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AUDIO, VISUAL, NAVIGATION & TELEPHONE SYSTEM

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PRECAUTIONS

PRECAUTIONS PFP:00001

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 Man-

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.

AV-3 Revision: June 2006 2007 Versa

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PREPARATION

PREPARATION PFP:00002

Commercial Service Tool

EKS0019D

Tool name		Description
Power tool		Loosening bolts and nuts
	PBIC0191E	

AUDIO PFP:28111

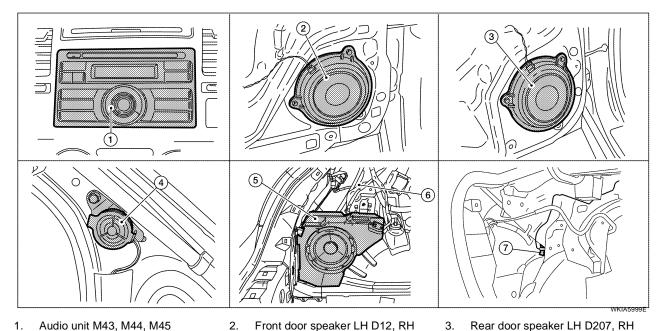
Component Parts Location

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- Audio unit M43, M44, M45
 - Tweeter LH M46, RH M47 (view with 5.
 - Subwoofer B29 (premium system) [view with luggage side lower fin-

isher (LH) removed]

D112

- Rear door speaker LH D207, RH D307
- Satellite radio tuner B30, B31 (hatchback - if equipped) [view with luggage side lower finisher (LH) removed]

front pillar garnish removed)

Satellite radio tuner B30, B31 (sedan - if equipped) (view with trunk side finisher LH removed)

System Description **BASE SYSTEM**

Refer to Owner's Manual for audio system operating instructions. Power is supplied at all times

- through 20A fuse (No. 27, located in the fuse and fusible link box)
- to audio unit terminal 19.

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

- through 10A fuse (No. 20, located in the fuse and fusible link box)
- to audio unit terminal 7.

Ground is supplied through the case of the audio unit.

Then audio signals are supplied

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

MID LEVEL AND PREMIUM SYSTEM

Refer to Owner's Manual for audio system operating instructions. Power is supplied at all times

- through 20A fuse (No. 27, located in the fuse and fusible link box)
- to audio unit terminal 19 and
- to subwoofer terminal 1 (with premium system).

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

- through 10A fuse (No. 20, located in the fuse and fusible link box)
- to audio unit terminal 7.

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Ground is supplied through the case of the audio unit. Ground is also supplied

- to audio unit terminal 21 (with premium system)
- through body grounds M57 and M61 and
- to subwoofer terminal 3 (with premium system)
- through body grounds B7 and B19.

Then audio signals are supplied

- through audio unit terminals 2, 3, 4, 5, 11, 12, 13, and 14
- to terminals + and of front door speaker LH and RH and
- to terminals + and of tweeter LH and RH and
- to terminals + and of rear door speaker LH and RH and
- to terminals 2 and 6 of subwoofer (with premium system).

Steering Wheel Audio Control Switches (with Bluetooth)

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 (Pre-wiring)

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

Power is supplied at all times

- through 20A fuse (No. 27, located in the fuse and fusible link box)
- 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. 20, located in the fuse and fusible link box)
- to satellite radio tuner pre-wiring terminal 36.

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.

Satellite Radio Tuner (Factory Installed)

Power is supplied at all times

- through 20A fuse (No. 27, located in the fuse and fusible link box)
- to satellite radio tuner terminal 32.

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

- through 10A fuse (No. 20, located in the fuse and fusible link box)
- to satellite radio tuner terminal 36.

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

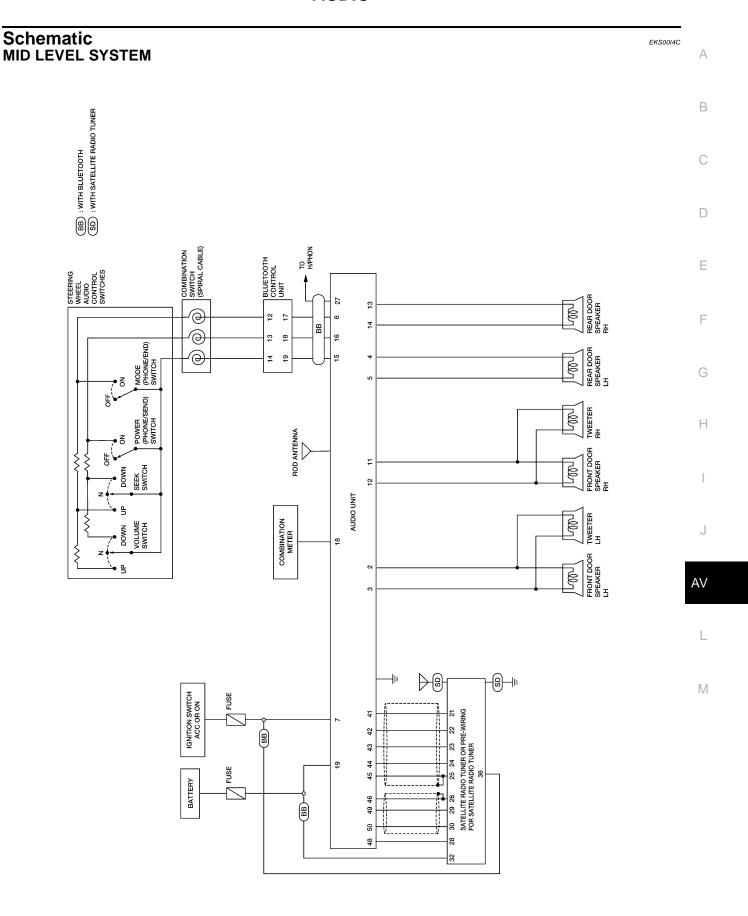
Then audio signals are supplied

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

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

SPEED SENSITIVE VOLUME SYSTEM (MID LEVEL AND PREMIUM SYSTEM)

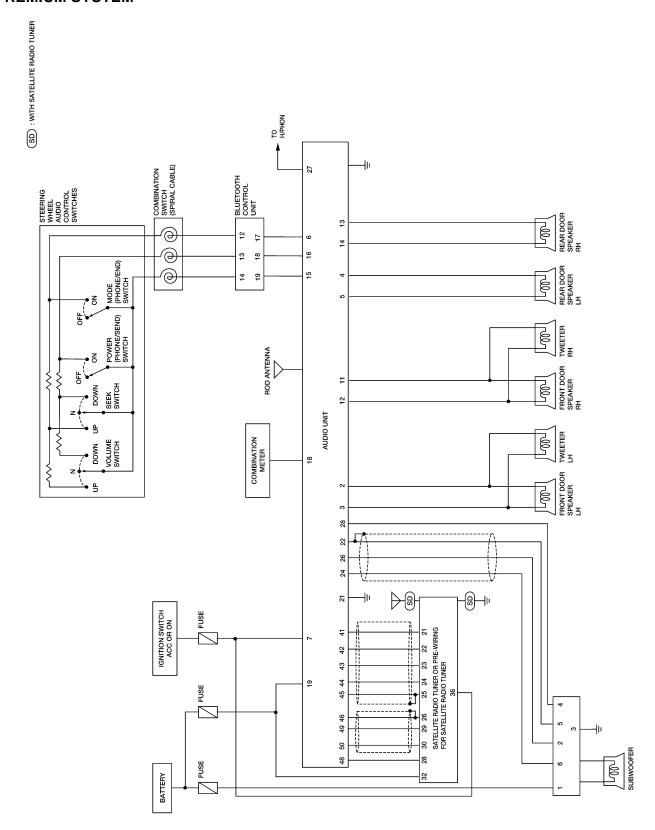
Volume level of this system goes up and down automatically in proportion to the vehicle speed. The control level can be selected by the customer. Refer to Owner's Manual for operating instructions.



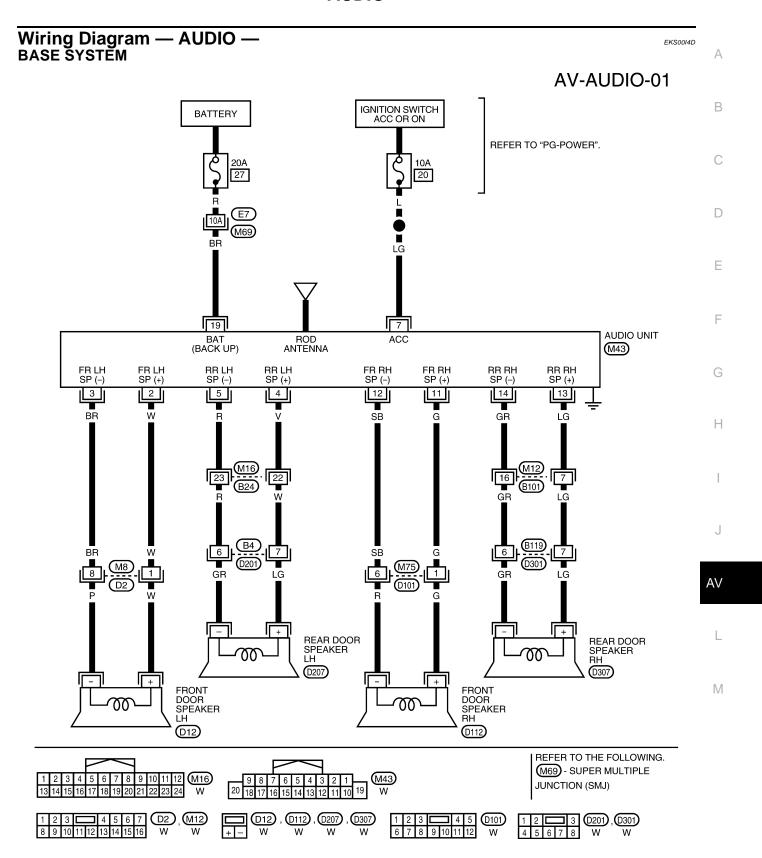
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Revision: June 2006 AV-7 2007 Versa

PREMIUM SYSTEM



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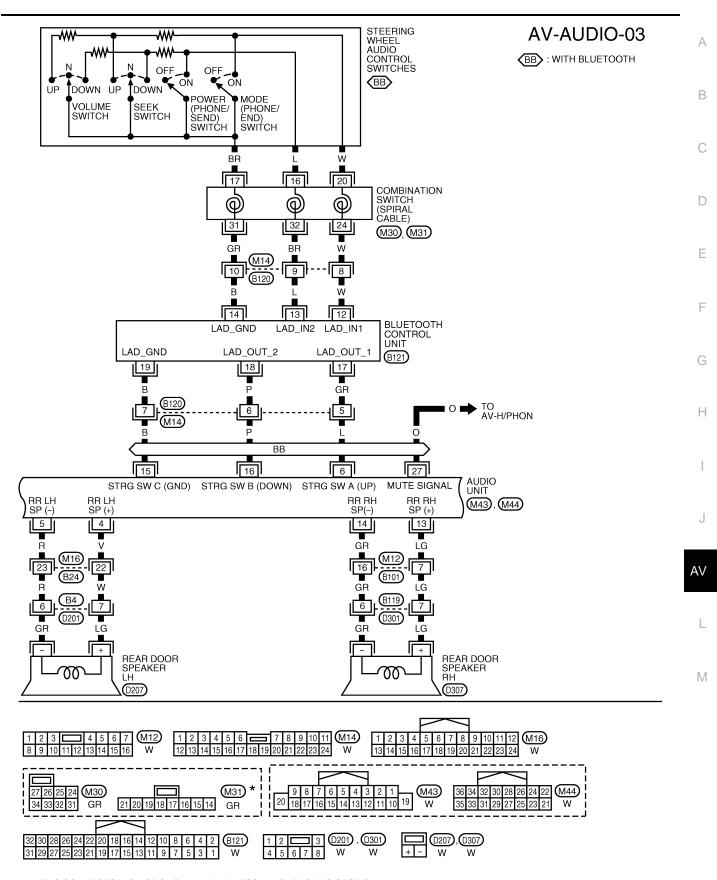


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AV-9 Revision: June 2006 2007 Versa

MID LEVEL SYSTEM **AV-AUDIO-02** IGNITION SWITCH ACC OR ON **(BB)**: WITH BLUETOOTH BATTERY R): WITH PRE-WIRING FOR SATELLITE RADIO TUNER REFER TO "PG-POWER". SD: WITH SATELLITE RADIO TUNER 10A 27 20 COMBINATION METER **SPEED** OUT 8 (M24) 4 SB BR PR: :TO AV-AUDIO-07 SD :TO AV-AUDIO-06 PR :TO AV-AUDIO-07 BR SD :TO AV-AUDIO-06 LG SB 7 18 19 AUDIO UNIT BAT ACC SPEED ROD (BACK UP) ANTENNA (M43) SIGNAL FR LH SP (-) FR LH SP (+) FR RH SP (-) FR RH SP (+) 3 2 12 BR W SB BR FRONT FRONT TWEETER RH TWEETER \mathfrak{M} \overline{m} (M46) (M47) FRONT DOOR SPEAKER **FRONT** DOOR SPEAKER ത ത (D12) D112 REFER TO THE FOLLOWING. M69 - SUPER MULTIPLE 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 JUNCTION (SMJ) 20 18 W M46, M47 6 7 8 9 10 11 12

WKWA4980E



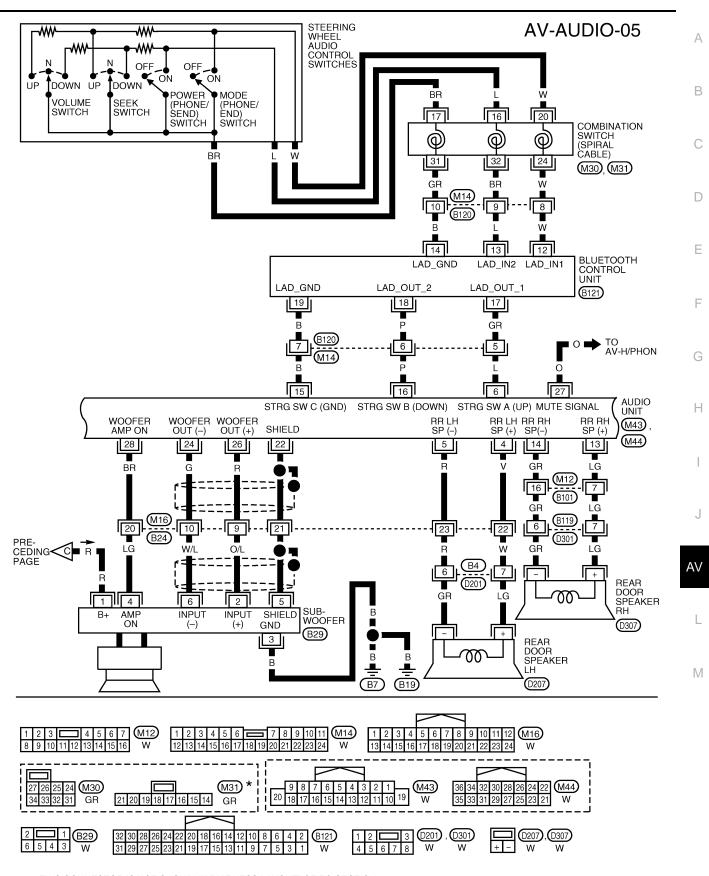
 $\ensuremath{\bigstar}$: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT" OF PG SECTION.

WKWA4981E

PREMIUM SYSTEM AV-AUDIO-04 IGNITION SWITCH ACC OR ON BATTERY : WITH PRE-WIRING FOR SATELLITE RADIO TUNER (SD): WITH SATELLITE RADIO TUNER REFER TO "PG-POWER". 10A COMBINATION METER 20 SPEED_ OUT 8 (M24) 4 PR>:TO AV-AUDIO-07 BR SB SD :TO AV-AUDIO-06 PR>:TO AV-AUDIO-07 LG :TO AV-AUDIO-06 BR ■BR■ 12 ■ R 19 7 18 AUDIO UNIT BAT (BACK UP) ACC SPEED ROD M43 M44 ANTENNA SIGNAL FR LH SP (-) FR LH SP (+) FR RH SP (+) FR RH EQ1 SP (-) 2 12 3 21 $\overline{\mathsf{BR}}$ W SB В 1 FRONT TWEETER LH FRONT TWEETER RH ത ത്ത M46 (M47)+ + FRONT DOOR SPEAKER RH FRONT DOOR SPEAKER 00 \mathfrak{W} (D112) (D12) (M57) (M61)REFER TO THE FOLLOWING. M69 - SUPER MULTIPLE JUNCTION (SMJ) M46, M47 8 9 10 11 12 13 14 15 16 BR BR

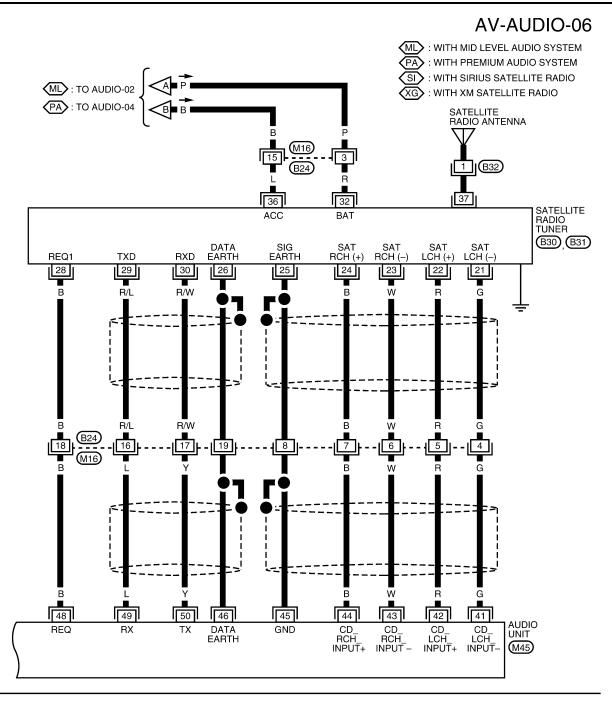
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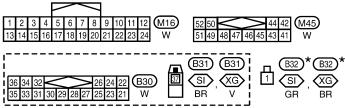
D12 , D112 W W



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

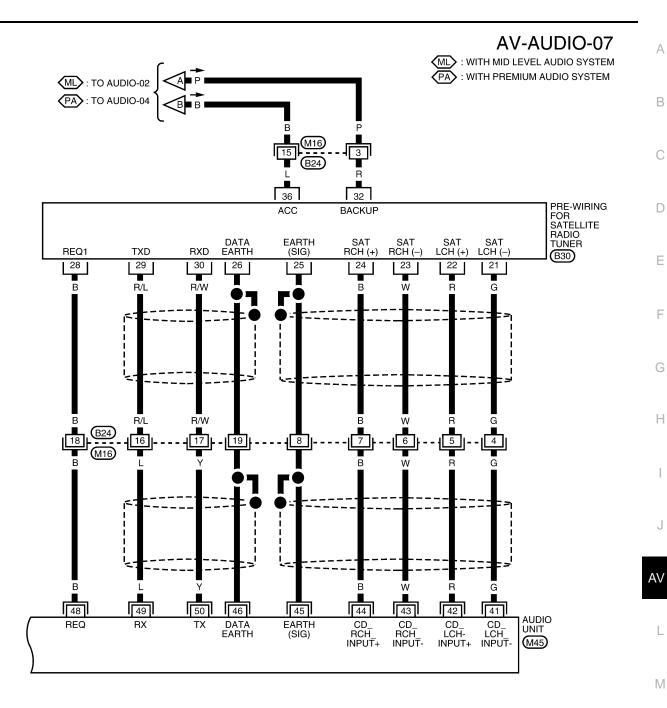
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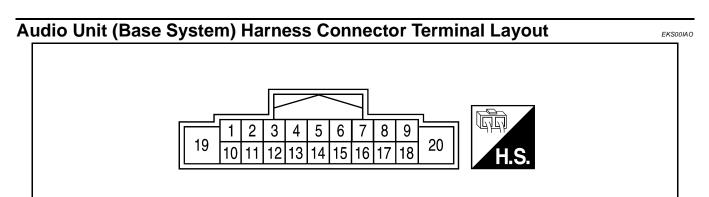
*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT" OF PG SECTION.

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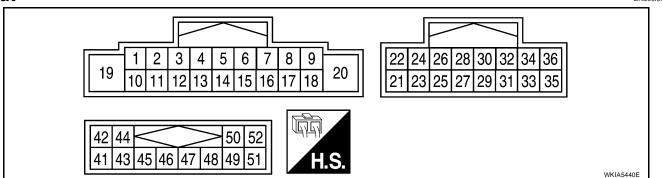
Terminals and Reference Value for Audio Unit (Base System)

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					- · (- · · · · · · · · · · · · · · · ·	,
	ninal color)	- Item	Signal input/		Condition	Reference value
+	-	Rom	output	Ignition switch	Operation	(Approx.)
2 (W)	3 (BR)	Audio signal front LH	Output	ON	Receive audio signal	(V) 1 0 -1 ** 2ms SKIB3609E
4 (V)	5 (R)	Audio signal rear LH	Output	ON	Receive audio signal	(V) 1 0 -1 + 2ms SKIB3609E
7 (LG)	Ground	ACC power supply	Input	ACC	_	Battery voltage
11 (G)	12 (SB)	Audio signal front RH	Output	ON	Receive audio signal	(V) 1 0 -1 + 2ms SKIB3609E
13 (LG)	14 (GR)	Audio signal rear RH	Output	ON	Receive audio signal	(V) 1 0 -1 ** 2ms SKIB3609E
19 (BR)	Ground	Battery power supply	Input	OFF	_	Battery voltage

Audio Unit (Mid Level and Premium System) Harness Connector Terminal Layout



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Terminals and Reference Value for Audio Unit (Mid Level and Premium System)

							EKS0019C	,
	minal e color)	- Item	Signal input/		Condition	Reference value	Example of symp-	
+	_	- Item	output	Ignition switch	Operation	(Approx.)	tom	
2 (W)	3 (BR)	Audio sound signal front LH	Output	ON	Receive audio signal	(V) 1 0 -1 1 ms	No sound from front door speaker LH or tweeter LH.	
4 (V)	5 (R)	Audio sound signal rear LH	Output	ON	Receive audio signal	(V) 1 0 -1 1 ms	No sound from rear door speaker LH or subwoofer LH.	A
					Press Phone/ End switch	ov		
C /I *0	Ground	Remote	lmmut	ON	Press SEEK UP switch	1.7V	Steering wheel audio controls do	
6 (L)*2	Ground	control A	Input	ON	Press VOL UP switch	3.3V	not function	
					Except for above	5.0V		
7 (LG)	Ground	ACC signal	Input	ON	Ignition switch ACC or ON	Battery voltage	System does not work properly.	
11 (G)	12 (SB)	Audio sound signal front RH	Output	ON	Receive audio signal	(V) 1 0 -1 SKIA0177E	No sound from front door speaker RH or tweeter RH.	

	ninal		Signal		Condition		
(Wire	color)	- Item	input/ output	Ignition	Operation	Reference value (Approx.)	Example of symp- tom
13 (LG)	14 (GR)	Audio sound signal rear RH	Output	switch ON	Receive audio signal	(V) 1 0 -1 1 ms SKIA0177E	No sound from rear door speaker RH or subwoofer RH.
15 (B)*2	_	Remote control ground	Input	_	_	_	Steering wheel audio controls do not function
		Remote	·		Press Phone/ Send switch Press SEEK DOWN switch	0V 1.7V	Steering wheel
16 (P)*2	Ground	control B	Input	ON	Press VOL DOWN switch	3.3V	audio controls do not function
					Except for above	5.0V	
18 (SB)	Ground	Vehicle speed sig- nal (8– pulse)	Input	ON	When vehicle speed is approx. 40 km/h (25 MPH)	(V) 6 4 2 0 	Speed sensitive volume is inoperative.
19 (BR)	Ground	Battery power	Input	_	_	Battery voltage	Subwoofer will not work properly.
21 (B)*2	Ground	EQ selec- tion	_	ON	_	0V (with mid level) 12V (with premium)	Wrong EQ will cause sub woofer to be inoperative
22*1	-	Shield	_	_	_	_	_
26 (R)*1	24 (G)	Audio sig- nal sub- woofer	Input	_	_	Audio signal	Subwoofer will not work properly.
28 (BR)*1	Ground	Subwoofer amp. ON signal	Output	ON	_	12V	Subwoofer will not work properly.
27 (O)*2	_	Bluetooth ON	Output	ON	Audio unit sends power signal to Blue- tooth control unit	_	Mute inoperative
31 (LG)*2	33 (V)*2	Audio out	Output	ACC/ ON	Audio unit receives audio signal from Bluetooth con- trol unit	(V) 1 0 -1 * 2ms SKIB3609E	Bluetooth can not be heard.
35*2	_	Shield	_	_	_	-	_

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	minal e color)	Item	Signal input/		Condition	Reference value	Example of symp-
+	-		output	Ignition switch			tom
42 (R)	41 (G)	Audio left channel sound sig- nal from sat- ellite radio tuner	Input	ON	Receive audio signal	(V) 1 0 -1 1 ms SKIA0177E	No sound from satellite radio tuner left channel.
44 (B)	43 (W)	Audio right channel sound sig- nal from sat- ellite radio tuner	Input	ON	Receive audio signal	(V) 1 0 -1 1 ms SKIA0177E	No sound from satellite radio tuner right channel.
45	-	Shield ground (audio sig- nal)	-	-	-	OV	-
46	-	Shield ground (data)	_	-	_	OV	-
48 (B)	Ground	Satellite radio tuner request to audio unit	Input	ON	Turn audio unit ON	5V	Satellite radio tuner does not operate properly.
49 (L)	Ground	Audio RX	Input	ON	Operate audio volume	(V) 6 4 2 0 *** 5ms SKIA4403E	Satellite radio tuner audio infor- mation does not display properly.
50 (Y)	Ground	Audio TX	Output	ON	Operate audio volume	(V) 6 4 2 0 ** 2ms SKIA4402E	Satellite radio tuner audio infor- mation does not display properly.

^{*1:} With premium system *2: With Bluetooth

Terminals and Reference Value for Subwoofer (Premium Audio System)

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Term (Wire		Item	Signal		Condition	Reference value
+	_	. item	input/ output	Ignition switch	Operation	(Approx.)
1 (R)	Ground	Battery power supply	Intput	OFF	_	Battery voltage
2 (O/L)	6 (W/L)	Audio signal sub- woofer	Intput	ON	Receive audio signal	(V) 1 0 -1 + 2ms SKIB3609E
3 (B)	Ground	Ground	_	ON	_	0 V
4 (LG)	Ground	Subwoofer amp. ON signal	Input	ON	-	Battery voltage
5	_	Shield	_	_	_	_

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	minal color)		Signal		Condition	Voltage
+	_	- Item	input/ output	Ignition switch	Operation	(Approx.)
22 (R)	21 (G)	Audio signal LH	Output	ON	Receive audio signal.	(V) 1 0 -1 ***2ms SKIB3609E
24 (B)	23 (W)	Audio signal RH	Output	ON	Receive audio signal.	(V) 1 0 -1 2ms SKIB3609E
25	_	Shield	_	_	-	-
26	_	Data ground		ON		0V
28 (B)	Ground	REQ1 (SAT-AUDIO)	Output	ON	Set to the satellite radio mode	(V) 15 0 5 0 → • 20ms SKIB3825E
29 (R/L)	Ground	Communication signal (SAT-AUDIO)	Output	ON	Set to the satellite radio mode	(V) 15 0 5 0 *** 20ms *** SKIB3824E
30 (R/W)	Ground	Communication signal (AUDIO-SAT)	Input	ON	Set to the satellite radio mode	(V) 15 10 5 0 *** 10ms SKiB3826E

	ninal color)	Signa Item input			Condition	Voltage
+	-	item	output	Ignition switch	Operation	(Approx.)
32 (R)	Ground	Battery power supply		OFF		Battery voltage
36 (L)	ACC power supply	Input	ACC	_	Battery Voltage	
37	_	Antenna signal		_	_	-

Trouble Diagnosis

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NOTE:

The subwoofer (premium system) may be inoperative if the audio unit harness connectors have not been connected in the proper sequence (when the battery remains connected). The proper sequence is to connect M44 and M45 first followed by M43 last. If the subwoofer is inoperative, be sure to check this condition. Refer to AV-40, "Sound Is Not Heard From Subwoofer (Premium System)"

- The majority of the audio malfunctions are the result of outside causes (damaged CD, electromagnetic interference, etc.). Check the symptoms below to diagnose the malfunction.
- The vehicle itself can be a source of noise if noise prevention parts or electrical equipment is malfunctioning. Check if noise is caused and/or changed by engine speed, ignition switch turned to each position, and
 operation of each piece of electrical equipment, and then determine the cause.

Symptom	Check item	
Audio system does not work properly.	 Audio unit power supply circuit. Refer to AV-24, "Power Sup Circuit Inspection" Audio unit. Refer to AV-23, "Trouble Diagnosis" 	
No sound can be heard from all speakers.	Audio unit. Refer to AV-23, "Trouble Diagnosis" .	
No sound can be heard from one or several speakers.	 Open or short in audio signal circuit between audio unit and front speaker. Refer to AV-32, "Sound Is Not Heard From Front Door Speaker (Base System)" or AV-36, "Sound Is Not Heard From Front Door Speaker or Tweeter (Mid Level and Premium System)". Front speaker. Refer to AV-32, "Sound Is Not Heard From Front Door Speaker (Base System)" or AV-36, "Sound Is Not Heard From Front Door Speaker or Tweeter (Mid Level and Premium System)". Open or short in audio signal circuit between audio unit and rear speaker. Refer to AV-34, "Sound Is Not Heard From Rear Door Speaker (Base System)" or AV-38, "Sound Is Not Heard From Rear Door Speaker (Mid Level and Premium System)". Rear speaker. Refer to AV-34, "Sound Is Not Heard From Rear Door Speaker (Base System)" or AV-38, "Sound Is Not Heard From Rear Door Speaker (Mid Level and Premium System)". Tweeter (mid level and premium system) AV-36, "Sound Is Not Heard From Front Door Speaker or Tweeter (Mid Level and Premium System)". Tweeter (mid level and Premium System) AV-36, "Sound Is Not Heard From Front Door Speaker or Tweeter (Mid Level and Premium System)". Subwoofer (premium system). Refer to AV-40, "Sound Is Not Heard From Subwoofer (Premium System)". Audio unit. Refer to AV-24, "Power Supply Circuit Inspection". 	
No sound can be heard from radio or noise is heard.	 Antenna feeder. Refer to <u>AV-48, "AUDIO ANTENNA"</u>. Antenna. Refer to <u>AV-48, "AUDIO ANTENNA"</u>. Audio unit. Refer to <u>AV-24, "Power Supply Circuit Inspection"</u>. 	

NOTE:

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 that reflect off of mountains or buildings.

Noise Inspection

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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

C	Occurrence condition				
	A continuous growling noise occurs. The speed of the noise varies with changes in the engine speed.	Ignition components			
Occurs only when engine is ON.	A whistling noise occurs while the engine speed is high. A booming noise occurs while the engine is running and the lighting switch is ON.	Generator			
Noise only occurs when various	A cracking or snapping sound occurs with the operation of various switches.	Relay malfunction, radio malfunction			
electrical components are operating.	The noise occurs when various motors are operating.	Motor case groundMotor			
The noise occurs constantly, not	Rear defogger coil malfunctionOpen circuit in printed heater				
A cracking or snapping sound ocwhen it is vibrating excessively.	 Ground wire of body parts. Ground due to improper part installation Wiring connections or a short circuit 				

Power Supply Circuit Inspection

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1. CHECK FUSE

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

Unit	Terminals	Signal name	Fuse No.
Audio unit	19	Battery power	27
Audio unit	7	Ignition switch ACC or ON	20
Subwoofer (with premium audio)	1	Ignition switch ACC or ON	27

OK or NG

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OK >> GO TO 2.

>> If fuse is blown, be sure to eliminate cause of blown fuse before installing new fuse. Refer to <u>PG-4, "POWER SUPPLY ROUTING CIRCUIT"</u>.

2. AUDIO UNIT POWER SUPPLY CIRCUIT CHECK

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

	Terminal No.					
Unit	(+)		(-)	OFF	ACC	ON
	Connector	Terminal	(-)			
Audio unit M43	MAS	19	Ground	Battery voltage	Battery voltage	Battery voltage
	IVI43	7	Ground	0V	Battery voltage	Battery voltage

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>> With premium system, GO TO 3.

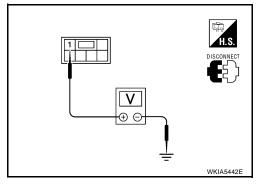
>> • Check connector housings for disconnected or loose terminals.

Repair harness or connector.

3. SUBWOOFER (PREMIUM SYSTEM) POWER SUPPLY CIRCUIT CHECK

- Disconnect subwoofer connector.
- 2. Check voltage between subwoofer (premium system) and ground.

	Terminal No.					
Unit	(+)		(-)	OFF	ACC	ON
-	Connector	Terminal	(-)			
Sub- woofer	B29	1	Ground	0V	Battery voltage	Battery voltage



OK or NG

OK >> GO TO 4.

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

4. GROUND CIRCUIT CHECK

Check continuity between subwoofer (premium system) harness connector B29 terminal 3 and ground.

Continuity should exist.

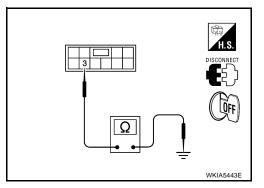
OK or NG

OK

>> Inspection End.

NG

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



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

1. CHECK FUSES

Check that the following fuses are not blown.

Unit	Terminals	Signal name	Fuse No.
Satellite radio tuner (factory	32	Battery power	27
installed)	36	Ignition switch ACC or ON	20

OK or NG

OK >> GO TO 2.

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

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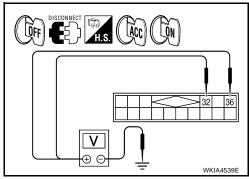
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2. POWER SUPPLY CIRCUIT CHECK

- 1. Turn ignition switch OFF.
- 2. Disconnect satellite radio tuner (factory installed) connector B30.
- 3. Check voltage between the satellite radio tuner (factory installed) and ground.

	Terminal No.					
Unit	(+)		()	OFF	ACC	ON
	Connector	Terminal	(-)			l
Satellite radio tuner	radio tuner	32	Ground	Battery voltage	Battery voltage	Battery voltage
(factory installed)	Б30	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.

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 B30 (A) and audio unit connector M45 (B).
- 4. Check continuity between satellite radio tuner (factory installed) and audio unit.

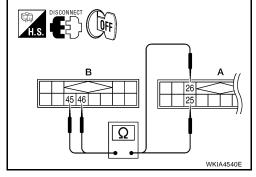
Satellite ra	Continuity			
Connector	Terminal	Connector	Terminal	
A: B30	25	B: M45	45	Yes
A. B30	26	D. WH3	46	163

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 EKSOODBW

1. CHECK HARNESS - 1

- 1. Turn ignition switch OFF.
- Disconnect satellite radio tuner (factory installed) connector B30 and audio unit connector M45.
- 3. Check continuity between satellite radio tuner (factory installed) harness connector B30 (A) terminal 28 and audio unit harness connector M45 (B) terminal 48

Continuity should exist.

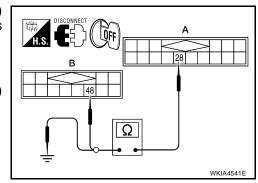
4. Check continuity between satellite radio tuner (factory installed) harness connector B30 (A) terminal 28 and ground.

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 B30 (A) terminal 29 and audio unit harness connector M45 (B) terminal 49

Continuity should exist.

Check continuity between satellite radio tuner (factory installed) harness connector B30 (A) terminal 29 and ground.

Continuity should not exist.

OK or NG

OK >> GO TO 3.

NG >> Repair harness or connector.

3. CHECK HARNESS - 3

 Check continuity between satellite radio tuner (factory installed) harness connector B30 (A) terminal 30 and audio unit harness connector M45 (B) terminal 50

Continuity should exist.

2. Check continuity between satellite radio tuner (factory installed) harness connector B30 (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
- Check signal between satellite radio tuner (factory installed) harness connector B30 terminal 28 and ground with CONSULT-II or oscilloscope.

28 - Ground : Refer to AV-21, "Terminals and Reference Value for Sat-

ellite Radio Tuner" .

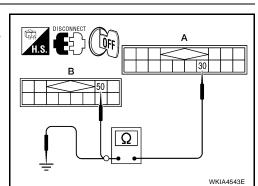
OK or NG

OK >> GO TO 5.

NG >> Replace audio unit. Refer to AV-43, "AUDIO UNIT".

28 1

DISCONNECT A B 29 WKIA4542E



5. CHECK TXD SIGNAL

Check signal between satellite radio tuner (factory installed) harness connector B30 terminal 29 and ground with CONSULT-II or oscilloscope.

29 - Ground : Refer to AV-21, "Terminals and Reference Value for Satellite Radio Tuner" .

OK or NG

OK >> GO TO 6.

NG >> Replace audio unit. Refer to AV-43, "AUDIO UNIT".

CONNECT CONNEC

Revision: June 2006 AV-27 2007 Versa

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WKIA4544F

6. CHECK RXD SIGNAL

Check signal between satellite radio tuner (factory installed) harness connector B30 terminal 30 and ground with CONSULT-II or oscilloscope.

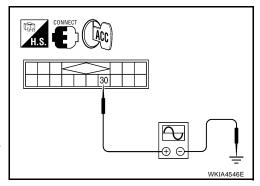
30 - Ground

: Refer to <u>AV-21</u>, "Terminals and Reference Value for Satellite Radio Tuner".

OK or NG

OK >> Replace satellite radio tuner. Refer to <u>AV-44, "SATEL-</u>LITE RADIO TUNER" .

NG >> Replace audio unit. Refer to AV-43, "AUDIO UNIT".



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

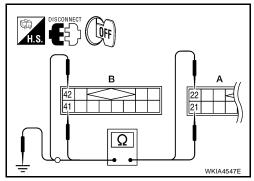
1. CHECK HARNESS

- 1. Turn ignition switch OFF.
- 2. Disconnect satellite radio tuner (factory installed) connector B30 (A) and audio unit connector M45 (B).
- 3. Check continuity between satellite radio tuner (factory installed) and audio unit.

Satellite ra	Satellite radio tuner Audio unit				
Connector	Terminal	Connector	Terminal		
A: B30	21	B: M45	41	Yes	
A. B30	22	D. M45	42	165	

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

Sate	Continuity			
Connector	Terminal	_		
A: B30	21		No	
A. B30	22	Ground	140	



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.
- Check signal between satellite radio tuner (factory installed) connector B30 terminals 21 and 22 with CONSULT-II or oscilloscope.

21 - 22

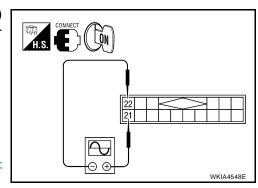
: Refer to AV-21, "Terminals and Reference Value for Satellite Radio Tuner" .

OK or NG

OK >> Replace audio unit. Refer to <u>AV-43, "AUDIO UNIT"</u>.

NG >> Replace satellite radio tuner. Refer to AV-44, "SAT

>> Replace satellite radio tuner. Refer to <u>AV-44, "SATEL-</u>LITE RADIO TUNER" .



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

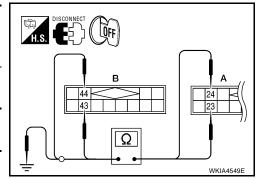
1. CHECK HARNESS

- 1. Turn ignition switch OFF.
- 2. Disconnect satellite radio tuner (factory installed) connector B30 (A) and audio unit connector M45 (B).
- Check continuity between satellite radio tuner (factory installed) and audio unit.

Satellite ra	Continuity			
Connector	Terminal	Connector	Terminal	
A: B30	23	B: M45	43	Yes
A. B30	24	D. W45	44	165

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

Sate	Continuity			
Connector	Terminal	_		
A: B30	23	Ground	No	
A. B30	24	Giodila	140	



OK or NG

OK >> GO TO 2.

NG >> Repair harness or connector.

2. CHECK RIGHT CHANNEL AUDIO SIGNAL

- Connect satellite radio tuner (factory installed) and audio unit.
- Turn ignition switch ON.
- 3. Check signal between satellite radio tuner (factory installed) connector B30 terminals 23 and 24 with CONSULT-II or oscilloscope.

23 - 24

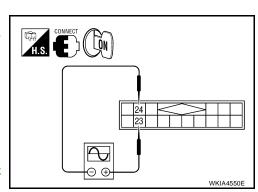
: Refer to AV-21, "Terminals and Reference Value for Satellite Radio Tuner".

OK or NG

NG

OK >> Replace audio unit. Refer to AV-43, "AUDIO UNIT"

>> Replace satellite radio tuner. Refer to AV-44, "SATEL-LITE RADIO TUNER".



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Steering Switch Check (With Bluetooth)

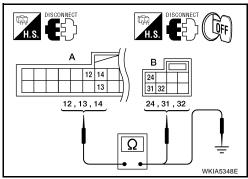
1. CHECK HARNESS

- 1. Turn ignition switch OFF.
- 2. Disconnect Bluetooth control unit connector and spiral cable connector M30.
- 3. Check continuity between Bluetooth control unit (A) connector B121 terminals 12, 14, and 13 and spiral cable (B) connector M30 terminals 24, 31, and 32.

		Terminals						
Д	\	В		В		В		Continuity
Connector	Terminal	Connector	Terminal					
	12		24					
B121	13	M30	32	Yes				
	14		31					

4. Check continuity between Bluetooth control unit and ground.

	Continuity		
Connector	Terminal	(-)	
	12		No
B121	13	Ground	
	14		



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OK or NG

OK >> GO TO 3.

NG >> Repair harness.

2. CHECK HARNESS

- 1. Disconnect audio unit connector.
- Check continuity between audio unit (A) connector M43 terminals 6, 15, and 16 and Bluetooth control unit (B) connector B121 terminals 17, 19, and 18.

(/	Continuity			
Connector	Terminal	Connector		
	6		17	
M43	15	B121	19	Yes
	16		18	

DISCONNECT H.S. DISCONNECT H.S. DISCONNECT OFF 17, 18, 19 WKIA5349E

OK or NG

OK >> GO TO 4.

NG >> Repair harness.

3. SPIRAL CABLE CHECK

1. Disconnect spiral cable connector M102.

2. Check continuity between spiral cable terminals.

16 - 32 : Continuity should exist.
17 - 31 : Continuity should exist.
20 - 24 : Continuity should exist.

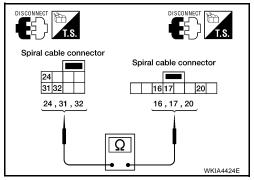
OK or NG

NG

OK >> GO TO 4.

>> Replace spiral cable. Refer to <u>SRS-44, "Removal and</u>

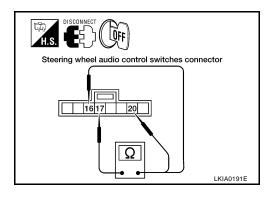
Installation" .



4. CHECK STEERING SWITCH RESISTANCE

Check resistance between spiral cable connector M102 terminals.

Terminal Signal nai		Signal name	Condition	Resistance (Ω) (Approx.)
		Seek (down)	Depress Seek down switch.	165
16	17	Phone/Send	Depress Phone/Send switch.	0
		Volume (down)	Depress volume down switch.	487
		Seek (up)	Depress Seek up switch.	165
20	17	Phone/End	Depress Phone/End switch.	0
		Volume (up)	Depress volume up switch.	487



OK or NG

OK >> Inspection End.

NG >> Replace steering switch. Refer to AV-46, "STEERING WHEEL AUDIO CONTROL SWITCHES" .

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

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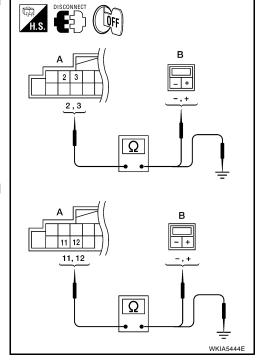
1. HARNESS CHECK

- 1. Disconnect audio unit connector and front door speaker connector (LH or RH).
- 2. Check continuity between audio unit connector M43 (A) terminal and suspect speaker connector (B) terminal.

	Term			
	A		В	Continuity
Connector	Terminal	Connector Terminal		
M43	2	D12	+	
	3		-	Yes
	11	D440	+	165
	12	D112	-	

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

	Continuity		
Connector	Terminal	_	
	2		No
M43	3	Ground	
IVITO	11	Giodila	
	12		



OK or NG

NG

OK >> GO TO 2.

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

• Repair harness or connector.

2. FRONT SPEAKER SIGNAL CHECK

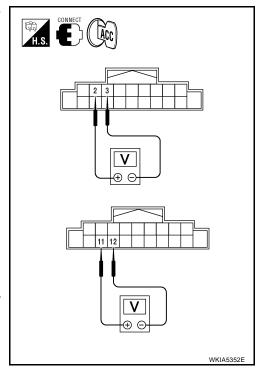
- 1. Connect audio unit connector and suspect speaker connector.
- 2. Turn ignition switch to ACC.
- 3. Push "POWER" switch.
- 4. Check the signal between audio unit harness connector terminals with CONSULT-II or oscilloscope.

Terminals				Condi-	Reference	
(+)		(-)				
Con- nec- tor	Termi- nal	Con- nec- tor	Termi- nal	tion	signal	
	2		3			
M43	11	M43	12	Receive audio signal	(V) 1 0 -1 1 ms	

OK or NG

OK >> Replace speaker. Refer to <u>AV-43, "FRONT DOOR SPEAKER"</u> or <u>AV-43, "TWEETER"</u>.

NG >> Replace audio unit. Refer to AV-43, "AUDIO UNIT" .



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

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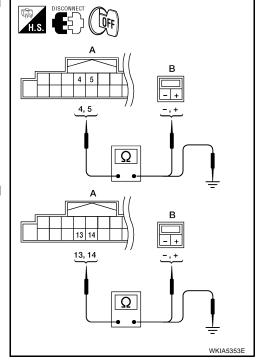
1. HARNESS CHECK

- 1. Disconnect audio unit connector and rear door speaker connector.
- 2. Check continuity between audio unit (A) connector terminal and rear door speaker (B) connector terminal.

	Term			
	A	В		Continuity
Connector	Terminal	Connector Terminal		
M43	5	D207	-	
	4		+	Yes
	14	D307	-	163
	13		+	

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

	Continuity		
Connector	Terminal	_	
	5		No
M43	4	Ground	
IVITO	14	Giodila	
	13		



OK or NG

NG

OK >> GO TO 2.

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

• Repair harness or connector.

2. REAR SPEAKER SIGNAL CHECK

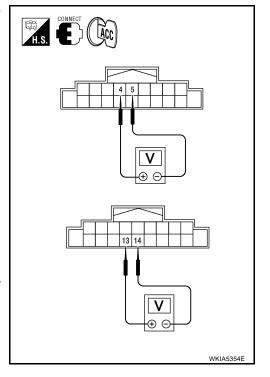
- 1. Connect audio unit connector and rear speaker connector.
- 2. Turn ignition switch to ACC.
- 3. Push "POWER" switch.
- 4. Check the signal between audio unit harness connector terminals with CONSULT-II or oscilloscope.

Terminals					Reference	
(+)		(-)		Condi-		
Con- nector	Termi- nal	Con- nector	Termi- nal	tion	signal	
	4		5			
M43	13	M43	14	Receive audio signal	1 0 -1 SKIA0177E	

OK or NG

OK >> Replace speaker. Refer to $\underline{\text{AV-43, "REAR DOOR}}$ $\underline{\text{SPEAKER"}}$.

NG >> Replace audio unit. Refer to AV-43, "AUDIO UNIT" .



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Sound Is Not Heard From Front Door Speaker or Tweeter (Mid Level and Premium System)

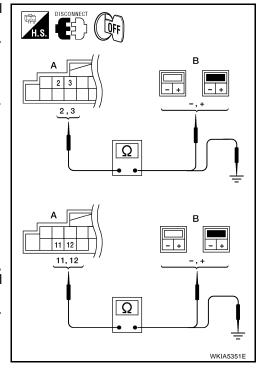
1. HARNESS CHECK

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

Audi	Audio unit. Speaker or tweeter					Audio unit. Speaker or tweeter		Audio unit.		Continuity
Connector	Terminal	Connector Terminal								
	2	M46	+							
	3	10140	-							
	11	M47	+							
M43	12		-	Yes						
IVI43	2	D12	+	165						
	3		-							
	11	D112	+							
	12	D112	-							

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

	Terminals					
	Audio unit					
Connector	Terminal	_				
	2		No			
M43	3	Ground				
10143	11	Giodila				
	12					



OK or NG

NG

OK >> GO TO 2.

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

• Repair harness or connector.

2. FRONT SPEAKER SIGNAL CHECK

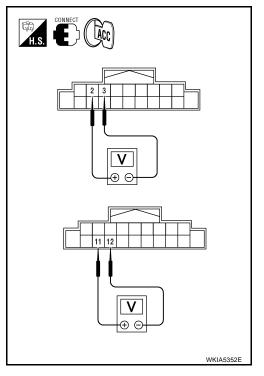
- 1. Connect audio unit connector, front door speaker connector and tweeter connector.
- 2. Turn ignition switch to ACC.
- 3. Push "POWER" switch.
- 4. Check the signal between audio unit connector terminals with CONSULT-II or oscilloscope.

Terminals						
(+)		(-)		Condi-	Reference	
Con- nector	Termi- nal	Con- nector	Termi- nal	tion	signal	
	2		3			
M51	11	M51	12	Receive audio signal	(V) 1 0 -1 1 ms	

OK or NG

OK >> Replace front speaker. Refer to <u>AV-43, "FRONT DOOR SPEAKER"</u> .

NG >> Replace audio unit. Refer to AV-43, "AUDIO UNIT" .



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Sound Is Not Heard From Rear Door Speaker (Mid Level and Premium System)

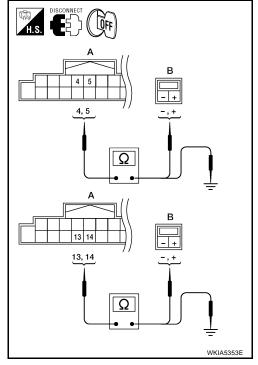
1. HARNESS CHECK

- 1. Disconnect audio unit connector and rear door speaker connector.
- 2. Check continuity between audio unit harness connector terminal and speaker harness connector terminal.

Audi	o unit	Spe	Continuity		
Connector	Terminal	Connector	Terminal		
	4	D207	+	Yes	
M43	5	D201	-		
IVI43	13	D307	+	165	
	14	D307	-		

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

	Continuity			
Connector	Terminal	_		
	4			
M43	5	Ground	No	
WI43	13	Ground	140	
	14			



OK or NG

OK >> GO TO 2.

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

• Repair harness or connector.

2. REAR SPEAKER SIGNAL CHECK

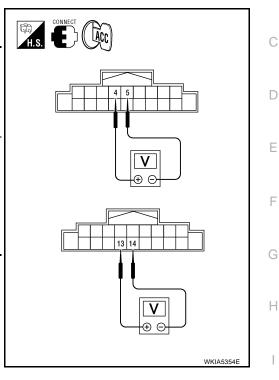
- 1. Connect audio unit connector and rear door speaker connector.
- 2. Turn ignition switch to ACC.
- 3. Push "POWER" switch.
- 4. Check the signal between audio unit harness connector terminals with CONSULT-II or oscilloscope.

	Terminals					
-	(+) (-)		Condi-	Reference		
Con- nec- tor	Termi- nal	Con- nec- tor	Termi- nal	tion	signal	
	5		4		(V)	
M43	14	M43	13	Receive audio signal	1 0 -1 1 ms SKIA0177E	

OK or NG

OK >> Replace speaker. Refer to $\underline{\text{AV-43, "REAR DOOR}}$ $\underline{\text{SPEAKER"}}$.

NG >> Replace audio unit. Refer to <u>AV-43, "AUDIO UNIT"</u>.



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Sound Is Not Heard From Subwoofer (Premium System)

1. CHECK FUSE

Check that the following fuse is not blown.

Unit	Terminals	Signal name	Fuse No.
Subwoofer	1	Battery power	27

OK or NG

OK >> GO TO 2.

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

2. EQ SETTING CHECK

- 1. Ensure that subwoofer amp. connector B29 and audio unit harness connectors M43, M44 and M45 are securely connected.
- Turn the ignition switch to the ACC position.
- Press the "AUDIO", "AUX", and "TUNE DOWN" switches simultaneously, the current EQ Setting will be displayed.

Is "Woofer On" displayed?

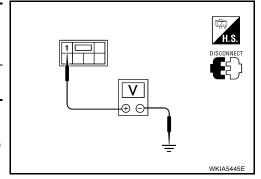
YES >> GO TO 3.

NO >> Disconnect all audio unit harness connectors and wait for 2 minutes in order to reset the audio unit. Reconnect audio unit connectors M44 and M45 first followed by M43 last. Repeat Steps 1 through 3 to confirm that "Woofer On" is now displayed.

3. POWER SUPPLY CIRCUIT CHECK

- Turn ignition switch OFF. 1.
- 2. Disconnect subwoofer connector.
- Check voltage between the subwoofer and ground.

Unit		Terminal No.					
	(-	+)	(-)	OFF	ACC	ON	
	Connector	Terminal	(-)				
Sub- woofer	B29	1	Ground	Battery voltage	Battery voltage	Battery voltage	



OK or NG

OK >> GO TO 4.

NG

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

4. GROUND CIRCUIT CHECK

- Turn ignition switch OFF. 1.
- Check continuity between subwoofer harness connector B29 terminal 3 and ground.

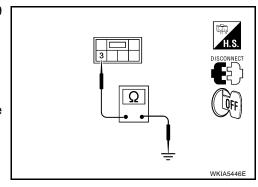
Continuity should exist.

OK or NG

OK >> GO TO 5.

NG

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



5. CHECK SUBWOOFER ON SIGNAL

- 1. Turn ignition switch to ACC.
- 2. Operate system and check voltage between subwoofer harness connector B29 terminal 4 and ground.

Voltage

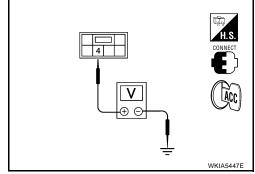
: **Approx**. 11.3V

OK or NG

OK >> GO TO 6.

NG

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



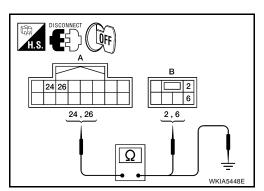
6. HARNESS CHECK

- 1. Turn ignition switch OFF.
- 2. Disconnect audio unit connector and subwoofer connectors.
- 3. Check continuity between audio unit harness connector terminal and subwoofer harness connector terminal.

Audi	o unit	Subv	Continuity		
Connector	Terminal	Connector	Terminal		
M44	24	B29	6	Yes	
10144	26	629	2	165	

 Check continuity between audio unit harness connector terminal and ground.

	Audio unit		Continuity	
Connector	Terminal	_		
M44	24	Ground	No	
ivi 44	26	Giodila	INO	



OK or NG

OK >> GO TO 7.

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

• Repair harness or connector.

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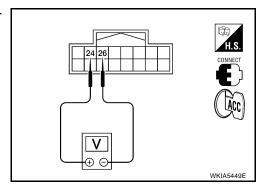
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7. SUBWOOFER SIGNAL CHECK

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

	Tern	ninals					
(-	+)	(-)		Condi-	Reference		
Con- nec- tor	Ter- minal	Con- nec- tor	Ter- minal	tion	signal		
M44	26	M44	24	Receive audio signal	(V) 1 0 -1 1 ms		



OK or NG

>> Replace subwoofer. Refer to $\underline{\text{AV-47, "SUBWOOFER"}}$. >> Replace audio unit. Refer to $\underline{\text{AV-43, "AUDIO UNIT"}}$. OK

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Removal and Installation AUDIO UNIT

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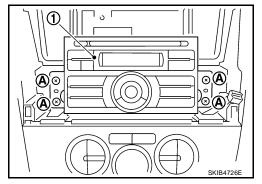
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Removal

- Remove cluster lid C. Refer to IP-10, "INSTRUMENT PANEL ASSEMBLY".
- 2. Remove the audio unit screws (A), disconnect the connectors and remove the audio unit (1).
- 3. Remove the audio unit bracket.



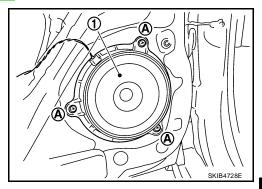
Installation

Installation is in the reverse order of removal.

FRONT DOOR SPEAKER

Removal

- 1. Remove the front door finisher. Refer to EI-33, "DOOR FINISHER".
- 2. Remove the front door speaker screws (A), disconnect the connector and remove the front door speaker (1).



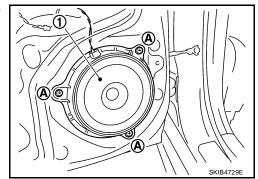
Installation

Installation is in the reverse order of removal.

REAR DOOR SPEAKER

Removal

- 1. Remove the rear door finisher. Refer to EI-33, "DOOR FINISHER".
- 2. Remove the rear door finisher screws (A), disconnect the connector and remove the rear door speaker (1).



Installation

Installation is in the reverse order of removal.

TWEETER

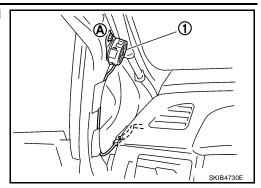
Removal

1. Remove the front pillar garnish. Refer to EI-38, "BODY SIDE TRIM".

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2. Remove the tweeter screw (A), disconnect the connector and remove the tweeter (1).



Installation

Installation is in the reverse order of removal.

SATELLITE RADIO TUNER

- 1. Bracket (upper)
- A. Screws
- ⇒ Front

- 2. Satellite radio tuner
- B. Connector

- 3. Bracket (lower)
- C. Satellite radio tuner bolts

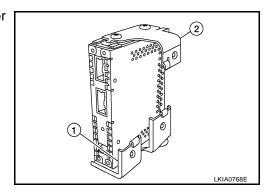
SEC. 280

- 1. Bracket (upper)
- A. Satellite radio tuner connector
- Satellite radio tuner
- B. Satellite radio tuner feeder harness connector
- 3. Bracket (lower)C. Satellite radio tuner bolts

 \Rightarrow Front

Removal

- 1. For hatchback, remove the luggage side lower finisher (LH) (hatchback only). Refer to El-53, "LUGGAGE FLOOR TRIM".
- 2. For sedan, remove the trunk side finisher (LH). Refer to EI-55, "Removal and Installation".
- 3. For hatchback remove the subwoofer. Refer to AV-47, "SUBWOOFER".
- 4. Remove the satellite radio tuner bolts.
- 5. Disconnect the connectors and remove the satellite radio tuner.
- 6. If necessary, remove the upper bracket (2) and the lower bracket (1).



Installation

Installation is in the reverse order of removal.

SATELLITE RADIO ANTENNA

Removal

Lower the headlining. Refer to <u>EI-46, "HEADLINING"</u>.

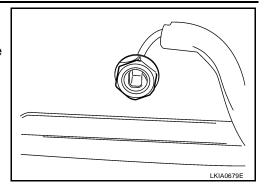
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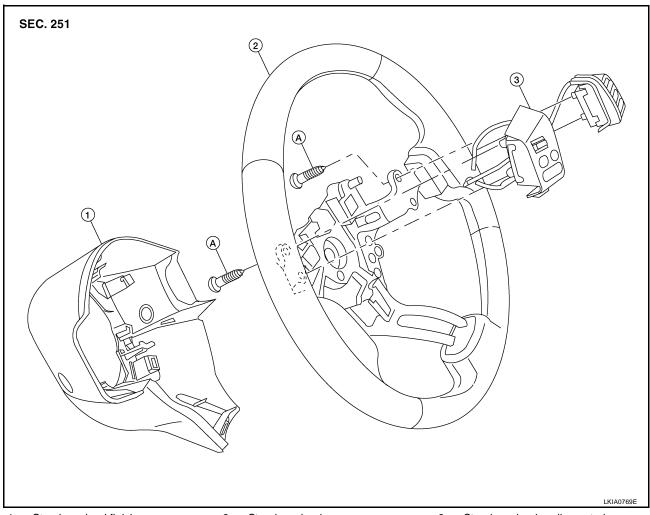
- 2. Disconnect the satellite radio antenna connectors.
- 3. Detach the satellite radio antenna feeder harness clips.
- 4. Remove the satellite radio antenna nut and remove the satellite radio antenna from the roof.



Installation

Installation is in the reverse order of removal.

STEERING WHEEL AUDIO CONTROL SWITCHES



- 1. Steering wheel finisher cover
- Steering wheel

 Steering wheel audio control switches

A. Screws

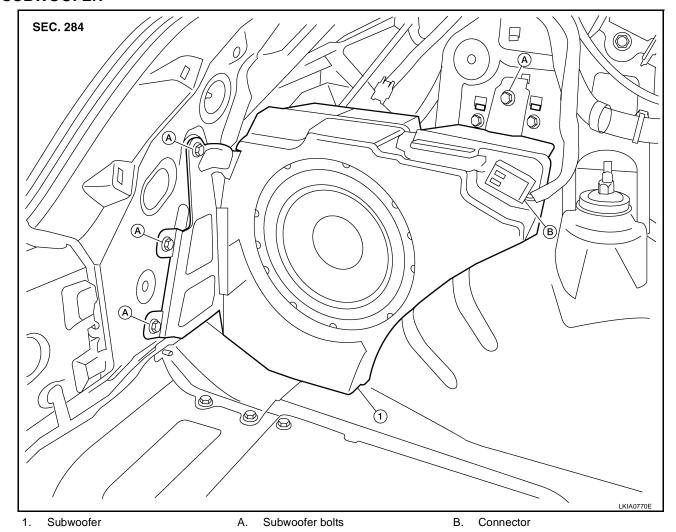
Removal

- Remove the steering wheel. Refer to <u>PS-8</u>, "<u>Removal and Installation</u>".
- Remove the steering wheel finisher cover.
- 3. Remove the screws and the steering wheel audio control switches.

Installation

Installation is in the reverse order of removal.

SUBWOOFER



Removal

1. Remove the luggage side lower finisher (LH). Refer to EI-53, "LUGGAGE FLOOR TRIM" .

- 2. Remove the subwoofer bolts.
- 3. Disconnect the connector and remove the subwoofer.

Installation

Installation is in the reverse order of removal.

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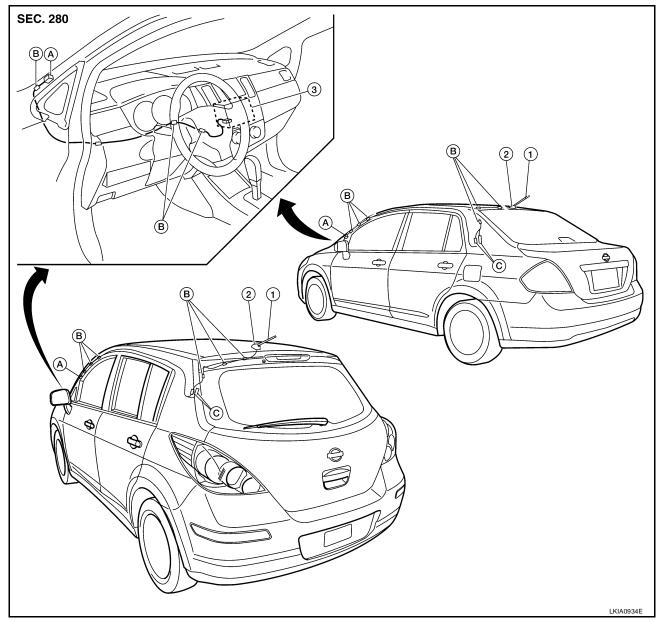
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AUDIO ANTENNA PFP:28200

Location of Antenna

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Roof antenna

- 2. Roof antenna base
- B. Harness clips

- 3. Audio unit
- C. Roof antenna harness connectors

Removal and Installation of Roof Antenna REMOVAL

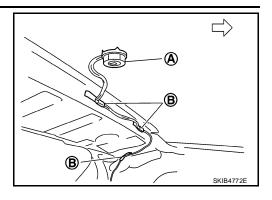
Audio antenna harness connector

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- For hatchback, remove the luggage side upper finisher (LH). Refer to EI-53, "LUGGAGE FLOOR TRIM".
- 2. For sedan, remove the rear pillar finisher. Refer to EI-50, "Removal and Installation Sedan".
- Remove rear assist grip (LH). Refer to EI-46, "HEADLINING" .
- Remove three clips of headlining (rear side). Pull down headlining (rear side) and obtain space for work between vehicle and headlining.
- Disconnect the roof antenna harness connectors.

AUDIO ANTENNA

- 6. Remove nut (A) and clips (B).
- 7. Remove the roof antenna.



INSTALLATION

Installation is in the reverse order of removal.

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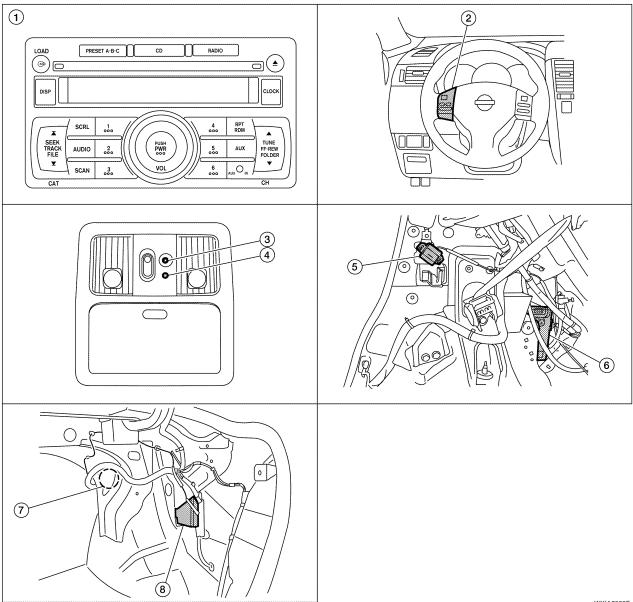
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TELEPHONE PFP:28342

Component Parts and Harness Connector Location

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WKIA6000E

- Audio unit M43, M44, M45
- Bluetooth ON indicator R15
- Bluetooth antenna (sedan)
- 2. Steering wheel audio control switches
- Bluetooth antenna (hatchback)
- Bluetooth control unit B121, B122 (sedan) (view with trunk side finisher RH removed)
- Bluetooth microphone R15
- Bluetooth control unit B121, B122 (hatchback) [view with luggage side lower finisher (RH) removed]

System Description BLUETOOTH® HANDS-FREE PHONE SYSTEM

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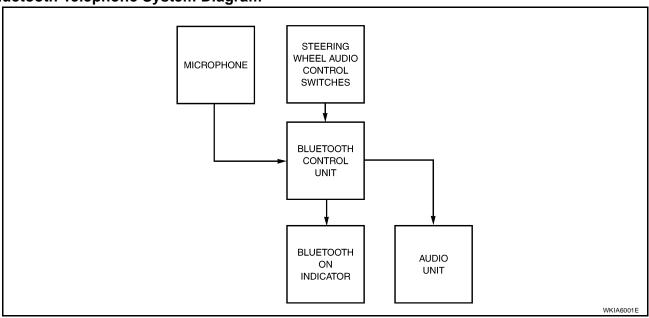
Refer to the Owner's Manual for Bluetooth telephone system operating instructions.

NOTE:

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

Bluetooth telephone system allows users who have a Bluetooth cellular telephone to make a wireless connection between their cellular telephone and the Bluetooth control unit. Hands-free cellular telephone calls can be sent and received. Personal memos can be created using the NISSAN Voice Recognition system. Some Bluetooth cellular telephones may not be recognized by the Bluetooth control unit. When a cellular telephone or the Bluetooth control unit is replaced, the telephone must be paired with the Bluetooth control unit. Different cellular telephones may have different pairing procedures. Refer to the cellular telephone operating manual.

Bluetooth Telephone System Diagram



Bluetooth Control Unit

When the ignition switch is turned to ACC or ON, the Bluetooth control unit will power up. During power up, the Bluetooth control unit is initialized and performs various self checks. Initialization may take up to 10 seconds. During this time the Bluetooth ON indicator will flash until initialization is complete. If a phone is present in the vehicle and paired with the Bluetooth control unit, NISSAN Voice Recognition will then become active and the Bluetooth ON indicator will remain on. Bluetooth telephone functions can be turned off using the NISSAN Voice Recognition system. For Bluetooth control unit location, refer to AV-50, "Component Parts and Harness Connector Location".

Steering Wheel Audio Control Switches

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

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

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

Volume Switch

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

Revision: June 2006 AV-51 2007 Versa

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Bluetooth Microphone

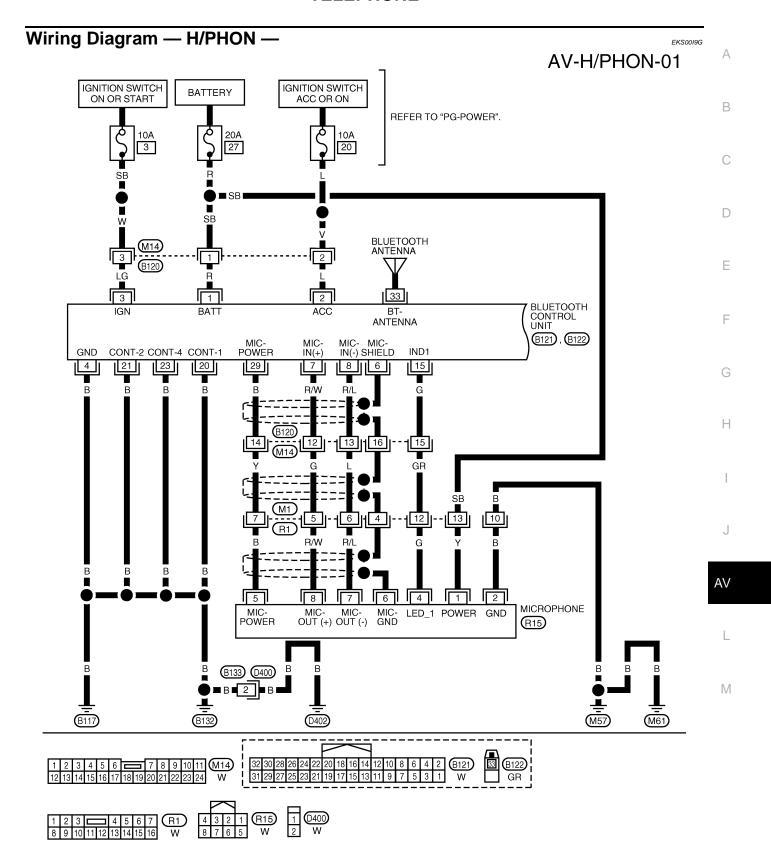
The Bluetooth microphone is located in the roof console assembly. The Bluetooth microphone sends a signal to the Bluetooth control unit. The Bluetooth microphone can be actively tested during self-diagnosis. For Bluetooth microphone location, refer to AV-50, "Component Parts and Harness Connector Location".

Bluetooth ON Indicator

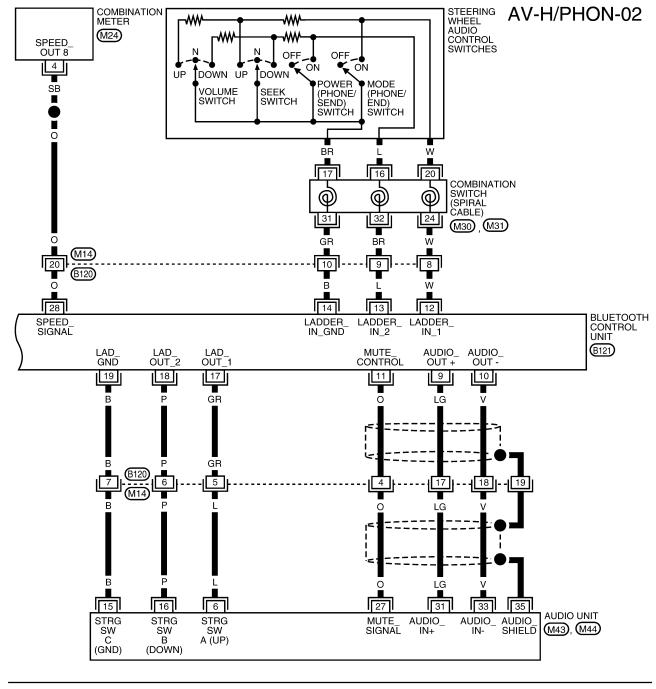
The Bluetooth ON indicator is located in the overhead console. The indicator will flash during power up while the Bluetooth control unit is initializing. This process may take up to 10 seconds. If a phone is present in the vehicle and paired with the Bluetooth control unit, the indicator will remain on to indicate that the system is ready for voice commands. The indicator flashes during self-diagnosis. For Bluetooth ON indicator location, refer to AV-50, "Component Parts and Harness Connector Location".

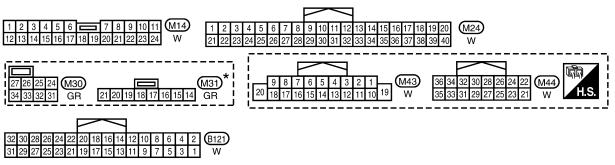
Audio Unit

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



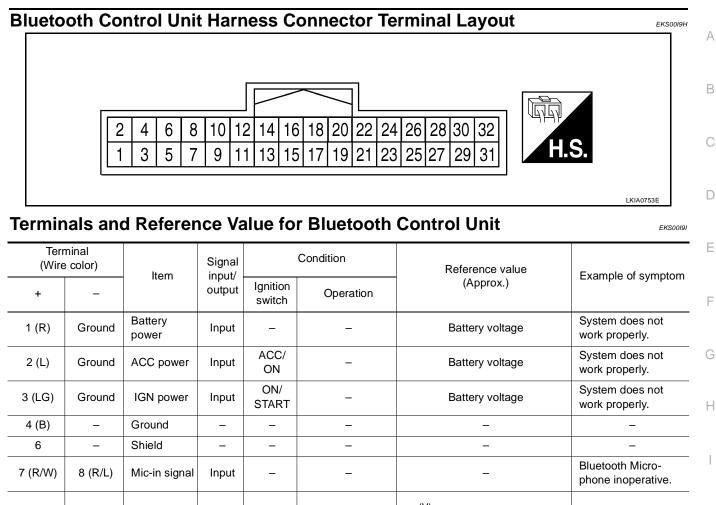
WKWA4987E





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

WKWA4988E



3 (LG)	Ground	IGN power	Input	ON/ START	_	Battery voltage	System does not work properly.					
4 (B)	_	Ground	_	_	_	_	_					
6	_	Shield	_	_	_	-	_					
7 (R/W)	8 (R/L)	Mic-in signal	Input	_	_	-	Bluetooth Micro- phone inoperative.					
9 (LG)	10 (V)	Audio out	Output	ACC/ ON	Bluetooth control unit sends audio signal	(V) 1 0 -1 + 2ms SKIB3609E	Audio can not be heard.					
11(O)	_	Mute	Output	_	_	5V	Mute inoperative.					
		Remote und control switch 1								Press MODE switch	0V	
12 (W)	Ground		Input	ACC/ ON	Press SEEK UP switch	0.75V	Steering wheel audio control switches do not function.					
					Press VOL UP switch	2V						
					Except for above	5V						
					Press POWER switch	0V						
13 (L)	Ground	round Remote control switch 2	Input	ACC/	Press SEEK DOWN switch	0.75V	Steering wheel audio control switches do					
, ,				ON -	Press VOL DOWN switch	2V	not function.					
					Except for above	5V						
14 (B)	-	Remote control ground	Input	-	_	-	Steering wheel audio control switches do not function.					

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	minal e color)	Item	Signal input/		Condition	Reference value	Example of symptom	
+	_	nom	output	Ignition switch	Operation	(Approx.)		
15 (G)	Ground	Bluetooth ON indica- tor LED	Output	_	Bluetooth control unit initialized and paired with phone	Battery voltage	Bluetooth ON indicator inoperative.	
					Press Phone/End switch	0V		
17 (GR)	Ground	Audio unit	Output	ACC/ ON	Press SEEK UP switch	0.75V	Steering wheel audio controls do not func-	
		SWILCHT		ON	Press VOL UP switch	2V	tion.	
					Except for above	5V		
					Press Phone/ Send switch	0V		
18 (P)	Ground	Audio unit switch 2	Output	ACC/ ON	Press SEEK DOWN switch	0.75V	Steering wheel audio controls do not function.	
					Press VOL DOWN switch	2V		
					Except for above	5V		
19 (B)	Ground	Audio unit switch ground	Output	-	-	-	Steering wheel audio controls do not function.	
20 (B)	_	Cont-1	_	_	-	-	-	
21 (B)	_	Cont-2	_	_	_	-	-	
23 (B)	_	Cont-4	_	_	_	-	-	
28 (O)	Ground	Vehicle speed sig- nal (8– pulse)	Input	ON	When vehicle speed is approx. 40 km/h (25 MPH)	(V) 6 4 2 0 → 20 ms PKIC0643E	Speed sensitive volume is inoperative.	
29 (B)	Ground	Bluetooth Microphone power	Output	-	-	5V	Bluetooth Micro- phone inoperative.	
33	-	Bluetooth antenna sig- nal	Input	_	-	-	-	

Bluetooth Control Unit Self-Diagnosis Function

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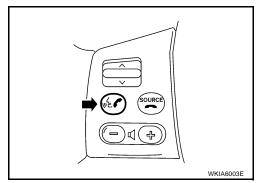
The Bluetooth control unit has two diagnostic checks. The first diagnostic check is performed automatically every ignition cycle during control unit initialization. The second diagnostic check is performed by the technician using the steering wheel audio control switches prior to trouble diagnosis.

BLUETOOTH CONTROL UNIT INITIALIZATION CHECKS

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

SELF-DIAGNOSIS MODE

- 1. Turn ignition switch to ACC or ON.
- 2. Wait for the Bluetooth system to complete initialization and the Bluetooth ON indicator to stop flashing. This may take up to 10 seconds.
- 3. Press and hold the steering wheel audio control switch SEND button for at least 5 seconds. The Bluetooth system will begin to play a verbal prompt.



- 4. While the prompt is playing, momentarily press both the steering wheel audio control switches SEND and END buttons simultaneously. The Bluetooth system will sound a 5 second beep.
- While the beep is sounding, momentarily press both the steering wheel audio control switches SEND and END buttons simultaneously again.
- The Bluetooth system has now entered into the diagnostic mode. Results of the diagnostic checks will be verbalized to the technician and the Bluetooth ON indicator will flash. Refer to <u>AV-58</u>, "Workflow"
- 7. If there are no failure records to report, the speed pulse count will be reported next.
- 8. After the speed pulse count is reported, an interactive Bluetooth microphone test will be performed. Follow the voice prompt. If the Bluetooth microphone test fails refer to AV-58, "Workflow".
- 9. Self-diagnosis mode is complete when the voice prompt says "All diagnostic functions completed". A short beep is heard.

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Workflow

Flashing Pattern (Bluetooth ON indicator)	Failure Message	Action	
1	"Internal failure"	Replace Bluetooth control unit. Refer to AV-64, "BLUETOOTH CONTROL UNIT" .	
2	"Bluetooth antenna open"	1. Inspect harness connection.	
3	"Bluetooth antenna shorted"	2. Replace Bluetooth antenna. Refer to <u>AV-64, "BLUETOOTH CONTROL UNIT"</u> .	
4	"Phone/Send for the Hands Free Phone System is stuck"	Check steering wheel audio control switches. Refer to AV-30, "Steering Switch	
5	"Phone/End for the Hands Free Phone System is stuck"	Check (With Bluetooth)".	
_	"Bluetooth Microphone test" (failed interac-	Inspect harness between Bluetooth control unit and Bluetooth microphone.	
_	tive test)	2. Replace Bluetooth microphone. Refer to AV-68, "BLUETOOTH MICROPHONE".	

Power Supply and Ground Circuit Check for Bluetooth Control Unit 1. CHECK FUSES

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

Terminals		Ignition Switch	Fuse No.
Connector	Terminal	ignition Switch	i use ivo.
B121	1	All positions	27
	2	ACC/ON	20
	3	ON/START	3

OK or NG

NG

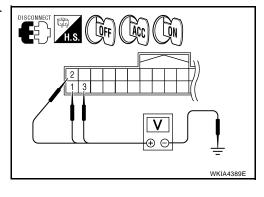
OK >> GO TO 2.

>> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse. Refer to PG-4, "POWER SUPPLY ROUTING CIRCUIT".

2. CHECK POWER SUPPLY CIRCUIT

- 1. Disconnect Bluetooth control unit connector B121.
- Check voltage between connector terminals and ground as follows.

Terminals			Ignition switch position		
(+)		(-)	OFF	ACC	ON
Connector	Terminal	(-)	011	ACC	ON
B121	1	Ground	Battery voltage	Battery voltage	Battery voltage
	2		0V	Battery voltage	Battery voltage
	3		0V	0V	Battery voltage



OK or NG

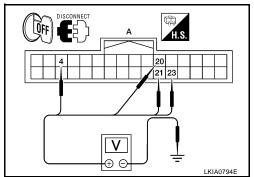
OK >> GO TO 3.

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

$\overline{3}$. CHECK GROUND CIRCUITS

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

Terminals			Continuity
Connector	Terminal	Continuity	
	4		
B121	20	Ground	Yes
DIZI	21	Ground	res
	23		



OK or NG

OK >> Inspection End.

NG >> Repair or replace harness.

Basic Inspection of Hands-Free Phone

1. CHECK INDICATOR OPERATION

- 1. Turn ignition switch ACC.
- Check that the indicator is blinking.

OK or NG

OK >> GO TO 2

NG >> GO TO 3

2. CHECK STEERING WHEEL AUDIO CONTROL SWITCH OPERATION

- Press the SEND switch.
- 2. Check the indicator is blinking.

OK or NG

OK >> INSPECTION END

NG >> Check steering wheel audio control switch circuit.

3. CHECK BLUETOOTH INDICATOR OUTPUT VOLTAGE

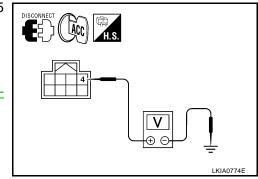
- 1. Disconnect Bluetooth microphone connector.
- 2. Check voltage between Bluetooth microphone connector R15 terminal 4 and ground.

4 - Ground : Approx. 12 V

OK or NO

>> Replace Bluetooth indicator. Refer to AV-68, "BLUE-OK TOOTH MICROPHONE".

NG >> GO TO 4.



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4. CHECK BLUETOOTH INDICATOR CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect Bluetooth control unit connector B121 and Bluetooth microphone connector R15.
- Check continuity between Bluetooth control unit connector B121

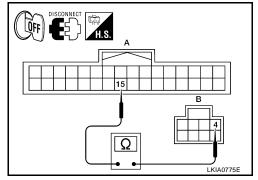
 (A) terminal 15 and Bluetooth microphone connector R15 (B) terminal 4.

15 - 4 : Continuity should exist

OK or NO

OK >> Replace Bluetooth control unit. Refer to <u>AV-64</u>, "<u>BLUE-TOOTH CONTROL UNIT</u>".

NG >> Repair or replace harness.



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Steering Wheel Audio Control Switch Does Not Operate

1. CHECK STEERING WHEEL AUDIO CONTROL SWITCH RESISTANCE

- 1. Turn ignition switch OFF.
- 2. Disconnect steering wheel audio control switch connector.
- 3. Check steering wheel audio control switch. Refer to AV-30, "Steering Switch Check (With Bluetooth)".

OK or NG

OK >> GO TO 2.

NG >> Replace steering wheel audio control switch. <u>AV-46, "STEERING WHEEL AUDIO CONTROL SWITCHES"</u>.

2. CHECK AUDIO UNIT

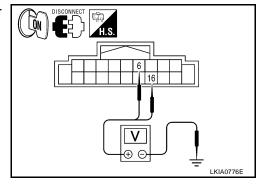
- 1. Turn ignition switch ON.
- Check voltage between audio unit harness connector M43 terminals 6, 16 and ground.

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

OK or NG

OK \rightarrow Replace audio unit. Refer to $\underline{\text{AV-43, "AUDIO UNIT"}}$.

NG >> GO TO 5.



3. CHECK BLUETOOTH CONTROL UNIT

- 1. Turn ignition switch ON.
- 2. Check voltage between Bluetooth control unit harness connector B121 terminals 17, 18 and ground.

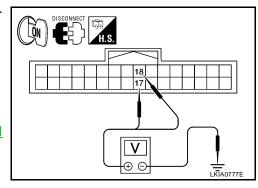
17 - Ground : Approx. 5 V 18 - Ground : Approx. 5 V

OK or NG

OK >> Repair or replace harness.

NG >> Replace Bluetooth control unit. <u>AV-64, "BLUETOOTH</u>

CONTROL UNIT".



Voice Activated Control Function Does Not Operate

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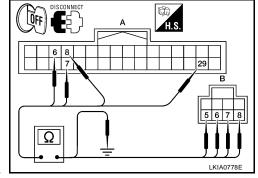
Even under the normal condition, Bluetooth voice guidance may not occur when pressing steering wheel audio control switch.

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

1. CHECK HARNESS BETWEEN BLUETOOTH CONTROL UNIT AND BLUETOOTH MICROPHONE

- 1. Turn ignition switch OFF.
- Disconnect Bluetooth control unit connector and Bluetooth microphone connector. 2.
- Check continuity between Bluetooth control unit connector B121 (A) and Bluetooth microphone connector R15 (B).

Terminals			Continuity		
Connector	Terminal	Connector	Terminal	Continuity	
A: B121	6	B: R15	6	Yes	
	7		8		
	8		7	165	
	29		5		



Check continuity between Bluetooth control unit harness connector B121 and ground.

Terminals			Continuity
Connector Terminal —			
	7		
A: B121	8	Ground	No
	29		

OK or NG

OK >> GO TO 2.

NG >> Repair harness or connector.

$2.\,$ check bluetooth microphone power supply

- 1. Connect Bluetooth control unit connector and Bluetooth microphone connector.
- 2. Turn ignition switch ON.
- Check voltage between Bluetooth microphone connector R15 terminal 5 and ground.

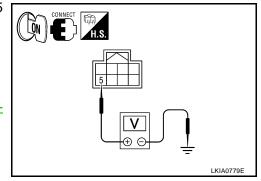
5 - Ground

: Approx. 5 V

YES or NO

YES >> GO TO 3.

NO >> Replace Bluetooth control unit. Refer to AV-64, "BLUE-TOOTH CONTROL UNIT".



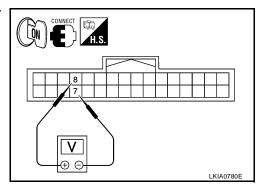
AV-61 2007 Versa Revision: June 2006

3. CHECK MIC. SIGNAL

1. Check signal between Bluetooth control unit harness connector B121 terminals 7 and 8.

When giving a voice

(V) 2. 5 2. 0 1. 5 1. 0 0. 5 0 + 2ms



7 – 8:

OK or NG

OK >> Replace Bluetooth control unit. Refer to AV-64, "BLUETOOTH CONTROL UNIT".

NG >> Replace Bluetooth microphone. Refer to AV-68, "BLUETOOTH MICROPHONE".

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

1. CHECK STEERING WHEEL AUDIO CONTROL SWITCH CIRCUIT

Refer to AV-30, "Steering Switch Check (With Bluetooth)".

OK or NG

OK >> GO TO 2.

NG >> Replace applicable parts.

2. CHECK BLUETOOTH VOICE SIGNAL CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect Bluetooth control unit connector and audio unit connector.
- 3. Check continuity between Bluetooth control unit harness connector B121 (A) and audio unit harness connector M44 (B).

Terminals			Continuity	
Connector	Terminal Connector Terminal			Continuity
	9		31	
A: B121	10	B: M44	33	Yes
	11		27	

 Check continuity between Bluetooth control unit harness connector B121 (A) and ground.

10 OFF	H.S.
B 27 31 33 LK	A0781E

Terminals			Continuity
Connector	Terminal	_	Continuity
	9		
A: B121	10	Ground	No
	11		

OK or NG

OK >> GO TO 3.

NG >> Repair harness or connector.

$\overline{3}$. CHECK MUTE SIGNAL

- 1. Connect Bluetooth control unit connector and audio unit connector.
- 2. Turn ignition switch ON.
- Check voltage between Bluetooth control unit connector B121 terminal 11 and ground.

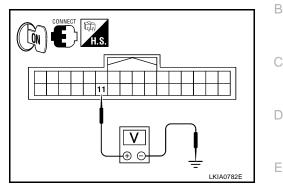
11 - Ground

: Approx. 5 V

OK or NG

OK >> GO TO 4.

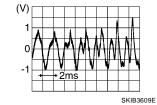
NG >> Replace audio unit. Refer to AV-43, "AUDIO UNIT".

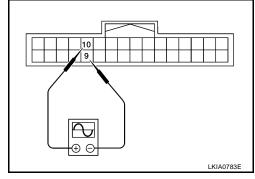


4. CHECK BLUETOOTH VOICE SIGNAL

1. Check signal between Bluetooth control unit harness connector B121 terminals 9 and 10.







9 – 10:

OK or NG

OK >> Replace audio unit. Refer to AV-43, "AUDIO UNIT" .

NG >> Replace Bluetooth control unit. Refer to AV-64, "BLUETOOTH CONTROL UNIT".

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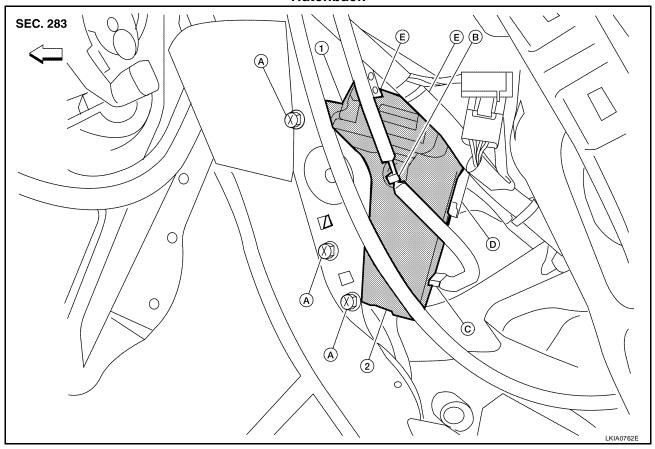
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Removal and Installation BLUETOOTH CONTROL UNIT

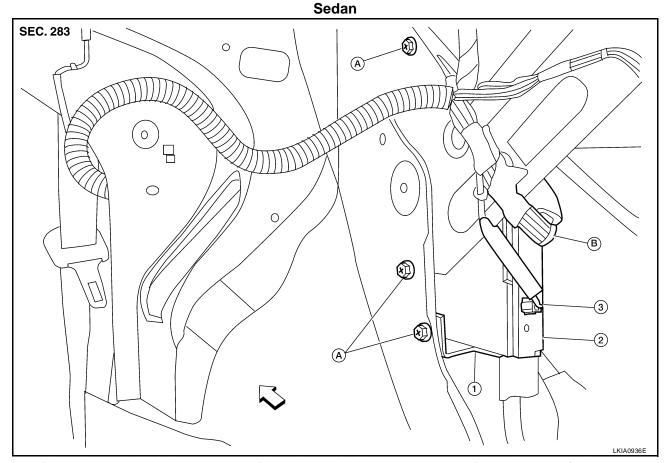
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Hatchback



- 1. Bluetooth control unit bracket
- B. BLuetooth antenna feeder harness C. clip (hatchback only)
- E. Bluetooth control unit bracket screws
- 2. Bluetooth control unit
 - Bluetooth antenna feeder harness connector
- \leftarrow Front

- A. Blue tooth control unit bolts
- D. Bluetooth control unit connector



- Bluetooth control unit bracket Bluetooth control unit bolts
- 2. Bluetooth control unit
- В. Bluetooth control unit connector
- 3. Bluetooth antenna feeder connector
- Front

Removal

Α.

- 1. For hatchback, remove luggage side lower finish (RH). Refer to EI-53, "Removal and Installation".
 - Disconnect Bluetooth antenna harness clip.
- 2. For sedan, remove the trunk room side finisher (RH). Refer to El-55, "Removal and Installation".
 - Disconnect the Bluetooth antenna harness connector.
- 3. Disconnect the Bluetooth control unit harness connector.
- 4. Remove the Bluetooth control unit upper and lower bracket bolts.
- 5. Unhook the Bluetooth control unit upper and lower brackets and remove Bluetooth control unit.
- 6. Remove Bluetooth control unit bracket screws and remove the upper and lower brackets from unit.

Installation

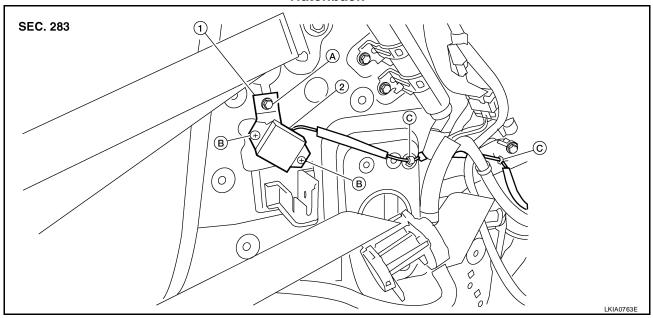
Installation is in the reverse order of removal.

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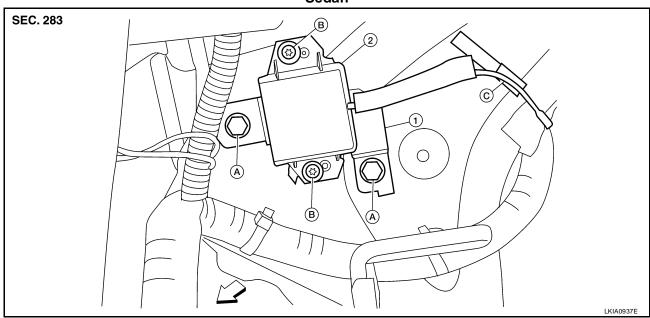
BLUETOOTH ANTENNA

Hatchback



- 1. Bluetooth antenna bracket
- Bluetooth antenna screws
- Bluetooth antenna
- Bluetooth antenna feeder harness
- Bluetooth antenna bracket bolts

Sedan



- Bluetooth antenna bracket 1.
- Bluetooth antenna
- Front

- Bluetooth antenna screws
- C. Bluetooth antenna feeder harness

Bluetooth antenna bracket bolts

Removal

- 1. For hatchback, remove luggage side lower finisher (RH). Refer to El-53, "Removal and Installation".
- For sedan, fold the rear seat back down, remove the seat back finisher (RH). Refer to EI-55, "Removal and Installation".
- 3. Disconnect the Bluetooth antenna feeder harness clips.
- 4. Disconnect the Bluetooth antenna feeder harness connector.
- Remove the Bluetooth antenna bracket bolt(s) and remove antenna. 5.
- Remove the Bluetooth antenna screws and remove bracket.

Installation Installation is in the reverse order of removal.

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BLUETOOTH MICROPHONE

Removal

- 1. Remove over-head console assembly, roof finisher. Refer to EI-46, "HEADLINING" .
- 2. Remove the Bluetooth microphone.

Installation

Installation is in the reverse order of removal.