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2009 ACCESSORIES & EQUIPMENT Audio/Visual - Highlander

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Audio/Visual - Highlander

AUDIO AND VISUAL SYSTEM

PRECAUTION

1. PRECAUTION FOR DISCONNECTING THE BATTERY CABLE

NOTE: When disconnecting the negative (-) battery terminal, initialize the following systems after the terminal is reconnected.

SYSTEM PROCEDURE CHART

System Name	See Procedure
Parking Assist Monitor System	See **INITIALIZATION**

2. EXPRESSIONS OF IGNITION SWITCH

a. The type of ignition switch used on this model differs according to the specifications of the vehicle. The expressions listed in the table below are used in this section.

SWITCH REFERENCE CHART

Switch Type		Ignition Switch (Position)	Engine Switch (Condition)
Expression	Ignition switch off	LOCK	Off
	Ignition switch on (IG)	ON	On (IG)
	Ignition switch on (ACC)	ACC	On (ACC)
	Engine start	START	Start

PARTS LOCATION

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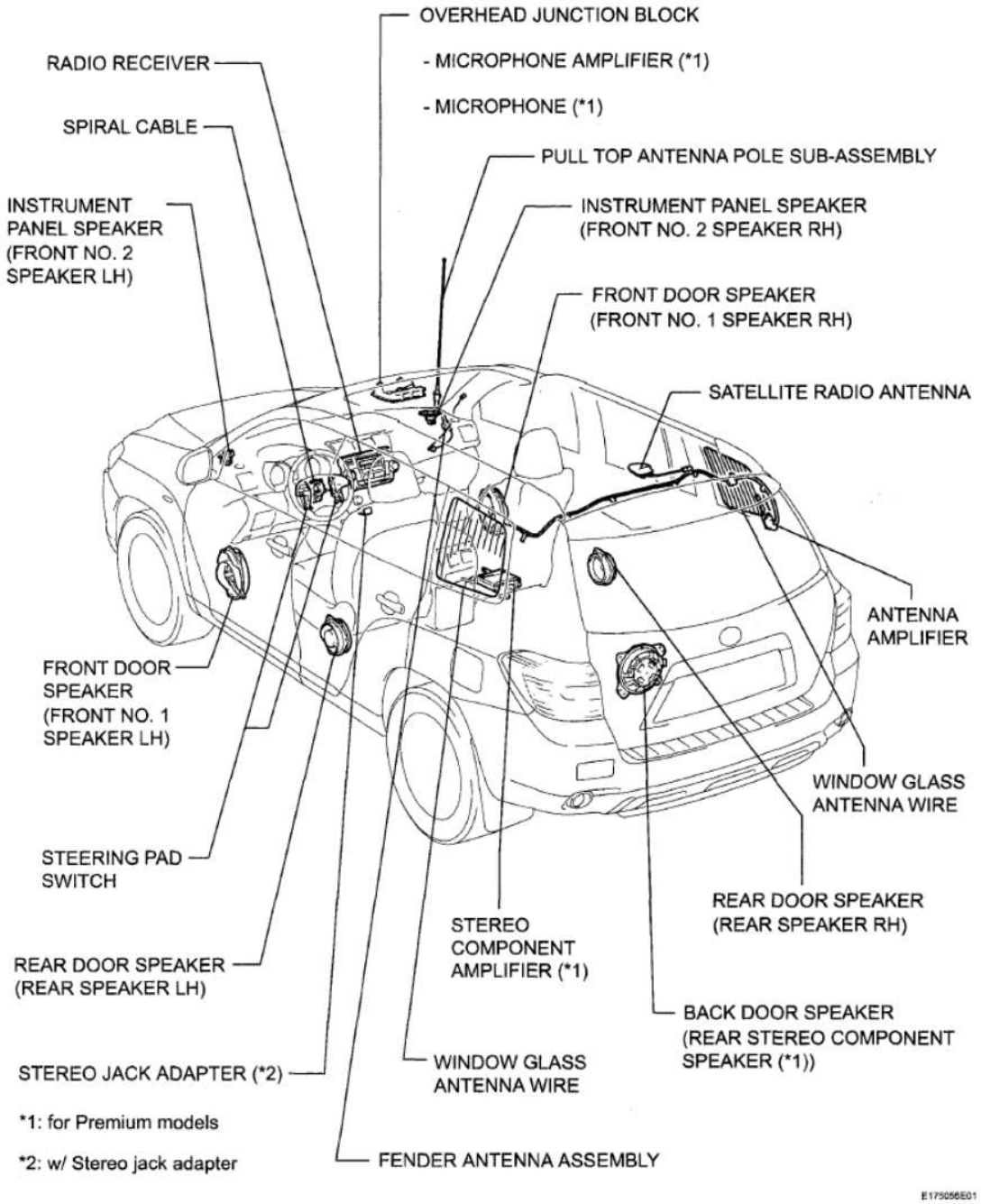


Fig. 1: Identifying Audio And Visual System Parts Location
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

SYSTEM DIAGRAM

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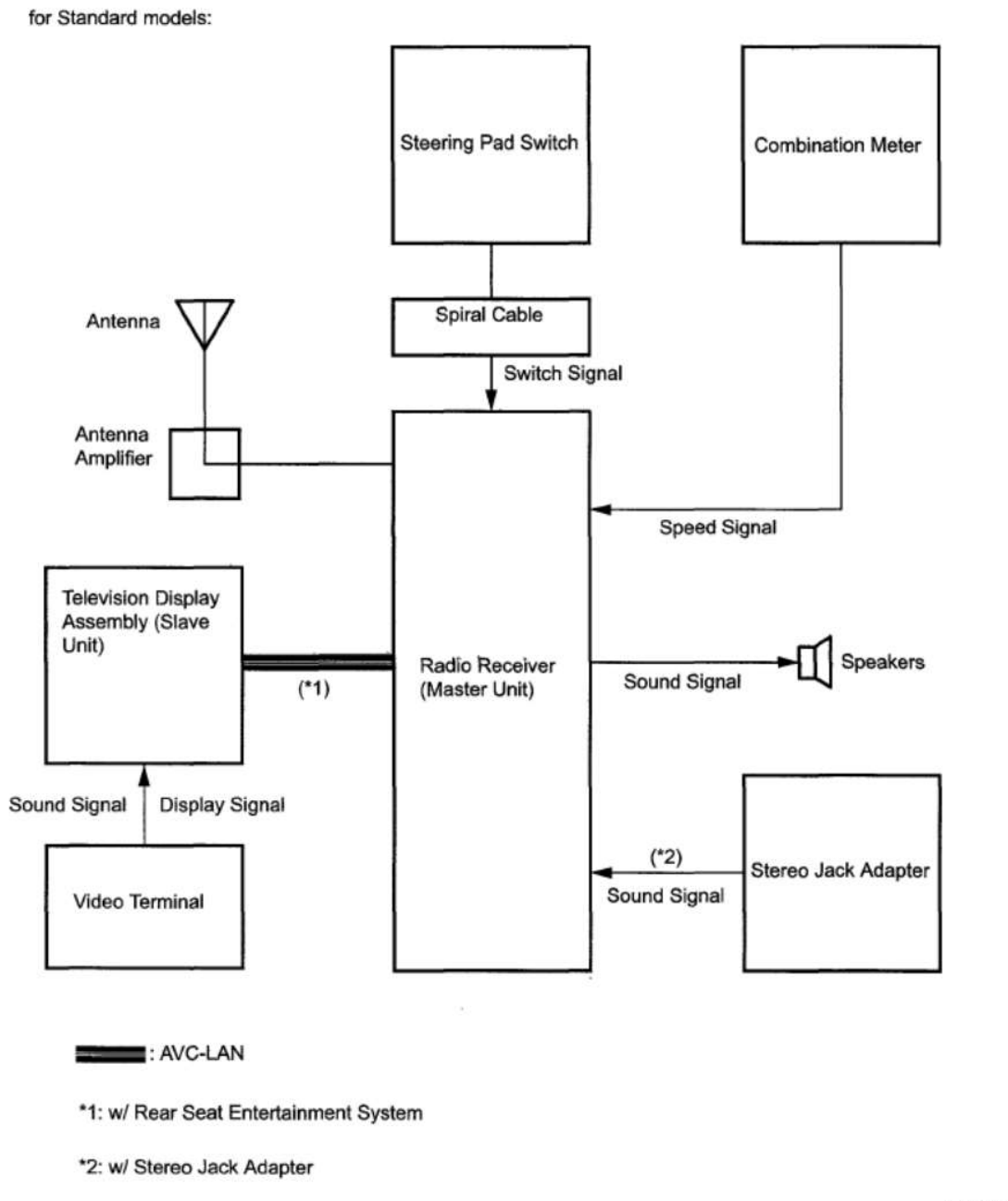


Fig. 2: Audio And Visual System Diagram (1 Of 2)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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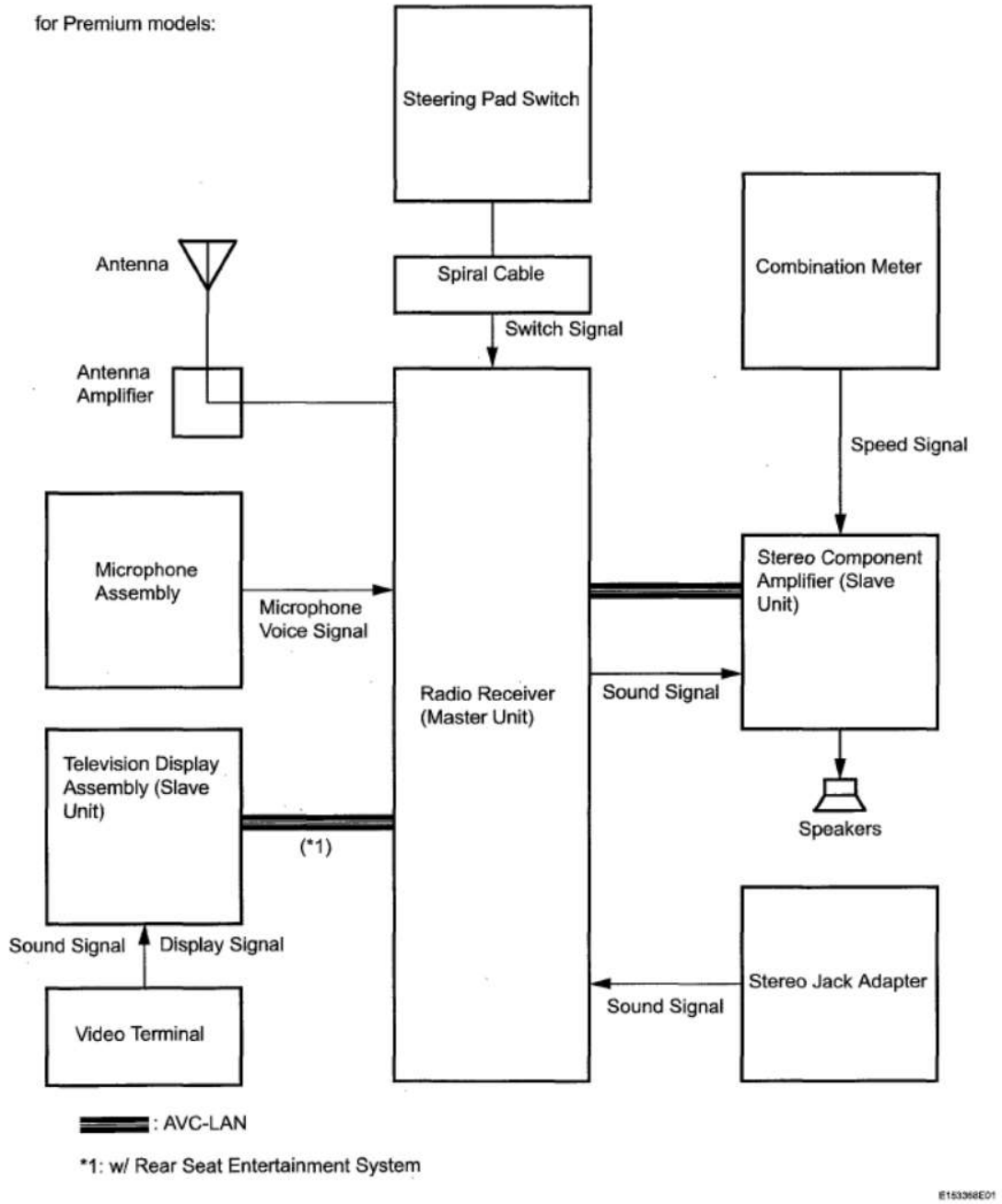


Fig. 3: Audio And Visual System Diagram (2 Of 2)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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.

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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.

NOTE:

- **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

1. The CD player can only play audio CDs, CD-Rs (CD-Recordable), and CD-RWs (CD-ReWritable) that have any of the following marks:



Fig. 4: Identifying Disc Marks
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

c. Precautions for use of discs

NOTE:

- **Copy-protected CDs cannot be played.**
- **CD-Rs and CD-RWs may not be played depending on the recording conditions or characteristics of the discs, or due to damage, dirt, or deterioration caused by leaving the discs in the cabin for a long time.**
- **Unfinalized CD-Rs and CD-RWs cannot be played.**
- **Keep the discs away from dirt. Be careful not to damage the discs or leave your fingerprints on them.**
- **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, CD-R 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.**

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- **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 condensation may form in the player. In such cases, the CD may skip or 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

NOTE: 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.

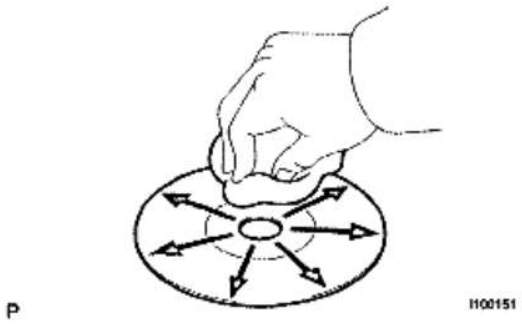


Fig. 5: Cleaning Disc Surface With Soft Dry Cloth
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

NOTE:

- **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

FILE STANDARDS REFERENCE CHART

Compatible standard	MP3 (MPEG1 LAYER3, MPEG2 LSF LAYER3)
Compatible sampling	• MPEG1 LAYER3: 32, 44.1, 48 (kHz)

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frequency	• MPEG2 LSF LAYER3: 16, 22.05, 24 (kHz)
Compatible bit rate	• MPEG1 LAYER3: 64, 80, 96, 112, 128, 160, 192, 224, 256, 320 (kbps) • MPEG2 LSF LAYER3: 64, 80, 96, 112, 128, 144, 160 (kbps) • Compatible with VBR
Compatible channel mode	Stereo, joint stereo, dual channel, monaural

b. Playable WMA file standards

FILE STANDARDS REFERENCE CHART

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

c. ID3 tag and WMA tag

1. 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

1. Only CD-ROMs, CD-Rs (CD-Recordable), and CD-RWs (CD-ReWritable) can be used to play MP3/WMA files.

NOTE:

- **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 do not play.**
- **If there are fingerprints or scratches on the disc, the disc may not play or the CD may skip.**
- **Some CD-Rs and CD-RWs may deteriorate if they are left in the cabin for a long time.**
- **Keep CD-Rs and CD-RWs in an opaque case.**

e. Usable media format

1. Usable media format

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MEDIA FORMAT REFERENCE CHART

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 listed format, the contents of the files may not play normally or the file names or folder names may not display 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.

2. Standard and restrictions

STANDARD AND RESTRICTIONS REFERENCE CHART

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

1. 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".

NOTE: 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?

Example:

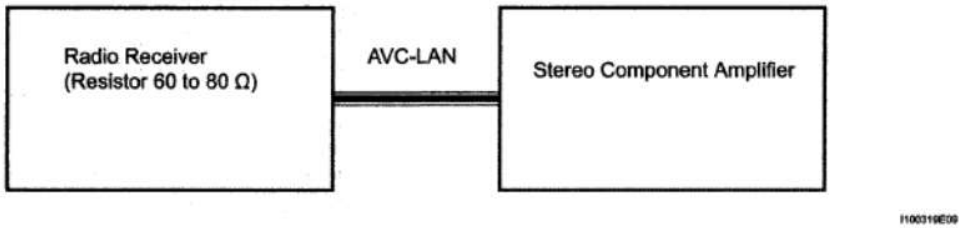


Fig. 6: AVC-LAN Communication Diagram

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Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

AVC-LAN, an abbreviation for "Audio Visual Communication Local Area Network", is a united standard developed by the manufacturers in affiliation with Toyota Motor Corporation. This standard pertains to audio and visual signals as well as switch and communication signals.

b. Purpose:

Recently, car audio systems have rapidly developed and the functions have vastly changed. The conventional car audio system is being integrated with multi-media interfaces similar to those in navigation systems. At the same time, customers are demanding higher quality from their audio systems. This is merely an overview of the standardization background. The specific purposes are as follows:

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.
- 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 (3-digit) 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 ohms 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

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makes it possible to connect a cellular phone ("Bluetooth" compatible phone*1) 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.

*1 : Some versions of "Bluetooth" compatible cellular phones may not function.

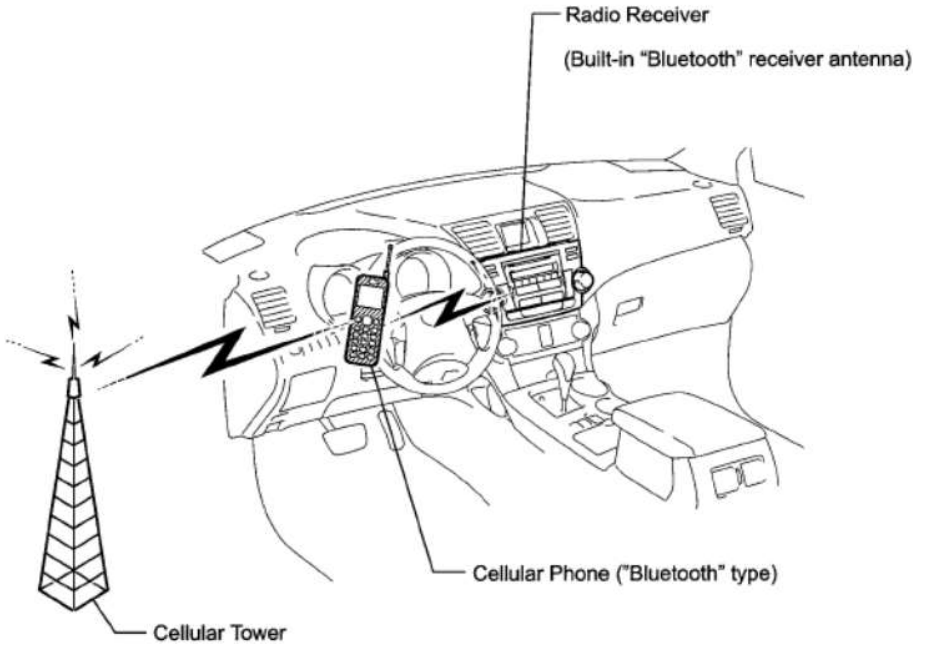


Fig. 7: Identifying Bluetooth Radio Wave
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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.

7. **ASL (Automatic Sound Levelizer) FUNCTION OUTLINE**
   a. The ASL (Automatic Sound Levelizer) function automatically adjusts the sound data in order to enable to hear the clear audio sound even when vehicle noise increases (as vehicle noise increases, the volume is turned up etc.). Vehicle speed signals are received from the combination meter and used for the ASL (Automatic Sound Levelizer).

HOW TO PROCEED WITH TROUBLESHOOTING

1. **VEHICLE BROUGHT TO WORKSHOP**
2. **INSPECT BATTERY VOLTAGE**

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Standard voltage:

11 to 14 V

If the voltage is below 11 V, recharge or replace the battery before proceeding.

3. **BASIC INSPECTION**
   a. Turn the ignition switch on (IG).
   b. Check whether or not the radio receiver turns on.

Result

RESULT CHART

Result	Proceed to
Radio receiver turns on	A
Radio receiver does not turn on	B

B: Go to step 6

A: Go to next step

4. **CHECK FOR DTC**
   a. Check for DTCs and note any codes that are output.
   b. Delete the DTCs.
   c. Recheck for DTCs by simulating the operation indicated by the DTCs.

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.
- Even if the malfunction symptom is not confirmed, check the DTCs. This is because the system stores past DTCs.
- Check and clear past DTCs. Then check for DTCs.

Result

RESULT CHART

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

B: Go to step 6

A: Go to next step

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5. **DIAGNOSTIC TROUBLE CODE CHART**

   Find the output code in the diagnostic trouble code chart (See **DIAGNOSTIC TROUBLE CODE CHART**).

   NEXT: Go to step 8

6. **PROBLEM SYMPTOMS TABLE**

   Refer to the **PROBLEM SYMPTOMS TABLE** (See **PROBLEM SYMPTOMS TABLE**).

   Result

   RESULT CHART

Result	Proceed to
Fault is not listed in problem symptoms table	A
Fault is listed in problem symptoms table	B

   B: Go to step 8

   A: Go to next step

7. **OVERALL ANALYSIS AND TROUBLESHOOTING**
   a. Terminals of ECU (See **TERMINALS OF ECU**).
8. **ADJUST, REPAIR OR REPLACE**
9. **CONFIRMATION TEST**

   NEXT: 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.

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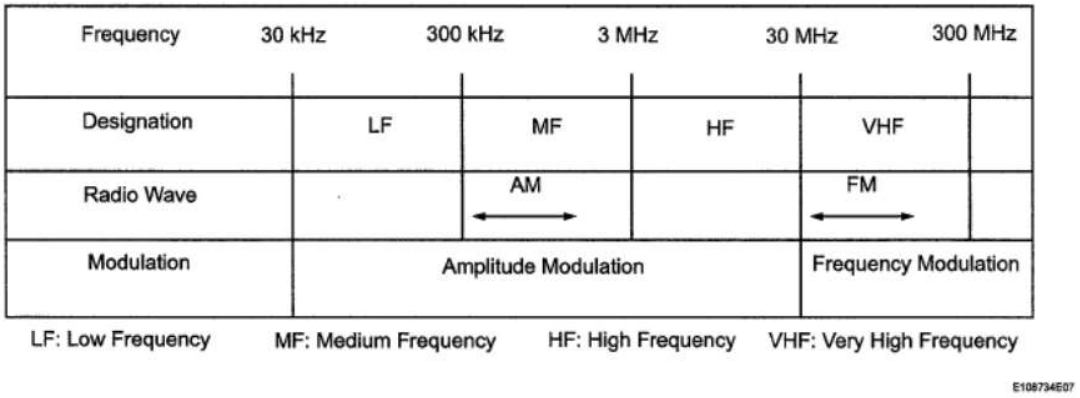


Fig. 8: Radio Broadcasts Radio Frequency Bands Chart
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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.

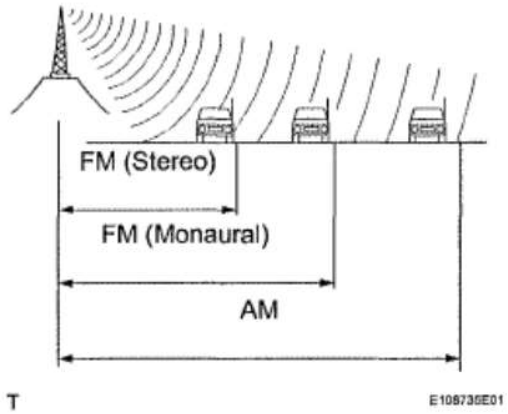


Fig. 9: Identifying Service Areas Of AM And FM Broadcasts
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

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ionosphere and the other signal is received directly from the transmitter.

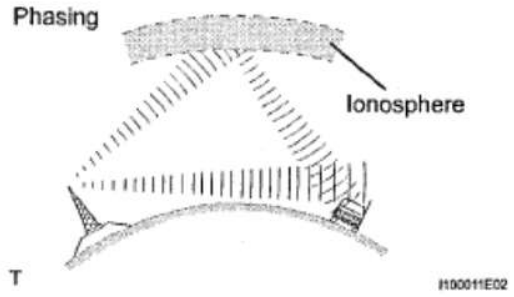


Fig. 10: Identifying Radio Phasing
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

2. Multipath

Multipath is a type of interference created when 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.

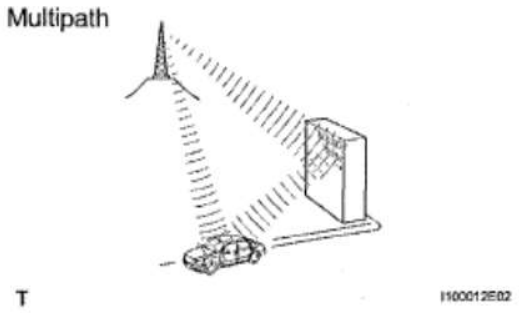


Fig. 11: Identifying Radio Multipath
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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 less likely to deflect.

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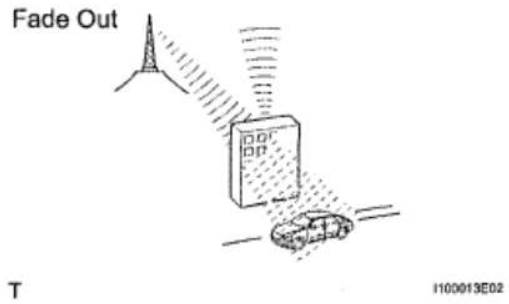


Fig. 12: Identifying Radio Fade Out
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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 REFERENCE CHART

Radio Frequency	Noise Occurrence Condition	Presumable Cause
AM	Noise occurs in a specified area	Foreign noise
AM	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	Signal phasing
FM	Noise occurs while driving in a specified area	Multipath resulting from a change in FM frequency

PROBLEM SYMPTOMS TABLE

HINT:

Use the table below to help determine the cause of a problem. The likely causes of the problem are indicated in descending order. Check each suspected area in order. Repair or replace faulty parts or perform adjustments as necessary.

Audio Function:

AUDIO FUNCTION SYMPTOMS CHART

Symptom	Suspected Area	Refer to
Pressing power switch does not turn on system.	Proceed to "Pressing Power Switch does not Turn on System"	**PRESSING POWER SWITCH DOES NOT TURN ON SYSTEM**
	Radio receiver power source circuit	**RADIO RECEIVER POWER SOURCE CIRCUIT**
	AVC-LAN circuit	**AVC-LAN CIRCUIT**

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	Radio receiver	**INSTALLATION**
Panel switch does not function.	Steering pad switch circuit	**STEERING PAD SWITCH CIRCUIT**
	AVC-LAN circuit	**AVC-LAN CIRCUIT**
	Radio receiver	**INSTALLATION**
No sound can be heard from speakers. (Audio is mute.) (for premium models)	Radio receiver power source circuit	**RADIO RECEIVER POWER SOURCE CIRCUIT**
	Proceed to "No Sound can be Heard from Speakers"	**NO SOUND CAN BE HEARD FROM SPEAKERS**
	Stereo component amplifier power source circuit	**STEREO COMPONENT AMPLIFIER POWER SOURCE CIRCUIT**
	Proceed to "Sound Signal Circuit between Radio Receiver and Stereo Component Amplifier"	**SOUND SIGNAL CIRCUIT BETWEEN RADIO RECEIVER AND STEREO COMPONENT AMPLIFIER**
	Proceed to "Sound Signal Circuit between Radio Receiver and Television Display Assembly" (*2)	**SOUND SIGNAL CIRCUIT BETWEEN RADIO RECEIVER AND TELEVISION DISPLAY ASSEMBLY**
	Speaker circuit	**SPEAKER CIRCUIT**
	Proceed to "Mute Signal Circuit between Radio Receiver and Stereo Component Amplifier"	**MUTE SIGNAL CIRCUIT BETWEEN RADIO RECEIVER AND STEREO COMPONENT AMPLIFIER**
	Proceed to "Mute Signal Circuit between Radio Receiver and Television Display Assembly" (*2)	**MUTE SIGNAL CIRCUIT BETWEEN RADIO RECEIVER AND TELEVISION DISPLAY ASSEMBLY**
	Stereo component amplifier	**INSTALLATION**
	Radio receiver	**INSTALLATION**
	Television display assembly (*2)	**TELEVISION DISPLAY**
No sound can be heard from speakers. (Audio is mute.) (for standard models)	Radio receiver power source circuit	**RADIO RECEIVER POWER SOURCE CIRCUIT**
	Proceed to "No Sound can be Heard from Speakers"	**NO SOUND CAN BE HEARD FROM SPEAKERS**
	Proceed to "Sound Signal Circuit between Radio Receiver and Television Display Assembly" (*2)	**SOUND SIGNAL CIRCUIT BETWEEN RADIO RECEIVER AND TELEVISION DISPLAY ASSEMBLY**
	Speaker circuit	**SPEAKER CIRCUIT**
	Proceed to "Mute Signal Circuit between Radio Receiver and Television Display Assembly" (*2)	**MUTE SIGNAL CIRCUIT BETWEEN RADIO RECEIVER AND TELEVISION DISPLAY ASSEMBLY**
	Radio receiver	**INSTALLATION**

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	Television display assembly (*2)	**TELEVISION DISPLAY**
Sound quality is bad in all modes. (Volume is too low.) (for premium models)	Proceed to "Poor Sound Quality in All Modes (Low Volume)"	**POOR SOUND QUALITY IN ALL MODES (LOW VOLUME)**
	Speaker circuit.	**SPEAKER CIRCUIT**
	Proceed to "Sound Signal Circuit between Radio Receiver and Stereo Component Amplifier"	**SOUND SIGNAL CIRCUIT BETWEEN RADIO RECEIVER AND STEREO COMPONENT AMPLIFIER**
	Proceed to "Sound Signal Circuit between Radio Receiver and Television Display Assembly" (*2)	**SOUND SIGNAL CIRCUIT BETWEEN RADIO RECEIVER AND TELEVISION DISPLAY ASSEMBLY**
	Proceed to "Mute Signal Circuit between Radio Receiver and Stereo Component Amplifier"	**MUTE SIGNAL CIRCUIT BETWEEN RADIO RECEIVER AND STEREO COMPONENT AMPLIFIER**
	Proceed to "Mute Signal Circuit between Radio Receiver and Television Display Assembly" (*2)	**MUTE SIGNAL CIRCUIT BETWEEN RADIO RECEIVER AND TELEVISION DISPLAY ASSEMBLY**
	Stereo component amplifier	**INSTALLATION**
	Radio receiver	**INSTALLATION**
	Television display assembly (*2)	**TELEVISION DISPLAY**
Sound quality is bad in all modes. (Volume is too low.) (for standard models)	Proceed to "Poor Sound Quality in All Modes (Low Volume)"	**POOR SOUND QUALITY IN ALL MODES (LOW VOLUME)**
	Proceed to "Sound Signal Circuit between Radio Receiver and Television Display Assembly" (*2)	**SOUND SIGNAL CIRCUIT BETWEEN RADIO RECEIVER AND TELEVISION DISPLAY ASSEMBLY**
	Speaker circuit	**SPEAKER CIRCUIT**
	Proceed to "Mute Signal Circuit between Radio Receiver and Television Display Assembly" (*2)	**MUTE SIGNAL CIRCUIT BETWEEN RADIO RECEIVER AND TELEVISION DISPLAY ASSEMBLY**
	Radio receiver	**INSTALLATION**
	Television display assembly (*2)	**TELEVISION DISPLAY**
ASL does not function, (for premium model)	Proceed to "Vehicle Speed Signal Circuit between Stereo Component Amplifier and Combination Meter"	**VEHICLE SPEED SIGNAL CIRCUIT BETWEEN STEREO COMPONENT AMPLIFIER AND COMBINATION METER**
ASL does not function, (for standard model)	Proceed to "Vehicle Speed Signal Circuit between Radio Receiver and Combination	**VEHICLE SPEED SIGNAL CIRCUIT BETWEEN RADIO RECEIVER AND COMBINATION METER**

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	Meter"	
External device sound cannot be heard or sound quality is bad. (Stereo jack is used.)	Radio receiver power source circuit	**RADIO RECEIVER POWER SOURCE CIRCUIT**
	Proceed to "Sound Signal Circuit between Radio Receiver and Stereo Jack Adapter"	**SOUND SIGNAL CIRCUIT BETWEEN RADIO RECEIVER AND STEREO JACK ADAPTER**
	Stereo jack adapter	**REMOVAL**
	Radio receiver	**INSTALLATION**
Abnormal noise occurs, (for premium models)	Proceed to "Noise occurs"	**NOISE OCCURS**
	Stereo component amplifier	**INSTALLATION**
	Radio receiver	**INSTALLATION**
Abnormal noise occurs, (for standard models)	Proceed to "Noise occurs"	**NOISE OCCURS**
	Radio receiver	**INSTALLATION**
Radio broadcast cannot be received or poor reception.	Proceed to "Radio Broadcast cannot be Received or Poor Reception"	**RADIO BROADCAST CANNOT BE RECEIVED OR POOR RECEPTION**
CD cannot be inserted/played or CD is ejected right after insertion.	Radio receiver power source circuit	**RADIO RECEIVER POWER SOURCE CIRCUIT**
	Proceed to "CD cannot be Inserted/Played or CD is Ejected Right After Insertion"	**CD CANNOT BE INSERTED/PLAYED OR CD IS EJECTED RIGHT AFTER INSERTION**
CD cannot be ejected.	Radio receiver power source circuit	**RADIO RECEIVER POWER SOURCE CIRCUIT**
	Proceed to "CD cannot be Ejected"	**CD CANNOT BE EJECTED**
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)"	**SOUND QUALITY IS BAD ONLY WHEN CD IS PLAYED (VOLUME IS TOO LOW)**
CD sound skips.	Proceed to "CD Sound Skips"	**CD SOUND SKIPS**
Radio receiver cannot be illuminated at night.	Illumination circuit	**ILLUMINATION CIRCUIT**
	Radio receiver	**INSTALLATION**

Steering Pad Switch Function:

STEERING PAD SWITCH FUNCTION SYMPTOM CHART

Symptom	Suspected Area	Refer to
Audio system cannot be operated with steering pad switch.	Steering pad switch circuit	**STEERING PAD SWITCH CIRCUIT**
	Radio receiver	**INSTALLATION**
Steering pad switch cannot be illuminated at night.	Illumination circuit	**ILLUMINATION CIRCUIT**
	Radio receiver	**INSTALLATION**

"Bluetooth" Function (*1):

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"BLUETOOTH" FUNCTION SYMPTOM CHART

Symptom	Suspected Area	Refer to
Cellular phone registration failure, phone directory transfer failure.	Proceed to "Cellular Phone Registration Failure, Phone Directory Transfer Failure"	CELLULAR PHONE REGISTRATION FAILURE, PHONE DIRECTORY TRANSFER FAILURE
Cellular phone cannot send/receive.	Proceed to "Cellular Phone cannot Send/Receive"	CELLULAR PHONE CANNOT SEND/RECEIVE
	Steering pad switch circuit	STEERING PAD SWITCH CIRCUIT
	Radio receiver	INSTALLATION
The other callers voice cannot be heard, is too quiet, or distorted.	Proceed to "The Other Callers Voice cannot be Heard, is too Quiet, or Distorted"	THE OTHER CALLER'S VOICE CANNOT BE HEARD, IS TOO QUIET, OR DISTORTED
	Proceed to "Cellular Phone Voice Circuit between Radio Receiver and Stereo Component Amplifier"	CELLULAR PHONE VOICE CIRCUIT BETWEEN RADIO RECEIVER AND STEREO COMPONENT AMPLIFIER
	Radio receiver	INSTALLATION
	Stereo component amplifier	INSTALLATION
The other caller cannot hear your voice, or your voice is too quiet or distorted.	Proceed to "The Other Caller cannot Hear Your Voice, or Your Voice is too Quiet or Distorted"	THE OTHER CALLER CANNOT HEAR YOUR VOICE, OR YOUR VOICE IS TOO QUIET OR DISTORTED
	Proceed to "Microphone Circuit between Microphone and Radio Receiver"	MICROPHONE CIRCUIT BETWEEN MICROPHONE AND RADIO RECEIVER
	Microphone	MICROPHONE
	Radio receiver	INSTALLATION
HINT: • *1: for Premium models • *2: w/ Rear Seat Entertainment System		

TERMINALS OF ECU

1. **RADIO RECEIVER (PREMIUM MODELS)**

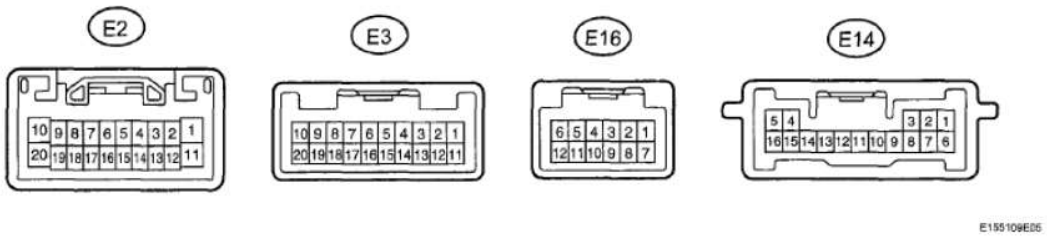


Fig. 13: Identifying Radio Receiver Connector Terminals (Premium Models)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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TERMINAL DESCRIPTION CHART

Terminal No. (Symbols)	Wiring Color	Terminal Description	Condition	Specification
E2-1 (B) - E2-20 (GND)	B - BR	Battery	Always	11 to 14 V
E2-2 (ILL+) - E2-20 (GND)	G - BR	Illumination signal	Light control switch OFF	Below 1 V
E2-2 (ILL+) - E2-20 (GND)	G - BR	Illumination signal	Light control switch TAIL	11 to 14 V
E2-5 (ATX+) - E2-15 (ATX-)	Y - BR	AVC-LAN communication signal	Ignition switch on (ACC)	2 to 3 V
E2-7 (MUTE) - E2-20 (GND)	V - BR	MUTE signal	Audio system is playing	Above 3.5 V
E2-7 (MUTE) - E2-20 (GND)	V - BR	MUTE signal	Audio system is changing	Below 1 V
E2-8 (R+) - E2-20 (GND)	R - BR	Sound signal (Right)	Audio system is playing	A waveform synchronized with sounds is output
E2-9 (L+) - E2-20 (GND)	B - BR	Sound signal (Left)	Audio system is playing	A waveform synchronized with sounds is output
E2-10 (SLD) - Body ground	Shielded - Body ground	Shield ground	Always	Below 1 V
E2-11 (ACC) - E2-20 (GND)	GR - BR	Accessory (ON)	Ignition switch on (ACC)	11 to 14 V
E2-12 (ILL-) - E2-20 (GND)	W - BR	Illumination (rheostat) signal	Light control switch OFF	Below 1 V
E2-12 (ILL-) - E2-20 (GND)	W - BR	Illumination (rheostat) signal	Light control switch TAIL	Pulse generation
E2-13 (ANT) - E2-20 (GND)	B - BR	Power source of antenna	Radio switch ON and AM or FM	11 to 14 V
E2-18 (R-) - E2-20 (GND)	G - BR	Sound signal (Right)	Audio system is playing	A waveform synchronized with sounds is output
E2-19 (L-) - E2-20 (GND)	W - BR	Sound signal (Left)	Audio system is playing	A waveform synchronized with sounds is output
E2-20 (GND) - Body ground	BR - Body ground	Ground	Always	Below 1 V
E3-6 (SWG) - E2-20 (GND) (*2)	B - BR	Steering pad switch ground	Always	Below 1 V
			Steering pad switch not operated --> SEEK+ switch pushed	4 V or more

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E3-7 (SW1) - E2-20 (GND) (*2)	O - BR	Steering pad switch signal	--> SEEK- switch pushed --> VOL+ switch pushed --> VOL- switch pushed	--> Approx. 0.5 V --> Approx. 0.9 V --> Approx. 2.0 V --> Approx. 3.4 V
E3-8 (SW2) - E2-20 (GND) (*2)	V - BR	Steering pad switch signal	Steering pad switch not operated --> MODE switch pushed --> ON HOOK switch pushed --> OFF HOOK switch pushed	4 V or more --> Approx. 0.5 V --> Approx. 0.9 V --> Approx. 2.0 V
E3-11 (IVO+) - E2-20 (GND)	L - BR	Voice signal	"Bluetooth" handsfree voice signal is received	A waveform synchronized with sounds is output
E3-12 (IVO-) - E2-20 (GND)	P - BR	Voice signal	"Bluetooth" handsfree voice signal is received	A waveform synchronized with sounds is output
E3-13 (SLD1) - Body ground	Shielded - Body ground	Shield ground	Always	Below 1 V
E3-15 (ARI) - E2-20 (GND)	R - BR	Sound signal (Right)	External device is playing (When stereo jack is used)	A waveform synchronized with sounds is output
E3-16 (ASGN) - E2-20 (GND)	W - BR	Shield ground	Always	Below 1 V
E3-17 (ALI) - E2-20 (GND)	B - BR	Sound signal (Left)	External device is playing (When stereo jack is used)	A waveform synchronized with sounds is output
E3-18 (AGND) - Body ground	Shielded - Body ground	Shield ground	Always	Below 1 V
E3-19 (AUXI) - E2-20 (GND)	Y - BR	External device connection detection signal	External device is connected	Below 1 V
E14-1 (MIC-) - E2-20 (GND)	G - BR	Microphone voice signal	"Bluetooth" handsfree function is ON	A waveform synchronized with sounds is output
E14-2 (MIC+) - E2-20 (GND)	R - BR	Microphone voice signal	"Bluetooth" handsfree function is ON	A waveform synchronized with sounds is output
E14-3 (TSW-) - E2-20 (GND)	Y - BR	Ground	Always	Below 1 V
E14-5 (+B) - E2-20 (GND)	B - BR	Battery	Always	11 to 14 V
E14-6 (MGND) -				

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E2-20 (GND)	Y - BR	Ground	Always	Below 1 V
E14-7 (MCVD) - E2-20 (GND)	P - BR	Microphone amplifier power supply	Ignition switch off	Below 1 V
E14-7 (MCVD) - E2-20 (GND)	P - BR	Microphone amplifier power supply	Ignition switch on (IG)	4 to 6 V
E14-14 (GND) - Body ground (*3)	W-B - Body ground	Ground	Always	Below 1 V
E14-16 (ACC) - E2-20 (GND)	GR - BR	Accessory (ON)	Ignition switch off	Below 1 V
E14-16 (ACC) - E2-20 (GND)	GR - BR	Accessory (ON)	Ignition switch on (ACC)	11 to 14 V
E16-1 (CSLD) - Body ground (*1)	Shielded - Body ground	Shield ground	Always	Below 1 V
E16-2 (CDR+) - E2-20 (GND) (*1)	BR - BR	RSE sound signal	RSE system is playing	Waveform synchronized with sound is output
E16-3 (CDR-) - E2-20 (GND) (*1)	SB - BR	RSE sound signal	RSE system is playing	Waveform synchronized with sound is output
E16-4 (CDL+) - E2-20 (GND) (*1)	LG - BR	RSE sound signal	Always	Waveform synchronized with sound is output
E16-5 (CDL-) - E2-20 (GND) (*1)	P - BR	RSE sound signal	RSE system is playing	Waveform synchronized with sound is output
E16-6 (MUTE) - E2-20 (GND) (*1)	B - BR	Mute signal	RSE system is playing	Above 3.5 V
E16-6 (MUTE) - E2-20 (GND) (*1)	B - BR	Mute signal	RSE system is changing mode	Below 1 V
E16-9 (TXM+) - E16-10 (TXM-) (*D	Y - BR	AVC-LAN communication signal	Ignition switch on (ACC)	2 to 3 V
HINT: • *1: w/ Rear Seat Entertainment System • *2: w/ Steering Pad Switch • *3: w/ Bluetooth Handsfree Module				

2. **RADIO RECEIVER (STANDARD MODELS)**

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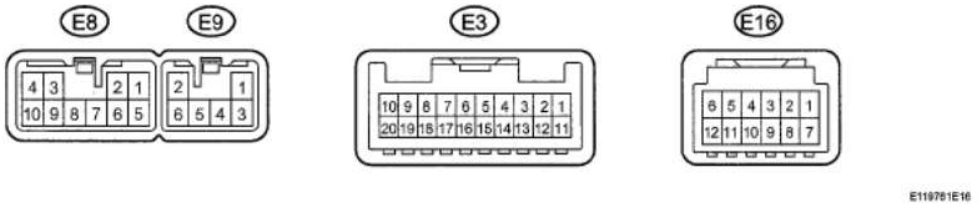


Fig. 14: Identifying Radio Receiver Connector Terminals (Standard Models)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

TERMINAL DESCRIPTION CHART

Terminal No. (Symbols)	Wiring Color	Terminal Description	Condition	Specification
E8-1 (FR+) - E8-7 (GND)	LG - W-B	Sound signal (Front Right)	Audio system is playing	A waveform synchronized with sounds is output
E8-2 (FL+) - E8-7 (GND)	P - W-B	Sound signal (Front Left)	Audio system is playing	A waveform synchronized with sounds is output
E8-3 (ACC) - E8-7 (GND)	GR - W-B	Accessory (ON)	Ignition switch off	Below 1 V
E8-3 (ACC) - E8-7 (GND)	GR - W-B	Accessory (ON)	Ignition switch on (ACC)	11 to 14 V
E8-4 (B) - E8-7 (GND)	B - W-B	Battery	Always	11 to 14 V
E8-5 (FR-) - E8-7 (GND)	L - W-B	Sound signal (Front Right)	Audio system is playing	A waveform synchronized with sounds is output
E8-6 (FL-) - E8-7 (GND)	V - W-B	Sound signal (Front Left)	Audio system is playing	A waveform synchronized with sounds is output
E8-7 (GND) - Body ground	W-B - Body ground	Ground	Always	Below 1 V
E8-8 (ANT) - E8-7 (GND)	B - W-B	Power source of antenna	Radio switch ON and AM or FM	11 to 14 V
E8-10 (ILL+) - E8-7 (GND)	G - W-B	Illumination signal	Light control switch OFF	Below 1 V
E8-10 (ILL+) - E8-7 (GND)	G - W-B	Illumination signal	Light control switch TAIL or HEAD	11 to 14 V
E9-1 (RR+) - E8-7 (GND)	R - W-B	Sound signal (Rear Right)	Audio system is playing	A waveform synchronized with sounds is output
E9-2 (RL+) - E8-7 (GND)	B - W-B	Sound signal (Rear Left)	Audio system is playing	A waveform synchronized with sounds is output
				A waveform

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E9-3 (RR-) - E8-7 (GND)	W - W-B	Sound signal (Rear Right)	Audio system is playing	synchronized with sounds is output
E9-5 (ILL-) - E8-7 (GND)	W - W-B	Illumination (rheostat) signal	Light control switch OFF	Below 1 V
E9-5 (ILL-) - E8-7 (GND)	W - W-B	Illumination (rheostat) signal	Light control switch TAIL or HEAD	Pulse generation
E9-6 (RL-) - E8-7 (GND)	Y - W-B	Sound signal (Rear Left)	Audio system is playing	A waveform synchronized with sounds is output
E3-3 (SPD) - E8-7 (GND)	L - W-B	Speed signal from combination meter	Ignition switch on (IG). Turn drive wheels slowly.	Pulse generation
E3-6 (SWG) - E8-7 (GND)	B - W-B	Steering pad switch ground	Always	Below 1 V
E3-7 (SW1) - E8-7 (GND)	O - W-B	Steering pad switch signal	Steering pad switch not operated --> SEEK+ switch pushed --> SEEK- switch pushed --> VOL+ switch pushed --> VOL- switch pushed	4 V or more --> Approx. 0.5 V --> Approx. 0.9 V --> Approx. 2.0 V --> Approx. 3.4 V
E3-8 (SW2) - E8-7 (GND)	V - W-B	Steering pad switch signal	Steering pad switch not operated --> MODE switch pushed	4 V or more --> Below 2.5 V
E3-15 (ARI) - E8-7 (GND) (*1)	R - W-B	Sound signal (Right)	External device is playing (When stereo jack is used)	A waveform synchronized with sounds is output
E3-16 (ASGN) - E8-7 (GND) (*1)	W - W-B	Shield ground	Always	Below 1 V
E3-17 (ALI) - E8-7 (GND) (*1)	B - W-B	Sound signal (Left)	External device is playing (When stereo jack is used)	A waveform synchronized with sounds is output
E3-18 (AGND) - Body ground (*1)	Shielded - Body ground	Shield ground	Always	Below 1 V
E3-19 (AUXI) - E8-7 (GND) (*1)	Y - W-B	External device connection detection signal	External device is connected	Below 1 V
E16-1 (CSLD) - Body ground (*2)	Shielded - Body ground	Shield ground	Always	Below 1 V
E16-2 (CDR+) - E8-7 (GND) (*2)	BR - W-B	RSE sound signal	RSE system is playing	Waveform synchronized with sound is output

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E16-3 (CDR-) - E8-7 (GND) (*2)	SB - W-B	RSE sound signal	RSE system is playing	Waveform synchronized with sound is output
E16-4 (CDL+) - E8-7 (GND) (*2)	LG - W-B	RSE sound signal	Always	Waveform synchronized with sound is output
E16-5 (CDL-) - E8-7 (GND) (*2)	P - W-B	RSE sound signal	RSE system is playing	Waveform synchronized with sound is output
E16-6 (MUTE) - E8-7 (GND) (*2)	B - W-B	Mute signal	RSE system is playing	Above 3.5 V
E16-6 (MUTE) - E8-7 (GND) (*2)	B - W-B	Mute signal	RSE system is changing mode	Below 1 V
E16-9 (TXM+) - E16-10 (TXM-) (*2)	Y - BR	AVC-LAN communication signal	Ignition switch on (ACC)	2 to 3 V
HINT: • *1: w/ Stereo Jack Adapter • *2: w/ Rear Seat Entertainment System				

3. **STEREO COMPONENT AMPLIFIER (PREMIUM MODELS)**

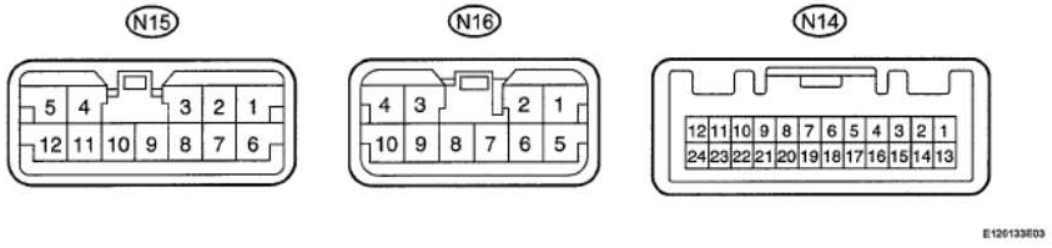


Fig. 15: Identifying Stereo Component Amplifier Connector Terminals (Premium Models)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

TERMINAL DESCRIPTION CHART

Terminal No. (Symbols)	Wiring Color	Terminal Description	Condition	Specification
N14-1 (MUTE) - N15-6 (GND)	V - BR	Mute signal from radio receiver	Audio system is playing	Above 3.5 V
N14-1 (MUTE) - N15-6 (GND)	V - BR	Mute signal from radio receiver	Audio system is changing	Below 1 V
N14-2 (L-) - N15-6 (GND)	W - BR	Sound signal (Left)	Audio system is playing	A waveform synchronized with sounds is output
N14-3 (L+) -				A waveform

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N15-6 (GND)	B - BR	Sound signal (Left)	Audio system is playing	synchronized with sounds is output
N14-4 (R-) - N15-6 (GND)	G - BR	Sound signal (Right)	Audio system is playing	A waveform synchronized with sounds is output
N14-5 (R+) - N15-6 (GND)	R - BR	Sound signal (Right)	Audio system is playing	A waveform synchronized with sounds is output
N14-6 (SLD) - Body ground	Shielded - Body ground	Shield ground	Always	Below 1 V
N14-7 (TX-) - N14-8 (TX+)	BR-Y	AVC-LAN communication signal	Ignition switch on (ACC)	2 to 3 V
N14-11 (SPD) - N15-6 (GND)	LG - BR	Speed signal from combination meter	Ignition switch on (IG). Turn drive wheels slowly.	Pulse generation
N14-12 (ACC) - N15-6 (GND)	GR - BR	Accessory (ON)	Ignition switch off	Below 1 V
N14-12 (ACC) - N15-6 (GND)	GR - BR	Accessory (ON)	Ignition switch on (ACC)	11 to 14 V
N14-22 (INT-) - N15-6 (GND)	P - BR	Voice signal	Navigation or "Bluetooth" handsfree voice signal is transmitted	A waveform synchronized with sounds is output
N14-23 (INT+) - N15-6 (GND)	L - BR	Voice signal	Navigation or "Bluetooth" handsfree voice signal is transmitted	A waveform synchronized with sounds is output
N16-1 (+B) - N15-6 (GND)	B - BR	Battery	Always	11 to 14 V
N16-2 (FR+) - N15-6 (GND)	Y - BR	Sound signal (Front Right)	Audio system is playing	A waveform synchronized with sounds is output
N16-3 (RL+) - N15-6 (GND)	B - BR	Sound signal (Rear Left)	Audio system is playing	A waveform synchronized with sounds is output
N16-4 (RR-) - N15-6 (GND)	W - BR	Sound signal (Rear Right)	Audio system is playing	A waveform synchronized with sounds is output
N16-5 (+B2) - N15-6 (GND)	R - BR	Battery	Always	11 to 14 V
N16-6 (FR-) - N15-6 (GND)	GR - BR	Sound signal (Front Right)	Audio system is playing	A waveform synchronized with sounds is output
N16-7 (FL-) - N15-6 (GND)	V - BR	Sound signal (Front Left)	Audio system is playing	A waveform synchronized with sounds is output
N16-8 (FL+) - N15-6 (GND)	P - BR	Sound signal (Front Left)	Audio system is playing	A waveform synchronized with

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				sounds is output
N16-9 (RL-) - N15-6 (GND)	Y - BR	Sound signal (Rear Left)	Audio system is playing	A waveform synchronized with sounds is output
N16-10 (RR+) - N15-6 (GND)	R - BR	Sound signal (Rear Right)	Audio system is playing	A waveform synchronized with sounds is output
N15-1 (FL-) - N15-6 (GND)	V - BR	Sound signal (Front Left)	Audio system is playing	A waveform synchronized with sounds is output
N15-2 (FL+) - N15-6 (GND)	P - BR	Sound signal (Front Left)	Audio system is playing	A waveform synchronized with sounds is output
N15-3 (FR-) - N15-6 (GND)	LG - BR	Sound signal (Front Right)	Audio system is playing	A waveform synchronized with sounds is output
N15-4 (WFR+) - N15-6 (GND)	O - BR	Sound signal (Woofer)	Audio system is playing	A waveform synchronized with sounds is output
N15-5 (WFL+) - N15-6 (GND)	R - BR	Sound signal (Woofer)	Audio system is playing	A waveform synchronized with sounds is output
N15-6 (GND) - Body ground	BR - Body ground	Ground	Always	Below 1 V
N15-7 (GND2) - Body ground	W-B - Body ground	Ground	Always	Below 1 V
N15-9 (FR+) - N15-6 (GND)	L - BR	Sound signal (Front Right)	Audio system is playing	A waveform synchronized with sounds is output
N15-10 (WFR-) - N15-6 (GND)	G - BR	Sound signal (Woofer)	Audio system is playing	A waveform synchronized with sounds is output
N15-12 (WFL-) - N15-6 (GND)	P - BR	Sound signal (Woofer)	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 **AVC-LAN CIRCUIT**).

1. **STARTING DIAGNOSTIC MODE**
   a. Turn the ignition switch on (ACC).

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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.

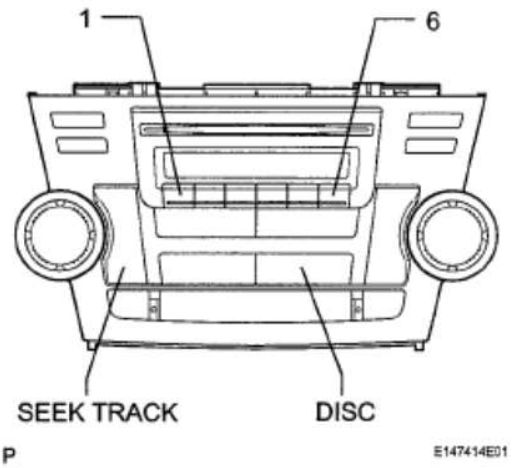


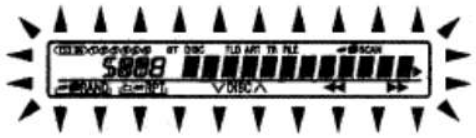
Fig. 16: Identifying SEEK TRACK And DISC Switch
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

a. Check that all elements are on.
b. When pressing each panel switch, check that a beep is emitted.

NOTE: 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.

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Example:



N E119764E02

Fig. 17: Switches Illumination Status Display
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

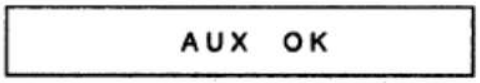
3. **STEREO JACK ADAPTER CONNECTION CHECK MODE**
   a. Press the "SEEK TRACK UP" switch.
   b. Check if the stereo jack adapter is recognized.

HINT:

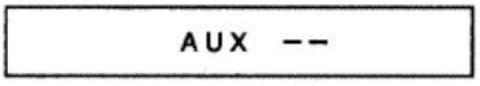
Vehicles that do not have a stereo jack adapter also have this function.

NOTE: This function is not to check connection status to an external device, but to check recognition of the stereo jack adapter.

When a stereo jack adapter is connected:



When a stereo jack adapter is not connected:



N E119765E02

Fig. 18: Stereo Jack Adapter Connection Check Mode Screen
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

4. **SERVICE CHECK MODE**
   a. Press the "SEEK TRACK UP" switch.

HINT:

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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).

DTC TERMS CHART

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

SERVICE CHECK RESULT DISPLAY CHART

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	-

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		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

DEVICE NAME AND PHYSICAL ADDRESS CHART

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 for each optional part and output DTCs.

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Service Check Mode:

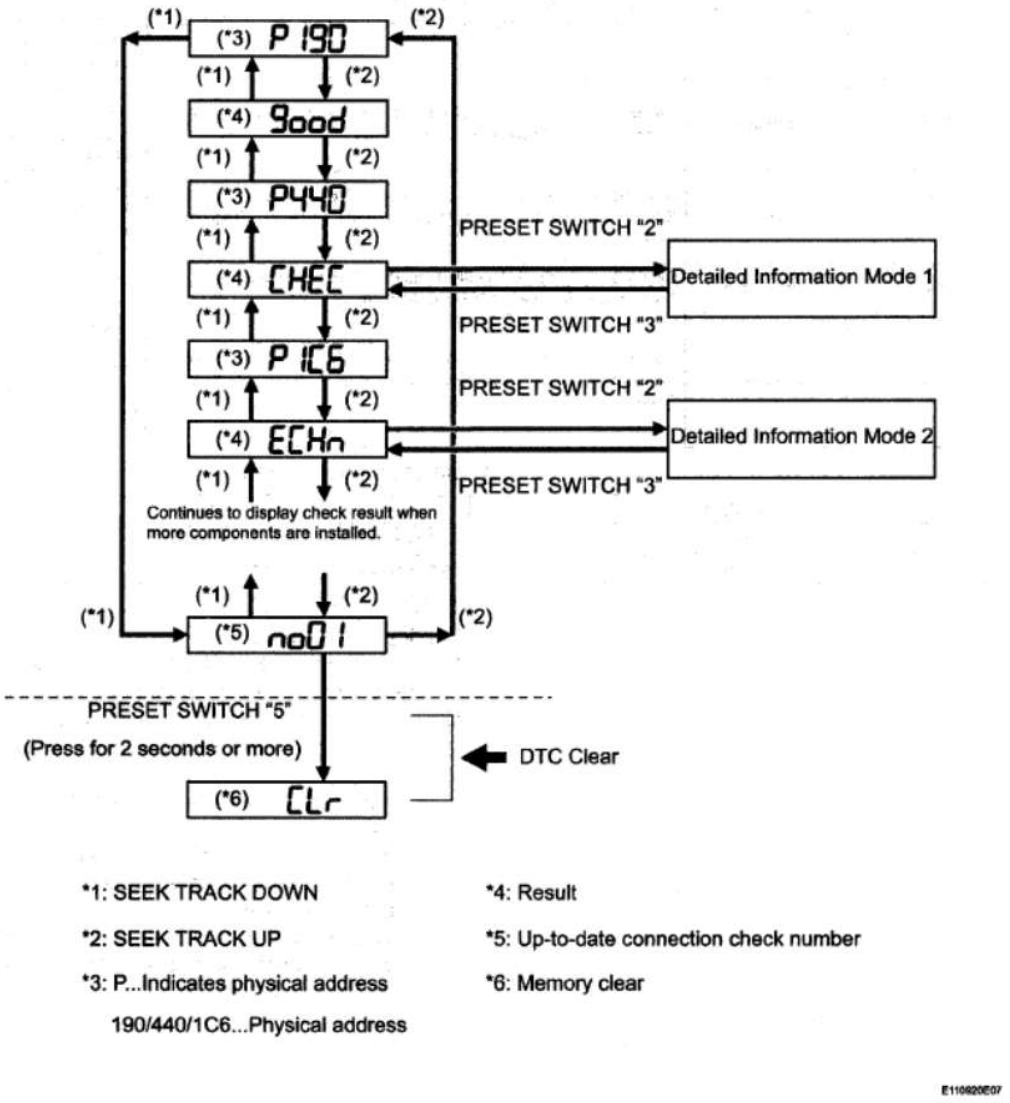


Fig. 19: Service Check Mode Flow Chart
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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.

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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. Select 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.

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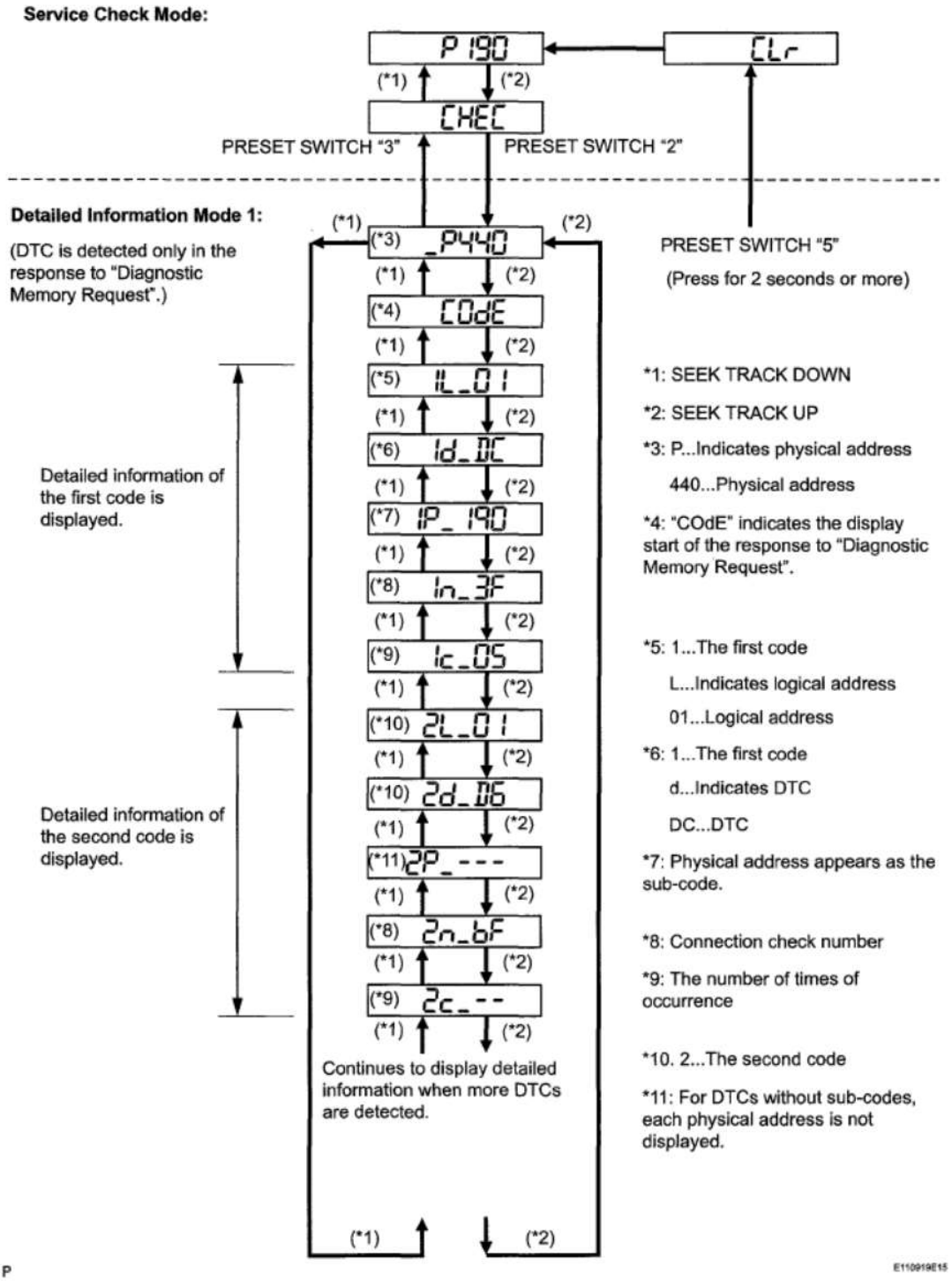


Fig. 20: Service Check Mode Flow Chart - Detailed Information Mode 1
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

f. Detailed information mode 2

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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. Select 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" are 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.

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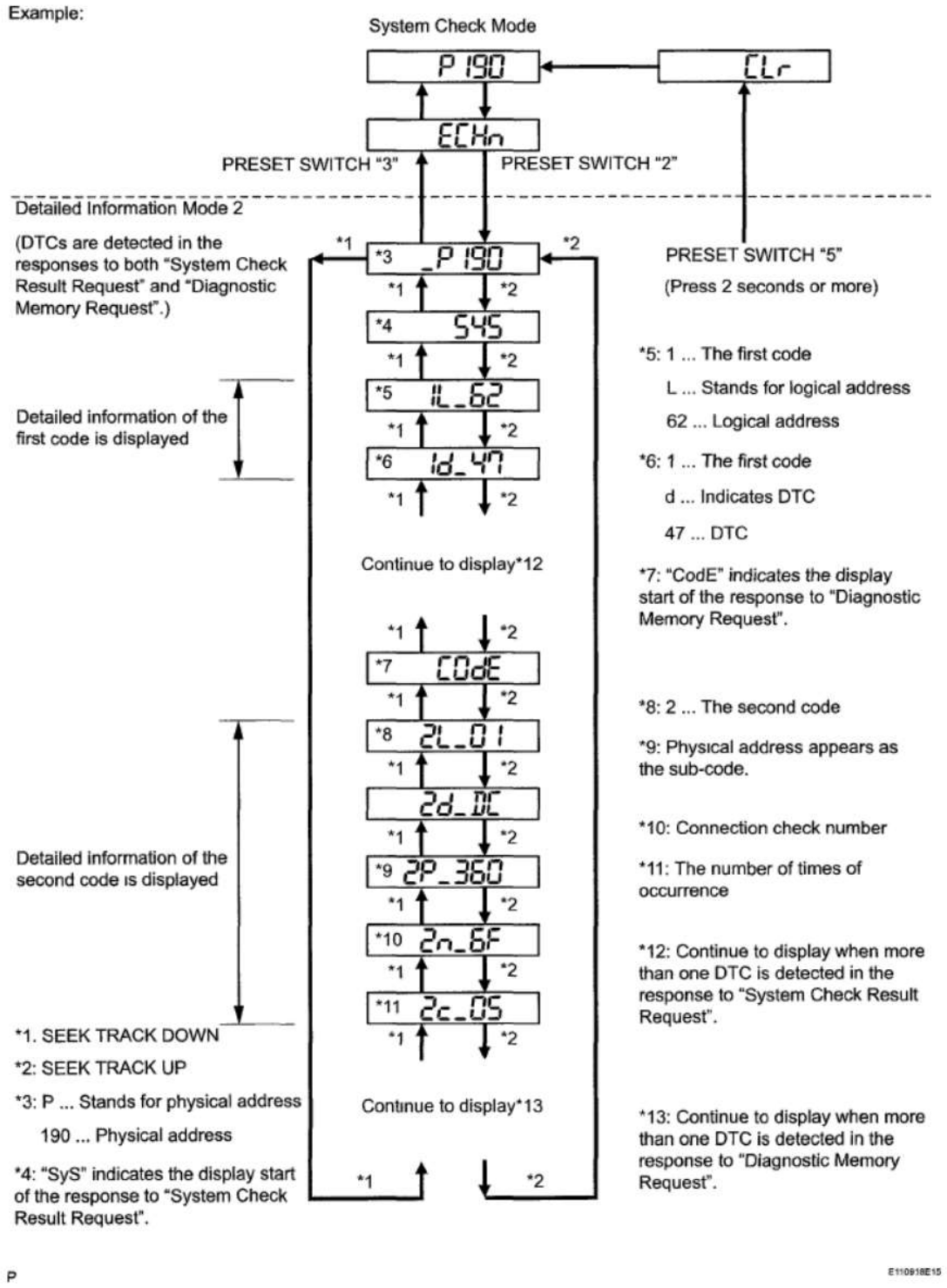


Fig. 21: Service Check Mode Flow Chart - Detailed Information Mode 2
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

7. DTC CLEAR/RECHECK

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a. Clearing All DTC Memory (when clearing all the memory of the previously detected DTCs).
   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.

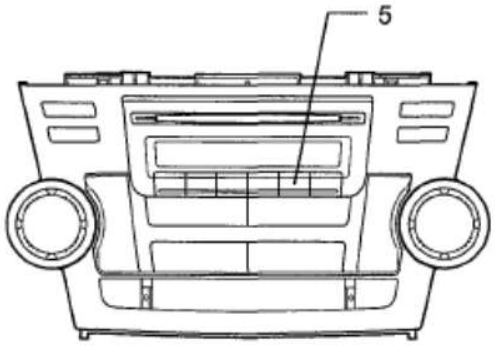


Fig. 22: Identifying Preset Switch
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

b. Clearing the specified DTC Memory (when clearing the specified memory of the previously detected DTC).
   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).

DIAGNOSTIC TROUBLE CODE CHART

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COMMUNICATION DIAGNOSIS:

DIAGNOSTIC TROUBLE CODE CHART - COMMUNICATION DIAGNOSIS

DTC Code	Detection Item	Trouble Area
01-21	ROM Error	Radio receiver
01-22	RAM Error	Radio receiver
01-D5	Absence of Registration Unit	1. Power source circuit of the component shown by the sub-code 2. AVC-LAN circuit between the radio receiver and the component shown by the sub-code 3. Component shown by the subcode
01-D6	No Master	1. Radio receiver power source circuit 2. Power source circuit of the component which has stored this code 3. AVC-LAN circuit between the radio receiver and the component which has stored this code 4. Component which has stored this code 5. Radio receiver
01-D7	Connection Check Error	1. Radio receiver power source circuit 2. Power source circuit of the component which has stored this code 3. AVC-LAN circuit between the radio receiver and the component which has stored this code 4. Component which has stored this code 5. Radio receiver
		1. Power source circuit of the component shown by the subcode 2. AVC-LAN circuit between

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01-D8	No Response for Connection Check	the radio receiver and the component shown by the sub-code 3. Component shown by the subcode
01-D9	Last Mode Error	1. Power source circuit of the component shown by the subcode 2. AVC-LAN circuit between the radio receiver and the component shown by the sub-code 3. Component shown by the subcode
01-DA	No Response Against ON/OFF Command	1. Power source circuit of the component shown by the subcode 2. AVC-LAN circuit between the radio receiver and the component shown by the sub-code 3. Component shown by the subcode
01-DB	Mode Status Error	1. Power source circuit of the component shown by the subcode 2. AVC-LAN circuit between the radio receiver and the component shown by the sub-code 3. Component shown by the subcode
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
01-DD	Master Reset	1. Radio receiver power source circuit 2. AVC-LAN circuit between the radio receiver and the component which has stored this code

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		3. Radio receiver 4. Component which has stored this code
01-DE	Slave Reset	1. Power source circuit of the component shown by the subcode 2. AVC-LAN circuit between the radio receiver and the component shown by the sub-code 3. Component shown by the subcode
01-DF	Master Error	1. Radio receiver power source circuit 2. AVC-LAN circuit between the radio receiver and the component which has stored this code 3. Radio receiver 4. Component which has stored this code
01-E0	Registration Complete Indication Error	-
01-E1	Voice Processing Device ON Error	1. Radio receiver power source circuit 2. AVC-LAN circuit between the radio receiver and the component which has stored this code 3. Radio receiver 4. Component which has stored this code
01-E2	ON/OFF Indication Parameter Error	Radio receiver
01-E3	Registration Demand Transmission	-
01-E4	Multiple Frame Incomplete	-

DVD PLAYER:

DIAGNOSTIC TROUBLE CODE CHART - DVD PLAYER

DTC Code	Detection Item	Trouble Area

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44-10	DVD Player Mechanical Error	Television display assembly
44-11	DVD Insertion and Ejection Error	Television display assembly
44-12	DVD Reading Abnormal	Television display assembly
44-40	No Disc	Television display assembly
44-41	Wrong Disc	1. DVD or CD 2. Television display assembly
44-42	Disc cannot be Read	1. DVD or CD 2. Television display assembly
44-43	DVD-ROM Abnormal	1. DVD or CD 2. Television display assembly
44-44	DVD Error	Television display assembly
44-45	Eject Error	Television display assembly
44-46	Disc Crack	1. DVD or CD 2. Television display assembly
44-47	High Temperature	Television display assembly
44-48	Excess Current	Television display assembly
44-50	Tray Insertion/Ejection Error	Television display assembly
44-51	Elevator Error	Television display assembly
44-52	Player Error	Television display assembly
44-78	DSP Error	Television display assembly
44-7D	Disc Playback Problem	1. DVD or CD 2. Television display assembly
44-7E	No Playback File on Disc	1. DVD or CD 2. Television display assembly
44-7F	Copyright Protection Error	1. DVD or CD 2. Television display assembly

TELEPHONE:

DIAGNOSTIC TROUBLE CODE CHART - TELEPHONE

DTC Code	Detection Item	Trouble Area
57-47	Bluetooth Module Initialization Failed	Radio receiver

CD PLAYER:

DIAGNOSTIC TROUBLE CODE CHART - CD PLAYER

DTC Code	Detection Item	Trouble Area
62-10	CD Player Mechanical Error	Radio receiver
62-11	CD Insertion and Ejection Error	Radio receiver

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62-12	CD Reading Abnormal	Radio receiver
62-41	Wrong Disc	1. CD 2. Radio receiver
62-42	Disc cannot be Read	1. CD 2. Radio receiver
62-43	CD-ROM Abnormal	1. CD 2. Radio receiver
62-44	CD Abnormal	Radio receiver
62-45	Eject Error	Radio receiver
62-46	Scratched/Reversed Disc	1. CD 2. Radio receiver
62-47	High Temperature	Radio receiver
62-48	Excess Current	Radio receiver
62-50	Tray Insertion/Ejection Error	Radio receiver
62-51	Elevator Error	Radio receiver
62-52	Clamp Error	Radio receiver
62-78	DSP Error	-
62-7D	Disc cannot be Played	1. CD 2. Radio receiver
62-7E	No Playable Files	1. CD 2. Radio receiver
62-7F	Copyright Protection Error	1. CD 2. Radio receiver

IN-DASH CD CHANGER:

DIAGNOSTIC TROUBLE CODE CHART - IN-DASH CD CHANGER

DTC Code	Detection Item	Trouble Area
63-10	CD Changer Mechanical Error	Radio receiver
63-11	CD Insertion and Ejection Error	Radio receiver
63-12	CD Reading Abnormal	Radio receiver
63-41	Wrong Disc	1. CD 2. Radio receiver
63-42	Disc cannot be Read	1. CD 2. Radio receiver
63-43	CD-ROM Abnormal	1. CD 2. Radio receiver
63-44	CD Abnormal	Radio receiver

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63-45	Eject Error	Radio receiver
63-46	Scratched/Reversed Disc	1. CD 2. Radio receiver
63-47	High Temperature	Radio receiver
63-48	Excess Current	Radio receiver
63-50	Tray Insertion/Ejection Error	Radio receiver
63-51	Elevator Error	Radio receiver
63-52	Clamp Error	Radio receiver
63-78	DSP Error	-
63-7D	Disc cannot be Played	1. CD 2. Radio receiver
63-7E	No Playable Files	1. CD 2. Radio receiver
63-7F	Copyright Protection Error	1. CD 2. Radio receiver

DTC 01-21 ROM ERROR; DTC 01-22 RAM ERROR

DESCRIPTION

DTC DETECTION CONDITION CHART

DTC No.	DTC Detection Condition	Trouble Area
01-21	A ROM malfunction exists.	Radio receiver
01-22	A RAM malfunction exists.	

INSPECTION PROCEDURE

HINT:

After the inspection is completed, clear the DTCs.

1. **REPLACE RADIO RECEIVER**

   HINT:

   REMOVAL (See **INSTALLATION**)

   NEXT: END

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

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DESCRIPTION

DTC DETECTION CONDITION CHART

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

NOTE:

- **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

NOTE: Be sure to read DESCRIPTION before performing the following procedures.

1. **CHECK "RADIO RECEIVER COMMUNICATION ERROR" IN FLOW CHART**

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Refer to the **RADIO RECEIVER COMMUNICATION ERROR** (See **RADIO RECEIVER COMMUNICATION ERROR**).

NEXT: END

DTC 01-D6 NO MASTER; DTC 01-D7 CONNECTION CHECK ERROR

DESCRIPTION

DTC DETECTION CONDITION CHART

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

NOTE:

- **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

NOTE: Be sure to read DESCRIPTION before performing the following procedures.

1. **CHECK RADIO RECEIVER POWER SOURCE CIRCUIT**

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Refer to the **RADIO RECEIVER POWER SOURCE CIRCUIT** (See **RADIO RECEIVER POWER SOURCE CIRCUIT**).

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

2. **IDENTIFY THE COMPONENT WHICH HAS STORED THIS CODE**
   a. Enter the diagnostic mode.

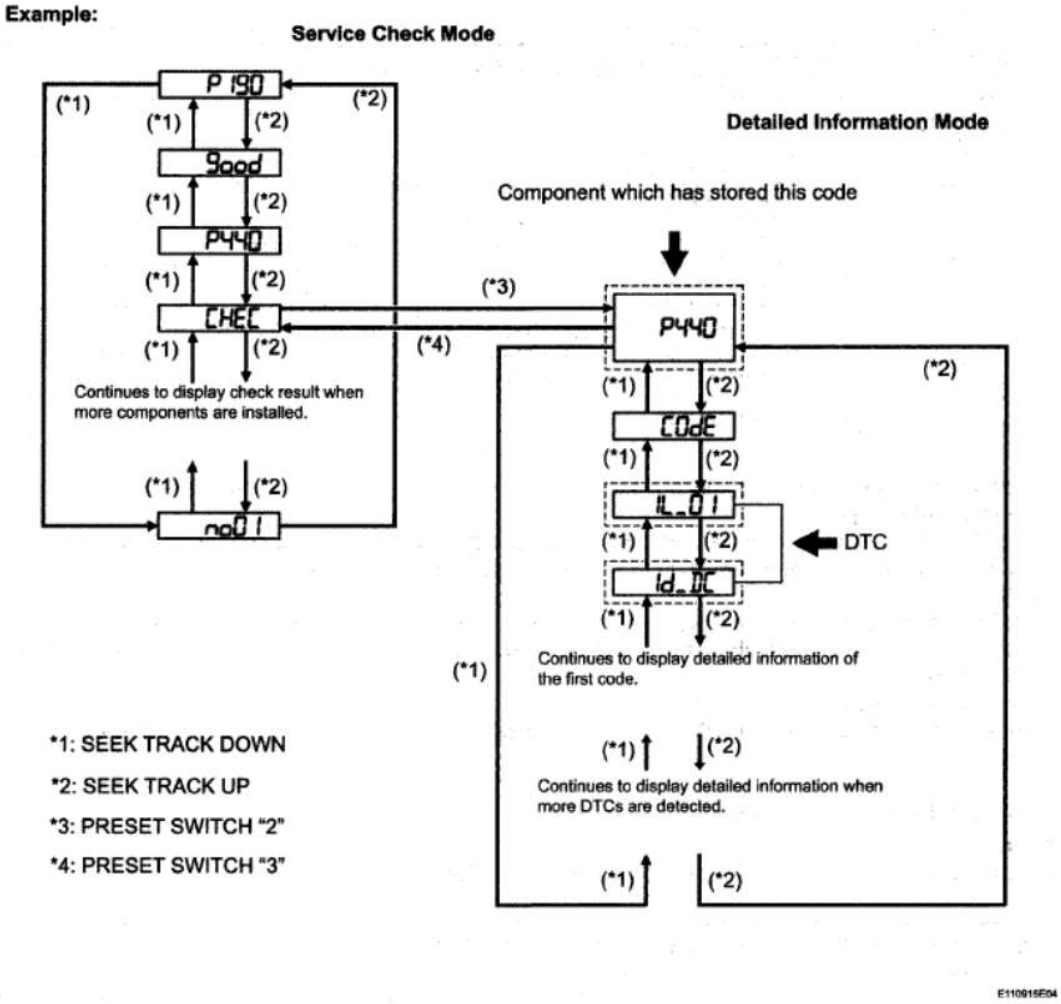


Fig. 23: Service Check Mode Flow Chart - Diagnostic
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

Component Table:

PHYSICAL ADDRESS COMPONENT CHART

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Component	Physical Address
Stereo component amplifier	440
"Bluetooth" handsfree module	19D
Television display assembly	1B0

HINT:

- "P440" set by the stereo component amplifier shown in the preceding illustration as an example.
- For details of the DTC display, refer to "**DTC CHECK/CLEAR**" (See **DTC CHECK/CLEAR**).

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:

PROCEED COMPONENT CHART

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

B: REPLACE RADIO RECEIVER (See **INSTALLATION**)

A: Go to next step

4. **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:

PROCEED COMPONENT CHART

Component	Proceed to
Stereo component amplifier	Stereo component amplifier power source circuit (See **STEREO COMPONENT AMPLIFIER POWER SOURCE CIRCUIT**)
Television display assembly	Television display assembly power source circuit (See **TELEVISION DISPLAY POWER SOURCE CIRCUIT**)

5. **INSPECT RADIO RECEIVER**
   a. Disconnect the radio receiver connector.

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

Standard resistance

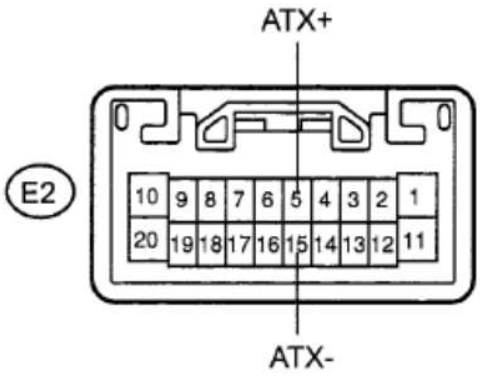
TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
E2-5 (ATX+) - E2-15 (ATX-)	Always	60 to 80 ohms
E16-9 (TXM+) - E16-10 (TXM-) (*1)	Always	60 to 80 ohms
HINT: *1: w/ Rear Seat Entertainment System		

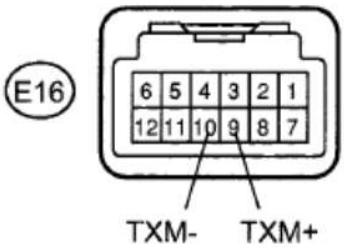
NG: REPLACE RADIO RECEIVER (See **INSTALLATION**)

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Component without harness connected:
(Radio Receiver)



Component without harness connected:
(Radio Receiver (*1))



E151918E11

Fig. 24: Identifying Radio Receiver Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: Go to next step

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

HINT:

For details of the connectors, refer to "**TERMINALS OF ECU**" (See **TERMINALS OF ECU**).

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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.

AVC-LAN WIRING DIAGRAM:

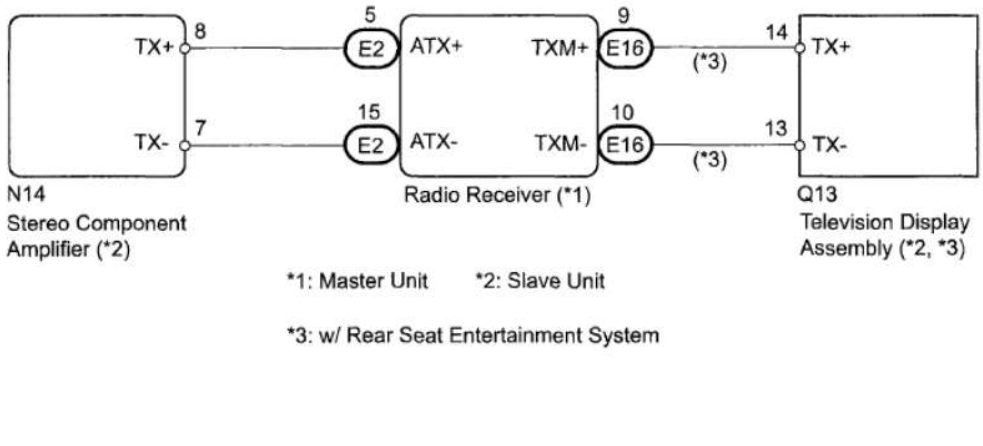


Fig. 25: AVC-LAN Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

NG: REPAIR OR REPLACE HARNESS OR CONNECTOR

OK: Go to next step

7. **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.

OK:

Same problem does not occur.

NG: REPLACE RADIO RECEIVER (See **INSTALLATION**)

OK: END

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DTC 01-DC TRANSMISSION ERROR

DESCRIPTION

DTC DETECTION CONDITION CHART

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)		

NOTE:

- **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

NOTE: Be sure to read DESCRIPTION before performing the following procedures.

1. **CHECK FOR DTC OF OTHER COMPONENTS**
   a. Check if the component shown by the sub-code is displayed in the check result of the other components.
   1. Check if "01-DC" is output for the other components.
   2. If "01-DC" is output for any other components, check if the same physical address is displayed.

Result

RESULT CHART

Result	Proceed to
"01-DC" Is output and the same physical address is displayed	A
"01-DC" is not output or the same physical address is not displayed	B

HINT:

For the list of the components shown by sub-codes, refer to the table in step 2.

B: Go to step 4

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A: Go to next step

2. **IDENTIFY THE COMPONENT WHICH HAS STORED THIS CODE**
   a. Enter the diagnostic mode.

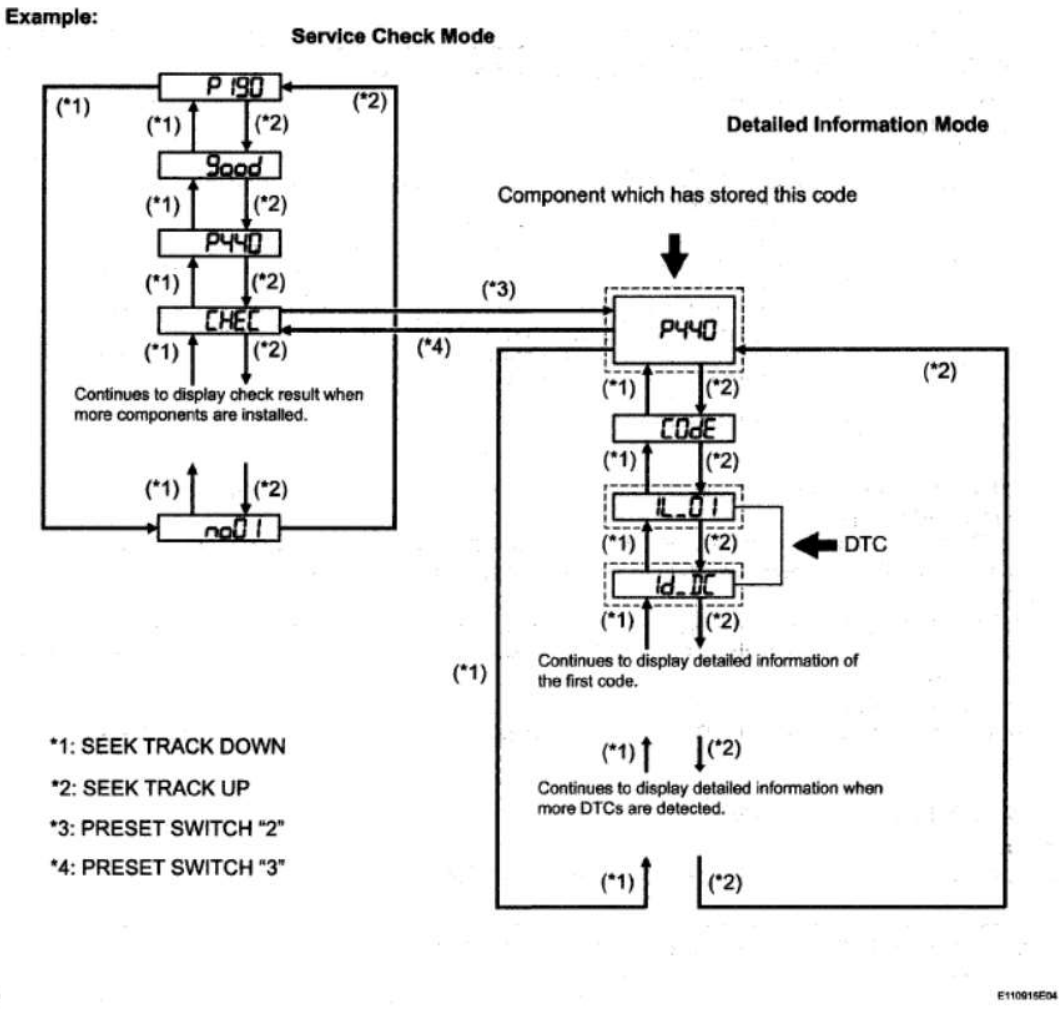


Fig. 26: Service Check Mode Flow Chart - Diagnostic
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

Component Table:

PHYSICAL ADDRESS COMPONENT CHART

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

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Radio receiver	190
Television display assembly	1B0

HINT:

- "P440" set by the stereo component amplifier shown in the preceding illustration as an example.
- For details of the DTC display, refer to "**DTC CHECK/CLEAR**" (See **DTC CHECK/CLEAR**).

3. **CHECK COMPONENT WHICH HAS STORED THIS CODE**
   a. Select the component which has stored this code.

Component Table:

PROCEED COMPONENT CHART

Component	Proceed to
Stereo component amplifier	Stereo component amplifier communication error (See **STEREO COMPONENT AMPLIFIER COMMUNICATION ERROR**)
"Bluetooth" handsfree module	"Bluetooth" handsfree module communication error (See **BLUETOOTH HANDSFREE MODULE COMMUNICATION ERROR**)
Radio receiver	Radio receiver communication error (See **RADIO RECEIVER COMMUNICATION ERROR**)
Television display assembly	Television display assembly communication error (See **TELEVISION DISPLAY POWER SOURCE CIRCUIT**)

NEXT: END

4. **CLEAR DTC**
   a. Clear the DTCs (See **DTC CHECK/CLEAR**).

HINT:

If "01 -DC" is output for only one component, this may not indicate a malfunction.

5. **RECHECK DTC**
   a. Recheck for DTCs and check if the same trouble occurs again.

OK:

Malfunction disappears.

NG: Go to step 3

OK: END

DTC 01-DD MASTER RESET; DTC 01-E1 VOICE PROCESSING DEVICE ON ERROR

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DESCRIPTION

DTC DETECTION CONDITION CHART

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

NOTE:

- **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

NOTE: 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 **RADIO RECEIVER POWER SOURCE CIRCUIT**).

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

2. **INSPECT RADIO RECEIVER**
   a. Disconnect the radio receiver connector.
   b. Measure the resistance according to the value(s) in the table below.

   Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

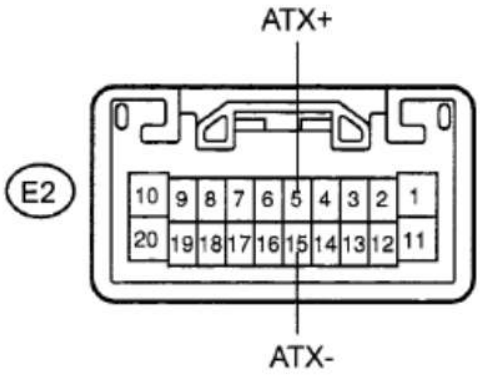
Tester Connection	Condition	Specified Condition
E2-5 (ATX+) - E2-15 (ATX-)	Always	60 to 80 ohms

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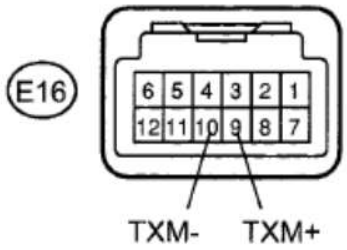
E16-9 (TXM+) - E16-10 (TXM-)(*1)	Always	60 to 80 ohms
HINT: *1: w/ Rear Seat Entertainment System		

NG: REPLACE RADIO RECEIVER (See **INSTALLATION**)

Component without harness connected:
(Radio Receiver)



Component without harness connected:
(Radio Receiver (*1))



E151918E11

Fig. 27: Identifying Radio Receiver Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: Go to next step

3. **IDENTIFY THE COMPONENT WHICH HAS STORED THIS CODE**

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a. Enter the diagnostic mode.

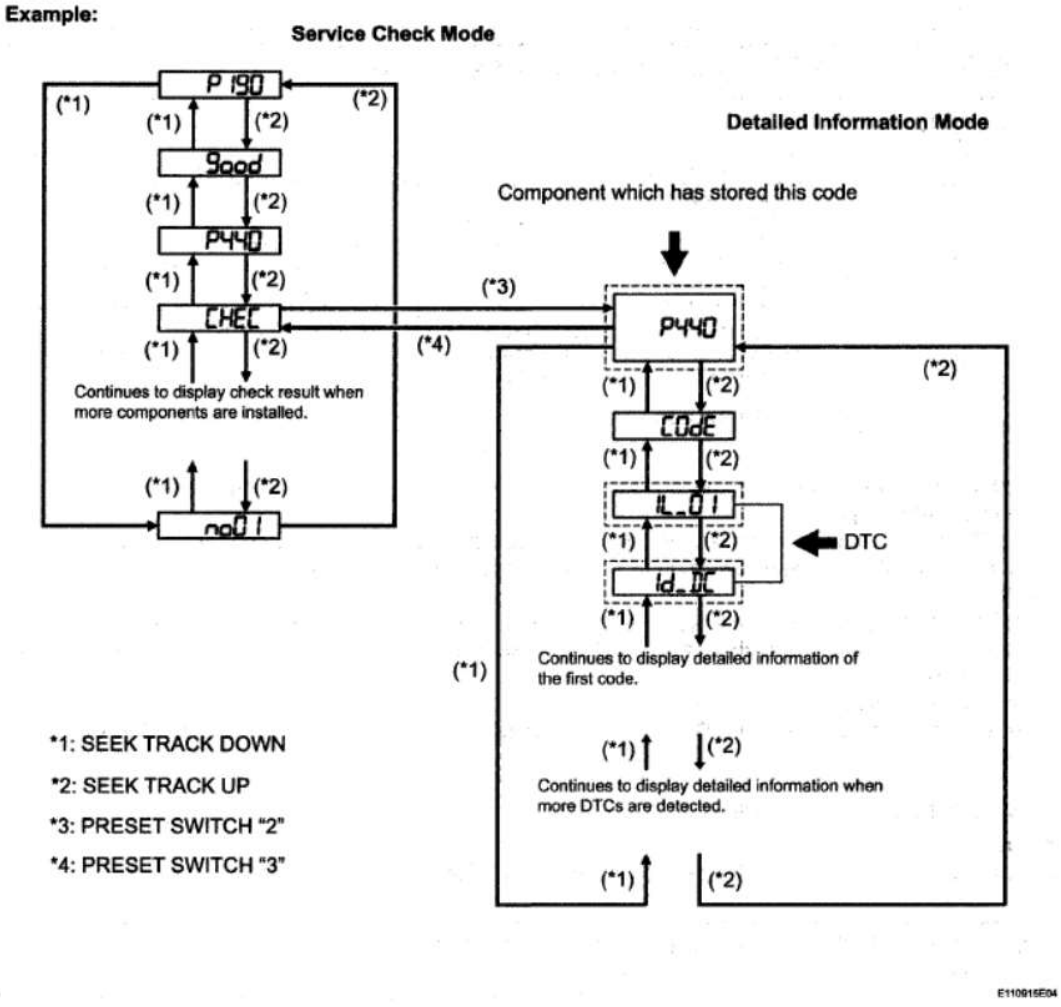


Fig. 28: Service Check Mode Flow Chart - Diagnostic
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

Component Table:

PHYSICAL ADDRESS COMPONENT CHART

Component	Physical Address
Stereo component amplifier	440
"Bluetooth" handsfree module	19D
Television display assembly	1B0

HINT:

- "P440" set by the stereo component amplifier shown in the preceding illustration as an example.
- For details of the DTC display, refer to "**DTC CHECK/CLEAR**" (See **DTC CHECK/CLEAR**).

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:

PROCEED COMPONENT CHART

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

B: REPLACE RADIO RECEIVER (See **INSTALLATION**)

A: Go to next step

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

HINT:

For details of the connectors, refer to "**TERMINALS OF ECU**" (See **TERMINALS OF ECU**).

   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.

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AVC-LAN WIRING DIAGRAM:

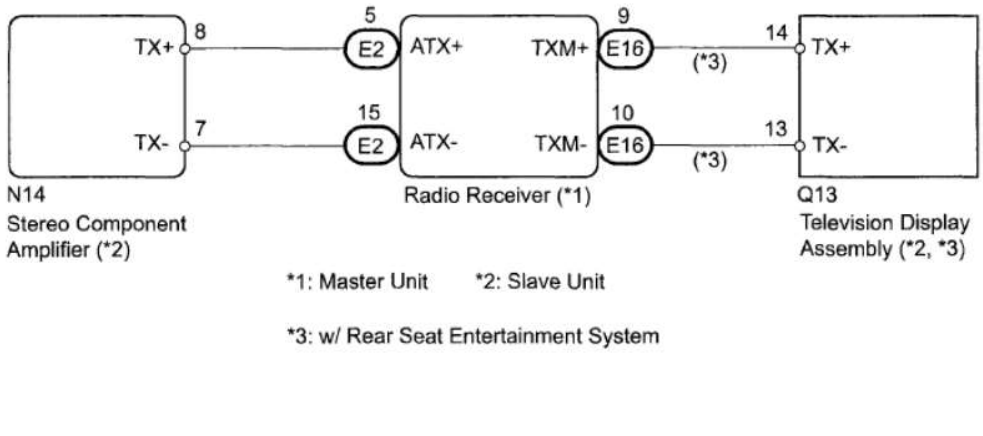


Fig. 29: AVC-LAN Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

NG: REPAIR OR REPLACE HARNESS OR CONNECTOR

OK: Go to next step

6. **REPLACE RADIO RECEIVER**
   a. Replace the radio receiver with a normal one and check if the same problem occurs again.

OK:

Same problem does not occur.

NG: REPLACE COMPONENT WHICH HAS STORED THIS CODE

OK: END

DTC 01-DF MASTER ERROR

DESCRIPTION

DTC DETECTION CONDITION CHART

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	• Radio receiver power source circuit • AVC-LAN circuit between the radio receiver and the component which has stored this code

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	is stored.	• Radio receiver • Component which has stored this code
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.		

NOTE:

- **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

NOTE: 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 **RADIO RECEIVER POWER SOURCE CIRCUIT**).

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

2. **INSPECT RADIO RECEIVER**
   a. Disconnect the radio receiver connector.
   b. Measure the resistance according to the value(s) in the table below.

   Standard resistance

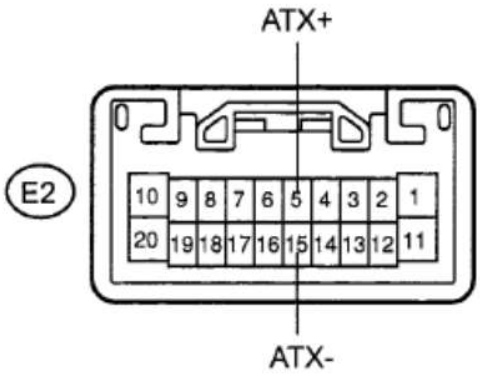
   TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
E2-5 (ATX+) - E2-15 (ATX-)	Always	60 to 80 ohms
E16-9 (TXM+) - E16-10 (TXM-) (*1)	Always	60 to 80 ohms
HINT: *1: w/ Rear Seat Entertainment System		

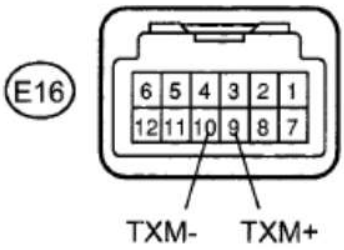
   NG: REPLACE RADIO RECEIVER (See **INSTALLATION**)

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Component without harness connected:
(Radio Receiver)



Component without harness connected:
(Radio Receiver (*1))



E151918E11

Fig. 30: Identifying Radio Receiver Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: Go to next step

3. **IDENTIFY THE COMPONENT WHICH HAS STORED THIS CODE**
   a. Enter the diagnostic mode.

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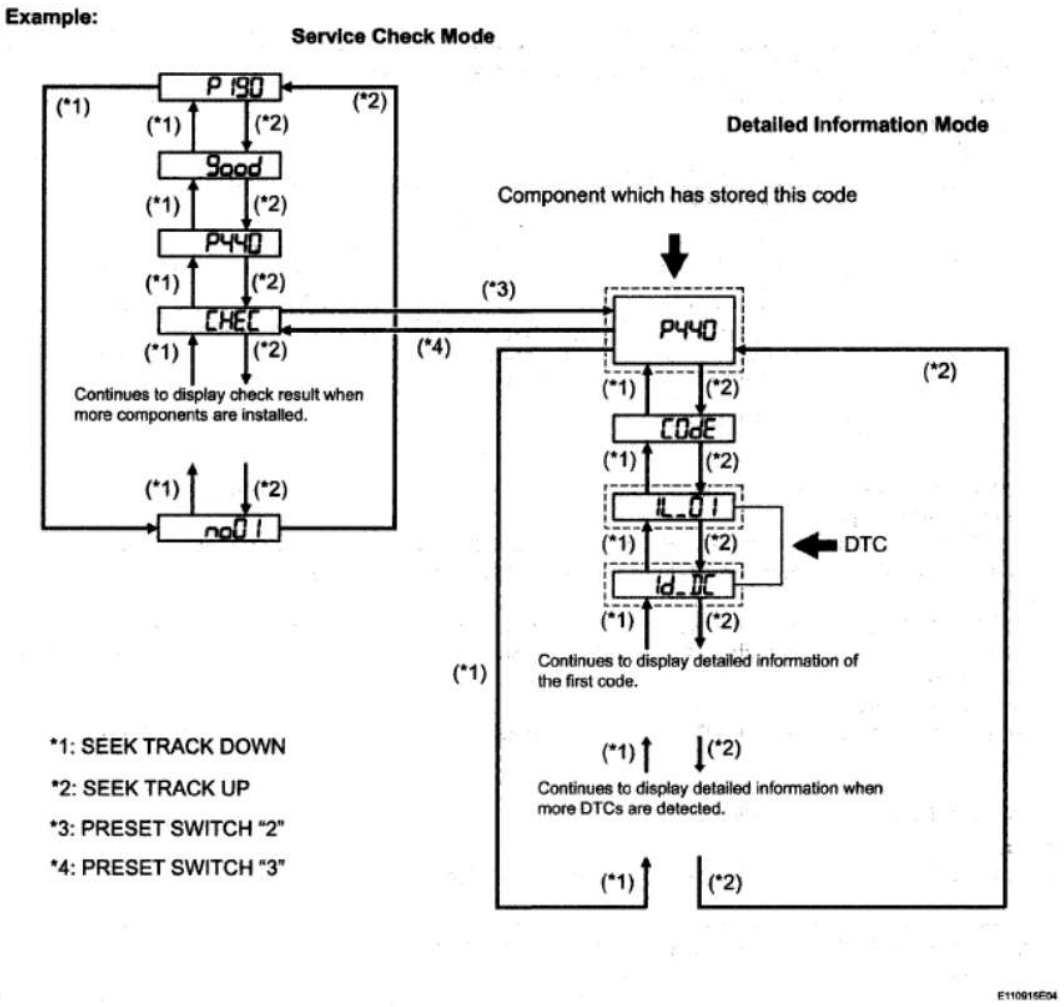


Fig. 31: Service Check Mode Flow Chart - Diagnostic
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

Component Table:

PHYSICAL ADDRESS COMPONENT CHART

Component	Physical Address
Stereo component amplifier	440
"Bluetooth" handsfree module	19D
Television display assembly	1B0

HINT:

- "P440" set by the stereo component amplifier shown in the preceding illustration as an example.

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

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:

PROCEED COMPONENT CHART

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

B: REPLACE RADIO RECEIVER (See **INSTALLATION**)

A: Go to next step

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

HINT:

For details of the connectors, refer to "**TERMINALS OF ECU**" (See **TERMINALS OF ECU**).

   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.

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AVC-LAN WIRING DIAGRAM:

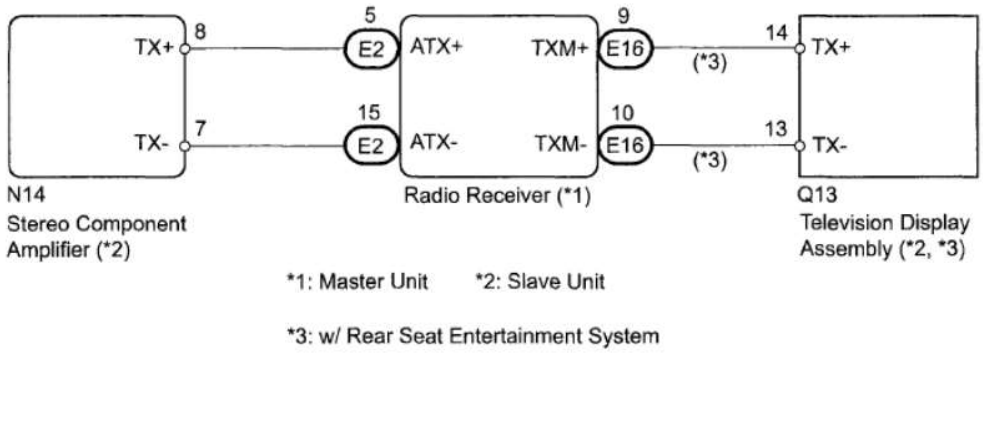


Fig. 32: AVC-LAN Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

NG: REPAIR OR REPLACE HARNESS OR CONNECTOR

OK: Go to next step

6. **REPLACE RADIO RECEIVER**
   a. Replace the radio receiver with a normal one and check if the same problem occurs again.

OK:

Same problem does not occur.

NG: REPLACE COMPONENT WHICH HAS STORED THIS CODE

OK: END

DTC 01-E0 REGISTRATION COMPLETE INDICATION ERROR; DTC 01-E3 REGISTRATION DEMAND TRANSMISSION; DTC 01-E4 MULTIPLE FRAME INCOMPLETE

DESCRIPTION

DTC DETECTION CONDITION CHART

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.	-

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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.

DTC 01-E2 ON/OFF INDICATION PARAMETER ERROR

DESCRIPTION

DTC DETECTION CONDITION CHART

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.

1. **REPLACE RADIO RECEIVER**

   HINT:

   REMOVAL (See **INSTALLATION**)

   NEXT: END

DTC 44-10 DVD PLAYER MECHANICAL ERROR; DTC 44-11 DVD INSERTION AND EJECTION ERROR; DTC 44-12 DVD READING ABNORMAL

DESCRIPTION

DTC DETECTION CONDITION CHART

DTC No.	DTC Detection Condition	Trouble Area
44-10	Mechanical error in the DVD player is detected while the disc is not being inserted or ejected.	Television display assembly
44-11	Disc insertion or ejection is failed.	

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44-12	Disc read problem occurs.	

INSPECTION PROCEDURE

HINT:

After the inspection is completed, clear the DTCs.

1. **REPLACE TELEVISION DISPLAY ASSEMBLY**

   HINT:

   REMOVAL (See **TELEVISION DISPLAY**)

   NEXT: END

DTC 44-40 NO DISC

DESCRIPTION

DTC DETECTION CONDITION CHART

DTC No.	DTC Detection Condition	Trouble Area
44-40	No disc is inserted.	Television display assembly

INSPECTION PROCEDURE

HINT:

After the inspection is completed, clear the DTCs.

1. **CHECK TELEVISION DISPLAY ASSEMBLY**
   a. Check if a disc is inserted.

   OK:

   A disc is inserted.

   NG: END

   OK: REPLACE TELEVISION DISPLAY ASSEMBLY (See **TELEVISION DISPLAY**)

DTC 44-41 WRONG DISC; DTC 44-42 DISC CANNOT BE READ

DESCRIPTION

DTC DETECTION CONDITION CHART

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DTC No.	DTC Detection Condition	Trouble Area
44-41	Unsuitable disc is inserted.	• DVD or CD • Television display assembly
44-42	Disc cannot be read.	

INSPECTION PROCEDURE

HINT:

After the inspection is completed, clear the DTCs.

1. **DISC CLEANING**
   a. Disc cleaning
      1. If dirt is on the disc surface, wipe it with a soft cloth from inside to outside in a radial direction.

NOTE: Do not use a conventional record cleaner or antistatic preservative.

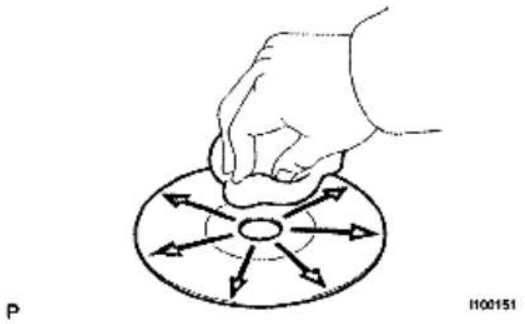


Fig. 33: Cleaning Disc Surface With Soft Dry Cloth
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

2. **CHECK DISC**
   a. Check that the disc is not deformed or cracked.

OK:

No deformation or cracks on the disc.

NG: DISC IS FAULTY

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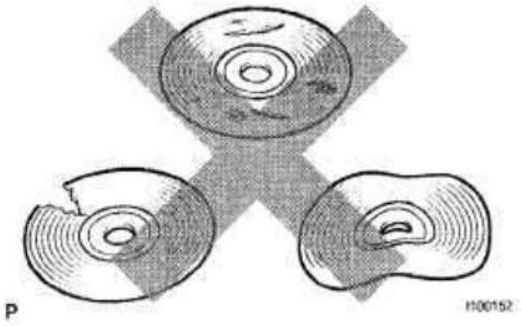


Fig. 34: Checking Disc For Deformed Or Cracked
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: Go to next step

3. **REPLACE DISC WITH ANOTHER AND RECHECK**
   a. Replace the disc with another and recheck.
      1. Replace the disc with a normal one.
      2. Clear the DTC (See **DTC CHECK/CLEAR**).
      3. Recheck DTCs and check if the same trouble occurs again.

OK:

Malfunction disappears.

NG: REPLACE TELEVISION DISPLAY ASSEMBLY (See **TELEVISION DISPLAY**)

OK: END

DTC 44-43 DVD-ROM ABNORMAL

DESCRIPTION

DTC DETECTION CONDITION CHART

DTC No.	DTC Detection Condition	Trouble Area
44-43	DVD-ROM operation is abnormal	• DVD or CD • Television display assembly

INSPECTION PROCEDURE

HINT:

After the inspection is completed, clear the DTCs.

1. **CHECK IF PROPER DISC IS INSERTED**

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a. Make sure that the DVD is an video DVD or a CD with an MP3 file, and that it is not deformed, flawed, stained, deteriorated, or otherwise defective.

OK:

Normal DVD or CD

HINT:

- Translucent or uniquely-shaped DVDs or CDs cannot be played.
- For details on playable DVDs or CDs, refer to the Owner's Manual.

NG: DISC IS FAULTY

OK: Go to next step

2. **REPLACE DISC**
   a. Replace the disc with another and recheck.
      1. Replace the disc with a normal one.
      2. Clear the DTC (See **DTC CHECK/CLEAR**).
      3. Recheck DTCs and check if the same trouble occurs again.

OK:

Malfunction disappears.

NG: REPLACE TELEVISION DISPLAY ASSEMBLY (See **TELEVISION DISPLAY**)

OK: END

DTC 44-44 DVD ERROR; DTC 44-48 EXCESS CURRENT; DTC 44-50 TRAY INSERTION/EJECTION ERROR

DESCRIPTION

DTC DETECTION CONDITION CHART

DTC No.	DTC Detection Condition	Trouble Area
44-44	Operation error in DVD mechanism	Television display assembly
44-48	Excess current is present in DVD player	
44-50	Malfunction in insertion/ejection system	

INSPECTION PROCEDURE

HINT:

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After the inspection is completed, clear the DTCs.

1. **CHECK DTC**
   a. Clear the DTC (See **DTC CHECK/CLEAR**).
2. **RECHECK DTC**
   a. Recheck DTCs and check if the same trouble occurs again.

   HINT:

   If DTCs are detected frequently, replace the television display assembly.

   OK:

   Malfunction disappears.

   NG: REPLACE TELEVISION DISPLAY ASSEMBLY (See **TELEVISION DISPLAY**)

   OK: END

DTC 44-45 EJECT ERROR; DTC 44-51 ELEVATOR ERROR; DTC 44-52 PLAYER ERROR

DESCRIPTION

DTC DETECTION CONDITION CHART

DTC No.	DTC Detection Condition	Trouble Area
44-45	Disc cannot be ejected.	Television display assembly
44-51	Mechanical error occurs during elevator operation.	
44-52	Disc cannot be clamped.	

INSPECTION PROCEDURE

HINT:

After the inspection is completed, clear the DTCs.

1. **CHECK TELEVISION DISPLAY ASSEMBLY**
   a. Check if a disc can be changed, inserted or ejected normally.

   OK:

   Malfunction disappears.

   NG: REPLACE TELEVISION DISPLAY ASSEMBLY (See **TELEVISION DISPLAY**)

   OK: END

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DTC 44-46 DISC CRACK

DESCRIPTION

DTC DETECTION CONDITION CHART

DTC No.	DTC Detection Condition	Trouble Area
44-46	Scratches or dirt is found on disc surface or disc is set upside down.	• DVD or CD • Television display assembly

INSPECTION PROCEDURE

HINT:

After the inspection is completed, clear the DTCs.

1. **CHECK THAT DISC IS INSERTED PROPERLY**
   a. Check whether or not the disc is inserted upside down.

   OK:

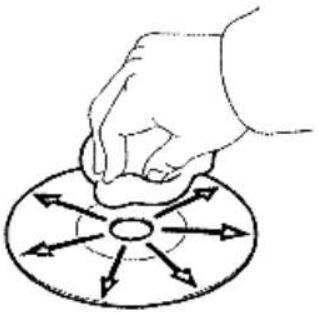
   Disc is properly inserted.

   NG: SET DISC

   OK: Go to next step

2. **DISC CLEANING**
   a. Disc cleaning
      1. If dirt is on the disc surface, wipe it with a soft cloth from inside to outside in a radial direction.

         NOTE: Do not use a conventional record cleaner or antistatic preservative.



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Fig. 35: Cleaning Disc Surface With Soft Dry Cloth
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

3. **CHECK DISC**
   a. Check that the disc is not deformed or cracked.

OK:

No deformation or cracks on the disc.

NG: DISC IS FAULTY

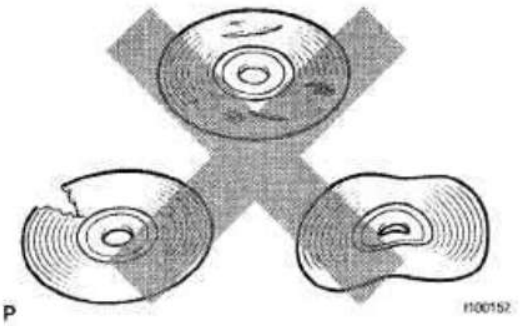


Fig. 36: Checking Disc For Deformed Or Cracked
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: Go to next step

4. **REPLACE DISC WITH ANOTHER AND RECHECK**
   a. Replace the disc with another and recheck.
      1. Replace the disc with a normal one.
      2. Clear the DTC (See **DTC CHECK/CLEAR**).
      3. Recheck DTCs and check if the same trouble occurs again.

OK:

Malfunction disappears.

NG: REPLACE TELEVISION DISPLAY ASSEMBLY (See **TELEVISION DISPLAY**)

OK: END

DTC 44-47 HIGH TEMPERATURE

DESCRIPTION

DTC DETECTION CONDITION CHART

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DTC No.	DTC Detection Condition	Trouble Area
44-47	Sensor detects that DVD unit temperature is high.	Television display assembly

INSPECTION PROCEDURE

HINT:

After the inspection is completed, clear the DTCs.

1. **CHECK TELEVISION DISPLAY ASSEMBLY**
   a. Park the vehicle in a cool place.
   b. Check that the temperature of the television display assembly becomes sufficiently low, and start the engine. Check that the malfunction disappears.

   OK:

   Malfunction disappears.

   NG: REPLACE TELEVISION DISPLAY ASSEMBLY (See **TELEVISION DISPLAY**)

   OK: END

DTC 44-78 DSP ERROR

DESCRIPTION

DTC DETECTION CONDITION CHART

DTC No.	DTC Detection Condition	Trouble Area
44-78	Error occurs during decode proceeding (MP3/WMA)	Television display assembly

INSPECTION PROCEDURE

HINT:

After the inspection is completed, clear the DTCs.

NOTE:

- **This code may be output even when a malfunction does not exist.**
- **When this code is output frequently, replace the television display assembly.**

1. **CLEAR DTC**
   a. Clear the DTC (See **DTC CHECK/CLEAR**).

   HINT:

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This DTC does not indicate a malfunction.

2. **RECHECK DTC**
   a. Recheck the DTC and check if the same trouble code occurs again.

OK:

Malfunction disappears.

NG: REPLACE TELEVISION DISPLAY ASSEMBLY (See **TELEVISION DISPLAY**)

OK: END

DTC 44-7D DISC PLAYBACK PROBLEM; DTC 44-7E NO PLAYBACK FILE ON DISC; DTC 44-7F COPYRIGHT PROTECTION ERROR

DESCRIPTION

DTC DETECTION CONDITION CHART

DTC No.	DTC Detection Condition	Trouble Area
44-7D	**When either condition below is met:** • Incompatible MP3/WMA file • File extension is MP3/WMA, but header information cannot be read and playback is not possible	• DVD or CD • Television display assembly
44-7E	**When either condition below is met:** • No audio data is recorded on disc • No playable files (MP3/WMA)	
44-7F	Copyright protection exists and playback is not possible	

INSPECTION PROCEDURE

HINT:

After the inspection is completed, clear the DTCs.

1. **REPLACE DISC**
   a. Insert disc that has playable files, and check if it can play normally.

HINT:

For details on playable files and discs, refer to the Owner's Manual.

OK:

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Disc plays normally.

NG: REPLACE TELEVISION DISPLAY ASSEMBLY (See **TELEVISION DISPLAY**)

OK: END

DTC 57-47 BLUETOOTH MODULE INITIALIZATION FAILED

DESCRIPTION

DTC DETECTION CONDITION CHART

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

INSPECTION PROCEDURE

HINT:

After the inspection is completed, clear the DTCs.

1. **REPLACE RADIO RECEIVER**

   HINT:

   REMOVAL (See **INSTALLATION**)

   NEXT: END

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

DESCRIPTION

DTC DETECTION CONDITION CHART

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.	Radio receiver
62-11	CDs cannot be inserted or ejected.	
62-12	CD read problem occurs.	
63-10	A mechanical error in the CD changer is detected while the CD is not being	

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	inserted or ejected.	
63-11	CDs cannot be inserted or ejected.	
63-12	CD read problem occurs.	

INSPECTION PROCEDURE

HINT:

After the inspection is completed, clear the DTCs.

1. **REPLACE RADIO RECEIVER**

   HINT:

   REMOVAL (See **INSTALLATION**)

   NEXT: END

DTC 62-41 WRONG DISC; DTC 62-42 DISC CANNOT BE READ; DTC 63-41 WRONG DISC; DTC 63-42 DISC CANNOT BE READ

DESCRIPTION

DTC DETECTION CONDITION CHART

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

INSPECTION PROCEDURE

HINT:

After the inspection is completed, clear the DTCs.

1. **CHECK DISC**
   a. Check that the disc is not deformed or cracked.

   OK:

   No deformation or cracks on the disc.

   NG: CHANGE DISC

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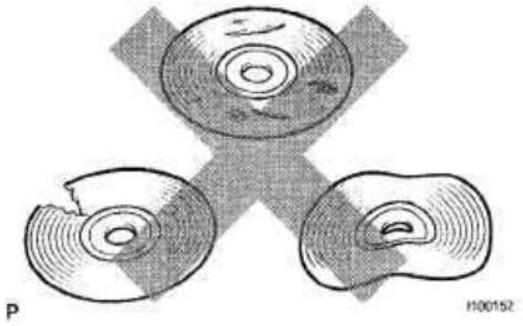


Fig. 37: Checking Disc For Deformed Or Cracked
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: Go to next step

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.

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

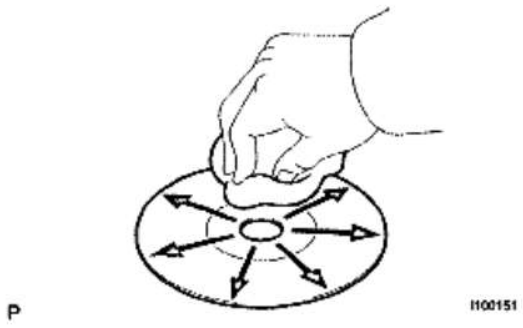


Fig. 38: Cleaning Disc Surface With Soft Dry Cloth
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

3. **CLEAR DTC**
   a. Clear the DTCs (See **DTC CHECK/CLEAR**).
4. **RECHECK DTC**
   a. Recheck for DTCs and check if the same trouble occurs again.

OK:

Malfunction disappears.

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NG: Go to step 5

OK: END

5. **REPLACE DISC WITH ANOTHER AND RECHECK**
   a. Replace the disc with another and recheck.
      1. Replace the disc with another normal one.
      2. Clear the DTCs (See **DTC CHECK/CLEAR**).
      3. Recheck for DTCs and check if the same trouble occurs again.

OK:

Malfunction disappears.

NG: REPLACE RADIO RECEIVER (See **INSTALLATION**)

OK: END

DTC 62-43 CD-ROM ABNORMAL; DTC 63-43 CD-ROM ABNORMAL

DESCRIPTION

DTC DETECTION CONDITION CHART

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

INSPECTION PROCEDURE

HINT:

After the inspection is completed, clear the DTCs.

1. **CHECK IF A PROPER CD IS INSERTED**
   a. Make sure that the CD is an audio CD or a CD with an MP3 or WMA file, and that it is not deformed, flawed, stained, burred, or otherwise defective.

OK:

Normal CD

HINT:

- Translucent or uniquely-shaped CDs cannot be played.
- CDs with adhesive paper labels should not be played.

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- Commercial audio CDs can be played.
- CD-DA files on CD-ROMs, CD-Rs, and CD-RWs can be played.
- MP3 and WMA files on CD-ROMs, CD-Rs, and CD-RWs can be played.
- For details on playable CDs, refer to the Owner's Manual.

NG: CHANGE DISC

OK: Go to next step

2. **REPLACE CD WITH ANOTHER AND RECHECK**
   a. Replace the CD with another and recheck.
      1. Replace the CD with another normal one.
      2. Clear the DTCs (See **DTC CHECK/CLEAR**).
      3. Recheck for DTCs and check if the same trouble occurs again.

OK:

Malfunction disappears.

NG: REPLACE RADIO RECEIVER (See **INSTALLATION**)

OK: END

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

DESCRIPTION

DTC DETECTION CONDITION CHART

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

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1. **CLEAR DTC**
   a. Clear the DTCs (See **DTC CHECK/CLEAR**).
2. **RECHECK DTC**
   a. Recheck for DTCs and check if the same trouble occurs again.

HINT:

If DTCs are detected frequently, replace the radio receiver.

OK:

Malfunction disappears.

NG: REPLACE RADIO RECEIVER (See **INSTALLATION**)

OK: END

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

DESCRIPTION

DTC DETECTION CONDITION CHART

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

After the inspection is completed, clear the DTCs.

1. **CHECK RADIO RECEIVER**
   a. Check if a disc can be changed, inserted or ejected normally.

OK:

Malfunction disappears.

NG: REPLACE RADIO RECEIVER (See **INSTALLATION**)

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OK: END

DTC 62-46 SCRATCHED/REVERSED DISC; DTC 63-46 SCRATCHED/REVERSED DISC

DESCRIPTION

DTC DETECTION CONDITION CHART

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

INSPECTION PROCEDURE

HINT:

After the inspection is completed, clear the DTCs.

1. **CHECK THAT CD IS INSERTED PROPERLY**
   a. Check whether or not the CD is inserted upside down.

   OK:

   CD is properly inserted.

   NG: REINSERT DISC PROPERLY

   OK: Go to next step

2. **CHECK DISC**
   a. Check that the disc is not deformed or cracked.

   OK:

   No deformation or cracks on the disc.

   NG: CHANGE DISC

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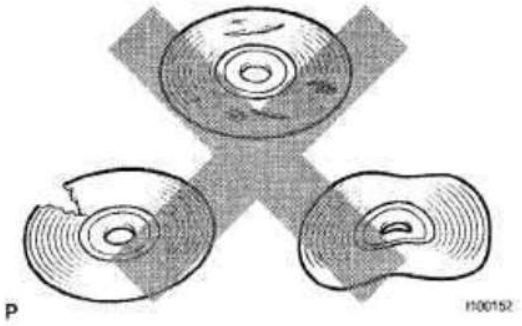


Fig. 39: Checking Disc For Deformed Or Cracked
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: Go to next step

3. **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.

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

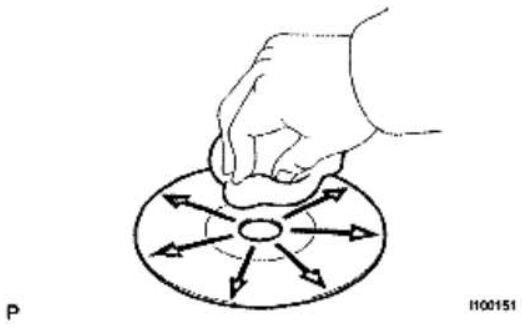


Fig. 40: Cleaning Disc Surface With Soft Dry Cloth
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

4. **CLEAR DTC**
   a. Clear the DTCs (See **DTC CHECK/CLEAR**).
5. **RECHECK DTC**
   a. Recheck for DTCs and check if the same trouble occurs again.

OK:

Malfunction disappears.

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NG: Go to step 6

OK: END

6. **REINSERT DISC PROPERLY**
   a. Replace the disc with another and recheck.
      1. Replace the disc with another normal one.
      2. Clear the DTCs (See **DTC CHECK/CLEAR**).
      3. Recheck for DTCs and check if the same trouble occurs again.

OK:

Malfunction disappears.

NG: REPLACE RADIO RECEIVER (See **INSTALLATION**)

OK: END

DTC 62-47 HIGH TEMPERATURE; DTC 63-47 HIGH TEMPERATURE

DESCRIPTION

DTC DETECTION CONDITION CHART

DTC No.	DTC Detection Condition	Trouble Area
62-47	Sensor detects that CD unit temperature is high. (Over 80°C (176°F))	Radio receiver
63-47	Sensor detects that CD unit temperature is high. (Over 80°C (176°F))	

INSPECTION PROCEDURE

HINT:

After the inspection is completed, clear the DTCs.

1. **CHECK RADIO RECEIVER**
   a. Park the vehicle in a cool place.
   b. Check that the temperature of the radio receiver becomes sufficiently low, and start the engine. Check that the malfunction disappears.

OK:

Malfunction disappears.

NG: REPLACE RADIO RECEIVER (See **INSTALLATION**)

OK: END

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DTC 62-78 DSP ERROR; DTC 63-78 DSP ERROR

DESCRIPTION

DTC DETECTION CONDITION CHART

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.

NOTE:

- **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 **DTC CHECK/CLEAR**).
2. **RECHECK DTC**
   a. Recheck for DTCs and check if the same trouble occurs again.

OK:

Malfunction disappears.

NG: REPLACE RADIO RECEIVER (See **INSTALLATION**)

OK: END

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

DESCRIPTION

DTC DETECTION CONDITION CHART

DTC No.	DTC Detection Condition	Trouble Area
62-7D	• An incompatible MP3/WMA file is used. • Although the file has an extension of "mp3" or ".wma", the header information cannot be read.	
	• A disc with no music data is used.	

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

INSPECTION PROCEDURE

HINT:

After the inspection is completed, clear the DTCs.

1. **CHANGE DISC**
   a. Insert a disc with a playable file and check if the disc can be played correctly.

   HINT:

   For details on playable files and discs, refer to the Owner's Manual.

   OK:

   The disc can be played correctly.

   NG: REPLACE RADIO RECEIVER (See **INSTALLATION**)

   OK: END

NOISE OCCURS

INSPECTION PROCEDURE

1. **NOISE CONDITION**
   a. Check from which direction the noise comes (front left or right, or rear left or right).
      1. Check from which direction the noise comes.

   OK:

   The location of the noise source can be determined.

   NG: Go to step 3

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OK: Go to next step

2. **CHECK SPEAKERS**
   a. Check the installation conditions of the speaker units that are located near the noise source and that there are no cracks, scratches, deformation, or other failures.

Result

RESULT CHART

Condition	Proceed to
A speaker is installed incorrectly	A
Foreign objects are in the speaker	B
A speaker cone paper is broken	C
No malfunction is found	D

A: REINSTALL SPEAKER

B: REMOVE FOREIGN OBJECT

C: REPLACE SPEAKER

D: Go to next step

3. **CHECK NOISE CONDITIONS**
   a. Check the noise condition.

HINT:

The radio has a noise prevention function to reduce noise when listening to the radio. If a loud noise occurs, check whether the ground at the antenna mounting base and the noise prevention unit are installed and wired correctly.

NOISE OCCURS CONDITION CHART

Conditions under which noise occurs	Noise source
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 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 during wiper operation.	Wiper
Noise occurs when the brake pedal is depressed.	Stop light switch
Others	Static electricity

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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 respective noise filter.
- To save time and avoid a misdiagnosis, first make sure that the noise is not coming from outside the vehicle.
- Troubleshoot noises 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.

NG: REPAIR OR REPLACE NOISE SOURCE

OK: PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (See **PROBLEM SYMPTOMS TABLE**)

PRESSING POWER SWITCH DOES NOT TURN ON SYSTEM

INSPECTION PROCEDURE

1. **CHECK VEHICLE CONDITION**
   a. Check that conditions in the cabin are not likely to cause condensation.

HINT:

This problem occurs if the cabin is humid and the temperature changes rapidly. This may produce condensation, resulting in a short circuit.

OK:

Condensation is not likely being produced.

NG: DRY OUT CABIN AND RECHECK CONDITION

OK: PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (See **PROBLEM SYMPTOMS TABLE**)

NO SOUND CAN BE HEARD FROM SPEAKERS

INSPECTION PROCEDURE

1. **CHECK RADIO RECEIVER**
   a. Check radio receiver setting.

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1. Check that the volume is not set to "0".
2. Check that "MUTE" is off.

OK:

The volume is not set to "0" and "MUTE" is off.

NG: PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (See **PROBLEM SYMPTOMS TABLE**)

OK: END

SOUND QUALITY IS BAD ONLY WHEN CD IS PLAYED (VOLUME IS TOO LOW)

INSPECTION PROCEDURE

1. **REPLACE CD WITH ANOTHER AND RECHECK**
   a. Replace the CD with another one and recheck.
      1. Check if the problem recurs using another CD.

OK:

Malfunction disappears.

NG: REPLACE RADIO RECEIVER (See **INSTALLATION**)

OK: END

CD CANNOT BE EJECTED

INSPECTION PROCEDURE

1. **PRESS "EJECT" AND CHECK OPERATION**
   a. Press the CD EJECT switch of the radio receiver for 2 seconds or more and check that the CD is ejected.

OK:

CD is ejected.

NG: REPLACE RADIO RECEIVER (See **INSTALLATION**)

OK: Go to next step

2. **REPLACE CD WITH ANOTHER AND RECHECK**
   a. Insert another CD and check if it is ejected.

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OK:

CD is ejected.

NG: REPLACE RADIO RECEIVER (See **INSTALLATION**)

OK: END

CD CANNOT BE INSERTED/PLAYED OR CD IS EJECTED RIGHT AFTER INSERTION

INSPECTION PROCEDURE

1. **CHECK IF A PROPER CD IS INSERTED**
   a. Make sure that the CD is an audio CD or a CD with an MP3 or WMA file, and that it is not deformed, flawed, stained, burred, or otherwise defective.

OK:

Normal CD.

HINT:

- Translucent or uniquely-shaped CDs cannot be played.
- CDs with adhesive paper labels should not be played.
- Commercial audio CDs can be played.
- CD-DA files on CD-ROMs, CD-Rs, and CD-RWs can be played.
- MP3 and WMA files on CD-ROMs, CD-Rs, and CD-RWs can be played.
- For details on playable CDs, refer to the Owner's Manual.

NG: CHANGE DISC

OK: Go to next step

2. **CHECK THAT CD IS INSERTED PROPERLY**
   a. Check whether or not the CD is inserted upside down.

OK:

CD is properly inserted.

NG: INSERT CD PROPERLY

OK: Go to next step

3. **CHECK CD**

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a. Clean the disc by wiping it with a soft cloth from the inside to the outside in a radial direction.

OK:

Malfunction disappears.

NOTE: Do not use a conventional record cleaner or antistatic preservative.

NG: Go to step 4

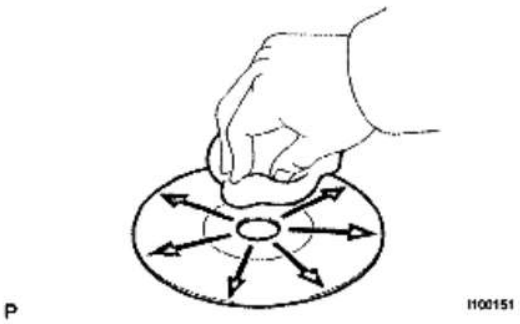


Fig. 41: Cleaning Disc Surface With Soft Dry Cloth
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: END

4. **REPLACE CD WITH ANOTHER AND RECHECK**
   a. Replace the CD with a normal one and check that the malfunction disappears.

OK:

Malfunction disappears.

NG: REPLACE RADIO RECEIVER (See **INSTALLATION**)

OK: END

CD SOUND SKIPS

INSPECTION PROCEDURE

1. **CHECK CD**
   a. Check the CD.

OK:

The CD is clean.

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HINT:

If dirt is on the CD surface, wipe it clean with a soft cloth from the inside to the outside in a radial direction.

NOTE: Do not use a conventional record cleaner or antistatic preservative.

NG: CLEAN CD

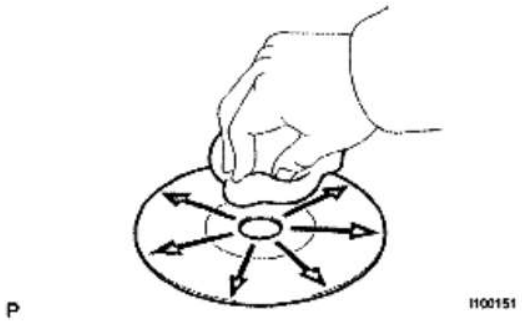


Fig. 42: Cleaning Disc Surface With Soft Dry Cloth
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: Go to next step

2. **CHECK CD**
   a. Check that the CD is not deformed or cracked.

OK:

No deformation or cracks on the CD.

NG: CHANGE DISC

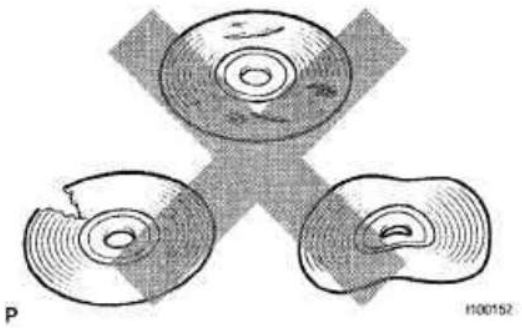


Fig. 43: Checking Disc For Deformed Or Cracked
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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OK: Go to next step

3. **CHECK OPERATION USING ANOTHER CD**
   a. Check using another CD.
      1. Check if the problem recurs using another CD.

OK:

The problem does not occur.

NG: Go to step 4

OK: END

4. **CHECK RADIO RECEIVER**
   a. Check the radio receiver installation condition.
      1. Check that the radio receiver is properly installed.

OK:

Radio receiver is properly installed.

NG: REINSTALL RADIO RECEIVER PROPERLY

OK: REPLACE RADIO RECEIVER (See **INSTALLATION**)

RADIO BROADCAST CANNOT BE RECEIVED OR POOR RECEPTION

INSPECTION PROCEDURE

1. **CHECK RADIO RECEIVER**
   a. Check the radio's automatic station search function.
      1. Check the radio's automatic station search function by activating it.

OK:

The radio's automatic station search function works properly.

NG: Go to step 2

OK: REPLACE RADIO RECEIVER (See **INSTALLATION**)

2. **CHECK OPTIONAL COMPONENTS**
   a. Check optional components (sun-shade film, telephone antenna, etc.).
      1. Check if any optional components that may decrease reception capacity, such as sunshade

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film or a telephone antenna, are installed.

OK:

Optional components are installed.

NOTE: Do not remove any optional components installed by the customer without his or her consent.

NG: Go to step 3

OK: REMOVE OPTIONAL COMPONENTS AND CHECK AGAIN (SEE NOTICE ABOVE)

3. **CHECK RADIO RECEIVER**
   a. Preparation for check
      1. Remove the antenna plug from the radio receiver.
   b. Check for noise
      1. Turn the ignition switch on (ACC) with the radio receiver connector connected.
      2. Turn the radio on and tune into AM mode.
      3. Place a screwdriver, thin wire, or other metal object on the radio receiver's antenna jack and check that noise can be heard from the speaker.

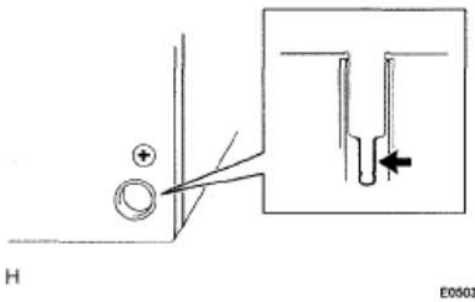


Fig. 44: Locating Radio Receiver Antenna Plug
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK:

Noise occurs.

NG: REPLACE RADIO RECEIVER (See **INSTALLATION**)

OK: Go to next step

4. **CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - ANTENNA AMPLIFIER)**
   a. Disconnect the radio receiver connector and the antenna amplifier connector.

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

Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
E2-13 (ANT) - E7-1(B) (*1)	Always	Below 1 ohms
E8-8 (ANT) - E7-1 (B) (*2)	Always	Below 1 ohms
E2-13 (ANT) - Body ground (*1)	Always	10 kohms or higher
E8-8 (ANT) - Body ground (*2)	Always	10 kohms or higher
HINT: • *1: for Premium models • *2: for Standard models		

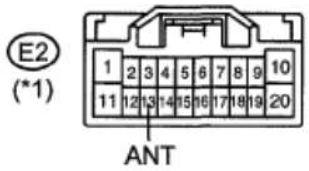
NG: REPAIR OR REPLACE HARNESS OR CONNECTOR

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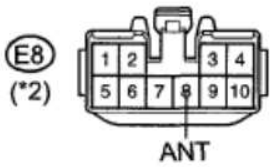
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Front view of wire harness connector:
(to Radio Receiver)



Front view of wire harness connector:
(to Radio Receiver)



Front view of wire harness connector:
(to Antenna Amplifier)

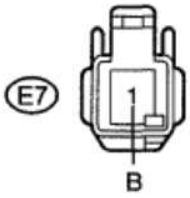


Fig. 45: Identifying Radio Receiver And Antenna Amplifier Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: Go to next step

5. **INSPECT RADIO RECEIVER**
   a. Reconnect the radio receiver connector.
   b. Measure the voltage according to the value(s) in the table below.

Standard voltage

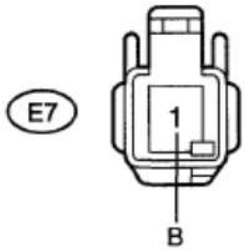
TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
E7-1 (B) - Body ground	Ignition switch on (IG) Radio switch ON	11 to 14 V

NG: REPLACE RADIO RECEIVER (See **INSTALLATION**)

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Front view of wire harness connector:
(to Antenna Amplifier)



E150785E06

Fig. 46: Identifying Antenna Amplifier Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: Go to next step

6. **CHECK ANTENNA CORD**
   a. Remove the antenna plug of the radio receiver and antenna.
   b. Measure the resistance between the antenna and radio receiver to check for an open circuit in the antenna cord.

      Standard resistance:

      Below 1 ohms

   c. Measure the resistance between the antenna cord and body ground to check for a short circuit in the antenna cord.

Standard resistance:

10 kohms or higher

Result

RESULT CHART

Result	Proceed to
OK	A
NG (for Glass Antenna Type)	B
NG (for Pole Antenna Type)	C

B: REPLACE ANTENNA CORD (for Glass Antenna Type) (See **REMOVAL**)

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C: REPLACE ANTENNA CORD (for Pole Antenna Type) (See **REMOVAL**)

A: Go to next step

7. **CONFIRM MODEL**

Result

RESULT CHART

Result	Proceed to
Glass Antenna Type	A
Pole Antenna Type	B

B: Go to step 10

A: Go to next step

8. **CHECK GLASS ANTENNA**
   a. Check for continuity of the antenna.

HINT:

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

NOTE: 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 resistance, 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.

NG: REPAIR GLASS ANTENNA (See **WINDOW GLASS ANTENNA WIRE**)

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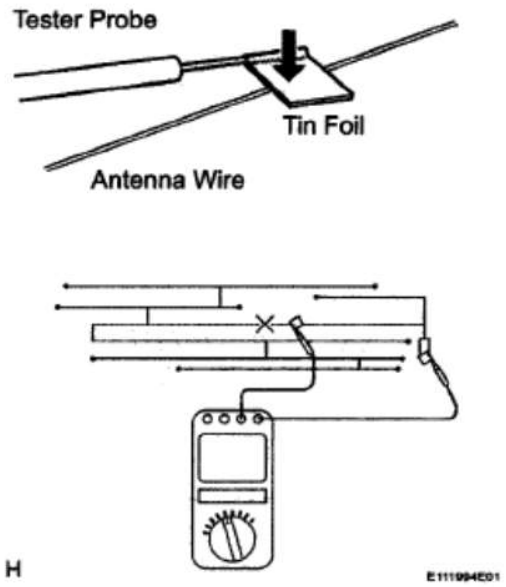


Fig. 47: Checking Continuity Between Antenna Wire
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: Go to next step

9. **REPLACE AMPLIFIER ANTENNA**
   a. Replace the amplifier antenna and check if radio broadcasts can be received normally.

OK:

Radio broadcasts can be received.

NG: REPLACE RADIO RECEIVER (See **INSTALLATION**)

OK: NORMAL OPERATION

10. **CHECK PULL TOP ANTENNA POLE SUB-ASSEMBLY**
    a. Check that the pull top antenna pole sub-assembly is securely installed.

OK:

The pull top antenna pole sub-assembly is installed properly.

NG: CHECK AND REPLACE PULL TOP ANTENNA POLE SUB-ASSEMBLY (See **RADIO ANTENNA POLE**)

OK: Go to next step

11. **REPLACE FENDER ANTENNA ASSEMBLY**

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a. Replace the fender antenna assembly and check if radio broadcasts can be received normally.

OK:

Radio broadcasts can be received.

NG: REPLACE RADIO RECEIVER (See **INSTALLATION**)

OK: NORMAL OPERATION

POOR SOUND QUALITY IN ALL MODES (LOW VOLUME)

INSPECTION PROCEDURE

1. **CHECK AUDIO SETTINGS**
   a. Set "BASS", "MID", and "TREB" to the initial values and check that sound is normal.

OK:

Malfunction disappears.

NG: Go to step 2

OK: END

2. **COMPARE WITH ANOTHER VEHICLE OF SAME MODEL**
   a. Compare with another vehicle of the same model.
      1. Compare with another vehicle of the same model which does not have trouble to see if there is any difference in the sound quality.

OK:

No difference is found.

NG: PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (See **PROBLEM SYMPTOMS TABLE**)

OK: END

CELLULAR PHONE REGISTRATION FAILURE, PHONE DIRECTORY TRANSFER FAILURE

INSPECTION PROCEDURE

1. **CHECK CURRENT CONDITIONS**
   a. Proceed to the next step according to the table below.

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Result

RESULT CHART

Result	Proceed to
Another "Bluetooth" compatible cellular phone is present.	A
Another "Bluetooth" compatible vehicle is present.	B
None of the above	C

B: Go to step 3

C: Go to step 4

A: Go to next step

2. **CHECK USING ANOTHER CELLULAR PHONE**
   a. Check if the system functions using another "Bluetooth" compatible cellular phone.

HINT:

- Confirm that either the same or a different version of another "Bluetooth" compatible cellular phone complies with the system.
- Depending on the version, some "Bluetooth" compatible cellular phones cannot be used.

OK:

The system functions.

NG: REPLACE RADIO RECEIVER (See **INSTALLATION**)

OK: USE A "BLUETOOTH" COMPATIBLE CELLULAR PHONE

3. **CHECK USING ANOTHER "BLUETOOTH" COMPATIBLE VEHICLE**
   a. Register the cellular phone with another vehicle and check if the system functions normally.

HINT:

Depending on the version, some "Bluetooth" compatible cellular phones cannot be used.

OK:

The system functions.

NG: USE A "BLUETOOTH" COMPATIBLE CELLULAR PHONE

OK: REPLACE RADIO RECEIVER (See **INSTALLATION**)

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4. **CHECK CELLULAR PHONE**
   a. Check if the cellular phone is "Bluetooth" compatible.

   HINT:

   Some versions of "Bluetooth" compatible cellular phones may not function.

   OK:

   The phone is "Bluetooth" compatible.

   NG: USE A "BLUETOOTH" COMPATIBLE CELLULAR PHONE

   OK: Go to next step

5. **CHECK CELLULAR PHONE**
   a. Check if a call can be made from the cellular phone.

   HINT:

   When the battery is low, registration or directory transfer cannot be done.

   OK:

   A call can be made from the cellular phone.

   NG: REPAIR OR REPLACE CELLULAR PHONE

   OK: REPLACE RADIO RECEIVER (See **INSTALLATION**)

CELLULAR PHONE CANNOT SEND/RECEIVE

INSPECTION PROCEDURE

1. **CHECK "BLUETOOTH" SETTINGS**
   a. Check if the "Bluetooth" settings are correct.

   OK:

   "Bluetooth" settings are correct.

   NG: SET SETTINGS CORRECTLY

   OK: Go to next step

2. **CHECK CELLULAR PHONE**

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a. Check if the cellular phone is "Bluetooth" compatible.

HINT:

Some versions of "Bluetooth" compatible cellular phones may not function.

OK:

Phone is "Bluetooth" compatible.

NG: END (ONLY A "BLUETOOTH" COMPATIBLE CELLULAR PHONE CAN BE USED)

OK: Go to next step

3. **CHECK SETTINGS**
   a. Check if the cellular phone functions.

HINT:

The cellular phone is unable to call under any of the following conditions.

- The cellular phone is locked.
- The directory is being transferred.
- The line is crossed.
- Outside service range.
- The power is off.
- The cellular phone is not connected to "Bluetooth" ("BT" is displayed while connected).

OK:

None of the above conditions exist.

NG: SET CORRECTLY

OK: Go to next step

4. **CHECK CELLULAR PHONE**
   a. Check if the cellular phone can make a call.

HINT:

When the battery is low, calls cannot be made or received.

OK:

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Cellular phone can make a call.

NG: REPAIR OR REPLACE CELLULAR PHONE

OK: Go to next step

5. **CHECK RECEPTION**
   a. Set the cellular phone so that it can receive calls.
   b. Place the cellular phone close to the radio receiver.
   c. Check if the cellular phone has reception according to the radio receiver.

OK:

Cellular phone has reception.

NG: REPLACE RADIO RECEIVER (See **INSTALLATION**)

OK: PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (See **PROBLEM SYMPTOMS TABLE**)

THE OTHER CALLER'S VOICE CANNOT BE HEARD, IS TOO QUIET, OR DISTORTED

INSPECTION PROCEDURE

1. **CHECK CELLULAR PHONE**
   a. Check if the voice on the other side can be heard using a cellular phone.

OK:

Voice can be heard.

NG: REPAIR OR REPLACE CELLULAR PHONE

OK: Go to next step

2. **CHECK AUDIO AND VISUAL SYSTEM**
   a. Check that audio sound can be heard from the driver side speaker.

OK:

Audio sound can be heard.

HINT:

If audio sound cannot be heard, proceed to "No sound can be heard from speakers. (Audio is mute.)" in PROBLEM SYMPTOMS TABLE (See **PROBLEM SYMPTOMS TABLE**).

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NG: PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (See **PROBLEM SYMPTOMS TABLE**)

OK: Go to next step

3. **CHECK SETTINGS**
   a. Check that the received voice level setting on the cellular phone is not too low.

OK:

The received voice level setting is not too low.

NG: SET VOLUME TO HIGH

OK: PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (See **PROBLEM SYMPTOMS TABLE**)

THE OTHER CALLER CANNOT HEAR YOUR VOICE, OR YOUR VOICE IS TOO QUIET OR DISTORTED

INSPECTION PROCEDURE

1. **CHECK CELLULAR PHONE**
   a. Check if the other side can hear your voice properly.

OK:

Your voice can be heard correctly.

NG: REPLACE CELLULAR PHONE

OK: Go to next step

2. **CHECK SETTINGS**
   a. Check if the mute is set to ON.

OK:

Mute is not set to ON.

NG: TURN MUTE OFF

OK: PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (See **PROBLEM SYMPTOMS TABLE**)

VEHICLE SPEED SIGNAL CIRCUIT BETWEEN RADIO RECEIVER AND COMBINATION METER

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DESCRIPTION

The circuit is necessary for the ASL (Automatic Sound Levelizer) 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 volume in order to enable clear audio quality 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 any of the ECUs or in the wire harness connected to an ECU, ail systems in the diagram below will not operate normally.

WIRING DIAGRAM

1. **for 2GR-FE**

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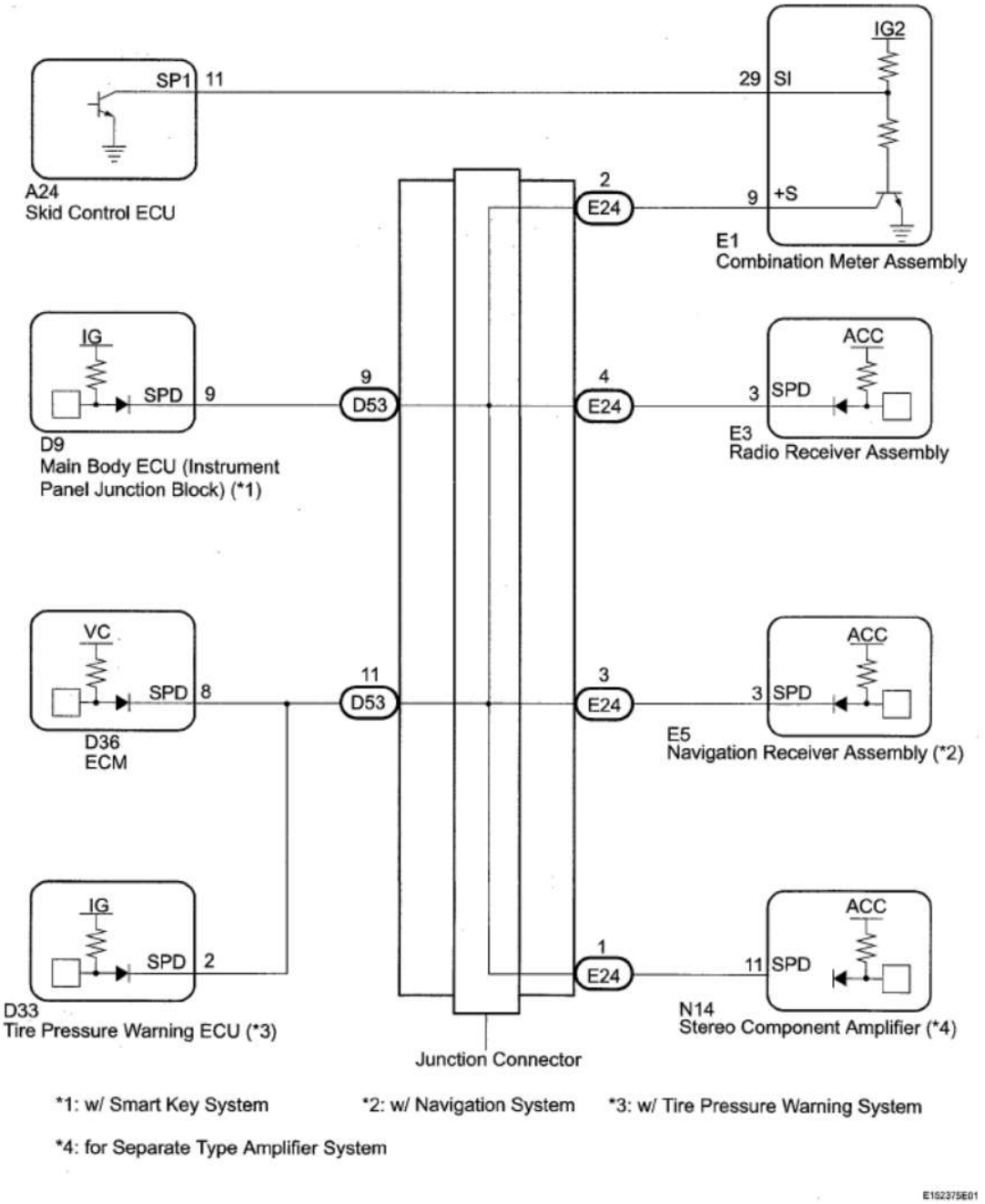


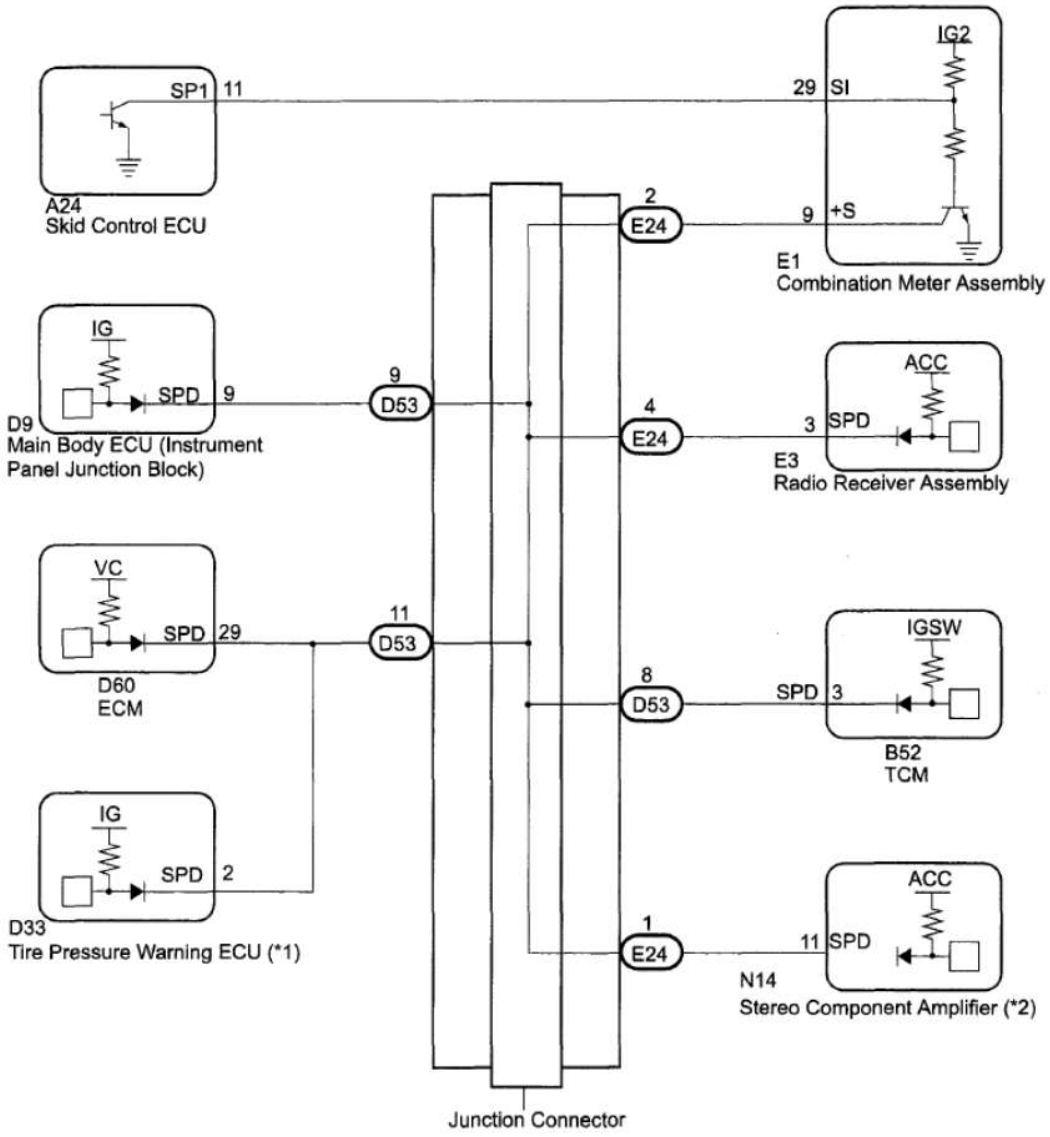
Fig. 48: Vehicle Speed Signal Circuit Between Radio Receiver And Combination Meter - Wiring Diagram (For 2GR-FE)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

2. **for 1AR-FE**

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*1: w/ Tire Pressure Warning System *2: for Separate Type Amplifier System

E181535E01

Fig. 49: Vehicle Speed Signal Circuit Between Radio Receiver And Combination Meter - Wiring Diagram (For 1AR-FE)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

1. **INSPECT COMBINATION METER ASSEMBLY (OUTPUT WAVEFORM)**
   a. Check the output waveform.
      1. Remove the combination meter assembly with the connector still connected.

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2. Connect an oscilloscope to terminals E1-9 (+S) and body ground.
3. Ignition switch on (IG).
4. Turn the wheel slowly.
5. Check the signal waveform according to the condition(s) in the table below.

ITEM CONDITION CHART

Item	Condition
Tool setting	5V/DIV., 20ms./DIV.
Vehicle condition	Driving at approx. 20 km/h (12 mph)

OK:

The waveform is displayed as shown in the illustration.

HINT:

When the system is functioning normally, one wheel revolution generates 4 pulses. As the vehicle speed increases, the width indicated by (A) in the illustration narrows.

NG: GO TO METER/GAUGE SYSTEM (See **SPEED SIGNAL CIRCUIT**)

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Component with harness connected:
(Combination Meter Assembly)

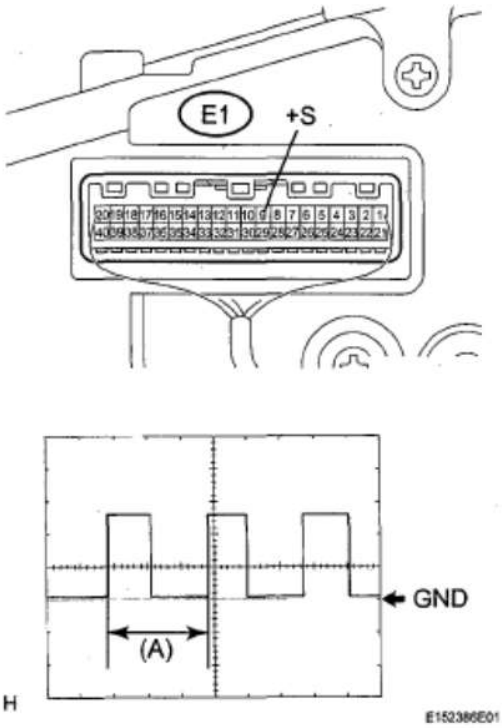


Fig. 50: Identifying Combination Meter Assembly Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: Go to next step

2. **CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - COMBINATION METER ASSEMBLY)**
   a. Disconnect the radio receiver connector and the combination meter assembly connector.
   b. Measure the resistance according to the value(s) in the table below.

Standard resistance

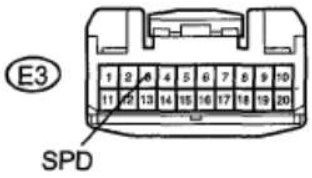
TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
E3-3 (SPD) - E1-9 (+S)	Always	Below 1 ohms

NG: Go to step 3

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Front view of wire harness connector:
(to Radio Receiver)



Front view of wire harness connector:
(to Combination Meter Assembly)

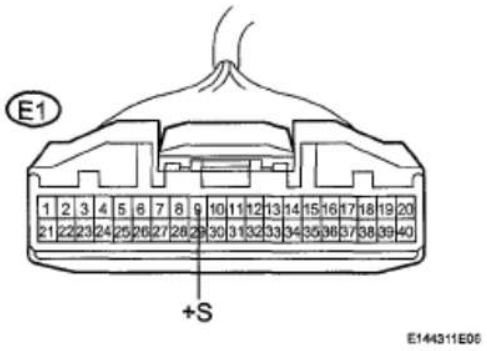


Fig. 51: Identifying Radio Receiver And Combination Meter Assembly Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: REPLACE RADIO RECEIVER (See **INSTALLATION**)

3. **CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - JUNCTION CONNECTOR)**
   a. Disconnect the junction connector.
   b. Measure the resistance according to the value(s) in the table below.

Standard resistance

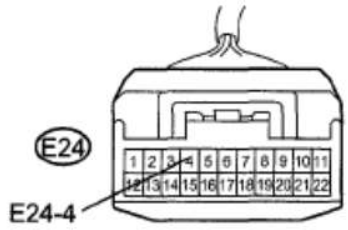
TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
E24-4 - E3-3 (SPD)	Always	Below 1 ohms

NG: REPAIR OR REPLACE HARNESS OR CONNECTOR (RADIO RECEIVER - JUNCTION CONNECTOR)

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Front view of wire harness connector:
(to Junction Connector)



Front view of wire harness connector:
(to Radio Receiver)

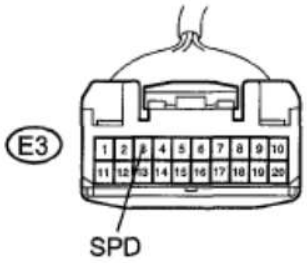


Fig. 52: Identifying Radio Receiver And Junction Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: REPAIR OR REPLACE HARNESS OR CONNECTOR (JUNCTION CONNECTOR)

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 to when a 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.

WIRING DIAGRAM

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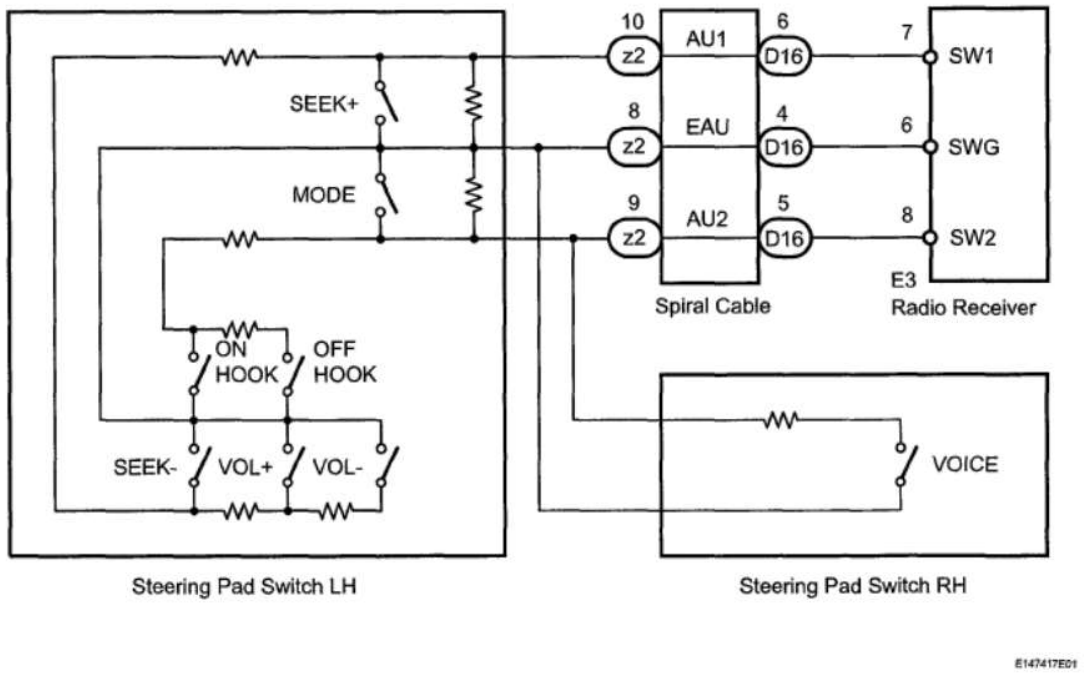


Fig. 53: Steering Pad Switch - Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

NOTE: 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 AIRBAG SYSTEM).

1. **INSPECT RADIO RECEIVER**
   a. Disconnect the radio receiver connector.
   b. Measure the resistance according to the value(s) in the table below.

Front view of wire harness connector:
(to Radio Receiver)

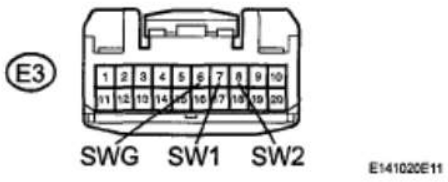


Fig. 54: Identifying Radio Receiver Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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Standard resistance

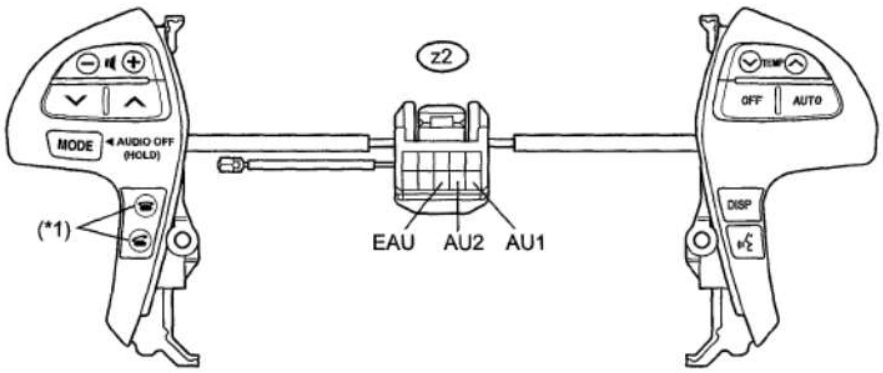
TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
E3-7 (SW1) - E3-6 (SWG)	No switch is pushed	Approx. 100 kohms
E3-7 (SW1) - E3-6 (SWG)	SEEK+ switch: push	0 to 2.5 ohms
E3-7 (SW1) - E3-6 (SWG)	SEEK- switch: push	Approx. 0.3 kohms
E3-7 (SW1) - E3-6 (SWG)	VOL+ switch: push	Approx. 1 kohms
E3-7 (SW1) - E3-6 (SWG)	VOL- switch: push	Approx. 3.1 kohms
E3-8 (SW2) - E3-6 (SWG)	No switch is pushed	Approx. 100 kohms
E3-8 (SW2) - E3-6 (SWG)	MODE switch: push	0 to 2.5 ohms
E3-8 (SW2) - E3-6 (SWG)	ON HOOK switch: push ((1))	Approx. 0.3 kohms
E3-8 (SW2) - E3-6 (SWG)	OFF HOOK switch: push((1))	Approx. 1 kohms
(1) for Premium models		

NG: Go to step 2

OK: PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (See **PROBLEM SYMPTOMS TABLE**)

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.



P E162197E02

Fig. 55: Identifying Steering Pad Switch Connector Terminals And Hook Switch
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

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Tester Connection	Condition	Specified Condition
z2-10 (AU1) - z2-8 (EAU)	No switch is pushed	Approx. 100 kohms
z2-10 (AU1) - z2-8 (EAU)	SEEK+ switch: push	0 to 2.5 ohms
z2-10 (AU1) - z2-8 (EAU)	SEEK- switch: push	Approx. 0.3 kohms
z2-10 (AU1) - z2-8 (EAU)	VOL+ switch: push	Approx. 1 kohms
z2-10 (AU1) - z2-8 (EAU)	VOL- switch: push	Approx. 3.1 kohms
z2-9 (AU2) - z2-8 (EAU)	No switch is pushed	Approx. 100 kohms
z2-9 (AU2) - z2-8 (EAU)	MODE switch: push	0 to 2.5 ohms
z2-9 (AU2) - z2-8 (EAU)	ON HOOK switch: push ((1))	Approx. 0.3 kohms
z2-9 (AU2) - z2-8 (EAU)	OFF HOOK switch: push ((1))	Approx. 1 kohms
(1) for Premium models		

NG: REPLACE STEERING PAD SWITCH ASSEMBLY (See **REMOVAL**)

OK: Go to next step

3. **INSPECT SPIRAL CABLE**
   a. Disconnect the steering pad switch and spiral cable connectors.
   b. Measure the resistance according to the value(s) in the table below.

Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Spiral Cable Position	Specified Condition
z2-8 (EAU) - D16-4 (EAU)	Center	Below 1 ohms
	2.5 rotations to the left	
	2.5 rotations to the right	
z2-10 (AU1) - D16-6 (AU1)	Center	Below 1 ohms
	2.5 rotations to the left	
	2.5 rotations to the right	
z2-9 (AU2) - D16-5 (AU2)	Center	Below 1 ohms
	2.5 rotations to the left	
	2.5 rotations to the right	

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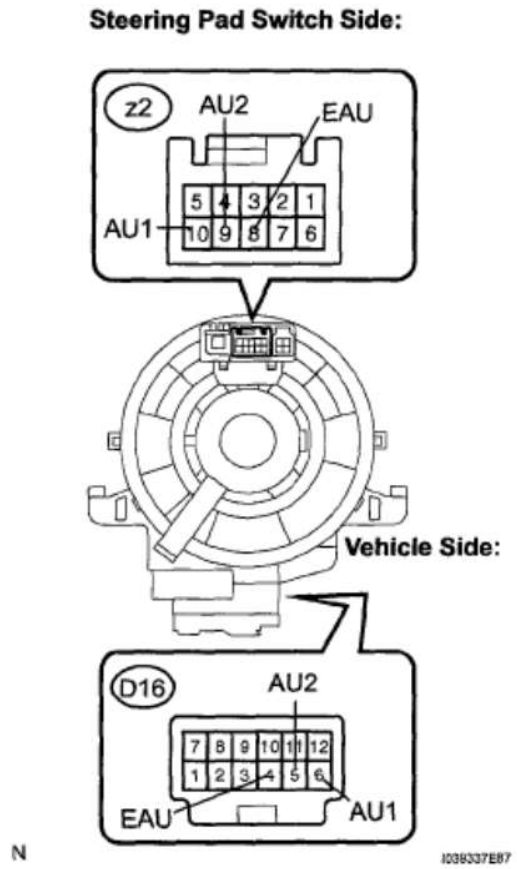


Fig. 56: Identifying Steering Pad Switch And Spiral Cable Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

NOTE: **The spiral cable is an important part of the SRS airbag system. Incorrect removal or installation of the spiral cable may prevent the airbag from deploying. Be sure to read the page shown in the brackets.**

HINT:

- REMOVAL (See **REMOVAL**)
- INSTALLATION (See **INSTALLATION**)

NG: REPLACE SPIRAL CABLE (See **INSPECTION**)

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

ILLUMINATION CIRCUIT

DESCRIPTION

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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

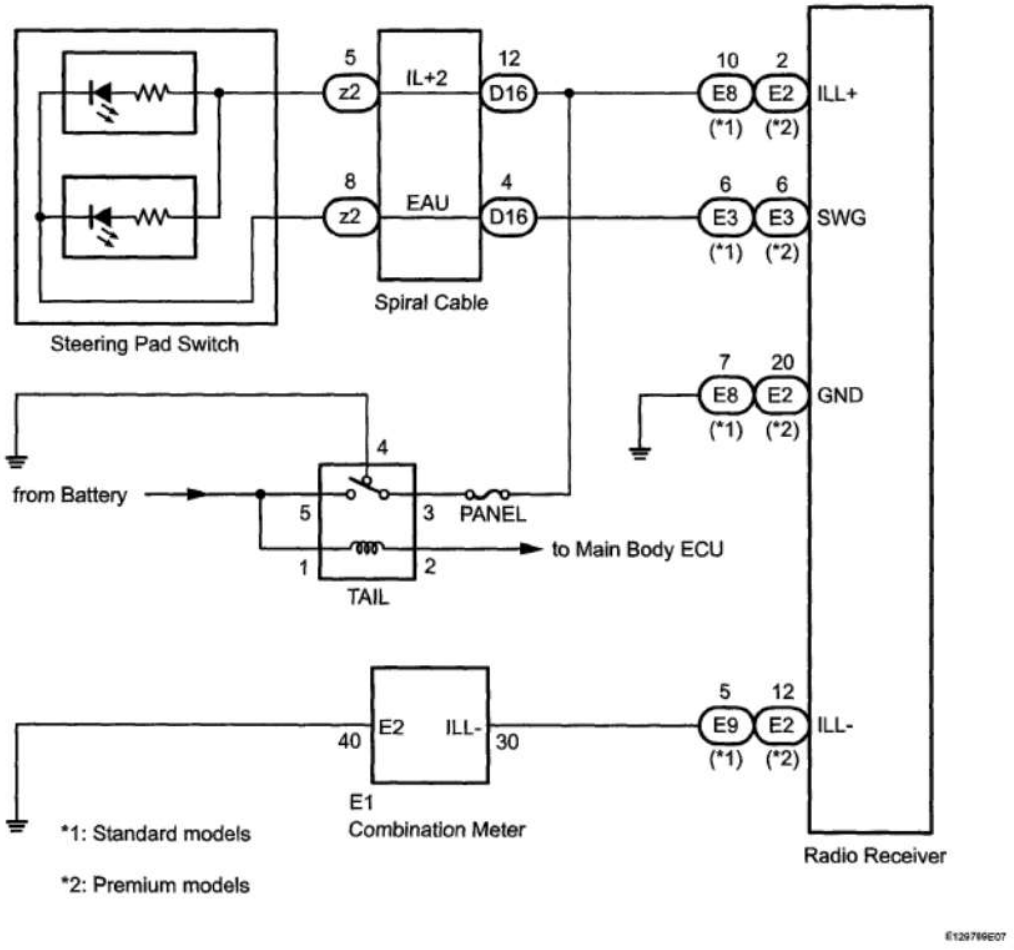


Fig. 57: Illumination - Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

NOTE: 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 AIRBAG SYSTEM).

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.

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Result

RESULT CHART

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

B: Go to step 6

C: GO TO LIGHTING SYSTEM (See **PROBLEM SYMPTOMS TABLE**)

D: GO TO METER/GAUGE SYSTEM (See **PROBLEM SYMPTOMS TABLE**)

A: Go to next step

2. **CHECK HARNESS AND CONNECTOR (BATTERY - SPIRAL CABLE)**
   a. Disconnect the spiral cable connector.
   b. Measure the voltage according to the value(s) in the table below.

Standard voltage

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
D16-12 (IL+2) - Body ground	Light control SW TAIL or HEAD	11 to 14 V

NG: REPAIR OR REPLACE HARNESS OR CONNECTOR

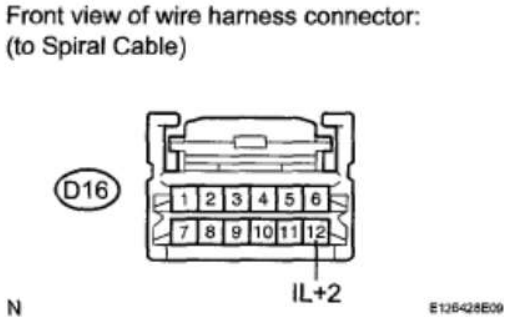


Fig. 58: Identifying Spiral Cable Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: Go to next step

3. **INSPECT STEERING PAD SWITCH ASSEMBLY**

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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.

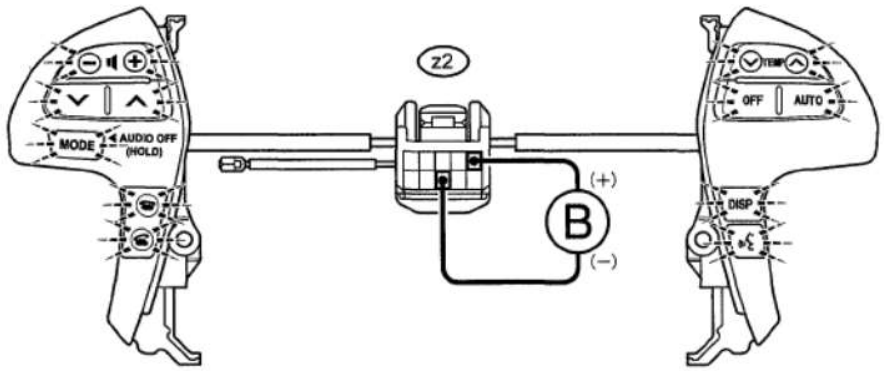


Fig. 59: Identifying Steering Pad Switch Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

c. Check if the illumination for the steering pad switch assembly comes on.

OK:

Illumination for the steering pad switch assembly comes on.

NG: REPLACE STEERING PAD SWITCH ASSEMBLY (See **REMOVAL**)

OK: Go to next step

4. **INSPECT SPIRAL CABLE**
   a. Disconnect the steering pad switch and the spiral cable connectors.
   b. Measure the resistance according to the value(s) in the table below.

Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Spiral Cable Position	Specified Condition
z2-8 (EAU) - D16-4 (EAU)	Center	Below 1 ohms
	2.5 rotations to the left	
	2.5 rotations to the right	
z2-5 (IL+2) - D16-12 (IL+2)	Center	Below 1 ohms
	2.5 rotations to the left	
	2.5 rotations to the right	

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NOTE: **The spiral cable is an important part of the SRS airbag system. Incorrect removal or installation of the spiral cable may prevent the airbag from deploying. Be sure to read the page shown in the brackets.**

HINT:

- REMOVAL (See **REMOVAL**)
- INSTALLATION (See **INSTALLATION**)

NG: REPLACE SPIRAL CABLE (See **INSPECTION**)

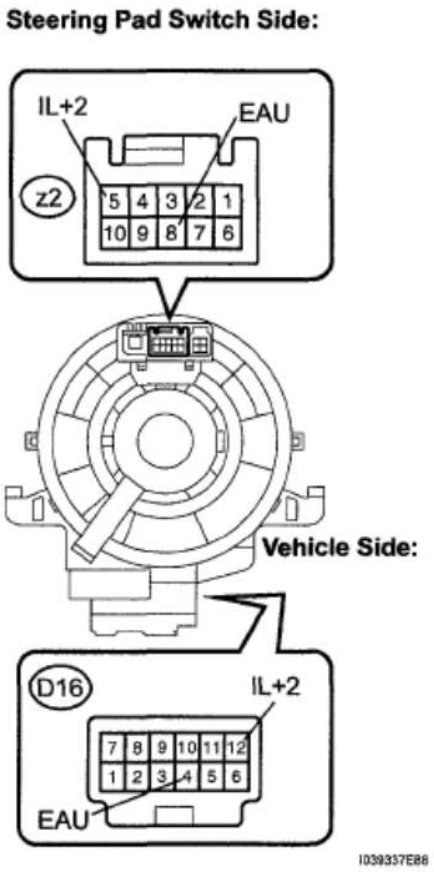


Fig. 60: Identifying Steering Pad Switch And Spiral Cable Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: Go to next step

5. **CHECK HARNESS AND CONNECTOR (SPIRAL CABLE - RADIO RECEIVER)**
   a. Disconnect the connectors from the radio receiver and spiral cable.
   b. Measure the resistance according to the value(s) in the table below.

Standard resistance

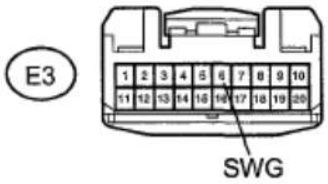
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TESTER CONNECTION SPECIFIED CONDITION CHART

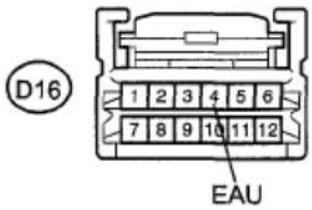
Tester Connection	Condition	Specified Condition
E3-6 (SWG) - D16-4 (EAU)	Always	Below 1 ohms
E3-6 (SWG) - Body ground	Always	10 kohms or higher

NG: REPAIR OR REPLACE HARNESS OR CONNECTOR

Front view of wire harness connector:
(to Radio Receiver)



Front view of wire harness connector:
(to Spiral Cable)



E141021E12

Fig. 61: Identifying Radio Receiver Spiral Cable Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (See **PROBLEM SYMPTOMS TABLE**)

6. **CHECK HARNESS AND CONNECTOR (BATTERY - RADIO RECEIVER)**
   a. Disconnect the radio receiver connector.
   b. Measure the voltage according to the value(s) in the table below.

Standard voltage

TESTER CONNECTION SPECIFIED CONDITION CHART

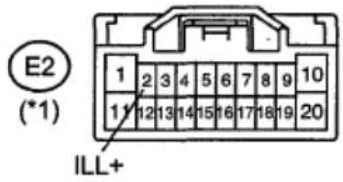
Tester Connection	Condition	Specified Condition

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E2-2 (ILL+) - Body ground (*1)	Light control switch TAIL or HEAD	11 to 14 V
E8-10 (ILL+) - Body ground (*2)	Light control switch TAIL or HEAD	11 to 14 V
HINT: • *1: for Premium models • *2: for Standard models		

NG: REPAIR OR REPLACE HARNESS OR CONNECTOR

Front view of wire harness connector:
(to Radio Receiver)



Front view of wire harness connector:
(to Radio Receiver)

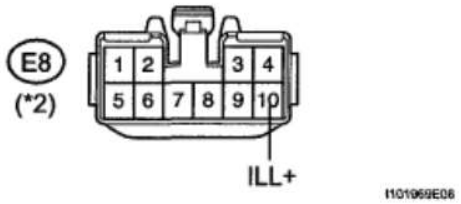


Fig. 62: Identifying Radio Receiver Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: Go to next step

7. **CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - COMBINATION METER)**
   a. Disconnect the radio receiver connector and the combination meter connector.
   b. Measure the resistance according to the value(s) in the table below.

Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
E2-12 (ILL-) - E1-30 (ILL-) (*1)	Always	Below 1 ohms
E9-5 (ILL-) - E1-30 (ILL-) (*2)	Always	Below 1 ohms
E1-40 (E2) - Body ground	Always	Below 1 ohms

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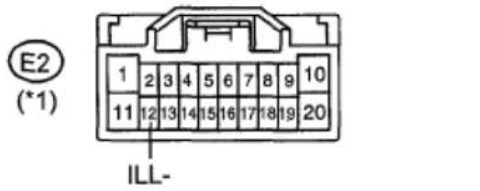
E1-30 (ILL-) - Body ground	Always	10 kohms or higher

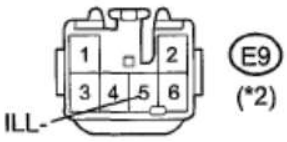
HINT:

- *1: for Premium models
- *2: for Standard models

NG: REPAIR OR REPLACE HARNESS OR CONNECTOR

Front view of wire harness connector:
(to Radio Receiver)





Front view of wire harness connector:
(to Combination Meter)

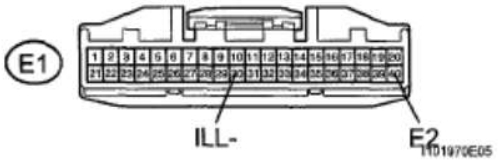


Fig. 63: Identifying Radio Receiver And Combination Meter Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (See **PROBLEM SYMPTOMS TABLE**)

SPEAKER CIRCUIT

DESCRIPTION

- If the vehicle has a built-in type amplifier, a sound signal is sent from the radio receiver to the speakers via the "Standard Models" circuit.
- If the vehicle has a separate type amplifier, a sound signal from the radio receiver is amplified by the

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stereo component amplifier and then transmitted to the speaker via the "Premium Models" 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.

WIRING DIAGRAM

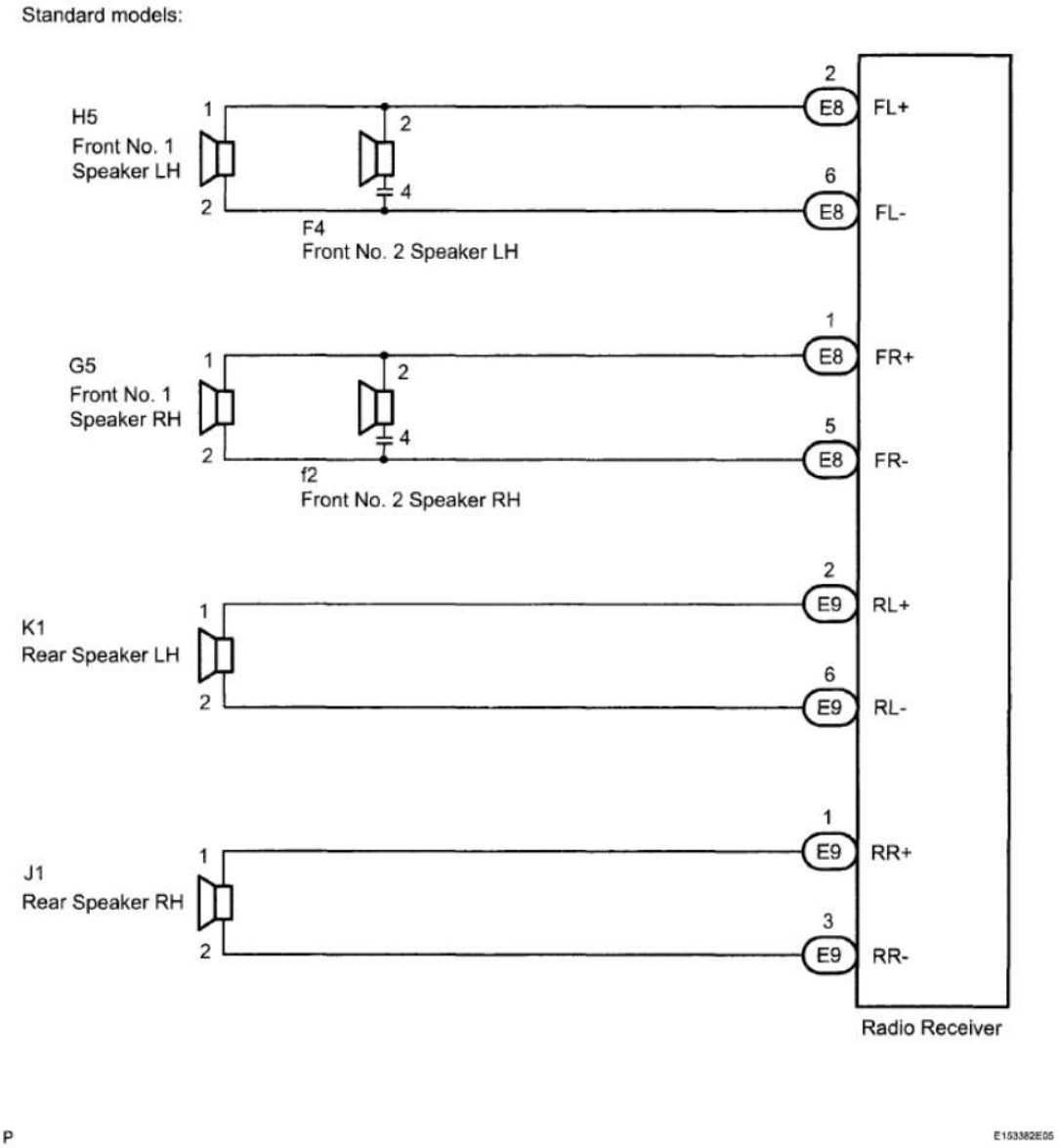


Fig. 64: Speaker - Wiring Diagram (1 Of 3)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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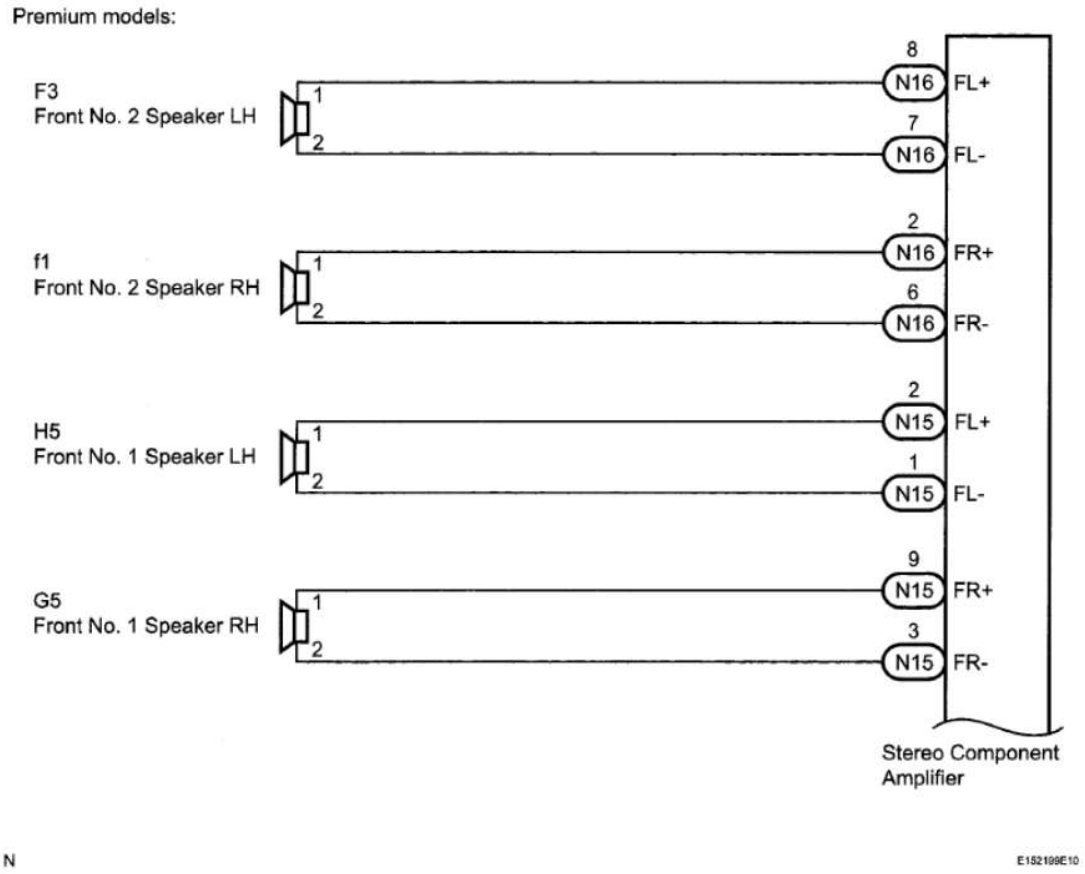


Fig. 65: Speaker - Wiring Diagram (2 Of 3)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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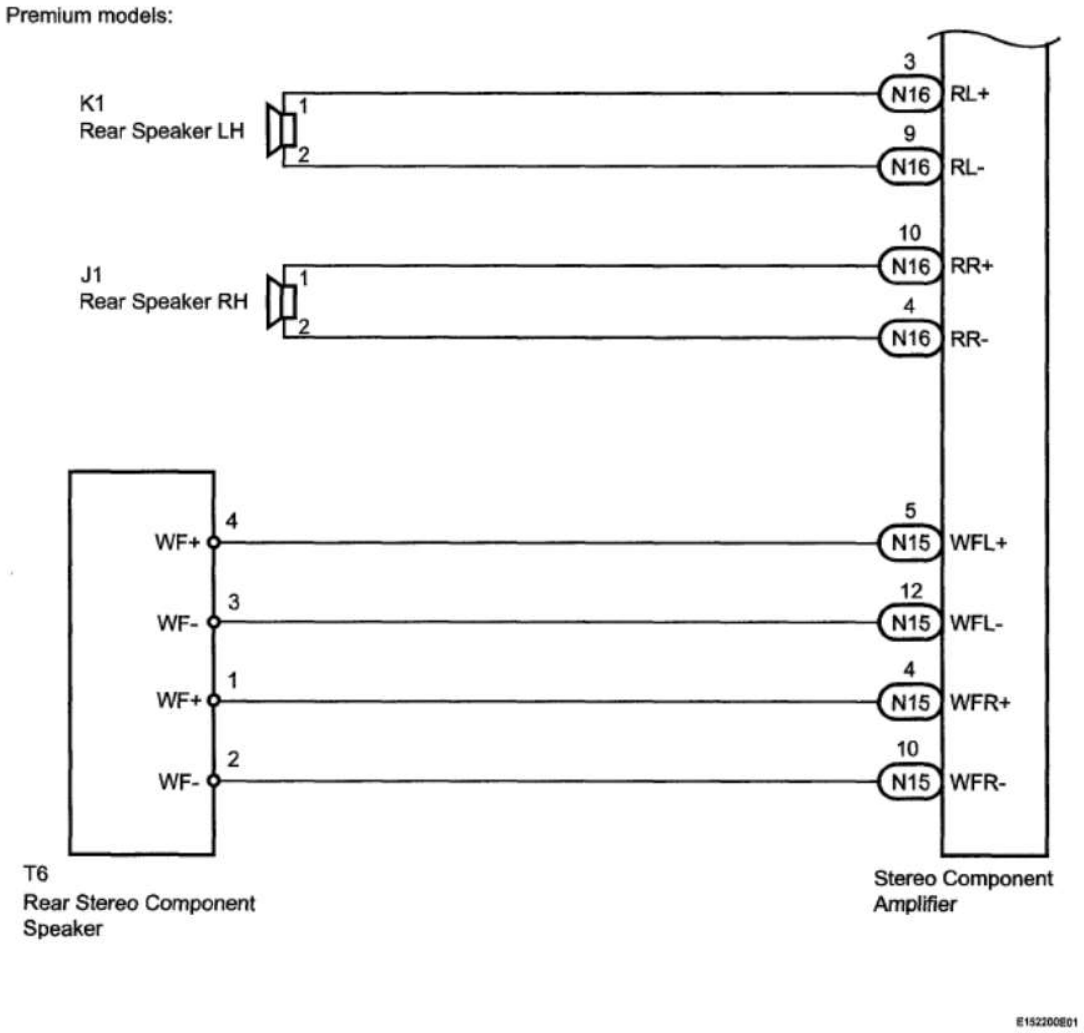


Fig. 66: Speaker - Wiring Diagram (3 Of 3)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

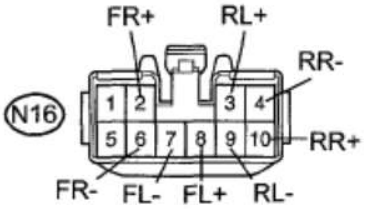
1. **CHECK HARNESS AND CONNECTOR**
   a. Disconnect the connectors shown in the illustration from the stereo component amplifier or radio receiver and speakers.

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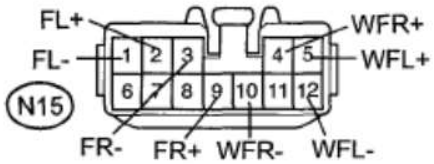
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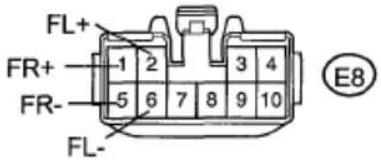
Front view of wire harness connector:
(to Stereo Component Amplifier)



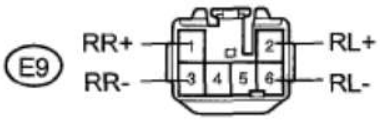
Front view of wire harness connector:
(to Stereo Component Amplifier)



Front view of wire harness connector:
(to Radio Receiver)



Front view of wire harness connector:
(to Radio Receiver)



Front view of wire harness connector:
(to Front No. 1 Speaker, Rear Speaker)



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Fig. 67: Identifying Stereo Component Amplifier, Radio Receiver And Speakers Connector

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Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

b. Premium models:

Measure the resistance between each of the front No. 2 speakers and the stereo component amplifier to check for an open circuit in the wire harness.

Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
N16-8 (FL+) - F3-1	Always	Below 1 ohms
N16-7 (FL-) - F3-2	Always	Below 1 ohms
N16-2 (FR+) - f1-1	Always	Below 1 ohms
N16-6 (FR-) - f1-2	Always	Below 1 ohms

c. Standard models:

Measure the resistance between each of the front No. 2 speakers and the radio receiver to check for an open circuit in the wire harness.

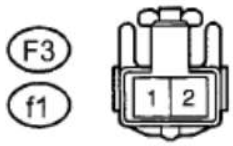
Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

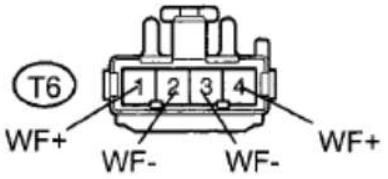
Tester Connection	Condition	Specified Condition
E8-2 (FL+) - F4-2	Always	Below 1 ohms
E8-6 (FL-) - F4-4	Always	Below 1 ohms
E8-1 (FR+) - f2-2	Always	Below 1 ohms
E8-5 (FR-) - f2-4	Always	Below 1 ohms

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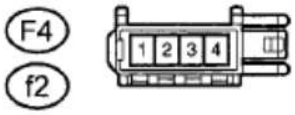
Front view of wire harness connector:
(to Front No. 2 Speaker (for Premium models))



Front view of wire harness connector:
(to Rear Stereo Component Speaker)



Front view of wire harness connector:
(to Front No. 2 Speaker (for Standard models))



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Fig. 68: Identifying Front No. 2 Speaker (For Premium And Standard Models) And Rear Stereo Component Speaker Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

d. Premium models:

Measure the resistance between each of the front No. 1 speakers and the stereo component amplifier to check for an open circuit in the wire harness.

Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

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Tester Connection	Condition	Specified Condition
N15-2 (FL+) - H5-1	Always	Below 1 ohms
N15-1 (FL-) - H5-2	Always	Below 1 ohms
N15-9 (FR+) - G5-1	Always	Below 1 ohms
N15-3 (FR-) - G5-2	Always	Below 1 ohms

e. Standard models:

Measure the resistance between each of the front No. 1 speakers and the radio receiver to check for an open circuit in the wire harness.

Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
E8-2 (FL+) - H5-1	Always	Below 1 ohms
E8-6 (FL-) - H5-2	Always	Below 1 ohms
E8-1 (FR+) - G5-1	Always	Below 1 ohms
E8-5 (FR-) - G5-2	Always	Below 1 ohms

f. Premium models:

Measure the resistance between each of the rear speakers and the stereo component amplifier to check for an open circuit in the wire harness.

Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
N16-3 (RL+) - K1-1	Always	Below 1 ohms
N16-9 (RL-) - K1-2	Always	Below 1 ohms
N16-10 (RR+) - J1-1	Always	Below 1 ohms
N16-4 (RR-) - J1-2	Always	Below 1 ohms

g. Standard models:

Measure the resistance between each of the rear speakers and the radio receiver to check for an open circuit in the wire harness.

Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
E9-2 (RL+) - K1-1	Always	Below 1 ohms

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E9-6 (RL-) - K1-2	Always	Below 1 ohms
E9-1 (RR+) - J1-1	Always	Below 1 ohms
E9-3 (RR-) - J1-2	Always	Below 1 ohms

h. Premium models:

Measure the resistance between each of the rear stereo component speaker and the stereo component amplifier to check for an open circuit in the wire harness.

Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
N15-5 (WFL+) - T6-4 (WF+)	Always	Below 1 ohms
N15-12 (WFL-) - T6-3 (WF-)	Always	Below 1 ohms
N15-4 (WFR+) - T6-1 (WF+)	Always	Below 1 ohms
N15-10 (WFR-) - T6-2 (WF-)	Always	Below 1 ohms

i. Premium models:

Measure the resistance between each speaker and body ground to check for a short circuit in the wire harness.

Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
N16-8 (FL+) - Body ground	Always	10 kohms or higher
N16-7 (FL-) - Body ground	Always	10 kohms or higher
N16-2 (FR+) - Body ground	Always	10 kohms or higher
N16-6 (FR-) - Body ground	Always	10 kohms or higher
N16-3 (RL+) - Body ground	Always	10 kohms or higher
N16-9 (RL-) - Body ground	Always	10 kohms or higher
N16-10 (RR+) - Body ground	Always	10 kohms or higher
N16-4 (RR-) - Body ground	Always	10 kohms or higher
N15-2 (FL+) - Body ground	Always	10 kohms or higher
N15-1 (FL-) - Body ground	Always	10 kohms or higher
N15-9 (FR+) - Body ground	Always	10 kohms or higher
N15-3 (FR-) - Body ground	Always	10 kohms or higher
N15-5 (WFL+) - Body ground	Always	10 kohms or higher
N15-12 (WFL-) - Body ground	Always	10 kohms or higher
N15-4 (WFR+) - Body ground	Always	10 kohms or higher
N15-10 (WFR-) - Body ground	Always	10 kohms or higher

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j. Standard models:

Measure the resistance between each speaker and body ground to check for a short circuit in the wire harness.

Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
E8-2 (FL+) - Body ground	Always	10 kohms or higher
E8-6 (FL-) - Body ground	Always	10 kohms or higher
E8-1 (FR+) - Body ground	Always	10 kohms or higher
E8-5 (FR-) - Body ground	Always	10 kohms or higher
E9-2 (RL+) - Body ground	Always	10 kohms or higher
E9-6 (RL-) - Body ground	Always	10 kohms or higher
E9-1 (RR+) - Body ground	Always	10 kohms or higher
E9-3 (RR-) - Body ground	Always	10 kohms or higher

NG: REPAIR OR REPLACE HARNESS OR CONNECTOR

OK: Go to next step

2. **INSPECT FRONT NO. 1 SPEAKER**
   a. Resistance check
      1. Measure the resistance between the terminals of the speaker.

Standard resistance:

Premium models

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
H5-1 - H5-2	Always	1.8 to 2.6 ohms
G5-1 - G5-2	Always	1.8 to 2.6 ohms

Standard models

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
H5-1 - H5-2	Always	Approximately 4 ohms
G5-1 - G5-2	Always	Approximately 4 ohms

NG: REPLACE FRONT NO. 1 SPEAKER (See **INSTALLATION**)

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OK: Go to next step

3. **INSPECT FRONT NO. 2 SPEAKER**
   a. Check that the malfunction disappears when another speaker in good condition is installed.

OK:

Malfunction disappears.

HINT:

- Connect all the connectors to the front No. 2 speaker.
- When there is a possibility that either the right or left front speaker is defective, inspect by interchanging the right one with the left one.
- Perform the above inspection on both LH and RH sides.

NG: Go to step 4

OK: REPLACE FRONT NO. 2 SPEAKER (See **REMOVAL**)

4. **CONFIRM MODEL**

Result

RESULT CHART

Result	Proceed to
Premium models	A
Standard models	B

B: Go to step 7

A: Go to next step

5. **INSPECT REAR SPEAKER**
   a. Resistance check
      1. Measure the resistance between the terminals of the speaker.

Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
K1-1 - K1-2	Always	Approximately 4 ohms
J1-1 - J1-2	Always	Approximately 4 ohms

NG: REPLACE REAR SPEAKER (See **ON-VEHICLE INSPECTION**)

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OK: Go to next step

6. **INSPECT REAR STEREO COMPONENT SPEAKER**
   a. Rear stereo component speaker:
      1. Measure the resistance according to the value(s) in the table below.

Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
T6-1 (WF+) - T6-2 (WF-)	Always	1.6 to 2.4 ohms
T6-4 (WF+) - T6-3 (WF-)	Always	1.6 to 2.4 ohms

Component without harness connected:
(Rear Stereo Component Speaker)

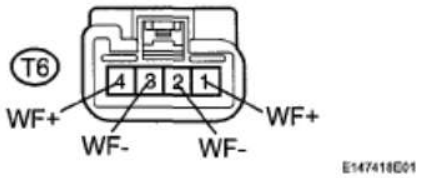


Fig. 69: Identifying Rear Stereo Component Speaker Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

NOTE: The speaker should not be removed when checking resistance.

NG: REPLACE REAR STEREO COMPONENT SPEAKER (See **INSTALLATION**)

OK: PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (See **PROBLEM SYMPTOMS TABLE**)

7. **INSPECT REAR SPEAKER**
   a. Resistance check
      1. Measure the resistance between the terminals of the speaker.

Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
K1-1 - K1-2	Always	Approximately 4 ohms
J1-1 - J1-2	Always	Approximately 4 ohms

NG: REPLACE REAR SPEAKER (See **ON-VEHICLE INSPECTION**)

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OK: PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (See **PROBLEM SYMPTOMS TABLE**)

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.

WIRING DIAGRAM

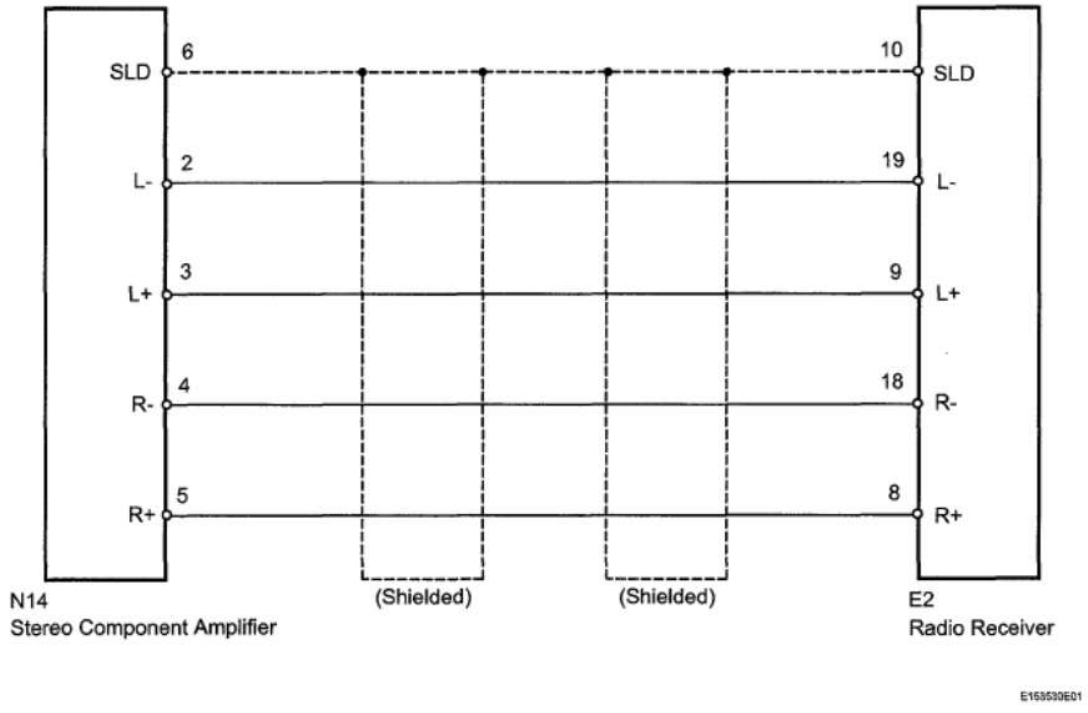


Fig. 70: Sound Signal Circuit Between Radio Receiver And Stereo Component Amplifier - Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

1. **CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - STEREO COMPONENT AMPLIFIER)**
   a. Disconnect the connectors from the radio receiver and the stereo component amplifier.

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

Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
E2-9 (L+) - N14-3 (L+)	Always	Below 1 ohms
E2-19 (L-) - N14-2 (L-)	Always	Below 1 ohms
E2-8 (R+) - N14-5 (R+)	Always	Below 1 ohms
E2-18 (R-) - N14-4 (R-)	Always	Below 1 ohms
E2-10 (SLD) - N14-6 (SLD)	Always	Below 1 ohms
E2-9 (L+) - Body ground	Always	10 kohms or higher
E2-19 (L-) - Body ground	Always	10 kohms or higher
E2-8 (R+) - Body ground	Always	10 kohms or higher
E2-18 (R-) - Body ground	Always	10 kohms or higher
E2-10 (SLD) - Body ground	Always	10 kohms or higher

NG: REPAIR OR REPLACE HARNESS OR CONNECTOR

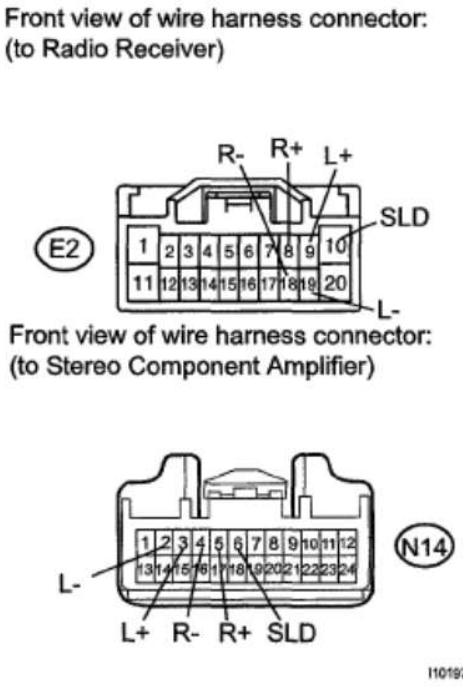


Fig. 71: Identifying Radio Receiver And Stereo Component Amplifier Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (See **PROBLEM SYMPTOMS TABLE**)

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SOUND SIGNAL CIRCUIT BETWEEN RADIO RECEIVER AND TELEVISION DISPLAY ASSEMBLY

DESCRIPTION

The television display assembly sends a sound signal to the radio receiver through this circuit.

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.

WIRING DIAGRAM

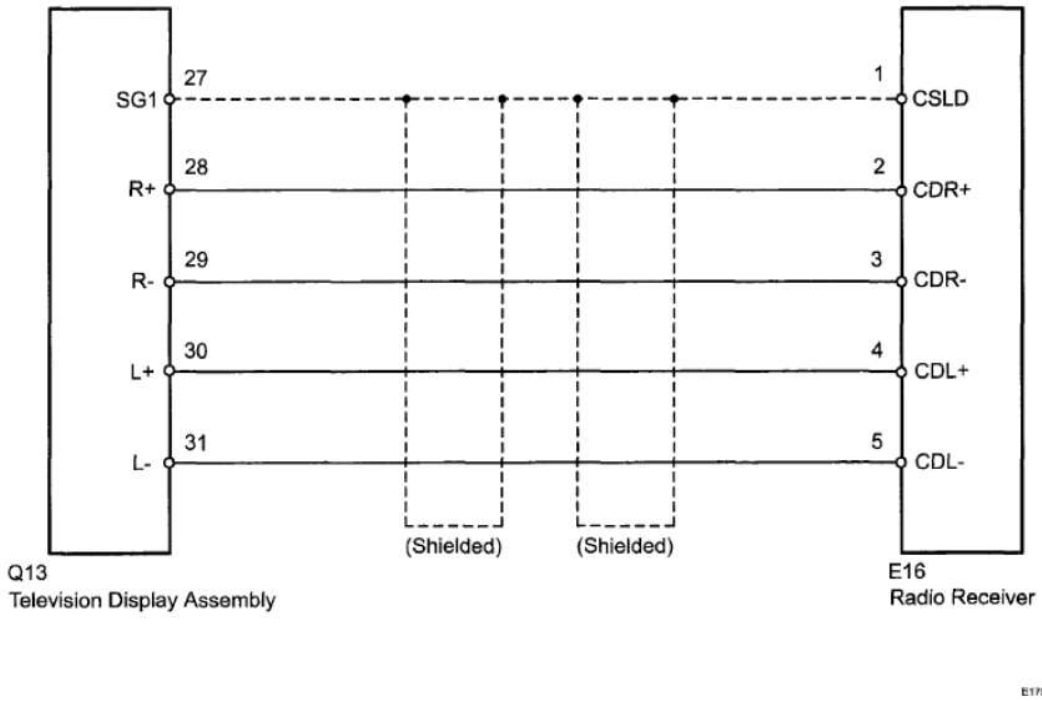


Fig. 72: Sound Signal Circuit Between Radio Receiver And Television Display Assembly - Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

1. **CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - TELEVISION DISPLAY ASSEMBLY)**
   a. Disconnect the radio receiver and the television display assembly connectors.
   b. Measure the resistance according to the value(s) in the table below.

Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

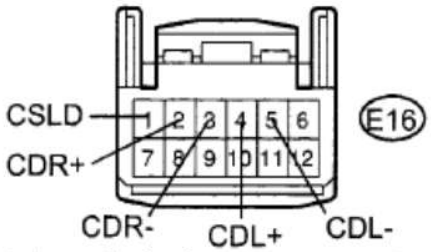
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Tester Connection	Condition	Specified Condition
Q13-28 (R+) - E16-2 (CDR+)	Always	Below 1 ohms
Q13-29 (R-) - E16-3 (CDR-)	Always	Below 1 ohms
Q13-30 (L+) - E16-4 (CDL+)	Always	Below 1 ohms
Q13-31 (L-) - E16-5 (CDL-)	Always	Below 1 ohms
Q13-27 (SG1) - E16-1 (CSLD)	Always	Below 1 ohms
Q13-28 (R+) - Body ground	Always	10 kohms or higher
Q13-29 (R-) - Body ground	Always	10 kohms or higher
Q13-30 (L+) - Body ground	Always	10 kohms or higher
Q13-31 (L-) - Body ground	Always	10 kohms or higher
Q13-27 (SG1) - Body ground	Always	10 kohms or higher

Front view of wire harness connector:
(to Radio Receiver)



Front view of wire harness connector:
(to Television Display Assembly)

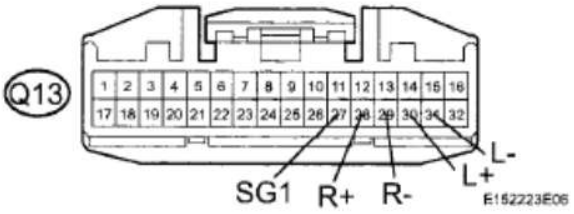


Fig. 73: Identifying Radio Receiver And Television Display Assembly Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

NG: REPAIR OR REPLACE HARNESS OR CONNECTOR

OK: Go to next step

2. **INSPECT TELEVISION DISPLAY ASSEMBLY**
   a. Reconnect the television display assembly connector.
   b. Check the waveform according to the conditions shown in the table below.

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Standard

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
Q13-28 (R+) - Body ground	Disc changer sound is being produced	A waveform synchronized with sound is output
Q13-29 (R-) - Body ground	Disc changer sound is being produced	A waveform synchronized with sound is output
Q13-31 (L-) - Body ground	Disc changer sound is being produced	A waveform synchronized with sound is output
Q13-30 (L+) - Body ground	Disc changer sound is being produced	A waveform synchronized with sound is output

NG: REPLACE TELEVISION DISPLAY ASSEMBLY (See **TELEVISION DISPLAY**)

Component with harness connected:
(Television Display Assembly)

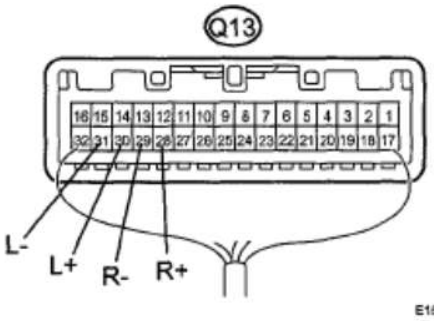


Fig. 74: Identifying Television Display Assembly Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (See **PROBLEM SYMPTOMS TABLE**)

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.

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WIRING DIAGRAM

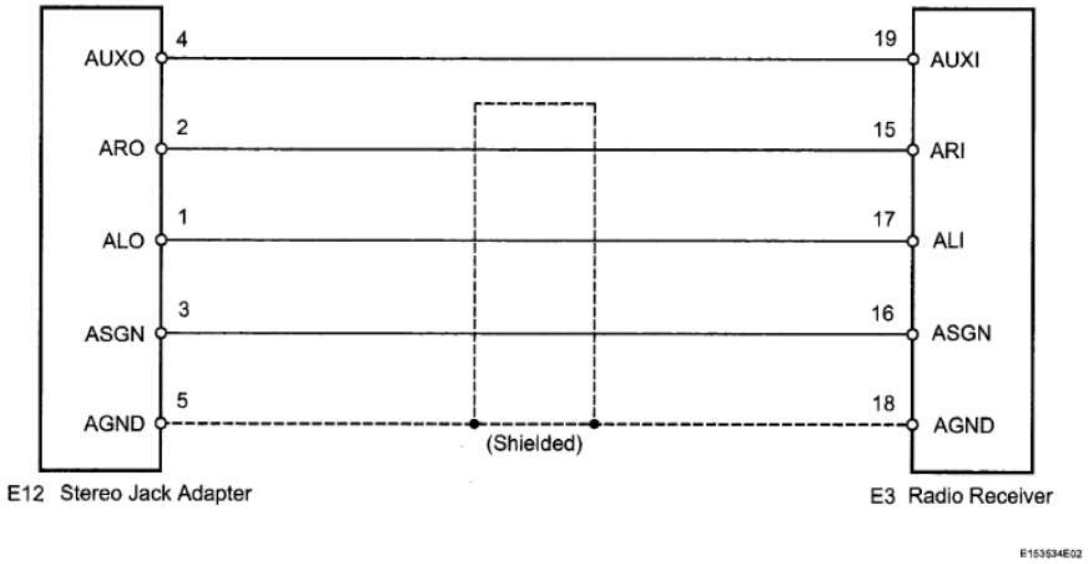


Fig. 75: Sound Signal Circuit Between Radio Receiver And Stereo Jack Adapter - Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

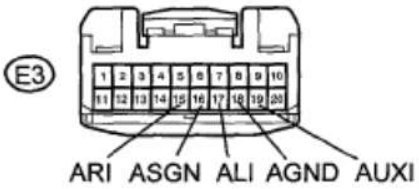
1. **CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - STEREO JACK ADAPTER)**
   a. Disconnect the connectors from the stereo jack adapter and the radio receiver.
   b. Measure the resistance according to the value(s) in the table below.

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Front view of wire harness connector:
(to Radio Receiver)



Front view of wire harness connector:
(to Stereo Jack Adapter)

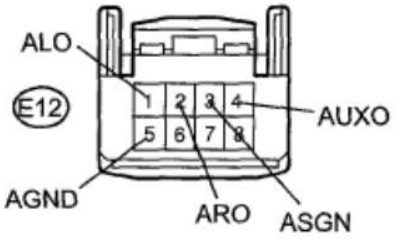


Fig. 76: Identifying Radio Receiver And Stereo Jack Adapter Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
E12-4 (AUXO) - E3-19 (AUXI)	Always	Below 1 ohms
E12-3 (ASGN) - E3-16 (ASGN)	Always	Below 1 ohms
E12-2 (ARO) - E3-15 (ARI)	Always	Below 1 ohms
E12-1 (ALO) - E3-17 (ALI)	Always	Below 1 ohms
E12-5 (AGND) - E3-18 (AGND)	Always	Below 1 ohms
E12-4 (AUXO) - Body ground	Always	10 kohms or higher
E12-3 (ASGN) - Body ground	Always	10 kohms or higher
E12-2 (ARO) - Body ground	Always	10 kohms or higher
E12-1 (ALO) - Body ground	Always	10 kohms or higher
E12-5 (AGND) - Body ground	Always	Below 1 ohms

NG: REPAIR OR REPLACE HARNESS OR CONNECTOR

OK: PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS

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TABLE (See **PROBLEM SYMPTOMS TABLE**)

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 functioning, no sound, or only an extremely faint sound, can be heard.

WIRING DIAGRAM



Fig. 77: Mute Signal Circuit Between Radio Receiver And Stereo Component Amplifier - Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

1. **INSPECT STEREO COMPONENT AMPLIFIER**
   a. Measure the voltage according to the value(s) in the table below.

Standard voltage

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
N14-1 (MUTE) - Body ground	Turn ignition switch on (ACC), Audio system is playing --> Changing	Above 3.5 V --> Below 1 V

NG: Go to step 2

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Component with harness connected:
(Stereo Component Amplifier)

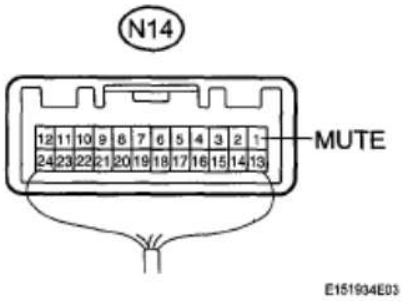


Fig. 78: Identifying Stereo Component Amplifier Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (See **PROBLEM SYMPTOMS TABLE**)

2. **CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - STEREO COMPONENT AMPLIFIER)**
   a. Disconnect the radio receiver connector and the stereo component amplifier connector.
   b. Measure the resistance according to the value(s) in the table below.

Standard resistance

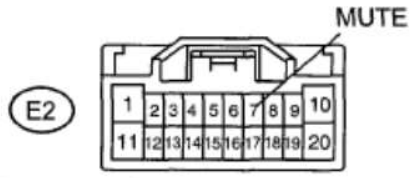
TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
E2-7 (MUTE) - N14-1 (MUTE)	Always	Below 1 ohms
E2-7 (MUTE) - Body ground	Always	10 kohms or higher

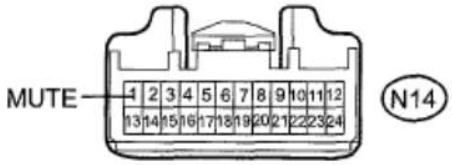
NG: REPAIR OR REPLACE HARNESS OR CONNECTOR

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Front view of wire harness connector:
(to Radio Receiver)



Front view of wire harness connector:
(to Stereo Component Amplifier)



I101976E32

Fig. 79: Identifying Radio Receiver And Stereo Component Amplifier Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: Go to next step

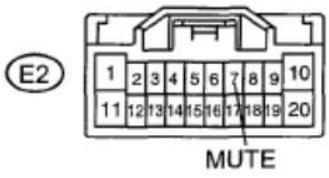
3. **INSPECT STEREO COMPONENT AMPLIFIER (OUTPUT SIGNAL)**
   a. Reconnect the stereo component amplifier connector.
   b. Measure the voltage according to the value(s) in the table below.

Standard voltage

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
E2-7 (MUTE) - Body ground	Turn ignition switch on (ACC), Audio system is playing.	Above 3.5 V

Front view of wire harness connector:
(to Radio Receiver)



E151935E05

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Fig. 80: Identifying Radio Receiver Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

NG: REPLACE STEREO COMPONENT AMPLIFIER (See **INSTALLATION**)

OK: REPLACE RADIO RECEIVER (See **INSTALLATION**)

MUTE SIGNAL CIRCUIT BETWEEN RADIO RECEIVER AND TELEVISION DISPLAY ASSEMBLY

DESCRIPTION

The television display assembly sends a mute signal to the radio receiver.

The radio receiver controls the volume according to the MUTE signal from the television display assembly.

The MUTE signal is sent to reduce noise and a popping sound generated when switching the mode, etc. 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 radio receiver is functioning, no sound, or only an extremely faint sound, can be heard.

WIRING DIAGRAM

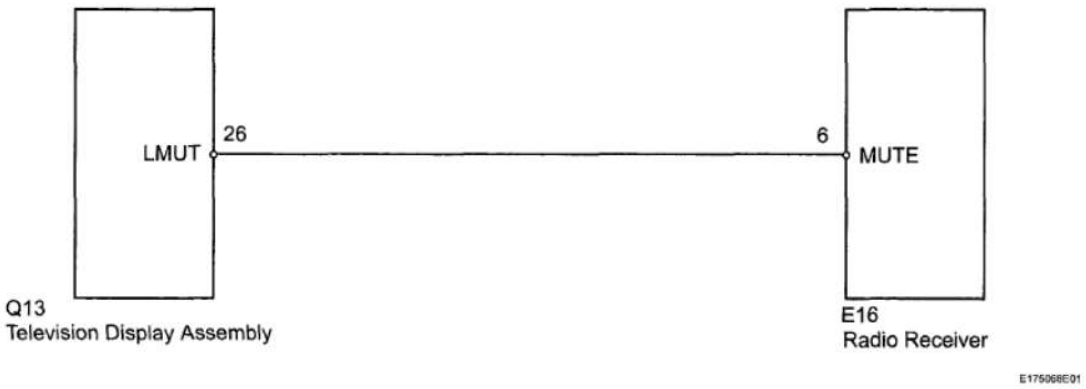


Fig. 81: Mute Signal Circuit Between Radio Receiver And Television Display Assembly - Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

1. **INSPECT RADIO RECEIVER**
   a. Measure the voltage according to the value(s) in the table below.

Standard voltage

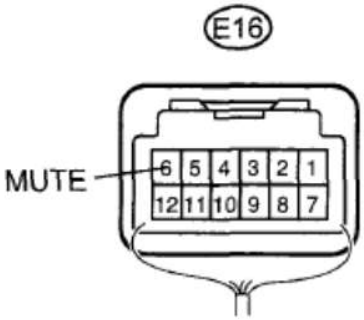
TESTER CONNECTION SPECIFIED CONDITION CHART

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Tester Connection	Condition	Specified Condition
E16-6 (MUTE) - Body ground	Turn ignition switch on (ACC), RSE system is playing --> Mode is changing	Above 3.5 V --> Below 1 V

NG: Go to step 2

Component with harness connected:
(Radio Receiver)



E152226E03

Fig. 82: Identifying Radio Receiver Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (See **PROBLEM SYMPTOMS TABLE**)

2. **CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - TELEVISION DISPLAY ASSEMBLY)**
   a. Disconnect the radio receiver and the television display assembly connectors.
   b. Measure the resistance according to the value(s) in the table below.

Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
E16-6 (MUTE) - Q13-26 (LMUT)	Always	Below 1 ohms
E16-6 (MUTE) - Body ground	Always	10 kohms or higher

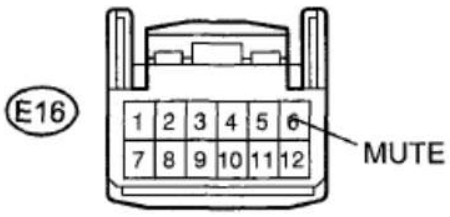
NG: REPAIR OR REPLACE HARNESS OR CONNECTOR

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Front view of wire harness connector:
(to Radio Receiver)



Front view of wire harness connector:
(to Television Display Assembly)

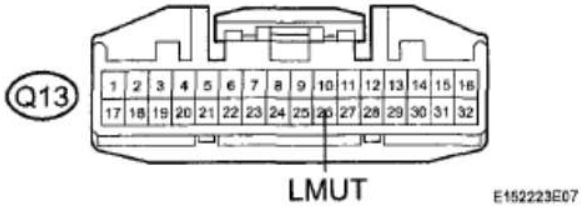


Fig. 83: Identifying Radio Receiver And Television Display Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: Go to next step

3. **INSPECT TELEVISION DISPLAY ASSEMBLY**
   a. Reconnect the television display assembly connector.
   b. Measure the voltage according to the value(s) in the table below.

Standard voltage

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
Q13-26 (LMUT) - Body ground	Turn ignition switch on (ACC)	Above 3.5 V

NG: REPLACE TELEVISION DISPLAY ASSEMBLY (See **TELEVISION DISPLAY**)

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Component with harness connected:
(Telvision Display Assembly)

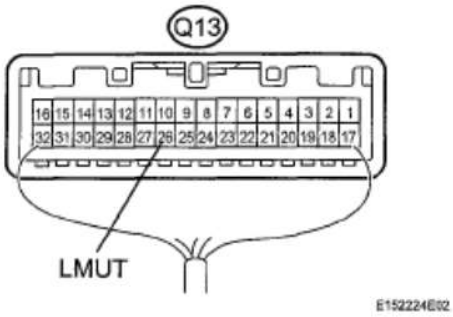


Fig. 84: Identifying Television Display Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: REPLACE RADIO RECEIVER (See **INSTALLATION**)

AVC-LAN CIRCUIT

DESCRIPTION

Each audio system component connected to the AVC-LAN (communication bus) transfers the switch signals by the audio visual communication local area network.

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

INSPECTION PROCEDURE

1. **INSPECT RADIO RECEIVER**
   a. Disconnect the radio receiver connector.
   b. Measure the resistance according to the value(s) in the table below.

Standard resistance

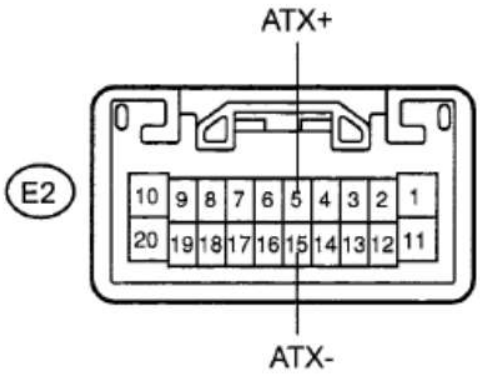
TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
E2-5 (ATX+) - E2-15 (ATX-)	Always	60 to 80 ohms
E16-9 (TXM+) - E16-10 (TXM-) (*1)	Always	60 to 80 ohms
HINT: *1: w/ Rear Seat Entertainment System		

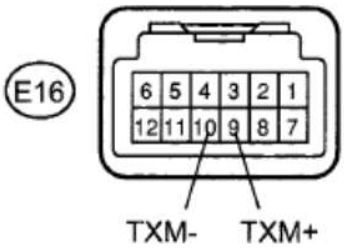
NG: REPLACE RADIO RECEIVER (See **INSTALLATION**)

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Component without harness connected:
(Radio Receiver)



Component without harness connected:
(Radio Receiver (*1))



E151918E11

Fig. 85: Identifying Radio Receiver Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: Go to next step

2. **CHECK HARNESS AND CONNECTOR**

HINT:

For details of the connectors, refer to "**TERMINALS OF ECU**" (See **TERMINALS OF ECU**).

a. Referring to the AVC-LAN wiring diagram below, check all AVC-LAN circuits.

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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.

AVC-LAN WIRING DIAGRAM:

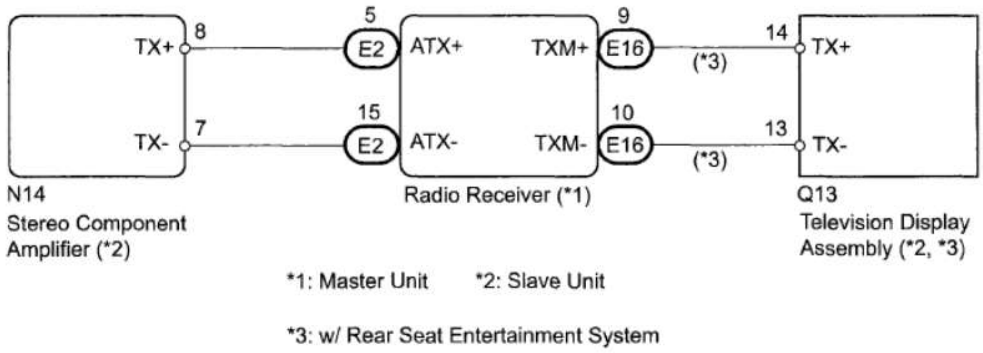


Fig. 86: AVC-LAN Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

NG: REPAIR OR REPLACE HARNESS OR CONNECTOR

OK: PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (See **PROBLEM SYMPTOMS TABLE**)

VEHICLE SPEED SIGNAL CIRCUIT BETWEEN STEREO COMPONENT AMPLIFIER AND COMBINATION METER

DESCRIPTION

The circuit is necessary for the ASL (Automatic Sound Levelizer) 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 volume in order to clear audio quality 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

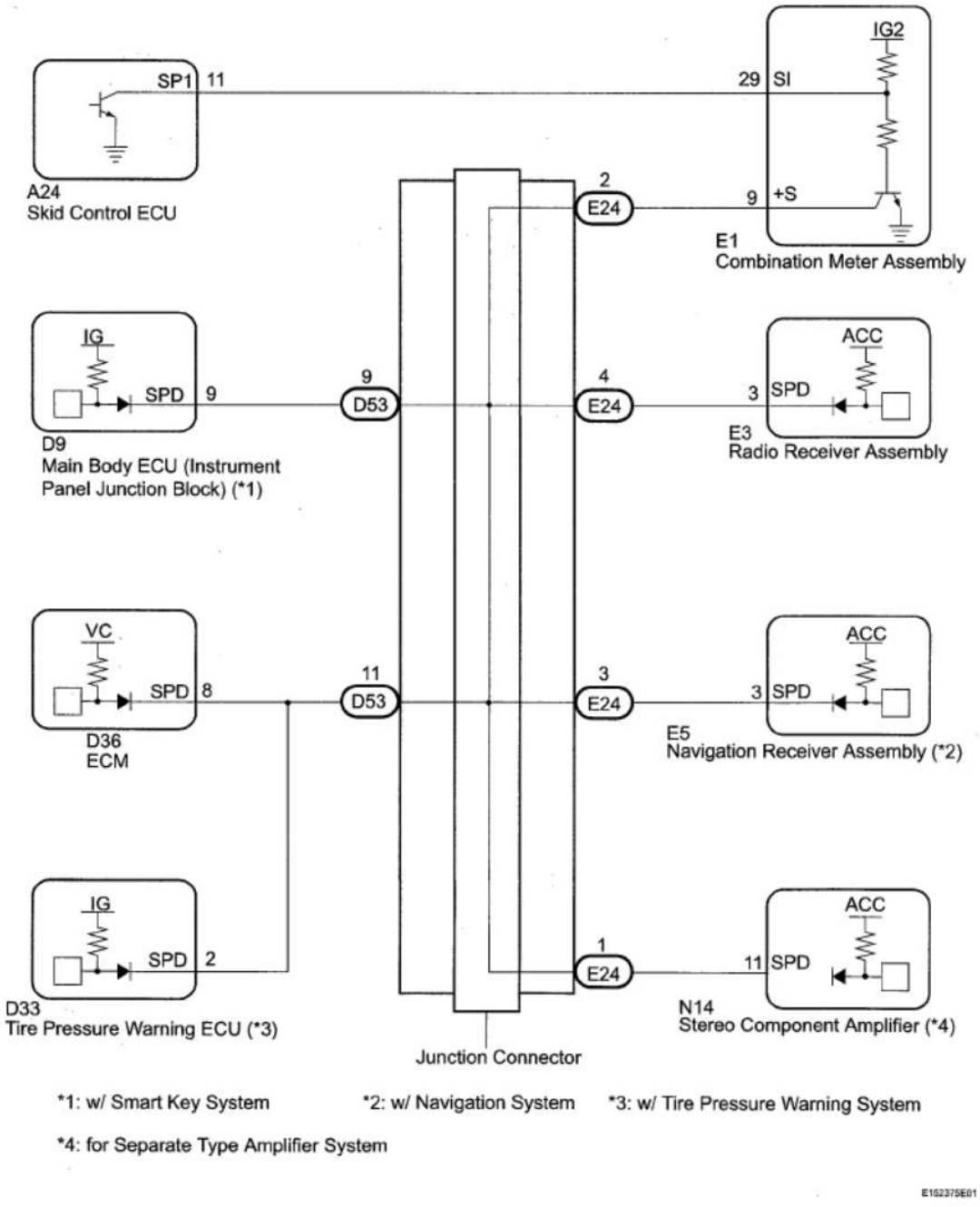
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changed to a pulse signal at the transistor in the combination meter. Each ECU controls the respective system based on the pulse signal.

- If a short occurs in any of the ECUs or in the wire harness connected to an ECU, all systems in the diagram below will not operate normally.

WIRING DIAGRAM

1. **for 2GR-FE**



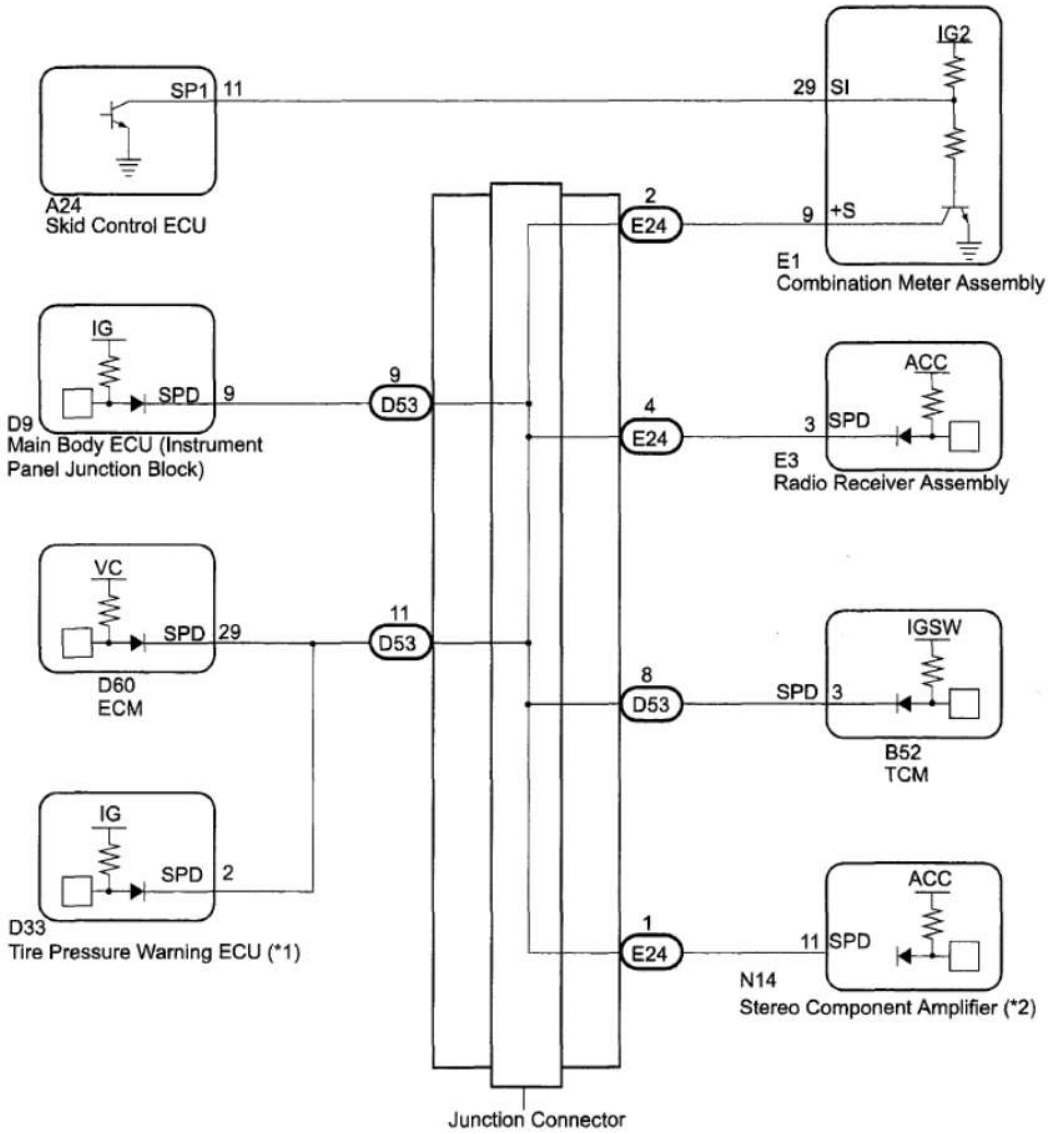
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Fig. 87: Vehicle Speed Signal Circuit Between Radio Receiver And Combination Meter - Wiring Diagram (For 2GR-FE)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

2. **for 1AR-FE**



*1: w/ Tire Pressure Warning System *2: for Separate Type Amplifier System

E181535E01

Fig. 88: Vehicle Speed Signal Circuit Between Radio Receiver And Combination Meter - Wiring Diagram (For 1AR-FE)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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INSPECTION PROCEDURE

1. **INSPECT COMBINATION METER ASSEMBLY (OUTPUT WAVEFORM)**
   a. Check the output waveform.
      1. Remove the combination meter assembly with the connector still connected.
      2. Connect an oscilloscope to terminals E1-9 (+S) and body ground.
      3. Ignition switch on (IG).
      4. Turn the wheel slowly.
      5. Check the signal waveform according to the condition(s) in the table below.

ITEM CONDITION CHART

Item	Condition
Tool setting	5V/DIV., 20ms./DIV.
Vehicle condition	Driving at approx. 20 km/h (12 mph)

OK:

The waveform is displayed as shown in the illustration.

HINT:

When the system is functioning normally, one wheel revolution generates 4 pulses. As the vehicle speed increases, the width indicated by (A) in the illustration narrows.

NG: GO TO METER/GAUGE SYSTEM (See **SPEED SIGNAL CIRCUIT**)

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Component with harness connected:
(Combination Meter Assembly)

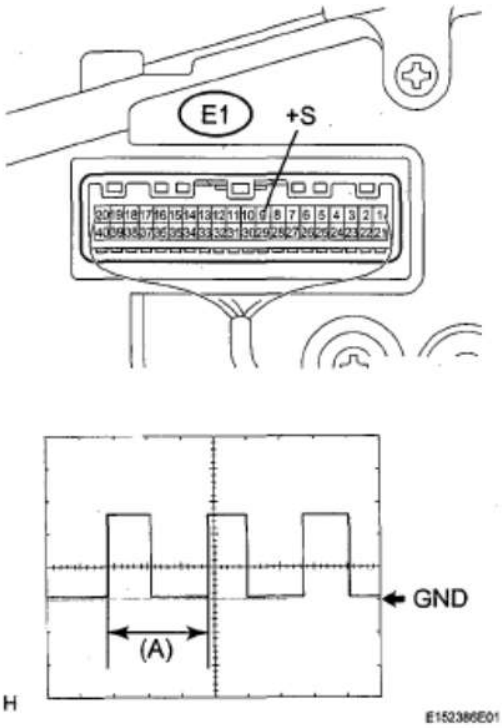


Fig. 89: Identifying Combination Meter Assembly Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: Go to next step

2. **CHECK HARNESS AND CONNECTOR (STEREO COMPONENT AMPLIFIER COMBINATION METER - ASSEMBLY)**
   a. Disconnect the stereo component amplifier connector and combination meter assembly connector.
   b. Measure the resistance according to the value(s) in the table below.

Standard resistance

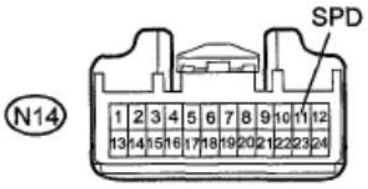
TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
N14-11 (SPD) - E1-9 (+S)	Always	Below 1 ohms

NG: Go to step 3

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Front view of wire harness connector:
(to Stereo Component Amplifier)



Front view of wire harness connector:
(to Combination Meter Assembly)

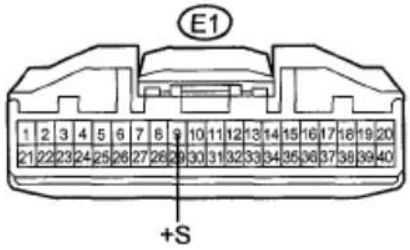


Fig. 90: Identifying Stereo Component Amplifier Combination Meter Assembly Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: REPLACE RADIO RECEIVER (See **INSTALLATION**)

3. **CHECK HARNESS AND CONNECTOR (STEREO COMPONENT AMPLIFIER - JUNCTION CONNECTOR)**
   a. Disconnect the junction connector.
   b. Measure the resistance according to the value(s) in the table below.

Standard resistance

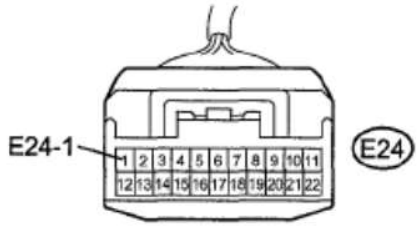
TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
E24-1 - N14-11 (SPD)	Always	Below 1 ohms

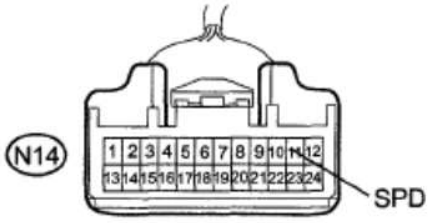
NG: REPAIR OR REPLACE HARNESS OR CONNECTOR (STEREO COMPONENT AMPLIFIER - JUNCTION CONNECTOR)

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Front view of wire harness connector:
(to No. 4 Junction Connector)



Front view of wire harness connector:
(to Stereo Component Amplifier)



E155119E01

Fig. 91: Identifying Stereo Component Amplifier And No. 4 Junction Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: REPAIR OR REPLACE HARNESS OR CONNECTOR (JUNCTION CONNECTOR)

CELLULAR PHONE VOICE CIRCUIT BETWEEN RADIO RECEIVER AND STEREO COMPONENT AMPLIFIER

SYSTEM DESCRIPTION

This circuit is used when an incoming cellular phone voice in the "Bluetooth" handsfree system is received.

WIRING DIAGRAM

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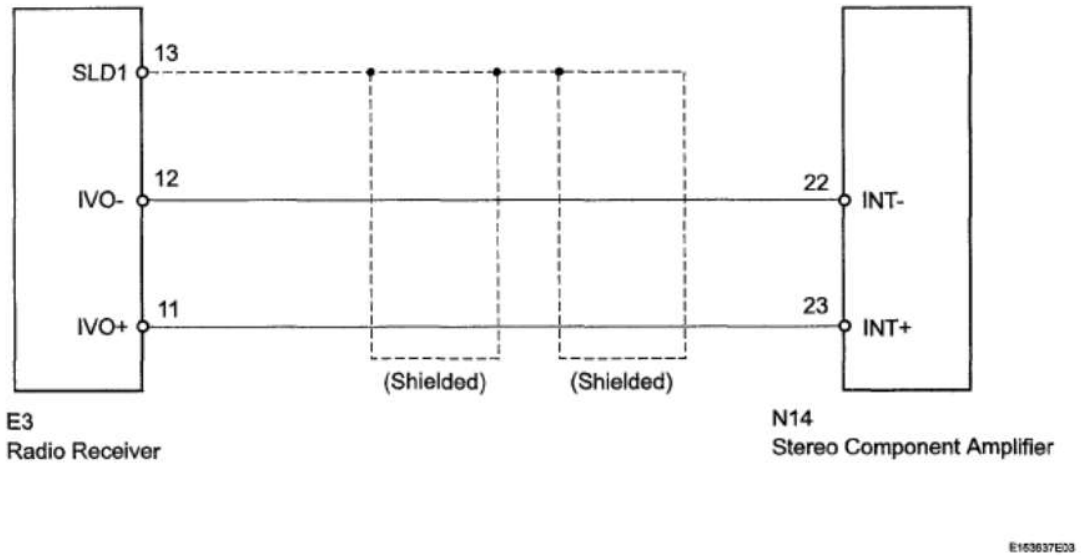


Fig. 92: Cellular Phone Voice Circuit Between Radio Receiver And Stereo Component Amplifier - Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

1. **CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - STEREO COMPONENT AMPLIFIER)**
   a. Disconnect the radio receiver connector and the stereo component amplifier connector.
   b. Measure the resistance according to the value(s) in the table below.

Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
E3-11 (IVO+) - N14-23 (INT+)	Always	Below 1 ohms
E3-12 (IVO-) - N14-22 (INT-)	Always	Below 1 ohms
E3-11 (IVO+) - Body ground	Always	10 kohms or higher
E3-12 (IVO-) - Body ground	Always	10 kohms or higher
E3-13 (SLD1) - Body ground	Always	10 kohms or higher

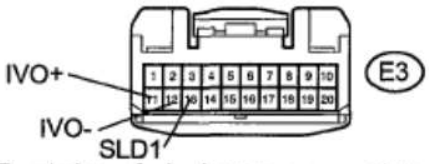
NG: REPAIR OR REPLACE HARNESS OR CONNECTOR

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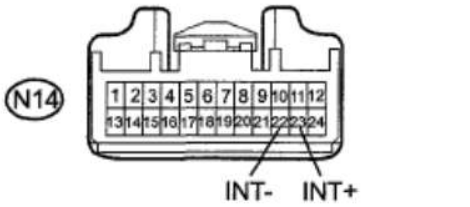
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Front view of wire harness connector:
(to Radio Receiver)



Front view of wire harness connector:
(to Stereo Component Amplifier)



E151938E04

Fig. 93: Identifying Radio Receiver And Stereo Component Amplifier Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (See **PROBLEM SYMPTOMS TABLE**)

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.

WIRING DIAGRAM

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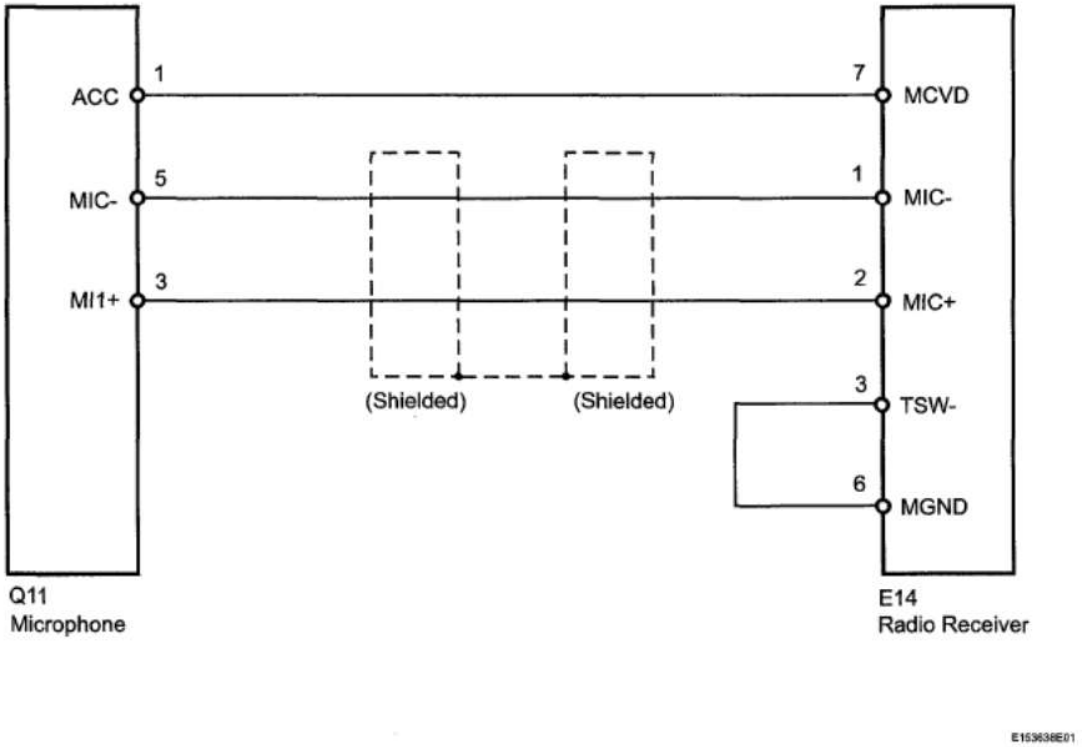


Fig. 94: Microphone Circuit Between Microphone And Radio Receiver - Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

1. **INSPECT RADIO RECEIVER**
   a. Measure the voltage according to the value(s) in the table below.

Standard voltage

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
E14-7 (MCVD) - Body ground	Ignition switch on (ACC)	4 to 6 V

NG: REPLACE RADIO RECEIVER (See **INSTALLATION**)

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Component with harness connected:
(Radio Receiver)

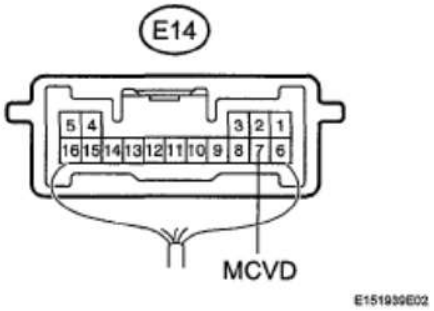
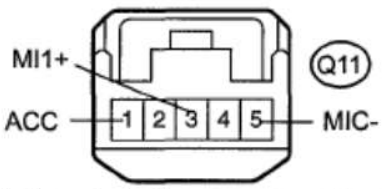


Fig. 95: Identifying Radio Receiver Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: Go to next step

2. **CHECK HARNESS AND CONNECTOR (MICROPHONE - RADIO RECEIVER)**
   a. Disconnect the microphone connector and the radio receiver connector.
   b. Measure the resistance according to the value(s) in the table below.

Front view of wire harness connector:
(to Microphone)



Front view of wire harness connector:
(to Radio Receiver)

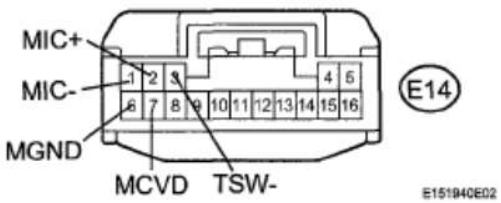


Fig. 96: Identifying Radio Receiver And Microphone Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
Q11-1 (ACC) - E14-7 (MCVD)	Always	Below 1 ohms
Q11-3 (MI1+) - E14-2 (MIC+)	Always	Below 1 ohms
Q11-5 (MIC-) - E14-1 (MIC-)	Always	Below 1 ohms
E14-3 (TSW-) - E14-6 (MGND)	Always	Below 1 ohms
Q11-1 (ACC) - Body ground	Always	10 kohms or higher
Q11-3 (MI1+) - Body ground	Always	10 kohms or higher
Q11-5 (MIC-) - Body ground	Always	10 kohms or higher
E14-3 (TSW-) - Body ground	Always	10 kohms or higher

NG: REPAIR OR REPLACE HARNESS OR CONNECTOR

OK: PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (See **PROBLEM SYMPTOMS TABLE**)

RADIO RECEIVER COMMUNICATION ERROR

INSPECTION PROCEDURE

1. **IDENTIFY THE COMPONENT SHOWN BY SUB-CODE**
   a. Enter the diagnostic mode.

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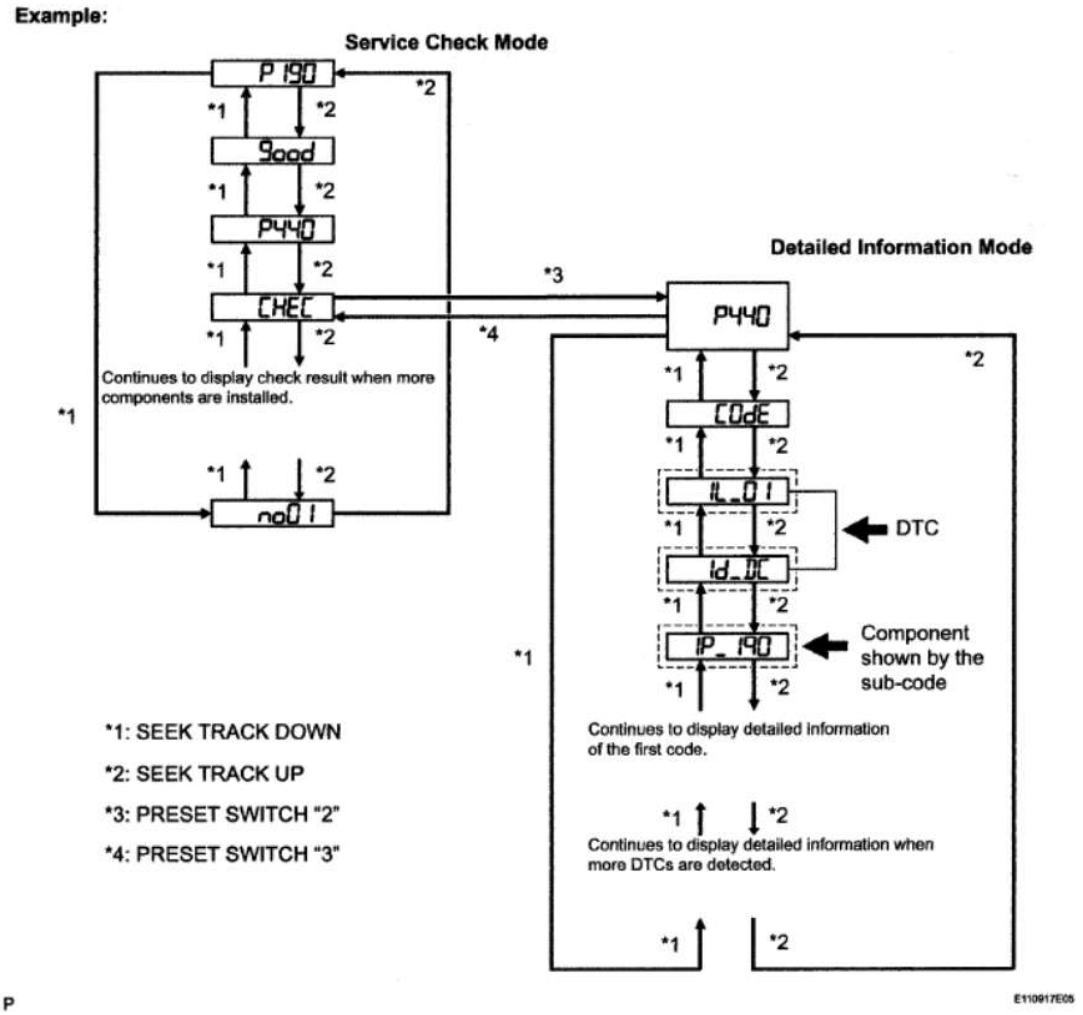


Fig. 97: Diagnostic Mode For Stereo Component Amplifier Communication Error
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

b. Press the preset switch "3" to change to "Detailed Information Mode".
c. Identify the component shown by the sub-code.

HINT:

- "P190" set by the radio receiver shown in the preceding illustration as an example.
- For details of the DTC display, refer to "**DTC CHECK/CLEAR**" (See **DTC CHECK/CLEAR**).

2. **CHECK COMPONENT SHOWN BY SUB-CODE**
   a. Select the component shown by sub-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.

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Component Table:

PROCEED COMPONENT CHART

Component	Proceed to
Except "Bluetooth" handsfree module	A
"Bluetooth" handsfree module (19D)	B

B: REPLACE RADIO RECEIVER (See **INSTALLATION**)

A: Go to next step

3. **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.

Component Table:

PROCEED COMPONENT CHART

Component	Proceed to
Stereo component amplifier (440)	Stereo component amplifier power source circuit (See **STEREO COMPONENT AMPLIFIER POWER SOURCE CIRCUIT**)
Television display assembly (1B0)	Television display assembly power source circuit (See **TELEVISION DISPLAY POWER SOURCE CIRCUIT**)

4. **INSPECT RADIO RECEIVER**
   a. Disconnect the radio receiver connector.
   b. Measure the resistance according to the value(s) in the table below.

Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
E2-5 (ATX+) - E2-15 (ATX-)	Always	60 to 80 ohms
E16-9 (TXM+) - E16-10 (TXM-) (*1)	Always	60 to 80 ohms
HINT: *1: w/ Rear Seat Entertainment System		

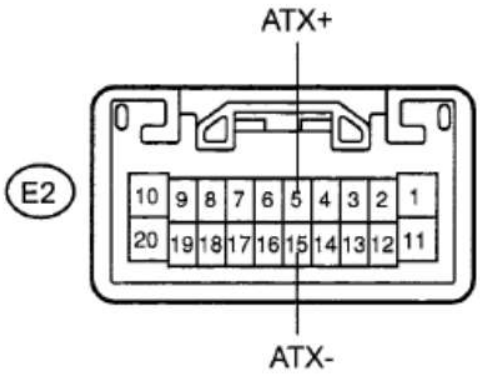
NG: REPLACE RADIO RECEIVER (See **INSTALLATION**)

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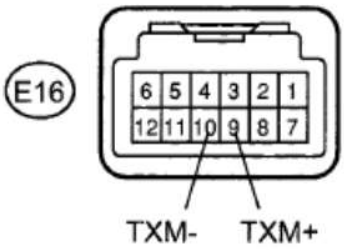
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Component without harness connected:
(Radio Receiver)



Component without harness connected:
(Radio Receiver (*1))



E151918E11

Fig. 98: Identifying Radio Receiver Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: Go to next step

5. **CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - 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 "**TERMINALS OF ECU**" (See **TERMINALS OF ECU**).

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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.
   1. Disconnect all connectors between the radio receiver and the component shown by the subcode.
   2. Check for an open or short in the AVC-LAN circuit between the radio receiver and the component shown by the sub-code.

OK:

There is no open or short circuit.

AVC-LAN WIRING DIAGRAM:

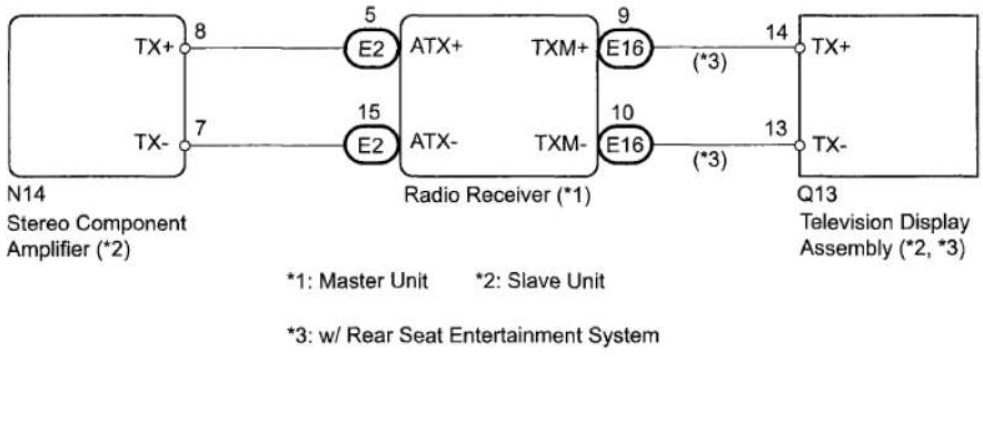


Fig. 99: AVC-LAN Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

NG: REPAIR OR REPLACE HARNESS OR CONNECTOR

OK: Go to next step

6. **REPLACE COMPONENT SHOWN BY SUB-CODE**
   a. Replace the component shown by the sub-code with a normal one and check if the same problem occurs again.

OK:

Same problem does not occur.

NG: REPLACE RADIO RECEIVER (See **INSTALLATION**)

OK: END

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STEREO COMPONENT AMPLIFIER COMMUNICATION ERROR

INSPECTION PROCEDURE

1. **IDENTIFY THE COMPONENT SHOWN BY SUB-CODE**
   a. Enter the diagnostic mode.

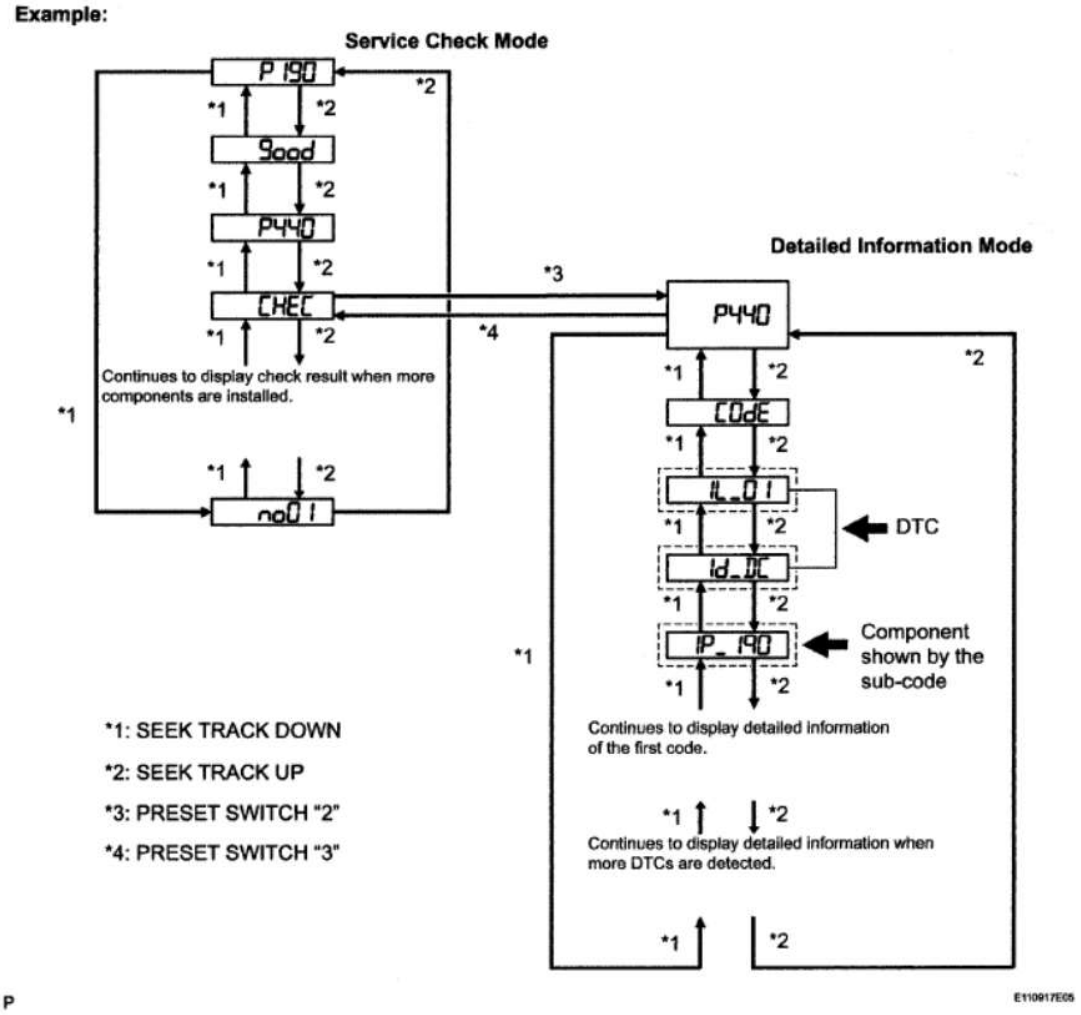


Fig. 100: Diagnostic Mode For Stereo Component Amplifier Communication Error
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

   b. Press the preset switch "3" to change to "Detailed Information Mode".
   c. Identify the component shown by the sub-code.

HINT:

- "P190" set by the radio receiver shown in the preceding illustration as an example.
- For details of the DTC display, refer to "**DTC CHECK/CLEAR**" (See **DTC CHECK/CLEAR**).

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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:

PROCEED COMPONENT CHART

Component	Proceed to
"Bluetooth" handsfree module (19D)	Radio receiver power source circuit (See **RADIO RECEIVER POWER SOURCE CIRCUIT**)
Radio receiver (190)	Radio receiver power source circuit (See **RADIO RECEIVER POWER SOURCE CIRCUIT**)
Television display assembly (1B0)	Television display assembly power source circuit (See **TELEVISION DISPLAY POWER SOURCE CIRCUIT**)

3. **INSPECT RADIO RECEIVER**
   a. Disconnect the radio receiver connector.
   b. Measure the resistance according to the value(s) in the table below.

Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
E2-5 (ATX+) - E2-15 (ATX-)	Always	60 to 80 ohms
E16-9 (TXM+) - E16-10 (TXM-) (*1)	Always	60 to 80 ohms
HINT: *1: w/ Rear Seat Entertainment System		

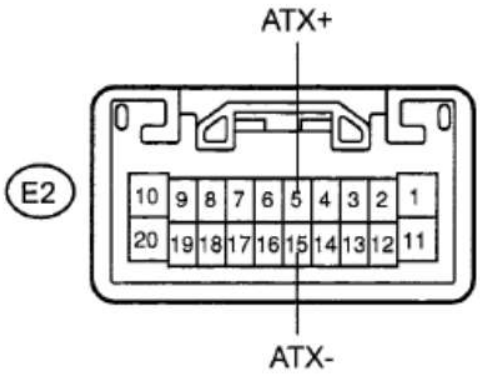
NG: REPLACE RADIO RECEIVER (See **INSTALLATION**)

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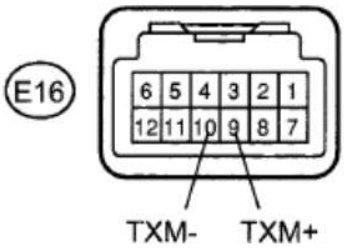
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Component without harness connected:
(Radio Receiver)



Component without harness connected:
(Radio Receiver (*1))



E151918E11

Fig. 101: Identifying Radio Receiver Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: Go to next step

4. **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 "**TERMINALS OF ECU**" (See **TERMINALS OF ECU**).

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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.
   1. 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.

AVC-LAN WIRING DIAGRAM:

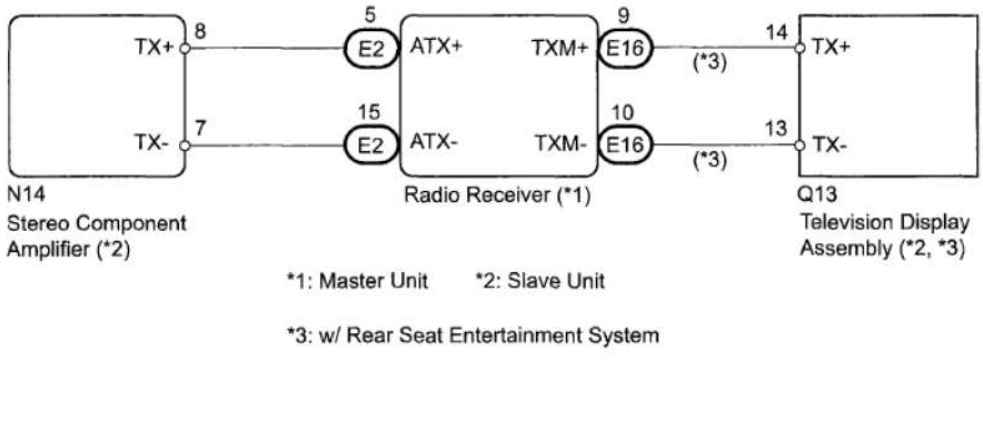


Fig. 102: AVC-LAN Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

NG: REPAIR OR REPLACE HARNESS OR CONNECTOR

OK: Go to next step

5. **REPLACE COMPONENT SHOWN BY SUB-CODE**
   a. Replace the component shown by the sub-code with a normal one and check if the same problem occurs again.

OK:

Same problem does not occur.

NG: REPLACE STEREO COMPONENT AMPLIFIER (See **INSTALLATION**)

OK: END

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TELEVISION DISPLAY ASSEMBLY COMMUNICATION ERROR

INSPECTION PROCEDURE

1. **IDENTIFY THE COMPONENT SHOWN BY THE SUB-CODE**
   a. Enter the diagnostic mode.

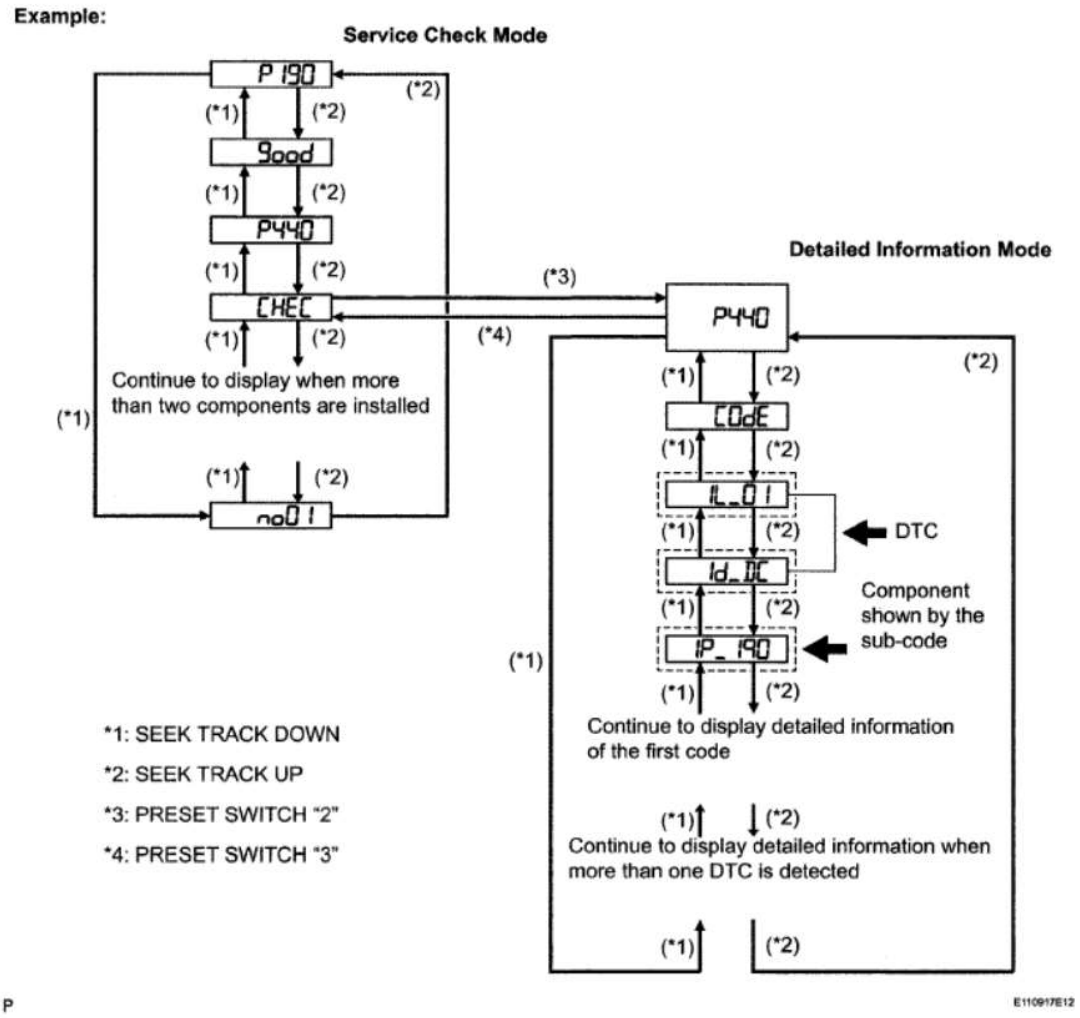


Fig. 103: Diagnostic Mode For Radio Receiver Communication Error
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

   b. Press the preset switch "2" to change to "Detailed Information Mode".
   c. Identify the component shown by the sub-code.

HINT:

- "P190" set by the radio receiver shown in the preceding illustration as an example.
- For details of the DTC display, refer to "**DTC CHECK/CLEAR**" (See **DTC CHECK/CLEAR**).

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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.

Component table:

PROCEED COMPONENT CHART

Component	Proceed to
"Bluetooth" handsfree module (19D)	Radio receiver power source circuit (See **RADIO RECEIVER POWER SOURCE CIRCUIT**)
Radio receiver (190)	Radio receiver power source circuit (See **RADIO RECEIVER POWER SOURCE CIRCUIT**)
Stereo component amplifier (440)	Stereo component amplifier power source circuit (See **STEREO COMPONENT AMPLIFIER POWER SOURCE CIRCUIT**)

3. **INSPECT RADIO RECEIVER**
   a. Disconnect the radio receiver connector.
   b. Measure the resistance according to the value(s) in the table below.

Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
E2-5 (ATX+) - E2-15 (ATX-)	Always	60 to 80 ohms
E16-9 (TXM+) - E16-10 (TXM-) (*1)	Always	60 to 80 ohms
HINT: *1: w/ Rear Seat Entertainment System		

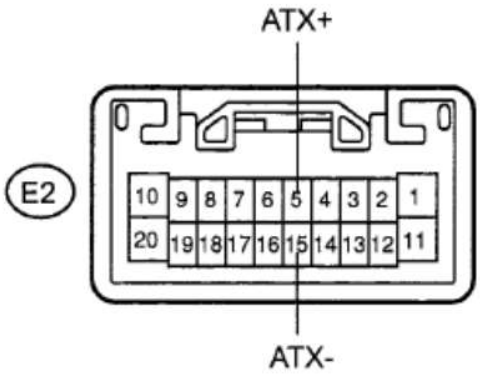
NG: REPLACE RADIO RECEIVER (See **INSTALLATION**)

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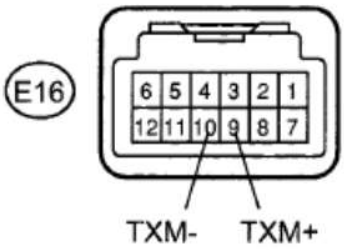
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Component without harness connected:
(Radio Receiver)



Component without harness connected:
(Radio Receiver (*1))



E151918E11

Fig. 104: Identifying Radio Receiver Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: Go to next step

4. **CHECK HARNESS AND CONNECTOR**

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 "**TERMINALS OF ECU**" (See **TERMINALS OF ECU**).

a. Referring to the AVC-LAN wiring diagram below, check the AVC-LAN circuit between the radio

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receiver and the component shown by the sub-code.

1. Check for an open or short in the AVC-LAN circuit between the radio receiver and the component shown by the sub-code.

OK:

There is no open or short circuit.

AVC-LAN WIRING DIAGRAM:

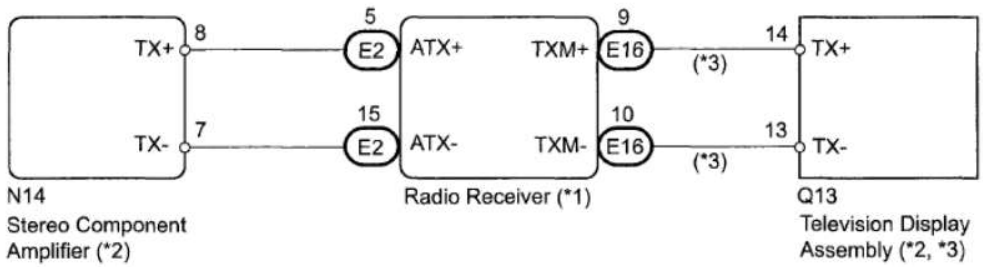


Fig. 105: AVC-LAN Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

NG: REPAIR OR REPLACE HARNESS OR CONNECTOR

OK: Go to next step

5. **REPLACE COMPONENT SHOWN BY SUB-CODE**
   a. Replace the component shown by the sub-code with a normal one and check if the same problem occurs again.

OK:

Same problem does not occur.

NG: REPLACE TELEVISION DISPLAY ASSEMBLY (See **TELEVISION DISPLAY**)

OK: END

BLUETOOTH HANDSFREE MODULE COMMUNICATION ERROR

INSPECTION PROCEDURE

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1. **IDENTIFY THE COMPONENT SHOWN BY SUB-CODE**
   a. Enter the diagnostic mode.

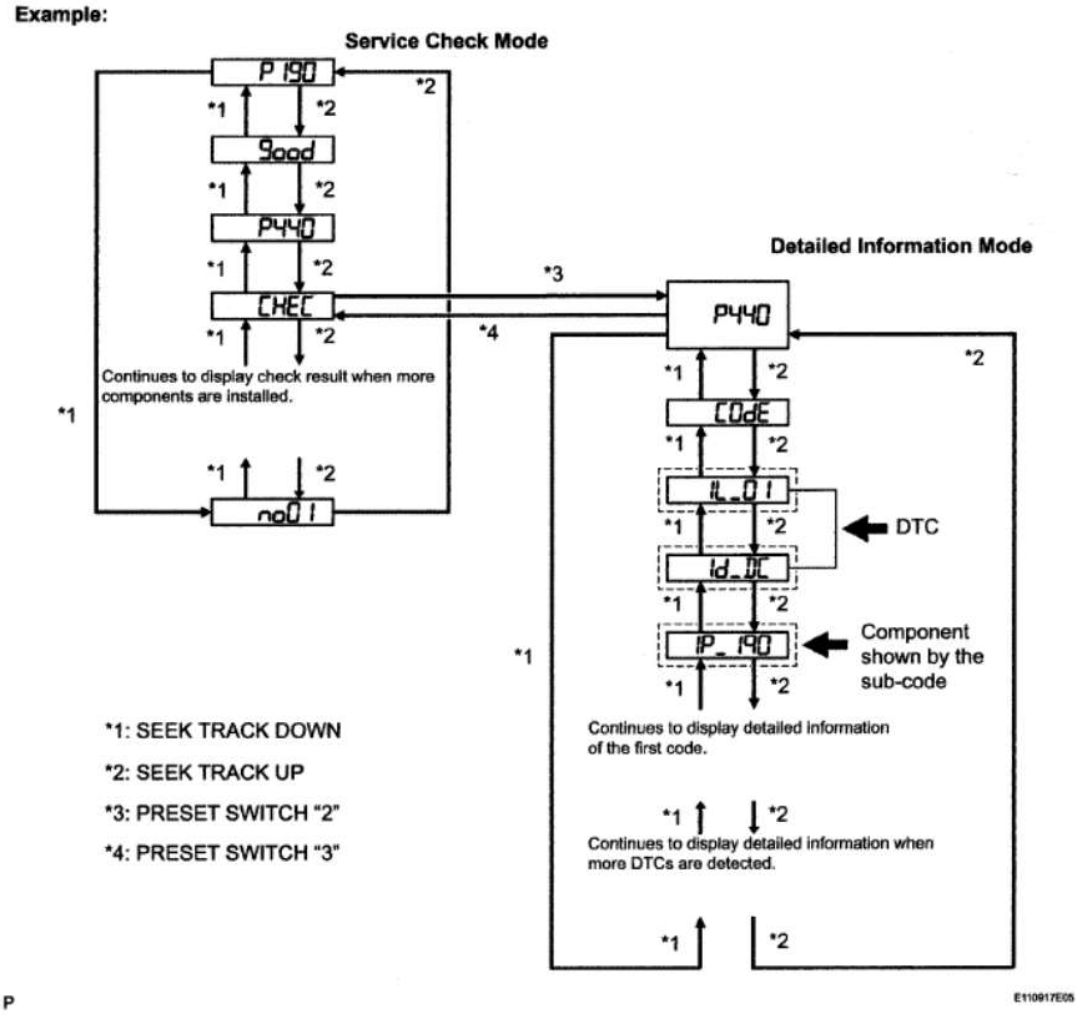


Fig. 106: Diagnostic Mode For Stereo Component Amplifier Communication Error
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

   b. Press the preset switch "3" to change to "Detailed Information Mode".
   c. Identify the component shown by the sub-code.

HINT:

- "P190" set by the radio receiver shown in the preceding illustration as an example.
- For details of the DTC display, refer to "**DTC CHECK/CLEAR**" (See **DTC CHECK/CLEAR**).

2. **CHECK COMPONENT SHOWN BY SUB-CODE**
   a. Select the component shown by sub-code.

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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:

PROCEED COMPONENT CHART

Component	Proceed to
Except Radio Receiver	A
Radio Receiver (190)	B

B: REPLACE RADIO RECEIVER (See **INSTALLATION**)

A: Go to next step

3. **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.

Component Table:

PROCEED COMPONENT CHART

Component	Proceed to
Television display assembly (1B0)	Television display assembly power source circuit (See **TELEVISION DISPLAY POWER SOURCE CIRCUIT**)
Stereo component amplifier (440)	Stereo component amplifier power source circuit (See **STEREO COMPONENT AMPLIFIER POWER SOURCE CIRCUIT**)

4. **INSPECT RADIO RECEIVER**
   a. Disconnect the radio receiver connector.
   b. Measure the resistance according to the value(s) in the table below.

Standard resistance

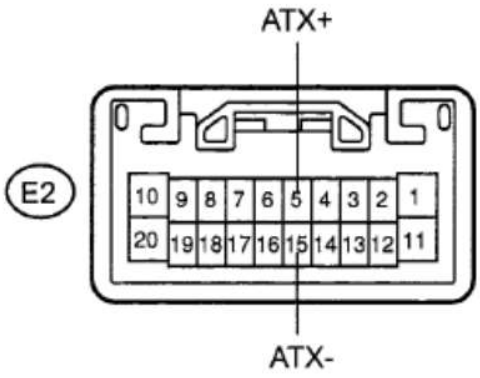
TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
E2-5 (ATX+) - E2-15 (ATX-)	Always	60 to 80 ohms
E16-9 (TXM+) - E16-10 (TXM-) (*1)	Always	60 to 80 ohms
HINT: *1: w/ Rear Seat Entertainment System		

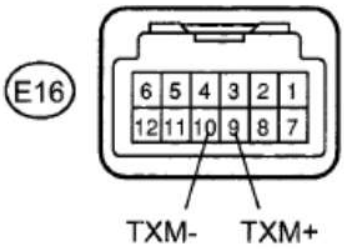
NG: REPLACE RADIO RECEIVER (See **INSTALLATION**)

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Component without harness connected:
(Radio Receiver)



Component without harness connected:
(Radio Receiver (*1))



E151918E11

Fig. 107: Identifying Radio Receiver Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: Go to next step

5. **CHECK HARNESS AND CONNECTOR ("BLUETOOTH" HANDSFREE MODULE - 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 "**TERMINALS OF ECU**" (See **TERMINALS OF ECU**).

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a. Referring to the AVC-LAN wiring diagram below, check the AVC-LAN circuit between the "Bluetooth" handsfree module and the component shown by the sub-code.
   1. Disconnect all connectors between the "Bluetooth" handsfree module and the component shown by the sub-code.
   2. Check for an open or short in the AVC-LAN circuit between the "Bluetooth" handsfree module and the component shown by the sub-code.

OK:

There is no open or short circuit.

AVC-LAN WIRING DIAGRAM:

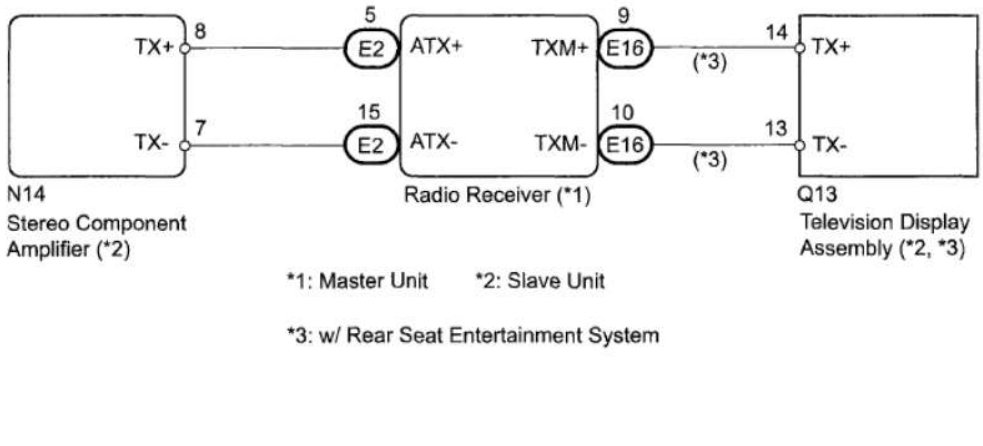


Fig. 108: AVC-LAN Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

NG: REPAIR OR REPLACE HARNESS OR CONNECTOR

OK: Go to next step

6. **REPLACE COMPONENT SHOWN BY SUB-CODE**
   a. Replace the component shown by the sub-code with a normal one and check if the same problem occurs again.

OK:

Same problem does not occur.

NG: REPLACE RADIO RECEIVER (BUILT-IN "BLUETOOTH" HANDSFREE MODULE) (See **INSTALLATION**)

OK: END

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RADIO RECEIVER POWER SOURCE CIRCUIT

DESCRIPTION

This circuit provides power to the radio receiver.

WIRING DIAGRAM

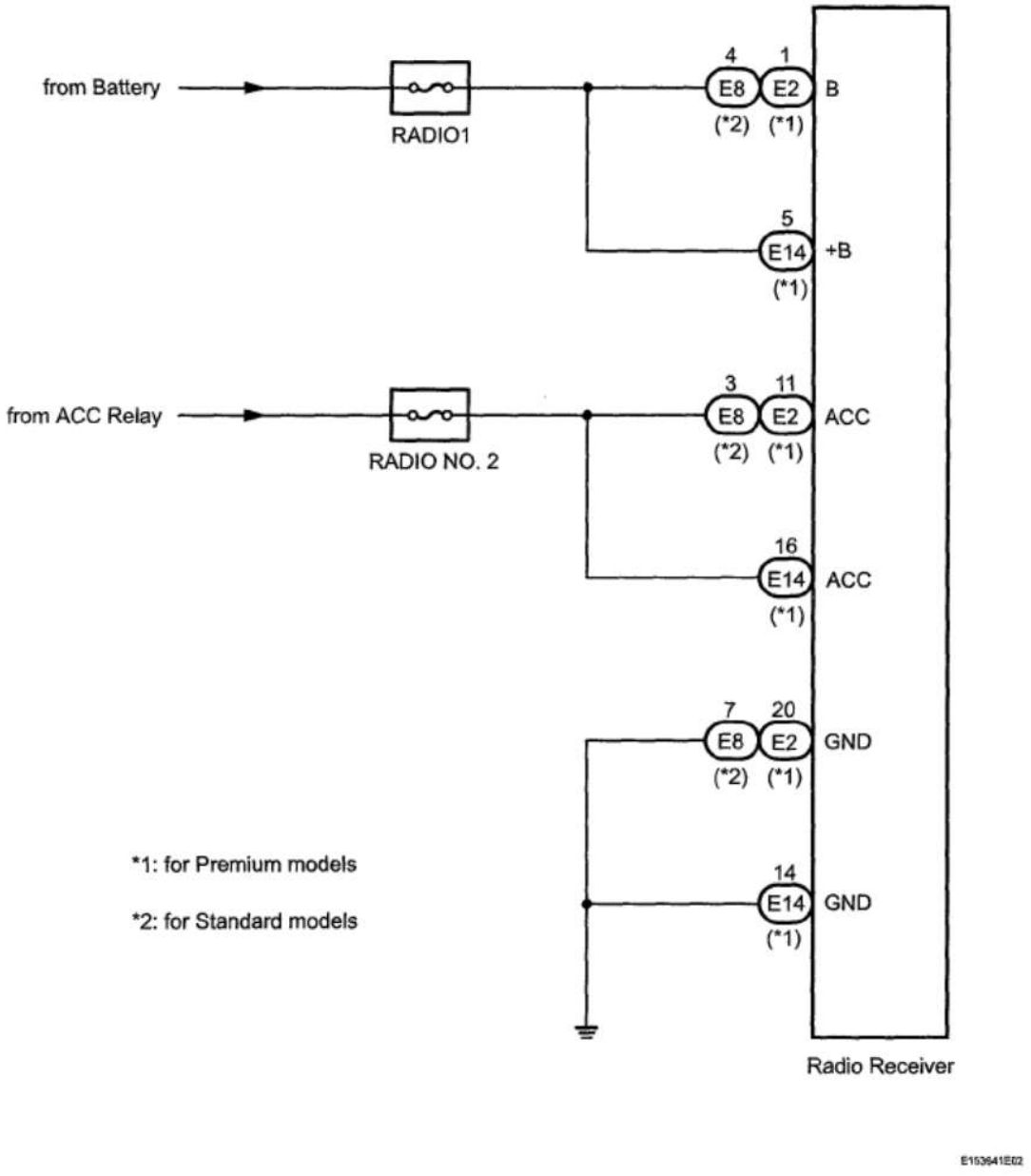


Fig. 109: Radio Receiver Power Source - Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

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1. **INSPECT RADIO RECEIVER**
   a. Disconnect the radio receiver connector.
   b. Measure the resistance according to the value(s) in the table below.

Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
E2-20 (GND) - Body ground (*1)	Always	Below 1 ohms
E14-14 (GND) - Body ground (*1)	Always	Below 1 ohms
E8-7 (GND) - Body ground (*2)	Always	Below 1 ohms

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

Standard voltage

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
E2-1 (B) - E2-20 (GND) (*1)	Always	11 to 14 V
E14-5 (+B) - E14-14 (GND)(*1)	Always	11 to 14 V
E8-4 (B) - E8-7 (GND) (*2)	Always	11 to 14 V
E2-11 (ACC) - E2-20 (GND)(*1)	Ignition switch on (ACC)	11 to 14 V
E14-16 (ACC) - E14-14 (GND)(*1)	Ignition switch on (ACC)	11 to 14 V
E8-3 (ACC) - E8-7 (GND) (*2)	Ignition switch on (ACC)	11 to 14 V
HINT: • *1: for Premium models • *2: for Standard models		

NG: REPAIR OR REPLACE HARNESS OR CONNECTOR

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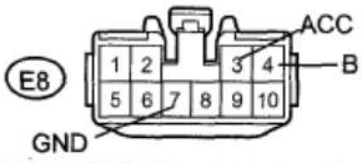
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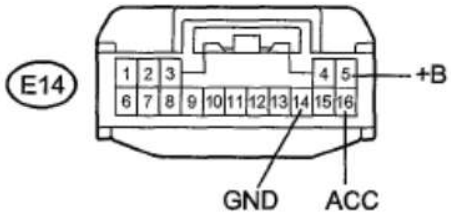
Front view of wire harness connector:
(to Radio Receiver (*1))



Front view of wire harness connector:
(to Radio Receiver (*2))



Front view of wire harness connector:
(to Radio Receiver (*1))



H E138283E04

Fig. 110: Identifying Radio Receiver Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (See **PROBLEM SYMPTOMS TABLE**)

STEREO COMPONENT AMPLIFIER POWER SOURCE CIRCUIT

DESCRIPTION

This circuit provides power to the stereo component amplifier.

WIRING DIAGRAM

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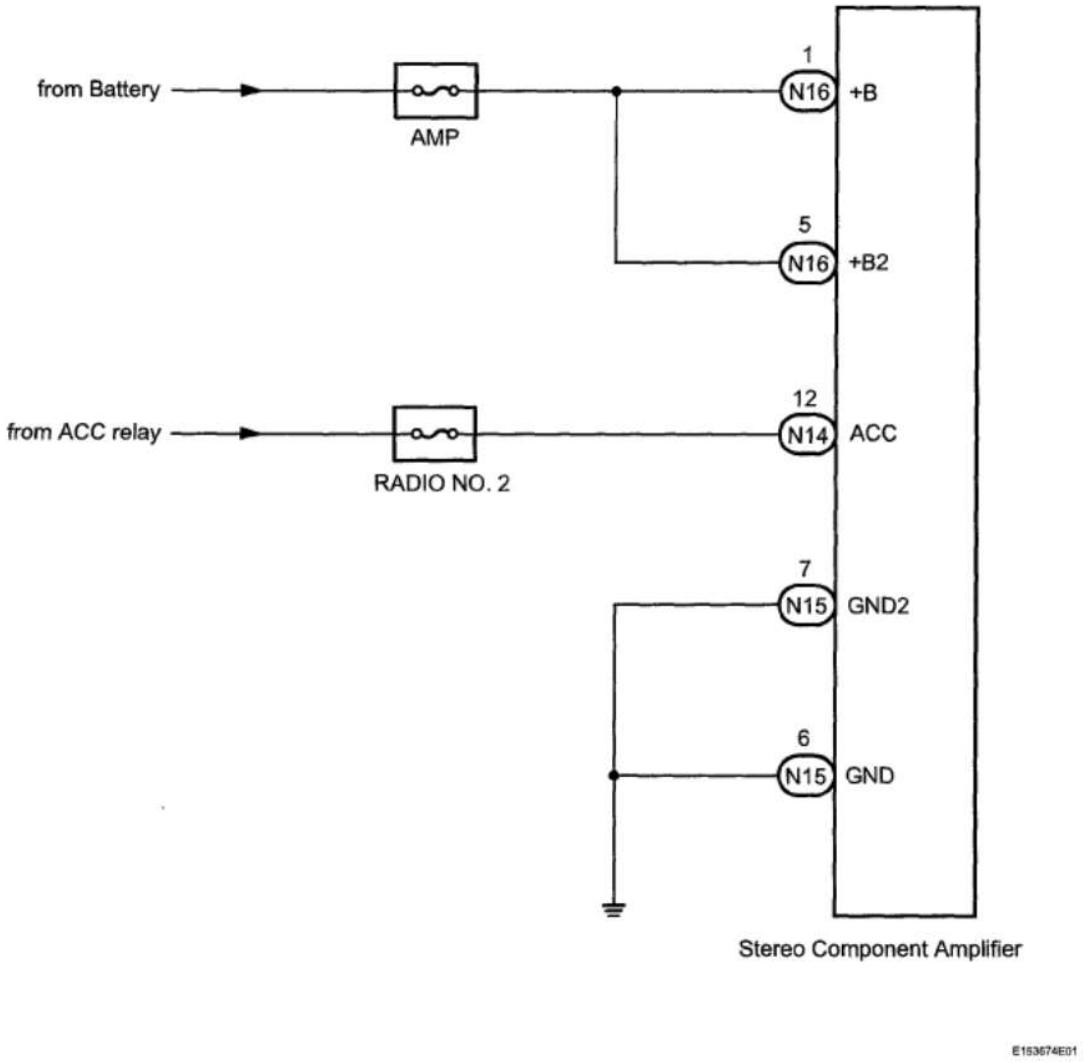


Fig. 111: Stereo Component Amplifier Power Source - Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

1. **INSPECT STEREO COMPONENT AMPLIFIER**
   a. Disconnect the stereo component amplifier connectors.
   b. Measure the resistance according to the value(s) in the table below.

Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
N15-6 (GND) -Body ground	Always	Below 1 ohms
N15-7 (GND2) - Body ground	Always	Below 1 ohms

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

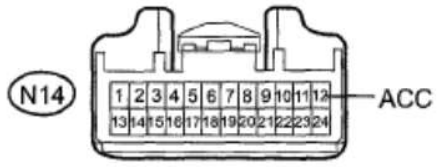
Standard voltage

TESTER CONNECTION SPECIFIED CONDITION CHART

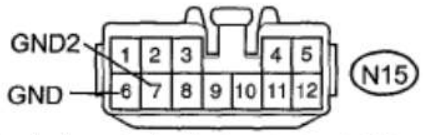
Tester Connection	Condition	Specified Condition
N16-1 (+B) - N15-6 (GND)	Always	11 to 14 V
N16-5 (+B2) - N15-6 (GND)	Always	11 to 14 V
N14-12 (ACC) - N15-6 (GND)	Ignition switch on (ACC)	11 to 14 V

NG: REPAIR OR REPLACE HARNESS OR CONNECTOR

Front view of wire harness connector:
(to Stereo Component Amplifier)



Front view of wire harness connector:
(to Stereo Component Amplifier)



Front view of wire harness connector:
(to Stereo Component Amplifier)

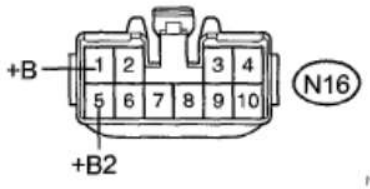


Fig. 112: Identifying Stereo Component Amplifier Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (See **PROBLEM SYMPTOMS TABLE**)

REAR SEAT ENTERTAINMENT SYSTEM

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PRECAUTION

1. PRECAUTION FOR DISCONNECTING THE BATTERY CABLE

NOTE: When disconnecting the negative (-) battery terminal, initialize the following systems after the terminal is reconnected.

SYSTEM PROCEDURE CHART

System Name	See Procedure
Parking Assist Monitor System	See **INITIALIZATION**

2. EXPRESSIONS OF IGNITION SWITCH

a. The type of ignition switch used op this model differs according to the specifications of the vehicle. The expressions listed in the table below are used in this section.

IGNITION SWITCH REFERENCE CHART

Switch Type		Ignition Switch (Position)	Engine Switch (Condition)
Expression	Ignition switch off	LOCK	Off
	Ignition switch on (IG)	ON	On (IG)
	Ignition switch on (ACC)	ACC	On (ACC)
	Engine start	START	Start

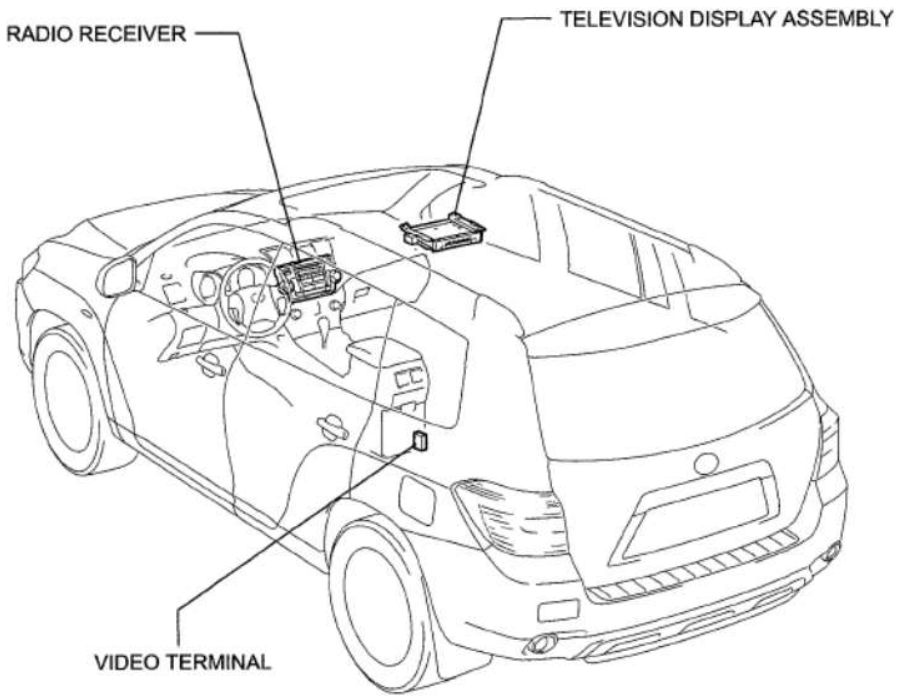
PARTS LOCATION

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w/o NAVIGATION SYSTEM:



P E147415E01

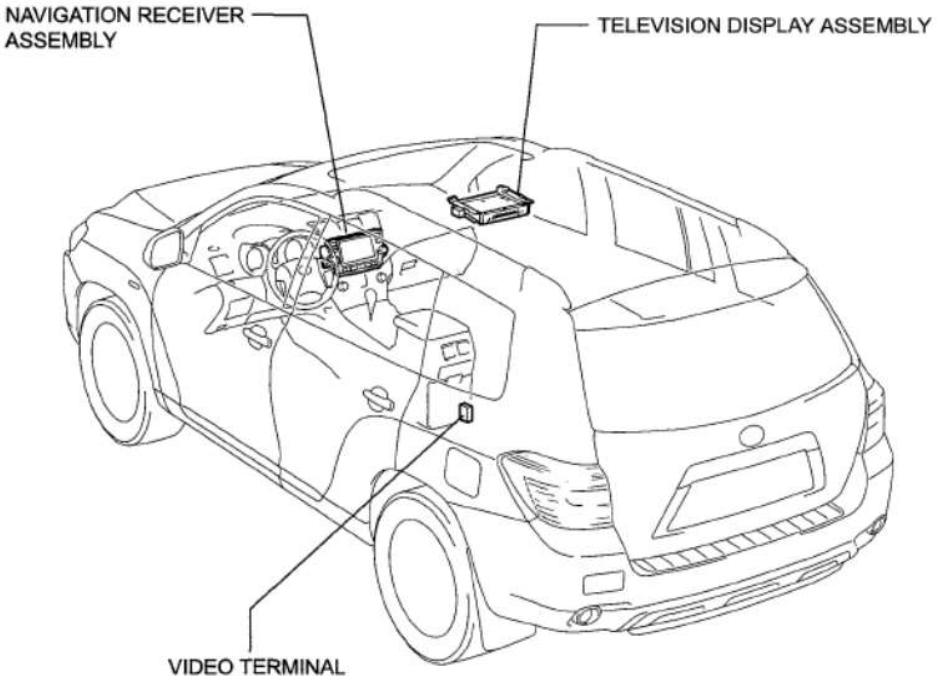
Fig. 113: Identifying Rear Seat Entertainment System Parts Location (1 Of 2)
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w/ NAVIGATION SYSTEM:



P E153363E01

Fig. 114: Identifying Rear Seat Entertainment System Parts Location (2 Of 2)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

SYSTEM DIAGRAM

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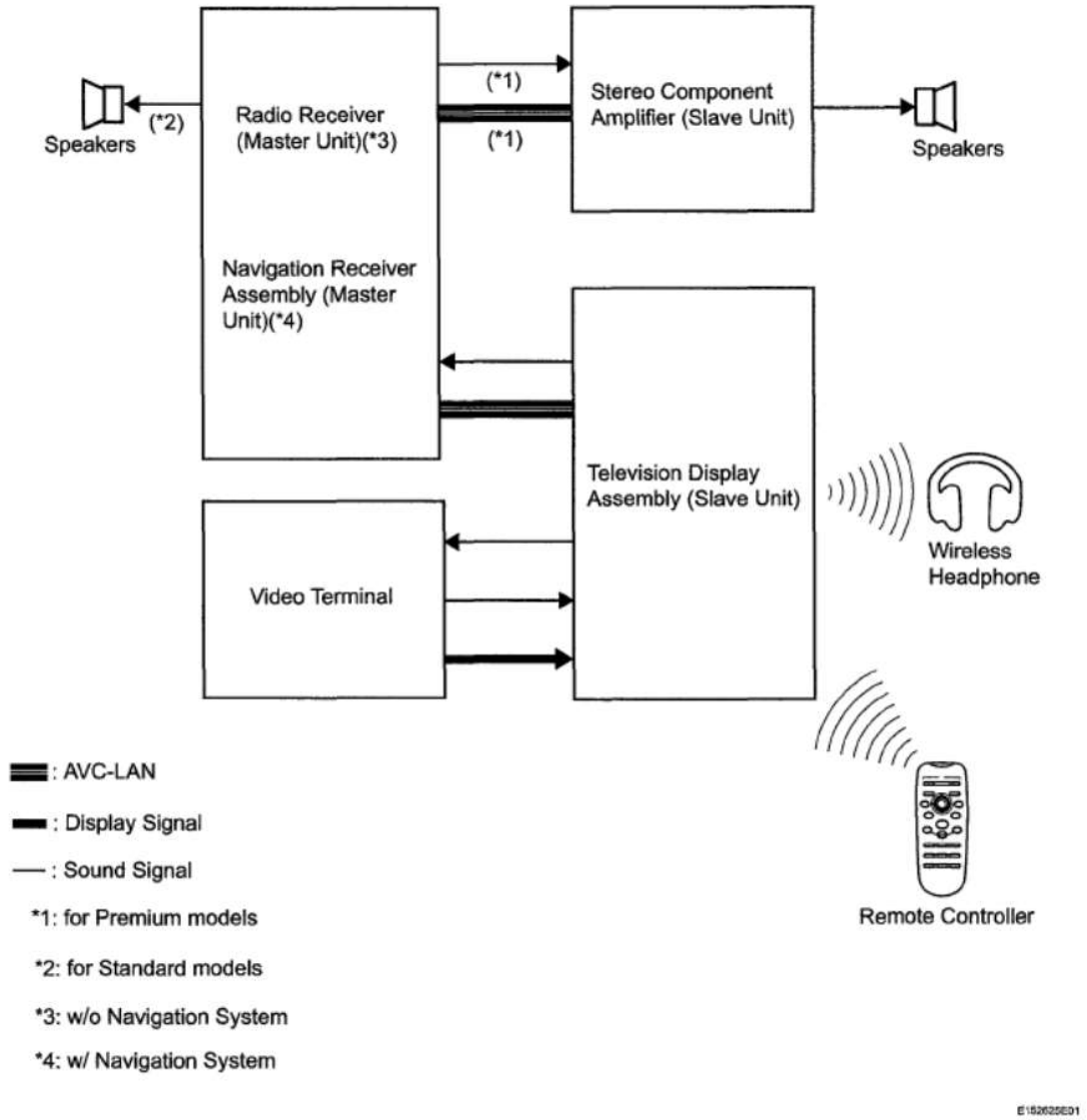


Fig. 115: Rear Seat Entertainment System Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

SYSTEM DESCRIPTION

1. **OUTLINE**
   - The RSE (Rear Seat Entertainment) system allows the front and rear seat occupants to select different audio-visual modes at the same time.
   - The rear seat occupants can control the audio-visual modes with the remote controller and listen to the audio using wireless headphones.
   - The RSE system is controlled by the television display, and the communication between the audio head unit and the television display is established via an AVC-LAN (Audio Visual Communication-Local Area Network).
   - The RSE system can play discs recorded entirely in the MP3 format, as well as music discs

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containing a mixture of CD data (CD-DA files) and MP3 data.

HINT:

MP3 is short for MPEG1 (Moving Picture Expert Group Phase 1) and 2 Audio Layer 3. It is an audio compression standard set by a working group (MPEG) of the ISO (International Organization for Standardization). MP3 data is compressed audio data that is about 1/10 the size of a conventional disc's audio data.

2. **FUNCTION OF MAIN COMPONENTS**

FUNCTION OF MAIN COMPONENTS CHART

Component	Function
Television display assembly • DVD player • Headphone terminal	• Displays DVD and video images. • Receives signals from remote controller. • Outputs audio signals to wireless headphones in the form of infrared signals. • Outputs audio signals to wired headphones that are connected.
Navigation receiver assembly (*1)	• Displays DVD and video images in accordance with video signals from the television display assembly. • Receives audio signals from the television display and outputs them to the stereo component amplifier or the speaker. • Enables or disables the function of the remote controller for the television display assembly.
Radio receiver (*2)	• Receives audio signals from the television display and outputs them to the stereo component amplifier or the speaker. • Enables or disables the function of the remote controller for television display assembly.
Remote controller	Outputs various control signals of the RSE system to the television display in the form of infrared signals.
Wireless headphones	• Receives the audio signals from the television display in the form of infrared signals. • Volume adjustment of the wireless headphones can be done by using the volume control on the wireless headphones.
VTR terminal	This terminal is for connecting a video player's video and audio output terminals.
HINT: • *1: w/ Navigation System • *2: w/o Navigation System	

3. **DVD (Digital Versatile Disc) PLAYER OUTLINE (for TELEVISION DISPLAY)**
   a. The DVD player can only play DVD videos that have any of the following marks:

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Fig. 116: Identifying DVD Marks
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

1. Precaution for use of discs

NOTE:

- **PAL or SECAM color television standard discs cannot be played. (Only NTSC discs can be played.)**
- **Keep the discs away from dirt. Be careful not to damage the discs or leave your fingerprints on them.**
- **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.**
- **Do not use uniquely-shaped CDs because these may cause player malfunctions.**
- **Do not use discs whose recording portion is transparent or translucent because they may not be able to be inserted, ejected, or played normally.**

PROBLEM SYMPTOMS TABLE

HINT:

Use the table below to help determine the cause of a problem. The likely causes of the problem are indicated in descending order. Check each suspected area in order. Repair or replace faulty parts or perform adjustments as necessary.

Display function

DISPLAY FUNCTION SYMPTOM CHART

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Symptom	Suspected Area	Refer to
Black screen (when a disc is inserted, or when the system is in the VTR mode).	Television display power source circuit	TELEVISION DISPLAY POWER SOURCE CIRCUIT
	AVC-LAN circuit (*1)	AVC-LAN CIRCUIT
	AVC-LAN circuit (*2)	AVC-LAN CIRCUIT
	Television display assembly	TELEVISION DISPLAY
	Radio receiver (*1)	INSTALLATION
	Navigation receiver assembly (*2)	INSTALLATION
Only the DVD screen is not displayed or not stable.	Television display power source circuit	TELEVISION DISPLAY POWER SOURCE CIRCUIT
	Television display assembly	TELEVISION DISPLAY
Only display screen input from an external device is not displayed or not stable.	Television display power source circuit	TELEVISION DISPLAY POWER SOURCE CIRCUIT
	Proceed to "Display Signal Circuit between Video Terminal and Television Display"	DISPLAY SIGNAL CIRCUIT BETWEEN VIDEO TERMINAL AND TELEVISION DISPLAY
	Video terminal	INSTALLATION
	Television display assembly	TELEVISION DISPLAY

Sound function

SOUND FUNCTION SYMPTOM CHART

Symptom	Suspected Area	Refer to
Quality of sound from wireless headphones is poor or no sound can be heard.	Television display power source circuit	TELEVISION DISPLAY POWER SOURCE CIRCUIT
	Wireless headphone	-
	Television display assembly	TELEVISION DISPLAY
Only DVD sound cannot be heard or the sound quality is poor.	Television display power source circuit	TELEVISION DISPLAY POWER SOURCE CIRCUIT
	Television display assembly	TELEVISION DISPLAY
Only sound quality input from an external device is poor or no sound can be heard.	Television display power source circuit	TELEVISION DISPLAY POWER SOURCE CIRCUIT
	Proceed to "Sound Signal Circuit between Video Terminal and Television Display"	SOUND SIGNAL CIRCUIT BETWEEN VIDEO TERMINAL AND TELEVISION DISPLAY
	Video terminal	INSTALLATION
	Television display assembly	TELEVISION DISPLAY

Remote control function

REMOTE CONTROL FUNCTION SYMPTOM CHART

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Symptom	Suspected Area	Refer to
A remote control system does not operate.	Television display power source circuit	**TELEVISION DISPLAY POWER SOURCE CIRCUIT**
	Proceed to "A Remote Control System does not Operate"	**A REMOTE CONTROL SYSTEM DOES NOT OPERATE**
	AVC-LAN circuit (*1)	**AVC-LAN CIRCUIT**
	AVC-LAN circuit (*2)	**AVC-LAN CIRCUIT**
	Remote controller	-
	Television display assembly	**TELEVISION DISPLAY**
HINT: • *1: w/o Navigation System • *2: w/ Navigation System		

TERMINALS OF ECU

1. **CHECK TELEVISION DISPLAY ASSEMBLY**

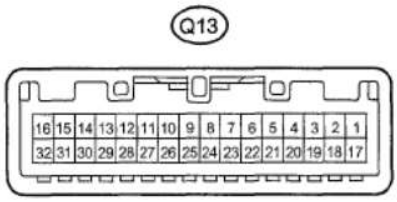


Fig. 117: Identifying Television Display Assembly Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

a. Disconnect the television display assembly connector.
b. Measure the voltage of the wire harness side connector.

TERMINAL DESCRIPTION CHART

Terminal No. (Symbols)	Wiring Color	Terminal Description	Condition	Specified Condition
Q13-12 (GND6) - Body ground	W-B - Body ground	Ground	Always	Below 1 V
Q13-15 (ACC4) - Q13-12 (GND6)	R - W-B	Ignition (ACC)	Ignition switch on (ACC)	11 to 14 V
Q13-16 (+B2) - Q13-12 (GND6)	B - W-B	Battery	Always	11 to 14 V

If the result is not as specified, there may be a malfunction on the wire harness side.

c. Reconnect the television display assembly connector.

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d. Measure the voltage of the connectors.

TERMINAL DESCRIPTION CHART

Terminal No. (Symbols)	Wiring Color	Terminal Description	Condition	Specified Condition
Q13-6 (NTS4) - Q13-12 (GND6)	P - W-B	Display signal	External device system is playing (when video terminal is used)	Pulse generation
Q13-7 (AUXR) - Q13-12 (GND6)	G - W-B	Sound signal	External device system is playing (when video terminal is used)	Waveform synchronized with sound is output
Q13-8 (AUXL) - Q13-12 (GND6)	R - W-B	Sound signal	External device system is playing (when video terminal is used)	Waveform synchronized with sound is output
Q13-13 (TX-) - Q13-14 (TX+)	BR - Y	AVC-LAN communication signal	Ignition switch on (ACC)	2 to 3 V
Q13-22 (SGN5) - Q13-12 (GND6)	L - W-B	Ground	Always	Below 1 V
Q13-23 (SG7) - Q13-12 (GND6)	Shielded - W-B	Shield ground	Always	Below 1 V
Q13-24 (OPEN) - Q13-12 (GND6)	O - W-B	VTR terminal detection signal	Always	Below 1 V
Q13-25 (SGN2) - Q13-12 (GND6)	Shielded - W-B	Shield ground	Always	Below 1 V
Q13-26 (LMUT) - Q13-12 (GND6)	B - W-B	Mute signal	RSE system is playing	Above 3.5 V
Q13-26 (LMUT) - Q13-12 (GND6)	B - W-B	Mute signal	RSE system is changing mode	Below 1 V
Q13-27 (SG1) - Q13-12 (GND6)	Shielded - W-B	Shield ground	Always	Below 1 V
Q13-28 (R+) - Q13-12 (GND6)	BR - W-B	RSE sound signal	RSE system is playing	Waveform synchronized with sound is output
Q13-29 (R-) - Q13-12 (GND6)	SB - W-B	RSE sound signal	RSE system is playing	Waveform synchronized with sound is output
Q13-30 (L+) - Q13-12 (GND6)	LG - W-B	RSE sound signal	RSE system is playing	Waveform synchronized with sound is output
Q13-31 (L-) - Q13-12 (GND6)	P - W-B	RSE sound signal	RSE system is playing	Waveform synchronized with sound is output

If the result is not as specified, the television display assembly may have a malfunction.

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2. **CHECK RADIO RECEIVER** (See **TERMINALS OF ECU**)
3. **CHECK NAVIGATION RECEIVER ASSEMBLY** (See **TERMINALS OF ECU**)

A REMOTE CONTROL SYSTEM DOES NOT OPERATE

INSPECTION PROCEDURE

1. **CHECK SYSTEM**
   a. Check that the remote control operation of the rear system is not locked by the radio receiver or the radio and navigation assembly.
      1. Check if "Rear System Locked" appears on the television display.

   OK:

   The message does not appear.

   NG: RELEASE LOCK

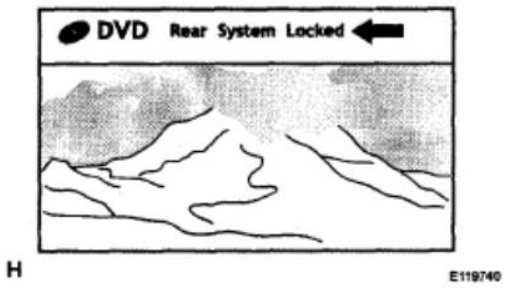


Fig. 118: DVD Rear System Locked Display
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

   OK: Go to next step

2. **CHECK REMOTE CONTROLLER (BATTERY)**
   a. Check that the dry-cell battery of the remote controller is not depleted.

   OK:

   It is not depleted.

   NG: REPLACE REMOTE CONTROLLER BATTERY

   OK: Go to next step

3. **CLEAN INFRARED RAY EMITTING PORTION**
   a. Clean the infrared ray emitting portion.

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1. Clean the infrared ray emitting portion on the rear display.
2. Check whether the same malfunction occurs.

OK:

The function returns to normal.

NG: PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (See **PROBLEM SYMPTOMS TABLE**)

Example:

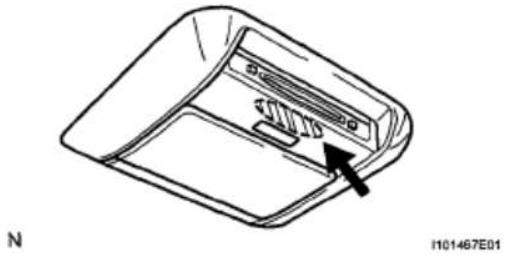


Fig. 119: Locating Ray Emitting Portion
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: END

SOUND SIGNAL CIRCUIT BETWEEN VIDEO TERMINAL AND TELEVISION DISPLAY

DESCRIPTION

This is the sound signal circuit from the video terminal to the television display assembly.

WIRING DIAGRAM

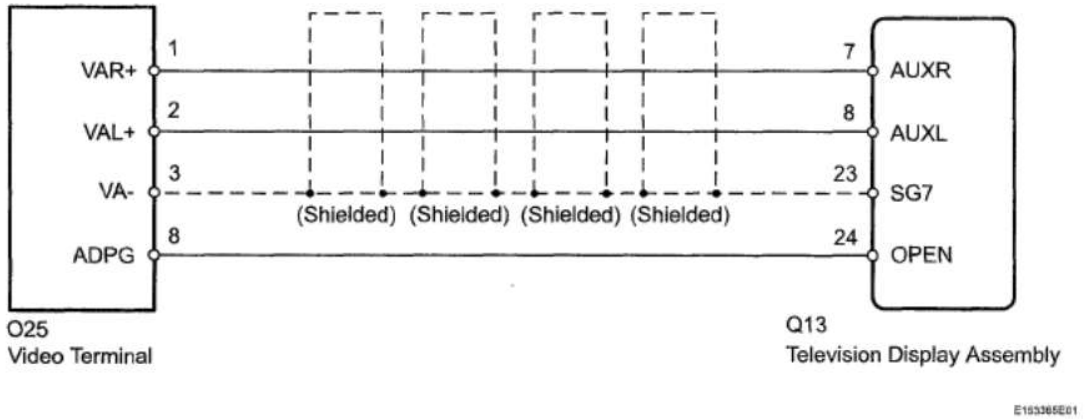


Fig. 120: Sound Signal Circuit Between Video Terminal And Television Display - Wiring Diagram

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Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

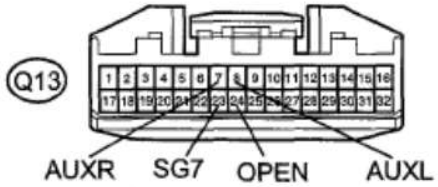
1. **CHECK HARNESS AND CONNECTOR (TELEVISION DISPLAY ASSEMBLY - VIDEO TERMINAL)**
   a. Disconnect the television display assembly connector.
   b. Disconnect the video terminal connector.
   c. Measure the resistance according to the value(s) in the table below.

Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
Q13-7 (AUXR) - O25-1 (VAR+)	Always	Below 1 ohms
Q13-8 (AUXL) - O25-2 (VAL+)	Always	Below 1 ohms
Q13-23 (SG7) - O25-3 (VA-)	Always	Below 1 ohms
Q13-24 (OPEN) - O25-8 (ADPG)	Always	Below 1 ohms
Q13-7 (AUXR) - Body ground	Always	10 kohms or higher
Q13-8 (AUXL) - Body ground	Always	10 kohms or higher
Q13-23 (SG7) - Body ground	Always	10 kohms or higher
Q13-24 (OPEN) - Body ground	Always	10 kohms or higher

Front view of wire harness connector:
(to Television Display Assembly)



Front view of wire harness connector:
(to Video Terminal)

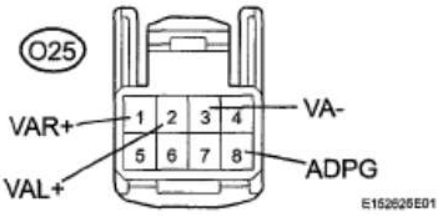


Fig. 121: Identifying Television Display Assembly And Video Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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NG: REPAIR OR REPLACE HARNESS OR CONNECTOR

OK: Go to next step

2. **INSPECT VIDEO TERMINAL**
   a. Using an oscilloscope, check the signal waveform between each terminal and body ground according to the conditions shown in the table below.

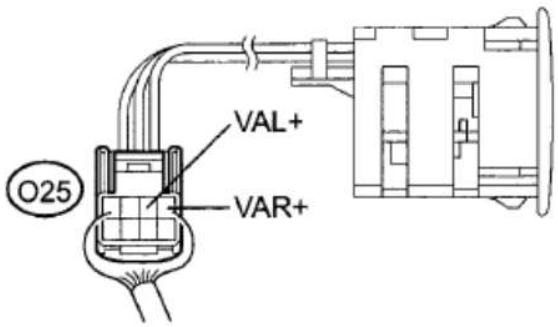
Standard conditions

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
O25-1 (VAR+) - Body ground	External device system is playing, sound is being produced	Waveform synchronized with sound is output
O25-2 (VAL+) - Body ground	External device system is playing, sound is being produced	Waveform synchronized with sound is output

NG: REPLACE VIDEO TERMINAL (See **INSTALLATION**)

Component with harness connected:
(Video Terminal)



E110048E13

Fig. 122: Identifying Video Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (See **PROBLEM SYMPTOMS TABLE**)

DISPLAY SIGNAL CIRCUIT BETWEEN VIDEO TERMINAL AND TELEVISION DISPLAY

DESCRIPTION

This is the display signal circuit from the video terminal to the television display assembly.

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WIRING DIAGRAM

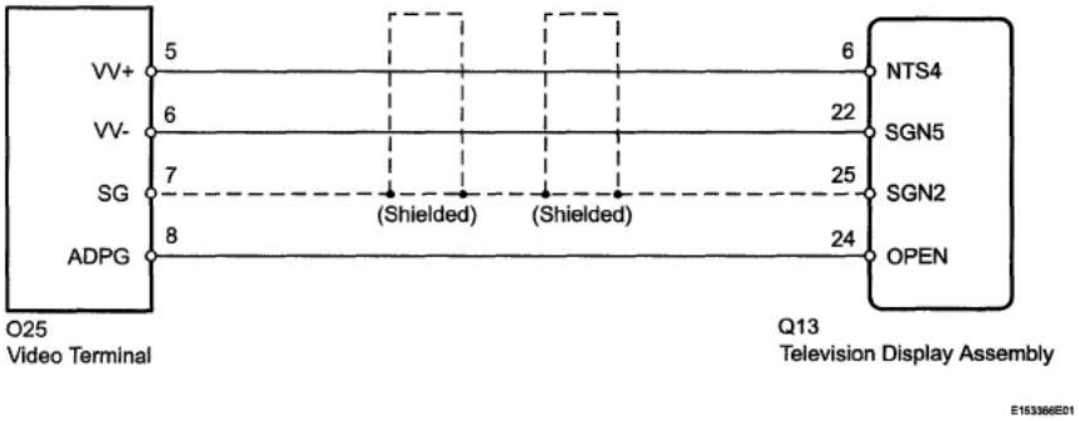


Fig. 123: Display Signal Circuit Between Video Terminal And Television Display - Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

1. **CHECK HARNESS AND CONNECTOR (TELEVISION DISPLAY ASSEMBLY - VIDEO TERMINAL)**
   a. Disconnect the television display assembly connector.
   b. Disconnect the video terminal connector.
   c. Measure the resistance according to the value(s) in the table below.

Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

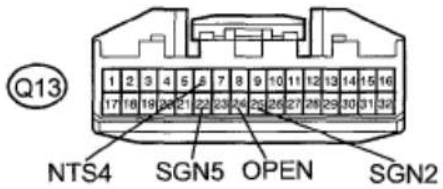
Tester Connection	Condition	Specified Condition
Q13-6 (NTS4) - O25-5 (W+)	Always	Below 1 ohms
Q13-22 (SGN5) - O25-6 (W-)	Always	Below 1 ohms
Q13-25 (SGN2) - O25-7 (SG)	Always	Below 1 ohms
Q13-24 (OPEN) - O25-8 (ADPG)	Always	Below 1 ohms
Q13-6 (NTS4) - Body ground	Always	10 kohms or higher
Q13-22 (SGN5) Body ground	Always	10 kohms or higher
Q13-25 (SGN2) - Body ground	Always	10 kohms or higher
Q13-24 (OPEN) - Body ground	Always	10 kohms or higher

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Front view of wire harness connector:
(to Television Display Assembly)



Front view of wire harness connector:
(to Video Terminal)

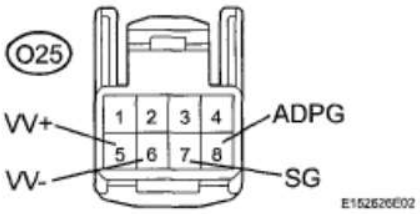


Fig. 124: Identifying Television Display Assembly And Video Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

NG: REPAIR OR REPLACE HARNESS OR CONNECTOR

OK: Go to next step

2. **INSPECT VIDEO TERMINAL**
   a. Using an oscilloscope, check the waveform of the video terminal.

ITEM CONDITION CHART

Item	Content
Symbols (Terminal No.)	O25-5 (W+) - Body ground
Tool Setting	200 mV/DIV., 10 µsec./DIV.
Condition	RSE system playing

OK:

Waveform is as shown in the illustration.

NG: REPLACE VIDEO TERMINAL (See **INSTALLATION**)

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Component with harness connected:
(Video Terminal)

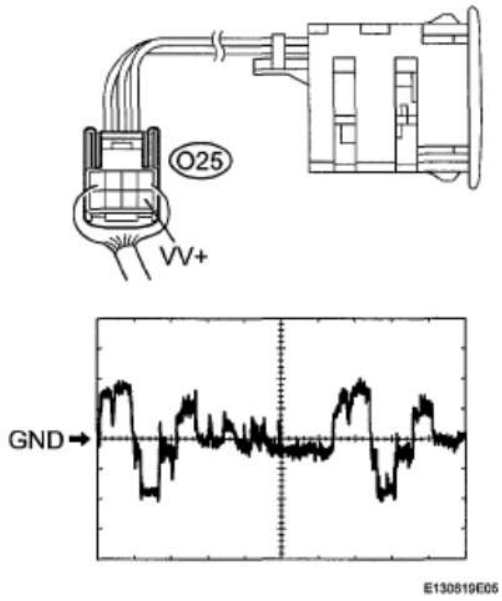


Fig. 125: Identifying Video Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (See **PROBLEM SYMPTOMS TABLE**)

TELEVISION DISPLAY POWER SOURCE CIRCUIT

DESCRIPTION

This is the power source circuit of the television display assembly.

WIRING DIAGRAM

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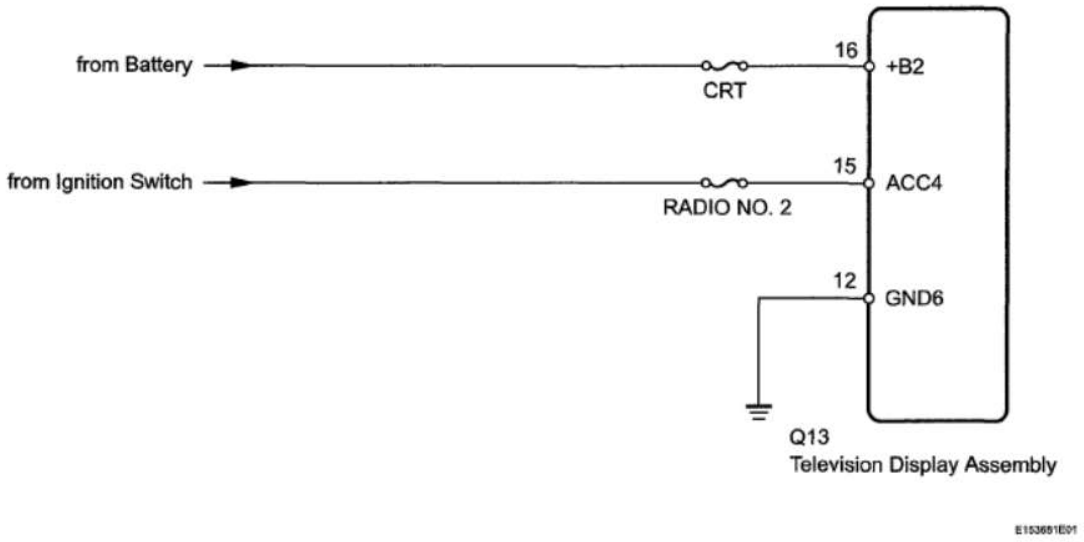


Fig. 126: Television Display Power Source - Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

1. **CHECK HARNESS AND CONNECTOR (TELEVISION DISPLAY ASSEMBLY - BATTERY, BODY GROUND)**
   a. Disconnect the television display assembly connector.
   b. Measure the resistance according to the value(s) in the table below.

      Standard resistance

      TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
Q13-12 (GND6) - Body ground	Always	Below 1 ohms

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

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Front view of wire harness connector:
(to Television Display Assembly)

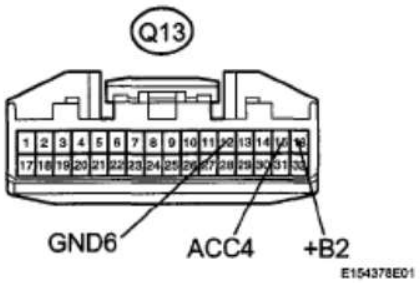


Fig. 127: Identifying Television Display Assembly Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

Standard voltage

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
Q13-16 (+B2) - Body ground	Always	11 to 14 V
Q13-15 (ACC4) - Body ground	Ignition switch on (ACC)	11 to 14 V

NG: REPAIR OR REPLACE HARNESS OR CONNECTOR

OK: PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (See **PROBLEM SYMPTOMS TABLE**)

RADIO RECEIVER

COMPONENTS

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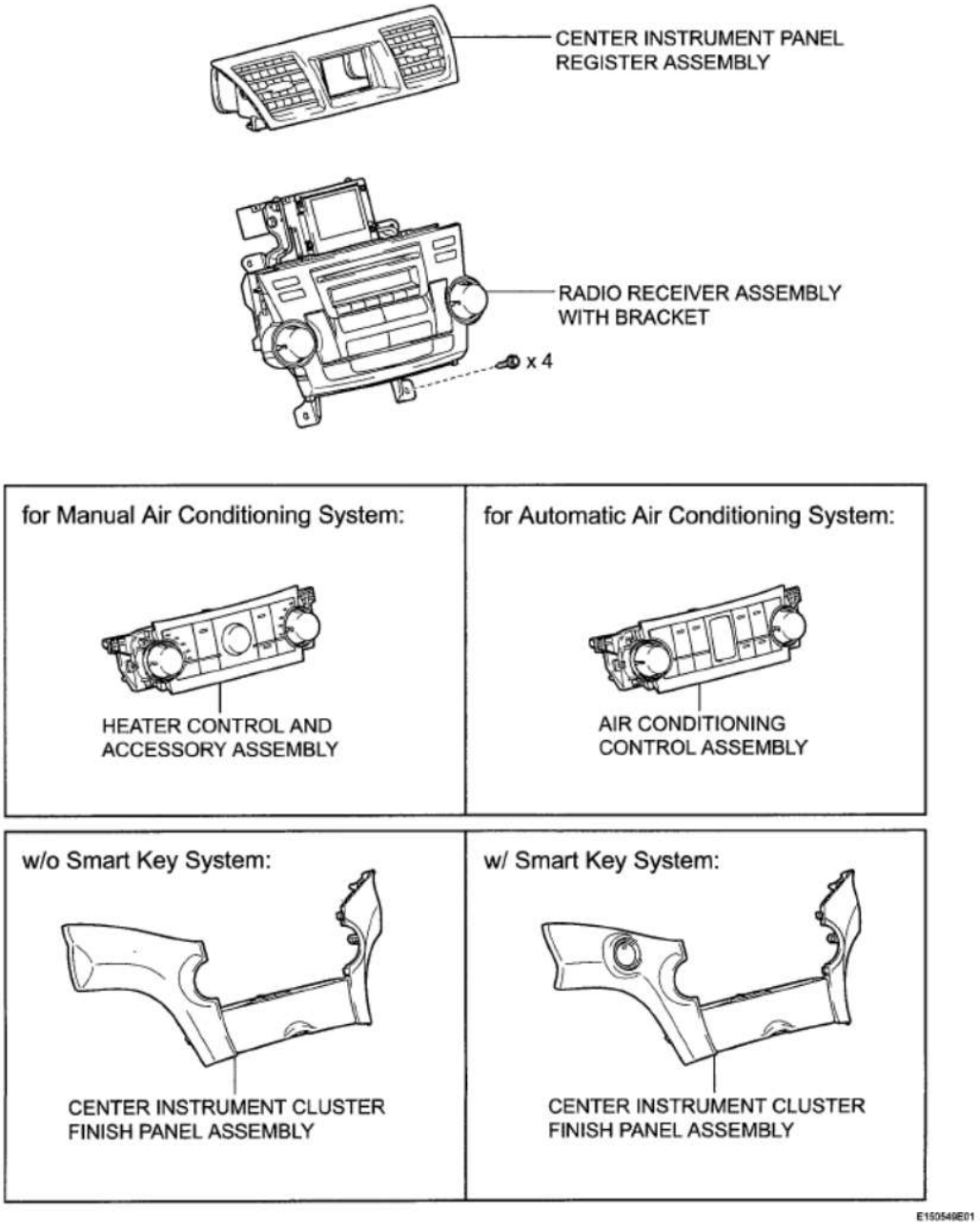


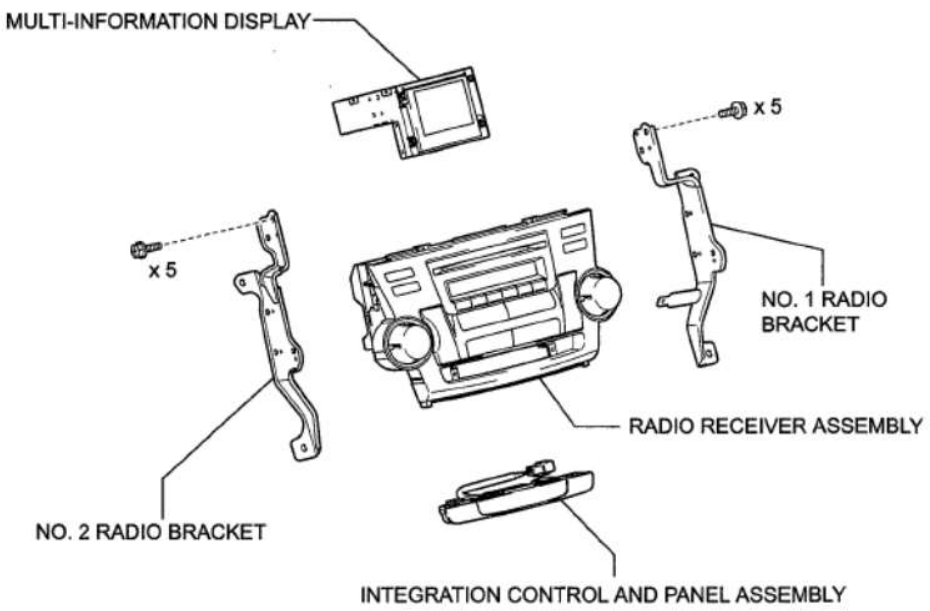
Fig. 128: Identifying Radio Receiver Components (1 Of 2)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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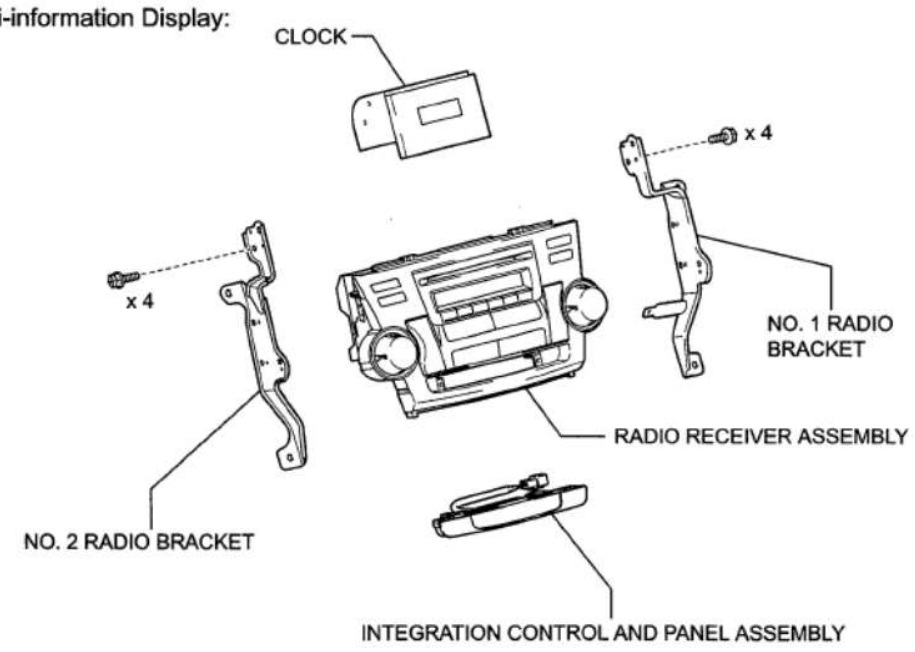
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w/ Multi-information Display:



w/o Multi-information Display:



P E150550E01

Fig. 129: Identifying Radio Receiver Components (2 Of 2)
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REMOVAL

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1. **REMOVE CENTER INSTRUMENT PANEL REGISTER ASSEMBLY** (See **REMOVAL**)
2. **REMOVE CENTER INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY (w/o Smart Key System)** (See **REMOVAL**)
3. **REMOVE CENTER INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY (w/ Smart Key System)** (See **REMOVAL**)
4. **REMOVE HEATER CONTROL AND ACCESSORY ASSEMBLY (for Manual Air Conditioning System)** (See **AIR CONDITIONING PANEL (FOR MANUAL AIR CONDITIONING SYSTEM)**)
5. **REMOVE AIR CONDITIONING CONTROL ASSEMBLY (for Automatic Air Conditioning System)** (See **REMOVAL**)
6. **REMOVE RADIO RECEIVER ASSEMBLY WITH BRACKET**
   a. Remove the 4 bolts.

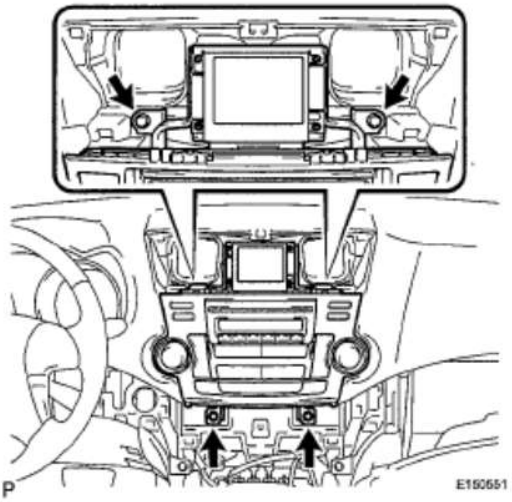


Fig. 130: Locating Radio Receiver Assembly With Bracket And Bolts
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

   b. Pull the radio receiver assembly with bracket toward the rear of the vehicle and disengage the 4 clips.
   c. Disconnect each connector and remove the radio receiver assembly with bracket.

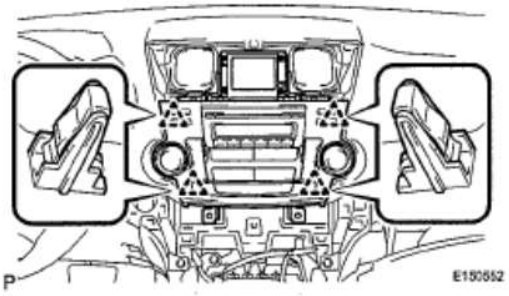


Fig. 131: Identifying Radio Receiver Assembly With Bracket And Clips
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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7. **REMOVE NO. 1 RADIO BRACKET (w/o Multi-information Display)**
   a. Disengage the claw and remove the connector.

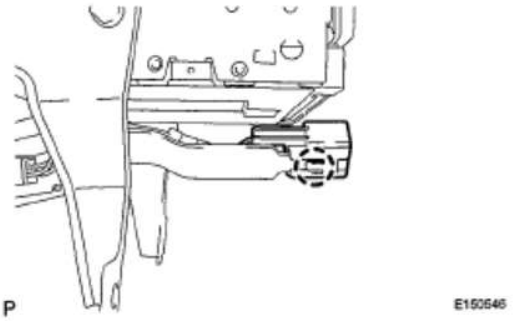


Fig. 132: Identifying No. 1 Radio Bracket Claw And Connector (W/O Multi-Information Display)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

   b. Remove the 4 screws and No. 1 radio bracket.

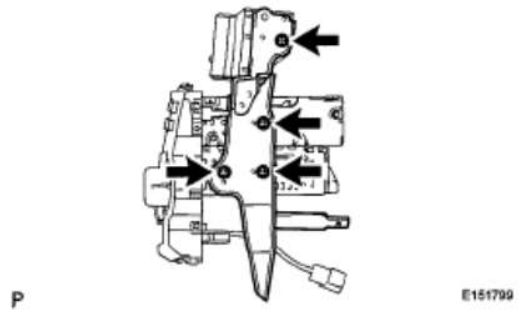


Fig. 133: Locating No. 1 Radio Bracket With Screws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

8. **REMOVE NO. 1 RADIO BRACKET (w/ Multi-information Display)**
   a. Disengage the claw and remove the connector.

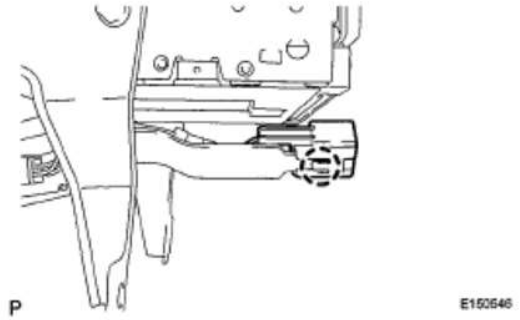


Fig. 134: Identifying No. 1 Radio Bracket Claw And Connector (W/ Multi-Information Display)

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Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

b. Remove the 5 screws and No. 1 radio bracket.

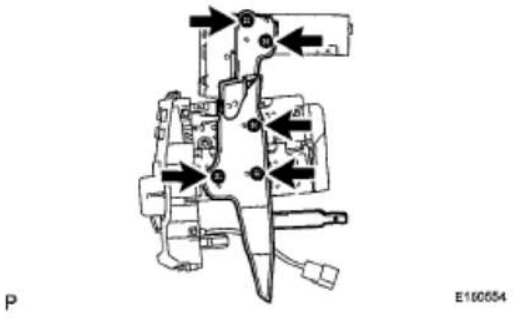


Fig. 135: Locating No. 1 Radio Bracket With Screws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

9. **REMOVE NO. 2 RADIO BRACKET (w/o Multi-information Display)**
   a. Remove the 4 screws and No. 2 radio bracket.

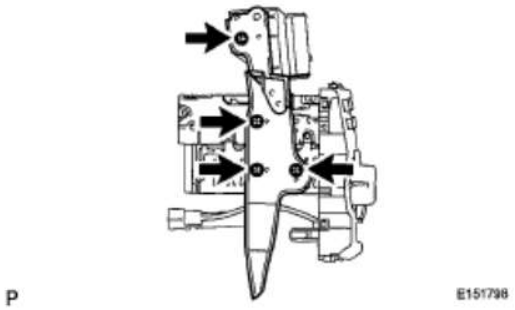


Fig. 136: Identifying No. 2 Radio Bracket Screws (W/O Multi-Information Display)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

10. **REMOVE NO. 2 RADIO BRACKET (w/ Multi-information Display)**
    a. Remove the 5 screws and No. 2 radio bracket.
11. **REMOVE INTEGRATION CONTROL AND PANEL ASSEMBLY** (See **REMOVAL**)
12. **REMOVE RADIO RECEIVER ASSEMBLY**

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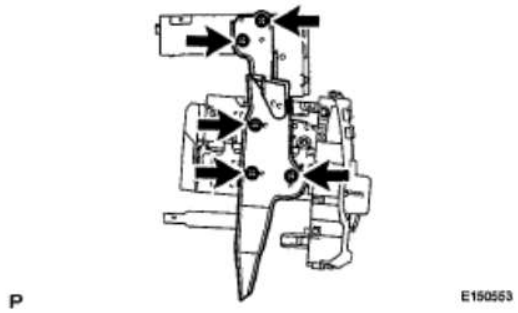


Fig. 137: Identifying No. 2 Radio Bracket Screws (W/ Multi-Information Display)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSTALLATION

1. **INSTALL RADIO RECEIVER ASSEMBLY**
2. **INSTALL INTEGRATION CONTROL AND PANEL ASSEMBLY** (See **INSPECTION**)
3. **INSTALL NO. 2 RADIO BRACKET (w/o Multi-information Display)**
   a. Install the No. 2 radio bracket with the 4 screws.

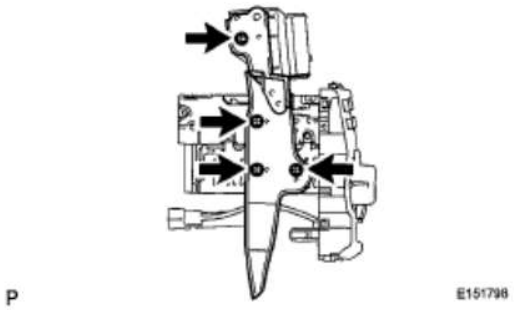


Fig. 138: Identifying No. 2 Radio Bracket Screws (W/O Multi-Information Display)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

4. **INSTALL NO. 2 RADIO BRACKET (w/ Multi-information Display)**
   a. Install the No. 2 radio bracket with the 5 screws.

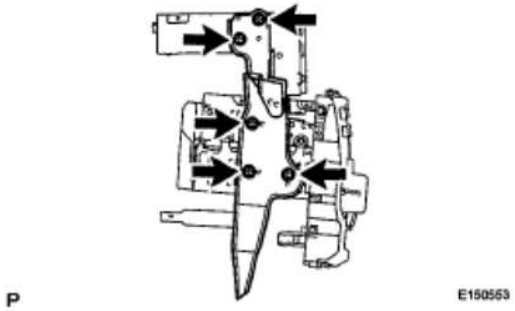


Fig. 139: Identifying No. 2 Radio Bracket Screws (W/ Multi-Information Display)

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Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

5. **INSTALL NO. 1 RADIO BRACKET (w/o Multi-information Display)**
   a. Install the No. 1 radio bracket with the 4 screws.

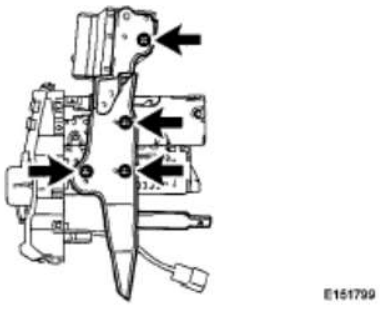


Fig. 140: Locating No. 1 Radio Bracket With Screws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

   b. Engage the claw and install the connector.

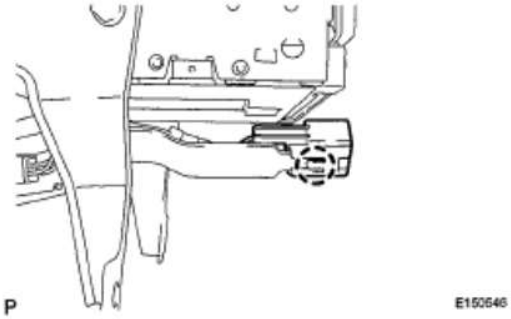


Fig. 141: Identifying No. 1 Radio Bracket Claw And Connector (W/O Multi-Information Display)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

6. **INSTALL NO. 1 RADIO BRACKET (w/ Multi-information Display)**
   a. Install the No. 1 radio bracket with the 5 screws.

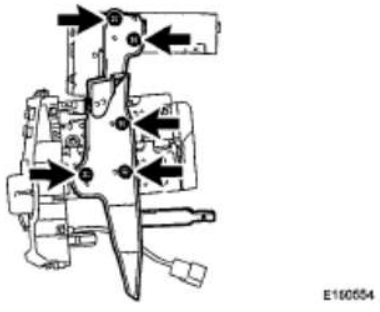


Fig. 142: Locating No. 1 Radio Bracket With Screws

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Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

b. Engage the claw and install the connector.

7. **INSTALL RADIO RECEIVER ASSEMBLY WITH BRACKET**
   a. Connect each connector.

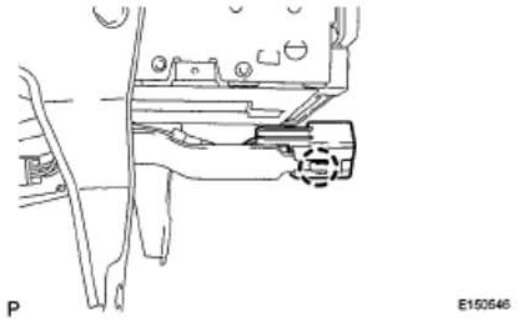


Fig. 143: Identifying Radio Receiver Assembly With Bracket And Connector
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

b. Engage the 4 clips.

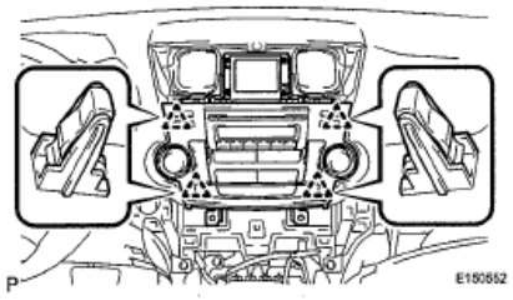


Fig. 144: Identifying Radio Receiver Assembly With Bracket And Clips
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

c. Install the radio receiver assembly with bracket with the 4 bolts.

8. **INSTALL HEATER CONTROL AND ACCESSORY ASSEMBLY (for Manual Air Conditioning System)** (See **AIR CONDITIONING PANEL (FOR MANUAL AIR CONDITIONING SYSTEM)**)
9. **INSTALL AIR CONDITIONING CONTROL ASSEMBLY (for Automatic Air Conditioning System)** (See **REMOVAL**)

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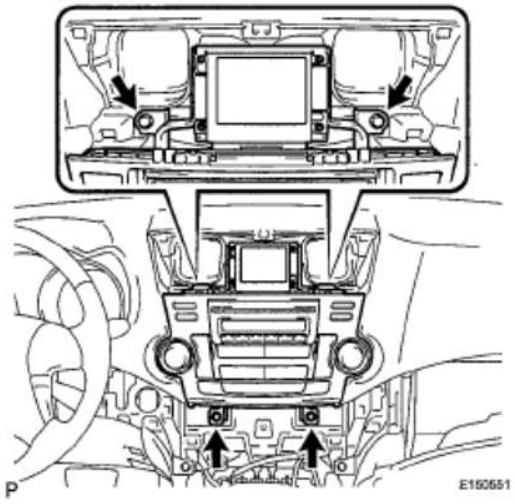


Fig. 145: Locating Radio Receiver Assembly With Bracket And Bolts
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

10. **INSTALL CENTER INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY (w/o Smart Key System)** (See **INSTALLATION**)
11. **INSTALL CENTER INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY (w/ Smart Key System)** (See **INSTALLATION**)
12. **INSTALL CENTER INSTRUMENT PANEL REGISTER ASSEMBLY** (See **INSTALLATION**)

STEREO COMPONENT AMPLIFIER

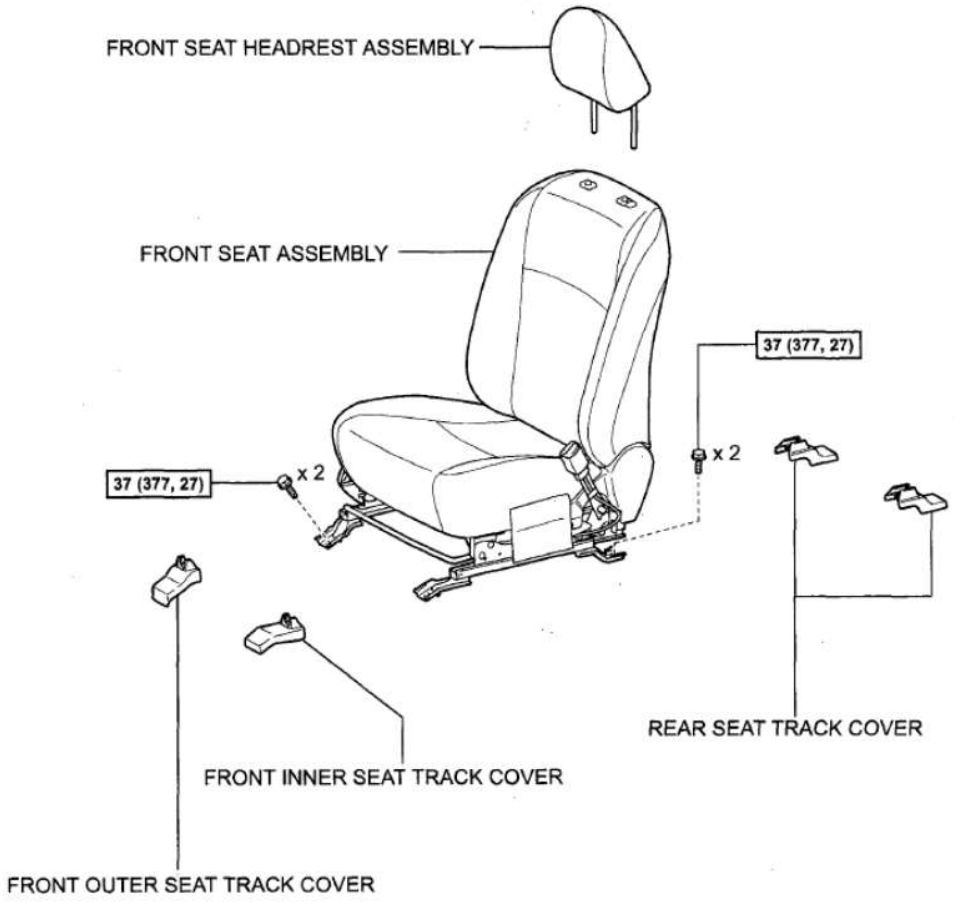
COMPONENTS

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for Manual Seat:



N*m (kgf*cm, ft.*lbf): Specified torque

P

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Fig. 146: Identifying Stereo Component Amplifier Components With Torque Specifications (1 Of 3)
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for Power Seat:

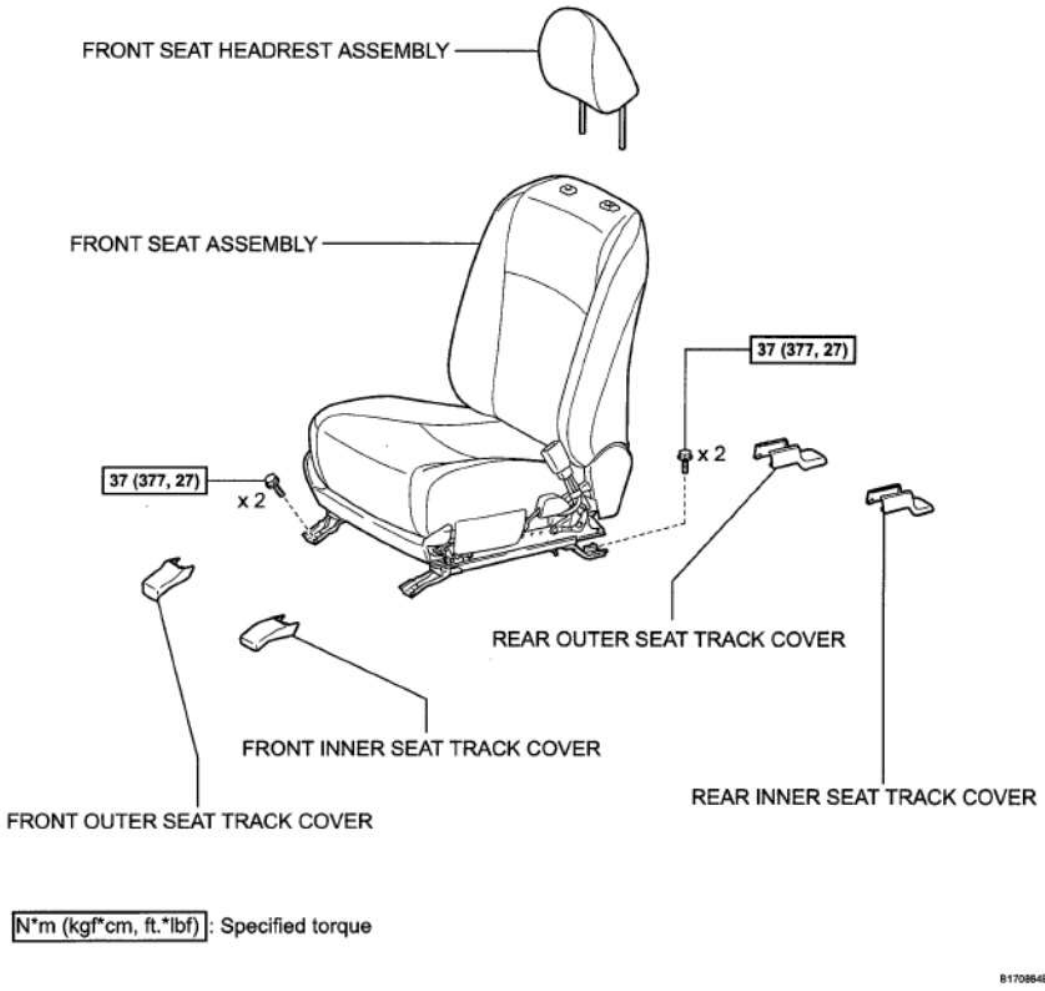


Fig. 147: Identifying Stereo Component Amplifier Components With Torque Specifications (2 Of 3)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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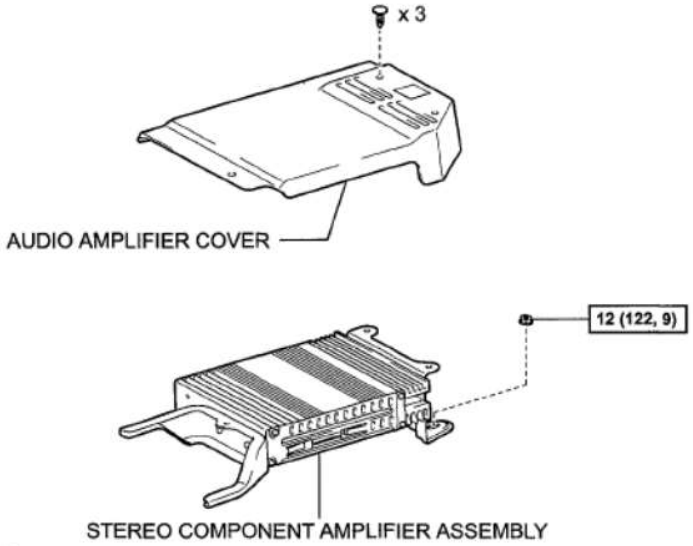


Fig. 148: Identifying Stereo Component Amplifier Components With Torque Specifications (3 Of 3)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL

1. **DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL (for Manual Seat)**

   CAUTION: Wait for 90 seconds after disconnecting the cable to prevent airbag deployment (See AIRBAG SYSTEM).

   NOTE: When disconnecting the cable, some systems need to be initialized after the cable is reconnected (See INITIALIZATION).

2. **REMOVE FRONT SEAT HEADREST ASSEMBLY (for Manual Seat)**

   HINT:

   Use the same procedure for the RH side and the LH side (See **REMOVAL**).

3. **REMOVE FRONT OUTER SEAT TRACK COVER (for Manual Seat)**

   HINT:

   Use the same procedure for the RH side and the LH side (See **REMOVAL**).

4. **REMOVE FRONT INNER SEAT TRACK COVER (for Manual Seat)**

   HINT:

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Use the same procedure for the RH side and the LH side (See **REMOVAL**).

5. **REMOVE REAR SEAT TRACK COVER (for Manual Seat)**

   HINT:

   Use the same procedure for the RH side and the LH side (See **REMOVAL**).

6. **REMOVE FRONT SEAT ASSEMBLY (for Manual Seat)**

   HINT:

   Use the same procedure for the RH side and the LH side (See **REMOVAL**).

7. **REMOVE FRONT SEAT HEADREST ASSEMBLY (for Power Seat)**

   HINT:

   Use the same procedure for the RH side and the LH side (See **REMOVAL**).

8. **REMOVE FRONT OUTER SEAT TRACK COVER (for Power Seat)**

   HINT:

   Use the same procedure for the RH side and the LH side (See **REMOVAL**).

9. **REMOVE FRONT INNER SEAT TRACK COVER (for Power Seat)**

   HINT:

   Use the same procedure for the RH side and the LH side (See **REMOVAL**).

10. **REMOVE REAR OUTER SEAT TRACK COVER (for Power Seat)**

    HINT:

    Use the same procedure for the RH side and the LH side (See **REMOVAL**).

11. **REMOVE REAR INNER SEAT TRACK COVER (for Power Seat)**

    HINT:

    Use the same procedure for the RH side and the LH side (See **REMOVAL**).

12. **REMOVE FRONT SEAT ASSEMBLY (for Power Seat)**

    HINT:

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Use the same procedure for the RH side and the LH side (See **REMOVAL**).

13. **REMOVE AUDIO AMPLIFIER COVER**
    a. Remove the 3 clips and audio amplifier cover.

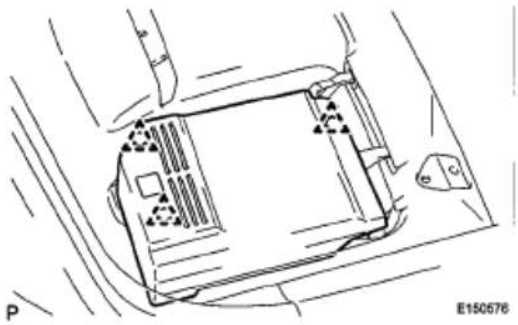


Fig. 149: Identifying Audio Amplifier Cover Clips
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

14. **REMOVE STEREO COMPONENT AMPLIFIER ASSEMBLY**
    a. Disconnect each connector.

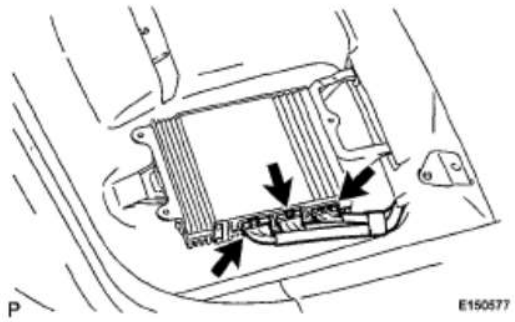


Fig. 150: Locating Stereo Component Amplifier Assembly Connector
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

    b. Remove the nut and stereo component amplifier assembly as shown in the illustration.

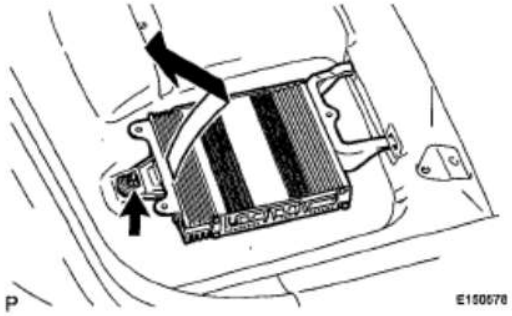


Fig. 151: Removing Nut And Stereo Component Amplifier Assembly

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Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSTALLATION

1. **INSTALL STEREO COMPONENT AMPLIFIER ASSEMBLY**
   a. Install the stereo component amplifier assembly as shown in the illustration.
   b. Install the nut.

   Torque: 12 N*m (122 kgf*cm, 9 ft.*lbf)

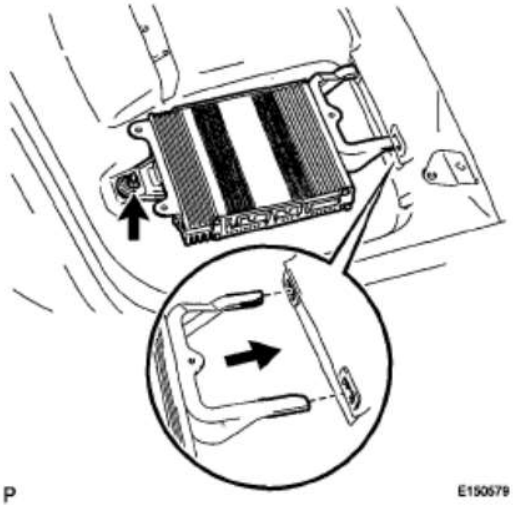


Fig. 152: Installing Stereo Component Amplifier Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

   c. Connect each connector.

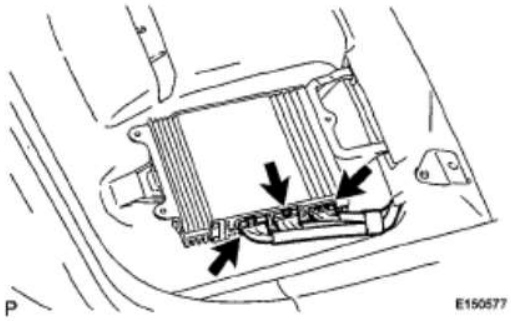


Fig. 153: Locating Stereo Component Amplifier Assembly Connector
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

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HINT:

Use the same procedure for the RH side and the LH side (See **INSTALLATION**).

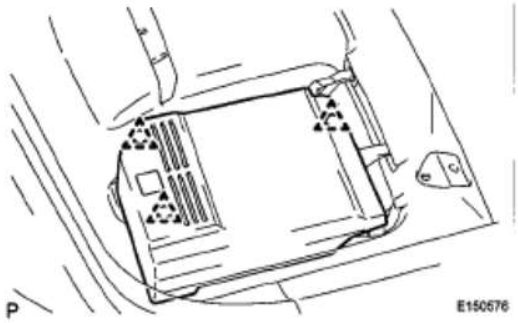


Fig. 154: Identifying Audio Amplifier Cover Clips
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

4. **INSPECT FRONT SEAT SLIDE ADJUSTER LOCK (for Manual Seat)**

HINT:

Use the same procedure for the RH side and the LH side (See **INSTALLATION**).

5. **INSTALL REAR SEAT TRACK COVER (for Manual Seat)**

HINT:

Use the same procedure for the RH side and the LH side (See **INSTALLATION**).

6. **INSTALL FRONT INNER SEAT TRACK COVER (for Manual Seat)**

HINT:

Use the same procedure for the RH side and the LH side (See **INSTALLATION**).

7. **INSTALL FRONT OUTER SEAT TRACK COVER (for Manual Seat)**

HINT:

Use the same procedure for the RH side and the LH side (See **INSTALLATION**).

8. **INSTALL FRONT SEAT HEADREST ASSEMBLY (for Manual Seat)**

HINT:

Use the same procedure for the RH side and the LH side (See **INSTALLATION**).

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9. **INSTALL FRONT SEAT ASSEMBLY (for Power Seat)**

   HINT:

   Use the same procedure for the RH side and the LH side (See **INSTALLATION**).

10. **INSTALL REAR INNER SEAT TRACK COVER (for Power Seat)**

    HINT:

    Use the same procedure for the RH side and the LH side (See **INSTALLATION**).

11. **INSTALL REAR OUTER SEAT TRACK COVER (for Power Seat)**

    HINT:

    Use the same procedure for the RH side and the LH side (See **INSTALLATION**).

12. **INSTALL FRONT INNER SEAT TRACK COVER (for Power Seat)**

    HINT:

    Use the same procedure for the RH side and the LH side (See **INSTALLATION**).

13. **INSTALL FRONT OUTER SEAT TRACK COVER (for Power Seat)**

    HINT:

    Use the same procedure for the RH side and the LH side (See **INSTALLATION**).

14. **INSTALL FRONT SEAT HEADREST ASSEMBLY (for Power Seat)**

    HINT:

    Use the same procedure for the RH side and the LH side (See **INSTALLATION**).

15. **CONNECT CABLE TO NEGATIVE BATTERY TERMINAL (for Manual Seat)**

    NOTE: When disconnecting the cable, some systems need to be initialized after the cable is reconnected (See INITIALIZATION).

16. **INSPECT FRONT SEAT ASSEMBLY (for Power Seat)**

    HINT:

    Use the same procedure for the RH side and the LH side (See **INSTALLATION**).

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17. **INSPECT SRS WARNING LIGHT**

(See **DIAGNOSIS SYSTEM**)

FRONT DOOR SPEAKER

COMPONENTS

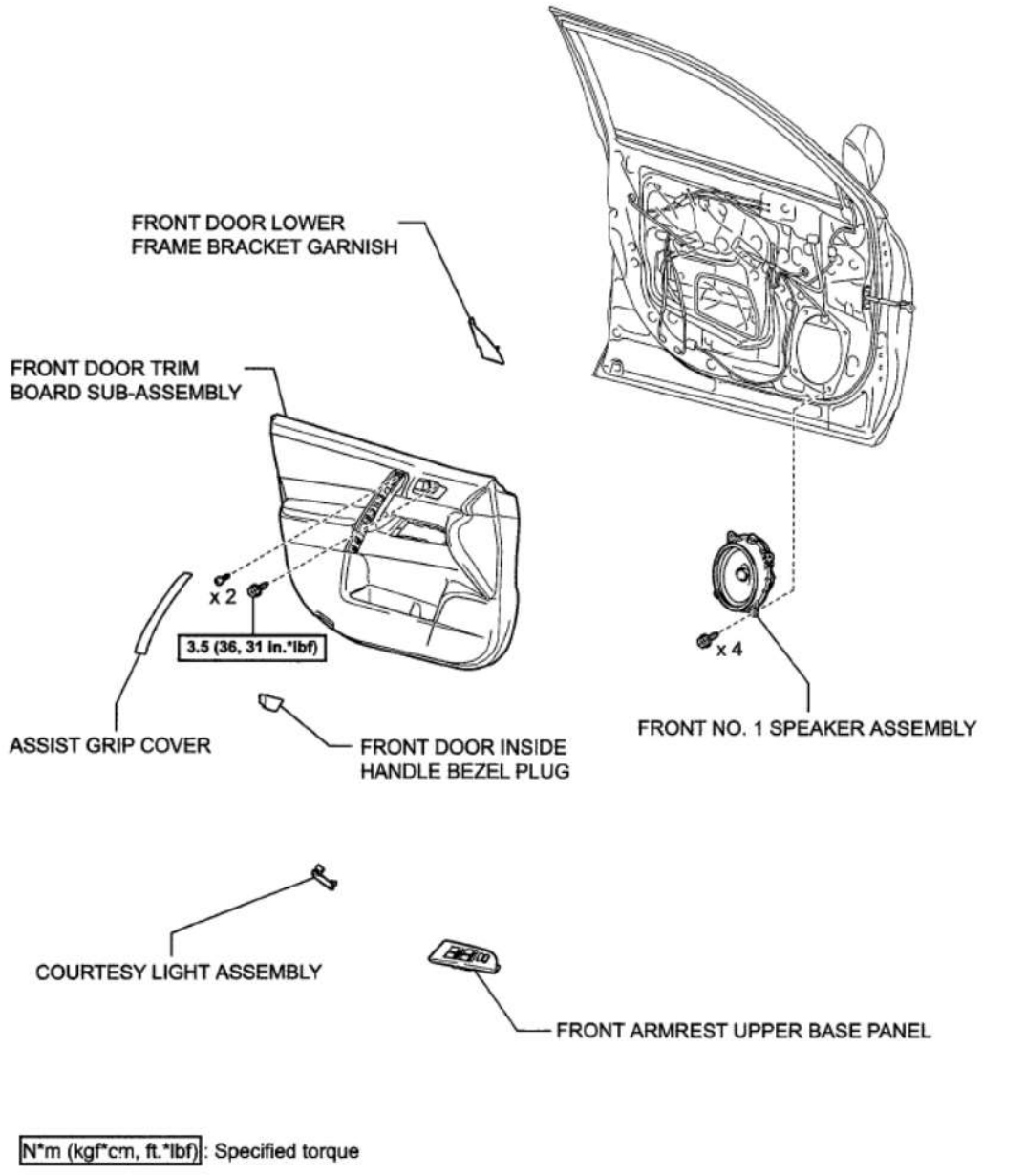


Fig. 155: Identifying Front Door Speaker Components With Torque Specifications
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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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

   Standard models

   TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
1 - 2	Always	Approximately 4 ohms

   Premium models

   TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
1 - 2	Always	1.8 to 2.6 ohms

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

REMOVAL

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1. **REMOVE FRONT DOOR LOWER FRAME BRACKET GARNISH** (See **DISASSEMBLY**)
2. **REMOVE FRONT DOOR INSIDE HANDLE BEZEL PLUG** (See **DISASSEMBLY**)
3. **REMOVE FRONT ARMREST UPPER BASE PANEL** (See **DISASSEMBLY**)
4. **REMOVE ASSIST GRIP COVER** (See **DISASSEMBLY**)
5. **REMOVE COURTESY LIGHT ASSEMBLY** (See **DISASSEMBLY**)
6. **REMOVE FRONT DOOR TRIM BOARD SUB-ASSEMBLY** (See **DISASSEMBLY**)
7. **REMOVE FRONT NO. 1 SPEAKER ASSEMBLY**
   a. Disconnect the connector.
   b. Remove the 4 bolts and front No. 1 speaker assembly.

NOTE: Do not touch the cone part of the speaker.

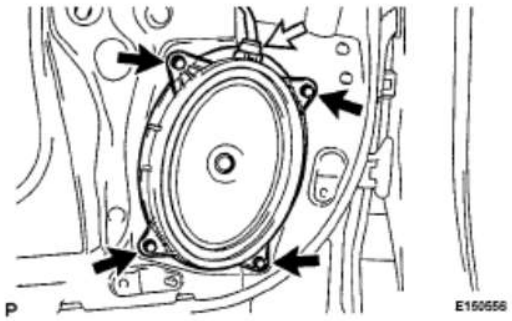


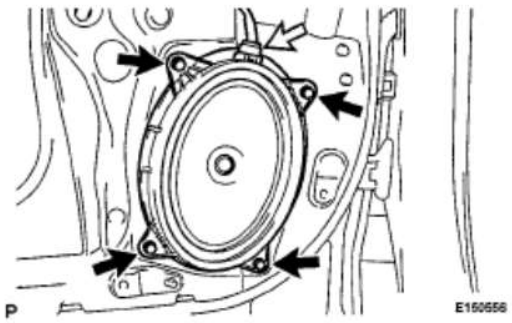
Fig. 156: Locating Front No. 1 Speaker Assembly Bolts
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSTALLATION

1. **INSTALL FRONT NO. 1 SPEAKER ASSEMBLY**
   a. Install the front No. 1 speaker assembly with the 4 bolts.

NOTE: Do not touch the cone part of the speaker.

   b. Connect the connector.



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Fig. 157: Locating Front No. 1 Speaker Assembly Bolts
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

2. **INSTALL FRONT DOOR TRIM BOARD SUB-ASSEMBLY** (See **REASSEMBLY**)
3. **INSTALL COURTESY LIGHT ASSEMBLY** (See **REASSEMBLY**)
4. **INSTALL ASSIST GRIP COVER** (See **REASSEMBLY**)
5. **INSTALL FRONT ARMREST UPPER BASE PANEL** (See **REASSEMBLY**)
6. **INSTALL FRONT DOOR INSIDE HANDLE BEZEL PLUG** (See **REASSEMBLY**)
7. **INSTALL FRONT DOOR LOWER FRAME BRACKET GARNISH** (See **REASSEMBLY**)

REAR DOOR SPEAKER

COMPONENTS

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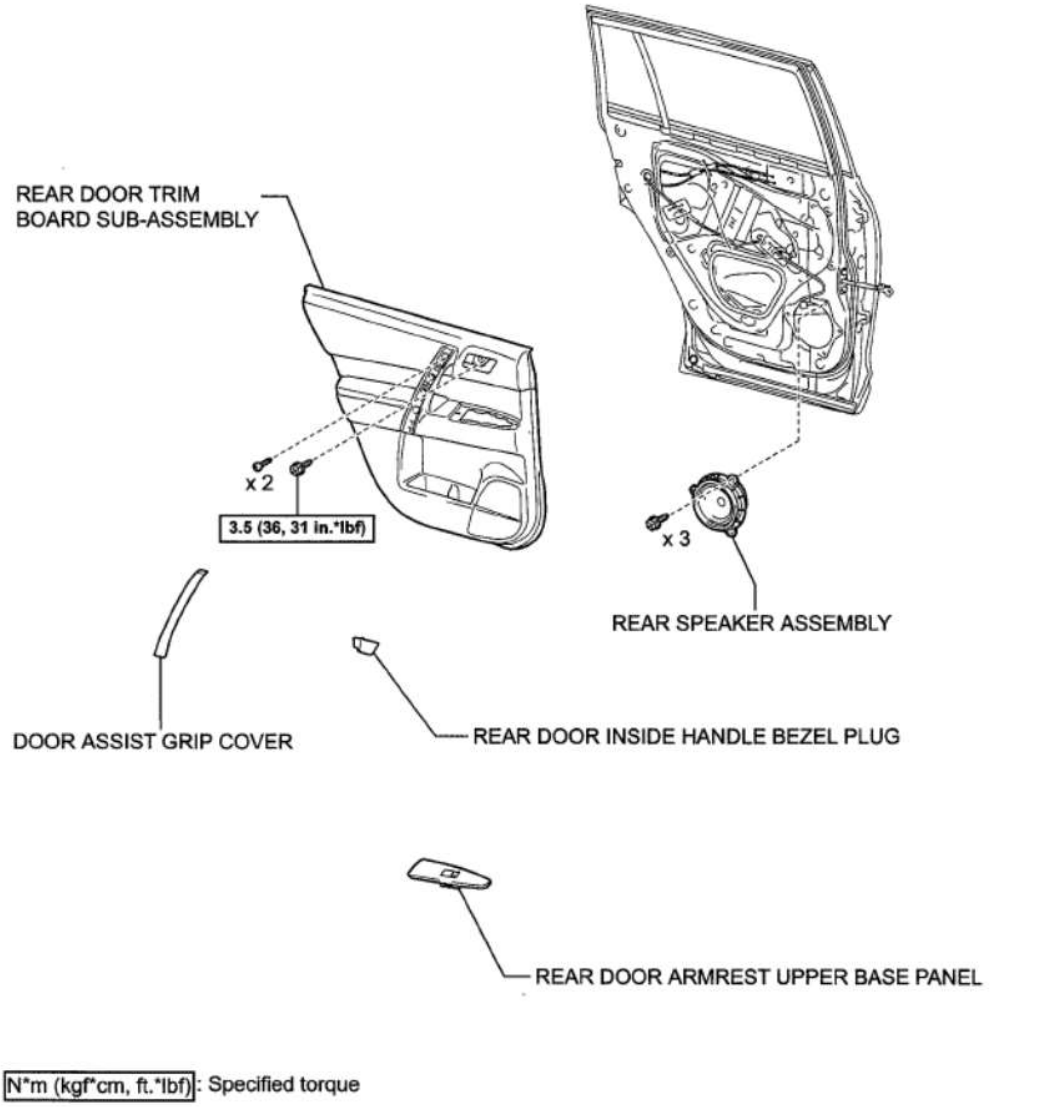


Fig. 158: Identifying Rear Door Speaker Components With Torque Specifications
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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:

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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

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
1 - 2	Always	Approximately 4 ohms

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

REMOVAL

1. **REMOVE REAR DOOR INSIDE HANDLE BEZEL PLUG** (See **DISASSEMBLY**)
2. **REMOVE REAR DOOR ARMREST UPPER BASE PANEL** (See **DISASSEMBLY**)
3. **REMOVE DOOR ASSIST GRIP COVER** (See **DISASSEMBLY**)
4. **REMOVE REAR DOOR TRIM BOARD SUB-ASSEMBLY** (See **DISASSEMBLY**)
5. **REMOVE REAR SPEAKER ASSEMBLY**
   a. Disconnect the connector.
   b. Remove the 3 bolts and rear speaker assembly.

NOTE: Do not touch the cone part of the speaker.

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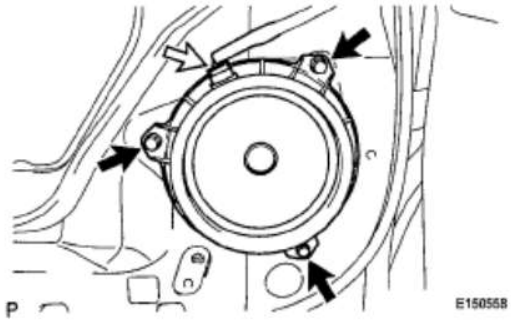


Fig. 159: Locating Rear Speaker Assembly Bolts
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSTALLATION

1. **INSTALL REAR SPEAKER ASSEMBLY**
   a. Install the rear speaker assembly with the 3 bolts.

   NOTE: Do not touch the cone part of the speaker.

   b. Connect the connector.

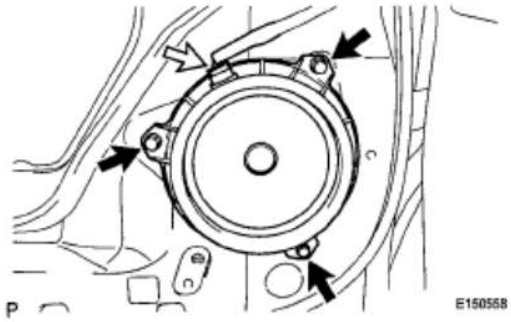


Fig. 160: Locating Rear Speaker Assembly Bolts
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

2. **INSTALL REAR DOOR TRIM BOARD SUB-ASSEMBLY** (See **REASSEMBLY**)
3. **INSTALL DOOR ASSIST GRIP COVER** (See **REASSEMBLY**)
4. **INSTALL REAR DOOR ARMREST UPPER BASE PANEL** (See **REASSEMBLY**)
5. **INSTALL REAR DOOR INSIDE HANDLE BEZEL PLUG** (See **REASSEMBLY**)

BACK DOOR SPEAKER

COMPONENTS

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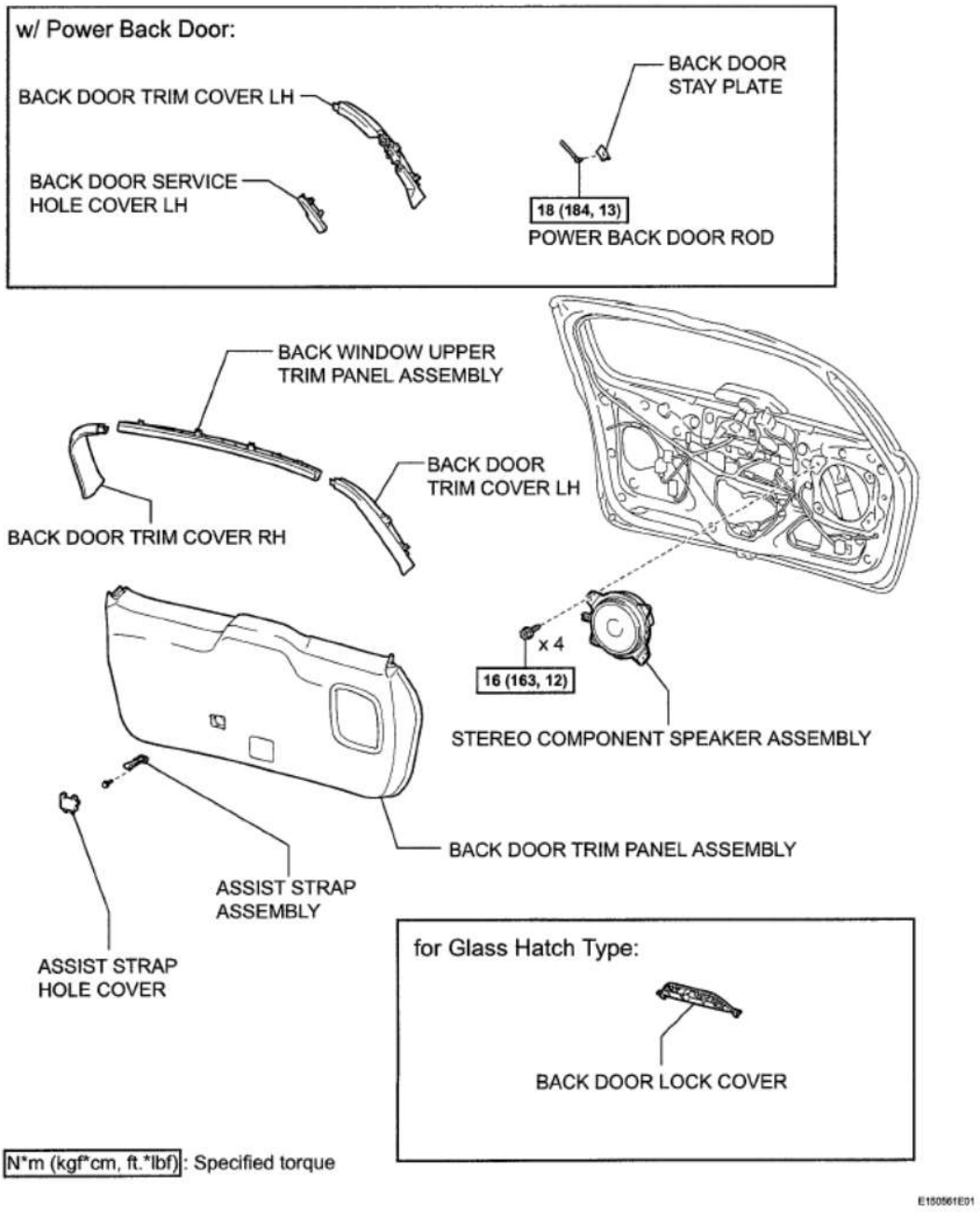


Fig. 161: Identifying Back Door Speaker Components With Torque Specifications
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

ON-VEHICLE INSPECTION

1. **INSPECT REAR STEREO COMPONENT SPEAKER**

HINT:

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Remove interior parts so that the rear stereo component 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 stereo component 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 stereo component speaker.

c. Speaker resistance check
   1. Disconnect the rear stereo component speaker connector.
   2. Measure the resistance between the terminals of the speaker.

Component without harness connected:
(Rear Stereo Component Speaker)

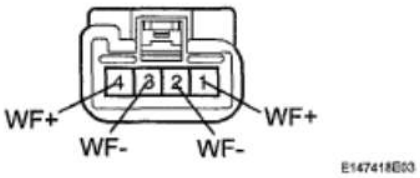


Fig. 162: Identifying Rear Stereo Component Speaker Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester connection	Condition	Specified condition
1 (WF+) - 2 (WF-)	Always	1.6 to 2.4 ohms
4 (WF+) - 3 (WF-)	Always	1.6 to 2.4 ohms

NOTE: The speaker should not be removed when checking resistance.

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

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REMOVAL

1. **REMOVE BACK WINDOW UPPER TRIM PANEL ASSEMBLY** (See **DISASSEMBLY**)
2. **REMOVE BACK DOOR TRIM COVER LH (w/o Power Back Door)** (See **DISASSEMBLY**)
3. **REMOVE BACK DOOR SERVICE HOLE COVER LH (w/ Power Back Door)** (See **DISASSEMBLY**)
4. **DISCONNECT POWER BACK DOOR ROD (w/ Power Back Door)** (See **DISASSEMBLY**)
5. **REMOVE BACK DOOR TRIM COVER LH (w/ Power Back Door)** (See **DISASSEMBLY**)
6. **REMOVE BACK DOOR TRIM COVER RH** (See **DISASSEMBLY**)
7. **REMOVE BACK DOOR LOCK COVER (for Glass Hatch Type)** (See **DISASSEMBLY**)
8. **REMOVE ASSIST STRAP HOLE COVER** (See **DISASSEMBLY**)
9. **REMOVE ASSIST STRAP ASSEMBLY** (See **DISASSEMBLY**)
10. **REMOVE BACK DOOR TRIM PANEL ASSEMBLY** (See **DISASSEMBLY**)
11. **REMOVE STEREO COMPONENT SPEAKER ASSEMBLY**
    a. Disconnect the connector.
    b. Remove the 4 bolts and stereo component speaker assembly.

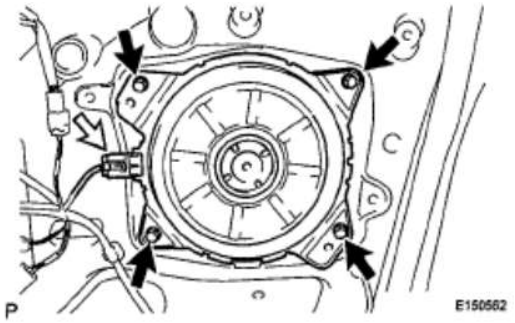


Fig. 163: Locating Stereo Component Speaker Assembly Bolts
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSTALLATION

1. **INSTALL STEREO COMPONENT SPEAKER ASSEMBLY**
    a. Install the stereo component speaker assembly with the 4 bolts.

    Torque: 16 N*m (163 kgf*cm, 12 ft.*lbf)

    b. Connect the connector.

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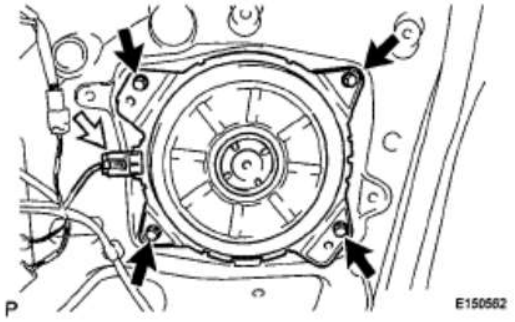


Fig. 164: Locating Stereo Component Speaker Assembly Bolts
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

2. **INSTALL BACK DOOR TRIM PANEL ASSEMBLY** (See **REASSEMBLY**)
3. **INSTALL ASSIST STRAP ASSEMBLY** (See **REASSEMBLY**)
4. **INSTALL ASSIST STRAP HOLE COVER** (See **REASSEMBLY**)
5. **INSTALL BACK DOOR LOCK COVER (for Glass Hatch Type)** (See **REASSEMBLY**)
6. **INSTALL BACK DOOR TRIM COVER LH (w/o Power Back Door)** (See **REASSEMBLY**)
7. **INSTALL BACK DOOR TRIM COVER LH (w/ Power Back Door)** (See **REASSEMBLY**)
8. **CONNECT POWER BACK DOOR ROD (w/ Power Back Door)** (See **REASSEMBLY**)
9. **INSTALL BACK DOOR SERVICE HOLE COVER LH (w/ Power Back Door)** (See **REASSEMBLY**)
10. **INSTALL BACK DOOR TRIM COVER RH** (See **REASSEMBLY**)
11. **INSTALL BACK WINDOW UPPER TRIM PANEL ASSEMBLY** (See **REASSEMBLY**)

INSTRUMENT PANEL SPEAKER

COMPONENTS

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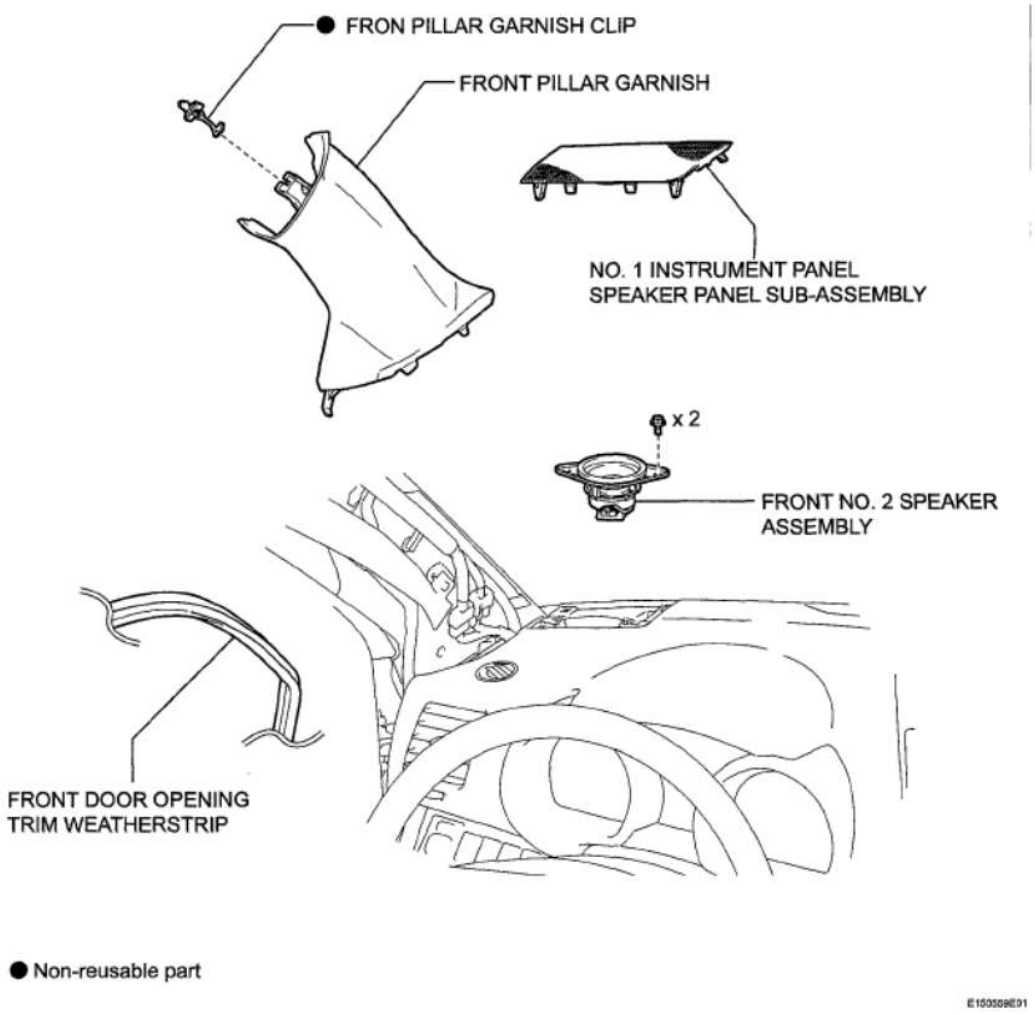


Fig. 165: Identifying Instrument Panel Speaker Components
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

ON-VEHICLE INSPECTION

1. **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.

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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.

REMOVAL

1. **DISCONNECT FRONT DOOR OPENING TRIM WEATHERSTRIP**
2. **REMOVE FRONT PILLAR GARNISH** (See **REMOVAL**)
3. **REMOVE NO. 1 INSTRUMENT PANEL SPEAKER PANEL SUB-ASSEMBLY** (See **REMOVAL**)
4. **REMOVE FRONT NO. 2 SPEAKER ASSEMBLY**
   a. Remove the 2 bolts and front No. 2 speaker assembly.
   b. Disconnect the connector.

INSTALLATION

1. **INSTALL FRONT NO. 2 SPEAKER ASSEMBLY**
   a. Connect the connector.

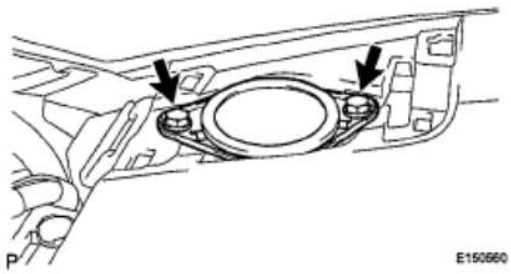


Fig. 166: Locating Front No. 2 Speaker Assembly Bolts
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

   b. Install the front No. 2 speaker assembly with the 2 bolts.
2. **INSTALL NO. 1 INSTRUMENT PANEL SPEAKER PANEL SUB-ASSEMBLY** (See **INSTALLATION**)
3. **INSTALL FRONT PILLAR GARNISH** (See **INSTALLATION**)
4. **CONNECT FRONT DOOR OPENING TRIM WEATHERSTRIP** (See **INSTALLATION**)

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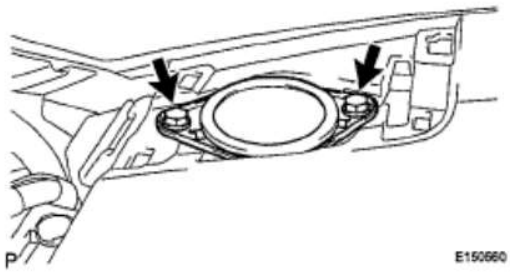


Fig. 167: Locating Front No. 2 Speaker Assembly Bolts
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

TELEVISION DISPLAY

COMPONENTS

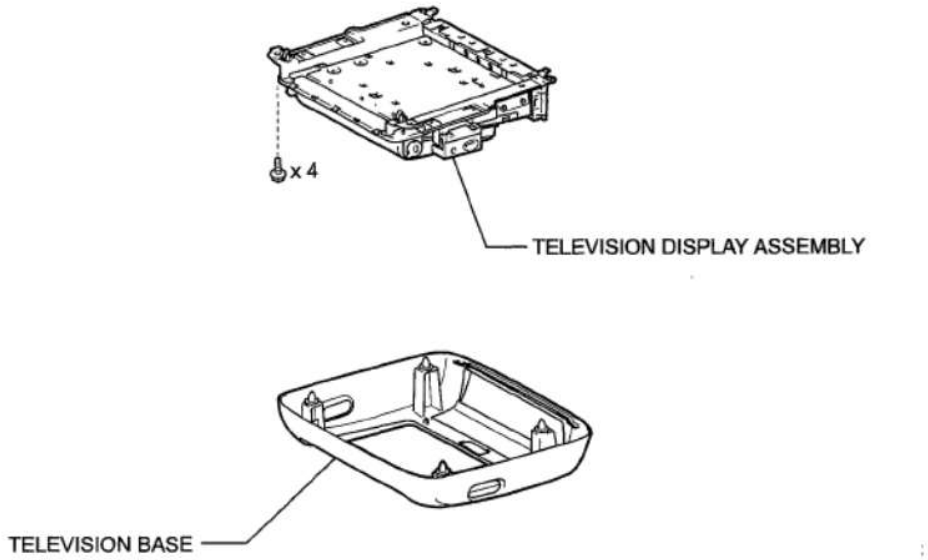


Fig. 168: Identifying Television Display Components
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL

1. **REMOVE TELEVISION BASE**
   a. Disengage the 4 clips and remove the television base.
2. **REMOVE TELEVISION DISPLAY ASSEMBLY**
   a. Disconnect the connector.

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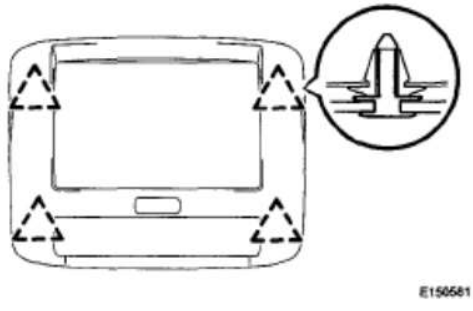


Fig. 169: Identifying Television Base Clips
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

b. Remove the 4 bolts.



Fig. 170: Identifying Television Base Bolts
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

c. Disengage the 2 clips and 2, claws, and then remove the television display.

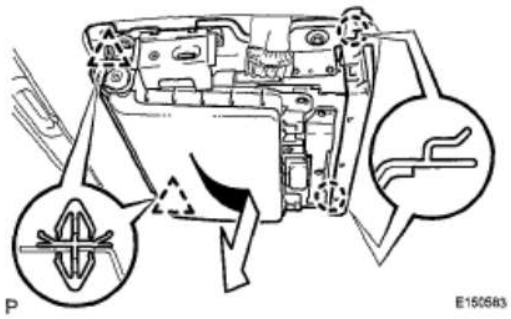


Fig. 171: Disengaging Television Display Clips And Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSTALLATION

1. **INSTALL TELEVISION DISPLAY ASSEMBLY**
   a. Engage the 2 claws and the 2 clips.

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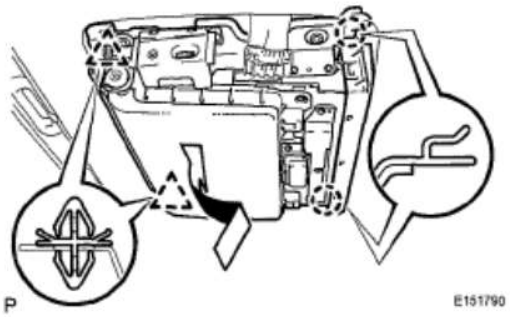


Fig. 172: Engaging Television Display Clips And Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

b. Install the television display with the 4 bolts.
c. Connect the connector.

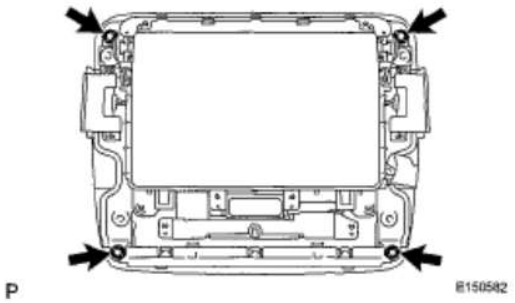


Fig. 173: Identifying Television Base Bolts
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

2. **INSTALL TELEVISION BASE**
   a. Engage the 2 guides and 4 clips and install the television base.

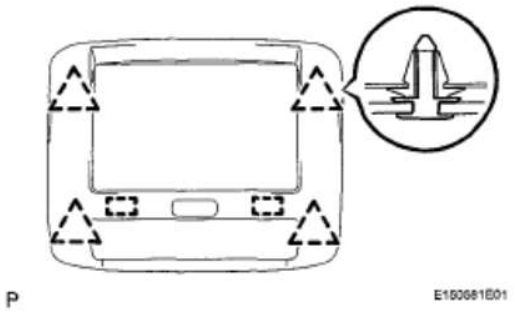


Fig. 174: Identifying Television Base Clips
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

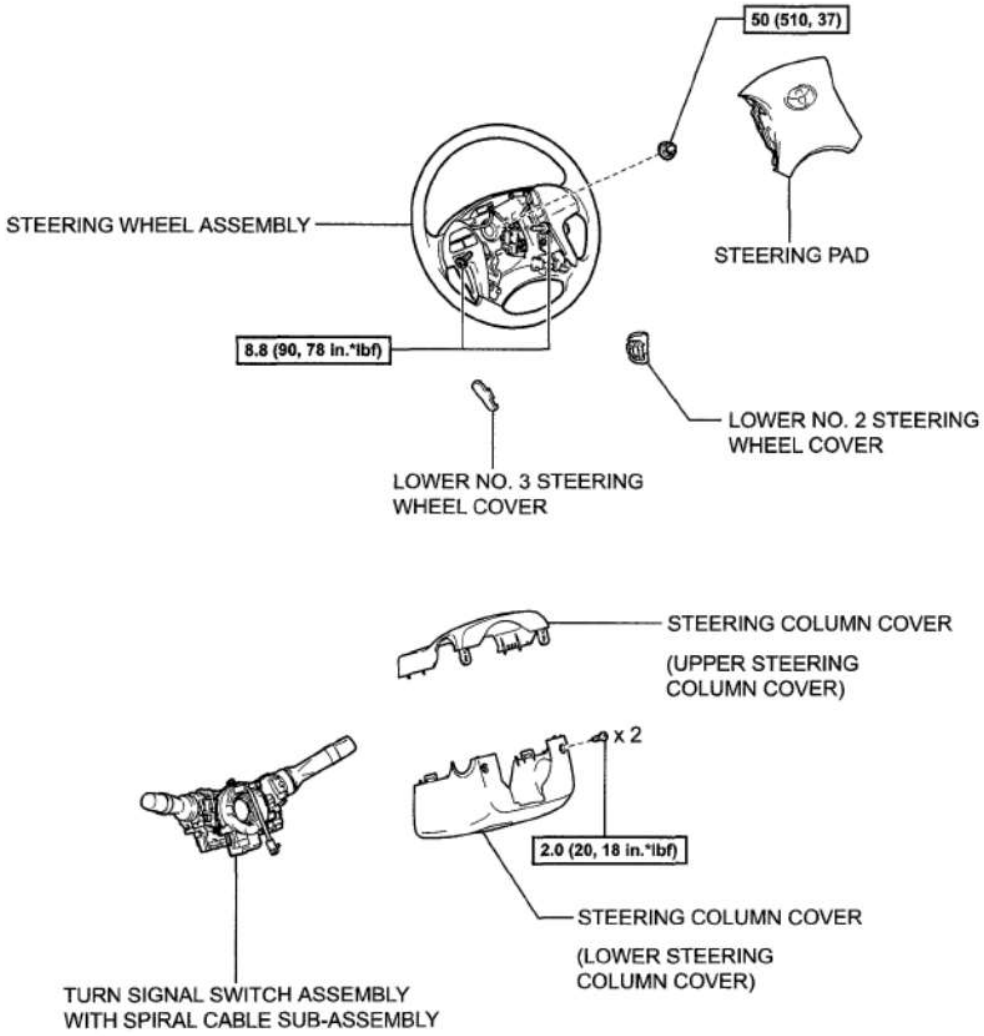
RADIO ANTENNA CORD (FOR GLASS ANTENNA TYPE)

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COMPONENTS



N*m (kgf*cm, ft.*lbf): Specified torque

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Fig. 175: Identifying Radio Antenna Cord (For Glass Antenna Type) Components With Torque Specifications (1 Of 22)
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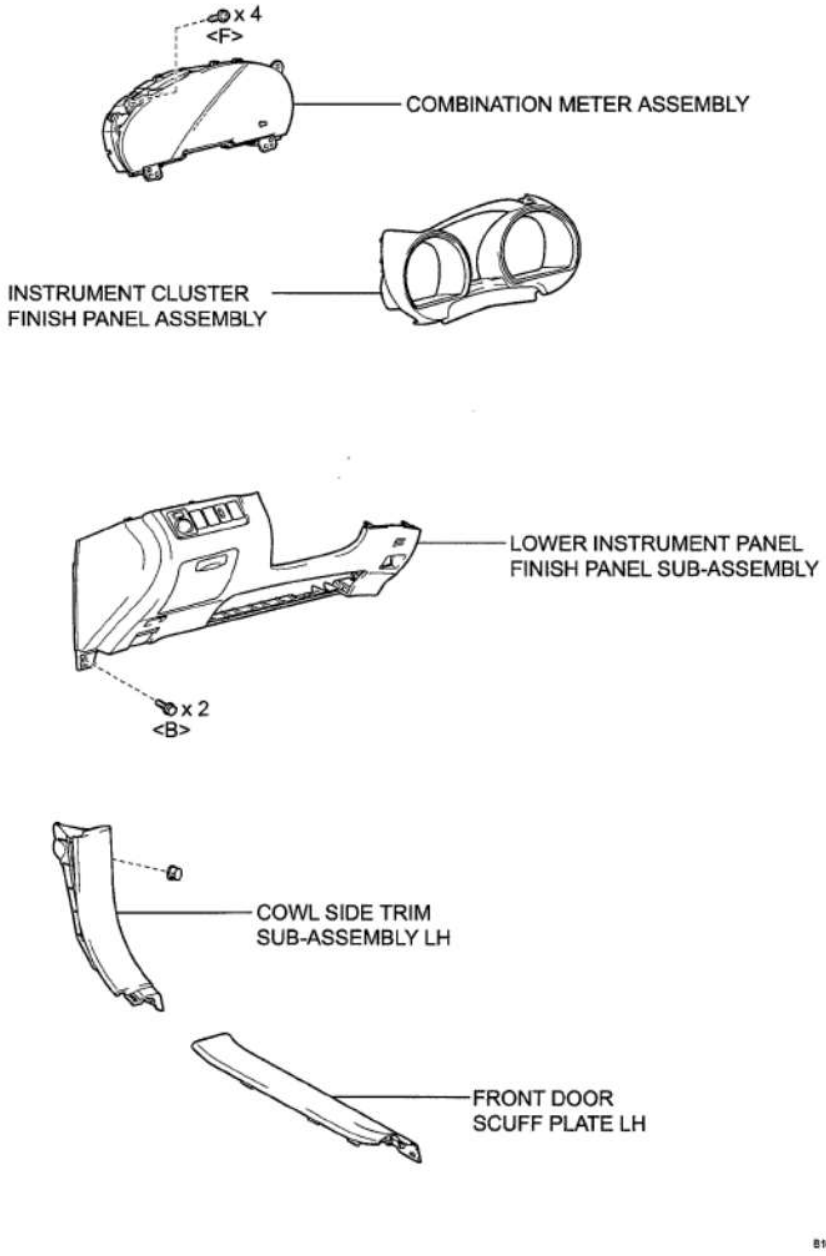


Fig. 176: Identifying Radio Antenna Cord (For Glass Antenna Type) Components (2 Of 22)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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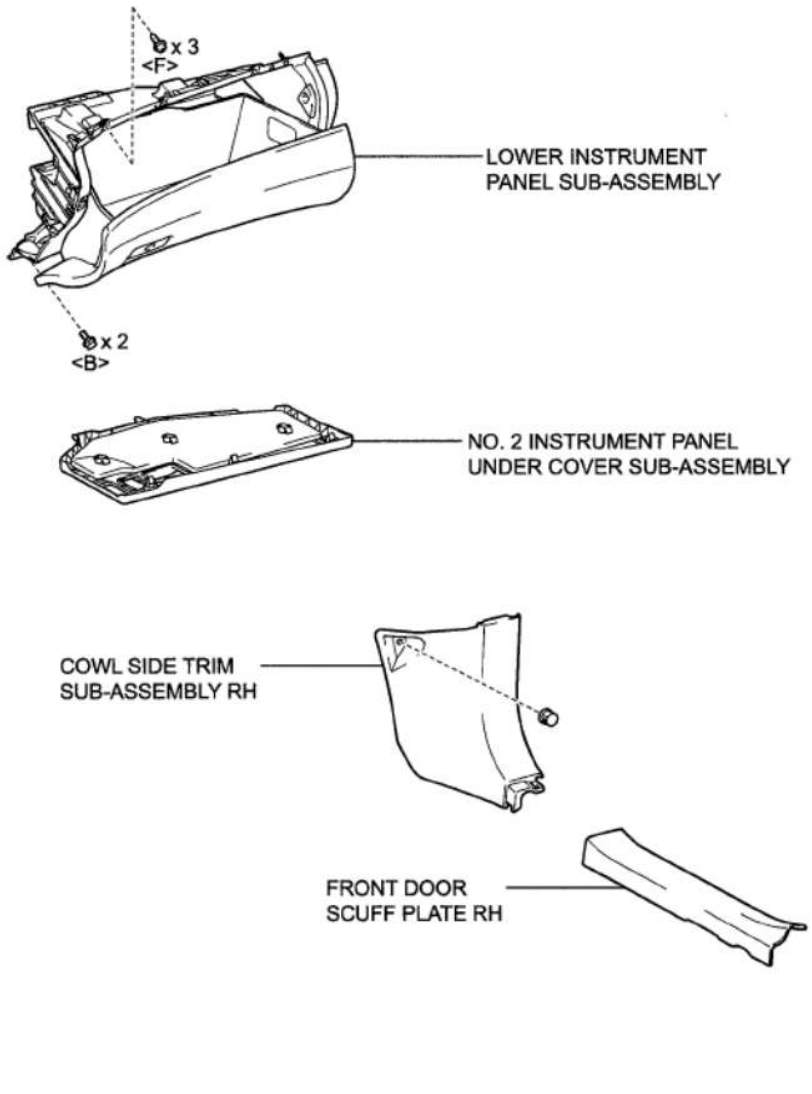


Fig. 177: Identifying Radio Antenna Cord (For Glass Antenna Type) Components (3 Of 22)
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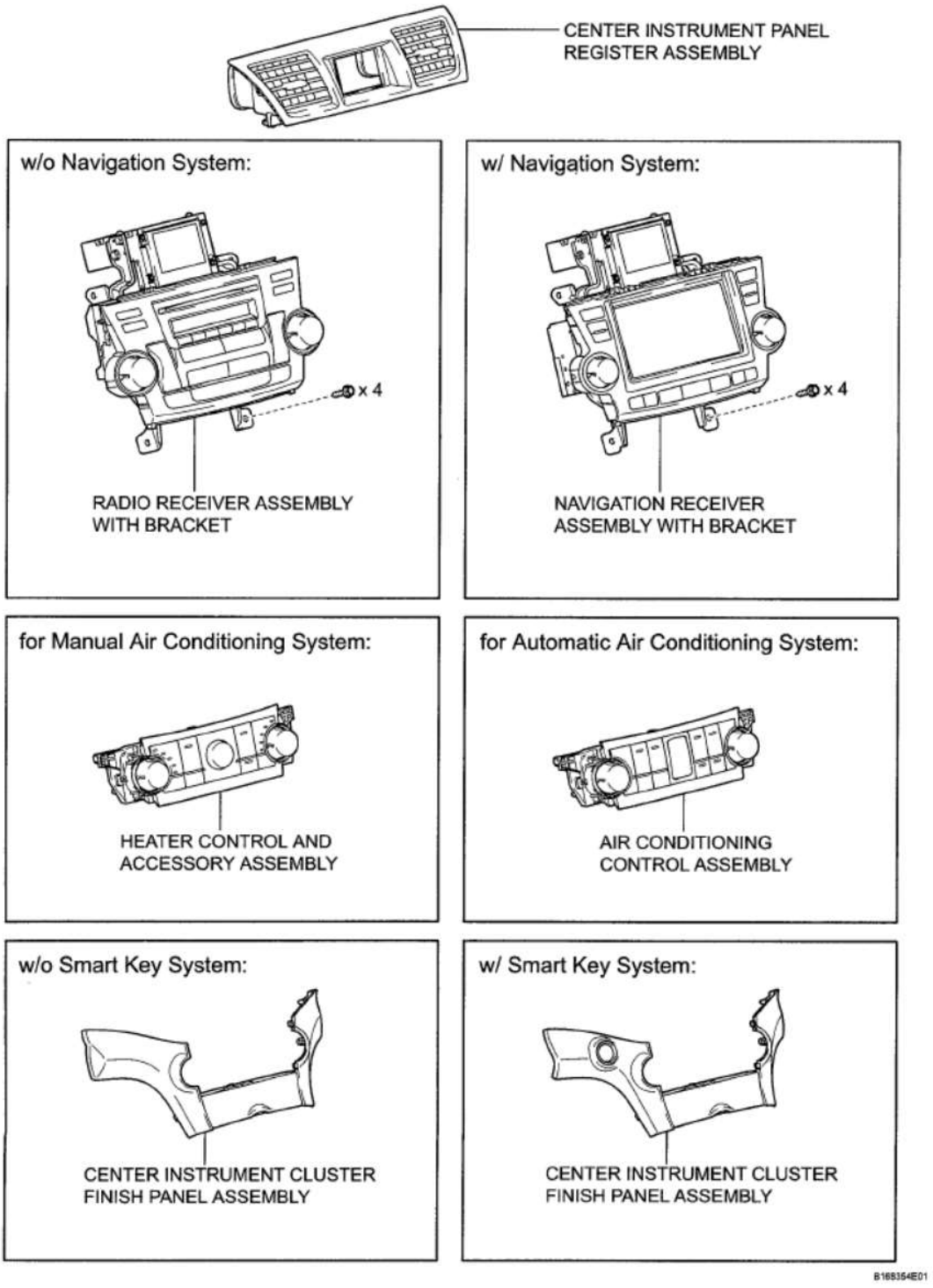


Fig. 178: Identifying Radio Antenna Cord (For Glass Antenna Type) Components (4 Of 22)
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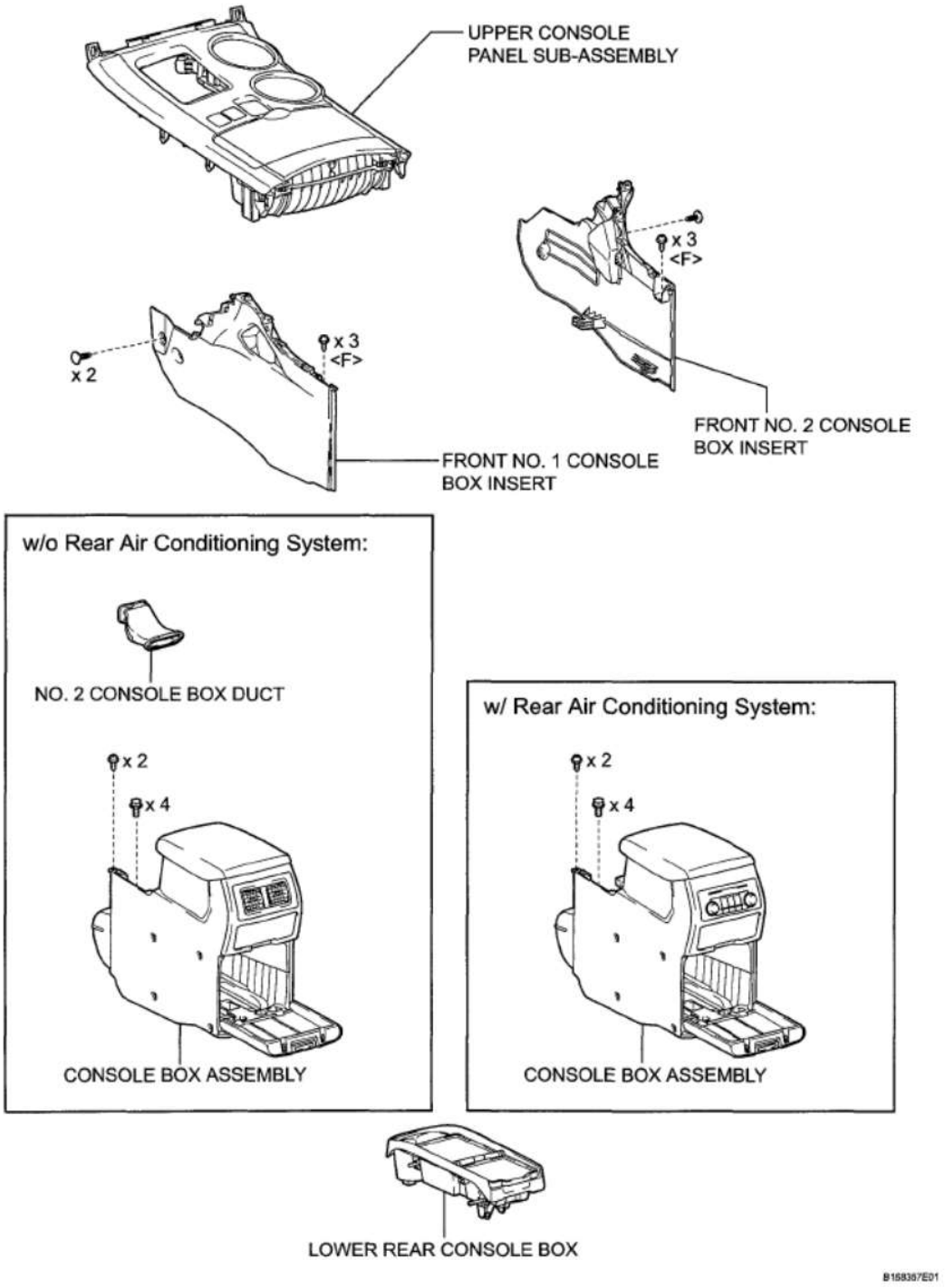


Fig. 179: Identifying Radio Antenna Cord (For Glass Antenna Type) Components (5 Of 22)
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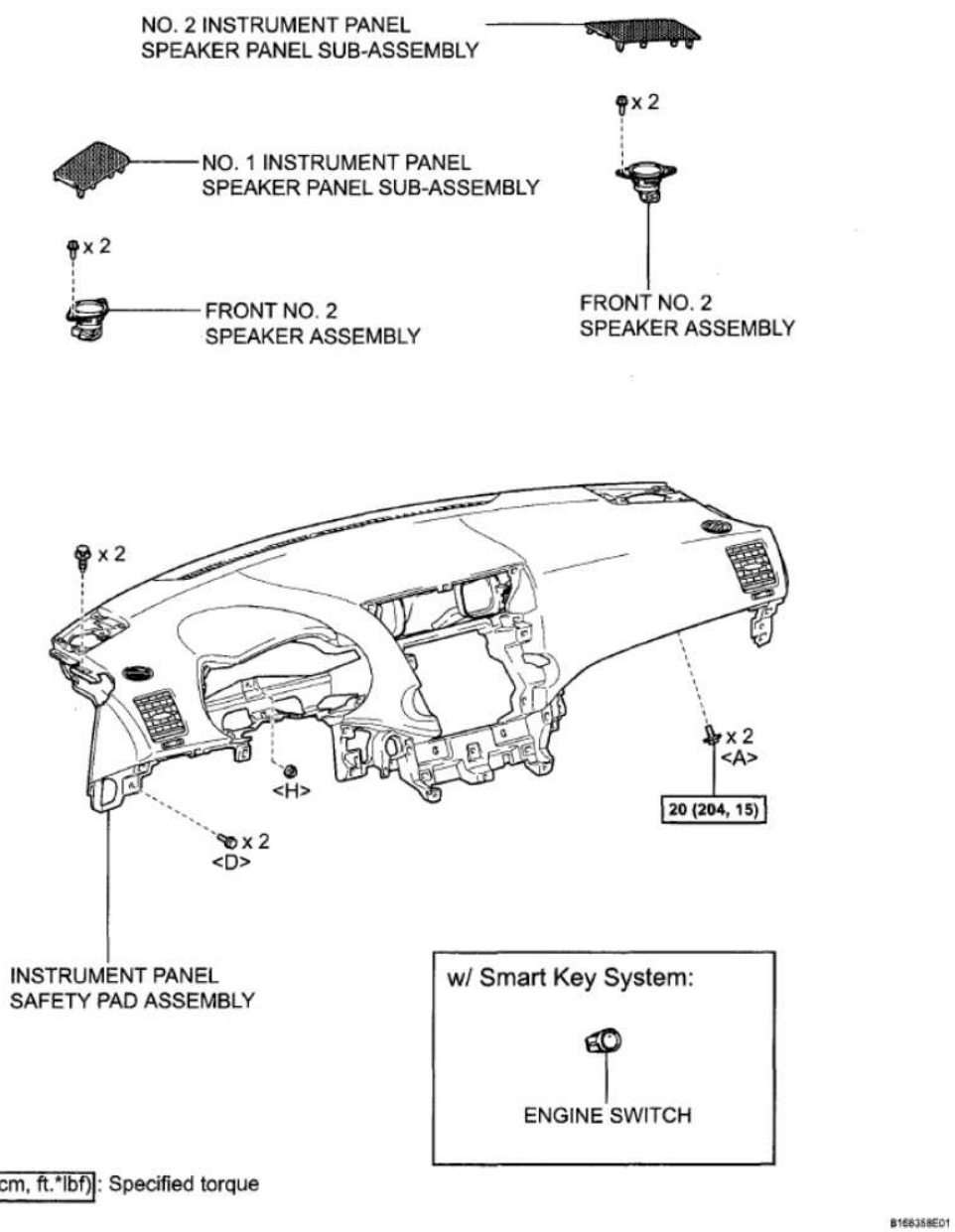


Fig. 180: Identifying Radio Antenna Cord (For Glass Antenna Type) Components With Torque Specifications (6 Of 22)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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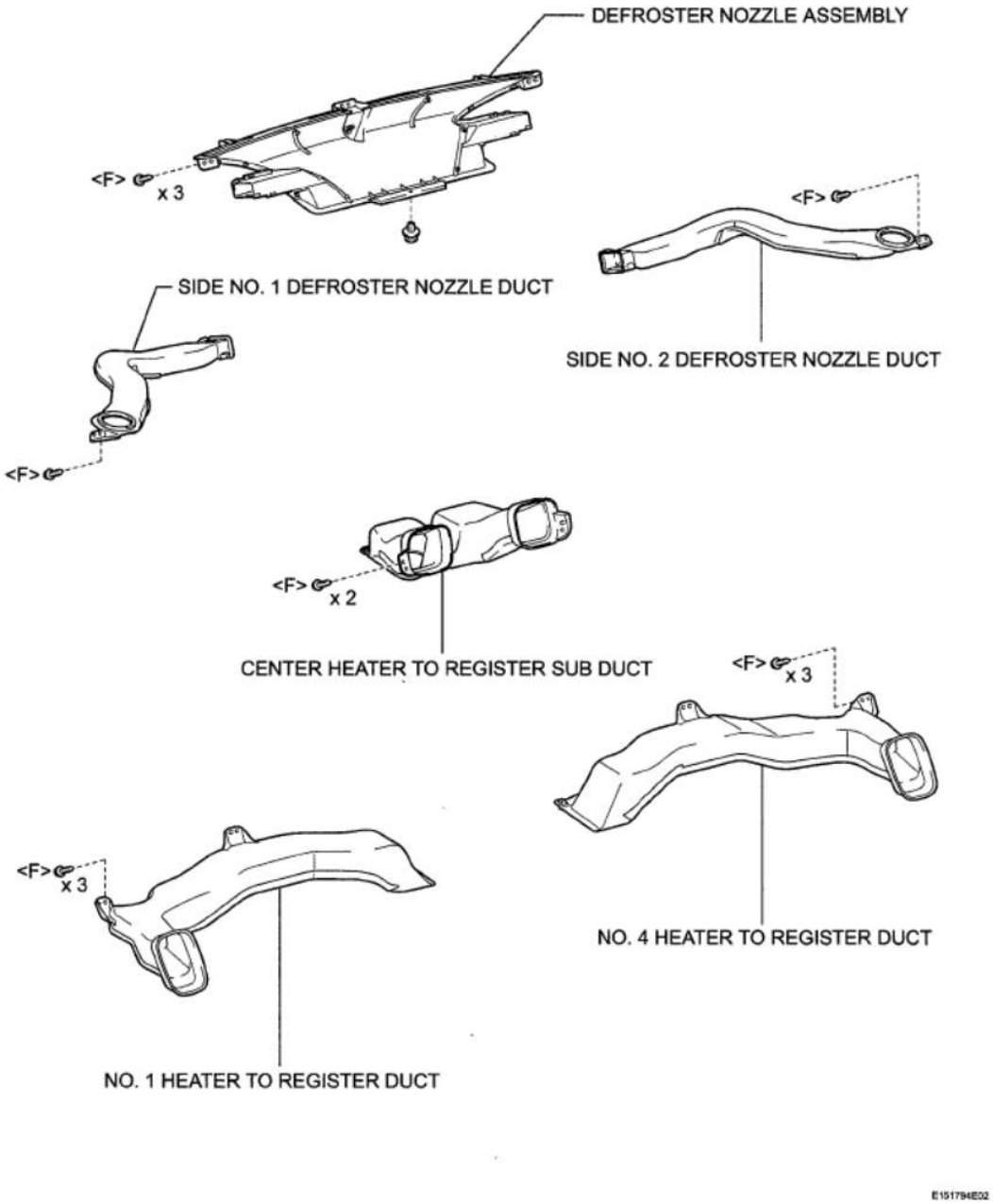
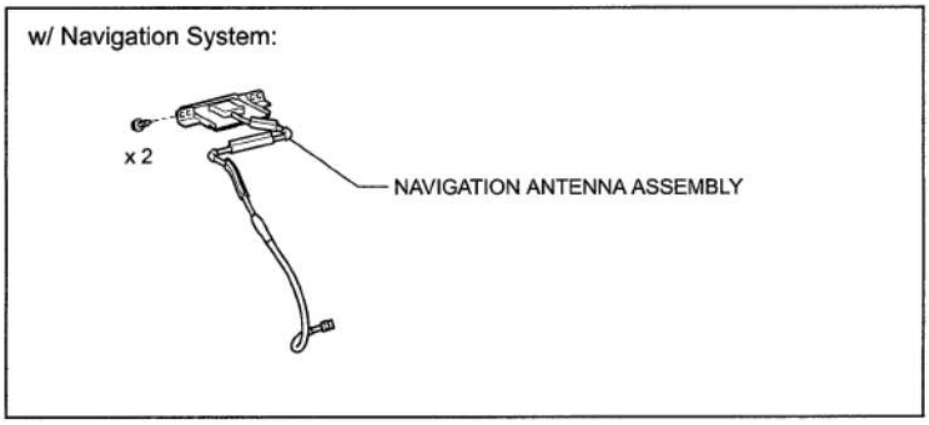


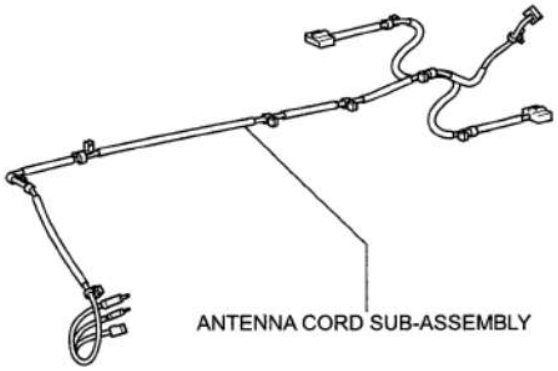
Fig. 181: Identifying Radio Antenna Cord (For Glass Antenna Type) Components (7 Of 22)
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Fig. 182: Identifying Radio Antenna Cord (For Glass Antenna Type) Components (8 Of 22)
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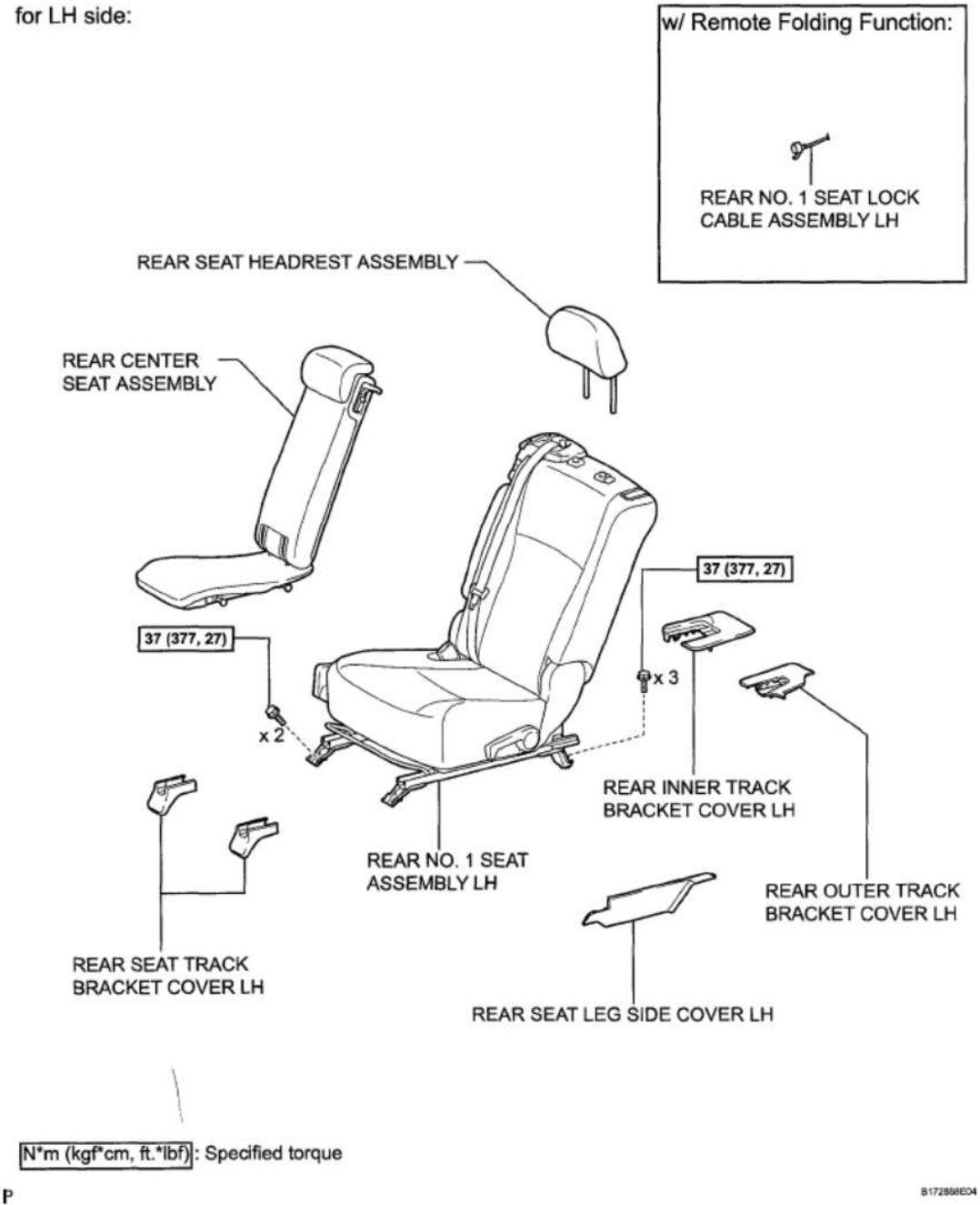


Fig. 183: Identifying Radio Antenna Cord (For Glass Antenna Type) Components With Torque Specifications (9 Of 22)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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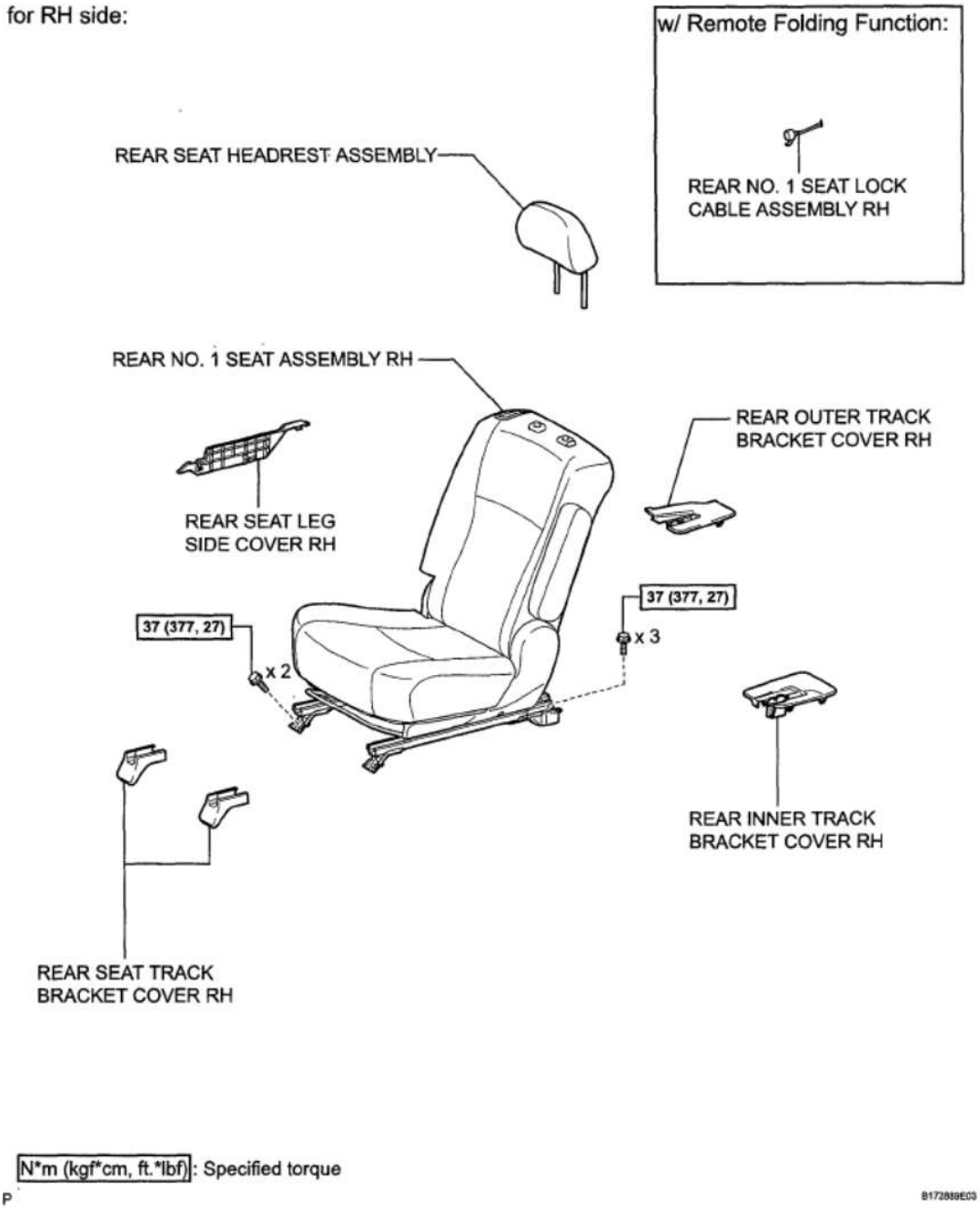


Fig. 184: Identifying Radio Antenna Cord (For Glass Antenna Type) Components With Torque Specifications (10 Of 22)
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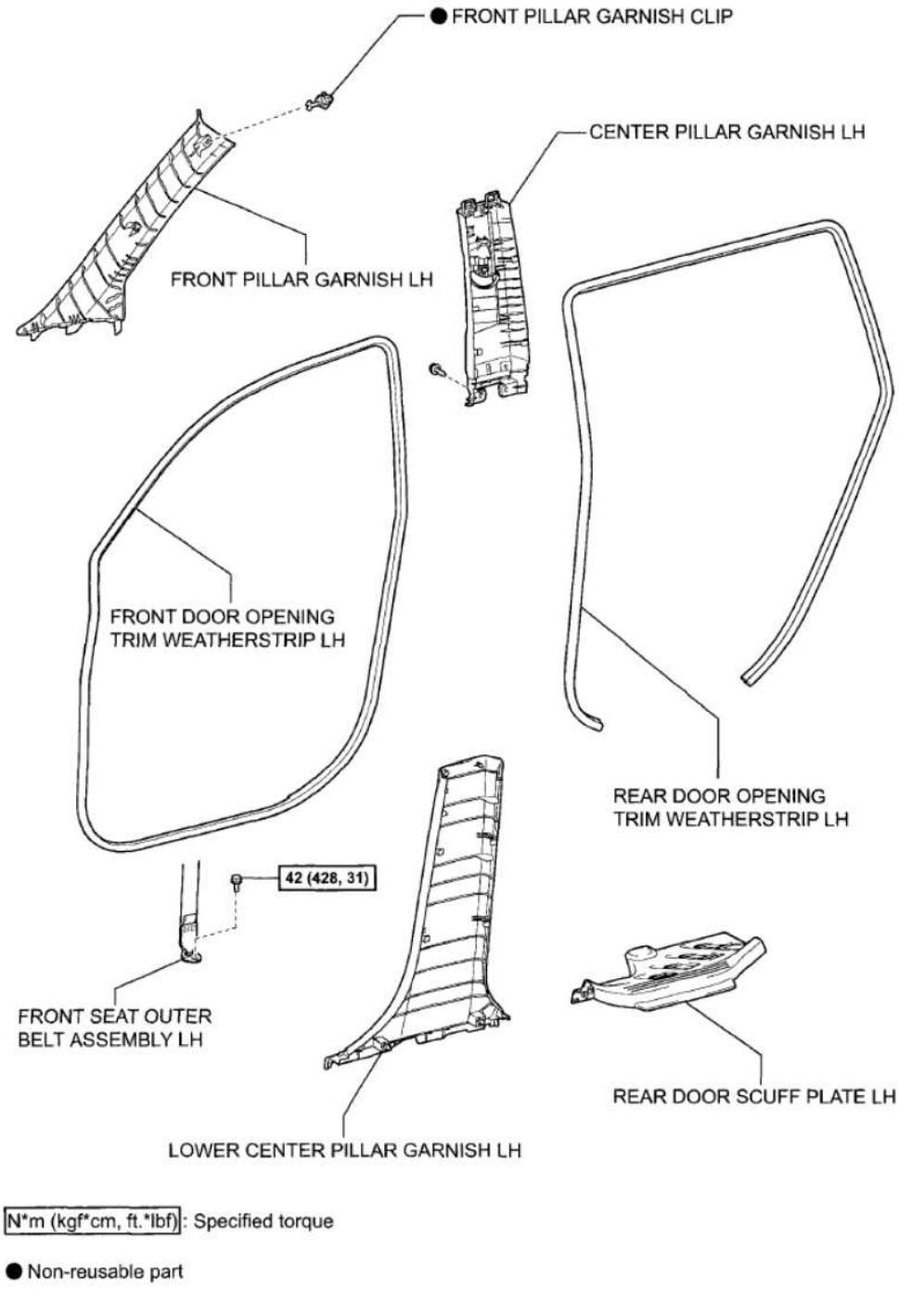


Fig. 185: Identifying Radio Antenna Cord (For Glass Antenna Type) Components With Torque Specifications (11 Of 22)

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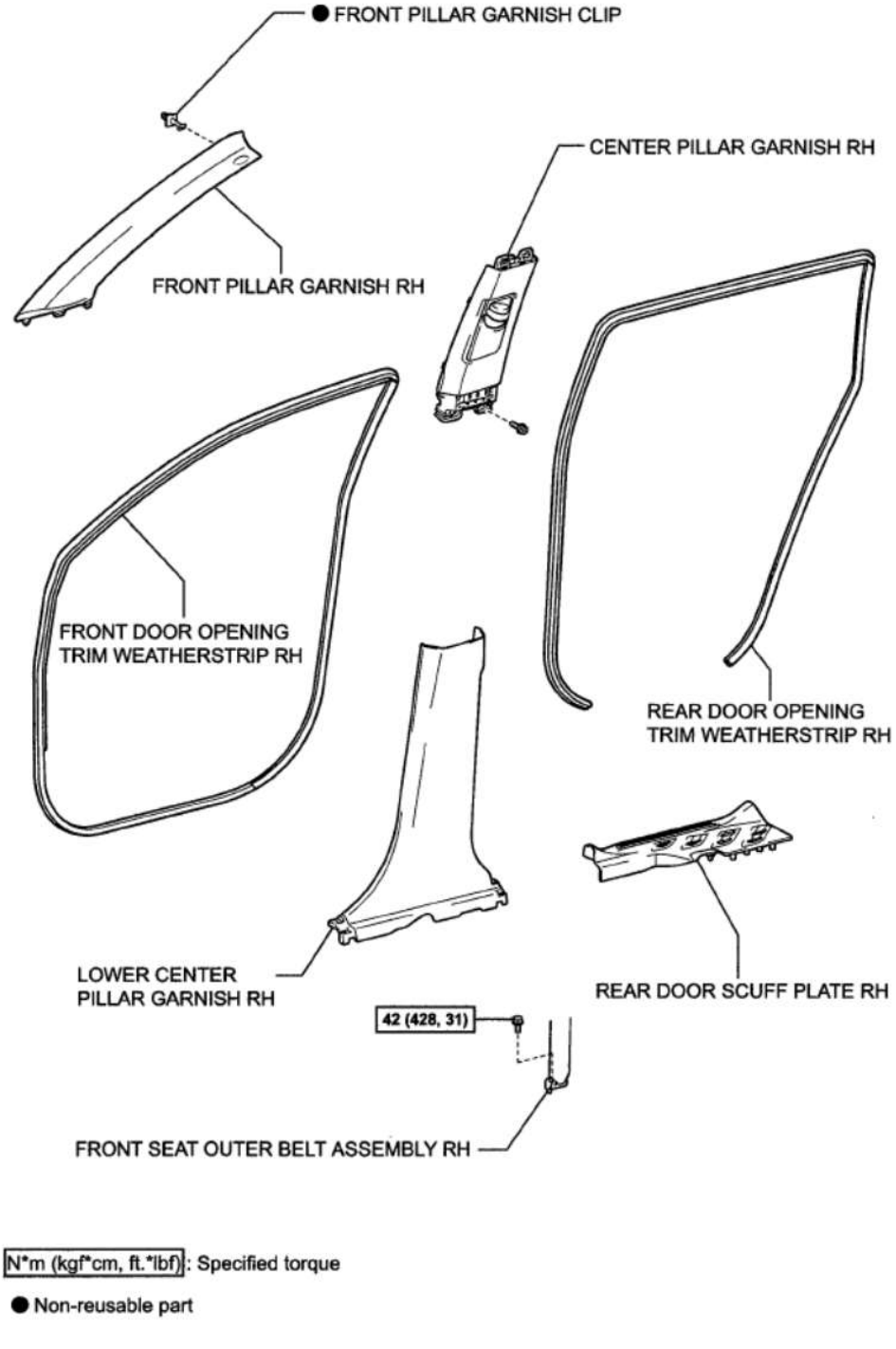


Fig. 186: Identifying Radio Antenna Cord (For Glass Antenna Type) Components With Torque Specifications (12 Of 22)
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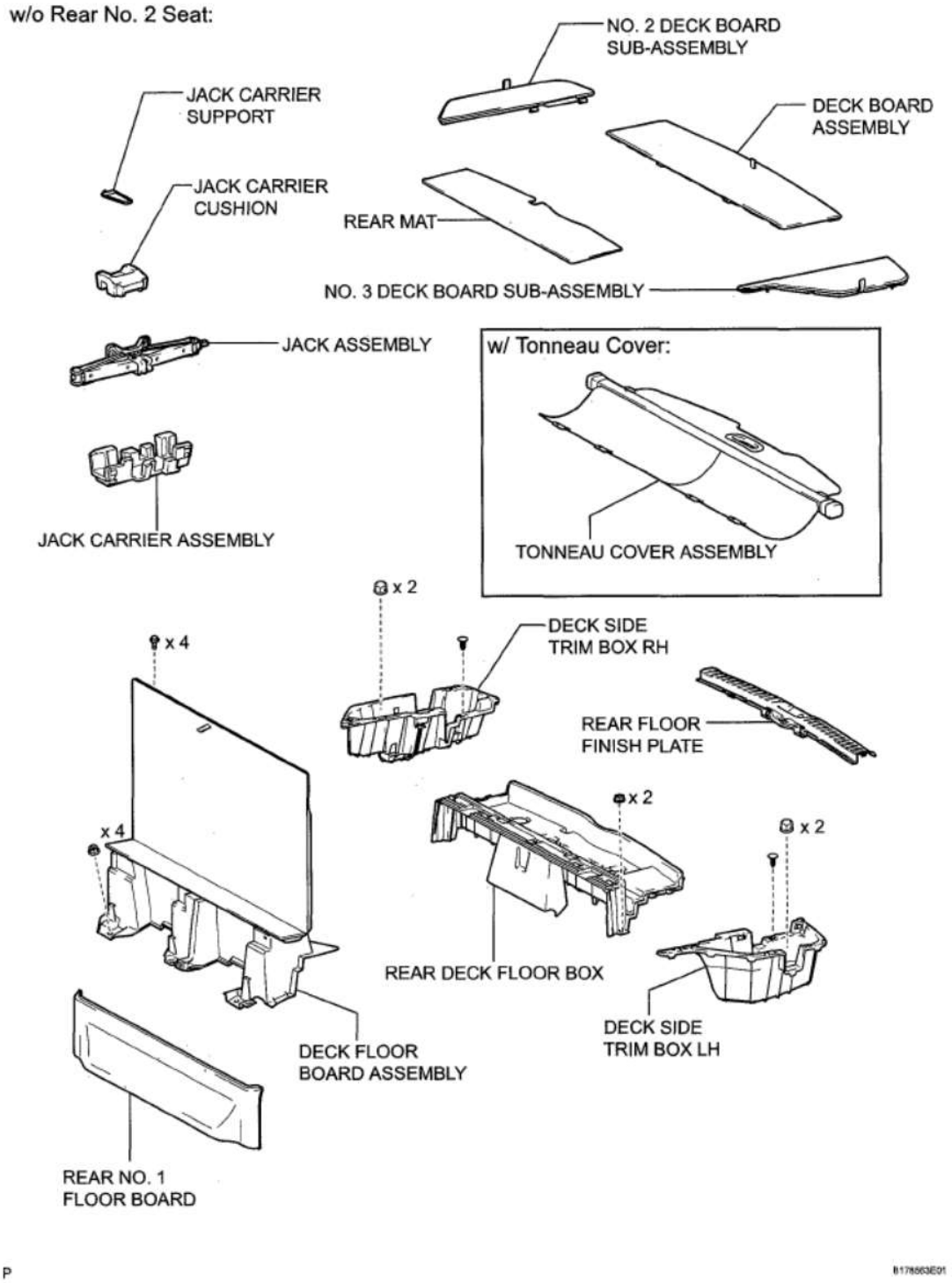


Fig. 187: Identifying Radio Antenna Cord (For Glass Antenna Type) Components (13 Of 22)
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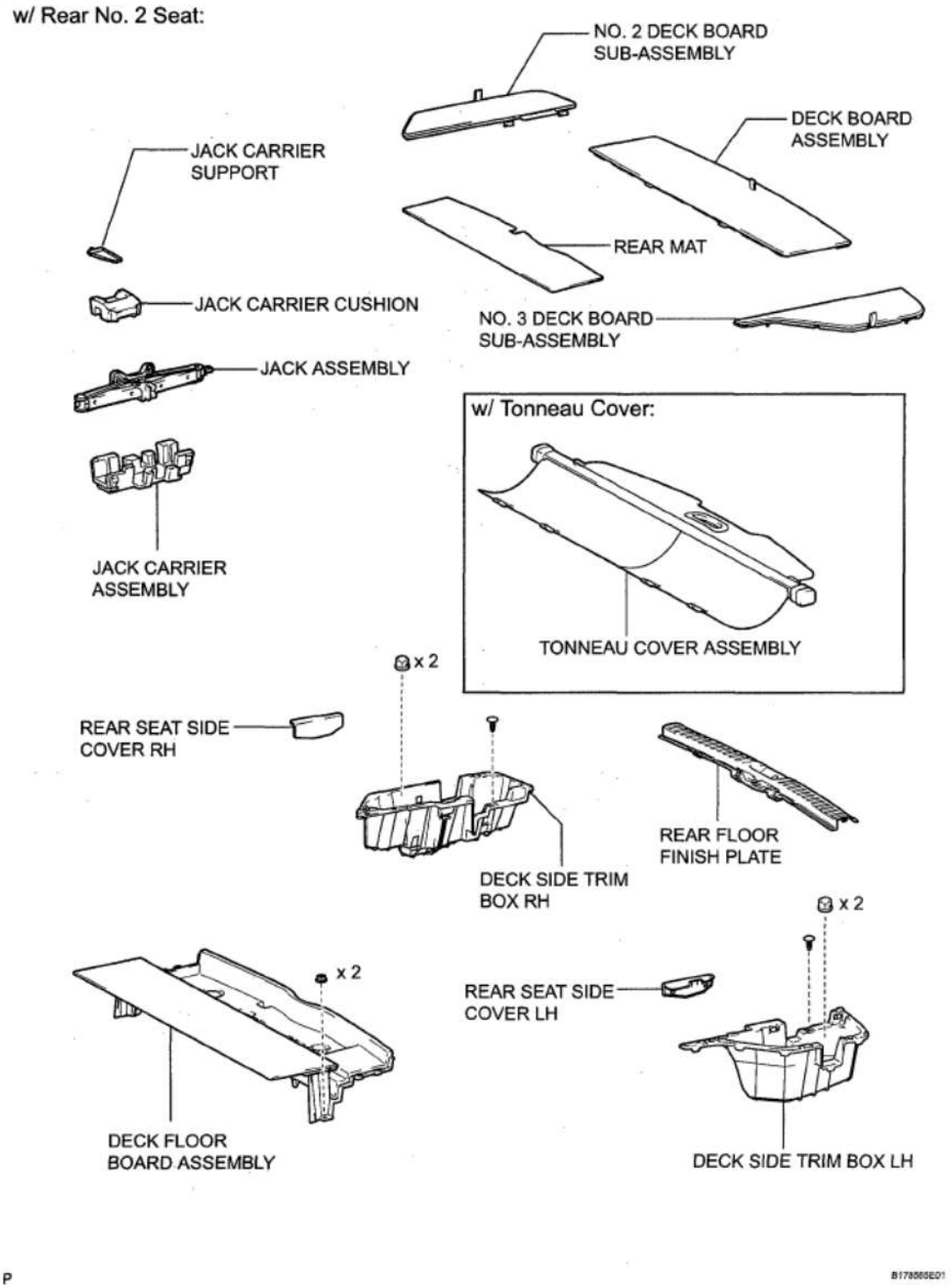


Fig. 188: Identifying Radio Antenna Cord (For Glass Antenna Type) Components (14 Of 22)
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w/ Rear No. 2 Seat:

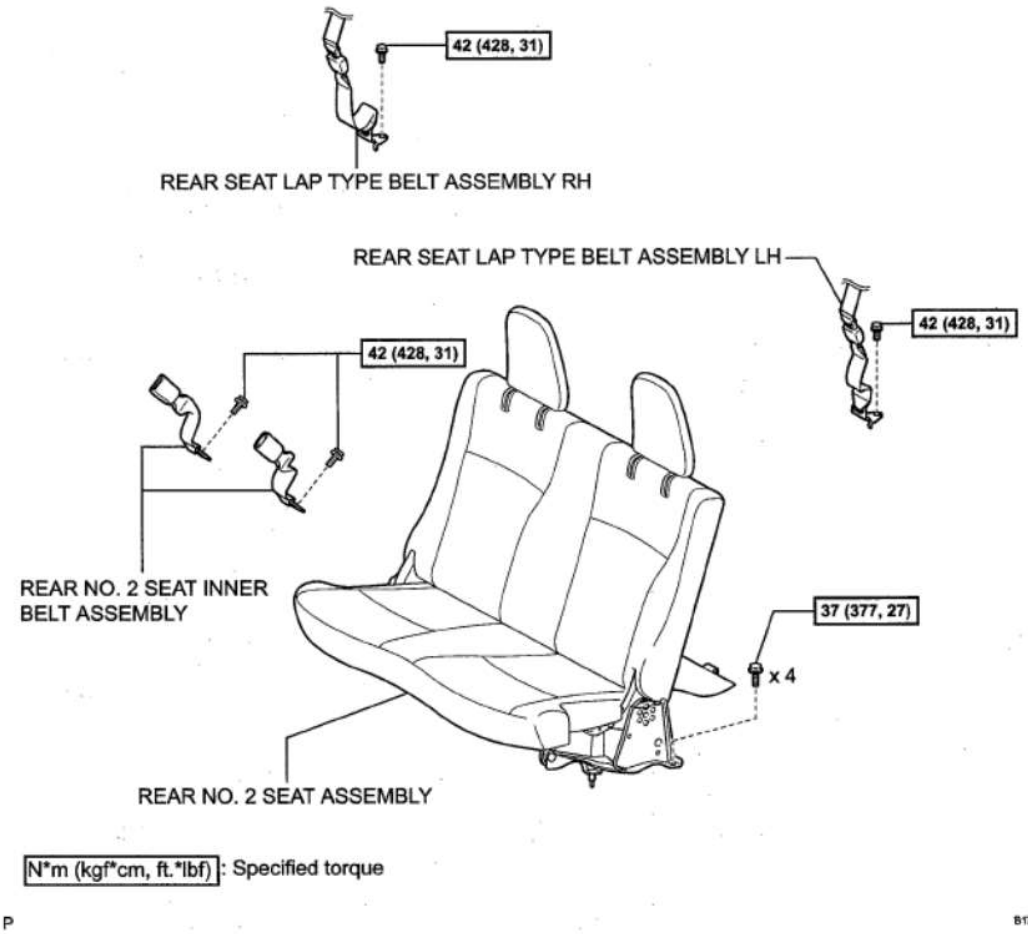


Fig. 189: Identifying Radio Antenna Cord (For Glass Antenna Type) Components With Torque Specifications (15 Of 22)
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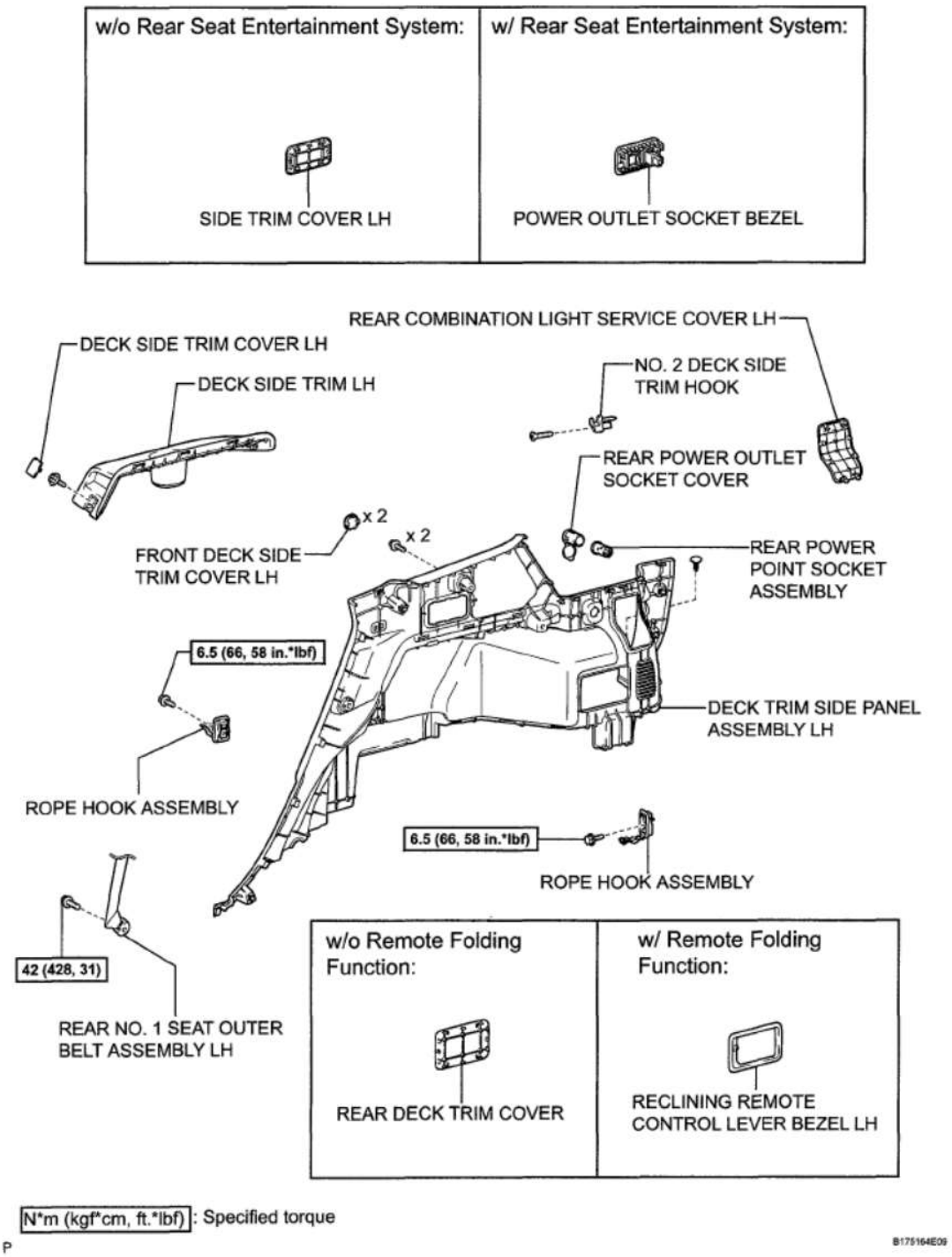


Fig. 190: Identifying Radio Antenna Cord (For Glass Antenna Type) Components With Torque Specifications (16 Of 22)

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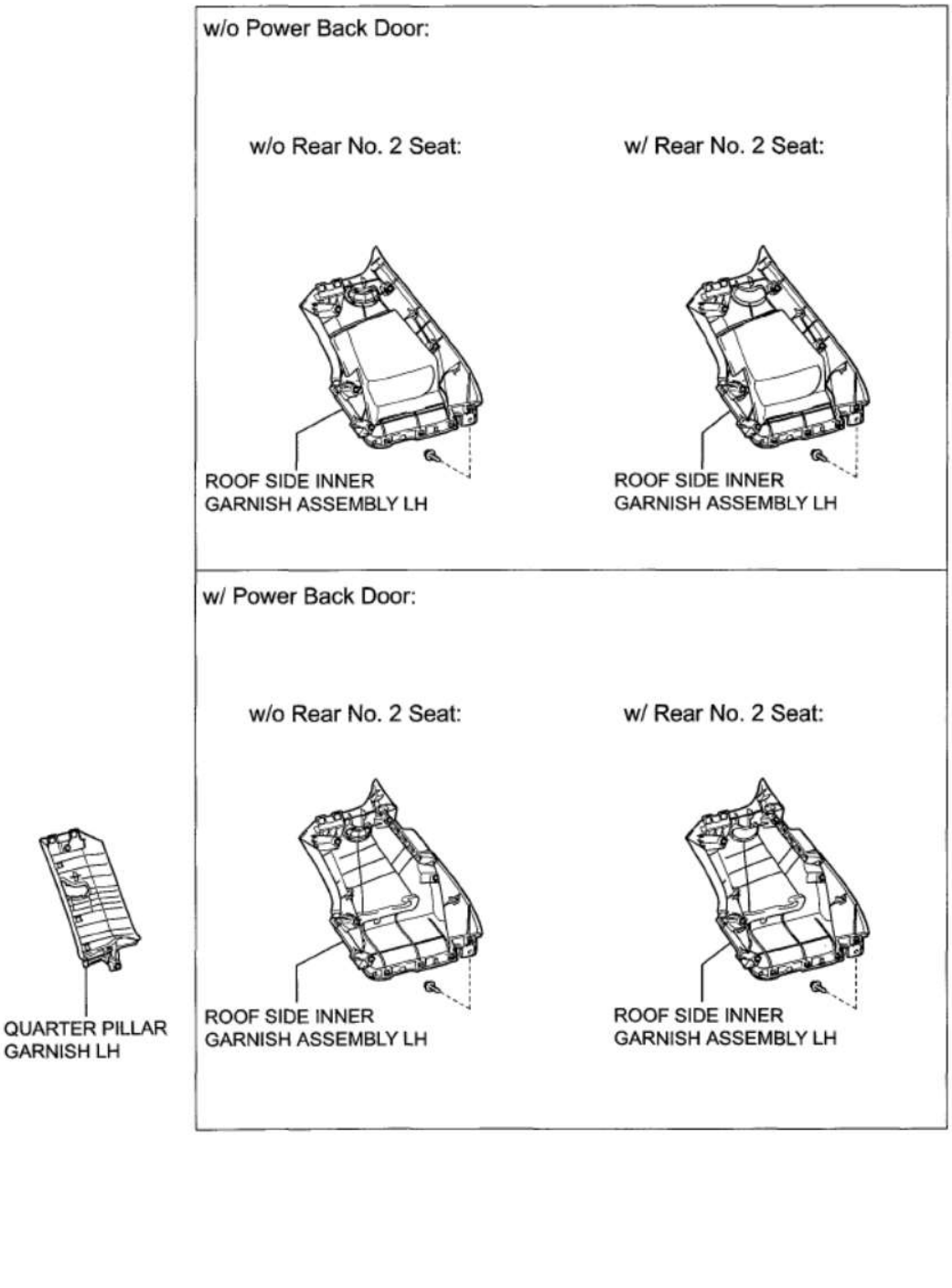


Fig. 191: Identifying Radio Antenna Cord (For Glass Antenna Type) Components (17 Of 22)
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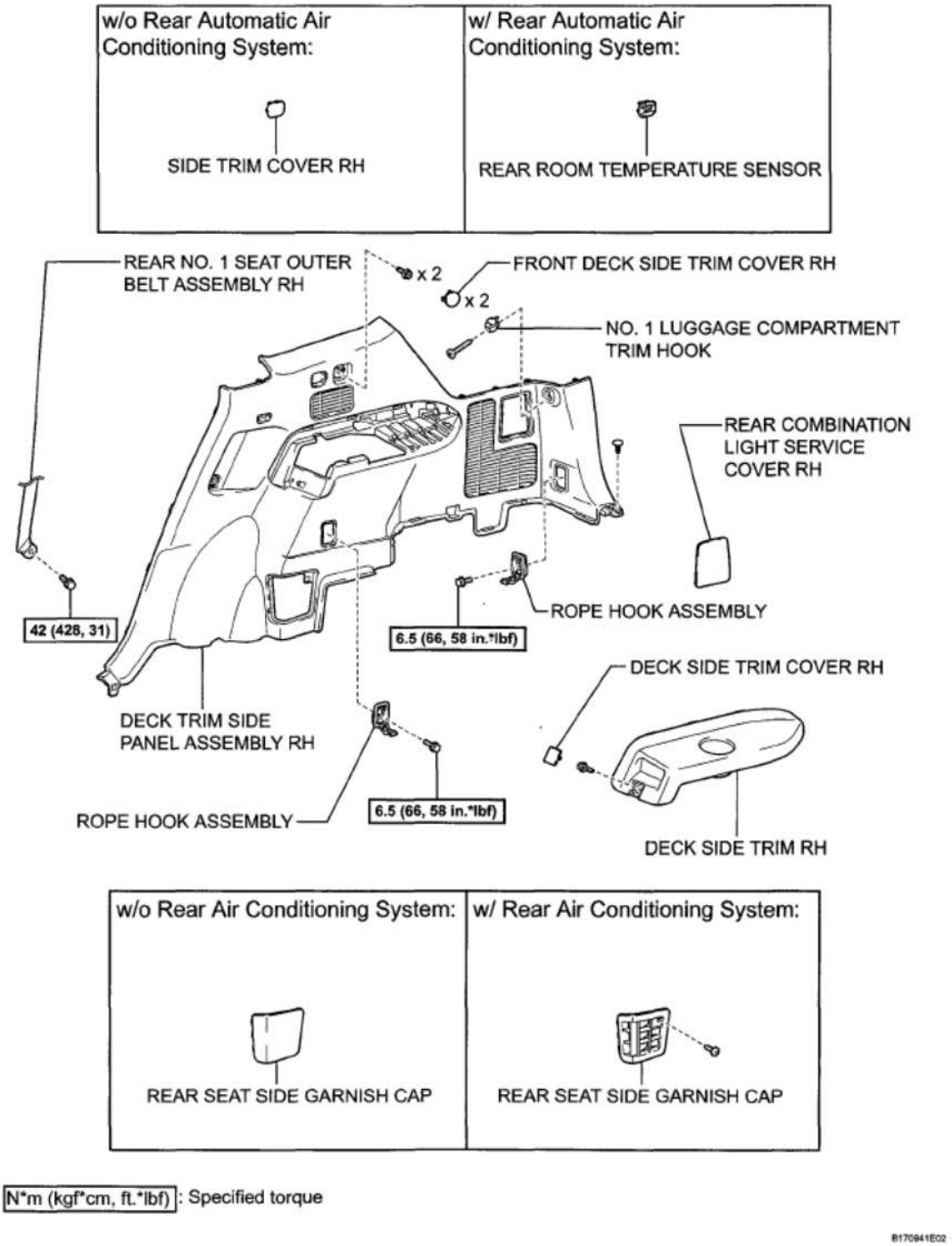


Fig. 192: Identifying Radio Antenna Cord (For Glass Antenna Type) Components With Torque Specifications (18 Of 22)

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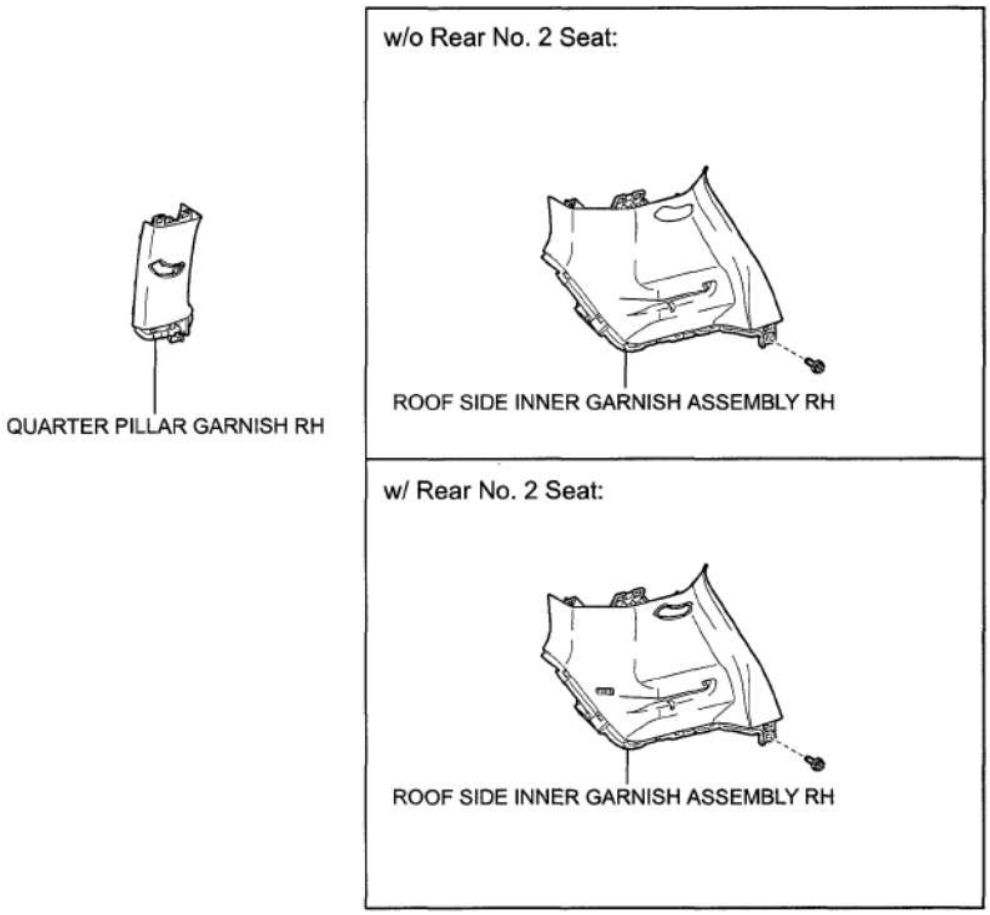


Fig. 193: Identifying Radio Antenna Cord (For Glass Antenna Type) Components (19 Of 22)
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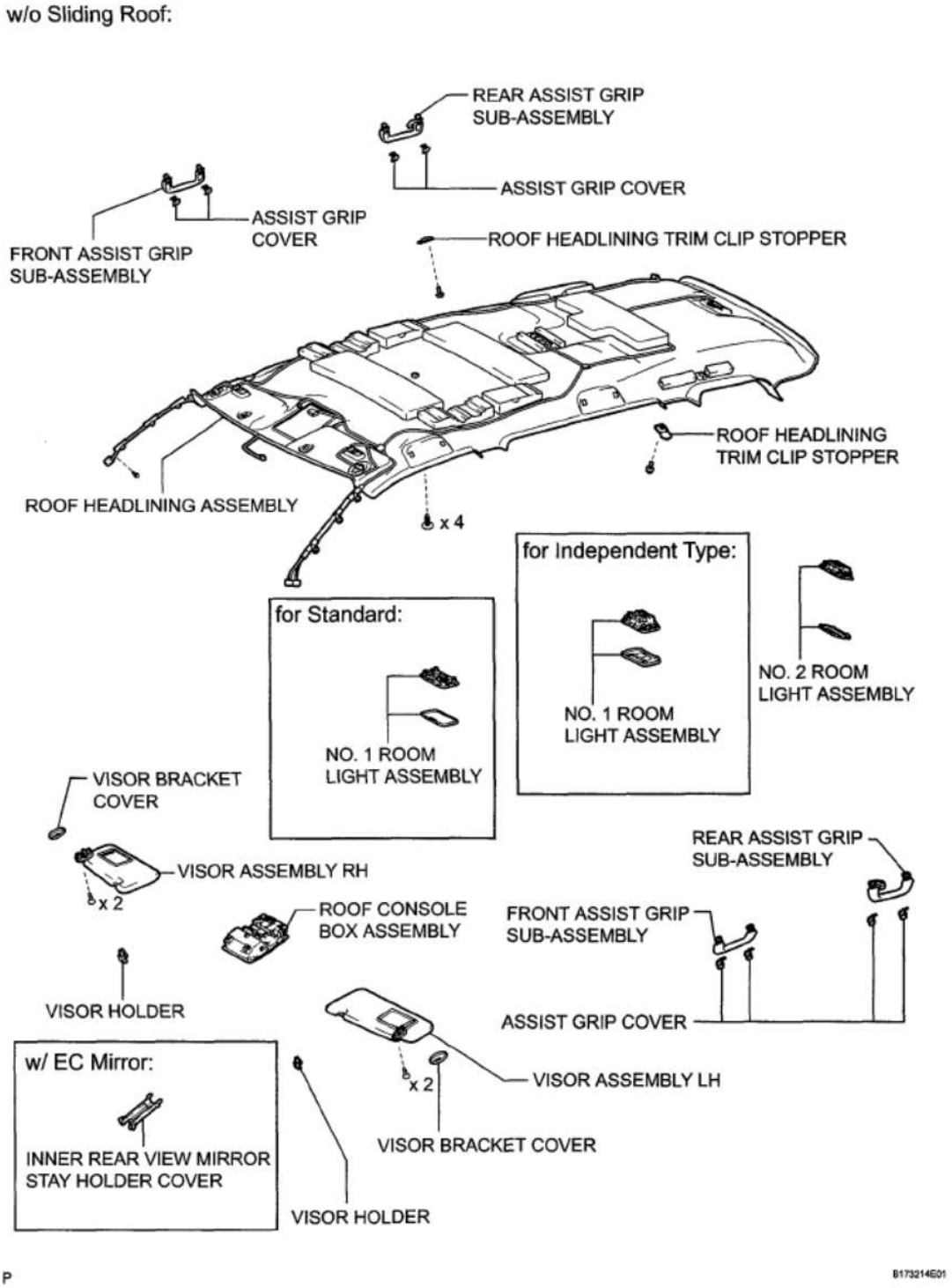


Fig. 194: Identifying Radio Antenna Cord (For Glass Antenna Type) Components (20 Of 22)
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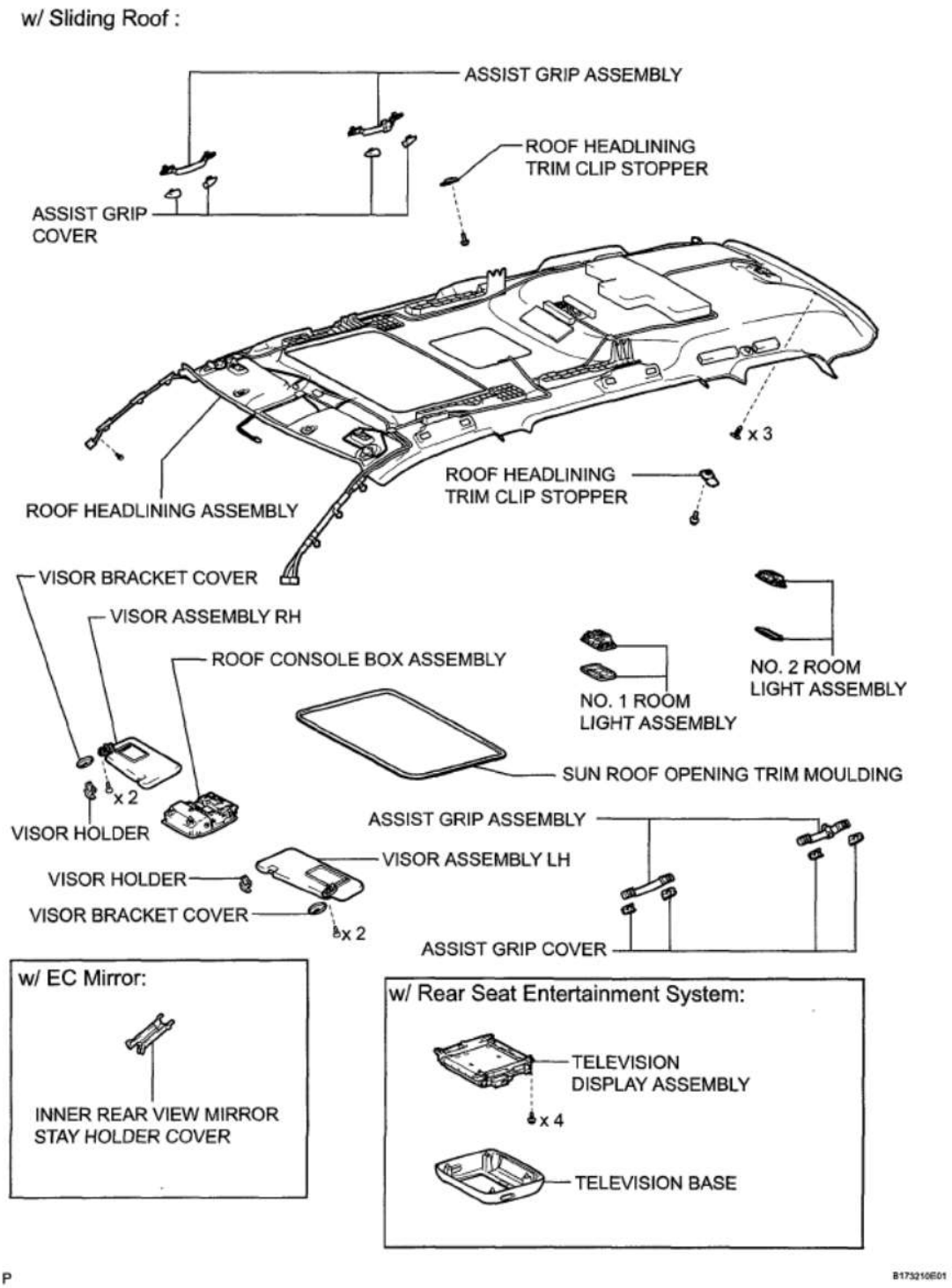


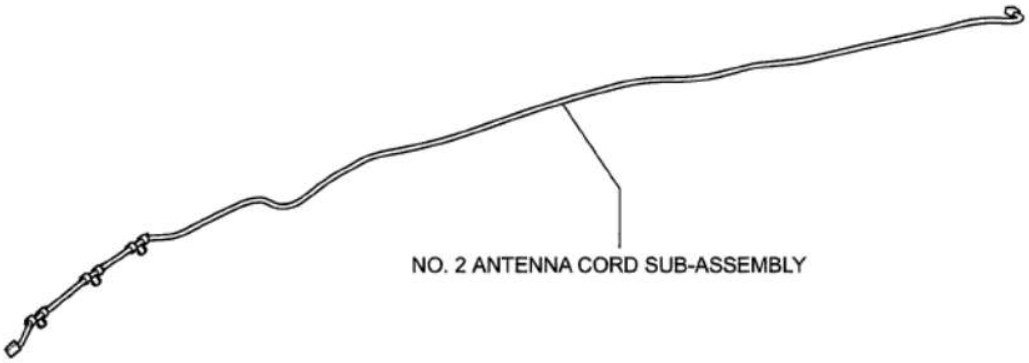
Fig. 195: Identifying Radio Antenna Cord (For Glass Antenna Type) Components (21 Of 22)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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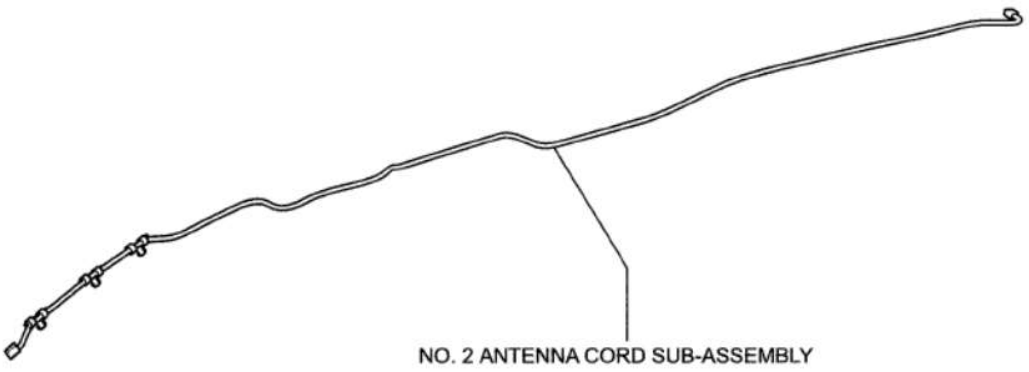
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w/o Sliding Roof:



w/ Sliding Roof:



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Fig. 196: Identifying Radio Antenna Cord (For Glass Antenna Type) Components (22 Of 22)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL

1. **PRECAUTION**

   (See **INSTRUMENT PANEL SAFETY PAD**)

2. **POSITION FRONT WHEELS STRAIGHT AHEAD**

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3. **DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL**

CAUTION: Wait for 90 seconds after disconnecting the cable to prevent airbag deployment (See AIRBAG SYSTEM).

NOTE: When disconnecting the cable, some systems need to be initialized after the cable is reconnected (See INITIALIZATION).

4. **REMOVE LOWER NO. 3 STEERING WHEEL COVER** (See **REMOVAL**)
5. **REMOVE LOWER NO. 2 STEERING WHEEL COVER** (See **REMOVAL**)
6. **REMOVE STEERING PAD** (See **REMOVAL**)
7. **REMOVE STEERING WHEEL ASSEMBLY** (See **DISASSEMBLY**)
8. **REMOVE STEERING COLUMN COVER** (See **REMOVAL**)
9. **REMOVE TURN SIGNAL SWITCH ASSEMBLY WITH SPIRAL CABLE SUB-ASSEMBLY** (See **REMOVAL**)
10. **REMOVE INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY** (See **REMOVAL**)
11. **REMOVE COMBINATION METER ASSEMBLY** (See **REMOVAL**)
12. **REMOVE CENTER INSTRUMENT PANEL REGISTER ASSEMBLY** (See **REMOVAL**)
13. **REMOVE CENTER INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY (w/o Smart Key System)** (See **REMOVAL**)
14. **REMOVE CENTER INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY (w/ Smart Key System)** (See **REMOVAL**)
15. **REMOVE HEATER CONTROL AND ACCESSORY ASSEMBLY (for Manual Air Conditioning System)** (See **AIR CONDITIONING PANEL (FOR MANUAL AIR CONDITIONING SYSTEM)**)
16. **REMOVE AIR CONDITIONING CONTROL ASSEMBLY (for Automatic Air Conditioning System)** (See **REMOVAL**)
17. **REMOVE RADIO RECEIVER ASSEMBLY WITH BRACKET (w/o Navigation System)** (See **REMOVAL**)
18. **REMOVE NAVIGATION RECEIVER ASSEMBLY WITH BRACKET (w/ Navigation System)** (See **REMOVAL**)
19. **REMOVE FRONT DOOR SCUFF PLATE LH** (See **REMOVAL**)
20. **REMOVE COWL SIDE TRIM SUB-ASSEMBLY LH** (See **REMOVAL**)
21. **REMOVE LOWER INSTRUMENT PANEL FINISH PANEL SUB-ASSEMBLY (for Manual Air Conditioning System)** (See **REMOVAL**)
22. **REMOVE LOWER INSTRUMENT PANEL FINISH PANEL SUB-ASSEMBLY (for Automatic Air Conditioning System)** (See **REMOVAL**)
23. **REMOVE FRONT DOOR SCUFF PLATE RH**

HINT:

Use the same procedure for the RH side and the LH side.

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24. **REMOVE COWL SIDE TRIM SUB-ASSEMBLY RH**

    HINT:

    Use the same procedure for the RH side and the LH side.

25. **REMOVE NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY** (See **REMOVAL**)
26. **REMOVE LOWER INSTRUMENT PANEL SUB-ASSEMBLY** (See **REMOVAL**)
27. **REMOVE UPPER CONSOLE PANEL SUB-ASSEMBLY** (See **REMOVAL**)
28. **REMOVE NO. 2 CONSOLE BOX DUCT (w/o Rear Air Conditioning System)** (See **REMOVAL**)
29. **REMOVE LOWER REAR CONSOLE BOX** (See **REMOVAL**)
30. **REMOVE CONSOLE BOX ASSEMBLY (w/o Rear Air Conditioning System)** (See **REMOVAL**)
31. **REMOVE CONSOLE BOX ASSEMBLY (w/ Rear Air Conditioning System)** (See **DISASSEMBLY**)
32. **REMOVE FRONT NO. 1 CONSOLE BOX INSERT** (See **REMOVAL**)
33. **REMOVE FRONT NO. 2 CONSOLE BOX INSERT** (See **REMOVAL**)
34. **REMOVE ENGINE SWITCH (w/ Smart Key System)** (See **INSPECTION**)
35. **REMOVE FRONT DOOR OPENING TRIM WEATHERSTRIP LH** (See **REMOVAL**)
36. **REMOVE FRONT PILLAR GARNISH LH** (See **REMOVAL**)
37. **REMOVE FRONT DOOR OPENING TRIM WEATHERSTRIP RH**

    HINT:

    Use the same procedure for the RH side and the LH side.

38. **REMOVE FRONT PILLAR GARNISH RH** (See **REMOVAL**)
39. **REMOVE NO. 1 INSTRUMENT PANEL SPEAKER PANEL SUB-ASSEMBLY** (See **REMOVAL**)
40. **REMOVE FRONT NO. 2 SPEAKER ASSEMBLY (for LH Side)** (See **REMOVAL**)
41. **REMOVE NO. 2 INSTRUMENT PANEL SPEAKER PANEL SUB-ASSEMBLY** (See **REMOVAL**)
42. **REMOVE FRONT NO. 2 SPEAKER ASSEMBLY (for RH Side)**

    HINT:

    Use the same procedure for the RH side and the LH side.

43. **DISCONNECT INSTRUMENT PANEL WIRE ASSEMBLY** (See **REMOVAL**)
44. **REMOVE INSTRUMENT PANEL SAFETY PAD ASSEMBLY** (See **REMOVAL**)
45. **REMOVE NO. 1 HEATER TO REGISTER DUCT** (See **DISASSEMBLY**)
46. **REMOVE NO. 4 HEATER TO REGISTER DUCT** (See **DISASSEMBLY**)
47. **REMOVE SIDE NO. 1 DEFROSTER NOZZLE DUCT** (See **DISASSEMBLY**)

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48. **REMOVE SIDE NO. 2 DEFROSTER NOZZLE DUCT** (See **DISASSEMBLY**)
49. **REMOVE DEFROSTER NOZZLE ASSEMBLY** (See **DISASSEMBLY**)
50. **REMOVE CENTER HEATER TO REGISTER SUB DUCT** (See **DISASSEMBLY**)
51. **REMOVE NAVIGATION ANTENNA ASSEMBLY (w/ Navigation System)** (See **REMOVAL**)
52. **REMOVE ANTENNA CORD SUB-ASSEMBLY**
    a. Disengage the 9 clamps and remove the antenna cord sub-assembly.

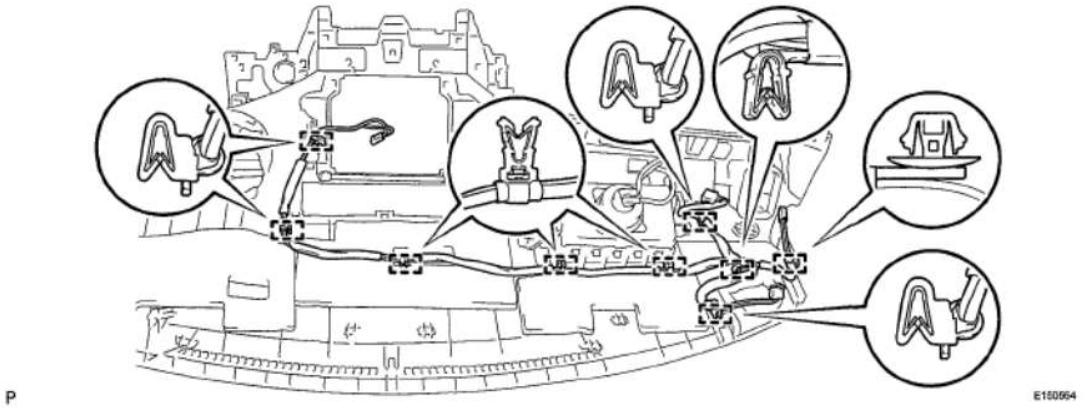


Fig. 197: Identifying Antenna Cord Sub-Assembly Clamps
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

53. **REMOVE REAR CENTER SEAT ASSEMBLY**
54. **REMOVE REAR SEAT HEADREST ASSEMBLY (for LH Side)** (See **REMOVAL**)
55. **REMOVE REAR SEAT TRACK BRACKET COVER LH** (See **REMOVAL**)
56. **REMOVE REAR OUTER TRACK BRACKET COVER LH** (See **REMOVAL**)
57. **REMOVE REAR INNER TRACK BRACKET COVER LH** (See **REMOVAL**)
58. **REMOVE REAR SEAT LEG SIDE COVER LH** (See **REMOVAL**)
59. **DISCONNECT REAR NO. 1 SEAT LOCK CABLE ASSEMBLY LH (w/ Remote Folding Function)** (See **REMOVAL**)
60. **REMOVE REAR NO. 1 SEAT ASSEMBLY LH** (See **DISASSEMBLY**)
61. **REMOVE REAR SEAT HEADREST ASSEMBLY (for RH Side)** (See **REMOVAL**)
62. **REMOVE REAR SEAT TRACK BRACKET COVER RH** (See **REMOVAL**)
63. **REMOVE REAR OUTER TRACK BRACKET COVER RH** (See **REMOVAL**)
64. **REMOVE REAR INNER TRACK BRACKET COVER RH** (See **REMOVAL**)
65. **REMOVE REAR SEAT LEG SIDE COVER RH** (See **REMOVAL**)
66. **DISCONNECT REAR NO. 1 SEAT LOCK CABLE ASSEMBLY RH (w/ Remote Folding Function)** (See **REMOVAL**)
67. **REMOVE REAR NO. 1 SEAT ASSEMBLY RH** (See **DISASSEMBLY**)
68. **REMOVE REAR DOOR SCUFF PLATE LH** (See **REMOVAL**)
69. **REMOVE REAR DOOR OPENING TRIM WEATHERSTRIP LH** (See **REMOVAL**)

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70. **REMOVE LOWER CENTER PILLAR GARNISH LH** (See **REMOVAL**)
71. **DISCONNECT FRONT SEAT OUTER BELT ASSEMBLY LH** (See **REMOVAL**)
72. **REMOVE CENTER PILLAR GARNISH LH** (See **REMOVAL**)
73. **REMOVE REAR DOOR SCUFF PLATE RH**

    HINT:

    Use the same procedure for the RH side and the LH side.

74. **REMOVE REAR DOOR OPENING TRIM WEATHERSTRIP RH**

    HINT:

    Use the same procedure for the RH side and the LH side.

75. **REMOVE LOWER CENTER PILLAR GARNISH RH**

    HINT:

    Use the same procedure for the RH side and the LH side.

76. **DISCONNECT FRONT SEAT OUTER BELT ASSEMBLY RH**

    HINT:

    Use the same procedure for the RH side and the LH side.

77. **REMOVE CENTER PILLAR GARNISH RH**

    HINT:

    Use the same procedure for the RH side and the LH side.

78. **REMOVE DECK BOARD ASSEMBLY** (See **REMOVAL**)
79. **REMOVE NO. 3 DECK BOARD SUB-ASSEMBLY** (See **REMOVAL**)
80. **REMOVE NO. 2 DECK BOARD SUB-ASSEMBLY** (See **REMOVAL**)
81. **REMOVE TONNEAU COVER ASSEMBLY (w/ Tonneau Cover)** (See **REMOVAL**)
82. **REMOVE REAR NO. 1 FLOOR BOARD (w/o Rear No. 2 Seat)** (See **REMOVAL**)
83. **REMOVE REAR SEAT SIDE COVER LH (w/ Rear No. 2 Seat)** (See **REMOVAL**)
84. **REMOVE DECK SIDE TRIM BOX LH** (See **REMOVAL**)
85. **REMOVE REAR SEAT SIDE COVER RH (w/ Rear No. 2 Seat)** (See **REMOVAL**)
86. **REMOVE JACK CARRIER SUPPORT**
87. **REMOVE JACK CARRIER CUSHION** (See **REMOVAL**)
88. **REMOVE JACK ASSEMBLY** (See **REMOVAL**)

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89. **REMOVE JACK CARRIER ASSEMBLY** (See **REMOVAL**)
90. **REMOVE DECK SIDE TRIM BOX RH** (See **REMOVAL**)
91. **REMOVE DECK FLOOR BOARD ASSEMBLY (w/o Rear No. 2 Seat)** (See **REMOVAL**)
92. **REMOVE REAR MAT** (See **REMOVAL**)
93. **REMOVE DECK FLOOR BOARD ASSEMBLY (w/ Rear No. 2 Seat)** (See **REMOVAL**)
94. **REMOVE REAR DECK FLOOR BOX (w/o Rear No. 2 Seat)** (See **REMOVAL**)
95. **REMOVE REAR NO. 2 SEAT INNER BELT ASSEMBLY (w/ Rear No. 2 Seat)** (See **INSTALLATION**)
96. **DISCONNECT REAR SEAT LAP TYPE BELT ASSEMBLY LH (w/ Rear No. 2 Seat)** (See **REMOVAL**)
97. **DISCONNECT REAR SEAT LAP TYPE BELT ASSEMBLY RH (w/ Rear No. 2 Seat)**

    HINT:

    Use the same procedure for the RH side and the LH side.

98. **REMOVE REAR NO. 2 SEAT ASSEMBLY (w/ Rear No. 2 Seat)** (See **DISASSEMBLY**)
99. **REMOVE REAR FLOOR FINISH PLATE** (See **REMOVAL**)
100. **REMOVE DECK SIDE TRIM COVER LH** (See **REMOVAL**)
101. **REMOVE DECK SIDE TRIM LH** (See **REMOVAL**)
102. **REMOVE SIDE TRIM COVER LH (w/o Rear Seat Entertainment System)** (See **REMOVAL**)
103. **REMOVE POWER OUTLET SOCKET BEZEL (w/ Rear Seat Entertainment System)** (See **REMOVAL**)
104. **REMOVE REAR COMBINATION LIGHT SERVICE COVER LH** (See **REMOVAL**)
105. **REMOVE REAR POWER POINT SOCKET ASSEMBLY** (See **REAR POWER OUTLET SOCKET**)
106. **REMOVE REAR POWER OUTLET SOCKET COVER** (See **INSTALLATION**)
107. **REMOVE REAR DECK TRIM COVER (w/o Remote Folding Function)** (See **REMOVAL**)
108. **REMOVE RECLINING REMOTE CONTROL LEVER BEZEL LH (w/ Remote Folding Function)** (See **REMOVAL**)
109. **REMOVE ROPE HOOK ASSEMBLY (for LH Side)** (See **REMOVAL**)
110. **REMOVE NO. 2 DECK SIDE TRIM HOOK** (See **REMOVAL**)
111. **REMOVE FRONT DECK SIDE TRIM COVER LH** (See **REMOVAL**)
112. **DISCONNECT REAR NO. 1 SEAT OUTER BELT ASSEMBLY LH** (See **REMOVAL**)
113. **REMOVE DECK TRIM SIDE PANEL ASSEMBLY LH** (See **REMOVAL**)
114. **REMOVE QUARTER PILLAR GARNISH LH** (See **REMOVAL**)
115. **REMOVE ROOF SIDE INNER GARNISH ASSEMBLY LH (w/o Power Back Door)** (See **REMOVAL**)
116. **REMOVE ROOF SIDE INNER GARNISH ASSEMBLY LH (w/ Power Back Door)** (See **REMOVAL**)

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117. **REMOVE REAR SEAT SIDE GARNISH CAP (w/o Rear Air Conditioning System)** (See **REMOVAL**)
118. **REMOVE REAR SEAT SIDE GARNISH CAP (w/ Rear Air Conditioning System)** (See **REMOVAL**)
119. **REMOVE DECK SIDE TRIM COVER RH**

HINT:

Use the same procedure for the RH side and the LH side.

120. **REMOVE DECK SIDE TRIM RH**

HINT:

Use the same procedure for the RH side and the LH side.

121. **REMOVE SIDE TRIM COVER RH (w/o Rear Automatic Air Conditioning System)** (See **REMOVAL**)
122. **REMOVE REAR ROOM TEMPERATURE SENSOR (w/ Rear Automatic Air Conditioning System)** (See **ROOM TEMPERATURE SENSOR (FOR REAR)**)
123. **REMOVE REAR COMBINATION LIGHT SERVICE COVER RH** (See **REMOVAL**)
124. **REMOVE ROPE HOOK ASSEMBLY (for RH Side)**

HINT:

Use the same procedure for the RH side and the LH side.

125. **REMOVE NO. 1 LUGGAGE COMPARTMENT TRIM HOOK** (See **REMOVAL**)
126. **REMOVE FRONT DECK SIDE TRIM COVER RH**

HINT:

Use the same procedure for the RH side and the LH side.

127. **DISCONNECT REAR NO. 1 SEAT OUTER BELT ASSEMBLY RH**

HINT:

Use the same procedure for the RH side and the LH side.

128. **REMOVE DECK TRIM SIDE PANEL ASSEMBLY RH** (See **REMOVAL**)
129. **REMOVE QUARTER PILLAR GARNISH RH**

HINT:

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Use the same procedure for the RH side and the LH side.

130. **REMOVE ROOF SIDE INNER GARNISH ASSEMBLY RH (w/o Rear No. 2 Seat)**

HINT:

Use the same procedure for the RH side and the LH side.

131. **REMOVE ROOF SIDE INNER GARNISH ASSEMBLY RH (w/ Rear No. 2 Seat)**

HINT:

Use the same procedure for the RH side and the LH side.

132. **REMOVE ROOF CONSOLE BOX ASSEMBLY** (See **REMOVAL**)
133. **REMOVE VISOR BRACKET COVER (for LH Side)** (See **REMOVAL**)
134. **REMOVE VISOR ASSEMBLY LH** (See **REMOVAL**)
135. **REMOVE VISOR BRACKET COVER (for RH Side)**

HINT:

Use the same procedure for the RH side and the LH side.

136. **REMOVE VISOR ASSEMBLY RH**

HINT:

Use the same procedure for the RH side and the LH side.

137. **REMOVE INNER REAR VIEW MIRROR STAY HOLDER COVER (w/ EC Mirror)** (See **REMOVAL**)
138. **REMOVE NO. 1 ROOM LIGHT ASSEMBLY (for Standard)** (See **REMOVAL**)
139. **REMOVE NO. 1 ROOM LIGHT ASSEMBLY (for Independent Type)** (See **REMOVAL**)
140. **REMOVE NO. 2 ROOM LIGHT ASSEMBLY** (See **REMOVAL**)
141. **REMOVE TELEVISION BASE (w/ Rear Seat Entertainment System)** (See **TELEVISION DISPLAY**)
142. **REMOVE TELEVISION DISPLAY ASSEMBLY (w/ Rear Seat Entertainment System)** (See **TELEVISION DISPLAY**)
143. **REMOVE FRONT ASSIST GRIP SUB-ASSEMBLY (w/o Sliding Roof)** (See **REMOVAL**)
144. **REMOVE REAR ASSIST GRIP SUB-ASSEMBLY (w/o Sliding Roof)** (See **REMOVAL**)
145. **REMOVE ASSIST GRIP ASSEMBLY (w/ Sliding Roof)** (See **REMOVAL**)
146. **REMOVE ROOF HEADLINING TRIM CLIP STOPPER** (See **REMOVAL**)
147. **REMOVE SUN ROOF OPENING TRIM MOULDING (w/ Sliding Roof)**
148. **REMOVE VISOR HOLDER** (See **REMOVAL**)

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149. **REMOVE ROOF HEADLINING ASSEMBLY (w/o Sliding Roof)** (See **REMOVAL**)
150. **REMOVE ROOF HEADLINING ASSEMBLY (w/ Sliding Roof)** (See **REMOVAL**)
151. **REMOVE NO. 2 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.

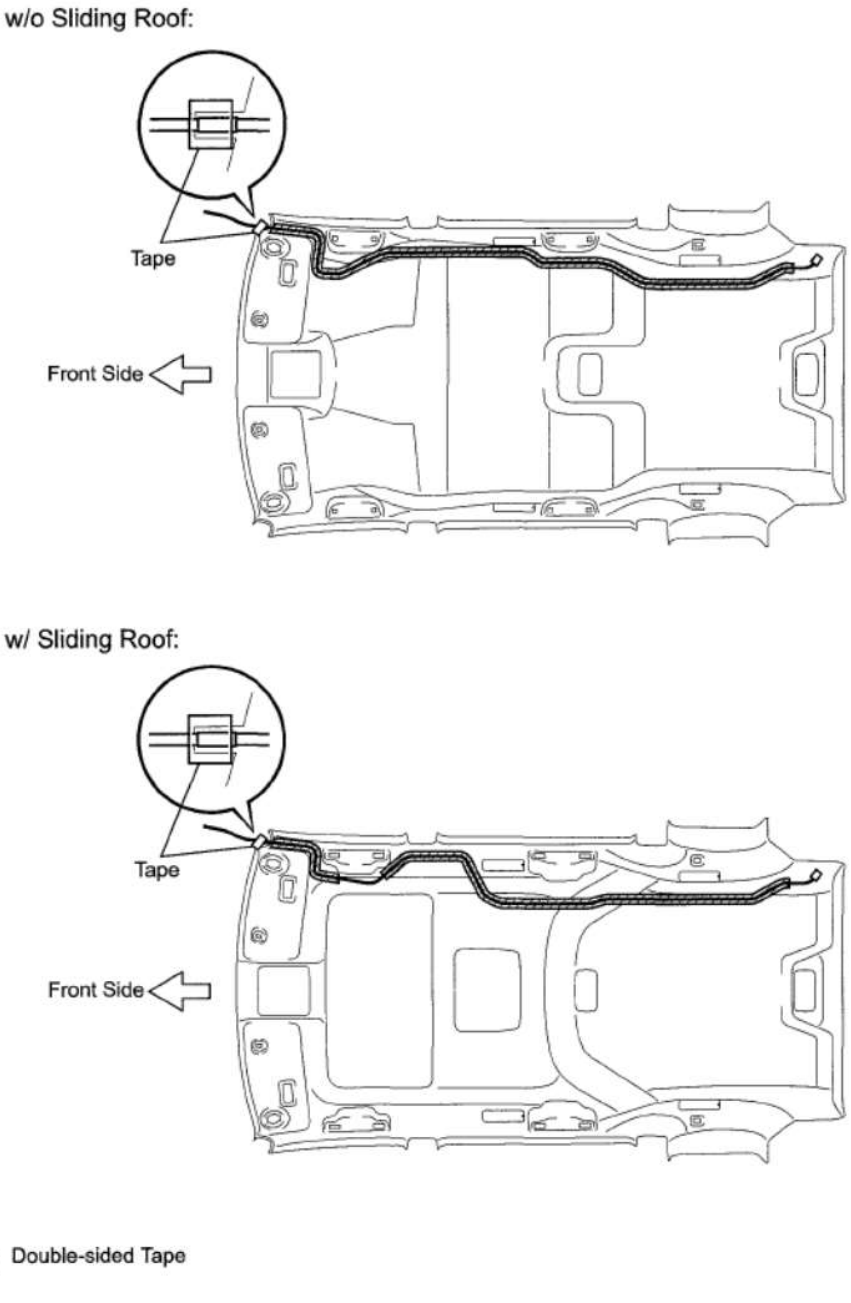


Fig. 198: Identifying Tape Location On No. 2 Antenna Cord Sub-Assembly (W/O Sliding Roof)

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Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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.

b. Remove the No, 2 antenna cord sub-assembly from the roof headlining.

INSTALLATION

1. **INSTALL NO. 2 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.

a. Apply new double-sided tape.

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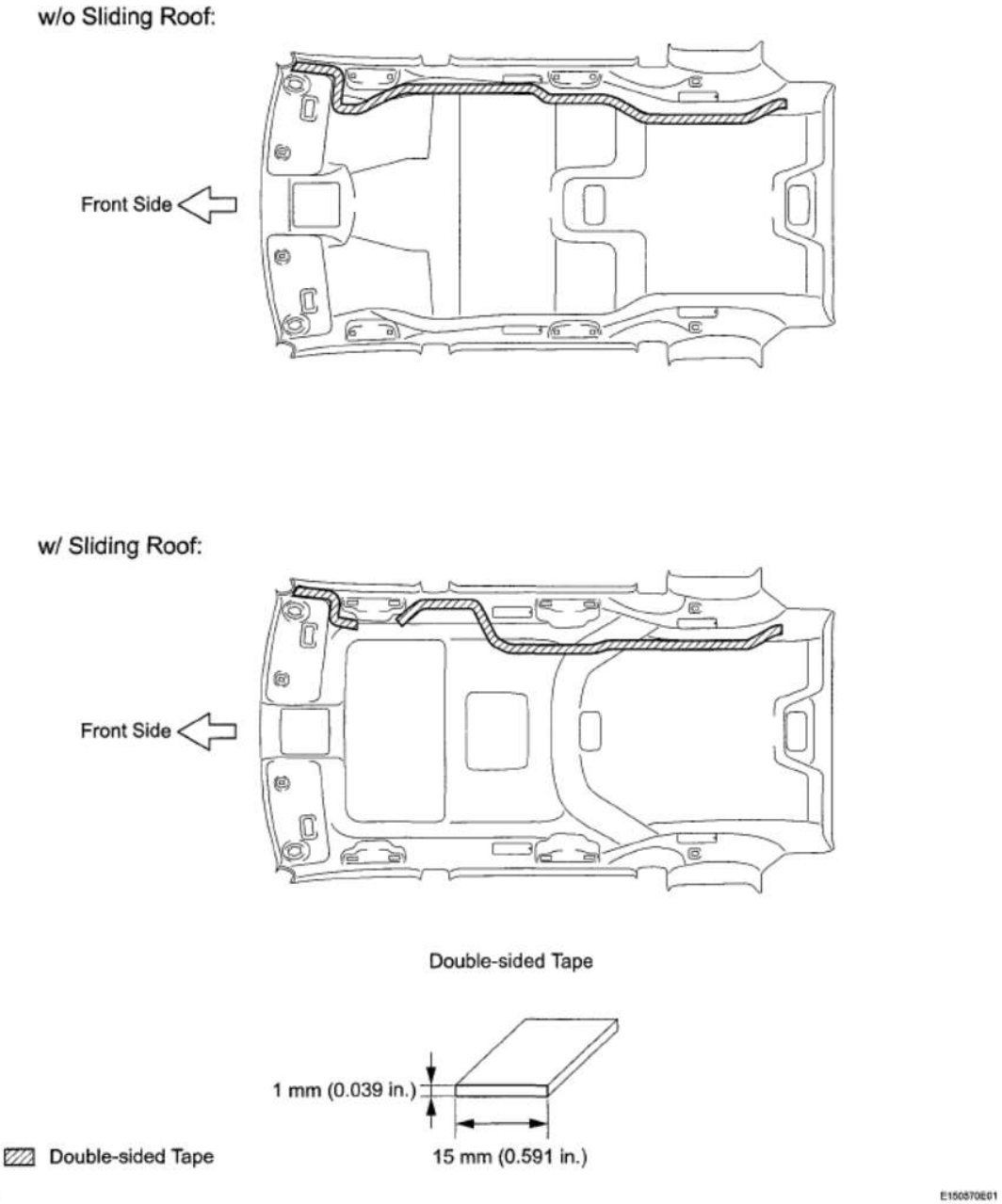


Fig. 199: Identifying Double-Sided Tape Location On No. 2 Antenna Cord Sub-Assembly (W/O Sliding Roof)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

1. Remove the double-sided tape from the roof headlining assembly.
2. Peel off the appropriate amount of new double-Sided 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.

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4. Peel off the backing sheet from the double-sided tape.

b. Install the antenna cord to the roof headlining assembly from the front of the vehicle.

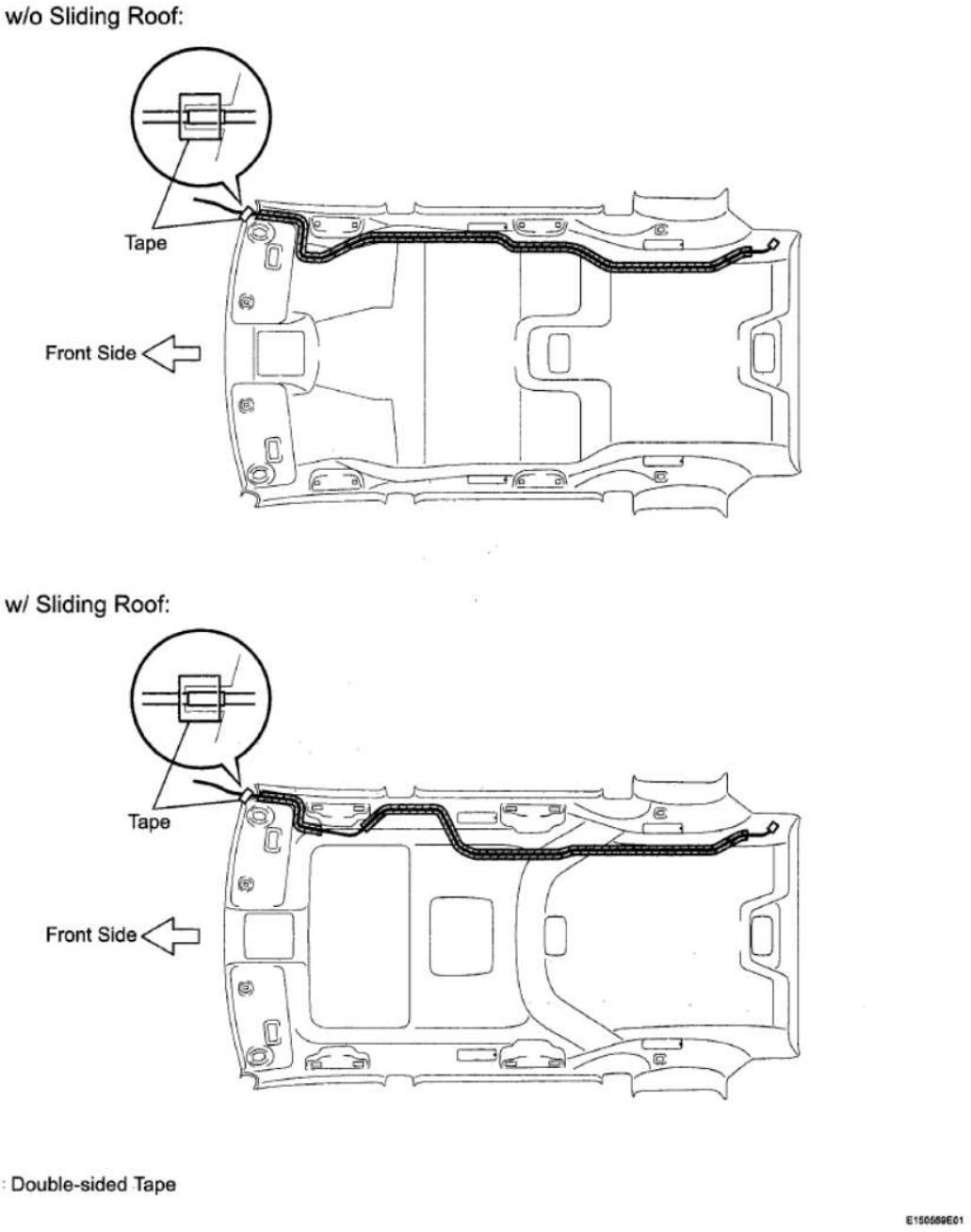


Fig. 200: Identifying Double-Sided Tape Location On Roof Headlining Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

HINT:

For the right front corner of the roof headlining assembly, align the marking tape on the antenna cord

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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.

2. **INSTALL ROOF HEADLINING ASSEMBLY (w/ Sliding Roof)** (See **INSTALLATION**)
3. **INSTALL ROOF HEADLINING ASSEMBLY (w/o Sliding Roof)** (See **INSTALLATION**)
4. **INSTALL VISOR HOLDER** (See **INSTALLATION**)
5. **INSTALL SUN ROOF OPENING TRIM MOULDING (w/ Sliding Roof)** (See **INSTALLATION**)
6. **INSTALL ROOF HEADLINING TRIM CLIP STOPPER** (See **INSTALLATION**)
7. **INSTALL ASSIST GRIP ASSEMBLY (w/ Sliding Roof)** (See **INSTALLATION**)
8. **INSTALL REAR ASSIST GRIP SUB-ASSEMBLY (w/o Sliding Roof)** (See **INSTALLATION**)
9. **INSTALL FRONT ASSIST GRIP SUB-ASSEMBLY (w/o Sliding Roof)** (See **INSTALLATION**)
10. **INSTALL TELEVISION DISPLAY ASSEMBLY (w/ Rear Seat Entertainment System)** (See **INSTALLATION**)
11. **INSTALL TELEVISION BASE (w/ Rear Seat Entertainment System)** (See **INSTALLATION**)
12. **INSTALL NO. 2 ROOM LIGHT ASSEMBLY** (See **INSTALLATION**)
13. **INSTALL NO. 1 ROOM LIGHT ASSEMBLY (for Standard)** (See **INSTALLATION**)
14. **INSTALL NO. 1 ROOM LIGHT ASSEMBLY (for Independent Type)** (See **INSTALLATION**)
15. **INSTALL INNER REAR VIEW MIRROR STAY HOLDER COVER (w/ EC Mirror)** (See **INSTALLATION**)
16. **INSTALL VISOR ASSEMBLY LH** (See **INSTALLATION**)
17. **INSTALL VISOR BRACKET COVER (for LH Side)** (See **INSTALLATION**)
18. **INSTALL VISOR ASSEMBLY RH**

    HINT:

    Use the same procedure for the RH side and the LH side.

19. **INSTALL VISOR BRACKET COVER (for RH Side)**

    HINT:

    Use the same procedure for the RH side and the LH side.

20. **INSTALL ROOF CONSOLE BOX ASSEMBLY** (See **INSTALLATION**)
21. **INSTALL ROOF SIDE INNER GARNISH ASSEMBLY LH (w/ Power Back Door)** (See **INSTALLATION**)
22. **INSTALL ROOF SIDE INNER GARNISH ASSEMBLY LH (w/o Power Back Door)** (See **INSTALLATION**)
23. **INSTALL QUARTER PILLAR GARNISH LH** (See **INSTALLATION**)
24. **INSTALL DECK TRIM SIDE PANEL ASSEMBLY LH** (See **INSTALLATION**)
25. **CONNECT REAR NO. 1 SEAT OUTER BELT ASSEMBLY LH** (See **INSTALLATION**)
26. **INSTALL FRONT DECK SIDE TRIM COVER LH** (See **INSTALLATION**)

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27. **INSTALL NO. 2 DECK SIDE TRIM HOOK** (See **INSTALLATION**)
28. **INSTALL ROPE HOOK ASSEMBLY (for LH Side)** (See **INSTALLATION**)
29. **INSTALL REAR DECK TRIM COVER (w/o Remote Folding Function)** (See **INSTALLATION**)
30. **INSTALL RECLINING REMOTE CONTROL LEVER BEZEL LH (w/ Remote Folding Function)** (See **INSTALLATION**)
31. **INSTALL REAR POWER OUTLET SOCKET COVER** (See **INSTALLATION**)
32. **INSTALL REAR POWER POINT SOCKET ASSEMBLY** (See **INSTALLATION**)
33. **INSTALL REAR COMBINATION LIGHT SERVICE COVER LH** (See **INSTALLATION**)
34. **INSTALL SIDE TRIM COVER LH (w/o Rear Seat Entertainment System)** (See **INSTALLATION**)
35. **INSTALL POWER OUTLET SOCKET BEZEL (w/ Rear Seat Entertainment System)** (See **INSTALLATION**)
36. **INSTALL DECK SIDE TRIM LH** (See **INSTALLATION**)
37. **INSTALL DECK SIDE TRIM COVER LH** (See **INSTALLATION**)
38. **INSTALL ROOF SIDE INNER GARNISH ASSEMBLY RH (w/ Rear No. 2 Seat)**

    HINT:

    Use the same procedure for the RH side and the LH side.

39. **INSTALL ROOF SIDE INNER GARNISH ASSEMBLY RH (w/o Rear No. 2 Seat)**

    HINT:

    Use the same procedure for the RH side and the LH side.

40. **INSTALL QUARTER PILLAR GARNISH RH**

    HINT:

    Use the same procedure for the RH side and the LH side.

41. **INSTALL DECK TRIM SIDE PANEL ASSEMBLY RH** (See **INSTALLATION**)
42. **CONNECT REAR NO. 1 SEAT OUTER BELT ASSEMBLY RH**

    HINT:

    Use the same procedure for the RH side and the LH side.

43. **INSTALL FRONT DECK SIDE TRIM COVER RH**

    HINT:

    Use the same procedure for the RH side and the LH side.

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44. **INSTALL NO. 1 LUGGAGE COMPARTMENT TRIM HOOK** (See **INSTALLATION**)
45. **INSTALL ROPE HOOK ASSEMBLY (for RH Side)**

    HINT:

    Use the same procedure for the RH side and the LH side.

46. **INSTALL REAR COMBINATION LIGHT SERVICE COVER RH** (See **INSTALLATION**)
47. **INSTALL REAR ROOM TEMPERATURE SENSOR (w/ Rear Automatic Air Conditioning System)** (See **INSPECTION**)
48. **INSTALL SIDE TRIM COVER RH (w/o Rear Automatic Air Conditioning System)** (See **INSTALLATION**)
49. **INSTALL DECK SIDE TRIM RH**

    HINT:

    Use the same procedure for the RH side and the LH side.

50. **INSTALL DECK SIDE TRIM COVER RH**

    HINT:

    Use the same procedure for the RH side and the LH side.

51. **INSTALL REAR SEAT SIDE GARNISH CAP (w/ Rear Air Conditioning System)** (See **INSTALLATION**)
52. **INSTALL REAR SEAT SIDE GARNISH CAP (w/o Rear Air Conditioning System)** (See **INSTALLATION**)
53. **INSTALL REAR FLOOR FINISH PLATE** (See **INSTALLATION**)
54. **INSTALL REAR NO. 2 SEAT ASSEMBLY (w/ Rear No. 2 Seat)** (See **INSTALLATION**)
55. **CONNECT REAR SEAT LAP TYPE BELT ASSEMBLY LH (w/ Rear No. 2 Seat)** (See **INSTALLATION**)
56. **CONNECT REAR SEAT LAP TYPE BELT ASSEMBLY RH (w/ Rear No. 2 Seat)** (See **INSTALLATION**)
57. **INSTALL REAR NO. 2 SEAT INNER BELT ASSEMBLY (w/ Rear No. 2 Seat)** (See **INSTALLATION**)
58. **INSTALL REAR DECK FLOOR BOX (w/o Rear No. 2 Seat)** (See **INSTALLATION**)
59. **INSTALL DECK FLOOR BOARD ASSEMBLY (w/o Rear No. 2 Seat)** (See **INSTALLATION**)
60. **INSTALL REAR MAT** (See **INSTALLATION**)
61. **INSTALL DECK FLOOR BOARD ASSEMBLY (w/ Rear No. 2 Seat)** (See **INSTALLATION**)
62. **INSTALL DECK SIDE TRIM BOX LH** (See **INSTALLATION**)
63. **INSTALL REAR SEAT SIDE COVER LH (w/ Rear No. 2 Seat)** (See **INSTALLATION**)
64. **INSTALL DECK SIDE TRIM BOX RH** (See **INSTALLATION**)

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65. **INSTALL JACK CARRIER ASSEMBLY** (See **INSTALLATION**)
66. **INSTALL JACK ASSEMBLY** (See **INSTALLATION**)
67. **INSTALL JACK CARRIER CUSHION** (See **INSTALLATION**)
68. **INSTALL JACK CARRIER SUPPORT**
69. **INSTALL REAR SEAT SIDE COVER RH (w/ Rear Air Conditioning System)** (See **INSTALLATION**)
70. **INSTALL REAR NO. 1 FLOOR BOARD (w/o Rear Air Conditioning System)** (See **INSTALLATION**)
71. **INSTALL TONNEAU COVER ASSEMBLY (w/ Tonneau Cover)** (See **INSTALLATION**)
72. **INSTALL NO. 2 DECK BOARD SUB-ASSEMBLY** (See **INSTALLATION**)
73. **INSTALL NO. 3 DECK BOARD SUB-ASSEMBLY** (See **INSTALLATION**)
74. **INSTALL DECK BOARD ASSEMBLY** (See **INSTALLATION**)
75. **INSTALL CENTER PILLAR GARNISH LH** (See **INSTALLATION**)
76. **CONNECT FRONT SEAT OUTER BELT ASSEMBLY LH** (See **INSTALLATION**)
77. **INSTALL LOWER CENTER PILLAR GARNISH LH** (See **INSTALLATION**)
78. **INSTALL REAR DOOR OPENING TRIM WEATHERSTRIP LH** (See **INSTALLATION**)
79. **INSTALL REAR DOOR SCUFF PLATE LH** (See **INSTALLATION**)
80. **INSTALL CENTER PILLAR GARNISH RH**

    HINT:

    Use the same procedure for the RH side and the LH side.

81. **CONNECT FRONT SEAT OUTER BELT ASSEMBLY RH**

    HINT:

    Use the same procedure for the RH side and the LH side.

82. **INSTALL LOWER CENTER PILLAR GARNISH RH**

    HINT:

    Use the same procedure for the RH side and the LH side.

83. **INSTALL REAR DOOR OPENING TRIM WEATHERSTRIP RH** (See **INSTALLATION**)
84. **INSTALL REAR DOOR SCUFF PLATE RH**

    HINT:

    Use the same procedure for the RH side and the LH side.

85. **INSTALL REAR NO. 1 SEAT ASSEMBLY LH** (See **INSTALLATION**)

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86. **CONNECT REAR NO. 1 SEAT LOCK CABLE ASSEMBLY LH (w/ Remote Folding Function)** (See **INSTALLATION**)
87. **INSPECT REAR SEAT SLIDE ADJUSTER LOCK (for LH Side)** (See **INSTALLATION**)
88. **INSTALL REAR SEAT LEG SIDE COVER LH** (See **INSTALLATION**)
89. **INSTALL REAR INNER TRACK BRACKET COVER LH** (See **INSTALLATION**)
90. **INSTALL REAR OUTER TRACK BRACKET COVER LH** (See **INSTALLATION**)
91. **INSTALL REAR SEAT TRACK BRACKET COVER LH** (See **INSTALLATION**)
92. **INSTALL REAR SEAT HEADREST ASSEMBLY (for LH Side)** (See **INSTALLATION**)
93. **INSTALL REAR CENTER SEAT ASSEMBLY**
94. **INSTALL REAR NO. 1 SEAT ASSEMBLY RH** (See **INSTALLATION**)
95. **CONNECT REAR NO. 1 SEAT LOCK CABLE ASSEMBLY RH (w/ Remote Folding Function)** (See **INSTALLATION**)
96. **INSPECT REAR SEAT SLIDE ADJUSTER LOCK (for RH Side)** (See **INSTALLATION**)
97. **INSTALL REAR SEAT LEG SIDE COVER RH** (See **INSTALLATION**)
98. **INSTALL REAR INNER TRACK BRACKET COVER RH** (See **INSTALLATION**)
99. **INSTALL REAR OUTER TRACK BRACKET COVER RH** (See **INSTALLATION**)
100. **INSTALL REAR SEAT TRACK BRACKET COVER RH** (See **INSTALLATION**)
101. **INSTALL REAR SEAT HEADREST ASSEMBLY (for RH Side)** (See **INSTALLATION**)
102. **INSTALL ANTENNA CORD SUB-ASSEMBLY**
    a. Engage the 9 clamps and install the antenna cord sub-assembly.

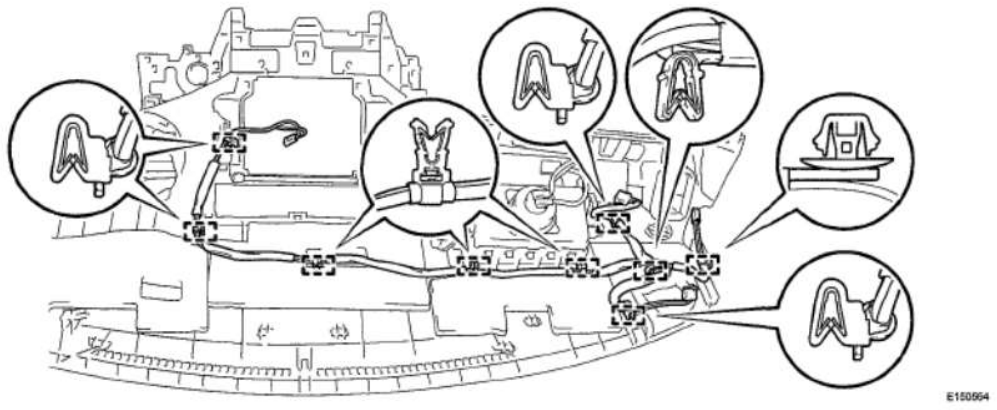


Fig. 201: Identifying Antenna Cord Sub-Assembly Clamps
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

103. **INSTALL NAVIGATION ANTENNA ASSEMBLY (w/ Navigation System)** (See **INSTALLATION**)
104. **INSTALL CENTER HEATER TO REGISTER SUB DUCT** (See **REASSEMBLY**)
105. **INSTALL DEFROSTER NOZZLE ASSEMBLY** (See **REASSEMBLY**)
106. **INSTALL SIDE NO. 2 DEFROSTER NOZZLE DUCT** (See **REASSEMBLY**)

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107. **INSTALL SIDE NO. 1 DEFROSTER NOZZLE DUCT** (See **REASSEMBLY**)
108. **INSTALL NO. 4 HEATER TO REGISTER DUCT** (See **INSTALLATION**)
109. **INSTALL NO. 1 HEATER TO REGISTER DUCT** (See **INSTALLATION**)
110. **INSTALL INSTRUMENT PANEL SAFETY PAD ASSEMBLY** (See **INSTALLATION**)
111. **CONNECT INSTRUMENT PANEL WIRE ASSEMBLY** (See **INSTALLATION**)
112. **INSTALL FRONT NO. 2 SPEAKER ASSEMBLY (for LH Side)** (See **REMOVAL**)
113. **INSTALL NO. 1 INSTRUMENT PANEL SPEAKER PANEL SUB-ASSEMBLY** (See **INSTALLATION**)
114. **INSTALL FRONT NO. 2 SPEAKER ASSEMBLY (for RH Side)**

    HINT:

    Use the same procedure for the RH side and the LH side.

115. **INSTALL NO. 2 INSTRUMENT PANEL SPEAKER PANEL SUB-ASSEMBLY** (See **INSTALLATION**)
116. **INSTALL FRONT PILLAR GARNISH LH** (See **INSTALLATION**)
117. **INSTALL FRONT DOOR OPENING TRIM WEATHERSTRIP LH** (See **INSTALLATION**)
118. **INSTALL FRONT PILLAR GARNISH RH** (See **INSTALLATION**)
119. **INSTALL FRONT DOOR OPENING TRIM WEATHERSTRIP RH** (See **INSTALLATION**)
120. **INSTALL ENGINE SWITCH (w/ Smart Key System)** (See **INSTALLATION**)
121. **INSTALL FRONT NO. 2 CONSOLE BOX INSERT** (See **INSTALLATION**)
122. **INSTALL FRONT NO. 1 CONSOLE BOX INSERT** (See **INSTALLATION**)
123. **INSTALL CONSOLE BOX ASSEMBLY (w/o Rear Air Conditioning System)** (See **INSTALLATION**)
124. **INSTALL CONSOLE BOX ASSEMBLY (w/ Rear Air Conditioning System)** (See **INSTALLATION**)
125. **INSTALL LOWER REAR CONSOLE BOX** (See **INSTALLATION**)
126. **INSTALL NO. 2 CONSOLE BOX DUCT (w/o Rear Air Conditioning System)** (See **INSTALLATION**)
127. **INSTALL UPPER CONSOLE PANEL SUB-ASSEMBLY** (See **INSTALLATION**)
128. **INSTALL LOWER INSTRUMENT PANEL SUB-ASSEMBLY** (See **INSTALLATION**)
129. **INSTALL NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY** (See **INSTALLATION**)
130. **INSTALL LOWER INSTRUMENT PANEL FINISH PANEL SUB-ASSEMBLY (for Manual Air Conditioning System)** (See **INSTALLATION**)
131. **INSTALL LOWER INSTRUMENT PANEL FINISH PANEL SUB-ASSEMBLY (for Automatic Air Conditioning System)** (See **INSTALLATION**)
132. **INSTALL COWL SIDE TRIM SUB-ASSEMBLY LH** (See **INSTALLATION**)
133. **INSTALL FRONT DOOR SCUFF PLATE LH** (See **INSTALLATION**)

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134. **INSTALL COWL SIDE TRIM SUB-ASSEMBLY RH**

HINT:

Use the same procedure for the RH side and the LH side.

135. **INSTALL FRONT DOOR SCUFF PLATE RH**

HINT:

Use the same procedure for the RH side and the LH side.

136. **INSTALL RADIO RECEIVER ASSEMBLY WITH BRACKET (w/o Navigation System)** (See **STEREO COMPONENT AMPLIFIER**)
137. **INSTALL NAVIGATION RECEIVER ASSEMBLY WITH BRACKET (w/ Navigation System)** (See **INSTALLATION**)
138. **INSTALL HEATER CONTROL AND ACCESSORY ASSEMBLY (for Manual Air Conditioning System)** (See **AIR CONDITIONING PANEL (FOR MANUAL AIR CONDITIONING SYSTEM)**)
139. **INSTALL AIR CONDITIONING CONTROL ASSEMBLY (for Automatic Air Conditioning System)** (See **REMOVAL**)
140. **INSTALL CENTER INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY (w/o Smart Key System)** (See **INSTALLATION**)
141. **INSTALL CENTER INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY (w/ Smart Key System)** (See **INSTALLATION**)
142. **INSTALL CENTER INSTRUMENT PANEL REGISTER ASSEMBLY** (See **INSTALLATION**)
143. **INSTALL COMBINATION METER ASSEMBLY** (See **REASSEMBLY**)
144. **INSTALL INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY** (See **REASSEMBLY**)
145. **POSITION FRONT WHEELS STRAIGHT AHEAD**
146. **INSTALL TURN SIGNAL SWITCH ASSEMBLY WITH SPIRAL CABLE SUB-ASSEMBLY** (See **INSTALLATION**)
147. **INSTALL STEERING COLUMN COVER** (See **INSTALLATION**)
148. **ADJUST SPIRAL CABLE SUB-ASSEMBLY** (See **INSTALLATION**)
149. **INSTALL STEERING WHEEL ASSEMBLY** (See **INSTALLATION**)
150. **INSPECT STEERING WHEEL CENTER POINT**
151. **INSTALL STEERING PAD** (See **INSTALLATION**)
152. **INSTALL LOWER NO. 2 STEERING WHEEL COVER** (See **INSTALLATION**)
153. **INSTALL LOWER NO. 3 STEERING WHEEL COVER** (See **INSTALLATION**)
154. **CONNECT CABLE TO NEGATIVE BATTERY TERMINAL**

NOTE: **When disconnecting the cable, some systems need to be initialized after the cable is reconnected (See INITIALIZATION).**

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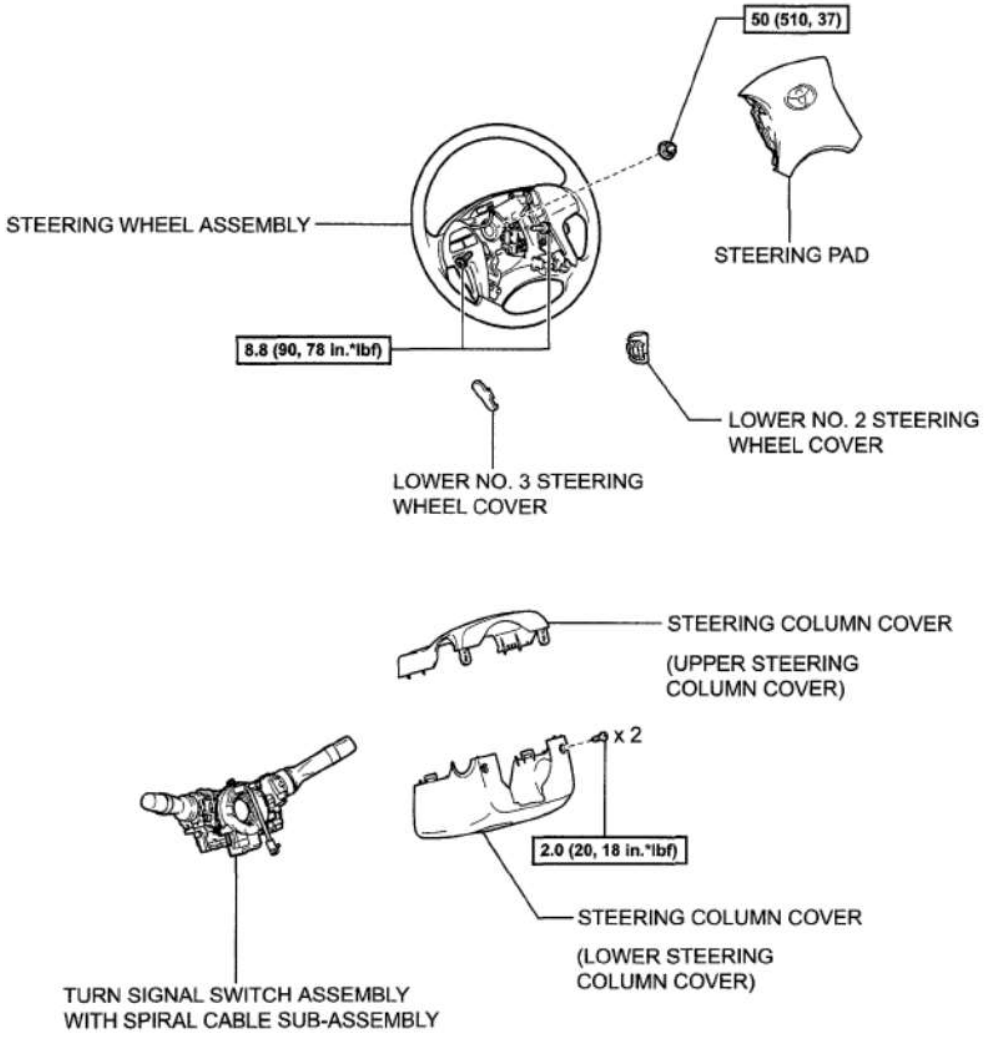
155. **INSPECT STEERING PAD** (See **INSTALLATION**)

156. **INSPECT SRS WARNING LIGHT**

(See **DIAGNOSIS SYSTEM**)

RADIO ANTENNA CORD (FOR POLE ANTENNA TYPE)

COMPONENTS



N*m (kgf*cm, ft.*lbf): Specified torque

P

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Fig. 202: Identifying Radio Antenna Cord (For Pole Antenna Type) Components With Torque Specifications (1 Of 10)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

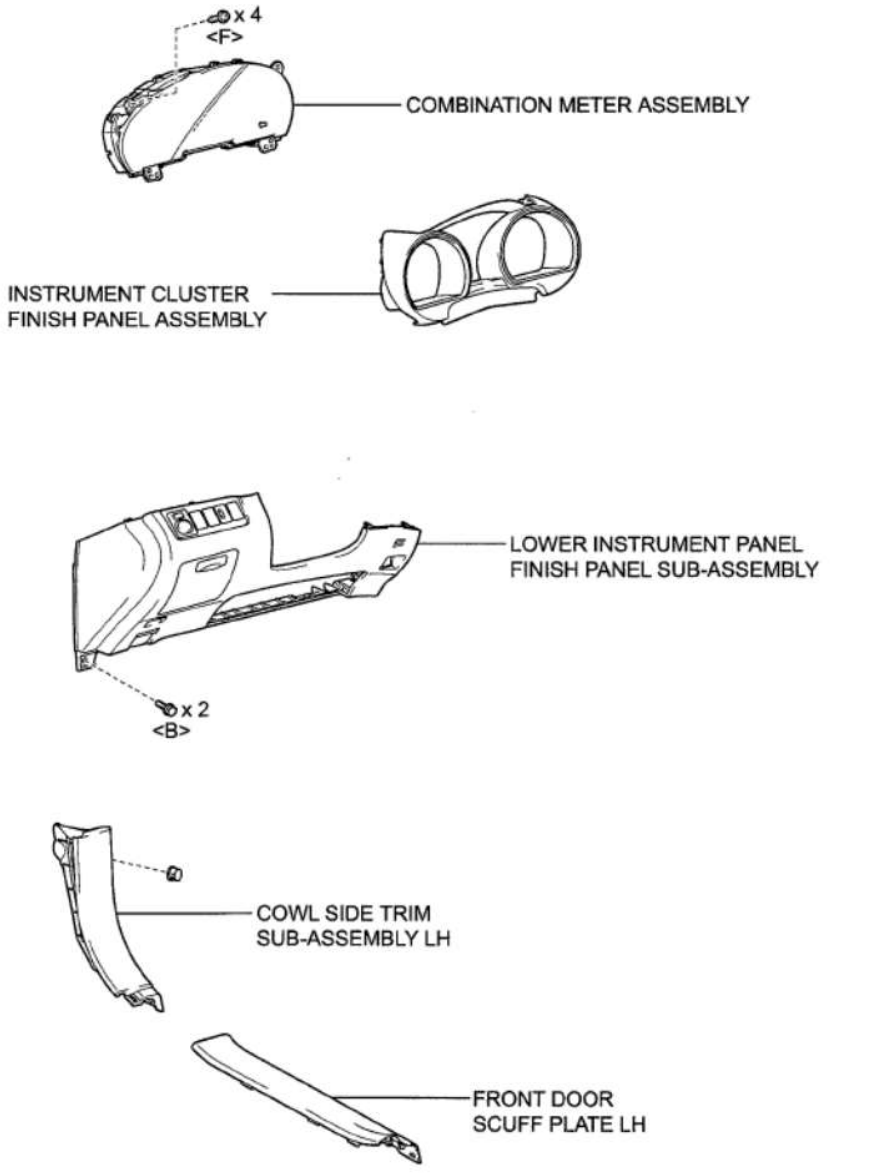


Fig. 203: Identifying Radio Antenna Cord (For Pole Antenna Type) Components (2 Of 10)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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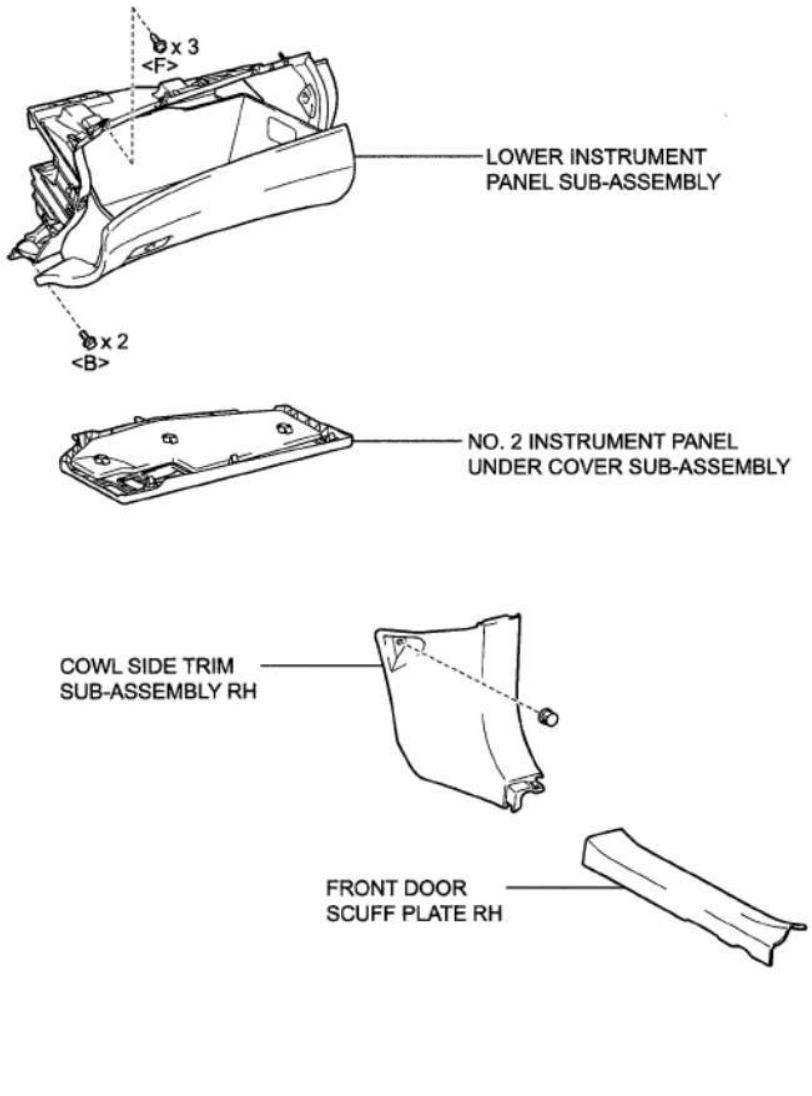


Fig. 204: Identifying Radio Antenna Cord (For Pole Antenna Type) Components (3 Of 10)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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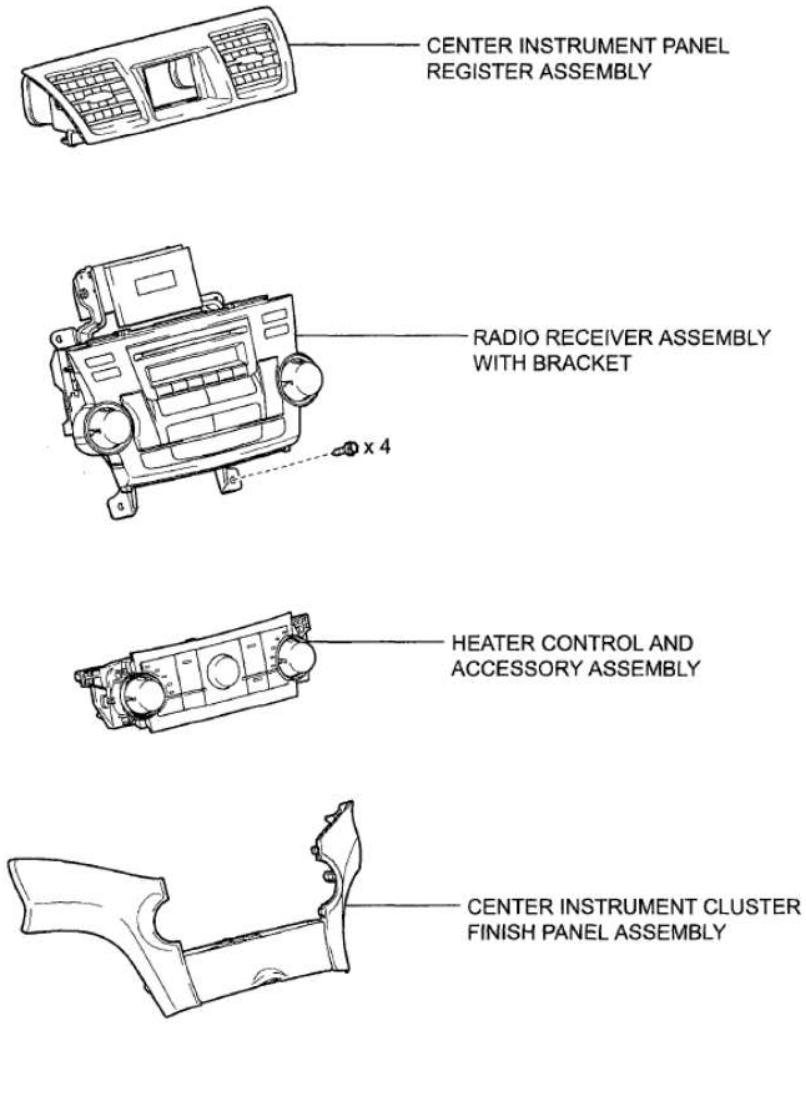


Fig. 205: Identifying Radio Antenna Cord (For Pole Antenna Type) Components (4 Of 10)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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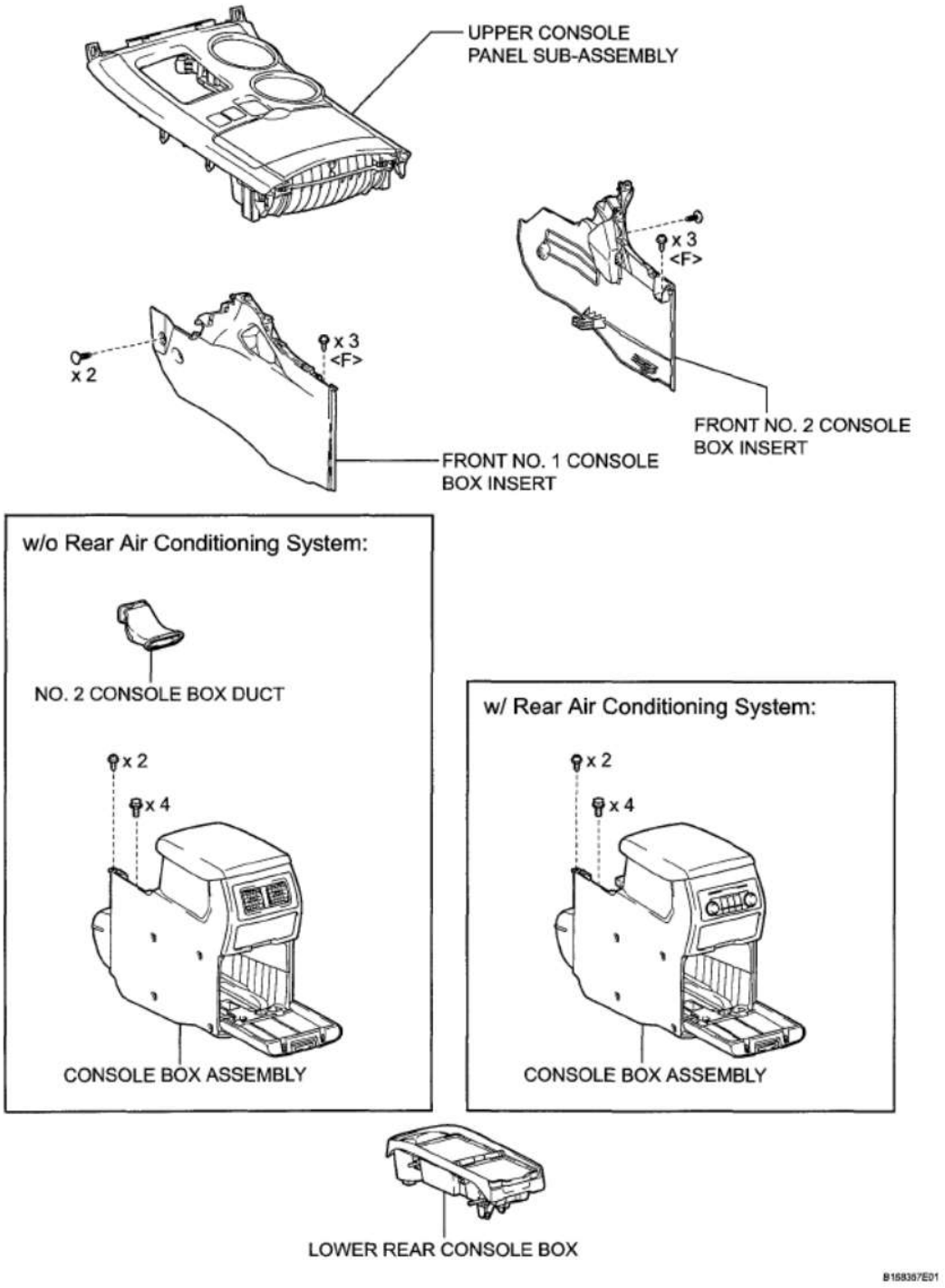


Fig. 206: Identifying Radio Antenna Cord (For Pole Antenna Type) Components (5 Of 10)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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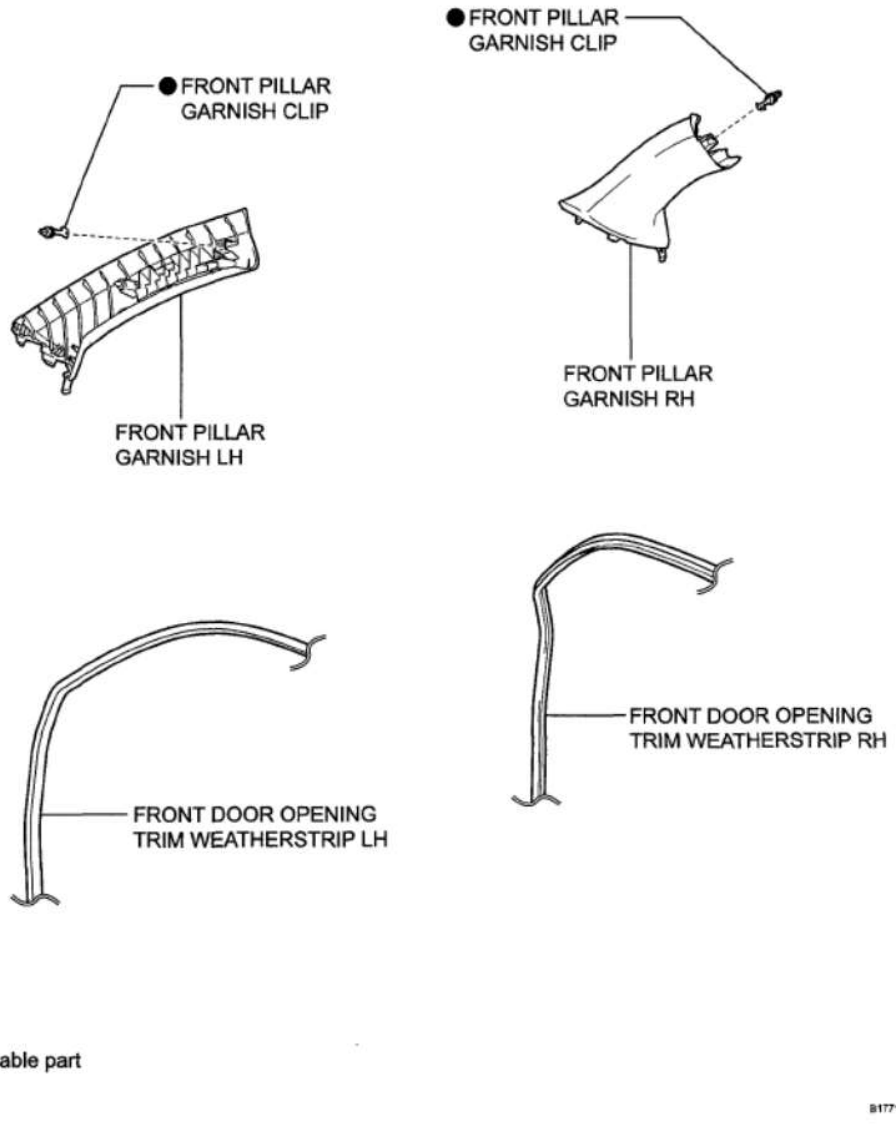
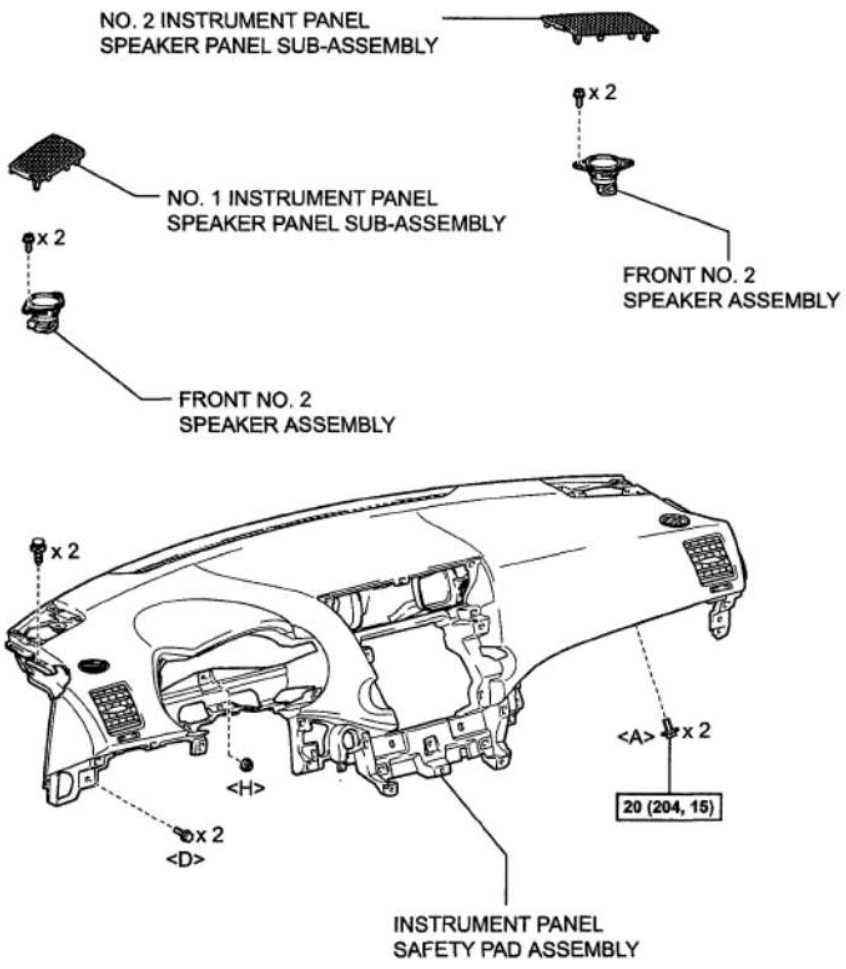


Fig. 207: Identifying Radio Antenna Cord (For Pole Antenna Type) Components (6 Of 10)
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N*m (kgf*cm, ft.*lbf): Specified torque

● Non-reusable part

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Fig. 208: Identifying Radio Antenna Cord (For Pole Antenna Type) Components With Torque Specifications (7 Of 10)

Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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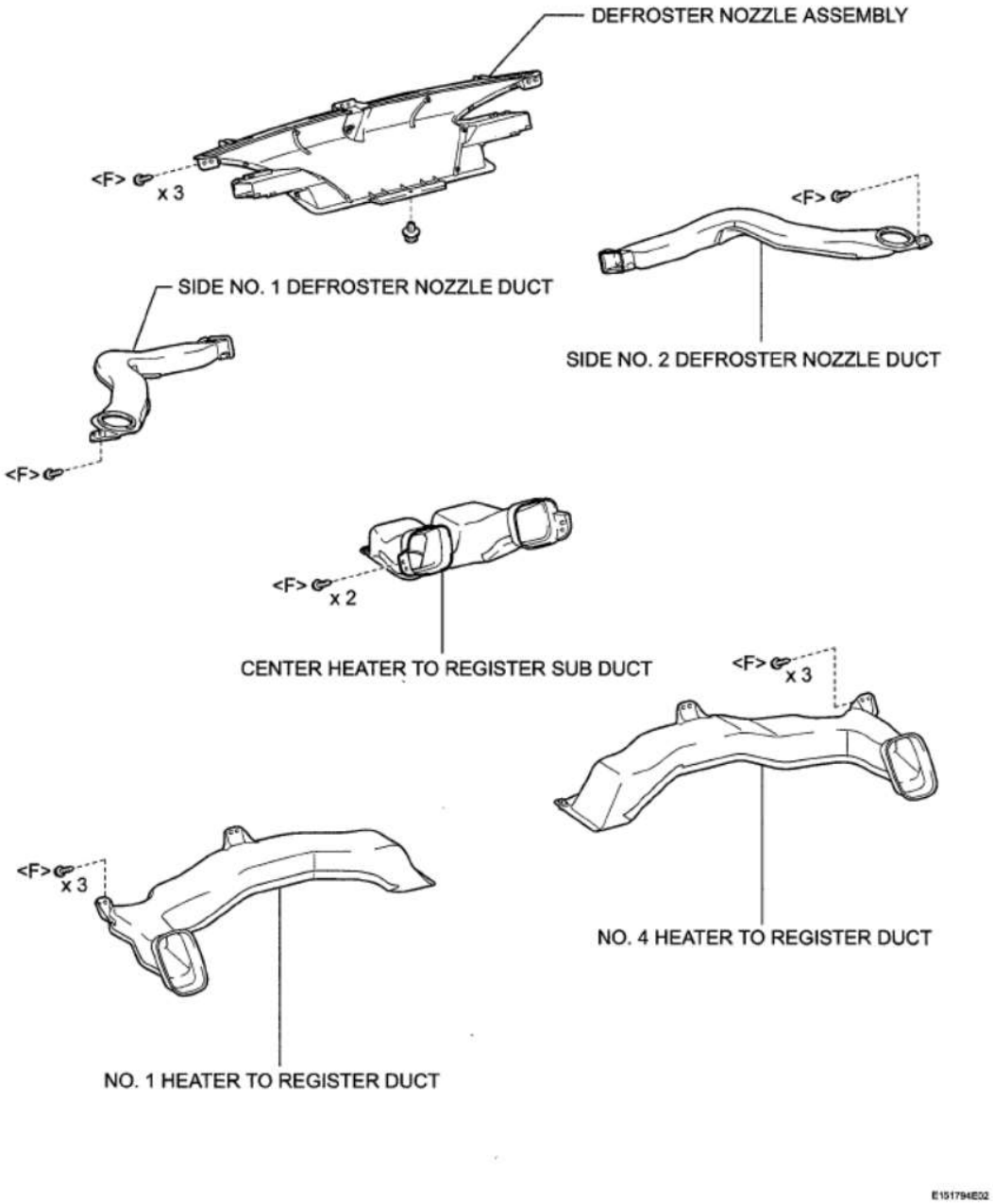
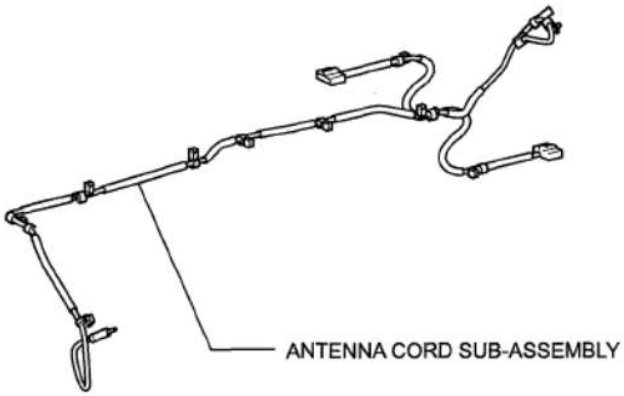


Fig. 209: Identifying Radio Antenna Cord (For Pole Antenna Type) Components (8 Of 10)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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Fig. 210: Identifying Radio Antenna Cord (For Pole Antenna Type) Components (9 Of 10)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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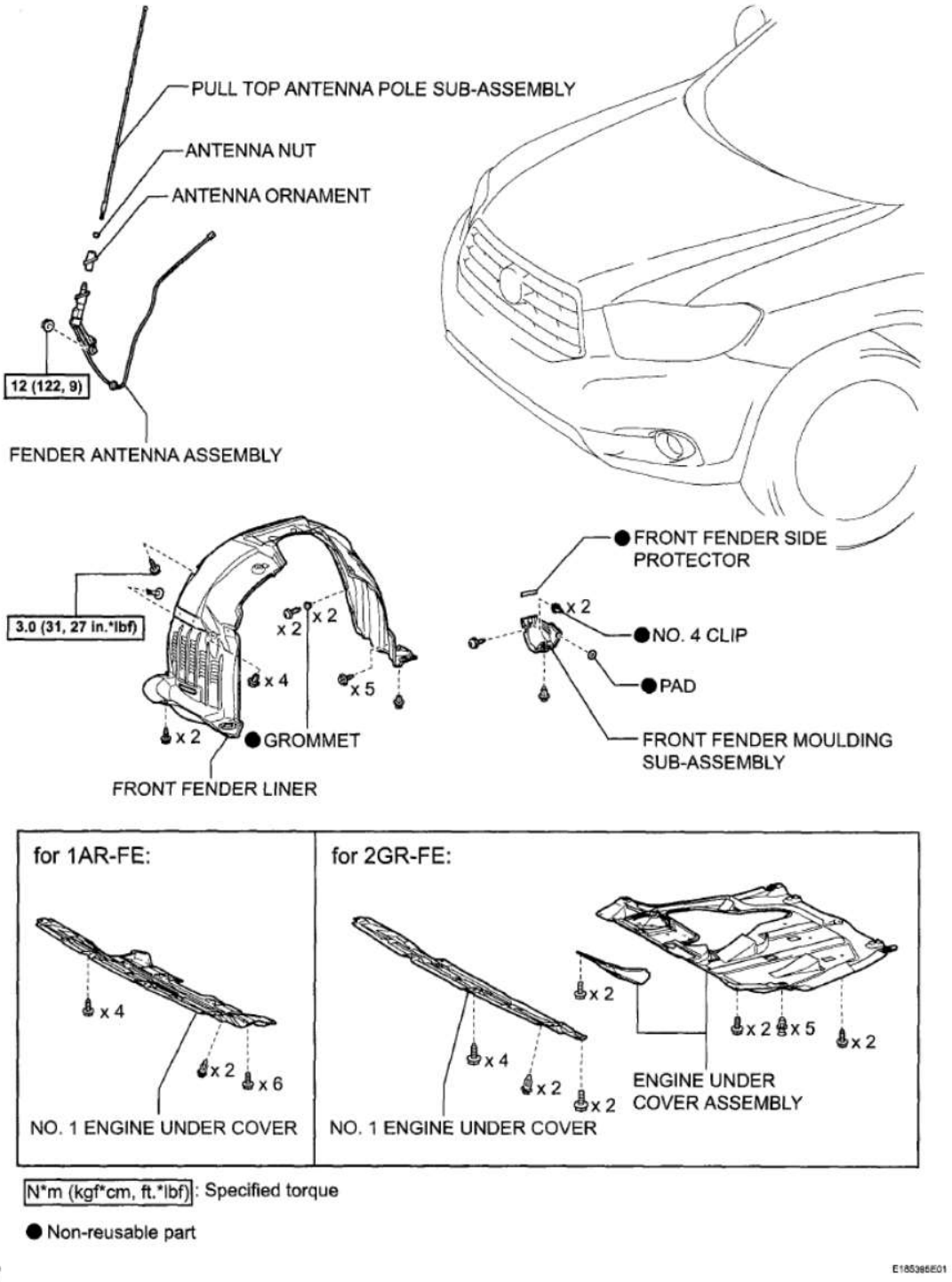


Fig. 211: Identifying Radio Antenna Cord (For Pole Antenna Type) Components With Torque Specifications (10 Of 10)
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REMOVAL

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1. **PRECAUTION**

   (See **INSTRUMENT PANEL SAFETY PAD**)

2. **POSITION FRONT WHEELS STRAIGHT AHEAD**
3. **DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL**

   CAUTION: Wait for 90 seconds after disconnecting the cable to prevent airbag deployment (See AIRBAG SYSTEM).

   NOTE: When disconnecting the cable, some systems need to be initialized after the cable is reconnected (See INITIALIZATION).

4. **REMOVE LOWER NO. 3 STEERING WHEEL COVER** (See **REMOVAL**)
5. **REMOVE LOWER NO. 2 STEERING WHEEL COVER** (See **REMOVAL**)
6. **REMOVE STEERING PAD** (See **REMOVAL**)
7. **REMOVE STEERING WHEEL ASSEMBLY** (See **DISASSEMBLY**)
8. **REMOVE STEERING COLUMN COVER** (See **REMOVAL**)
9. **REMOVE TURN SIGNAL SWITCH ASSEMBLY WITH SPIRAL CABLE SUB-ASSEMBLY** (See **REMOVAL**)
10. **REMOVE INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY** (See **REMOVAL**)
11. **REMOVE COMBINATION METER ASSEMBLY** (See **REMOVAL**)
12. **REMOVE CENTER INSTRUMENT PANEL REGISTER ASSEMBLY** (See **REMOVAL**)
13. **REMOVE CENTER INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY** (See **REMOVAL**)
14. **REMOVE HEATER CONTROL AND ACCESSORY ASSEMBLY** (See **AIR CONDITIONING PANEL (FOR MANUAL AIR CONDITIONING SYSTEM)**)
15. **REMOVE RADIO RECEIVER ASSEMBLY WITH BRACKET** (See **REMOVAL**)
16. **REMOVE FRONT DOOR SCUFF PLATE LH** (See **REMOVAL**)
17. **REMOVE COWL SIDE TRIM SUB-ASSEMBLY LH** (See **REMOVAL**)
18. **REMOVE LOWER INSTRUMENT PANEL FINISH PANEL SUB-ASSEMBLY** (See **REMOVAL**)
19. **REMOVE FRONT DOOR SCUFF PLATE RH**

    HINT:

    Use the same procedure for the RH side and the LH side.

20. **REMOVE COWL SIDE TRIM SUB-ASSEMBLY RH**

    HINT:

    Use the same procedure for the RH side and the LH side.

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21. **REMOVE NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY** (See **REMOVAL**)
22. **REMOVE LOWER INSTRUMENT PANEL SUB-ASSEMBLY** (See **REMOVAL**)
23. **REMOVE UPPER CONSOLE PANEL SUB-ASSEMBLY** (See **REMOVAL**)
24. **REMOVE NO. 2 CONSOLE BOX DUCT (w/o Rear Air Conditioning System)** (See **REMOVAL**)
25. **REMOVE LOWER REAR CONSOLE BOX** (See **REMOVAL**)
26. **REMOVE CONSOLE BOX ASSEMBLY (w/o Rear Air Conditioning System)** (See **REMOVAL**)
27. **REMOVE CONSOLE BOX ASSEMBLY (w/ Rear Air Conditioning System)** (See **DISASSEMBLY**)
28. **REMOVE FRONT NO. 1 CONSOLE BOX INSERT** (See **REMOVAL**)
29. **REMOVE FRONT NO. 2 CONSOLE BOX INSERT** (See **REMOVAL**)
30. **DISCONNECT FRONT DOOR OPENING TRIM WEATHERSTRIP LH**
31. **REMOVE FRONT PILLAR GARNISH LH** (See **REMOVAL**)
32. **DISCONNECT FRONT DOOR OPENING TRIM WEATHERSTRIP RH**
33. **REMOVE FRONT PILLAR GARNISH RH** (See **REMOVAL**)
34. **REMOVE NO. 1 INSTRUMENT PANEL SPEAKER PANEL SUB-ASSEMBLY** (See **REMOVAL**)
35. **REMOVE FRONT NO. 2 SPEAKER ASSEMBLY (for LH Side)** (See **REMOVAL**)
36. **REMOVE NO. 2 INSTRUMENT PANEL SPEAKER PANEL SUB-ASSEMBLY** (See **REMOVAL**)
37. **REMOVE FRONT NO. 2 SPEAKER ASSEMBLY (for RH Side)**

    HINT:

    Use the same procedure for the RH side and the LH side.

38. **DISCONNECT INSTRUMENT PANEL WIRE ASSEMBLY** (See **REMOVAL**)
39. **REMOVE INSTRUMENT PANEL SAFETY PAD ASSEMBLY** (See **REMOVAL**)
40. **REMOVE NO. 1 HEATER TO REGISTER DUCT** (See **DISASSEMBLY**)
41. **REMOVE NO. 4 HEATER TO REGISTER DUCT** (See **DISASSEMBLY**)
42. **REMOVE SIDE NO. 1 DEFROSTER NOZZLE DUCT** (See **DISASSEMBLY**)
43. **REMOVE SIDE NO. 2 DEFROSTER NOZZLE DUCT** (See **DISASSEMBLY**)
44. **REMOVE DEFROSTER NOZZLE ASSEMBLY** (See **DISASSEMBLY**)
45. **REMOVE CENTER HEATER TO REGISTER SUB DUCT** (See **DISASSEMBLY**)
46. **REMOVE ANTENNA CORD SUB-ASSEMBLY**
    a. Disengage the 9 clamps and remove the antenna cord sub-assembly.

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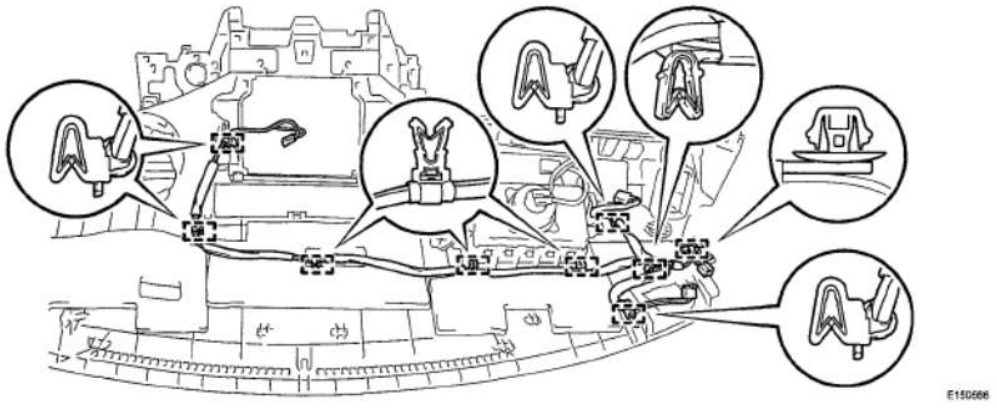


Fig. 212: Identifying Antenna Cord Sub-Assembly Clamps
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

47. **REMOVE ENGINE UNDER COVER ASSEMBLY (for 2GR-FE)** (See **REMOVAL**)
48. **REMOVE NO. 1 ENGINE UNDER COVER**
49. **REMOVE FRONT FENDER MOULDING SUB-ASSEMBLY**

HINT:

Use the same procedure for the RH side and the LH side (See **REMOVAL**).

50. **REMOVE FRONT FENDER LINER** (See **REMOVAL**)
51. **REMOVE PULL TOP ANTENNA POLE SUB-ASSEMBLY** (See **RADIO ANTENNA POLE**)
52. **REMOVE ANTENNA NUT**
    a. Remove the antenna nut.
53. **REMOVE FENDER ANTENNA ASSEMBLY**
    a. Roll up part of the insulator.

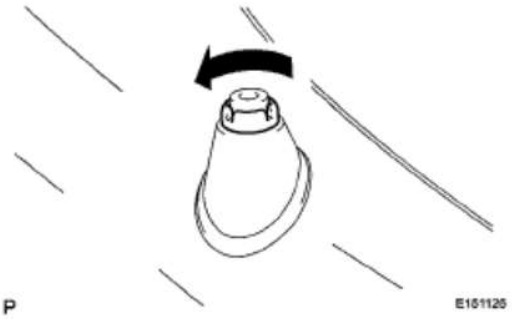


Fig. 213: Removing Antenna Nut
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

    b. Disengage the 3 clamps.

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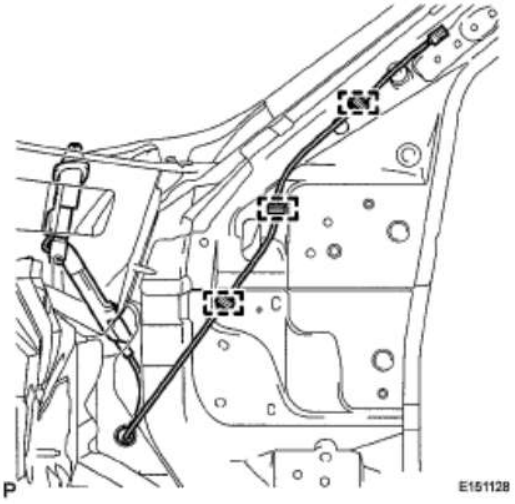


Fig. 214: Identifying Fender Antenna Assembly Clamps
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

c. Remove the nut and fender antenna assembly.

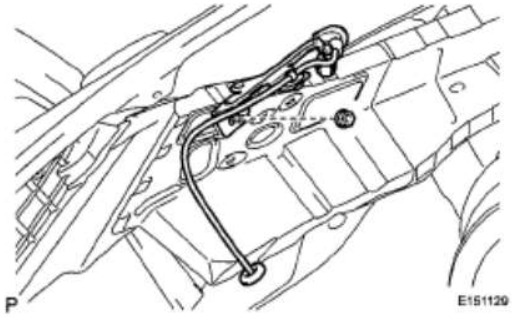


Fig. 215: Identifying Fender Antenna Assembly Nut
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

54. **REMOVE ANTENNA ORNAMENT**

a. Remove the antenna ornament.

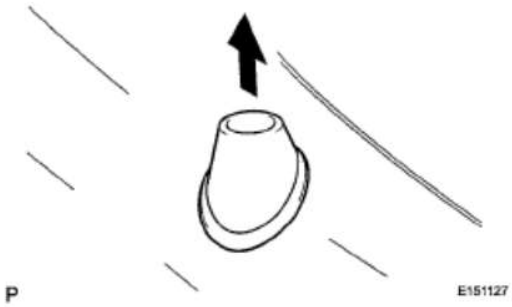


Fig. 216: Removing Antenna Ornament

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Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSTALLATION

1. **INSTALL ANTENNA ORNAMENT**
   a. Install the antenna ornament.

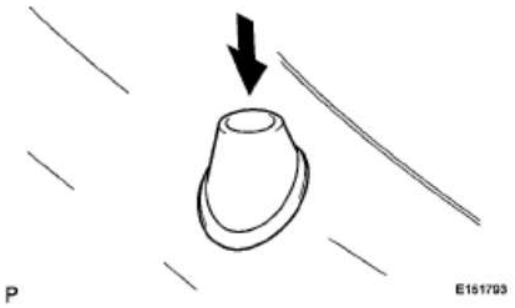


Fig. 217: Installing Antenna Ornament
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

2. **INSTALL FENDER ANTENNA ASSEMBLY**
   a. Install the fender antenna assembly with the nut.

Torque: 12 N*m (122 kgf*cm, 9 ft.*lbf)

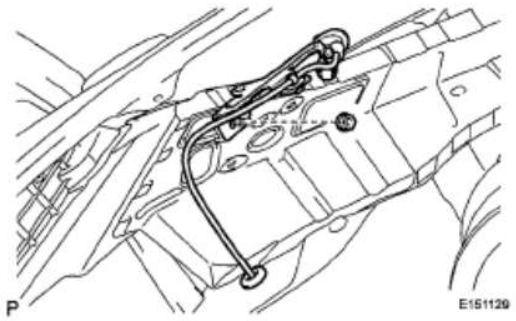


Fig. 218: Identifying Fender Antenna Assembly Nut
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

   b. Engage the 3 clamps.
   c. Put back the insulator.

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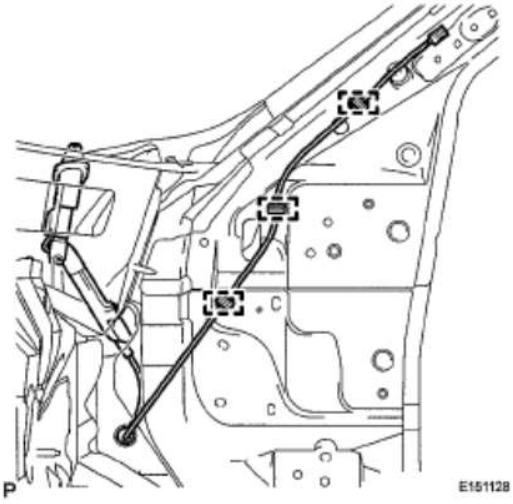


Fig. 219: Identifying Fender Antenna Assembly Clamps
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

3. **INSTALL ANTENNA NUT**
   a. Install the antenna nut.
4. **INSTALL PULL TOP ANTENNA POLE SUB-ASSEMBLY** (See **INSTALLATION**)
5. **INSTALL FRONT FENDER LINER** (See **INSTALLATION**)
6. **INSTALL FRONT FENDER MOULDING SUB-ASSEMBLY**

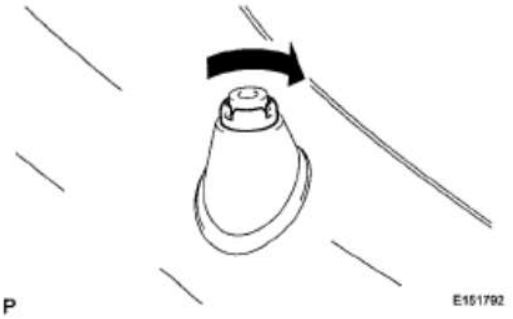


Fig. 220: Installing Antenna Nut
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

HINT:

Use the same procedure for the RH side and the LH side (See **INSTALLATION**).

7. **INSTALL NO. 1 ENGINE UNDER COVER**
8. **INSTALL ENGINE UNDER COVER ASSEMBLY (for 2GR-FE)** (See **INSTALLATION**)
9. **INSTALL ANTENNA CORD SUB-ASSEMBLY**
   a. Engage the 9 clamps and install the antenna cord sub-assembly.

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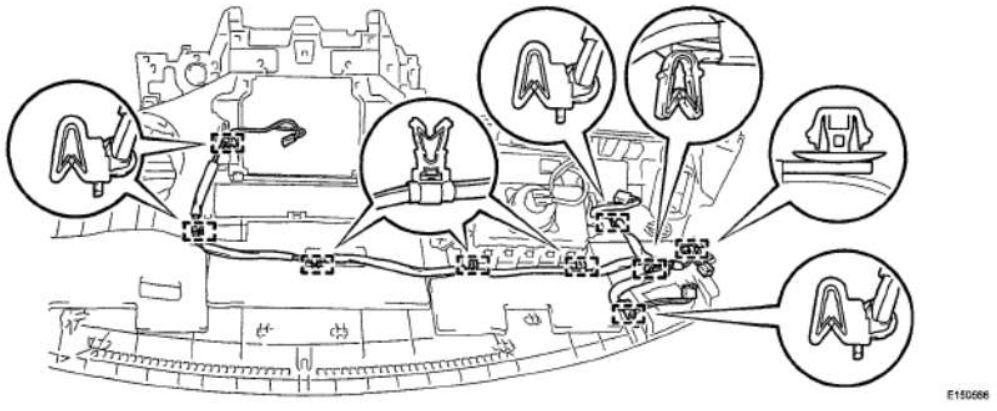


Fig. 221: Identifying Antenna Cord Sub-Assembly Clamps
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

10. **INSTALL CENTER HEATER TO REGISTER SUB DUCT** (See **REASSEMBLY**)
11. **INSTALL DEFROSTER NOZZLE ASSEMBLY** (See **REASSEMBLY**)
12. **INSTALL SIDE NO. 2 DEFROSTER NOZZLE DUCT** (See **REASSEMBLY**)
13. **INSTALL SIDE NO. 1 DEFROSTER NOZZLE DUCT** (See **REASSEMBLY**)
14. **INSTALL NO. 4 HEATER TO REGISTER DUCT** (See **INSTALLATION**)
15. **INSTALL NO. 1 HEATER TO REGISTER DUCT** (See **INSTALLATION**)
16. **INSTALL INSTRUMENT PANEL SAFETY PAD ASSEMBLY** (See **INSTALLATION**)
17. **CONNECT INSTRUMENT PANEL WIRE ASSEMBLY** (See **INSTALLATION**)
18. **INSTALL FRONT NO. 2 SPEAKER ASSEMBLY (for LH Side)** (See **REMOVAL**)
19. **INSTALL NO. 1 INSTRUMENT PANEL SPEAKER PANEL SUB-ASSEMBLY** (See **INSTALLATION**)
20. **INSTALL FRONT NO. 2 SPEAKER ASSEMBLY (for RH Side)**

    HINT:

    Use the same procedure for the RH side and the LH side.

21. **INSTALL NO. 2 INSTRUMENT PANEL SPEAKER PANEL SUB-ASSEMBLY** (See **INSTALLATION**)
22. **INSTALL FRONT PILLAR GARNISH LH** (See **INSTALLATION**)
23. **INSTALL FRONT DOOR OPENING TRIM WEATHERSTRIP LH** (See **INSTALLATION**)
24. **INSTALL FRONT PILLAR GARNISH RH** (See **INSTALLATION**)
25. **INSTALL FRONT DOOR OPENING TRIM WEATHERSTRIP RH** (See **INSTALLATION**)
26. **INSTALL FRONT NO. 2 CONSOLE BOX INSERT** (See **INSTALLATION**)
27. **INSTALL FRONT NO. 1 CONSOLE BOX INSERT** (See **INSTALLATION**)
28. **INSTALL CONSOLE BOX ASSEMBLY (w/o Rear Air Conditioning System)** (See **INSTALLATION**)

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29. **INSTALL CONSOLE BOX ASSEMBLY (w/ Rear Air Conditioning System)** (See **INSTALLATION**)
30. **INSTALL LOWER REAR CONSOLE BOX** (See **INSTALLATION**)
31. **INSTALL NO. 2 CONSOLE BOX DUCT (w/o Rear Air Conditioning System)** (See **INSTALLATION**)
32. **INSTALL UPPER CONSOLE PANEL SUB-ASSEMBLY** (See **INSTALLATION**)
33. **INSTALL LOWER INSTRUMENT PANEL SUB-ASSEMBLY** (See **INSTALLATION**)
34. **INSTALL NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY** (See **INSTALLATION**)
35. **INSTALL LOWER INSTRUMENT PANEL FINISH PANEL SUB-ASSEMBLY** (See **INSTALLATION**)
36. **INSTALL COWL SIDE TRIM SUB-ASSEMBLY LH** (See **INSTALLATION**)
37. **INSTALL FRONT DOOR SCUFF PLATE LH** (See **INSTALLATION**)
38. **INSTALL COWL SIDE TRIM SUB-ASSEMBLY RH**

    HINT:

    Use the same procedure for the RH side and the LH side.

39. **INSTALL FRONT DOOR SCUFF PLATE RH**

    HINT:

    Use the same procedure for the RH side and the LH side.

40. **INSTALL RADIO RECEIVER ASSEMBLY WITH BRACKET** (See **STEREO COMPONENT AMPLIFIER**)
41. **INSTALL HEATER CONTROL AND ACCESSORY ASSEMBLY** (See **AIR CONDITIONING PANEL (FOR MANUAL AIR CONDITIONING SYSTEM)**)
42. **INSTALL CENTER INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY** (See **INSTALLATION**)
43. **INSTALL CENTER INSTRUMENT PANEL REGISTER ASSEMBLY** (See **INSTALLATION**)
44. **INSTALL COMBINATION METER ASSEMBLY** (See **REASSEMBLY**)
45. **INSTALL INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY** (See **REASSEMBLY**)
46. **POSITION FRONT WHEELS STRAIGHT AHEAD**
47. **INSTALL TURN SIGNAL SWITCH ASSEMBLY WITH SPIRAL CABLE SUB-ASSEMBLY** (See **INSTALLATION**)
48. **INSTALL STEERING COLUMN COVER** (See **INSTALLATION**)
49. **ADJUST SPIRAL CABLE SUB-ASSEMBLY** (See **INSTALLATION**)
50. **INSTALL STEERING WHEEL ASSEMBLY** (See **INSTALLATION**)
51. **INSPECT STEERING WHEEL CENTER POINT**
52. **INSTALL STEERING PAD** (See **INSTALLATION**)

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53. **INSTALL LOWER NO. 3 STEERING WHEEL COVER** (See **INSTALLATION**)
54. **INSTALL LOWER NO. 2 STEERING WHEEL COVER** (See **INSTALLATION**)
55. **CONNECT CABLE TO NEGATIVE BATTERY TERMINAL**

NOTE: **When disconnecting the cable, some systems need to be initialized after the cable is reconnected (See INITIALIZATION).**

56. **INSPECT STEERING PAD** (See **INSTALLATION**)
57. **INSPECT SRS WARNING LIGHT**

(See **AIRBAG SYSTEM**)

RADIO ANTENNA CORD (FOR SATELLITE RADIO)

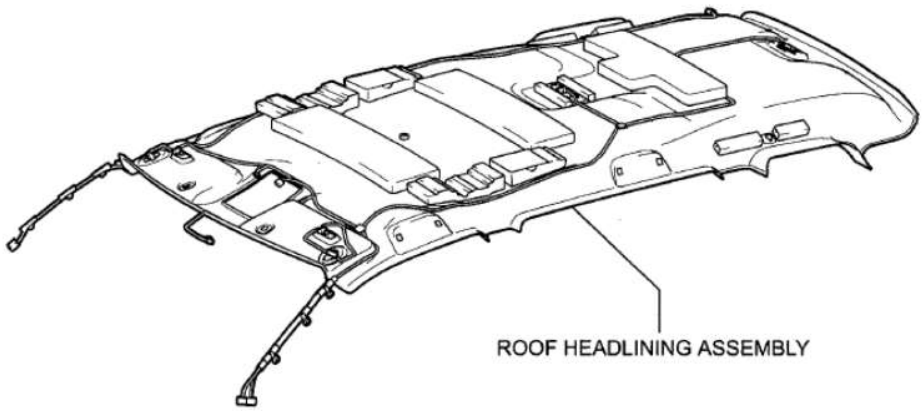
COMPONENTS

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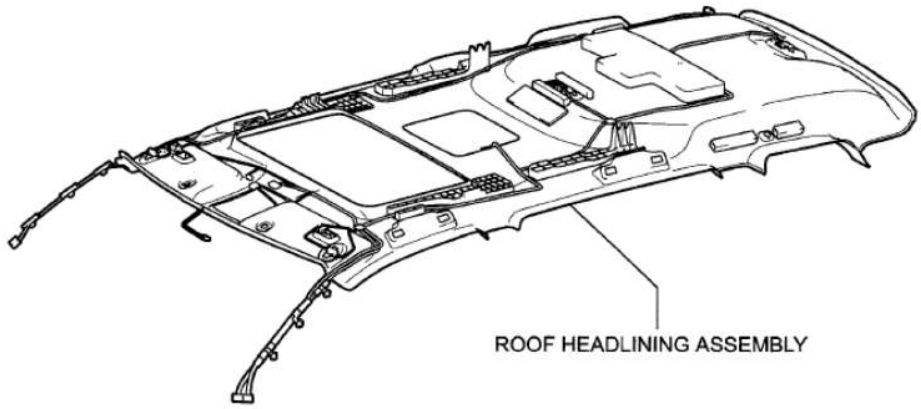
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w/o Sliding Roof:



w/ Sliding Roof:



P E173847E01

Fig. 222: Identifying Radio Antenna Cord (For Satellite Radio) Components (1 Of 2)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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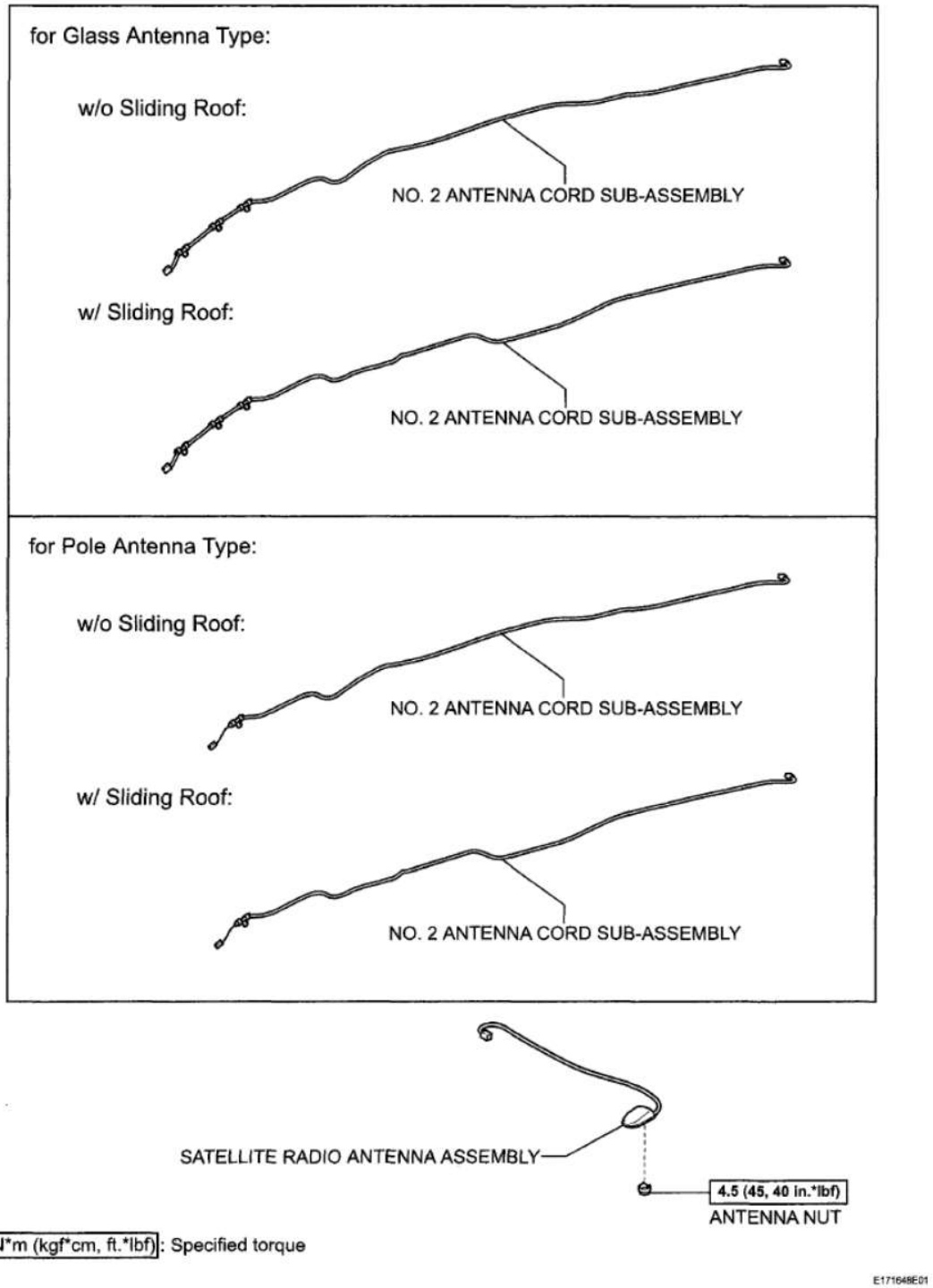


Fig. 223: Identifying Radio Antenna Cord (For Satellite Radio) Components (2 Of 2)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL

1. **REMOVE ROOF HEADLINING ASSEMBLY**

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Refer to the procedure up to Remove Roof Headlining Assembly (See **REMOVAL**).

2. **REMOVE NO. 2 ANTENNA CORD SUB-ASSEMBLY**
   a. Peel off the pieces of tape used to secure the antenna cord only enough to allow removal of the antenna cord.

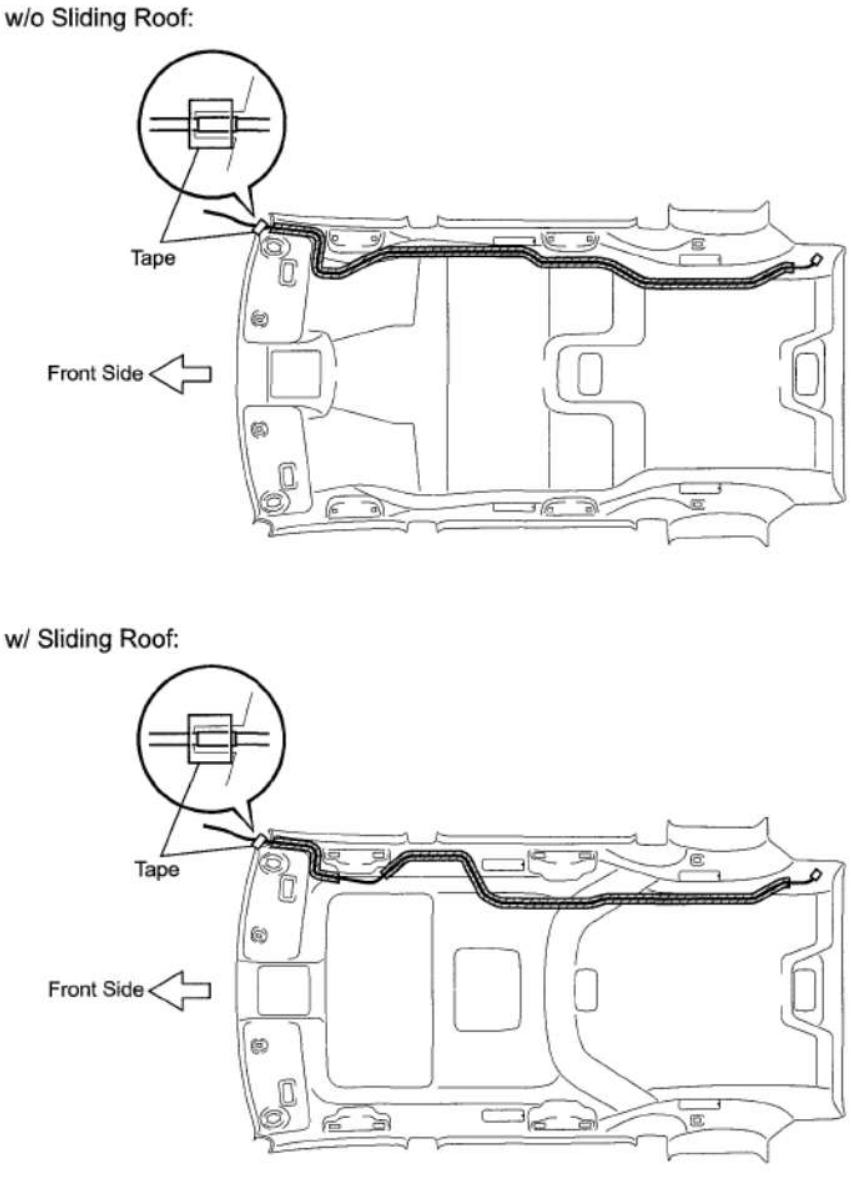


Fig. 224: Identifying Tape Location On No. 2 Antenna Cord Sub-Assembly (W/O Sliding Roof)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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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.

b. Remove the No. 2 antenna cord sub-assembly from the roof headlining.

3. **REMOVE SATELLITE RADIO ANTENNA ASSEMBLY**

a. Remove the antenna wire from the 3 clamps.

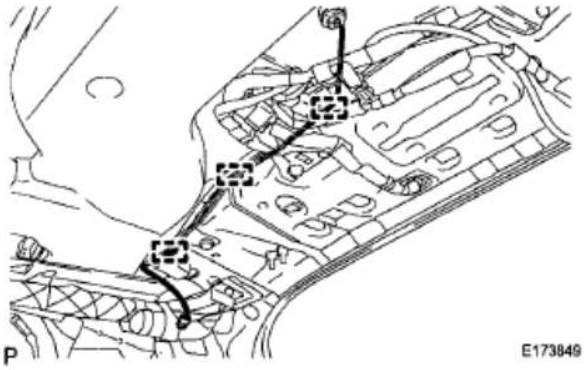


Fig. 225: Identifying Antenna Wire Clamps
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

b. Remove the antenna nut.

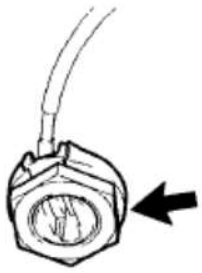


Fig. 226: Locating Antenna Nut
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

c. Disengage the 2 claws and remove the satellite radio antenna assembly.

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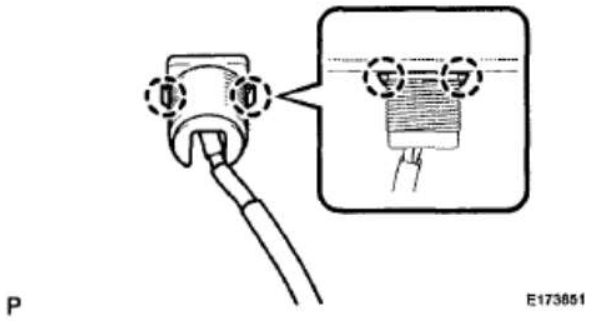


Fig. 227: Identifying Satellite Radio Antenna Assembly Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSTALLATION

1. **INSTALL SATELLITE RADIO ANTENNA ASSEMBLY**
   a. Engage the 2 claws to install the satellite radio antenna assembly.

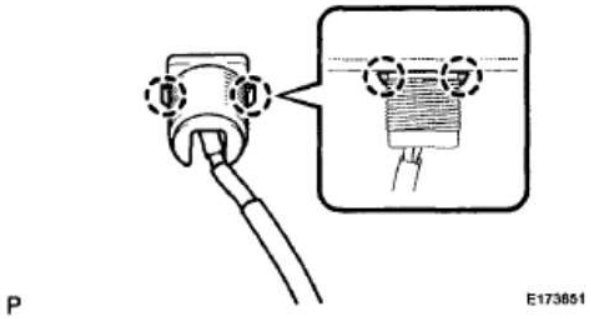
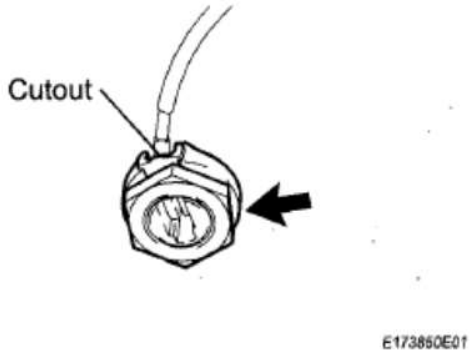


Fig. 228: Identifying Satellite Radio Antenna Assembly Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

   b. Place the antenna cord in the cutout of the antenna nut.
   c. Install the satellite radio antenna assembly with the antenna nut.

Torque: 4.5 N*m (45 kgf*cm, 40 in.*lbf)



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Fig. 229: Locating Antenna Nut With Cutout
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

d. Install the antenna wire to the 3 clamps.

2. **INSTALL NO. 2 ANTENNA CORD SUB-ASSEMBLY (for Glass Antenna Type)**

HINT:

The double-sided tape and tape are not available as supply parts. If they still have enough adhesion to secure the roof headlining and antenna cord, reuse them. 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.

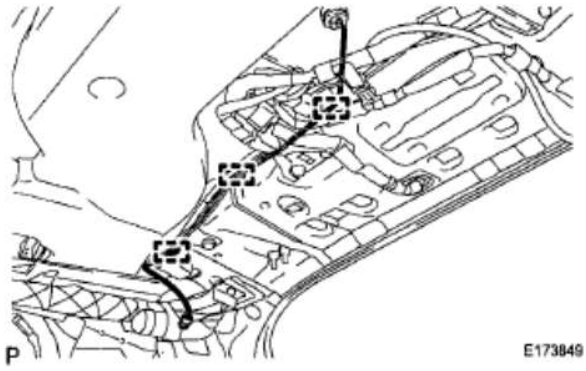


Fig. 230: Identifying Antenna Wire Clamps
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

a. Apply new double-sided tape.

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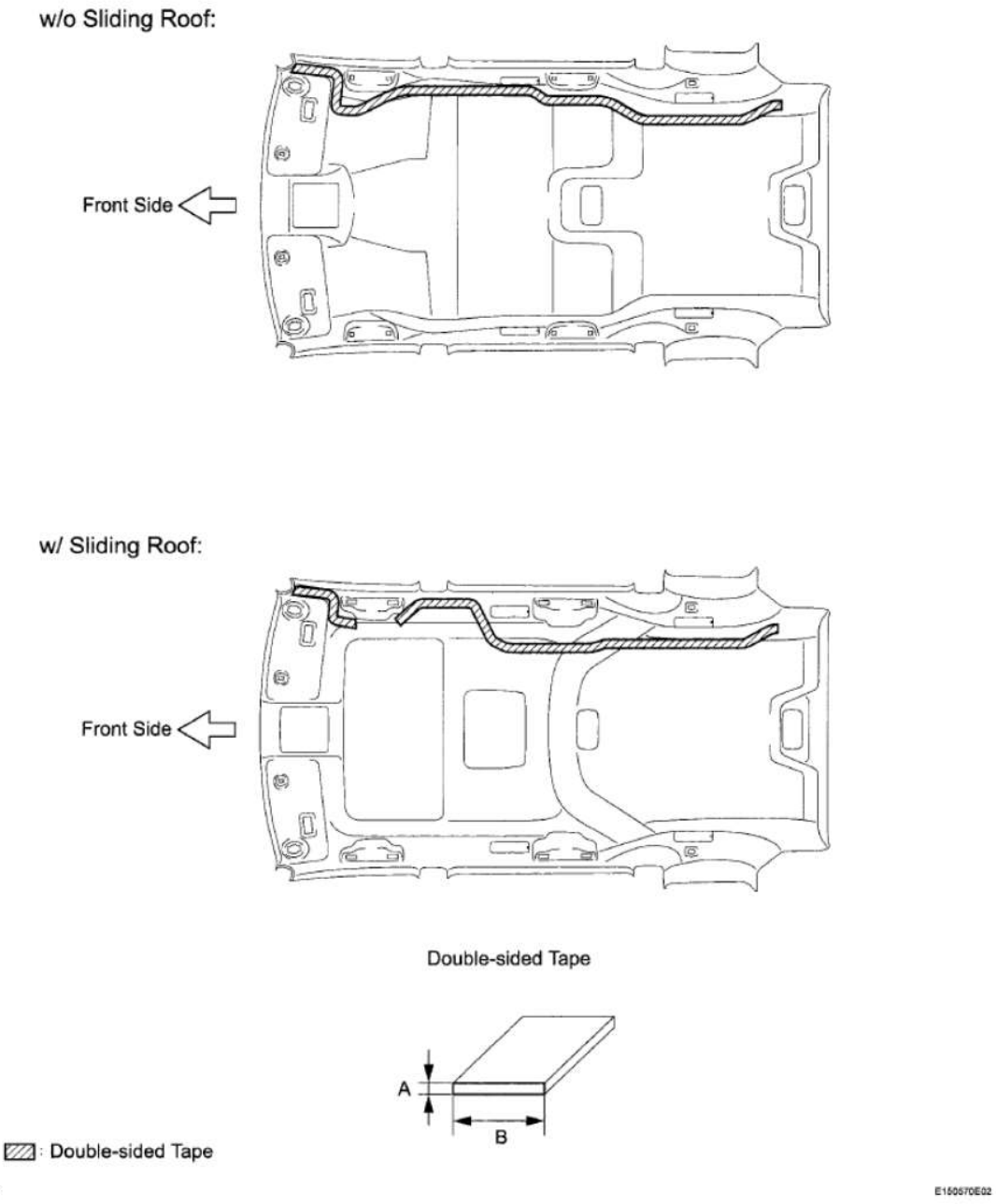


Fig. 231: Identifying Double-Sided Tape Location On No. 2 Antenna Cord Sub-Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

1. Remove the double-sided tape from the roof headlining assembly.
2. Peel off the appropriate amount of new double-sided tape.

HINT:

Be careful not to touch the adhesive surface.

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AREA DIMENSION CHART

Area	Dimension
A	1.0 mm (0.0394 in.)
B	15.0 mm (0.591 in.)

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 double-sided tape.

b. Install the antenna cord to the roof headlining assembly from the front of the vehicle.

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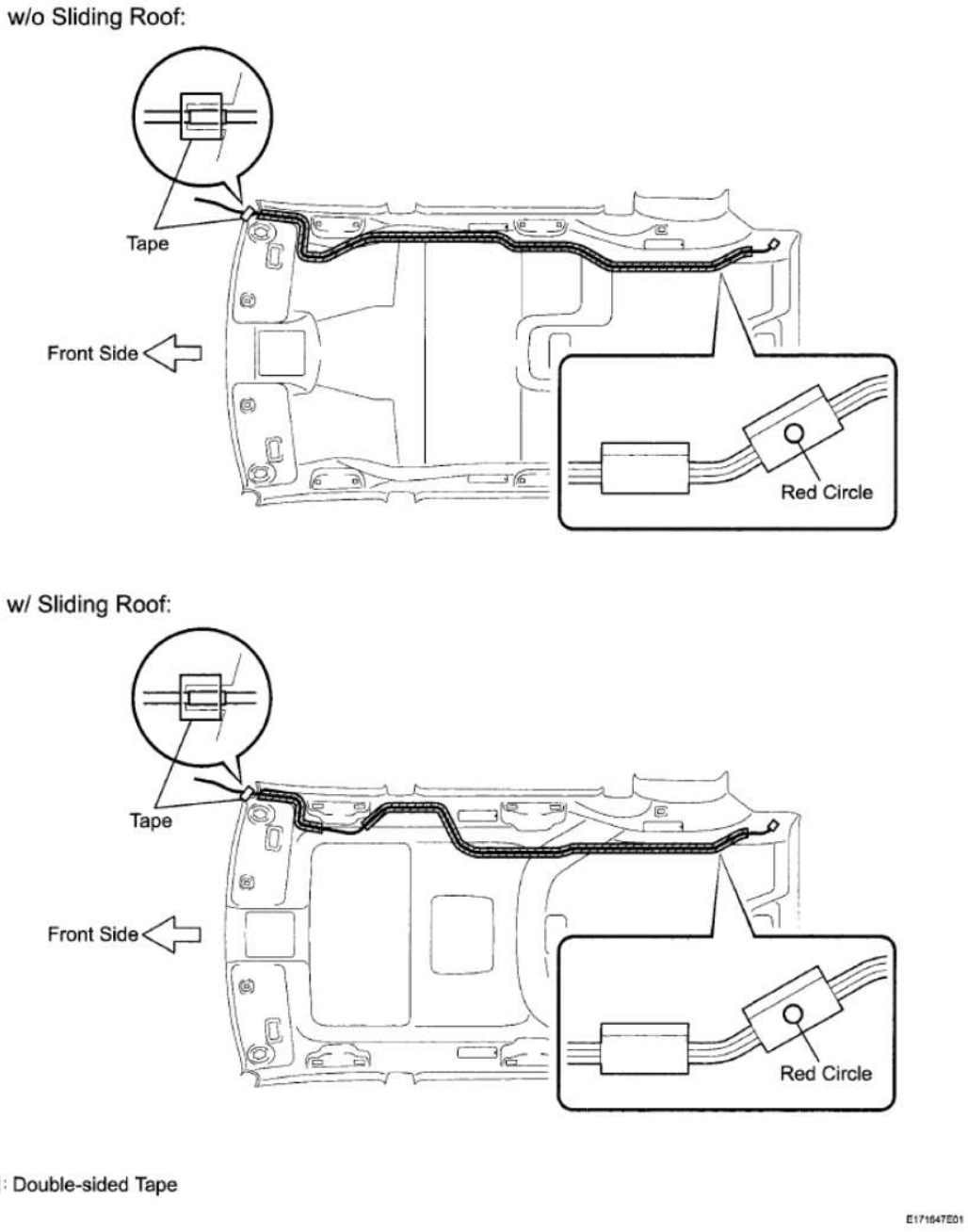


Fig. 232: Identifying Double-Sided Tape Location On Roof Headlining Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

NOTE:

- **Install the antenna cord with the red circle facing up.**
- **Make sure that the antenna cord is not twisted.**

HINT:

For the right front corner of the roof headlining assembly, align the marking tape on the antenna cord

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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.

3. **INSTALL NO. 2 ANTENNA CORD SUB-ASSEMBLY (for Pole Antenna Type)**

HINT:

The double-sided tape and tape are not available as supply parts. If they still have enough adhesion to secure the roof headlining and antenna cord, reuse them. 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.

a. Apply new double-sided tape.

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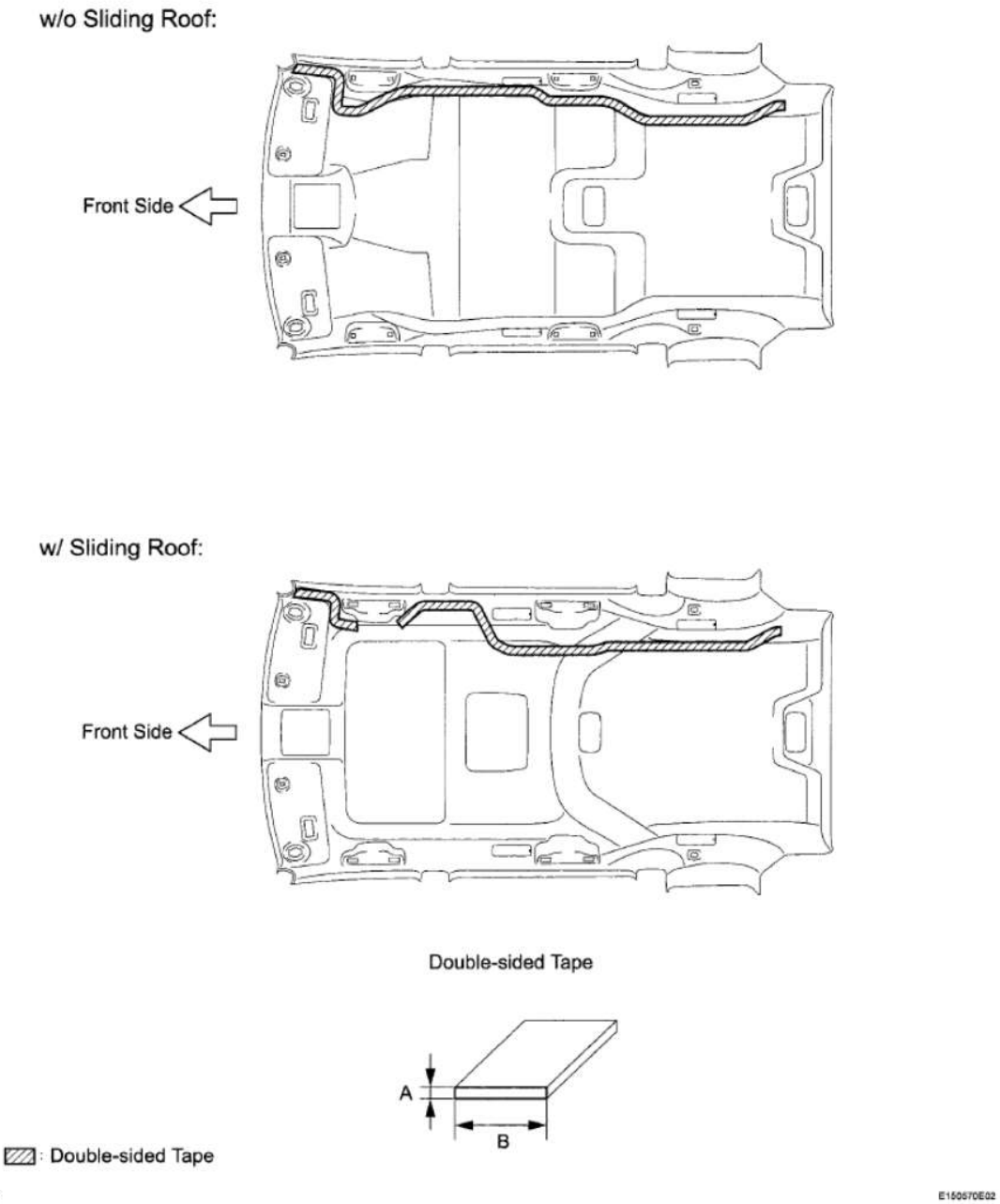


Fig. 233: Identifying Double-Sided Tape Location On No. 2 Antenna Cord Sub-Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

1. Remove the double-sided tape from the roof headlining assembly.
2. Peel off the appropriate amount of new double-Sided tape.

HINT:

Be careful not to touch the adhesive surface.

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AREA DIMENSION CHART

Area	Dimension
A	1.0 mm (0.0394 in.)
B	15.0 mm (0.591 in.)

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 double-sided tape.

b. Install the antenna cord to the roof headlining assembly from the front of the vehicle.

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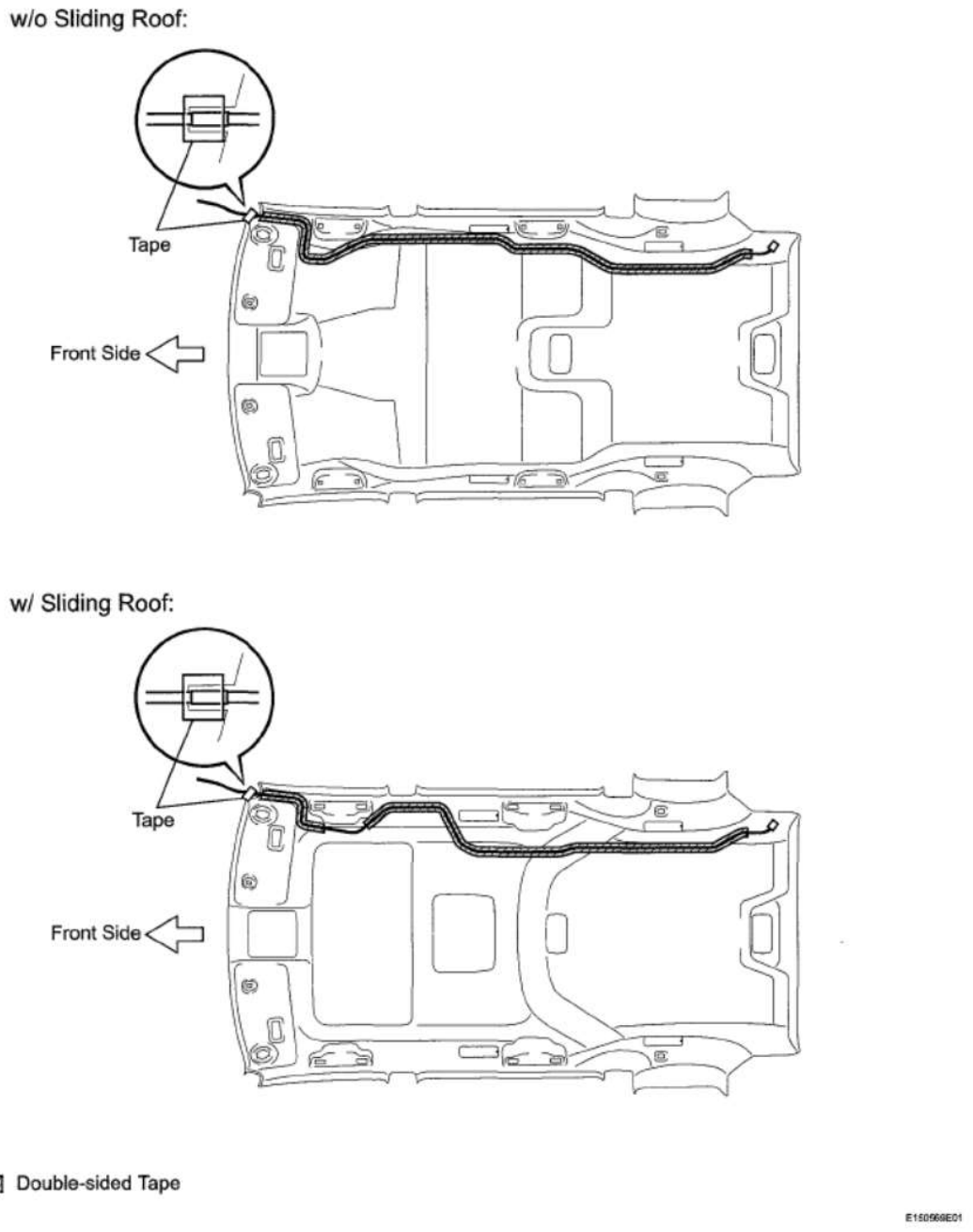


Fig. 234: Identifying Tape Location On No. 2 Antenna Cord Sub-Assembly (W/O Sliding Roof)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

HINT:

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.

4. **INSTALL ROOF HEADLINING ASSEMBLY**

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Refer to the procedure from Install Roof Headlining Assembly (See **INSTALLATION**).

RADIO ANTENNA POLE

COMPONENTS

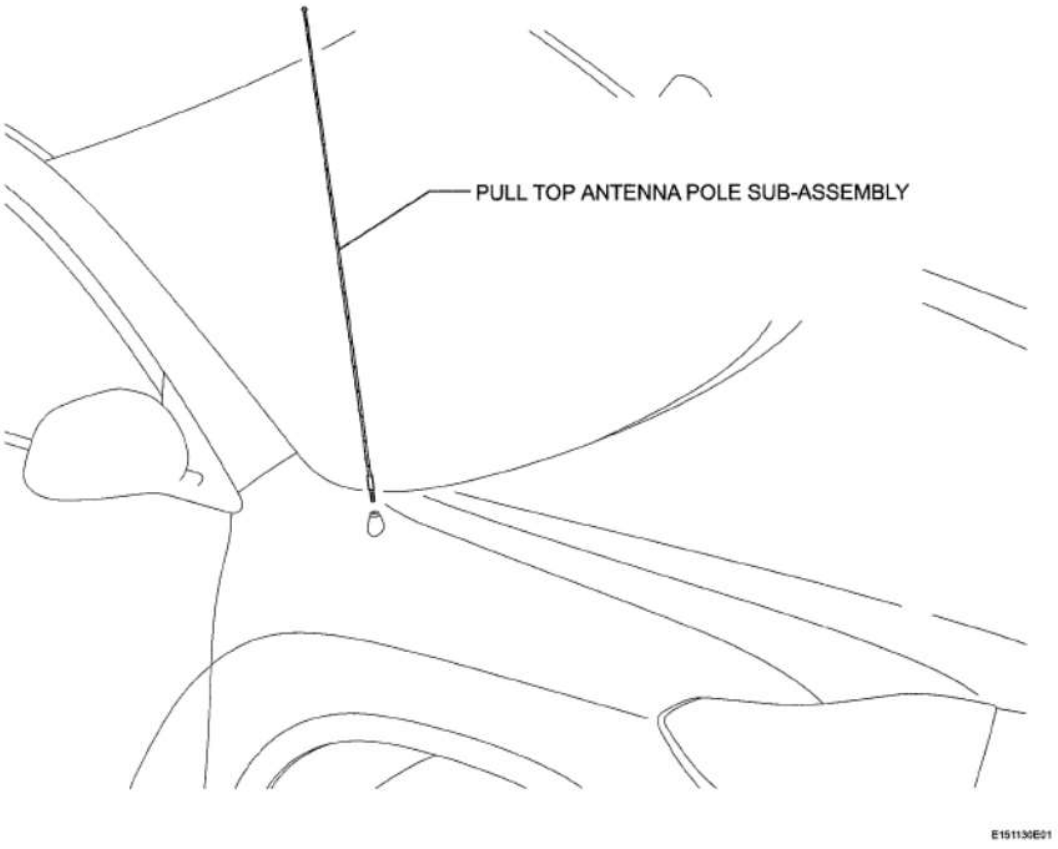


Fig. 235: Identifying Radio Antenna Pole Components
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL

1. **REMOVE PULL TOP ANTENNA POLE SUB-ASSEMBLY**
   a. Remove the pull top antenna pole sub-assembly by turning it in the direction of the arrow shown in the illustration.

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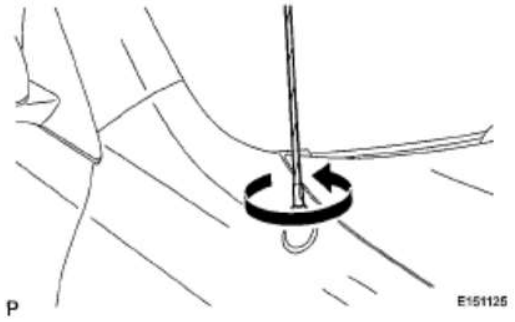


Fig. 236: Removing Pull Top Antenna Pole Sub-Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSTALLATION

1. **INSTALL PULL TOP ANTENNA POLE SUB-ASSEMBLY**
   a. Install the pull top antenna pole sub-assembly by turning it in the direction of the arrow shown in the illustration.

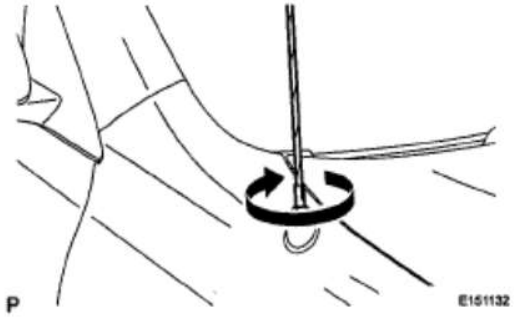


Fig. 237: Installing Pull Top Antenna Pole Sub-Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

AMPLIFIER ANTENNA

COMPONENTS

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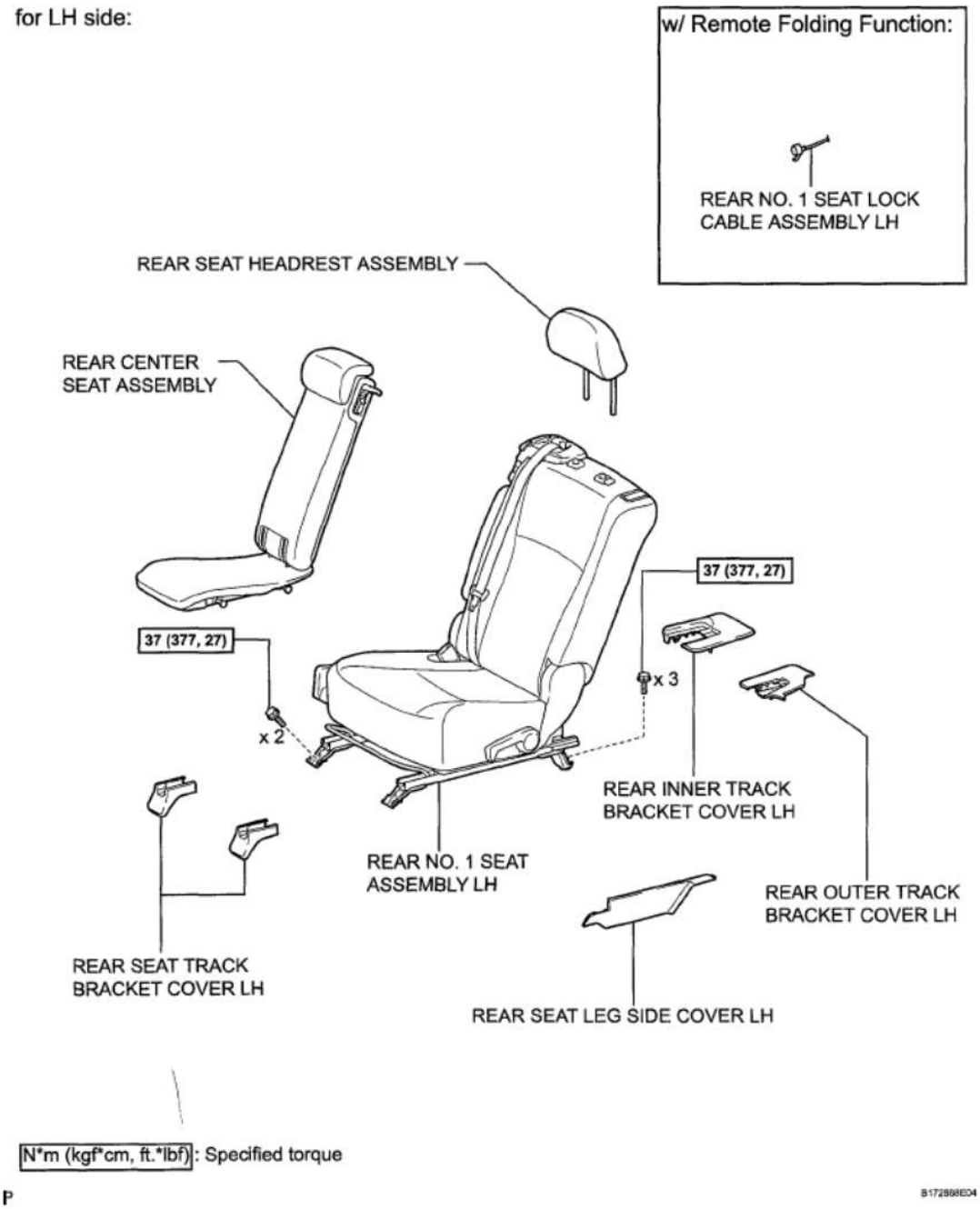


Fig. 238: Identifying Amplifier Antenna Components With Torque Specifications (1 Of 14)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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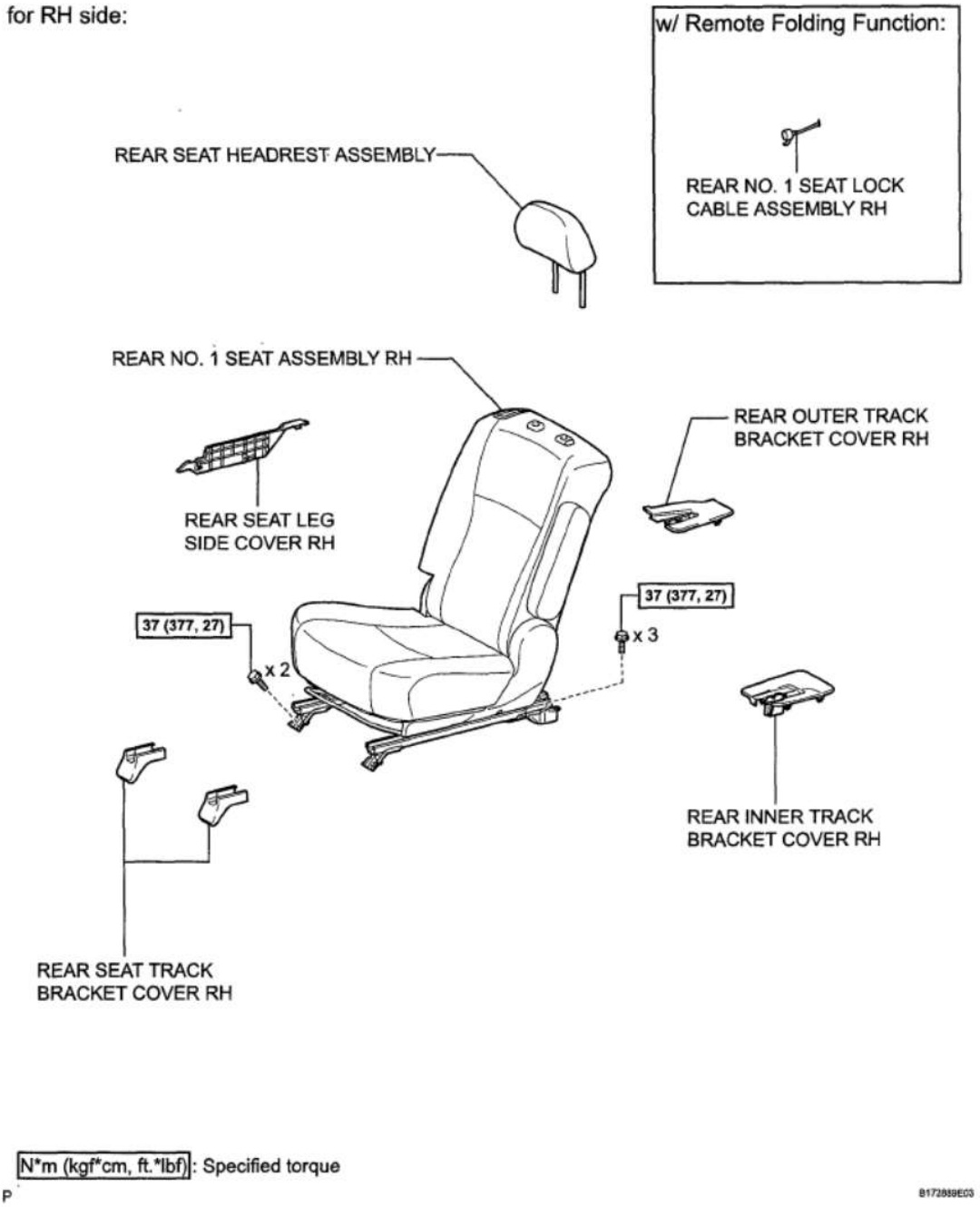


Fig. 239: Identifying Amplifier Antenna Components With Torque Specifications (2 Of 14)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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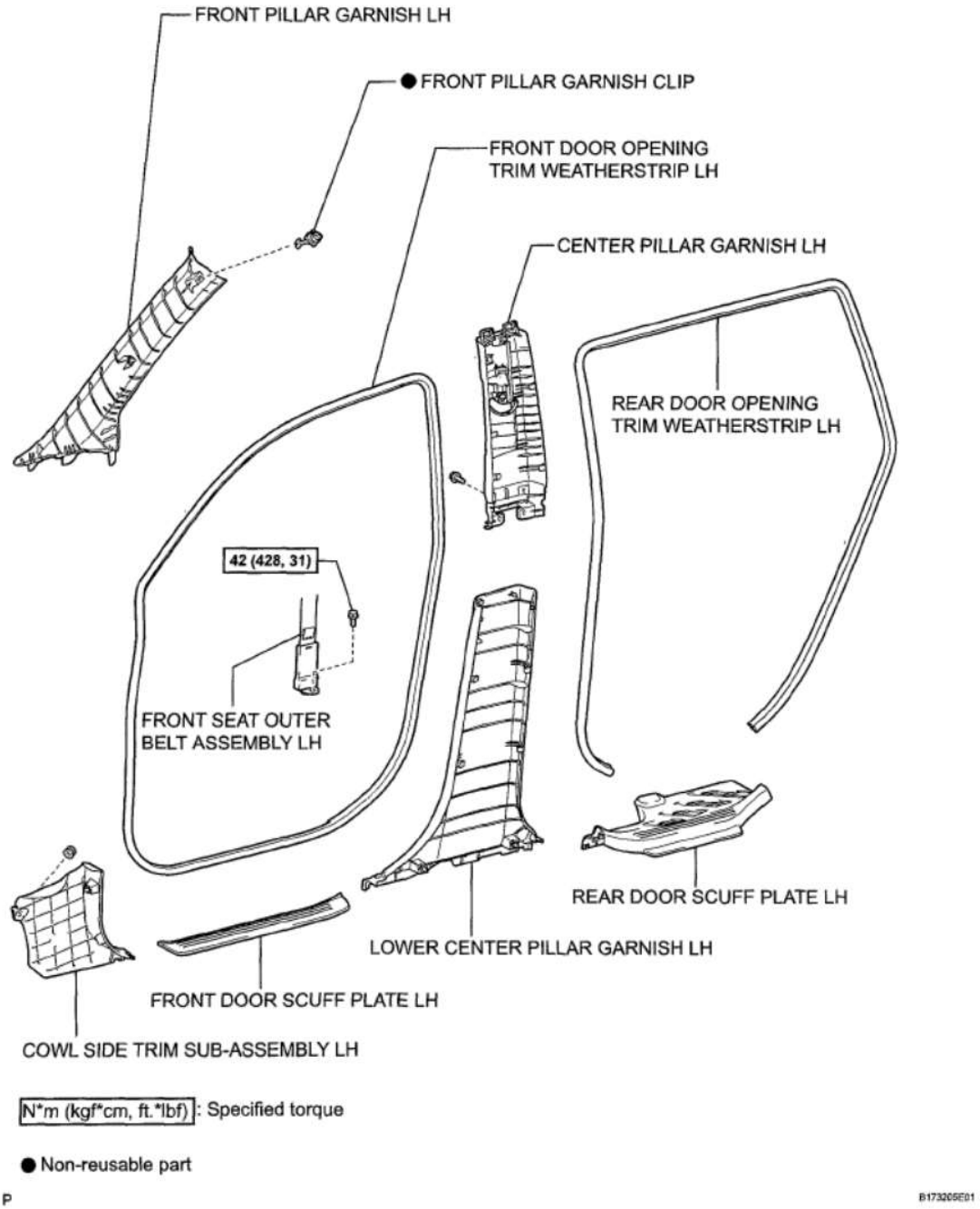


Fig. 240: Identifying Amplifier Antenna Components With Torque Specifications (3 Of 14)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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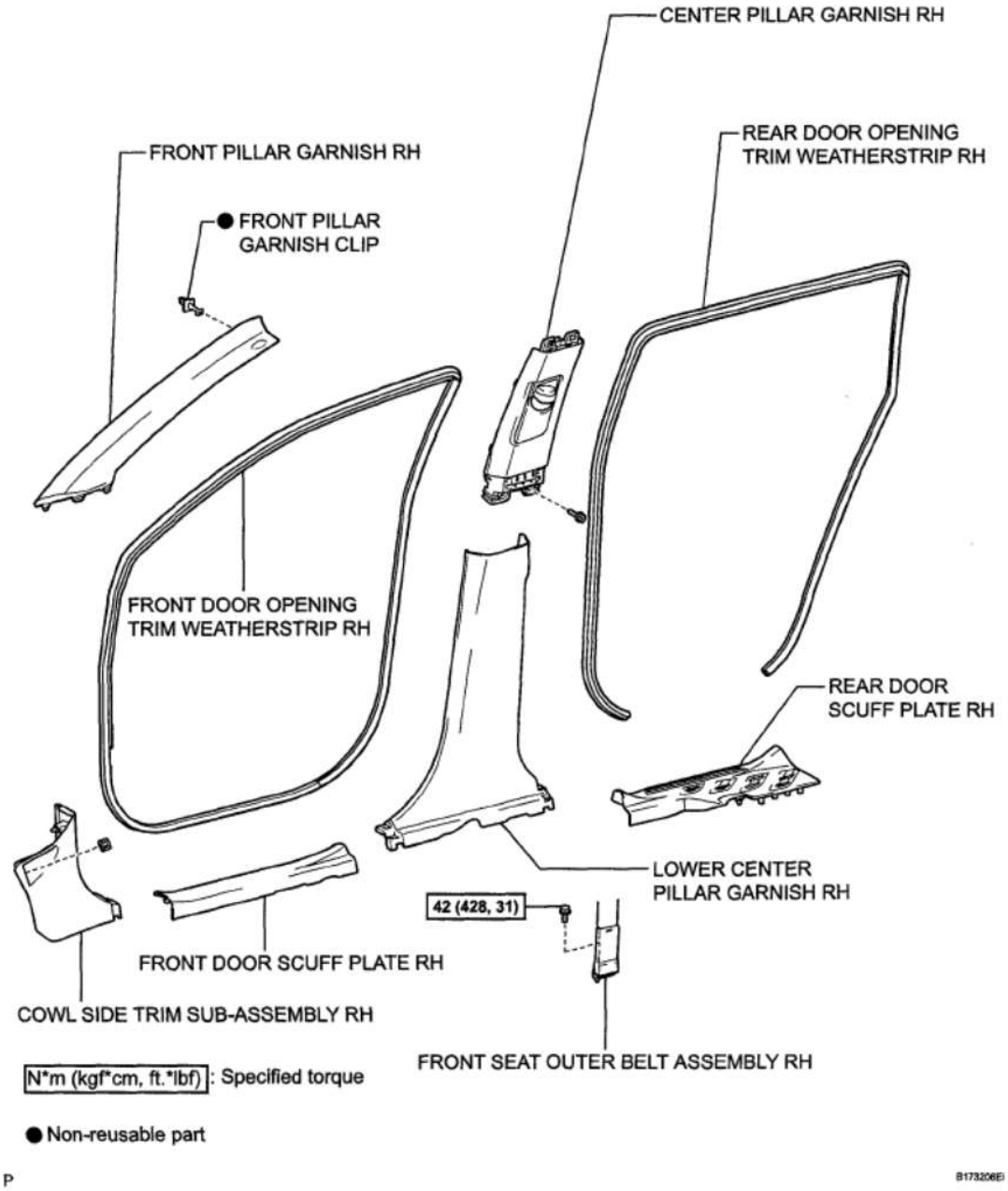


Fig. 241: Identifying Amplifier Antenna Components With Torque Specifications (4 Of 14)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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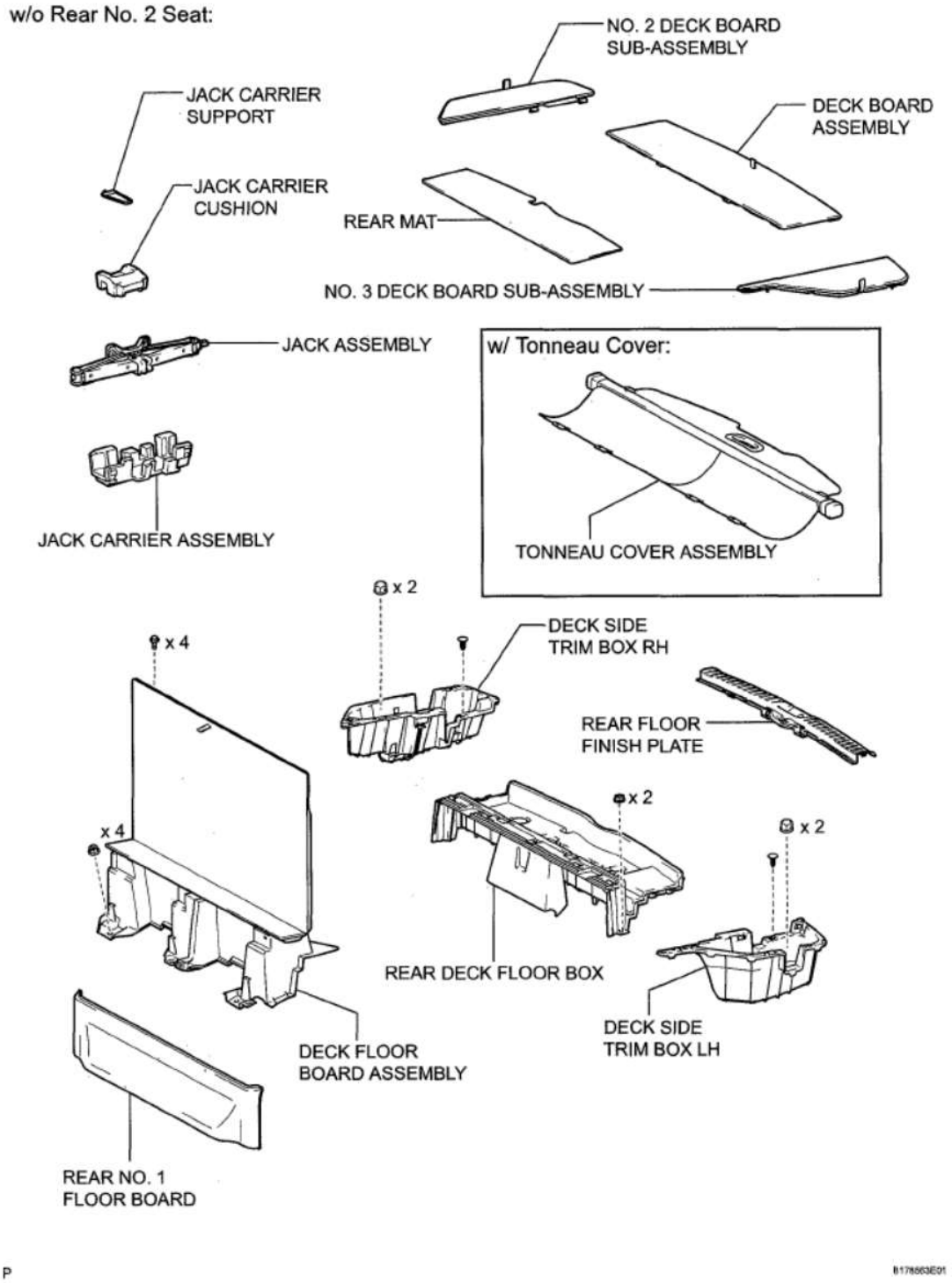


Fig. 242: Identifying Amplifier Antenna Components (5 Of 14)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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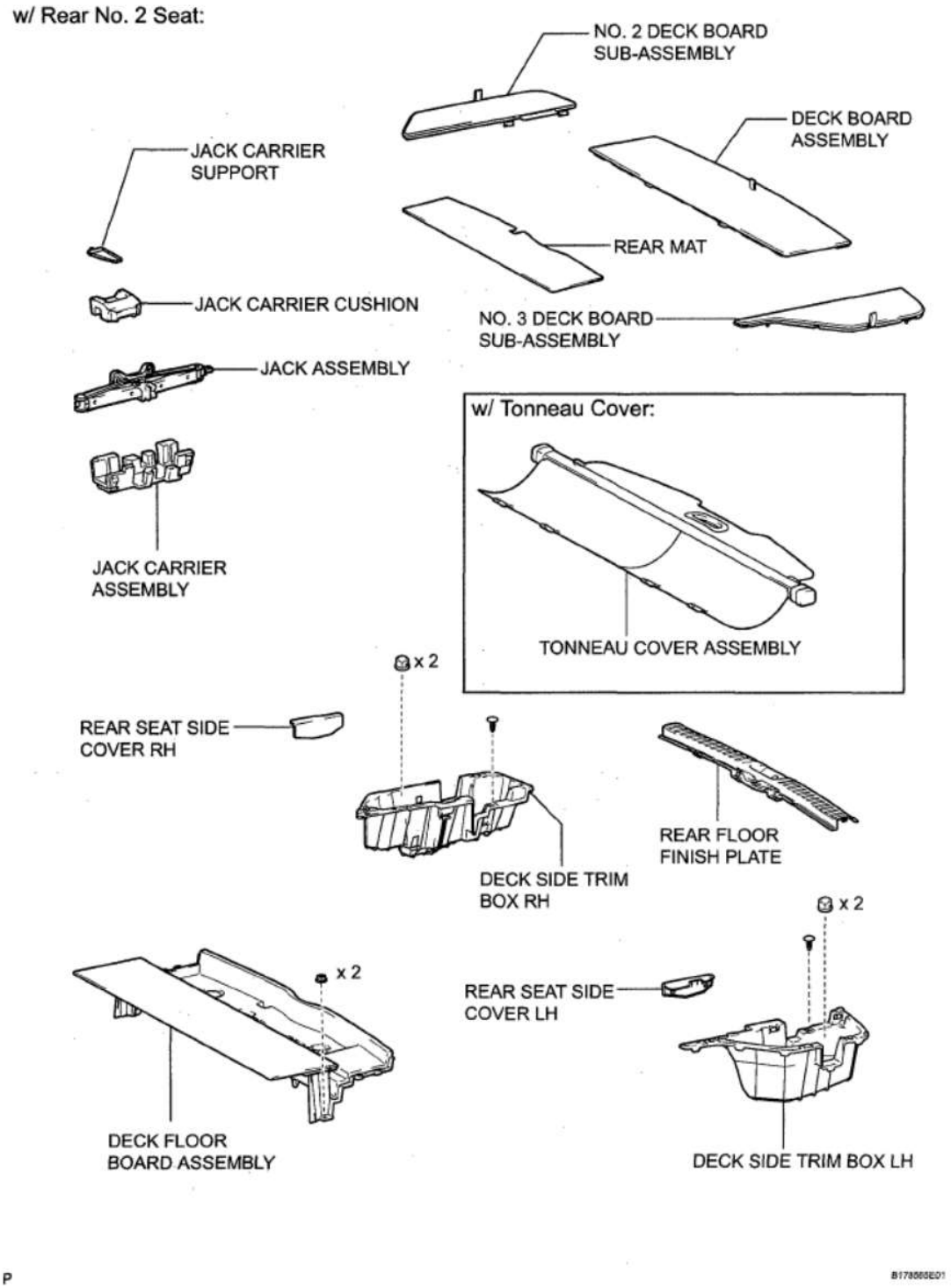


Fig. 243: Identifying Amplifier Antenna Components (6 Of 14)
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w/ Rear No. 2 Seat:

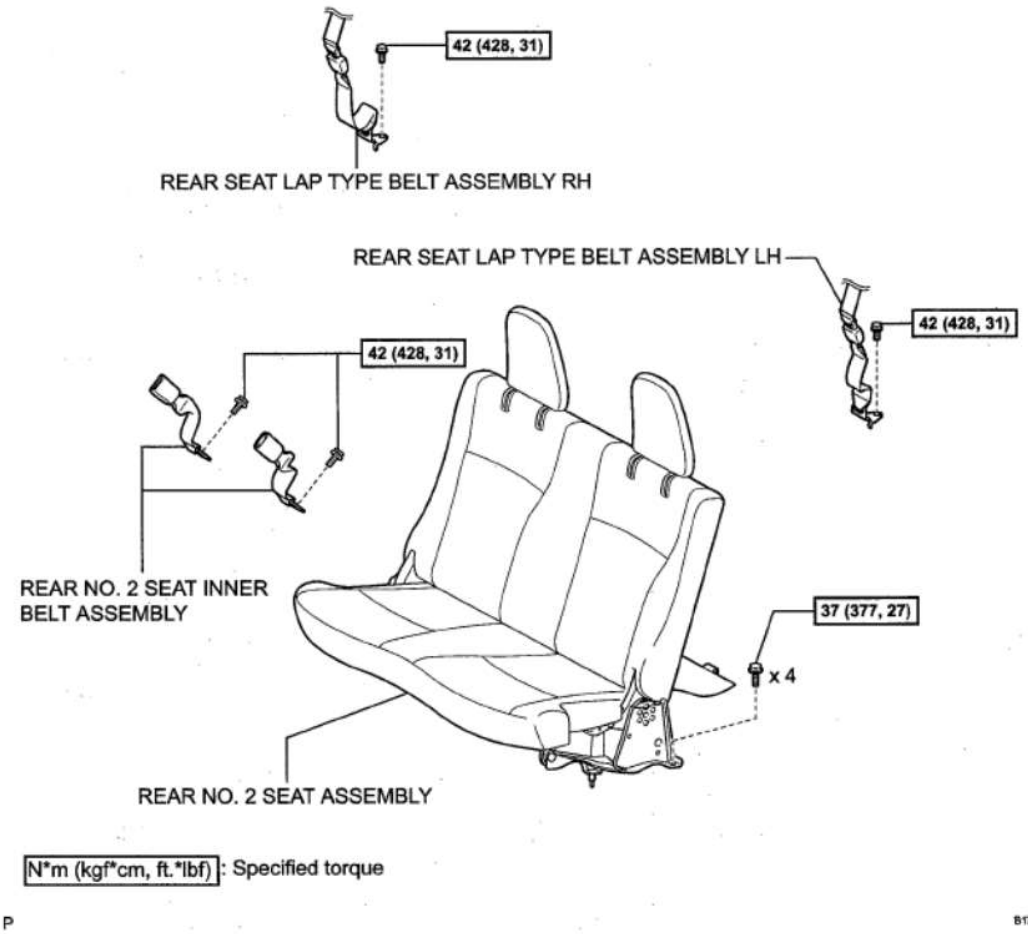


Fig. 244: Identifying Amplifier Antenna Components With Torque Specifications (7 Of 14)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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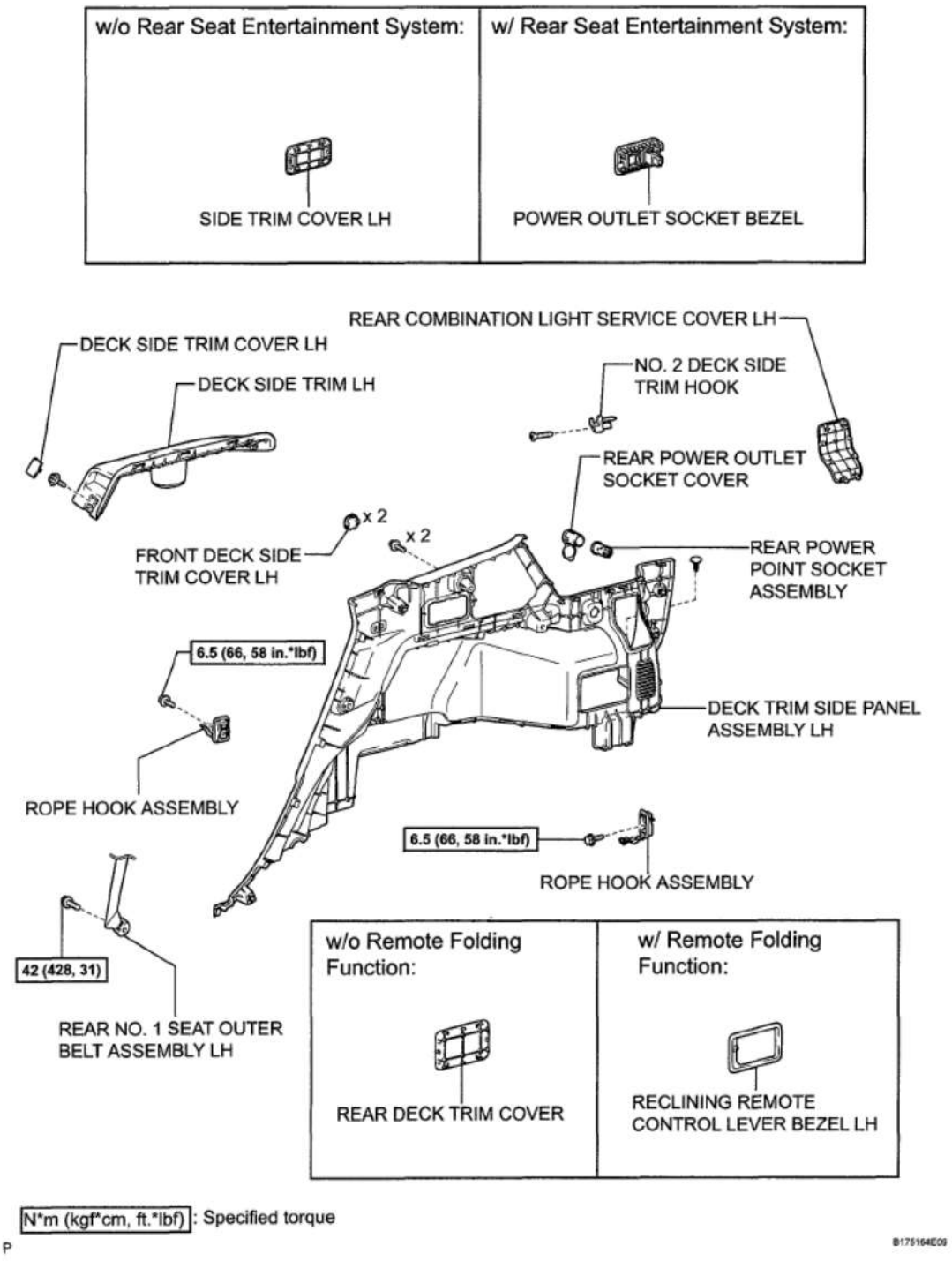


Fig. 245: Identifying Amplifier Antenna Components With Torque Specifications (8 Of 14)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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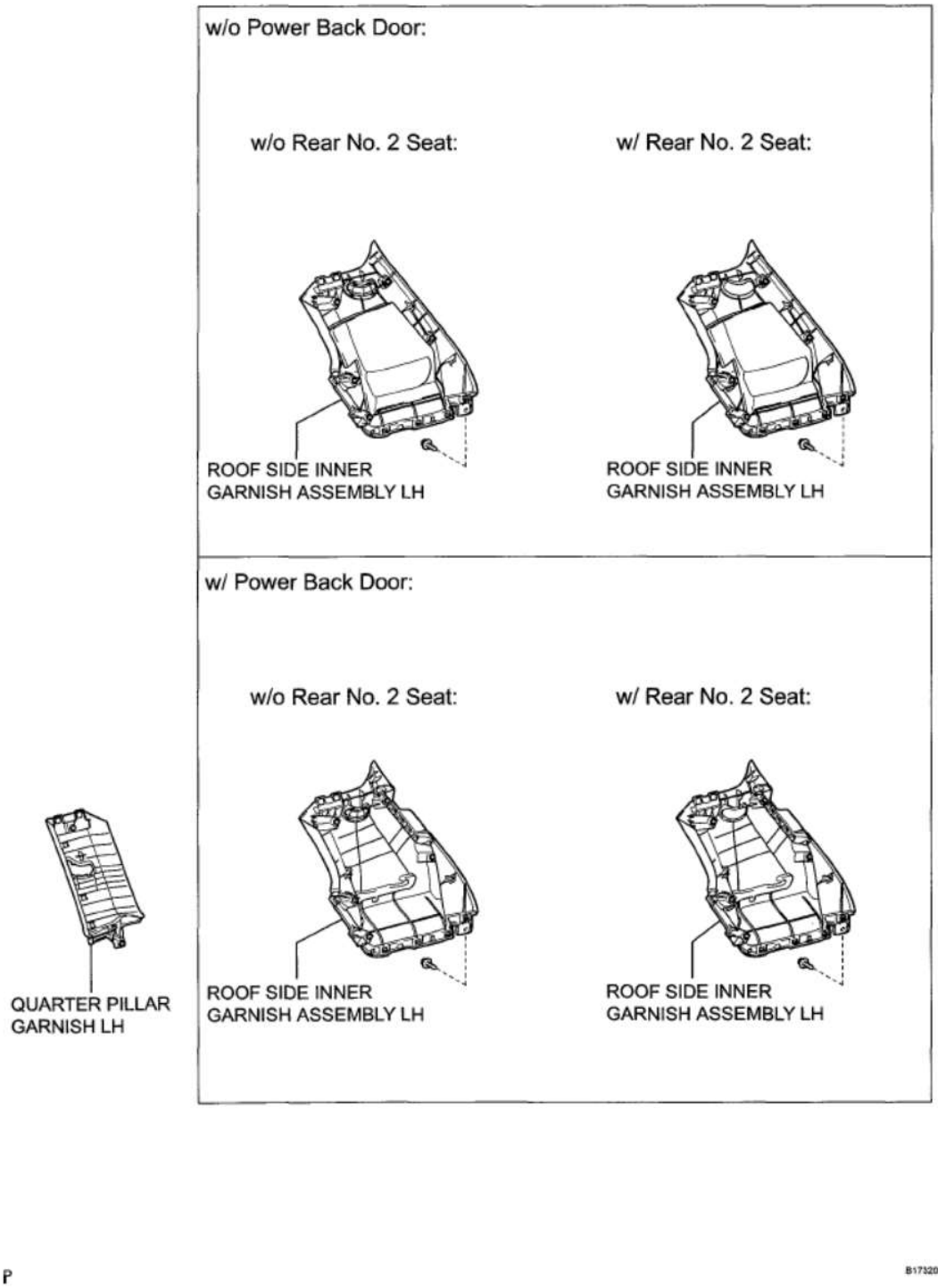


Fig. 246: Identifying Amplifier Antenna Components (9 Of 14)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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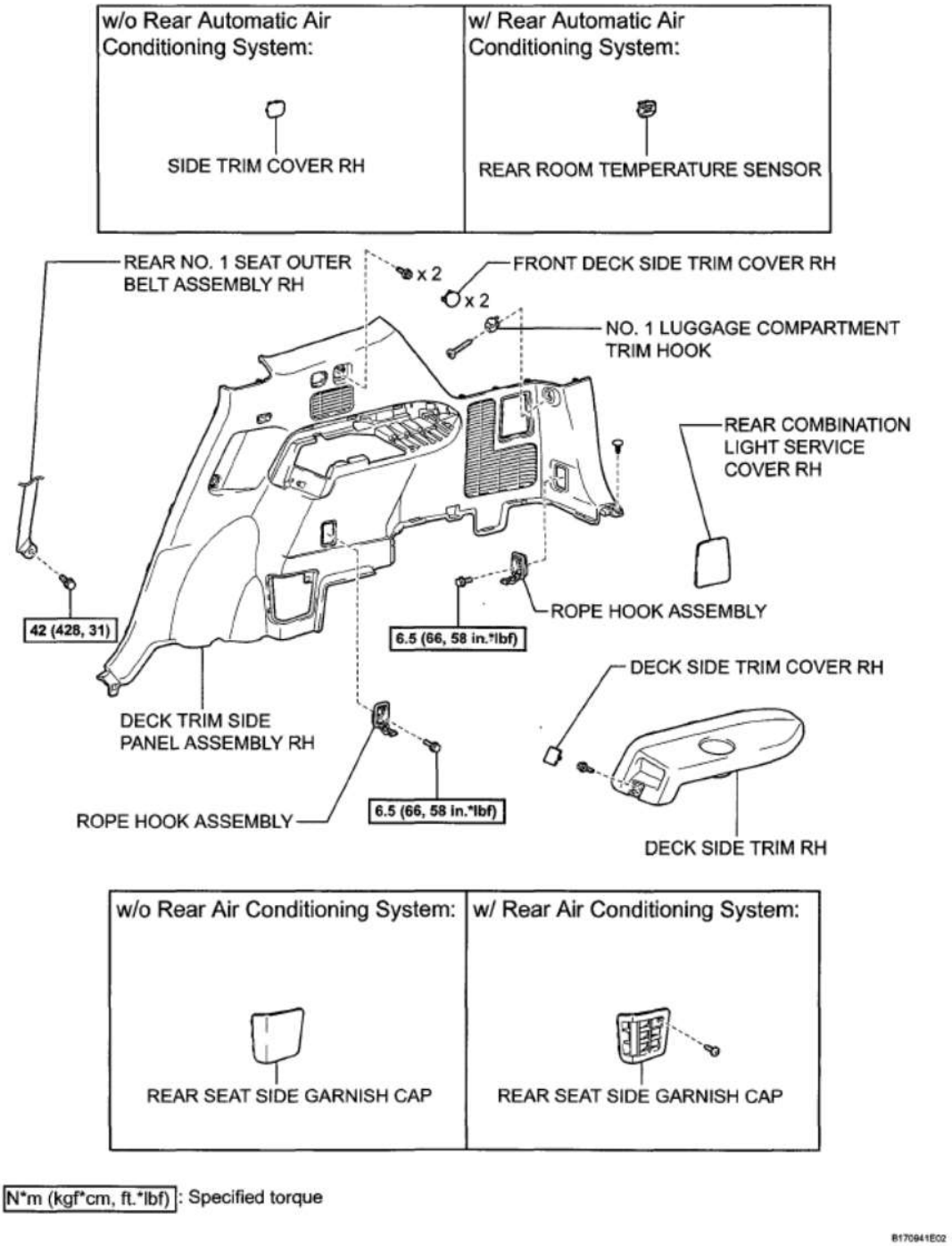


Fig. 247: Identifying Amplifier Antenna Components With Torque Specifications (10 Of 14)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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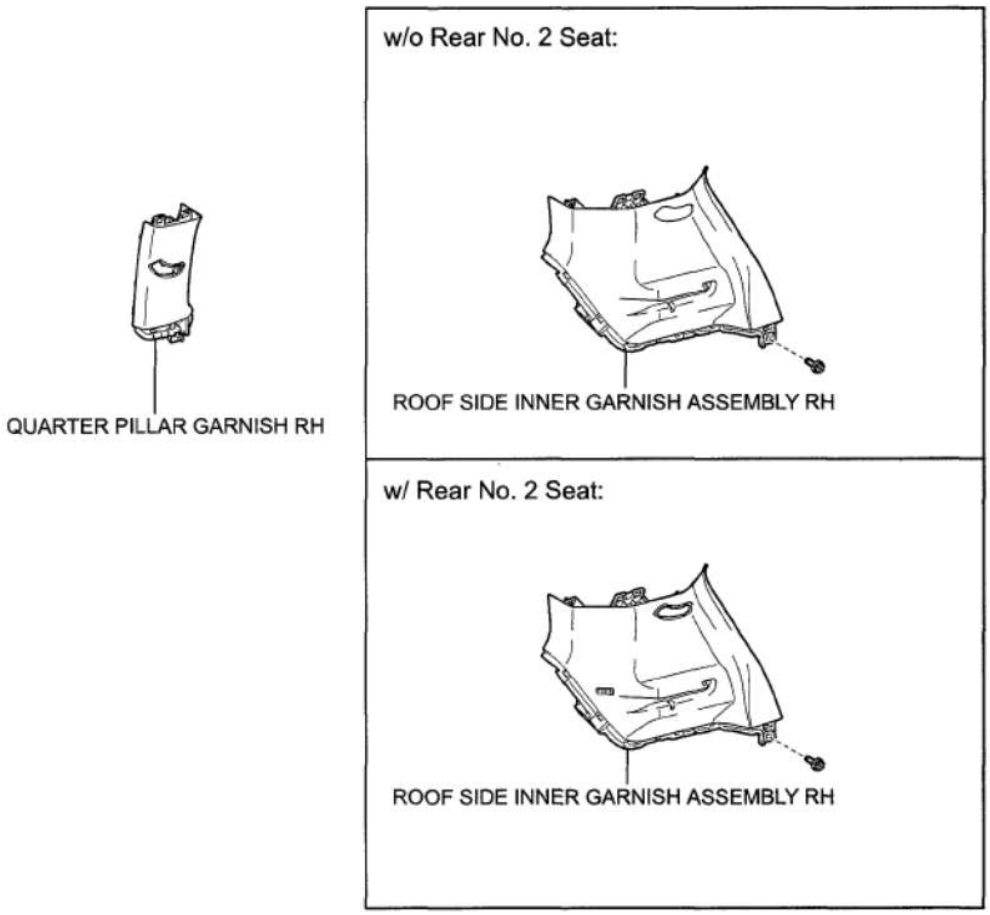


Fig. 248: Identifying Amplifier Antenna Components (11 Of 14)
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w/o Sliding Roof:

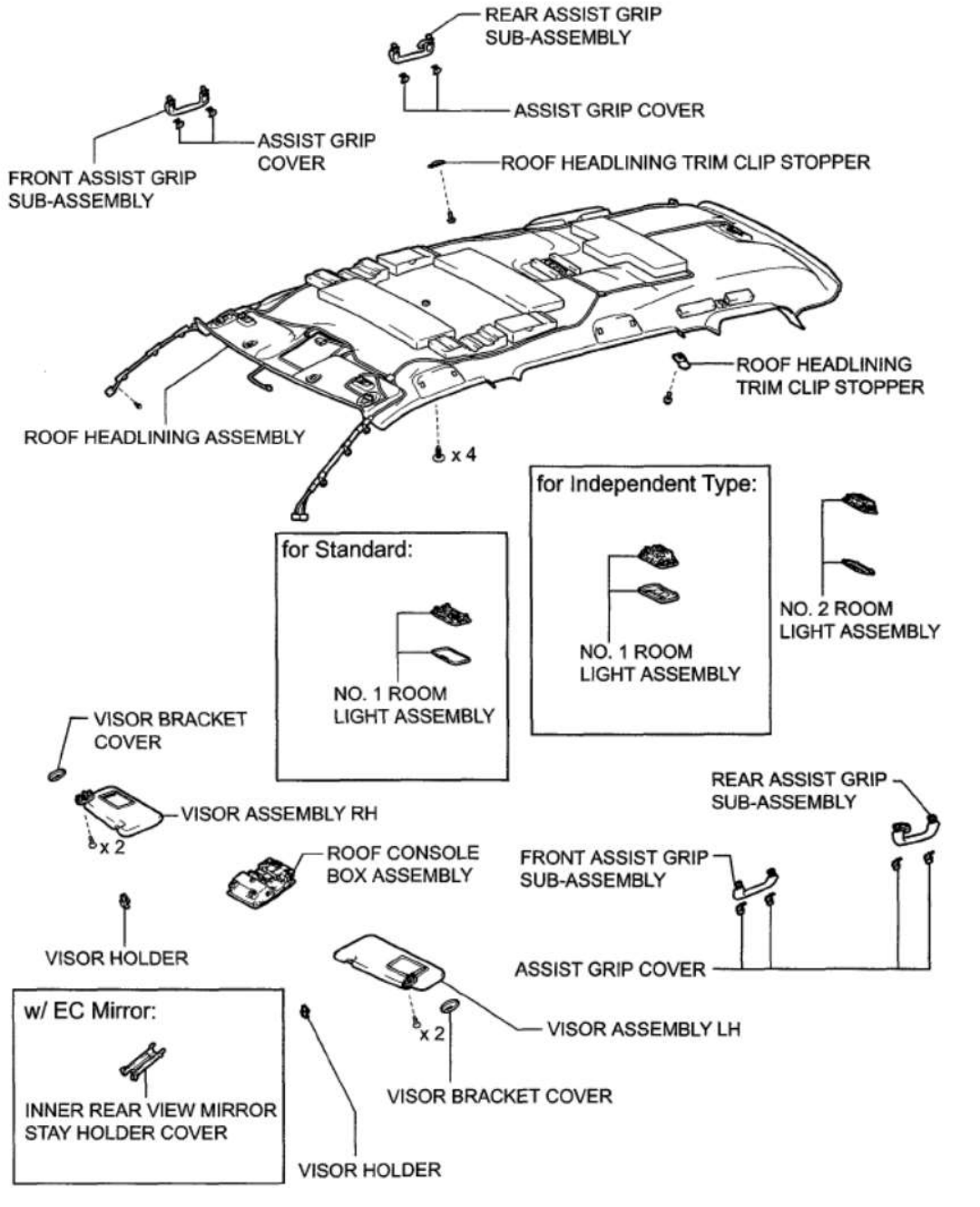


Fig. 249: Identifying Amplifier Antenna Components (12 Of 14)
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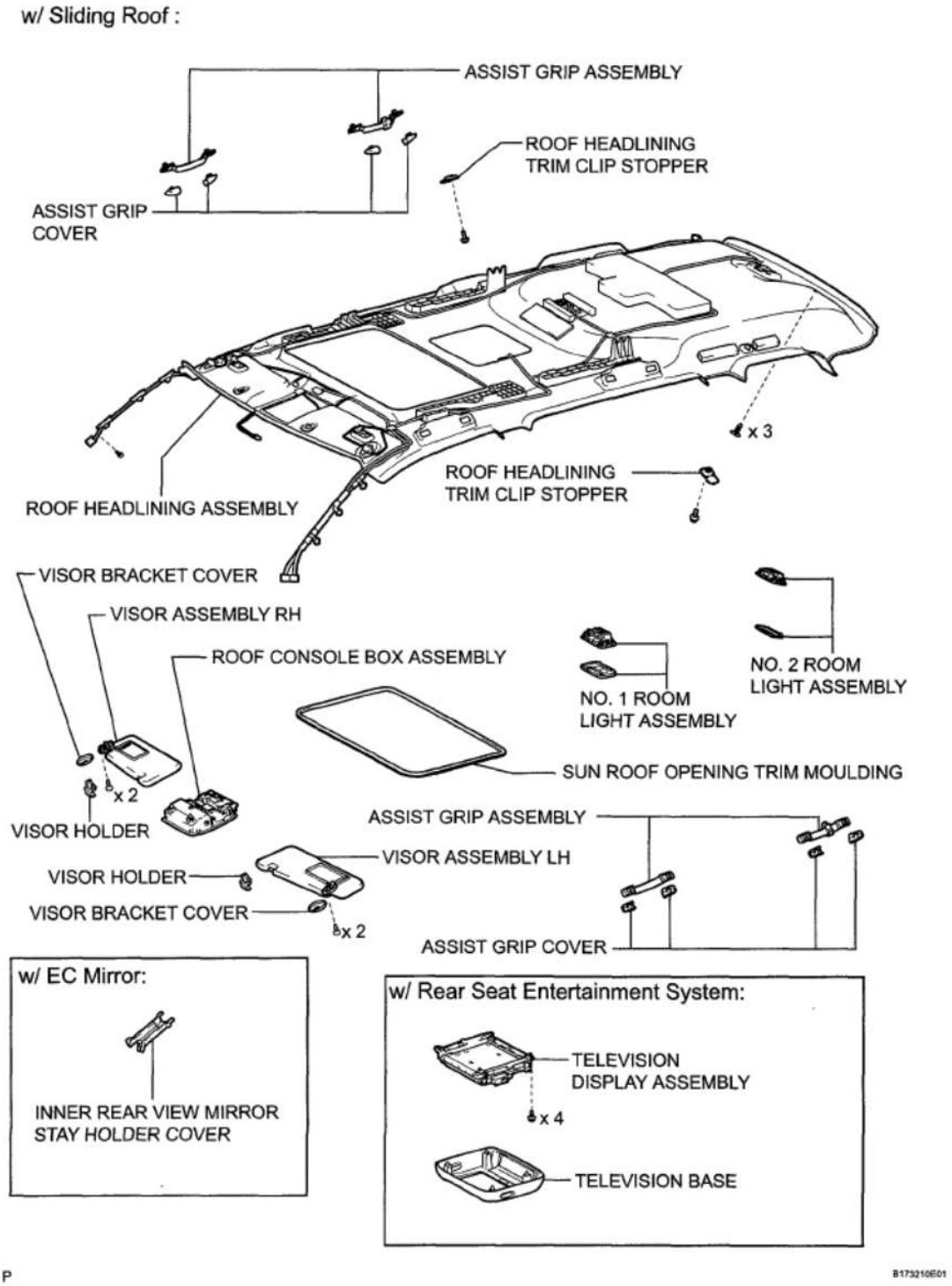


Fig. 250: Identifying Amplifier Antenna Components (13 Of 14)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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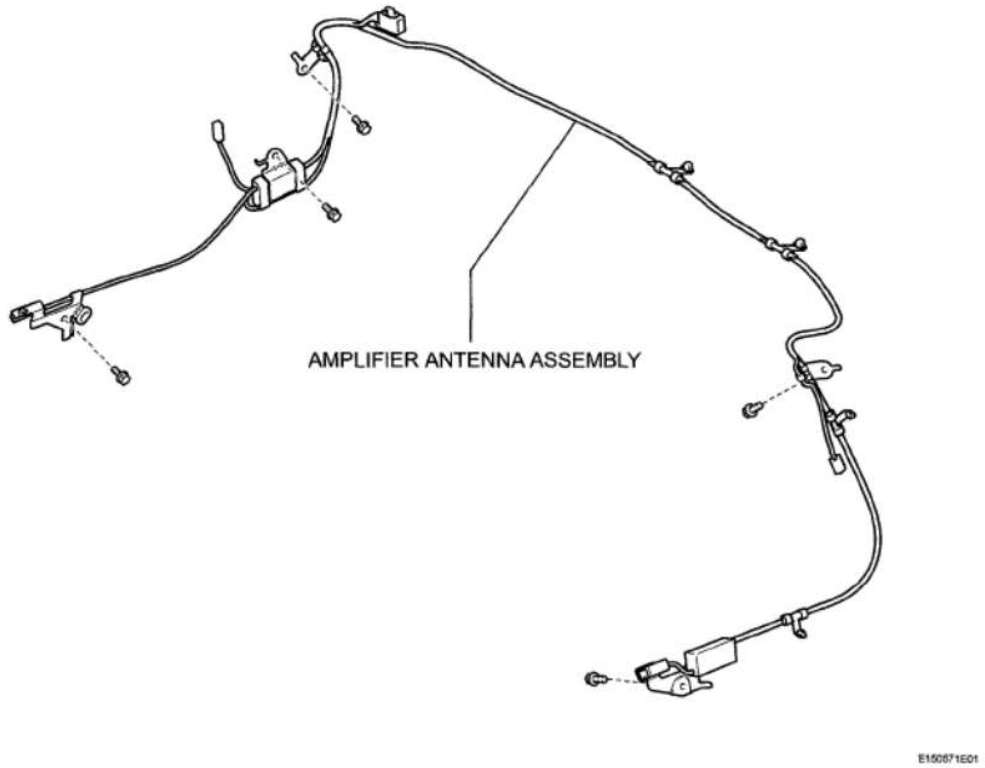


Fig. 251: Identifying Amplifier Antenna Components (14 Of 14)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL

1. **REMOVE REAR CENTER SEAT ASSEMBLY**
2. **REMOVE REAR SEAT HEADREST ASSEMBLY (for LH Side)** (See **REMOVAL**)
3. **REMOVE REAR SEAT TRACK BRACKET COVER LH** (See **REMOVAL**)
4. **REMOVE REAR OUTER TRACK BRACKET COVER LH** (See **REMOVAL**)
5. **REMOVE REAR INNER TRACK BRACKET COVER LH** (See **REMOVAL**)
6. **REMOVE REAR SEAT LEG SIDE COVER LH** (See **REMOVAL**)
7. **DISCONNECT REAR NO. 1 SEAT LOCK CABLE ASSEMBLY LH (w/ Remote Folding Function)** (See **REMOVAL**)
8. **REMOVE REAR NO. 1 SEAT ASSEMBLY LH** (See **DISASSEMBLY**)
9. **REMOVE REAR SEAT HEADREST ASSEMBLY (for RH Side)** (See **REMOVAL**)
10. **REMOVE REAR SEAT TRACK BRACKET COVER RH** (See **REMOVAL**)
11. **REMOVE REAR OUTER TRACK BRACKET COVER RH** (See **REMOVAL**)
12. **REMOVE REAR INNER TRACK BRACKET COVER RH** (See **REMOVAL**)
13. **REMOVE REAR SEAT LEG SIDE COVER RH** (See **REMOVAL**)
14. **DISCONNECT REAR NO. 1 SEAT LOCK CABLE ASSEMBLY RH (w/ Remote Folding Function)** (See **REMOVAL**)

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15. **REMOVE REAR NO. 1 SEAT ASSEMBLY RH** (See **DISASSEMBLY**)
16. **REMOVE FRONT DOOR SCUFF PLATE LH** (See **REMOVAL**)
17. **REMOVE COWL SIDE TRIM SUB-ASSEMBLY LH** (See **REMOVAL**)
18. **REMOVE FRONT DOOR OPENING TRIM WEATHERSTRIP LH** (See **REMOVAL**)
19. **REMOVE FRONT PILLAR GARNISH LH** (See **REMOVAL**)
20. **REMOVE REAR DOOR SCUFF PLATE LH** (See **REMOVAL**)
21. **REMOVE REAR DOOR OPENING TRIM WEATHERSTRIP LH** (See **REMOVAL**)
22. **REMOVE FRONT DOOR SCUFF PLATE RH**

    HINT:

    Use the same procedure for the RH side and the LH side.

23. **REMOVE COWL SIDE TRIM SUB-ASSEMBLY RH**

    HINT:

    Use the same procedure for the RH side and the LH side.

24. **REMOVE FRONT DOOR OPENING TRIM WEATHERSTRIP RH**

    HINT:

    Use the same procedure for the RH side and the LH side.

25. **REMOVE FRONT PILLAR GARNISH RH** (See **REMOVAL**)
26. **REMOVE REAR DOOR SCUFF PLATE RH**

    HINT:

    Use the same procedure for the RH side and the LH side.

27. **REMOVE REAR DOOR OPENING TRIM WEATHERSTRIP RH**

    HINT:

    Use the same procedure for the RH side and the LH side.

28. **REMOVE LOWER CENTER PILLAR GARNISH LH** (See **REMOVAL**)
29. **DISCONNECT FRONT SEAT OUTER BELT ASSEMBLY LH** (See **REMOVAL**)
30. **REMOVE CENTER PILLAR GARNISH LH** (See **REMOVAL**)
31. **REMOVE LOWER CENTER PILLAR GARNISH RH**

    HINT:

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Use the same procedure for the RH side and the LH side.

32. **DISCONNECT FRONT SEAT OUTER BELT ASSEMBLY RH**

HINT:

Use the same procedure for the RH side and the LH side.

33. **REMOVE CENTER PILLAR GARNISH RH**

HINT:

Use the same procedure for the RH side and the LH side.

34. **REMOVE DECK BOARD ASSEMBLY** (See **REMOVAL**)
35. **REMOVE NO. 3 DECK BOARD SUB-ASSEMBLY** (See **REMOVAL**)
36. **REMOVE NO. 2 DECK BOARD SUB-ASSEMBLY** (See **REMOVAL**)
37. **REMOVE TONNEAU COVER ASSEMBLY (w/ Tonneau Cover)** (See **REMOVAL**)
38. **REMOVE REAR NO. 1 FLOOR BOARD (w/o Rear No. 2 Seat)** (See **REMOVAL**)
39. **REMOVE REAR SEAT SIDE COVER LH (w/ Rear No. 2 Seat)** (See **REMOVAL**)
40. **REMOVE DECK SIDE TRIM BOX LH** (See **REMOVAL**)
41. **REMOVE REAR SEAT SIDE COVER RH (w/ Rear No. 2 Seat)** (See **REMOVAL**)
42. **REMOVE JACK CARRIER SUPPORT**
43. **REMOVE JACK CARRIER CUSHION** (See **REMOVAL**)
44. **REMOVE JACK ASSEMBLY** (See **REMOVAL**)
45. **REMOVE JACK CARRIER ASSEMBLY** (See **REMOVAL**)
46. **REMOVE DECK SIDE TRIM BOX RH** (See **REMOVAL**)
47. **REMOVE DECK FLOOR BOARD ASSEMBLY (w/o Rear No. 2 Seat)** (See **REMOVAL**)
48. **REMOVE REAR MAT** (See **REMOVAL**)
49. **REMOVE DECK FLOOR BOARD ASSEMBLY (w/ Rear No. 2 Seat)** (See **REMOVAL**)
50. **REMOVE REAR DECK FLOOR BOX (w/o Rear No. 2 Seat)** (See **REMOVAL**)
51. **REMOVE REAR NO. 2 SEAT INNER BELT ASSEMBLY (w/ Rear No. 2 Seat)** (See **INSTALLATION**)
52. **DISCONNECT REAR SEAT LAP TYPE BELT ASSEMBLY LH (w/ Rear No. 2 Seat)** (See **REMOVAL**)
53. **DISCONNECT REAR SEAT LAP TYPE BELT ASSEMBLY RH (w/ Rear No. 2 Seat)**

HINT:

Use the same procedure for the RH side and the LH side.

54. **REMOVE REAR NO. 2 SEAT ASSEMBLY (w/ Rear No. 2 Seat)** (See **DISASSEMBLY**)

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55. **REMOVE REAR FLOOR FINISH PLATE** (See **REMOVAL**)
56. **REMOVE DECK SIDE TRIM COVER LH** (See **REMOVAL**)
57. **REMOVE DECK SIDE TRIM LH** (See **REMOVAL**)
58. **REMOVE SIDE TRIM COVER LH (w/o Rear Seat Entertainment System)** (See **REMOVAL**)
59. **REMOVE POWER OUTLET SOCKET BEZEL (w/ Rear Seat Entertainment System)** (See **REMOVAL**)
60. **REMOVE REAR COMBINATION LIGHT SERVICE COVER LH** (See **REMOVAL**)
61. **REMOVE REAR POWER POINT SOCKET ASSEMBLY** (See **REAR POWER OUTLET SOCKET**)
62. **REMOVE REAR POWER OUTLET SOCKET COVER** (See **INSTALLATION**)
63. **REMOVE REAR DECK TRIM COVER (w/o Remote Folding Function)** (See **REMOVAL**)
64. **REMOVE RECLINING REMOTE CONTROL LEVER BEZEL LH (w/ Remote Folding Function)** (See **REMOVAL**)
65. **REMOVE ROPE HOOK ASSEMBLY (for LH Side)** (See **REMOVAL**)
66. **REMOVE NO. 2 DECK SIDE TRIM HOOK** (See **REMOVAL**)
67. **REMOVE FRONT DECK SIDE TRIM COVER LH** (See **REMOVAL**)
68. **DISCONNECT REAR NO. 1 SEAT OUTER BELT ASSEMBLY LH** (See **REMOVAL**)
69. **REMOVE DECK TRIM SIDE PANEL ASSEMBLY LH** (See **REMOVAL**)
70. **REMOVE QUARTER PILLAR GARNISH LH** (See **REMOVAL**)
71. **REMOVE ROOF SIDE INNER GARNISH ASSEMBLY LH (w/o Power Back Door)** (See **REMOVAL**)
72. **REMOVE ROOF SIDE INNER GARNISH ASSEMBLY LH (w/ Power Back Door)** (See **REMOVAL**)
73. **REMOVE REAR SEAT SIDE GARNISH CAP (w/o Rear Air Conditioning System)** (See **REMOVAL**)
74. **REMOVE REAR SEAT SIDE GARNISH CAP (w/ Rear Air Conditioning System)** (See **REMOVAL**)
75. **REMOVE DECK SIDE TRIM COVER RH**

    HINT:

    Use the same procedure for the RH side and the LH side.

76. **REMOVE DECK SIDE TRIM RH**

    HINT:

    Use the same procedure for the RH side and the LH side.

77. **REMOVE SIDE TRIM COVER RH (w/o Rear Automatic Air Conditioning System)** (See **REMOVAL**)
78. **REMOVE REAR ROOM TEMPERATURE SENSOR (w/ Rear Automatic Air Conditioning**

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System) (See **ROOM TEMPERATURE SENSOR (FOR REAR)**)

79. **REMOVE REAR COMBINATION LIGHT SERVICE COVER RH** (See **REMOVAL**)
80. **REMOVE ROPE HOOK ASSEMBLY (for RH Side)**

    HINT:

    Use the same procedure for the RH side and the LH side.

81. **REMOVE NO. 1 LUGGAGE COMPARTMENT TRIM HOOK** (See **REMOVAL**)
82. **REMOVE FRONT DECK SIDE TRIM COVER RH**

    HINT:

    Use the same procedure for the RH side and the LH side.

83. **DISCONNECT REAR NO. 1 SEAT OUTER BELT ASSEMBLY RH**

    HINT:

    Use the same procedure for the RH side and the LH side.

84. **REMOVE DECK TRIM SIDE PANEL ASSEMBLY RH** (See **REMOVAL**)
85. **REMOVE QUARTER PILLAR GARNISH RH**

    HINT:

    Use the same procedure for the RH side and the LH side.

86. **REMOVE ROOF SIDE INNER GARNISH ASSEMBLY RH (w/o Rear No. 2 Seat)**

    HINT:

    Use the same procedure for the RH side and the LH side.

87. **REMOVE ROOF SIDE INNER GARNISH ASSEMBLY RH (w/ Rear No. 2 Seat)**

    HINT:

    Use the same procedure for the RH side and the LH side.

88. **REMOVE ROOF CONSOLE BOX ASSEMBLY** (See **REMOVAL**)
89. **REMOVE VISOR BRACKET COVER (for LH Side)** (See **REMOVAL**)
90. **REMOVE VISOR ASSEMBLY LH** (See **REMOVAL**)
91. **REMOVE VISOR BRACKET COVER (for RH Side)**

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HINT:

Use the same procedure for the RH side and the LH side.

92. **REMOVE VISOR ASSEMBLY RH**

HINT:

Use the same procedure for the RH side and the LH side.

93. **REMOVE INNER REAR VIEW MIRROR STAY HOLDER COVER (w/ EC Mirror)** (See **REMOVAL**)
94. **REMOVE NO. 1 ROOM LIGHT ASSEMBLY (for Standard)** (See **REMOVAL**)
95. **REMOVE NO. 1 ROOM LIGHT ASSEMBLY (for Independent Type)** (See **REMOVAL**)
96. **REMOVE NO. 2 ROOM LIGHT ASSEMBLY** (See **REMOVAL**)
97. **REMOVE TELEVISION BASE (w/ Rear Seat Entertainment System)** (See **TELEVISION DISPLAY**)
98. **REMOVE TELEVISION DISPLAY ASSEMBLY (w/ Rear Seat Entertainment System)** (See **TELEVISION DISPLAY**)
99. **REMOVE FRONT ASSIST GRIP SUB-ASSEMBLY (w/o Sliding Roof)** (See **REMOVAL**)
100. **REMOVE REAR ASSIST GRIP SUB-ASSEMBLY (w/o Sliding Roof)** (See **REMOVAL**)
101. **REMOVE ASSIST GRIP ASSEMBLY (w/ Sliding Roof)** (See **REMOVAL**)
102. **REMOVE ROOF HEADLINING TRIM CLIP STOPPER** (See **REMOVAL**)
103. **REMOVE SUN ROOF OPENING TRIM MOULDING (w/ Sliding Roof)**
104. **REMOVE VISOR HOLDER** (See **REMOVAL**)
105. **REMOVE ROOF HEADLINING ASSEMBLY (w/o Sliding Roof)** (See **REMOVAL**)
106. **REMOVE ROOF HEADLINING ASSEMBLY (w/ Sliding Roof)** (See **REMOVAL**)
107. **REMOVE AMPLIFIER ANTENNA ASSEMBLY**
    a. Disengage the 9 clamps.

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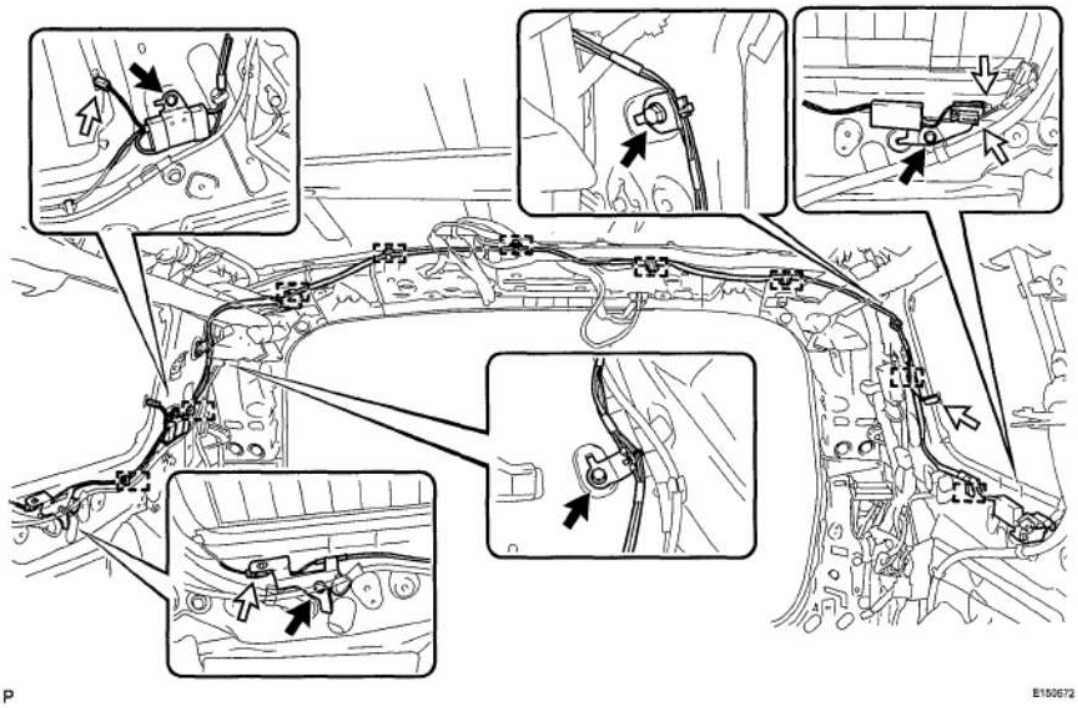


Fig. 252: Identifying Amplifier Antenna Assembly Clamps With Bolts
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

b. Remove the 5 bolts and amplifier antenna assembly.

INSTALLATION

1. **INSTALL AMPLIFIER ANTENNA ASSEMBLY**
   a. Install the amplifier antenna assembly with the 5 bolts.

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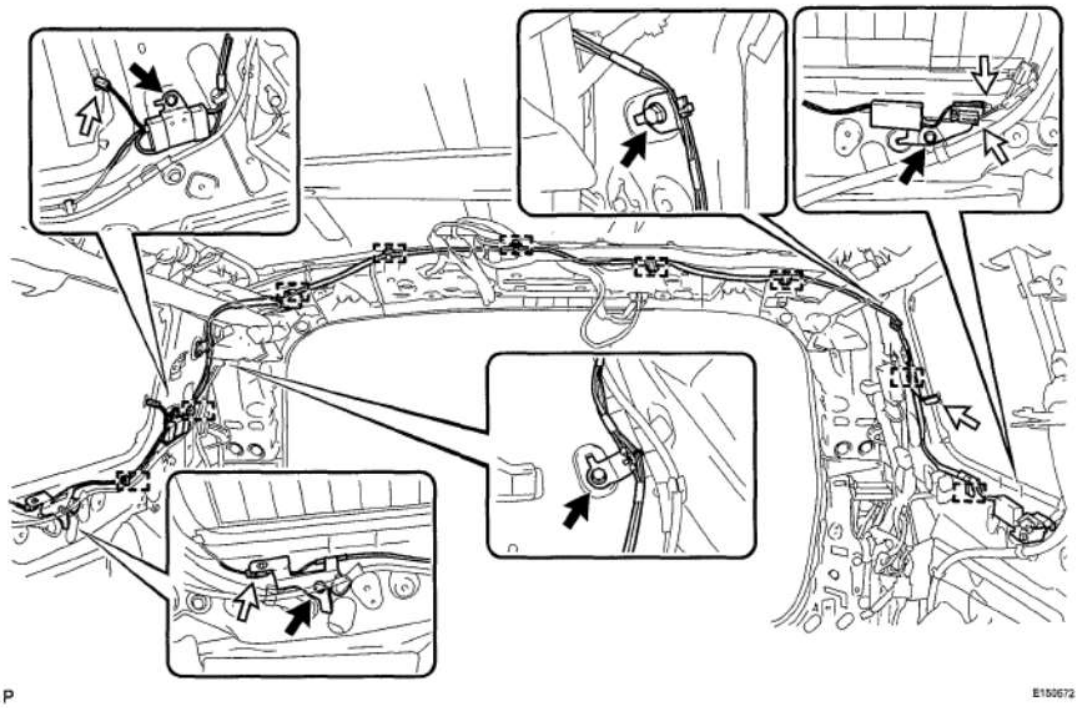


Fig. 253: Identifying Amplifier Antenna Assembly Clamps With Bolts
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

b. Engage the 9 clamps.

2. **INSTALL ROOF HEADLINING ASSEMBLY (w/ Sliding Roof)** (See **INSTALLATION**)
3. **INSTALL ROOF HEADLINING ASSEMBLY (w/o Sliding Roof)** (See **INSTALLATION**)
4. **INSTALL VISOR HOLDER** (See **INSTALLATION**)
5. **INSTALL SUN ROOF OPENING TRIM MOULDING (w/ Sliding Roof)** (See **INSTALLATION**)
6. **INSTALL ROOF HEADLINING TRIM CLIP STOPPER** (See **INSTALLATION**)
7. **INSTALL ASSIST GRIP ASSEMBLY (w/ Sliding Roof)** (See **INSTALLATION**)
8. **INSTALL REAR ASSIST GRIP SUB-ASSEMBLY (w/o Sliding Roof)** (See **INSTALLATION**)
9. **INSTALL FRONT ASSIST GRIP SUB-ASSEMBLY (w/o Sliding Roof)** (See **INSTALLATION**)
10. **INSTALL TELEVISION DISPLAY ASSEMBLY (w/ Rear Seat Entertainment System)** (See **INSTALLATION**)
11. **INSTALL TELEVISION BASE (w/ Rear Seat Entertainment System)** (See **INSTALLATION**)
12. **INSTALL NO. 2 ROOM LIGHT ASSEMBLY** (See **INSTALLATION**)
13. **INSTALL NO. 1 ROOM LIGHT ASSEMBLY (for Standard)** (See **INSTALLATION**)
14. **INSTALL NO. 1 ROOM LIGHT ASSEMBLY (for Independent Type)** (See **INSTALLATION**)
15. **INSTALL INNER REAR VIEW MIRROR STAY HOLDER COVER (w/ EC Mirror)** (See **INSTALLATION**)
16. **INSTALL VISOR ASSEMBLY LH** (See **INSTALLATION**)
17. **INSTALL VISOR BRACKET COVER (for LH Side)** (See **INSTALLATION**)

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18. **INSTALL VISOR ASSEMBLY RH**

    HINT:

    Use the same procedure for the RH side and the LH side.

19. **INSTALL VISOR BRACKET COVER (for RH Side)**

    HINT:

    Use the same procedure for the RH side and the LH side.

20. **INSTALL ROOF CONSOLE BOX ASSEMBLY** (See **INSTALLATION**)
21. **INSTALL ROOF SIDE INNER GARNISH ASSEMBLY LH (w/ Power Back Door)** (See **INSTALLATION**)
22. **INSTALL ROOF SIDE INNER GARNISH ASSEMBLY LH (w/o Power Back Door)** (See **INSTALLATION**)
23. **INSTALL QUARTER PILLAR GARNISH LH** (See **INSTALLATION**)
24. **INSTALL DECK TRIM SIDE PANEL ASSEMBLY LH** (See **INSTALLATION**)
25. **CONNECT REAR NO. 1 SEAT OUTER BELT ASSEMBLY LH** (See **INSTALLATION**)
26. **INSTALL FRONT DECK SIDE TRIM COVER LH** (See **INSTALLATION**)
27. **INSTALL NO. 2 DECK SIDE TRIM HOOK** (See **INSTALLATION**)
28. **INSTALL ROPE HOOK ASSEMBLY (for LH Side)** (See **INSTALLATION**)
29. **INSTALL REAR DECK TRIM COVER (w/o Remote Folding Function)** (See **INSTALLATION**)
30. **INSTALL RECLINING REMOTE CONTROL LEVER BEZEL LH (w/ Remote Folding Function)** (See **INSTALLATION**)
31. **INSTALL REAR POWER OUTLET SOCKET COVER** (See **INSTALLATION**)
32. **INSTALL REAR POWER POINT SOCKET ASSEMBLY** (See **INSTALLATION**)
33. **INSTALL REAR COMBINATION LIGHT SERVICE COVER LH** (See **INSTALLATION**)
34. **INSTALL SIDE TRIM COVER LH (w/o Rear Seat Entertainment System)** (See **INSTALLATION**)
35. **INSTALL POWER OUTLET SOCKET BEZEL (w/ Rear Seat Entertainment System)** (See **INSTALLATION**)
36. **INSTALL DECK SIDE TRIM LH** (See **INSTALLATION**)
37. **INSTALL DECK SIDE TRIM COVER LH** (See **INSTALLATION**)
38. **INSTALL ROOF SIDE INNER GARNISH ASSEMBLY RH (w/ Rear No. 2 Seat)**

    HINT:

    Use the same procedure for the RH side and the LH side.

39. **INSTALL ROOF SIDE INNER GARNISH ASSEMBLY RH (w/o Rear No. 2 Seat)**

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HINT:

Use the same procedure for the RH side and the LH side.

40. **INSTALL QUARTER PILLAR GARNISH RH**

HINT:

Use the same procedure for the RH side and the LH side.

41. **INSTALL DECK TRIM SIDE PANEL ASSEMBLY RH** (See **INSTALLATION**)
42. **CONNECT REAR NO. 1 SEAT OUTER BELT ASSEMBLY RH**

HINT:

Use the same procedure for the RH side and the LH side.

43. **INSTALL FRONT DECK SIDE TRIM COVER RH**

HINT:

Use the same procedure for the RH side and the LH side.

44. **INSTALL NO. 1 LUGGAGE COMPARTMENT TRIM HOOK** (See **INSTALLATION**)
45. **INSTALL ROPE HOOK ASSEMBLY (for RH Side)**

HINT:

Use the same procedure for the RH side and the LH side.

46. **INSTALL REAR COMBINATION LIGHT SERVICE COVER RH** (See **INSTALLATION**)
47. **INSTALL REAR ROOM TEMPERATURE SENSOR (w/ Rear Automatic Air Conditioning System)** (See **INSPECTION**)
48. **INSTALL SIDE TRIM COVER RH (w/o Rear Automatic Air Conditioning System)** (See **INSTALLATION**)
49. **INSTALL DECK SIDE TRIM RH**

HINT:

Use the same procedure for the RH side and the LH side.

50. **INSTALL DECK SIDE TRIM COVER RH**

HINT:

Use the same procedure for the RH side and the LH side.

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51. **INSTALL REAR SEAT SIDE GARNISH CAP (w/ Rear Air Conditioning System)** (See **INSTALLATION**)
52. **INSTALL REAR SEAT SIDE GARNISH CAP (w/o Rear Air Conditioning System)** (See **INSTALLATION**)
53. **INSTALL REAR FLOOR FINISH PLATE** (See **INSTALLATION**)
54. **INSTALL REAR NO. 2 SEAT ASSEMBLY (w/ Rear No. 2 Seat)** (See **INSTALLATION**)
55. **CONNECT REAR SEAT LAP TYPE BELT ASSEMBLY LH (w/ Rear No. 2 Seat)** (See **INSTALLATION**)
56. **CONNECT REAR SEAT LAP TYPE BELT ASSEMBLY RH (w/ Rear No. 2 Seat)** (See **INSTALLATION**)
57. **INSTALL REAR NO. 2 SEAT INNER BELT ASSEMBLY (w/ Rear No. 2 Seat)** (See **INSTALLATION**)
58. **INSTALL REAR DECK FLOOR BOX (w/o Rear No. 2 Seat)** (See **INSTALLATION**)
59. **INSTALL DECK FLOOR BOARD ASSEMBLY (w/o Rear No. 2 Seat)** (See **INSTALLATION**)
60. **INSTALL REAR MAT** (See **INSTALLATION**)
61. **INSTALL DECK FLOOR BOARD ASSEMBLY (w/ Rear No. 2 Seat)** (See **INSTALLATION**)
62. **INSTALL DECK SIDE TRIM BOX LH** (See **INSTALLATION**)
63. **INSTALL REAR SEAT SIDE COVER LH (w/ Rear No. 2 Seat)** (See **INSTALLATION**)
64. **INSTALL DECK SIDE TRIM BOX RH** (See **INSTALLATION**)
65. **INSTALL JACK CARRIER ASSEMBLY** (See **INSTALLATION**)
66. **INSTALL JACK ASSEMBLY** (See **INSTALLATION**)
67. **INSTALL JACK CARRIER CUSHION** (See **INSTALLATION**)
68. **INSTALL JACK CARRIER SUPPORT**
69. **INSTALL REAR SEAT SIDE COVER RH (w/ Rear Air Conditioning System)** (See **INSTALLATION**)
70. **INSTALL REAR NO. 1 FLOOR BOARD (w/o Rear Air Conditioning System)** (See **INSTALLATION**)
71. **INSTALL TONNEAU COVER ASSEMBLY (w/ Tonneau Cover)** (See **INSTALLATION**)
72. **INSTALL NO. 2 DECK BOARD SUB-ASSEMBLY** (See **INSTALLATION**)
73. **INSTALL NO. 3 DECK BOARD SUB-ASSEMBLY** (See **INSTALLATION**)
74. **INSTALL DECK BOARD ASSEMBLY** (See **INSTALLATION**)
75. **INSTALL CENTER PILLAR GARNISH LH** (See **INSTALLATION**)
76. **CONNECT FRONT SEAT OUTER BELT ASSEMBLY LH** (See **INSTALLATION**)
77. **INSTALL LOWER CENTER PILLAR GARNISH LH** (See **INSTALLATION**)
78. **INSTALL REAR DOOR OPENING TRIM WEATHERSTRIP LH** (See **INSTALLATION**)
79. **INSTALL REAR DOOR SCUFF PLATE LH** (See **INSTALLATION**)
80. **INSTALL FRONT PILLAR GARNISH LH** (See **INSTALLATION**)
81. **INSTALL FRONT DOOR OPENING TRIM WEATHERSTRIP LH** (See **INSTALLATION**)
82. **INSTALL COWL SIDE TRIM SUB-ASSEMBLY LH** (See **INSTALLATION**)

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83. **INSTALL FRONT DOOR SCUFF PLATE LH** (See **INSTALLATION**)
84. **INSTALL CENTER PILLAR GARNISH RH**

    HINT:

    Use the same procedure for the RH side and the LH side.

85. **CONNECT FRONT SEAT OUTER BELT ASSEMBLY RH**

    HINT:

    Use the same procedure for the RH side and the LH side.

86. **INSTALL LOWER CENTER PILLAR GARNISH RH**

    HINT:

    Use the same procedure for the RH side and the LH side.

87. **INSTALL REAR DOOR OPENING TRIM WEATHERSTRIP RH** (See **INSTALLATION**)
88. **INSTALL REAR DOOR SCUFF PLATE RH**

    HINT:

    Use the same procedure for the RH side and the LH side.

89. **INSTALL FRONT PILLAR GARNISH RH** (See **INSTALLATION**)
90. **INSTALL FRONT DOOR OPENING TRIM WEATHERSTRIP RH** (See **INSTALLATION**)
91. **INSTALL COWL SIDE TRIM SUB-ASSEMBLY RH**

    HINT:

    Use the same procedure for the RH side and the LH side.

92. **INSTALL FRONT DOOR SCUFF PLATE RH**

    HINT:

    Use the same procedure for the RH side and the LH side.

93. **INSTALL REAR NO. 1 SEAT ASSEMBLY LH** (See **INSTALLATION**)
94. **CONNECT REAR NO. 1 SEAT LOCK CABLE ASSEMBLY LH (w/ Remote Folding Function)** (See **INSTALLATION**)
95. **INSPECT REAR SEAT SLIDE ADJUSTER LOCK (for LH Side)** (See **INSTALLATION**)
96. **INSTALL REAR SEAT LEG SIDE COVER LH** (See **INSTALLATION**)

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97. **INSTALL REAR INNER TRACK BRACKET COVER LH** (See **INSTALLATION**)
98. **INSTALL REAR OUTER TRACK BRACKET COVER LH** (See **INSTALLATION**)
99. **INSTALL REAR SEAT TRACK BRACKET COVER LH** (See **INSTALLATION**)
100. **INSTALL REAR SEAT HEADREST ASSEMBLY (for LH Side)** (See **INSTALLATION**)
101. **INSTALL REAR CENTER SEAT ASSEMBLY**
102. **INSTALL REAR NO. 1 SEAT ASSEMBLY RH** (See **INSTALLATION**)
103. **CONNECT REAR NO. 1 SEAT LOCK CABLE ASSEMBLY RH (w/ Remote Folding Function)** (See **INSTALLATION**)
104. **INSPECT REAR SEAT SLIDE ADJUSTER LOCK (for RH Side)** (See **INSTALLATION**)
105. **INSTALL REAR SEAT LEG SIDE COVER RH** (See **INSTALLATION**)
106. **INSTALL REAR INNER TRACK BRACKET COVER RH** (See **INSTALLATION**)
107. **INSTALL REAR OUTER TRACK BRACKET COVER RH** (See **INSTALLATION**)
108. **INSTALL REAR SEAT TRACK BRACKET COVER RH** (See **INSTALLATION**)
109. **INSTALL REAR SEAT HEADREST ASSEMBLY (for RH Side)** (See **INSTALLATION**)

VIDEO TERMINAL

COMPONENTS

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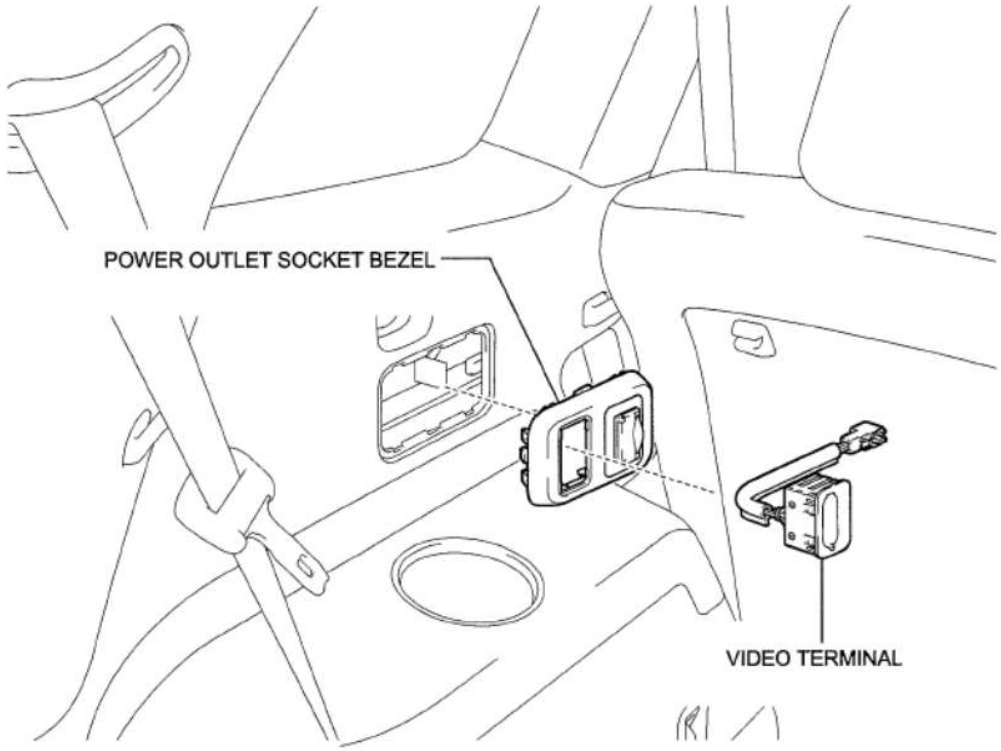


Fig. 254: Identifying Video Terminal Components
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL

1. **REMOVE POWER OUTLET SOCKET BEZEL** (See **REMOVAL**)
2. **REMOVE VIDEO TERMINAL**
   a. Disengage the clamp and 4 claws and remove the video terminal.

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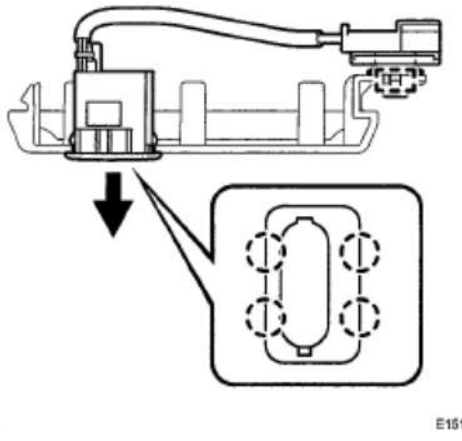


Fig. 255: Removing Video Terminal With Clamp And Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSTALLATION

1. **INSTALL VIDEO TERMINAL**
   a. Engage the 4 claws and install the video terminal.
   b. Engage the clamp.
2. **INSTALL POWER OUTLET SOCKET BEZEL** (See **INSTALLATION**)

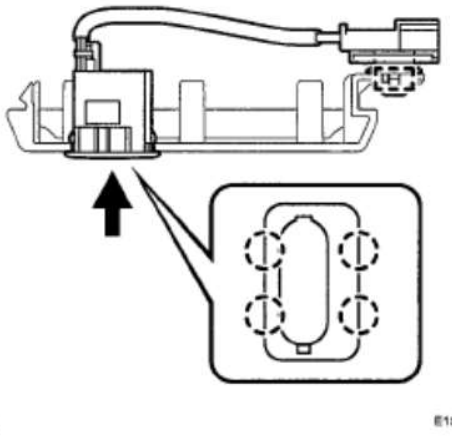


Fig. 256: Installing Video Terminal With Clamp And Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

STEREO JACK ADAPTER ASSEMBLY

COMPONENTS

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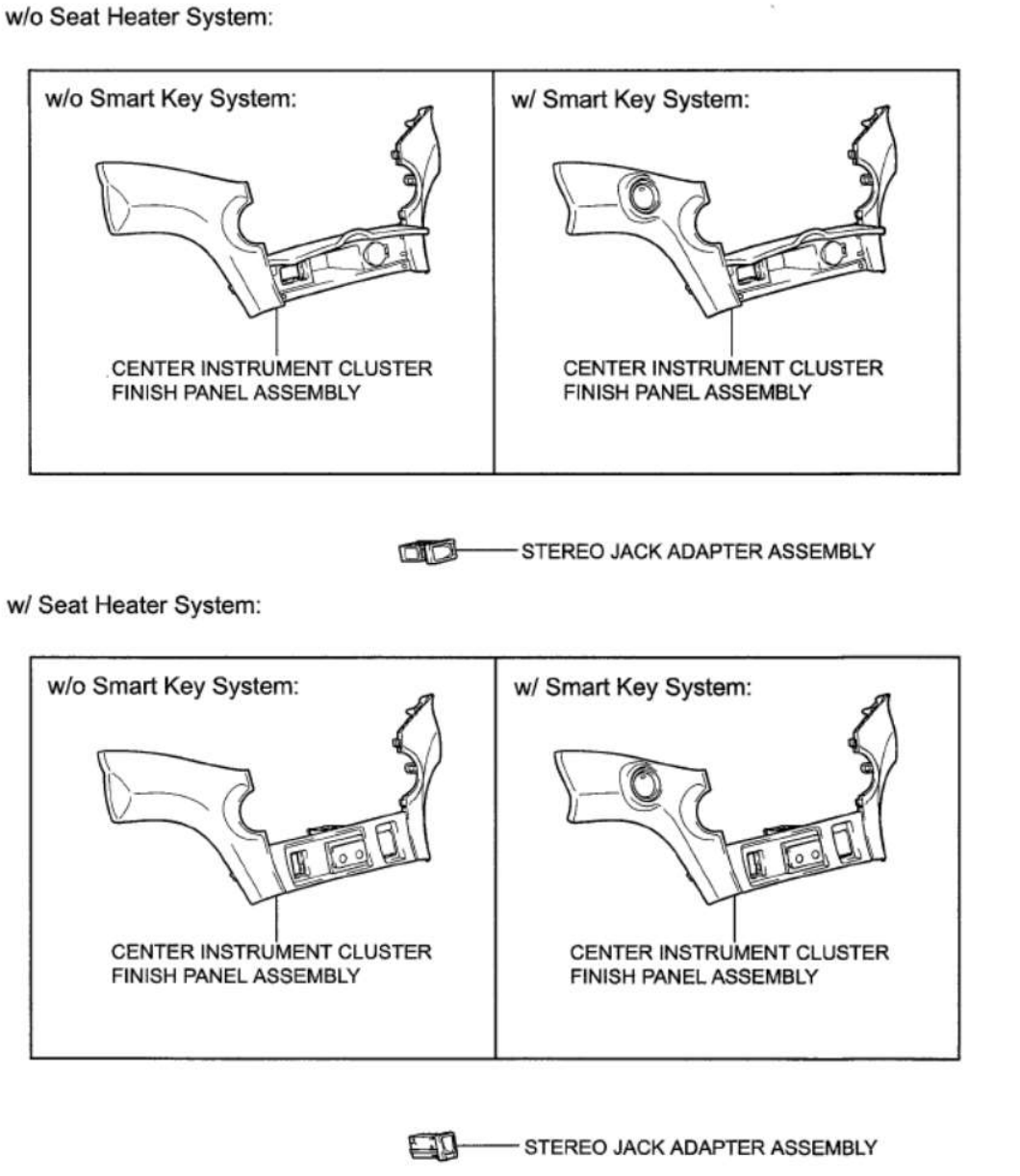


Fig. 257: Identifying Stereo Jack Adapter Assembly Components
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL

1. **REMOVE CENTER INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY (w/o Smart Key System)** (See **REMOVAL**)
2. **REMOVE CENTER INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY (w/ Smart Key System)** (See **REMOVAL**)

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3. **REMOVE STEREO JACK ADAPTER ASSEMBLY (w/o Seat Heater System)**
   a. Disengage the 2 claws and remove the stereo jack adapter assembly.

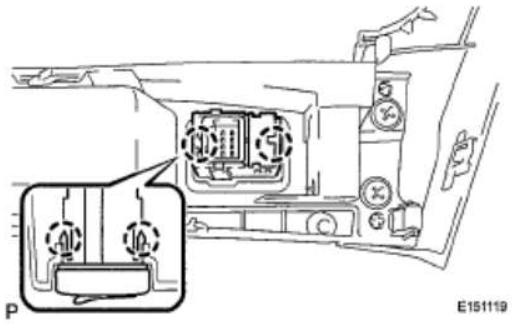


Fig. 258: Identifying Stereo Jack Adapter Assembly Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

4. **REMOVE STEREO JACK ADAPTER ASSEMBLY (w/ Seat Heater System)**
   a. Disengage the 2 claws and remove the stereo jack adapter assembly.

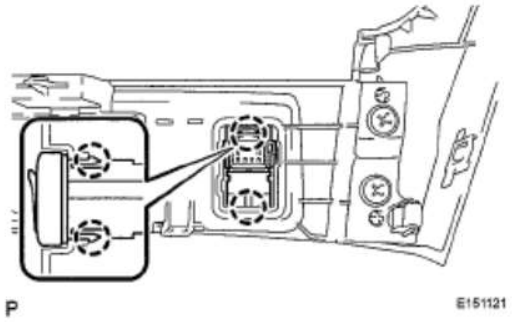


Fig. 259: Identifying Stereo Jack Adapter Assembly Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSTALLATION

1. **INSTALL STEREO JACK ADAPTER ASSEMBLY (w/o Seat Heater System)**
   a. Engage the 2 claws and install the stereo jack adapter assembly.

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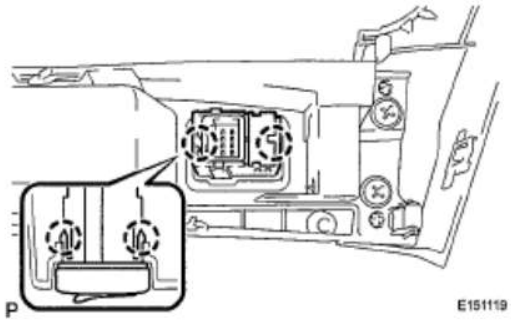


Fig. 260: Identifying Stereo Jack Adapter Assembly Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

2. **INSTALL STEREO JACK ADAPTER ASSEMBLY (w/ Seat Heater System)**
   a. Engage the 2 claws and install the stereo jack adapter assembly.
3. **INSTALL CENTER INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY (w/o Smart Key System)** (See **INSTALLATION**)
4. **INSTALL CENTER INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY (w/ Smart Key System)** (See **INSTALLATION**)

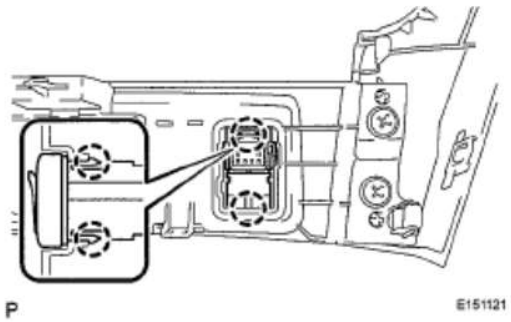


Fig. 261: Identifying Stereo Jack Adapter Assembly Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

STEERING PAD SWITCH

COMPONENTS

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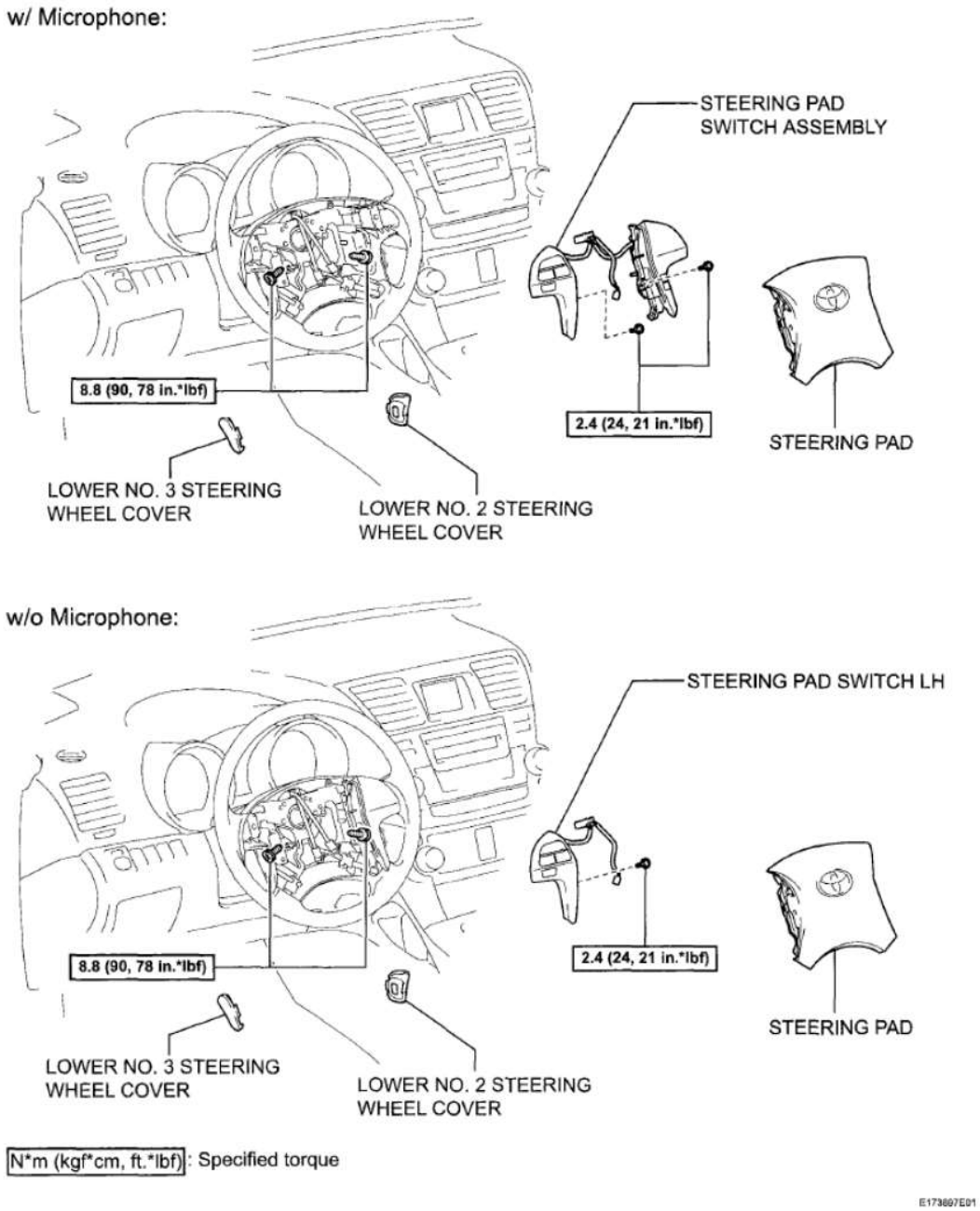


Fig. 262: Identifying Steering Pad Switch Components With Torque Specifications
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL

1. **DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL**

CAUTION: Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.

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NOTE: When disconnecting the cable, some systems need to be initialized after the cable is reconnected (See INITIALIZATION).

2. **REMOVE LOWER NO. 3 STEERING WHEEL COVER** (See **REMOVAL**)
3. **REMOVE LOWER NO. 2 STEERING WHEEL COVER** (See **REMOVAL**)
4. **REMOVE STEERING PAD** (See **REMOVAL**)
5. **REMOVE STEERING PAD SWITCH ASSEMBLY (w/ Microphone)**
   a. Disconnect the steering pad switch connector from the spiral cable.
   b. Remove the screw.
   c. Disengage the 2 pins and remove the steering pad switch.

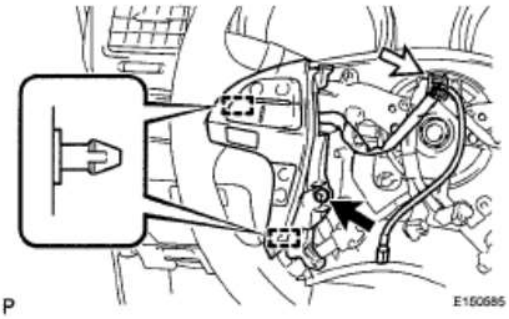


Fig. 263: Identifying Steering Pad Switch Assembly Screw, Pin And Connector (W/ Microphone)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

   d. Remove the screw.
   e. Disengage the 2 pins and remove the steering pad switch assembly.

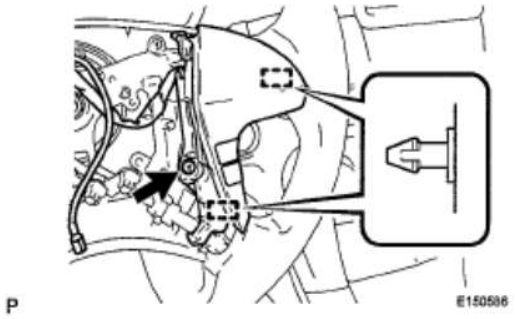


Fig. 264: Identifying Steering Pad Switch Assembly Pins And Screw
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

6. **REMOVE STEERING PAD SWITCH LH (w/o Microphone)**
   a. Disconnect the steering pad switch connector from the spiral cable.
   b. Remove the screw.

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c. Disengage the 2 pins and remove the steering pad switch LH.

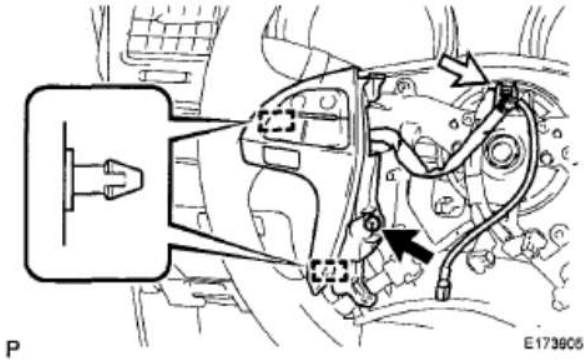


Fig. 265: Identifying Steering Pad Switch LH Screw, Pins And Connector (W/O Microphone)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION

1. **INSPECT STEERING PAD SWITCH**
   a. Disconnect the steering pad switch assembly connector.

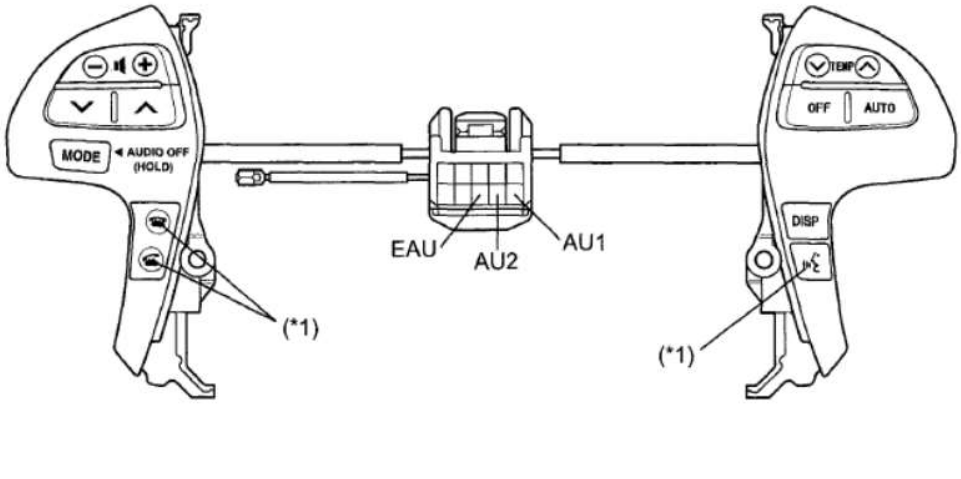


Fig. 266: Identifying Steering Pad Switch Assembly Connector Terminals And Hook Switch
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester connection	Condition	Specified condition
AU1 - EAU	No switch is pushed	Approx. 100 kohms

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AU1 - EAU	SEEK+ switch: push	0 to 2.5 ohms
AU1 - EAU	SEEK- switch: push	Approx. 0.3 kohms
AU1 - EAU	VOL+ switch: push	Approx. 1 kohms
AU1 - EAU	VOL- switch: push	Approx. 3.1 kohms
AU2 - EAU	No switch is pushed	Approx. 100 kohms
AU2 - EAU	MODE switch: push	0 to 2.5 ohms
AU2 - EAU	VOICE switch: push ((1))	Approx. 3.1 kohms
AU2 - EAU	ON HOOK switch: push ((1))	Approx. 0.3 kohms
AU2 - EAU	OFF HOOK switch: push ((1))	Approx. 1 kohms
(1) for Premium models		

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

INSTALLATION

1. **INSTALL STEERING PAD SWITCH ASSEMBLY (w/ Microphone)**
   a. Engage the 2 pins to install the steering pad switch.
   b. Install the screw.

   Torque: 2.4 N*m (24 kgf*cm, 21 in.*lbf)

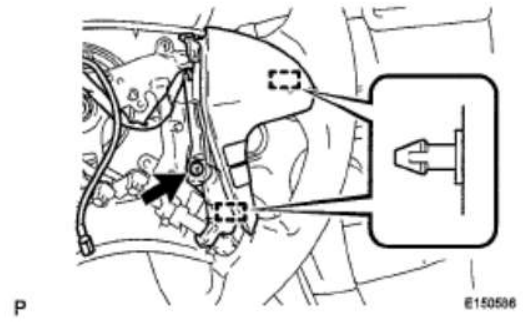


Fig. 267: Identifying Steering Pad Switch Assembly Pins And Screw
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

   c. Engage the 2 pins to install the steering pad switch assembly.
   d. Install the screw.

   Torque: 2.4 N*m (24 kgf*cm, 21 in.*lbf)

   e. Connect the steering pad switch connector to the spiral cable.

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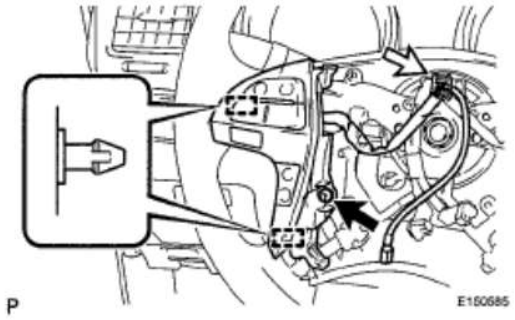


Fig. 268: Identifying Steering Pad Switch Assembly Screw, Pin And Connector (W/ Microphone)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

2. **INSTALL STEERING PAD SWITCH LH (w/o Microphone)**
   a. Engage the 2 pins to install the steering pad switch LH.
   b. Install the screw.

      Torque: 2.4 N*m (24 kgf*cm, 21 in.*lbf)

   c. Connect the steering pad switch connector to the spiral cable.

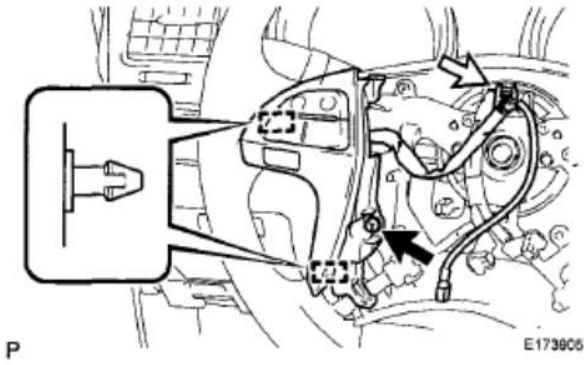


Fig. 269: Identifying Steering Pad Switch LH Screw, Pins And Connector (W/O Microphone)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

3. **INSTALL STEERING PAD** (See **INSTALLATION**)
4. **INSTALL LOWER NO. 3 STEERING WHEEL COVER** (See **INSTALLATION**)
5. **INSTALL LOWER NO. 2 STEERING WHEEL COVER** (See **INSTALLATION**)
6. **CONNECT CABLE TO NEGATIVE BATTERY TERMINAL**

NOTE: **When disconnecting the cable, some systems need to be initialized after the cable is reconnected (See INITIALIZATION).**

7. **INSPECT STEERING PAD** (See **INSTALLATION**)
8. **INSPECT SRS WARNING LIGHT**

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(See **DIAGNOSIS SYSTEM**)

MICROPHONE

COMPONENTS

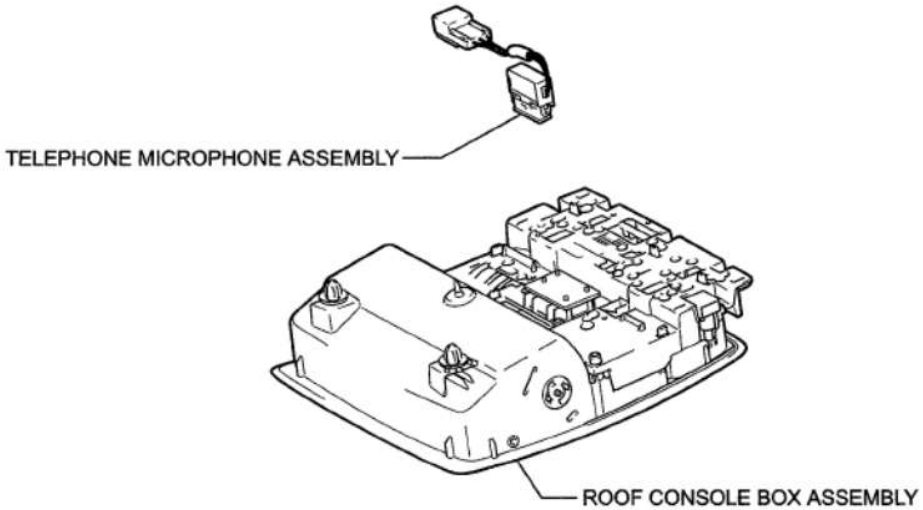


Fig. 270: Identifying Microphone Components
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL

1. **REMOVE ROOF CONSOLE BOX ASSEMBLY** (See **REMOVAL**)
2. **REMOVE TELEPHONE MICROPHONE ASSEMBLY**
   a. Disengage the clamp.
   b. Disengage the 2 claws and remove the telephone microphone assembly.

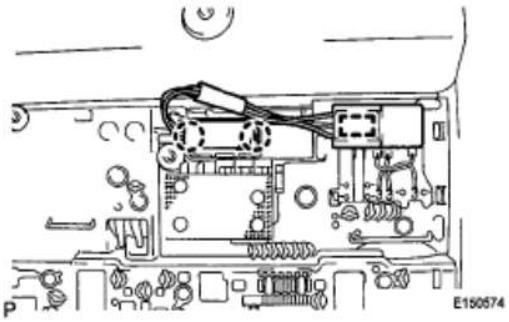


Fig. 271: Identifying Telephone Microphone Assembly Claws And Clamp
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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INSTALLATION

1. **INSTALL TELEPHONE MICROPHONE ASSEMBLY**
   a. Engage the 2 claws and install the telephone microphone assembly.
   b. Engage the clamp.
2. **INSTALL ROOF CONSOLE BOX ASSEMBLY** (See **INSTALLATION**)

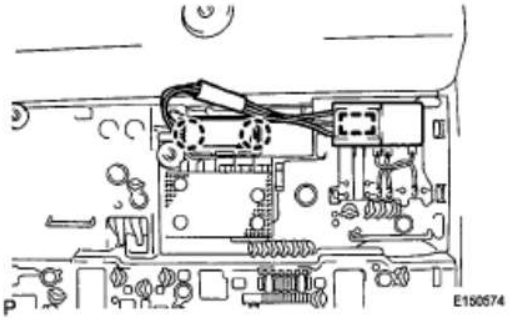


Fig. 272: Identifying Telephone Microphone Assembly Claws And Clamp
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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.

NOTE:

- **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 resistance, 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.

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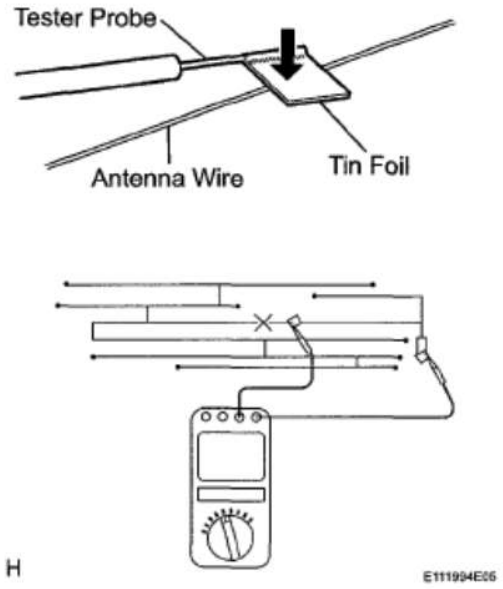


Fig. 273: Checking Continuity Of Antenna Wire
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REPAIR

1. **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).

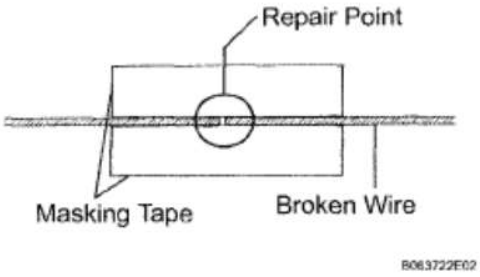


Fig. 274: Identifying Repair Points
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

   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.

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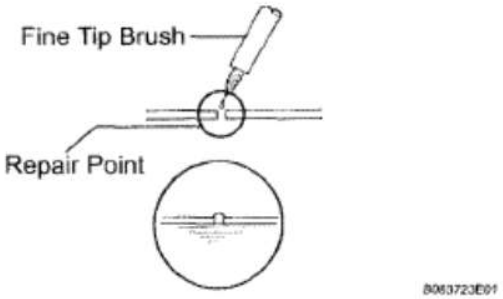


Fig. 275: Applying Repair Agent To Window Glass Antenna Wire
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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