## AUDIO AND VISUAL SYSTEM

# PARTS LOCATION



AV

## SYSTEM DIAGRAM





## SYSTEM DESCRIPTION

- 1. DISC PLAYER OUTLINE
  - (a) A CD player uses a laser pickup to read digital signals recorded on CDs. By converting the digital signals to analog, music and other content can be played.

CAUTION:

Do not look directly at the laser pickup because the CD player uses an invisible laser beam. Be sure to operate the player only as instructed. NOTICE:

- Do not disassemble any part of the CD player.
- Do not apply oil to the CD player.
- Do not insert anything but a CD into the CD player.
- (b) Usable discs
  - The CD player can only play audio CDs, CD-Rs (CD-Recordable), and CD-RWs (CD-ReWritable) that have any of the following marks:



- Hold discs by the outer edge and center hole with the label side up.
- Leaving the disc exposed halfway out of the slot for a long time after pressing the disc eject button may cause deformation of the disc, making the disc unusable.
- If discs have adhesive tape, stickers, CDR labels, or any traces of such labels attached, the discs may not be ejected or player malfunctions may result.

- Keep the discs away from direct sunlight. (Exposure to direct sunlight may cause deformation of the disc, making the disc unusable.)
- Do not use odd-shaped CDs because these may cause player malfunctions.
- Do not use discs whose recording portion is transparent or translucent because they may not be inserted, ejected, or played normally. HINT:
- When it is cold or it is raining, if the windows mist up, mist and also dew may form in the player. In such a case, the CD may skip or the CD may stop in the middle of play. Ventilate or dehumidify the cabin for a while before using the player.
- The CD may skip if the player experiences strong • vibrations when the vehicle is driven on rough road or similar uneven surface(s).
- (d) Cleaning

### NOTICE:

### Do not use a lens cleaner because it may cause a malfunction in the pickup portion of the player.

(1) If dirt is on the disc surface, wipe it clean with a soft dry cloth such as an eyeglass cleaner for plastic lenses from the inside to the outside in a radial direction.

### NOTICE:

- Pressing on the disc by hand or rubbing the disc with a hard cloth may scratch the disc surface.
- Use of solvent such as a record spray, antistatic agent, alcohol, benzine, and thinner, or a chemical cloth may cause damage to the disc, making the disc unusable.

### 2. **MP3/WMA OUTLINE**

(a) Playable MP3 file standards

Compatible standard	MP3 (MPEG1 LAYER3, MPEG2 LSF LAYER 3)
Compatible sampling frequency	<ul> <li>MPEG1 LAYER3: 32, 44.1, 48 (kHz)</li> <li>MPEG2 LSF LAYER3: 16, 22.05, 24 (kHz)</li> </ul>
Compatible bit rate	<ul> <li>MPEG1 LAYER3: 64, 80, 96, 112, 128, 160, 192, 224, 256, 320 (kbps)</li> <li>MPEG2 LSF LAYER3: 64, 80, 96, 112, 128, 144, 160 (kbps)</li> <li>Compatible with VBR</li> </ul>
Compatible channel mode	Stereo, joint stereo, dual channel, monaural
(b)	Plavable WMA file standards

Compatible standard	WMA Ver. 7, 8, and 9
Compatible sampling frequency	32, 44.1, 48 (kHz)
Compatible bit rate	<ul> <li>Ver. 7, 8: CBR48, 64, 80, 96, 128, 160, 192 (kbps)</li> <li>Ver. 9: CBR48, 64, 80, 96, 128, 160, 192, 256, 320 (kbps)</li> <li>Compatible with playback of channel 2 only</li> </ul>



- (c) ID3 tag and WMA tag
  - Additional textual information called ID3 tag can be input to MP3 files. Information such as song titles and artist names can be stored. HINT:

This player is compatible with the ID3 tags of ID3 Ver. 1.0 and 1.1, and ID3 Ver. 2.2 and 2.3. (Number of characters complies with ID3 Ver. 1.0 and 1.1.)

- (2) Additional textual information called WMA tag can be input to WMA files. Information such as song titles and artist names can be stored.
- (d) Usable media
  - Only CD-ROMs, CD-Rs (CD-Recordable), and CD-RWs (CD-ReWritable) can be used to play MP3/WMA files.

### NOTICE:

- CD-Rs and CD-RWs are more easily affected by a hot and humid environment than discs used for normal audio CDs. For this reason, some CD-Rs and CD-RWs may not be played.
- If there are fingerprints or scratches on the disc, the disc may not be played or the CD may skip.
- Some CD-Rs and CD-RWs deteriorate if they are left in the cabin for a long time.
- Keep CD-Rs and CD-RWs in a storage case that is impenetrable to light.
- (e) Usable media format
  - (1) Usable media format

Disc format	CD-ROM Mode 1, CD-ROM XA Mode 2 Form1
File format	ISO9660 Level 1 and Level 2 (Joliet, Romeo)

### HINT:

- As for MP3/WMA files written in any format other than those above, the contents of the files may not be played normally or the file names or folder names may not be displayed correctly.
- This player is compatible with multi-session discs and can play CD-Rs and CD-RWs on which MP3/WMA files are added. However, only the first session can be played.
- Discs whose first session includes both music data and MP3 or WMA format data cannot be played.

Maximum directory levels	8 levels
Maximum number of characters for a folder name/file name	32 characters
Maximum number of folders	192 (Including empty folders, route folders, and folders that do not contain MP3/WMA files)
Maximum number of files in a disc	255 (Including non-MP3/WMA files)

- (f) File names
  - Only files with an extension of ".mp3" or ".wma" can be recognized and played as MP3 or WMA files.
  - (2) Save MP3 or WMA files with an extension of ".mp3" or ".wma".

NOTICE:

If saving non-MP3 or non-WMA files with an extension of ".mp3" or ".wma", those files are wrongly recognized as MP3 or WMA files and played. A loud noise may occur and damage to the speaker may result.

- 3. AVC-LAN DESCRIPTION
  - (a) What is AVC-LAN?



- (1) To solve sound problems, etc. caused by using components of different manufacturers through signal standardization.
- (2) To allow each manufacturer to concentrate on developing products they do best. From this, reasonably priced products can be produced. HINT:
  - If a short to +B or short to ground is detected in the AVC-LAN circuit, communication is interrupted and the audio system will stop functioning.

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- If the audio system has a navigation system installed, the multi-display unit acts as the master unit. If the navigation system is not installed, the audio head unit acts as the master unit instead. If the radio and navigation assembly is installed, it is the master unit.
- The radio receiver contains a resistor that is necessary to enable communication on the different AVC-LAN circuits.
- The car audio system with an AVC-LAN circuit has a diagnostic function.
- Each component has a specified number (3digit) called a physical address. Each function has a number (2-digit) called a logical address.

### 4. COMMUNICATION SYSTEM OUTLINE

- (a) Components of the audio system communicate with each other via the AVC-LAN.
- (b) The master component of the AVC-LAN is a radio receiver with a 60 to 80  $\Omega$  resistor. This is essential for communication.
- (c) If a short circuit or open circuit occurs in the AVC-LAN circuit, communication is interrupted and the audio system will stop functioning.

### 5. DIAGNOSTIC FUNCTION OUTLINE

- (a) The audio system has a diagnostic function (the result is indicated on the master unit).
- (b) A 3-digit hexadecimal component code (physical address) is allocated to each component on the AVC-LAN. Using this code, the component in the diagnostic function can be displayed.

### 6. "BLUETOOTH" OUTLINE

(a) "Bluetooth" is a trademark owned by Bluetooth SIG. Inc.



(b) "Bluetooth" is a new wireless connection technology that uses the 2.4 GHz frequency band. This makes it possible to connect a cellular phone ("Bluetooth" compatible phone <sup>\*1</sup>) to the radio receiver (the "Bluetooth" system is built in), and use the handsfree function of the cellular phone, even if it is in a pocket or bag. As a result, it is not necessary to use a connector attached directly to the cellular phone.

<sup>\*1</sup>: Some versions of "Bluetooth" compatible cellular phones may not function.



### HINT:

The communication performance of "Bluetooth" may vary depending on obstructions or radio wave conditions between communication devices, electromagnetic radiation, communication device sensitivity, or antenna capacity.



## HOW TO PROCEED WITH TROUBLESHOOTING



Result	Proceed to
DTC is output again	A
DTC is not output	В

		B Go to step 6
A	$\supset$	
5	DIAGNOSTIC TROUBLE CODE	CHART
·		Find the output code in the diagnostic trouble code chart (See page AV-27).
	T	
Go to	step 8	
6	PROBLEM SYMPTOMS TABLE	
Posult	•	Refer to the problem symptoms table (See page AV-13).
Result	Result	Proceed to
Fault is Fault is	not listed in problem symptoms table	A
A		B Go to step 8
7	OVERALL ANALYSIS AND TRO	UBLESHOOTING
NEX	Ţ	(a) Terminals of ECU (See page AV-15).
8	ADJUST, REPAIR OR REPLACE	
NEX	Ţ	
9	CONFIRMATION TEST	
	Ţ	I
END		<b>^</b>
END		

## **IDENTIFICATION OF NOISE SOURCE**

- 1. Radio Description
  - (a) Radio frequency band
    - (1) Radio broadcasts use the radio frequency bands shown in the table below.

Frequency	30 kHz	300	kHz 30	MHz	30 N	/Hz 300	) MHz
Designation		LF	MF	HF		VHF	
Radio Wave			AM			FM	
Modulation		Amplitude modulation Frequence			Frequency modu	ulation	
LF: Low Frequency	MF: Med	ium Freque	ncy HF: High	Frequency	VHF	F: Very High Freq	uency



Ionosphere

1100011E02

## (b) Service area

- (1) The service areas of AM and FM broadcasts are vastly different. Sometimes an AM broadcast can be received very clearly but an FM stereo cannot. FM stereo has the smallest service area, and is prone to pick up static and other types of interference such as noise.
- (c) Radio reception problems HINT:

In addition to static, other problems such as "phasing", "multipath", and "fade out" exist. These problems are not caused by electrical noise, but by the radio signal propagation method itself.

(1) Phasing

AM broadcasts are susceptible to electrical interference and another kind of interference called phasing. Occurring only at night, phasing is the interference created when a vehicle receives 2 radio wave signals from the same transmitter. One signal is reflected off the ionosphere and the other signal is received directly from the transmitter.

## AV

Phasing

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- (2) Multipath Multipath is a type of interference created when a vehicle receives 2 radio wave signals from the
  - a vehicle receives 2 radio wave signals from the same transmitter. One signal is reflected off buildings or mountains and the other signal is received directly from the transmitter.
- (3) Fade out

Fade out is caused by objects (buildings, mountains, and other such large obstacles) that deflect away part of a signal, resulting in a weaker signal when the object is between the transmitter and vehicle. High frequency radio waves, such as FM broadcasts, are easily deflected by obstructions. Low frequency radio waves, such as AM broadcasts, are much more difficult to deflect.

(d) Noise problem

Technicians must have a clear understanding about each customer's noise complaint. Use the following table to diagnose noise problems.

Radio Frequency	Noise Occurrence Condition	Presumable Cause
AM	Noise occurs in a specified area	Foreign noise
АМ	Noise occurs when listening to an intermittent broadcast	An identical program transmitted from multiple towers can cause noise where the signals overlap
AM	Noise occurs only at night	Music beat from a distant broadcast
FM	Noise occurs while driving in a specified area	Multipath or phasing noise resulting from a change in FM frequency

HINT:

If the noise does not match the examples above, refer to the descriptions about phasing and multipath.

## **PROBLEM SYMPTOMS TABLE**

HINT:

- Before inspecting the suspected areas listed in the table below, check the fuse and relay.
- Before inspecting the suspected areas listed in the table below, check for DTCs.
- Methods used to verify the cause of the problem are listed in order of probability in the suspected area column.

Symptom	Suspected area	See page
	1. Proceed to "Pressing Power Switch does not Turn on System"	AV-68
Pressing power switch does not turn on system.	2. Radio receiver power source circuit	AV-140
	3. AVC-LAN circuit	AV-118
	4. Radio receiver	AV-145
	1. Steering pad switch circuit	AV-91
Panel switch does not function.	2. AVC-LAN circuit	AV-118
	3. Radio receiver	AV-145
	1. Radio receiver power source circuit	AV-140
	2. Proceed to "No Sound can be Heard from Speakers"	AV-69
	3. Stereo component amplifier power source circuit	AV-142
No sound can be heard from speakers. (Audio is	4. Proceed to "Sound Signal Circuit between Radio Receiver and Stereo Component Amplifier"	AV-111
mute.) (for premium model)	5. Speaker circuit	AV-103
	6. Proceed to "Mute Signal Circuit between Radio Receiver and Stereo Component Amplifier"	AV-115
	7. Stereo component amplifier	AV-150
	8. Radio receiver	AV-145
	1. Radio receiver power source circuit	AV-140
No sound can be heard from speakers. (Audio is	2. Proceed to "No Sound can be Heard from Speakers"	AV-69
mute.) (for standard model)	3. Speaker circuit	AV-103
	4. Radio receiver	AV-145
	1. Proceed to "Poor Sound Quality in All Modes (Low Volume)"	AV-80
	2. Speaker circuit.	AV-103
Sound quality is bad in all modes. (Volume is too low.) (for premium model)	3. Proceed to "Sound Signal Circuit between Radio Receiver and Stereo Component Amplifier"	AV-111
	4. Proceed to "Mute Signal Circuit between Radio Receiver and Stereo Component Amplifier"	AV-115
	5. Stereo component amplifier	AV-150
	6. Radio receiver	AV-145
	1. Proceed to "Poor Sound Quality in All Modes (Low Volume)"	AV-80
(for standard model)	2. Speaker circuit	AV-103
	3. Radio receiver	AV-145
ASL does not function. (for premium model)	Proceed to "Vehicle Speed Signal Circuit between Stereo Component Amplifier and Combination Meter"	AV-120
ASL does not function. (for standard model)	Proceed to "Vehicle Speed Signal Circuit between Radio Receiver and Combination Meter"	AV-87
	1. Radio receiver power source circuit	AV-140
External device sound cannot be heard or sound	2. Proceed to "Sound Signal Circuit between Radio Receiver and Stereo Jack Adapter"	AV-113
	3. Stereo jack adapter	AV-223
	4. Radio receiver	AV-145

### **Audio Function:**

A V

Symptom	Suspected area	See page
	1. Proceed to "Noise occurs"	AV-66
Abnormal noise occurs. (for premium model)	2. Stereo component amplifier	AV-150
	3. Radio receiver	AV-145
Absormed poise ecoure (for standard model)	1. Proceed to "Noise occurs"	AV-66
Abriofinal hoise occurs. (for standard model)	2. Radio receiver	AV-145
Radio broadcast cannot be received or poor reception.	Proceed to "Radio Broadcast cannot be Received or Poor Reception"	AV-76
CD connet be inserted ( played or CD is sighted right	1. Radio receiver power source circuit	AV-140
after insertion.	2. Proceed to "CD cannot be Inserted / Played or CD is Ejected Right After Insertion"	AV-72
CD connet be signated	1. Radio receiver power source circuit	AV-140
CD cannot be ejected.	2. Proceed to "CD cannot be Ejected"	AV-71
Sound quality is bad only when CD is played. (Volume is too low.)	Proceed to "Sound Quality is Bad Only when CD is Played (Volume is Too Low)"	AV-70
CD sound skips.	Proceed to "CD Sound Skips"	AV-74
Padia receiver cannot be illuminated at night	1. Illumination circuit	AV-96
	2. Radio receiver	AV-145

### Steering Pad Switch Function:

Symptom	Suspected area	See page
Audio system cannot be operated with steering pad switch.	1. Steering pad switch circuit	AV-91
	2. Radio receiver	AV-145
Steering pad switch cannot be illuminated at night.	1. Illumination circuit	AV-96
	2. Radio receiver	AV-145

### "Bluetooth" Function (\*1):

Symptom	Suspected area	See page
Cellular phone registration failure, phone directory transfer failure.	Proceed to "Cellular Phone Registration Failure, Phone Directory Transfer Failure"	AV-81
	1. Proceed to "Cellular Phone cannot Send / Receive"	AV-83
Cellular phone cannot send / receive.	2. Steering pad switch circuit	AV-91
	3. Radio receiver	AV-145
	1. Proceed to "The Other Caller's Voice cannot be Heard, is too Quiet, or Distorted"	AV-85
The other caller's voice cannot be heard, is too quiet, or distorted.	2. Proceed to "Cellular Phone Voice Circuit between Radio Receiver and Stereo Component Amplifier"	AV-124
	3. Radio receiver	AV-145
	4. Stereo component amplifier	AV-150
	1. Proceed to "The Other Caller cannot Hear Your Voice, or Your Voice is too Quiet or Distorted"	AV-86
The other caller cannot hear your voice, or your voice is too quiet or distorted.	2. Proceed to "Microphone Circuit between Microphone and Radio Receiver"	AV-126
	3. Microphone	AV-232
	4. Radio receiver	AV-145

\*1: for Premium Model



## **TERMINALS OF ECU**

### 1. RADIO RECEIVER (PREMIUM MODEL)

voice signal is playing

with sounds is output



Symbols (Terminal No.)	Wiring Color	Terminal Description	Condition	Specification
IVO- (F8-12) - GND (F26-20)	G - BR	Voice signal	"Bluetooth" handsfree voice signal is playing	A waveform synchronized with sounds is output
SLD (F8-13) - Body ground	Shielded - Body ground	Shield ground	Always	Below 1 V
ARI (F8-15) - GND (F26-20)	G - BR	Sound signal (Right)	External device is playing (When stereo jack is used)	A waveform synchronized with sounds is output
ASGN (F8-16) - GND (F26-20)	BR - BR	Shield ground	Always	Below 1 V
ALI (F8-17) - GND (F26-20)	R - BR	Sound signal (Left)	External device is playing (When stereo jack is used)	A waveform synchronized with sounds is output
AUXI (F8-19) - GND (F26-20)	G - BR	External device connection detection signal	External device is connected	Below 1 V
MIC- (F11-1) - GND (F26-20)	R - BR	Microphone voice signal	Bluetooth handsfree function is ON	A waveform synchronized with sounds is output
MIC+ (F11-2) - GND (F26-20)	G - BR	Microphone voice signal	Bluetooth handsfree function is ON	A waveform synchronized with sounds is output
+B (F11-5) - GND (F26-20)	L - BR	Battery	Always	10 to 14 V
MCVD (F11-7) - GND (F26-20)	LG - BR	Microphone AMP power supply	Turn ignition switch off $\rightarrow$ on (IG)	Below 1 V $\rightarrow$ 5 V
GND (F11-14) - Body ground	BR - Body ground	Ground	Always	Below 1 V
ACC (F11-16) - GND (F26-20)	GR - BR	Accessory (ON)	Turn ignition switch off $\rightarrow$ on (ACC)	Below 1 V $\rightarrow$ 10 to 14 V

### 2. RADIO RECEIVER (STANDARD MODEL)



Symbols (Terminal No.)	Wiring Color	Terminal Description	Condition	Specification
FR+ (F6-1) - GND (F6-7)	LG - BR	Sound signal (Front Right)	Audio system is playing	A waveform synchronized with sounds is output
FL+ (F6-2) - GND (F6-7)	P - BR	Sound signal (Front Left)	Audio system is playing	A waveform synchronized with sounds is output
ACC (F6-3) - GND (F6-7)	GR - BR	Accessory (ON)	Turn ignition switch off $\rightarrow$ on (ACC)	Below 1 V $\rightarrow$ 10 to 14 V
B (F6-4) - GND (F6-7)	L-Y - BR	Battery	Always	10 to 14 V
FR- (F6-5) - GND (F6-7)	L - BR	Sound signal (Front Right)	Audio system is playing	A waveform synchronized with sounds is output
FL- (F6-6) - GND (F6-7)	V - BR	Sound signal (Front Left)	Audio system is playing	A waveform synchronized with sounds is output
GND (F6-7) - Body ground	BR - Body ground	Ground	Always	Below 1 V
ANT (F6-8) - GND (F6-7)	O - BR	Power source of antenna	Radio switch ON and AM or FM	10 to 14 V
ILL+ (F6-10) - GND (F6-7)	G - BR	Illumination signal	Light control switch OFF $\rightarrow$ TAIL or HEAD	Below 1 V $\rightarrow$ 10 to 14 V
RR+ (F7-1) - GND (F6-7)	R - BR	Sound signal (Rear Right)	Audio system is playing	A waveform synchronized with sounds is output
RL+ (F7-2) - GND (F6-7)	B - BR	Sound signal (Rear Left)	Audio system is playing	A waveform synchronized with sounds is output



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Symbols (Terminal No.)	Wiring Color	Terminal Description	Condition	Specification
RR- (F7-3) - GND (F6-7)	W - BR	Sound signal (Rear Right)	Audio system is playing	A waveform synchronized with sounds is output
ILL- (F7-5) - GND (F6-7)	W-B - BR	Illumination (rheostat) signal	Light control switch OFF $\rightarrow$ TAIL or HEAD	Below 1 V $\rightarrow$ Pulse generation
RL- (F7-6) - GND (F6-7)	Y - BR	Sound signal (Rear Left)	Audio system is playing	A waveform synchronized with sounds is output
SPD (F8-3) - GND (F6-7)	V - BR	Speed signal from combination meter	Turn ignition switch on (IG). Turn drive wheels slowly.	Pulse generation
SWG (F8-6) - GND (F6-7)	P - BR	Steering pad switch ground	Always	Below 1 V
SW1 (F8-7) - GND (F6-7))	O - BR	Steering pad switch signal	Steering pad switch not operated $\rightarrow$ SEEK+ switch pushed $\rightarrow$ SEEK- switch pushed $\rightarrow$ VOL+ switch pushed $\rightarrow$ VOL- switch pushed	4 V or more $\rightarrow$ Approx. 0.5 V $\rightarrow$ Approx. 0.9 V $\rightarrow$ Approx. 2.0 V $\rightarrow$ Approx. 3.4 V
SW2 (F8-8) - GND (F6-7)	Y - BR	Steering pad switch signal	Steering pad switch not operated $\rightarrow$ MODE switch pushed	4 V or more $\rightarrow$ Below 2.5 V
ARI (F8-15) - GND (F6-7)	O - BR	Sound signal (Right)	External device is playing (When stereo jack is used)	A waveform synchronized with sounds is output
ASGN (F8-16) - GND (F6-7)	BR - BR	Shield ground	Always	Below 1 V
ALI (F8-17) - GND (F6-7)	R - BR	Sound signal (Left)	External device is playing (When stereo jack is used)	A waveform synchronized with sounds is output
AUXI (F8-19) - GND (F6-7)	G - BR	External device connection detection signal	External device is connected	Below 1 V

# 3. STEREO COMPONENT AMPLIFIER (PREMIUM MODEL)



Symbols (Terminal No.)	Wiring Color	Terminal Description	Condition	Specification
MUTE (F19-1) - GND (F20-6)	O - BR	Mute signal from radio receiver	Audio system is playing $\rightarrow$ Changing	Above 3.5 V $\rightarrow$ Below 1 V
L- (F19-2) - GND (F20-6)	W - BR	Sound signal (Left)	Audio system is playing	A waveform synchronized with sounds is output
L+ (F19-3) - GND (F20-6)	B - BR	Sound signal (Left)	Audio system is playing	A waveform synchronized with sounds is output
R- (F19-4) - GND (F20-6)	G - BR	Sound signal (Right)	Audio system is playing	A waveform synchronized with sounds is output
R+ (F19-5) - GND (F20-6)	R - BR	Sound signal (Right)	Audio system is playing	A waveform synchronized with sounds is output
SLD (F19-6) - Body ground	Shielded - Body ground	Shield ground	Always	Blow 1 V
TX- (F19-7) - GND (F20-6)	G - BR	AVC-LAN communication signal	Turn ignition switch on (ACC)	2 to 3 V

Symbols (Terminal No.)	Wiring Color	Terminal Description	Condition	Specification
TX+ (F19-8) - GND (F20-6)	R - BR	AVC-LAN communication signal	Turn ignition switch on (ACC)	2 to 3 V
SPD (F19-11) - GND (F20-6)	V - BR	Speed signal from combination meter	Turn ignition switch on (IG). Turn drive wheels slowly.	Pulse generation
ACC (F19-12) - GND (F20-6)	GR - BR	Accessory (ON)	Turn ignition switch off $\rightarrow$ on (ACC)	Below 1 V $\rightarrow$ 10 to 14 V
INT- (F19-22) - GND (F20-6)	G - BR	Voice signal	Navigation or "Bluetooth " handsfree voice signal is provided	A waveform synchronized with sounds is output
INT+ (F19-23) - GND (F20-6)	R - BR	Voice signal	Navigation or "Bluetooth " handsfree voice signal is provided	A waveform synchronized with sounds is output
+B (F18-1) - GND (F20-6)	GR - BR	Battery	Always	10 to 14 V
FR+ (F18-2) - GND (F20-6)	LG - BR	Sound signal (Front Right)	Audio system is playing	A waveform synchronized with sounds is output
RL+ (F18-3) - GND (F20-6)	B - BR	Sound signal (Rear Left)	Audio system is playing	A waveform synchronized with sounds is output
RR- (F18-4) - GND (F20-6)	W - BR	Sound signal (Rear Right)	Audio system is playing	A waveform synchronized with sounds is output
+B2 (F18-5) - GND (F20-6)	GR - BR	Battery	Always	10 to 14 V
FR- (F18-6) - GND (F20-6)	L - BR	Sound signal (Front Right)	Audio system is playing	A waveform synchronized with sounds is output
FL- (F18-7) - GND (F20-6)	V - BR	Sound signal (Front Left)	Audio system is playing	A waveform synchronized with sounds is output
FL+ (F18-8) - GND (F20-6)	P - BR	Sound signal (Front Left)	Audio system is playing	A waveform synchronized with sounds is output
RL- (F18-9) - GND (F20-6)	Y - BR	Sound signal (Rear Left)	Audio system is playing	A waveform synchronized with sounds is output
RR+ (F18-10) - GND (F20-6)	R - BR	Sound signal (Rear Right)	Audio system is playing	A waveform synchronized with sounds is output
WFL- (F20-1) - GND (F20-6)	V - BR	Sound signal (Front Left)	Audio system is playing	A waveform synchronized with sounds is output
WFL+ (F20-2) - GND (F20-6)	P - BR	Sound signal (Front Left)	Audio system is playing	A waveform synchronized with sounds is output
WFR- (F20-3) - GND (F20-6)	L - BR	Sound signal (Front Right)	Audio system is playing	A waveform synchronized with sounds is output
SL+ (F20-4) - GND (F20-6)	G-W - BR	Sound signal (Rear Left)	Audio system is playing	A waveform synchronized with sounds is output
SR+ (F20-5) - GND (F20-6)	L - BR	Sound signal (Rear Right)	Audio system is playing	A waveform synchronized with sounds is output
GND (F20-6) - Body ground	BR - Body ground	Ground	Always	Below 1 V
E (F20-7) - Body ground	BR - Body ground	Ground	Always	Below 1 V
WFR+ (F20-9) - GND (F20-6)	LG - BR	Sound signal (Front Right)	Audio system is playing	A waveform synchronized with sounds is output
SL- (F20-10) - GND (F20-6)	BR - BR	Sound signal (Rear Left)	Audio system is playing	A waveform synchronized with sounds is output
SR- (F20-12) - GND (F20-6)	Y - BR	Sound signal (Rear Right)	Audio system is playing	A waveform synchronized with sounds is output



## DTC CHECK / CLEAR

### HINT:

If the system cannot enter the diagnostic mode, inspect the AVC-LAN and all the components that connect to the AVC-LAN for short circuits and repair or replace the problem part. (See page AV-118)







### 1. STARTING DIAGNOSTIC MODE

- (a) Turn the ignition switch on (ACC).
- (b) Turn off the audio system.
- (c) While pressing the preset switches "1" and "6" at the same time, press the "DISC" switch 3 times.
   HINT:

A beep is emitted 3 times and the diagnostic function is activated. The system enters the all element illumination mode and the switch check mode.

### 2. ALL ELEMENT ILLUMINATION MODE AND SWITCH CHECK MODE

### HINT:

Illumination status of all switches and operations of the panel switches can be checked.

- (a) Check that all elements are on.
- (b) When pressing each panel switch, check that a beep is emitted.
   NOTICE:

Pressing the "SEEK TRACK UP" switch transfers the screen to the stereo jack adapter connection check screen. Check the operation of this switch by confirming the transfer of the screen.

# 3. STEREO JACK ADAPTER CONNECTION CHECK MODE

- (a) Press the "SEEK TRACK UP" switch.
- (b) Check if the stereo jack adapter is recognized. HINT:

Vehicles that do not have a stereo jack adapter also have this function.

### NOTICE:

This function is not to check connection information on an external device, but to check recognition information on a stereo jack adapter.

### 4. SERVICE CHECK MODE

(a) Press the "SEEK TRACK UP" switch. HINT: For details of the service check mode

For details of the service check mode, refer to "6. CHECK DTC" and "7. DTC CLEAR/RECHECK".

### 5. FINISHING DIAGNOSTIC MODE

(a) Press the "DISC" switch for 2 seconds or more, or turn the ignition switch off.

### 6. CHECK DTC

HINT:

Illustrations may differ from the actual vehicle depending on the device settings and options. Therefore, some detailed areas may not be shown exactly the same as on the actual vehicle.

(a) Reference:

In the system check mode, the system check and the diagnostic memory check are performed, and the check results are displayed in ascending order of the component codes (physical address).

Terms	Meaning
Component code (Physical address)	Three-digit code (in hexadecimal) given to each device comprising AVC-LAN. Corresponding to its function, individual symbol is provided.
Logical address	Two-digit code (in hexadecimal) given to each function and device unit in each device comprising AVC-LAN.

(b)	Service	check	result	display
-----	---------	-------	--------	---------

Display	Previous term	Meaning	Action to be taken
good	Good (normal)	No DTCs are detected in both "System Check Mode" and "Diagnostic Memory Mode".	-
nCon	No connection	The system recognized the component when it was registered, but the component gives no response to the "Diagnostic Mode ON Request".	Check the power source circuit and the communication circuit of the component indicated by the component code (physical address).
ECHn	Exchange	One or more DTCs for "Exchange" are detected in either "System Check Mode" or "Diagnostic Memory Mode".	Go to the detailed information mode to check the trouble area referring to the DTC list.
CHEC	Check	When no DTCs are detected for "Exchange", one or more DTCs for "Check" are detected in either "System Check Mode" or "Diagnostic Memory Mode".	Go to the detailed information mode to check the trouble area referring to the DTC list.
OLd	Old version	Old DTC application is identified and DTC is detected in either "System Check Mode" or "Diagnostic Memory Mode".	-
nrES	No response	The device gives no response to any one of "System Check Mode ON Request", "System Check Result Request", and "Diagnostic Memory Request".	Check the power source circuit and the communication circuit of the component indicated by the component code (physical address).

### (c) Device name and physical address

Physical address No.	Name
190	Radio receiver
440	Stereo component amplifier
19D	"Bluetooth" handsfree module

- (d) Service check mode
  - (1) Press the "SEEK TRACK" switch to see the check result of each component.
  - (2) The component code (physical address) is displayed first, and then the check result follows. HINT:
    - If all check results are "good", the system judges that no DTC exists.



- If the preset switch "1" is pressed in the service check mode, service check is performed again.
- This illustration is only an example and may differ in cases such as for each option part and output DTCs.



- (e) Detailed information mode 1 HINT:
  - "Detailed Information Mode 1" is displayed when there is no response to "System Check Result Request" and DTC is detected only in "Diagnostic Memory Request".
  - The component device code (physical address) is displayed first, and then the check result follows.
  - This illustration is only an example and may differ in cases such as for each option part and output DTCs.
  - (1) Press the preset switch "2" to go to the "Detailed Information Mode 1".
  - (2) Press the "SEEK TRACK" switch to display the physical address and DTC of the component.
  - (3) Press the preset switch "3" to go to the "Service Check Mode".
  - (4) Distinguish between the displays of the responses to "System Check Result Request" and "Diagnostic Memory Request". In order to distinguish the information detected in "System Check Mode" and "Diagnostic Memory Mode" in "ECHn", "CHEC", and "OLd" in "Detailed Information Mode 1", refer to the following:
    - "SyS" is displayed before the detailed codes detected as a result of "System Check Result Request" are displayed.
    - "COdE" is displayed before the detailed codes detected as a result of "Diagnostic Memory Request" are displayed.

HINT:

- The response to "System Check Result Request" is the current information given from each ECU as a result of the system check.
- The response to "Diagnostic Memory Request" contains the information received from each ECU or stored in each ECU in the past.
- The response to "Diagnostic Memory Request" is the output DTCs as a result of the diagnostic memory check or the DTCs received from each ECU.
- "System Check Result Request (SyS)" is displayed first, and then the logical address and DTC appear in order.
- "Diagnostic Memory Request (COdE)" is displayed first, and then the logical address, DTC, sub-code, connection check number, and the number of occurrence appear in order.





- (f) Detailed information mode 2 HINT:
  - "Detailed Information Mode 2" is displayed when DTCs are detected in the responses to both "System Check Result Request" and "Diagnostic Memory Request".
  - The component device code (physical address) is displayed first, and then the check result follows.
  - This illustration is only an example and may differ in cases such as for each option part and output DTCs.
  - (1) Press the preset switch "2" to go to the "Detailed Information Mode 2".
  - (2) Press the "SEEK TRACK" switch to display the physical address and DTC of the component.
  - (3) Press the preset switch "3" to go to the "Service Check Mode".
  - (4) Distinguish between the displays of the responses to "System Check Result Request" and "Diagnostic Memory Request". In order to distinguish the information detected in "System Check Mode" and "Diagnostic Memory Mode" in "ECHn", "CHEC", and "OLd" in "Detailed Information Mode 2", refer to the following:
    - "SyS" is displayed before the detailed codes detected as a result of "System Check Result Request" are displayed.
    - "COdE" is displayed before the detailed codes detected as a result of "Diagnostic Memory Request" are displayed. HINT:
      - The response to "System Check Result Request" is the current information given from each ECU as a result of the system check.
      - The response to "Diagnostic Memory Request" contains the information received from each ECU or stored in each ECU in the past.
      - The response to "Diagnostic Memory Request" is the output DTCs as a result of the diagnostic memory check or the DTCs received from each ECU.
      - "System Check Result Request (SyS)" is displayed first, and then the logical address and DTC appear in order.
      - "Diagnostic Memory Request (COdE)" is displayed first, and then the logical address, DTC, sub-code, connection check number, and the number of occurrence appear in order.



Ρ





### DTC CLEAR/RECHECK

- (a) Clearing All DTC Memory (when clearing all the memory of the DTCs previously detected).
  - (1) When the preset switch "5" is pressed for 2 seconds or more during "Service Check Mode", the DTCs for all components are cleared. ("CLr" is displayed at this time.) HINT:
    - A beep sound is emitted once when the DTC memory is completely cleared.
    - When the DTC memory for all the components is cleared, only the component codes (physical address) are displayed.
    - After the DTC memory is cleared, the "Service Check Mode" is restored.
- (b) Clearing Individual DTC Memory (when clearing the memory of the DTC previously detected individually).
  - (1) When the preset switch "5" is pressed for 2 seconds or more during "Detailed Information Mode 1" or "Detailed Information Mode 2", the DTCs for the target component are cleared. HINT:
    - A beep sound is emitted once when the DTC memory is completely cleared.
    - When the DTC memory is cleared, only the component code (physical address) is displayed for the target component.
    - After the DTC memory is cleared, the "Service Check Mode" is restored.
    - To check DTCs, press the preset switch "1" and perform the system check again.
- (c) Press the preset switch "1" to perform the service check again, and check that no DTCs are displayed for all the component codes (physical address).

AV

## DIAGNOSTIC TROUBLE CODE CHART

### **COMMUNICATION DIAGNOSIS:**

DTC No.	Detection Item	Trouble Area	See page
01-21	ROM Error	Radio receiver	AV-31
01-22	RAM Error	Radio receiver	AV-31
01-D5	Absence of Registration Unit	<ol> <li>Power source circuit of the component shown by the sub- code</li> <li>AVC-LAN circuit between the radio receiver and the component shown by the sub-code</li> <li>Component shown by the sub- code</li> </ol>	AV-32
01-D6	No Master	<ol> <li>Radio receiver power source circuit</li> <li>Power source circuit of the component which has stored this code</li> <li>AVC-LAN circuit between the radio receiver and the component which has stored this code</li> <li>Component which has stored this code</li> <li>Radio receiver</li> </ol>	AV-34
01-D7	Connection Check Error	<ol> <li>Radio receiver power source circuit</li> <li>Power source circuit of the component which has stored this code</li> <li>AVC-LAN circuit between the radio receiver and the component which has stored this code</li> <li>Component which has stored this code</li> <li>Radio receiver</li> </ol>	AV-34
01-D8	No Response for Connection Check	<ol> <li>Power source circuit of the component shown by the sub- code</li> <li>AVC-LAN circuit between the radio receiver and the component shown by the sub-code</li> <li>Component shown by the sub- code</li> </ol>	AV-32
01-D9	Last Mode Error	<ol> <li>Power source circuit of the component shown by the sub- code</li> <li>AVC-LAN circuit between the radio receiver and the component shown by the sub-code</li> <li>Component shown by the sub- code</li> </ol>	AV-32
01-DA	No Response Against ON / OFF Command	<ol> <li>Power source circuit of the component shown by the sub- code</li> <li>AVC-LAN circuit between the radio receiver and the component shown by the sub-code</li> <li>Component shown by the sub- code</li> </ol>	AV-32

AV-29
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DTC No.	Detection Item	Trouble Area	See page
01-DB	Mode Status Error	<ol> <li>Power source circuit of the component shown by the sub- code</li> <li>AVC-LAN circuit between the radio receiver and the component shown by the sub-code</li> <li>Component shown by the sub- code</li> </ol>	AV-32
01-DC	Transmission Error	If the same sub-code is recorded in other components, check harness for power supply and communication system of all components shown by code	AV-39
01-DD	Master Reset	<ol> <li>Radio receiver power source circuit</li> <li>AVC-LAN circuit between the radio receiver and the component which has stored this code</li> <li>Radio receiver</li> <li>Component which has stored this code</li> </ol>	AV-42
01-DE	Slave Reset	<ol> <li>Power source circuit of the component shown by the sub- code</li> <li>AVC-LAN circuit between the radio receiver and the component shown by the sub-code</li> <li>Component shown by the sub- code</li> </ol>	AV-32
01-DF	Master Error	<ol> <li>Radio receiver power source circuit</li> <li>AVC-LAN circuit between the radio receiver and the component which has stored this code</li> <li>Radio receiver</li> <li>Component which has stored this code</li> </ol>	AV-47
01-E0	Registration Complete Indication Error	-	AV-51
01-E1	Voice Processing Device ON Error	<ol> <li>Radio receiver power source circuit</li> <li>AVC-LAN circuit between the radio receiver and the component which has stored this code</li> <li>Radio receiver</li> <li>Component which has stored this code</li> </ol>	AV-42
01-E2	ON / OFF Indication Parameter Error	Radio receiver	AV-52
01-E3	Registration Demand Transmission	-	AV-51
01-E4	Multiple Frame Incomplete	-	AV-51

### **CD PLAYER**

DTC No.	Detection Item	Trouble Area	See page
62-10	CD Player Mechanical Error	Radio receiver	AV-54
62-11	CD Insertion and Ejection Error	Radio receiver	AV-54
62-12	CD Reading Abnormal	Radio receiver	AV-54
62-41	Wrong Disc	1. CD 2. Radio receiver	AV-55
62-42	Disc cannot be Read	1. CD 2. Radio receiver	AV-55

DTC No.	Detection Item	Trouble Area	See page
62-43	CD-ROM Abnormal	1. CD 2. Radio receiver	AV-57
62-44	CD Abnormal	Radio receiver	AV-59
62-45	Eject Error	Radio receiver	AV-60
62-46	Scratched / Reversed Disc	1. CD 2. Radio receiver	AV-61
62-47	High Temperature	Radio receiver	AV-63
62-48	Excess Current	Radio receiver	AV-59
62-50	Tray Insertion / Ejection Error	Radio receiver	AV-59
62-51	Elevator Error	Radio receiver	AV-60
62-52	Clamp Error	Radio receiver	AV-60
62-78	DSP Error	-	AV-64
62-7D	Disc cannot be Played	1. CD 2. Radio receiver	AV-65
62-7E	No Playable Files	1. CD 2. Radio receiver	AV-65
62-7F	Copyright Protection Error	1. CD 2. Radio receiver	AV-65

### **IN-DASH CD CHANGER**

DTC No.	Detection Item	Trouble Area	See page
63-10	CD Changer Mechanical Error	Radio receiver	AV-54
63-11	CD Insertion and Ejection Error	Radio receiver	AV-54
63-12	CD Reading Abnormal	Radio receiver	AV-54
63-41	Wrong Disc	1. CD 2. Radio receiver	AV-55
63-42	Disc cannot be Read	1. CD 2. Radio receiver	AV-55
63-43	CD-ROM Abnormal	1. CD 2. Radio receiver	AV-57
63-44	CD Abnormal	Radio receiver	AV-59
63-45	Eject Error	Radio receiver	AV-60
63-46	Scratched / Reversed Disc	1. CD 2. Radio receiver	AV-61
63-47	High Temperature	Radio receiver	AV-63
63-48	Excess Current	Radio receiver	AV-59
63-50	Tray Insertion / Ejection Error	Radio receiver	AV-59
63-51	Elevator Error	Radio receiver	AV-60
63-52	Clamp Error	Radio receiver	AV-60
63-78	DSP Error	-	AV-64
63-7D	Disc cannot be Played	1. CD 2. Radio receiver	AV-65
63-7E	No Playable Files	1. CD 2. Radio receiver	AV-65
63-7F	Copyright Protection Error	1. CD 2. Radio receiver	AV-65

### **TELEPHONE:**

DTC No.	Detection Item	Trouble Area	See page
57-47	Bluetooth Module Initialization Failed	Radio receiver	AV-53

DTC	01-21	ROM Error
DTC	01-22	RAM Error

### DESCRIPTION

DTC No.	DTC Detection Condition	Trouble Area
01-21	A malfunction exists in ROM.	Padia racaivar
01-22	A malfunction exists in RAM.	

### **INSPECTION PROCEDURE**

HINT:

After the inspection is completed, clear the DTCs.



NEXT

END

A\/

DTC	01-D5	Absence of Registration Unit
DTC	01-D8	No Response for Connection Check
DTC	01-D9	Last Mode Error
DTC	01-DA	No Response Against ON / OFF Command
DTC	01-DB	Mode Status Error
DTC	01-DE	Slave Reset

### DESCRIPTION

DTC No.	DTC Detection Condition	Trouble Area
01-D5 *1, *3	A device that the sub-code shows is (was) disconnected from the system when turning the ignition switch on (ACC or IG). The communication condition with the device that the code shows cannot be obtained when the engine starts.	
01-D8 *2, *3	The device indicated by the sub-code is (was) disconnected from the system after the engine starts.	Power source circuit of the component shown by
01-D9 *1, *3	The device that had functioned before the engine stopped is (was) disconnected from the system when turning the ignition switch is on (ACC or IG).	<ul> <li>the sub-code</li> <li>AVC-LAN circuit between the radio receiver and the component shown by the sub-code</li> <li>Component shown by the sub-code</li> </ul>
01-DA *3	No response is identified when changing mode. Sound and image do not change by switch operation.	Component shown by the sub-code
01-DB *1, *3	A dual alarm is detected.	
01-DE *3, *4	A slave device has been disconnected after the engine starts	

HINT:

- \*1: Even if no fault is present, this trouble code may be stored depending on the battery condition or engine start voltage.
- \*2: If the power connector is disconnected after the engine starts, this code is stored after 180 seconds.
- \*3: If the device is reported as not existing during verification, check the power source circuit and AVC-LAN circuit for the device.
- \*4: This code may be stored if the engine is started and the ignition switch is turned to the START position again. (Key type ignition switch only)

NOTICE:

• Before starting troubleshooting, be sure to clear DTCs to erase codes stored due to the reasons described in the HINT above. Then, check for DTCs and troubleshoot according to the output DTCs.

### AV.

- The radio receiver is the master unit.
- Be sure to clear and recheck DTCs after the inspection is completed to confirm that no DTCs are output.

### **INSPECTION PROCEDURE**

NOTICE:

Be sure to read DESCRIPTION before performing the following procedures.





DTC	01-D6	No Master
DTC	01-D7	Connection Check Error

### DESCRIPTION

DTC No.	DTC Detection Condition	Trouble Area
01-D6 *1	<ul> <li>When either of the following conditions is met:</li> <li>The device that stores (stored) the code has (had) been disconnected when the ignition switch is turned on (ACC or IG).</li> <li>The master device has (had) been disconnected when this code is stored.</li> </ul>	<ul> <li>Radio receiver power source circuit</li> <li>Power source circuit of the component which has stored this code</li> <li>AVC-LAN circuit between the radio receiver and the</li> </ul>
01-D7 *2	<ul> <li>When either of the following conditions is met:</li> <li>The device that stored the code has (had) been disconnected after the engine starts (started).</li> <li>The master device has (had) been disconnected when this code is (was) stored.</li> </ul>	<ul><li>component which has stored this code</li><li>Component which has stored this code</li><li>Radio receiver</li></ul>

HINT:

- \*1: Even if no fault is present, this trouble code may be stored depending on the battery condition or engine start voltage.
- \*2: When 210 seconds have elapsed after disconnecting the power supply connector of the master component with the ignition switch on (ACC or IG), this code is stored.

NOTICE:

- Before starting troubleshooting, be sure to clear DTCs to erase codes stored due to the reasons described in the HINT above. Then, check for DTCs and troubleshoot according to the output DTCs.
- The radio receiver is the master unit.
- Be sure to clear and recheck DTCs after the inspection is completed to confirm that no DTCs are output.

### **INSPECTION PROCEDURE**

NOTICE:

Be sure to read DESCRIPTION before performing the following procedures.

1

### CHECK RADIO RECEIVER POWER SOURCE CIRCUIT

Refer to the radio receiver power source circuit (See page AV-140).

If the power source circuit is operating normally, proceed to the next step.

NEXT

2

AV

### IDENTIFY THE COMPONENT WHICH HAS STORED THIS CODE

(a) Enter the diagnostic mode.



- (b) Press the preset switch "3" to change to "Detailed Information Mode".
- (c) Identify the component which has stored this code.

### Component Physical address 440 Stereo component amplifier 19D "Bluetooth" handsfree module

### HINT:

**Component Table:** 

- "440 (stereo component amplifier)" is the component which has stored this code in the example shown in the illustration.
- · For details of the DTC display, refer to "DTC CHECK/ CLEAR" (See page AV-19).





3

### CHECK COMPONENT WHICH HAS STORED THIS CODE

(a) Select the component which has stored this code. HINT:

The "Bluetooth" handsfree module is built into the radio receiver. If there is a problem between the "Bluetooth" handsfree module and radio receiver, replace the radio receiver.

### **Component Table:**

Component	Proceed to
"Bluetooth" handsfree module	A
Except "Bluetooth" handsfree module	В



### CHECK POWER SOURCE CIRCUIT OF COMPONENT WHICH HAS STORED THIS CODE

(a) Inspect the power source circuit of the component which has stored this code.

If the power source circuit is operating normally, proceed to the next step.

### Component Table:

Component	Proceed to
Stereo component amplifier	Stereo component amplifier power source circuit (See page AV-142)

NEXT

5

В

4

### INSPECT RADIO RECEIVER



<ul> <li>(a) Disconnect the r</li> <li>(b) Measure the restable below.</li> <li>Standard resist</li> </ul>	adio receiver conne sistance according to tance	ector. the value(s) in the
Tester connection	Condition	Specified condition
ATX+ (F26-5) - ATX- (F26-15)	Always	<b>60 to 80</b> Ω
	CE RADIO RECEIV	ER

AV


6

### CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - COMPONENT WHICH HAS STORED THIS CODE)

#### HINT:

For details of the connectors, refer to the "TERMINALS OF ECU" (See page AV-15).

- (a) Referring to the AVC-LAN wiring diagram below, check the AVC-LAN circuit between the radio receiver and the component which has stored this code.
  - (1) Disconnect all connectors between the radio receiver and the component which has stored this code.
  - (2) Check for an open or short in the AVC-LAN circuit between the radio receiver and the component which has stored this code.

#### OK:

#### There is no open or short circuit.



#### **REPLACE COMPONENT WHICH HAS STORED THIS CODE**

(a) Replace the component which has stored this code with a normal one and check if the same problem occurs again.

AV



		_
DTC	01-DC	<b>Transmission Error</b>

DTC No. DTC Detection Condition		Trouble Area
01-DC *1	Transmission to component shown by sub-code failed (Detecting this DTC does not always mean actual failure)	If the same sub-code is recorded in other components, check harness for power supply and communication system of all components shown by code

#### HINT:

\*1: This code may be stored if the engine is started, idled for 60 seconds and then the ignition switch is turned to the START position again. (Key type ignition switch only)

- NOTICE:
- Before starting troubleshooting, be sure to clear DTCs to erase codes stored due to the reasons described in the HINT above. Then, check for DTCs and troubleshoot according to the output DTCs.
- The radio receiver is the master unit.
- Be sure to clear and recheck DTCs after the inspection is completed to confirm that no DTCs are output.

### **INSPECTION PROCEDURE**

#### NOTICE:

Be sure to read DESCRIPTION before performing the following procedures.

1	CHECK FOR DTC OF OTHER COMPONENTS		
	<ul> <li>(a) Check if the composidisplayed in the checker of the components.</li> <li>(1) Check if "01-D0" components.</li> <li>(2) If "01-DC" is our check if the same check if the same checker of the same checker</li></ul>	nent shown by the sub-code is teck result of the other components. C" is output for the other htput for any other components, ne physical address is displayed.	
	Result	Proceed to	
	"01-DC" is output and the sam physical address is displayed	e A	
	"01-DC" is not output or the sa physical address is not displa	ame B yed	
	HINT: For the list of the compo the table in step 2. B Go	nents shown by sub-codes, refer to	
A			
2	2 IDENTIFY THE COMPONENT WHICH HAS STORED THIS CODE		
	(a) Enter the diagnostic	mode.	



- (b) Press the preset switch "3" to change to "Detailed Information Mode".
- (c) Identify the component which has stored this code.

#### **Component Table:**

	Component	Physical address
$\mathbf{V}$	Stereo component amplifier	440
V	"Bluetooth" handsfree module	19D
	Radio receiver	190

HINT:

- "440 (stereo component amplifier)" is the component which has stored this code in the example shown in the illustration.
- For details of the DTC display, refer to "DTC CHECK/ CLEAR" (See page AV-19).

# NEXT

3

#### CHECK COMPONENT WHICH HAS STORED THIS CODE

(a) Select the component which has stored this code.

#### Component Table:

Component	Proceed to
Stereo component amplifier	Stereo component amplifier communication error (See page AV-133)
"Bluetooth" handsfree module	"Bluetooth" handsfree module communication error (See page AV- 136)
Radio receiver	Radio receiver communication error (See page AV-129)

### NEXT

4	CLEAR DTC		
		<ul> <li>(a) Clear the DTCs (See page AV-19).</li> <li>HINT:</li> <li>If "01-DC" is output for only one component, this may not indicate a malfunction.</li> </ul>	
NEXT			
5	RECHECK DTC		
		<ul> <li>(a) Recheck for DTCs and check if the same trouble occurs again.</li> <li>OK: Malfunction disappears.</li> </ul>	
		NG Go to step 3	
ОК			
END			

DTC	01-DD	Master Reset
DTC	01-E1	Voice Processing Device ON Error

DTC No.	DTC Detection Condition	Trouble Area
01-DD *1	The device that should be the master has been disconnected after engine start.	<ul> <li>Radio receiver power source circuit</li> <li>AVC-LAN circuit between the radio receiver and the</li> </ul>
01-E1 *2	The AMP device records that the AMP output does not function even while the source device operates.	<ul><li>component which has stored this code</li><li>Radio receiver</li><li>Component which has stored this code</li></ul>

HINT:

\*1: This code may be stored if the engine is started and the ignition switch is turned to START position again. (Key type ignition switch only)

\*2: Even if no fault is present, this trouble code may be stored depending on the battery condition or engine start voltage.

NOTICE:

- Before starting troubleshooting, be sure to clear DTCs to erase codes stored due to the reasons described in the HINT above. Then, check for DTCs and troubleshoot according to the output DTCs.
- The radio receiver is the master unit.
- Be sure to clear and recheck DTCs after the inspection is completed to confirm that no DTCs are output.

### **INSPECTION PROCEDURE**

NOTICE:

1

Be sure to read DESCRIPTION before performing the following procedures.

CHECK RADIO RECEIVER POWER SOURCE CIRCUIT

Refer to the radio receiver power source circuit (See page AV-140).

If the power source circuit is operating normally, proceed to the next step.

NEXT







- (b) Press the preset switch "3" to change to "Detailed Information Mode".
- (c) Identify the component which has stored this code.

#### **Component Table:**

	Component	Physical address
$\mathbf{M}$	Stereo component amplifier	440
\ V	"Bluetooth" handsfree module	19D

- HINT:
- "440 (stereo component amplifier)" is the component which has stored this code in the example shown in the illustration.
- For details of the DTC display, refer to "DTC CHECK/ CLEAR" (See page AV-19).

# NEXT

4

#### CHECK COMPONENT WHICH HAS STORED THIS CODE

(a) Select the component which has stored this code. HINT:

The "Bluetooth" handsfree module is built into the radio receiver. If there is a problem between the "Bluetooth" handsfree module and radio receiver, replace the radio receiver.

#### **Component Table:**

Component	Proceed to
"Bluetooth" handsfree module	A
Except "Bluetooth" handsfree module	В



В

5

CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - COMPONENT WHICH HAS STORED THIS CODE)

#### HINT:

For details of the connectors, refer to the "TERMINALS OF ECU" (See page AV-15).

- (a) Referring to the AVC-LAN wiring diagram below, check the AVC-LAN circuit between the radio receiver and the component which has stored this code.
  - Disconnect all connectors between the radio receiver and the component which has stored this code.
  - (2) Check for an open or short in the AVC-LAN circuit between the radio receiver and the component which has stored this code.
     OK:

There is no open or short circuit.



AV

DTC	01-DF	Master Error

DTC No.	DTC Detection Condition	Trouble Area
01-DF *1	The device with a display fails and the master is switched to the audio device. Also when a communication error between the sub- master (audio) and master occurs, this code is stored.	<ul> <li>Radio receiver power source circuit</li> <li>AVC-LAN circuit between the radio receiver and the component which has stored this code</li> <li>Radio receiver</li> <li>Component which has stored this code</li> </ul>

#### HINT:

\*1: When 210 seconds have elapsed after disconnecting the power supply connector of the master component with the ignition switch on (ACC or IG), this code is stored.

#### NOTICE:

- Before starting troubleshooting, be sure to clear DTCs to erase codes stored due to the reasons described in the HINT above. Then, check for DTCs and troubleshoot according to the output DTCs.
- The radio receiver is the master unit.
- Be sure to clear and recheck DTCs after the inspection is completed to confirm that no DTCs are output.

#### **INSPECTION PROCEDURE**

NOTICE:

Be sure to read DESCRIPTION before performing the following procedures.



ОК

3

### IDENTIFY THE COMPONENT WHICH HAS STORED THIS CODE

(a) Enter the diagnostic mode.



(b) Press the preset switch "3" to change to "Detailed Information Mode".

#### (c) Identify the component which has stored this code.

#### **Component Table:**

Component	Physical address
Stereo component amplifier	440
"Bluetooth" handsfree module	19D

#### HINT:

- "440 (stereo component amplifier)" is the component which has stored this code in the example shown in the illustration.
- For details of the DTC display, refer to "DTC CHECK/ CLEAR" (See page AV-19).

NEXT

4

#### CHECK COMPONENT WHICH HAS STORED THIS CODE

(a) Select the component which has stored this code. HINT:

The "Bluetooth" handsfree module is built into the radio receiver. If there is a problem between the "Bluetooth" handsfree module and radio receiver, replace the radio receiver.

#### Component Table:

Component	Proceed to
"Bluetooth" handsfree module	A
Except "Bluetooth" handsfree module	В



В

5 0

# CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - COMPONENT WHICH HAS STORED THIS CODE)

#### HINT:

For details of the connectors, refer to the "TERMINALS OF ECU" (See page AV-15).

- (a) Referring to the AVC-LAN wiring diagram below, check the AVC-LAN circuit between the radio receiver and the component which has stored this code.
  - Disconnect all connectors between the radio receiver and the component which has stored this code.
  - (2) Check for an open or short in the AVC-LAN circuit between the radio receiver and the component which has stored this code.

### OK:

There is no open or short circuit.





AV

DTC	01-E0	Registration Complete Indication Error
DTC	01-E3	Registration Demand Transmission
DTC	01-E4	Multiple Frame Incomplete

DTC No.	DTC Detection Condition	Trouble Area
01-E0	"Registration complete" signal from the master device cannot be received.	-
01-E3	The registration demand signal from the slave device is output. Or the registration demand signal is output by receiving connection confirmation signal from the sub- master device.	-
01-E4	The multiple frame transmission is incomplete.	-

#### HINT:

Even if no fault is present, this trouble code may be stored depending on the battery condition or engine start voltage.

### **INSPECTION PROCEDURE**

HINT:

After the inspection is completed, clear the DTCs. These DTCs do not indicate a malfunction.

DIC   01-EZ   ON / OFF indication Parameter Error
---

DTC No.	DTC Detection Condition	Trouble Area
01-E2	The command for ON/OFF control from the master device has a problem.	Radio receiver

### **INSPECTION PROCEDURE**

HINT:

After the inspection is completed, clear the DTCs.



NEXT



DTC 57-47 Bluetooth Module	Initialization Failed
----------------------------	-----------------------

DTC No.	DTC Detection Condition	Trouble Area
57-47	<ul> <li>"Bluetooth" module is not installed.</li> <li>Problem with "Bluetooth" module</li> <li>Problem in communication line to "Bluetooth" module</li> </ul>	Radio receiver

### **INSPECTION PROCEDURE**

HINT:

After the inspection is completed, clear the DTCs.

1	REPLACE RADIO RECEIVER
NEXT	



DTC	62-10	CD Player Mechanical Error
DTC	62-11	CD Insertion and Ejection Error
DTC	62-12	CD Reading Abnormal
DTC	63-10	CD Changer Mechanical Error
DTC	63-11	CD Insertion and Ejection Error
DTC	63-12	CD Reading Abnormal

DTC No.	DTC Detection Condition	Trouble Area
62-10	A mechanical error in the CD player is detected while the CD is not being inserted or ejected.	
62-11	CD insertion or ejection is failed.	
62-12	CD read problem occurs.	Radio receiver
63-10	A mechanical error in the CD changer is detected while the CD is not being inserted or ejected.	
63-11	CD insertion or ejection is failed.	
63-12	CD read problem occurs.	

### **INSPECTION PROCEDURE**

HINT:

After the inspection is completed, clear the DTCs.

**1** REPLACE RADIO RECEIVER

NEXT



DTC	62-41	Wrong Disc
DTC	62-42	Disc cannot be Read
DTC	63-41	Wrong Disc
DTC	63-42	Disc cannot be Read

DTC No.	DTC Detection Condition	Trouble Area
62-41	An unsuitable disc is inserted.	
62-42	The disc cannot be read.	• CD
63-41	An unsuitable disc is inserted.	Radio receiver
63-42	The disc cannot be read.	

### **INSPECTION PROCEDURE**

HINT:

After the inspection is completed, clear the DTCs.



ОК

NEXT

2 DISC CLEANING



#### (a) Disc cleaning

(1) If dirt is on the disc surface, wipe it clean with a soft cloth from the inside to the outside in a radial direction.
 NOTICE:

Do not use a conventional record cleaner or anti-static preservative.

AV/

3	CLEAR DTC
	(a) Clear the DTCs (See page AV-19).
4	RECHECK DTC
	<ul> <li>(a) Recheck for DTCs and check if the same trouble occurs again.</li> <li>OK: Malfunction disappears.</li> </ul>
	OK END
NG	
5	REPLACE DISC WITH ANOTHER AND RECHECK
	<ul> <li>(a) Replace the disc with another and recheck.</li> <li>(1) Replace the disc with another normal one.</li> <li>(2) Clear the DTCs (See page AV-19).</li> <li>(3) Recheck for DTCs and check if the same trouble occurs again.</li> <li>OK:</li> <li>Malfunction disappears.</li> </ul>
	NG REPLACE RADIO RECEIVER
ОК	
END	

AV

DTC	62-43	CD-ROM Abnormal
DTC	63-43	CD-ROM Abnormal

DTC No.	DTC Detection Condition	Trouble Area
62-43	CD-ROM operation is abnormal	• CD
63-43	CD-ROM operation is abnormal	Radio receiver

### **INSPECTION PROCEDURE**

HINT:



OK



DTC	62-44	CD Abnormal
DTC	62-48	Excess Current
DTC	62-50	Tray Insertion / Ejection Error
DTC	63-44	CD Abnormal
DTC	63-48	Excess Current
DTC	63-50	Tray Insertion / Ejection Error

DTC No.	DTC Detection Condition	Trouble Area
62-44	Operation error in the CD mechanism	
62-48	Excess current is present in the CD player	
62-50	Malfunction in insertion/ejection system	Padia ressiver
63-44 Operation error in the CD mechanism		Raulo receiver
63-48 Excess current is present in the CD changer		
63-50	Malfunction in insertion/ejection system	

### **INSPECTION PROCEDURE**

HINT:

After the inspection is completed, clear the DTCs.

1	CLEAR DTC	
NEXT	r	(a) Clear the DTCs (See page AV-19).
2	RECHECK DTC	
		<ul> <li>(a) Recheck for DTCs and check if the same trouble occurs again.</li> <li>HINT:</li> <li>If DTCs are detected frequently, replace the radio receiver.</li> <li>OK:</li> <li>Malfunction disappears.</li> </ul>
		NG REPLACE RADIO RECEIVER
ОК	$\supset$	
END		

 $\mathbf{V}$ 

DTC	62-45	Eject Error
DTC	62-51	Elevator Error
DTC	62-52	Clamp Error
DTC	63-45	Eject Error
DTC	63-51	Elevator Error
DTC	63-52	Clamp Error

DTC No.	DTC Detection Condition	Trouble Area
62-45	Disc cannot be ejected.	
62-51	Mechanical error occurs during elevator operation.	
62-52	Error occurs in CD player clamp.	Radio receiver
63-45	Magazine cannot be ejected.	
63-51	Mechanical error occurs during elevator operation.	
63-52	Error occurs in CD changer clamp.	

### **INSPECTION PROCEDURE**

#### HINT:



DTC	62-46	Scratched / Reversed Disc
DTC	63-46	Scratched / Reversed Disc

DTC No.	DTC Detection Condition	Trouble Area
62-46	Scratches or dirt is found on CD surface or CD is set upside down.	• CD
63-46	Scratches or dirt is found on CD surface or CD is set upside down.	Radio receiver

### **INSPECTION PROCEDURE**

HINT:



3	DISC CLEANING		
Р	1100151	(a)	<ul> <li>Disc cleaning</li> <li>(1) If dirt is on the disc surface, wipe it clean with a so cloth from the inside to the outside in a radial direction.</li> <li>NOTICE:</li> <li>Do not use a conventional record cleaner or anti-static preservative.</li> </ul>
NEXT			
4	CLEAR DTC		
		(a)	Clear the DTCs (See page AV-19).
NEXT			
5	RECHECK DTC		
		(a) OK: Ma	Recheck for DTCs and check if the same trouble occu again. Ilfunction disappears.
		O	
NG			
6	REINSERT DISC PROPERLY		
		(a)	<ul> <li>Replace the disc with another and recheck.</li> <li>(1) Replace the disc with another normal one.</li> <li>(2) Clear the DTCs (See page AV-19).</li> <li>(3) Recheck for DTCs and check if the same trouble occurs again.</li> <li>OK:</li> </ul>
			Manufiction disappears.

DTC	62-47	High Temperature
DTC	63-47	High Temperature

DTC No.	DTC Detection Condition	Trouble Area	
62-47	Sensor detects that CD unit temperature is high. (Over 80°C)	Padia rassivar	
63-47	Sensor detects that CD unit temperature is high. (Over 80°C)		

### **INSPECTION PROCEDURE**

HINT:

1	CHECK RADIO RECEIVER	
	-	<ul> <li>(a) Park the vehicle in a cool place.</li> <li>(b) Check that the temperature of the radio receiver becomes sufficiently low, and start the engine. Check that the malfunction disappears.</li> <li>OK: Malfunction disappears.</li> </ul>
		NG REPLACE RADIO RECEIVER
ОК		
END		

DTC	62-78	DSP Error
DTC	63-78	DSP Error

DTC No.	DTC Detection Condition	Trouble Area
62-78	An error occurs during the decode process (MP3/ WMA).	-
63-78	An error occurs during the decode process (MP3/ WMA).	-

### **INSPECTION PROCEDURE**

HINT:

After the inspection is completed, clear the DTCs. **NOTICE:** 

- These codes may be output even if there is no malfunction.
- If these codes are output frequently, replace the radio receiver.

1	CLEAR DTC	
		(a) Clear the DTCs (See page AV-19).
NEXT		
2	RECHECK DTC	
		<ul> <li>(a) Recheck for DTCs and check if the same trouble occurs again.</li> <li>OK: Malfunction disappears.</li> </ul>
		NG REPLACE RADIO RECEIVER
ОК		
END		

AV

DTC	62-7D	Disc cannot be Played	
DTC	62-7E	No Playable Files	
DTC	62-7F	Copyright Protection Error	
DTC	63-7D	Disc cannot be Played	
DTC	63-7E	No Playable Files	
DTC	63-7F	Copyright Protection Error	

DTC No.	DTC Detection Condition	Trouble Area	
62-7D	<ul> <li>An incompatible MP3/WMA file is used.</li> <li>Although the file has an extension of ".mp3" or ".wma", the header information cannot be read.</li> </ul>		
62-7E	<ul><li>A disc with no music data is used.</li><li>Playable files are not on the disc (MP3/WMA).</li></ul>		
62-7F	A copy-protected file, which cannot be played, is used.	• CD	
63-7D	<ul> <li>An incompatible MP3/WMA file is used</li> <li>Although the file has an extension of ".mp3" or ".wma", the header information cannot be read.</li> </ul>	Radio receiver	
63-7E	<ul> <li>A disc with no music data is used.</li> <li>Playable files are not on the disc (MP3/WMA).</li> </ul>		
63-7F	A copy-protected file, which cannot be played, is used.		

### **INSPECTION PROCEDURE**

HINT:

1	CHANGE DISC	
		<ul> <li>(a) Insert a disc with a playable file and check if the disc can be played correctly. HINT:</li> <li>For details on playable files and discs, refer to the Owner's Manual.</li> <li>OK:</li> <li>The disc can be played correctly.</li> </ul>
		NG REPLACE RADIO RECEIVER
ОК		
END		

# **Noise Occurs**

1	NOISE CONDITION			
		(a) Che right (1)	ck from which direct , or rear left or right Check from which o OK: The location of t determined.	tion the noise comes (front left or ). direction the noise comes. : <b>he noise source can be</b>
		NG	> Go to s	step 3
2	CHECK SPEAKERS			
Resul	t	(a) Che are l crac	ck the installation cc ocated near the noi ks, scratches, defor	onditions of the speaker units that se source and that there are no mation, or other failures.
	Condition			Proceed to
A spea	ker is installed incorrectly			A
Foreig	n objects are in the speaker			В
A spea	ker cone paper is broken			C
No mal	function is found			D
		A	> REINSTALL SP	PEAKER
		В	> REMOVE FORE	EIGN OBJECT
		С	> REPLACE SPE	AKER
3	CHECK NOISE CONDITIONS			
		(a) Che HIN The nois cheo and corre	ck the noise condition F: radio has a noise p e when listening to the whether the groun the noise prevention ectly.	on. revention function to reduce the radio. If a loud noise occurs, nd at the antenna mounting base n unit are installed and wired
	Conditions under whic	h noise occurs		Noise source
Noise ir	ocreases when the accelerator nedal is denre	sead but stops wh	en the engine is stonned	Cenerator

Noise increases when the accelerator pedal is depressed, but stops when the engine is stopped.	Generator
Noise occurs during A/C or heater operation.	Blower motor
Noise occurs when the vehicle accelerates rapidly on an unpaved road or after the ignition switch is turned on (IG or ACC).	Fuel pump

Conditions under which noise occurs	Noise source	
Noise occurs when the horn switch is pressed and released or when pressed and held.	Horn	
Noise occurs synchronously with the blink of the turn signal.	Flasher	
Noise occurs during window washer operation.	Washer	
Noise occurs while the engine is running, and continues even after the engine is stopped.	Water temperature sensor	
Noise occurs during wiper operation.	Wiper	
Noise occurs when the brake pedal is depressed.	Stop light switch	
Others	Static electricity	

HINT:

- In the chart's left column, find the situation that matches the customer's complaint. Then, in the right column, find the part that is causing the noise. Check the noise filter on or for the part.
- To save time and avoid a misdiagnosis, first make sure that the noise is not coming from outside the vehicle.
- Noise should be removed in descending order of loudness.
- Setting the radio to a frequency where no signal is received may make recognition of the noise problem easier.

#### OK:

The noise source cannot be determined.



OK

PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE

# Pressing Power Switch does not Turn on System

### **INSPECTION PROCEDURE**

1	CHECK VEHICLE CONDITION	
		<ul> <li>(a) Check that conditions in the cabin are not likely to cause condensation. HINT: This problem occurs when the cabin is humid and the temperature changes rapidly. This may produce condensation, resulting in a short circuit.</li> <li>OK: Condensation is not likely to be produced.</li> </ul>
		NG DRY OUT CABIN AND RECHECK CONDITION
ОК		

PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE

AV

# No Sound can be Heard from Speakers



Α

# Sound Quality is Bad Only when CD is Played (Volume is Too Low)



# CD cannot be Ejected



### CD cannot be Inserted / Played or CD is Ejected Right After Insertion


AV

ОК	7
END	
4	REPLACE CD WITH ANOTHER AND RECHECK
	<ul> <li>(a) Replace the CD with a normal one and check that the malfunction disappears.</li> <li>OK: Malfunction disappears.</li> </ul>
	NG REPLACE RADIO RECEIVER
ОК	
END	

## **CD Sound Skips**





AV-75

# Radio Broadcast cannot be Received or Poor Reception



OK





NG

#### **REPLACE RADIO RECEIVER**



# Poor Sound Quality in All Modes (Low Volume)

#### **INSPECTION PROCEDURE**



PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE

# Cellular Phone Registration Failure, Phone Directory Transfer Failure

#### **INSPECTION PROCEDURE**

#### CHECK CURRENT CONDITIONS

(a) Proceed to the next step according to the table below.

#### RESULT

1

Conditions		Proceed to
Another "Bluetooth" compatible cellular phone is present.		Α
Another "Bluetooth" compatible vehicle is present.		В
	None of the above	С
	В	Go to step 3
	C	Go to step 4
A		
2	2 CHECK USING ANOTHER CELLULAR PHONE	
<ul> <li>(a) Check if the system functions using another "Bluetooth compatible cellular phone. HINT:</li> <li>Confirm that either the same or a different version of another "Bluetooth" compatible cellular phone complies with the system.</li> <li>Depending on the version, some "Bluetooth" compatible cellular phones cannot be used.</li> <li>OK: The system functions.</li> </ul>		
	NG	$rac{1}{2}$ REPLACE RADIO RECEIVER
ОК		

### USE A "BLUETOOTH" COMPATIBLE CELLULAR PHONE

#### 

NG

#### USE A "BLUETOOTH" COMPATIBLE CELLULAR PHONE



AV

# Cellular Phone cannot Send / Receive





AV

## The Other Caller's Voice cannot be Heard, is too Quiet, or Distorted



# The Other Caller cannot Hear Your Voice, or Your Voice is too Quiet or Distorted





# Vehicle Speed Signal Circuit between Radio Receiver and Combination Meter

## DESCRIPTION

This circuit is necessary for the ASL (Auto Sound Leveliser) built into the radio receiver.

Speed signals are received from the combination meter and used for the ASL.

The ASL function automatically adjusts the sound data in order to enable hearing the clear audio sound even when vehicle noise increases (as vehicle noise increases, the volume is turned up etc.). HINT:

- A voltage of 12 V or 5 V is output from each ECU and then input to the combination meter. The signal is changed to a pulse signal at the transistor in the combination meter. Each ECU controls the respective system based on the pulse signal.
- If a short occurs in an ECU, all systems in the diagram below will not operate normally.



## WIRING DIAGRAM

A











# **Steering Pad Switch Circuit**

#### DESCRIPTION

This circuit sends an operation signal from the steering pad switch to the radio receiver.

If there is an open in the circuit, the audio system cannot be operated using the steering pad switch. If there is a short in the circuit, the same condition as that when the switch is continuously depressed occurs.

Therefore, the radio receiver cannot be operated using the steering pad switch, and also the radio receiver itself cannot function.



AV/

#### WIRING DIAGRAM



## **INSPECTION PROCEDURE**

NOTICE:

The vehicle is equipped with an SRS (Supplemental Restraint System) which includes components such as airbags. Before servicing (including removal or installation of parts), be sure to read the precautionary notice for the Supplemental Restraint System (See page RS-1).



PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE

AV

- 2 INSPECT STEERING PAD SWITCH ASSEMBLY
  - (a) Disconnect the steering pad switch assembly connector.
  - (b) Measure the resistance according to the values in the table below.



Stand	ard res	istance

AV

Tester connection	Condition	Specified condition
AU1 - EAU	No switch is pushed	Approx. 100 k $\Omega$
AU1 - EAU	SEEK+ switch: push	<b>0</b> to <b>2.5</b> Ω
AU1 - EAU	SEEK- switch: push	<b>Approx. 0.3 k</b> Ω
AU1 - EAU	VOL+ switch: push	Approx. 1 kΩ
AU1 - EAU	VOL- switch: push	Approx. 3.1 k $\Omega$
AU2 - EAU	No switch is pushed	Approx. 100 k $\Omega$
AU2 - EAU	MODE switch: push	<b>0 to 2.5</b> Ω
AU2 - EAU	ON HOOK switch: push (*1)	<b>Approx. 0.3 k</b> Ω
AU2 - EAU	OFF HOOK switch: push (*1)	Approx. 1 kΩ

\*1: for Premium model

NG

REPLACE STEERING PAD SWITCH ASSEMBLY

3

OK

**INSPECT SPIRAL CABLE** 



**REPAIR OR REPLACE HARNESS OR CONNECTOR (SPIRAL CABLE - RADIO RECEIVER)** 



# **Illumination Circuit**

#### DESCRIPTION

Power is supplied to the radio receiver and steering pad switch illumination when the light control switch is in the TAIL or HEAD position.

#### WIRING DIAGRAM



#### **INSPECTION PROCEDURE**

#### NOTICE:

The vehicle is equipped with an SRS (Supplemental Restraint System) which includes components such as airbags. Before servicing (including removal or installation of parts), be sure to read the precautionary notice for the supplemental restraint system (See page RS-1).

1	CHECK ILLUMINATION
---	--------------------

(a) Check if the illumination for the radio receiver, steering pad switch, glove box or others (hazard switch, transmission control switch, etc.) comes on when the light control switch is turned to the HEAD or TAIL position.

#### Result

Α

3

Result	Proceed to
Illumination comes on for all components except steering pad switch.	A
Illumination comes on for all components except radio receiver.	В
No illumination comes on (radio receiver, hazard switch, glove box, etc.).	C
Illumination comes on only for glove box and steering pad switch.	D



#### 2 CHECK HARNESS AND CONNECTOR (BATTERY - SPIRAL CABLE)



INSPECT STEERING PAD SWITCH ASSEMBLY

- (a) Disconnect the steering pad switch connector.
- (b) Connect the positive (+) lead to terminal IL+2 and the negative (-) lead to terminal EAU of the steering pad switch assembly connector.





ASSEMBLY







AV-99

AV/



PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE



AV-101



PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE

# **Speaker Circuit**

#### DESCRIPTION

- When the vehicle has a built-in type amplifier, a sound signal is sent from the radio receiver to the speakers via the "Standard Model" circuit.
- When the vehicle has a separate type amplifier, a sound signal from the radio receiver is amplified by the stereo component amplifier and then transmitted to the speaker via the "Premium Model" circuit.

If there is a short in this circuit, the stereo component amplifier detects it and stops output to the speakers. Thus sound cannot be heard from the speakers even if there is no malfunction in the stereo component amplifier or speakers.



A\

#### WIRING DIAGRAM







AV




NG	7				
4	CONFIRM MODEL				
Result					
	Result			Proceed to	
	Premium Model			А	
	Standard Model			В	
		В	>	Go to step 6	
A					
5	INSPECT REAR SPEAKER				
<ul> <li>Woofer (+)</li> <li>Tweeter (+)</li> <li>Tweeter (+)</li> <li>Tweeter (+)</li> <li>Tweeter (+)</li> <li>Tweeter (+)</li> <li>Tweeter (+)</li> <li>The speaker should not be removed for checking.</li> <li>Standard resistance</li> </ul>					
Woo	ofer (-) Tweeter (-)	Tester	connection	Condition	Specified condition
	F40000504		2 - 4	Always	<b>1.8 to 2.6</b> Ω
		<ul> <li>(b) Tweeter speaker: <ul> <li>(1) Check that the malfunction disappears when another rear speaker in good condition is installed.</li> </ul> </li> <li>OK: Malfunction appears. HINT: <ul> <li>Connect all the connectors to the rear speaker.</li> <li>When there is a possibility that either the right or left rear speaker is detective, inspect by interchanging the right one with the left one.</li> </ul> </li> </ul>			
		NG	> REPLA	CE REAR SPEAKE	R
ОК	7				
PROC			WN IN PRC		S TABLE
6	INSPECT REAR SPEAKER				
	l				

- (a) Resistance check.
  - (1) Measure the resistance between the terminals of the speaker.
     Standard resistance: Approximately 4 Ω



REPLACE REAR SPEAKER





## Sound Signal Circuit between Radio Receiver and Stereo Component Amplifier

## DESCRIPTION

The radio receiver sends a sound signal to the stereo component amplifier through this circuit. The sound signal that has been sent is amplified by the stereo component amplifier, and then is sent to the speakers.

If there is an open or short in the circuit, sound cannot be heard from the speakers even if there is no malfunction in the stereo component amplifier or speakers.





ΟΚ

Α

## **INSPECTION PROCEDURE**

**CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - STEREO COMPONENT** 1 AMPLIFIER) (a) Disconnect the connectors from the radio receiver and stereo component amplifier. **Radio Receiver Wire Harness View:** (b) Measure the resistance according to the value(s) in the table below. Standard resistance **Tester connection** Condition Specified condition L+ - L+ Always Below 1 Ω (F26) L- - L-Always Below 1 Ω ¢ - E R+ - R+ Always Below 1  $\Omega$ R- - R-Always Below 1  $\Omega$ ¢ ¢ SLD - SLD Below 1 Ω Always L+ - Body ground 10 k $\Omega$  or higher Always 9 L- - Body ground Always 10 k $\Omega$  or higher R+ - Body ground Always 10 k $\Omega$  or higher SLC R+ R- - Body ground Always 10 k $\Omega$  or higher SLD - Body ground 10 k $\Omega$  or higher Always **Stereo Component Amplifier** NG **REPAIR OR REPLACE HARNESS OR** Wire Harness View: CONNECTOR 5 SLD R+ 1+ R-E129816E05

## Sound Signal Circuit between Radio Receiver and Stereo Jack Adapter

### DESCRIPTION

The stereo jack adapter sends an external device sound signal to the radio receiver through this circuit. The sound signal that has been sent is amplified by the stereo component amplifier or radio receiver, and then is sent to the speakers.

If there is an open or short in the circuit, sound cannot be heard from the speakers even if there is no malfunction in the stereo component amplifier, radio receiver, or speakers.



1

## **INSPECTION PROCEDURE**

#### CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - STEREO JACK ADAPTER)







ОК

AV

- (a) Disconnect the connectors from the stereo jack adapter and radio receiver.
- (b) Measure the resistance according to the value(s) in the table below.

#### Standard resistance

Tester connection	Condition	Specified condition
AUXO - AUXI	Always	Below 1 Ω
ASGN - ASGN	Always	Below 1 $\Omega$
ARO - ARI	Always	Below 1 $\Omega$
ALO - ALI	Always	Below 1 $\Omega$
AUXO - Body ground	Always	10 k $\Omega$ or higher
ASGN - Body ground	Always	10 k $\Omega$ or higher
ARO - Body ground	Always	10 k $\Omega$ or higher
ALO - Body ground	Always	10 k $\Omega$ or higher

NG

#### REPAIR OR REPLACE HARNESS OR CONNECTOR

# Mute Signal Circuit between Radio Receiver and Stereo Component Amplifier

## DESCRIPTION

This circuit sends a signal to the stereo component amplifier to mute noise. Because of that, the noise produced by changing the sound source ceases.

If there is an open in the circuit, noise can be heard from the speakers when changing the sound source. If there is a short in the circuit, even though the stereo component amplifier is normal, no sound, or only an extremely small sound, can be produced.

## WIRING DIAGRAM



## **INSPECTION PROCEDURE**

#### 1 INSPECT STEREO COMPONENT AMPLIFIER (a) Measure the voltage according to the value(s) in the Wire Harness View: table below. Standard voltage (F19) Specified condition **Tester connection** Condition 00000 000 Turn ignition switch on Above 3.5 V $\rightarrow$ Below 1 **MUTE - Body ground** (ACC), Audio system is ν playing $\rightarrow$ Changing OK PROCEED TO NEXT CIRCUIT INSPECTION MUTE E126155E02 Ν SHOWN IN PROBLEM SYMPTOMS TABLE NG









AV

## **AVC-LAN Circuit**

## DESCRIPTION

Each unit of the audio system connected to the AVC-LAN (communication bus) transfers the signal of each switch by communication.

When a short to +B or short to ground occurs in this AVC-LAN, the audio system will not function normally as the communication is discontinued.

## **INSPECTION PROCEDURE**



2 CHECK HARNESS AND CONNECTOR

HINT:

For details of the connectors, refer to the "TERMINALS OF ECU" (See page AV-15).

- (a) Referring to the AVC-LAN wiring diagram below, check all AVC-LAN circuits.
  - (1) Disconnect all connectors in all AVC-LAN circuits.
  - (2) Check for an open or short in all AVC-LAN circuits. **OK**:

There is no open or short circuit.

AV



 $\Delta V$ 

# Vehicle Speed Signal Circuit between Stereo Component Amplifier and Combination Meter

## DESCRIPTION

This circuit is necessary for the ASL (Auto Sound Leveliser) built into the stereo component amplifier. Speed signals are received from the combination meter and used for the ASL.

The ASL function automatically adjusts the sound data in order to enable hearing the clear audio sound even when vehicle noise increases (as vehicle noise increases, the volume is turned up etc.). HINT:

- A voltage of 12 V or 5 V is output from each ECU and then input to the combination meter. The signal is changed to a pulse signal at the transistor in the combination meter. Each ECU controls the respective system based on the pulse signal.
- If a short occurs in an ECU, all systems in the diagram below will not operate normally.

## Stereo Component Amplifier 11 \*1 F19 SPD From Main Body ECU -\*2 From Tire Pressure -From Transmission Warning ECU Control ECU From Engine Control Module 12 +S F2 Combination Meter From Speed Sensor \*1: with Smart Key System \*2: for 2GR-FE Ν E129788E02

## **INSPECTION PROCEDURE**



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### **REPLACE STEREO COMPONENT AMPLIFIER**



## 4 CHECK HARNESS AND CONNECTOR (STEREO COMPONENT AMPLIFIER - BODY GROUND)



AV

## Cellular Phone Voice Circuit between Radio Receiver and Stereo Component Amplifier

## SYSTEM DESCRIPTION

This circuit is used when the cellular phone voice in the "Bluetooth" handsfree system is on.





## **INSPECTION PROCEDURE**





## Microphone Circuit between Microphone and Radio Receiver

## DESCRIPTION

This circuit sends a microphone signal from the microphone to the radio receiver. It also supplies power from the radio receiver to the microphone.





## **INSPECTION PROCEDURE**

#### 1 **INSPECT RADIO RECEIVER** Measure the voltage according to the value(s) in the (a) Wire Harness View: table below. Standard voltage **Tester connection** Condition Specified condition MCVD - Body ground Ignition SW on (ACC) 4 to 6 V ¢ Ð (F11 NG **REPLACE RADIO RECEIVER** Ð \/ ¢ MCVD A E129811E02 Ρ ΟΚ





## **Radio Receiver Communication Error**

## **INSPECTION PROCEDURE**



#### **IDENTIFY THE COMPONENT SHOWN BY SUB-CODE**

(a) Enter the diagnostic mode.



(b) Press the preset switch "3" to change to "Detailed Information Mode".

(c) Identify the component shown by the sub-code. HINT:

• "190 (radio receiver)" is the component shown by the subcode in the example shown in the illustration.  $A \setminus I$ 

AV/

 For details of the DTC display, refer to "DTC CHECK/ CLEAR" (See page AV-19).



ОК				
5 CHECK HARNESS AND CON SUB-CODE)	CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - COMPONENT SHOWN BY SUB-CODE)			
	<ul> <li>HINT:</li> <li>Start the check from the circuit that is near the component shown by the sub-code first.</li> <li>For details of the connectors, refer to the "TERMINALS OF ECU" (See page AV-15).</li> <li>(a) Referring to the AVC-LAN wiring diagram below, check the AVC-LAN circuit between the radio receiver and the component shown by the sub-code.</li> <li>(1) Disconnect all connectors between the radio receiver and the component shown by the sub-code.</li> <li>(2) Check for an open or short in the AVC-LAN circuit between the radio receiver and the component shown by the sub-code.</li> <li>(3) Check for an open or short in the AVC-LAN circuit between the radio receiver and the component shown by the sub-code.</li> <li>(4) Check for an open or short in the AVC-LAN circuit between the radio receiver and the component shown by the sub-code.</li> </ul>			
AVC-LAN WIRING DIAGRAM				
Premium Model:				
ATX+ Radio Receiver (*1) ATX- F26 15 F26	F19 TX+ Stereo Component Amplifier (*2) TX- TX-			
*1: Master Unit				
*2: Slave Unit				
	NG REPAIR OR REPLACE HARNESS OR CONNECTOR			
ОК				
6 REPLACE COMPONENT SHO	OWN BY SUB-CODE			
	(a) Replace the component shown by the sub-code with a normal one and check if the same problem occurs again.			





## **Stereo Component Amplifier Communication Error**

## **INSPECTION PROCEDURE**



#### IDENTIFY THE COMPONENT SHOWN BY SUB-CODE

(a) Enter the diagnostic mode.



(b) Press the preset switch "3" to change to "Detailed Information Mode".

(c) Identify the component shown by the sub-code. HINT:

• "190 (radio receiver)" is the component shown by the subcode in the example shown in the illustration.  $A \setminus I$ 

 For details of the DTC display, refer to "DTC CHECK/ CLEAR" (See page AV-19).

## NEXT

#### 2 CHECK POWER SOURCE CIRCUIT OF COMPONENT SHOWN BY SUB-CODE

(a) Inspect the power source circuit of the component shown by the sub-code.
If the power source circuit is operating normally, proceed to the next step.
HINT:
The "Bluetooth" handsfree module is built into the radio receiver.

#### **Component Table:**

Component	Proceed to
"Bluetooth" handsfree module (19D)	Radio receiver power source circuit (See page AV-140)
Radio receiver (190)	Radio receiver power source circuit (See page AV-140)

## NEXT

#### 3 **INSPECT RADIO RECEIVER** (a) Disconnect the radio receiver connector. Premium Model Wire Harness View: (b) Measure the resistance according to the value(s) in the table below. Standard resistance **Tester connection** Condition Specified condition F26 ATX+ fat ATX+ (F26-5) - ATX-Always **60 to 80** Ω (F26-15) ¢ Ð NG **REPLACE RADIO RECEIVER** (@) ATX-E129798E04

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4 CHEC

# CHECK HARNESS AND CONNECTOR (STEREO COMPONENT AMPLIFIER - COMPONENT SHOWN BY SUB-CODE)

HINT:

- Start the check from the circuit that is near the component shown by the sub-code first.
- For details of the connectors, refer to the "TERMINALS OF ECU" (See page AV-15).
- (a) Referring to the AVC-LAN wiring diagram below, check the AVC-LAN circuit between the stereo component amplifier and the component shown by the sub-code.

- Disconnect all connectors between the stereo component amplifier and the component shown by the sub-code.
- (2) Check for an open or short in the AVC-LAN circuit between the stereo component amplifier and the component shown by the sub-code. OK:

There is no open or short circuit.



## **Bluetooth Handsfree Module Communication Error**

## **INSPECTION PROCEDURE**



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### IDENTIFY THE COMPONENT SHOWN BY SUB-CODE

(a) Enter the diagnostic mode.



- (b) Press the preset switch "3" to change to "Detailed Information Mode".
- (c) Identify the component shown by the sub-code. HINT:
- "190 (radio receiver)" is the component shown by the subcode in the example shown in the illustration.

 For details of the DTC display, refer to "DTC CHECK/ CLEAR" (See page AV-19).





normal one and check if the same problem occurs again.





## **Radio Receiver Power Source Circuit**

## DESCRIPTION

This circuit provides power to the radio receiver.



## **INSPECTION PROCEDURE**





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## Stereo Component Amplifier Power Source Circuit

## DESCRIPTION

This circuit provides power to the stereo component amplifier.



## **INSPECTION PROCEDURE**

## INSPECT STEREO COMPONENT AMPLIFIER



(a)	Disconnect the stereo component amplifier connectors.
(b)	Measure the resistance according to the values in the
	table below.

#### Standard resistance

Tester connection	Condition	Specified condition
GND - Body ground	Always	Below 1 Ω
E - Body ground	Always	Below 1 $\Omega$

(c) Measure the voltage according to the values in the table below.

### Standard voltage

Tester connection	Condition	Specified condition
+B - GND	Always	10 to 14 V
+B2 - GND	Always	10 to 14 V
ACC - GND	Ignition SW on (ACC)	10 to 14 V

NG

#### REPAIR OR REPLACE HARNESS OR CONNECTOR

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## **RADIO RECEIVER**

## **COMPONENTS**




- 1. REMOVE SHIFT LEVER KNOB SUB-ASSEMBLY (for Automatic Transaxle) (See page IP-24)
- 2. REMOVE SHIFT LEVER KNOB SUB-ASSEMBLY (for Manual Transaxle) (See page IP-24)
- 3. REMOVE NO. 1 INSTRUMENT CLUSTER FINISH PANEL GARNISH (See page IP-24)
- 4. REMOVE NO. 2 INSTRUMENT CLUSTER FINISH PANEL GARNISH (See page IP-25)
- 5. REMOVE FLOOR SHIFT POSITION INDICATOR HOUSING SUB-ASSEMBLY (for Automatic Transaxle) (See page IP-25)
- 6. REMOVE UPPER CONSOLE PANEL (for Manual Transaxle) (See page IP-25)
- 7. REMOVE UPPER CONSOLE REAR PANEL SUB-ASSEMBLY (for Automatic Transaxle) (See page IP-26)
- 8. REMOVE UPPER CONSOLE REAR PANEL SUB-ASSEMBLY (for Manual Transaxle) (See page IP-26)
- 9. REMOVE UPPER CONSOLE PANEL SUB-ASSEMBLY (See page IP-27)
- 10. REMOVE INSTRUMENT PANEL NO. 2 REGISTER ASSEMBLY (See page IP-27)
- 11. REMOVE RADIO RECEIVER WITH HEATER CONTROL PANEL ASSEMBLY
  - (a) Remove the 4 bolts.
  - (b) Pull the radio receiver with heater control panel assembly toward the rear of the vehicle and disengage the 4 clips.
  - (c) Disconnect each connector and remove the radio receiver with heater control panel assembly.







# 12. REMOVE RADIO NO. 1 BRACKET(a) Remove the 5 bolts and radio No. 1 bracket.

13. REMOVE RADIO NO. 2 BRACKET(a) Remove the 5 bolts and radio No. 2 bracket.

- 14. REMOVE RADIO RECEIVER ASSEMBLY
  - (a) Remove the radio receiver assembly as shown in the illustration.

## INSTALLATION

- 1. INSTALL RADIO RECEIVER ASSEMBLY
  - (a) Install the radio receiver assembly as shown in the illustration.

#### 2. INSTALL RADIO NO. 2 BRACKET

(a) Install the radio No. 2 bracket with the 5 bolts.





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- 3. INSTALL RADIO NO. 1 BRACKET
  - (a) Install the radio No. 1 bracket with the 5 bolts.

- 4. INSTALL RADIO RECEIVER WITH HEATER CONTROL PANEL ASSEMBLY
  - (a) Connect each connector.
  - (b) Engage the 4 clips.
  - (c) Install the radio receiver with heater control panel assembly with the 4 bolts.
- 5. INSTALL INSTRUMENT PANEL NO. 2 REGISTER ASSEMBLY (See page IP-52)
- 6. INSTALL UPPER CONSOLE PANEL SUB-ASSEMBLY (See page IP-52)
- 7. INSTALL UPPER CONSOLE REAR PANEL SUB-ASSEMBLY (for Automatic Transaxle) (See page IP-53)
- 8. INSTALL UPPER CONSOLE REAR PANEL SUB-ASSEMBLY (for Manual Transaxle) (See page IP-53)
- 9. INSTALL FLOOR SHIFT POSITION INDICATOR HOUSING SUB-ASSEMBLY (for Automatic Transaxle) (See page IP-53)
- 10. INSTALL UPPER CONSOLE PANEL (for Manual Transaxle) (See page IP-54)
- 11. INSTALL NO. 2 INSTRUMENT CLUSTER FINISH PANEL GARNISH (See page IP-54)
- 12. INSTALL NO. 1 INSTRUMENT CLUSTER FINISH PANEL GARNISH (See page IP-55)
- 13. INSTALL SHIFT LEVER KNOB SUB-ASSEMBLY (for Automatic Transaxle) (See page IP-55)
- 14. INSTALL SHIFT LEVER KNOB SUB-ASSEMBLY (for Manual Transaxle) (See page IP-55)

## **STEREO COMPONENT AMPLIFIER**

## COMPONENTS



1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL CAUTION: Wait for 90 seconds after disconnecting the cable to

prevent the airbag working.

2. REMOVE SEAT TRACK COVER RH (for Manual Seat) HINT:

Use the same procedures for the RH side and the LH side (see page SE-16).

3. REMOVE SEAT TRACK BRACKET COVER INNER RH (for Manual Seat)

HINT:

Use the same procedures for the RH side and the LH side (see page SE-16).

4. REMOVE FRONT SEAT ASSEMBLY RH (for Manual Seat)

HINT:

Use the same procedures for the RH side and the LH side (see page SE-16).

5. REMOVE SEAT TRACK COVER RH (for Power Seat) HINT:

Use the same procedures for the RH side and the LH side (see page SE-30).

6. REMOVE SEAT TRACK BRACKET COVER INNER RH (for Power Seat)

HINT:

Use the same procedures for the RH side and the LH side (see page SE-30).

7. REMOVE FRONT SEAT ASSEMBLY RH (for Power Seat)

HINT:

Use the same procedures for the RH side and the LH side (see page SE-30).

#### 8. REMOVE AUDIO AMPLIFIER COVER

(a) Remove the 2 clips and audio amplifier cover.





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#### 9. REMOVE STEREO COMPONENT AMPLIFIER ASSEMBLY

- (a) Disconnect each connector and remove the bolt.
- (b) Disengage the clip.

(c) Remove the bolt and stereo component amplifier assembly as shown in the illustration.

## INSTALLATION

- 1. INSTALL STEREO COMPONENT AMPLIFIER ASSEMBLY
  - (a) Install the stereo component amplifier assembly as shown in the illustration.

- (b) Install the bolt and connect each connector.
- (c) Engage the clip.
- (d) Install the bolt.

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- 2. INSTALL AUDIO AMPLIFIER COVER
  (a) Install the audio amplifier cover with the 2 clips.
- 3. INSTALL FRONT SEAT ASSEMBLY RH (for Manual Seat)

HINT:

Use the same procedures for the RH side and the LH side (see page SE-24).

4. INSTALL SEAT TRACK BRACKET COVER INNER RH (for Manual Seat)

HINT:

Use the same procedures for the RH side and the LH side (see page SE-25).

5. INSTALL SEAT TRACK COVER RH (for Manual Seat) HINT:

Use the same procedures for the RH side and the LH side (see page SE-25).

6. INSTALL FRONT SEAT ASSEMBLY RH (for Power Seat)

HINT:

Use the same procedures for the RH side and the LH side (see page SE-41).

7. INSTALL SEAT TRACK BRACKET COVER INNER RH (for Power Seat)

HINT:

Use the same procedures for the RH side and the LH side (see page SE-42).

8. INSTALL SEAT TRACK COVER RH (for Power Seat) HINT:

Use the same procedures for the RH side and the LH side (see page SE-42).

- 9. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL
- 10. PERFORM ZERO POINT CALIBRATION AND SENSITIVITY CHECK (See page RS-242)



## FRONT SIDE SPEAKER

## **COMPONENTS**







## **ON-VEHICLE INSPECTION**

## 1. INSPECT FRONT NO. 1 SPEAKER

HINT:

Remove interior parts so that the front No. 1 speaker can be seen.

- (a) Check the speaker installation.
  - OK:

#### The speaker is securely installed.

If the result is not as specified, reinstall the front No. 1 speaker.

(b) Visually check the speaker.

OK:

#### The cone paper of the speaker is not torn.

If the result is not as specified, replace the front No. 1 speaker.

- (c) Speaker resistance check
  - (1) Disconnect the front No. 1 speaker connector.
  - (2) Measure the resistance between the terminals of the speaker.

Standard resistance:

Premium Model: 1.8 to 2.6  $\Omega$ 

Standard Model: Approximately 4  $\Omega$ 

If the result is not as specified, replace the front No. 1 speaker.

#### 2. INSPECT FRONT NO. 2 SPEAKER

#### HINT:

Remove interior parts so that the front No. 2 speaker can be seen.

(a) Check the speaker installation.

OK:

#### The speaker is securely installed.

If the result is not as specified, reinstall the front No. 2 speaker.

(b) Visually check the speaker.

OK:

#### The cone paper of the speaker is not torn.

If the result is not as specified, replace the front No. 2 speaker.



- **REMOVE FRONT DOOR LOWER FRAME BRACKET** 1. GARNISH (See page ED-14)
- **REMOVE FRONT DOOR INSIDE HANDLE BEZEL** 2. PLUG (See page ED-14)
- REMOVE ASSIST GRIP COVER (See page ED-15) 3.
- 4. REMOVE COURTESY LIGHT ASSEMBLY (See page ED-15)
- 5. **REMOVE FRONT DOOR TRIM BOARD SUB-**ASSEMBLY (See page ED-15)
- **REMOVE FRONT DOOR INNER GLASS** 6. WEATHERSTRIP (See page ED-16)
- **REMOVE FRONT NO. 1 SPEAKER ASSEMBLY** 7.
  - (a) Disconnect the connector.
  - (b) Remove the 4 bolts and front No. 1 speaker assembly. NOTICE:

Do not touch the cone part of the speaker.

- 8. **REMOVE FRONT PILLAR GARNISH (See page IR-27)**
- 9. **REMOVE INSTRUMENT PANEL NO. 2 SPEAKER** PANEL SUB-ASSEMBLY
  - (a) Engage the 6 claws and 2 clips.
  - (b) Remove the instrument panel No. 2 speaker panel sub-assembly.



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#### **10. REMOVE FRONT NO. 2 SPEAKER ASSEMBLY**

- (a) Remove the 2 bolts and front No. 2 speaker assembly.
- (b) Disconnect the connector.



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# INSTALLATION

- 1. INSTALL FRONT NO. 2 SPEAKER ASSEMBLY
  - (a) Connect the connector.
  - (b) Install the front No. 2 speaker assembly with the 2 bolts.







- 2. INSTALL INSTRUMENT PANEL NO. 2 SPEAKER PANEL SUB-ASSEMBLY
  - (a) Engage the 6 claws and 2 clips and install the instrument panel No. 2 speaker panel sub-assembly.
- 3. INSTALL FRONT PILLAR GARNISH (See page IR-51)

- 4. INSTALL FRONT NO. 1 SPEAKER ASSEMBLY
  - (a) Install the front No. 1 speaker assembly with the 4 bolts.
  - (b) Connect the connector.
- 5. INSTALL FRONT DOOR INNER GLASS WEATHERSTRIP (See page ED-32)
- 6. INSTALL FRONT DOOR TRIM BOARD SUB-ASSEMBLY (See page ED-33)
- 7. INSTALL COURTESY LIGHT ASSEMBLY (See page ED-34)
- 8. INSTALL ASSIST GRIP COVER (See page ED-34)
- 9. INSTALL FRONT DOOR INSIDE HANDLE BEZEL PLUG (See page ED-34)



10. INSTALL FRONT DOOR LOWER FRAME BRACKET GARNISH (See page ED-34)

## **REAR SIDE SPEAKER**

## COMPONENTS













## **ON-VEHICLE INSPECTION**

#### 1. INSPECT REAR SPEAKER

#### HINT:

Remove interior parts so that the rear speaker can be seen.

- (a) Check the speaker installation.
  - OK:

#### The speaker is securely installed.

If the result is not as specified, reinstall the rear speaker.

(b) Visually check the speaker.

#### OK:

#### The cone paper of the speaker is not torn.

If the result is not as specified, replace the rear speaker.

- (c) Speaker resistance check
  - (1) Disconnect the rear speaker connector.
  - (2) Measure the resistance between the terminals of the speaker. Standard resistance (Premium Model (Only

# Woofer Speaker))

Tester connection	Condition	Specified condition
2 - 4	Always	<b>1.8 to 2.6</b> Ω

# Standard resistance (Standard Model): Approximately 4 $\Omega$

If the result is not as specified, replace the rear speaker.



- 1. REMOVE REAR SEAT HEADREST ASSEMBLY
- 2. REMOVE REAR CENTER SEAT HEADREST ASSEMBLY
- 3. REMOVE REAR SEAT CUSHION ASSEMBLY (See page SE-62)
- 4. REMOVE REAR SEAT BACK ASSEMBLY (for Fixed Seat Type) (See page SE-77)
- 5. REMOVE SEPARATE TYPE REAR SEAT BACK ASSEMBLY RH (for Fold Down Seat Type) (See page SE-47)
- 6. REMOVE SEPARATE TYPE REAR SEAT BACK ASSEMBLY LH (for Fold Down Seat Type) (See page SE-47)
- 7. REMOVE REAR SIDE SEAT BACK ASSEMBLY LH (for Fold Down Seat Type) (See page SE-48)
- 8. REMOVE REAR SIDE SEAT BACK ASSEMBLY RH (for Fold Down Seat Type) (See page SE-48)
- 9. REMOVE REAR SEAT BACK COVER (for Reclining Seat Type) (See page SE-63)
- 10. REMOVE SEPARATE TYPE REAR SEAT BACK ASSEMBLY LH (for Reclining Seat Type) (See page SE-63)
- 11. REMOVE SEPARATE TYPE REAR SEAT BACK ASSEMBLY RH (for Reclining Seat Type) (See page SE-64)
- 12. REMOVE CENTER SEAT BACK ASSEMBLY (for Reclining Seat Type) (See page SE-64)
- 13. REMOVE REAR DOOR SCUFF PLATE LH (See page IR-24)
- 14. DISCONNECT REAR DOOR OPENING TRIM WEATHERSTRIP LH (for Reclining Seat Type)
- 15. REMOVE REAR DOOR SCUFF PLATE RH (See page IR-24)
- 16. DISCONNECT REAR DOOR OPENING TRIM WEATHERSTRIP RH (for Reclining Seat Type)
- 17. REMOVE RECLINING REMOTE CONTROL LEVER SUB-ASSEMBLY LH (for Reclining Seat Type) (See page SE-68)
- 18. REMOVE RECLINING REMOTE CONTROL LEVER SUB-ASSEMBLY RH (for Reclining Seat Type)
- 19. DISCONNECT REAR SEAT INNER WITH CENTER BELT ASSEMBLY LH (for TMC Made) (See page SB-35)



- 20. DISCONNECT REAR SEAT INNER WITH CENTER BELT ASSEMBLY LH (for TMMK Made) (See page SB-35)
- 21. REMOVE ROOF SIDE INNER GARNISH LH (See page IR-26)
- 22. REMOVE ROOF SIDE INNER GARNISH RH (See page IR-26)
- 23. DISCONNECT REAR SEAT OUTER BELT ASSEMBLY (for LH Side) (See page SB-50)
- 24. DISCONNECT REAR SEAT OUTER BELT ASSEMBLY (for RH Side) (See page SB-50)
- 25. REMOVE REAR SEAT SHOULDER BELT COVER (See page SB-50)
- 26. REMOVE REAR SEAT SHOULDER BELT HOLE COVER (See page SB-51)
- 27. REMOVE PACKAGE TRAY TRIM PANEL ASSEMBLY (See page SB-37)
- 28. REMOVE PACKAGE TRAY TRIM PANEL ASSEMBLY (for Reclining Seat Type) (See page SB-37)
- 29. REMOVE REAR SPEAKER ASSEMBLY (for LH Side)
  - (a) Turn up the partition pad.
  - (b) Disconnect the connector.
  - (c) Remove the 4 bolts and the rear speaker assembly.
- 30. REMOVE REAR SPEAKER ASSEMBLY (for RH Side)(a) Turn up the partition pad.

- (b) Disconnect the connector.
- (c) Remove the 4 bolts and the rear speaker assembly.











# INSTALLATION

- 1. INSTALL REAR SPEAKER ASSEMBLY (for RH Side)
  - (a) Install the rear speaker assembly with the 4 bolts.
  - (b) Connect the connector.
  - (c) Install the partition pad.
- 2. INSTALL REAR SPEAKER ASSEMBLY (for LH Side)
  - (a) Install the rear speaker assembly with the 4 bolts.
  - (b) Connect the connector.
  - (c) Install the partition pad.
- 3. INSTALL PACKAGE TRAY TRIM PANEL ASSEMBLY (See page SB-38)
- 4. INSTALL PACKAGE TRAY TRIM PANEL ASSEMBLY (for Reclining Seat Type) (See page SB-39)
- 5. INSTALL REAR SEAT SHOULDER BELT HOLE COVER (See page SB-51)
- 6. INSTALL REAR SEAT SHOULDER BELT COVER (See page SB-52)
- 7. CONNECT REAR SEAT OUTER BELT ASSEMBLY (for LH Side) (See page SB-52)
- 8. CONNECT REAR SEAT OUTER BELT ASSEMBLY (for RH Side) (See page SB-52)
- 9. INSTALL ROOF SIDE INNER GARNISH LH (See page IR-52)
- 10. INSTALL ROOF SIDE INNER GARNISH RH (See page IR-52)
- 11. CONNECT REAR SEAT INNER WITH CENTER BELT ASSEMBLY LH (for TMC Made) (See page SB-40)
- 12. CONNECT REAR SEAT INNER WITH CENTER BELT ASSEMBLY LH (for TMMK Made) (See page SB-40)
- 13. INSTALL RECLINING REMOTE CONTROL LEVER SUB-ASSEMBLY LH (for Reclining Seat Type) (See page SE-69)
- 14. INSTALL RECLINING REMOTE CONTROL LEVER SUB-ASSEMBLY RH (for Reclining Seat Type) (See page SB-53)
- 15. CONNECT REAR DOOR OPENING TRIM WEATHERSTRIP LH (for Reclining Seat Type) (See page IR-55)
- 16. INSTALL REAR DOOR SCUFF PLATE LH (See page IR-56)

- 17. CONNECT REAR DOOR OPENING TRIM WEATHERSTRIP RH (for Reclining Seat Type) (See page IR-56)
- 18. INSTALL REAR DOOR SCUFF PLATE RH (See page IR-56)
- 19. INSTALL CENTER SEAT BACK ASSEMBLY (for Reclining Seat Type) (See page SE-71)
- 20. INSTALL SEPARATE TYPE REAR SEAT BACK ASSEMBLY LH (for Reclining Seat Type) (See page SE-72)
- 21. INSTALL SEPARATE TYPE REAR SEAT BACK ASSEMBLY RH (for Reclining Seat Type) (See page SE-71)
- 22. INSTALL REAR SEAT BACK COVER (for Reclining Seat Type)
- 23. INSTALL REAR SIDE SEAT BACK ASSEMBLY LH (for Fold Down Seat Type) (See page SE-57)
- 24. INSTALL REAR SIDE SEAT BACK ASSEMBLY RH (for Fold Down Seat Type)
- 25. INSTALL SEPARATE TYPE REAR SEAT BACK ASSEMBLY LH (for Fold Down Seat Type) (See page SE-57)
- 26. INSTALL SEPARATE TYPE REAR SEAT BACK ASSEMBLY RH (for Fold Down Seat Type) (See page SE-57)
- 27. INSTALL REAR SEAT BACK ASSEMBLY (for Fixed Seat Type) (See page SE-84)
- 28. INSTALL REAR SEAT CUSHION ASSEMBLY (See page SE-58)
- 29. INSTALL REAR CENTER SEAT HEADREST ASSEMBLY
- 30. INSTALL REAR SEAT HEADREST ASSEMBLY

- 1. PRECAUTION (See page IP-1)
- 2. ALIGN FRONT WHEELS FACING STRAIGHT AHEAD
- 3. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL CAUTION: Wait for 90 seconds after disconnecting the cable to

Wait for 90 seconds after disconnecting the cable to prevent airbag deployment (See page RS-1).

- 4. REMOVE LOWER NO. 3 STEERING WHEEL COVER (See page RS-349)
- 5. REMOVE LOWER NO. 2 STEERING WHEEL COVER (See page RS-349)
- 6. REMOVE STEERING PAD (See page RS-350)
- 7. REMOVE STEERING WHEEL ASSEMBLY (See page SR-38)
- 8. REMOVE FRONT DOOR SCUFF PLATE LH (See page IR-24)
- 9. REMOVE COWL SIDE TRIM SUB-ASSEMBLY LH (See page IR-25)
- 10. REMOVE LOWER INSTRUMENT PANEL FINISH PANEL LH (for TMC Made) (See page IP-20)
- 11. REMOVE LOWER INSTRUMENT PANEL FINISH PANEL LH (for TMMK Made) (See page IP-21)
- 12. REMOVE STEERING COLUMN COVER (for TMC Made) (See page IP-21)
- 13. REMOVE STEERING COLUMN COVER (for TMMK Made) (See page IP-21)
- 14. REMOVE TURN SIGNAL SWITCH ASSEMBLY WITH SPIRAL CABLE SUB-ASSEMBLY (See page SR-39)
- 15. REMOVE NO. 1 INSTRUMENT PANEL SUB-ASSEMBLY (See page IP-22)
- 16. REMOVE LOWER INSTRUMENT PANEL FINISH PANEL (w/o Smart Key System) (See page IP-22)
- 17. REMOVE LOWER INSTRUMENT PANEL FINISH PANEL (w/ Smart Key System) (See page IP-22)
- 18. REMOVE INSTRUMENT CLUSTER FINISH PANEL (See page IP-22)
- 19. REMOVE COMBINATION METER ASSEMBLY (for TMC Made) (See page IP-23)
- 20. REMOVE COMBINATION METER ASSEMBLY (for TMMK Made) (See page IP-23)
- 21. REMOVE FRONT DOOR SCUFF PLATE RH (See page IR-26)

- 22. REMOVE COWL SIDE TRIM SUB-ASSEMBLY RH
- 23. REMOVE INSTRUMENT PANEL NO. 2 UNDER COVER SUB-ASSEMBLY (See page IP-23)
- 24. REMOVE LOWER INSTRUMENT PANEL SUB-ASSEMBLY (for TMC Made) (See page IP-23)
- 25. REMOVE LOWER INSTRUMENT PANEL SUB-ASSEMBLY (for TMMK Made) (See page IP-24)
- 26. REMOVE SHIFT LEVER KNOB SUB-ASSEMBLY (for Automatic Transaxle) (See page IP-24)
- 27. REMOVE SHIFT LEVER KNOB SUB-ASSEMBLY (for Manual Transaxle) (See page IP-24)
- 28. REMOVE NO. 1 INSTRUMENT CLUSTER FINISH PANEL GARNISH (See page IP-24)
- 29. REMOVE NO. 2 INSTRUMENT CLUSTER FINISH PANEL GARNISH (See page IP-25)
- 30. REMOVE FLOOR SHIFT POSITION INDICATOR HOUSING SUB-ASSEMBLY (for Automatic Transaxle) (See page IP-25)
- 31. REMOVE UPPER CONSOLE PANEL (for Manual Transaxle) (See page IP-25)
- 32. REMOVE UPPER CONSOLE REAR PANEL SUB-ASSEMBLY (for Automatic Transaxle) (See page IP-26)
- 33. REMOVE UPPER CONSOLE REAR PANEL SUB-ASSEMBLY (for Manual Transaxle) (See page IP-26)
- 34. REMOVE UPPER CONSOLE PANEL SUB-ASSEMBLY (for TMC Made) (See page IP-27)
- 35. REMOVE UPPER CONSOLE PANEL SUB-ASSEMBLY (for TMMK Made) (See page IP-27)
- 36. REMOVE INSTRUMENT PANEL NO. 2 REGISTER ASSEMBLY (See page IP-27)
- 37. REMOVE RADIO RECEIVER WITH HEATER CONTROL PANEL ASSEMBLY (w/o Navigation System) (See page AV-146)
- 38. REMOVE NAVIGATION RECEIVER WITH HEATER CONTROL PANEL ASSEMBLY (See page NS-195)
- **39. REMOVE CONSOLE BOX POCKET (See page IP-28)**
- 40. REMOVE CONSOLE BOX CARPET (See page IP-28)
- 41. REMOVE CONSOLE BOX ASSEMBLY (for TMC Made) (See page IP-28)
- 42. REMOVE CONSOLE BOX ASSEMBLY (for TMMK Made) (See page IP-29)
- 43. REMOVE NO. 2 CONSOLE BOX INSERT FRONT (for TMC Made) (See page IP-29)

- 44. REMOVE NO. 2 CONSOLE BOX INSERT FRONT (for TMMK Made) (See page IP-30)
- 45. REMOVE NO. 1 CONSOLE BOX INSERT FRONT (for TMC Made) (See page IP-30)
- 46. REMOVE NO. 1 CONSOLE BOX INSERT FRONT (for TMMK Made) (See page IP-30)
- 47. REMOVE FRONT PILLAR GARNISH LH (See page IR-27)
- 48. REMOVE INSTRUMENT PANEL NO. 1 REGISTER ASSEMBLY (See page IP-31)
- 49. REMOVE INSTRUMENT PANEL NO. 1 SPEAKER PANEL SUB-ASSEMBLY (See page IP-31)
- 50. REMOVE FRONT NO. 2 SPEAKER ASSEMBLY (for LH Side) (See page AV-156)
- 51. REMOVE FRONT PILLAR GARNISH RH (See page IR-27)
- 52. REMOVE INSTRUMENT PANEL NO. 3 REGISTER ASSEMBLY (See page IP-31)
- 53. REMOVE INSTRUMENT PANEL NO. 2 SPEAKER PANEL SUB-ASSEMBLY (See page IP-32)
- 54. REMOVE FRONT NO. 2 SPEAKER ASSEMBLY (for RH Side) HINT:

Use the same procedures for the RH side and the LH side (See page AV-156).

- 55. REMOVE NO. 1 DEFROSTER NOZZLE GARNISH (See page IP-32)
- 56. REMOVE INSTRUMENT PANEL SAFETY PAD ASSEMBLY (for TMC Made) (See page IP-32)
- 57. REMOVE INSTRUMENT PANEL SAFETY PAD ASSEMBLY (for TMMK Made) (See page IP-34)
- 58. REMOVE SIDE NO. 1 DEFROSTER NOZZLE DUCT (for TMC Made) (See page IP-37)
- 59. REMOVE SIDE NO. 1 DEFROSTER NOZZLE DUCT (for TMMK Made) (See page IP-37)
- 60. REMOVE SIDE NO. 2 DEFROSTER NOZZLE DUCT (for TMC Made) (See page IP-38)
- 61. REMOVE SIDE NO. 2 DEFROSTER NOZZLE DUCT (for TMMK Made) (See page IP-38)
- 62. REMOVE DEFROSTER NOZZLE ASSEMBLY (for TMC Made) (See page IP-38)
- 63. REMOVE DEFROSTER NOZZLE ASSEMBLY (for TMMK Made) (See page IP-38)
- 64. REMOVE NO. 1 HEATER TO REGISTER DUCT (for TMC Made) (See page IP-38)



- 65. REMOVE NO. 1 HEATER TO REGISTER DUCT (for TMMK Made) (See page IP-39)
- 66. REMOVE NO. 3 HEATER TO REGISTER DUCT (for TMC Made) (See page IP-39)
- 67. REMOVE NO. 3 HEATER TO REGISTER DUCT (for TMMK Made) (See page IP-39)
- 68. REMOVE NO. 2 HEATER TO REGISTER DUCT (for TMC Made) (See page IP-39)
- 69. REMOVE NO. 2 HEATER TO REGISTER DUCT (for TMMK Made) (See page IP-39)
- 70. REMOVE NO. 2 ANTENNA CORD SUB-ASSEMBLY
  - (a) Disengage the 6 clamps and clip and remove the No. 2 antenna cord sub-assembly.



- 71. REMOVE FRONT SEAT HEADREST ASSEMBLY (for Manual Seat)
- 72. REMOVE SEAT TRACK COVER LH (for Manual Seat) (See page SE-16)
- 73. REMOVE INNER SEAT TRACK BRACKET COVER LH (for Manual Seat) (See page SE-16)
- 74. REMOVE FRONT SEAT ASSEMBLY LH (for Manual Seat) (See page SE-16)
- 75. REMOVE FRONT SEAT HEADREST ASSEMBLY (for Power Seat)
- 76. REMOVE SEAT TRACK COVER LH (for Power Seat) (See page SE-30)
- 77. REMOVE SEAT TRACK COVER RH (for Power Seat) (See page SE-30)
- 78. REMOVE FRONT SEAT ASSEMBLY LH (for Power Seat) (See page SE-30)
- 79. REMOVE FRONT SEAT HEADREST ASSEMBLY (for Manual Seat)

- 80. REMOVE SEAT TRACK COVER RH (for Manual Seat) (See page IR-22)
- 81. REMOVE INNER SEAT TRACK BRACKET COVER RH (for Manual Seat) (See page IR-22)
- 82. REMOVE FRONT SEAT ASSEMBLY RH (for Manual Seat) (See page IR-22)
- 83. REMOVE FRONT SEAT HEADREST ASSEMBLY (for Power Seat)
- 84. REMOVE SEAT TRACK COVER RH (for Power Seat) (See page IR-22)
- 85. REMOVE SEAT TRACK COVER LH (for Power Seat) (See page IR-23)
- 86. REMOVE FRONT SEAT ASSEMBLY RH (for Power Seat) (See page IR-23)
- 87. REMOVE REAR SEAT CUSHION ASSEMBLY (See page SE-77)
- 88. REMOVE REAR SEAT HEADREST ASSEMBLY
- 89. REMOVE REAR CENTER SEAT HEADREST ASSEMBLY
- 90. REMOVE REAR SEAT BACK ASSEMBLY (for Fixed Seat Type) (See page SE-77)
- 91. REMOVE SEPARATE TYPE REAR SEAT BACK ASSEMBLY LH (for Fold Down Seat Type) (See page SE-47)
- 92. REMOVE SEPARATE TYPE REAR SEAT BACK ASSEMBLY RH (for Fold Down Seat Type) (See page SE-47)
- 93. REMOVE REAR SIDE SEAT BACK ASSEMBLY LH (for Fold Down Seat Type) (See page SE-48)
- 94. REMOVE REAR SIDE SEAT BACK ASSEMBLY RH (for Fold Down Seat Type) (See page SE-48)
- 95. REMOVE REAR SEAT BACK COVER (for Reclining Seat Type) (See page SE-63)
- 96. REMOVE SEPARATE TYPE REAR SEAT BACK ASSEMBLY LH (for Reclining Seat Type) (See page SE-63)
- 97. REMOVE SEPARATE TYPE REAR SEAT BACK ASSEMBLY RH (for Reclining Seat Type) (See page SE-64)



- 98. REMOVE CENTER SEAT BACK ASSEMBLY (for Reclining Seat Type) (See page SE-64)
- 99. REMOVE REAR DOOR SCUFF PLATE LH (See page IR-24)
- 100. REMOVE REAR DOOR OPENING TRIM WEATHERSTRIP LH

- 101. REMOVE REAR DOOR SCUFF PLATE RH (See page IR-24)
- 102. REMOVE REAR DOOR OPENING TRIM WEATHERSTRIP RH
- 103. REMOVE RECLINING REMOTE CONTROL LEVER SUB-ASSEMBLY LH (for Reclining Seat Type) (See page SE-68)
- 104. REMOVE RECLINING REMOTE CONTROL LEVER SUB-ASSEMBLY RH (for Reclining Seat Type)
- 105. REMOVE REAR DOOR INSIDE HANDLE BEZEL PLUG LH (See page ED-38)
- 106. REMOVE DOOR ASSIST GRIP COVER LH (See page ED-38)
- 107. REMOVE REAR DOOR TRIM BOARD SUB-ASSEMBLY LH (See page ED-39)
- 108. REMOVE REAR DOOR INNER GLASS WEATHERSTRIP LH (See page ED-40)
- 109. REMOVE FRONT DOOR SCUFF PLATE LH (See page IR-24)
- 110. REMOVE COWL SIDE TRIM SUB-ASSEMBLY LH (See page IR-25)
- 111. REMOVE FRONT DOOR OPENING TRIM WEATHERSTRIP LH
- 112. REMOVE LAP BELT OUTER ANCHOR COVER (See page IR-25)
- 113. DISCONNECT FRONT SEAT OUTER BELT ASSEMBLY LH (See page IR-25)
- 114. REMOVE LOWER CENTER PILLAR GARNISH LH (See page IR-25)
- 115. REMOVE UPPER CENTER PILLAR GARNISH LH (See page IR-26)
- 116. REMOVE FRONT DOOR SCUFF PLATE RH (See page IR-26)
- 117. REMOVE COWL SIDE TRIM SUB-ASSEMBLY RH (See page IR-26)
- 118. REMOVE FRONT DOOR OPENING TRIM WEATHERSTRIP RH
- 119. REMOVE LAP BELT OUTER ANCHOR COVER (See page IR-26)
- 120. DISCONNECT FRONT SEAT OUTER BELT ASSEMBLY RH (See page IR-26)
- 121. REMOVE LOWER CENTER PILLAR GARNISH RH (See page IR-26)
- 122. REMOVE UPPER CENTER PILLAR GARNISH RH (See page IR-26)

- 123. REMOVE ROOF SIDE INNER GARNISH LH (See page IR-26)
- 124. REMOVE ROOF SIDE INNER GARNISH RH (See page IR-26)
- 125. REMOVE FRONT PILLAR GARNISH LH (See page IR-27)
- 126. REMOVE FRONT PILLAR GARNISH RH (See page IR-27)
- 127. REMOVE ROOF CONSOLE BOX ASSEMBLY (See page IR-28)
- 128. REMOVE VISOR ASSEMBLY LH (See page IR-28)
- 129. REMOVE VISOR ASSEMBLY RH (See page IR-29)
- 130. REMOVE VISOR HOLDER (See page IR-29)
- 131.REMOVE FRONT ASSIST GRIP SUB-ASSEMBLY (See page IR-29)
- 132. REMOVE REAR ASSIST GRIP SUB-ASSEMBLY (See page IR-29)
- 133. REMOVE NO. 1 ROOM LIGHT ASSEMBLY (w/o Sliding Roof) (See page IR-30)
- 134. REMOVE SPOT LIGHT ASSEMBLY (w/ Sliding Roof) (See page IR-30)
- 135. REMOVE SUN ROOF OPENING TRIM MOULDING (w/ Sliding Roof) (See page IR-31)
- 136. REMOVE SUNSHADE TRIM HOLDER (w/ Rear Sunshade) (See page IR-31)
- 137. REMOVE ROOF HEADLINING ASSEMBLY (w/o Sliding Roof) (See page IR-31)
- 138. REMOVE ROOF HEADLINING ASSEMBLY (w/ Sliding Roof) (See page IR-32)
- 139. REMOVE ANTENNA CORD SUB-ASSEMBLY
  - (a) Peel the strips of the tape used to secure the antenna cord only to the extent that allows removal of the antenna cord.
     HINT:

Tape is not available as a supply part. Try to leave as much tape as possible on the roof headlining so that the tape can be reused.



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## INSTALLATION

#### 1. INSTALL ANTENNA CORD SUB-ASSEMBLY HINT:

The double-sided tape and tape are not available as supply parts. If these tapes still have enough adhesion to secure the roof headlining and antenna cord, reuse the tapes. If the roof headlining has been replaced with a new one, or if the tape and/or the double-sided tape is no longer sticky, apply new tape following the procedures below.







 Remove the double-sided tape from the roo headlining assembly.

- (2) Peel off the appropriate amount of new doublesided tape. Be careful not to touch the adhesive surface.
- (3) Apply the double-sided tape to the roof headlining while aligning the tape with the markings on the roof headlining assembly.
- (4) Peel off the backing sheet from the doublesided tape.






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Align the taped part of the antenna cable with the protrusion of the roof headlining, and apply tape to secure the cable to the headlining.

- (c) Put the strips of the tape back to the positions shown in the illustration in order to secure the antenna cord to the roof headlining assembly. HINT:
  - If the tape is no longer sticky, use other tape, such as packing tape, that has enough adhesion to secure the antenna cord to the roof headlining assembly.
  - For the right front corner of the roof headlining assembly, align the marking tape on the antenna cord with the protrusion of the roof headlining, and wrap tape around the antenna cord and roof headlining assembly once or twice to securely hold them.
  - For the right rear corner of the roof headlining assembly, align the marking tape on the antenna cord with the rear edge of the roof headlining, and secure the antenna cord to the roof headlining assembly with tape.
- 2. INSTALL ROOF HEADLINING ASSEMBLY (w/o Sliding Roof) (See page IR-45)
- 3. INSTALL ROOF HEADLINING ASSEMBLY (w/ Sliding Roof) (See page IR-46)
- 4. INSTALL SUNSHADE TRIM HOLDER (w/ Rear Sunshade) (See page IR-47)
- 5. INSTALL SUN ROOF OPENING TRIM MOULDING (w/ Sliding Roof) (See page IR-47)
- 6. INSTALL SPOT LIGHT ASSEMBLY (w/ Sliding Roof) (See page IR-48)
- 7. INSTALL NO. 1 ROOM LIGHT ASSEMBLY (w/o Sliding Roof) (See page IR-48)
- 8. INSTALL FRONT ASSIST GRIP SUB-ASSEMBLY (See page IR-49)
- 9. INSTALL REAR ASSIST GRIP SUB-ASSEMBLY (See page IR-49)
- 10. INSTALL VISOR HOLDER (See page IR-49)
- 11. INSTALL VISOR ASSEMBLY LH (See page IR-50)
- 12. INSTALL VISOR ASSEMBLY RH (See page IR-50)
- 13. INSTALL ROOF CONSOLE BOX ASSEMBLY (See page IR-50)
- 14. INSTALL FRONT PILLAR GARNISH LH (See page IR-51)
- 15. INSTALL FRONT PILLAR GARNISH RH (See page IR-52)
- 16. INSTALL ROOF SIDE INNER GARNISH LH (See page IR-52)

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- 17. INSTALL ROOF SIDE INNER GARNISH RH (See page IR-52)
- 18. INSTALL UPPER CENTER PILLAR GARNISH LH (See page IR-53)
- 19. INSTALL LOWER CENTER PILLAR GARNISH LH (See page IR-53)
- 20. CONNECT FRONT SEAT OUTER BELT ASSEMBLY LH (See page IR-53)
- 21. INSTALL LAP BELT OUTER ANCHOR COVER (See page IR-53)
- 22. INSTALL FRONT DOOR OPENING TRIM WEATHERSTRIP LH (See page IR-54)
- 23. INSTALL COWL SIDE TRIM SUB-ASSEMBLY LH (See page IR-54)
- 24. INSTALL FRONT DOOR SCUFF PLATE LH (See page IR-54)
- 25. INSTALL UPPER CENTER PILLAR GARNISH RH (See page IR-54)
- 26. INSTALL LOWER CENTER PILLAR GARNISH RH (See page IR-54)
- 27. CONNECT FRONT SEAT OUTER BELT ASSEMBLY RH (See page IR-54)
- 28. INSTALL LAP BELT OUTER ANCHOR COVER (See page IR-54)
- 29. INSTALL FRONT DOOR OPENING TRIM WEATHERSTRIP RH (See page IR-55)
- 30. INSTALL COWL SIDE TRIM SUB-ASSEMBLY RH (See page IR-55)
- 31. INSTALL FRONT DOOR SCUFF PLATE RH (See page IR-55)
- 32. INSTALL REAR DOOR INNER GLASS WEATHERSTRIP LH (See page ED-54)
- 33. INSTALL REAR DOOR TRIM BOARD SUB-ASSEMBLY LH (See page ED-55)
- 34. INSTALL DOOR ASSIST GRIP COVER LH (See page ED-56)
- 35. INSTALL REAR DOOR INSIDE HANDLE BEZEL PLUG LH (See page ED-56)
- 36. INSTALL RECLINING REMOTE CONTROL LEVER SUB-ASSEMBLY LH (for Reclining Seat Type) (See page SE-69)
- 37. INSTALL RECLINING REMOTE CONTROL LEVER SUB-ASSEMBLY RH (for Reclining Seat Type)
- 38. INSTALL REAR DOOR OPENING TRIM WEATHERSTRIP LH (See page IR-55)



- 39. INSTALL REAR DOOR SCUFF PLATE LH (See page IR-56)
- 40. INSTALL REAR DOOR OPENING TRIM WEATHERSTRIP RH (See page IR-56)
- 41. INSTALL REAR DOOR SCUFF PLATE RH (See page IR-56)
- 42. INSTALL CENTER SEAT BACK ASSEMBLY (for Reclining Seat Type) (See page SE-71)
- 43. INSTALL SEPARATE TYPE REAR SEAT BACK ASSEMBLY LH (for Reclining Seat Type) (See page SE-72)
- 44. INSTALL SEPARATE TYPE REAR SEAT BACK ASSEMBLY RH (for Reclining Seat Type) (See page SE-71)
- 45. INSTALL REAR SEAT BACK COVER (for Reclining Seat Type)
- 46. INSTALL REAR SIDE SEAT BACK ASSEMBLY LH (for Fold Down Seat Type) (See page SE-57)
- 47. INSTALL REAR SIDE SEAT BACK ASSEMBLY RH (for Fold Down Seat Type)
- 48. INSTALL SEPARATE TYPE REAR SEAT BACK ASSEMBLY LH (for Fold Down Seat Type) (See page SE-57)
- 49. INSTALL SEPARATE TYPE REAR SEAT BACK ASSEMBLY RH (for Fold Down Seat Type) (See page SE-57)
- 50. INSTALL REAR SEAT BACK ASSEMBLY (for Fixed Seat Type) (See page SE-84)
- 51. INSTALL REAR CENTER SEAT HEADREST ASSEMBLY
- 52. INSTALL REAR SEAT HEADREST ASSEMBLY
- 53. INSTALL REAR SEAT CUSHION ASSEMBLY (See page SE-58)
- 54. INSTALL FRONT SEAT ASSEMBLY LH (for Power Seat) (See page SE-41)
- 55. INSTALL SEAT TRACK COVER RH (for Power Seat) (See page SE-42)
- 56. INSTALL SEAT TRACK COVER LH (for Power Seat) (See page SE-42)



- 57. INSTALL FRONT SEAT HEADREST ASSEMBLY (for Power Seat)
- 58. INSTALL FRONT SEAT ASSEMBLY LH (for Manual Seat) (See page SE-24)
- 59. INSTALL INNER SEAT TRACK BRACKET COVER LH (for Manual Seat) (See page SE-25)

- 60. INSTALL SEAT TRACK COVER LH (for Manual Seat) (See page SE-25)
- 61. INSTALL FRONT SEAT HEADREST ASSEMBLY (for Manual Seat)
- 62. INSTALL FRONT SEAT ASSEMBLY RH (for Power Seat) (See page IR-57)
- 63. INSTALL SEAT TRACK COVER LH (for Power Seat) (See page IR-57)
- 64. INSTALL SEAT TRACK COVER RH (for Power Seat) (See page IR-57)
- 65. INSTALL FRONT SEAT HEADREST ASSEMBLY (for Power Seat)
- 66. INSTALL FRONT SEAT ASSEMBLY RH (for Manual Seat) (See page IR-57)
- 67. INSTALL INNER SEAT TRACK BRACKET COVER RH (for Manual Seat) (See page IR-58)
- 68. INSTALL SEAT TRACK COVER RH (for Manual Seat) (See page IR-58)
- 69. INSTALL FRONT SEAT HEADREST ASSEMBLY (for Manual Seat)

#### 70. INSTALL NO. 2 ANTENNA CORD SUB-ASSEMBLY

(a) Engage the 6 clamps and clip and install the No. 2 antenna cord sub-assembly.



- 71. INSTALL NO. 2 HEATER TO REGISTER DUCT (for TMC Made) (See page IP-41)
- 72. INSTALL NO. 2 HEATER TO REGISTER DUCT (for TMMK Made) (See page IP-41)
- 73. INSTALL NO. 3 HEATER TO REGISTER DUCT (for TMC Made) (See page IP-41)
- 74. INSTALL NO. 3 HEATER TO REGISTER DUCT (for TMMK Made) (See page IP-41)

- 75. INSTALL NO. 1 HEATER TO REGISTER DUCT (for TMC Made) (See page IP-42)
- 76. INSTALL NO. 1 HEATER TO REGISTER DUCT (for TMMK Made) (See page IP-42)
- 77. INSTALL DEFROSTER NOZZLE ASSEMBLY (for TMC Made) (See page IP-42)
- 78. INSTALL DEFROSTER NOZZLE ASSEMBLY (for TMMK Made) (See page IP-42)
- 79. INSTALL SIDE NO. 2 DEFROSTER NOZZLE DUCT (for TMC Made) (See page IP-42)
- 80. INSTALL SIDE NO. 2 DEFROSTER NOZZLE DUCT (for TMMK Made) (See page IP-43)
- 81. INSTALL SIDE NO. 1 DEFROSTER NOZZLE DUCT (for TMC Made) (See page IP-43)
- 82. INSTALL SIDE NO. 1 DEFROSTER NOZZLE DUCT (for TMMK Made) (See page IP-43)
- 83. INSTALL INSTRUMENT PANEL SAFETY PAD ASSEMBLY (for TMC Made) (See page IP-44)
- 84. INSTALL INSTRUMENT PANEL SAFETY PAD ASSEMBLY (for TMMK Made) (See page IP-45)
- 85. INSTALL NO. 1 DEFROSTER NOZZLE GARNISH (See page IP-48)
- 86. INSTALL FRONT NO. 2 SPEAKER ASSEMBLY (for LH Side) (See page AV-156)
- 87. INSTALL INSTRUMENT PANEL NO. 1 SPEAKER PANEL SUB-ASSEMBLY (See page IP-48)
- 88. INSTALL INSTRUMENT PANEL NO. 1 REGISTER ASSEMBLY (See page IP-48)
- 89. INSTALL FRONT PILLAR GARNISH LH (See page IR-51)
- 90. INSTALL FRONT NO. 2 SPEAKER ASSEMBLY (for RH Side) HINT:

Use the same procedures for the RH side and the LH side (See page AV-156).

- 91. INSTALL INSTRUMENT PANEL NO. 2 SPEAKER PANEL SUB-ASSEMBLY (See page IP-49)
- 92. INSTALL INSTRUMENT PANEL NO. 3 REGISTER ASSEMBLY (See page IP-49)
- AV
- 93. INSTALL FRONT PILLAR GARNISH RH (See page IR-52)
- 94. INSTALL NO. 1 CONSOLE BOX INSERT FRONT (for TMC Made) (See page IP-49)
- 95. INSTALL NO. 1 CONSOLE BOX INSERT FRONT (for TMMK Made) (See page IP-50)

- 96. INSTALL NO. 2 CONSOLE BOX INSERT FRONT (for TMC Made) (See page IP-50)
- 97. INSTALL NO. 2 CONSOLE BOX INSERT FRONT (for TMMK Made) (See page IP-50)
- 98. INSTALL CONSOLE BOX ASSEMBLY (for TMC Made) (See page IP-51)
- 99. INSTALL CONSOLE BOX ASSEMBLY (for TMMK Made) (See page IP-51)
- 100. INSTALL CONSOLE BOX CARPET (See page IP-51)
- 101. INSTALL CONSOLE BOX POCKET (See page IP-51)
- 102. INSTALL RADIO RECEIVER WITH HEATER CONTROL PANEL ASSEMBLY (w/o Navigation System) (See page AV-147)
- 103. INSTALL NAVIGATION RECEIVER WITH HEATER CONTROL PANEL ASSEMBLY (w/ Navigation System) (See page NS-196)
- 104. INSTALL INSTRUMENT PANEL NO. 2 REGISTER ASSEMBLY (See page IP-52)
- 105. INSTALL UPPER CONSOLE PANEL SUB-ASSEMBLY (for TMC Made) (See page IP-52)
- 106. INSTALL UPPER CONSOLE PANEL SUB-ASSEMBLY (for TMMK Made) (See page IP-52)
- 107. INSTALL UPPER CONSOLE REAR PANEL SUB-ASSEMBLY (for Automatic Transaxle) (See page IP-53)
- 108. INSTALL UPPER CONSOLE REAR PANEL SUB-ASSEMBLY (for Manual Transaxle) (See page IP-53)
- 109. INSTALL FLOOR SHIFT POSITION INDICATOR HOUSING SUB-ASSEMBLY (for Automatic Transaxle) (See page IP-53)
- 110. INSTALL UPPER CONSOLE PANEL (for Manual Transaxle) (See page IP-54)
- 111. INSTALL NO. 2 INSTRUMENT CLUSTER FINISH PANEL GARNISH (See page IP-54)
- 112. INSTALL NO. 1 INSTRUMENT CLUSTER FINISH PANEL GARNISH (See page IP-55)
- 113. INSTALL SHIFT LEVER KNOB SUB-ASSEMBLY (for Automatic Transaxle) (See page IP-55)
- 114. INSTALL SHIFT LEVER KNOB SUB-ASSEMBLY (for Manual Transaxle) (See page IP-55)
- 115. INSTALL LOWER INSTRUMENT PANEL SUB-ASSEMBLY (for TMC Made) (See page IP-55)
- 116. INSTALL LOWER INSTRUMENT PANEL SUB-ASSEMBLY (for TMMK Made) (See page IP-56)

- 117. INSTALL INSTRUMENT PANEL NO. 2 UNDER COVER SUB-ASSEMBLY (See page IP-56)
- 118. INSTALL COWL SIDE TRIM SUB-ASSEMBLY RH (See page IR-55)
- 119. INSTALL FRONT DOOR SCUFF PLATE RH (See page IR-55)
- 120. INSTALL COMBINATION METER ASSEMBLY (for TMC Made) (See page IP-56)
- 121. INSTALL COMBINATION METER ASSEMBLY (for TMMK Made) (See page IP-56)
- 122. INSTALL INSTRUMENT CLUSTER FINISH PANEL (See page IP-57)
- 123. INSTALL LOWER INSTRUMENT PANEL FINISH PANEL (w/o Smart Key System) (See page IP-57)
- 124. INSTALL LOWER INSTRUMENT PANEL FINISH PANEL (w/ Smart Key System) (See page IP-57)
- 125. INSTALL NO. 1 INSTRUMENT PANEL SUB-ASSEMBLY (See page IP-57)
- 126. INSTALL TURN SIGNAL SWITCH ASSEMBLY WITH SPIRAL CABLE SUB-ASSEMBLY
- 127. ADJUST SPIRAL CABLE SUB-ASSEMBLY (See page RS-367)
- 128. INSTALL STEERING COLUMN COVER (for TMC Made) (See page IP-58)
- 129. INSTALL STEERING COLUMN COVER (for TMMK Made) (See page IP-58)
- 130. INSTALL LOWER INSTRUMENT PANEL FINISH PANEL LH (for TMC Made) (See page IP-58)
- 131. INSTALL LOWER INSTRUMENT PANEL FINISH PANEL LH (for TMMK Made) (See page IP-59)
- 132. INSTALL COWL SIDE TRIM SUB-ASSEMBLY LH (See page IR-54)
- 133. INSTALL FRONT DOOR SCUFF PLATE LH (See page IR-54)
- 134. INSTALL STEERING WHEEL ASSEMBLY (See page SR-51)
- 135. INSTALL STEERING PAD (See page RS-350)
- 136. INSTALL LOWER NO. 3 STEERING WHEEL COVER (See page RS-351)
- 137. INSTALL LOWER NO. 2 STEERING WHEEL COVER (See page RS-352)
- 138. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL
- **139. INSPECT FRONT SEAT ASSEMBLY**



### 140. INSPECT FRONT SEAT ADJUSTER ASSEMBLY

### 141. INSPECT STEERING PAD (See page RS-352)

- 142. PERFORM ZERO POINT CALIBRATION AND SENSITIVITY CHECK (for Front Passenger Seat) (See page RS-242)
- 143. INSPECT SRS WARNING LIGHT (See page RS-32)



# **RADIO ANTENNA CORD**

## COMPONENTS



























AV





























## **AMPLIFIER ANTENNA**

### **COMPONENTS**










# AV

- 1. REMOVE REAR SEAT HEADREST ASSEMBLY
- 2. REMOVE REAR CENTER SEAT HEADREST ASSEMBLY
- 3. REMOVE REAR SEAT CUSHION ASSEMBLY (See page SE-62)
- 4. REMOVE REAR SEAT BACK ASSEMBLY (for Fixed Seat Type) (See page SE-77)
- 5. REMOVE SEPARATE TYPE REAR SEAT BACK ASSEMBLY RH (for Fold Down Seat Type) (See page SE-48)
- 6. REMOVE SEPARATE TYPE REAR SEAT BACK ASSEMBLY LH (for Fold Down Seat Type) (See page SE-47)
- 7. REMOVE REAR SIDE SEAT BACK ASSEMBLY LH (for Fold Down Seat Type) (See page SE-48)
- 8. REMOVE REAR SIDE SEAT BACK ASSEMBLY RH (for Fold Down Seat Type) (See page SE-48)
- 9. REMOVE REAR SEAT BACK COVER (for Reclining Seat Type) (See page SE-63)
- 10. REMOVE SEPARATE TYPE REAR SEAT BACK ASSEMBLY LH (for Reclining Seat Type) (See page SE-63)
- 11. REMOVE SEPARATE TYPE REAR SEAT BACK ASSEMBLY RH (for Reclining Seat Type) (See page SE-64)
- 12. REMOVE CENTER SEAT BACK ASSEMBLY (for Reclining Seat Type) (See page SE-64)
- 13. REMOVE REAR DOOR SCUFF PLATE LH (See page IR-24)
- 14. DISCONNECT REAR DOOR OPENING TRIM WEATHERSTRIP LH (for Reclining Seat Type)
- 15. REMOVE REAR DOOR SCUFF PLATE RH (See page IR-24)
- 16. DISCONNECT REAR DOOR OPENING TRIM WEATHERSTRIP RH (for Reclining Seat Type)
- 17. REMOVE RECLINING REMOTE CONTROL LEVER SUB-ASSEMBLY LH (for Reclining Seat Type) (See page SE-68)
- 18. REMOVE RECLINING REMOTE CONTROL LEVER SUB-ASSEMBLY RH (for Reclining Seat Type)
- **19. REMOVE ROOF SIDE INNER GARNISH RH** HINT:

Use the same procedures for the RH side and the LH side (see page IR-26).











#### 20. REMOVE AMPLIFIER ANTENNA ASSEMBLY

- (a) Disconnect each connector.
- (b) Standard audio system:
  - (1) Remove the bolt and amplifier antenna assembly.

- (c) Premium audio system:
  - (1) Remove the 2 bolts and amplifier antenna assembly.

# INSTALLATION

#### 1. INSTALL AMPLIFIER ANTENNA ASSEMBLY

- (a) Standard audio system:
  - (1) Install the amplifier antenna assembly with the bolt.
  - (b) Premium audio system:
    - (1) Install the amplifier antenna assembly with the 2 bolts.
- (c) Connect each connector.
- 2. INSTALL ROOF SIDE INNER GARNISH RH HINT:

Use the same procedures for the RH side and the LH side (see page IR-52).

3. INSTALL RECLINING REMOTE CONTROL LEVER SUB-ASSEMBLY LH (for Reclining Seat Type) (See page SE-69)

- 4. INSTALL RECLINING REMOTE CONTROL LEVER SUB-ASSEMBLY RH (for Reclining Seat Type) (See page SB-53)
- 5. CONNECT REAR DOOR OPENING TRIM WEATHERSTRIP LH (for Reclining Seat Type) (See page IR-55)

- 6. INSTALL REAR DOOR SCUFF PLATE LH (See page IR-56)
- 7. CONNECT REAR DOOR OPENING TRIM WEATHERSTRIP RH (for Reclining Seat Type) (See page IR-56)
- 8. INSTALL REAR DOOR SCUFF PLATE RH (See page IR-56)
- 9. INSTALL CENTER SEAT BACK ASSEMBLY (for Reclining Seat Type) (See page SE-71)
- 10. INSTALL SEPARATE TYPE REAR SEAT BACK ASSEMBLY LH (for Reclining Seat Type) (See page SE-72)
- 11. INSTALL SEPARATE TYPE REAR SEAT BACK ASSEMBLY RH (for Reclining Seat Type) (See page SE-71)
- 12. INSTALL REAR SEAT BACK COVER (for Reclining Seat Type)
- 13. INSTALL REAR SIDE SEAT BACK ASSEMBLY LH (for Fold Down Seat Type) (See page SE-57)
- 14. INSTALL REAR SIDE SEAT BACK ASSEMBLY RH (for Fold Down Seat Type)
- 15. INSTALL SEPARATE TYPE REAR SEAT BACK ASSEMBLY LH (for Fold Down Seat Type) (See page SE-57)
- 16. INSTALL SEPARATE TYPE REAR SEAT BACK ASSEMBLY RH (for Fold Down Seat Type)
- 17. INSTALL REAR SEAT BACK ASSEMBLY (for Fixed Seat Type) (See page SE-84)
- 18. INSTALL REAR CENTER SEAT HEADREST ASSEMBLY
- **19. INSTALL REAR SEAT HEADREST ASSEMBLY**
- 20. INSTALL REAR SEAT CUSHION ASSEMBLY (See page SE-58)



### **AUDIO TERMINAL**

### COMPONENTS





- 1. REMOVE SHIFT LEVER KNOB SUB-ASSEMBLY (for Automatic Transaxle) (See page IP-24)
- 2. REMOVE SHIFT LEVER KNOB SUB-ASSEMBLY (for Manual Transaxle) (See page IP-24)
- 3. REMOVE NO. 1 INSTRUMENT CLUSTER FINISH PANEL GARNISH (See page IP-24)
- 4. REMOVE NO. 2 INSTRUMENT CLUSTER FINISH PANEL GARNISH (See page IP-25)
- 5. REMOVE FLOOR SHIFT POSITION INDICATOR HOUSING SUB-ASSEMBLY (for Automatic Transaxle) (See page IP-25)
- 6. REMOVE UPPER CONSOLE PANEL (for Manual Transaxle) (See page IP-25)
- 7. REMOVE UPPER CONSOLE REAR PANEL SUB-ASSEMBLY (for Automatic Transaxle) (See page IP-26)
- 8. REMOVE UPPER CONSOLE REAR PANEL SUB-ASSEMBLY (for Manual Transaxle) (See page IP-26)
- 9. REMOVE UPPER CONSOLE PANEL SUB-ASSEMBLY (See page IP-27)
- 10. REMOVE AUDIO TERMINAL
  - (a) Disengage the 2 claws and remove the audio terminal.





### INSTALLATION

- INSTALL AUDIO TERMINAL

   (a) Engage the 2 claws and install the audio terminal.
- 2. INSTALL UPPER CONSOLE PANEL SUB-ASSEMBLY (See page IP-52)
- 3. INSTALL UPPER CONSOLE REAR PANEL SUB-ASSEMBLY (for Automatic Transaxle) (See page IP-53)
- 4. INSTALL UPPER CONSOLE REAR PANEL SUB-ASSEMBLY (for Manual Transaxle) (See page IP-53)
- 5. INSTALL FLOOR SHIFT POSITION INDICATOR HOUSING SUB-ASSEMBLY (for Automatic Transaxle) (See page IP-53)
- 6. INSTALL UPPER CONSOLE PANEL (for Manual Transaxle) (See page IP-54)

AV

- 7. INSTALL NO. 2 INSTRUMENT CLUSTER FINISH PANEL GARNISH (See page IP-54)
- 8. INSTALL NO. 1 INSTRUMENT CLUSTER FINISH PANEL GARNISH (See page IP-55)
- 9. INSTALL SHIFT LEVER KNOB SUB-ASSEMBLY (for Automatic Transaxle) (See page IP-55)
- 10. INSTALL SHIFT LEVER KNOB SUB-ASSEMBLY (for Manual Transaxle) (See page IP-55)

# **STEERING PAD SWITCH**

### COMPONENTS





- 1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL CAUTION: Wait for 90 seconds after disconnecting the cable to prevent the airbag working.
- 2. REMOVE NO. 3 LOWER STEERING WHEEL COVER (See page RS-349)
- 3. REMOVE NO. 2 LOWER STEERING WHEEL COVER (See page RS-349)
- 4. REMOVE STEERING PAD (See page RS-350)
- 5. REMOVE STEERING PAD SWITCH LH (for 4 Spoke)
  - (a) Disconnect the pad switch connector from the spiral cable.
  - (b) Remove the screw.
  - (c) Disengage the 2 pins and remove the steering pad switch LH.
- 6. REMOVE STEERING PAD SWITCH ASSEMBLY (for 4 Spoke)
  - (a) Disconnect the pad switch connector from the spiral cable.
  - (b) Remove the screw.
  - (c) Disengage the 2 pins and remove the steering pad switch.
  - (d) Remove the screw.
  - (e) Disengage the 2 pins and remove the steering pad switch assembly.















#### 7. REMOVE STEERING PAD SWITCH LH (for 3 Spoke)

- (a) Disconnect the pad switch connector from the spiral cable and disengage the clamp.
- (b) Remove the screw.
- (c) Disengage the 2 pins and remove the steering pad switch LH.
- 8. REMOVE STEERING PAD SWITCH ASSEMBLY (for 3 Spoke)
  - (a) Disconnect the pad switch connector from the spiral cable.
  - (b) Disengage the clamp and remove the screw.
  - (c) Disengage the 2 pins and remove the steering pad switch.
  - (d) Disengage the clamp and remove the screw.
  - (e) Disengage the 2 pins and remove the steering pad switch assembly.

# INSPECTION

#### 1. INSPECT STEERING PAD SWITCH

(a) Disconnect the steering pad switch assembly connector.



(b) Measure the resistance according to the values in the table below.

#### **Standard resistance**

Tester connection	Condition	Specified condition
AU1 - EAU	No switch is pushed	Approx. 100 kΩ
AU1 - EAU	SEEK+ switch: push	<b>0</b> to 2.5 Ω
AU1 - EAU	SEEK- switch: push	<b>Αpprox. 0.3 k</b> Ω
AU1 - EAU	VOL+ switch: push	Approx. 1 k $\Omega$
AU1 - EAU	VOL- switch: push	Approx. 3.1 k $\Omega$
AU2 - EAU	No switch is pushed	<b>Approx. 100 k</b> Ω



Tester connection	Condition	Specified condition
AU2 - EAU	MODE switch: push	<b>0</b> to 2.5 Ω
AU2 - EAU	VOICE switch: push (*1)	Approx. 3.1 kΩ
AU2 - EAU	ON HOOK switch: push (*2)	Approx. 0.3 k $\Omega$
AU2 - EAU	OFF HOOK switch: push (*2)	Approx. 1 kΩ

- \*1: with Navigation System
- \*2: with "Bluetooth" Module

If the result is not as specified, replace the steering pad switch.

# INSTALLATION

- 1. INSTALL STEERING PAD SWITCH ASSEMBLY (for 4 Spoke)
  - (a) Engage the 2 pins and install the steering pad switch assembly.
  - (b) Install the screw.
     Torque: 2.4 N\*m (24 kgf\*cm, 21 in.\*lbf)
  - (c) Engage the 2 pins and install the steering pad switch assembly.
  - (d) Install the screw. Torque: 2.4 N\*m (24 kgf\*cm, 21 in.\*lbf)
  - (e) Connect the connector to the spiral cable.
- 2. INSTALL STEERING PAD SWITCH LH (for 4 Spoke)
  - (a) Engage the 2 pins and install the steering pad switch LH.
  - (b) Install the screw. Torque: 2.4 N\*m (24 kgf\*cm, 21 in.\*lbf)
  - (c) Connect the connector to the spiral cable.
- 3. INSTALL STEERING PAD SWITCH ASSEMBLY (for 3 Spoke)
  - (a) Engage the 2 pins and install the steering pad switch assembly.
  - (b) Install the screw and engage the clamp. Torque: 2.4 N\*m (24 kgf\*cm, 21 in.\*lbf)















- (c) Engage the 2 pins and install the steering pad switch assembly.
- (d) Install the screw and engage the clamp. Torque: 2.4 N\*m (24 kgf\*cm, 21 in.\*lbf)
- (e) Connect the connector to the spiral cable.

#### 4. INSTALL STEERING PAD SWITCH LH (for 3 Spoke)

- (a) Engage the 2 pins and install the steering pad switch LH.
- (b) Install the screw and engage the clamp. Torque: 2.4 N\*m (24 kgf\*cm, 21 in.\*lbf)
- (c) Connect the connector to the spiral cable.
- 5. INSTALL STEERING PAD (See page RS-350)
- 6. INSTALL NO. 3 LOWER STEERING WHEEL COVER (See page RS-351)
- 7. INSTALL NO. 2 LOWER STEERING WHEEL COVER (See page RS-352)
- 8. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL
- 9. INSPECT SRS WARNING LIGHT (See page RS-32)

# **MICROPHONE**

# COMPONENTS





- 1. REMOVE ROOF CONSOLE BOX ASSEMBLY (See page IR-28)
- 2. REMOVE TELEPHONE MICROPHONE ASSEMBLY
  - (a) Disconnect the connector.
  - (b) Disengage the 2 claws and remove the telephone microphone assembly.



#### 

# INSTALLATION

- 1. INSTALL TELEPHONE MICROPHONE ASSEMBLY
  - (a) Engage the 2 claws and install the telephone microphone assembly.
  - (b) Connect the connector.
- 2. INSTALL ROOF CONSOLE BOX ASSEMBLY (See page IR-50)









# WINDOW GLASS ANTENNA WIRE

# **ON-VEHICLE INSPECTION**

- 1. INSPECT WINDOW GLASS ANTENNA WIRE
  - (a) Check for continuity of the antenna. HINT:

Check for continuity at the center of each antenna wire as shown in the illustration. **NOTICE:** 

- When cleaning the glass, wipe it in the direction of the wire with a soft, dry cloth. Take care not to damage the wire. Do not use detergents or glass cleaners with abrasive ingredients.
- When measuring voltage, wrap a piece of tin foil around the tip of the negative probe and press the foil against the wire with your finger, as shown in the illustration.

OK:

There is continuity in the antenna.

If the result is not as specified, repair the window glass antenna wire.

### REPAIR

- 1. WINDOW GLASS ANTENNA WIRE NOTICE:
  - When cleaning the glass, wipe it in the direction of the wire with a soft, dry cloth. Take care not to damage the wire. Do not use detergents or glass cleaners with abrasive ingredients.
  - When measuring voltage, wrap a piece of tin foil around the tip of the negative probe and press the foil against the wire with your finger, as shown in the illustration.
  - (a) Check the voltage at the center of each wire, as shown in the illustration.





#### 2. REPAIR WINDOW GLASS ANTENNA WIRE

- (a) Clean the broken wire tips with a grease, wax and silicone remover.
- (b) Place masking tape along both sides of the wire to be repaired.
- (c) Thoroughly mix the repair agent (Dupont paste No. 4817 or equivalent).
- (d) Using a fine tip brush, apply a small amount of the repair agent to the wire.
- (e) After a few minutes, remove the masking tape.