

SECTION **AV**

AUDIO, VISUAL & TELEPHONE SYSTEM

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# PRECAUTIONS

## PRECAUTIONS

PFP:00001

### Precautions for Supplemental Restraint System (SRS) “AIR BAG” and “SEAT BELT PRE-TENSIONER”

EKS003ME

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 harness connectors.

### Wiring Diagrams and Trouble Diagnosis

EKS003LW

When you read wiring diagrams, refer to the following:

- [GI-13, "How to Read Wiring Diagrams"](#)
- [PG-8, "POWER SUPPLY ROUTING"](#) for power distribution circuit.

When you perform trouble diagnosis, refer to the following:

- [GI-9, "HOW TO FOLLOW TEST GROUPS IN TROUBLE DIAGNOSES"](#)
- [GI-25, "How to Perform Efficient Diagnosis for an Electrical Incident"](#).

Check for any Service bulletins before servicing the vehicle.

## AUDIO

### System Description

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

#### MODELS WITHOUT AUDIO AMPLIFIER

Power is supplied at all times

- through 15A fuse (No. 41, located in the fuse and fusible link box)
- to audio unit terminal 6.

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

- through 10A fuse [No. 18, located in the fuse block (J/B)]
- to audio unit terminal 10.

Ground is supplied through the case of the audio unit.

When the audio unit power knob is pushed to the ON position, audio signals are supplied

- through audio unit terminals 2, 4, 14 and 16
- to door speakers, pillar tweeters and rear speakers.

#### MODELS WITH AUDIO AMPLIFIER

Power is supplied at all times

- through 30A fusible link (letter h, located in the fuse and fusible link box)
- to audio amplifier terminals 5 and 12
- through 15A fuse (No. 41, located in the fuse and fusible link box)
- to audio unit terminal 6.

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

- through 10A fuse [No. 18, located in the fuse block (J/B)]
- to audio unit terminal 10.

Ground for the audio unit is supplied through the case of the audio unit. Ground for the audio amplifier is supplied to terminals 4 and 11 through body grounds M68 and M14.

When the audio unit power knob is pushed to the ON position, audio signals are supplied

- through audio unit terminals 1, 2, 3, 4, 13, 14, 15 and 16
- to audio amplifier terminals 15, 16, 17, 20, 21, 22, 23, and 24
- through audio amplifier terminals 1, 2, 3, and 9
- to front door speakers, pillar tweeters and rear speakers

When the steering switch is pushed, audio signals are supplied

- through audio unit terminal 23
- to steering wheel audio control switch terminal 15, and
- through steering wheel audio control switch terminal 16
- to audio unit terminal 24.

#### MODELS WITH AUDIO AMPLIFIER AND SUBWOOFER

Power is supplied at all times

- through 30A fusible link (letter h, located in the fuse and fusible link box)
- to audio amplifier terminals 5 and 12
- through 15A fuse (No. 41, located in the fuse and fusible link box)
- to audio unit terminal 6.

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

- through 10A fuse [No. 18, located in the fuse block (J/B)]
- to audio unit terminal 10.

Ground for the audio unit is supplied through the case of the audio unit. Ground for the audio amplifier is supplied to terminals 4 and 11 through body grounds M68 and M14.

When the audio unit power knob is pushed to the ON position, audio signals are supplied

- through audio unit terminals 1, 2, 3, 4, 13, 14, 15 and 16

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## AUDIO

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- to audio amplifier terminals 15, 16, 17, 20, 21, 22, 23, and 24
- through audio amplifier terminals 1, 2, 3, and 9
- to front door speakers, pillar tweeters and rear speaker RH and subwoofer.

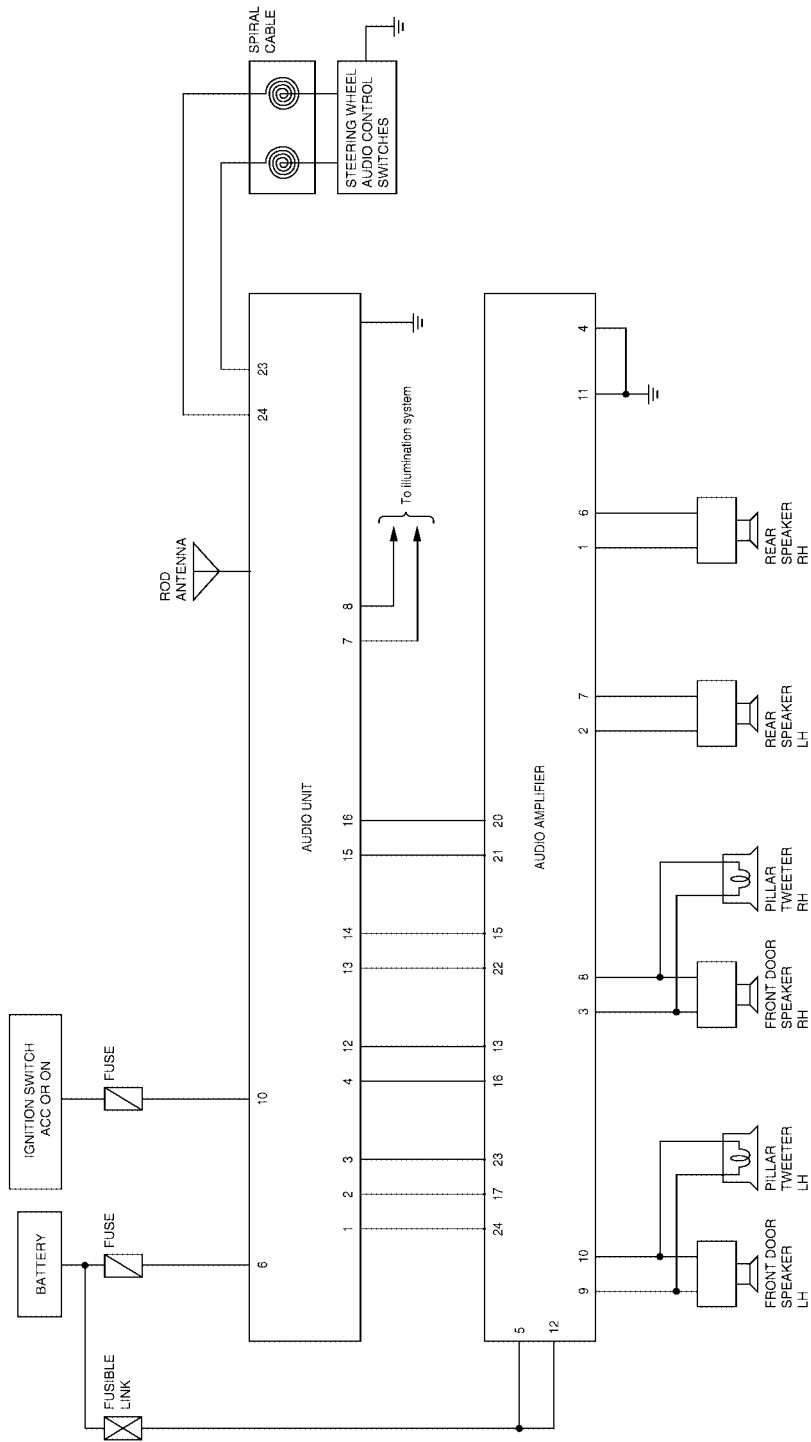
When the steering switch is pushed, audio signals are supplied

- through audio unit terminal 23
- to steering wheel audio control switch terminal 15, and
- through steering wheel audio control switch terminal 16
- to audio unit terminal 24.

# AUDIO

## Schematic WITH AUDIO AMPLIFIER

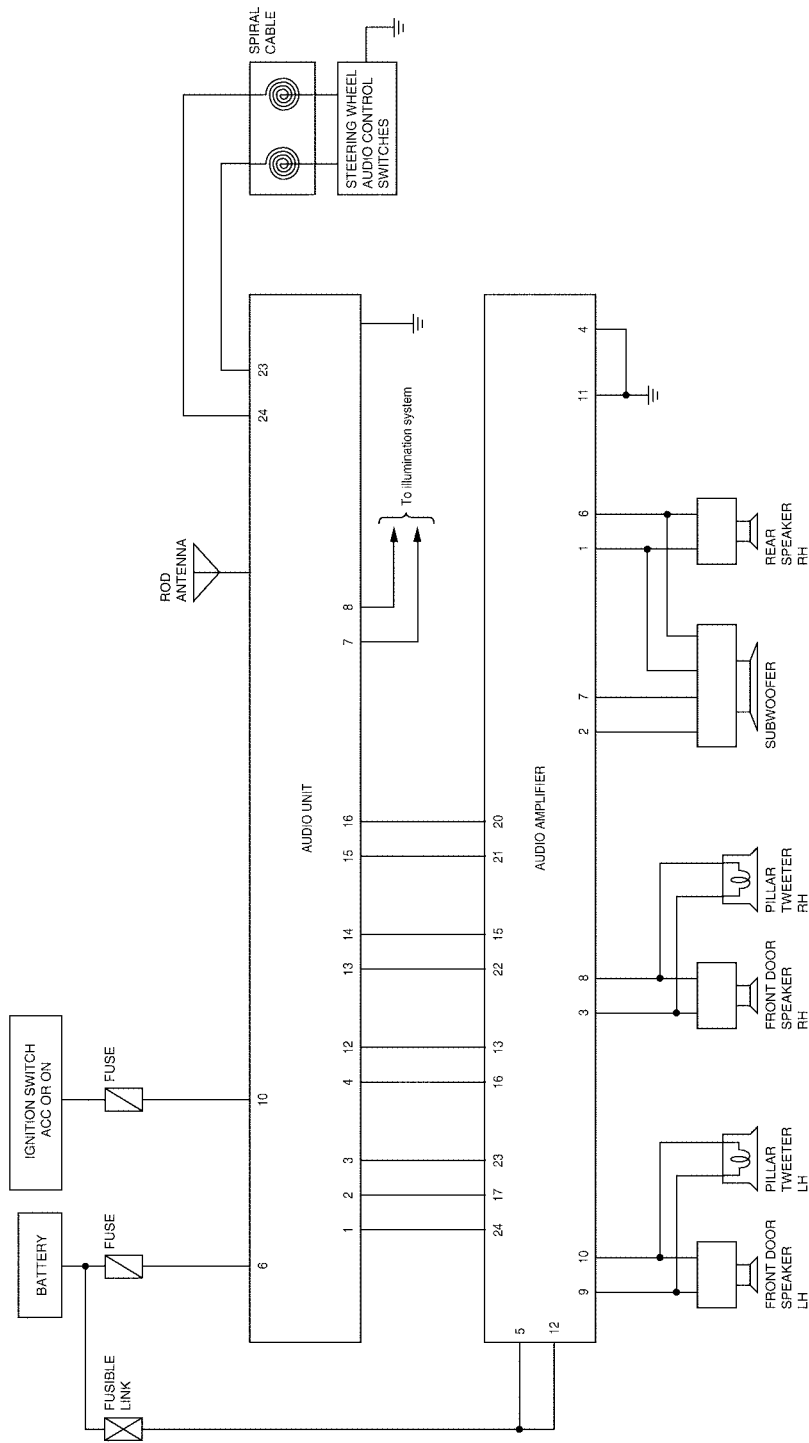
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# AUDIO

## WITH AUDIO AMPLIFIER AND SUBWOOFER

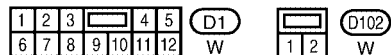
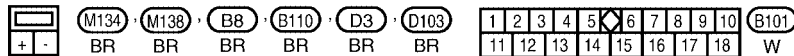
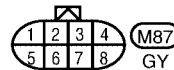
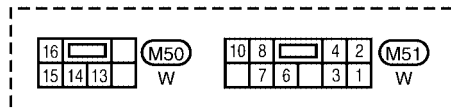
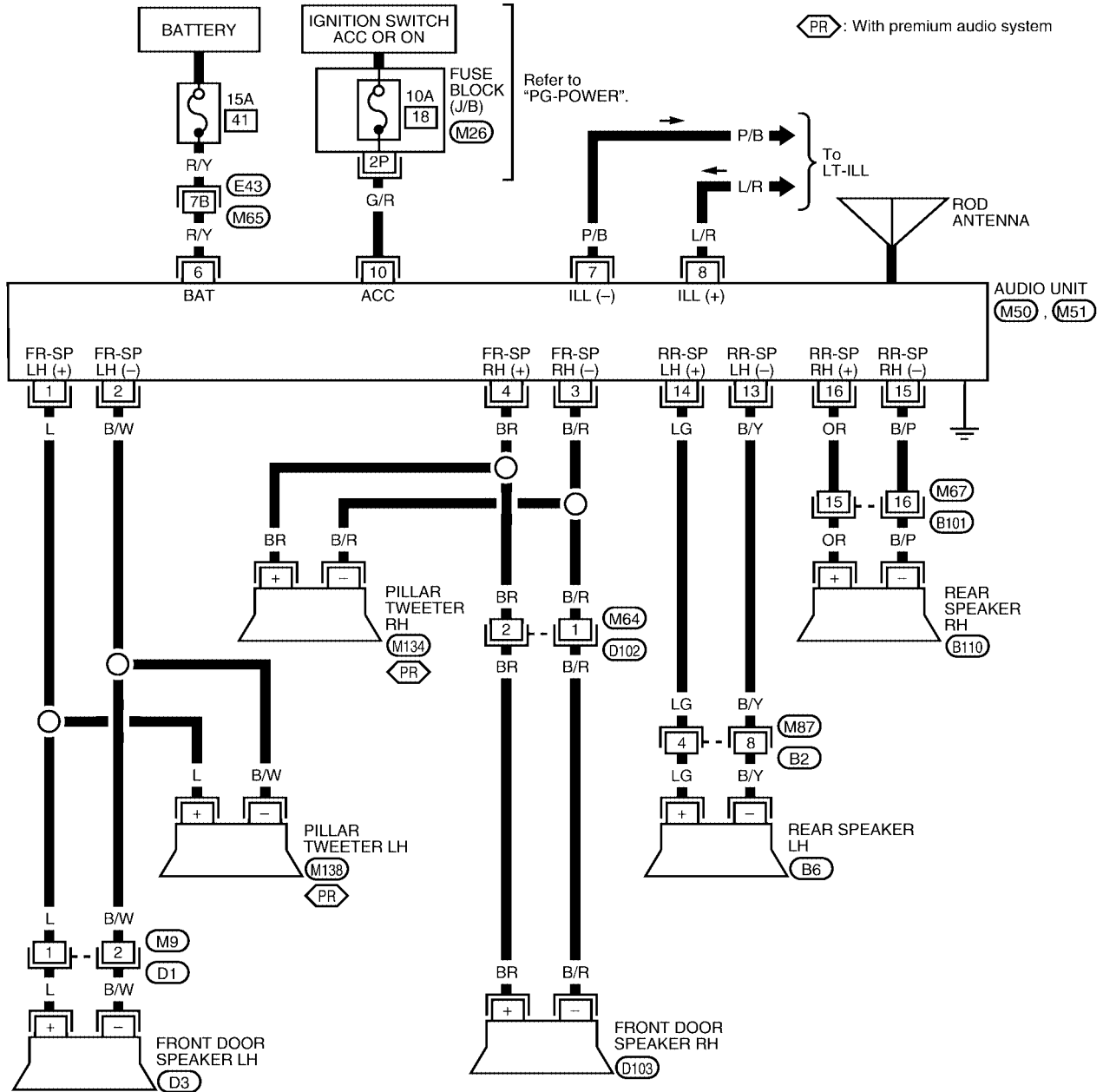


# AUDIO

## Wiring Diagram — AUDIO — WITHOUT AUDIO AMPLIFIER

EKS003M0

### AV-AUDIO-01



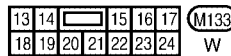
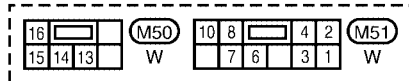
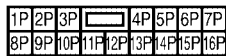
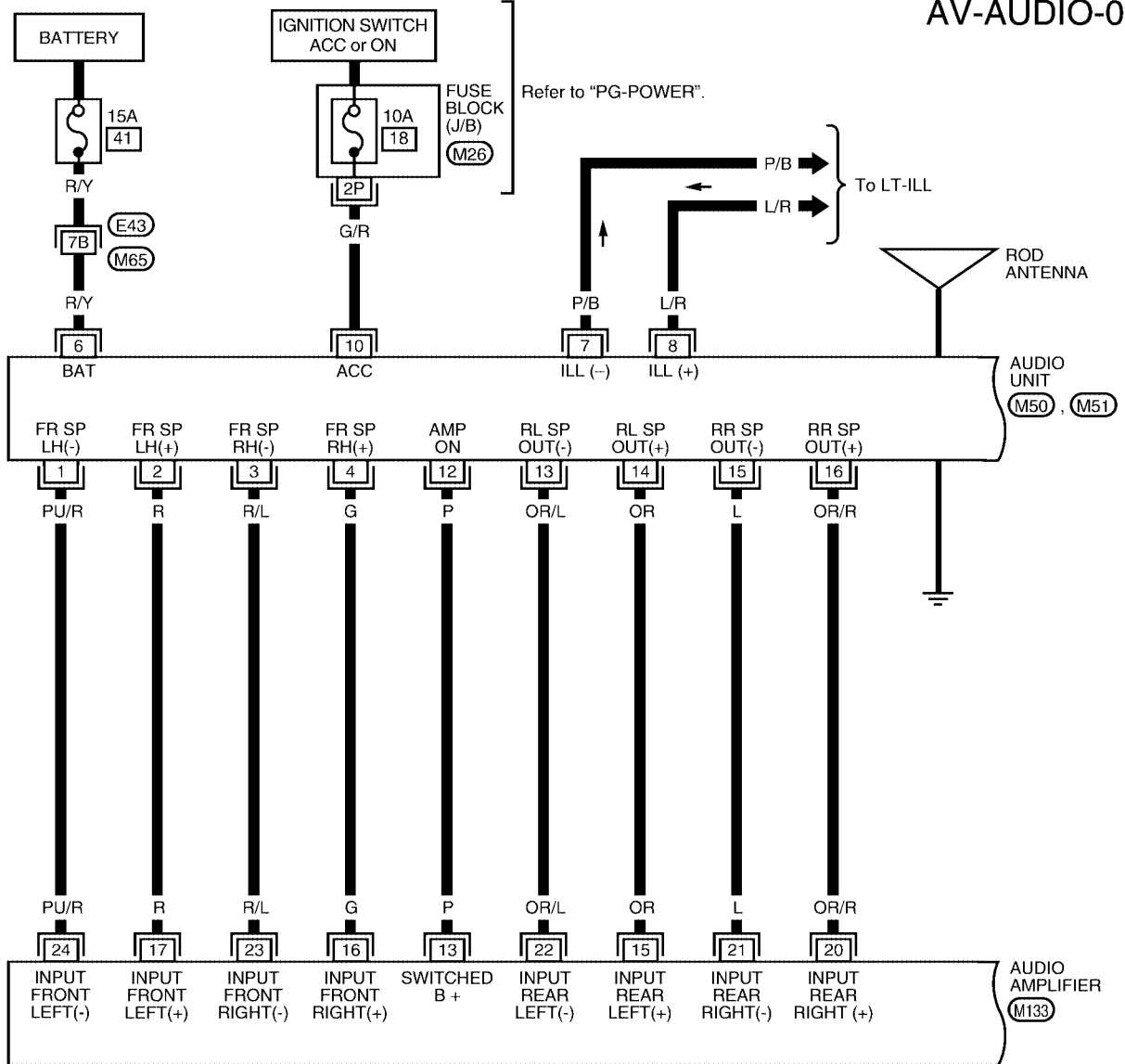
Refer to the following.  
E43 - SUPER  
MULTIPLE JUNCTION (SMJ)

WKWA0317E

# AUDIO

## WITH AUDIO AMPLIFIER

AV-AUDIO-02

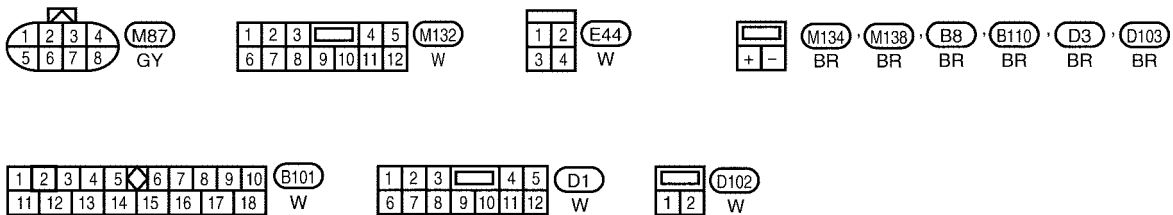
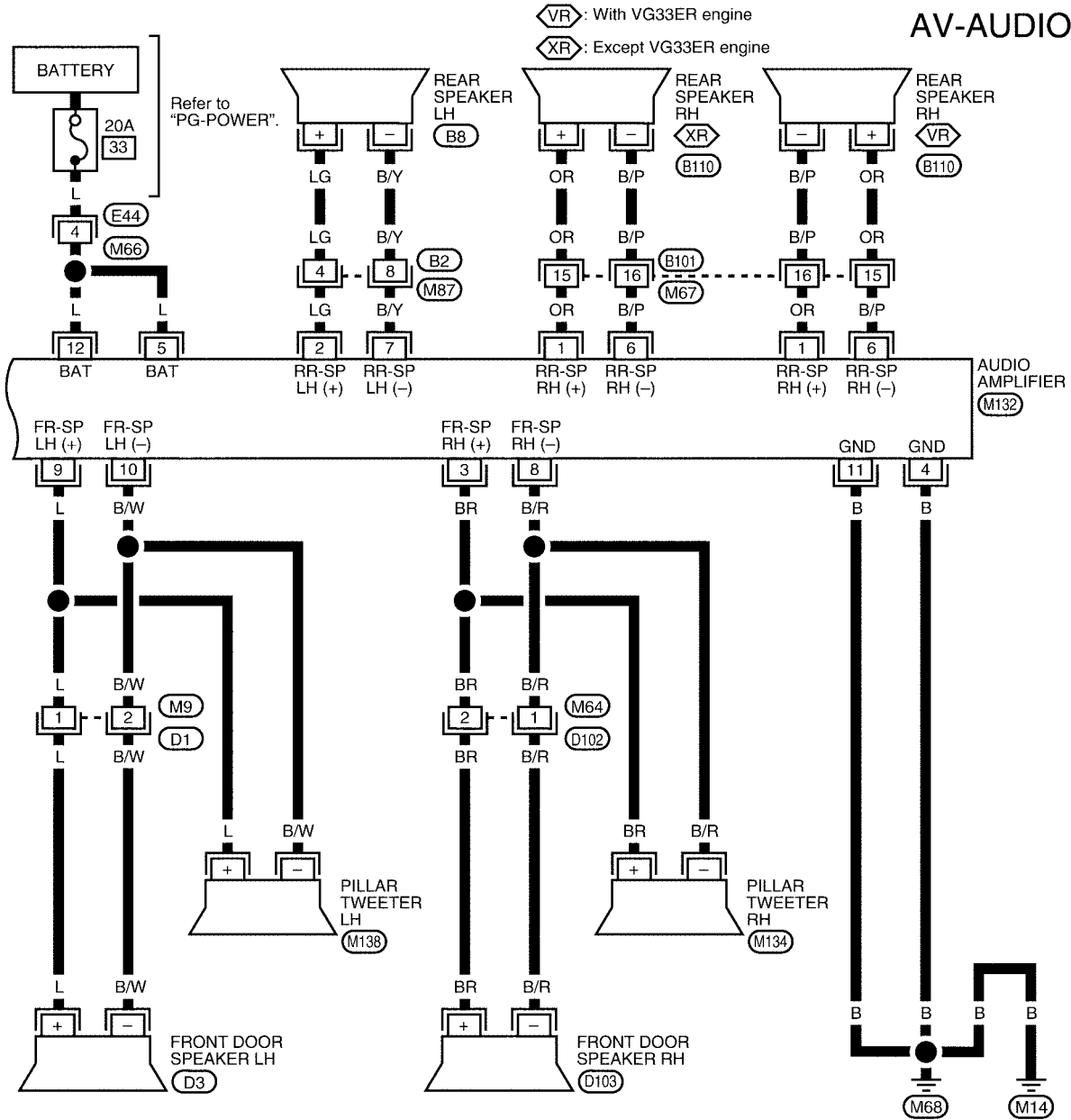


Refer to the following.  
 (E43) - SUPER  
 MULTIPLE JUNCTION (SMJ)



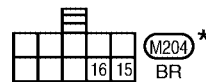
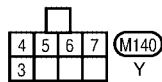
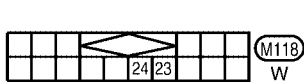
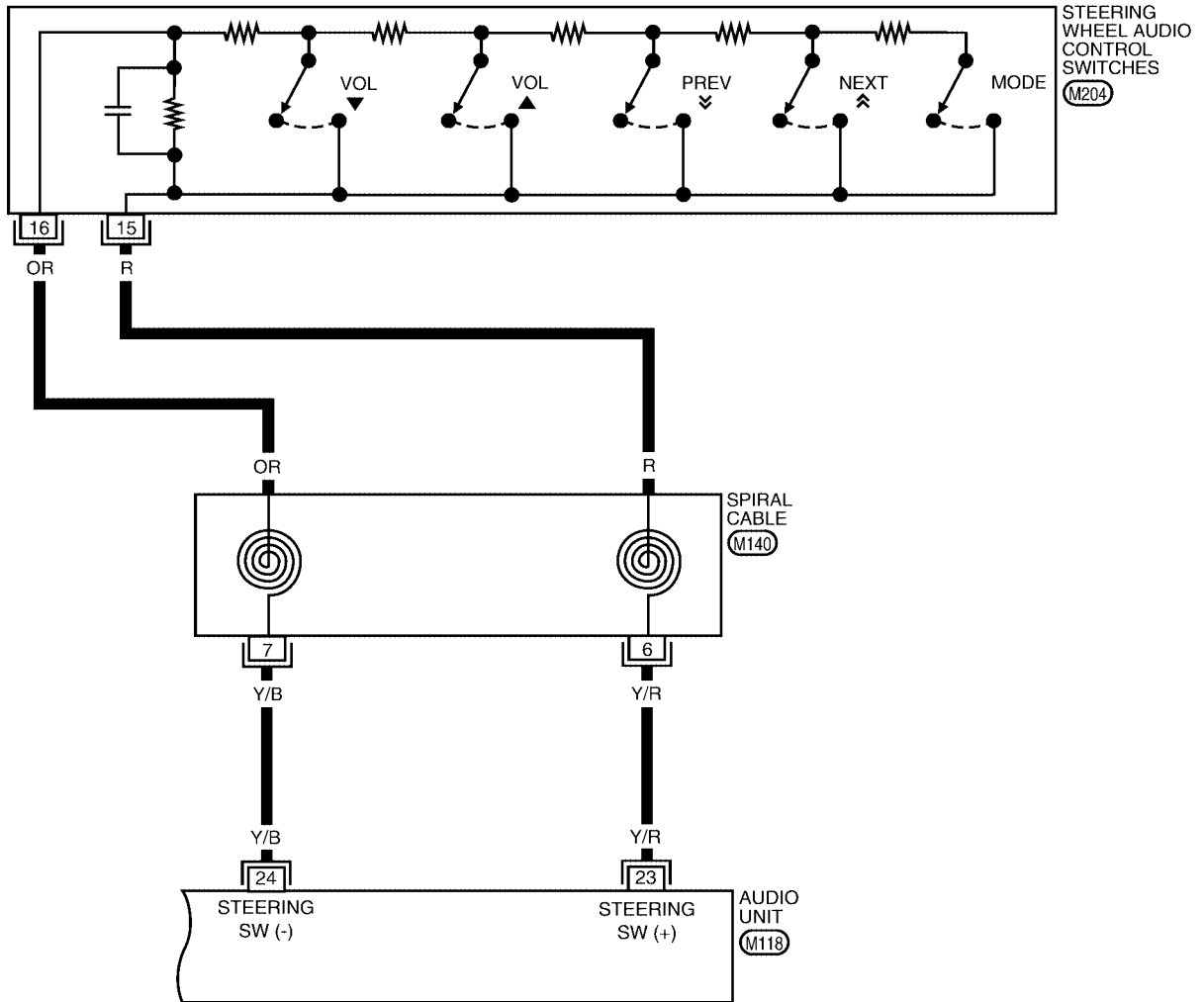
# AUDIO

## AV-AUDIO-03



# AUDIO

## AV-AUDIO-04



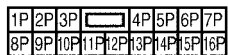
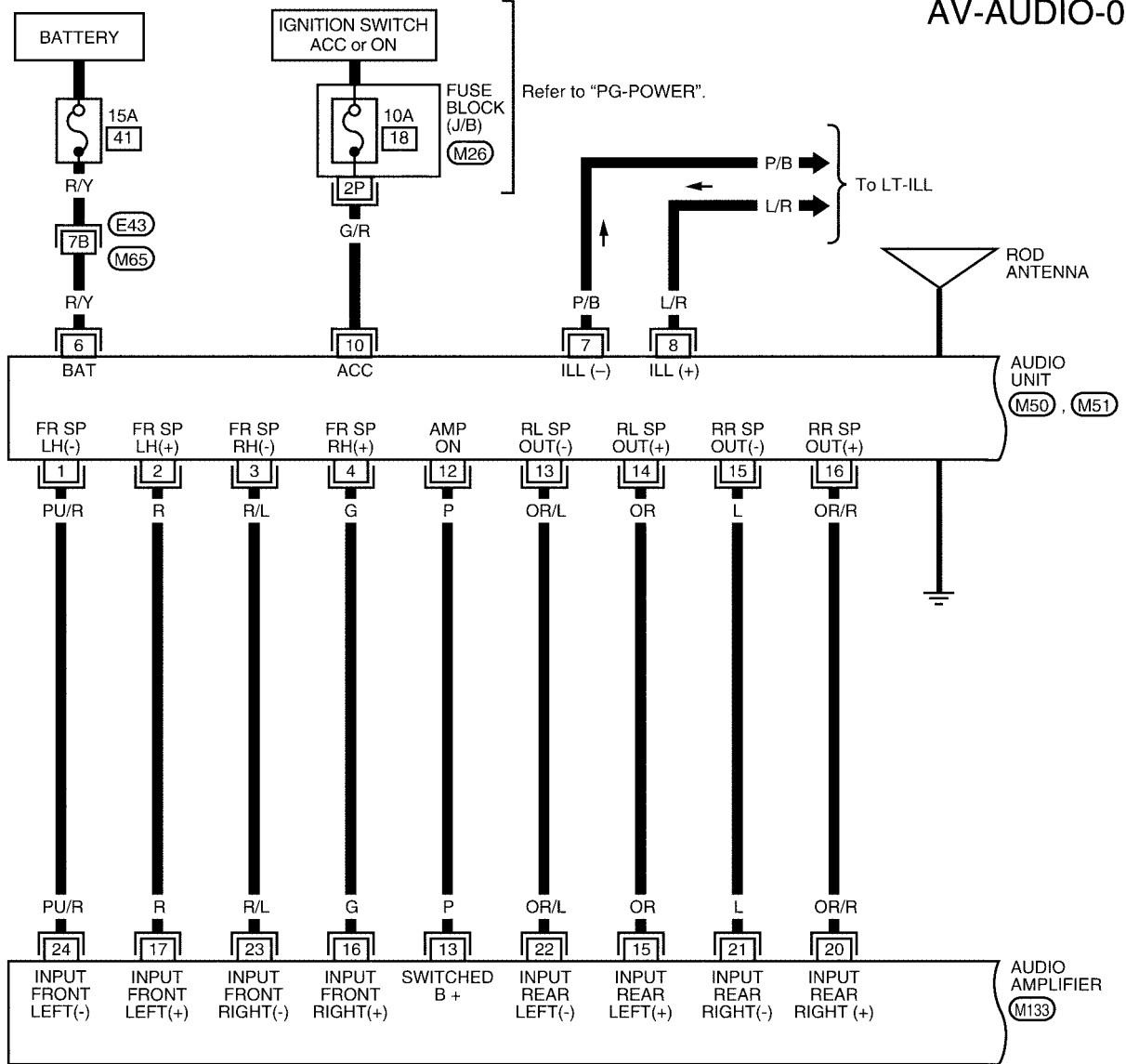
\*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT" OF PG SECTION.

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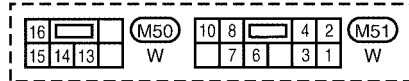
# AUDIO

## WITH AUDIO AMPLIFIER AND SUBWOOFER

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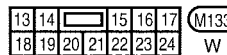


(M26) W



(M50) W

(M51) W



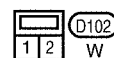
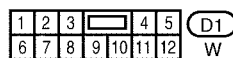
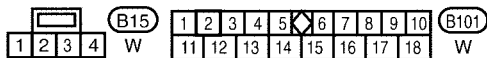
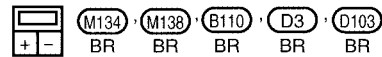
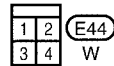
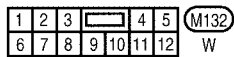
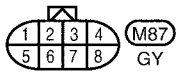
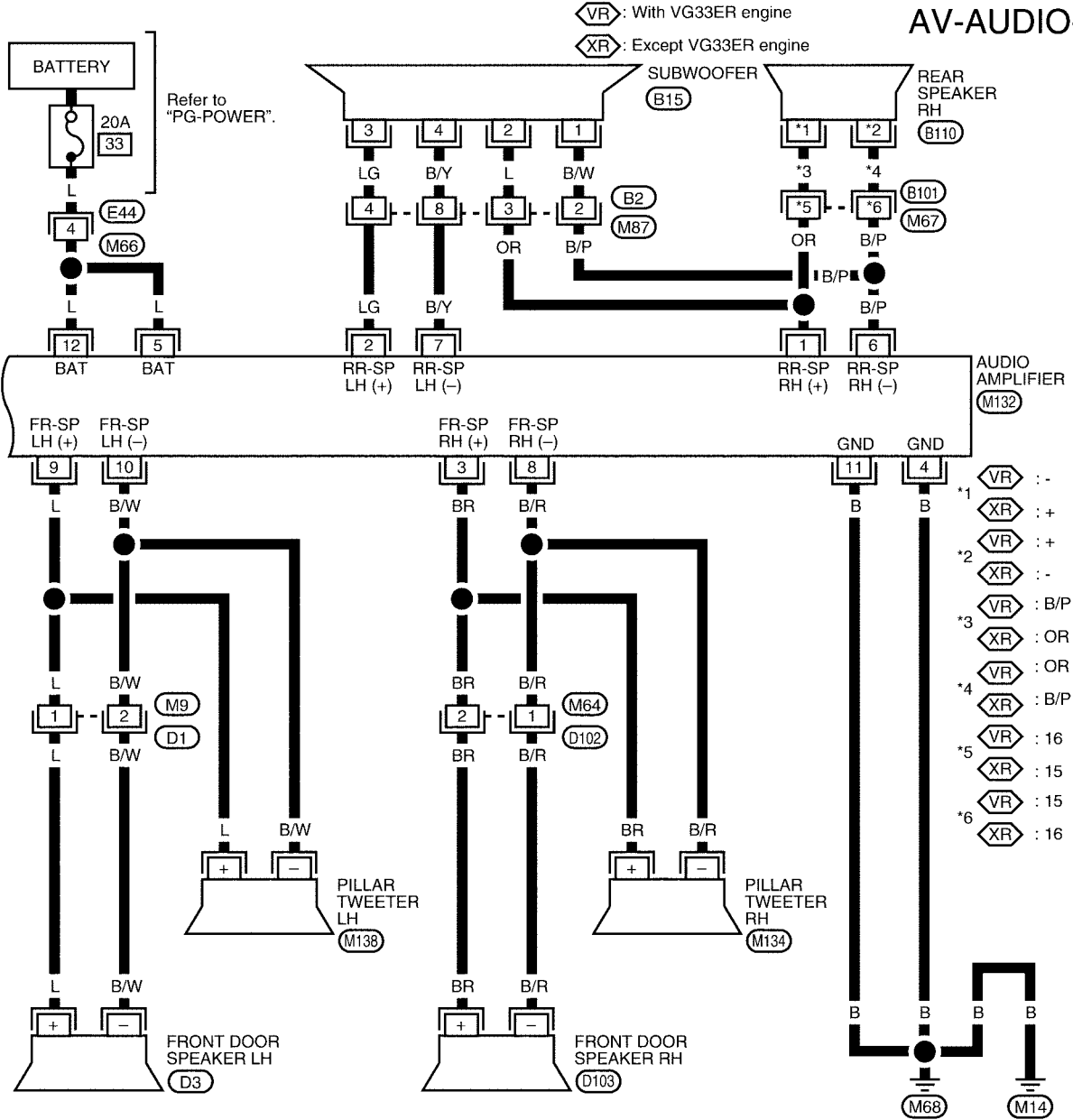
(M133) W

Refer to the following.  
 (E43) - SUPER  
 MULTIPLE JUNCTION (SMJ)

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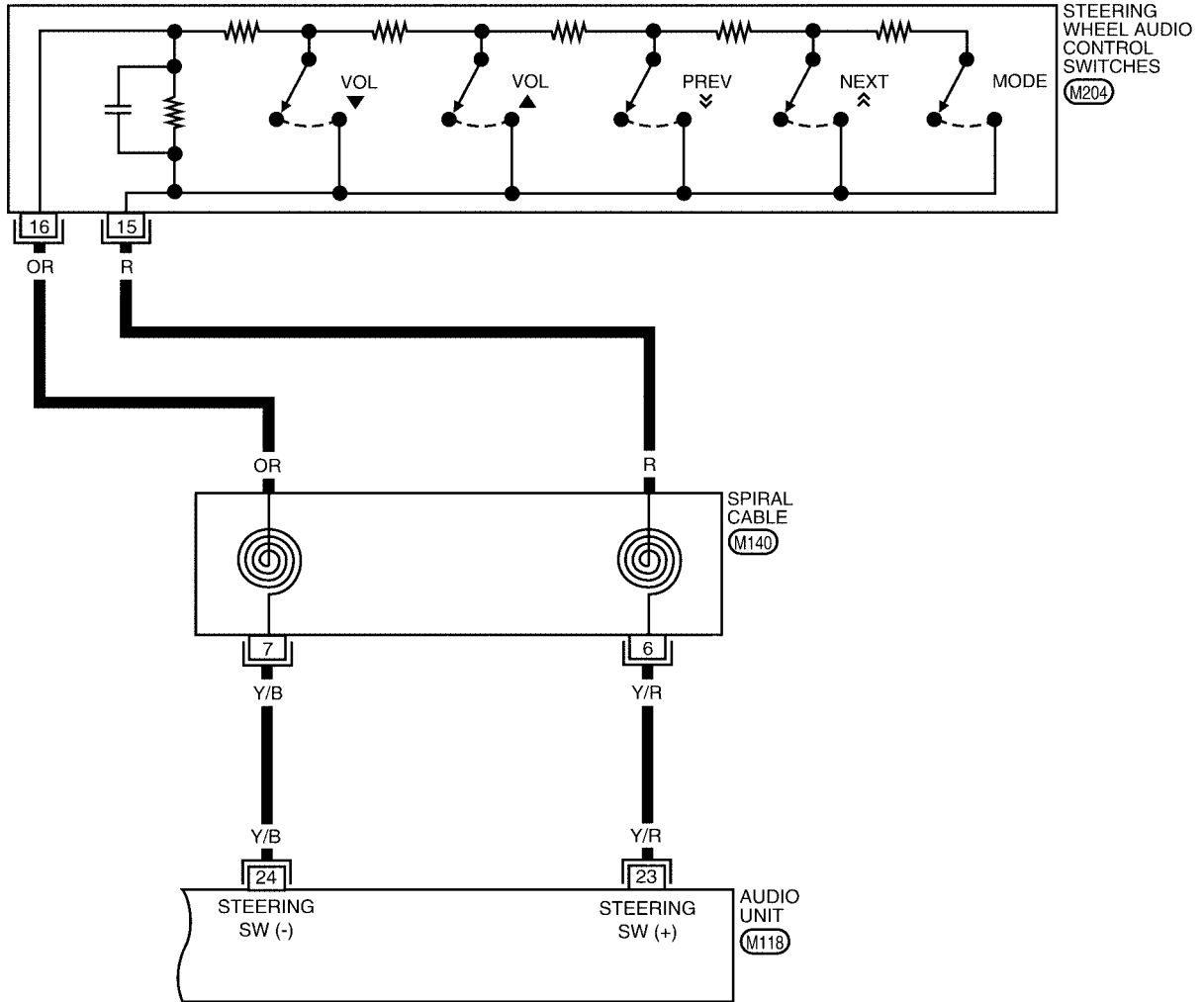
# AUDIO

## AV-AUDIO-06

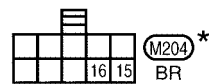
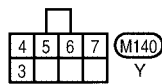
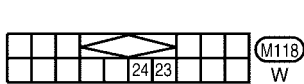


# AUDIO

AV-AUDIO-07



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

# AUDIO

## Trouble Diagnoses AUDIO UNIT (WITHOUT AUDIO AMPLIFIER)

EKS003M1

Symptom	Possible causes	Repair order
Audio unit inoperative (no digital display and no sound from speakers).	<ol style="list-style-type: none"> <li>1. 10A fuse</li> <li>2. Poor audio unit case ground</li> <li>3. Audio unit</li> </ol>	<ol style="list-style-type: none"> <li>1. Check 10A fuse [No. 18, located in fuse block (J/B)]. Turn ignition switch ON and verify that battery positive voltage is present at terminal 10 of audio unit.</li> <li>2. Check audio unit case ground.</li> <li>3. Remove audio unit for repair.</li> </ol>
Audio unit controls are operational, but no sound is heard from any speaker.	<ol style="list-style-type: none"> <li>1. Audio unit output</li> <li>2. Audio unit</li> </ol>	<ol style="list-style-type: none"> <li>1. Check audio unit output voltages.</li> <li>2. Remove audio unit for repair.</li> </ol>
Audio unit presets are lost when ignition switch is turned OFF.	<ol style="list-style-type: none"> <li>1. 15A fuse</li> <li>2. Audio unit</li> </ol>	<ol style="list-style-type: none"> <li>1. Check 15A fuse (No. 41, located in fuse and fusible link box) and verify that battery positive voltage is present at terminal 6 of audio unit.</li> <li>2. Remove audio unit for repair.</li> </ol>
Individual speaker is noisy or inoperative.	<ol style="list-style-type: none"> <li>1. Speaker</li> <li>2. Audio unit output</li> <li>3. Speaker circuit</li> <li>4. Audio unit</li> </ol>	<ol style="list-style-type: none"> <li>1. Check speaker.</li> <li>2. Check audio unit output voltages.</li> <li>3. Check wires for open or short between audio unit and speaker.</li> <li>4. Remove audio unit for repair.</li> </ol>
Audio unit stations are weak or noisy.	<ol style="list-style-type: none"> <li>1. Antenna</li> <li>2. Poor audio unit ground</li> <li>3. Audio unit</li> </ol>	<ol style="list-style-type: none"> <li>1. Check antenna.</li> <li>2. Check audio unit ground.</li> <li>3. Remove audio unit for repair.</li> </ol>
Audio unit generates noise in AM and FM modes with engine running.	<ol style="list-style-type: none"> <li>1. Poor audio unit ground</li> <li>2. Loose or missing ground bonding straps</li> <li>3. Ignition condenser or rear window defogger noise suppressor condenser</li> <li>4. Alternator</li> <li>5. Ignition coil or secondary wiring</li> <li>6. Audio unit</li> </ol>	<ol style="list-style-type: none"> <li>1. Check audio unit ground.</li> <li>2. Check ground bonding straps.</li> <li>3. Replace ignition condenser or rear window defogger noise suppressor condenser.</li> <li>4. Check alternator.</li> <li>5. Check ignition coil and secondary wiring.</li> <li>6. Remove audio unit for repair.</li> </ol>
Audio unit generates noise in AM and FM modes with accessories on (switch pops and motor noise).	<ol style="list-style-type: none"> <li>1. Poor audio unit ground</li> <li>2. Antenna</li> <li>3. Accessory ground</li> <li>4. Faulty accessory</li> </ol>	<ol style="list-style-type: none"> <li>1. Check audio unit ground.</li> <li>2. Check antenna.</li> <li>3. Check accessory ground.</li> <li>4. Replace accessory.</li> </ol>

## AUDIO UNIT (WITH AUDIO AMPLIFIER)

Symptom	Possible causes	Repair order
Audio unit inoperative (no digital display and no sound from speakers).	<ol style="list-style-type: none"> <li>1. 10A fuse</li> <li>2. Poor audio unit case ground</li> <li>3. Audio unit</li> </ol>	<ol style="list-style-type: none"> <li>1. Check 10A fuse [No. 18, located in fuse block (J/B)]. Turn ignition switch ON and verify that battery positive voltage is present at terminal 10 of audio unit.</li> <li>2. Check audio unit case ground.</li> <li>3. Remove audio unit for repair.</li> </ol>
Audio unit controls are operational, but no sound is heard from any speaker.	<ol style="list-style-type: none"> <li>1. 30A fusible link</li> <li>2. Audio amplifier ground</li> <li>3. Audio amplifier</li> </ol>	<ol style="list-style-type: none"> <li>1. Check 30A fusible link (letter h, located in fuse and fusible link box). Verify battery positive voltage is present at terminals 5 and 12.</li> <li>2. Check harness continuity between audio amplifier terminals 4 and 11, and ground.</li> <li>3. Remove audio amplifier for repair.</li> </ol>
Audio unit presets are lost when ignition switch is turned OFF.	<ol style="list-style-type: none"> <li>1. 15A fuse</li> <li>2. Audio unit</li> </ol>	<ol style="list-style-type: none"> <li>1. Check 15A fuse (No. 41, located in fuse and fusible link box) and verify that battery positive voltage is present at terminal 6 of audio unit.</li> <li>2. Remove audio unit for repair.</li> </ol>

# AUDIO

Symptom	Possible causes	Repair order	
Individual speaker is noisy or inoperative.	<ol style="list-style-type: none"> <li>Each speaker</li> <li>Output circuit to each speaker</li> </ol>	<ol style="list-style-type: none"> <li>Check speaker.</li> <li>Check the output circuit to each speaker                             <ul style="list-style-type: none"> <li>between audio unit and audio amplifier</li> <li>between audio amplifier and each speaker</li> </ul> </li> </ol>	A B
Audio unit stations are weak or noisy.	<ol style="list-style-type: none"> <li>Antenna</li> <li>Poor audio unit ground</li> <li>Audio unit</li> </ol>	<ol style="list-style-type: none"> <li>Check antenna.</li> <li>Check audio unit ground.</li> <li>Remove audio unit for repair.</li> </ol>	C
Audio unit generates noise in AM and FM modes with engine running.	<ol style="list-style-type: none"> <li>Poor audio unit ground</li> <li>Loose or missing ground bonding straps</li> <li>Ignition condenser or rear window defogger noise suppressor condenser</li> <li>Generator</li> <li>Ignition coil or secondary wiring</li> <li>Audio unit</li> </ol>	<ol style="list-style-type: none"> <li>Check audio unit ground.</li> <li>Check ground bonding straps.</li> <li>Replace ignition condenser or rear window defogger noise suppressor condenser.</li> <li>Check generator.</li> <li>Check ignition coil and secondary wiring.</li> <li>Remove audio unit for repair.</li> </ol>	D E
Audio unit generates noise in AM and FM modes with accessories on (switch pops and motor noise).	<ol style="list-style-type: none"> <li>Poor audio unit ground</li> <li>Antenna</li> <li>Accessory ground</li> <li>Faulty accessory</li> </ol>	<ol style="list-style-type: none"> <li>Check audio unit ground.</li> <li>Check antenna.</li> <li>Check accessory ground.</li> <li>Replace accessory.</li> </ol>	F G
Steering wheel audio control switch does not operate.	<ol style="list-style-type: none"> <li>Steering wheel audio control switch</li> <li>Audio unit output</li> <li>Steering wheel audio control switch circuit</li> <li>Audio unit</li> </ol>	<ol style="list-style-type: none"> <li>Check steering wheel audio control switch, refer to <a href="#">AV-17, "STEERING WHEEL AUDIO CONTROL SWITCH RESISTANCE"</a>.</li> <li>Check audio unit output voltage.</li> <li>Check harness between audio unit and steering switch.</li> <li>Remove audio unit for repair.</li> </ol>	H I

## AUDIO UNIT (WITH AUDIO AMPLIFIER AND SUBWOOFER)

Symptom	Possible causes	Repair order	
Audio unit inoperative (no digital display and no sound from speakers).	<ol style="list-style-type: none"> <li>10A fuse</li> <li>Poor audio unit case ground</li> <li>Audio unit</li> </ol>	<ol style="list-style-type: none"> <li>Check 10A fuse [No. 18, located in fuse block (J/B)]. Turn ignition switch ON and verify that battery positive voltage is present at terminal 10 of audio unit.</li> <li>Check audio unit case ground.</li> <li>Remove audio unit for repair.</li> </ol>	J AV
Audio unit controls are operational, but no sound is heard from any speaker.	<ol style="list-style-type: none"> <li>30A fusible link</li> <li>Audio amplifier ground</li> <li>Audio amplifier</li> </ol>	<ol style="list-style-type: none"> <li>Check 30A fusible link (letter h, located in fuse and fusible link box). Verify battery positive voltage is present at terminals 5 and 12.</li> <li>Check harness continuity between audio amplifier terminals 4 and 11, and ground.</li> <li>Remove audio amplifier for repair.</li> </ol>	L M
Audio unit presets are lost when ignition switch is turned OFF.	<ol style="list-style-type: none"> <li>15A fuse</li> <li>Audio unit</li> </ol>	<ol style="list-style-type: none"> <li>Check 15A fuse (No. 41, located in fuse and fusible link box) and verify that battery positive voltage is present at terminal 6 of audio unit.</li> <li>Remove audio unit for repair.</li> </ol>	
Individual speaker is noisy or inoperative.	<ol style="list-style-type: none"> <li>Each speaker</li> <li>Output circuit to each speaker</li> </ol>	<ol style="list-style-type: none"> <li>Check speaker.</li> <li>Check the output circuit to each speaker and subwoofer                             <ul style="list-style-type: none"> <li>between audio unit and audio amplifier</li> <li>between audio amplifier and each speaker and subwoofer</li> </ul> </li> </ol>	
Audio unit stations are weak or noisy.	<ol style="list-style-type: none"> <li>Antenna</li> <li>Poor audio unit ground</li> <li>Audio unit</li> </ol>	<ol style="list-style-type: none"> <li>Check antenna.</li> <li>Check audio unit ground.</li> <li>Remove audio unit for repair.</li> </ol>	

# AUDIO

Symptom	Possible causes	Repair order
Audio unit generates noise in AM and FM modes with engine running.	<ol style="list-style-type: none"> <li>1. Poor audio unit ground</li> <li>2. Loose or missing ground bonding straps</li> <li>3. Ignition condenser or rear window defogger noise suppressor condenser</li> <li>4. Generator</li> <li>5. Ignition coil or secondary wiring</li> <li>6. Audio unit</li> </ol>	<ol style="list-style-type: none"> <li>1. Check audio unit ground.</li> <li>2. Check ground bonding straps.</li> <li>3. Replace ignition condenser or rear window defogger noise suppressor condenser.</li> <li>4. Check generator.</li> <li>5. Check ignition coil and secondary wiring.</li> <li>6. Remove audio unit for repair.</li> </ol>
Audio unit generates noise in AM and FM modes with accessories on (switch pops and motor noise).	<ol style="list-style-type: none"> <li>1. Poor audio unit ground</li> <li>2. Antenna</li> <li>3. Accessory ground</li> <li>4. Faulty accessory</li> </ol>	<ol style="list-style-type: none"> <li>1. Check audio unit ground.</li> <li>2. Check antenna.</li> <li>3. Check accessory ground.</li> <li>4. Replace accessory.</li> </ol>
Steering wheel audio control switch does not operate.	<ol style="list-style-type: none"> <li>1. Steering wheel audio control switch</li> <li>2. Audio unit output</li> <li>3. Steering wheel audio control switch circuit</li> <li>4. Audio unit</li> </ol>	<ol style="list-style-type: none"> <li>1. Check steering wheel audio control switch, refer to <a href="#">AV-17, "STEERING WHEEL AUDIO CONTROL SWITCH RESISTANCE"</a>.</li> <li>2. Check audio unit output voltage.</li> <li>3. Check harness between audio unit and steering switch.</li> <li>4. Remove audio unit for repair.</li> </ol>

## Inspection SPEAKER

EKS003M2

1. Disconnect speaker harness connector.
2. Measure the resistance between speaker terminals + and -.
  - The resistance should be 2 - 4Ω.
3. Using jumper wires, momentarily connect a 9V battery between speaker terminals + and -.
  - A momentary hum or pop should be heard.

## ANTENNA

1. Using a jumper wire, clip an auxiliary ground between antenna and body.
  - If reception improves, check antenna ground (at body surface).
  - If reception does not improve, check main feeder cable for short circuit or open circuit.

## AUDIO UNIT

All voltage inspections are made with:

- Ignition switch ON or ACC
- Audio unit ON
- Audio unit connected (If removed for inspection, supply a ground to the case using a jumper wire.)

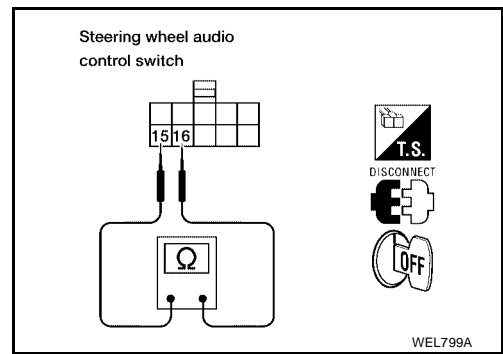
## AUDIO UNIT VOLTAGES

Terminal	Wire color	Voltage (V)		Terminal	Wire color	Voltage (V)	
		Base Audio System	Premium Audio System			Base Audio System	Premium Audio System
1	B/W	5 - 7.5	5 - 7.5	9	—	—	—
2	L	5 - 7.5	5 - 7.5	10	G/R	10.8 - 15.6	10.8 - 15.6
3	B/R	5 - 7.5	5 - 7.5	11	—	—	—
4	BR	5 - 7.5	5 - 7.5	12	—	—	—
5	—	—	—	13	B/Y	5 - 7.5	5 - 7.5
6	R/Y	10.8 - 15.6	10.8 - 15.6	14	LG	5 - 7.5	5 - 7.5
7	P/B	0 - 12 (Illumination)	0 - 12 (Illumination)	15	B/P	5 - 7.5	5 - 7.5
8	L/R	0 (Illumination)	0 (Illumination)	16	OR	5 - 7.5	5 - 7.5



# AUDIO

## STEERING WHEEL AUDIO CONTROL SWITCH RESISTANCE



Connector	Terminal	Switch	Resistance $\Omega$ (Approx.)
M204	15 - 16	VOLUME (down) sw	21.7 - 22.2
		VOLUME (up) sw	69.3 - 70.7
		PREVIOUS sw	108.9 - 111.1
		NEXT sw	158.4 - 161.6
		MODE sw	326.7 - 333.3

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
L  
M

AV

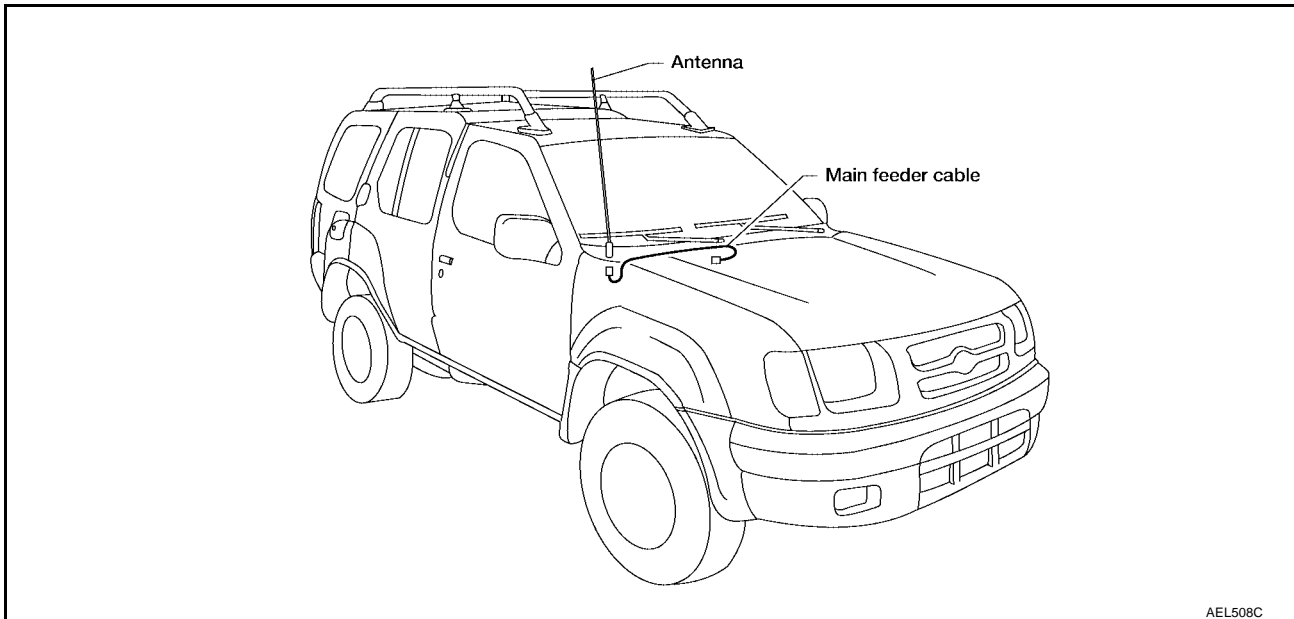
# AUDIO ANTENNA

## AUDIO ANTENNA

PFP:28200

### Location of Antenna

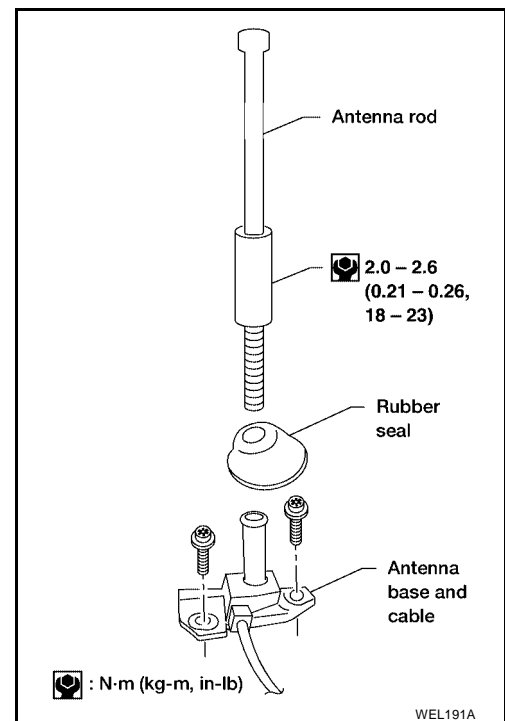
EKS003M3



### Fixed Antenna Rod Replacement REMOVAL

EKS003M4

1. Remove antenna rod.
2. Remove rubber seal.
3. Remove cowl screen top seal.
4. Remove right wiper arm.
5. Remove right cowl to grille.
6. Remove antenna base bolts.
7. Remove right fender splash shield.
8. Remove audio unit.
9. Disconnect antenna cable from audio unit.
10. Remove attachment clip from fender apron.
11. Remove antenna base and cable.



### INSTALLATION

Install in reverse order of removal.

#### **CAUTION:**

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