AUDIO AND VISUAL SYSTEM

DTC 01-21: ROM ERROR; DTC 01-22: RAM ERROR; DTC 01-2E: EEPROM ERROR

DESCRIPTION

DTC Code	DTC Detection Condition	Trouble Area
01-21	A malfunction exists in ROM.	Radio receiver assembly
01-22	A malfunction exists in RAM.	
01-2E	A checksum malfunction exists.	

INSPECTION PROCEDURE

HINT:

After the inspection is completed, clear the DTCs.

PROCEDURE

1. **REPLACE RADIO RECEIVER ASSEMBLY**
   a. Replace the radio receiver assembly. Refer to **REMOVAL** .

   NEXT --> END

DTC 01-D5: ABSENCE OF REGISTRATION UNIT; DTC 01-D8: NO RESPONSE FOR CONNECTION CHECK; DTC 01-D9: LAST MODE ERROR; DTC 01-DA: NO RESPONSE AGAINST ON / OFF COMMAND; DTC 01-DB: MODE STATUS ERROR; DTC 01-DE: SLAVE RESET

DESCRIPTION

DTC Code	DTC Detection Condition	Trouble Area
01-D5*1, *3	A device that the sub-code shows is (was) disconnected from the system when turning the ignition switch to ON or ACC. The communication condition with the device that the code shows cannot be obtained when the engine starts.	• Power source circuit of the component shown by the sub-code • AVC-LAN circuit between the radio
01-D8*2, *3	The device indicated by the sub-code is (was) disconnected from the system after the engine starts.	
	The device that had functioned before	

01-D9*1, *3	the engine stopped is (was) disconnected from the system when turning the ignition switch to ON or ACC.	receiver assembly and the component shown by the sub-code • Component shown by the sub-code • Radio receiver assembly
01-DA*3	No response is identified when changing mode. Sound and image do not change by switch operation.	
01-DB*1, *3	A dual alarm is detected.	
01-DE*3, *4	A slave device has been disconnected after the engine starts	

HINT:

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

NOTE:

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

INSPECTION PROCEDURE

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

PROCEDURE

1. **CHECK "RADIO RECEIVER COMMUNICATION ERROR" IN FLOWCHART**
   a. Refer to the radio receiver communication error. Refer to **Radio Receiver Communication Error**.

   NEXT --> END

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

DESCRIPTION

DTC Code	DTC Detection Condition	Trouble Area
01-D6*1	When either of the following conditions is met: • The device that stores (stored) the code has (had) been disconnected when the ignition switch is ACC or ON. • The master device has (had) been disconnected when this code is stored.	• Radio receiver power source circuit • Power source circuit of the component which has stored this code • AVC-LAN circuit between the radio receiver assembly and the component which has stored this code • Component which has stored this code • Radio receiver assembly
01-D7*2	When either of the following conditions is met: • The device that stored the code has (had) been disconnected after the engine starts (started). • The master device has (had) been disconnected when this code is (was) stored.	

HINT:

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

NOTE:

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

WIRING DIAGRAM

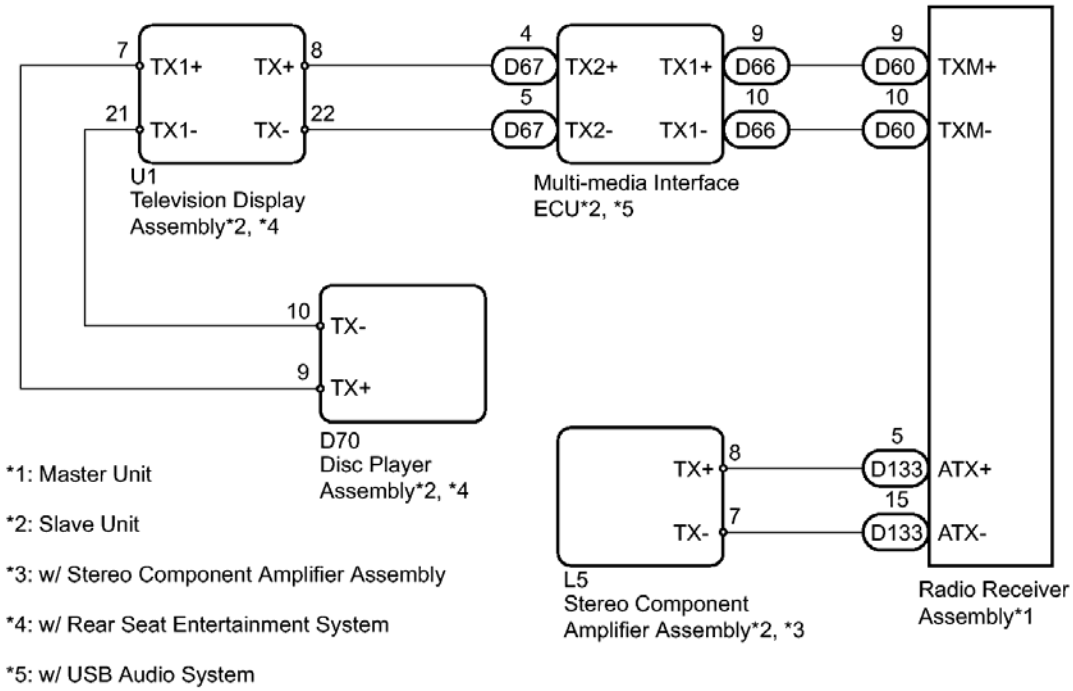


Fig. 1: Radio Receiver Assembly Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

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

PROCEDURE

1. **CHECK RADIO RECEIVER POWER SOURCE CIRCUIT**
   a. Refer to Radio Receiver Power Source Circuit. Refer to **Radio Receiver Power Source Circuit**.

      HINT:

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

   NEXT: Go to next step

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

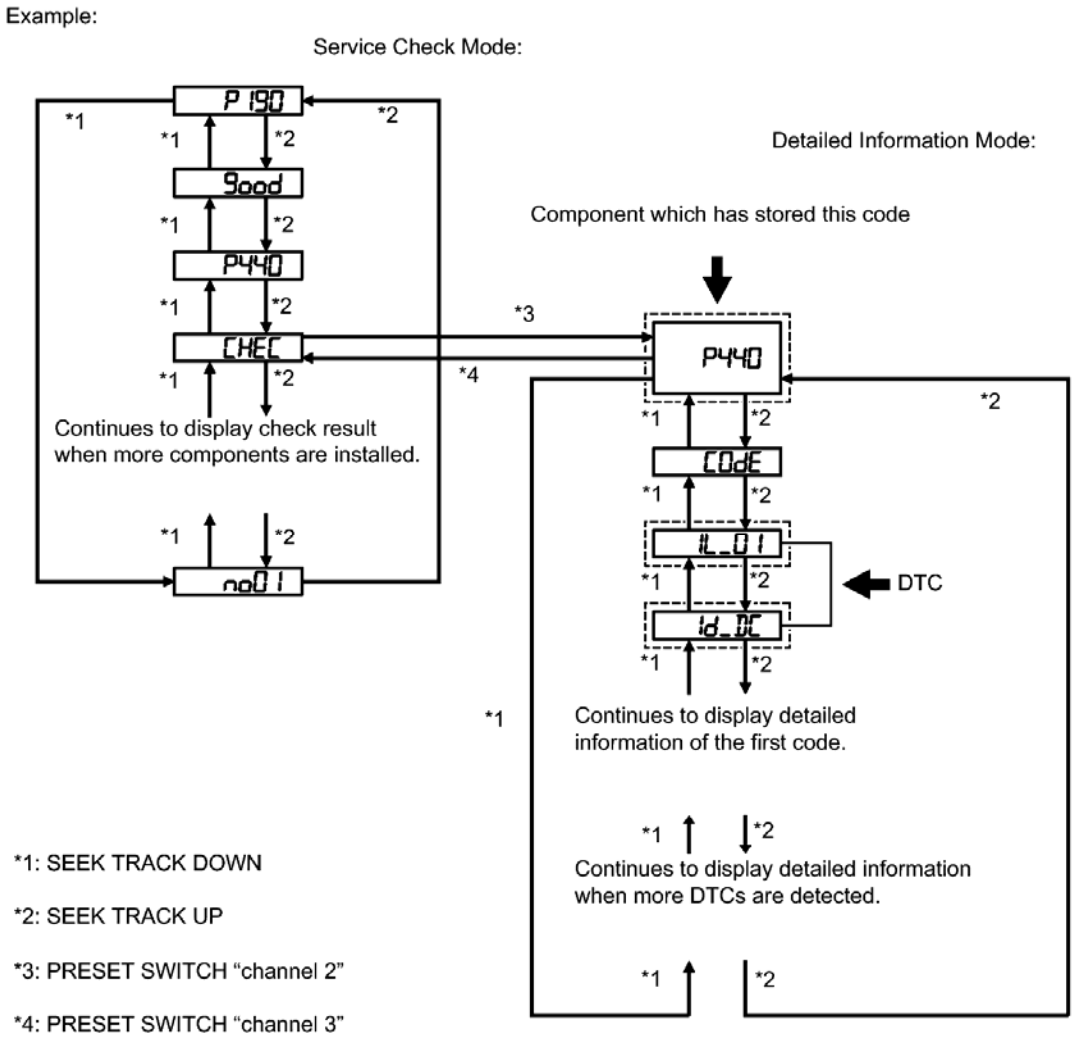


Fig. 2: Identifying "Detailed Information Mode"
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

COMPONENT TABLE

Component	Physical Address
Radio receiver assembly	190
"Bluetooth" handsfree module	19D
Satellite	

radio tuner*4	1F1
Stereo component amplifier assembly*1	440
Multi-Media interface ECU*3	388
Television display assembly*2	1B0
Disc player assembly*2	1A0

*1: w/ Stereo Component Amplifier Assembly

*2: w/ Rear Seat Entertainment System

*3: w/ USB Audio System

*4: w/ Satellite Radio

HINT:

- "440 (stereo component amplifier assembly)" is the component which has stored this code in the example shown in the illustration.
- For details of the DTC display, refer to "DTC Check/Clear". Refer to **DTC CHECK / CLEAR** .

NEXT: Go to next step

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

HINT:

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

COMPONENT TABLE

Component	Proceed to
Except "Bluetooth" handsfree	

module and satellite radio tuner	A
"Bluetooth" handsfree module (19D)	B
Satellite radio tuner (1F1)*1	

*1: w/ Satellite Radio

B --> See step 8

A: Go to next step

4. **CHECK POWER SOURCE CIRCUIT OF COMPONENT WHICH HAS STORED THIS CODE**
   a. Inspect the power source circuit of the component which has stored this code.

      HINT:

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

      COMPONENT TABLE

Component	Proceed to
Stereo component amplifier assembly*1	Stereo Component Amplifier Power Source Circuit. Refer to **Stereo Component Amplifier Power Source Circuit**
Multi-Media	Multi-Media Interface ECU Power Source Circuit. Refer to

interface ECU*3	**Multi-Media Interface ECU Power Source Circuit**
Television display assembly*2	Television Display Assembly Power Source Circuit. Refer to **Television Display Power Source Circuit**
Disc player assembly*2	Disc Player Changer Power Source Circuit. Refer to **Disc Player Changer Power Source Circuit**

*1: w/ Stereo Component Amplifier Assembly

*2: w/ Rear Seat Entertainment System

*3: w/ USB Audio System

NEXT: Go to next step

5. **INSPECT RADIO RECEIVER ASSEMBLY**
   a. Disconnect the D133*1 and D60*2 radio receiver assembly connectors.

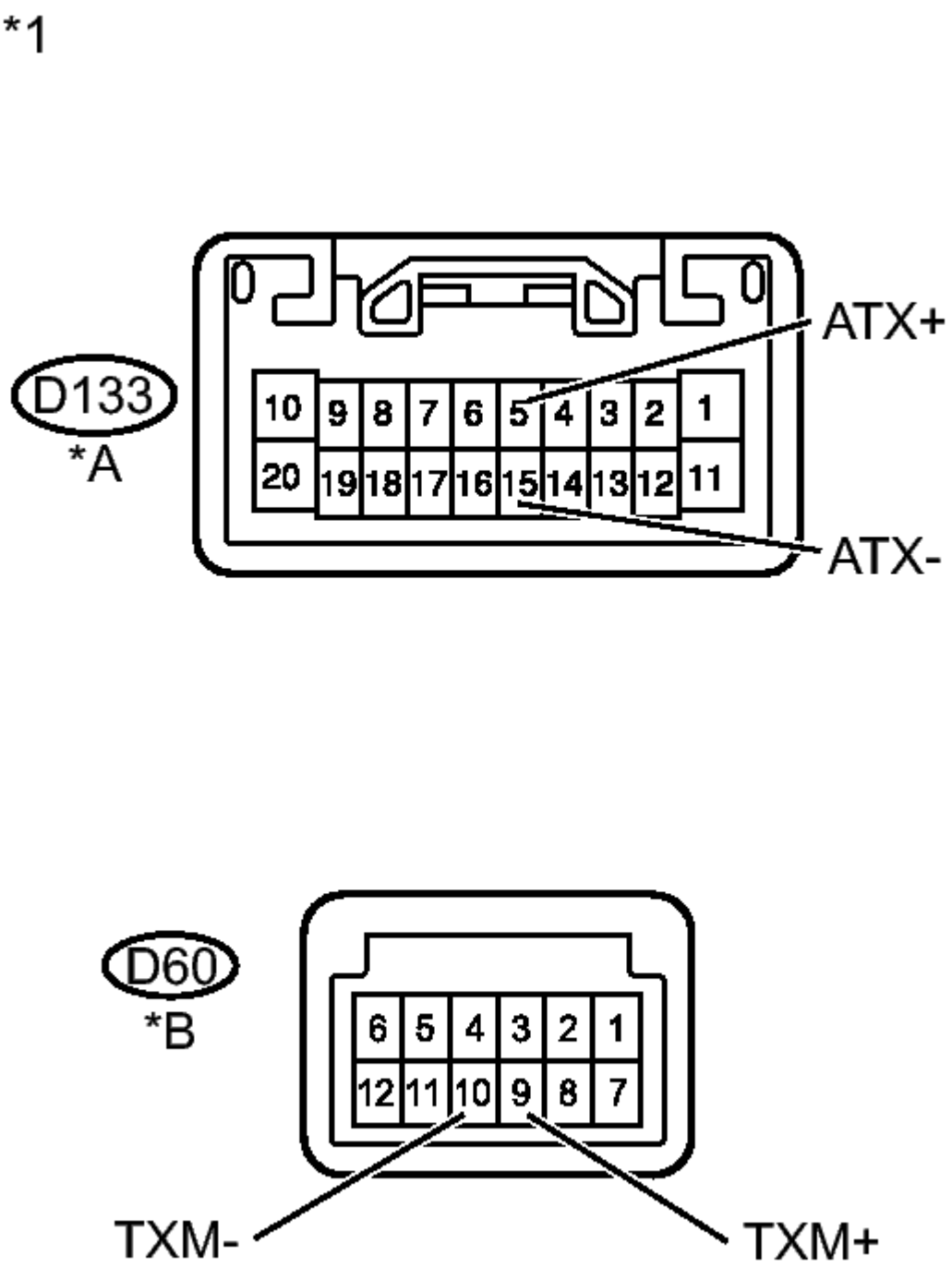


Fig. 3: D133 & D60 Radio Receiver Assembly Connector End View
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

*1: w/ Stereo Component Amplifier Assembly

*2: w/ USB Audio System

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

Standard Resistance

Tester Connection	Condition	Specified Condition
D133-5 (ATX+) - D133-15 (ATX-)*1	Always	60 to 80 ohms
D60-9 (TXM+) - D60-10 (TXM-)*2	Always	60 to 80 ohms

*1: w/ Stereo Component Amplifier Assembly

*2: w/ USB Audio System

TEXT IN ILLUSTRATION

*A	w/ Stereo Component Amplifier Assembly
*B	w/ USB Audio System
*1	Component without harness connected (Radio Receiver Assembly)

NG --> See step 9

OK: Go to next step

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

HINT:

For details of the connectors, refer to "Terminals of ECU". Refer to **TERMINALS OF ECU** .

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

and the component which has stored this code.

1. Disconnect all connectors between the radio receiver assembly and the component which has stored this code.
2. Check for an open or short in the AVC-LAN circuit between the radio receiver assembly and the component which has stored this code.

   OK

   There is no open or short circuit.

NG --> REPAIR OR REPLACE HARNESS OR CONNECTOR

OK: Go to next step

7. **REPLACE COMPONENT WHICH HAS STORED THIS CODE**
   a. Replace the component which has stored this code with a normal one and check if the same problem occurs again.

      OK

      Some problem does not occurs.

   NG --> See step 10

   OK --> END

8. **REPLACE RADIO RECEIVER ASSEMBLY. Refer to REMOVAL**
9. **REPLACE RADIO RECEIVER ASSEMBLY. Refer to REMOVAL**
10. **REPLACE RADIO RECEIVER ASSEMBLY. Refer to REMOVAL**

DTC 01-DC: TRANSMISSION ERROR

DESCRIPTION

DTC Code	DTC Detection Condition	Trouble Area
01-DC	Transmission to component shown by sub-code failed (Detecting this DTC does not always mean actual failure)	If the same sub-code is recorded in other components, check harness for power supply and communication system of all components shown by code

HINT:

This code may be stored if the engine is started, idled for 60 seconds and then the ignition switch is turned to the start position again.

NOTE:

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

INSPECTION PROCEDURE

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

PROCEDURE

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

         HINT:

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

         RESULT

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

B --> See step 4

A: Go to next step

2. **CLEAR DTC**
   a. Clear the DTCs. Refer to **DTC CHECK / CLEAR** .

      HINT:

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

   NEXT: Go to next step

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

      OK

      Malfunction disappears.

   NG --> See step 5

   OK --> See step 6

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

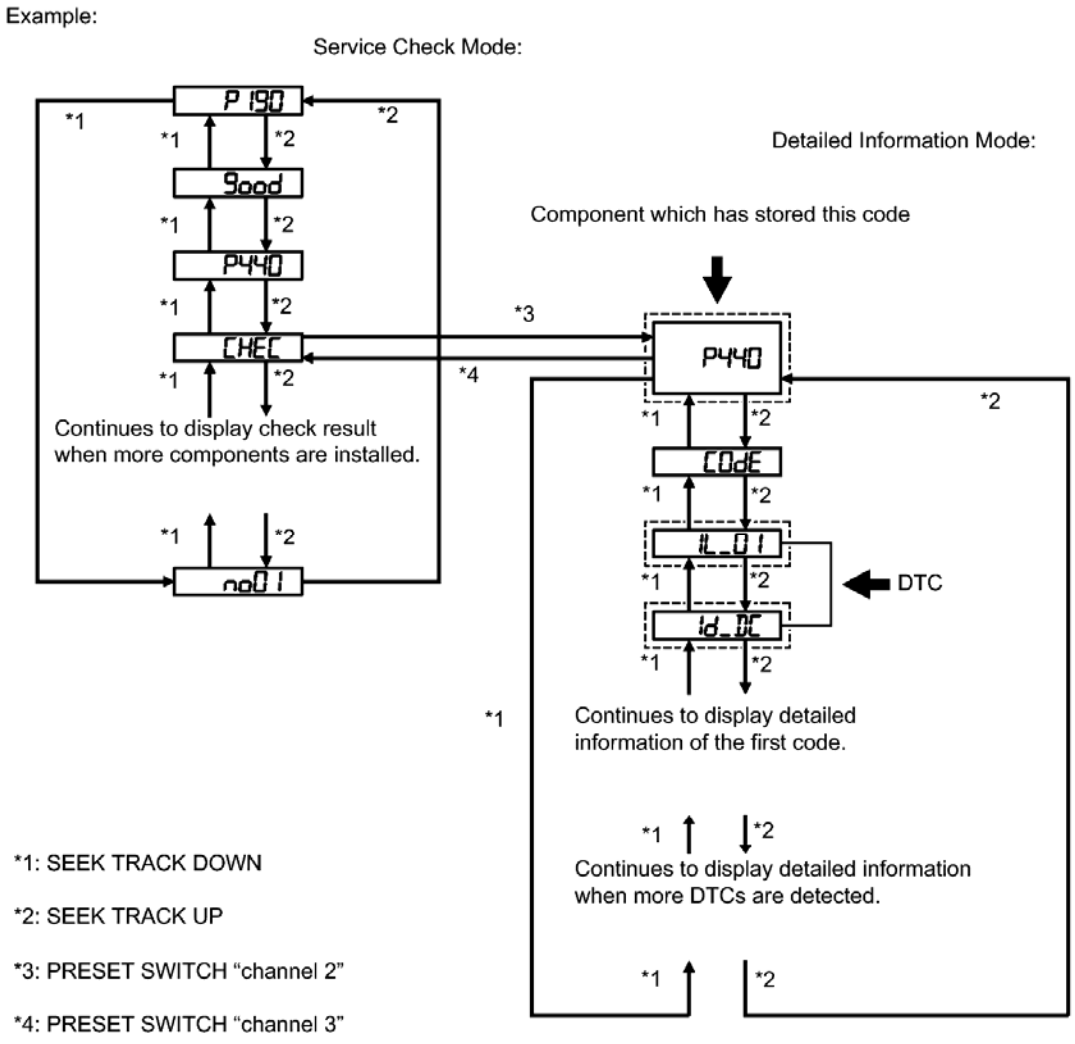


Fig. 4: Identifying "Detailed Information Mode"
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

COMPONENT TABLE

Component	Physical Address
Radio receiver assembly	190
"Bluetooth" handsfree module	19D
Satellite	

radio tuner*4	1F1
Stereo component amplifier assembly*1	440
Multi-Media interface ECU*3	388
Television display assembly*2	1B0
Disc player assembly*2	1A0

*1: w/ Stereo Component Amplifier Assembly

*2: w/ Rear Seat Entertainment System

*3: w/ USB Audio System

*4: w/ Satellite Radio

HINT:

- "440 (stereo component amplifier)" is the component which has stored this code in the example shown in the illustration.
- For details of the DTC display, refer to "DTC Check/Clear". Refer to **DTC CHECK / CLEAR** .

NEXT: Go to next step

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

COMPONENT TABLE

Component	Proceed to
Radio receiver assembly	Radio receiver communication error. Refer to **Radio Receiver Communication Error**
	"Bluetooth" handsfree module communication

"Bluetooth" handsfree module	error. Refer to **Bluetooth Handsfree Module Communication Error**
Satellite radio tuner*4	Satellite radio tuner communication error. Refer to **Satellite Radio Tuner Communication Error**
Stereo component amplifier assembly*1	Stereo component amplifier communication error. Refer to **Stereo Component Amplifier Communication Error**
Multi-Media interface ECU*3	Multi-Media interface ECU communication error. Refer to **Multi-Media Interface ECU Communication Error**
Television display assembly*2	Television display assembly communication error. Refer to **Television Display Assembly Communication Error**
Disc player assembly*2	Disc player changer communication error. Refer to **Disc Player Changer**

	Communication Error

*1: w/ Stereo Component Amplifier Assembly

*2: w/ Rear Seat Entertainment System

*3: w/ USB Audio System

*4: w/ Satellite Radio

NEXT --> END

6. **USE SIMULATION METHOD TO CHECK. Refer to HOW TO PROCEED WITH TROUBLESHOOTING**

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

DESCRIPTION

DTC Code	DTC Detection Condition	Trouble Area
01-DD*1	The device that should be the master has been disconnected after engine start.	• Radio receiver power source circuit • AVC-LAN circuit between the radio receiver assembly and the component which has stored this code • Radio receiver assembly • Component which has stored this code
01-E1*2	The AMP device records that the AMP output does not function even while the source device operates.	

HINT:

- *1: This code may be stored if the engine is started and the ignition switch is turned to start position again.
- *2: Even if no fault is present, this trouble code may be stored depending on the battery condition or engine start voltage.

NOTE:

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

WIRING DIAGRAM

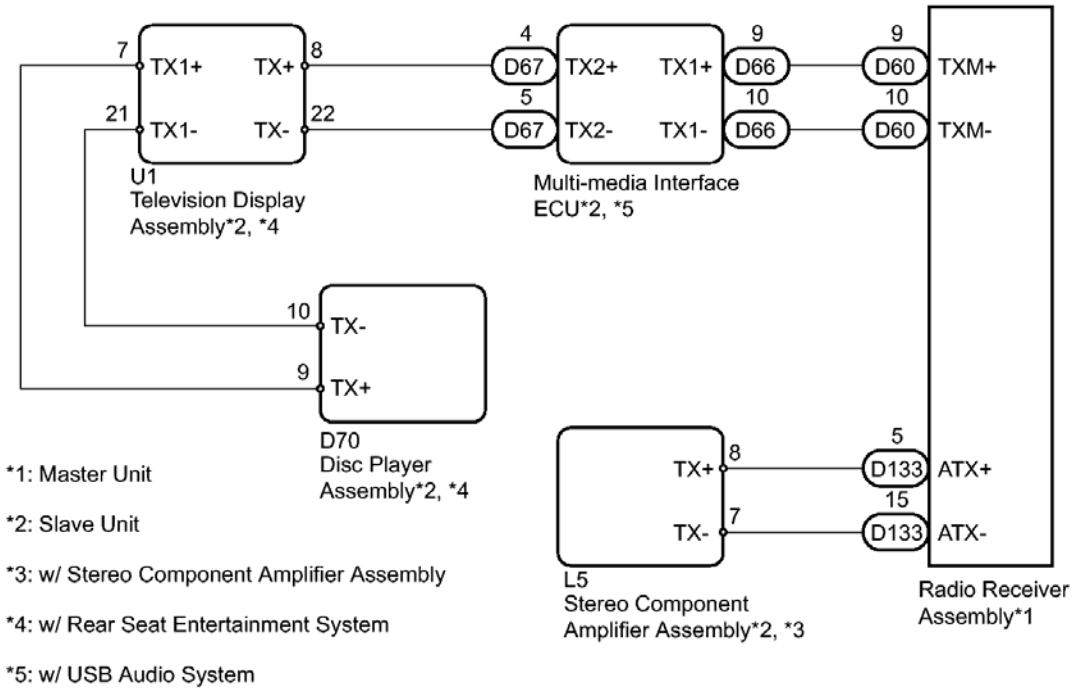


Fig. 5: Radio Receiver Assembly Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

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

PROCEDURE

1. **CHECK RADIO RECEIVER POWER SOURCE CIRCUIT**
   a. Refer to Radio Receiver Power Source Circuit. Refer to **Radio Receiver Power Source Circuit**.

      HINT:

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

   NEXT: Go to next step

2. **INSPECT RADIO RECEIVER ASSEMBLY**
   a. Disconnect the D133*1 and D60*2 radio receiver assembly connectors.

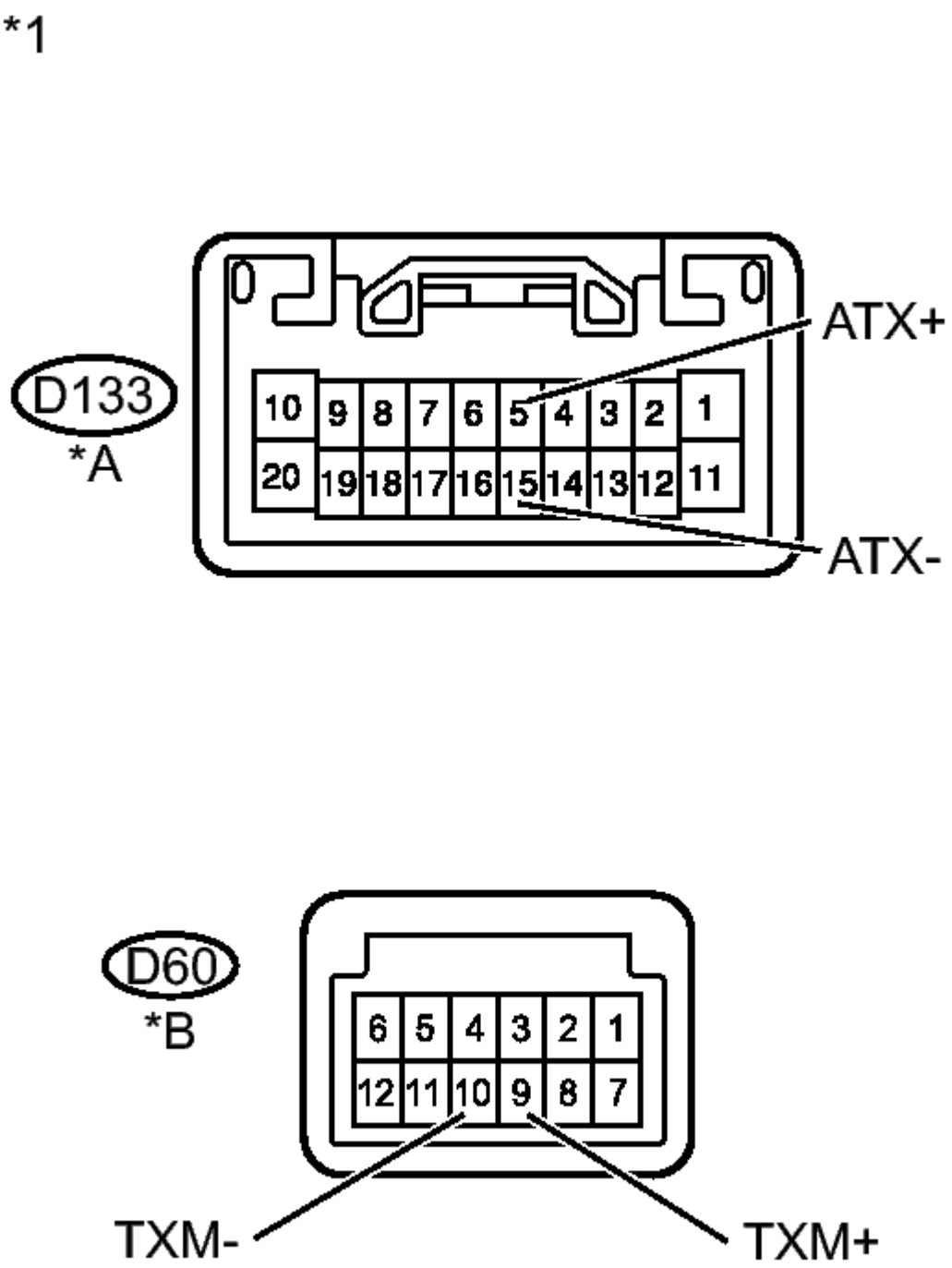


Fig. 6: D133 & D60 Radio Receiver Assembly Connector End View
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

*1: w/ Stereo Component Amplifier Assembly

*2: w/ USB Audio System

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

Standard Resistance

Tester Connection	Condition	Specified Condition
D133-5 (ATX+) - D133-15 (ATX-)*1	Always	60 to 80 ohms
D60-9 (TXM+) - D60-10 (TXM-)*2	Always	60 to 80 ohms

*1: w/ Stereo Component Amplifier Assembly

*2: w/ USB Audio System

TEXT IN ILLUSTRATION

*A	w/ Stereo Component Amplifier Assembly
*B	w/ USB Audio System
*1	Component without harness connected (Radio Receiver Assembly)

NG --> See step 7

OK: Go to next step

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

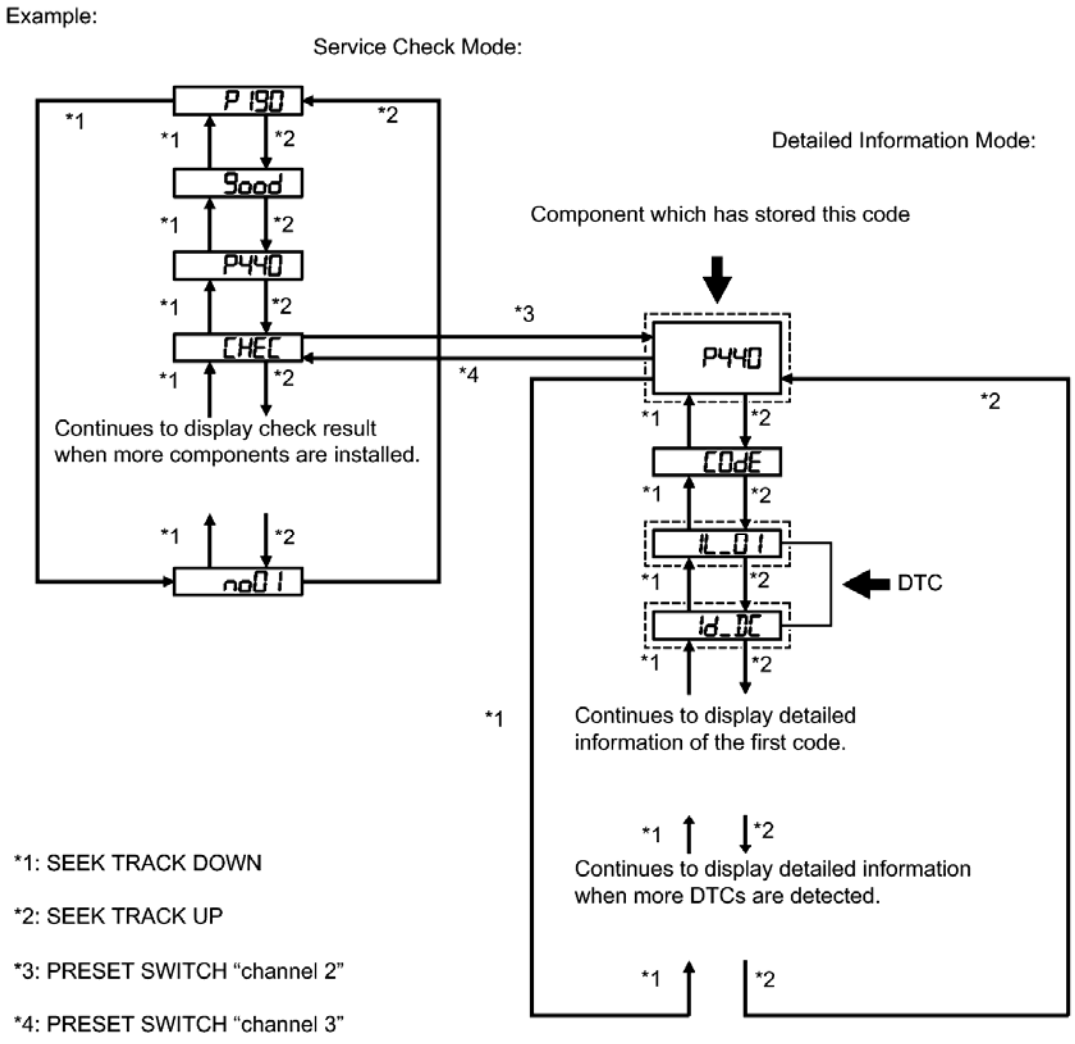


Fig. 7: Identifying "Detailed Information Mode"
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

COMPONENT TABLE

Component	Physical Address
Radio receiver assembly	190
"Bluetooth" handsfree module	19D
Satellite	

radio tuner*4	1F1
Stereo component amplifier assembly*1	440
Multi-Media interface ECU*3	388
Television display assembly*2	1B0
Disc player assembly*2	1A0

*1: w/ Stereo Component Amplifier Assembly

*2: w/ Rear Seat Entertainment System

*3: w/ USB Audio System

*4: w/ Satellite Radio

HINT:

- "440 (stereo component amplifier)" is the component which has stored this code in the example shown in the illustration.
- For details of the DTC display, refer to "DTC Check/Clear". Refer to **DTC CHECK / CLEAR** .

NEXT: Go to next step

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

HINT:

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

COMPONENT TABLE

Component	Proceed to
Except "Bluetooth" handsfree	

module and satellite radio tuner	A
"Bluetooth" handsfree module (19D)	B
Satellite radio tuner (1F1)*1	

*1: w/ Satellite Radio

B --> See step 8

A: Go to next step

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

HINT:

For details of connectors, refer to "Terminals of ECU". Refer to **TERMINALS OF ECU** .

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

      OK

      There is no open or short circuit.

NG --> REPAIR OR REPLACE HARNESS OR CONNECTOR

OK: Go to next step

6. **REPLACE RADIO RECEIVER ASSEMBLY**
   a. Replace the radio receiver assembly. Refer to **REMOVAL** .

      OK

      Same problem does not occur.

NG --> REPLACE COMPONENT WHICH HAS STORED THIS CODE

OK --> END

7. **REPLACE RADIO RECEIVER ASSEMBLY. Refer to REMOVAL**
8. **REPLACE RADIO RECEIVER ASSEMBLY. Refer to REMOVAL**

DTC 01-DF: MASTER ERROR

DESCRIPTION

DTC Code	DTC Detection Condition	Trouble Area
01-DF*	The device with a display fails and the master is switched to the audio device. Also when a communication error between the sub-master (audio) and master occurs, this code is stored.	• 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

HINT:

*: When 210 seconds have elapsed after disconnecting the power supply connector of the master component with the ignition switch ACC or ON, this code is stored.

NOTE:

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

WIRING DIAGRAM

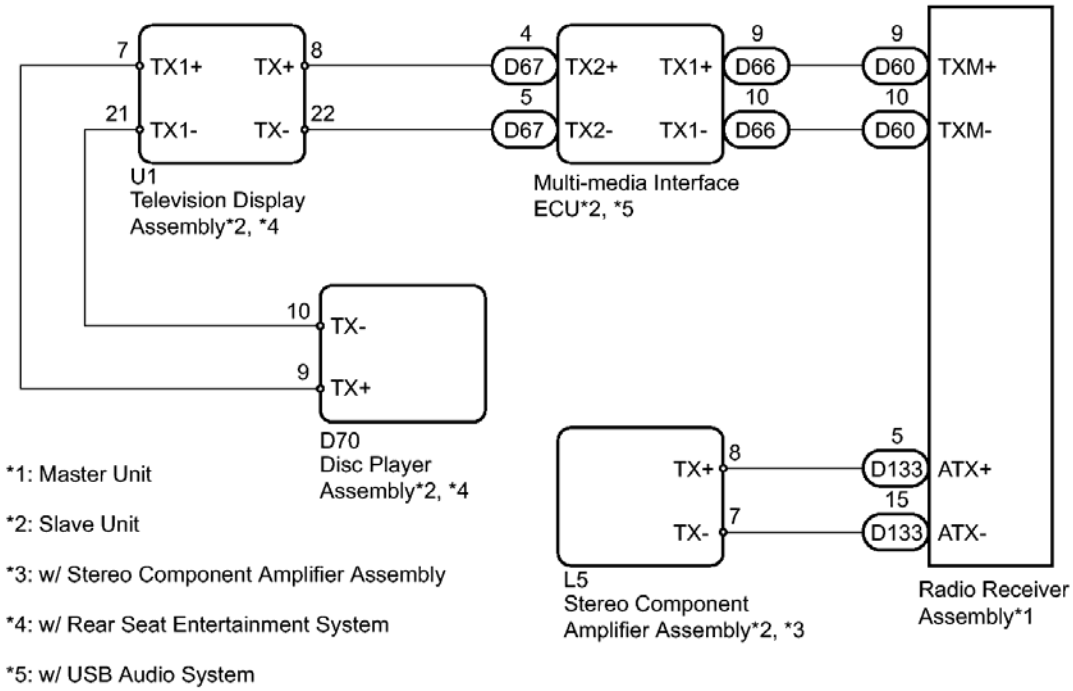


Fig. 8: Radio Receiver Assembly Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

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

PROCEDURE

1. **CHECK RADIO RECEIVER POWER SOURCE CIRCUIT**
   a. Refer to Radio Receiver Power Source Circuit. Refer to **Radio Receiver Power Source Circuit**.

      HINT:

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

   NEXT: Go to next step

2. **INSPECT RADIO RECEIVER ASSEMBLY**
   a. Disconnect the D133*1 and D60*2 radio receiver assembly connectors.

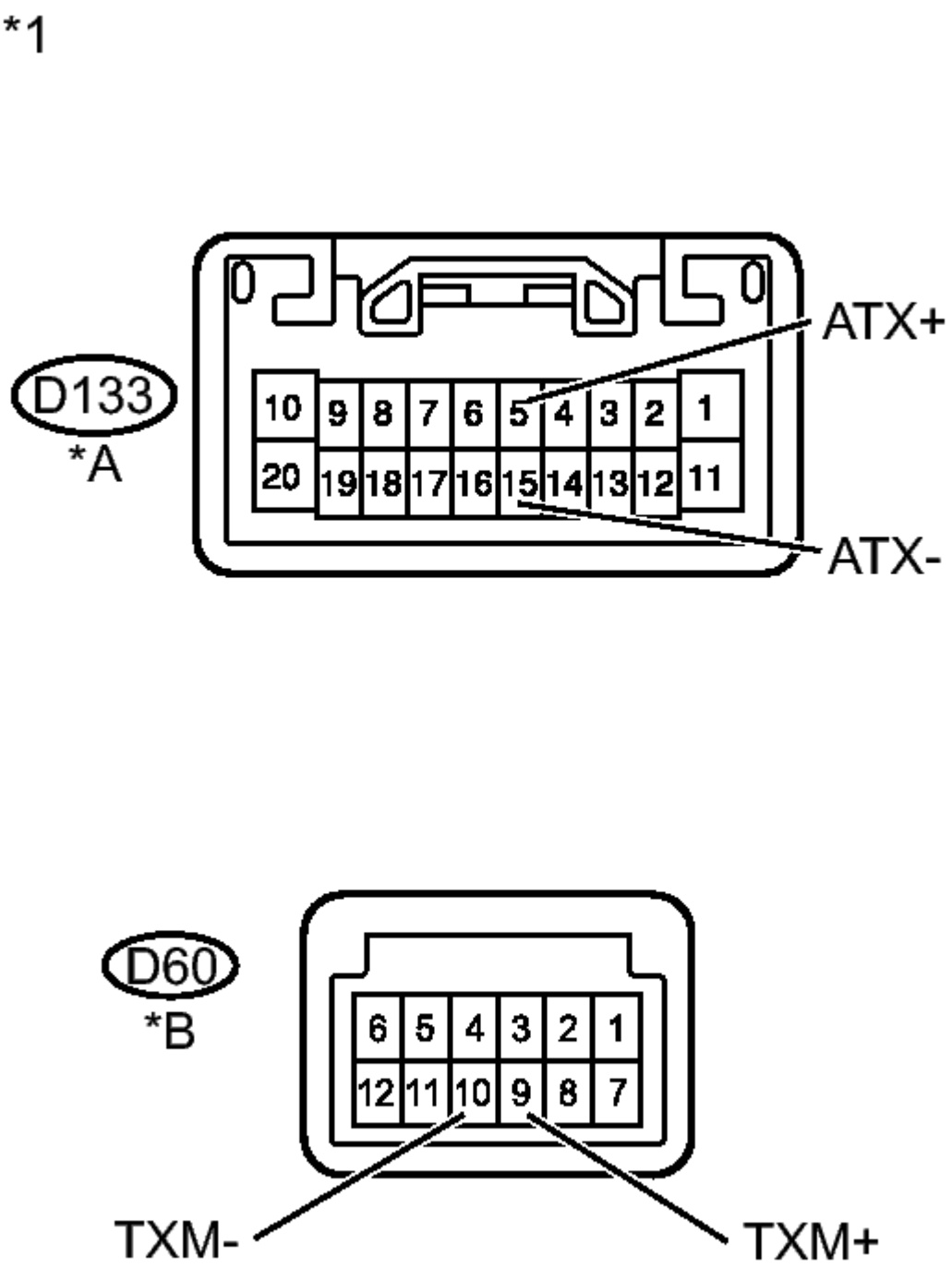


Fig. 9: D133 & D60 Radio Receiver Assembly Connector End View
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

*1: w/ Stereo Component Amplifier Assembly

*2: w/ USB Audio System

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

Standard Resistance

Tester Connection	Condition	Specified Condition
D133-5 (ATX+) - D133-15 (ATX-)*1	Always	60 to 80 ohms
D60-9 (TXM+) - D60-10 (TXM-)*2	Always	60 to 80 ohms

*1: w/ Stereo Component Amplifier Assembly

*2: w/ USB Audio System

TEXT IN ILLUSTRATION

*A	w/ Stereo Component Amplifier Assembly
*B	w/ USB Audio System
*1	Component without harness connected (Radio Receiver Assembly)

NG --> See step 7

OK: Go to next step

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

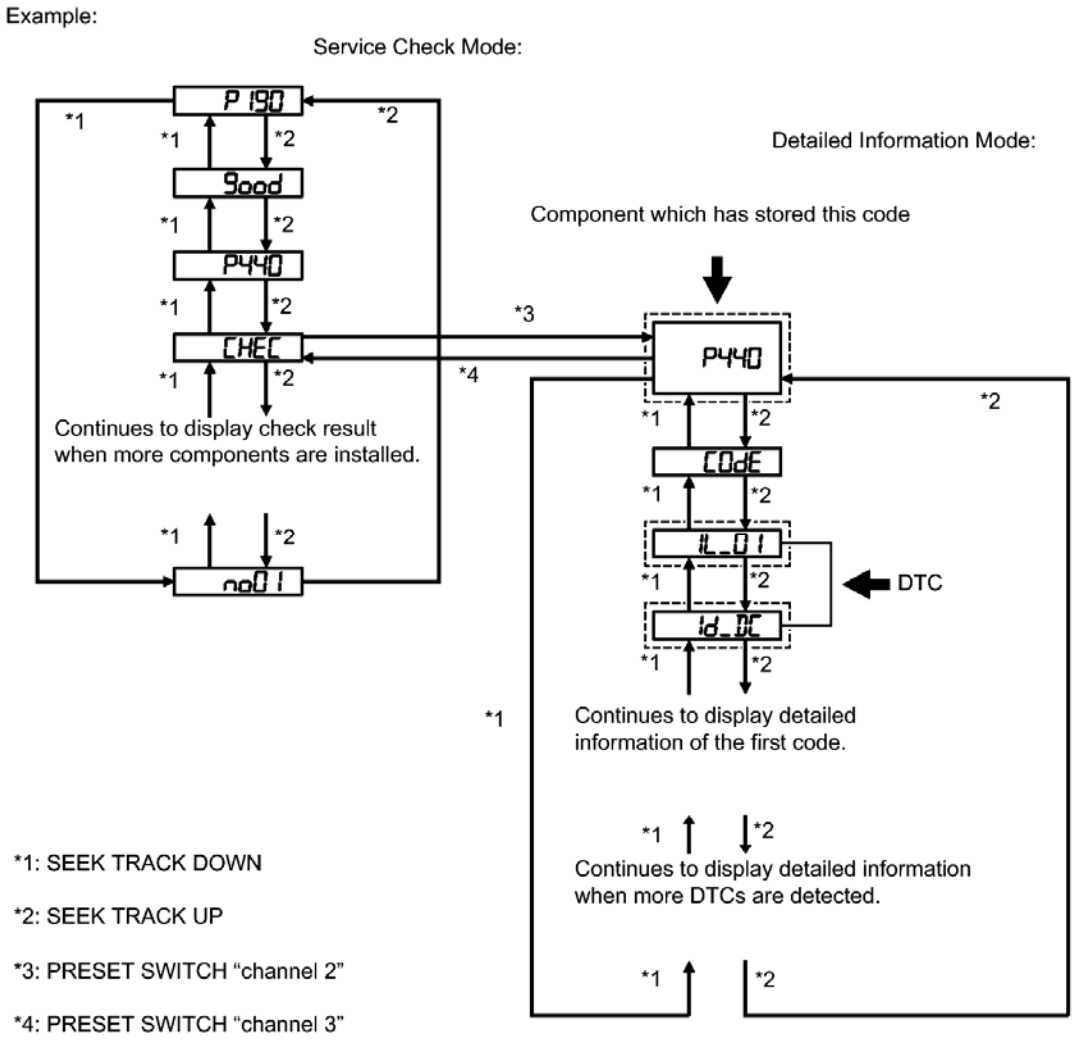


Fig. 10: Identifying "Detailed Information Mode"
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

COMPONENT TABLE

Component	Physical Address
Radio receiver assembly	190
"Bluetooth" handsfree module	19D
Satellite	

radio tuner*4	1F1
Stereo component amplifier assembly*1	440
Multi-Media interface ECU*3	388
Television display assembly*2	1B0
Disc player assembly*2	1A0

*1: w/ Stereo Component Amplifier Assembly

*2: w/ Rear Seat Entertainment System

*3: w/ USB Audio System

*4: w/ Satellite Radio

HINT:

- "440 (stereo component amplifier)" is the component which has stored this code in the example shown in the illustration.
- For details of the DTC display, refer to "DTC Check/Clear". Refer to **DTC CHECK / CLEAR** .

NEXT: Go to next step

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

HINT:

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

COMPONENT TABLE

Component	Proceed to
Except "Bluetooth" handsfree	

module and satellite radio tuner	A
"Bluetooth" handsfree module (19D)	B
Satellite radio tuner (1F1)*1	

*1: w/ Satellite Radio

B --> See step 8

A: Go to next step

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

HINT:

For details of connectors, refer to **TERMINALS OF ECU** .

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

      OK

      There is no open or short circuit.

NG --> REPAIR OR REPLACE HARNESS OR CONNECTOR

OK: Go to next step

6. **REPLACE RADIO RECEIVER ASSEMBLY**
   a. Replace the radio receiver assembly. Refer to **REMOVAL** .

      OK

      Same problem does not occur.

NG --> REPLACE COMPONENT WHICH HAS STORED THIS CODE

OK --> END

7. **REPLACE RADIO RECEIVER ASSEMBLY. Refer to REMOVAL**
8. **REPLACE RADIO RECEIVER ASSEMBLY. Refer to REMOVAL**

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

DESCRIPTION

DTC Code	DTC Detection Condition	Trouble Area
01-E0	"Registration complete" signal from the master device cannot be received.	-
01-E3	The registration demand signal from the slave device is output. Or the registration demand signal is output by receiving connection confirmation signal from the sub-master device.	-
01-E4	The multiple frame transmission is incomplete.	-

HINT:

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

INSPECTION PROCEDURE

HINT:

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

DTC 01-E2: ON / OFF INDICATION PARAMETER ERROR

DESCRIPTION

DTC Code	DTC Detection Condition	Trouble Area
01-E2	The command for ON/OFF control from the master device has a problem.	Radio receiver assembly

INSPECTION PROCEDURE

HINT:

After the inspection is completed, clear the DTCs.

PROCEDURE

1. **REPLACE RADIO RECEIVER ASSEMBLY**
    a. Replace the radio receiver assembly. Refer to **REMOVAL** .

    NEXT --> END

DTC 01-F2: NO RESPONSE FROM DIAGNOSIS MEMORY REQUEST; DTC 01-FF: NO RESPONSE TO DIAGNOSIS REQUEST

DESCRIPTION

DTC Code	DTC Detection Condition	Trouble Area
01-F2	Any reply to a system inspection instruction, system inspection result request or diagnosis memory request could not be completed within a designated time.	Stereo component amplifier assembly
01-FF	No response to a diagnosis request	

INSPECTION PROCEDURE

HINT:

After the inspection is completed, clear the DTCs.

PROCEDURE

1. **CLEAR DTC**
    a. Clear the DTCs. Refer to **DTC CHECK / CLEAR** .

    NEXT: Go to next step

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

        OK

        Malfunction disappears.

    NG --> See step 3

    OK --> See step 4

3. **REPLACE STEREO COMPONENT AMPLIFIER ASSEMBLY. Refer to REMOVAL**
4. **USE SIMULATION METHOD TO CHECK. Refer to HOW TO PROCEED WITH**

TROUBLESHOOTING

DTC 57-47: BLUETOOTH MODULE INITIALIZATION FAILED

DESCRIPTION

DTC Code	DTC Detection Condition	Trouble Area
57-47	One of following conditions is met: • The "Bluetooth" module is not installed. • A problem with the "Bluetooth" module • A problem in the communication line to the "Bluetooth" module	Radio receiver assembly

INSPECTION PROCEDURE

HINT:

After the inspection is completed, clear the DTCs.

PROCEDURE

1. **REPLACE RADIO RECEIVER ASSEMBLY**
   a. Replace the radio receiver assembly. Refer to **REMOVAL** .

NEXT --> END

DTC 60-10: AM TUNER PLL DOES NOT LOCK; DTC 60-11: FM TUNER PLL DOES NOT LOCK

DESCRIPTION

DTC Code	DTC Detection Condition	Trouble Area
60-10	AM tuner PLL (phase locked loop) synchronization is impossible.	Radio receiver assembly
60-11	FM tuner PLL (phase locked loop) synchronization is impossible.	

INSPECTION PROCEDURE

HINT:

After the inspection is completed, clear the DTCs.

PROCEDURE

1. **REPLACE RADIO RECEIVER ASSEMBLY**

a. Replace the radio receiver assembly. Refer to **REMOVAL** .

NEXT --> END

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

DESCRIPTION

DTC Code	DTC Detection Condition	Trouble Area
60-42	The power source of the tuner is abnormal.	Radio receiver assembly
60-43	The AM tuner is abnormal.	
60-44	The FM tuner is abnormal.	
60-50	A problem occurs in the IC inside the tuner unit and radio reception is not normal.	

INSPECTION PROCEDURE

HINT:

After the inspection is completed, clear the DTCs.

PROCEDURE

1. **CLEAR DTC**
   a. Clear the DTCs. Refer to **DTC CHECK / CLEAR** .

   NEXT: Go to next step

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

      HINT:

      If DTCs are detected frequently, replace the radio receiver assembly.

      OK

      Malfunction disappears.

   NG --> See step 4

   OK --> See step 3

3. **USE SIMULATION METHOD TO CHECK. Refer to HOW TO PROCEED WITH TROUBLESHOOTING**

4. **REPLACE RADIO RECEIVER ASSEMBLY. Refer to REMOVAL**

DTC 62-10: CD PLAYER MECHANICAL ERROR; DTC 62-11: CD INSERTION AND EJECTION ERROR; DTC 62-12: CD READING ABNORMAL; DTC 63-10: CD CHANGER MECHANICAL ERROR; DTC 63-11: CD INSERTION AND EJECTION ERROR; DTC 63-12: CD READING ABNORMAL

DESCRIPTION

DTC Code	DTC Detection Condition	Trouble Area
62-10	A mechanical error in the CD player is detected while the CD is not being inserted or ejected.	Radio receiver assembly
62-11	CD insertion or ejection fails.	
62-12	A CD read problem occurs.	
63-10	A mechanical error in the CD changer is detected while the CD is not being inserted or ejected.	
63-11	CD insertion or ejection fails.	
63-12	A CD read problem occurs.	

INSPECTION PROCEDURE

HINT:

After the inspection is completed, clear the DTCs.

PROCEDURE

1. **REPLACE RADIO RECEIVER ASSEMBLY**
   a. Replace the radio receiver assembly. Refer to **REMOVAL** .

   NEXT --> END

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

DESCRIPTION

DTC Code	DTC Detection Condition	Trouble Area
62-41	An unsuitable disc is inserted.	• Disc • Radio receiver assembly
62-42	The disc cannot be read.	
63-41	An unsuitable disc is inserted.	
63-42	The disc cannot be read.	

INSPECTION PROCEDURE

HINT:

After the inspection is completed, clear the DTCs.

PROCEDURE

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

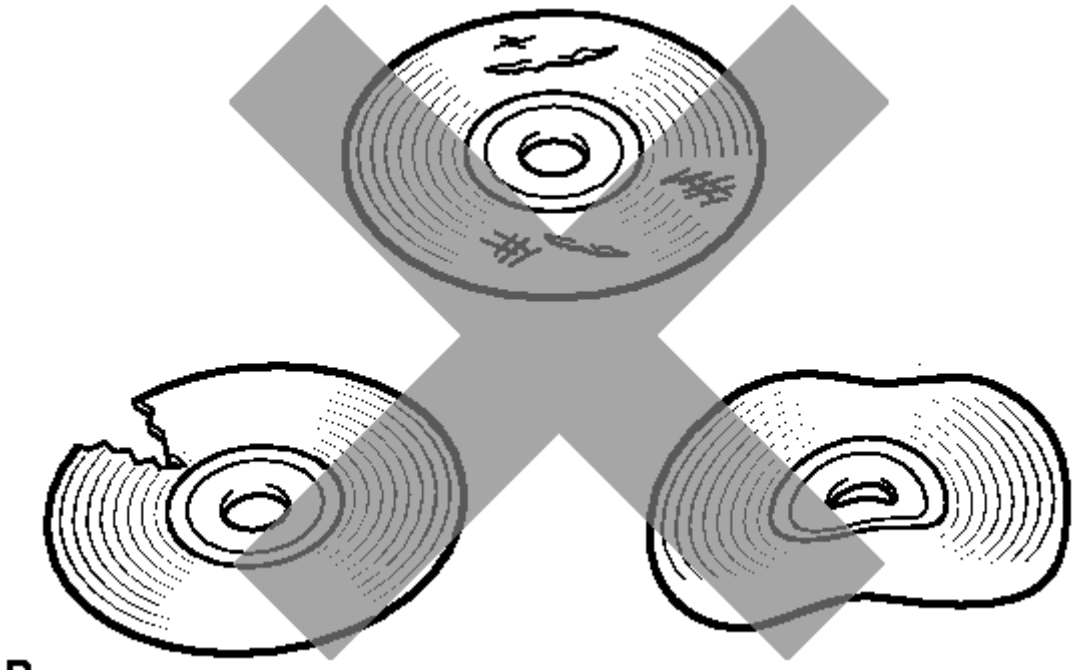


Fig. 11: Identifying Deformed Or Cracked Discs
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

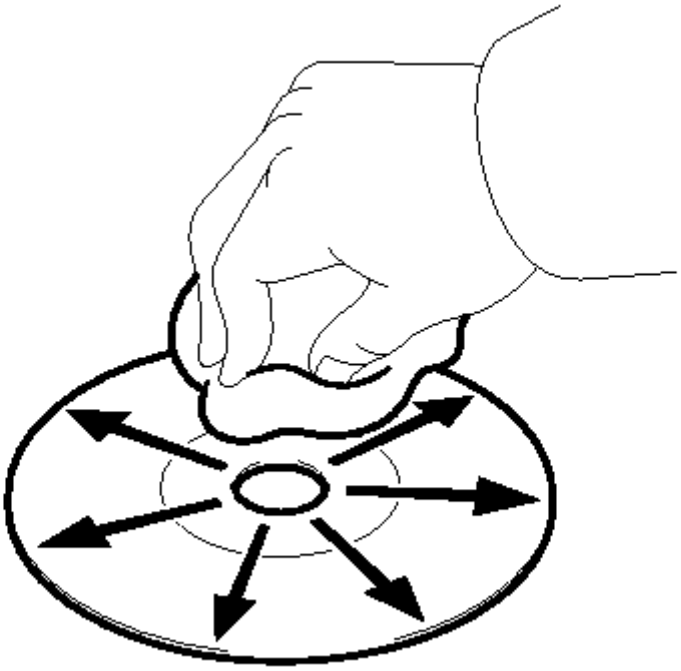
OK

No deformation or cracks on the disc.

NG --> CHANGE DISC

OK: Go to next step

2. **DISC CLEANING**
    a. Disc cleaning



P

Fig. 12: Cleaning Disc Surface With Soft Dry Cloth
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

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

NEXT: Go to next step

3. **CLEAR DTC**
   a. Clear the DTCs. Refer to **DTC CHECK / CLEAR** .

NEXT: Go to next step

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

OK

Malfunction disappears.

NG --> See step 5

OK --> See step 6

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

            OK

            Malfunction disappears.

    NG --> See step 7

    OK --> END

6. **USE SIMULATION METHOD TO CHECK. Refer to HOW TO PROCEED WITH TROUBLESHOOTING**
7. **REPLACE RADIO RECEIVER ASSEMBLY. Refer to REMOVAL**

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

DESCRIPTION

DTC Code	DTC Detection Condition	Trouble Area
62-43	CD-ROM operation is abnormal	• CD • Radio receiver assembly
63-43	CD-ROM operation is abnormal	

INSPECTION PROCEDURE

HINT:

After the inspection is completed, clear the DTCs.

PROCEDURE

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

        OK

        Normal CD

        HINT:

        - Translucent or uniquely-shaped CDs cannot be played.

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

NG --> CHANGE CD

OK: Go to next step

2. **REPLACE CD WITH ANOTHER AND RECHECK**
   a. Replace the CD with another normal one.
   b. Clear the DTCs. Refer to **DTC CHECK / CLEAR** .
   c. Recheck for DTCs and check if the same trouble occurs again.

      OK

      Malfunction disappears.

NG --> See step 3

OK --> END

3. **REPLACE RADIO RECEIVER ASSEMBLY. Refer to REMOVAL**

DTC 62-44: CD ABNORMAL; DTC 62-48: EXCESS CURRENT; DTC 62-50: TRAY INSERTION / EJECTION ERROR; DTC 63-44: CD ABNORMAL; DTC 63-48: EXCESS CURRENT; DTC 63-50: TRAY INSERTION / EJECTION ERROR

DESCRIPTION

DTC Code	DTC Detection Condition	Trouble Area
62-44	An operation error in the CD mechanism	Radio receiver assembly
62-48	Excess current is present in the CD player	
62-50	A malfunction in insertion/ejection system	
63-44	An operation error in the CD mechanism	
63-48	Excess current is present in the CD changer	
63-50	A malfunction in insertion/ejection system	

INSPECTION PROCEDURE

HINT:

After the inspection is completed, clear the DTCs.

PROCEDURE

1. **CLEAR DTC**
   a. Clear the DTCs. Refer to **DTC CHECK / CLEAR** .

   NEXT: Go to next step

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

      HINT:

      If DTCs are detected frequently, replace the radio receiver assembly.

      OK

      Malfunction disappears.

   NG --> See step 4

   OK --> See step 3

3. **USE SIMULATION METHOD TO CHECK. Refer to HOW TO PROCEED WITH TROUBLESHOOTING**
4. **REPLACE RADIO RECEIVER ASSEMBLY. Refer to REMOVAL**

DTC 62-45: EJECT ERROR; DTC 62-51: ELEVATOR ERROR; DTC 62-52: CLAMP ERROR; DTC 63-45: EJECT ERROR; DTC 63-51: ELEVATOR ERROR; DTC 63-52: CLAMP ERROR

DESCRIPTION

DTC Code	DTC Detection Condition	Trouble Area
62-45	The disc cannot be ejected.	Radio receiver assembly
62-51	A mechanical error occurs during elevator operation.	
62-52	An error occurs in CD player clamp.	
63-45	A magazine cannot be ejected.	
63-51	A mechanical error occurs during elevator operation.	
63-52	An error occurs in CD changer clamp.	

INSPECTION PROCEDURE

HINT:

After the inspection is completed, clear the DTCs.

PROCEDURE

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

      OK

      Malfunction disappears.

   NG --> See step 2

   OK --> END

2. **REPLACE RADIO RECEIVER ASSEMBLY. Refer to REMOVAL**

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

DESCRIPTION

DTC Code	DTC Detection Condition	Trouble Area
62-46	Scratches or dirt is found on the disc surface or the disc is inserted upside down.	• Disc • Radio receiver assembly
63-46	Scratches or dirt is found on the disc surface or the disc is inserted upside down.	

INSPECTION PROCEDURE

HINT:

After the inspection is completed, clear the DTCs.

PROCEDURE

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

      OK

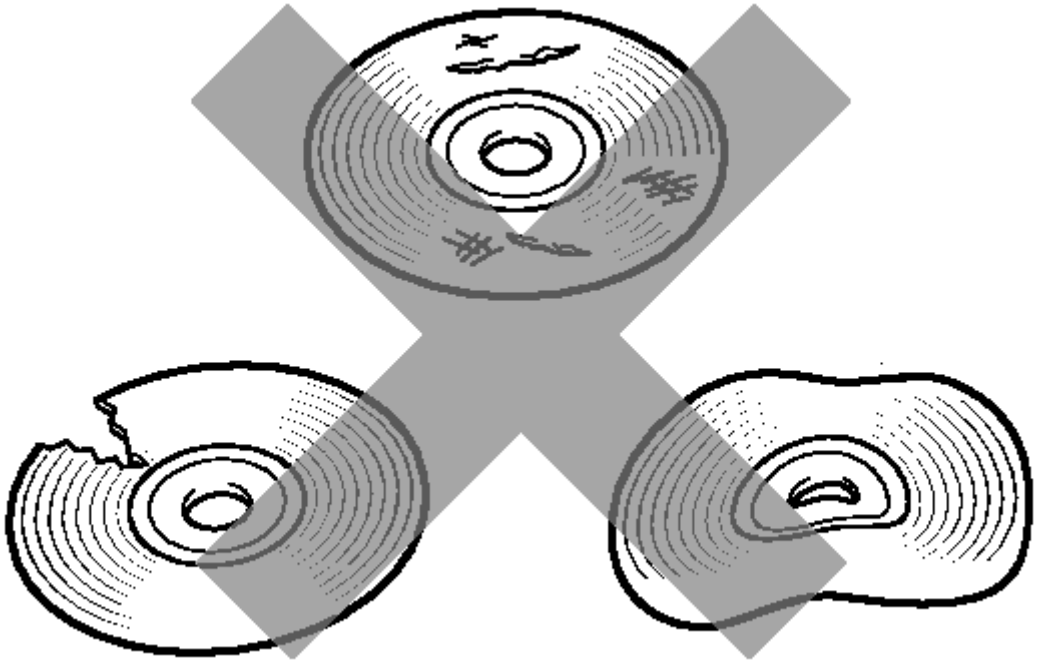
      The disc is properly inserted.

   NG --> INSPECT DISC PROPERLY

   OK: Go to next step

2. **CHECK DISC**

a. Check that the disc is not deformed or cracked.



P

Fig. 13: Identifying Deformed Or Cracked Discs
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

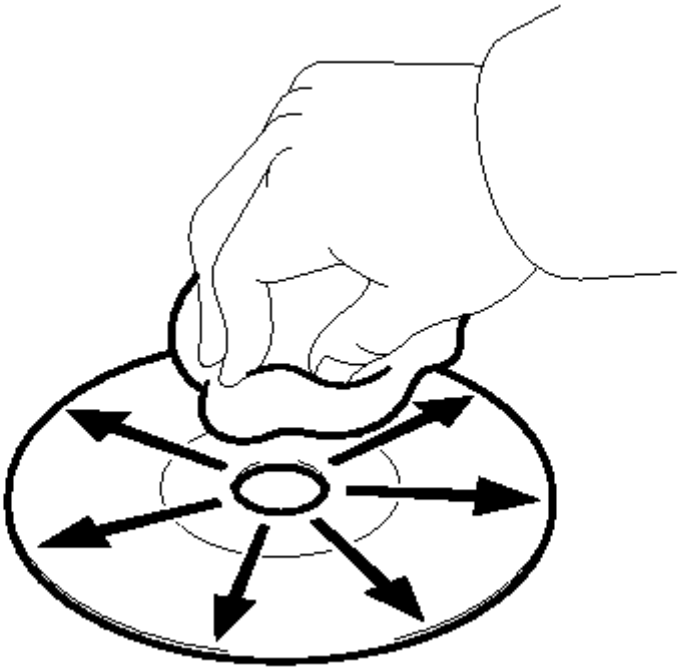
OK

No deformation or cracks on the disc.

NG --> CHANGE DISC

OK: Go to next step

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



P

Fig. 14: Cleaning Disc Surface With Soft Dry Cloth
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

NEXT: Go to next step

4. **CLEAR DTC**
   a. Clear the DTCs. Refer to **DTC CHECK / CLEAR** .

NEXT: Go to next step

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

      OK

      Malfunction disappears.

NG --> See step 6

OK --> See step 7

6. **REINSERT DISC PROPERLY**
   a. Replace the disc with a normal one.
   b. Clear the DTCs. Refer to **DTC CHECK / CLEAR** .

c. Recheck for DTCs and check if the same trouble occurs again.

OK

Malfunction disappears.

NG --> See step 8

OK --> END

7. **USE SIMULATION METHOD TO CHECK. Refer to HOW TO PROCEED WITH TROUBLESHOOTING**
8. **REPLACE RADIO RECEIVER ASSEMBLY. Refer to REMOVAL**

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

DESCRIPTION

DTC Code	DTC Detection Condition	Trouble Area
62-47	The sensor detects that the CD unit temperature is high (higher than 80°C [176° F])	Radio receiver assembly
63-47	The sensor detects that the CD unit temperature is high (higher than 80°C [176° F])	

INSPECTION PROCEDURE

HINT:

After the inspection is completed, clear the DTCs.

PROCEDURE

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

   OK

   Malfunction disappears.

   NG --> See step 2

   OK --> END

2. **REPLACE RADIO RECEIVER ASSEMBLY. Refer to REMOVAL**

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

DESCRIPTION

DTC Code	DTC Detection Condition	Trouble Area
62-78	An error occurs during the decode process (MP3/WMA).	Radio receiver assembly
63-78	An error occurs during the decode process (MP3/WMA).	

INSPECTION PROCEDURE

HINT:

After the inspection is completed, clear the DTCs.

NOTE:

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

PROCEDURE

1. **CLEAR DTC**
   a. Clear the DTCs. Refer to **DTC CHECK / CLEAR** .

   NEXT: Go to next step

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

      OK

      Malfunction disappears.

   NG --> See step 3

   OK --> END (THIS CODE MAY BE OUTPUT EVEN IF THERE IS NO MALFUNCTION)

3. **REPLACE RADIO RECEIVER ASSEMBLY. Refer to REMOVAL**

DTC 62-7D: DISC CANNOT BE PLAYED; DTC 62-7E: NO PLAYABLE FILES; DTC 62-7F: COPYRIGHT PROTECTION ERROR; DTC 63-7D: DISC CANNOT BE PLAYED; DTC 63-7E: NO PLAYABLE FILES; DTC 63-7F: COPYRIGHT PROTECTION ERROR

DESCRIPTION

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

INSPECTION PROCEDURE

HINT:

After the inspection is completed, clear the DTCs.

PROCEDURE

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

      HINT:

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

OK

The disc can be played correctly.

NG --> See step 2

OK --> END

2. **REPLACE RADIO RECEIVER ASSEMBLY. Refer to REMOVAL**

DTC 74-40: SHORT IN SPEAKER CIRCUIT

DESCRIPTION

DTC Code	DTC Detection Condition	Trouble Area
74-40	A short is detected in the speaker output circuit.	• Harness or connector • Speaker • Stereo component amplifier assembly • Telematics Transceiver*

*: w/ Safety Connect System

WIRING DIAGRAM

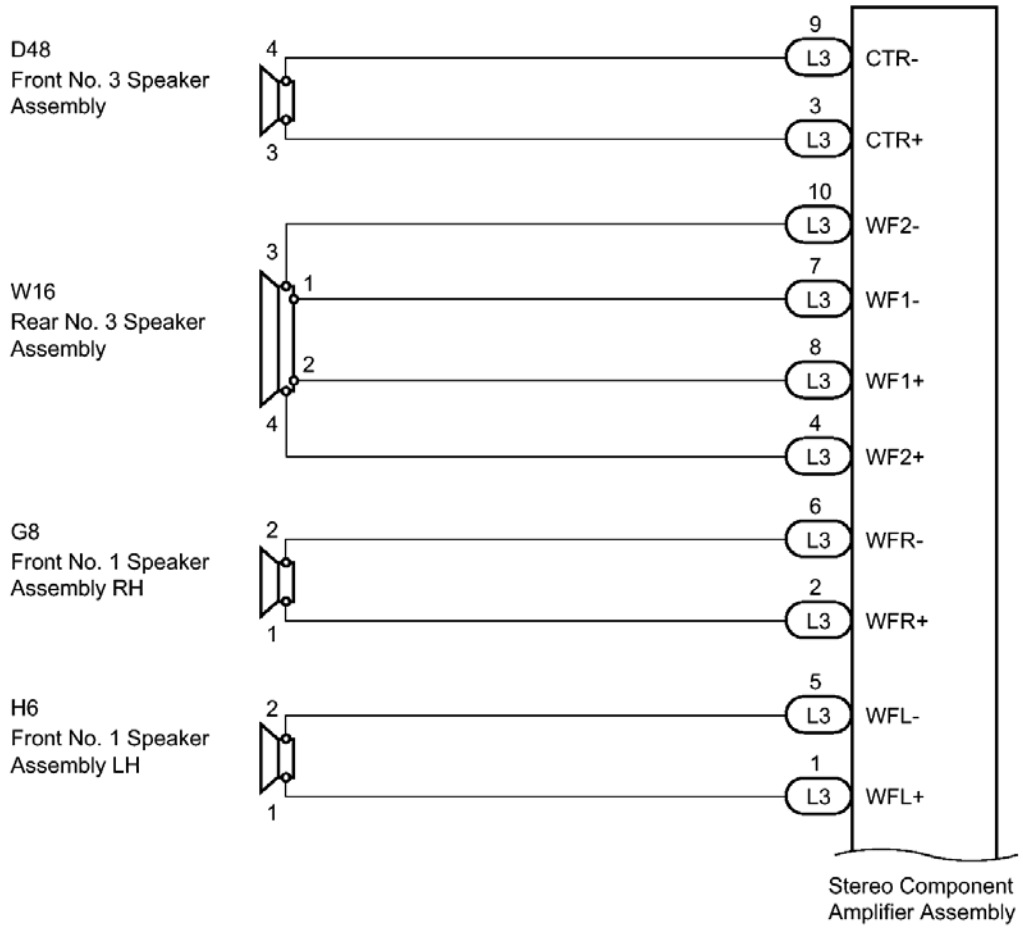


Fig. 15: Speaker Circuit Wiring Diagram (1 Of 3)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

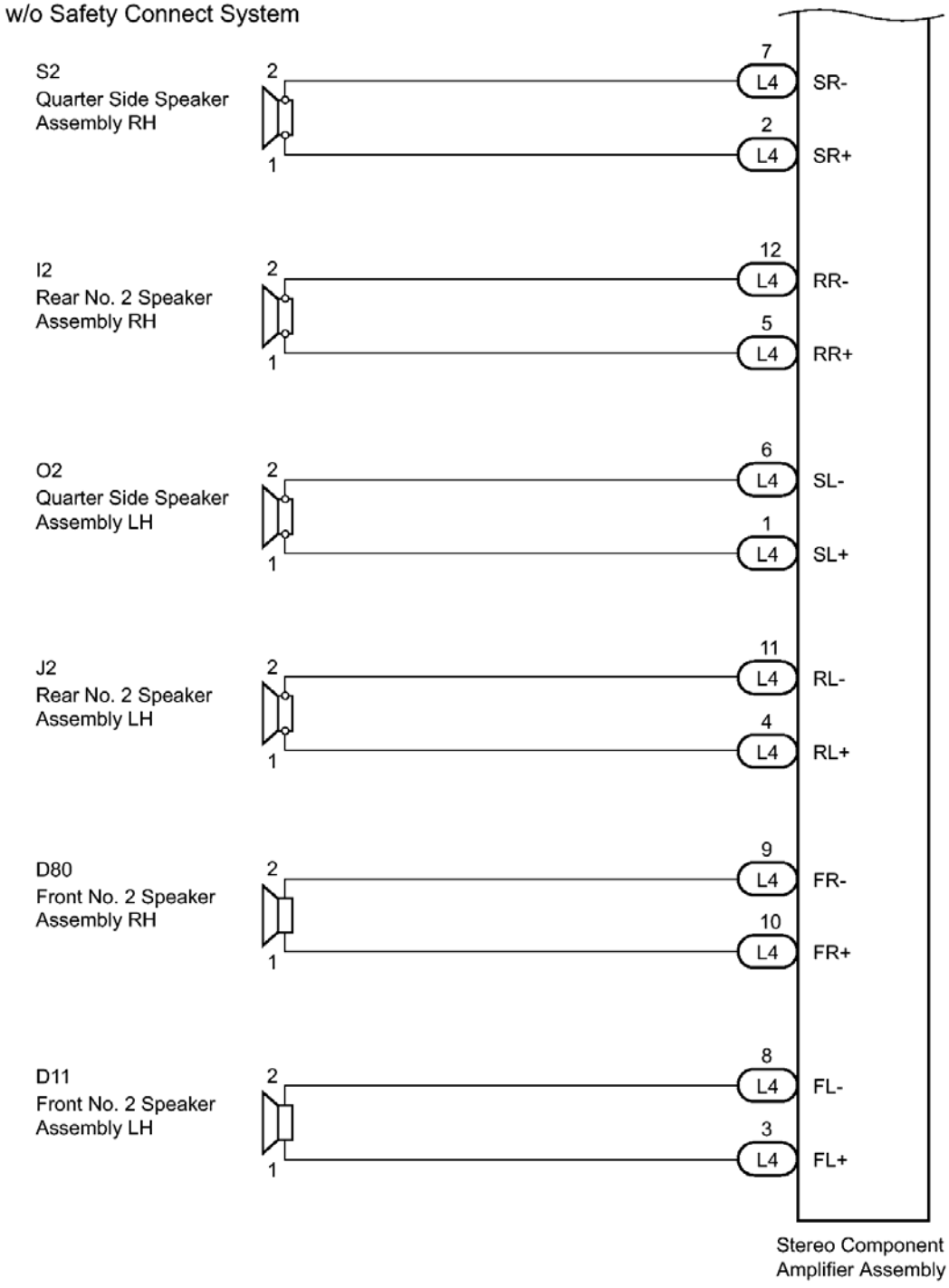


Fig. 16: Speaker Circuit Wiring Diagram (w/o Saftey Connect System) (2 Of 3)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

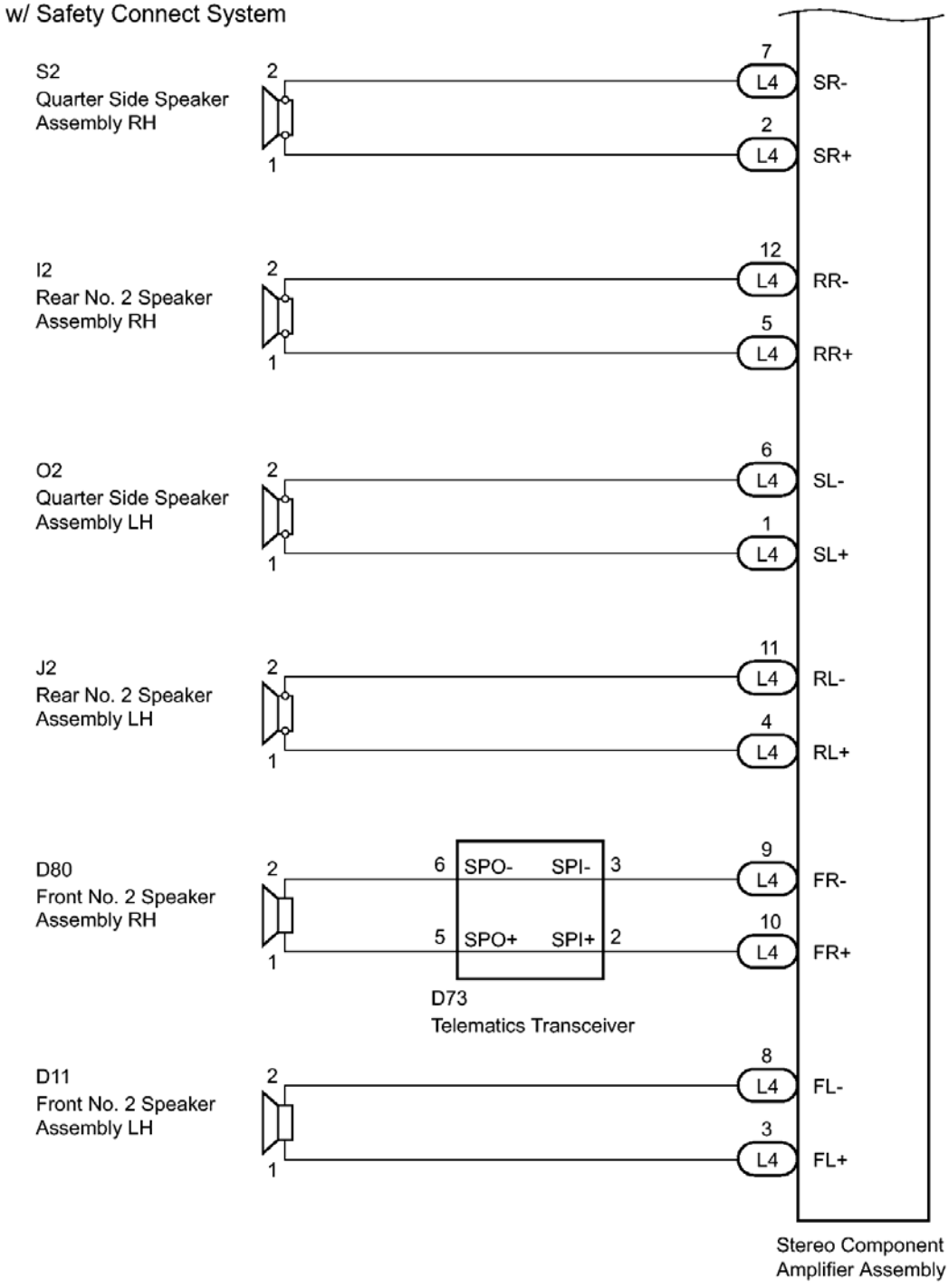


Fig. 17: Speaker Circuit Wiring Diagram (w/ Saftey Connect System) (3 Of 3)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

HINT:

After the inspection is completed, clear the DTCs.

NOTE: **If the telematics transceiver has been replaced, perform the Activate DCM procedure using the Techstream. Refer to DCM ACTIVATION .**

PROCEDURE

1. **CHECK FOR DTC**
   a. Disconnect the L3 and L4 stereo component amplifier assembly connectors.
   b. Clear the DTC.
   c. Check if DTC 74-40 is output.

      OK

      DTC 74-40 is not output.

   NG --> See step 17

   OK: Go to next step

2. **CHECK FOR DTC**
   a. Reconnect the L4 stereo component amplifier assembly connector.
   b. Check if DTC 74-40 is output.

      OK

      DTC 74-40 is not output.

   NG --> See step 8

   OK: Go to next step

3. **CHECK HARNESS AND CONNECTOR (STEREO COMPONENT AMPLIFIER - SPEAKER)**
   a. Disconnect the L3 stereo component amplifier assembly connector.
   b. Disconnect the G8*1 and H6*2 front No. 1 speaker assembly connectors.
   c. Disconnect the W16 rear No. 3 speaker assembly connector.
   d. Disconnect the D48 front No. 3 speaker assembly connector.
   e. Measure the resistance according to the value(s) in the table below.
      *1: for RH
      *2: for LH

      Standard Resistance

Tester Connection	Condition	Specified Condition
L3-1 (WFL+) - H6-1	Always	Below 1 ohms
L3-2 (WFR+) - G8-1	Always	Below 1 ohms
L3-3 (CTR+) - D48-3	Always	Below 1 ohms
L3-4 (WF2+) - W16-4	Always	Below 1 ohms
L3-5 (WFL-) - H6-2	Always	Below 1 ohms
L3-6 (WFR-) - G8-2	Always	Below 1 ohms
L3-7 (WF1-) - W16-1	Always	Below 1 ohms
L3-8 (WF1+) - W16-2	Always	Below 1 ohms
L3-9 (CTR-) - D48-4	Always	Below 1 ohms
L3-10 (WF2-) - W16-3	Always	Below 1 ohms
L3-1 (WFL+) - Body ground	Always	10 kohms or higher
L3-2 (WFR+) - Body ground	Always	10 kohms or higher
L3-3 (CTR+) - Body ground	Always	10 kohms or higher
L3-4 (WF2+) - Body ground	Always	10 kohms or higher

L3-5 (WFL-) - Body ground	Always	10 kohms or higher
L3-6 (WFR-) - Body ground	Always	10 kohms or higher
L3-7 (WF1-) - Body ground	Always	10 kohms or higher
L3-8 (WF1+) - Body ground	Always	10 kohms or higher
L3-9 (CTR-) - Body ground	Always	10 kohms or higher
L3-10 (WF2-) - Body ground	Always	10 kohms or higher

NG --> REPAIR OR REPLACE HARNESS OR CONNECTOR

OK: Go to next step

4. **INSPECT FRONT NO. 3 SPEAKER ASSEMBLY**
   a. Disconnect the D48 front No. 3 speaker assembly connector.

*1

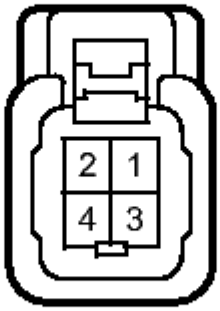


Fig. 18: Front No. 3 Speaker Assembly Connector End View
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

Standard Resistance

Tester Connection	Condition	Specified Condition
3 - 4	Always	1.5 to 2.5 ohms

TEXT IN ILLUSTRATION

*1	Component without harness connected (Front No. 3 Speaker Assembly)

NG --> See step 18

OK: Go to next step

5. **INSPECT FRONT NO. 1 SPEAKER ASSEMBLY RH**

a. Disconnect the G8 front No. 1 speaker assembly RH connector.

*1

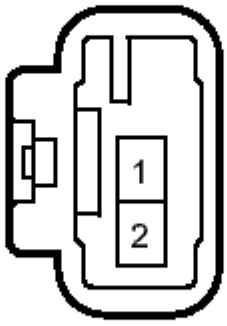


Fig. 19: Front No. 1 Speaker Assembly Connector End View
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

Standard Resistance

Tester Connection	Condition	Specified Condition
1 - 2	Always	1.65 to 2.15 ohms

TEXT IN ILLUSTRATION

*1	Component without harness connected (Front No. 1 Speaker Assembly RH)

NG --> See step 19

OK: Go to next step

6. **INSPECT FRONT NO. 1 SPEAKER ASSEMBLY LH**
   a. Disconnect the H6 front No. 1 speaker assembly LH connector.

*1

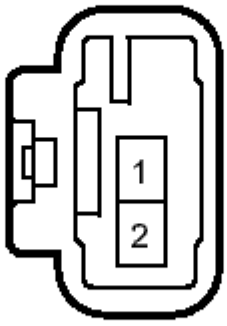


Fig. 20: Front No. 1 Speaker Assembly Connector End View
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

Standard Resistance

Tester Connection	Condition	Specified Condition
1 - 2	Always	1.65 to 2.15 ohms

TEXT IN ILLUSTRATION

*1	Component without harness connected (Front No. 1 Speaker Assembly LH)

NG --> See step 20

OK: Go to next step

7. **INSPECT REAR NO. 3 SPEAKER ASSEMBLY**
   a. Disconnect the W16 rear No. 3 speaker assembly connector.

*1

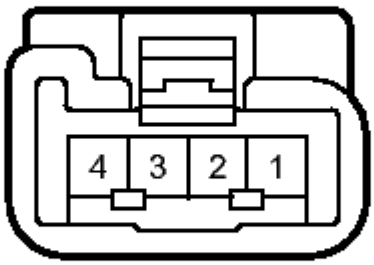


Fig. 21: Rear No. 3 Speaker Assembly Connector End View
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

Standard Resistance

Tester Connection	Condition	Specified Condition
1 - 2	Always	1.5 to 2.5 ohms
3 - 4	Always	1.5 to 2.5 ohms

TEXT IN ILLUSTRATION

*1	Component without harness connected

	(Rear No. 3 Speaker Assembly)

NG --> See step 22

OK --> See step 21

8. **SYSTEM CHECK**
   a. Check the vehicle specifications.

RESULT

Result	Proceed to
w/ Safety Connect System	A
w/o Safety Connect System	B

B --> See step 10

A: Go to next step

9. **INSPECT TELEMATICS TRANSCEIVER**
   a. Disconnect the D73 telematics transceiver connector.

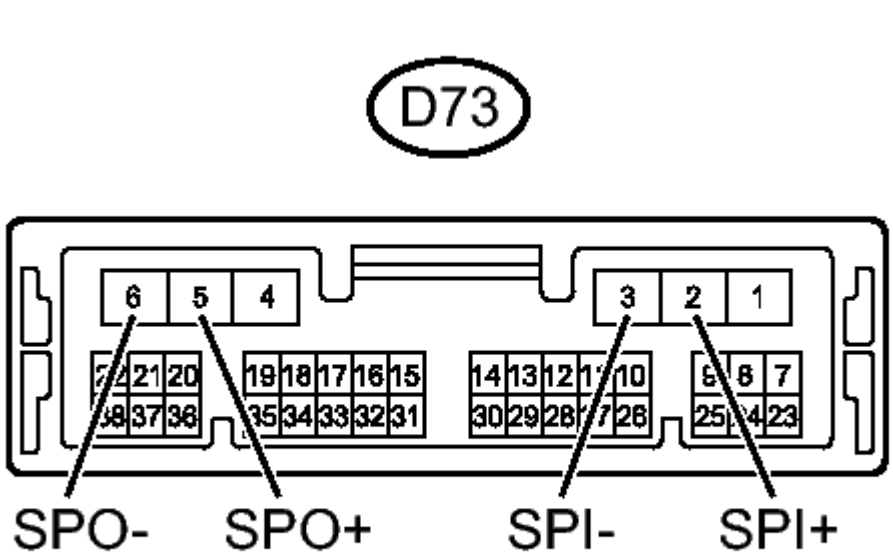


Fig. 22: Telematics Transceiver Connector End View
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

Standard Resistance

Tester Connection	Condition	Specified Condition
D73-2 (SPI+) - D73-5 (SPO+)	Always	Below 1 ohms
D73-3 (SPI-) - D73-6 (SPO-)	Always	Below 1 ohms
D73-2 (SPI+) - Body ground	Always	10 kohms or higher
D73-3 (SPI-) - Body ground	Always	10 kohms or higher

TEXT IN ILLUSTRATION

*1	Component without harness connected (Telematics Transceiver)

c. Reconnect the telematics transceiver connector.

NG --> See step 23

OK: Go to next step

10. **CHECK HARNESS AND CONNECTOR (STEREO COMPONENT AMPLIFIER - SPEAKER)**
    a. Disconnect the L4 stereo component amplifier assembly connector.
    b. Disconnect the S2*1 and O2*2 quarter side speaker assembly connectors.
    c. Disconnect the I2*1 and J2*2 rear No. 2 speaker assembly connectors.
    d. Disconnect the D80*1 and D11*2 front No. 2 speaker assembly connectors.
    e. Measure the resistance according to the value(s) in the table below.

    *1: for RH

    *2: for LH

    Standard Resistance

Tester Connection	Condition	Specified Condition
L4-1 (SL+) - O2-1	Always	Below 1 ohms
L4-2 (SR+) - S2-1	Always	Below 1 ohms
L4-3 (FL+) - D11-1	Always	Below 1 ohms
L4-4 (RL+) - J2-1	Always	Below 1 ohms
L4-5 (RR+) - I2-1	Always	Below 1 ohms
L4-6 (SL-) - O2-2	Always	Below 1 ohms
L4-7 (SR-) - S2-2	Always	Below 1 ohms
L4-8 (FL-) - D11-2	Always	Below 1 ohms
L4-9 (FR-) - D80-2	Always	Below 1 ohms

L4-10 (FR+) - D80-1	Always	Below 1 ohms
L4-11 (RL-) - J2-2	Always	Below 1 ohms
L4-12 (RR-) - I2-2	Always	Below 1 ohms
L4-1 (SL+) - Body ground	Always	10 kohms or higher
L4-2 (SR+) - Body ground	Always	10 kohms or higher
L4-3 (FL+) - Body ground	Always	10 kohms or higher
L4-4 (RL+) - Body ground	Always	10 kohms or higher
L4-5 (RR+) - Body ground	Always	10 kohms or higher
L4-6 (SL-) - Body ground	Always	10 kohms or higher
L4-7 (SR-) - Body ground	Always	10 kohms or higher
L4-8 (FL-) - Body ground	Always	10 kohms or higher
L4-9 (FR-) - Body ground	Always	10 kohms or higher
L4-10 (FR+) - Body ground	Always	10 kohms or higher
L4-11 (RL-) - Body ground	Always	10 kohms or higher
L4-12 (RR-) - Body ground	Always	10 kohms or higher

NG --> REPAIR OR REPLACE HARNESS OR CONNECTOR

OK: Go to next step

11. **INSPECT QUARTER SIDE SPEAKER ASSEMBLY RH**
    a. Disconnect the S2 quarter side speaker assembly RH connector.

*1

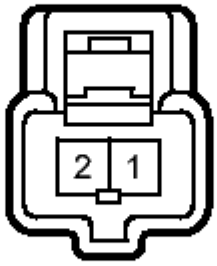


Fig. 23: Speaker Assembly Connector End View
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

Standard Resistance

Tester Connection	Condition	Specified Condition
1 - 2	Always	1.5 to 2.5 ohms

TEXT IN ILLUSTRATION

*1	Component without harness connected (Quarter Side Speaker Assembly

	RH)

NG --> See step 24

OK: Go to next step

12. **INSPECT FRONT NO. 2 SPEAKER ASSEMBLY RH**
    a. Disconnect the D80 front No. 2 speaker assembly RH connector.

*1

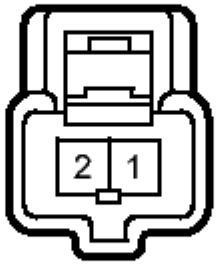


Fig. 24: Speaker Assembly Connector End View
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

Standard Resistance

Tester Connection	Condition	Specified Condition
1 - 2	Always	1.5 to 2.5 ohms

TEXT IN ILLUSTRATION

	Component without harness connected

*1	(Front No. 2 Speaker Assembly RH)

NG --> See step 25

OK: Go to next step

13. **INSPECT REAR NO. 2 SPEAKER ASSEMBLY RH**
    a. Disconnect the I2 rear No. 2 speaker assembly RH connector.

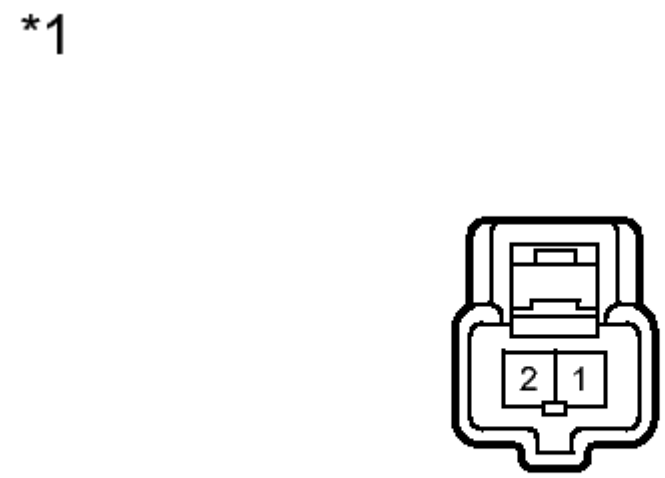


Fig. 25: Speaker Assembly Connector End View
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

Standard Resistance

Tester Connection	Condition	Specified Condition
1 - 2	Always	1.5 to 2.5 ohms

TEXT IN ILLUSTRATION

	Component

*1	without harness connected (Rear No. 2 Speaker Assembly RH)

NG --> See step 26

OK: Go to next step

14. **INSPECT QUARTER SIDE SPEAKER ASSEMBLY LH**
    a. Disconnect the O2 quarter side speaker assembly LH connector.

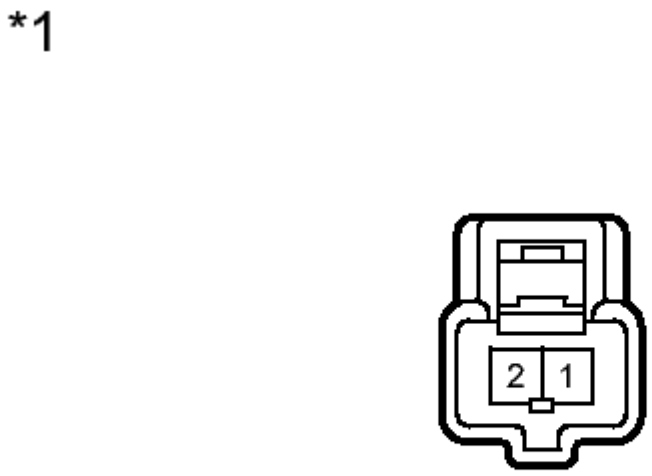


Fig. 26: Speaker Assembly Connector End View
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

Standard Resistance

Tester Connection	Condition	Specified Condition
1 - 2	Always	1.5 to 2.5 ohms

TEXT IN ILLUSTRATION

*1	Component without harness connected (Quarter Side Speaker Assembly LH)

NG --> See step 27

OK: Go to next step

15. **INSPECT FRONT NO. 2 SPEAKER ASSEMBLY LH**
    a. Disconnect the D11 front No. 2 speaker assembly LH connector.

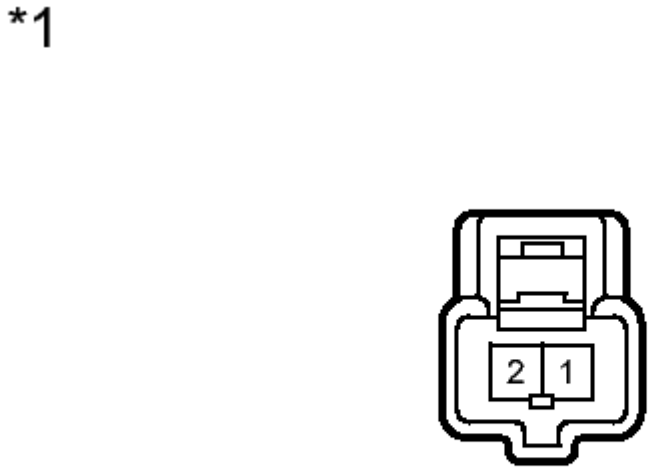


Fig. 27: Speaker Assembly Connector End View
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

Standard Resistance

Tester Connection	Condition	Specified Condition

1 - 2	Always	1.5 to 2.5 ohms

TEXT IN ILLUSTRATION

*1	Component without harness connected (Front No. 2 Speaker Assembly LH)

NG --> See step 28

OK: Go to next step

16. **INSPECT REAR NO. 2 SPEAKER ASSEMBLY LH**
    a. Disconnect the J2 rear No. 2 speaker assembly LH connector.

*1

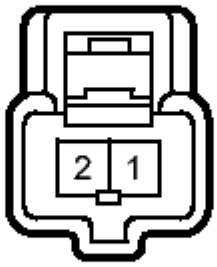


Fig. 28: Speaker Assembly Connector End View
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

Standard Resistance

Tester Connection	Condition	Specified Condition
1 - 2	Always	1.5 to 2.5 ohms

TEXT IN ILLUSTRATION

*1	Component without harness connected (Rear No. 2 Speaker Assembly LH)

NG --> See step 30

OK --> See step 29

17. **REPLACE STEREO COMPONENT AMPLIFIER ASSEMBLY. Refer to REMOVAL**
18. **REPLACE FRONT NO. 3 SPEAKER ASSEMBLY. Refer to REMOVAL**
19. **REPLACE FRONT NO. 1 SPEAKER ASSEMBLY RH. Refer to REMOVAL**
20. **REPLACE FRONT NO. 1 SPEAKER ASSEMBLY LH. Refer to REMOVAL**
21. **REPLACE STEREO COMPONENT AMPLIFIER ASSEMBLY. Refer to REMOVAL**
22. **REPLACE REAR NO. 3 SPEAKER ASSEMBLY. Refer to REMOVAL**
23. **REPLACE TELEMATICS TRANSCEIVER. Refer to REMOVAL**
24. **REPLACE QUARTER SIDE SPEAKER ASSEMBLY RH. Refer to REMOVAL**
25. **REPLACE FRONT NO. 2 SPEAKER ASSEMBLY RH. Refer to REMOVAL**
26. **REPLACE REAR NO. 2 SPEAKER ASSEMBLY RH. Refer to REMOVAL**
27. **REPLACE QUARTER SIDE SPEAKER ASSEMBLY LH. Refer to REMOVAL**
28. **REPLACE FRONT NO. 2 SPEAKER ASSEMBLY LH. Refer to REMOVAL**
29. **REPLACE STEREO COMPONENT AMPLIFIER ASSEMBLY. Refer to REMOVAL**
30. **REPLACE REAR NO. 2 SPEAKER ASSEMBLY LH. Refer to REMOVAL**

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

DESCRIPTION

DTC Code	DTC Detection Condition	Trouble Area

C0-11	Tuner PLL synchronization is impossible.	Radio receiver assembly
C0-12	A communication error occurred in CDED.	
C0-13	A communication error occurred in SSDEC.	
C0-14	No response received from SSDEC.	
C0-15	An error occurred in CAP internal NVM.	
C0-16	An error occurred in CAP.	

INSPECTION PROCEDURE

NOTE: After replacing the radio receiver assembly of vehicles subscribed to pay-type satellite radio broadcasts, registration of the XM radio ID is necessary.

HINT:

After the inspection is completed, clear the DTCs.

PROCEDURE

1. **REPLACE RADIO RECEIVER ASSEMBLY**
   a. Replace the radio receiver assembly. Refer to **REMOVAL** .

   NEXT --> END

DTC C0-40: ANTENNA NOT CONNECTED; DTC C0-41: ANTENNA SHORTED

DESCRIPTION

DTC Code	DTC Detection Condition	Trouble Area
B15C0	Antenna is not connected.	• Antenna cord sub-assembly • No. 2 antenna cord sub-assembly • Satellite radio antenna assembly • Radio receiver assembly
B15C1	Short in antenna circuit.	

INSPECTION PROCEDURE

NOTE: After replacing the radio receiver assembly of vehicles subscribed to pay-type satellite radio broadcasts, registration of the XM radio ID is necessary.

HINT:

- After the inspection is completed, clear the DTCs.
- Refer to "PARTS LOCATION" for the installation location of antenna cord sub-assembly. Refer to **PARTS LOCATION** .

PROCEDURE

1. **CHECK CONNECTOR CONNECTION CONDITION**
   a. Check that the satellite radio antenna cord sub-assembly is securely connected to the radio receiver assembly connector.

      OK

      Satellite radio antenna cord sub-assembly is securely connected.

   NG --> RECONNECT CONNECTOR CORRECTLY

   OK: Go to next step

2. **SYSTEM CHECK**
   a. Check the vehicle specifications.

      RESULT

Result	Proceed to
w/o Safety Connect System	A
w/ Safety Connect System	B

   B --> See step 6

   A: Go to next step

3. **CHECK ANTENNA CORD SUB-ASSEMBLY AND NO. 2 ANTENNA CORD SUB-ASSEMBLY**
   a. Disconnect the antenna cord sub-assembly (radio receiver assembly side) connector.

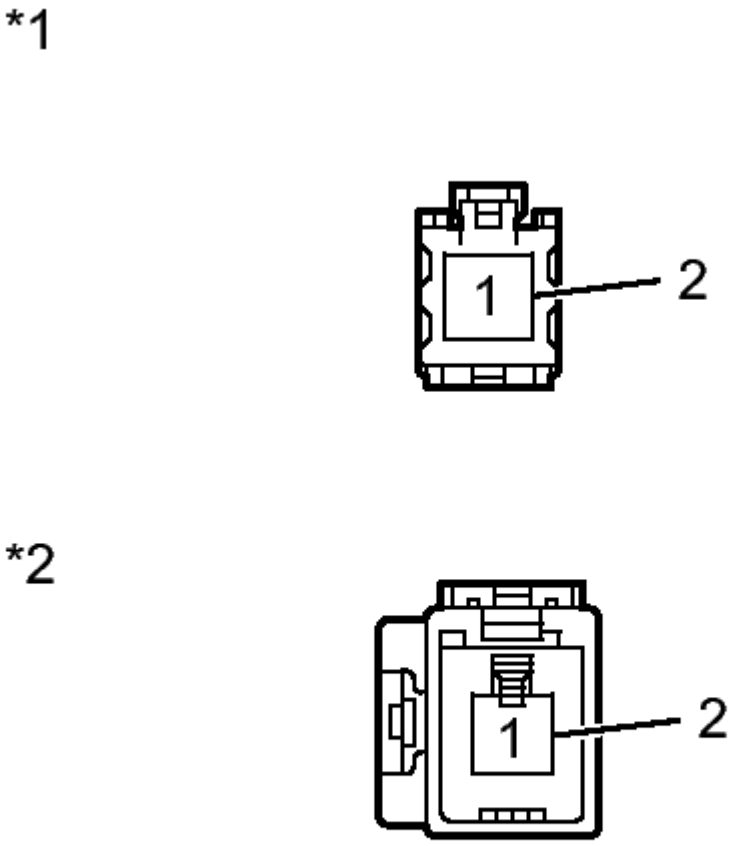


Fig. 29: Antenna Cord Sub-Assembly (Radio Receiver Assembly Side) Connector End View
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

b. Disconnect the No. 2 antenna cord sub-assembly (satellite antenna assembly side) connector.
c. Measure the resistance according to the value(s) in the table below.

Standard Resistance

(RADIO RECEIVER ASSEMBLY - SATELLITE ANTENNA ASSEMBLY)

Tester Connection	Condition	Specified Condition
1 - 1	Always	Below 1 ohms
2 - 2	Always	Below 1 ohms

1 - Body ground	Always	10 kohms or higher
2 - Body ground	Always	10 kohms or higher

TEXT IN ILLUSTRATION

*1	Front view of antenna cord sub-assembly connector (to Radio Receiver Assembly)
*2	Front view of No. 2 antenna cord sub-assembly connector (to Satellite Antenna Assembly)

NG --> See step 5

OK: Go to next step

4. **INSPECT SATELLITE RADIO ANTENNA ASSEMBLY**
   a. Remove the satellite radio antenna assembly. Refer to **REMOVAL** .

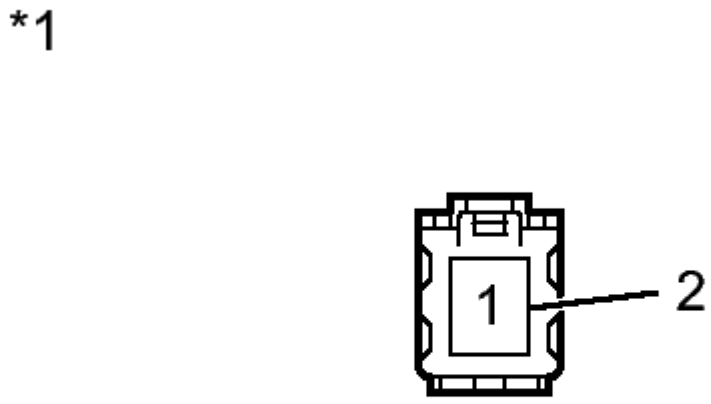


Fig. 30: Satellite Radio Antenna Assembly Connector End View
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

Standard Resistance

Tester Connection	Condition	Specified Condition
1 - 2	Always	45 to 55 ohms

TEXT IN ILLUSTRATION

*1	Component without harness connected (Satellite Antenna Assembly)

NG --> See step 9

OK --> See step 10

5. **CHECK ANTENNA CORD SUB-ASSEMBLY**

a. Disconnect the antenna cord sub-assembly (radio receiver assembly side) connector.

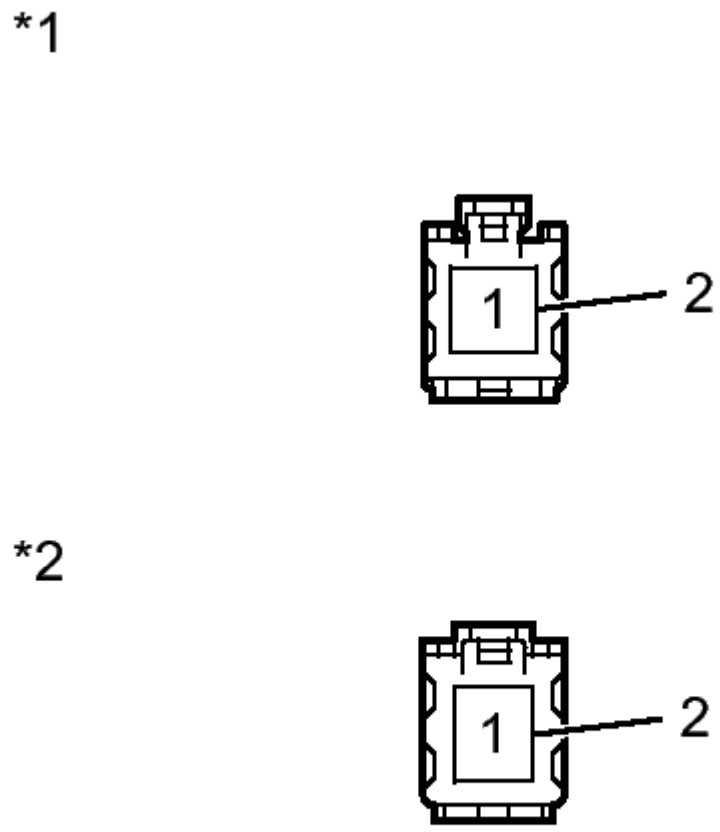


Fig. 31: Checking Antenna Cord Sub-Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

b. Disconnect the antenna cord sub-assembly (satellite antenna assembly side) connector.
c. Measure the resistance according to the value(s) in the table below.

Standard Resistance

(RADIO RECEIVER ASSEMBLY - NO. 2 ANTENNA CORD SUB-ASSEMBLY)

Tester Connection	Condition	Specified Condition
1 - 1	Always	Below 1 ohms

2 - 2	Always	Below 1 ohms
1 - Body ground	Always	10 kohms or higher
2 - Body ground	Always	10 kohms or higher

TEXT IN ILLUSTRATION

*1	Front view of antenna cord sub-assembly connector (to Radio Receiver Assembly)
*2	Front view of antenna cord sub-assembly connector (to No. 2 Antenna Cord Sub-Assembly)

NG --> See step 11

OK --> See step 12

6. **CHECK ANTENNA CORD SUB-ASSEMBLY AND NO. 2 ANTENNA CORD SUB-ASSEMBLY**
   a. Disconnect the antenna cord sub-assembly (radio receiver assembly side) connector.

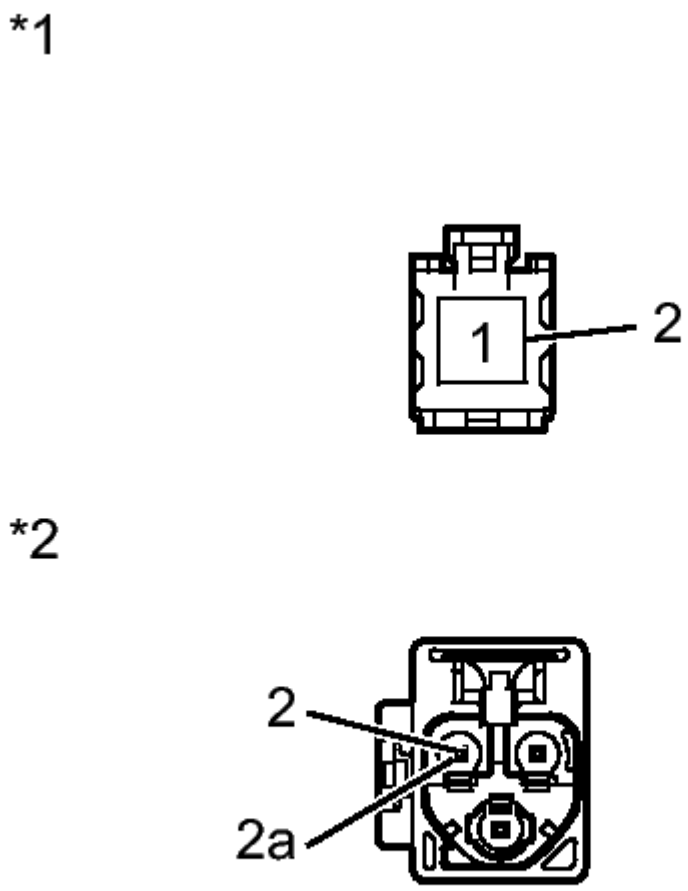


Fig. 32: Checking Antenna Cord Sub-Assembly And No. 2 Antenna Cord Sub-Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

b. Disconnect the No. 2 antenna cord sub-assembly (satellite antenna assembly side) connector.
c. Measure the resistance according to the value(s) in the table below.

Standard Resistance

(RADIO RECEIVER ASSEMBLY - SATELLITE ANTENNA ASSEMBLY)

Tester Connection	Condition	Specified Condition
1 - 2	Always	Below 1 ohms
2 - 2a	Always	Below 1 ohms

1 - Body ground	Always	10 kohms or higher
2 - Body ground	Always	10 kohms or higher

TEXT IN ILLUSTRATION

*1	Front view of antenna cord sub-assembly connector (to Radio Receiver Assembly)
*2	Front view of No. 2 antenna cord sub-assembly connector (to Satellite Antenna Assembly)

NG --> See step 8

OK: Go to next step

7. **INSPECT SATELLITE RADIO ANTENNA ASSEMBLY**
   a. Remove the satellite radio antenna assembly. Refer to **REMOVAL** .

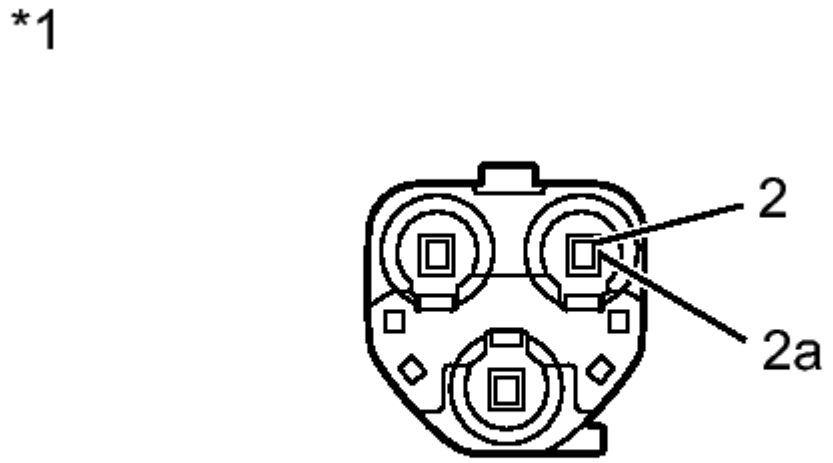


Fig. 33: Measuring Resistance Of Satellite Radio Antenna Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

Standard Resistance

Tester Connection	Condition	Specified Condition
2 - 2a	Always	45 to 55 ohms

TEXT IN ILLUSTRATION

*1	Component without harness connected (Satellite Antenna Assembly)

NG --> See step 9

OK --> See step 10

8. **CHECK ANTENNA CORD SUB-ASSEMBLY**

a. Disconnect the antenna cord sub-assembly (radio receiver assembly side) connector.

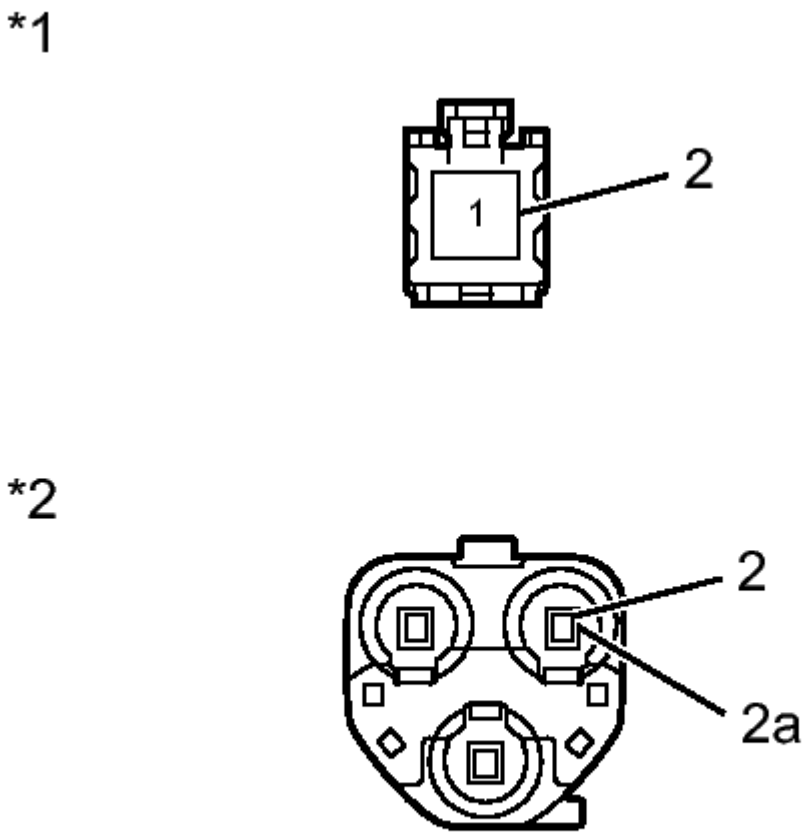


Fig. 34: Measuring Resistance Of Antenna Cord Sub-Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

b. Disconnect the antenna cord sub-assembly (satellite antenna assembly side) connector.
c. Measure the resistance according to the value(s) in the table below.

Standard Resistance

Tester Connection	Condition	Specified Condition
1 - 2	Always	Below 1 ohms
2 - 2a	Always	Below 1

		ohms
1 - Body ground	Always	10 kohms or higher
2 - Body ground	Always	10 kohms or higher

TEXT IN ILLUSTRATION

*1	Front view of antenna cord sub-assembly connector (to Radio Receiver Assembly)
*2	Front view of antenna cord sub-assembly connector (to No. 2 Antenna Cord Sub-Assembly)

NG --> See step 11

OK --> See step 12

9. **REPLACE SATELLITE RADIO ANTENNA ASSEMBLY. Refer to REMOVAL**
10. **REPLACE RADIO RECEIVER ASSEMBLY. Refer to REMOVAL**
11. **REPLACE ANTENNA CORD SUB-ASSEMBLY. Refer to REMOVAL**
12. **REPLACE NO. 2 ANTENNA CORD SUB-ASSEMBLY. Refer to REMOVAL**

DTC CB-10: SYSTEM MICROCOMPUTER MALFUNCTION; DTC CB-11: MEDIA INTERFACE MICROCOMPUTER MALFUNCTION; DTC CB-12: CD-LSI MALFUNCTION

DESCRIPTION

DTC Code	DTC Detection Condition	Trouble Area
CB-10	System microcomputer malfunction	• "iPod" or USB device • Multi-Media interface ECU
CB-11	Media interface microcomputer malfunction	
CB-12	CD-LSI (large scale integration)	

	malfunction	

INSPECTION PROCEDURE

HINT:

After the inspection is completed, clear the DTCs.

PROCEDURE

1. **REPLACE USB DEVICE OR "iPod"**
   a. Disconnect the USB device or "iPod" from the stereo jack adapter.
   b. Turn the ignition switch off.

      HINT:

      When one of these DTCs has been stored, it is necessary to turn off the ignition switch to make it possible for the vehicle to recognize a new device when it is connected.

   c. Turn the ignition switch to ACC.
   d. Connect a known good USB device or "iPod" to the stereo jack adapter.

   NEXT: Go to next step

2. **CLEAR DTC**
   a. Clear the DTCs. Refer to **DTC CHECK / CLEAR** .

   NEXT: Go to next step

3. **RECHECK FOR DTC**
   a. Recheck for DTCs and check if the same DTC occurs again.

      HINT:

      If DTCs are detected frequently, replace the multi-media interface ECU.

      OK

      Malfunction disappears.

   NG --> See step 4

   OK --> END (USB DEVICE OR "iPod" WAS DEFECTIVE)

4. **REPLACE MULTI-MEDIA INTERFACE ECU. Refer to REMOVAL**

DTC CB-13: USB OVER CURRENT DETECTION

DESCRIPTION

DTC Code	DTC Detection Condition	Trouble Area
CB-13	"iPod" or USB device overcurrent malfunction	• "iPod" or USB device • Harness or connector • No. 1 stereo jack adapter assembly • Multi-Media interface ECU

WIRING DIAGRAM

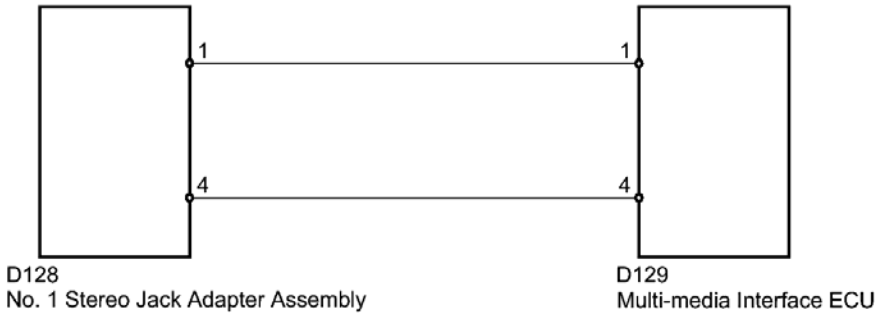


Fig. 35: Multi-Media Interface ECU Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

PROCEDURE

1. **REPLACE USB Device OR "iPod"**
   a. Disconnect the USB device or "iPod" from the No. 1 stereo jack adapter assembly.
   b. Turn the ignition switch off.

      HINT:

      When this DTC has been stored, it is necessary to turn off the ignition switch to make it possible for the vehicle to recognize a new device when it is connected.

   c. Turn the ignition switch to ACC.
   d. Connect a known good USB device or "iPod" to the No. 1 stereo jack adapter assembly.

NEXT: Go to next step

2. **CLEAR DTC**
   a. Clear the DTCs. Refer to **DTC CHECK / CLEAR** .

NEXT: Go to next step

3. **RECHECK FOR DTC**
   a. Recheck for DTCs and check if the same DTC occurs again.

HINT:

If DTCs are detected frequently, replace the multi-media interface ECU.

OK

Malfunction disappears.

NG --> See step 4

OK --> USB DEVICE OR "iPod" WAS DEFECTIVE

4. **CHECK NO. 1 STEREO JACK ADAPTER ASSEMBLY**
   a. Disconnect the D128 No. 1 stereo jack adapter assembly connector.

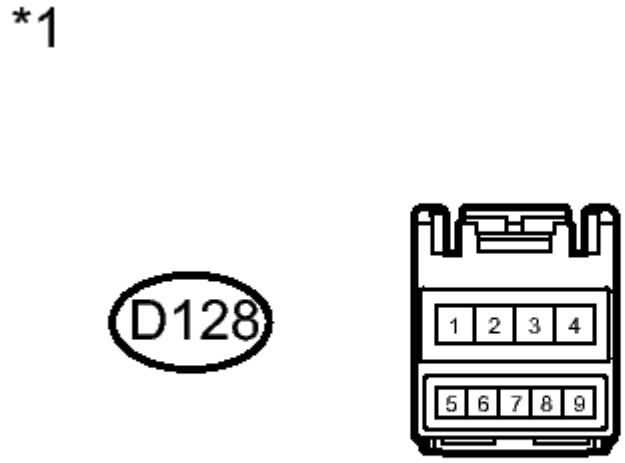


Fig. 36: Measuring Resistance Of No. 1 Stereo Jack Adapter Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

Standard Voltage

Tester Connection	Condition	Specified Condition
D128-1 - D128-4	Always	5 V

TEXT IN ILLUSTRATION

*1	Front view of wire harness connector (to No. 1 Stereo Jack Adapter Assembly)

NG --> See step 5

OK --> See step 6

5. **CHECK HARNESS AND CONNECTOR (MULTI-MEDIA INTERFACE ECU - STEREO JACK ADAPTER)**
   a. Disconnect the D129 multi-media interface ECU connector.
   b. Disconnect the D128 No. 1 stereo jack adapter assembly connector.
   c. Measure the resistance according to the value(s) in the table below.

   Standard Resistance

Tester Connection	Condition	Specified Condition
D129-4 - D128-4	Always	Below 1 ohms
D129-1 - D128-1	Always	Below 1 ohms
D129-4 - Body ground	Always	10 kohms or higher
D129-1 - Body ground	Always	10 kohms or higher

NG --> REPAIR OR REPLACE HARNESS OR CONNECTOR

OK --> See step 7

6. **REPLACE NO. 1 STEREO JACK ADAPTER ASSEMBLY. Refer to REMOVAL**
7. **REPLACE MULTI-MEDIA INTERFACE ECU. Refer to REMOVAL**

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

DESCRIPTION

DTC Code	DTC Detection Condition	Trouble Area
CB-43	When a non mass-storage class or USB device with an incompatible protocol is connected.	• USB device • Multi-Media interface ECU
CB-44	When an incompatible file system or USB device with a corrupted or incompatible File Allocation Table (FAT) is connected.	
CB-50	"iPod" malfunction	• "iPod" • Multi-Media interface ECU
CB-51	When an "iPod" with unsupported firmware is connected.	
CB-7D	When an unsupported model of "iPod" is connected.	

INSPECTION PROCEDURE

HINT:

After the inspection is completed, clear the DTCs.

PROCEDURE

1. **REPLACE USB DEVICE OR "iPod"**
   a. Disconnect the USB device or "iPod" from the No. 1 stereo jack adapter assembly.
   b. Turn the ignition switch off.

      HINT:

      When one of these DTCs has been stored, it is necessary to turn off the ignition switch to make it possible for the vehicle to recognize a new device when it is connected.

   c. Turn the ignition switch to ACC.
   d. Connect a known good USB device or "iPod" to the No. 1 stereo jack adapter assembly.

HINT:

- If the malfunction occurred when a USB device was in use, use another USB device for the inspection. If the malfunction occurred when an "iPod" was in use, use another "iPod" for the inspection.
- Refer to System Description for compatible formats and versions. Refer to **SYSTEM DESCRIPTION** .

NEXT: Go to next step

2. **CLEAR DTC**
   a. Clear the DTCs. Refer to **DTC CHECK / CLEAR** .

NEXT: Go to next step

3. **RECHECK FOR DTC**
   a. Recheck for DTCs and check if the same DTC occurs again.

HINT:

If DTCs are detected frequently, replace the multi-media interface ECU.

OK

Malfunction disappears.

NG --> See step 4

OK --> USB DEVICE FORMAT WAS INCOMPATIBLE, "iPod" VERSION WAS INCOMPATIBLE, OR USB DEVICE OR "iPod" WAS DEFECTIVE

4. **REPLACE MULTI-MEDIA INTERFACE ECU. Refer to REMOVAL**

DTC CB-45: USB COMMUNICATION ERROR; DTC CB-46: IPOD CONTROL ERROR; DTC CB-47: IPOD COMMUNICATION ERROR

DESCRIPTION

DTC Code	DTC Detection Condition	Trouble Area
CB-45	Communication error with USB device	• USB device • Multi-Media interface ECU
CB-46	"iPod" control software malfunction	• "iPod" • Multi-Media interface ECU
CB-47	Communication error with "iPod"	

INSPECTION PROCEDURE

HINT:

After the inspection is completed, clear the DTCs.

PROCEDURE

1. **REPLACE USB DEVICE OR "iPod"**
   a. Disconnect the USB device or "iPod" from the No. 1 stereo jack adapter assembly.
   b. Turn the ignition switch off.

      HINT:

      When one of these DTCs has been stored, it is necessary to turn off the ignition switch to make it possible for the vehicle to recognize a new device when it is connected.

   c. Turn the ignition switch to ACC.
   d. Connect a known good USB device or "iPod" to the No. 1 stereo jack adapter assembly.

      HINT:

      If the malfunction occurred when a USB device was in use, use another USB device for the inspection. If the malfunction occurred when an "iPod" was in use, use another "iPod" for the inspection.

   NEXT: Go to next step

2. **CLEAR DTC**
   a. Clear the DTCs. Refer to **DTC CHECK / CLEAR** .

   NEXT: Go to next step

3. **RECHECK FOR DTC**
   a. Recheck for DTCs and check if the same DTC occurs again.

      HINT:

      If DTCs are detected frequently, replace the multi-media interface ECU.

      OK

      Malfunction disappears.

   NG --> See step 4

   OK --> END (USB DEVICE OR "iPod" WAS DEFECTIVE)

4. **REPLACE MULTI-MEDIA INTERFACE ECU. Refer to REMOVAL**

DTC CB-52: NO PLAYABLE IPOD FILE EXISTS; DTC CB-7E: NO PLAYABLE USB FILE EXISTS

DESCRIPTION

DTC Code	DTC Detection Condition	Trouble Area
CB-52	No playable files on the "iPod"	• "iPod" • Multi-Media Interface ECU
CB-7E	No playable files on the USB device	• USB device • Multi-Media Interface ECU

INSPECTION PROCEDURE

HINT:

After the inspection is completed, clear the DTCs.

PROCEDURE

1. **CHECK USB DEVICE OR "iPod"**
   a. Disconnect the USB device or "iPod" from the No. 1 stereo jack adapter assembly.
   b. Check if playable files are present on the USB device or "iPod".

      HINT:

      Refer to System Description for playable files. Refer to **SYSTEM DESCRIPTION** .

      RESULT

Result	Proceed to
No playable files exist	A
Playable files exist	B

   B --> See step 2

   A --> END

2. **REPLACE USB DEVICE OR "iPod"**

a. Turn the ignition switch off.

HINT:

When one of these DTCs has been stored, it is necessary to turn off the ignition switch to make it possible for the vehicle to recognize a new device when it is connected.

b. Turn the ignition switch to ACC.
c. Connect a known good USB device or "iPod" to the No. 1 stereo jack adapter assembly.

NEXT: Go to next step

3. **CLEAR DTC**
   a. Clear the DTCs. Refer to **DTC CHECK / CLEAR** .

   NEXT: Go to next step

4. **RECHECK FOR DTC**
   a. Recheck for DTCs and check if the same DTC occurs again.

      HINT:

      If DTCs are detected frequently, replace the multi-media interface ECU.

      OK

      Malfunction disappears.

   NG --> See step 5

   OK --> END (USB DEVICE OR "iPod" WAS DEFECTIVE)

5. **REPLACE MULTI-MEDIA INTERFACE ECU. Refer to REMOVAL**

DTC D2-42: DISC CANNOT BE READ

DESCRIPTION

DTC Code	DTC Detection Condition	Trouble Area
D2-42	Disc cannot be read.	• Disc • Disc player assembly

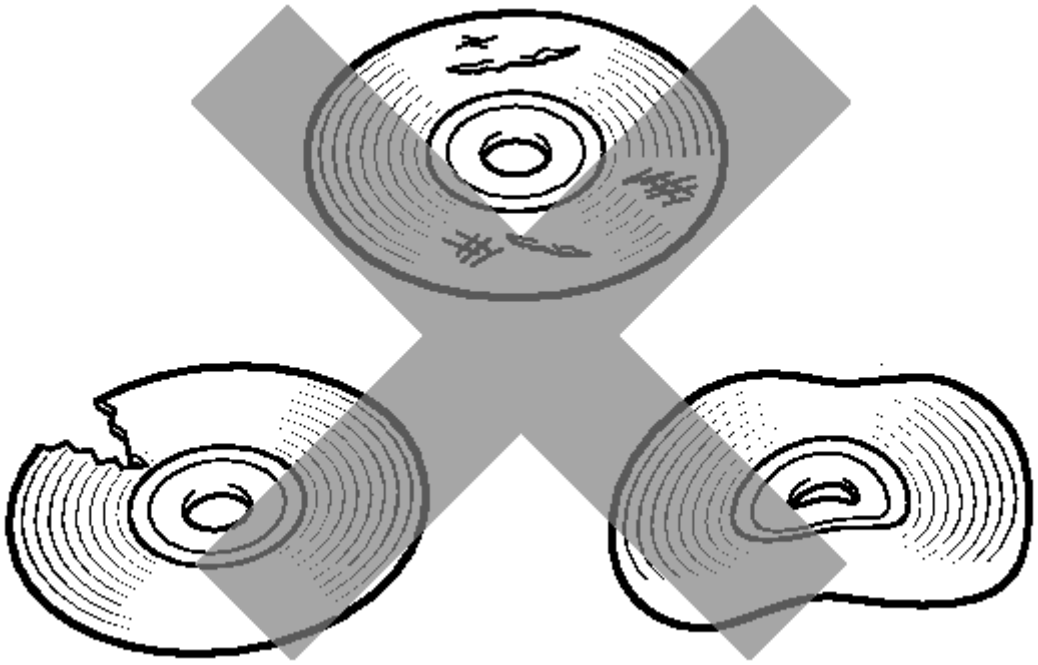
INSPECTION PROCEDURE

HINT:

After the inspection is completed, clear the DTCs.

PROCEDURE

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



P

Fig. 37: Identifying Deformed Or Cracked Discs
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

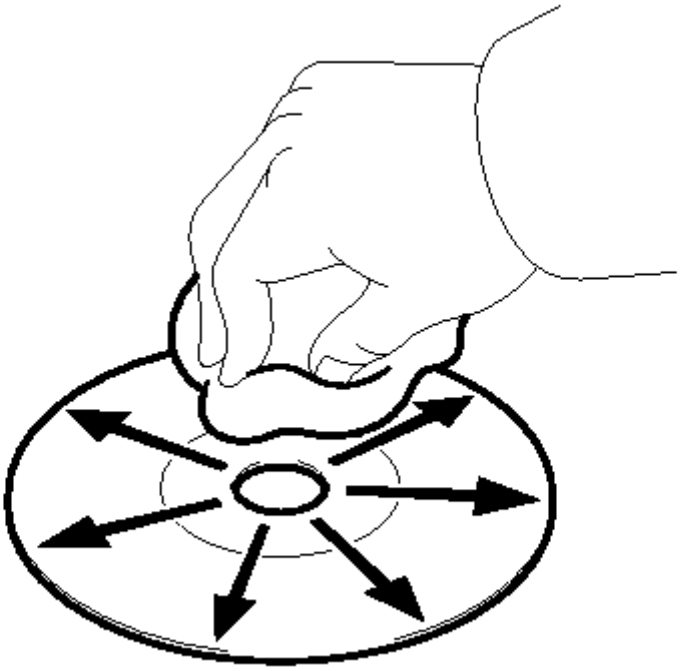
OK

No deformation or cracks on the disc.

NG --> REPLACE DISC

OK: Go to next step

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



P

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

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

NEXT: Go to next step

3. **CLEAR DTC**
   a. Clear the DTC. Refer to **DTC CHECK / CLEAR** .

NEXT: Go to next step

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

      OK

      Malfunction disappears.

NG --> See step 5

OK --> See step 6

5. **REPLACE DISC WITH ANOTHER AND RECHECK**
   a. Replace the disc with a normal one.
   b. Clear the DTCs. Refer to **DTC CHECK / CLEAR** .

c. Recheck for DTCs and check if the same trouble occurs again.

OK

Malfunction disappears.

NG --> See step 7

OK --> END

6. **USE SIMULATION METHOD TO CHECK. Refer to HOW TO PROCEED WITH TROUBLESHOOTING**
7. **REPLACE DISC PLAYER ASSEMBLY. Refer to REMOVAL**

DTC D2-44: DISC MALFUNCTION

DESCRIPTION

DTC Code	DTC Detection Condition	Trouble Area
D2-44	Operation error in the disc mechanism	Disc player assembly

INSPECTION PROCEDURE

HINT:

After the inspection is completed, clear the DTCs.

PROCEDURE

1. **CLEAR DTC**
   a. Clear the DTCs. Refer to **DTC CHECK / CLEAR** .

   NEXT: Go to next step

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

      HINT:

      If DTCs are detected frequently, replace the radio receiver assembly. Refer to **REMOVAL** .

      OK

      Malfunction disappears.

   NG --> See step 3

OK --> See step 4

3. **REPLACE DISC PLAYER ASSEMBLY. Refer to REMOVAL**
4. **USE SIMULATION METHOD TO CHECK. Refer to HOW TO PROCEED WITH TROUBLESHOOTING**

DTC D2-45: EJECT MALFUNCTION; DTC D2-52: CLAMP MALFUNCTION

DESCRIPTION

DTC Code	DTC Detection Condition	Trouble Area
D2-45	Disc cannot be ejected.	Disc player assembly
D2-52	Error occurs in disc player clamp.	

INSPECTION PROCEDURE

HINT:

After the inspection is completed, clear the DTCs.

PROCEDURE

1. **CHECK DISC PLAYER ASSEMBLY**
   a. Check if a disc can be inserted or ejected normally.

      OK

      Malfunction disappears.

   NG --> See step 2

   OK --> END

2. **REPLACE DISC PLAYER ASSEMBLY. Refer to REMOVAL**

DTC D2-46: DISC IS SCRATCHED, DIRTY OR REVERSED

DESCRIPTION

DTC Code	DTC Detection Condition	Trouble Area
D2-46	Scratches or dirt is found on disc surface or disc is inserted upside down.	• Disc • Disc player assembly

INSPECTION PROCEDURE

HINT:

After the inspection is completed, clear the DTCs.

PROCEDURE

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

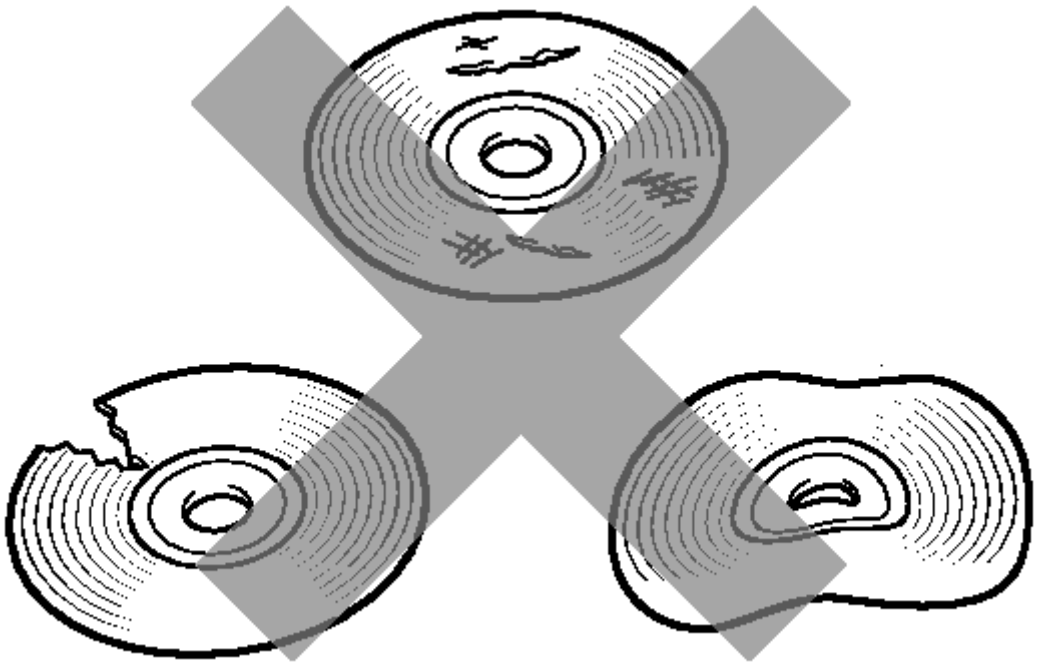
      OK

      Disc is properly inserted.

   NG --> INSERT DISC PROPERLY

   OK: Go to next step

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



P

Fig. 39: Identifying Deformed Or Cracked Discs
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

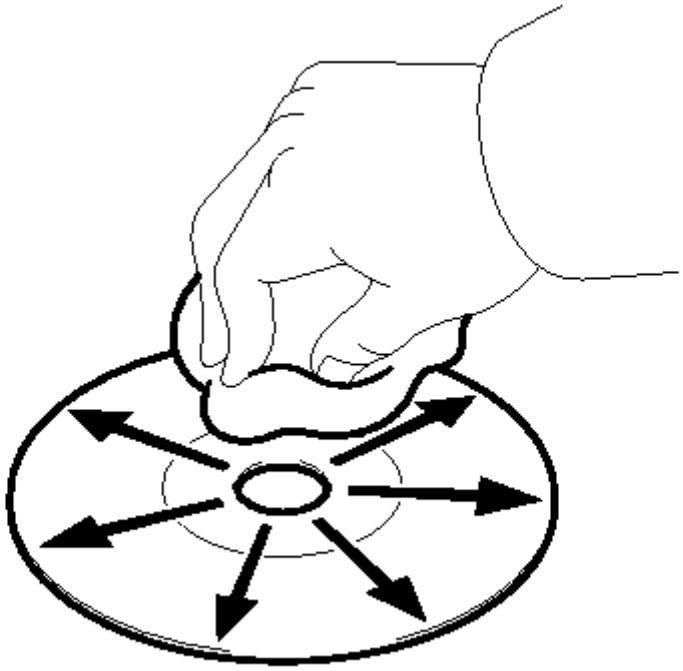
OK

No deformation or cracks on the disc.

NG --> CHANGE DISC

OK: Go to next step

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



P

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

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

NEXT: Go to next step

4. **CLEAR DTC**
   a. Clear the DTC. Refer to **DTC CHECK / CLEAR** .

NEXT: Go to next step

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

   OK

   Malfunction disappears.

NG --> See step 6

OK --> See step 7

6. **REPLACE DISC WITH ANOTHER AND RECHECK**
   a. Replace the disc with a normal one.
   b. Clear the DTCs. Refer to **DTC CHECK / CLEAR** .
   c. Recheck for DTCs and check if the same trouble occurs again.

      OK

      Malfunction disappears.

NG --> See step 8

OK --> END

7. **USE SIMULATION METHOD TO CHECK. Refer to HOW TO PROCEED WITH TROUBLESHOOTING**
8. **REPLACE DISC PLAYER ASSEMBLY. Refer to REMOVAL**

SYMPTOM TESTS

Satellite Radio Tuner Communication Error

WIRING DIAGRAM

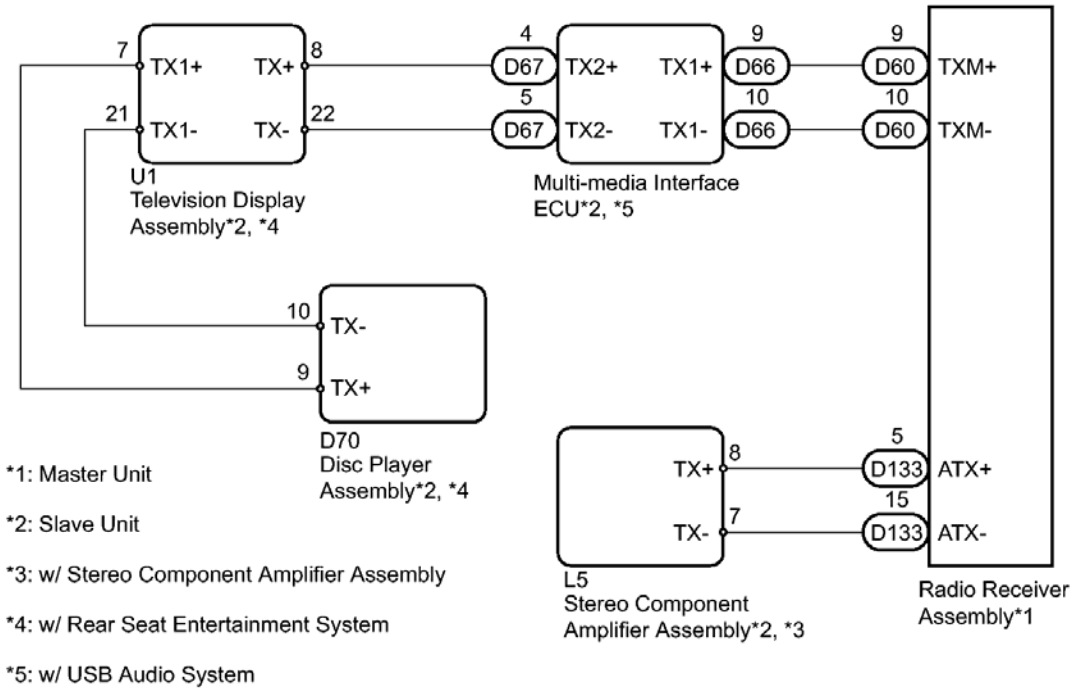


Fig. 41: Radio Receiver Assembly Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

PROCEDURE

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

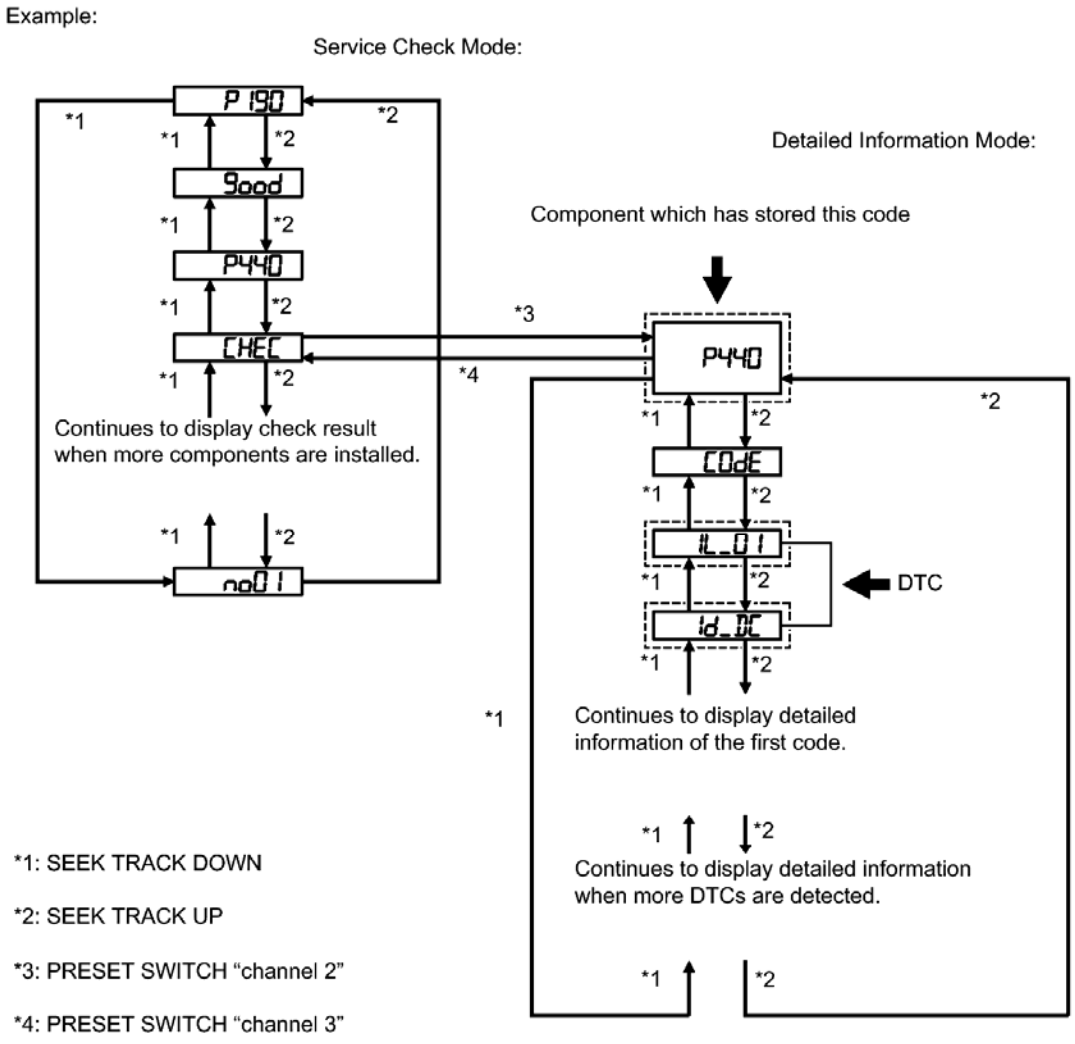


Fig. 42: Identifying "Detailed Information Mode"
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

HINT:

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

NEXT: Go to next step

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

HINT:

The satellite radio tuner is built into the radio receiver assembly. If there is a problem between the satellite radio tuner and radio receiver assembly, replace the radio receiver assembly.

COMPONENT TABLE

Component	Proceed to
Except satellite radio tuner	A
Satellite radio tuner assembly (1F1)	B

B --> See step 7

A: Go to next step

3. **CHECK POWER SOURCE CIRCUIT OF COMPONENT SHOWN BY SUB-CODE**
   a. Inspect the power source circuit of the component shown by the sub-code.

HINT:

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

COMPONENT TABLE

Component	Proceed to
Multi-Media interface ECU (388) *3	Multi-Media Interface ECU Power Source Circuit. Refer to **Multi-Media Interface ECU Power Source Circuit**
	Stereo Component Amplifier

Stereo component amplifier assembly (440)*1	Power Source Circuit. Refer to **Stereo Component Amplifier Power Source Circuit**
Television display assembly (1B0)*2	Television display Power Source Circuit. Refer to **Television Display Power Source Circuit**
Disc player assembly (1A0)*2	Disc Player Changer Power Source Circuit. Refer to **Disc Player Changer Power Source Circuit**

*1: w/ Stereo Component Amplifier Assembly

*2: w/ Rear Seat Entertainment System

*3: w/ USB Audio System

NEXT: Go to next step

4. **INSPECT RADIO RECEIVER ASSEMBLY**
   a. Disconnect the D133*1 and D60*2 radio receiver assembly connectors.

*1

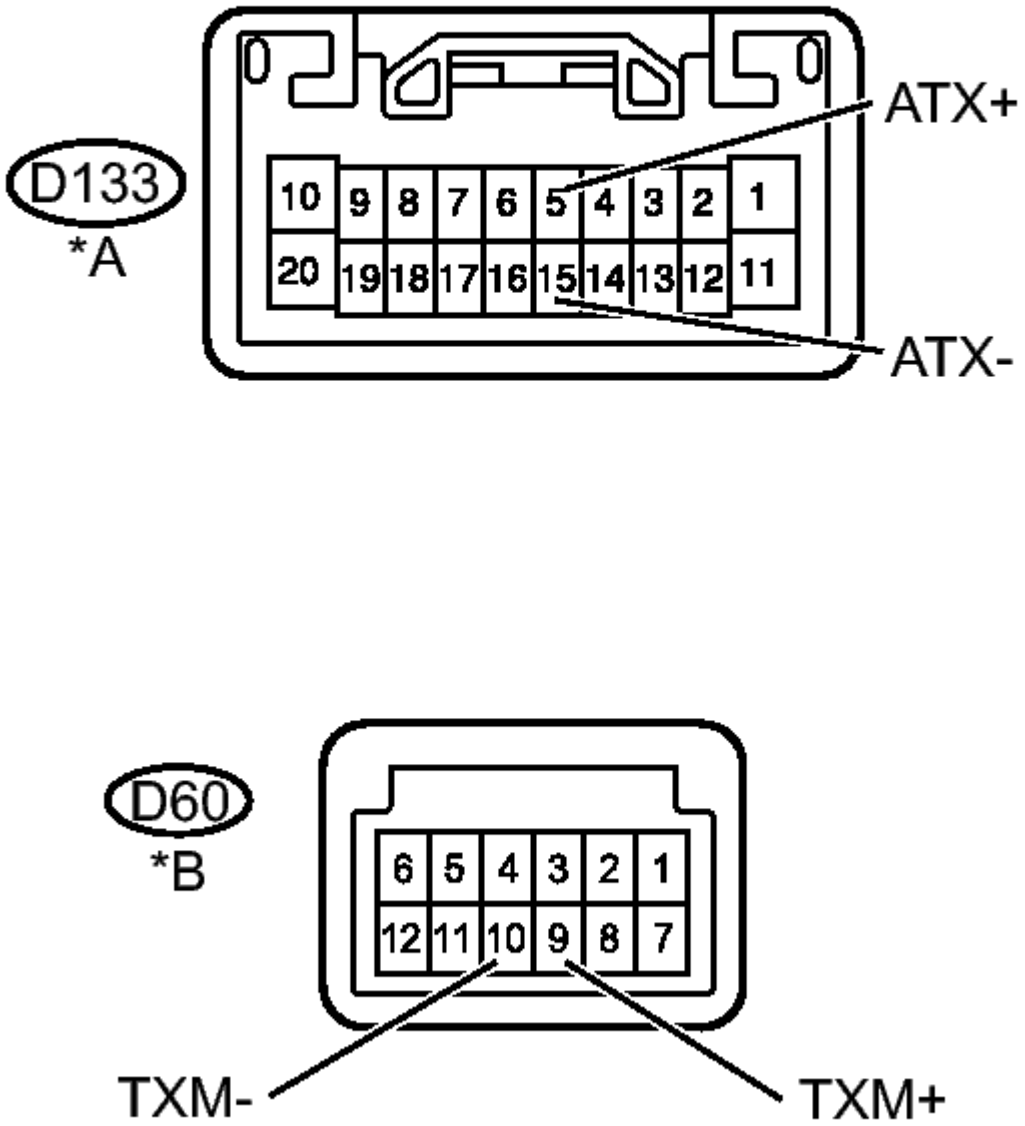


Fig. 43: D133 & D60 Radio Receiver Assembly Connector End View
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

*1: w/ Stereo Component Amplifier Assembly

*2: w/ USB Audio System

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

Standard Resistance

Tester Connection	Condition	Specified Condition
D133-5 (ATX+) - D133-15 (ATX-)*1	Always	60 to 80 ohms
D60-9 (TXM+) - D60-10 (TXM-)*2	Always	60 to 80 ohms

*1: w/ Stereo Component Amplifier Assembly

*2: w/ USB Audio System

TEXT IN ILLUSTRATION

*A	w/ Stereo Component Amplifier Assembly
*B	w/ USB Audio System
*1	Component without harness connected (Radio Receiver Assembly)

NG --> See step 7

OK: Go to next step

5. **CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - COMPONENT SHOWN BY SUB-CODE)**

HINT:

- Start the check from the circuit that is near the component shown by the sub-code first.
- For details of the connectors, refer to "Terminal of ECU". Refer to **TERMINALS OF ECU** .

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

       OK

       There is no open or short circuit.

NG --> REPAIR OR REPLACE HARNESS OR CONNECTOR

OK: Go to next step

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

       OK

       Malfunction disappears.

NG --> See step 8

OK --> END

7. **REPLACE RADIO RECEIVER ASSEMBLY. Refer to REMOVAL**
8. **REPLACE RADIO RECEIVER ASSEMBLY. Refer to REMOVAL**

Satellite Radio Broadcast cannot be Received

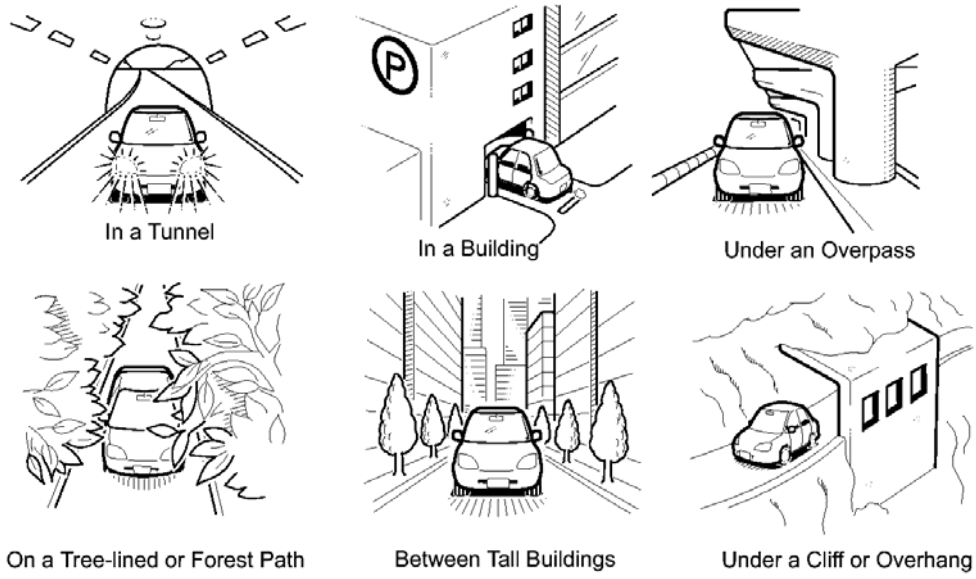
INSPECTION PROCEDURE

NOTE:

- **Some satellite radio broadcast require payment. A contract must be made between a satellite radio company and the user. If the contract expires, the broadcast will not be able to be listened to or viewed.**
- **After replacing the radio receiver assembly of vehicles subscribed to pay-type satellite radio broadcasts, the XM Radio ID registration is necessary.**

PROCEDURE

1. **CHECK SURROUNDINGS**
    a. Check if the vehicle is in an environment where reception is difficult due to something blocking the area above the vehicle.



P

Fig. 44: Reasons For Poor Reception
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

HINT:

If the area above the vehicle is blocked, such as when in a building or tunnel, reception may not be possible.

OK

Area above the vehicle is not blocked.

NG --> END (MOVE VEHICLE TO LOCATION WHERE RECEPTION IS BETTER)

OK: Go to next step

2. **CHECK RADIO RECEIVER ASSEMBLY**
   a. Check if CH001 (free broadcast) can be received.

      OK

      CH001 can be received.

NG --> See step 6

OK: Go to next step

3. **CHECK DISPLAY SETTING**
   a. Check the display screen.

RESULT

Result	Proceed to
"UPDATING" is displayed*1 "CH UNAUTHORIZED" is displayed*2	A
"-----" is displayed	B
None of the displays above are shown	C

*1: for LCD model

*2: for VFD model

B --> THERE IS NO SONG/PROGRAM TITLE OR ARTIST NAME/FEATURE ASSOCIATED WITH CHANNEL AT THAT TIME

C --> See step 6

A: Go to next step

4. **CHECK CONTRACT CONDITIONS**
   a. Check if the pay-type contract has been extended, or if the contract period has ended.

OK

Pay-type contract is valid.

NG --> TO RECEIVE PAY-TYPE BROADCASTS, CONTRACT MUST BE MADE WITH SATELLITE RADIO TUNER COMPANY

OK: Go to next step

5. **PERFORM ACTIVATION REFRESH**
   a. Perform activation refresh by referring to the satellite radio service web site (http://www.xmradio.com/refresh/).

HINT:

The XM radio ID that is necessary to perform activation refresh can be displayed when CH000 is selected on the satellite radio.

OK

Malfunction disappears.

NG --> See step 10

OK --> END

6. **CHECK DISPLAY**
   a. Check the display screen.

RESULT

Result	Proceed to
"ANTENNA" is displayed*1 "CHECK ANTENNA" is displayed*2	A
"NO SIGNAL" is displayed	B
"LOADING" is displayed	B
"OFF AIR" is displayed*1 "CHANNEL OFF AIR" is diplayed*2	C
After "---" is displayed, display automatically switches to CH001	D
None of the displays above are shown	E

*1: for LCD model

*2: for VFD model

B --> END (MOVE VEHICLE TO LOCATION WHERE RECEPTION IS BETTER)

C --> CHANNEL IS CURRENTLY NOT BEING BROADCAST. BROADCAST CAN BE LISTENED TO OR VIEWED WHEN IT IS BACK ON AIR CONDITION (CONFIRM WITH RADIO STATION)

D --> CHANNEL BROADCAST HAS ENDED CONDITION (CONFIRM WITH RADIO STATION)

E --> See step 9

A: Go to next step

7. **CHECK CONNECTION OF ANTENNA CABLE**
   a. Check if the satellite radio antenna cable is securely connected to the radio receiver assembly.

      OK

      Satellite radio antenna cable is securely connected.

   NG --> SECURELY CONNECT SATELLITE RADIO ANTENNA CABLE

   OK --> See step 8

8. **REPLACE SATELLITE RADIO ANTENNA ASSEMBLY. Refer to REMOVAL**
9. **CONFIRM CURRENTLY SELECTED CHANNEL**
   a. Confirm if CH000 is currently selected.

      OK

      CH000 is selected.

   NG --> See step 11

   OK --> END (CH000 HAS NO SOUND. SELECT ANOTHER CHANNEL)

10. **PROCEED TO NEXT SUSPECTED AREA SHOWN IN PROBLEM SYMPTOMS TABLE. Refer to PROBLEM SYMPTOMS TABLE**
11. **PROCEED TO NEXT SUSPECTED AREA SHOWN IN PROBLEM SYMPTOMS TABLE. Refer to PROBLEM SYMPTOMS TABLE**

Satellite Radio Broadcast cannot be Selected or After Selecting Broadcast, Broadcast cannot be Added into Memory

INSPECTION PROCEDURE

NOTE:

- **Some satellite radio broadcast require payment. A contract must be made between a satellite radio company and the user. If the contract expires, the broadcast will not be able to be listened to or viewed.**

- **After replacing the radio receiver assembly of vehicles subscribed to pay-type satellite radio broadcasts, the XM Radio ID registration is necessary.**

PROCEDURE

1. **CHECK RADIO RECEIVER ASSEMBLY**
   a. Check the radio condition.

      OK

      Broadcast can be selected, but selection cannot be memorized.

   NG --> See step 4

   OK: Go to next step

2. **CHECK BATTERY**
   a. Check if the battery was replaced.

      OK

      Battery was not replaced.

   NG --> See step 3

   OK --> See step 4

3. **REPLACE RADIO RECEIVER ASSEMBLY**
   a. Check if the preset channels that have been cleared can be added into memory again.

      OK

      Preset channels can be added into memory.

   NG --> See step 5

   OK --> END

4. **REPLACE RADIO RECEIVER ASSEMBLY. Refer to REMOVAL**
5. **PROCEED TO NEXT SUSPECTED AREA SHOWN IN PROBLEM SYMPTOMS TABLE. Refer to PROBLEM SYMPTOMS TABLE**

Noise Occurs

INSPECTION PROCEDURE

PROCEDURE

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

      OK

      The location of the noise source can be determined.

   NG --> See step 3

   OK: Go to next step

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

      RESULT

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

   A --> REINSTALL SPEAKER

   B --> REMOVE FOREIGN OBJECT

   C --> REPLACE SPEAKER

   D: Go to next step

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

      HINT:

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

Condition under which Noise Occurs	Noise Source
Noise increases when the accelerator pedal is depressed, but stops when the engine is stopped.	Generator
Noise occurs during A/C or heater operation.	Blower motor
Noise occurs when the vehicle accelerates rapidly on an unpaved road or after the ignition switch is turned ON.	Fuel pump
Noise occurs when the horn switch is pressed and released or when pressed and held.	Horn
Noise occurs synchronously with the blink of the turn signal.	Flasher
Noise occurs during window washer operation.	Washer

Noise occurs while the engine is running, and continues even after the engine is stopped.	Engine coolant temperature sensor
Noise occurs during wiper operation.	Wiper
Noise occurs when the brake pedal is depressed.	Stop light switch
Other	Static electricity

HINT:

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

OK

The noise source cannot be determined.

NG --> REPAIR OR REPLACE NOISE SOURCE

OK --> See step 4

4. **PROCEED TO NEXT SUSPECTED AREA SHOWN IN PROBLEM SYMPTOMS TABLE. Refer to PROBLEM SYMPTOMS TABLE**

Pressing Power Switch does not Turn on System

INSPECTION PROCEDURE

PROCEDURE

1. **CHECK VEHICLE CONDITION**

a. Check that conditions in the cabin are not likely to cause condensation.

HINT:

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

OK

Condensation is not likely to be produced.

NG --> DRY OUT CABIN AND RECHECK CONDITION

OK --> See step 2

2. **PROCEED TO NEXT SUSPECTED AREA SHOWN IN PROBLEM SYMPTOMS TABLE. Refer to PROBLEM SYMPTOMS TABLE**

No Sound can be Heard from Speakers

INSPECTION PROCEDURE

PROCEDURE

1. **CHECK RADIO RECEIVER ASSEMBLY**
   a. Check the radio receiver assembly settings.
      1. Check that the volume is not set to "0".
      2. Check that "MUTE" is off.

         OK

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

NG --> SYSTEM NORMAL (SET VOLUME UP OR SET MUTE TO OFF)

OK --> See step 2

2. **PROCEED TO NEXT SUSPECTED AREA SHOWN IN PROBLEM SYMPTOMS TABLE. Refer to PROBLEM SYMPTOMS TABLE**

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

INSPECTION PROCEDURE

PROCEDURE

1. **REPLACE CD WITH ANOTHER AND RECHECK**

a. Replace the CD with another one and recheck.
    1. Check if the problem recurs using another CD.

       OK

       Malfunction disappears.

NG --> See step 2

OK --> END

2. **REPLACE RADIO RECEIVER ASSEMBLY. Refer to REMOVAL**

CD cannot be Ejected

INSPECTION PROCEDURE

PROCEDURE

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

       OK

       CD is ejected.

NG --> See step 3

OK: Go to next step

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

       OK

       CD is ejected.

NG --> See step 4

OK --> END

3. **REPLACE RADIO RECEIVER ASSEMBLY. Refer to REMOVAL**
4. **REPLACE RADIO RECEIVER ASSEMBLY. Refer to REMOVAL**

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

INSPECTION PROCEDURE

PROCEDURE

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

      OK

      Normal CD.

      HINT:

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

   NG --> CHANGE CD

   OK: Go to next step

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

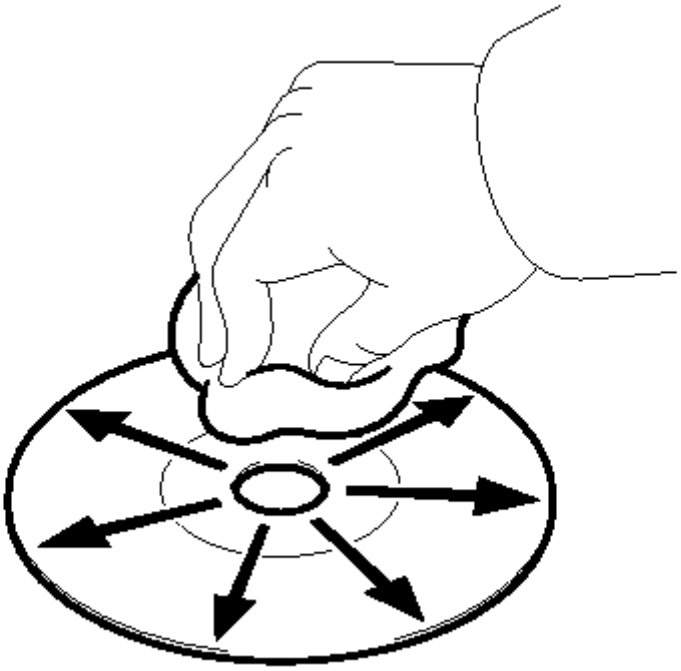
      OK

      CD is properly inserted.

   NG --> INSERT CD PROPERLY

   OK: Go to next step

3. **CHECK CD**
   a. Clean the CD by wiping it with a soft cloth from the inside to the outside in a radial direction.



P

Fig. 45: Cleaning Disc Surface With Soft Dry Cloth
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK

Malfunction disappears.

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

NG --> See step 4

OK --> END

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

      OK

      Malfunction disappears.

   NG --> See step 5

   OK --> END

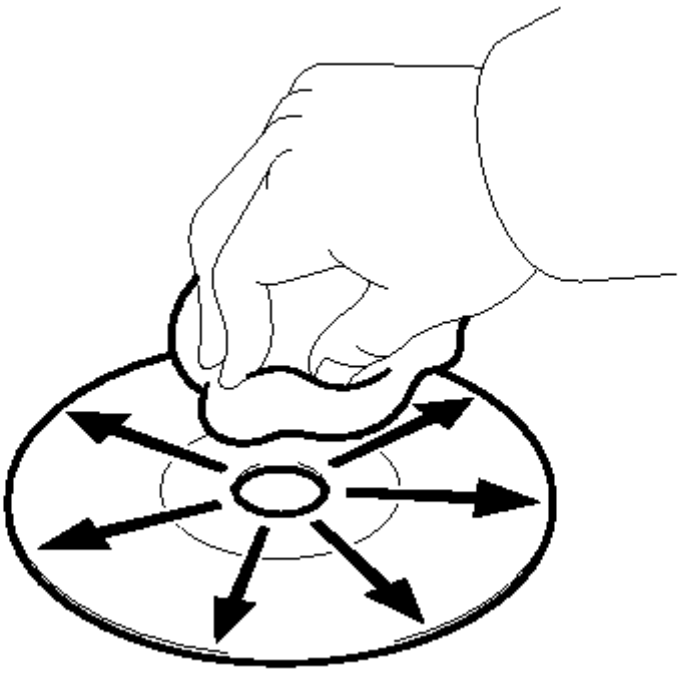
5. **REPLACE RADIO RECEIVER ASSEMBLY. Refer to REMOVAL**

CD Sound Skips

INSPECTION PROCEDURE

PROCEDURE

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



P

Fig. 46: Cleaning Disc Surface With Soft Dry Cloth
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK

The CD is clean.

HINT:

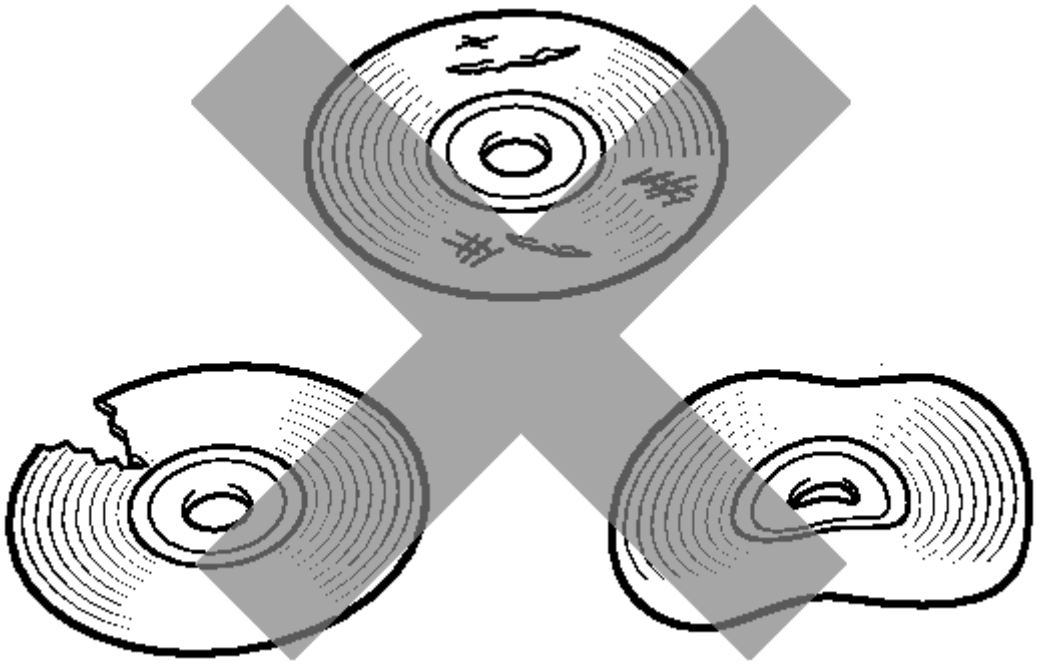
If dirt is on the CD surface, wipe it clean with a soft cloth from the inside to the outside in a radial direction.

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

NG --> CLEAN CD

OK: Go to next step

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



P

Fig. 47: Identifying Deformed Or Cracked Discs
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK

No deformation or cracks on the CD.

NG --> CHANGE CD

OK: Go to next step

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

      OK

      The problem does not occur.

   NG --> See step 4

   OK --> END

4. **CHECK RADIO RECEIVER ASSEMBLY**
   a. Check that the radio receiver assembly is properly installed.

      OK

Radio receiver assembly is properly installed.

NG --> REINSTALL RADIO RECEIVER ASSEMBLY PROPERLY

OK --> See step 5

5. **REPLACE RADIO RECEIVER ASSEMBLY. Refer to REMOVAL**

Radio Broadcast cannot be Received (Bad Reception)

INSPECTION PROCEDURE

HINT:

Refer to "PARTS LOCATION" for the installation location of antenna cord sub-assembly. Refer to **PARTS LOCATION** .

PROCEDURE

1. **CHECK IF RADIO AUTO-SEARCH FUNCTIONS PROPERLY**
   a. Perform the auto-search of the radio and check that it functions normally.

      OK

      Radio auto-search functions normally.

   NG --> See step 2

   OK --> See step 16

2. **CHECK OPTIONAL COMPONENTS**
   a. Check if the telephone antenna, and other optional components are installed.

      OK

      Optional component(s) installed.

   NG --> See step 3

   OK --> EFFECT FROM OPTIONAL COMPONENTS

3. **CHECK RADIO RECEIVER ASSEMBLY**
   a. Remove the antenna plug of the radio receiver assembly.

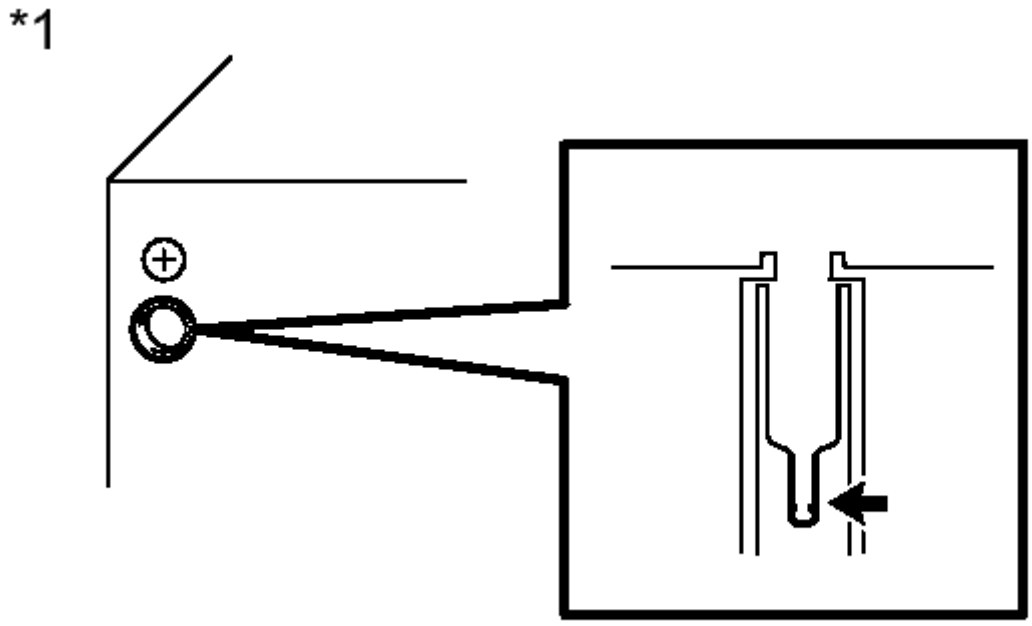


Fig. 48: Identifying Antenna Plug Of The Radio Receiver Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

b. Turn the ignition switch to ACC with the radio receiver assembly connector connected.
c. Turn on the radio and select the AM mode.
d. Place the tip of a screwdriver or a piece of metal, such as a thin wire, on the antenna jack of the radio receiver assembly. Check that noise is heard from the speakers.

   OK

   Noise occurs.

TEXT IN ILLUSTRATION

*1	Component without harness connected (Radio Receiver Assembly)

e. Reconnect the antenna plug of the radio receiver assembly.

NG --> See step 16

OK: Go to next step

4. **SYSTEM CHECK**
   a. Check the vehicle specifications.

RESULT

Result	Proceed to
Pole Antenna Type	A
Glass Antenna Type	B

B --> See step 8

A: Go to next step

5. **CHECK ANTENNA CORD SUB-ASSEMBLY**
   a. Disconnect the fender antenna assembly connector.

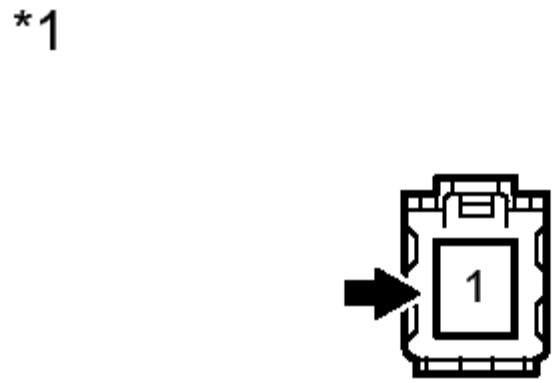


Fig. 49: Checking Antenna Cord Sub-Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

   b. With the ignition switch to ON, turn on the radio and select the AM mode.
   c. Place the tip of a screwdriver against the metal terminal of the antenna cord sub-assembly and check that noise is heard from the speakers.

OK

Noise occurs.

TEXT IN ILLUSTRATION

*1	Front view of wire harness connector (to Fender Antenna Assembly)

d. Reconnect the fender antenna assembly connector.

NG --> See step 17

OK: Go to next step

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

      OK

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

   NG --> CHECK AND REPLACE PULL TOP ANTENNA POLE SUB-ASSEMBLY

   OK: Go to next step

7. **REPLACE FENDER ANTENNA ASSEMBLY**
   a. Replace the fender antenna assembly and check if radio broadcasts can be received normally. Refer to **REMOVAL** .

      OK

      Radio broadcast can be received.

   NG --> See step 16

   OK --> END

8. **CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - AMPLIFIER ANTENNA)**
   a. Disconnect the D133 radio receiver assembly connector.

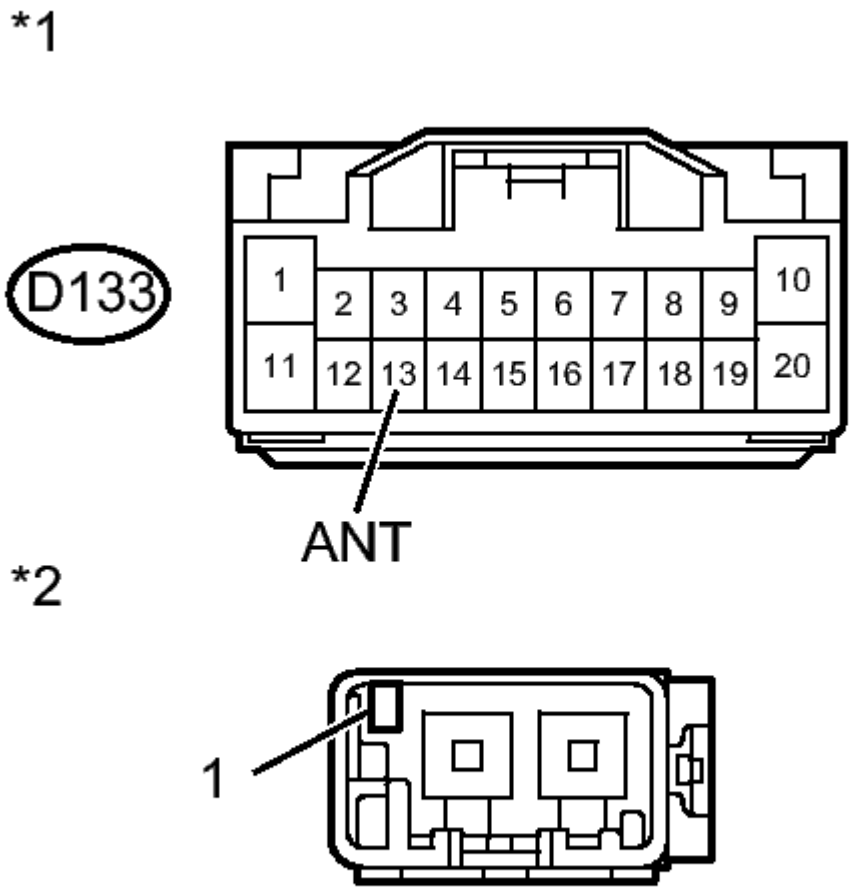


Fig. 50: Radio Receiver Assembly Connector End View
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

b. Disconnect the amplifier antenna assembly connector.
c. Measure the resistance according to the value(s) in the table below.

Standard Resistance

Tester Connection	Condition	Specified Condition
D133-13 (ANT) - 1	Always	Below 1 ohms
D133-13 (ANT) - Body	Always	10 kohms or higher

ground		

TEXT IN ILLUSTRATION

*1	Front view of wire harness connector (to Radio Receiver Assembly)
*2	Front view of No. 2 antenna cord sub-assembly connector (to Amplifier Antenna Assembly)

NG --> See step 13

OK: Go to next step

9. **INSPECT RADIO RECEIVER ASSEMBLY**
   a. Reconnect the D133 radio receiver assembly connector.

*1

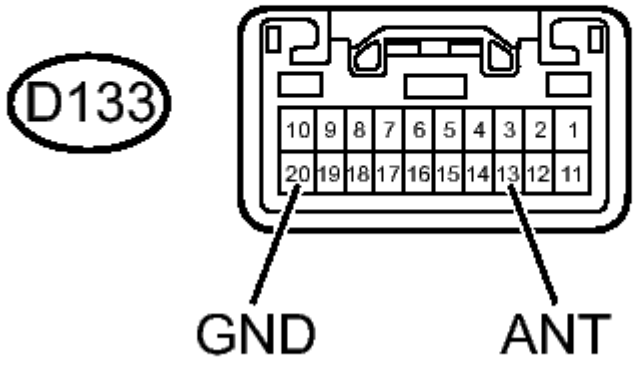


Fig. 51: Measuring Voltage Of Radio Receiver Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

Standard Voltage

Tester Connection	Condition	Specified Condition
D133-13 (ANT) - D133-20 (GND)	During radio (AM) reception	11 to 14 V

TEXT IN ILLUSTRATION

*1	Component with harness connected (Radio Receiver Assembly)

NG --> See step 16

OK: Go to next step

10. **CHECK ANTENNA CORD SUB-ASSEMBLY AND NO. 2 ANTENNA CORD SUB-ASSEMBLY**

a. Disconnect the amplifier antenna assembly connector.

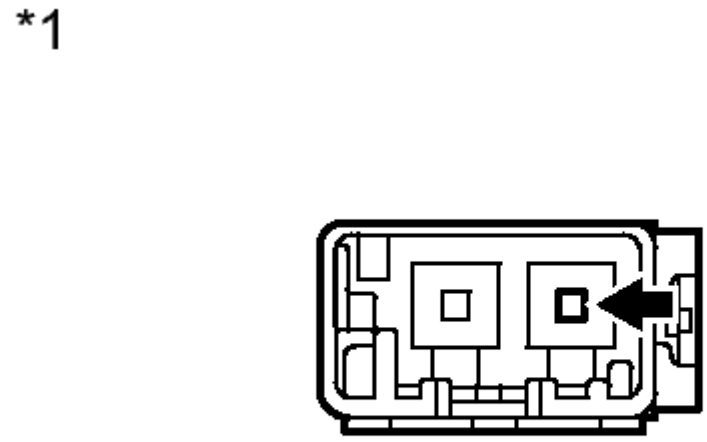


Fig. 52: Checking Amplifier Antenna Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

b. With the ignition switch to ON, turn on the radio and select the AM mode.

c. Place the tip of a screwdriver against the metal terminal of the No. 2 antenna cord sub-assembly and check that noise is heard from the speakers.

OK

Noise occurs.

TEXT IN ILLUSTRATION

*1	Front view of No. 2 antenna cord sub-assembly connector (to Amplifier Antenna Assembly)

d. Reconnect the amplifier antenna assembly connector.

NG --> See step 15

OK: Go to next step

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

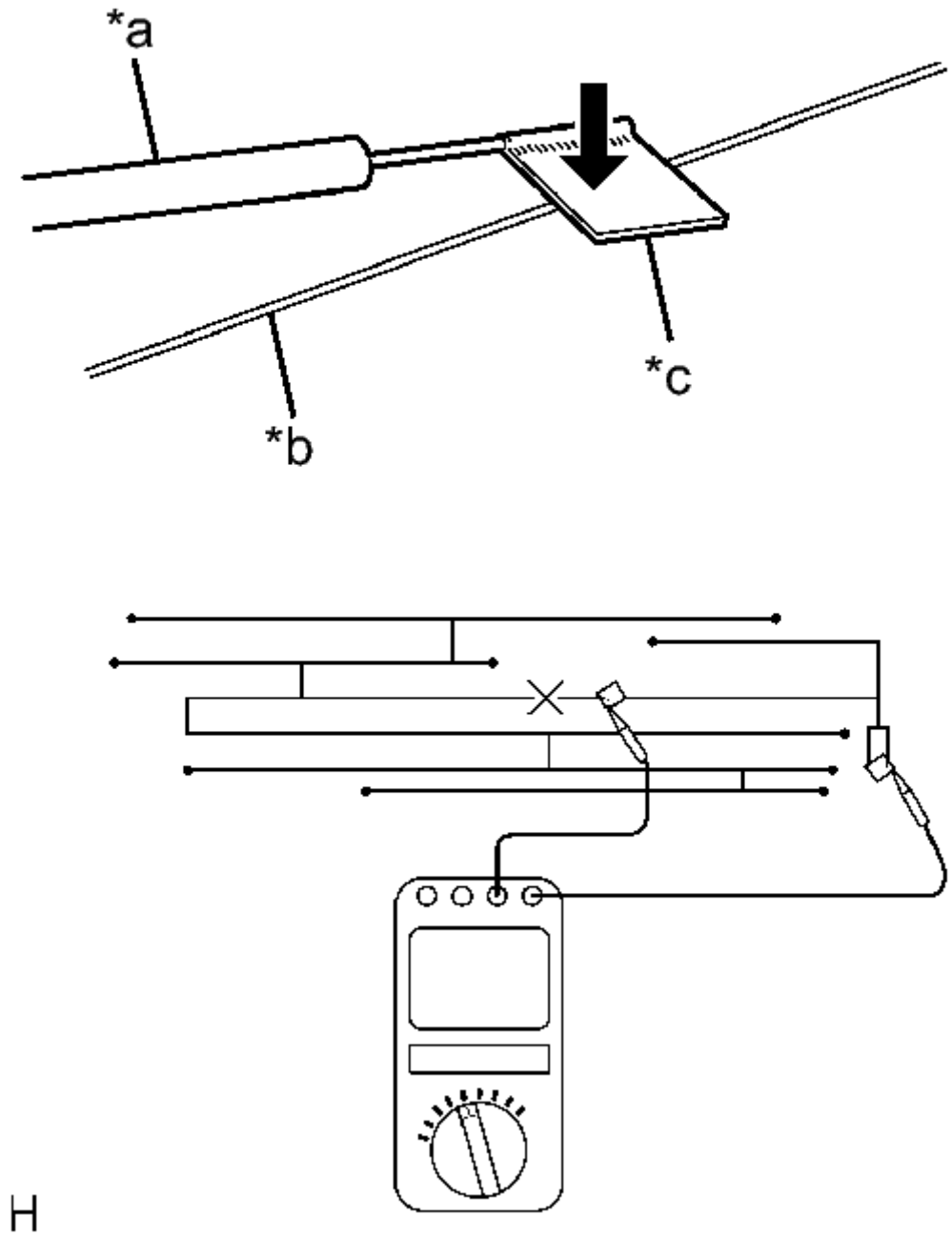


Fig. 53: Checking For Continuity Of Each Antenna Wire
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

HINT:

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

NOTE:

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

OK

There is continuity in the antenna.

TEXT IN ILLUSTRATION

*a	Tester Probe
*b	Antenna Wire
*c	Aluminum Foil

NG --> REPAIR GLASS ANTENNA

OK: Go to next step

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

    OK

    Radio broadcasts can be received.

NG --> See step 16

OK --> END

13. **CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - NO. 2 ANTENNA CORD)**
    a. Disconnect the D133 radio receiver assembly connector.

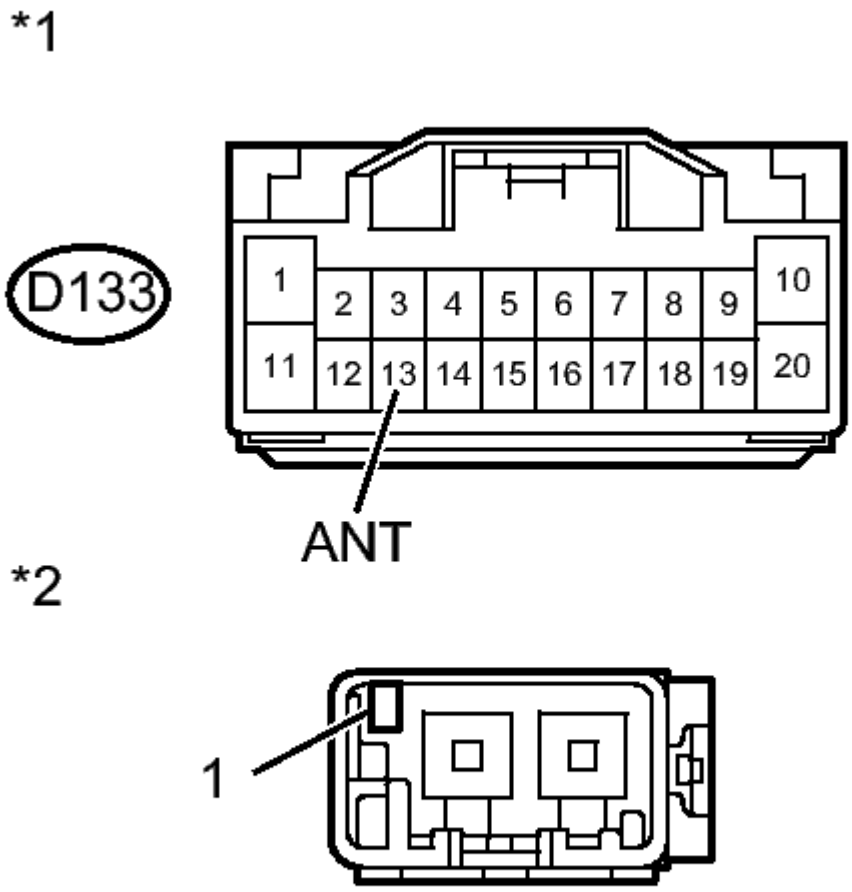


Fig. 54: Radio Receiver Assembly Connector End View
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

b. Disconnect the No. 2 antenna cord sub-assembly (antenna cord sub-assembly side) connector.
c. Measure the resistance according to the value(s) in the table below.

Standard Resistance

Tester Connection	Condition	Specified Condition
D133-13 (ANT) - 1	Always	Below 1 ohms
D133-13 (ANT) - Body	Always	10 kohms or higher

ground		

TEXT IN ILLUSTRATION

*1	Front view of wire harness connector (to Radio Receiver Assembly)
*2	Front view of antenna cord sub-assembly connector (to No. 2 Antenna Cord Sub-Assembly)

NG --> See step 14

OK --> See step 18

14. **CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - ANTENNA CORD)**
    a. Disconnect the D133 radio receiver assembly connector.

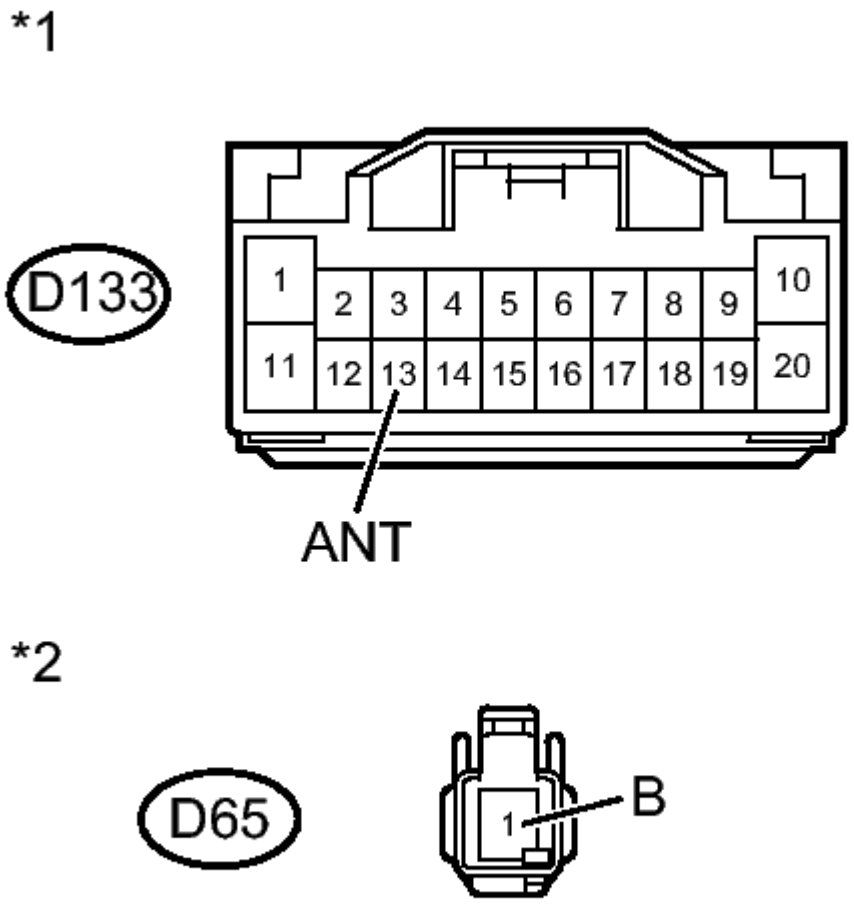


Fig. 55: Measuring Resistance Of Radio Receiver & Antenna Cord
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

b. Disconnect the D65 antenna cord sub-assembly connector.
c. Measure the resistance according to the value(s) in the table below.

Standard Resistance

Tester Connection	Condition	Specified Condition
D133-13 (ANT) - D65-1 (B)	Always	Below 1 ohms
D133-13 (ANT) -	Always	10 kohms

Body ground		or higher

TEXT IN ILLUSTRATION

*1	Front view of wire harness connector (to Radio Receiver Assembly)
*2	Front view of wire harness connector (to Antenna Cord Sub-Assembly)

NG --> REPAIR OR REPLACE HARNESS AND CONNECTOR

OK --> See step 17

15. **CHECK ANTENNA CORD SUB-ASSEMBLY**
    a. Disconnect the No. 2 antenna cord sub-assembly (antenna cord sub-assembly side) connector.

*1

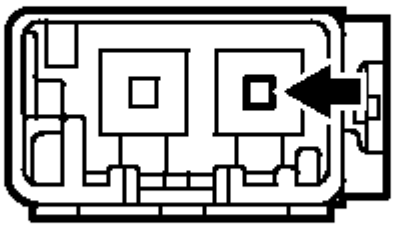


Fig. 56: Checking Amplifier Antenna Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

b. With the ignition switch to ON, turn on the radio and select the AM mode.
c. Place the tip of a screwdriver against the metal terminal of the antenna cord sub-assembly and check that noise is heard from the speakers.

OK

Noise occurs.

TEXT IN ILLUSTRATION

*1	Front view of antenna cord sub-assembly connector (to No. 2 Antenna Cord Sub-Assembly)

NG --> See step 17

OK --> See step 18

16. **REPLACE RADIO RECEIVER ASSEMBLY. Refer to REMOVAL**
17. **REPLACE ANTENNA CORD SUB-ASSEMBLY. Refer to REMOVAL**
18. **REPLACE NO. 2 ANTENNA CORD SUB-ASSEMBLY. Refer to REMOVAL**

Poor Sound Quality in All Modes (Low Volume)

INSPECTION PROCEDURE

PROCEDURE

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

      OK

      Malfunction disappears.

      HINT:

      The "BASS", "MID" and "TREB" setting are independent for each mode (e.g., radio, CD, etc.)

   NG --> See step 2

   OK --> END

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

      OK

      No difference is found.

   NG --> See step 3

   OK --> END

3. **PROCEED TO NEXT SUSPECTED AREA SHOWN IN PROBLEM SYMPTOMS TABLE. Refer to PROBLEM SYMPTOMS TABLE**

Cellular Phone Registration Failure, Phone Directory Transfer Failure

INSPECTION PROCEDURE

PROCEDURE

1. **CHECK CURRENT CONDITIONS**

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

RESULT

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

B --> See step 3

C --> See step 4

A: Go to next step

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

      HINT:

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

      OK

      The system functions.

   NG --> See step 6

   OK --> USE A "BLUETOOTH" COMPATIBLE CELLULAR PHONE

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

      HINT:

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

OK

The system functions.

NG --> USE A "BLUETOOTH" COMPATIBLE CELLULAR PHONE

OK --> See step 7

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

      HINT:

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

      OK

      Phone is "Bluetooth" compatible.

   NG --> USE A "BLUETOOTH" COMPATIBLE CELLULAR PHONE

   OK: Go to next step

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

      OK

      A call can be made from the cellular phone.

      HINT:

      - Make sure the "Bluetooth" function is on.
      - Make sure the handsfree function is selected when profiles can be selected.

   NG --> CELLULAR PHONE IS FAULTY

   OK --> See step 8

6. **REPLACE RADIO RECEIVER ASSEMBLY. Refer to REMOVAL**
7. **REPLACE RADIO RECEIVER ASSEMBLY. Refer to REMOVAL**
8. **REPLACE RADIO RECEIVER ASSEMBLY. Refer to REMOVAL**

Cellular Phone cannot Send/Receive

INSPECTION PROCEDURE

PROCEDURE

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

      OK

      "Bluetooth" settings are correct.

   NG --> SET SETTINGS CORRECTLY

   OK: Go to next step

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

      HINT:

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

      OK

      Phone is "Bluetooth" compatible.

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

   OK: Go to next step

3. **CHECK SETTINGS**

   HINT:

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

   - The cellular phone is locked.
   - The directory is being transferred.
   - There is a network error.
   - Transmission is regulated.
   - The power is off.
   - The cellular phone is not connected to "Bluetooth" ("BT" is displayed while connected).

   a. Check that the cellular phone settings are set correctly.

      OK

Cellular phone settings are set correctly.

NG --> SET SETTINGS CORRECTLY

OK: Go to next step

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

      OK

      Cellular phone can make a call.

   NG --> CELLULAR PHONE IS FAULTY

   OK: Go to next step

5. **CHECK RECEPTION**
   a. Set the cellular phone so that it can receive calls.
   b. Place the cellular phone close to the radio receiver assembly.
   c. Check the radio receiver assembly to confirm that a "Bluetooth" connection exists between the radio receiver assembly and phone.

      OK

      Cellular phone has reception.

   NG --> See step 7

   OK --> See step 6

6. **PROCEED TO NEXT SUSPECTED AREA SHOWN IN PROBLEM SYMPTOMS TABLE. Refer to PROBLEM SYMPTOMS TABLE**
7. **REPLACE RADIO RECEIVER ASSEMBLY. Refer to REMOVAL**

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

INSPECTION PROCEDURE

PROCEDURE

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

      OK

Voice can be heard.

NG --> CELLULAR PHONE IS FAULTY

OK: Go to next step

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

      OK

      Audio sound can be heard.

      HINT:

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

NG --> See step 4

OK: Go to next step

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

      OK

      The received voice level setting is not too low.

NG --> TURN VOLUME UP

OK --> See step 4

4. **PROCEED TO NEXT SUSPECTED AREA SHOWN IN PROBLEM SYMPTOMS TABLE. Refer to PROBLEM SYMPTOMS TABLE**

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

INSPECTION PROCEDURE

PROCEDURE

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

      OK

Your voice can be heard correctly.

NG --> CELLULAR PHONE IS FAULTY

OK: Go to next step

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

      OK

      Mute is not set to ON.

   NG --> TURN MUTE OFF

   OK --> See step 3

3. **PROCEED TO NEXT SUSPECTED AREA SHOWN IN PROBLEM SYMPTOMS TABLE. Refer to PROBLEM SYMPTOMS TABLE**

Sound of Portable Player cannot be Heard from Speakers or Sound is Low

INSPECTION PROCEDURE

PROCEDURE

1. **CHECK PORTABLE PLAYER SETTINGS**
   a. Check the portable player settings.
      1. Check that the volume is not set to "0".
      2. Check that mute is off.
   b. Check that the sound of the portable player can be heard from the speakers.

      OK

      Sound of the portable player can be heard from the speakers.

      HINT:

      If the portable player volume can be adjusted, adjust the volume.

   NG --> See step 2

   OK --> END

2. **CHECK AUDIO SETTINGS**
   a. Check the audio settings.

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

b. Check that the sound of the portable player can be heard from the speakers.

OK

Sound of the portable player can be heard from the speakers.

NG --> See step 3

OK --> END

3. **CHECK USING ANOTHER "BLUETOOTH" AUDIO COMPATIBLE VEHICLE OF SAME MODEL**

a. Check that the sound of the portable player can be heard from the speakers on another "Bluetooth" audio compatible vehicle of the same model.

OK

Sound of the portable player can be heard from the speakers.

NG --> MALFUNCTION IN PORTABLE PLAYER

OK --> See step 4

4. **PROCEED TO NEXT SUSPECTED AREA SHOWN IN PROBLEM SYMPTOMS TABLE. Refer to PROBLEM SYMPTOMS TABLE**

Does not Play even after Bluetooth Audio Mode is Selected

INSPECTION PROCEDURE

HINT:

Even if the portable player can play audio content, it may not be able to play via the in-vehicle device. This does not necessarily indicate a malfunction of the in-vehicle device.

PROCEDURE

1. **CHECK OPERATION**

a. Check if the portable player operates normally.

OK

The portable player operates normally.

NG --> MALFUNCTION IN PORTABLE PLAYER

OK: Go to next step

2. **CHECK AUDIO SETTINGS**
   a. Check the radio receiver setting.
      1. Check that the volume is not set to "0".
      2. Check that "mute" is off.

         OK

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

   NG --> SET VOLUME TO HIGH AND TURN MUTE OFF SETTINGS

   OK: Go to next step

3. **CHECK USING ANOTHER "BLUETOOTH" AUDIO COMPATIBLE VEHICLE OF SAME MODEL**
   a. Check if the portable player plays normally on another "Bluetooth" audio compatible vehicle of the same model.

      OK

      The portable player operates normally.

   NG --> MALFUNCTION IN PORTABLE PLAYER

   OK --> See step 4

4. **PROCEED TO NEXT SUSPECTED AREA SHOWN IN PROBLEM SYMPTOMS TABLE. Refer to PROBLEM SYMPTOMS TABLE**

Portable Player cannot be Operated Using In-vehicle Device or Track Information is not Displayed on In-vehicle Device

INSPECTION PROCEDURE

PROCEDURE

1. **CHECK USING ANOTHER "BLUETOOTH" AUDIO COMPATIBLE VEHICLE OF SAME MODEL**
   a. Check if track information is displayed normally on another "Bluetooth" audio compatible vehicle of the same model.

      OK

      Track information is displayed normally.

HINT:

- Some versions of portable players may not be able to operate using the "Bluetooth" function, or music may play, but functions available using the radio receiver assembly may be limited.
- For details of "Bluetooth" audio functions, refer to the Owner's Manual.

NG --> PORTABLE PLAYER IS NOT COMPATIBLE

OK --> See step 2

2. **PROCEED TO NEXT SUSPECTED AREA SHOWN IN PROBLEM SYMPTOMS TABLE. Refer to PROBLEM SYMPTOMS TABLE**

Noise Occurs or Sound Skips when Portable Player Plays

INSPECTION PROCEDURE

HINT:

- Perform this check with the portable player volume set at an appropriate level.
- Make sure there are no obstructions between the portable player and radio receiver assembly that may block signals, and that the portable player and radio receiver assembly are not excessively far apart.
- Make sure devices other than the radio receiver assembly are not connected to the portable player.
- Make sure there is no interference from a wireless LAN, etc.

PROCEDURE

1. **CHECK USING ANOTHER "BLUETOOTH" AUDIO COMPATIBLE VEHICLE OF SAME MODEL**
   a. Check that the same problem does not occur in the sound heard from the speakers on another "Bluetooth" audio compatible vehicle of the same model.

      OK

      The same problem does not occur in the sound heard from the speakers.

   NG --> MALFUNCTION IN PORTABLE PLAYER

   OK: Go to next step

2. **REMOVE ADDITIONAL DEVICES WHICH USE RADIO WAVES**
   a. Remove additional devices which use radio waves.
   b. Play the portable player and check that the same problem does not occur in the sound heard from the speakers.

      OK

The same problem does not occur in the sound heard from the speakers.

NG --> See step 3

OK --> END

3. **PROCEED TO NEXT SUSPECTED AREA SHOWN IN PROBLEM SYMPTOMS TABLE. Refer to PROBLEM SYMPTOMS TABLE**

Portable Player cannot be Connected Manually/Automatically

INSPECTION PROCEDURE

HINT:

- Some versions of "Bluetooth" compatible audio players may not function, or the function using the radio receiver assembly may be limited even if the portable audio player itself can play files.
- Refer to the Owner's Manual for the operating procedure.

PROCEDURE

1. **CHECK CONNECTED DEVICE SETTINGS**
   a. Check if the portable player is registered as a connected device.

NOTE: **If a cellular phone is used as a portable player, it must be registered independently from the registration that is performed for the handsfree system.**

RESULT

Result	Proceed to
The portable player is registered as a connected device.	A
The portable player is not registered as a connected device.	B

B --> REGISTER PORTABLE PLAYER AS CONNECTED DEVICE

A: Go to next step

2. **CHECK SYMPTOMS**
   a. Check the connection condition between the portable player and radio receiver assembly.

      HINT:

      The portable player cannot be connected under any of the following conditions:

      - The portable player is connected to another device.
      - The portable player is connected to the radio receiver assembly using the handsfree function.
      - The radio receiver assembly has cleared the portable player registration.
      - The portable player is off.

      RESULT

Result	Proceed to
The portable player cannot connect automatically.	A
The portable player cannot be connected manually.	B

B --> See step 4

A: Go to next step

3. **CHECK AUTOMATIC CONNECTION SETTINGS**
   a. Check the automatic connection settings of the "Bluetooth" audio.
      1. Turn the ignition switch off.
      2. Turn the ignition switch to ACC or ON.

         OK

         The portable player is automatically recognized by the radio receiver assembly.

NG --> CHANGE SETTING TO ALLOW PORTABLE PLAYER TO BE RECOGNIZED BY RADIO RECEIVER

OK: Go to next step

4. **CHECK PORTABLE PLAYER STATUS**
    a. Check the status of the portable player.

        OK

        The portable player is in standby mode or connected to another device (headphones etc.).

    NG --> SET PORTABLE PLAYER TO STANDBY MODE AND DISCONNECT OTHER DEVICES (HEADPHONES, etc.)

    OK: Go to next step

5. **CHECK USING ANOTHER "BLUETOOTH" AUDIO COMPATIBLE VEHICLE OF SAME MODEL**
    a. Check if the portable player can be connected manually/automatically on another "Bluetooth" audio compatible vehicle of the same model.

        OK

        The portable player can be connected manually/automatically.

    NG --> PORTABLE PLAYER IS NOT COMPATIBLE

    OK: Go to next step

6. **REMOVE ADDITIONAL DEVICES WHICH USE RADIO WAVES**
    a. Remove additional devices which use radio waves.
    b. Check if the portable player can be connected manually/automatically.

        OK

        The portable player can be connected manually/automatically.

    NG --> See step 7

    OK --> END

7. **PROCEED TO NEXT SUSPECTED AREA SHOWN IN PROBLEM SYMPTOMS TABLE. Refer to PROBLEM SYMPTOMS TABLE**

Registered Device cannot be Deleted

INSPECTION PROCEDURE

PROCEDURE

1. **DELETE OPERATION**
    a. Check if a registered portable player can be deleted normally.

        OK

        Registered portable player can be deleted normally.

    NG --> See step 2

    OK --> END

2. **PROCEED TO NEXT SUSPECTED AREA SHOWN IN PROBLEM SYMPTOMS TABLE. Refer to PROBLEM SYMPTOMS TABLE**

Portable Player cannot be Registered

INSPECTION PROCEDURE

HINT:

Some versions of portable players may not function, or the function may be limited using the radio receiver assembly, even if the portable audio player itself can play files.

PROCEDURE

1. **CHECK THAT PORTABLE PLAYER IS "BLUETOOTH" AUDIO COMPATIBLE**
    a. Check if the portable player is "Bluetooth" audio compatible.

    RESULT

Result	Proceed to
The portable player is "Bluetooth" audio compatible.	A
The portable player is not "Bluetooth" audio compatible.	B

    B --> USE A "BLUETOOTH" AUDIO COMPATIBLE PORTABLE PLAYER

A: Go to next step

2. **CHECK CONNECTION PROCEDURE OF CONNECTED DEVICE**
   a. Referring to the Owner's Manual, correctly register the portable player.
   b. Check that the portable player can be registered as a connected device.

      HINT:

      The portable player cannot be registered under any of the following conditions:

      - The A2DP (Advanced Audio Distribution Profile) is not used when registering a cellular phone.
      - The number of portable players registered in the radio receiver has reached the maximum.
      - A different radio receiver registration remains in the portable player.
      - The portable player is off.

      OK

      The portable player can be registered as a connected device.

   NG --> See step 3

   OK --> END

3. **CHECK USING ANOTHER "BLUETOOTH" AUDIO COMPATIBLE VEHICLE OF SAME MODEL**
   a. Check if the portable player can be registered normally on another "Bluetooth" audio compatible vehicle of the same model.

      OK

      The portable player can be registered.

   NG --> MALFUNCTION IN PORTABLE PLAYER

   OK: Go to next step

4. **REMOVE ADDITIONAL DEVICES WHICH USE RADIO WAVES**
   a. Remove additional devices which use radio waves.
   b. Check that the portable player can be registered as a connected device.

      OK

      The portable player can be registered.

NG --> See step 5

OK --> END

5. **PROCEED TO NEXT SUSPECTED AREA SHOWN IN PROBLEM SYMPTOMS TABLE. Refer to PROBLEM SYMPTOMS TABLE**

USB Audio System Recognition/Play Error

INSPECTION PROCEDURE

- When a large amount of data is in a USB device, it may take a while to begin playing.
- When using a USB device, files that are protected by content protection cannot be played.
- When files are not played in the sorted order, perform the following procedure before inspection.
  a. Add numbers in front of the file names.
  b. Put the files in a folder and copy the folder data to the USB device.

PROCEDURE

1. **CHECK USB DEVICE OR "iPod"**
   a. Disconnect the USB device or "iPod" from the No. 1 stereo jack adapter assembly.
   b. Check if playable files are present on the USB device or "iPod".

      HINT:

      Refer to System Description for playable files. Refer to **SYSTEM DESCRIPTION** .

   c. Check if the USB device is a compatible format or "iPod" is a compatible version.

      HINT:

      Refer to System Description for compatible formats and versions.

      RESULT

Result	Proceed to
No playable files exist, or incompatible device format or version	A
Playable files exist, and compatible	B

device format or version	

B --> See step 2

A --> USB DEVICE FORMAT WAS INCOMPATIBLE, "iPod" VERSION WAS INCOMPATIBLE, OR NO PLAYABLE FILES PRESENT

2. **FORMAT USB DEVICE OR RESTORE "iPod" AND RECHECK**
   a. Delete all files in the USB device or "iPod" and format/restore it.
   b. Save the data again and check if it can be played on the in-vehicle device.

NOTE: **Formatting a USB device or restoring an "iPod" erases all music on the device.**

Ensure that backup music data is available before performing this operation.

OK

Malfunction disappears.

NG --> See step 3

OK --> END

3. **REPLACE USB DEVICE OR "iPod"**
   a. Turn the ignition switch off.
   b. Turn the ignition switch to ACC.
   c. Connect a known good USB device or "iPod" to the No. 1 stereo jack adapter assembly.

HINT:

- If the malfunction occurred when a USB device was in use, use another USB device for the inspection. If the malfunction occurred when an "iPod" was in use, use another "iPod" for the inspection.
- Refer to System Description for compatible formats and versions. Refer to **SYSTEM DESCRIPTION** .

NEXT: Go to next step

4. **CHECK USB DEVICE OR "iPod"**
   a. Check if USB device or "iPod" is recognized by radio receiver assembly, or if information such as track, artist and album names are displayed on screen.

OK

USB device or "iPod" is recognized or track information such as track, artist and album names are displayed.

NG --> See step 5

OK --> USB DEVICE OR "iPod" WAS INCOMPATIBLE OR DEFECTIVE

5. **PROCEED TO NEXT SUSPECTED AREA SHOWN IN PROBLEM SYMPTOMS TABLE. Refer to PROBLEM SYMPTOMS TABLE**

CIRCUIT TESTS

Vehicle Speed Signal Circuit between Radio Receiver and Combination Meter

DESCRIPTION

Audio function:

This circuit is necessary for the automatic sound levelizer (ASL) built into the radio receiver assembly.

ASL function:

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

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

HINT:

- A voltage of 12 V or 5 V is output from each ECU connected to the combination meter assembly, and then input to the combination meter assembly. The signal is changed to a pulse signal at the transistor in the combination meter assembly. Each ECU controls its respective systems based on the pulse signal.
- If a short occurs in any of the ECUs or in the wire harness connected to an ECU, related components will not operate normally.

WIRING DIAGRAM

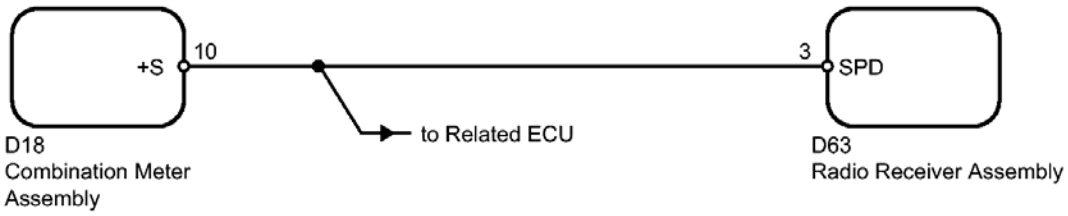


Fig. 57: Radio Reciever Assembly Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

PROCEDURE

1. **CHECK OPERATION OF SPEEDOMETER**
   a. Drive the vehicle and check if the function of the speedometer on the combination meter assembly is normal.

      OK

      Actual vehicle speed and the speed indicated on the speedometer are the same.

      HINT:

      - The vehicle speed sensor is functioning normally when the indication on the speedometer is normal.
      - The speed indicated on the speedometer has an allowable margin of error. This can be tested using a speedometer tester (calibrated chassis dynamometer). For details about testing and the margin of error, refer to "ON-VEHICLE INSPECTION" in the meter/gauge system. Refer to **ON-VEHICLE INSPECTION** .

   NG --> See step 4

   OK: Go to next step

2. **CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - COMBINATION METER)**
   a. Disconnect the D63 radio receiver assembly connector.
   b. Disconnect the D18 combination meter assembly connector.
   c. Measure the resistance according to the value(s) in the table below.

      Standard Resistance

Tester Connection	Condition	Specified Condition
D63-3 (SPD) - D18-10 (+S)	Always	Below 1 ohms
D63-3 (SPD) - Body ground	Always	10 kohms or higher

NG --> REPAIR OR REPLACE HARNESS OR CONNECTOR

OK: Go to next step

3. **INSPECT COMBINATION METER ASSEMBLY (SPEED SIGNAL)**
   a. Check the input waveform.

*1

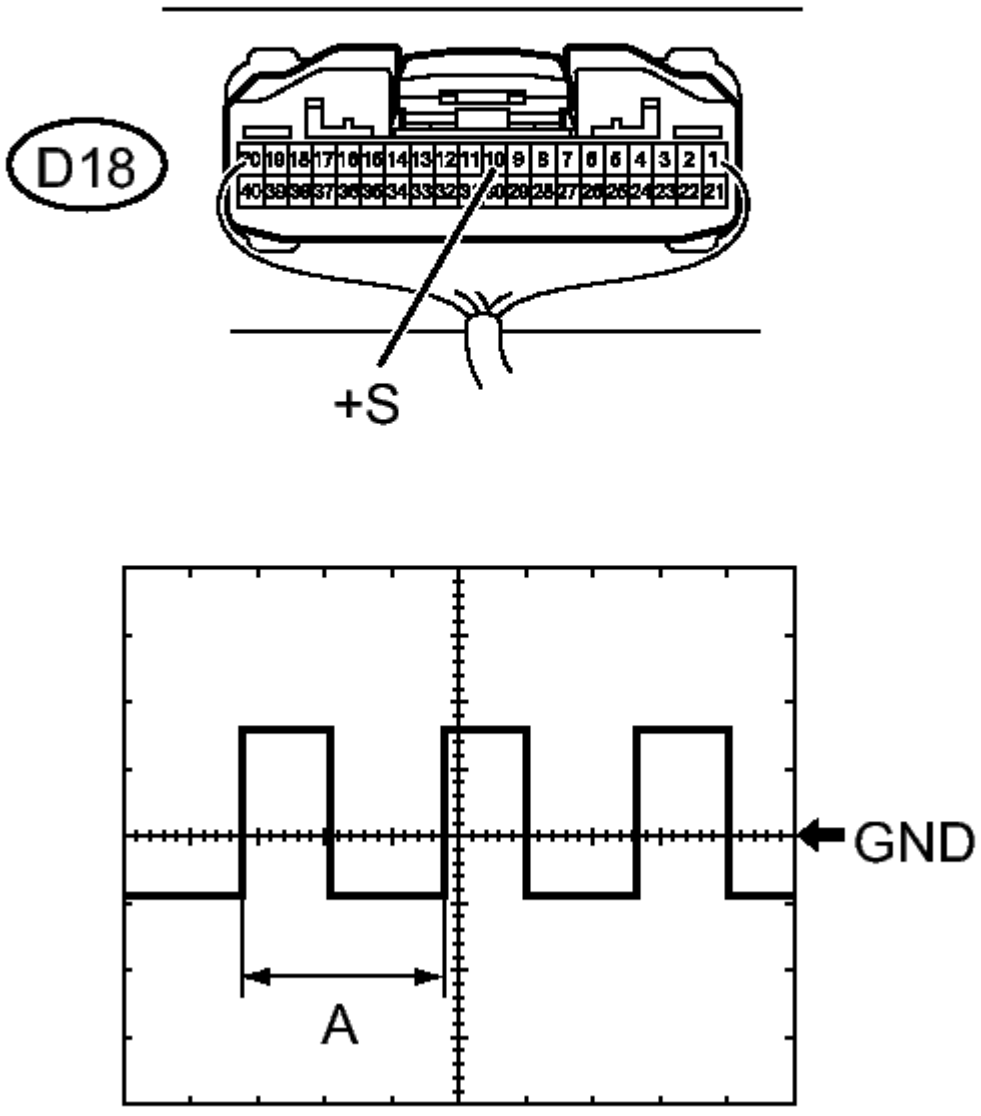


Fig. 58: Inspecting Combination Meter Assembly (Speed Signal) With Input Waveform
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

1. Remove the combination meter assembly with the connector(s) still connected.
2. Connect an oscilloscope to terminal D18-10 (+S) and body ground.

3. Turn the ignition switch to ON.
4. Check the signal waveform according to the condition(s) in the table below.

MEASUREMENT CONDITION

Item	Condition
Terminal No. (Symbol)	D18-10 (+S) - Body ground
Tool setting	5 V/DIV., 20 ms./DIV.
Condition	Being driven at approx, 20 km/h (12 mph)

OK

The waveform displayed is as shown in the illustration.

TEXT IN ILLUSTRATION

*1	Component with harness connected (Combination Meter Assembly)

HINT:

When the system is function normally, one wheel revolution generates 4 pulses.

As the vehicle speed increases, the width indicated by (A) in the illustration narrows.

NG --> See step 6

OK --> See step 5

4. **GO TO METER / GAUGE SYSTEM. Refer to HOW TO PROCEED WITH TROUBLESHOOTING**
5. **REPLACE RADIO RECEIVER ASSEMBLY. Refer to REMOVAL**
6. **REPLACE COMBINATION METER ASSEMBLY. Refer to REMOVAL**

Steering Pad Switch Circuit

DESCRIPTION

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

If there is an open in the circuit, the audio system cannot be operated using the steering pad switch assembly.

If there is a short in the circuit, the same condition as when the switch is continuously depressed occurs.

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

WIRING DIAGRAM

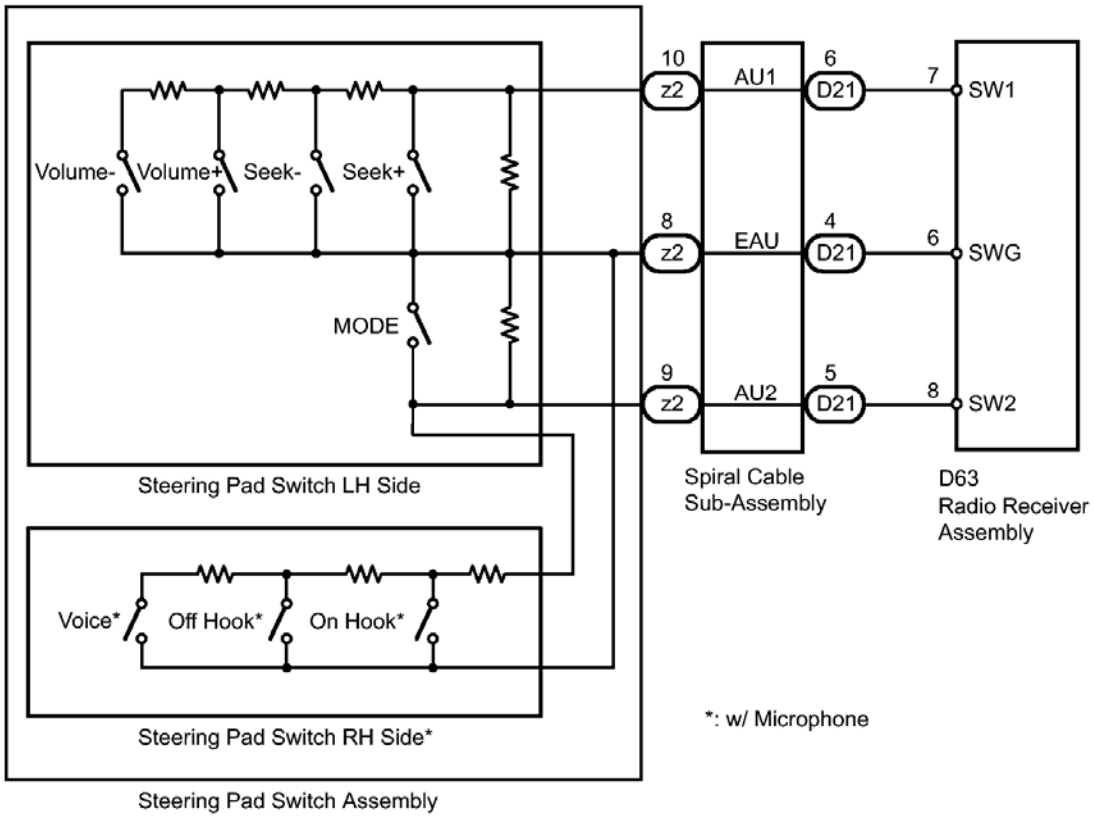


Fig. 59: Steering Pad Switch Circuit Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

WARNING: The vehicle is equipped with an SRS (Supplemental Restraint System) which includes components such as airbags. Before servicing (including

removal or installation of parts), be sure to read the Precaution in the SRS. Refer to PRECAUTION .

PROCEDURE

1. **INSPECT STEERING PAD SWITCH ASSEMBLY**
   a. Remove the steering pad switch assembly. Refer to **REMOVAL** .

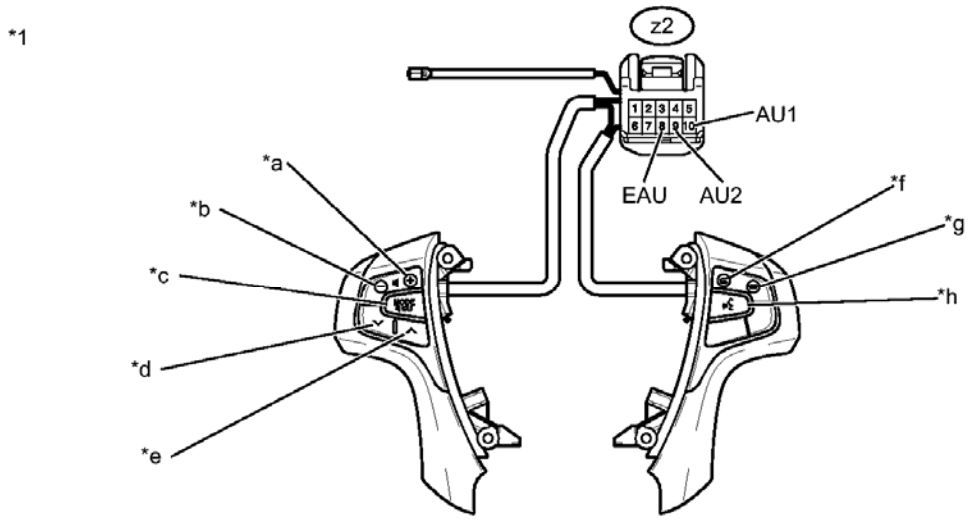


Fig. 60: Inspecting Steering Pad Switch Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

TEXT IN ILLUSTRATION

*1	Component without harness connected (Steering Pad Switch Assembly)	-	-
*a	Volume+ Switch	*b	Volume- Switch
*c	MODE Switch	*d	Seek- Switch
*e	Seek+ Switch	*f	Off Hook Switch
*g	On Hook Switch	*h	Voice Switch

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

Standard Resistance

Tester Connection	Switch Condition	Specified Condition
z2-10 (AU1) - z2-8 (EAU)	No switch is pushed	95 to 105 kohms
	Seek+ switch is pushed	Below 2.5 ohms
	Seek- switch is pushed	313 to 345 ohms
	Volume+ switch is pushed	950 to 1050 ohms
	Volume- switch is pushed	2955 to 3265 ohms
z2-9 (AU2) - z2-8 (EAU)	No switch is pushed	95 to 105 kohms
	MODE switch is pushed	Below 2.5 ohms
	On Hook switch is pushed	313 to 345 ohms
	Off Hook switch is pushed	950 to 1050 ohms
	Voice switch is pushed	2955 to 3265 ohms

NG --> See step 5

OK: Go to next step

2. **INSPECT SPIRAL CABLE SUB-ASSEMBLY**
   a. Remove the spiral cable sub-assembly. Refer to **REMOVAL** .

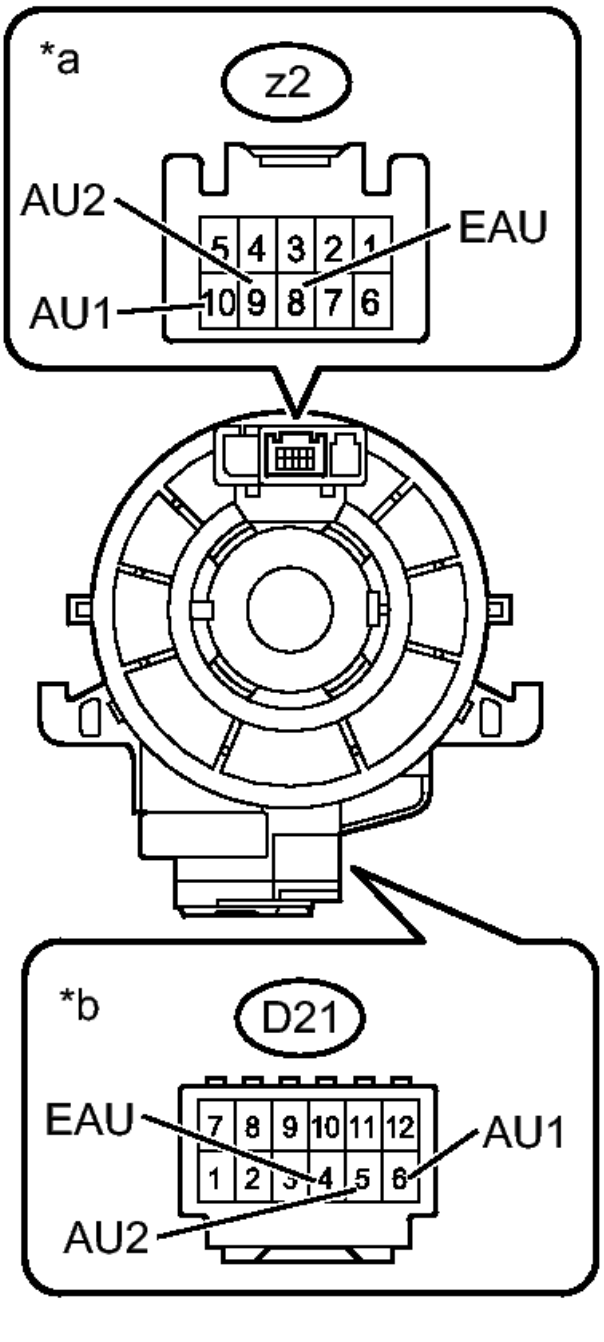


Fig. 61: Inspecting Spiral Cable Sub-Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

Standard Resistance

Tester Connection	Condition	Specified Condition
z2-8 (EAU) - D21-4 (EAU)	Spiral cable is turned 2.5 rotations counterclockwise	Below 1 ohms
	Spiral cable is centered	
	Spiral cable is turned 2.5 rotations clockwise	
z2-10 (AU1) - D21-6 (AU1)	Spiral cable is turned 2.5 rotations counterclockwise	
	Spiral cable is centered	
	Spiral cable is turned 2.5 rotations clockwise	
z2-9 (AU2) - D21-5 (AU2)	Spiral cable is turned 2.5 rotations counterclockwise	
	Spiral cable is centered	
	Spiral cable is turned 2.5 rotations clockwise	

TEXT IN ILLUSTRATION

*1	Component without harness connected (Spiral Cable Sub-Assembly)
*a	Steering Pad Switch Assembly

	Side
*b	Vehicle Wire Harness Side

WARNING: The spiral cable is an important part of the SRS airbag system. Incorrect removal or installation of the spiral cable may prevent the airbag from deploying. Be sure to read the Precaution in the SRS. Refer to PRECAUTION .

NG --> See step 4

OK: Go to next step

3. **CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - SPIRAL CABLE)**
   a. Disconnect the D63 radio receiver assembly connector.
   b. Disconnect the D21 spiral cable sub-assembly connector.
   c. Measure the resistance according to the value(s) in the table below.

   Standard Resistance

Tester Connection	Condition	Specified Condition
D63-7 (SW1) - D21-6 (AU1)	Always	Below 1 ohms
D63-8 (SW2) - D21-5 (AU2)	Always	Below 1 ohms
D63-6 (SWG) - D21-4 (EAU)	Always	Below 1 ohms
D63-7 (SW1) - Body ground	Always	10 kohms or higher
D63-8 (SW2) - Body ground	Always	10 kohms or higher
D63-6		

(SWG) - Body ground	Always	10 kohms or higher

NG --> REPAIR OR REPLACE HARNESS OR CONNECTOR

OK --> See step 6

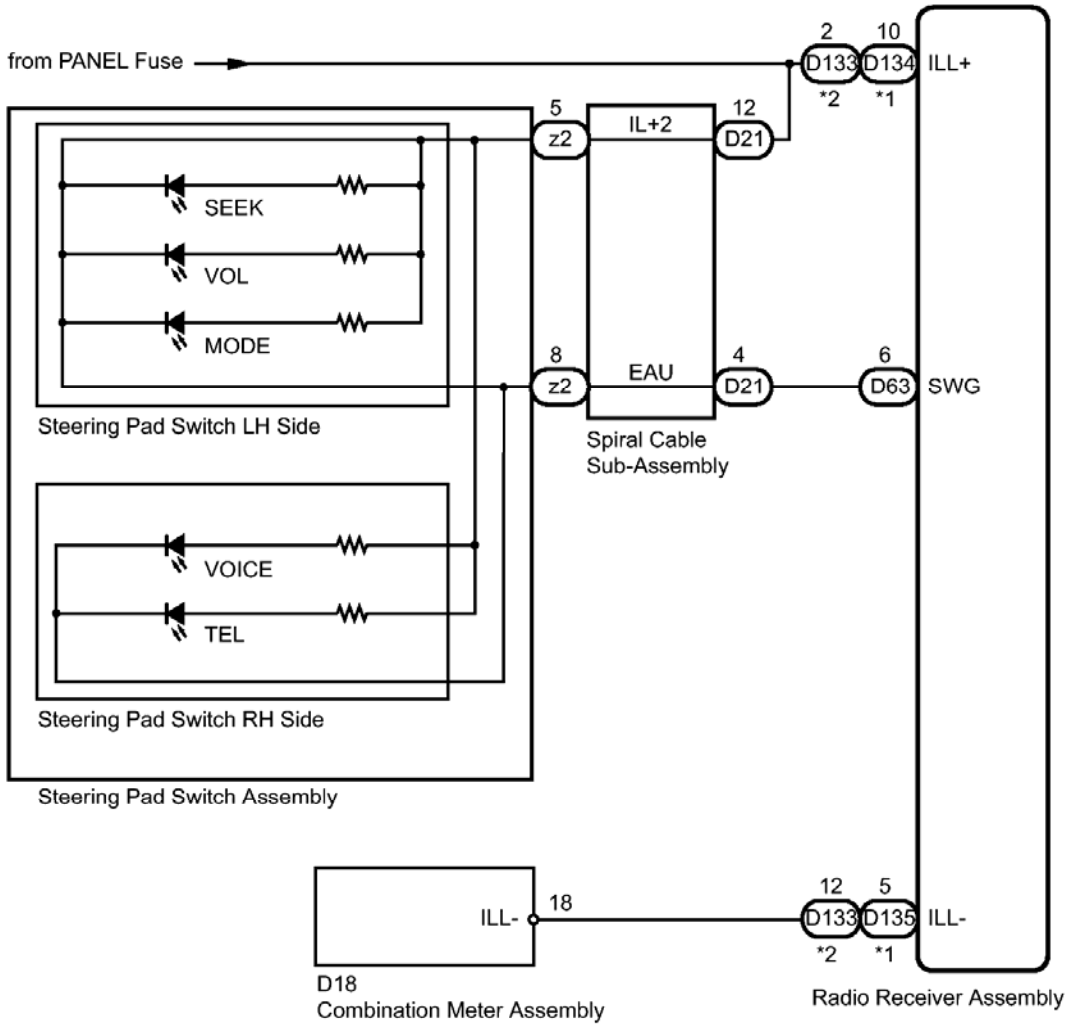
4. **REPLACE SPIRAL CABLE SUB-ASSEMBLY. Refer to REMOVAL**
5. **REPLACE STEERING PAD SWITCH ASSEMBLY. Refer to REMOVAL**
6. **PROCEED TO NEXT SUSPECTED AREA SHOWN IN PROBLEM SYMPTOMS TABLE. Refer to PROBLEM SYMPTOMS TABLE**

Illumination Circuit

DESCRIPTION

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

WIRING DIAGRAM



*1: w/o Stereo Component Amplifier Assembly

*2: w/ Stereo Component Amplifier Assembly

Fig. 62: Steering Pad Switch Assembly Circuit Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

WARNING: The vehicle is equipped with an SRS (Supplemental Restraint System) which includes components such as airbags. Before servicing (including removal or installation of parts), be sure to read the Precaution in the SRS. Refer to PRECAUTION .

PROCEDURE

1. **CHECK ILLUMINATION**

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

RESULT

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

B --> See step 7

C --> See step 9

D --> See step 8

A: Go to next step

2. **CHECK HARNESS AND CONNECTOR (SPIRAL CABLE - BATTERY)**
   a. Disconnect the D21 spiral cable sub-assembly connector.

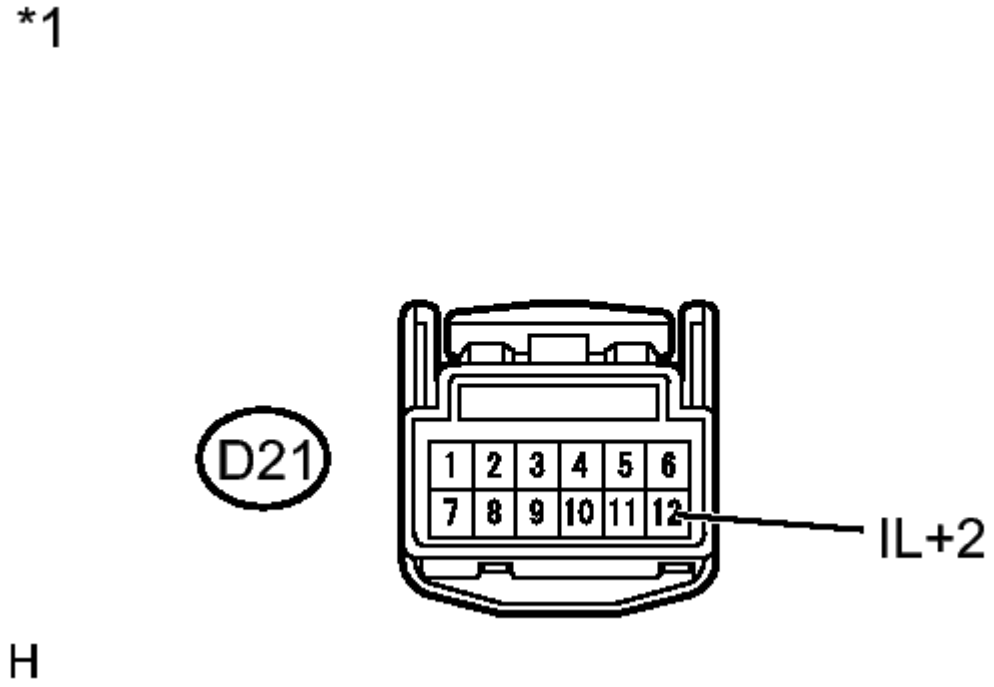


Fig. 63: Measuring Voltage Of Spiral Cable Sub-Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

Standard Voltage

Tester Connection	Switch Condition	Specified Condition
D21-12 (IL+2) - Body ground	Light control switch TAIL or HEAD	11 to 14 V

TEXT IN ILLUSTRATION

*1	Front view of wire harness connector

	(to Spiral Cable Sub-Assembly)

NG --> REPAIR OR REPLACE HARNESS OR CONNECTOR

OK: Go to next step

3. **INSPECT STEERING PAD SWITCH ASSEMBLY**
   a. Remove the steering pad switch assembly. Refer to **REMOVAL** .

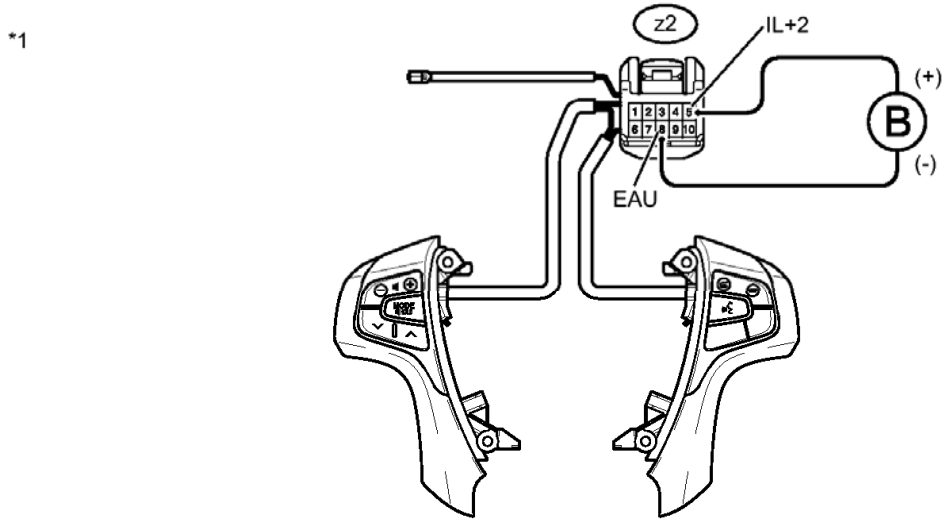


Fig. 64: Inspecting Steering Pad Switch Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

TEXT IN ILLUSTRATION

*1	Component without harness connected (Steering Pad Switch Assembly)	-	-

   b. Connect the positive (+) lead of the battery to terminal 5 (IL+2) and the negative (-) lead of the battery to terminal 8 (EAU) of the steering pad switch assembly connector.
   c. Check if the illumination for the steering pad switch assembly comes on.

OK

Illumination for the steering pad switch assembly comes on.

NG --> See step 10

OK: Go to next step

4. **INSPECT SPIRAL CABLE SUB-ASSEMBLY**
   a. Remove the spiral cable sub-assembly. Refer to **PRECAUTION** .

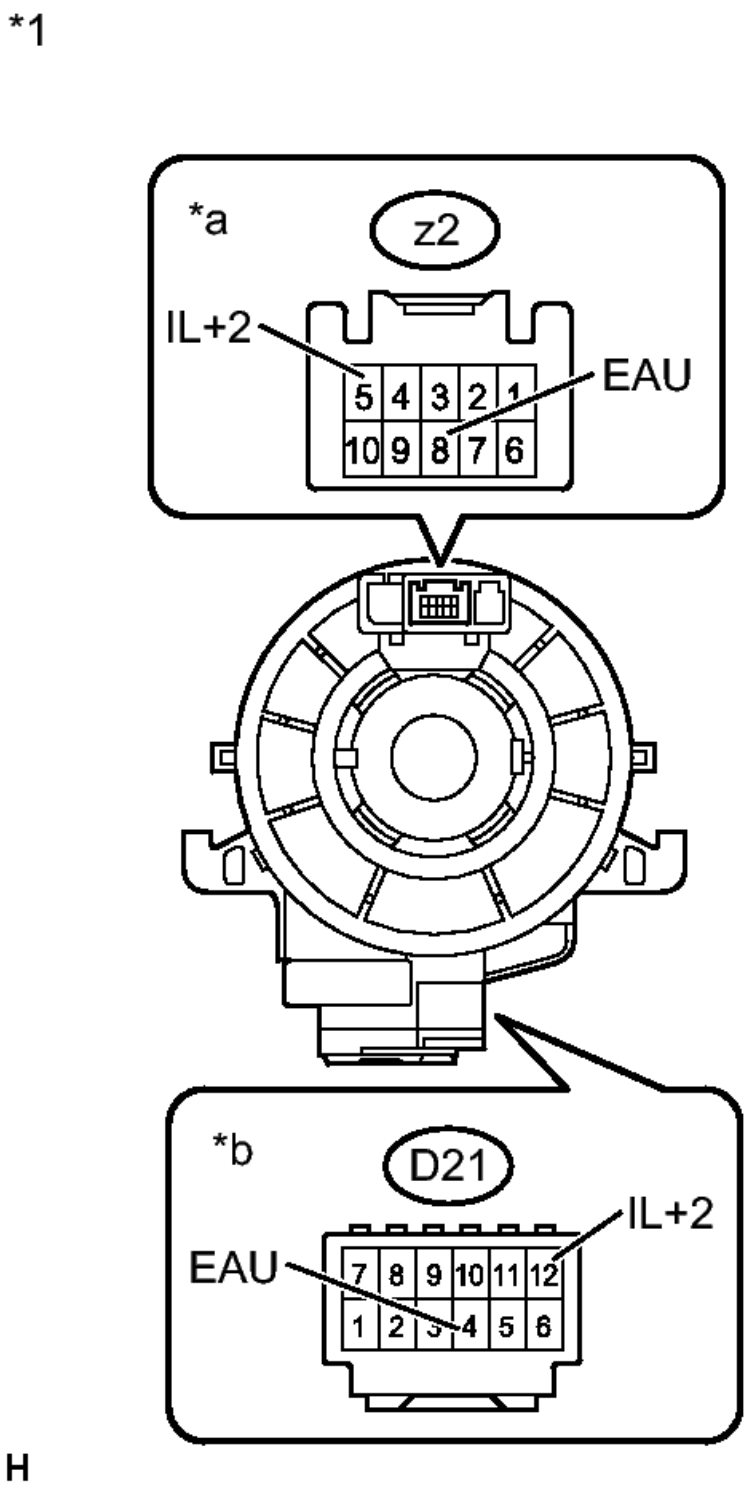


Fig. 65: Inspecting Spiral Cable Sub-Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

Standard Resistance

Tester Connection	Condition	Specified Condition
z2-8 (EAU) - D21-4 (EAU)	Spiral cable is turned 2.5 rotations counterclockwise	Below 1 ohms
	Spiral cable is centered	
	Spiral cable is turned 2.5 rotations clockwise	
z2-5 (IL+2) - D21-12 (IL+2)	Spiral cable is turned 2.5 rotations counterclockwise	
	Spiral cable is centered	
	Spiral cable is turned 2.5 rotations clockwise	

TEXT IN ILLUSTRATION

*1	Component without harness connected (Spiral Cable Sub-Assembly)
*a	Steering Pad Switch Assembly Side
*b	Vehicle Wire Harness Side

WARNING: The spiral cable is an important part of the SRS airbag system. Incorrect removal or installation of the spiral cable may prevent the airbag from deploying. Be sure to read Precaution in the SRS. Refer to REMOVAL .

NG --> See step 11

OK: Go to next step

5. **CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - SPIRAL CABLE)**
   a. Disconnect the D63 radio receiver assembly connector.
   b. Disconnect the D21 spiral cable sub-assembly connector.
   c. Measure the resistance according to the value(s) in the table below.

   Standard Resistance

Tester Connection	Condition	Specified Condition
D63-6 (SWG) - D21-4 (EAU)	Always	Below 1 ohms
D63-6 (SWG) - Body ground	Always	10 kohms or higher

NG --> REPAIR OR REPLACE HARNESS OR CONNECTOR

OK --> See step 6

6. **PROCEED TO NEXT SUSPECTED AREA SHOWN IN PROBLEM SYMPTOMS TABLE. Refer to PROBLEM SYMPTOMS TABLE**
7. **CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - BATTERY)**
   a. w/o Stereo Component Amplifier Assembly
      1. Disconnect the D134 radio receiver assembly connector.

*1

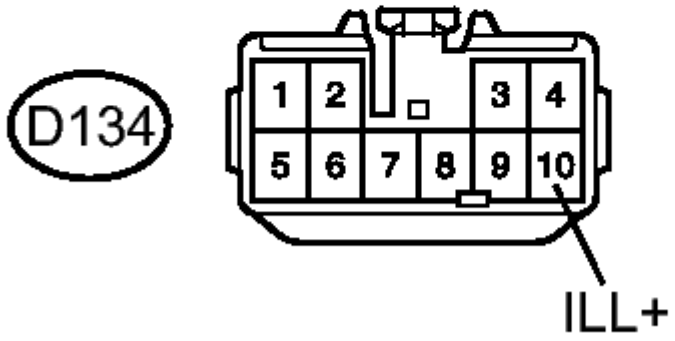


Fig. 66: Measuring Voltage Of Radio Receiver Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

   Standard Voltage

Tester Connection	Switch Condition	Specified Condition
D134-10 (ILL+) - Body ground	Light control switch TAIL or HEAD	11 to 14 V

TEXT IN ILLUSTRATION

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

b. w/ Stereo Component Amplifier Assembly

1. Disconnect the D133 radio receiver assembly connector.

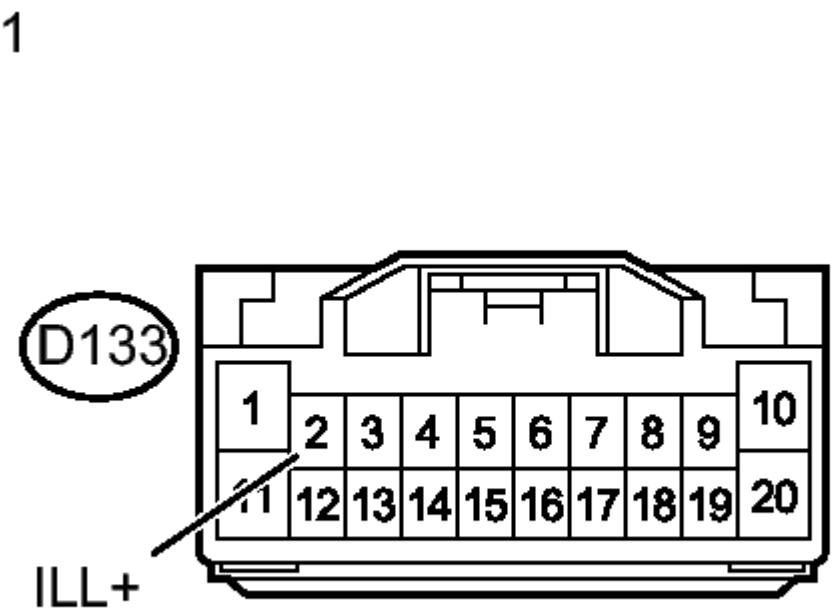


Fig. 67: Measuring Voltage Of Radio Receiver Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

Standard Voltage

Tester Connection	Switch Condition	Specified Condition
D133-2 (ILL+) - Body ground	Light control switch TAIL or HEAD	11 to 14 V

TEXT IN ILLUSTRATION

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

NG --> REPAIR OR REPLACE HARNESS OR CONNECTOR

OK --> See step 6

8. **CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - COMBINATION METER)**
   a. w/o Stereo Component Amplifier Assembly
      1. Disconnect the D135 radio receiver assembly connector.
      2. Disconnect the D18 combination meter assembly connector.
      3. Measure the resistance according to the value(s) in the table below.

         Standard Resistance

Tester Connection	Condition	Specified Condition
D135-5 (ILL-) - D18-18 (ILL-)	Always	Below 1 ohms
D135-5 (ILL-) - Body ground	Always	10 kohms or higher

   b. w/ Stereo Component Amplifier Assembly
      1. Disconnect the D133 radio receiver assembly connector.
      2. Disconnect the D18 combination meter assembly connector.
      3. Measure the resistance according to the value(s) in the table below.

         Standard Resistance

Tester Connection	Condition	Specified Condition
D133-12 (ILL-) - D18-18 (ILL-)	Always	Below 1 ohms
D133-12 (ILL-) - Body ground	Always	10 kohms or higher

NG --> REPAIR OR REPLACE HARNESS OR CONNECTOR

OK --> See step 6

9. **GO TO LIGHTING SYSTEM. Refer to HOW TO PROCEED WITH TROUBLESHOOTING**
10. **REPLACE STEERING PAD SWITCH ASSEMBLY. Refer to REMOVAL**
11. **REPLACE SPIRAL CABLE SUB-ASSEMBLY. Refer to REMOVAL**

Speaker Circuit (Independent Amplifier)

DESCRIPTION

The stereo component amplifier assembly sends sound signals to the speaker.

WIRING DIAGRAM

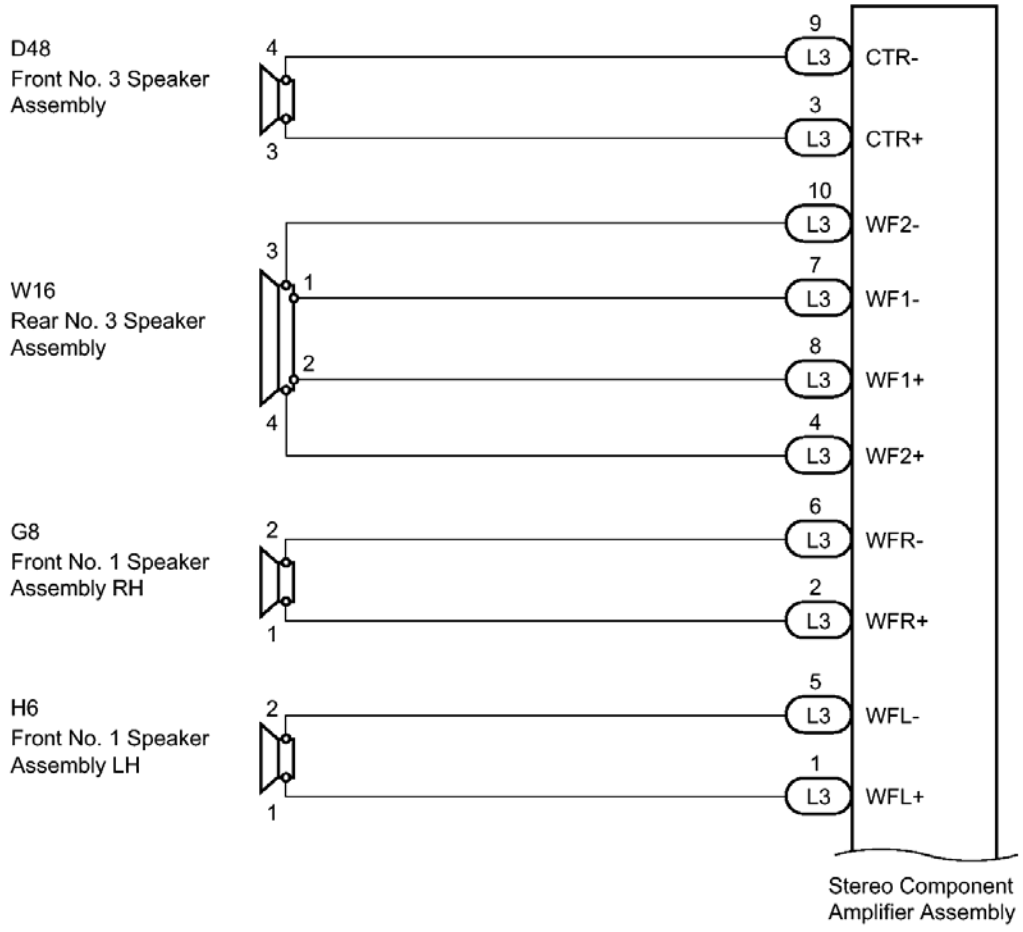


Fig. 68: Speaker Circuit Wiring Diagram (1 Of 3)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

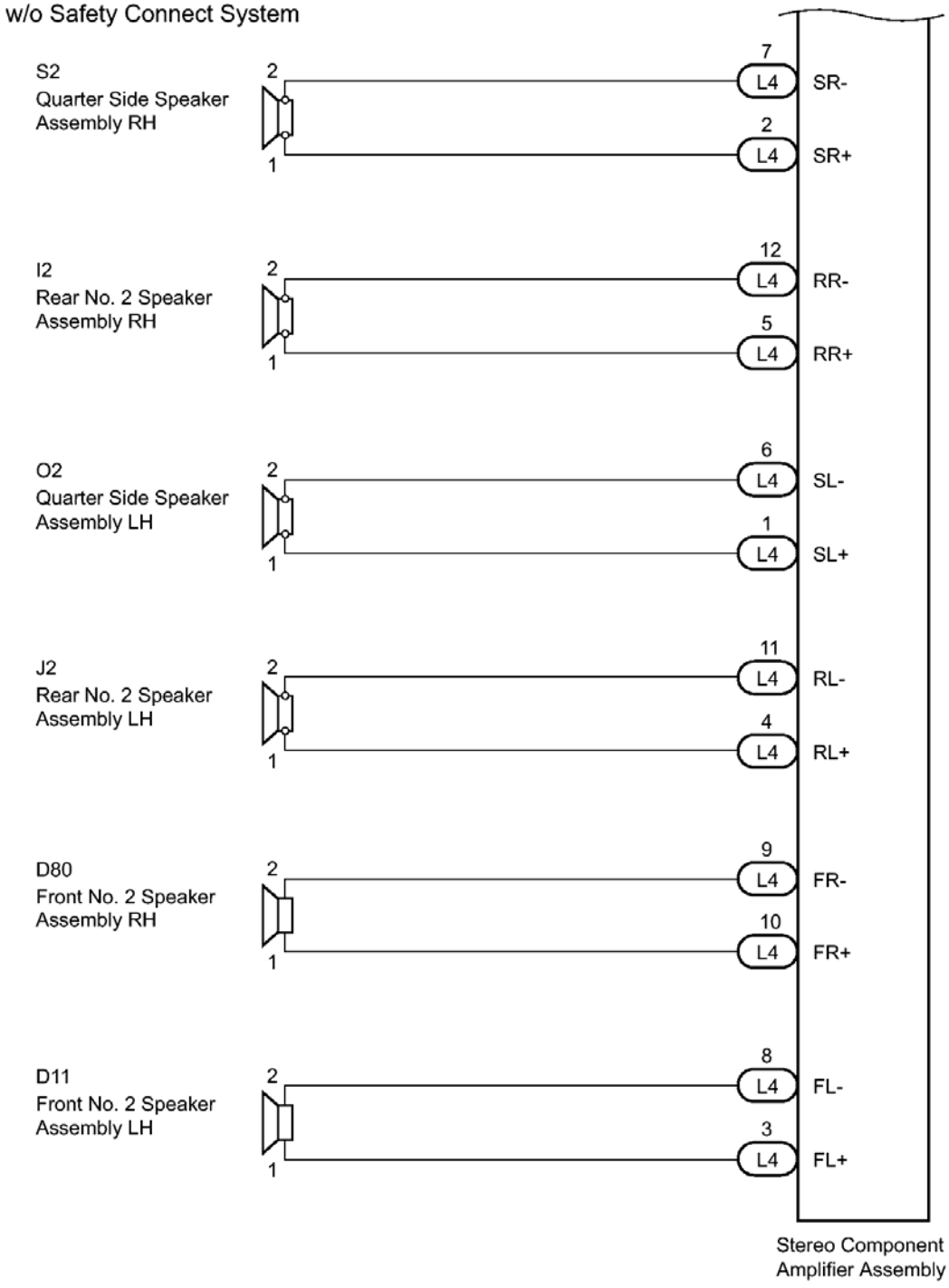


Fig. 69: Speaker Circuit Wiring Diagram (w/o Saftey Connect System) (2 Of 3)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

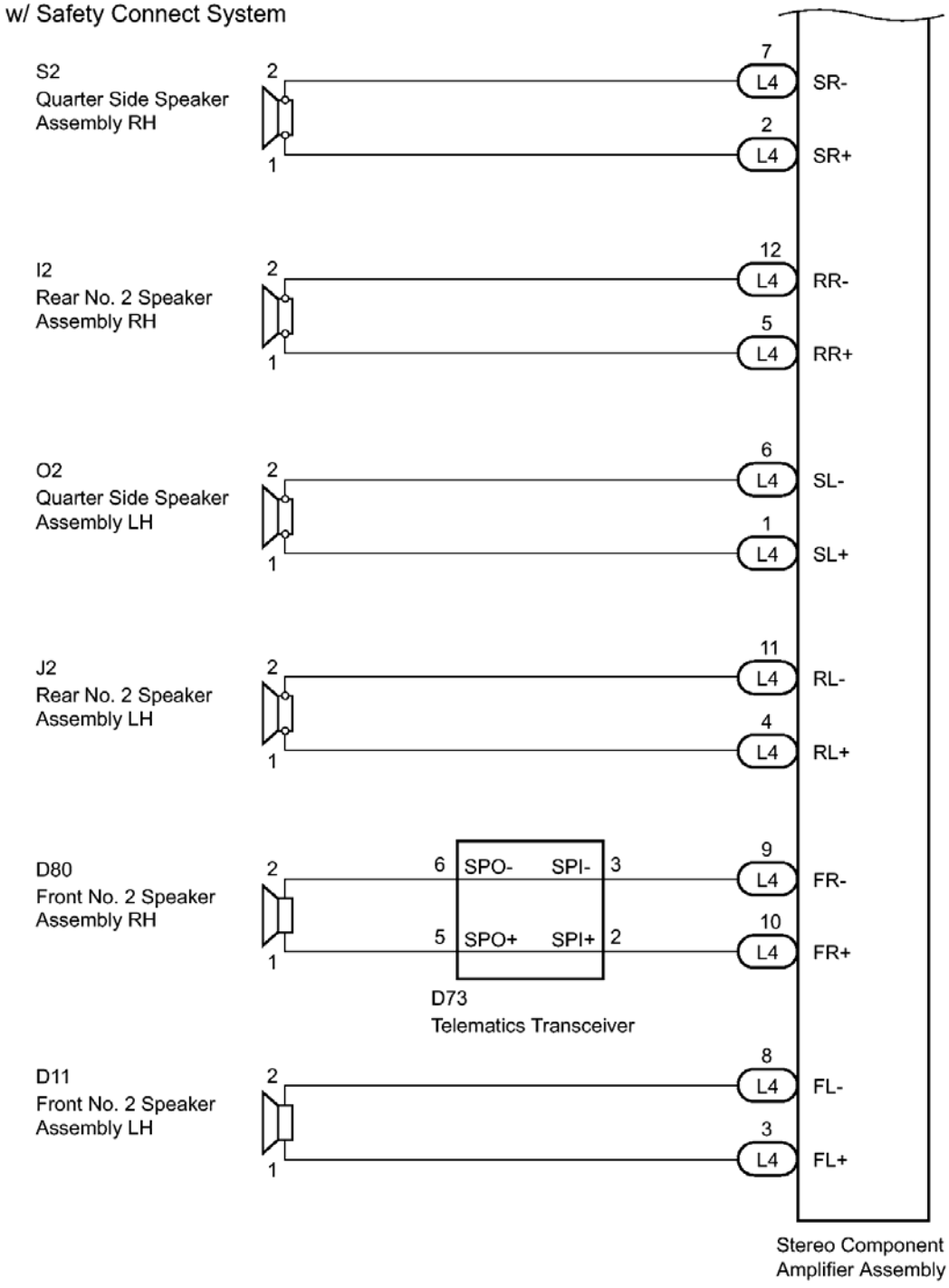


Fig. 70: Speaker Circuit Wiring Diagram (w/ Saftey Connect System) (3 Of 3)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

NOTE: **If the telematics transceiver has been replaced, perform the Activate DCM procedure using the Techstream. Refer to DCM ACTIVATION .**

PROCEDURE

1. **CHECK SPEAKER**
   a. Check the malfunctioning speakers.

RESULT

Result	Proceed to
Malfunction in front speaker area	A
Malfunction in rear speaker area	B

B --> See step 11

A: Go to next step

2. **CHECK SPEAKER**
   a. Check the malfunctioning speakers.

RESULT

Result	Proceed to
Front No. 1 speaker assembly	A
Front No. 2 speaker assembly	B
Front No. 3 speaker assembly	C

B --> See step 5

C --> See step 9

A: Go to next step

3. **INSPECT FRONT NO. 1 SPEAKER ASSEMBLY**
   a. Disconnect the G8*1 and/or H6*2 front No. 1 speaker assembly connector.

*1

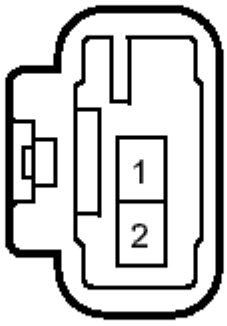


Fig. 71: Front No. 1 Speaker Assembly Connector End View
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

*1: for RH
*2: for LH

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

Standard Resistance

Tester Connection	Condition	Specified Condition
1 - 2	Always	1.65 to 2.15 ohms

TEXT IN ILLUSTRATION

*1	Component without harness connected (Front No. 1 Speaker

Assembly)

NG --> See step 18

OK: Go to next step

4. **CHECK HARNESS AND CONNECTOR (STEREO COMPONENT AMPLIFIER - FRONT NO. 1 SPEAKER)**
   a. Disconnect the L3 stereo component amplifier assembly connector.
   b. Disconnect the G8*1 and/or H6*2 front No. 1 speaker assembly connector.
      *1: for RH
      *2: for LH
   c. Measure the resistance according to the value(s) in the table below.

      Standard Resistance

      for RH

      for LH

Tester Connection	Condition	Specified Condition
L3-2 (WFR+) - G8-1	Always	Below 1 ohms
L3-6 (WFR-) - G8-2	Always	Below 1 ohms
L3-2 (WFR+) - Body ground	Always	10 kohms or higher
L3-6 (WFR-) - Body ground	Always	10 kohms or higher

Tester Connection	Condition	Specified Condition
L3-1 (WFL+) - H6-1	Always	Below 1 ohms
L3-5 (WFL-) -	Always	Below 1 ohms

H6-2		
L3-1 (WFL+) - Body ground	Always	10 kohms or higher
L3-5 (WFL-) - Body ground	Always	10 kohms or higher

NG --> REPAIR OR REPLACE HARNESS OR CONNECTOR

OK --> See step 19

5. **INSPECT FRONT NO. 2 SPEAKER ASSEMBLY**
   a. Disconnect the D80*1 and/or D11*2 front No. 2 speaker assembly connector.

*1

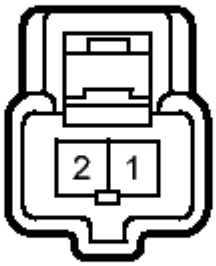


Fig. 72: Speaker Assembly Connector End View
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

*1: for RH
*2: for LH

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

Standard Resistance

Tester Connection	Condition	Specified Condition
1 - 2	Always	1.5 to 2.5 ohms

TEXT IN ILLUSTRATION

*1	Component without harness connected (Front No. 2 Speaker Assembly)

NG --> See step 20

OK: Go to next step

6. **SYSTEM CHECK**
   a. Check the vehicle specifications.

RESULT

Result	Proceed to
w/ Safety Connect System	A
w/o Safety Connect System	B

B --> See step 8

A: Go to next step

7. **INSPECT TELEMATICS TRANSCEIVER**
   a. Disconnect the D73 telematics transceiver connector.

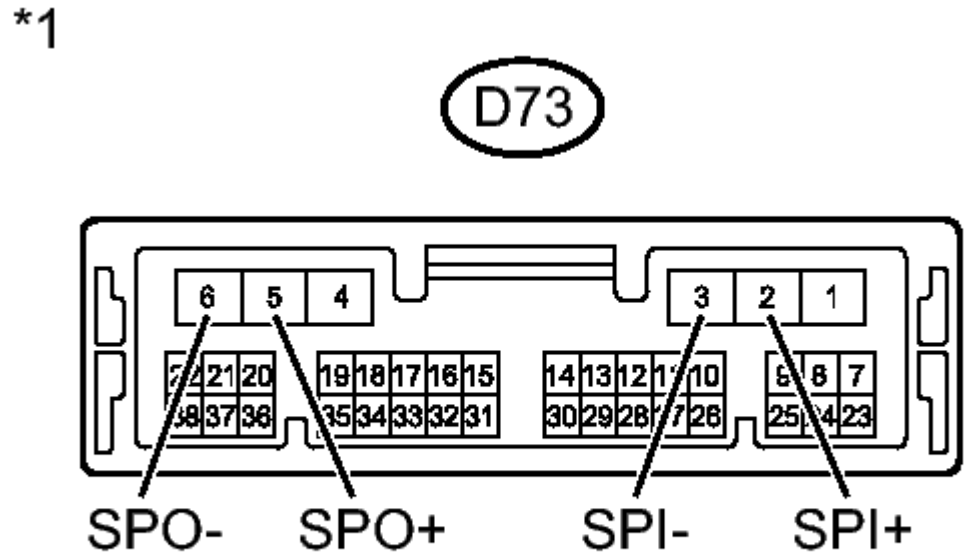


Fig. 73: Telematics Transceiver Connector End View
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

Standard Resistance

Tester Connection	Condition	Specified Condition
D73-2 (SPI+) - D73-5 (SPO+)	Always	Below 1 ohms
D73-3 (SPI-) - D73-6 (SPO-)	Always	Below 1 ohms
D73-2 (SPI+) - Body ground	Always	10 kohms or higher
D73-3 (SPI-) - Body ground	Always	10 kohms or higher

TEXT IN ILLUSTRATION

*1	Component without harness connected (Telematics Transceiver)

c. Reconnect the telematics transceiver connector.

NG --> See step 21

OK: Go to next step

8. **CHECK HARNESS AND CONNECTOR (STEREO COMPONENT AMPLIFIER - FRONT NO. 2 SPEAKER)**
   a. Disconnect the L4 stereo component amplifier assembly connector.
   b. Disconnect the D80*1 and/or D11*2 front No. 2 speaker assembly connector.
      *1: for RH
      *2: for LH
   c. Measure the resistance according to the value(s) in the table below.

   Standard Resistance

   for RH

   for LH

Tester Connection	Condition	Specified Condition
L4-10 (FR+) - D80-1	Always	Below 1 ohms
L4-9 (FR-) - D80-2	Always	Below 1 ohms
L4-10 (FR+) - Body ground	Always	10 kohms or higher
L4-9 (FR-) - Body ground	Always	10 kohms or higher

Tester Connection	Condition	Specified Condition
L4-3 (FL+)		Below 1

- D11-1	Always	ohms
L4-8 (FL-) - D11-2	Always	Below 1 ohms
L4-3 (FL+) - Body ground	Always	10 kohms or higher
L4-8 (FL-) - Body ground	Always	10 kohms or higher

NG --> REPAIR OR REPLACE HARNESS OR CONNECTOR

OK --> See step 22

9. **INSPECT FRONT NO. 3 SPEAKER ASSEMBLY**
   a. Disconnect the D48 front No. 3 speaker assembly connector.

*1

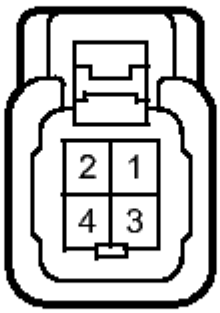


Fig. 74: Front No. 3 Speaker Assembly Connector End View
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

Standard Resistance

Tester Connection	Condition	Specified Condition

3 - 4	Always	1.5 to 2.5 ohms

TEXT IN ILLUSTRATION

*1	Component without harness connected (Front No. 3 Speaker Assembly)

NG --> See step 23

OK: Go to next step

10. **CHECK HARNESS AND CONNECTOR (STEREO COMPONENT AMPLIFIER - FRONT NO. 3 SPEAKER)**
    a. Disconnect the L3 stereo component amplifier assembly connector.
    b. Disconnect the D48 front No. 3 speaker assembly connector.
    c. Measure the resistance according to the value(s) in the table below.

    Standard Resistance

Tester Connection	Condition	Specified Condition
L3-3 (CTR+) - D48-3	Always	Below 1 ohms
L3-9 (CTR-) - D48-4	Always	Below 1 ohms
L3-3 (CTR+) - Body ground	Always	10 kohms or higher
L3-9 (CTR-) - Body ground	Always	10 kohms or higher

NG --> REPAIR OR REPLACE HARNESS OR CONNECTOR

OK --> See step 24

11. **CHECK SPEAKER**
    a. Check the malfunctioning speakers.

RESULT

Result	Proceed to
Quarter side speaker assembly	A
Rear No. 2 speaker assembly	B
Rear No. 3 speaker assembly	C

B --> See step 14

C --> See step 16

A: Go to next step

12. **INSPECT QUARTER SIDE SPEAKER ASSEMBLY**
    a. Disconnect the S2*1 and/or O2*2 quarter side speaker assembly connector.

*1

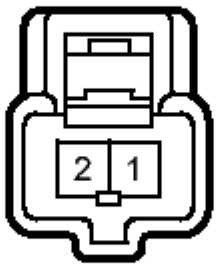


Fig. 75: Speaker Assembly Connector End View

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

*1: for RH

*2: for LH

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

Standard Resistance

Tester Connection	Condition	Specified Condition
1 - 2	Always	1.5 to 2.5 ohms

TEXT IN ILLUSTRATION

*1	Component without harness connected (Quarter Side Speaker Assembly)

NG --> See step 25

OK: Go to next step

13. **CHECK HARNESS AND CONNECTOR (STEREO COMPONENT AMPLIFIER - QUARTER SIDE SPEAKER)**

a. Disconnect the L4 stereo component amplifier assembly connector.

b. Disconnect the S2*1 and/or O2*2 quarter side speaker assembly connector.

*1: for RH

*2: for LH

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

Standard Resistance

for RH

for LH

Tester Connection	Condition	Specified Condition
L4-2 (SR+)	Always	Below 1

- S2-1		ohms
L4-7 (SR-) - S2-2	Always	Below 1 ohms
L4-2 (SR+) - Body ground	Always	10 kohms or higher
L4-7 (SR-) - Body ground	Always	10 kohms or higher

Tester Connection	Condition	Specified Condition
L4-1 (SL+) - O2-1	Always	Below 1 ohms
L4-6 (SL-) - O2-2	Always	Below 1 ohms
L4-1 (SL+) - Body ground	Always	10 kohms or higher
L4-6 (SL-) - Body ground	Always	10 kohms or higher

NG --> REPAIR OR REPLACE HARNESS OR CONNECTOR

OK --> See step 26

14. **INSPECT REAR NO. 2 SPEAKER ASSEMBLY**
    a. Disconnect the I2*1 and/or J2*2 rear No. 2 speaker assembly connector.

*1

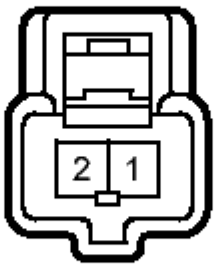


Fig. 76: Speaker Assembly Connector End View
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

*1: for RH

*2: for LH

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

Standard Resistance

Tester Connection	Condition	Specified Condition
1 - 2	Always	1.5 to 2.5 ohms

TEXT IN ILLUSTRATION

*1	Component without harness connected (Rear No. 2 Speaker Assembly)

NG --> See step 27

OK: Go to next step

15. **CHECK HARNESS AND CONNECTOR (STEREO COMPONENT AMPLIFIER - REAR NO. 2 SPEAKER)**

a. Disconnect the L4 stereo component amplifier assembly connector.

b. Disconnect the I2*1 and/or J2*2 rear No. 2 speaker assembly connector.

*1: for RH

*2: for LH

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

Standard Resistance

for RH

for LH

Tester Connection	Condition	Specified Condition
L4-5 (RR+) - I2-1	Always	Below 1 ohms
L4-12 (RR-) - I2-2	Always	Below 1 ohms
L4-5 (RR+) - Body ground	Always	10 kohms or higher
L4-12 (RR-) - Body ground	Always	10 kohms or higher

Tester Connection	Condition	Specified Condition
L4-4 (RL+) - J2-1	Always	Below 1 ohms
L4-11 (RL-) - J2-2	Always	Below 1 ohms
L4-4 (RL+) - Body ground	Always	10 kohms or higher
L4-11 (RL-) - Body ground	Always	10 kohms or higher

NG --> REPAIR OR REPLACE HARNESS OR CONNECTOR

OK --> See step 28

16. **INSPECT REAR NO. 3 SPEAKER ASSEMBLY**

a. Disconnect the W16 rear No. 3 speaker assembly connector.

*1

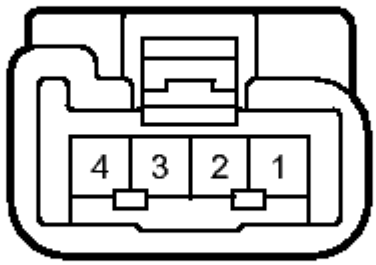


Fig. 77: Rear No. 3 Speaker Assembly Connector End View
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

Standard Resistance

Tester Connection	Condition	Specified Condition
1 - 2	Always	1.5 to 2.5 ohms
3 - 4	Always	1.5 to 2.5 ohms

TEXT IN ILLUSTRATION

*1	Component without harness connected (Rear No. 3 Speaker Assembly)

NG --> See step 29

OK: Go to next step

17. **CHECK HARNESS AND CONNECTOR (STEREO COMPONENT AMPLIFIER - REAR NO. 3 SPEAKER)**
    a. Disconnect the L3 stereo component amplifier assembly connector.
    b. Disconnect the W16 rear No. 3 speaker assembly connector.
    c. Measure the resistance according to the value(s) in the table below.

    Standard Resistance

Tester Connection	Condition	Specified Condition
L3-8 (WF1+) - W16-2	Always	Below 1 ohms
L3-7 (WF1-) - W16-1	Always	Below 1 ohms
L3-4 (WF2+) - W16-4	Always	Below 1 ohms
L3-10 (WF2-) - W16-3	Always	Below 1 ohms
L3-8 (WF1+) - Body ground	Always	10 kohms or higher
L3-7 (WF1-) - Body ground	Always	10 kohms or higher
L3-4 (WF2+) - Body ground	Always	10 kohms or higher
L3-10 (WF2-) - Body ground	Always	10 kohms or higher

NG --> REPAIR OR REPLACE HARNESS OR CONNECTOR

OK --> See step 30

18. **REPLACE FRONT NO. 1 SPEAKER ASSEMBLY. Refer to REMOVAL**
19. **REPLACE STEREO COMPONENT AMPLIFIER ASSEMBLY. Refer to REMOVAL**
20. **REPLACE FRONT NO. 2 SPEAKER ASSEMBLY. Refer to REMOVAL**
21. **REPLACE TELEMATICS TRANSCEIVER. Refer to REMOVAL**
22. **REPLACE STEREO COMPONENT AMPLIFIER ASSEMBLY. Refer to REMOVAL**
23. **REPLACE FRONT NO. 3 SPEAKER ASSEMBLY. Refer to REMOVAL**
24. **REPLACE STEREO COMPONENT AMPLIFIER ASSEMBLY. Refer to REMOVAL**
25. **REPLACE QUARTER SIDE SPEAKER ASSEMBLY. Refer to REMOVAL**
26. **REPLACE STEREO COMPONENT AMPLIFIER ASSEMBLY. Refer to REMOVAL**
27. **REPLACE REAR NO. 2 SPEAKER ASSEMBLY. Refer to REMOVAL**
28. **REPLACE STEREO COMPONENT AMPLIFIER ASSEMBLY. Refer to REMOVAL**
29. **REPLACE REAR NO. 3 SPEAKER ASSEMBLY. Refer to REMOVAL**
30. **REPLACE STEREO COMPONENT AMPLIFIER ASSEMBLY. Refer to REMOVAL**

Speaker Circuit (Built-in Amplifier)

DESCRIPTION

The radio receiver assembly sends sound signals to the speaker.

WIRING DIAGRAM

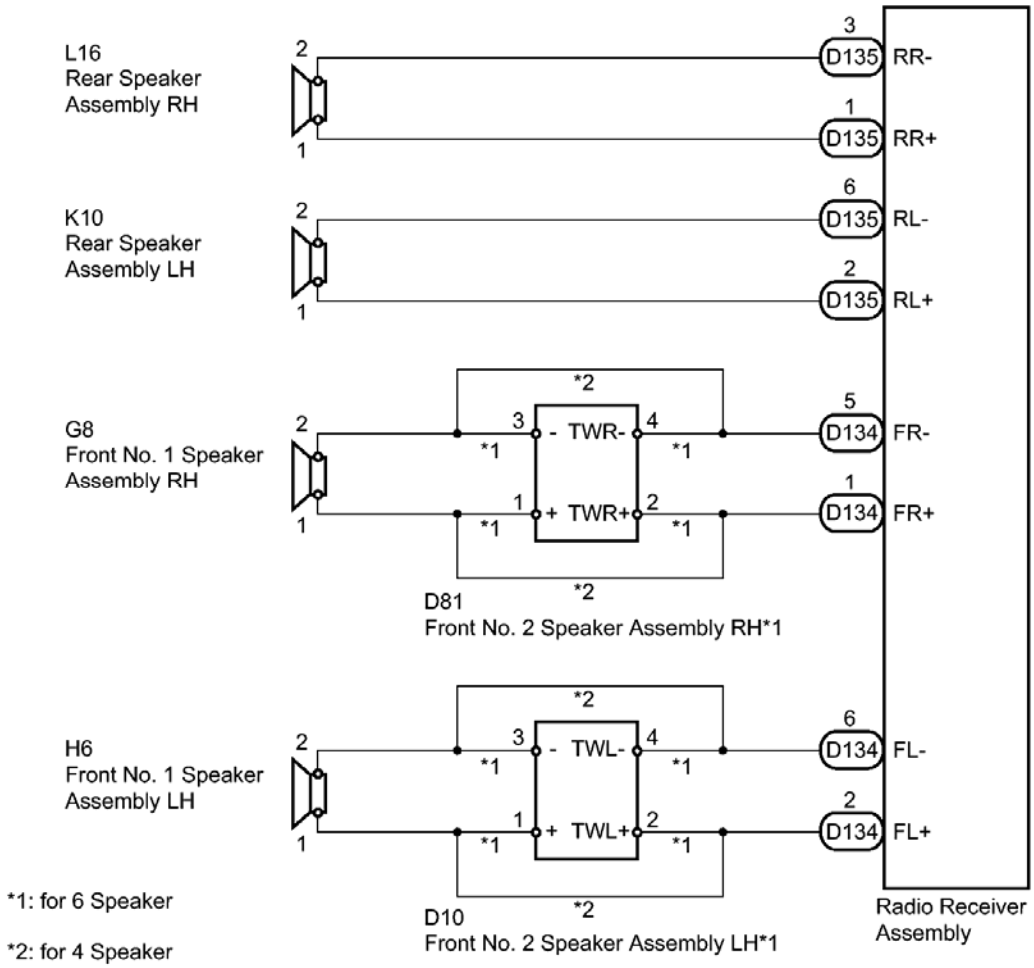


Fig. 78: Speaker Circuit Wiring Diagram (Built-In Amplifier)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

PROCEDURE

1. **CHECK SPEAKER**
    a. Check the malfunctioning speakers.

RESULT

Result	Proceed to
Malfunction in front speaker area	A

Malfunction in rear speaker area	B

B --> See step 7

A: Go to next step

2. **CHECK FRONT SIDE SPEAKER**
   a. Check the malfunctioning speakers.

RESULT

Result	Proceed to
Front No. 2 speaker assembly*1	A
Front No. 1 speaker assembly*1	B
Front No. 1 speaker assembly*2	C

*1: for 6 Speaker
*2: for 4 Speaker

B --> See step 5

C --> See step 7

A: Go to next step

3. **INSPECT FRONT NO. 2 SPEAKER ASSEMBLY**
   a. Disconnect the D81*1 and/or D10*2 front No. 2 speaker assembly connector.

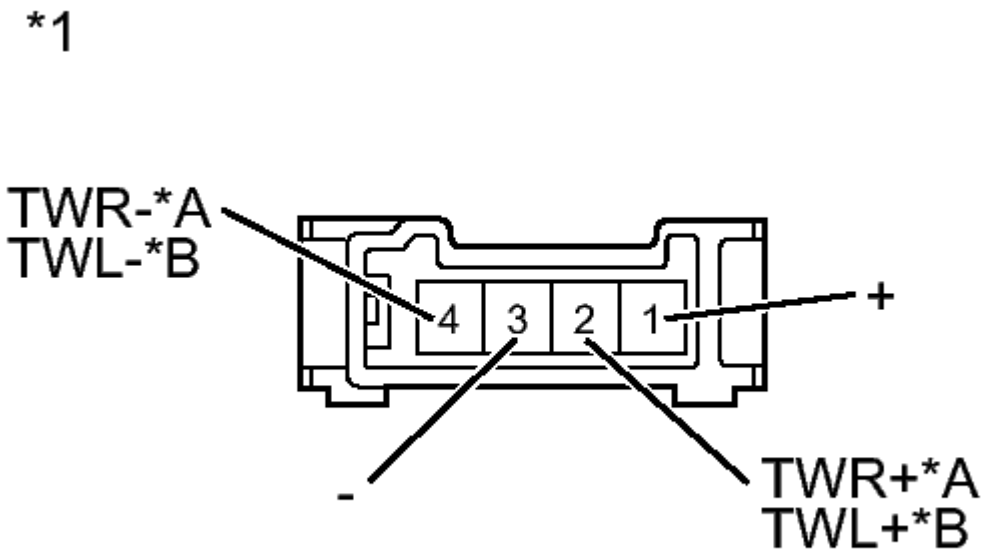


Fig. 79: Measuring Resistance Of Front No. 2 Speaker Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

*1: for RH
*2: for LH

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

Standard Resistance

for RH

for LH

Tester Connection	Condition	Specified Condition
1 (+) - 2 (TWR+)	Always	Below 1 ohms
3 (-) - 4 (TWR-)	Always	Below 1 ohms
2 (TWR+) - 4 (TWR-)	Always	Approximately 4 ohms

Tester Connection	Condition	Specified Condition
1 (+) - 2 (TWL+)	Always	Below 1 ohms

3 (-) - 4 (TWL-)	Always	Below 1 ohms
2 (TWL+) - 4 (TWL-)	Always	Approximately 4 ohms

TEXT IN ILLUSTRATION

*A	for RH
*B	for LH
*1	Component without harness connected (Front No. 2 Speaker Assembly)

NG --> See step 11

OK: Go to next step

4. **CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - FRONT NO. 2 SPEAKER)**
   a. Disconnect the D134 radio receiver assembly connector.
   b. Disconnect the D81*1 and/or D10*2 front No. 2 speaker assembly connector.
      *1: for RH
      *2: for LH
   c. Measure the resistance according to the value(s) in the table below.

      Standard Resistance

      for RH

      for LH

Tester Connection	Condition	Specified Condition
D134-1 (FR+) - D81-2 (TWR+)	Always	Below 1 ohms
D134-5 (FR-) - D81-4 (TWR-)	Always	Below 1 ohms
D134-1		

(FR+) - Body ground	Always	10 kohms or higher
D134-5 (FR-) - Body ground	Always	10 kohms or higher

Tester Connection	Condition	Specified Condition
D134-2 (FL+) - D10-2 (TWL+)	Always	Below 1 ohms
D134-6 (FL-) - D10-4 (TWL-)	Always	Below 1 ohms
D134-2 (FL+) - Body ground	Always	10 kohms or higher
D134-6 (FL-) - Body ground	Always	10 kohms or higher

NG --> REPAIR OR REPLACE HARNESS OR CONNECTOR

OK --> See step 12

5. **INSPECT FRONT NO. 1 SPEAKER ASSEMBLY**
   a. Disconnect the G8*1 and/or H6*2 front No. 1 speaker assembly connector.

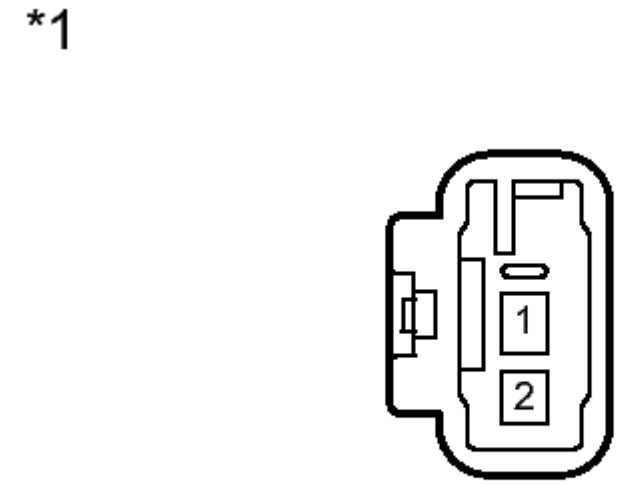


Fig. 80: Measuring Resistance Of Front No. 1 Speaker Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

*1: for RH

*2: for LH

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

Standard Resistance

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

TEXT IN ILLUSTRATION

*1	Component without harness connected (Front No. 1 Speaker Assembly)

NG --> See step 13

OK: Go to next step

6. **CHECK HARNESS AND CONNECTOR (FRONT NO. 2 SPEAKER - FRONT NO. 1 SPEAKER)**
   a. Disconnect the D81*1 and/or D10*2 front No. 2 speaker assembly connector.
   b. Disconnect the G8*1 and/or H6*2 front No. 1 speaker assembly connector.
      *1: for RH
      *2: for LH
   c. Measure the resistance according to the value(s) in the table below.

      Standard Resistance

      for RH

      for LH

Tester Connection	Condition	Specified Condition
D81-1 (+) - G8-1	Always	Below 1 ohms
D81-3 (-) - G8-2	Always	Below 1 ohms
D81-1 (+) - Body ground	Always	10 kohms or higher
D81-3 (-) - Body ground	Always	10 kohms or higher

Tester Connection	Condition	Specified Condition
D10-1 (+) - H6-1	Always	Below 1 ohms
D10-3 (-) - H6-2	Always	Below 1 ohms
D10-1 (+) - Body ground	Always	10 kohms or higher
D10-3 (-) - Body ground	Always	10 kohms or higher

NG --> REPAIR OR REPLACE HARNESS OR CONNECTOR

OK --> See step 14

7. **INSPECT FRONT NO. 1 SPEAKER ASSEMBLY**

a. Disconnect the G8*1 and/or H6*2 front No. 1 speaker assembly connector.

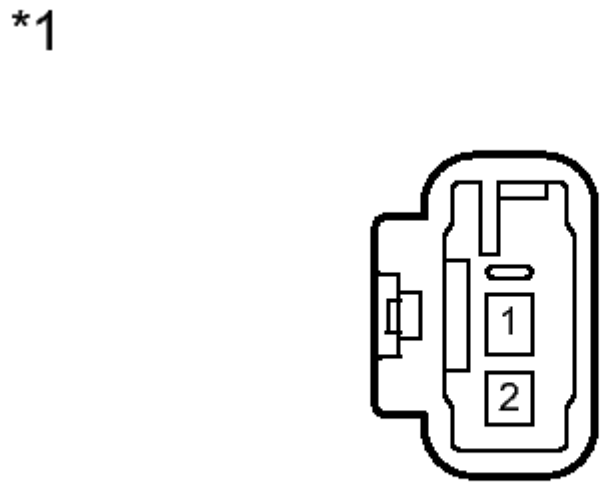


Fig. 81: Measuring Resistance Of Front No. 1 Speaker Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

*1: for RH
*2: for LH

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

Standard Resistance

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

TEXT IN ILLUSTRATION

*1	Component without harness connected (Front No. 1 Speaker Assembly)

NG --> See step 15

OK: Go to next step

8. **CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - FRONT NO. 1 SPEAKER)**
   a. Disconnect the D134 radio receiver assembly connector.
   b. Disconnect the G8*1 and/or H6*2 front No. 1 speaker assembly connector.
      *1: for RH
      *2: for LH
   c. Measure the resistance according to the value(s) in the table below.

      Standard Resistance

      for RH

      for LH

Tester Connection	Condition	Specified Condition
D134-1 (FR+) - G8-1	Always	Below 1 ohms
D134-5 (FR-) - G8-2	Always	Below 1 ohms
D134-1 (FR+) - Body ground	Always	10 kohms or higher
D134-5 (FR-) - Body ground	Always	10 kohms or higher

Tester Connection	Condition	Specified Condition
D134-2 (FL+) - H6-1	Always	Below 1 ohms
D134-6 (FL-) - H6-2	Always	Below 1 ohms
D134-2 (FL+) - Body ground	Always	10 kohms or higher
D134-6		

(FL-) - Body ground	Always	10 kohms or higher

NG --> REPAIR OR REPLACE HARNESS OR CONNECTOR

OK --> See step 16

9. **INSPECT REAR SPEAKER ASSEMBLY**
   a. Disconnect the L16*1 and K10*2 rear speaker assembly connectors.

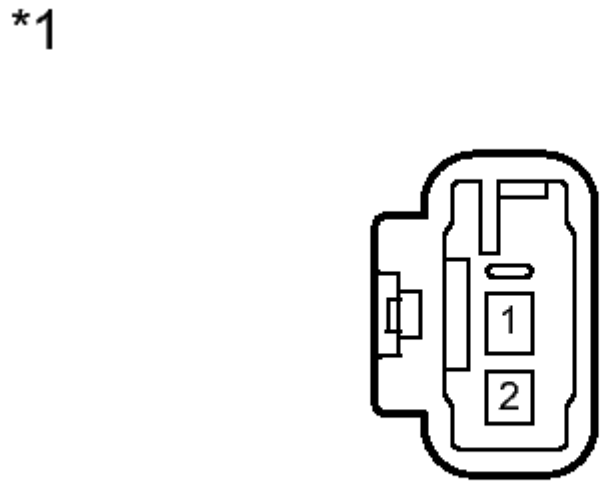


Fig. 82: Measuring Resistance Of Rear Speaker Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

*1: for RH
*2: for LH

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

Standard Resistance

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

TEXT IN ILLUSTRATION

*1	Component without harness connected (Rear Speaker Assembly)

NG --> See step 17

OK: Go to next step

10. **CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - REAR SPEAKER)**
    a. Disconnect the D135 radio receiver assembly connector.
    b. Disconnect the L16*1 and/or K10*2 rear speaker assembly connector.
        *1: for RH
        *2: for LH
    c. Measure the resistance according to the value(s) in the table below.

    Standard Resistance

    for RH

    for LH

Tester Connection	Condition	Specified Condition
D135-1 (RR+) - L16-1	Always	Below 1 ohms
D135-3 (RR-) - L16-2	Always	Below 1 ohms
D135-1 (RR+) - Body ground	Always	10 kohms or higher
D135-3 (RR-) - Body ground	Always	10 kohms or higher

Tester Connection	Condition	Specified Condition
D135-2		

(RL+) - K10-1	Always	Below 1 ohms
D135-6 (RL-) - K10-2	Always	Below 1 ohms
D135-2 (RL+) - Body ground	Always	10 kohms or higher
D135-6 (RL-) - Body ground	Always	10 kohms or higher

NG --> REPAIR OR REPLACE HARNESS OR CONNECTOR

OK --> See step 18

11. **REPLACE FRONT NO. 2 SPEAKER ASSEMBLY. Refer to REMOVAL**
12. **REPLACE RADIO RECEIVER ASSEMBLY. Refer to REMOVAL**
13. **REPLACE FRONT NO. 1 SPEAKER ASSEMBLY. Refer to REMOVAL**
14. **REPLACE FRONT NO. 2 SPEAKER ASSEMBLY. Refer to REMOVAL**
15. **REPLACE FRONT NO. 1 SPEAKER ASSEMBLY. Refer to REMOVAL**
16. **REPLACE RADIO RECEIVER ASSEMBLY. Refer to REMOVAL**
17. **REPLACE REAR SPEAKER ASSEMBLY. Refer to REMOVAL**
18. **REPLACE RADIO RECEIVER ASSEMBLY. Refer to REMOVAL**

Sound Signal Circuit between Radio Receiver and Stereo Component Amplifier

DESCRIPTION

The radio receiver assembly sends a sound signal to the stereo component amplifier assembly through this circuit.

The sound signal that has been sent is amplified by the stereo component amplifier assembly, and then is sent to the speakers.

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

WIRING DIAGRAM

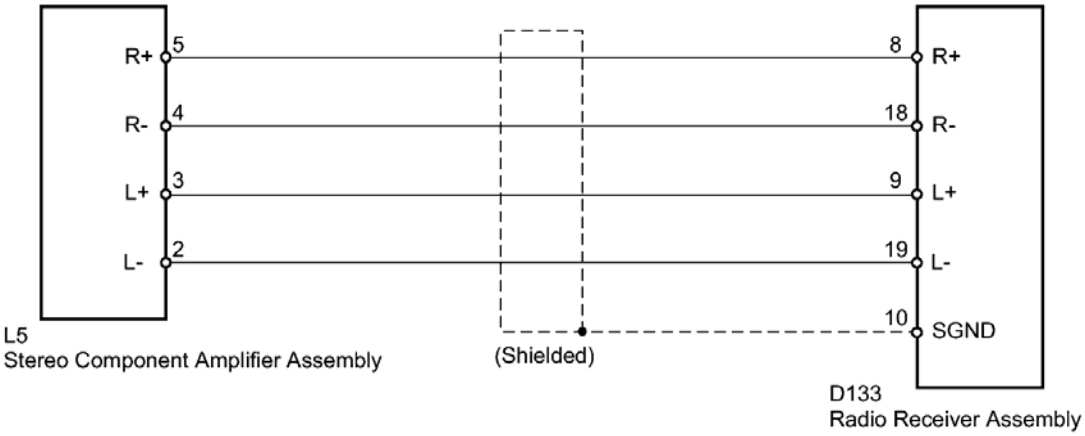


Fig. 83: Stereo Component Amplifier Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

PROCEDURE

1. **CHECK STEREO COMPONENT AMPLIFIER ASSEMBLY**
    a. Disconnect the L5 stereo component amplifier assembly connector.

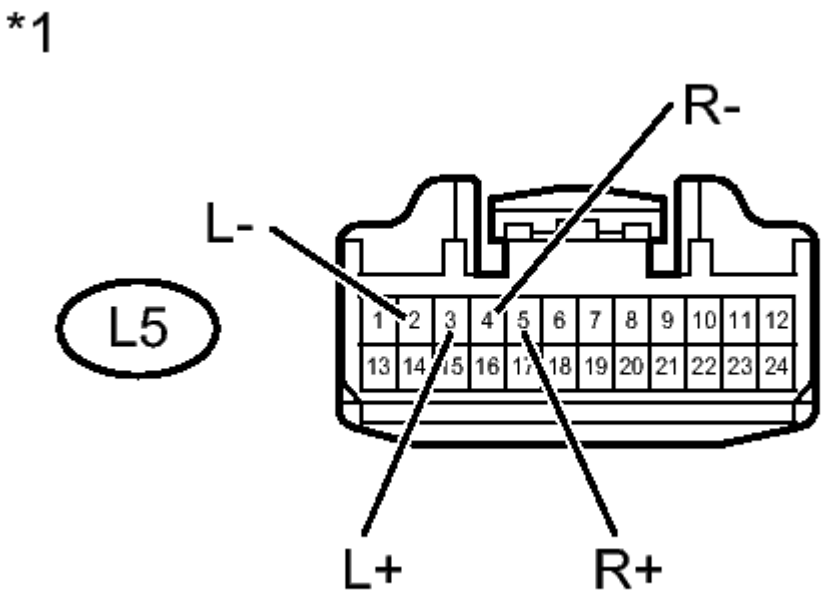


Fig. 84: Checking Stereo Component Amplifier Assembly

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

b. Using an oscilloscope, check the signal waveform between each terminal and the body ground according to the conditions, as shown in the chart below.

OK

Tester Connection	Condition	Specified Condition
L5-5 (R+) - Body ground	Audio sound is being produced	A waveform synchronized with sound is output
L5-4 (R-) - Body ground		
L5-3 (L+) - Body ground		
L5-2 (L-) - Body ground		

TEXT IN ILLUSTRATION

*1	Front view of wire harness connector (to Stereo Component Amplifier Assembly)

NG --> See step 2

OK --> See step 3

2. **CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - STEREO COMPONENT AMPLIFIER)**
   a. Disconnect the D133 radio receiver assembly connector.
   b. Disconnect the L5 stereo component amplifier assembly connector.
   c. Measure the resistance according to the value(s) in the table below.

   Standard Resistance

Tester	Condition	Specified

Connection		Condition
D133-9 (L+) - L5-3 (L+)	Always	Below 1 ohms
D133-19 (L-) - L5-2 (L-)	Always	Below 1 ohms
D133-8 (R+) - L5-5 (R+)	Always	Below 1 ohms
D133-18 (R-) - L5-4 (R-)	Always	Below 1 ohms
D133-9 (L+) - Body ground	Always	10 kohms or higher
D133-19 (L-) - Body ground	Always	10 kohms or higher
D133-8 (R+) - Body ground	Always	10 kohms or higher
D133-18 (R-) - Body ground	Always	10 kohms or higher
D133-10 (SGND) - Body ground	Always	10 kohms or higher

NG --> REPAIR OR REPLACE HARNESS OR CONNECTOR

OK --> See step 4

3. **REPLACE STEREO COMPONENT AMPLIFIER ASSEMBLY. Refer to REMOVAL**
4. **PROCEED TO NEXT SUSPECTED AREA SHOWN IN PROBLEM SYMPTOMS TABLE. Refer to PROBLEM SYMPTOMS TABLE**

Sound Signal Circuit between Radio Receiver and Multi-Media Interface ECU

DESCRIPTION

The multi-media interface ECU sends sound signals to the radio receiver assembly through this circuit.

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

malfunction in the stereo component amplifier assembly, radio receiver assembly or speakers.

WIRING DIAGRAM

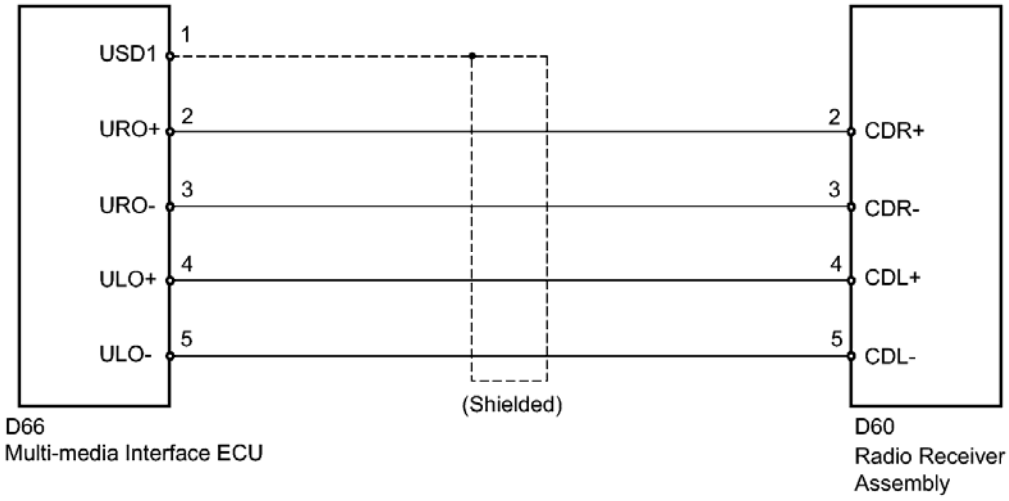


Fig. 85: Multi-Media Interface ECU Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

PROCEDURE

1. **CHECK RADIO RECEIVER ASSEMBLY**
    a. Using an oscilloscope, check the signal waveform between each terminal and the body ground according to the conditions, as shown in the chart below.

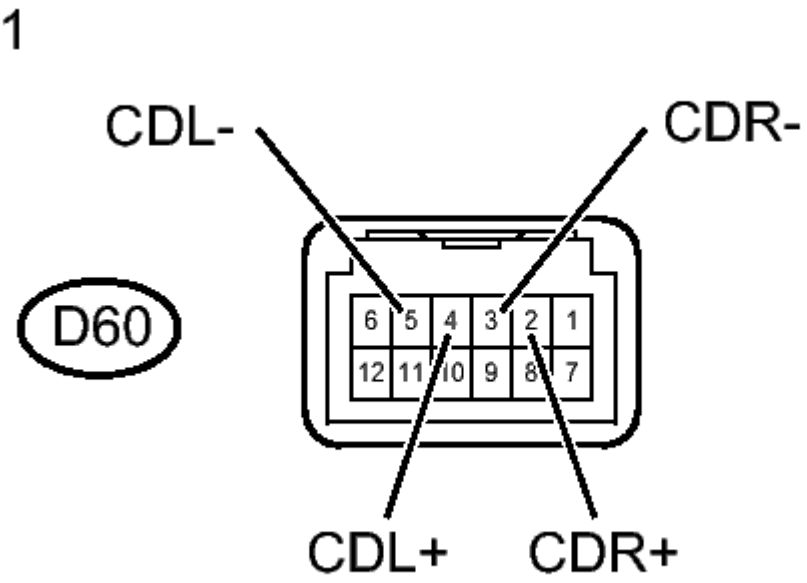


Fig. 86: Checking Radio Receiver Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK

Tester Connection	Condition	Specified Condition
D60-2 (CDR+) - Body ground	Audio sound is being produced	A waveform synchronized with sound is output
D60-3 (CDR-) - Body ground		
D60-4 (CDL+) - Body ground		
D60-5 (CDL-) - Body ground		

TEXT IN ILLUSTRATION

	Component

*1	with harness connected (Radio Receiver Assembly)

NG --> See step 2

OK --> See step 3

2. **CHECK HARNESS AND CONNECTOR (MULTI-MEDIA INTERFACE ECU - RADIO RECEIVER)**
   a. Disconnect the D66 multi-media interface ECU connector.
   b. Disconnect the D60 radio receiver assembly connector.
   c. Measure the resistance according to the value(s) in the table below.

   Standard Resistance

Tester Connection	Condition	Specified Condition
D66-2 (URO+) - D60-2 (CDR+)	Always	Below 1 ohms
D66-3 (URO-) - D60-3 (CDR-)	Always	Below 1 ohms
D66-4 (ULO+) - D60-4 (CDL+)	Always	Below 1 ohms
D66-5 (ULO-) - D60-5 (CDL-)	Always	Below 1 ohms
D66-1 (USD1) - Body ground	Always	10 kohms or higher
D66-2 (URO+) - Body ground	Always	10 kohms or higher

D66-3 (URO-) - Body ground	Always	10 kohms or higher
D66-4 (ULO+) - Body ground	Always	10 kohms or higher
D66-5 (ULO-) - Body ground	Always	10 kohms or higher

NG --> REPAIR OR REPLACE HARNESS OR CONNECTOR

OK --> See step 4

3. **PROCEED TO NEXT SUSPECTED AREA SHOWN IN PROBLEM SYMPTOMS TABLE. Refer to PROBLEM SYMPTOMS TABLE**
4. **REPLACE MULTI-MEDIA INTERFACE ECU. Refer to REMOVAL**

Sound Signal Circuit between Radio Receiver and Stereo Jack Adapter

DESCRIPTION

The No. 1 stereo jack adapter assembly sends an external device sound signal to the radio receiver assembly through this circuit.

The sound signal that has been sent is amplified by the radio receiver assembly and then is sent to the speakers.

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

WIRING DIAGRAM

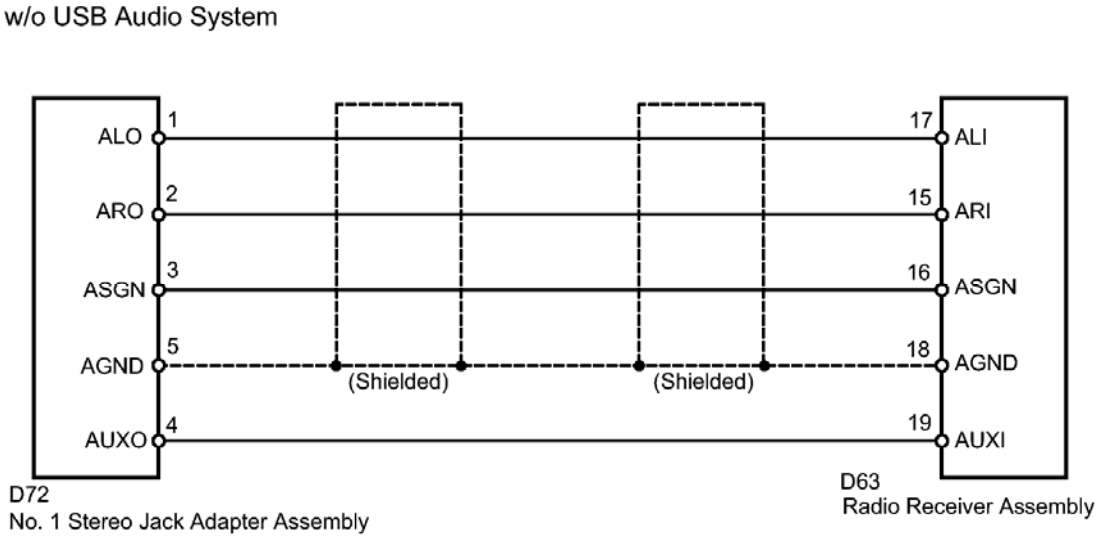


Fig. 87: No. 1 Stereo Jack Adapter Wiring Diagram (w/o USB Audio)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

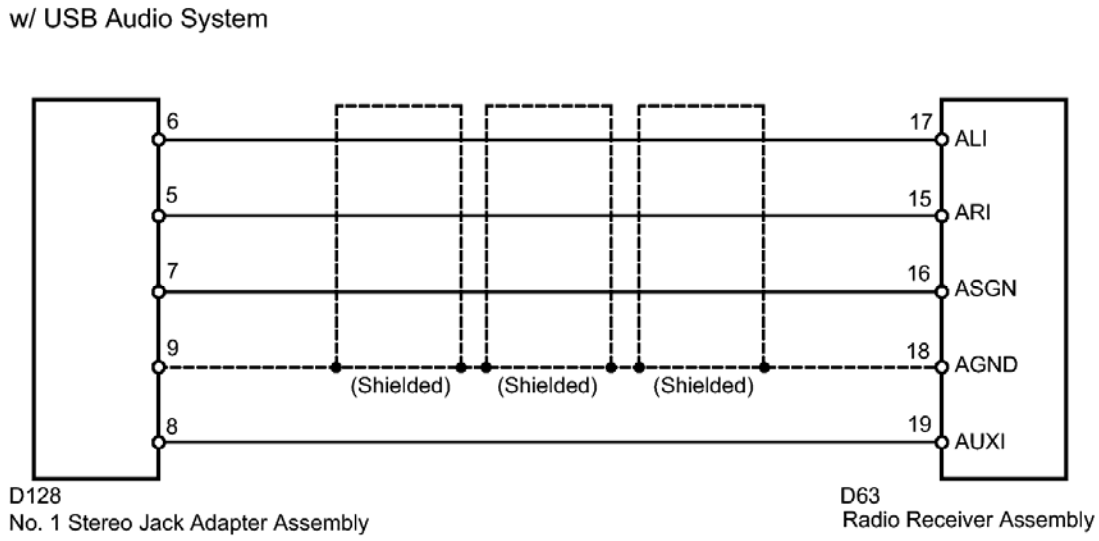


Fig. 88: No. 1 Stereo Jack Adapter Wiring Diagram (w/ USB Audio)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

PROCEDURE

1. **CHECK RADIO RECEIVER ASSEMBLY**
    a. Disconnect the D63 radio receiver assembly connector.

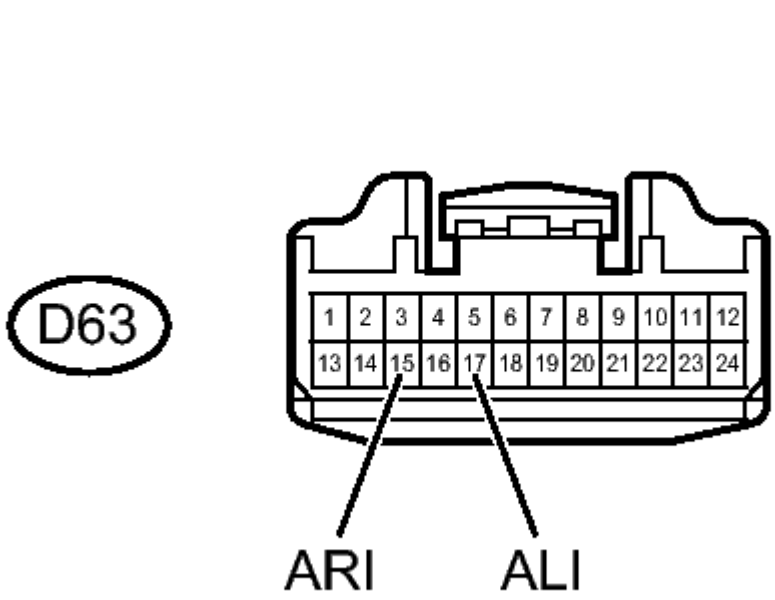


Fig. 89: Checking Radio Receiver Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

b. Using an oscilloscope, check the signal waveform between each terminal and the body ground according to the conditions, as shown in the chart below.

OK

Tester Connection	Condition	Specified Condition
D63-17 (ALI) - Body ground	Audio sound is being produced	A waveform synchronized with sound is output
D63-15 (ARI) - Body ground		

TEXT IN ILLUSTRATION

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

Assembly)

NG --> See step 2

OK --> See step 3

2. **CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - STEREO JACK ADAPTER)**
   a. w/o USB Audio System
      1. Disconnect the D63 radio receiver assembly connector.
      2. Disconnect the D72 No. 1 stereo jack adapter assembly connector.
      3. Measure the resistance according to the value(s) in the table below.

         Standard Resistance

Tester Connection	Condition	Specified Condition
D63-17 (ALI) - D72-1 (ALO)	Always	Below 1 ohms
D63-15 (ARI) - D72-2 (ARO)	Always	Below 1 ohms
D63-16 (ASGN) - D72-3 (ASGN)	Always	Below 1 ohms
D63-18 (AGND) - D72-5 (AGND)	Always	Below 1 ohms
D63-19 (AUXI) - D72-4 (AUXO)	Always	Below 1 ohms
D63-17 (ALI) - Body ground	Always	10 kohms or higher
D63-15 (ARI) - Body ground	Always	10 kohms or higher
D63-16		

(ASGN) - Body ground	Always	10 kohms or higher
D63-18 (AGND) - Body ground	Always	10 kohms or higher
D63-19 (AUXI) - Body ground	Always	10 kohms or higher

b. w/ USB Audio System

1. Disconnect the D63 radio receiver assembly connector.
2. Disconnect the D128 No. 1 stereo jack adapter assembly connector.
3. Measure the resistance according to the value(s) in the table below.

Standard Resistance

Tester Connection	Condition	Specified Condition
D63-17 (ALI) - D128-6	Always	Below 1 ohms
D63-15 (ARI) - D128-5	Always	Below 1 ohms
D63-16 (ASGN) - D128-7	Always	Below 1 ohms
D63-18 (AGND) - D128-9	Always	Below 1 ohms
D63-19 (AUXI) - D128-8	Always	Below 1 ohms
D63-17 (ALI) - Body ground	Always	10 kohms or higher
D63-15 (ARI) - Body ground	Always	10 kohms or higher
D63-16		

(ASGN) - Body ground	Always	10 kohms or higher
D63-18 (AGND) - Body ground	Always	10 kohms or higher
D63-19 (AUXI) - Body ground	Always	10 kohms or higher

NG --> REPAIR OR REPLACE HARNESS OR CONNECTOR

OK --> See step 4

3. **PROCEED TO NEXT SUSPECTED AREA SHOWN IN PROBLEM SYMPTOMS TABLE. Refer to PROBLEM SYMPTOMS TABLE**
4. **REPLACE NO. 1 STEREO JACK ADAPTER ASSEMBLY. Refer to REMOVAL**

Sound Signal Circuit between Multi-Media Interface ECU and Stereo Jack Adapter

DESCRIPTION

The No. 1 stereo jack adapter assembly sends the sound data signal of an external device to the multi-media interface ECU through this circuit.

WIRING DIAGRAM

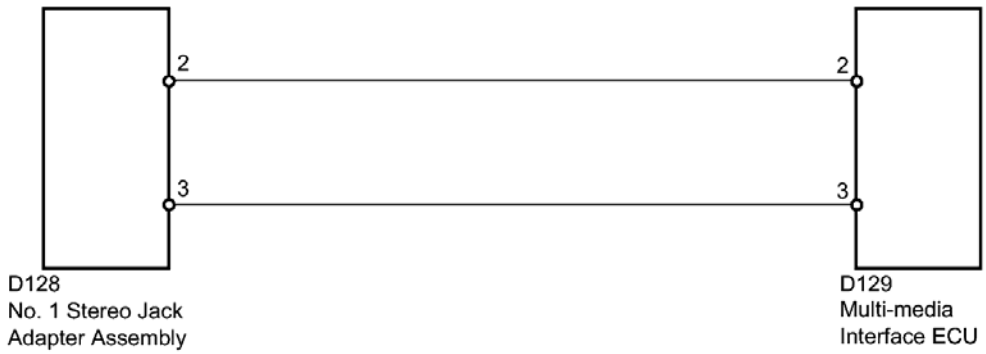


Fig. 90: Sound Signal Circuit Between Multi-Media Interface ECU And Stereo Jack Adapter Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

PROCEDURE

1. **CHECK HARNESS AND CONNECTOR (MULTI-MEDIA INTERFACE ECU - STEREO JACK ADAPTER)**
   a. Disconnect the D129 multi-media interface ECU connector.
   b. Disconnect the D128 No. 1 stereo jack adapter assembly connector.
   c. Measure the resistance according to the value(s) in the table below.

   Standard Resistance

Tester Connection	Condition	Specified Condition
D129-2 - D128-2	Always	Below 1 ohms
D129-3 - D128-3	Always	Below 1 ohms
D129-2 - Body ground	Always	10 kohms or higher
D129-3 - Body ground	Always	10 kohms or higher

   NG --> REPAIR OR REPLACE HARNESS OR CONNECTOR

   OK --> See step 2

2. **PROCEED TO NEXT SUSPECTED AREA SHOWN IN PROBLEM SYMPTOMS TABLE. Refer to PROBLEM SYMPTOMS TABLE**

Mute Signal Circuit between Radio Receiver and Stereo Component Amplifier

DESCRIPTION

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

If there is an open in the circuit, noise can be heard from the speakers when changing the sound source.

If there is a short in the circuit, even though the stereo component amplifier assembly is normal, no sound, or only an extremely small sound, can be produced.

WIRING DIAGRAM

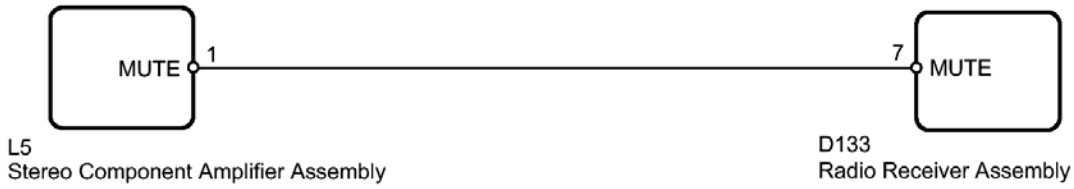


Fig. 91: Mute Signal Circuit Between Radio Receiver And Stereo Component Amplifier Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

PROCEDURE

1. **CHECK STEREO COMPONENT AMPLIFIER ASSEMBLY**
   a. Disconnect the L5 stereo component amplifier assembly connector.

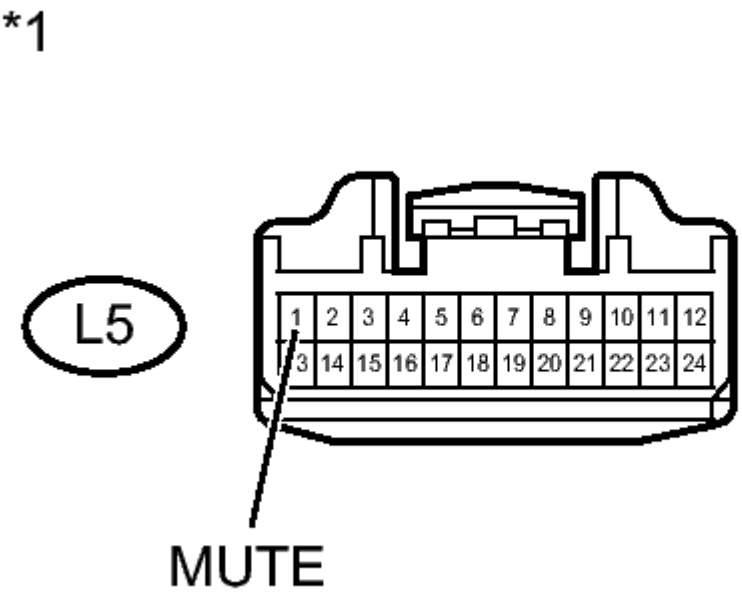


Fig. 92: Measuring Voltage Of Stereo Component Amplifier Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

   Standard Voltage

Tester Connection	Switch Condition	Specified Condition

L5-1 (MUTE) - Body ground	Ignition switch ACC, Audio system playing	Above 3.5 V
	Audio system changing modes	Below 1 V

TEXT IN ILLUSTRATION

*1	Front view of wire harness connector (to Stereo Component Amplifier Assembly)

NG --> See step 2

OK --> See step 3

2. **CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - STEREO COMPONENT AMPLIFIER)**
   a. Disconnect the D133 radio receiver assembly connector.
   b. Disconnect the L5 stereo component amplifier assembly connector.
   c. Measure the resistance according to the value(s) in the table below.

   Standard Resistance

Tester Connection	Condition	Specified Condition
D133-7 (MUTE) - L5-1 (MUTE)	Always	Below 1 ohms
D133-7 (MUTE) - Body ground	Always	10 kohms or higher

NG --> REPAIR OR REPLACE HARNESS OR CONNECTOR

OK --> See step 4

3. **REPLACE STEREO COMPONENT AMPLIFIER ASSEMBLY. Refer to REMOVAL**
4. **REPLACE PROCEED TO NEXT SUSPECTED AREA SHOWN IN PROBLEM SYMPTOMS TABLE. Refer to PROBLEM SYMPTOMS TABLE**

Mute Signal Circuit between Radio Receiver and Multi-Media Interface ECU

DESCRIPTION

The multi-media interface ECU sends a mute signal to the radio receiver assembly.

The radio receiver assembly controls the volume according to the MUTE signal from the multi-media interface ECU.

The MUTE signal is sent to reduce noise and popping sounds generated when switching modes.

If there is an open in the circuit, noise can be heard from the speakers when changing the sound source.

If there is a short in the circuit, even though the radio receiver assembly is functioning, no sound, or only an extremely faint sound, can be heard.

WIRING DIAGRAM



Fig. 93: Mute Signal Circuit Between Radio Receiver And Multi-Media Interface ECU Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

PROCEDURE

1. **CHECK MULTI-MEDIA INTERFACE ECU**
    a. Measure the voltage according to the value(s) in the table below.

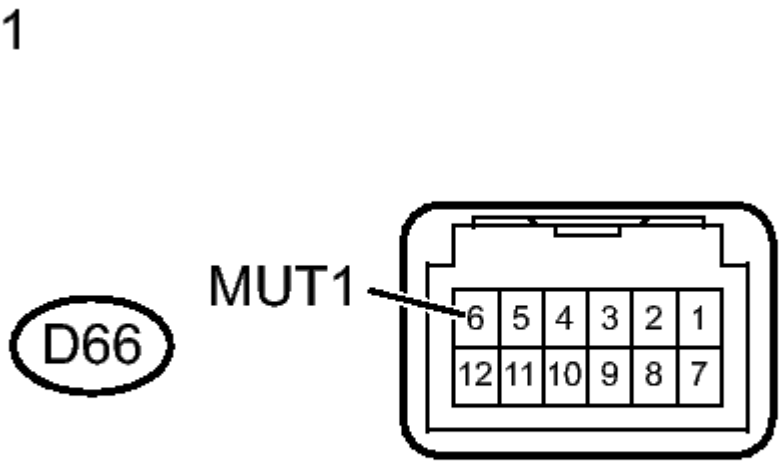


Fig. 94: Checking Multi-Media Interface ECU
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

Standard Voltage

Tester Connection	Switch Condition	Specified Condition
D66-6 (MUT1) - Body ground	Ignition switch ACC	Above 3.5 V

TEXT IN ILLUSTRATION

*1	Component with harness connected (Multi-Media Interface ECU)

NG --> See step 3

OK: Go to next step

2. **CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - MULTI-MEDIA INTERFACE**

ECU)

a. Disconnect the D60 radio receiver assembly connector.
b. Disconnect the D66 multi-media interface ECU connector.
c. Measure the resistance according to the value(s) in the table below.

Standard Resistance

Tester Connection	Condition	Specified Condition
D60-6 (MUTE) - D66-6 (MUT1)	Always	Below 1 ohms
D60-6 (MUTE) - Body ground	Always	10 kohms or higher

NG --> REPAIR OR REPLACE HARNESS OR CONNECTOR

OK --> See step 4

3. **REPLACE MULTI-MEDIA INTERFACE ECU. Refer to REMOVAL**
4. **REPLACE PROCEED TO NEXT SUSPECTED AREA SHOWN IN PROBLEM SYMPTOMS TABLE. Refer to PROBLEM SYMPTOMS TABLE**

AVC-LAN Circuit

DESCRIPTION

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

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

WIRING DIAGRAM

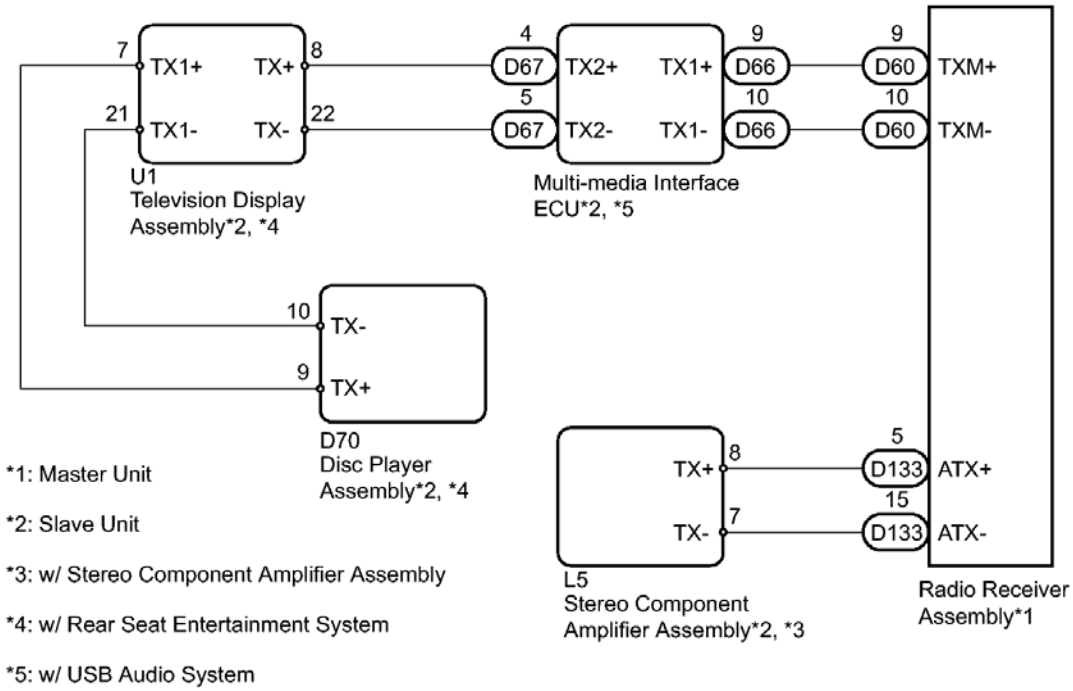


Fig. 95: Radio Receiver Assembly Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

PROCEDURE

1. **INSPECT RADIO RECEIVER ASSEMBLY**
    a. Disconnect the D133*1 and D60*2 radio receiver assembly connectors.

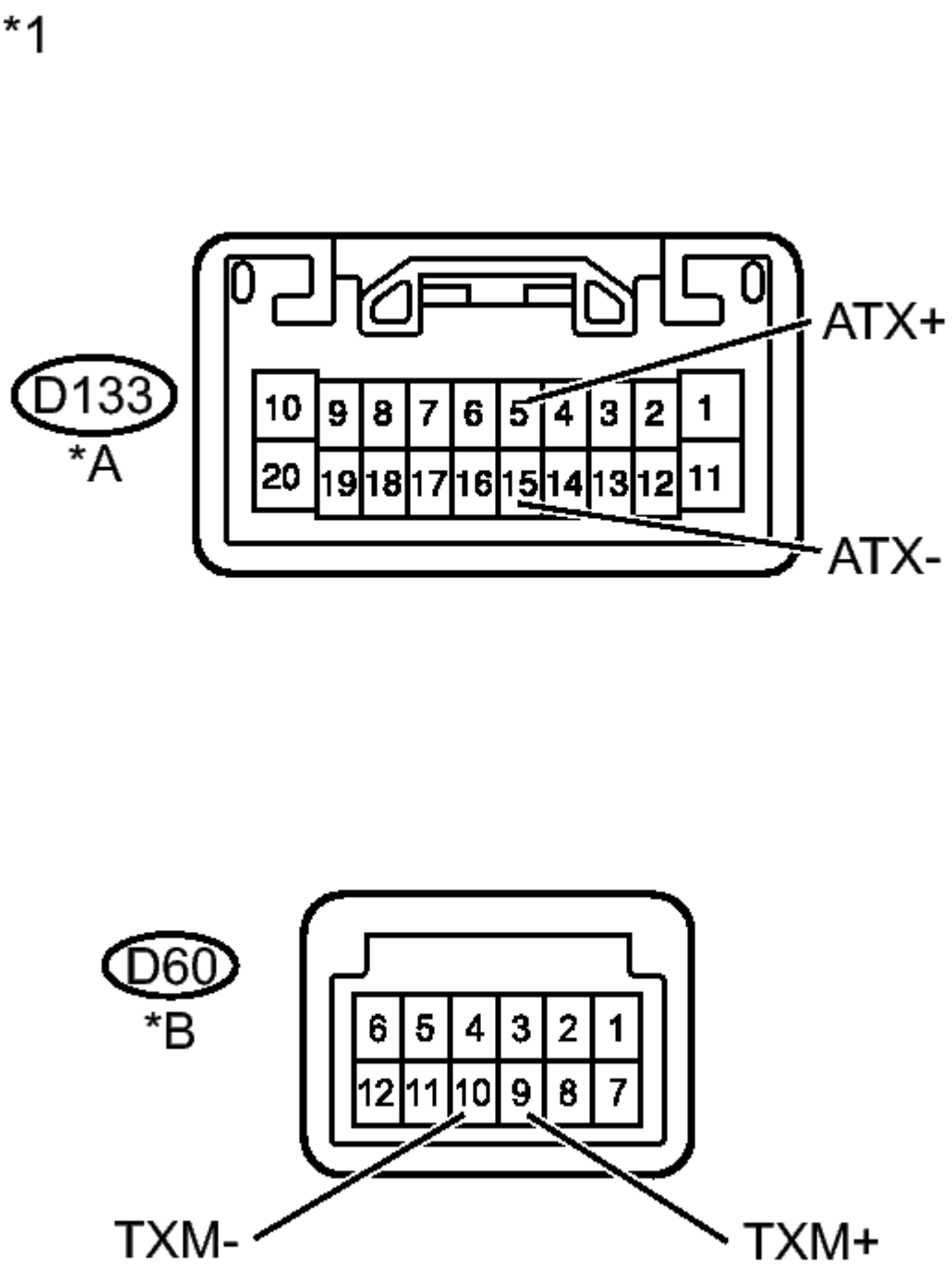


Fig. 96: D133 & D60 Radio Receiver Assembly Connector End View
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

*1: w/ Stereo Component Amplifier Assembly

*2: w/ USB Audio System

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

Standard Resistance

Tester Connection	Condition	Specified Condition
D133-5 (ATX+) - D133-15 (ATX-)*1	Always	60 to 80 ohms
D60-9 (TXM+) - D60-10 (TXM-)*2	Always	60 to 80 ohms

*1: w/ Stereo Component Amplifier Assembly

*2: w/ USB Audio System

TEXT IN ILLUSTRATION

*A	w/ Stereo Component Amplifier Assembly
*B	w/ USB Audio System
*1	Component without harness connected (Radio Receiver Assembly)

NG --> See step 3

OK: Go to next step

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

HINT:

For details of the connectors, refer to "Terminals of ECU". Refer to **TERMINALS OF ECU** .

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

and the component which has stored this code.

1. Disconnect all connectors between the radio receiver assembly and the component which has stored this code.
2. Check for an open or short in the AVC-LAN circuit between the radio receiver assembly and the component which has stored this code.

   OK

   There is no open or short circuit.

NG --> REPAIR OR REPLACE HARNESS OR CONNECTOR

OK --> See step 4

3. **REPLACE RADIO RECEIVER ASSEMBLY. Refer to REMOVAL**
4. **PROCEED TO NEXT SUSPECTED AREA SHOWN IN PROBLEM SYMPTOMS TABLE. Refer to PROBLEM SYMPTOMS TABLE**

Vehicle Speed Signal Circuit between Stereo Component Amplifier and Combination Meter

DESCRIPTION

Audio function:

This circuit is necessary for the automatic sound levelizer (ASL) built into the stereo component amplifier assembly.

ASL function:

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

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

HINT:

- A voltage of 12 V or 5 V is output from each ECU connected to the combination meter assembly, and then input to the combination meter assembly. The signal is changed to a pulse signal at the transistor in the combination meter assembly. Each ECU controls its respective systems based on the pulse signal.
- If a short occurs in any of the ECUs or in the wire harness connected to an ECU, related components will not operate normally.

WIRING DIAGRAM

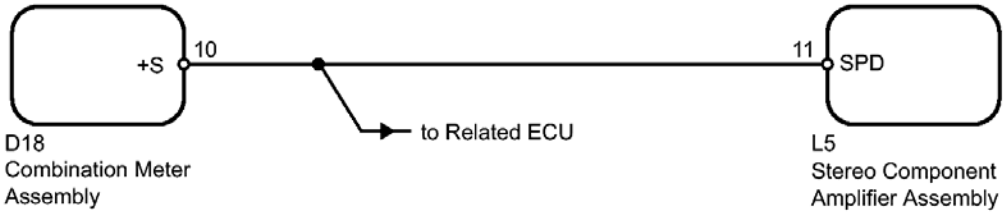


Fig. 97: Vehicle Speed Signal Circuit Between Stereo Component Amplifier And Combination Meter Circuit Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

PROCEDURE

1. **CHECK OPERATION OF SPEEDOMETER**
   a. Drive the vehicle and check if the function of the speedometer on the combination meter assembly is normal.

      OK

      Actual vehicle speed and the speed indicated on the speedometer are the same.

      HINT:

      - The vehicle speed sensor is functioning normally when the indication on the speedometer is normal.
      - The speed indicated on the speedometer has an allowable margin of error. This can be tested using a speedometer tester (calibrated chassis dynamometer). For details about testing and the margin of error, refer to "ON-VEHICLE INSPECTIONk" in the meter/gauge system. Refer to **ON-VEHICLE INSPECTION** .

   NG --> See step 4

   OK: Go to next step

2. **CHECK HARNESS AND CONNECTOR (COMBINATION METER - STEREO COMPONENT AMPLIFIER)**
   a. Disconnect the L5 stereo component amplifier assembly connector.
   b. Disconnect the D18 combination meter assembly connector.
   c. Measure the resistance according to the value(s) in the table below.

Standard Resistance

Tester Connection	Condition	Specified Condition
L5-11 (SPD) - D18-10 (+S)	Always	Below 1 ohms
L5-11 (SPD) - Body ground	Always	10 kohms or higher

NG --> REPAIR OR REPLACE HARNESS OR CONNECTOR

OK: Go to next step

3. **CHECK COMBINATION METER ASSEMBLY (SPEED SIGNAL)**
   a. Check the input waveform.

*1

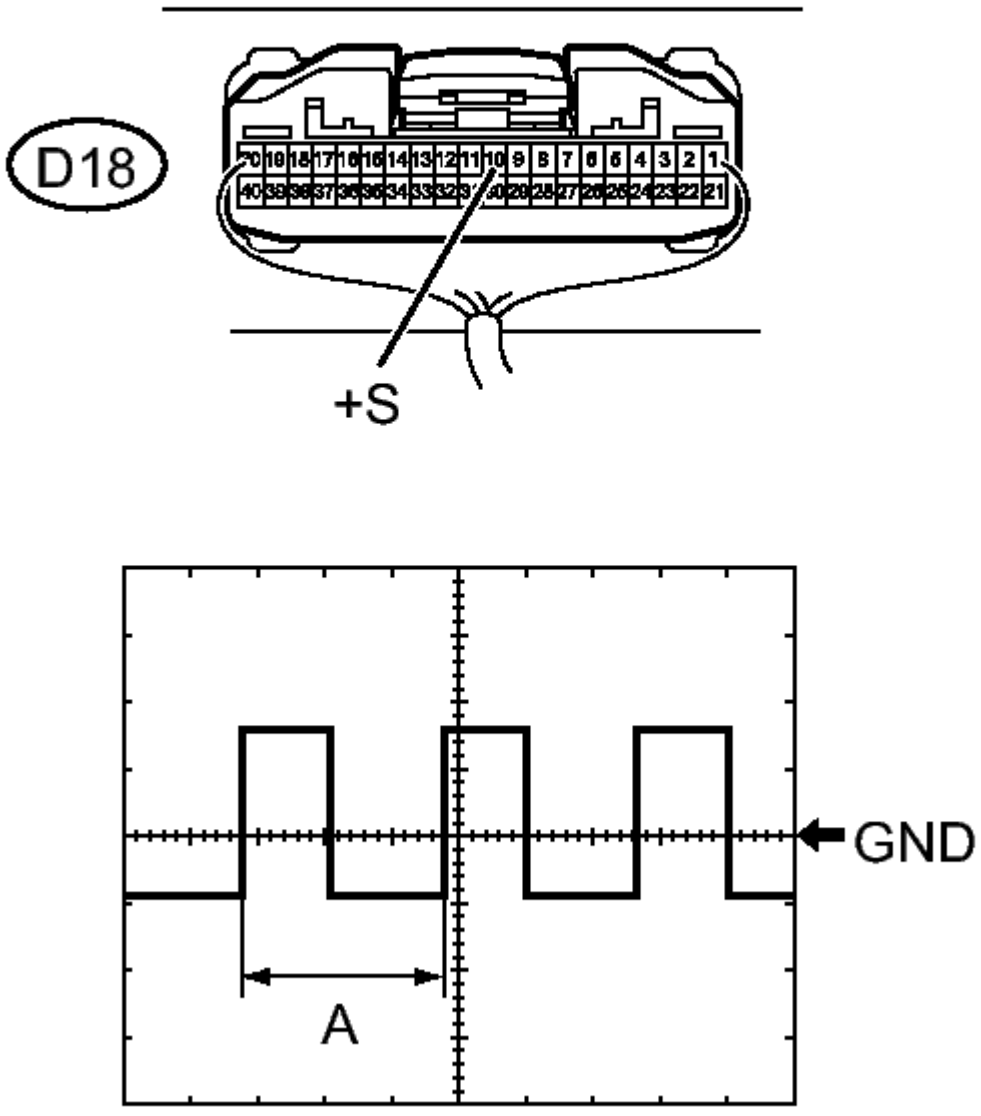


Fig. 98: Inspecting Combination Meter Assembly (Speed Signal) With Input Waveform
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

1. Remove the combination meter assembly with the connector(s) still connected.
2. Connect an oscilloscope to terminal D18-10 (+S) and body ground.

3. Turn the ignition switch to ON.
4. Check the signal waveform according to the condition(s) in the table below.

MEASUREMENT CONDITION

Item	Condition
Terminal No. (Symbol)	D18-10 (+S) - Body ground
Tool setting	5 V/DIV., 20 ms./DIV.
Condition	Being driven at approx, 20 km/h (12 mph)

OK

The waveform display is as shown in the illustration.

TEXT IN ILLUSTRATION

*1	Component with harness connected (Combination Meter Assembly)

HINT:

When the system is function normally, one wheel revolution generates 4 pulses.

As the vehicle speed increases, the width indicated by (A) in the illustration narrows.

NG --> See step 6

OK --> See step 5

4. **GO TO METER / GAUGE SYSTEM. Refer to HOW TO PROCEED WITH TROUBLESHOOTING**
5. **REPLACE STEREO COMPONENT AMPLIFIER ASSEMBLY. Refer to REMOVAL**
6. **REPLACE COMBINATION METER ASSEMBLY. Refer to REMOVAL**

Cellular Phone Voice Circuit between Radio Receiver and Stereo Component Amplifier

SYSTEM DESCRIPTION

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

WIRING DIAGRAM

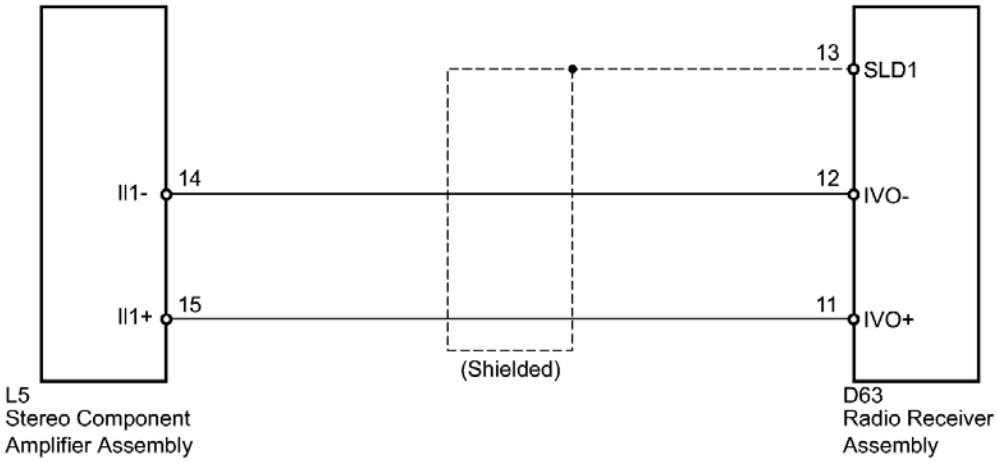


Fig. 99: Cellular Phone Voice Circuit Between Radio Receiver And Stereo Component AmplifierCircuit Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

PROCEDURE

1. **CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - STEREO COMPONENT AMPLIFIER)**
   a. Disconnect the D63 radio receiver assembly connector.
   b. Disconnect the L5 stereo component amplifier assembly connector.
   c. Measure the resistance according to the value(s) in the table below.

   Standard Resistance

Tester Connection	Condition	Specified Condition
D63-11 (IVO+) - L5-15 (II1+)	Always	Below 1 ohms

D63-12 (IVO-) - L5-14 (II1-)	Always	Below 1 ohms
D63-11 (IVO+) - Body ground	Always	10 kohms or higher
D63-12 (IVO-) - Body ground	Always	10 kohms or higher
D63-13 (SLD1) - Body ground	Always	10 kohms or higher

NG --> REPAIR OR REPLACE HARNESS OR CONNECTOR

OK --> See step 2

2. **PROCEED TO NEXT SUSPECTED AREA SHOWN IN PROBLEM SYMPTOMS TABLE. Refer to PROBLEM SYMPTOMS TABLE**

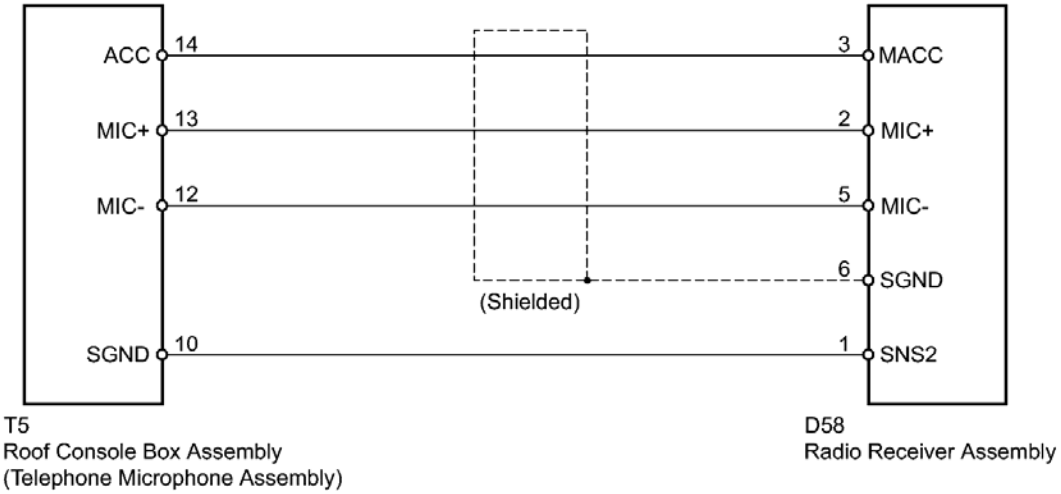
Microphone Circuit between Microphone and Radio Receiver

DESCRIPTION

- Using this circuit, the radio receiver assembly sends power to the roof console box assembly (telephone microphone assembly), and the roof console box assembly sends microphone signals to the radio receiver assembly (w/o Manual (SOS) Switch).
- Using this circuit, the telematics transceiver sends power to the roof console box assembly (telephone microphone assembly), and the roof console box assembly (telephone microphone assembly) sends microphone signals to the radio receiver assembly via the telematics transceiver. The radio receiver assembly and roof console box assembly (telephone microphone assembly) are connected to each other using the microphone connection detection signal lines (w/ Manual (SOS) Switch).

WIRING DIAGRAM

w/o Manual (SOS) Switch:



w/ Manual (SOS) Switch:

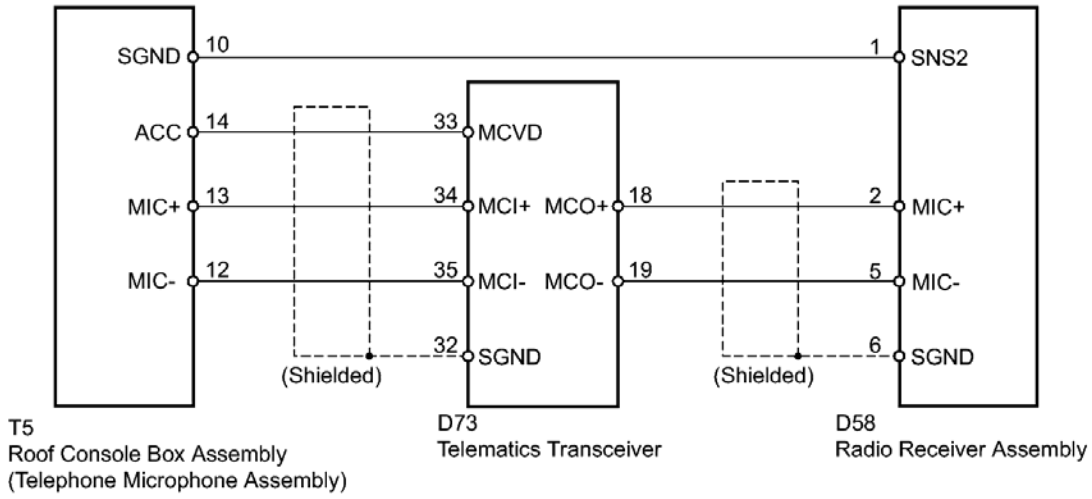


Fig. 100: Microphone Circuit Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

NOTE: **If the telematics transceiver has been replaced, perform the Activate DCM procedure using the Techstream. Refer to DCM ACTIVATION .**

PROCEDURE

1. **CONFIRM MODEL**
   a. Choose the model to be inspected.

RESULT

Model	Proceed to
w/o Manual (SOS) Switch	A
w/ Manual (SOS) Switch	B

B --> See step 4

A: Go to next step

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

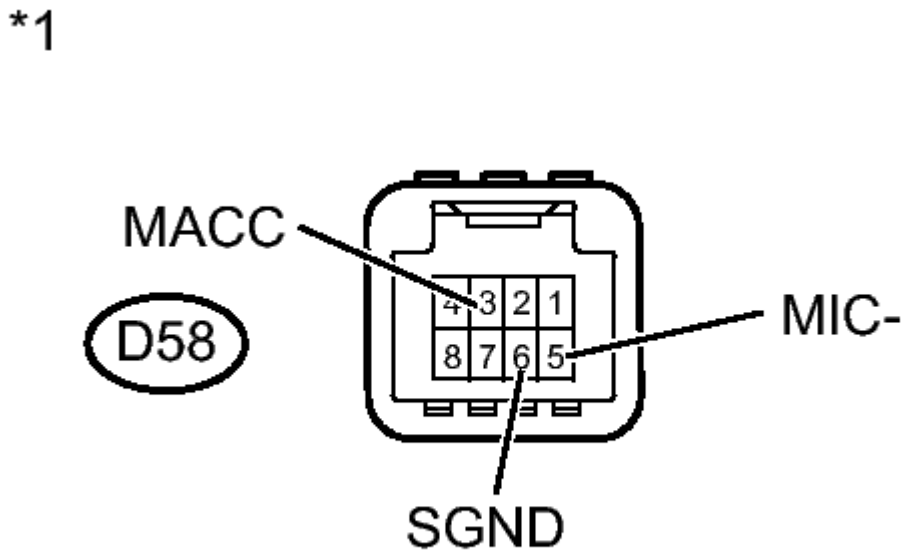


Fig. 101: Measuring Voltage Of Radio Receiver Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

Standard Voltage

Tester Connection	Switch Condition	Specified Condition
D58-3 (MACC) - Body ground	Ignition switch ACC	5 V

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

Standard Resistance

Tester Connection	Condition	Specified Condition
D58-6 (SGND) - Body ground	Always	Below 1 ohms
D58-5 (MIC-) - Body ground	Always	Below 1 ohms

TEXT IN ILLUSTRATION

*1	Component with harness connected (Radio receiver assembly)

NG --> See step 11

OK: Go to next step

3. **CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - ROOF CONSOLE BOX)**
   a. Disconnect the D58 radio receiver assembly connector.
   b. Disconnect the T5 roof console box assembly connector.
   c. Measure the resistance according to the value(s) in the table below.

Standard Resistance

Tester	Condition	Specified

Connection		Condition
D58-1 (SNS2) - T5-10 (SGND)	Always	Below 1 ohms
D58-2 (MIC+) - T5-13 (MIC+)	Always	Below 1 ohms
D58-3 (MACC) - T5-14 (ACC)	Always	Below 1 ohms
D58-5 (MIC-) - T5-12 (MIC-)	Always	Below 1 ohms
D58-1 (SNS2) - Body ground	Always	10 kohms or higher
D58-2 (MIC+) - Body ground	Always	10 kohms or higher
D58-3 (MACC) - Body ground	Always	10 kohms or higher
D58-5 (MIC-) - Body ground	Always	10 kohms or higher
D58-6 (SGND) - Body ground	Always	10 kohms or higher

d. Proceed to the next step based on the inspection result.

RESULT

Result	Proceed to
NG	A
OK	B

B --> See step 9

A --> REPAIR OR REPLACE HARNESS OR CONNECTOR

4. **INSPECT RADIO RECEIVER ASSEMBLY**
   a. Measure the resistance according to the value(s) in the table below.

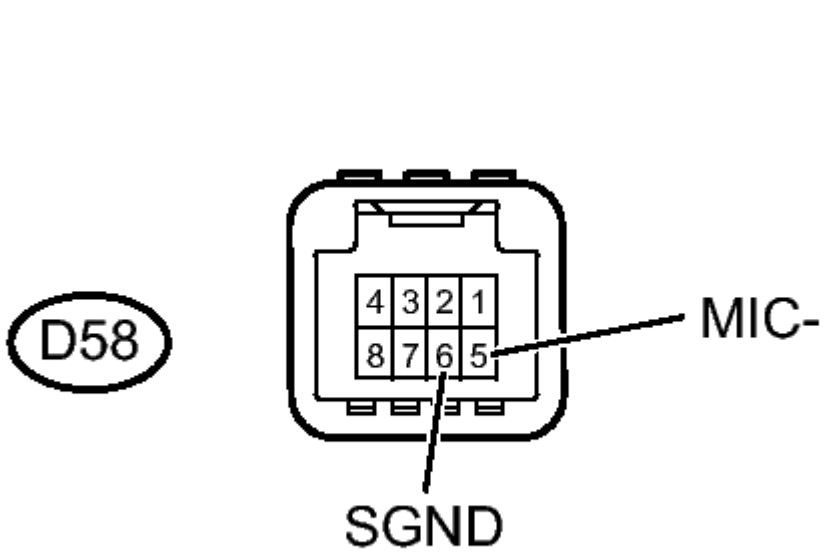


Fig. 102: Measuring Resistance Of Radio Receiver Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

Standard Resistance

Tester Connection	Condition	Specified Condition
D58-6 (SGND) - Body ground	Always	Below 1 ohms
D58-5 (MIC-) - Body ground	Always	Below 1 ohms

TEXT IN ILLUSTRATION

	Component with

*1	harness connected (Radio receiver assembly)

NG --> See step 12

OK: Go to next step

5. **CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - ROOF CONSOLE BOX)**
   a. Disconnect the D58 radio receiver assembly connector.
   b. Disconnect the T5 roof console box assembly connector.
   c. Measure the resistance according to the value(s) in the table below.

   Standard Resistance

Tester Connection	Condition	Specified Condition
D58-1 (SNS2) - T5-10 (SGND)	Always	Below 1 ohms

NG --> See step 13

OK: Go to next step

6. **CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - TELEMATICS TRANSCEIVER)**
   a. Disconnect the D58 radio receiver assembly connector.
   b. Disconnect the D73 telematics transceiver connector.
   c. Measure the resistance according to the value(s) in the table below.

   Standard Resistance

Tester Connection	Condition	Specified Condition
D58-2 (MIC+) - D73-18 (MCO+)	Always	Below 1 ohms
D58-5 (MIC-) - D73-19	Always	Below 1 ohms

(MCO-)		
D58-2 (MIC+) - Body ground	Always	10 kohms or higher
D58-5 (MIC-) - Body ground	Always	10 kohms or higher
D58-6 (SGND) - Body ground	Always	10 kohms or higher

NG --> REPAIR OR REPLACE HARNESS OR CONNECTOR

OK: Go to next step

7. **CHECK HARNESS AND CONNECTOR (TELEMATICS TRANSCEIVER - ROOF CONSOLE BOX)**
   a. Disconnect the D73 telematics transceiver connector.
   b. Disconnect the T5 roof console box assembly connector.
   c. Measure the resistance according to the value(s) in the table below.

   Standard Resistance

Tester Connection	Condition	Specified Condition
D73-33 (MCVD) - T5-14 (ACC)	Always	Below 1 ohms
D73-34 (MCI+) - T5-13 (MIC+)	Always	Below 1 ohms
D73-35 (MCI-) - T5-12 (MIC-)	Always	Below 1 ohms
D73-33 (MCVD) - Body ground	Always	10 kohms or higher
D73-34		

(MCI+) - Body ground	Always	10 kohms or higher
D73-35 (MCI-) - Body ground	Always	10 kohms or higher
D73-32 (SGND) - Body ground	Always	10 kohms or higher

NG --> REPAIR OR REPLACE HARNESS OR CONNECTOR

OK: Go to next step

8. **INSPECT TELEMATICS TRANSCEIVER**
   a. Measure the voltage according to the value(s) in the table below.

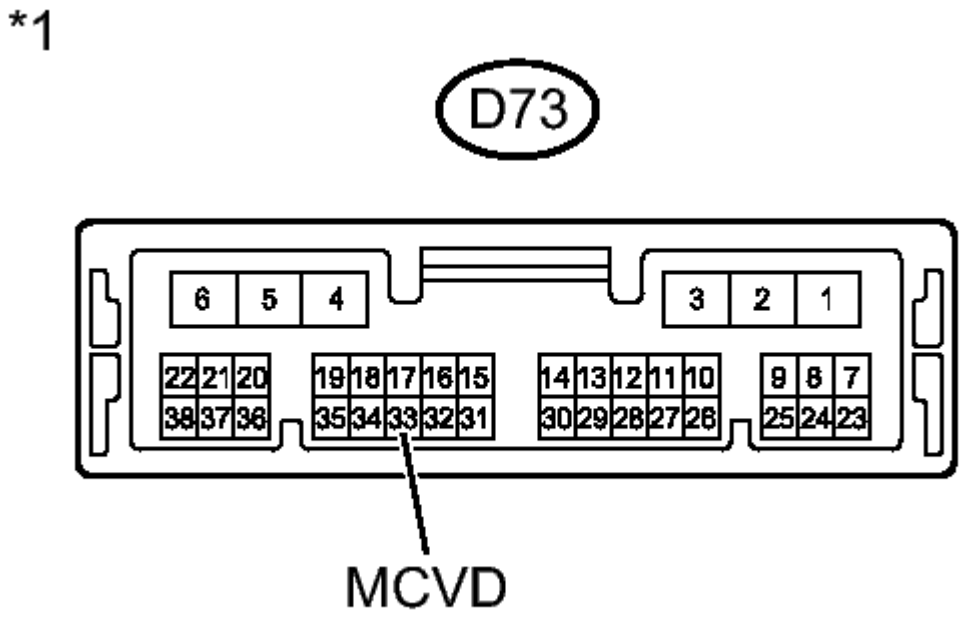


Fig. 103: Measuring Voltage Of Telematics Transceiver
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

Standard Voltage

Tester Connection	Switch Condition	Specified Condition

D73-33 (MCVD) - Body ground	Ignition switch ACC	5 V

TEXT IN ILLUSTRATION

*1	Component with harness connected (Telematics Transceiver)

NG --> See step 14

OK: Go to next step

9. **INSPECT ROOF CONSOLE BOX ASSEMBLY**
   a. Measure the resistance according to the value(s) in the table below.

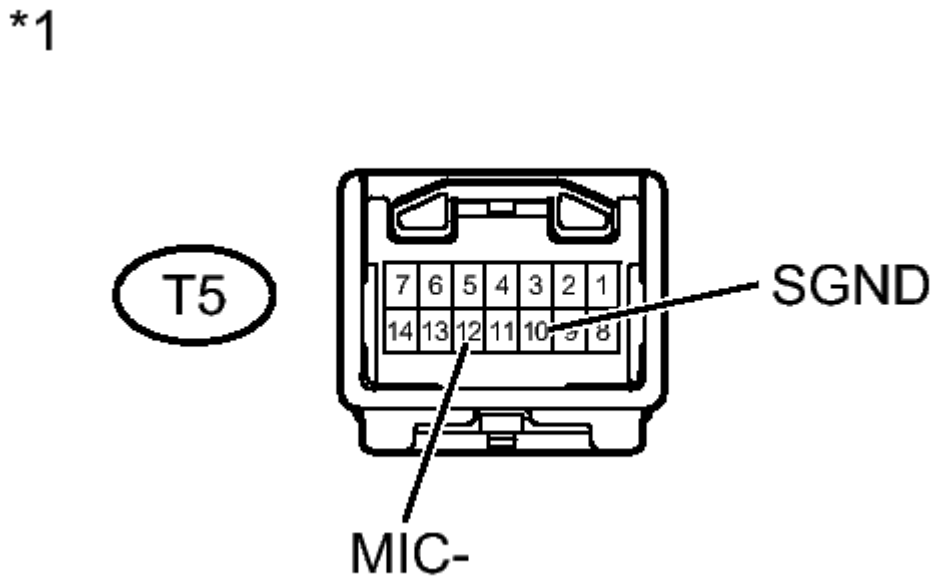


Fig. 104: Measuring Resistance Of Roof Console Box Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

Standard Resistance

Tester Connection	Condition	Specified Condition

T5-10 (SGND) - T5-12 (MIC-)	Always	Below 1 ohms

TEXT IN ILLUSTRATION

*1	Component without harness connected (Roof console box assembly)

NG --> See step 16

OK: Go to next step

10. **INSPECT ROOF CONSOLE BOX ASSEMBLY**
    a. Reconnect the D58 radio receiver assembly connector.
    b. Reconnect the D73 telematics transceiver connector (w/ Manual(SOS) Switch).
    c. Reconnect the T5 roof console box assembly connector.

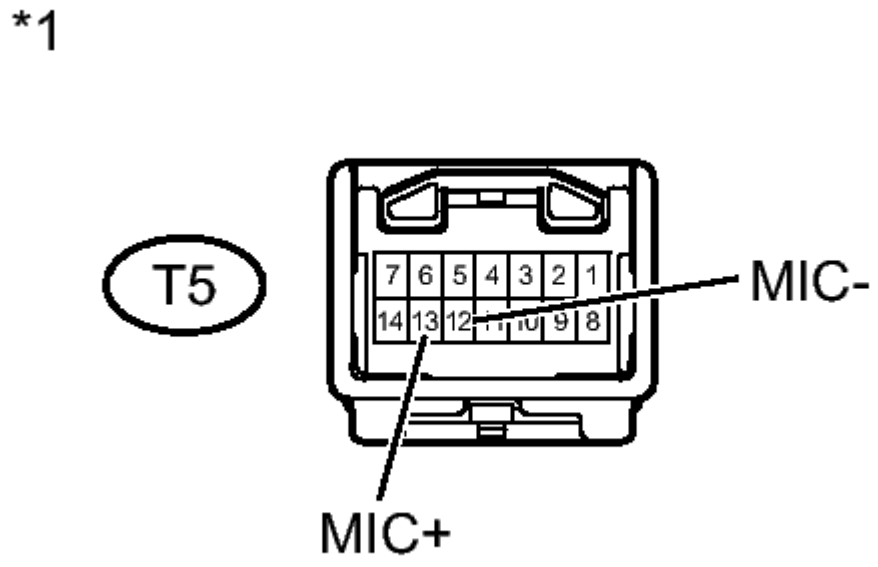


Fig. 105: Checking Roof Console Box Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

d. Turn the ignition switch to ACC.

e. Connect an oscilloscope to terminals 13 (MIC+) and 12 (MIC-) of the T5 roof console box assembly connector.

f. Check the waveform of the telephone microphone assembly using an oscilloscope.

RESULT

Result	Proceed to
A waveform synchronized with the voice input to the telephone microphone assembly is output	A
A waveform synchronized with the voice input to the telephone microphone assembly is not output	B

TEXT IN ILLUSTRATION

*1	Component with harness connected (Roof console box assembly)

B --> See step 16

A --> See step 15

11. **REPLACE RADIO RECEIVER ASSEMBLY. Refer to REMOVAL**
12. **REPLACE RADIO RECEIVER ASSEMBLY. Refer to REMOVAL**
13. **REPLACE RADIO RECEIVER ASSEMBLY. Refer to REMOVAL**
14. **REPLACE TELEMATICS TRANSCEIVER. Refer to REMOVAL**

15. **PROCEED TO NEXT SUSPECTED AREA SHOWN IN PROBLEM SYMPTOMS TABLE. Refer to PROBLEM SYMPTOMS TABLE**
16. **REPLACE ROOF CONSOLE BOX ASSEMBLY. Refer to REMOVAL**

Radio Receiver Communication Error

WIRING DIAGRAM

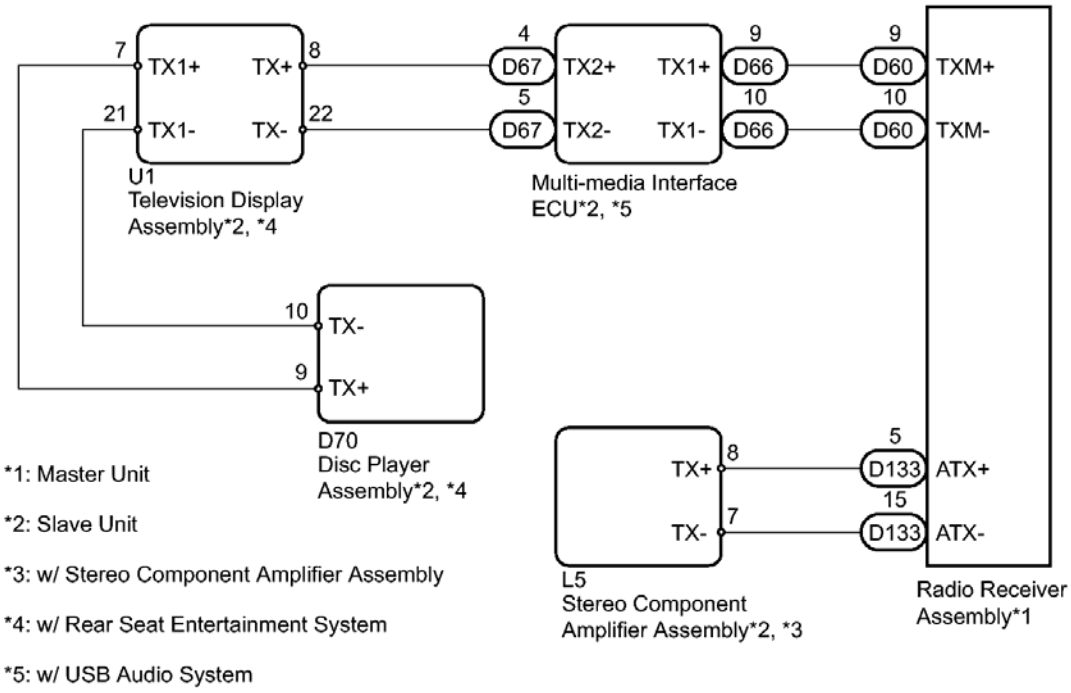


Fig. 106: Radio Receiver Assembly Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

PROCEDURE

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

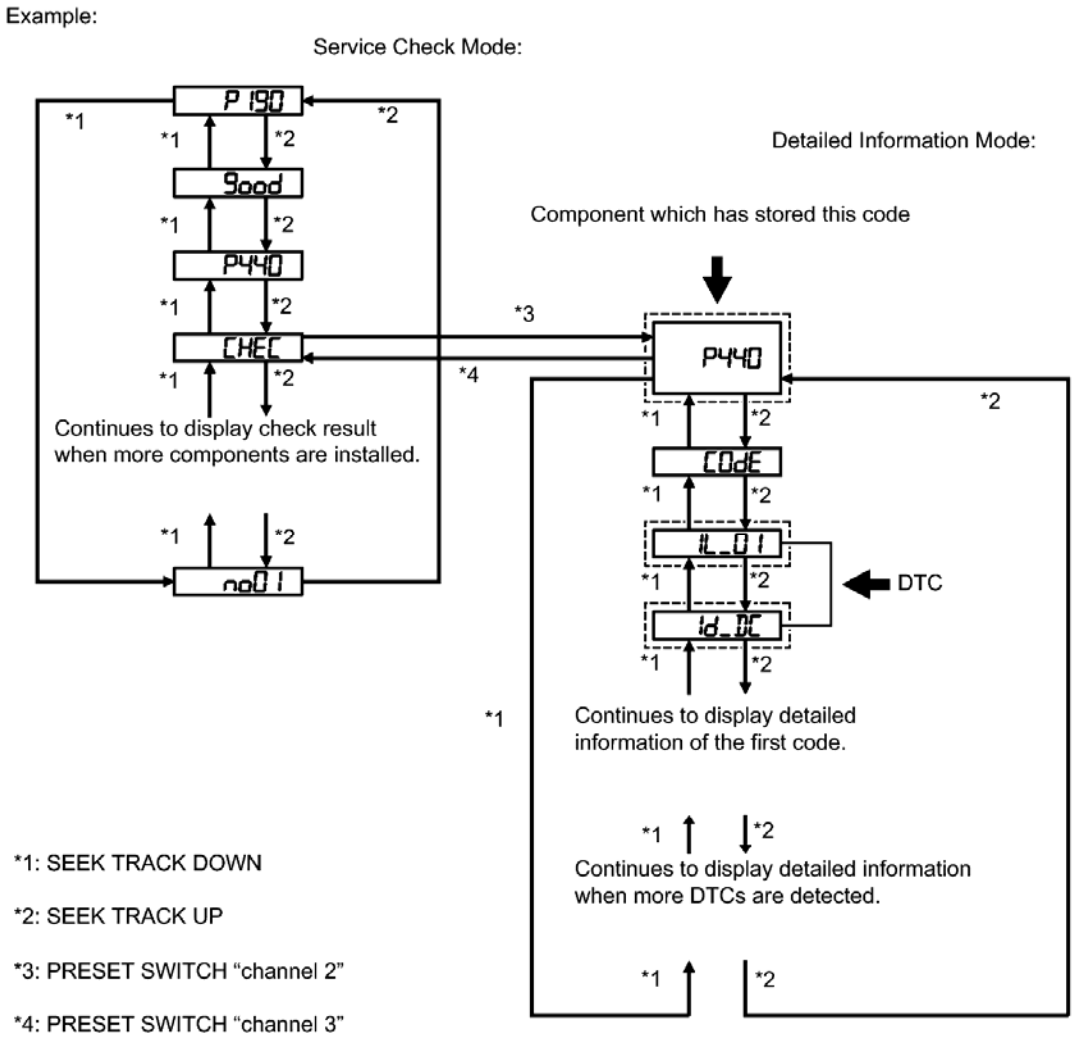


Fig. 107: Identifying "Detailed Information Mode"
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

HINT:

- "190 (radio receiver assembly)" is the component shown by the sub-code in the example shown in the illustration.
- For details of the DTC display, refer to "DTC Check/Clear". Refer to **DTC CHECK / CLEAR** .

NEXT: Go to next step

2. **CHECK COMPONENT SHOWN BY SUB-CODE**
   a. Select the component which has stored this code.

HINT:

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

COMPONENT TABLE

Component	Proceed to
Except "Bluetooth" handsfree module and satellite radio tuner	A
"Bluetooth" handsfree module (19D)	B
Satellite radio tuner (1F1)*1	

*1: w/ Satellite Radio

B --> See step 7

A: Go to next step

3. **CHECK POWER SOURCE CIRCUIT OF COMPONENT SHOWN BY SUB-CODE**
   a. Inspect the power source circuit of the component shown by the sub-code.

HINT:

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

COMPONENT TABLE

Component	Proceed to
Stereo component amplifier assembly	Stereo Component Amplifier Power Source Circuit. Refer to **Stereo**

(440)*1	**Component Amplifier Power Source Circuit**
Multi-Media interface ECU (388) *3	Multi-Media Interface ECU Power Source Circuit. Refer to **Multi-Media Interface ECU Power Source Circuit**
Television display assembly (1B0)*2	Television Display Assembly Power Source Circuit. Refer to **Television Display Power Source Circuit**
Disc player assembly (1A0)*2	Disc Player Changer Power Source Circuit. Refer to **Disc Player Changer Power Source Circuit**

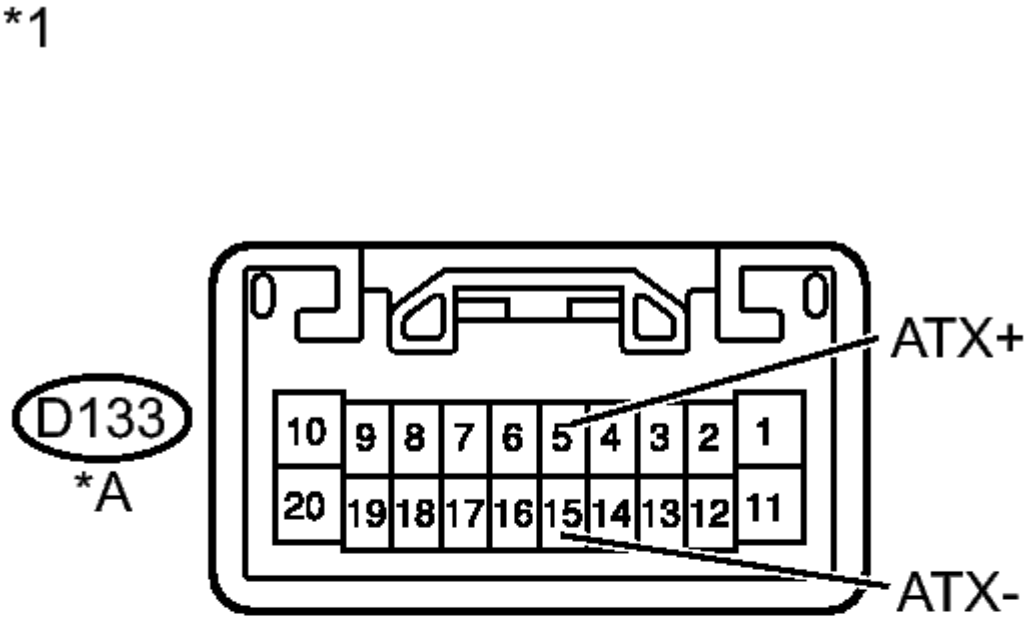
*1: w/ Stereo Component Amplifier Assembly

*2: w/ Rear Seat Entertainment System

*3: w/ USB Audio System

NEXT: Go to next step

4. **INSPECT RADIO RECEIVER ASSEMBLY**
   a. Disconnect the D133*1 and D60*2 radio receiver assembly connectors.



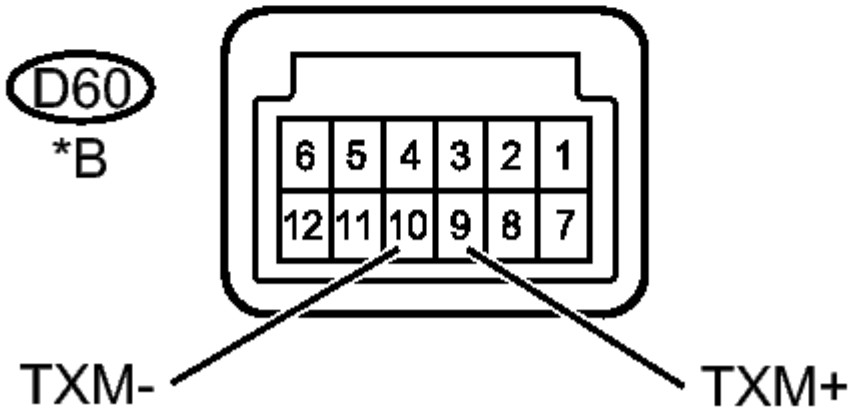


Fig. 108: D133 & D60 Radio Receiver Assembly Connector End View
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

*1: w/ Stereo Component Amplifier Assembly

*2: w/ USB Audio System

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

Standard Resistance

Tester Connection	Condition	Specified Condition
D133-5 (ATX+) - D133-15 (ATX-)*1	Always	60 to 80 ohms
D60-9 (TXM+) - D60-10 (TXM-)*2	Always	60 to 80 ohms

*1: w/ Stereo Component Amplifier Assembly

*2: w/ USB Audio System

TEXT IN ILLUSTRATION

*A	w/ Stereo Component Amplifier Assembly
*B	w/ USB Audio System
*1	Component without harness connected (Radio Receiver Assembly)

NG --> See step 8

OK: Go to next step

5. **CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - COMPONENT SHOWN BY SUB-CODE)**

HINT:

- Start the check from the circuit that is near the component shown by the sub-code first.
- For details of the connectors, refer to "Terminals of ECU". Refer to **TERMINALS OF ECU** .

a. Referring to the wiring diagram below, check the AVC-LAN circuit between the radio receiver assembly and the component shown by the sub-code.

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

OK

There is no open or short circuit.

NG --> REPAIR OR REPLACE HARNESS OR CONNECTOR

OK: Go to next step

6. **REPLACE COMPONENT SHOWN BY SUB-CODE**

a. Replace the component shown by the sub-code with a normal one and check if the same problem occurs again.

OK

Same problem does not occur.

NG --> See step 9

OK --> END

7. **REPLACE RADIO RECEIVER ASSEMBLY. Refer to REMOVAL**
8. **REPLACE RADIO RECEIVER ASSEMBLY. Refer to REMOVAL**
9. **REPLACE RADIO RECEIVER ASSEMBLY. Refer to REMOVAL**

Stereo Component Amplifier Communication Error

WIRING DIAGRAM

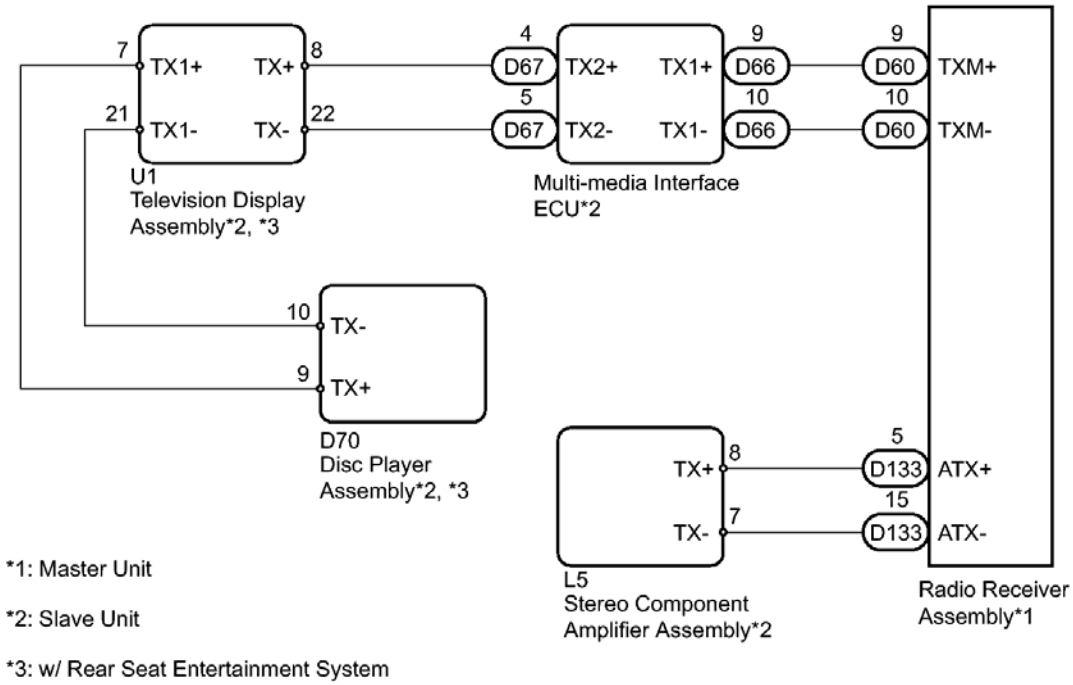


Fig. 109: Stereo Component Amplifier Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

PROCEDURE

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

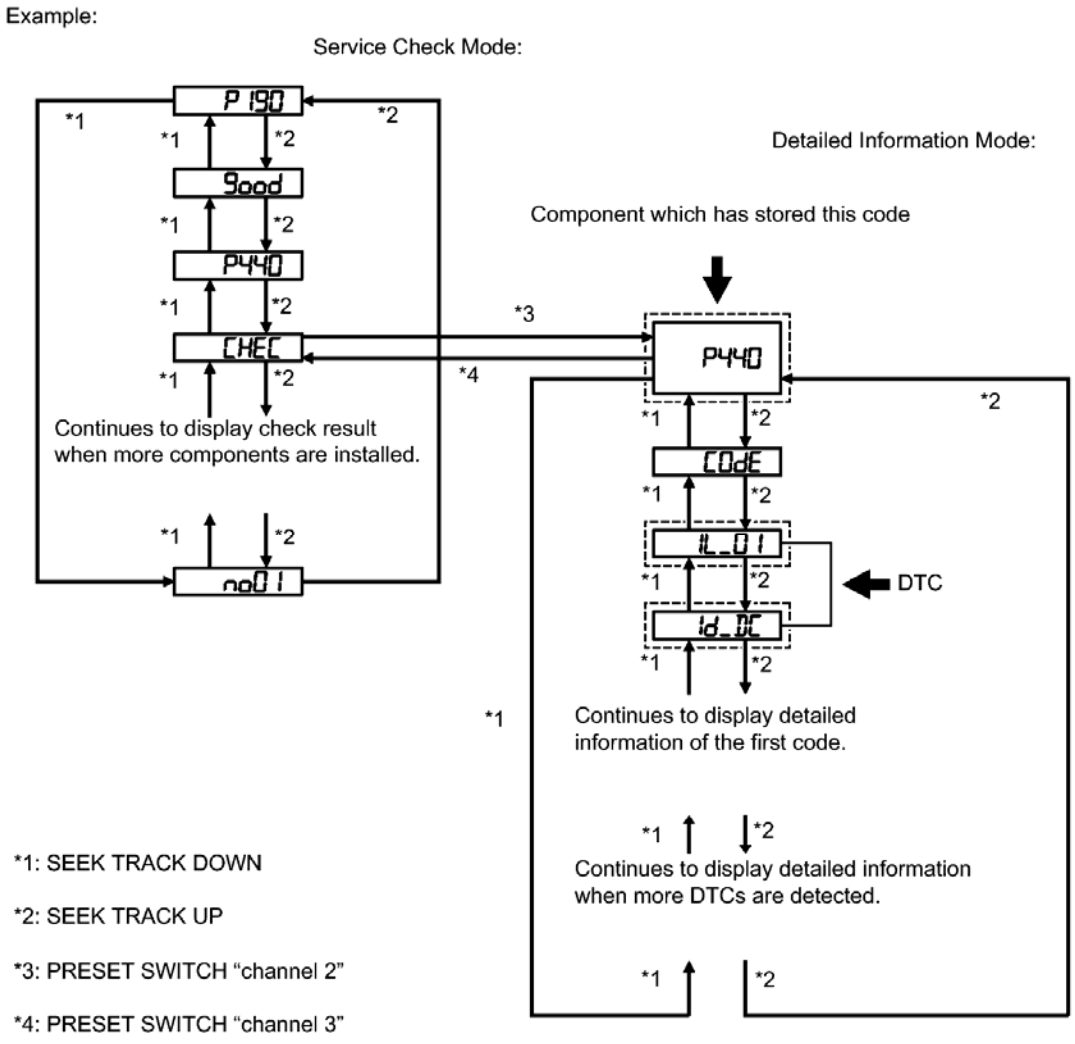


Fig. 110: Identifying "Detailed Information Mode"
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

HINT:

- "190 (radio receiver assembly)" is the component shown by the sub-code in the example shown in the illustration.
- For details of the DTC display, refer to "DTC Check/Clear". Refer to **DTC CHECK / CLEAR** .

NEXT: Go to next step

2. **CHECK POWER SOURCE CIRCUIT OF COMPONENT SHOWN BY SUB-CODE**
   a. Inspect the power source circuit of the component shown by the sub-code.

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

HINT:

The "Bluetooth" handsfree module is built into the radio receiver assembly.

COMPONENT TABLE

Component	Proceed to
"Bluetooth" handsfree module (19D)	Radio Receiver Power Source Circuit. Refer to **Radio Receiver Power Source Circuit**
Satellite radio tuner (1F1)	
Radio receiver assembly (190)	
Television display assembly (1B0)*1	Television Display Assembly Power Source Circuit. Refer to **Television Display Power Source Circuit**
Multi-Media interface ECU (388)	Multi-Media Interface ECU Power Source Circuit. Refer to **Multi-Media Interface ECU Power Source Circuit**

Disc player assembly (1A0)*1	Disc Player Changer Power Source Circuit. Refer to **Disc Player Changer Power Source Circuit**

*1: w/ Rear Seat Entertainment System

NEXT: Go to next step

3. **INSPECT RADIO RECEIVER ASSEMBLY**
   a. Disconnect the D133 and D60 radio receiver assembly connectors.

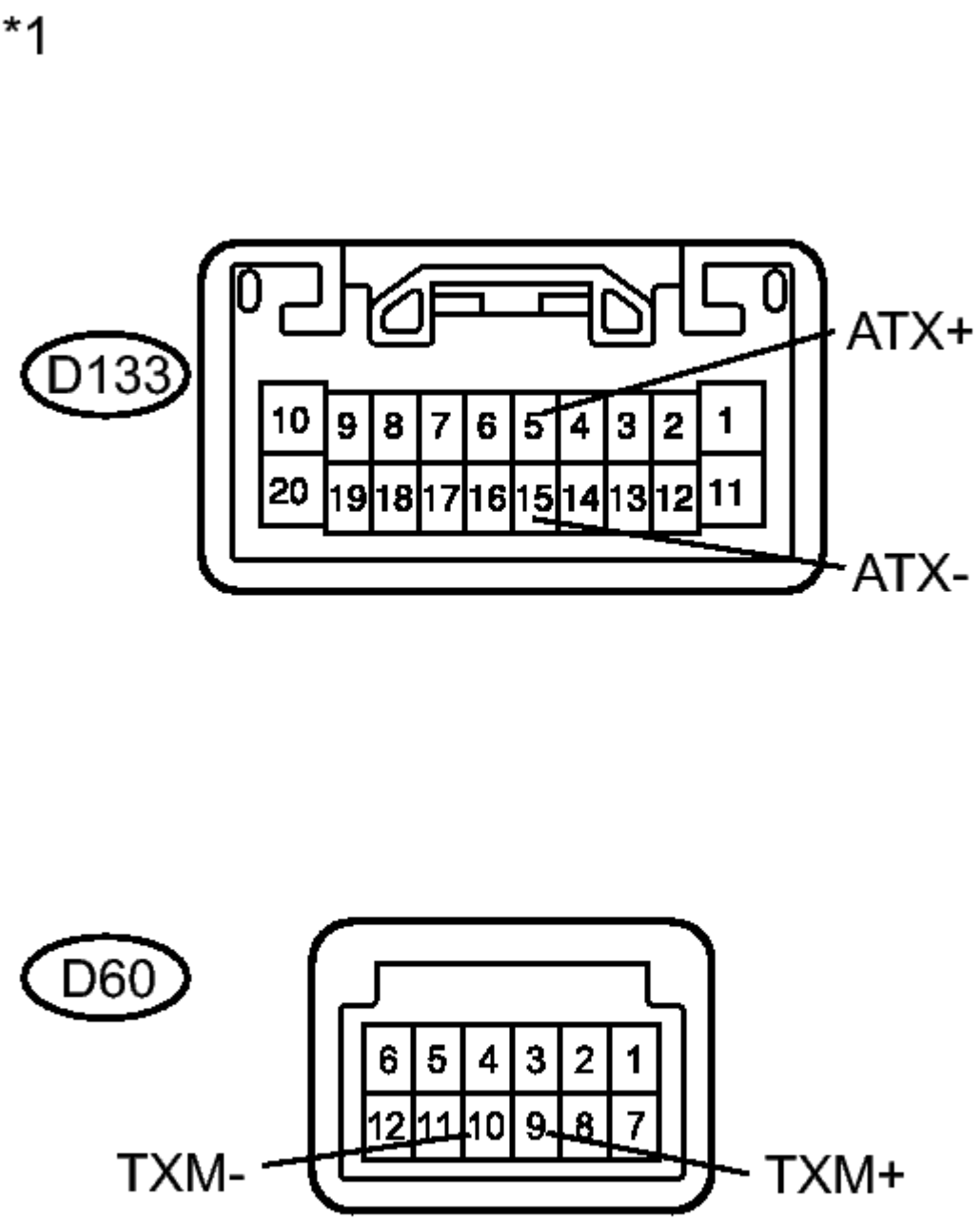


Fig. 111: Measuring Resistance Of Radio Receiver Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

Standard Resistance

Tester Connection	Condition	Specified Condition
D133-5 (ATX+) - D133-15 (ATX-)	Always	60 to 80 ohms
D60-9 (TXM+) - D60-10 (TXM-)	Always	60 to 80 ohms

TEXT IN ILLUSTRATION

*1	Component without harness connected (Radio Receiver Assembly)

NG --> See step 6

OK: Go to next step

4. **CHECK HARNESS AND CONNECTOR (STEREO COMPONENT AMPLIFIER - COMPONENT SHOWN BY SUB-CODE)**

HINT:

- Start the check from the circuit that is near the component shown by the sub-code first.
- For details of the connectors, refer to "Terminals of ECU". Refer to **TERMINALS OF ECU** .

a. Referring to the wiring diagram below, check the AVC-LAN circuit between the stereo component amplifier assembly and the component shown by the sub-code.

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

OK

There is no open or short circuit.

NG --> REPAIR OR REPLACE HARNESS OR CONNECTOR

OK: Go to next step

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

      OK

      Same problem does not occur.

   NG --> See step 7

   OK --> END

6. **REPLACE RADIO RECEIVER ASSEMBLY. Refer to REMOVAL**
7. **REPLACE STEREO COMPONENT AMPLIFIER ASSEMBLY. Refer to REMOVAL**

Multi-Media Interface ECU Communication Error

WIRING DIAGRAM

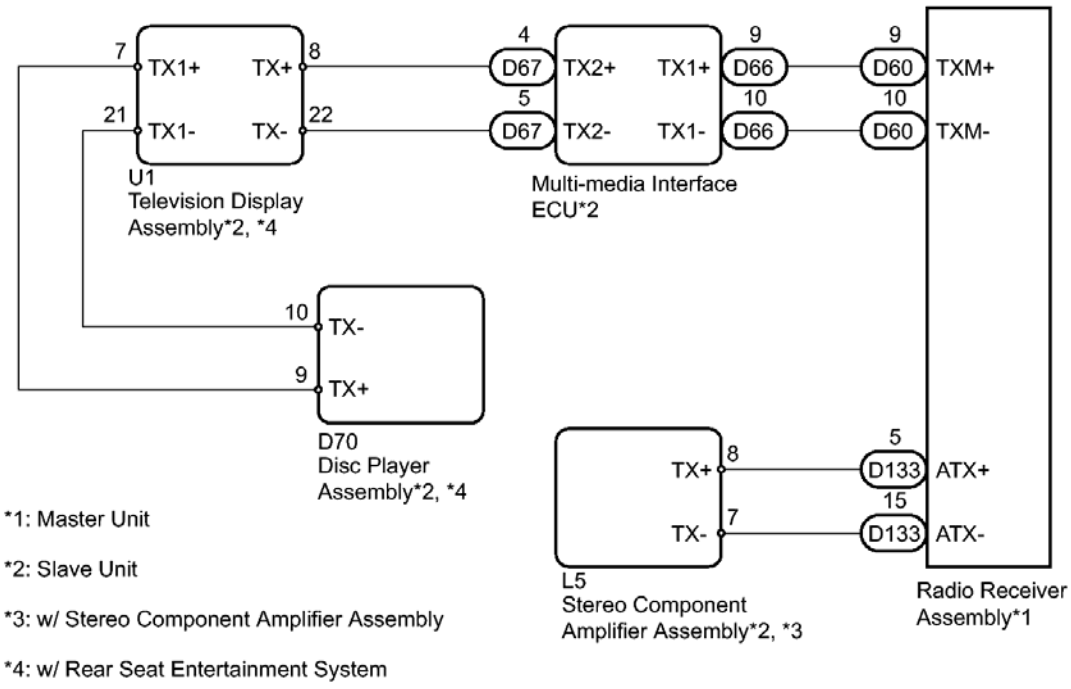


Fig. 112: Multi-Media Interface ECU Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

PROCEDURE

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

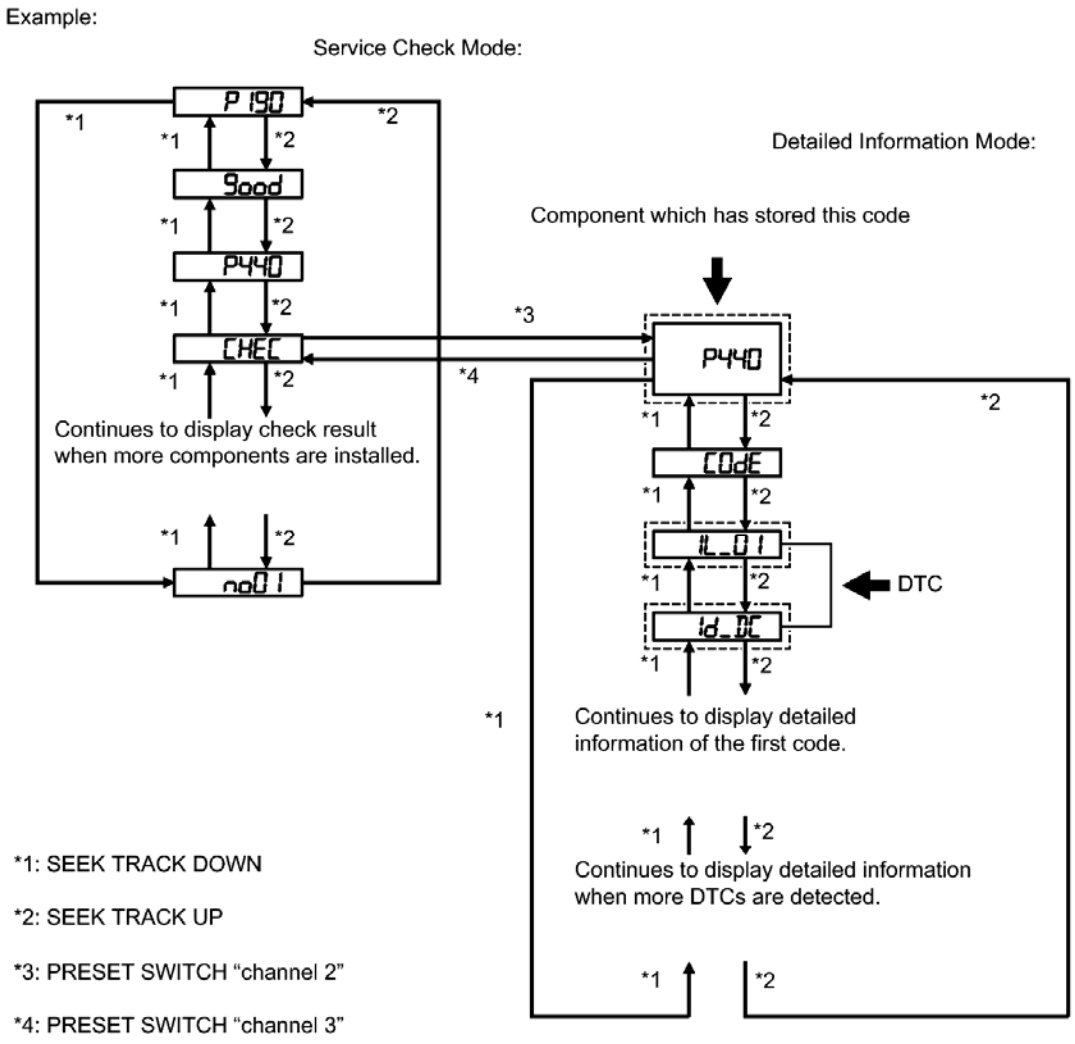


Fig. 113: Identifying "Detailed Information Mode"
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

HINT:

- "190 (radio receiver assembly)" is the component shown by the sub-code in the example shown in the illustration.
- For details of the DTC display, refer to DTC Check/Clear. Refer to **DTC CHECK / CLEAR** .

NEXT: Go to next step

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

   a. Inspect the power source circuit of the component shown by the sub-code.

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

      HINT:

      The satellite radio tuner is built into the radio receiver assembly. If there is a problem between the satellite radio tuner and radio receiver, replace the radio receiver assembly.

      COMPONENT TABLE

Component	Proceed to
Radio receiver assembly (190)	Radio Receiver Power Source Circuit. Refer to **Radio Receiver Power Source Circuit**
"Bluetooth" handsfree module (19D)	
Satellite radio tuner (1F1)	
Stereo component amplifier assembly (440)*1	Stereo Component Amplifier Power Source Circuit. Refer to **Stereo Component Amplifier Power Source Circuit**
Television display assembly (1BO)*2	Television Display Power Source Circuit. Refer to **Television Display Power**

	Source Circuit
Disc player assembly (1A0)*2	Disc Player Changer Power Source Circuit. Refer to **Disc Player Changer Power Source Circuit**

*1: w/ Stereo Component Amplifier Assembly

*2: w/ Rear Seat Entertainment System

NEXT: Go to next step

3. **INSPECT RADIO RECEIVER ASSEMBLY**
   a. Disconnect the D133* and D60 radio receiver assembly connectors.

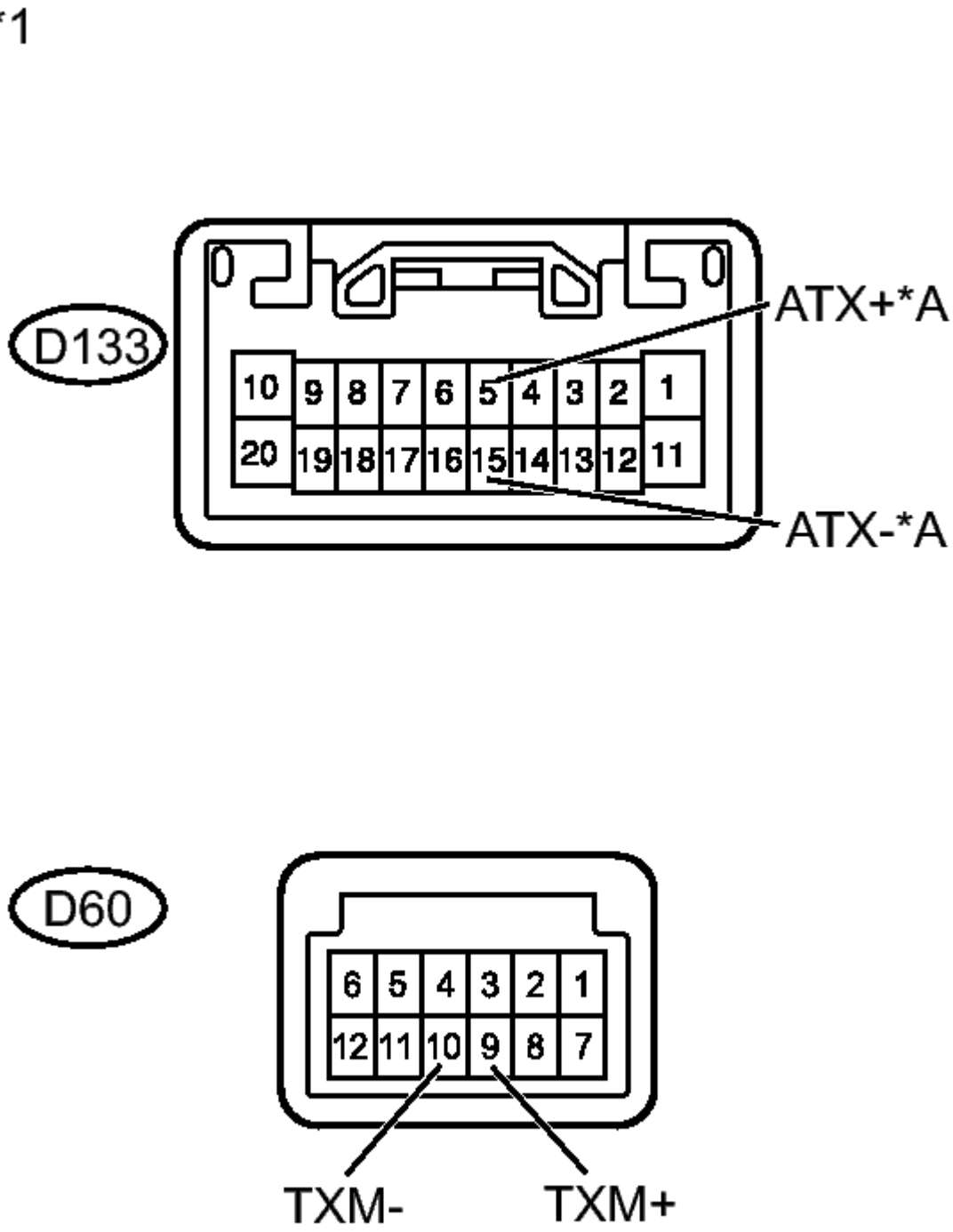


Fig. 114: MeasuringResistance Of Radio Receiver Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

*: w/ Stereo Component Amplifier Assembly

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

Standard Resistance

Tester Connection	Condition	Specified Condition
D133-5 (ATX+) - D133-15 (ATX-)*	Always	60 to 80 ohms
D60-9 (TXM+) - D60-10 (TXM-)	Always	60 to 80 ohms

*: w/ Stereo Component Amplifier Assembly

TEXT IN ILLUSTRATION

*A	w/ Stereo Component Amplifier
*1	Component without harness connected (Radio Receiver Assembly)

NG --> See step 6

OK: Go to next step

4. **CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - COMPONENT SHOWN BY SUB-CODE)**

HINT:

- Start the check from the circuit that is near the component shown by the sub-code first.
- For details of the connectors, refer to Terminals of ECU. Refer to **TERMINALS OF ECU** .

a. Referring to the wiring diagram, check the AVC-LAN circuit between the multi-media interface ECU and component shown by the sub-code.

1. Disconnect all connectors between the multi-media interface ECU and component shown by the sub-code.
2. Check for an open or short in the AVC-LAN circuit between the multi-media interface ECU and component shown by the sub-code.

OK

There is no open or short circuit.

NG --> REPAIR OR REPLACE HARNESS OR CONNECTOR

OK: Go to next step

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

      OK

      Malfunction disappears.

   NG --> See step 7

   OK --> END

6. **REPLACE RADIO RECEIVER ASSEMBLY. Refer to REMOVAL**
7. **REPLACE MULTI-MEDIA INTERFACE ECU. Refer to REMOVAL**

Television Display Assembly Communication Error

WIRING DIAGRAM

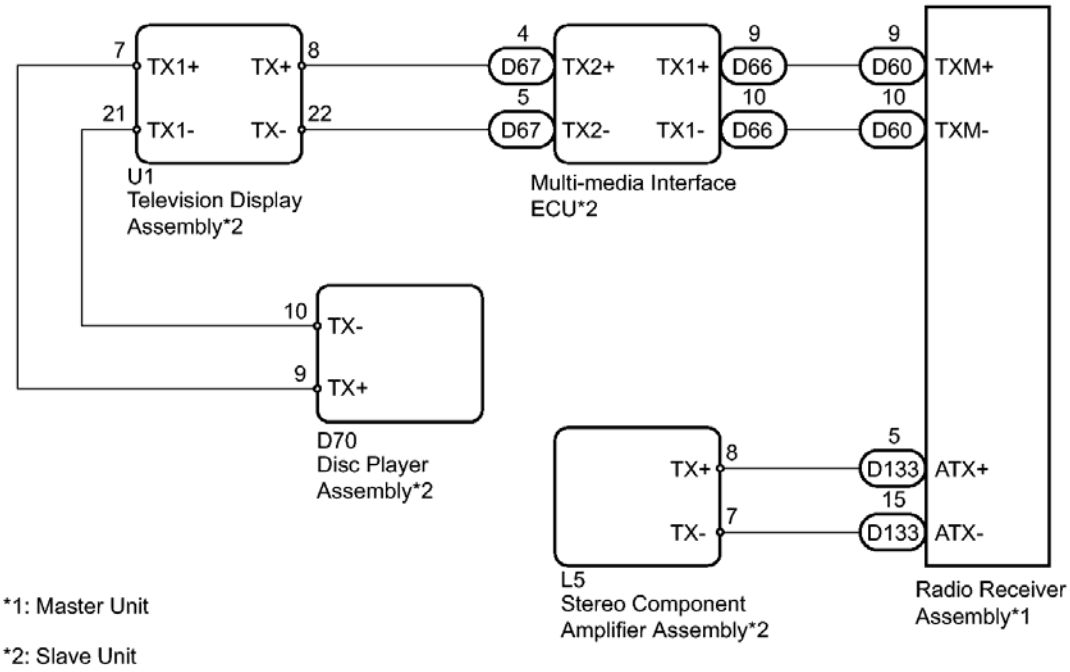


Fig. 115: Television Display Assembly Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

PROCEDURE

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

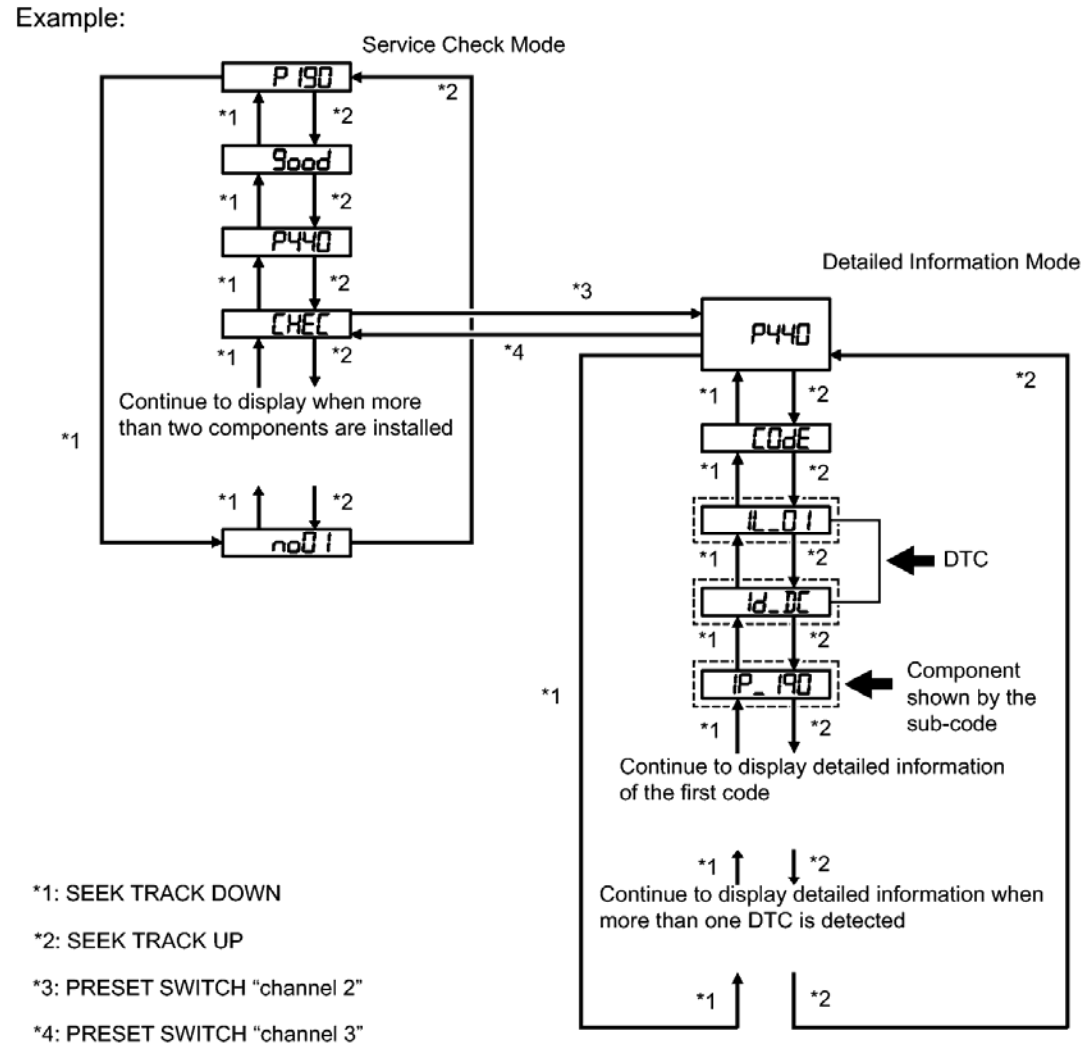


Fig. 116: Identifying Detailed Information Mode
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

HINT:

- "190 (radio receiver assembly)" is the component shown by the sub-code in the example shown in the illustration.
- For details of the DTC display, refer to "DTC Check/Clear". Refer to **DTC CHECK / CLEAR** .

NEXT: Go to next step

2. **CHECK POWER SOURCE CIRCUIT OF COMPONENT SHOWN BY SUB-CODE**
   a. Inspect the power source circuit of the component shown by the sub-code.

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

HINT:

The "Bluetooth" handsfree module is built into the radio receiver.

COMPONENT TABLE

Component	Proceed to
Radio receiver assembly (190)	Radio Receiver Power Source Circuit. Refer to **Radio Receiver Power Source Circuit**
Satellite radio tuner (1F1)	
"Bluetooth" handsfree module (19D)	
Stereo component amplifier assembly (440)	Stereo Component Amplifier Power Source Circuit. Refer to **Stereo Component Amplifier Power Source Circuit**
Multi-Media interface ECU (388)	Multi-Media Interface ECU Power Source Circuit. Refer to **Multi-Media Interface ECU Power Source Circuit**
	Disc Player

Disc player assembly (1A0)	Changer Power Source Circuit. Refer to **Disc Player Changer Power Source Circuit**

NEXT: Go to next step

3. **INSPECT RADIO RECEIVER ASSEMBLY**
   a. Disconnect the D133 and D60 radio receiver assembly connectors.

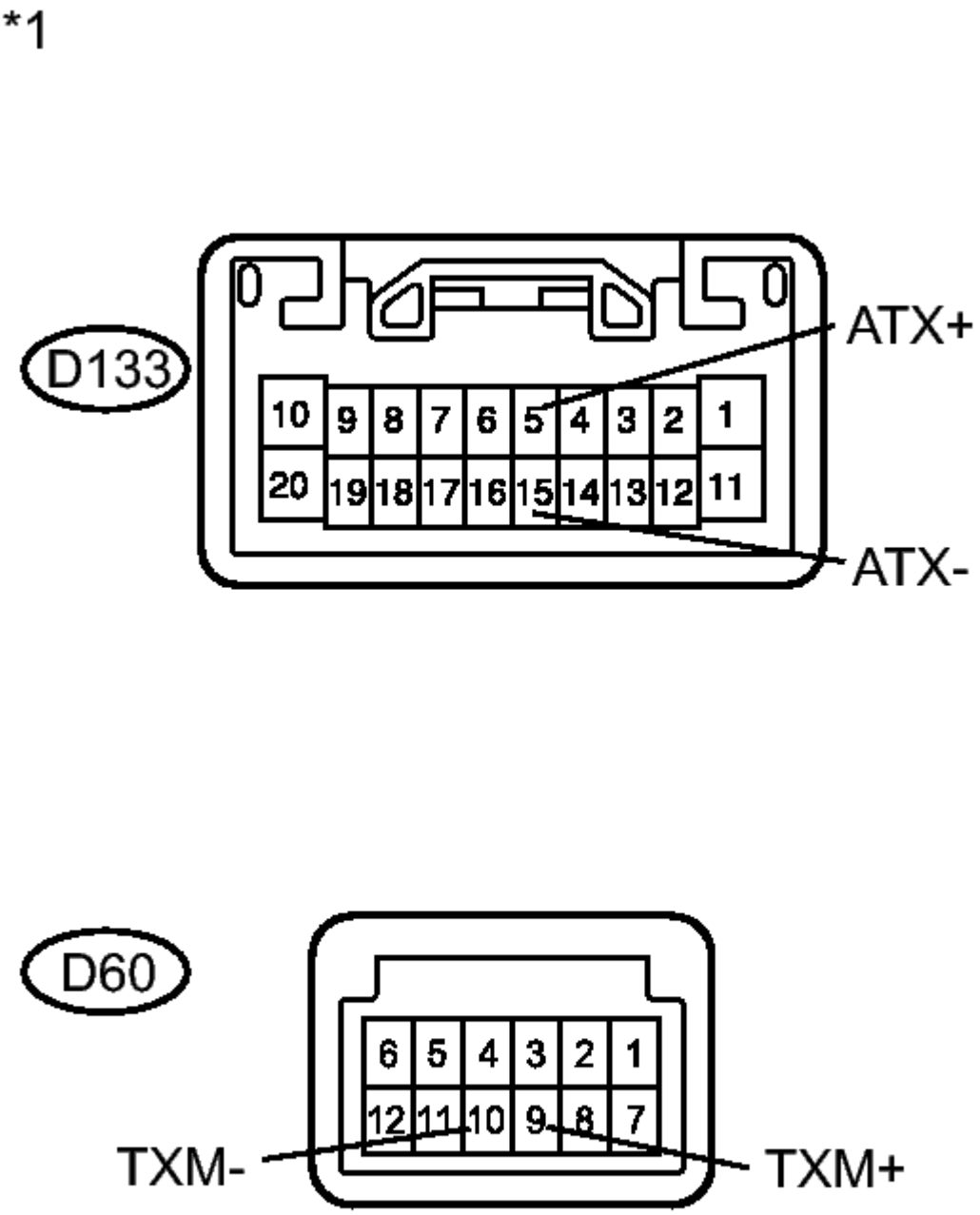


Fig. 117: Measuring Resistance Of Radio Receiver Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

Standard Resistance

Tester Connection	Condition	Specified Condition
D133-5 (ATX+) - D133-15 (ATX-)	Always	60 to 80 ohms
D60-9 (TXM+) - D60-10 (TXM-)	Always	60 to 80 ohms

TEXT IN ILLUSTRATION

*1	Component without harness connected (Radio Receiver Assembly)

NG --> See step 6

OK: Go to next step

4. **CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - COMPONENT SHOWN BY SUB-CODE)**

HINT:

- Start the check from the circuit that is near the component shown by the sub-code first.
- For details of the connectors, refer to "Terminals of ECU". Refer to **TERMINALS OF ECU** .

a. Referring to the wiring diagram below, check the AVC-LAN circuit between the television display assembly and the component shown by the sub-code.

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

OK

There is no open or short circuit.

NG --> REPAIR OR REPLACE HARNESS OR CONNECTOR

OK: Go to next step

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

      OK

      Same problem does not occur.

   NG --> See step 7

   OK --> END

6. **REPLACE RADIO RECEIVER ASSEMBLY. Refer to REMOVAL**
7. **REPLACE TELEVISION DISPLAY ASSEMBLY. Refer to REMOVAL**

Bluetooth Handsfree Module Communication Error

WIRING DIAGRAM

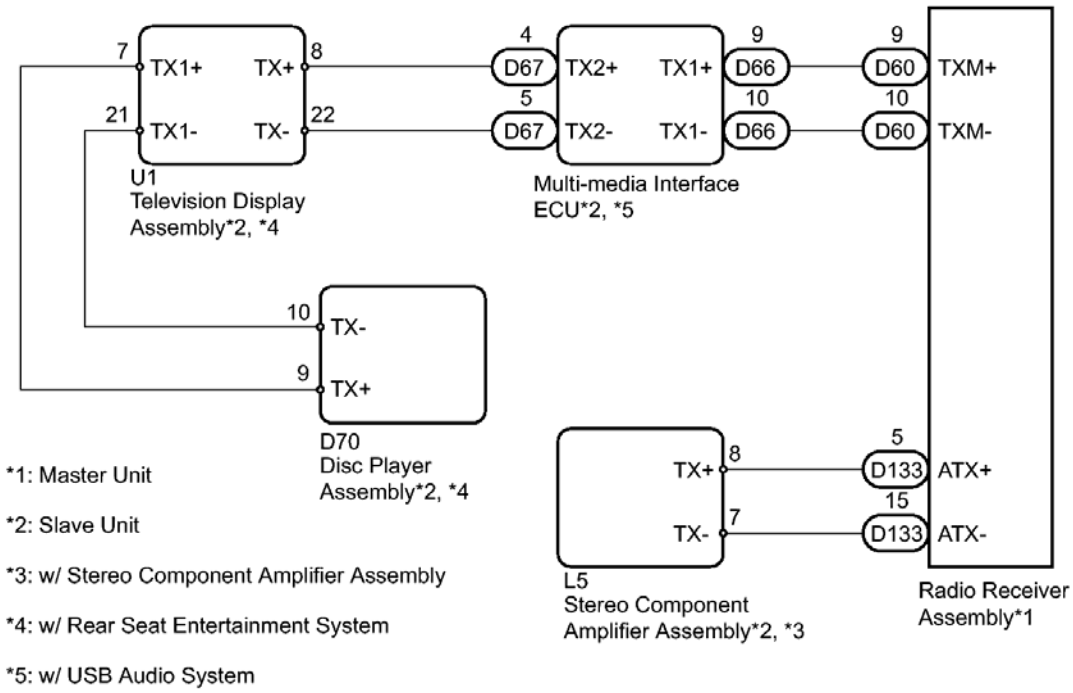


Fig. 118: Radio Receiver Assembly Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

PROCEDURE

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

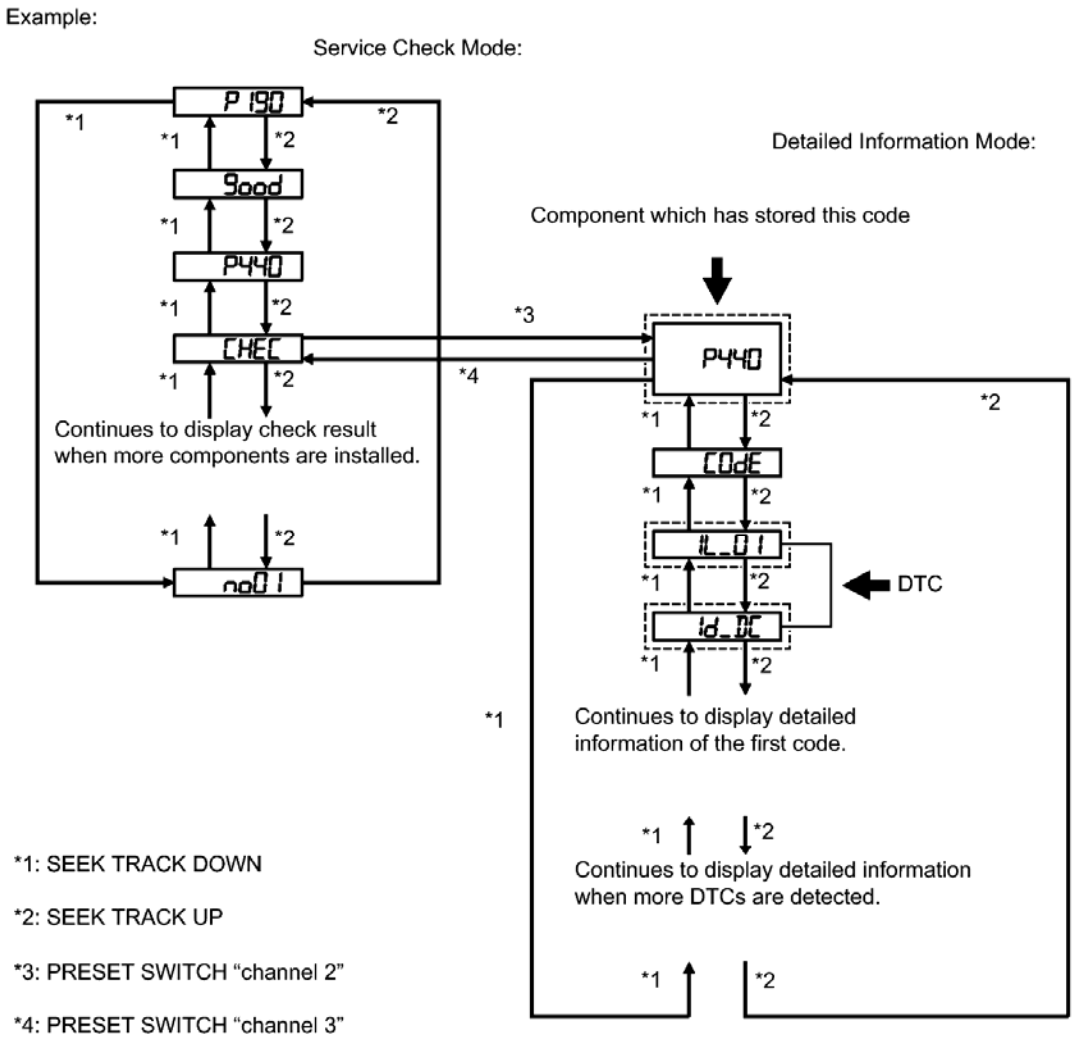


Fig. 119: Identifying "Detailed Information Mode"
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

HINT:

- "190 (radio receiver assembly)" is the component shown by the sub-code in the example shown in the illustration.
- For details of the DTC display, refer to "DTC Check/Clear". Refer to **DTC CHECK / CLEAR** .

NEXT: Go to next step

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

      HINT:

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

      COMPONENT TABLE

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

B --> See step 7

A: Go to next step

3. **CHECK POWER SOURCE CIRCUIT OF COMPONENT SHOWN BY SUB-CODE**
   a. Inspect the power source circuit of the component shown by the sub-code.

      HINT:

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

      COMPONENT TABLE

Component	Proceed to
Multi-Media interface ECU (388) *3	Multi-Media Interface ECU Power Source Circuit. Refer to **Multi-Media Interface**

	ECU Power Source Circuit
Stereo component amplifier assembly (440)*1	Stereo Component Amplifier Power Source Circuit. Refer to **Stereo Component Amplifier Power Source Circuit**
Television display assembly (1B0)*2	Television display Power Source Circuit. Refer to **Television Display Power Source Circuit**
Disc player assembly (1A0)*2	Disc Player Changer Power Source Circuit. Refer to **Disc Player Changer Power Source Circuit**

*1: w/ Stereo Component Amplifier Assembly

*2: w/ Rear Seat Entertainment System

*3: w/ USB Audio System

NEXT: Go to next step

4. **INSPECT RADIO RECEIVER ASSEMBLY**

a. Disconnect the D133*1 and D60*2 radio receiver assembly connectors.

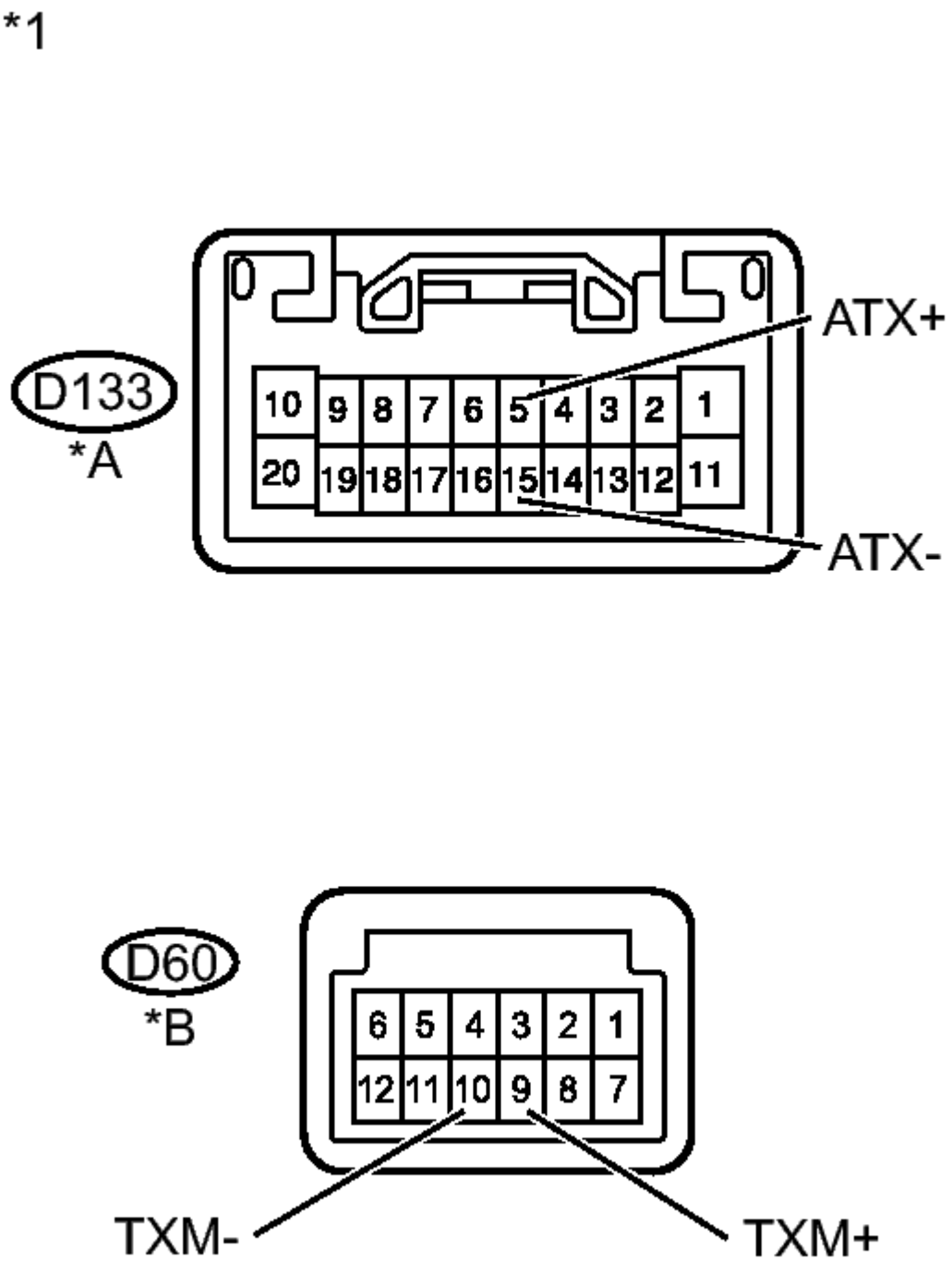


Fig. 120: D133 & D60 Radio Receiver Assembly Connector End View
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

*1: w/ Stereo Component Amplifier Assembly

*2: w/ USB Audio System

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

Standard Resistance

Tester Connection	Condition	Specified Condition
D133-5 (ATX+) - D133-15 (ATX-)*1	Always	60 to 80 ohms
D60-9 (TXM+) - D60-10 (TXM-)*2	Always	60 to 80 ohms

*1: w/ Stereo Component Amplifier Assembly

*2: w/ USB Audio System

TEXT IN ILLUSTRATION

*A	w/ Stereo Component Amplifier Assembly
*B	w/ USB Audio System
*1	Component without harness connected (Radio Receiver Assembly)

NG --> See step 8

OK: Go to next step

5. **CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - COMPONENT SHOWN BY SUB-CODE)**

HINT:

- Start the check from the circuit that is near the component shown by the sub-code first.
- For details of the connectors, refer to "Terminals of ECU". Refer to **TERMINALS OF ECU** .

a. Referring to the wiring diagram below, check the AVC-LAN circuit between the radio receiver assembly ("Bluetooth" handsfree module) and the component shown by the sub-code.

1. Disconnect all connectors between the radio receiver assembly ("Bluetooth" handsfree module) and the component shown by the sub-code.
2. Check for an open or short in the AVC-LAN circuit between the radio receiver assembly ("Bluetooth" handsfree module) and the component shown by the sub-code.

OK

There is no open or short circuit.

NG --> REPAIR OR REPLACE HARNESS OR CONNECTOR

OK: Go to next step

6. **REPLACE COMPONENT SHOWN BY SUB-CODE**

a. Replace the component shown by the sub-code with a normal one and check if the same problem occurs again.

OK

Malfunction disappears.

NG --> See step 9

OK --> END

7. **REPLACE RADIO RECEIVER ASSEMBLY. Refer to REMOVAL**
8. **REPLACE RADIO RECEIVER ASSEMBLY. Refer to REMOVAL**
9. **REPLACE RADIO RECEIVER ASSEMBLY. Refer to REMOVAL**

Disc Player Changer Communication Error

WIRING DIAGRAM

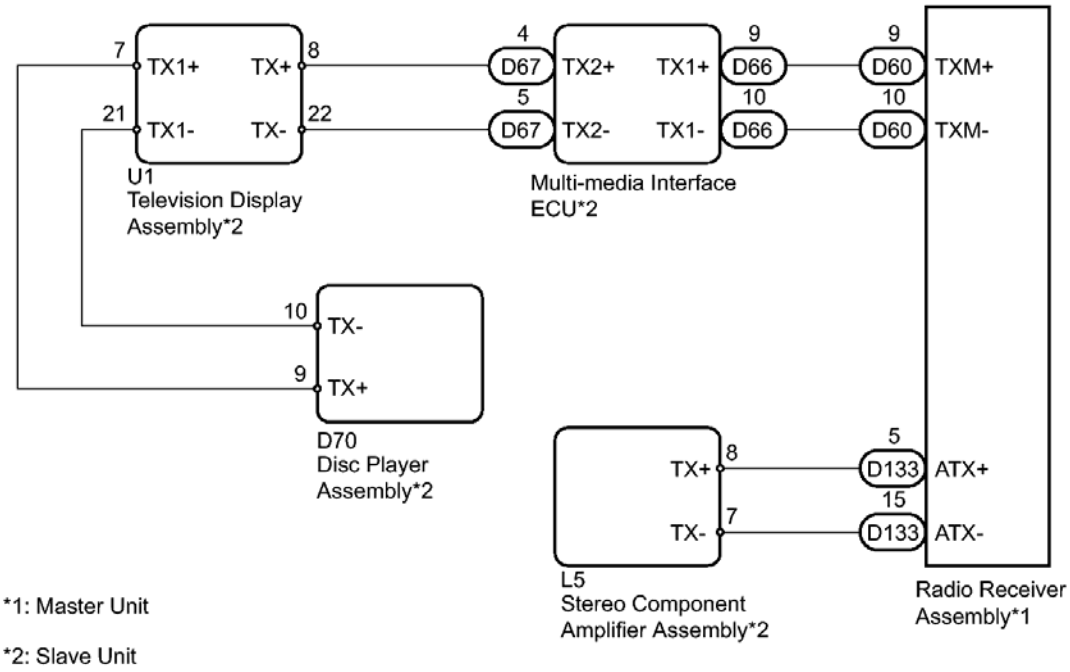


Fig. 121: Television Display Assembly Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

PROCEDURE

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

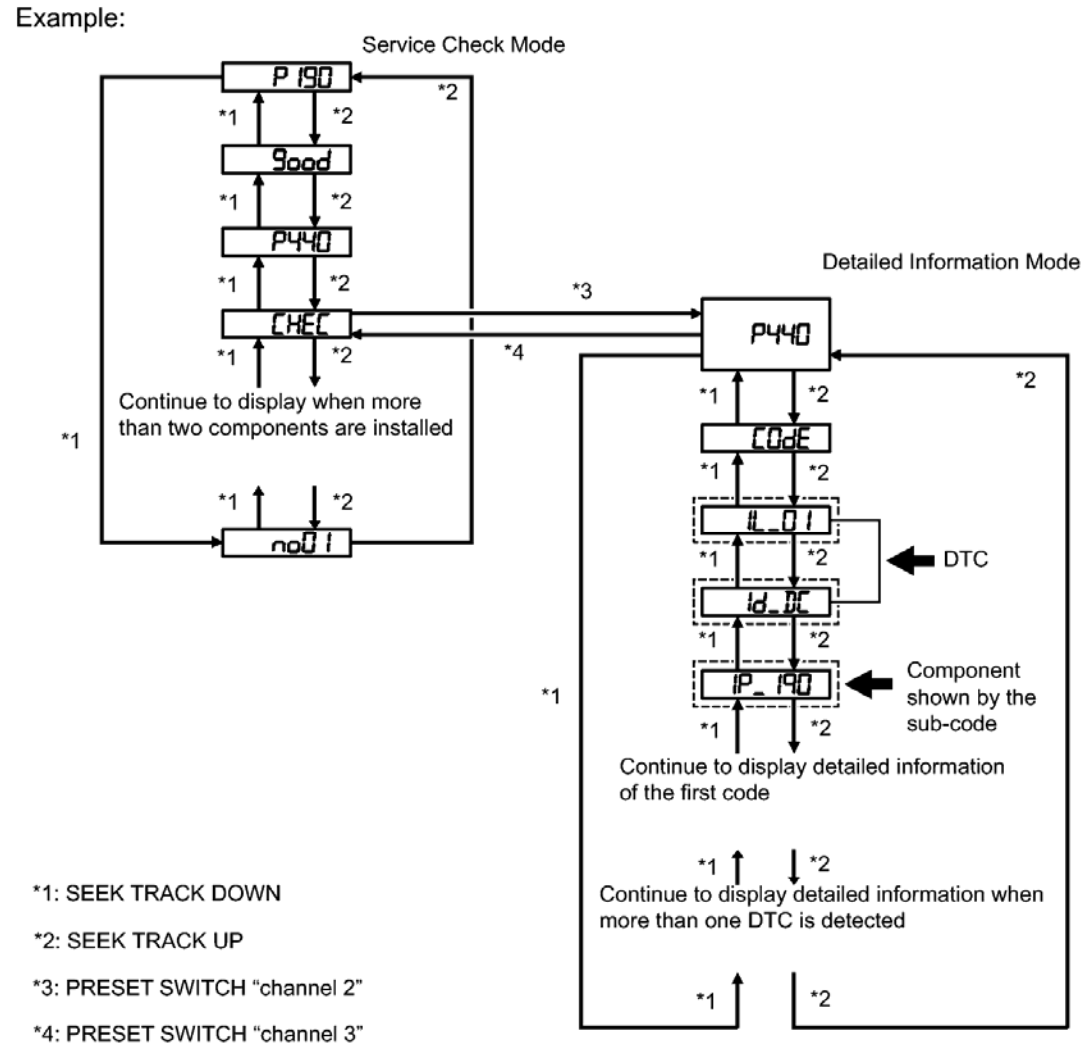


Fig. 122: Identifying Detailed Information Mode
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

HINT:

- "190 (radio receiver assembly)" is the component shown by the sub-code in the example shown in the illustration.
- For details of the DTC display, refer to "DTC Check/Clear". Refer to **DTC CHECK / CLEAR** .

NEXT: Go to next step

2. **CHECK POWER SOURCE CIRCUIT OF COMPONENT SHOWN BY SUB-CODE**
   a. Inspect the power source circuit of the component shown by the sub-code.

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

HINT:

The "Bluetooth" handsfree module is built into the radio receiver.

COMPONENT TABLE

Component	Proceed to
Radio receiver assembly (190)	Radio Receiver Power Source Circuit. Refer to **Radio Receiver Power Source Circuit**
Satellite radio tuner (1F1)	
"Bluetooth" handsfree module (19D)	
Stereo component amplifier assembly (440)	Stereo Component Amplifier Power Source Circuit. Refer to **Stereo Component Amplifier Power Source Circuit**
Multi-Media interface ECU (388)	Multi-Media Interface ECU Power Source Circuit. Refer to **Multi-Media Interface ECU Power Source Circuit**
	Television

Television display assembly (1B0)	Display Power Source Circuit. Refer to **Television Display Power Source Circuit**

NEXT: Go to next step

3. **INSPECT RADIO RECEIVER ASSEMBLY**
   a. Disconnect the D133 and D60 radio receiver assembly connectors.

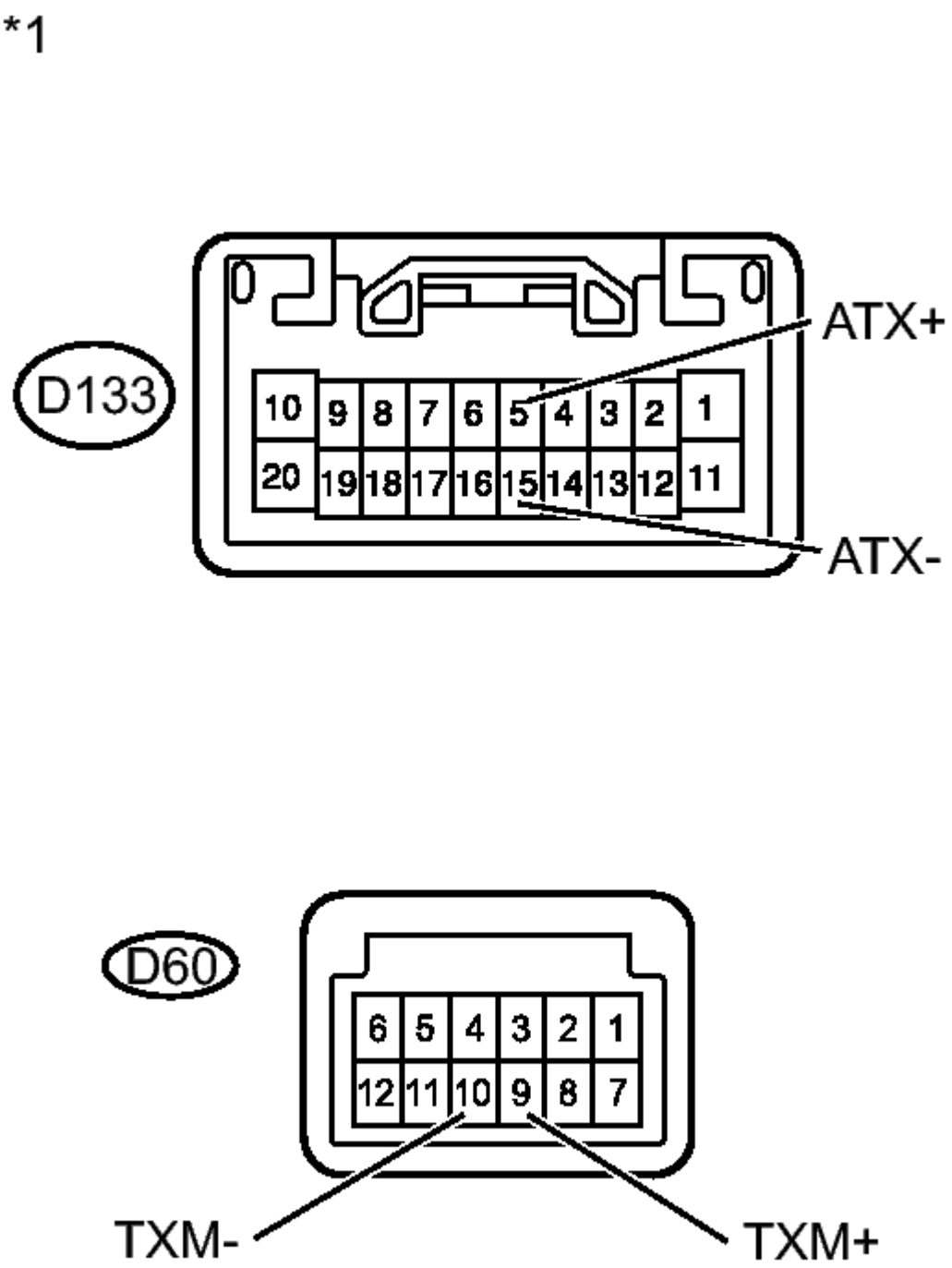


Fig. 123: Measuring Resistance Of Radio Receiver Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

Standard Resistance

Tester Connection	Condition	Specified Condition
D133-5 (ATX+) - D133-15 (ATX-)	Always	60 to 80 ohms
D60-9 (TXM+) - D60-10 (TXM-)	Always	60 to 80 ohms

TEXT IN ILLUSTRATION

*1	Component without harness connected (Radio Receiver Assembly)

NG --> See step 6

OK: Go to next step

4. **CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - COMPONENT SHOWN BY SUB-CODE)**

HINT:

- Start the check from the circuit that is near the component shown by the sub-code first.
- For details of the connectors, refer to "Terminals of ECU". Refer to **TERMINALS OF ECU** .

a. Referring to the wiring diagram below, check the AVC-LAN circuit between the disc player assembly and the component shown by the sub-code.

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

OK

There is no open or short circuit.

NG --> REPAIR OR REPLACE HARNESS OR CONNECTOR

OK: Go to next step

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

      OK

      Same problem does not occur.

   NG --> See step 7

   OK --> END

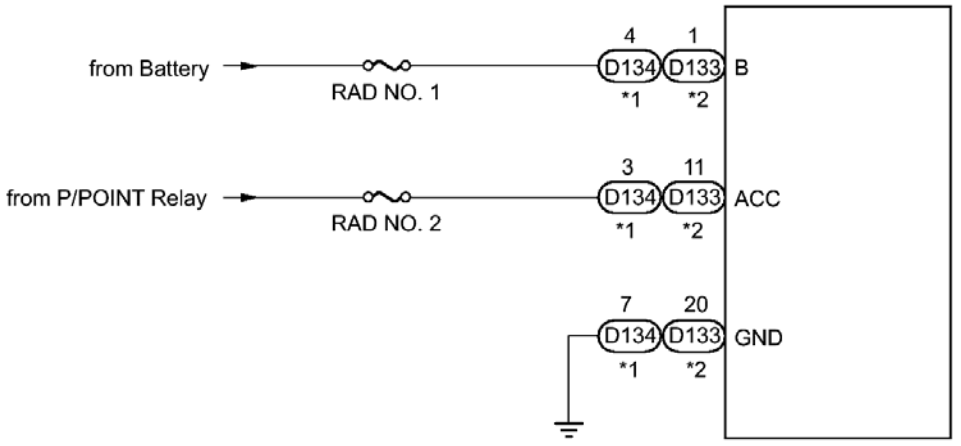
6. **REPLACE RADIO RECEIVER ASSEMBLY. Refer to REMOVAL**
7. **REPLACE DISC PLAYER ASSEMBLY. Refer to REMOVAL**

Radio Receiver Power Source Circuit

DESCRIPTION

This circuit provides power to the radio receiver assembly.

WIRING DIAGRAM



*1: w/o Stereo Component Amplifier Assembly

*2: w/ Stereo Component Amplifier Assembly

Fig. 124: Radio Receiver Power Source Circuit Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

NOTE: **Inspect the fuses for circuits related to this system before performing the following inspection procedure.**

PROCEDURE

1. **CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - BATTERY AND BODY GROUND)**
   a. w/o Stereo Component Amplifier:

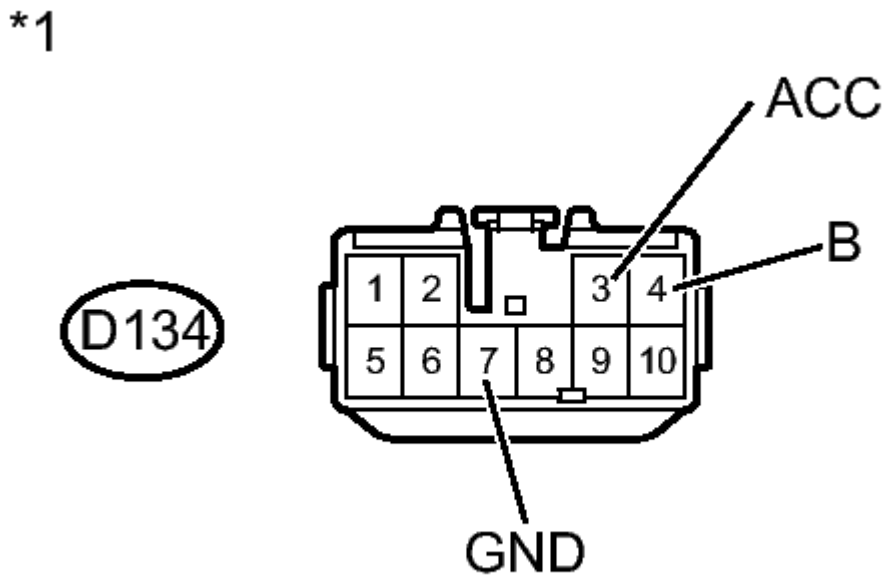


Fig. 125: Measuring Resistance Of Radio Receiver Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

1. Disconnect the D134 radio receiver assembly connector.
2. Measure the resistance according to the value(s) in the table below.

   Standard Resistance

Tester Connection	Condition	Specified Condition
D134-7 (GND) - Body ground	Always	Below 1 ohms

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

Standard Voltage

Tester Connection	Switch Condition	Specified Condition
D134-4 (B) - Body ground	Always	11 to 14 V
D134-3 (ACC) - Body ground	Ignition switch ACC	11 to 14 V

TEXT IN ILLUSTRATION

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

b. w/ Stereo Component Amplifier:

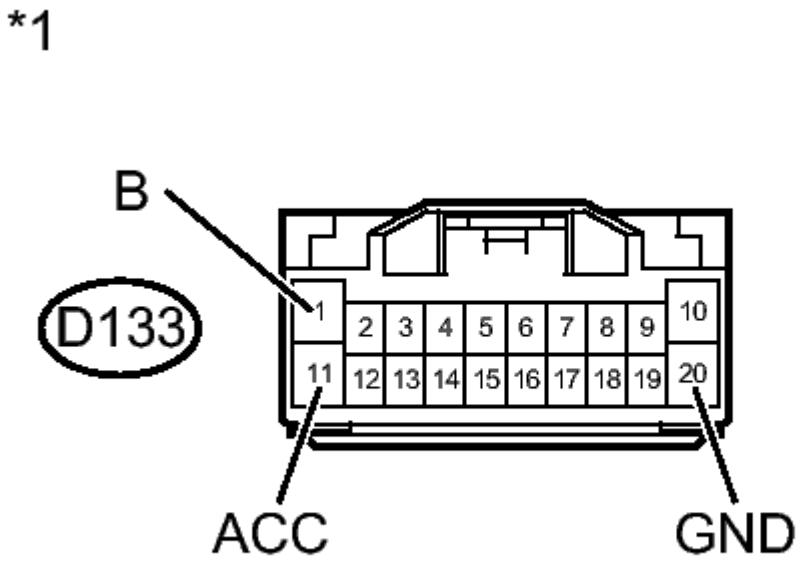


Fig. 126: Measuring Resistance Of Radio Receiver Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

1. Disconnect the D133 radio receiver assembly connector.
2. Measure the resistance according to the value(s) in the table below.

   Standard Resistance

Tester Connection	Condition	Specified Condition
D133-20 (GND) - Body ground	Always	Below 1 ohms

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

   Standard Voltage

Tester Connection	Switch Condition	Specified Condition
D133-1 (B) - Body ground	Always	11 to 14 V
D133-11 (ACC) - Body ground	Ignition switch ACC	11 to 14 V

TEXT IN ILLUSTRATION

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

NG --> REPAIR OR REPLACE HARNESS OR CONNECTOR

OK --> See step 2

2. **PROCEED TO NEXT SUSPECTED AREA SHOWN IN PROBLEM SYMPTOMS TABLE. Refer to PROBLEM SYMPTOMS TABLE**

Stereo Component Amplifier Power Source Circuit

DESCRIPTION

This circuit provides power to the stereo component amplifier assembly.

WIRING DIAGRAM

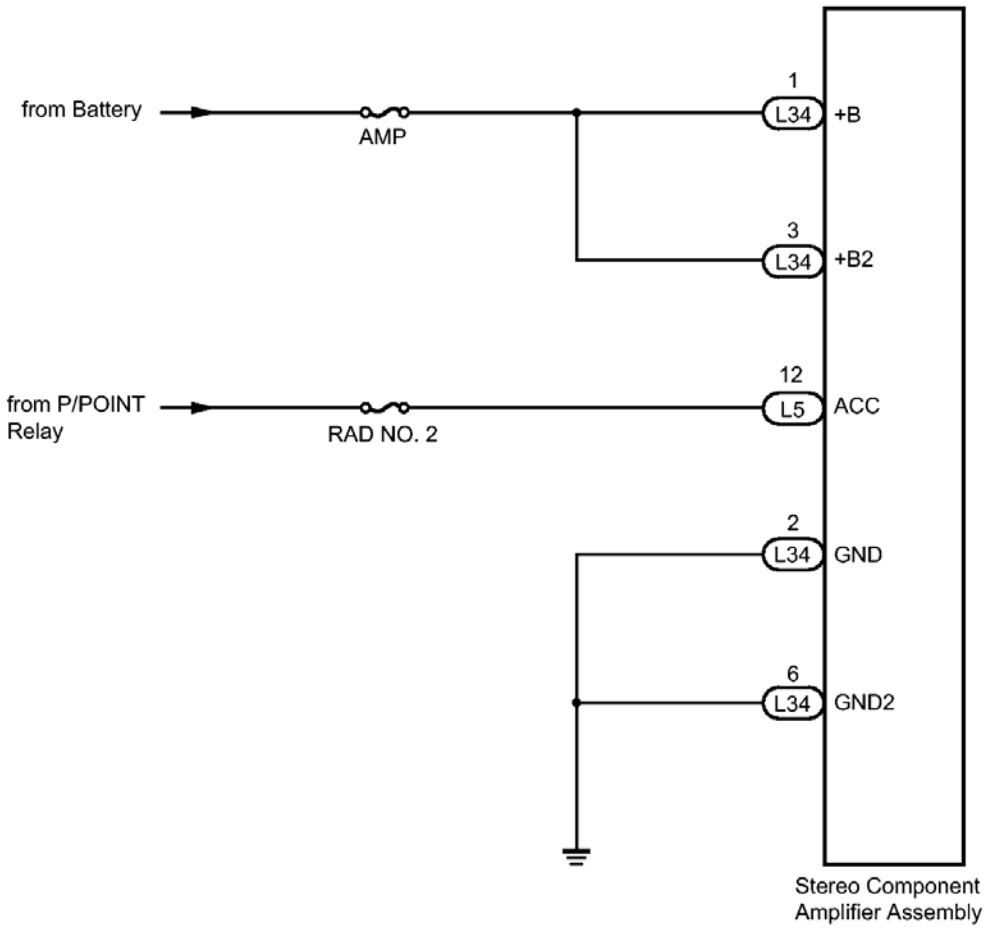


Fig. 127: Stereo Component Amplifier Power Source Circuit Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

NOTE: Inspect the fuses for circuits related to this system before performing the following inspection procedure.

PROCEDURE

1. **CHECK HARNESS AND CONNECTOR (STEREO COMPONENT AMPLIFIER - BATTERY AND BODY GROUND)**
   a. Disconnect the L5 and L34 stereo component amplifier assembly connectors.

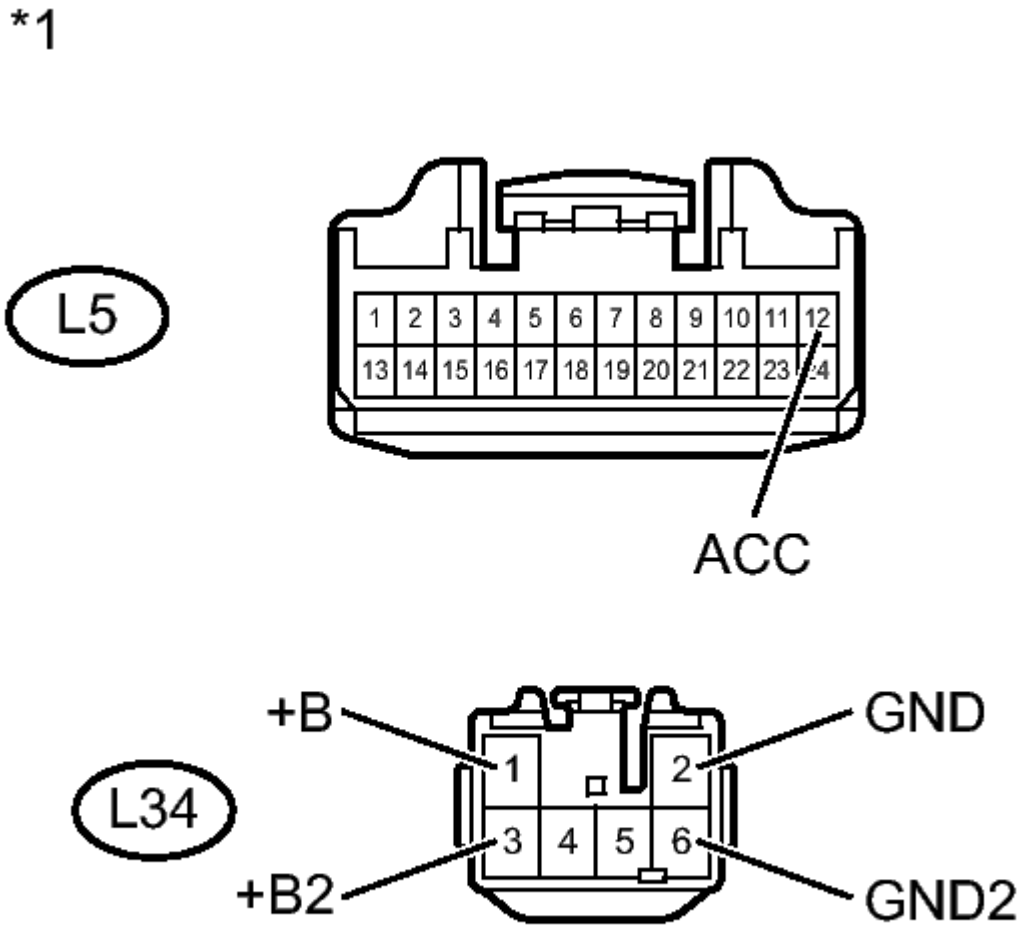


Fig. 128: Measuring Resistance Of Stereo Component Amplifier Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

Standard Resistance

Tester Connection	Condition	Specified Condition
L34-2 (GND) - Body ground	Always	Below 1 ohms
L34-6 (GND2) - Body	Always	Below 1 ohms

ground		

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

Standard Voltage

Tester Connection	Switch Condition	Specified Condition
L34-1 (+B) - Body ground	Always	11 to 14 V
L34-3 (+B2) - Body ground	Always	11 to 14 V
L5-12 (ACC) - Body ground	Ignition switch ACC	11 to 14 V

TEXT IN ILLUSTRATION

*1	Front view of wire harness connector (to Stereo Component Amplifier Assembly)

NG --> REPAIR OR REPLACE HARNESS OR CONNECTOR

OK --> See step 2

2. **PROCEED TO NEXT SUSPECTED AREA SHOWN IN PROBLEM SYMPTOMS TABLE. Refer to PROBLEM SYMPTOMS TABLE**

Multi-Media Interface ECU Power Source Circuit

DESCRIPTION

This circuit provides power to the multi-media interface ECU.

WIRING DIAGRAM

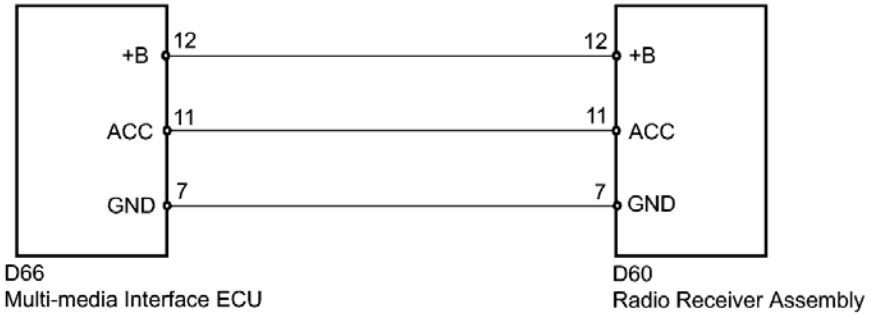


Fig. 129: Multi-Media Interface ECU Power Source Circuit Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

PROCEDURE

1. **CHECK MULTI-MEDIA INTERFACE ECU**
   a. Disconnect the D66 multi-media interface ECU connector.

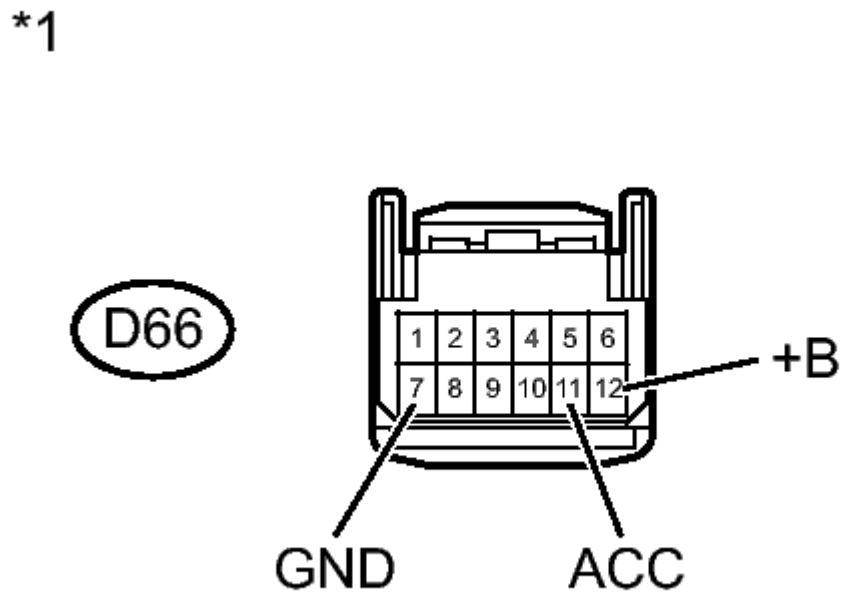


Fig. 130: Measuring Voltage Of Multi-Media Interface ECU
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

Standard Voltage

Tester Connection	Switch Condition	Specified Condition
D66-12 (+B) - D66-7 (GND)	Always	11 to 14 V
D66-11 (ACC) - D66-7 (GND)	Ignition switch ACC	11 to 14 V

TEXT IN ILLUSTRATION

*1	Front view of wire harness connector (to Multi-Media Interface ECU)

NG --> See step 3

OK --> See step 2

2. **PROCEED TO NEXT SUSPECTED AREA SHOWN IN PROBLEM SYMPTOMS TABLE. Refer to PROBLEM SYMPTOMS TABLE**
3. **CHECK HARNESS AND CONNECTOR (MULTI-MEDIA INTERFACE ECU - RADIO RECEIVER)**
   a. Disconnect the D66 multi-media interface ECU connector.
   b. Disconnect the D60 radio receiver assembly connector.
   c. Measure the resistance according to the value(s) in the table below.

Standard Resistance

Tester Connection	Condition	Specified Condition
D66-11 (ACC) - D60-11 (ACC)	Always	Below 1 ohms
D66-12 (+B) - D60-	Always	Below 1 ohms

12 (+B)		
D66-7 (GND) - D60-7 (GND)	Always	Below 1 ohms
D66-11 (ACC) - Body ground	Always	10 kohms or higher
D66-12 (+B) - Body ground	Always	10 kohms or higher
D66-7 (GND) - Body ground	Always	10 kohms or higher

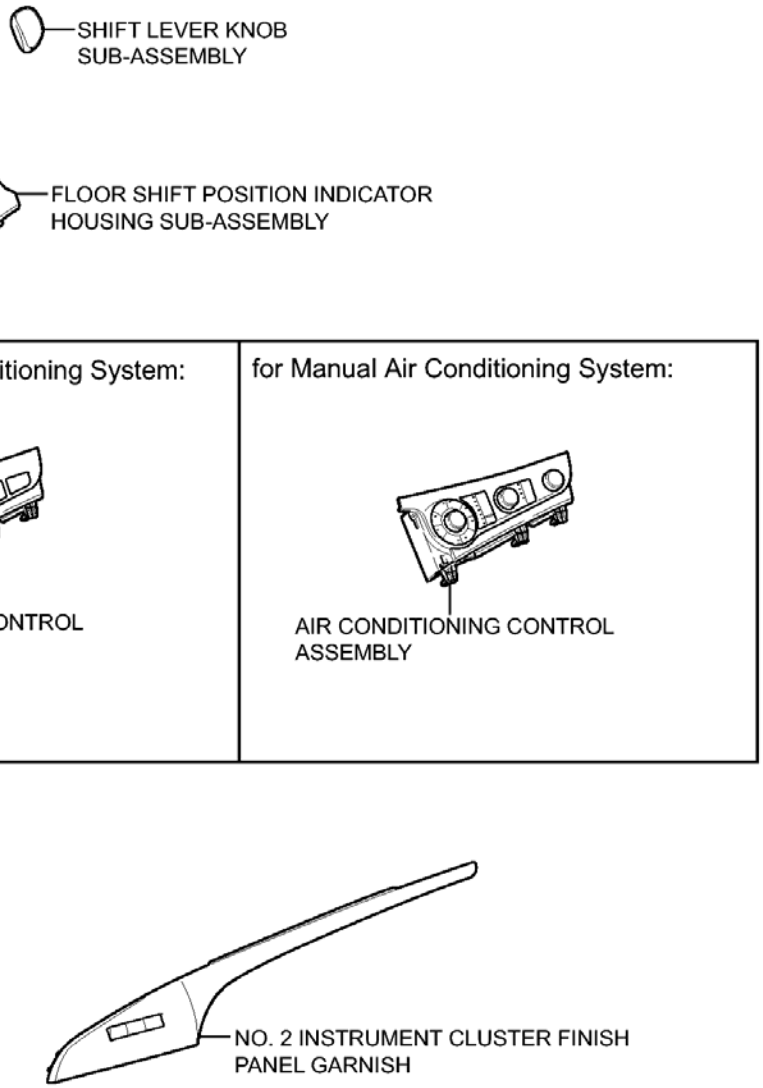
NG --> REPAIR OR REPLACE HARNESS OR CONNECTOR

OK --> See step 2

RADIO RECEIVER

COMPONENTS

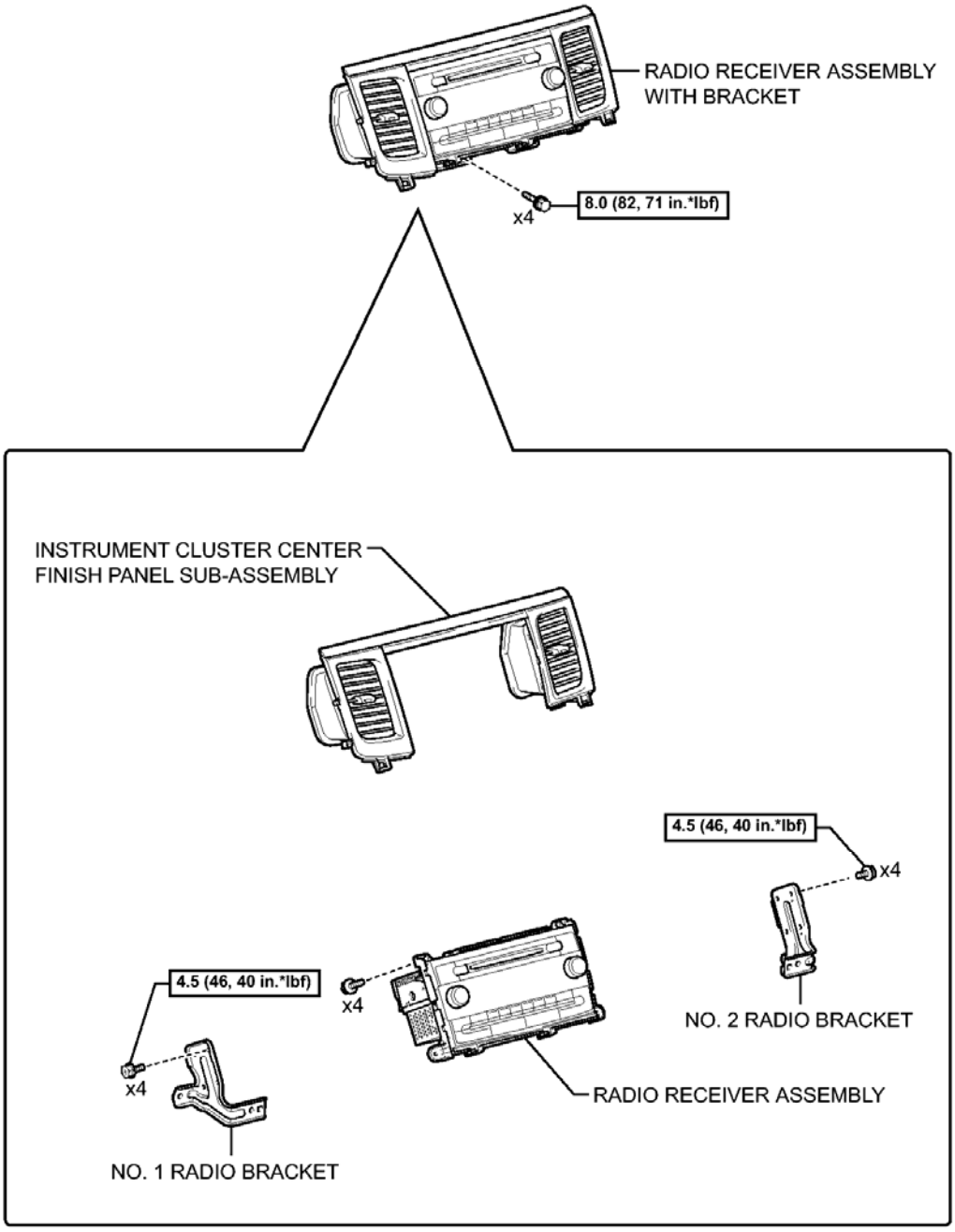
ILLUSTRATION



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

ILLUSTRATION



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Fig. 2: Radio Receiver Replacement Components With Torque Specifications (2 of 2)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL

REMOVAL

1. **REMOVE NO. 2 INSTRUMENT CLUSTER FINISH PANEL GARNISH** . Refer to **REMOVAL - Step 23**
2. **REMOVE SHIFT LEVER KNOB SUB-ASSEMBLY**
3. **REMOVE FLOOR SHIFT POSITION INDICATOR HOUSING SUB-ASSEMBLY** . Refer to **REMOVAL - Step 25**
4. **REMOVE AIR CONDITIONING CONTROL ASSEMBLY (for Manual Air Conditioning System)** . Refer to **REMOVAL - Step 4**
5. **REMOVE AIR CONDITIONING CONTROL ASSEMBLY (for Automatic Air Conditioning System)** . Refer to **REMOVAL - Step 4**
6. **REMOVE RADIO RECEIVER ASSEMBLY WITH BRACKET**
   a. Remove the 4 bolts.

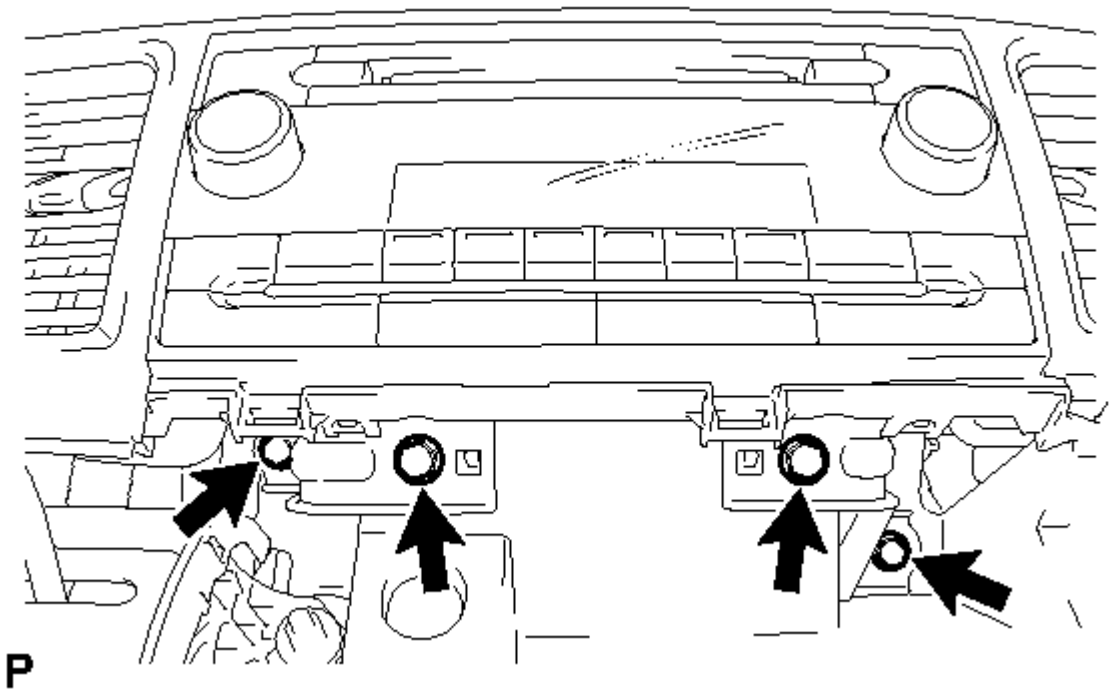
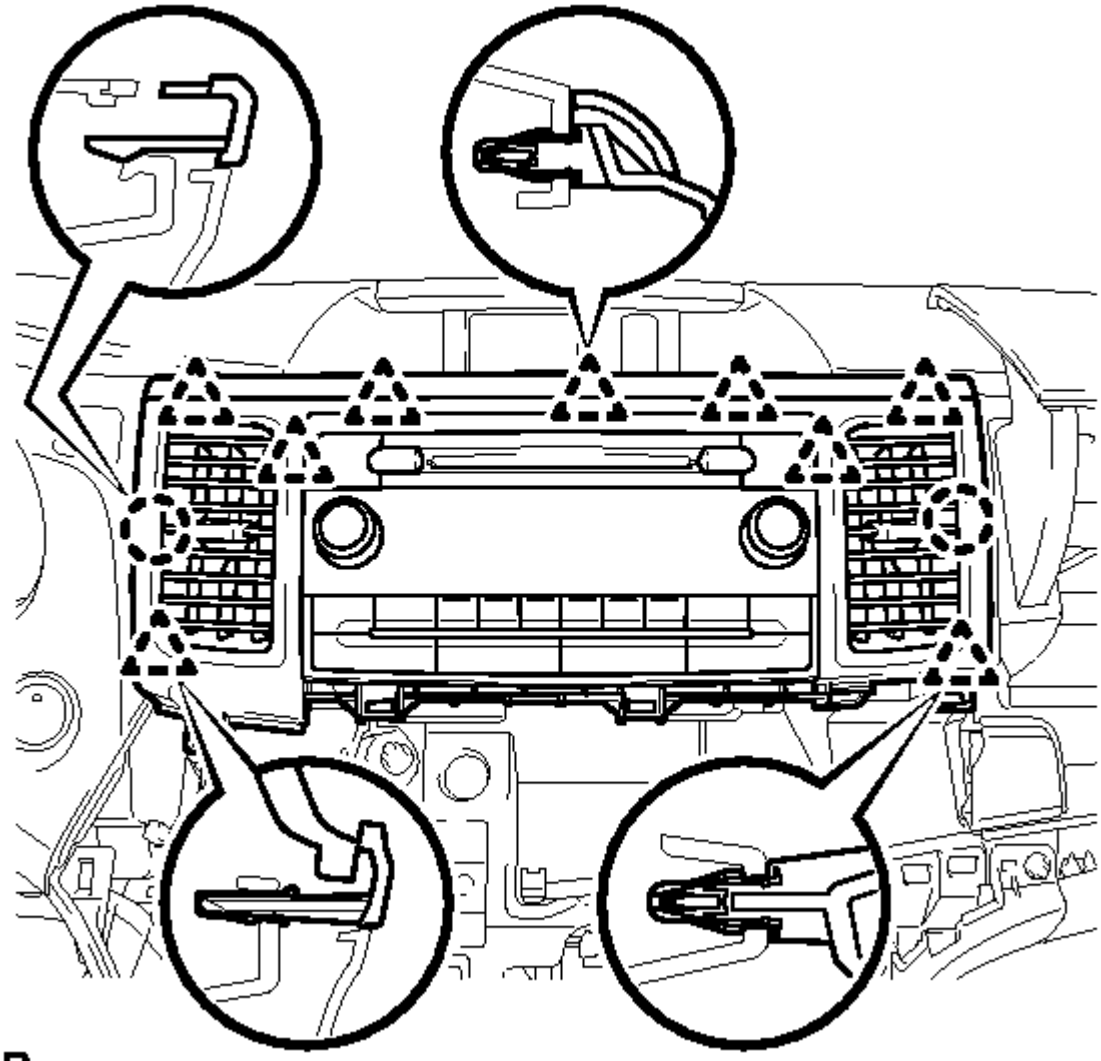


Fig. 3: Identifying Radio Receiver Assembly With Bracket Fasteners
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

   b. Disengage the 9 clips and 2 claws.

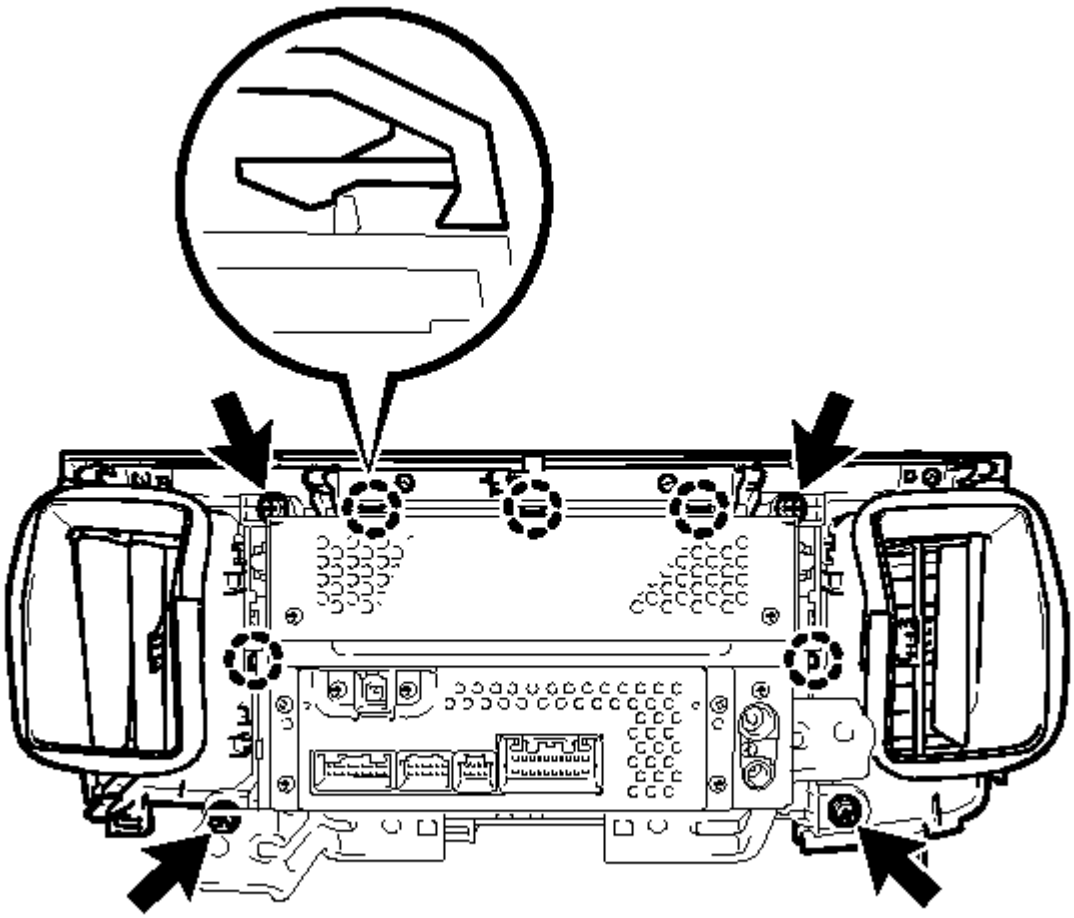


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Fig. 4: Identifying Radio Receiver Assembly With Bracket Clips & Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

c. Disconnect the connectors and remove the radio receiver assembly with bracket.

7. **REMOVE INSTRUMENT CLUSTER CENTER FINISH PANEL SUB-ASSEMBLY**



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Fig. 5: Identifying Instrument Cluster Center Finish Panel Sub-Assembly Fasteners
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

a. Remove the 4 screws.
b. Disengage the 5 claws and remove the instrument cluster center finish panel sub-assembly.

8. **REMOVE NO. 1 RADIO BRACKET**

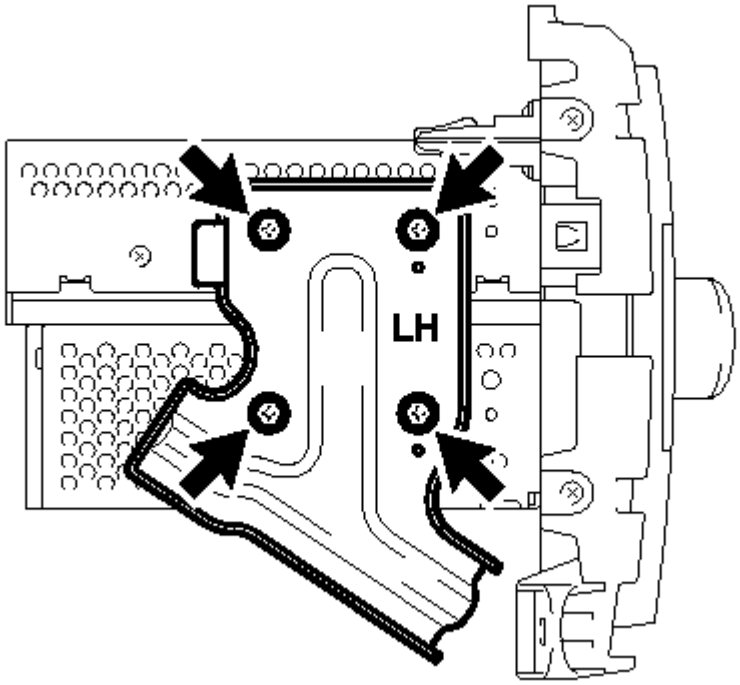


Fig. 6: Identifying No. 1 Radio Bracket & Fasteners
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

a. Remove the 4 bolts and No. 1 radio bracket.

9. **REMOVE NO. 2 RADIO BRACKET**

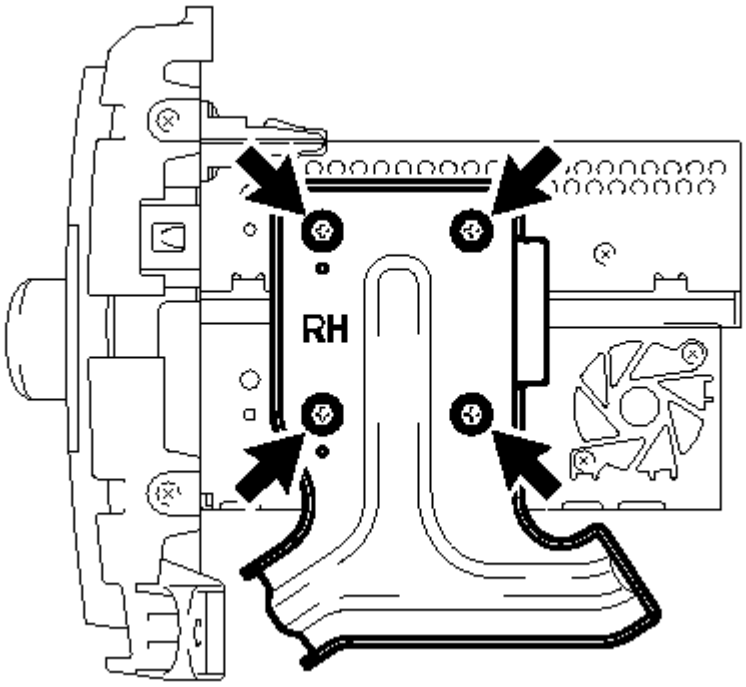


Fig. 7: Identifying No. 2 Radio Bracket & Fasteners

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

a. Remove the 4 bolts and No. 2 radio bracket.

INSTALLATION

INSTALLATION

1. **INSTALL NO. 2 RADIO BRACKET**
   a. Install the No. 2 radio bracket with the 4 bolts.

      Torque: 4.5 N*m (46 kgf*cm, 40 in.*lbf)

2. **INSTALL NO. 1 RADIO BRACKET**
   a. Install the No. 1 radio bracket with the 4 bolts.

      Torque: 4.5 N*m (46 kgf*cm, 40 in.*lbf)

3. **INSTALL INSTRUMENT CLUSTER CENTER FINISH PANEL SUB-ASSEMBLY**
   a. Engage the 5 claws and install the instrument cluster center finish panel sub-assembly.
   b. Install the 4 screws.
4. **INSTALL RADIO RECEIVER ASSEMBLY WITH BRACKET**
   a. Connect the connectors.
   b. Engage the 9 clips, 2 claws and install the radio receiver assembly with bracket.
   c. Install the 4 bolts.

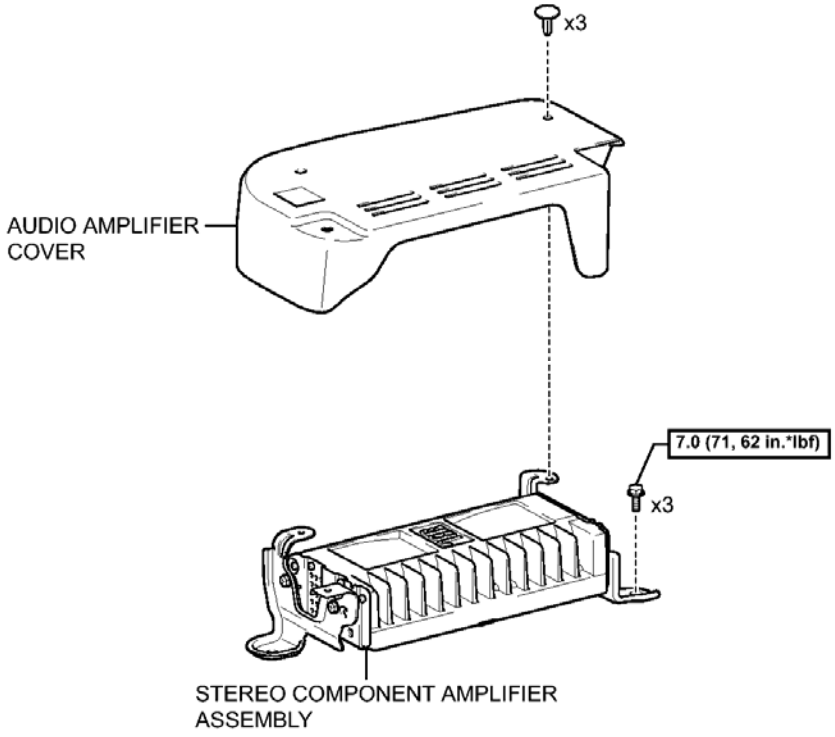
      Torque: 8.0 N*m (82 kgf*cm, 71 in.*lbf)

5. **INSTALL AIR CONDITIONING CONTROL ASSEMBLY (for Manual Air Conditioning System)** . Refer to **INSTALLATION - Step 1**
6. **INSTALL AIR CONDITIONING CONTROL ASSEMBLY (for Automatic Air Conditioning System)** . Refer to **INSTALLATION - Step 1**
7. **INSTALL FLOOR SHIFT POSITION INDICATOR HOUSING SUB-ASSEMBLY** . Refer to **INSTALLATION - Step 33**
8. **INSTALL SHIFT LEVER KNOB SUB-ASSEMBLY**
9. **INSTALL NO. 2 INSTRUMENT CLUSTER FINISH PANEL GARNISH** . Refer to **INSTALLATION - Step 35**

STEREO COMPONENT AMPLIFIER

COMPONENTS

ILLUSTRATION



N*m (kgf*cm, ft.*lbf): Specified torque

P

Fig. 8: Stereo Component Amplifier Replacement Components With Torque Specifications
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL

REMOVAL

1. **REMOVE FRONT SEAT ASSEMBLY RH (for Manual Seat)**

   Refer to **REMOVAL**

   HINT:

   Use the same procedure as for the LH side.

2. **REMOVE FRONT SEAT ASSEMBLY RH (for Power Seat)**

Refer to **REMOVAL**

HINT:

Use the same procedure as for the LH side.

3. **REMOVE AUDIO AMPLIFIER COVER**

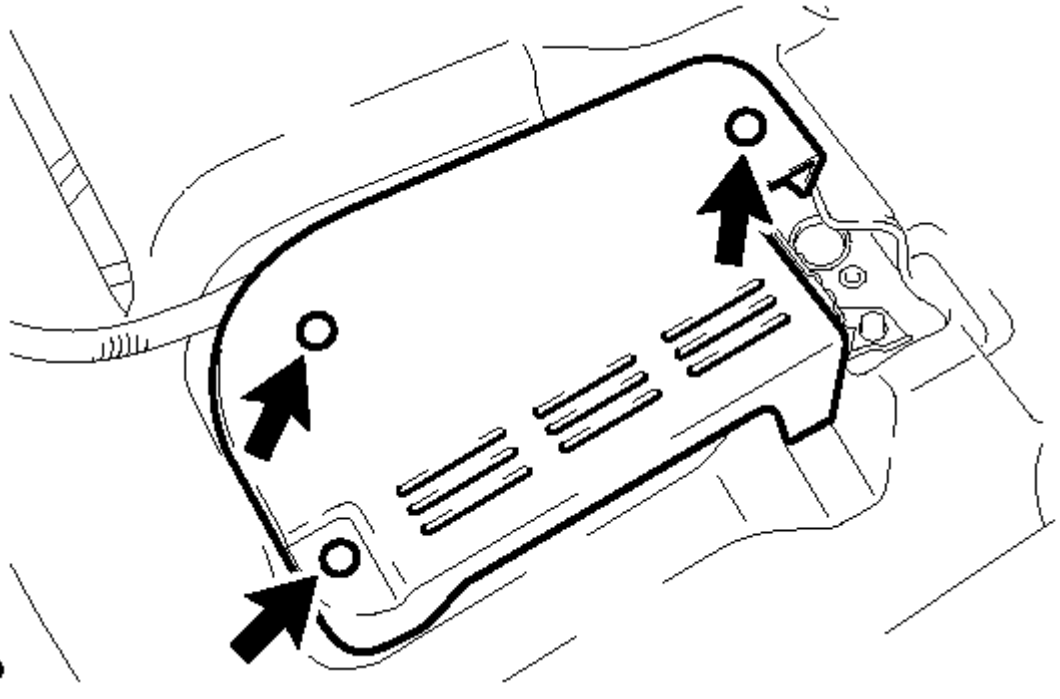


Fig. 9: Identifying Audio Amplifier Cover & Fasteners
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

a. Using a clip remover, remove the 3 clips and the audio amplifier cover.

4. **REMOVE STEREO COMPONENT AMPLIFIER ASSEMBLY**

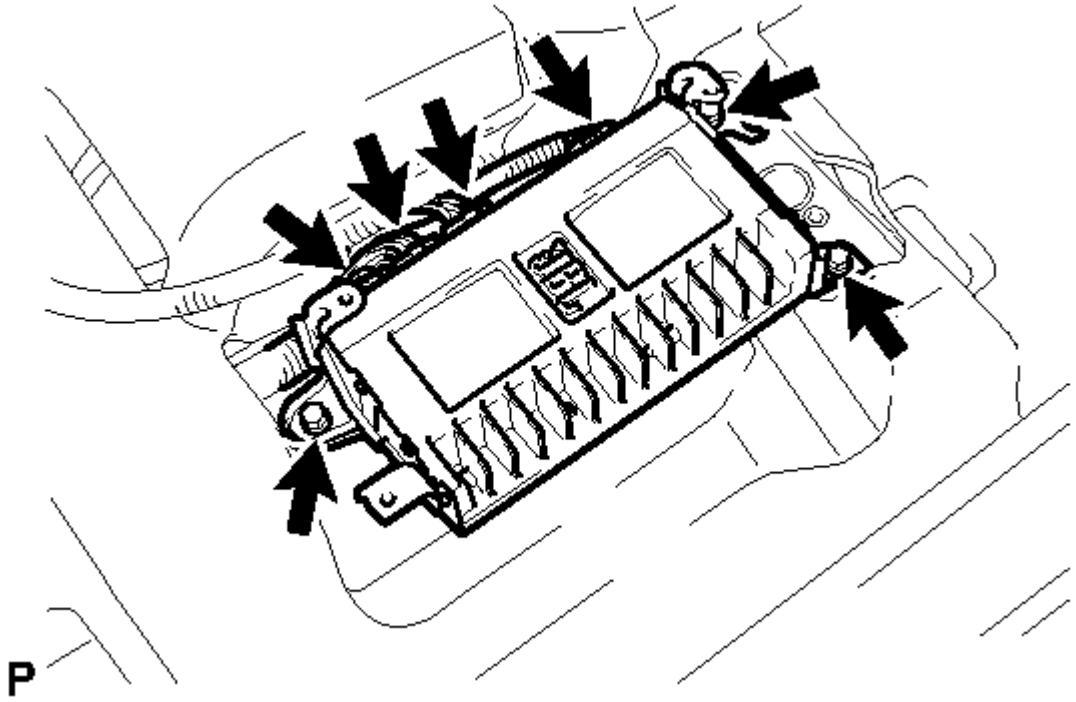


Fig. 10: Identifying Stereo Component Amplifier Assembly, Connectors & Fasteners
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

a. Disconnect the 4 connectors.
b. Remove the 3 bolts and stereo component amplifier.

INSTALLATION

INSTALLATION

1. **INSTALL STEREO COMPONENT AMPLIFIER ASSEMBLY**
   a. Install the stereo component amplifier with the 3 bolts.

      Torque: 7.0 N*m (71 kgf*cm, 62 in.*lbf)

   b. Connect the 4 connectors.
2. **INSTALL AUDIO AMPLIFIER COVER**
   a. Install the audio amplifier cover with the 3 clips.
3. **INSTALL FRONT SEAT ASSEMBLY RH (for Manual Seat)**

   Refer to **INSTALLATION**

   HINT:

   Use the same procedure as for the LH side.

4. **INSTALL FRONT SEAT ASSEMBLY RH (for Power Seat)**

   Refer to **INSTALLATION**

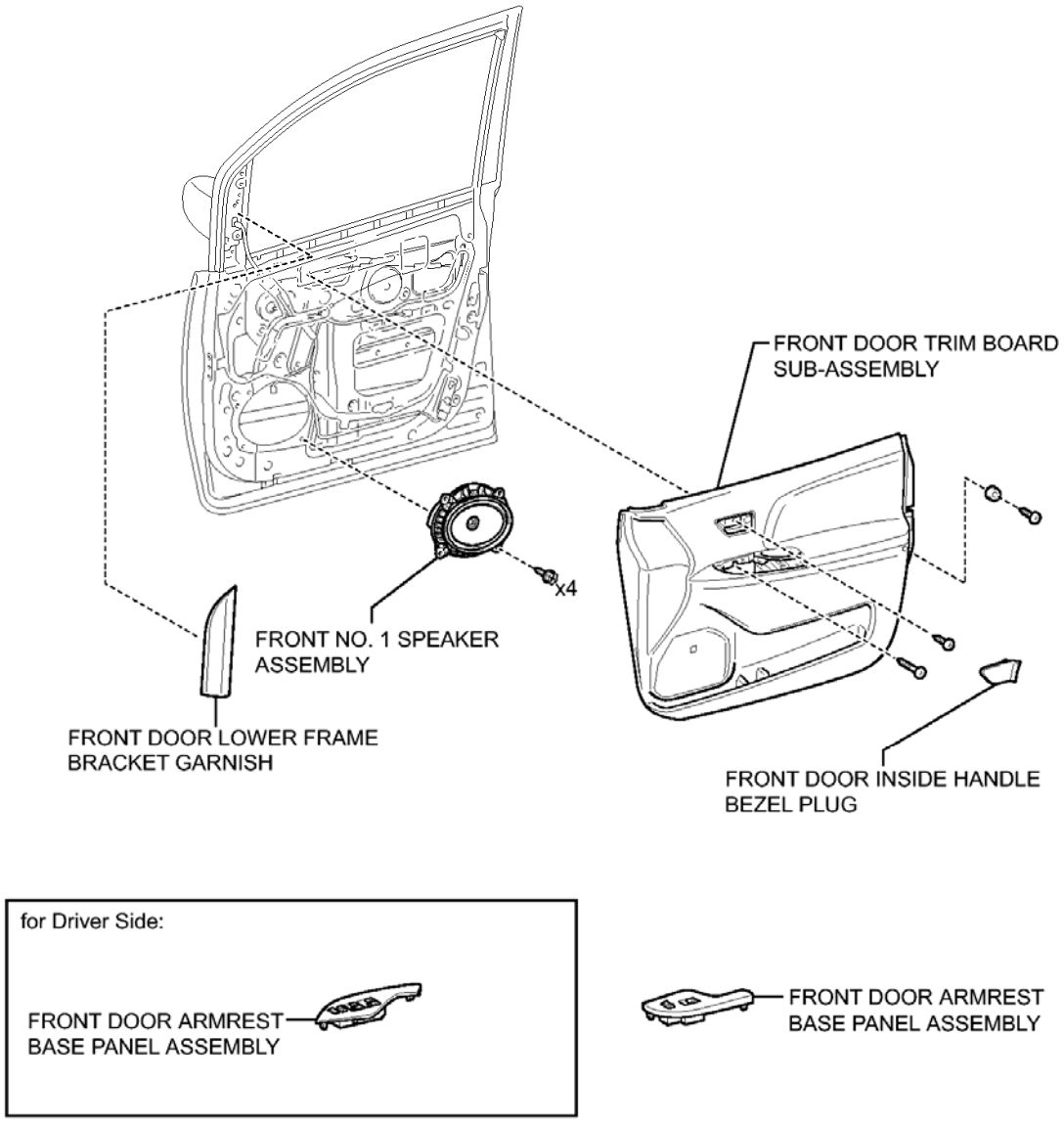
   HINT:

   Use the same procedure as for the LH side.

FRONT DOOR SPEAKER

COMPONENTS

ILLUSTRATION



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Fig. 11: Front Door Speaker Replacement Components
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

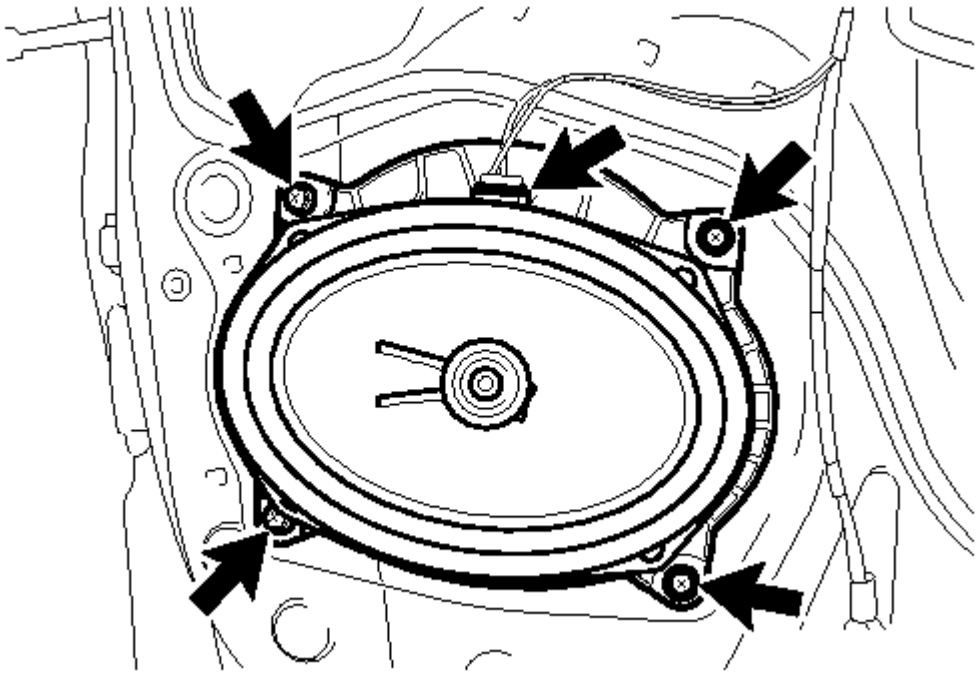
REMOVAL

REMOVAL

HINT:

- Use the same procedure for both the RH and LH sides.
- The procedure described below is for the RH side.

1. **REMOVE FRONT DOOR ARMREST BASE PANEL ASSEMBLY** . Refer to **DISASSEMBLY - Step 2**
2. **REMOVE FRONT DOOR INSIDE HANDLE BEZEL PLUG** . Refer to **DISASSEMBLY - Step 3**
3. **REMOVE FRONT DOOR LOWER FRAME BRACKET GARNISH** . Refer to **DISASSEMBLY - Step 4**
4. **REMOVE FRONT DOOR TRIM BOARD SUB-ASSEMBLY** . Refer to **DISASSEMBLY - Step 5**
5. **REMOVE FRONT NO. 1 SPEAKER ASSEMBLY**



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Fig. 12: Identifying Front No. 1 Speaker Assembly, Connector & Fasteners
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

   a. Disconnect the connector.
   b. Remove the 4 screws and the front No. 1 speaker.

INSPECTION

INSPECTION

1. **INSPECT FRONT NO. 1 SPEAKER ASSEMBLY (except 10 Speakers)**
   a. With the speaker installed, check that there is no looseness or other abnormalities.
   b. Check that there is no foreign matter in the speaker, no tears on the speaker's cone part or other abnormalities.

c. Measure the resistance of the speaker.

*a

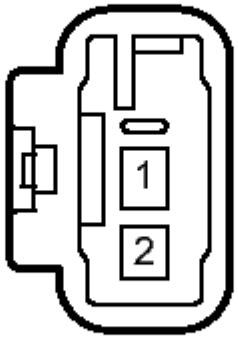


Fig. 13: Speaker Assembly Connector End View (except 10 Speakers)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

Standard Resistance

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

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

TEXT IN ILLUSTRATION

*a	Component without harness connected (Front No. 1 Speaker Assembly)

2. **INSPECT FRONT NO. 1 SPEAKER ASSEMBLY (for 10 Speakers)**
   a. With the speaker installed, check that there is no looseness or other abnormalities.
   b. Check that there is no foreign matter in the speaker, no tears on the speaker's cone part or other

abnormalities.

c. Measure the resistance of the speaker.

*a

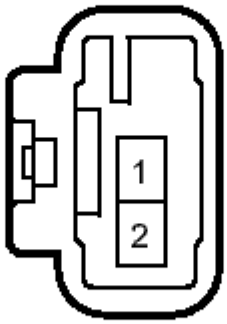


Fig. 14: Front No. 1 Speaker Assembly Connector End View (For 10 Speakers)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

Standard Resistance

Tester Connection	Condition	Specified Condition
1 - 2	Always	1.65 to 2.15 ohms

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

TEXT IN ILLUSTRATION

*a	Component without harness connected (Front No. 1 Speaker Assembly)

INSTALLATION

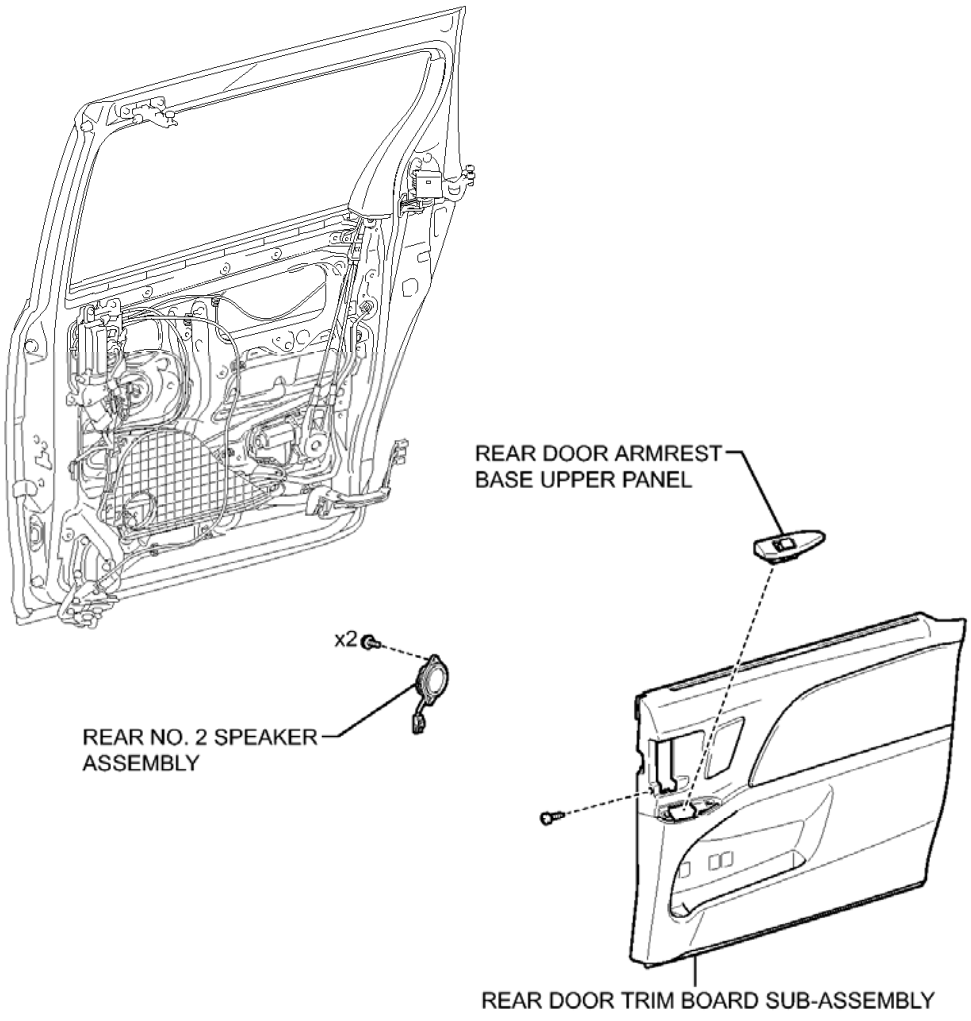
INSTALLATION

1. **INSTALL FRONT NO. 1 SPEAKER ASSEMBLY**
    a. Install the front No. 1 speaker with the 4 screws.
    b. Connect the connector.
2. **INSTALL FRONT DOOR TRIM BOARD SUB-ASSEMBLY** . Refer to **REASSEMBLY - Step 30**
3. **INSTALL FRONT DOOR LOWER FRAME BRACKET GARNISH** . Refer to **REASSEMBLY - Step 31**
4. **INSTALL FRONT DOOR INSIDE HANDLE BEZEL PLUG** . Refer to **REASSEMBLY - Step 32**
5. **INSTALL FRONT DOOR ARMREST BASE PANEL ASSEMBLY** . Refer to **REASSEMBLY - Step 33**

REAR DOOR SPEAKER

COMPONENTS

ILLUSTRATION



P

Fig. 15: Rear Door Speaker Replacement Components
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL

REMOVAL

HINT:

- Use the same procedure for both the RH and LH sides.
- The procedure described below is for the RH side.

1. **REMOVE REAR DOOR ARMREST BASE UPPER PANEL** . Refer to **DISASSEMBLY - Step 2**
2. **REMOVE REAR DOOR TRIM BOARD SUB-ASSEMBLY** . Refer to **DISASSEMBLY - Step 3**
3. **REMOVE REAR NO. 2 SPEAKER ASSEMBLY**

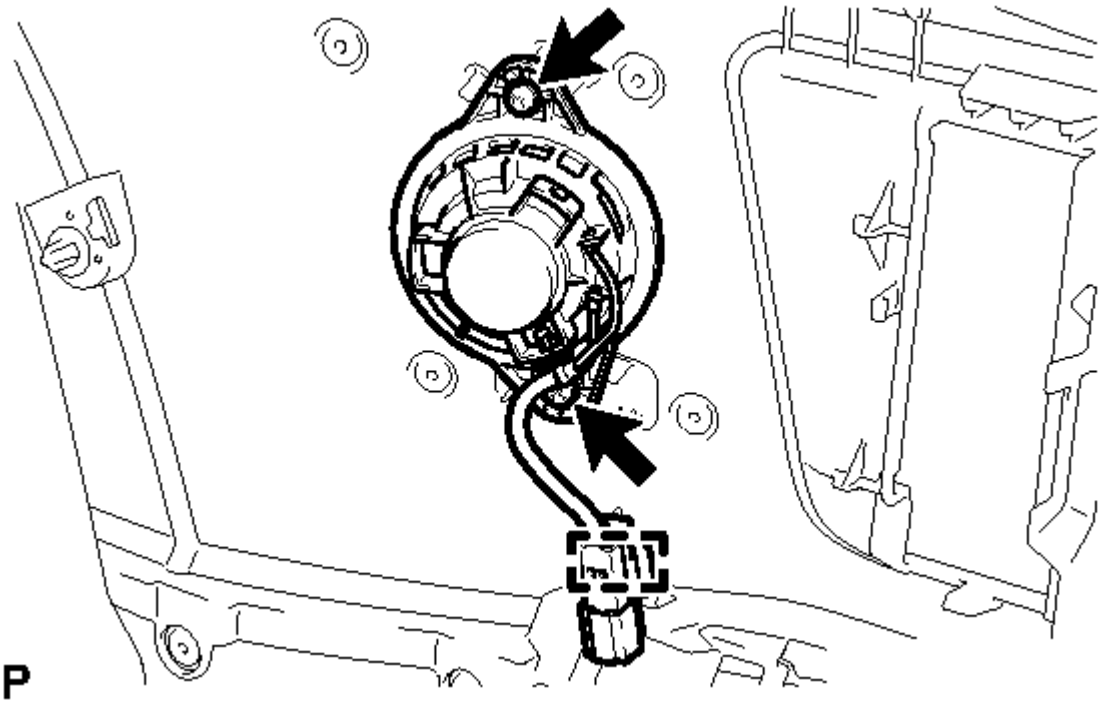


Fig. 16: Identifying Rear No. 2 Speaker Assembly & Fasteners
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

   a. Disengage the clamp.
   b. Remove the 2 screws and rear No. 2 speaker.

INSPECTION

INSPECTION

1. **INSPECT REAR NO. 2 SPEAKER ASSEMBLY**
   a. With the speaker installed, check that there is no looseness or other abnormalities.
   b. Check that there is no foreign matter in the speaker, no tears on the speaker's cone part or other abnormalities.
   c. Measure the resistance of the speaker.

*a

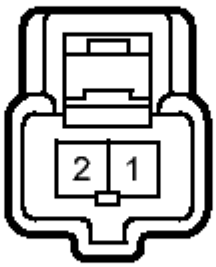


Fig. 17: Speaker Connector End View
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

Standard Resistance

Tester Connection	Condition	Specified Condition
1 - 2	Always	1.5 to 2.5 ohms

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

TEXT IN ILLUSTRATION

*a	Component without harness connected (Rear Speaker Assembly)

INSTALLATION

INSTALLATION

1. **INSTALL REAR NO. 2 SPEAKER ASSEMBLY**
    a. Install the rear No. 2 speaker with the 2 screws.

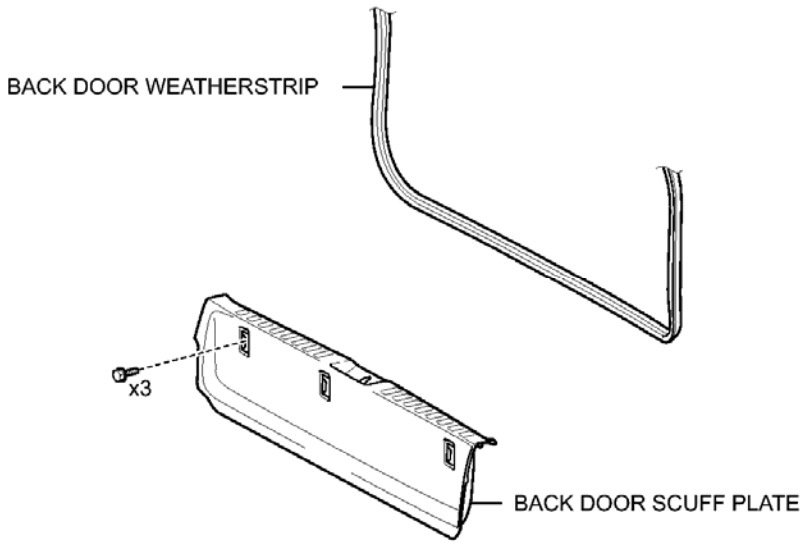
b. Engage the clamp.

2. **INSTALL REAR DOOR TRIM BOARD SUB-ASSEMBLY** . Refer to **REASSEMBLY - Step 45**
3. **INSTALL REAR DOOR ARMREST BASE UPPER PANEL** . Refer to **REASSEMBLY - Step 46**

QUARTER TRIM SPEAKER

COMPONENTS

ILLUSTRATION



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Fig. 18: Quarter Trim Speaker Replacement Components (1 Of 3)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

ILLUSTRATION

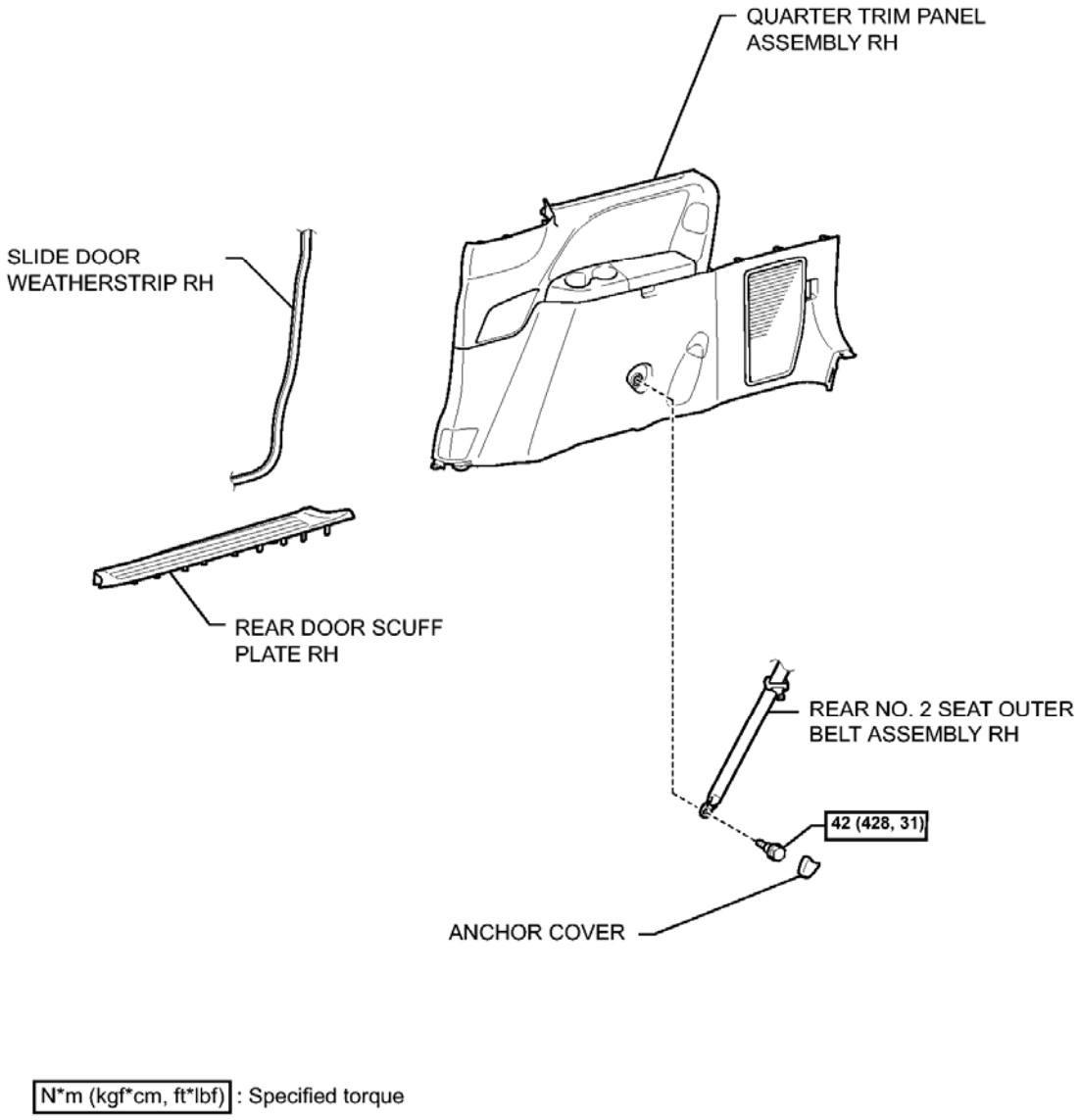
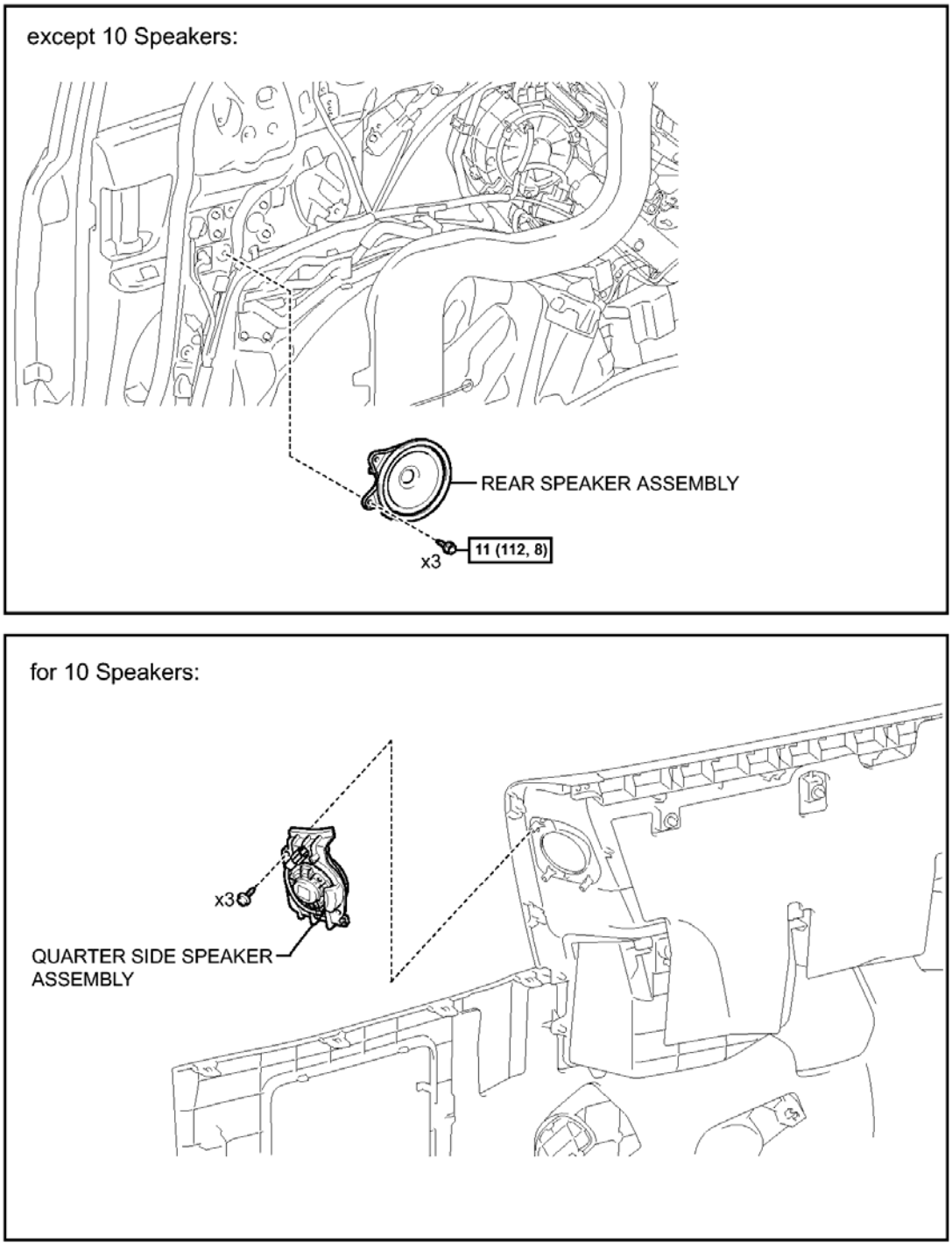


Fig. 19: Quarter Trim Speaker Replacement Components With Torque Specifications (2 Of 3)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

ILLUSTRATION



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Fig. 20: Quarter Trim Speaker Replacement Components With Torque Specifications (3 Of 3)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL

REMOVAL

HINT:

- Use the same procedure for both the RH and LH sides.
- The procedure described below is for the RH side.

1. **SEPARATE BACK DOOR WEATHERSTRIP**
2. **REMOVE BACK DOOR SCUFF PLATE** . Refer to **REMOVAL - Step 17**
3. **SEPARATE REAR NO. 2 SEAT OUTER BELT ASSEMBLY RH**

   HINT:

   Use the same procedure for the LH sides. Refer to **REMOVAL - Step 5** .

4. **REMOVE REAR DOOR SCUFF PLATE RH** . Refer to **REMOVAL - Step 13**
5. **SEPARATE SLIDE DOOR WEATHERSTRIP RH**
6. **REMOVE QUARTER TRIM PANEL ASSEMBLY RH** . Refer to **REMOVAL - Step 26**
7. **REMOVE REAR SPEAKER ASSEMBLY (except 10 Speakers)**

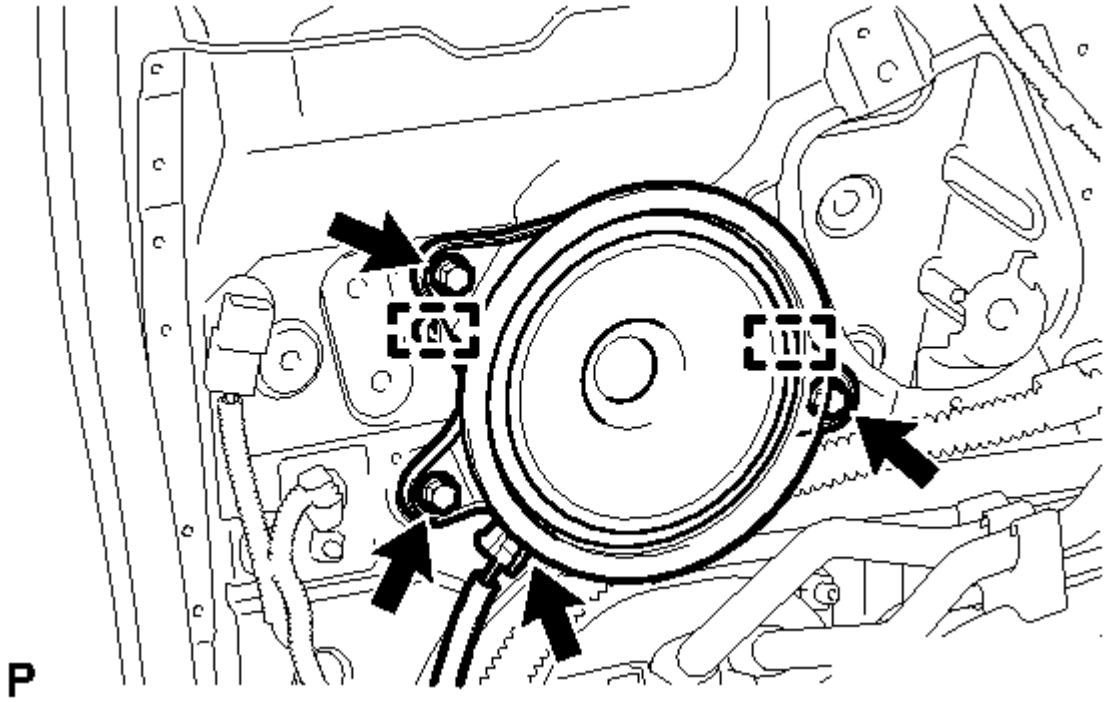
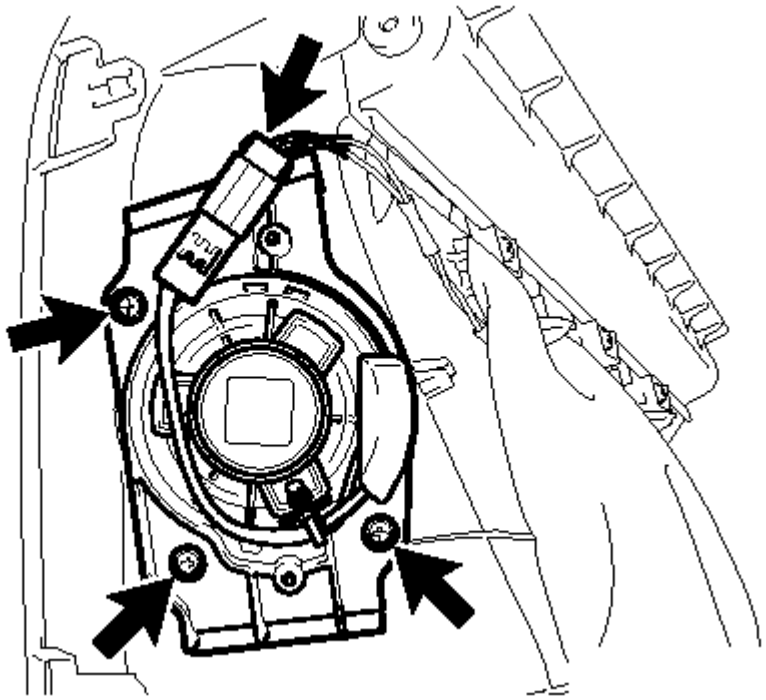


Fig. 21: Identifying Rear Speaker Assembly, Connector & Fasteners
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

   a. Disconnect the connector.
   b. Remove the 3 bolts.

c. Disengage the 2 hooks and remove the rear speaker.

8. **REMOVE QUARTER SIDE SPEAKER ASSEMBLY (for 10 Speakers)**



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Fig. 22: Remove Quarter Side Speaker Assembly, Connector & Fasteners
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

a. Disconnect the connector.
b. Remove the 3 screws and the quarter side speaker.

INSPECTION

INSPECTION

1. **INSPECT REAR SPEAKER ASSEMBLY (except 10 Speakers)**
   a. With the speaker installed, check that there is no looseness or other abnormalities.
   b. Check that there is no foreign matter in the speaker, no tears on the speaker's cone part or other abnormalities.
   c. Measure the resistance of the speaker.

*a

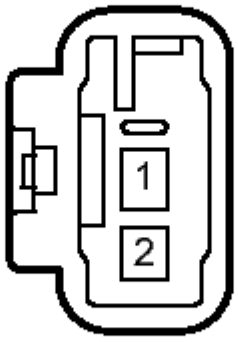


Fig. 23: Speaker Assembly Connector End View (except 10 Speakers)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

Standard Resistance

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

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

TEXT IN ILLUSTRATION

*a	Component without harness connected (Rear Speaker Assembly)

2. **INSPECT QUARTER SIDE SPEAKER ASSEMBLY (for 10 Speakers)**
   a. With the speaker installed, check that there is no looseness or other abnormalities.
   b. Check that there is no foreign matter in the speaker, no tears on the speaker's cone part or other abnormalities.
   c. Measure the resistance of the speaker.

*a

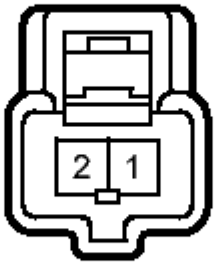


Fig. 24: Speaker Connector End View
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

Standard Resistance

Tester Connection	Condition	Specified Condition
1 - 2	Always	1.5 to 2.5 ohms

If the result is not as specified, replace the quarter side speaker assembly.

TEXT IN ILLUSTRATION

*a	Component without harness connected (Quarter side speaker assembly)

INSTALLATION

INSTALLATION

1. **INSTALL REAR SPEAKER ASSEMBLY (except 10 Speakers)**

a. Engage the 2 hooks and install the rear speaker.
b. Install the 3 bolts.

Torque: 11 N*m (112 kgf*cm, 8 ft.*lbf)

c. Connect the connector.

2. **INSTALL QUARTER SIDE SPEAKER ASSEMBLY (for 10 Speakers)**
   a. Install the quarter side speaker with the 3 screws.
   b. Connect the connector.
3. **INSTALL QUARTER TRIM PANEL ASSEMBLY RH** . Refer to **INSTALLATION - Step 14**
4. **INSTALL SLIDE DOOR WEATHERSTRIP RH**
5. **INSTALL REAR DOOR SCUFF PLATE RH** . Refer to **INSTALLATION - Step 27**
6. **INSTALL REAR NO. 2 SEAT OUTER BELT ASSEMBLY RH**

   HINT:

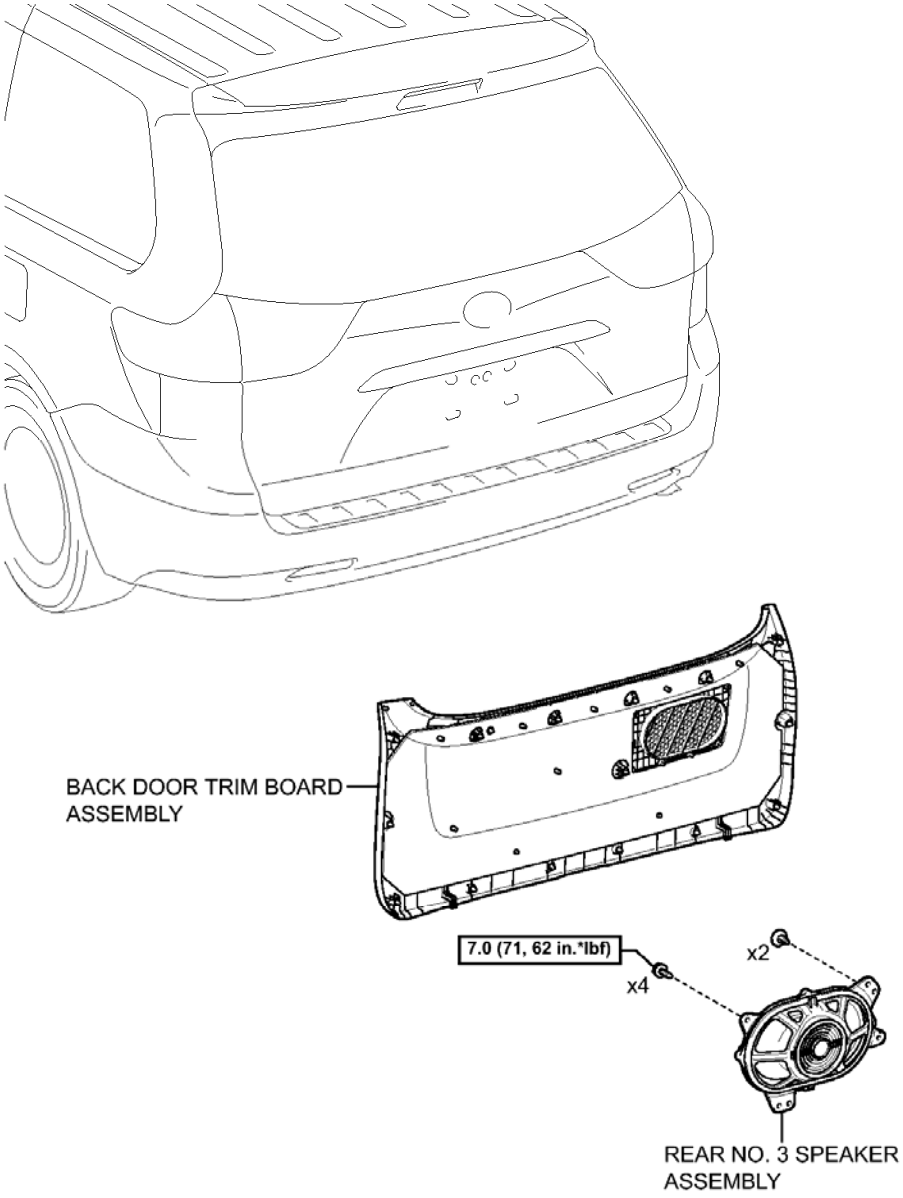
   Use the same procedure as for the LH side. Refer to **INSTALLATION - Step 3** .

7. **INSTALL BACK DOOR SCUFF PLATE** . Refer to **INSTALLATION - Step 24**
8. **INSTALL BACK DOOR WEATHERSTRIP**

BACK DOOR SPEAKER

COMPONENTS

ILLUSTRATION



N*m (kgf*cm, ft.*lbf): Specified torque

P

Fig. 25: Back Door Speaker Replacement Components With Torque Specifications
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL

REMOVAL

1. **REMOVE BACK DOOR TRIM BOARD ASSEMBLY** . Refer to **DISASSEMBLY - Step 2**

2. **REMOVE REAR NO. 3 SPEAKER ASSEMBLY**

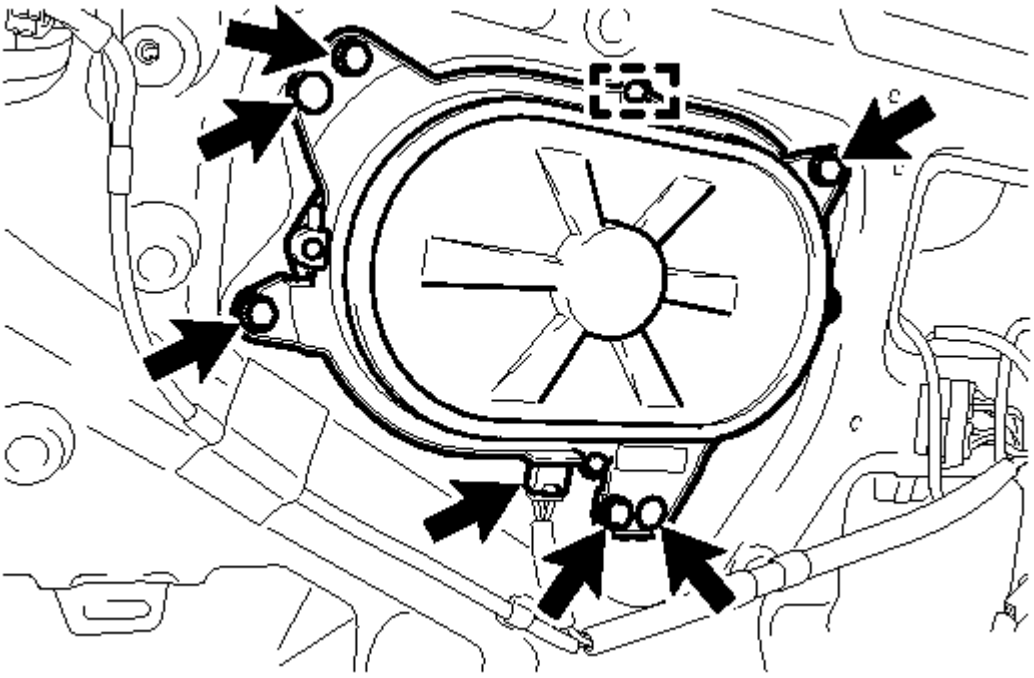


Fig. 26: Identifying Rear No. 3 Speaker Assembly, Connector & Fasteners
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

a. Disconnect the connector.
b. Remove the 4 bolts.
c. Using a clip remover, remove the 2 clips, disengage the guide and remove the rear No. 3 speaker.

INSPECTION

INSPECTION

1. **INSPECT REAR NO. 3 SPEAKER ASSEMBLY**
   a. With the speaker installed, check that there is no looseness or other abnormalities.
   b. Check that there is no foreign matter in the speaker, no tears on the speaker's cone part or other abnormalities.
   c. Measure the resistance of the speaker.

*a

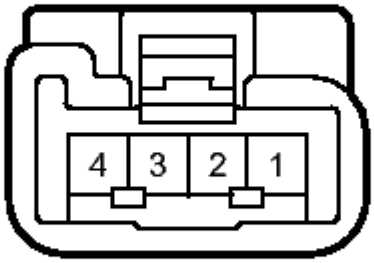


Fig. 27: Rear No. 3 Speaker Assembly Connector End View
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

Standard Resistance

Tester Connection	Condition	Specified Condition
1 - 2	Always	1.5 to 2.5 ohms
3 - 4	Always	1.5 to 2.5 ohms

If the result is not as specified, replace the No. 3 speaker assembly.

TEXT IN ILLUSTRATION

*a	Component without harness connected (Rear No. 3 Speaker Assembly)

INSTALLATION

INSTALLATION

1. **INSTALL REAR NO. 3 SPEAKER ASSEMBLY**
    a. Engage the guide and install the rear No. 3 speaker with the 2 clips.
    b. Install the 4 bolts.

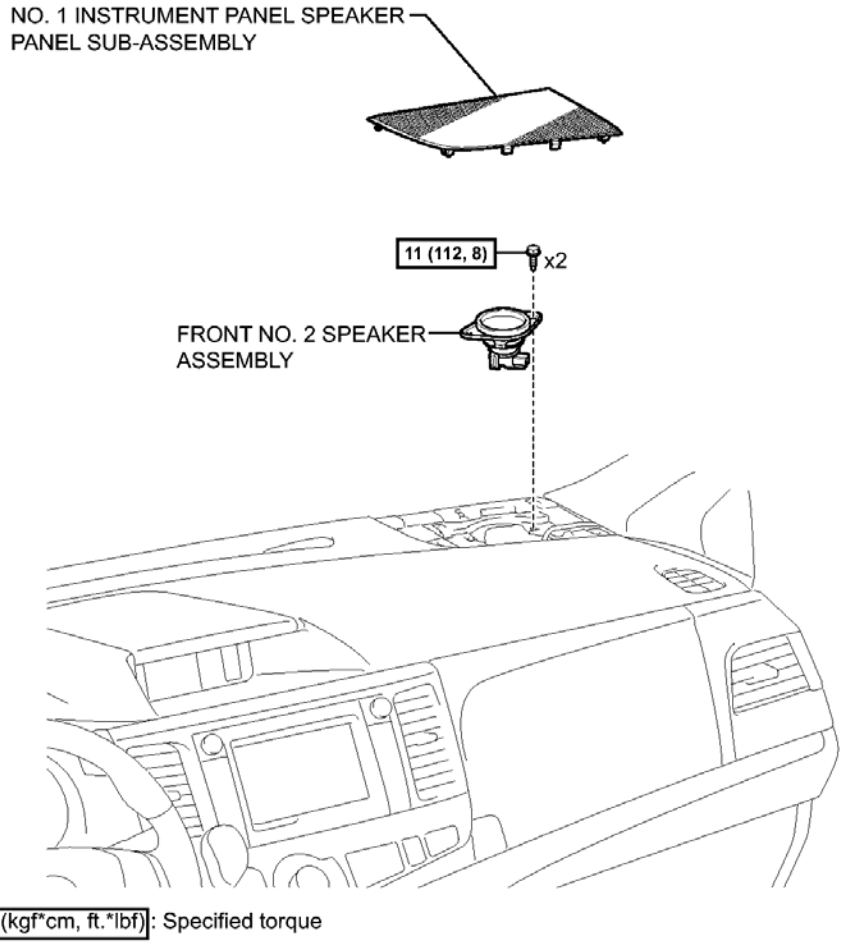
        Torque: 7.0 N*m (71 kgf*cm, 62 in.*lbf)

    c. Connect the connector.
2. **INSTALL BACK DOOR TRIM BOARD ASSEMBLY** . Refer to **REASSEMBLY - Step 27**

INSTRUMENT PANEL SPEAKER

COMPONENTS

ILLUSTRATION

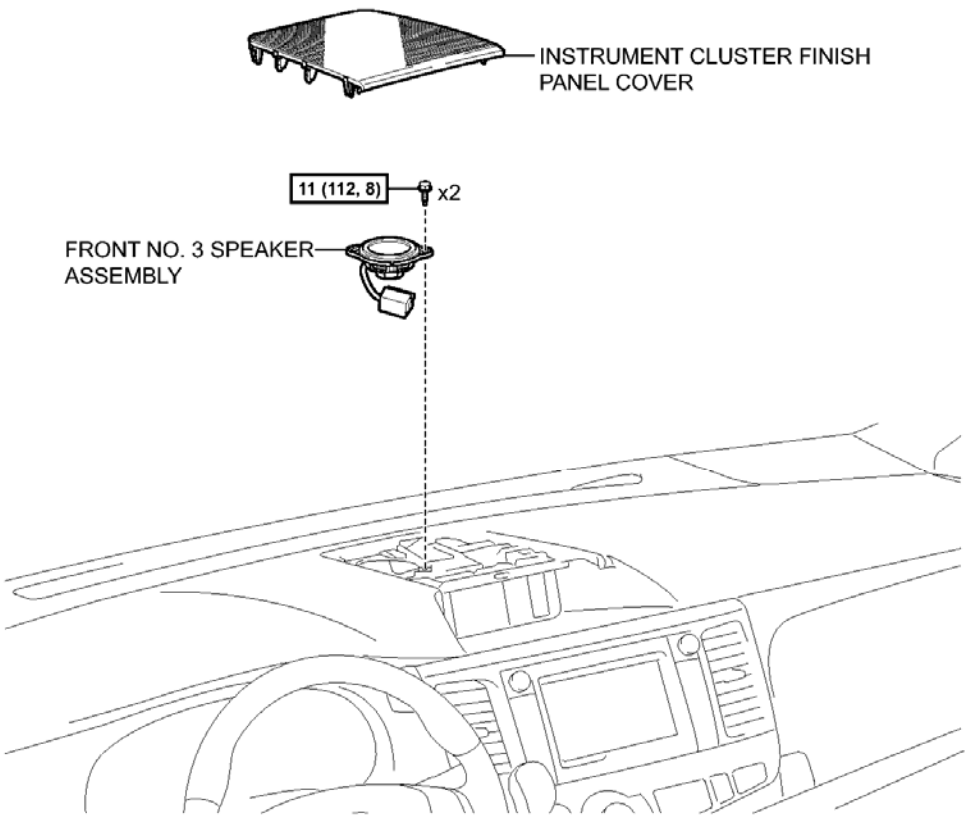


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Fig. 28: Instrument Panel Speaker Replacement Components With Torque Specifications (1 Of 2)

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

ILLUSTRATION



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Fig. 29: Instrument Panel Speaker Replacement Components With Torque Specifications (2 Of 2)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL

REMOVAL

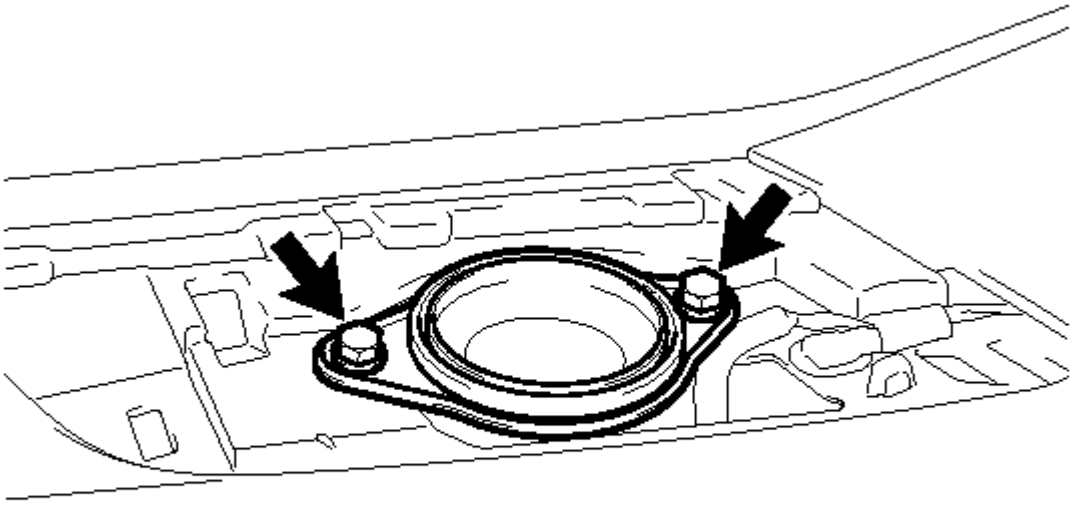
HINT:

- Use the same procedure for both the RH and LH sides.
- The procedure described below is for the RH side.

1. **REMOVE NO. 1 INSTRUMENT PANEL SPEAKER PANEL SUB-ASSEMBLY** . Refer to

REMOVAL - Step 51

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

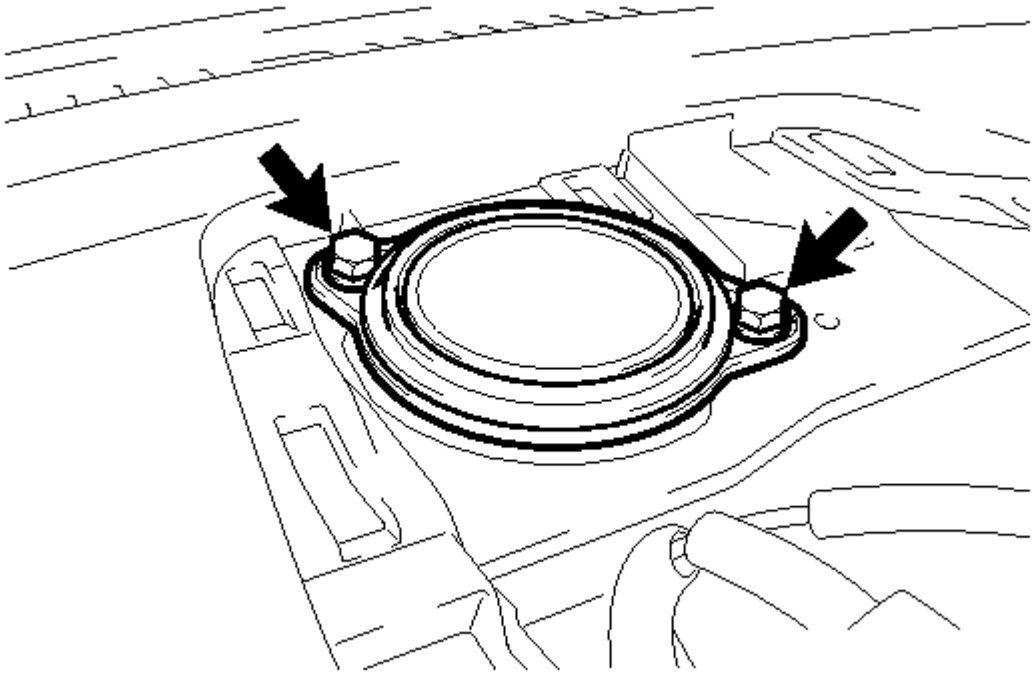


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Fig. 30: Identifying Front No. 2 Speaker Assembly & Fasteners
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

   a. Remove the 2 bolts.
   b. Disconnect the connector and remove the front No. 2 speaker.

3. **REMOVE INSTRUMENT CLUSTER FINISH PANEL COVER** . Refer to **REMOVAL - Step 53**
4. **REMOVE FRONT NO. 3 SPEAKER ASSEMBLY**



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Fig. 31: Identifying Front No. 3 Speaker Assembly & Fasteners
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

a. Remove the 2 bolts.
b. Disconnect the connector and remove the front No. 3 speaker.

INSPECTION

INSPECTION

1. **INSPECT FRONT NO. 2 SPEAKER ASSEMBLY (for 6 Speakers)**
   a. With the speaker installed, check that there is no looseness or other abnormalities.
   b. Check that there is no foreign matter in the speaker, no tears on the speaker's cone part or other abnormalities.
   c. Measure the resistance of the speaker.

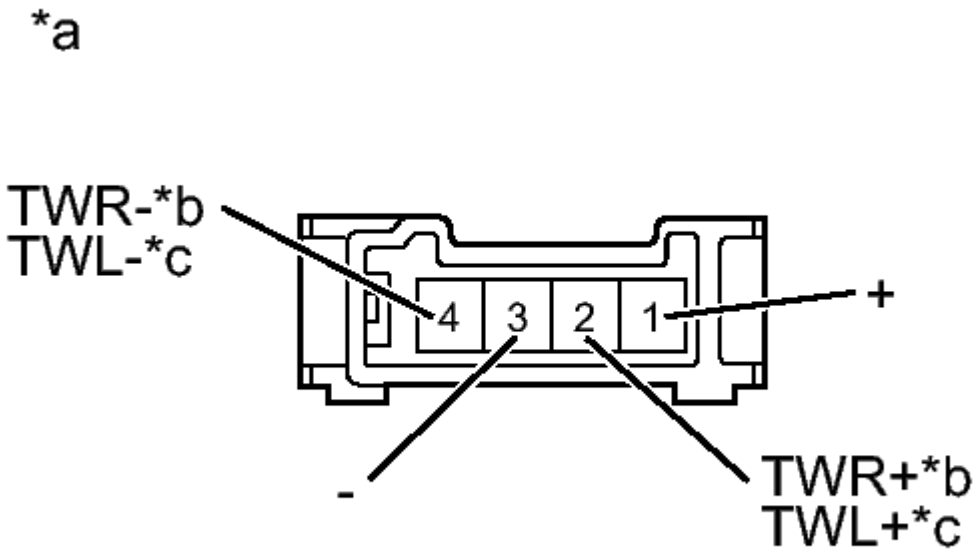


Fig. 32: Front No. 2 Speaker Assembly Connector End View (For 6 Speakers)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

Standard Resistance

FOR RH

Tester Connection	Condition	Specified Condition
1(+) - 2 (TWR+)	Always	Below 1 ohms
3(-) - 4 (TWR-)	Always	Below 1 ohms
2(TWR+) - 4(TWR-)	Always	Approximately 4 ohms

Standard Resistance

FOR LH

Tester Connection	Condition	Specified Condition
1(+) - 2 (TWL+)	Always	Below 1 ohms
3(-) - 4 (TWL-)	Always	Below 1 ohms
2(TWL+) - 4(TWL-)	Always	Approximately 4 ohms

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

TEXT IN ILLUSTRATION

*a	Component without harness connected (Front No. 2 Speaker Assembly)
*b	for RH
*c	for LH

2. **INSPECT FRONT NO. 2 SPEAKER ASSEMBLY (for 10 Speakers)**
   a. With the speaker installed, check that there is no looseness or other abnormalities.
   b. Check that there is no foreign matter in the speaker, no tears on the speaker's cone part or other abnormalities.
   c. Measure the resistance of the speaker.

*a

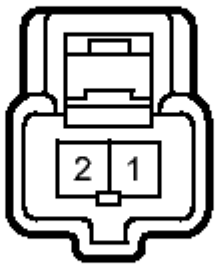


Fig. 33: Speaker Connector End View
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

Standard Resistance

Tester Connection	Condition	Specified Condition

1 - 2	Always	1.5 to 2.5 ohms

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

TEXT IN ILLUSTRATION

*a	Component without harness connected (Front No. 2 Speaker Assembly)

3. **INSPECT FRONT NO. 3 SPEAKER ASSEMBLY (for 10 Speakers)**
   a. With the speaker installed, check that there is no looseness or other abnormalities.
   b. Check that there is no foreign matter in the speaker, no tears on the speaker's cone part or other abnormalities.
   c. Measure the resistance of the speaker.

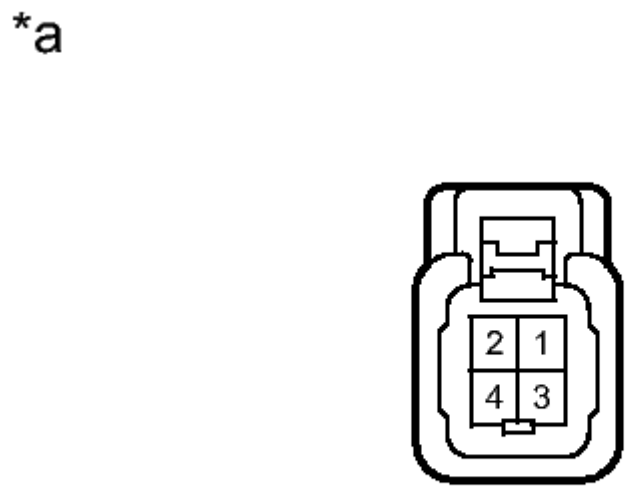


Fig. 34: Front No. 3 Speaker Assembly Connector End View (For 10 Speakers)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

Standard Resistance

Tester		Specified

Connection	Condition	Condition
3 - 4	Always	1.5 to 2.5 ohms

If the result is not as specified, replace the front No. 3 speaker assembly.

TEXT IN ILLUSTRATION

*a	Component without harness connected (Front No. 3 Speaker Assembly)

INSTALLATION

INSTALLATION

1. **INSTALL FRONT NO. 3 SPEAKER ASSEMBLY**
   a. Connect the connector.
   b. Install the front No. 3 speaker with the 2 bolts.

      Torque: 11 N*m (112 kgf*cm, 8 ft.*lbf)

2. **INSTALL INSTRUMENT CLUSTER FINISH PANEL COVER** . Refer to **INSTALLATION - Step 5**
3. **INSTALL FRONT NO. 2 SPEAKER ASSEMBLY**
   a. Connect the connector.
   b. Install the front No. 2 speaker with the 2 bolts.

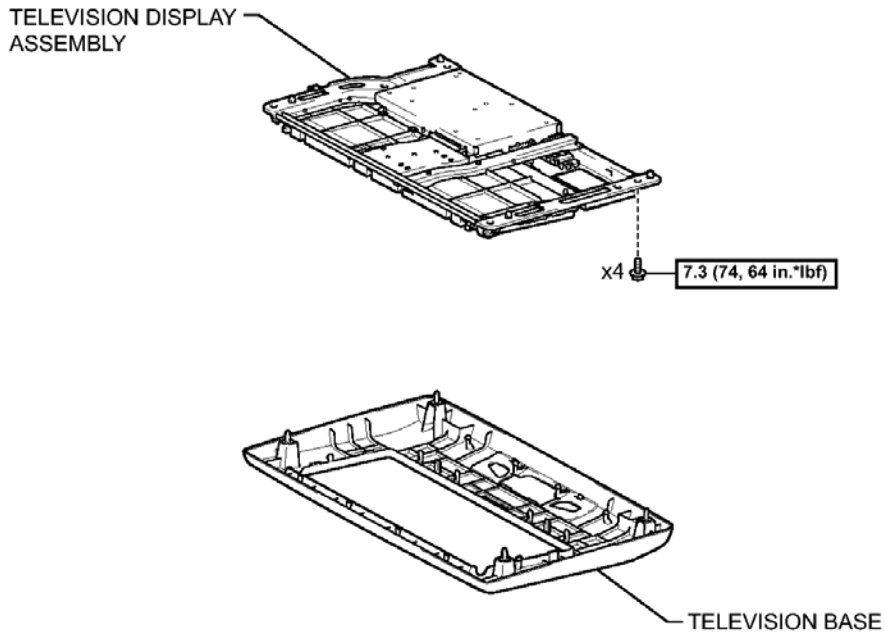
      Torque: 11 N*m (112 kgf*cm, 8 ft.*lbf)

4. **INSTALL NO. 1 INSTRUMENT PANEL SPEAKER PANEL SUB-ASSEMBLY** . Refer to **INSTALLATION - Step 6**

TELEVISION DISPLAY

COMPONENTS

ILLUSTRATION



N*m (kgf*cm, ft.*lbf): Specified torque

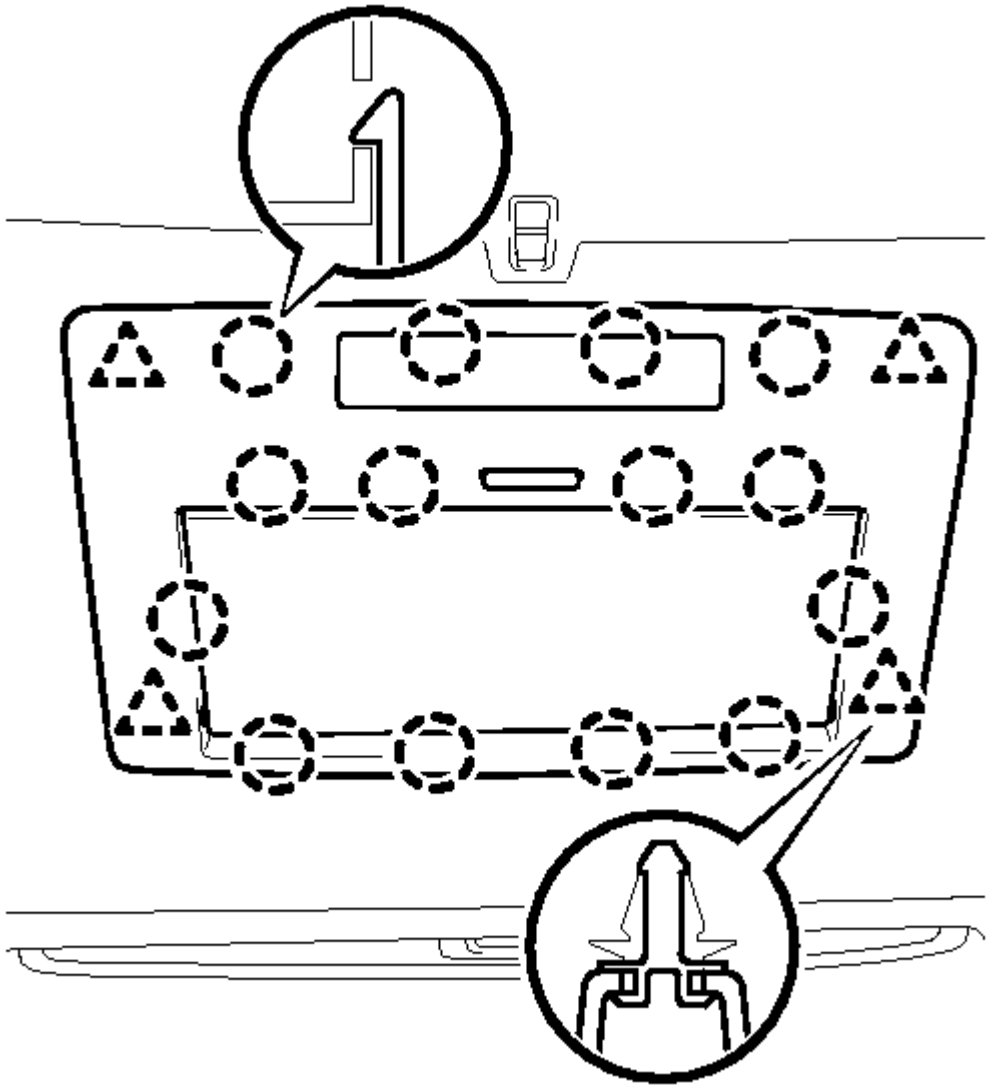
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Fig. 35: Television Display Replacement Components With Torque Specifications
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL

REMOVAL

1. **REMOVE TELEVISION BASE**



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Fig. 36: Identifying Television Base & Fasteners
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

a. Disengage the 4 clips, 14 claws and remove the television base.

2. **REMOVE TELEVISION DISPLAY ASSEMBLY**

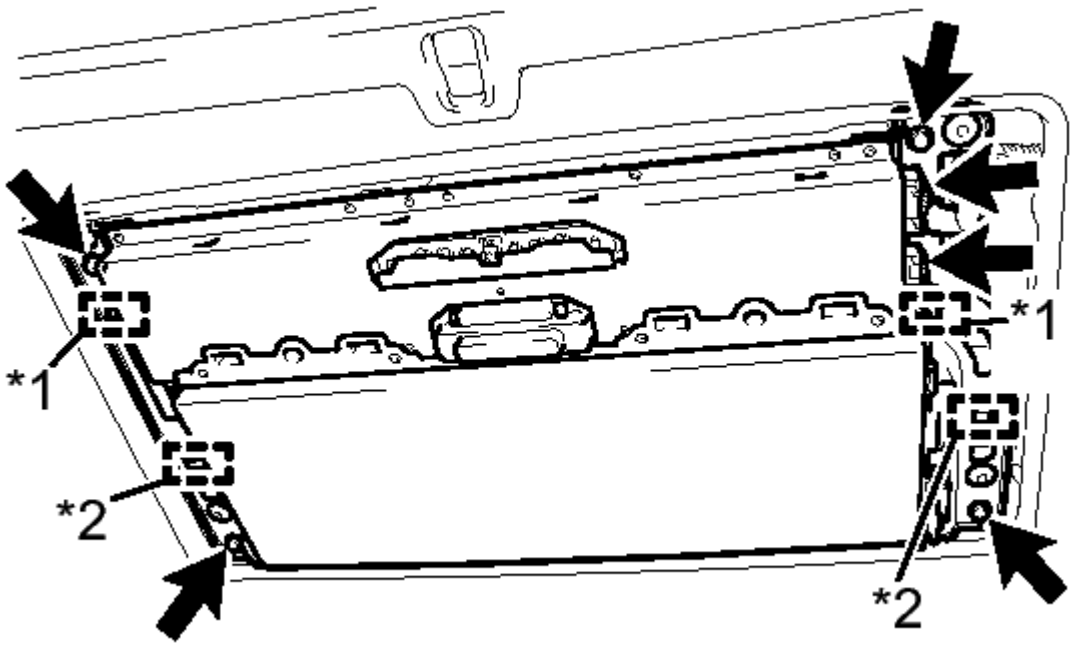


Fig. 37: Identifying Television Display Assembly & Fasteners
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

a. Disconnect the 2 connectors.
b. Remove the 4 bolts.
c. Disengage the 2 clamps, 2 guides and remove the television display.

TEXT IN ILLUSTRATION

*1	Clamp
*2	Guide

INSTALLATION

INSTALLATION

1. **INSTALL TELEVISION DISPLAY ASSEMBLY**
   a. Engage the 2 clamps, 2 guides and install the television display assembly.
   b. Install the 4 bolts.

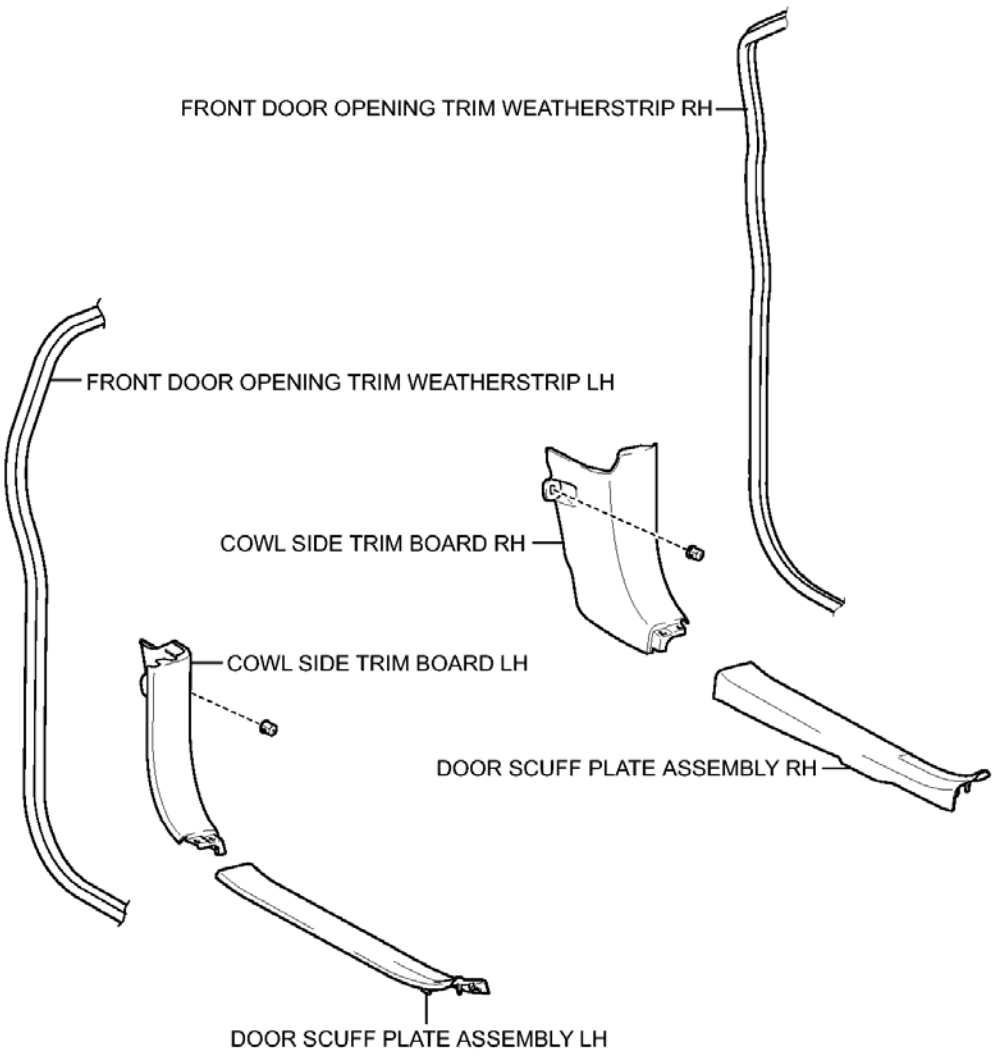
      Torque: 7.3 N*m (74 kgf*cm, 64 in.*lbf)

   c. Connect the 2 connectors.
2. **INSTALL TELEVISION BASE**
   a. Engage the 4 clips, 14 claws and install the television base.

DISC PLAYER

COMPONENTS

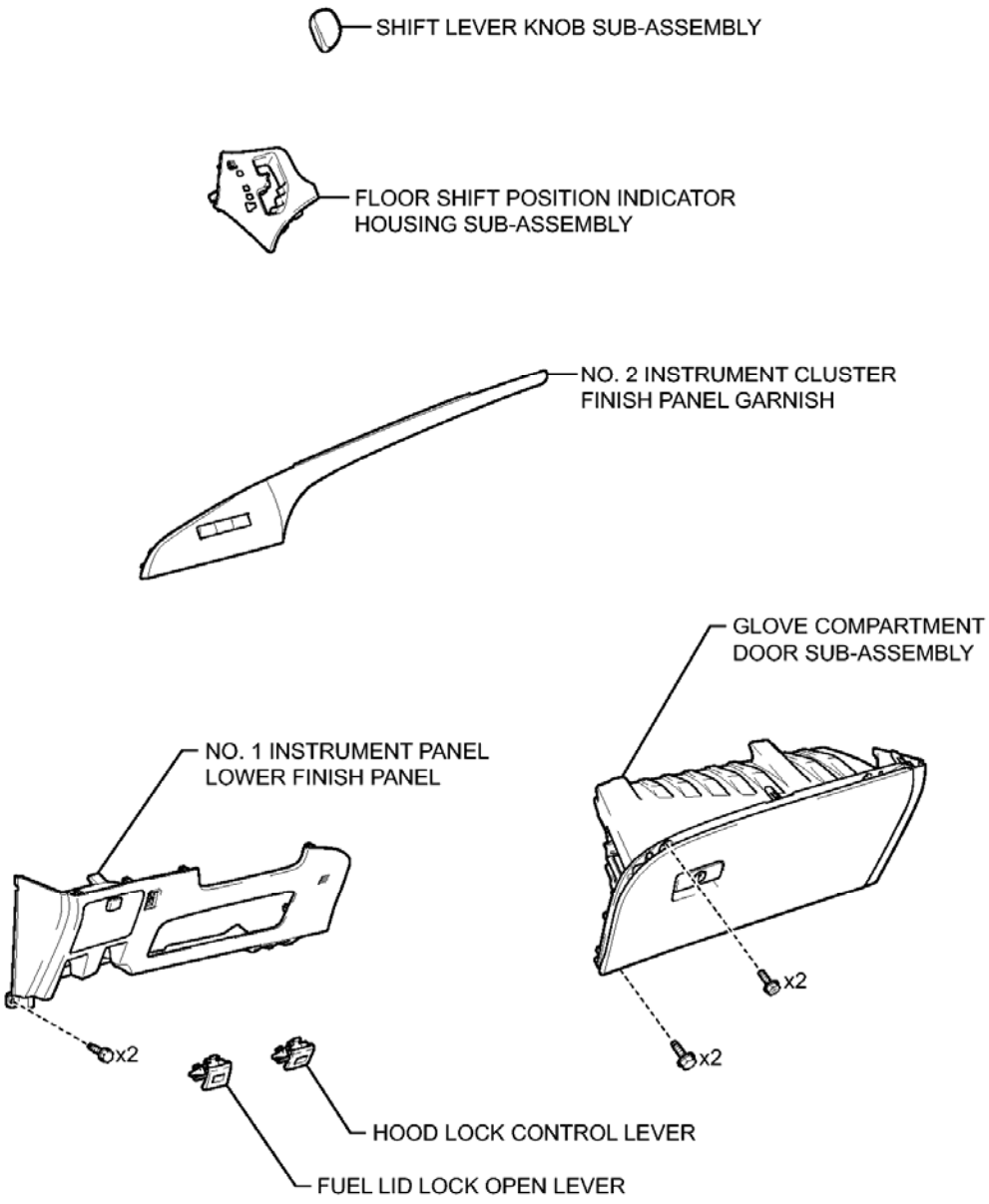
ILLUSTRATION



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Fig. 38: Disc Player Replacement Components (1 Of 4)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

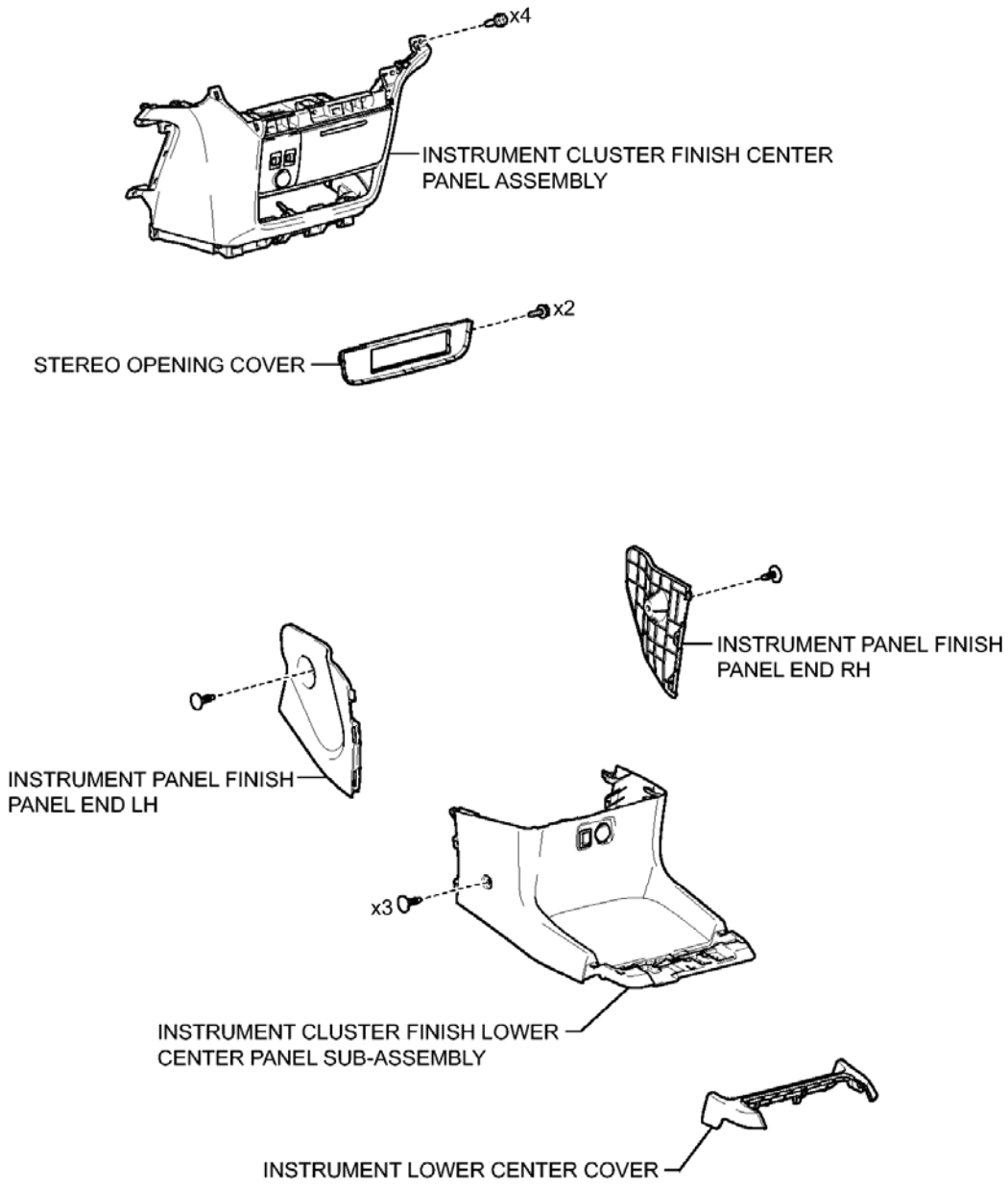
ILLUSTRATION



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Fig. 39: Disc Player Replacement Components (2 Of 4)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

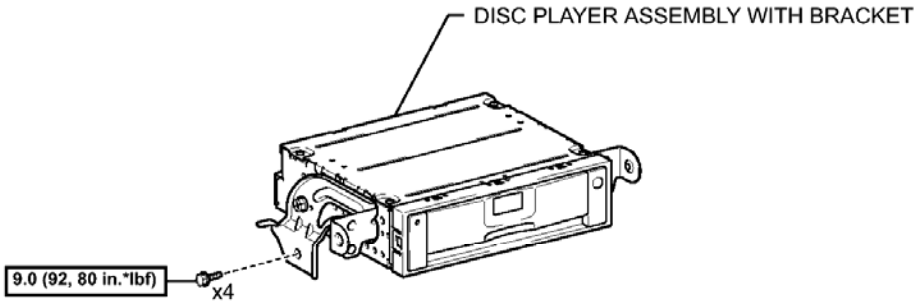
ILLUSTRATION

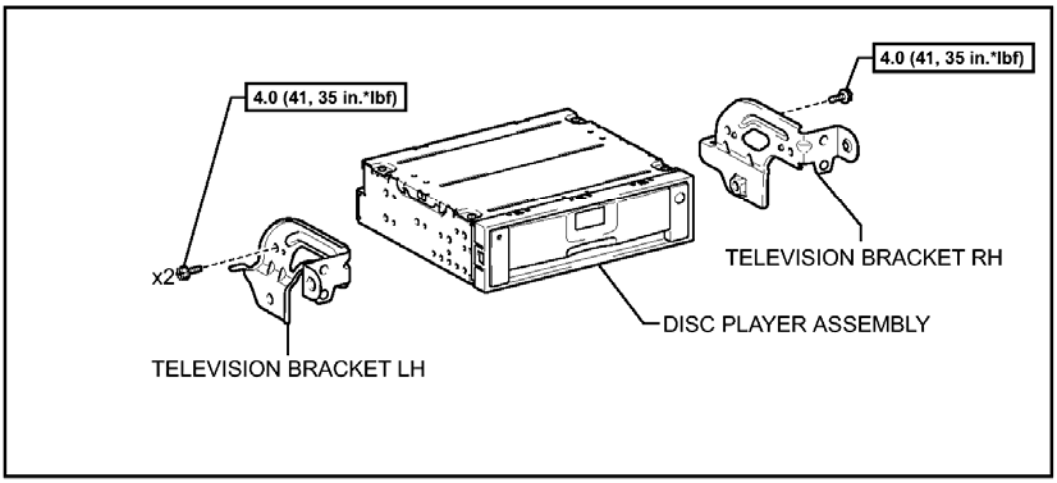


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Fig. 40: Disc Player Replacement Components (3 Of 4)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

ILLUSTRATION





N*m (kgf*cm, ft.*lbf): Specified torque

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Fig. 41: Disc Player Replacement Components With Torque Specifications (4 Of 4)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL

REMOVAL

1. **REMOVE DOOR SCUFF PLATE ASSEMBLY RH** . Refer to **REMOVAL - Step 3**
2. **REMOVE DOOR SCUFF PLATE ASSEMBLY LH**

   HINT:

   Use the same procedure as for the RH side.

3. **REMOVE COWL SIDE TRIM BOARD RH** . Refer to **REMOVAL - Step 5**
4. **REMOVE COWL SIDE TRIM BOARD LH**

   HINT:

   Use the same procedure as for the RH side.

5. **SEPARATE FRONT DOOR OPENING TRIM WEATHERSTRIP RH**
6. **SEPARATE FRONT DOOR OPENING TRIM WEATHERSTRIP LH**
7. **REMOVE NO. 1 INSTRUMENT PANEL LOWER FINISH PANEL** . Refer to **REMOVAL - Step 19**
8. **REMOVE NO. 2 INSTRUMENT CLUSTER FINISH PANEL GARNISH** . Refer to **REMOVAL - Step 23**
9. **REMOVE SHIFT LEVER KNOB SUB-ASSEMBLY**
10. **REMOVE FLOOR SHIFT POSITION INDICATOR HOUSING SUB-ASSEMBLY** . Refer to **REMOVAL - Step 25**
11. **REMOVE GLOVE COMPARTMENT DOOR SUB-ASSEMBLY** . Refer to **REMOVAL - Step 34**
12. **REMOVE CONSOLE ASSEMBLY (for Slide Type)**

    Refer to **REMOVAL**

13. **REMOVE CONSOLE ASSEMBLY (for Fixed Type)**

    Refer to **REMOVAL**

14. **REMOVE INSTRUMENT PANEL FINISH PANEL END RH** . Refer to **REMOVAL - Step 39**
15. **REMOVE INSTRUMENT PANEL FINISH PANEL END LH**

    HINT:

    Use the same procedure as for the RH side.

16. **REMOVE INSTRUMENT LOWER CENTER COVER** . Refer to **REMOVAL - Step 42**
17. **REMOVE INSTRUMENT CLUSTER FINISH LOWER CENTER PANEL SUB-ASSEMBLY** . Refer to **REMOVAL - Step 43**
18. **REMOVE INSTRUMENT CLUSTER FINISH CENTER PANEL ASSEMBLY** . Refer to **REMOVAL - Step 45**

19. **REMOVE STEREO OPENING COVER**

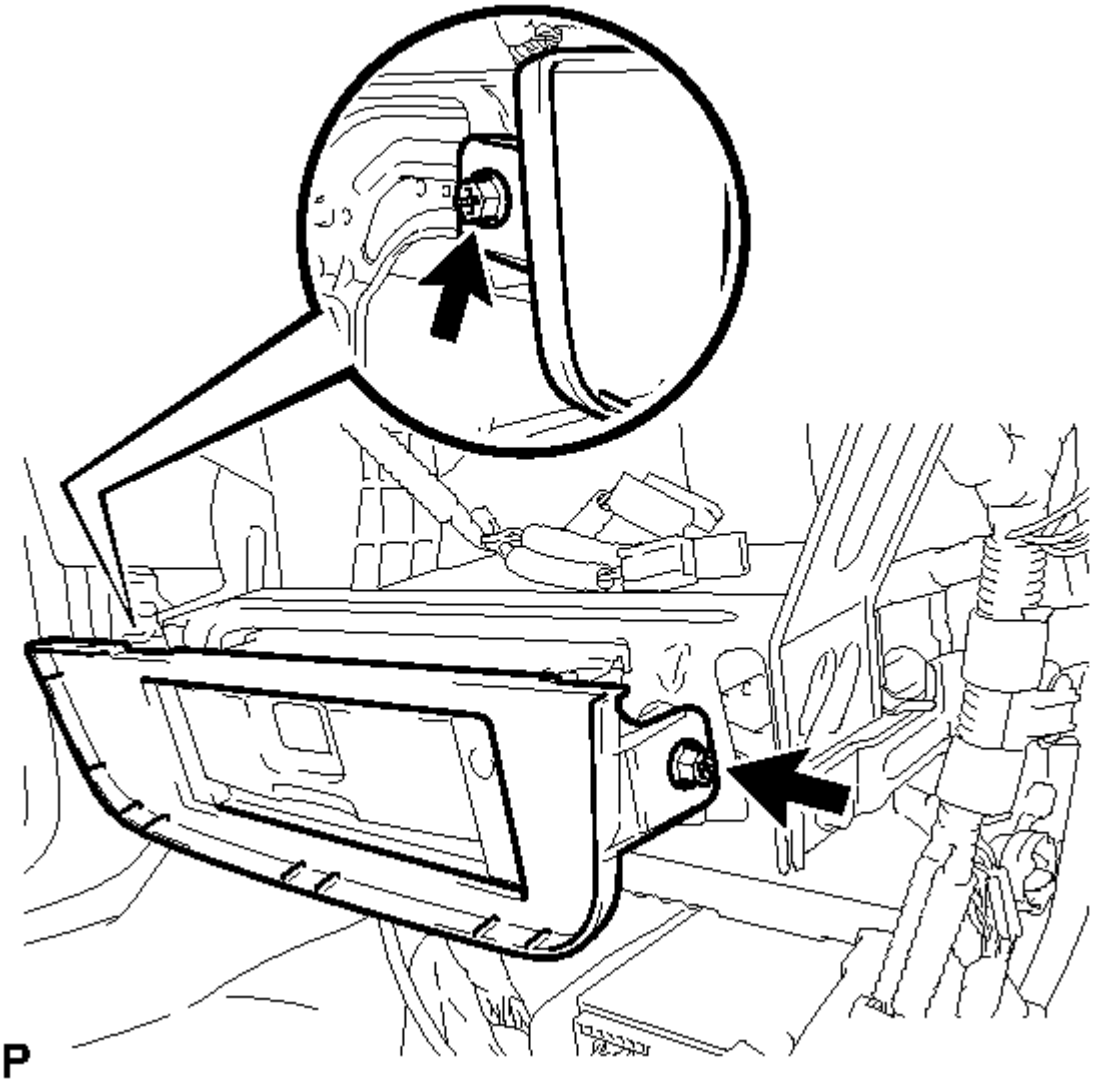


Fig. 42: Identifying Stereo Opening Cover & Fasteners
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

a. Remove the 2 screws and the stereo opening cover.

20. **REMOVE DISC PLAYER ASSEMBLY WITH BRACKET**

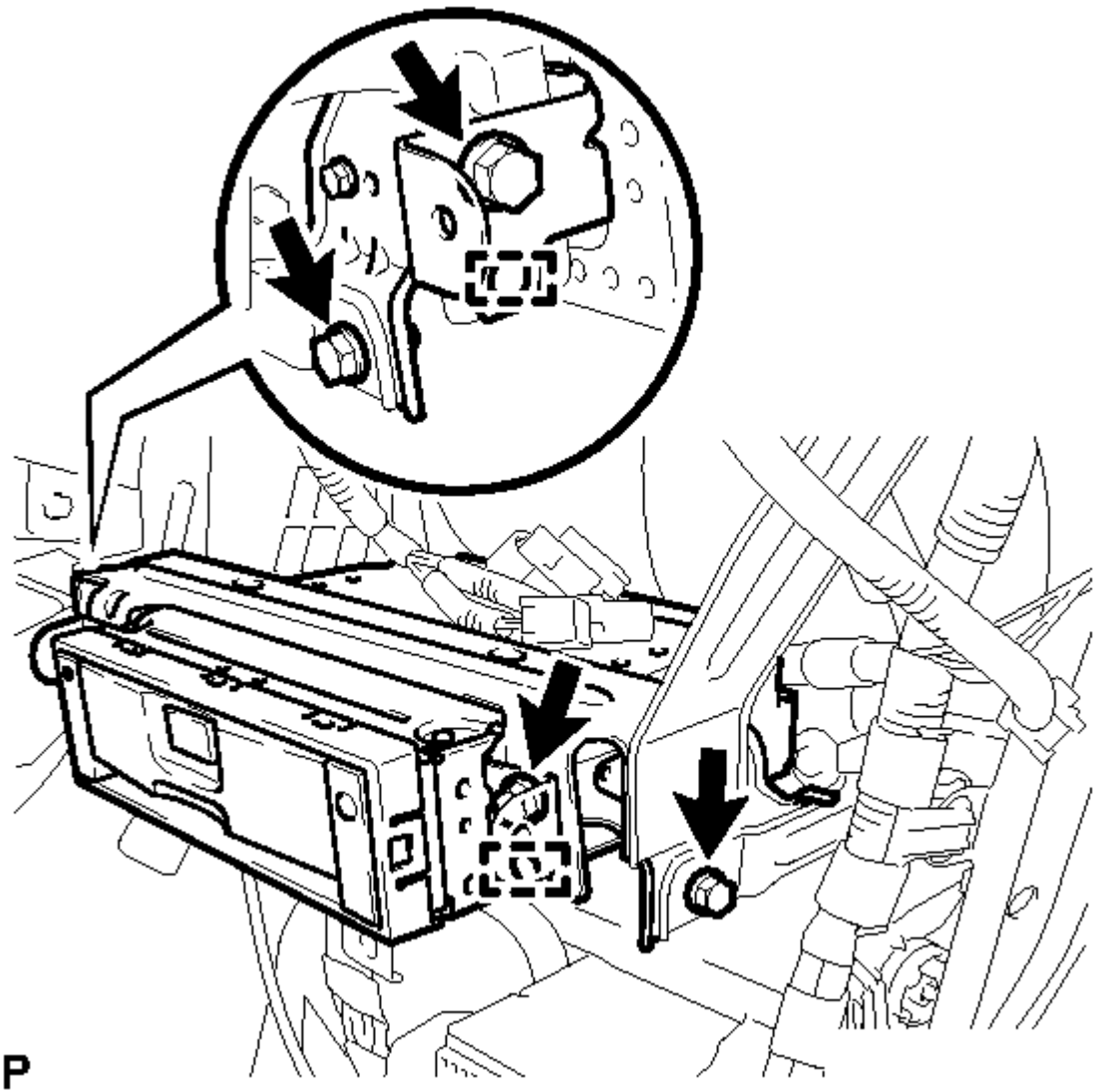
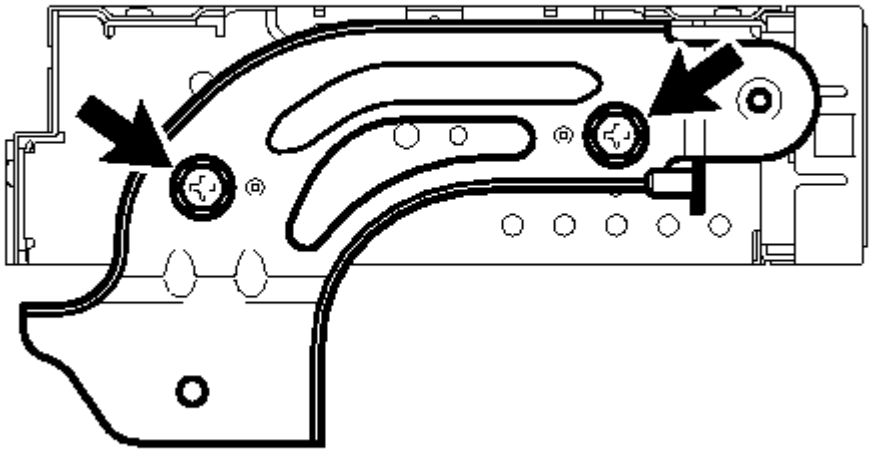


Fig. 43: Identifying Disc Player Assembly With Bracket & Fasteners
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

a. Remove the 4 bolts and disengage the 2 guides.
b. Disconnect the connector and remove the disc player assembly with bracket.

21. **REMOVE TELEVISION BRACKET LH**

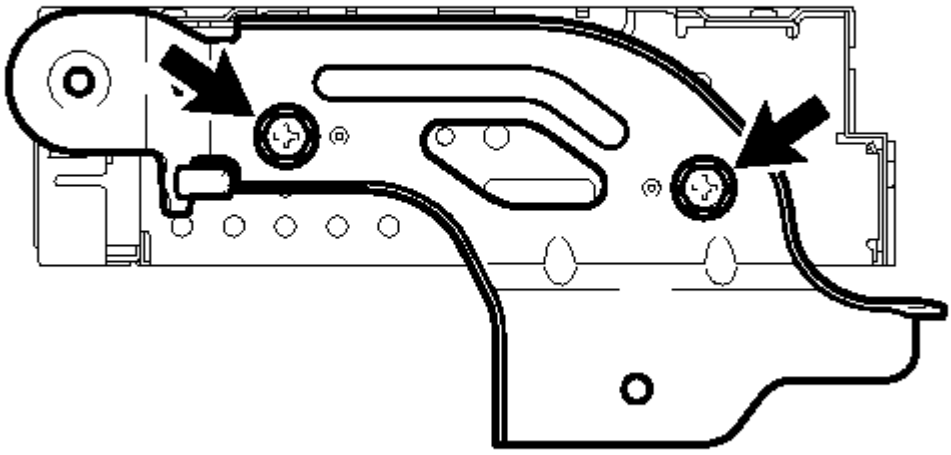


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Fig. 44: Identifying Television Bracket LH & Fasteners
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

a. Remove the 2 bolts and the television bracket LH.

22. **REMOVE TELEVISION BRACKET RH**



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Fig. 45: Identifying Television Bracket RH & Fasteners

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

a. Remove the 2 bolts and the television bracket RH.

INSTALLATION

INSTALLATION

1. **INSTALL TELEVISION BRACKET RH**
   a. Install the television bracket with the 2 bolts.

      Torque: 4.0 N*m (41 kgf*cm, 35 in.*lbf)

2. **INSTALL TELEVISION BRACKET LH**
   a. Install the television bracket with the 2 bolts.

      Torque: 4.0 N*m (41 kgf*cm, 35 in.*lbf)

3. **INSTALL DISC PLAYER ASSEMBLY WITH BRACKET**
   a. Connect the connector.
   b. Engage the 2 guides and install the disc player assembly with bracket with the 4 bolts.

      Torque: 9.0 N*m (92 kgf*cm, 80 in.*lbf)

4. **INSTALL STEREO OPENING COVER**
   a. Install the stereo opening cover with the 2 screws.
5. **INSTALL INSTRUMENT CLUSTER FINISH CENTER PANEL ASSEMBLY** . Refer to **INSTALLATION - Step 5**
6. **INSTALL INSTRUMENT CLUSTER FINISH LOWER CENTER PANEL SUB-ASSEMBLY** . Refer to **INSTALLATION - Step 15**
7. **INSTALL INSTRUMENT LOWER CENTER COVER** . Refer to **INSTALLATION - Step 17**
8. **INSTALL INSTRUMENT PANEL FINISH PANEL END RH** . Refer to **INSTALLATION - Step 18**
9. **INSTALL INSTRUMENT PANEL FINISH PANEL END LH**

   HINT:

   Use the same procedure as for the RH side.

10. **INSTALL CONSOLE ASSEMBLY (for Slide Type)**

    Refer to **INSTALLATION**

11. **INSTALL CONSOLE ASSEMBLY (for Fixed Type)**

    Refer to **INSTALLATION**

12. **INSTALL GLOVE COMPARTMENT DOOR SUB-ASSEMBLY** . Refer to **INSTALLATION - Step 24**
13. **INSTALL FLOOR SHIFT POSITION INDICATOR HOUSING SUB-ASSEMBLY** . Refer to **INSTALLATION - Step 33**
14. **INSTALL SHIFT LEVER KNOB SUB-ASSEMBLY**
15. **INSTALL NO. 2 INSTRUMENT CLUSTER FINISH PANEL GARNISH** . Refer to **INSTALLATION - Step 35**
16. **INSTALL NO. 1 INSTRUMENT PANEL LOWER FINISH PANEL** . Refer to **INSTALLATION - Step 39**
17. **INSTALL FRONT DOOR OPENING TRIM WEATHERSTRIP RH**
18. **INSTALL FRONT DOOR OPENING TRIM WEATHERSTRIP LH**
19. **INSTALL COWL SIDE TRIM BOARD RH** . Refer to **INSTALLATION - Step 35**
20. **INSTALL COWL SIDE TRIM BOARD LH**

    HINT:

    Use the same procedure as for the RH side.

21. **INSTALL DOOR SCUFF PLATE ASSEMBLY RH** . Refer to **INSTALLATION - Step 37**
22. **INSTALL DOOR SCUFF PLATE ASSEMBLY LH**

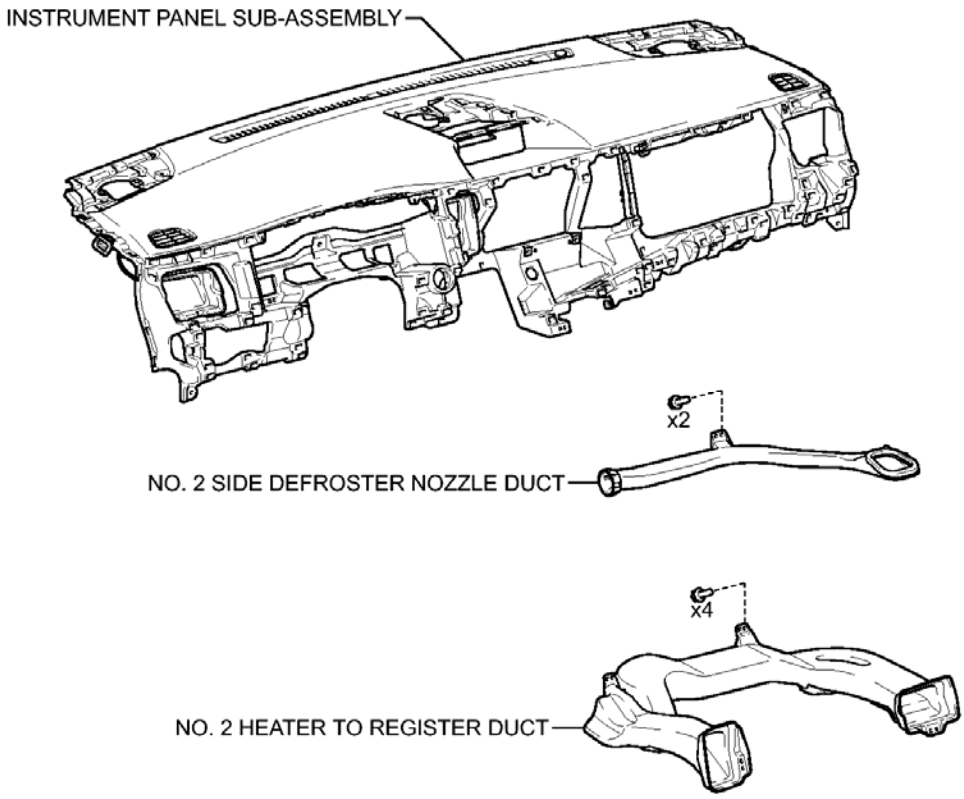
    HINT:

    Use the same procedure as for the RH side.

RADIO ANTENNA CORD

COMPONENTS

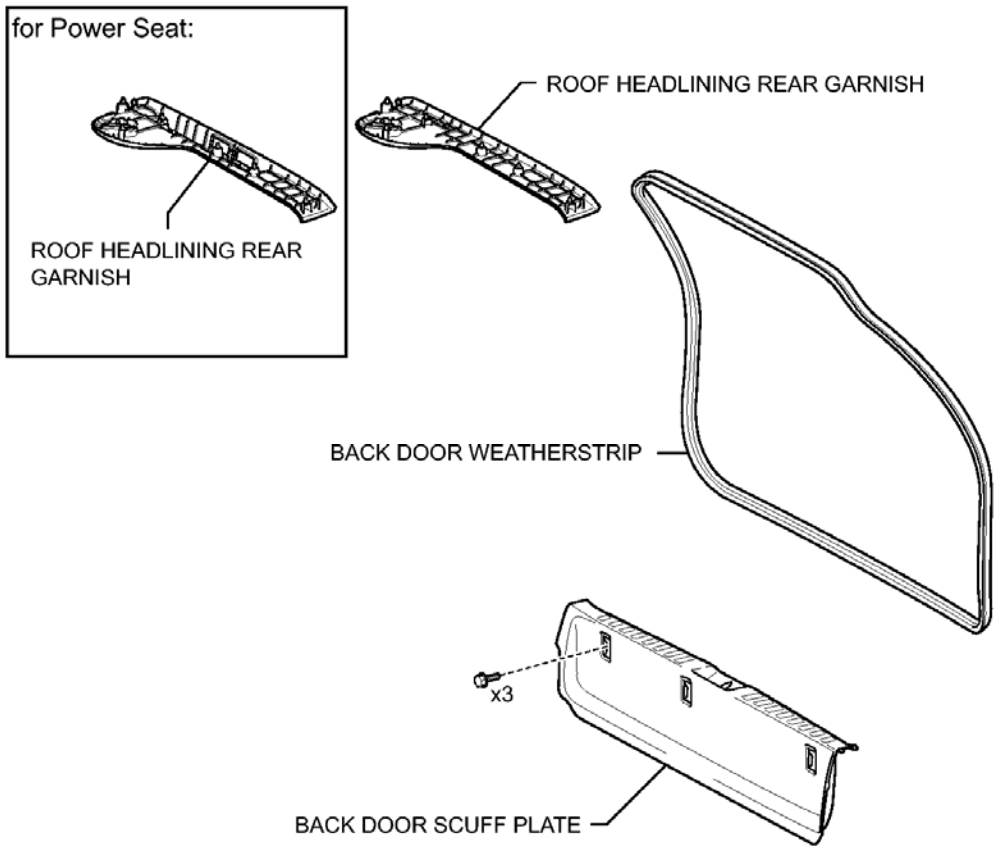
ILLUSTRATION



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Fig. 46: Radio Antenna Cord Replacement Components (1 Of 5)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

ILLUSTRATION



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Fig. 47: Radio Antenna Cord Replacement Components (2 Of 5)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

ILLUSTRATION

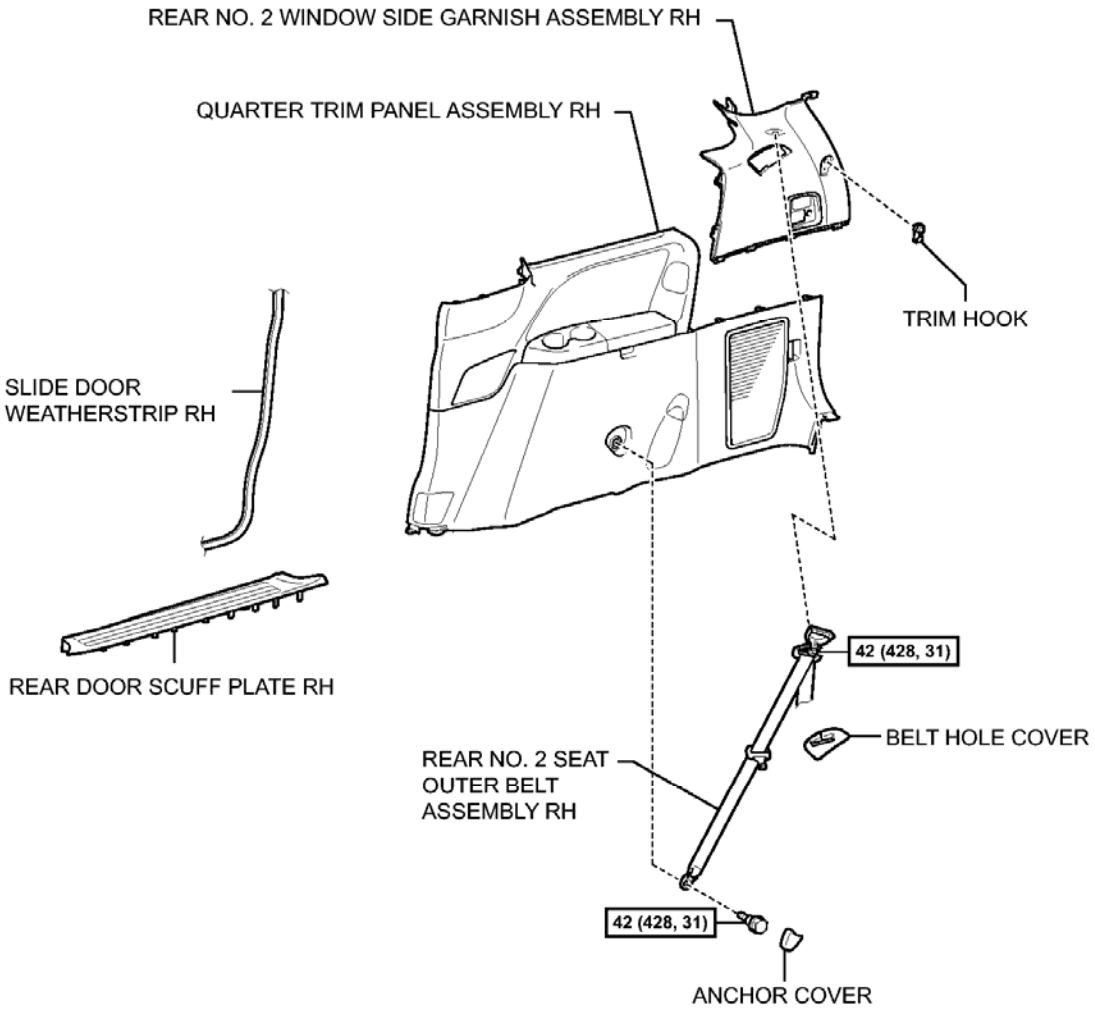
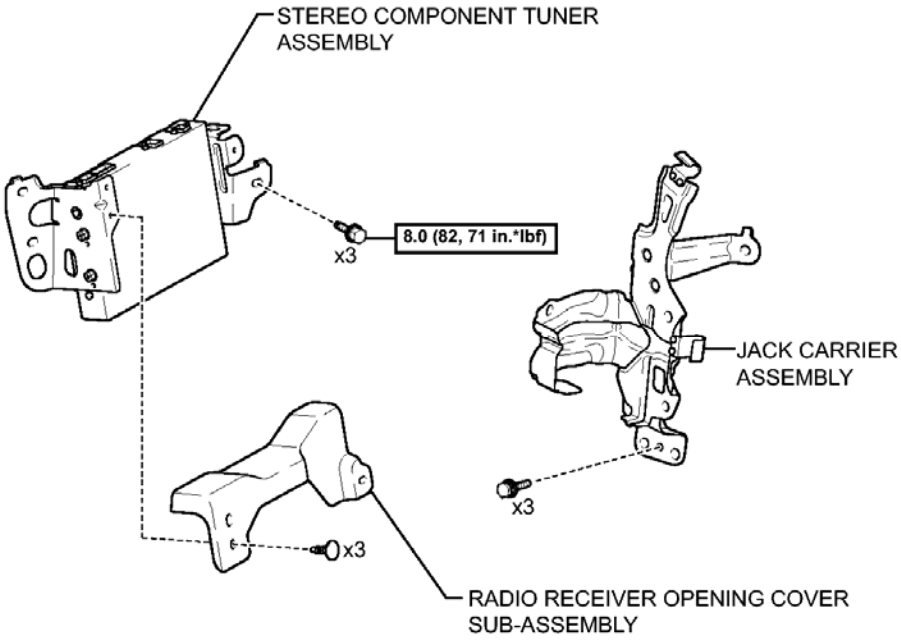


Fig. 48: Radio Antenna Cord Replacement Components With Torque Specifications (3 Of 5)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

ILLUSTRATION

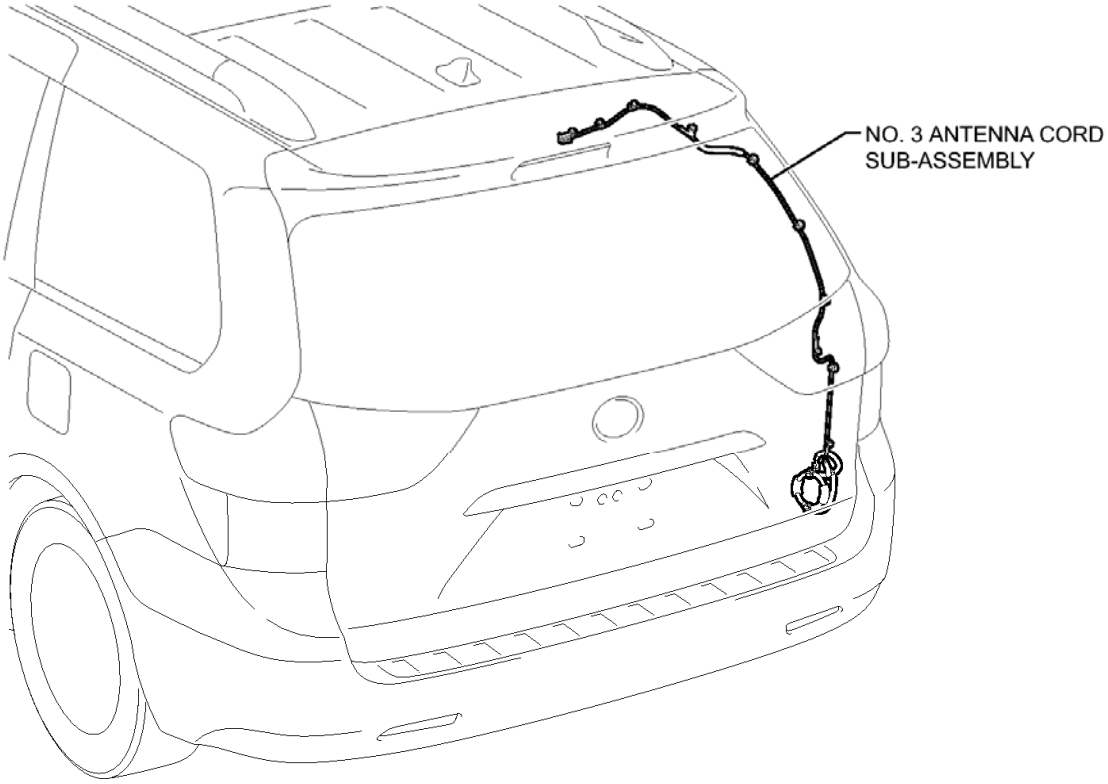


N*m (kgf*cm, ft.*lbf): Specified torque

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Fig. 49: Radio Antenna Cord Replacement Components With Torque Specifications (4 Of 5)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

ILLUSTRATION



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Fig. 50: Identifying Radio Antenna Cord Replacement Components (5 Of 5)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

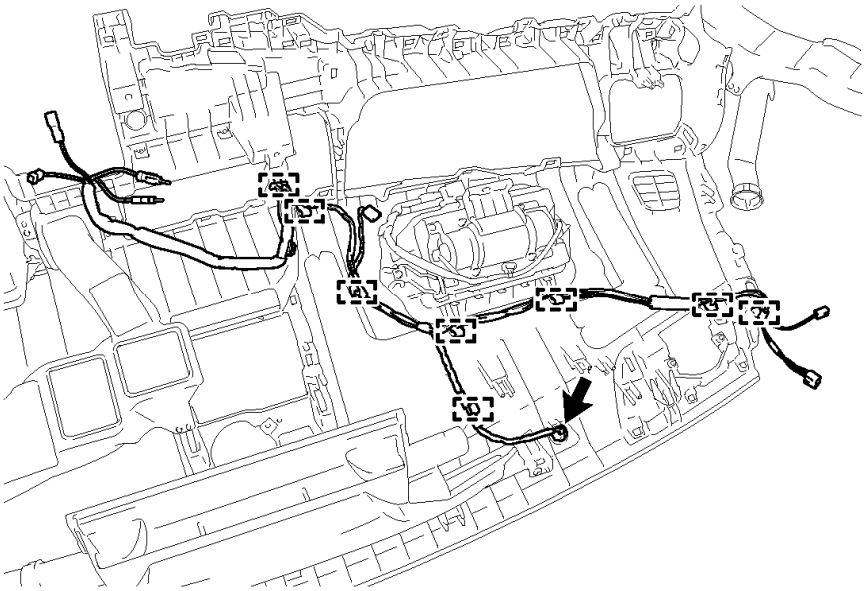
REMOVAL

REMOVAL

1. **REMOVE INSTRUMENT PANEL SUB-ASSEMBLY**

   Refer to **REMOVAL**

2. **REMOVE NO. 2 SIDE DEFROSTER NOZZLE DUCT** . Refer to **DISASSEMBLY - Step 4**
3. **REMOVE NO. 2 HEATER TO REGISTER DUCT** . Refer to **DISASSEMBLY - Step 6**
4. **REMOVE ANTENNA CORD SUB-ASSEMBLY (for Automatic Air Conditioning System without Navigation System)**

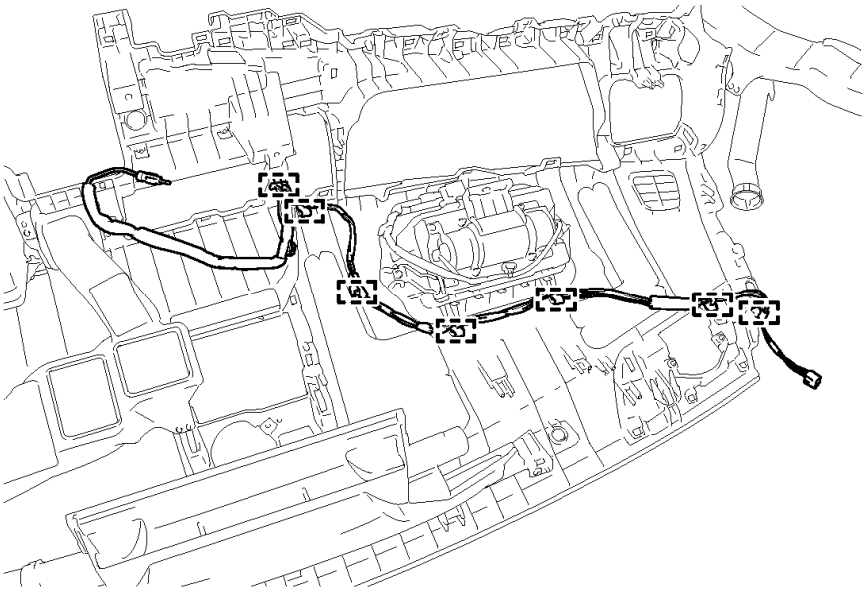


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Fig. 51: Identifying Antenna Cord Sub-Assembly, Connector & Clamps (For Automatic Air Conditioning System Without Navigation System)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

a. Disconnect the connector.
b. Disengage the 8 clamps and remove the antenna cord.

5. **REMOVE ANTENNA CORD SUB-ASSEMBLY (for Manual Air Conditioning System without Navigation System)**



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Fig. 52: Identifying Antenna Cord Sub-Assembly & Clamps (For Manual Air Conditioning System Without Navigation System)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

a. Disengage the 7 clamps and remove the antenna cord.

6. **REMOVE ANTENNA CORD SUB-ASSEMBLY (for Safety Connect System without Navigation System)**

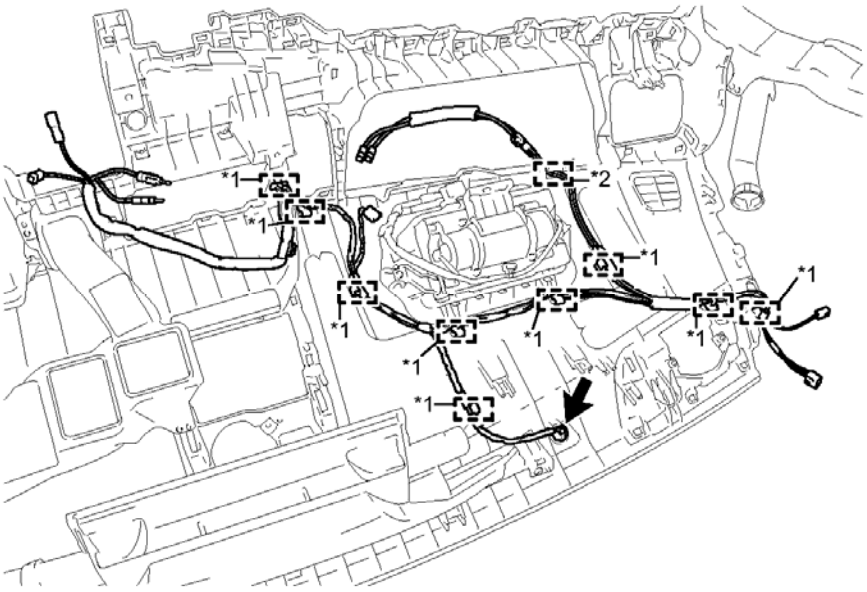


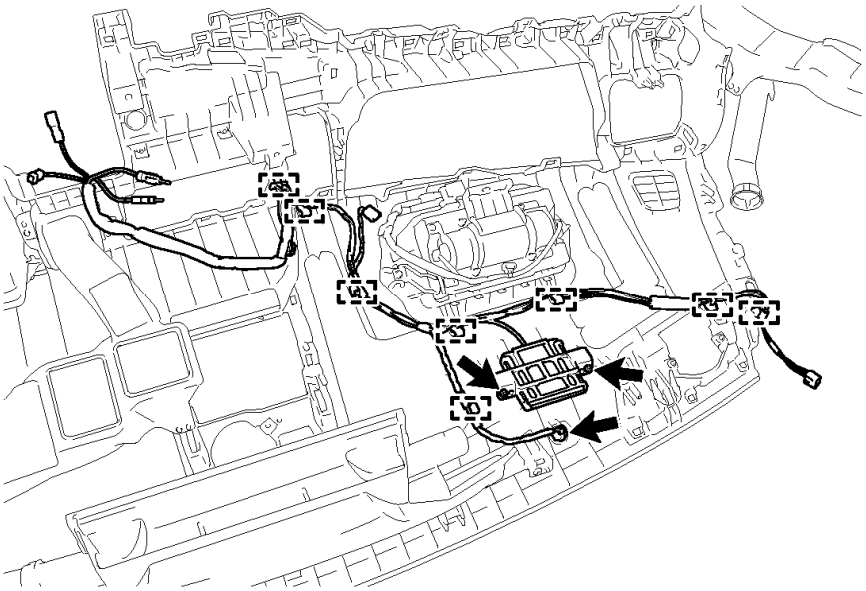
Fig. 53: Identifying Antenna Cord Sub-Assembly, Connector & Clamps (For Safety Connect System Without Navigation System)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

TEXT IN ILLUSTRATION

*1	Clamp	*2	Hook

a. Disconnect the connector.
b. Disengage the 9 clamps, hook and remove the antenna cord.

7. **REMOVE ANTENNA CORD SUB-ASSEMBLY (for Automatic Air Conditioning System with Navigation System)**

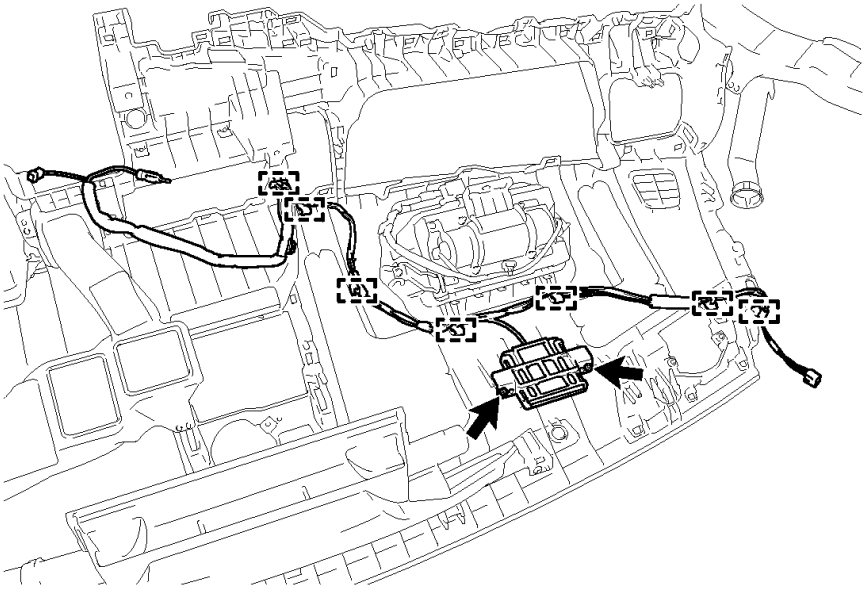


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Fig. 54: Identifying Antenna Cord Sub-Assembly, Connector & Fasteners (For Automatic Air Conditioning System With Navigation System)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

a. Remove the 2 screws.
b. Disconnect the connector.
c. Disengage the 8 clamps and remove the antenna cord.

8. **REMOVE ANTENNA CORD SUB-ASSEMBLY (for Manual Air Conditioning System with Navigation System)**

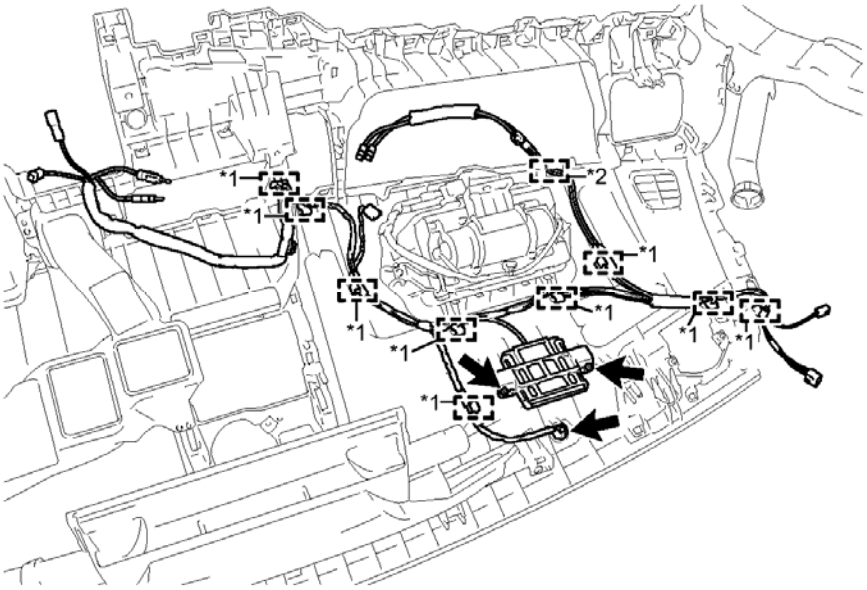


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Fig. 55: Identifying Antenna Cord Sub-Assembly Screws & Clamps (For Manual Air Conditioning System Without Safety Connect System)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

a. Remove the 2 screws.
b. Disengage the 7 clamps and remove the antenna cord.

9. **REMOVE ANTENNA CORD SUB-ASSEMBLY (for Safety Connect System with Navigation System)**



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Fig. 56: Identifying Antenna Cord Sub-Assembly, Connector & Fasteners (For Safety Connect System With Navigation System)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

TEXT IN ILLUSTRATION

*1	Clamp	*2	Hook

a. Remove the 2 screws.
b. Disconnect the connector.
c. Disengage the 9 clamps, hook and remove the antenna cord.

10. **REMOVE BACK DOOR WEATHERSTRIP**
11. **REMOVE BACK DOOR SCUFF PLATE** . Refer to **REMOVAL - Step 17**
12. **REMOVE ROOF HEADLINING REAR GARNISH** . Refer to **REMOVAL - Step 19**
13. **SEPARATE REAR NO. 2 SEAT OUTER BELT ASSEMBLY RH** . Refer to **REMOVAL - Step 24**
14. **REMOVE REAR DOOR SCUFF PLATE RH** . Refer to **REMOVAL - Step 13**
15. **SEPARATE SLIDE DOOR WEATHERSTRIP RH**
16. **REMOVE QUARTER TRIM PANEL ASSEMBLY RH** . Refer to **REMOVAL - Step 26**
17. **REMOVE REAR NO. 2 REAR WINDOW SIDE GARNISH ASSEMBLY RH** . Refer to **REMOVAL - Step 28**
18. **REMOVE HUB NUT BOX WRENCH**
19. **REMOVE JACK ASSEMBLY**

20. **REMOVE JACK CARRIER ASSEMBLY** See step 9
21. **REMOVE RADIO RECEIVER OPENING COVER SUB-ASSEMBLY** See step 10
22. **REMOVE NO. 3 ANTENNA CORD SUB-ASSEMBLY**
    a. Disconnect the connector.

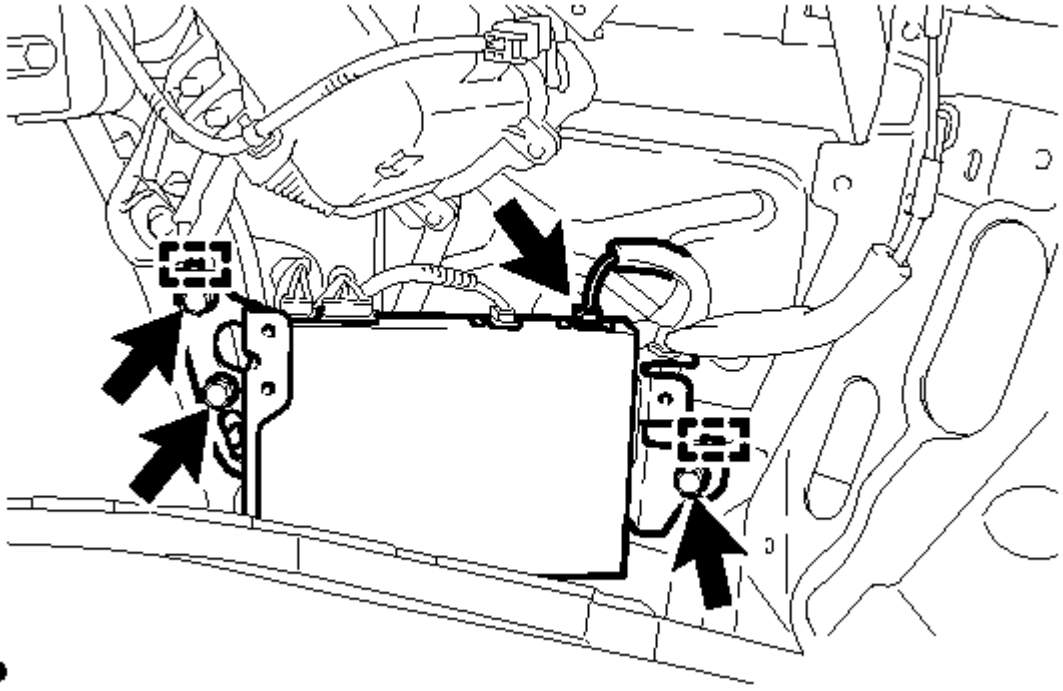


Fig. 57: Identifying Stereo Component Tuner Assembly, Connector & Fasteners
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

    b. Remove the 3 bolts and disengage the 2 hooks, then separate the stereo component tuner assembly.
    c. Disconnect the connector.

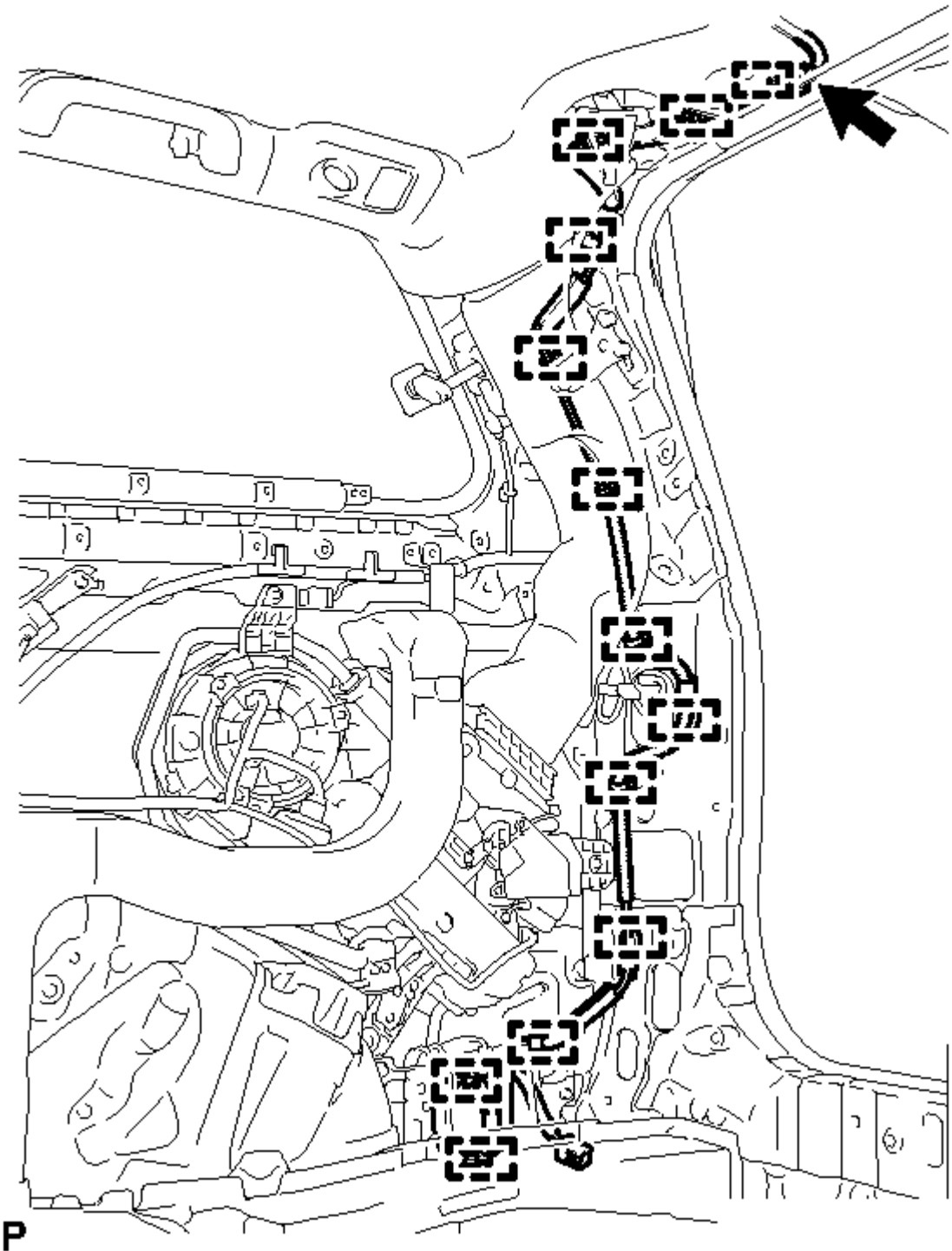


Fig. 58: Identifying No. 3 Antenna Cord & Clamps
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

d. Disengage the 13 clamps and remove the No. 3 antenna cord.

INSTALLATION

INSTALLATION

1. **INSTALL NO. 3 ANTENNA CORD SUB-ASSEMBLY**
    a. Engage the 13 clamps and install the No. 3 antenna cord.
    b. Connect the connector.
    c. Engage the 2 hooks and install the stereo component tuner assembly with the 3 bolts.

    Torque: 8.0 N*m (82 kgf*cm, 71 in.*lbf)

    d. Connect the connector.
2. **INSTALL RADIO RECEIVER OPENING COVER SUB-ASSEMBLY** See step 2
3. **INSTALL JACK CARRIER ASSEMBLY** See step 3
4. **INSTALL JACK ASSEMBLY**
5. **INSTALL HUB NUT BOX WRENCH**
6. **INSTALL REAR NO. 2 WINDOW SIDE GARNISH ASSEMBLY RH** . Refer to **INSTALLATION - Step 12**
7. **INSTALL QUARTER TRIM PANEL ASSEMBLY RH** . Refer to **INSTALLATION - Step 14**
8. **INSTALL SLIDE DOOR WEATHERSTRIP RH**
9. **INSTALL REAR DOOR SCUFF PLATE RH** . Refer to **INSTALLATION - Step 27**
10. **INSTALL REAR NO. 2 SEAT OUTER BELT ASSEMBLY RH** . Refer to **INSTALLATION - Step 16**
11. **INSTALL ROOF HEADLINING REAR GARNISH** . Refer to **INSTALLATION - Step 22**
12. **INSTALL BACK DOOR SCUFF PLATE** . Refer to **INSTALLATION - Step 24**
13. **INSTALL BACK DOOR WEATHERSTRIP**
14. **INSTALL ANTENNA CORD SUB-ASSEMBLY (for Automatic Air Conditioning System without Navigation System)**
    a. Engage the 8 clamps and install the antenna cord.
    b. Connect the connector.
15. **INSTALL ANTENNA CORD SUB-ASSEMBLY (for Manual Air Conditioning System without Navigation System)**
    a. Engage the 7 clamps and install the antenna cord.
16. **INSTALL ANTENNA CORD SUB-ASSEMBLY (for Safety Connect System without Navigation System)**
    a. Engage the 9 clamps, hook and install the antenna cord.
    b. Connect the connector.
17. **INSTALL ANTENNA CORD SUB-ASSEMBLY (for Automatic Air Conditioning System with Navigation System)**
    a. Engage the 8 clamps and install the antenna cord.
    b. Connect the connector.

c. Install the 2 screws.

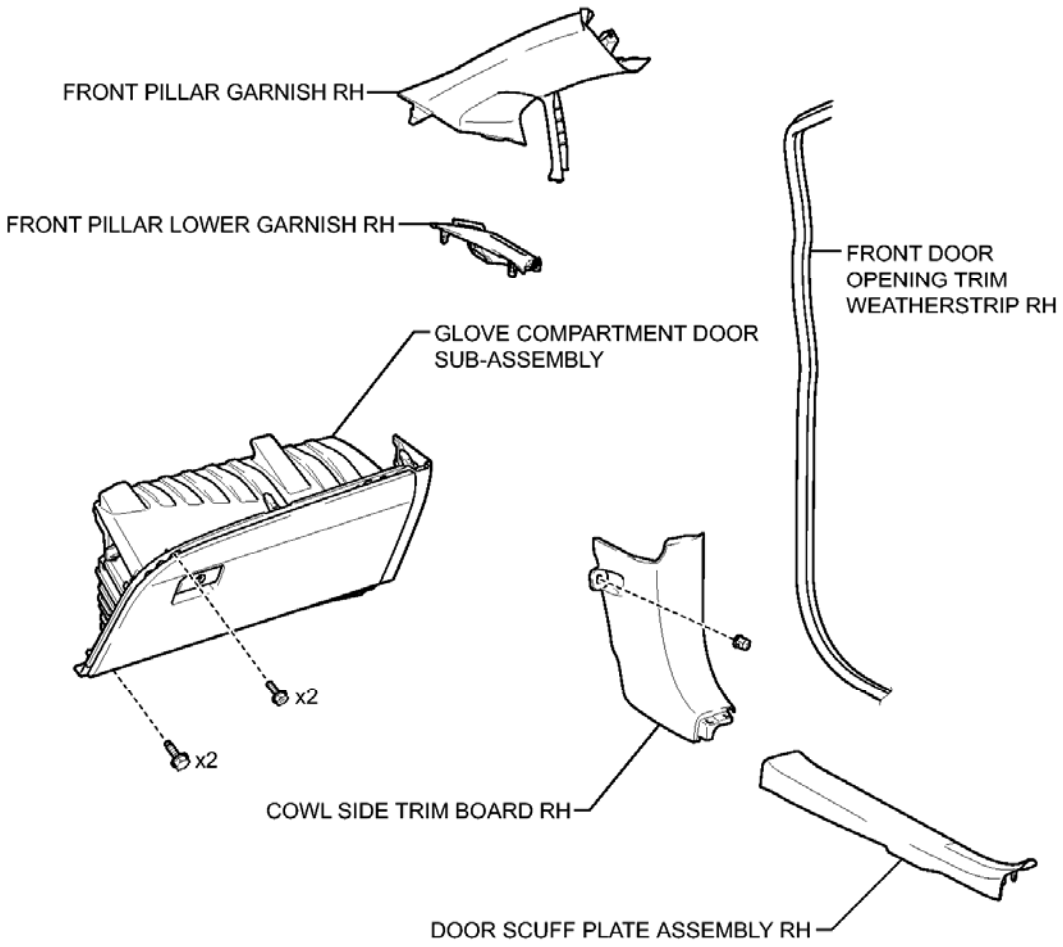
18. **INSTALL ANTENNA CORD SUB-ASSEMBLY (for Manual Air Conditioning System with Navigation System)**
    a. Engage the 7 clamps and install the antenna cord.
    b. Install the 2 screws.
19. **INSTALL ANTENNA CORD SUB-ASSEMBLY (for Safety Connect System with Navigation System)**
    a. Engage the 9 clamps, hook and install the antenna cord.
    b. Connect the connector.
    c. Install the 2 screws.
20. **INSTALL NO. 2 HEATER TO REGISTER DUCT** . Refer to **REASSEMBLY - Step 10**
21. **INSTALL NO. 2 SIDE DEFROSTER NOZZLE DUCT** . Refer to **REASSEMBLY - Step 12**
22. **INSTALL INSTRUMENT PANEL SUB-ASSEMBLY**

    Refer to **INSTALLATION**

RADIO ANTENNA HOLDER

COMPONENTS

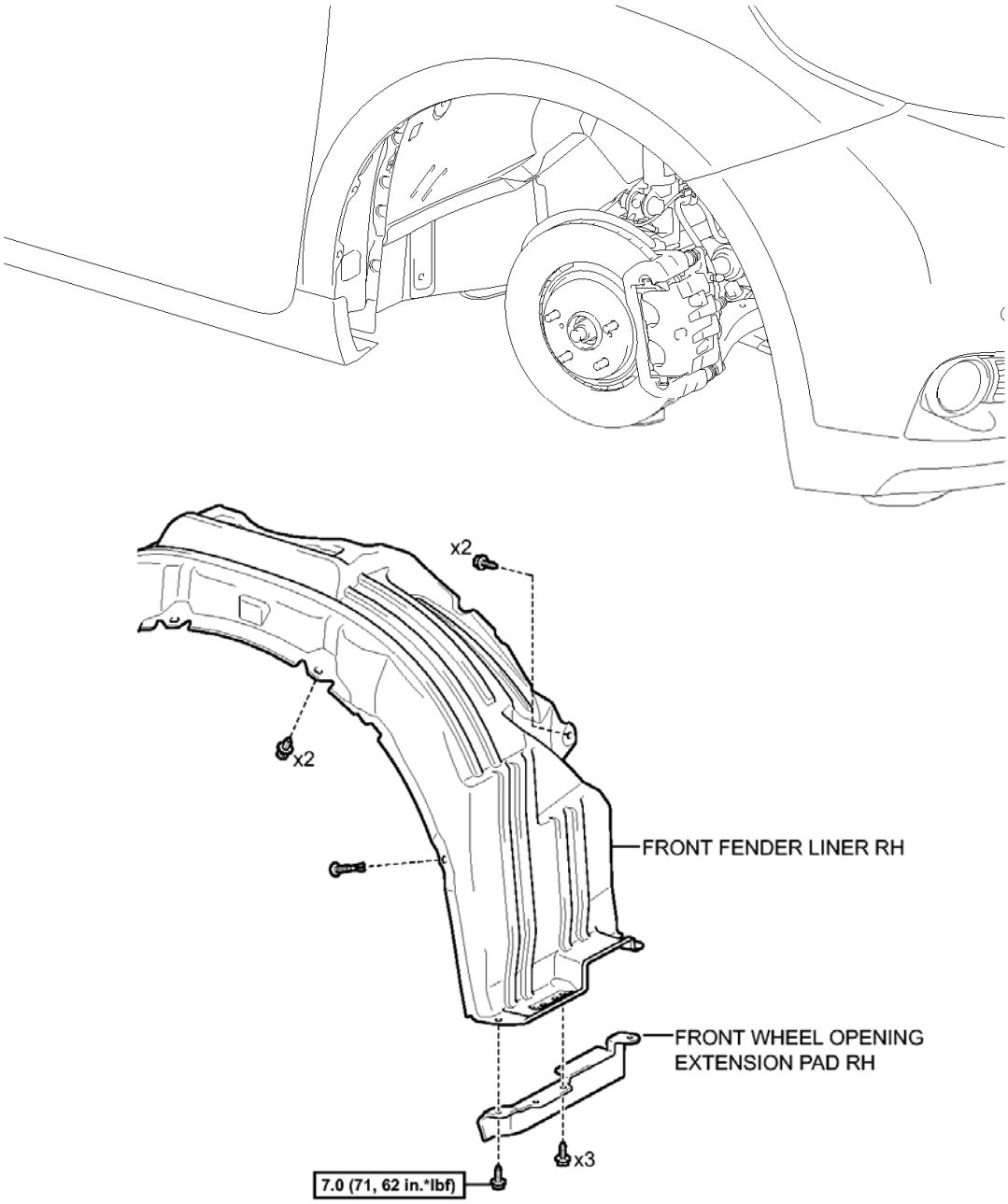
ILLUSTRATION



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Fig. 59: Radio Antenna Holder Replacement Components (1 Of 4)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

ILLUSTRATION

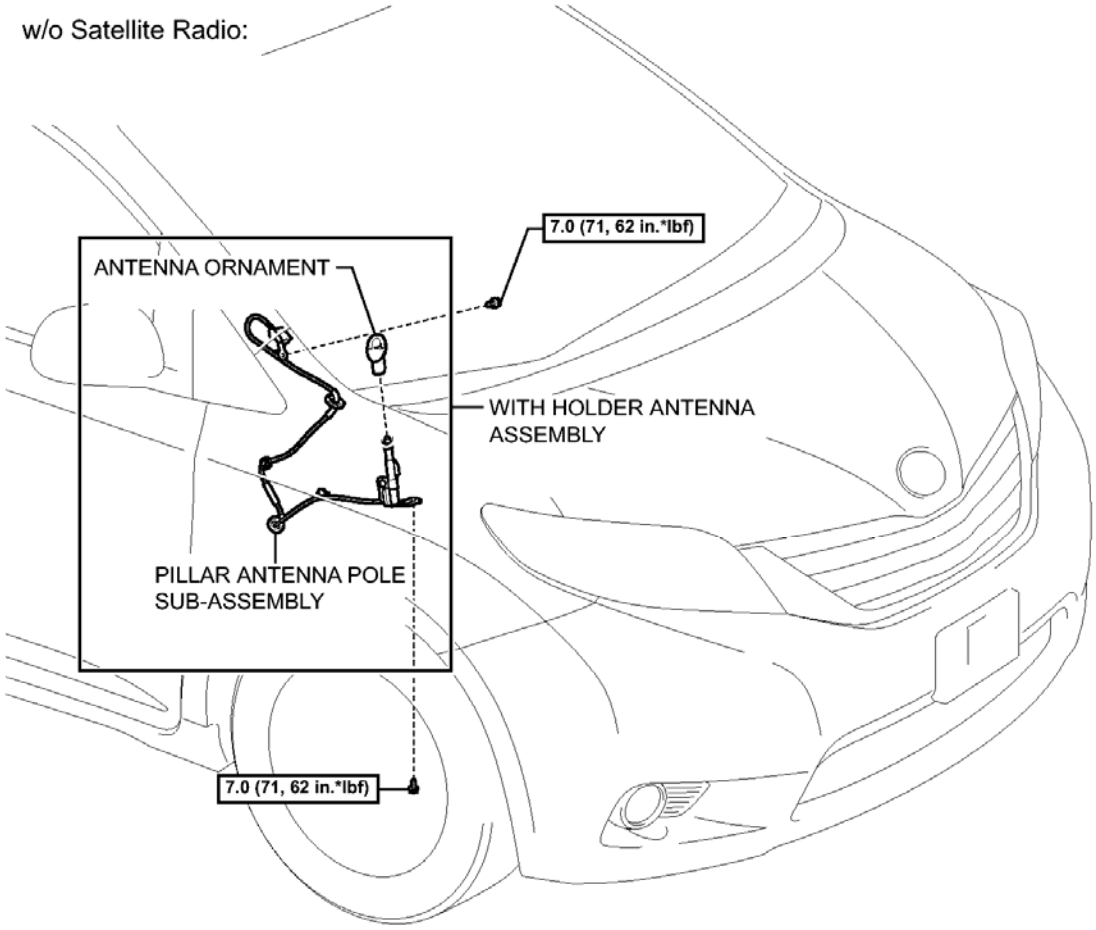


N*m (kgf*cm, ft.*lbf): Specified torque

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Fig. 60: Radio Antenna Holder Replacement Components With Torque Specifications (2 Of 4)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

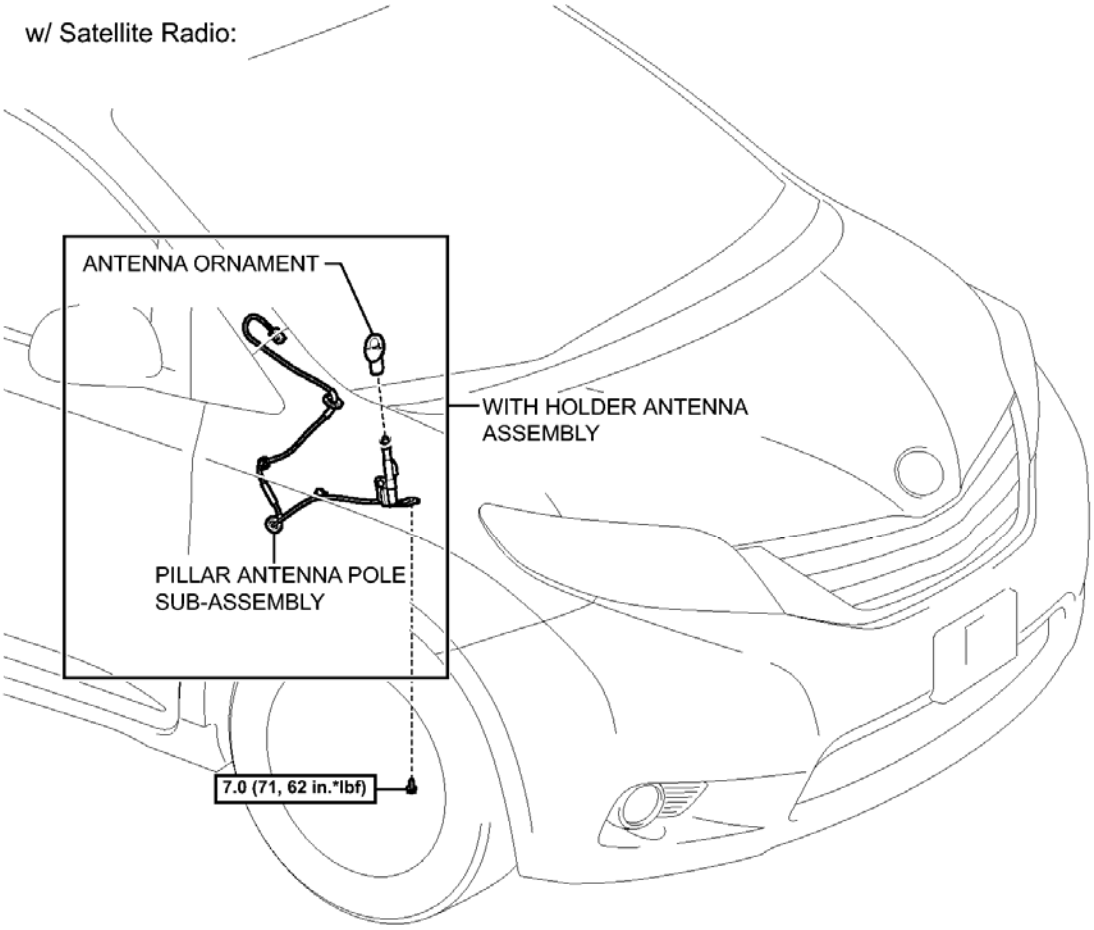
ILLUSTRATION



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Fig. 61: Radio Antenna Holder Replacement Components With Torque Specifications (3 Of 4)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

ILLUSTRATION



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Fig. 62: Radio Antenna Holder Replacement Components With Torque Specifications (4 Of 4)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL

REMOVAL

1. **REMOVE DOOR SCUFF PLATE ASSEMBLY RH** . Refer to **REMOVAL - Step 3**
2. **REMOVE COWL SIDE TRIM BOARD RH** . Refer to **REMOVAL - Step 5**
3. **SEPARATE FRONT DOOR OPENING TRIM WEATHERSTRIP RH**
4. **REMOVE GLOVE COMPARTMENT DOOR SUB-ASSEMBLY** . Refer to **REMOVAL - Step 34**
5. **REMOVE FRONT PILLAR GARNISH RH** . Refer to **REMOVAL - Step 9**
6. **REMOVE FRONT PILLAR LOWER GARNISH RH** . Refer to **REMOVAL - Step 11**
7. **REMOVE FRONT WHEEL OPENING EXTENSION PAD RH**

HINT:

Use the same procedure as for the LH side. Refer to **REMOVAL - Step 1** .

8. **SEPARATE FRONT FENDER LINER RH**

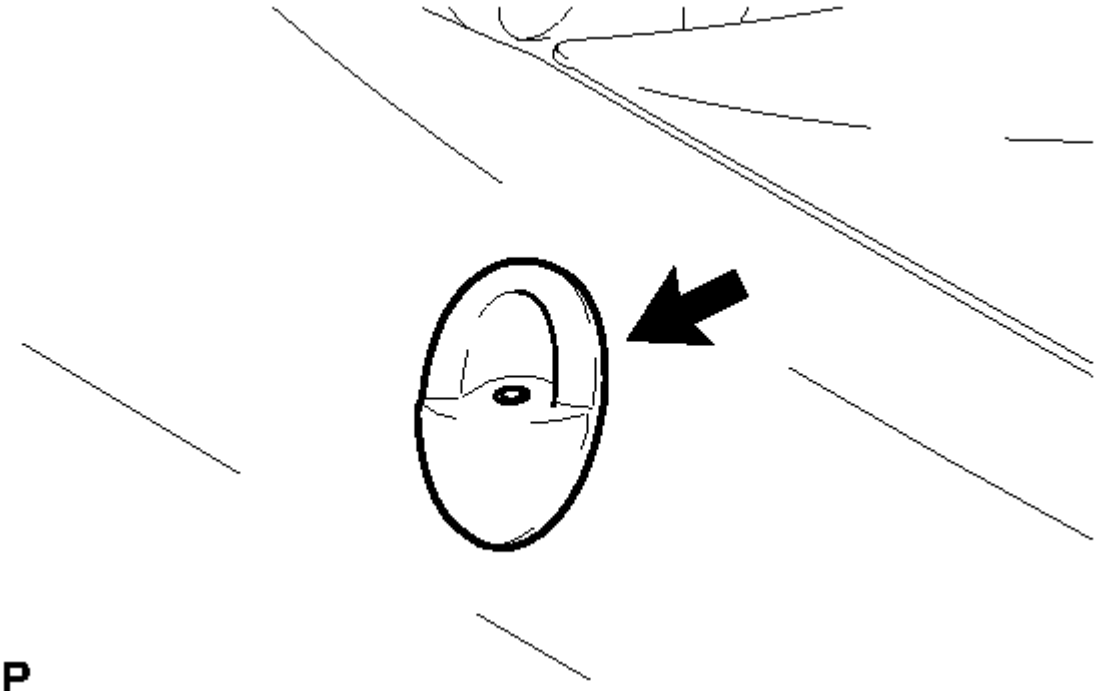
   HINT:

   Use the same procedure as for the LH side. Refer to **REMOVAL - Step 2** .

9. **REMOVE PULL TOP ANTENNA POLE SUB-ASSEMBLY**

   Refer to **REMOVAL**

10. **REMOVE WITH HOLDER ANTENNA ASSEMBLY (w/o Satellite Radio)**
    a. Remove the antenna ornament.



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Fig. 63: Identifying Antenna Assembly Ornament
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

    b. Disconnect the connector.

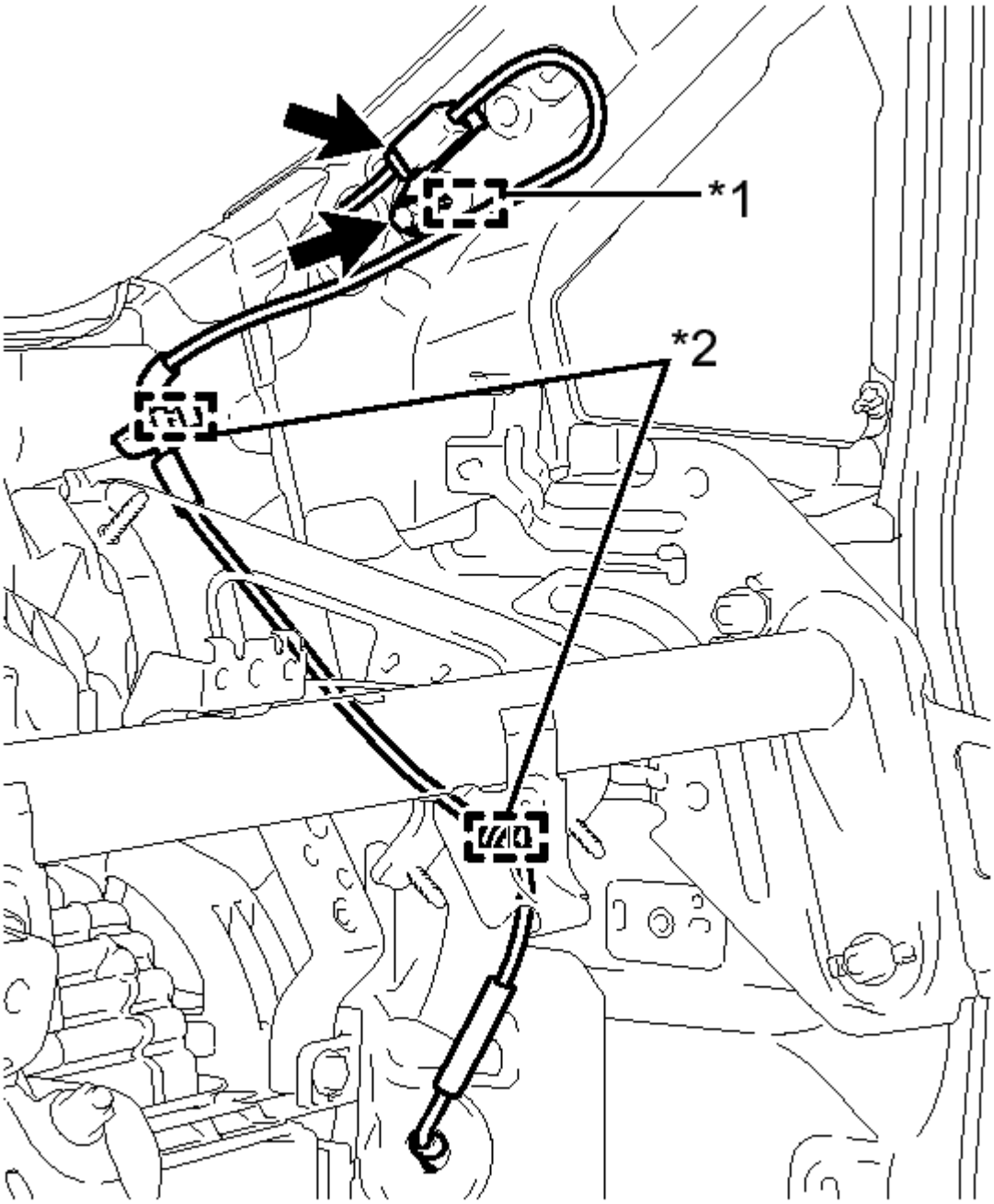


Fig. 64: Identifying Antenna Assembly, Connector & Fasteners (w/o Satellite Radio)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

c. Remove the bolt and disengage the hook.

TEXT IN ILLUSTRATION

*1	Hook
*2	Clamp

d. Disengage the 2 clamps.

e. Disengage the clamp.

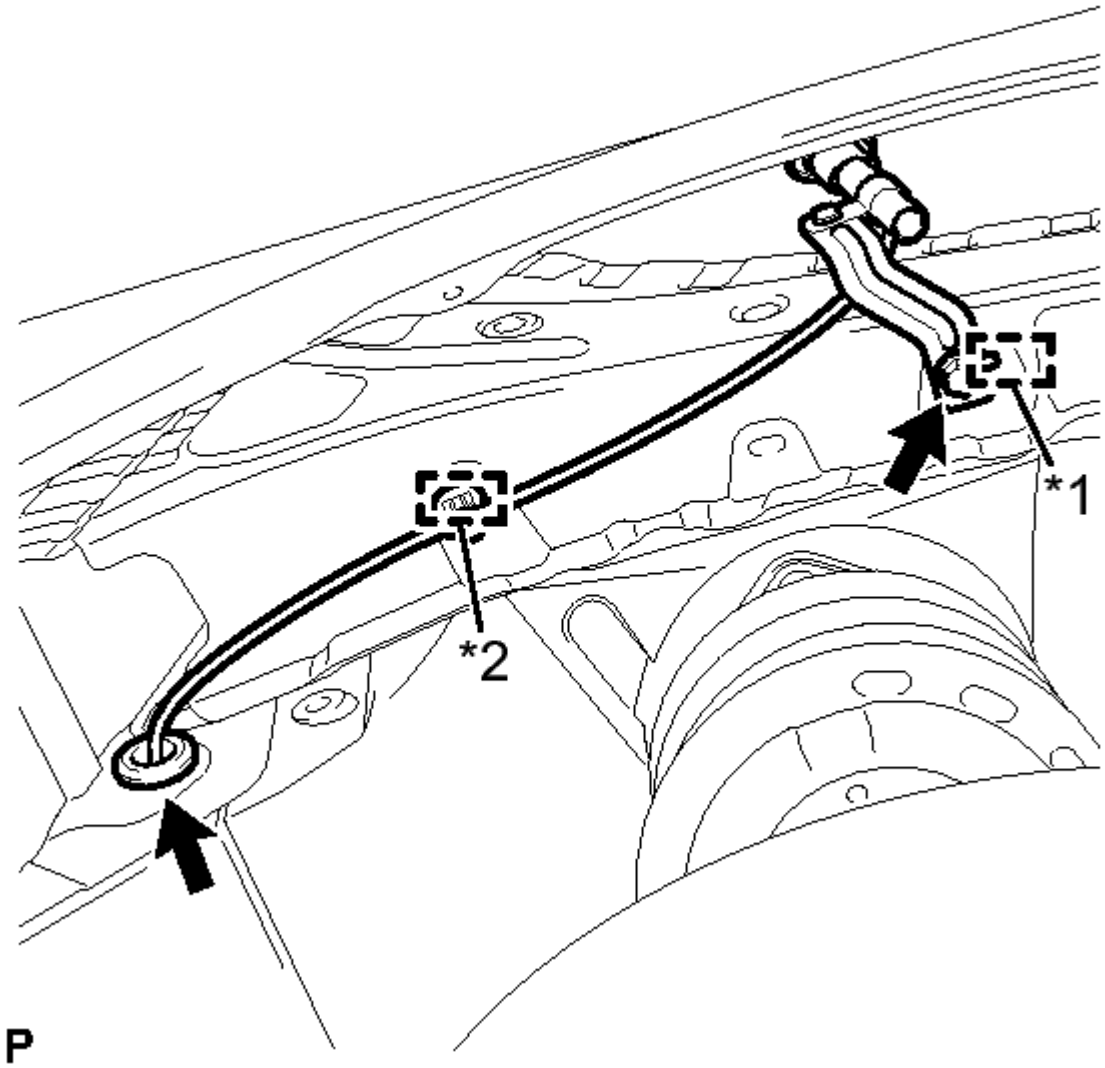


Fig. 65: Identifying Pillar Antenna Pole, Grommet & Fasteners
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

TEXT IN ILLUSTRATION

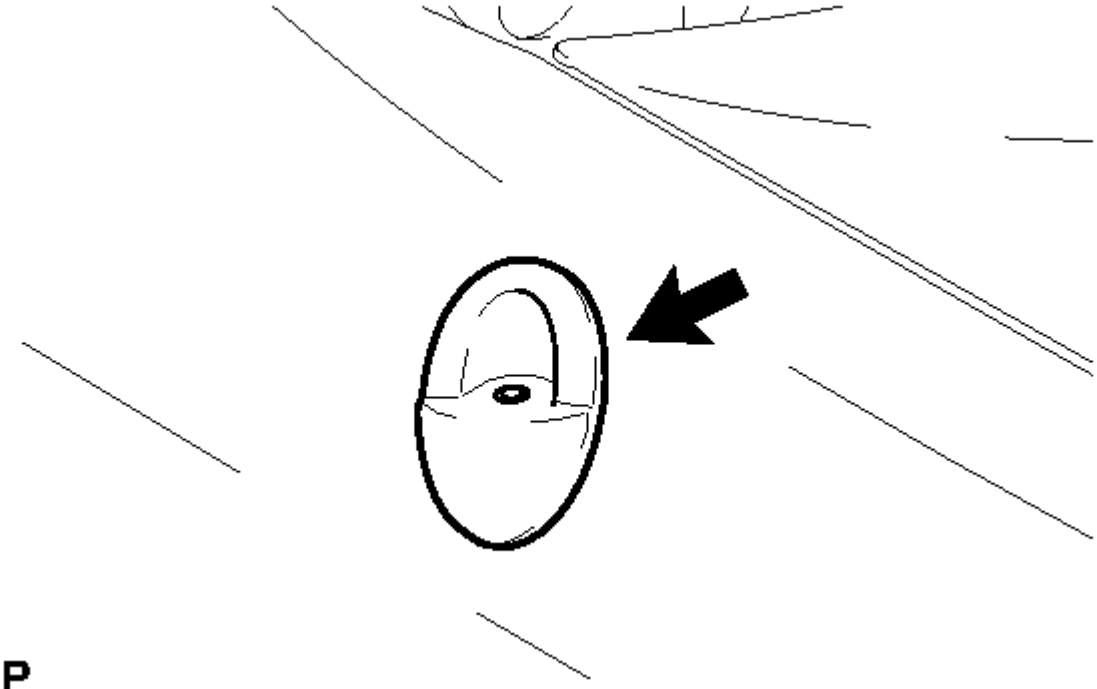
*1	Hook
*2	Clamp

f. Disengage the grommet.

g. Remove the bolt, disengage the hook and remove the pillar antenna pole.

11. **REMOVE WITH HOLDER ANTENNA ASSEMBLY (w/ Satellite Radio)**

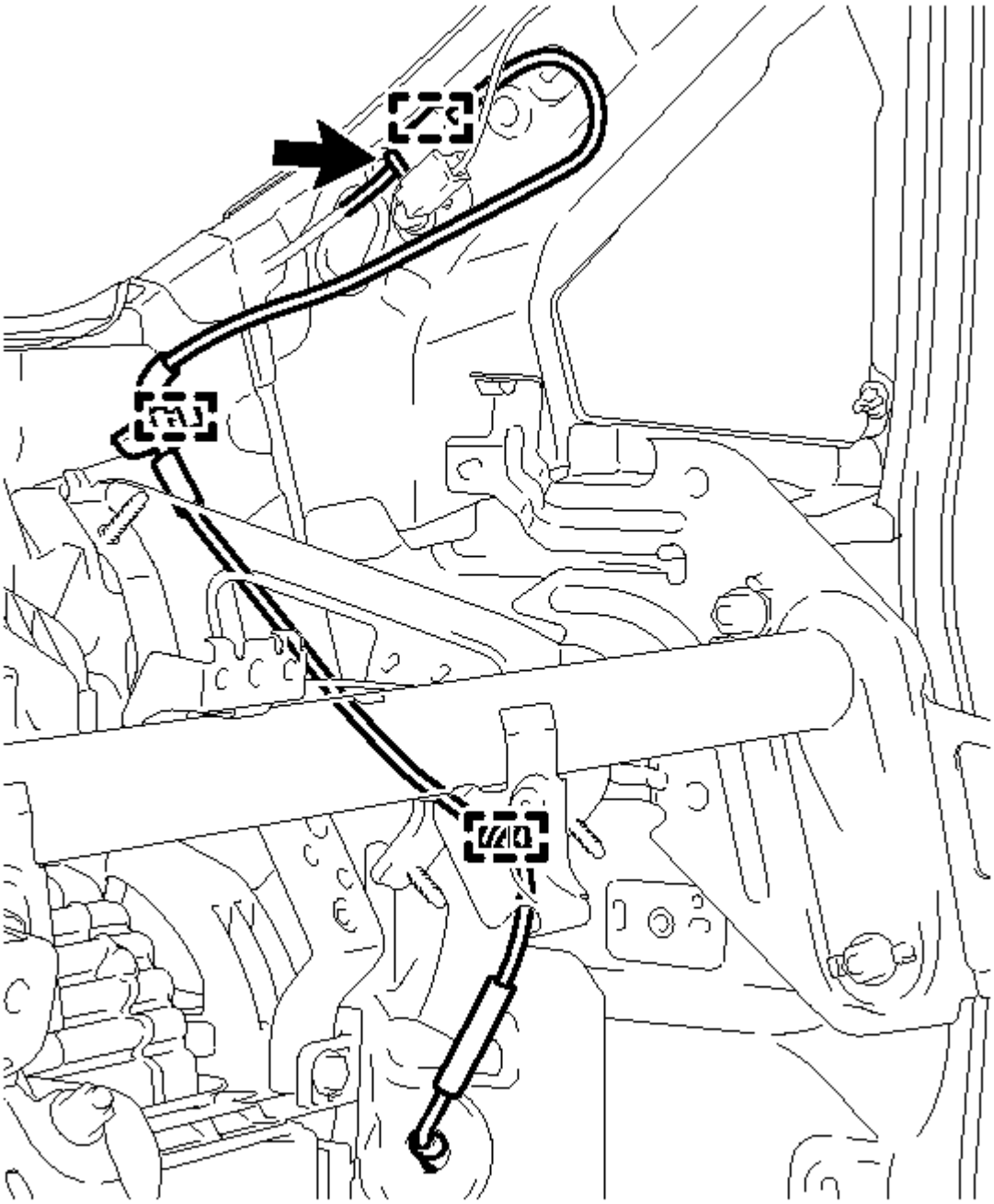
a. Remove the antenna ornament.



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Fig. 66: Identifying Antenna Assembly Ornament
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

b. Disconnect the connector.



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Fig. 67: Identifying Antenna Assembly, Connector & Fasteners (w/ Satellite Radio)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

c. Disengage the 3 clamps.
d. Disengage the clamp.

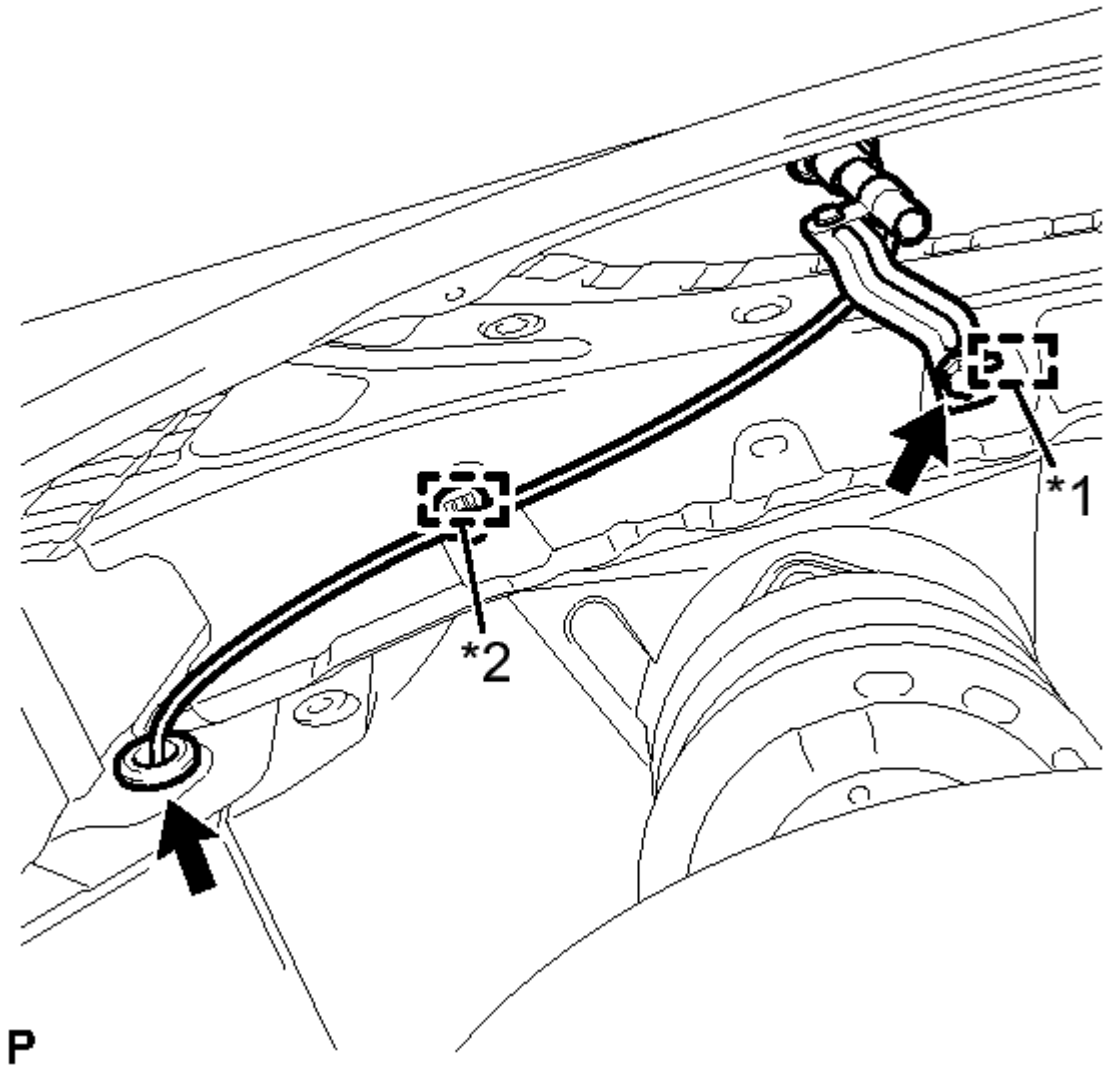


Fig. 68: Identifying Pillar Antenna Pole, Grommet & Fasteners
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

TEXT IN ILLUSTRATION

*1	Hook
*2	Clamp

e. Disengage the grommet.
f. Remove the bolt, disengage the hook and remove the pillar antenna pole.

INSTALLATION

INSTALLATION

1. **INSTALL WITH HOLDER ANTENNA ASSEMBLY (w/o Satellite Radio)**

a. Engage the hook and install the pillar antenna pole with the bolt.

Torque: 7.0 N*m (71 kgf*cm, 62 in.*lbf)

b. Engage the grommet.
c. Engage the clamp.
d. Engage the 2 clamps.
e. Engage the hook and install the bolt.

Torque: 7.0 N*m (71 kgf*cm, 62 in.*lbf)

f. Connect the connector.
g. Install the antenna ornament.

2. **INSTALL WITH HOLDER ANTENNA ASSEMBLY (w/ Satellite Radio)**
   a. Engage the hook and install the pillar antenna pole with the bolt.

   Torque: 7.0 N*m (71 kgf*cm, 62 in.*lbf)

   b. Engage the grommet.
   c. Engage the clamp.
   d. Engage the 3 clamps.
   e. Connect the connector.
   f. Install the antenna ornament.
3. **INSTALL PULL TOP ANTENNA POLE SUB-ASSEMBLY**

   Refer to **INSTALLATION**

4. **INSTALL FRONT FENDER LINER RH**

   HINT:

   Use the same procedure as for the LH side. Refer to **INSTALLATION - Step 13** .

5. **INSTALL FRONT WHEEL OPENING EXTENSION PAD RH**

   HINT:

   Use the same procedure as for the LH side. Refer to **INSTALLATION - Step 14** .

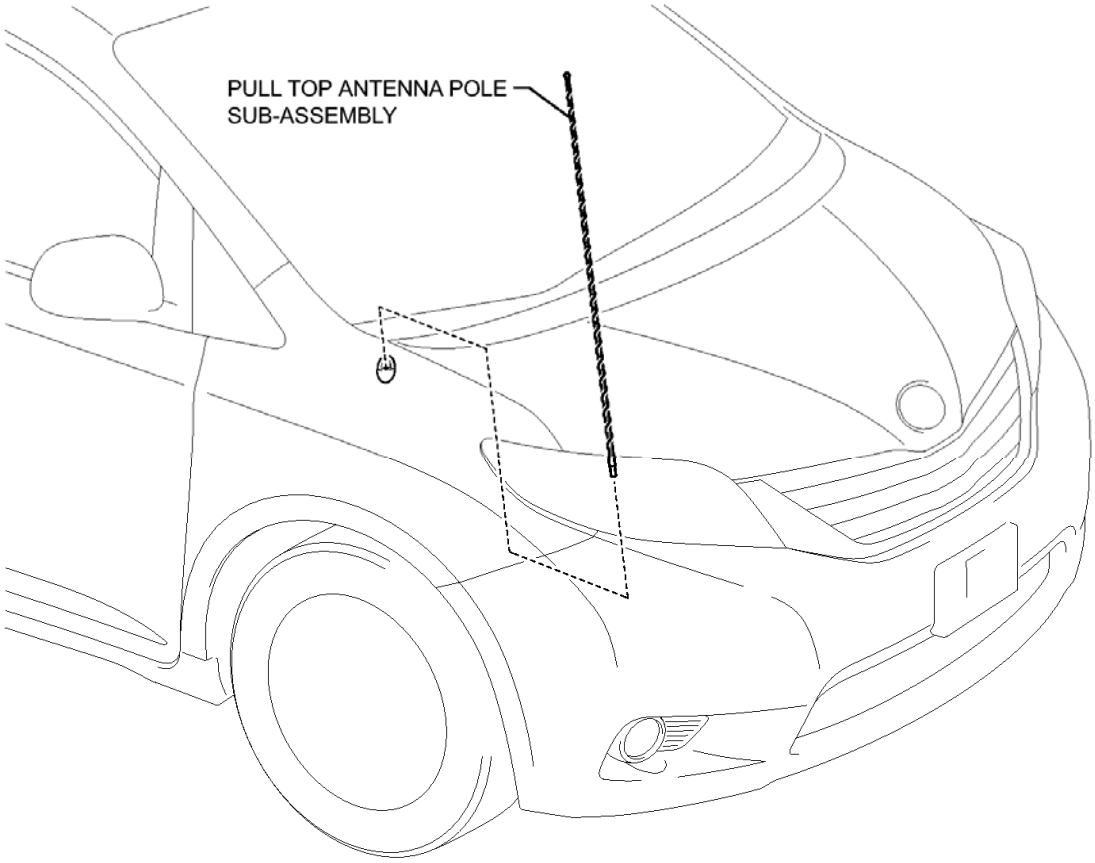
6. **INSTALL FRONT PILLAR LOWER GARNISH RH** . Refer to **INSTALLATION - Step 29**
7. **INSTALL FRONT PILLAR GARNISH RH** . Refer to **INSTALLATION - Step 31**
8. **INSTALL GLOVE COMPARTMENT DOOR SUB-ASSEMBLY** . Refer to **INSTALLATION - Step 24**

9. **INSTALL FRONT DOOR OPENING TRIM WEATHERSTRIP RH**
10. **INSTALL COWL SIDE TRIM BOARD RH** . Refer to **INSTALLATION - Step 35**
11. **INSTALL DOOR SCUFF PLATE ASSEMBLY RH** . Refer to **INSTALLATION - Step 37**

RADIO ANTENNA POLE

COMPONENTS

ILLUSTRATION



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Fig. 69: Radio Antenna Pole Replacement Components
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL

REMOVAL

1. **REMOVE PULL TOP ANTENNA POLE SUB-ASSEMBLY**

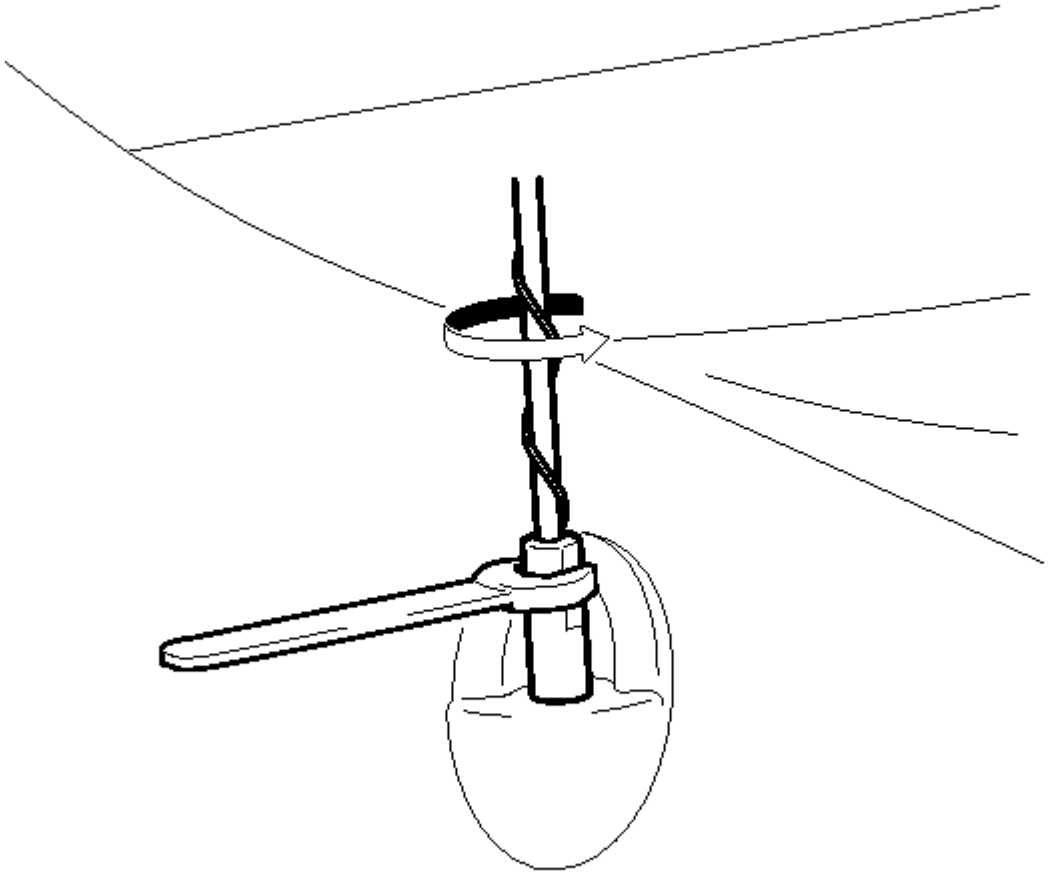


Fig. 70: Removing Pull Top Antenna Pole Sub-Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

a. Using a 8 mm (5/16 inch) wrench, remove the pull top antenna pole sub-assembly by turning it counterclockwise.

INSTALLATION

INSTALLATION

1. **INSTALL PULL TOP ANTENNA POLE SUB-ASSEMBLY**

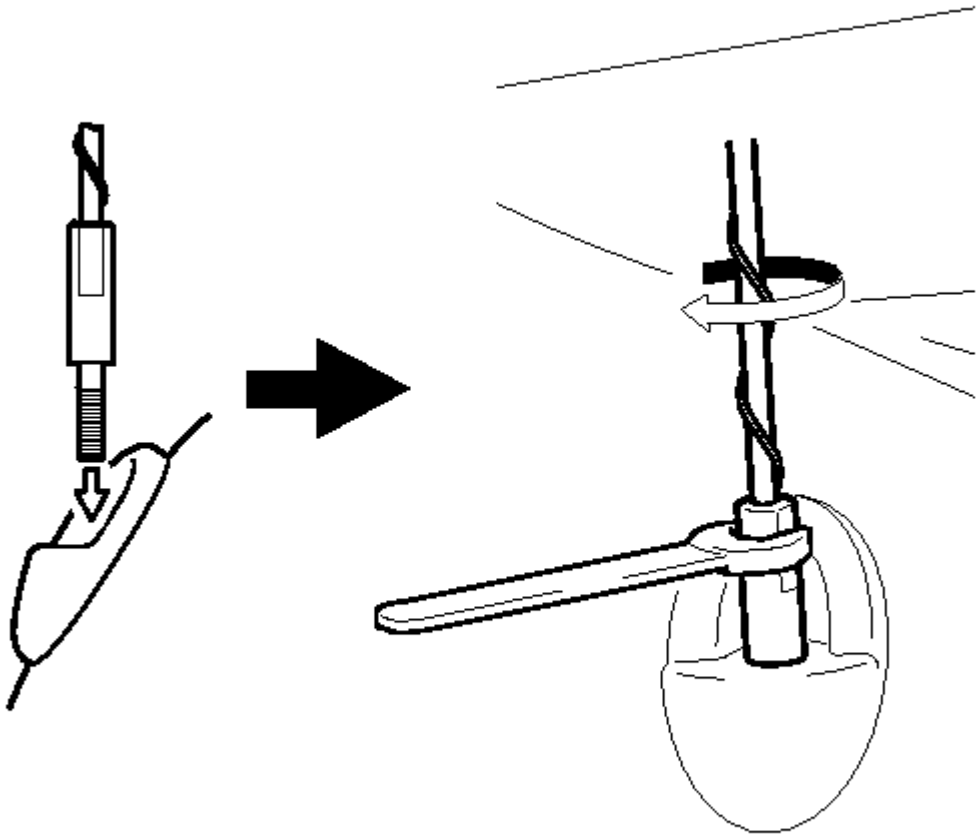


Fig. 71: Installing Pull Top Antenna Pole Sub-Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

a. Install the pull top antenna pole sub-assembly by hand until fully seated.
b. Using a 8 mm (5/16 inch) wrench, fully tighten the antenna pole about 1/8 turn (20 to 45 degrees) by turning it clockwise.

HINT:

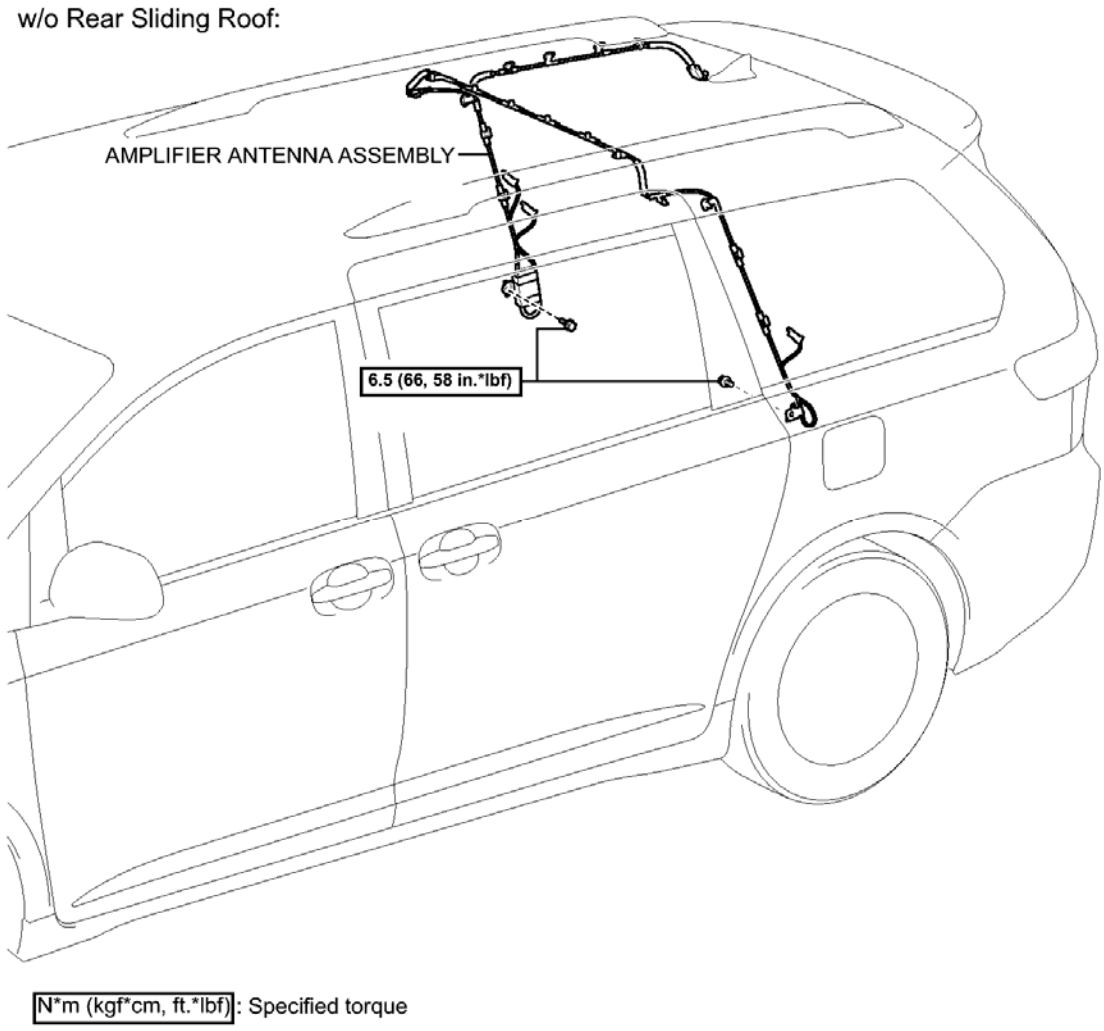
- Do not over tighten. Tighten with finger, not hand.
- Do not use pliers to tighten the antenna pole as it can leave marks on the antenna pole surface.
- The antenna pole cannot be hand tightened to the proper specification.

Torque: 3.3 N*m (34 kgf*cm, 29 in.*lbf)

AMPLIFIER ANTENNA

COMPONENTS

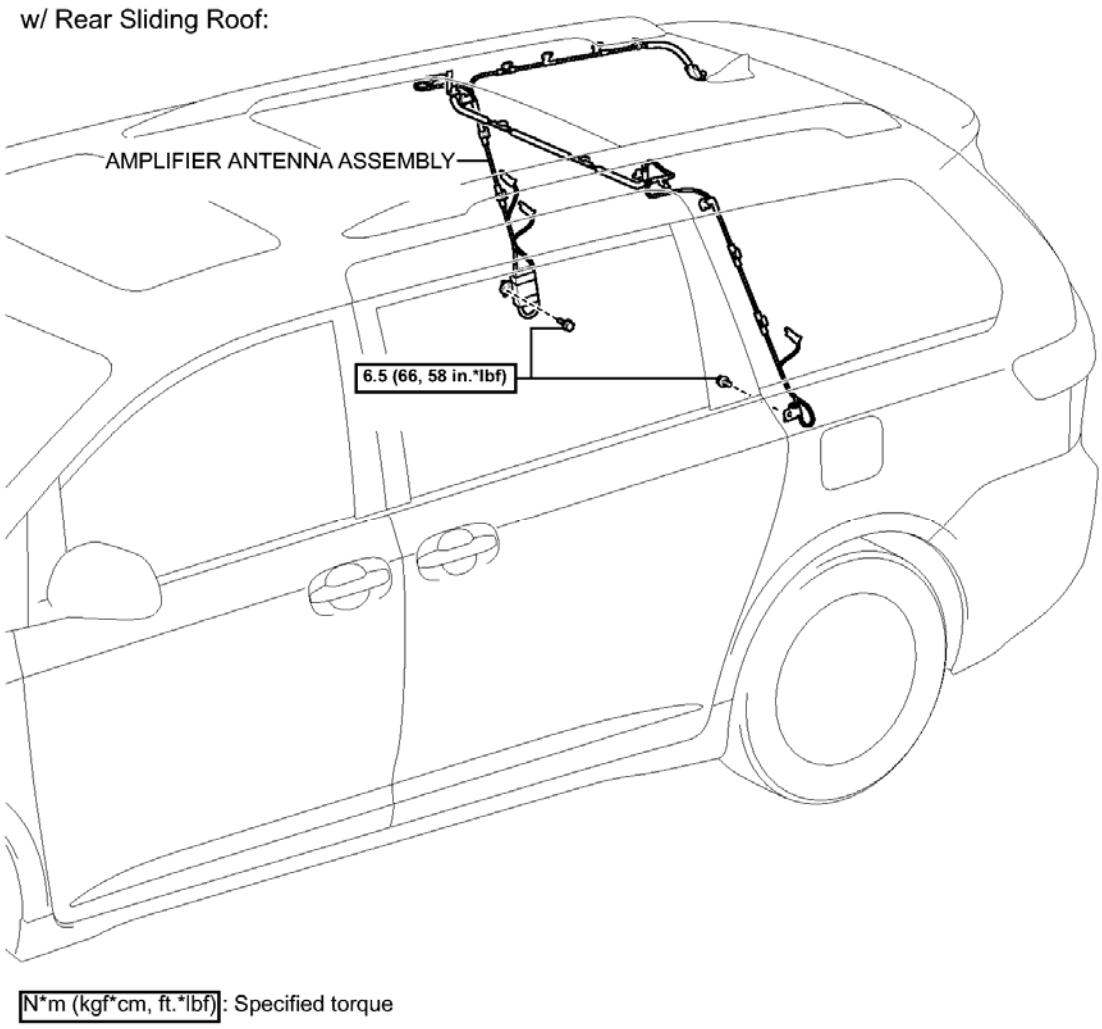
ILLUSTRATION



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Fig. 72: Amplifier Antenna Replacement Components With Torque Specifications (1 Of 2)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

ILLUSTRATION



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Fig. 73: Amplifier Antenna Replacement Components With Torque Specifications (2 Of 2)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL

REMOVAL

1. **REMOVE ROOF HEADLINING ASSEMBLY**

   Refer to **REMOVAL**

2. **REMOVE AMPLIFIER ANTENNA ASSEMBLY (w/o Rear Sliding Roof)**

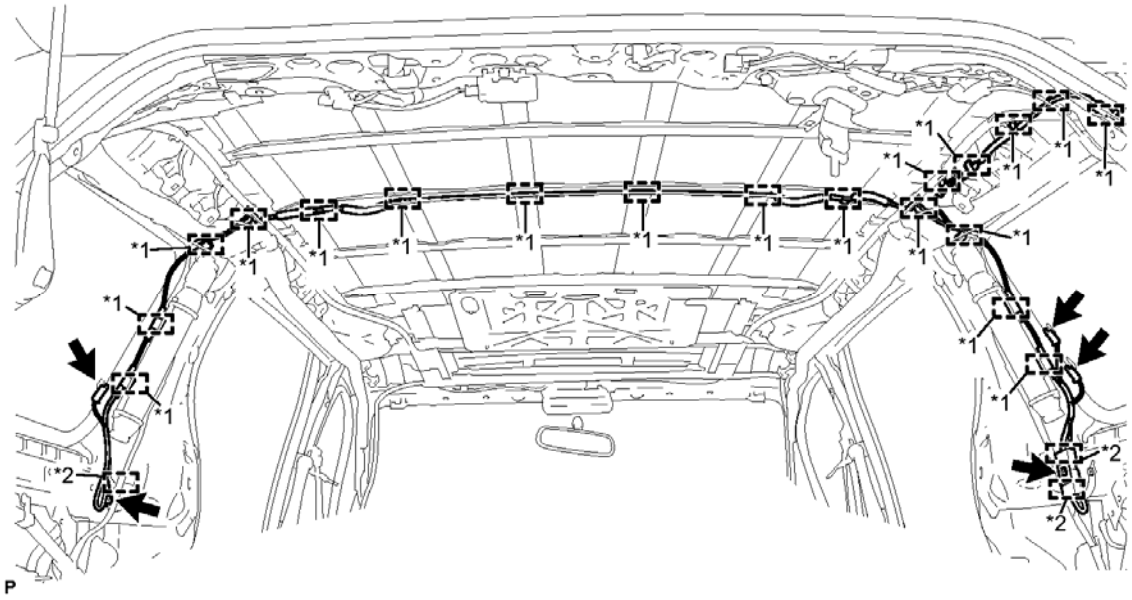


Fig. 74: Identifying Amplifier Antenna Assembly & Clamps (w/o Rear Sliding Roof)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

a. Disengage the 19 clamps.

TEXT IN ILLUSTRATION

*1	Clamp
*2	Hook

b. Remove the 3 male terminals.
c. Remove the 2 bolts, disengage the 3 hooks and the amplifier antenna.

3. **REMOVE AMPLIFIER ANTENNA ASSEMBLY (w/ Rear Sliding Roof)**

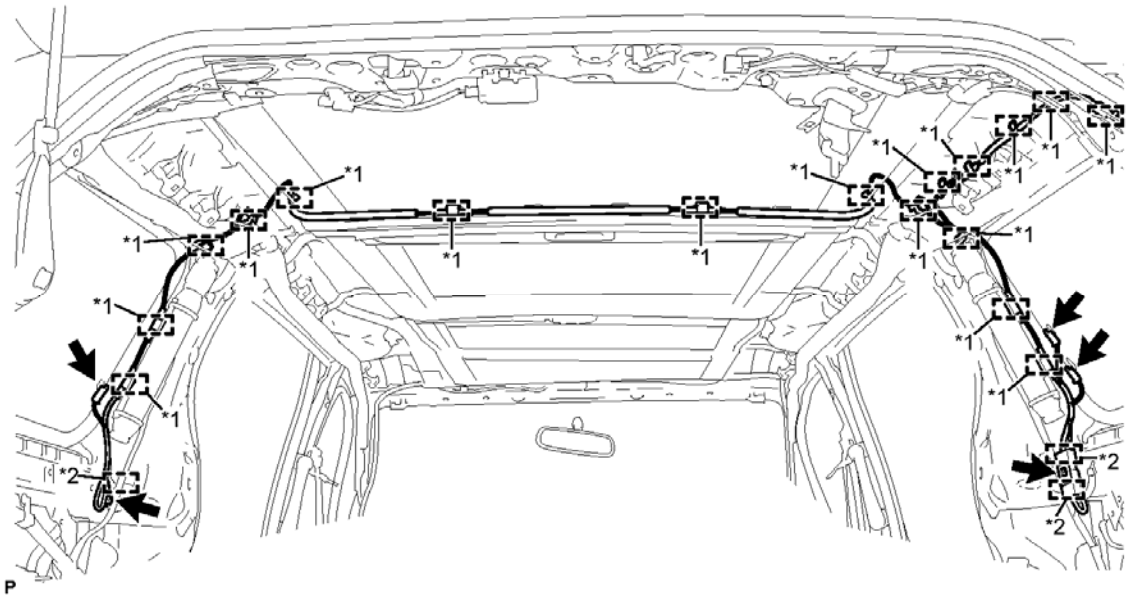


Fig. 75: Identifying Amplifier Antenna Assembly & Clamps (w/ Rear Sliding Roof)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

a. Disengage the 17 clamps.

TEXT IN ILLUSTRATION

*1	Clamp
*2	Hook

b. Remove the 3 male terminals.
c. Remove the 2 bolts, disengage the 3 hooks and the amplifier antenna.

INSTALLATION

INSTALLATION

1. **INSTALL AMPLIFIER ANTENNA ASSEMBLY (w/o Rear Sliding Roof)**
   a. Engage the 3 hooks and install the amplifier antenna with the 3 bolts.

      Torque: 6.5 N*m (66 kgf*cm, 58 in.*lbf)

   b. Install the 3 male terminals.
   c. Engage the 19 clamps.
2. **INSTALL AMPLIFIER ANTENNA ASSEMBLY (w/ Rear Sliding Roof)**
   a. Engage the 3 hooks and install the amplifier antenna with the 3 bolts.

      Torque: 6.5 N*m (66 kgf*cm, 58 in.*lbf)

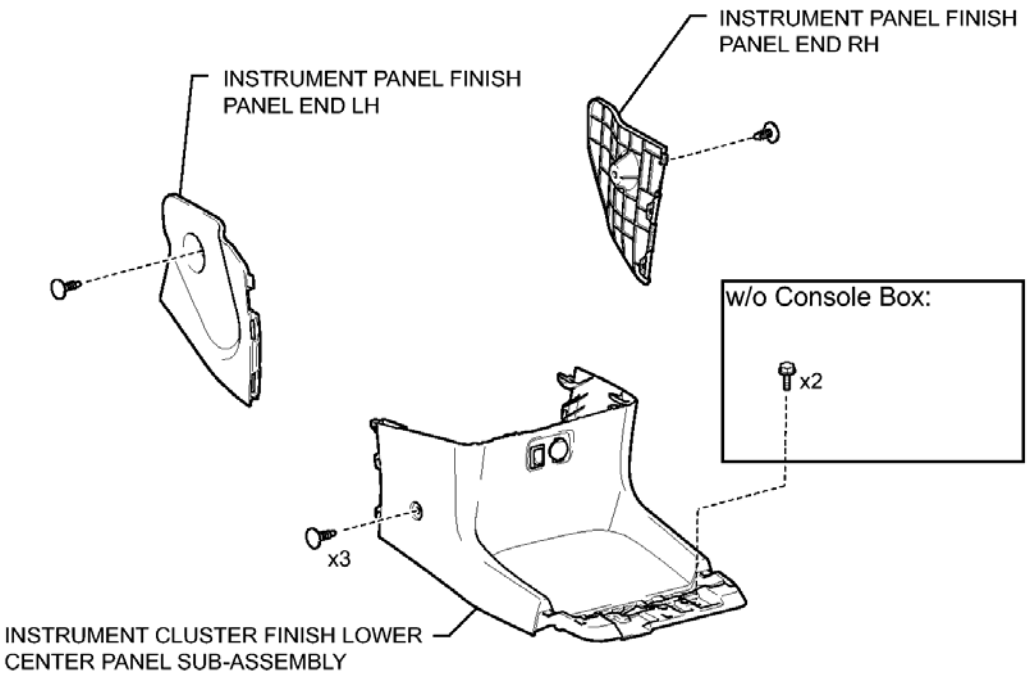
   b. Install the 3 male terminals.
   c. Engage the 17 clamps.
3. **INSTALL ROOF HEADLINING ASSEMBLY**

   Refer to **INSTALLATION**

STEREO JACK ADAPTER ASSEMBLY

COMPONENTS

ILLUSTRATION



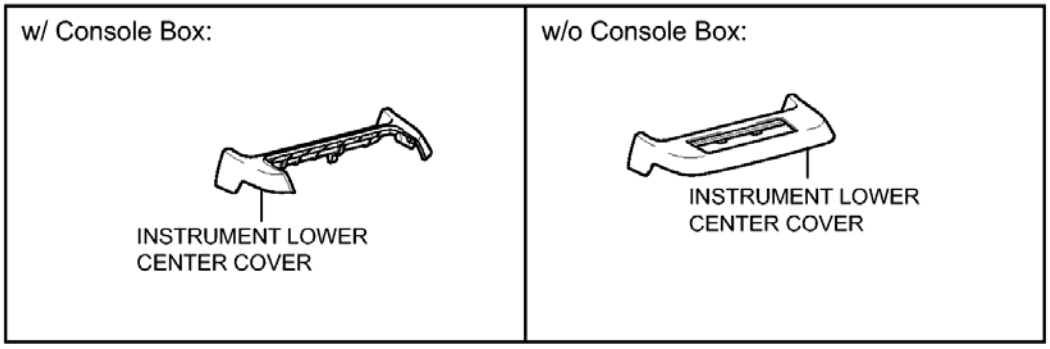
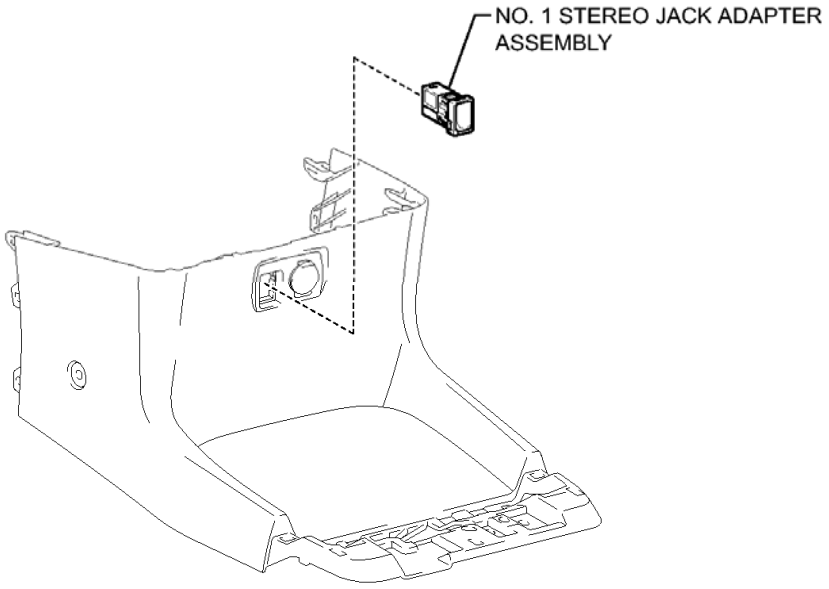


Fig. 76: Stereo Jack Adapter Assembly Replacement Components (1 Of 6)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

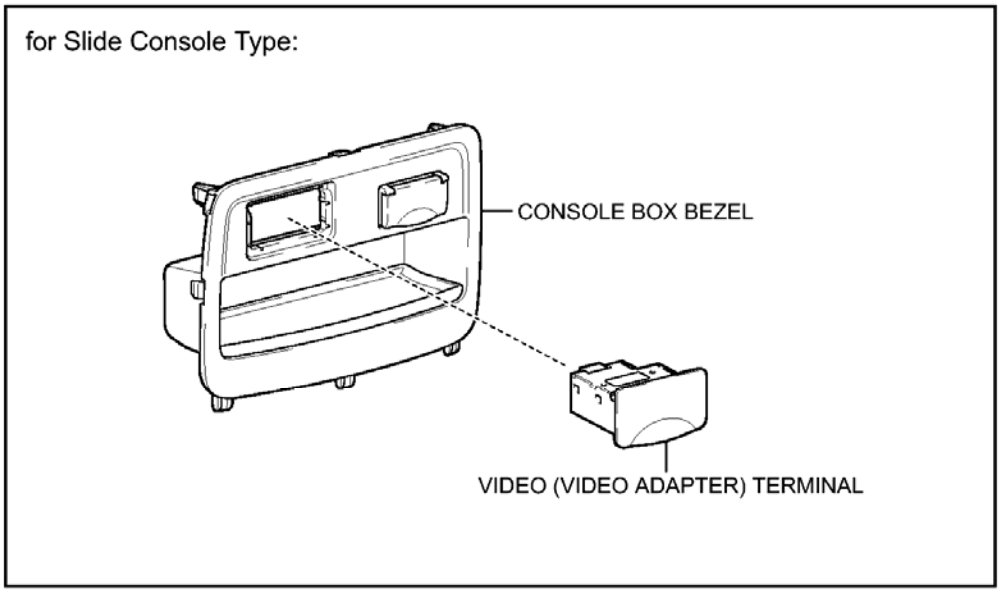
ILLUSTRATION

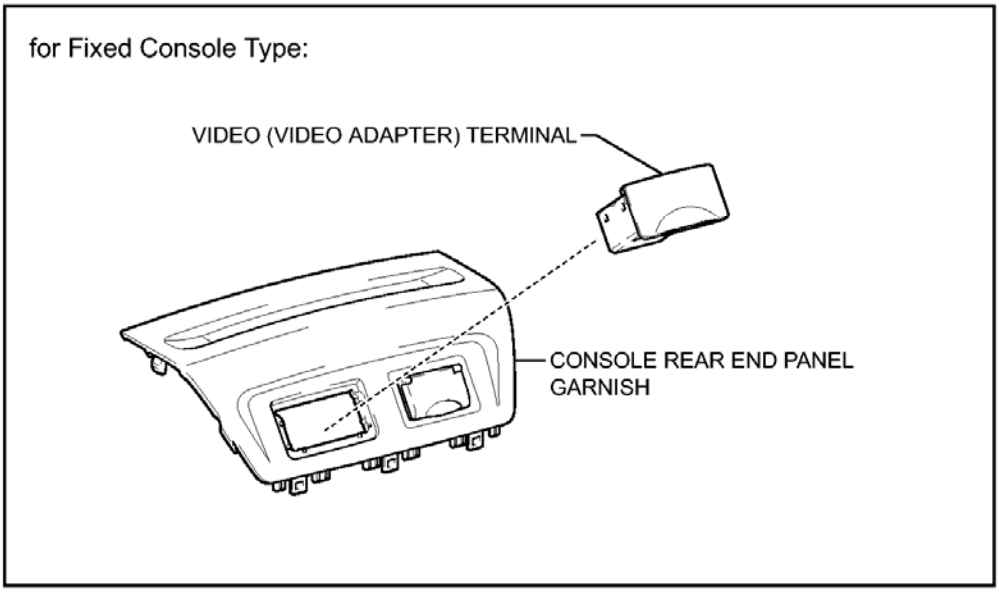


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Fig. 77: Stereo Jack Adapter Assembly Replacement Components (2 Of 6)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

ILLUSTRATION

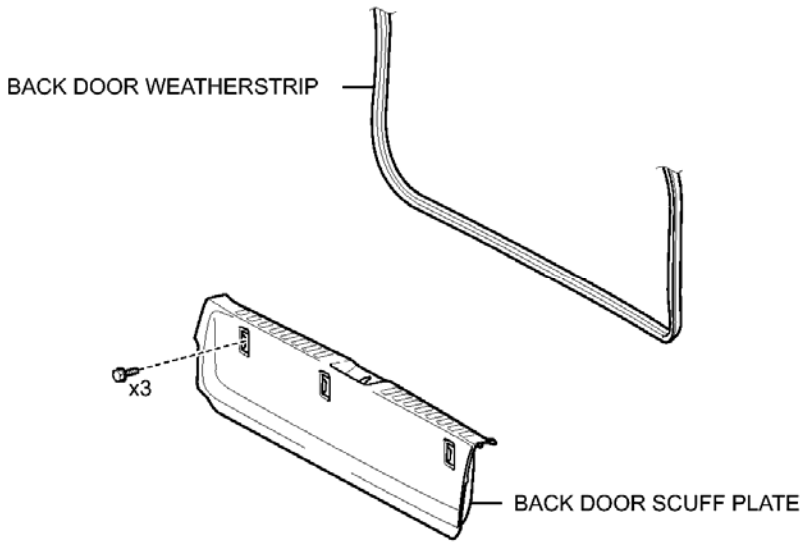




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Fig. 78: Stereo Jack Adapter Assembly Replacement Components (3 Of 6)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

ILLUSTRATION



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Fig. 79: Stereo Jack Adapter Assembly Replacement Components (4 Of 6)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

ILLUSTRATION

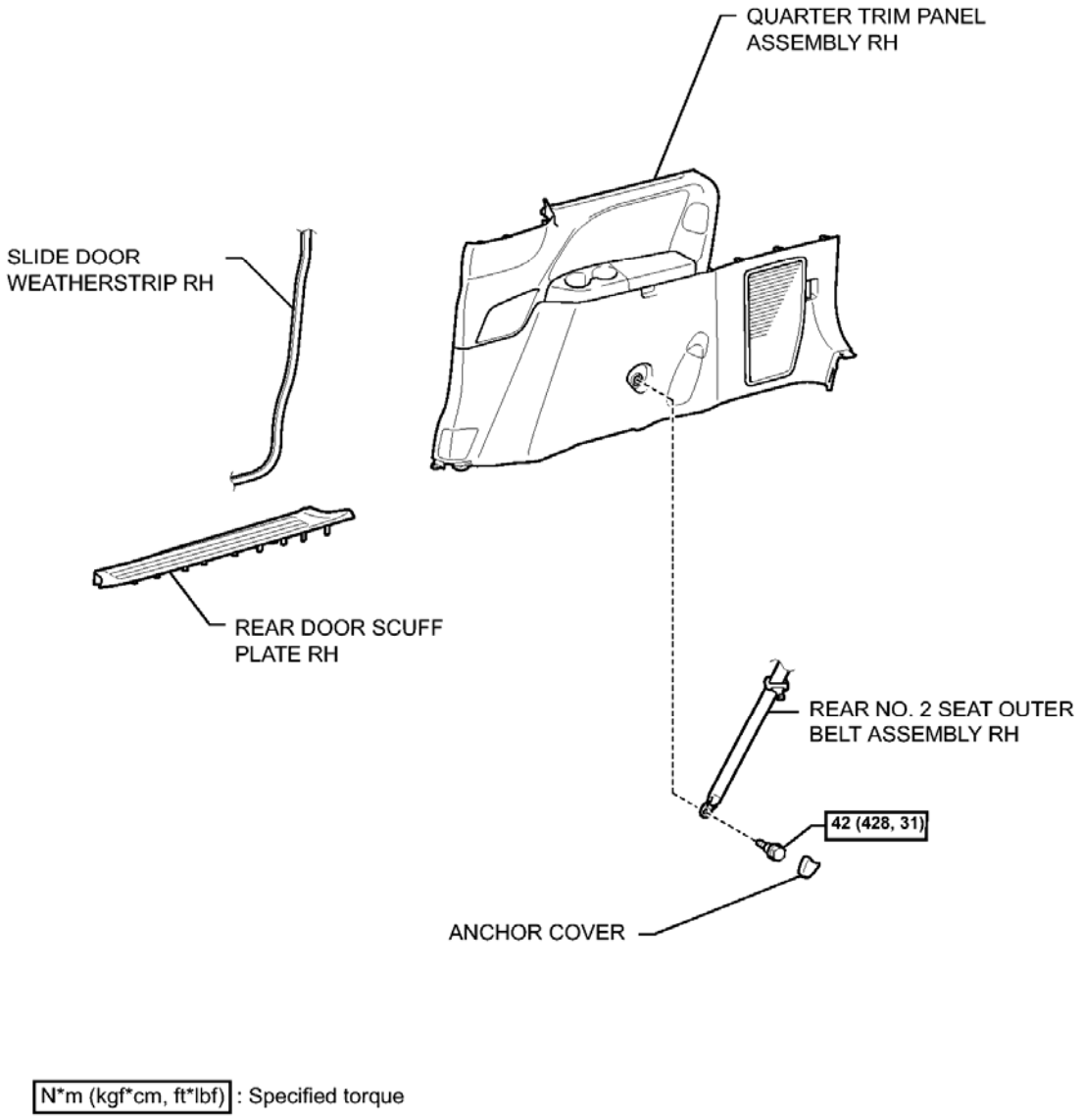
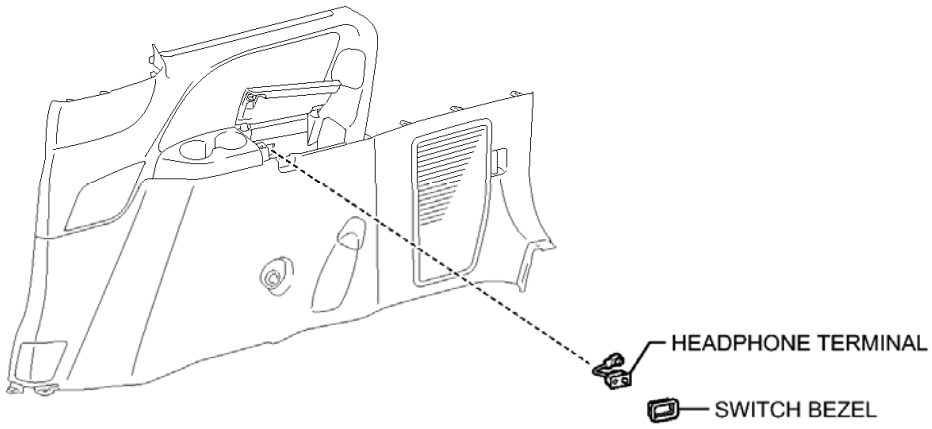


Fig. 80: Stereo Jack Adapter Assembly Replacement Components With Torque Specifications (5 Of 6)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

ILLUSTRATION



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Fig. 81: Stereo Jack Adapter Assembly Replacement Components (6 Of 6)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL

REMOVAL

HINT:

- Use the same procedure for both the RH and LH sides.
- The procedure described below is for the RH side.

1. **REMOVE CONSOLE ASSEMBLY (for Slide Type)**

   Refer to **REMOVAL**

2. **REMOVE CONSOLE ASSEMBLY (for Fixed Type)**

   Refer to **REMOVAL**

3. **REMOVE INSTRUMENT PANEL FINISH PANEL END RH** . Refer to **REMOVAL - Step 39**

4. **REMOVE INSTRUMENT PANEL FINISH PANEL END LH**

   HINT:

   Use the same procedure as for the RH side.

5. **REMOVE INSTRUMENT LOWER CENTER COVER (w/ Console Box)** . Refer to **REMOVAL - Step 42**
6. **REMOVE INSTRUMENT LOWER CENTER COVER (w/o Console Box)** . Refer to **REMOVAL - Step 41**
7. **REMOVE INSTRUMENT CLUSTER FINISH LOWER CENTER PANEL SUB-ASSEMBLY** . Refer to **REMOVAL - Step 43**
8. **REMOVE NO. 1 STEREO JACK ADAPTER ASSEMBLY**

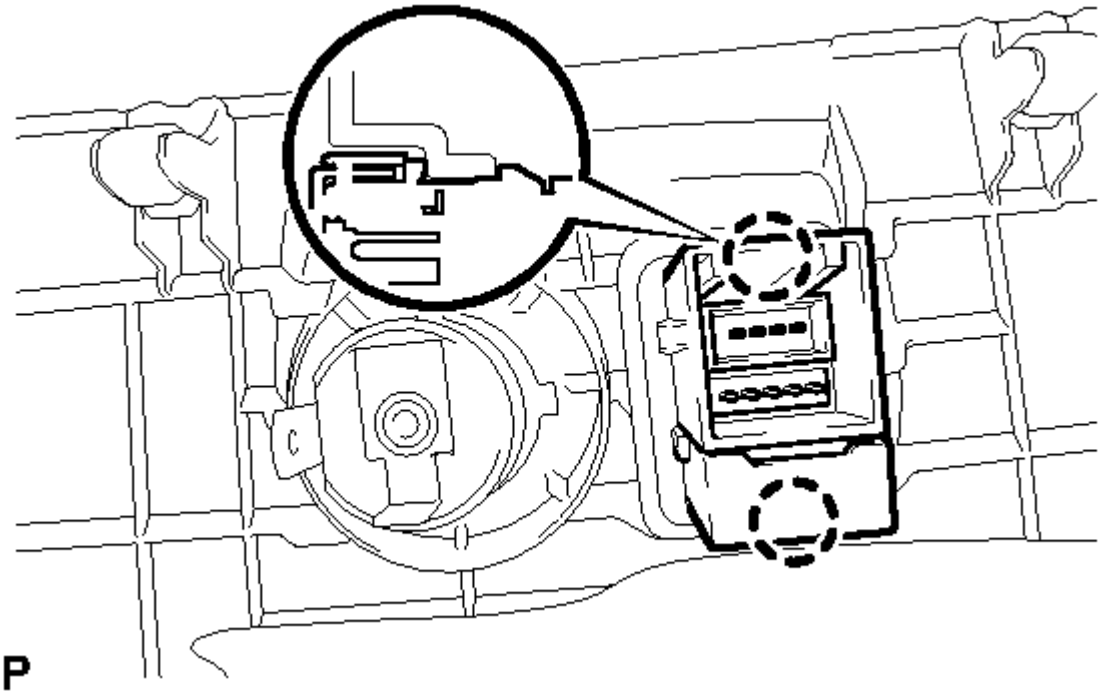
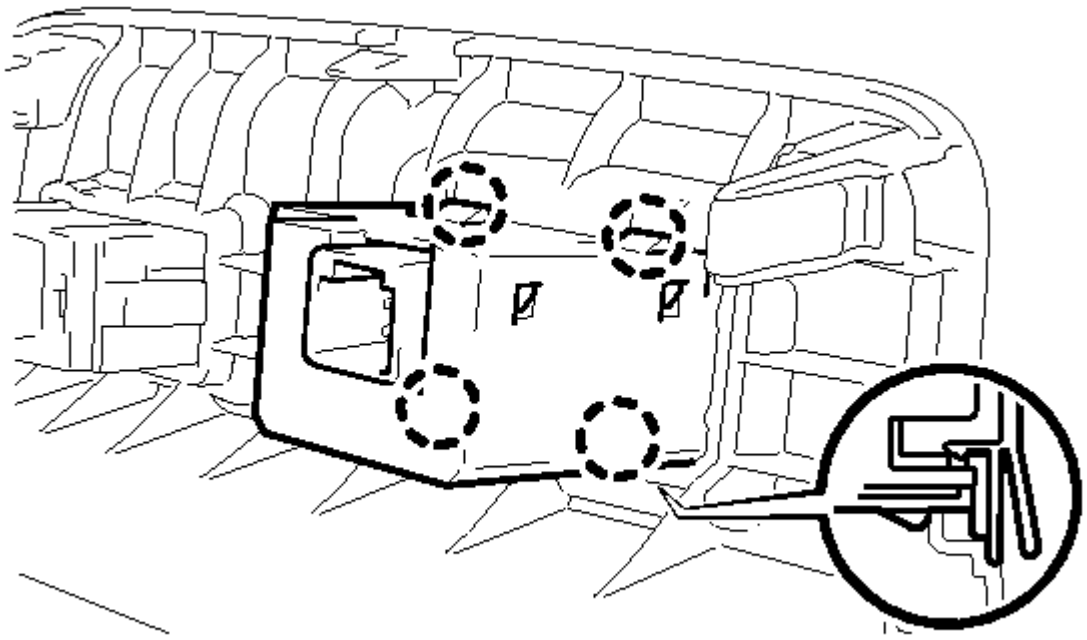


Fig. 82: Identifying No. 1 Stereo Jack Adapter Assembly & Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

   a. Disengage the 2 claws and remove the No. 1 stereo jack adapter.

9. **REMOVE CONSOLE BOX BEZEL (for Slide Console Type)** . Refer to **REMOVAL - Step 1**
10. **REMOVE CONSOLE REAR END PANEL GARNISH (for Fixed Console Type)** . Refer to **DISASSEMBLY - Step 1**
11. **REMOVE VIDEO (VIDEO ADAPTER) TERMINAL (for Slide Console Type)**

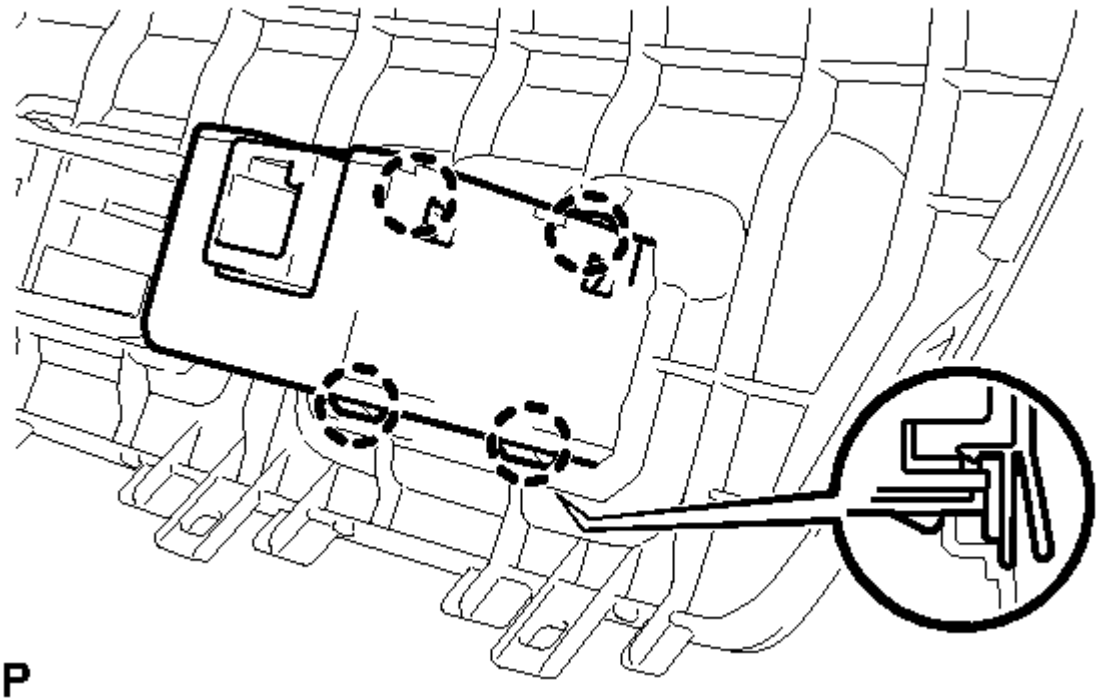


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Fig. 83: Identifying Video Terminal & Claws (For Slide Console Type)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

a. Disengage the 4 claws and remove the video terminal.

12. **REMOVE VIDEO (VIDEO ADAPTER) TERMINAL (for Fixed Console Type)**



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Fig. 84: Identifying Video Terminal & Claws (For Fixed Console Type)

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

a. Disengage the 4 claws and remove the video terminal.

13. **SEPARATE BACK DOOR WEATHERSTRIP**
14. **REMOVE BACK DOOR SCUFF PLATE** . Refer to **REMOVAL - Step 17**
15. **SEPARATE REAR NO. 2 OUTER SEAT BELT ASSEMBLY RH**

HINT:

Use the same procedure as for the LH side. Refer to **REMOVAL - Step 5** .

16. **REMOVE REAR DOOR SCUFF PLATE RH** . Refer to **REMOVAL - Step 13**
17. **SEPARATE SLIDE DOOR WEATHERSTRIP RH**
18. **REMOVE QUARTER TRIM PANEL ASSEMBLY RH** . Refer to **REMOVAL - Step 26**
19. **REMOVE SWITCH BEZEL**

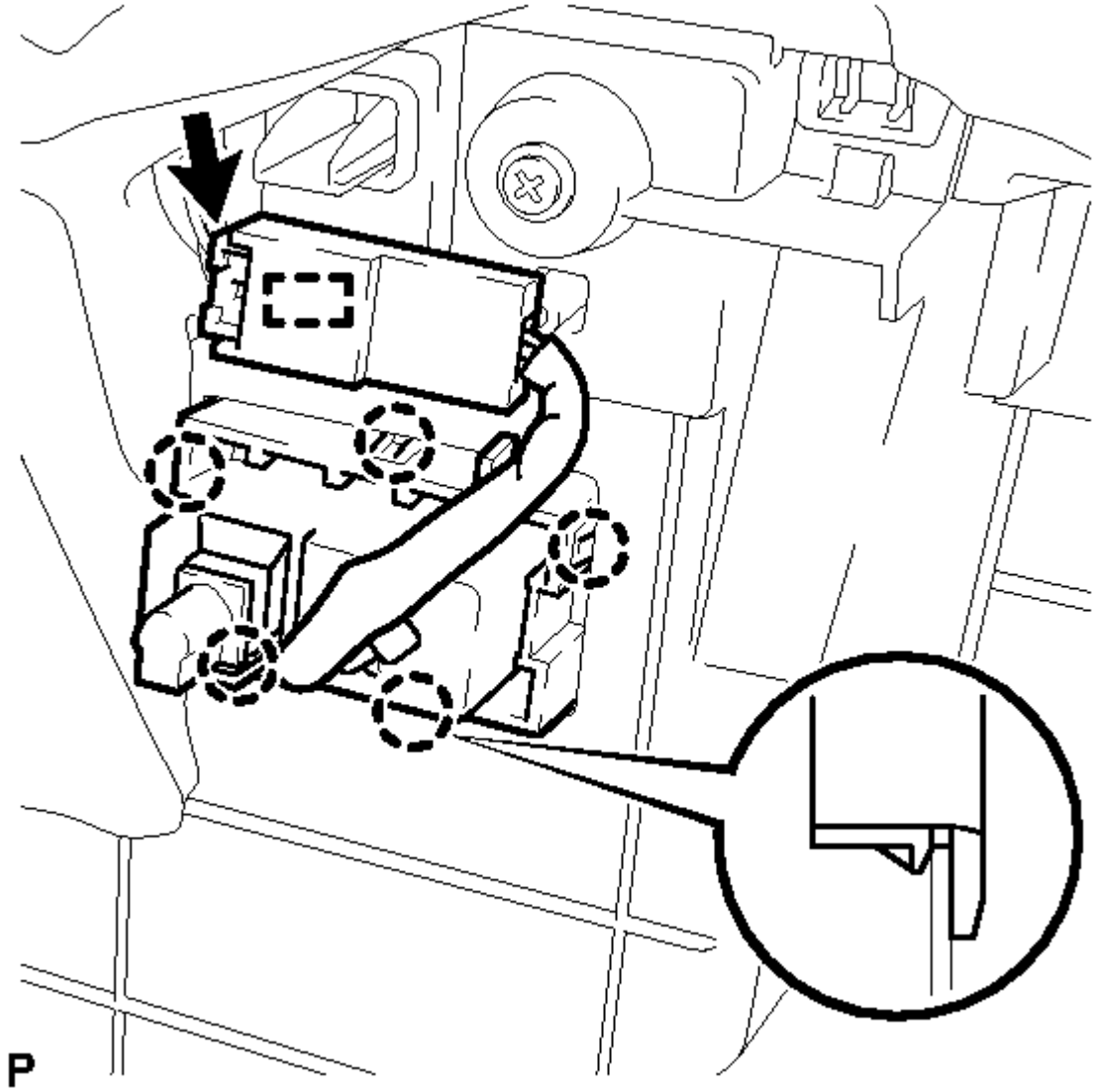
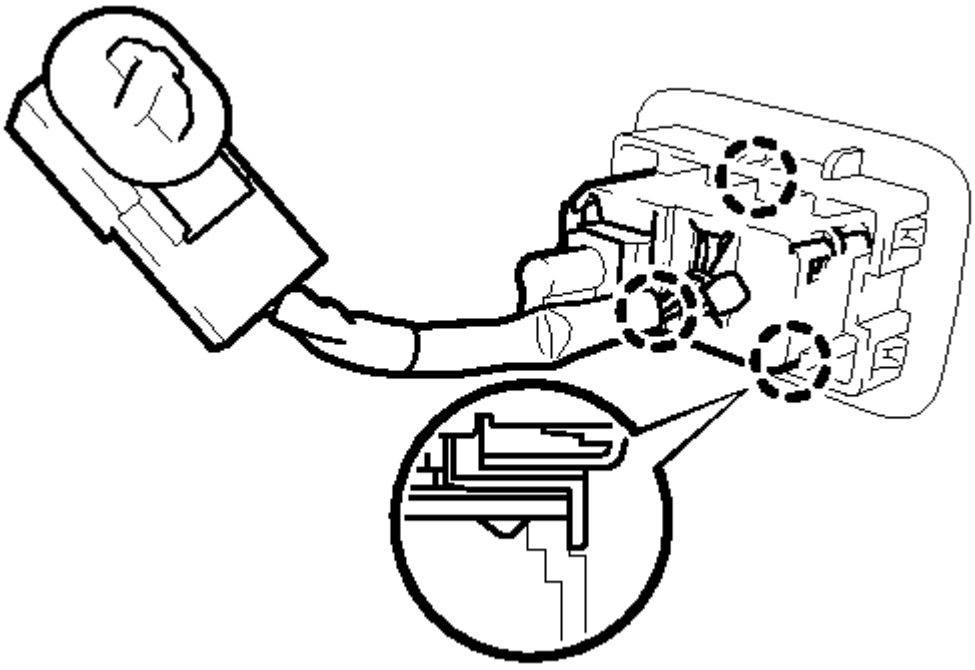


Fig. 85: Identifying Switch Bezel, Connector & Fasteners
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

a. Disconnect the connector.
b. Disengage the clamp.
c. Disengage the 5 claws and remove the switch bezel.

20. **REMOVE HEADPHONE TERMINAL**



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Fig. 86: Identifying Headphone Terminal & Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

a. Disengage the 3 claws and remove the headphone terminal.

INSTALLATION

INSTALLATION

1. **INSTALL HEADPHONE TERMINAL**
   a. Engage the 3 claws and install the headphone terminal.
2. **INSTALL SWITCH BEZEL**
   a. Engage the 5 claws and install the switch bezel.
   b. Engage the clamp.
   c. Connect the connector.
3. **INSTALL QUARTER TRIM PANEL ASSEMBLY RH** . Refer to **INSTALLATION - Step 14**
4. **INSTALL SLIDE DOOR WEATHERSTRIP RH**
5. **INSTALL REAR DOOR SCUFF PLATE RH** . Refer to **INSTALLATION - Step 27**
6. **INSTALL REAR NO. 2 OUTER SEAT BELT ASSEMBLY RH**

   HINT:

   Use the same procedure as for the LH side. Refer to **INSTALLATION - Step 3** .

7. **INSTALL BACK DOOR SCUFF PLATE** . Refer to **INSTALLATION - Step 24**

8. **INSTALL BACK DOOR WEATHERSTRIP**
9. **INSTALL VIDEO (VIDEO ADAPTER) TERMINAL (for Slide Console Type)**
    a. Engage the 4 claws and install the video terminal.
10. **INSTALL VIDEO (VIDEO ADAPTER) TERMINAL (for Fixed Console Type)**
    a. Engage the 4 claws and install the video terminal.
11. **INSTALL CONSOLE BOX BEZEL (for Slide Console Type)** . Refer to **INSTALLATION - Step 3**
12. **INSTALL CONSOLE REAR END PANEL GARNISH (for Fixed Console Type)** . Refer to **REASSEMBLY - Step 9**
13. **INSTALL NO. 1 STEREO JACK ADAPTER ASSEMBLY**
    a. Engage the 2 claws and install the No. 1 stereo jack adapter.
14. **INSTALL INSTRUMENT CLUSTER FINISH LOWER CENTER PANEL SUB-ASSEMBLY** . Refer to **INSTALLATION - Step 15**
15. **INSTALL INSTRUMENT LOWER CENTER COVER (w/ Console Box)** . Refer to **INSTALLATION - Step 17**
16. **INSTALL INSTRUMENT LOWER CENTER COVER (w/o Console Box)** . Refer to **INSTALLATION - Step 16**
17. **INSTALL INSTRUMENT PANEL FINISH PANEL END RH** . Refer to **INSTALLATION - Step 18**
18. **INSTALL INSTRUMENT PANEL FINISH PANEL END LH**

    HINT:

    Use the same procedure as for the RH side.

19. **INSTALL CONSOLE ASSEMBLY (for Slide Type)**

    Refer to **INSTALLATION**

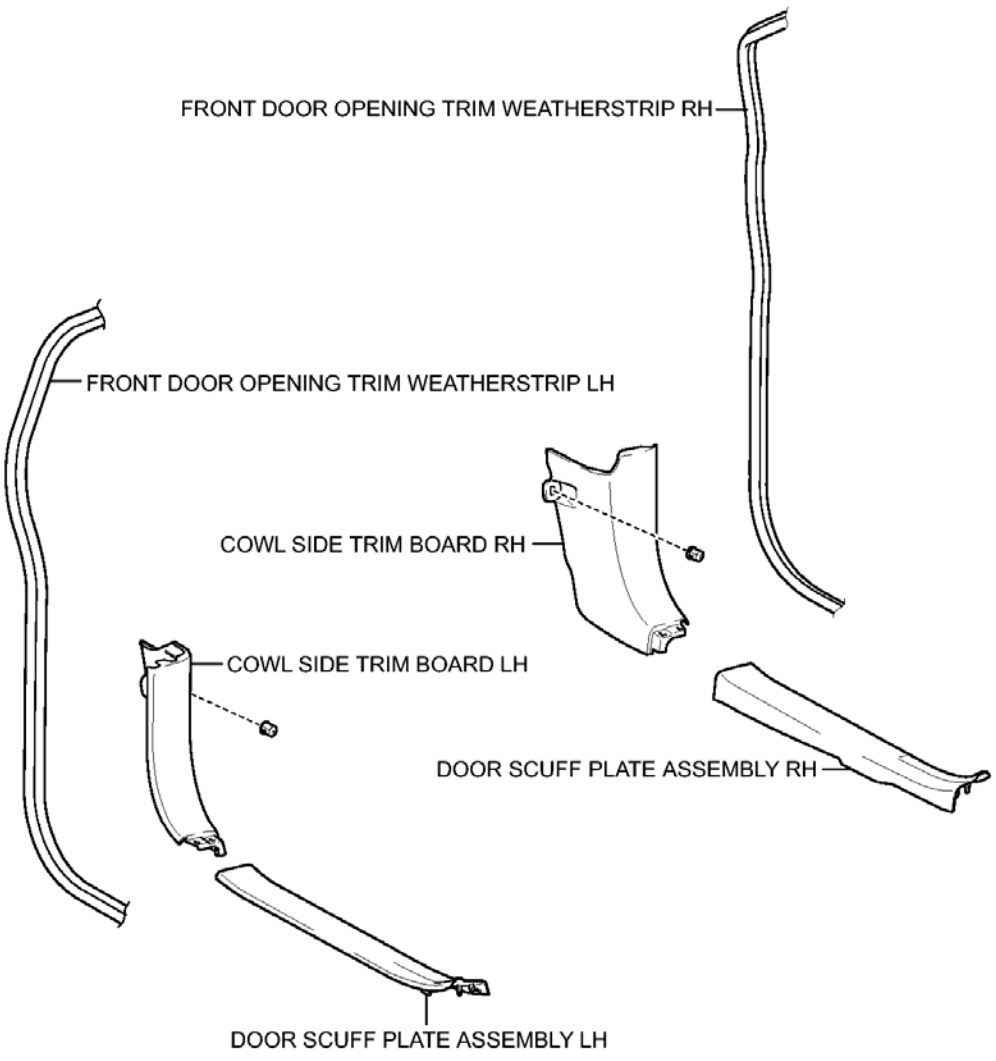
20. **INSTALL CONSOLE ASSEMBLY (for Fixed Type)**

    Refer to **INSTALLATION**

MULTI-MEDIA INTERFACE ECU

COMPONENTS

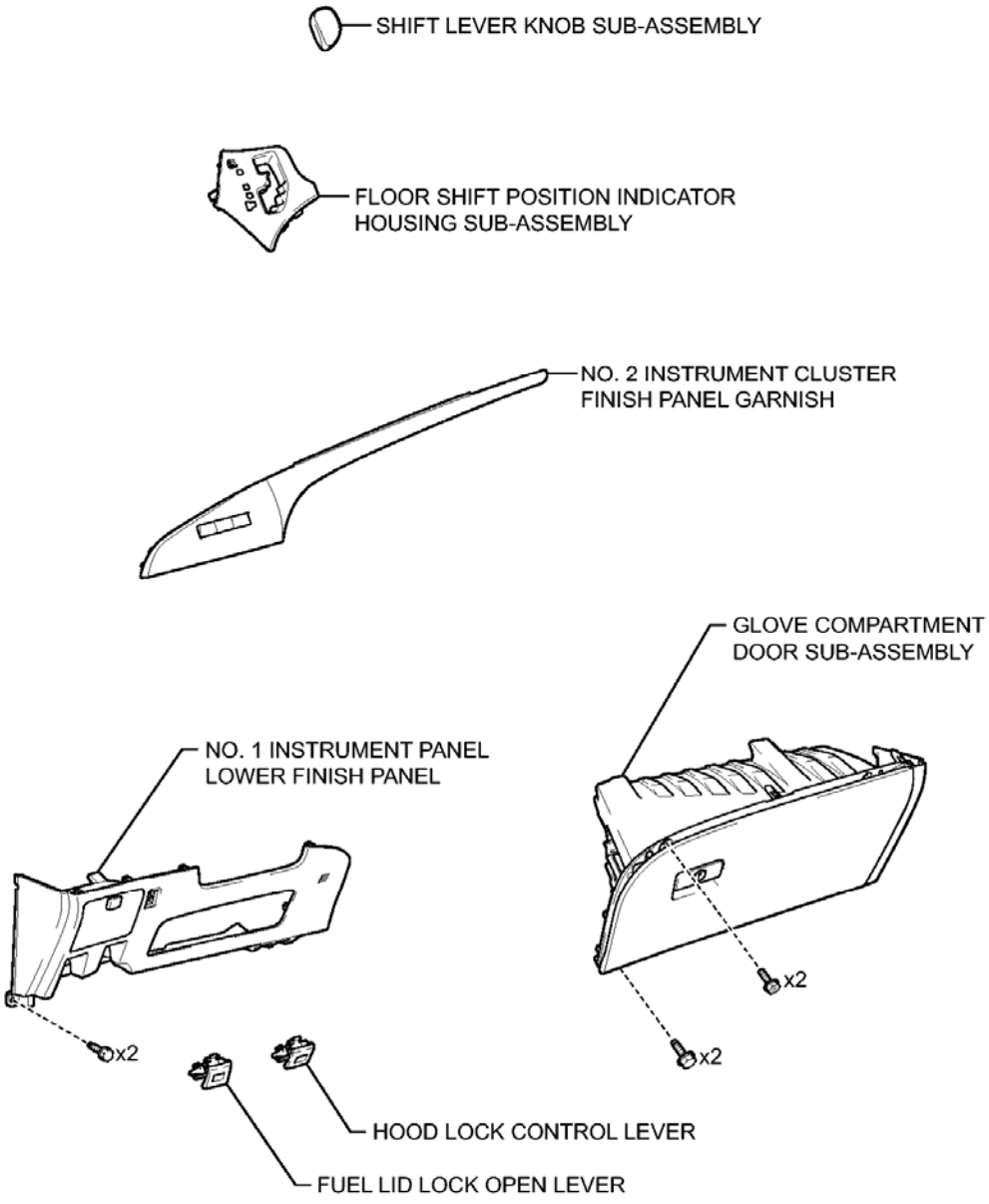
ILLUSTRATION



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Fig. 87: Multi-Media Interface ECU Replacement Components (1 Of 4)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

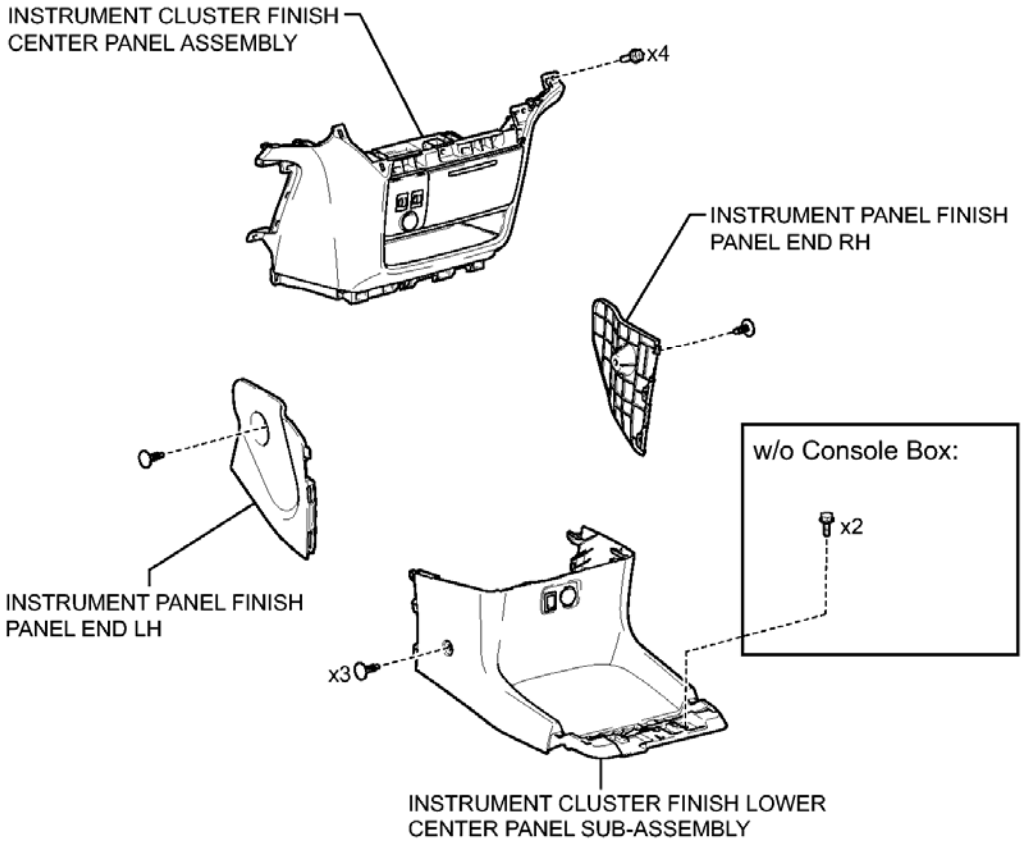
ILLUSTRATION

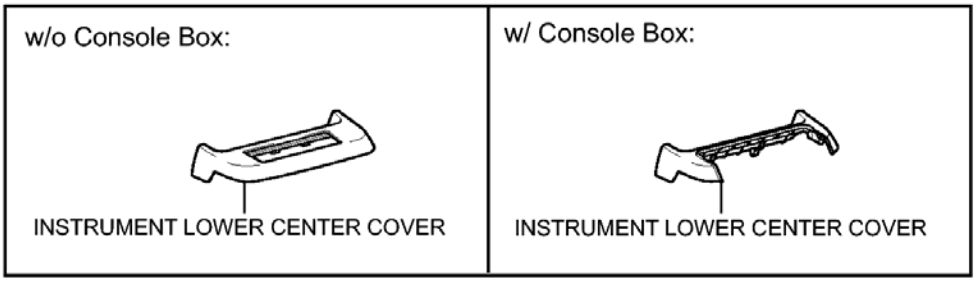


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Fig. 88: Multi-Media Interface ECU Replacement Components (2 Of 4)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

ILLUSTRATION

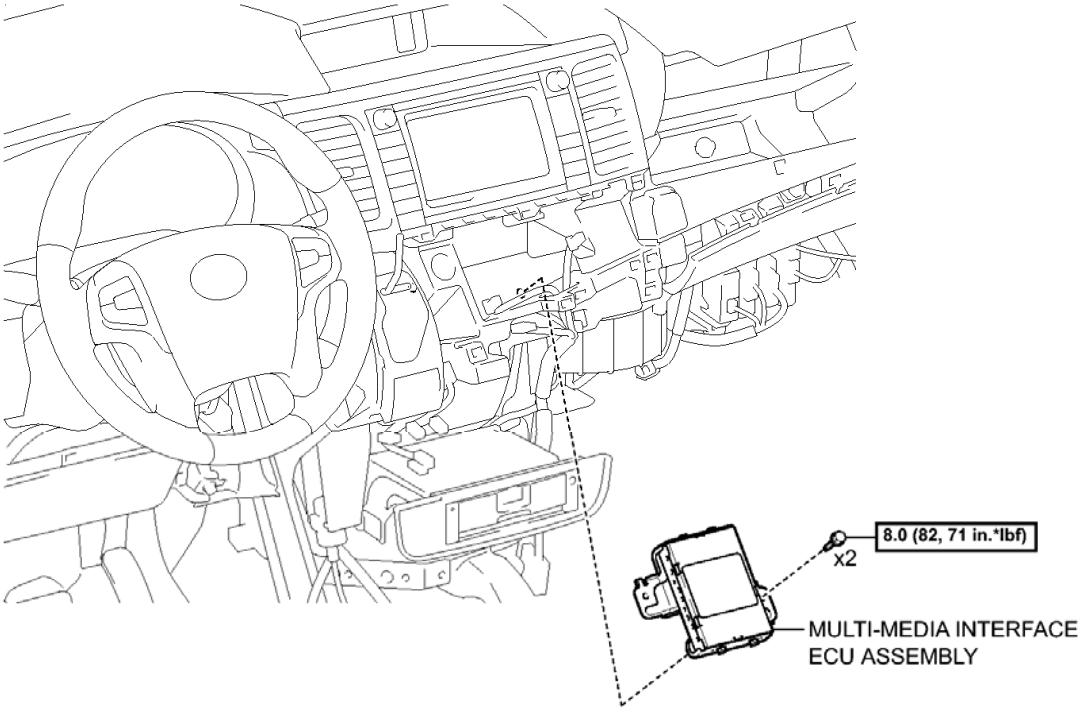




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Fig. 89: Multi-Media Interface ECU Replacement Components (3 Of 4)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

ILLUSTRATION



N*m (kgf*cm, ft.*lbf): Specified torque

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Fig. 90: Multi-Media Interface ECU Replacement Components With Torque Specifications (4 Of 4)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL

REMOVAL

1. **REMOVE DOOR SCUFF PLATE ASSEMBLY RH** . Refer to **REMOVAL - Step 3**
2. **REMOVE DOOR SCUFF PLATE ASSEMBLY LH**

   HINT:

   Use the same procedure as for the RH side.

3. **REMOVE COWL SIDE TRIM BOARD RH** . Refer to **REMOVAL - Step 5**
4. **REMOVE COWL SIDE TRIM BOARD LH**

   HINT:

   Use the same procedure as for the RH side.

5. **SEPARATE FRONT DOOR OPENING TRIM WEATHERSTRIP RH**
6. **SEPARATE FRONT DOOR OPENING TRIM WEATHERSTRIP LH**
7. **REMOVE NO. 1 INSTRUMENT PANEL LOWER FINISH PANEL** . Refer to **REMOVAL - Step 19**
8. **REMOVE NO. 2 INSTRUMENT CLUSTER FINISH PANEL GARNISH** . Refer to **REMOVAL - Step 23**
9. **REMOVE SHIFT LEVER KNOB SUB-ASSEMBLY**
10. **REMOVE FLOOR SHIFT POSITION INDICATOR HOUSING SUB-ASSEMBLY** . Refer to **REMOVAL - Step 25**
11. **REMOVE GLOVE COMPARTMENT DOOR SUB-ASSEMBLY** . Refer to **REMOVAL - Step 34**
12. **REMOVE CONSOLE ASSEMBLY (for Slide Type)**

    Refer to **REMOVAL**

13. **REMOVE CONSOLE ASSEMBLY (for Fixed Type)**

    Refer to **REMOVAL**

14. **REMOVE INSTRUMENT PANEL FINISH PANEL END RH** . Refer to **REMOVAL - Step 39**
15. **REMOVE INSTRUMENT PANEL FINISH PANEL END LH**

    HINT:

    Use the same procedure as for the RH side.

16. **REMOVE INSTRUMENT LOWER CENTER COVER (w/ Console Box)** . Refer to **REMOVAL - Step 42**
17. **REMOVE INSTRUMENT LOWER CENTER COVER (w/o Console Box)** . Refer to **REMOVAL - Step 41**
18. **REMOVE INSTRUMENT CLUSTER FINISH LOWER CENTER PANEL SUB-ASSEMBLY** . Refer to **REMOVAL - Step 43**
19. **REMOVE INSTRUMENT CLUSTER FINISH CENTER PANEL ASSEMBLY** . Refer to **REMOVAL - Step 45**
20. **REMOVE MULTI-MEDIA INTERFACE ECU ASSEMBLY**

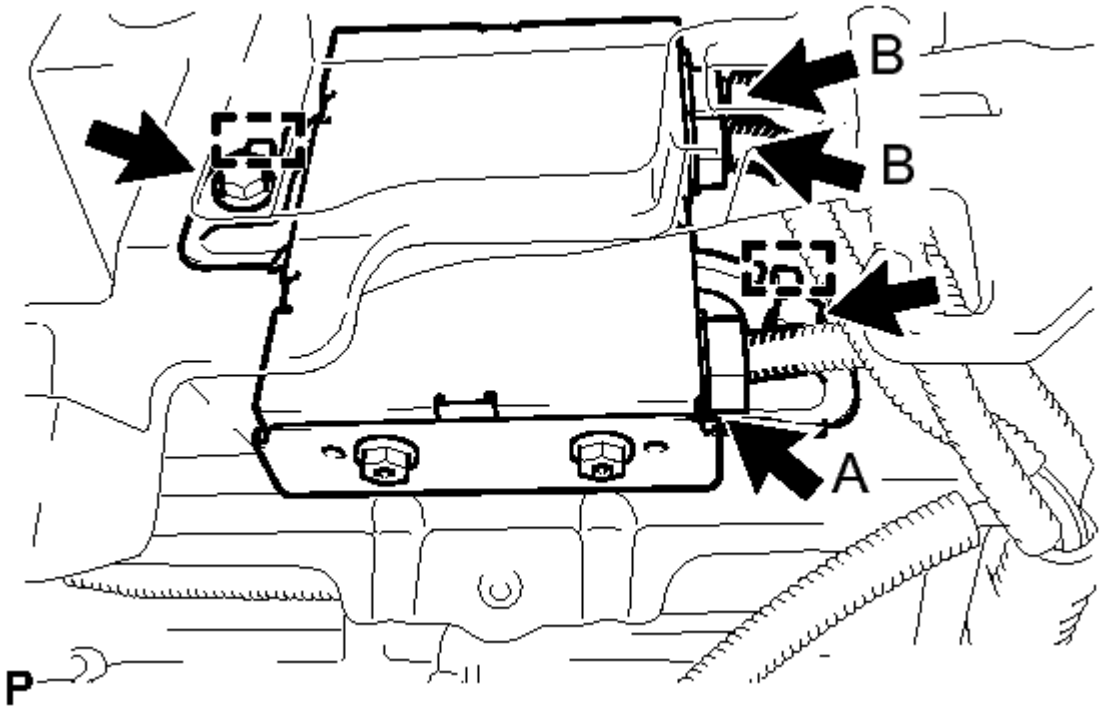


Fig. 91: Identifying Multi-Media Interface ECU Assembly, Connector & Fasteners
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

a. Disconnect the connector <A>.
b. Remove the 2 bolts.
c. Disengage the 2 hooks.
d. Disconnect the 2 connectors <B> and remove the multi-media interface ECU.

INSTALLATION

INSTALLATION

1. **INSTALL MULTI-MEDIA INTERFACE ECU ASSEMBLY**

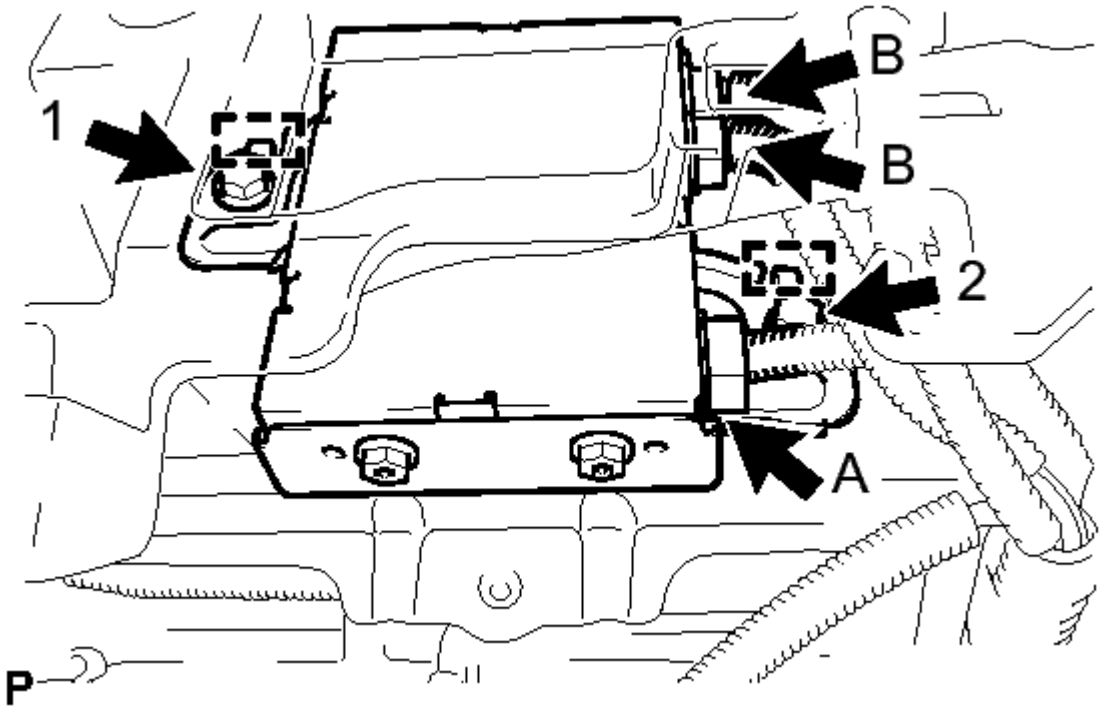


Fig. 92: Identifying Multi-Media Interface ECU Assembly, Fasteners And Tightening Sequence
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

a. Connect the 2 connectors <B>.
b. Engage the 2 hooks and install the multi-media interface ECU.
c. Install the 2 bolts.

Torque: 8.0 N*m (82 kgf*cm, 71 in.*lbf)

HINT:

Tighten the bolts in the order shown in the illustration.

d. Connect the connector <A>.

2. **INSTALL INSTRUMENT CLUSTER FINISH CENTER PANEL ASSEMBLY** . Refer to **INSTALLATION - Step 13**
3. **INSTALL INSTRUMENT CLUSTER FINISH LOWER CENTER PANEL SUB-ASSEMBLY** . Refer to **INSTALLATION - Step 15**
4. **INSTALL INSTRUMENT LOWER CENTER COVER (w/ Console Box)** . Refer to **INSTALLATION - Step 17**
5. **INSTALL INSTRUMENT LOWER CENTER COVER (w/o Console Box)** . Refer to **INSTALLATION - Step 16**
6. **INSTALL INSTRUMENT PANEL FINISH PANEL END RH** . Refer to **INSTALLATION - Step 18**
7. **INSTALL INSTRUMENT PANEL FINISH PANEL END LH**

HINT:

Use the same procedure as for the RH side.

8. **INSTALL CONSOLE ASSEMBLY (for Slide Type)**

   Refer to **INSTALLATION**

9. **INSTALL CONSOLE ASSEMBLY (for Fixed Type)**

   Refer to **INSTALLATION**

10. **INSTALL GLOVE COMPARTMENT DOOR SUB-ASSEMBLY** . Refer to **INSTALLATION - Step 24**
11. **INSTALL FLOOR SHIFT POSITION INDICATOR HOUSING SUB-ASSEMBLY** . Refer to **INSTALLATION - Step 33**
12. **INSTALL SHIFT LEVER KNOB SUB-ASSEMBLY**
13. **INSTALL NO. 2 INSTRUMENT CLUSTER FINISH PANEL GARNISH** . Refer to **INSTALLATION - Step 35**
14. **INSTALL NO. 1 INSTRUMENT PANEL LOWER FINISH PANEL** . Refer to **INSTALLATION - Step 39**
15. **INSTALL FRONT DOOR OPENING TRIM WEATHERSTRIP RH**
16. **INSTALL FRONT DOOR OPENING TRIM WEATHERSTRIP LH**
17. **INSTALL COWL SIDE TRIM BOARD RH** . Refer to **INSTALLATION - Step 35**
18. **INSTALL COWL SIDE TRIM BOARD LH**

    HINT:

    Use the same procedure as for the RH side.

19. **INSTALL DOOR SCUFF PLATE ASSEMBLY RH** . Refer to **INSTALLATION - Step 37**
20. **INSTALL DOOR SCUFF PLATE ASSEMBLY LH**

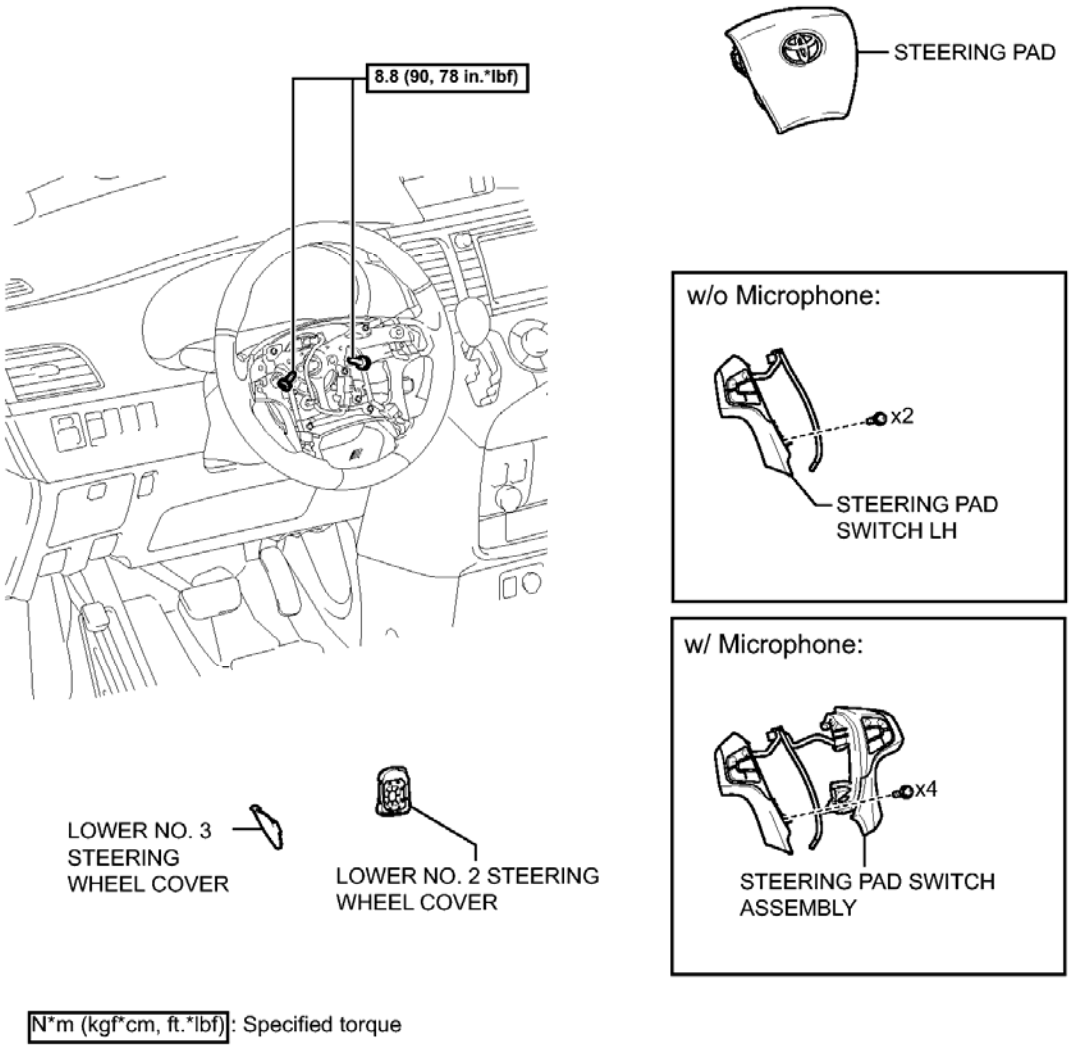
    HINT:

    Use the same procedure as for the RH side.

STEERING PAD SWITCH

COMPONENTS

ILLUSTRATION



P

Fig. 93: Steering Pad Switch Replacement Components With Torque Specifications
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL

REMOVAL

1. **DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL**

WARNING: Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.

NOTE: **When disconnecting the cable, some systems need to be initialized after the cable is reconnected. Refer to INITIALIZATION .**

2. **REMOVE LOWER NO. 3 STEERING WHEEL COVER** . Refer to **REMOVAL - Step 2**
3. **REMOVE LOWER NO. 2 STEERING WHEEL COVER** . Refer to **REMOVAL - Step 3**
4. **REMOVE STEERING PAD** . Refer to **REMOVAL - Step 4**
5. **REMOVE STEERING PAD SWITCH ASSEMBLY (w/ Microphone)**

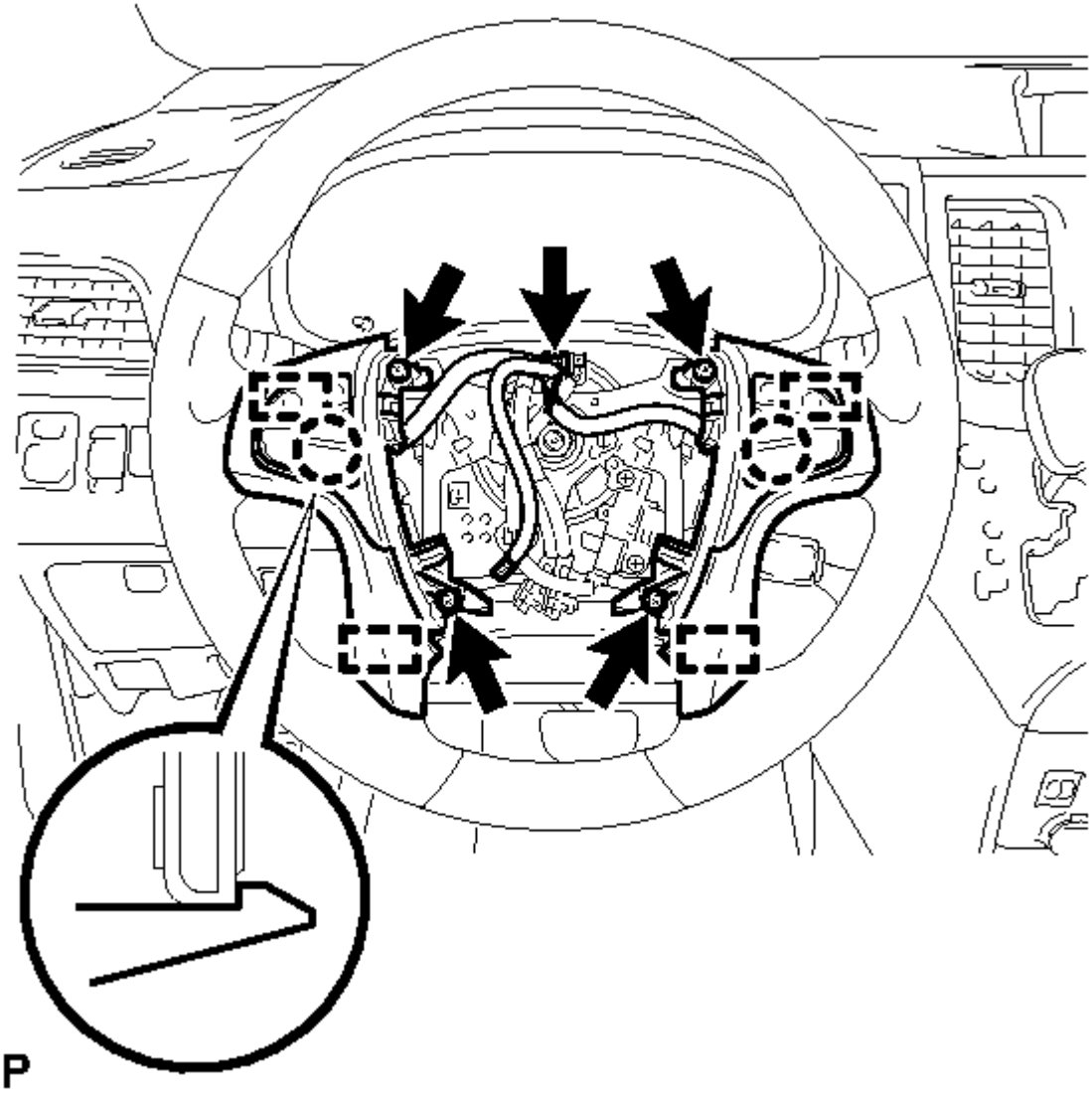


Fig. 94: Identifying Steering Pad Switch Assembly, Connector & Fasteners (w/ Microphone)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

a. Disconnect the connector.
b. Remove the 4 screws.
c. Disengage the 2 claws, 4 pins and remove the steering pad switch.

6. **REMOVE STEERING PAD SWITCH LH (w/o Microphone)**

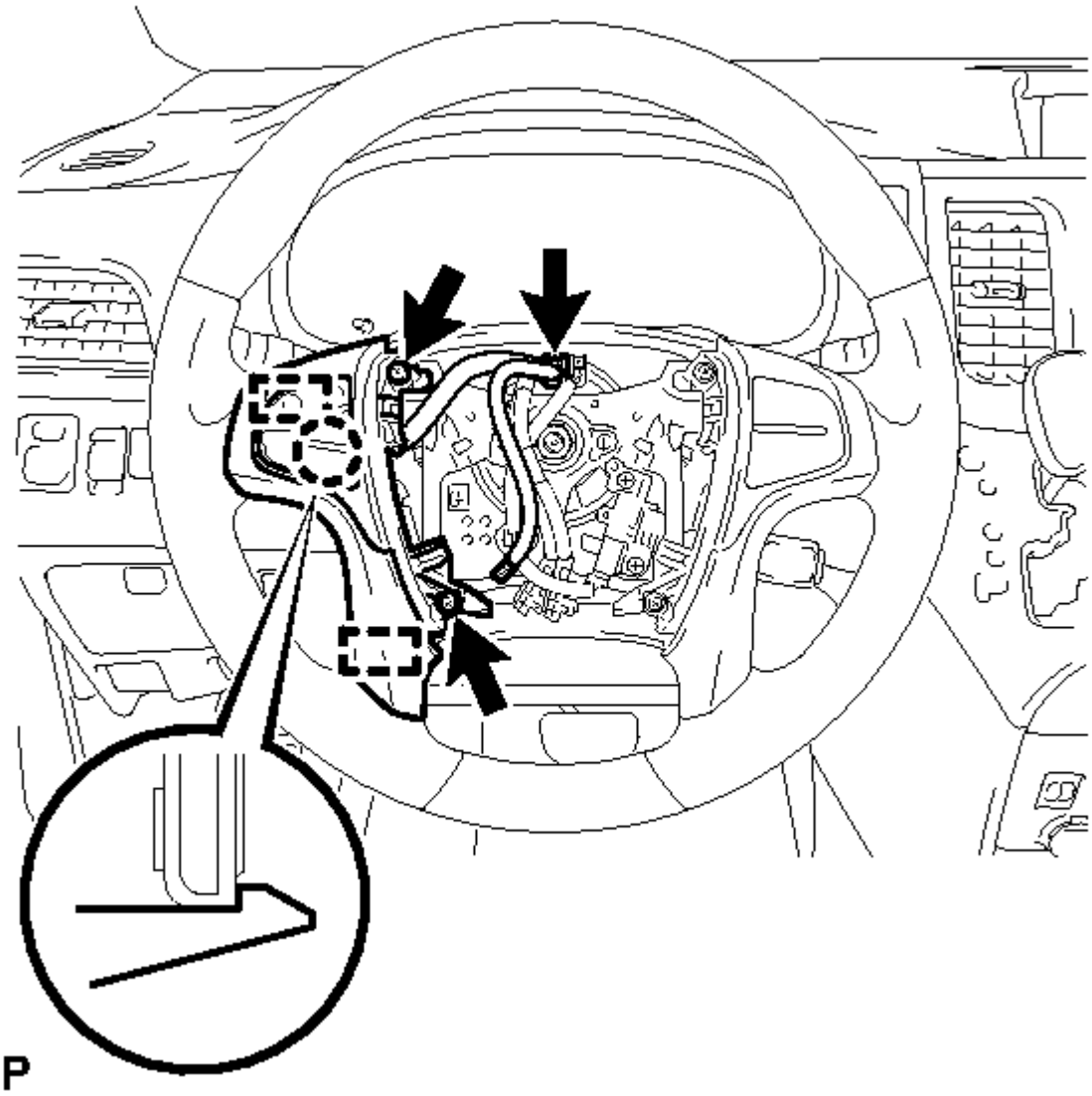


Fig. 95: Identifying Steering Pad Switch LH, Connector & Fasteners (w/o Microphone)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

a. Disconnect the connector.
b. Remove the 2 screws.
c. Disengage the claw, 2 pins and remove the steering pad switch LH.

INSPECTION

INSPECTION

1. **INSPECT STEERING PAD SWITCH ASSEMBLY (w/ Dynamic Radar Cruise Control System)**
   a. Measure the resistance according to the values in the table below.

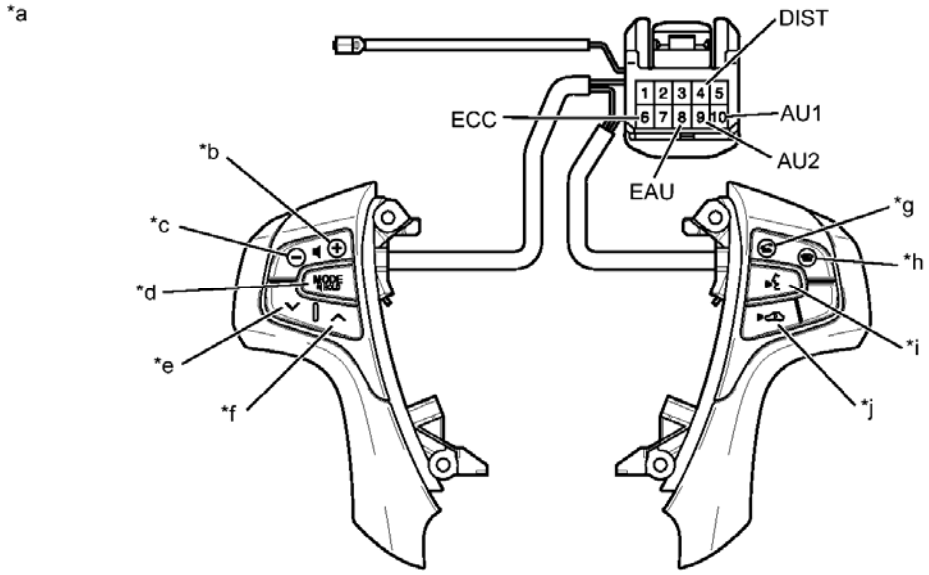


Fig. 96: Identifying Steering Pad Switch Assembly & Connector End View (w/ Dynamic Radar Cruise Control System)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

TEXT IN ILLUSTRATION

*a	Component without harness connected (Steering Pad Switch Assembly)	*b	Volume+ Switch
*c	Volume- Switch	*d	MODE Switch
*e	Seek- Switch	*f	Seek+ Switch
*g	Off Hook Switch	*h	On Hook Switch
*i	Voice Switch	*j	Distance Control Switch

Standard Resistance

Tester Connection	Condition	Specified Condition
10(AU1) - 8(EAU)	No switch is pushed	95 to 105 kohms
10(AU1) -	Seek+	Below 2.5

8(EAU)	switch is pushed	ohms
10(AU1) - 8(EAU)	Seek- switch is pushed	313 to 345 ohms
10(AU1) - 8(EAU)	Volume+ switch is pushed	950 to 1050 ohms
10(AU1) - 8(EAU)	Volume- switch is pushed	2955 to 3265 ohms
9(AU2) - 8 (EAU)	No switch pushed	95 to 105 kohms
9(AU2) - 8 (EAU)	MODE switch is pushed	Below 2.5 ohms
9(AU2) - 8 (EAU)	On Hook switch is pushed	313 to 345 ohms
9(AU2) - 8 (EAU)	Off Hook switch is pushed	950 to 1050 ohms
9(AU2) - 8 (EAU)	Voice switch is pushed	2955 to 3265 ohms
9(AU2) - 8 (EAU)	Distance control switch is pushed	95 to 105 ohms
4(DIST) - 6 (ECC)	Distance control switch is pushed	Below 2.5 ohms

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

2. **INSPECT STEERING PAD SWITCH ASSEMBLY (for Microphone without Dynamic Radar Cruise Control System)**
   a. Measure the resistance according to the values in the table below.

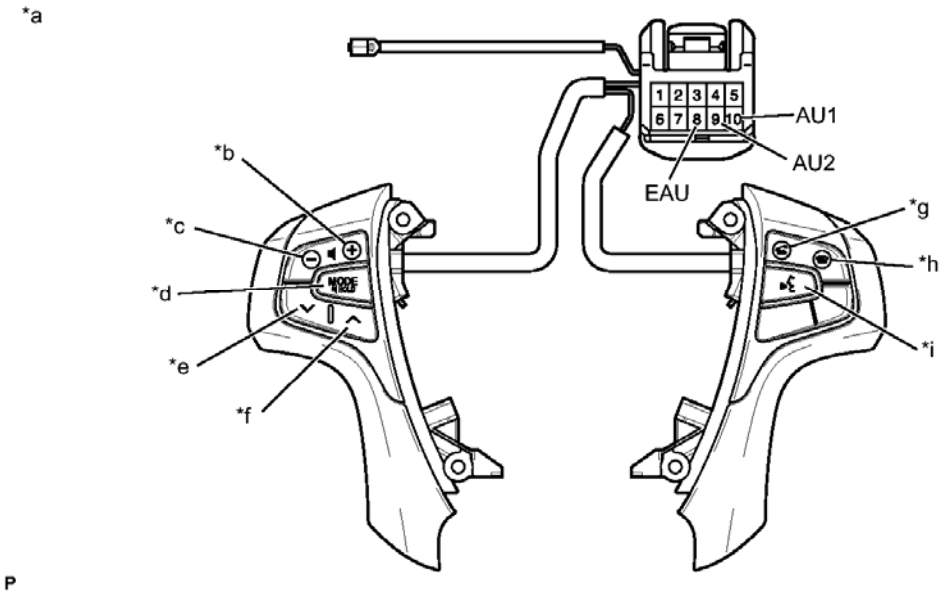


Fig. 97: Identifying Steering Pad Switch Assembly & Connector End View (For Microphone Without Dynamic Radar Cruise Control System)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

TEXT IN ILLUSTRATION

*a	Component without harness connected (Steering Pad Switch Assembly)	*b	Volume+ Switch
*c	Volume- Switch	*d	MODE Switch
*e	Seek- Switch	*f	Seek+ Switch
*g	Off Hook Switch	*h	On Hook Switch
*i	Voice Switch	-	-

Standard Resistance

Tester Connection	Condition	Specified Condition
10(AU1) - 8(EAU)	No switch is pushed	95 to 105 kohms
10(AU1) - 8(EAU)	Seek+ switch is	Below 2.5 ohms

	pushed	
10(AU1) - 8(EAU)	Seek- switch is pushed	313 to 345 ohms
10(AU1) - 8(EAU)	Volume+ switch is pushed	950 to 1050 ohms
10(AU1) - 8(EAU)	Volume- switch is pushed	2955 to 3265 ohms
9(AU2) - 8 (EAU)	No switch pushed	95 to 105 kohms
9(AU2) - 8 (EAU)	MODE switch is pushed	Below 2.5 ohms
9(AU2) - 8 (EAU)	On Hook switch is pushed	313 to 345 ohms
9(AU2) - 8 (EAU)	Off Hook switch is pushed	950 to 1050 ohms
9(AU2) - 8 (EAU)	Voice switch is pushed	2955 to 3265 ohms

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

3. **INSPECT STEERING PAD SWITCH LH (w/o Microphone)**
   a. Measure the resistance according to the values in the table below.

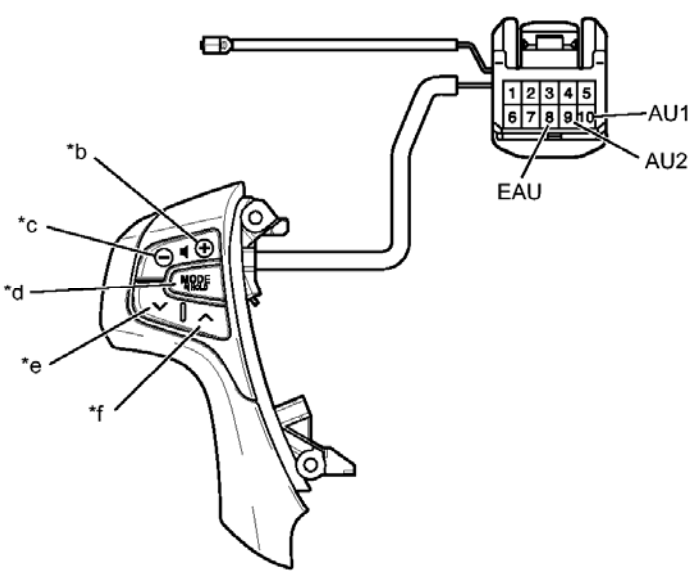


Fig. 98: Identifying Steering Pad Switch LH & Connector End View (w/o Microphone)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

TEXT IN ILLUSTRATION

*a	Component without harness connected (Steering Pad Switch Assembly)	*b	Volume+ Switch
*c	Volume- Switch	*d	MODE Switch
*e	Seek- Switch	*f	Seek+ Switch

Standard Resistance

Tester Connection	Condition	Specified Condition
10(AU1) - 8(EAU)	No switch is pushed	95 to 105 kohms
10(AU1) - 8(EAU)	Seek+ switch is pushed	Below 2.5 ohms
10(AU1) - 8(EAU)	Seek- switch is pushed	313 to 345 ohms
10(AU1) -	Volume+	950 to

8(EAU)	switch is pushed	1050 ohms
10(AU1) - 8(EAU)	Volume- switch is pushed	2955 to 3265 ohms
9(AU2) - 8 (EAU)	No switch pushed	95 to 105 kohms
9(AU2) - 8 (EAU)	MODE switch is pushed	Below 2.5 ohms

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

INSTALLATION

INSTALLATION

1. **INSTALL STEERING PAD SWITCH ASSEMBLY (w/ Microphone)**
   a. Engage the 2 claws, 4 pins and install the steering pad switch.
   b. Install the 4 screws.
   c. Connect the connector.
2. **INSTALL STEERING PAD SWITCH LH (w/o Microphone)**
   a. Engage the claw, 2 pins install the steering pad switch LH.
   b. Install the 2 screws.
   c. Connect the connector.
3. **INSTALL STEERING PAD** . Refer to **INSTALLATION - Step 1**
4. **INSTALL LOWER NO. 2 STEERING WHEEL COVER** . Refer to **INSTALLATION - Step 3**
5. **INSTALL LOWER NO. 3 STEERING WHEEL COVER** . Refer to **INSTALLATION - Step 2**
6. **CONNECT CABLE TO NEGATIVE BATTERY TERMINAL**

   Torque: 5.4 N*m (55 kgf*cm, 48 in.*lbf)

   NOTE: When disconnecting the cable, some systems need to be initialized after the cable is reconnected. Refer to INITIALIZATION .

WINDOW GLASS ANTENNA WIRE

ON-VEHICLE INSPECTION

ON-VEHICLE INSPECTION

1. **INSPECT WINDOW GLASS ANTENNA WIRE**
   a. Check for continuity of the antenna.

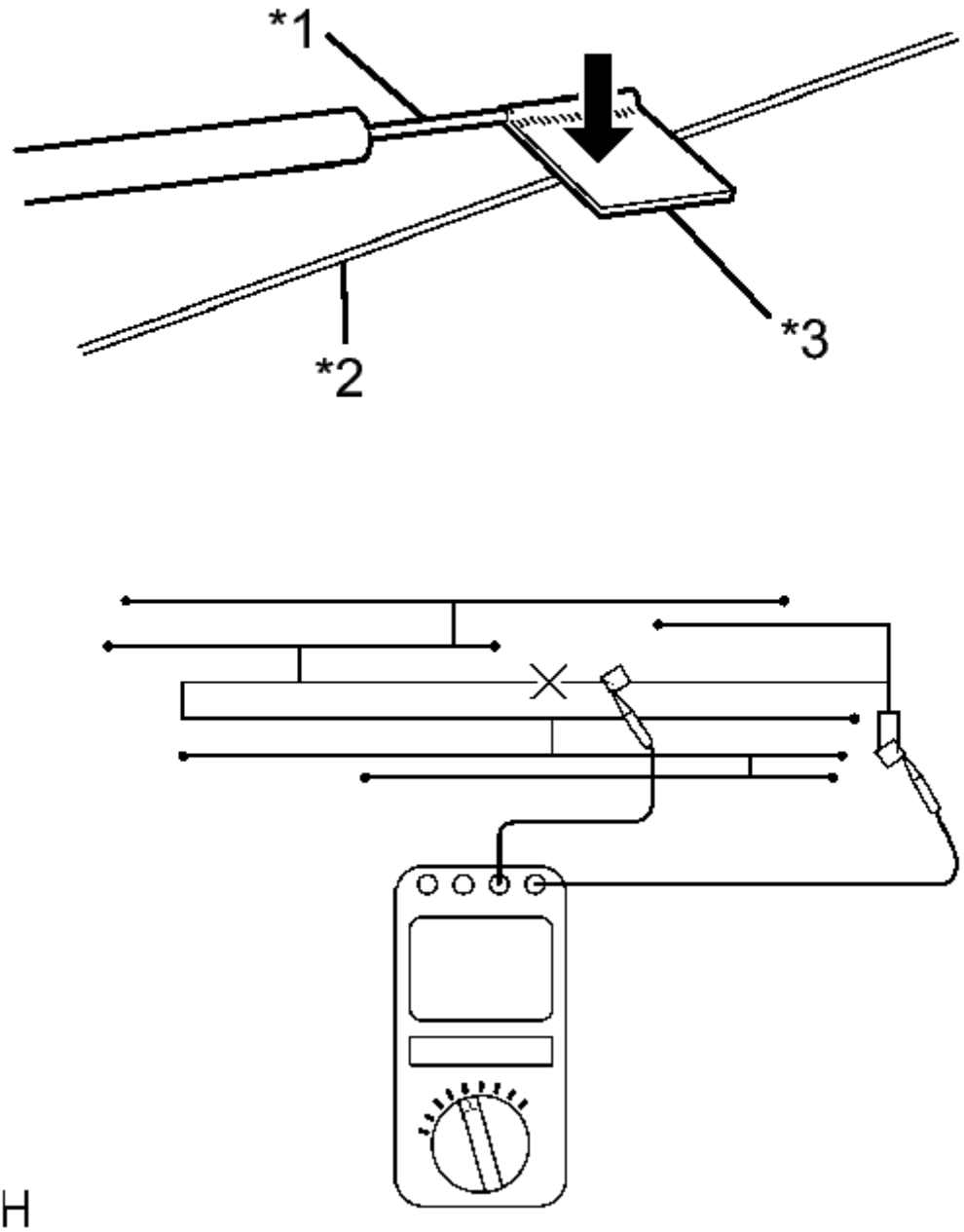


Fig. 99: Identifying Window Glass Antenna Wire
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

TEXT IN ILLUSTRATION

	Tester

*1	Probe
*2	Antenna Wire
*3	Aluminum Foil

HINT:

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

NOTE:

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

OK

There is continuity in the antenna.

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

REPAIR

REPAIR

1. **REPAIR WINDOW GLASS ANTENNA WIRE**

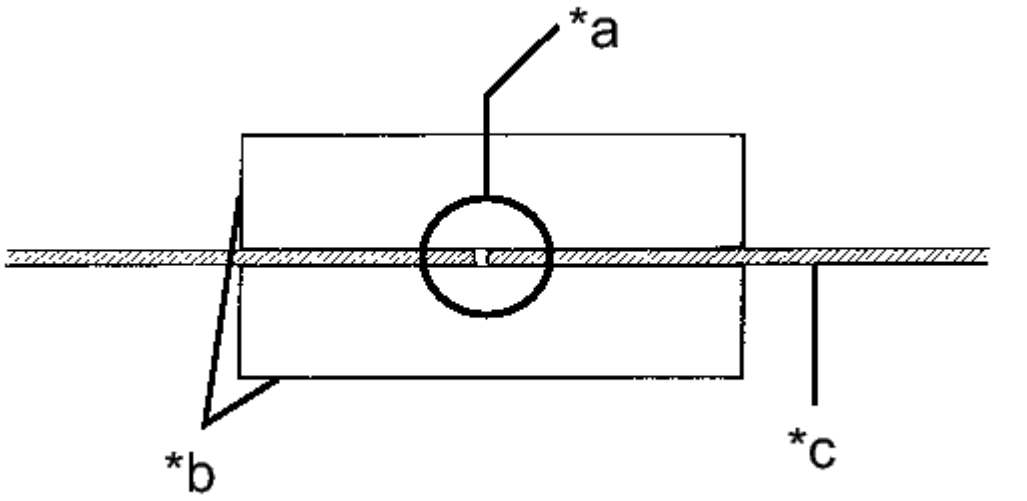


Fig. 100: Identifying Window Glass Antenna Wire Repair Area
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

TEXT IN ILLUSTRATION

*a	Repair Point
*b	Masking Tape
*c	Broken Wire

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

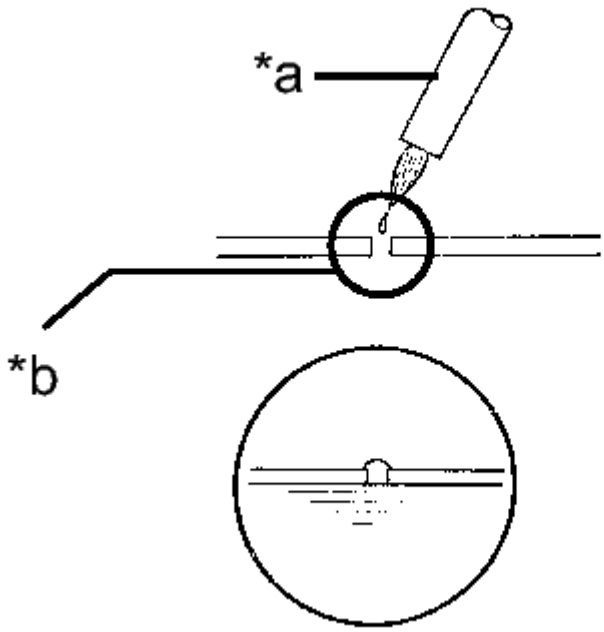


Fig. 101: Applying Repair Agent To Wire Using Fine Tip Brush
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

TEXT IN ILLUSTRATION

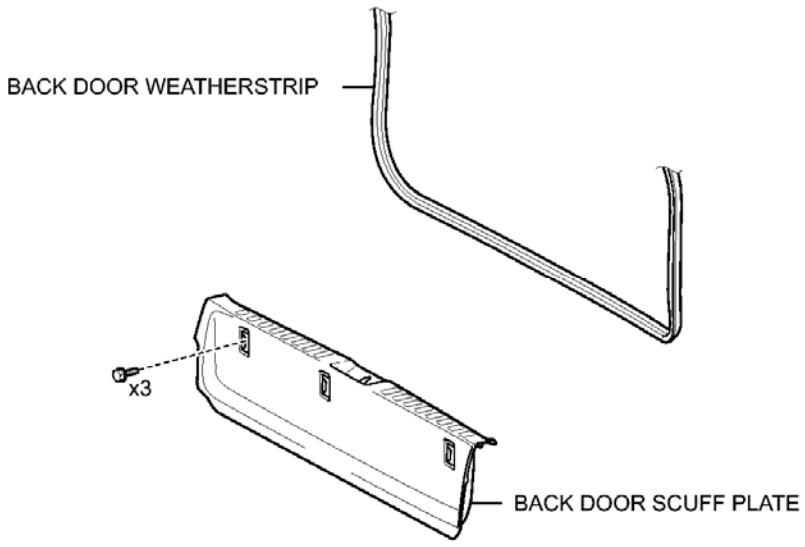
*a	Fine Tip Brush
*b	Repair Point

e. After a few minutes, remove the masking tape.

SATELLITE RADIO TUNER

COMPONENTS

ILLUSTRATION



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Fig. 102: Satellite Radio Tuner Replacement Components (1 Of 3)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

ILLUSTRATION

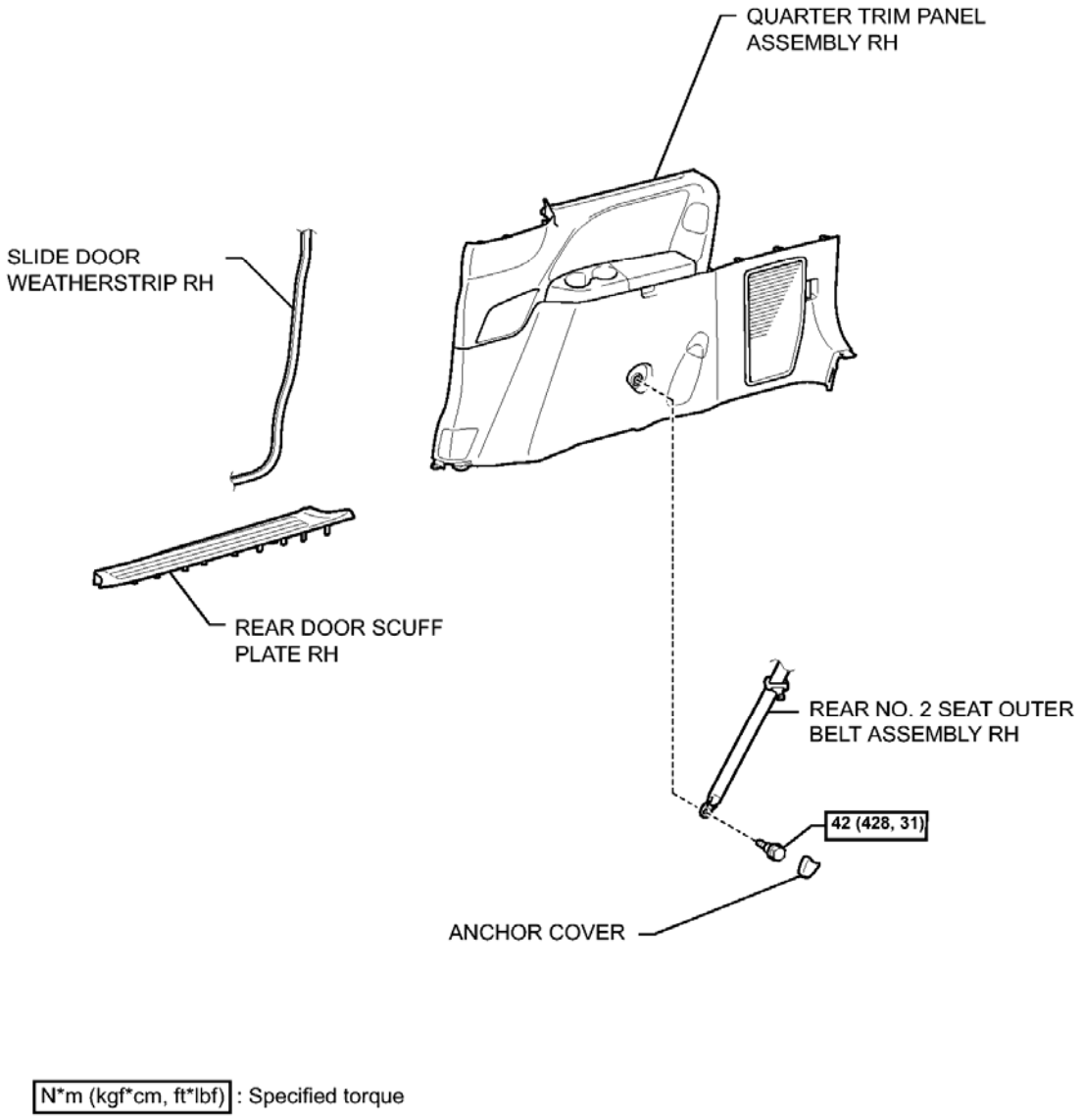
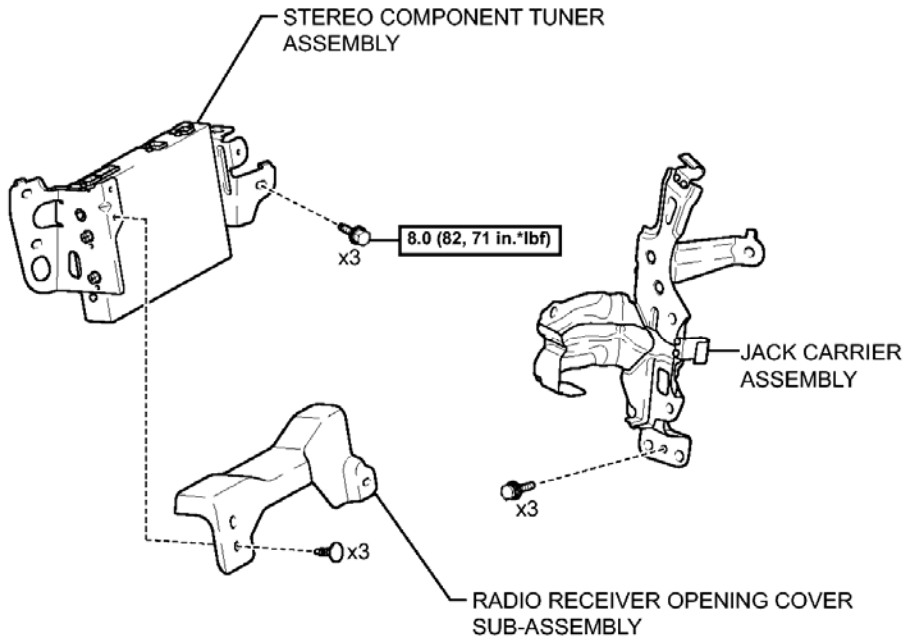


Fig. 103: Satellite Radio Tuner Replacement Components With Torque Specifications (2 Of 3)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

ILLUSTRATION



N*m (kgf*cm, ft.*lbf): Specified torque

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Fig. 104: Satellite Radio Tuner Replacement Components With Torque Specifications (3 Of 3)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL

REMOVAL

1. **SEPARATE BACK DOOR WEATHERSTRIP**
2. **REMOVE BACK DOOR SCUFF PLATE** . Refer to **REMOVAL - Step 17**
3. **SEPARATE REAR NO. 2 SEAT OUTER BELT ASSEMBLY RH**

   HINT:

   Use the same procedure as for the LH side. Refer to **REMOVAL - Step 5** .

4. **REMOVE REAR DOOR SCUFF PLATE RH** . Refer to **REMOVAL - Step 13**
5. **SEPARATE SLIDE DOOR WEATHERSTRIP RH**
6. **REMOVE QUARTER TRIM PANEL ASSEMBLY RH** . Refer to **REMOVAL - Step 26**
7. **REMOVE HUB NUT BOX WRENCH**
8. **REMOVE JACK ASSEMBLY**

9. **REMOVE JACK CARRIER ASSEMBLY**
    a. Remove the 3 bolts.

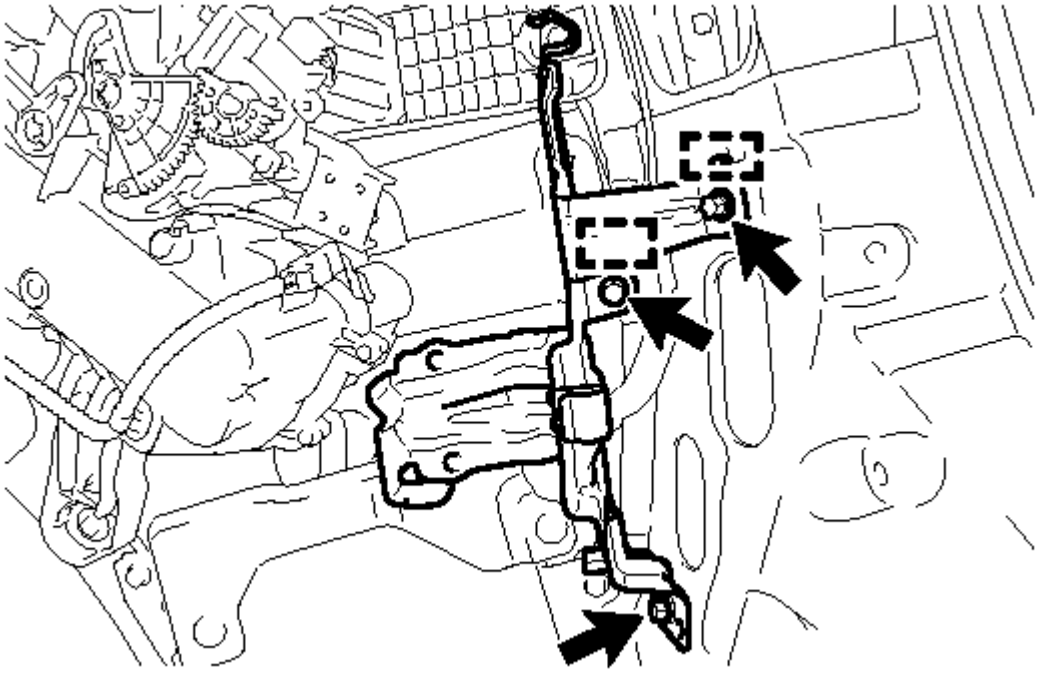


Fig. 105: Identifying Jack Carrier Assembly & Fasteners
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

    b. Disengage the 2 hooks and remove the jack carrier.
10. **REMOVE RADIO RECEIVER OPENING COVER SUB-ASSEMBLY**

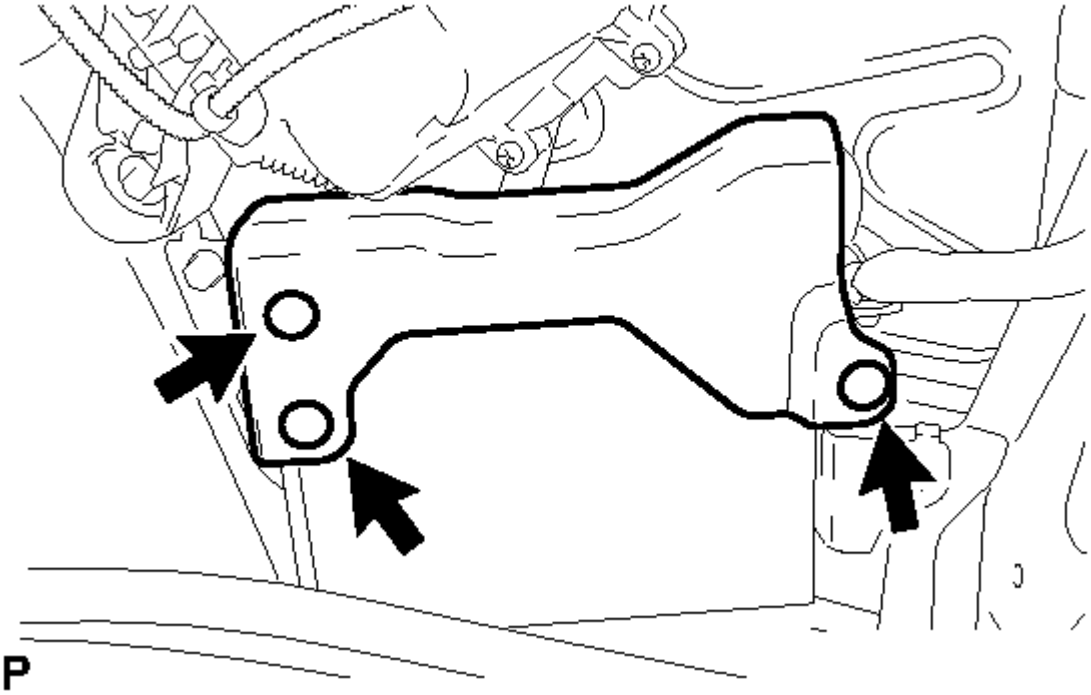


Fig. 106: Identifying Radio Receiver Opening Cover Sub-Assembly & Fasteners
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

a. Using a clip remover, remove the 3 clips and the radio receiver opening cover.

11. **REMOVE STEREO COMPONENT TUNER ASSEMBLY**

a. Disconnect the 4 connectors.

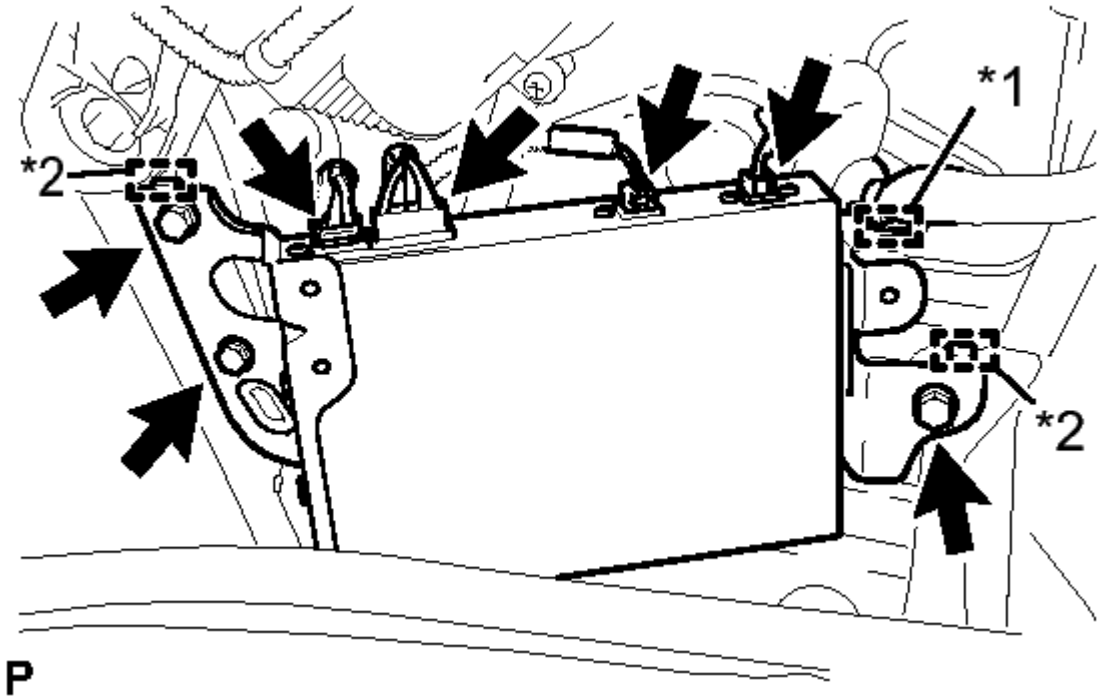


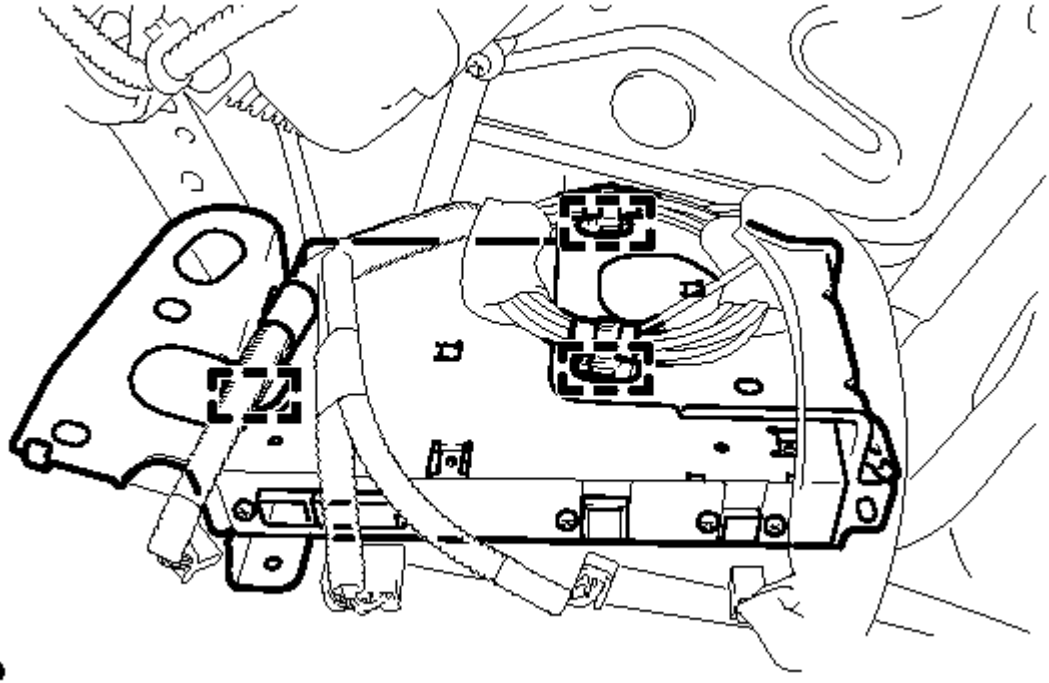
Fig. 107: Identifying Stereo Component Tuner Assembly & Fasteners
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

b. Disengage the clamp.

TEXT IN ILLUSTRATION

*1	Clamp
*2	Hook

c. Remove the 3 bolts.
d. Disengage the 2 hooks and separate the stereo component tuner.
e. Disengage the 3 clamps and remove the stereo component tuner.



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Fig. 108: Identifying Stereo Component Tuner Assembly Hooks & Clamps
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSTALLATION

INSTALLATION

1. **INSTALL STEREO COMPONENT TUNER ASSEMBLY**
   a. Engage the 3 clamps onto the stereo component tuner.
   b. Engage the 2 hooks and install the stereo component tuner with the 3 bolts.

Torque: 8.0 N*m (82 kgf*cm, 71 in.*lbf)

c. Engage the clamp.
d. Connect the 4 connectors.

2. **INSTALL RADIO RECEIVER OPENING COVER SUB-ASSEMBLY**
   a. Install the radio receiver opening cover with the 3 clips.
3. **INSTALL JACK CARRIER ASSEMBLY**
   a. Engage the 2 hooks and install the jack carrier with the 3 bolts.
4. **INSTALL JACK ASSEMBLY**
5. **INSTALL HUB NUT BOX WRENCH**
6. **INSTALL QUARTER TRIM PANEL ASSEMBLY RH** . Refer to **INSTALLATION - Step 14**
7. **INSTALL SLIDE DOOR WEATHERSTRIP RH**
8. **INSTALL REAR DOOR SCUFF PLATE RH** . Refer to **INSTALLATION - Step 27**
9. **INSTALL REAR NO. 2 SEAT OUTER BELT ASSEMBLY RH**

   HINT:

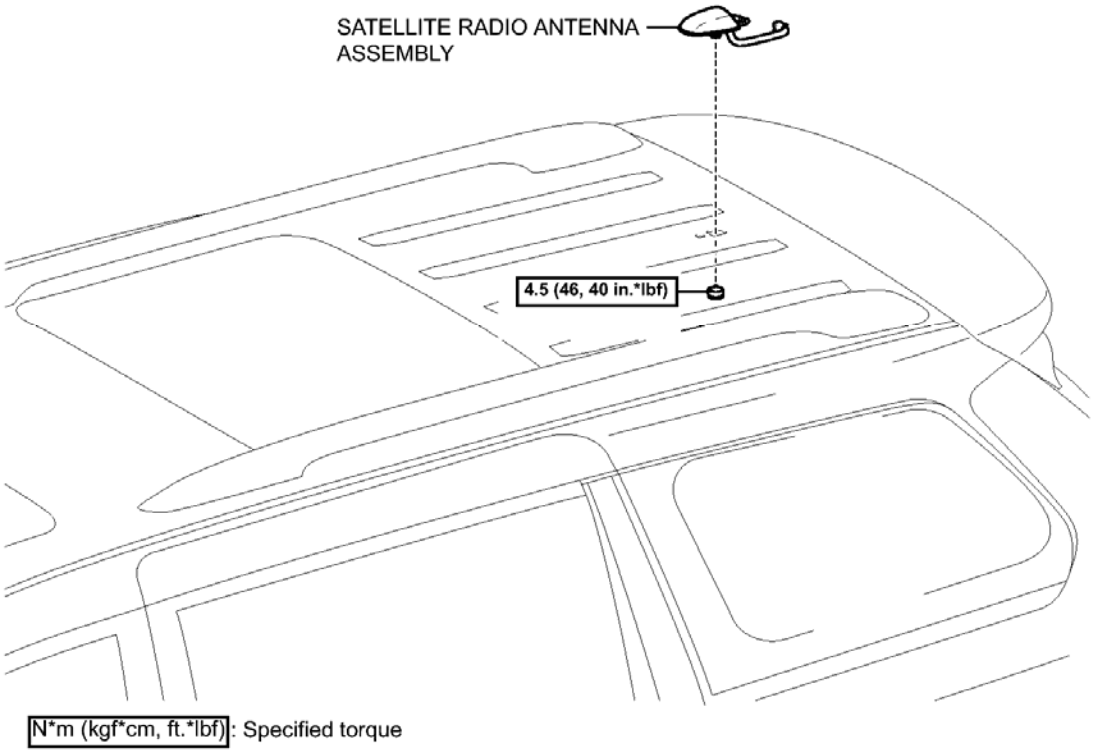
   Use the same procedure as for the LH side. Refer to **INSTALLATION - Step 3** .

10. **INSTALL BACK DOOR SCUFF PLATE** . Refer to **INSTALLATION - Step 24**
11. **INSTALL BACK DOOR WEATHERSTRIP**

SATELLITE RADIO ANTENNA

COMPONENTS

ILLUSTRATION



P

Fig. 109: Satellite Radio Antenna Replacement Components With Torque Specifications
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL

REMOVAL

1. **REMOVE ROOF HEADLINING ASSEMBLY**

   Refer to **REMOVAL**

2. **REMOVE SATELLITE RADIO ANTENNA ASSEMBLY**

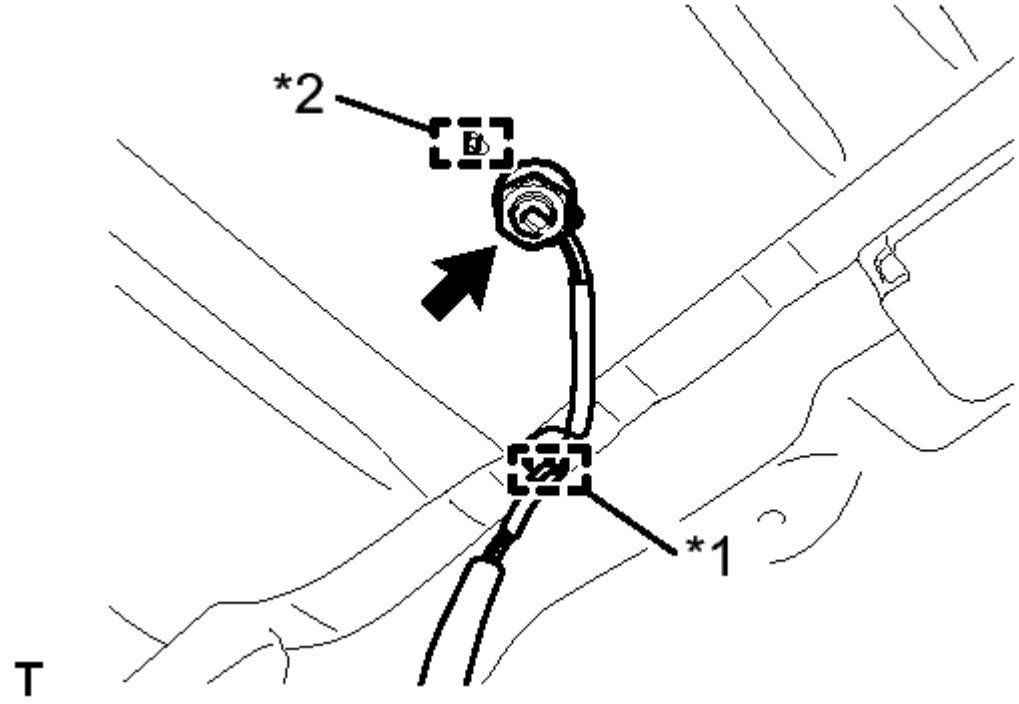


Fig. 110: Identifying Satellite Antenna Assembly Clamp, Nut & Guide
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

a. Disconnect the connector.

HINT:

If the vehicle is equipped without safety connect system and with navigation system, disconnect the connector.

b. Disconnect the wire harness from the clamp.

TEXT IN ILLUSTRATION

*1	Clamp
*2	Guide

c. Remove the nut and the satellite radio antenna.

INSTALLATION

INSTALLATION

1. **INSTALL SATELLITE RADIO ANTENNA ASSEMBLY**

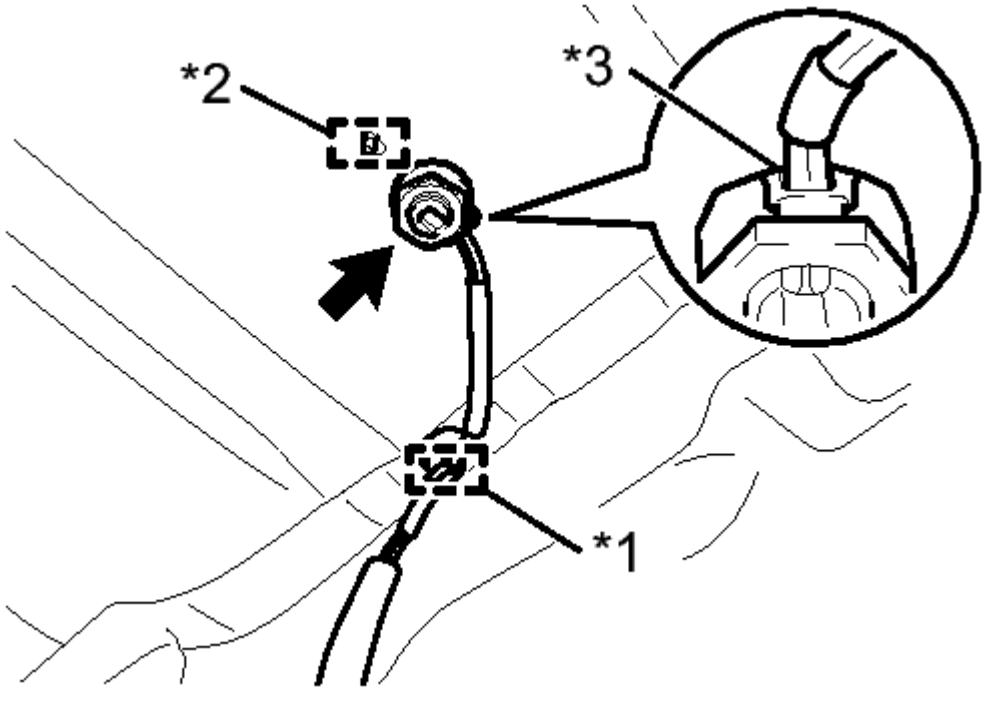


Fig. 111: Inspecting Satellite Antenna Assembly Clamp, Guide & Cutout
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

a. Place the antenna cord in the cutout of the antenna nut.

TEXT IN ILLUSTRATION

*1	Clamp
*2	Guide
*3	Cutout

b. Install the satellite radio antenna with the antenna nut.

Torque: 4.5 N*m (46 kgf*cm, 40 in.*lbf)

c. Connect the wire harness onto the clamp.
d. Connect the connector.

HINT:

If the vehicle is equipped without safety connect system and with navigation system, connect the connector.

2. **INSTALL ROOF HEADLINING ASSEMBLY**

Refer to **INSTALLATION**