

SECTION **AV**

AUDIO, VISUAL, NAVIGATION & TELEPHONE SYSTEM

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# PRECAUTIONS

## PRECAUTIONS

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

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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.

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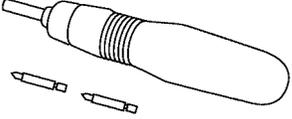
# PREPARATION

## PREPARATION

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### Commercial Service Tool

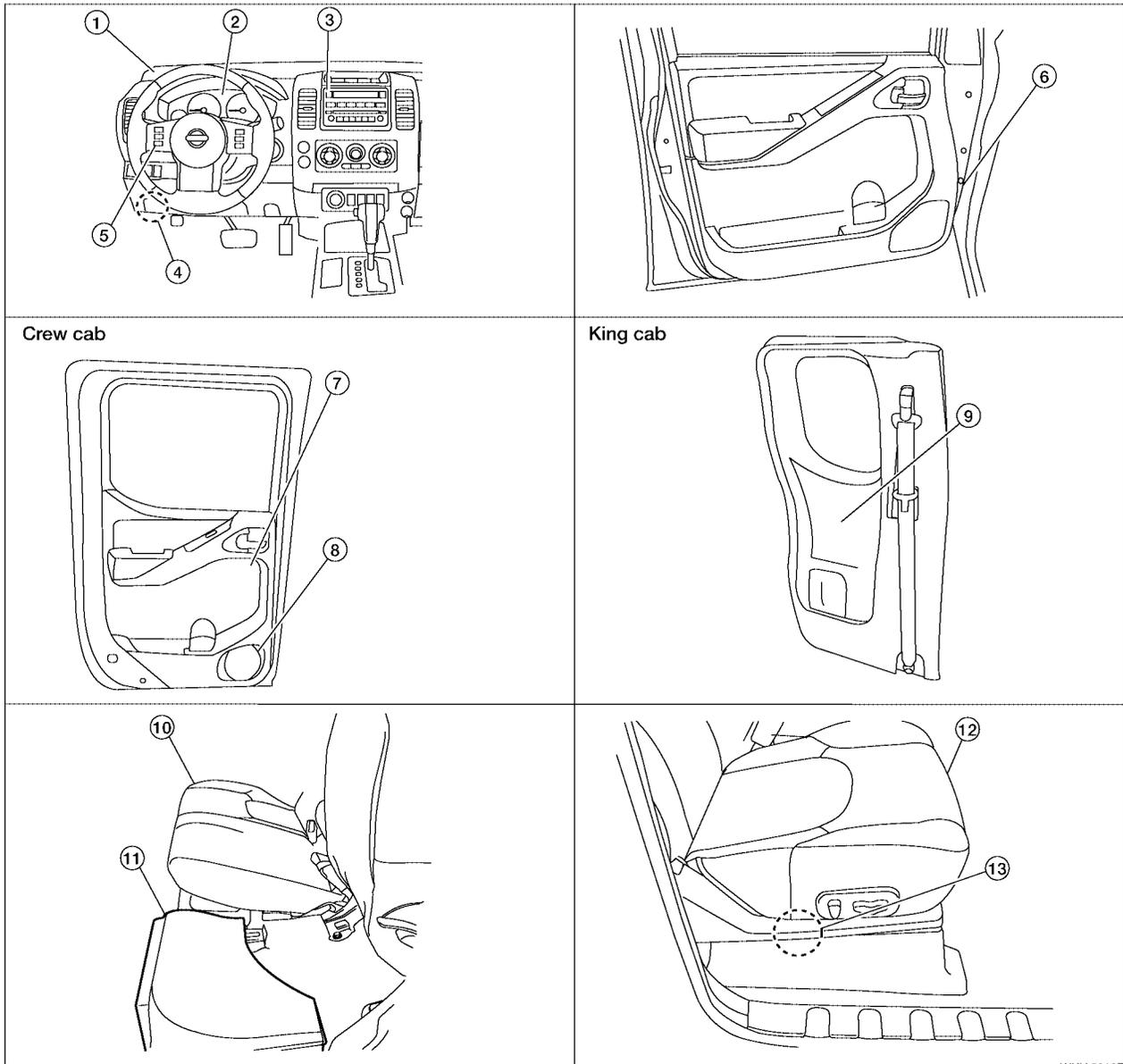
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| Tool name  | Description   |
|--|---|
| <p data-bbox="162 296 272 323">Power tool</p>  <p data-bbox="852 499 925 516">PBIC0191E</p> | <p data-bbox="1015 296 1266 323">Loosening bolts and nuts</p> |

## AUDIO

### Component Parts and Harness Connector Location

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- |  |  |   |
|--|--|---|
| <p>1. Front tweeter<br/>(Crew cab or King cab with premium system)<br/>LH M109<br/>RH M111</p> <p>4. Satellite radio tuner (factory installed) or<br/>Satellite radio tuner (pre-wiring)<br/>M41</p> <p>7. Rear tweeter<br/>(Crew cab with premium system)<br/>LH D208<br/>RH D308</p> <p>10. Rear seat</p> <p>13. Audio amplifier<br/>B158, B159<br/>(Crew cab with premium system)</p> | <p>2. Combination meter<br/>M24</p> <p>5. Steering wheel audio control switches<br/>(with premium system)</p> <p>8. Rear door speaker (Crew cab)<br/>LH D207<br/>RH D307</p> <p>11. Subwoofer<br/>B72<br/>(Crew cab with premium system)</p> | <p>3. Audio unit<br/>M42, M43, M44, M45</p> <p>6. Front door speaker<br/>LH D12<br/>RH D112</p> <p>9. Rear door speaker (King cab)<br/>LH B76<br/>RH B160</p> <p>12. Passenger seat</p> |
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## System Description

### BASE SYSTEM

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

Power is supplied at all times

- through 20A fuse (No. 29, 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. 4, located in the fuse block (J/B)]
- to audio unit terminal 10.

Ground is supplied through the case of the audio unit.

Then audio signals are supplied

- through audio unit terminals 1, 2, 3, 4, 13, 14, 15 and 16
- to terminals + and - of front door speaker LH and RH
- to terminals + and - of front tweeter LH and RH (Crew cab)
- to terminals + and - of rear door speaker LH and RH.

### PREMIUM SYSTEM (KING CAB)

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

Power is supplied at all times

- through 20A fuse [No. 29, 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. 4, located in the fuse block (J/B)]
- to audio unit terminal 10.

Ground is supplied through the case of the audio unit.

Then audio signals are supplied

- through audio unit terminals 1, 2, 3, 4, 13, 14, 15 and 16
- to terminals + and - of front door speaker LH and RH
- to terminals + and - of front tweeter LH and RH
- to terminals + and - of rear door speaker LH and RH.

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

### Satellite Radio Tuner (Factory Installed)

Refer to Owner's Manual for satellite radio system operating instructions.

Power is supplied at all times

- through 15A fuse [No. 17, located in the fuse block (J/B)]
- to satellite radio tuner terminal 32.

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

- through 10A fuse [No. 4, located in the fuse block (J/B)]
- to satellite radio tuner terminal 36.

Radio signals are supplied from the satellite radio antenna to satellite radio tuner terminal 37.

Audio signals are supplied

- through satellite radio tuner terminals 21, 22, 23 and 24
- to terminals 41, 42, 43 and 44 of audio unit.

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

### Satellite Radio Tuner (Pre-wiring)

The satellite radio tuner pre-wiring allows connection of a satellite radio tuner.

Power is supplied at all times

- through 15A fuse [No. 17, located in the fuse block (J/B)]
- to satellite radio tuner pre-wiring terminal 32.

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

# AUDIO

- through 10A fuse [No. 4, located in the fuse block (J/B)]
- to satellite radio tuner pre-wiring terminal 36.

Ground is supplied

- to satellite radio tuner (pre-wiring) terminals 25 and 26
- from audio unit terminals 45 and 46.

Then audio signals are supplied

- through satellite radio tuner pre-wiring terminals 21, 22, 23 and 24
- to audio unit terminals 41, 42, 43 and 44.

## PREMIUM SYSTEM (CREW CAB)

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

Power is supplied at all times

- through 15A fuse [No. 17, located in the fuse block (J/B)]
- to audio amplifier terminals 1 and 17
- through 20A fuse [No. 29, 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. 4, located in the fuse block (J/B)]
- to audio unit terminal 10.

Ground is supplied through the case of the audio unit.

Ground is also supplied

- to audio amplifier terminals 4 and 20
- through body grounds B117 and B132.

Then audio signals are supplied

- through audio unit terminals 1, 2, 3, 4, 13, 14, 15 and 16
- 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
- to terminals + and - of front tweeter LH and RH
- to terminals + and - of rear door speaker LH and RH
- to terminals + and - of rear door tweeter LH and RH
- to terminals 1, 2, 3 and 4 of subwoofer.

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

## Satellite Radio Tuner (Factory Installed)

Refer to Owner's Manual for satellite radio system operating instructions.

Power is supplied at all times

- through 15A fuse [No. 17, located in the fuse block (J/B)]
- to satellite radio tuner terminal 32.

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

- through 10A fuse [No. 4, located in the fuse block (J/B)]
- to satellite radio tuner terminal 36.

Radio signals are supplied from the satellite radio antenna to satellite radio tuner terminal 37.

Audio signals are supplied

- through satellite radio tuner terminals 21, 22, 23 and 24
- to terminals 41, 42, 43 and 44 of audio unit.

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

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### **Satellite Radio Tuner (Pre-wiring)**

The satellite radio tuner pre-wiring allows connection of a satellite radio tuner.

Power is supplied at all times

- through 15A fuse [No. 17, located in the fuse block (J/B)]
- to satellite radio tuner pre-wiring terminal 32.

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

- through 10A fuse [No. 4, located in the fuse block (J/B)]
- to satellite radio tuner pre-wiring terminal 36.

Ground is supplied

- to satellite radio tuner (pre-wiring) terminals 25 and 26
- from audio unit terminals 45 and 46.

Then audio signals are supplied

- through satellite radio tuner pre-wiring terminals 21, 22, 23 and 24
- to audio unit terminals 41, 42, 43 and 44.

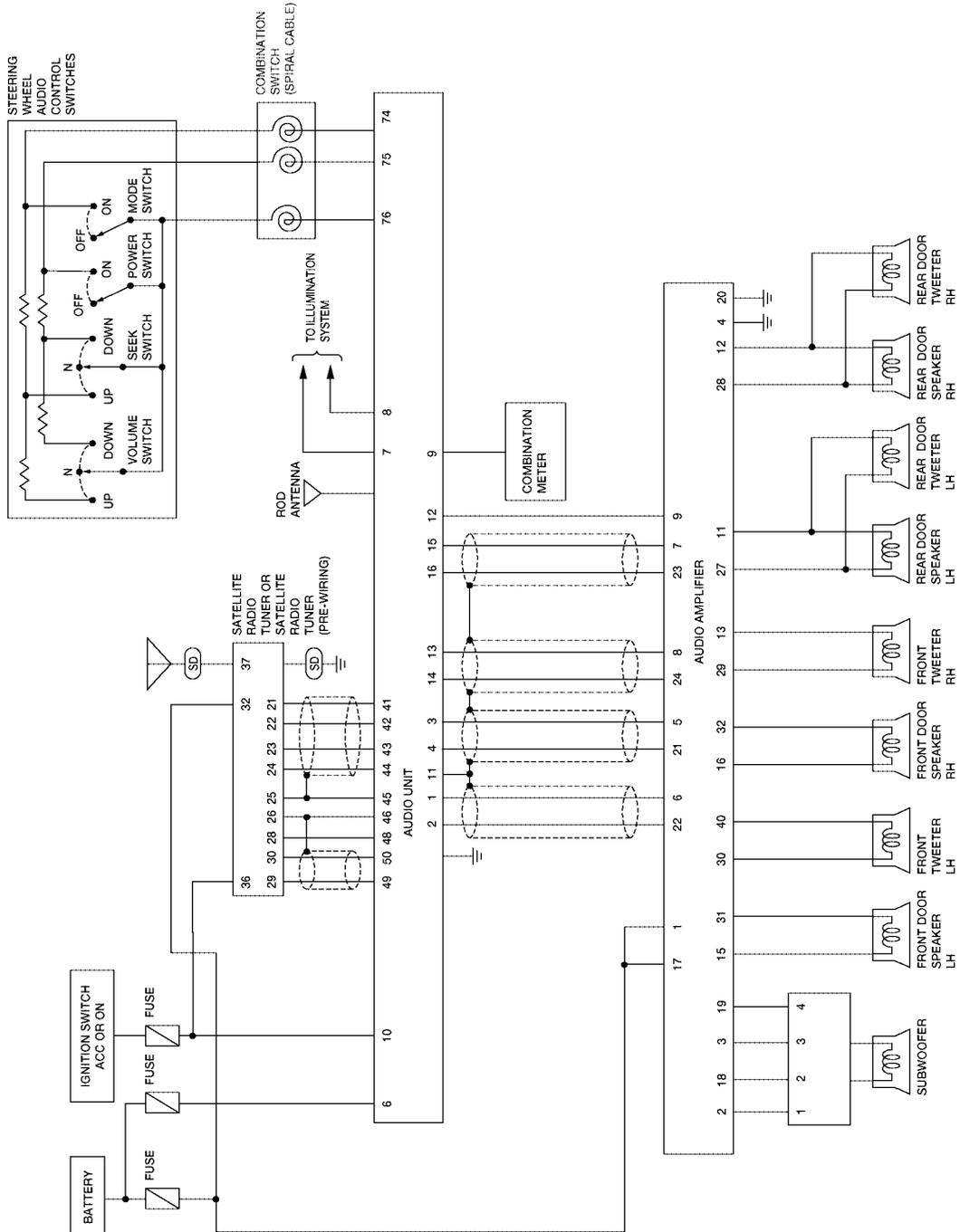
### **SPEED SENSITIVE VOLUME SYSTEM**

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

## Schematic PREMIUM SYSTEM (CREW CAB)

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(SD) WITH SATELLITE RADIO TUNER

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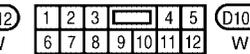
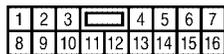
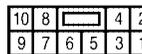
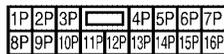
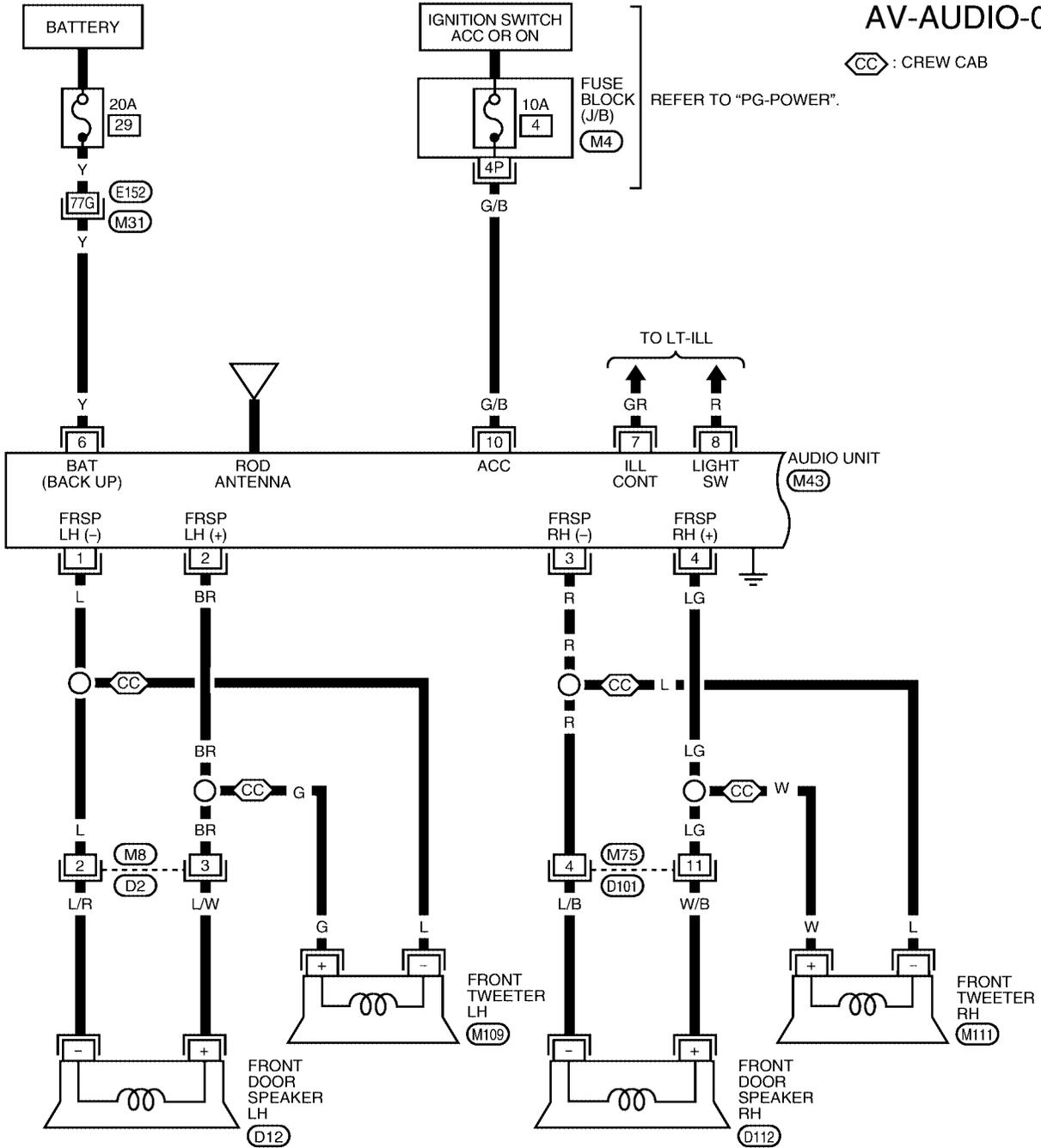
## Wiring Diagram — AUDIO — BASE SYSTEM

EKS00BZ3

### AV-AUDIO-01

⬡ : CREW CAB

FUSE BLOCK (J/B) REFER TO "PG-POWER".



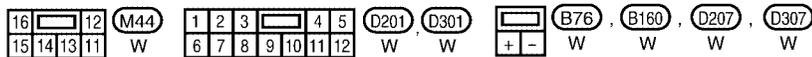
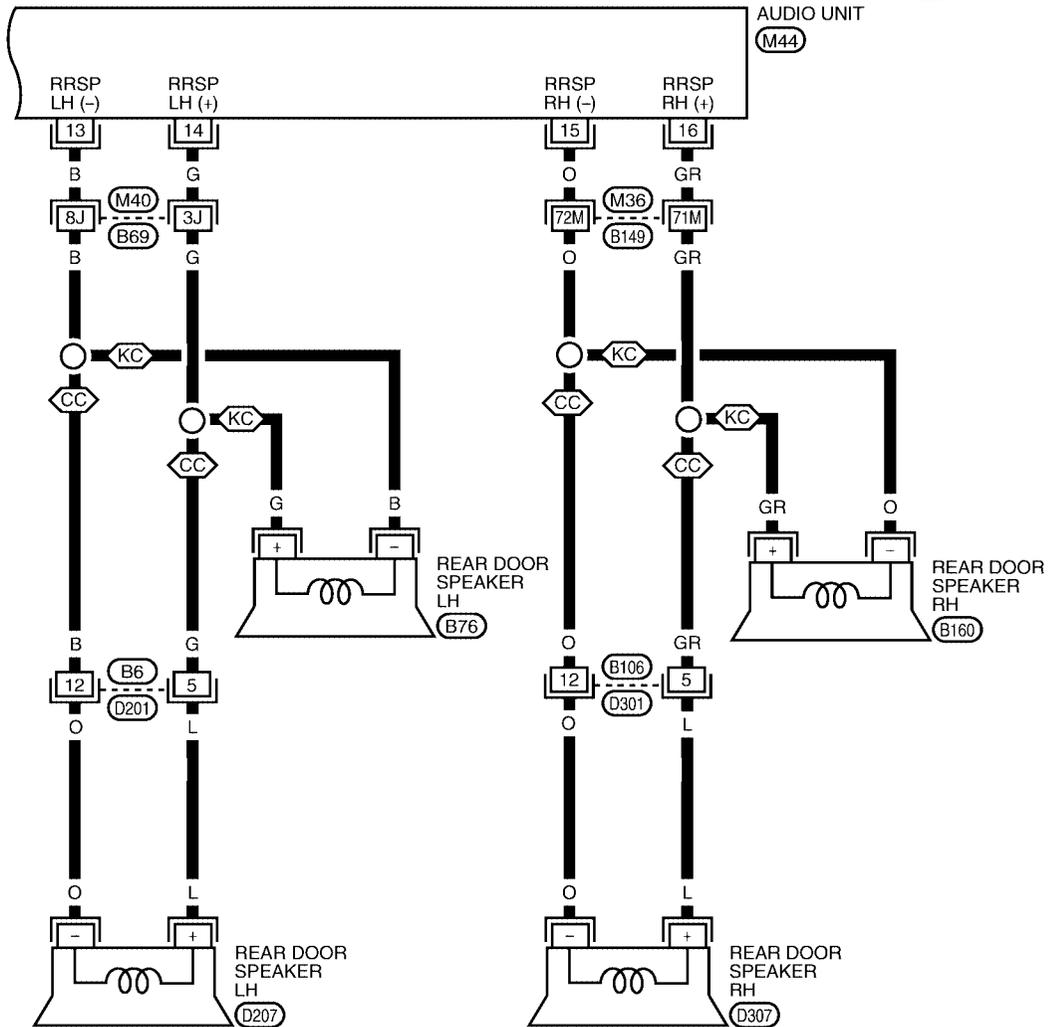
REFER TO THE FOLLOWING.  
⬡ - SUPER MULTIPLE  
JUNCTION (SMJ)

WKWA2095E

# AUDIO

## AV-AUDIO-02

CC : CREW CAB  
KC : KING CAB

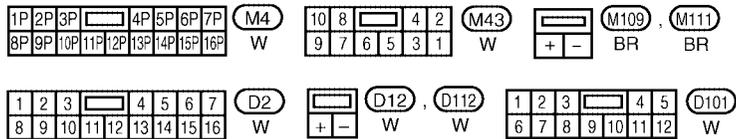
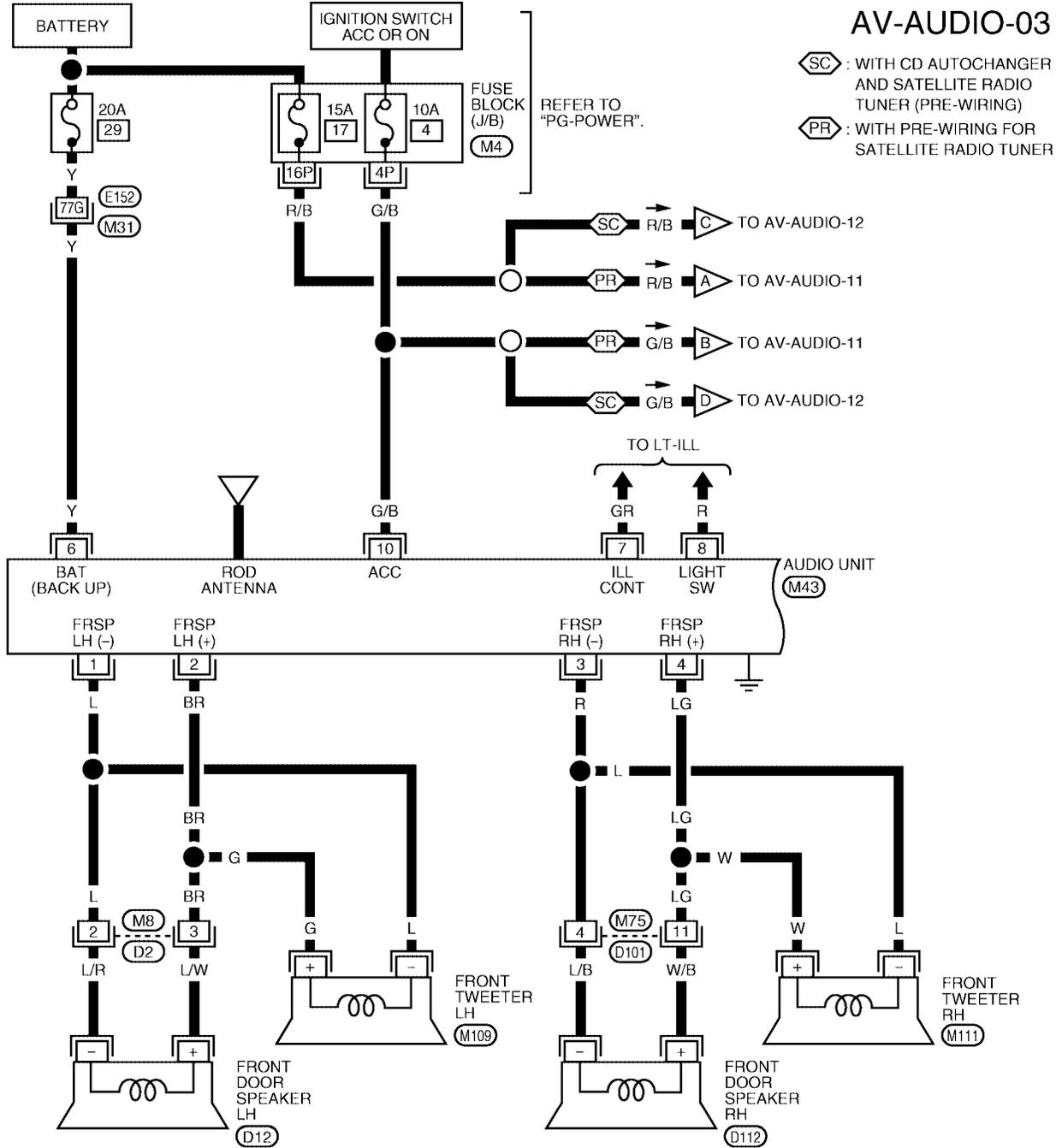


REFER TO THE FOLLOWING.  
M36, M40 - SUPER  
 MULTIPLE JUNCTION (SMJ)

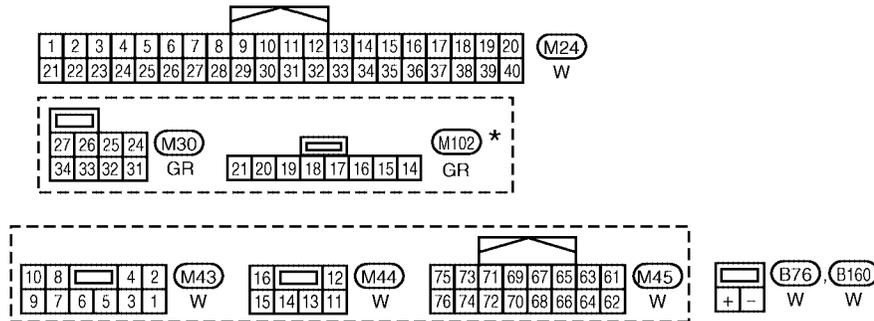
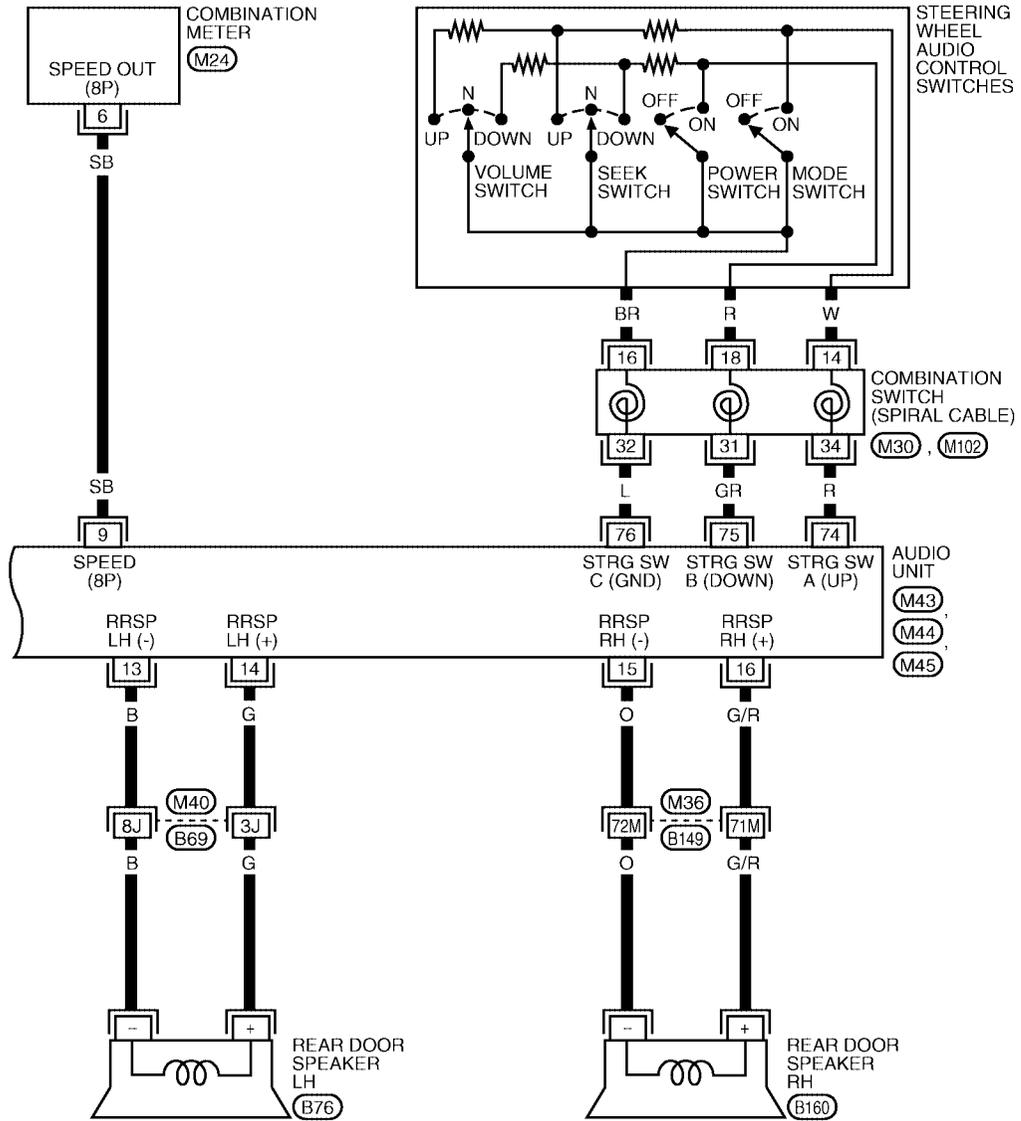
WKWA2096E

# AUDIO

## PREMIUM SYSTEM (KING CAB)



REFER TO THE FOLLOWING.  
 (M31) - SUPER MULTIPLE JUNCTION (SMJ)



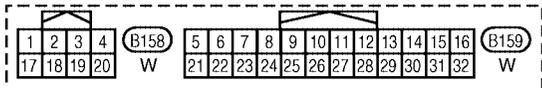
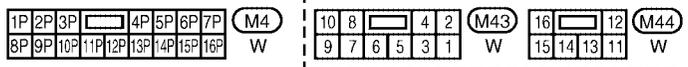
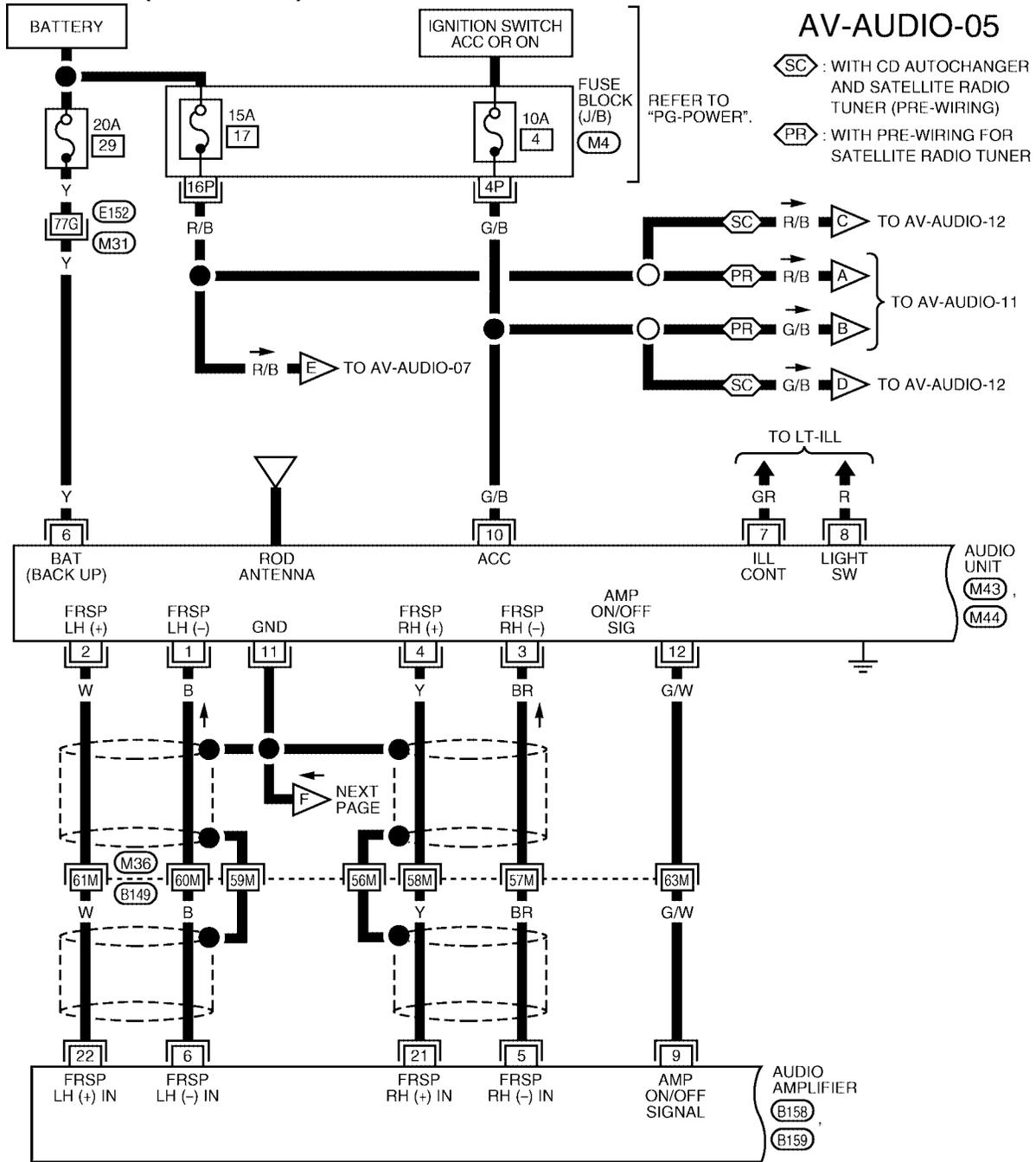
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 (M36), (M40) - SUPER  
 MULTIPLE JUNCTION (SMJ)

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

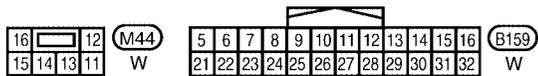
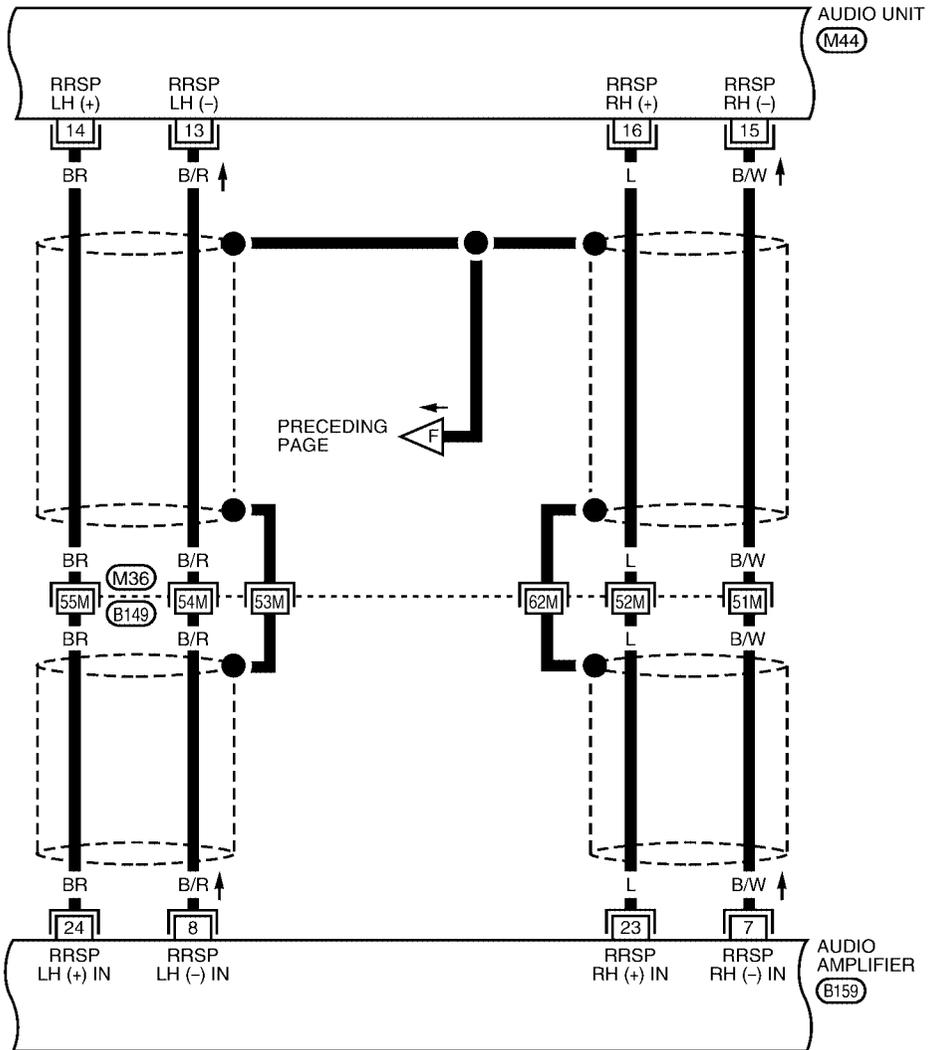
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# AUDIO

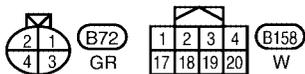
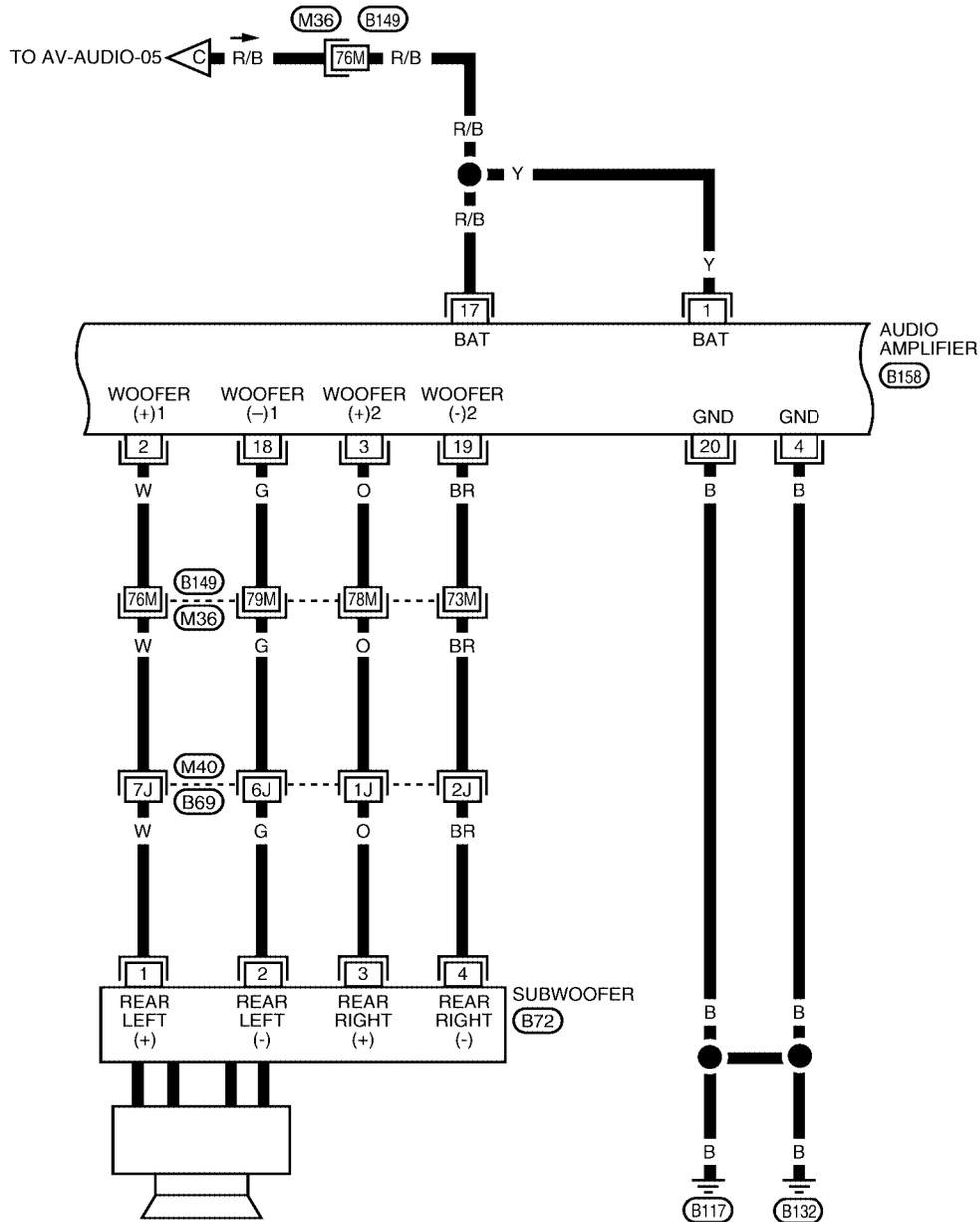
## PREMIUM SYSTEM (CREW CAB)



REFER TO THE FOLLOWING.  
 (M31), (M36) - SUPER MULTIPLE JUNCTION (SMJ)



REFER TO THE FOLLOWING.  
 (M36) - SUPER MULTIPLE JUNCTION (SMJ)



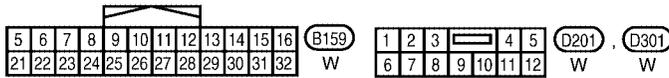
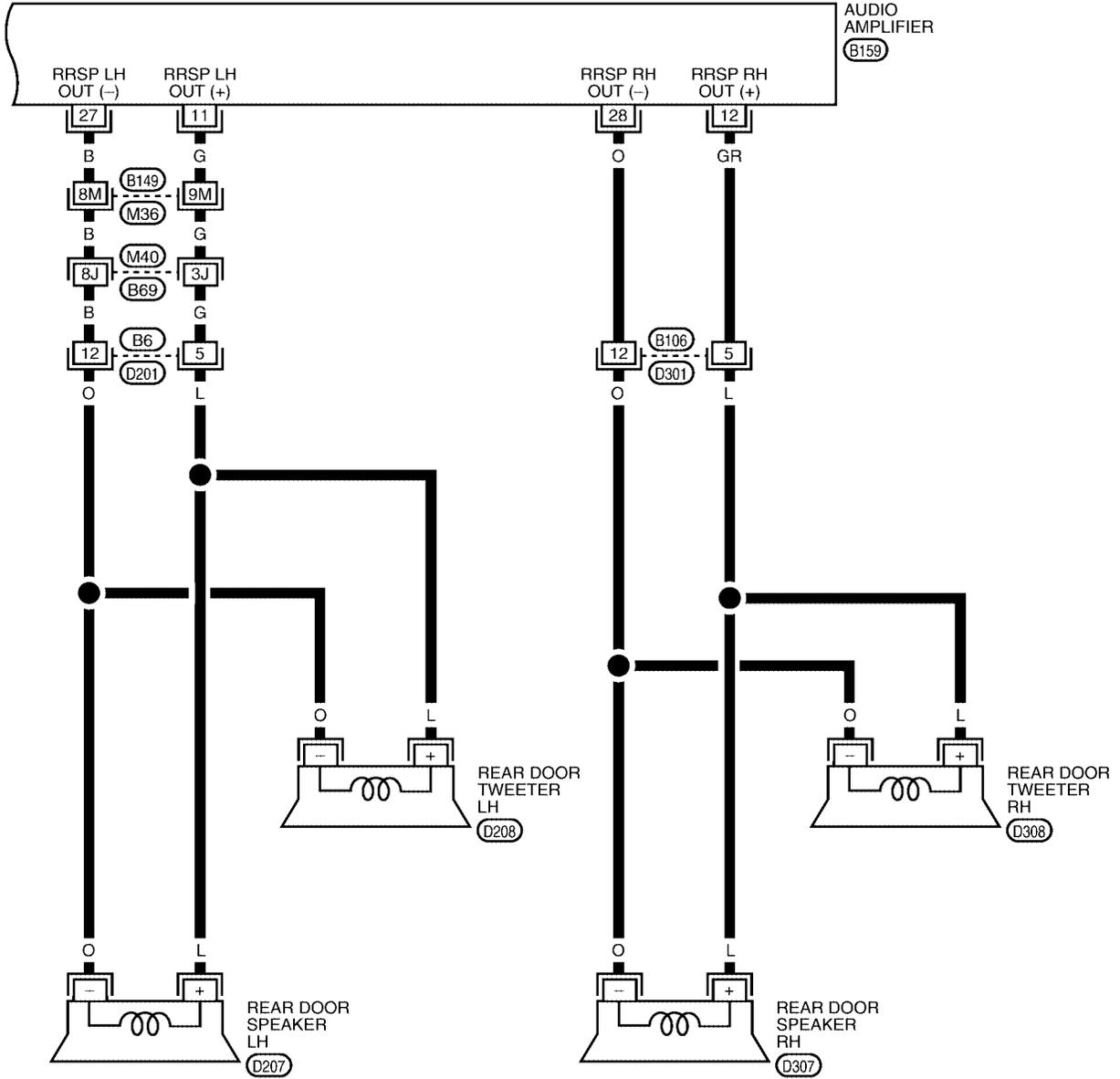
REFER TO THE FOLLOWING.  
 (M36), (M40) - SUPER MULTIPLE JUNCTION (SMJ)

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# AUDIO

AV-AUDIO-09



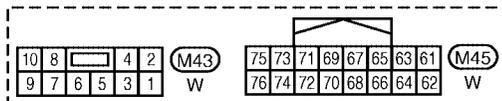
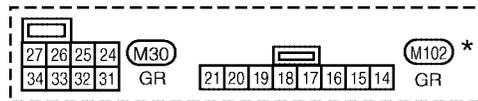
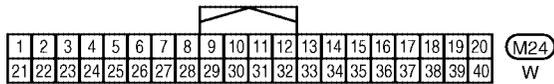
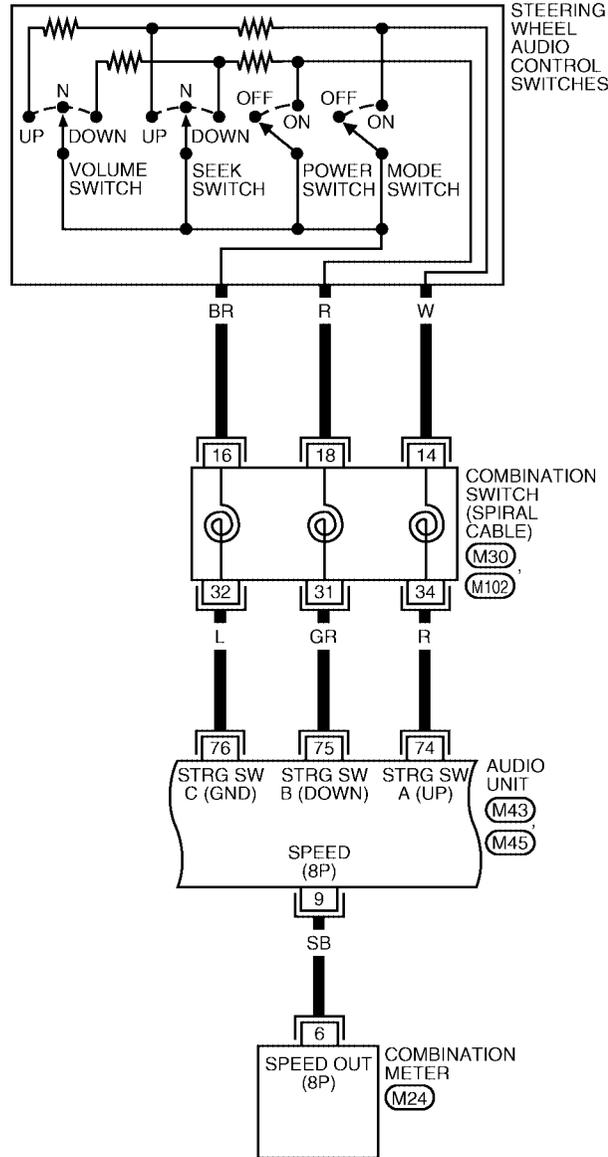
REFER TO THE FOLLOWING.  
 (M36), (M40) - SUPER  
 MULTIPLE JUNCTION (SMJ)



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# AUDIO

## AV-AUDIO-10



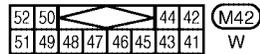
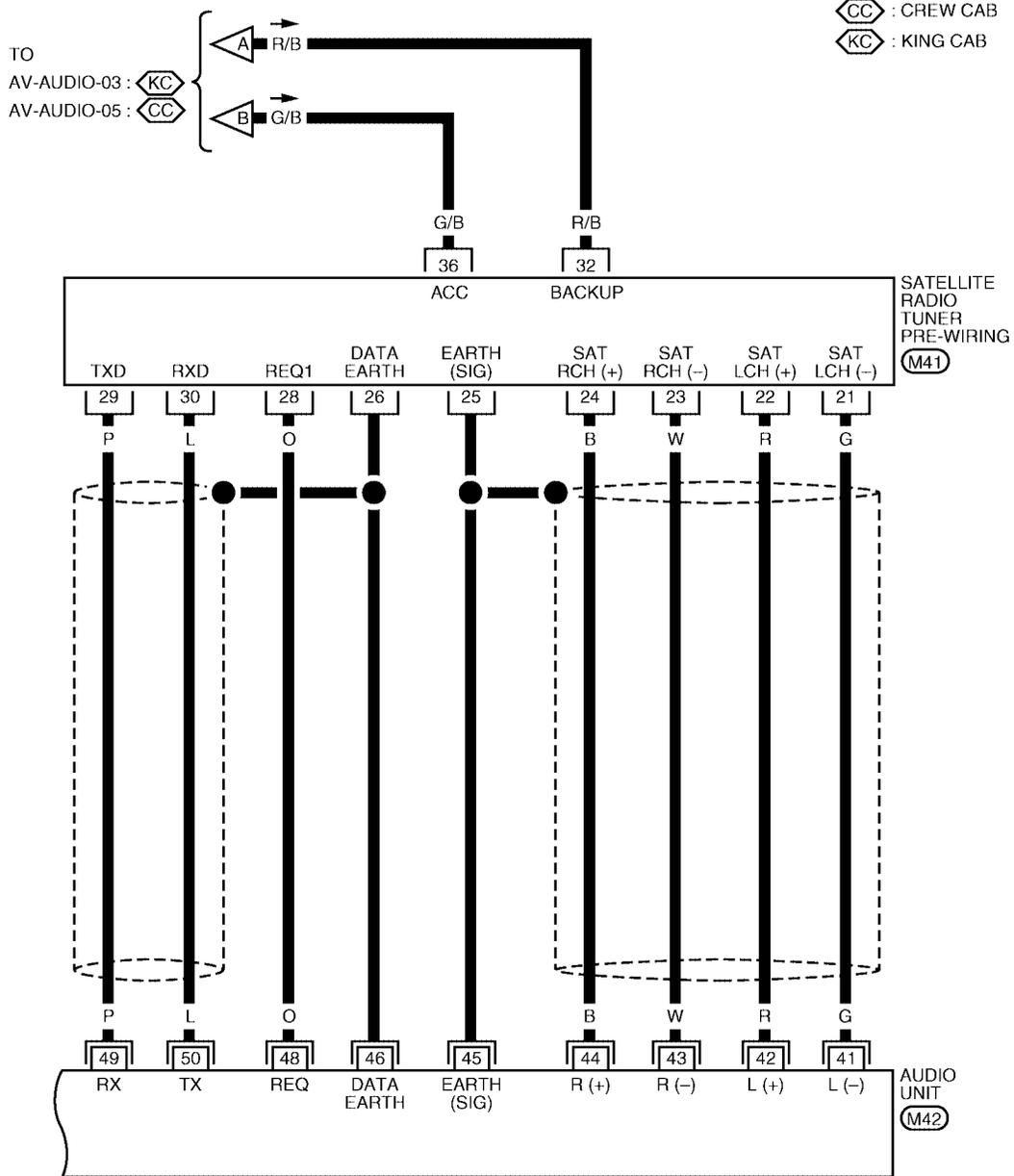
\*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT" OF PG SECTION.

WKWA4292E

# AUDIO

## SATELLITE RADIO TUNER (PRE-WIRING)

AV-AUDIO-11

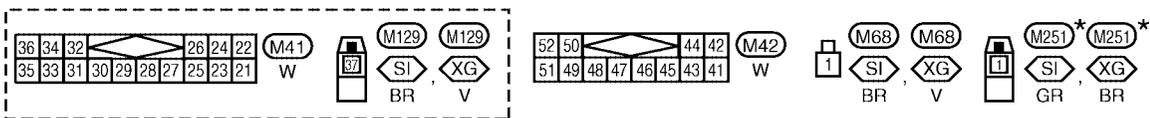
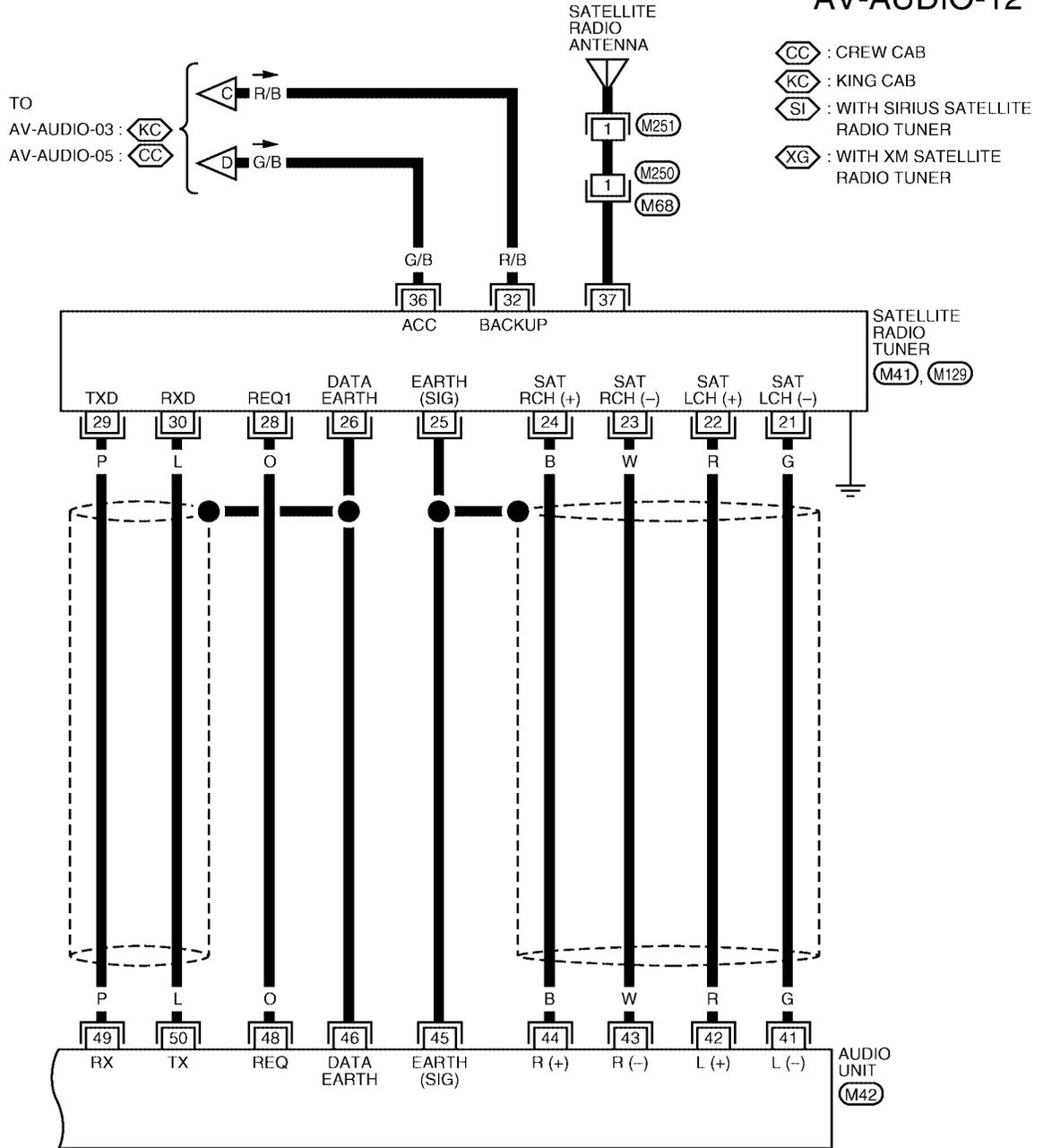


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# AUDIO

## SATELLITE RADIO TUNER (FACTORY INSTALLED)

### AV-AUDIO-12



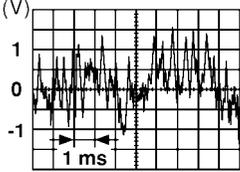
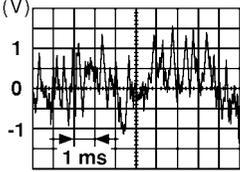
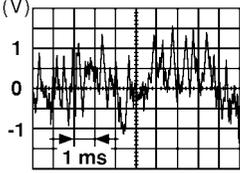
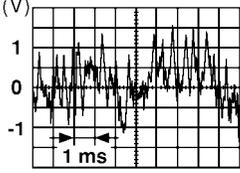
\*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT" OF PG SECTION.

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# AUDIO

## Terminals and Reference Value for Audio Unit (Base System)

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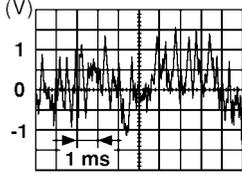
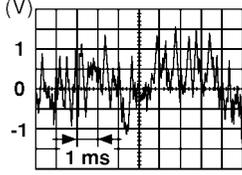
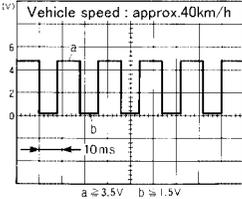
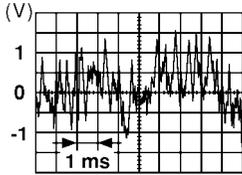
| Terminal<br>(Wire color) |        | Item                                | Signal<br>input/<br>output | Condition          |   | Reference value<br>(Approx.)   | Example of symptom  |
|--------------------------|--------|-------------------------------------|----------------------------|--------------------|---|--|---|
| +                        | -      |                                     |                            | Ignition<br>switch | Operation   |  |   |
| 2 (BR)                   | 1 (L)  | Audio sound<br>signal front<br>LH   | Output                     | ON                 | Receive audio<br>signal   |  <p style="text-align: right; font-size: small;">SKIA0177E</p>   | No sound from front<br>door speaker LH or<br>tweeter LH*.   |
| 4 (LG)                   | 3 (R)  | Audio sound<br>signal front<br>RH   | Output                     | ON                 | Receive audio<br>signal   |  <p style="text-align: right; font-size: small;">SKIA0177E</p>   | No sound from front<br>door speaker RH or<br>tweeter RH*.   |
| 6 (Y)                    | Ground | Battery<br>power                    | Input                      | -                  | -   | Battery voltage  | System does not<br>work properly.   |
| 7 (GR)                   | Ground | Illumination<br>control sig-<br>nal | Input                      | ON                 | Illumination<br>control switch<br>is operated by<br>lighting switch<br>in 1st position. | Changes between 0 and 12V  | Audio unit illumina-<br>tion cannot be con-<br>trolled.   |
| 8 (R)                    | Ground | Illumination<br>signal              | Input                      | OFF                | Lighting switch<br>is in 1st posi-<br>tion.   | Battery voltage  | Audio unit illumina-<br>tion does not come<br>on when lighting<br>switch is in 1st posi-<br>tion. |
|                          |        |                                     |                            |                    | Lighting switch<br>is OFF.  | 3V or less   |   |
| 10 (G/B)                 | Ground | ACC signal                          | Input                      | ON                 | Ignition switch<br>ACC or ON  | Battery voltage  | System does not<br>work properly.   |
| 14 (G)                   | 13 (B) | Audio sound<br>signal rear<br>LH    | Output                     | ON                 | Receive audio<br>signal   |  <p style="text-align: right; font-size: small;">SKIA0177E</p> | No sound from rear<br>door speaker LH.  |
| 16 (GR)                  | 15 (O) | Audio sound<br>signal rear<br>RH    | Output                     | ON                 | Receive audio<br>signal   |  <p style="text-align: right; font-size: small;">SKIA0177E</p> | No sound from rear<br>door speaker RH.  |

\*: Crew cab

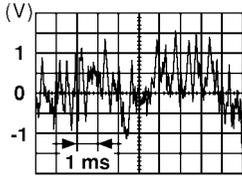
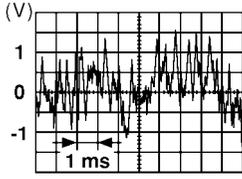
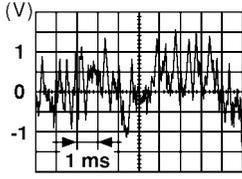
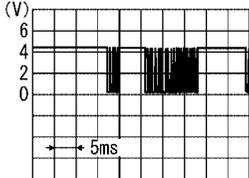
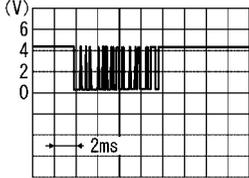
# AUDIO

## Terminals and Reference Value for Audio Unit [Premium System (King Cab)]

EKS00C2V

| Terminal<br>(Wire color) |        | Item                              | Signal<br>input/<br>output | Condition          |   | Reference value<br>(Approx.)   | Example of symptom  |
|--------------------------|--------|-----------------------------------|----------------------------|--------------------|---|--|---|
| +                        | -      |                                   |                            | Ignition<br>switch | Operation   |  |   |
| 2 (BR)                   | 1 (L)  | Audio sound<br>signal front<br>LH | Output                     | ON                 | Receive audio<br>signal   |  <p style="text-align: right;">SKIA0177E</p>   | No sound from front<br>door speaker LH or<br>tweeter LH.                                      |
| 4 (LG)                   | 3 (R)  | Audio sound<br>signal front<br>RH | Output                     | ON                 | Receive audio<br>signal   |  <p style="text-align: right;">SKIA0177E</p>   | No sound from front<br>door speaker RH or<br>tweeter RH.                                      |
| 6 (Y)                    | Ground | Battery<br>power                  | Input                      | -                  | -   | Battery voltage  | System does not<br>work properly.   |
| 7 (GR)                   | Ground | Illumination<br>control signal    | Input                      | ON                 | Illumination control<br>switch is<br>operated by lighting<br>switch in 1st<br>position. | Changes between 0 and 12V  | Audio unit illumination<br>cannot be controlled.  |
| 8 (R)                    | Ground | Illumination<br>signal            | Input                      | OFF                | Lighting switch is<br>in 1st position.  | Battery voltage  | Audio unit illumination<br>does not come<br>on when lighting<br>switch is in 1st<br>position. |
|                          |        |                                   |                            |                    | Lighting switch is<br>OFF.  | 3V or less   |   |
| 9 (SB)                   | Ground | Vehicle<br>speed signal           | Input                      | ON                 | When vehicle<br>speed is approx.<br>40 km/h (25<br>MPH)                                 |  <p style="text-align: right;">SKIA0168E</p> | Speed sensitive volume<br>inoperative.  |
| 10 (G/B)                 | Ground | ACC signal                        | Input                      | ON                 | -   | Battery voltage  | System does not<br>work properly.   |
| 14 (G)                   | 13 (B) | Audio sound<br>signal rear<br>LH  | Output                     | ON                 | Receive audio<br>signal   |  <p style="text-align: right;">SKIA0177E</p> | No sound from rear<br>door speaker LH.  |

# AUDIO

| Terminal<br>(Wire color) |        | Item   | Signal<br>input/<br>output | Condition          |                         | Reference value<br>(Approx.)  | Example of symptom  |
|--------------------------|--------|--|----------------------------|--------------------|-------------------------|---|---|
| +                        | -      |  |                            | Ignition<br>switch | Operation               |   |   |
| 16 (G/R)                 | 15 (O) | Audio sound<br>signal rear<br>RH   | Output                     | ON                 | Receive audio<br>signal | <br>SKIA0177E   | No sound from rear<br>door speaker RH.                                      |
| 42 (R)                   | 41 (G) | Audio left<br>channel<br>sound sig-<br>nal from sat-<br>ellite radio<br>tuner  | Input                      | ON                 | Receive audio<br>signal | <br>SKIA0177E   | No sound from satel-<br>lite radio tuner left<br>channel.                   |
| 44 (B)                   | 43 (W) | Audio right<br>channel<br>sound sig-<br>nal from sat-<br>ellite radio<br>tuner | Input                      | ON                 | Receive audio<br>signal | <br>SKIA0177E  | No sound from satel-<br>lite radio tuner right<br>channel.                  |
| 45                       | -      | Shield<br>ground<br>(audio sig-<br>nal)  | -                          | -                  | -                       | -   | -   |
| 46                       | -      | Shield<br>ground<br>(data)   | -                          | -                  | -                       | -   | -   |
| 48 (O)                   | Ground | Satellite<br>radio tuner<br>request to<br>audio unit                           | Input                      | ON                 | Turn audio unit<br>ON   | 5V  | Satellite radio tuner<br>does not operate<br>properly.                      |
| 49 (P)                   | Ground | Audio RX   | Input                      | ON                 | Operate audio<br>volume | <br>SKIA4403E | Satellite radio tuner<br>audio information<br>does not display<br>properly. |
| 50 (L)                   | Ground | Audio TX   | Output                     | ON                 | Operate audio<br>volume | <br>SKIA4402E | Satellite radio tuner<br>audio information<br>does not display<br>properly. |

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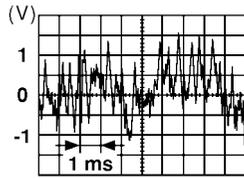
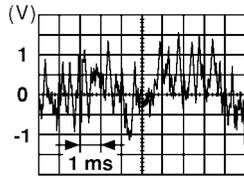
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# AUDIO

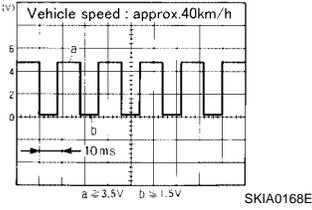
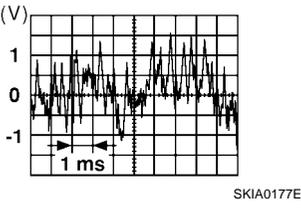
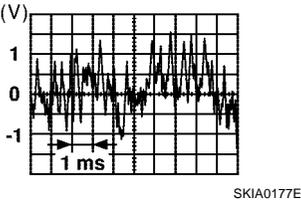
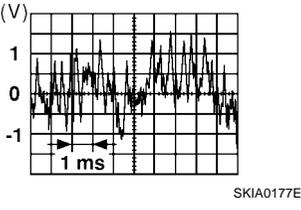
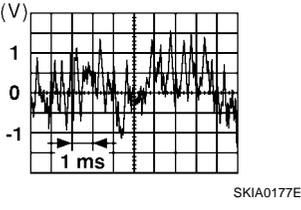
| Terminal<br>(Wire color) |        | Item                        | Signal<br>input/<br>output | Condition          |                           | Reference value<br>(Approx.) | Example of symptom                                     |
|--------------------------|--------|-----------------------------|----------------------------|--------------------|---------------------------|------------------------------|--|
| +                        | -      |                             |                            | Ignition<br>switch | Operation                 |                              |  |
| 74 (R)                   | Ground | Remote<br>control A         | Input                      | ON                 | Press MODE<br>switch      | 0V                           | Steering wheel audio<br>controls do not func-<br>tion. |
|                          |        |                             |                            |                    | Press SEEK UP<br>switch   | 0.75V                        |  |
|                          |        |                             |                            |                    | Press VOL UP<br>switch    | 2V                           |  |
|                          |        |                             |                            |                    | Except for above          | 5V                           |  |
| 75 (GR)                  | Ground | Remote<br>control B         | Input                      | ON                 | Press POWER<br>switch     | 0V                           | Steering wheel audio<br>controls do not func-<br>tion. |
|                          |        |                             |                            |                    | Press SEEK<br>DOWN switch | 0.75V                        |  |
|                          |        |                             |                            |                    | Press VOL<br>DOWN switch  | 2V                           |  |
|                          |        |                             |                            |                    | Except for above          | 5V                           |  |
| 76 (L)                   | -      | Remote<br>control<br>ground | -                          | -                  | -                         | -                            | Steering wheel audio<br>controls do not func-<br>tion. |

## Terminals and Reference Value for Audio Unit [Premium System (Crew Cab)]

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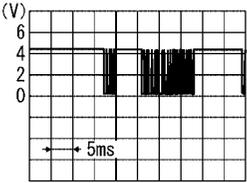
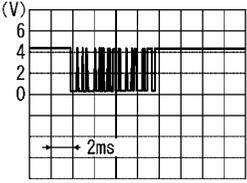
| Terminal<br>(Wire color) |        | Item                                | Signal<br>input/<br>output | Condition          |   | Reference value<br>(Approx.)  | Example of symptom  |
|--------------------------|--------|-------------------------------------|----------------------------|--------------------|---|---|---|
| +                        | -      |                                     |                            | Ignition<br>switch | Operation   |   |   |
| 2 (W)                    | 1 (B)  | Audio sound<br>signal front<br>LH   | Output                     | ON                 | Receive audio<br>signal   |  <p style="text-align: right;"><small>SKIA0177E</small></p> | No sound from front<br>door speaker LH or<br>tweeter LH.  |
| 4 (Y)                    | 3 (BR) | Audio sound<br>signal front<br>RH   | Output                     | ON                 | Receive audio<br>signal   |  <p style="text-align: right;"><small>SKIA0177E</small></p> | No sound from front<br>door speaker RH or<br>tweeter RH.  |
| 6 (Y)                    | Ground | Battery<br>power                    | Input                      | -                  | -   | Battery voltage   | System does not<br>work properly.   |
| 7 (GR)                   | Ground | Illumination<br>control sig-<br>nal | Input                      | ON                 | Illumination con-<br>trol switch is<br>operated by light-<br>ing switch in 1st<br>position. | Changes between 0 and 12V   | Audio unit illumina-<br>tion cannot be con-<br>trolled.   |
| 8 (R)                    | Ground | Illumination<br>signal              | Input                      | OFF                | Lighting switch is<br>in 1st position.  | Battery voltage   | Audio unit illumina-<br>tion does not come<br>on when lighting<br>switch is in 1st posi-<br>tion. |
|                          |        |                                     |                            |                    | Lighting switch is<br>OFF.  | 3V or less  |   |

# AUDIO

| Terminal<br>(Wire color) |          | Item   | Signal<br>input/<br>output | Condition          |   | Reference value<br>(Approx.)   | Example of symptom   |
|--------------------------|----------|--|----------------------------|--------------------|---|--|--|
| +                        | -        |  |                            | Ignition<br>switch | Operation   |  |  |
| 9 (SB)                   | Ground   | Vehicle<br>speed sig-<br>nal   | Input                      | ON                 | When vehicle<br>speed is approx.<br>40 km/h (25<br>MPH) |    | Speed sensitive vol-<br>ume inoperative.                             |
| 10 (G/B)                 | Ground   | ACC signal   | Input                      | ON                 | -   | Battery voltage  | System does not<br>work properly.                                    |
| 11                       | -        | Shield<br>ground   | -                          | -                  | -   | -  | -  |
| 12 (G/W)                 | Ground   | Amp. ON<br>signal  | Output                     | ON                 | -   | More than 6.5V   | Audio amplifier does<br>not work properly.                           |
| 14 (BR)                  | 13 (B/R) | Audio sound<br>signal rear<br>LH   | Output                     | ON                 | Receive audio<br>signal                                 |    | No sound from rear<br>door speaker LH or<br>rear door tweeter LH.    |
| 16 (L)                   | 15 (B/W) | Audio sound<br>signal rear<br>RH   | Output                     | ON                 | Receive audio<br>signal                                 |  | No sound from rear<br>door speaker RH or<br>rear door tweeter<br>RH. |
| 42 (R)                   | 41 (G)   | Audio left<br>channel<br>sound sig-<br>nal from sat-<br>ellite radio<br>tuner  | Input                      | ON                 | Receive audio<br>signal                                 |  | No sound from satel-<br>lite radio tuner left<br>channel.            |
| 44 (B)                   | 43 (W)   | Audio right<br>channel<br>sound sig-<br>nal from sat-<br>ellite radio<br>tuner | Input                      | ON                 | Receive audio<br>signal                                 |  | No sound from satel-<br>lite radio tuner right<br>channel.           |
| 45                       | -        | Shield<br>ground<br>(audio sig-<br>nal)  | -                          | -                  | -   | -  | -  |
| 46                       | -        | Shield<br>ground<br>(data)   | -                          | -                  | -   | -  | -  |

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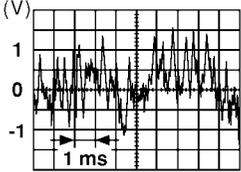
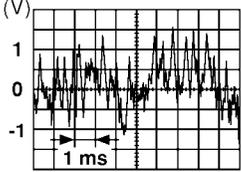
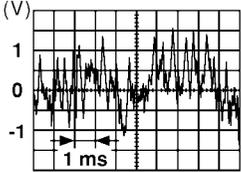
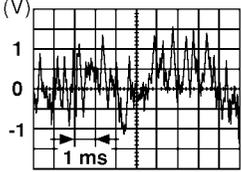
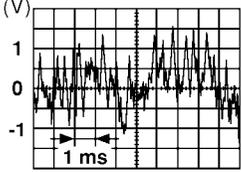
# AUDIO

| Terminal<br>(Wire color) |        | Item   | Signal<br>input/<br>output | Condition          |                           | Reference value<br>(Approx.)   | Example of symptom  |
|--------------------------|--------|--|----------------------------|--------------------|---------------------------|--|---|
| +                        | -      |  |                            | Ignition<br>switch | Operation                 |  |   |
| 48 (O)                   | Ground | Satellite<br>radio tuner<br>request to<br>audio unit | Input                      | ON                 | Turn audio unit<br>ON     | 5V   | Satellite radio tuner<br>does not operate<br>properly.                      |
| 49 (P)                   | Ground | Audio RX   | Input                      | ON                 | Operate audio<br>volume   |  | Satellite radio tuner<br>audio information<br>does not display<br>properly. |
| 50 (L)                   | Ground | Audio TX   | Output                     | ON                 | Operate audio<br>volume   |  | Satellite radio tuner<br>audio information<br>does not display<br>properly. |
| 74 (R)                   | Ground | Remote<br>control A                                  | Input                      | ON                 | Press MODE<br>switch      | 0V   | Steering wheel audio<br>controls do not func-<br>tion.                      |
|                          |        |  |                            |                    | Press SEEK UP<br>switch   | 0.75V  |   |
|                          |        |  |                            |                    | Press VOL UP<br>switch    | 2V   |   |
|                          |        |  |                            |                    | Except for above          | 5V   |   |
| 75 (GR)                  | Ground | Remote<br>control B                                  | Input                      | ON                 | Press POWER<br>switch     | 0V   | Steering wheel audio<br>controls do not func-<br>tion.                      |
|                          |        |  |                            |                    | Press SEEK<br>DOWN switch | 0.75V  |   |
|                          |        |  |                            |                    | Press VOL<br>DOWN switch  | 2V   |   |
|                          |        |  |                            |                    | Except for above          | 5V   |   |
| 76 (L)                   | -      | Remote<br>control<br>ground                          | -                          | -                  | -                         | -  | Steering wheel audio<br>controls do not func-<br>tion.                      |

# AUDIO

## Terminals and Reference Value for Audio Amplifier [Premium System (Crew Cab)]

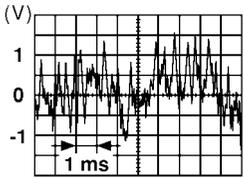
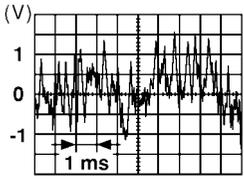
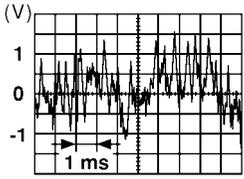
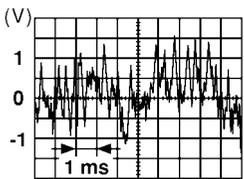
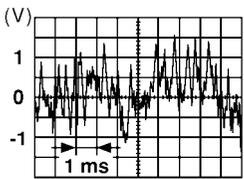
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| Terminal (wire color) |         | Item  | Signal input/output | Condition       |                      | Reference value (Approx.)  | Example of symptom  |
|-----------------------|---------|---|---------------------|-----------------|----------------------|--|---|
| +                     | -       |   |                     | Ignition switch | Operation            |  |   |
| 1 (Y)                 | Ground  | Battery                                       | Input               | -               | -                    | Battery voltage  | System does not work properly.                              |
| 2 (W)                 | 18 (G)  | Subwoofer                                     | Output              | ON              | Receive audio signal |  <p style="text-align: right; font-size: small;">SKIA0177E</p>   | No sound from subwoofer.                                    |
| 3 (O)                 | 19 (BR) | Subwoofer                                     | Output              | ON              | Receive audio signal |  <p style="text-align: right; font-size: small;">SKIA0177E</p>   | No sound from subwoofer.                                    |
| 4 (B)                 | Ground  | Ground  | -                   | ON              | -                    | -  | -   |
| 9 (G/W)               | Ground  | Amp. ON signal                                | Input               | ON              | -                    | More than 6.5V   | System does not work properly.                              |
| 11 (G)                | 27 (B)  | Rear door speaker LH and rear door tweeter LH | Output              | ON              | Receive audio signal |  <p style="text-align: right; font-size: small;">SKIA0177E</p> | No sound from rear door speaker LH or rear door tweeter LH. |
| 12 (GR)               | 28 (O)  | Rear door speaker RH and rear door tweeter RH | Output              | ON              | Receive audio signal |  <p style="text-align: right; font-size: small;">SKIA0177E</p> | No sound from rear door speaker RH or rear door tweeter RH. |
| 13 (W)                | 29 (P)  | Front tweeter RH                              | Output              | ON              | Receive audio signal |  <p style="text-align: right; font-size: small;">SKIA0177E</p> | No sound from front tweeter RH.                             |

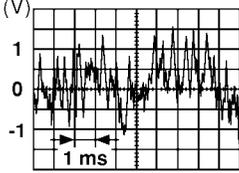
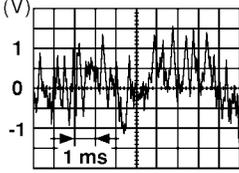
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# AUDIO

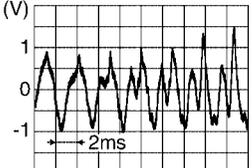
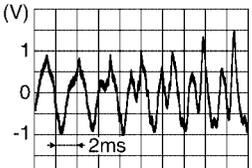
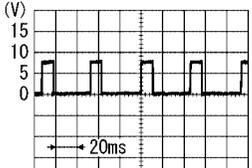
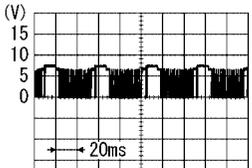
| Terminal<br>(wire color) |         | Item                           | Signal<br>input/<br>output | Condition          |                         | Reference value<br>(Approx.)  | Example of<br>symptom   |
|--------------------------|---------|--------------------------------|----------------------------|--------------------|-------------------------|---|---|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

# AUDIO

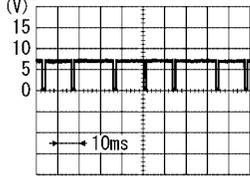
| Terminal<br>(wire color) |         | Item                          | Signal<br>input/<br>output | Condition          |                         | Reference value<br>(Approx.)  | Example of<br>symptom  |
|--------------------------|---------|-------------------------------|----------------------------|--------------------|-------------------------|---|--|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

## Terminals and Reference Value for Satellite Radio Tuner

EKS00HLU

| Terminal<br>(Wire color) |        | Item                                | Signal<br>input/<br>output | Condition          |                                    | Voltage<br>(approx.)   |
|--------------------------|--------|-------------------------------------|----------------------------|--------------------|------------------------------------|--|
| +                        | -      |                                     |                            | Ignition<br>switch | Operation                          |  |
| 22 (R)                   | 21 (G) | Audio signal LH                     | Output                     | ON                 | Receive audio signal.              | <br>SKIB3609E |
| 24 (B)                   | 23 (W) | Audio signal RH                     | Output                     | ON                 | Receive audio signal.              | <br>SKIB3609E |
| 25                       | -      | Shield                              | -                          | -                  | -                                  | -  |
| 26                       |        |                                     | ON                         | -                  |                                    |  |
| 28 (O)                   | Ground | REQ1<br>(SAT-AUDIO)                 | Output                     | ON                 | Set to the satellite radio<br>mode | <br>SKIB3825E |
| 29 (P)                   | Ground | Communication signal<br>(SAT-AUDIO) | Output                     | ON                 | Set to the satellite radio<br>mode | <br>SKIB3824E |

# AUDIO

| Terminal<br>(Wire color) |        | Item                                | Signal<br>input/<br>output | Condition          |                                    | Voltage<br>(approx.)  |
|--------------------------|--------|-------------------------------------|----------------------------|--------------------|------------------------------------|---|
| +                        | -      |                                     |                            | Ignition<br>switch | Operation                          |   |
| 30 (L)                   | Ground | Communication signal<br>(AUDIO-SAT) | Input                      | ON                 | Set to the satellite radio<br>mode | <br><small>SKIB3826E</small> |
| 32 (R/B)                 | Ground | Battery power supply                | Input                      | OFF                | -                                  | Battery voltage   |
| 36 (G/B)                 |        | ACC power supply                    |                            | ACC                |                                    |   |
| 37                       | -      | Antenna signal                      |                            | -                  | -                                  | -   |

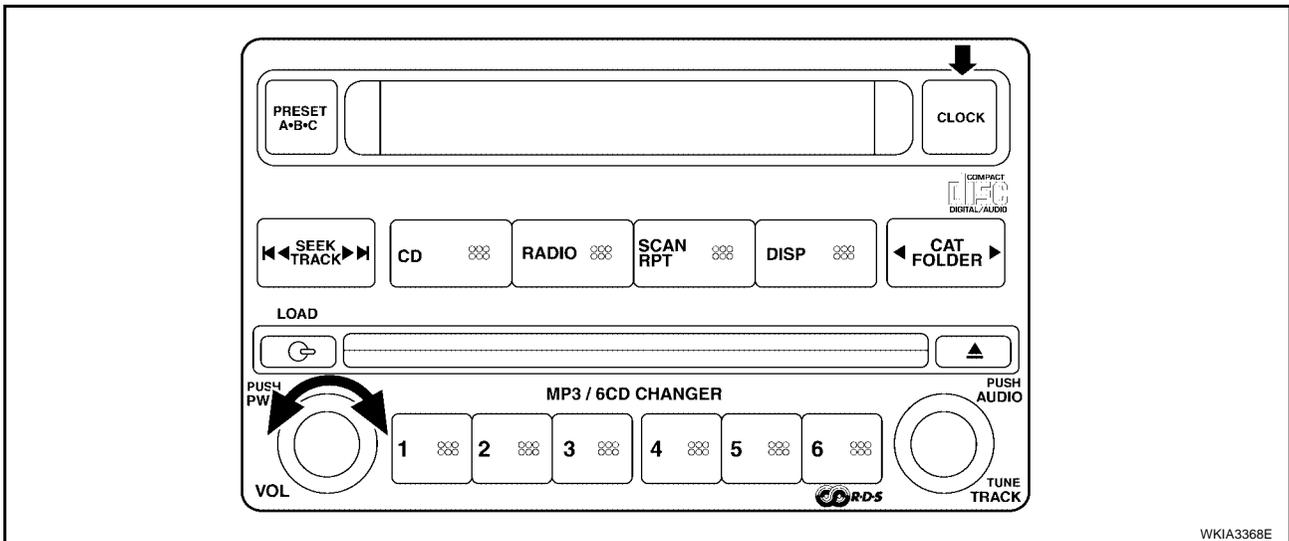
## Audio Unit Self-Diagnosis Function (Premium System)

EKS00BZ8

It can check ON/OFF operation of each switch in the audio unit and diagnose the input signals from the steering switch.

### STARTING THE SELF-DIAGNOSIS MODE

1. Turn ignition switch from OFF to ACC.
2. Press and hold the "CLOCK" switch and turn the volume control dial clockwise or counterclockwise for 30 clicks or more.



Then the self-diagnosis operates. A single beep indicates self-diagnosis mode is active.

3. Initially, all display segments will be illuminated.
4. Press each switch. When each switch is pressed, a single beep will be heard. When the "CAT FOLDER" left arrow is pressed, each speaker will beep separately

### EXITING THE SELF-DIAGNOSIS MODE

Turn the ignition switch OFF or pressing the power button ends self-diagnosis.

### DIAGNOSIS FUNCTION

- It can check for continuity of the switches by sounding a beep when each audio unit switch and steering switch is pressed.
- It can check for continuity of harness between audio unit and steering switch.

# AUDIO

EKS00BZ9

## Trouble Diagnosis

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 SYSTEM)

| Symptom                              | Possible cause  |
|--------------------------------------|---|
| Inoperative                          | <ul style="list-style-type: none"> <li>● Audio unit power circuit check. Refer to <a href="#">AV-36, "Power Supply Circuit Inspection"</a> .</li> </ul> <p>If above check is OK, replace audio unit.</p>  |
| All speakers do not sound            | <ul style="list-style-type: none"> <li>● Audio unit</li> </ul>  |
| One or several speakers do not sound | <ul style="list-style-type: none"> <li>● Front door speaker check. Refer to <a href="#">AV-43, "Sound Is Not Heard From Front Door Speaker or Front Tweeter (Base System)"</a> .</li> <li>● Rear door speaker check. Refer to <a href="#">AV-45, "Sound Is Not Heard From Rear Door Speaker (Base System)"</a> .</li> </ul> |
| Poor sound                           | <ul style="list-style-type: none"> <li>● Audio unit</li> <li>● Speaker</li> </ul>   |
| Noisy                                | <ul style="list-style-type: none"> <li>● Audio unit</li> <li>● Electrical equipment (generator, bonding wire, etc.)</li> </ul>  |

### MALFUNCTION WITH RADIO AND CD [PREMIUM SYSTEM (KING CAB)]

| Symptom                              | Possible cause  |
|--------------------------------------|---|
| Inoperative                          | <ul style="list-style-type: none"> <li>● Audio unit power circuit check. Refer to <a href="#">AV-36, "Power Supply Circuit Inspection"</a> .</li> </ul> <p>If above check is OK, replace audio unit.</p>  |
| Steering switch does not operate     | <ul style="list-style-type: none"> <li>● Steering switch check. Refer to <a href="#">AV-41, "Steering Switch Check (Premium System)"</a> .</li> </ul> <p>If above check is OK, replace audio unit.</p>  |
| All speakers do not sound            | <ul style="list-style-type: none"> <li>● Audio unit</li> </ul>  |
| One or several speakers do not sound | <ul style="list-style-type: none"> <li>● Front door speaker check. Refer to <a href="#">AV-47, "Sound Is Not Heard From Front Door Speaker or Front Tweeter [Premium System (King Cab)]"</a> .</li> <li>● Rear door speaker check. Refer to <a href="#">AV-49, "Sound Is Not Heard From Rear Door Speaker [Premium System (King Cab)]"</a> .</li> </ul> |
| Poor sound                           | <ul style="list-style-type: none"> <li>● Audio unit</li> <li>● Speaker</li> </ul>   |
| Noisy                                | <ul style="list-style-type: none"> <li>● Audio unit</li> <li>● Electrical equipment (generator, bonding wire, etc.)</li> </ul>  |

### MALFUNCTION WITH RADIO AND CD [PREMIUM SYSTEM (CREW CAB)]

| Symptom                          | Possible cause   |
|----------------------------------|--|
| Inoperative                      | <ul style="list-style-type: none"> <li>● Audio unit power circuit check. Refer to <a href="#">AV-36, "Power Supply Circuit Inspection"</a> .</li> </ul> <p>If above check is OK, replace audio unit.</p>   |
| Steering switch does not operate | <ul style="list-style-type: none"> <li>● Steering switch check. Refer to <a href="#">AV-41, "Steering Switch Check (Premium System)"</a> .</li> </ul> <p>If above check is OK, replace audio unit.</p>   |
| All speakers do not sound        | <ul style="list-style-type: none"> <li>● Audio unit</li> <li>● Audio amplifier power supply and ground circuit check. Refer to <a href="#">AV-36, "Power Supply Circuit Inspection"</a> .</li> <li>● Audio amplifier ON signal</li> <li>● Audio amplifier</li> </ul> |

# AUDIO

| Symptom                              | Possible cause   |
|--------------------------------------|--|
| One or several speakers do not sound | <ul style="list-style-type: none"> <li>● Front door speaker check. Refer to <a href="#">AV-51, "Sound Is Not Heard From Front Door Speaker or Front Tweeter [Premium System (Crew Cab)]"</a> .</li> <li>● Rear door speaker check. Refer to <a href="#">AV-54, "Sound Is Not Heard From Rear Door Speaker or Rear Door Tweeter [Premium System (Crew Cab)]"</a> .</li> <li>● Subwoofer check. Refer to <a href="#">AV-58, "Sound Is Not Heard From Subwoofer [Premium System (Crew Cab)]"</a> .</li> </ul> |
| Poor sound                           | <ul style="list-style-type: none"> <li>● Audio unit</li> <li>● Audio amplifier</li> <li>● Speaker</li> </ul>   |
| Noisy                                | <ul style="list-style-type: none"> <li>● Audio unit</li> <li>● Audio amplifier</li> <li>● Electrical equipment (generator, bonding wire, etc.)</li> </ul>  |

## FOR RADIO ONLY

| Symptom   | Possible cause  |
|---|---|
| No sound  | <ul style="list-style-type: none"> <li>● Audio unit</li> <li>● Antenna feeder, wiring or connections</li> </ul>   |
| Noisy   | <ul style="list-style-type: none"> <li>● Audio unit</li> <li>● Audio unit case ground</li> <li>● Antenna feeder, wiring or connections</li> <li>● Noise prevention parts</li> <li>● Electrical equipment</li> <li>● Wire harness of each piece of electrical equipment</li> </ul> |
| All radio stations stored in memory are deleted | <ul style="list-style-type: none"> <li>● Audio unit power circuit. Refer to <a href="#">AV-36, "Power Supply Circuit Inspection"</a> .</li> <li>● Audio unit</li> </ul>   |

### 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"> <li>● CD</li> <li>● Audio unit</li> </ul> |
| CD cannot be ejected.                             |  |
| The CD cannot be played.                          |  |
| The sound skips, stops suddenly, or is distorted. |  |

# AUDIO

## FOR SATELLITE RADIO TUNER (FACTORY INSTALLED) ONLY

| Symptom                              | Possible cause  |
|--------------------------------------|---|
| Inoperative                          | <ul style="list-style-type: none"> <li>● Satellite radio tuner (factory installed) power and ground circuit inspection. Refer to <a href="#">AV-37, "Satellite Radio Tuner (Factory Installed) Power and Ground Supply Circuit Inspection"</a>.</li> <li>● Satellite radio tuner (factory installed) communication circuit inspection. Refer to <a href="#">AV-38, "Satellite Radio Tuner (Factory Installed) Communication Circuit Inspection"</a>.</li> </ul> <p>If above check is OK, replace satellite radio tuner. Refer to <a href="#">AV-61, "SATELLITE RADIO TUNER"</a>.</p>                                      |
| Right or left channel does not sound | <ul style="list-style-type: none"> <li>● Satellite radio tuner (factory installed) right channel audio signal circuit inspection. Refer to <a href="#">AV-41, "Satellite Radio Tuner (Factory Installed) Right Channel Audio Signal Circuit Inspection"</a>.</li> <li>● Satellite radio tuner (factory installed) left channel audio signal circuit inspection. Refer to <a href="#">AV-40, "Satellite Radio Tuner (Factory Installed) Left Channel Audio Signal Circuit Inspection"</a>.</li> </ul> <p>If above check is OK, replace satellite radio tuner. Refer to <a href="#">AV-61, "SATELLITE RADIO TUNER"</a>.</p> |
| Poor reception                       | <ul style="list-style-type: none"> <li>● Location of vehicle. Make certain vehicle is in an open area.</li> <li>● Satellite radio antenna or antenna feeder. Refer to <a href="#">AV-64, "Location of Audio Antenna System Components"</a>.</li> </ul>  |
| Noisy                                | <ul style="list-style-type: none"> <li>● Satellite radio tuner (factory installed) ground.</li> <li>● Satellite radio tuner (factory installed) harness shield wires.</li> <li>● Electrical equipment (generator, bonding wire, etc.). Refer to <a href="#">AV-35, "Noise Inspection"</a>.</li> </ul>   |

### Noise Inspection

EKS00BZA

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.  | <ul style="list-style-type: none"> <li>● Ignition components</li> </ul>  |
|   | <ul style="list-style-type: none"> <li>● Generator</li> </ul>  |
| The occurrence of the noise is linked with the operation of the fuel pump.  | <ul style="list-style-type: none"> <li>● Fuel pump condenser</li> </ul>  |
| Noise only occurs when various electrical components are operating.   | <ul style="list-style-type: none"> <li>● Relay malfunction, audio unit malfunction</li> </ul>  |
|   | <ul style="list-style-type: none"> <li>● Motor case ground</li> <li>● Motor</li> </ul>   |
| The noise occurs constantly, not just under certain conditions.   | <ul style="list-style-type: none"> <li>● Rear defogger coil malfunction (crew cab)</li> <li>● Open circuit in printed heater (crew cab)</li> <li>● Poor ground of antenna feeder line</li> </ul> |
| A cracking or snapping sound occurs while the vehicle is being driven, especially when it is vibrating excessively. | <ul style="list-style-type: none"> <li>● Ground wire of body parts</li> <li>● Ground due to improper part installation</li> <li>● Wiring connections or a short circuit</li> </ul>               |

# AUDIO

EKS00BZB

## Power Supply Circuit Inspection

### 1. CHECK FUSES

Check that the following fuses are not blown.

| Unit            | Terminals | Signal name               | Fuse No. |
|-----------------|-----------|---------------------------|----------|
| Audio unit      | 6         | Battery power             | 29       |
|                 | 10        | Ignition switch ACC or ON | 4        |
| Audio amplifier | 1         | Battery power             | 17       |
|                 | 17        |                           |          |

**OK or NG**

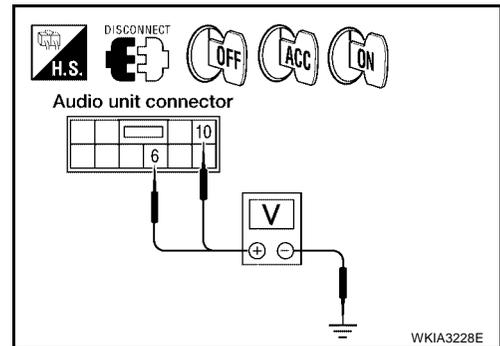
OK >> GO TO 2.

NG >> If fuse is blown, be sure to eliminate cause of problem before installing new fuse. Refer to [PG-4](#), "[POWER SUPPLY ROUTING CIRCUIT](#)".

### 2. POWER SUPPLY CIRCUIT CHECK

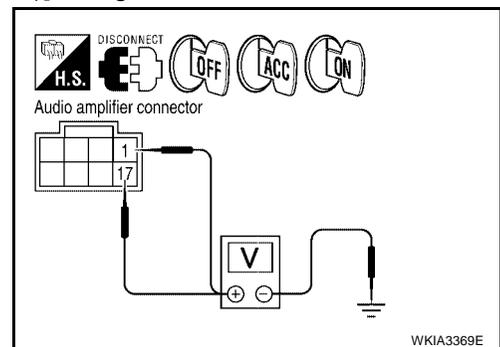
1. Disconnect audio unit connector M43 and audio amplifier connector B158 [premium system (crew cab)].
2. Check voltage between the audio unit and ground.

| Unit       | Terminal No. |          | OFF    | ACC             | ON              |                 |
|------------|--------------|----------|--------|-----------------|-----------------|-----------------|
|            | (+)          |          |        |                 |                 | (-)             |
|            | Connector    | Terminal |        |                 |                 |                 |
| Audio unit | M43          | 6        | Ground | Battery voltage | Battery voltage | Battery voltage |
|            |              | 10       | Ground | 0V              | Battery voltage | Battery voltage |



3. Check voltage between audio amplifier [premium system (crew cab)] and ground.

| Unit            | Terminal No. |          | OFF    | ACC             | ON              |                 |
|-----------------|--------------|----------|--------|-----------------|-----------------|-----------------|
|                 | (+)          |          |        |                 |                 | (-)             |
|                 | Connector    | Terminal |        |                 |                 |                 |
| Audio amplifier | B158         | 1        | Ground | Battery voltage | Battery voltage | Battery voltage |
|                 |              | 17       |        |                 |                 |                 |



**OK or NG**

OK >> ● Crew cab models with premium system, GO TO 3.

- All other models, Inspection End.

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

- Repair harness or connector.

# AUDIO

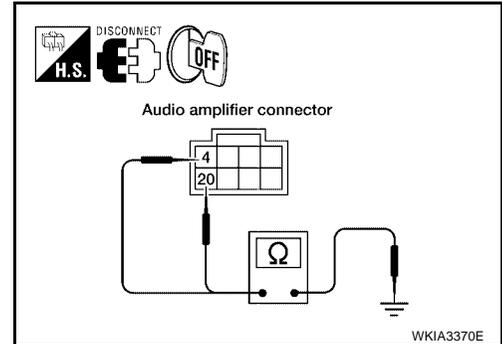
## 3. GROUND CIRCUIT CHECK

1. Turn ignition switch OFF.
2. Check continuity between audio amplifier harness connector B158 terminal 4 and terminal 20 and ground.

**Continuity should exist.**

OK or NG

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



## Satellite Radio Tuner (Factory Installed) Power and Ground Supply Circuit Inspection

EKS00HLV

### 1. CHECK FUSES

Check that the following fuses are not blown.

| Unit                                      | Terminals | Signal name               | Fuse No. |
|---|-----------|---------------------------|----------|
| Satellite radio tuner (factory installed) | 32        | Battery power             | 17       |
|   | 36        | Ignition switch ACC or ON | 4        |

OK or NG

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

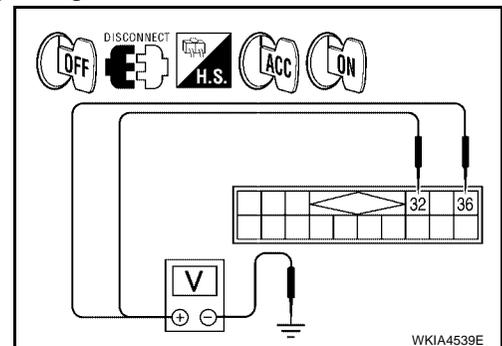
### 2. POWER SUPPLY CIRCUIT CHECK

1. Turn ignition switch OFF.
2. Disconnect satellite radio tuner (factory installed) connector M41.
3. Check voltage between the satellite radio tuner (factory installed) and ground.

| Unit                                     | Terminal No. |          |        | OFF             | ACC             | ON              |
|--|--------------|----------|--------|-----------------|-----------------|-----------------|
|  | (+)          |          | (-)    |                 |                 |                 |
|  | Connector    | Terminal |        |                 |                 |                 |
| Satellite radiotuner (factory installed) | M41          | 32       | Ground | Battery voltage | Battery voltage | Battery voltage |
|  |              | 36       | 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.



# AUDIO

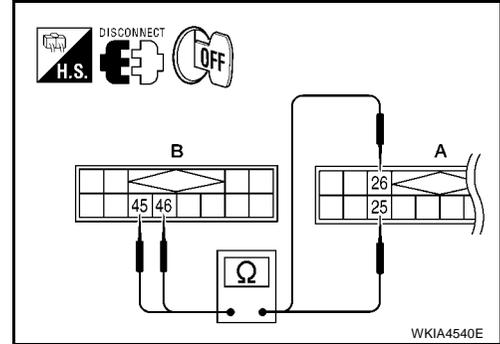
## 3. GROUND CIRCUIT CHECK

1. Turn ignition switch OFF.
2. Inspect satellite radio tuner (factory installed) case ground.
3. Disconnect satellite radio tuner (factory installed) connector M41 (A) and audio unit connector M42 (B).
4. Check continuity between satellite radio tuner (factory installed) and audio unit.

| Terminals             |          |            |          | Continuity |
|-----------------------|----------|------------|----------|------------|
| Satellite radio tuner |          | Audio unit |          |            |
| Connector             | Terminal | Connector  | Terminal |            |
| A: M41                | 25       | B: M42     | 45       | Yes        |
|                       | 26       |            | 46       |            |

### OK or NG

- OK >> Inspection End.  
 NG >> ● Check connector housings for disconnected or loose terminals.  
 ● Repair harness, connector or satellite radio tuner (factory installed) case ground.



## Satellite Radio Tuner (Factory Installed) Communication Circuit Inspection

EKS00HLW

### 1. CHECK HARNESS - 1

1. Turn ignition switch OFF.
2. Disconnect satellite radio tuner (factory installed) connector M41 and audio unit connector M42.
3. Check continuity between satellite radio tuner (factory installed) harness connector M41 (A) terminal 28 and audio unit harness connector M42 (B) terminal 48

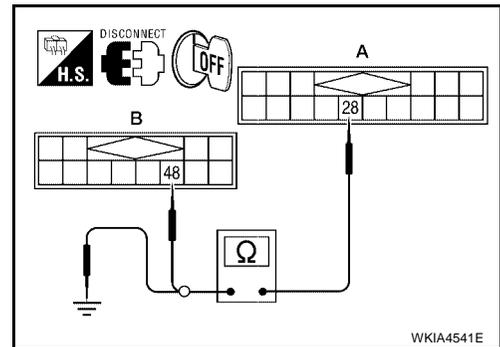
**Continuity should exist.**

4. Check continuity between satellite radio tuner (factory installed) harness connector M41 (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 (factory installed) harness connector M41 (A) terminal 29 and audio unit harness connector M42 (B) terminal 49

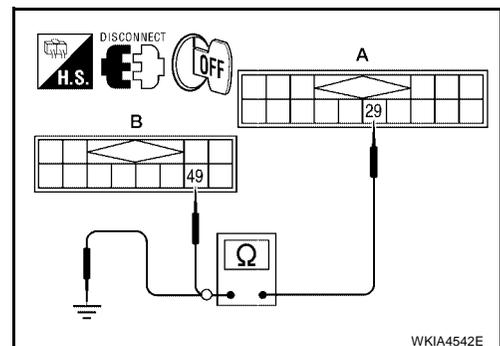
**Continuity should exist.**

2. Check continuity between satellite radio tuner (factory installed) harness connector M41 (A) terminal 29 and ground.

**Continuity should not exist.**

### OK or NG

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



# AUDIO

## 3. CHECK HARNESS - 3

1. Check continuity between satellite radio tuner (factory installed) harness connector M41 (A) terminal 30 and audio unit harness connector M42 (B) terminal 50

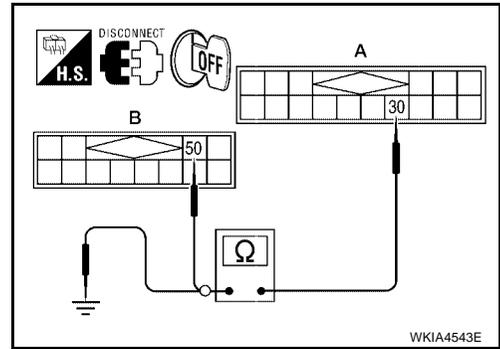
**Continuity should exist.**

2. Check continuity between satellite radio tuner (factory installed) harness connector M41 (A) terminal 30 and ground.

**Continuity should not exist.**

OK or NG

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



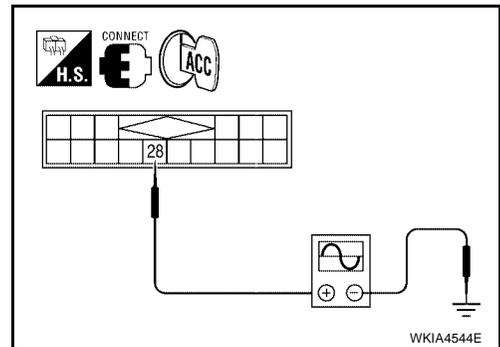
## 4. CHECK REQ1 SIGNAL

1. Connect satellite radio tuner (factory installed) connector and audio unit connector.
2. Turn ignition switch to ACC
3. Check signal between satellite radio tuner (factory installed) harness connector M41 terminal 28 and ground with CONSULT-II or oscilloscope.

**28 - Ground** : Refer to [AV-31, "Terminals and Reference Value for Satellite Radio Tuner"](#) .

OK or NG

- OK >> GO TO 5.
- NG >> Replace audio unit. Refer to [AV-59, "AUDIO UNIT"](#) .



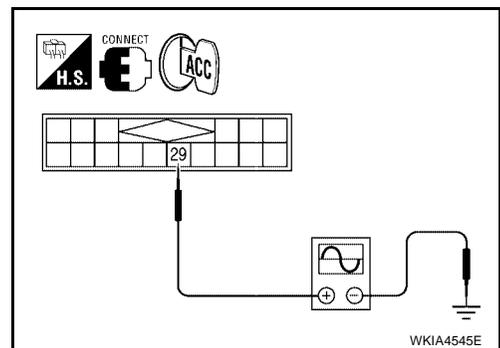
## 5. CHECK TXD SIGNAL

Check signal between satellite radio tuner (factory installed) harness connector M41 terminal 29 and ground with CONSULT-II or oscilloscope.

**29 - Ground** : Refer to [AV-31, "Terminals and Reference Value for Satellite Radio Tuner"](#) .

OK or NG

- OK >> GO TO 6.
- NG >> Replace audio unit. Refer to [AV-59, "AUDIO UNIT"](#) .



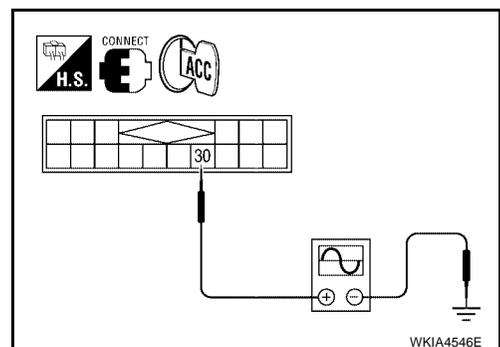
## 6. CHECK RXD SIGNAL

Check signal between satellite radio tuner (factory installed) harness connector M41 terminal 30 and ground with CONSULT-II or oscilloscope.

**30 - Ground** : Refer to [AV-31, "Terminals and Reference Value for Satellite Radio Tuner"](#) .

OK or NG

- OK >> Replace satellite radio tuner (factory installed). Refer to [AV-61, "SATELLITE RADIO TUNER"](#) .
- NG >> Replace audio unit. Refer to [AV-59, "AUDIO UNIT"](#) .



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# AUDIO

## Satellite Radio Tuner (Factory Installed) Left Channel Audio Signal Circuit Inspection

EKS00HLX

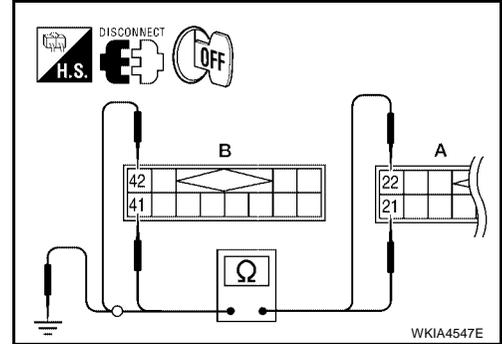
### 1. CHECK HARNESS

1. Turn ignition switch OFF.
2. Disconnect satellite radio tuner (factory installed) connector M41 (A) and audio unit connector M42 (B).
3. Check continuity between satellite radio tuner (factory installed) and audio unit.

| Terminals                                 |          |            |          | Continuity |
|---|----------|------------|----------|------------|
| Satellite radio tuner (factory installed) |          | Audio unit |          |            |
| Connector                                 | Terminal | Connector  | Terminal |            |
| A: M41                                    | 21       | B: M42     | 41       | Yes        |
|   | 22       |            | 42       |            |

4. Check continuity between satellite radio tuner (factory installed) and ground.

| Terminals                                 |          |        |  | Continuity |
|---|----------|--------|--|------------|
| Satellite radio tuner (factory installed) |          | —      |  |            |
| Connector                                 | Terminal |        |  |            |
| A: M41                                    | 21       | Ground |  | No         |
|   | 22       |        |  |            |



OK or NG

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

### 2. CHECK LEFT CHANNEL AUDIO SIGNAL

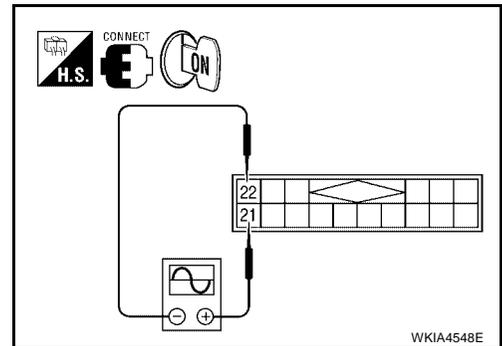
1. Connect satellite radio tuner (factory installed) and audio unit.
2. Turn ignition switch ON.
3. Check signal between satellite radio tuner (factory installed) connector M41 terminals 21 and 22 with CONSULT-II or oscilloscope.

**21 - 22**

: Refer to [AV-31, "Terminals and Reference Value for Satellite Radio Tuner"](#) .

OK or NG

- OK >> Replace satellite radio tuner (factory installed). Refer to [AV-61, "SATELLITE RADIO TUNER"](#) .
- NG >> Replace audio unit. Refer to [AV-59, "AUDIO UNIT"](#) .



# AUDIO

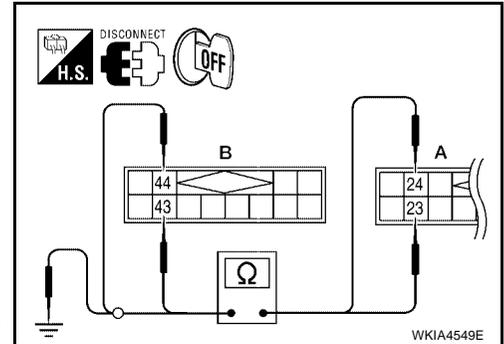
## Satellite Radio Tuner (Factory Installed) Right Channel Audio Signal Circuit Inspection

EKS00HLY

### 1. CHECK HARNESS

1. Turn ignition switch OFF.
2. Disconnect satellite radio tuner (factory installed) connector M41 (A) and audio unit connector M42 (B).
3. Check continuity between satellite radio tuner (factory installed) and audio unit.

| Terminals                                 |          |            |          | Continuity |
|---|----------|------------|----------|------------|
| Satellite radio tuner (factory installed) |          | Audio unit |          |            |
| Connector                                 | Terminal | Connector  | Terminal |            |
| A: M41                                    | 23       | B: M42     | 43       | Yes        |
|   | 24       |            | 44       |            |



4. Check continuity between satellite radio tuner (factory installed) and ground.

| Terminals                                 |          |        | Continuity |
|---|----------|--------|------------|
| Satellite radio tuner (factory installed) |          | —      |            |
| Connector                                 | Terminal |        |            |
| A: M41                                    | 23       | Ground | No         |
|   | 24       |        |            |

#### OK or NG

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

### 2. CHECK RIGHT CHANNEL AUDIO SIGNAL

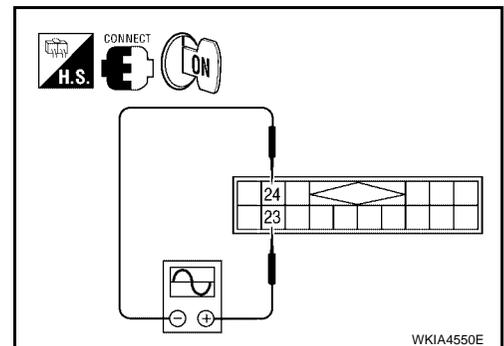
1. Connect satellite radio tuner (factory installed) and audio unit.
2. Turn ignition switch ON.
3. Check signal between satellite radio tuner (factory installed) connector M41 terminals 23 and 24 with CONSULT-II or oscilloscope.

**23 - 24**

**: Refer to AV-31, "Terminals and Reference Value for Satellite Radio Tuner" .**

#### OK or NG

- OK >> Replace satellite radio tuner (factory installed). Refer to [AV-61, "SATELLITE RADIO TUNER"](#) .  
 NG >> Replace audio unit. Refer to [AV-59, "AUDIO UNIT"](#) .



## Steering Switch Check (Premium System)

EKS00BZD

### 1. SELF-DIAGNOSIS FUNCTION CHECK

1. Start audio unit self-diagnosis function. Refer to [AV-32, "Audio Unit Self-Diagnosis Function \(Premium System\)"](#) .
2. Operate steering switch.

#### Does steering switch operate normally?

- YES >> Inspection End.  
 NO >> GO TO 2.

# AUDIO

## 2. CHECK HARNESS

1. Turn ignition switch OFF.
2. Disconnect audio unit connector M45 (A) and spiral cable connector M30 (B).
3. Check continuity between spiral cable harness connector terminal and audio unit harness connector terminal.

| Terminals    |          |            |          | Continuity |
|--------------|----------|------------|----------|------------|
| Spiral cable |          | Audio unit |          |            |
| Connector    | Terminal | Connector  | Terminal |            |
| B: M30       | 32       | A: M45     | 76       | Yes        |
|              | 33       |            | 75       |            |
|              | 34       |            | 74       |            |

4. Check continuity between audio unit and ground.

| Terminals  |          |        | Continuity |
|------------|----------|--------|------------|
| Audio unit |          | —      |            |
| Connector  | Terminal |        |            |
| A: M45     | 74       | Ground | No         |
|            | 75       |        |            |
|            | 76       |        |            |

OK or NG

OK >> GO TO 3.

NG >> Repair harness.

## 3. SPIRAL CABLE CHECK

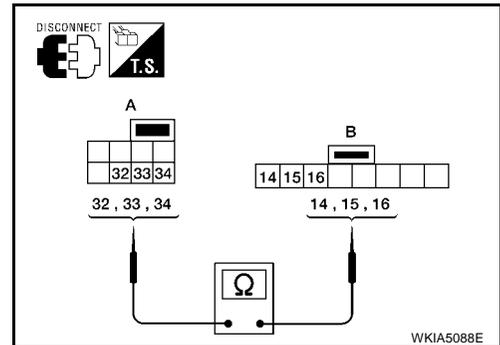
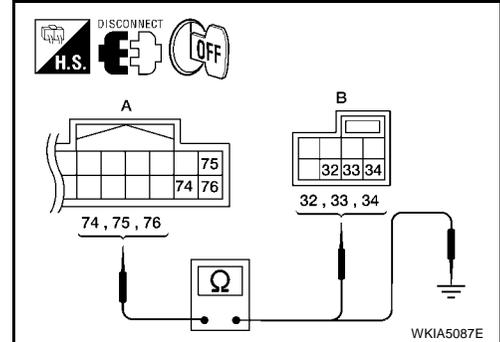
1. Disconnect spiral cable connectors M30 (A) and M102 (B).
2. Check continuity between spiral cable terminals.

| Terminals    |          | Continuity |
|--------------|----------|------------|
| Spiral cable |          |            |
| Terminal     | Terminal |            |
| 32           | 16       | Yes        |
| 33           | 15       |            |
| 34           | 14       |            |

OK or NG

OK >> GO TO 4.

NG >> Replace spiral cable. Refer to [SRS-45, "Removal and Installation"](#).

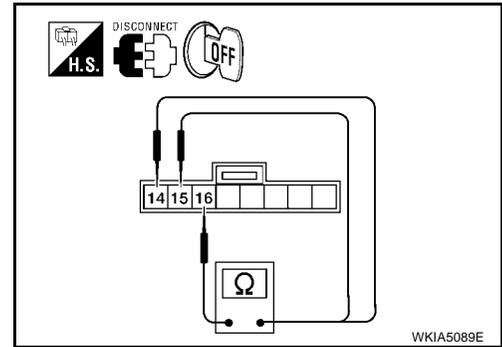


# AUDIO

## 4. CHECK STEERING SWITCH RESISTANCE

Check resistance between steering switch terminals.

| Terminal | Signal name | Condition     | Resistance (Ω)<br>(Approx.)    |     |
|----------|-------------|---------------|--------------------------------|-----|
| 15       | 16          | Seek (down)   | Depress (station) down switch. | 165 |
|          |             | Power         | Depress power switch.          | 0   |
|          |             | Volume (down) | Depress volume down switch.    | 652 |
| 14       | 16          | 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-61, "STEERING WHEEL AUDIO CONTROL SWITCHES"](#).

## Sound Is Not Heard From Front Door Speaker or Front Tweeter (Base System)

EKS00BZG

### 1. HARNESS CHECK

1. Disconnect audio unit connector M43 and suspect speaker or tweeter (crew cab) connector.
2. Check continuity between audio unit harness connector M43 terminal and suspect speaker or tweeter (crew cab) harness connector terminal.

| Terminals  |          |                    |          | Continuity |
|------------|----------|--------------------|----------|------------|
| Audio unit |          | Speaker or tweeter |          |            |
| Connector  | Terminal | Connector          | Terminal |            |
| M43        | 2        | D12                | +        | Yes        |
|            | 1        |                    | -        |            |
|            | 4        | D112               | +        |            |
|            | 3        |                    | -        |            |
|            | 2        | M109*              | +        |            |
|            | 1        |                    | -        |            |
|            | 4        | M111*              | +        |            |
|            | 3        |                    | -        |            |

\*: Crew cab

3. Check continuity between audio unit harness connector M43 terminal and ground.

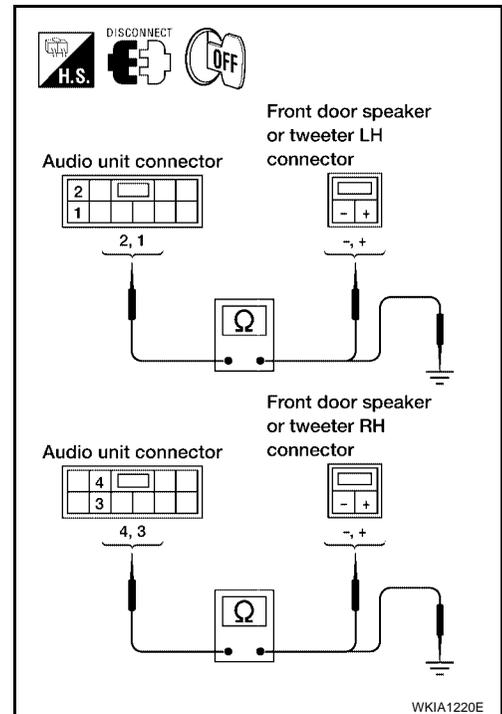
| Terminals  |          |        | Continuity |
|------------|----------|--------|------------|
| Audio unit |          | —      |            |
| Connector  | Terminal |        |            |
| M43        | 2        | Ground | No         |
|            | 1        |        |            |
|            | 4        |        |            |
|            | 3        |        |            |

OK or NG

OK >> GO TO 2.

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

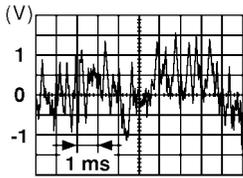
● Repair harness or connector.



# AUDIO

## 2. FRONT SPEAKER SIGNAL CHECK

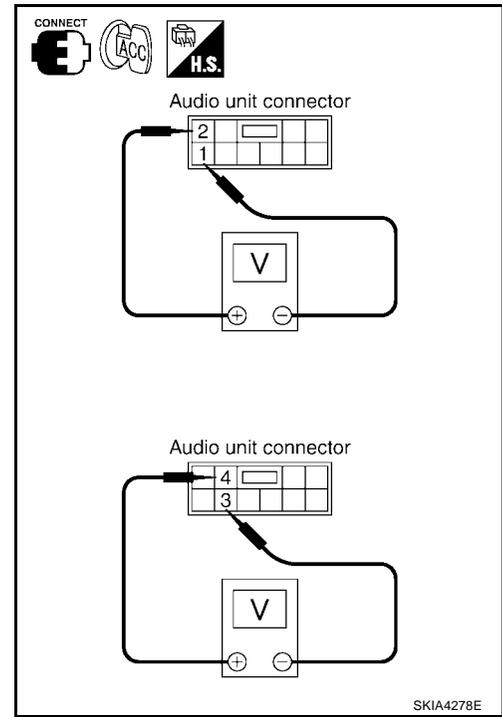
1. Connect audio unit connector and front speaker or tweeter (crew cab) connector.
2. Turn ignition switch to ACC.
3. Push "POWER" switch.
4. Check the signal between audio unit harness connector terminal and ground with CONSULT-II or oscilloscope.

| Terminals           |               |                     |               | Condi-<br>tion             | Reference<br>signal   |
|---------------------|---------------|---------------------|---------------|----------------------------|---|
| (+) Terminal        |               | (-) Terminal        |               |                            |   |
| Con-<br>nec-<br>tor | Termi-<br>nal | Con-<br>nec-<br>tor | Termi-<br>nal |                            |   |
| M43                 | 2             | M43                 | 1             | Receive<br>audio<br>signal |  |
|                     | 4             |                     | 3             |                            |   |

SKIA0177E

### OK or NG

- OK >> Replace speaker. Refer to [AV-59, "FRONT DOOR SPEAKER"](#).
- NG >> Replace audio unit. Refer to [AV-59, "Removal and Installation"](#).



# AUDIO

## Sound Is Not Heard From Rear Door Speaker (Base System)

EKS00BZH

### 1. HARNESS CHECK

1. Disconnect audio unit connector M44 and suspect speaker connector.
2. Check continuity between audio unit harness connector M44 terminal and suspect speaker harness connector terminal.

| Terminals  |          |                    |          | Continuity |
|------------|----------|--------------------|----------|------------|
| Audio unit |          | Speaker or tweeter |          |            |
| Connector  | Terminal | Connector          | Terminal |            |
| M44        | 13       | B76 *1             | -        | Yes        |
|            | 14       |                    | +        |            |
|            | 15       | B160 *1            | -        |            |
|            | 16       |                    | +        |            |
|            | 13       | D207 *2            | -        |            |
|            | 14       |                    | +        |            |
|            | 15       | D307 *2            | -        |            |
|            | 16       |                    | +        |            |

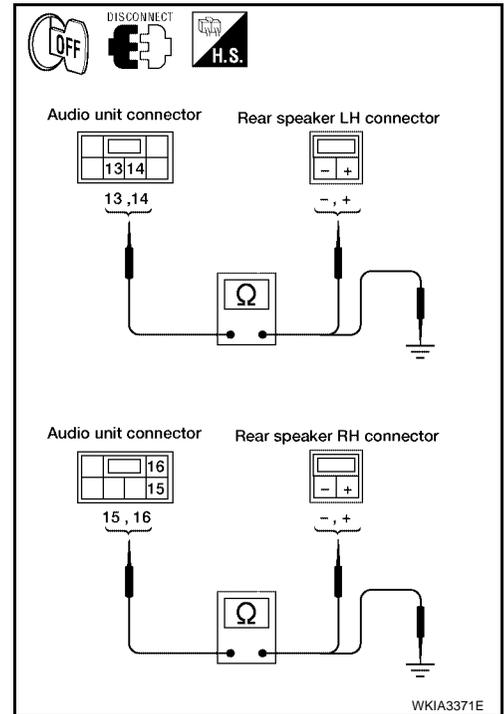
\*1: King cab  
\*2: Crew cab

3. Check continuity between audio unit harness connector M44 terminal and ground.

| Terminals  |          |        | Continuity |
|------------|----------|--------|------------|
| Audio unit |          | —      |            |
| Connector  | Terminal |        |            |
| M44        | 13       | Ground | No         |
|            | 14       |        |            |
|            | 15       |        |            |
|            | 16       |        |            |

OK or NG

- OK >> GO TO 2.  
 NG >> ● Check connector housings for disconnected or loose terminals.  
 ● Repair harness or connector.



WKIA3371E

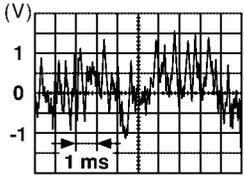
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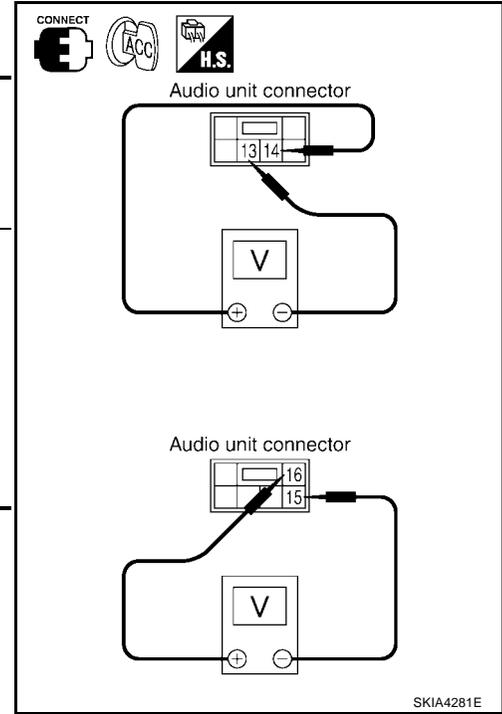
AV

# AUDIO

## 2. REAR SPEAKER SIGNAL CHECK

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

| Terminals |          |           |          | Condition            | Reference signal  |
|-----------|----------|-----------|----------|----------------------|---|
| (+)       |          | (-)       |          |                      |   |
| Connector | Terminal | Connector | Terminal |                      |   |
| M44       | 14       | M44       | 13       | Receive audio signal |  |
|           | 16       |           | 15       |                      |   |



### OK or NG

- OK >> Replace rear door speaker. Refer to [AV-60, "REAR DOOR SPEAKER - CREW CAB"](#) or [AV-60, "REAR DOOR SPEAKER - KING CAB"](#).
- NG >> Replace audio unit. Refer to [AV-59, "Removal and Installation"](#).

# AUDIO

## Sound Is Not Heard From Front Door Speaker or Front Tweeter [Premium System (King Cab)]

EKS00C2W

### 1. HARNESS CHECK

1. Disconnect audio unit connector M43 and suspect speaker or tweeter connector.
2. Check continuity between audio unit harness connector M43 terminal and suspect speaker or tweeter harness connector terminal.

| Terminals  |          |                    |          | Continuity |
|------------|----------|--------------------|----------|------------|
| Audio unit |          | Speaker or tweeter |          |            |
| Connector  | Terminal | Connector          | Terminal |            |
| M43        | 2        | D12                | +        | Yes        |
|            | 1        |                    | -        |            |
|            | 4        | D112               | +        |            |
|            | 3        |                    | -        |            |
|            | 2        | M109               | +        |            |
|            | 1        |                    | -        |            |
|            | 4        | M111               | +        |            |
|            | 3        |                    | -        |            |

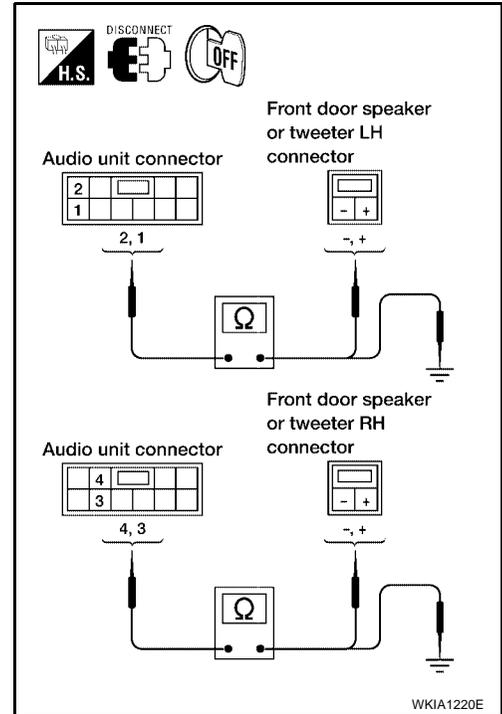
3. Check continuity between audio unit harness connector M43 terminal and ground.

| Terminals  |          |        | Continuity |
|------------|----------|--------|------------|
| Audio unit |          | —      |            |
| Connector  | Terminal |        |            |
| M43        | 2        | Ground | No         |
|            | 1        |        |            |
|            | 4        |        |            |
|            | 3        |        |            |

OK or NG

OK >> GO TO 2.

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

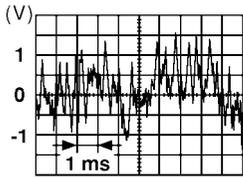


WKIA1220E

# AUDIO

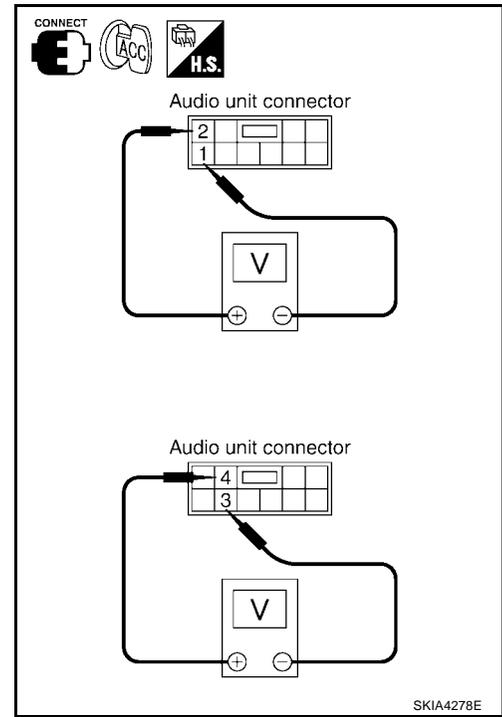
## 2. FRONT SPEAKER SIGNAL CHECK

1. Connect audio unit connector and front speaker or tweeter connector.
2. Turn ignition switch to ACC.
3. Push "POWER" switch.
4. Check the signal between audio unit harness connector terminal and ground with CONSULT-II or oscilloscope.

| Con-<br>nec-<br>tor | Terminals     |                     | Condi-<br>tion | Reference<br>signal   |
|---------------------|---------------|---------------------|----------------|---|
|                     | (+)           | (-)                 |                |   |
|                     | Termi-<br>nal | Con-<br>nec-<br>tor | Termi-<br>nal  |   |
| M43                 | 2<br>4        | M43                 | 1<br>3         | Receive<br>audio<br>signal<br><br><br><small>SKIA0177E</small> |

### OK or NG

- OK >> Replace speaker. Refer to [AV-59, "FRONT DOOR SPEAKER"](#).
- NG >> Replace audio unit. Refer to [AV-59, "Removal and Installation"](#).



# AUDIO

## Sound Is Not Heard From Rear Door Speaker [Premium System (King Cab)] EKS00C2X

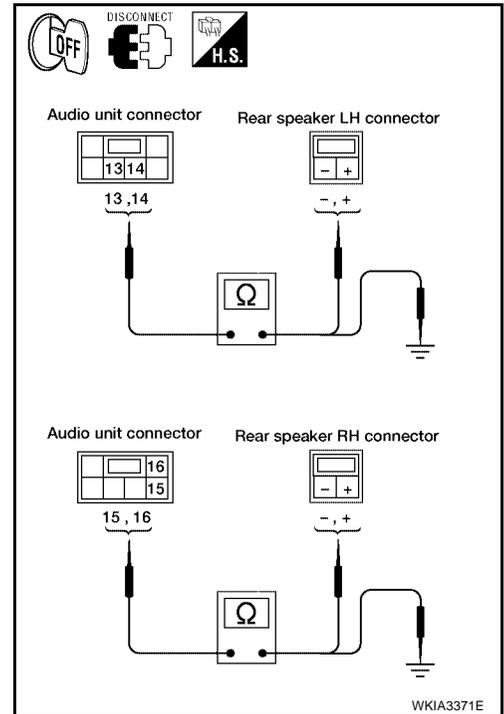
### 1. HARNESS CHECK

1. Disconnect audio unit connector M44 and suspect speaker connector.
2. Check continuity between audio unit harness connector M44 terminal and suspect speaker harness connector terminal.

| Terminals  |          |                    |          | Continuity |
|------------|----------|--------------------|----------|------------|
| Audio unit |          | Speaker or tweeter |          |            |
| Connector  | Terminal | Connector          | Terminal |            |
| M44        | 13       | B76                | -        | Yes        |
|            | 14       |                    | +        |            |
|            | 15       | B160               | -        |            |
|            | 16       |                    | +        |            |

3. Check continuity between audio unit harness connector M44 terminal and ground.

| Terminals  |          |        | Continuity |
|------------|----------|--------|------------|
| Audio unit |          | —      |            |
| Connector  | Terminal |        |            |
| M44        | 13       | Ground | No         |
|            | 14       |        |            |
|            | 15       |        |            |
|            | 16       |        |            |



#### OK or NG

- OK >> GO TO 2.  
 NG >> ● Check connector housings for disconnected or loose terminals.  
 ● Repair harness or connector.

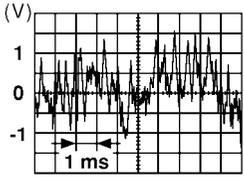
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# AUDIO

## 2. REAR SPEAKER SIGNAL CHECK

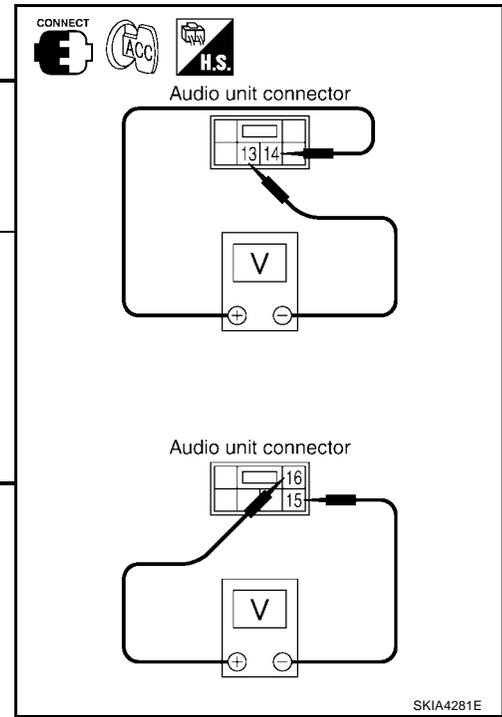
1. Connect audio unit connector and rear speaker connector.
2. Turn ignition switch to ACC.
3. Push "POWER" switch.
4. Check the signal between audio unit harness connector terminals with CONSULT-II or oscilloscope.

| Terminals      |               |                |               | Condi-<br>tion             | Reference<br>signal   |
|----------------|---------------|----------------|---------------|----------------------------|---|
| (+)            |               | (-)            |               |                            |   |
| Con-<br>nector | Termi-<br>nal | Con-<br>nector | Termi-<br>nal |                            |   |
| M44            | 14            | M44            | 13            | Receive<br>audio<br>signal |  |
|                | 16            |                | 15            |                            |   |

SKIA0177E

### OK or NG

- OK >> Replace rear door speaker. Refer to [AV-60, "REAR DOOR SPEAKER - KING CAB"](#).
- NG >> Replace audio unit. Refer to [AV-59, "Removal and Installation"](#).



# AUDIO

## Sound Is Not Heard From Front Door Speaker or Front Tweeter [Premium System (Crew Cab)]

EKS00BZI

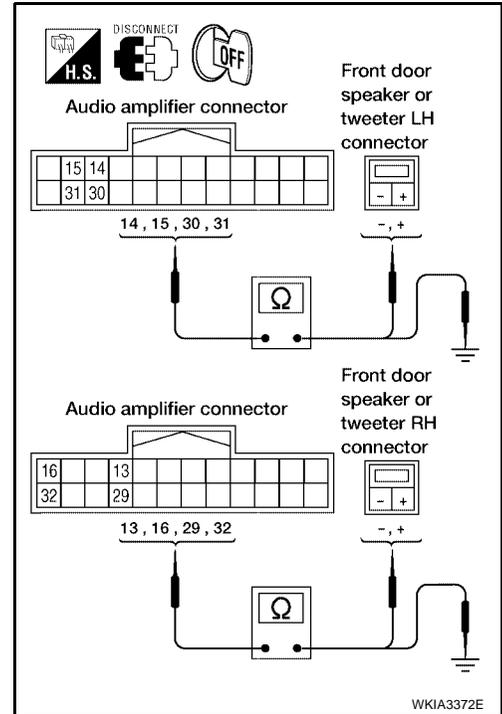
### 1. HARNESS CHECK

1. Disconnect audio amplifier connector B159 and suspect speaker connector.
2. Check continuity between audio amplifier harness connector terminal B159 and suspect speaker harness connector terminal.

| Terminals       |          |                    |          | Continuity |
|-----------------|----------|--------------------|----------|------------|
| Audio amplifier |          | Speaker or tweeter |          |            |
| Connector       | Terminal | Connector          | Terminal |            |
| B159            | 15       | D12                | +        | Yes        |
|                 | 31       |                    | -        |            |
|                 | 16       | D112               | +        |            |
|                 | 32       |                    | -        |            |
|                 | 14       | M109               | +        |            |
|                 | 30       |                    | -        |            |
|                 | 13       | M111               | +        |            |
|                 | 29       |                    | -        |            |

3. Check continuity between audio amplifier harness connector terminal B159 and ground.

| Terminals       |          |        | Continuity |
|-----------------|----------|--------|------------|
| Audio amplifier |          | —      |            |
| Connector       | Terminal | Ground |            |
| B159            | 13       | Ground | No         |
|                 | 14       |        |            |
|                 | 15       |        |            |
|                 | 16       |        |            |
|                 | 29       |        |            |
|                 | 30       |        |            |
|                 | 31       |        |            |
|                 | 32       |        |            |



#### OK or NG

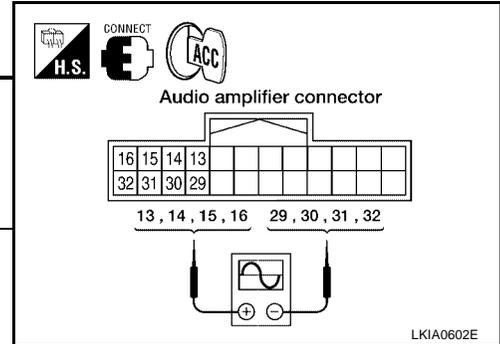
- OK >> GO TO 2.
- NG >> ● Check connector housings for disconnected or loose terminals.
  - Repair harness or connector.

# AUDIO

## 2. FRONT SPEAKER SIGNAL CHECK

1. Connect audio amplifier connector B159 and suspect speaker connector.
2. Turn ignition switch to ACC.
3. Push "POWER" switch.
4. Check the signal between audio amplifier harness connector B159 terminals with CONSULT-II or oscilloscope.

| Terminals |          |           |          | Condition            | Reference signal |
|-----------|----------|-----------|----------|----------------------|------------------|
| (+)       |          | (-)       |          |                      |                  |
| Connector | Terminal | Connector | Terminal |                      |                  |
| B159      | 13       | B159      | 29       | Receive audio signal |                  |
|           | 14       |           | 30       |                      |                  |
|           | 15       |           | 31       |                      |                  |
|           | 16       |           | 32       |                      |                  |



OK or NG

- OK >> Replace suspect speaker. Refer to [AV-59, "FRONT DOOR SPEAKER"](#).
- NG >> GO TO 3.

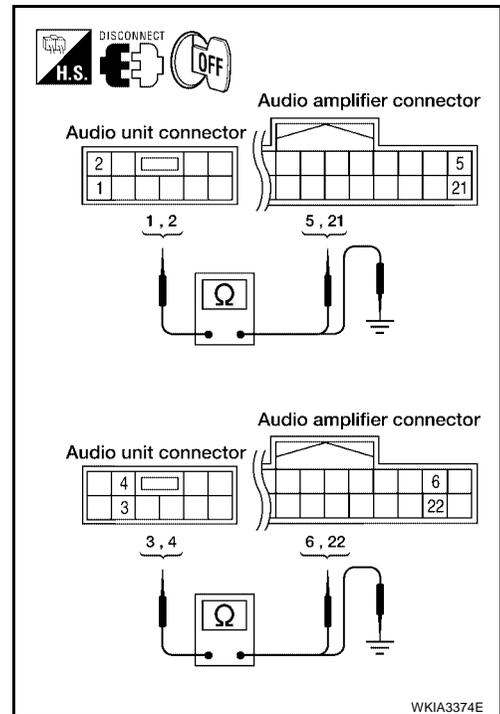
## 3. HARNESS CHECK

1. Turn ignition switch OFF.
2. Disconnect audio unit connector M43 and audio amplifier connector B159.
3. Check continuity between audio unit harness connector terminals and audio amplifier harness connector terminals.

| Terminals  |          |                 |          | Continuity |
|------------|----------|-----------------|----------|------------|
| Audio unit |          | Audio amplifier |          |            |
| Connector  | Terminal | Connector       | Terminal |            |
| M43        | 1        | B159            | 6        | Yes        |
|            | 2        |                 | 22       |            |
|            | 3        |                 | 5        |            |
|            | 4        |                 | 21       |            |

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

| Terminals  |          |        |  | Continuity |
|------------|----------|--------|--|------------|
| Audio unit |          | —      |  |            |
| Connector  | Terminal |        |  |            |
| M43        | 1        | Ground |  | No         |
|            | 2        |        |  |            |
|            | 3        |        |  |            |
|            | 4        |        |  |            |



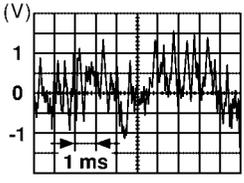
OK or NG

- OK >> GO TO 4.
- NG >> ● Check connector housings for disconnected or loose terminals.  
● Repair harness or connector.

# AUDIO

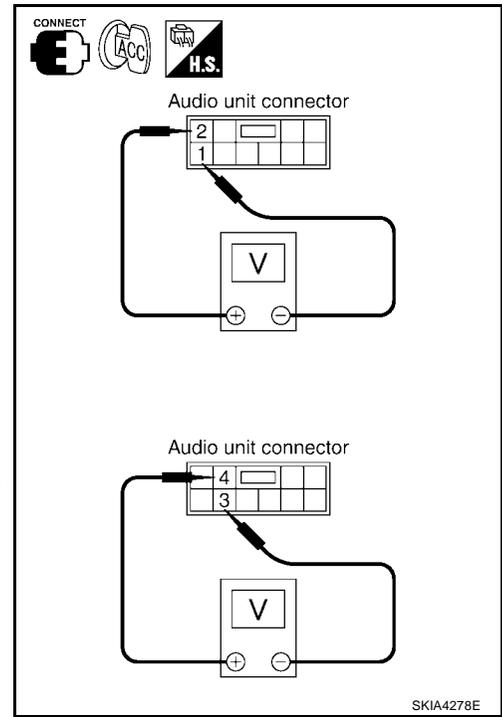
## 4. FRONT SPEAKER SIGNAL CHECK

1. Connect audio unit connector and audio amplifier connector.
2. Turn ignition switch to ACC.
3. Push "POWER" switch.
4. Check the signal between audio unit harness connector terminals with CONSULT-II or oscilloscope.

| Terminals      |               |                |               | Condi-<br>tion             | Reference<br>signal   |
|----------------|---------------|----------------|---------------|----------------------------|---|
| (+)            |               | (-)            |               |                            |   |
| Con-<br>nector | Termi-<br>nal | Con-<br>nector | Termi-<br>nal |                            |   |
| M43            | 2             | M43            | 1             | Receive<br>audio<br>signal |  |
|                | 4             |                | 3             |                            |   |

### OK or NG

- OK >> Replace audio amplifier. Refer to [AV-59, "AUDIO AMPLIFIER \(PREMIUM SYSTEM\) - CREW CAB"](#).
- NG >> Replace audio unit. Refer to [AV-59, "Removal and Installation"](#).



SKIA4278E

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# AUDIO

## Sound Is Not Heard From Rear Door Speaker or Rear Door Tweeter [Premium System (Crew Cab)]

EKS00BZJ

### 1. HARNESS CHECK

1. Disconnect audio amplifier connector B159 and suspect speaker connector.
2. Check continuity between audio amplifier harness connector terminal B159 and suspect speaker harness connector terminal.

| Terminals       |          |                    |          | Continuity |
|-----------------|----------|--------------------|----------|------------|
| Audio amplifier |          | Speaker or tweeter |          |            |
| Connector       | Terminal | Connector          | Terminal |            |
| B159            | 11       | D207               | +        | Yes        |
|                 | 27       |                    | -        |            |
|                 | 12       | D307               | +        |            |
|                 | 28       |                    | -        |            |
|                 | 11       | D208               | +        |            |
|                 | 27       |                    | -        |            |
|                 | 12       | D308               | +        |            |
|                 | 28       |                    | -        |            |

3. Check continuity between audio amplifier harness connector B159 terminal and ground.

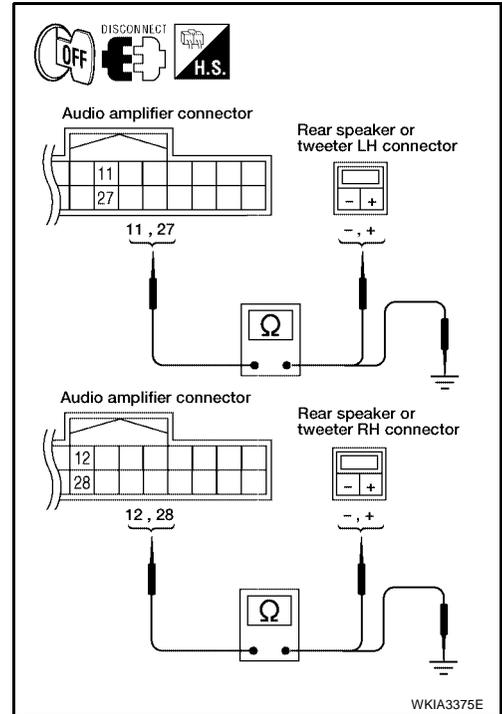
| Terminals       |          |        |    | Continuity |
|-----------------|----------|--------|----|------------|
| Audio amplifier |          | —      |    |            |
| Connector       | Terminal |        |    |            |
| B159            | 11       | Ground | No |            |
|                 | 27       |        |    |            |
|                 | 12       |        |    |            |
|                 | 28       |        |    |            |

**OK or NG**

OK >> GO TO 2.

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

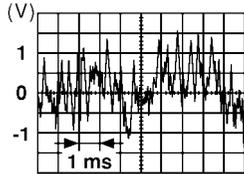
- Repair harness or connector.



# AUDIO

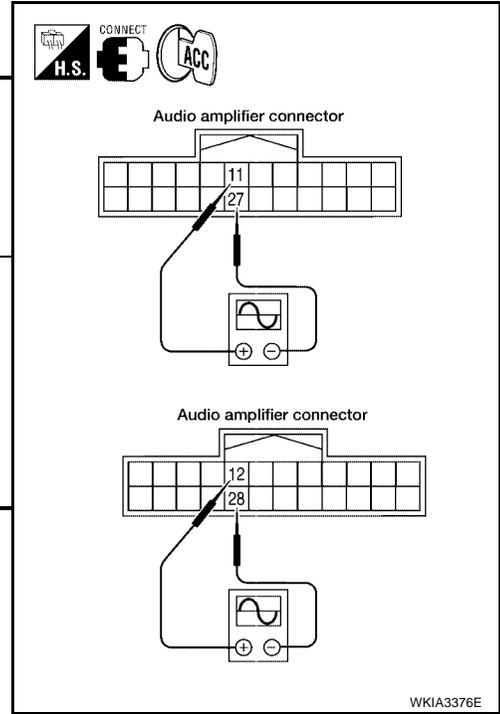
## 2. REAR SPEAKER SIGNAL CHECK

1. Connect audio amplifier connector B159 and suspect speaker connector.
2. Turn ignition switch to ACC.
3. Push "POWER" switch.
4. Check the signal between audio amplifier harness connector B159 terminals with CONSULT-II or oscilloscope.

| Terminals           |          |                     |          | Condi-<br>tion             | Reference<br>signal   |
|---------------------|----------|---------------------|----------|----------------------------|---|
| (+)                 |          | (-)                 |          |                            |   |
| Con-<br>nec-<br>tor | Terminal | Con-<br>nec-<br>tor | Terminal |                            |   |
| B159                | 11       | B159                | 27       | Receive<br>audio<br>signal |  |
|                     | 12       |                     | 28       |                            |   |

### OK or NG

- OK >> Replace suspect speaker. Refer to [AV-60, "REAR DOOR SPEAKER - CREW CAB"](#).
- NG >> GO TO 3.



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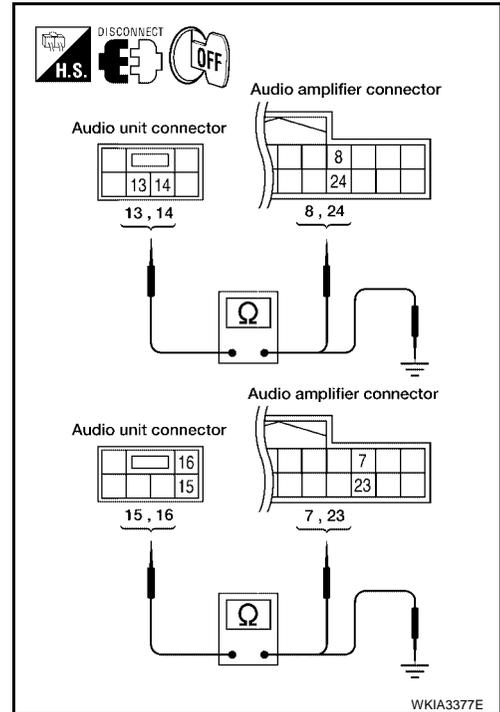
## 3. HARNESS CHECK

1. Turn ignition switch OFF.
2. Disconnect audio unit connector M44 and audio amplifier connector B159.
3. Check continuity between audio unit harness connector M44 terminals and audio amplifier harness connector B159 terminals.

| Terminals  |          |                 |          | Continuity |
|------------|----------|-----------------|----------|------------|
| Audio unit |          | Audio amplifier |          |            |
| Connector  | Terminal | Connector       | Terminal |            |
| M44        | 13       | B159            | 8        | Yes        |
|            | 14       |                 | 24       |            |
|            | 15       |                 | 7        |            |
|            | 16       |                 | 23       |            |

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

| Terminals  |          |        | Continuity |
|------------|----------|--------|------------|
| Audio unit |          | —      |            |
| Connector  | Terminal |        |            |
| M44        | 13       | Ground | No         |
|            | 14       |        |            |
|            | 15       |        |            |
|            | 16       |        |            |



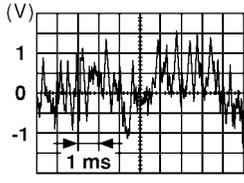
### OK or NG

- OK >> GO TO 4.
- NG >> ● Check connector housings for disconnected or loose terminals.  
● Repair harness or connector.

# AUDIO

## 4. REAR SPEAKER SIGNAL CHECK

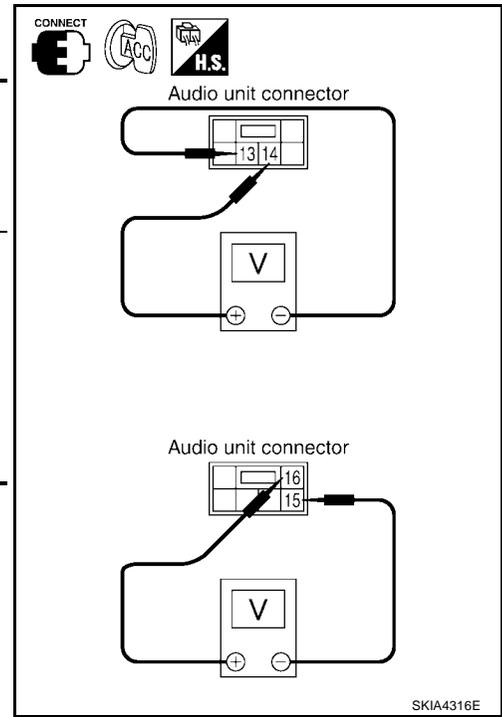
1. Connect audio unit connector M44 and audio amplifier connector B159.
2. Turn ignition switch to ACC.
3. Push "POWER" switch.
4. Check the signal between audio unit harness connector M44 terminals with CONSULT-II or oscilloscope.

| Terminals      |          |                |          | Condi-<br>tion             | Reference<br>signal   |
|----------------|----------|----------------|----------|----------------------------|---|
| (+)            |          | (-)            |          |                            |   |
| Con-<br>nector | Terminal | Con-<br>nector | Terminal |                            |   |
| M44            | 14       | M44            | 13       | Receive<br>audio<br>signal |  |
|                | 16       |                | 15       |                            |   |

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### OK or NG

- OK >> Replace audio amplifier. Refer to [AV-59, "AUDIO AMPLIFIER \(PREMIUM SYSTEM\) - CREW CAB"](#).
- NG >> Replace audio unit. Refer to [AV-59, "Removal and Installation"](#).



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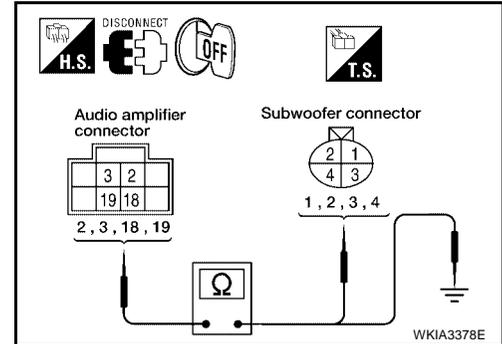
## Sound Is Not Heard From Subwoofer [Premium System (Crew Cab)]

EKS00BZK

### 1. HARNESS CHECK

1. Disconnect audio amplifier connector B158 and subwoofer connector B72.
2. Check continuity between audio amplifier harness connector terminal and subwoofer harness connector terminal.

| Terminals       |          |           |          | Continuity |
|-----------------|----------|-----------|----------|------------|
| Audio amplifier |          | Subwoofer |          |            |
| Connector       | Terminal | Connector | Terminal |            |
| B158            | 2        | B72       | 1        | Yes        |
|                 | 3        |           | 3        |            |
|                 | 18       |           | 2        |            |
|                 | 19       |           | 4        |            |



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

| Terminals       |          |        |  | Continuity |
|-----------------|----------|--------|--|------------|
| Audio amplifier |          | —      |  |            |
| Connector       | Terminal |        |  |            |
| B158            | 2        | Ground |  | No         |
|                 | 3        |        |  |            |
|                 | 18       |        |  |            |
|                 | 19       |        |  |            |

OK or NG

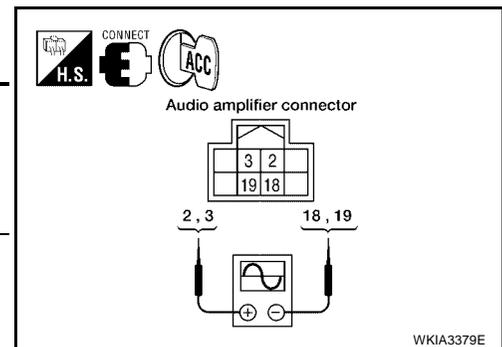
OK >> GO TO 2.

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

### 2. SUBWOOFER SIGNAL CHECK

1. Connect audio amplifier connector and subwoofer connector.
2. Turn ignition switch to ACC.
3. Check the signal between audio amplifier harness connector terminals with CONSULT-II or oscilloscope.

| Terminals     |          |               |          | Condition            | Reference signal |
|---------------|----------|---------------|----------|----------------------|------------------|
| (+)           |          | (-)           |          |                      |                  |
| Con-connector | Terminal | Con-connector | Terminal |                      |                  |
| B158          | 2        | B158          | 18       | Receive audio signal |                  |
|               | 3        |               | 19       |                      |                  |



OK or NG

OK >> Replace subwoofer. Refer to [AV-62, "SUBWOOFER \(PREMIUM SYSTEM\) - CREW CAB"](#).

NG >> Replace audio amplifier. Refer to [AV-59, "AUDIO AMPLIFIER \(PREMIUM SYSTEM\) - CREW CAB"](#).

# AUDIO

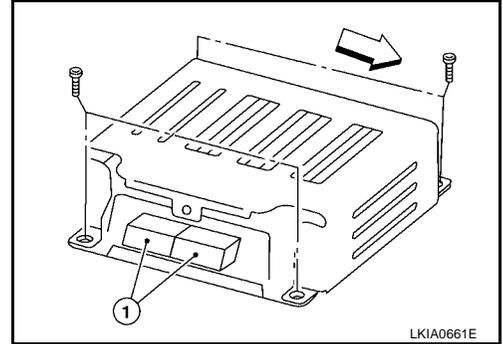
EKS00BZL

## Removal and Installation

### AUDIO AMPLIFIER (PREMIUM SYSTEM) - CREW CAB

#### Removal

1. Remove front passenger seat. Refer to [SE-17, "FRONT SEAT"](#).
2. Remove kick shield screws, using power tool.
  - ⇒: Vehicle front
3. Disconnect audio amplifier connectors (1) and remove audio amplifier.



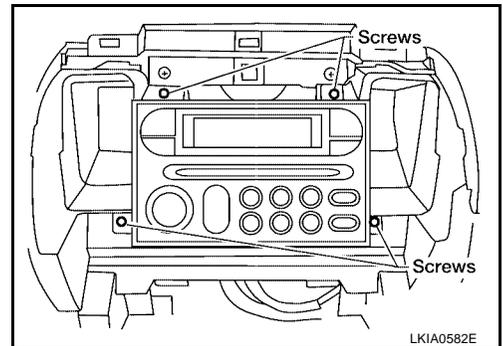
#### Installation

Installation is in the reverse order of removal.

### AUDIO UNIT

#### Removal

1. Remove cluster lid C. Refer to [IP-11, "CLUSTER LID C"](#).
2. Remove the audio unit screws, using power tool.
3. Remove audio unit and disconnect audio unit connectors.



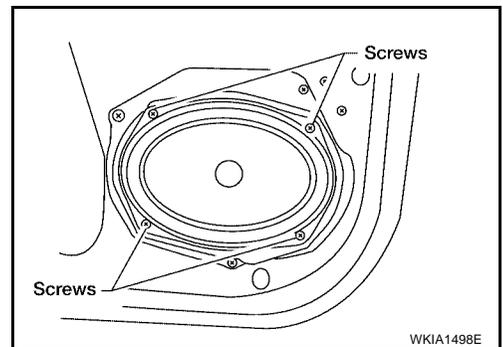
#### Installation

Installation is in the reverse order of removal.

### FRONT DOOR SPEAKER

#### Removal

1. Remove front door finisher. Refer to [EI-32, "FRONT DOOR"](#).
2. Remove the front door speaker screws.
3. Remove front door speaker and disconnect front door speaker connector.



#### Installation

Installation is in the reverse order of removal.

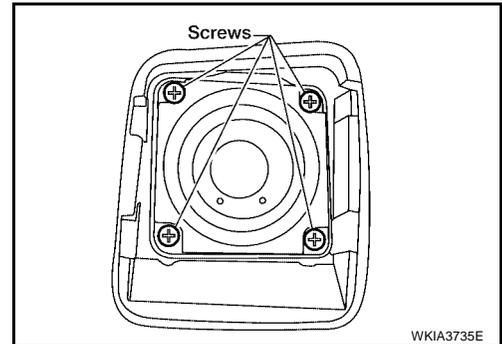
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# AUDIO

## FRONT TWEETER

### Removal

1. Remove the front tweeter grille.
2. Remove the front tweeter screws.



3. Remove front tweeter and disconnect front tweeter connector.

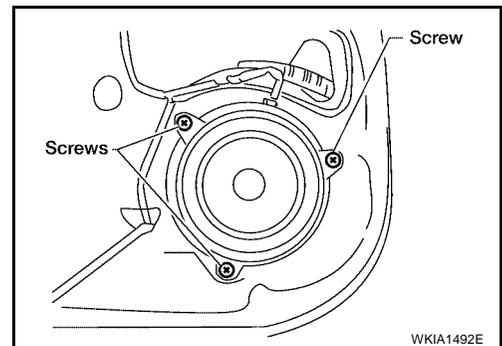
### Installation

Installation is in the reverse order of removal.

## REAR DOOR SPEAKER - CREW CAB

### Removal

1. Remove the rear door finisher. Refer to [EI-33, "REAR DOOR - CREW CAB"](#) or [EI-34, "REAR DOOR - KING CAB"](#).
2. Remove the rear door speaker screws.
3. Remove rear door speaker and disconnect rear door connector.



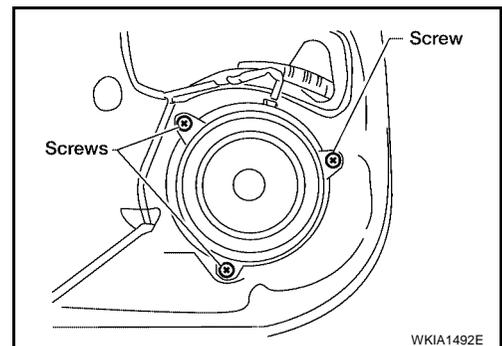
### Installation

Installation is in the reverse order of removal.

## REAR DOOR SPEAKER - KING CAB

### Removal

1. Remove the rear door finisher. Refer to rear door-king cab [EI-34, "REAR DOOR - KING CAB"](#).
2. Remove the rear door speaker screws.
3. Remove rear door speaker and disconnect rear door connector.



### Installation

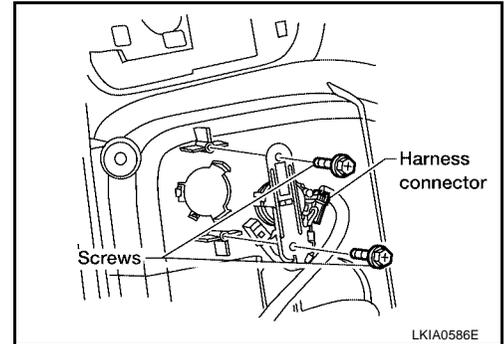
Installation is in the reverse order of removal.

# AUDIO

## REAR DOOR TWEETER - CREW CAB

### Removal

1. Remove rear door finisher. Refer to [EI-33, "REAR DOOR - CREW CAB"](#) or [EI-34, "REAR DOOR - KING CAB"](#).
2. Remove the rear door tweeter screws.
3. Remove rear door tweeter.



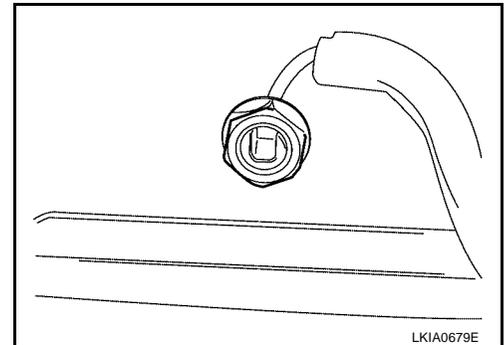
### Installation

Installation is in the reverse order of removal.

## SATELLITE RADIO ANTENNA

### Removal

1. Lower headlining. Refer to [EI-42, "HEADLINING"](#).
2. Disconnect satellite radio antenna connector.
3. Remove satellite radio antenna nut.
4. Remove satellite radio antenna.

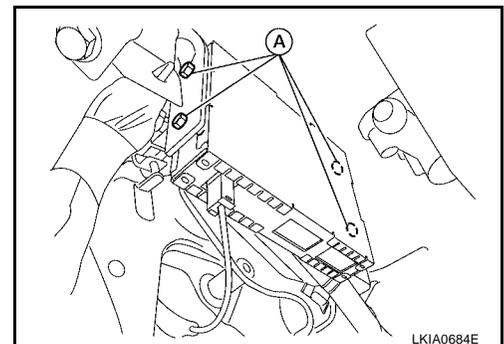


### Installation

Installation is in the reverse order of removal.

## SATELLITE RADIO TUNER

1. Disconnect battery negative terminal.
2. Disconnect satellite radio tuner connectors.
3. Remove satellite radio tuner screws, and remove satellite radio tuner.



### Installation

Installation is in the reverse order of removal.

## STEERING WHEEL AUDIO CONTROL SWITCHES

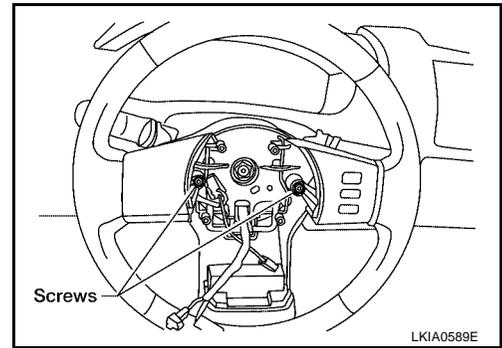
### Removal

1. Remove driver air bag module. Refer to [SRS-43, "DRIVER AIR BAG MODULE"](#).

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# AUDIO

2. Remove steering wheel audio control switch assembly screws.
3. Disconnect steering wheel audio control switches connector and remove steering wheel audio control switches.

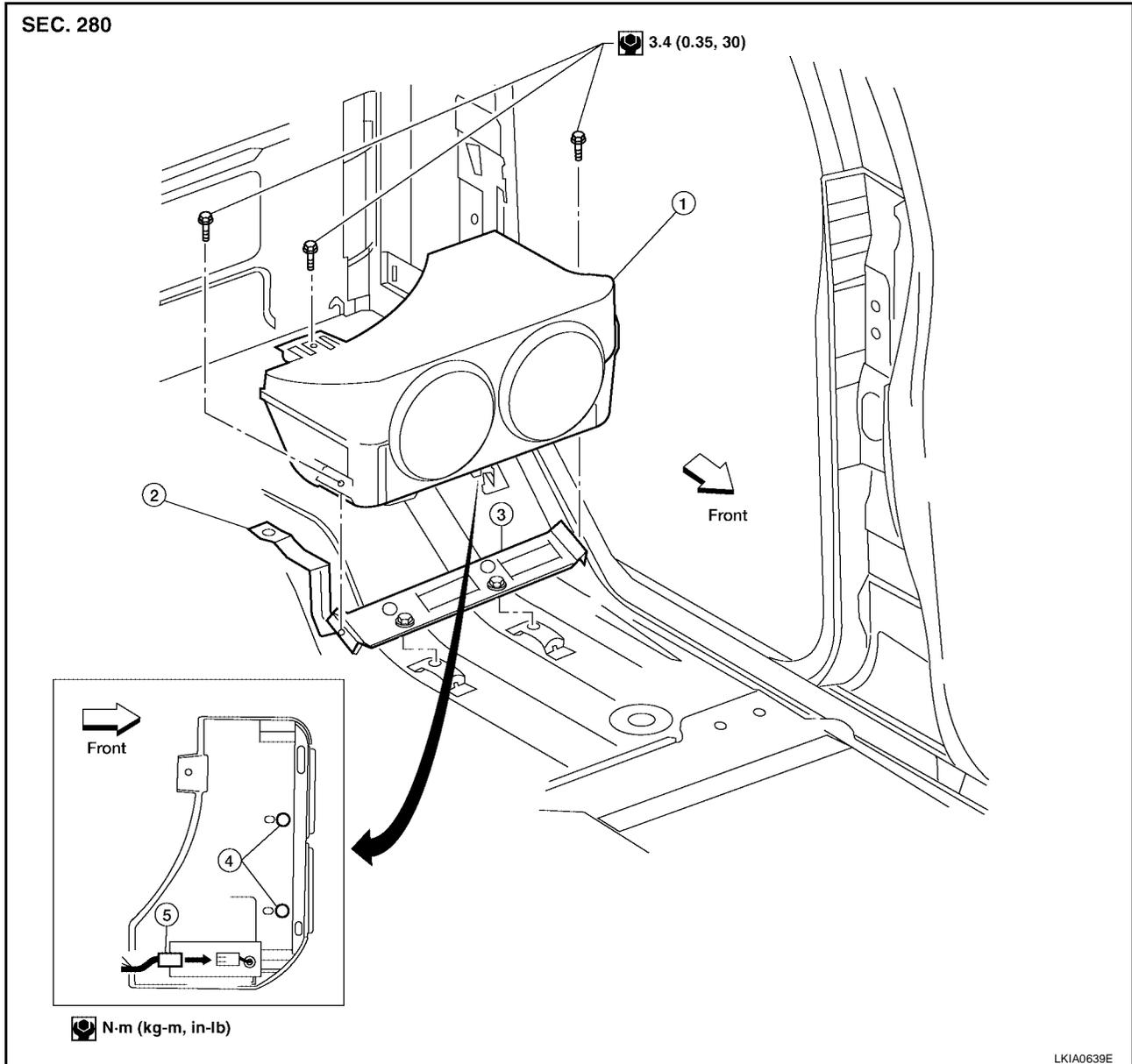


## Installation

Installation is in the reverse order of removal.

## SUBWOOFER (PREMIUM SYSTEM) - CREW CAB

SEC. 280



- |                 |              |                       |
|-----------------|--------------|-----------------------|
| 1. Subwoofer    | 2. Bracket   | 3. Locating pin plate |
| 4. Locating pin | 5. Connector |                       |

1. Position the LH rear seat cushion in the folded up position.
2. Remove storage box RH (crew cab). Refer to [EI-41, ""](#) .

# AUDIO

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3. Remove the subwoofer screws.
4. Disconnect the connector and remove the subwoofer.

## Installation

Installation is in the reverse order of removal.

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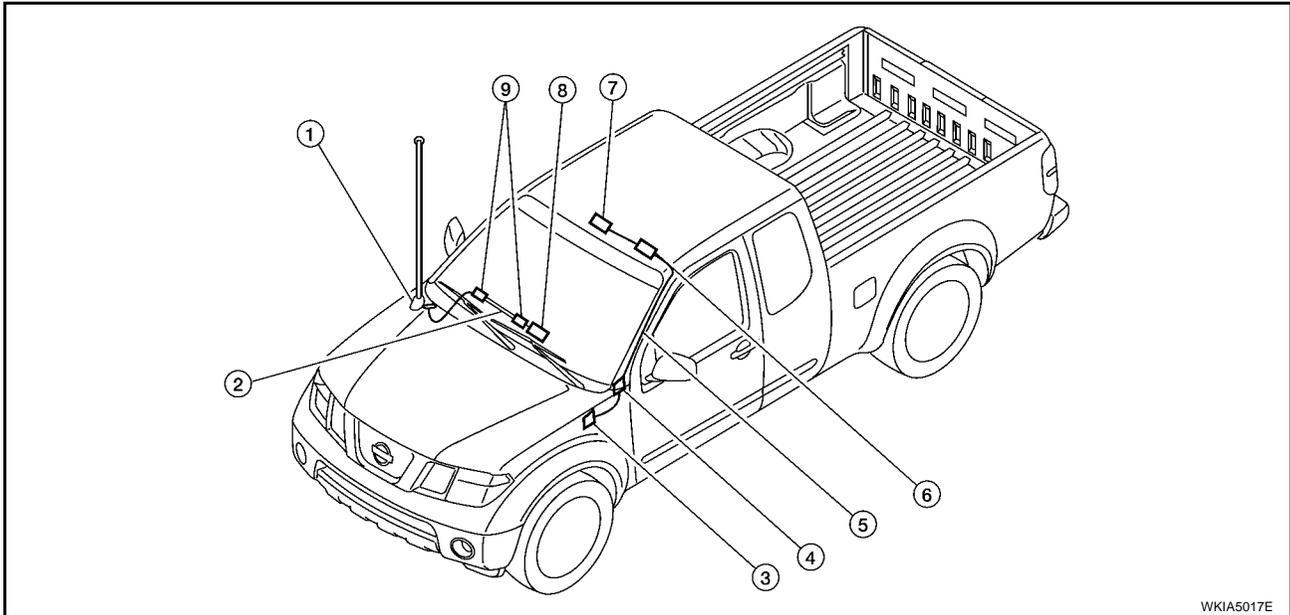
# AUDIO ANTENNA

## AUDIO ANTENNA

PF2:28200

## Location of Audio Antenna System Components

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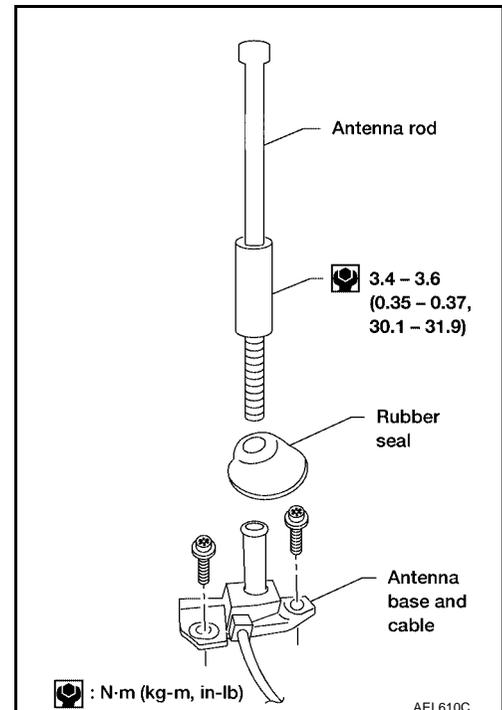
- |                                    |                             |                                       |
|------------------------------------|-----------------------------|---------------------------------------|
| 1. Audio antenna                   | 2. Antenna feeder           | 3. Satellite radio tuner<br>M41, M129 |
| 4. Harness Connectors<br>M250, M68 | 5. Satellite antenna feeder | 6. Connector<br>M251                  |
| 7. Satellite antenna               | 8. Audio unit               | 9. Harness connectors                 |

## Removal and Installation AUDIO ANTENNA

EKS00D6Q

### Removal

1. Remove lower glove box. Refer to [IP-14, "LOWER INSTRUMENT PANEL RH AND LOWER GLOVE BOX"](#).
2. Remove antenna rod.
3. Remove rubber seal.
4. Remove cowl top. Refer to [EI-20, "COWL TOP"](#).
5. Disconnect audio antenna from antenna feeder.
6. Remove front fender protector. Refer to [EI-22, "FENDER PROTECTOR"](#).
7. Remove antenna base bolts.
8. Remove antenna base and cable.



# AUDIO ANTENNA

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## Installation

Installation is in the reverse order of removal.

**CAUTION:**

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

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# AUDIO ANTENNA

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