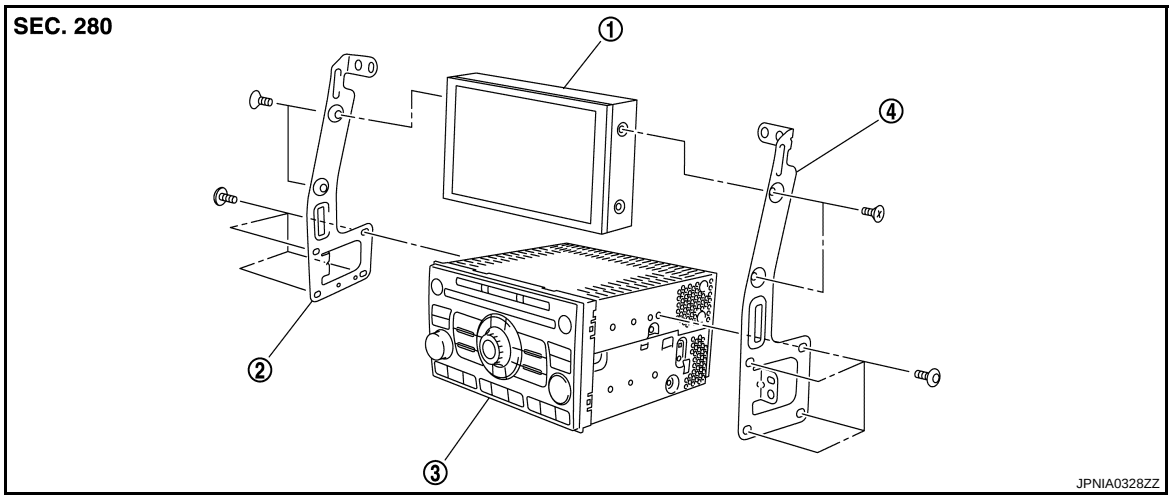
DISPLAY UNIT

Exploded View

INFOID:0000000001117257

REMOVAL
Refer to IP-11, "Exploded View".

DISASSEMBLY



1. Display unit
2. Bracket LH
3. Audio unit
4. Bracket RH

Removal and Installation

INFOID:0000000001117258

REMOVAL

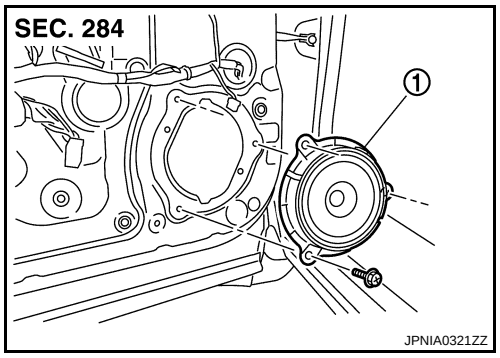
1. Remove cluster lid C. Refer to IP-11, "Exploded View".
2. Remove display unit with an audio unit as a single unit from body.
3. Remove bracket screws, and then display unit.

INSTALLATION
Install in the reverse order of removal.

FRONT DOOR SPEAKER

Exploded View

INFOID:0000000001307286



1. Front door speaker

Removal and Installation

INFOID:0000000001307287

REMOVAL

1. Remove front door finisher. Refer to INT-10, "FRONT DOOR FINISHER : Exploded View".
2. Remove front door speaker.

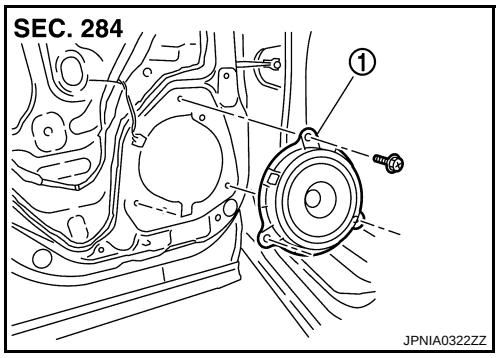
INSTALLATION

Install in the reverse order of removal.

REAR DOOR SPEAKER

Exploded View

INFOID:0000000001307288



1. Rear door speaker

Removal and Installation

INFOID:0000000001307289

REMOVAL

1. Remove rear door finisher. Refer to INT-13, "REAR DOOR FINISHER : Exploded View".
2. Remove rear door speaker.

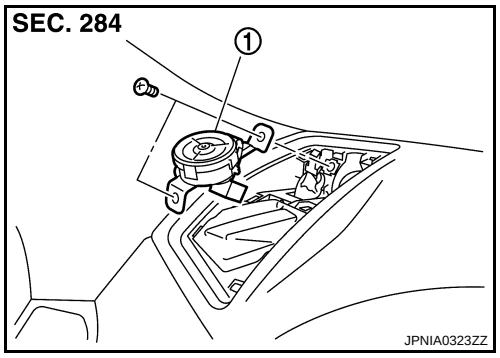
INSTALLATION

Install in the reverse order of removal.

TWEETER

Exploded View

INFOID:0000000001307290



1. Tweeter

Removal and Installation

INFOID:0000000001307291

REMOVAL

1. Remove speaker grille. Refer to IP-11, "Exploded View".
2. Remove tweeter.

INSTALLATION

Install in the reverse order of removal.

STEERING SWITCH

Exploded View

INFOID:0000000001307296

Refer to SR-5, "Exploded View".

Removal and Installation

INFOID:0000000001307297

REMOVAL

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

INSTALLATION

Install in the reverse order of removal.

MICROPHONE

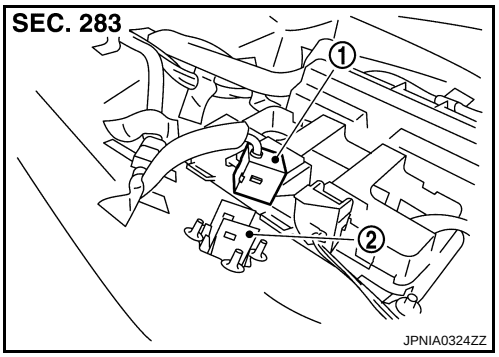
Exploded View

INFOID:0000000001307292

REMOVAL

Refer to INT-22, "NORMAL ROOF : Exploded View" (Normal roof), INT-25, "SUNROOF : Exploded View" (Sunroof).

DISASSEMBLY



1. Microphone
2. Microphone cover

Removal and Installation

INFOID:0000000001307293

REMOVAL

1. Remove headlining assembly. Refer to INT-22, "NORMAL ROOF : Exploded View" (Normal roof), INT-25, "SUNROOF : Exploded View" (Sunroof).
2. Remove microphone.

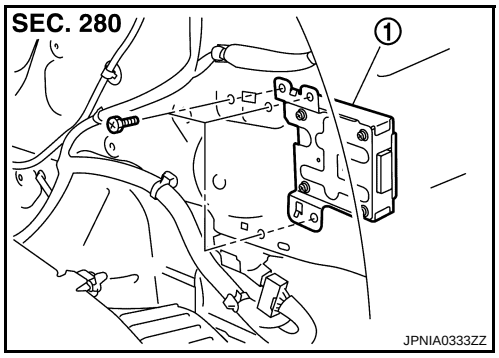
INSTALLATION

Install in the reverse order of removal.

CAMERA CONTROL UNIT

Exploded View

INFOID:0000000001117273



1. Camera control unit

Removal and Installation

INFOID:0000000001117274

REMOVAL

1. Remove luggage side upper finisher (RH). Refer to INT-28, "Exploded View".
2. Remove camera control unit.

INSTALLATION

Install in the reverse order of removal.

Adjustment

INFOID:0000000001117280

ADJUSTMENT

There may be a misalignment of possible route line center position of rear view monitor after removing camera control unit. Therefore, correct neutral position with the following procedure.

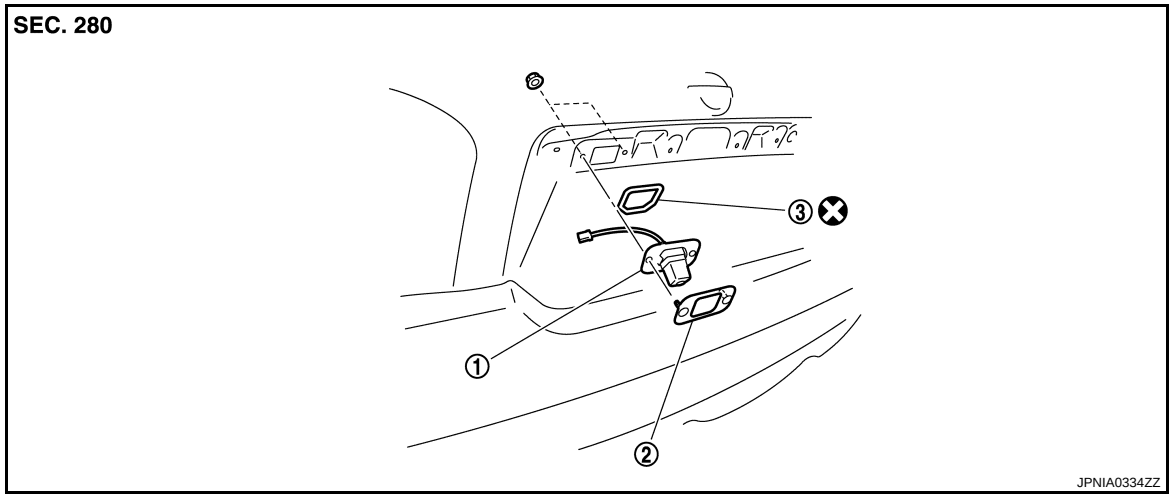
1. Steer the steering wheel to the leftmost and rightmost ends.
2. Drive vehicle at 30 km/h (18.6 MPH) min. speed at least 100 m (328.1 ft).

REAR VIEW CAMERA

Exploded View

INFOID:0000000001117275

SEC. 280



1. Rear view camera
2. Plate
3. Seal

Refer to GI-4, "Components" for symbols in the figure.

Removal and Installation

INFOID:0000000001117276

REMOVAL

1. Remove back door finisher. Refer to EXT-34, "Exploded View".
2. Remove back door trim finisher lower. Refer to INT-31, "Exploded View".
3. Remove nuts, and then remove rear view camera.

INSTALLATION

Install in the reverse order of removal.

NOTE:

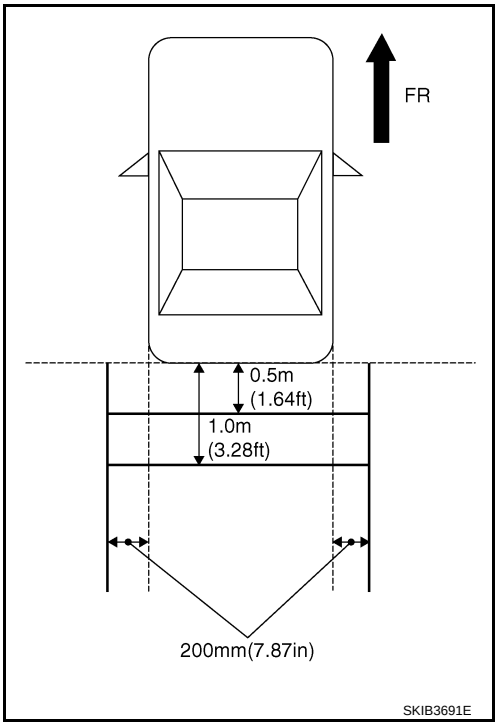
Adjust the guide line position if the guide line position is shifted after installing the rear view camera.

Adjustment

INFOID:0000000001117281

Adjust the guide line position if the guide line position is shifted after installing the rear view camera.

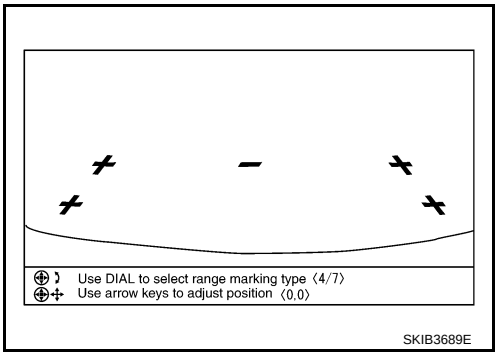
1. Draw lines on rearward area of the vehicle passing through the following points: 20 cm (7.87 in) from both sides of the vehicle, and 0.5 m (1.64 ft), 1.0 m (3.28 ft) from the rear end of the bumper.
2. Set into “Adjust offset of rear view camera” mode of Confirmation / Adjustment mode.



3. Rotate the center dial, and then select the guiding line pattern so that its angle is aligned with the correction line of the rear of the vehicle.

Selected pattern : 7

4. Make fine adjustment to the correction line of the rear of the vehicle with up/down/left/right switches so that its position is aligned with the guiding line. Press “ENTER”switch and record the adjusted guiding line position to the camera control unit.



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

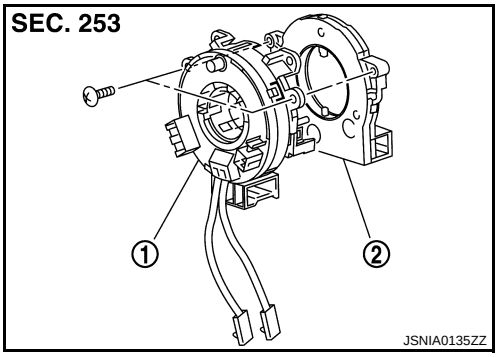
Exploded View

INFOID:0000000001117282

REMOVAL

Refer to SR-7, "Exploded View".

DISASSEMBLY



1. Spiral cable
2. Steering angle sensor

Removal and Installation

INFOID:0000000001117283

REMOVAL

1. Remove spiral cable. Refer to SR-7, "Exploded View".
2. Remove steering angle sensor from spiral cable.

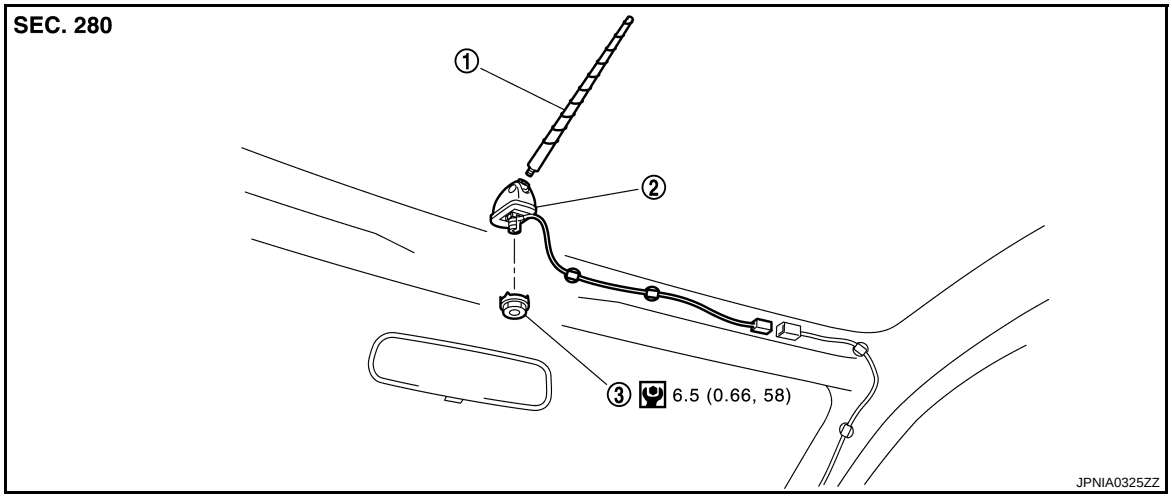
INSTALLATION

Installation is the reverse order of removal.

RADIO ANTENNA

Exploded View

INFOID:0000000001307294



1. Antenna rod
2. Antenna base
3. Nut

Refer to GI-4, "Components" for symbols not described on the above.

Removal and Installation

INFOID:0000000001307295

REMOVAL

1. Remove headlining assembly. Refer to INT-22, "NORMAL ROOF : Exploded View" (Normal roof), INT-25, "SUNROOF : Exploded View" (Sunroof).
2. Remove antenna base and antenna rod.

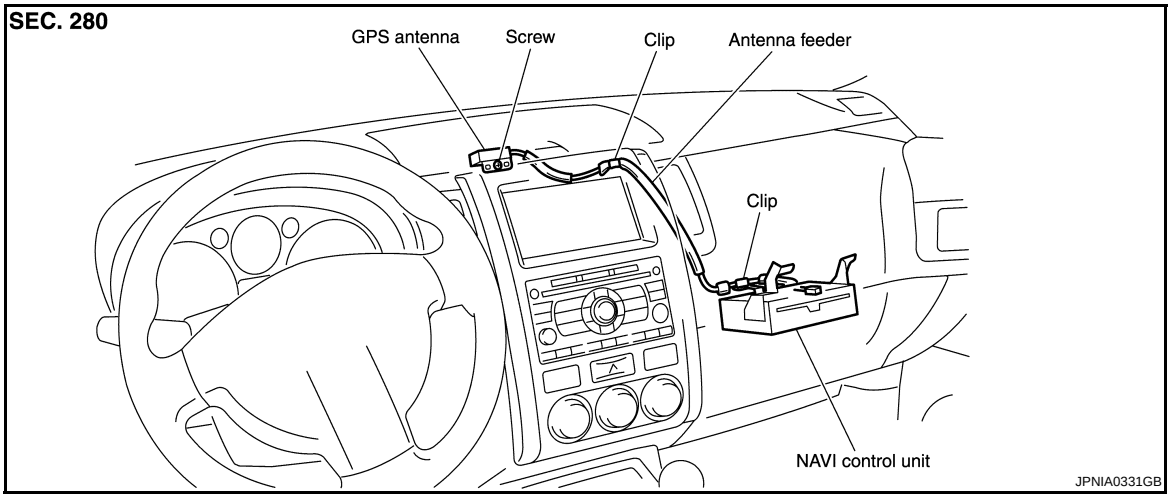
INSTALLATION

Install in the reverse order of removal.

GPS ANTENNA

Harness Layout

INFOID:0000000001117271

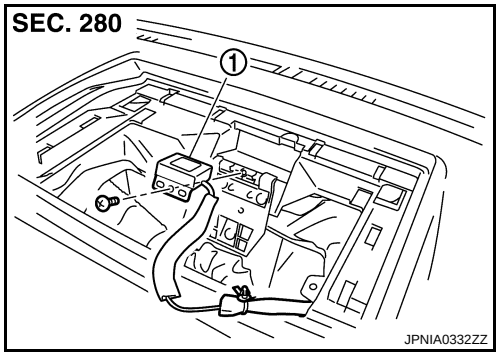


Removal and Installation

INFOID:0000000001117272

REMOVAL

1. Remove NAVI control unit. Refer to AV-257, "Exploded View".
2. Remove pocket assy. Refer to IP-11, "Exploded View".
3. Remove screw and clip. and then remove GPS antenna.



INSTALLATION

Install in the reverse order of removal.

ANTENNA FEEDER

Harness Layout

INFOID:0000000001117278

NOTE:
RHD models GPS antenna is mirror image.