

# SECTION AV

## AUDIO, VISUAL & TELEPHONE SYSTEM

### CONTENTS

<b>PRECAUTIONS .....</b>	<b>2</b>	Trouble Diagnoses .....	<b>12</b>	F
Precautions for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TEN-		AUDIO UNIT .....	12	
SIONER" .....	2	Inspection .....	13	
Wiring Diagrams and Trouble Diagnosis .....	2	AUDIO UNIT .....	13	G
<b>AUDIO .....</b>	<b>3</b>	ANTENNA .....	13	
System Description .....	3	Removal and Installation of Audio Unit .....	13	
NATS AUDIO LINK .....	3	Locking CD auto-changer mechanism .....	14	H
SPEED DEPENDENT VOLUME CONTROL .....	4	DAMPER LOCK PROCEDURE .....	14	
PERSONAL AUDIO SETTINGS .....	4	Removal and Installation of CD Auto-Changer .....	14	
Schematic .....	5	Removal and Installation of Speakers .....	15	I
Wiring Diagram —AUDIO— .....	6	Removal and Installation of Tweeters .....	15	
LHD MODELS .....	6	<b>AUDIO ANTENNA .....</b>	<b>16</b>	J
RHD MODELS .....	9	Antenna Route .....	16	
		Removal and Installation of Roof Antenna .....	16	

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# PRECAUTIONS

## PRECAUTIONS

PFP:00011

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

EKS0036C

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

#### **WARNING:**

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

## Wiring Diagrams and Trouble Diagnosis

EKS0036D

When you read wiring diagrams, refer to the followings:

- Refer to [GI-13, "How to Read Wiring Diagrams"](#) in GI section
- Refer to [PG-2, "POWER SUPPLY ROUTING"](#) for power distribution circuit in PG section

When you perform trouble diagnosis, refer to the followings:

- Refer to [GI-10, "HOW TO FOLLOW TEST GROUPS IN TROUBLE DIAGNOSES"](#) in PG section
- Refer to [GI-23, "How to Perform Efficient Diagnosis for an Electrical Incident"](#) in PG section

## AUDIO

PFP:28111

### System Description

EKS002F2

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

Power is supplied at all times

- to audio unit terminal 3 and
- to CD auto changer terminal 32
- through 15A fuse (No. 32, located in the fuse and fusible link box).

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

- to audio unit terminal 6 and
- to CD auto changer terminal 36
- through 10A fuse [No. 4, located in the fuse block (J/B)]

Ground is supplied through the case of the audio unit.

Audio signals are supplied

- through audio unit terminals 5, 7, 9, 10, 11, 13, 15, 16
- to terminals 1 and 2 of front door speaker LH and RH,
- to terminals 1 and 2 of rear door speaker LH and RH and
- to terminals 1 and 2 of tweeter LH and RH (with 6-speakers)

### NATS AUDIO LINK

#### Description

The link with the NATS IMMU implies that the audio unit can basically only be operated if connected to the matching NATS IMMU to which the audio unit was initially fitted on the production line.

Since radio operation is impossible after the link with the NATS is disrupted theft of the audio unit is basically useless since special equipment is required to reset the audio unit.

#### Initialization process for audio units that are linked to the NATS IMMU

New audio units will be delivered to the factories in the "NEW" state, i.e. ready to be linked with the vehicle's NATS. When the audio unit in "NEW" state is first switched on at the factory, it will start up communication with the vehicle's immobilizer control unit (IMMU) and send a code (the "audio unit Code") to the IMMU. The IMMU will then store this code, which is unique to each audio unit, in its (permanent) memory.

Upon receipt of the code by the IMMU, the NATS will confirm correct receipt of the audio unit code to the audio unit. Hereafter, the audio unit will operate as normal.

During the initialization process, "NEW" is displayed on the audio unit display. Normally though, communication between audio unit and IMMU takes such a short time (300 ms) that the audio unit seems to switch on directly without showing "NEW" on its display.

#### Normal operation

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

#### When the radio is locked

In case of a audio unit being linked with the vehicle's NATS (immobilizer system), disconnection of the link between the audio unit and the IMMU will cause the audio unit to switch into the lock ("SECURE") mode in which the audio unit is fully inoperative. Hence, repair of the audio unit is basically impossible, unless the audio unit is reset to the "NEW" state for which special decoding equipment is required.

Clarion has provided their authorized service representatives with so called "decoder boxes" which can bring the audio unit back to the "NEW" state, enabling the audio unit to be switched on after which repair can be carried out. Subsequently, when the repaired audio unit is delivered to the final user again, it will be in the "NEW" state to enable re-linking the audio unit to the vehicle's immobilizer system. As a result of the above, repair of the audio unit can only be done by an authorized Clarion representative (when the owner of the vehicle requests repair and can show personal identification).

# AUDIO

## Service Procedure

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

## SPEED DEPENDENT VOLUME CONTROL

### Description

If activated, the radio output volume will be automatically adjusted to compensate for increased driving noises at higher driving speeds.

The radio receives a speed signal from the vehicle speed sensor (VSS) and selects the output volume.

## PERSONAL AUDIO SETTINGS

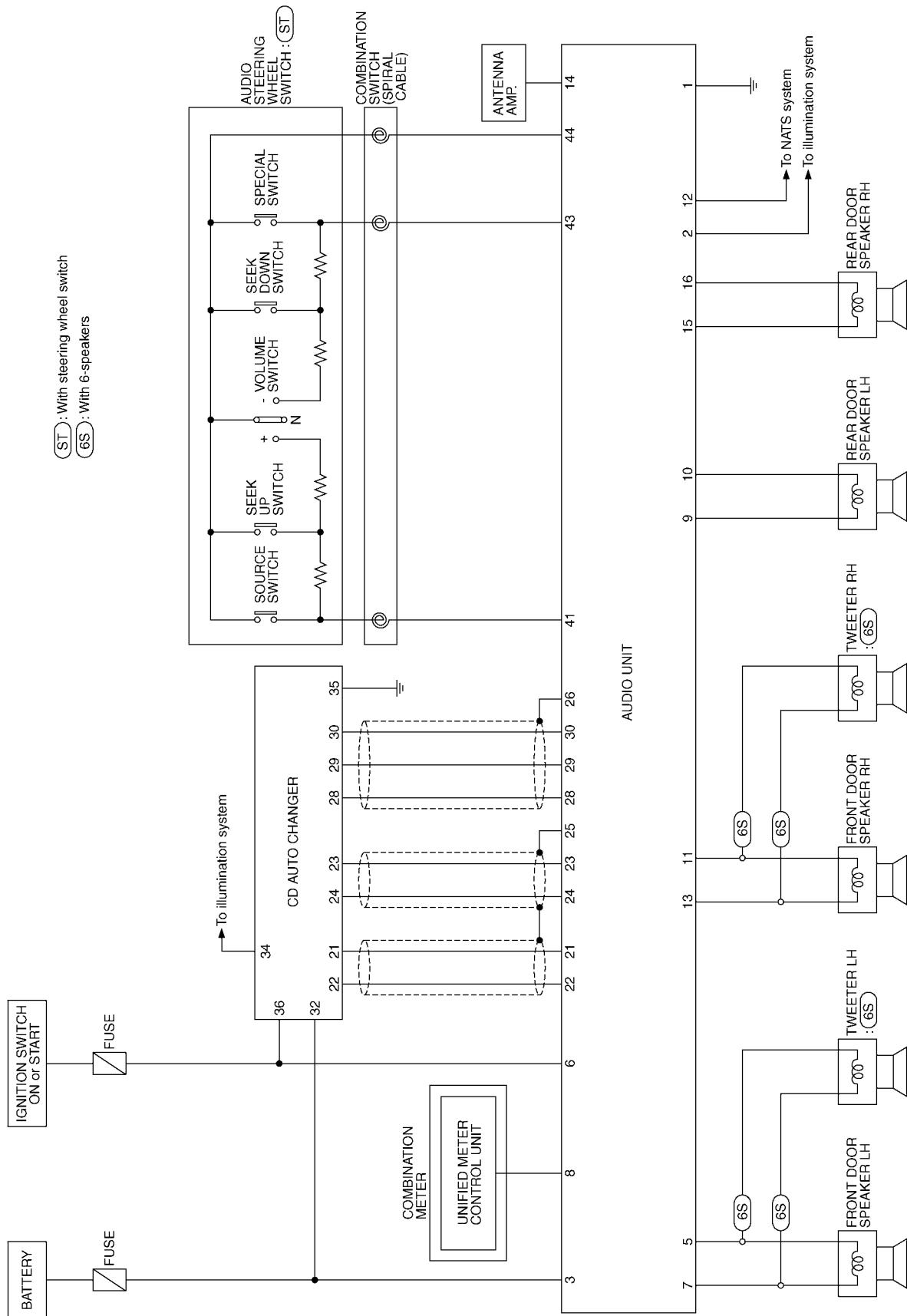
### Description

The radio is designed to store several settings (volume, bass, treble, preset stations and level of speed dependent volume control) with every NATS ignition key used. Up to a maximum of 4 NATS keys can be registered. During the communication mentioned under "Anti-Theft System", the radio will recognize the used ignition key and select the accompanying settings.

# AUDIO

## Schematic

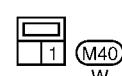
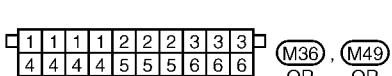
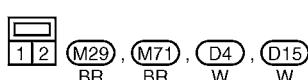
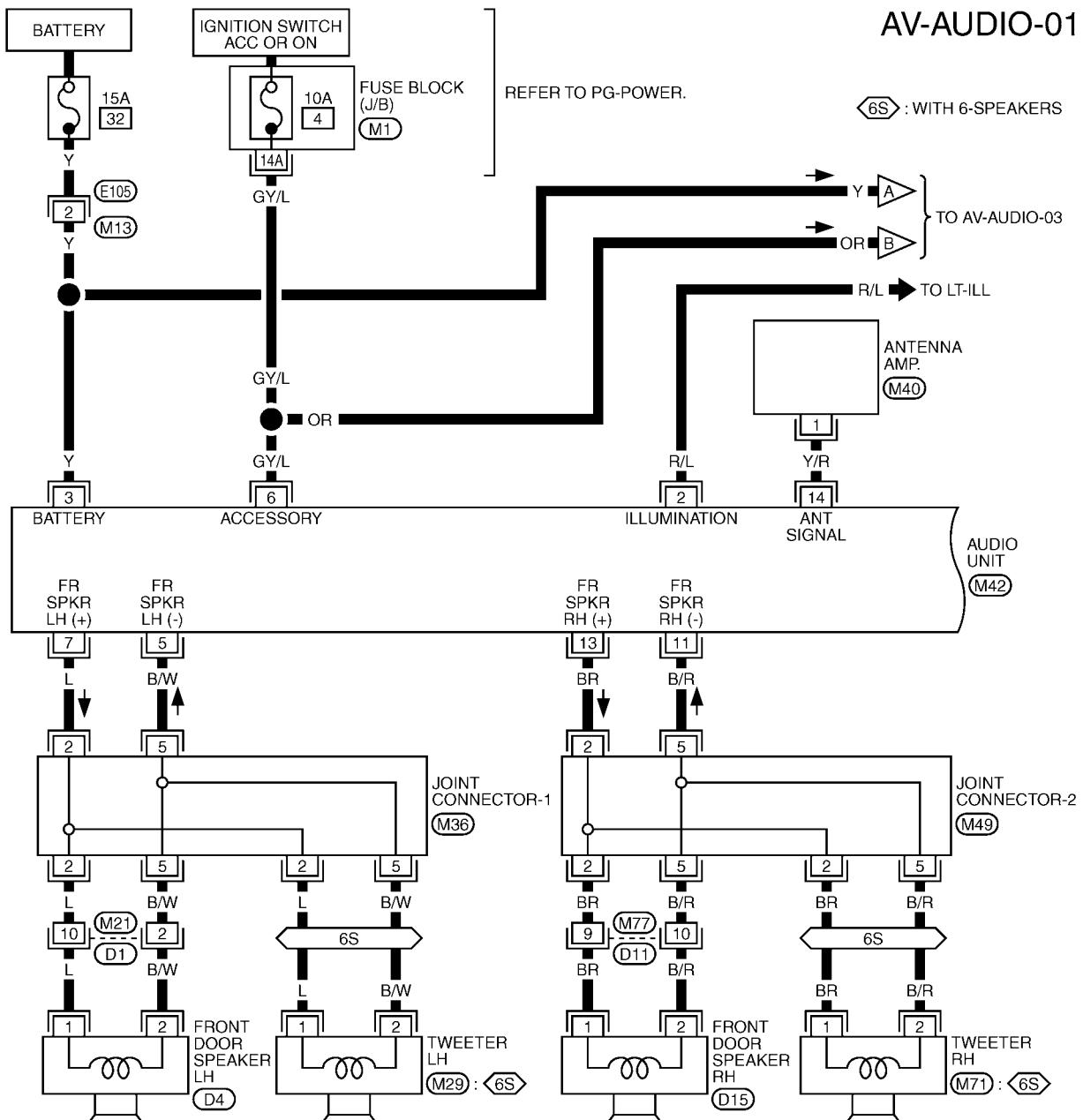
EKS002F3



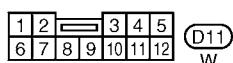
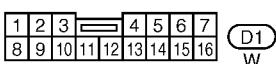
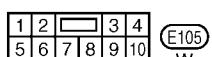
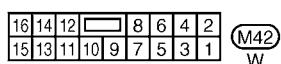
A B C D E F G H I M AV

Wiring Diagram —AUDIO—  
LHD MODELS

AV-AUDIO-01

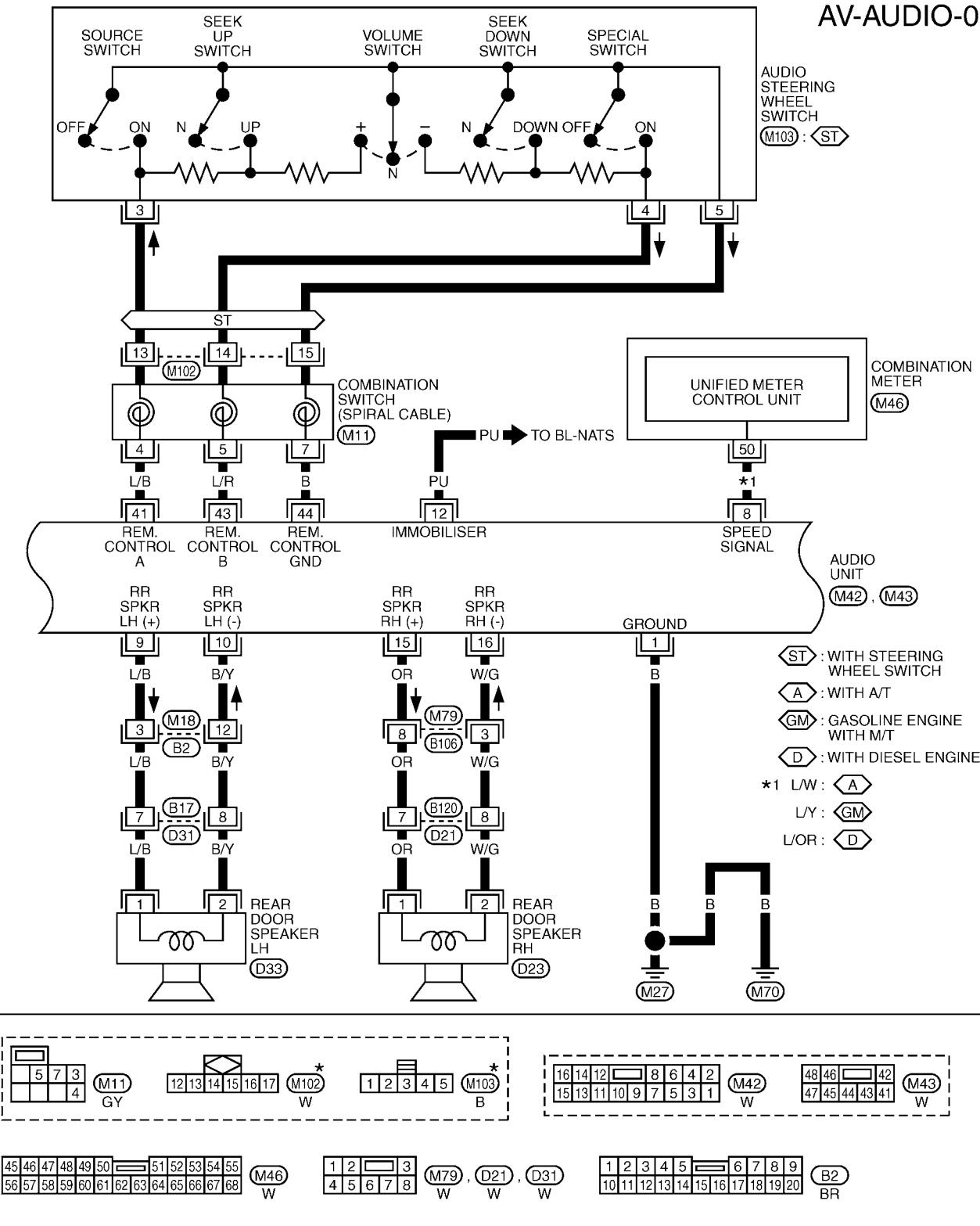


REFER TO THE FOLLOWING.  
(M1) -FUSE BLOCK-JUNCTION  
BOX (J/B)



# AUDIO

AV-AUDIO-02

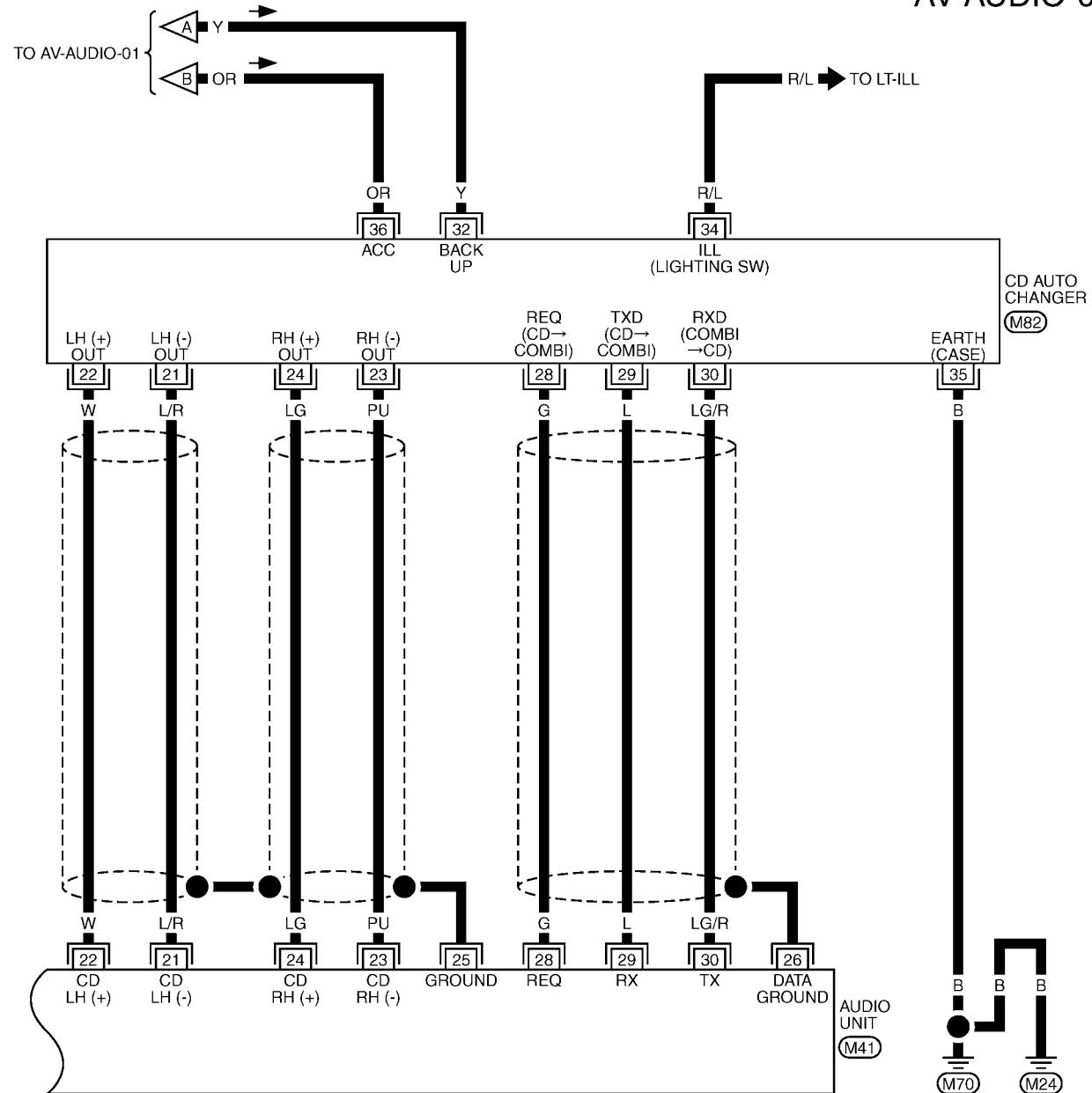


\*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

TKWA0114E

# AUDIO

AV-AUDIO-03



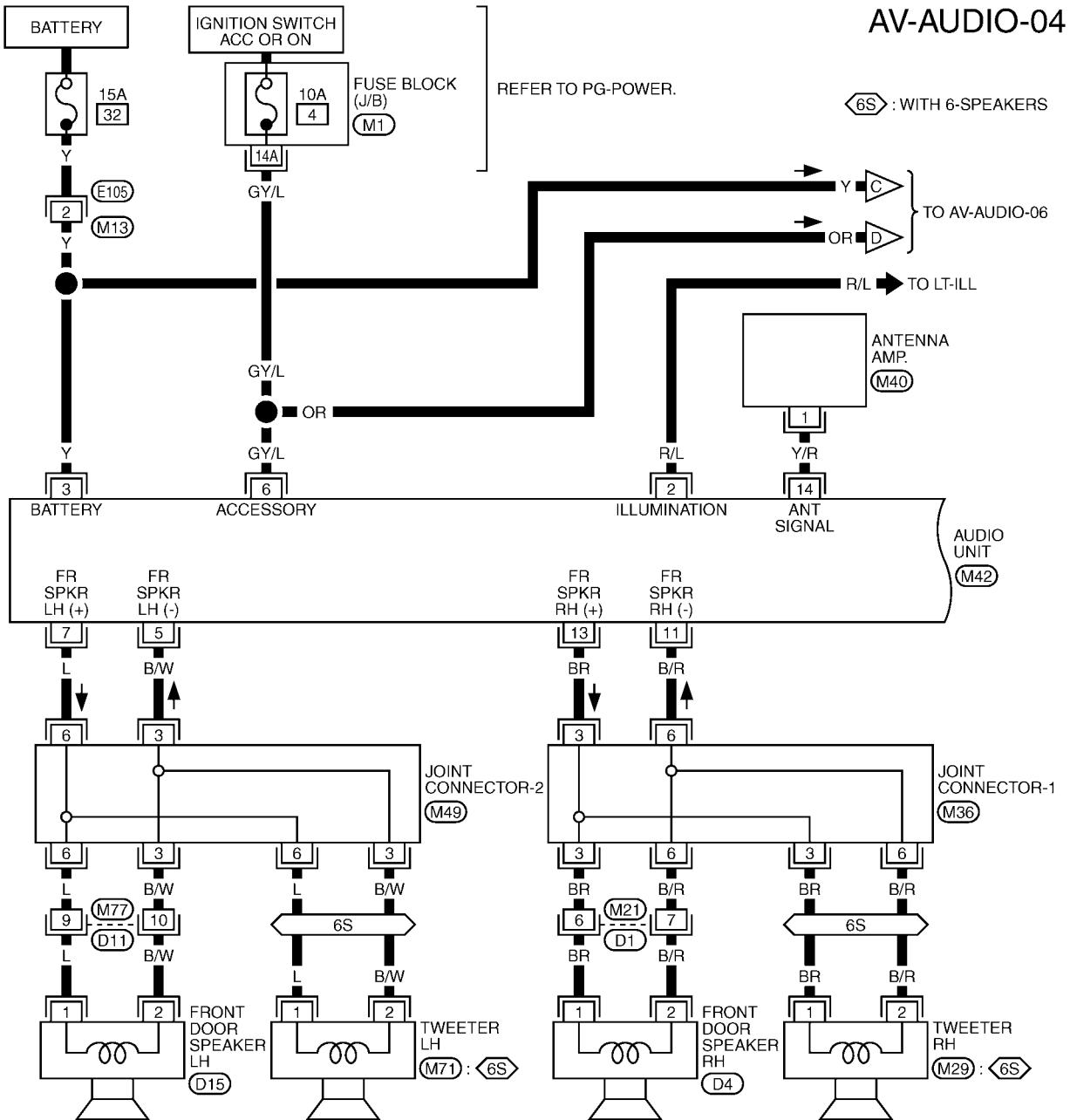
32 30 24 22  
31 29 28 27 26 25 23 21 M41 W

36 34 32 28 26 24 22  
35 33 31 30 29 27 25 23 21 M82 W

TKWA0115E

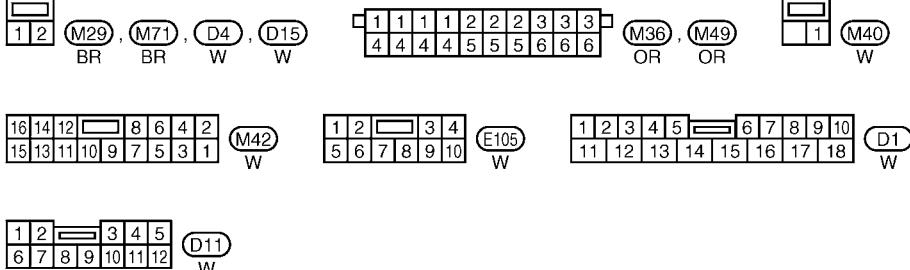
## AUDIO

## RHD MODELS



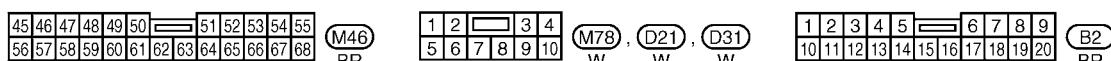
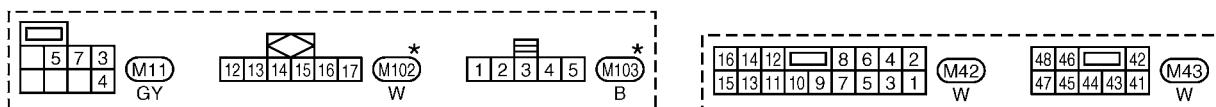
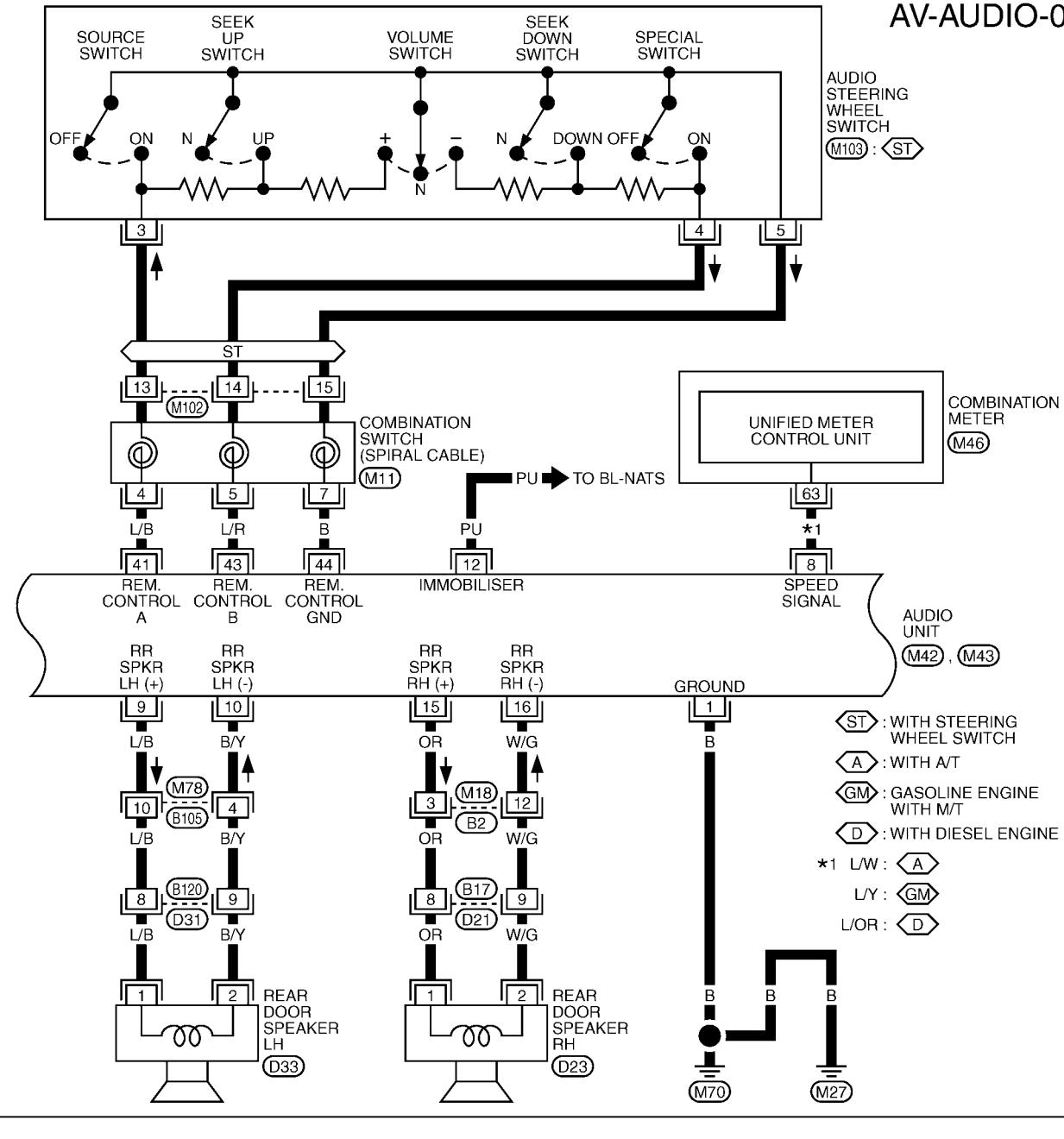
REFER TO THE FOLLOWING.

**M1 -FUSE BLOCK-JUNCTION  
BOX (I/B)**



# AUDIO

AV-AUDIO-05

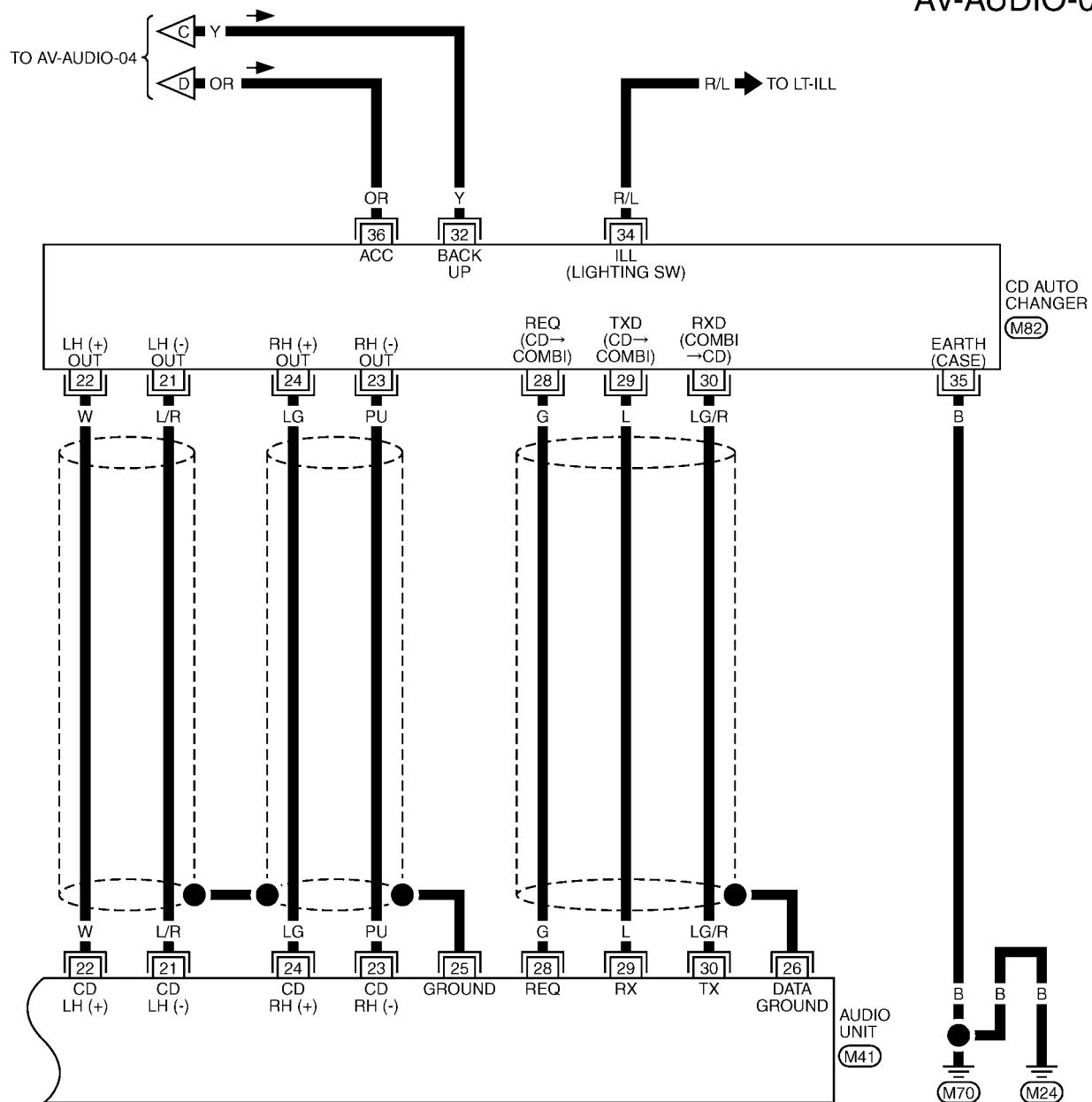


\*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

TKWA0117E

# AUDIO

AV-AUDIO-06



32 30 24 22  
31 29 28 27 26 25 23 21 M41 W

36 34 32 28 26 24 22  
35 33 31 30 29 27 25 23 21 M82 W

TKWA0118E

AV-11

# AUDIO

## Trouble Diagnoses AUDIO UNIT

EKS002F5

Symptom	Possible causes	Repair order
Audio unit inoperative (no digital display and no sound from speakers).	1. 10A fuse 2. Poor audio unit case ground 3. Audio unit	1. Check 10A fuse [No. 4, located in fuse block (J/B)]. Turn ignition switch ON and verify that battery positive voltage is present at terminal 6 of audio unit. 2. Check audio unit case ground. 3. Remove audio unit for repair.
Audio unit presets are lost when ignition switch is turned OFF.	1. 15A fuse 2. Audio unit	1. Check 15A fuse (No. 32, located in fuse and fusible link box) and verify that battery positive voltage is present at terminal 3 of audio unit. 2. Remove audio unit for repair.
Individual rear speaker is noisy or inoperative.	1. Each speaker 2. Output circuit to each speaker	1. Check speaker. 2. Check the output circuits to each speaker between audio unit and each speaker.
AM/FM stations are weak or noisy.	1. Roof antenna 2. Audio unit ground 3. Audio unit	1. Check roof antenna. 2. Check audio unit ground condition. 3. Remove audio unit for repair.
Audio unit generates noise in AM and FM modes with engine running.	1. Poor audio unit ground 2. Loose or missing ground bonding straps 3. Ignition condenser or rear window defogger noise suppressor condenser 4. Ignition coil or secondary wiring 5. Audio unit	1. Check audio unit ground. 2. Check ground bonding straps. 3. Replace ignition condenser or rear window defogger noise suppressor condenser. 4. Check ignition coil and secondary wiring. 5. Remove audio unit for repair.
Audio unit generates noise in AM and FM modes with accessories on (switch pops and motor noise).	1. Poor audio unit ground 2. Antenna 3. Accessory ground 4. Malfunctioning accessory	1. Check audio unit ground. 2. Check antenna. 3. Check accessory ground. 4. Replace accessory.

## Inspection

EKS002F6

### AUDIO UNIT

All voltage inspections are made with:

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

### ANTENNA

Using a jumper wire, clip an auxiliary ground between antenna and body.

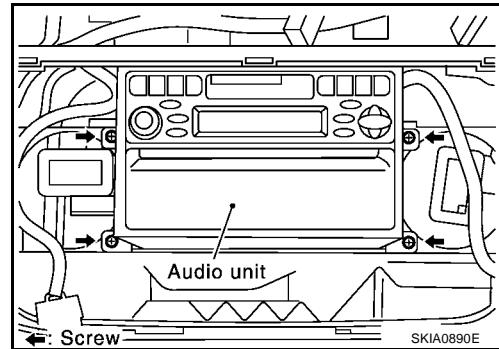
- If reception improves, check antenna ground (at body surface).
- If reception does not improve, check main feeder cable for short circuit or open circuit.

## Removal and Installation of Audio Unit

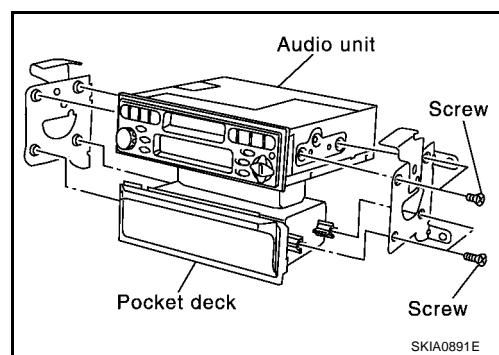
EKS002PU

1. Remove instrument cluster lid "C".
  - Refer to [IP-7, "CLUSTER LID C"](#) in "Instrument Panel (IP)" section.

2. Remove screws and connector, and then remove audio unit.



3. Remove screws, and then bracket.



## Locking CD auto-changer mechanism

EKS002GM

### CAUTION:

- Prior to removing a malfunctioning CD auto-changer unit that will be shipped for repair, the changer mechanism **MUST BE LOCKED** to prevent the mechanism from being damaged during shipping.
- If a CD is jammed or unable to be removed from the unit, do **NOT** lock the changer mechanism. If the unit is to be shipped for repair, carefully package the unit to prevent vibration and shock.

### DAMPER LOCK PROCEDURE

1. Eject and remove any CDs from the CD auto-changer unit.
2. Turn ignition switch OFF. Wait until CD auto-changer unit display is off and mechanism stops moving (mechanism sound stops).
3. Press any one of the disc selection buttons once. When a display shows on the CD auto-changer unit, press the same disc selection button again within 5 seconds.
  - The changer mechanism will lock itself within 10 seconds.
4. After mechanism stops moving (mechanism sound stops), disconnect negative battery terminal.

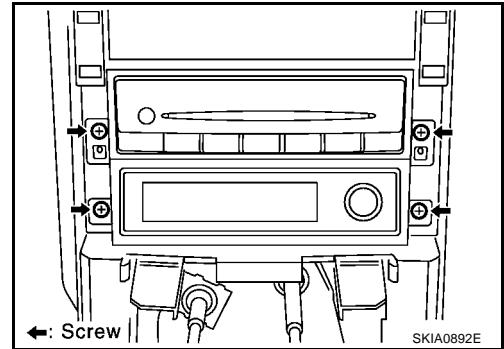
### NOTE:

After installing a new or remanufactured CD auto-changer unit, switching the CD auto-changer unit ON will automatically unlock the mechanism. A special unlocking procedure is not required.

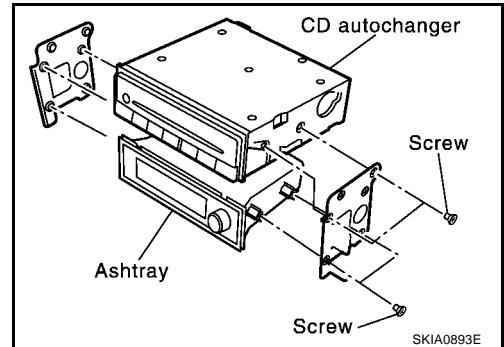
## Removal and Installation of CD Auto-Changer

EKS002UW

1. Perform damper lock. Refer to [AV-14, "DAMPER LOCK PROCEDURE"](#) .
2. Remove cluster lid finishers (left and right).
  - Refer to [IP-7, "CLUSTER LID FINISHER"](#) in "Instrument Panel (IP)" section.
3. Remove screws, and then remove CD auto-changer with bracket attached.



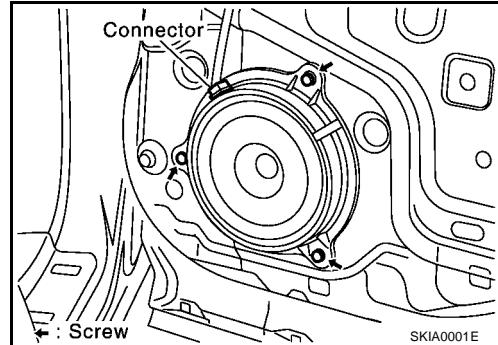
4. Remove screws, and then bracket.



## Removal and Installation of Speakers

EKS002PV

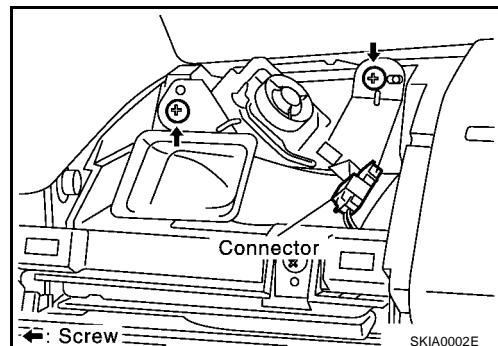
1. Remove door finisher.
  - Refer to [EI-23, "DOOR FINISHER"](#) in "Exterior/Interior (EI)" section.
2. Remove speakers.



## Removal and Installation of Tweeters

EKS002GO

1. Remove front speaker grille.
  - Refer to [IP-6, "FRONT SPEAKER GRILLE"](#) in "Exterior/Interior (EI)" section.
2. Remove tweeters.



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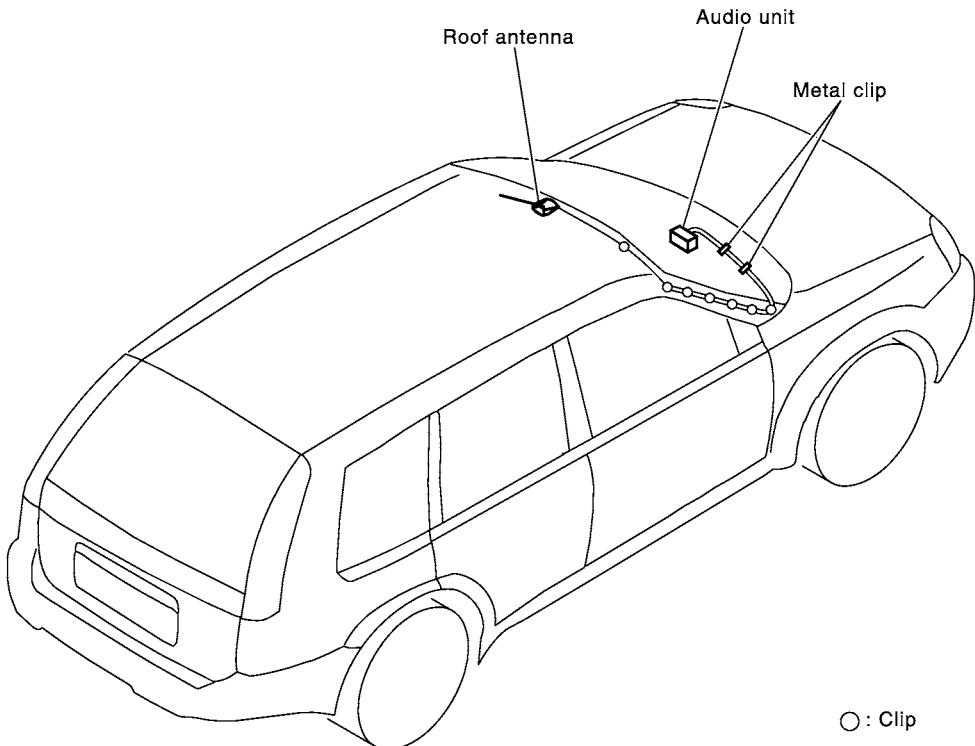
# AUDIO ANTENNA

## AUDIO ANTENNA

PFP:28200

### Antenna Route

EKS002PW



SKIA0894E

### Removal and Installation of Roof Antenna

EKS002PX

1. Remove headlining.
  - Refer to [EI-29, "HEADLINING"](#) in "Exterior/Interior (EI)" section.
2. Remove roof antenna mounting nuts, antenna plug, and power connector. Then remove roof antenna.

