

ACCESSORIES & EQUIPMENT

Audio / Video System (Diagnostics - Introduction) - Sienna

AUDIO AND VISUAL SYSTEM

PRECAUTION

PRECAUTION

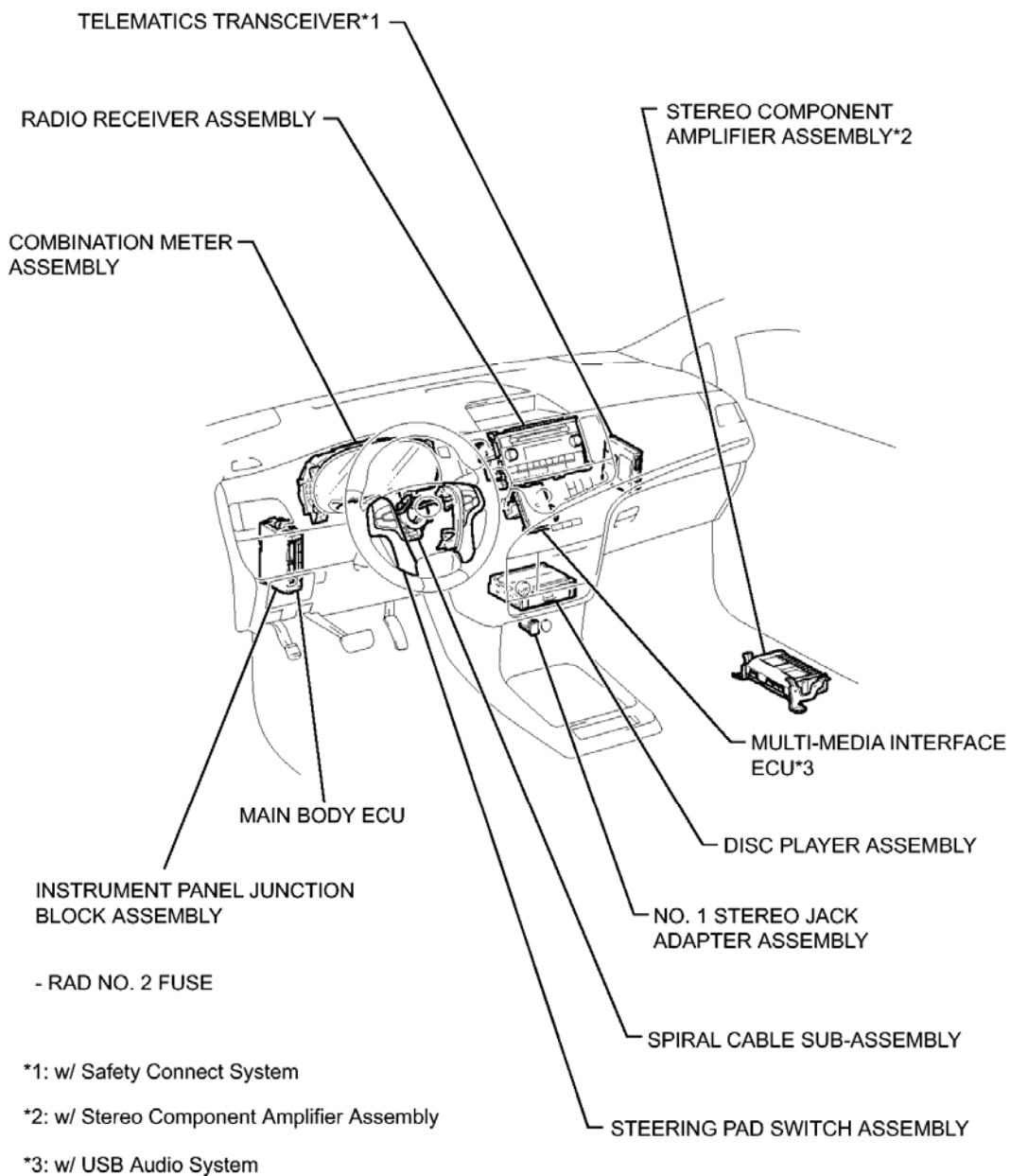
1. IGNITION SWITCH EXPRESSIONS

- 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 information.

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

PARTS LOCATION

ILLUSTRATION

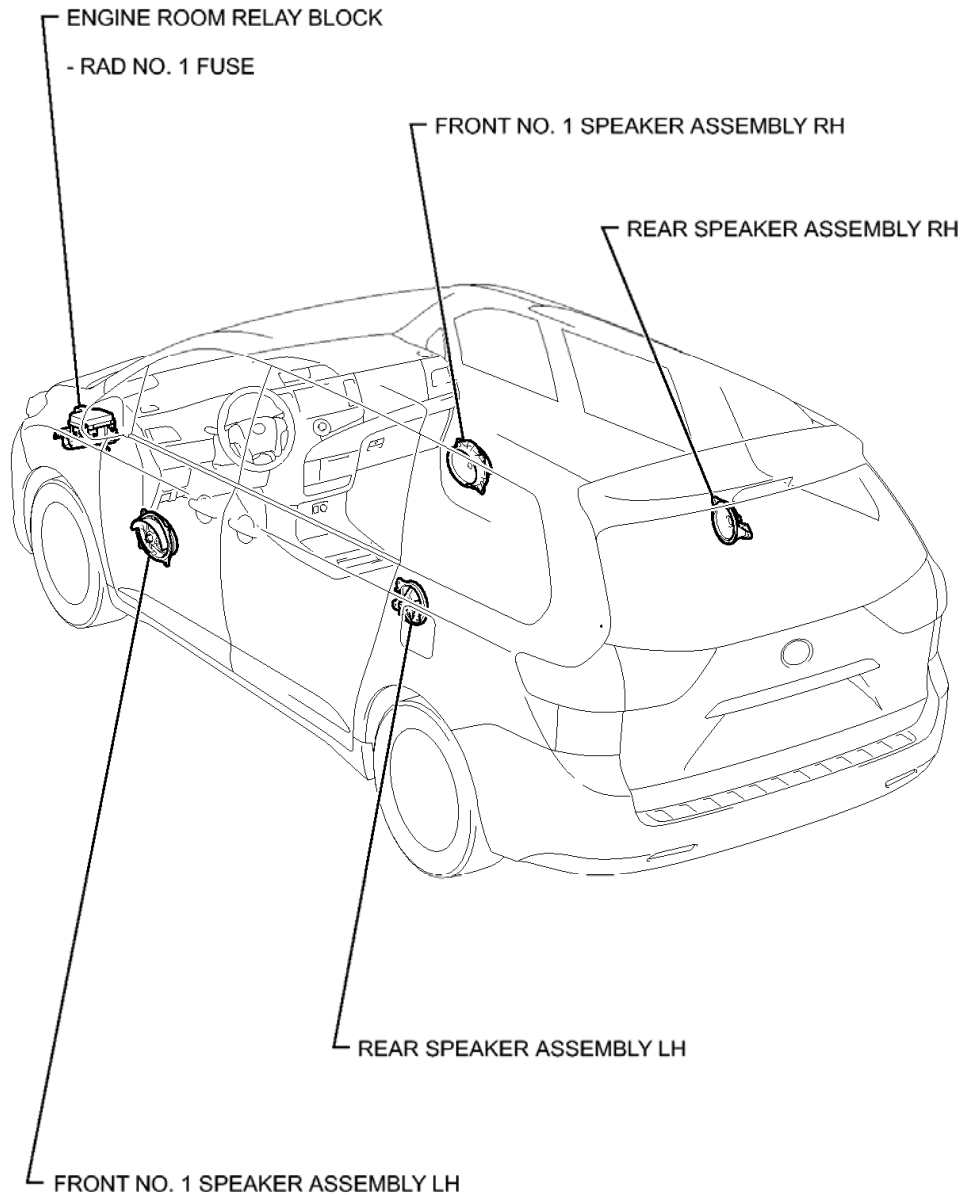


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Fig. 1: Audio And Visual System Components Location (1 Of 6)
 Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

ILLUSTRATION

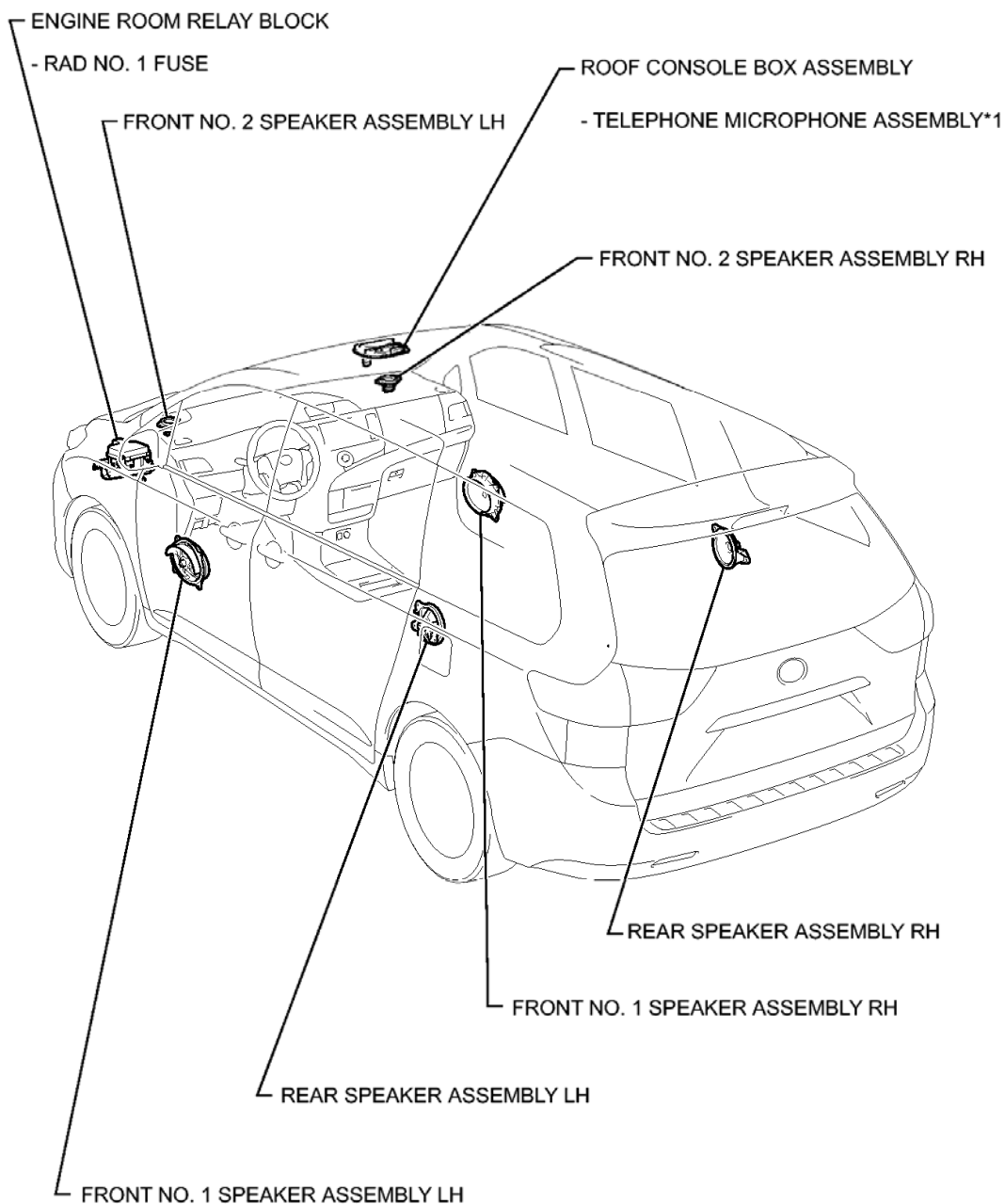
for 4 Speaker:



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Fig. 2: Audio And Visual System Components Location (For 4 Speaker) (2 Of 6)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

ILLUSTRATION

for 6 Speaker:



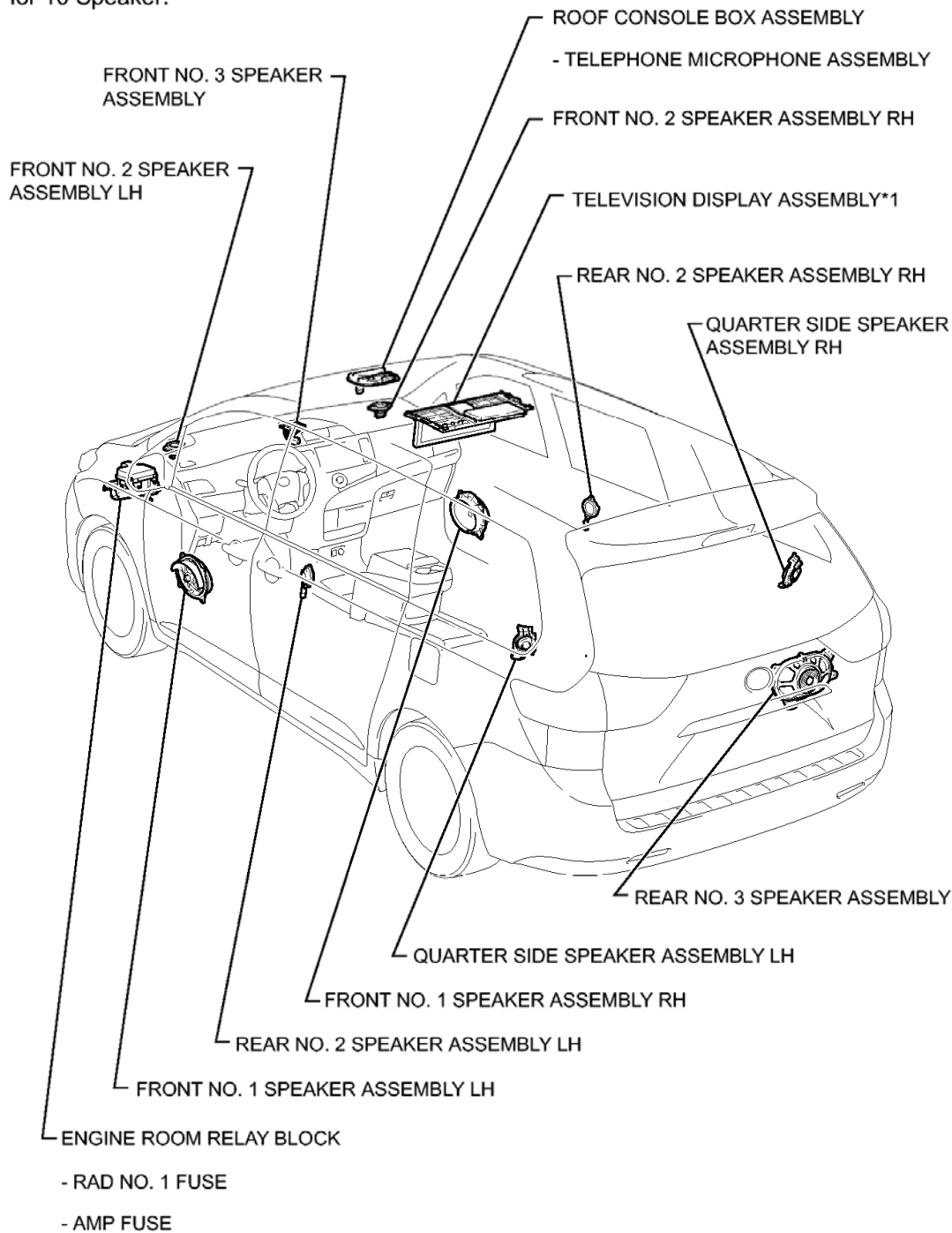
*1: w/ Telephone Microphone Assembly

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Fig. 3: Audio And Visual System Components Location (For 6 Speaker) (3 Of 6)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

ILLUSTRATION

for 10 Speaker:

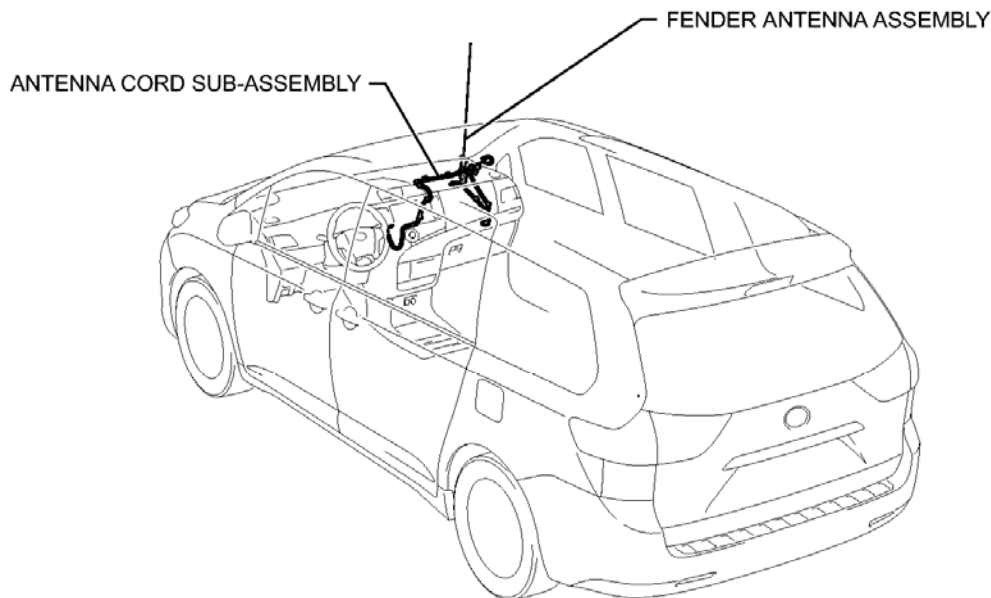


*1: w/ Rear Seat Entertainment System

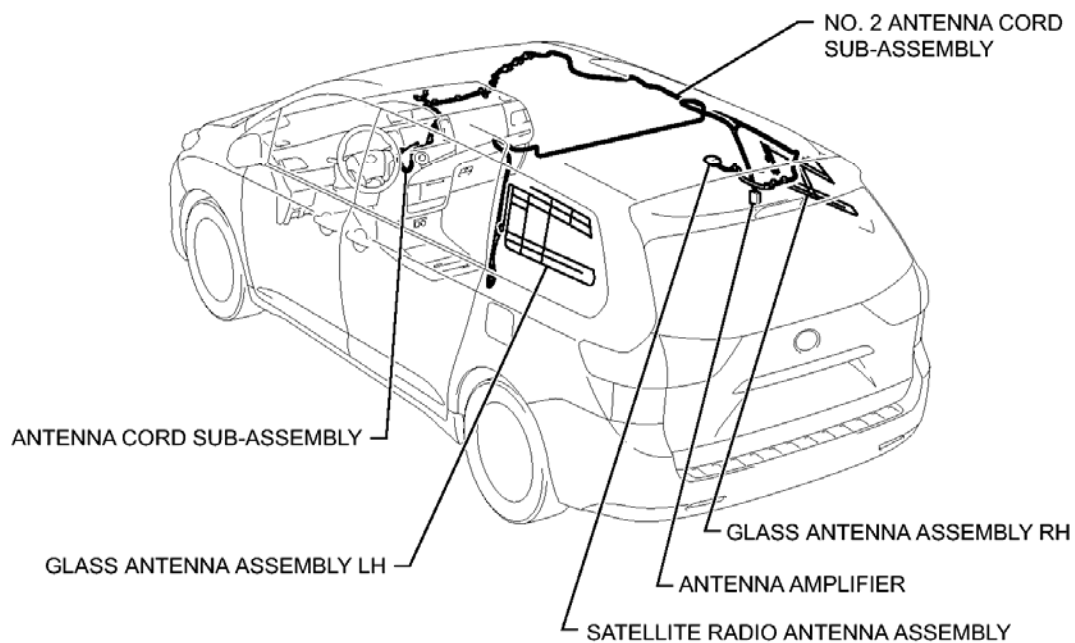
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Fig. 4: Audio And Visual System Components Location (For 10 Speaker) (4 Of 6)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

ILLUSTRATION

w/o Satellite Radio:



w/ Satellite Radio (w/o Safety Connect System):



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Fig. 5: Audio And Visual System Components Location (w/o Satellite Radio) (5 Of 6)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

ILLUSTRATION

w/ Safety Connect System:

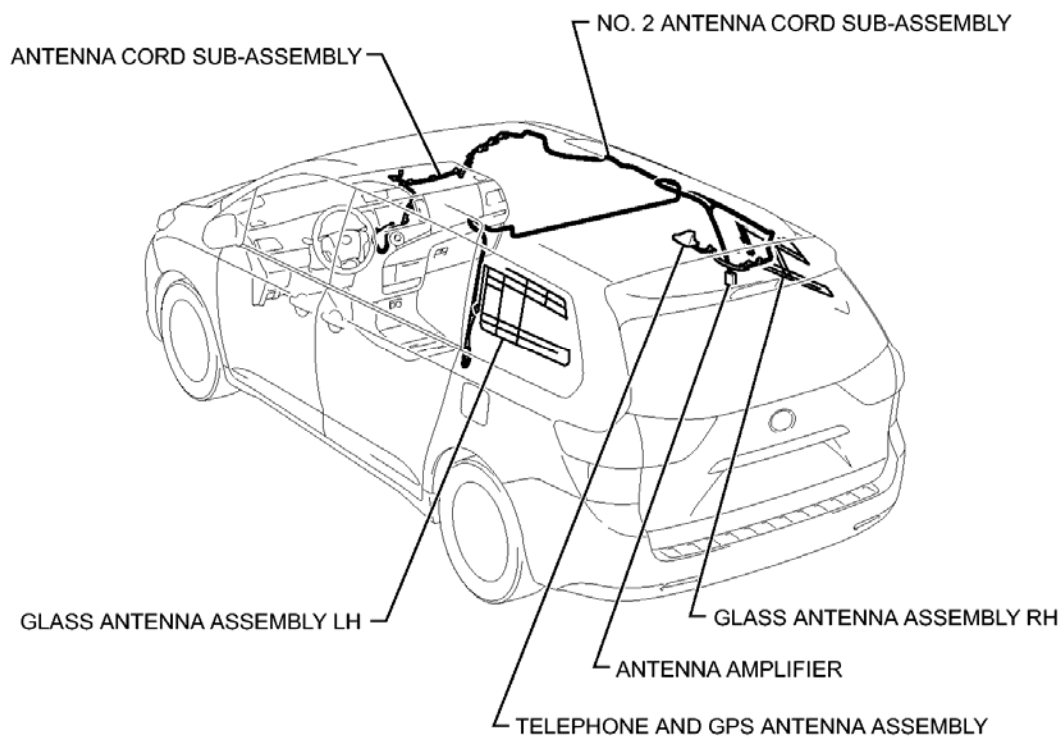


Fig. 6: Audio And Visual System Components Location (w/ Safety Connect System) (6 Of 6)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

SYSTEM DIAGRAM

SYSTEM DIAGRAM

1. SYSTEM DIAGRAM (w/o Stereo Component Amplifier)

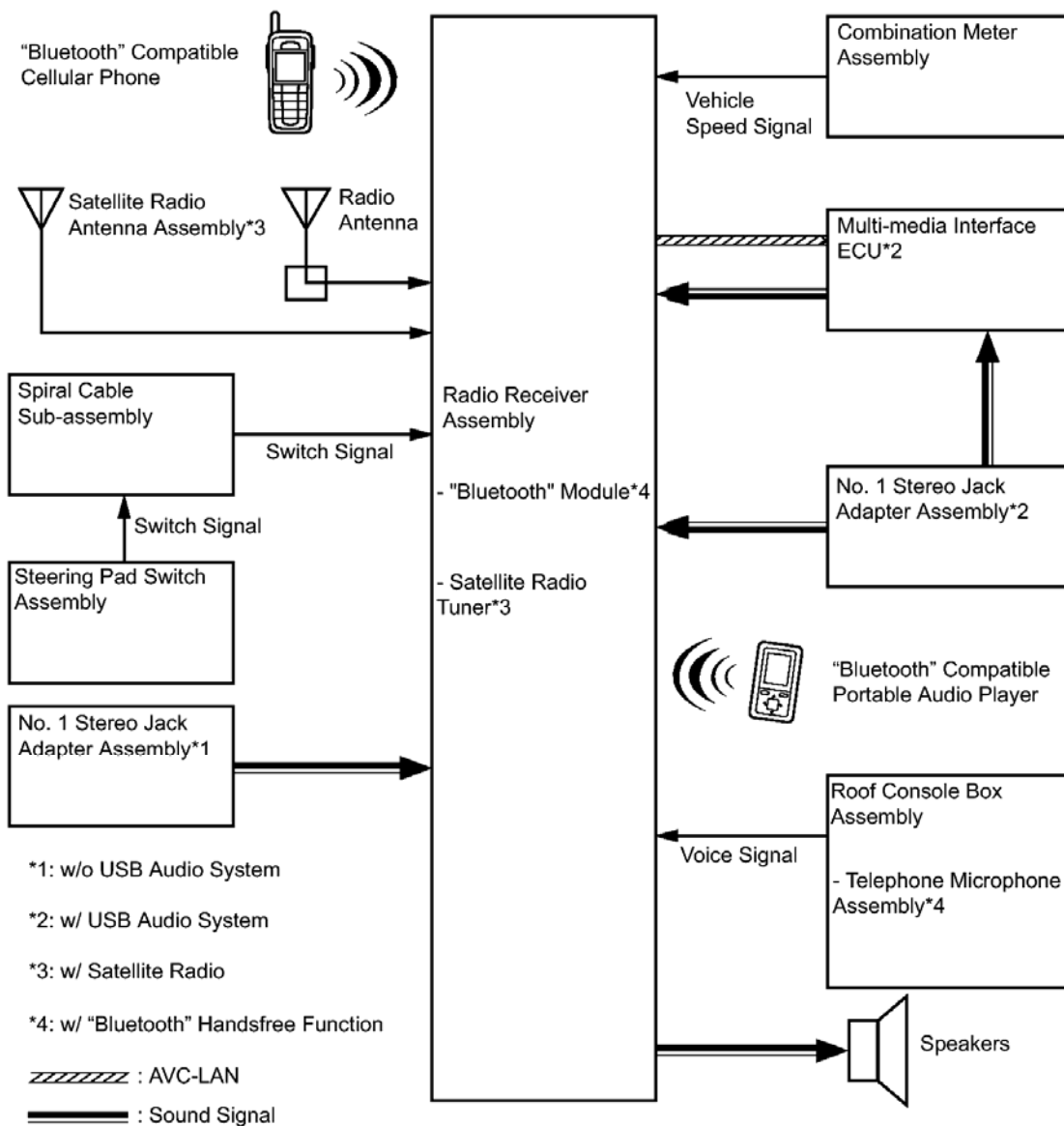


Fig. 7: Audio And Visual System Diagram (w/o Stereo Component Amplifier)
 Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

2. SYSTEM DIAGRAM (w/ Stereo Component Amplifier)

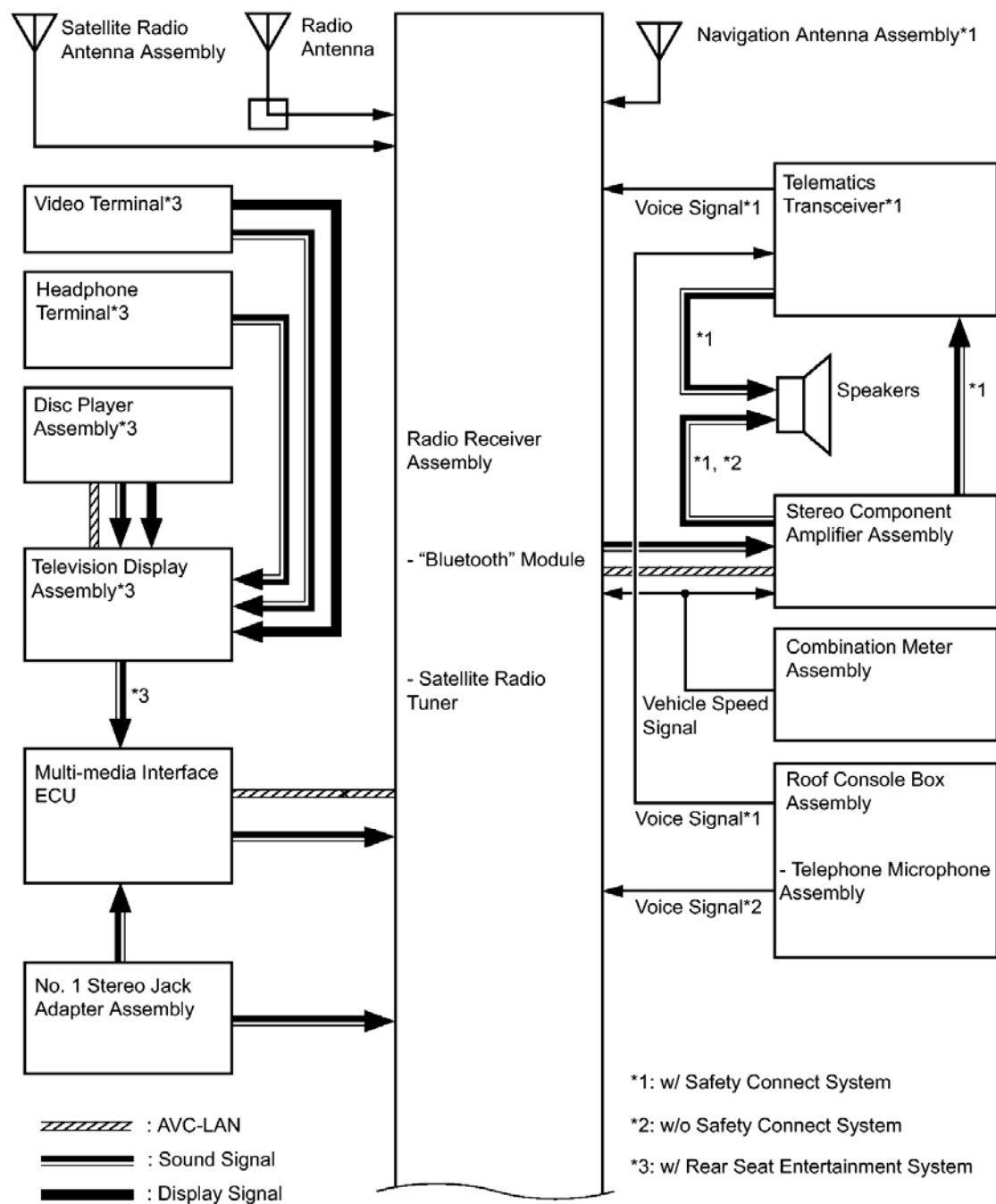


Fig. 8: Audio And Visual System Diagram (w/ Stereo Component Amplifier) (1 Of 2)
 Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

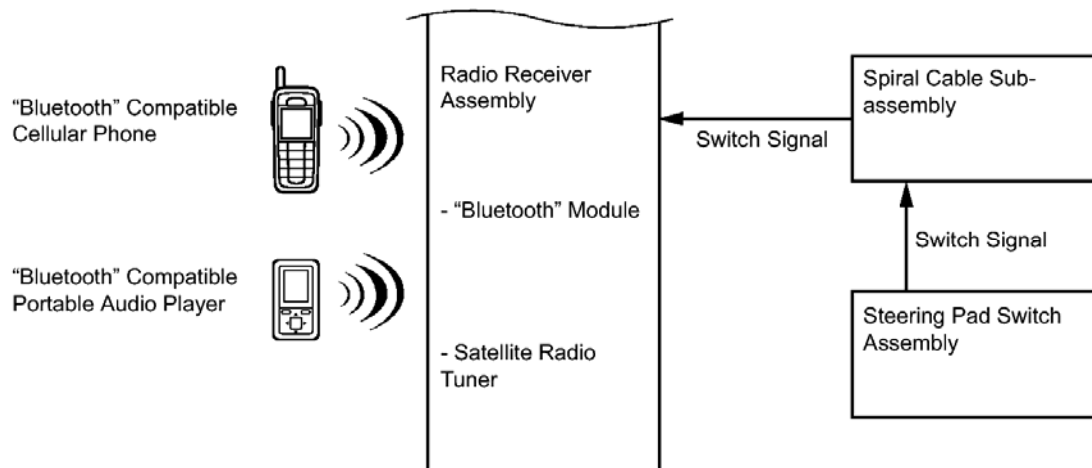


Fig. 9: Audio And Visual System Diagram (w/ Stereo Component Amplifier) (2 Of 2)
 Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

SYSTEM DESCRIPTION

SYSTEM DESCRIPTION

1. CD (Compact Disc) PLAYER OUTLINE

- a. A compact disc player uses a laser pickup to read digital signals recorded on a compact disc (CD). By converting the digital signals to analog, it can play music and other content.

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



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Fig. 10: Identifying Disc Player Outline

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.
- Do not use discs whose recorded portion is transparent or translucent because they may be unable to be properly inserted, ejected, or played.

HINT:

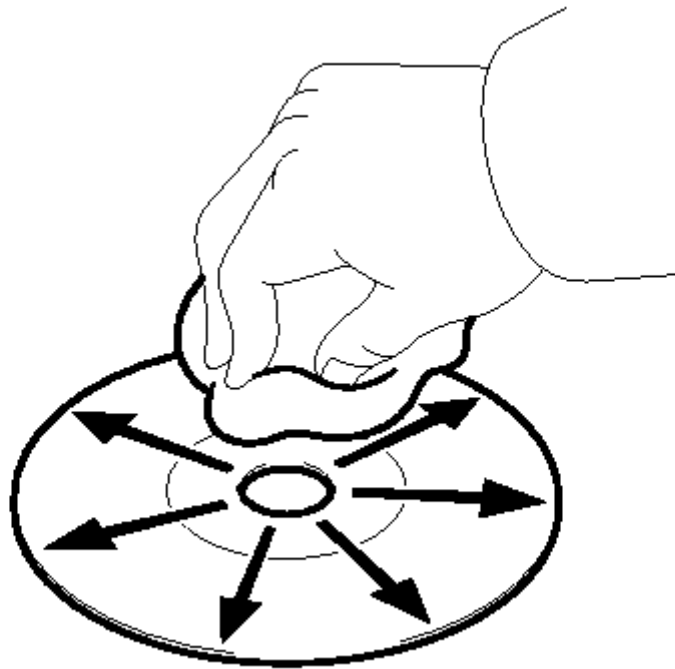
- When it is cold or raining, if the windows mist up, mist and condensation may form in the player. In such a cases, the CD may skip or stop in the middle of play. Ventilate or dehumidify the cabin for a while before using the player.
- The CD may skip if the player experiences strong vibrations when the vehicle is driven on

rough road or similar uneven surfaces.

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.



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Fig. 11: 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.
- The use of solvent such as a record spray, antistatic agent, alcohol, benzine, and thinner, or a chemical cloth may cause damage to the disc, making the disc unusable.

2. MP3/WMA OUTLINE

a. Playable MP3 file standards

Compatible standard	MP3 (MPEG1 LAYER3, MPEG2 LSF LAYER 3)

Compatible sampling frequency	• MPEG1 LAYER3: 32, 44.1, 48 (kHz) • 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

Compatible standard	WMA Ver. 7, 8, and 9
Compatible sampling frequency	32, 44.1, 48 (kHz)
Compatible	• Ver. 7, 8: CBR48, 64, 80, 96, 128, 160, 192 (kbps) • Ver. 9: CBR48, 64, 80, 96,

bit rate	128, 160, 192, 256, 320 (kbps) • Compatible with playback of channel 2 only
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c. ID3 tag and WMA tag

1. Additional textual information called ID3 tags 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 (the number of characters complies with ID3 Ver. 1.0 and 1.1).

2. Additional textual information called WMA tags 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 may not be played.**
- **If there are fingerprints or scratches on the disc, the disc may not be played or the CD may skip.**
- **Some CD-Rs and CD-RWs deteriorate if they are left in the cabin for a long time.**
- **Keep CD-Rs and CD-RWs in a storage case that is impenetrable to light.**

e. Usable media format

1. Usable media format

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

HINT:

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

2. Standard and restrictions

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, the route folder, 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 speakers may result.

3. AVC-LAN DESCRIPTION

a. What is AVC-LAN?

Example:

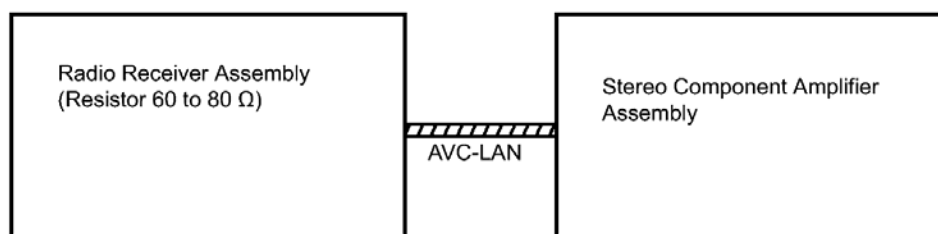


Fig. 12: AVC-LAN Communication Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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 navigation receiver assembly is installed, it is the master unit.

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 assembly 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

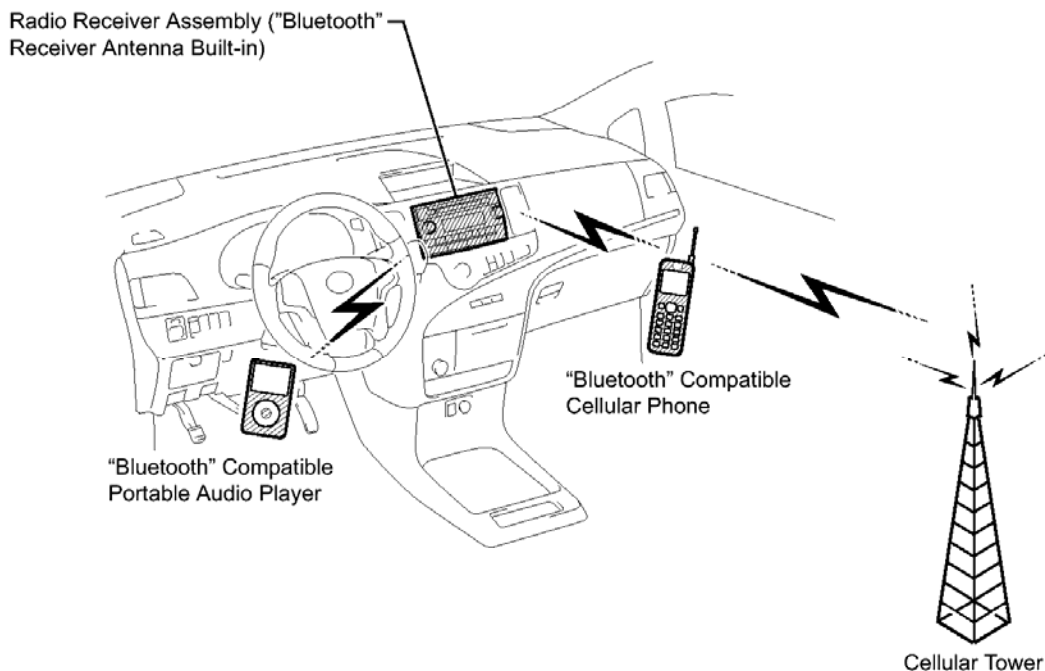


Fig. 13: Identifying "Bluetooth" Outline Wireless Connection
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

- a. "Bluetooth" is a trademark owned by Bluetooth SIG. Inc.

- b. "Bluetooth" is a new wireless connection technology that uses the 2.4 GHz frequency band. This makes it possible to connect a cellular phone ("Bluetooth" compatible phone*) to the radio receiver assembly (the "Bluetooth" system is built-in) through the handsfree function of the cellular phone, even if it is in a pocket or bag. As a result, it is not necessary to directly connect the radio receiver assembly to the cellular phone.

HINT:

- *: Some versions of "Bluetooth" compatible cellular phones may not function.
- The communication performance of "Bluetooth" may vary depending on obstructions or radio wave conditions between communication devices, electromagnetic radiation, communication device sensitivity and antenna capacity.

c. "Bluetooth" audio function

1. The "Bluetooth" built into the radio receiver assembly and a "Bluetooth" compatible portable audio player* can be connected using a "Bluetooth" wireless connection. This enables files stored in the portable audio player to be heard from the vehicle speakers. In addition, operations such as play/stop can be performed directly from the navigation receiver assembly.

*: Some versions of "Bluetooth" compatible audio players may not be able to operate using the "Bluetooth" function, or music may play, but functions available using the navigation receiver assembly may be limited.

2. Available "Bluetooth" audio devices

"Bluetooth" specifications	Ver. 1.1 or higher (Recommended: Ver. 2.0 + EDR or higher)
Following profiles	• A2DP (Advanced Audio Distribution Profile) Ver. 1.0 or higher • AVRCP (Audio/Video Remote Control Profile) Ver. 1.0 or higher (Ver. 1.3 or higher recommended)
Maximum number of	

audio devices that can be registered	2
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HINT:

The amount of remaining battery charge displayed on the navigation receiver assembly may be different from that of the portable player.

7. USB AUDIO SYSTEM FUNCTION OUTLINE

- a. The No. 1 stereo jack adapter assembly is equipped with a USB terminal. Connecting a USB device or "iPod" to the No. 1 stereo jack adapter assembly allows music files to be played. Not only is it possible to play music from a USB device with audio functions, is also possible to play MP3 or WMA music files that are stored on a USB device. In addition, "iPod" control software is installed, allowing file selection from playlists and operation using shuffle mode.

HINT:

- Visual contents of an "iPod" cannot be played.
 - Operation through the controls of a USB device or "iPod" cannot be performed while it is connected.
- b. USB audio system compatible model
 1. USB Device

The following device formats can be used:

Compatible USB device formats	• USB communication format: USB 2.0 FS (12 MBPS) • File format: FAT16/32 (Windows) • Class: Mass storage class
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MP3 and WMA files written in any format other than those listed above may not play correctly, and their names and folder names may not be displayed correctly.

Items related to standards and limitations are as follows:

- Maximum directory hierarchy: 8 levels
- Maximum number of folders in device: 999 (including the root folder)
- Maximum number of files in device: 65025

- Maximum number of files per folder: 255

2. "iPod"

"iPod" is a trademark of Apple Inc., registered in the U.S. and other countries.

SUPPORTED "IPOD" MODELS AND FIRMWARE VERSIONS

Supported "iPod" Model	Supported Firmware Version
"iPod" 5G	Ver. 1.2 or higher
"iPod Nano" 1G	Ver. 1.2 or higher
"iPod Nano" 2G	Ver. 1.1.2 or higher
"iPod Nano" 3G	Ver. 1.0.2 or higher
"iPod touch"	Ver. 1.1.1 or higher
"iPod classic"	Ver. 1.1.1 or higher

UNSUPPORTED "IPOD" MODELS

Unsupported Models	"iPod shuffle"
	"iPhone"
	"iPod" 1G, 2G, 3G, 4G
	"iPod mini"

HINT:

Depending on the generation of "iPod" used, response to commands from the vehicle may be delayed.

Items related to standards and limitations are as follows:

- Maximum number of lists in device: 9999
- Maximum number of songs in device: 65535
- Maximum number of songs per list: 65535

8. RADIO DESCRIPTION

- a. Radio frequency band

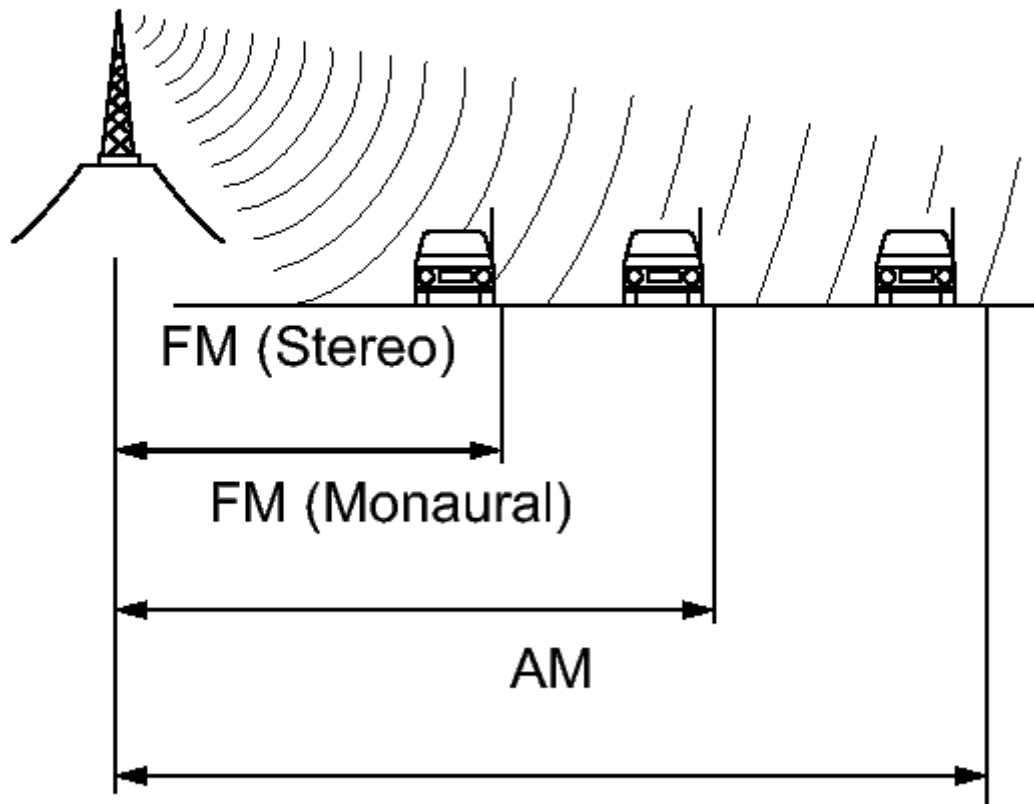
1. Radio broadcasts use the radio frequency bands shown in the table below.

Frequency	30 kHz	300 kHz	3 MHz	30 MHz	300 MHz
Designation	LF	MF	HF	VHF	
Radio Wave		AM		FM	
Modulation	Amplitude Modulation			Frequency Modulation	

LF: Low Frequency MF: Medium Frequency HF: High Frequency VHF: Very High Frequency

Fig. 14: Radio Frequency Band Chart
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

- b. Service area



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Fig. 15: Identifying Service Areas Of AM And FM Broadcasts

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

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 broadcast cannot. FM stereo has the smallest service area, and is prone to pick up static and other types of interference such as noise.
- c. Radio reception problems

HINT:

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

1. Phasing

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

Phasing:

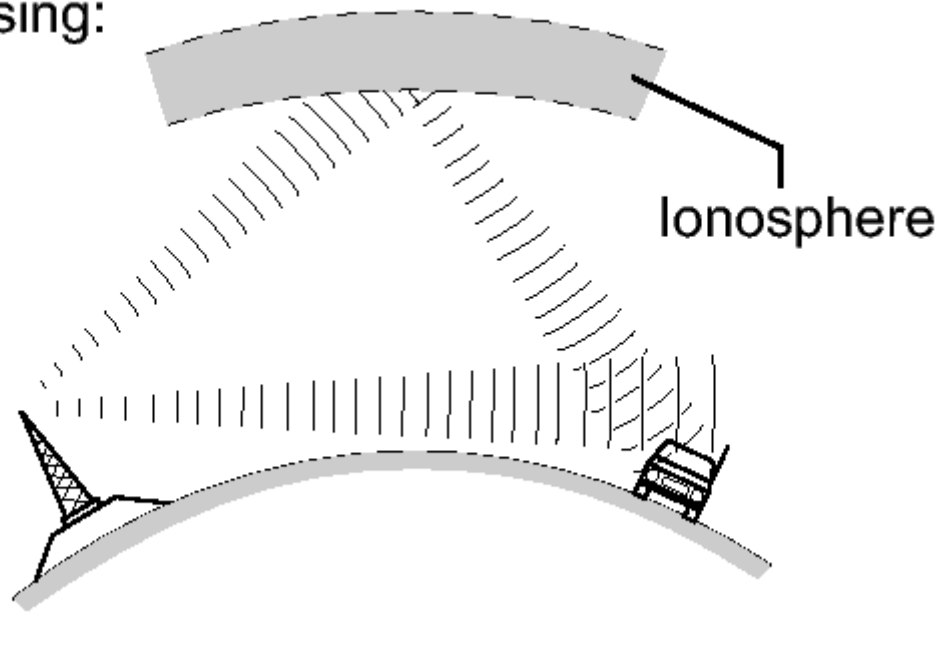


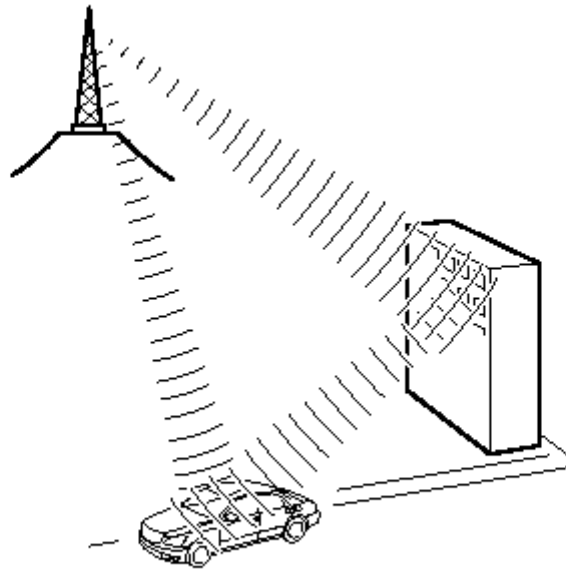
Fig. 16: Identifying Phasing

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.

Multipath:



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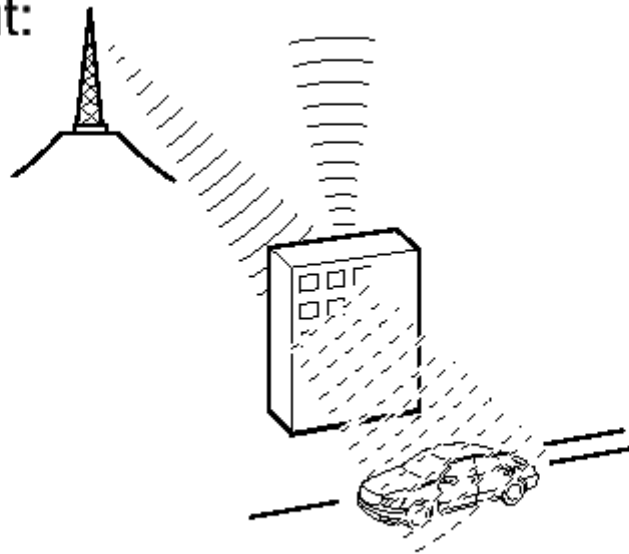
Fig. 17: Identifying Multipath

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 much more difficult to deflect.

Fade Out:



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Fig. 18: Identifying Fade Out

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

d. Noise problem

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

Radio Frequency	Noise Occurrence Condition	Presumable Cause
AM	Noise occurs in a specified area	Foreign noise
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	Music beat from a

	at night	distant broadcast
FM	Noise occurs while driving in a specified area	Multipath or phasing noise resulting from a change in FM frequency

HINT:

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

9. AUTOMATIC SOUND LEVELIZER (ASL) FUNCTION OUTLINE

- a. The ASL function automatically adjusts the sound volume in order to enable clear audio quality even when vehicle noise increases (as vehicle speed increases, the volume is turned up, etc.).

Vehicle speed signals are received from the combination meter assembly and used by ASL control.

10. RBDS FUNCTION OUTLINE (BROADCAST IN NORTH AMERICA ONLY)

The Radio Broadcast Data System (RBDS) is broadcast through conventional FM radio broadcasts. Information such as song names, traffic information, broadcast station names, etc. can be received.

11. SDARS SYSTEM FUNCTION OUTLINE (BROADCAST IN NORTH AMERICA ONLY)

Satellite Digital Audio Radio Service (SDARS) is a satellite digital radio broadcast provided by Sirius XM Radio Inc. The broadcast (pay-type) is performed through satellites and terrestrial repeater networks. Several unique channels are available, and even if a vehicle changes locations, the same information can be received without breaks. Information such as song names, broadcast station names, etc. can be received.

NOTE: To receive an audio-visual pay-type broadcasts, the customer must enter into a pay-type contract with XM Satellite Radio Inc. After entering into a contract, registration of the XM Radio ID is required. Also, if parts are replaced, the XM Radio ID must be reregistered.

HOW TO PROCEED WITH TROUBLESHOOTING

HOW TO PROCEED WITH TROUBLESHOOTING

HINT:

Use these procedures to troubleshoot the audio and visual system.

1. VEHICLE BROUGHT TO WORKSHOP

NEXT: Go to next step

2. INSPECT BATTERY VOLTAGE

Standard voltage

11 to 14 V

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

NEXT: Go to next step

3. BASIC INSPECTION

- a. Turn the ignition switch to ON.
- b. Check whether or not the radio receiver turns on.

RESULT

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. Refer to **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.
- Even if the malfunction symptom is not confirmed, check the DTCs. This is because the system stores past DTCs.

- b. Clear the DTCs.
- c. Recheck for DTCs by simulating the operation indicated by the DTCs.

RESULT

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

B --> Go to step 6

A: Go to next step

5. DIAGNOSTIC TROUBLE CODE CHART

- a. Find the output code in the **DIAGNOSTIC TROUBLE CODE CHART.**

NEXT --> Go to step 8

6. PROBLEM SYMPTOMS TABLE

- a. Refer to the **PROBLEM SYMPTOMS TABLE.**

RESULT

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. Refer to **TERMINALS OF ECU**.

NEXT: Go to next step

8. ADJUST, REPAIR OR REPLACE

NEXT: Go to next step

9. CONFIRMATION TEST

NEXT --> END

PROBLEM SYMPTOMS TABLE

PROBLEM SYMPTOMS TABLE

HINT:

- Use the table below to help determine the cause of problem symptoms. If multiple suspected areas are listed, the potential causes of the symptoms are listed in order of probability in the "Suspected Area" column of the table. Check each symptom by checking the suspected areas in the order they are listed. Replace parts as necessary.
- Inspect the fuses and relays related to this system before inspecting the suspected areas below.

AUDIO FUNCTION

Symptom	Suspected Area	See
Pressing power switch does not turn on system.	Proceed to "Pressing Power Switch does not Turn on System"	Refer to <u>Pressing Power Switch does not Turn on System</u>
	Proceed to "Radio Receiver Power Source Circuit"	Refer to <u>Radio Receiver Power Source Circuit</u>
	Proceed to "AVC-LAN Circuit"	Refer to <u>AVC-LAN Circuit</u>
	Radio receiver assembly	Refer to <u>REMOVAL</u>
Panel switch does not function.	Proceed to "Steering Pad Switch Circuit"	Refer to <u>Steering Pad Switch Circuit</u>
	Proceed to "AVC-LAN Circuit"	Refer to <u>AVC-LAN Circuit</u>
	Radio receiver assembly	Refer to <u>REMOVAL</u>
	Proceed to "No Sound can be Heard from Speakers"	Refer to <u>No Sound can be Heard from Speakers</u>
	Proceed to "Radio Receiver Power Source Circuit"	Refer to <u>Radio Receiver Power Source Circuit</u>
	Proceed to "Stereo Component Amplifier Power Source Circuit"	Refer to <u>Stereo Component Amplifier Power Source Circuit</u>
	Proceed to "Sound Signal Circuit"	Refer to <u>Sound Signal Circuit</u>

No sound can be heard from speakers (Audio is mute.) (w/ Stereo Component Amplifier).	between Radio Receiver and Stereo Component Amplifier"	<u>between Radio Receiver and Stereo Component Amplifier</u>
	Proceed to "Sound Signal Circuit between Radio Receiver and Multi-media Interface ECU"	Refer to <u>Sound Signal Circuit between Radio Receiver and Multi-media Interface ECU</u>
	Proceed to "Sound Signal Circuit between Multi-media Interface ECU and Television Display Assembly"*4	Refer to <u>Sound Signal Circuit between Multi-media Interface ECU and Television Display Assembly</u>
	Proceed to "Sound Signal Circuit between Multi-media Interface ECU and Stereo Jack Adapter"	Refer to <u>Sound Signal Circuit between Multi-media Interface ECU and Stereo Jack Adapter</u>
	Proceed to "Mute Signal Circuit between Radio Receiver and Stereo Component Amplifier"	Refer to <u>Mute Signal Circuit between Radio Receiver and Stereo Component Amplifier</u>
	Proceed to "Mute Signal Circuit between Radio Receiver and Multi-media Interface ECU"	Refer to <u>Mute Signal Circuit between Radio Receiver and Multi-media Interface ECU</u>
	Proceed to "Mute Signal Circuit between Multi-media Interface ECU and Television Display Assembly"*4	Refer to <u>Mute Signal Circuit between Multi-media Interface ECU and Television Display Assembly</u>
	Proceed to "Speaker Circuit (Independent Amplifier)"	Refer to <u>Speaker Circuit (Independent Amplifier)</u>
	Stereo component amplifier assembly	Refer to <u>REMOVAL</u>
	Radio receiver assembly	Refer to <u>REMOVAL</u>
	Multi-media interface ECU	Refer to <u>REMOVAL</u>
	Television display assembly*4	Refer to <u>REMOVAL</u>
No sound can be heard from speakers (Audio is mute.) (w/o Stereo Component Amplifier).	Proceed to "No Sound can be Heard from Speakers"	Refer to <u>No Sound can be Heard from Speakers</u>
	Proceed to "Radio Receiver Power Source Circuit"	Refer to <u>Radio Receiver Power Source Circuit</u>
	Proceed to "Speaker Circuit (Built-in Amplifier)"	Refer to <u>Speaker Circuit (Built-in Amplifier)</u>
	Radio receiver assembly	Refer to <u>REMOVAL</u>
	Proceed to "Poor Sound Quality in All Modes (Low Volume)"	Refer to <u>Poor Sound Quality in All Modes (Low Volume)</u>
	Proceed to "Speaker Circuit (Independent Amplifier)"	Refer to <u>Speaker Circuit (Independent Amplifier)</u>
	Proceed to "Sound Signal Circuit between Radio Receiver and Stereo Component Amplifier"	Refer to <u>Sound Signal Circuit between Radio Receiver and Stereo Component Amplifier</u>
	Proceed to "Sound Signal Circuit between Radio Receiver and Multi-	Refer to <u>Sound Signal Circuit between Radio Receiver and</u>

Sound quality is bad in all modes (Volume is too low.) (w/ Stereo Component Amplifier).	media Interface ECU"	<u>Multi-media Interface ECU</u>
	Proceed to "Sound Signal Circuit between Multi-media Interface ECU and Television Display Assembly"*4	Refer to <u>Sound Signal Circuit between Multi-media Interface ECU and Television Display Assembly</u>
	Proceed to "Sound Signal Circuit between Multi-media Interface ECU and Stereo Jack Adapter"	Refer to <u>Sound Signal Circuit between Multi-media Interface ECU and Stereo Jack Adapter</u>
	Proceed to "Mute Signal Circuit between Radio Receiver and Stereo Component Amplifier"	Refer to <u>Mute Signal Circuit between Radio Receiver and Stereo Component Amplifier</u>
	Proceed to "Mute Signal Circuit between Radio Receiver and Multi-media Interface ECU"	Refer to <u>Mute Signal Circuit between Radio Receiver and Multi-media Interface ECU</u>
	Proceed to "Mute Signal Circuit between Multi-media Interface ECU and Television Display Assembly"*4	Refer to <u>Mute Signal Circuit between Multi-media Interface ECU and Television Display Assembly</u>
	Stereo component amplifier assembly	Refer to <u>REMOVAL</u>
	Radio receiver assembly	Refer to <u>REMOVAL</u>
	Television display assembly*4	Refer to <u>REMOVAL</u>
Sound quality is bad in all modes (Volume is too low.) (w/o Stereo Component Amplifier).	Multi-media interface ECU	Refer to <u>REMOVAL</u>
	Proceed to "Poor Sound Quality in All Modes (Low Volume)"	Refer to <u>Poor Sound Quality in All Modes (Low Volume)</u>
	Proceed to "Speaker Circuit (Built-in Amplifier)"	Refer to <u>Speaker Circuit (Built-in Amplifier)</u>
	Proceed to "Sound Signal Circuit between Radio Receiver and Multi-media Interface ECU"	Refer to <u>Sound Signal Circuit between Radio Receiver and Multi-media Interface ECU</u>
	Proceed to "Sound Signal Circuit between Multi-media Interface ECU and Stereo Jack Adapter"	Refer to <u>Sound Signal Circuit between Multi-media Interface ECU and Stereo Jack Adapter</u>
	Proceed to "Mute Signal Circuit between Radio Receiver and Multi-media Interface ECU"	Refer to <u>Mute Signal Circuit between Radio Receiver and Multi-media Interface ECU</u>
	Radio receiver assembly	Refer to <u>REMOVAL</u>
ASL does not function (w/ Stereo Component Amplifier).	Proceed to "Vehicle Speed Signal Circuit between Stereo Component Amplifier and Combination Meter"	Refer to <u>Vehicle Speed Signal Circuit between Stereo Component Amplifier and Combination Meter</u>
ASL does not function (w/o Stereo Component Amplifier).	Proceed to "Vehicle Speed Signal Circuit between Radio Receiver and Combination Meter"	Refer to <u>Vehicle Speed Signal Circuit between Radio Receiver and Combination Meter</u>

External device sound cannot be heard or sound quality is bad (Stereo jack is used.).	Proceed to "Radio Receiver Power Source Circuit"	Refer to <u>Radio Receiver Power Source Circuit</u>
	Proceed to "Sound Signal Circuit between Radio Receiver and Stereo Jack Adapter"	Refer to <u>Sound Signal Circuit between Radio Receiver and Stereo Jack Adapter</u>
	Proceed to "Sound Signal Circuit between Radio Receiver and Multi-media Interface ECU"*3	Refer to <u>Sound Signal Circuit between Radio Receiver and Multi-media Interface ECU</u>
	Proceed to "Sound Signal Circuit between Multi-media Interface ECU and Stereo Jack Adapter"*3	Refer to <u>Sound Signal Circuit between Multi-media Interface ECU and Stereo Jack Adapter</u>
	Proceed to "Mute Signal Circuit between Radio Receiver and Multi-media Interface ECU"*3	Refer to <u>Mute Signal Circuit between Radio Receiver and Multi-media Interface ECU</u>
	No. 1 stereo jack adapter assembly	Refer to <u>REMOVAL</u>
	Radio receiver assembly	Refer to <u>REMOVAL</u>
Abnormal noise occurs (w/ Stereo Component Amplifier).	Proceed to "Noise occurs"	Refer to <u>Noise Occurs</u>
	Stereo component amplifier assembly	Refer to <u>REMOVAL</u>
	Radio receiver assembly	Refer to <u>REMOVAL</u>
Abnormal noise occurs (w/o Stereo Component Amplifier).	Proceed to "Noise occurs"	Refer to <u>Noise Occurs</u>
	Radio receiver assembly	Refer to <u>REMOVAL</u>
Radio broadcast cannot be received or poor reception.	Proceed to "Radio Broadcast cannot be Received (Bad Reception)"	Refer to <u>Radio Broadcast cannot be Received (Bad Reception)</u>
CD cannot be inserted/played or CD is ejected right after insertion.	Proceed to "Radio Receiver Power Source Circuit"	Refer to <u>Radio Receiver Power Source Circuit</u>
	Proceed to "CD cannot be Inserted/Played or CD is Ejected Right After Insertion"	Refer to <u>CD cannot be Inserted / Played or CD is Ejected Right After Insertion</u>
CD cannot be ejected.	Proceed to "Radio Receiver Power Source Circuit"	Refer to <u>Radio Receiver Power Source Circuit</u>
	Proceed to "CD cannot be Ejected"	Refer to <u>CD cannot be Ejected</u>
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)"	Refer to <u>Sound Quality is Bad Only when CD is Played (Volume is Too Low)</u>
CD sound skips.	Proceed to "CD Sound Skips"	Refer to <u>CD Sound Skips</u>
Radio receiver cannot be illuminated at night.	Proceed to "Illumination Circuit"	Refer to <u>Illumination Circuit</u>
	Radio receiver assembly	Refer to <u>REMOVAL</u>

STEERING PAD SWITCH FUNCTION

Symptom	Suspected Area	See
Audio system cannot be operated with steering pad	Proceed to "Steering Pad Switch Circuit"	Refer to <u>Steering Pad Switch Circuit</u>

switch.	Radio receiver assembly	Refer to <u>REMOVAL</u>
Steering pad switch cannot be illuminated at night.	Proceed to "Illumination Circuit"	Refer to <u>Illumination Circuit</u>
	Radio receiver assembly	Refer to <u>REMOVAL</u>

"BLUETOOTH" FUNCTION

Symptom	Suspected Area	See
Cellular phone registration failure, phone directory transfer failure.	Proceed to "Cellular Phone Registration Failure, Phone Directory Transfer Failure"	Refer to <u>Cellular Phone Registration Failure, Phone Directory Transfer Failure</u>
Cellular phone cannot send/receive.	Proceed to "Cellular Phone cannot Send/Receive"	Refer to <u>Cellular Phone cannot Send/Receive</u>
	Proceed to "Steering Pad Switch Circuit"	Refer to <u>Steering Pad Switch Circuit</u>
	Radio receiver assembly	Refer to <u>REMOVAL</u>
The other callers voice cannot be heard, is too quiet, or distorted.	Proceed to "The Other Caller's Voice cannot be Heard, is too Quiet, or Distorted"	Refer to <u>The Other Caller's Voice cannot be Heard, is too Quiet, or Distorted</u>
	Proceed to "Cellular Phone Voice Circuit between Radio Receiver and Stereo Component Amplifier"	Refer to <u>Cellular Phone Voice Circuit between Radio Receiver and Stereo Component Amplifier</u>
	Radio receiver assembly	Refer to <u>REMOVAL</u>
	Stereo component amplifier assembly	Refer to <u>REMOVAL</u>
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"	Refer to <u>The Other Caller cannot Hear Your Voice, or Your Voice is too Quiet or Distorted</u>
	Proceed to "Microphone Circuit between Microphone and Radio Receiver"	Refer to <u>Microphone Circuit between Microphone and Radio Receiver</u>
	Telephone microphone assembly	-
	Radio receiver assembly	Refer to <u>REMOVAL</u>

"BLUETOOTH" AUDIO FUNCTION*1

Symptom	Suspected Area	See
Portable player cannot be registered	Proceed to "Portable Player cannot be Registered"	Refer to <u>Portable Player cannot be Registered</u>
	Radio receiver assembly	Refer to <u>REMOVAL</u>
Portable player cannot be connected manually/automatically	Proceed to "Portable Player cannot be Registered"	Refer to <u>Portable Player cannot be Registered</u>
	Proceed to "Portable Player cannot be Connected Manually/Automatically"	Refer to <u>Portable Player cannot be Connected Manually/Automatically</u>
	Radio receiver assembly	Refer to <u>REMOVAL</u>

Cellular phone with portable audio function cannot be recognized as "Bluetooth" audio device even when connected using "Bluetooth"	Proceed to "Portable Player cannot be Registered"	Refer to <u>Portable Player cannot be Registered</u>
	Proceed to "Portable Player cannot be Connected Manually/Automatically"	Refer to <u>Portable Player cannot be Connected Manually/Automatically</u>
	Radio receiver assembly	Refer to <u>REMOVAL</u>
Sound of portable player cannot be heard from speakers, or sound is low	Proceed to "Sound of Portable Player cannot be Heard from Speakers or Sound is Low"	Refer to <u>Sound of Portable Player cannot be Heard from Speakers or Sound is Low</u>
	Radio receiver assembly	Refer to <u>REMOVAL</u>
Portable player does not play even after "Bluetooth" audio mode is selected	Proceed to "Does not Play even after Bluetooth Audio Mode is Selected"	Refer to <u>Does not Play even after Bluetooth Audio Mode is Selected</u>
	Radio receiver assembly	Refer to <u>REMOVAL</u>
Portable player does not play	Proceed to "Does not Play even after Bluetooth Audio Mode is Selected"	Refer to <u>Does not Play even after Bluetooth Audio Mode is Selected</u>
	Radio receiver assembly	Refer to <u>REMOVAL</u>
Track information such as track number, track name and elapsed play time is not displayed	Proceed to "Portable Player cannot be Operated Using In-vehicle Device or Track Information is not Displayed on In-vehicle Device"	Refer to <u>Portable Player cannot be Operated Using In-vehicle Device or Track Information is not Displayed on In-vehicle Device</u>
	Radio receiver assembly	Refer to <u>REMOVAL</u>
Operation switches for portable player such as play, pause, repeat, random and scan are not displayed	Proceed to "Portable Player cannot be Operated Using In-vehicle Device or Track Information is not Displayed on In-vehicle Device"	Refer to <u>Portable Player cannot be Operated Using In-vehicle Device or Track Information is not Displayed on In-vehicle Device</u>
	Radio receiver assembly	Refer to <u>REMOVAL</u>
Battery condition of portable player is not displayed	Proceed to "Portable Player cannot be Operated Using In-vehicle Device or Track Information is not Displayed on In-vehicle Device"	Refer to <u>Portable Player cannot be Operated Using In-vehicle Device or Track Information is not Displayed on In-vehicle Device</u>
	Radio receiver assembly	Refer to <u>REMOVAL</u>
"Bluetooth" signal condition is not displayed	Proceed to "Portable Player cannot be Operated Using In-vehicle Device or Track Information is not Displayed on In-vehicle Device"	Refer to <u>Portable Player cannot be Operated Using In-vehicle Device or Track Information is not Displayed on In-vehicle Device</u>
	Radio receiver assembly	Refer to <u>REMOVAL</u>
Portable player cannot pause,	Proceed to "Portable Player cannot be Operated Using In-vehicle Device or Track Information is not	Refer to <u>Portable Player cannot be Operated Using In-vehicle Device or Track Information is</u>

select files, fast forward, rewind, random play or scan	Displayed on In-vehicle Device"	<u>not Displayed on In-vehicle Device</u>
	Radio receiver assembly	Refer to <u>REMOVAL</u>
Noise occurs or sound skips when portable player plays	Proceed to "Noise Occurs or Sound Skips when Portable Player Plays"	Refer to <u>Noise Occurs or Sound Skips when Portable Player Plays</u>
	Radio receiver assembly	Refer to <u>REMOVAL</u>
Registered device cannot be deleted	Proceed to "Registered Device cannot be Deleted"	Refer to <u>Registered Device cannot be Deleted</u>
	Radio receiver assembly	Refer to <u>REMOVAL</u>

SATELLITE RADIO SYSTEM FUNCTION*2

Symptom	Suspected Area	See
Satellite radio broadcast cannot be received or reception is bad.	Proceed to "Satellite Radio Broadcast cannot be Received"	Refer to <u>Satellite Radio Broadcast cannot be Received</u>
	Radio receiver assembly	Refer to <u>REMOVAL</u>
Pay-type satellite radio broadcast cannot be received.	Proceed to "Satellite Radio Broadcast cannot be Received"	Refer to <u>Satellite Radio Broadcast cannot be Received</u>
	Radio receiver assembly	Refer to <u>REMOVAL</u>
Satellite radio broadcast cannot be selected or after selecting broadcast, broadcast cannot be added into memory.	Proceed to "Satellite Radio Broadcast cannot be Received"	Refer to <u>Satellite Radio Broadcast cannot be Received</u>
	Proceed to "Satellite Radio Broadcast cannot be Selected or After Selecting Broadcast, Broadcast cannot be added into memory"	Refer to <u>Satellite Radio Broadcast cannot be Selected or After Selecting Broadcast, Broadcast cannot be Added into Memory</u>
	Radio receiver assembly	Refer to <u>REMOVAL</u>

USB AUDIO SYSTEM FUNCTION*3

Symptom	Suspected Area	See
USB audio sound cannot be heard or sound quality is bad. (Stereo jack is used.)	Proceed to "Multi-media Interface ECU Power Source Circuit"	Refer to <u>Multi-media Interface ECU Power Source Circuit</u>
	Proceed to "Sound Signal Circuit between Radio Receiver and Multi-media Interface ECU"	Refer to <u>Sound Signal Circuit between Radio Receiver and Multi-media Interface ECU</u>
	Proceed to "Sound Signal Circuit between Multi-media Interface ECU and Stereo Jack Adapter"	Refer to <u>Sound Signal Circuit between Multi-media Interface ECU and Stereo Jack Adapter</u>
	Proceed to "Mute Signal Circuit between Radio Receiver and Multi-media Interface ECU"	Refer to <u>Mute Signal Circuit between Radio Receiver and Multi-media Interface ECU</u>
	No. 1 stereo jack adapter assembly	Refer to <u>REMOVAL</u>
	Multi-media interface ECU	Refer to <u>REMOVAL</u>
	Radio receiver assembly	Refer to <u>REMOVAL</u>
	Proceed to "USB Audio System	Refer to <u>USB Audio System</u>

USB device or "iPod" is not recognized.	Recognition/Play Error"	<u>Recognition/Play Error</u>
	Proceed to "Sound Signal Circuit between Multi-media Interface ECU and Stereo Jack Adapter"	Refer to <u>Sound Signal Circuit between Multi-media Interface ECU and Stereo Jack Adapter</u>
	No. 1 stereo jack adapter assembly	Refer to <u>REMOVAL</u>
	Multi-media interface ECU	Refer to <u>REMOVAL</u>
Track information such as track, artist and album names are not displayed.	Proceed to "USB Audio System Recognition/Play Error"	Refer to <u>USB Audio System Recognition/Play Error</u>
	Proceed to "Sound Signal Circuit between Multi-media Interface ECU and Stereo Jack Adapter"	Refer to <u>Sound Signal Circuit between Multi-media Interface ECU and Stereo Jack Adapter</u>
	No. 1 stereo jack adapter assembly	Refer to <u>REMOVAL</u>
	Multi-media interface ECU	Refer to <u>REMOVAL</u>
USB device or "iPod" is recognized but cannot play nor play in a sorted order.	Proceed to "USB Audio System Recognition/Play Error"	Refer to <u>USB Audio System Recognition/Play Error</u>
	Proceed to "Sound Signal Circuit between Multi-media Interface ECU and Stereo Jack Adapter"	Refer to <u>Sound Signal Circuit between Multi-media Interface ECU and Stereo Jack Adapter</u>
	No. 1 stereo jack adapter assembly	Refer to <u>REMOVAL</u>
	Multi-media interface ECU	Refer to <u>REMOVAL</u>

*1: w/ "Bluetooth" Audio Function

*2: w/ Satellite Radio

*3: w/ USB Audio System

*4: w/ Rear Seat Entertainment System

TERMINALS OF ECU

TERMINALS OF ECU

1. **CHECK RADIO RECEIVER ASSEMBLY (w/o Stereo Component Amplifier, w/o USB Audio System)**

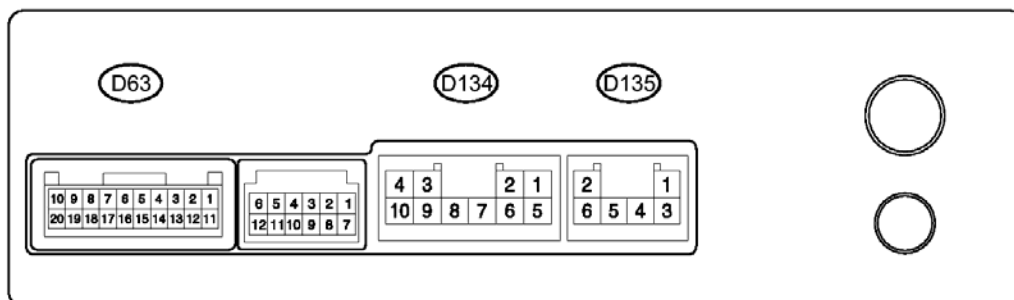


Fig. 19: Radio Receiver Assembly (w/o Stereo Component Amplifier, w/o USB Audio System)
Connector Terminal Identification
 Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

Terminal No. (Symbol)	Wiring Color	Terminal Description	Condition	Specified Condition
D134-1 (FR+) - D134-7 (GND)	LG - BR	Sound signal (Front No. 1 and No. 2*1 speaker assembly RH)	Audio system playing	A waveform synchronized with sounds is output
D134-2 (FL+) - D134-7 (GND)	P - BR	Sound signal (Front No. 1 and No. 2*1 speaker assembly LH)	Audio system playing	A waveform synchronized with sounds is output
D134-3 (ACC) - D134-7 (GND)	GR - BR	ACC power source	Ignition switch off	Below 1 V
			Ignition switch ACC	11 to 14 V
D134-4 (B) - D134-7 (GND)	SB - BR	Battery power source	Always	11 to 14 V
D134-5 (FR-) - D134-7 (GND)	L - BR	Sound signal (Front No. 1 and No. 2*1 speaker assembly RH)	Audio system playing	A waveform synchronized with sounds is output
D134-6 (FL-) - D134-7 (GND)	V - BR	Sound signal (Front No. 1 and No. 2*1 speaker assembly LH)	Audio system playing	A waveform synchronized with sounds is output
D134-7 (GND) - Body	BR - Body	Ground	Always	Below 1 V

ground	ground			
D134-10 (ILL+) - D134-7 (GND)	G - BR	Illumination signal	Light control switch OFF	Below 1 V
			Light control switch TAIL or HEAD	11 to 14 V
D135-1 (RR+) - D134-7 (GND)	R - BR	Sound signal (Rear speaker assembly RH)	Audio system playing	A waveform synchronized with sounds is output
D135-2 (RL+) - D134-7 (GND)	B - BR	Sound signal (Rear speaker assembly LH)	Audio system playing	A waveform synchronized with sounds is output
D135-3 (RR-) - D134-7 (GND)	W - BR	Sound signal (Rear speaker assembly RH)	Audio system playing	A waveform synchronized with sounds is output
D135-5 (ILL-) - D134-7 (GND)	GR - BR	Illumination (rheostat) signal	Light control switch OFF and rheostat switch position medium	Below 1 V
			Light control switch TAIL or HEAD	Pulse generation
D135-6 (RL-) - D134-7 (GND)	Y - BR	Sound signal (Rear speaker assembly LH)	Audio system playing	A waveform synchronized with sounds is output
D63-3 (SPD) -		Speed signal from	Ignition switch ON,	Pulse

D134-7 (GND)	LG - BR	combination meter	drive wheels turned slowly	generation
D63-6 (SWG) - D134-7 (GND)	SB - BR	Steering pad switch ground	Always	Below 1 V
D63-7 (SW1) - D134-7 (GND)	B - BR	Steering pad switch signal	Steering pad switch not operated	4.5 to 5.5 V
			Seek+ switch pushed	Below 0.5 V
			Seek- switch pushed	0.86 to 1.5 V
			Volume+ switch pushed	1.91 to 2.01 V
			Volume- switch pushed	3.23 to 3.57 V
D63-8 (SW2) - D134-7 (GND)	LG - BR	Steering pad switch signal	Steering pad switch not operated	4.5 to 5.5 V
			MODE switch pushed	Below 0.5 V
			On Hook switch pushed	0.86 to 1.5 V
			Off Hook switch pushed	1.91 to 2.01 V
			Voice switch pushed	3.23 to 3.57 V
D63-15 (ARI) - D134-7 (GND)	R - BR	Sound signal (Right)	External device playing (When stereo jack used)	A waveform synchronized with sounds is output

D63-16 (ASGN) - D134-7 (GND)	B - BR	Ground	Always	Below 1 V
D63-17 (ALI) - D134-7 (GND)	W - BR	Sound signal (Left)	External device playing (When stereo jack used)	A waveform synchronized with sounds is output
D63-18 (AGND) - D134-7 (GND)	Shielded - BR	Shield ground	Always	Below 1 V
D63-19 (AUXI) - D134-7 (GND)	B - BR	External device connection detection signal	External device connected	Below 1 V

*1: for 6 Speaker

2. CHECK RADIO RECEIVER ASSEMBLY (w/o Stereo Component Amplifier, w/ USB Audio System)

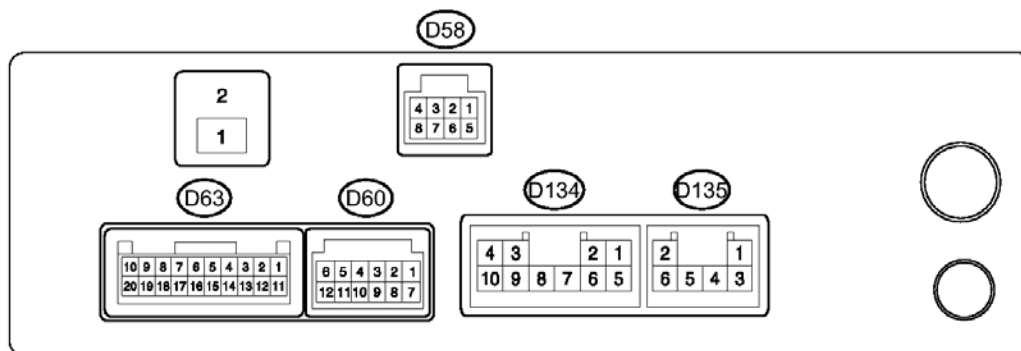


Fig. 20: Radio Receiver Assembly (w/o Stereo Component Amplifier, w/ USB Audio System)
Connector Terminal Identification

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

Terminal No. (Symbol)	Wiring Color	Terminal Description	Condition	Specified Condition
D134-1 (FR+) -		Sound signal (Front No. 1)	Audio	A waveform synchronized

D134-7 (GND)	LG - BR	and No. 2 speaker assembly RH)	system playing	with sounds is output
D134-2 (FL+) - D134-7 (GND)	P - BR	Sound signal (Front No. 1 and No. 2 speaker assembly LH)	Audio system playing	A waveform synchronized with sounds is output
D134-3 (ACC) - D134-7 (GND)	GR - BR	ACC power source	Ignition switch off	Below 1 V
			Ignition switch ACC	11 to 14 V
D134-4 (B) - D134-7 (GND)	SB - BR	Battery power source	Always	11 to 14 V
D134-5 (FR-) - D134-7 (GND)	L - BR	Sound signal (Front No. 1 and No. 2 speaker assembly RH)	Audio system playing	A waveform synchronized with sounds is output
D134-6 (FL-) - D134-7 (GND)	V - BR	Sound signal (Front No. 1 and No. 2 speaker assembly LH)	Audio system playing	A waveform synchronized with sounds is output
D134-7 (GND) - Body ground	BR - Body ground	Ground	Always	Below 1 V
D134-10 (ILL+) - D134-7 (GND)	G - BR	Illumination signal	Light control switch off	Below 1 V
			Light control switch tail	11 to 14 V
D58-1 (SNS2) - D134-7 (GND)	B - BR	Microphone connection detection signal	Always	Below 1 V
D58-2 (MIC+) - D134-7 (GND)	B - BR	Microphone voice signal	"Bluetooth" handsfree function on	A waveform synchronized with sounds is output
D58-3			Ignition	

(MACC) - D134-7 (GND)	R - BR	Microphone amplifier power supply	switch off	Below 1 V
			Ignition switch ON	4 to 6 V
D58-5 (MIC-) - D134-7 (GND)	W - BR	Microphone voice signal	"Bluetooth" handsfree function on	A waveform synchronized with sounds is output
D58-6 (SGND) - D134-7 (GND)	Shielded - BR	Shield ground	Always	Below 1 V
D60-2 (CDR+) - D134-7 (GND)	B - BR	USB sound signal	Always	A waveform synchronized with sounds is output
D60-3 (CDR-) - D134-7 (GND)	W - BR	USB sound signal	USB system playing	A waveform synchronized with sounds is output
D60-4 (CDL+) - D134-7 (GND)	R - BR	USB sound signal	USB system playing	A waveform synchronized with sounds is output
D60-5 (CDL-) - D134-7 (GND)	G - BR	USB sound signal	Always	A waveform synchronized with sounds is output
D60-6 (MUTE) - D134-7 (GND)	R - BR	Mute signal	Audio system playing	Above 3.5 V
			Audio system source changed	Below 1 V
			USB system playing	Above 3.5 V
			USB system source changed	Below 1 V
D60-7 (GND) - D134-7 (GND)	BR - BR	Ground	Always	Below 1 V
D60-9				

(TXM+) - D134-7 (GND)	B - BR	AVC-LAN communication signal	Ignition switch ACC	2 to 3 V
D60-10 (TXM-) - D134-7 (GND)	W - BR	AVC-LAN communication signal	Ignition switch ACC	2 to 3 V
D60-11 (ACC) - D134-7 (GND)	GR - BR	ACC power source	Ignition switch off	Below 1 V
			Ignition switch ACC	11 to 14 V
D60-12 (+B) - D134-7 (GND)	SB - BR	Battery power source	Always	11 to 14 V
D135-1 (RR+) - D134-7 (GND)	R - BR	Sound signal (Rear speaker assembly RH)	Audio system playing mode	A waveform synchronized with sounds is output
D135-2 (RL+) - D134-7 (GND)	B - BR	Sound signal (Rear speaker assembly LH)	Audio system playing mode	A waveform synchronized with sounds is output
D135-3 (RR-) - D134-7 (GND)	W - BR	Sound signal (Rear speaker assembly RH)	Audio system playing mode	A waveform synchronized with sounds is output
D135-5 (ILL-) - D134-7 (GND)	GR - BR	Illumination (rheostat) signal	Light control switch off	Below 1 V
			Light control switch tail	Pulse generation
D135-6 (RL-) - D134-7 (GND)	Y - BR	Sound signal (Rear speaker assembly LH)	Audio system playing mode	A waveform synchronized with sounds is output
D63-3 (SPD) - D134-7 (GND)	LG - BR	Speed signal from combination meter	Ignition switch ON, drive wheels turned slowly	Pulse generation
D63-6 (SWG) -		Steering pad		

D134-7 (GND)	SB - BR	switch ground	Always	Below 1 V
D63-7 (SW1) - D134-7 (GND)	B - BR	Steering pad switch signal	Steering pad switch not operated	4.5 to 5.5 V
			Seek+ switch pushed	Below 0.5 V
			Seek- switch pushed	0.86 to 1.5 V
			Volume+ switch pushed	1.91 to 2.01 V
			Volume- switch pushed	3.23 to 3.57 V
D63-8 (SW2) - D134-7 (GND)	LG - BR	Steering pad switch signal	Steering pad switch not operated	4.5 to 5.5 V
			MODE switch pushed	Below 0.5 V
			On Hook switch pushed	0.86 to 1.5 V
			Off Hook switch pushed	1.91 to 2.01 V
			Voice switch pushed	3.23 to 3.57 V
D63-15 (ARI) - D134-7 (GND)	R - BR	Sound signal (Right)	External device playing (When stereo jack used)	A waveform synchronized with sounds is output
D63-16 (ASGN) - D134-7 (GND)	B - BR	Ground	Always	Below 1 V
D63-17			External device	A waveform

(ALI) - D134-7 (GND)	W - BR	Sound signal (Left)	playing (When stereo jack used)	synchronized with sounds is output
D63-18 (AGND) - D134-7 (GND)	Shielded - BR	Shield ground	Always	Below 1 V
D63-19 (AUXI) - D134-7 (GND)	B - BR	External device connection detection signal	External device connected	Below 1 V

3. CHECK RADIO RECEIVER ASSEMBLY (w/ Stereo Component Amplifier)

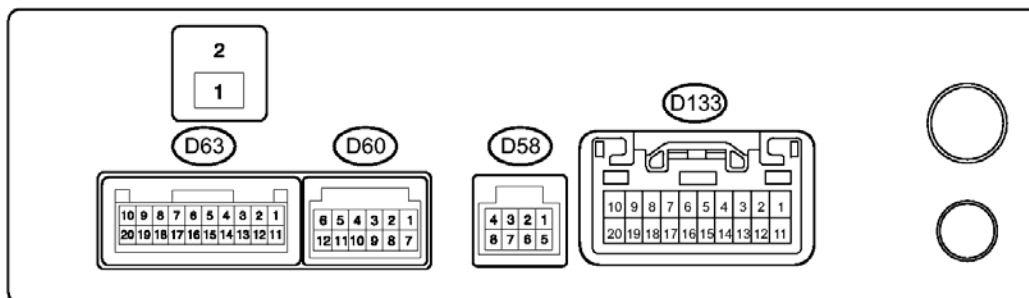


Fig. 21: Radio Receiver Assembly (w/ Stereo Component Amplifier) Connector Terminal Identification

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

Terminal No. (Symbol)	Wiring Color	Terminal Description	Condition	Specified Condition
D133-1 (B) - D133-20 (GND)	SB - BR	Battery power source	Always	11 to 14 V
D133-2 (ILL+) - D133-20 (GND)	G - BR	Illumination signal	Light control switch OFF	Below 1 V
			Light control switch TAIL	11 to 14 V

D133-5 (ATX+) - D133-20 (GND)	L - BR	AVC-LAN communication signal	Ignition switch ACC	2 to 3 V
D133-7 (MUTE) - D133- 20 (GND)	L - BR	MUTE signal	Audio system playing	Above 3.5 V
			Audio system changing modes	Below 1 V
D133-8 (R+) - D133-20 (GND)	W - BR	Sound signal (Right)	Audio system playing	A waveform synchronized with sounds is output
D133-9 (L+) - D133-20 (GND)	G - BR	Sound signal (Left)	Audio system playing	A waveform synchronized with sounds is output
D133-10 (SGND) - Body ground	Shielded - Body ground	Shield ground	Always	Below 1 V
D133-11 (ACC) - D133-20 (GND)	GR - BR	ACC power source	Ignition switch ACC	11 to 14 V
			Ignition switch off	Below 1 V
D133-12 (ILL-) - D133-20 (GND)	GR - BR	Illumination (rheostat) signal	Light control switch OFF and rheostat switch position medium	Below 1 V
			Light control switch TAIL	Pulse generation
D133-13 (ANT) - D133-20 (GND)	B - BR	Power source of antenna	Radio switch is ON and AM or FM	11 to 14 V
D133-15 (ATX-) -	Y - BR	AVC-LAN communication	Ignition switch	2 to 3 V

D133-20 (GND)		signal	ACC	
D133-18 (R-) - D133-20 (GND)	B - BR	Sound signal (Right)	Audio system playing	A waveform synchronized with sounds is output
D133-19 (L-) - D133-20 (GND)	R - BR	Sound signal (Left)	Audio system playing	A waveform synchronized with sounds is output
D133-20 (GND) - Body ground	BR - Body ground	Ground	Always	Below 1 V
D58-1 (SNS2) - D133-20 (GND)	B - BR	Ground	Always	Below 1 V
D58-2 (MIC+) - D133-20 (GND)	B - BR	Microphone voice signal	"Bluetooth" handsfree function ON	A waveform synchronized with sounds is output
D58-3 (MACC) - D133- 20 (GND)	R - BR	Microphone AMP power supply	Ignition switch off	Below 1 V
			Ignition switch ACC	5 V
D58-5 (MIC-) - D133-20 (GND)	W - BR	Microphone voice signal	"Bluetooth" handsfree function ON	A waveform synchronized with sounds is output
D58-6 (SGND) - Body ground	Shielded - Body ground	Shield ground	Always	Below 1 V
D60-2 (CDR+) - D133-20 (GND)	B - BR	Sound signal (right)	USB audio system or RSE system*1 is playing	Waveform synchronized with sound is output
D60-3 (CDR-) - D133-20 (GND)	W - BR	Sound signal (right)	USB audio system or RSE system*1 is playing	Waveform synchronized with sound is output
			USB audio	

D60-4 (CDL+) - D133-20 (GND)	R - BR	Sound signal (left)	system or RSE system*1 is playing	Waveform synchronized with sound is output
D60-5 (CDL-) - D133-20 (GND)	G - BR	Sound signal (left)	USB audio system or RSE system*1 is playing	Waveform synchronized with sound is output
D60-6 (MUTE) - D133- 20 (GND)	R - BR	Mute signal	USB audio system or RSE system*1 is playing	Above 3.5 V
			USB audio system or RSE system*1 changing modes	Below 1 V
D60-7 (GND) - D133-20 (GND)	BR - BR	Ground	Always	Below 1 V
D60-9 (TXM+) - D133- 20 (GND)	B - BR	AVC-LAN communication signal	Ignition switch ACC	2 to 3 V
D60-10 (TXM-) - D133-20 (GND)	W - BR	AVC-LAN communication signal	Ignition switch ACC	2 to 3 V
D60-11 (ACC) - D133-20 (GND)	GR - BR	ACC power source	Ignition switch off	Below 1 V
			Ignition switch ACC	11 to 14 V
D60-12 (+B) - D133-20 (GND)	SB - BR	Battery power source	Always	11 to 14 V
D63-3 (SPD) - D133-20	LG - BR	Speed signal from combination	Ignition switch ON, drive wheels	Pulse generation

(GND)		meter	turned slowly	
D63-6 (SWG) - D133-20 (GND)	SB - BR	Steering pad switch ground	Always	Below 1 V
D63-7 (SW1) - D63-6 (SWG)	B - SB	Steering pad switch signal	Steering pad switch not operated	4.5 to 5.5 V
			Seek+ switch pushed	Below 0.5 V
			Seek- switch pushed	0.86 to 1.5 V
			Volume+ switch pushed	1.91 to 2.01 V
			Volume- switch pushed	3.23 to 3.57 V
D63-8 (SW2) - D63-6 (SWG)	LG - SB	Steering pad switch signal	Steering pad switch not operated	4.5 to 5.5 V
			MODE switch pushed	Below 0.5 V
			On Hook switch pushed	0.86 to 1.5 V
			Off Hook switch pushed	1.91 to 2.01 V
			Voice switch pushed	3.23 to 3.57 V
D63-11 (IVO+) - D133-20 (GND)	R - BR	Voice signal	"Bluetooth" handsfree voice signal playing	A waveform synchronized with sounds is output
D63-12 (IVO-) -	G - BR	Voice signal	"Bluetooth" handsfree voice	A waveform synchronized

D133-20 (GND)			signal playing	with sounds is output
D63-13 (SLD1) - Body ground	Shielded - Body ground	Shield ground	Always	Below 1 V
D63-15 (ARI) - D133-20 (GND)	R - BR	Sound signal (Right)	External device is playing (When stereo jack used)	A waveform synchronized with sounds is output
D63-16 (ASGN) - D133-20 (GND)	B - BR	Ground	Always	Below 1 V
D63-17 (ALI) - D133-20 (GND)	W - BR	Sound signal (Left)	External device is playing (When stereo jack used)	A waveform synchronized with sounds is output
D63-18 (AGND) - Body ground	Shielded - Body ground	Shield ground	Always	Below 1 V
D63-19 (AUXI) - D133-20 (GND)	B - BR	External device connection detection signal	External device connected	Below 1 V

*1: w/ Rear Seat Entertainment System

4. CHECK STEREO COMPONENT AMPLIFIER ASSEMBLY (w/ Stereo Component Amplifier)

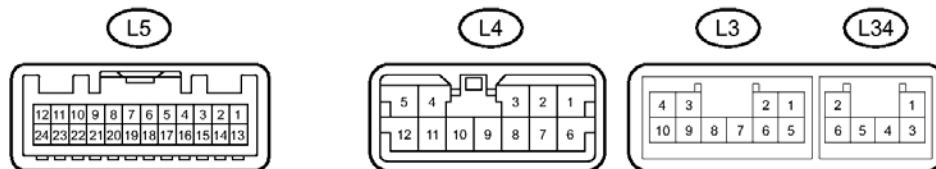


Fig. 22: Stereo Component Amplifier Assembly Connector Terminal Identification
 Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

Terminal No. (Symbols)	Wiring Color	Terminal Description	Condition	Specified Condition
L3-1 (WFL+) - L34-2 (GND)	LG - BR	Sound signal (Front No. 1 speaker assembly LH)	Audio system playing	A waveform synchronized with sounds is output
L3-2 (WFR+) - L34-2 (GND)	W - BR	Sound signal (Front No. 1 speaker assembly RH)	Audio system playing	A waveform synchronized with sounds is output
L3-3 (CTR+) - L34-2 (GND)	V - BR	Sound Signal (Front No. 3 speaker assembly)	Audio system playing	A waveform synchronized with sounds is output
L3-4 (WF2+) - L34-2 (GND)	G - BR	Sound signal (Rear No. 3 speaker assembly)	Audio system playing	A waveform synchronized with sounds is output
L3-5 (WFL-) - L34-2 (GND)	L - BR	Sound signal (Front No. 1 speaker assembly LH)	Audio system playing	A waveform synchronized with sounds is output
L3-6 (WFR-) - L34-2 (GND)	R - BR	Sound signal (Front No. 1 speaker assembly RH)	Audio system playing	A waveform synchronized with sounds is output
L3-7 (WF1-) - L34-2 (GND)	W - BR	Sound signal (Rear No. 3 speaker assembly)	Audio system playing	A waveform synchronized with sounds is output
L3-8 (WF1+) - L34-2 (GND)	R - BR	Sound signal (Rear No. 3 speaker assembly)	Audio system playing	A waveform synchronized with sounds is output
L3-9 (CTR-) - L34-2 (GND)	P - BR	Sound signal (Front No. 3 speaker assembly)	Audio system playing	A waveform synchronized with sounds is output
L3-10 (WF2-) - L34-2 (GND)	B - BR	Sound signal (Rear No. 3 speaker assembly)	Audio system playing	A waveform synchronized with sounds is output
L4-1 (SL+) - L34-2	L - BR	Sound signal (Quarter side speaker	Audio system playing	A waveform synchronized with sounds

(GND)		assembly LH)		is output
L4-2 (SR+) - L34-2 (GND)	G - BR	Sound signal (Quarter side speaker assembly RH)	Audio system playing	A waveform synchronized with sounds is output
L4-3 (FL+) - L34-2 (GND)	P - BR	Sound signal (Front No. 2 speaker assembly LH)	Audio system playing	A waveform synchronized with sounds is output
L4-4 (RL+) - L34-2 (GND)	B - BR	Sound Signal (Rear No. 2 speaker assembly LH)	Audio system playing	A waveform synchronized with sounds is output
L4-5 (RR+) - L34-2 (GND)	R - BR	Sound signal (Rear No. 2 speaker assembly RH)	Audio system playing	A waveform synchronized with sounds is output
L4-6 (SL-) - L34-2 (GND)	LG - BR	Sound signal (Quarter side speaker assembly LH)	Audio system playing	A waveform synchronized with sounds is output
L4-7 (SR-) - L34-2 (GND)	B - BR	Sound signal (Quarter side speaker assembly RH)	Audio system playing	A waveform synchronized with sounds is output
L4-8 (FL-) - L34-2 (GND)	V - BR	Sound signal (Front No. 2 speaker assembly LH)	Audio system playing	A waveform synchronized with sounds is output
L4-9 (FR-) - L34-2 (GND)	LG - BR	Sound signal (Front No. 2 speaker assembly RH)	Audio system playing	A waveform synchronized with sounds is output
L4-10 (FR+) - L34-2 (GND)	L - BR	Sound signal (Front No. 2 speaker assembly RH)	Audio system playing	A waveform synchronized with sounds is output
L4-11 (RL-) - L34-2 (GND)	Y - BR	Sound signal (Rear No. 2 speaker assembly LH)	Audio system playing	A waveform synchronized with sounds is output
L4-12 (RR-) - L34-2 (GND)	W - BR	Sound signal (Rear No. 2 speaker assembly RH)	Audio system playing	A waveform synchronized with sounds is output
			Audio	

L5-1 (MUTE) - L34-2 (GND)	L - BR	Mute signal	system playing	Above 3.5 V
			Audio system changing mode	Below 1 V
L5-2 (L-) - L34-2 (GND)	R - BR	Sound signal (Left)	Audio system playing	A waveform synchronized with sounds is output
L5-3 (L+) - L34-2 (GND)	G - BR	Sound signal (Left)	Audio system playing	A waveform synchronized with sounds is output
L5-4 (R-) - L34-2 (GND)	B - BR	Sound signal (Right)	Audio system playing	A waveform synchronized with sounds is output
L5-5 (R+) - L34-2 (GND)	W - BR	Sound signal (Right)	Audio system playing	A waveform synchronized with sounds is output
L5-7 (TX-) - L34-2 (GND)	Y - BR	AVC-LAN communication signal	Ignition switch ACC	2 to 3 V
L5-8 (TX+) - L34-2 (GND)	L - BR	AVC-LAN communication signal	Ignition switch ACC	2 to 3 V
L5-11 (SPD) - L34-2 (GND)	LG - BR	Speed signal from combination meter	See "vehicle signal check mode"	-
L5-12 (ACC) - L34-2 (GND)	GR - BR	ACC power source	Ignition switch OFF	Below 1 V
			Ignition switch ACC	11 to 14 V
L5-14 (II1-) - L34-2 (GND)	G - BR	Voice signal	"Bluetooth" handsfree voice signal playing	A waveform synchronized with sounds is output
L5-15			"Bluetooth" handsfree	A waveform

(II1+) - L34-2 (GND)	R - BR	Voice signal	voice signal playing	synchronized with sounds is output
L5-24 (TMUT) - L34-2 (GND)	R - BR	Mute signal	Audio system playing	Above 3.5 V
			Emergency call mode	Below 1 V
L34-1 (+B) - L34-2 (GND)	L - BR	Battery power source	Always	11 to 14 V
L34-2 (GND) - Body ground	BR - Body ground	Ground	Always	Below 1 ohms
L34-3 (+B2) - L34-2 (GND)	L - BR	Battery power source	Always	11 to 14 V
L34-6 (GND2) - Body ground	BR - Body ground	Ground	Always	Below 1 ohms

5. CHECK MULTI-MEDIA INTERFACE ECU (w/ USB Audio System)

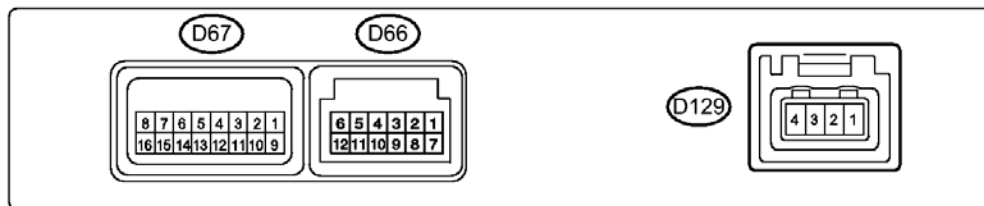


Fig. 23: Multi-Media Interface ECU (w/ USB Audio System) Connector Terminal Identification
 Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

Terminal No. (Symbol)	Wiring Color	Terminal Description	Condition	Specification
D66-1 (USD1) - Body ground	Shielded - Body ground	Shield ground	Always	Below 1 V
			USB	

D66-2 (URO+) - D66-7 (GND)	B - BR	Sound signal	audio system or RSE system*1 is playing	A waveform synchronized with sounds is output
D66-3 (URO-) - D66-7 (GND)	W - BR	Sound signal	USB audio system or RSE system*1 is playing	A waveform synchronized with sounds is output
D66-4 (ULO+) - D66-7 (GND)	R - BR	Sound signal	USB audio system or RSE system*1 is playing	A waveform synchronized with sounds is output
D66-5 (ULO-) - D66-7 (GND)	G - BR	Sound signal	USB audio system or RSE system*1 is playing	A waveform synchronized with sounds is output
D66-6 (MUT1) - D66-7 (GND)	R - BR	Mute signal from multi- media interface ECU	USB audio system or RSE system*1 is playing	Above 3.5 V
			USB audio system or RSE system*1 changing mode	Below 1 V
D66-7 (GND) - Body ground	BR - Body ground	Ground	Always	Below 1 V
D66-9 (TX1+) - D66-7 (GND)	B - BR	AVC-LAN communication signal	Ignition switch ACC	2 to 3 V
D66-10 (TX1-) - D66-7	W - BR	AVC-LAN communication	Ignition switch	2 to 3 V

(GND)		signal	ACC	
D66-11 (ACC) - D66-7 (GND)	GR - BR	ACC power source	Ignition switch off	Below 1 V
			Ignition switch ACC	11 to 14 V
D66-12 (+B) - D66-7 (GND)	SB - BR	Battery power source	Always	11 to 14 V
D67-4 (TX2+) - D66-7 (GND)	B - BR	AVC-LAN communication signal	Ignition switch ACC	2 to 3 V
D67-5 (TX2-) - D66-7 (GND)	W - BR	AVC-LAN communication signal	Ignition switch ACC	2 to 3 V
D67-7 (ULI+) - D66-7 (GND)*1	R - BR	sound signal	RSE system is playing	A waveform synchronized with sounds is output
D67-8 (URI+) - D66-7 (GND)*1	B - BR	sound signal	RSE system is playing	A waveform synchronized with sounds is output
D67-14 (MUT2) - D66-7 (GND)*1	R - BR	Mute signal from television display assembly	RSE system is playing	Above 3.5 V
			RSE system changing mode	Below 1 V
D67-15 (ULI-) - D66-7 (GND)*1	G - BR	USB audio system sound signal	RSE system is playing	A waveform synchronized with sounds is output
D67-16 (URI-) - D66-7 (GND)*1	W - BR	USB audio system sound signal	RSE system is playing	A waveform synchronized with sounds is output
D129-1 - Body ground	-	Ground	Always	Below 1 V
D129-2 -			USB device or	

D129-1	-	Data signal	"iPod" connected	-
D129-3 - D129-1	-	Data signal	USB device or "iPod" connected	-
D129-4 - D129-1	-	Battery power source	Always	5 V

*1: w/ Rear Seat Entertainment System

6. TELEVISION DISPLAY ASSEMBLY (w/ Rear Seat Entertainment System)

DTC CHECK / CLEAR

DTC CHECK / CLEAR

HINT:

If the system cannot enter the diagnostic mode, inspect the AVC-LAN and all the components that are connected to the AVC-LAN for short circuits and repair or replace the malfunctioning part. Refer to **AVC-LAN Circuit** .

1. STARTING DIAGNOSTIC MODE

- a. Turn the ignition switch to ACC.

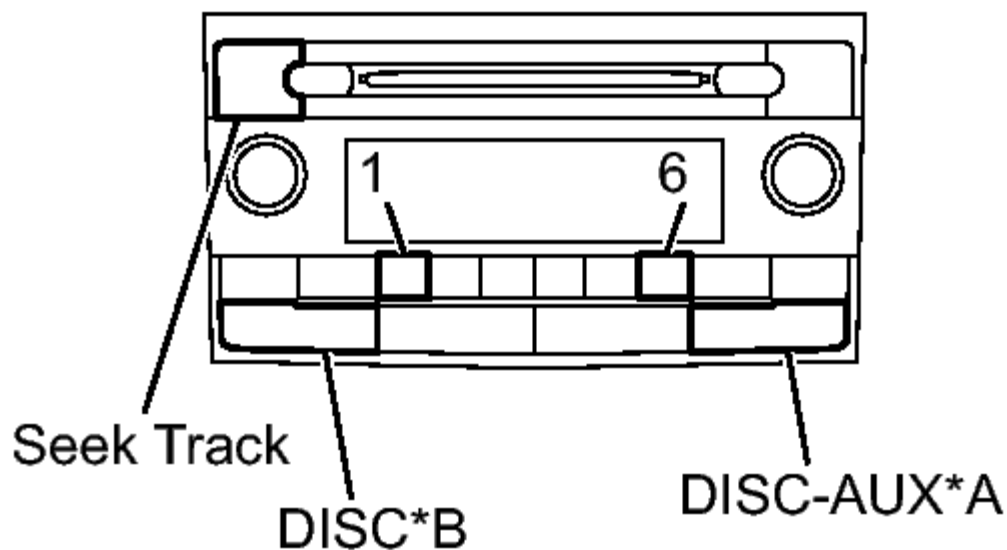


Fig. 24: Identifying Audio System

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

- b. Turn off the audio system.
- c. While pressing the preset switches "channel 1" and "channel 6" at the same time, press the "DISC-AUX"*1 or "DISC"*2 switch 3 times.

*1: w/o USB Audio System

*2: w/ USB Audio System

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.

TEXT IN ILLUSTRATION

*A	w/o USB Audio System
*B	w/ USB Audio System

2. ALL ELEMENT ILLUMINATION MODE AND SWITCH CHECK MODE

HINT:

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

- a. Check that all elements are on.

Example:



T

Fig. 25: Identifying Seek Track (Example)

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

- 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.

3. STEREO JACK ADAPTER CONNECTION CHECK MODE

- a. Press the "SEEK TRACK UP" switch.

When a stereo jack adapter is connected:

AUX OK

When a stereo jack adapter is not connected:

AUX --

N

Fig. 26: Identifying Stereo Jack Adapter Connection Check Mode Display
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

- b. Check if the stereo jack adapter is recognized.

HINT:

- The radio receiver displays "AUX OK" or "AUX ON" when it recognizes a connection to the stereo jack adapter.
- Vehicles that do not have a stereo jack adapter also have this function.
- This function is not to check connection status to an external device, but to check recognition of the stereo jack adapter.

4. SERVICE CHECK MODE

- a. Press the "SEEK TRACK UP" switch.

HINT:

For details of the service check mode, refer to "Check DTC" and "DTC Clear/Recheck".

5. FINISHING DIAGNOSTIC MODE

- a. Press the "DISC-AUX"*1 or "DISC"*2 switch for 2 seconds or more, or turn the ignition switch off.

*1: w/o USB Audio System

*2: w/ USB Audio System

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 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).

Term	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 of each device comprising AVC-LAN.

- b. Service check result display

	Original		Action to be
--	----------	--	--------------

Display	word	Meaning	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 "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 on 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	Go to the detailed information mode to check the trouble area on the DTC list.

		"Diagnostic Memory Mode".	
OLd	Old version	Old DTC application is identified and DTC is detected in either "System Check Mode" or "Diagnostic Memory Mode".	-
nrES	No response	The device gives no response to any one of "System Check Mode ON Request", "System Check Result Request", and "Diagnostic Memory Request".	Check the power source circuit and the communication circuit of the component indicated by the component code (physical address).

c. Device name and physical address

Physical Address No.	Name
190	Radio receiver assembly
19D	"Bluetooth" handsfree module
1F1*4	Satellite radio tuner
	Stereo

440*1	component amplifier assembly
1B0*2	Television display assembly
1A0*2	Disc player assembly
388*3	Multi- media interface ECU

*1: w/ Stereo Component Amplifier Assembly

*2: w/ Rear Seat Entertainment System

*3: w/ USB Audio System

*4: w/ Satellite Radio

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

Service Check Mode:

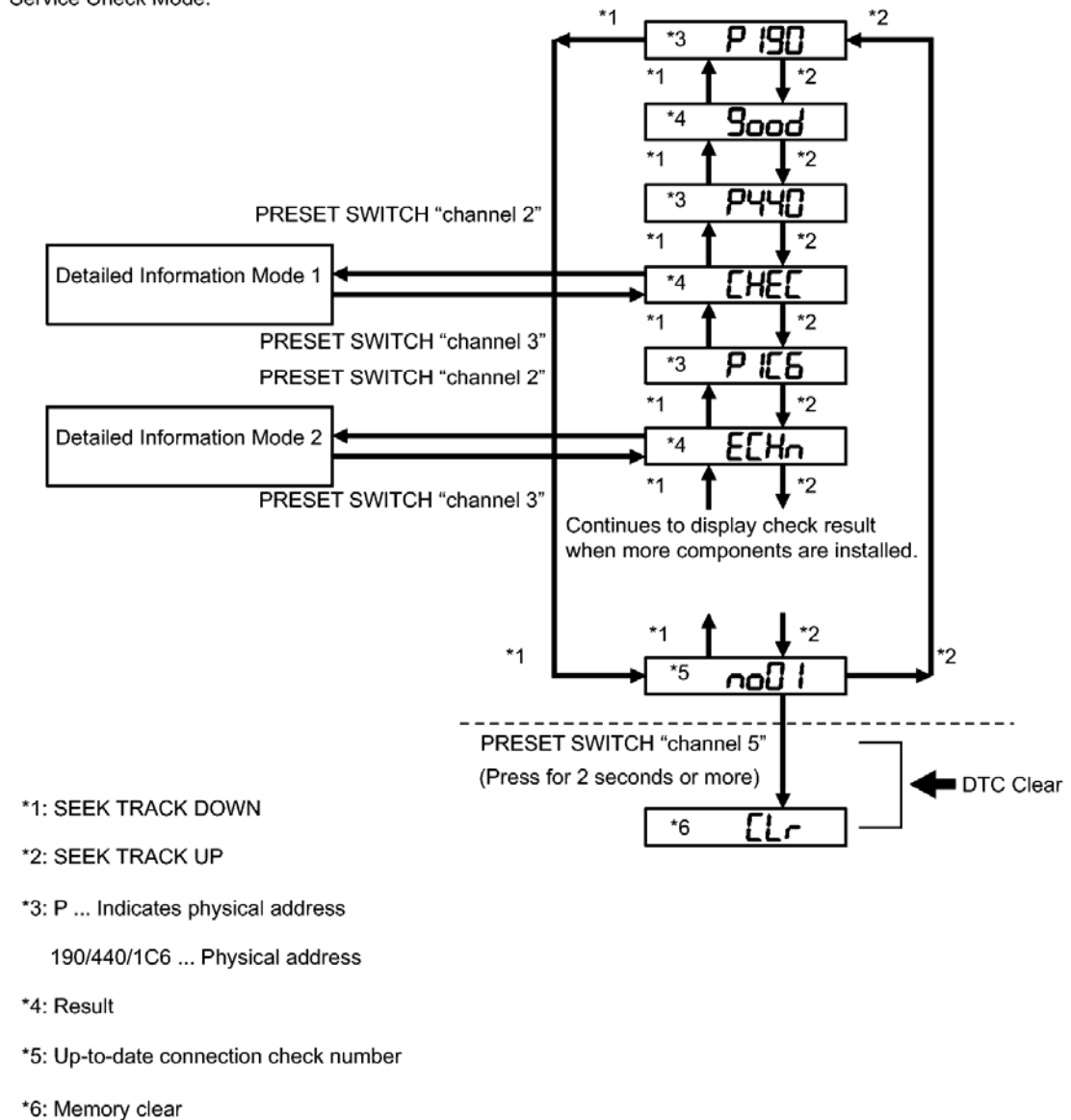


Fig. 27: Identifying DTC Sequence Chart For Service Check Mode
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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 stored only in "Diagnostic Memory Request".
- The component device code (physical address) is displayed first, and then the check result follows.
- This illustration is only an example and may differ in cases such as for each option part and

output DTCs.

1. Press the preset switch "channel 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 "channel 3" to go to the "Service Check Mode".
4. It is necessary to distinguish between the displays of the responses to "System Check Result Request" and "Diagnostic Memory Request". In order to distinguish between 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 occurrences appear in order.

Service Check Mode:

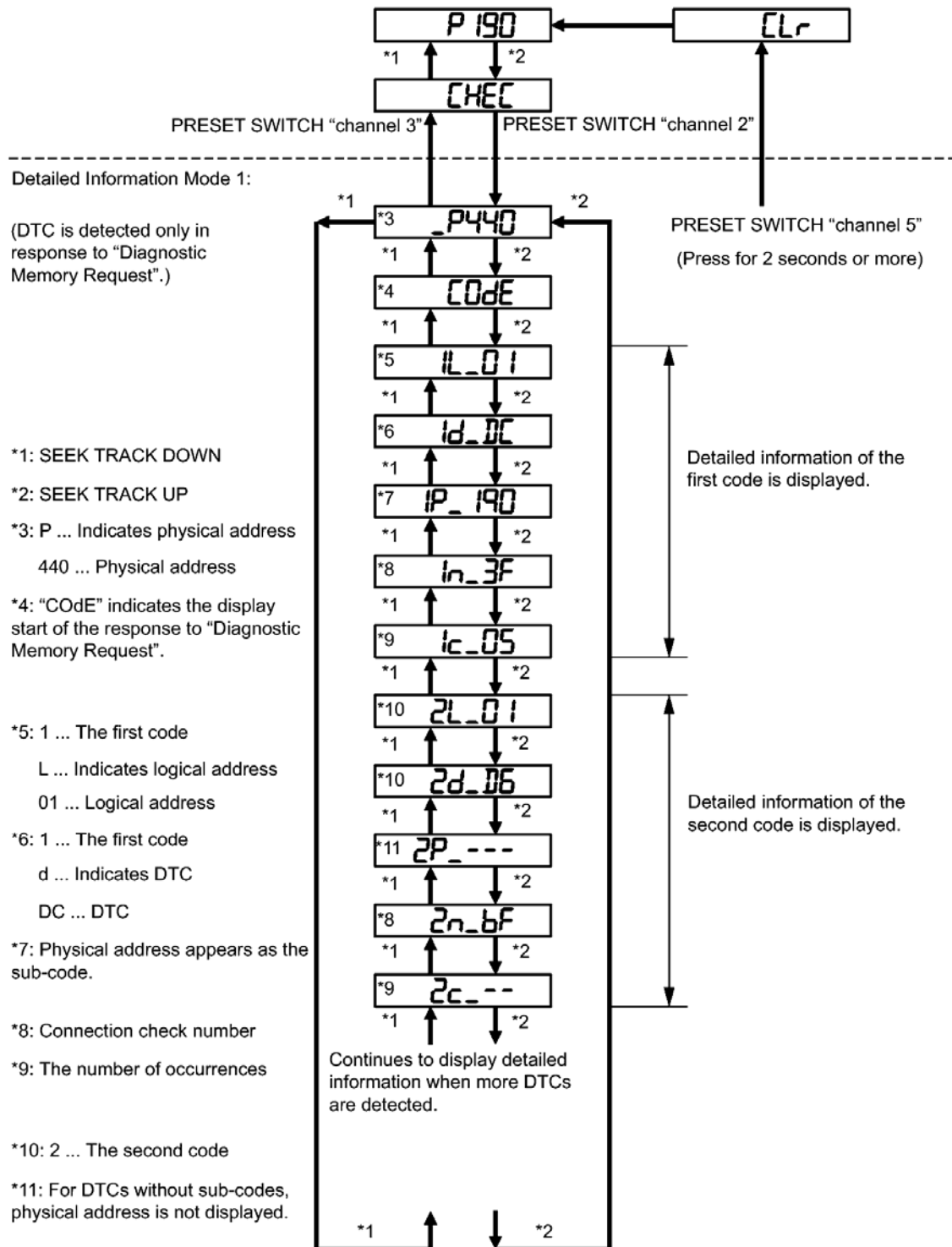


Fig. 28: Identifying DTC Sequence Chart For Service Check Mode 1
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

f. Detailed information mode 2

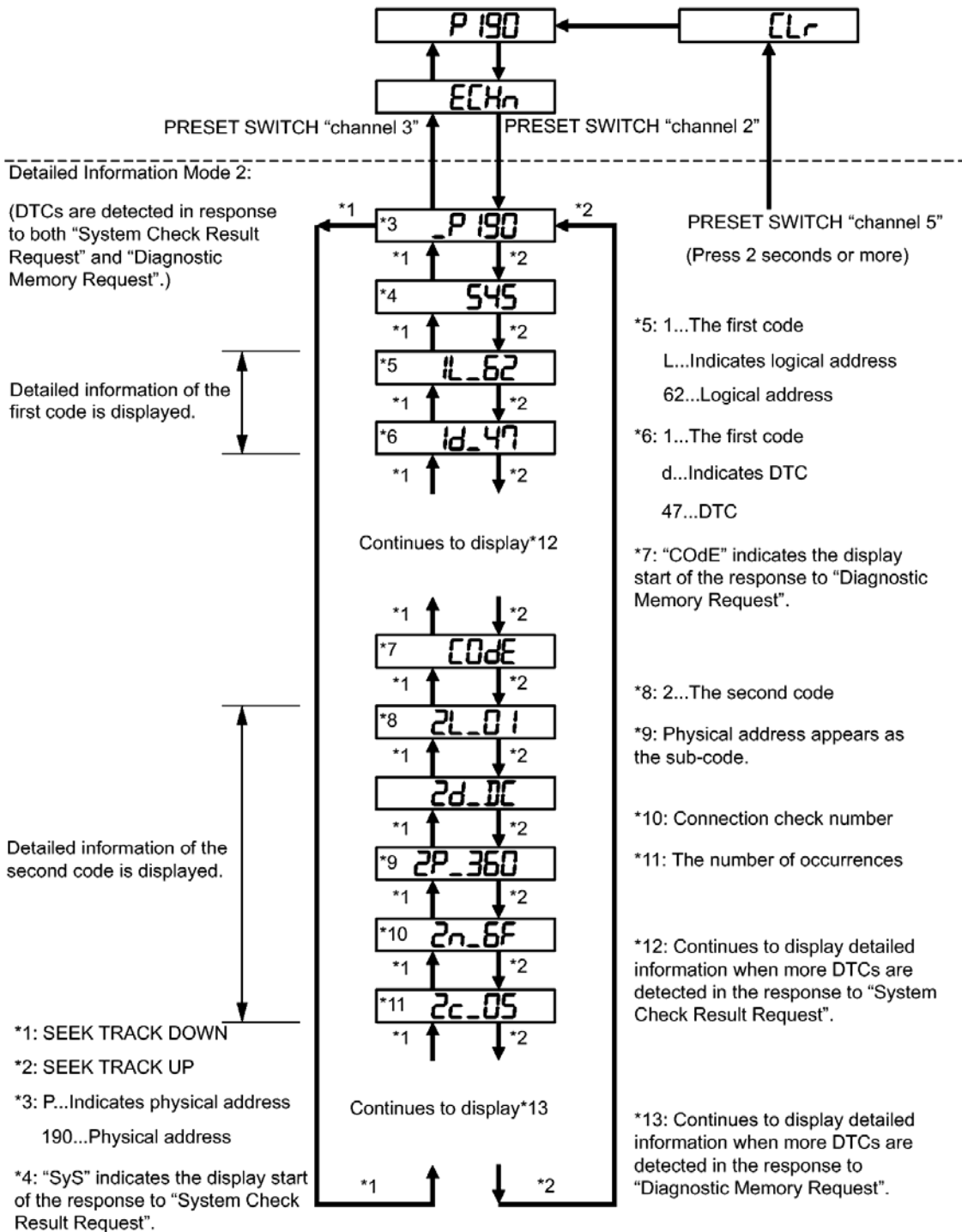
HINT:

- "Detailed Information Mode 2" is displayed when DTCs are stored 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 "channel 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 "channel 3" to go to the "Service Check Mode".
 4. It is necessary to distinguish between the displays of the responses to "System Check Result Request" and "Diagnostic Memory Request". In order to distinguish between the information detected in "System Check Mode" and "Diagnostic Memory Mode" in "ECHn", "CHEC", and "OLD" in "Detailed Information Mode 2", refer to the following:
 - "SyS" is displayed before the detailed codes (detected as a result of "System Check Result Request") are displayed.
 - "COdE" is displayed before the detailed codes (detected as a result of "Diagnostic Memory Request") are displayed.

HINT:

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

System Check Mode:



P

Fig. 29: Identifying DTC Sequence Chart For Service Check Mode 2
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

7. DTC CLEAR/RECHECK

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

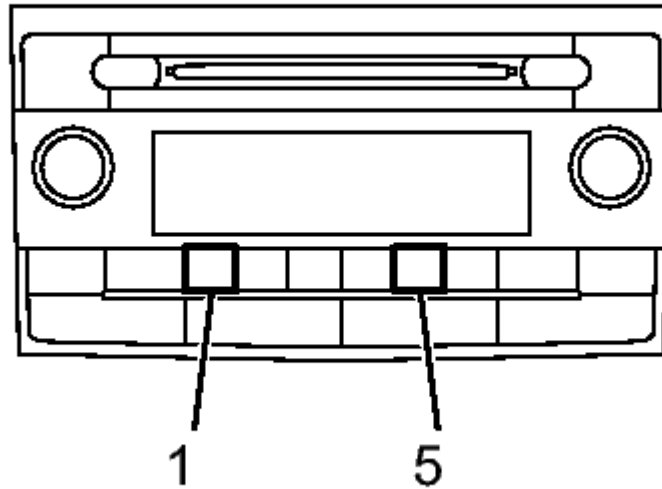


Fig. 30: Identifying Audio System

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

1. When the preset switch "channel 5" is pressed for 2 seconds or more during "Service Check Mode", the DTCs for all components are cleared. ("CLr" is displayed at this time.)

HINT:

- A beep sound is emitted once when the DTC memory is completely cleared.
- When the DTC memory for all the components is cleared, only the component codes (physical address) are displayed.
- After the DTC memory is cleared, the "Service Check Mode" is restored.

- b. Clearing Individual DTC Memory (when clearing the memory of the DTC previously detected individually)

1. When the preset switch "channel 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 "channel 1" and perform the system check again.
- c. Press the preset switch "channel 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

DIAGNOSTIC TROUBLE CODE CHART

HINT:

If a trouble code is output during the DTC check, inspect the trouble areas listed for that code. For details of the code, refer to the "See" below.

COMMUNICATION DIAGNOSIS

DTC Code	Detection Item	Trouble Area	See
01-21	ROM Error	Radio receiver assembly	Refer to <u>DTC 01-21: ROM Error; DTC 01-22: RAM Error; DTC 01-2E: EEPROM Error</u>
01-22	RAM Error	Radio receiver assembly	Refer to <u>DTC 01-21: ROM Error; DTC 01-22: RAM Error; DTC 01-2E: EEPROM Error</u>
01-2E	EEPROM Error	Radio receiver assembly	Refer to <u>DTC 01-21: ROM Error; DTC 01-22: RAM Error; DTC 01-2E: EEPROM Error</u>
01-D5	Absence of Registration Unit	- Power source circuit of the component shown by the sub-code - AVC-LAN circuit between the radio receiver assembly and the component shown by the sub-code - Component shown by the sub-code	Refer to <u>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</u>
01-D6	No Master	- Radio receiver power source circuit - Power source circuit of the component which has stored this code - AVC-LAN circuit between the radio receiver assembly and the component which has stored this code	Refer to <u>DTC 01-D6: No Master; DTC 01-D7: Connection Check Error</u>

		- Component which has stored this code - Radio receiver assembly	
01-D7	Connection Check Error	- Radio receiver power source circuit - Power source circuit of the component which has stored this code - AVC-LAN circuit between the radio receiver assembly and the component which has stored this code - Component which has stored this code - Radio receiver assembly	Refer to <u>DTC 01-D6: No Master; DTC 01-D7: Connection Check Error</u>
01-D8	No Response for Connection Check	- Power source circuit of the component shown by the sub-code - AVC-LAN circuit between the radio receiver assembly and the component shown by the sub-code - Component shown by the sub-code	Refer to <u>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</u>
01-D9	Last Mode Error	- Power source circuit of the component shown by the sub-code - AVC-LAN circuit between the radio receiver assembly and the component shown by the sub-code - Component shown by the sub-code	Refer to <u>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</u>
01-DA	No Response Against ON / OFF Command	- Power source circuit of the component shown by the sub-code - AVC-LAN circuit between the radio receiver assembly and the component shown by the sub-code - Component shown by the sub-code	Refer to <u>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</u>
01-DB	Mode Status Error	- Power source circuit of the component shown by the sub-code - AVC-LAN circuit between the radio receiver assembly and the	Refer to <u>DTC 01-D5: Absence of Registration Unit; DTC 01-D8: No Response for Connection Check; DTC 01-D9: Last Mode Error; DTC</u>

		component shown by the sub-code - Component shown by the sub-code	<u>01-DA: No Response Against ON / OFF Command; DTC 01-DB: Mode Status Error; DTC 01-DE: Slave Reset</u>
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	Refer to <u>DTC 01-DC: Transmission Error</u>
01-DD	Master Reset	- Radio receiver power source circuit - AVC-LAN circuit between the radio receiver assembly and the component which has stored this code - Radio receiver assembly - Component which has stored this code	Refer to <u>DTC 01-DD: Master Reset; DTC 01-E1: Voice Processing Device ON Error</u>
01-DE	Slave Reset	- Power source circuit of the component shown by the sub-code - AVC-LAN circuit between the radio receiver assembly and the component shown by the sub-code - Component shown by the sub-code	Refer to <u>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</u>
01-DF	Master Error	- Radio receiver power source circuit - AVC-LAN circuit between the radio receiver assembly and the component which has stored this code - Radio receiver assembly - Component which has stored this code	Refer to <u>DTC 01-DF: Master Error</u>
01-E0	Registration Complete Indication Error	-	Refer to <u>DTC 01-E0: Registration Complete Indication Error; DTC 01-E3: Registration Demand Transmission; DTC 01-E4: Multiple Frame Incomplete</u>
01-E1	Voice Processing Device	- Radio receiver power source circuit - AVC-LAN circuit between the radio receiver assembly and the component which has stored	Refer to <u>DTC 01-DD: Master Reset; DTC 01-E1: Voice</u>

	ON Error	this code - Radio receiver assembly - Component which has stored this code	<u>Processing Device ON Error</u>
01-E2	ON / OFF Indication Parameter Error	Radio receiver assembly	Refer to <u>DTC 01-E2: ON / OFF Indication Parameter Error</u>
01-E3	Registration Demand Transmission	-	Refer to <u>DTC 01-E0: Registration Complete Indication Error; DTC 01-E3: Registration Demand Transmission; DTC 01-E4: Multiple Frame Incomplete</u>
01-E4	Multiple Frame Incomplete	-	Refer to <u>DTC 01-E0: Registration Complete Indication Error; DTC 01-E3: Registration Demand Transmission; DTC 01-E4: Multiple Frame Incomplete</u>
01-F2	No Response from Diagnosis Memory Request	Stereo component amplifier assembly	Refer to <u>DTC 01-F2: No Response from Diagnosis Memory Request; DTC 01-FF: No Response to Diagnosis Request</u>
01-FF	No Response to Diagnosis Request	Stereo component amplifier assembly	Refer to <u>DTC 01-F2: No Response from Diagnosis Memory Request; DTC 01-FF: No Response to Diagnosis Request</u>

TELEPHONE

DTC Code	Detection Item	Trouble Area	See
57-47	Bluetooth Module Initialization Failed	Radio receiver assembly	Refer to <u>DTC 57-47: Bluetooth Module Initialization Failed</u>

RADIO UNIT

DTC Code	Detection Item	Trouble Area	See
60-10	AM Tuner PLL does not Lock	Radio receiver assembly	Refer to <u>DTC 60-10: AM Tuner PLL does not Lock; DTC 60-11: FM Tuner PLL does not Lock</u>
60-11	FM Tuner PLL does not Lock	Radio receiver assembly	Refer to <u>DTC 60-10: AM Tuner PLL does not Lock; DTC 60-11: FM Tuner PLL does not Lock</u>
			Refer to <u>DTC 60-42: Tuner</u>

60-42	Tuner Power Source Error	Radio receiver assembly	<u>Power Source Error; DTC 60-43: AM Tuner Error; DTC 60-44: FM Tuner Error; DTC 60-50: Malfunction in Internal IC</u>
60-43	AM Tuner Error	Radio receiver assembly	Refer to <u>DTC 60-42: Tuner Power Source Error; DTC 60-43: AM Tuner Error; DTC 60-44: FM Tuner Error; DTC 60-50: Malfunction in Internal IC</u>
60-44	FM Tuner Error	Radio receiver assembly	Refer to <u>DTC 60-42: Tuner Power Source Error; DTC 60-43: AM Tuner Error; DTC 60-44: FM Tuner Error; DTC 60-50: Malfunction in Internal IC</u>
60-50	Malfunction in Internal IC	Radio receiver assembly	Refer to <u>DTC 60-42: Tuner Power Source Error; DTC 60-43: AM Tuner Error; DTC 60-44: FM Tuner Error; DTC 60-50: Malfunction in Internal IC</u>

CD PLAYER

DTC Code	Detection Item	Trouble Area	See
62-10	CD Player Mechanical Error	Radio receiver assembly	Refer to <u>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</u>
62-11	CD Insertion and Ejection Error	Radio receiver assembly	Refer to <u>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</u>
62-12	CD Reading Abnormal	Radio receiver assembly	Refer to <u>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</u>

			<u>Error; DTC 63-12: CD Reading Abnormal</u>
62-41	Wrong Disc	- Disc - Radio receiver assembly	Refer to <u>DTC 62-41: Wrong Disc; DTC 62-42: Disc cannot be Read; DTC 63-41: Wrong Disc; DTC 63-42: Disc cannot be Read</u>
62-42	Disc cannot be Read	- Disc - Radio receiver assembly	Refer to <u>DTC 62-41: Wrong Disc; DTC 62-42: Disc cannot be Read; DTC 63-41: Wrong Disc; DTC 63-42: Disc cannot be Read</u>
62-43	CD-ROM Abnormal	- CD - Radio receiver assembly	Refer to <u>DTC 62-43: CD-ROM Abnormal; DTC 63-43: CD-ROM Abnormal</u>
62-44	CD Abnormal	Radio receiver assembly	Refer to <u>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</u>
62-45	Eject Error	Radio receiver assembly	Refer to <u>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</u>
62-46	Scratched / Reversed Disc	- Disc - Radio receiver assembly	Refer to <u>DTC 62-46: Scratched / Reversed Disc; DTC 63-46: Scratched / Reversed Disc</u>
62-47	High Temperature	Radio receiver assembly	Refer to <u>DTC 62-47: High Temperature; DTC 63-47: High Temperature</u>
62-48	Excess Current	Radio receiver assembly	Refer to <u>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</u>
62-50	Tray Insertion / Ejection Error	Radio receiver assembly	Refer to <u>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</u>
			Refer to <u>DTC 62-45: Eject Error;</u>

62-51	Elevator Error	Radio receiver assembly	<u>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</u>
62-52	Clamp Error	Radio receiver assembly	<u>Refer to 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</u>
62-78	DSP Error	Radio receiver assembly	<u>Refer to DTC 62-78: DSP Error; DTC 63-78: DSP Error</u>
62-7D	Disc cannot be Played	- Disc - Radio receiver assembly	<u>Refer to 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</u>
62-7E	No Playable Files	- Disc - Radio receiver assembly	<u>Refer to 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</u>
62-7F	Copyright Protection Error	- Disc - Radio receiver assembly	<u>Refer to 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</u>

IN-DASH CD CHANGER

DTC Code	Detection Item	Trouble Area	See
63-10	CD Changer Mechanical Error	Radio receiver assembly	<u>Refer to 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</u>

63-11	CD Insertion and Ejection Error	Radio receiver assembly	Refer to <u>DTC 62-10: CD Player Mechanical Error</u> ; <u>DTC 62-11: CD Insertion and Ejection Error</u> ; <u>DTC 62-12: CD Reading Abnormal</u> ; <u>DTC 63-10: CD Changer Mechanical Error</u> ; <u>DTC 63-11: CD Insertion and Ejection Error</u> ; <u>DTC 63-12: CD Reading Abnormal</u>
63-12	CD Reading Abnormal	Radio receiver assembly	Refer to <u>DTC 62-10: CD Player Mechanical Error</u> ; <u>DTC 62-11: CD Insertion and Ejection Error</u> ; <u>DTC 62-12: CD Reading Abnormal</u> ; <u>DTC 63-10: CD Changer Mechanical Error</u> ; <u>DTC 63-11: CD Insertion and Ejection Error</u> ; <u>DTC 63-12: CD Reading Abnormal</u>
63-41	Wrong Disc	- Disc - Radio receiver assembly	Refer to <u>DTC 62-41: Wrong Disc</u> ; <u>DTC 62-42: Disc cannot be Read</u> ; <u>DTC 63-41: Wrong Disc</u> ; <u>DTC 63-42: Disc cannot be Read</u>
63-42	Disc cannot be Read	- Disc - Radio receiver assembly	Refer to <u>DTC 62-41: Wrong Disc</u> ; <u>DTC 62-42: Disc cannot be Read</u> ; <u>DTC 63-41: Wrong Disc</u> ; <u>DTC 63-42: Disc cannot be Read</u>
63-43	CD-ROM Abnormal	- CD - Radio receiver assembly	Refer to <u>DTC 62-43: CD-ROM Abnormal</u> ; <u>DTC 63-43: CD-ROM Abnormal</u>
63-44	CD Abnormal	Radio receiver assembly	Refer to <u>DTC 62-44: CD Abnormal</u> ; <u>DTC 62-48: Excess Current</u> ; <u>DTC 62-50: Tray Insertion / Ejection Error</u> ; <u>DTC 63-44: CD Abnormal</u> ; <u>DTC 63-48: Excess Current</u> ; <u>DTC 63-50: Tray Insertion / Ejection Error</u>
63-45	Eject Error	Radio receiver assembly	Refer to <u>DTC 62-45: Eject Error</u> ; <u>DTC 62-51: Elevator Error</u> ; <u>DTC 62-52: Clamp Error</u> ; <u>DTC 63-45: Eject Error</u> ; <u>DTC 63-51: Elevator Error</u> ; <u>DTC 63-52: Clamp Error</u>
63-46	Scratched / Reversed Disc	- Disc - Radio receiver assembly	Refer to <u>DTC 62-46: Scratched / Reversed Disc</u> ; <u>DTC 63-46: Scratched / Reversed Disc</u>
63-47	High Temperature	Radio receiver assembly	Refer to <u>DTC 62-47: High Temperature</u> ; <u>DTC 63-47: High Temperature</u>

63-48	Excess Current	Radio receiver assembly	Refer to <u>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</u>
63-50	Tray Insertion / Ejection Error	Radio receiver assembly	Refer to <u>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</u>
63-51	Elevator Error	Radio receiver assembly	Refer to <u>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</u>
63-52	Clamp Error	Radio receiver assembly	Refer to <u>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</u>
63-78	DSP Error	Radio receiver assembly	Refer to <u>DTC 62-78: DSP Error; DTC 63-78: DSP Error</u>
63-7D	Disc cannot be Played	- Disc - Radio receiver assembly	Refer to <u>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</u>
63-7E	No Playable Files	- Disc - Radio receiver assembly	Refer to <u>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</u>
63-7F	Copyright Protection Error	- Disc - Radio receiver	Refer to <u>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;</u>

		assembly	<u>DTC 63-7E: No Playable Files;</u> <u>DTC 63-7F: Copyright Protection</u> <u>Error</u>
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SPEAKER

DTC Code	Detection Item	Trouble Area	See
74-40	Short in Speaker Circuit	- Harness or connector - Speaker - Stereo component amplifier assembly	Refer to <u>DTC 74-40: Short in Speaker Circuit</u>

XM TUNER

DTC Code	Detection Item	Trouble Area	See
C0-11	Satellite Radio Tuner Internal Circuit Error 1	Radio receiver assembly	Refer to <u>DTC C0-11: Satellite Radio Tuner Internal Circuit Error 1;</u> <u>DTC C0-12: Satellite Radio Tuner Internal Circuit Error 2;</u> <u>DTC C0-13: Satellite Radio Tuner Internal Circuit Error 3;</u> <u>DTC C0-14: Satellite Radio Tuner Internal Circuit Error 4;</u> <u>DTC C0-15: Satellite Radio Tuner Internal Circuit Error 5;</u> <u>DTC C0-16: Satellite Radio Tuner Internal Circuit Error 6</u>
C0-12	Satellite Radio Tuner Internal Circuit Error 2	Radio receiver assembly	Refer to <u>DTC C0-11: Satellite Radio Tuner Internal Circuit Error 1;</u> <u>DTC C0-12: Satellite Radio Tuner Internal Circuit Error 2;</u> <u>DTC C0-13: Satellite Radio Tuner Internal Circuit Error 3;</u> <u>DTC C0-14: Satellite Radio Tuner Internal Circuit Error 4;</u> <u>DTC C0-15: Satellite Radio Tuner Internal Circuit Error 5;</u> <u>DTC C0-16: Satellite Radio Tuner Internal Circuit Error 6</u>
C0-13	Satellite Radio Tuner Internal Circuit Error 3	Radio receiver assembly	Refer to <u>DTC C0-11: Satellite Radio Tuner Internal Circuit Error 1;</u> <u>DTC C0-12: Satellite Radio Tuner Internal Circuit Error 2;</u> <u>DTC C0-13: Satellite Radio Tuner Internal Circuit Error 3;</u> <u>DTC C0-14: Satellite</u>

			<u>Radio Tuner Internal Circuit Error 4; DTC C0-15: Satellite Radio Tuner Internal Circuit Error 5; DTC C0-16: Satellite Radio Tuner Internal Circuit Error 6</u>
C0-14	Satellite Radio Tuner Internal Circuit Error 4	Radio receiver assembly	Refer to <u>DTC C0-11: Satellite Radio Tuner Internal Circuit Error 1; DTC C0-12: Satellite Radio Tuner Internal Circuit Error 2; DTC C0-13: Satellite Radio Tuner Internal Circuit Error 3; DTC C0-14: Satellite Radio Tuner Internal Circuit Error 4; DTC C0-15: Satellite Radio Tuner Internal Circuit Error 5; DTC C0-16: Satellite Radio Tuner Internal Circuit Error 6</u>
C0-15	Satellite Radio Tuner Internal Circuit Error 5	Radio receiver assembly	Refer to <u>DTC C0-11: Satellite Radio Tuner Internal Circuit Error 1; DTC C0-12: Satellite Radio Tuner Internal Circuit Error 2; DTC C0-13: Satellite Radio Tuner Internal Circuit Error 3; DTC C0-14: Satellite Radio Tuner Internal Circuit Error 4; DTC C0-15: Satellite Radio Tuner Internal Circuit Error 5; DTC C0-16: Satellite Radio Tuner Internal Circuit Error 6</u>
C0-16	Satellite Radio Tuner Internal Circuit Error 6	Radio receiver assembly	Refer to <u>DTC C0-11: Satellite Radio Tuner Internal Circuit Error 1; DTC C0-12: Satellite Radio Tuner Internal Circuit Error 2; DTC C0-13: Satellite Radio Tuner Internal Circuit Error 3; DTC C0-14: Satellite Radio Tuner Internal Circuit Error 4; DTC C0-15: Satellite Radio Tuner Internal Circuit Error 5; DTC C0-16: Satellite Radio Tuner Internal Circuit Error 6</u>
		- Antenna cord sub-assembly	

C0-40	Antenna not Connected	- No. 2 antenna cord sub-assembly - Satellite radio antenna assembly - Radio receiver assembly	Refer to <u>DTC C0-40: Antenna not Connected; DTC C0-41: Antenna Shorted</u>
C0-41	Antenna Shorted	- Antenna cord sub-assembly - No. 2 antenna cord sub-assembly - Satellite radio antenna assembly - Radio receiver assembly	Refer to <u>DTC C0-40: Antenna not Connected; DTC C0-41: Antenna Shorted</u>

USB AUDIO SYSTEM

DTC Code	Detection Item	Trouble Area	See
CB-10	System Microcomputer Malfunction	- "iPod" or USB device - Multi-media interface ECU	Refer to <u>DTC CB-10: System Microcomputer Malfunction; DTC CB-11: Media Interface Microcomputer Malfunction; DTC CB-12: CD-LSI Malfunction</u>
CB-11	Media Interface Microcomputer Malfunction	- "iPod" or USB device - Multi-media interface ECU	Refer to <u>DTC CB-10: System Microcomputer Malfunction; DTC CB-11: Media Interface Microcomputer Malfunction; DTC CB-12: CD-LSI Malfunction</u>
CB-12	CD-LSI Malfunction	- "iPod" or USB device - Multi-media interface ECU	Refer to <u>DTC CB-10: System Microcomputer Malfunction; DTC CB-11: Media Interface Microcomputer Malfunction; DTC CB-12: CD-LSI Malfunction</u>
CB-13	USB Over Current Detection	- "iPod" or USB device - Harness or connector - No. 1 stereo jack adapter assembly - Multi-media interface ECU	Refer to <u>DTC CB-13: USB Over Current Detection</u>
CB-43	USB Device Class/Protocol Error	- USB device - Multi-media interface ECU	Refer to <u>DTC CB-43: USB Device Class/Protocol Error; DTC CB-44: USB File System Error; DTC CB-50: iPod Malfunction; DTC CB-51: iPod Protocol Error; DTC CB-7D: iPod Protocol Unsupported</u>

CB-44	USB File System Error	- USB device - Multi-media interface ECU	Refer to <u>DTC CB-43: USB Device Class/Protocol Error; DTC CB-44: USB File System Error; DTC CB-50: iPod Malfunction; DTC CB-51: iPod Protocol Error; DTC CB-7D: iPod Protocol Unsupported</u>
CB-45	USB Communication Error	- USB device - Multi-media interface ECU	Refer to <u>DTC CB-45: USB Communication Error; DTC CB-46: iPod Control Error; DTC CB-47: iPod Communication Error</u>
CB-46	iPod Control Error	- "iPod" - Multi-media interface ECU	Refer to <u>DTC CB-45: USB Communication Error; DTC CB-46: iPod Control Error; DTC CB-47: iPod Communication Error</u>
CB-47	iPod Communication Error	- "iPod" - Multi-media interface ECU	Refer to <u>DTC CB-45: USB Communication Error; DTC CB-46: iPod Control Error; DTC CB-47: iPod Communication Error</u>
CB-50	iPod Malfunction	- "iPod" - Multi-media interface ECU	Refer to <u>DTC CB-43: USB Device Class/Protocol Error; DTC CB-44: USB File System Error; DTC CB-50: iPod Malfunction; DTC CB-51: iPod Protocol Error; DTC CB-7D: iPod Protocol Unsupported</u>
CB-51	iPod Protocol Error	- "iPod" - Multi-media interface ECU	Refer to <u>DTC CB-43: USB Device Class/Protocol Error; DTC CB-44: USB File System Error; DTC CB-50: iPod Malfunction; DTC CB-51: iPod Protocol Error; DTC CB-7D: iPod Protocol Unsupported</u>
CB-52	No Playable iPod File Exists	"iPod"	Refer to <u>DTC CB-52: No Playable iPod File Exists; DTC CB-7E: No Playable USB File Exists</u>
CB-7D	iPod Protocol Unsupported	- "iPod" - Multi-media interface ECU	Refer to <u>DTC CB-43: USB Device Class/Protocol Error; DTC CB-44: USB File System Error; DTC CB-50: iPod Malfunction; DTC CB-51: iPod Protocol Error; DTC CB-7D: iPod Protocol Unsupported</u>
CB-7E	No Playable USB File Exists	USB device	Refer to <u>DTC CB-52: No Playable iPod File Exists; DTC CB-7E: No Playable USB File Exists</u>

DISC PLAYER

DTC Code	Detection Item	Trouble Area	See
D2-42	Disc cannot be Read	- Disc - Disc player assembly	Refer to <u>DTC D2-42: Disc cannot be Read</u>
D2-44	Disc Malfunction	Disc player assembly	Refer to <u>DTC D2-44: Disc Malfunction</u>
D2-45	Eject Malfunction	Disc player assembly	Refer to <u>DTC D2-45: Eject Malfunction; DTC D2-52: Clamp Malfunction</u>
D2-46	Disc is Scratched, Dirty or Reversed	- Disc - Disc player assembly	Refer to <u>DTC D2-46: Disc is Scratched, Dirty or Reversed</u>
D2-52	Clamp Malfunction	Disc player assembly	Refer to <u>DTC D2-45: Eject Malfunction; DTC D2-52: Clamp Malfunction</u>