

SECTION **AV**

AUDIO, VISUAL, NAVIGATION & TELEPHONE SYSTEM

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SERVICE INFORMATION

PRECAUTIONS

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

INFOID:000000007405494

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

WARNING:

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

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

WARNING:

- When working near the Airbag Diagnosis Sensor Unit or other Airbag System sensors with the Ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the Ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

Precaution Necessary for Steering Wheel Rotation After Battery Disconnect

INFOID:000000007405495

NOTE:

- This Procedure is applied only to models with Intelligent Key system and NATS (NISSAN ANTI-THEFT SYSTEM).
- Remove and install all control units after disconnecting both battery cables with the ignition knob in the "LOCK" position.
- Always use CONSULT to perform self-diagnosis as a part of each function inspection after finishing work. If DTC is detected, perform trouble diagnosis according to self-diagnostic results.

For models equipped with the Intelligent Key system and NATS, an electrically controlled steering lock mechanism is adopted on the key cylinder.

For this reason, if the battery is disconnected or if the battery is discharged, the steering wheel will lock and steering wheel rotation will become impossible.

If steering wheel rotation is required when battery power is interrupted, follow the procedure below before starting the repair operation.

OPERATION PROCEDURE

1. Connect both battery cables.

NOTE:

Supply power using jumper cables if battery is discharged.

2. Use the Intelligent Key or mechanical key to turn the ignition switch to the "ACC" position. At this time, the steering lock will be released.
3. Disconnect both battery cables. The steering lock will remain released and the steering wheel can be rotated.
4. Perform the necessary repair operation.

PRECAUTIONS

< SERVICE INFORMATION >

[AUDIO WITHOUT NAVIGATION]

5. When the repair work is completed, return the ignition switch to the "LOCK" position before connecting the battery cables. (At this time, the steering lock mechanism will engage.)
6. Perform a self-diagnosis check of all control units using CONSULT.

Precaution for Work

INFOID:000000007405496

- When removing or disassembling each component, be careful not to damage or deform it. If a component may be subject to interference, be sure to protect it with a shop cloth.
- When removing (disengaging) components with a screwdriver or similar tool, be sure to wrap the component with a shop cloth or vinyl tape to protect it.
- Protect the removed parts with a shop cloth and prevent them from being dropped.
- Replace a deformed or damaged clip.
- If a part is specified as a non-reusable part, always replace it with a new one.
- Be sure to tighten bolts and nuts securely to the specified torque.
- After installation is complete, be sure to check that each part works properly.
- Follow the steps below to clean components:
 - Water soluble dirt:
 - Dip a soft cloth into lukewarm water, wring the water out of the cloth and wipe the dirty area.
 - Then rub with a soft, dry cloth.
 - Oily dirt:
 - Dip a soft cloth into lukewarm water with mild detergent (concentration: within 2 to 3%) and wipe the dirty area.
 - Then dip a cloth into fresh water, wring the water out of the cloth and wipe the detergent off.
 - Then rub with a soft, dry cloth.
 - Do not use organic solvent such as thinner, benzene, alcohol or gasoline.
 - For genuine leather seats, use a genuine leather seat cleaner.

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PREPARATION

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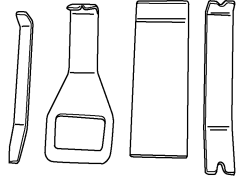
[AUDIO WITHOUT NAVIGATION]

PREPARATION

Special Service Tool

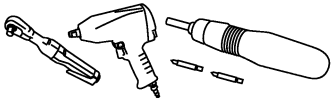
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The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here.

Tool number (Kent-Moore No.) Tool name	Description
— (J-46534) Trim Tool Set  AWJIA04832Z	Removing trim components

Commercial Service Tool

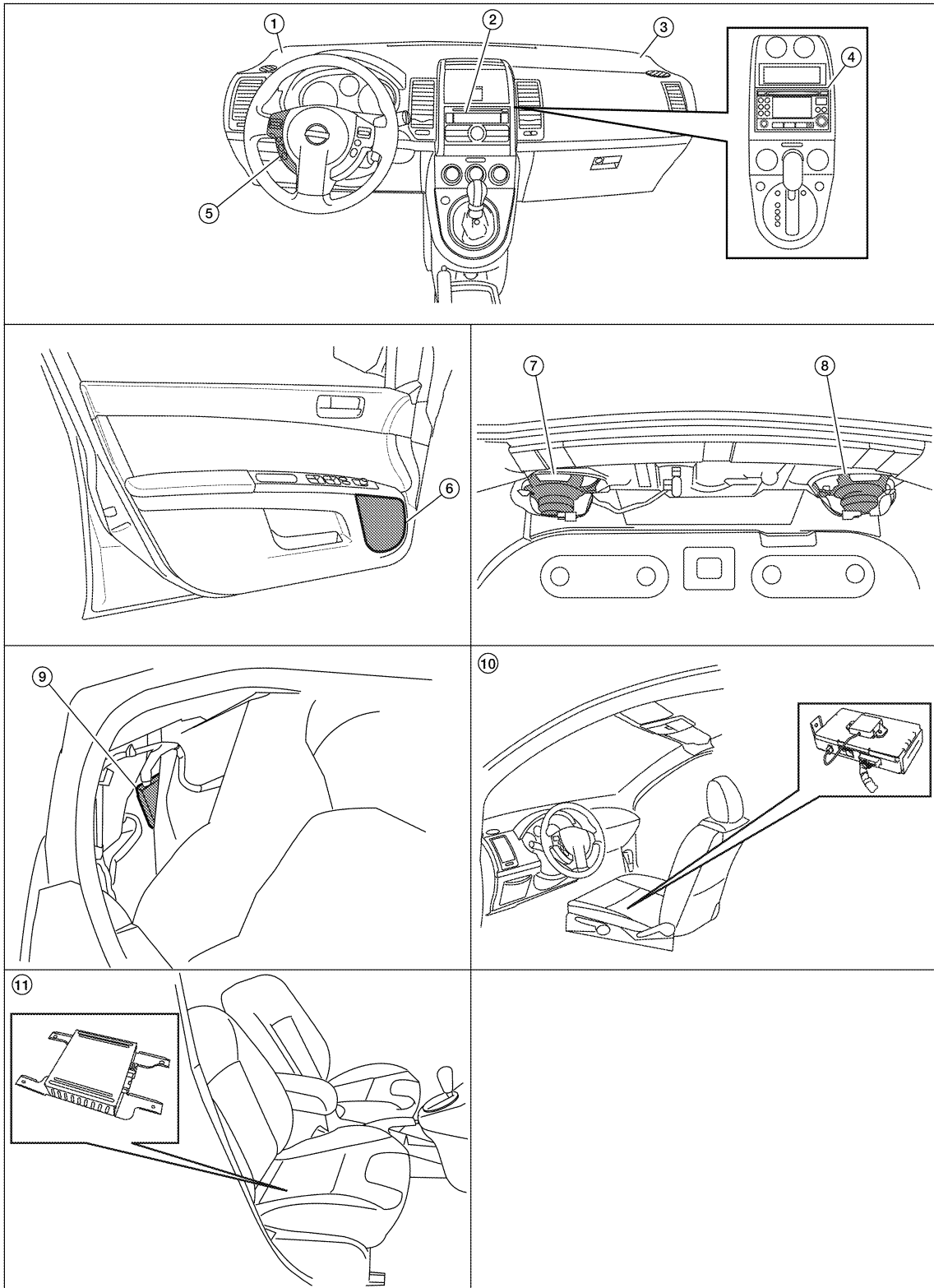
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Tool name	Description
Power tool  PIIB1407E	Loosening nuts, screws and bolts

AUDIO

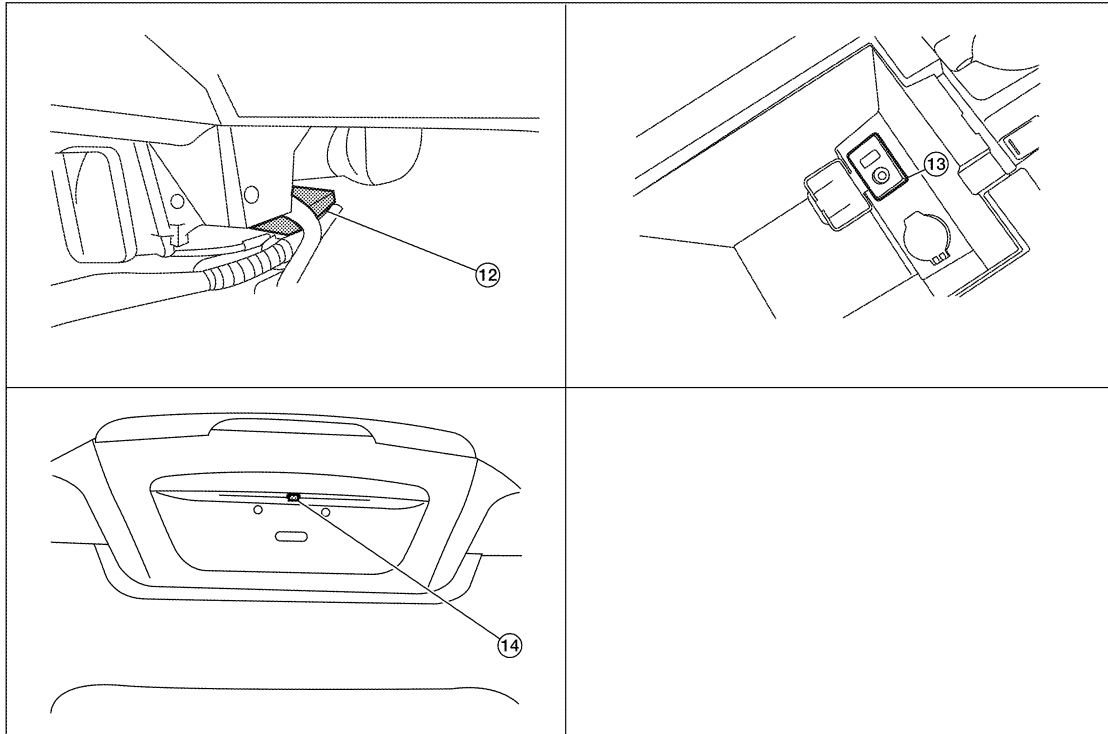
Component Parts Location

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AWNIA19932Z



AMN1A19942Z

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|---|---|--|
| 1. Front tweeter LH M46 (mid and premium system) | 2. Audio unit M43, M45, M53, M90 (base and mid system) | 3. Front tweeter RH M47 (mid and premium system) |
| 4. AV control unit M92, M93, M94, M96, M97 (premium system) | 5. Steering wheel audio control switches (if equipped) | 6. Front door speaker LH D10
RH D108 |
| 7. Rear speaker LH B27 (base, mid and premium without Rockford Fosgate system)
Rear speaker assembly LH B40 (premium system with Rockford Fosgate) | 8. Rear speaker RH B39 (base, mid and premium without Rockford Fosgate system)
Rear speaker assembly RH B38 (premium system with Rockford Fosgate) | 9. Satellite radio tuner B56, B60 (with satellite radio tuner) |
| 10. Bluetooth control unit B15 (with Bluetooth) | 11. Audio amplifier B43, B44 (premium system with Rockford Fosgate) | 12. iPod® adapter M91 (mid system, view with console side finisher - RH removed) |
| 13. iPod® connector M226 (mid system)
USB interface M228 (premium system) | 14. Rear view camera T21 (with rear view camera) | |

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

System Description

INFOID:000000007405500

BASE AND MID SYSTEM

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

Power is supplied at all times

- through 20A fuse (No. 31, located in the fuse and fusible link box)
- to audio unit terminal 19.

With the ignition switch in the ACC or ON position, power is supplied

- through 10A fuse [No. 6, located in the fuse block (J/B)]
- to audio unit terminal 7.

Ground is supplied to

- audio unit terminal 28 (with mid system) and 20
- through grounds M57 and M61.

Then audio signals are supplied

AUDIO

< SERVICE INFORMATION >

[AUDIO WITHOUT NAVIGATION]

- through audio unit terminals 2, 3, 4, 5, 11, 12, 13 and 14
- to terminals + and - of front door speaker LH and RH
- to terminals + and - of front tweeter LH and RH (with mid system) and
- to terminals + and - of rear speaker LH and RH.

A

PREMIUM SYSTEM (WITHOUT ROCKFORD FOSGATE)

B

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

Power is supplied at all times

- through 20A fuse (No. 31, located in the fuse and fusible link box)
- to AV control unit terminal 19.

C

With the ignition switch in the ACC or ON position, power is supplied

- through 10A fuse [No. 6, located in the fuse block (J/B)]
- to AV control unit terminal 7.

D

Ground is supplied to

- to AV control unit terminals 20, 27 and 47
- through grounds M57 and M61.

E

Then audio signals are supplied

- through AV control unit terminals 2, 3, 4, 5, 11, 12, 13 and 14
- to terminals + and - of front door speaker LH and RH
- to terminals + and - of front tweeter LH and RH and
- to terminals + and - of rear speaker LH and RH.

F

PREMIUM SYSTEM (WITH ROCKFORD FOSGATE)

G

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

Power is supplied at all times

- through 20A fuse [No. 17, located in the fuse block (J/B)]
- to audio amplifier terminal 17,
- through 20A fuse (No. 31, located in the fuse and fusible link box)
- to audio amplifier terminal 1 and
- to AV control unit terminal 19.

H

With the ignition switch in the ACC or ON position, power is supplied

- through 10A fuse [No. 6, located in the fuse block (J/B)]
- to AV control unit terminal 7.

I

Ground is supplied to

- to AV control unit terminals 20, 27 and 47
- through grounds M57 and M61.

J

Ground is also supplied

- to audio amplifier terminals 4 and 20
- through grounds B7 and B19.

AV

Then audio signals are supplied

- through AV control unit terminals 53, 54, 57, 58, 59, 60, 63, and 64
- to audio amplifier terminals 5, 6, 7, 8, 21, 22, 23 and 24.

L

Audio signals are amplified by the audio amplifier.

The amplified audio signals are supplied

- through audio amplifier terminals 2, 3, 11, 12, 13, 14, 15, 16, 18, 19, 27, 28, 29, 30, 31 and 32
- to terminals + and - of front door speaker LH and RH and
- to terminals + and - of front tweeter LH and RH
- to terminals 1, 2, 3 and 4 of rear speaker assembly LH and RH.

M

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STEERING WHEEL AUDIO CONTROL SWITCHES (IF EQUIPPED)

When one of steering wheel audio control switches is pushed, the resistance in steering switch circuit changes depending on which button is pushed.

O

SATELLITE RADIO TUNER (IF EQUIPPED)

Power is supplied at all times

- through 20A fuse (No. 31, located in the fuse and fusible link box)
- to satellite radio tuner terminal 32.

P

With the ignition switch in the ACC or ON position, power is supplied

- through 10A fuse [No. 6, located in the fuse block (J/B)]
- to satellite radio tuner terminal 36.

Ground is supplied through the case of the satellite radio tuner.

Then audio signals are supplied

AUDIO

< SERVICE INFORMATION >

[AUDIO WITHOUT NAVIGATION]

- through satellite radio tuner terminals 21, 22, 23 and 24
- to audio unit terminals 45, 46, 47 and 48 (with mid system) or
- to AV control unit terminals 65, 66, 67 and 68 (with premium system).

SPEED SENSITIVE VOLUME SYSTEM (MID AND PREMIUM SYSTEM)

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

AUDIO

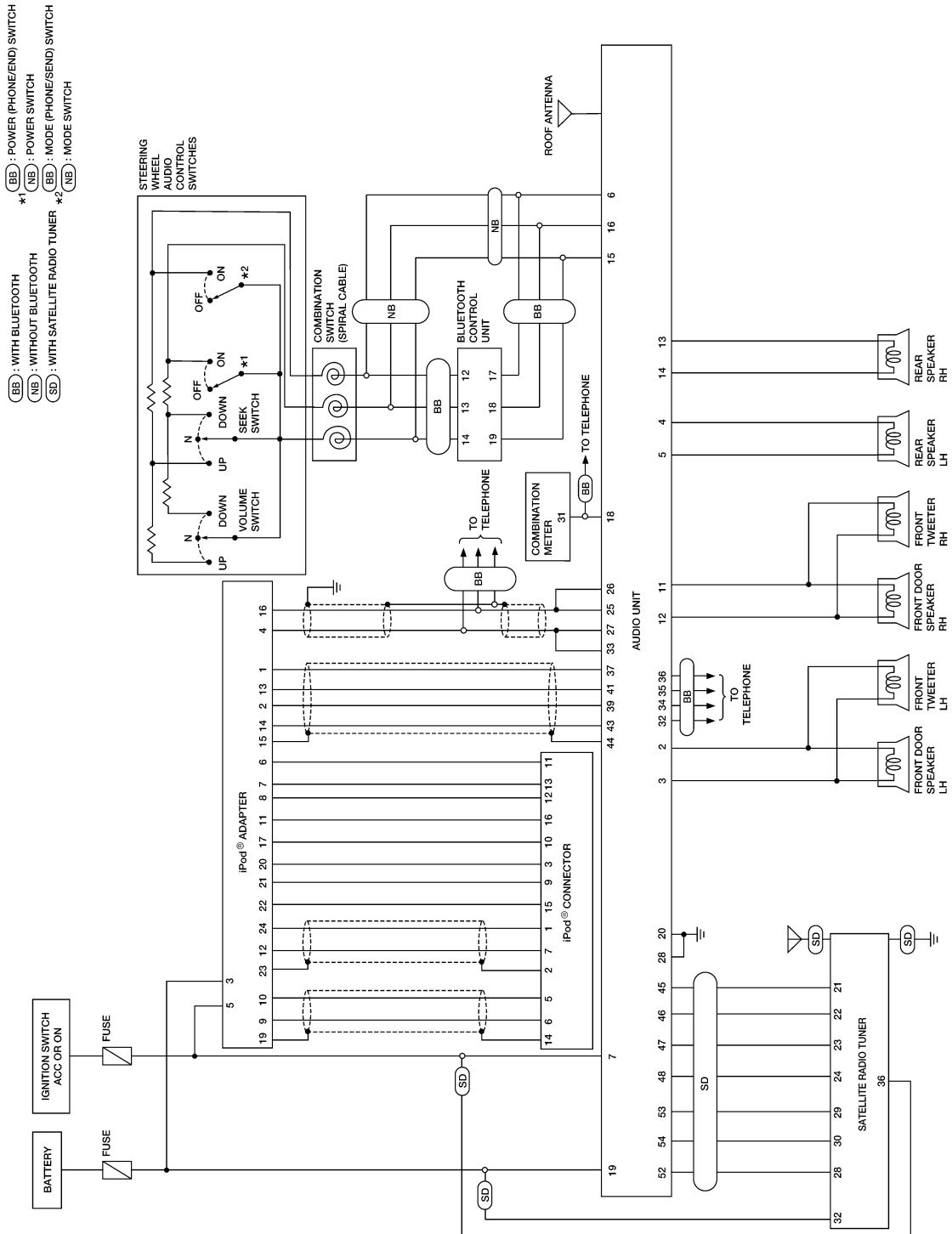
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[AUDIO WITHOUT NAVIGATION]

Schematic

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MID SYSTEM



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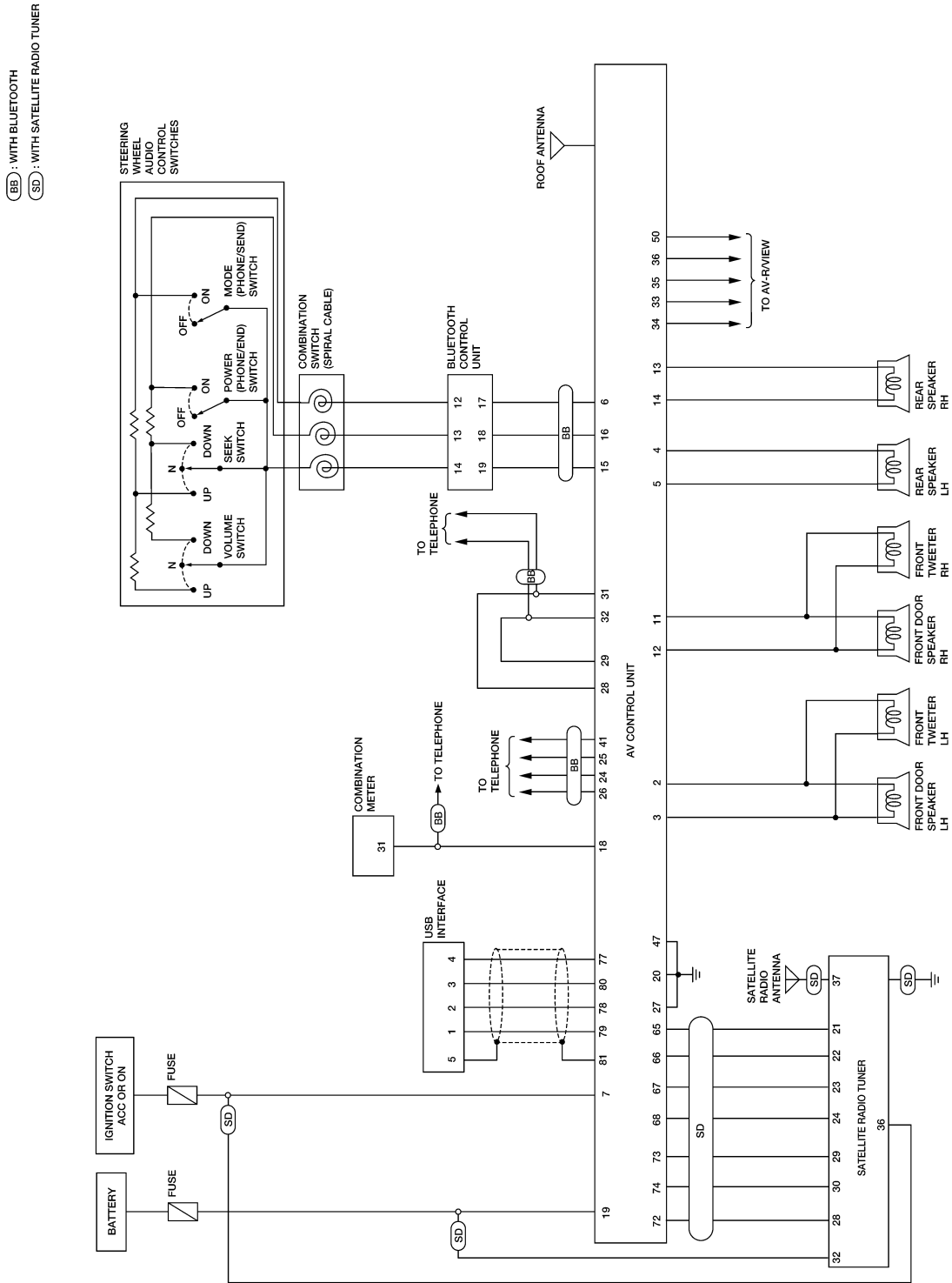
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< SERVICE INFORMATION >

[AUDIO WITHOUT NAVIGATION]

PREMIUM SYSTEM (WITHOUT ROCKFORD FOSGATE)



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AUDIO

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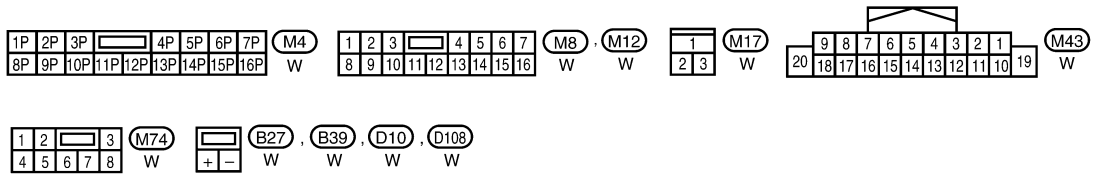
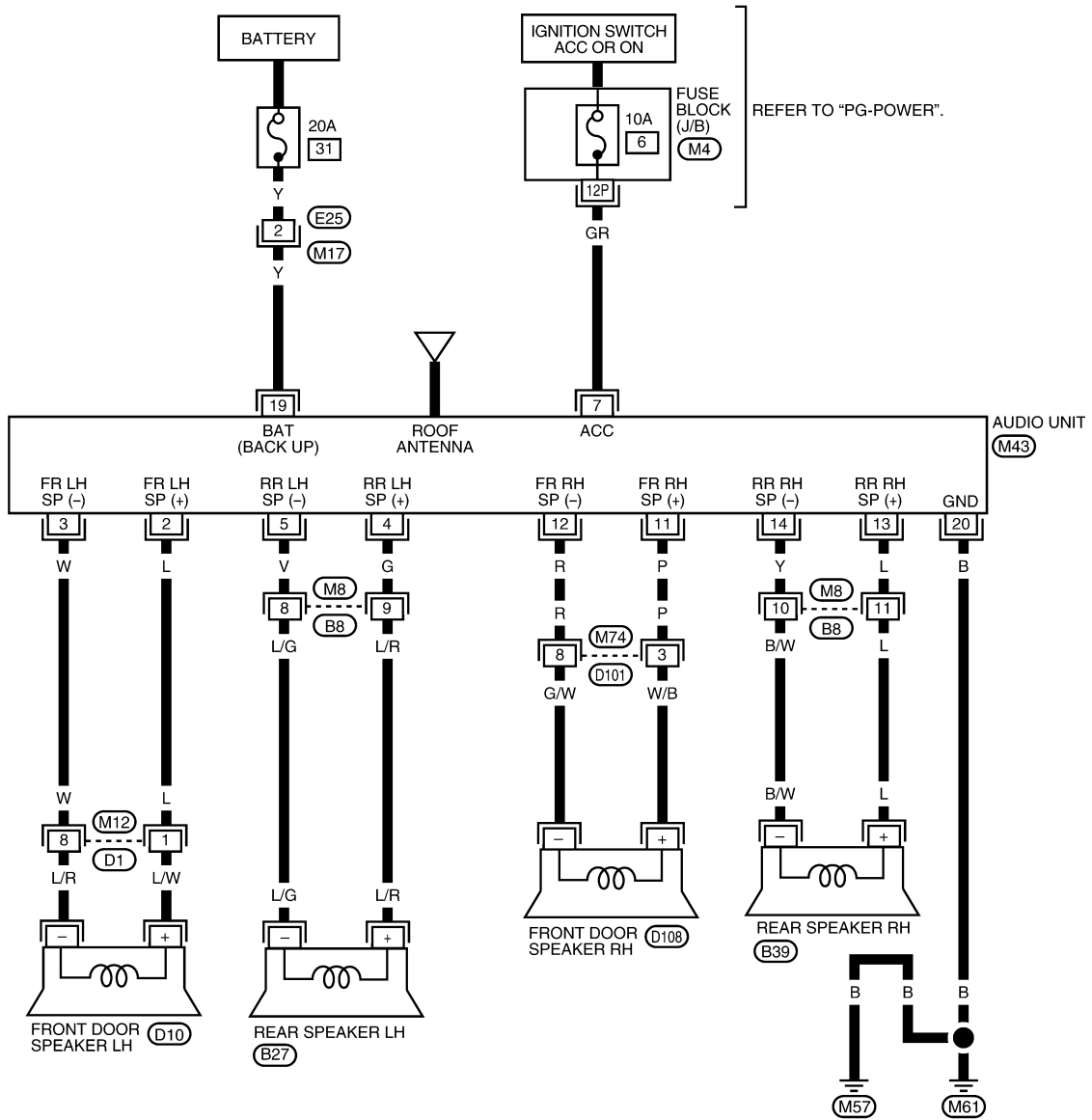
[AUDIO WITHOUT NAVIGATION]

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Wiring Diagram - AUDIO -

BASE SYSTEM

AV-AUDIO-01



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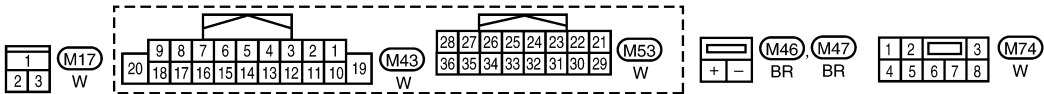
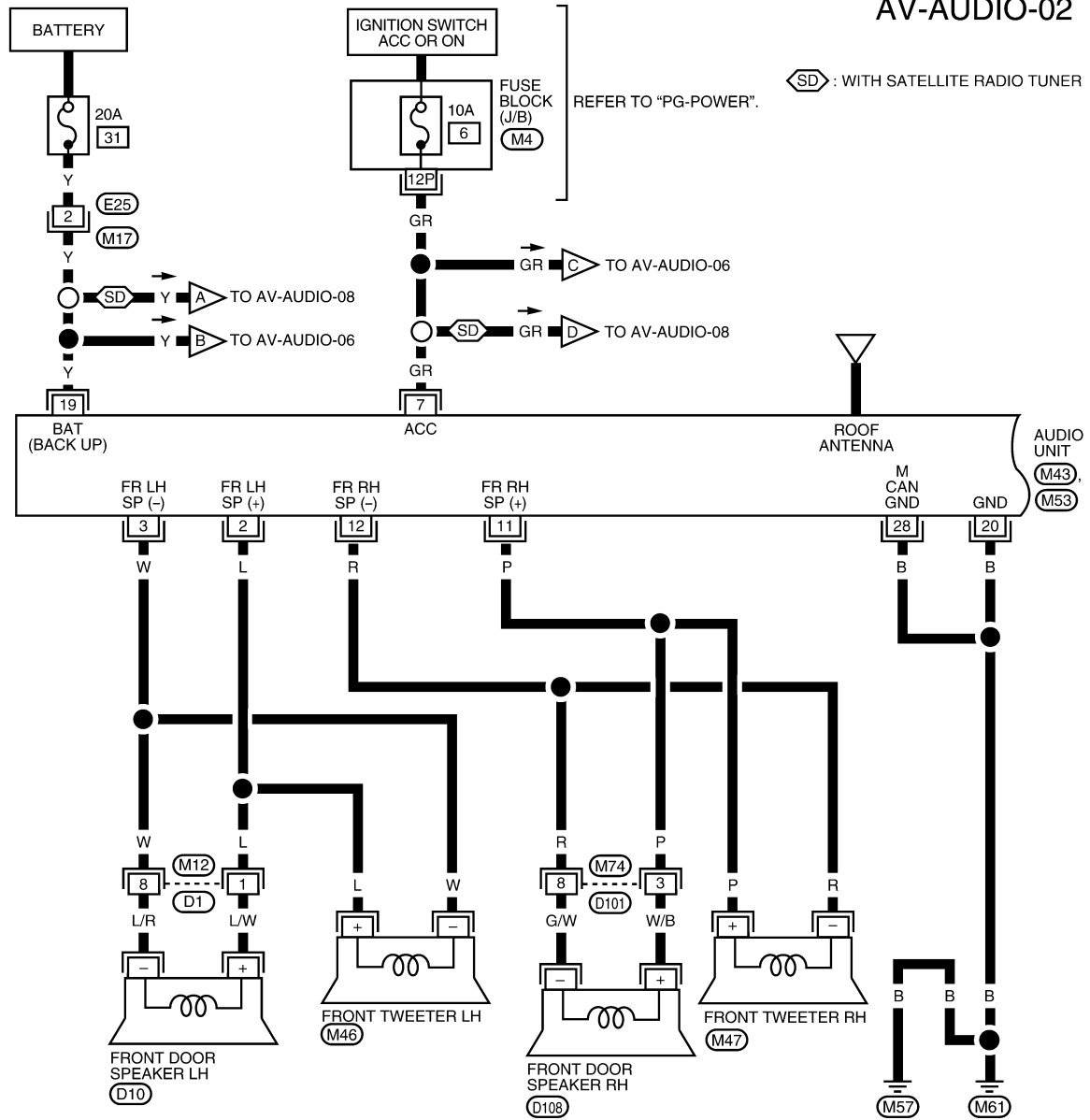
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[AUDIO WITHOUT NAVIGATION]

MID SYSTEM

AV-AUDIO-02



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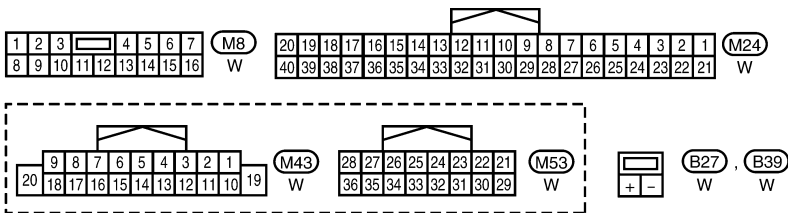
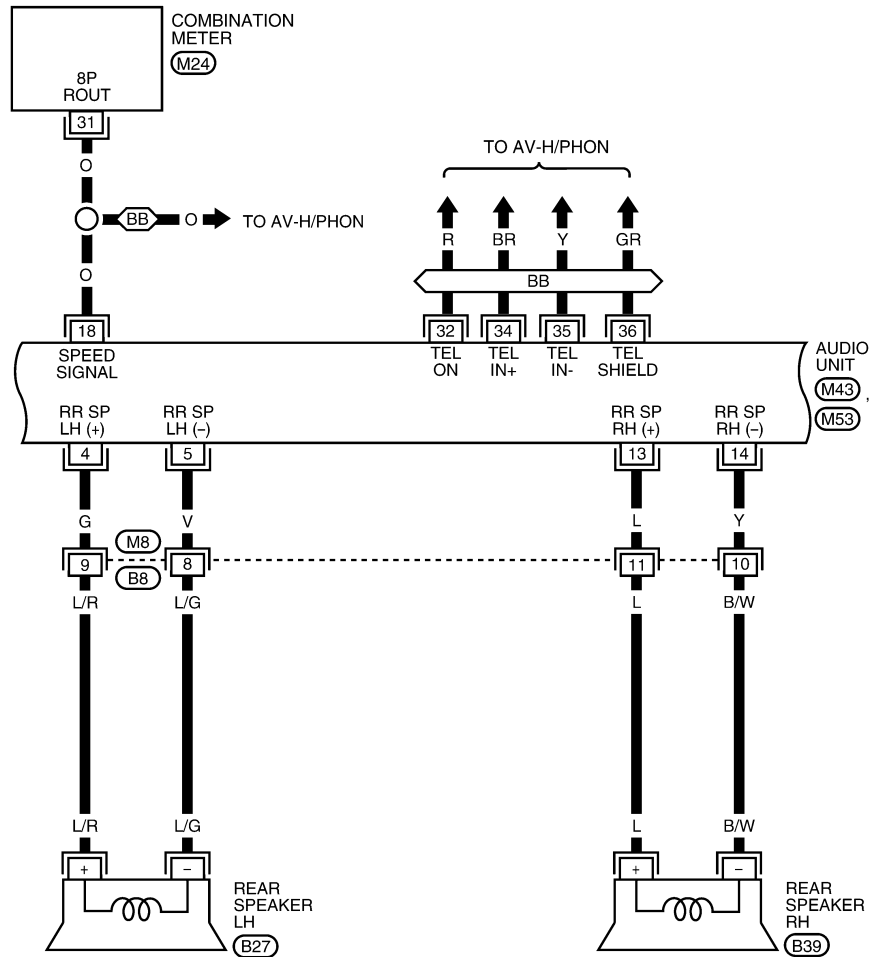
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[AUDIO WITHOUT NAVIGATION]

AV-AUDIO-03

ⓑⓑ : WITH BLUETOOTH



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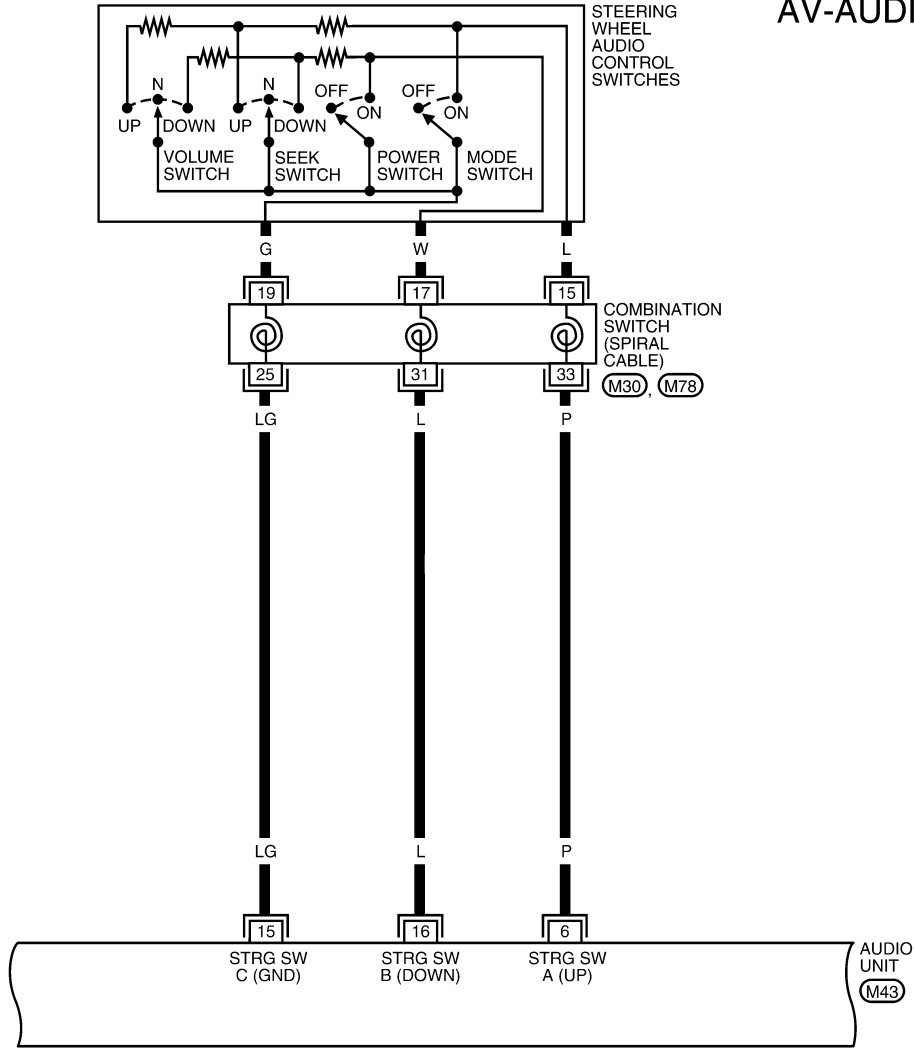
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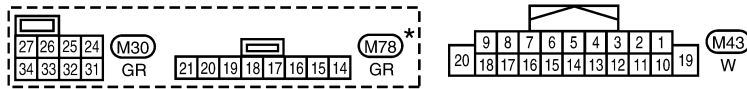
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*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT" OF PG SECTION.

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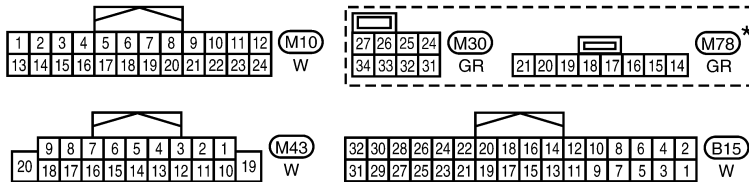
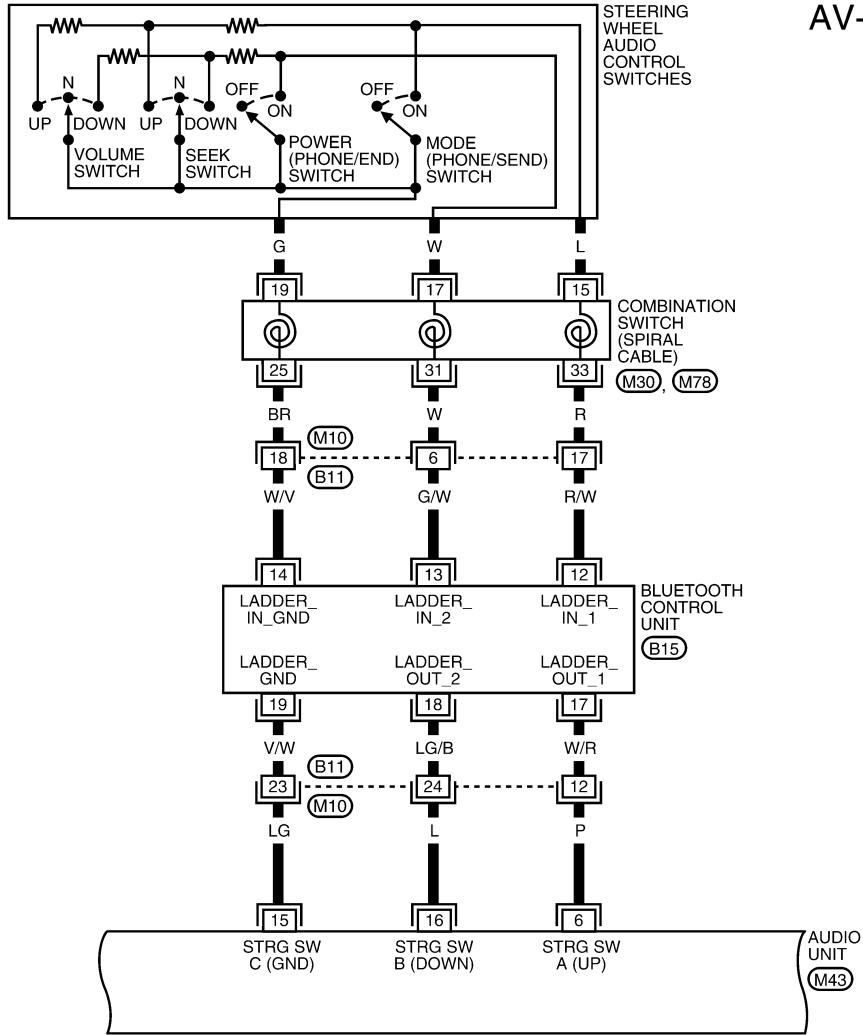
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< SERVICE INFORMATION >

[AUDIO WITHOUT NAVIGATION]

With Bluetooth

AV-AUDIO-05



* : THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT" OF PG SECTION.

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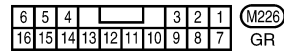
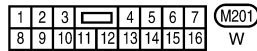
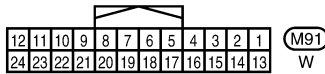
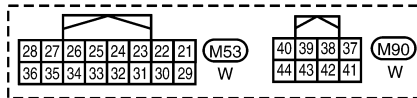
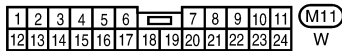
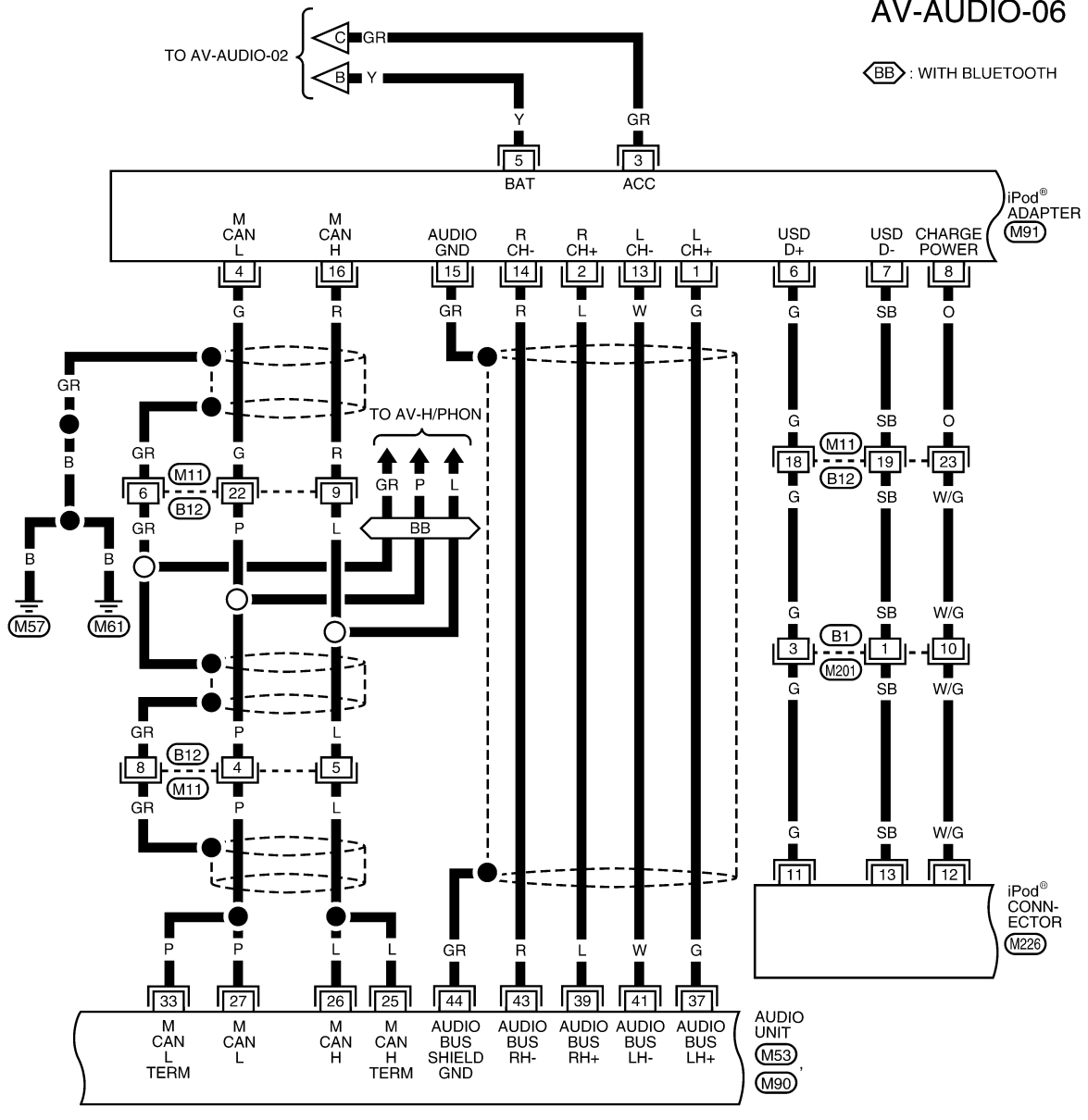
AUDIO

< SERVICE INFORMATION >

[AUDIO WITHOUT NAVIGATION]

AV-AUDIO-06

ⓑ : WITH BLUETOOTH



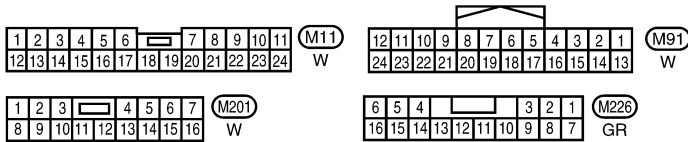
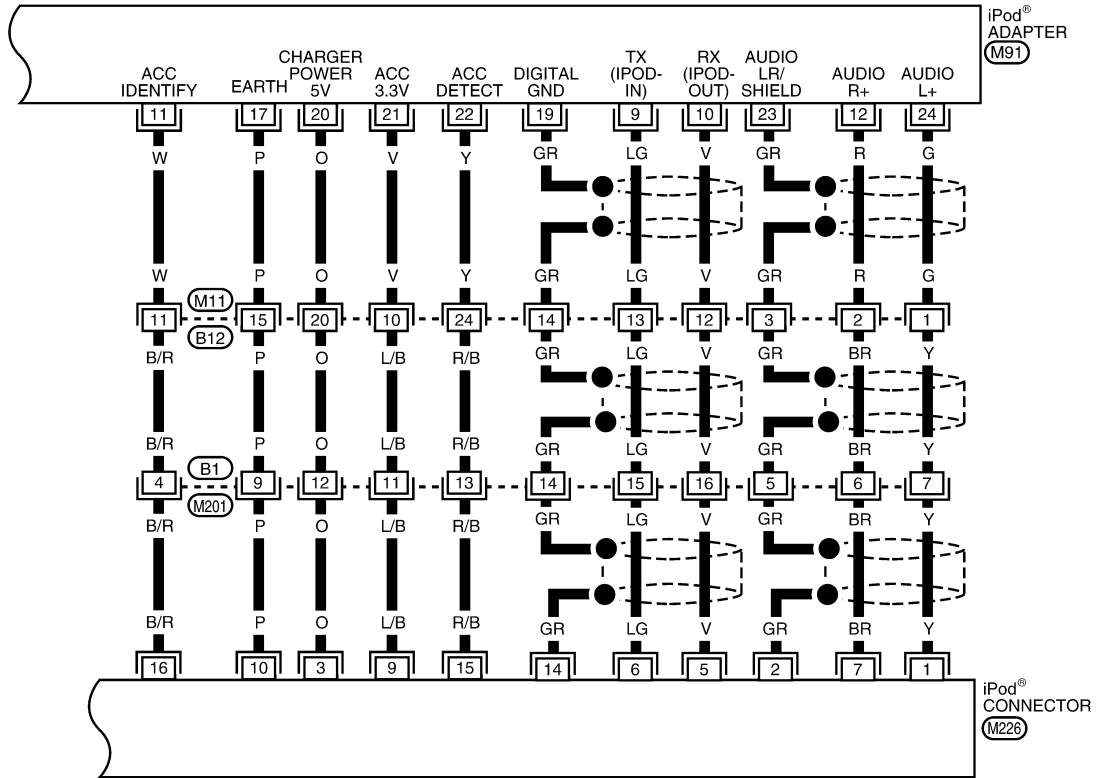
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AUDIO

< SERVICE INFORMATION >

[AUDIO WITHOUT NAVIGATION]

AV-AUDIO-07



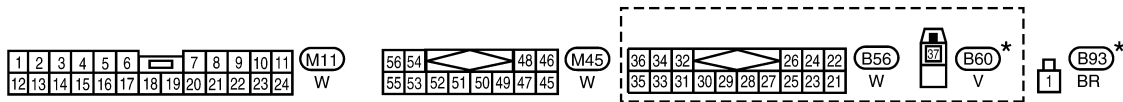
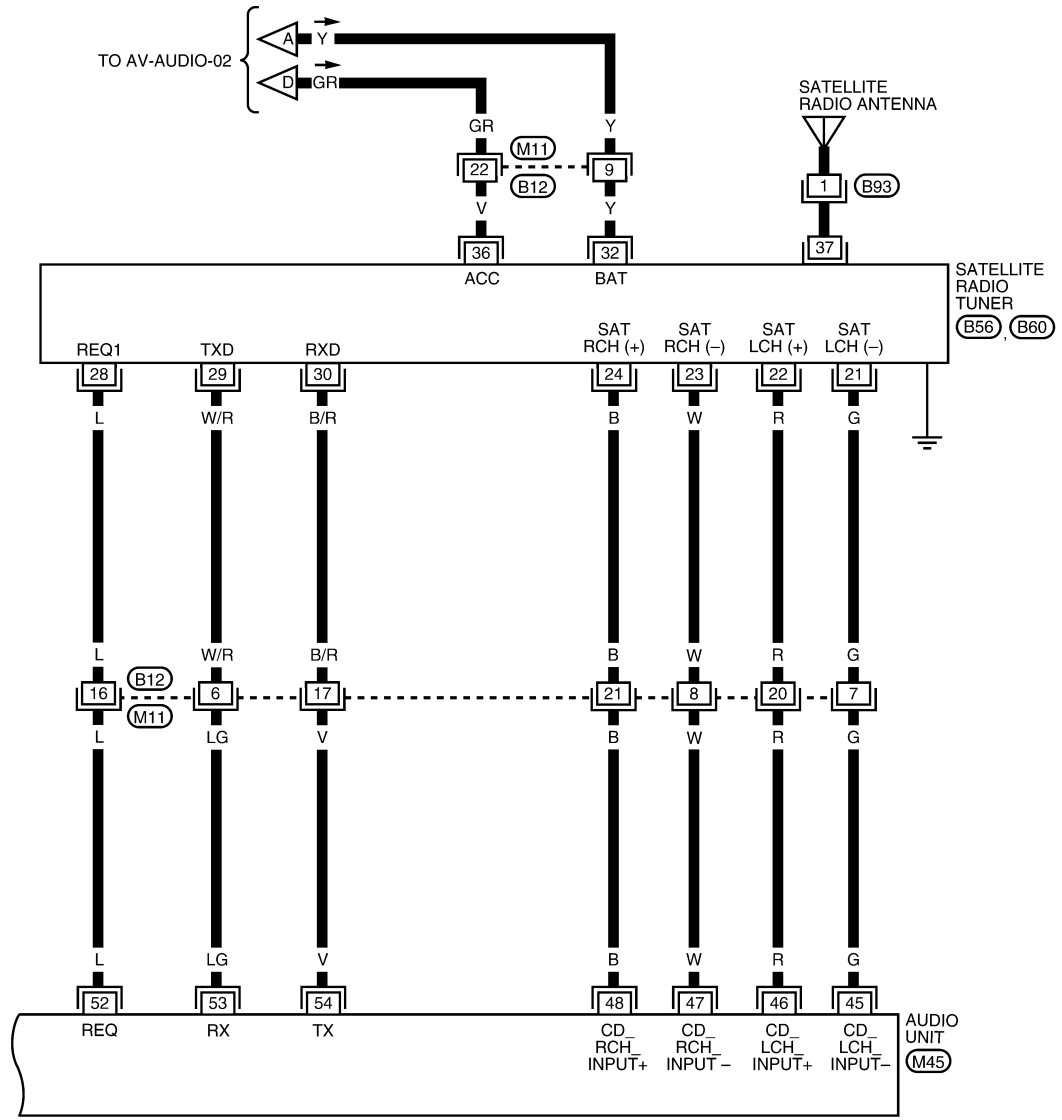
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AUDIO

< SERVICE INFORMATION >

[AUDIO WITHOUT NAVIGATION]

AV-AUDIO-08



* : THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT" OF PG SECTION.

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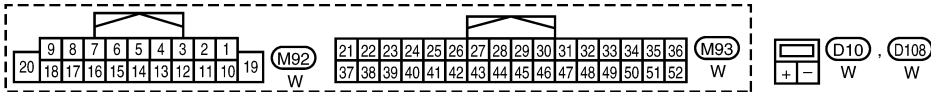
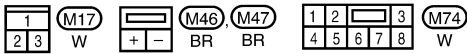
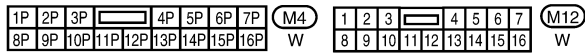
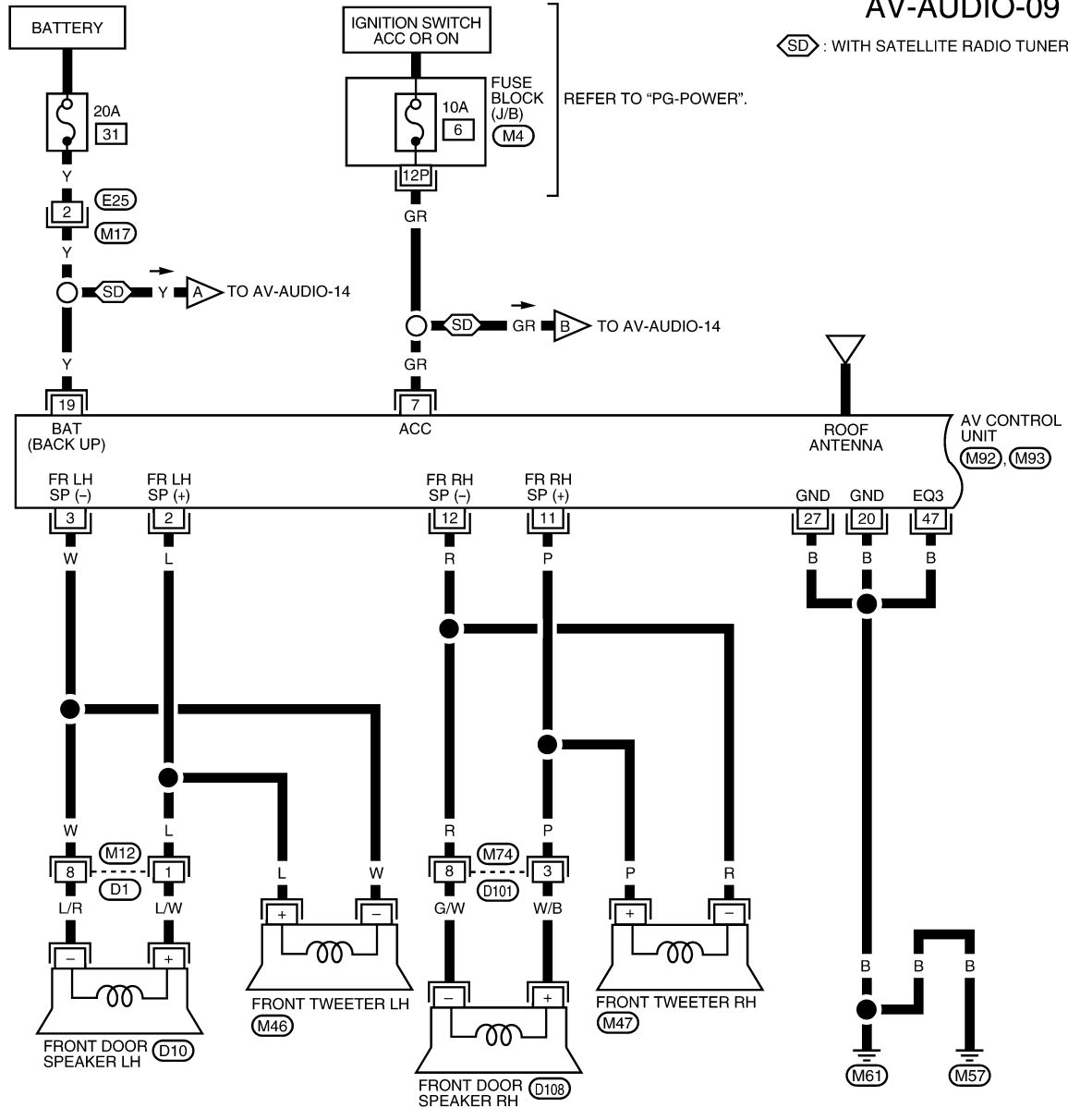
< SERVICE INFORMATION >

[AUDIO WITHOUT NAVIGATION]

PREMIUM SYSTEM - WITHOUT ROCKFORD FOSGATE

AV-AUDIO-09

SD : WITH SATELLITE RADIO TUNER



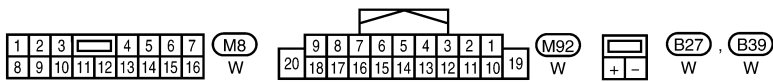
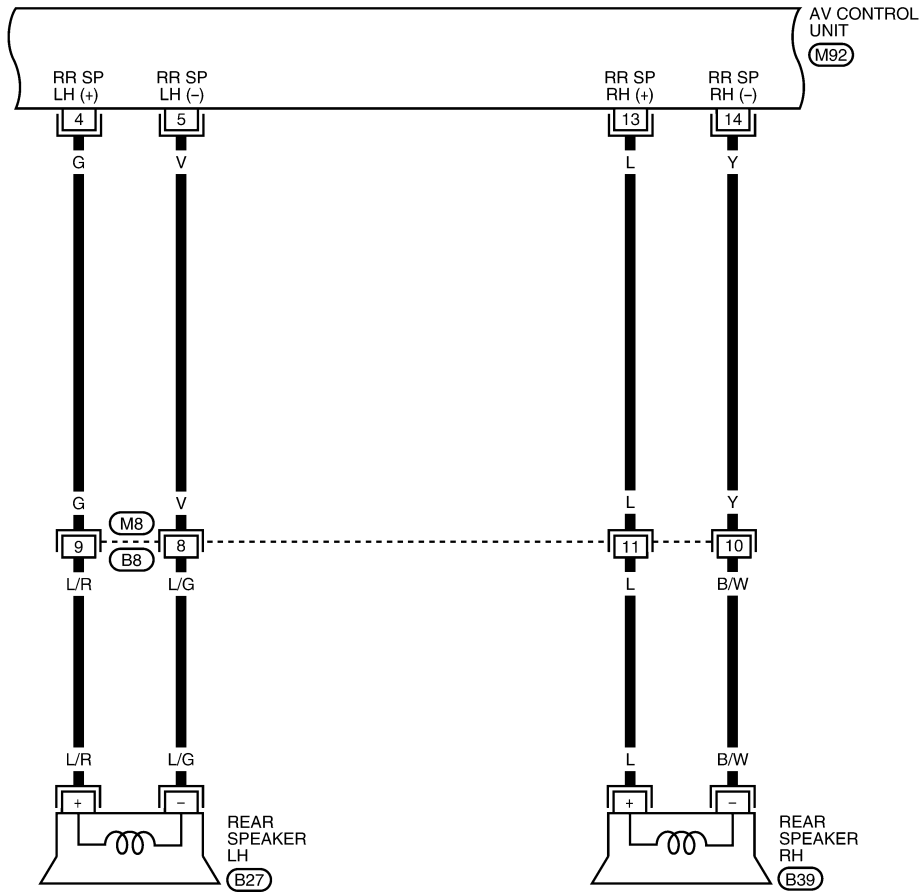
ABNWA0918GB

AUDIO

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[AUDIO WITHOUT NAVIGATION]

AV-AUDIO-10



ABNWA0919GB

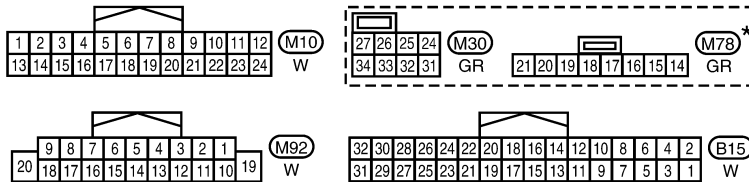
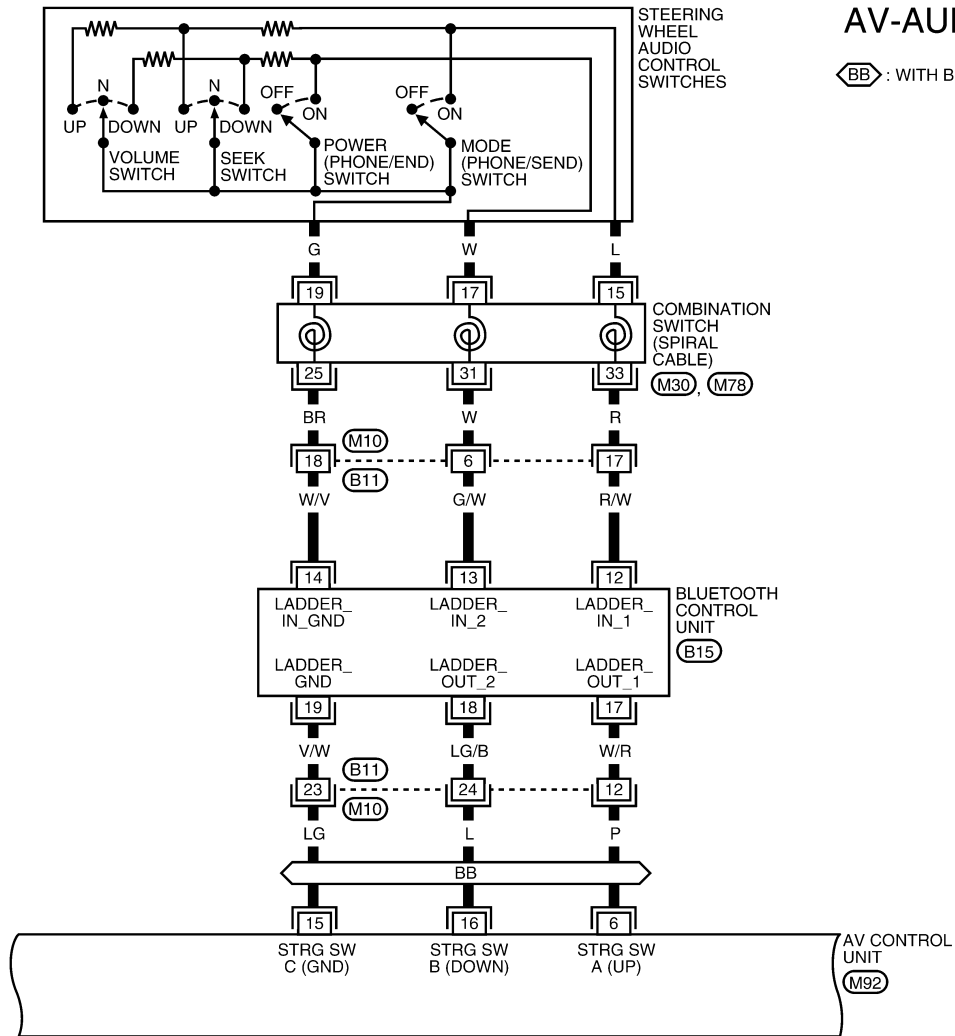
AUDIO

< SERVICE INFORMATION >

[AUDIO WITHOUT NAVIGATION]

AV-AUDIO-11

BB : WITH BLUETOOTH



* : THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT" OF PG SECTION.

ABNWA0920GB

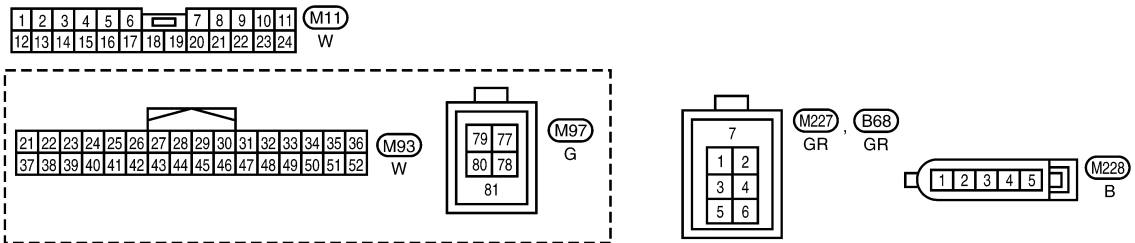
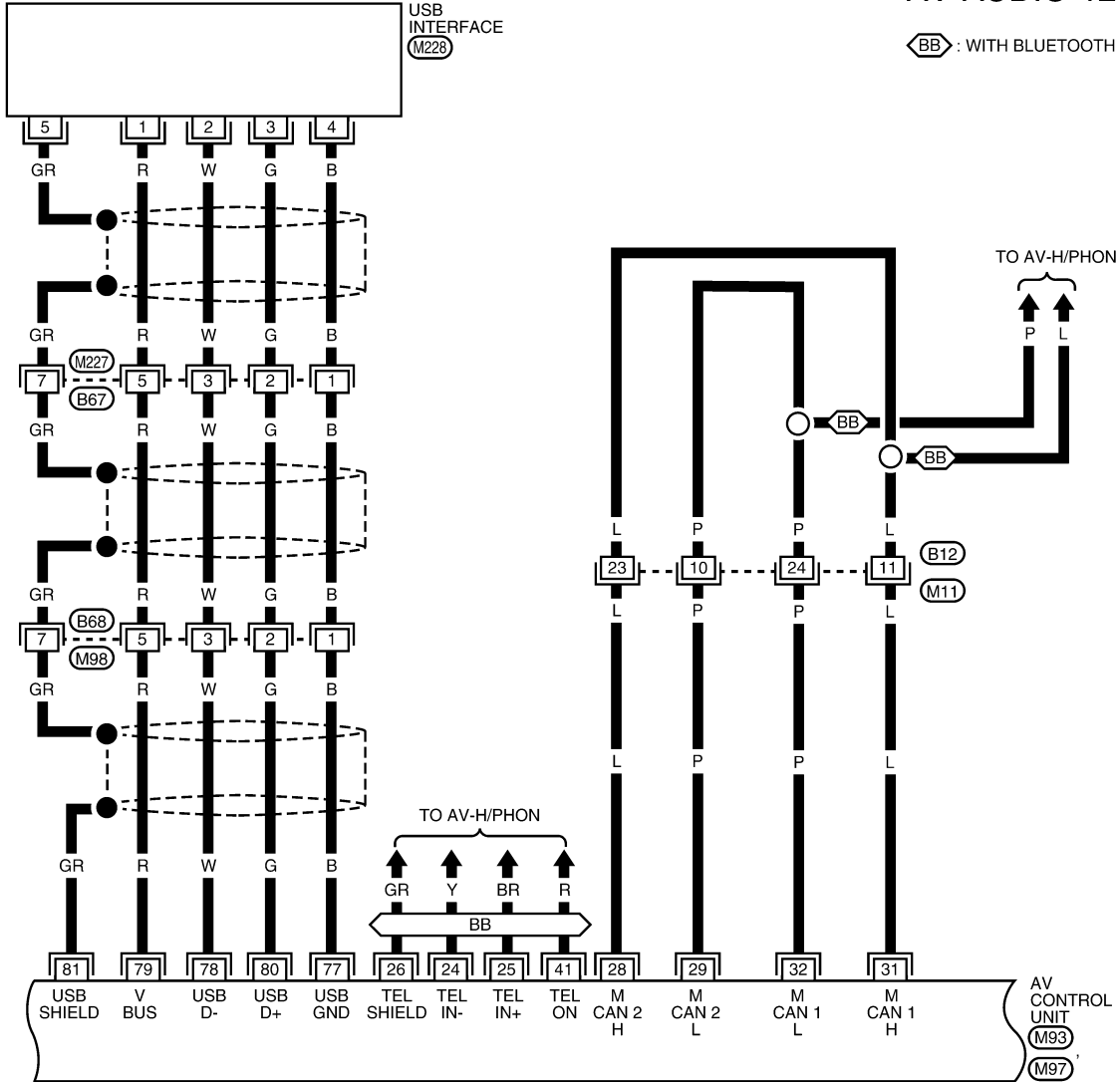
AUDIO

< SERVICE INFORMATION >

[AUDIO WITHOUT NAVIGATION]

AV-AUDIO-12

ⓑⓑ : WITH BLUETOOTH



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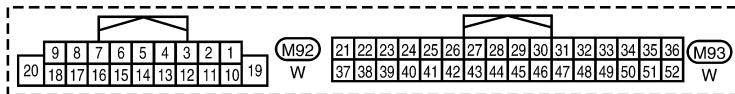
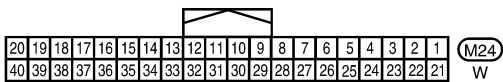
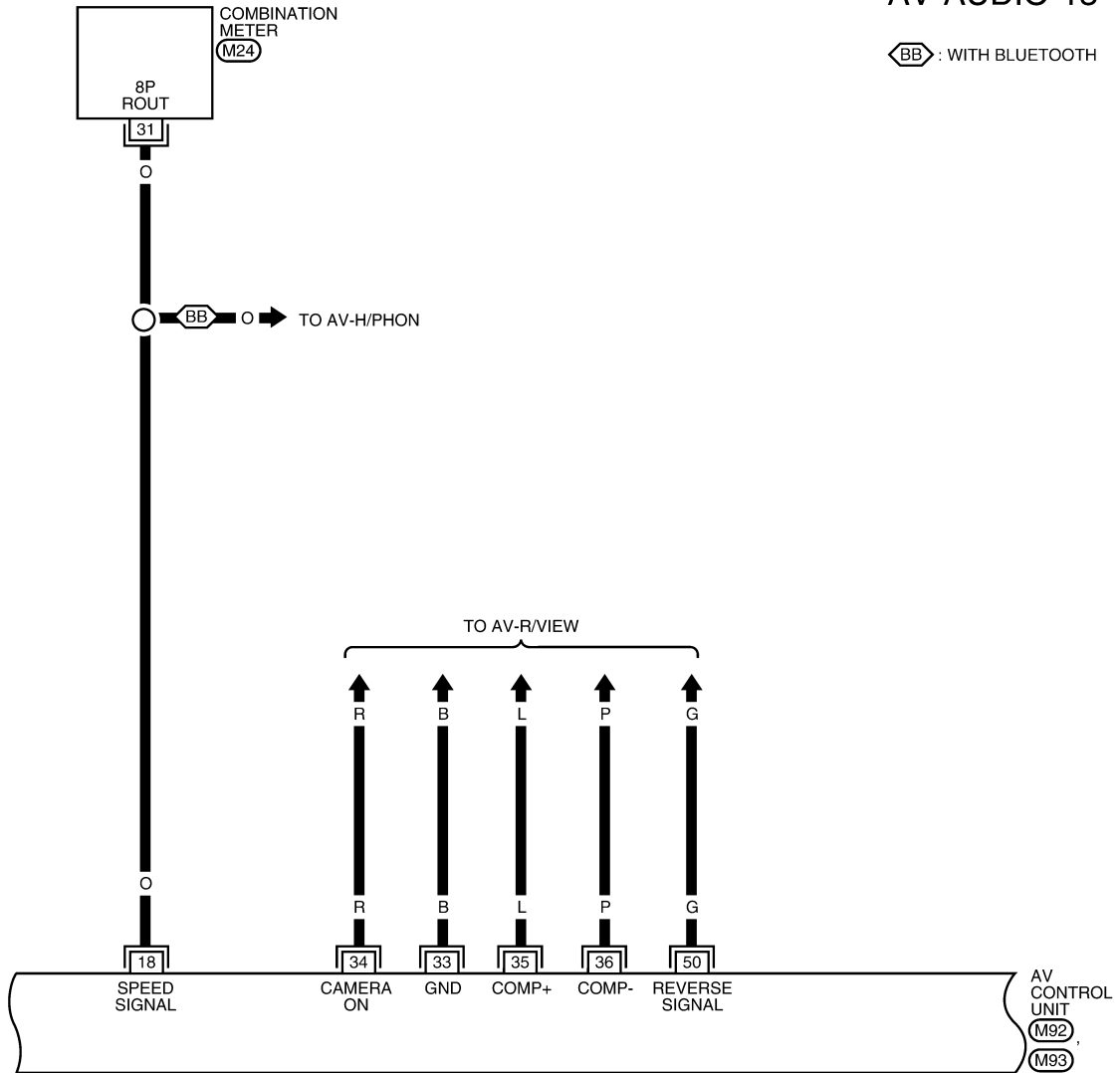
AUDIO

< SERVICE INFORMATION >

[AUDIO WITHOUT NAVIGATION]

AV-AUDIO-13

⬠BB⬠ : WITH BLUETOOTH



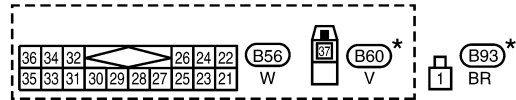
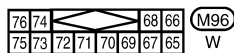
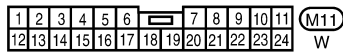
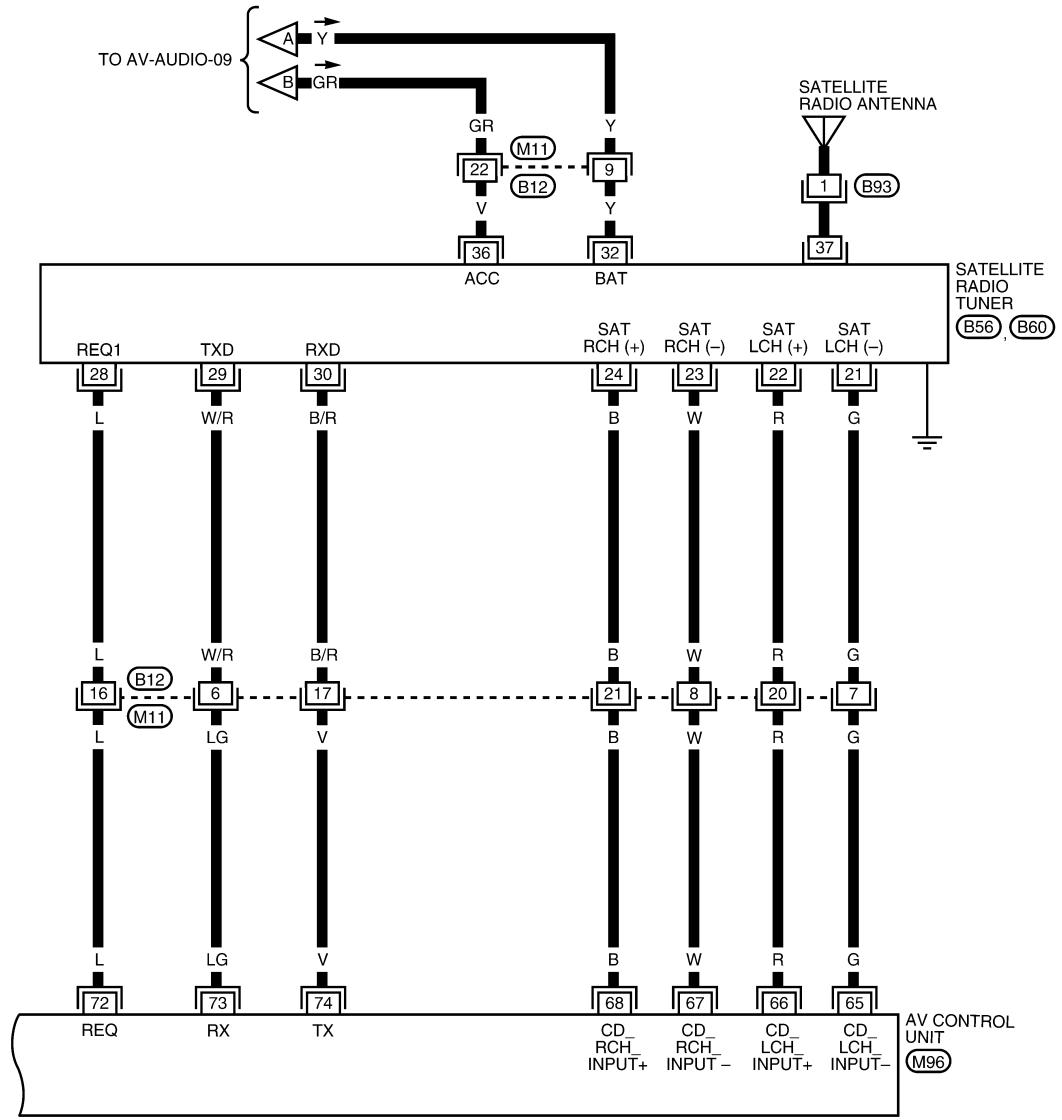
ABNWA0922GB

AUDIO

< SERVICE INFORMATION >

[AUDIO WITHOUT NAVIGATION]

AV-AUDIO-14



*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT" OF PG SECTION.

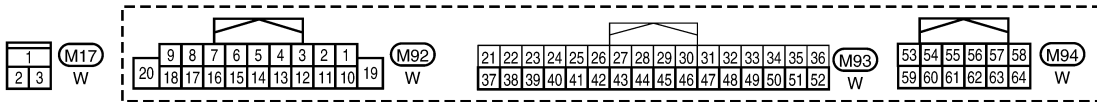
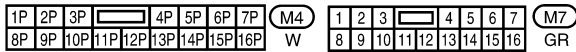
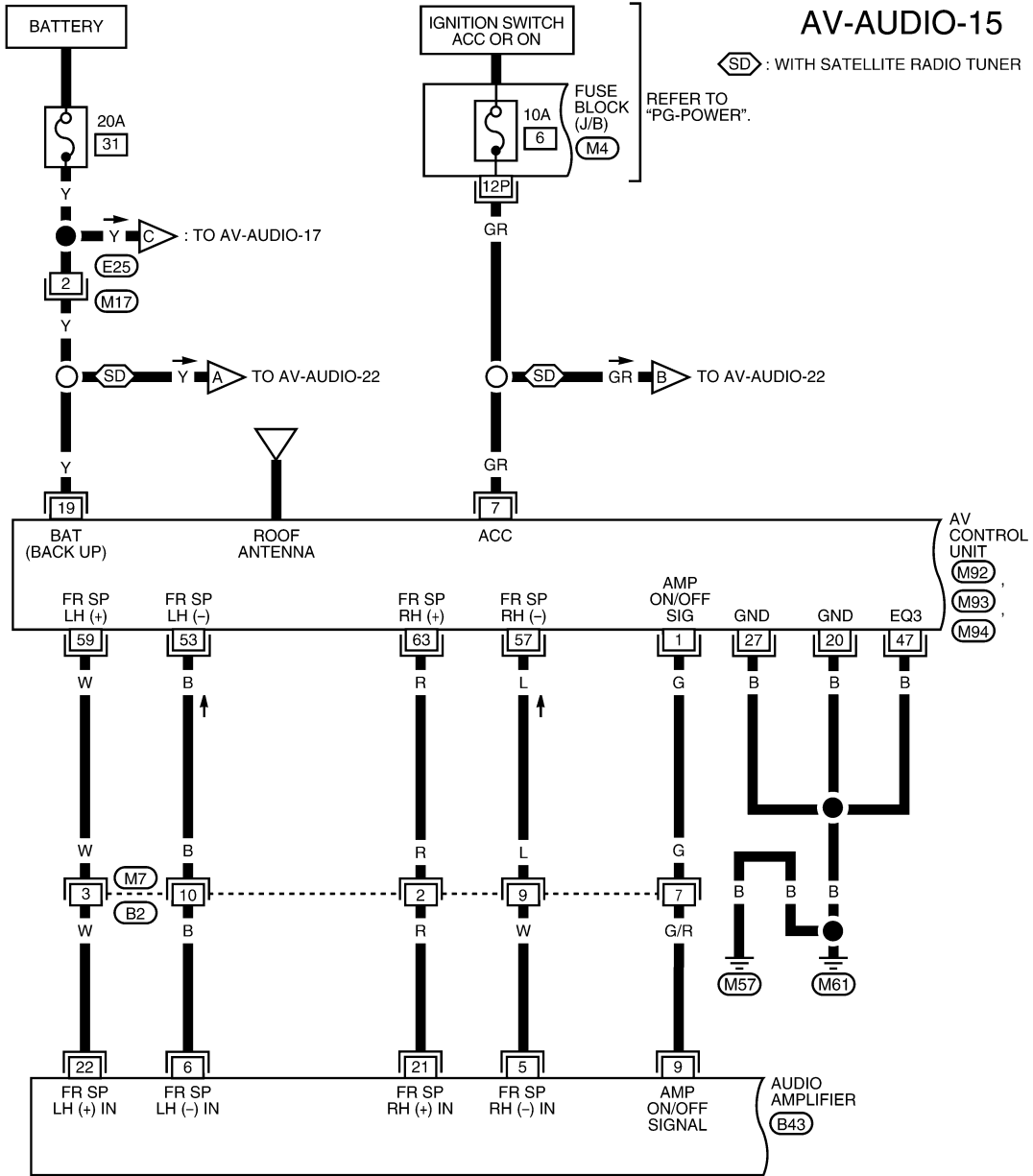
AANWA0433GB

AUDIO

< SERVICE INFORMATION >

[AUDIO WITHOUT NAVIGATION]

PREMIUM SYSTEM - WITH ROCKFORD FOSGATE

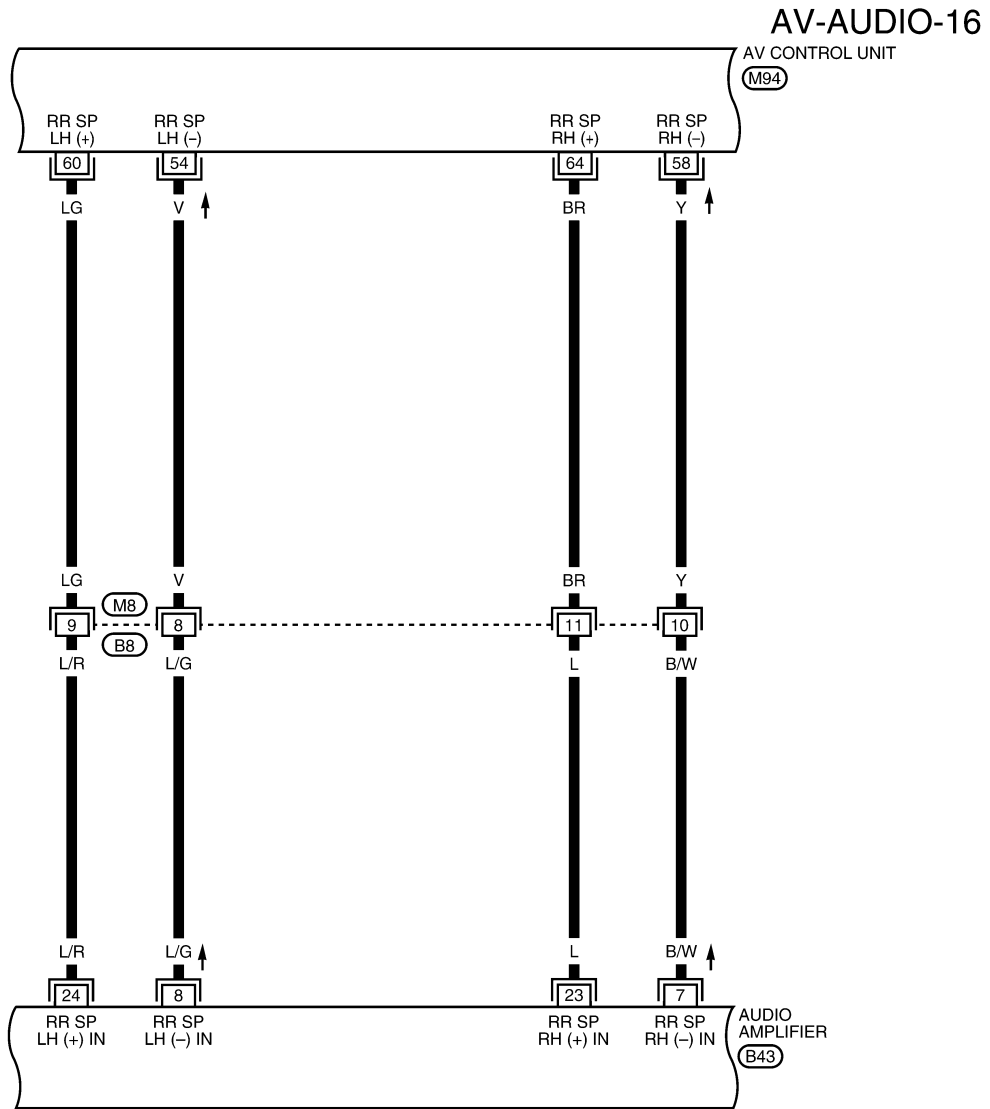


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AUDIO

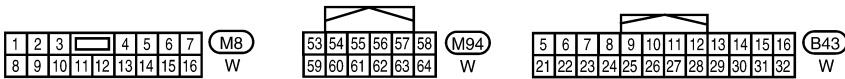
< SERVICE INFORMATION >

[AUDIO WITHOUT NAVIGATION]



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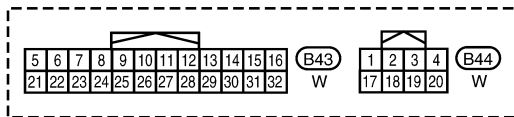
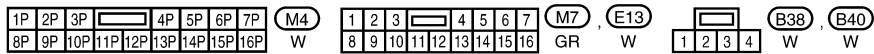
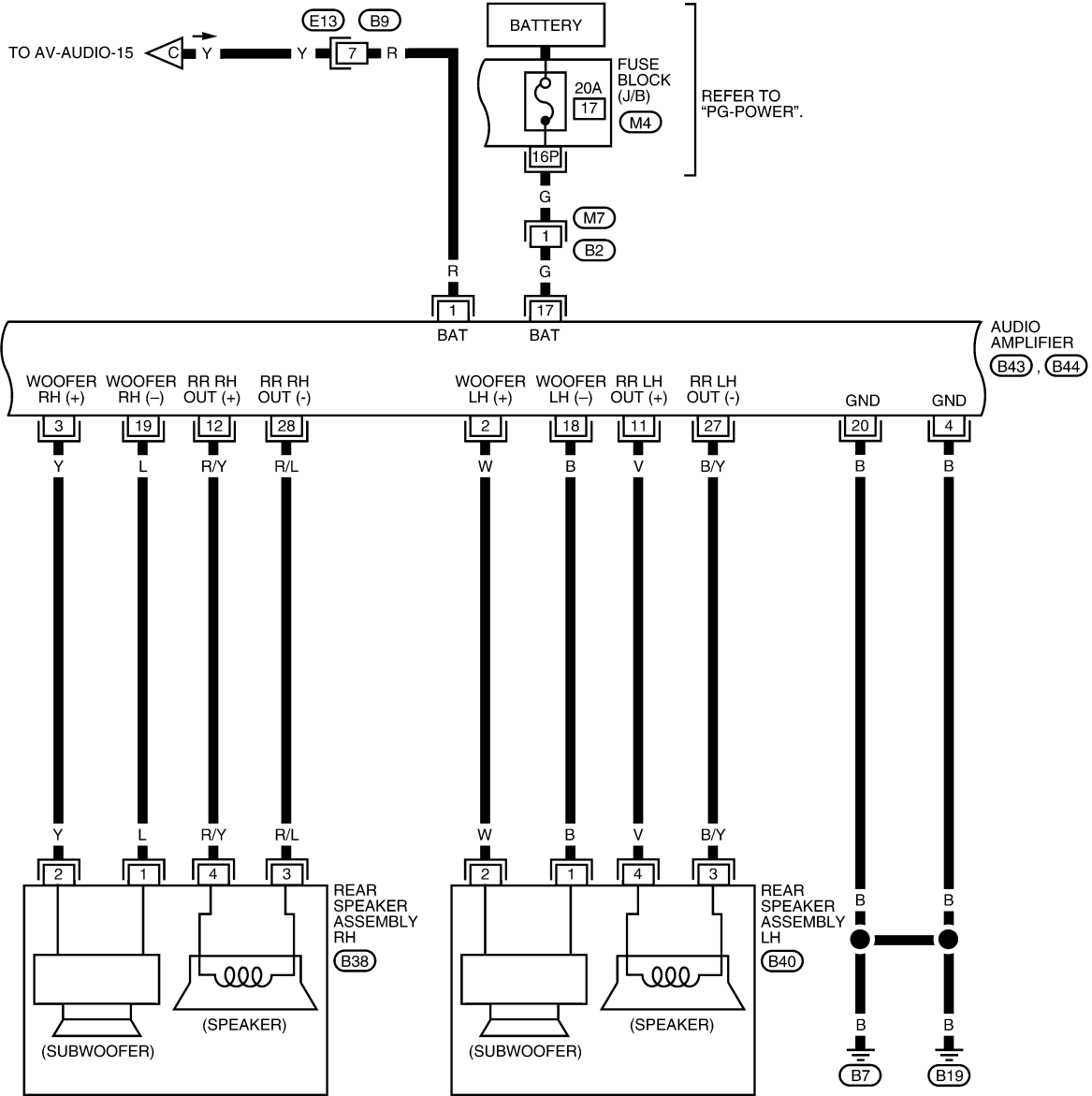
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AUDIO

< SERVICE INFORMATION >

[AUDIO WITHOUT NAVIGATION]

AV-AUDIO-17



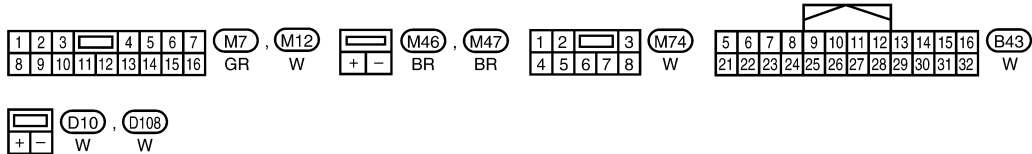
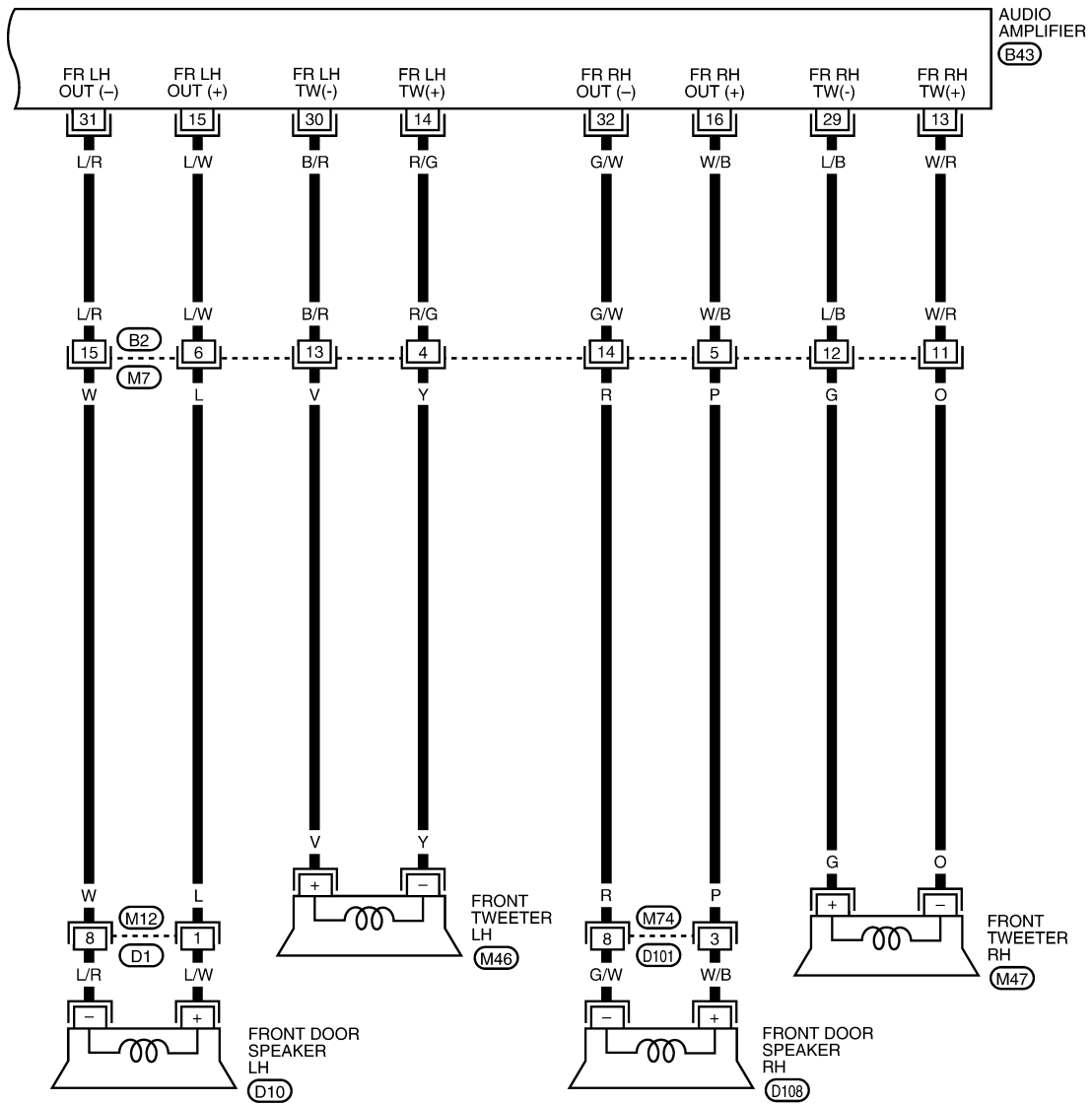
ABNWA0924GB

AUDIO

< SERVICE INFORMATION >

[AUDIO WITHOUT NAVIGATION]

AV-AUDIO-18



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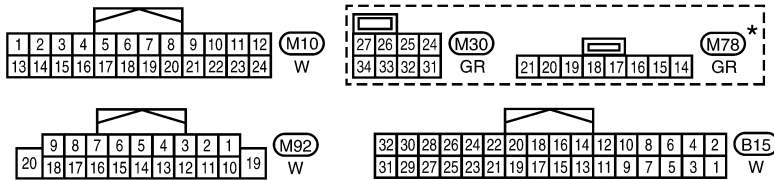
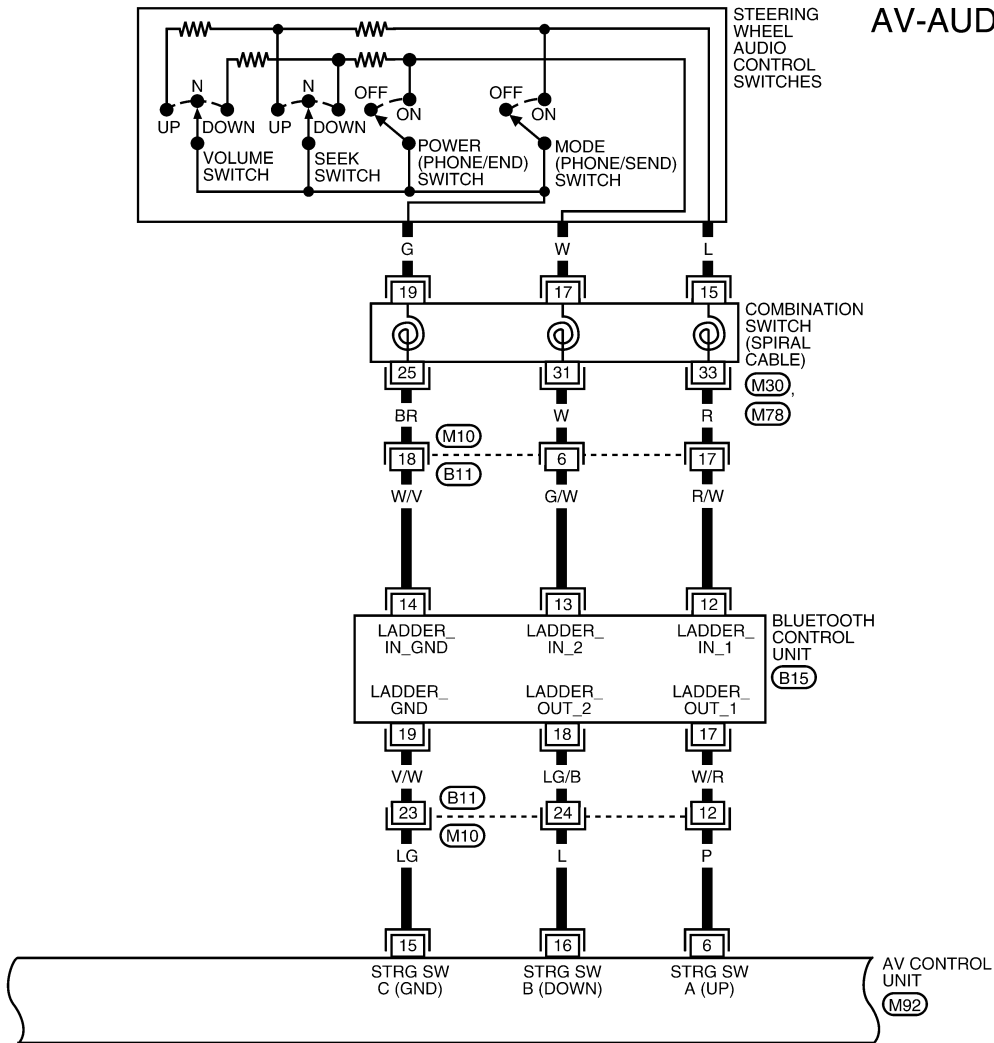
AV

AUDIO

< SERVICE INFORMATION >

[AUDIO WITHOUT NAVIGATION]

AV-AUDIO-19



* : THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT" OF PG SECTION.

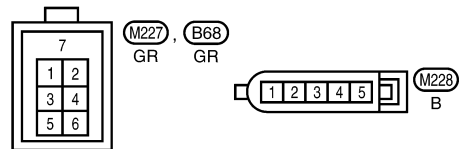
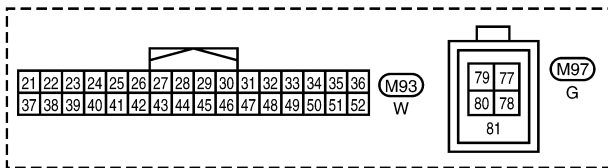
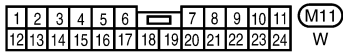
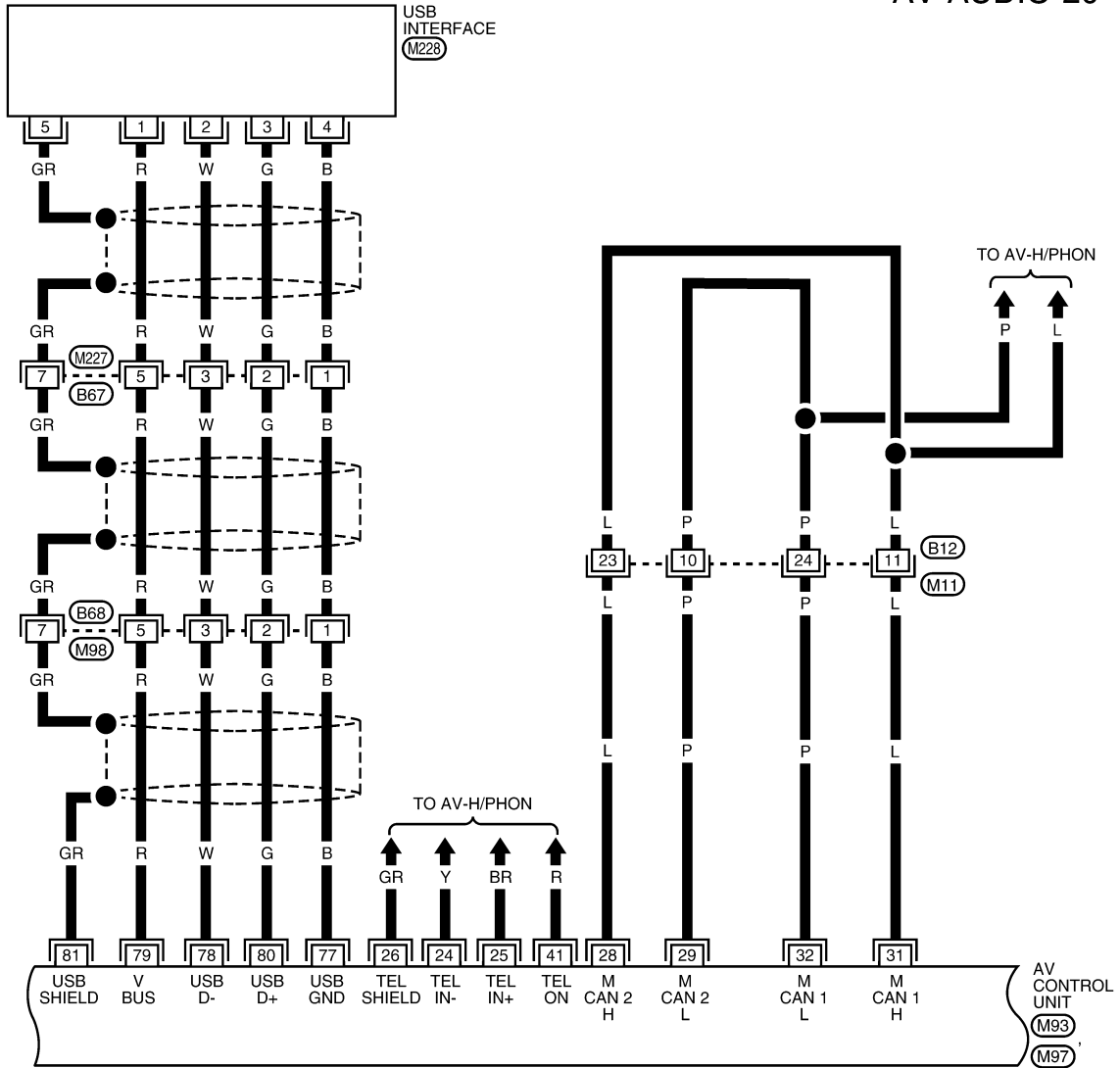
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AUDIO

< SERVICE INFORMATION >

[AUDIO WITHOUT NAVIGATION]

AV-AUDIO-20



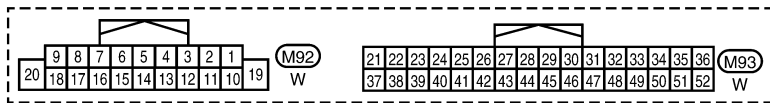
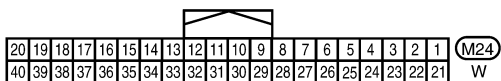
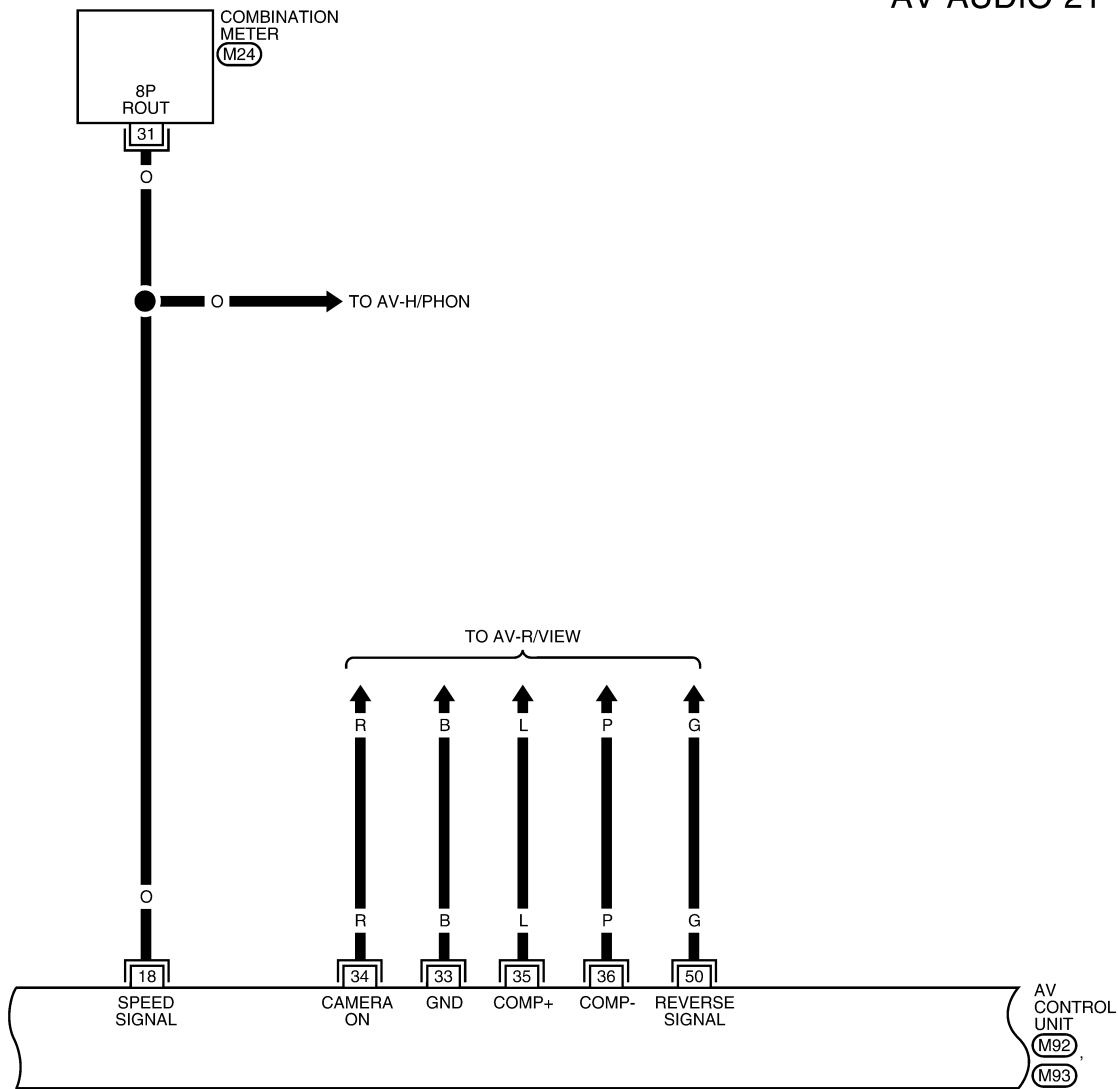
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AUDIO

< SERVICE INFORMATION >

[AUDIO WITHOUT NAVIGATION]

AV-AUDIO-21



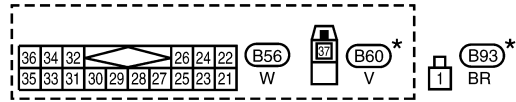
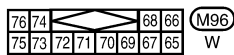
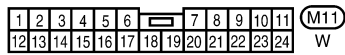
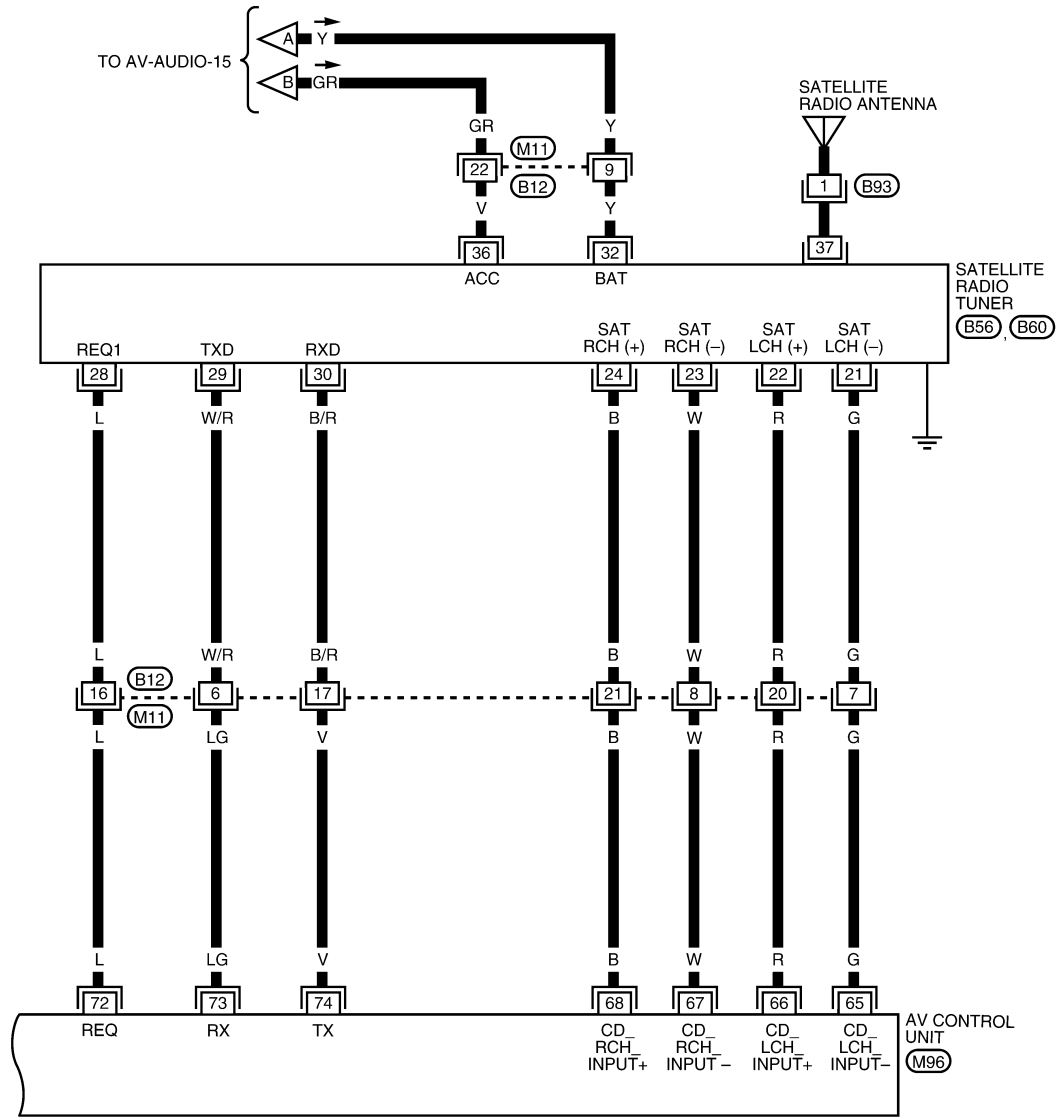
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AUDIO

< SERVICE INFORMATION >

[AUDIO WITHOUT NAVIGATION]

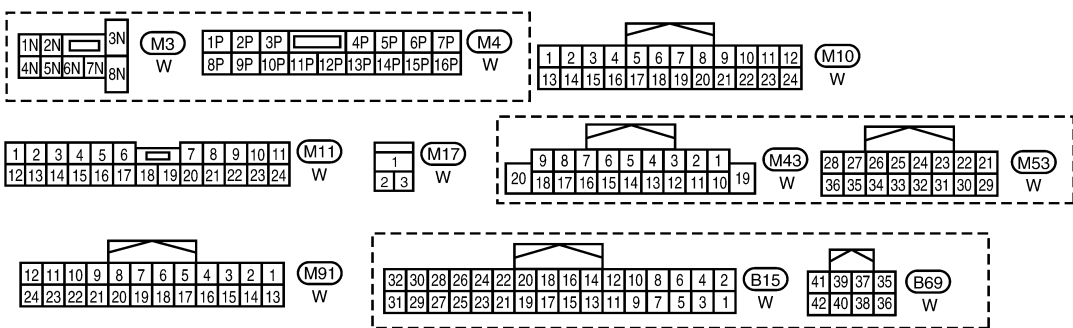
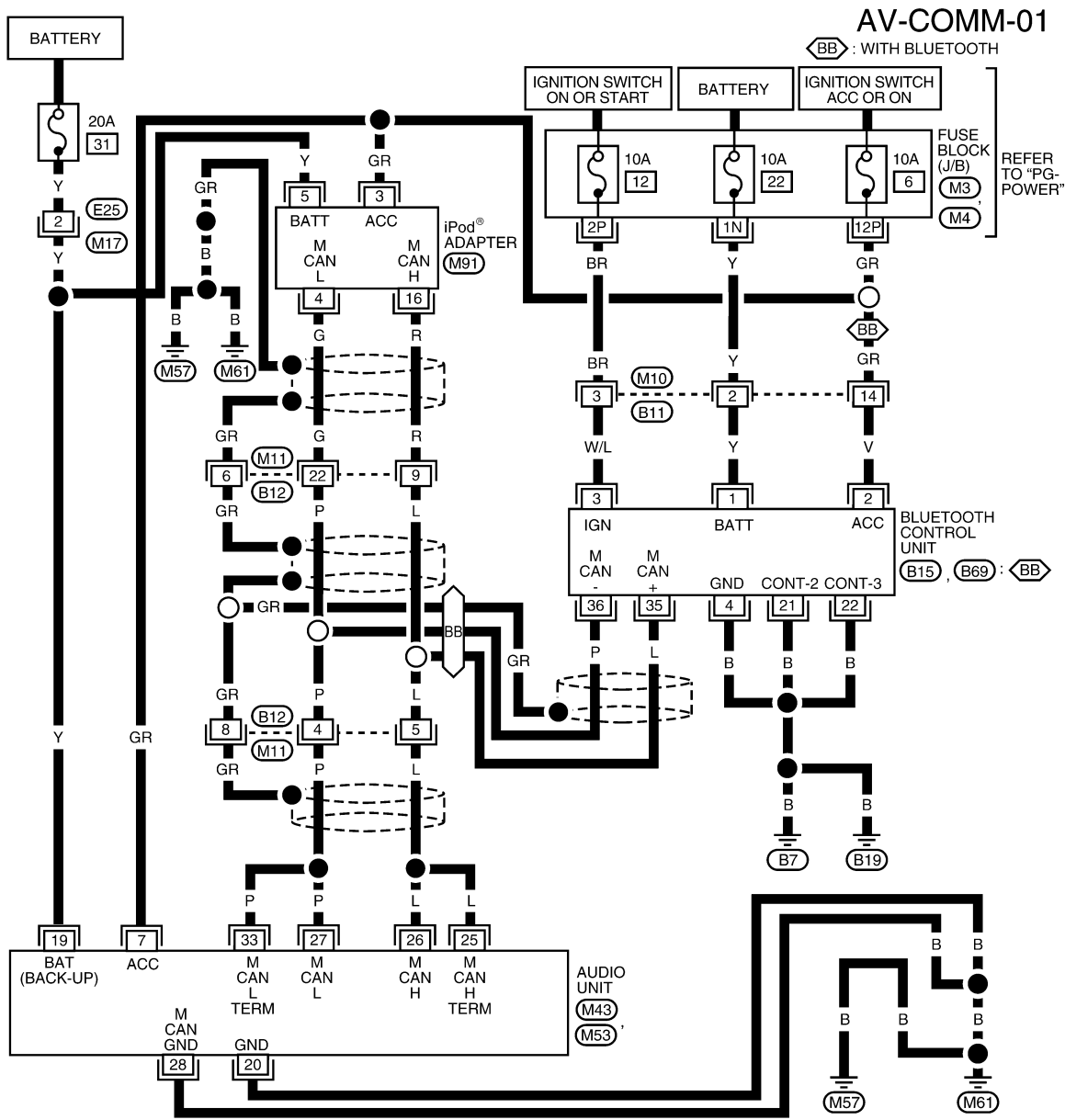
AV-AUDIO-22



*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT" OF PG SECTION.

AANWA0436GB

AV COMMUNICATION - WITH MID SYSTEM



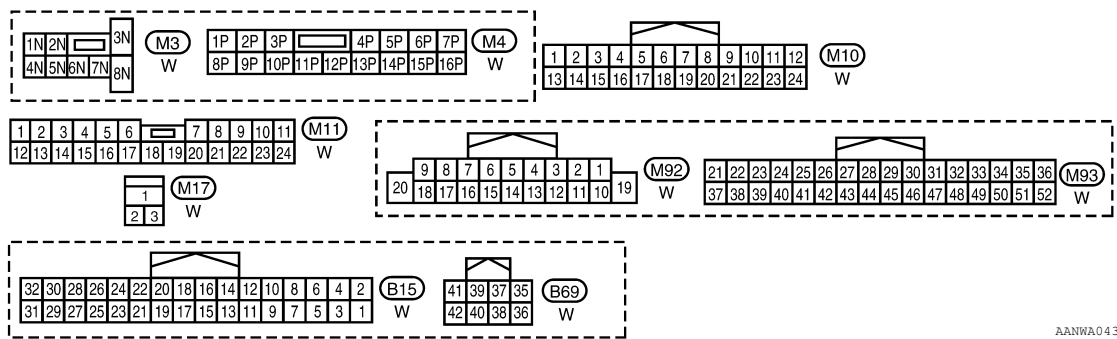
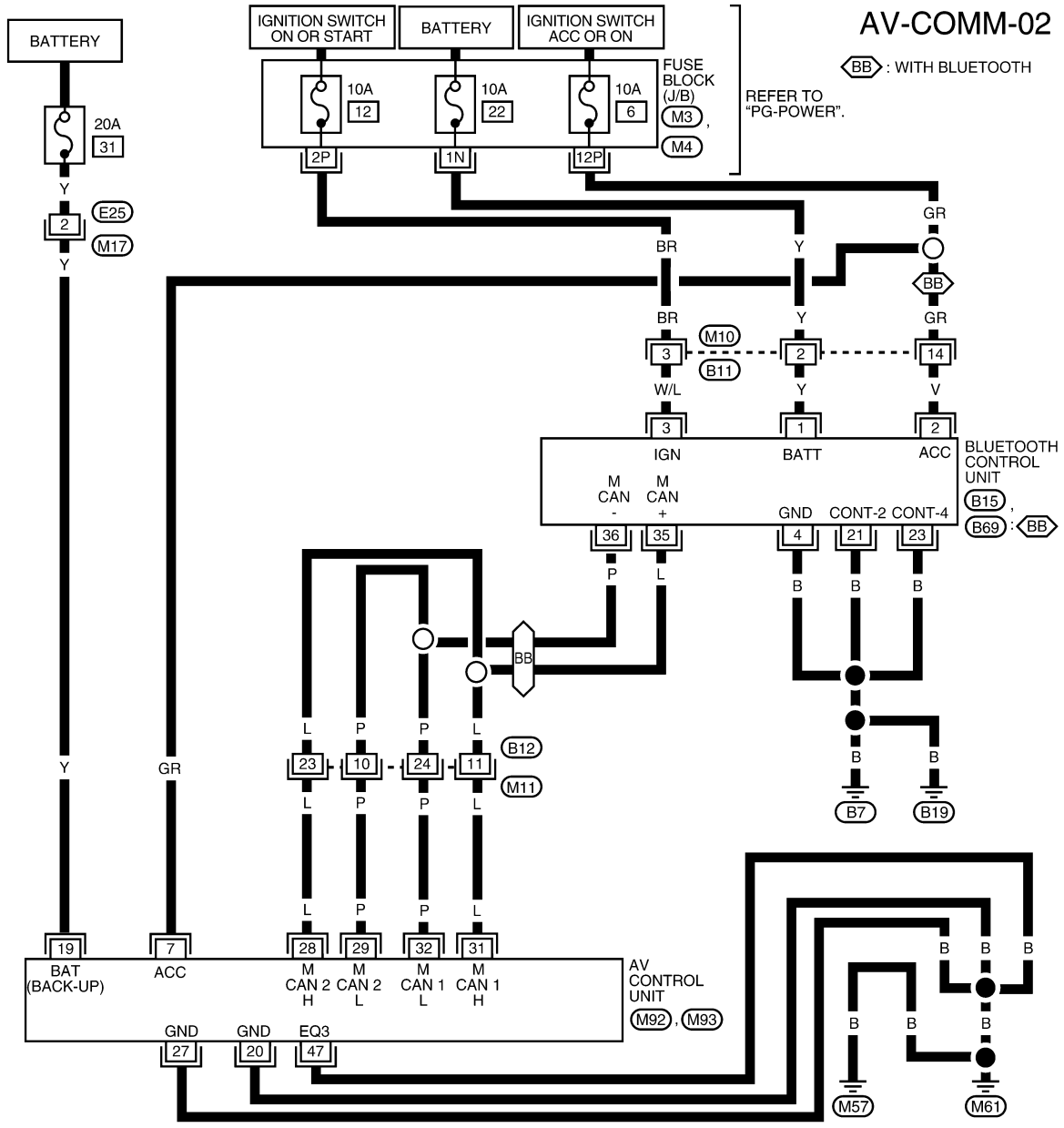
ABNWA0926GB

AUDIO

< SERVICE INFORMATION >

[AUDIO WITHOUT NAVIGATION]

AV COMMUNICATION - WITH PREMIUM SYSTEM



AANWA0437GB

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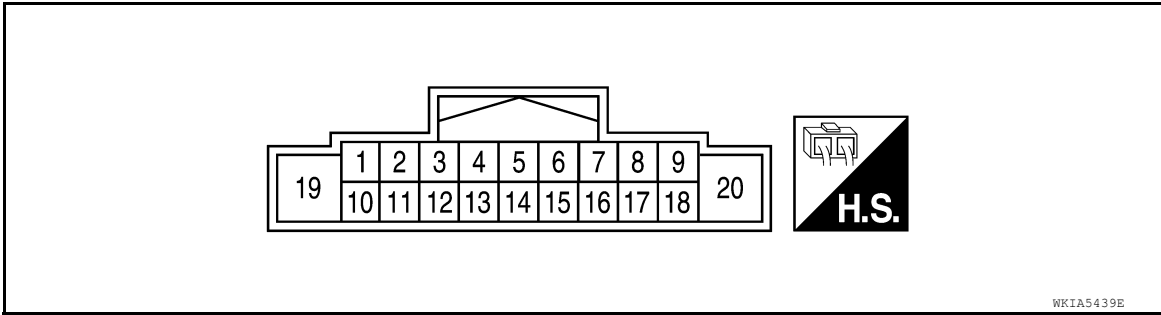
AUDIO

< SERVICE INFORMATION >

[AUDIO WITHOUT NAVIGATION]

Audio Unit (Base System) Harness Connector Terminal Layout

INFOID:000000007405503



Terminal and Reference Value for Audio Unit (Base System)

INFOID:000000007405504

Terminal (Wire color)		Item	Signal input/ output	Condition		Reference value (Approx.)
+	-			Ignition switch	Operation	
2 (L)	3 (W)	Audio signal front LH	Output	ON	Receive audio signal	<p style="text-align: right; font-size: small;">SKIB3609E</p>
4 (G)	5 (V)	Audio signal rear LH	Output	ON	Receive audio signal	<p style="text-align: right; font-size: small;">SKIB3609E</p>
7 (GR)	Ground	ACC power supply	Input	ACC	—	Battery voltage
11 (P)	12 (R)	Audio signal front RH	Output	ON	Receive audio signal	<p style="text-align: right; font-size: small;">SKIB3609E</p>
13 (L)	14 (Y)	Audio signal rear RH	Output	ON	Receive audio signal	<p style="text-align: right; font-size: small;">SKIB3609E</p>
19 (Y)	Ground	Battery power supply	Input	OFF	—	Battery voltage
20 (B)	Ground	Ground	—	ON	—	—

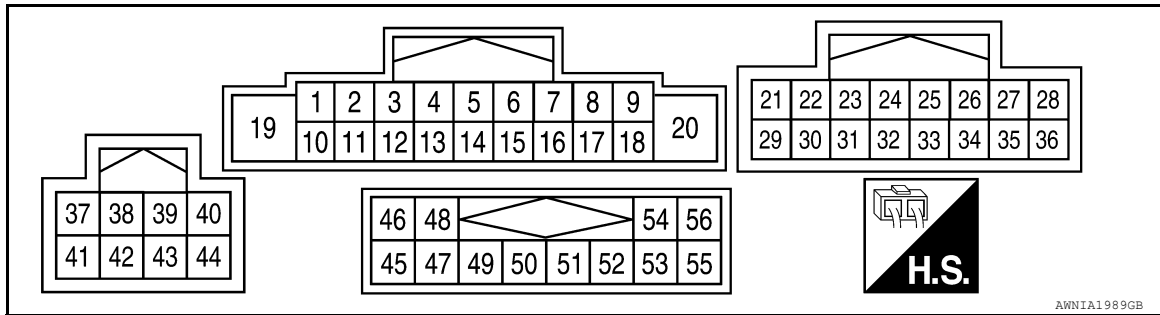
AUDIO

< SERVICE INFORMATION >

[AUDIO WITHOUT NAVIGATION]

Audio Unit (Mid System) Harness Connector Terminal Layout

INFOID:000000007405506



Terminal and Reference Value for Audio Unit (Mid System)

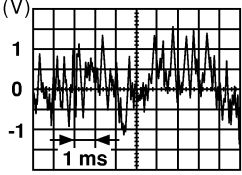
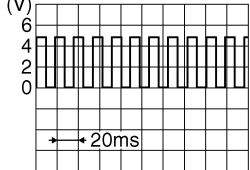
INFOID:000000007405506

Terminal (Wire color)		Item	Signal input/ output	Condition		Reference value (Approx.)	Example of symp- tom
+	-			Ignition switch	Operation		
2 (L)	3 (W)	Audio sound signal front LH	Output	ON	Receive audio signal	 SKIA0177E	No sound from front door speaker LH or tweeter LH.
4 (G)	5 (V)	Audio sound signal rear LH	Output	ON	Receive audio signal	 SKIA0177E	No sound from rear speaker LH.
6 (P)	Ground	Remote control A	Input	ON	Press Phone/ End switch	0V	Steering wheel au- dio controls do not function
					Press SEEK UP switch	1.7V	
					Press VOL UP switch	3.3V	
					Except for above	5.0V	
7 (GR)	Ground	ACC signal	Input	ON	Ignition switch ACC or ON	Battery voltage	System does not work properly.
11 (P)	12 (R)	Audio sound signal front RH	Output	ON	Receive audio signal	 SKIA0177E	No sound from front door speaker RH or tweeter RH.

AUDIO

< SERVICE INFORMATION >

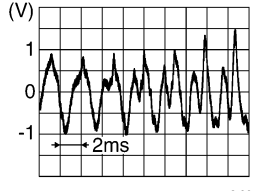
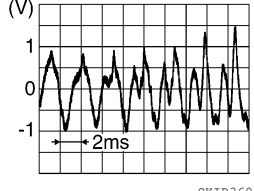
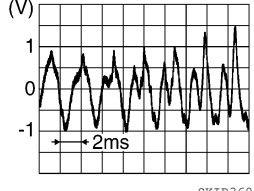
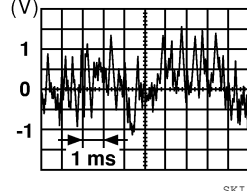
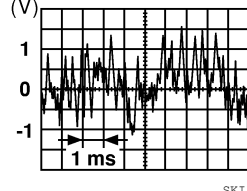
[AUDIO WITHOUT NAVIGATION]

Terminal (Wire color)		Item	Signal input/ output	Condition		Reference value (Approx.)	Example of symp- tom
+	-			Ignition switch	Operation		
13 (L)	14 (Y)	Audio sound signal rear RH	Output	ON	Receive audio signal	 <small>SKIA0177E</small>	No sound from rear speaker RH.
15 (LG)	—	Remote control ground	Input	—	—	—	Steering wheel au- dio controls do not function
16 (L)	Ground	Remote control B	Input	ON	Press Phone/ Send switch	0V	Steering wheel au- dio controls do not function
					Press SEEK DOWN switch	1.7V	
					Press VOL DOWN switch	3.3V	
					Except for above	5.0V	
18 (O)	Ground	Vehicle speed signal (8-pulse)	Input	ON	When vehicle speed is approx. 40 km/h (25 MPH)	 <small>SKIA6649J</small>	Ground
19 (Y)	Ground	Battery pow- er	Input	—	—	Battery voltage	System does not work properly.
20 (B)	Ground	Ground	—	—	—	—	—
25 (L)	—	AV commu- nication sig- nal 1 (H)	Input/ Output	—	—	—	—
26 (L)	—	AV commu- nication sig- nal 1 (H)	Input/ Output	—	—	—	—
27 (P)	—	AV commu- nication sig- nal 1 (L)	Input/ Output	—	—	—	—
28 (B)	Ground	Ground	—	—	—	—	—
32 (R)	Ground	TEL ON sig- nal	Output	ON	—	—	—
33 (P)	—	AV commu- nication sig- nal 1 (L)	Input/ Output	—	—	—	—

AUDIO

< SERVICE INFORMATION >

[AUDIO WITHOUT NAVIGATION]

Terminal (Wire color)		Item	Signal input/ output	Condition		Reference value (Approx.)	Example of symp- tom
+	-			Ignition switch	Operation		
34 (BR)	35 (Y)	TEL voice audio signal	Input	ON	Start confirma- tion/adjustment mode, and then Voice Micro- phone Test by selecting "Voice Microphone Test" on Hands- free Microphone screen.		—
36 (GR)	—	Shield	—	—	—	—	—
37 (G)	41 (W)	iPod® au- dio signal LH	Input	ON	With iPod® op- erating		—
39 (L)	43 (R)	iPod® au- dio signal RH	Input	ON	With iPod® op- erating		—
44 (GR)	—	Shield	—	—	—	—	—
46 (R)	45 (G)	Audio left channel sound signal from satel- lite radio tuner	Input	ON	Receive audio signal		No sound from satel- lite radio tuner left channel.
48 (B)	47 (W)	Audio right channel sound signal from satel- lite radio tuner	Input	ON	Receive audio signal		No sound from satel- lite radio tuner right channel.
52 (L)	Ground	Satellite ra- dio tuner re- quest to audio unit	Input	ON	Turn audio unit ON	5V	Satellite radio tuner does not oper- ate properly.

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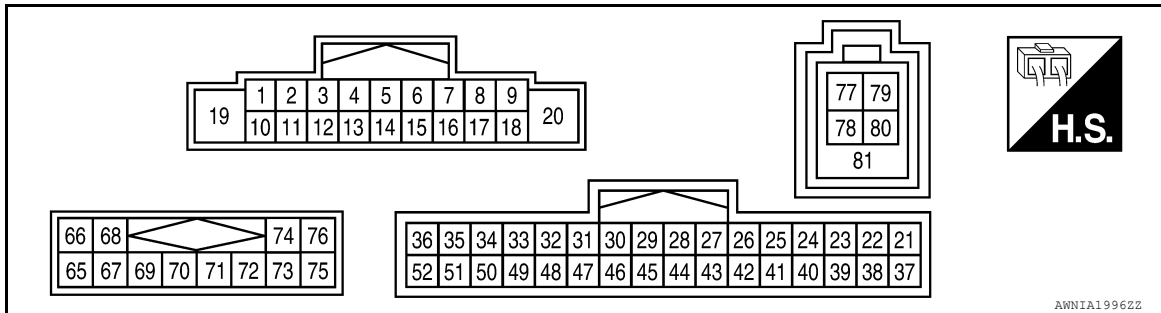
< SERVICE INFORMATION >

[AUDIO WITHOUT NAVIGATION]

Terminal (Wire color)		Item	Signal input/ output	Condition		Reference value (Approx.)	Example of symp- tom
+	-			Ignition switch	Operation		
53 (LG)	Ground	Audio RX	Input	ON	Receive data		Satellite radio tuner audio information does not display properly.
54 (V)	Ground	Audio TX	Output	ON	Transmit data		Satellite radio tuner audio information does not display properly.

AV Control Unit (Premium System without Rockford Fosgate) Harness Connector Terminal Layout

INFOID:000000007405507



Terminal and Reference Value for AV Control Unit (Premium System without Rockford Fosgate)

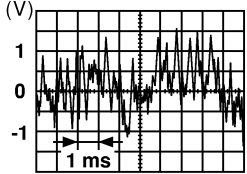
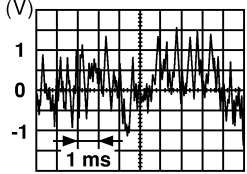
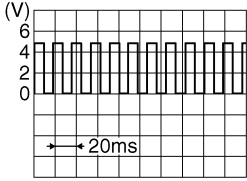
INFOID:000000007405508

Terminal (Wire color)		Item	Signal input/ output	Condition		Reference value (Approx.)	Example of symp- tom
+	-			Ignition switch	Operation		
2 (L)	3 (W)	Audio sound signal front LH	Output	ON	Receive audio signal		No sound from front door speaker LH or tweeter LH.
4 (G)	5 (V)	Audio sound signal rear LH	Output	ON	Receive audio signal		No sound from rear speaker LH.

AUDIO

< SERVICE INFORMATION >

[AUDIO WITHOUT NAVIGATION]

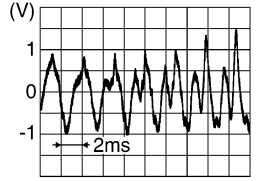
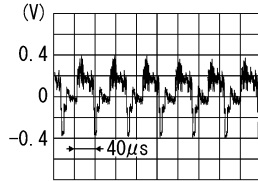
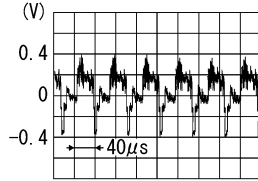
Terminal (Wire color)		Item	Signal input/ output	Condition		Reference value (Approx.)	Example of symp- tom
+	-			Ignition switch	Operation		
6 *1 (P)	Ground	Remote control A	Input	ON	Press Phone/ End switch	0V	Steering wheel au- dio controls do not function
					Press SEEK UP switch	1.7V	
					Press VOL UP switch	3.3V	
					Except for above	5.0V	
7 (GR)	Ground	ACC signal	Input	ON	Ignition switch ACC or ON	Battery voltage	System does not work properly.
11 (P)	12 (R)	Audio sound signal front RH	Output	ON	Receive audio signal	 <small>SKIA0177E</small>	No sound from front door speaker RH or tweeter RH.
13 (L)	14 (Y)	Audio sound signal rear RH	Output	ON	Receive audio signal	 <small>SKIA0177E</small>	No sound from rear speaker RH.
15 *1 (LG)	—	Remote control ground	Input	—	—	—	Steering wheel au- dio controls do not function
16 *1 (L)	Ground	Remote control B	Input	ON	Press Phone/ Send switch	0V	Steering wheel au- dio controls do not function
					Press SEEK DOWN switch	1.7V	
					Press VOL DOWN switch	3.3V	
					Except for above	5.0V	
18 (O)	Ground	Vehicle speed signal (8-pulse)	Input	ON	When vehicle speed is approx. 40 km/h (25 MPH)	 <small>SKIA6649J</small>	Ground
19 (Y)	Ground	Battery pow- er	Input	—	—	Battery voltage	System does not work properly.
20 (B)	Ground	Ground	—	ON	—	—	—

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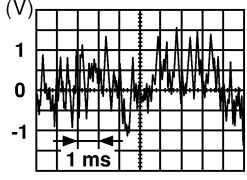
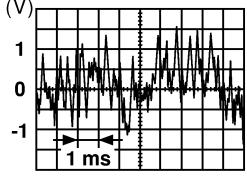
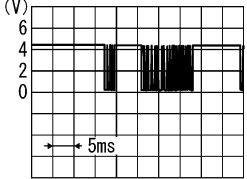
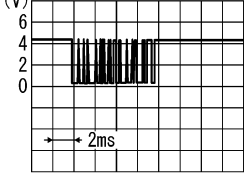
[AUDIO WITHOUT NAVIGATION]

Terminal (Wire color)		Item	Signal input/ output	Condition		Reference value (Approx.)	Example of symp- tom
+	-			Ignition switch	Operation		
25 *1 (BR)	24 *1 (Y)	TEL voice audio signal	Input	ON	Start confirma- tion/adjustment mode, and then Voice Micro- phone Test by selecting "Voice Microphone Test" on Hands- free Microphone screen.	 SKIB3609E	TEL voice audio signal
26 *1 (GR)	—	Shield	—	—	—	—	—
27 (B)	Ground	Ground	—	ON	—	—	—
28 (L)	—	AV commu- nication sig- nal 1 (H)	Input/ Output	—	—	—	—
29 (P)	—	AV commu- nication sig- nal 1 (L)	Input/ Output	—	—	—	—
31 (L)	—	AV commu- nication sig- nal 1 (H)	Input/ Output	—	—	—	—
32 (P)	—	AV commu- nication sig- nal 1 (L)	Input/ Output	—	—	—	—
33 (B)	Ground	Rear view camera ground sig- nal	—	—	—	—	Ground
34 (R)	Ground	Rear view camera ON signal	Output	ON	Shift selector is in R position	6V	Ground
35 (L)	Ground	Rear view camera vid- eo in (+)	Input	ON	With rear view camera ON	 SKIB2251J	Ground
36 (P)	Ground	Rear view camera vid- eo in (-)	Input	ON	With rear view camera ON	 SKIB2251J	Ground
41 *1 (R)	Ground	TEL ON sig- nal	Output	ON	—	—	—
47 (B)	Ground	Ground	—	ON	—	—	—
50 (G)	Ground	Reverse sig- nal	Input	ON	R position	Battery voltage	Ground
						Other than R position	0V

AUDIO

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[AUDIO WITHOUT NAVIGATION]

Terminal (Wire color)		Item	Signal input/ output	Condition		Reference value (Approx.)	Example of symp- tom
+	-			Ignition switch	Operation		
66 (R)	65 (G)	Audio left channel sound signal from satel- lite radio tuner	Input	ON	Receive audio signal	 <small>SKIA0177E</small>	No sound from sat- ellite radio tuner left channel.
68 (B)	67 (W)	Audio right channel sound signal from satel- lite radio tuner	Input	ON	Receive audio signal	 <small>SKIA0177E</small>	No sound from sat- ellite radio tuner right channel.
72 (L)	Ground	Satellite ra- dio tuner re- quest to audio unit	Input	ON	Turn audio unit ON	5V	Satellite radio tuner does not oper- ate properly.
73 (LG)	Ground	Audio RX	Input	ON	Receive data	 <small>SKIA4403E</small>	Satellite radio tuner audio informa- tion does not display properly.
74 (V)	Ground	Audio TX	Output	ON	Transmit data	 <small>SKIA4402E</small>	Satellite radio tuner audio informa- tion does not display properly.
77 (B)	—	USB ground	—	—	—	—	—
78 (W)	—	USB D-	—	—	—	—	—
79 (R)	—	USB V BUS signal	—	—	—	—	—
80 (G)	—	USB D+	—	—	—	—	—
81 (GR)	—	SHIELD	—	—	—	—	—

*1 With Bluetooth

AV Control Unit (Premium System with Rockford Fosgate) Harness Connector Termi-

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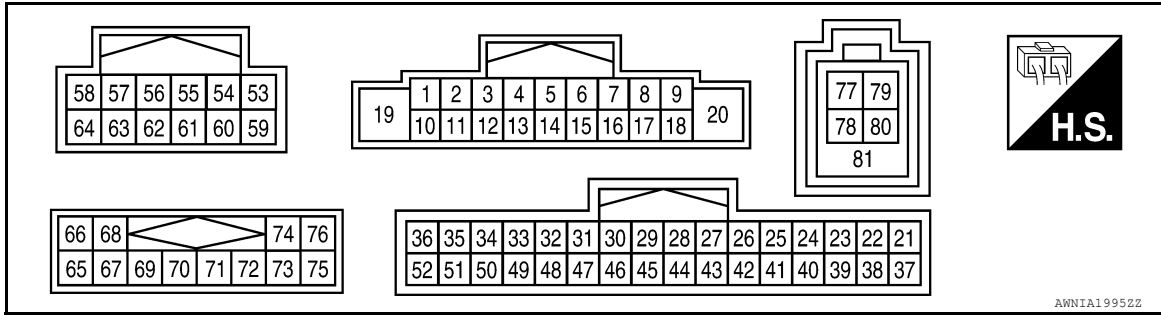
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[AUDIO WITHOUT NAVIGATION]

Terminal Layout

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Terminal and Reference Value for AV Control Unit (Premium System with Rockford Fosgate)

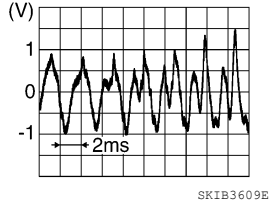
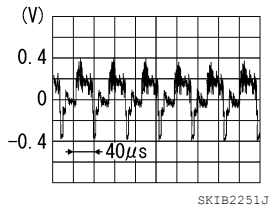
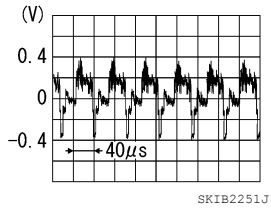
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Terminal (Wire color)		Item	Signal input/ output	Condition		Reference value (Approx.)	Example of symp- tom
+	-			Ignition switch	Operation		
1 (G)	Ground	Amp. ON/ OFF signal	Output	ON	—	More than 6.5V	Audio amplifier does not work properly.
6 (P)	Ground	Remote control A	Input	ON	Press Phone/ End switch	0V	Steering wheel au- dio controls do not function
					Press SEEK UP switch	1.7V	
					Press VOL UP switch	3.3V	
					Except for above	5.0V	
7 (GR)	Ground	ACC signal	Input	ON	Ignition switch ACC or ON	Battery voltage	System does not work properly.
15 (LG)	—	Remote control ground	Input	—	—	—	Steering wheel au- dio controls do not function
16 (L)	Ground	Remote control B	Input	ON	Press Phone/ Send switch	0V	Steering wheel au- dio controls do not function
					Press SEEK DOWN switch	1.7V	
					Press VOL DOWN switch	3.3V	
					Except for above	5.0V	
18 (O)	Ground	Vehicle speed signal (8-pulse)	Input	ON	When vehicle speed is approx. 40 km/h (25 MPH)		Ground
19 (Y)	Ground	Battery pow- er	Input	—	—	Battery voltage	System does not work properly.
20 (B)	Ground	Ground	—	ON	—	—	—

AUDIO

< SERVICE INFORMATION >

[AUDIO WITHOUT NAVIGATION]

Terminal (Wire color)		Item	Signal input/ output	Condition		Reference value (Approx.)	Example of symp- tom
+	-			Ignition switch	Operation		
25 (BR)	24 (Y)	TEL voice audio signal	Input	ON	Start confirma- tion/adjustment mode, and then Voice Micro- phone Test by selecting "Voice Microphone Test" on Hands- free Microphone screen.		TEL voice audio signal
26 (GR)	—	Shield	—	—	—	—	—
27 (B)	Ground	Ground	—	ON	—	—	—
28 (L)	—	AV commu- nication sig- nal 1 (H)	Input/ Output	—	—	—	—
29 (P)	—	AV commu- nication sig- nal 1 (L)	Input/ Output	—	—	—	—
31 (L)	—	AV commu- nication sig- nal 1 (H)	Input/ Output	—	—	—	—
32 (P)	—	AV commu- nication sig- nal 1 (L)	Input/ Output	—	—	—	—
33 (B)	Ground	Rear view camera ground sig- nal	—	—	—	—	Ground
34 (R)	Ground	Rear view camera ON signal	Output	ON	Shift selector is in R position	6V	Ground
35 (L)	Ground	Rear view camera vid- eo in (+)	Input	ON	With rear view camera ON		Ground
36 (P)	Ground	Rear view camera vid- eo in (-)	Input	ON	With rear view camera ON		Ground
41 (R)	Ground	TEL ON sig- nal	Output	ON	—	—	—
47 (B)	Ground	Ground	—	ON	—	—	—
50 (G)	Ground	Reverse sig- nal	Input	ON	R position	Battery voltage	Ground
						Other than R position	0V

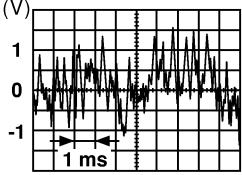
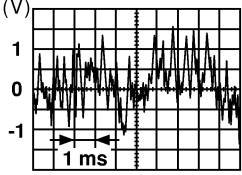
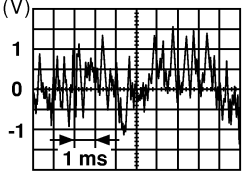
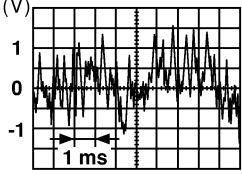
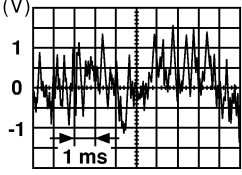
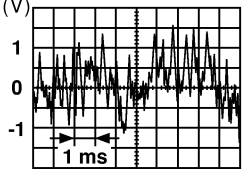
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[AUDIO WITHOUT NAVIGATION]

Terminal (Wire color)		Item	Signal input/ output	Condition		Reference value (Approx.)	Example of symp- tom
+	-			Ignition switch	Operation		
59 (W)	53 (B)	Audio sound signal front LH	Output	ON	Receive audio signal	 <small>SKIA0177E</small>	No sound from front door speaker LH or tweeter LH.
60 (LG)	54 (V)	Audio sound signal rear LH	Output	ON	Receive audio signal	 <small>SKIA0177E</small>	No sound from rear speaker as- sembly LH.
63 (R)	57 (L)	Audio sound signal front RH	Output	ON	Receive audio signal	 <small>SKIA0177E</small>	No sound from front door speaker RH or tweeter RH.
64 (BR)	58 (Y)	Audio sound signal rear RH	Output	ON	Receive audio signal	 <small>SKIA0177E</small>	No sound from rear speaker as- sembly RH.
66 (R)	65 (G)	Audio left channel sound signal from satel- lite radio tuner	Input	ON	Receive audio signal	 <small>SKIA0177E</small>	No sound from sat- ellite radio tuner left channel.
68 (B)	67 (W)	Audio right channel sound signal from satel- lite radio tuner	Input	ON	Receive audio signal	 <small>SKIA0177E</small>	No sound from sat- ellite radio tuner right channel.
72 (L)	Ground	Satellite ra- dio tuner re- quest to audio unit	Input	ON	Turn audio unit ON	5V	Satellite radio tun- er does not oper- ate properly.

AUDIO

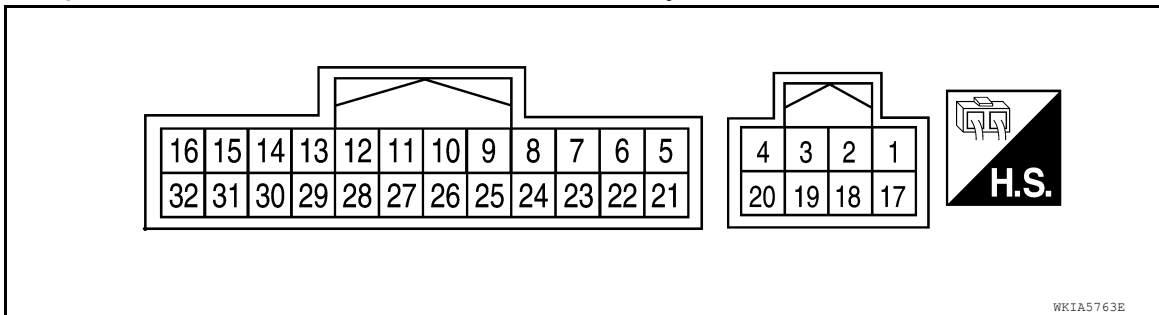
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[AUDIO WITHOUT NAVIGATION]

Terminal (Wire color)		Item	Signal input/output	Condition		Reference value (Approx.)	Example of symptom
+	-			Ignition switch	Operation		
73 (LG)	Ground	Audio RX	Input	ON	Receive data	 SKIA4403E	Satellite radio tuner audio information does not display properly.
74 (V)	Ground	Audio TX	Output	ON	Transmit data	 SKIA4402E	Satellite radio tuner audio information does not display properly.
77 (B)	—	USB ground	—	—	—	—	—
78 (W)	—	USB D-	—	—	—	—	—
79 (R)	—	USB V BUS signal	—	—	—	—	—
80 (G)	—	USB D+	—	—	—	—	—
81 (GR)	—	SHIELD	—	—	—	—	—

Audio Amplifier Harness Connector Terminal Layout

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Terminal and Reference Value for Audio Amplifier

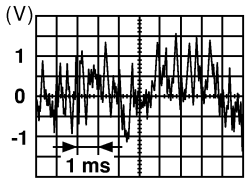
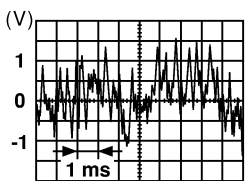
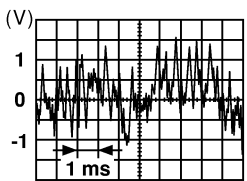
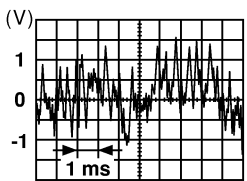
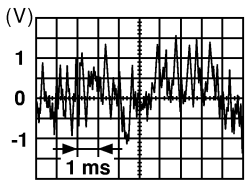
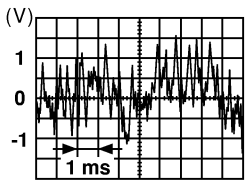
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Terminal (wire color)		Item	Signal input/output	Condition		Reference value (Approx.)	Example of symptom
+	-			Ignition switch	Operation		
1 (R)	Ground	Battery	Input	—	—	Battery voltage	System does not work properly.
2 (W)	18 (B)	Subwoofer LH	Output	ON	Receive audio signal	 SKIA0177E	No sound from subwoofer LH.

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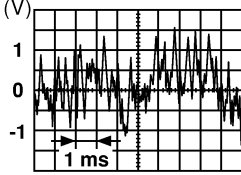
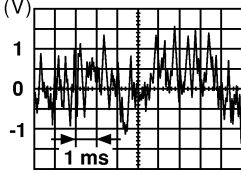
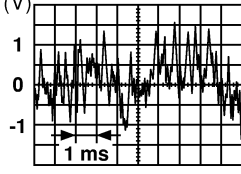
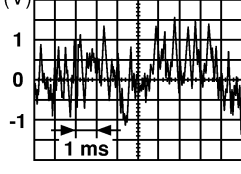
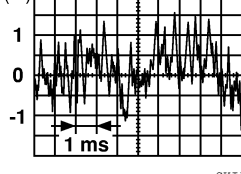
[AUDIO WITHOUT NAVIGATION]

Terminal (wire color)		Item	Signal input/ output	Condition		Reference value (Approx.)	Example of symptom
+	-			Ignition switch	Operation		
3 (Y)	19 (L)	Subwoofer RH	Output	ON	Receive audio signal	 <small>SKIA0177E</small>	No sound from subwoofer RH.
4 (B)	Ground	Ground	—	ON	—	—	—
9 (G/R)	Ground	Amp. ON sig- nal	Input	ON	—	More than 6.5V	System does not work properly.
11 (V)	27 (B/Y)	Rear speaker LH	Output	ON	Receive audio signal	 <small>SKIA0177E</small>	No sound from rear speaker LH.
12 (R/Y)	28 (R/L)	Rear speaker RH	Output	ON	Receive audio signal	 <small>SKIA0177E</small>	No sound from rear speaker RH.
13 (W/R)	29 (L/B)	Front tweeter RH	Output	ON	Receive audio signal	 <small>SKIA0177E</small>	No sound from front tweeter RH.
14 (R/G)	30 (B/R)	Front tweeter LH	Output	ON	Receive audio signal	 <small>SKIA0177E</small>	No sound from front tweeter LH.
15 (L/W)	31 (L/R)	Front door speaker LH	Output	ON	Receive audio signal	 <small>SKIA0177E</small>	No sound from front door speaker LH.

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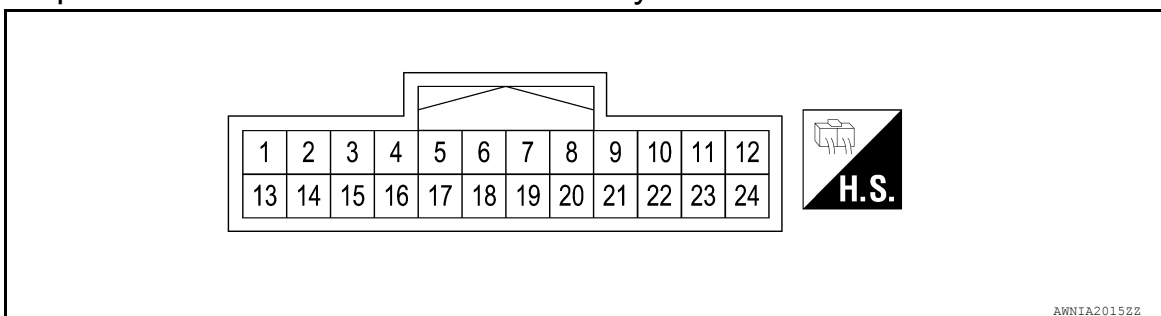
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Terminal (wire color)		Item	Signal input/output	Condition		Reference value (Approx.)	Example of symptom
+	-			Ignition switch	Operation		
16 (W/B)	32 (G/W)	Front door speaker RH	Output	ON	Receive audio signal	 <small>SKIA0177E</small>	No sound from front door speaker RH.
17 (G)	Ground	Battery	Input	—	—	Battery voltage	System does not work properly.
20 (B)	Ground	Ground	—	ON	—	—	—
21 (R)	5 (W)	Audio sound signal front RH	Input	ON	Receive audio signal	 <small>SKIA0177E</small>	No sound from front door speaker RH or front tweeter RH.
22 (W)	6 (B)	Audio sound signal front LH	Input	ON	Receive audio signal	 <small>SKIA0177E</small>	No sound from front door speaker LH or front tweeter LH.
23 (L)	7 (B/W)	Audio sound signal rear RH	Input	ON	Receive audio signal	 <small>SKIA0177E</small>	No sound from rear speaker assembly RH.
24 (L/R)	8 (L/G)	Audio sound signal rear LH	Input	ON	Receive audio signal	 <small>SKIA0177E</small>	No sound from rear speaker assembly LH.

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IPod Adapter Harness Connector Terminal Layout

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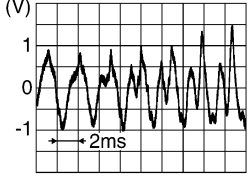
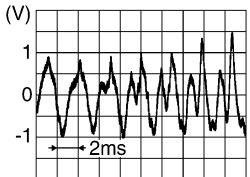
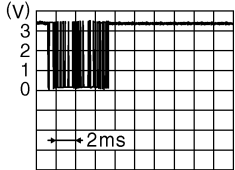
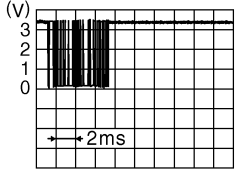
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[AUDIO WITHOUT NAVIGATION]

Terminal and Reference Value for iPod Adapter

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Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/ Output			
1 (G)	13 (W)	iPod® sound signal LH	Output	Ignition switch ON	When iPod® mode is se- lected.	 <p style="text-align: right; font-size: small;">SKIB3609E</p>
2 (L)	14 (R)	iPod® sound signal RH	Output	Ignition switch ON	When iPod® mode is se- lected.	 <p style="text-align: right; font-size: small;">SKIB3609E</p>
3 (GR)	Ground	ACC power supply	Input	Ignition switch ACC	—	Battery voltage
4 (G)	—	AV communication signal (L)	Input/ Output	—	—	—
5 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
6 (G)	7 (SB)	iPod® USD signal	—	Ignition switch ON	—	—
8 (O)	Ground	iPod® battery charge	Output	Ignition switch ON	Connected to iPod®.	Battery voltage
9 (LG)	Ground	Communication signal (iPod® adapter→iPod®)	Output	Ignition switch ON	The wave pattern is dis- played just after iPod® con- nection.	 <p style="text-align: right; font-size: small;">JPNIA0462GB</p> <p>NOTE: After the wave pattern display, the value continues Approx 3.3V</p>
10 (V)	Ground	Communication signal (iPod®→iPod® adapter)	Input	Ignition switch ON	Connected to iPod®.	 <p style="text-align: right; font-size: small;">JPNIA0462GB</p>
11 (W)	Ground	ACCESSORY-IDENTIFY	—	Ignition switch ON	Connected to iPod®.	0V

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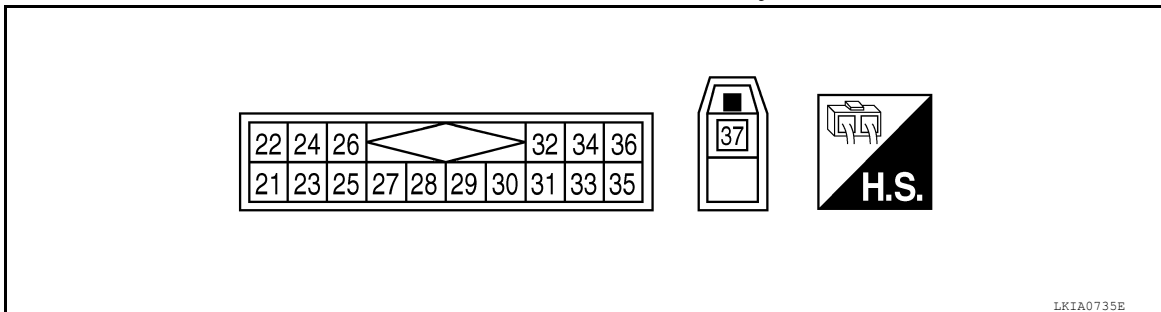
Terminal (Wire color)		Description		Condition		Reference value (Approx.)
+	-	Signal name	Input/ Output			
12 (R)	Ground	iPod® sound signal RH	Input	Ignition switch ON	When iPod® mode is selected.	
15 (GR)	—	Shield	—	—	—	—
16 (R)	—	AV communication signal (H)	Input/ Output	—	—	—
17 (P)	Ground	Ground	—	Ignition switch ON	—	0V
19 (GR)	—	Shield	—	—	—	—
20 (O)	Ground	iPod® battery charge	Output	Ignition switch ON	Connected to iPod®.	5.0V
21 (V)	Ground	iPod® connection recognition signal	Input	Ignition switch ON	Not connected to iPod®.	4.0V
					Connected to iPod®.	0V
22 (Y)	Ground	ACCESSORY-DETECT	—	Ignition switch ON	Connected to iPod®.	0V
23 (GR)	—	Shield	—	—	—	—
24 (G)	Ground	iPod® sound signal LH	Input	Ignition switch ON	When iPod® mode is selected.	

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Satellite Radio Tuner Harness Connector Terminal Layout

INFOID:000000007405515



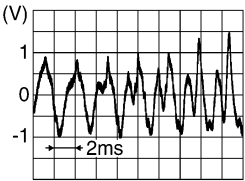
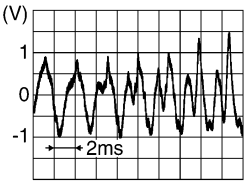
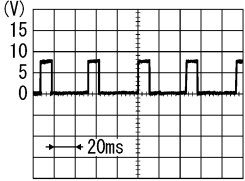
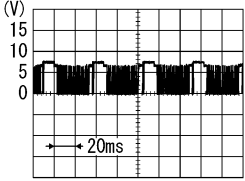
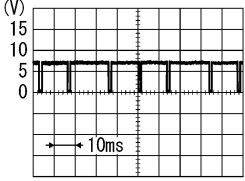
AUDIO

< SERVICE INFORMATION >

[AUDIO WITHOUT NAVIGATION]

Terminal and Reference Value for Satellite Radio Tuner

INFOID:000000007405516

Terminal (Wire color)		Item	Signal input/ output	Condition		Voltage (Approx.)
+	-			Ignition switch	Operation	
22 (R)	21 (G)	Audio signal LH	Output	ON	Receive audio signal.	 <p style="text-align: right; font-size: small;">SKIB3609E</p>
24 (B)	23 (W)	Audio signal RH	Output	ON	Receive audio signal.	 <p style="text-align: right; font-size: small;">SKIB3609E</p>
28 (L)	Ground	REQ1 (SAT-AUDIO)	Output	ON	Set to the satellite radio mode	 <p style="text-align: right; font-size: small;">SKIB3825E</p>
29 (W/R)	Ground	Communication signal (SAT-AUDIO)	Output	ON	Set to the satellite radio mode	 <p style="text-align: right; font-size: small;">SKIB3824E</p>
30 (B/R)	Ground	Communication signal (AUDIO-SAT)	Input	ON	Set to the satellite radio mode	 <p style="text-align: right; font-size: small;">SKIB3826E</p>
32 (Y)	Ground	Battery power supply	Input	OFF	—	Battery voltage
36 (V)		ACC power supply		ACC		
37		Antenna signal		—		

Trouble Diagnosis

INFOID:000000007405517

The majority of the audio troubles are the result of outside causes (bad CD, electromagnetic interference, etc.). Check the inspection items below to diagnose the malfunction.

MALFUNCTION WITH RADIO AND CD (BASE AND MID SYSTEM)

AUDIO

< SERVICE INFORMATION >

[AUDIO WITHOUT NAVIGATION]

Symptom	Possible cause
Inoperative	<ul style="list-style-type: none"> Audio unit power supply circuit check. Refer to AV-57. "Audio Unit (Base and Mid System) Power and Ground Supply Circuit Inspection". If above check is OK, replace audio unit. Refer to AV-82. "Removal and Installation".
Steering switch does not operate (mid system)	<ul style="list-style-type: none"> Steering switch check. Refer to AV-66. "Steering Switch Check (With Bluetooth)" or AV-68. "Steering Switch Check (Without Bluetooth)". If above check is OK, replace audio unit. Refer to AV-82. "Removal and Installation".
All speakers do not sound	<ul style="list-style-type: none"> Speaker circuit shorted to ground. Refer to AV-14. "Wiring Diagram - AUDIO -". Audio unit
One or several speakers do not sound	<ul style="list-style-type: none"> Front door speaker check. Refer to AV-69. "Sound Is Not Heard from Front Door Speaker or Front Tweeter (Base and Mid System)". Rear speaker check. Refer to AV-73. "Sound Is Not Heard from Rear Speaker (Base and Mid System)".
Poor sound	<ul style="list-style-type: none"> Audio unit Speaker
Noisy	<ul style="list-style-type: none"> Audio unit Electrical equipment (generator, bonding wire, etc.)
Buzz/rattle sound from speaker	The majority of buzz/rattle sounds are not indicative of an issue with the speaker, usually something nearby the speaker is causing the buzz/rattle. Refer to "SQUEAK AND RATTLE TROUBLE DIAGNOSIS" in appropriate interior trim section.

MALFUNCTION WITH RADIO AND CD (PREMIUM SYSTEM)

Symptom	Possible cause
Inoperative	<ul style="list-style-type: none"> AV control unit power supply circuit check. Refer to AV-58. "AV Control Unit (Premium System) Power and Ground Supply Circuit Inspection". If above check is OK, replace AV control unit. Refer to AV-82. "Removal and Installation".
Steering switch does not operate	<ul style="list-style-type: none"> Steering switch check. Refer to AV-66. "Steering Switch Check (With Bluetooth)". If above check is OK, replace AV control unit. Refer to AV-82. "Removal and Installation".
All speakers do not sound	<ul style="list-style-type: none"> Speaker circuit shorted to ground. Refer to AV-14. "Wiring Diagram - AUDIO -". AV control unit Audio amplifier power supply and ground circuit check. Refer to AV-59. "Audio Amplifier Power and Ground Supply Circuit Inspection". Audio amplifier ON signal Audio amplifier
One or several speakers do not sound	<ul style="list-style-type: none"> Front door speaker check. Refer to AV-76. "Sound Is Not Heard from Front Door Speaker or Front Tweeter (Premium System with Rockford Fosgate)". Rear speaker check. Refer to AV-79. "Sound Is Not Heard from Rear Speaker Assembly (Premium System with Rockford Fosgate)" or AV-75. "Sound Is Not Heard from Rear Speaker (Premium System without Rockford Fosgate)".
Poor sound	<ul style="list-style-type: none"> AV control unit Audio amplifier Speaker
Noisy	<ul style="list-style-type: none"> AV control unit Audio amplifier Electrical equipment (generator, bonding wire, etc.)
Buzz/rattle sound from speaker	The majority of buzz/rattle sounds are not indicative of an issue with the speaker, usually something nearby the speaker is causing the buzz/rattle. Refer to "SQUEAK AND RATTLE TROUBLE DIAGNOSIS" in appropriate interior trim section.

FOR RADIO ONLY (PREMIUM SYSTEM)

AUDIO

< SERVICE INFORMATION >

[AUDIO WITHOUT NAVIGATION]

Symptom	Possible cause
No sound	<ul style="list-style-type: none"> • AV control unit • Antenna feeder, wiring or connections
Noisy	<ul style="list-style-type: none"> • AV control unit • AV control unit ground • Antenna feeder, wiring or connections • Noise prevention parts • Electrical equipment • Wire harness of each piece of electrical equipment
All radio stations stored in memory are deleted	<ul style="list-style-type: none"> • AV control unit power supply circuit. Refer to AV-58, "AV Control Unit (Premium System) Power and Ground Supply Circuit Inspection". • Audio unit

NOTE:

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

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

FOR CD ONLY

Symptom	Possible cause
CD cannot be inserted.	<ul style="list-style-type: none"> • CD • Audio unit
CD cannot be ejected.	
The CD cannot be played.	
The sound skips, stops suddenly, or is distorted.	

FOR SATELLITE RADIO TUNER ONLY

Symptom	Possible cause
Inoperative	<ul style="list-style-type: none"> • Satellite radio tuner power and ground circuit inspection. Refer to AV-59, "Satellite Radio Tuner Power and Ground Supply Circuit Inspection". • Satellite radio tuner communication circuit inspection. Refer to AV-60, "Satellite Radio Tuner Communication Circuit Inspection (Mid System)" or AV-62, "Satellite Radio Tuner Communication Circuit Inspection (Premium System)". <p>If above check is OK, replace satellite radio tuner. Refer to AV-82, "Removal and Installation".</p>
Right or left channel does not sound	<ul style="list-style-type: none"> • Satellite radio tuner right channel audio signal circuit inspection. Refer to AV-65, "Satellite Radio Tuner Right Channel Audio Signal Circuit Inspection (Mid System)" or AV-66, "Satellite Radio Tuner Right Channel Audio Signal Circuit Inspection (Premium System)". • Satellite radio tuner left channel audio signal circuit inspection. Refer to AV-63, "Satellite Radio Tuner Left Channel Audio Signal Circuit Inspection (Mid System)" or AV-64, "Satellite Radio Tuner Left Channel Audio Signal Circuit Inspection (Premium System)". <p>If above check is OK, replace satellite radio tuner. Refer to AV-82, "Removal and Installation".</p>
Poor reception	<ul style="list-style-type: none"> • Location of vehicle. Make certain vehicle is in an open area. • Satellite radio antenna or antenna feeder. Refer to AV-89, "Location of Antenna".
Noisy	<ul style="list-style-type: none"> • Satellite radio tuner ground. • Satellite radio tuner harness shield wires. • Electrical equipment (generator, bonding wire, etc.). Refer to AV-57, "Noise Inspection".

AUDIO

< SERVICE INFORMATION >

[AUDIO WITHOUT NAVIGATION]

Noise Inspection

INFOID:000000007405518

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

NOTE:

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

TYPE OF NOISE AND POSSIBLE CAUSE

Occurrence condition		Possible cause
Occurs only when engine is ON.	A continuous growling noise occurs. The speed of the noise varies with changes in the engine speed.	Ignition components
	A whistling noise occurs while the engine speed is high. A booming noise occurs while the engine is running and the lighting switch is ON.	Generator
Noise only occurs when various electrical components are operating.	A cracking or snapping sound occurs with the operation of various switches.	Relay malfunction, radio malfunction
	The noise occurs when various motors are operating.	<ul style="list-style-type: none"> • Motor case ground • Motor
The noise occurs constantly, not just under certain conditions.		<ul style="list-style-type: none"> • Rear defogger coil malfunction • Open circuit in printed heater
A cracking or snapping sound occurs while the vehicle is being driven, especially when it is vibrating excessively.		<ul style="list-style-type: none"> • Ground wire of body parts. • Ground due to improper part installation • Wiring connections or a short circuit

Audio Unit (Base and Mid System) Power and Ground Supply Circuit Inspection

INFOID:000000007405519

1. CHECK FUSE

Check that the following fuses of the audio amplifier (premium system) and audio unit are not blown.

Unit	Terminals	Signal name	Fuse No.
Audio unit	19	Battery power	31
	7	Ignition switch ACC or ON	6

OK or NG

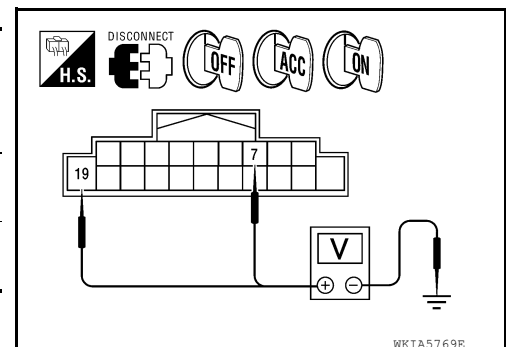
OK >> GO TO 2.

NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse. Refer to [PG-4. "Schematic"](#).

2. AUDIO UNIT POWER SUPPLY CIRCUIT CHECK

1. Disconnect audio unit connector.
2. Check voltage between the audio unit connector and ground.

Unit	Terminal No.			OFF	ACC	ON
	(+)		(-)			
	Connector	Terminal				
Audio unit	M43	19	Ground	Battery voltage	Battery voltage	Battery voltage
		7	Ground	0V	Battery voltage	Battery voltage



OK or NG

OK >> GO TO 3.

NG >> • Check connector housings for disconnected or loose terminals.

AUDIO

< SERVICE INFORMATION >

[AUDIO WITHOUT NAVIGATION]

- Repair harness or connector.

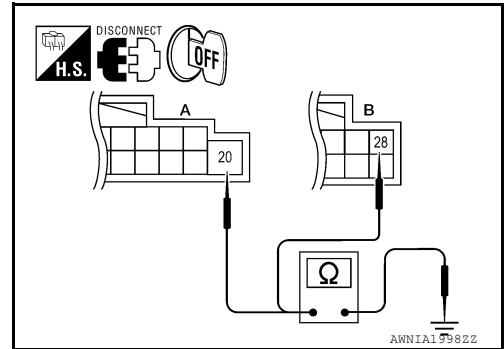
3. GROUND CIRCUIT CHECK

Check continuity between audio unit harness connector M43 terminals 28 (mid system), 20 and ground.

Continuity should exist.

OK or NG

- OK >> Inspection End.
- NG >> • Check connector housings for disconnected or loose terminals.
- Repair harness or connector.



AV Control Unit (Premium System) Power and Ground Supply Circuit Inspection

INFOID:000000007405520

1. CHECK FUSE

Check that the following fuses of the AV control unit are not blown.

Unit	Terminals	Signal name	Fuse No.
AV control unit	19	Battery power	31
	7	Ignition switch ACC or ON	6

OK or NG

- OK >> GO TO 2.
- NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse. Refer to [PG-4](#).

2. AV CONTROL UNIT POWER SUPPLY CIRCUIT CHECK

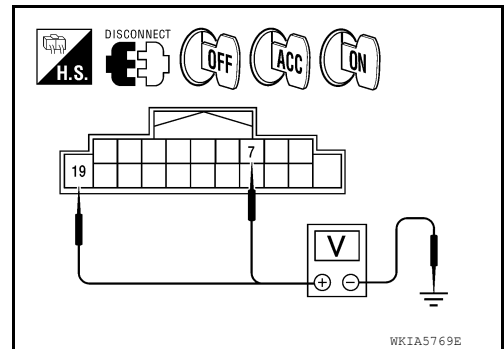
1. Disconnect AV control unit connector.
2. Check voltage between the AV control unit connector and ground.

Unit	Terminal No.		OFF	ACC	ON	
	(+)					(-)
	Connector	Terminal				
AV control unit	M92	19	Ground	Battery voltage	Battery voltage	
		7	Ground	0V	Battery voltage	Battery voltage

OK or NG

- OK >> GO TO 3.
- NG >> • Check connector housings for disconnected or loose terminals.
- Repair harness or connector.

3. GROUND CIRCUIT CHECK



AUDIO

< SERVICE INFORMATION >

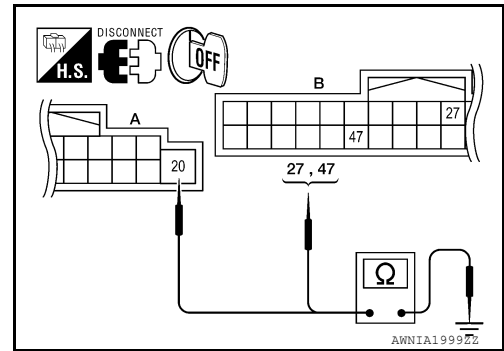
Check continuity between AV control unit harness connectors M92, M93 terminals 20, 27, 47 and ground.

Continuity should exist.

OK or NG

- OK >> Inspection End.
- NG >>
 - Check connector housings for disconnected or loose terminals.
 - Repair harness or connector.

[AUDIO WITHOUT NAVIGATION]



Audio Amplifier Power and Ground Supply Circuit Inspection

INFOID:00000000740521

1.CHECK FUSE

Check that the following fuses of the audio amplifier are not blown.

Unit	Terminals	Signal name	Fuse No.
Audio amplifier	17	Battery power	17
	1	Battery power	31

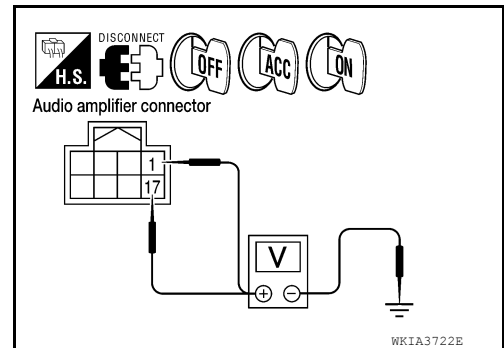
OK or NG

- OK >> GO TO 2.
- NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse. Refer to [PG-4](#).

2.AUDIO AMPLIFIER POWER SUPPLY CIRCUIT CHECK

1. Disconnect audio amplifier connector.
2. Check voltage between audio amplifier connector and ground.

Unit	Terminal No.		(-)	OFF	ACC	ON
	(+) Connector					
	Terminal					
Audio amplifier	B44	1	Ground	0V	Battery voltage	Battery voltage
		17				



OK or NG

- OK >> GO TO 3.
- NG >>
 - Check connector housings for disconnected or loose terminals.
 - Repair harness or connector.

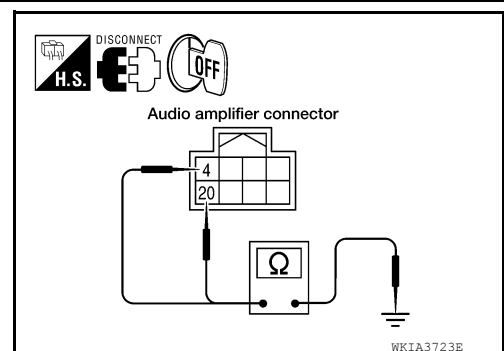
3.GROUND CIRCUIT CHECK

Check continuity between audio amplifier harness connector B44 terminals 4, 20 and ground.

Continuity should exist.

OK or NG

- OK >> Inspection End.
- NG >>
 - Check connector housings for disconnected or loose terminals.
 - Repair harness or connector.



Satellite Radio Tuner Power and Ground Supply Circuit Inspection

INFOID:00000000740522

1.CHECK FUSES

AUDIO

< SERVICE INFORMATION >

[AUDIO WITHOUT NAVIGATION]

Check that the following fuses are not blown.

Unit	Terminals	Signal name	Fuse No.
Satellite radio tuner	32	Battery power	31
	36	Ignition switch ACC or ON	6

OK or NG

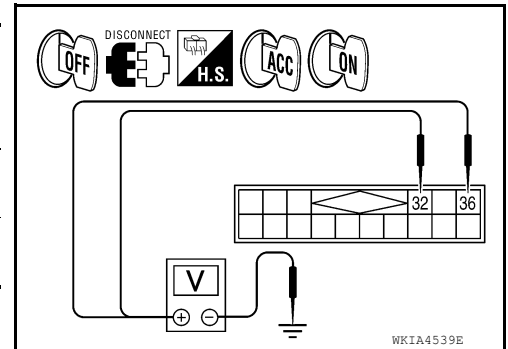
OK >> GO TO 2.

NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse. Refer to [PG-4](#).

2. POWER SUPPLY CIRCUIT CHECK

1. Turn ignition switch OFF.
2. Disconnect satellite radio tuner connector B56.
3. Check voltage between the satellite radio tuner and ground.

Unit	Terminal No.		OFF	ACC	ON
	(+)				
	Connector	Terminal			
Satellite radio tuner	B56	32	Ground	Battery voltage	Battery voltage
		36	Ground	0V	Battery voltage



OK or NG

OK >> GO TO 3.

NG >> • Check connector housings for disconnected or loose terminals.
• Repair harness or connector.

3. GROUND CIRCUIT CHECK

Inspect satellite radio tuner case ground.

OK or NG

OK >> Inspection End.

NG >> Repair satellite radio tuner case ground.

Satellite Radio Tuner Communication Circuit Inspection (Mid System)

INFOID:000000007405523

1. CHECK HARNESS - 1

1. Turn ignition switch OFF.
2. Disconnect satellite radio tuner connector B56 and audio unit connector M45.
3. Check continuity between satellite radio tuner harness connector B56 (A) terminal 28 and audio unit harness connector M45 (B) terminal 52.

Continuity should exist.

4. Check continuity between satellite radio tuner harness connector B56 (A) terminal 28 and ground.

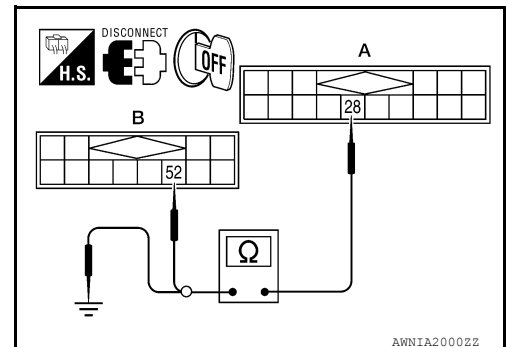
Continuity should not exist.

OK or NG

OK >> GO TO 2.

NG >> Repair harness or connector.

2. CHECK HARNESS - 2



AUDIO

< SERVICE INFORMATION >

[AUDIO WITHOUT NAVIGATION]

1. Check continuity between satellite radio tuner harness connector B56 (A) terminal 29 and audio unit harness connector M45 (B) terminal 53.

Continuity should exist.

2. Check continuity between satellite radio tuner harness connector B56 (A) terminal 29 and ground.

Continuity should not exist.

OK or NG

OK >> GO TO 3.

NG >> Repair harness or connector.

3.CHECK HARNESS - 3

1. Check continuity between satellite radio tuner harness connector B56 (A) terminal 30 and audio unit harness connector M45 (B) terminal 54.

Continuity should exist.

2. Check continuity between satellite radio tuner harness connector B56 (A) terminal 30 and ground.

Continuity should not exist.

OK or NG

OK >> GO TO 4.

NG >> Repair harness or connector.

4.CHECK REQ1 SIGNAL

1. Connect satellite radio tuner connector and audio unit connector.
2. Turn ignition switch to ACC.
3. Check signal between satellite radio tuner harness connector B56 terminal 28 and ground with CONSULT or oscilloscope.

28 - Ground : Refer to [AV-54, "Terminal and Reference Value for Satellite Radio Tuner"](#).

OK or NG

OK >> GO TO 5.

NG >> Replace audio unit. Refer to [AV-82, "Removal and Installation"](#).

5.CHECK TXD SIGNAL

Check signal between satellite radio tuner harness connector B56 terminal 29 and ground with CONSULT or oscilloscope.

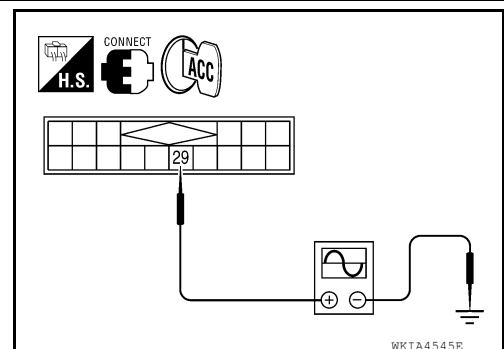
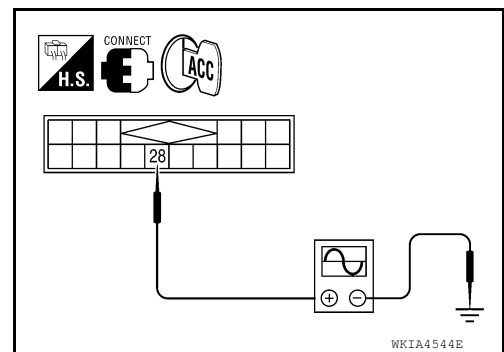
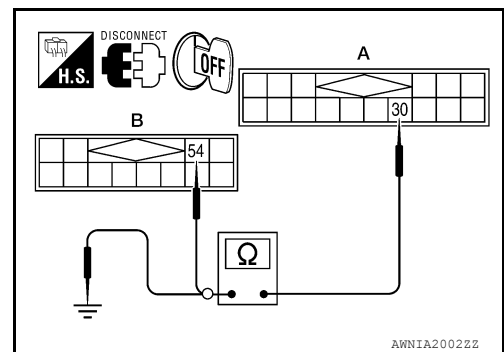
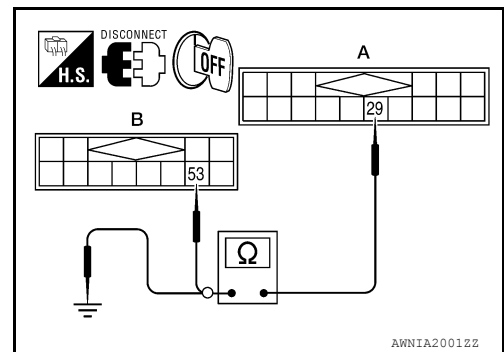
29 - Ground : Refer to [AV-54, "Terminal and Reference Value for Satellite Radio Tuner"](#).

OK or NG

OK >> GO TO 6.

NG >> Replace audio unit. Refer to [AV-82, "Removal and Installation"](#).

6.CHECK RXD SIGNAL



AUDIO

< SERVICE INFORMATION >

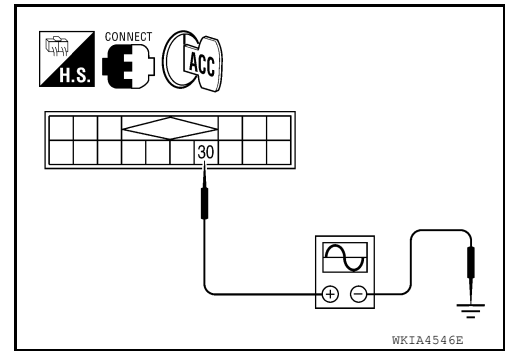
Check signal between satellite radio tuner harness connector B56 terminal 30 and ground with CONSULT or oscilloscope.

30 - Ground : Refer to [AV-54, "Terminal and Reference Value for Satellite Radio Tuner"](#).

OK or NG

- OK >> Replace satellite radio tuner. Refer to [AV-82, "Removal and Installation"](#).
- NG >> Replace audio unit. Refer to [AV-82, "Removal and Installation"](#).

[AUDIO WITHOUT NAVIGATION]



Satellite Radio Tuner Communication Circuit Inspection (Premium System) INFOID:000000007405524

1. CHECK HARNESS - 1

1. Turn ignition switch OFF.
2. Disconnect satellite radio tuner connector B56 and AV control unit connector M96.
3. Check continuity between satellite radio tuner harness connector B56 (A) terminal 28 and AV control unit harness connector M96 (B) terminal 72.

Continuity should exist.

4. Check continuity between satellite radio tuner harness connector B56 (A) terminal 28 and ground.

Continuity should not exist.

OK or NG

- OK >> GO TO 2.
- NG >> Repair harness or connector.

2. CHECK HARNESS - 2

1. Check continuity between satellite radio tuner harness connector B56 (A) terminal 29 and AV control unit harness connector M96 (B) terminal 73.

Continuity should exist.

2. Check continuity between satellite radio tuner harness connector B56 (A) terminal 29 and ground.

Continuity should not exist.

OK or NG

- OK >> GO TO 3.
- NG >> Repair harness or connector.

3. CHECK HARNESS - 3

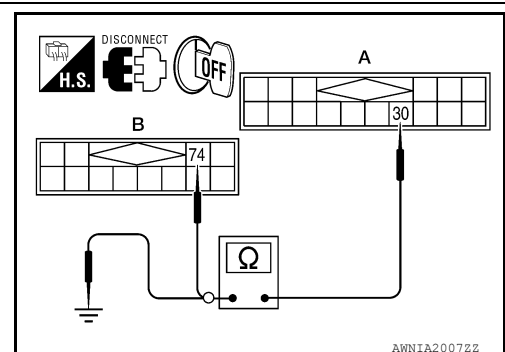
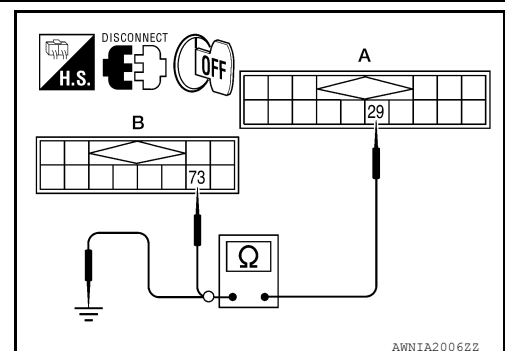
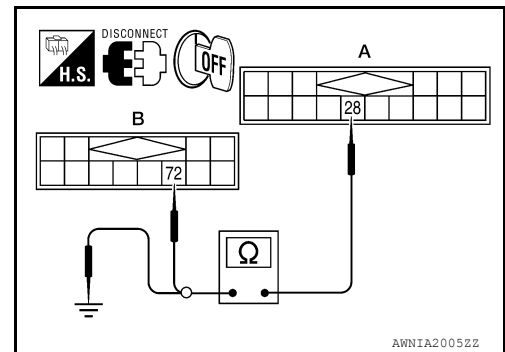
1. Check continuity between satellite radio tuner harness connector B56 (A) terminal 30 and AV control unit harness connector M96 (B) terminal 74.

Continuity should exist.

2. Check continuity between satellite radio tuner harness connector B56 (A) terminal 30 and ground.

Continuity should not exist.

OK or NG



AUDIO

[AUDIO WITHOUT NAVIGATION]

< SERVICE INFORMATION >

- OK >> GO TO 4.
- NG >> Repair harness or connector.

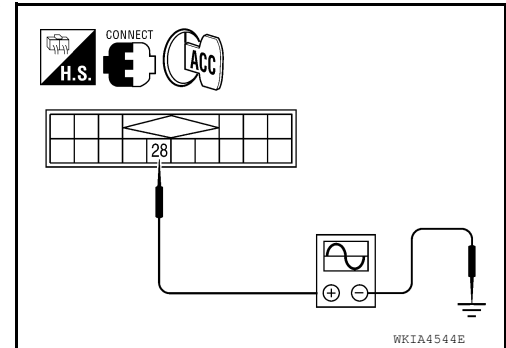
4. CHECK REQ1 SIGNAL

1. Connect satellite radio tuner connector and AV control unit connector.
2. Turn ignition switch to ACC.
3. Check signal between satellite radio tuner harness connector B56 terminal 28 and ground with CONSULT or oscilloscope.

28 - Ground : Refer to [AV-54, "Terminal and Reference Value for Satellite Radio Tuner"](#).

OK or NG

- OK >> GO TO 5.
- NG >> Replace AV control unit. Refer to [AV-82, "Removal and Installation"](#).



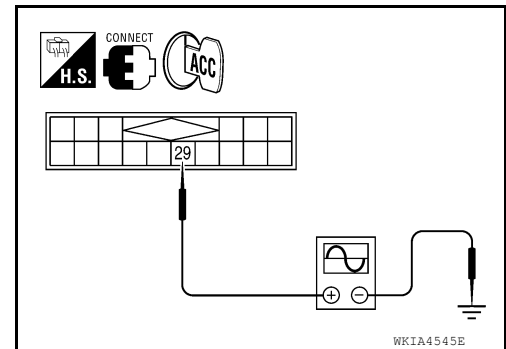
5. CHECK TXD SIGNAL

Check signal between satellite radio tuner harness connector B56 terminal 29 and ground with CONSULT or oscilloscope.

29 - Ground : Refer to [AV-54, "Terminal and Reference Value for Satellite Radio Tuner"](#).

OK or NG

- OK >> GO TO 6.
- NG >> Replace AV control unit. Refer to [AV-82, "Removal and Installation"](#).



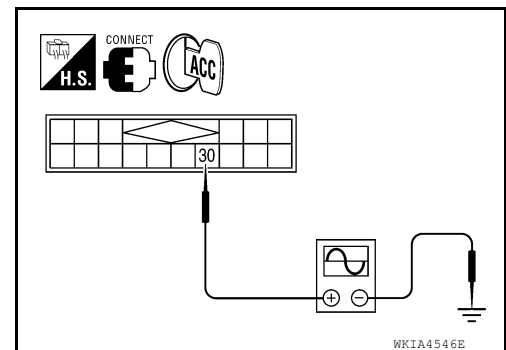
6. CHECK RXD SIGNAL

Check signal between satellite radio tuner harness connector B56 terminal 30 and ground with CONSULT or oscilloscope.

30 - Ground : Refer to [AV-54, "Terminal and Reference Value for Satellite Radio Tuner"](#).

OK or NG

- OK >> Replace satellite radio tuner. Refer to [AV-82, "Removal and Installation"](#).
- NG >> Replace AV control unit. Refer to [AV-82, "Removal and Installation"](#).



Satellite Radio Tuner Left Channel Audio Signal Circuit Inspection (Mid System)

INFOID:000000007405525

1. CHECK HARNESS

1. Turn ignition switch OFF.
2. Disconnect satellite radio tuner connector B56 (A) and audio unit connector M45 (B).
3. Check continuity between satellite radio tuner and audio unit.

AUDIO

< SERVICE INFORMATION >

[AUDIO WITHOUT NAVIGATION]

Terminals				Continuity
Satellite radio tuner		Audio unit		
Connector	Terminal	Connector	Terminal	
A: B56	21	B: M45	45	Yes
	22		46	

4. Check continuity between satellite radio tuner and ground.

Terminals				Continuity
Satellite radio tuner		—		
Connector	Terminal			
A: B56	21	Ground		No
	22			

OK or NG

OK >> GO TO 2.

NG >> Repair harness or connector.

2. CHECK LEFT CHANNEL AUDIO SIGNAL

1. Connect satellite radio tuner and audio unit.
2. Turn ignition switch ON.
3. Check signal between satellite radio tuner connector B56 terminals 21 and 22 with CONSULT or oscilloscope.

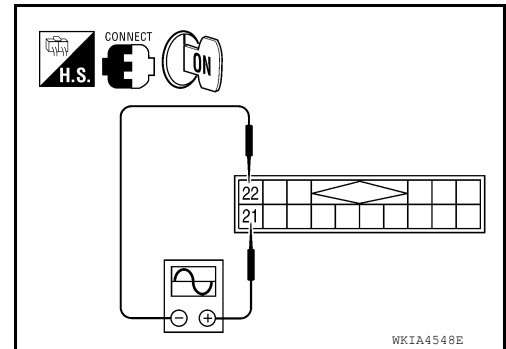
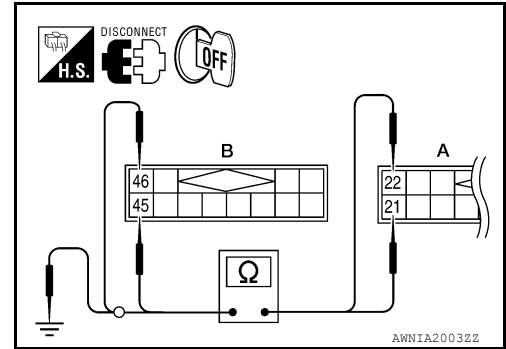
21 - 22

: Refer to [AV-54, "Terminal and Reference Value for Satellite Radio Tuner"](#).

OK or NG

OK >> Replace audio unit. Refer to [AV-82, "Removal and Installation"](#).

NG >> Replace satellite radio tuner. Refer to [AV-82, "Removal and Installation"](#).



Satellite Radio Tuner Left Channel Audio Signal Circuit Inspection (Premium System)

INFOID:00000007405526

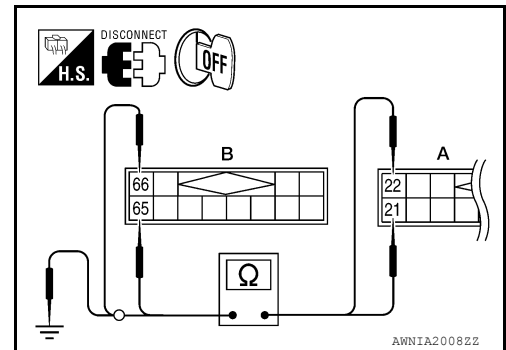
1. CHECK HARNESS

1. Turn ignition switch OFF.
2. Disconnect satellite radio tuner connector B56 (A) and AV control unit connector M96 (B).
3. Check continuity between satellite radio tuner and AV control unit.

Terminals				Continuity
Satellite radio tuner		AV control unit		
Connector	Terminal	Connector	Terminal	
A: B56	21	B: M96	65	Yes
	22		66	

4. Check continuity between satellite radio tuner and ground.

Terminals				Continuity
Satellite radio tuner		—		
Connector	Terminal			
A: B56	21	Ground		No
	22			



AUDIO

[AUDIO WITHOUT NAVIGATION]

< SERVICE INFORMATION >

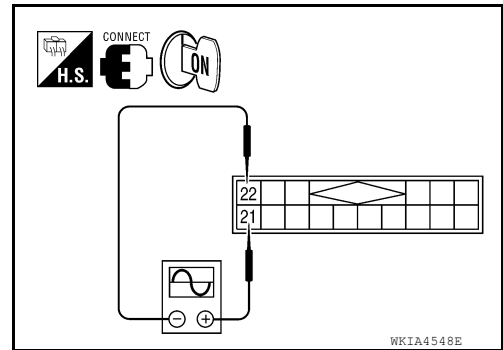
OK or NG

- OK >> GO TO 2.
- NG >> Repair harness or connector.

2. CHECK LEFT CHANNEL AUDIO SIGNAL

1. Connect satellite radio tuner and AV control unit.
2. Turn ignition switch ON.
3. Check signal between satellite radio tuner connector B56 terminals 21 and 22 with CONSULT or oscilloscope.

21 - 22 : Refer to [AV-54, "Terminal and Reference Value for Satellite Radio Tuner"](#).



OK or NG

- OK >> Replace AV control unit. Refer to [AV-82, "Removal and Installation"](#).
- NG >> Replace satellite radio tuner. Refer to [AV-82, "Removal and Installation"](#).

Satellite Radio Tuner Right Channel Audio Signal Circuit Inspection (Mid System)

INFOID:000000007405527

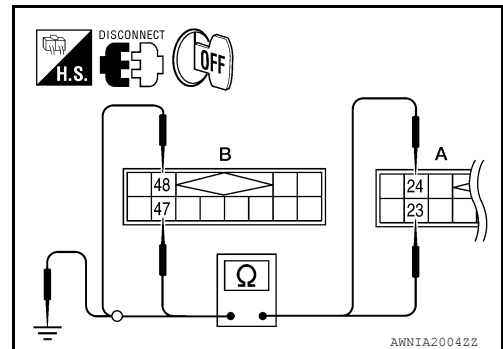
1. CHECK HARNESS

1. Turn ignition switch OFF.
2. Disconnect satellite radio tuner connector B56 (A) and audio unit connector M45 (B).
3. Check continuity between satellite radio tuner and audio unit.

Terminals				Continuity
Satellite radio tuner		Audio unit		
Connector	Terminal	Connector	Terminal	
A: B56	23	B: M45	47	Yes
	24		48	

4. Check continuity between satellite radio tuner and ground.

Terminals				Continuity
Satellite radio tuner		—		
Connector	Terminal			
A: B56	23	Ground		No
	24			



OK or NG

- OK >> GO TO 2.
- NG >> Repair harness or connector.

2. CHECK RIGHT CHANNEL AUDIO SIGNAL

1. Connect satellite radio tuner and audio unit.
2. Turn ignition switch ON.

AUDIO

< SERVICE INFORMATION >

- Check signal between satellite radio tuner connector B56 terminals 23 and 24 with CONSULT or oscilloscope.

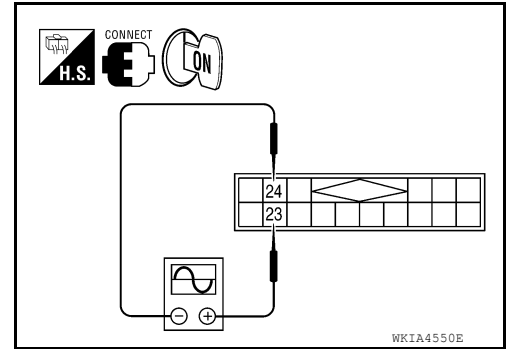
23 - 24

: Refer to [AV-54, "Terminal and Reference Value for Satellite Radio Tuner"](#).

OK or NG

- OK >> Replace audio unit. Refer to [AV-82, "Removal and Installation"](#).
- NG >> Replace satellite radio tuner. Refer to [AV-82, "Removal and Installation"](#).

[AUDIO WITHOUT NAVIGATION]



Satellite Radio Tuner Right Channel Audio Signal Circuit Inspection (Premium System)

INFOID:000000007405528

1. CHECK HARNESS

- Turn ignition switch OFF.
- Disconnect satellite radio tuner connector B56 (A) and AV control unit connector M96 (B).
- Check continuity between satellite radio tuner and AV control unit.

Terminals				Continuity
Satellite radio tuner		AV control unit		
Connector	Terminal	Connector	Terminal	
A: B56	23	B: M96	67	Yes
	24		68	

- Check continuity between satellite radio tuner and ground.

Terminals				Continuity
Satellite radio tuner		—		
Connector	Terminal			
A: B56	23	Ground		No
	24			

OK or NG

- OK >> GO TO 2.
- NG >> Repair harness or connector.

2. CHECK RIGHT CHANNEL AUDIO SIGNAL

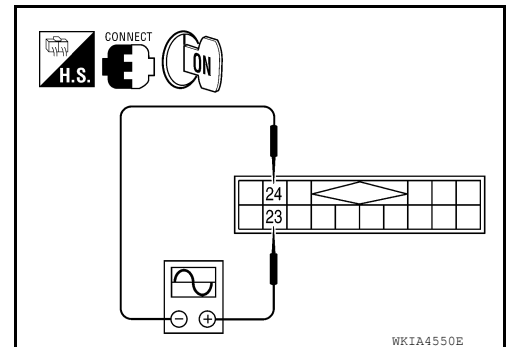
- Connect satellite radio tuner and AV control unit.
- Turn ignition switch ON.
- Check signal between satellite radio tuner connector B56 terminals 23 and 24 with CONSULT or oscilloscope.

23 - 24

: Refer to [AV-54, "Terminal and Reference Value for Satellite Radio Tuner"](#).

OK or NG

- OK >> Replace AV control unit. Refer to [AV-82, "Removal and Installation"](#).
- NG >> Replace satellite radio tuner. Refer to [AV-82, "Removal and Installation"](#).



Steering Switch Check (With Bluetooth)

INFOID:000000007405529

1. CHECK HARNESS

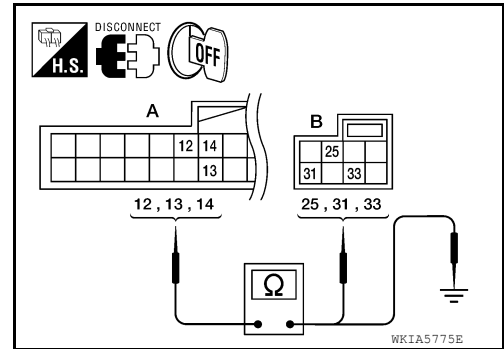
AUDIO

[AUDIO WITHOUT NAVIGATION]

< SERVICE INFORMATION >

1. Turn ignition switch OFF.
2. Disconnect Bluetooth control unit connector B15 and spiral cable connector M30.
3. Check continuity between Bluetooth control unit connector B15 (A) terminals 12, 13, and 14 and spiral cable connector M30 (B) terminals 25, 31, and 33.

Terminals				Continuity
A		B		
Connector	Terminal	Connector	Terminal	
B15	12	M30	33	Yes
	13		31	
	14		25	



4. Check continuity between Bluetooth control unit and ground.

Terminals			Continuity
(+)		(-)	
Connector	Terminal		
B15	12	Ground	No
	13		
	14		

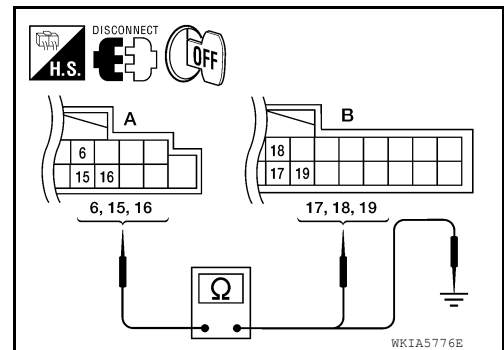
OK or NG

- OK >> GO TO 2.
 NG >> Repair harness.

2. CHECK HARNESS

1. Disconnect audio unit connector M43 (mid system) or AV control unit M92 (premium system).
2. Check continuity between audio unit connector M43 (mid system) or AV control unit M92 (premium system) (A) terminals 6, 15, and 16 and Bluetooth control unit connector B15 (B) terminals 17, 19, and 18.

Terminals				Continuity
(A)		(B)		
Connector	Terminal	Connector	Terminal	
M43 (mid system) M92 (premium system)	6	B15	17	Yes
	15		19	
	16		18	



OK or NG

- OK >> GO TO 3.
 NG >> Repair harness.

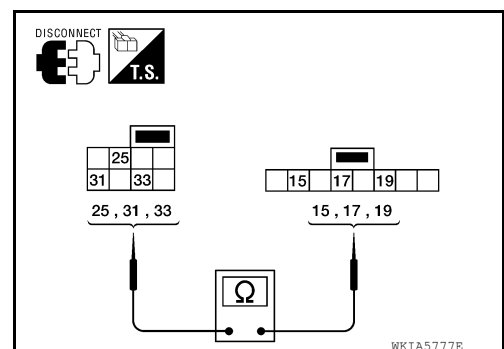
3. SPIRAL CABLE CHECK

1. Disconnect spiral cable connector M78.
2. Check continuity between spiral cable terminals.

- 15 - 33 : Continuity should exist.**
17 - 31 : Continuity should exist.
19 - 25 : Continuity should exist.

OK or NG

- OK >> GO TO 4.
 NG >> Replace spiral cable. Refer to [SRS-33, "Removal and Installation"](#).



AUDIO

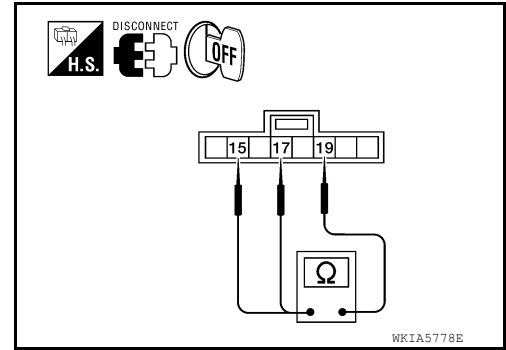
< SERVICE INFORMATION >

[AUDIO WITHOUT NAVIGATION]

4. CHECK STEERING SWITCH RESISTANCE

Check resistance between spiral cable connector M78 terminals.

Terminal	Signal name	Condition	Resistance (Ω) (Approx.)	
17	19	Seek (down)	Depress ▽ switch.	165
		Mode/End	Depress MODE switch.	0
		Volume (down)	Depress volume down switch.	652
15	19	Seek (up)	Depress △ switch.	165
		Phone/Send	Depress ↶ ↷ switch.	0
		Volume (up)	Depress volume up switch.	652



OK or NG

OK >> Inspection End.

NG >> Replace steering switch. Refer to [AV-82. "Removal and Installation"](#).

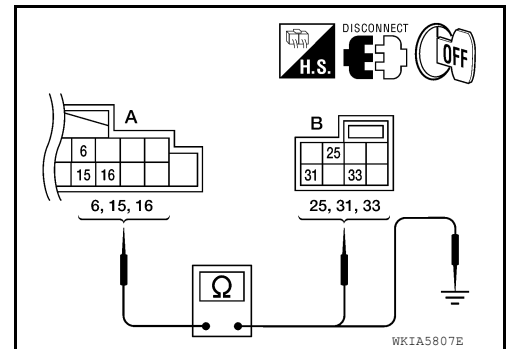
Steering Switch Check (Without Bluetooth)

INFOID:000000007405530

1. CHECK HARNESS

1. Turn ignition switch OFF.
2. Disconnect audio unit connector M43 and spiral cable connector M30.
3. Check continuity between audio unit connector terminal and spiral cable connector terminal.

Terminals				Continuity
A		B		
Connector	Terminal	Connector	Terminal	
M43	6	M30	33	Yes
	15		25	
	16		31	



4. Check continuity between audio unit and ground.

Terminals			Continuity
A		(-)	
Connector	Terminal		
M43	6	Ground	No
	15		
	16		

OK or NG

OK >> GO TO 2.

NG >> Repair harness.

2. SPIRAL CABLE CHECK

1. Disconnect spiral cable connector M78.

AUDIO

< SERVICE INFORMATION >

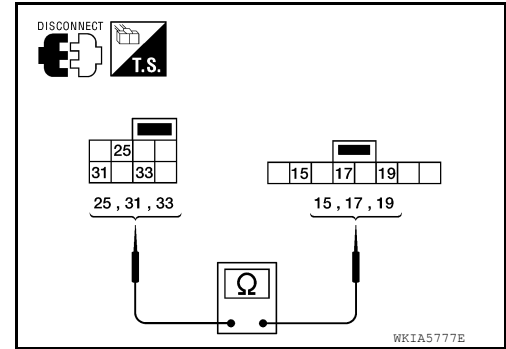
[AUDIO WITHOUT NAVIGATION]

2. Check continuity between spiral cable terminals.

- 15 - 33** : Continuity should exist.
- 17 - 31** : Continuity should exist.
- 19 - 25** : Continuity should exist.

OK or NG

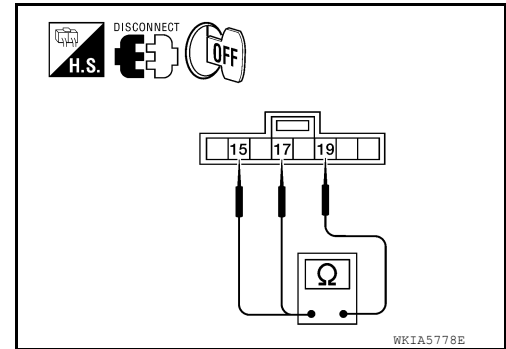
- OK >> GO TO 3.
- NG >> Replace spiral cable. Refer to [SRS-33. "Removal and Installation"](#).



3. CHECK STEERING SWITCH RESISTANCE

Check resistance between spiral cable connector M78 terminals.

Terminal	Signal name	Condition	Resistance (Ω) (Approx.)	
17	19	Seek (down)	Depress (station) down switch.	165
		Power	Depress PWR switch.	0
		Volume (down)	Depress volume down switch.	652
15	19	Seek (up)	Depress (station) up switch.	165
		Mode	Depress MODE switch.	0
		Volume (up)	Depress volume up switch.	652



OK or NG

- OK >> Inspection End.
- NG >> Replace steering switch. Refer to [AV-82. "Removal and Installation"](#).

Sound Is Not Heard from Front Door Speaker or Front Tweeter (Base and Mid System)

INFOID:000000007405531

1. CONNECTOR CHECK

Check the audio unit and speaker connectors for the following:

- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

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

2. HARNESS CHECK

1. Disconnect audio unit connector and front door speaker and front tweeter (mid system) connector (LH or RH).

AUDIO

< SERVICE INFORMATION >

- Check continuity between audio unit harness connector terminal and front door speaker and front tweeter (mid system) harness connector terminal.

Terminals				Continuity
Audio unit		Speaker or tweeter		
Connector	Terminal	Connector	Terminal	
A: M43	2	B: M46*	+	Yes
	3		-	
	11	B: M47*	+	
	12		-	
	2	B: D10	+	
	3		-	
	11	B: D108	+	
	12		-	

*: With mid system

- Check continuity between audio unit harness connector terminal and ground.

Terminals			Continuity
Audio unit		—	
Connector	Terminal		
A: M43	2	Ground	No
	3		
	11		
	12		

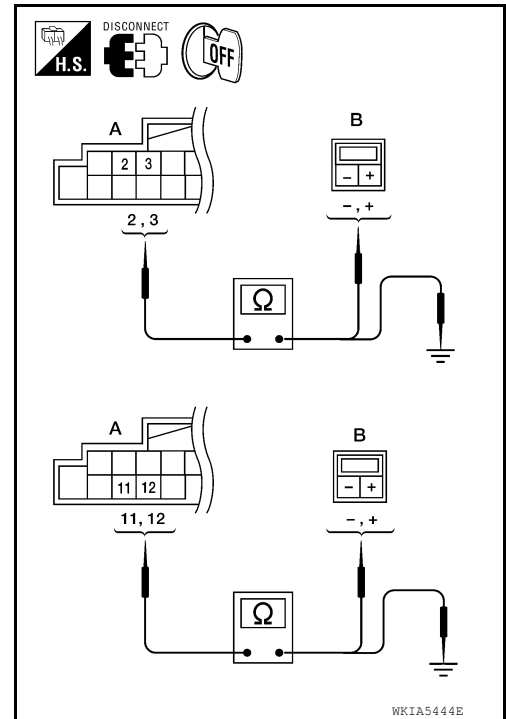
OK or NG

- OK >> GO TO 3.
 NG >> Repair harness or connector.

3. FRONT SPEAKER SIGNAL CHECK

- Connect audio unit connector, front door speaker connector and front tweeter (mid system) connector.
- Turn ignition switch to ACC.
- Push "POWER" switch.

[AUDIO WITHOUT NAVIGATION]



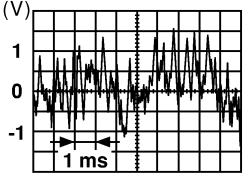
WKIA5444E

AUDIO

< SERVICE INFORMATION >

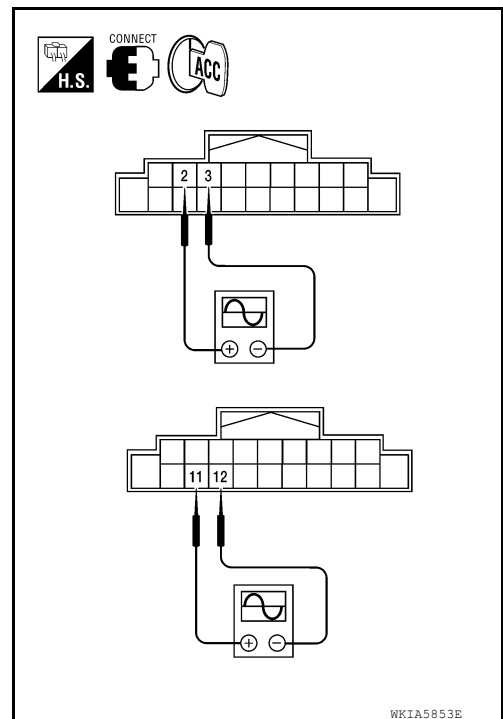
[AUDIO WITHOUT NAVIGATION]

4. Check the signal between audio unit connector terminals with CONSULT or oscilloscope.

Terminals				Condi- tion	Reference signal
(+) Terminal		(-) Terminal			
Con- nector	Termi- nal	Con- nector	Termi- nal		
M43	2	M43	3	Receive audio signal	
	11		12		

OK or NG

- OK >> Replace front speaker. Refer to [AV-82, "Removal and Installation"](#).
- NG >> Replace audio unit. Refer to [AV-82, "Removal and Installation"](#).



Sound Is Not Heard from Front Door Speaker or Front Tweeter (Premium System without Rockford Fosgate)

INFOID:000000007405532

1. CONNECTOR CHECK

Check the audio unit and speaker connectors for the following:

- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

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

2. HARNESS CHECK

1. Disconnect AV control unit connector and front door speaker and front tweeter connector (LH or RH).

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AV

AUDIO

< SERVICE INFORMATION >

- Check continuity between AV control unit harness connector terminal and front door speaker and front tweeter harness connector terminal.

Terminals				Continuity
AV control unit		Speaker or tweeter		
Connector	Terminal	Connector	Terminal	
A: M92	2	B: M46	+	Yes
	3		-	
	11	B: M47	+	
	12		-	
	2	B: D10	+	
	3		-	
	11	B: D108	+	
	12		-	

- Check continuity between AV control unit harness connector terminal and ground.

Terminals			Continuity
AV control unit		—	
Connector	Terminal		
A: M92	2	Ground	No
	3		
	11		
	12		

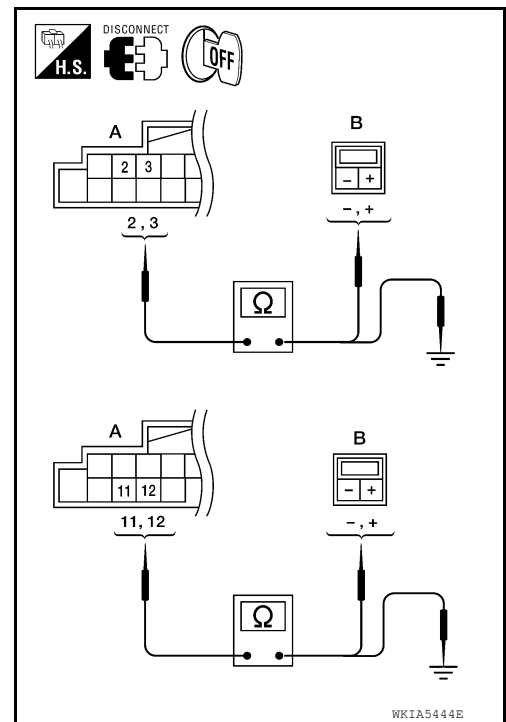
OK or NG

- OK >> GO TO 3.
 NG >> Repair harness or connector.

3. FRONT SPEAKER SIGNAL CHECK

- Connect AV control unit connector, front door speaker connector and front tweeter connector.
- Turn ignition switch to ACC.
- Push "POWER" switch.

[AUDIO WITHOUT NAVIGATION]

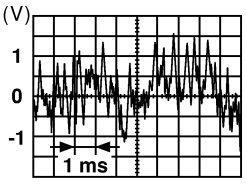


AUDIO

< SERVICE INFORMATION >

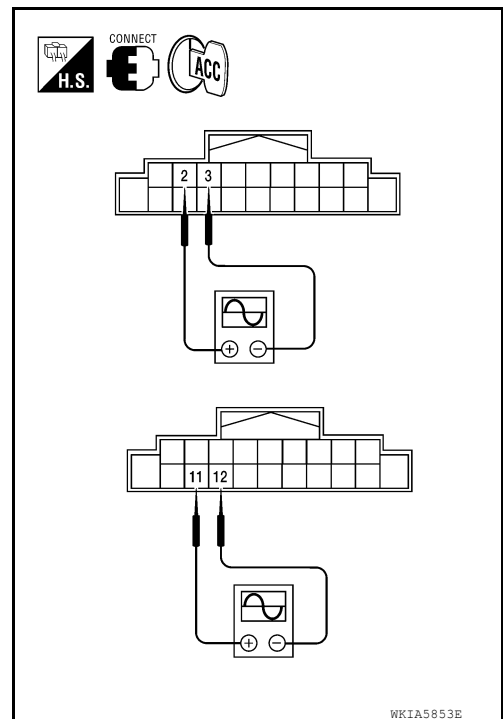
[AUDIO WITHOUT NAVIGATION]

4. Check the signal between AV control unit connector terminals with CONSULT or oscilloscope.

Terminals				Condi- tion	Reference signal
(+) Terminal		(-) Terminal			
Con- nector	Termi- nal	Con- nector	Termi- nal		
M92	2	M92	3	Receive audio signal	
	11		12		

OK or NG

- OK >> Replace front speaker. Refer to [AV-82, "Removal and Installation"](#).
- NG >> Replace AV control unit. Refer to [AV-82, "Removal and Installation"](#).



Sound Is Not Heard from Rear Speaker (Base and Mid System)

INFOID:000000007405533

1.CONNECTOR CHECK

Check the audio unit and speaker connectors for the following:

- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

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

2.HARNES CHECK

1. Disconnect audio unit connector and rear speaker connector.

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AUDIO

< SERVICE INFORMATION >

- Check continuity between audio unit harness connector terminal and rear speaker harness connector terminal.

Terminals				Continuity
Audio unit		Speaker		
Connector	Terminal	Connector	Terminal	
A: M43	4	B: B27	+	Yes
	5		-	
	13	B: B39	+	
	14		-	

- Check continuity between audio unit harness connector terminal and ground.

Terminals				Continuity
Audio unit		—		
Connector	Terminal			
A: M43	4	Ground		No
	5			
	13			
	14			

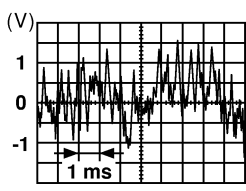
OK or NG

OK >> GO TO 3.

NG >> Repair harness or connector.

3. REAR SPEAKER SIGNAL CHECK

- Connect audio unit connector and rear speaker connector.
- Turn ignition switch to ACC.
- Push "POWER" switch.
- Check the signal between audio unit harness connector terminals with CONSULT or oscilloscope.

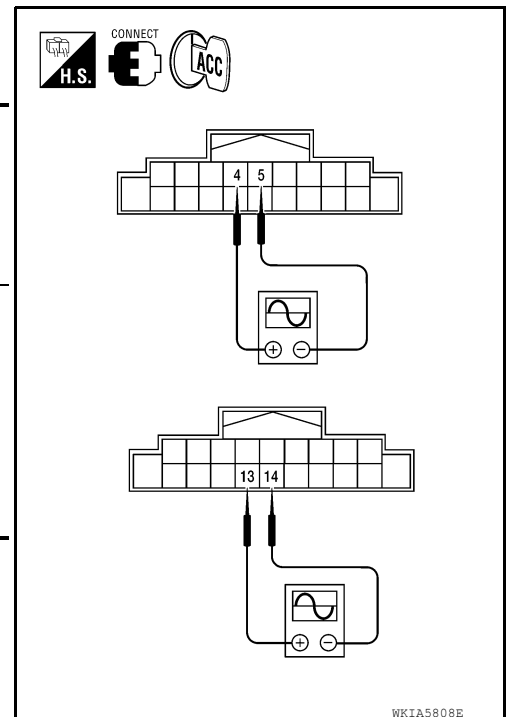
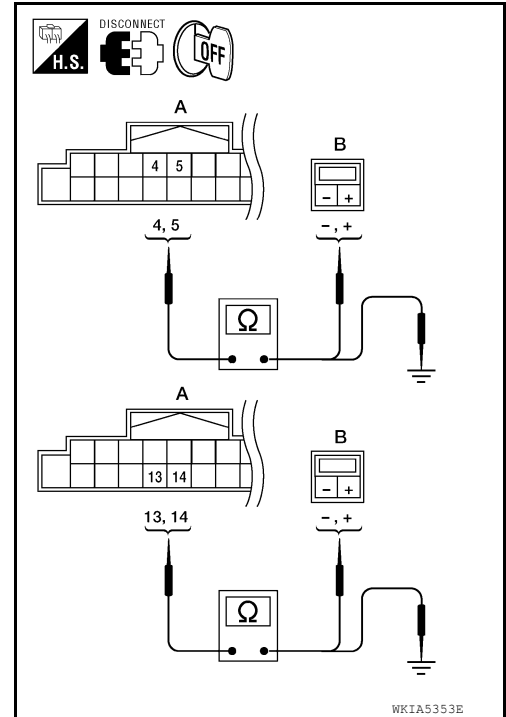
Terminals				Condition	Reference signal
(+)		(-)			
Connector	Terminal	Connector	Terminal		
M43	4	M43	5	Receive audio signal	
	13		14		

OK or NG

OK >> Replace speaker. Refer to [AV-82. "Removal and Installation"](#).

NG >> Replace audio unit. Refer to [AV-82. "Removal and Installation"](#).

[AUDIO WITHOUT NAVIGATION]



AUDIO

< SERVICE INFORMATION >

[AUDIO WITHOUT NAVIGATION]

Sound Is Not Heard from Rear Speaker (Premium System without Rockford Fosgate)

INFOID:000000007405534

1. CONNECTOR CHECK

Check the audio unit and speaker connectors for the following:

- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair the terminal and connector.

2. HARNESS CHECK

1. Disconnect AV control unit connector and rear speaker connector.
2. Check continuity between AV control unit harness connector terminal and rear speaker harness connector terminal.

Terminals				Continuity
AV control unit		Speaker		
Connector	Terminal	Connector	Terminal	
A: M92	4	B: B27	+	Yes
	5		-	
	13	B: B39	+	
	14		-	

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

Terminals				Continuity
AV control unit		—		
Connector	Terminal			
A: M92	4	Ground		No
	5			
	13			
	14			

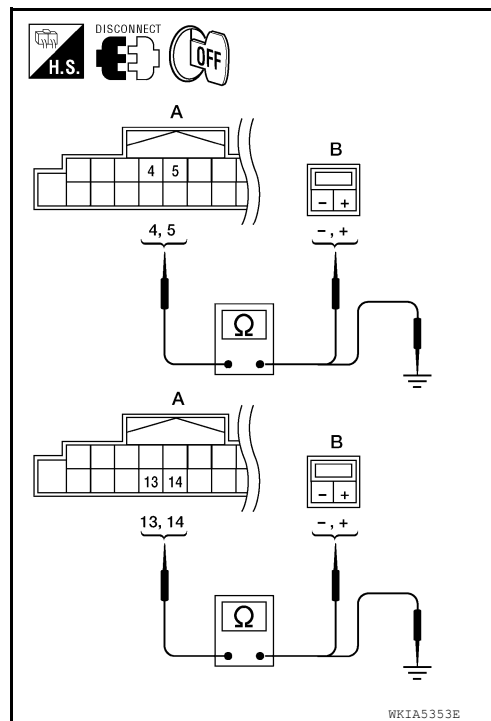
OK or NG

OK >> GO TO 3.

NG >> Repair harness or connector.

3. REAR SPEAKER SIGNAL CHECK

1. Connect AV control unit connector and rear speaker connector.
2. Turn ignition switch to ACC.
3. Push "POWER" switch.

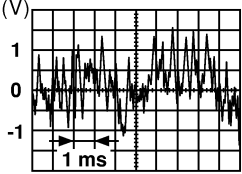


AUDIO

< SERVICE INFORMATION >

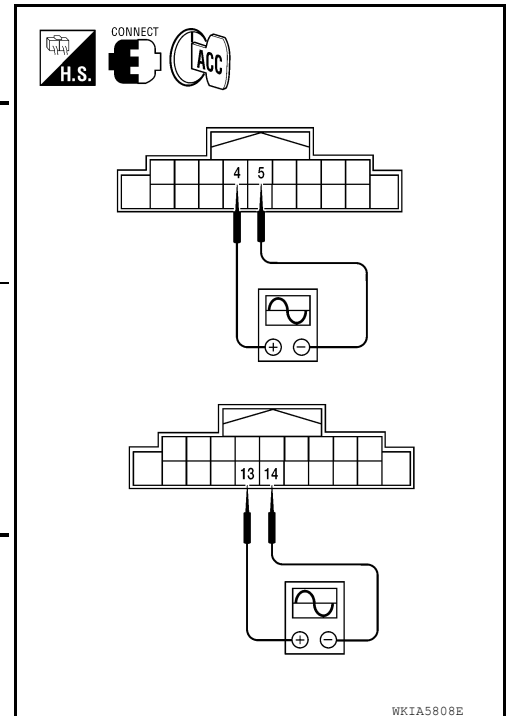
[AUDIO WITHOUT NAVIGATION]

4. Check the signal between AV control unit harness connector terminals with CONSULT or oscilloscope.

Terminals				Condi- tion	Reference signal
(+)		(-)			
Con- nec- tor	Termi- nal	Con- nec- tor	Termi- nal		
M92	4	M92	5	Re- ceive audio signal	
	13		14		

OK or NG

- OK >> Replace speaker. Refer to [AV-82. "Removal and Installation"](#).
- NG >> Replace AV control unit. Refer to [AV-82. "Removal and Installation"](#).



Sound Is Not Heard from Front Door Speaker or Front Tweeter (Premium System with Rockford Fosgate)

INFOID:000000007405535

1.CONNECTOR CHECK

Check the audio unit and speaker connectors for the following:

- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

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

2.HARNES CHECK

1. Turn ignition switch OFF.
2. Disconnect audio amplifier connector B43 and suspect speaker connector.

AUDIO

< SERVICE INFORMATION >

- Check continuity between audio amplifier harness connector terminal and suspect speaker harness connector terminal.

Terminals				Continuity
Audio amplifier		Speaker or tweeter		
Connector	Terminal	Connector	Terminal	
B43	15	D10	+	Yes
	31		-	
	16	D108	+	
	32		-	
	14	M46	-	
	30		+	
	13	M47	-	
	29		+	

- Check continuity between audio amplifier harness connector terminal and ground.

Terminals			Continuity
Audio amplifier		-	
Connector	Terminal		
B43	13	Ground	No
	14		
	15		
	16		
	29		
	30		
	31		
	32		

OK or NG

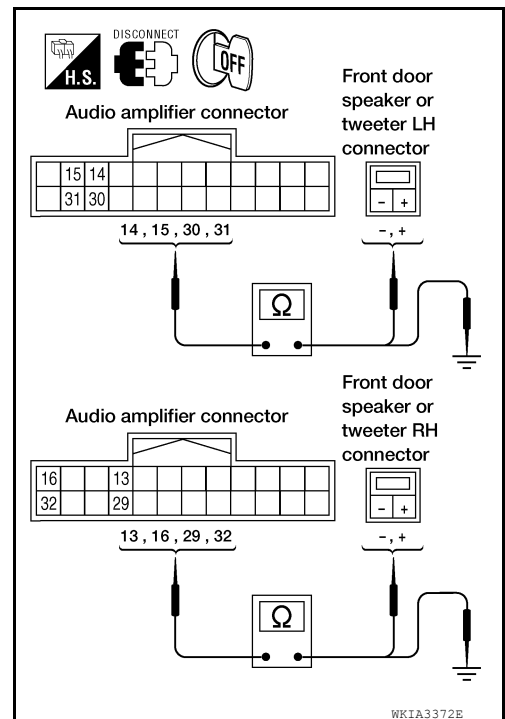
- OK >> GO TO 3.
- NG >> Repair harness or connector.

3.FRONT SPEAKER SIGNAL CHECK

- Connect audio amplifier connector B43 and suspect speaker connector.
- Turn ignition switch to ACC.
- Push "POWER" switch.
- Check the signal between audio amplifier harness connector terminals with CONSULT or oscilloscope.

Terminals				Condition	Reference signal
(+)		(-)			
Connector	Terminal	Connector	Terminal		
B43	13	B43	29	Receive audio signal	
	14		30		
	15		31		
	16		32		

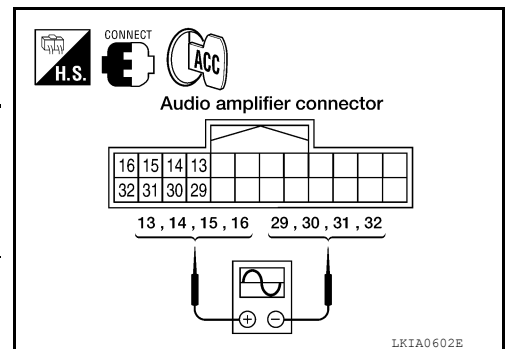
[AUDIO WITHOUT NAVIGATION]



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AUDIO

[AUDIO WITHOUT NAVIGATION]

< SERVICE INFORMATION >

OK or NG

- OK >> Replace suspect speaker. Refer to [AV-82, "Removal and Installation"](#).
- NG >> GO TO 4.

4. HARNESS CHECK

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector M94 and audio amplifier connector B43.
3. Check continuity between AV control unit harness connector terminals and audio amplifier harness connector terminals.

Terminals				Continuity
AV control unit		Audio amplifier		
Connector	Terminal	Connector	Terminal	
A: M94	53	B: B43	6	Yes
	59		22	
	57		5	
	63		21	

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

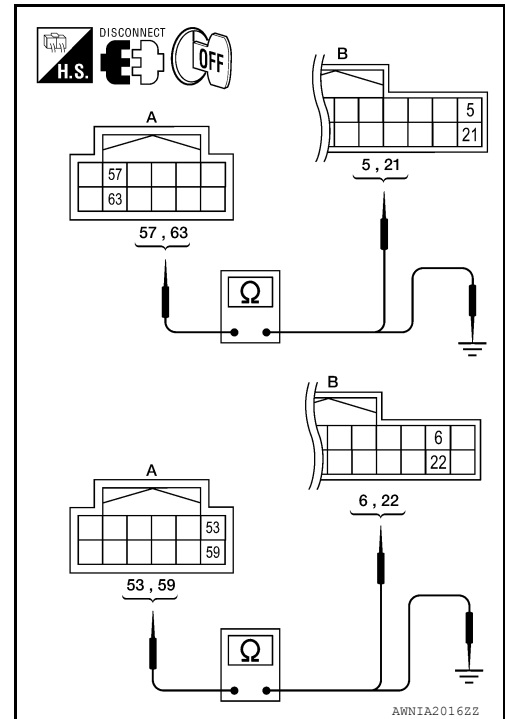
Terminals			Continuity
AV control unit		—	
Connector	Terminal		
A: M94	53	Ground	No
	57		
	59		
	63		

OK or NG

- OK >> GO TO 5.
- NG >> Repair harness or connector.

5. FRONT SPEAKER SIGNAL CHECK

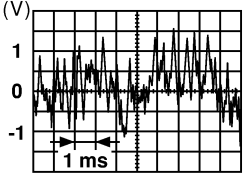
1. Connect AV control unit connector and audio amplifier connector.
2. Turn ignition switch to ACC.
3. Push "POWER" switch.



AUDIO

< SERVICE INFORMATION >

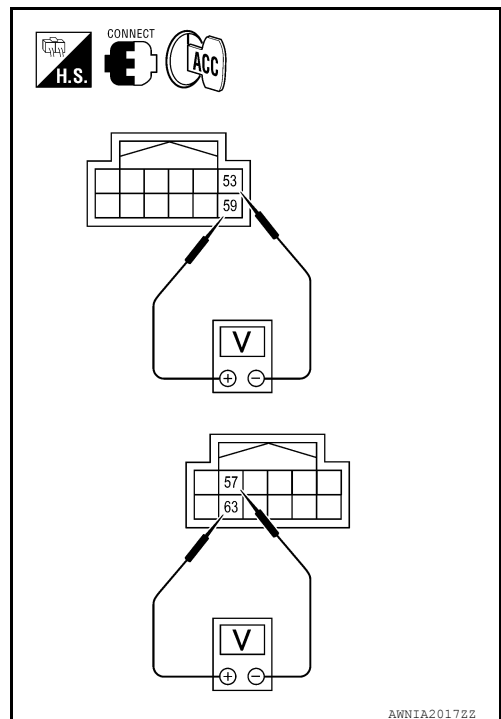
4. Check the signal between AV control unit harness connector terminals with CONSULT or oscilloscope.

Terminals				Condi- tion	Reference signal
(+) (+)		(-) (-)			
Con- nector	Termi- nal	Con- nector	Termi- nal		
M94	59	M94	53	Receive audio signal	
	63		57		

OK or NG

- OK >> Replace audio amplifier. Refer to [AV-82, "Removal and Installation"](#).
- NG >> Replace AV control unit. Refer to [AV-82, "Removal and Installation"](#).

[AUDIO WITHOUT NAVIGATION]



Sound Is Not Heard from Rear Speaker Assembly (Premium System with Rockford Fosgate)

INFOID:000000007405536

1. CONNECTOR CHECK

Check the audio unit and speaker connectors for the following:

- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

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

2. HARNESS CHECK

1. Turn ignition switch OFF.
2. Disconnect audio amplifier connectors B43, B44 and suspect speaker connector.

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AUDIO

< SERVICE INFORMATION >

3. Check continuity between audio amplifier harness connector terminal and suspect speaker harness connector terminal.

Terminals				Continuity
Audio amplifier		Speaker		
Connector	Terminal	Connector	Terminal	
A: B43	11	C: B40	4	Yes
	27		3	
	12	C: B38	4	
	28		3	
B: B44	2	C: B40	2	
	18		1	
	3	C: B38	2	
	19		1	

4. Check continuity between audio amplifier harness connector terminals and ground.

Terminals			Continuity
Audio amplifier		—	
Connector	Terminal		
A: B43	11	Ground	No
	27		
	12		
	28		
B: B44	2		
	18		
	3		
	19		

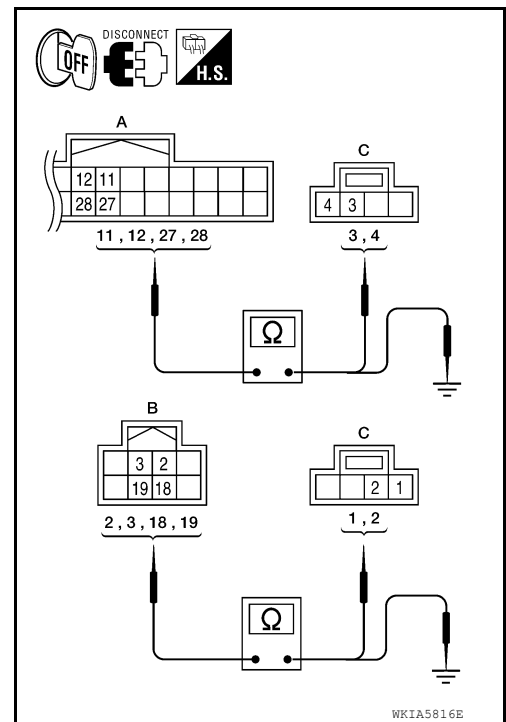
OK or NG

- OK >> GO TO 3.
 NG >> Repair harness or connector.

3. REAR SPEAKER SIGNAL CHECK

1. Connect audio amplifier connectors B43, B44 and suspect speaker connector.
2. Turn ignition switch to ACC.
3. Push "POWER" switch.

[AUDIO WITHOUT NAVIGATION]



AUDIO

< SERVICE INFORMATION >

- Check the signal between audio amplifier harness connector terminals with CONSULT or oscilloscope.

Terminals				Condition	Reference signal
(+)		(-)			
Con- nec- tor	Terminal	Con- nec- tor	Terminal		
A: B43	11	A: B43	27	Re- ceive audio signal	
		12			
B: B44	2	B: B44	18		
		3			

OK or NG

- OK >> Replace suspect speaker. Refer to [AV-82, "Removal and Installation"](#).
 NG >> GO TO 4.

4. HARNESS CHECK

- Turn ignition switch OFF.
- Disconnect AV control unit connector M94 and audio amplifier connector B43.
- Check continuity between AV control unit harness connector terminals and audio amplifier harness connector terminals.

Terminals				Continuity
AV control unit		Audio amplifier		
Connector	Terminal	Connector	Terminal	
A: M94	54	B: B43	8	Yes
	60		24	
	58		7	
	64		23	

- Check continuity between AV control unit harness connector terminal and ground.

Terminals			Continuity
AV control unit		—	
Connector	Terminal		
A: M94	54	Ground	No
	58		
	60		
	64		

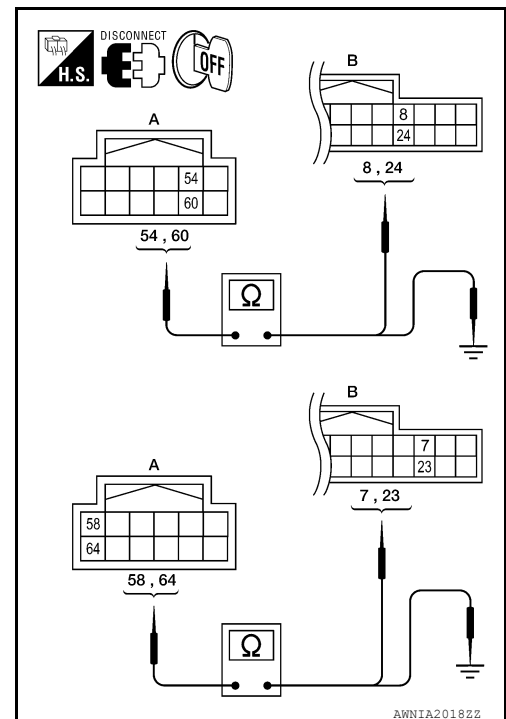
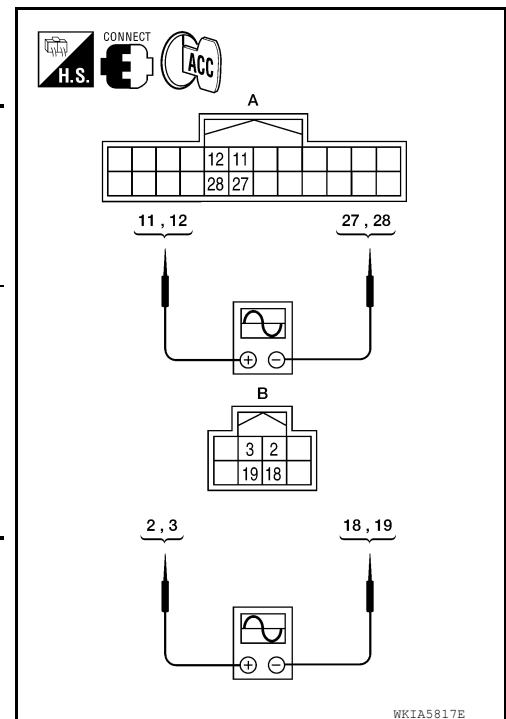
OK or NG

- OK >> GO TO 5.
 NG >> Repair harness or connector.

5. REAR SPEAKER SIGNAL CHECK

- Connect AV control unit connector M94 and audio amplifier connector B43.
- Turn ignition switch to ACC.

[AUDIO WITHOUT NAVIGATION]

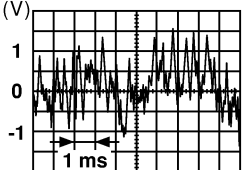


AUDIO

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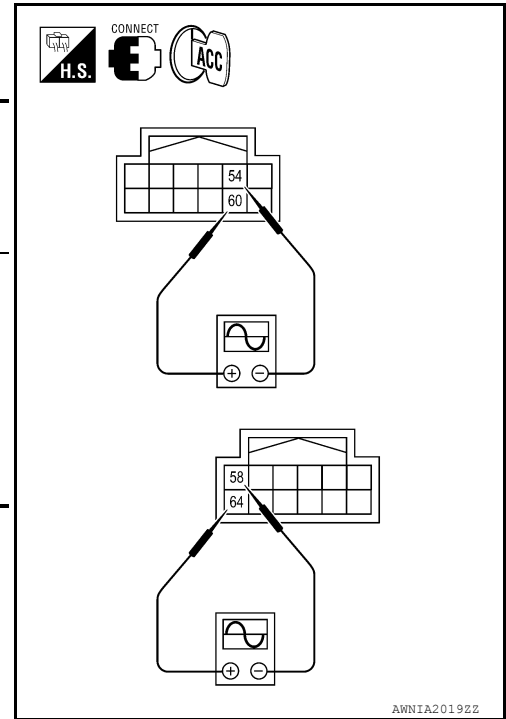
[AUDIO WITHOUT NAVIGATION]

3. Push "POWER" switch.
4. Check the signal between audio unit harness connector terminals with CONSULT or oscilloscope.

Terminals				Condi- tion	Reference signal
(+)		(-)			
Con- nector	Terminal	Con- nector	Terminal		
M94	60	M94	54	Re- ceive audio signal	
	64		58		

OK or NG

- OK >> Replace audio amplifier. Refer to [AV-82, "Removal and Installation"](#).
- NG >> Replace AV control unit. Refer to [AV-82, "Removal and Installation"](#).

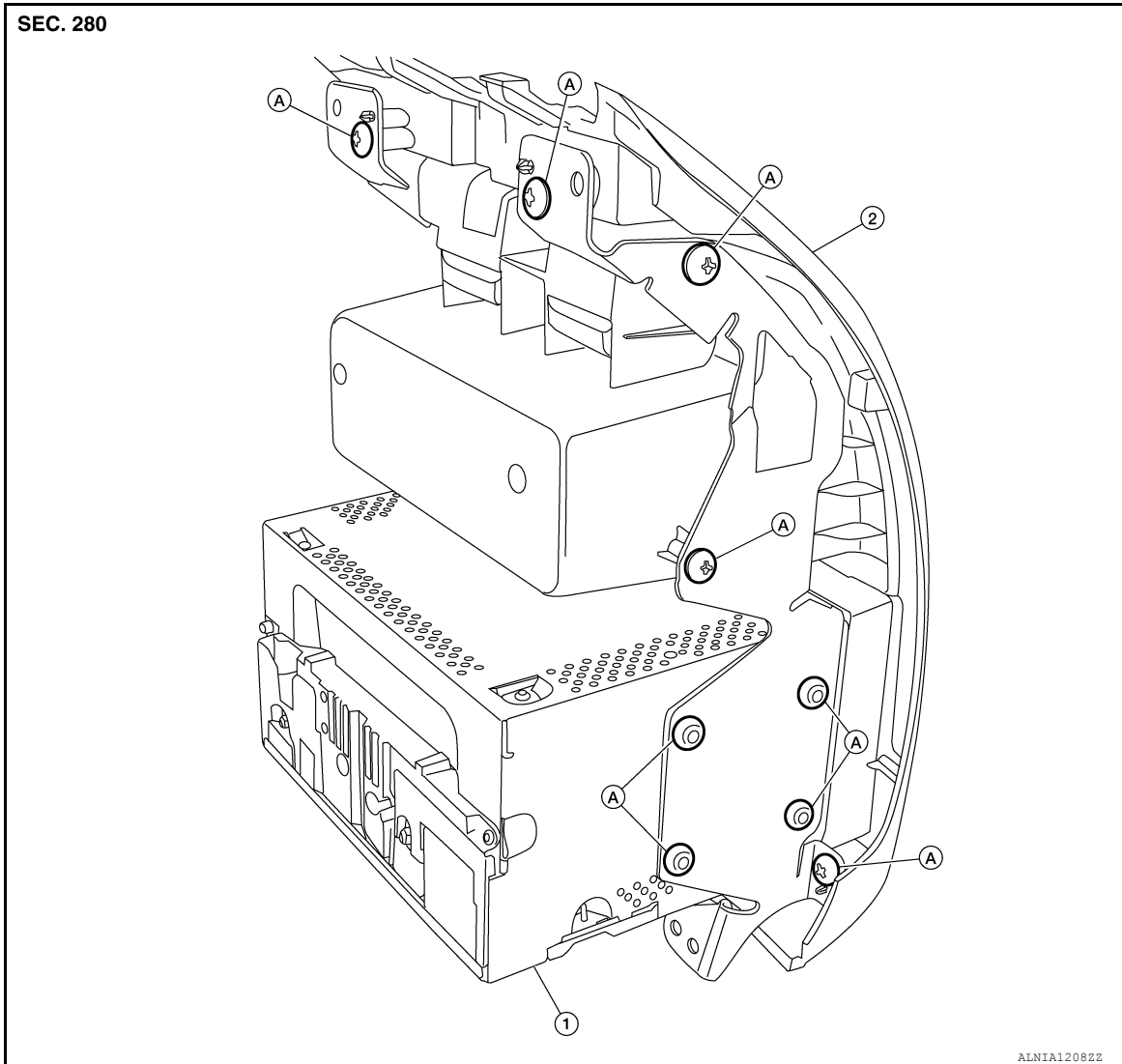


Removal and Installation

AUDIO UNIT

INFOID:000000007405537

AUDIO UNIT/AV CONTROL UNIT



- 1. Audio unit/AV control unit
- 2. Cluster lid C
- A. Cluster lid C bracket screws

Removal

1. Disconnect the battery negative terminal.
2. Remove the cluster lid C. Refer to [IP-11](#).
3. Disconnect the audio unit/AV control unit harness.
4. Remove the cluster lid C bracket screws.
5. Remove the audio unit/AV control unit.

Installation

Installation is in the reverse order of removal.

FRONT TWEETER

Removal

1. Remove the front pillar garnish. Refer to [EI-36](#).
2. Remove the front tweeter grille.

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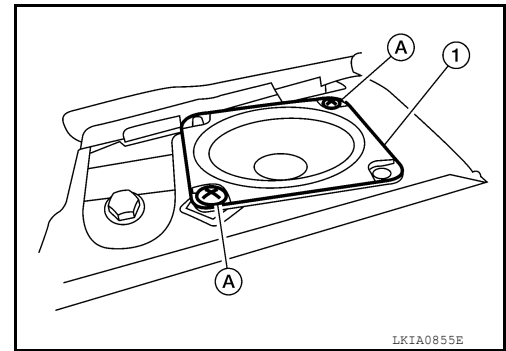
AV

AUDIO

< SERVICE INFORMATION >

[AUDIO WITHOUT NAVIGATION]

3. Remove the front tweeter screws (A), disconnect the front tweeter connector and remove the front tweeter (1).



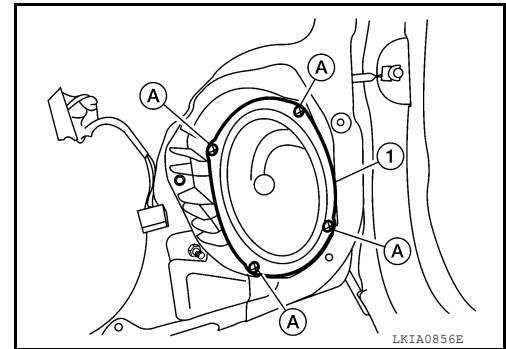
Installation

Installation is in the reverse order of removal.

FRONT DOOR SPEAKER

Removal

1. Remove the front door finisher. Refer to [EI-33](#).
2. Remove the front door speaker screws (A), disconnect the front door speaker connector and remove the front door speaker (1).



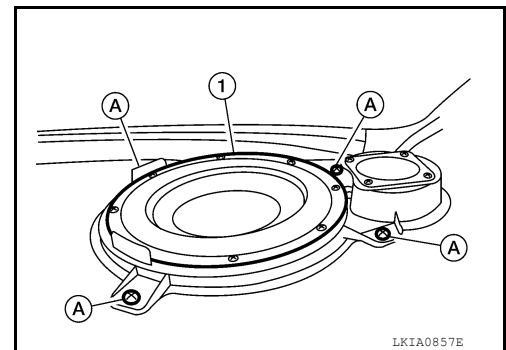
Installation

Installation is in the reverse order of removal.

REAR SPEAKER

Removal

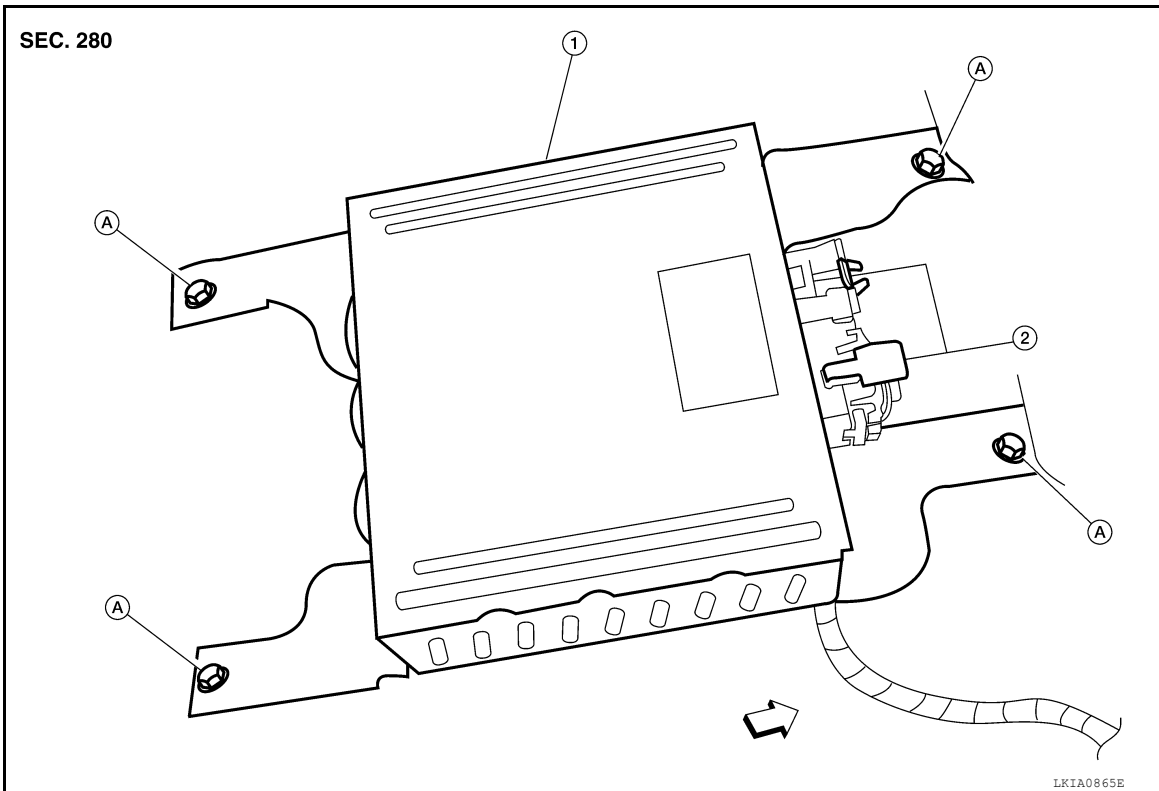
1. Remove the rear parcel shelf finisher. Refer to [EI-40, "Removal and Installation - Rear Parcel Shelf Finisher"](#).
2. Remove the rear speaker screws (A), disconnect the rear speaker connector and remove the rear speaker (1).



Installation

Installation is in the reverse order of removal.

AUDIO AMPLIFIER



1. Audio amplifier

2. Audio amplifier connectors

A. Bolts

⇐ Front

Removal

1. Disconnect the battery negative terminal.
2. Slide the RH front seat toward the front to remove the audio amplifier rear bolts.
3. Slide the RH front seat toward the rear to remove the audio amplifier front bolts.
4. Disconnect the audio amplifier connectors and remove the audio amplifier.

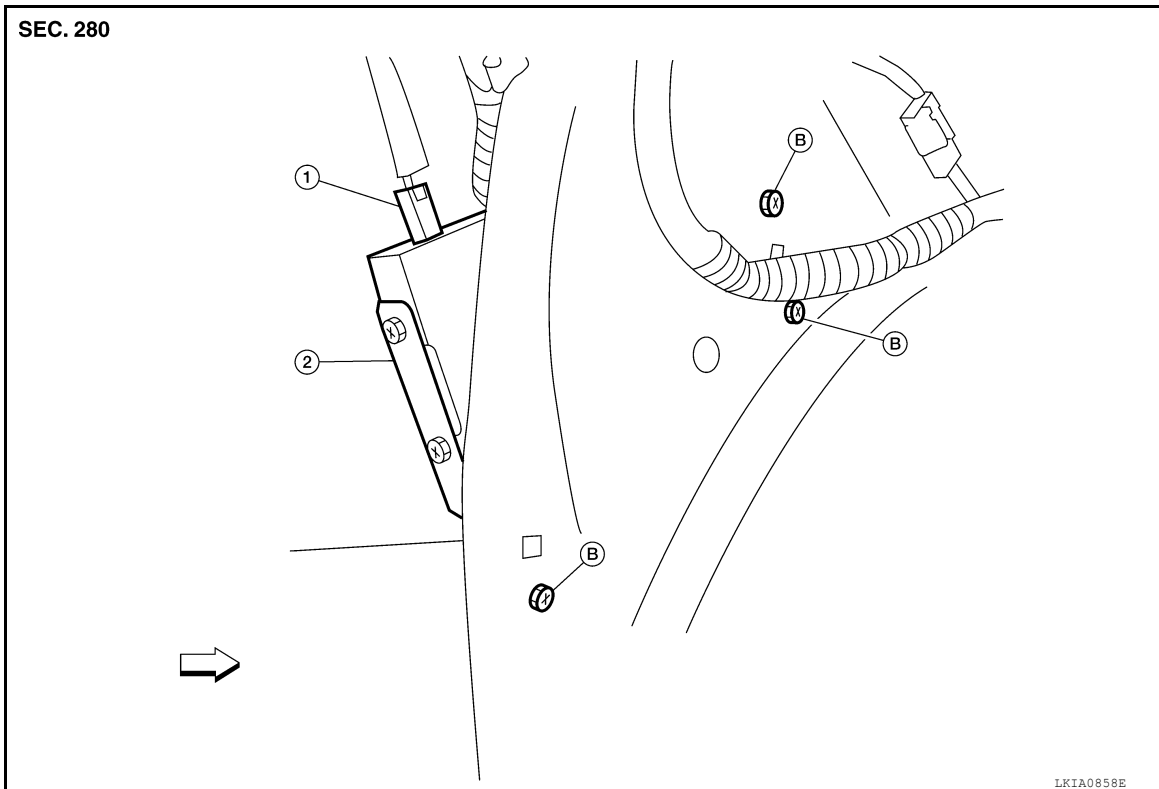
Installation

Installation is in the reverse order of removal.

SATELLITE RADIO TUNER

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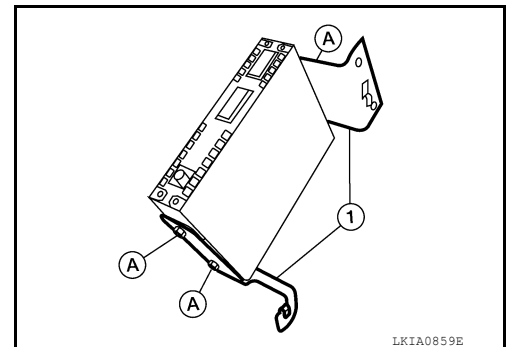


1. Satellite radio tuner connector 2. Satellite radio tuner B. Bolts

⇐ Front

Removal

1. Remove the luggage side finisher (LH). Refer to [EI-48, "Removal and Installation"](#).
2. Remove the satellite radio tuner bolts.
3. Disconnect the satellite radio tuner connector and remove the satellite radio tuner.
4. If necessary, remove the satellite radio tuner bracket bolts (A) and remove the satellite radio tuner brackets (1).



Installation

Installation is in the reverse order of removal.

STEERING WHEEL AUDIO CONTROL SWITCHES

Removal

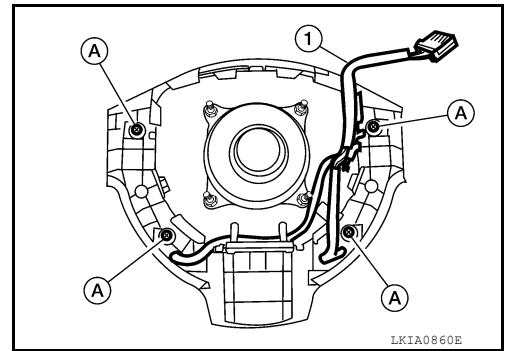
1. Remove the driver air bag module. Refer to [SRS-31, "Removal and Installation"](#).

AUDIO

< SERVICE INFORMATION >

[AUDIO WITHOUT NAVIGATION]

2. Remove the steering wheel audio control switches screws (A) and remove the steering wheel audio control switches (1).



Installation

Installation is in the reverse order of removal.

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USB CONNECTOR AND AUX JACK

< SERVICE INFORMATION >

[AUDIO WITHOUT NAVIGATION]

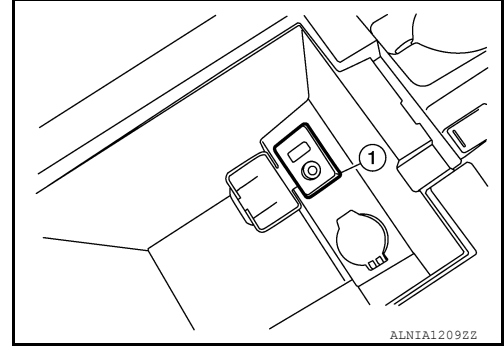
USB CONNECTOR AND AUX JACK

Removal and Installation

INFOID:000000007405538

REMOVAL

1. Remove the center console assembly. Refer to [IP-12. "Removal and Installation"](#).
2. Push the pawl from the back of the center console to remove the USB interface and aux jack (1).



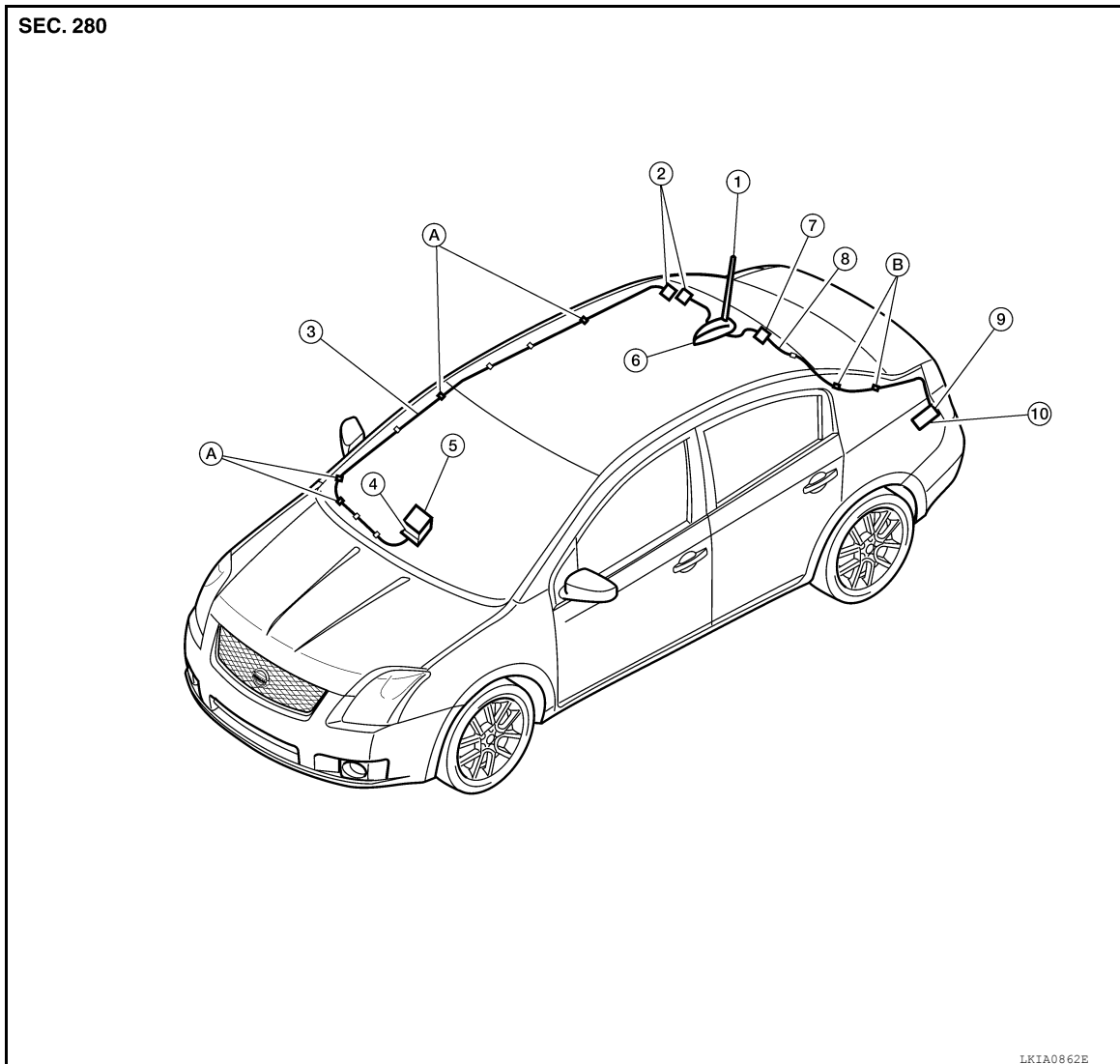
INSTALLATION

Installation is in the reverse order of removal.

AUDIO ANTENNA

Location of Antenna

INFOID:000000007405539



- | | | |
|---|---|---|
| 1. Roof antenna | 2. Roof antenna base connectors | 3. Antenna feeder |
| 4. Antenna feeder connector | 5. Audio unit (base and mid system)
AV control unit (premium system) | 6. Roof antenna base |
| 7. Satellite radio tuner antenna feeder connector | 8. Satellite radio tuner antenna feeder | 9. Satellite radio tuner antenna feeder connector |
| 10. Satellite radio tuner | A. Antenna feeder clips | B. Satellite radio tuner antenna feeder clips |

Removal and Installation of Roof Antenna

INFOID:000000007405540

REMOVAL

1. Remove rear pillar finishers. Refer to [EI-45, "Removal and Installation"](#).
2. Remove rear assist grip (LH). Refer to [EI-45, "Removal and Installation"](#).
3. Remove three headlining rear clips. Pull down the rear part of the headliner to reposition out of the way.
CAUTION:
Use care when repositioning headlining to avoid causing damage.

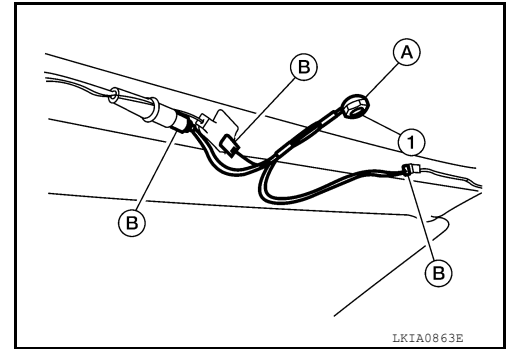
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AUDIO ANTENNA

< SERVICE INFORMATION >

4. Disconnect the harness connectors (B) from the roof antenna.
5. Remove the roof antenna nut (A) and roof antenna (1).

[AUDIO WITHOUT NAVIGATION]



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

Always properly tighten the antenna during installation to ensure proper radio reception and that the antenna cannot bend or break during vehicle operation.

TELEPHONE

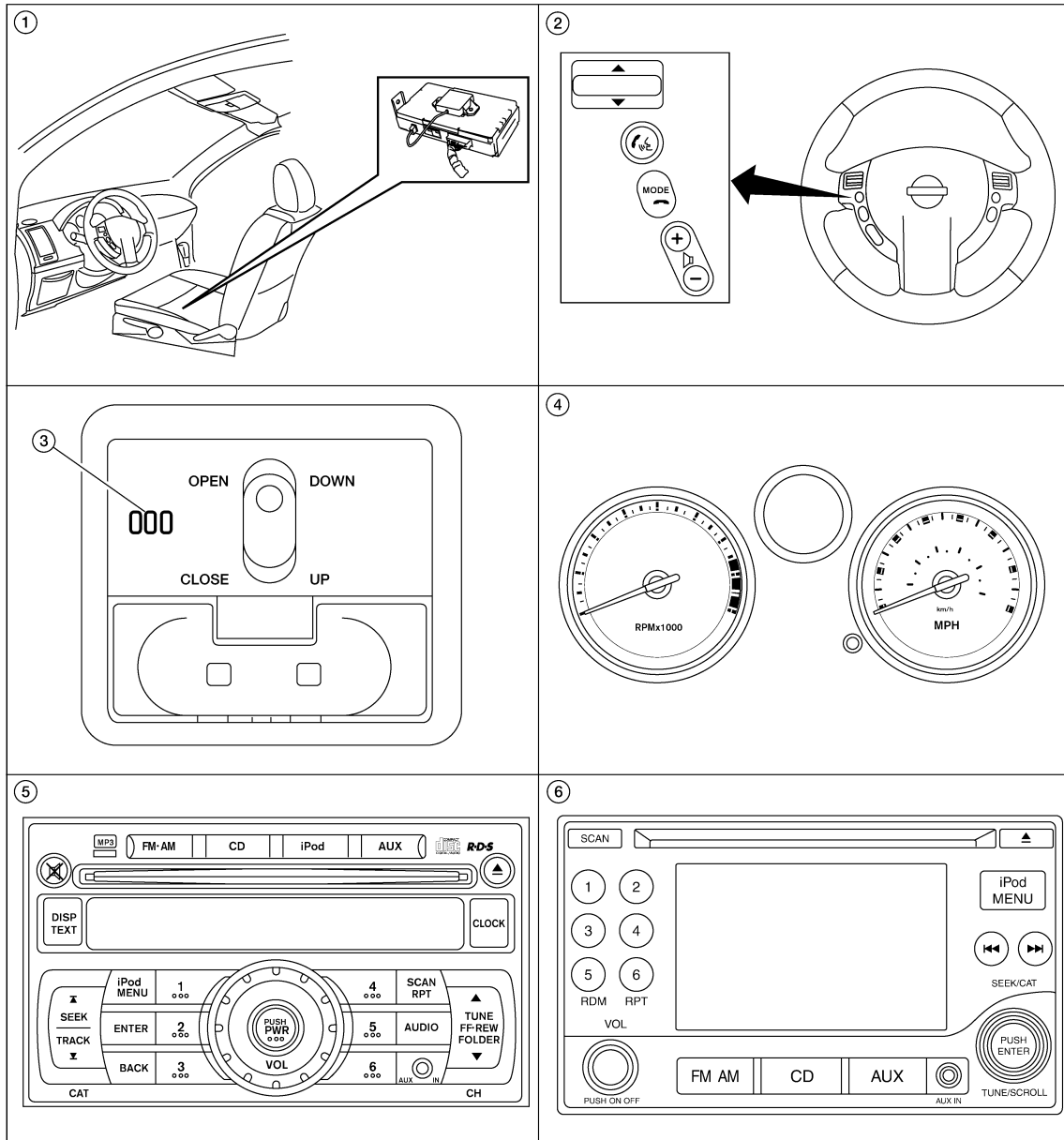
< SERVICE INFORMATION >

[AUDIO WITHOUT NAVIGATION]

TELEPHONE

Component Parts and Harness Connector Location

INFOID:000000007405541



- | | | |
|------------------------------------|--|---|
| 1. Bluetooth control unit B15, B92 | 2. Steering wheel audio control switches | 3. Microphone R4 |
| 4. Combination meter M24 | 5. Audio unit M43, M53 (with mid system) | 6. AV control unit M92, M93 (with premium system) |

System Description

INFOID:000000007405542

BLUETOOTH® HANDS-FREE PHONE SYSTEM

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

NOTE:

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

Bluetooth telephone system allows users who have a Bluetooth cellular telephone to make a wireless connection between their cellular telephone and the Bluetooth control unit. Hands-free cellular telephone calls can be

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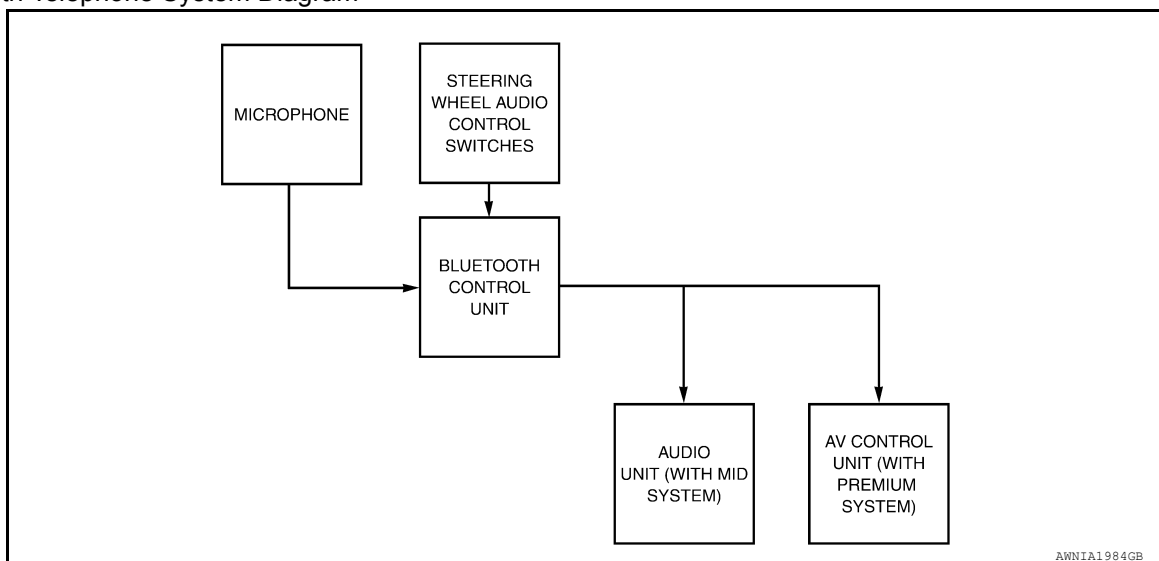
TELEPHONE

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[AUDIO WITHOUT NAVIGATION]

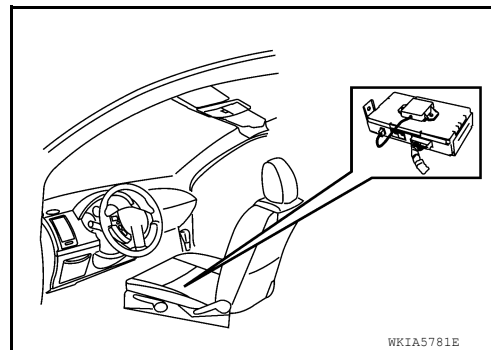
sent and received. Some Bluetooth cellular telephones may not be recognized by the Bluetooth control unit. When a cellular telephone or the Bluetooth control unit is replaced, the telephone must be paired with the Bluetooth control unit. Different cellular telephones may have different pairing procedures. Refer to the cellular telephone operating manual.

Bluetooth Telephone System Diagram



Bluetooth Control Unit

When the ignition switch is turned to ACC or ON, the Bluetooth control unit will power up. During power up, the Bluetooth control unit is initialized and performs various self checks. Initialization may take up to 20 seconds. If a phone is present in the vehicle and paired with the Bluetooth control unit, Nissan Voice Recognition will then become active. Bluetooth telephone functions can be turned off using the Nissan Voice Recognition system.

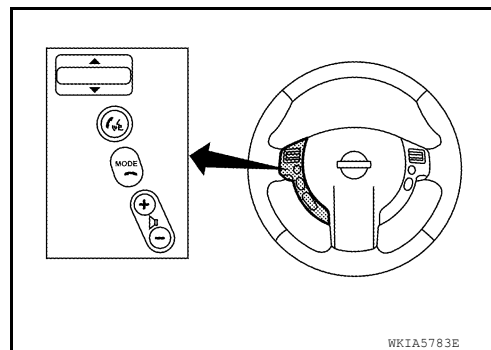


Steering Wheel Audio Control Switches

When buttons on the steering wheel audio control switch are pushed, the resistance in steering wheel audio control switch circuit changes depending on which button is pushed. The Bluetooth control module uses this signal to perform various functions while navigating through the voice recognition system.

The following functions can be performed using the steering wheel audio control switch:

- Initiate Self Diagnosis of the Bluetooth telephone system
- Start a voice recognition session
- Answer and end telephone calls
- Adjust the volume of calls



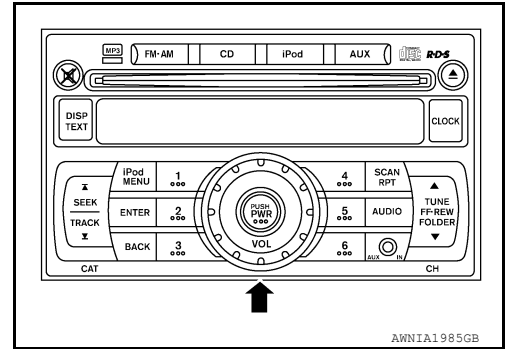
Volume Switch (with mid system)

TELEPHONE

< SERVICE INFORMATION >

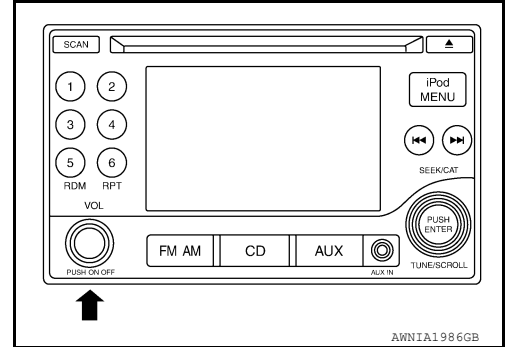
Call volume can be adjusted using the audio unit volume switch.

[AUDIO WITHOUT NAVIGATION]



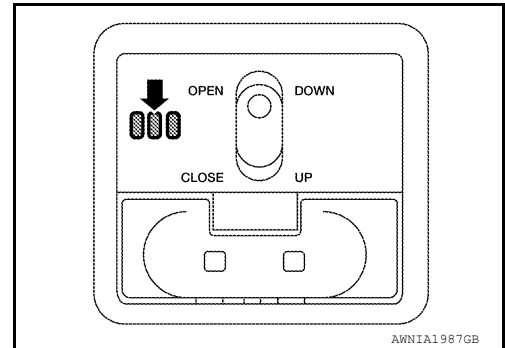
Volume Switch (with premium system)

Call volume can be adjusted using the AV control unit volume switch.



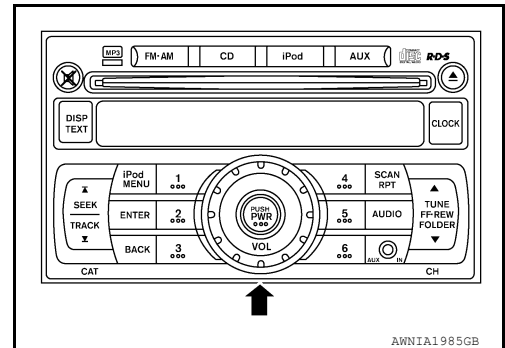
Bluetooth Microphone

The Bluetooth microphone is located in the roof console assembly. The Bluetooth microphone sends a signal to the Bluetooth control unit. The Bluetooth microphone can be actively tested during self-diagnosis.



Audio Unit (with mid system)

The audio unit receives signals from the Bluetooth control unit and sends audio signals to the speakers.



AV Control Unit (with premium system)

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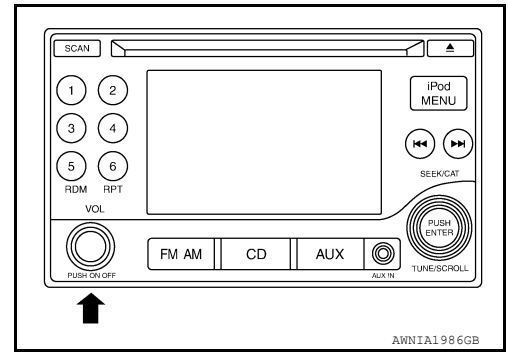
AV

TELEPHONE

< SERVICE INFORMATION >

The AV control unit receives signals from the Bluetooth control unit and sends audio signals to the speakers.

[AUDIO WITHOUT NAVIGATION]



TELEPHONE

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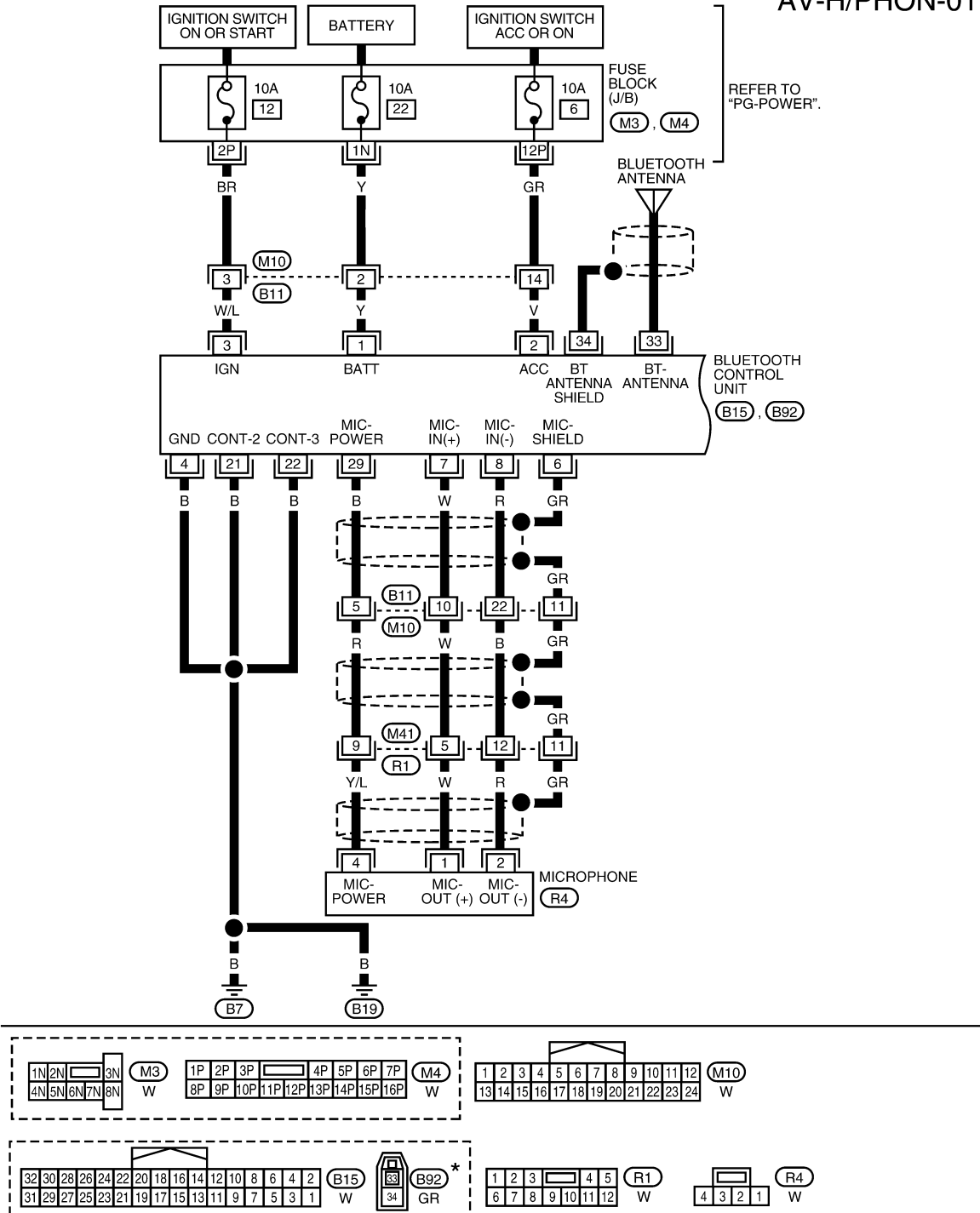
[AUDIO WITHOUT NAVIGATION]

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Wiring Diagram - H/PHON -

MID SYSTEM

AV-H/PHON-01



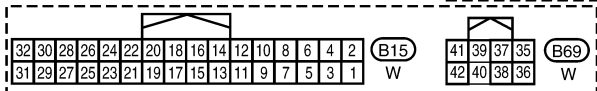
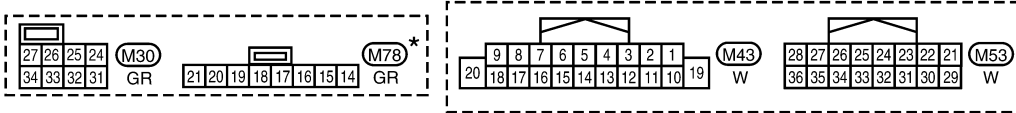
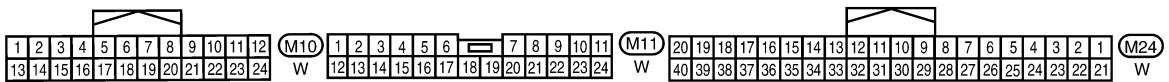
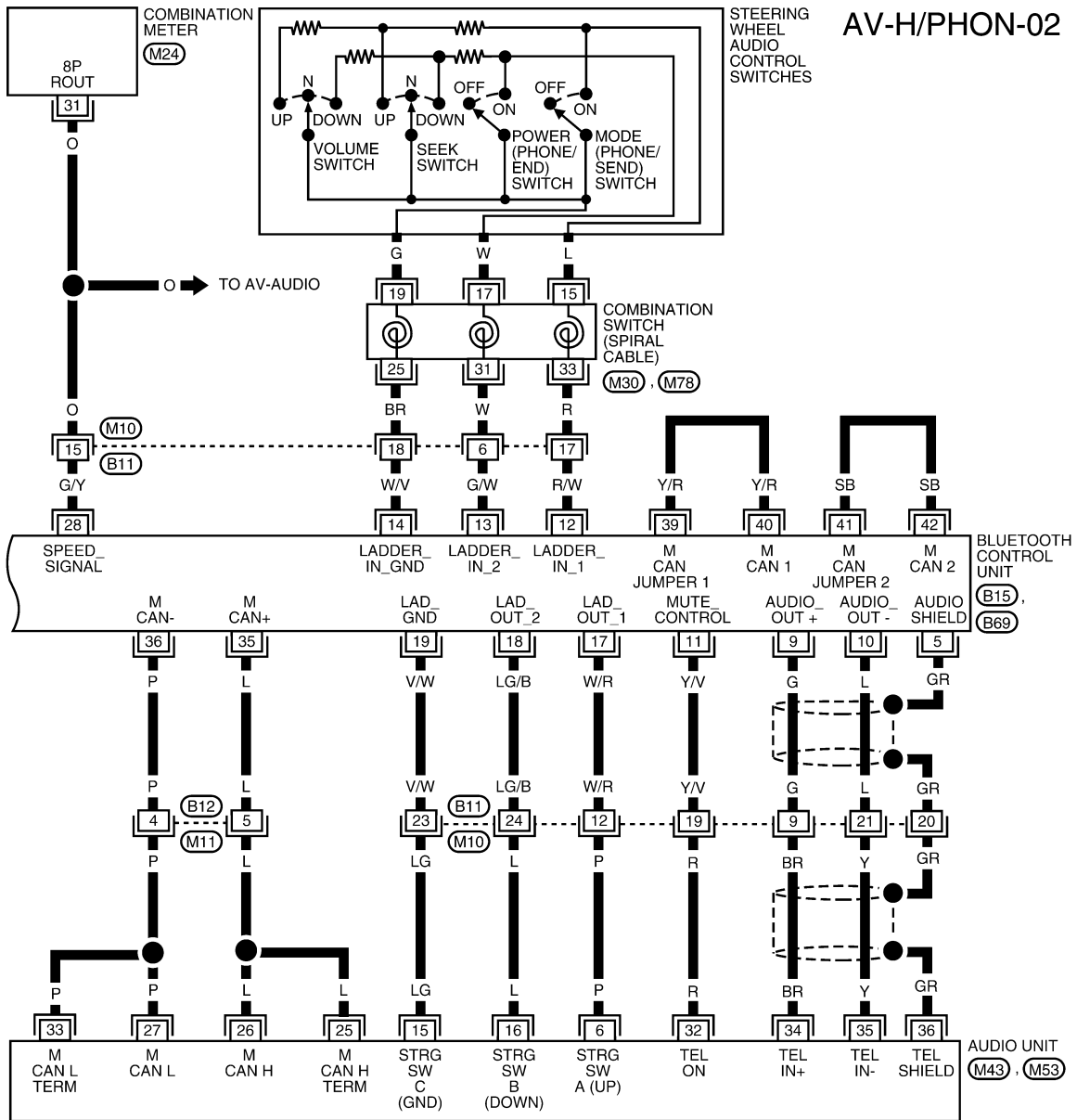
*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT" OF PG SECTION.

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TELEPHONE

< SERVICE INFORMATION >

[AUDIO WITHOUT NAVIGATION]



* : THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT" OF PG SECTION.

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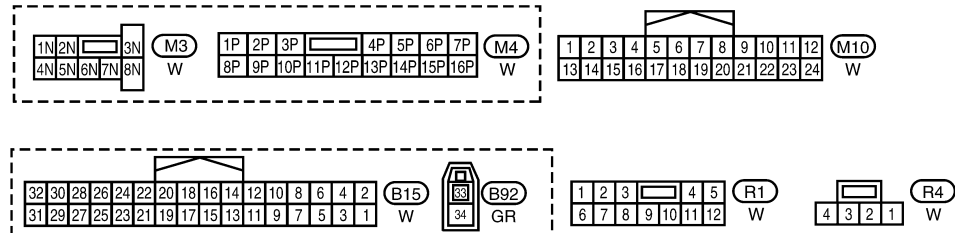
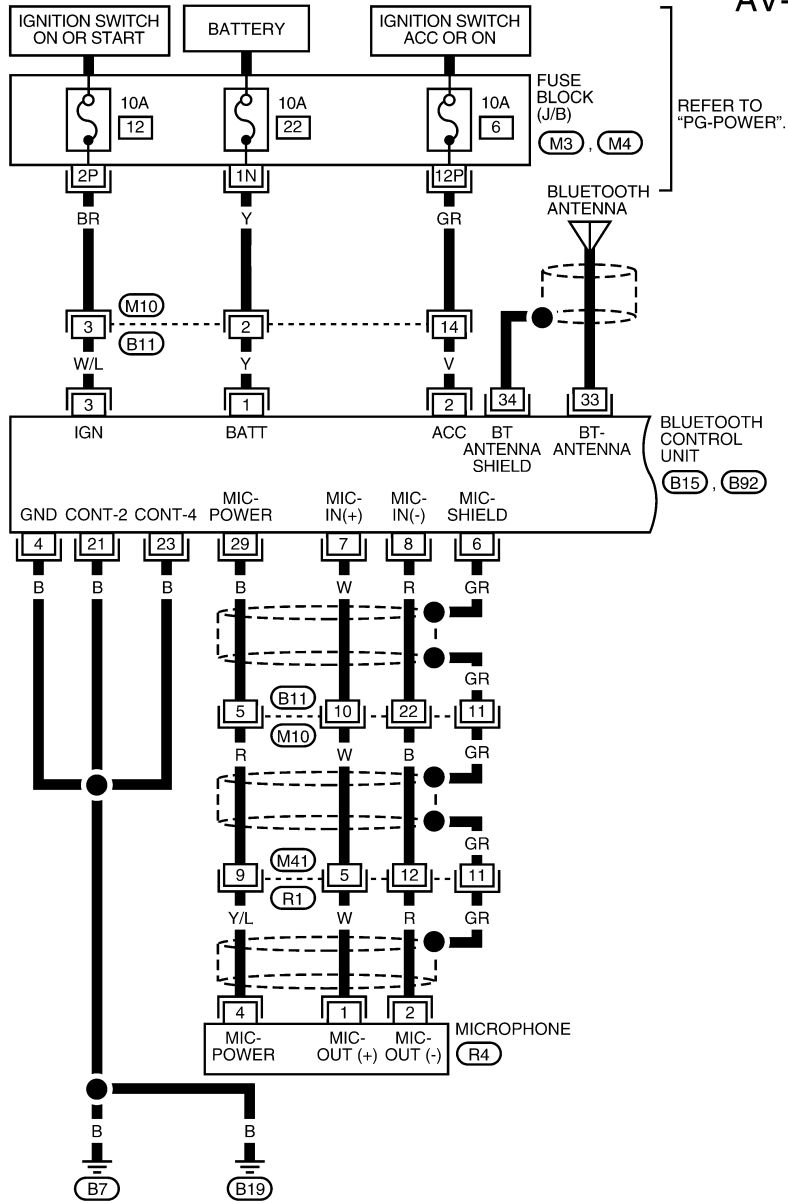
TELEPHONE

< SERVICE INFORMATION >

[AUDIO WITHOUT NAVIGATION]

PREMIUM SYSTEM

AV-H/PHON-03



*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT" OF PG SECTION.

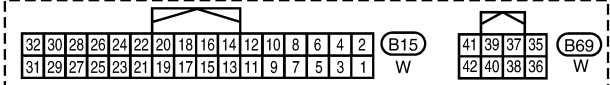
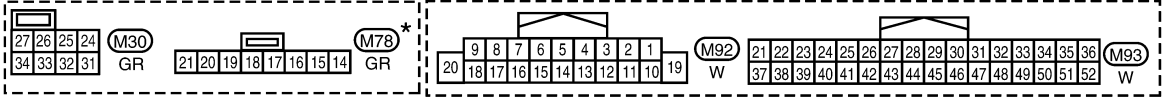
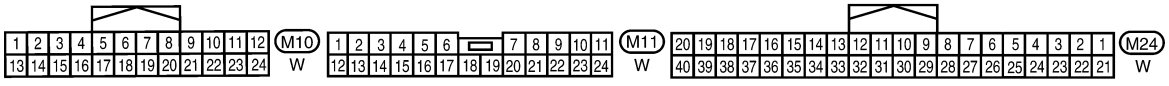
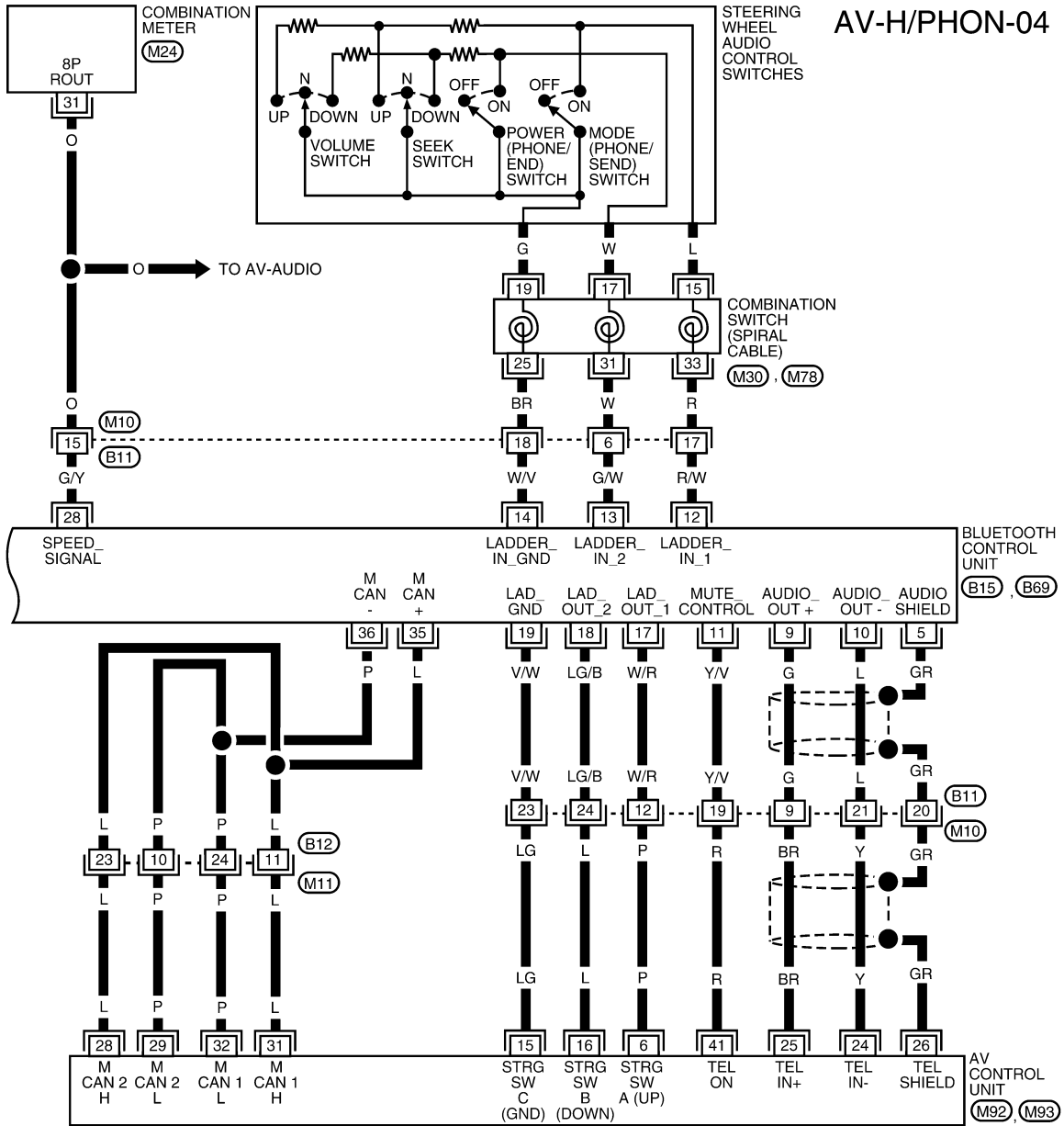
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TELEPHONE

< SERVICE INFORMATION >

[AUDIO WITHOUT NAVIGATION]

AV-H/PHON-04



*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT" OF PG SECTION.

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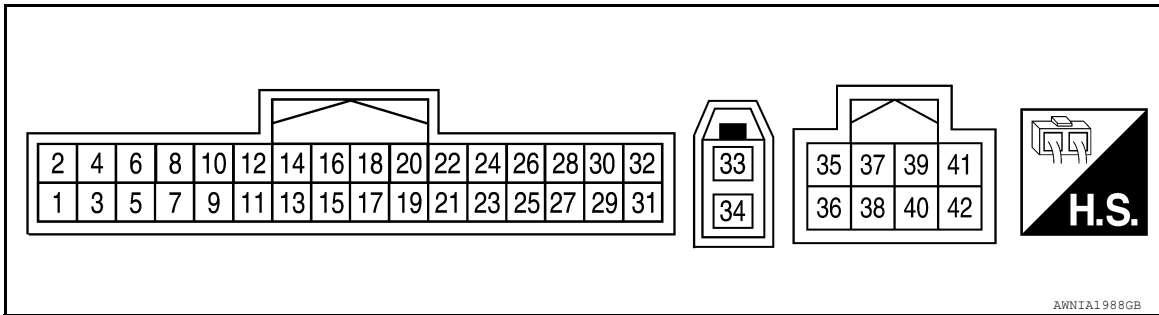
TELEPHONE

< SERVICE INFORMATION >

[AUDIO WITHOUT NAVIGATION]

Bluetooth Control Unit Harness Connector Terminal Layout

INFOID:000000007405544



Terminal and Reference Value for Bluetooth Control Unit

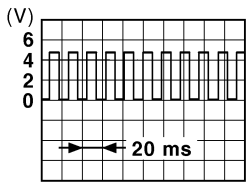
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Terminal (Wire color)		Item	Signal input/output	Condition		Reference value (Approx.)	Example of symptom
+	-			Ignition switch	Operation		
1 (Y)	Ground	Battery power	Input	—	—	Battery voltage	System does not work properly.
2 (V)	Ground	ACC power	Input	ACC/ON	—	Battery voltage	System does not work properly.
3 (W/L)	Ground	IGN power	Input	ON/START	—	Battery voltage	System does not work properly.
4 (B)	—	Ground	—	—	—	—	—
5 (GR)	—	Shield	—	—	—	—	—
6 (GR)	—	Shield	—	—	—	—	—
7 (W)	8 (R)	Mic-in signal	Input	ACC/ON	When giving a voice		Bluetooth Microphone inoperative.
9 (G)	10 (L)	Audio out	Output	ACC/ON	Bluetooth control unit sends audio signal		Audio can not be heard.
11 (Y/V)	—	Mute	Output	—	—	5V	Mute inoperative.
12 (R/W)	Ground	Remote control switch 1	Input	ACC/ON	Press MODE switch	0V	Steering wheel audio control switches do not function.
					Press SEEK UP switch	0.75V	
					Press VOL UP switch	2V	
					Except for above	5V	

TELEPHONE

< SERVICE INFORMATION >

[AUDIO WITHOUT NAVIGATION]

Terminal (Wire color)		Item	Signal input/ output	Condition		Reference value (Approx.)	Example of symptom
+	-			Ignition switch	Operation		
13 (G/W)	Ground	Remote control switch 2	Input	ACC/ ON	Press POWER switch	0V	Steering wheel audio control switches do not function.
					Press SEEK DOWN switch	0.75V	
					Press VOL DOWN switch	2V	
					Except for above	5V	
14 (W/V)	—	Remote control ground	Input	—	—	—	Steering wheel audio control switches do not function.
17 (W/R)	Ground	Audio unit switch 1	Output	ACC/ ON	Press Phone/ End switch	0V	Steering wheel audio controls do not func- tion.
					Press SEEK UP switch	0.75V	
					Press VOL UP switch	2V	
					Except for above	5V	
18 (LG/B)	Ground	Audio unit switch 2	Output	ACC/ ON	Press Phone/ Send switch	0V	Steering wheel audio controls do not func- tion.
					Press SEEK DOWN switch	0.75V	
					Press VOL DOWN switch	2V	
					Except for above	5V	
19 (V/W)	Ground	Audio unit switch ground	Output	—	—	—	Steering wheel audio controls do not func- tion.
21 (B)	—	Cont-2	—	—	—	—	—
22 *1 (B)	—	Cont-3	—	—	—	—	—
23 *2 (B)	—	Cont-4	—	—	—	—	—
28 (G/Y)	Ground	Vehicle speed signal (8-pulse)	Input	ON	When vehicle speed is approx. 40 km/h (25 MPH)		—
29 (B)	Ground	Bluetooth Microphone power	Output	—	—	5V	Bluetooth Micro- phone inoperative.
33	—	Bluetooth antenna sig- nal	Input	—	—	—	—
34	—	Shield	—	—	—	—	—
35 (L)	—	M CAN +	—	—	—	—	—
36 (P)	—	M CAN -	—	—	—	—	—

Terminal (Wire color)		Item	Signal input/ output	Condition		Reference value (Approx.)	Example of symptom
+	-			Ignition switch	Operation		
39 *1 (Y/R)	—	M CAN jumper 1	—	—	—	—	—
40 *1 (Y/R)	—	M CAN 1	—	—	—	—	—
41 *1 (SB)	—	M CAN jumper 2	—	—	—	—	—
42 *1 (SB)	—	M CAN 2	—	—	—	—	—

*1 With Mid System

*2 With Premium System

Bluetooth Control Unit Self-Diagnosis Function

INFOID:000000007405546

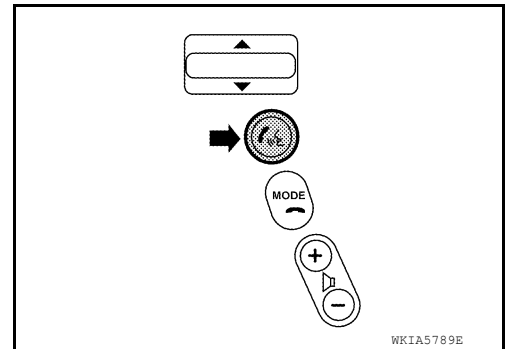
The Bluetooth control unit has two diagnostic checks. The first diagnostic check is performed automatically every ignition cycle during control unit initialization. The second diagnostic check is performed by the technician using the steering wheel audio control switches prior to trouble diagnosis.

BLUETOOTH CONTROL UNIT INITIALIZATION CHECKS

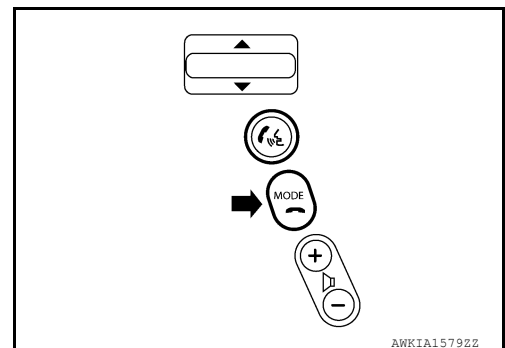
- Internal control unit failure
- Bluetooth antenna connection open or shorted
- Steering wheel audio control switches [PHONE/SEND (☎), MODE/END (MODE)] stuck closed
- Vehicle speed pulse count
- Bluetooth Microphone connection test (with playback to operator)
- Bluetooth inquiry check

SELF-DIAGNOSIS MODE

1. Turn ignition switch to ACC or ON.
2. Wait for the Bluetooth system to complete initialization. This may take up to 20 seconds.
3. Press and hold the steering wheel audio control switch PHONE/SEND (☎) button for at least 1.5 seconds. The Bluetooth system will begin to play a verbal prompt.



4. While the prompt is playing, momentarily press the steering wheel audio control switch MODE/END (MODE) button. The Bluetooth system will sound a 10 second beep.
5. While the beep is sounding, momentarily press the steering wheel audio control switch MODE/END (MODE) button again.
6. The Bluetooth system has now entered into the diagnostic mode. Results of the diagnostic checks will be verbalized to the technician. Refer to [AV-102, "Malfunction Code/Symptom Chart"](#).
7. If there are no failure records to report, the speed pulse count will be reported next.
8. After the speed pulse count is reported, an interactive Bluetooth microphone test will be performed. Follow the voice prompt. If the Bluetooth microphone test fails refer to [AV-102, "Malfunction Code/Symptom Chart"](#).
9. Self-diagnosis mode is complete. A short beep is heard.



How to Proceed with Trouble Diagnosis

INFOID:000000007405547

1. Confirm the symptom or customer complaint.
2. Perform Bluetooth control unit self-diagnosis. Refer to [AV-101, "Bluetooth Control Unit Self-Diagnosis Function"](#).
3. According to the symptom chart, repair or replace the cause of the symptom. Refer to [AV-102, "Malfunction Code/Symptom Chart"](#).
4. Does the Bluetooth system operate normally? If so, GO TO 5. If not, GO TO 2.
5. Inspection End.

Malfunction Code/Symptom Chart

INFOID:000000007405548

Code/Symptom	Failure Message	Action
1	"Internal failure"	Replace Bluetooth control unit. Refer to AV-107, "Removal and Installation" .
2	"Bluetooth antenna open"	1. Inspect harness connection. 2. Replace Bluetooth antenna. Refer to AV-107, "Removal and Installation" .
3	"Bluetooth antenna shorted"	
4	"Phone/Send for the Hands Free Phone System is stuck"	Check steering wheel audio control switches. Refer to AV-103, "Steering Wheel Audio Control Switch Does Not Operate" .
5	"Phone/End for the Hands Free Phone System is stuck"	
-	"Bluetooth Microphone test" (failed interactive test)	1. Inspect harness between Bluetooth control unit and Bluetooth microphone. 2. Replace Bluetooth microphone. Refer to AV-107, "Removal and Installation" .
Bluetooth system is inoperative	-	1. Inspect Bluetooth control unit power supply and ground circuits. Refer to AV-102, "Power Supply and Ground Circuit Inspection for Bluetooth Control Unit" . 2. Replace Bluetooth control unit. Refer to AV-107, "Removal and Installation" .
Steering wheel audio control switch does not operate	-	Refer to AV-103, "Steering Wheel Audio Control Switch Does Not Operate" .
Voice activated control does not operate	-	Refer to AV-104, "Voice Activated Control Function Does Not Operate" .

Power Supply and Ground Circuit Inspection for Bluetooth Control Unit

INFOID:000000007405549

1. CHECK FUSES

Make sure the following fuses for the Bluetooth control unit are not blown.

Connector	Terminals		Ignition Switch	Fuse No.
	Terminal			
B15	1		All positions	22
	2		ACC/ON	6
	3		ON/START	12

OK or NG

OK >> GO TO 2.

NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse. Refer to [PG-4](#).

2. CHECK POWER SUPPLY CIRCUIT

1. Disconnect Bluetooth control unit connector B15.

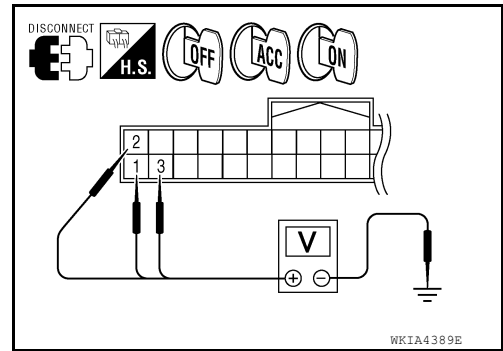
TELEPHONE

< SERVICE INFORMATION >

- Check voltage between connector terminals and ground as follows.

Terminals		(-)	Ignition switch position		
(+)			OFF	ACC	ON
Connector	Terminal				
B15	1	Ground	Battery voltage	Battery voltage	Battery voltage
	2		0V	Battery voltage	Battery voltage
	3		0V	0V	Battery voltage

[AUDIO WITHOUT NAVIGATION]



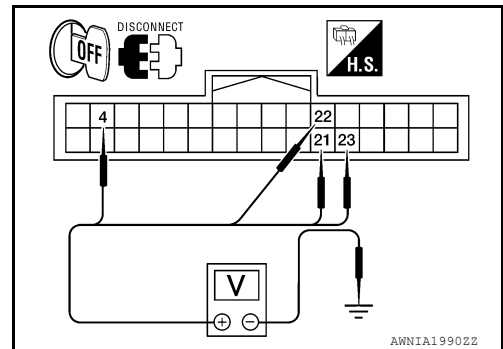
OK or NG

- OK >> GO TO 3.
- NG >> Check harness for open between Bluetooth control unit and fuse.

3. CHECK GROUND CIRCUITS

- Turn ignition switch OFF.
- Check continuity between the following Bluetooth control unit terminals and ground.

Terminals			Continuity
Connector	Terminal	—	
B15	4	Ground	Yes
	21		
	22 (with mid system)		
	23 (with premium system)		



OK or NG

- OK >> Inspection End.
- NG >> Repair or replace harness.

Steering Wheel Audio Control Switch Does Not Operate

INFOID:000000007405550

1. CHECK STEERING WHEEL AUDIO CONTROL SWITCH

Check steering wheel audio control switch. Refer to [AV-66, "Steering Switch Check \(With Bluetooth\)"](#).

OK or NG

- OK >> GO TO 2.
- NG >> Replace steering wheel audio control switch. [AV-82, "Removal and Installation"](#).

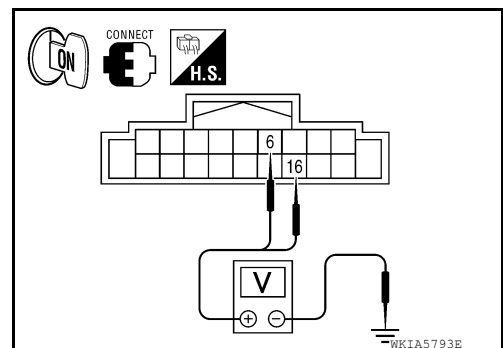
2. CHECK AUDIO UNIT

- Turn ignition switch ON.
- Check voltage between audio unit harness connector M43 (with mid system) or AV control unit harness M92 (with premium system) terminals 6, 16 and ground.

6 - Ground : Approx. 5V
16 - Ground : Approx. 5V

OK or NG

- OK >> Replace audio unit (with mid system). Refer to [AV-82, "Removal and Installation"](#).
- OK >> Replace AV control unit (with premium system). Refer to [AV-82, "Removal and Installation"](#).
- NG >> GO TO 3.



TELEPHONE

< SERVICE INFORMATION >

[AUDIO WITHOUT NAVIGATION]

3. CHECK BLUETOOTH CONTROL UNIT

Check voltage between Bluetooth control unit harness connector B15 terminals 17, 18 and ground.

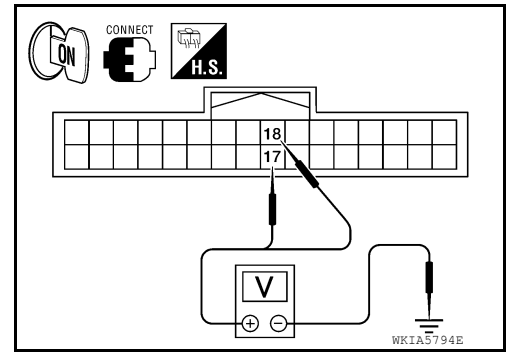
17 - Ground : Approx. 5V

18 - Ground : Approx. 5V

OK or NG

OK >> Repair or replace harness.

NG >> Replace Bluetooth control unit. [AV-107. "Removal and Installation"](#).



INFOID:000000007405551

Voice Activated Control Function Does Not Operate

NOTE:

Even under normal condition, Bluetooth voice guidance may not occur when pressing steering wheel audio control switch.

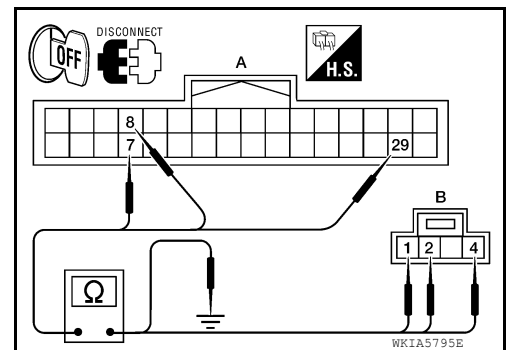
BLUETOOTH VOICE GUIDANCE IS HEARD WHEN PRESSING STEERING WHEEL AUDIO CONTROL SWITCH

1. CHECK HARNESS BETWEEN BLUETOOTH CONTROL UNIT AND MICROPHONE

1. Turn ignition switch OFF.
2. Disconnect Bluetooth control unit connector and microphone connector.
3. Check continuity between Bluetooth control unit connector B15 (A) and microphone connector R4 (B).

Terminals				Continuity
Connector	Terminal	Connector	Terminal	
A: B15	7	B: R4	1	Yes
	8		2	
	29		4	

4. Check continuity between Bluetooth control unit harness connector B15 and ground.



Terminals			Continuity
Connector	Terminal	—	
A: B15	7	Ground	No
	8		
	29		

OK or NG

OK >> GO TO 2.

NG >> Repair harness or connector.

2. CHECK MICROPHONE POWER SUPPLY

1. Connect Bluetooth control unit connector and microphone connector.
2. Turn ignition switch ON.

TELEPHONE

< SERVICE INFORMATION >

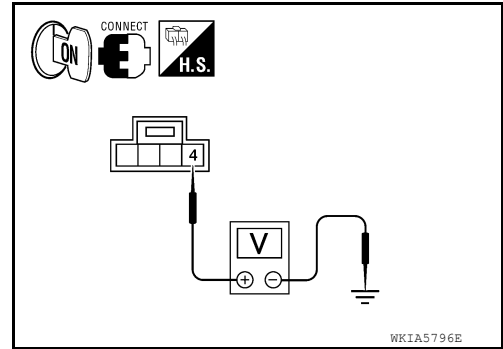
- Check voltage between microphone connector R4 terminal 4 and ground.

4 - Ground : Approx. 5V

OK or NG

- OK >> GO TO 3.
- NG >> Replace Bluetooth control unit. Refer to [AV-107, "Removal and Installation"](#).

[AUDIO WITHOUT NAVIGATION]

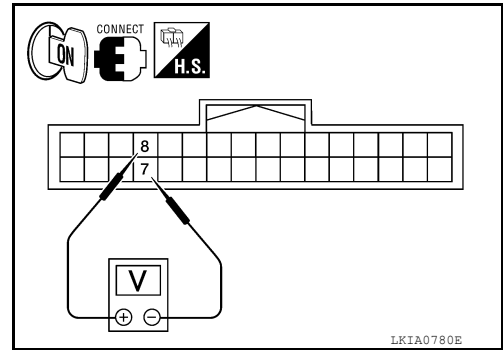
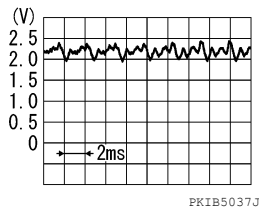


3. CHECK MICROPHONE SIGNAL

Check signal between Bluetooth control unit harness connector B15 terminals 7 and 8.

When giving a voice

7 - 8:



OK or NG

- OK >> Replace Bluetooth control unit. Refer to [AV-107, "Removal and Installation"](#).
- NG >> Replace microphone. Refer to [AV-107, "Removal and Installation"](#).

BLUETOOTH VOICE GUIDANCE IS NOT HEARD WHEN PRESSING STEERING WHEEL AUDIO CONTROL SWITCH (WITH MID SYSTEM)

1. CHECK STEERING WHEEL AUDIO CONTROL SWITCH CIRCUIT

Refer to [AV-103, "Steering Wheel Audio Control Switch Does Not Operate"](#).

OK or NG

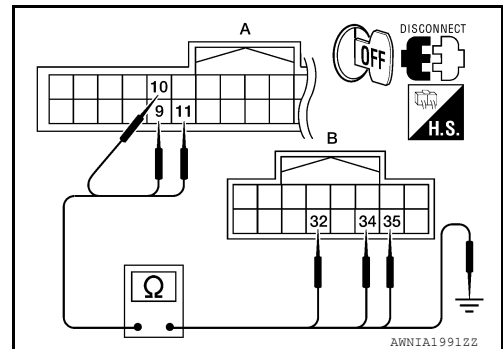
- OK >> GO TO 2.
- NG >> Replace applicable parts.

2. CHECK BLUETOOTH VOICE SIGNAL CIRCUIT

- Turn ignition switch OFF.
- Disconnect Bluetooth control unit connector and audio unit connector.
- Check continuity between Bluetooth control unit harness connector B15 (A) and audio unit harness connector M53 (B).

Terminals				Continuity
Connector	Terminal	Connector	Terminal	
A: B15	9	B: M53	34	Yes
	10		35	
	11		32	

- Check continuity between Bluetooth control unit harness connector B15 (A) and ground.



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[AUDIO WITHOUT NAVIGATION]

Terminals			Continuity
Connector	Terminal	—	
A: B15	9	Ground	No
	10		
	11		

OK or NG

- OK >> GO TO 3.
- NG >> Repair harness or connector.

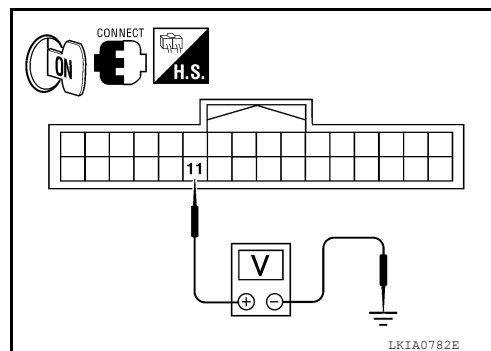
3. CHECK MUTE SIGNAL

1. Connect Bluetooth control unit connector and audio unit connector.
2. Turn ignition switch ON.
3. Check voltage between Bluetooth control unit connector B15 terminal 11 and ground.

11 - Ground : Approx. 5V

OK or NG

- OK >> GO TO 4.
- NG >> Replace audio unit. Refer to [AV-82, "Removal and Installation"](#).

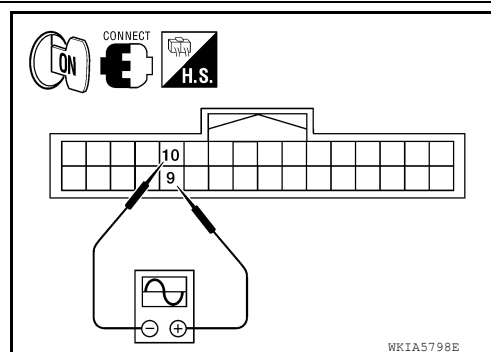
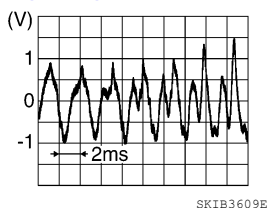


4. CHECK BLUETOOTH VOICE SIGNAL

Check signal between Bluetooth control unit harness connector B15 terminals 9 and 10.

When giving a voice

9 – 10:



OK or NG

- OK >> Replace audio unit. Refer to [AV-82, "Removal and Installation"](#).
- NG >> Replace Bluetooth control unit. Refer to [AV-107, "Removal and Installation"](#).

BLUETOOTH VOICE GUIDANCE IS NOT HEARD WHEN PRESSING STEERING WHEEL AUDIO CONTROL SWITCH (WITH PREMIUM SYSTEM)

1. CHECK STEERING WHEEL AUDIO CONTROL SWITCH CIRCUIT

Refer to [AV-103, "Steering Wheel Audio Control Switch Does Not Operate"](#).

OK or NG

- OK >> GO TO 2.
- NG >> Replace applicable parts.

2. CHECK BLUETOOTH VOICE SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect Bluetooth control unit connector and AV control unit connector.

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< SERVICE INFORMATION >

- Check continuity between Bluetooth control unit harness connector B15 (A) and AV control unit harness connector M93 (B).

Terminals				Continuity
Connector	Terminal	Connector	Terminal	
A: B15	9	B: M93	25	Yes
	10		24	
	11		41	

- Check continuity between Bluetooth control unit harness connector B15 (A) and ground.

Terminals			Continuity
Connector	Terminal	—	
A: B15	9	Ground	No
	10		
	11		

OK or NG

- OK >> GO TO 3.
- NG >> Repair harness or connector.

3. CHECK MUTE SIGNAL

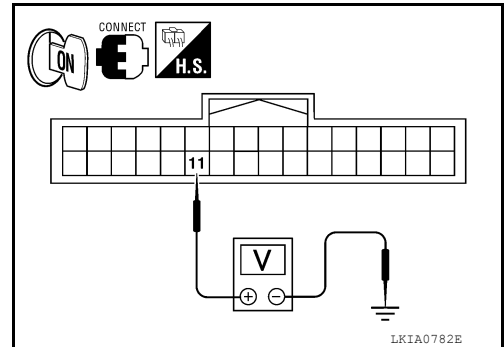
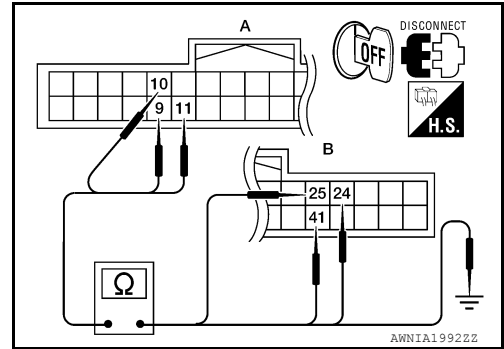
- Connect Bluetooth control unit connector and AV control unit connector.
- Turn ignition switch ON.
- Check voltage between Bluetooth control unit connector B15 terminal 11 and ground.

11 - Ground : Approx. 5V

OK or NG

- OK >> GO TO 4.
- NG >> Replace AV control unit. Refer to [AV-82. "Removal and Installation"](#).

[AUDIO WITHOUT NAVIGATION]

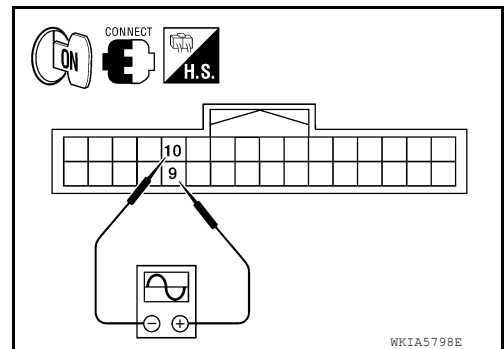
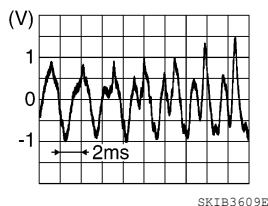


4. CHECK BLUETOOTH VOICE SIGNAL

Check signal between Bluetooth control unit harness connector B15 terminals 9 and 10.

When giving a voice

9 - 10:



OK or NG

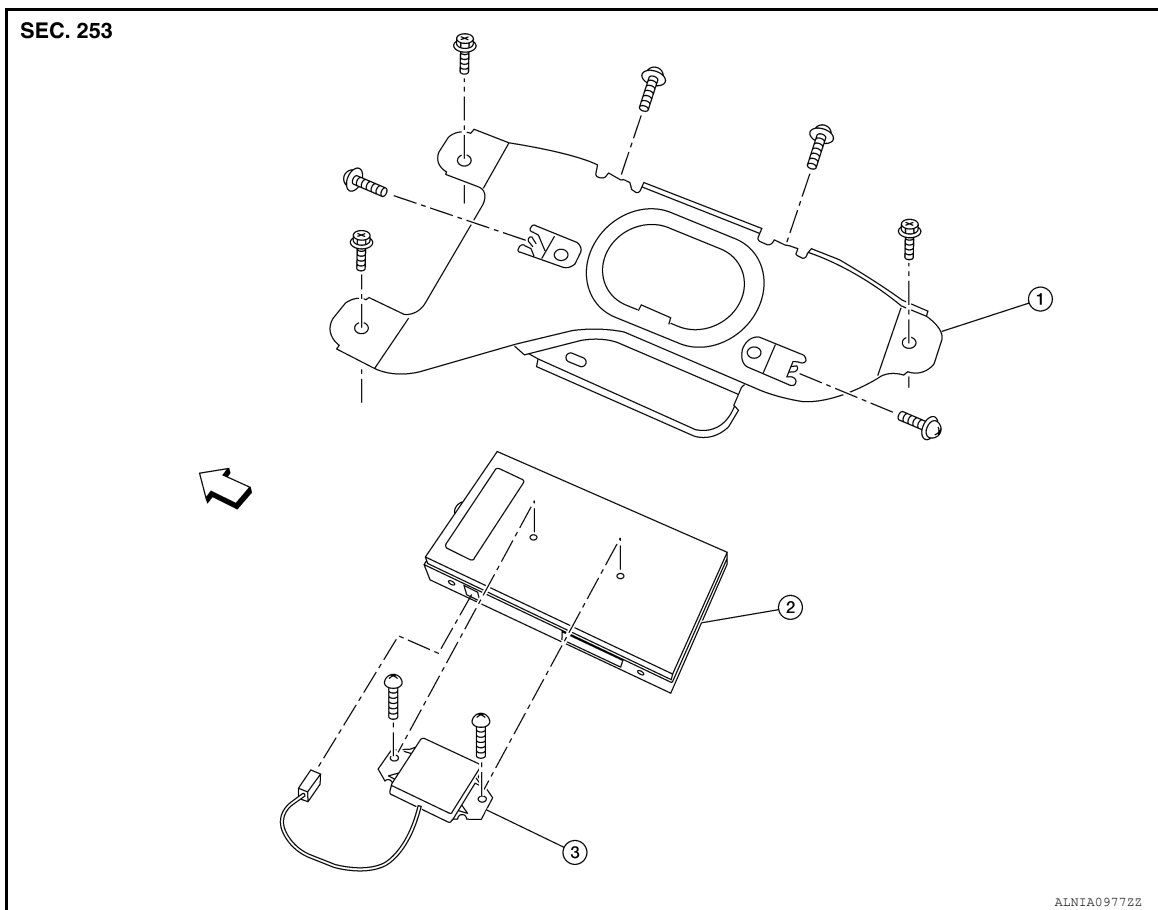
- OK >> Replace AV control unit. Refer to [AV-82. "Removal and Installation"](#).
- NG >> Replace Bluetooth control unit. Refer to [AV-107. "Removal and Installation"](#).

Removal and Installation

INFOID:000000007405552

COMPONENTS

Bluetooth Control Unit and Antenna



1. Bluetooth control unit bracket

2. Bluetooth control unit

3. Bluetooth antenna

⇐ Front

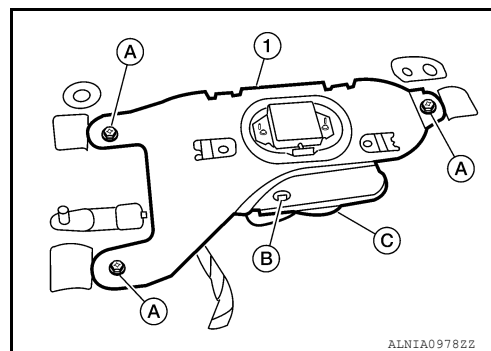
BLUETOOTH CONTROL UNIT

Removal

NOTE:

Bluetooth control unit shown with the LH seat removed for clarity.

1. Disconnect the battery negative terminal.
2. Slide the LH front seat toward the front to remove the bluetooth control unit bracket rear bolt (A).
3. Slide the LH front seat toward the rear to remove the bluetooth control unit bracket front bolts (A).
4. Detach the Bluetooth control unit harness clip (B) from the Bluetooth control unit bracket.
5. Disconnect the Bluetooth control unit connector (C).
6. Remove the Bluetooth control unit and bracket assembly (1).
7. Remove the Bluetooth control unit screws and remove the Bluetooth control unit.



Installation

Installation is in the reverse order of removal.

BLUETOOTH ANTENNA

Removal

NOTE:

Bluetooth antenna is mounted on top of the Bluetooth control unit.

1. Disconnect the battery negative terminal.

TELEPHONE

< SERVICE INFORMATION >

[AUDIO WITHOUT NAVIGATION]

2. Slide the LH front seat toward the rear.
3. Disconnect the Bluetooth antenna connector.
4. Remove the Bluetooth antenna screws and remove the Bluetooth antenna.

Installation

Installation is in the reverse order of removal.

BLUETOOTH MICROPHONE

Removal

1. Disconnect the battery negative terminal.
2. Remove the map lamp. Refer to [LT-84, "Map Lamp"](#).
3. Remove the Bluetooth microphone.

Installation

Installation is in the reverse order of removal.

A

B

C

D

E

F

G

H

I

J

AV

L

M

N

O

P

REAR VIEW CAMERA

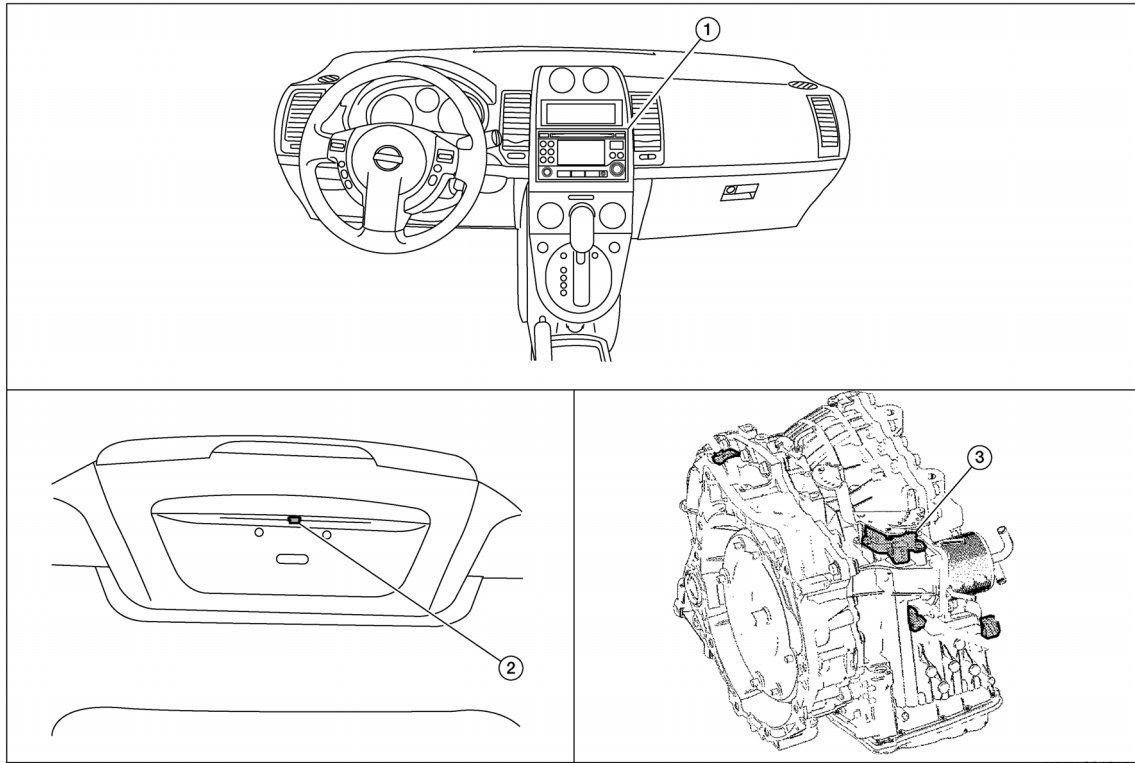
< SERVICE INFORMATION >

[AUDIO WITHOUT NAVIGATION]

REAR VIEW CAMERA

Component Parts and Harness Connector Location

INFOID:000000007405553



1. AV control unit M92, M93

2. Rear view camera T21

3. Transmission range switch F26

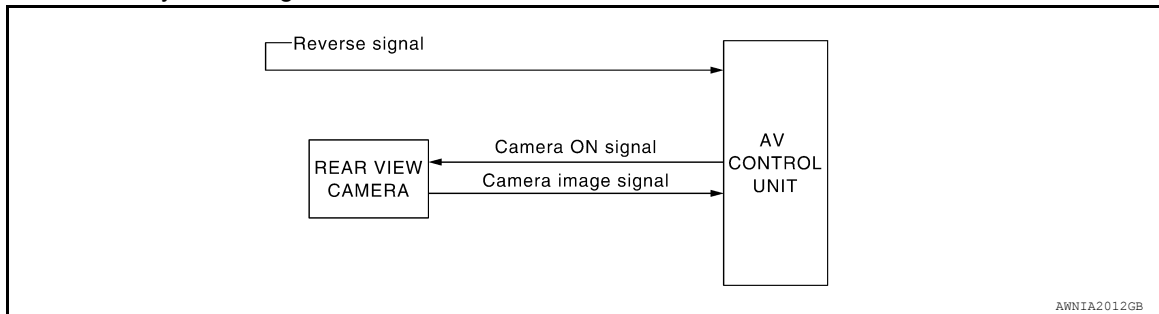
System Description

INFOID:000000007405554

REAR VIEW CAMERA SYSTEM

When the shift selector is in the R position, the AV control unit shows a view to the rear of the vehicle. Lines which indicate the vehicle clearance and distances are also displayed.

Rear View Camera System Diagram



Part name	Description
AV control unit	<ul style="list-style-type: none"> Sends camera ON signal to the rear view camera Receives camera image signal from the rear view camera
Rear view camera	<ul style="list-style-type: none"> Receives camera ON signal from the AV control unit Sends image signal to the AV control unit

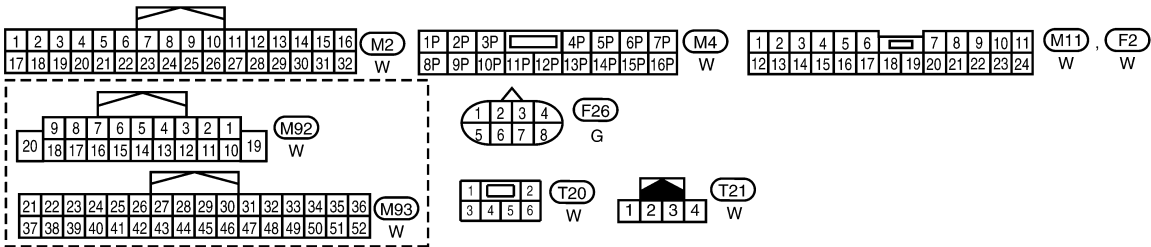
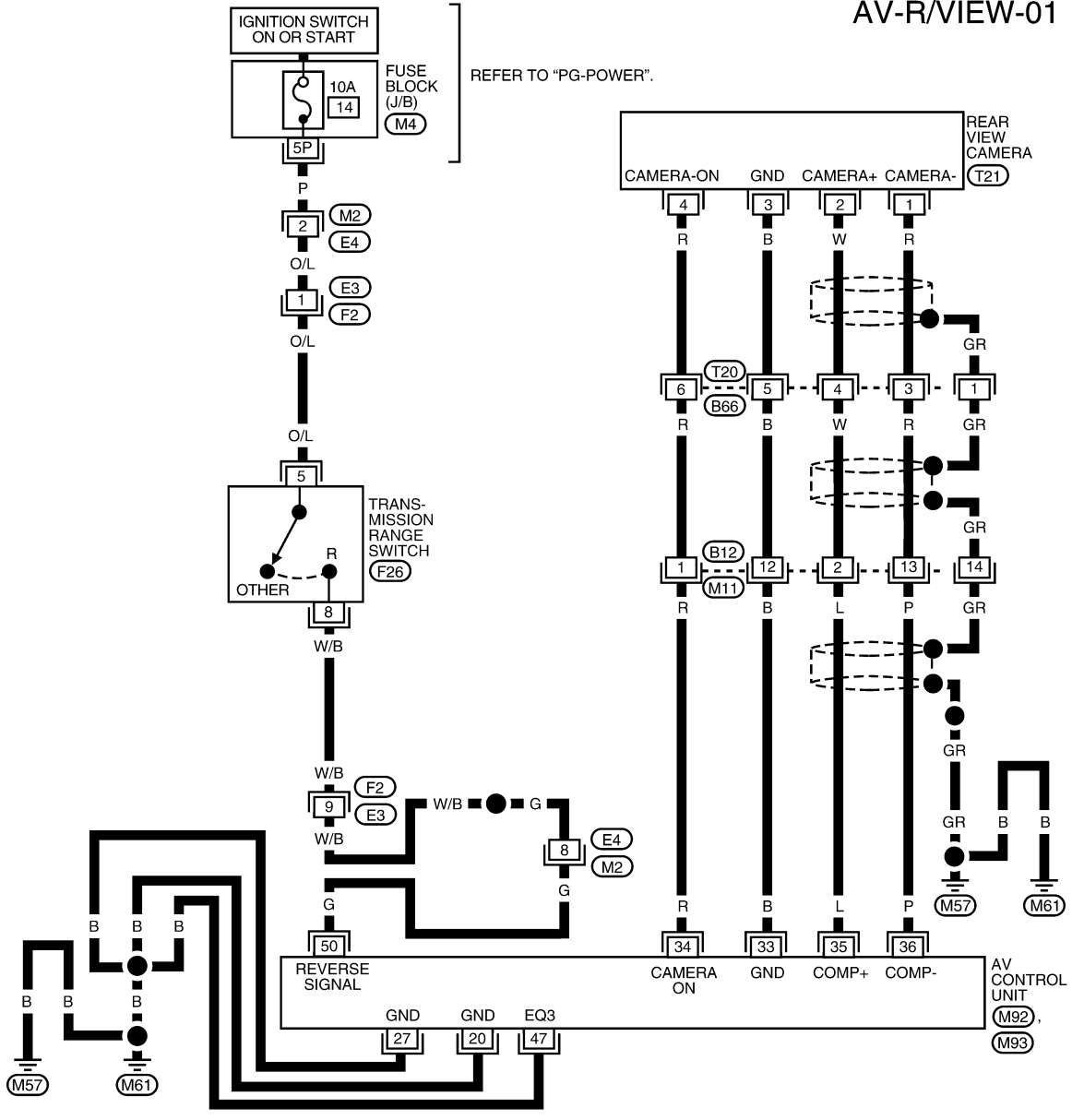
REAR VIEW CAMERA

< SERVICE INFORMATION >

[AUDIO WITHOUT NAVIGATION]

Wiring Diagram - R/VIEW -

INFOID:000000007405555



ABNWA0932GB

Symptom Chart

INFOID:000000007405556

MALFUNCTION WITH REAR VIEW CAMERA

REAR VIEW CAMERA

< SERVICE INFORMATION >

[AUDIO WITHOUT NAVIGATION]

Symptom	Probable malfunction location
Rear view camera system does not work normally.	<ul style="list-style-type: none"> Rear view camera power supply and ground circuit. Refer to AV-112. Rear view camera image signal circuit. Refer to AV-113.

Rear View Camera Power Supply and Ground Circuit Inspection

INFOID:000000007405557

1. CHECK POWER SUPPLY CIRCUIT (REAR VIEW CAMERA SIDE)

NOTE:

Apply parking brakes before proceeding.

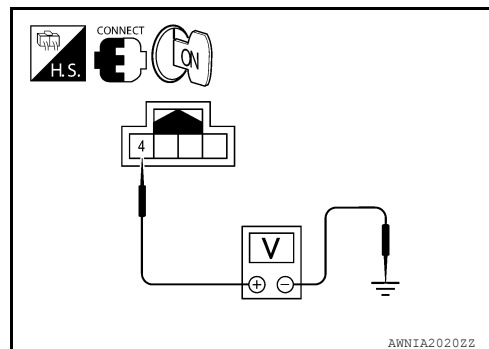
- Turn ignition switch ON.
- Shift transmission into reverse.
- Check voltage between rear view camera harness connector T21 terminal 4 and ground.

(+)		(-)	Transmission position	Value (Approx.)
Connector	Terminal			
T21	4	Ground	Reverse	6V

Is voltage reading approximately 6 volts?

YES >> GO TO 4.

NO >> GO TO 2.

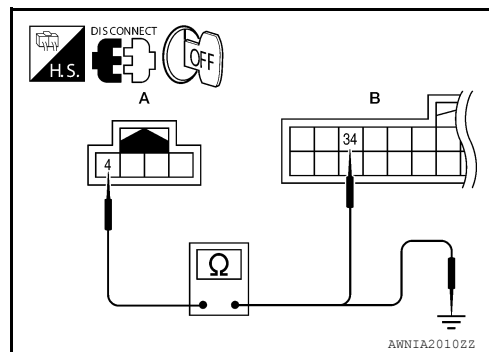


2. CHECK POWER SUPPLY CIRCUIT (CONTINUITY)

- Turn ignition switch OFF.
- Disconnect rear view camera and AV control unit connectors.
- Check continuity between rear view camera harness connector T21 (A) terminal 4 and AV control unit harness connector M93 (B) terminal 34.

A		B		Continuity
Connector	Terminal	Connector	Terminal	
T21	4	M93	34	Yes

- Check continuity between rear view camera harness connector T21 (A) terminal 4 and ground.



A		—	Continuity
Connector	Terminal		
T21	4	Ground	No

Are continuity test results as specified?

YES >> GO TO 3.

NO >> Repair harness or connector.

3. CHECK REVERSE POSITION INPUT SIGNAL

- Turn ignition switch ON.
- Shift transmission into reverse.
- Check voltage between AV control unit harness connector M93 terminal 50 and ground.

(+)		(-)	Transmission position	Value (Approx.)
Connector	Terminal			
M93	50	Ground	Reverse	12V

Is voltage reading approximately 12 volts?

YES >> Replace AV control unit. Refer to [AV-82, "Removal and Installation"](#).

NO >> Check harness for open or short between AV control unit and transmission range switch.

REAR VIEW CAMERA

< SERVICE INFORMATION >

[AUDIO WITHOUT NAVIGATION]

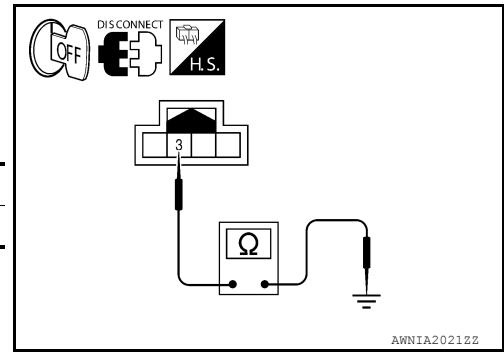
4. CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect rear view camera harness connector.
3. Check continuity between rear view camera harness connector T21 terminal 3 and ground.

Connector	Terminal	—	Continuity
T21	3	Ground	Yes

Does continuity exist?

- YES >> Inspection End.
 NO >> Repair harness or connector.



Camera Image Signal Circuit

INFOID:000000007405558

1. CHECK CAMERA IMAGE SIGNAL CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit and rear view camera connectors.
3. Check continuity between AV control unit harness connector M93 terminals 35, 36 and rear view camera harness connector T21 terminals 1, 2.

35 - 2 : Continuity should exist.

36 - 1 : Continuity should exist.

4. Check continuity between AV control unit harness connector M93 terminals 35, 36 and ground.

35, 36 - Ground : Continuity should not exist.

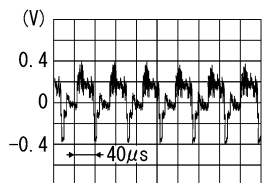
Is inspection result OK?

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

2. CHECK CAMERA IMAGE SIGNAL

1. Connect AV control unit and rear view camera connectors.
2. Turn ignition switch ON.
3. Shift transmission into reverse.
4. Check signal between AV control unit harness connector M93 terminals 35 and 36.

35 - 36 :



SKIB2251J

Is inspection result OK?

- YES >> Replace AV control unit. Refer to [AV-82, "Removal and Installation"](#).
 NO >> Replace rear view camera. Refer to [AV-114, "Removal and Installation"](#).

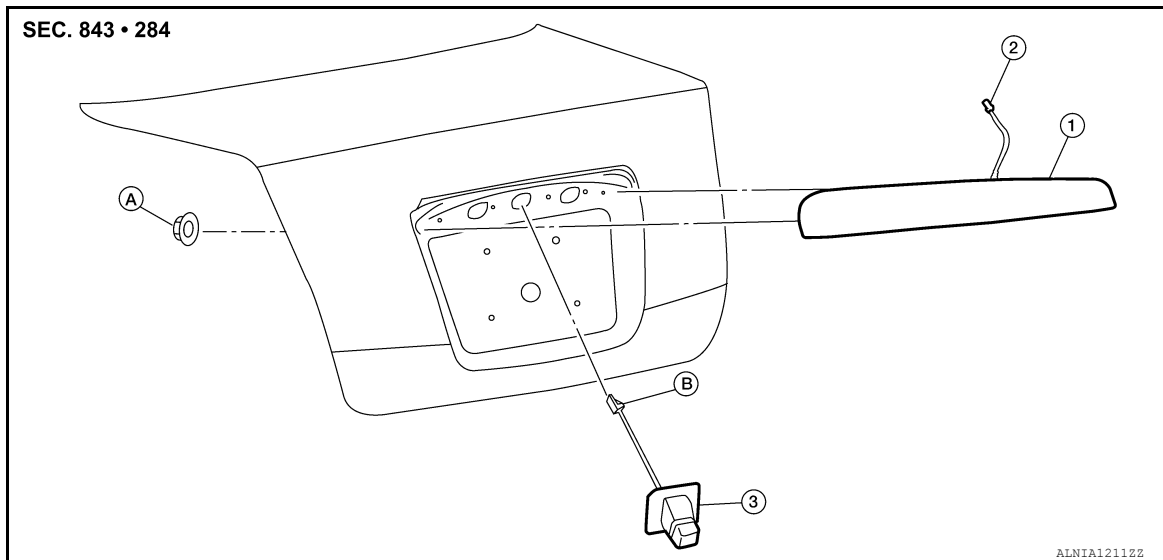
REAR VIEW CAMERA

< SERVICE INFORMATION >

[AUDIO WITHOUT NAVIGATION]

Removal and Installation

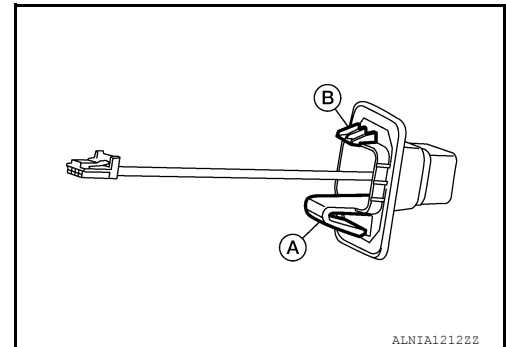
INFOID:000000007405559



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|------------------------------|--|---------------------|
| 1. Licence lamp finisher | 2. Trunk opener request switch (if equipped) | 3. Rear view camera |
| A. License lamp finisher nut | B. Rear view camera connector | |

REMOVAL

1. Remove trunk lid finisher. Refer to [EI-48. "Removal and Installation"](#).
2. Disconnect the rear view camera connector.
3. Remove the license plate finisher. Refer to [EI-27. "Removal and Installation"](#).
4. Press in the rear view camera tab (A) then release the rear view camera hook (B) and remove the rear view camera.



INSTALLATION

Installation is in the reverse order of removal.

< SERVICE INFORMATION >

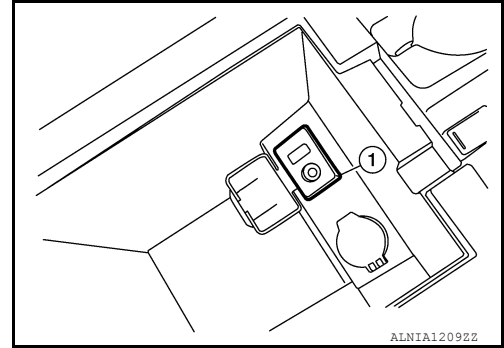
IPOD® CONNECTOR

Removal and Installation

INFOID:000000007405560

REMOVAL

1. Remove the center console assembly. Refer to [IP-12. "Removal and Installation"](#).
2. Push the pawl from the back of the center console to remove the iPod® connector and aux jack (1).



INSTALLATION

Installation is in the reverse order of removal.

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IPOD® ADAPTER**Removal and Installation**

INFOID:000000007405561

REMOVAL

1. Disconnect the battery negative terminal.
2. Remove the cluster lid C. Refer to [IP-11, "Component Parts"](#).
3. Remove the cluster lid C bracket screws.
4. Remove the iPod® adapter.

INSTALLATION

Installation is in the reverse order of removal.

SERVICE INFORMATION

PRECAUTIONS

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

INFOID:000000007405562

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

WARNING:

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

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

WARNING:

- When working near the Airbag Diagnosis Sensor Unit or other Airbag System sensors with the Ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the Ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

Precaution Necessary for Steering Wheel Rotation After Battery Disconnect

INFOID:000000007405563

NOTE:

- This Procedure is applied only to models with Intelligent Key system and NATS (NISSAN ANTI-THEFT SYSTEM).
- Remove and install all control units after disconnecting both battery cables with the ignition knob in the "LOCK" position.
- Always use CONSULT to perform self-diagnosis as a part of each function inspection after finishing work. If DTC is detected, perform trouble diagnosis according to self-diagnostic results.

For models equipped with the Intelligent Key system and NATS, an electrically controlled steering lock mechanism is adopted on the key cylinder.

For this reason, if the battery is disconnected or if the battery is discharged, the steering wheel will lock and steering wheel rotation will become impossible.

If steering wheel rotation is required when battery power is interrupted, follow the procedure below before starting the repair operation.

OPERATION PROCEDURE

1. Connect both battery cables.

NOTE:

Supply power using jumper cables if battery is discharged.

2. Use the Intelligent Key or mechanical key to turn the ignition switch to the "ACC" position. At this time, the steering lock will be released.
3. Disconnect both battery cables. The steering lock will remain released and the steering wheel can be rotated.
4. Perform the necessary repair operation.

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PRECAUTIONS

< SERVICE INFORMATION >

[AUDIO WITH NAVIGATION]

5. When the repair work is completed, return the ignition switch to the "LOCK" position before connecting the battery cables. (At this time, the steering lock mechanism will engage.)
6. Perform a self-diagnosis check of all control units using CONSULT.

Precaution for Work

INFOID:000000007405564

- When removing or disassembling each component, be careful not to damage or deform it. If a component may be subject to interference, be sure to protect it with a shop cloth.
- When removing (disengaging) components with a screwdriver or similar tool, be sure to wrap the component with a shop cloth or vinyl tape to protect it.
- Protect the removed parts with a shop cloth and prevent them from being dropped.
- Replace a deformed or damaged clip.
- If a part is specified as a non-reusable part, always replace it with a new one.
- Be sure to tighten bolts and nuts securely to the specified torque.
- After installation is complete, be sure to check that each part works properly.
- Follow the steps below to clean components:
 - Water soluble dirt:
 - Dip a soft cloth into lukewarm water, wring the water out of the cloth and wipe the dirty area.
 - Then rub with a soft, dry cloth.
 - Oily dirt:
 - Dip a soft cloth into lukewarm water with mild detergent (concentration: within 2 to 3%) and wipe the dirty area.
 - Then dip a cloth into fresh water, wring the water out of the cloth and wipe the detergent off.
 - Then rub with a soft, dry cloth.
 - Do not use organic solvent such as thinner, benzene, alcohol or gasoline.
 - For genuine leather seats, use a genuine leather seat cleaner.

PREPARATION

< SERVICE INFORMATION >

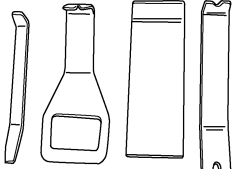
[AUDIO WITH NAVIGATION]

PREPARATION

Special Service Tool


INFOID:000000007405565

The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here.

Tool number (Kent-Moore No.) Tool name	Description
— (J-46534) Trim Tool Set  AWJIA04832Z	Removing trim components

Commercial Service Tool

INFOID:000000007405566

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

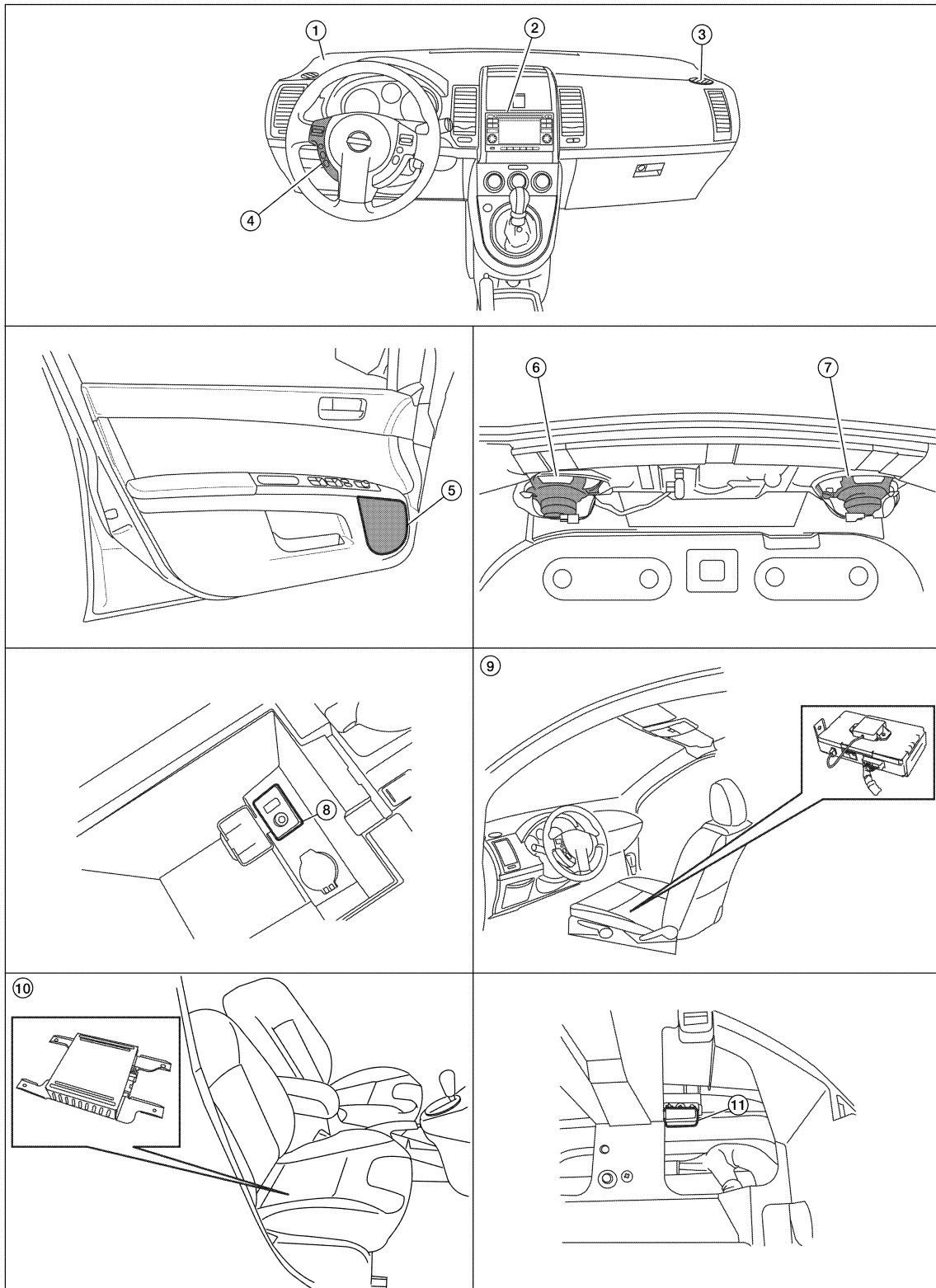
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AUDIO

Component Parts Location

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AWN1A22042Z

AUDIO

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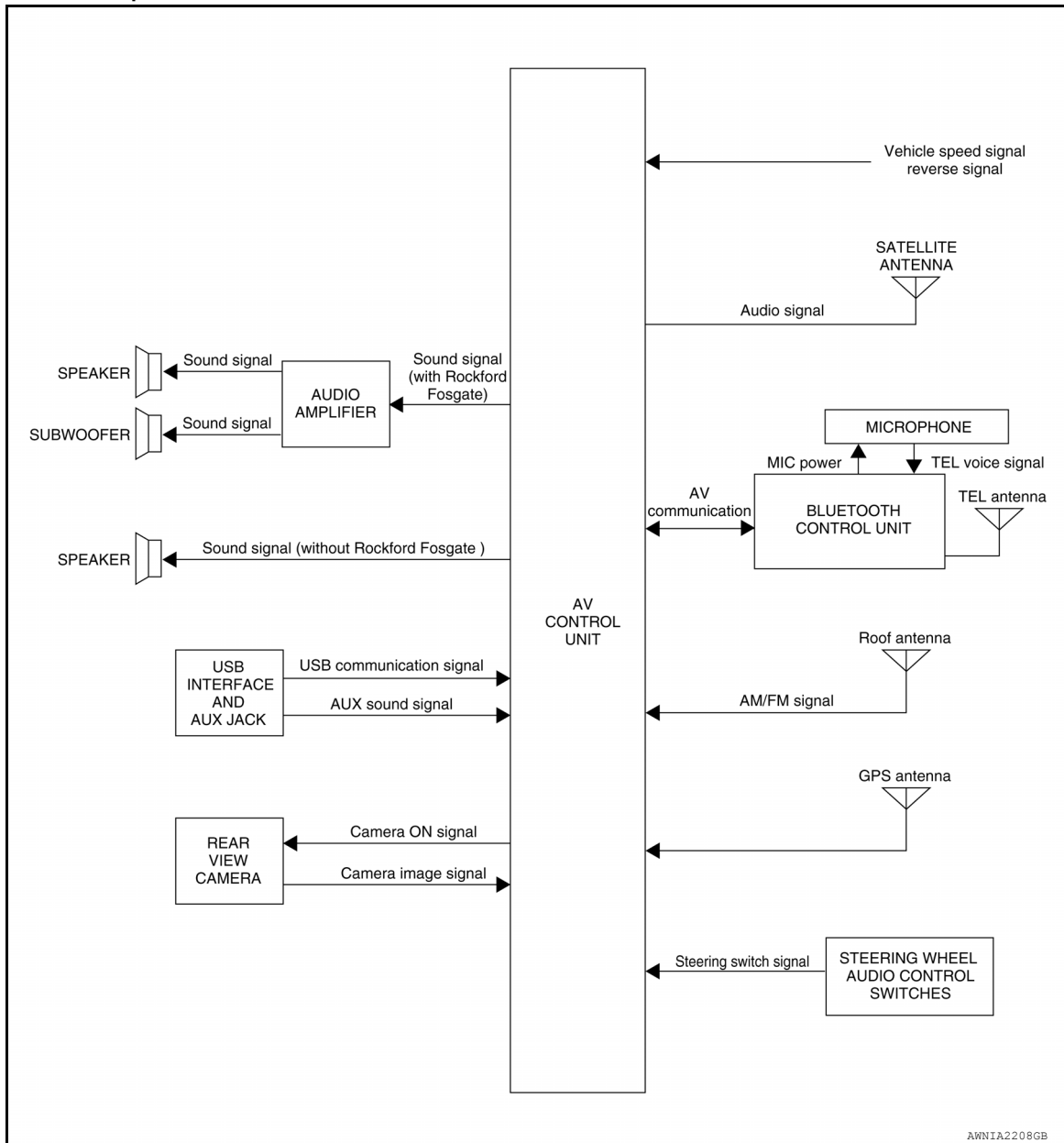
[AUDIO WITH NAVIGATION]

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|--|---|--|
| 1. Front tweeter LH M46 | 2. AV control unit M65, M79, M86, M88, M92, M99 | 3. Front tweeter RH M47 |
| 4. Steering wheel audio control switches | 5. Front door speaker LH D10
RH D108 | 6. Rear speaker LH B27 (without Rockford Fosgate system)
Rear speaker assembly LH B40 (with Rockford Fosgate) |
| 7. Rear speaker RH B39 (without Rockford Fosgate system)
Rear speaker assembly RH B38 (with Rockford Fosgate) | 8. USB interface and AUX jack M228, M229 | 9. Bluetooth control unit B15, B69, B92 |
| 10. Audio amplifier B43, B44 (with Rockford Fosgate) | 11. GPS antenna (view with combination meter removed) | |

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System Description

INFOID:000000007405568



AV

AUDIO SYSTEM (WITHOUT ROCKFORD FOSGATE)

Refer to Owner's Manual for audio system operating instructions.
Navigation is built into AV control unit.
This navigation has the following functions.

< SERVICE INFORMATION >

- Full support for playback of music from iPod® and USB device.
- High resolution full color touch panel 5 “WQVGA” display.
- FM/AM twin digital tuner.
- USB mass storage.
- RDS-TCM.
- POI Support is included. User POI download.

Power is supplied at all times

- through 20A fuse (No. 31, located in the fuse and fusible link box)
- to AV control unit terminal 19.

With the ignition switch in the ACC or ON position, power is supplied

- through 10A fuse [No. 6, located in the fuse block (J/B)]
- to AV control unit terminal 7.

Ground is supplied to

- to AV control unit terminals 20 and 31
- through grounds M57 and M61.

Then audio signals are supplied

- through AV control unit terminals 2, 3, 4, 5, 11, 12, 13 and 14
- to terminals + and - of front door speaker LH and RH
- to terminals + and - of front tweeter LH and RH and
- to terminals + and - of rear speaker LH and RH.

AUDIO SYSTEM (WITH ROCKFORD FOSGATE)

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

Navigation is built into AV control unit.

This navigation has the following functions.

- Full support for playback of music from iPod® and USB device.
- High resolution full color touch panel 5 “WQVGA” display.
- FM/AM twin digital tuner.
- USB mass storage.
- RDS-TCM.
- POI Support is included. User POI download.

Power is supplied at all times

- through 20A fuse [No. 17, located in the fuse block (J/B)]
- to audio amplifier terminal 17,
- through 20A fuse (No. 31, located in the fuse and fusible link box)
- to audio amplifier terminal 1 and
- to AV control unit terminal 19.

With the ignition switch in the ACC or ON position, power is supplied

- through 10A fuse [No. 6, located in the fuse block (J/B)]
- to AV control unit terminal 7.

Ground is supplied to

- to AV control unit terminals 20, 31 and 32
- through grounds M57 and M61.

Ground is also supplied

- to audio amplifier terminals 4 and 20
- through grounds B7 and B19.

Then audio signals are supplied

- through AV control unit terminals 2, 3, 4, 5, 11, 12, 13 and 14
- to audio amplifier terminals 5, 6, 7, 8, 21, 22, 23 and 24.

Audio signals are amplified by the audio amplifier.

The amplified audio signals are supplied

- through audio amplifier terminals 2, 3, 11, 12, 13, 14, 15, 16, 18, 19, 27, 28, 29, 30, 31 and 32
- to terminals + and - of front door speaker LH and RH and
- to terminals + and - of front tweeter LH and RH
- to terminals 1, 2, 3 and 4 of rear speaker assembly LH and RH.

STEERING WHEEL AUDIO CONTROL SWITCHES

When one of steering wheel audio control switches is pushed, the resistance in steering switch circuit changes depending on which button is pushed.

SPEED SENSITIVE VOLUME SYSTEM

AUDIO

< SERVICE INFORMATION >

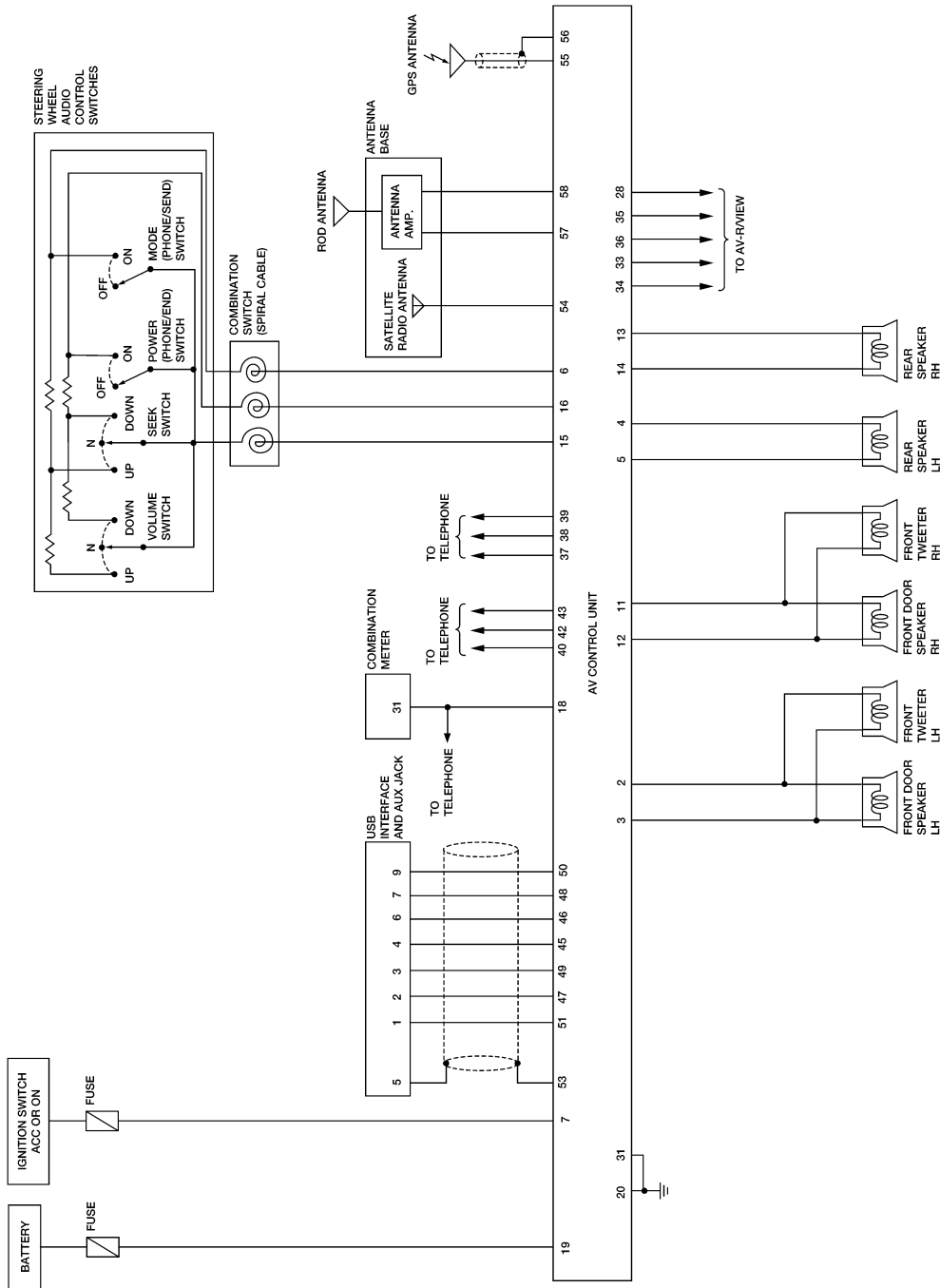
[AUDIO WITH NAVIGATION]

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

Schematic

INFOID:000000007405569

WITHOUT ROCKFORD FOSGATE



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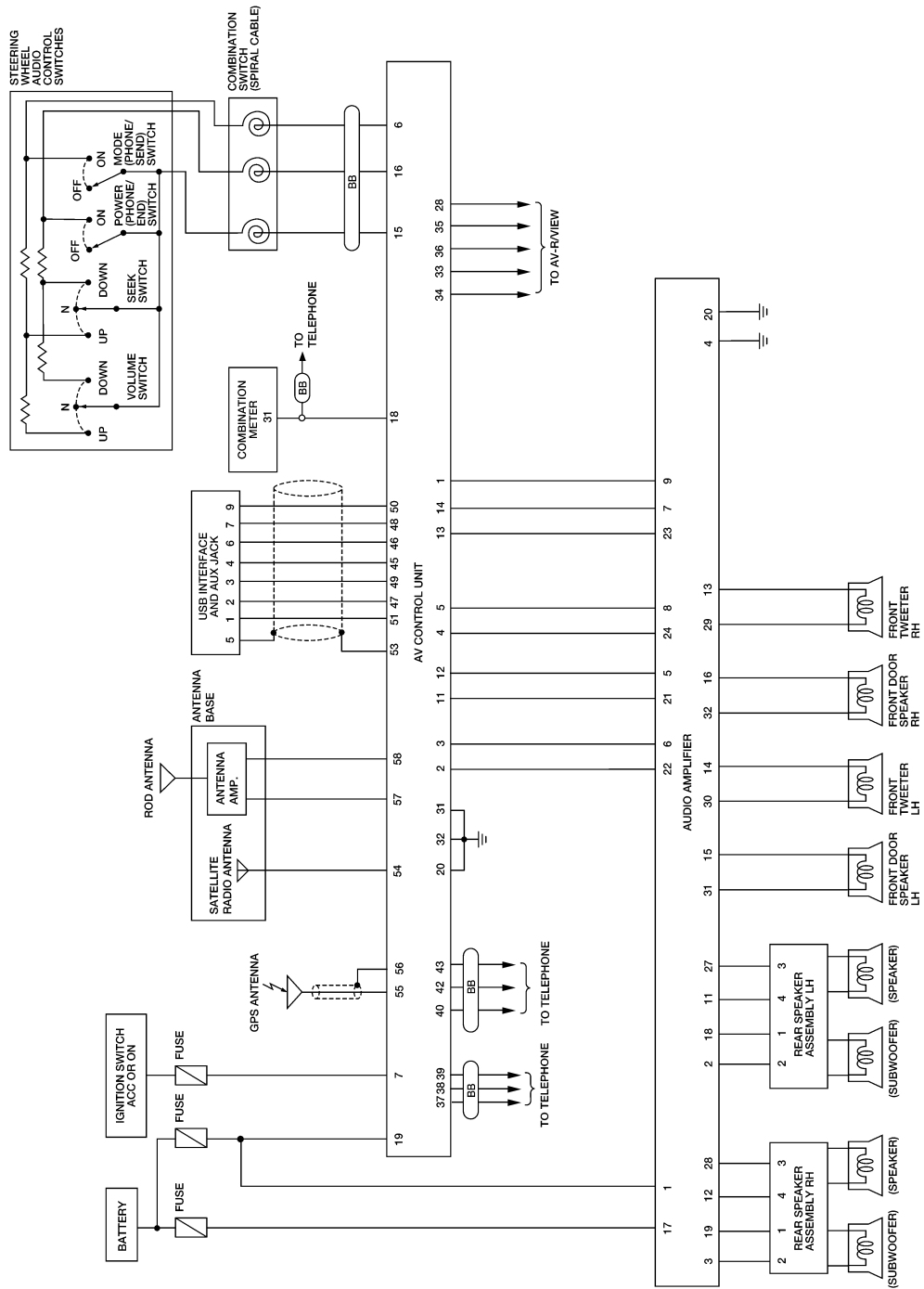
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AUDIO

< SERVICE INFORMATION >
WITH ROCKFORD FOSGATE

[AUDIO WITH NAVIGATION]

(BB) : WITH BLUETOOTH



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AUDIO

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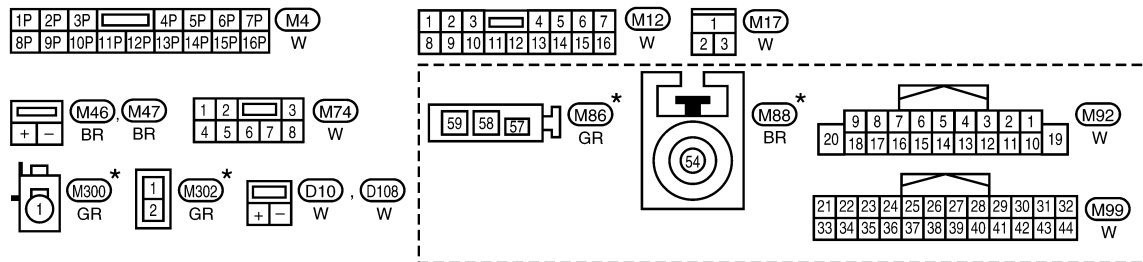
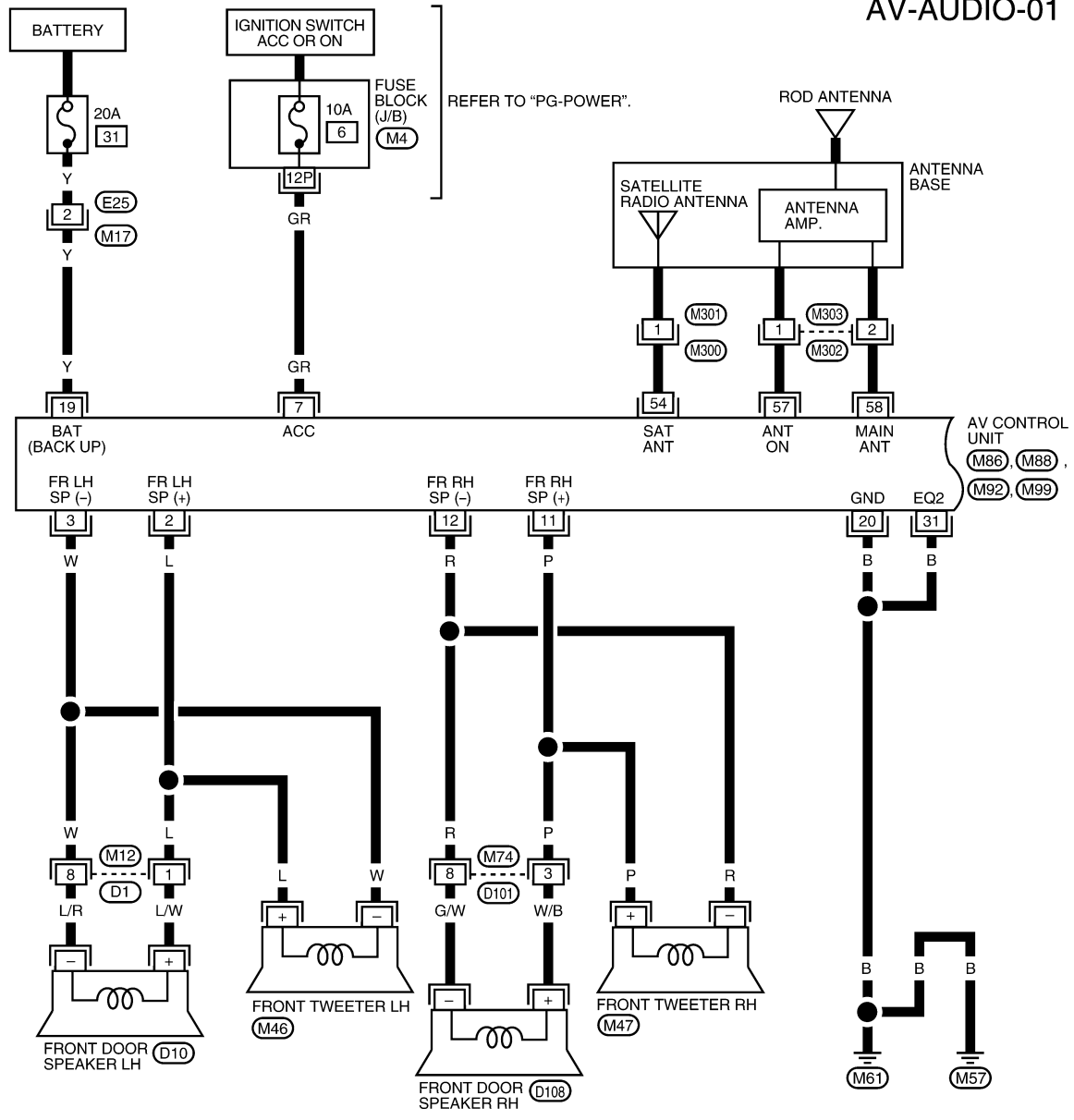
[AUDIO WITH NAVIGATION]

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Wiring Diagram - AUDIO -

WITHOUT ROCKFORD FOSGATE

AV-AUDIO-01



*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT" OF PG SECTION.

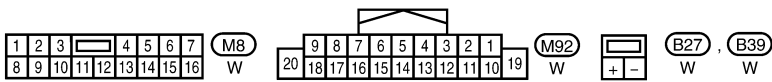
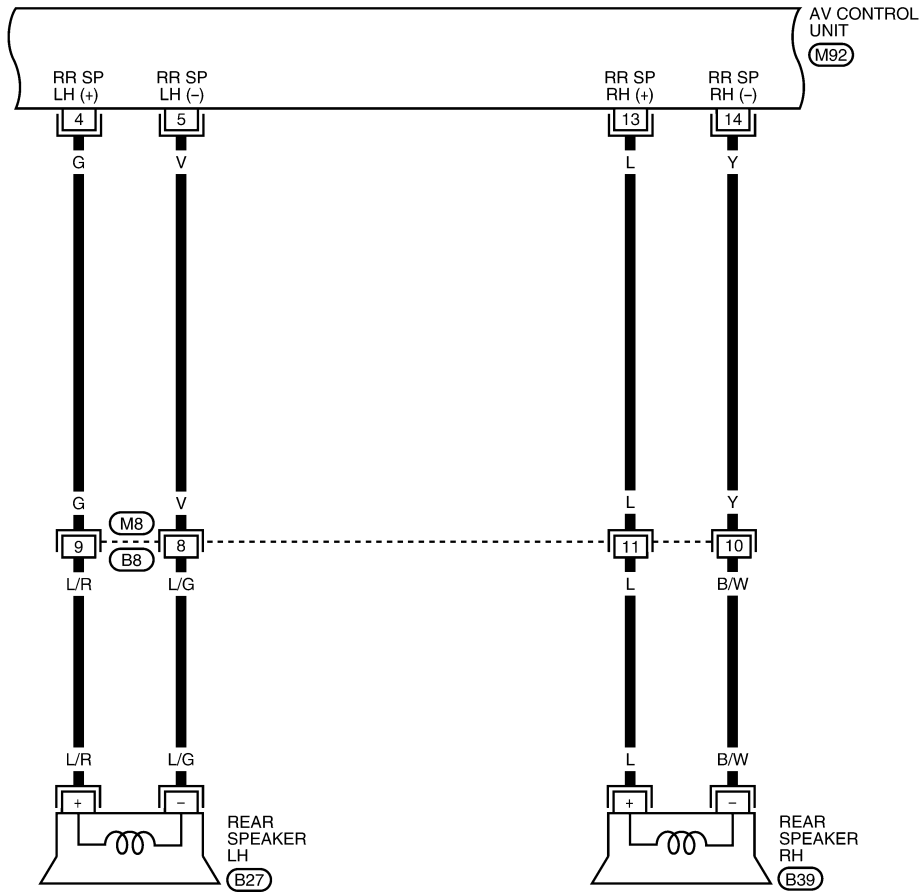
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AUDIO

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[AUDIO WITH NAVIGATION]

AV-AUDIO-02



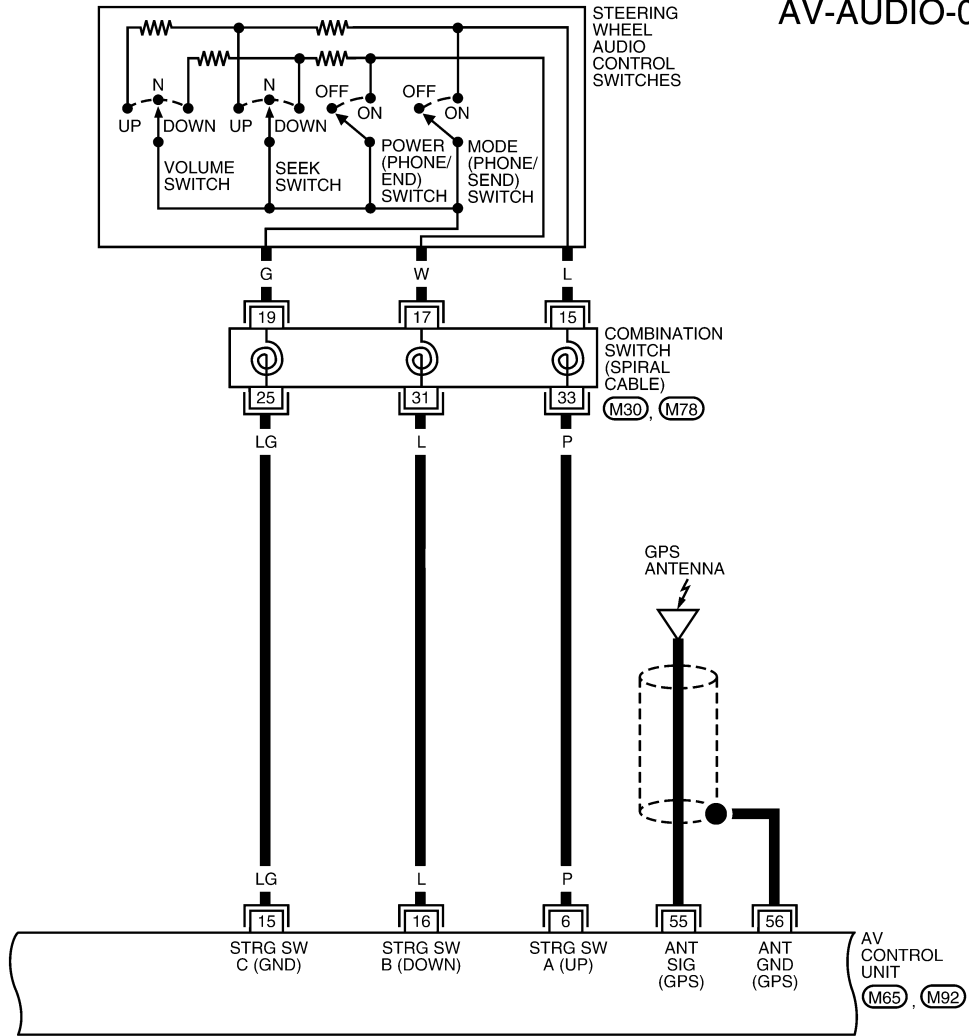
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[AUDIO WITH NAVIGATION]

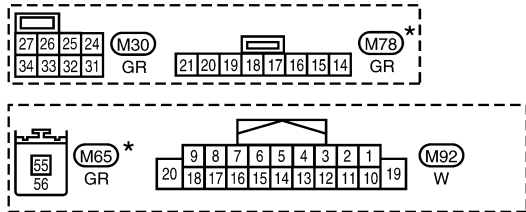
AV-AUDIO-03



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* : THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT" OF PG SECTION.

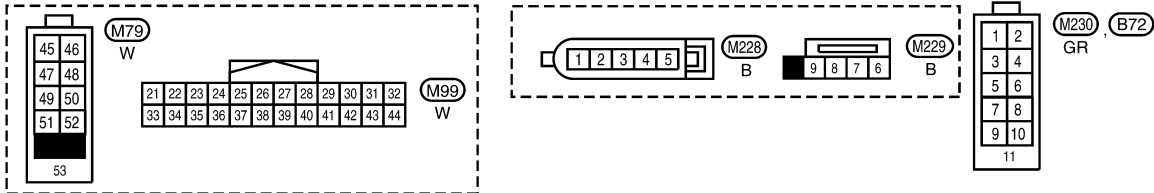
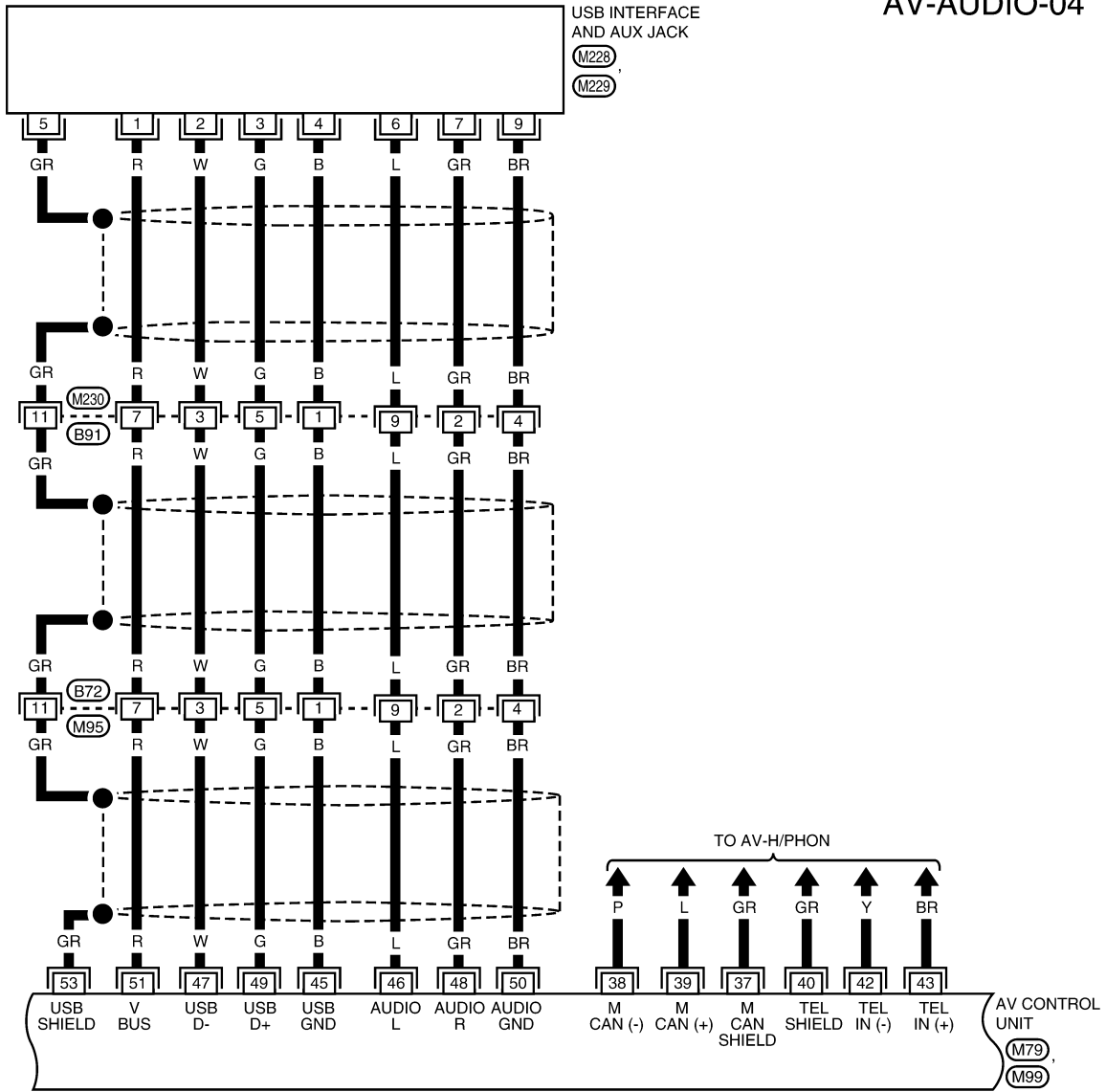
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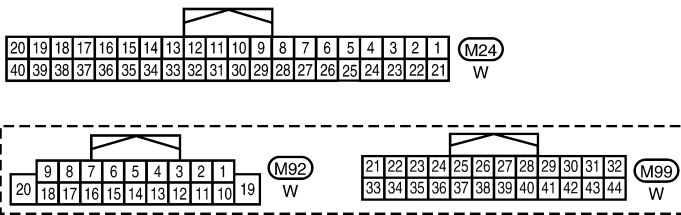
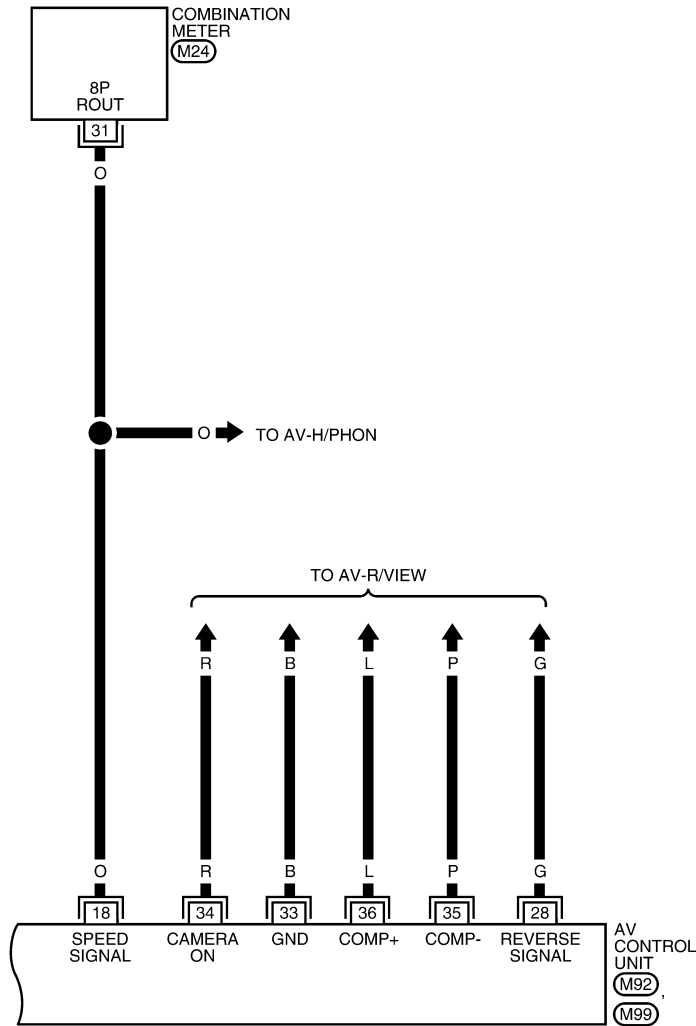
[AUDIO WITH NAVIGATION]

AV-AUDIO-04



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AV-AUDIO-05



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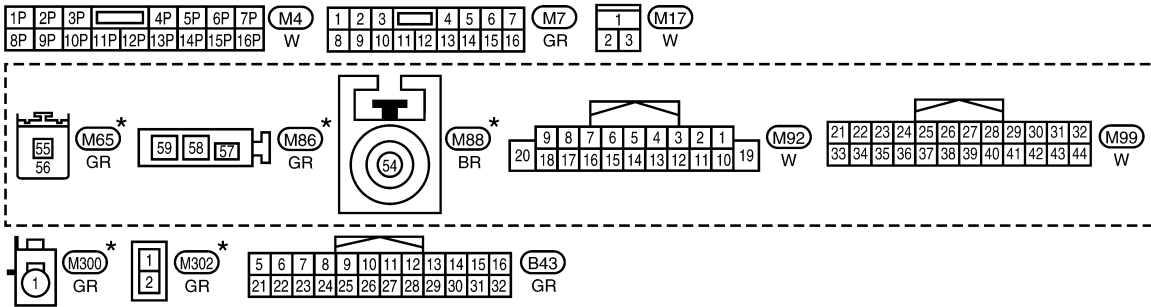
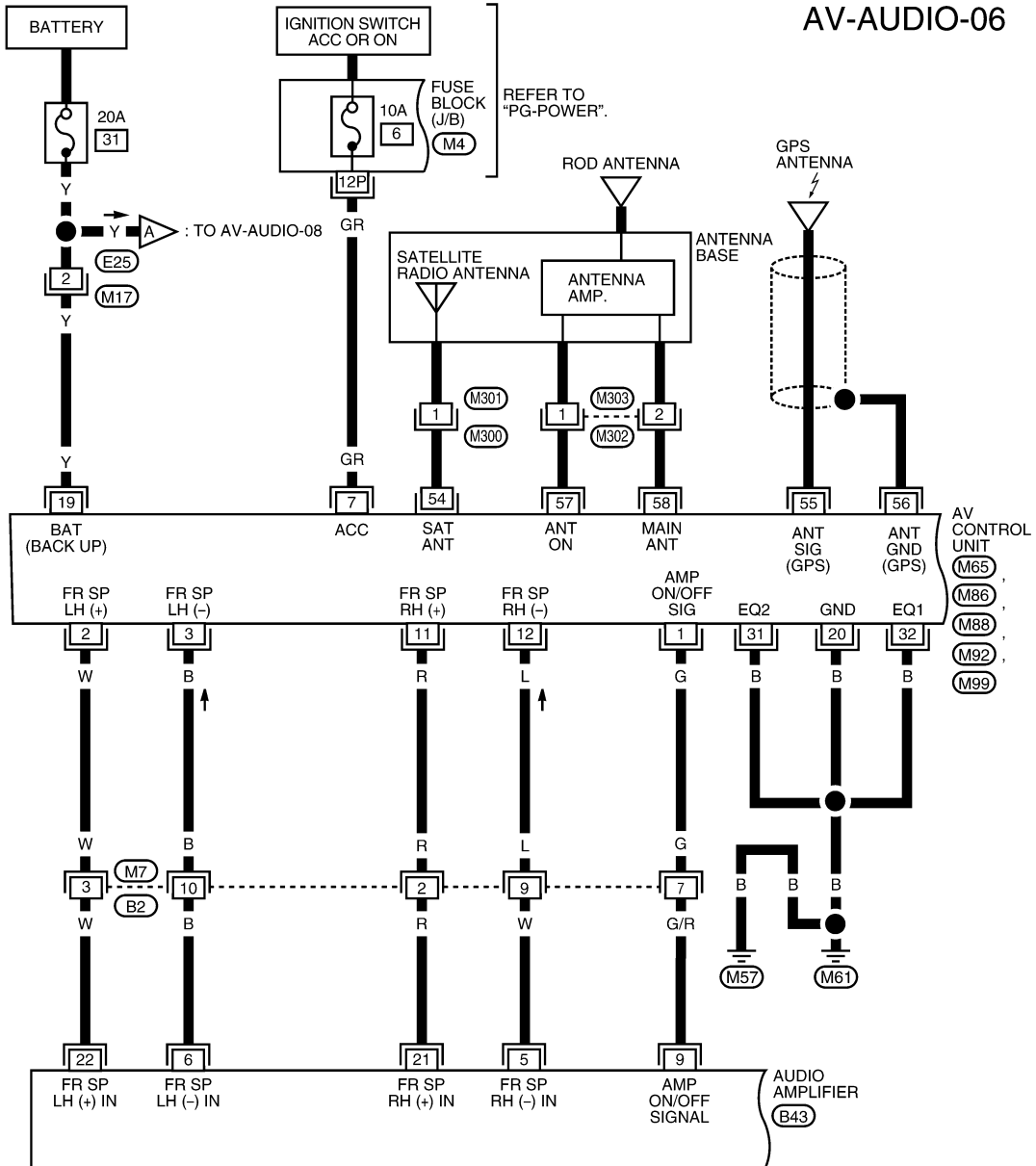
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[AUDIO WITH NAVIGATION]

WITH ROCKFORD FOSGATE

AV-AUDIO-06



*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT" OF PG SECTION.

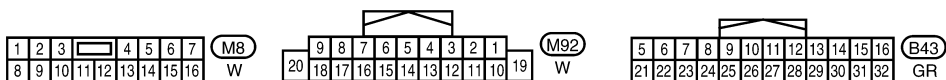
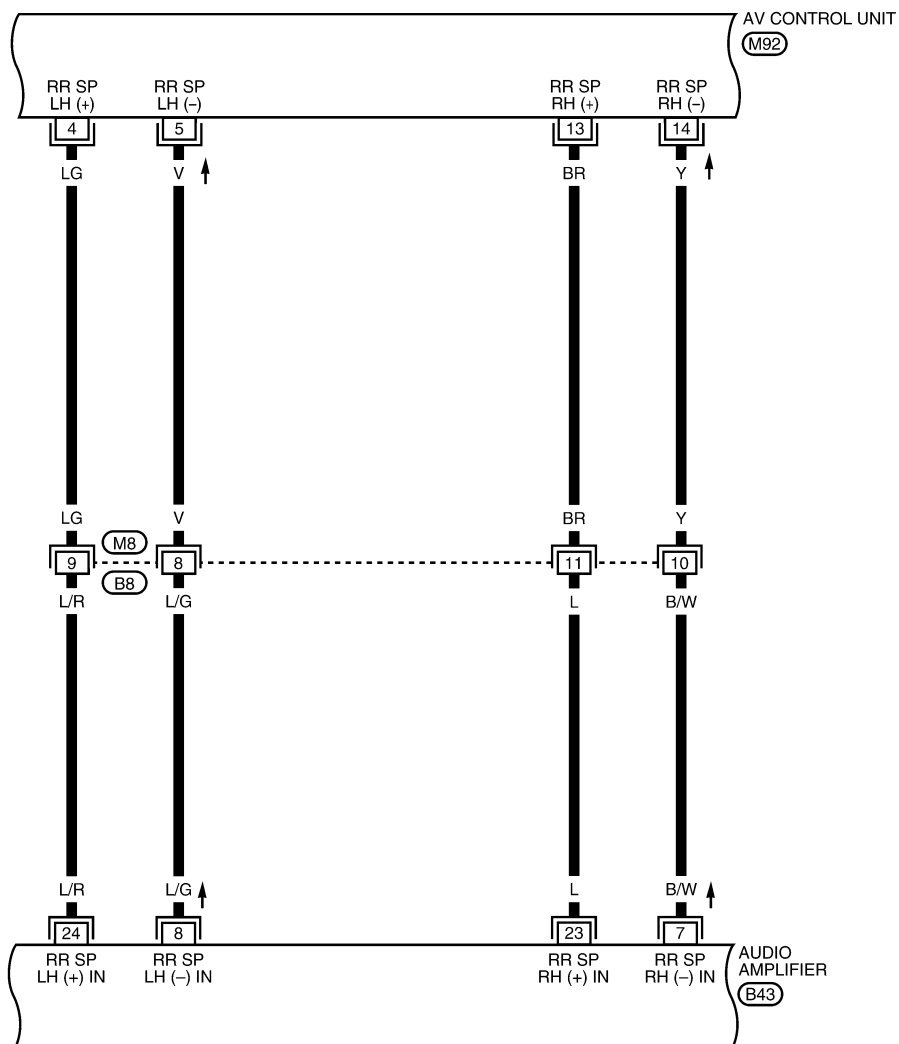
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[AUDIO WITH NAVIGATION]

AV-AUDIO-07



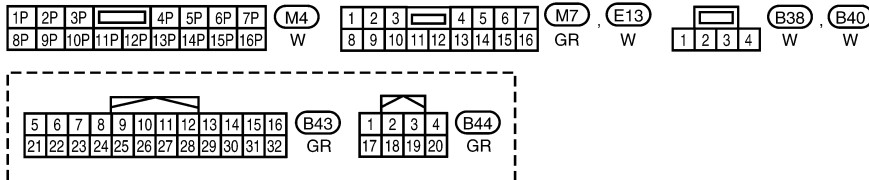
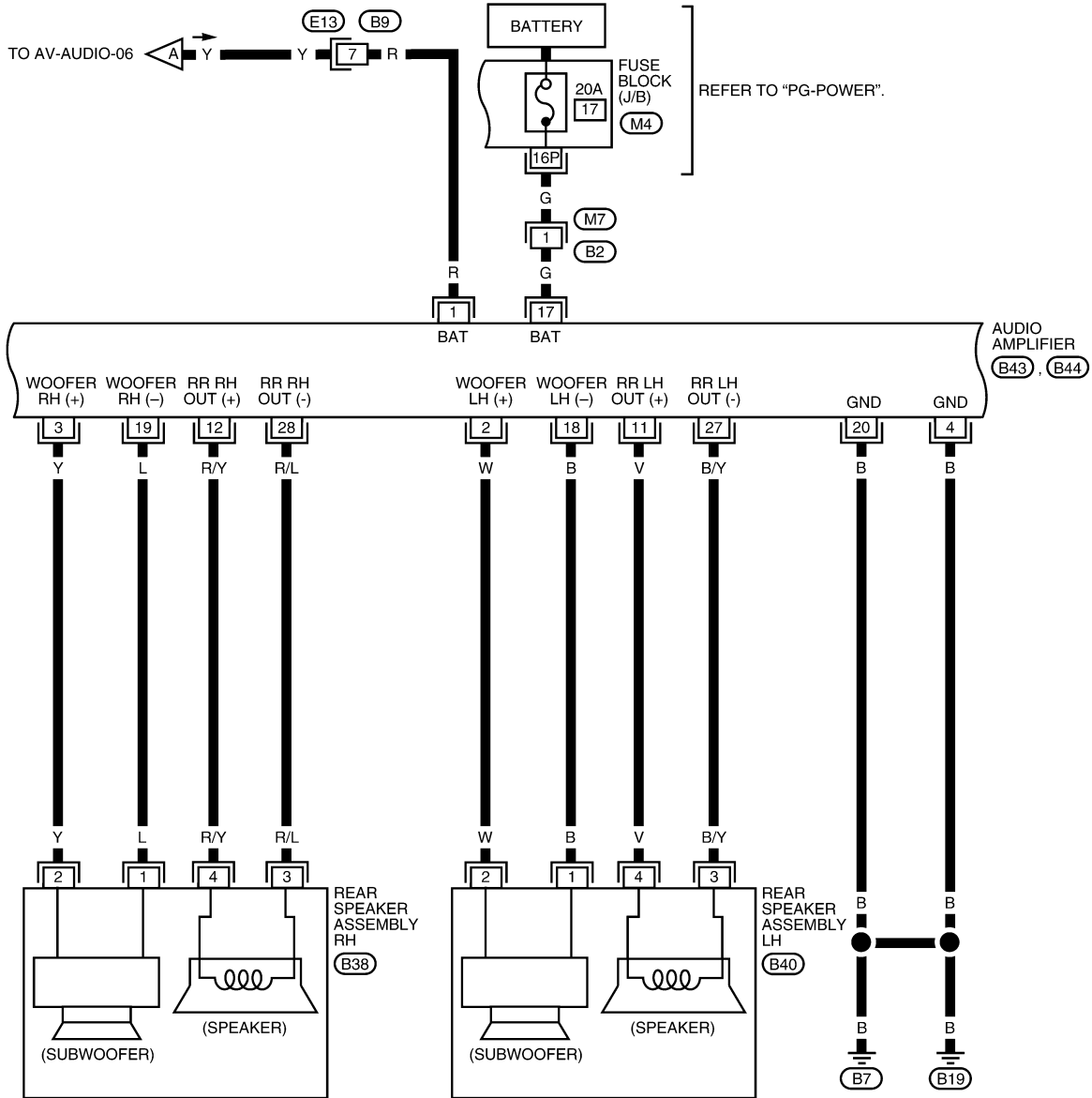
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< SERVICE INFORMATION >

[AUDIO WITH NAVIGATION]

AV-AUDIO-08



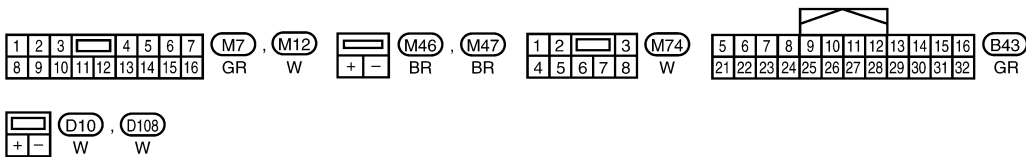
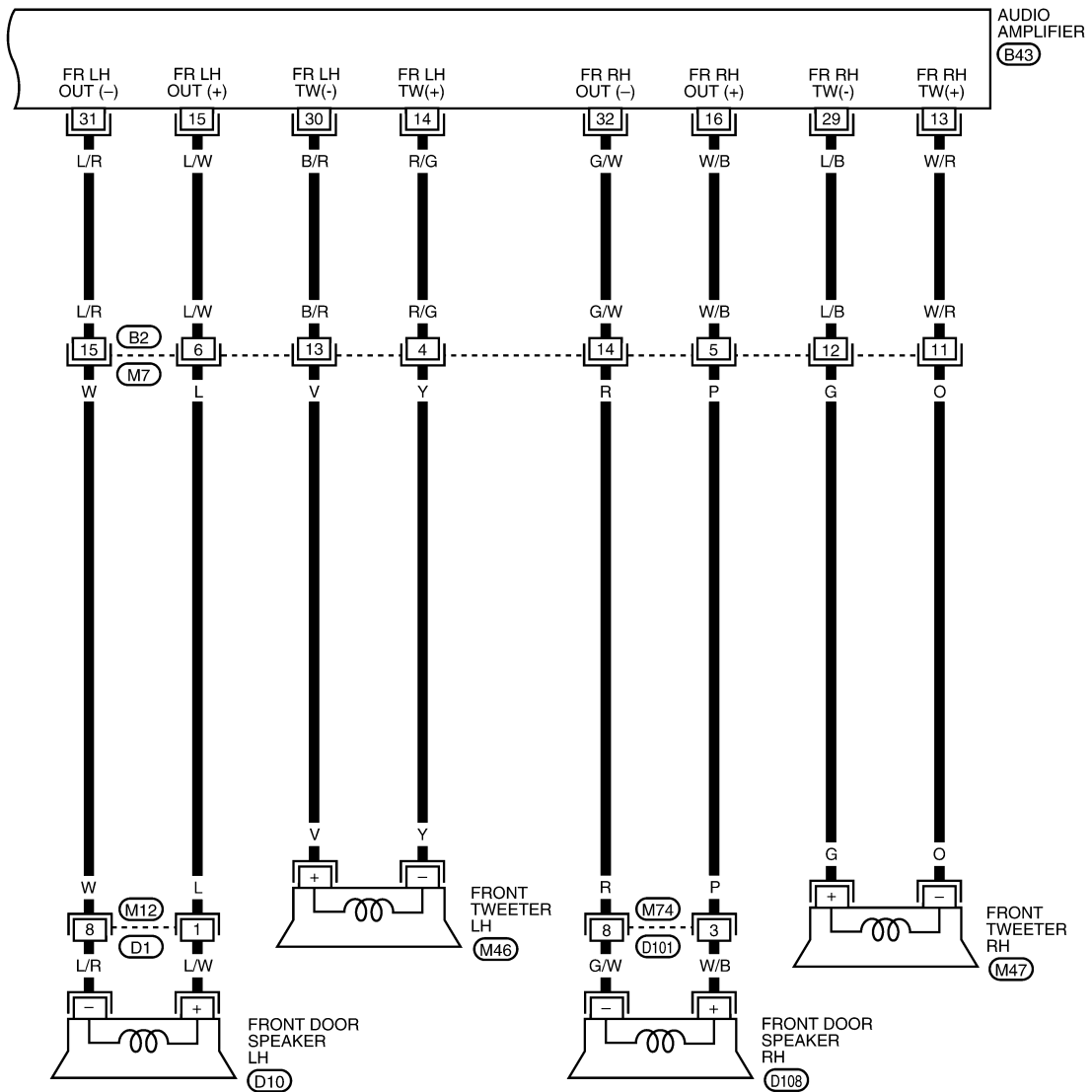
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< SERVICE INFORMATION >

[AUDIO WITH NAVIGATION]

AV-AUDIO-09



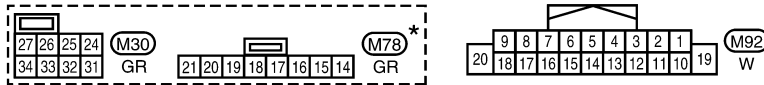
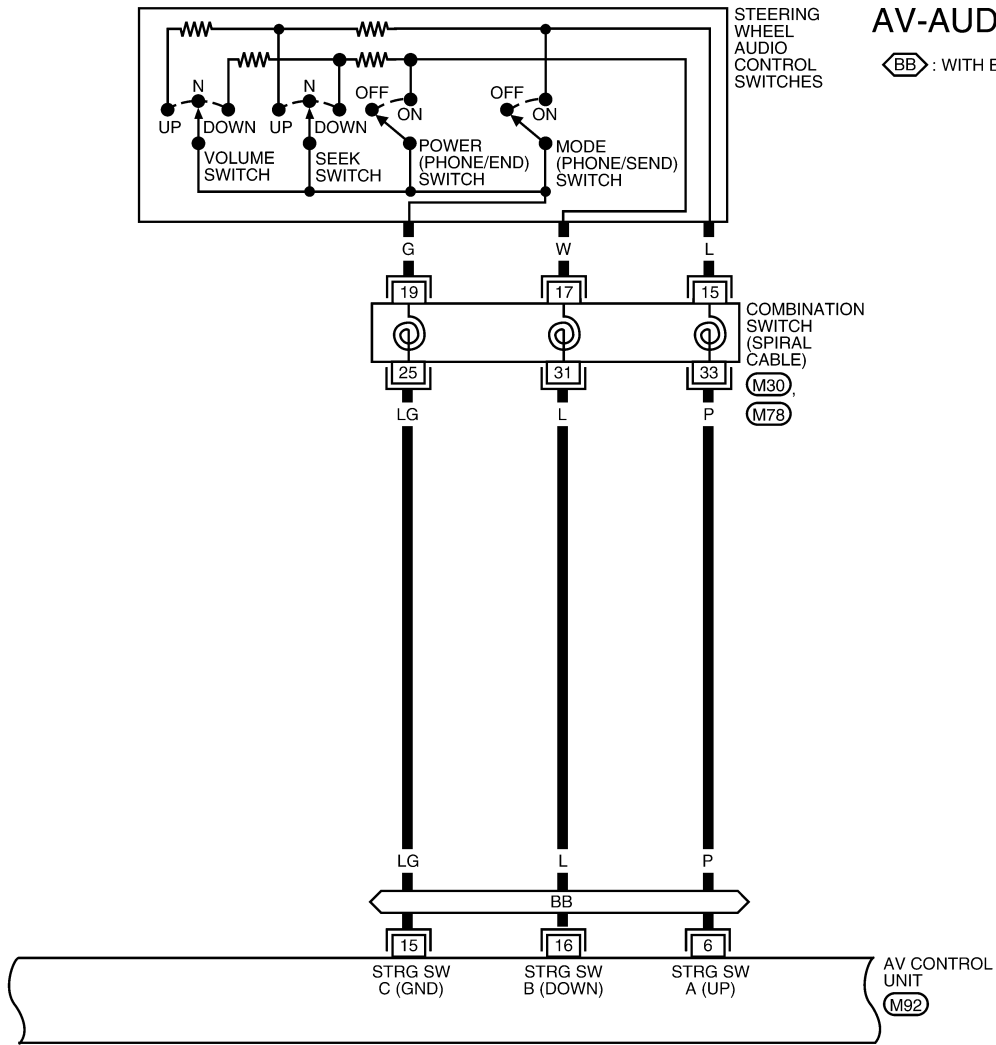
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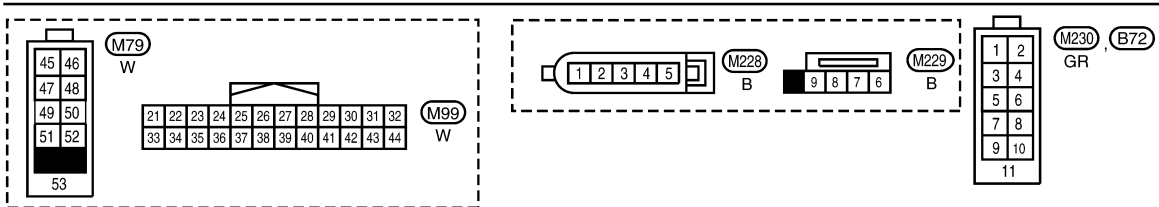
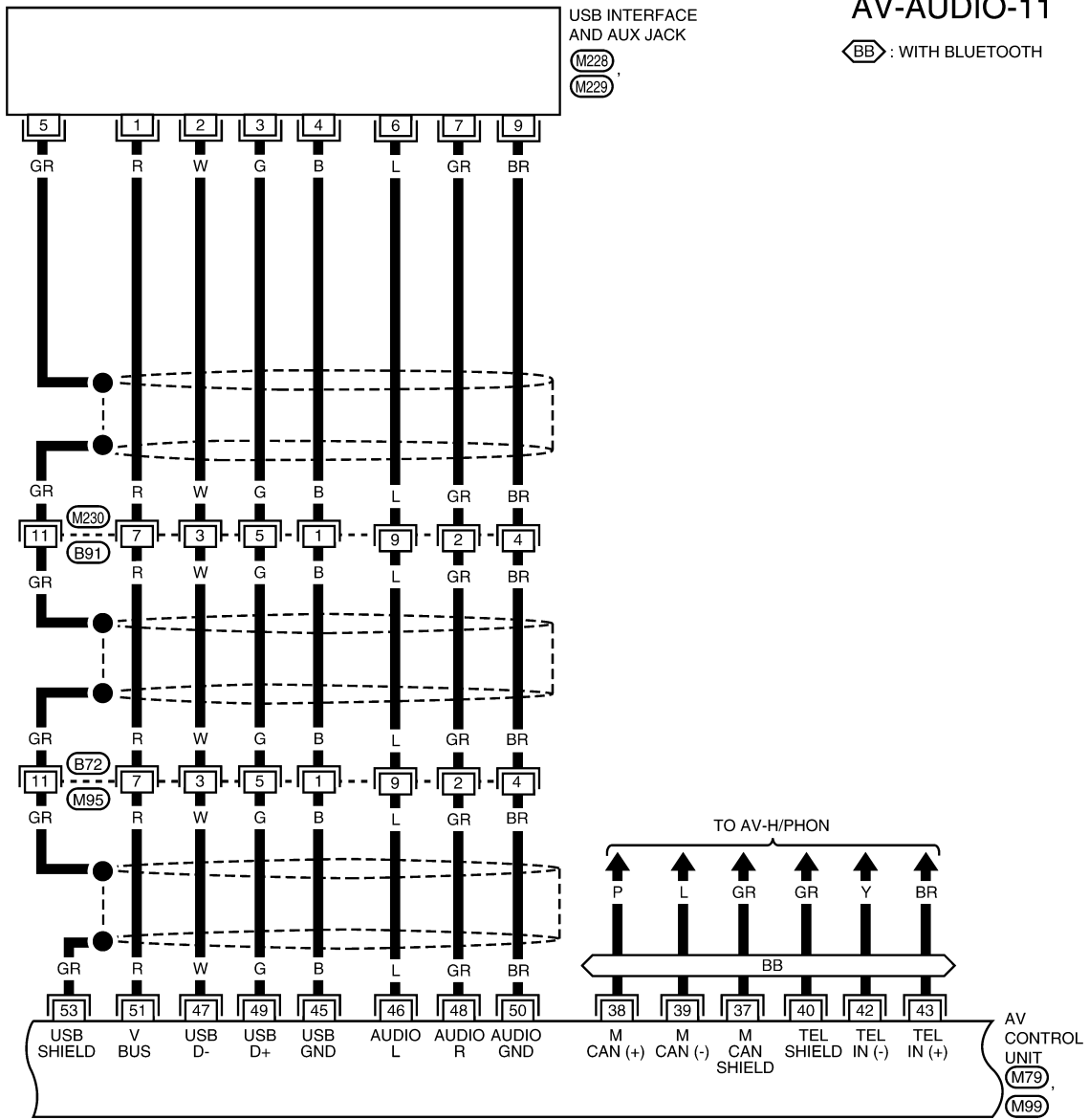
* : THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT" OF PG SECTION.

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[AUDIO WITH NAVIGATION]



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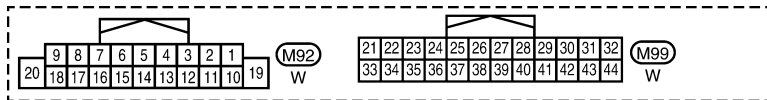
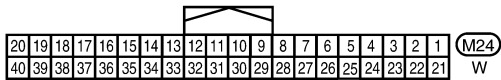
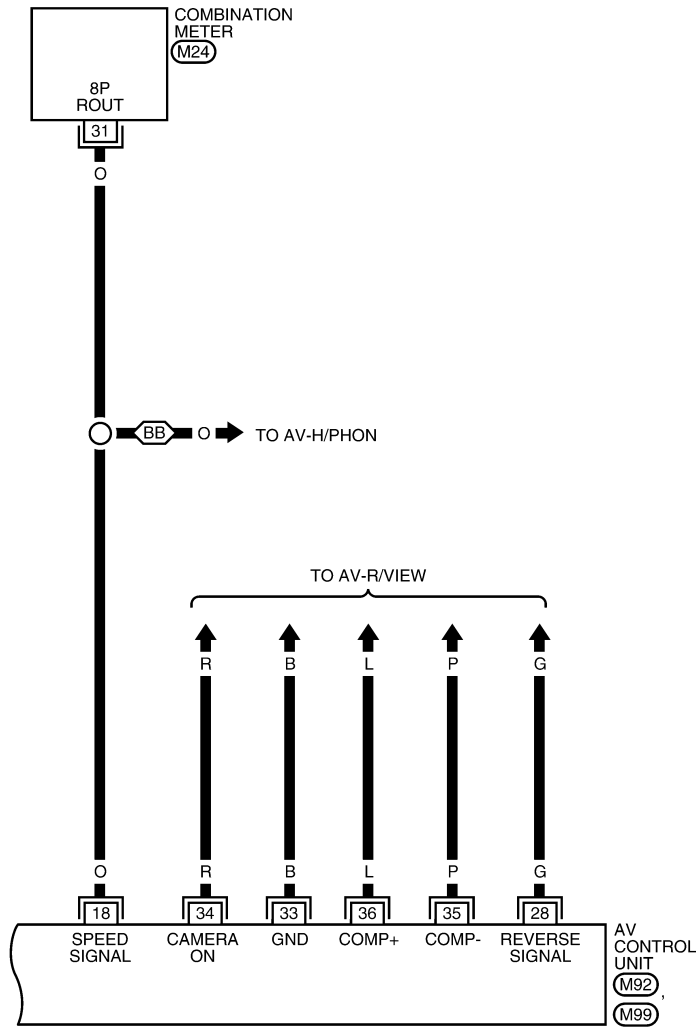
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< SERVICE INFORMATION >

[AUDIO WITH NAVIGATION]

AV-AUDIO-12

Ⓟ : WITH BLUETOOTH

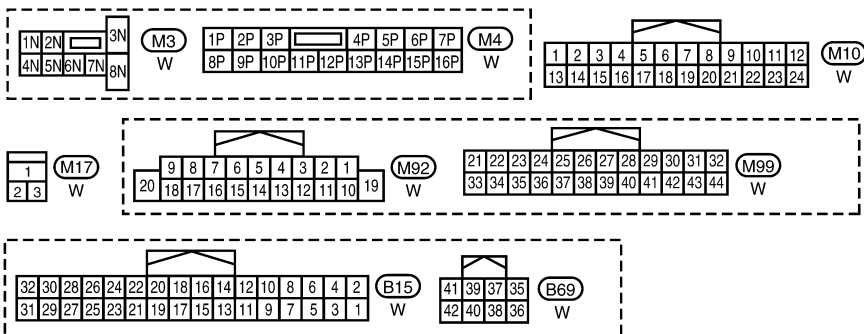
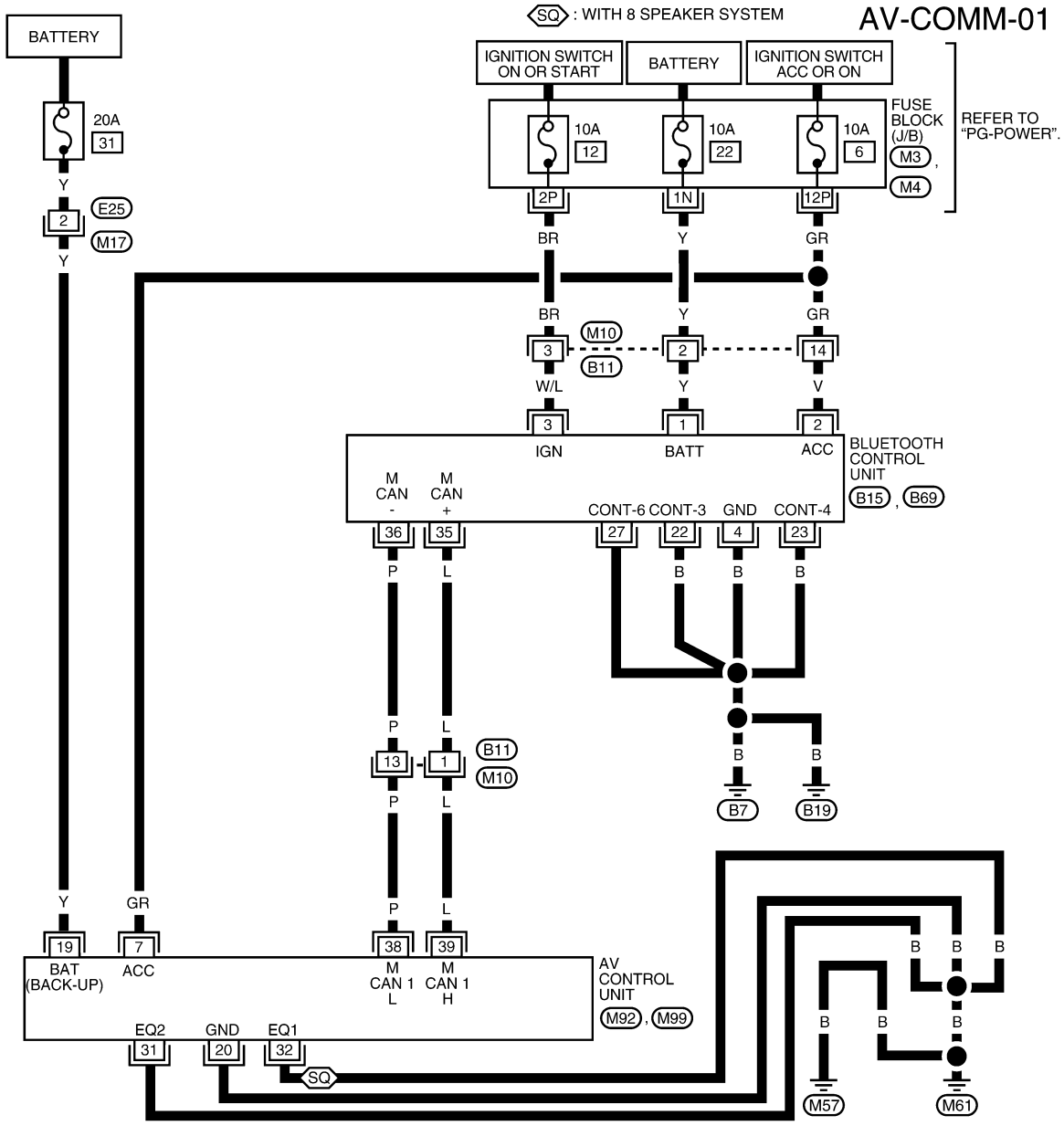


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AUDIO

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[AUDIO WITH NAVIGATION]



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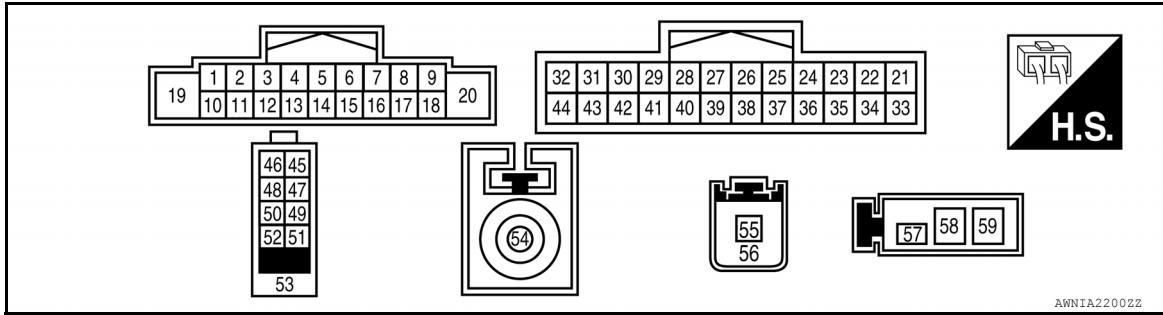
AUDIO

< SERVICE INFORMATION >

[AUDIO WITH NAVIGATION]

AV Control Unit (Without Rockford Fosgate) Harness Connector Terminal Layout

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Terminal and Reference Value for AV Control Unit (Without Rockford Fosgate)

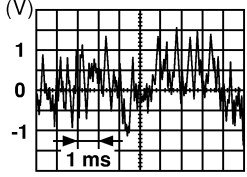
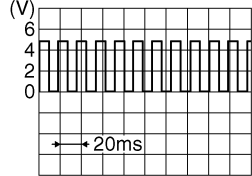
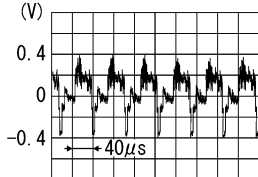
INFOID:000000007405572

Terminal (Wire color)		Item	Signal input/ output	Condition		Reference value (Approx.)	Example of symp- tom
+	-			Ignition switch	Operation		
2 (L)	3 (W)	Audio sound signal front LH	Output	ON	Receive audio signal	 SKIA0177E	No sound from front door speaker LH or tweeter LH.
4 (G)	5 (V)	Audio sound signal rear LH	Output	ON	Receive audio signal	 SKIA0177E	No sound from rear speaker LH.
6 (P)	Ground	Remote control A	Input	ON	Press Phone/ End switch	0V	Steering wheel au- dio controls do not function
					Press SEEK UP switch	1.7V	
					Press VOL UP switch	3.3V	
					Except for above	5.0V	
7 (GR)	Ground	ACC signal	Input	ON	Ignition switch ACC or ON	Battery voltage	System does not work properly.
11 (P)	12 (R)	Audio sound signal front RH	Output	ON	Receive audio signal	 SKIA0177E	No sound from front door speaker RH or tweeter RH.

AUDIO

< SERVICE INFORMATION >

[AUDIO WITH NAVIGATION]

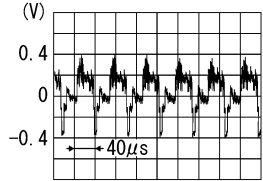
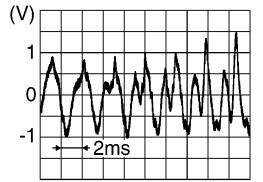
Terminal (Wire color)		Item	Signal input/ output	Condition		Reference value (Approx.)	Example of symp- tom
+	-			Ignition switch	Operation		
13 (L)	14 (Y)	Audio sound signal rear RH	Output	ON	Receive audio signal	 <small>SKIA0177E</small>	No sound from rear speaker RH.
15 (LG)	—	Remote control ground	Input	—	—	—	Steering wheel au- dio controls do not function
16 (L)	Ground	Remote control B	Input	ON	Press Phone/ Send switch	0V	Steering wheel au- dio controls do not function
					Press SEEK DOWN switch	1.7V	
					Press VOL DOWN switch	3.3V	
					Except for above	5.0V	
18 (O)	Ground	Vehicle speed signal (8-pulse)	Input	ON	When vehicle speed is approx. 40 km/h (25 MPH)	 <small>SKIA6649J</small>	Ground
19 (Y)	Ground	Battery pow- er	Input	—	—	Battery voltage	System does not work properly.
20 (B)	Ground	Ground	—	ON	—	—	—
28 (G)	Ground	Reverse sig- nal	Input	ON	R position	Battery voltage	Ground
						Other than R position	0V
31 (B)	Ground	Ground	—	ON	—	—	—
33 (B)	Ground	Rear view camera ground sig- nal	—	—	—	—	Ground
34 (R)	Ground	Rear view camera ON signal	Output	ON	Shift selector is in R position	6V	Ground
35 (P)	Ground	Rear view camera vid- eo in (-)	Input	ON	With rear view camera ON	 <small>SKIB2251J</small>	Ground

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AUDIO

< SERVICE INFORMATION >

[AUDIO WITH NAVIGATION]

Terminal (Wire color)		Item	Signal input/ output	Condition		Reference value (Approx.)	Example of symp- tom
+	-			Ignition switch	Operation		
36 (L)	Ground	Rear view camera video in (+)	Input	ON	With rear view camera ON	 SKIB2251J	Ground
37 (GR)	—	Shield	—	—	—	—	—
38 (P)	—	AV communication signal 1 (L)	Input/Output	—	—	—	—
39 (L)	—	AV communication signal 1 (H)	Input/Output	—	—	—	—
40 (GR)	—	Shield	—	—	—	—	—
43 (BR)	42 (Y)	TEL voice audio signal	Input	ON	Start confirmation/adjustment mode, and then Voice Microphone Test by selecting "Voice Microphone Test" on Hands-free Microphone screen.	 SKIB3609E	TEL voice audio signal
45 (B)	—	USB ground	—	—	—	—	—
46 (L)	—	AUX sound signal LH	—	—	—	—	—
47 (W)	—	USB D-	—	—	—	—	—
48 (GR)	—	AUX sound signal RH	—	—	—	—	—
49 (G)	—	USB D+	—	—	—	—	—
50 (BR)	—	AUX sound signal ground	—	—	—	—	—
51 (R)	—	USB V BUS signal	—	—	—	—	—
53 (GR)	—	SHIELD	—	—	—	—	—
54	—	Satellite antenna signal	—	—	—	—	—
55	—	GPS antenna signal	—	—	—	—	—
56	—	SHIELD	—	—	—	—	—
57	—	Antenna ON signal	—	—	—	—	—
58	—	Main antenna signal	—	—	—	—	—

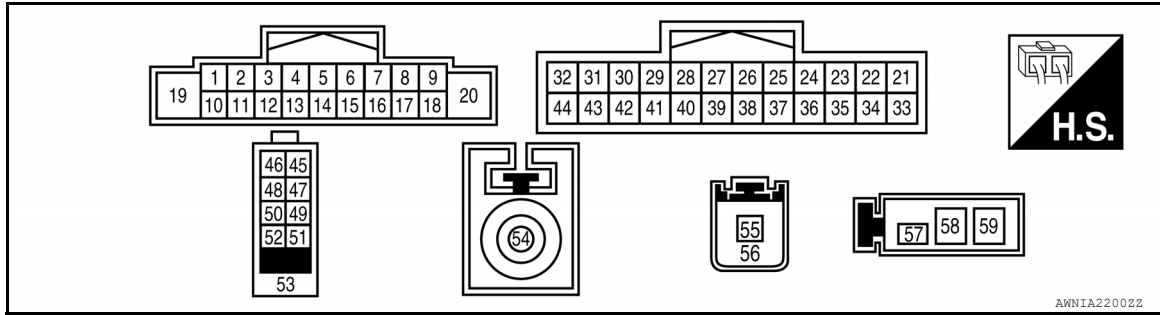
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[AUDIO WITH NAVIGATION]

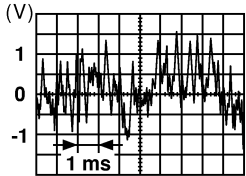
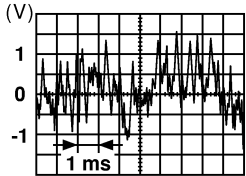
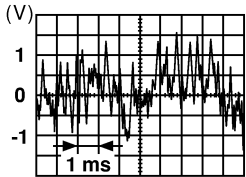
AV Control Unit (With Rockford Fosgate) Harness Connector Terminal Layout

INFOID:000000007405573



Terminal and Reference Value for AV Control Unit (With Rockford Fosgate)

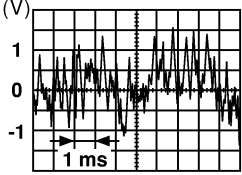
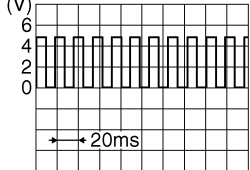
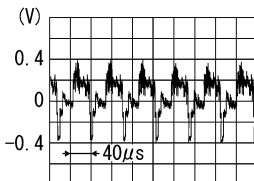
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Terminal (Wire color)		Item	Signal input/ output	Condition		Reference value (Approx.)	Example of symp- tom
+	-			Ignition switch	Operation		
1 (G)	Ground	Amp. ON/ OFF signal	Output	ON	—	More than 6.5V	Audio amplifier does not work properly.
2 (W)	3 (B)	Audio sound signal front LH	Output	ON	Receive audio signal	 SKIA0177E	No sound from front door speaker LH or tweeter LH.
4 (LG)	5 (V)	Audio sound signal rear LH	Output	ON	Receive audio signal	 SKIA0177E	No sound from rear speaker LH.
6 *1 (P)	Ground	Remote control A	Input	ON	Press Phone/ End switch	0V	Steering wheel au- dio controls do not function
					Press SEEK UP switch	1.7V	
					Press VOL UP switch	3.3V	
					Except for above	5.0V	
7 (GR)	Ground	ACC signal	Input	ON	Ignition switch ACC or ON	Battery voltage	System does not work properly.
11 (R)	12 (L)	Audio sound signal front RH	Output	ON	Receive audio signal	 SKIA0177E	No sound from front door speaker RH or tweeter RH.

AUDIO

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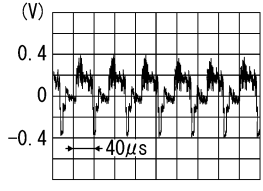
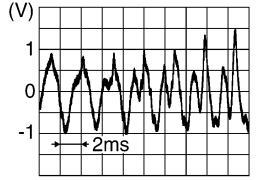
[AUDIO WITH NAVIGATION]

Terminal (Wire color)		Item	Signal input/ output	Condition		Reference value (Approx.)	Example of symp- tom
+	-			Ignition switch	Operation		
13 (BR)	14 (Y)	Audio sound signal rear RH	Output	ON	Receive audio signal	 SKIA0177E	No sound from rear speaker RH.
15 *1 (LG)	—	Remote control ground	Input	—	—	—	Steering wheel au- dio controls do not function
16 *1 (L)	Ground	Remote control B	Input	ON	Press Phone/ Send switch	0V	Steering wheel au- dio controls do not function
					Press SEEK DOWN switch	1.7V	
					Press VOL DOWN switch	3.3V	
					Except for above	5.0V	
18 (O)	Ground	Vehicle speed signal (8-pulse)	Input	ON	When vehicle speed is approx. 40 km/h (25 MPH)	 SKIA6649J	Ground
19 (Y)	Ground	Battery pow- er	Input	—	—	Battery voltage	System does not work properly.
20 (B)	Ground	Ground	—	ON	—	—	—
28 (G)	Ground	Reverse sig- nal	Input	ON	R position	Battery voltage	Ground
						Other than R position	0V
31 (B)	Ground	Ground	—	ON	—	—	—
32 (B)	Ground	Ground	—	ON	—	—	—
33 (B)	Ground	Rear view camera ground sig- nal	—	—	—	—	Ground
34 (R)	Ground	Rear view camera ON signal	Output	ON	Shift selector is in R position	6V	Ground
35 (P)	Ground	Rear view camera vid- eo in (-)	Input	ON	With rear view camera ON	 SKIB2251J	Ground

AUDIO

< SERVICE INFORMATION >

[AUDIO WITH NAVIGATION]

Terminal (Wire color)		Item	Signal input/ output	Condition		Reference value (Approx.)	Example of symp- tom
+	-			Ignition switch	Operation		
36 (L)	Ground	Rear view camera video in (+)	Input	ON	With rear view camera ON	 SKIB2251J	Ground
38 *1 (P)	—	AV communication signal 1 (L)	Input/Output	—	—	—	—
39 *1 (L)	—	AV communication signal 1 (H)	Input/Output	—	—	—	—
40 *1 (GR)	—	Shield	—	—	—	—	—
43 *1 (BR)	42 *1 (Y)	TEL voice audio signal	Input	ON	Start confirmation/adjustment mode, and then Voice Microphone Test by selecting "Voice Microphone Test" on Hands-free Microphone screen.	 SKIB3609E	TEL voice audio signal
45 (B)	—	USB ground	—	—	—	—	—
46 (L)	—	AUX sound signal LH	—	—	—	—	—
47 (W)	—	USB D-	—	—	—	—	—
48 (GR)	—	AUX sound signal RH	—	—	—	—	—
49 (G)	—	USB D+	—	—	—	—	—
50 (BR)	—	AUX sound signal ground	—	—	—	—	—
51 (R)	—	USB V BUS signal	—	—	—	—	—
53 (GR)	—	SHIELD	—	—	—	—	—
54	—	Satellite antenna signal	—	—	—	—	—
55	—	GPS antenna signal	—	—	—	—	—
56	—	SHIELD	—	—	—	—	—
57	—	Antenna ON signal	—	—	—	—	—
58	—	Main antenna signal	—	—	—	—	—

*1 With Bluetooth

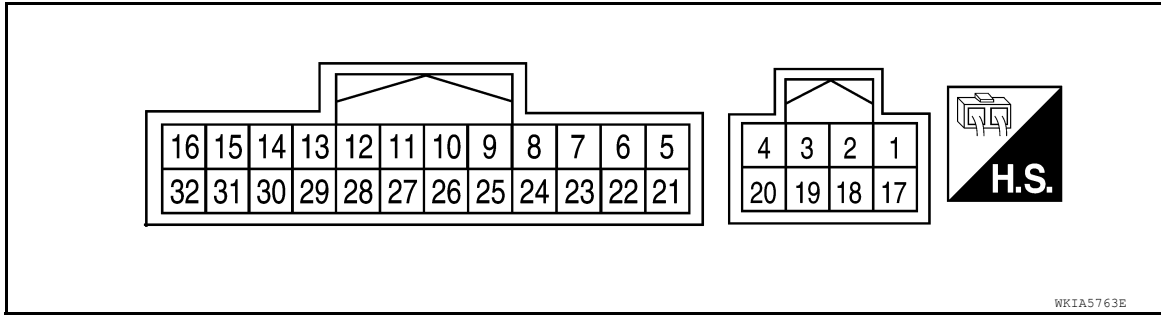
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[AUDIO WITH NAVIGATION]

Audio Amplifier Harness Connector Terminal Layout (With Rockford Fosgate)

INFOID:000000007405575



Terminal and Reference Value for Audio Amplifier (With Rockford Fosgate)

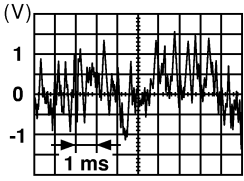
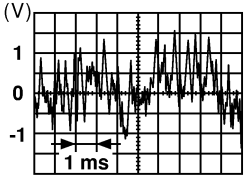
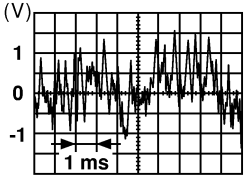
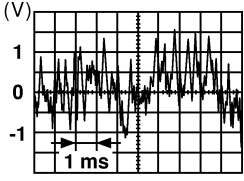
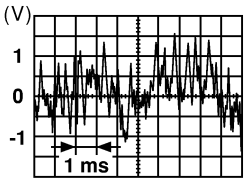
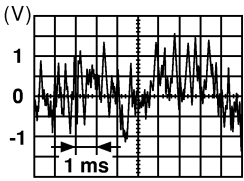
INFOID:000000007405576

Terminal (wire color)		Item	Signal input/output	Condition		Reference value (Approx.)	Example of symptom
+	-			Ignition switch	Operation		
1 (R)	Ground	Battery	Input	—	—	Battery voltage	System does not work properly.
2 (W)	18 (B)	Subwoofer LH	Output	ON	Receive audio signal	 SKIA0177E	No sound from subwoofer LH.
3 (Y)	19 (L)	Subwoofer RH	Output	ON	Receive audio signal	 SKIA0177E	No sound from subwoofer RH.
4 (B)	Ground	Ground	—	ON	—	—	—
9 (G/R)	Ground	Amp. ON signal	Input	ON	—	More than 6.5V	System does not work properly.
11 (V)	27 (B/Y)	Rear speaker LH	Output	ON	Receive audio signal	 SKIA0177E	No sound from rear speaker LH.
12 (R/Y)	28 (R/L)	Rear speaker RH	Output	ON	Receive audio signal	 SKIA0177E	No sound from rear speaker RH.

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[AUDIO WITH NAVIGATION]

Terminal (wire color)		Item	Signal input/ output	Condition		Reference value (Approx.)	Example of symptom
+	-			Ignition switch	Operation		
13 (W/R)	29 (L/B)	Front tweeter RH	Output	ON	Receive audio signal	 SKIA0177E	No sound from front tweeter RH.
14 (R/G)	30 (B/R)	Front tweeter LH	Output	ON	Receive audio signal	 SKIA0177E	No sound from front tweeter LH.
15 (L/W)	31 (L/R)	Front door speaker LH	Output	ON	Receive audio signal	 SKIA0177E	No sound from front door speaker LH.
16 (W/B)	32 (G/W)	Front door speaker RH	Output	ON	Receive audio signal	 SKIA0177E	No sound from front door speaker RH.
17 (G)	Ground	Battery	Input	—	—	Battery voltage	System does not work properly.
20 (B)	Ground	Ground	—	ON	—	—	—
21 (R)	5 (W)	Audio sound signal front RH	Input	ON	Receive audio signal	 SKIA0177E	No sound from front door speaker RH or front tweeter RH.
22 (W)	6 (B)	Audio sound signal front LH	Input	ON	Receive audio signal	 SKIA0177E	No sound from front door speaker LH or front tweeter LH.

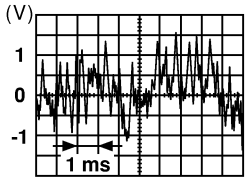
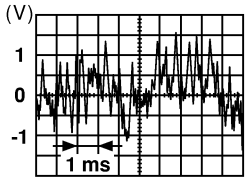
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[AUDIO WITH NAVIGATION]

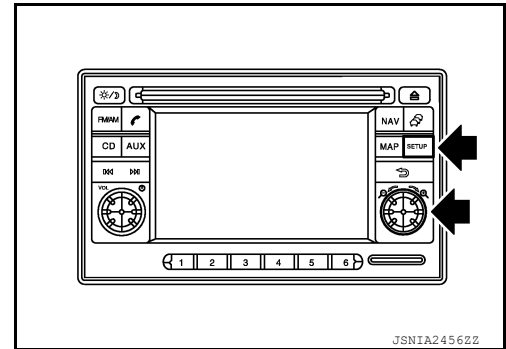
Terminal (wire color)		Item	Signal input/output	Condition		Reference value (Approx.)	Example of symptom
+	-			Ignition switch	Operation		
23 (L)	7 (B/W)	Audio sound signal rear RH	Input	ON	Receive audio signal	 SKIA0177E	No sound from rear speaker assembly RH.
24 (L/R)	8 (L/G)	Audio sound signal rear LH	Input	ON	Receive audio signal	 SKIA0177E	No sound from rear speaker assembly LH.

On-Board Diagnosis

INFOID:000000007405577

METHOD OF STARTING

1. Start the engine.
2. Turn OFF audio.
3. While pressing the "SET UP" switch, turn the MENU dial counterclockwise 3 clicks or more first, then clockwise and counterclockwise 3 clicks or more, respectively. (After the diagnosis mode starts, the initial screen of the diagnosis mode appears.)



- On-board diagnosis can be performed in the service test mode.
- On-board diagnosis checks that the system can be operated normally.

Service test mode

Mode	Item	Content	
Service version	—	The version data of the parts is shown displayed.	
Radio	FM monitor	—	
	AM monitor	—	
	XM monitor	—	
	XM functions	<ul style="list-style-type: none"> • Clear XM Chipset NVM • Reset all XM settings • XM CBM debug mode ON/OFF • External Diag mode ON/OFF 	The current system status is displayed.
User Configuration	Touch Display Calibration	—	The function allows connection of the position detection accuracy of the touch panel.

AUDIO

< SERVICE INFORMATION >

[AUDIO WITH NAVIGATION]

Mode	Item	Content	
System status	Running system status	<ul style="list-style-type: none"> • SD card slot Access • Power Supply • Speed Signal • Direction Signal • Illumination Signal • GPS Antenna • EXT. Phone Sig • Microphone Current • Radio Antenna • USB Device • iPod® firmware version • Steering wheel L32H 	The current system status is displayed.
	System history	<ul style="list-style-type: none"> • Bluetooth® Module - Sub-Unit Connection Malfunction • SD-card Slot - Sub-Unit Connection Malfunction • Programming Error • Radio-Antenna Circuit Malfunction • FM-Antenna 1 Connection Malfunction • Satellite Antenna Connection Failure • GPS Antenna Circuit Malfunction • CD-Drive Mechanical Malfunction • CD Read Malfunction • Power Supply voltage: Lower Limit Exceeded • Power Supply voltage: Upper Limit Exceeded • Reduced system Functionality due to over temperature • Display switched OFF due to over temperature • SD card removed without being de-mounted • Code plug missing 	The history of the system status is reported in the report memory, displayed.
	Speaker test 100Hz	—	This activates a sequence of test tone outputs to the four speaker lines one after the other for 1 second.
	Speaker test 4KHz	—	The frequency can be chosen by user selection (100Hz and 4KHz).
	Display test	—	This provides a test sequence where test displays (plain colored display: e.g. white, black, red, blue, green) are shown one after the other. The respective color is shown for an indicated period of time (parameter). After the display test, the design of the display previously available is stored. While the screen shows a plain colored display, a pixel malfunction may be detected.

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[AUDIO WITH NAVIGATION]

Mode	Item	Content
System configuration	<ul style="list-style-type: none"> • 8 pulses speed • Clock ON/OFF • Camera guidelines L32H • Equalizer setup L32H • RF tuning • Antenna type • Sound system • Sub Out: Code • Steering wheel 	The device is configured by a connected hardware circuit. The parameter is influenced.
Self test	<ul style="list-style-type: none"> • Bluetooth® module Access Malfunction • SD-card Access Malfunction • Radio-Antenna Circuit Malfunction • GPS Antenna Circuit Malfunction • Microphone Circuit Malfunction 	A system self test is executed: the result is stored into the error memory which is shown afterwards as a list of codes of the detected malfunctions.

END ON-BOARD DIAGNOSIS

Turn OFF ignition switch.

Symptom Chart

INFOID:000000007405578

MALFUNCTION WITH NAVIGATION

Symptoms	Check items	Probable malfunction location / Action to take
Display does not turn ON.	All switches cannot be operated.	AV control unit power supply and ground circuit. Refer to AV-150 .
	All switches can be operated.	AV control unit. Refer to AV-161 .
All switches cannot be operated.	Display does not turn ON.	AV control unit power supply and ground circuit. Refer to AV-150 .
	Display turn ON.	AV control unit. Refer to AV-161 .
Only specified switch cannot be operated.	-	AV control unit. Refer to AV-161 .
Voice guidance is not heard.	Audio sound is normal.	AV control unit. Refer to AV-161 .
Display does not dim.	Check "Illumination Signal" in "SERVICE SYSTEM STATUS", "SERVICE MENU".	"Illumination Signal" reaches 100% when the lighting switch is ON.
		"Illumination Signal" does not reach 100% when the lighting switch is ON.
Vehicle icon does not move.	Check "Speed Signal" in "SERVICE SYSTEM STATUS", "SERVICE MENU".	A value of "Speed Signal" changes according to vehicle speeds.
		A value of "Speed Signal" does not change according to vehicle speeds.
Map matching is not complete GPS icon is not displayed	Check "GPS Antenna" in "SERVICE SYSTEM SELF TEST", "SERVICE MENU".	"Connected" is displayed for "GPS Antenna".
		"Connected" is not displayed for "GPS Antenna".
Traffic information (XM Traffic) is not received.	Radio broadcasts are received.	AV control unit. Refer to AV-161 .
	Radio broadcasts are not received.	<ul style="list-style-type: none"> • Radio antenna. Refer to AV-188. • Antenna feeder. Refer to AV-188.

MALFUNCTION WITH AUDIO

AUDIO

< SERVICE INFORMATION >

[AUDIO WITH NAVIGATION]

- The majority of the audio malfunctions are the result of outside causes (Malfunction 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 if noise is caused and/or changed by engine speed, ignition switch turned to each position, and operation of each piece of electrical equipment, and then determine the cause.

NOTE:

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

Symptom	Probable malfunction location
Audio system does not work normally.	<ul style="list-style-type: none"> • AV control unit power supply and ground circuit. Refer to AV-150. • AV control unit. Refer to AV-161.
Audio steering wheel switch does not operate properly.	<ul style="list-style-type: none"> • Remote control signal circuit between steering switch and combination switch (spiral cable) • Remote control signal circuit between combination switch (spiral cable) and AV control unit • Steering wheel audio control switch • Combination switch (spiral cable) • AV control unit. Refer to AV-161.
No sound can be heard from any speakers.	<ul style="list-style-type: none"> • Speaker circuit shorted to ground. Refer to AV-125 • AV control unit. Refer to AV-161.
No sound can be heard from one or several speakers.	<ul style="list-style-type: none"> • Audio signal circuit between AV control unit and speaker • Speaker • Tweeter • AV control unit. Refer to AV-161.
No sound can be heard from radio or noise is heard.	<ul style="list-style-type: none"> • Antenna feeder • Roof antenna • AV control unit. Refer to AV-161.
Speed dependent volume system does not function.	<ul style="list-style-type: none"> • Vehicle speed signal circuit between combination meter and AV control unit • AV control unit. Refer to AV-161. • Combination meter
There is no sound from the iPod® or Aux jack.	<ul style="list-style-type: none"> • iPod® sound signal circuit between AV control unit and Auxiliary jack assembly • AV control unit. Refer to AV-161.
Buzz/rattle sound from speaker	The majority of buzz/rattle sounds are not indicative of an issue with the speaker, usually something nearby the speaker is causing the buzz/rattle. Refer to "SQUEAK AND RATTLE TROUBLE DIAGNOSIS" in the appropriate interior trim section.

NOTE:

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.

- 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.

MALFUNCTION WITH USB

NOTE:

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

AUDIO

< SERVICE INFORMATION >

[AUDIO WITH NAVIGATION]

Symptoms	Check items		Probable malfunction location / Action to take
iPod® or USB memory can not be recognized.	With iPod® or USB memory Connected, check "USB Device" in "SERVICE STATUS", "SERVICE MENU".	iPod® or USB memory name is displayed for "USB Device".	<ul style="list-style-type: none"> • USB interface and AUX jack harness • USB interface and AUX jack • AV control unit. Refer to AV-161.
		"Removed" is displayed for "USB Device".	<ul style="list-style-type: none"> • USB interface and AUX jack harness • USB interface and AUX jack
	—	—	Generation of iPod® not supported

MALFUNCTION WITH AUXILIARY INPUT

NOTE:

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

Symptoms	Check items	Probable malfunction location
No voice sound is heard when AUX mode is selected.	Voice sound is heard when other modes are selected.	<ul style="list-style-type: none"> • USB interface and AUX jack harness • USB interface and AUX jack

MALFUNCTION WITH STEERING SWITCH

Symptoms	Possible malfunction location / Action to take
All steering switches are not operated.	Steering switch. Refer to AV-152 .
Only specified switch cannot be operated.	
"SEEK UP", "VOL UP" and "SOURCE" switches are not operated.	
"SOURCE", "SEEK DOWN" and "VOL DOWN" switches are not operated.	

AV Control Unit Power and Ground Supply Circuit Inspection

INFOID:000000007405579

1. CHECK FUSE

Check that the following fuses of the AV control unit are not blown.

Unit	Terminals	Signal name	Fuse No.
AV control unit	19	Battery power	31
	7	Ignition switch ACC or ON	6

OK or NG

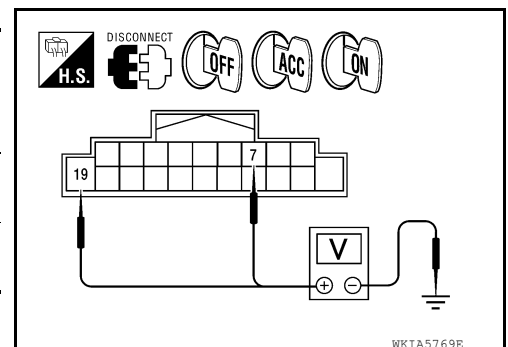
OK >> GO TO 2.

NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse. Refer to [PG-4](#).

2. AV CONTROL UNIT POWER SUPPLY CIRCUIT CHECK

1. Disconnect AV control unit connector.
2. Check voltage between the AV control unit connector and ground.

Unit	Terminal No.		OFF	ACC	ON	
	(+)					(-)
	Connector	Terminal				
AV control unit	M92	19	Ground	Battery voltage	Battery voltage	
		7	Ground	0V	Battery voltage	



OK or NG

OK >> GO TO 3.

- NG >> • Check connector housings for disconnected or loose terminals.
 • Repair harness or connector.

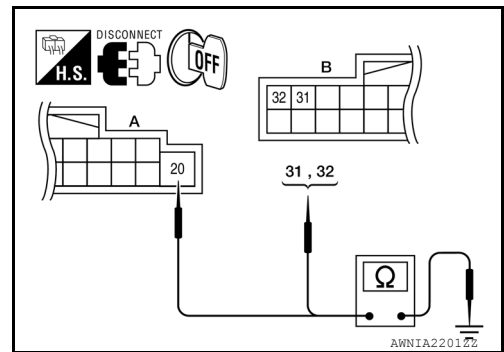
3. GROUND CIRCUIT CHECK

Check continuity between AV control unit harness connectors M92 (A), M99 (B) terminals 20, 31, 32 (with rockford fosgate) and ground.

Continuity should exist.

OK or NG

- OK >> Inspection End.
 NG >> • Check connector housings for disconnected or loose terminals.
 • Repair harness or connector.



Audio Amplifier Power and Ground Supply Circuit Inspection

INFOID:000000007405580

1. CHECK FUSE

Check that the following fuses of the audio amplifier are not blown.

Unit	Terminals	Signal name	Fuse No.
Audio amplifier	17	Battery power	17
	1	Battery power	31

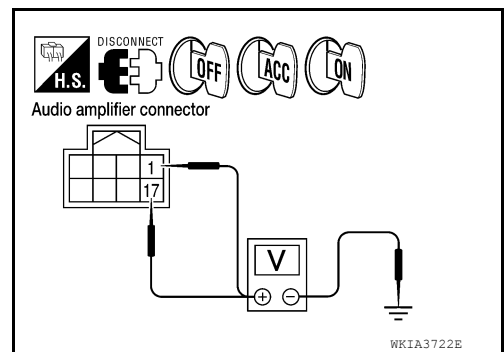
OK or NG

- OK >> GO TO 2.
 NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse. Refer to [PG-4](#).

2. AUDIO AMPLIFIER POWER SUPPLY CIRCUIT CHECK

1. Disconnect audio amplifier connector.
2. Check voltage between audio amplifier connector and ground.

Unit	Terminal No.		OFF	ACC	ON
	(+)				
	Connector	Terminal			
Audio amplifier	B44	1	0V	Battery voltage	Battery voltage
		17			



OK or NG

- OK >> GO TO 3.
 NG >> • Check connector housings for disconnected or loose terminals.
 • Repair harness or connector.

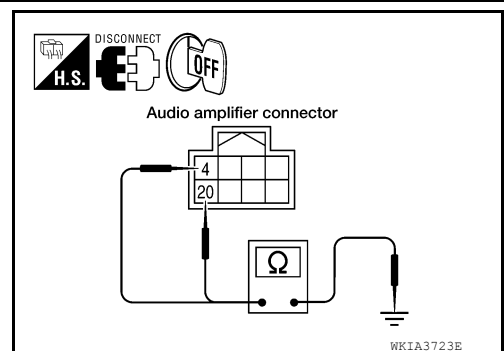
3. GROUND CIRCUIT CHECK

Check continuity between audio amplifier harness connector B44 terminals 4, 20 and ground.

Continuity should exist.

OK or NG

- OK >> Inspection End.
 NG >> • Check connector housings for disconnected or loose terminals.
 • Repair harness or connector.



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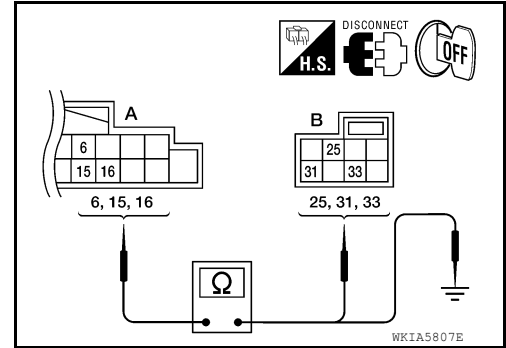
AV

Steering Switch Check

1. CHECK HARNESS

1. Turn ignition switch OFF.
2. Disconnect audio unit connector M92 and spiral cable connector M30.
3. Check continuity between audio unit connector terminal and spiral cable connector terminal.

Terminals				Continuity
A		B		
Connector	Terminal	Connector	Terminal	
M92	6	M30	33	Yes
	15		25	
	16		31	



4. Check continuity between audio unit and ground.

Terminals			Continuity
A		(-)	
Connector	Terminal		
M92	6	Ground	No
	15		
	16		

OK or NG

OK >> GO TO 2.

NG >> Repair harness.

2. SPIRAL CABLE CHECK

1. Disconnect spiral cable connector M78.
2. Check continuity between spiral cable terminals.

15 - 33 : Continuity should exist.

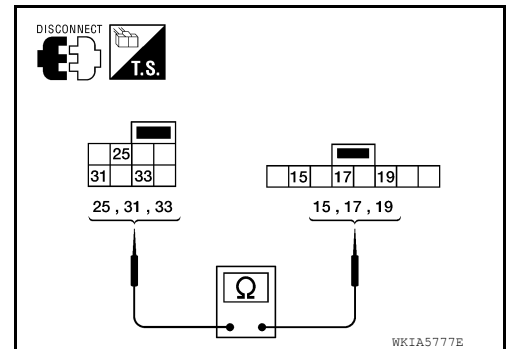
17 - 31 : Continuity should exist.

19 - 25 : Continuity should exist.

OK or NG

OK >> GO TO 3.

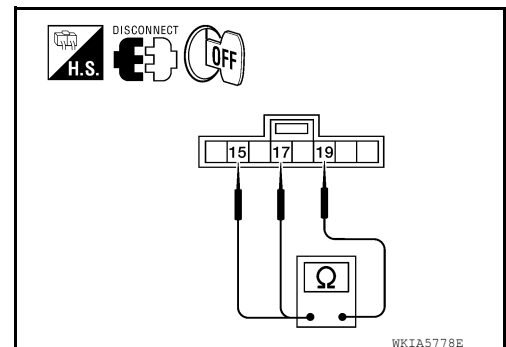
NG >> Replace spiral cable. Refer to [SRS-33. "Removal and Installation"](#).



3. CHECK STEERING SWITCH RESISTANCE

Check resistance between spiral cable connector M78 terminals.

Terminal	Signal name	Condition	Resistance (Ω) (Approx.)	
17	19	Seek (down)	Depress Seek down switch.	165
		Mode/End	Depress switch.	0
		Volume (down)	Depress volume down switch.	652
15	19	Seek (up)	Depress Seek up switch.	165
		Phone/Send	Depress switch.	0
		Volume (up)	Depress volume up switch.	652



< SERVICE INFORMATION >

OK or NG

- OK >> Inspection End.
- NG >> Replace steering switch. Refer to [AV-161, "Removal and Installation"](#).

Sound Is Not Heard from Front Door Speaker or Front Tweeter (Without Rockford Fosgate)

INFOID:000000007405582

1. CONNECTOR CHECK

Check the audio unit and speaker connectors for the following:

- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

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

2. HARNESS CHECK

1. Disconnect AV control unit connector and front door speaker and front tweeter connector (LH or RH).
2. Check continuity between AV control unit harness connector terminal and front door speaker and front tweeter harness connector terminal.

Terminals				Continuity
AV control unit		Speaker or tweeter		
Connector	Terminal	Connector	Terminal	
A: M92	2	B: M46	+	Yes
	3		-	
	11	B: M47	+	
	12		-	
	2	B: D10	+	
	3		-	
	11	B: D108	+	
	12		-	

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

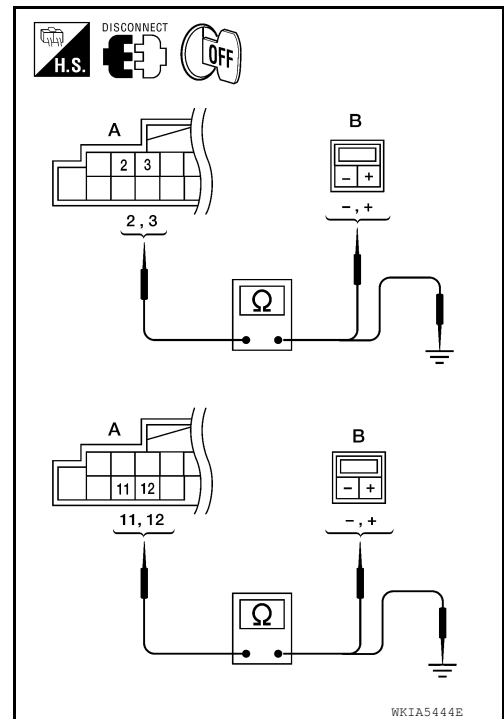
Terminals			Continuity
AV control unit		—	
Connector	Terminal	Ground	
A: M92	2	Ground	No
	3		
	11		
	12		

OK or NG

- OK >> GO TO 3.
- NG >> Repair harness or connector.

3. FRONT SPEAKER SIGNAL CHECK

1. Connect AV control unit connector, front door speaker connector and front tweeter connector.
2. Turn ignition switch to ACC.
3. Push "POWER" switch.



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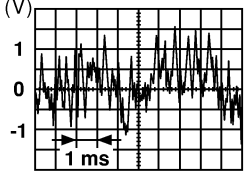
AV

AUDIO

< SERVICE INFORMATION >

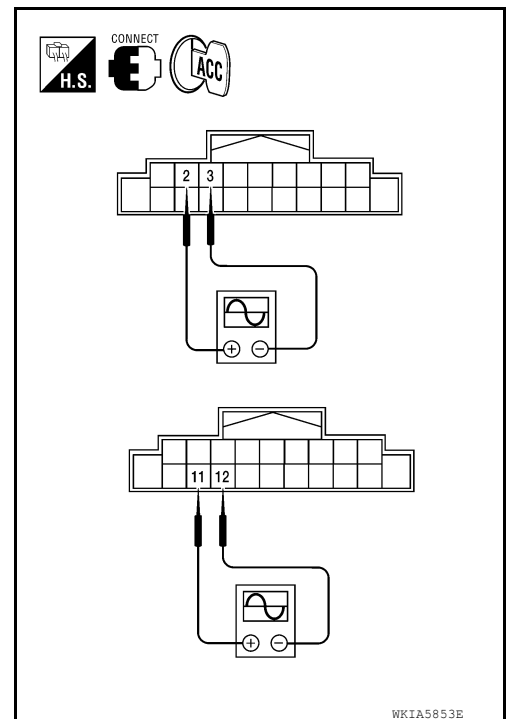
[AUDIO WITH NAVIGATION]

4. Check the signal between AV control unit connector terminals with CONSULT or oscilloscope.

Terminals				Condi- tion	Reference signal
(+) Terminal		(-) Terminal			
Con- nector	Termi- nal	Con- nector	Termi- nal		
M92	2	M92	3	Receive audio signal	
	11	M92	12		

OK or NG

- OK >> Replace front speaker. Refer to [AV-161, "Removal and Installation"](#).
- NG >> Replace AV control unit. Refer to [AV-161, "Removal and Installation"](#).



Sound Is Not Heard from Rear Speaker (Without Rockford Fosgate)

INFOID:000000007405583

1.CONNECTOR CHECK

Check the audio unit and speaker connectors for the following:

- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

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

2.HARNESS CHECK

1. Disconnect AV control unit connector and rear speaker connector.

AUDIO

< SERVICE INFORMATION >

[AUDIO WITH NAVIGATION]

- Check continuity between AV control unit harness connector terminal and rear speaker harness connector terminal.

Terminals				Continuity
AV control unit		Speaker		
Connector	Terminal	Connector	Terminal	
A: M92	4	B: B27	+	Yes
	5		-	
	13	B: B39	+	
	14		-	

- Check continuity between AV control unit harness connector terminal and ground.

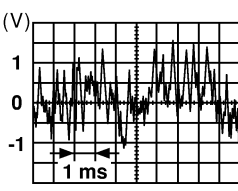
Terminals				Continuity
AV control unit		—		
Connector	Terminal			
A: M92	4	Ground		No
	5			
	13			
	14			

OK or NG

- OK >> GO TO 3.
- NG >> Repair harness or connector.

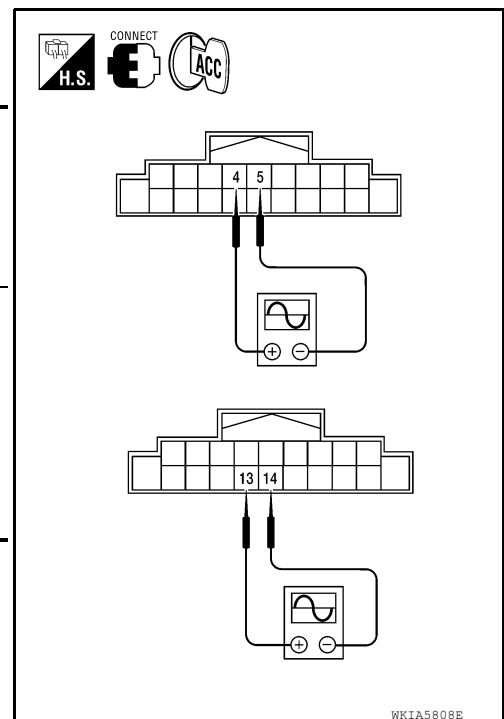
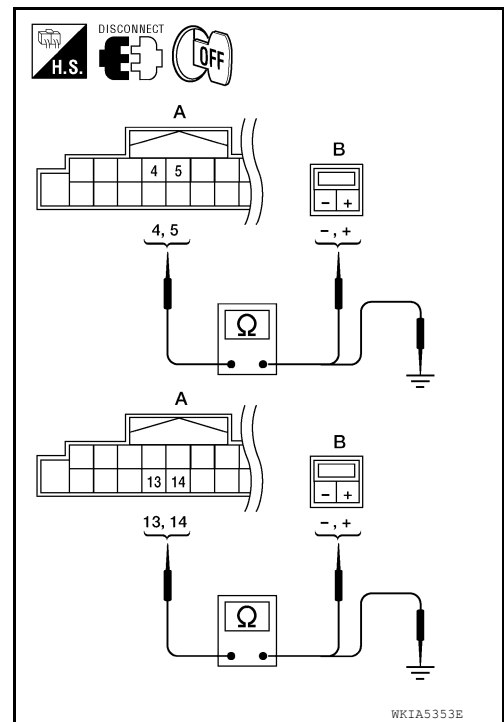
3. REAR SPEAKER SIGNAL CHECK

- Connect AV control unit connector and rear speaker connector.
- Turn ignition switch to ACC.
- Push "POWER" switch.
- Check the signal between AV control unit harness connector terminals with CONSULT or oscilloscope.

Terminals				Condition	Reference signal
(+)		(-)			
Connector	Terminal	Connector	Terminal		
M92	4	M92	5	Receive audio signal	
	13		14		

OK or NG

- OK >> Replace speaker. Refer to [AV-161, "Removal and Installation"](#).
- NG >> Replace AV control unit. Refer to [AV-161, "Removal and Installation"](#).



Sound Is Not Heard from Front Door Speaker or Front Tweeter (With Rockford Fos-

gate)

1. CONNECTOR CHECK

Check the audio unit and speaker connectors for the following:

- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair the terminal and connector.

2. HARNESS CHECK

1. Turn ignition switch OFF.
2. Disconnect audio amplifier connector B43 and suspect speaker connector.
3. Check continuity between audio amplifier harness connector terminal and suspect speaker harness connector terminal.

Terminals				Continuity
Audio amplifier		Speaker or tweeter		
Connector	Terminal	Connector	Terminal	
B43	15	D10	+	Yes
	31		-	
	16	D108	+	
	32		-	
	14	M46	-	
	30		+	
	13	M47	-	
	29		+	

4. Check continuity between audio amplifier harness connector terminal and ground.

Terminals			Continuity
Audio amplifier		—	
Connector	Terminal		
B43	13	Ground	No
	14		
	15		
	16		
	29		
	30		
	31		
	32		

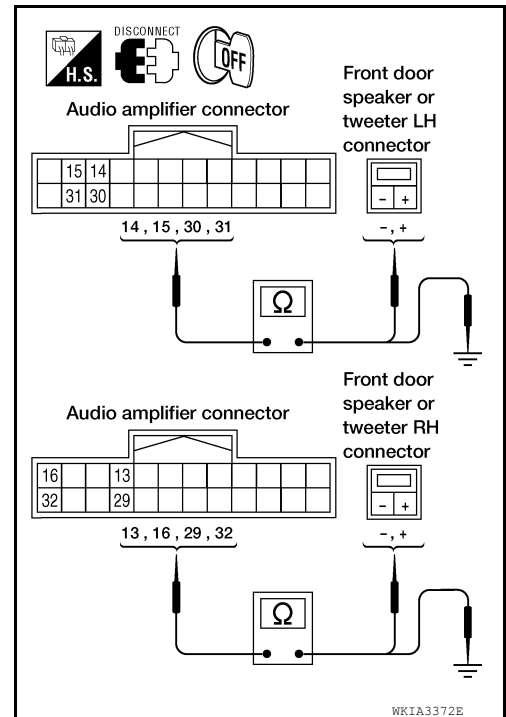
OK or NG

OK >> GO TO 3.

NG >> Repair harness or connector.

3. FRONT SPEAKER SIGNAL CHECK

1. Connect audio amplifier connector B43 and suspect speaker connector.
2. Turn ignition switch to ACC.
3. Push "POWER" switch.



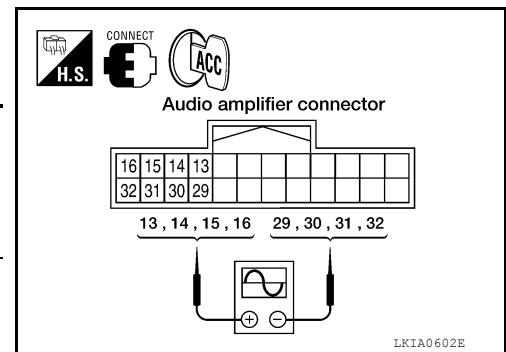
AUDIO

< SERVICE INFORMATION >

[AUDIO WITH NAVIGATION]

- Check the signal between audio amplifier harness connector terminals with CONSULT or oscilloscope.

Terminals				Condition	Reference signal
(+)		(-)			
Connector	Terminal	Connector	Terminal		
B43	13	B43	29	Receive audio signal	
	14		30		
	15		31		
	16		32		



OK or NG

- OK >> Replace suspect speaker. Refer to [AV-161, "Removal and Installation"](#).
- NG >> GO TO 4.

4. HARNESS CHECK

- Turn ignition switch OFF.
- Disconnect AV control unit connector M92 and audio amplifier connector B43.
- Check continuity between AV control unit harness connector terminals and audio amplifier harness connector terminals.

Terminals				Continuity
AV control unit		Audio amplifier		
Connector	Terminal	Connector	Terminal	
A: M92	3	B: B43	6	Yes
	2		22	
	12		5	
	11		21	

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

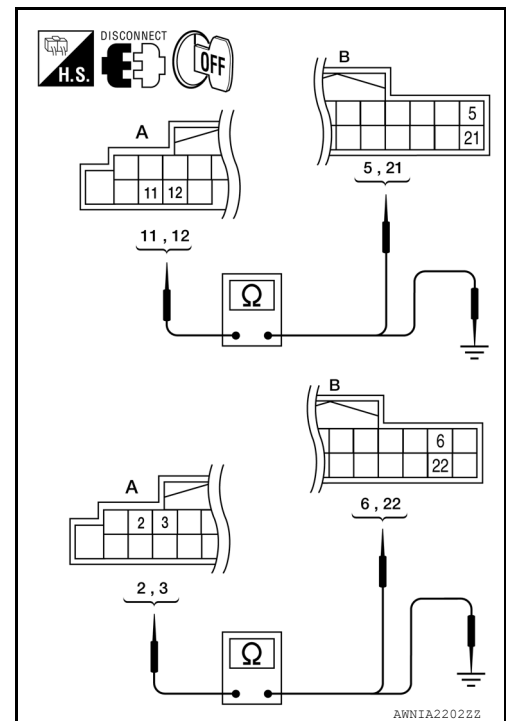
Terminals			Continuity
AV control unit		—	
Connector	Terminal		
A: M92	2	Ground	No
	3		
	11		
	12		

OK or NG

- OK >> GO TO 5.
- NG >> Repair harness or connector.

5. FRONT SPEAKER SIGNAL CHECK

- Connect AV control unit connector and audio amplifier connector.
- Turn ignition switch to ACC.
- Push "POWER" switch.

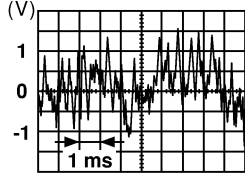


AUDIO

< SERVICE INFORMATION >

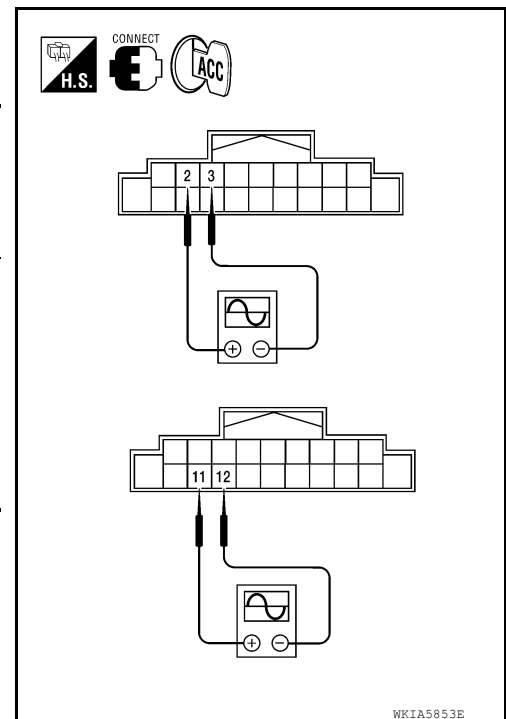
[AUDIO WITH NAVIGATION]

4. Check the signal between AV control unit harness connector terminals with CONSULT or oscilloscope.

Terminals				Condi- tion	Reference signal
(+) (+)		(-) (-)			
Con- nector	Termi- nal	Con- nector	Termi- nal		
M92	2	M92	3	Receive audio signal	
	11	M92	12		

OK or NG

- OK >> Replace audio amplifier. Refer to [AV-161, "Removal and Installation"](#).
- NG >> Replace AV control unit. Refer to [AV-161, "Removal and Installation"](#).



Sound Is Not Heard from Rear Speaker Assembly (With Rockford Fosgate)

INFOID:000000007405585

1.CONNECTOR CHECK

Check the audio unit and speaker connectors for the following:

- Proper connection
- Damage
- Disconnected or loose terminals

Is the inspection result normal?

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

2.HARNES CHECK

1. Turn ignition switch OFF.
2. Disconnect audio amplifier connectors B43, B44 and suspect speaker connector.

AUDIO

< SERVICE INFORMATION >

[AUDIO WITH NAVIGATION]

3. Check continuity between audio amplifier harness connector terminal and suspect speaker harness connector terminal.

Terminals				Continuity
Audio amplifier		Speaker		
Connector	Terminal	Connector	Terminal	
A: B43	11	C: B40	4	Yes
	27		3	
	12	C: B38	4	
	28		3	
B: B44	2	C: B40	2	
	18		1	
	3	C: B38	2	
	19		1	

4. Check continuity between audio amplifier harness connector terminals and ground.

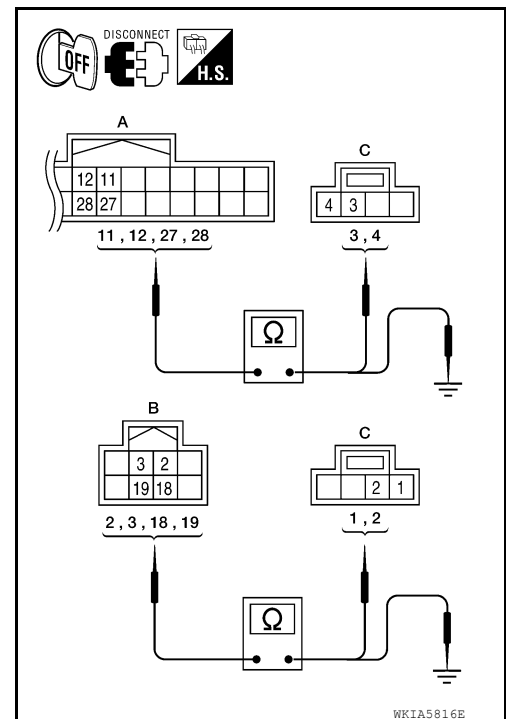
Terminals			Continuity
Audio amplifier		—	
Connector	Terminal		
A: B43	11	Ground	No
	27		
	12		
	28		
B: B44	2		
	18		
	3		
	19		

OK or NG

- OK >> GO TO 3.
 NG >> Repair harness or connector.

3. REAR SPEAKER SIGNAL CHECK

1. Connect audio amplifier connectors B43, B44 and suspect speaker connector.
2. Turn ignition switch to ACC.
3. Push "POWER" switch.



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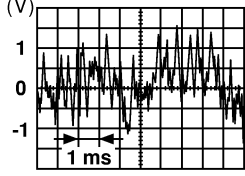
AV

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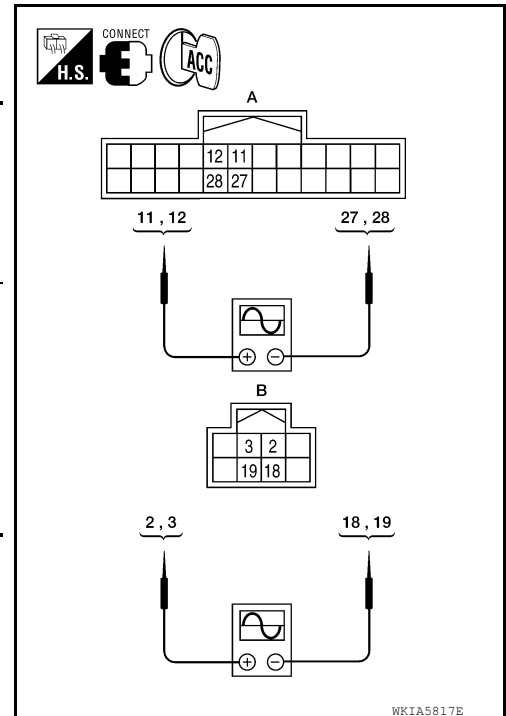
[AUDIO WITH NAVIGATION]

- Check the signal between audio amplifier harness connector terminals with CONSULT or oscilloscope.

Terminals				Condi- tion	Reference signal
(+)		(-)			
Con- nec- tor	Terminal	Con- nec- tor	Terminal		
A: B43	11	A: B43	27	Re- ceive audio signal	
	12	B43	28		
B: B44	2	B: B44	18		
	3		19		

OK or NG

- OK >> Replace suspect speaker. Refer to [AV-161, "Removal and Installation"](#).
- NG >> GO TO 4.



4. HARNESS CHECK

- Turn ignition switch OFF.
- Disconnect AV control unit connector M92 and audio amplifier connector B43.
- Check continuity between AV control unit harness connector terminals and audio amplifier harness connector terminals.

Terminals				Continuity
AV control unit		Audio amplifier		
Connector	Terminal	Connector	Terminal	
A: M92	5	B: B43	8	Yes
	4		24	
	14		7	
	13		23	

- Check continuity between AV control unit harness connector terminal and ground.

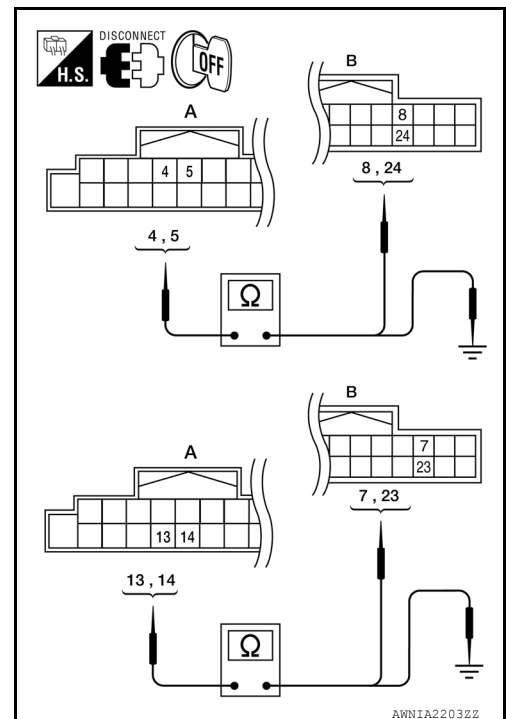
Terminals			Continuity
AV control unit		—	
Connector	Terminal		
A: M92	4	Ground	No
	5		
	13		
	14		

OK or NG

- OK >> GO TO 5.
- NG >> Repair harness or connector.

5. REAR SPEAKER SIGNAL CHECK

- Connect AV control unit connector M92 and audio amplifier connector B43.
- Turn ignition switch to ACC.

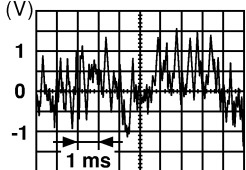


AUDIO

[AUDIO WITH NAVIGATION]

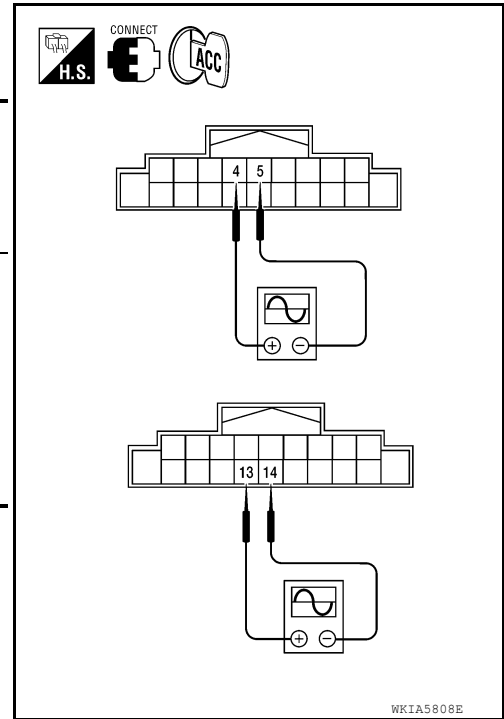
< SERVICE INFORMATION >

3. Push "POWER" switch.
4. Check the signal between audio unit harness connector terminals with CONSULT or oscilloscope.

Terminals				Condi- tion	Reference signal
(+)		(-)			
Con- nector	Terminal	Con- nector	Terminal		
M92	4	M92	5	Re- ceive audio signal	
	13		14		

OK or NG

- OK >> Replace audio amplifier. Refer to [AV-161, "Removal and Installation"](#).
- NG >> Replace AV control unit. Refer to [AV-161, "Removal and Installation"](#).



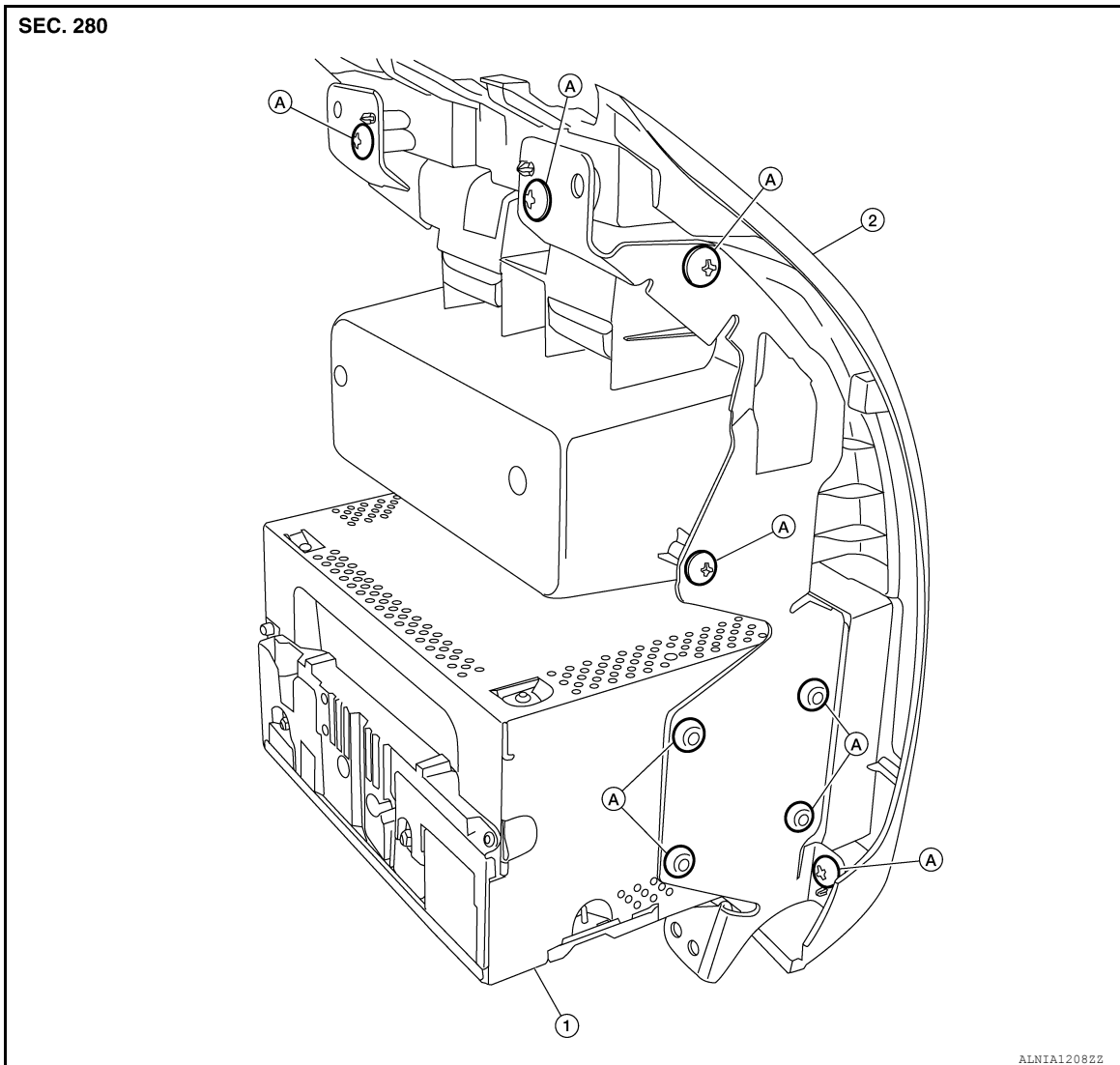
Removal and Installation

AV CONTROL UNIT

INFOID:000000007405586

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AV



1. AV control unit

2. Cluster lid C

A. Cluster lid C bracket screws

Removal

1. Disconnect the battery negative terminal.
2. Remove the cluster lid C. Refer to [IP-11](#).
3. Remove the AV control unit harness.
4. Remove the cluster lid C bracket screws.
5. Remove the AV control unit.

Installation

Installation is in the reverse order of removal.

FRONT TWEETER

Removal

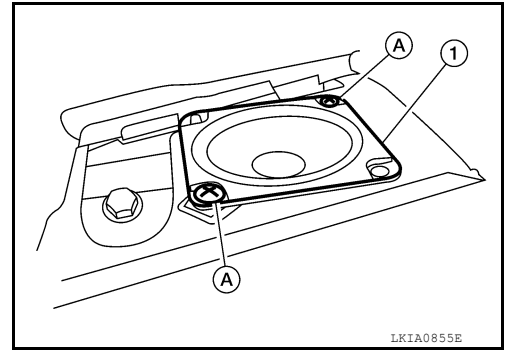
1. Remove the front pillar garnish. Refer to [EI-36](#).
2. Remove the front tweeter grille.

AUDIO

< SERVICE INFORMATION >

[AUDIO WITH NAVIGATION]

3. Remove the front tweeter screws (A), disconnect the front tweeter connector and remove the front tweeter (1).



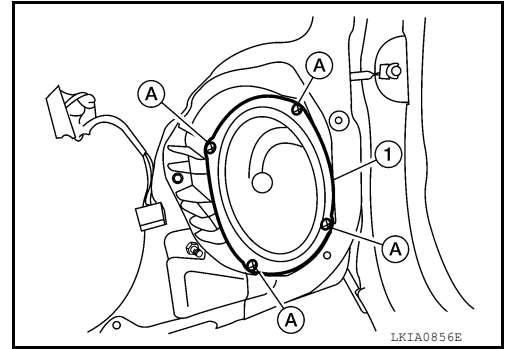
Installation

Installation is in the reverse order of removal.

FRONT DOOR SPEAKER

Removal

1. Remove the front door finisher. Refer to [EI-33](#).
2. Remove the front door speaker screws (A), disconnect the front door speaker connector and remove the front door speaker (1).



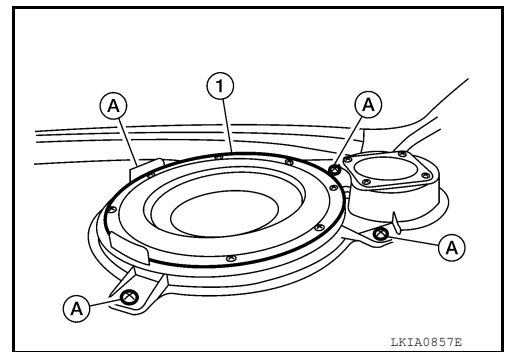
Installation

Installation is in the reverse order of removal.

REAR SPEAKER

Removal

1. Remove the rear parcel shelf finisher. Refer to [EI-40, "Removal and Installation - Rear Parcel Shelf Finisher"](#).
2. Remove the rear speaker screws (A), disconnect the rear speaker connector and remove the rear speaker (1).

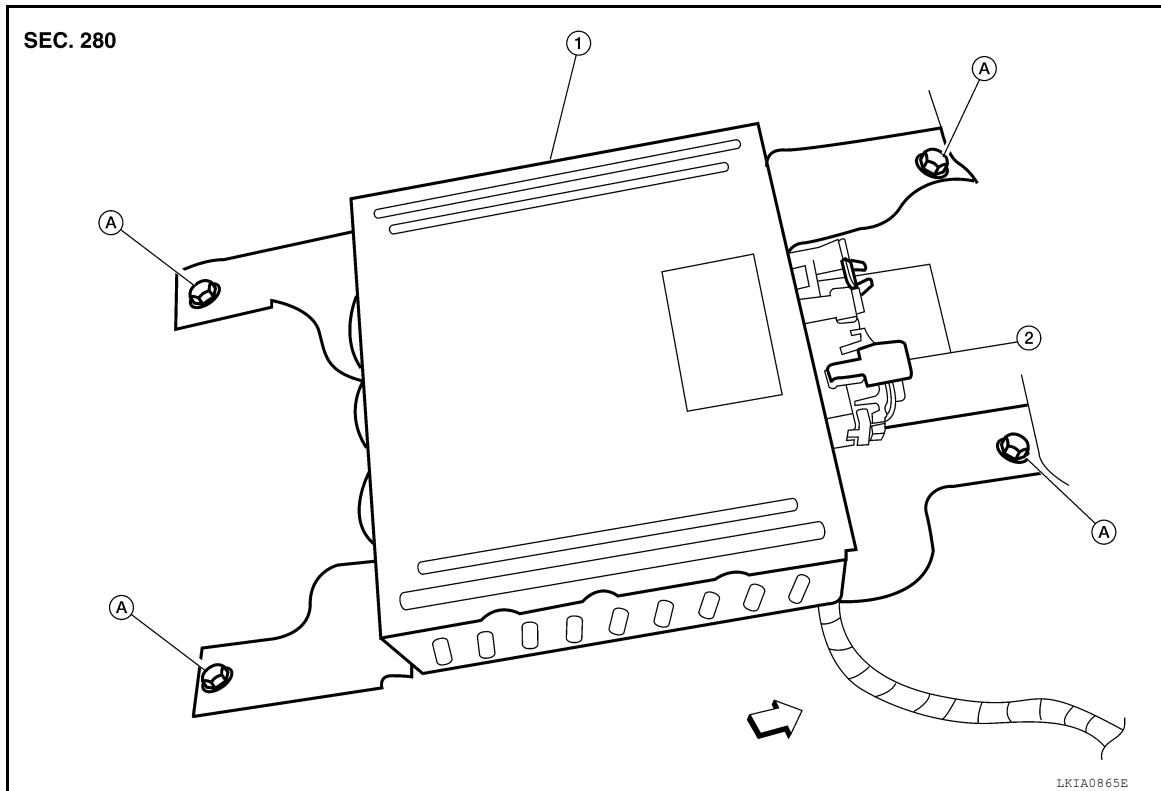


Installation

Installation is in the reverse order of removal.

AUDIO AMPLIFIER

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1. Audio amplifier

2. Audio amplifier connectors

A. Bolts

⇐ Front

Removal

1. Disconnect the battery negative terminal.
2. Slide the RH front seat toward the front to remove the audio amplifier rear bolts.
3. Slide the RH front seat toward the rear to remove the audio amplifier front bolts.
4. Disconnect the audio amplifier connectors and remove the audio amplifier.

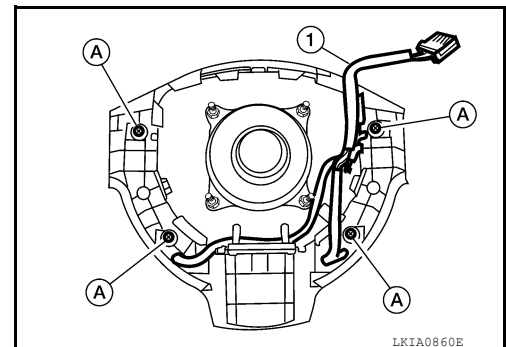
Installation

Installation is in the reverse order of removal.

STEERING WHEEL AUDIO CONTROL SWITCHES

Removal

1. Remove the driver air bag module. Refer to [SRS-31, "Removal and Installation"](#).
2. Remove the steering wheel audio control switches screws (A) and remove the steering wheel audio control switches (1).



Installation

Installation is in the reverse order of removal.

NAVIGATION SYSTEM

How to Proceed with Trouble Diagnosis

INFOID:000000007405587

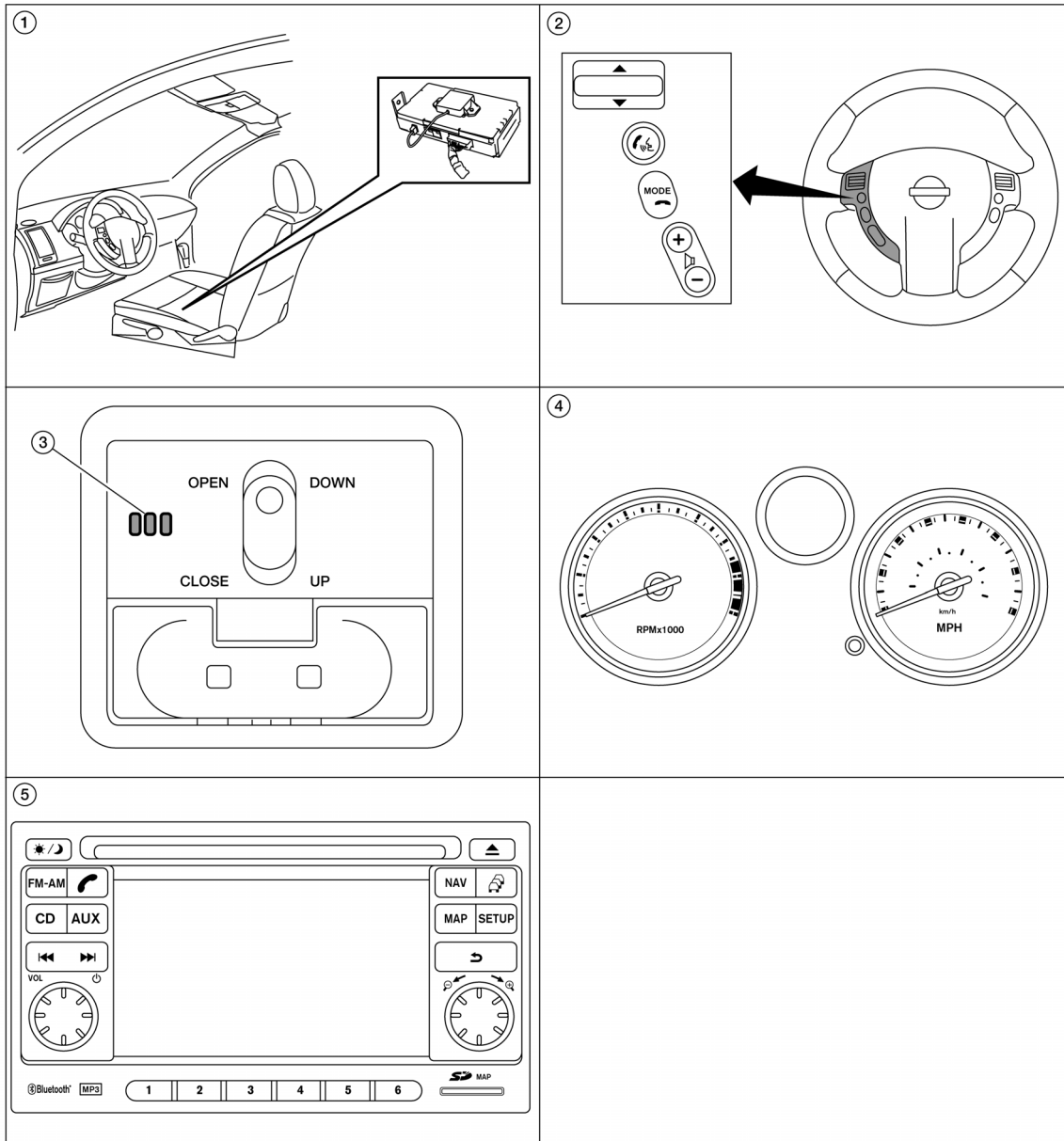
Refer to [AV-148. "Symptom Chart"](#).

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- D
- E
- F
- G
- H
- I
- J
- AV**
- L
- M
- N
- O
- P

TELEPHONE

Component Parts and Harness Connector Location

INFOID:000000007405588



AWNIA2190GB

- | | | |
|---|--|------------------|
| 1. Bluetooth control unit B15, B69, B92 | 2. Steering wheel audio control switches | 3. Microphone R4 |
| 4. Combination meter M24 | 5. AV control unit M99 | |

System Description

INFOID:000000007405589

BLUETOOTH® HANDS-FREE PHONE SYSTEM

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

NOTE:

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

Bluetooth telephone system allows users who have a Bluetooth cellular telephone to make a wireless connection between their cellular telephone and the Bluetooth control unit. Hands-free cellular telephone calls can be sent and received. Some Bluetooth cellular telephones may not be recognized by the Bluetooth control unit.

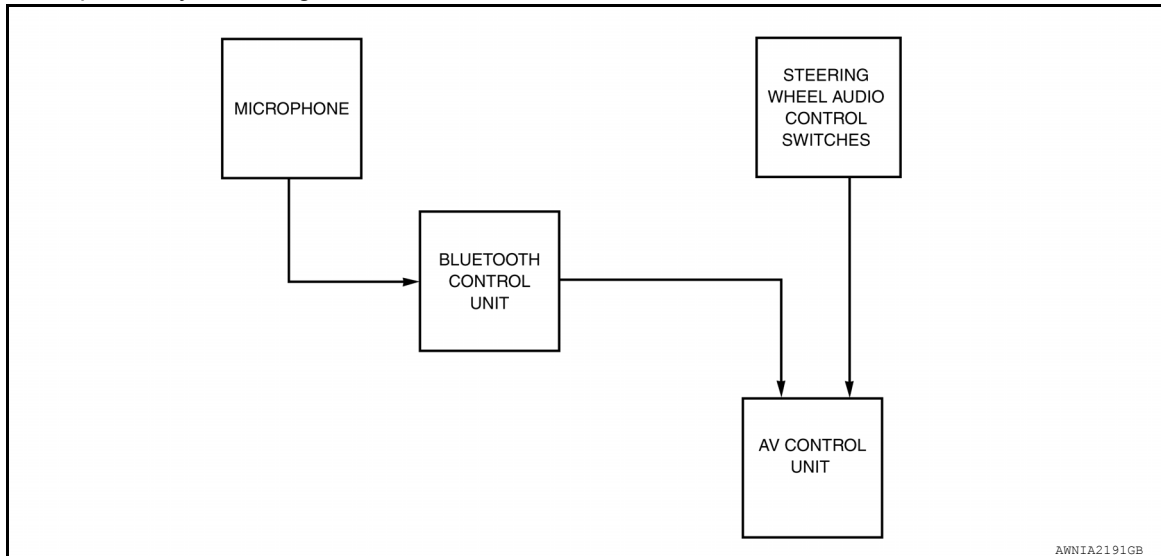
TELEPHONE

< SERVICE INFORMATION >

[AUDIO WITH NAVIGATION]

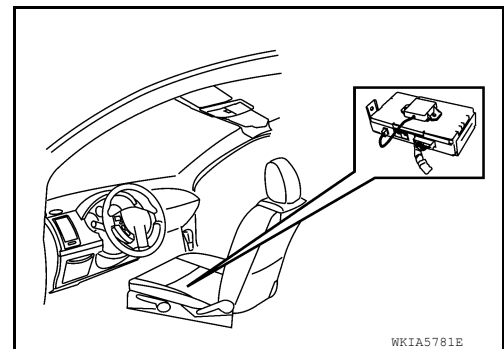
When a cellular telephone or the Bluetooth control unit is replaced, the telephone must be paired with the Bluetooth control unit. Different cellular telephones may have different pairing procedures. Refer to the cellular telephone operating manual.

Bluetooth Telephone System Diagram



Bluetooth Control Unit

When the ignition switch is turned to ACC or ON, the Bluetooth control unit will power up. During power up, the Bluetooth control unit is initialized and performs various self checks. Initialization may take up to 20 seconds. If a phone is present in the vehicle and paired with the Bluetooth control unit, Nissan Voice Recognition will then become active. Bluetooth telephone functions can be turned off using the Nissan Voice Recognition system.

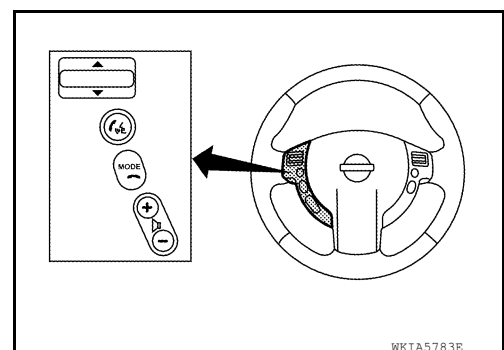


Steering Wheel Audio Control Switches

When buttons on the steering wheel audio control switch are pushed, the resistance in steering wheel audio control switch circuit changes depending on which button is pushed. The Bluetooth control module uses this signal to perform various functions while navigating through the voice recognition system.

The following functions can be performed using the steering wheel audio control switch:

- Initiate Self Diagnosis of the Bluetooth telephone system
- Start a voice recognition session
- Answer and end telephone calls
- Adjust the volume of calls



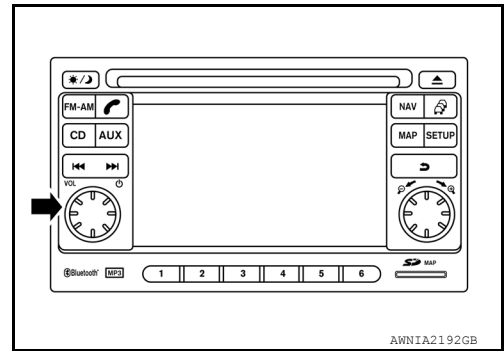
Volume Switch

TELEPHONE

< SERVICE INFORMATION >

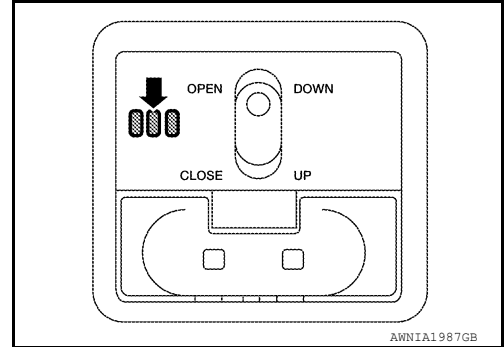
Call volume can be adjusted using the AV control unit volume switch.

[AUDIO WITH NAVIGATION]



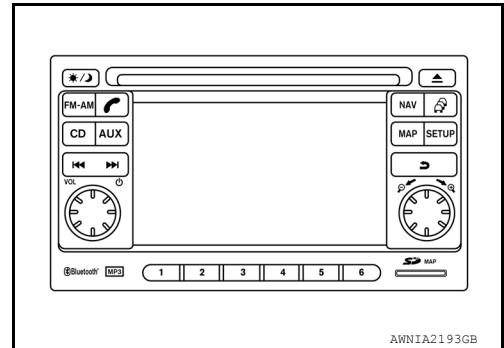
Bluetooth Microphone

The Bluetooth microphone is located in the roof console assembly. The Bluetooth microphone sends a signal to the Bluetooth control unit. The Bluetooth microphone can be actively tested during self-diagnosis.



AV Control Unit

The AV control unit receives signals from the Bluetooth control unit and sends audio signals to the speakers.



TELEPHONE

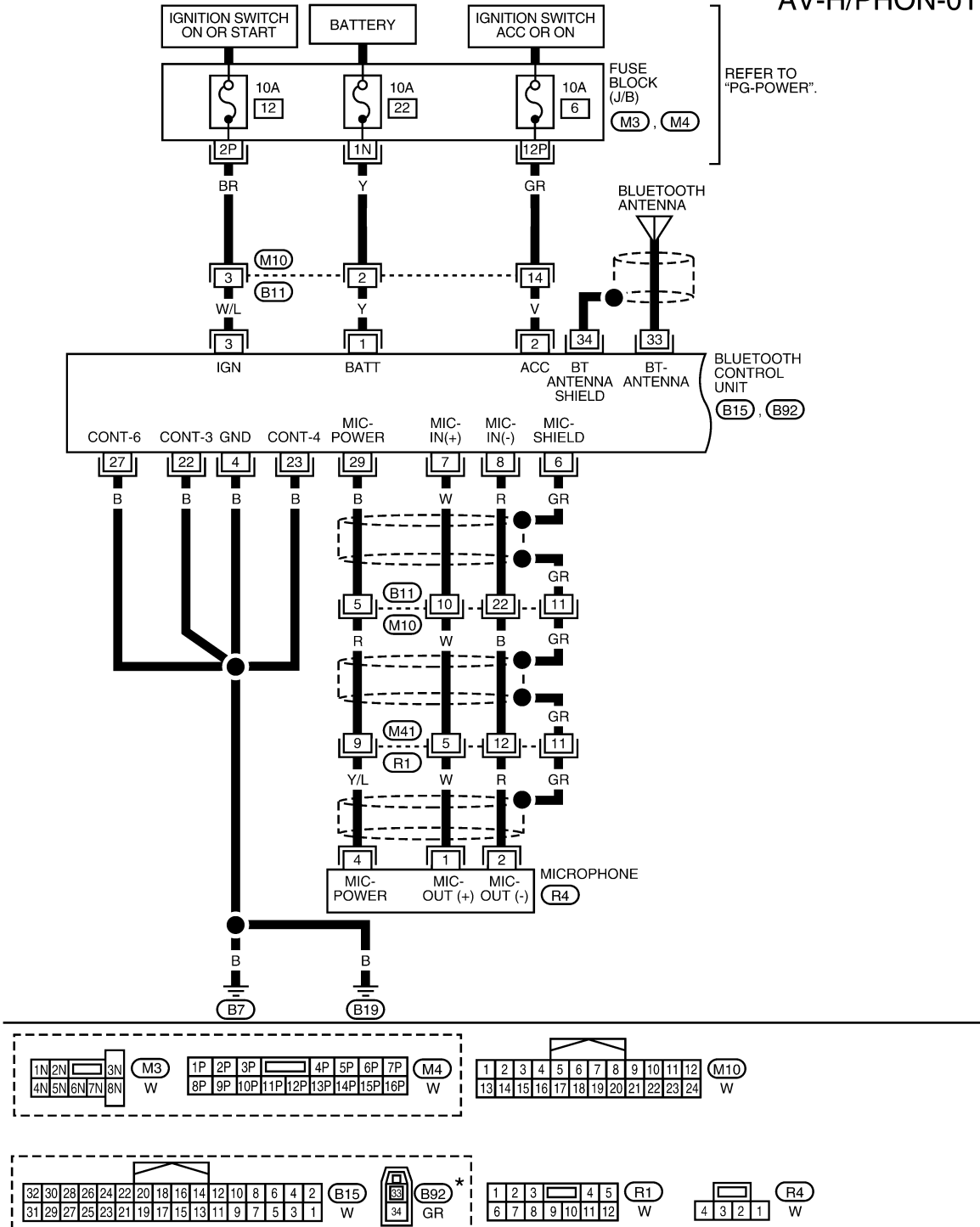
< SERVICE INFORMATION >

[AUDIO WITH NAVIGATION]

Wiring Diagram - H/PHON -

INFOID:000000007405590

AV-H/PHON-01



* : THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT" OF PG SECTION.

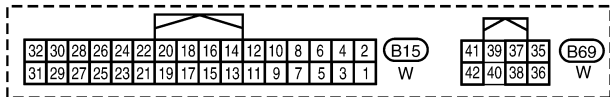
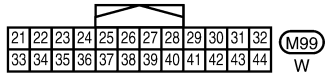
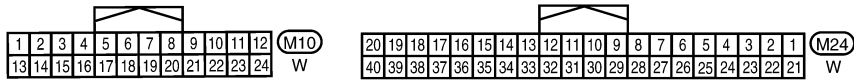
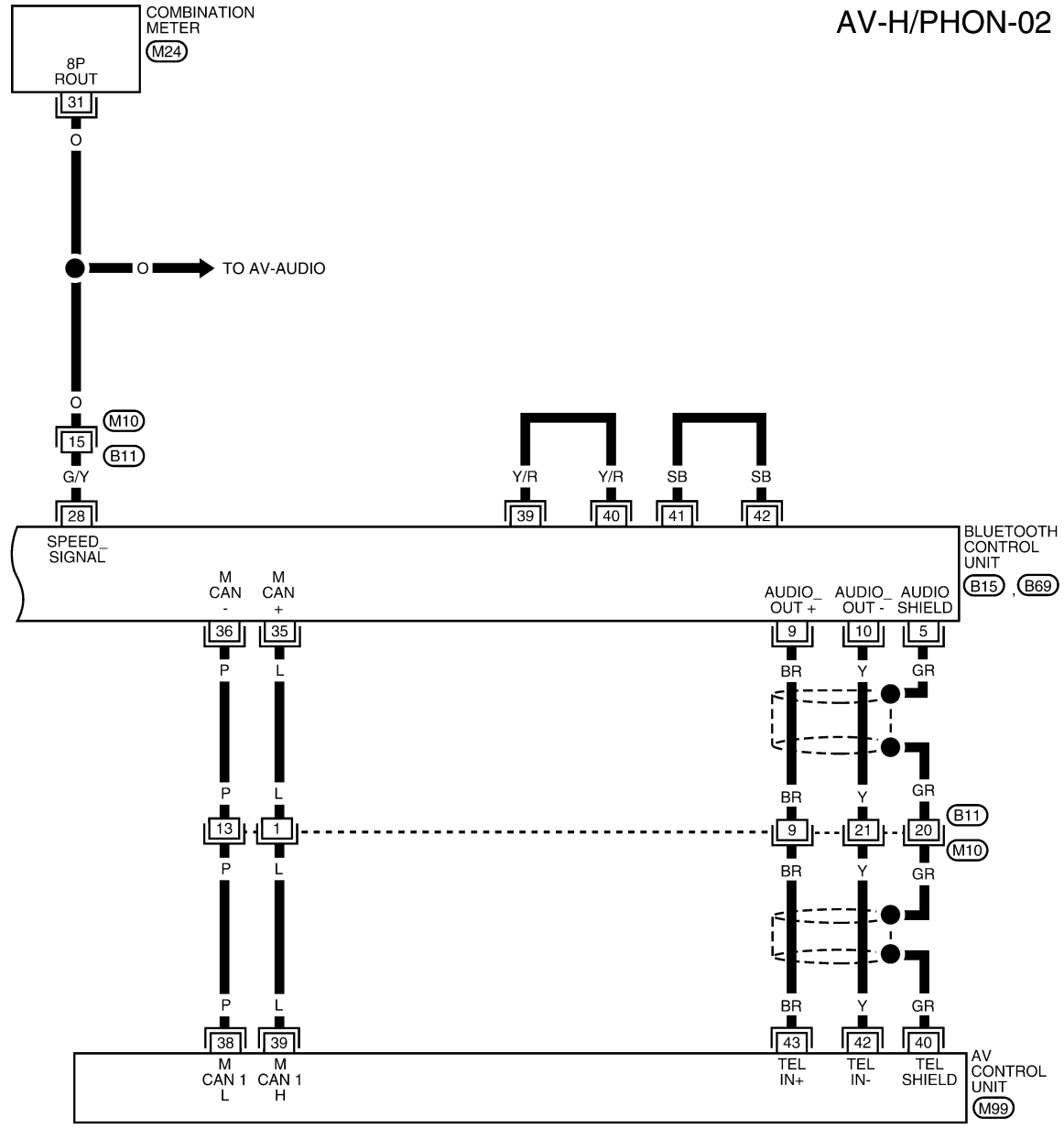
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[AUDIO WITH NAVIGATION]

AV-H/PHON-02



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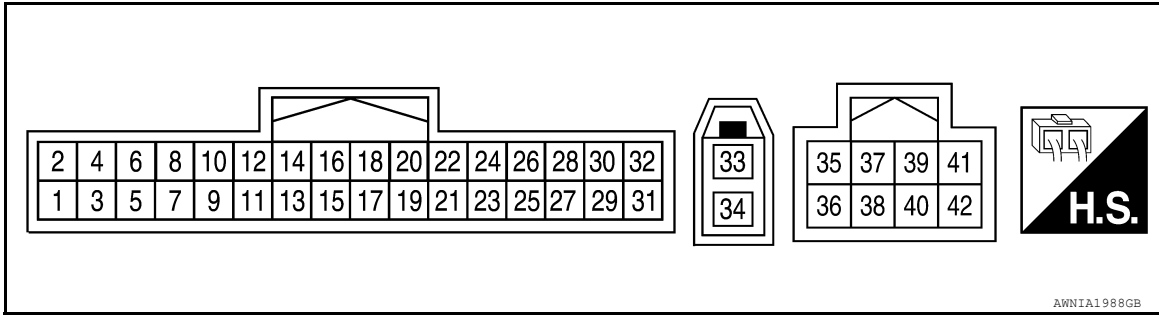
TELEPHONE

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[AUDIO WITH NAVIGATION]

Bluetooth Control Unit Harness Connector Terminal Layout

INFOID:000000007405591



AWNIA1988GB

Terminal and Reference Value for Bluetooth Control Unit

INFOID:000000007405592

Terminal (Wire color)		Item	Signal input/ output	Condition		Reference value (Approx.)	Example of symptom
+	-			Ignition switch	Operation		
1 (Y)	Ground	Battery power	Input	—	—	Battery voltage	System does not work properly.
2 (V)	Ground	ACC power	Input	ACC/ ON	—	Battery voltage	System does not work properly.
3 (W/L)	Ground	IGN power	Input	ON/ START	—	Battery voltage	System does not work properly.
4 (B)	—	Ground	—	—	—	—	—
5 (GR)	—	Shield	—	—	—	—	—
6 (GR)	—	Shield	—	—	—	—	—
7 (W)	8 (R)	Mic-in signal	Input	ACC/ ON	When giving a voice	<p>PKIB5037J</p>	Bluetooth Microphone inoperative.
9 (BR)	10 (Y)	Audio out	Output	ACC/ ON	Bluetooth control unit sends audio signal	<p>SKIB3609E</p>	Audio can not be heard.
22 (B)	—	Cont-3	—	—	—	—	—
23 (B)	—	Cont-4	—	—	—	—	—
27 (B)	—	Cont-6	—	—	—	—	—
28 (G/Y)	Ground	Vehicle speed signal (8-pulse)	Input	ON	When vehicle speed is approx. 40 km/h (25 MPH)	<p>PKIC0643E</p>	—

TELEPHONE

< SERVICE INFORMATION >

[AUDIO WITH NAVIGATION]

Terminal (Wire color)		Item	Signal input/ output	Condition		Reference value (Approx.)	Example of symptom
+	-			Ignition switch	Operation		
29 (B)	Ground	Bluetooth Microphone power	Output	—	—	5V	Bluetooth Micro- phone inoperative.
33	—	Bluetooth antenna sig- nal	Input	—	—	—	—
34	—	Shield	—	—	—	—	—
35 (L)	—	M CAN +	—	—	—	—	—
36 (P)	—	M CAN -	—	—	—	—	—
39 (Y/R)	—	M CAN jumper 1	—	—	—	—	—
40 (Y/R)	—	M CAN 1	—	—	—	—	—
41 (SB)	—	M CAN jumper 2	—	—	—	—	—
42 (SB)	—	M CAN 2	—	—	—	—	—

Bluetooth Control Unit Self-Diagnosis Function

INFOID:000000007405593

The Bluetooth control unit has two diagnostic checks. The first diagnostic check is performed automatically every ignition cycle during control unit initialization. The second diagnostic check is performed by the technician using the steering wheel audio control switches prior to trouble diagnosis.

BLUETOOTH CONTROL UNIT INITIALIZATION CHECKS

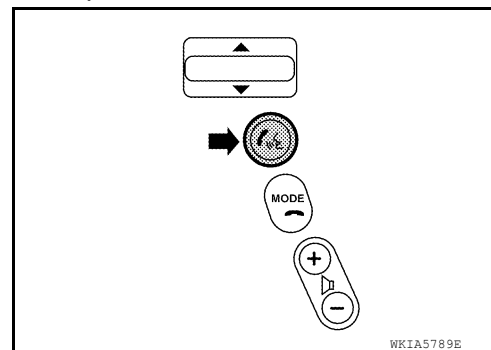
- Internal control unit failure
- Bluetooth antenna connection open or shorted
- Steering wheel audio control switches [PHONE/SEND (☎), MODE/END (MODE)] stuck closed
- Vehicle speed pulse count
- Bluetooth Microphone connection test (with playback to operator)
- Bluetooth inquiry check

SELF-DIAGNOSIS MODE

1. Turn ignition switch to ACC or ON.
2. Wait for the Bluetooth system to complete initialization. This may take up to 20 seconds.
3. Press and hold the steering wheel audio control switch PHONE/SEND (☎) button for at least 5 seconds. The Bluetooth system will begin to play a verbal prompt.

NOTE:

At any time, press and hold the steering wheel audio control switch PHONE/SEND button for at least 5 seconds to exit diagnostic mode.



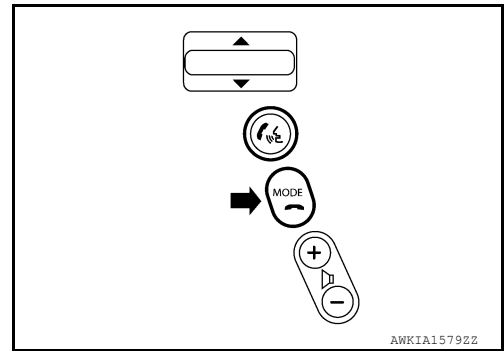
WKIA5789E

TELEPHONE

< SERVICE INFORMATION >

[AUDIO WITH NAVIGATION]

4. While the prompt is playing, press and hold the steering wheel audio control switch MODE/END (MODE) button for at least 5 seconds. The Bluetooth system will sound a 5 second beep.
5. While the beep is sounding, press and hold the steering wheel audio control switch MODE/END (MODE) button for at least 5 seconds again.
6. The Bluetooth system has now entered into the diagnostic mode. Results of the diagnostic checks will be verbalized to the technician. Refer to [AV-173, "Malfunction Code/Symptom Chart"](#).
7. If there are no failure records to report, the speed pulse count will be reported next.
8. After the speed pulse count is reported, an interactive Bluetooth microphone test will be performed. Follow the voice prompt. If the Bluetooth microphone test fails refer to [AV-173, "Malfunction Code/Symptom Chart"](#).
9. Self-diagnosis mode is complete. A short beep is heard.



How to Proceed with Trouble Diagnosis

INFOID:000000007405594

1. Confirm the symptom or customer complaint.
2. Perform Bluetooth control unit self-diagnosis. Refer to [AV-172, "Bluetooth Control Unit Self-Diagnosis Function"](#).
3. According to the symptom chart, repair or replace the cause of the symptom. Refer to [AV-173, "Malfunction Code/Symptom Chart"](#).
4. Does the Bluetooth system operate normally? If so, GO TO 5. If not, GO TO 2.
5. Inspection End.

Malfunction Code/Symptom Chart

INFOID:000000007405595

Code/Symptom	Failure Message	Action
1	"Internal failure"	Replace Bluetooth control unit. Refer to AV-176, "Removal and Installation" .
2	"Bluetooth antenna open"	1. Inspect harness connection. 2. Replace Bluetooth antenna. Refer to AV-176, "Removal and Installation" .
3	"Bluetooth antenna shorted"	
4	"Phone/Send for the Hands Free Phone System is stuck"	Check steering wheel audio control switches. Refer to AV-174, "Steering Wheel Audio Control Switch Does Not Operate" .
5	"Phone/End for the Hands Free Phone System is stuck"	
-	"Bluetooth Microphone test" (failed interactive test)	1. Inspect harness between Bluetooth control unit and Bluetooth microphone. 2. Replace Bluetooth microphone. Refer to AV-176, "Removal and Installation" .
Bluetooth system is inoperative	-	1. Inspect Bluetooth control unit power supply and ground circuits. Refer to AV-173, "Power Supply and Ground Circuit Inspection for Bluetooth Control Unit" . 2. Replace Bluetooth control unit. Refer to AV-176, "Removal and Installation" .
Steering wheel audio control switch does not operate	-	Refer to AV-174, "Steering Wheel Audio Control Switch Does Not Operate" .
Voice activated control does not operate	-	Refer to AV-174, "Voice Activated Control Function Does Not Operate" .

Power Supply and Ground Circuit Inspection for Bluetooth Control Unit

INFOID:000000007405596

1. CHECK FUSES

TELEPHONE

< SERVICE INFORMATION >

[AUDIO WITH NAVIGATION]

Make sure the following fuses for the Bluetooth control unit are not blown.

Terminals		Ignition Switch	Fuse No.
Connector	Terminal		
B15	1	All positions	22
	2	ACC/ON	6
	3	ON/START	12

OK or NG

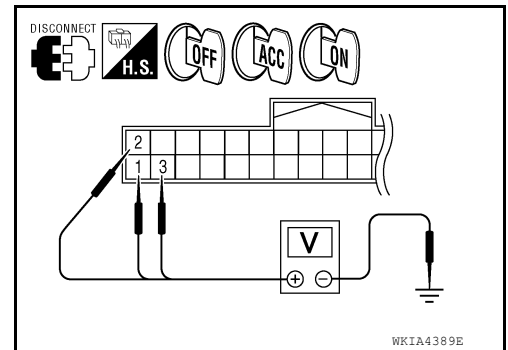
OK >> GO TO 2.

NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse. Refer to [PG-4](#).

2. CHECK POWER SUPPLY CIRCUIT

1. Disconnect Bluetooth control unit connector B15.
2. Check voltage between connector terminals and ground as follows.

Terminals		(-)	Ignition switch position		
(+)	Terminal		OFF	ACC	ON
Connector	1	Ground	Battery voltage	Battery voltage	Battery voltage
	2		0V	Battery voltage	Battery voltage
	3		0V	0V	Battery voltage



OK or NG

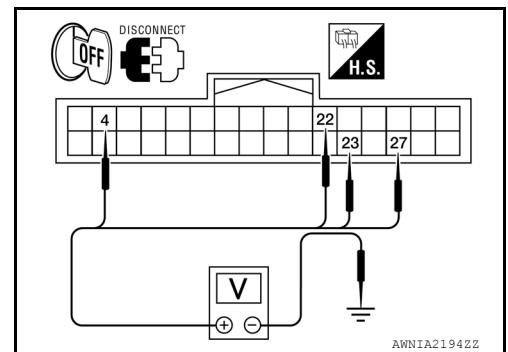
OK >> GO TO 3.

NG >> Check harness for open between Bluetooth control unit and fuse.

3. CHECK GROUND CIRCUITS

1. Turn ignition switch OFF.
2. Check continuity between the following Bluetooth control unit terminals and ground.

Terminals			Continuity
Connector	Terminal	—	
B15	4	Ground	Yes
	22		
	23		
	27		



OK or NG

OK >> Inspection End.

NG >> Repair or replace harness.

Steering Wheel Audio Control Switch Does Not Operate

INFOID:000000007405597

Refer to [AV-152. "Steering Switch Check"](#).

Voice Activated Control Function Does Not Operate

INFOID:000000007405598

NOTE:

Even under normal condition, Bluetooth voice guidance may not occur when pressing steering wheel audio control switch.

TELEPHONE

< SERVICE INFORMATION >

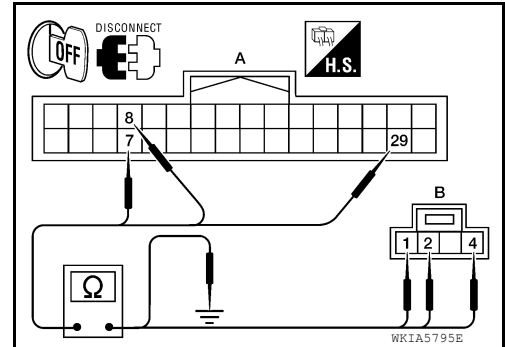
[AUDIO WITH NAVIGATION]

BLUETOOTH VOICE GUIDANCE IS HEARD WHEN PRESSING STEERING WHEEL AUDIO CONTROL SWITCH

1. CHECK HARNESS BETWEEN BLUETOOTH CONTROL UNIT AND MICROPHONE

1. Turn ignition switch OFF.
2. Disconnect Bluetooth control unit connector and microphone connector.
3. Check continuity between Bluetooth control unit connector B15 (A) and microphone connector R4 (B).

Terminals				Continuity
Connector	Terminal	Connector	Terminal	
A: B15	7	B: R4	1	Yes
	8		2	
	29		4	



4. Check continuity between Bluetooth control unit harness connector B15 and ground.

Terminals			Continuity
Connector	Terminal	—	
A: B15	7	Ground	No
	8		
	29		

OK or NG

- OK >> GO TO 2.
- NG >> Repair harness or connector.

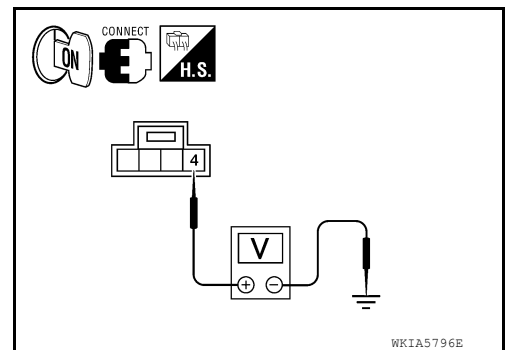
2. CHECK MICROPHONE POWER SUPPLY

1. Connect Bluetooth control unit connector and microphone connector.
2. Turn ignition switch ON.
3. Check voltage between microphone connector R4 terminal 4 and ground.

4 - Ground : Approx. 5V

OK or NG

- OK >> GO TO 3.
- NG >> Replace Bluetooth control unit. Refer to [AV-176. "Removal and Installation"](#).

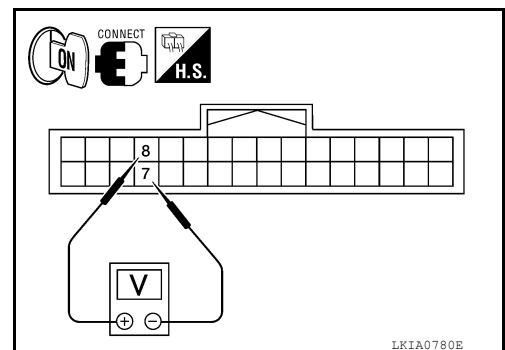
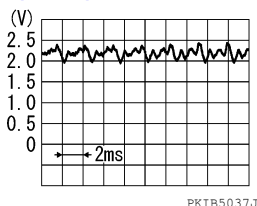


3. CHECK MICROPHONE SIGNAL

Check signal between Bluetooth control unit harness connector B15 terminals 7 and 8.

When giving a voice

7 - 8:



OK or NG

- OK >> Replace Bluetooth control unit. Refer to [AV-176. "Removal and Installation"](#).

TELEPHONE

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[AUDIO WITH NAVIGATION]

NG >> Replace microphone. Refer to [AV-176. "Removal and Installation"](#).

BLUETOOTH VOICE GUIDANCE IS NOT HEARD WHEN PRESSING STEERING WHEEL AUDIO CONTROL SWITCH

1. CHECK STEERING WHEEL AUDIO CONTROL SWITCH CIRCUIT

Refer to [AV-174. "Steering Wheel Audio Control Switch Does Not Operate"](#).

OK or NG

OK >> GO TO 2.

NG >> Replace applicable parts.

2. CHECK BLUETOOTH VOICE SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect Bluetooth control unit connector and AV control unit connector.
3. Check continuity between Bluetooth control unit harness connector B15 (A) and AV control unit harness connector M99 (B).

Terminals				Continuity
Connector	Terminal	Connector	Terminal	
A: B15	9	B: M99	43	Yes
	10		42	

4. Check continuity between Bluetooth control unit harness connector B15 (A) and ground.

Terminals				Continuity
Connector	Terminal	—		
A: B15	9	Ground		No
	10			

OK or NG

OK >> GO TO 3.

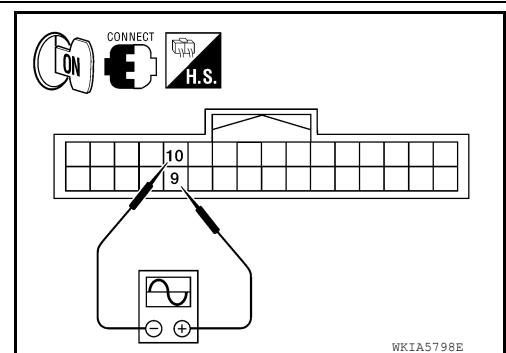
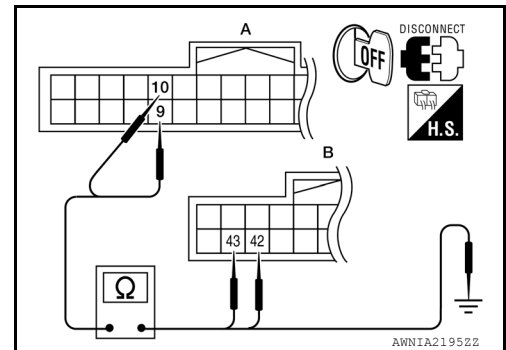
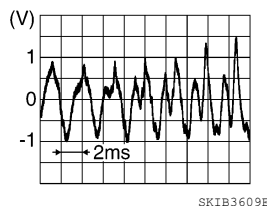
NG >> Repair harness or connector.

3. CHECK BLUETOOTH VOICE SIGNAL

Check signal between Bluetooth control unit harness connector B15 terminals 9 and 10.

When giving a voice

9 – 10:



OK or NG

OK >> Replace AV control unit. Refer to [AV-161. "Removal and Installation"](#).

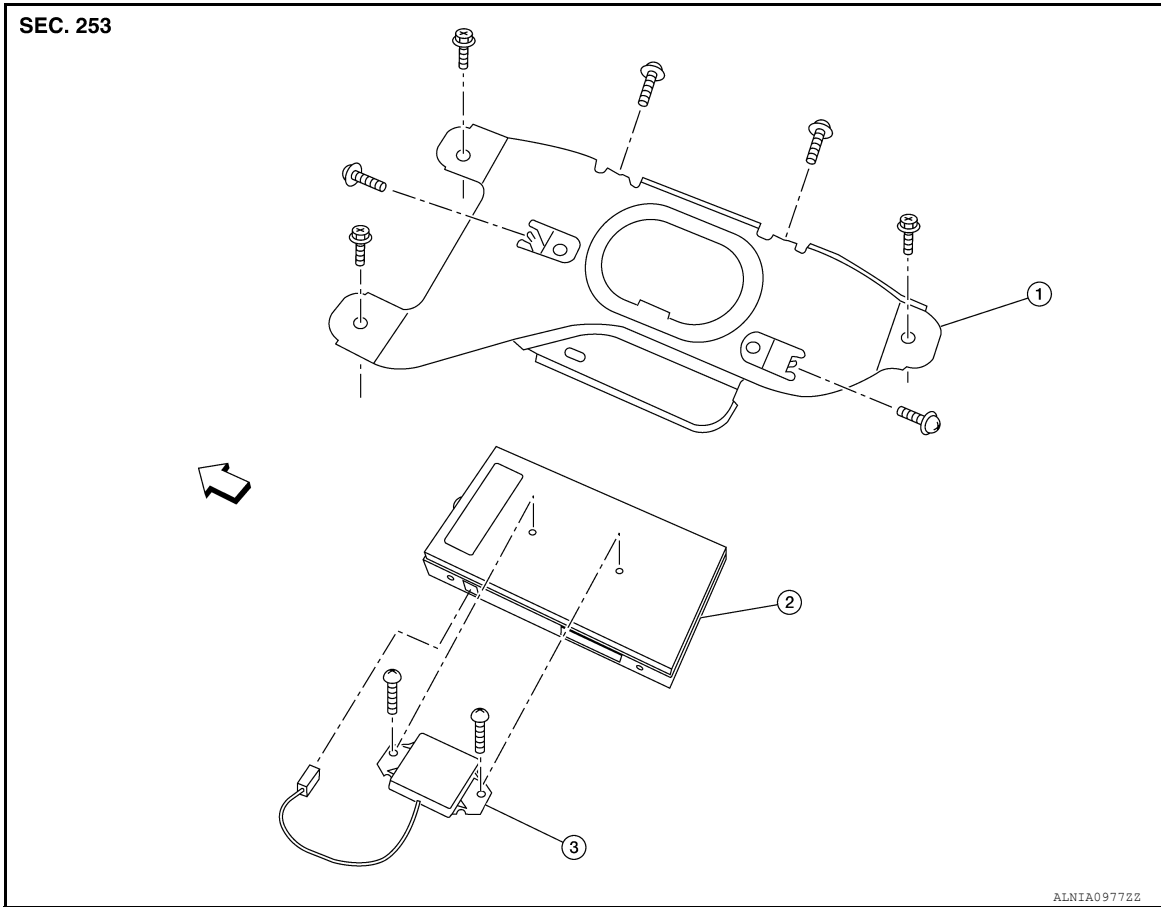
NG >> Replace Bluetooth control unit. Refer to [AV-176. "Removal and Installation"](#).

Removal and Installation

INFOID:000000007405599

COMPONENTS

Bluetooth Control Unit and Antenna



- 1. Bluetooth control unit bracket
- 2. Bluetooth control unit
- 3. Bluetooth antenna

← Front

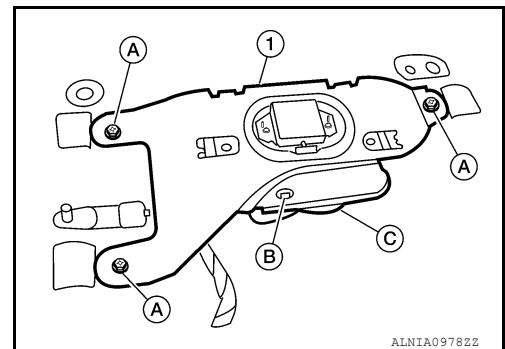
BLUETOOTH CONTROL UNIT

Removal

NOTE:

Bluetooth control unit shown with the LH seat removed for clarity.

1. Disconnect the battery negative terminal.
2. Slide the LH front seat toward the front to remove the bluetooth control unit bracket rear bolt (A).
3. Slide the LH front seat toward the rear to remove the bluetooth control unit bracket front bolts (A).
4. Detach the Bluetooth control unit harness clip (B) from the Bluetooth control unit bracket.
5. Disconnect the Bluetooth control unit connector (C).
6. Remove the Bluetooth control unit and bracket assembly (1).
7. Remove the Bluetooth control unit screws and remove the Bluetooth control unit.



Installation

Installation is in the reverse order of removal.

BLUETOOTH ANTENNA

Removal

NOTE:

Bluetooth antenna is mounted on top of the Bluetooth control unit.

1. Disconnect the battery negative terminal.

A
B
C
D
E
F
G
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J
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M
N
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P

AV

< SERVICE INFORMATION >

2. Slide the LH front seat toward the rear.
3. Disconnect the Bluetooth antenna connector.
4. Remove the Bluetooth antenna screws and remove the Bluetooth antenna.

Installation

Installation is in the reverse order of removal.

BLUETOOTH MICROPHONE

Removal

1. Disconnect the battery negative terminal.
2. Remove the map lamp. Refer to [LT-84. "Map Lamp"](#).
3. Remove the Bluetooth microphone.

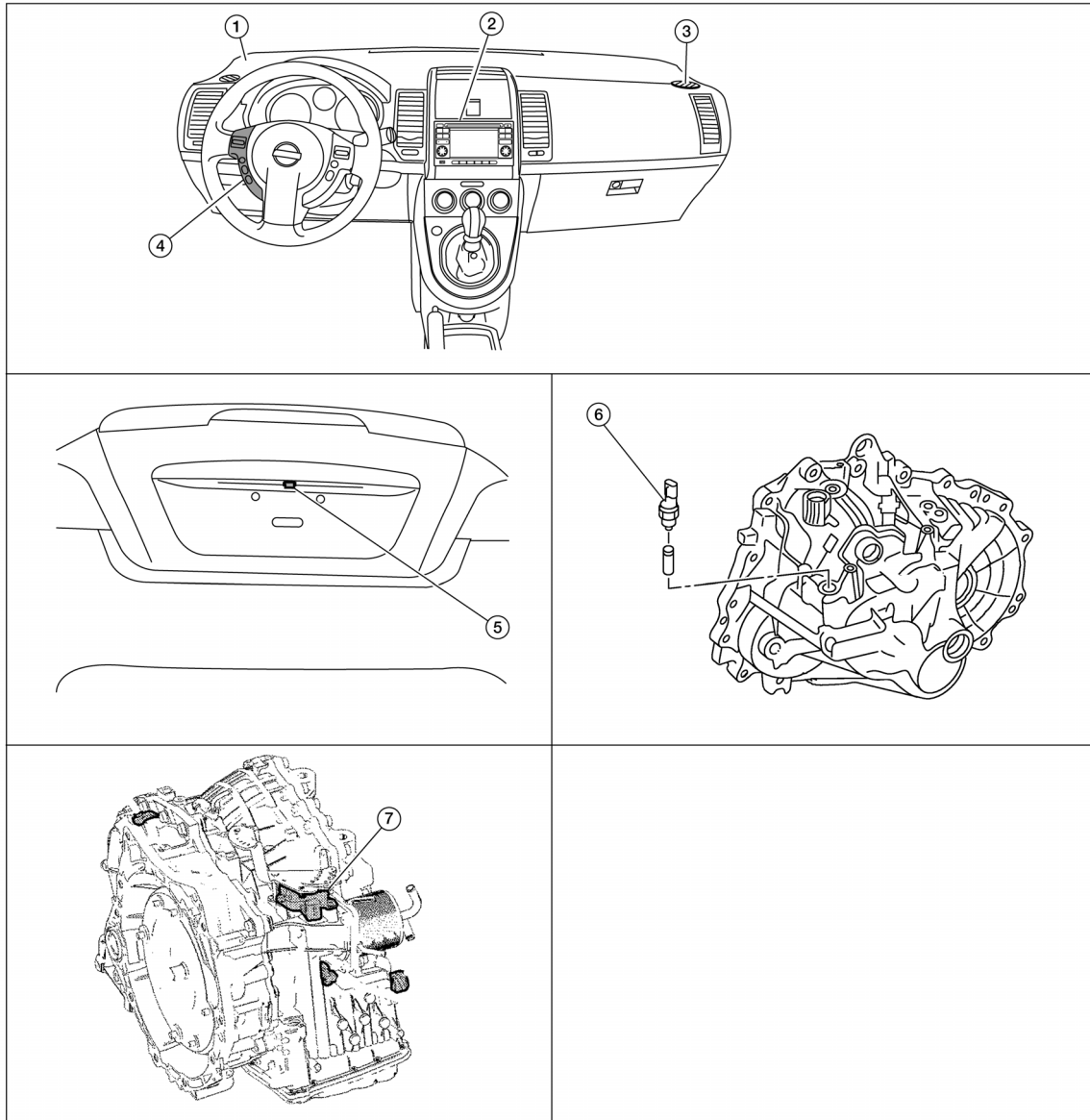
Installation

Installation is in the reverse order of removal.

REAR VIEW CAMERA

Component Parts and Harness Connector Location

INFOID:000000007405600



- | | | |
|--|-----------------------------|--|
| 1. Front tweeter LH M46 | 2. AV control unit M92, M99 | 3. Front tweeter RH M47 |
| 4. Steering wheel audio control switches | 5. Rear view camera T21 | 6. Back-up lamp switch F47 (manual transmission) |
| 7. Transmission range switch F26 (CVT) | | |

AWNIA21962Z

System Description

INFOID:000000007405601

REAR VIEW CAMERA SYSTEM

When the shift selector is in the R position, the AV control unit shows a view to the rear of the vehicle. Lines which indicate the vehicle clearance and distances are also displayed.

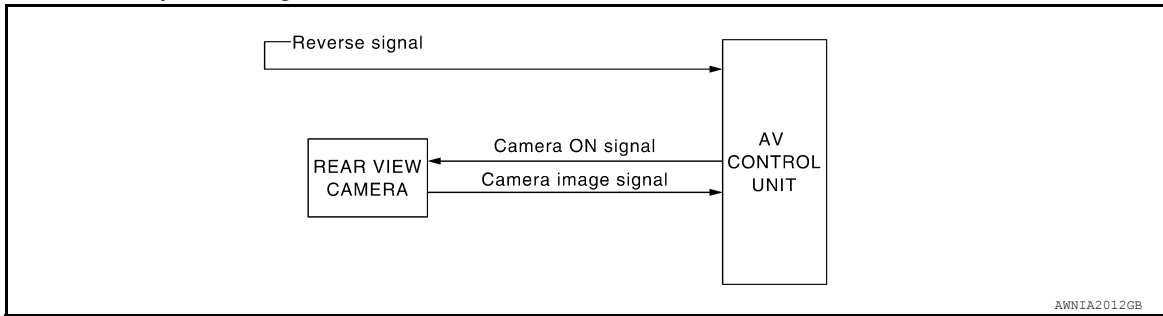
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REAR VIEW CAMERA

< SERVICE INFORMATION >

[AUDIO WITH NAVIGATION]

Rear View Camera System Diagram



Part name	Description
AV control unit	<ul style="list-style-type: none"> • Sends camera ON signal to the rear view camera • Receives camera image signal from the rear view camera
Rear view camera	<ul style="list-style-type: none"> • Receives camera ON signal from the AV control unit • Sends image signal to the AV control unit

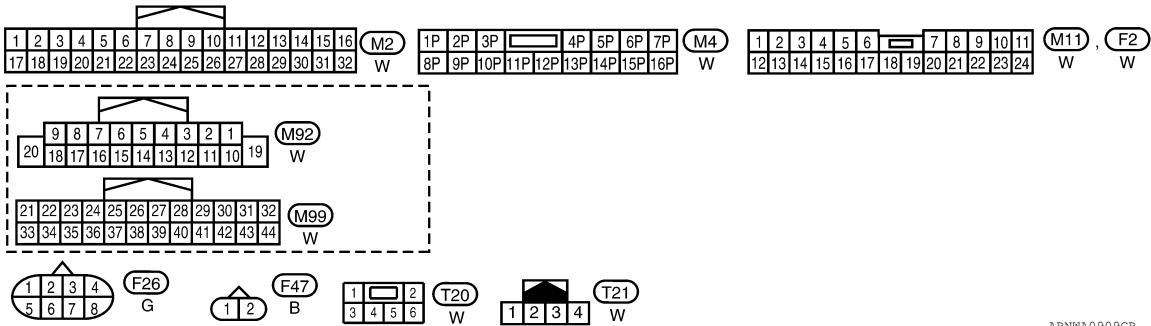
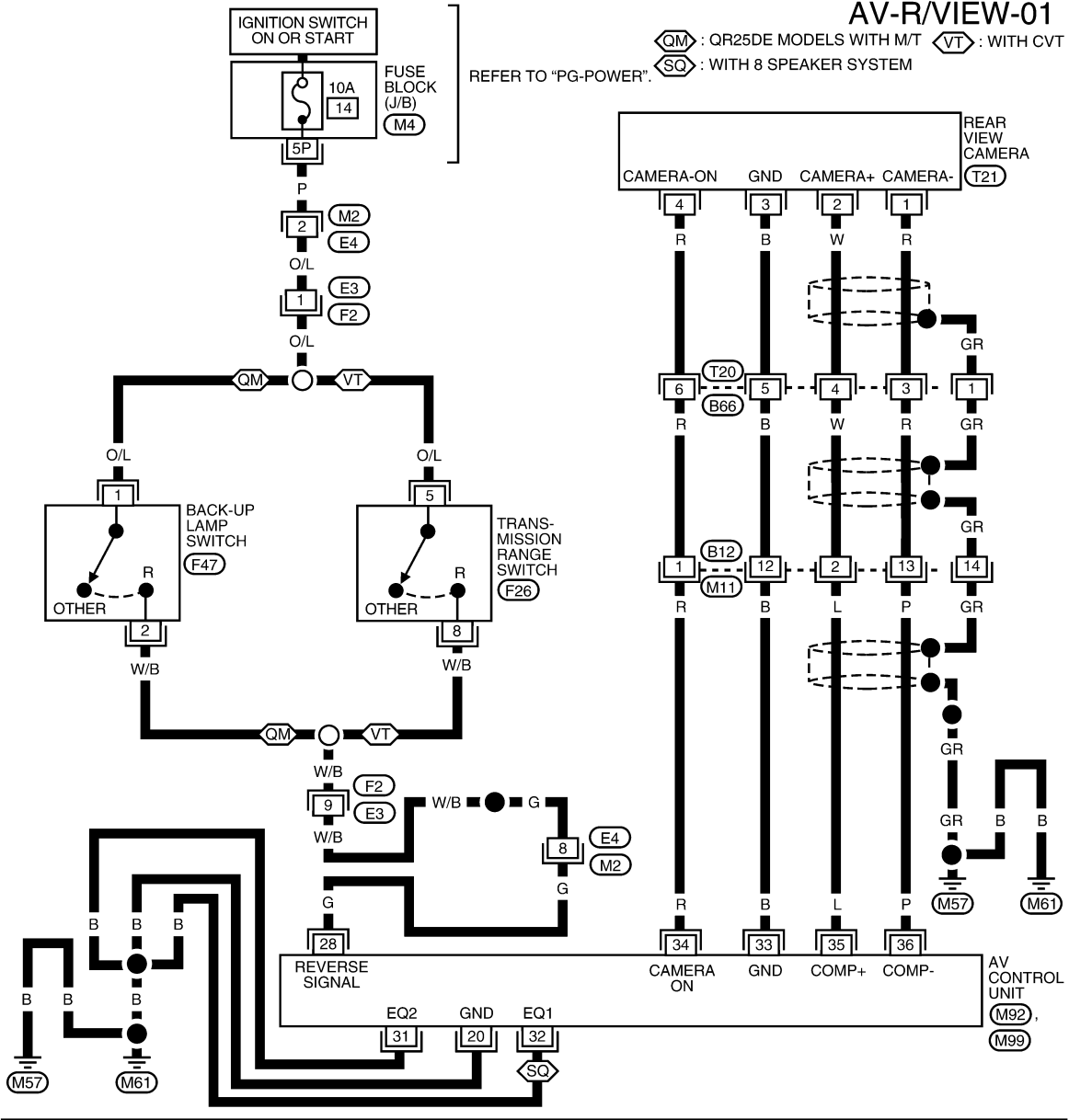
REAR VIEW CAMERA

< SERVICE INFORMATION >

[AUDIO WITH NAVIGATION]

Wiring Diagram - R/VIEW -

INFOID:000000007405602



Symptom Chart

INFOID:000000007405603

MALFUNCTION WITH REAR VIEW CAMERA

REAR VIEW CAMERA

< SERVICE INFORMATION >

[AUDIO WITH NAVIGATION]

Symptom	Probable malfunction location
Rear view camera system does not work normally.	<ul style="list-style-type: none"> Rear view camera power supply and ground circuit. Refer to AV-182. Rear view camera image signal circuit. Refer to AV-183.

Rear View Camera Power Supply and Ground Circuit Inspection

INFOID:000000007405604

1. CHECK POWER SUPPLY CIRCUIT (REAR VIEW CAMERA SIDE)

NOTE:

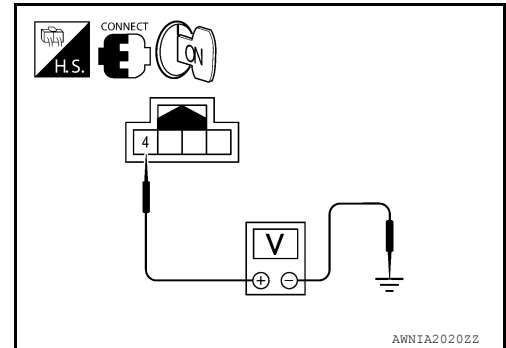
Apply parking brakes before proceeding.

- Turn ignition switch ON.
- Shift transmission into reverse.
- Check voltage between rear view camera harness connector T21 terminal 4 and ground.

(+)		(-)	Transmission position	Value (Approx.)
Connector	Terminal			
T21	4	Ground	Reverse	6V

Is voltage reading approximately 6 volts?

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

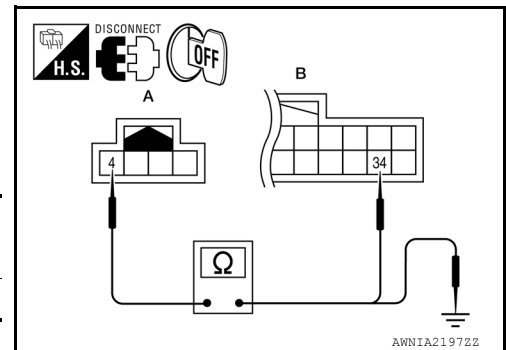


2. CHECK POWER SUPPLY CIRCUIT (CONTINUITY)

- Turn ignition switch OFF.
- Disconnect rear view camera and AV control unit connectors.
- Check continuity between rear view camera harness connector T21 (A) terminal 4 and AV control unit harness connector M99 (B) terminal 34.

A		B		Continuity
Connector	Terminal	Connector	Terminal	
T21	4	M99	34	Yes

- Check continuity between rear view camera harness connector T21 (A) terminal 4 and ground.



A		—	Continuity
Connector	Terminal		
T21	4	Ground	No

Are continuity test results as specified?

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

3. CHECK REVERSE POSITION INPUT SIGNAL

- Turn ignition switch ON.
- Shift transmission into reverse.
- Check voltage between AV control unit harness connector M99 terminal 28 and ground.

(+)		(-)	Transmission position	Value (Approx.)
Connector	Terminal			
M99	28	Ground	Reverse	12V

Is voltage reading approximately 12 volts?

- YES >> Replace AV control unit. Refer to [AV-161, "Removal and Installation"](#).
 NO >> Check harness for open or short between AV control unit and transmission range switch.

REAR VIEW CAMERA

< SERVICE INFORMATION >

[AUDIO WITH NAVIGATION]

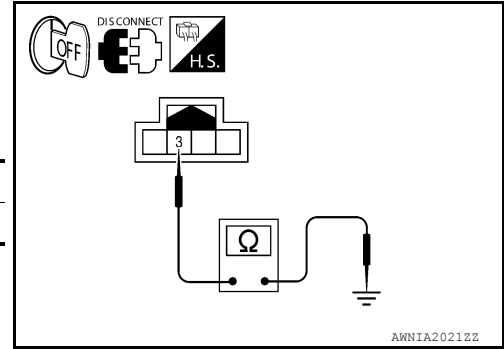
4. CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect rear view camera harness connector.
3. Check continuity between rear view camera harness connector T21 terminal 3 and ground.

Connector	Terminal	—	Continuity
T21	3	Ground	Yes

Does continuity exist?

- YES >> Inspection End.
 NO >> Repair harness or connector.



Camera Image Signal Circuit

INFOID:000000007405605

1. CHECK CAMERA IMAGE SIGNAL CIRCUIT CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect AV control unit connector and rear view camera connector.
3. Check continuity between AV control unit harness connector M99 (A) terminals 35, 36 and rear view camera harness connector T21 (B) terminals 1, 2.

35 - 2 : Continuity should exist.

36 - 1 : Continuity should exist.

4. Check continuity between AV control unit harness connector M99 (A) terminals 35, 36 and ground.

35, 36 - Ground : Continuity should not exist.

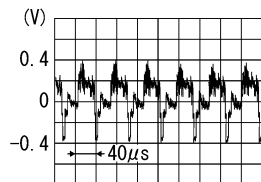
Is inspection result OK?

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

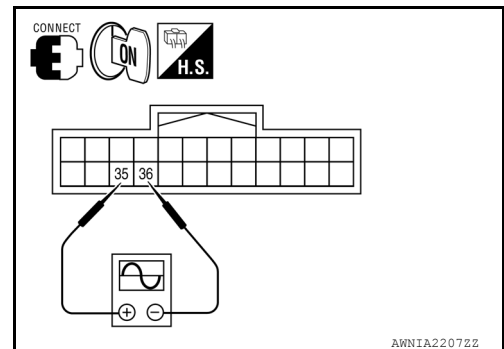
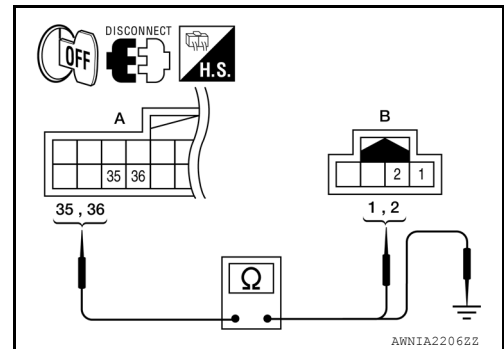
2. CHECK CAMERA IMAGE SIGNAL

1. Connect AV control unit connector and rear view camera connector.
2. Turn ignition switch ON.
3. Shift transmission into reverse.
4. Check signal between AV control unit harness connector M99 terminals 35 and 36.

35 - 36 :



SKIB2251J



Is inspection result OK?

- YES >> Replace AV control unit. Refer to [AV-161, "Removal and Installation"](#).
 NO >> Replace rear view camera. Refer to [AV-184, "Removal and Installation"](#).

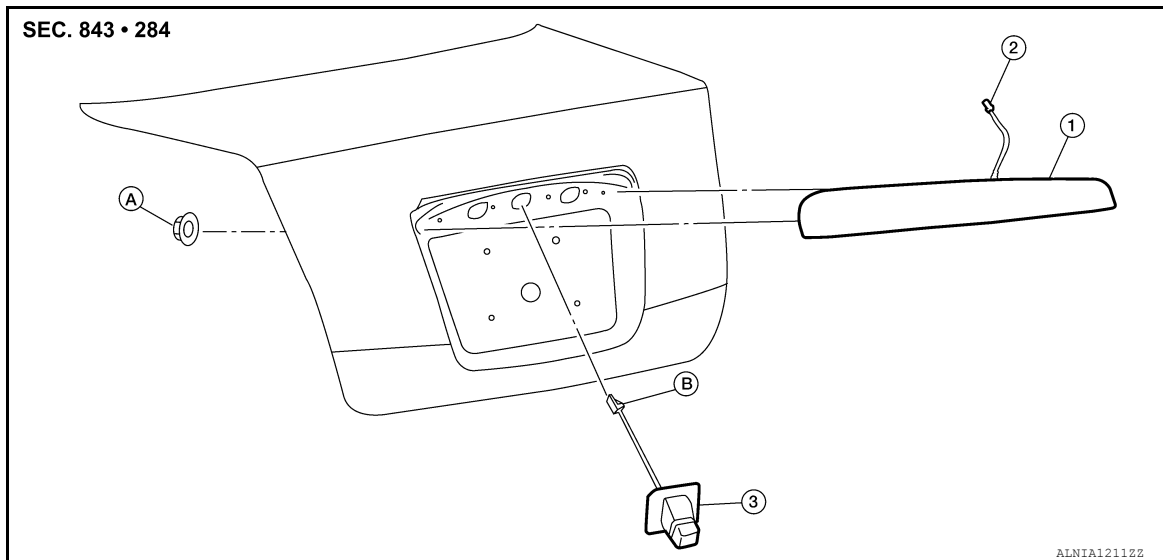
REAR VIEW CAMERA

< SERVICE INFORMATION >

[AUDIO WITH NAVIGATION]

Removal and Installation

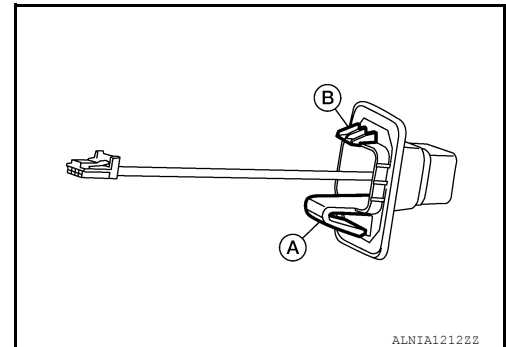
INFOID:000000007405606



- | | | |
|------------------------------|--|---------------------|
| 1. Licence lamp finisher | 2. Trunk opener request switch (if equipped) | 3. Rear view camera |
| A. License lamp finisher nut | B. Rear view camera connector | |

REMOVAL

1. Remove trunk lid finisher. Refer to [EI-48. "Removal and Installation"](#).
2. Disconnect the rear view camera connector.
3. Remove the license plate finisher. Refer to [EI-27. "Removal and Installation"](#).
4. Press in the rear view camera tab (A) then release the rear view camera hook (B) and remove the rear view camera.



INSTALLATION

Installation is in the reverse order of removal.

USB CONNECTOR AND AUX JACK

< SERVICE INFORMATION >

[AUDIO WITH NAVIGATION]

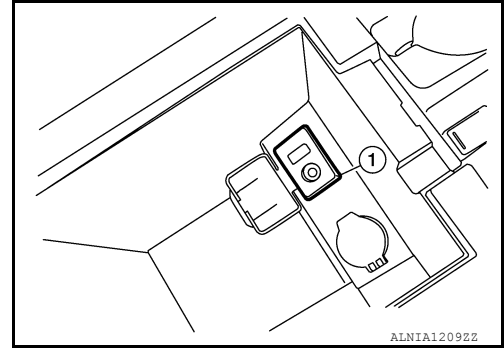
USB CONNECTOR AND AUX JACK

Removal and Installation

INFOID:000000007405607

REMOVAL

1. Remove the center console assembly. Refer to [IP-12. "Removal and Installation"](#).
2. Push the pawl from the back of the center console to remove the USB interface and aux jack (1).



INSTALLATION

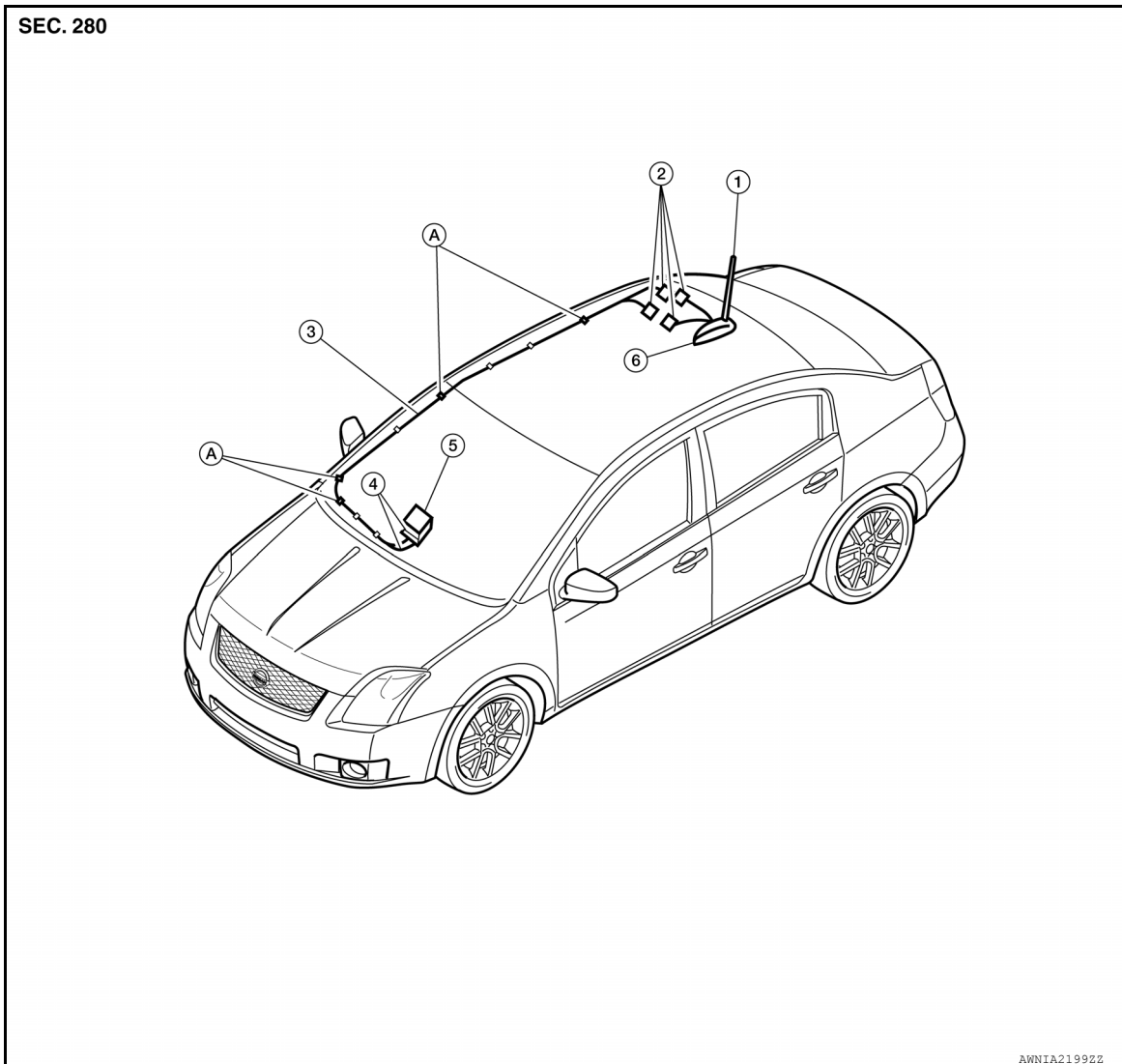
Installation is in the reverse order of removal.

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AUDIO ANTENNA

Location of Antenna

INFOID:000000007405608



- | | | |
|-----------------------------|---------------------------------|----------------------|
| 1. Roof antenna | 2. Roof antenna base connectors | 3. Antenna feeder |
| 4. Antenna feeder connector | 5. AV control unit | 6. Roof antenna base |
| A. Antenna feeder clips | | |

Removal and Installation of Roof Antenna

INFOID:000000007405609

REMOVAL

1. Remove rear pillar finishers. Refer to [EI-45, "Removal and Installation"](#).
2. Remove rear assist grip (LH). Refer to [EI-45, "Removal and Installation"](#).
3. Remove three headlining rear clips. Pull down the rear part of the headliner to reposition out of the way.

CAUTION:

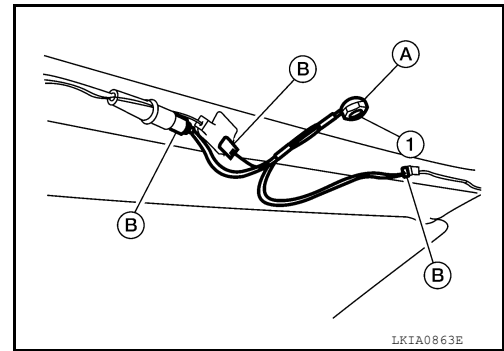
Use care when repositioning headlining to avoid causing damage.

AUDIO ANTENNA

< SERVICE INFORMATION >

4. Disconnect the harness connectors (B) from the roof antenna.
5. Remove the roof antenna nut (A) and roof antenna (1).

[AUDIO WITH NAVIGATION]



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

Always properly tighten the antenna during installation to ensure proper radio reception and that the antenna cannot bend or break during vehicle operation.

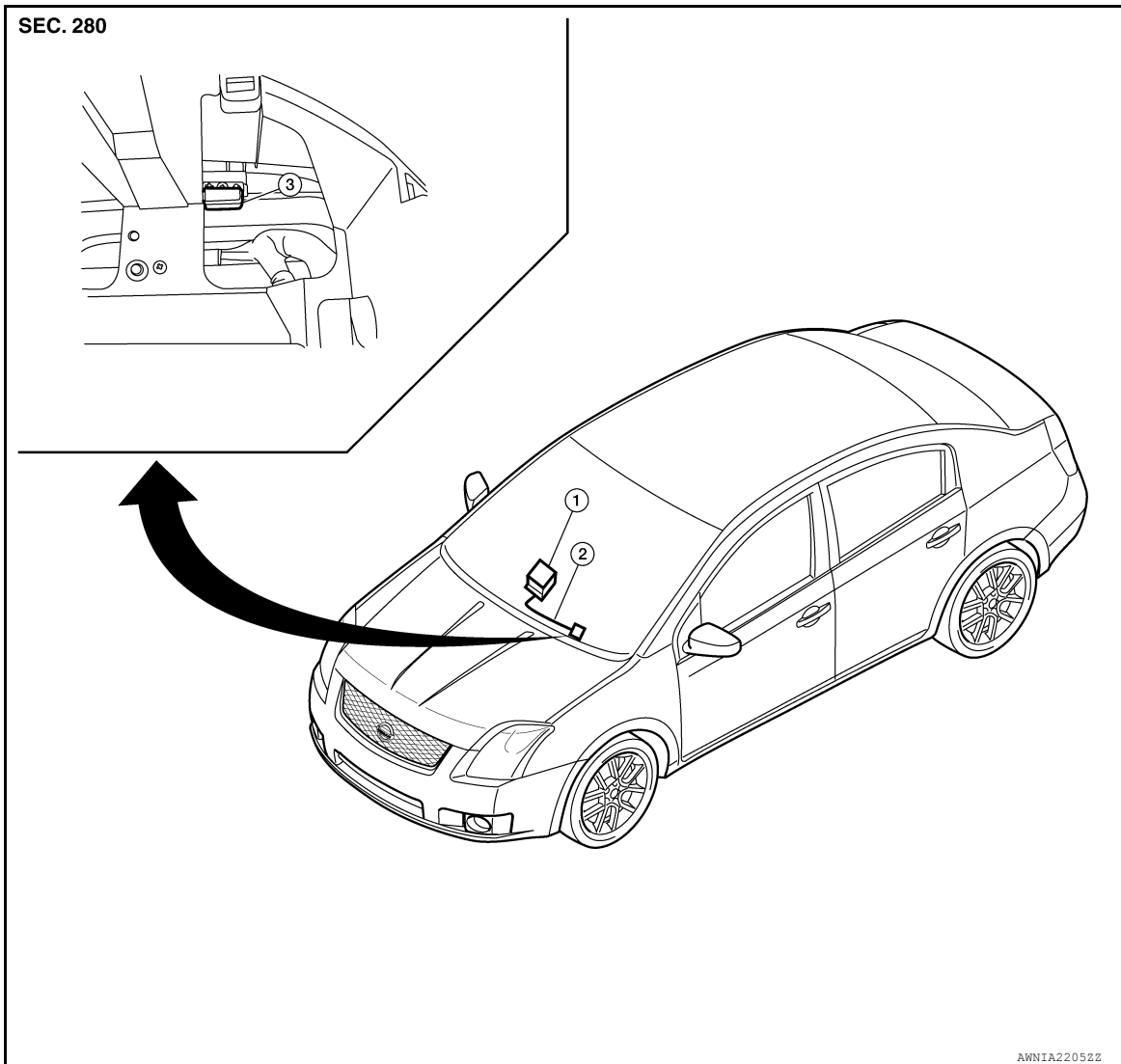
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AV

GPS ANTENNA

Location of Antenna

INFOID:000000007405610



AWNIA220522

1. AV control unit

2. Antenna feeder

3. GPS antenna (view with combination meter removed)

Removal and Installation

INFOID:000000007405611

REMOVAL

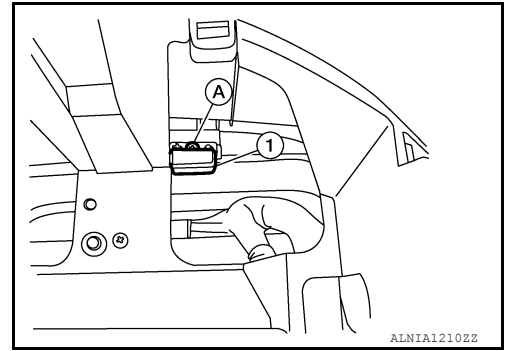
1. Remove cluster lid C and disconnect the GPS navigation antenna harness. Refer to [IP-12, "Removal and Installation"](#).
2. Remove the combination meter. Refer to [IP-12, "Removal and Installation"](#).

GPS ANTENNA

< SERVICE INFORMATION >

[AUDIO WITH NAVIGATION]

3. Remove the GPS navigation antenna screw (A).
4. Remove the GPS navigation antenna (1)



INSTALLATION

Installation is in the reverse order of removal.

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AV