

SECTION AV

AUDIO, VISUAL & TELEPHONE SYSTEM

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PRECAUTIONS

PRECAUTIONS

PFP:00011

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

EKS00778

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 harnesses or harness connectors.

Wiring Diagrams and Trouble Diagnosis

EKS00779

When you read wiring diagrams, refer to the following:

- [GI-14, "How to Read Wiring Diagrams"](#) in GI section
- [PG-4, "POWER SUPPLY ROUTING"](#) for power distribution circuit in PG section

When you perform trouble diagnosis, refer to the following:

- [GI-11, "HOW TO FOLLOW TEST GROUPS IN TROUBLE DIAGNOSES"](#) in GI section
- [GI-24, "How to Perform Efficient Diagnosis for an Electrical Incident"](#) in GI section

AUDIO

PFP:28111

System Description

AUDIO SYSTEM

EKS0077A

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

Power is supplied at all times

- through 15A fuse (No. 24, located in the fuse and fusible link box)
- to audio unit terminal 34,

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

- through 10A fuse [No. 12, located in the fuse block (J/B)]
- to audio unit terminal 37,

Ground is supplied through the case of the audio unit.

Ground is also supplied

- through body ground M60,
- to audio unit terminal 38.

Audio signals are supplied

- through audio unit terminals 21, 22, 23, 24, 25, 26, 27, 28
- to terminals 1 and 2 of front door speaker LH and RH
- to terminals 1 and 2 of rear door speaker LH and RH
- to terminals 1 and 2 of tweeter LH and RH.

When one of steering wheel audio control switches is pushed to volume down or seek down, resistance in steering switch circuit changes depending on which button is pushed. This will change voltage. Power is supplied

- from audio unit terminal 11
- through combination switch (spiral cable) terminals 33 and 15
- to steering wheel audio control switch.

Ground is supplied

- from steering wheel audio control switch
- through combination switch (spiral cable) terminals 16 and 32
- from audio unit terminal 12.

When one of steering wheel audio control switches is pushed to volume up, seek up, or mode ON, resistance in steering switch circuit changes depending on which button is pushed. This will change voltage. Power is supplied

- from audio unit terminal 10
- through combination switch (spiral cable) terminals 34 and 14
- to steering wheel audio control switch.

Ground is supplied

- from steering wheel audio control switch
- through combination switch (spiral cable) terminals 16 and 32
- from audio unit terminal 12.

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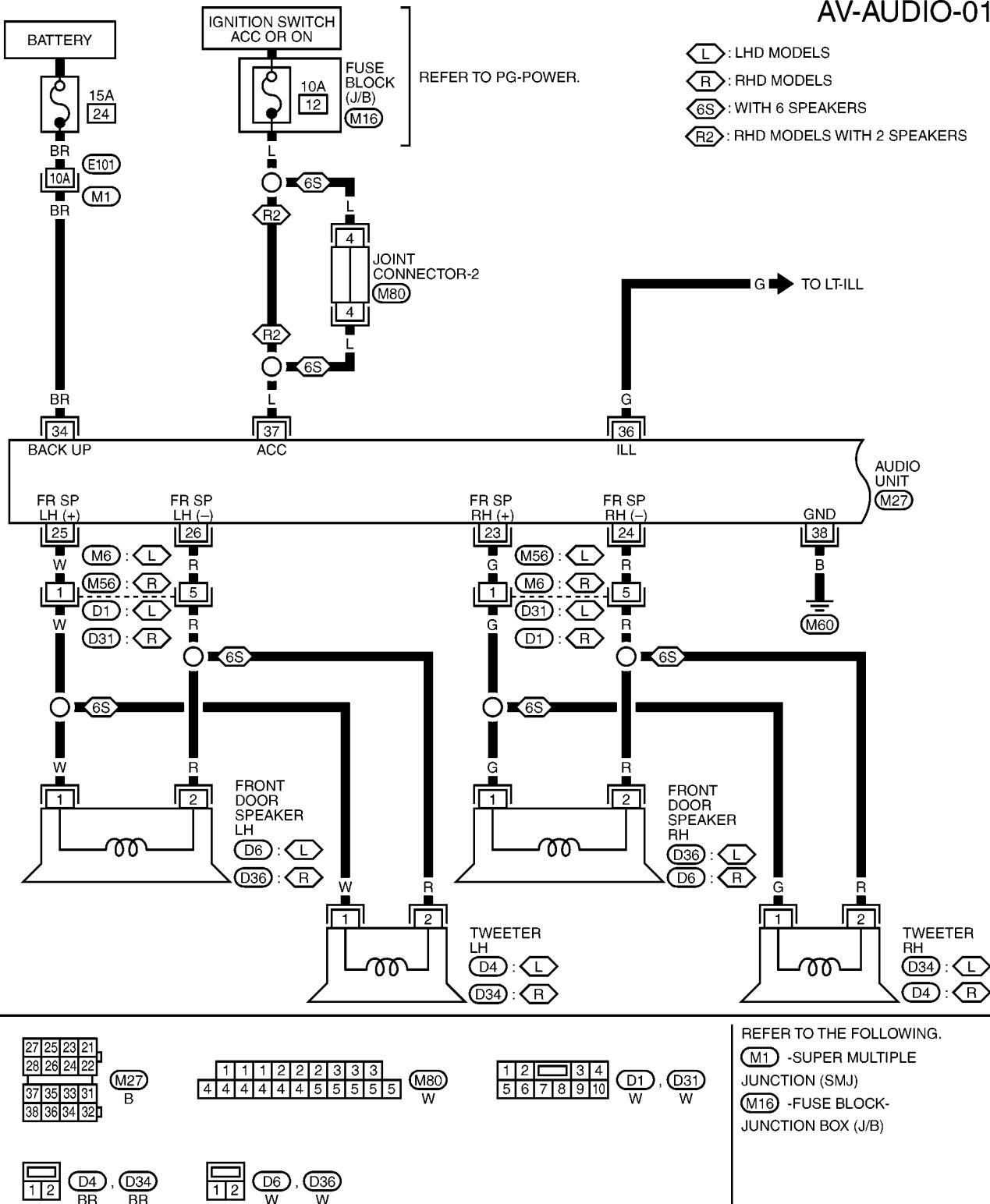
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AUDIO

Wiring Diagram —AUDIO— WITHOUT ESP

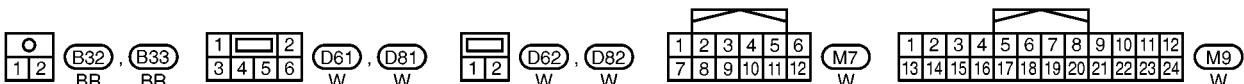
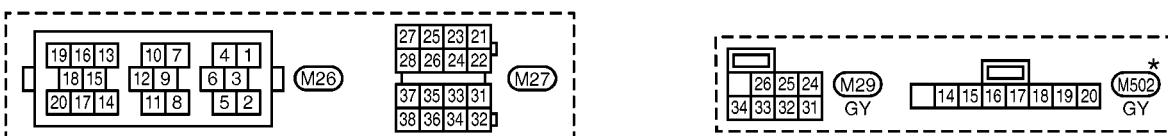
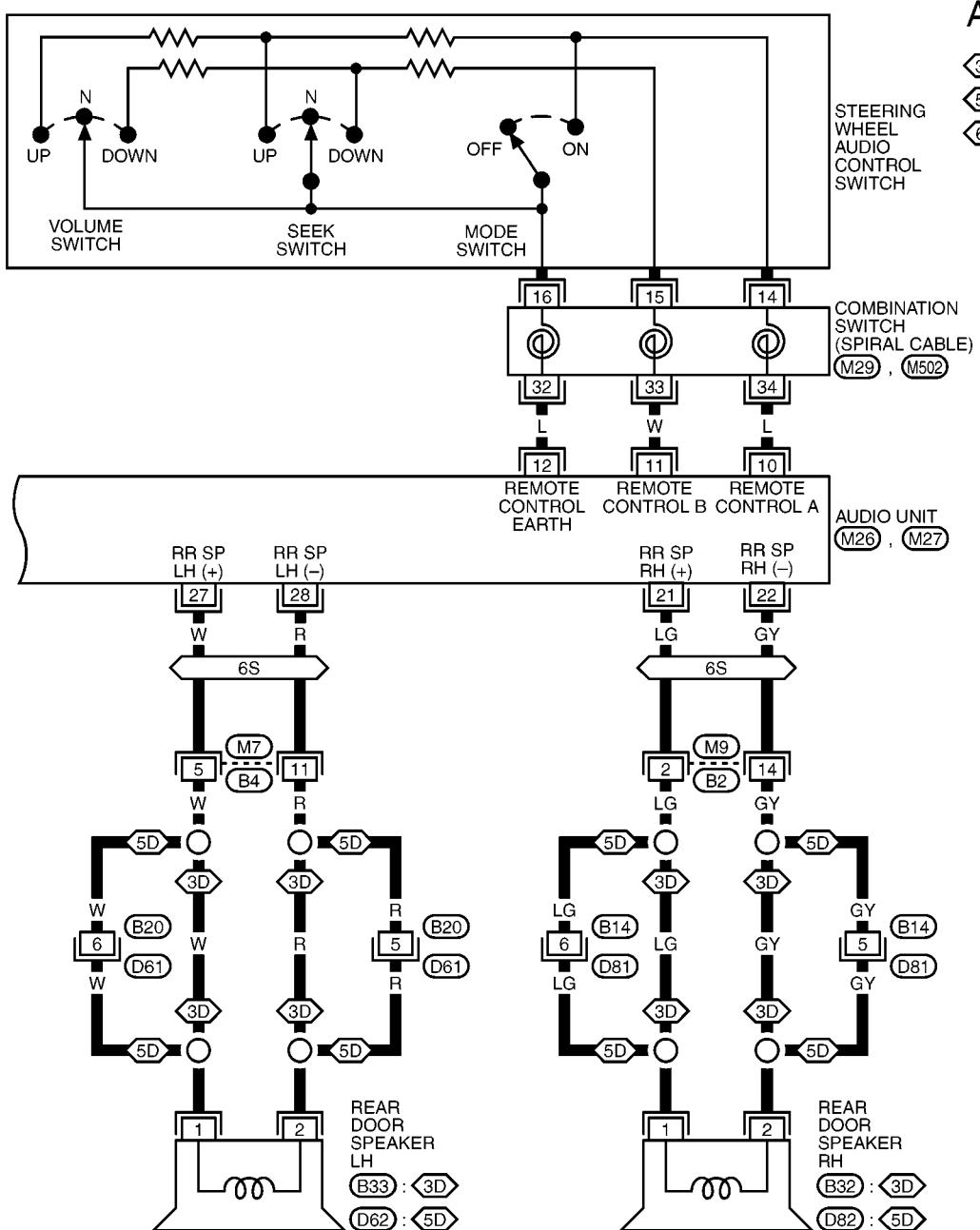
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AV-AUDIO-01



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AUDIO

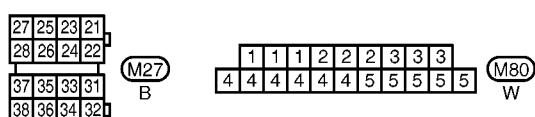
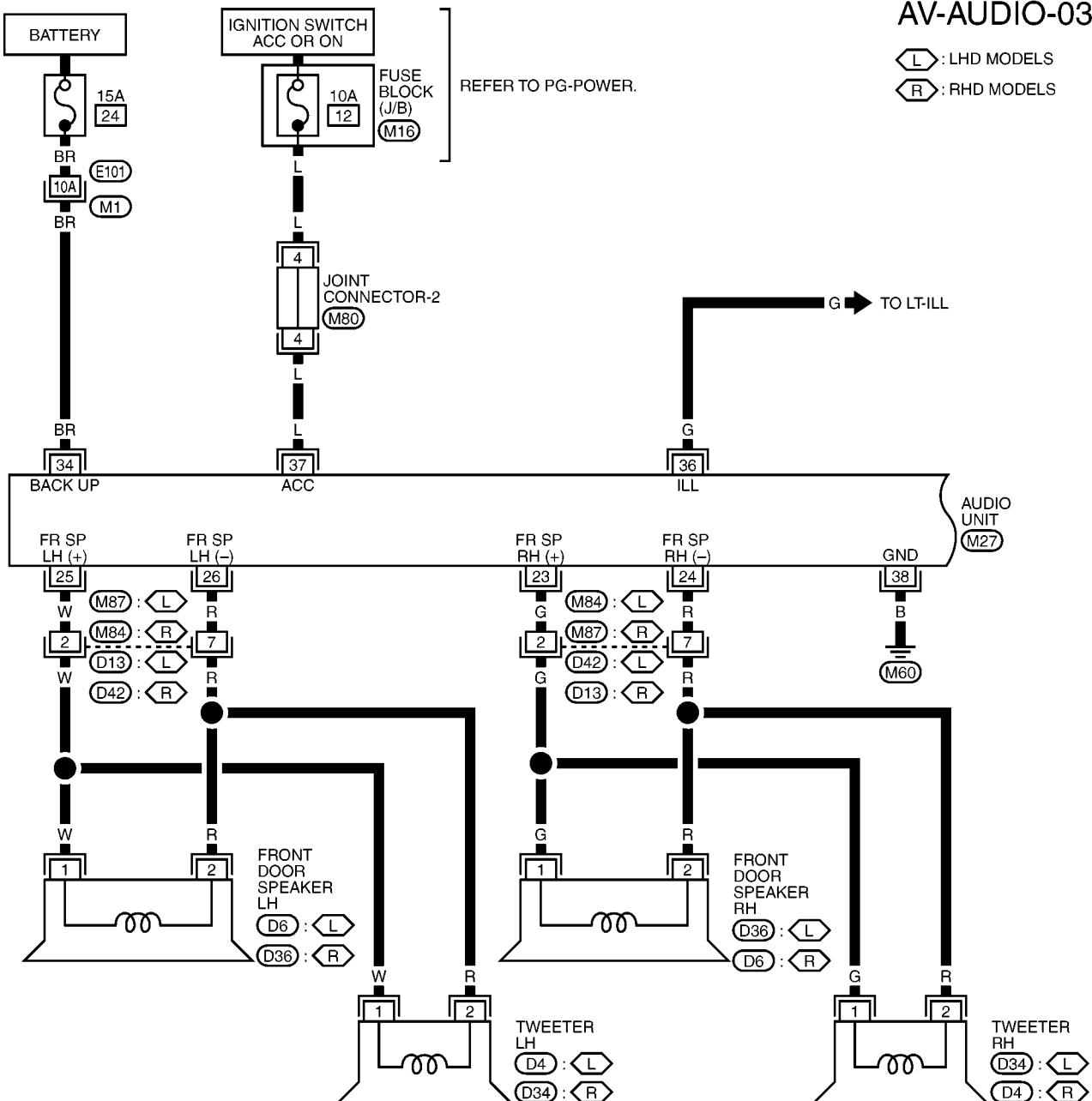


*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

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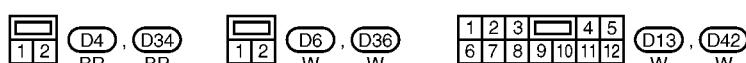
AUDIO

WITH ESP

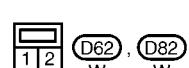
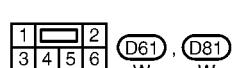
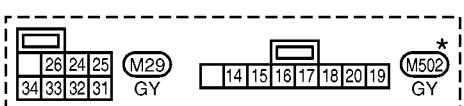
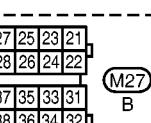
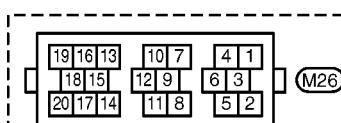
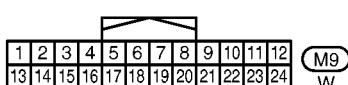
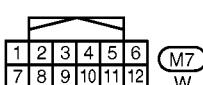
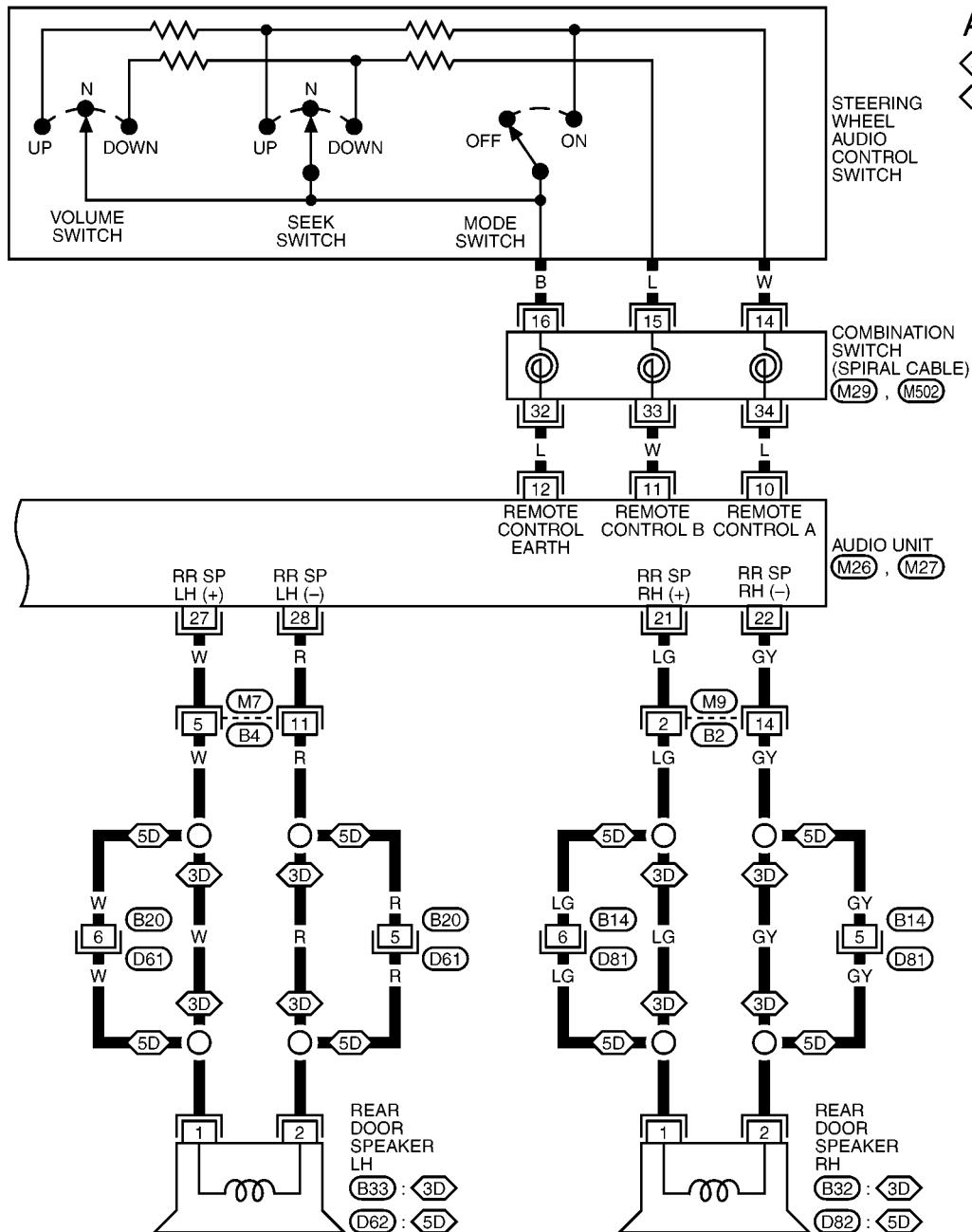


REFER TO THE FOLLOWING.

- (M1) -SUPER MULTIPLE JUNCTION (SMJ)
- (M16) -FUSE BLOCK- JUNCTION BOX (J/B)



AUDIO

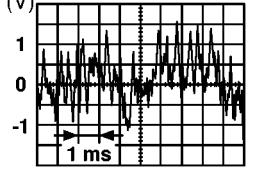
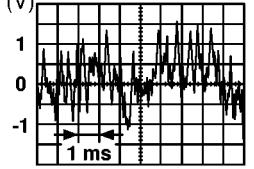
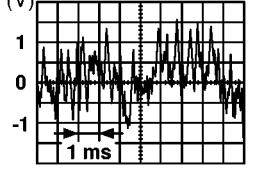
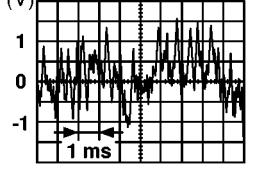


*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

AUDIO

Terminals and Reference Value for Audio Unit

EKS0077E

Terminal No. (wire color)		Item	Signal input/ output	Condition		Voltage	Example of symptom
(+)	(-)			Ignition switch	Operation		
10 (L)	Ground	Remote control A	Input	ON	Press MODE switch	Approx. 0V	Steering wheel audio controls do not function.
					Press SEEK UP switch	Approx. 1.68V	
					Press VOL UP switch	Approx. 3.34V	
					Except for above	Approx. 5V	
11 (W)	Ground	Remote control B	Input	ON	Press SEEK DOWN switch	Approx. 1.68V	Steering wheel audio controls do not function.
					Press VOL DOWN switch	Approx. 3.34V	
					Except for above	Approx. 5V	
12 (L)	-	Remote control earth	-	ON	-	Approx. 0V	Steering wheel audio controls do not function.
21 (LG)	22 (GY)	Speaker output (rear RH)	Output	ON	Receive radio broadcast	 SKIA0177E	No sound from rear RH speaker.
23 (G)	24 (R)	Speaker output (front RH)	Output	ON	Receive radio broadcast	 SKIA0177E	No sound from front RH speaker or tweeter RH.
25 (W)	26 (R)	Speaker output (front LH)	Output	ON	Receive radio broadcast	 SKIA0177E	No sound from front LH speaker or tweeter LH.
27 (W)	28 (R)	Speaker output (rear LH)	Output	ON	Receive radio broadcast	 SKIA0177E	No sound from rear LH speaker.

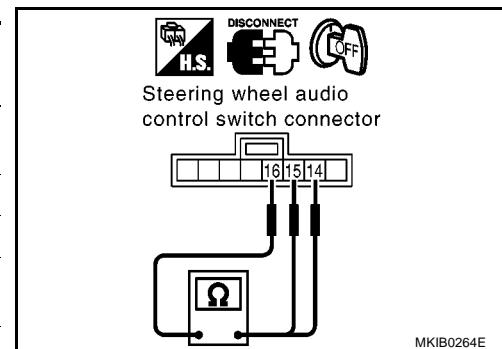
AUDIO

Terminal No. (wire color)		Item	Signal input/ output	Condition		Voltage	Example of symptom
(+)	(-)			Ignition switch	Operation		
34 (BR)	Ground	Battery power	Input	OFF	-	Battery voltage	Audio unit operation is not possible.
36 (G)	Ground	Illumination signal	Input	ON	Lighting switch is ON (position 1).	Battery voltage	Audio unit illumination does not come on when lighting switch is ON (position 1).
					Turn lighting switch OFF.	Approx. 3.0V or less	
37 (L)	Ground	ACC power	Input	ACC	-	Battery voltage	Audio unit operation is not possible.
38 (B)	Ground	Ground	-	ON	-	Approx. 0V	-

Steering Wheel Audio Control Switch Resistance Check

EKS007AT

Terminal		Signal name	Condition		Resistance (Ω)
(+)	(-)				
14	16	Seek up (next)	Depress (station) up switch.		Approx. 165
		Mode	Depress mode switch.		Approx. 0
		Volume (up)	Depress volume up switch.		Approx. 652
15	16	Seek down (previous)	Depress (station) down switch.		Approx. 165
		Volume (down)	Depress volume down switch.		Approx. 652



Trouble Diagnosis

EKS007J

- 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.

PROBLEM WITH RADIO AND CD

Symptom	Check items	Possible cause
Inoperative	● Check that the ignition switch is in the ACC position.	● Audio unit ● Audio unit power circuit
No sound	● Check that the volume is not turned down. ● Check that the balance and fader control knobs are centered.	● Audio unit ● Audio unit power circuit ● Speaker ● Sound signal circuit between speaker and Audio unit
Poor sound	● Check that the bass and treble adjustment knobs are centered.	● Audio unit ● Speaker
Noisy	-	● Audio unit ● Each electrical equipment

AUDIO

FOR RADIO ONLY

Symptom	Check items	Possible cause
No sound	● Check that the radio is tuned to a station's frequency.	● Audio unit ● Antenna feeder ● Roof antenna
Noisy	● Check that the radio is tuned to a station's frequency. ● Check that the signal of the received station is not weak. ● Check whether or not the malfunction occurs only in a particular area. (Note)	● Audio unit ● Antenna feeder ● Roof antenna ● Noise prevention parts ● Each electrical equipment ● Wire harness of each piece of electrical equipment
Selected radio stations stored in memory are deleted	-	● Audio unit ● Audio unit power circuit

NOTE:

- This is noise resulting 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 of mountains or buildings.

FOR CD ONLY

Symptom	Check items	Possible cause
The CD cannot be played.	● Check that the CD is not upside down. ● Check that there is no dirt, damage, or water on the disc.	● Audio unit
The sound skips, stops suddenly, or is distorted.	● Check that there is no dirt, damage, or water on the disc. ● Check that the trouble is not due to strong vibration.	

Noise Inspection

EKS0077K

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

NOTE:

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

TYPE OF NOISE AND POSSIBLE CAUSE

	Occurrence condition	Possible cause
Occurs only when engine is ON.	A continuous growling noise occurs. The speed of the noise varies with changes in the engine speed.	● Problem with the ignition condenser.
	A whistling noise occurs while the engine speed is high. A booming noise occurs while the engine is running and the lighting switch is ON.	● Problem with the alternator
The occurrence of the noise is linked with the operation of the fuel pump.		● Problem with the fuel pump condenser
Noise only occurs when various electrical components are operating.	A cracking or snapping sound occurs with the operation of various switches.	● Relay malfunction, radio malfunction
	The noise occurs when various motors are operating.	● Problem with the motor case ground ● Problem with the motor

Occurrence condition	Possible cause
The noise occurs constantly, not just under certain conditions.	<ul style="list-style-type: none"> • Rear defogger coil malfunction • Open circuit in printed heater • Poor ground of antenna amplifier or antenna feeder line
A cracking or snapping sound occurs while the vehicle is being driven, especially when it is vibrating excessively.	<ul style="list-style-type: none"> • Problem with the ground wire of body parts • Problem with ground due to part installation problem • Problem with wiring connections or a short circuit

Power Supply Circuit Inspection

EKS0077L

1. CHECK FUSE

- Check that the following fuses of the audio unit are not blown. Refer to [PG-106, "FUSE BLOCK - JUNCTION BOX \(J/B\)"](#) and [PG-107, "FUSE AND FUSIBLE LINK BOX"](#).

Unit	Terminals			Signal name	Fuse No.		
	(+)		(-)				
	Connector	Terminal (wire color)					
Audio unit	M27	34 (BR)	Ground	Battery power	24		
	M27	37 (L)	Ground	ACC power	12		

OK or NG

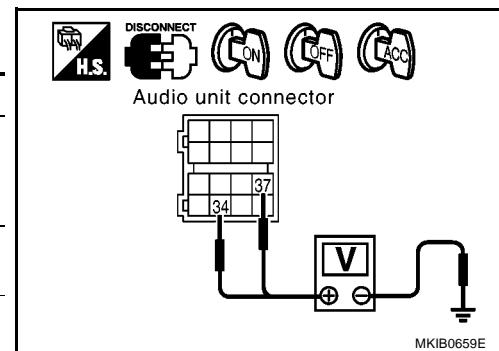
OK >> GO TO 2.

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

2. POWER SUPPLY CIRCUIT CHECK

Disconnect the connector. Check voltage between the following harness connector terminal (+) and body ground (-).

Unit	Terminal No.		Ignition switch		
	(+) (H.S.)		(-)	OFF	ACC
	Connector	Terminal (wire color)			ON
Audio unit	M27	34 (BR)	Ground	Battery power	Battery voltage
	M27	37 (L)	Ground	0V	Battery voltage



OK or NG

OK >> Inspection end.

NG >> Repair or replace harness.

Steering Wheel Audio Control Switch Does Not Operate

EKS007AU

1. STEERING WHEEL AUDIO CONTROL SWITCH RESISTANCE CHECK

1. Disconnect steering wheel audio control switch connector.
2. Check resistance steering wheel audio control switch. Refer to [AV-9, "Steering Wheel Audio Control Switch Resistance Check"](#).

Resistance value is OK?

YES or NO

YES >> GO TO 2.

NO >> Replace steering wheel audio control switch.

2. STEERING WHEEL AUDIO CONTROL SWITCH CIRCUIT CHECK

1. Disconnect audio unit connector.
2. Check continuity between audio unit harness connector M26 and combination switch (spiral cable) harness connector M29.

Terminals				Continuity
Connector	Terminal (wire color)	Connector	Terminal (wire color)	
M26	10 (L)	M29	34 (L)	Yes
	11 (W)		33 (W)	
	12 (L)		32 (L)	

3. Check continuity between audio unit and ground.

Terminals		Continuity
(+)	(-)	
Connector	Terminal (wire color)	
M26	10 (L)	Ground
	11 (W)	
	12 (L)	

OK or NG

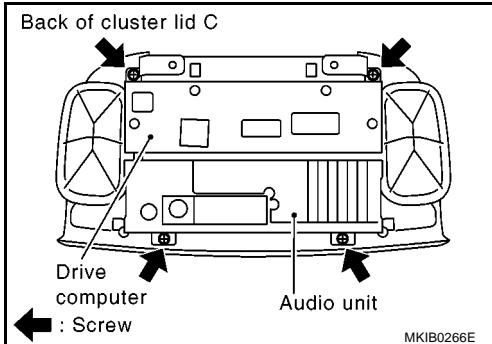
OK >> Check combination switch (spiral cable).

NG >> Replace audio unit.

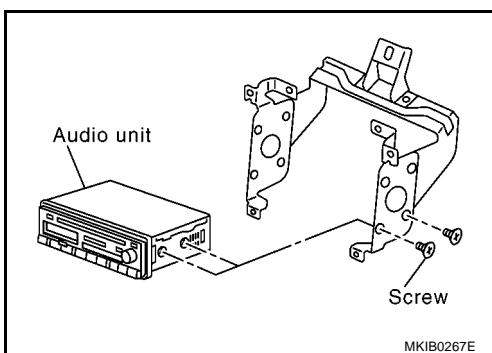
Removal and Installation of Audio Unit REMOVAL

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1. Remove instrument panel and cluster lid C. Refer to [IP-7, "K. Cluster Lid C"](#).
2. Remove screws and remove audio unit and bracket.



3. Remove screws and remove bracket.



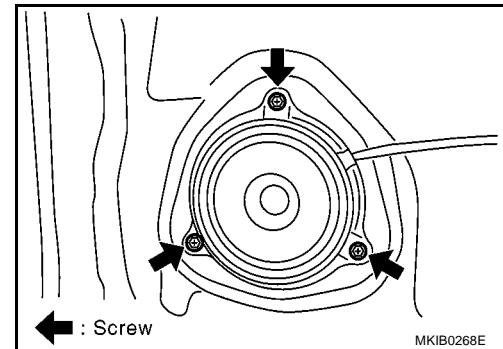
INSTALLATION

Install in the reverse order of removal.

Removal and Installation of Front Door Speaker

REMOVAL

1. Remove front door finisher. Refer to [EI-16, "DOOR FINISHER"](#) .
2. Remove screws and remove speaker.



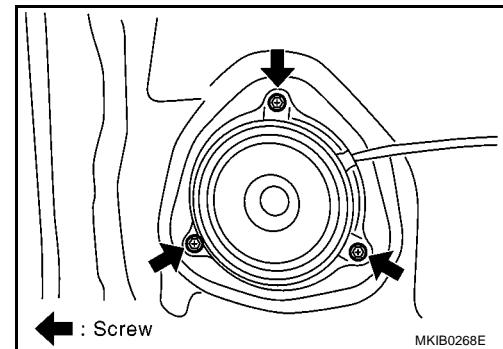
INSTALLATION

Install in the reverse order of removal.

Removal and Installation of Rear Door Speaker (3 door models)

REMOVAL

1. Remove rear door finisher. Refer to [EI-16, "DOOR FINISHER"](#) .
2. Remove screws and remove speaker.



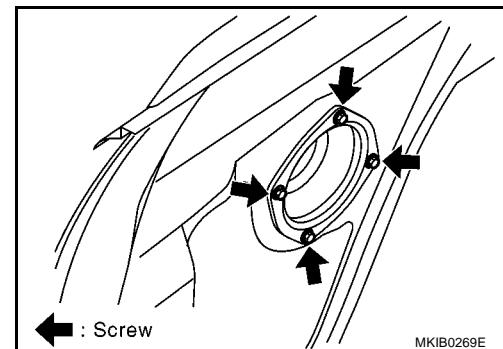
INSTALLATION

Install in the reverse order of removal.

Removal and Installation of Rear Door Speaker (5 door models)

REMOVAL

1. Remove rear side finisher. Refer to [EI-16, "DOOR FINISHER"](#) .
2. Remove screws and remove speaker.



INSTALLATION

Install in the reverse order of removal.

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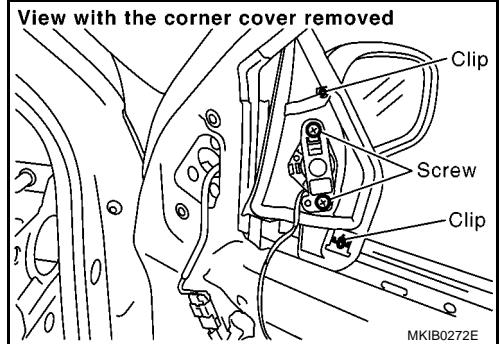
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Removal and Installation of Front Pillar Tweeter

EKS0077P

REMOVAL

1. Remove front door finisher. Refer to [EI-19, "BODY SIDE TRIM"](#) .
2. Remove clips and remove corner cover.
3. Remove screws and remove front pillar tweeter.



INSTALLATION

Install in the reverse order of removal.

AUDIO ANTENNA

AUDIO ANTENNA

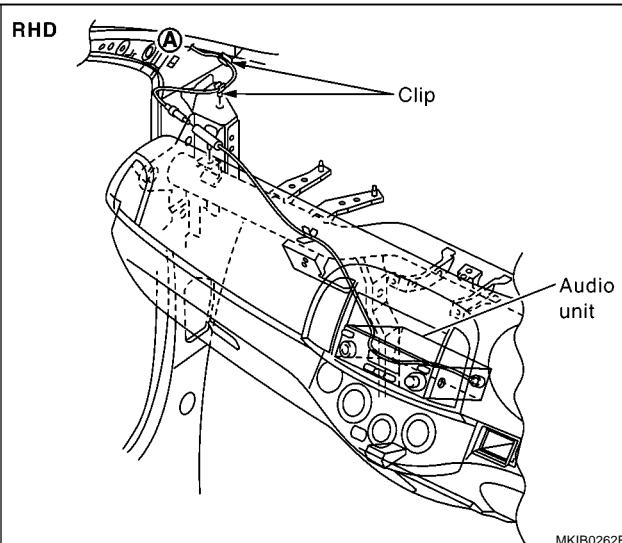
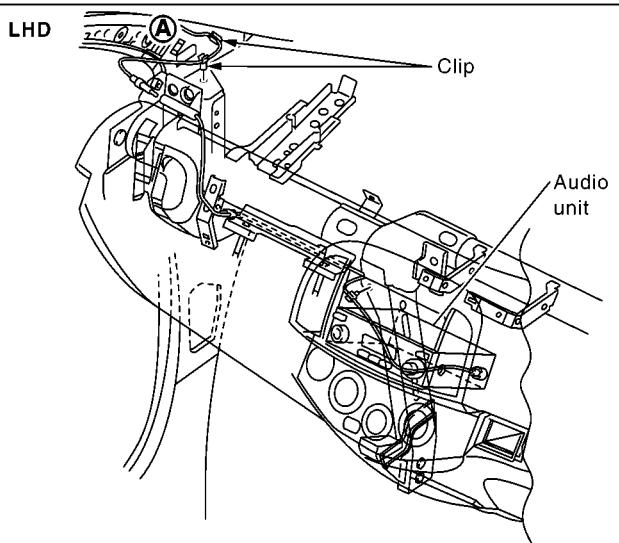
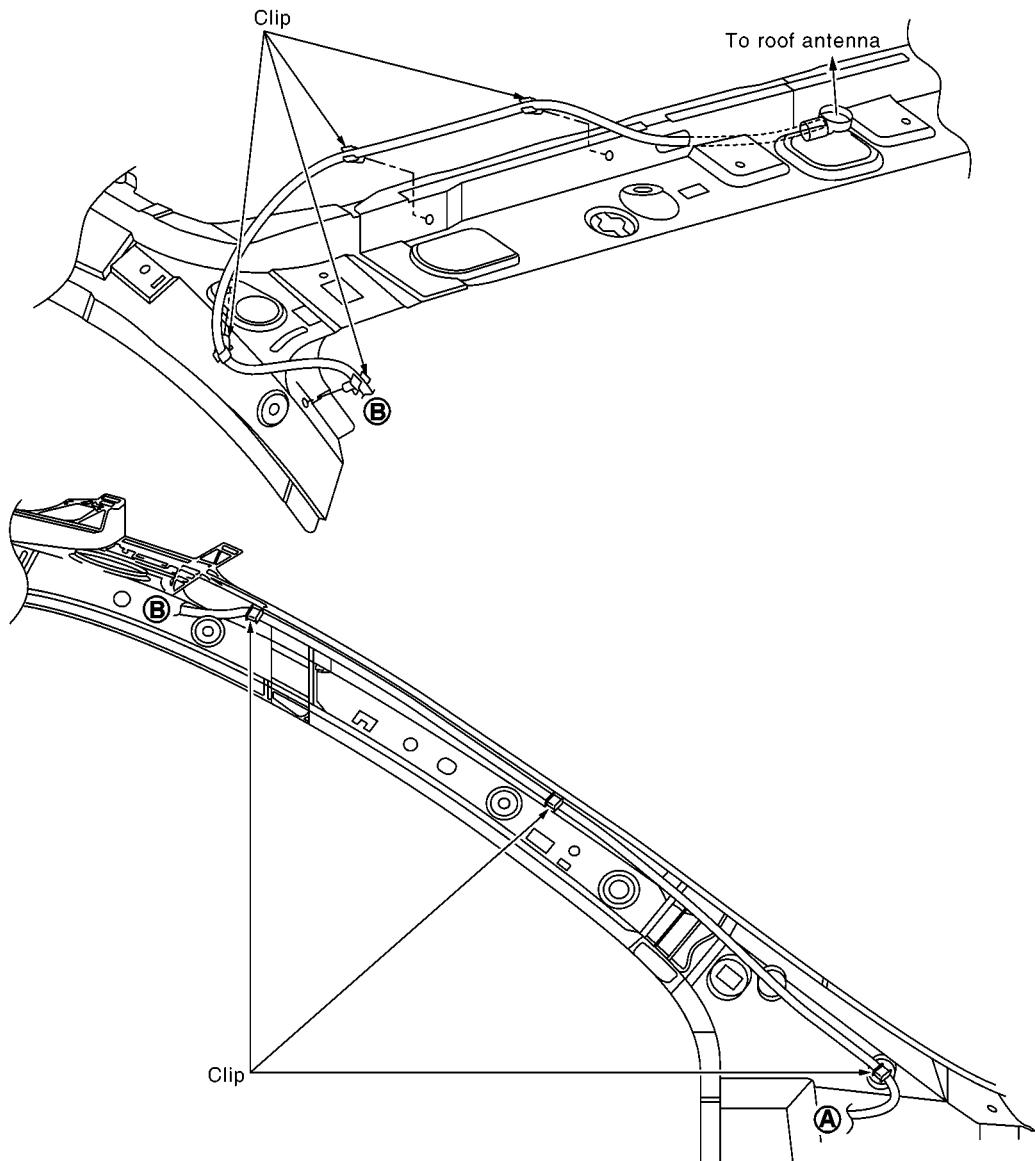
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Location of Antenna

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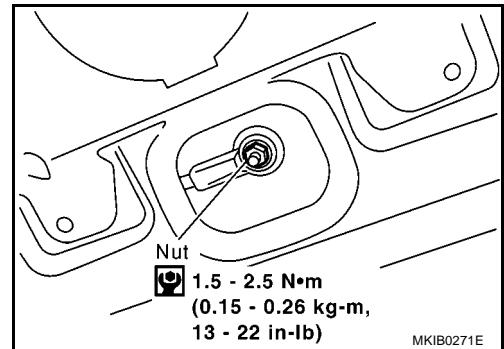
AUDIO ANTENNA

Removal and Installation of Roof Antenna

EKS0077R

REMOVAL

1. Remove headliner. Refer to [EI-24, "HEADLINER"](#).
2. Remove roof antenna mounting nuts, antenna plug. Then remove roof antenna.



INSTALLATION

Install in the reverse order of removal.

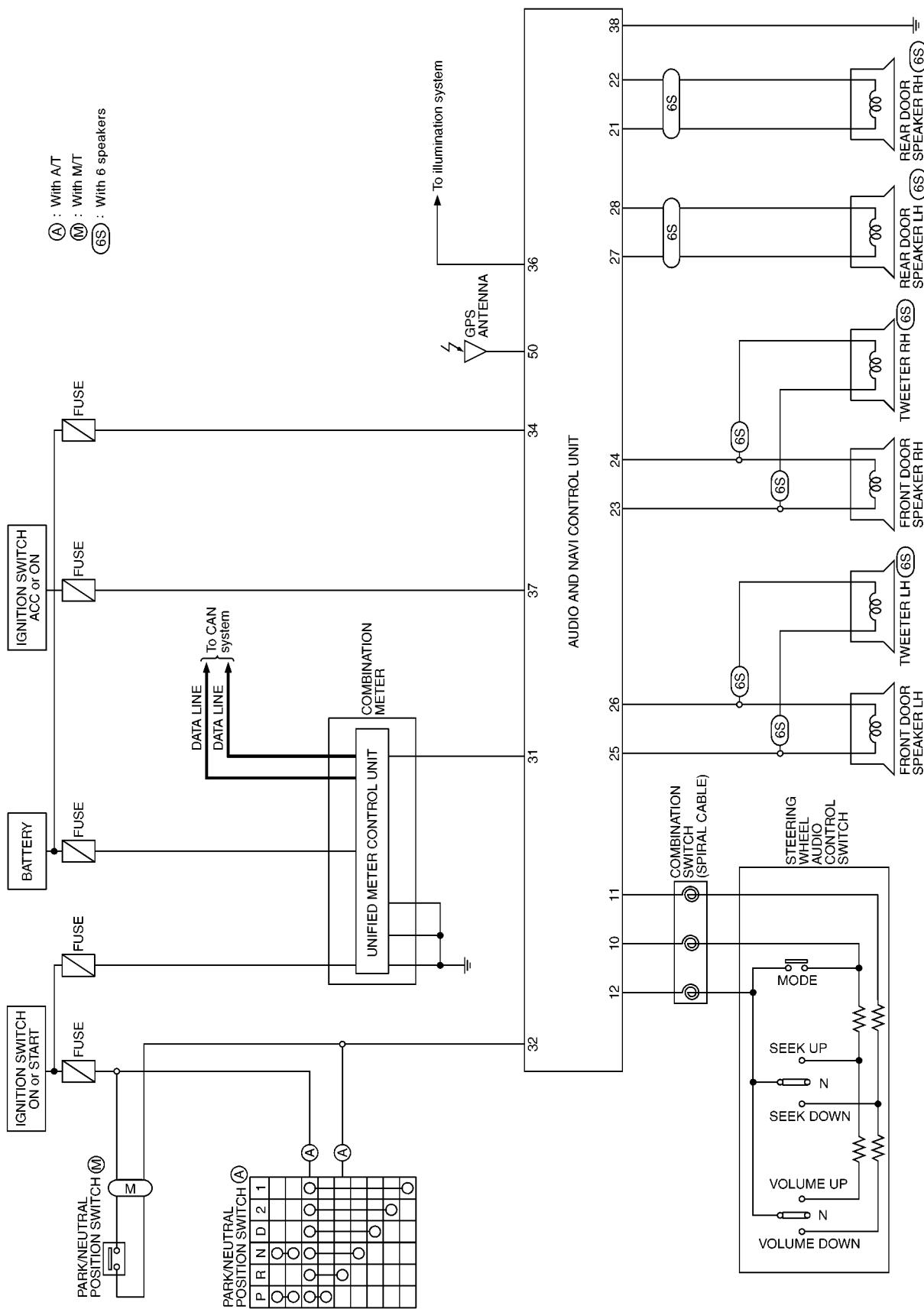
NAVIGATION SYSTEM

NAVIGATION SYSTEM

Schematic

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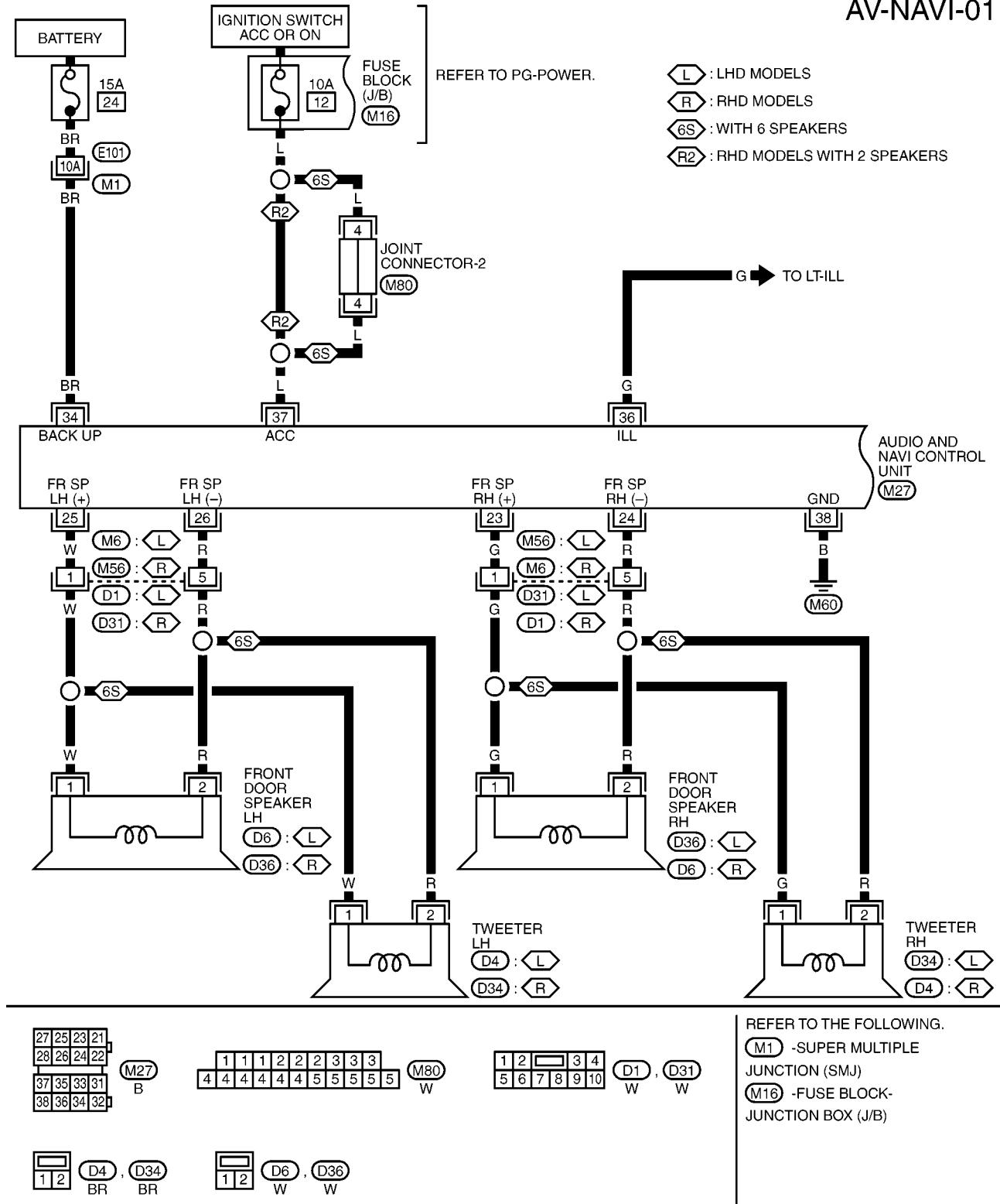
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NAVIGATION SYSTEM

Wiring Diagram —NAVI— WITHOUT ESP

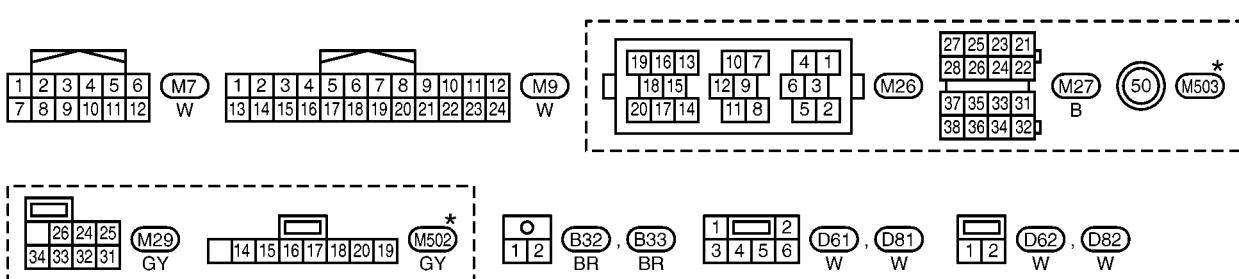
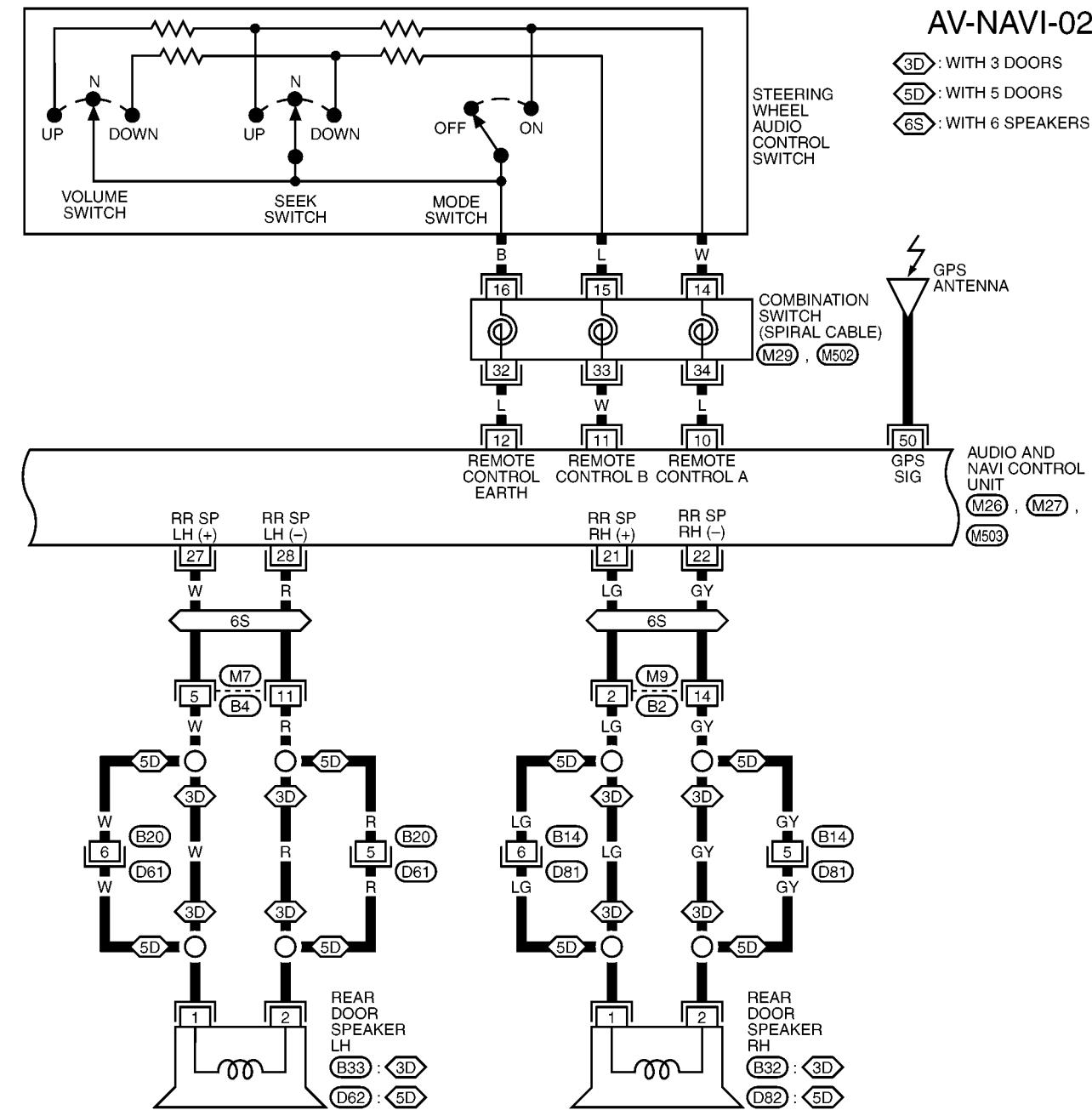
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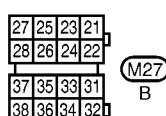
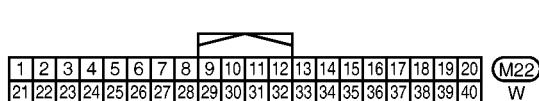
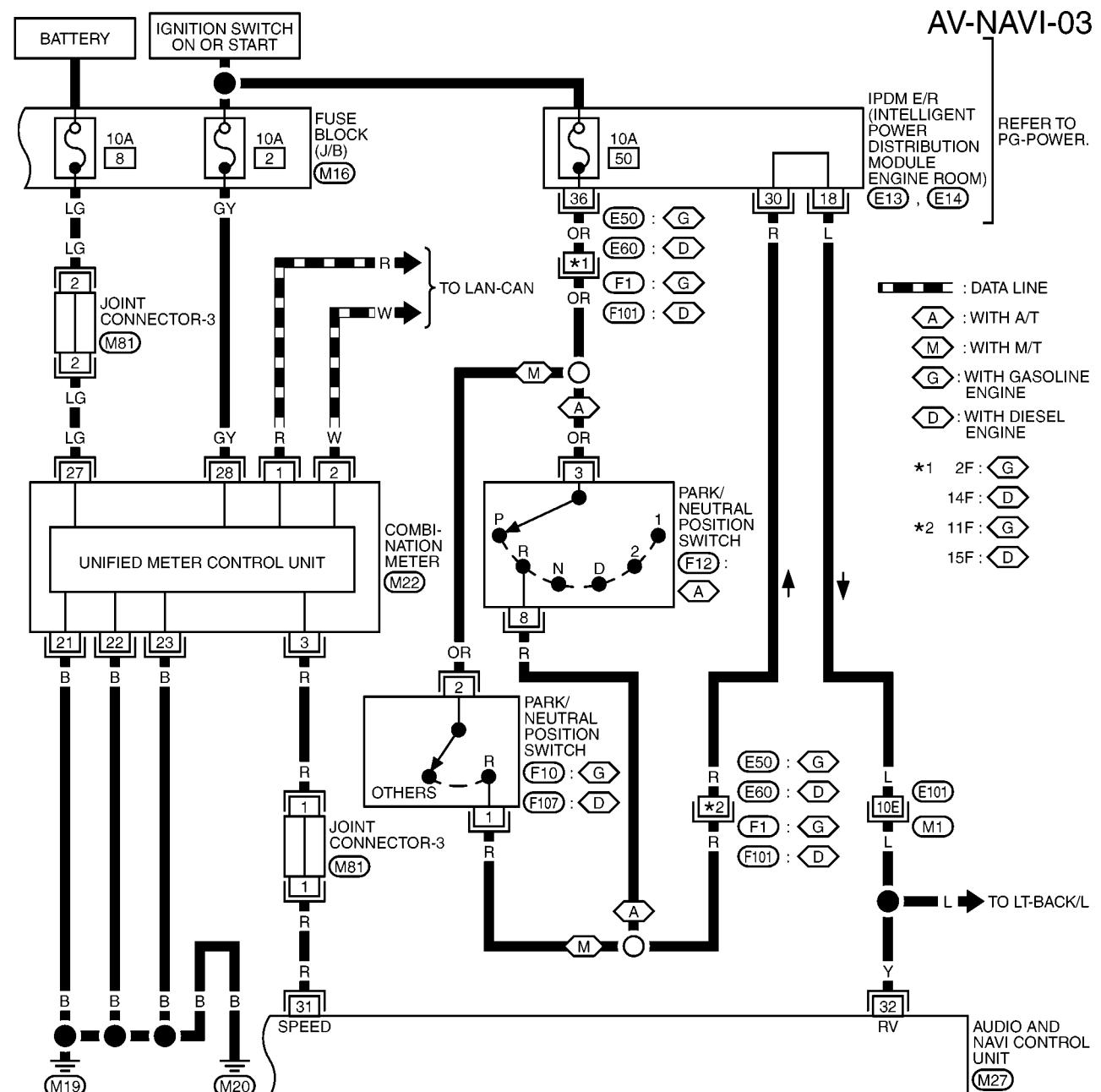
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NAVIGATION SYSTEM



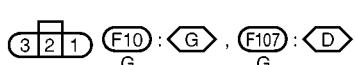
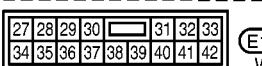
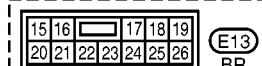
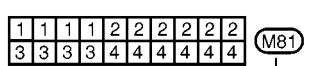
*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

NAVIGATION SYSTEM



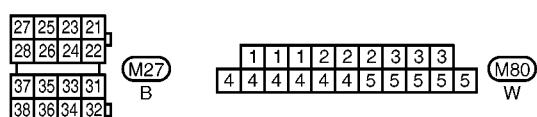
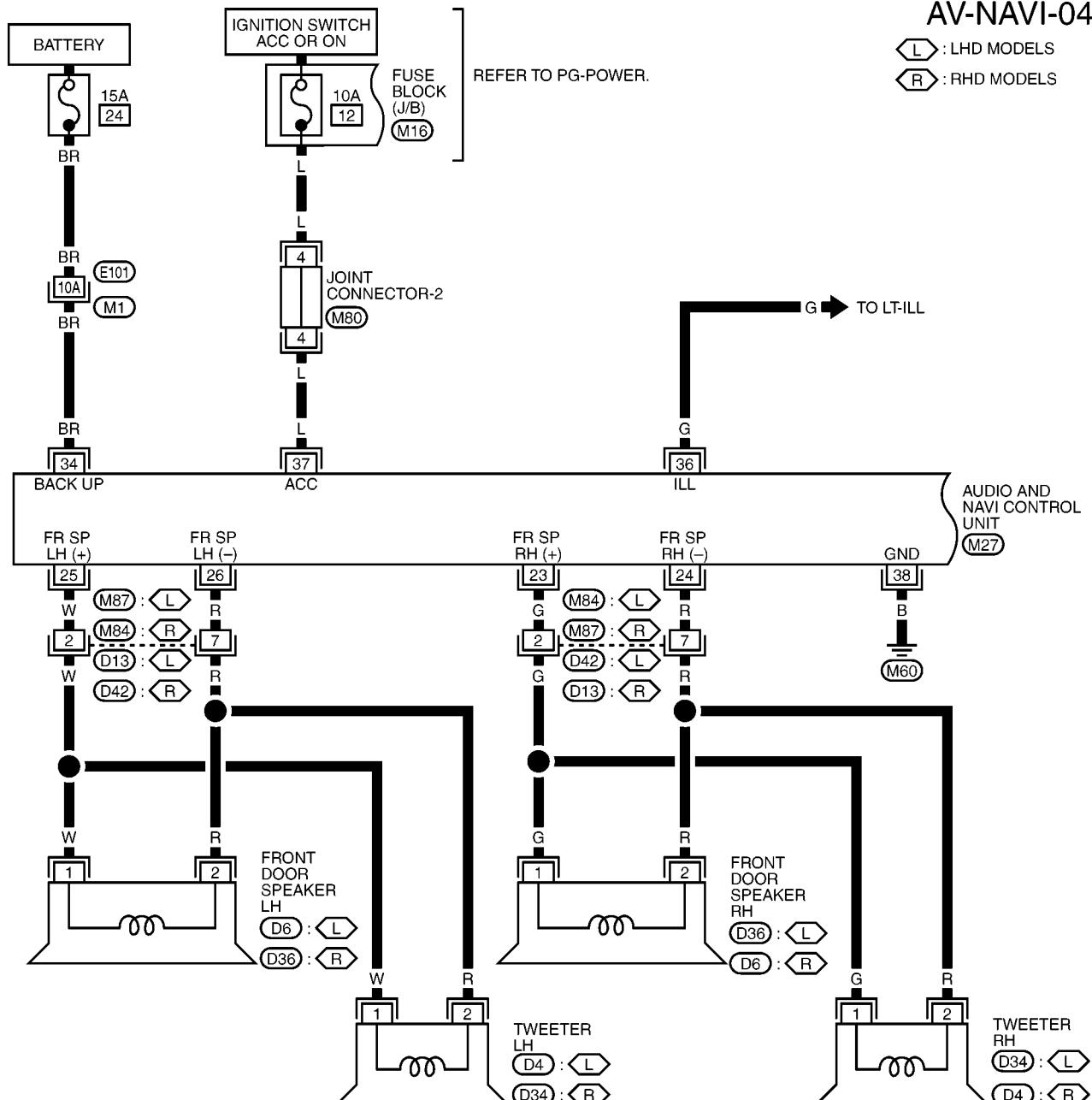
REFER TO THE FOLLOWING.

- (M1) , (F1) , (F101) -SUPER MULTIPLE JUNCTION (SMJ)
- (M16) -FUSE BLOCK- JUNCTION BOX (J/B)



NAVIGATION SYSTEM

WITH ESP



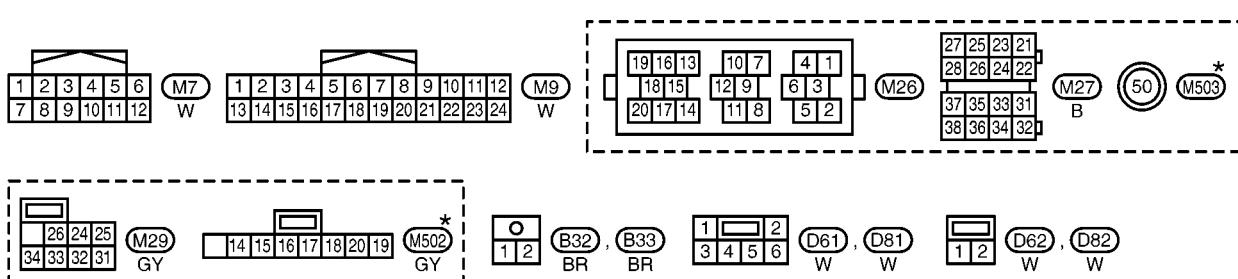
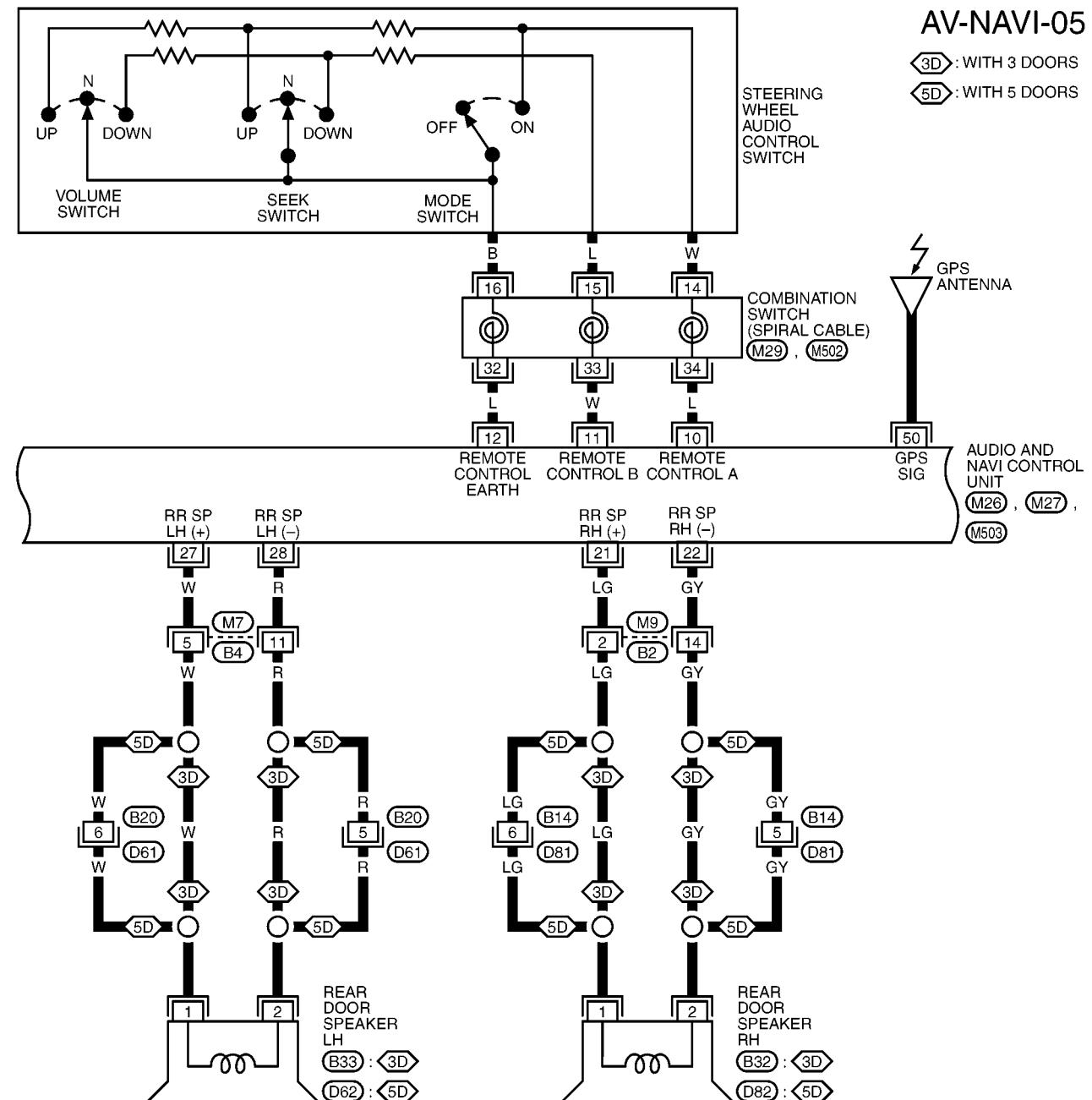
1 REFER TO THE FOLLOWING.

M1 -SUPER MULTIPI E

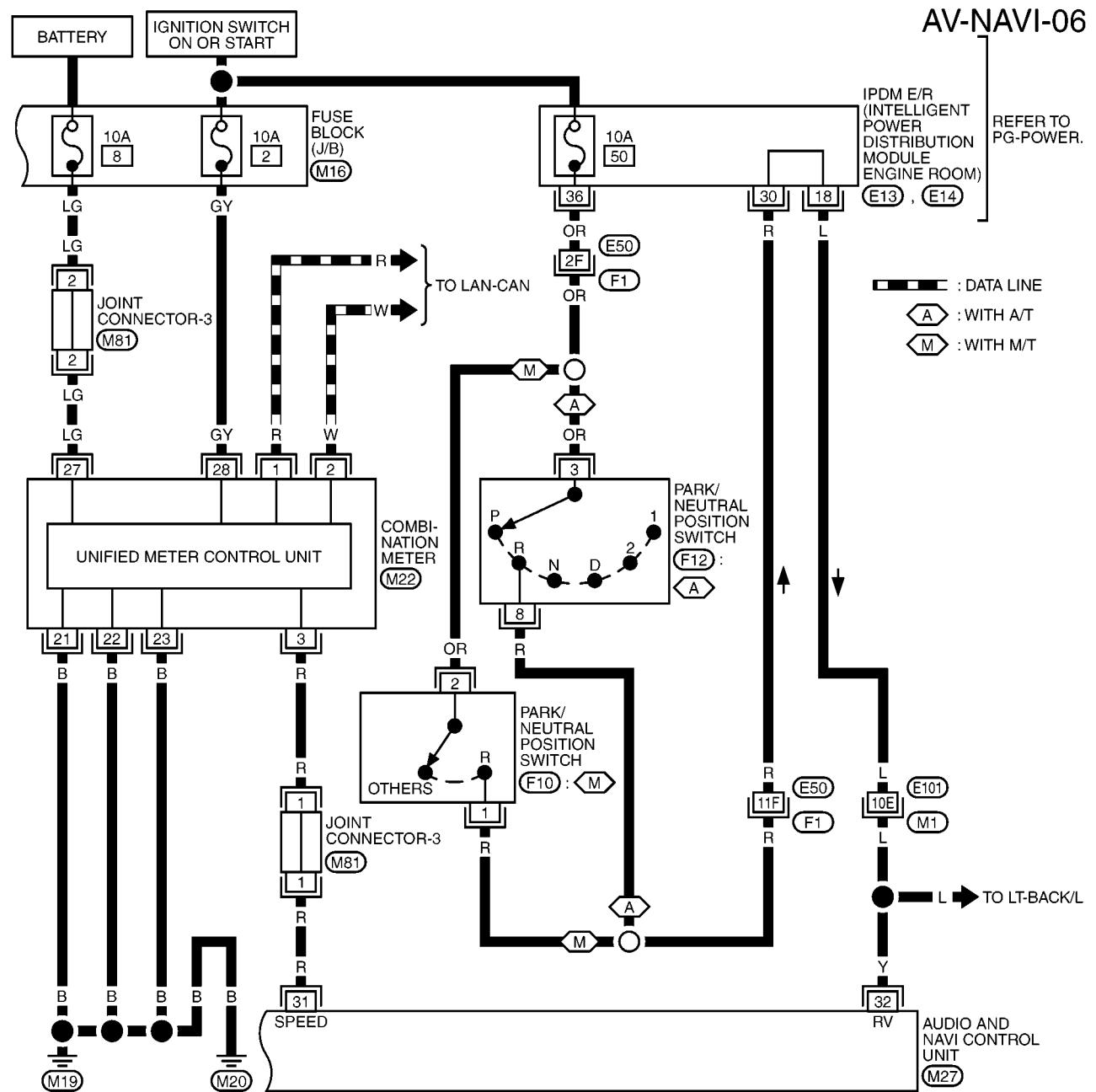
JUNCTION (SM-I)

JUNCTION (3M5)

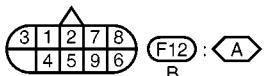
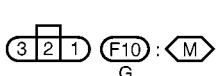
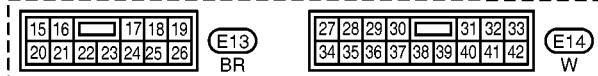
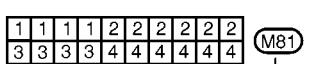
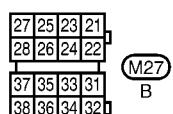
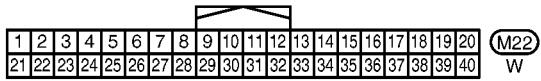
NAVIGATION SYSTEM



NAVIGATION SYSTEM



REFER TO THE FOLLOWING.
M1 , F1 -SUPER
MULTIPLE JUNCTION (SMJ)
M16 -FUSE BLOCK-
JUNCTION BOX (J/B)



NAVIGATION SYSTEM
