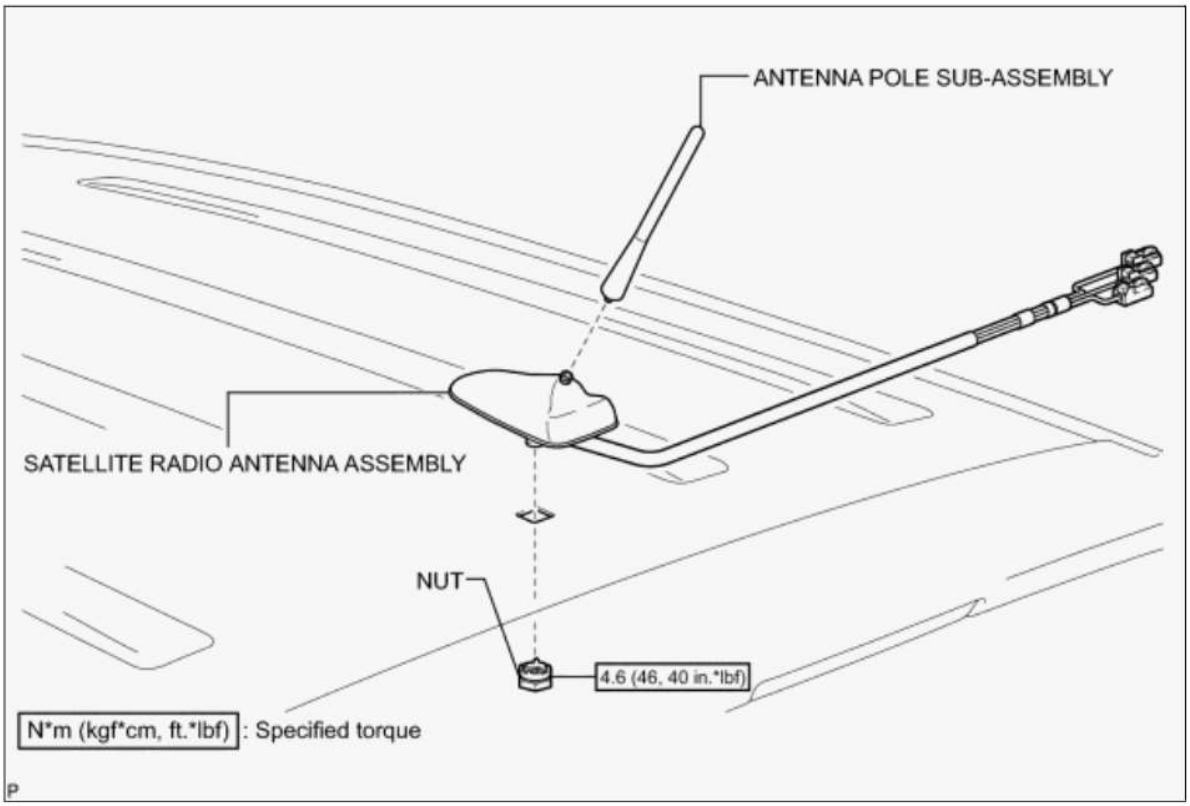
Last Modified: 9-7-2011	6.4 K	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM0000024Y400JX
Title: AUDIO / VISUAL: AMPLIFIER ANTENNA: COMPONENTS (2011 RAV4)		

COMPONENTS

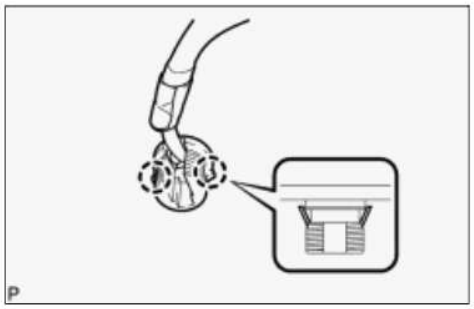
ILLUSTRATION



Last Modified: 9-7-2011	6.4 A	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM0000024Y300KX
Title: AUDIO / VISUAL: AMPLIFIER ANTENNA: INSTALLATION (2011 RAV4)		

INSTALLATION

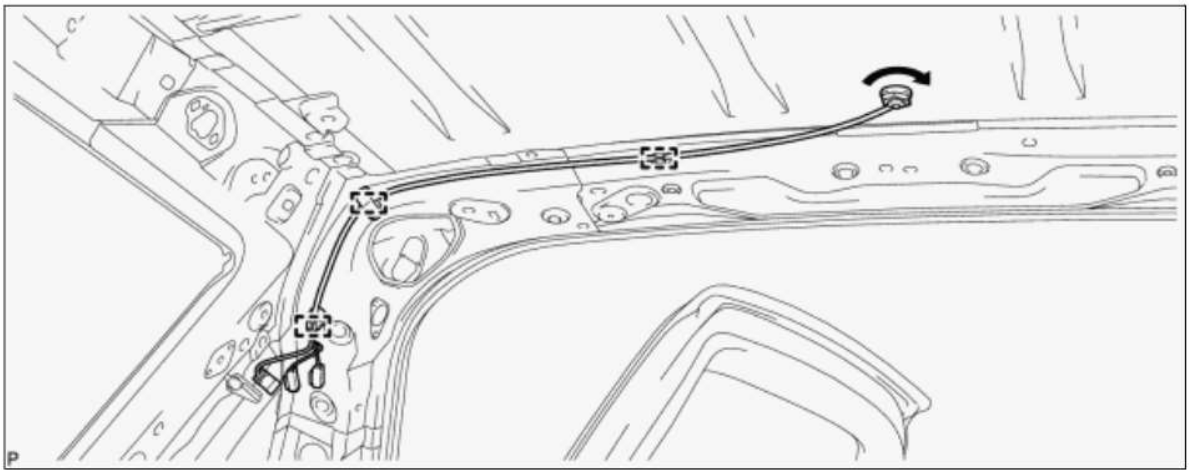
1. INSTALL SATELLITE RADIO ANTENNA ASSEMBLY



(a) Attach the 2 claws to install the satellite radio antenna.

(b) Install the nut.

Torque: 4.6 N·m (46 kgf·cm, 40in·lbf)



(c) Attach the 3 clamps.

2. INSTALL ROOF HEADLINING ASSEMBLY

(a) Install the roof headlining INFO .

3. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Last Modified: 9-7-2011	6.4 A	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM0000024Y500KX
Title: AUDIO / VISUAL: AMPLIFIER ANTENNA: REMOVAL (2011 RAV4)		

REMOVAL

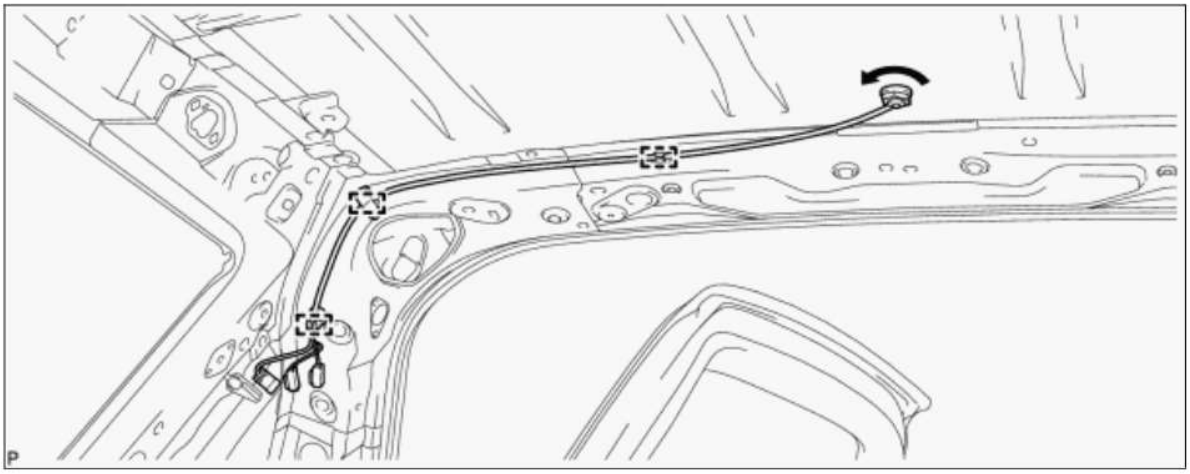
1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

2. REMOVE ROOF HEADLINING ASSEMBLY

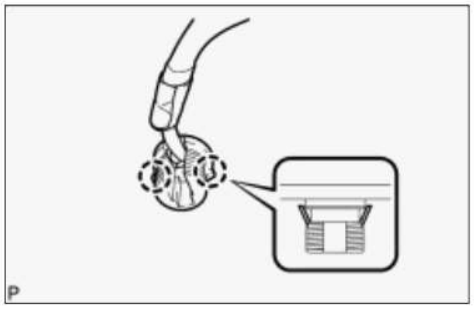
(a) Remove the roof headlining INFO .

3. REMOVE SATELLITE RADIO ANTENNA ASSEMBLY

(a) Detach the 3 clamps.



(b) Remove the nut.



(c) Detach the 2 claws and remove the satellite radio antenna.

Last Modified: 9-7-2011	6.4 C	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000003PRC002X
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: 01-21,01-22: ROM Error (2011 RAV4)		

DTC	**01-21**	**ROM Error**

DTC	**01-22**	**RAM Error**

DESCRIPTION

DTC CODE	DTC DETECTION CONDITION	TROUBLE AREA
01-21	A malfunction exists in ROM.	Radio receiver
01-22	A malfunction exists in RAM.	

INSPECTION PROCEDURE

HINT:

After the inspection is completed, clear the DTCs.

PROCEDURE

1.	**REPLACE RADIO RECEIVER ASSEMBLY**

(a) Replace the radio receiver INFO .

NEXT END

Last Modified: 9-7-2011	6.4 C	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000001WWG00NX
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: 01-D5,01-D8,01-D9,01-DA,01-DB,01-DE: Absence of Registration Unit (2011 RAV4)		

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, *4)	When either condition below is met: • Device that sub-code shows is (was) disconnected from system when turning ignition switch ON or ACC • Communication condition with device that code shows cannot be obtained when engine starts	• Power source circuit of component shown by sub-code • AVC-LAN circuit between radio receiver and component shown by sub-code • Component shown by sub-code
01-D8 (*2, *4)	Device indicated by sub-code is (was) disconnected from system after engine starts	
01-D9 (*1, *4)	Device that had functioned before engine stopped is (was) disconnected from system when ignition switch is (was) in ON or ACC	

DTC CODE	DTC DETECTION CONDITION	TROUBLE AREA
01-DA (*4)	When either condition below is met: • No response is identified when changing mode • Detected when sound and image do not change by switch operation	
01-DB (*1, *4)	Dual alarm is detected	
01-DE (*3, *4)	Code is stored when slave device has been disconnected after engine starts	

HINT:

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

NOTICE:

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

INSPECTION PROCEDURE

NOTICE:

Be sure to read DESCRIPTION before performing the following procedures.

PROCEDURE

1.	**CHECK "RADIO RECEIVER COMMUNICATION ERROR" IN FLOWCHART**

(a) Refer to the radio receiver communication error INFO .

NEXT END

Last Modified: 9-7-2011	6.4 C	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000001WWH00MX
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: 01-D6,01-D7: No Master (2011 RAV4)		

DTC	**01-D6**	**No Master**

DTC	**01-D7**	**Connection Check Error**

DESCRIPTION

DTC CODE	DTC DETECTION CONDITION	TROUBLE AREA
01-D6 (*1)	When either condition below is met: • The device that stores (stored) the code has (had) been disconnected when the ignition switch is in the ACC or ON position • The master device has (had) been disconnected when this code is stored	• Radio receiver power source circuit • Power source circuit of the component which has stored this code • AVC-LAN circuit between the radio receiver and the component which has stored this code • Component which has stored this code • Radio receiver
01-D7 (*2)	When either condition below 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 failure is detected, a trouble code may be recorded 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 the ACC or ON position, this code is stored.

NOTICE:

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

INSPECTION PROCEDURE

NOTICE:

Be sure to read DESCRIPTION before performing the following procedures.

PROCEDURE

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

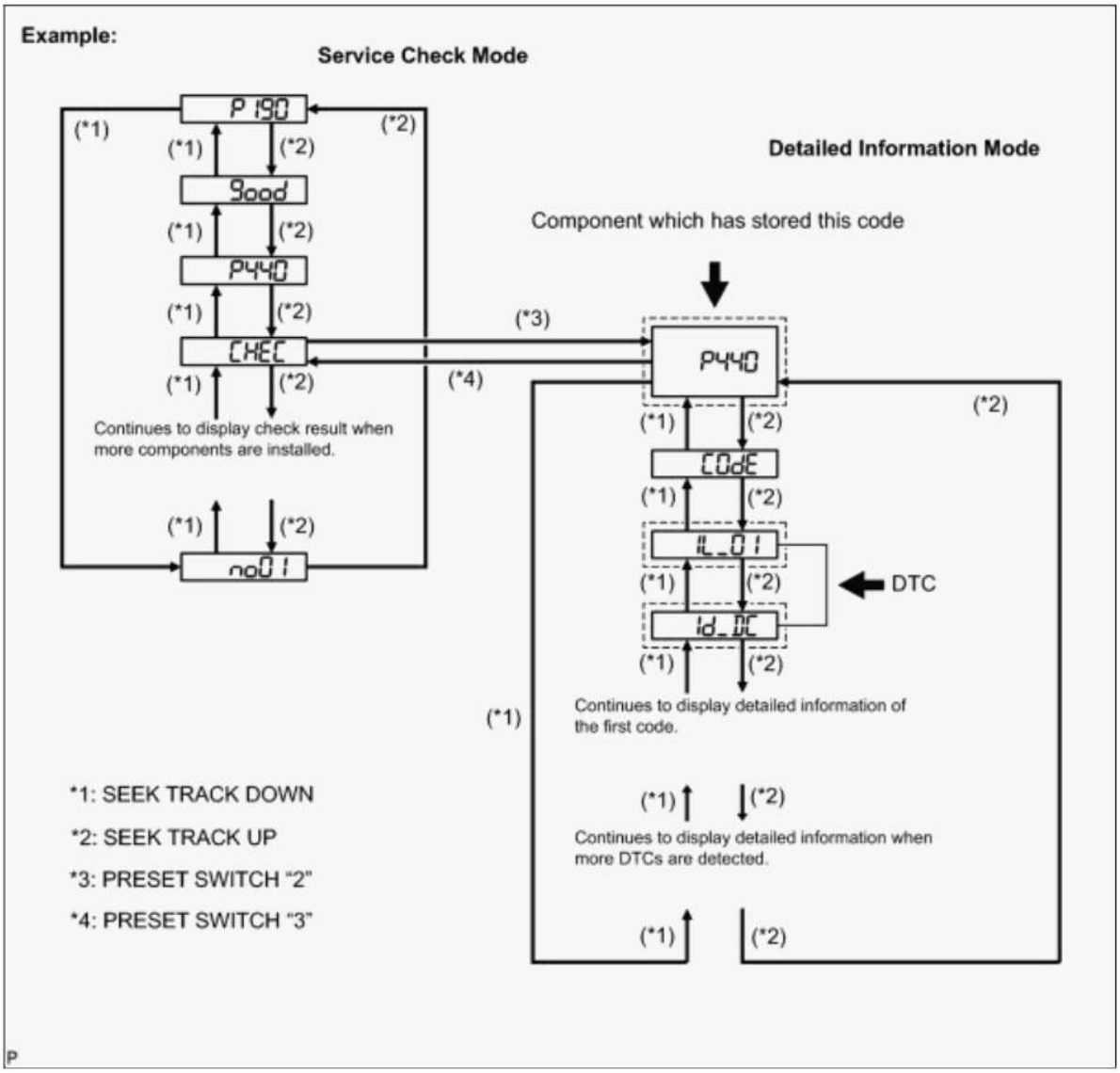
(a) Refer to the radio receiver power source circuit INFO .

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

NEXT

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

(a) Enter the diagnostic mode.



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

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

Component Table:

COMPONENT	PHYSICAL ADDRESS
Stereo component amplifier	440

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 the "DTC CHECK/CLEAR" INFO .

NEXT

3.	**CHECK POWER SOURCE CIRCUIT OF COMPONENT WHICH HAS STORED THIS CODE**

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

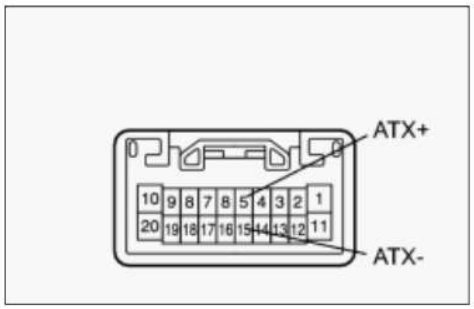
If the power source circuit is operating normally, proceed to the next step.

Component Table:

COMPONENT	PROCEED TO
Stereo component amplifier	Stereo component amplifier power source circuit INFO

NEXT

4.	**INSPECT RADIO RECEIVER ASSEMBLY**



(a) Disconnect the E62 receiver connector.

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

Standard Resistance:

TESTER CONNECTION	SPECIFIED CONDITION
5 (ATX+) - 15 (ATX-)	60 to 80 Ω

NG ▶ **REPLACE RADIO RECEIVER ASSEMBLY**

OK

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

HINT:

For details of the connectors, refer to the "Terminals of ECU" INFO **.**

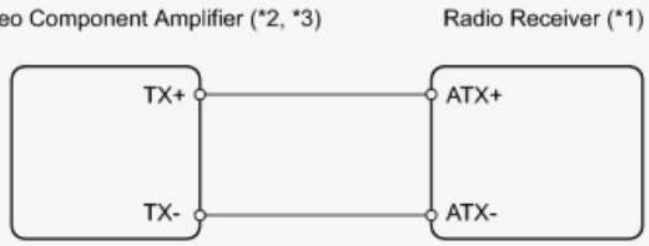
(a) Referring to the AVC-LAN wiring diagram below, check the AVC-LAN circuit between the radio receiver and the component which has stored this code.

(1) Check for an open or short in the AVC-LAN circuit between the radio receiver and the component which has stored this code.

OK:

There is no open or short circuit.

AVC-LAN Wiring Diagram:



*1: Master Unit

*2: Slave Unit

*3: for Separate Type Amplifier System

NG ▶ **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

6.	**REPLACE COMPONENT WHICH HAS STORED THIS CODE**

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

OK:

Same problem does not occur.

NG ▶ **REPLACE RADIO RECEIVER ASSEMBLY**

OK ▶ **END**

Last Modified: 9-7-2011	6.4 C	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000001WWL00NX
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: 01-DC: Transmission Error (2011 RAV4)		

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 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 started again.**

NOTICE:

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

INSPECTION PROCEDURE

NOTICE:

Be sure to read DESCRIPTION before performing the following procedures.

PROCEDURE

1.	**CHECK FOR DTC OF OTHER COMPONENTS**

(a) Check if the component shown by sub-code is displayed in the check result of the other components.

(1) Check if "01-DC" is output for the other components.

(2) If "01-DC" is output for any other components, check if the same physical address is displayed.

Result

RESULT	PROCEED TO
"01-DC" is output and the same physical address is displayed	A
"01-DC" is not output or the same physical address is not displayed	B

HINT:

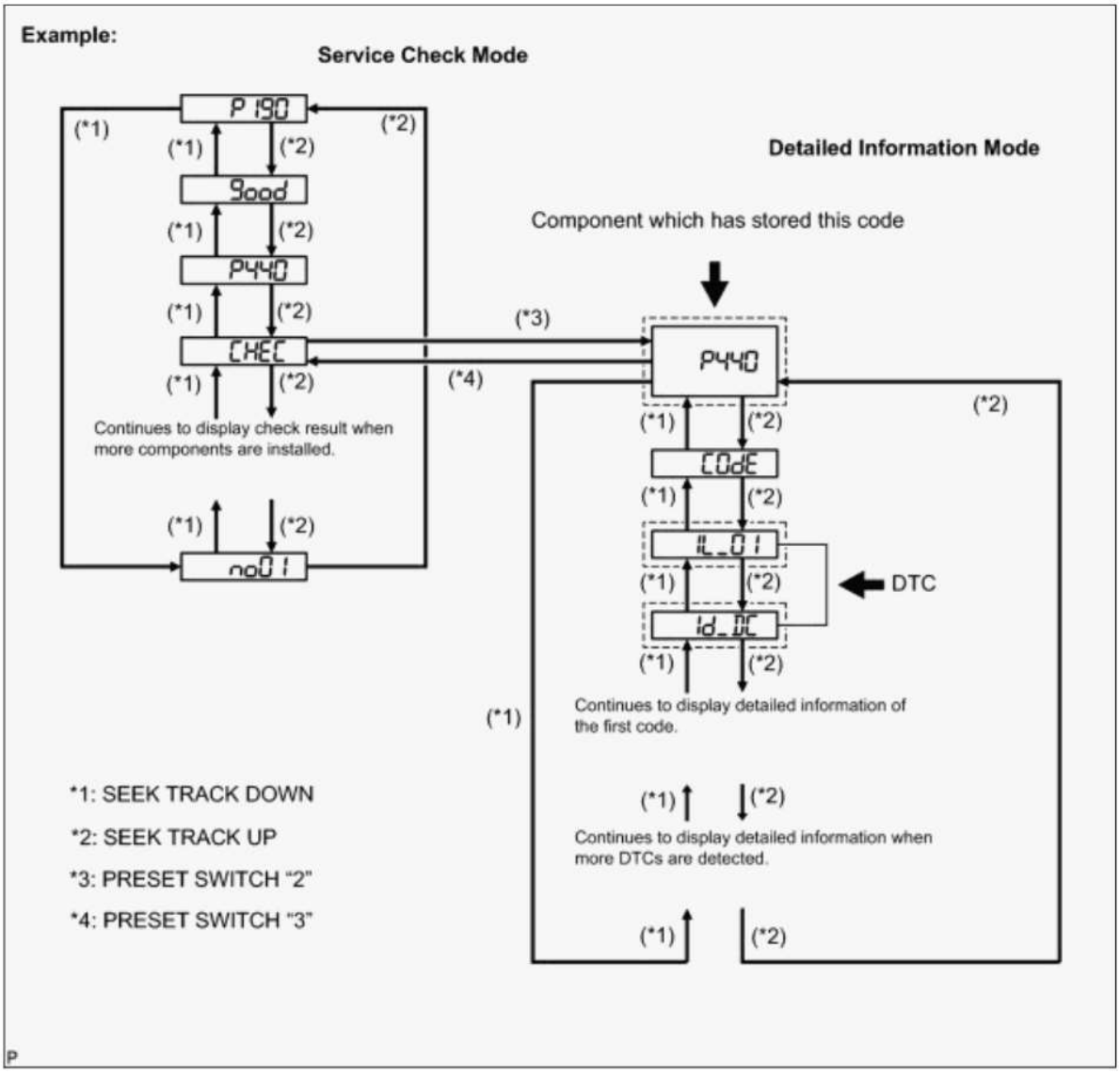
For the list of the components shown by sub-codes, refer to the table in the next step.

B ▶ CLEAR DTC

A ▼

2.	IDENTIFY THE COMPONENT WHICH HAS STORED THIS CODE

(a) Enter the diagnostic mode.



(b) Press the preset switch "2" to change to "Detailed Information Mode".

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

Component Table:

COMPONENT	PHYSICAL ADDRESS
Stereo component amplifier	440
Radio receiver	190

HINT:

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

NEXT

3.	CHECK COMPONENT WHICH HAS STORED THIS CODE

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

Component Table:

COMPONENT	PROCEED TO
Stereo component amplifier	Stereo component amplifier communication error INFO
Radio receiver	Radio receiver communication error INFO

NEXT **END**

4.	CLEAR DTC

(a) Clear the DTC INFO .

HINT:

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

NEXT

5.	**RECHECK DTC**

(a) Recheck the DTC and check if the same trouble code occurs again.

OK:
Malfunction disappears.

NG ▶ **CHECK COMPONENT WHICH HAS STORED THIS CODE**

OK ▶ **END**

Last Modified: 9-7-2011	6.4 C	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000001WWM00MX
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: 01-DD,01-E1: Master Reset (2011 RAV4)		

DTC	**01-DD**	**Master Reset**

DTC	**01-E1**	**Voice Processing Device ON Error**

DESCRIPTION

DTC CODE	DTC DETECTION CONDITION	TROUBLE AREA
01-DD (*1)	Device that should be master has been disconnected after engine start	• Radio receiver power source circuit • AVC-LAN circuit between radio receiver and component which has stored this code • Radio receiver • Component which has stored this code
01-E1 (*2)	AMP device records that 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 the START position again.
- *2: Even if no failure is detected, a trouble code may be recorded depending on the battery condition or engine start voltage.

NOTICE:

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

INSPECTION PROCEDURE

NOTICE:

Be sure to read DESCRIPTION before performing the following procedures.

PROCEDURE

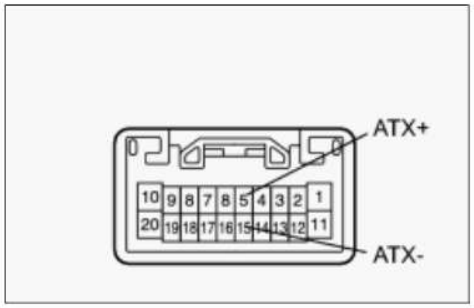
1.	**CHECK RADIO RECEIVER POWER SOURCE CIRCUIT**

(a) Refer to the radio receiver power source circuit INFO .

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

NEXT

2.	**INSPECT RADIO RECEIVER ASSEMBLY**



(a) Disconnect the E62 receiver connector.

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

Standard Resistance:

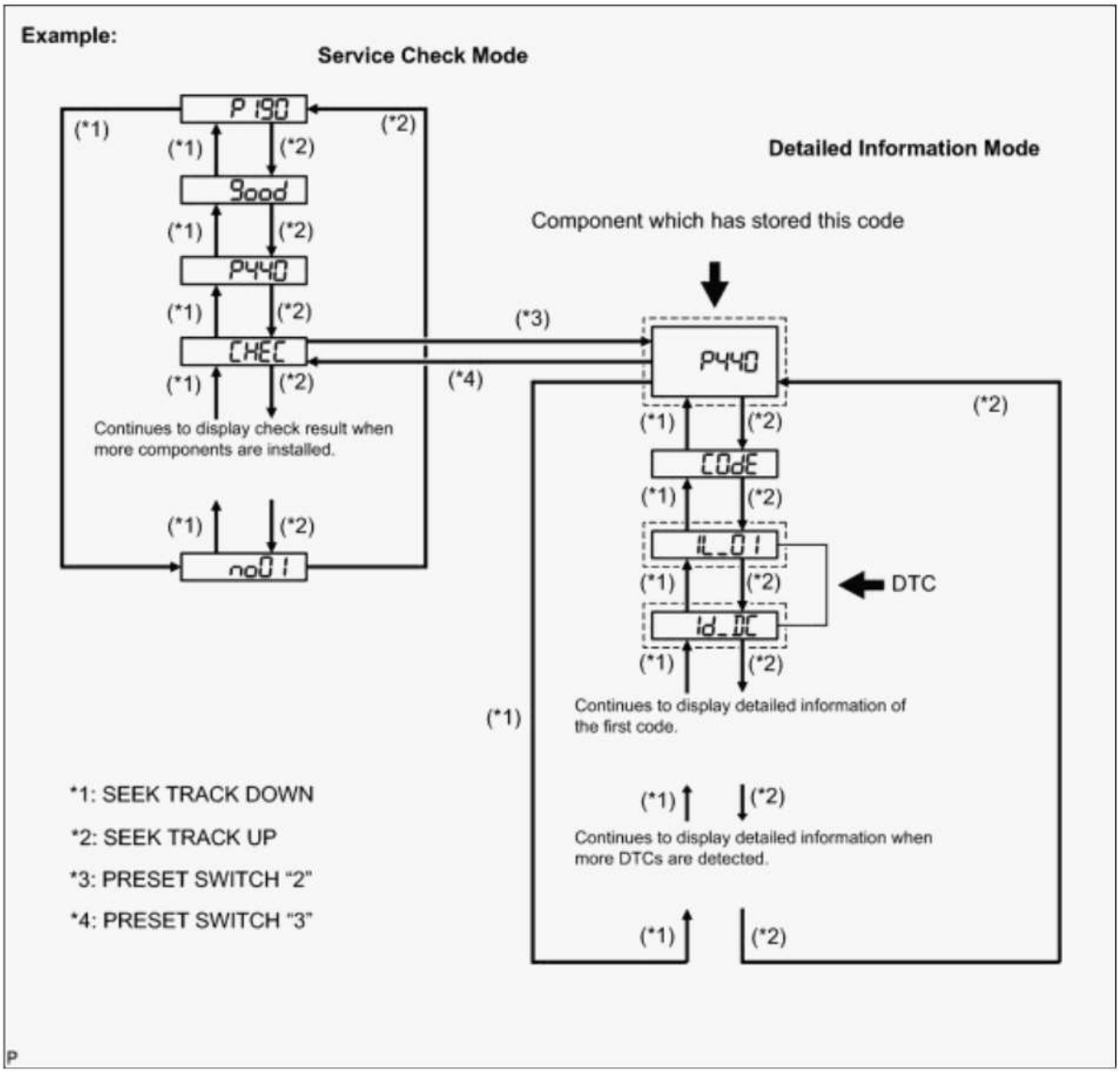
TESTER CONNECTION	SPECIFIED CONDITION
5 (ATX+) - 15 (ATX-)	60 to 80 Ω

NG ▶ **REPLACE RADIO RECEIVER ASSEMBLY**

OK

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

(a) Enter the diagnostic mode.



(b) Press the preset switch "2" to change to "Detailed Information Mode".

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

Component Table:

COMPONENT	PHYSICAL ADDRESS
Stereo component amplifier	440

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 the "DTC CHECK/CLEAR" INFO .

NEXT

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

HINT:

For details of the connectors, refer to the "Terminals of ECU" INFO .

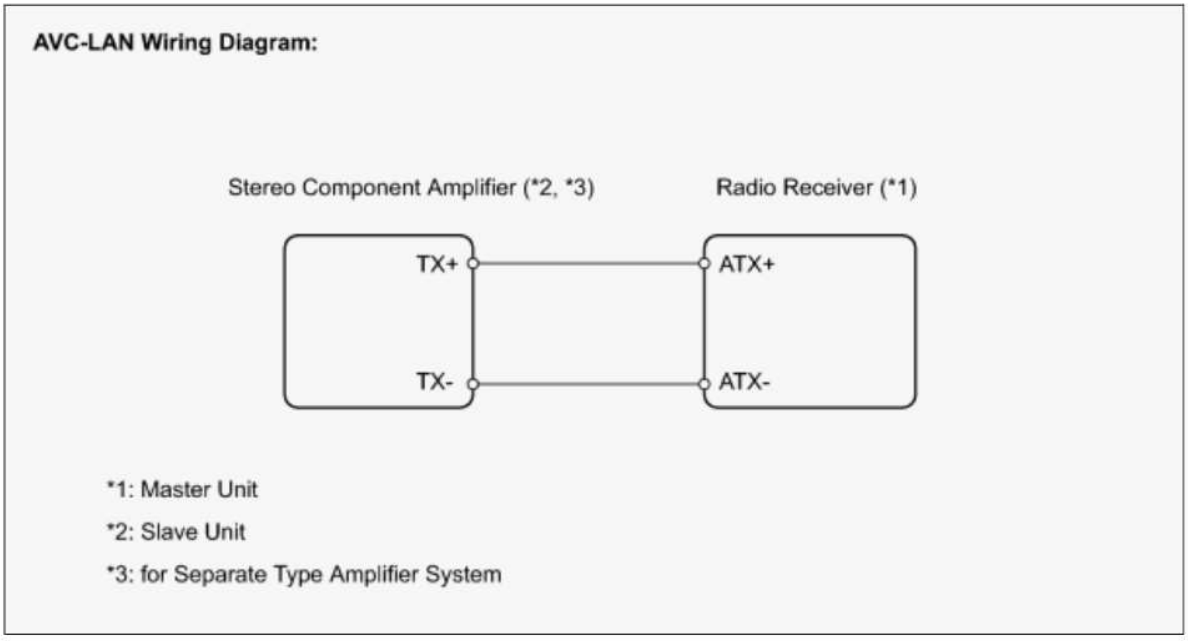
(a) Referring to the AVC-LAN wiring diagram below, check the AVC-LAN circuit between the radio receiver and the component which has stored this code.

(1) Check for an open or short in the AVC-LAN circuit between the radio receiver and the component which has stored this code.

OK:

There is no open or short circuit.

AVC-LAN Wiring Diagram:



NG ▶ **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

5.	**REPLACE RADIO RECEIVER ASSEMBLY**

(a) Replace the radio receiver with a normal one and check if the same problem occurs again.

OK:

Same problem does not occur.

NG ▶ **REPLACE COMPONENT WHICH HAS STORED THIS CODE**

OK ▶ **END**

Last Modified: 9-7-2011	6.4 C	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000001WWN00MX
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: 01-DF: Master Error (2011 RAV4)		

DTC	**01-DF**	**Master Error**

DESCRIPTION

DTC CODE	DTC DETECTION CONDITION	TROUBLE AREA
01-DF*	When either condition below is met: • Device with display fails and master is switched to audio device • Also when communication error between sub-master (audio) and master occurs, this code is stored	• Radio receiver power source circuit • AVC-LAN circuit between radio receiver and component which has stored this code • Radio receiver • 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 in the ACC or ON position, this code is stored.**

NOTICE:

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

INSPECTION PROCEDURE

NOTICE:

Be sure to read DESCRIPTION before performing the following procedures.

PROCEDURE

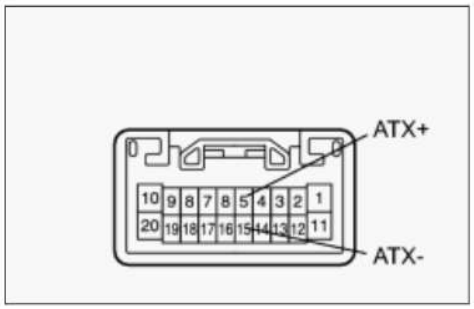
1.	**CHECK RADIO RECEIVER POWER SOURCE CIRCUIT**

(a) Refer to the radio receiver power source circuit INFO .

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

NEXT

2.	**INSPECT RADIO RECEIVER ASSEMBLY**



(a) Disconnect the E62 receiver connector.

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

Standard Resistance:

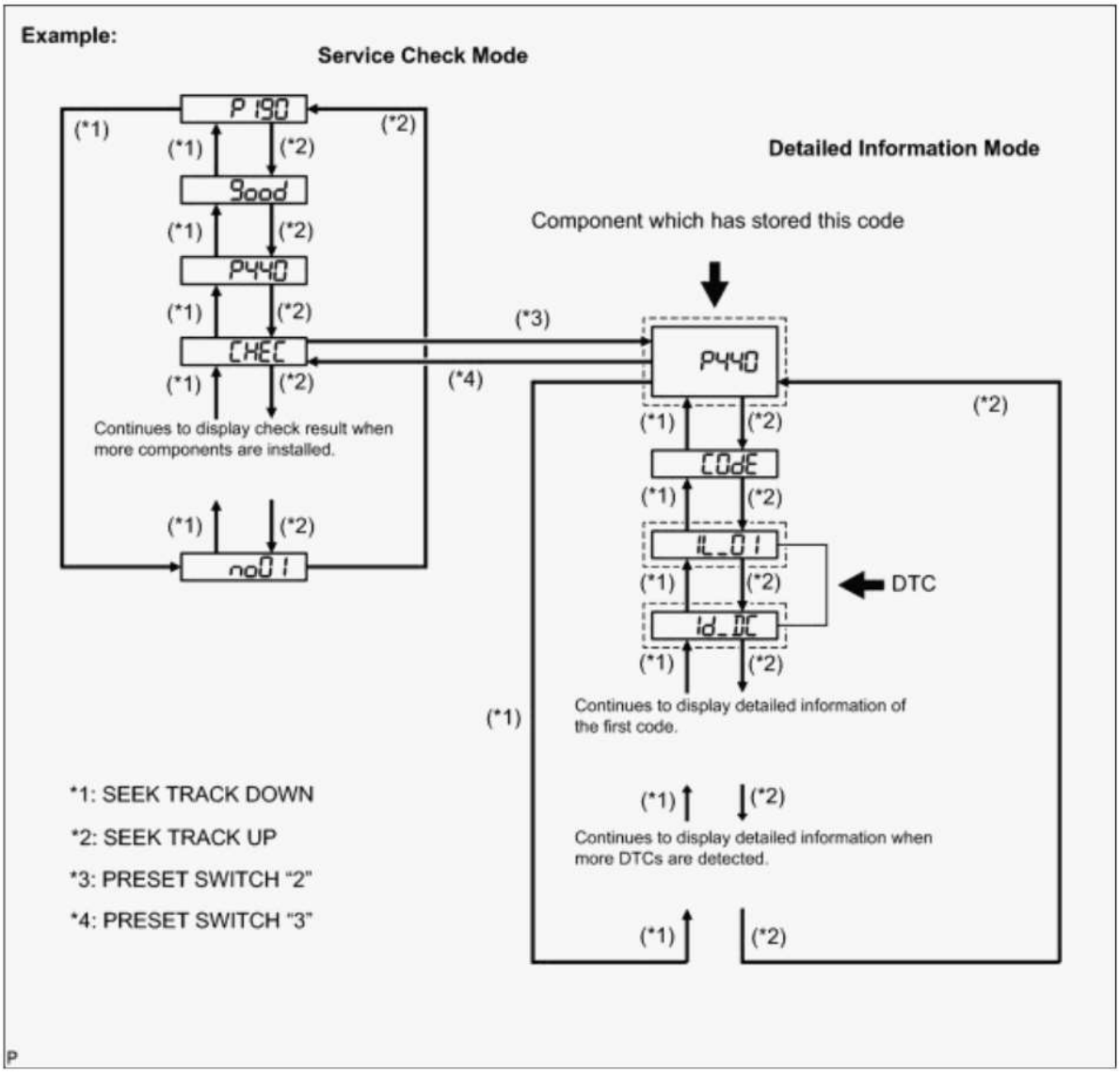
TESTER CONNECTION	SPECIFIED CONDITION
5 (ATX+) - 15 (ATX-)	60 to 80 Ω

NG ▶ **REPLACE RADIO RECEIVER ASSEMBLY**

OK

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

(a) Enter the diagnostic mode.



(b) Press the preset switch "2" to change to "Detailed Information Mode".

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

Component Table:

COMPONENT	PHYSICAL ADDRESS
Stereo component amplifier	440

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 the "DTC CHECK/CLEAR" INFO .

NEXT

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

HINT:

For details of the connectors, refer to the "Terminals of ECU" INFO .

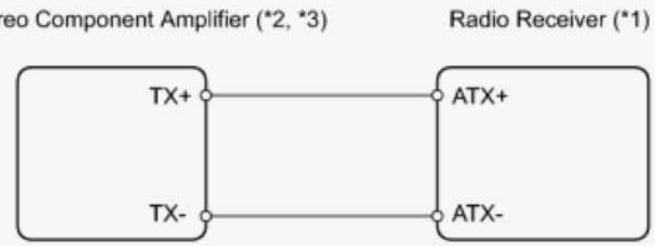
(a) Referring to the AVC-LAN wiring diagram below, check the AVC-LAN circuit between the radio receiver and the component which has stored this code.

(1) Check for an open or short in the AVC-LAN circuit between the radio receiver and the component which has stored this code.

OK:

There is no open or short circuit.

AVC-LAN Wiring Diagram:



*1: Master Unit

*2: Slave Unit

*3: for Separate Type Amplifier System

NG ▶ **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

5.	**INSPECT RADIO RECEIVER ASSEMBLY**

(a) Replace the radio receiver with a normal one and check if the same problem occurs again.

OK:

Same problem does not occur.

NG ▶ **REPLACE COMPONENT WHICH HAS STORED THIS CODE**

OK ▶ **END**

Last Modified: 9-7-2011	6.4 C	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000001WWO00MX
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: 01-E0,01-E3,01-E4: Registration Complete Indication Error (2011 RAV4)		

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 master device cannot be received	-
01-E3	Registration demand signal from slave device is output. Or registration demand signal is output by receiving connection confirmation signal from sub-master device.	-
01-E4	Multiple frame transmission is incomplete	-

HINT:

Even if no failure is detected, a trouble code may be recorded 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.





Last Modified: 9-7-2011	6.4 C	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000001WWP00MX
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: 01-E2: ON / OFF Indication Parameter Error (2011 RAV4)		

DTC	**01-E2**	**ON / OFF Indication Parameter Error**

DESCRIPTION

DTC CODE	DTC DETECTION CONDITION	TROUBLE AREA
01-E2	Command for ON/OFF control from the master device has a problem	Radio receiver

INSPECTION PROCEDURE

HINT:

After the inspection is completed, clear the DTCs.

PROCEDURE

1.	**REPLACE RADIO RECEIVER ASSEMBLY**

NEXT END

Last Modified: 9-7-2011	6.4 C	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000001YYZ08GX
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: 57-47: Bluetooth Module Initialization Failed (2011 RAV4)		

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

DESCRIPTION

DTC CODE	DTC DETECTION CONDITION	TROUBLE AREA
57-47	• "Bluetooth" module is not installed. • Problem with "Bluetooth" module • Problem in communication line to "Bluetooth" module	Radio receiver

INSPECTION PROCEDURE

HINT:

After the inspection is completed, clear the DTCs.

PROCEDURE

1.	**REPLACE RADIO RECEIVER ASSEMBLY**

NEXT END

Last Modified: 9-7-2011	6.4 C	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM00000200N055X
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: 60-10,60-11: AM Tuner PLL does not Lock (2011 RAV4)		

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
60-11	FM tuner PLL (phase locked loop) synchronization is impossible.	

INSPECTION PROCEDURE

HINT:

After the inspection is completed, clear the DTCs.

PROCEDURE

1.	**ADJUST RADIO RECEIVER ASSEMBLY**

NEXT END

Last Modified: 9-7-2011	6.4 C	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM00000200Q05DX
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: 60-42-60-44,60-50: Tuner Power Source Error (2011 RAV4)		

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
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 INFO .

NEXT

2.	**RECHECK DTC**

(a) Recheck for DTCs and check if the same trouble occurs again.

HINT:

If DTCs are detected frequently, replace the radio receiver.

OK:
Malfunction disappears.

NG ▶ **REPLACE RADIO RECEIVER ASSEMBLY**

OK ▶ **END**

Last Modified: 9-7-2011	6.4 C	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000001YV100MX
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: 62-7D-62-7F,63-7D-63-7F: Disc Playback Problem (2011 RAV4)		

DTC	**62-7D**	**Disc Playback Problem**

DTC	**62-7E**	**No Playback File on Disc**

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	**When either condition below is met:** • Incompatible MP3/WMA file • File extension is MP3/WMA, but header information cannot be read and playback is not possible	• CD • Radio receiver
62-7E	**When either condition below is met:** • No audio data is recorded on disc • No playable files (MP3/WMA)	
62-7F	Copyright protection exists and playback is not possible	

DTC CODE	DTC DETECTION CONDITION	TROUBLE AREA
63-7D	**When either condition below is met:** • Incompatible MP3/WMA file • File extension is MP3/WMA, but header information cannot be read and playback is not possible	
63-7E	**When either condition below is met:** • No audio data is recorded on disc • No playable files (MP3/WMA)	
63-7F	Copyright protection exists and playback is not possible	

INSPECTION PROCEDURE

HINT:

After the inspection is completed, clear the DTCs.

PROCEDURE

1.	**REPLACE DISC**

(a) Insert disc that has playable files, and check if it can play normally.

HINT:

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

OK:
Disc plays normally.

NG ▶ **REPLACE RADIO RECEIVER ASSEMBLY**

OK ▶ **DISC IS FAULTY**

Last Modified: 9-7-2011	6.4 C	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000001WWQ00MX
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: 62-10-62-12,63-10-63-12: CD Player Mechanical Error (2011 RAV4)		

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	Mechanical error in CD player is detected while CD is not being inserted or ejected.	Radio receiver
62-11	CD insertion or ejection failed.	
62-12	CD read problem occurs.	
63-10	Mechanical error in CD changer is detected while CD is not being inserted or ejected.	
63-11	CD insertion or ejection failed.	
63-12	CD read problem occurs.	

INSPECTION PROCEDURE

HINT:

After the inspection is completed, clear the DTCs.

PROCEDURE

1.	**REPLACE RADIO RECEIVER ASSEMBLY**

NEXT END

Last Modified: 9-7-2011	6.4 C	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000001WWR00NX
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: 62-40,63-40: No Disc (2011 RAV4)		

DTC	**62-40**	**No Disc**

DTC	**63-40**	**No Disc**

DESCRIPTION

DTC CODE	DTC DETECTION CONDITION	TROUBLE AREA
62-40	No disc is inserted.	Radio receiver
63-40	No disc is inserted.	

INSPECTION PROCEDURE

HINT:

After the inspection is completed, clear the DTCs.

PROCEDURE

1.	**CHECK RADIO RECEIVER ASSEMBLY**

(a) Check if a disc is inserted.

OK:
A disc is inserted.

NG ▶ **END (Insert a disk)**

OK ▶ **REPLACE RADIO RECEIVER ASSEMBLY**

Last Modified: 9-7-2011	6.4 C	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000001WWS00MX
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: 62-41,62-42,63-41,63-42: Wrong Disc (2011 RAV4)		

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	Unsuitable disc is inserted.	• CD • Radio receiver
62-42	Disc cannot be read.	
63-41	Unsuitable disc is inserted.	
63-42	Disc cannot be read.	

INSPECTION PROCEDURE

HINT:

After the inspection is completed, clear the DTCs.

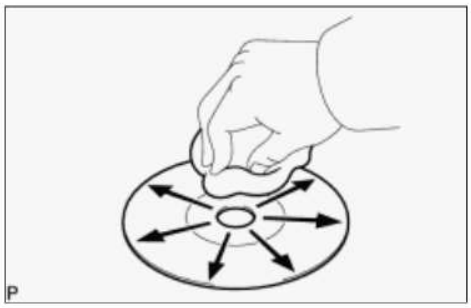
PROCEDURE

1.	**DISC CLEANING**

(a) Disc cleaning

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

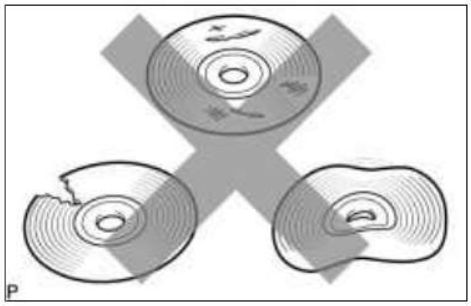
NOTICE:



Do not use a conventional record cleaner or antistatic preservative.

NEXT

2.	**CHECK DISC**



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

OK:

No deformation or cracks on the disc.

NG ▶ **DISC IS FAULTY**

OK

3.	**REPLACE DISC WITH ANOTHER AND RECHECK**

(a) Replace the disc with another and recheck.

(1) Replace the disc with a normal one.

(2) Clear DTC INFO .

(3) Recheck DTCs and check if the same trouble occurs again.

OK:

Malfunction disappears.

NG ▶ **REPLACE RADIO RECEIVER ASSEMBLY**

OK ▶ **END**

Last Modified: 9-7-2011	6.4 C	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000001WWT00MX
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: 62-43,63-43: CD-ROM Abnormal (2011 RAV4)		

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

NG ▶ CD IS FAULTY

OK

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

(a) Replace the CD with another and recheck.

(1) Replace the CD with a normal one.

(2) Clear the DTC INFO .

(3) Recheck DTCs and check if the same trouble occurs again.

OK:
Malfunction disappears.

NG ▶ **REPLACE RADIO RECEIVER ASSEMBLY**

OK ▶ **END**

Last Modified: 9-7-2011	6.4 C	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000001WWU00MX
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: 62-44,62-48,62-50,63-44,63-48,63-50: CD Abnormal (2011 RAV4)		

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	Operation error in CD mechanism	Radio receiver
62-48	Excess current is present in CD player	
62-50	Malfunction in insertion/ejection system	
63-44	Operation error in CD mechanism	
63-48	Excess current is present in CD changer	
63-50	Malfunction in insertion/ejection system	

INSPECTION PROCEDURE

HINT:

After the inspection is completed, clear the DTCs.

PROCEDURE

1.	**CLEAR DTC**

(a) Clear the DTC INFO .

NEXT

2.	**RECHECK DTC**

(a) Recheck DTCs and check if the same trouble occurs again.

HINT:

If DTCs are detected frequently, replace the radio receiver.

OK:
Malfunction disappears.

NG ▶ **REPLACE RADIO RECEIVER ASSEMBLY**

OK ▶ **END**

Last Modified: 9-7-2011	6.4 C	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000001WWV00MX
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: 62-45,62-51,62-52,63-45,63-51,63-52: Eject Error (2011 RAV4)		

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	Disc cannot be ejected.	Radio receiver
62-51	Mechanical error occurs during elevator operation.	
62-52	Disc cannot be clamped.	
63-45	Magazine cannot be ejected.	
63-51	Mechanical error occurs during elevator operation.	
63-52	Disc cannot be clamped.	

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 ▶ **REPLACE RADIO RECEIVER ASSEMBLY**

OK ▶ **END**

Last Modified: 9-7-2011	6.4 C	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000001WWW00MX
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: 62-46,63-46: Scratched / Reversed Disc (2011 RAV4)		

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 CD surface or CD is set upside down.	• CD • Radio receiver
63-46	Scratches or dirt is found on CD surface or CD is set upside down.	

INSPECTION PROCEDURE

HINT:

After the inspection is completed, clear the DTCs.

PROCEDURE

1.	**CHECK THAT CD IS INSERTED PROPERLY**

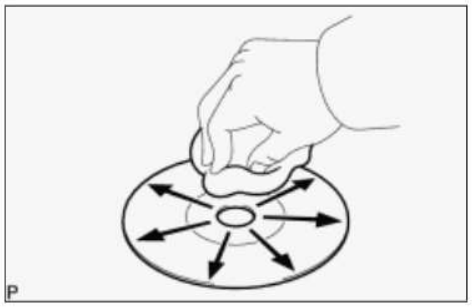
(a) Check whether or not the CD is inserted upside down.

OK:
CD is properly inserted.

NG ▶ **SET CD PROPERLY**

OK ▼

2.	**DISC CLEANING**



(a) Disc cleaning

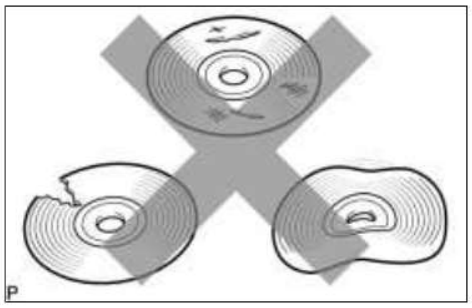
(1) If dirt is on the disc surface, wipe it with a soft cloth from inside to outside in a radial direction.

NOTICE:

Do not use a conventional record cleaner or antistatic preservative.

NEXT

3.	**CHECK DISC**



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

OK:

No deformation or cracks on the disc.

NG ▶ **DISC IS FAULTY**

OK

4.	**REPLACE DISC WITH ANOTHER AND RECHECK**

(a) Replace the disc with another and recheck.

(1) Replace the disc with a normal one.

(2) Clear the DTC INFO .

(3) Recheck DTCs and check if the same trouble occurs again.

OK:

Malfunction disappears.

NG ▶ **REPLACE RADIO RECEIVER ASSEMBLY**

OK ▶ **END**

Last Modified: 9-7-2011	6.4 C	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000001WWX00MX
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: 62-47,63-47: High Temperature (2011 RAV4)		

DTC	**62-47**	**High Temperature**

DTC	**63-47**	**High Temperature**

DESCRIPTION

DTC CODE	DTC DETECTION CONDITION	TROUBLE AREA
62-47	Sensor detects that CD unit temperature is high.	Radio receiver
63-47	Sensor detects that CD unit temperature is high.	

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 becomes sufficiently low, and start the engine. Check that the malfunction disappears.

OK:

Malfunction disappears.

NG ▶ **REPLACE RADIO RECEIVER ASSEMBLY**

OK ▶ **END**

Last Modified: 9-7-2011	6.4 C	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000001YV000MX
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: 62-78,63-78: DSP Error (2011 RAV4)		

DTC	**62-78**	**DSP Error**

DTC	**63-78**	**DSP Error**

DESCRIPTION

DTC CODE	DTC DETECTION CONDITION	TROUBLE AREA
62-78	Error occurs during decode processing (MP3/WMA)	Radio receiver
63-78	Error occurs during decode processing (MP3/WMA)	

INSPECTION PROCEDURE

NOTICE:

- This code may be output even when a malfunction does not exist.
- When this code is output frequently, replace the radio receiver.

HINT:

After the inspection is completed, clear the DTCs.

PROCEDURE

1.	**CLEAR DTC**

(a) Clear the DTC INFO .

HINT:

These DTCs do not indicate a malfunction.

NEXT

2.	**RECHECK DTC**

(a) Recheck the DTC and check if the same trouble code occurs again.

OK:
Malfunction disappears.

NG ▶ **REPLACE RADIO RECEIVER ASSEMBLY**

OK ▶ **END**

Last Modified: 9-7-2011	6.4 C	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM00000232O00YX
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: 74-40: Short in Speaker Circuit (2011 RAV4)		

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.	• Wire harness • Speaker • Stereo component amplifier*1 • Radio receiver*2

*1: Separate Type Amplifier System

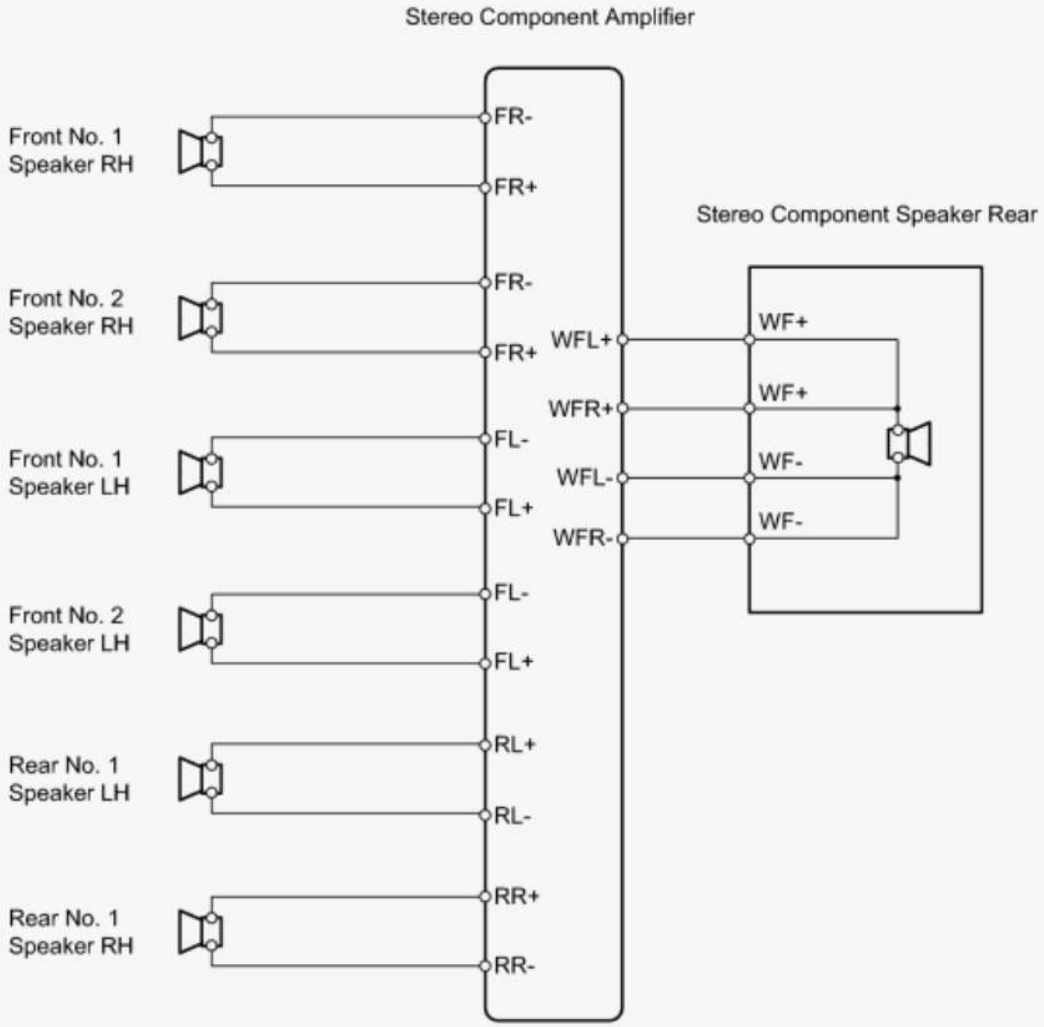
*2: Built-in Type Amplifier System

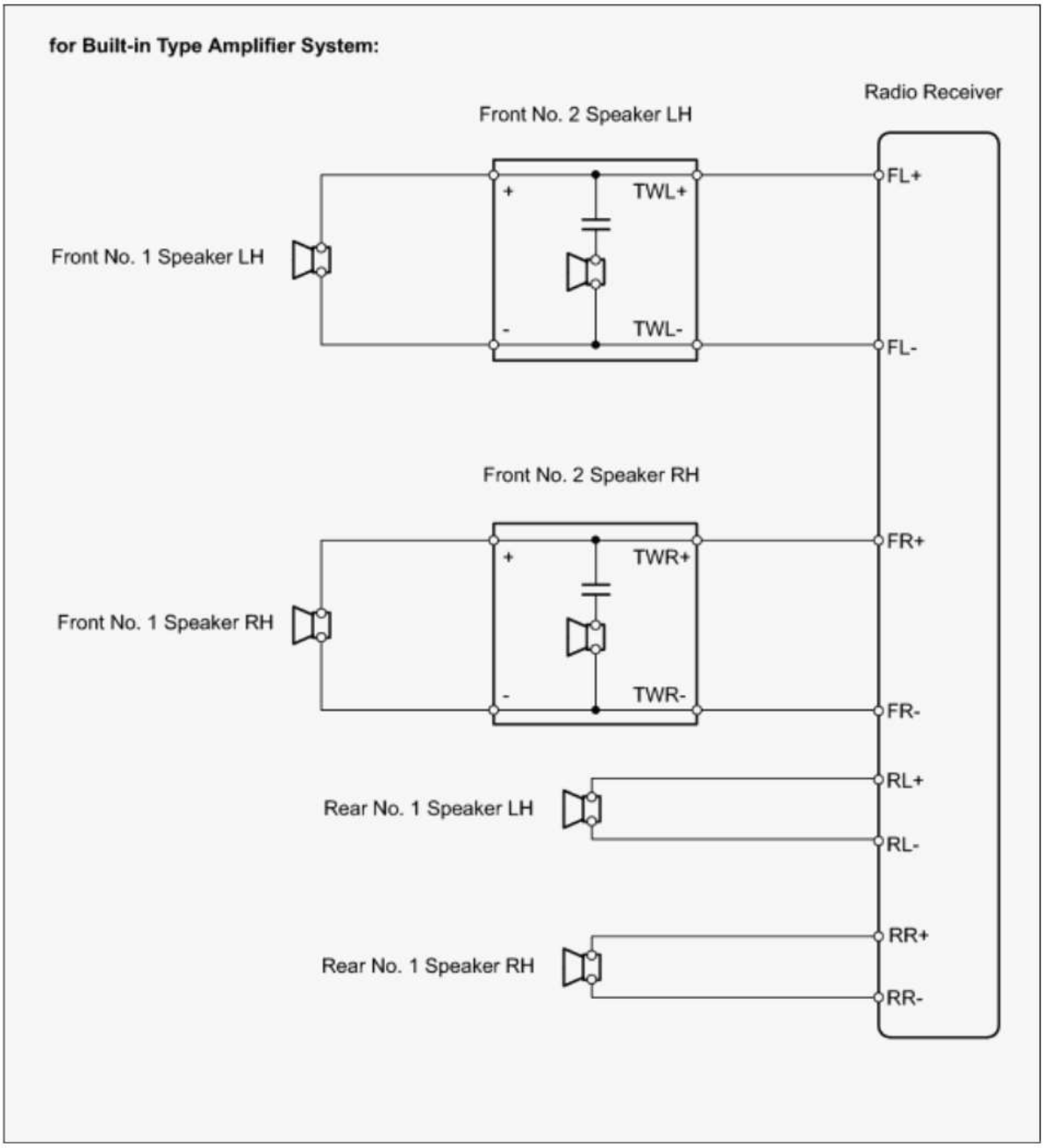
This circuit has a fail-safe function.

- When a short in the speaker circuit is detected, all sound outputs are stopped.

WIRING DIAGRAM

for Separate Type Amplifier System:





INSPECTION PROCEDURE

PROCEDURE

1.	**CONFIRM MODEL**

(a) Check the audio models.

Result

RESULT	PROCEED TO
Separate Type Amplifier System	A
Built-in Type Amplifier System	B

B ▶ **CHECK SPEAKER**

A ▼

2.	**CHECK SPEAKER**

(a) Check that speaker sounds.

Result

RESULT	PROCEED TO
Front No. 1 speaker does not operate	A
Front No. 2 speaker does not operate	B
Rear No. 1 speaker does not operate	C
Stereo Component speaker rear does not operate	D
All speaker do not operate	E

B ▶ **CHECK HARNESS AND CONNECTOR (STEREO COMPONENT AMPLIFIER - FRONT NO. 2 SPEAKER)**

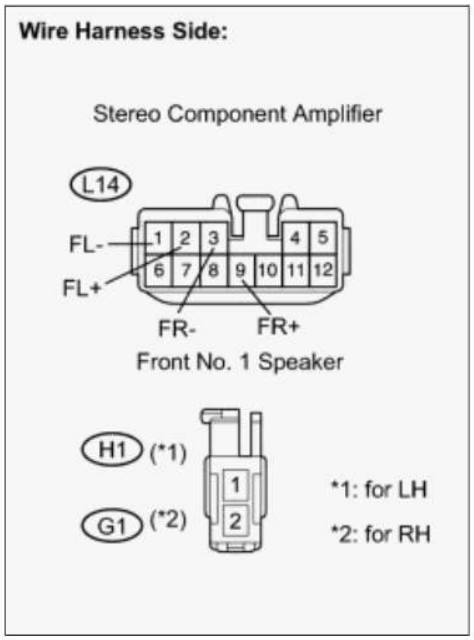
C ▶ **CHECK HARNESS AND CONNECTOR (STEREO COMPONENT AMPLIFIER - REAR NO. 1 SPEAKER)**

D ▶ **CHECK HARNESS AND CONNECTOR (STEREO COMPONENT AMPLIFIER - STEREO COMPONENT SPEAKER REAR)**

E ▶ **PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE**

A ▼

3.	**CHECK HARNESS AND CONNECTOR (STEREO COMPONENT AMPLIFIER - FRONT NO. 1 SPEAKER)**



(a) Disconnect the L14 amplifier connector.

(b) Disconnect the H1 (*1) or G1 (*2) speaker connector.

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

Standard Resistance:

TESTER CONNECTION	SPECIFIED CONDITION
L14-1 (FL-) - H1-2 (*1)	Below 1 Ω
L14-2 (FL+) - H1-1 (*1)	Below 1 Ω
L14-3 (FR-) - G1-2 (*2)	Below 1 Ω
L14-9 (FR+) - G1-1 (*2)	Below 1 Ω
L14-3 (FR-) - Body ground	10 kΩ or higher
L14-9 (FR+) - Body ground	10 kΩ or higher
L14-1 (FL-) - Body ground	10 kΩ or higher
L14-2 (FL+) - Body ground	10 kΩ or higher

HINT:

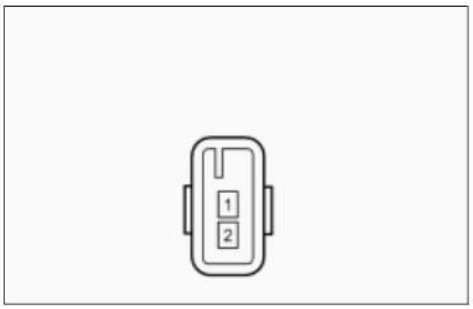
- *1: for LH

- *2: for RH

NG ▶ **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK ▼

4.	**INSPECT FRONT NO. 1 SPEAKER**



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

Standard Resistance:

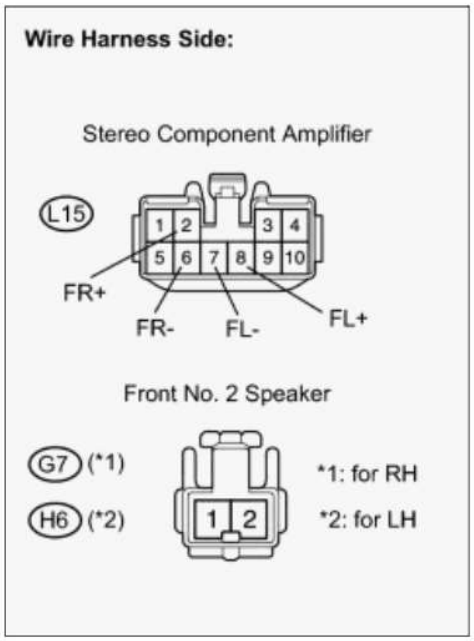
TESTER CONNECTION	SPECIFIED CONDITION
1 - 2	2.6 Ω

NG ▶ **REPLACE FRONT NO. 1 SPEAKER ASSEMBLY**

OK ▶ **PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE**

5.	**CHECK HARNESS AND CONNECTOR (STEREO COMPONENT AMPLIFIER - FRONT NO. 2 SPEAKER)**

(a) Disconnect the L15 amplifier connector.



(b) Disconnect the G7 (*1) or H6 (*2) speaker connector.

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

Standard Resistance:

TESTER CONNECTION	SPECIFIED CONDITION
L15-6 (FR-) - G7-2 (*1)	Below 1 Ω
L15-2 (FR+) - G7-1 (*1)	Below 1 Ω
L15-7 (FL-) - H6-2 (*2)	Below 1 Ω
L15-8 (FL+) - H6-1 (*2)	Below 1 Ω
L15-6 (FR-) - Body ground	10 kΩ or higher
L15-2 (FR+) - Body ground	10 kΩ or higher
L15-7 (FL-) - Body ground	10 kΩ or higher
L15-8 (FL+) - Body ground	10 kΩ or higher

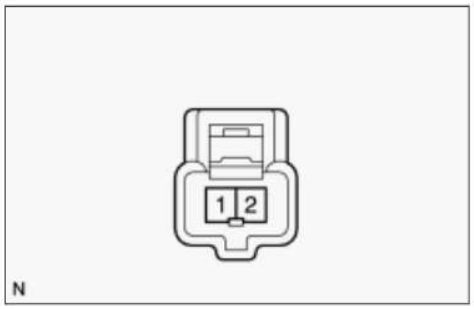
HINT:

- *1: for RH
- *2: for LH

NG ▶ REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

6.	**INSPECT FRONT NO. 2 SPEAKER**



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

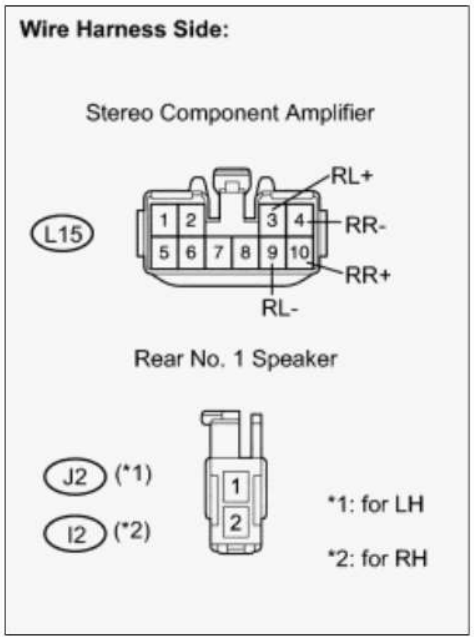
Standard Resistance:

TESTER CONNECTION	SPECIFIED CONDITION
1 - 2	2.5 Ω

NG ▶ **REPLACE FRONT NO. 2 SPEAKER ASSEMBLY**

OK ▶ **PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE**

7.	**CHECK HARNESS AND CONNECTOR (STEREO COMPONENT AMPLIFIER - REAR NO. 1 SPEAKER)**



(a) Disconnect the L15 amplifier connector.

(b) Disconnect the J2 (*1) or I2 (*2) speaker connector.

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

Standard Resistance:

TESTER CONNECTION	SPECIFIED CONDITION
L15-3 (RL+) - J2-1 (*1)	Below 1 Ω
L15-9 (RL-) - J2-2 (*1)	Below 1 Ω
L15-10 (RR+) - I2-1 (*2)	Below 1 Ω
L15-4 (RR-) - I2-2 (*2)	Below 1 Ω
L15-3 (RL+) - Body ground	10 kΩ or higher
L15-9 (RL-) - Body ground	10 kΩ or higher
L15-10 (RR+) - Body ground	10 kΩ or higher
L15-4 (RR-) - Body ground	10 kΩ or higher

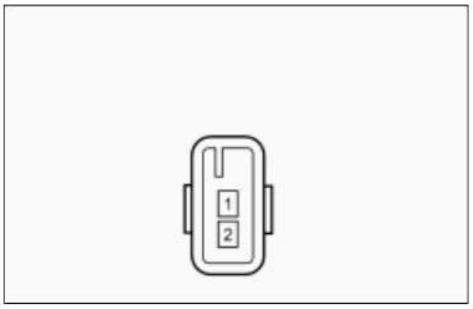
HINT:

- *1: for LH
- *2: for RH

NG ▶ **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK ▼

8.	**INSPECT REAR NO. 1 SPEAKER**



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

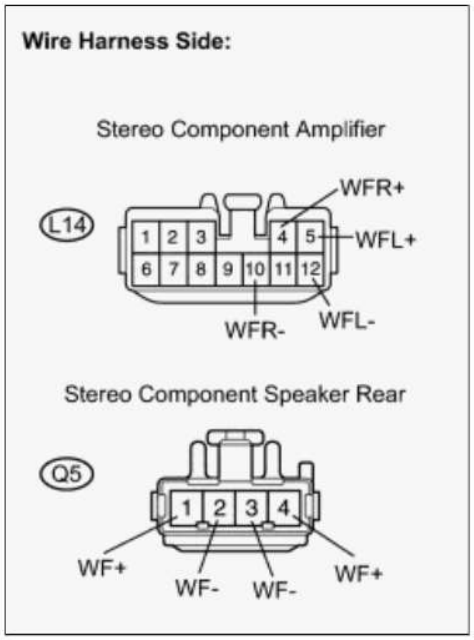
Standard Resistance:

TESTER CONNECTION	SPECIFIED CONDITION
1 - 2	3.1 Ω

NG ▶ **REPLACE REAR NO. 1 SPEAKER ASSEMBLY**

OK ▶ **PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE**

9.	**CHECK HARNESS AND CONNECTOR (STEREO COMPONENT AMPLIFIER - STEREO COMPONENT SPEAKER REAR)**



(a) Disconnect the L14 amplifier connector.

(b) Disconnect the Q5 speaker connector.

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

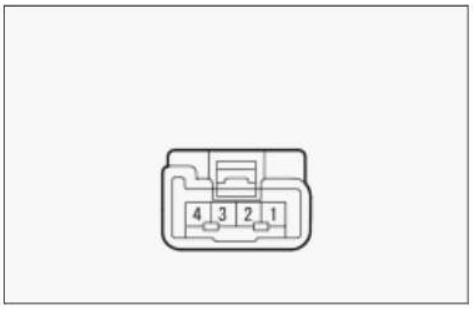
Standard Resistance:

TESTER CONNECTION	SPECIFIED CONDITION
L14-5 (WFL+) - Q5-1 (WF+)	Below 1 Ω
L14-12 (WFL-) - Q5-2 (WF-)	Below 1 Ω
L14-10 (WFR-) - Q5-3 (WF-)	Below 1 Ω
L14-4 (WFR+) - Q5-4 (WF+)	Below 1 Ω
L14-5 (WFL+) - Body ground	10 kΩ or higher
L14-12 (WFL-) - Body ground	10 kΩ or higher
L14-10 (WFR-) - Body ground	10 kΩ or higher
L14-4 (WFR+) - Body ground	10 kΩ or higher

NG ▶ **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK ▼

10.	INSPECT STEREO COMPONENT SPEAKER ASSEMBLY REAR



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

Standard Resistance:

TESTER CONNECTION	SPECIFIED CONDITION
1 - 4	Approx. 2 Ω

NG ▶ **REPLACE STEREO COMPONENT SPEAKER ASSEMBLY REAR**

OK ▶ **PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE**

11.	CHECK SPEAKER

(a) Check that speaker sounds.

Result

RESULT	PROCEED TO
Front No. 1 speaker does not operate	A
Front No. 2 speaker does not operate	B
Rear No. 1 speaker does not operate	C
All speaker do not operate	D

B ▶ **CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - FRONT NO. 2 SPEAKER)**

C ▶ **CHECK HARNESS AND CONNECTOR (RADIO**

RECEIVER - REAR NO. 1 SPEAKER)

D ▶ PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE

A ▼

12.	INSPECT FRONT NO. 2 SPEAKER ASSEMBLY

(a) Check that the front No. 2 speaker sounds.

OK:

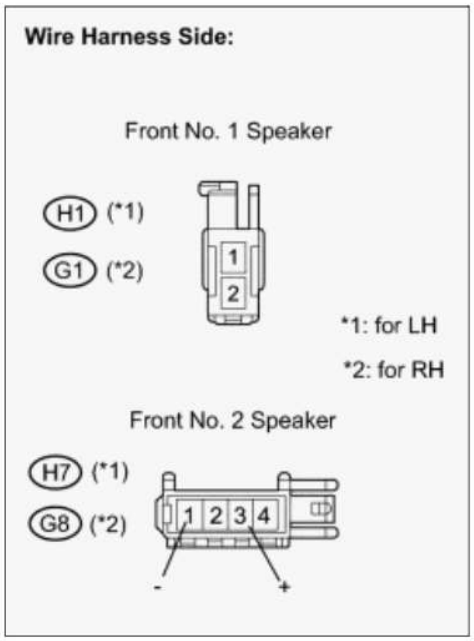
Speaker sounds.

NG ▶ CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - FRONT NO. 2 SPEAKER)

OK ▼

13.	CHECK HARNESS AND CONNECTOR (FRONT NO. 1 SPEAKER - FRONT NO. 2 SPEAKER)

(a) Disconnect the H1 (*1) and H7 (*1), or G1 (*2) and G8 (*2) speaker connectors.



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

Standard Resistance:

TESTER CONNECTION	SPECIFIED CONDITION
H7-3 (+) - H1-1 (*1)	Below 1 Ω
H7-1 (-) - H1-2 (*1)	Below 1 Ω
G8-3 (+) - G1-1 (*2)	Below 1 Ω
G8-1 (-) - G1-2 (*2)	Below 1 Ω
H7-3 (+) - Body ground	10 kΩ or higher
H7-1 (-) - Body ground	10 kΩ or higher
G8-3 (+) - Body ground	10 kΩ or higher
G8-1 (-) - Body ground	10 kΩ or higher

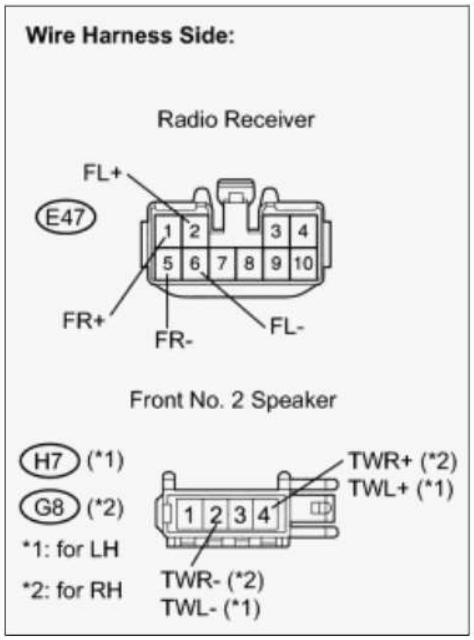
HINT:

- *1: for LH
- *2: for RH

NG ▶ REPAIR OR REPLACE HARNESS OR CONNECTOR

OK ▶ REPLACE FRONT NO. 1 SPEAKER ASSEMBLY

14.	CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - FRONT NO. 2 SPEAKER)



(a) Disconnect the E47 receiver connector.

(b) Disconnect the H7 (*1) or G8 (*2) speaker connector.

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

Standard Resistance:

TESTER CONNECTION	SPECIFIED CONDITION
E47-2 (FL+) - H7-4 (TWL+) (*1)	Below 1 Ω
E47-6 (FL-) - H7-2 (TWL-) (*1)	Below 1 Ω
E47-1 (FR+) - G8-4 (TWR+) (*2)	Below 1 Ω
E47-5 (FR-) - G8-2 (TWR-) (*2)	Below 1 Ω
E47-2 (FL+) - Body ground	10 kΩ or higher
E47-6 (FL-) - Body ground	10 kΩ or higher
E47-1 (FR+) - Body ground	10 kΩ or higher
E47-5 (FR-) - Body ground	10 kΩ or higher

HINT:

- *1: for LH
- *2: for RH

NG ▶ **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK ▼

15.	**INSPECT FRONT NO. 2 SPEAKER ASSEMBLY**

(a) Check that the malfunction disappears when another speaker in good condition is installed.

OK:
Malfunction disappears.

HINT:

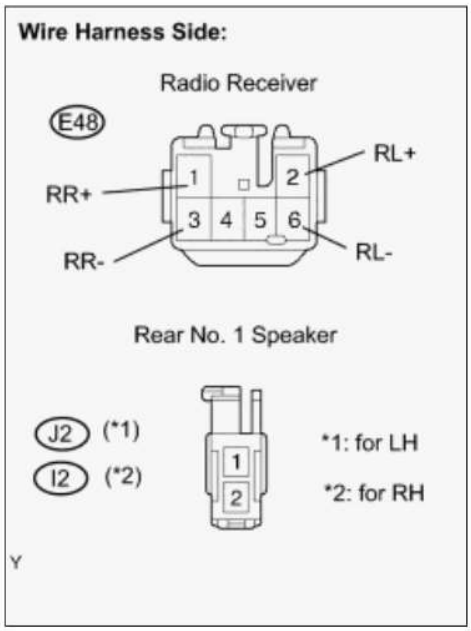
- Connect all connectors to the speakers.
- When there is a possibility that either the right or left front speaker is defective, inspect by interchanging the right one with the left one.

NG ▶ **PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE**

OK ▶ **REPLACE FRONT NO. 2 SPEAKER ASSEMBLY**

16.	**CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - REAR NO. 1 SPEAKER)**

(a) Disconnect the E48 receiver connector.



(b) Disconnect the J2 (*1) or I2 (*2) speaker connector.

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

Standard Resistance:

TESTER CONNECTION	SPECIFIED CONDITION
E48-2 (RL+) - J2-1 (*1)	Below 1 Ω
E48-6 (RL-) - J2-2 (*1)	Below 1 Ω
E48-1 (RR+) - I2-1 (*2)	Below 1 Ω
E48-3 (RR-) - I2-2 (*2)	Below 1 Ω
E48-2 (RL+) - Body ground	10 kΩ or higher
E48-6 (RL-) - Body ground	10 kΩ or higher
E48-1 (RR+) - Body ground	10 kΩ or higher
E48-3 (RR-) - Body ground	10 kΩ or higher

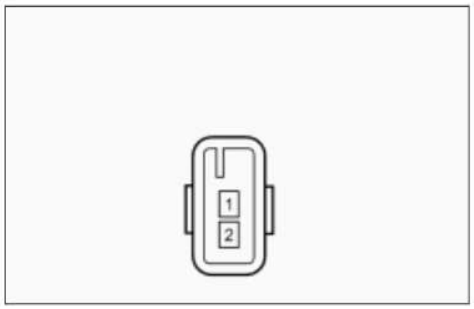
HINT:

- *1: for LH
- *2: for RH

NG ▶ REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

17.	**INSPECT REAR NO. 1 SPEAKER**



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

Standard Resistance:

TESTER CONNECTION	SPECIFIED CONDITION
1 - 2	Approx. 4 Ω

NG ▶ **REPLACE REAR NO. 1 SPEAKER**

OK ▶ **PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE**

Last Modified: 9-7-2011	6.4 J	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000001ZN600LX
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: AVC-LAN Circuit (2011 RAV4)		

AVC-LAN Circuit

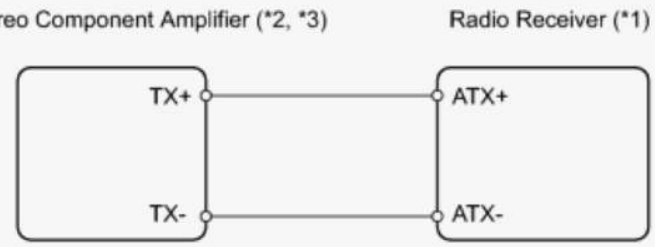
DESCRIPTION

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

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

WIRING DIAGRAM

AVC-LAN Wiring Diagram:



*1: Master Unit

*2: Slave Unit

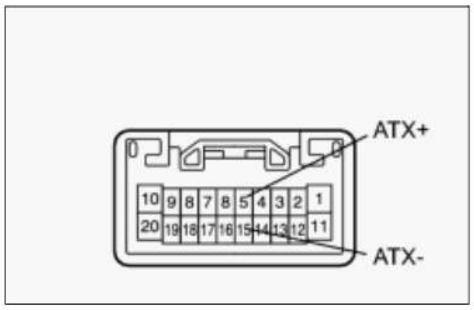
*3: for Separate Type Amplifier System

INSPECTION PROCEDURE

PROCEDURE

1.	**INSPECT RADIO RECEIVER ASSEMBLY**

(a) Disconnect the E62 receiver connector.



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

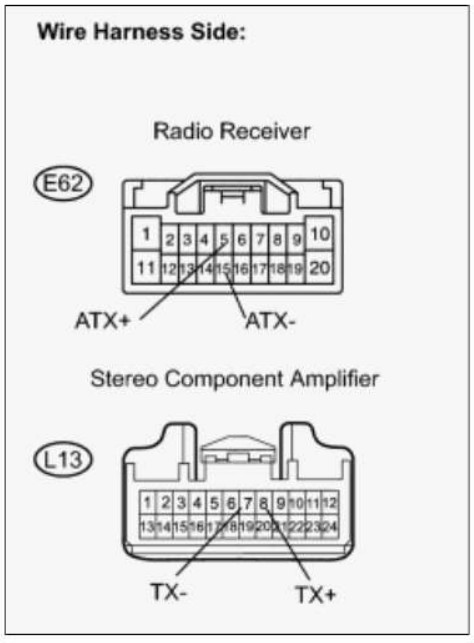
Standard Resistance:

TESTER CONNECTION	SPECIFIED CONDITION
5 (ATX+) - 15 (ATX-)	60 to 80 Ω

NG ▶ **REPLACE RADIO RECEIVER ASSEMBLY**

OK ▼

2.	**CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - STEREO COMPONENT AMPLIFIER)**



(a) Disconnect the E62 receiver connector.

(b) Disconnect the L13 amplifier connector.

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

Standard Resistance:

TESTER CONNECTION	SPECIFIED CONDITION
E62-5 (ATX+) - L13-8 (TX+)	Below 1 Ω
E62-15 (ATX-) - L13-7 (TX-)	Below 1 Ω
E62-5 (ATX+) - Body ground	10 kΩ or higher
E62-15 (ATX-) - Body ground	10 kΩ or higher

NG ▶ **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK ▶ **PROCEED TO NEXT INSPECTION PROCEDURE SHOWN IN PROBLEM SYMPTOMS TABLE**

Last Modified: 9-7-2011	6.4 J	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000001035032X
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: CD cannot be Ejected (2011 RAV4)		

CD cannot be Ejected

INSPECTION PROCEDURE

PROCEDURE

1.	**PRESS "EJECT" AND CHECK OPERATION**

(a) Press the CD EJECT switch of the radio receiver for 2 seconds or more and check that the CD ejects.

OK:
CD ejects.

NG ▶ **REPLACE RADIO RECEIVER ASSEMBLY**

OK ▼

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

(a) Replace the CD with a normal one and check that the CD ejects.

OK:
CD ejects.

NG ▶ **REPLACE RADIO RECEIVER ASSEMBLY**

OK ▶ **CD IS FAULTY**

Last Modified: 9-7-2011	6.4 J	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM00000103102YX
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: CD cannot be Inserted or is Ejected Right After Insertion (2011 RAV4)		

CD cannot be Inserted or is Ejected Right After Insertion

INSPECTION PROCEDURE

PROCEDURE

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

(a) Make sure that the CD is a normal audio CD, and that it is not deformed, flawed, stained, burred or otherwise defective.

OK:

Normal audio CD.

HINT:

Translucent or uniquely-shaped CDs cannot be played.

NG ▶ **CD IS FAULTY**

OK ▼

2.	**CHECK THAT CD IS INSERTED PROPERLY**

(a) Check whether or not the CD is inserted upside down.

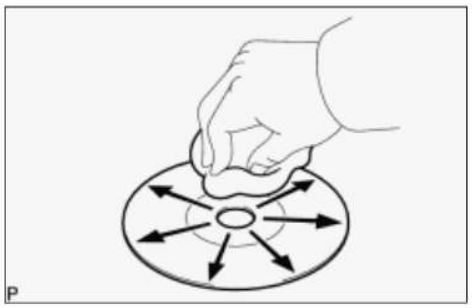
OK:

CD is properly inserted.

NG ▶ **INSERT CD PROPERLY**

OK

3.	**CLEAN CD**



(a) Clean the disc by wiping the CD's underside radially with a soft cloth.

OK:

Malfunction disappears.

NOTICE:

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

OK ▶ **CD WAS DIRTY**

NG

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

(a) Replace the CD with a normal one and check if the same problem occurs again.

OK:

Malfunction disappears.

NG ▶ **PROCEED TO NEXT INSPECTION PROCEDURE SHOWN IN PROBLEM SYMPTOMS TABLE**

OK ▶ **CD IS FAULTY**

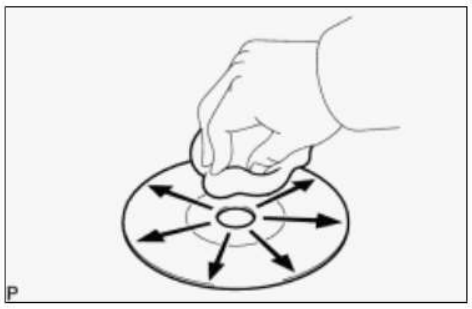
Last Modified: 9-7-2011	6.4 J	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000001033021X
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: CD Sound Skips (2011 RAV4)		

CD Sound Skips

INSPECTION PROCEDURE

PROCEDURE

1.	**CLEAN CD**



(a) If the disc is dirty, clean the disc by wiping the CD's underside radially with a soft cloth.

OK:

Malfunction disappears.

NOTICE:

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

OK ▶ CD WAS DIRTY

NG ▼

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

(a) Replace the CD with a normal one and check if the same problem occurs again.

OK:

Malfunction disappears.

OK ▶ CD IS FAULTY

NG

3.	CHECK WHEN PROBLEM OCCURS

(a) Check the location in which CD skipping occurs.

Result

RESULT	PROCEED TO
Driving surface is bumpy or rough	A
Driving surface is normal	B

B ▶ **INSTALL RADIO RECEIVER IN ANOTHER VEHICLE OF SAME MODEL AND COMPARE**

A

4.	CHECK RADIO RECEIVER ASSEMBLY INSTALLATION

(a) Check the installation condition of the radio receiver.

OK:
Installed properly.

NG ▶ **INSTALL RADIO RECEIVER ASSEMBLY PROPERLY**

OK

5.	INSTALL RADIO RECEIVER IN ANOTHER VEHICLE OF SAME MODEL AND COMPARE

(a) Remove the radio receiver and install it in another vehicle of the same model. Check if the CD sound skips.

OK:

CD sound does not skip.

OK ▶ MALFUNCTIONS MAY NOT BE PRESENT

NG ▼

6.	**DID TEMPERATURE IN CABIN CHANGE RAPIDLY?**

(a) Check whether or not a rapid temperature change occurred in the cabin.

OK:

Rapid temperature change occurred.

HINT:

A rapid temperature change creates condensation inside the CD player, which may disable CD playback.

NG ▶ REPLACE RADIO RECEIVER ASSEMBLY

OK ▶ CONDENSATION DUE TO TEMPERATURE CHANGE (LEAVE AS IS FOR A WHILE BEFORE USING)

Last Modified: 9-7-2011	6.4 J	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000000POK0A8X
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: Cellular Phone cannot Send/Receive (2011 RAV4)		

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 ▼

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 ▼

3.	**CHECK SETTINGS**

(a) Check if the cellular phone functions.

HINT:

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

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

OK:

None of the above conditions exist.

NG ▶ **SET CORRECTLY**

OK ▼

4.	**CHECK CELLULAR PHONE**

(a) Check if the cellular phone can make a call.

HINT:

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

OK:

Cellular phone can make a call.

NG ▶ **REPAIR OR REPLACE CELLULAR PHONE**

OK ▼

5.	**CHECK RECEPTION**

(a) Set the cellular phone so that it can receive calls.

(b) Place the cellular phone close to the radio receiver.

(c) Check if the cellular phone has reception according to the radio receiver.

OK:
Cellular phone has reception.

NG ▶ **REPLACE RADIO RECEIVER ASSEMBLY**

OK ▶ **PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE**

Last Modified: 9-7-2011	6.4 J	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM0000011FD09XX
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: Cellular Phone Registration Failure, Phone Directory Transfer Failure (2011 RAV4)		

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

CONDITIONS	PROCEED TO
Another "Bluetooth" compatible cellular phone is present.	A
Another "Bluetooth" compatible vehicle is present.	B
None of the above	C

B ▶ **CHECK USING ANOTHER "BLUETOOTH" COMPATIBLE VEHICLE**

C ▶ **CHECK CELLULAR PHONE**

A ▼

2.	**CHECK USING ANOTHER CELLULAR PHONE**

(a) Check if the system functions using another "Bluetooth" compatible cellular phone.

HINT:

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

OK:
The system functions.

NG ▶ **REPLACE RADIO RECEIVER ASSEMBLY**

OK ▶ **USE A "BLUETOOTH" COMPATIBLE CELLULAR PHONE**

3.	**CHECK USING ANOTHER "BLUETOOTH" COMPATIBLE VEHICLE**

(a) Register the cellular phone with another vehicle and check if the system functions normally.

HINT:

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

OK:
The system functions.

NG ▶ **USE A "BLUETOOTH" COMPATIBLE CELLULAR PHONE**

OK ▶ **REPLACE RADIO RECEIVER ASSEMBLY**

4.	**CHECK CELLULAR PHONE**

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

HINT:

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

OK:
The phone is Bluetooth compatible.

NG ▶ **USE A "BLUETOOTH" COMPATIBLE CELLULAR PHONE**

OK ▼

5.	**CHECK CELLULAR PHONE**

(a) Check if a call can be made from the cellular phone.

HINT:

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

OK:
A call can be made from the cellular phone.

NG ▶ **REPAIR OR REPLACE CELLULAR PHONE**

OK ▶ **REPLACE RADIO RECEIVER ASSEMBLY**

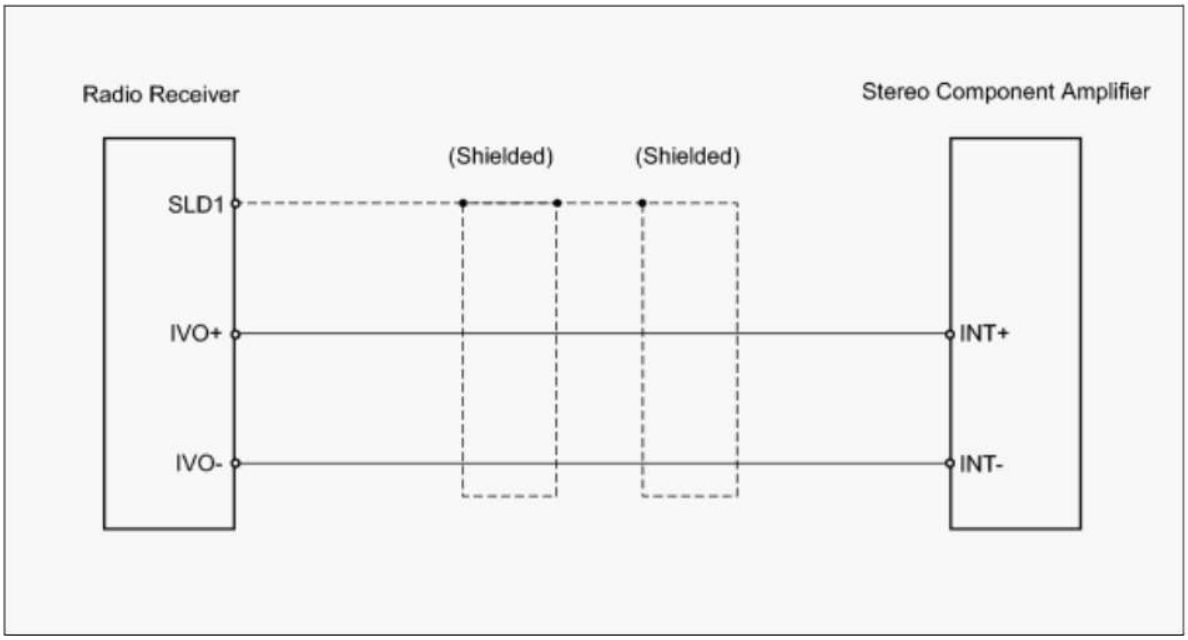
Last Modified: 9-7-2011	6.4 J	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000002EXE02UX
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: Cellular Phone Voice Circuit between Radio Receiver and Stereo Component Amplifier (2011 RAV4)		

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

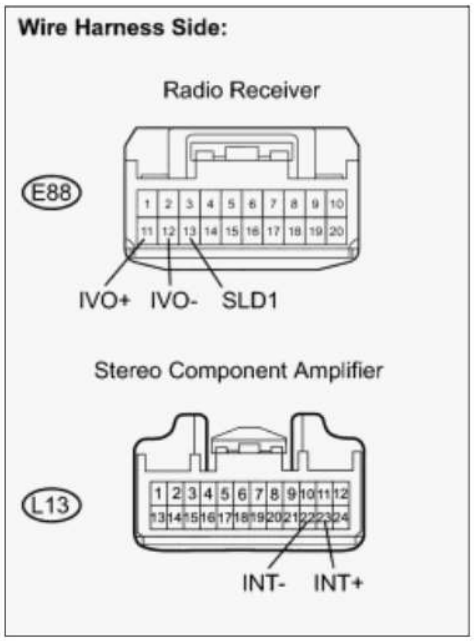


INSPECTION PROCEDURE

PROCEDURE

1.	**CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - STEREO COMPONENT AMPLIFIER)**

(a) Disconnect the E88 radio receiver connector and L13 stereo component amplifier connector.



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

Standard Resistance:

TESTER CONNECTION	SPECIFIED CONDITION
E88-11 (IVO+) - L13-23 (INT+)	Below 1 Ω
E88-12 (IVO-) - L13-22 (INT-)	Below 1 Ω
E88-11 (IVO+) - Body ground	10 kΩ or higher
E88-12 (IVO-) - Body ground	10 kΩ or higher
E88-13 (SLD1) - Body ground	10 kΩ or higher

NG ▶ **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK ▶ **PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE**

Last Modified: 9-7-2011	6.4 S	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000001WWE00MX
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: DIAGNOSTIC TROUBLE CODE CHART (2011 RAV4)		

DIAGNOSTIC TROUBLE CODE CHART

COMMUNICATION DIAGNOSIS:

DTC CODE	DETECTION ITEM	TROUBLE AREA	SEE PAGE
01-21	ROM Error	Radio receiver	INFO
01-22	RAM Error	Radio receiver	INFO
01-D5	Absence of Registration Unit	1. Power source circuit of component shown by sub-code 2. AVC-LAN circuit between radio receiver and component shown by sub-code 3. Component shown by sub-code	INFO
01-D6	No Master	1. Radio receiver power source circuit 2. Power source circuit of the component which has stored this code 3. AVC-LAN circuit between the radio receiver and the component which has stored this code 4. Component which has stored this code 5. Radio receiver	INFO
01-D7	Connection Check Error	1. Radio receiver power source circuit 2. Power source circuit of the component which has stored this code 3. AVC-LAN circuit between the radio receiver and the component which has stored this code 4. Component which has stored this code 5. Radio receiver	INFO
01-D8	No Response for Connection Check	1. Power source circuit of component shown by sub-code 2. AVC-LAN circuit between radio receiver and component shown by sub-code 3. Component shown by sub-code	INFO
01-D9	Last Mode Error	1. Power source circuit of component shown by sub-code 2. AVC-LAN circuit between radio receiver and component shown by sub-code 3. Component shown by sub-code	INFO
01-DA	No Response Against ON / OFF Command	1. Power source circuit of component shown by sub-code 2. AVC-LAN circuit between radio receiver and component shown by sub-code 3. Component shown by sub-code	INFO
01-DB	Mode Status Error	1. Power source circuit of component shown by sub-code 2. AVC-LAN circuit between radio receiver and component shown by sub-code	INFO

DTC CODE	DETECTION ITEM	TROUBLE AREA	SEE PAGE
		3. Component shown by sub-code	
01-DC	Transmission Error	If same sub-code is recorded in other components, check harness for power supply and communication system of all components shown by code	INFO
01-DD	Master Reset	1. Radio receiver power source circuit 2. AVC-LAN circuit between radio receiver and component which has stored this code 3. Radio receiver 4. Component which has stored this code	INFO
01-DE	Slave Reset	1. Power source circuit of component shown by sub-code 2. AVC-LAN circuit between radio receiver and component shown by sub-code 3. Component shown by sub-code	INFO
01-DF	Master Error	1. Radio receiver power source circuit 2. AVC-LAN circuit between radio receiver and component which has stored this code 3. Radio receiver 4. Component which has stored this code	INFO
01-E0	Registration Complete Indication Error	-	INFO
01-E1	Voice Processing Device ON Error	1. Radio receiver power source circuit 2. AVC-LAN circuit between radio receiver and component which has stored this code 3. Radio receiver 4. Component which has stored this code	INFO
01-E2	ON / OFF Indication Parameter Error	Radio receiver	INFO
01-E3	Registration Demand Transmission	-	INFO
01-E4	Multiple Frame Incomplete	-	INFO

TELEPHONE:

DTC CODE	DETECTION ITEM	TROUBLE AREA	SEE PAGE
57-47	Bluetooth Module Initialization Failed	Radio receiver	INFO

RADIO UNIT:

DTC CODE	DETECTION ITEM	TROUBLE AREA	SEE PAGE
60-10	AM Tuner PLL does not Lock	Radio receiver	INFO

DTC CODE	DETECTION ITEM	TROUBLE AREA	SEE PAGE
60-11	FM Tuner PLL does not Lock	Radio receiver	INFO
60-42	Tuner Power Source Error	Radio receiver	INFO
60-43	AM Tuner Error	Radio receiver	INFO
60-44	FM Tuner Error	Radio receiver	INFO
60-50	Malfunction in Internal IC	Radio receiver	INFO

CD CHANGER:

DTC CODE	DETECTION ITEM	TROUBLE AREA	SEE PAGE
62-10	CD Player Mechanical Error	Radio receiver	INFO
62-11	CD Insertion and Ejection Error	1. CD 2. Radio receiver	INFO
62-12	CD Reading Abnormal	Radio receiver	INFO
62-40	No Disc	Radio receiver	INFO
62-41	Wrong Disc	1. CD 2. Radio receiver	INFO
62-42	Disc cannot be Read	1. CD 2. Radio receiver	INFO
62-43	CD-ROM Abnormal	1. CD 2. Radio receiver	INFO
62-44	CD Abnormal	Radio receiver	INFO
62-45	Eject Error	Radio receiver	INFO
62-46	Scratched / Reversed Disc	1. CD 2. Radio receiver	INFO
62-47	High Temperature	Radio receiver	INFO
62-48	Excess Current	Radio receiver	INFO
62-50	Tray Insertion / Ejection Error	Radio receiver	INFO
62-51	Elevator Error	Radio receiver	INFO
62-52	Clamp Error	Radio receiver	INFO
62-78	DSP Error	Radio receiver	INFO
62-7D	Disc Playback Problem	1. CD 2. Radio receiver	INFO
62-7E	No Playback File on Disc	1. CD 2. Radio receiver	INFO
62-7F	Copyright Protection Error	1. CD 2. Radio receiver	INFO

IN-DASH CD CHANGER:

DTC CODE	DETECTION ITEM	TROUBLE AREA	SEE PAGE
63-10	CD Changer Mechanical Error	Radio receiver	INFO
63-11	CD Insertion and Ejection Error	1. CD 2. Radio receiver	INFO
63-12	CD Reading Abnormal	Radio receiver	INFO
63-40	No Disc	Radio receiver	INFO
63-41	Wrong Disc	1. CD 2. Radio receiver	INFO
63-42	Disc cannot be Read	1. CD 2. Radio receiver	INFO
63-43	CD-ROM Abnormal	1. CD 2. Radio receiver	INFO
63-44	CD Abnormal	Radio receiver	INFO
63-45	Eject Error	Radio receiver	INFO
63-46	Scratched / Reversed Disc	1. CD 2. Radio receiver	INFO
63-47	High Temperature	Radio receiver	INFO
63-48	Excess Current	Radio receiver	INFO
63-50	Tray Insertion / Ejection Error	Radio receiver	INFO
63-51	Elevator Error	Radio receiver	INFO
63-52	Clamp Error	Radio receiver	INFO
63-78	DSP Error	Radio receiver	INFO
63-7D	Disc cannot be Played	1. CD 2. Radio receiver	INFO
63-7E	No Playable Files	1. CD 2. Radio receiver	INFO
63-7F	Copyright Protection Error	1. CD 2. Radio receiver	INFO

VOL:

DTC CODE	DETECTION ITEM	TROUBLE AREA	SEE PAGE
74-40	Short in Speaker Circuit	1. Wire harness 2. Speaker 3. Stereo component amplifier*1 4. Radio receiver*2	INFO

*1: for Separate Type Amplifier System

*2: for Built-in Type Amplifier System




TOYOTA

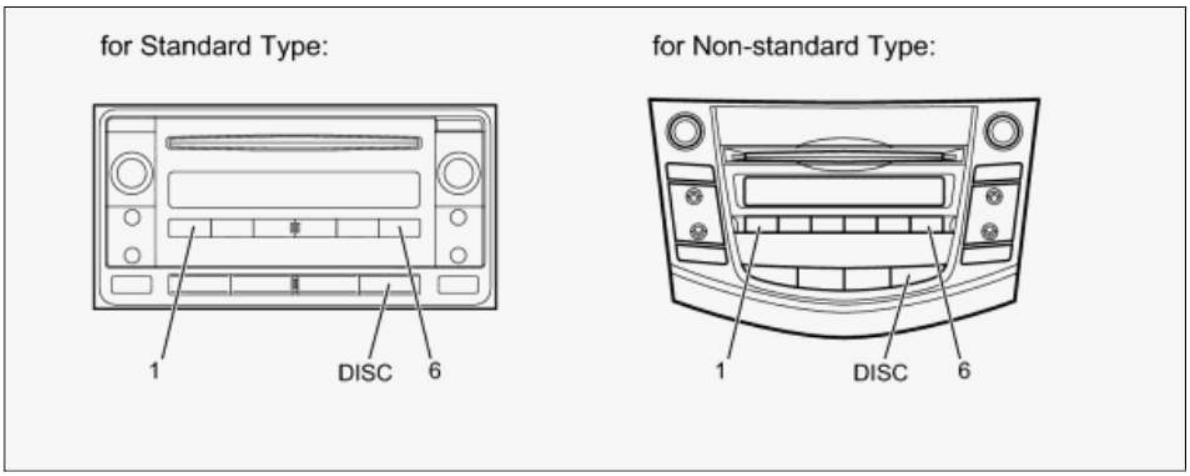
Last Modified: 9-7-2011	6.4 D	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000001WWF00MX
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: DTC CHECK / CLEAR (2011 RAV4)		

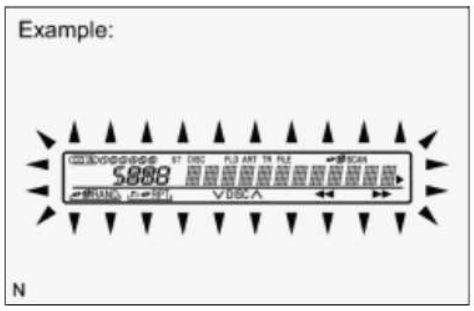
DTC CHECK / CLEAR

HINT:

- Only premium sound models have DTCs.
- If the system cannot enter the diagnosis mode, inspect all AVC-LAN communication signals and repair or replace problem parts INFO .

1. STARTING DIAGNOSTIC MODE





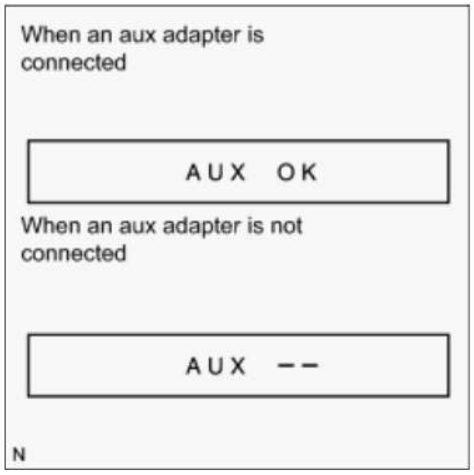
(a) Turn off the audio system and turn the ignition switch to ACC. While pressing the preset switches "1" and "6" at the same time, press the "DISC" switch 3 times.

2. ALL ELEMENT ILLUMINATE MODE AND SWITCH INSPECTION MODE

HINT:

- When the system enters the diagnostic mode, a "beep" sound is emitted 3 times and all the elements turn on during the switch check mode.
- It takes about 40 seconds to complete the check.
- All elements on the LCD will illuminate. Check that the element illuminates are not malfunction.
- When pressing a switch, confirm that a beep sound is emitted. At that time, press the SEEK TRACK UP switch to a mode where the stereo jack adapter connection check can be performed.

3. AUX ADAPTER



(a) Press the "SEEK TRACK UP" switch.

(b) Check if the aux adapter has been recognized.

HINT:

Even if the vehicle does not have an aux adapter, this recognition function is available.

NOTICE:

This recognition function is for checking if the recognition information of the aux adapter. This function is not for checking the connection information of external devices.

4. SERVICE CHECK MODE

(a) Press the "SEEK TRACK UP" switch.

HINT:

For details about the service check mode, refer to the "CHECK DTC" and "DTC CLEAR/RECHECK" procedures.

5. FINISHING DIAGNOSTIC MODE

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

6. CHECK DTC

HINT:

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

(a) Reference:

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

TERMS	MEANING
Physical address (component code)	Three-digit code (in hexadecimal) given to each component of AVC-LAN. Individual symbol is provided corresponding to each function.
Logical address	Two-digit code (in hexadecimal) given to each function and component unit in each component of AVC-LAN.

(b) Service check result display

DISPLAY	ORIGINAL LANGUAGE	MEANING	ACTION TO BE TAKEN
good	Good (normal)	No DTCs are detected in both "System Check Mode" and "Diagnostic Memory Mode".	-
nCon	No connection	System recognized component when it was registered, but component gives no response to "Diagnostic Mode ON Request".	Check power source circuit and communication circuit of component indicated by component code (physical address).
ECHn	Exchange	One or more DTCs for "Exchange" are detected in either "System Check Mode" or "Diagnostic Memory Mode".	Go to detailed information mode to check trouble area on DTC list.
CHEC	Check	When no DTCs are detected for "Exchange", one or more DTCs for "Check" are detected in either "System Check Mode" or "Diagnostic Memory Mode".	Go to detailed information mode to check trouble area on DTC list.
OLd	Old version	Old DTC application is identified and DTC is detected in either "System Check Mode" or "Diagnostic Memory Mode".	-
nrES	No response	Device gives no response to "System Check Mode ON Request", "System Check Result Request" or "Diagnostic Memory Request".	Check power source circuit and communication circuit of component indicated by component code (physical address).

(c) Device name and physical address.

PHYSICAL ADDRESS NO.	NAME
190	Radio receiver
440*	Stereo component amplifier

*: for Separate Type Amplifier System

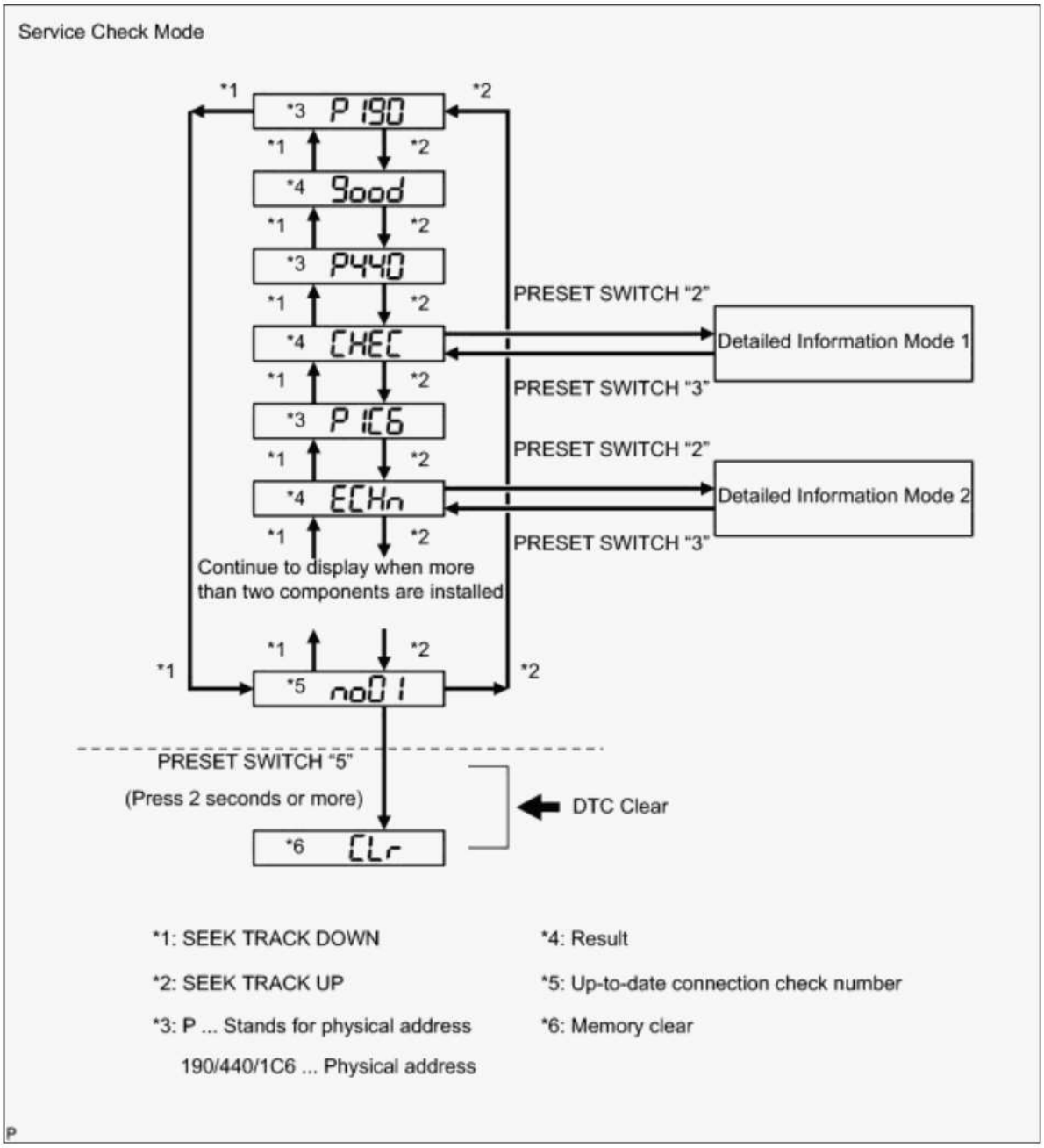
(d) Service check mode.

(1) Press the "SEEK TRACK" switch to see the check result of each component.

(2) The component code (physical address) is displayed first, and then the check result follows.

HINT:

- If all check results are "good", the system judges that no DTC exists.
- If the preset switch "1" is pressed in the service check mode, service check is performed again.
- This illumination is only an example and may differ in cases such as for each option part and output DTCs.



(e) Detailed information mode 1

HINT:

- "Detailed information mode 1" is displayed when there is no response to "System Check Result Request" and DTC is detected only in "Diagnostic Memory Request".
- The component device code (physical address) is displayed first, and then the check result follows.
- This illumination is only an example and may differ in cases such as for each option part and output DTCs.

(1) Press the preset switch "2" to go to the "Detailed Information Mode 1".

(2) Press the "SEEK TRACK" switch to display the physical address and DTC of the component.

(3) Press the preset switch "3" to go to the "Service Check Mode".

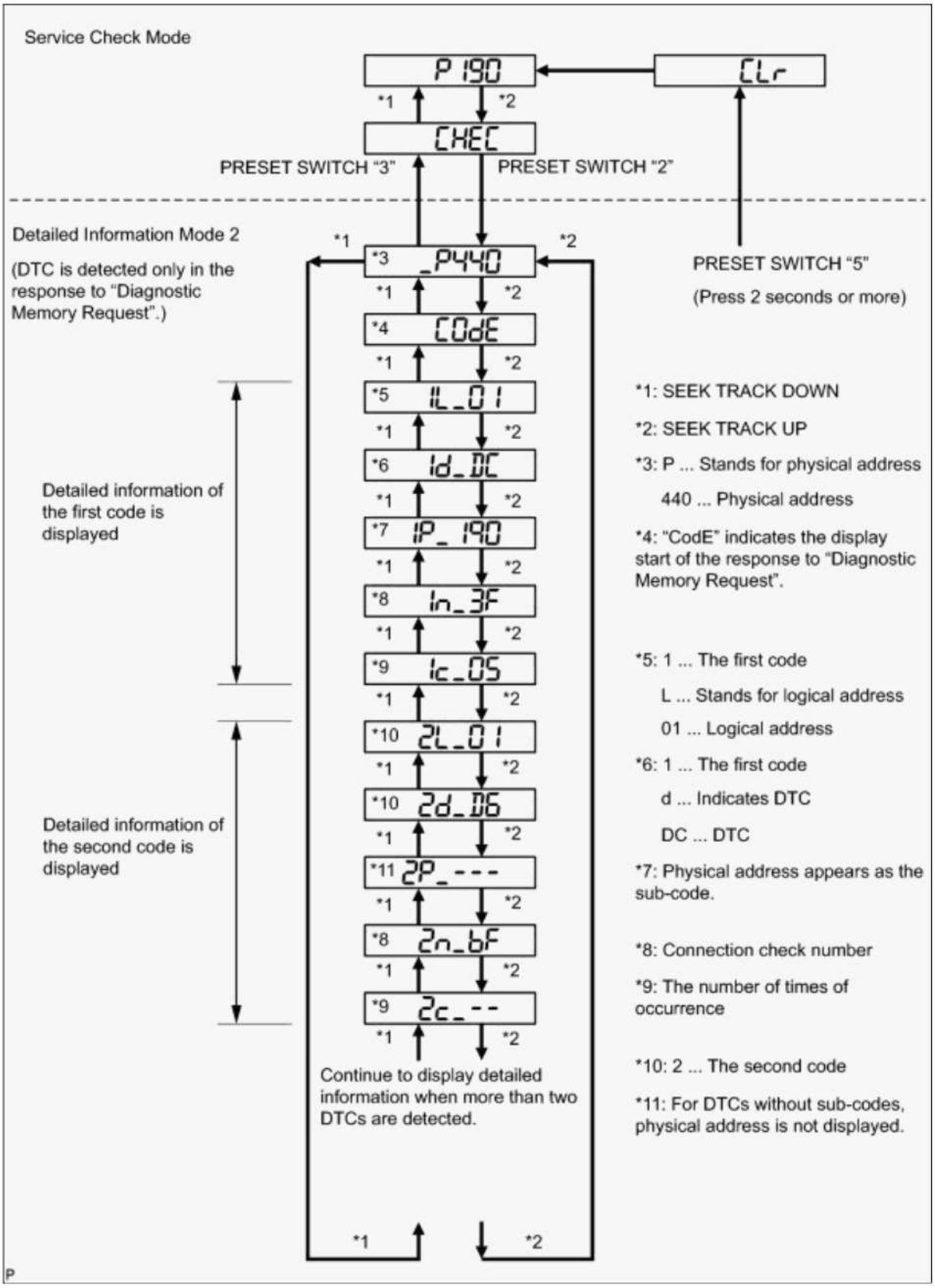
(4) Distinguish between the displays of the responses to "System Check Result Request" and "Diagnostic Memory Request". In order to distinguish the information detected in "System Check Mode" and "Diagnostic Memory Mode" in "ECHn", "CHEC", and "old" in "Detailed Information Mode 1", refer to the

following:

- "SyS" is displayed before the detailed codes detected as a result of "System Check Result Request" are displayed.
- "CodE" is displayed before the detailed codes detected as a result of "Diagnostic Memory Request" are displayed.

HINT:

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



(f) Detailed information mode 2

HINT:

- "Detailed information mode 2" is displayed when DTCs are detected in the responses to both "System Check Result Request" and "Diagnostic Memory Request".

- The component device code (physical address) is displayed first, and then the check result follows.
- This illumination is only an example and may differ in cases such as for each option part and output DTCs.

(1) Press the preset switch "2" to go to the "Detailed Information Mode 2".

(2) Press the "SEEK TRACK" switch to display the physical address and DTC of the component.

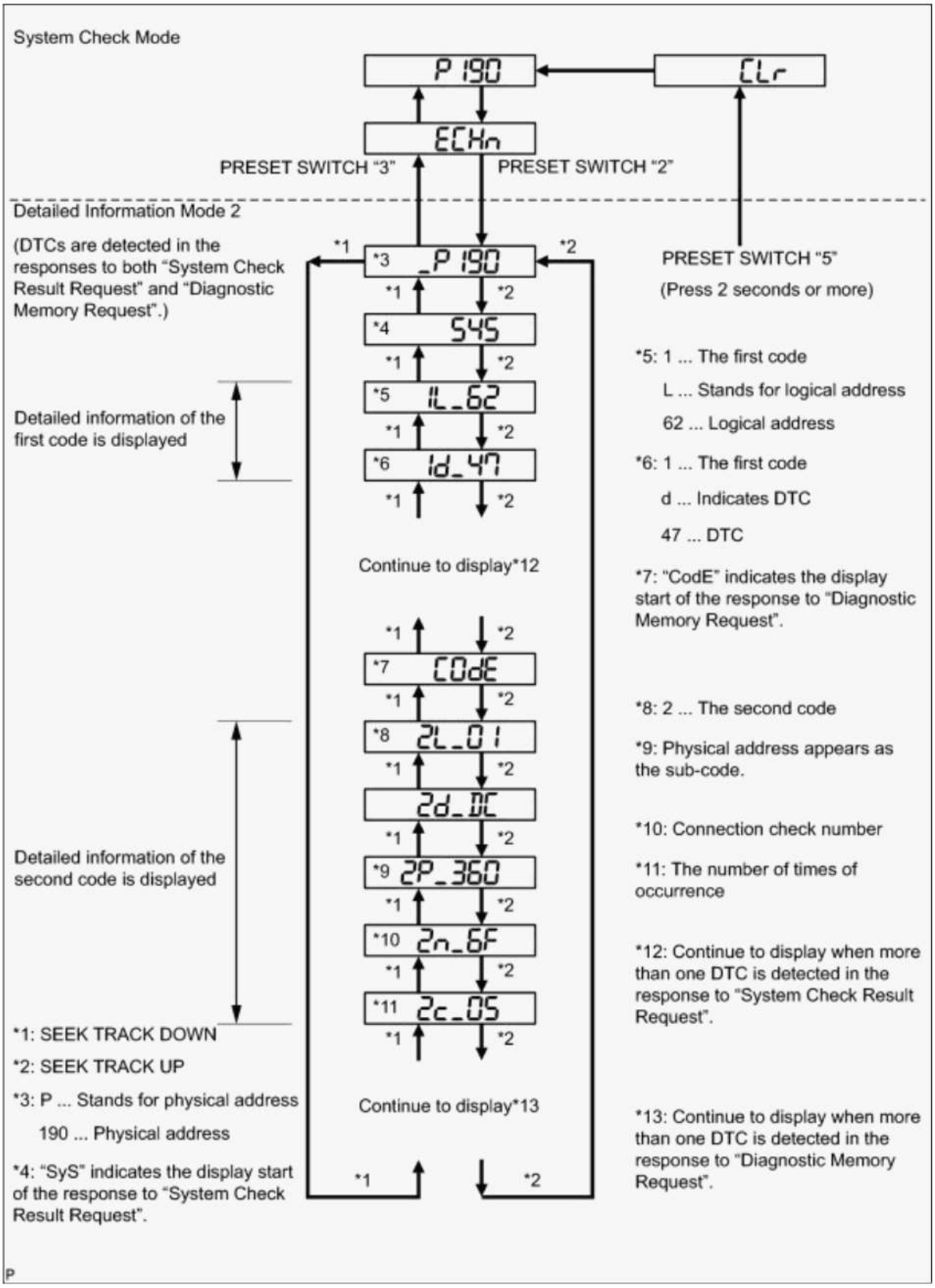
(3) Press the preset switch "3" to go to the "Service Check Mode".

(4) Distinguish between the displays of the responses to "System Check Result Request" and "Diagnostic Memory Request". In order to distinguish the information detected in "System Check Mode" and "Diagnostic Memory Mode" in "ECHn", "CHEC", and "old" in "Detailed Information Mode 2", refer to the following:

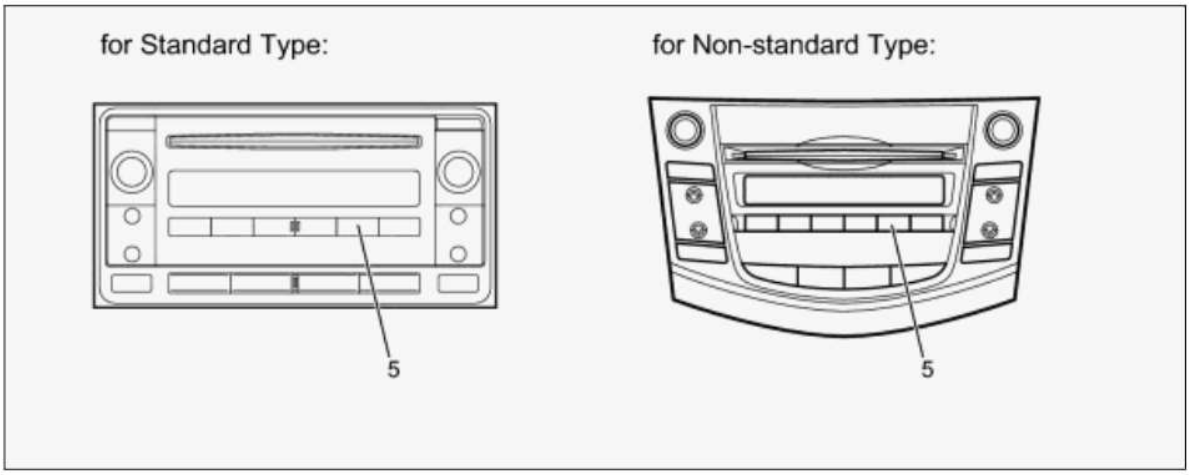
- "SyS" is displayed before the detailed codes detected as a result of "System Check Result Request" are displayed.
- "CodE" is displayed before the detailed codes detected as a result of "Diagnostic Memory Request" are displayed.

HINT:

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



7. DTC CLEAR/RECHECK



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

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

HINT:

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

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

(1) When the preset switch "5" is pressed for 2 seconds or more during "Detailed Information Mode 1" or "Detailed Information Mode 2", the DTCs for the target component are cleared.

HINT:

- A beep sound is emitted once when the DTC memory is completely cleared.
- When the DTC memory is cleared, only the component code (physical address) is displayed for target component.
- After the DTC memory is cleared, the "Service Check Mode" is restored.
- To check DTCs, press the preset switch "1" and perform the system check again.

(c) Press the preset switch "1" to perform the service check again, and check that no DTCs are displayed for all the component codes (physical address).

Last Modified: 9-7-2011	6.4 D	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000001WW900NX
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: HOW TO PROCEED WITH TROUBLESHOOTING (2011 RAV4)		

HOW TO PROCEED WITH TROUBLESHOOTING

1.	**VEHICLE BROUGHT TO WORKSHOP**

NEXT

2.	**INSPECT BATTERY VOLTAGE**

Standard voltage:
11 to 14 V

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

NEXT

3.	**BASIC INSPECTION**

(a) Turn the ignition switch to ACC.

(b) Check whether or not the display appears on the radio receiver.

Result

RESULT	PROCEED TO
Display appears	A
Display does not appear	B

B Go to step 4

A

4.	**CHECK FOR DTC**

(a) Check for DTCs and note any codes that are output.

(b) Delete for DTC.

(c) Recheck for DTCs. Based on the DTC output in the first step, try to force output of the audio system DTC by simulating the operation indicated by the DTC.

HINT:

- If the system cannot enter the diagnosis mode, inspect each AVC-LAN communication signal and repair or replace problem parts.
- Even if the malfunction symptom is not confirmed, check for DTCs. This is because the system stores past DTCs.
- Refer to the detailed description on the diagnostic screen, as necessary INFO .
- Check and clear past diagnostic trouble codes. Check the diagnostic trouble code and inspect the area the code indicates.

Result

RESULT	PROCEED TO
DTC does not reoccur	A
DTC reoccurs	B

B Go to step 7

A

5.	**PROBLEM SYMPTOMS TABLE**

Result

RESULT	PROCEED TO
Fault is not listed in problem symptoms table	A

RESULT	PROCEED TO
Fault is listed in problem symptoms table	B

B ▶ **Go to step 7**

A

▼

6.	OVERALL ANALYSIS AND TROUBLESHOOTING

(a) Terminals of ECU INFO

(b) Inspect front No. 1 speaker INFO

(c) Inspect front No. 2 speaker INFO

(d) Inspect stereo component speaker rear* INFO

(e) Inspect rear No. 1 speaker INFO

(f) Inspect steering pad switch INFO

*: for Separate Type Amplifier System

NEXT

▼

7.	ADJUST, REPAIR OR REPLACE

NEXT ▶ **END**

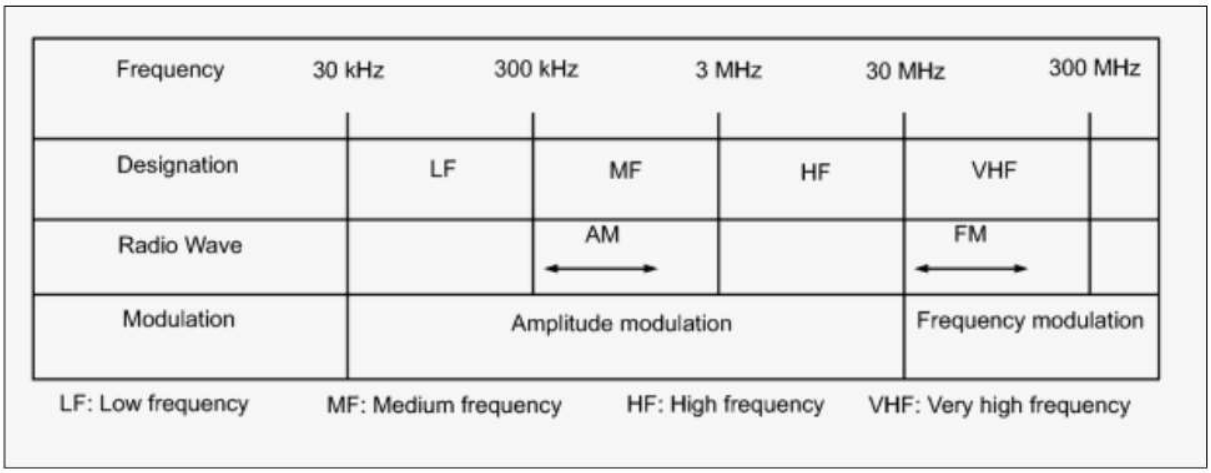
Last Modified: 9-7-2011	6.4 D	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM00000102D02KX
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: IDENTIFICATION OF NOISE SOURCE (2011 RAV4)		

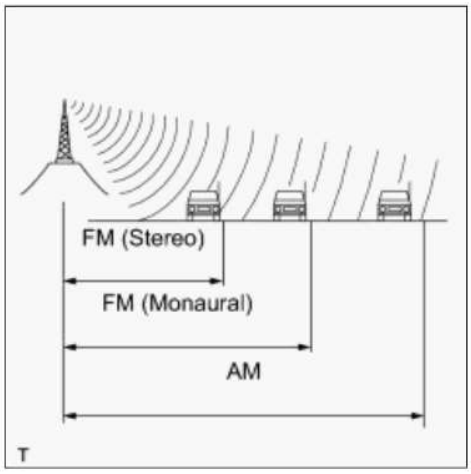
IDENTIFICATION OF NOISE SOURCE

1. RADIO WAVE BAND

(a) Radio frequency band

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





2. SERVICE AREA

(a) The broadcast range for AM and FM is very different. Sometimes an AM broadcast can be received very clearly but FM stereo cannot.

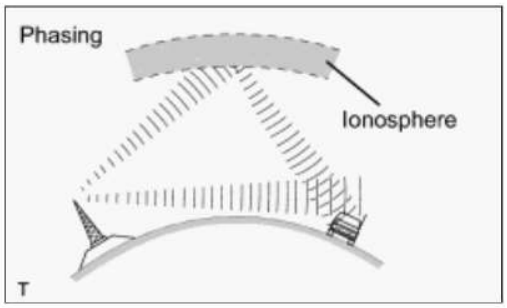
FM stereo has the smallest service area, and is prone to picking up static and other types of interference (for example, noise).

3. RECEPTION PROBLEMS

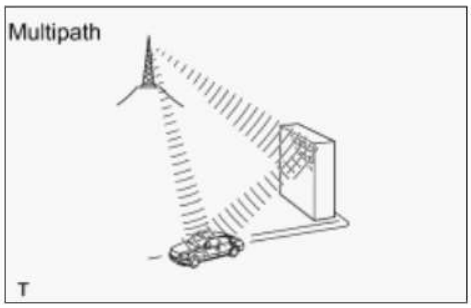
HINT:

Besides the problem of static, there are other problems, such as "phasing", "multipath" and "fade out". These problems are caused by the nature of the radio waves themselves, not by electrical noise.

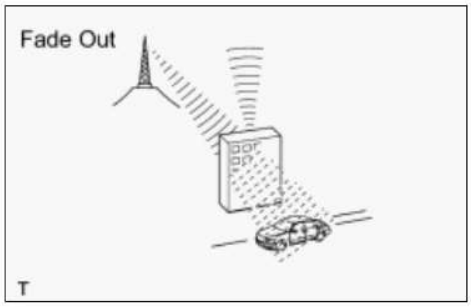
(a) AM broadcasts are susceptible to electrical interference called phasing. Occurring only at night, phasing is the interference created when a vehicle receives 2 radio wave signals from the



same transmitter. One signal is reflected off of the ionosphere and the other signal is received directly from the transmitter.



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



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

4. NOISE PROBLEMS

(a) Technicians must have a clear understanding about the noise problems of the customer's vehicle. Use the following table to diagnose the problems.

RADIO WAVE	CONDITION IN WHICH NOISE OCCURS	PRESUMABLE CAUSE
AM	Noise occurs in a specific area	Strong possibility of foreign noise
AM	Noise occurs when broadcasting is weak	• Same program may be broadcasted from various local stations • If the program is the same, one of those may be tuned in
AM	Noise occurs only at night	Strong possibility of beats from distant broadcasting
FM	Noise occurs at a specific place during driving	Strong possibility of multipath noise and fading noise caused by changes of FM frequency

HINT:

When the noise does not match the examples above, refer to "Reception Problems". Check the descriptions about phasing and multipath.





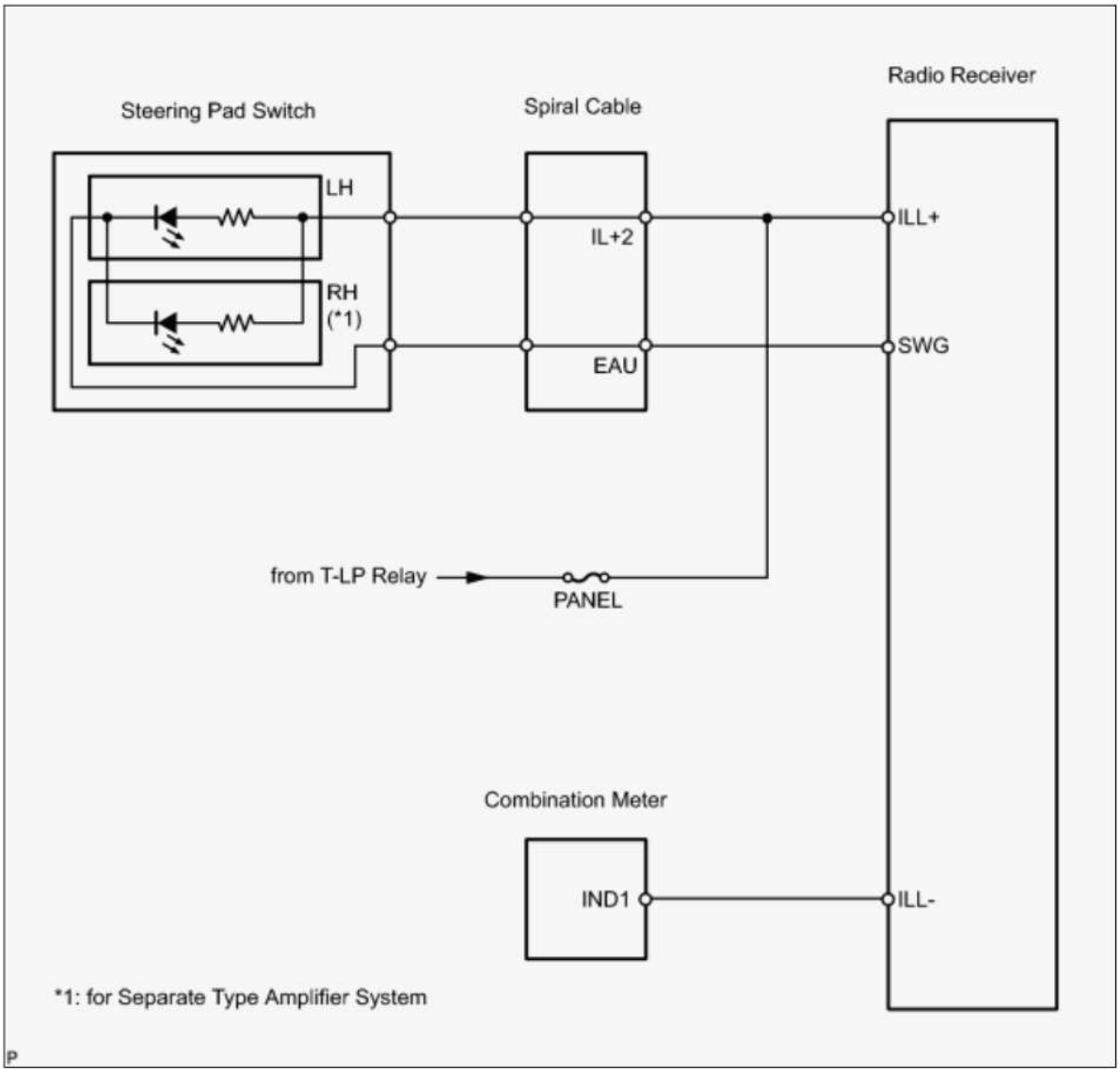
Last Modified: 9-7-2011	6.4 J	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM0000011EZ0AXX
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: Illumination Circuit (2011 RAV4)		

Illumination Circuit

DESCRIPTION

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

WIRING DIAGRAM



INSPECTION PROCEDURE

NOTICE:

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

PROCEDURE

1.	**CHECK ILLUMINATION**

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

Result

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 only for steering pad switch.	D

B ▶ **CHECK HARNESS AND CONNECTOR (BATTERY - RADIO RECEIVER ASSEMBLY)**

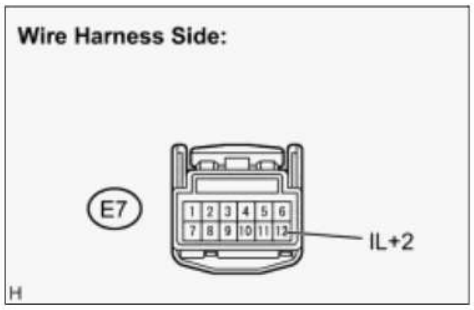
C ▶ **GO TO LIGHTING SYSTEM**

D ▶ **GO TO METER / GAUGE SYSTEM**

A ▼

2.	**CHECK HARNESS AND CONNECTOR (SPIRAL CABLE - BATTERY AND BODY GROUND)**

(a) Disconnect the E7 spiral cable connector.



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

Standard Voltage:

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
E7-12 (IL+2) - Body ground	Light control switch in TAIL or HEAD	11 to 14 V

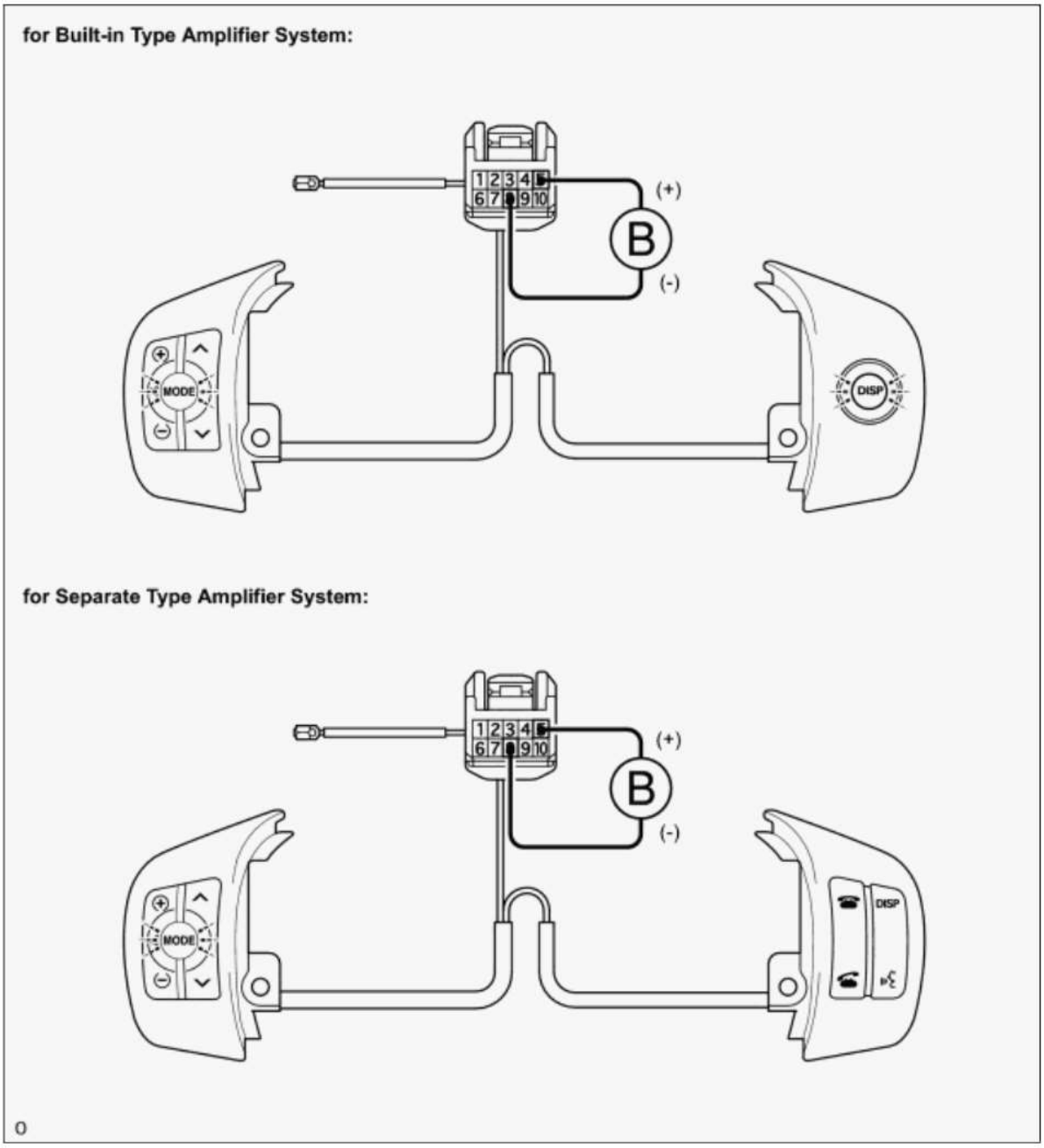
NG ▶ **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK ▼

3.	**INSPECT STEERING PAD SWITCH ASSEMBLY**

(a) Disconnect the steering pad switch assembly connector.

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



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

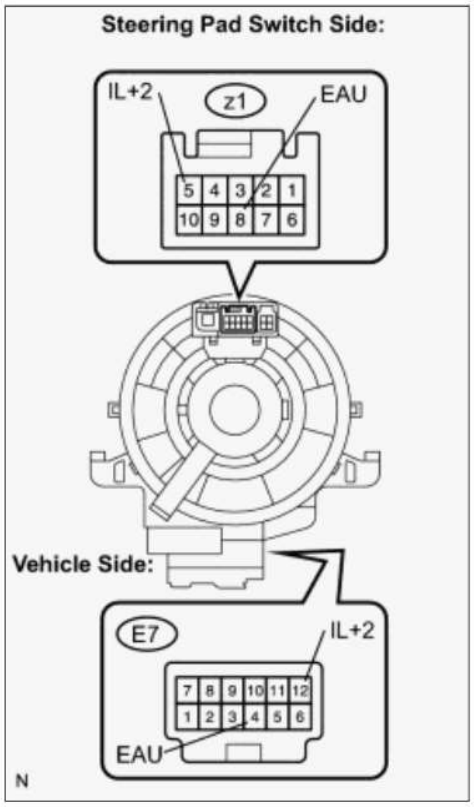
OK:

Illumination for the steering pad switch assembly comes on.

NG ▶ **REPLACE STEERING PAD SWITCH ASSEMBLY**

OK ▼

4.	**INSPECT SPIRAL CABLE**



(a) Disconnect the z1 steering pad switch connector.

(b) Disconnect the E7 spiral cable connector.

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
z1-8 (EAU) - E7-4 (EAU)	Center	Below 1 Ω
	2.5 rotations to the left	
	2.5 rotations to the right	
z1-5 (IL+2) - E7-12 (IL+2)	Center	Below 1 Ω
	2.5 rotations to the left	
	2.5 rotations to the right	

NOTICE:

The spiral cable is an important part of the SRS airbag system. Incorrect removal or installation of the spiral cable may cause airbag deployment. Be sure to refer to the "See page" shown in the brackets.

HINT:

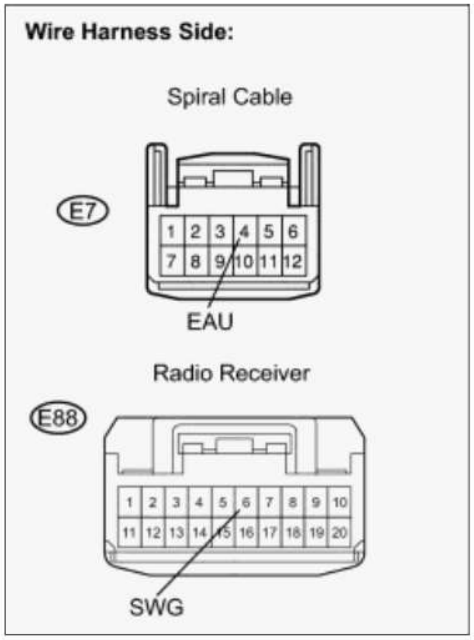
- Removal INFO

- Installation INFO

NG ▶ **REPLACE SPIRAL CABLE**

OK ▼

5.	CHECK HARNESS AND CONNECTOR (RADIO RECEIVER ASSEMBLY - SPIRAL CABLE)



(a) Disconnect the E88 receiver connector.

(b) Disconnect the E7 cable connector.

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

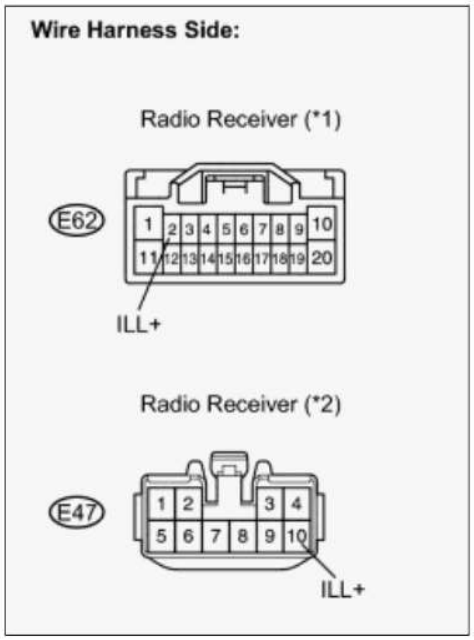
Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
E88-6 (SWG) - E7-4 (EAU)	Always	Below 1 Ω
E88-6 (SWG) - Body ground	Always	10 kΩ or higher

NG ▶ **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK ▶ **PROCEED TO NEXT SUSPECTED AREA SHOWN IN PROBLEM SYMPTOMS TABLE**

6.	**CHECK HARNESS AND CONNECTOR (BATTERY - RADIO RECEIVER ASSEMBLY)**



(a) Disconnect the E62 (*1) or E47 (*2) receiver connector.

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

Standard Voltage:

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
E62-2 (ILL+) - Body ground (*1)	Light control switch in TAIL or HEAD	11 to 14 V
E47-10 (ILL+) - Body ground (*2)	Light control switch in TAIL or HEAD	11 to 14 V

HINT:

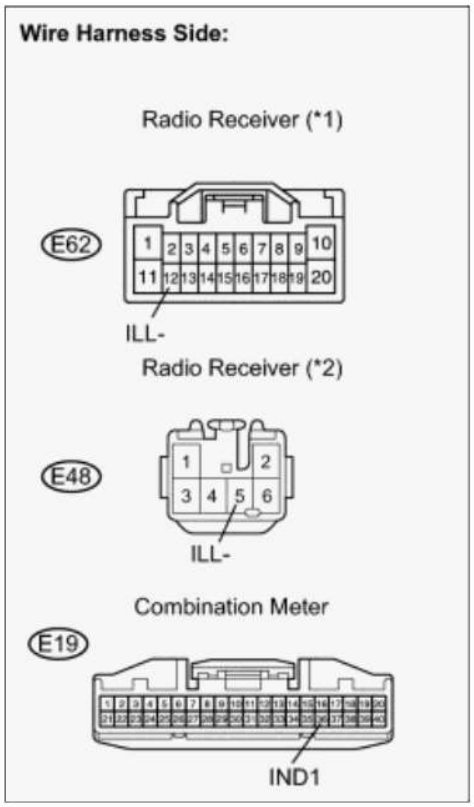
***1: Separate Type Amplifier System**

***2: Built-in Type Amplifier System**

NG ▶ **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK ▼

7.	**CHECK HARNESS AND CONNECTOR (NAVIGATION RECEIVER ASSEMBLY - COMBINATION METER)** (a) Disconnect the E62 (*1) or E48 (*2) receiver connector.



(b) Disconnect the E19 meter connector.

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
E62-12 (ILL-) - E19-36 (IND1) (*1)	Always	Below 1 Ω
E48-5 (ILL-) - E19-36 (IND1) (*2)	Always	Below 1 Ω
E62-12 (ILL-) - Body ground (*1)	Always	10 kΩ or higher
E48-5 (ILL-) - Body ground (*2)	Always	10 kΩ or higher

HINT:

***1: Separate Type Amplifier System**

***2: Built-in Type Amplifier System**

NG ▶ REPAIR OR REPLACE HARNESS OR CONNECTOR

OK ▶ PROCEED TO NEXT SUSPECTED AREA SHOWN IN PROBLEM SYMPTOMS TABLE

Last Modified: 9-7-2011	6.4 J	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM0000012FK04DX
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: Illumination for Panel Switch does not Come on with Tail Switch ON (2011 RAV4)		

Illumination for Panel Switch does not Come on with Tail Switch ON

INSPECTION PROCEDURE

PROCEDURE

1.	**INSPECT NIGHTTIME ILLUMINATION**

(a) Turn on the light control switch and check the nighttime illumination of the vehicle interior.

Result

RESULT	PROCEED TO
Only radio receiver or steering pad switch nighttime illumination does not activate	A
No nighttime illumination at all	B

B ▶ **GO TO METER / GAUGE SYSTEM**

A ▶ **PROCEED TO NEXT INSPECTION PROCEDURE SHOWN IN PROBLEM SYMPTOMS TABLE**

Last Modified: 9-7-2011	6.4 J	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000002EOY00FX
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: Microphone Circuit between Microphone and Radio Receiver (2011 RAV4)		

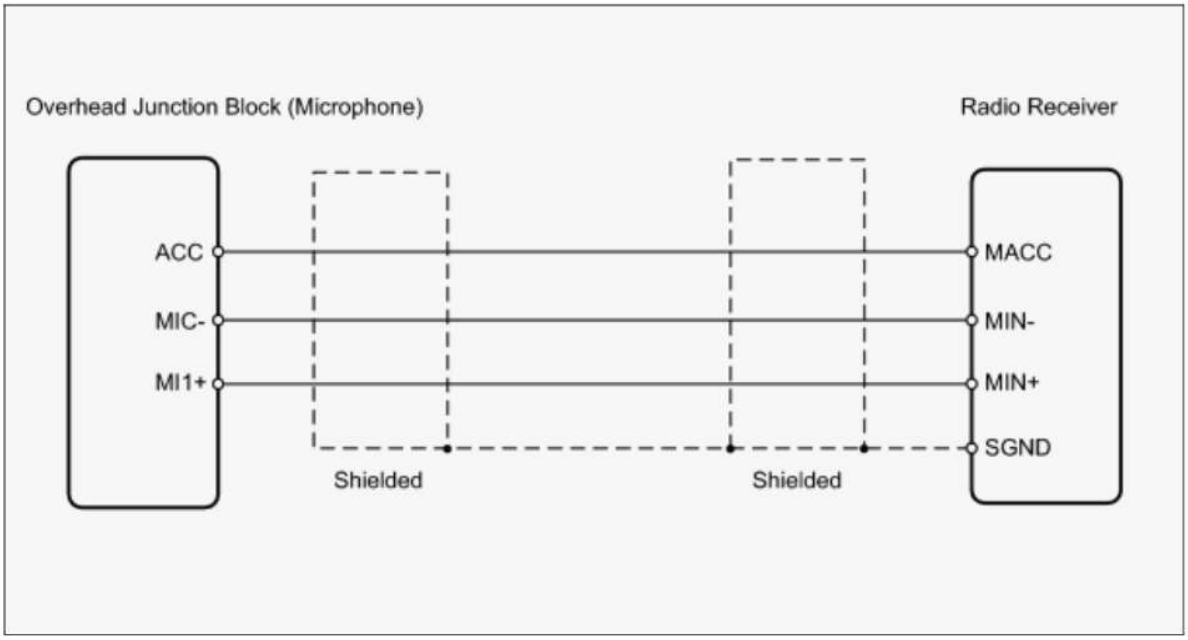
Microphone Circuit between Microphone and Radio Receiver

DESCRIPTION

This circuit sends a microphone signal from the microphone to the radio receiver.

It also supplies power from the radio receiver to the microphone.

WIRING DIAGRAM



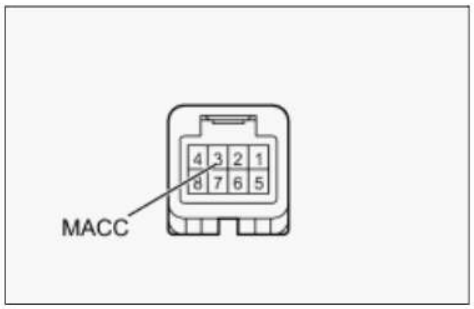
INSPECTION PROCEDURE

PROCEDURE

1.	**INSPECT RADIO RECEIVER ASSEMBLY**

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

Standard Voltage:

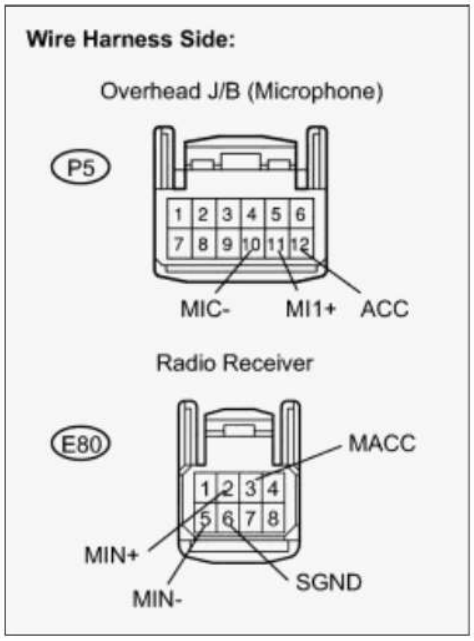


TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
3 (MACC) - Body ground	Ignition switch ACC	4 to 6 V

NG ▶ **REPLACE RADIO RECEIVER ASSEMBLY**

OK ▼

2.	**CHECK HARNESS AND CONNECTOR (OVERHEAD J/B (MICROPHONE) - RADIO RECEIVER)**



(a) Disconnect the P5 overhead J/B (microphone) and E80 receiver connectors.

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

Standard Resistance:

TESTER CONNECTION	SPECIFIED CONDITION
E80-3 (MACC) - P5-12 (ACC)	Below 1 Ω
E80-2 (MIN+) - P5-11 (MI1+)	Below 1 Ω

TESTER CONNECTION	SPECIFIED CONDITION
E80-5 (MIN-) - P5-10 (MIC-)	Below 1 Ω
E80-3 (MACC) - Body ground	10 kΩ or higher
E80-2 (MIN+) - Body ground	10 kΩ or higher
E80-5 (MIN-) - Body ground	10 kΩ or higher
E80-6 (SGND) - Body ground	10 kΩ or higher

NG ▶ **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK ▶ **PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE**

Last Modified: 9-7-2011	6.4 J	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000001XKE01EX
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: Mute Signal Circuit between Radio Receiver and Stereo Component Amplifier (2011 RAV4)		

Mute Signal Circuit between Radio Receiver and Stereo Component Amplifier

DESCRIPTION

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

WIRING DIAGRAM

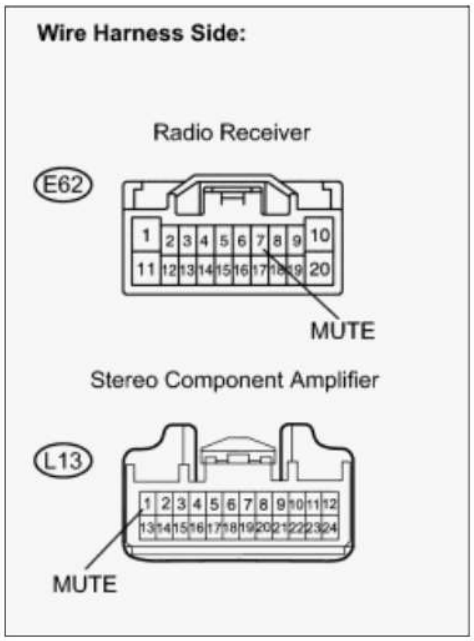


INSPECTION PROCEDURE

PROCEDURE

1.	**CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - STEREO COMPONENT AMPLIFIER)**

(a) Disconnect the E62 receiver connector.



(b) Disconnect the L13 amplifier connector.

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

Standard Resistance:

TESTER CONNECTION	SPECIFIED CONDITION
E62-7 (MUTE) - L13-1 (MUTE)	Below 1 Ω

NG ▶ **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK ▼

2.	**INSPECT STEREO COMPONENT AMPLIFIER ASSEMBLY**

(a) Replace the stereo component amplifier and check if it operates normally.

OK:

The audio system operates normally.

NG ▶ **REPLACE RADIO RECEIVER ASSEMBLY**

OK ▶ **OK (REPLACE STEREO COMPONENT AMPLIFIER ASSEMBLY)**

Last Modified: 9-7-2011	6.4 J	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000001037049X
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: No Sound can be Heard from Speakers (2011 RAV4)		

No Sound can be Heard from Speakers

INSPECTION PROCEDURE

PROCEDURE

1.	**CHECK RADIO RECEIVER ASSEMBLY (VOLUME AND MUTE SWITCH)**

(a) Check the radio receiver setting.

(1) Check that the volume is not set to minimum.

(2) Check that "MUTE" is OFF.

OK:
Malfunction disappears.

NG ▶ **PROCEED TO NEXT INSPECTION PROCEDURE SHOWN IN PROBLEM SYMPTOMS TABLE**

OK ▶ **END**

Last Modified: 9-7-2011	6.4 J	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000001034043X
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: Noise Occurs (2011 RAV4)		

Noise Occurs

INSPECTION PROCEDURE

PROCEDURE

1.	**CHECK SPEAKER INSTALLATION**

(a) Check that each speaker is securely installed.

OK:
Each speaker is securely installed.

NG ▶ **INSTALL SPEAKER PROPERLY**

OK ▼

2.	**IDENTIFY NOISE SOURCE**

(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 IN WHICH NOISE OCCURS	NOISE TYPE
Depressing accelerator pedal increases noise, and stopping engine stops noise immediately	Generator noise
When A/C or heater is operating	Blower motor noise
HINT: • When rapidly accelerating on unpaved road • When ignition switch ON	Fuel pump noise

- In the chart's left column, find the situation that matches the customer's vehicle. 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 originating from outside the vehicle.
- Troubleshoot noise problems in order of loudness, starting with the loudest noise.
- Setting the radio to a frequency that receives no signal may make recognition of the noise problem easier.

OK:
The noise source can be determined.

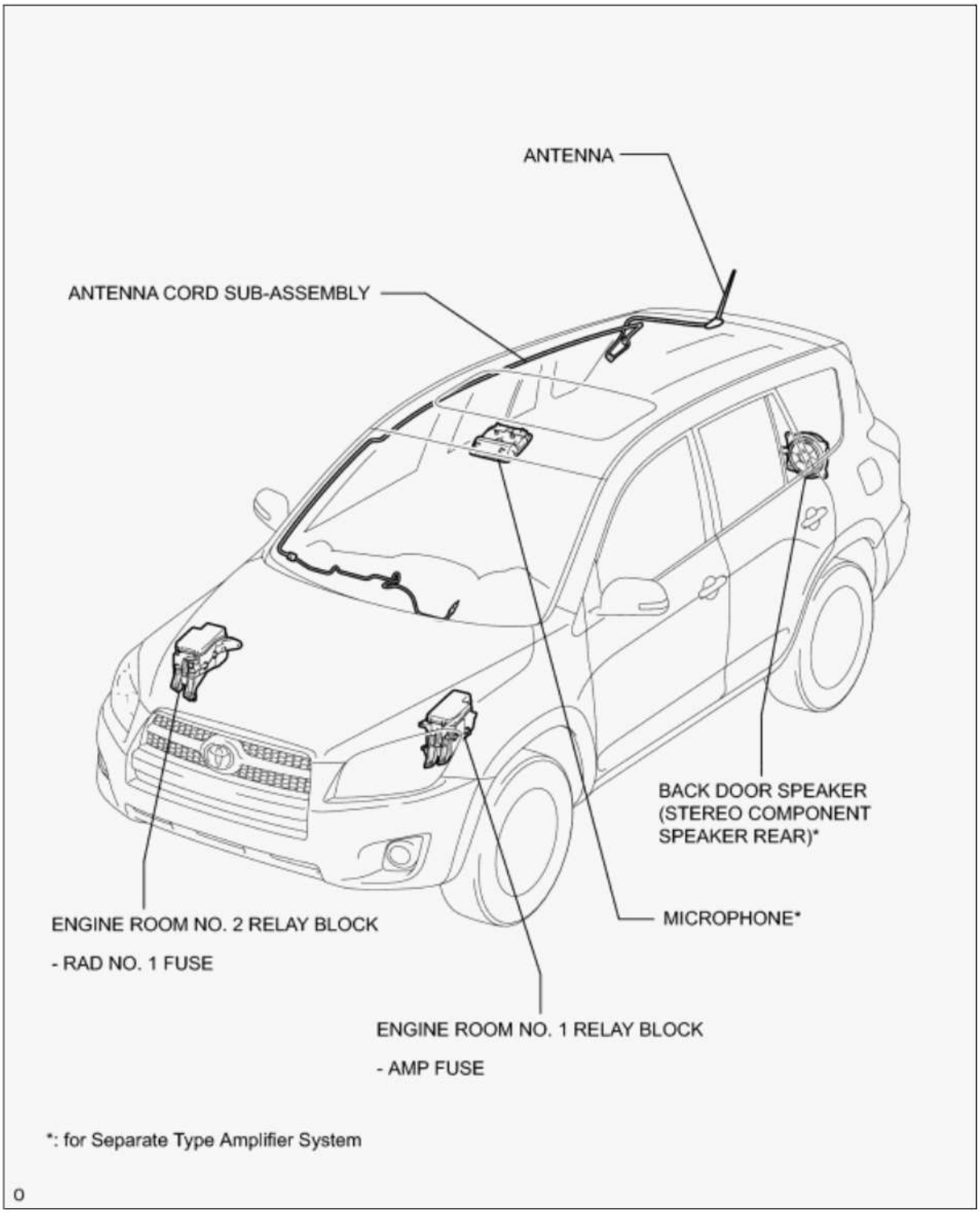
NG ▶ **REPLACE RADIO RECEIVER ASSEMBLY**

OK ▶ **REPAIR OR REPLACE NOISE SOURCE**

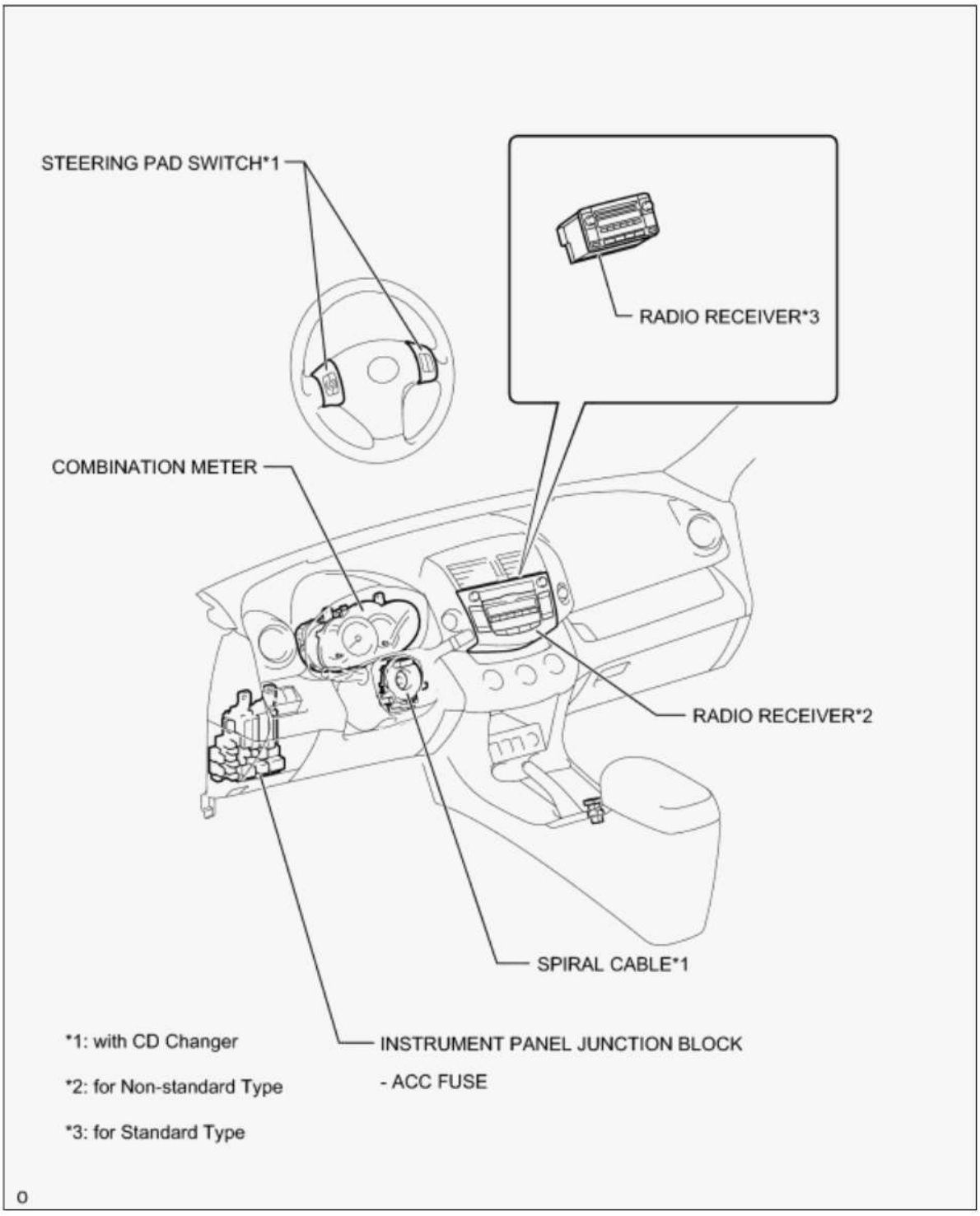
Last Modified: 9-7-2011	6.4 R	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000001WWA00HX
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: PARTS LOCATION (2011 RAV4)		

PARTS LOCATION

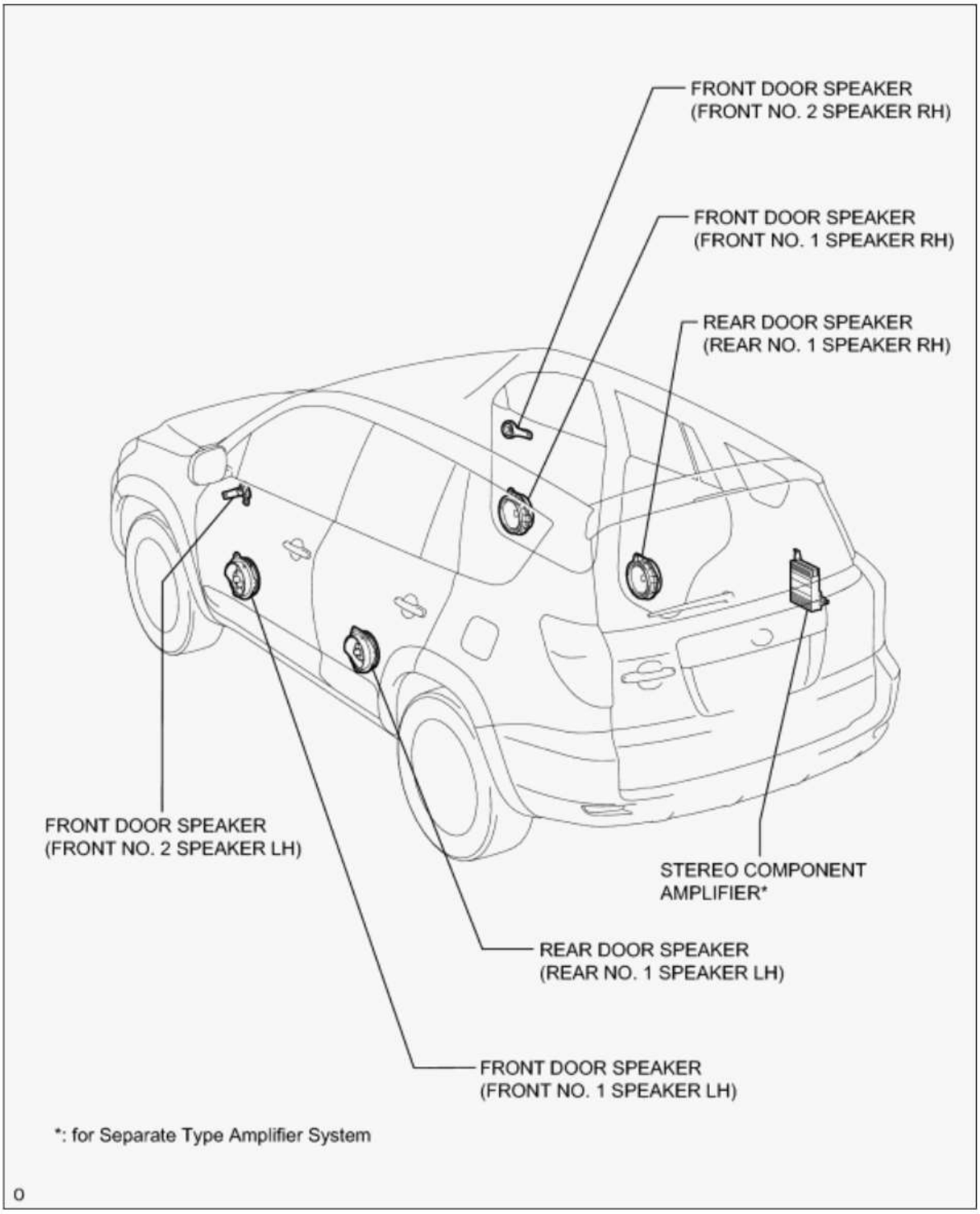
ILLUSTRATION



ILLUSTRATION



ILLUSTRATION


FRONT DOOR SPEAKER
(FRONT NO. 2 SPEAKER RH)
FRONT DOOR SPEAKER
(FRONT NO. 1 SPEAKER RH)
REAR DOOR SPEAKER
(REAR NO. 1 SPEAKER RH)
FRONT DOOR SPEAKER
(FRONT NO. 2 SPEAKER LH)
STEREO COMPONENT
AMPLIFIER*
REAR DOOR SPEAKER
(REAR NO. 1 SPEAKER LH)
FRONT DOOR SPEAKER
(FRONT NO. 1 SPEAKER LH)
*: for Separate Type Amplifier System
0

Last Modified: 9-7-2011	6.4 J	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM0000012FL03ZX
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: Poor Sound Quality in All Modes (Low Volume) (2011 RAV4)		

Poor Sound Quality in All Modes (Low Volume)

INSPECTION PROCEDURE

PROCEDURE

1.	**ADJUST SOUND QUALITY**

(a) Operate the radio receiver to adjust the sound quality.

OK:

Sound quality returns to normal.

OK ▶ **SYSTEM IS OK (BAD SOUND QUALITY)**

NG ▼

2.	**COMPARE VEHICLE WITH ANOTHER VEHICLE OF SAME MODEL**

(a) Compare the vehicle with another vehicle that has a normally functioning audio system. Check if there is any difference in the problem.

OK:

No difference is found.

NG ▶ **PROCEED TO NEXT INSPECTION PROCEDURE SHOWN IN PROBLEM SYMPTOMS TABLE**

OK ▶ **SYSTEM IS OK (BAD SOUND QUALITY)**

Last Modified: 9-7-2011	6.4 L	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000003PLR007X
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: PRECAUTION (2011 RAV4)		

PRECAUTION

1. IGNITION SWITCH EXPRESSION

HINT:

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

EXPRESSION	IGNITION SWITCH (POSITION)	ENGINE SWITCH (CONDITION)
Ignition Switch off	Off	Off
Ignition Switch ON	ON	On (IG)
Ignition Switch ACC	ACC	On (ACC)
Engine Start	START	Start

Last Modified: 9-7-2011	6.4 T	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000001WWD00UX
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: PROBLEM SYMPTOMS TABLE (2011 RAV4)		

PROBLEM SYMPTOMS TABLE

HINT:

Use the table below to help determine the cause of the problem symptom. The potential causes of the symptoms are listed in order of probability in the "Suspected Area" column of the table. Check each symptom by checking the suspected areas in the order they are listed. Replace as necessary.

Audio Function:

SYMPTOM	SUSPECTED AREA	SEE PAGE
Pressing power switch does not turn on system	1. Radio receiver power source circuit	INFO
	2. AVC-LAN circuit*1	INFO
	3. Radio receiver	INFO
Turning on light control switch does not activate nighttime illumination of radio receiver	1. Illumination for panel switch does not come on with tail switch on	INFO
	2. Illumination circuit	INFO
	3. Radio receiver	INFO
No sound can be heard from speakers	1. No sound can be heard from speakers	INFO
	2. Speaker circuit	INFO
	3. Radio receiver power source circuit	INFO
	4. Stereo component amplifier power source circuit*1	INFO
	5. Stereo component amplifier*1	INFO
	6. Radio receiver	INFO
Poor sound quality in all modes (low volume)	1. Poor sound quality in all modes (Low reception)	INFO
	2. Speaker circuit	INFO
	3. Sound signal circuit between radio receiver and stereo component amplifier*1	INFO
	4. Stereo component amplifier*1	INFO
	5. Radio receiver	INFO
ASL (Automatic Sound Levelizer) does not function	Speed signal circuit	INFO
External device sound cannot be heard or sound quality is bad (stereo jack is used)	1. Sound signal circuit between radio receiver and stereo jack adapter	INFO
	2. Radio receiver power source circuit	INFO

SYMPTOM	SUSPECTED AREA	SEE PAGE
	3. Stereo jack adapter	INFO
	4. Radio receiver	INFO
Noise occurs	Noise occurs	INFO
Radio broadcast cannot be received (bad reception)	Radio broadcast cannot be received (Bad reception)	INFO
CD cannot be inserted or is ejected right after insertion	1. CD cannot be inserted or is ejected right after insertion	INFO
	2. Radio receiver power source circuit	INFO
	3. Radio receiver	INFO
CD cannot be ejected	1. CD cannot be ejected	INFO
	2. Radio receiver power source circuit	INFO
	3. Radio receiver	INFO
Sound quality is bad only when CD is played (volume is too low)	Sound quality is bad only when CD is played (Volume is too low)	INFO
CD sound skips	CD sound skips	INFO
Noise occurs	Noise occurs	INFO

Steering Pad Switch Function:

SYMPTOM	SUSPECTED AREA	SEE PAGE
Turning on light control switch does not activate nighttime illumination of radio receiver	1. Illumination for panel switch does not come on with tail switch on	INFO
	2. Illumination circuit	INFO
	3. Steering pad switch	INFO
Audio system cannot be operated with steering pad switch	1. Steering pad switch circuit	INFO
	2. Radio receiver	INFO
Steering pad switch cannot be illuminated at night.	1. Illumination circuit	INFO
	2. Radio receiver	INFO

"Bluetooth" Function (*1):

SYMPTOM	SUSPECTED AREA	SEE PAGE
Cellular phone registration failure, phone directory transfer failure.	Proceed to "Cellular Phone Registration Failure, Phone Directory Transfer Failure"	INFO
Cellular phone cannot send / receive.	1. Proceed to "Cellular Phone cannot Send / Receive"	INFO

SYMPTOM	SUSPECTED AREA	SEE PAGE
	2. Steering pad switch circuit	INFO
	3. Radio receiver	INFO
The other callers voice cannot be heard, is too quiet, or distorted.	1. Proceed to "The Other Callers Voice cannot be Heard, is too Quiet, or Distorted"	INFO
	2. Radio receiver	INFO
	3. Stereo component amplifier	INFO
The other caller cannot hear your voice, or your voice is too quiet or distorted.	1. Proceed to "The Other Caller cannot Hear Your Voice, or Your Voice is too Quiet or Distorted"	INFO
	2. Proceed to "Microphone Circuit between Microphone and Radio Receiver"	INFO
	3. Microphone	INFO
	4. Radio receiver	INFO

*1: for Separate Type Amplifier System

Last Modified: 9-7-2011	6.4 J	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM00000102W02YX
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: Radio Broadcast cannot be Received (Bad Reception) (2011 RAV4)		

Radio Broadcast cannot be Received (Bad Reception)

INSPECTION PROCEDURE

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.

OK ▶ **REPLACE RADIO RECEIVER ASSEMBLY**

NG ▼

2.	**CHECK OPTIONAL COMPONENTS**

(a) Check if the telephone antenna, and other optional components are installed.

OK:

Optional component(s) installed.

OK ▶ **EFFECT FROM OPTIONAL COMPONENTS**

NG ▼

3.	**CHECK ANTENNA FOR NOISE PRODUCTION**

(a) With the ignition switch ACC, turn on the radio and choose the AM mode.

(b) Place the tip of a screwdriver on the antenna and check that noise is heard from the speakers.

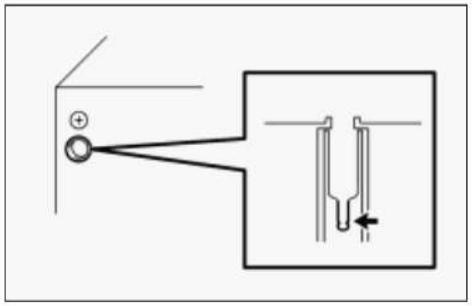
OK:

Noise is heard.

OK ▶ **REPLACE RADIO RECEIVER ASSEMBLY**

NG ▼

4.	CHECK RADIO RECEIVER ASSEMBLY (ANTENNA)



(a) Remove the antenna plug of the radio receiver.

(b) With the radio receiver connector connected, turn the ignition switch to ACC.

(c) Turn on the radio and choose the AM mode.

(d) Place a flat-head screwdriver or a piece of metal, such as a thin wire, on the antenna jack of the radio receiver. Check that noise is heard from the speakers.

OK:

Noise is heard.

NG ▶ **REPLACE ANTENNA ASSEMBLY AND ANTENNA CORD SUB-ASSEMBLY**

OK ▶ **REPLACE RADIO RECEIVER ASSEMBLY**

Last Modified: 9-7-2011	6.4 J	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000001YMK00NX
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: Radio Receiver Communication Error (2011 RAV4)		

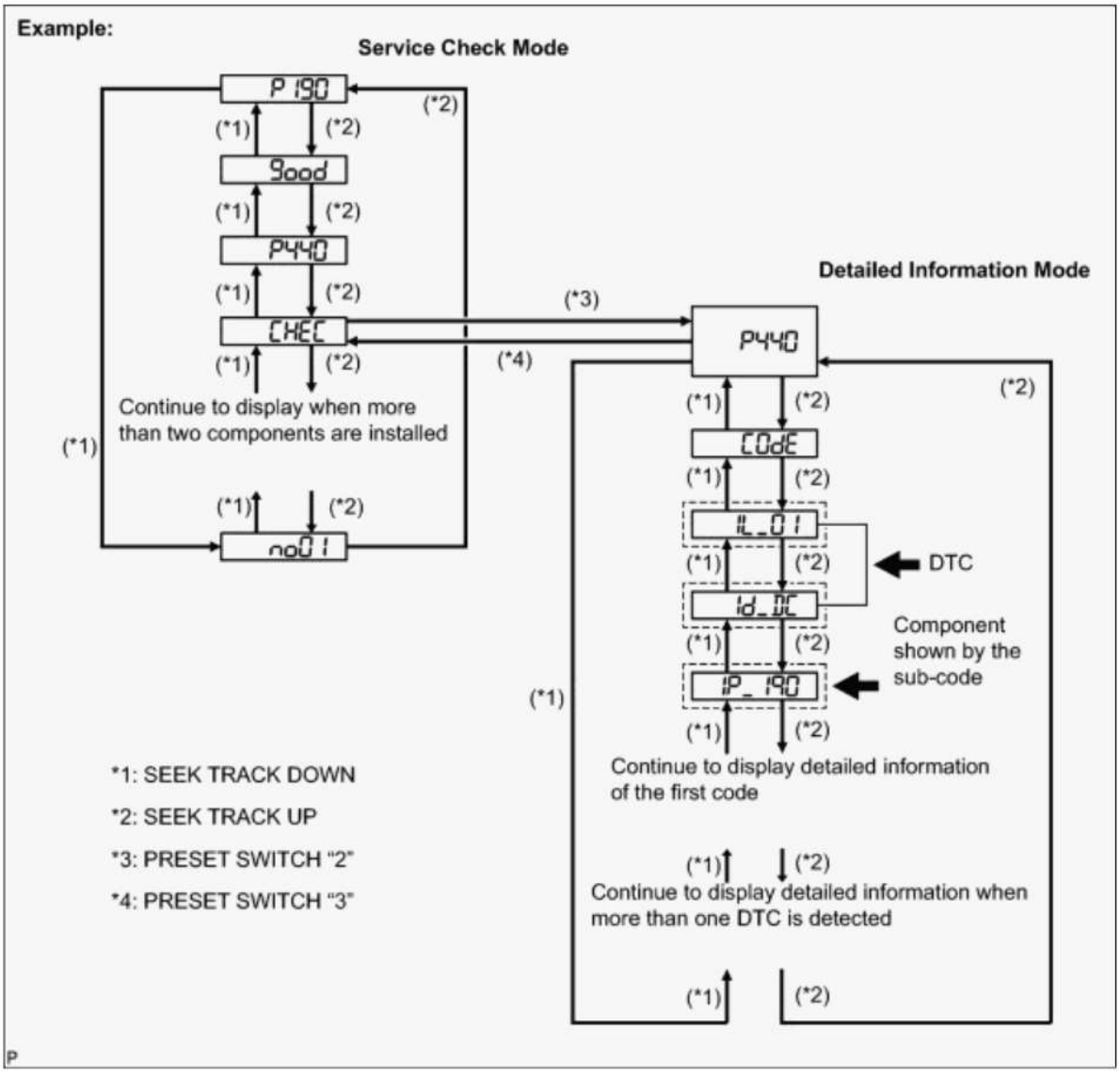
Radio Receiver Communication Error

INSPECTION PROCEDURE

PROCEDURE

1.	**IDENTIFY THE COMPONENT SHOWN BY THE SUB-CODE**

(a) Enter the diagnostic mode.



(b) Press the preset switch "2" to change to "Detailed Information Mode".

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

HINT:

- "190 (radio receiver)" is the component shown by the sub-code in the example shown in the illustration.
- For details of the DTC display, refer to the "DTC CHECK/CLEAR" INFO .

NEXT

2.	**CHECK COMPONENT SHOWN BY SUB-CODE**

(a) Select the component shown by sub-code.

HINT:

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

Component Table:

COMPONENT	PROCEED TO
"Bluetooth" handsfree module (19D)	A
Except "Bluetooth" handsfree module	B

A ▶ **REPLACE RADIO RECEIVER ASSEMBLY**

B ▼

3.	**CHECK POWER SOURCE CIRCUIT OF COMPONENT SHOWN BY SUB-CODE**

(a) Inspect the power source circuit of the component shown by the sub-code.

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

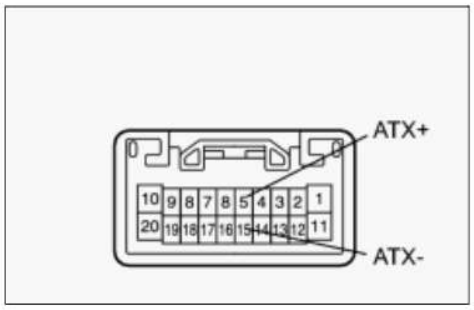
Component Table:

COMPONENT	PROCEED TO
Stereo component amplifier (440)	Stereo component amplifier power source circuit INFO

NEXT ▼

4.	**INSPECT RADIO RECEIVER ASSEMBLY**

(a) Disconnect the E62 receiver connector.



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

Standard Resistance:

TESTER CONNECTION	SPECIFIED CONDITION
5 (ATX+) - 15 (ATX-)	60 to 80 Ω

NG ▶ **REPLACE RADIO RECEIVER ASSEMBLY**

OK ▼

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 the "Terminals of ECU" INFO .

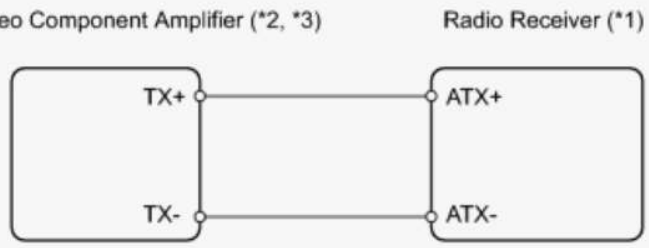
(a) Referring to the AVC-LAN wiring diagram below, check the AVC-LAN circuit between the radio receiver and the component shown by the sub-code.

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

OK:

There is no open or short circuit.

AVC-LAN Wiring Diagram:



*1: Master Unit

*2: Slave Unit

*3: for Separate Type Amplifier System

NG ▶ **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK ▼

6.	**REPLACE COMPONENT SHOWN BY SUB-CODE**

(a) Replace the component shown by the sub-code with a normal one and check if the same problem occurs again.

OK:

Same problem does not occur.

NG ▶ **REPLACE RADIO RECEIVER ASSEMBLY**

OK ▶ **END**

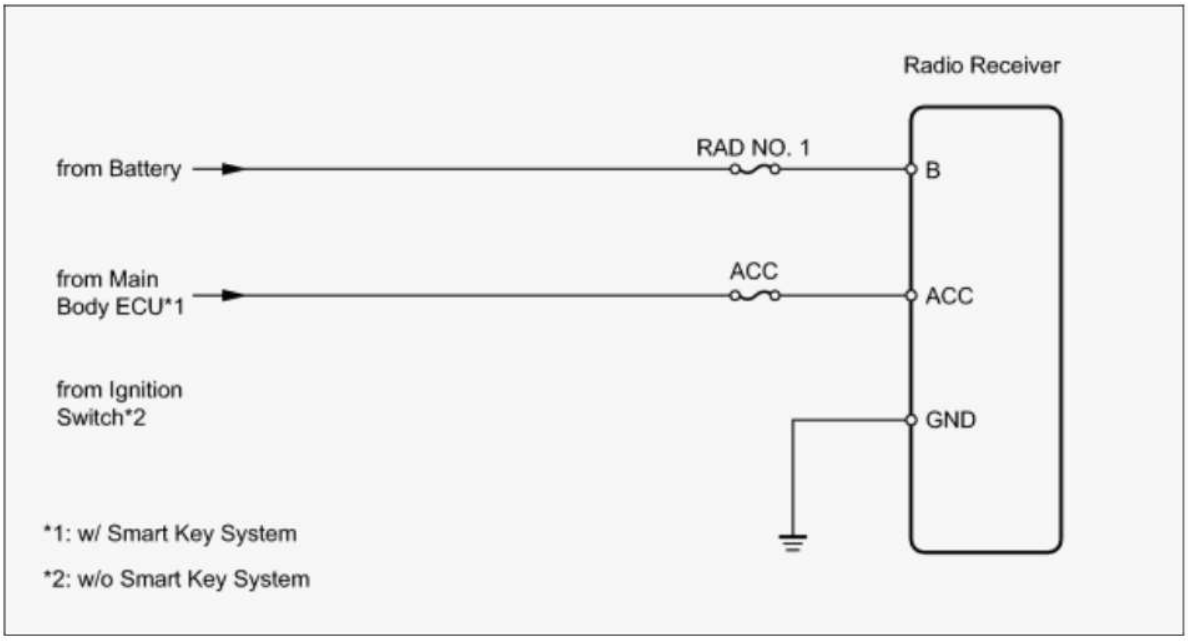
Last Modified: 9-7-2011	6.4 J	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000001WWY00NX
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: Radio Receiver Power Source Circuit (2011 RAV4)		

Radio Receiver Power Source Circuit

DESCRIPTION

This circuit provides power to the radio receiver.

WIRING DIAGRAM



INSPECTION PROCEDURE

PROCEDURE

1.	**INSPECT FUSE (RAD NO. 1, ACC)**

(a) Disconnect the RAD NO. 1 fuse from the engine room No. 2 relay block.

(b) Disconnect the ACC fuse from the instrument panel junction block.

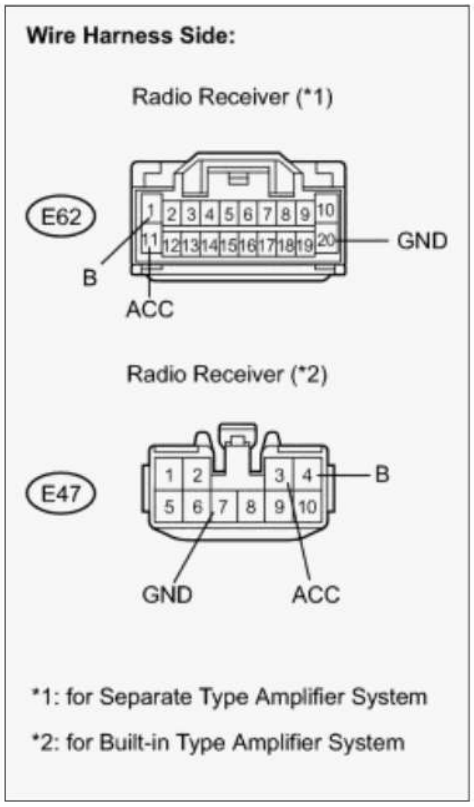
(c) Measure the resistance of the fuses.

Standard resistance:
Below 1 Ω

NG ▶ **REPLACE FUSE**

OK ▼

2.	CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - BATTERY AND CONNECTOR)



(a) Disconnect the E47 (*2) or E62 (*1) receiver connector.

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

Standard Voltage:

Standard Resistance

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
E62-1 (B) - Body ground (*1)	Always	11 to 14 V
E62-11 (ACC) - Body ground (*1)	Ignition switch ACC	11 to 14 V
E47-4 (B) - Body ground (*2)	Always	11 to 14 V
E47-3 (ACC) - Body ground (*2)	Ignition switch ACC	11 to 14 V

TESTER CONNECTION	SPECIFIED CONDITION
E62-20 (GND) - Body ground (*1)	Below 1 Ω
E47-7 (GND) - Body ground (*2)	Below 1 Ω

HINT:

***1: for Separate Type Amplifier System**

***2: for Built-in Type Amplifier System**

NG ▶ **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK ▶ **PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE**

Last Modified: 9-7-2011	6.4 J	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000000103203FX
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: Sound Quality is Bad Only when CD is Played (Volume is Too Low) (2011 RAV4)		

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 a normal one and check if the same problem occurs again.

OK:

Malfunction disappears.

NG ▶ **REPLACE RADIO RECEIVER ASSEMBLY**

OK ▶ **CD IS FAULTY**

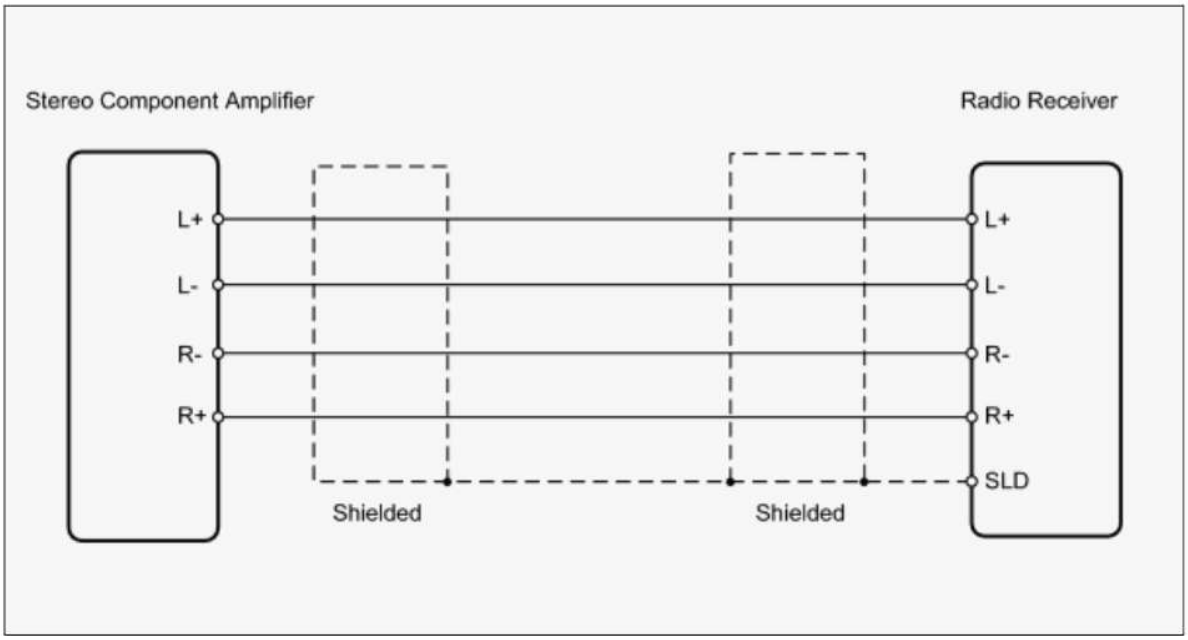
Last Modified: 9-7-2011	6.4 J	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000001WX100MX
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: Sound Signal Circuit between Radio Receiver and Stereo Component Amplifier (2011 RAV4)		

Sound Signal Circuit between Radio Receiver and Stereo Component Amplifier

DESCRIPTION

The circuit sends a sound signal from the radio receiver to the stereo component amplifier.

WIRING DIAGRAM

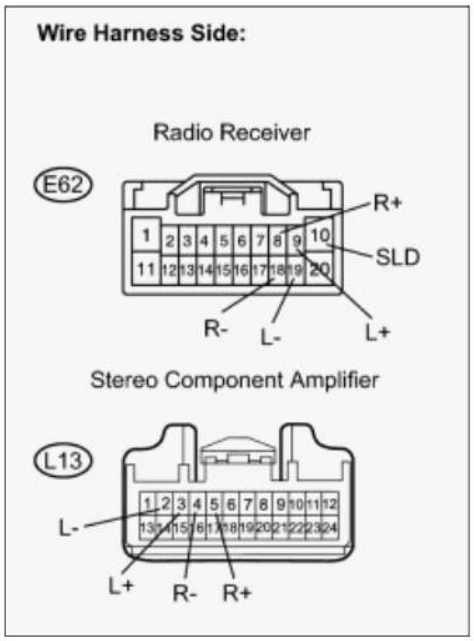


INSPECTION PROCEDURE

PROCEDURE

1.	**CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - STEREO COMPONENT AMPLIFIER)**

(a) Disconnect the E62 receiver connector.



(b) Disconnect the L13 amplifier connector.

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

Standard Resistance:

TESTER CONNECTION	SPECIFIED CONDITION
E62-8 (R+) - L13-5 (R+)	Below 1 Ω
E62-18 (R-) - L13-4 (R-)	Below 1 Ω
E62-9 (L+) - L13-3 (L+)	Below 1 Ω
E62-19 (L-) - L13-2 (L-)	Below 1 Ω
E62-8 (R+) - Body ground	10 kΩ or higher
E62-18 (R-) - Body ground	10 kΩ or higher
E62-9 (L+) - Body ground	10 kΩ or higher
E62-19 (L-) - Body ground	10 kΩ or higher
E62-10 (SLD) - Body ground	10 kΩ or higher

NG ▶ **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK ▶ **PROCEED TO NEXT INSPECTION PROCEDURE SHOWN IN PROBLEM SYMPTOMS TABLE**

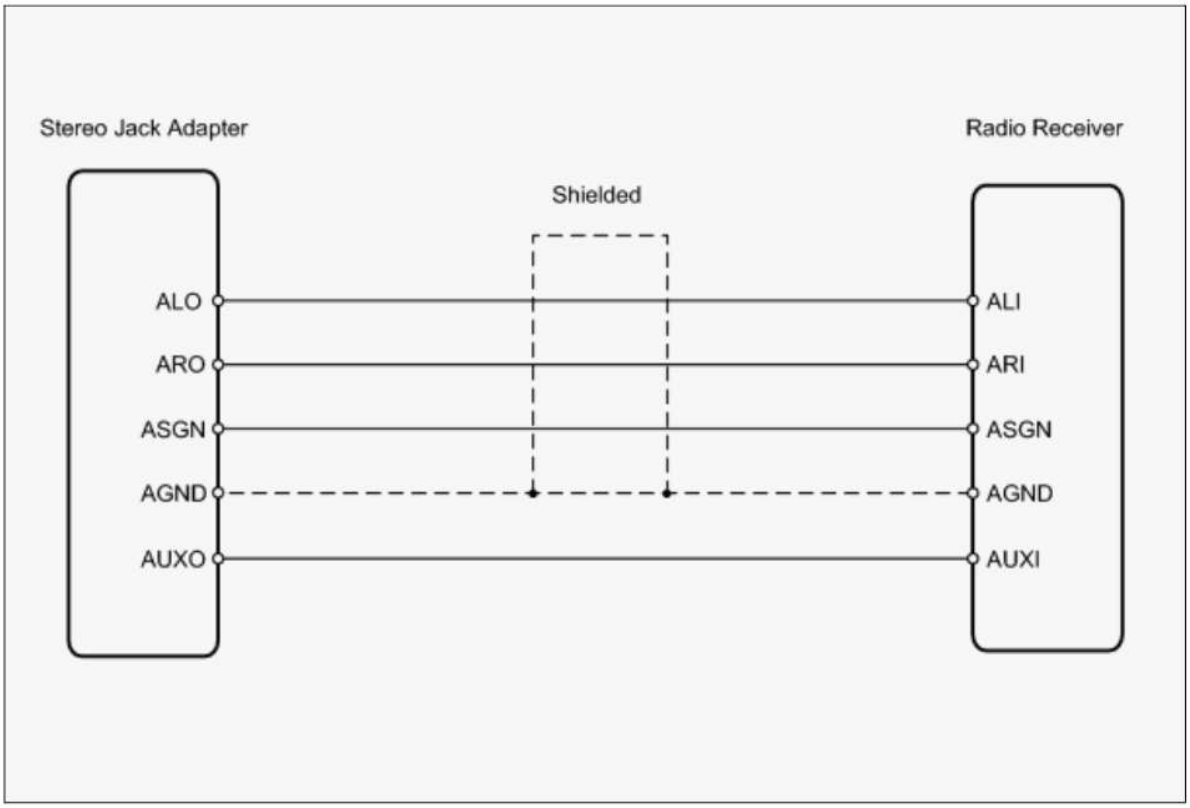
Last Modified: 9-7-2011	6.4 J	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000001ZN700MX
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: Sound Signal Circuit between Radio Receiver and Stereo Jack Adapter (2011 RAV4)		

Sound Signal Circuit between Radio Receiver and Stereo Jack Adapter

DESCRIPTION

This circuit sends an external device sound signal from the stereo jack adapter to the radio receiver.

WIRING DIAGRAM

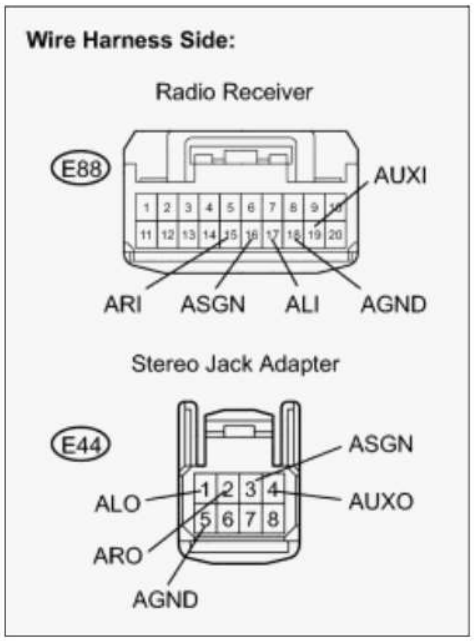


INSPECTION PROCEDURE

PROCEDURE

1.	**CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - STEREO JACK ADAPTER)**

(a) Disconnect the E88 receiver connector.



(b) Disconnect the E44 adapter connector.

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

Standard Resistance:

TESTER CONNECTION	SPECIFIED CONDITION
E88-17 (ALI) - E44-1 (ALO)	Below 1 Ω
E88-15 (ARI) - E44-2 (ARO)	Below 1 Ω
E88-16 (ASGN) - E44-3 (ASGN)	Below 1 Ω
E88-18 (AGND) - E44-5 (AGND)	Below 1 Ω
E88-19 (AUXI) - E44-4 (AUXO)	Below 1 Ω
E88-17 (ALI) - Body ground	10 kΩ or higher
E88-15 (ARI) - Body ground	10 kΩ or higher
E88-16 (ASGN) - Body ground	10 kΩ or higher
E88-18 (AGND) - Body ground	10 kΩ or higher
E88-19 (AUXI) - Body ground	10 kΩ or higher

NG ▶ **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK ▶ **PROCEED TO NEXT INSPECTION PROCEDURE SHOWN IN PROBLEM SYMPTOMS TABLE**

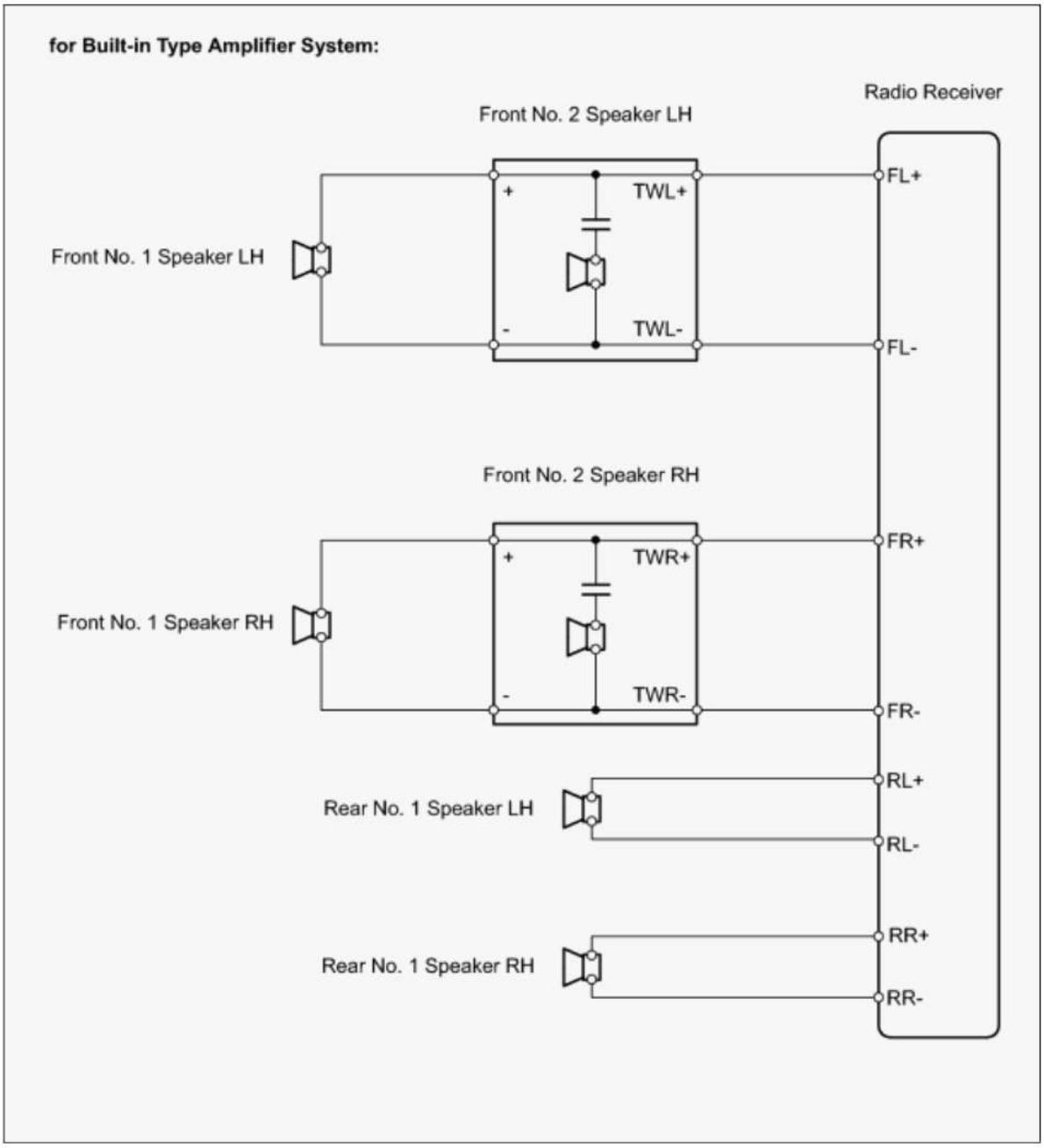
Last Modified: 9-7-2011	6.4 J	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000001XJI03EX
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: Speaker Circuit (2011 RAV4)		

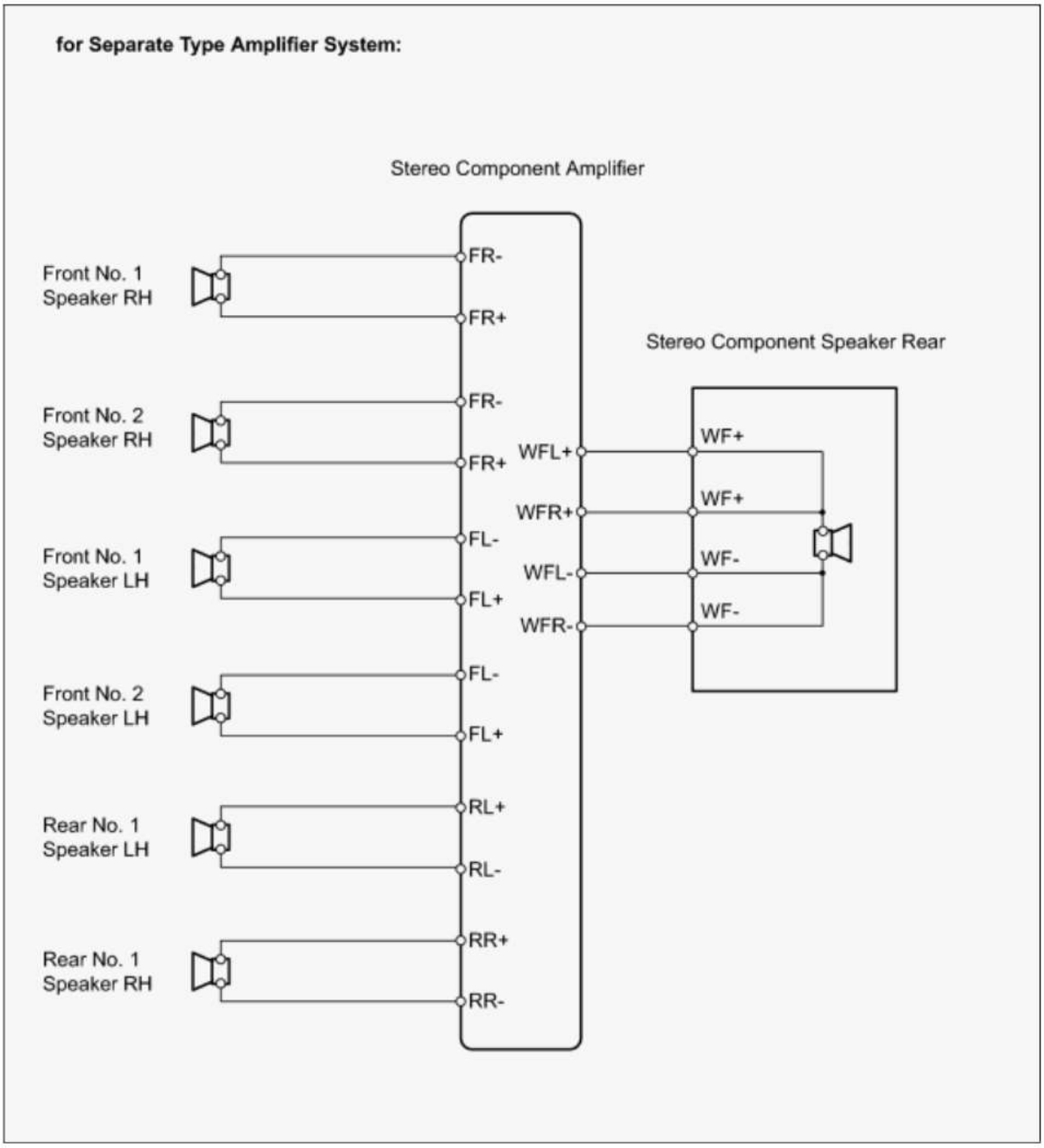
Speaker Circuit

DESCRIPTION

The radio receiver sends sound signals to the speakers.

WIRING DIAGRAM


for Built-in Type Amplifier System:
Radio Receiver
Front No. 2 Speaker LH
Front No. 1 Speaker LH
+
-
TWL+
TWL-
FL+
FL-
Front No. 2 Speaker RH
Front No. 1 Speaker RH
+
-
TWR+
TWR-
FR+
FR-
Rear No. 1 Speaker LH
RL+
RL-
Rear No. 1 Speaker RH
RR+
RR-



INSPECTION PROCEDURE

PROCEDURE

1.	**CONFIRM MODEL**

(a) Check the audio models.

Result

RESULT	PROCEED TO
Separate Type Amplifier System	A
Built-in Type Amplifier System	B

B ▶ **CHECK SPEAKER**

A ▼

2.	**CHECK SPEAKER**

(a) Check that the speakers sound.

Result

RESULT	PROCEED TO
Front No. 1 speaker does not operate	A
Front No. 2 speaker does not operate	B
Rear No. 1 speaker does not operate	C
Stereo component speaker rear does not operate	D
All speakers do not operate	E

B ▶ **CHECK HARNESS AND CONNECTOR (STEREO COMPONENT AMPLIFIER - FRONT NO. 2 SPEAKER)**

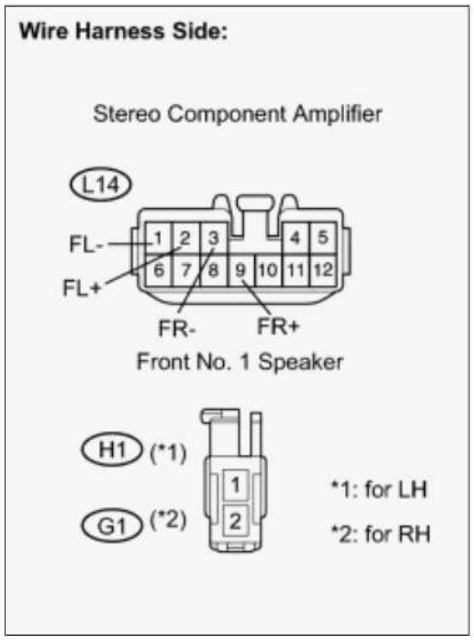
C ▶ **CHECK HARNESS AND CONNECTOR (STEREO COMPONENT AMPLIFIER - REAR NO. 1 SPEAKER)**

D ▶ **CHECK HARNESS AND CONNECTOR (STEREO COMPONENT AMPLIFIER - STEREO COMPONENT SPEAKER REAR)**

E ▶ **PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE**

A ▼

3.	**CHECK HARNESS AND CONNECTOR (STEREO COMPONENT AMPLIFIER - FRONT NO. 1 SPEAKER)**



(a) Disconnect the L14 amplifier connector.

(b) Disconnect the H1 (*1) or G1 (*2) speaker connector.

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

Standard Resistance:

TESTER CONNECTION	SPECIFIED CONDITION
L14-1 (FL-) - H1-2 (*1)	Below 1 Ω
L14-2 (FL+) - H1-1 (*1)	Below 1 Ω
L14-3 (FR-) - G1-2 (*2)	Below 1 Ω
L14-9 (FR+) - G1-1 (*2)	Below 1 Ω
L14-3 (FR-) - Body ground	10 kΩ or higher
L14-9 (FR+) - Body ground	10 kΩ or higher
L14-1 (FL-) - Body ground	10 kΩ or higher
L14-2 (FL+) - Body ground	10 kΩ or higher

HINT:

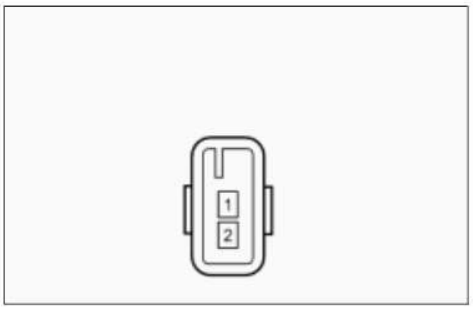
- *1: for LH

- *2: for RH

NG ▶ **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK ▼

4.	**INSPECT FRONT NO. 1 SPEAKER**



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

Standard Resistance:

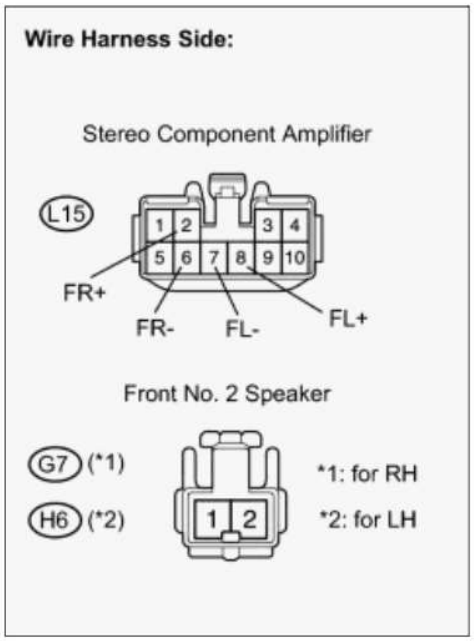
TESTER CONNECTION	SPECIFIED CONDITION
1 - 2	2.6 Ω

NG ▶ **REPLACE FRONT NO. 1 SPEAKER ASSEMBLY**

OK ▶ **PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE**

5.	**CHECK HARNESS AND CONNECTOR (STEREO COMPONENT AMPLIFIER - FRONT NO. 2 SPEAKER)**

(a) Disconnect the L15 amplifier connector.



(b) Disconnect the G7 (*1) or H6 (*2) speaker connector.

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

Standard Resistance:

TESTER CONNECTION	SPECIFIED CONDITION
L15-6 (FR-) - G7-2 (*1)	Below 1 Ω
L15-2 (FR+) - G7-1 (*1)	Below 1 Ω
L15-7 (FL-) - H6-2 (*2)	Below 1 Ω
L15-8 (FL+) - H6-1 (*2)	Below 1 Ω
L15-6 (FR-) - Body ground	10 kΩ or higher
L15-2 (FR+) - Body ground	10 kΩ or higher
L15-7 (FL-) - Body ground	10 kΩ or higher
L15-8 (FL+) - Body ground	10 kΩ or higher

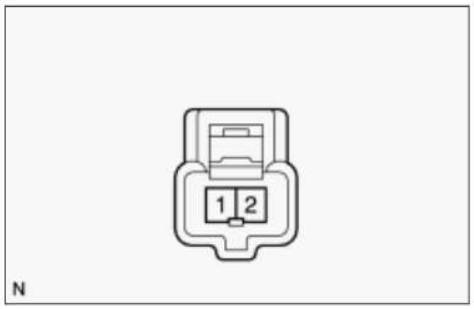
HINT:

- *1: for RH
- *2: for LH

NG ▶ REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

6.	**INSPECT FRONT NO. 2 SPEAKER**



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

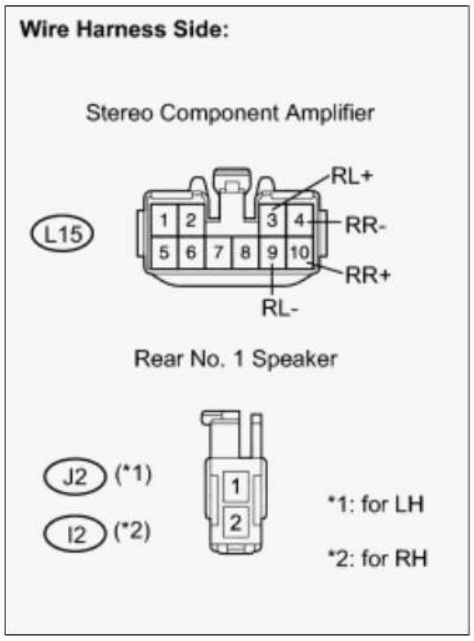
Standard Resistance:

TESTER CONNECTION	SPECIFIED CONDITION
1 - 2	2.5 Ω

NG ▶ **REPLACE FRONT NO. 2 SPEAKER ASSEMBLY**

OK ▶ **PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE**

7.	**CHECK HARNESS AND CONNECTOR (STEREO COMPONENT AMPLIFIER - REAR NO. 1 SPEAKER)**



(a) Disconnect the L15 amplifier connector.

(b) Disconnect the J2 (*1) or I2 (*2) speaker connector.

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

Standard Resistance:

TESTER CONNECTION	SPECIFIED CONDITION
L15-3 (RL+) - J2-1 (*1)	Below 1 Ω
L15-9 (RL-) - J2-2 (*1)	Below 1 Ω
L15-10 (RR+) - I2-1 (*2)	Below 1 Ω
L15-4 (RR-) - I2-2 (*2)	Below 1 Ω
L15-3 (RL+) - Body ground	10 kΩ or higher
L15-9 (RL-) - Body ground	10 kΩ or higher
L15-10 (RR+) - Body ground	10 kΩ or higher
L15-4 (RR-) - Body ground	10 kΩ or higher

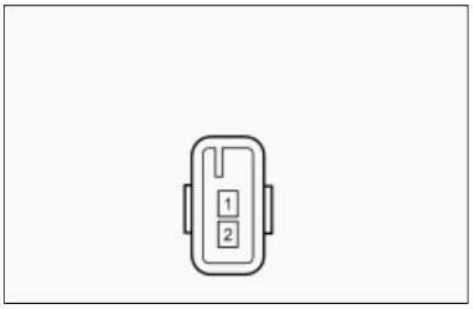
HINT:

- *1: for LH
- *2: for RH

NG ▶ **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK ▼

8.	**INSPECT REAR NO. 1 SPEAKER**



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

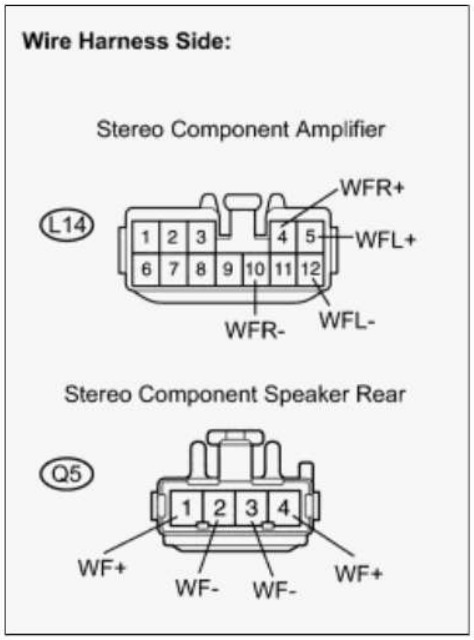
Standard Resistance:

TESTER CONNECTION	SPECIFIED CONDITION
1 - 2	3.1 Ω

NG ▶ **REPLACE REAR NO. 1 SPEAKER ASSEMBLY**

OK ▶ **PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE**

9.	**CHECK HARNESS AND CONNECTOR (STEREO COMPONENT AMPLIFIER - STEREO COMPONENT SPEAKER REAR)**



(a) Disconnect the L14 amplifier connector.

(b) Disconnect the Q5 speaker connector.

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

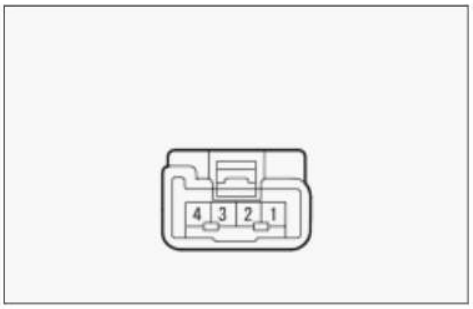
Standard Resistance:

TESTER CONNECTION	SPECIFIED CONDITION
L14-5 (WFL+) - Q5-1 (WF+)	Below 1 Ω
L14-12 (WFL-) - Q5-2 (WF-)	Below 1 Ω
L14-10 (WFR-) - Q5-3 (WF-)	Below 1 Ω
L14-4 (WFR+) - Q5-4 (WF+)	Below 1 Ω
L14-5 (WFL+) - Body ground	10 kΩ or higher
L14-12 (WFL-) - Body ground	10 kΩ or higher
L14-10 (WFR-) - Body ground	10 kΩ or higher
L14-4 (WFR+) - Body ground	10 kΩ or higher

NG ▶ **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK ▼

10.	INSPECT STEREO COMPONENT SPEAKER ASSEMBLY REAR



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

Standard Resistance:

TESTER CONNECTION	SPECIFIED CONDITION
1 - 4	Approx. 2 Ω

NG ▶ **REPLACE STEREO COMPONENT SPEAKER ASSEMBLY REAR**

OK ▶ **PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE**

11.	CHECK SPEAKER

(a) Check that the speakers sound.

Result

RESULT	PROCEED TO
Front No. 1 speaker does not operate	A
Front No. 2 speaker does not operate	B
Rear No. 1 speaker does not operate	C
All speakers do not operate	D

B ▶ **CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - FRONT NO. 2 SPEAKER)**

C ▶ **CHECK HARNESS AND CONNECTOR (RADIO**

RECEIVER - REAR NO. 1 SPEAKER)

D ▶ PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE

A ▼

12.	INSPECT FRONT NO. 2 SPEAKER ASSEMBLY

(a) Check that the front No. 2 speaker sounds.

OK:

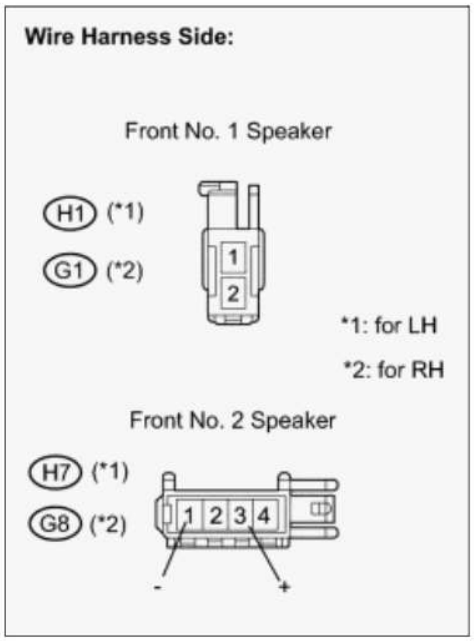
Speaker sounds.

NG ▶ CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - FRONT NO. 2 SPEAKER)

OK ▼

13.	CHECK HARNESS AND CONNECTOR (FRONT NO. 1 SPEAKER - FRONT NO. 2 SPEAKER)

(a) Disconnect the H1 (*1) and H7 (*1), or G1 (*2) and G8 (*2) speaker connectors.



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

Standard Resistance:

TESTER CONNECTION	SPECIFIED CONDITION
H7-3 (+) - H1-1 (*1)	Below 1 Ω
H7-1 (-) - H1-2 (*1)	Below 1 Ω
G8-3 (+) - G1-1 (*2)	Below 1 Ω
G8-1 (-) - G1-2 (*2)	Below 1 Ω
H7-3 (+) - Body ground	10 kΩ or higher
H7-1 (-) - Body ground	10 kΩ or higher
G8-3 (+) - Body ground	10 kΩ or higher
G8-1 (-) - Body ground	10 kΩ or higher

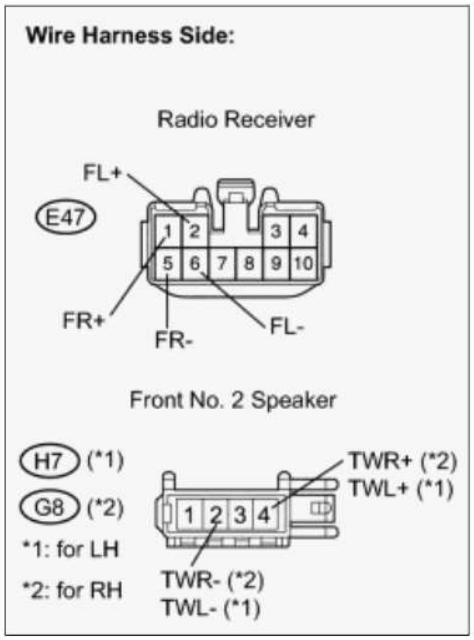
HINT:

- *1: for LH
- *2: for RH

NG ▶ REPAIR OR REPLACE HARNESS OR CONNECTOR

OK ▶ REPLACE FRONT NO. 1 SPEAKER ASSEMBLY

14.	CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - FRONT NO. 2 SPEAKER)



(a) Disconnect the E47 receiver connector.

(b) Disconnect the H7 (*1) or G8 (*2) speaker connector.

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

Standard Resistance:

TESTER CONNECTION	SPECIFIED CONDITION
E47-2 (FL+) - H7-4 (TWL+) (*1)	Below 1 Ω
E47-6 (FL-) - H7-2 (TWL-) (*1)	Below 1 Ω
E47-1 (FR+) - G8-4 (TWR+) (*2)	Below 1 Ω
E47-5 (FR-) - G8-2 (TWR-) (*2)	Below 1 Ω
E47-1 (FR+) - Body ground	10 kΩ or higher
E47-5 (FR-) - Body ground	10 kΩ or higher
E47-2 (FL+) - Body ground	10 kΩ or higher
E47-6 (FL-) - Body ground	10 kΩ or higher

HINT:

- *1: for LH
- *2: for RH

NG ▶ **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK ▼

15.	**INSPECT FRONT NO. 2 SPEAKER ASSEMBLY**

(a) Check that the malfunction disappears when another speaker in good condition is installed.

OK:
Malfunction disappears.

HINT:

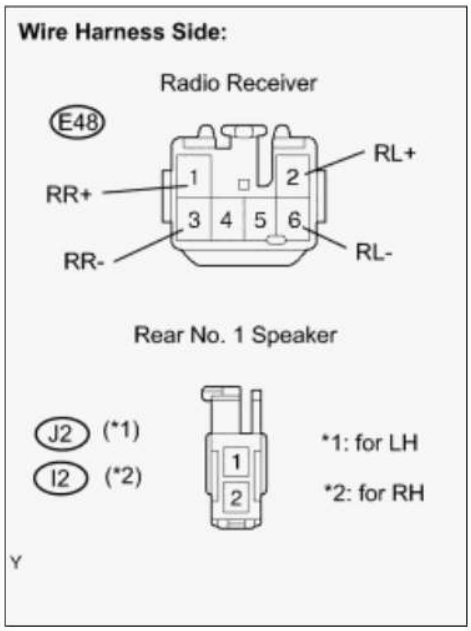
- Connect all connectors to the speakers.
- When there is a possibility that either the right or left front speaker is defective, inspect by interchanging the right one with the left one.

NG ▶ **PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE**

OK ▶ **REPLACE FRONT NO. 2 SPEAKER ASSEMBLY**

16.	**CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - REAR NO. 1 SPEAKER)**

(a) Disconnect the E48 receiver connector.



(b) Disconnect the J2 (*1) or I2 (*2) speaker connector.

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

Standard Resistance:

TESTER CONNECTION	SPECIFIED CONDITION
E48-2 (RL+) - J2-1 (*1)	Below 1 Ω
E48-6 (RL-) - J2-2 (*1)	Below 1 Ω
E48-1 (RR+) - I2-1 (*2)	Below 1 Ω
E48-3 (RR-) I2-2 (*2)	Below 1 Ω
E48-2 (RL+) -Body ground	10 kΩ or higher
E48-6 (RL-) - Body ground	10 kΩ or higher
E48-1 (RR+) - Body ground	10 kΩ or higher
E48-3 (RR-) - Body ground	10 kΩ or higher

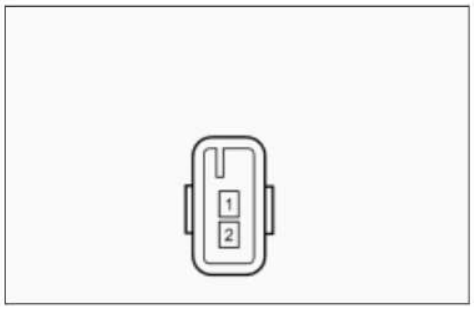
HINT:

- *1: for LH
- *2: for RH

NG ▶ REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

17.	**INSPECT REAR NO. 1 SPEAKER**



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

Standard Resistance:

TESTER CONNECTION	SPECIFIED CONDITION
1 - 2	Approx. 4 Ω

NG ▶ **REPLACE REAR NO. 1 SPEAKER ASSEMBLY**

OK ▶ **PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE**

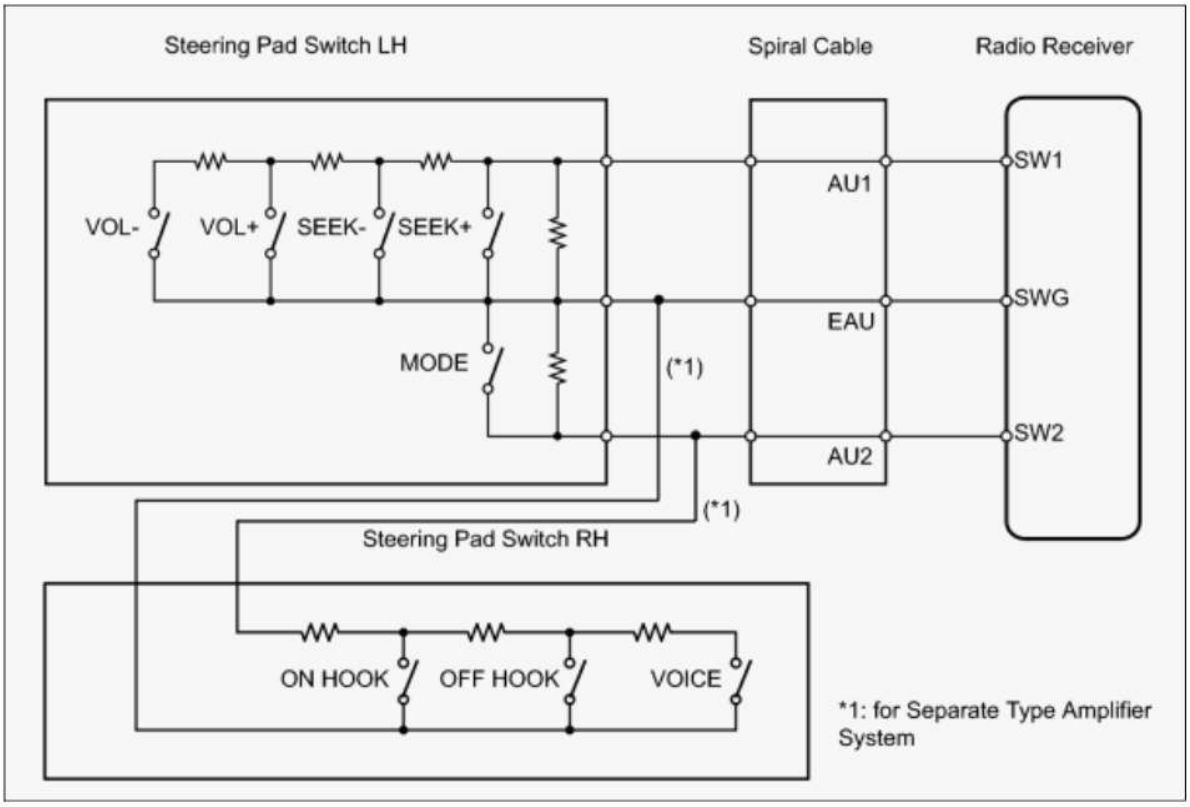
Last Modified: 9-7-2011	6.4 J	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000001WX000NX
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: Steering Pad Switch Circuit (2011 RAV4)		

Steering Pad Switch Circuit

DESCRIPTION

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

WIRING DIAGRAM



INSPECTION PROCEDURE

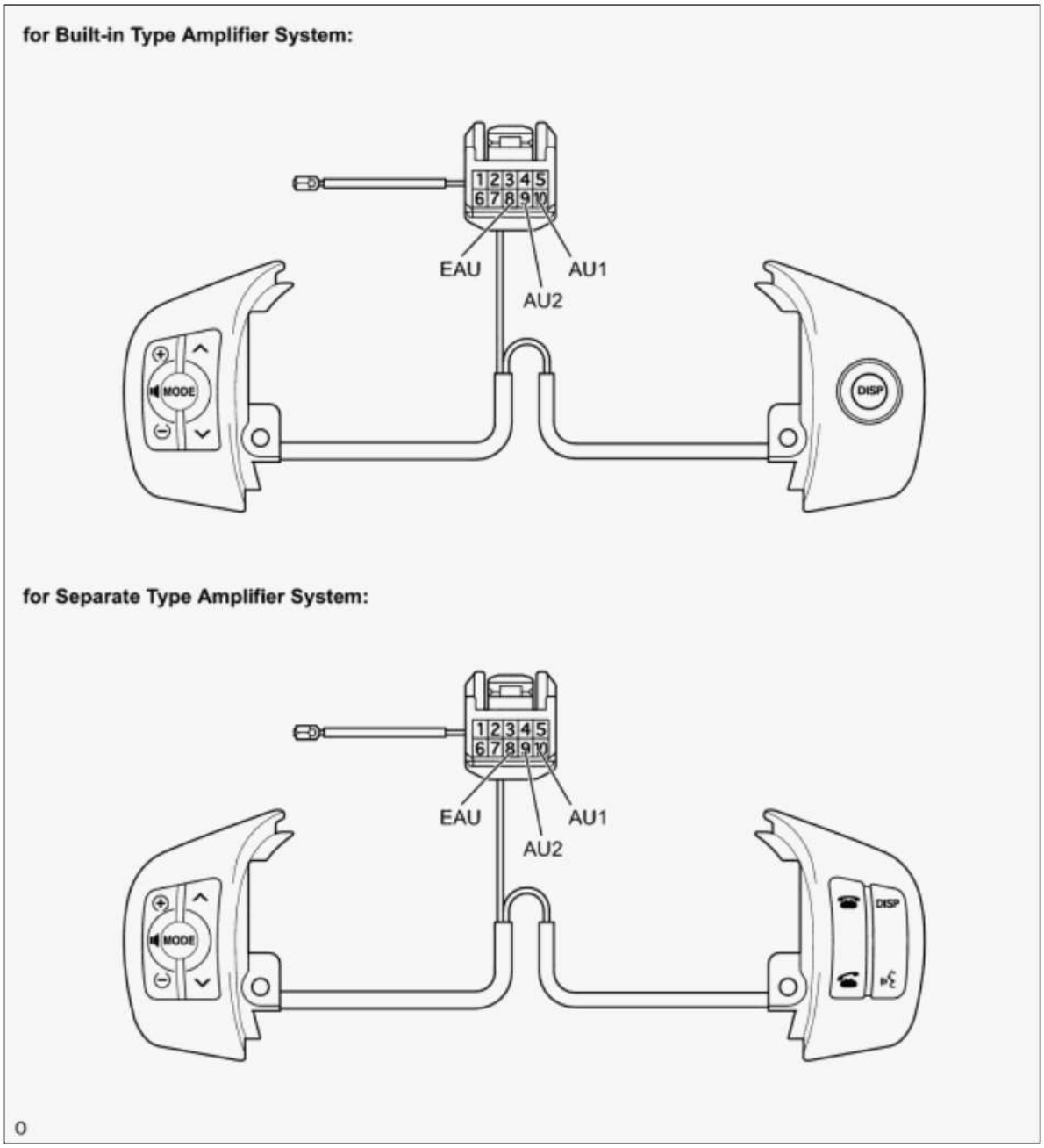
NOTICE:

The vehicle is equipped with an SRS such as the airbags. Before servicing (including removal or installation of parts), be sure to read the precautionary notice for the airbag system INFO **.**

PROCEDURE

1.	**INSPECT STEERING PAD SWITCH ASSEMBLY**

(a) Disconnect the z1 steering pad switch connector.



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

Standard Resistance:

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
10 (AU1) - 8 (EAU)	No switch is pushed	95 to 105 kΩ
10 (AU1) - 8 (EAU)	SEEK+ switch: push	Below 2.5 Ω
10 (AU1) - 8 (EAU)	SEEK- switch: push	312.5 to 345.5 Ω
10 (AU1) - 8 (EAU)	VOL+ switch: push	950 to 1050 Ω

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
10 (AU1) - 8 (EAU)	VOL- switch: push	2954.5 to 3265.5 Ω
9 (AU2) - 8 (EAU)	No switch is pushed	95 to 105 kΩ
9 (AU2) - 8 (EAU)	MODE switch: push	Below 2.5 Ω
9 (AU2) - 8 (EAU) (*1)	VOICE switch: push	2954.5 to 3265.5 Ω
9 (AU2) - 8 (EAU) (*1)	ON HOOK switch: push	312.5 to 345.5 Ω
9 (AU2) - 8 (EAU) (*1)	OFF HOOK switch: push	950 to 1050 Ω

HINT:

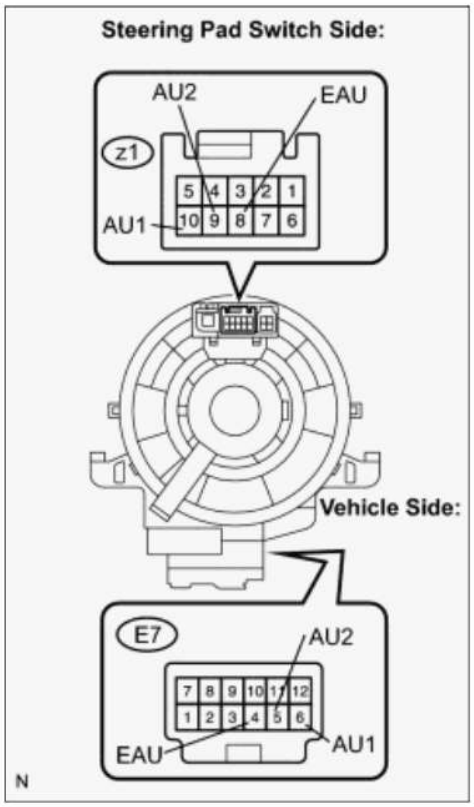
***1: for Separate Type Amplifier System**

NG ▶ **REPLACE STEERING PAD SWITCH ASSEMBLY**

OK ▼

2.	**INSPECT SPIRAL CABLE SUB-ASSEMBLY**

(a) Disconnect the cable connectors.



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

Standard Resistance:

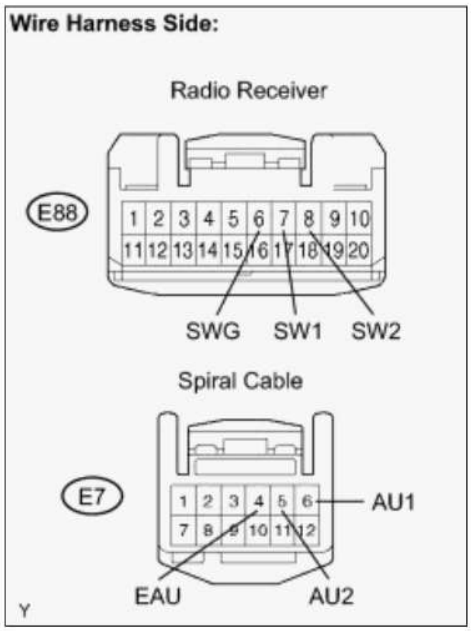
TESTER CONNECTION	SPECIFIED CONDITION
E7-4 (EAU) - z1-8 (EAU)	Below 1 Ω
E7-6 (AU1) - z1-10 (AU1)	Below 1 Ω
E7-5 (AU2) - z1-9 (AU2)	Below 1 Ω

NG ▶ **REPLACE SPIRAL CABLE SUB-ASSEMBLY**

OK ▼

3.	**CHECK HARNESS AND CONNECTOR (SPIRAL CABLE - RADIO RECEIVER)**

(a) Disconnect the E88 receiver connector.



(b) Disconnect the E7 cable connector.

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

Standard Resistance:

TESTER CONNECTION	SPECIFIED CONDITION
E88-7 (SW1) - E7-6 (AU1)	Below 1 Ω
E88-8 (SW2) - E7-5 (AU2)	Below 1 Ω
E88-6 (SWG) - E7-4 (EAU)	Below 1 Ω
E88-7 (SW1) - Body ground	10 kΩ or higher
E88-8 (SW2) - Body ground	10 kΩ or higher
E88-6 (SWG) - Body ground	10 kΩ or higher

NG ▶ **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK ▶ **PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE**

Last Modified: 9-7-2011	6.4 J	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000001YML00JX
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: Stereo Component Amplifier Communication Error (2011 RAV4)		

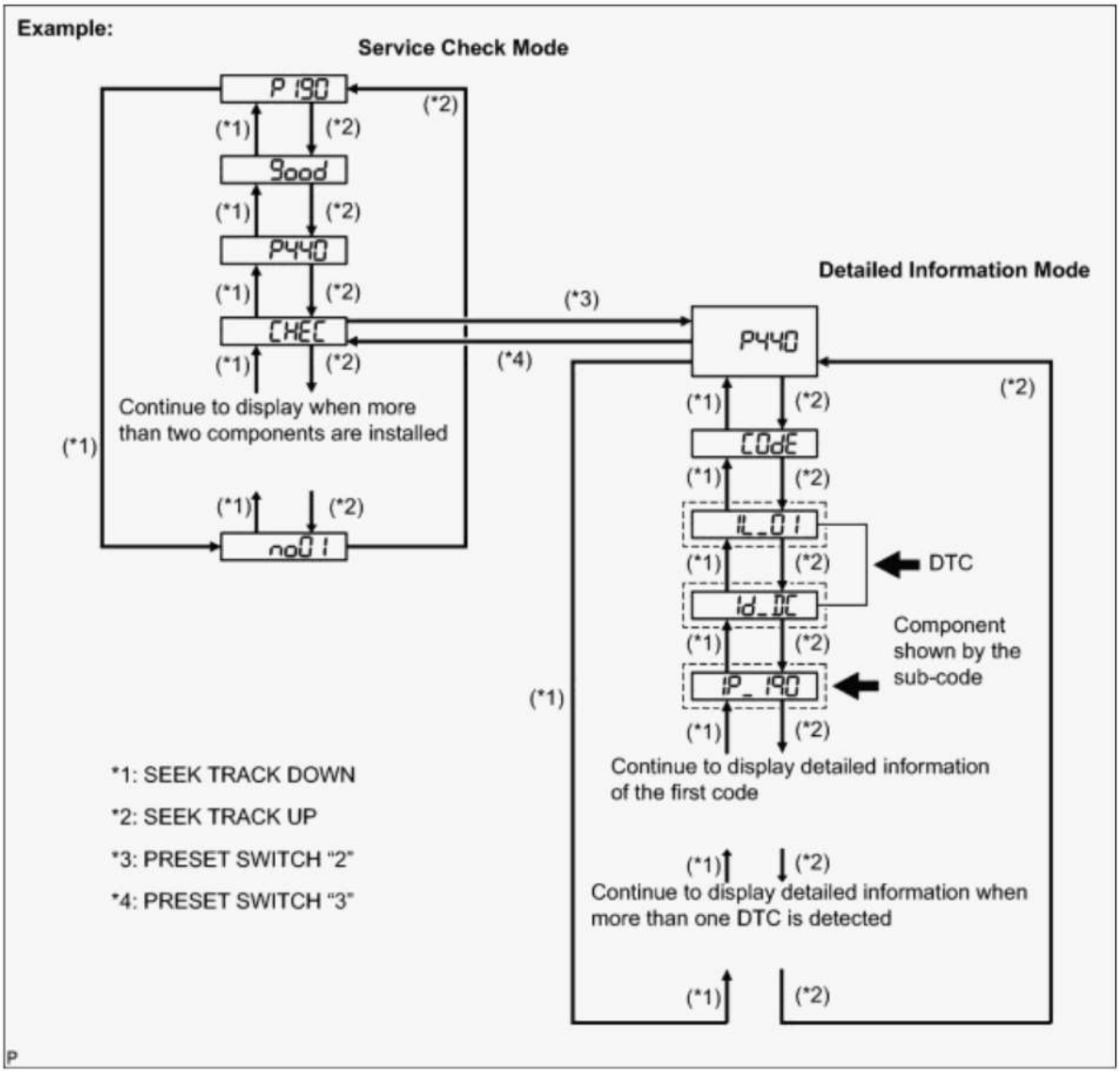
Stereo Component Amplifier Communication Error

INSPECTION PROCEDURE

PROCEDURE

1.	**IDENTIFY THE COMPONENT SHOWN BY THE SUB-CODE**

(a) Enter the diagnostic mode.



(b) Press the preset switch "2" to change to "Detailed Information Mode".

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

HINT:

- "190 (radio receiver)" is the component shown by the sub-code in the example shown in the illustration.
- For details of the DTC display, refer to the "DTC CHECK/CLEAR" INFO .

NEXT

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

(a) Inspect the power source circuit of the component shown by the sub-code.

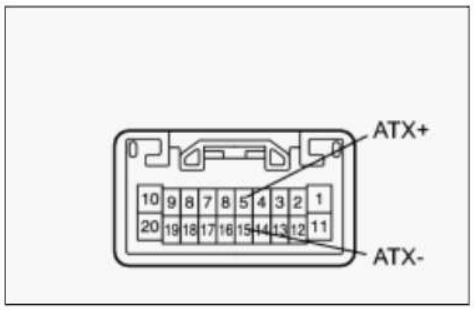
If the power source circuit is operating normally, proceed to the next step.

Component Table:

COMPONENT	PROCEED TO
"Bluetooth" handsfree module (19D)	Radio receiver power source circuit INFO
Radio receiver (190)	Radio receiver power source circuit INFO

NEXT

3.	**INSPECT RADIO RECEIVER ASSEMBLY**



(a) Disconnect the E62 receiver connector.

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

Standard Resistance:

TESTER CONNECTION	SPECIFIED CONDITION
5 (ATX+) - 15 (ATX-)	60 to 80 Ω

NG ▶ **REPLACE RADIO RECEIVER ASSEMBLY**

OK

4. **HINT:**	**CHECK HARNESS AND CONNECTOR (STEREO COMPONENT AMPLIFIER - COMPONENT SHOWN BY SUB-CODE)**

- Start the check from the circuit that is near the component shown by the sub-code first.
- For details of the connectors, refer to the "Terminals of ECU" INFO .

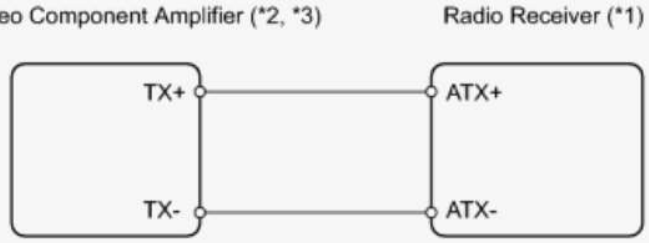
(a) Referring to the AVC-LAN wiring diagram below, check the AVC-LAN circuit between the radio receiver and the component shown by the sub-code.

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

OK:

There is no open or short circuit.

AVC-LAN Wiring Diagram:



*1: Master Unit

*2: Slave Unit

*3: for Separate Type Amplifier System

NG ▶ **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK ▼

5.	**REPLACE COMPONENT SHOWN BY SUB-CODE**

(a) Replace the component shown by the sub-code with a normal one and check if the same problem occurs again.

OK:

Same problem does not occur.

NG ▶ **REPLACE STEREO COMPONENT AMPLIFIER ASSEMBLY**


OK
END

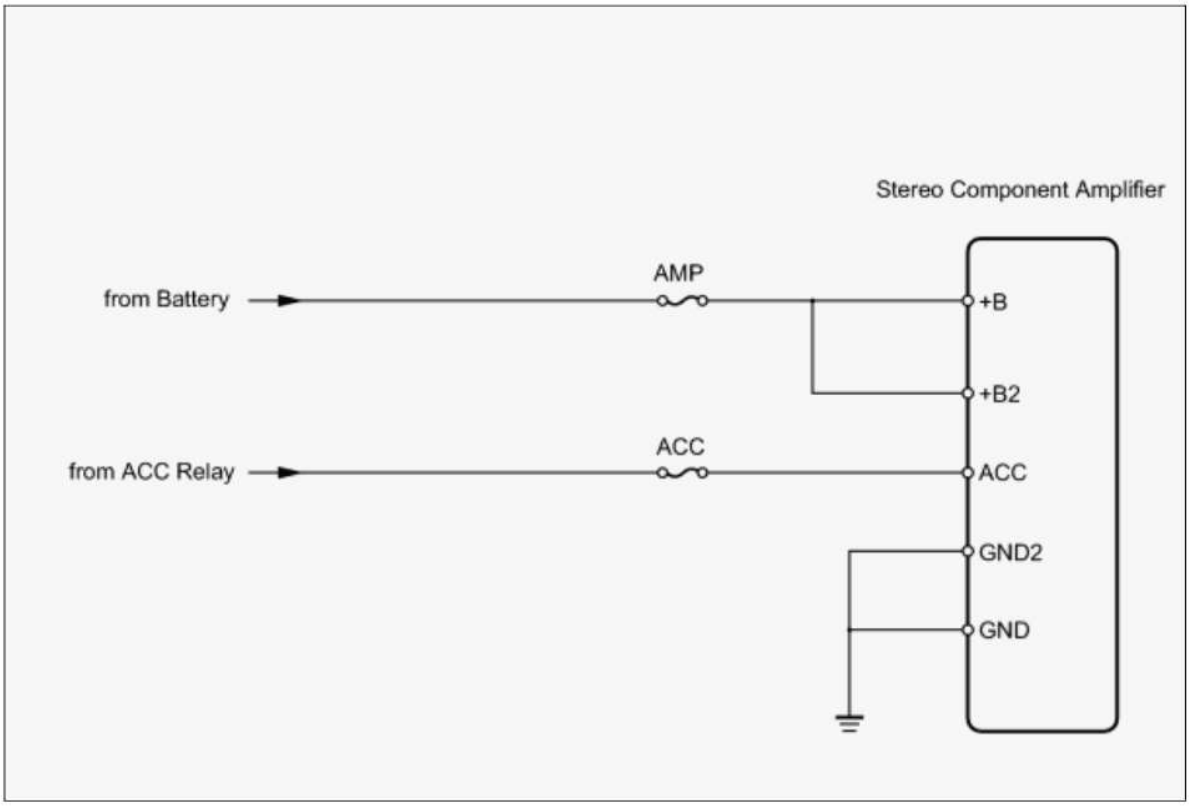
Last Modified: 9-7-2011	6.4 J	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000001WWZ00KX
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: Stereo Component Amplifier Power Source Circuit (2011 RAV4)		

Stereo Component Amplifier Power Source Circuit

DESCRIPTION

This circuit provides power to the stereo component amplifier.

WIRING DIAGRAM



INSPECTION PROCEDURE

PROCEDURE

1.	**INSPECT FUSE (ACC, AMP)**

(a) Disconnect the AMP fuse from the engine room No. 1 relay block.

(b) Disconnect the ACC fuse from the instrument panel junction block.

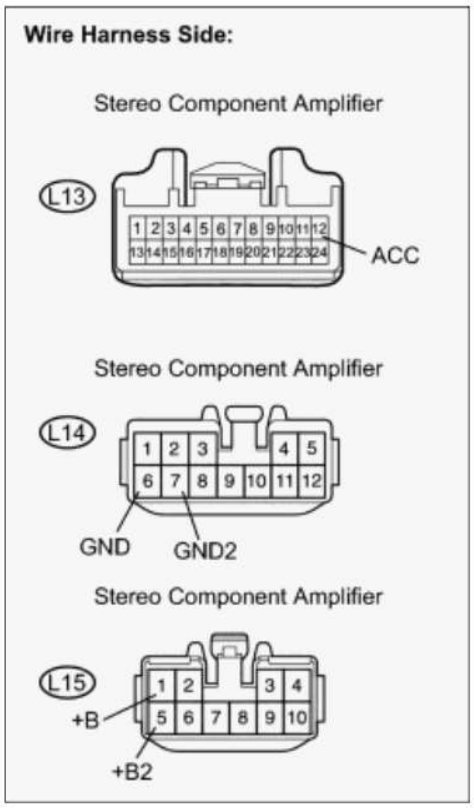
(c) Measure the resistance of the fuses.

Standard resistance:
Below 1 Ω

NG ▶ **REPLACE FUSE**

OK ▼

2.	**CHECK HARNESS AND CONNECTOR (STEREO COMPONENT AMPLIFIER - BATTERY AND CONNECTOR)**



(a) Disconnect the L13, L14 and L15 amplifier connectors.

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

Standard Voltage:

Standard Resistance

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
L13-12 (ACC) - Body ground	Ignition switch ACC	11 to 14 V
L15-1 (+B) - Body ground	Always	11 to 14 V
L15-5 (+B2) - Body ground	Always	11 to 14 V

TESTER CONNECTION	SPECIFIED CONDITION
L14-7 (GND2) - Body ground	Below 1 Ω
L14-6 (GND) - Body ground	Below 1 Ω

NG ▶ **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK ▶ **PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE**

Last Modified: 9-7-2011	6.4 D	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000001WWB00LX
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: SYSTEM DESCRIPTION (2011 RAV4)		

SYSTEM DESCRIPTION

CAUTION:

The CD player uses an invisible laser beam which could cause hazardous radiation exposure. Be sure to operate the player as instructed.

1. COMPACT DISC PLAYER

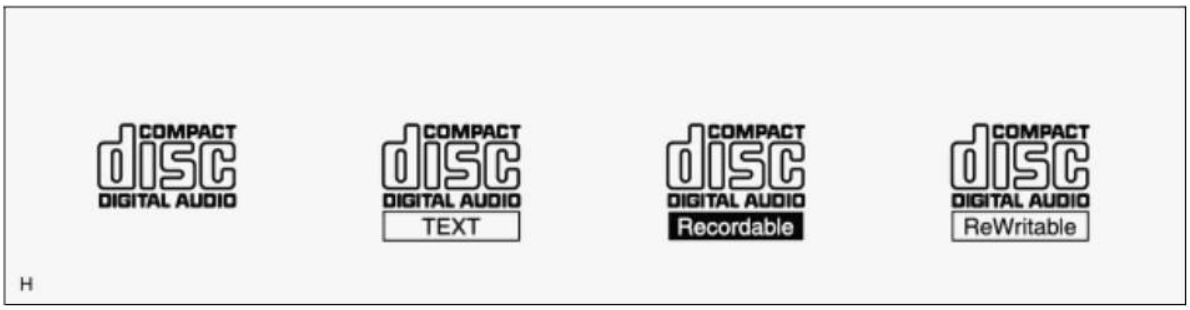
(a) The Compact Disc (CD) player uses a laser beam pickup to read the digital signals recorded on CDs and reproduce analog signals of music, etc. The CD player can play 12 cm (4.7 in.) discs.

NOTICE:

- Never disassemble or apply oil to any part of the player unit.
- Only insert discs into the CD player.

(b) USABLE DISC

(1) This player is compatible only with music CDs, CD-Rs (CD-Recordable) and CD-RWs (CD-ReWritable) with the marks shown in the illustration below.



(c) PRECAUTIONS FOR HANDLING DISC

NOTICE:

- Copy-controlled CDs cannot be used.
- Some CD-Rs and CD-RWs are not playable as a result of: 1) the type of recording method used, 2) the type of disc, 3) scratches, 4) contamination, or 5) the disc being in the vehicle for an extended amount of time, leading to deterioration.
- CD-Rs and CD-RWs that have not been finalized cannot be played.
- When handling a disc, be careful not to put fingerprints, stains or scratches on the disc.
- When holding a disc, pinch the center hole and edge of the disc with your fingers. Face the printed side upward.
- If a disc is ejected by pressing the eject button and left partially ejected for an extended period of time, the disc may become deformed and unusable.
- A disc may not be able to be ejected or the player may become damaged if: 1) cellophane tape, stickers, CD-R labels or rental CD labels are attached; or 2) residue from removed tape, stickers or labels remain.
- Avoid direct sunlight when storing discs as they may become deformed and unusable.
- Do not use uniquely-shaped discs as they may damage the player.
- Do not use discs where part of the recording surface is transparent or translucent. If used, the disc may become unable to be inserted, ejected and played normally.

HINT:

- Just as condensation fogs the vehicle's windows during wet or cold weather, condensation may also form inside the player. If condensation forms, CD skipping or playback stoppage may occur. Ventilate or dehumidify the vehicle for a while before using the player.
- If the player vibrates severely due to driving on a rough road, the CD may skip.

2. MP3 / WMA OUTLINE

(a) COMPATIBLE MP3 FILE FORMAT

Compatible format	MP3 (MPEG1 LAYER3, MPEG2 LSF LAYER3)
Compatible sampling frequency	• MPEG1 LAYER3: 32, 44.1, 48 (kHz) • MPEG2 LSF LAYER3: 16, 22.05, 24 (kHz)
Compatible bit rate	• MPEG1 LAYER3: 64, 80, 96, 112, 128, 160, 192, 224, 256, 320 (kbps) • MPEG2 LSF LAYER3: 64 80, 96, 112, 128, 144, 160 (kbps) • Compatible with VBR
Compatible channel mode	Stereo, joint stereo, dual channel and monaural

(b) COMPATIBLE WMA FILE FORMAT

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

(c) ID3 TAG / WMA TAG INFORMATION

(1) MP3 files have ID3 tags, in which supplemental text information can be input. Song titles and artist names can be saved.

HINT:

This player is compatible with ver. 1.0 (1.1), and ver. 2.2 (2.3) ID3 tags. The text limit complies with ver. 1.0 (1.1).

(2) WMA files have WMA tags, in which supplemental text information can be input. Song titles and artist names can be saved.

(d) COMPATIBLE MEDIA INFORMATION

(1) Only media such as CD-ROMs, CD-Rs (CD-Recordable) and CD-RWs (CD-ReWritable) are usable for MP3 / WMA playback.

NOTICE:

- CD-Rs and CD-RWs are more vulnerable to high temperature and humidity than normal audio CDs. As a result, some CD-Rs and CD-RWs may not be playable.
- If a disc has fingerprints or becomes scratched, the disc may not be playable or the CD may skip.
- Some CD-Rs and CD-RWs may deteriorate if left in the vehicle for a long time.
- Store CD-Rs and CD-RWs in a non-transparent case, as the discs are vulnerable to ultraviolet rays.

(e) COMPATIBLE MEDIA FORMAT INFORMATION

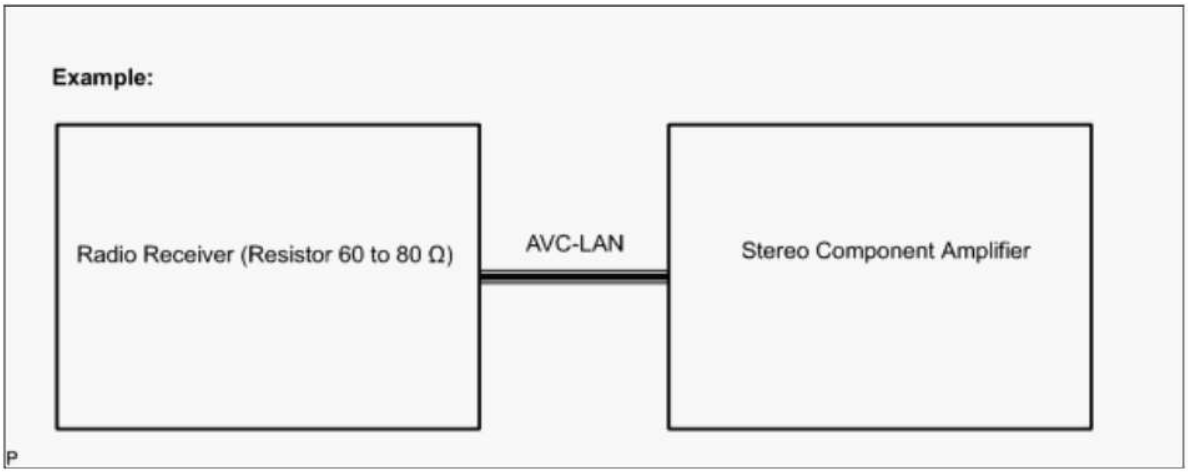
(1) COMPATIBLE MEDIA FORMAT

Disc format	CD-ROM Mode 1, CD-ROM XA Mode 2 Form 1
File format	ISO 9660 level 1, level 2

3. AVC-LAN DESCRIPTION

(a) What is AVC-LAN?

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



(b) Purpose:

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

(1) To solve sound problems, etc. caused by using components of different manufacturers through signal standardization.

(2) To allow each manufacturer to concentrate on developing products they do best. From this, reasonably priced products can be produced.

HINT:

- If a +B or GND short is detected in the AVC-LAN circuit, communication is interrupted and the audio system will stop functioning.
- If an audio system is equipped with a navigation system, the multi-display unit acts as the master unit. If the navigation system is not equipped, the audio head unit acts as the master unit instead. If the radio and navigation assembly is equipped, it is the master unit.
- The radio receiver assembly provides resistance to make communication possible.
- The car audio system with an AVC-LAN circuit has a diagnostic function.
- Each component has a specified number (3-digit) called a physical address. Each function has a number (2-digit) called a logical address.

4. COMMUNICATION SYSTEM OUTLINE

(a) Components of the audio and visual system communicate with each other via the AVC-LAN.

(b) Radio receiver assembly has enough resistance (60 to 80 Ω) necessary for transmitting the communication. This is essential for communication.

(c) If a short circuit or open circuit occurs in the AVC-LAN circuit, communication is interrupted and the navigation system will stop functioning.

5. DIAGNOSTIC FUNCTION OUTLINE

(a) The navigation system has a diagnostic function (the result is indicated on the master unit).

(b) A 3-digit hexadecimal component code (physical address) is allocated to each component on the AVC-LAN. Using this code, the component in the diagnostic function can be displayed.

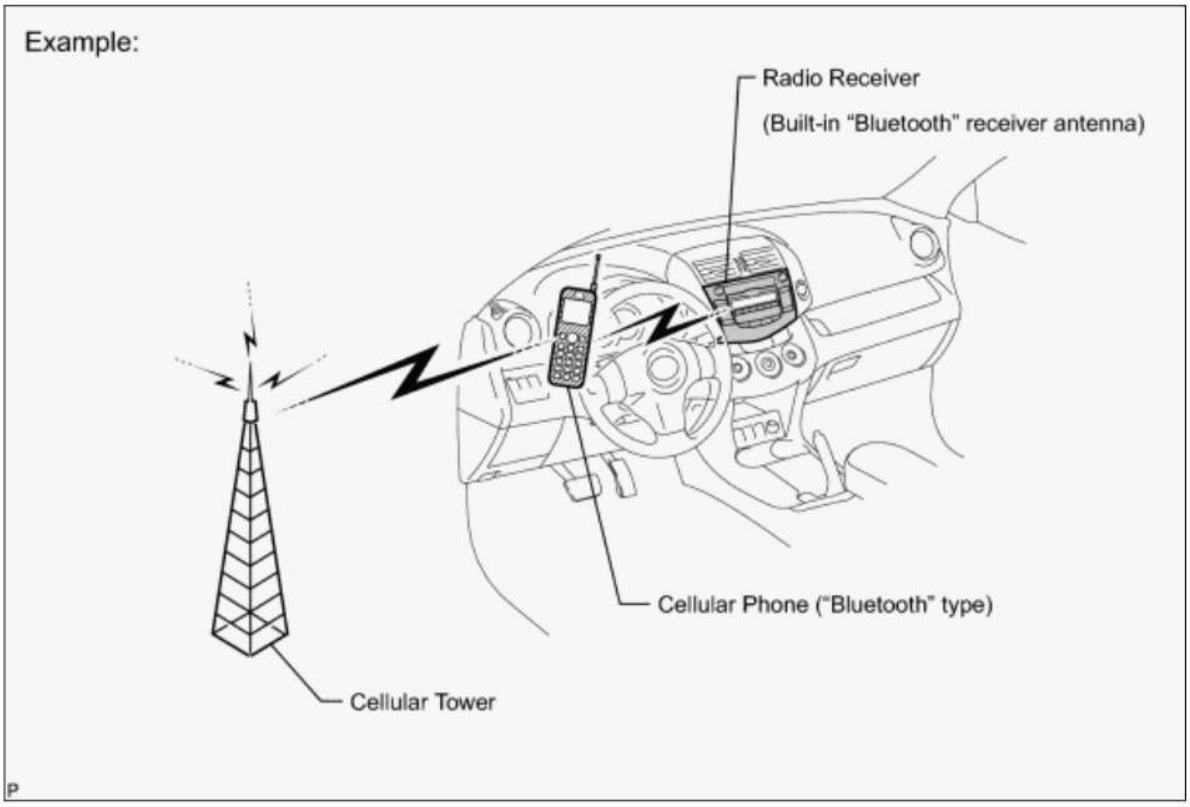
6. "BLUETOOTH" OUTLINE



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

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

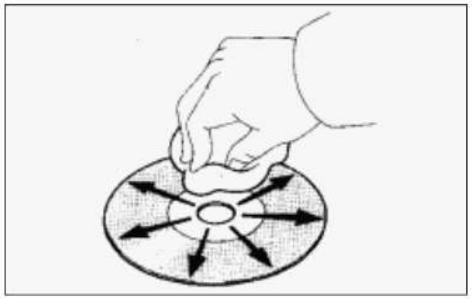
*1: Some versions of "Bluetooth" compatible cellular phones may not function.



HINT:

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

7. MAINTENANCE



(a) CD cleaning:

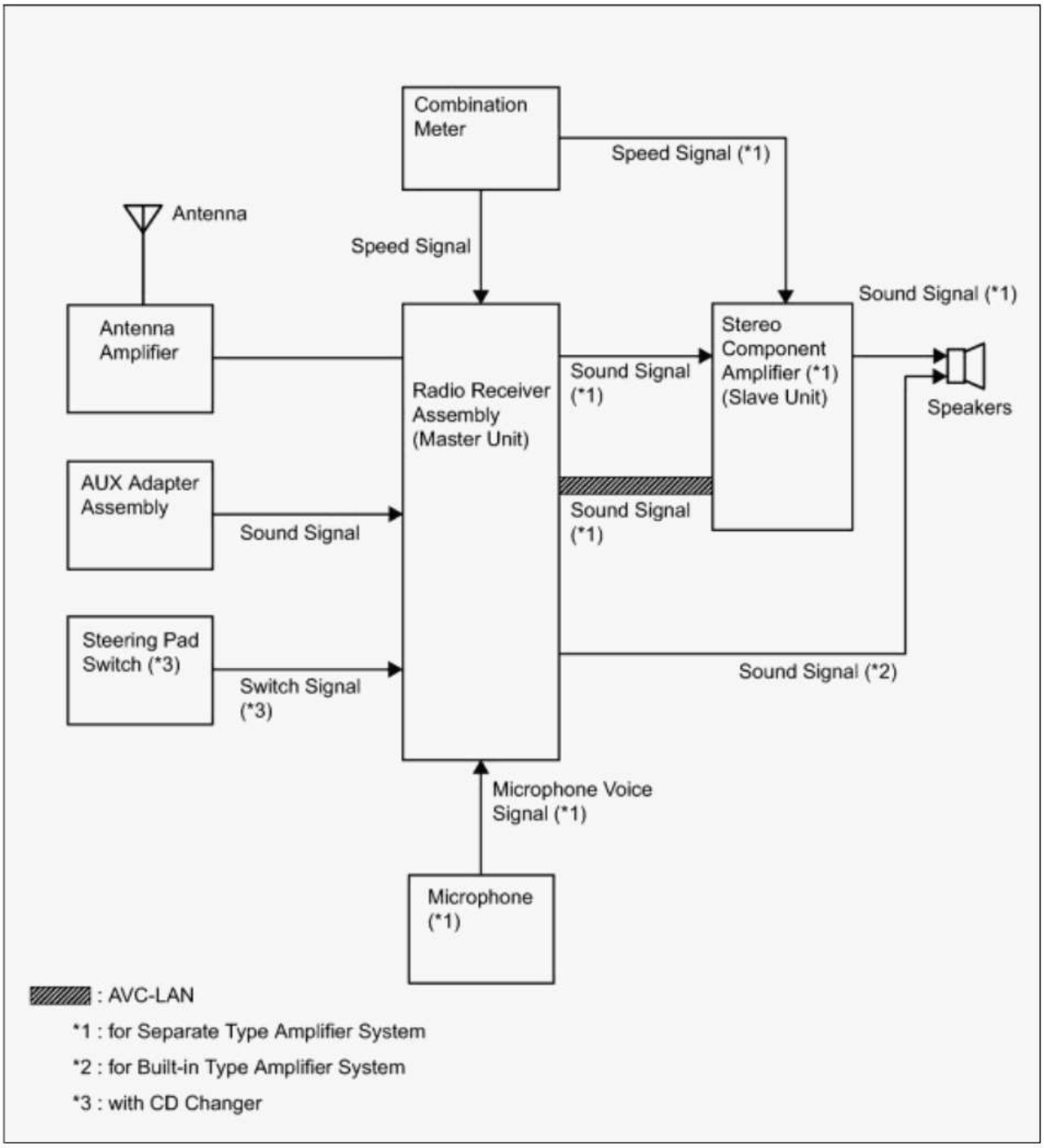
If a disc is dirty, clean the disc by wiping the CD's underside radially with a soft cloth.

NOTICE:

- Do not use lens cleaner when cleaning the player, as it may damage the player's pickup part.
- Do not use a conventional record cleaner or antistatic preservative.

Last Modified: 9-7-2011	6.4 U	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000001WWC00RX
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: SYSTEM DIAGRAM (2011 RAV4)		

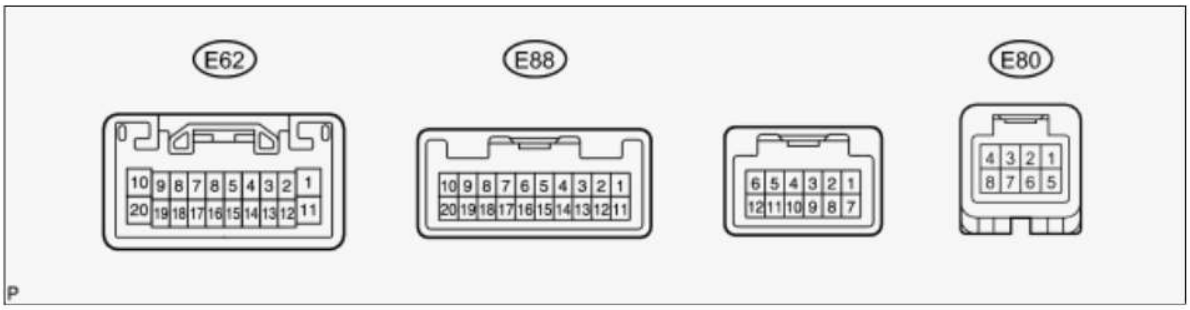
SYSTEM DIAGRAM



Last Modified: 9-7-2011	6.4 U	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM00000102B01SX
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: TERMINALS OF ECU (2011 RAV4)		

TERMINALS OF ECU

1. CHECK RADIO RECEIVER ASSEMBLY (for Separate Type Amplifier System)



(a) Disconnect the E62 and E80 receiver connectors.

(b) Measure the resistance and voltage of the wire harness side connector.

SYMBOLS (TERMINAL NO.)	WIRING COLOR	TERMINAL DESCRIPTION	CONDITION	SPECIFIED CONDITION
GND (E62-20) - Body ground	BR - Body ground	Ground	Always	Below 1 Ω
B (E62-1) - GND (E62-20)	L - BR	Battery	Always	11 to 14 V
ACC (E62-11) - GND (E62-20)	GR - BR	ACC power supply	Ignition switch off	Blow 1 V
ACC (E62-11) - GND (E62-20)	GR - BR	ACC power supply	Ignition switch ACC	11 to 14 V
SNS2 (E80-1) - Body ground	W-B - Body ground	Ground	Always	Below 1 V

HINT:

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

(c) Reconnect the E62 and E80 receiver connectors.

(d) Measure the voltage of the connectors.

SYMBOLS (TERMINAL NO.)	WIRING COLOR	TERMINAL DESCRIPTION	CONDITION	SPECIFIED CONDITION
ATX+ (E62-5) - GND (E62-20)	R - BR	AVC-LAN communication signal	Ignition switch ACC	2 to 3 V
ATX- (E62-15) - GND (E62-20)	G - BR	AVC-LAN communication signal	Ignition switch ACC	2 to 3 V

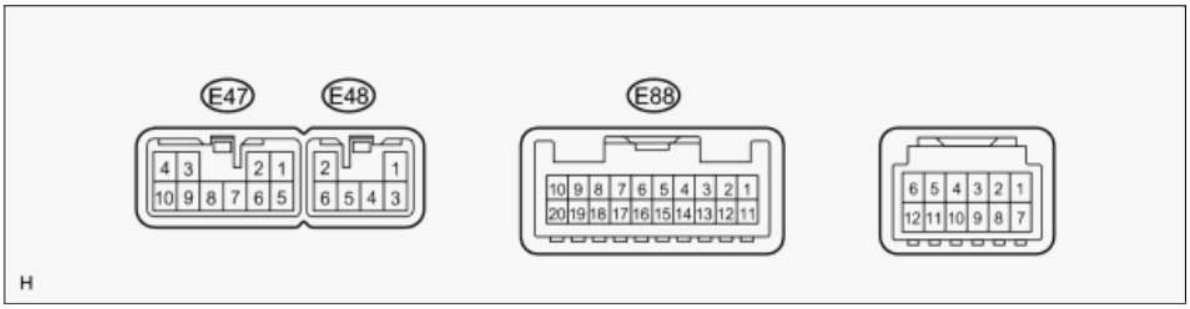
SYMBOLS (TERMINAL NO.)	WIRING COLOR	TERMINAL DESCRIPTION	CONDITION	SPECIFIED CONDITION
MUTE (E62-7) - GND (E62-20)	P - BR	Mute signal	Audio system is playing → changing mode	Above 3.5 V → Below 1 V
L+ (E62-9) - GND (E62-20)	R - BR	Sound signal (left)	Audio system is operating	Waveform synchronized with sound is output
L- (E62-19) - GND (E62-20)	G - BR	Sound signal (left)	Audio system is operating	Waveform synchronized with sound is output
R- (E62-18) - GND (E62-20)	W - BR	Sound signal (right)	Audio system is operating	Waveform synchronized with sound is output
R+ (E62-8) - GND (E62-20)	B - BR	Sound signal (right)	Audio system is operating	Waveform synchronized with sound is output
SLD (E62-10) - GND (E62-20)	Shielded - BR	Shielded	Always	Below 1 V
ALI (E88-17) - GND (E62-20)	B - BR	Sound signal (left)	External device is playing (when stereo jack is used)	Waveform synchronized with sound is output
ARI (E88-15) - GND (E62-20)	W - BR	Sound signal (right)	External device is playing (when stereo jack is used)	Waveform synchronized with sound is output
ASGN (E88-16) - Body ground	R - Body ground	Ground	Always	Below 1 V
AGND (E88-18) - Body ground	Shielded - Body ground	Shielded ground	Always	Below 1 V
AUXI (E88-19) - GND (E62-20)	R - BR	External input connection detection signal	External device is connected	Below 1 V
ILL+ (E62-2) - GND (E62-20)	G - BR	Illumination signal	Light control switch TAIL or HEAD	11 to 14 V
ILL- (E62-12) - GND (E62-20)	BR - BR	Illumination signal	Light control switch TAIL or HEAD	Pulse generation
SW1 (E88-7) - GND (E62-20)	W - BR	Steering pad switch signal	Steering pad switch not pushed	4 V or more
SW1 (E88-7) - GND (E62-20)	W - BR	Steering pad switch signal	Steering pad switch SEEK+ switch pushed	Approx. 0.5 V
SW1 (E88-7) - GND (E62-20)	W - BR	Steering pad switch signal	Steering pad switch SEEK- switch pushed	Approx. 0.9 V
SW1 (E88-7) - GND (E62-20)	W - BR	Steering pad switch signal	Steering pad switch VOL+ switch pushed	Approx. 2.0 V
SW1 (E88-7) - GND (E62-20)	W - BR	Steering pad switch signal	Steering pad switch VOL- switch pushed	Approx. 3.4 V

SYMBOLS (TERMINAL NO.)	WIRING COLOR	TERMINAL DESCRIPTION	CONDITION	SPECIFIED CONDITION
SW2 (E88-8) - GND (E62-20)	R - BR	Steering pad switch signal	Steering pad switch not pushed	4 V or more
SW2 (E88-8) - GND (E62-20)	R - BR	Steering pad switch signal	Steering pad switch MODE switch pushed	Below 0.5 V
SW2 (E88-8) - GND (E62-20)	R - BR	Steering pad switch signal	Steering pad switch ON HOOK switch pushed	Approx. 0.9 V
SW2 (E88-8) - GND (E62-20)	R - BR	Steering pad switch signal	Steering pad switch OFF HOOK switch pushed	Approx. 2.0 V
SW2 (E88-8) - GND (E62-20)	R - BR	Steering pad switch signal	Steering pad switch VOICE switch pushed	Approx. 3.4 V
SWG (E88-6) - Body ground	B - Body ground	Steering pad switch signal ground	Always	Below 1 V
MIN- (E80-5) - GND (E62-20)	R - BR	Microphone voice signal	"Bluetooth" handsfree function is ON	A waveform synchronized with sounds is output
MIN+ (E80-2) - GND (E62-20)	W - BR	Microphone voice signal	"Bluetooth" handsfree function is ON	A waveform synchronized with sounds is output
MACC (E80-3) - GND (E62-20)	B - BR	Microphone AMP power supply	Ignition switch off → ON	Below 1 V → 5 V
SGND (E80-6) - Body ground	Shielded - Body ground	Shielded ground	Always	Below 1 V
SPD (E88-3) - GND (E62-20)	V - BR	Speed signal from combination meter	Ignition switch ON, drive wheels turned slowly	Pulse generation
ANT (E62-13) - GND (E62-20)	B - BR	Power source of antenna	Radio switch ON and AM or FM	11 to 14 V
IVO+ (E88-11) - GND (E62-20)	B - BR	Voice signal	"Bluetooth" handsfree voice signal is playing	A waveform synchronized with sounds is output
IVO- (E88-12) - GND (E62-20)	W - BR	Voice signal	"Bluetooth" handsfree voice signal is playing	A waveform synchronized with sounds is output
SLD1 (E88-13) - Body ground	Shielded - Body ground	Shielded ground	Always	Below 1 V

HINT:

If the result is not as specified, the receiver may have a malfunction.

2. CHECK RADIO RECEIVER (for Built-in Type Amplifier System)



(a) Disconnect the E47 receiver connector.

(b) Measure the resistance and voltage of the wire harness side connector.

SYMBOLS (TERMINAL NO.)	WIRING COLOR	TERMINAL DESCRIPTION	CONDITION	SPECIFIED CONDITION
GND (E47-7) - Body ground	BR - Body ground	Ground	Always	Below 1 Ω
B (E47-4) - GND (E47-7)	L - BR	Battery	Always	11 to 14 V
ACC (E47-3) - GND (E47-7)	GR -BR	ACC power supply	Ignition switch off	Below 1 V
ACC (E47-3) - GND (E47-7)	GR - BR	ACC power supply	Ignition switch ACC	11 to 14 V

HINT:

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

(c) Reconnect the E47 receiver connector.

(d) Measure the voltage of the connectors.

SYMBOLS (TERMINAL NO.)	WIRING COLOR	TERMINAL DESCRIPTION	CONDITION	SPECIFIED CONDITION
FL+ (E47-2) - GND (E47-7)	P - BR	Sounds signal (front left)	Audio system is operating	Waveform synchronized with sound is output
FL- (E47-6) - GND (E47-7)	V - BR	Sounds signal (front left)	Audio system is operating	Waveform synchronized with sound is output
FR+ (E47-1) - GND (E47-7)	LG - BR	Sounds signal (front right)	Audio system is operating	Waveform synchronized with sound is output
FR- (E47-5) - GND (E47-7)	L - BR	Sounds signal (front right)	Audio system is operating	Waveform synchronized with sound is output
RL+ (E48-2) - GND (E47-7)	B - BR	Sounds signal (rear left)	Audio system is operating	Waveform synchronized with sound is output
RL- (E48-6) - GND (E47-7)	Y - BR	Sounds signal (rear left)	Audio system is operating	Waveform synchronized with sound is output

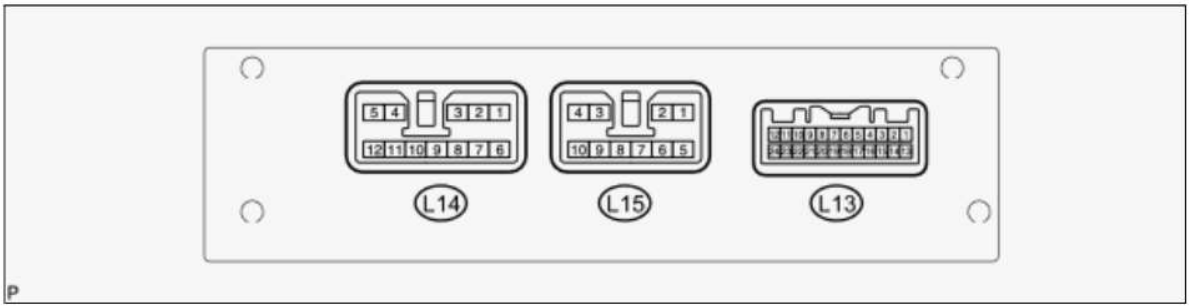
SYMBOLS (TERMINAL NO.)	WIRING COLOR	TERMINAL DESCRIPTION	CONDITION	SPECIFIED CONDITION
RR+ (E48-1) - GND (E47-7)	R - BR	Sounds signal (rear right)	Audio system is operating	Waveform synchronized with sound is output
RR- (E48-3) - GND (E47-7)	W - BR	Sounds signal (rear left)	Audio system is operating	Waveform synchronized with sound is output
ALI (E88-17) - GND (E47-7)	B - BR	Sound signal (left)	External device is playing (when stereo jack is used)	Waveform synchronized with sound is output
ARI (E88-15) - GND (E47-7)	W - BR	Sound signal (right)	External device is playing (when stereo jack is used)	Waveform synchronized with sound is output
ASGN (E88-16) - Body ground	R - Body ground	Ground	Always	Below 1 V
AGND (E88-18) - Body ground	Shielded - Body ground	Shielded ground	Always	Below 1 V
AUXI (E88-19) - GND (E47-7)	R - BR	External input connection detection signal	External device is connected	Below 1 V
ILL+ (E47-10) - GND (E47-7)	G - BR	Illumination signal	Light control switch TAIL or HEAD	11 to 14 V
ILL- (E48-5) - GND (E47-7)	BR - BR	Illumination signal	Light control switch TAIL or HEAD	Pulse generation
SW1 (E88-7)* - GND (E47-7)	W - BR	Steering pad switch signal	Steering pad switch not pushed	4 V or more
SW1 (E88-7)* - GND (E47-7)	W - BR	Steering pad switch signal	Steering pad switch SEEK+ switch pushed	Approx. 0.5 V
SW1 (E88-7)* - GND (E47-7)	W - BR	Steering pad switch signal	Steering pad switch SEEK- switch pushed	Approx. 0.9 V
SW1 (E88-7)* - GND (E47-7)	W - BR	Steering pad switch signal	Steering pad switch VOL+ switch pushed	Approx. 2.0 V
SW1 (E88-7)* - GND (E47-7)	W - BR	Steering pad switch signal	Steering pad switch VOL- switch pushed	Approx. 3.4 V
SW2 (E88-8)* - GND (E47-7)	R - BR	Steering pad switch signal	Steering pad switch not pushed	4 V or more
SW2 (E88-8)* - GND (E47-7)	R - BR	Steering pad switch signal	Steering pad switch MODE switch pushed	Below 0.5 V
SWG (E88-6)* - Body ground	B - Body ground	Steering pad switch signal ground	Always	Below 1 V
ANT (E47-8) - GND (E47-7)	B - BR	Power source of antenna	Radio switch ON and AM or FM	11 to 14 V

HINT:

***: with CD Changer**

If the result is not as specified, the receiver may have a malfunction.

3. CHECK STEREO COMPONENT AMPLIFIER (for Separate Type Amplifier System)



(a) Disconnect the L13, L14 and L15 amplifier connectors.

(b) Measure the resistance and voltage of the wire harness side connectors.

SYMBOLS (TERMINAL NO.)	WIRING COLOR	TERMINAL DESCRIPTION	CONDITION	SPECIFIED CONDITION
+B (L15-1) - Body ground	L - Body ground	Battery	Always	11 to 14 V
+B2 (L15-5) - Body ground	L - Body ground	Battery	Always	11 to 14 V
ACC (L13-12) - Body ground	GR - Body ground	ACC power supply	Ignition switch ACC	11 to 14 V
GND (L14-6) - Body ground	W-B - Body ground	Ground	Always	Below 1 Ω
GND2 (L14-7) - Body ground	W-B - Body ground	Ground	Always	Below 1 Ω

HINT:

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

(c) Reconnect the L13, L14 and L15 amplifier connectors.

(d) Measure the voltage of the connectors.

SYMBOLS (TERMINAL NO.)	WIRING COLOR	TERMINAL DESCRIPTION	CONDITION	SPECIFIED CONDITION
TX+ (L13-8) - GND (L14-6)	R - W-B	AVC-LAN communication signal	Ignition switch ACC	2 to 3 V
TX- (L13-7) - GND (L14-6)	G - W-B	AVC-LAN communication signal	Ignition switch ACC	2 to 3 V
MUTE (L13-1) - GND (L14-6)	P - W-B	Mute signal	Audio system playing → changing mode	Above 3.5 V → Below 1 V
L+ (L13-3) - GND (L14-6)	R - W-B	Sound signal (left)	Audio system is operating	Waveform synchronized with sound is output

SYMBOLS (TERMINAL NO.)	WIRING COLOR	TERMINAL DESCRIPTION	CONDITION	SPECIFIED CONDITION
L- (L13-2) - GND (L14-6)	G - W-B	Sound signal (left)	Audio system is operating	Waveform synchronized with sound is output
R- (L13-4) - GND (L14-6)	W - W-B	Sound signal (right)	Audio system is operating	Waveform synchronized with sound is output
R+ (L13-5) - GND (L14-6)	B - W-B	Sound signal (right)	Audio system is operating	Waveform synchronized with sound is output
FR- (L14-3) - GND (L14-6)	L - W-B	Sound signal (front right)	Audio system is operating	Waveform synchronized with sound is output
FR+ (L14-9) - GND (L14-6)	LG - W-B	Sound signal (front right)	Audio system is operating	Waveform synchronized with sound is output
FR- (L15-6) - GND (L14-6)	L - W-B	Sound signal (front right)	Audio system is operating	Waveform synchronized with sound is output
FR+ (L15-2) - GND (L14-6)	LG - W-B	Sound signal (front right)	Audio system is operating	Waveform synchronized with sound is output
FL- (L14-1) - GND (L14-6)	V - W-B	Sound signal (front left)	Audio system is operating	Waveform synchronized with sound is output
FL+ (L14-2) - GND (L14-6)	P - W-B	Sound signal (front left)	Audio system is operating	Waveform synchronized with sound is output
FL- (L15-7) - GND (L14-6)	V - W-B	Sound signal (front left)	Audio system is operating	Waveform synchronized with sound is output
FL+ (L15-8) - GND (L14-6)	P - W-B	Sound signal (front left)	Audio system is operating	Waveform synchronized with sound is output
RL+ (L15-3) - GND (L14-6)	B - W-B	Sound signal (rear left)	Audio system is operating	Waveform synchronized with sound is output
RL- (L15-9) - GND (L14-6)	Y - W-B	Sound signal (rear left)	Audio system is operating	Waveform synchronized with sound is output
RR+ (L15-10) - GND (L14-6)	R - W-B	Sound signal (rear right)	Audio system is operating	Waveform synchronized with sound is output
RR- (L15-4) - GND (L14-6)	W - W-B	Sound signal (rear right)	Audio system is operating	Waveform synchronized with sound is output
WFL+ (L14-5) - GND (L14-6)	B - W-B	Sound signal (woofer)	Audio system is operating	Waveform synchronized with sound is output
WFL- (L14-12) - GND (L14-6)	G - W-B	Sound signal (woofer)	Audio system is operating	Waveform synchronized with sound is output
WFR- (L14-10) - GND (L14-6)	V - W-B	Sound signal (woofer)	Audio system is operating	Waveform synchronized with sound is output
WFR+ (L14-4) - GND (L14-6)	P - W-B	Sound signal (woofer)	Audio system is operating	Waveform synchronized with sound is output

SYMBOLS (TERMINAL NO.)	WIRING COLOR	TERMINAL DESCRIPTION	CONDITION	SPECIFIED CONDITION
SPD (L13-11) - GND (L14-6)	V - W-B	Speed signal	Ignition switch ON Drive wheels are turned slowly	Pulse generation
INT+ (L13-23) - GND (L14-6)	B - W-B	Voice signal	"Bluetooth" handsfree voice signal is playing	A waveform synchronized with sounds is output
INT- (L13-22) - GND (L14-6)	W - W-B	Voice signal	"Bluetooth" handsfree voice signal is playing	A waveform synchronized with sounds is output

HINT:

If the result is not as specified, the amplifier may have a malfunction.





Last Modified: 9-7-2011	6.4 J	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM0000014SV0CZX
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: The Other Caller cannot Hear Your Voice, or Your Voice is too Quiet or Distorted (2011 RAV4)		

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 ▶ **REPLACE CELLULAR PHONE**

OK ▼

2.	**CHECK SETTINGS**

(a) Check if the mute is set to ON.

OK:

Mute is not set to ON.

NG ▶ **TURN MUTE OFF**

OK ▶ **PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE**

Last Modified: 9-7-2011	6.4 J	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM0000014SU0CYX
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: The Other Caller's Voice cannot be Heard, is too Quiet, or Distorted (2011 RAV4)		

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 a cellular phone.

OK:
Voice can be heard.

NG ▶ **REPAIR OR REPLACE CELLULAR PHONE**

OK ▼

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 the PROBLEM SYMPTOMS TABLE INFO **.**

NG ▶ **PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE**

OK

3.	**CHECK SETTINGS**

(a) Check that the received voice level setting on the cellular phone is not too low.

OK:
The received voice level setting is not too low.

NG ▶ **SET VOLUME TO HIGH**

OK ▶ **PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE**

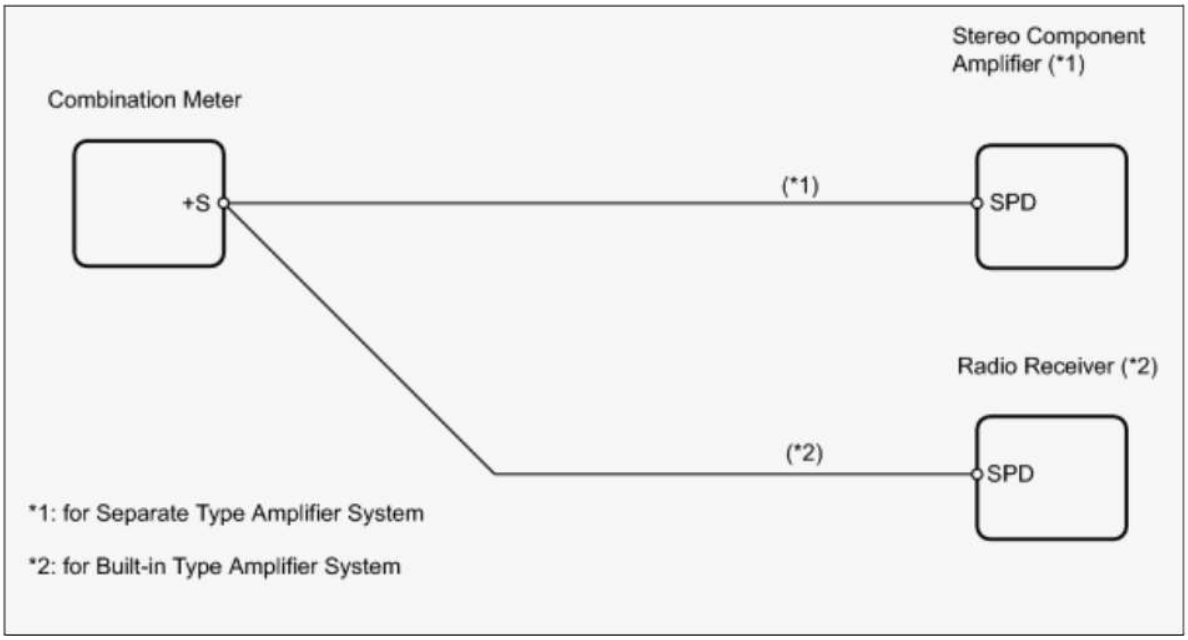
Last Modified: 9-7-2011	6.4 J	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000001XKD00LX
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: Vehicle Speed Signal Circuit (2011 RAV4)		

Vehicle Speed Signal Circuit

DESCRIPTION

The circuit is necessary for ASL (Automatic Sound Levelizer). Speed signals are received from the combination meter and used for the ASL.

WIRING DIAGRAM



INSPECTION PROCEDURE

PROCEDURE

1.	**INSPECT COMBINATION METER (SPEEDOMETER)**

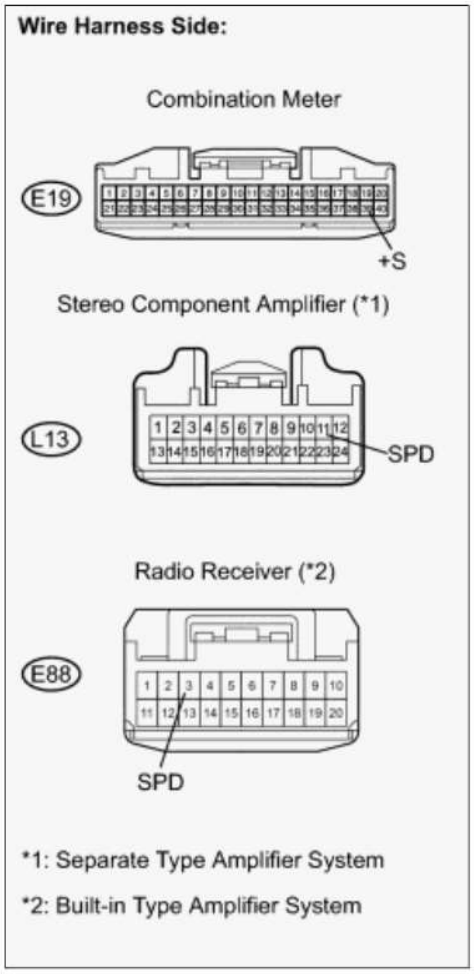
(a) Drive the vehicle and check that the function of the speedometer on the combination meter is normal.

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

NG ▶ **GO TO METER / GAUGE SYSTEM**

OK

2.	**CHECK HARNESS AND CONNECTOR (COMBINATION METER - RADIO RECEIVER, STEREO COMPONENT AMP.)**



(a) Disconnect the E19 meter connector.

(b) Disconnect the L13 (*1) amplifier or E88 (*2) receiver connector.

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

Standard Resistance:

TESTER CONNECTION	SPECIFIED CONDITION
E19-39 (+S) - L13-11 (SPD) (*1)	Below 1 Ω
E19-39 (+S) - E88-3 (SPD) (*2)	Below 1 Ω

HINT:

***1: for Separate Type Amplifier System**

***2: for Built-in Type Amplifier System**

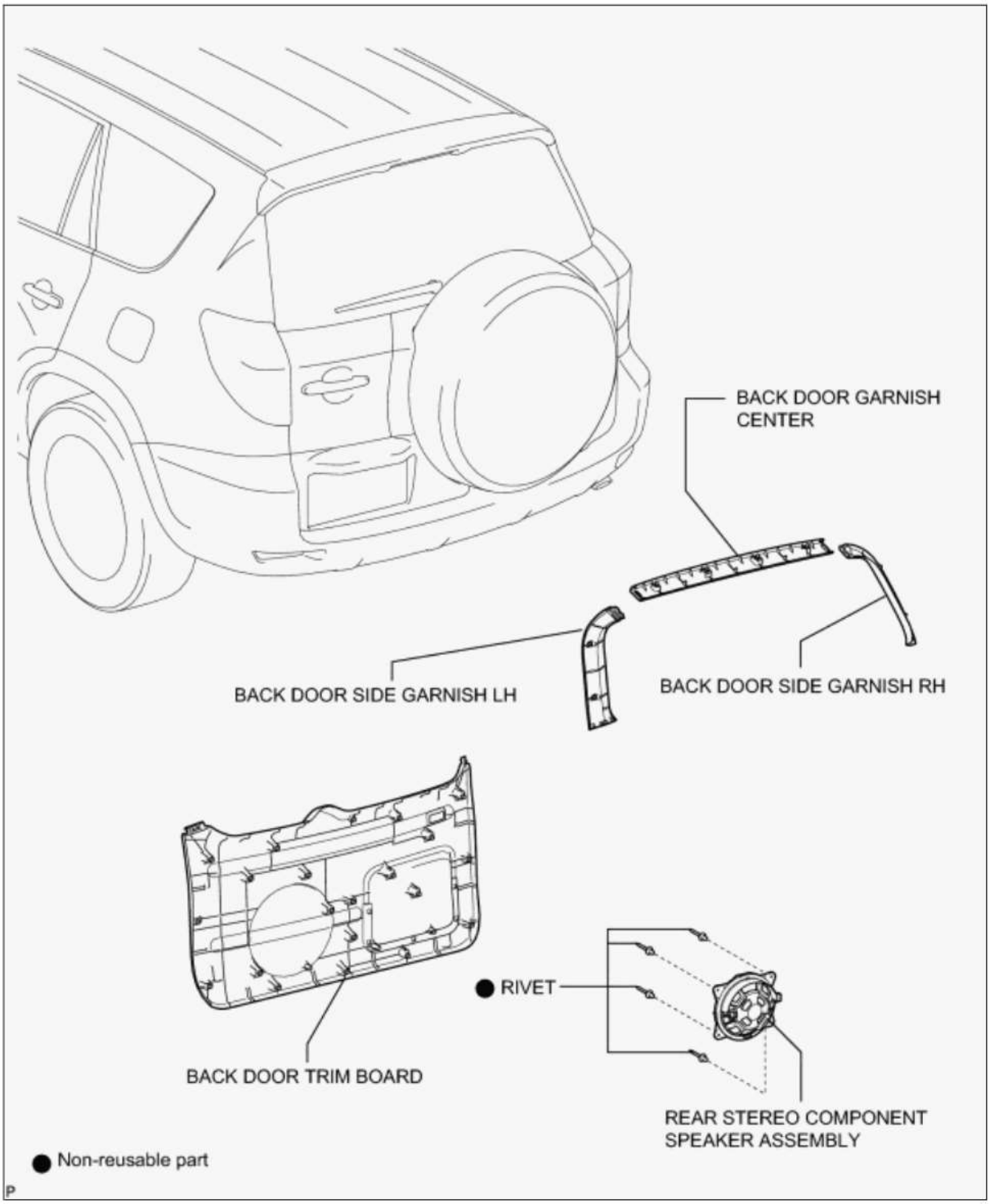
NG ▶ **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK ▶ **PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE**

Last Modified: 9-7-2011	6.4 K	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM0000024UT006X
Title: AUDIO / VISUAL: BACK DOOR SPEAKER: COMPONENTS (2011 RAV4)		

COMPONENTS

ILLUSTRATION



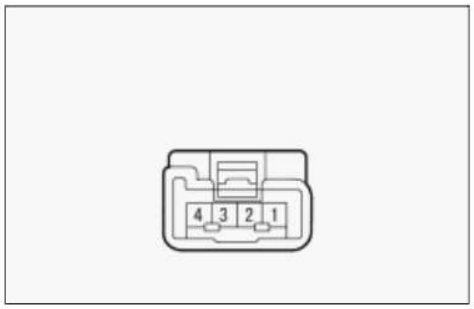



TOYOTA

Last Modified: 9-7-2011	6.4 G	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM0000022CA00HX
Title: AUDIO / VISUAL: BACK DOOR SPEAKER: INSPECTION (2011 RAV4)		

INSPECTION

1. INSPECT REAR STEREO COMPONENT SPEAKER ASSEMBLY



(a) Measure the resistance of the speaker.

Standard resistance:

TESTER CONNECTION	SPECIFIED CONDITION
1 - 4	Approx. 2 Ω

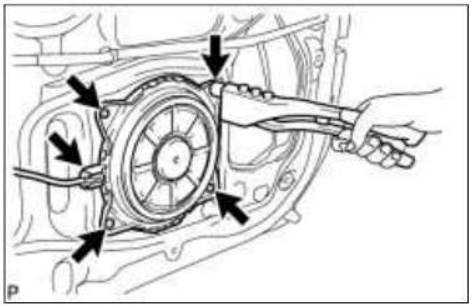
If the result is not as specified, replace the speaker assembly.

Last Modified: 9-7-2011	6.4 A	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM0000014T501FX
Title: AUDIO / VISUAL: BACK DOOR SPEAKER: INSTALLATION (2011 RAV4)		

INSTALLATION

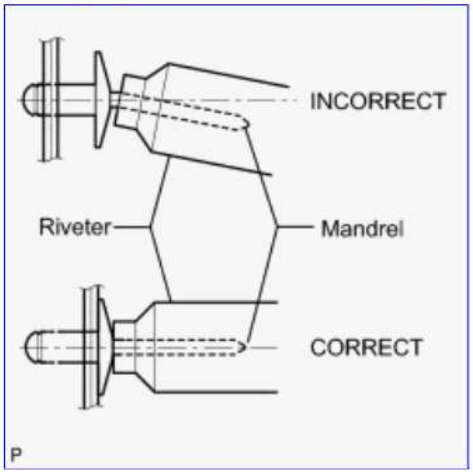
1. INSTALL REAR STEREO COMPONENT SPEAKER ASSEMBLY

(a) Using an air riveter or hand riveter, install the speaker with 4 new rivets.

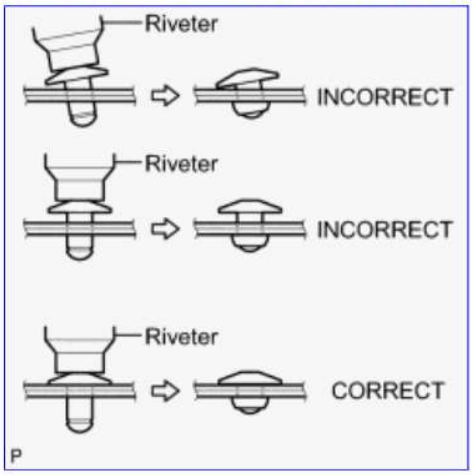


NOTICE:

- Do not pry the rivet with the riveter, as this will cause damage to the riveter and mandrel.

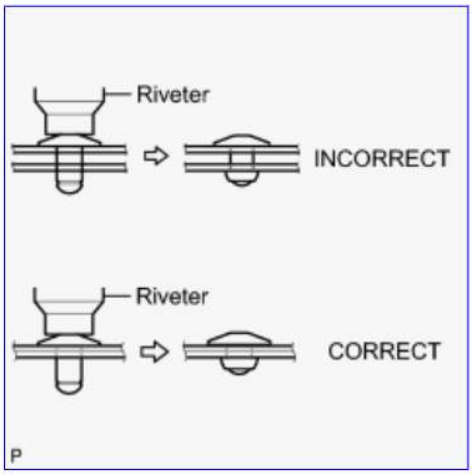


- Confirm that the rivets are seated properly against the speaker.



- Do not tilt the riveter when installing the rivet to the speaker.

- Do not leave any space between the rivet head and speaker.
- Do not leave any space between the speaker and door. Firmly hold together the 2 items while installing the rivet.



(b) Connect the connector.

2. INSTALL BACK DOOR TRIM BOARD INFO

3. INSTALL BACK DOOR SIDE GARNISH LH INFO

4. INSTALL BACK DOOR SIDE GARNISH RH INFO

5. INSTALL BACK DOOR CENTER GARNISH INFO

Last Modified: 9-7-2011	6.4 A	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM0000014T701FX
Title: AUDIO / VISUAL: BACK DOOR SPEAKER: REMOVAL (2011 RAV4)		

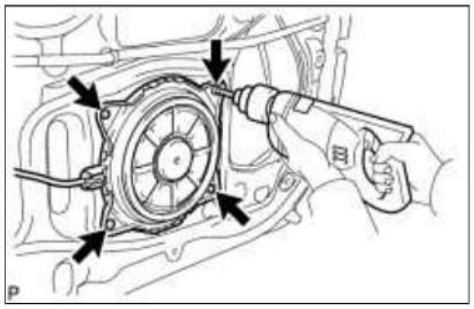
REMOVAL

1. REMOVE BACK DOOR CENTER GARNISH INFO

2. REMOVE BACK DOOR SIDE GARNISH LH INFO

3. REMOVE BACK DOOR SIDE GARNISH RH INFO

4. REMOVE BACK DOOR TRIM BOARD INFO



5. REMOVE REAR STEREO COMPONENT SPEAKER ASSEMBLY

(a) Disconnect the connector.

(b) Using a drill bit with a diameter of less than 4 mm (0.16 in.), drill out the 3 rivet heads and remove the speaker.

NOTICE:

- Do not drill the rivet at an angle as this will cause damage to the drill and drill hole. Line up the drill and rivet, and carefully drill out the rivet head.
- Be careful as the cut rivet will be very hot.

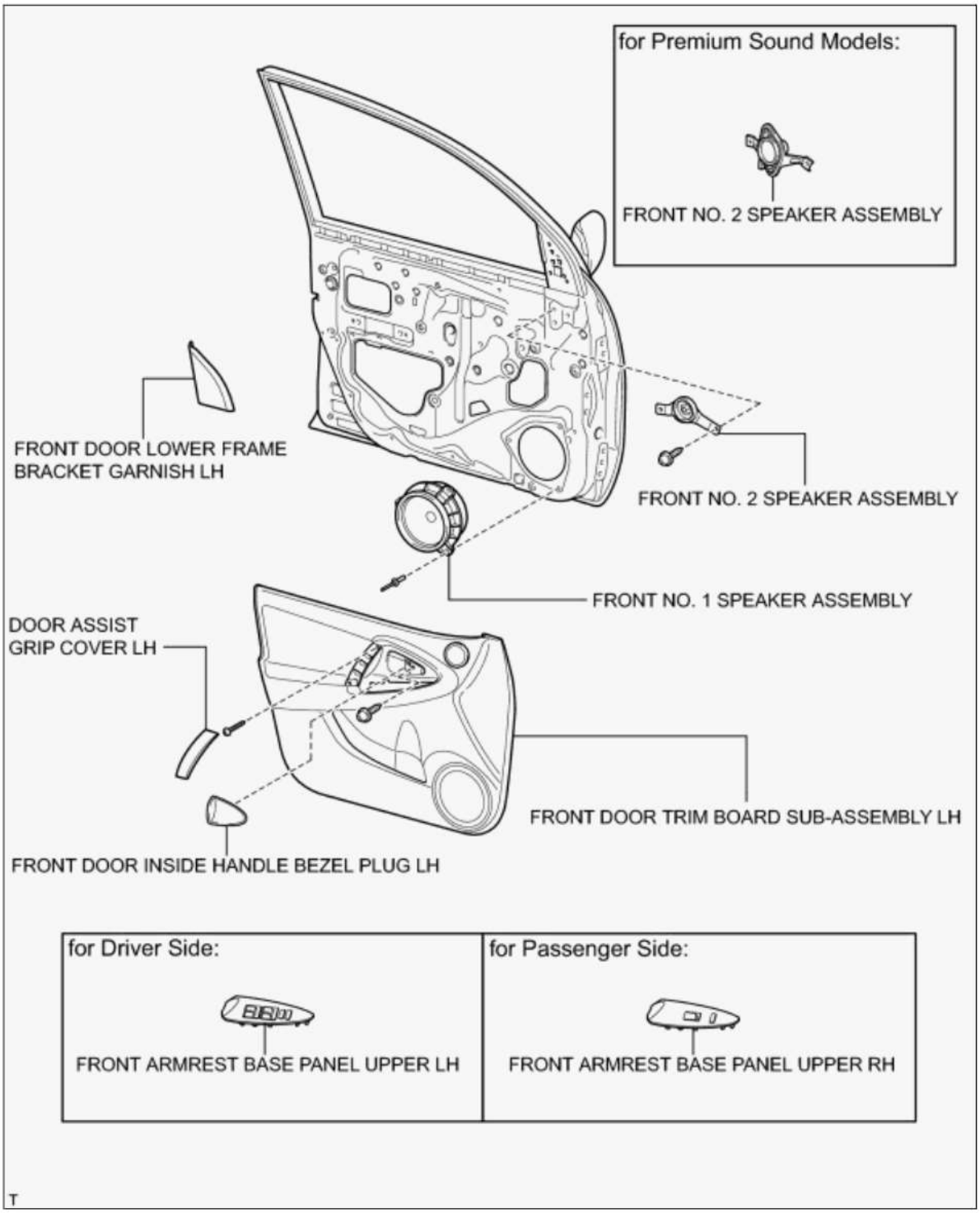
(c) Continue drilling and push out the remaining rivet fragments.

(d) Using a vacuum cleaner, remove the rivet fragments and shavings from the inside of the door.

Last Modified: 9-7-2011	6.4 K	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000001H7F00TX
Title: AUDIO / VISUAL: FRONT DOOR SPEAKER: COMPONENTS (2011 RAV4)		

COMPONENTS

ILLUSTRATION






TOYOTA

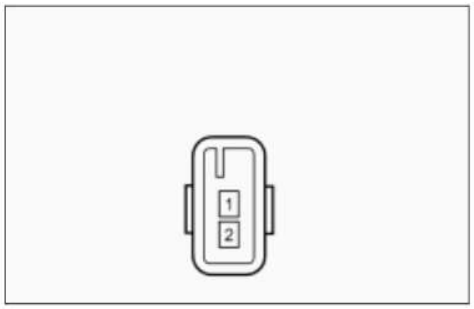
Last Modified: 9-7-2011	6.4 G	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM0000022B700IX
Title: AUDIO / VISUAL: FRONT DOOR SPEAKER: INSPECTION (2011 RAV4)		

INSPECTION

1. INSPECT FRONT NO. 1 SPEAKER ASSEMBLY

(a) Measure the resistance of the speaker.

Standard resistance:



TESTER CONNECTION	SPECIFIED CONDITION
1 - 2*1	2.6 Ω
1 - 2*2	Approx. 4 Ω

HINT:

***1: for Premium sound models**

***2: for Standard models**

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

2. INSPECT FRONT NO. 2 SPEAKER ASSEMBLY

(a) When there is a malfunction such as noise from a speaker or no sound at all, replace the speaker with a new one and check that the malfunction disappears..

OK:

Malfunction disappear.

HINT:

- Connect all connectors to the speakers.
- When there is a possibility that either the right or left front speaker is defective, inspect by interchanging the right one with the left one.
- Perform the inspection above on both LH and RH sides.

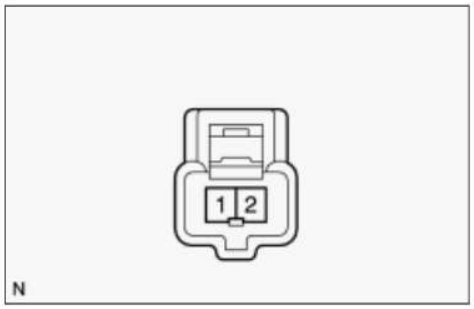
3. INSPECT FRONT NO. 2 SPEAKER ASSEMBLY (for Premium Sound Models)

(a) Measure the resistance of the speaker.

Standard resistance:

TESTER CONNECTION	SPECIFIED CONDITION
1 - 2	2.5 Ω

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


1
2
N

Last Modified: 9-7-2011	6.4 A	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM0000014T501EX
Title: AUDIO / VISUAL: FRONT DOOR SPEAKER: INSTALLATION (2011 RAV4)		

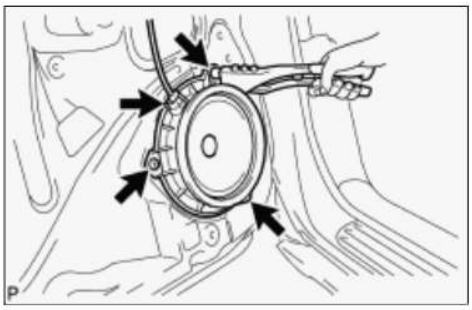
INSTALLATION

HINT:

- Use the same procedures for the RH side and LH sides.
- The procedures listed below are for the LH side.

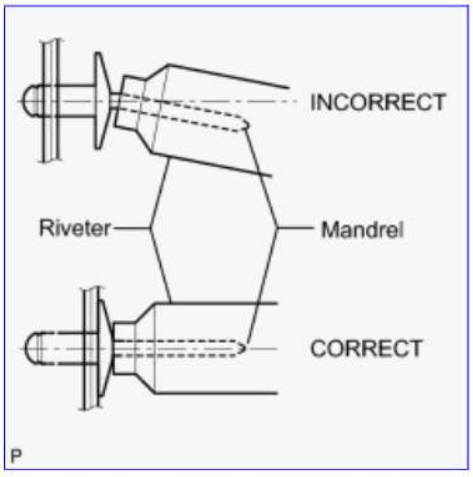
1. INSTALL FRONT NO. 1 SPEAKER ASSEMBLY

(a) Using an air riveter or hand riveter, install the speaker with 3 new rivets.

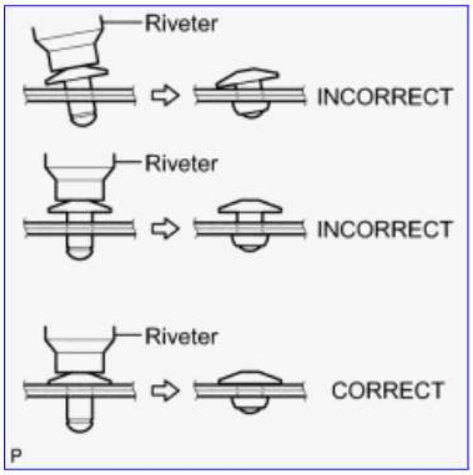


NOTICE:

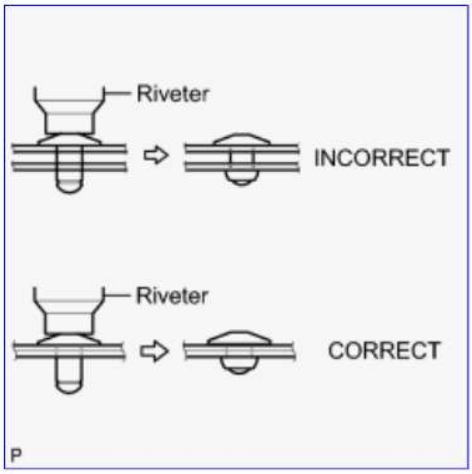
- Do not pry the rivet with the riveter, as this will cause damage to the riveter and mandrel.



- Confirm that the rivets are seated properly against the speaker.



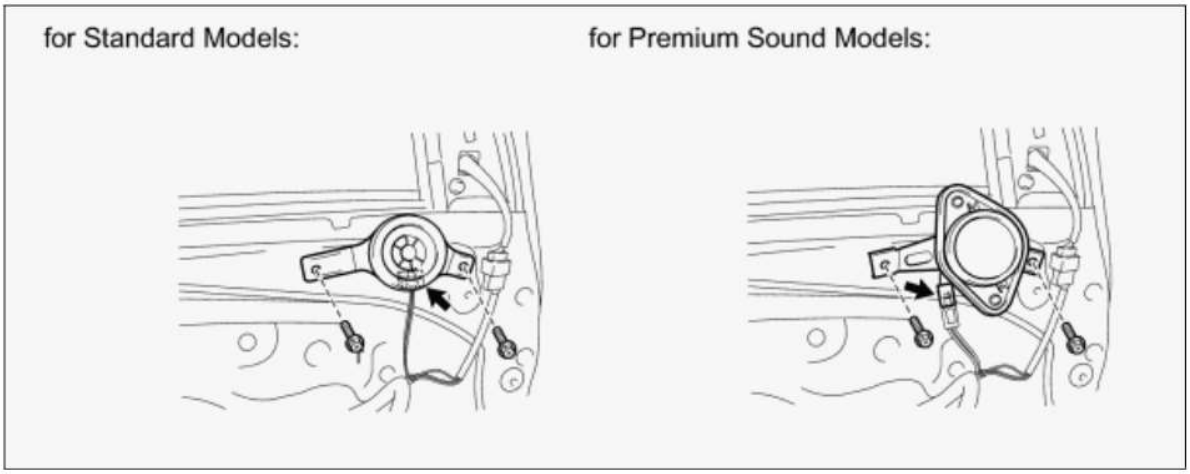
- Do not tilt the riveter when installing the rivet to the speaker.
- Do not leave any space between the rivet head and speaker.
- Do not leave any space between the speaker and door. Firmly hold together the 2 items while installing the rivet.



(b) Connect the connector.

2. INSTALL FRONT NO. 2 SPEAKER ASSEMBLY

(a) Install the speaker with the 2 screws.



(b) Connect the connector.

3. INSTALL FRONT DOOR TRIM BOARD SUB-ASSEMBLY LH INFO

4. INSTALL FRONT ARMREST BASE PANEL UPPER LH INFO

5. INSTALL FRONT DOOR INSIDE HANDLE BEZEL PLUG LH

6. INSTALL DOOR ASSIST GRIP COVER LH

7. INSTALL FRONT DOOR LOWER FRAME BRACKET GARNISH LH INFO

Last Modified: 9-7-2011	6.4 A	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM0000014T701EX
Title: AUDIO / VISUAL: FRONT DOOR SPEAKER: REMOVAL (2011 RAV4)		

REMOVAL

HINT:

- Use the same procedures for the RH side and LH sides.
- The procedures listed below are for the LH side.

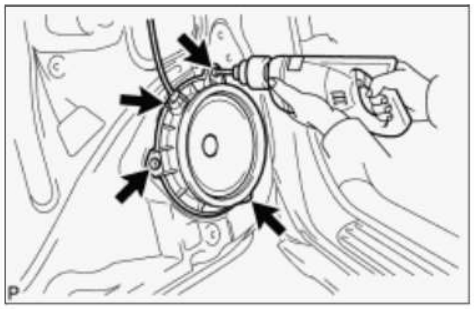
1. REMOVE FRONT DOOR LOWER FRAME BRACKET GARNISH LH INFO

2. REMOVE DOOR ASSIST GRIP COVER LH

3. REMOVE FRONT DOOR INSIDE HANDLE BEZEL PLUG LH

4. REMOVE FRONT ARMREST BASE PANEL UPPER LH INFO

5. REMOVE FRONT DOOR TRIM BOARD SUB-ASSEMBLY LH INFO



6. REMOVE FRONT NO. 1 SPEAKER ASSEMBLY

(a) Disconnect the connector.

(b) Using a drill bit with a diameter of less than 4 mm (0.16 in.), drill out the 3 rivet heads and remove the speaker.

NOTICE:

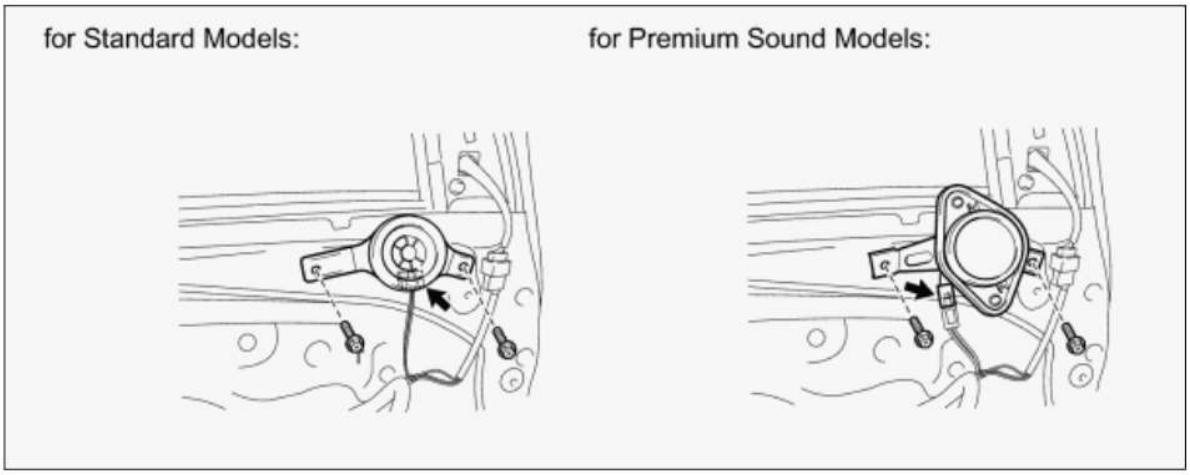
- Do not drill the rivet at an angle as this will cause damage to the drill and drill hole. Line up the drill and rivet, and carefully drill out the rivet head.
- Be careful as the cut rivet will be very hot.

(c) Continue drilling and push out the remaining rivet fragments.

(d) Using a vacuum cleaner, remove the rivet fragments and shavings from the inside of the door.

7. REMOVE FRONT NO. 2 SPEAKER ASSEMBLY

(a) Disconnect the connector.

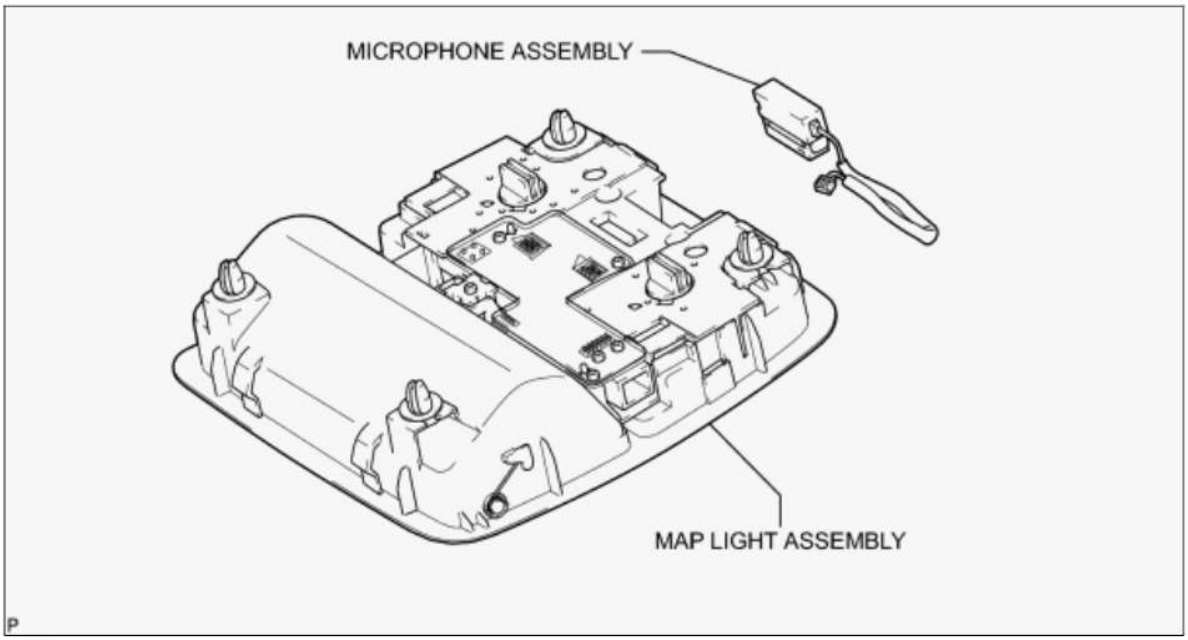


(b) Remove the 2 screws and speaker.

Last Modified: 9-7-2011	6.4 K	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000002WOB005X
Title: AUDIO / VISUAL: MICROPHONE: COMPONENTS (2011 RAV4)		

COMPONENTS

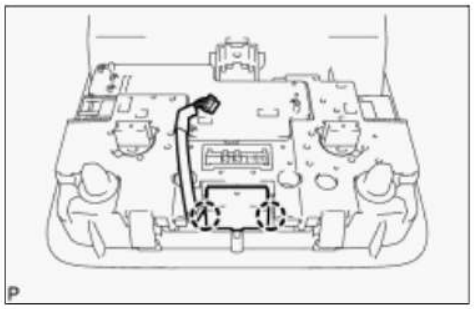
ILLUSTRATION



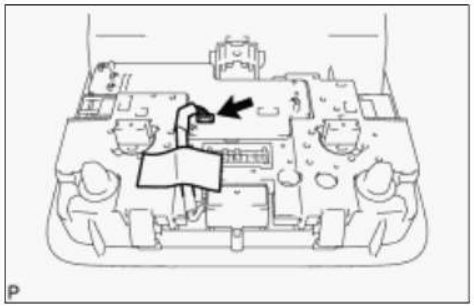
Last Modified: 9-7-2011	6.4 A	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000002WOA005X
Title: AUDIO / VISUAL: MICROPHONE: INSTALLATION (2011 RAV4)		

INSTALLATION

1. INSTALL MICROPHONE ASSEMBLY



(a) Attach the 2 claws and install the microphone assembly.



(b) Connect the connector.

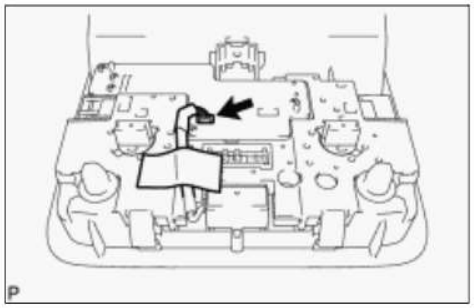
2. INSTALL MAP LIGHT ASSEMBLY INFO

Last Modified: 9-7-2011	6.4 A	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000002WOC005X
Title: AUDIO / VISUAL: MICROPHONE: REMOVAL (2011 RAV4)		

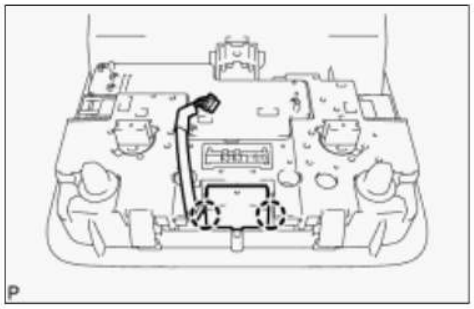
REMOVAL

1. REMOVE MAP LIGHT ASSEMBLY INFO

2. REMOVE MICROPHONE ASSEMBLY



(a) Disconnect the connector.

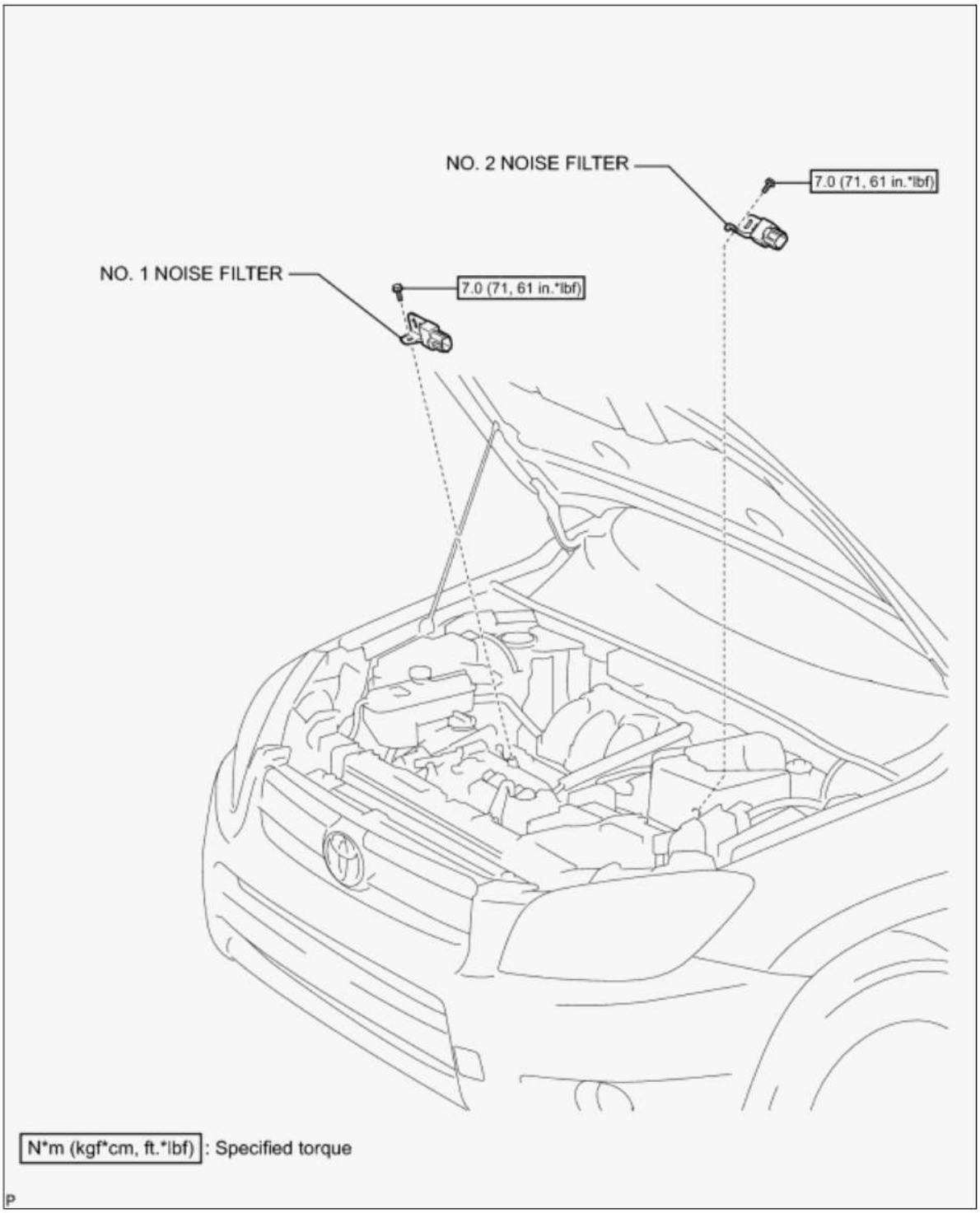


(b) Detach the 2 claws and remove the microphone assembly.

Last Modified: 9-7-2011	6.4 K	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM0000029KC009X
Title: AUDIO / VISUAL: NOISE FILTER (for 2GR-FE): COMPONENTS (2011 RAV4)		

COMPONENTS

ILLUSTRATION



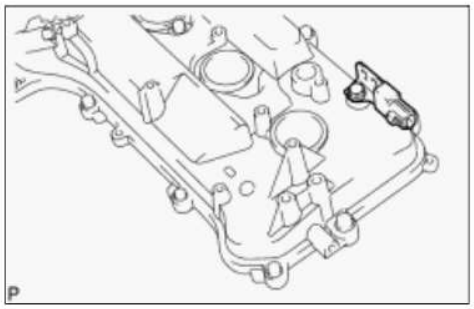



TOYOTA

Last Modified: 9-7-2011	6.4 A	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM0000029KB008X
Title: AUDIO / VISUAL: NOISE FILTER (for 2GR-FE): INSTALLATION (2011 RAV4)		

INSTALLATION

1. INSTALL NO. 2 NOISE FILTER



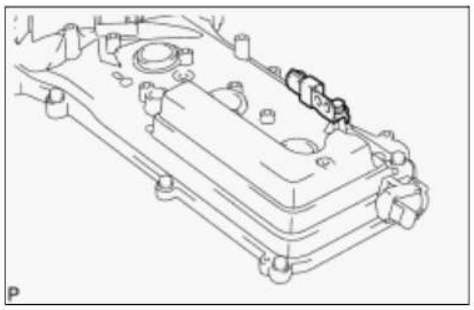
(a) Install the noise filter with the bolt.

Torque: 7.0 N·m (71 kgf·cm, 61in·lbf)

(b) Connect the connector.

2. INSTALL INTAKE AIR SURGE TANK ASSEMBLY INFO

3. INSTALL NO. 1 NOISE FILTER



(a) Install the noise filter with the bolt.

Torque: 7.0 N·m (71 kgf·cm, 61in·lbf)

(b) Connect the connector.

4. INSTALL V-BANK COVER SUB-ASSEMBLY INFO

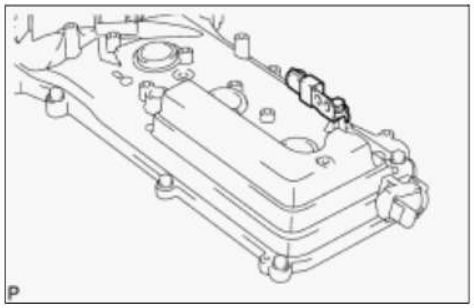
5. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Last Modified: 9-7-2011	6.4 A	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM0000029KD009X
Title: AUDIO / VISUAL: NOISE FILTER (for 2GR-FE): REMOVAL (2011 RAV4)		

REMOVAL

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

2. REMOVE V-BANK COVER SUB-ASSEMBLY INFO

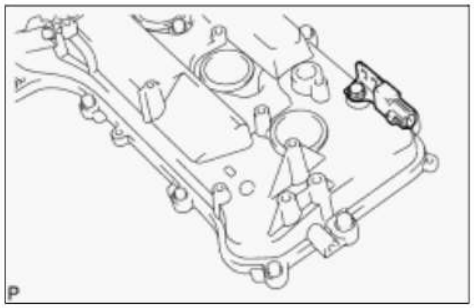


3. REMOVE NO. 1 NOISE FILTER

(a) Disconnect the connector.

(b) Remove the bolt and noise filter.

4. REMOVE INTAKE AIR SURGE TANK ASSEMBLY INFO



5. REMOVE NO. 2 NOISE FILTER

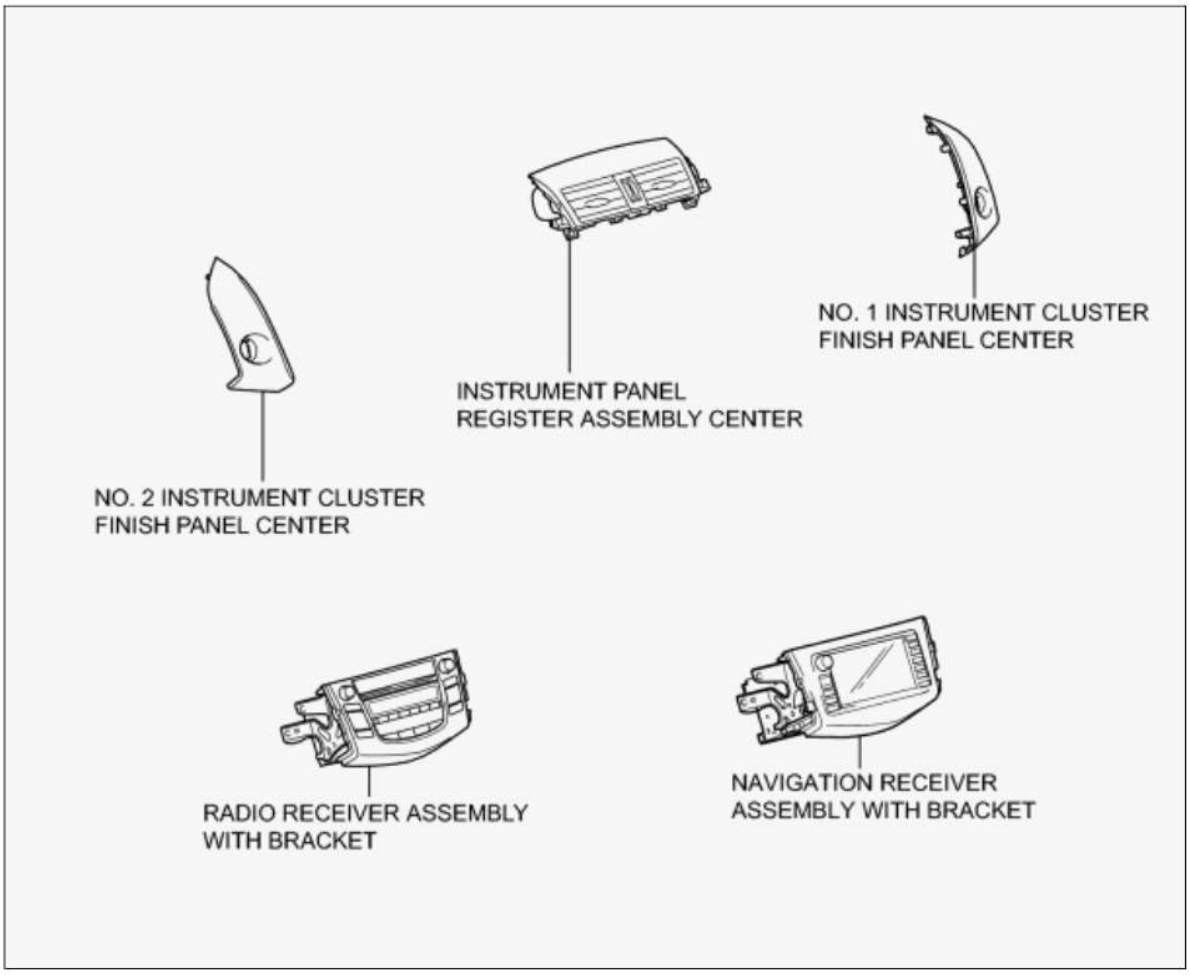
(a) Disconnect the connector.

(b) Remove the bolt and noise filter.

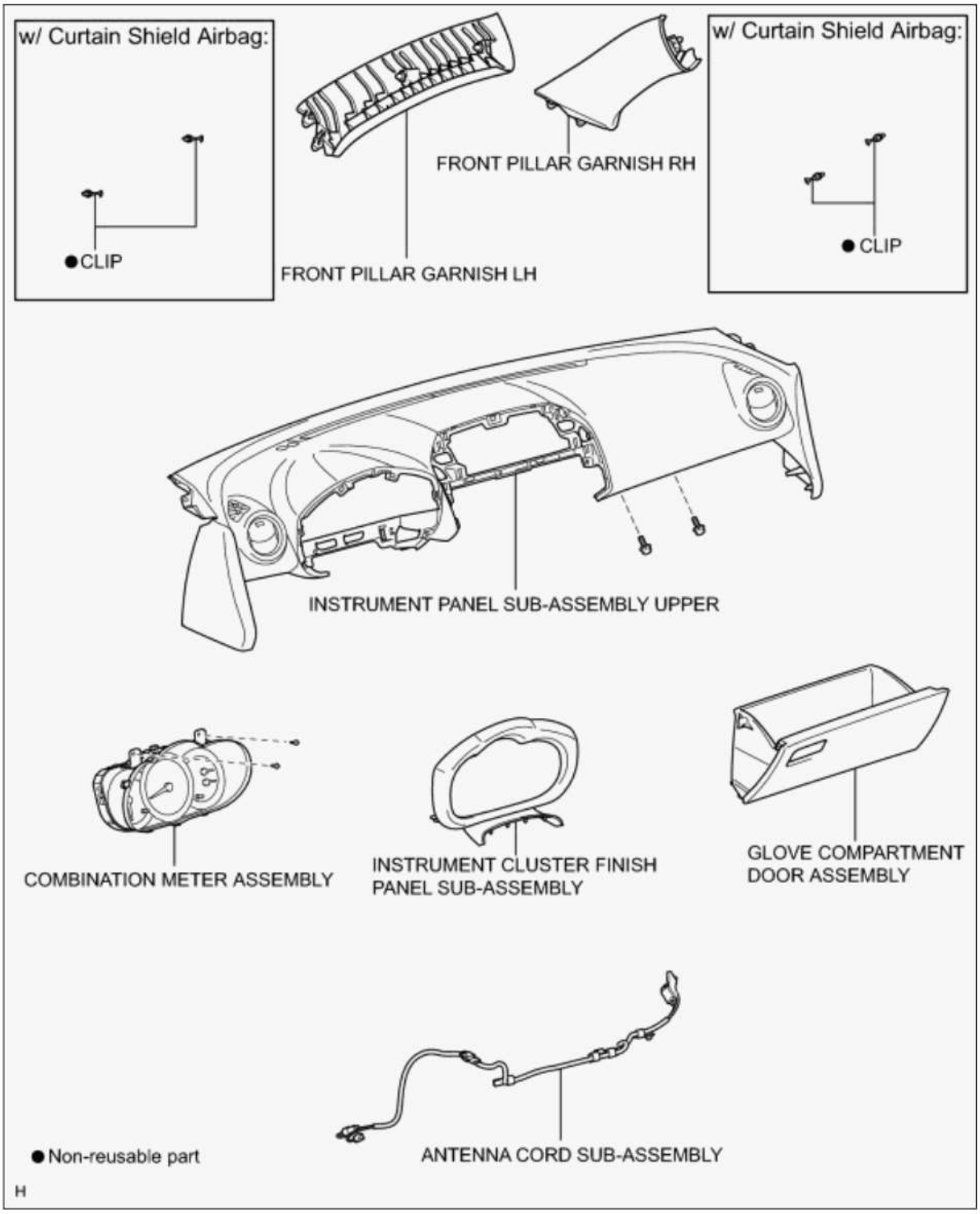
Last Modified: 9-7-2011	6.4 K	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM0000014UR00UX
Title: AUDIO / VISUAL: RADIO ANTENNA CORD: COMPONENTS (2011 RAV4)		

COMPONENTS

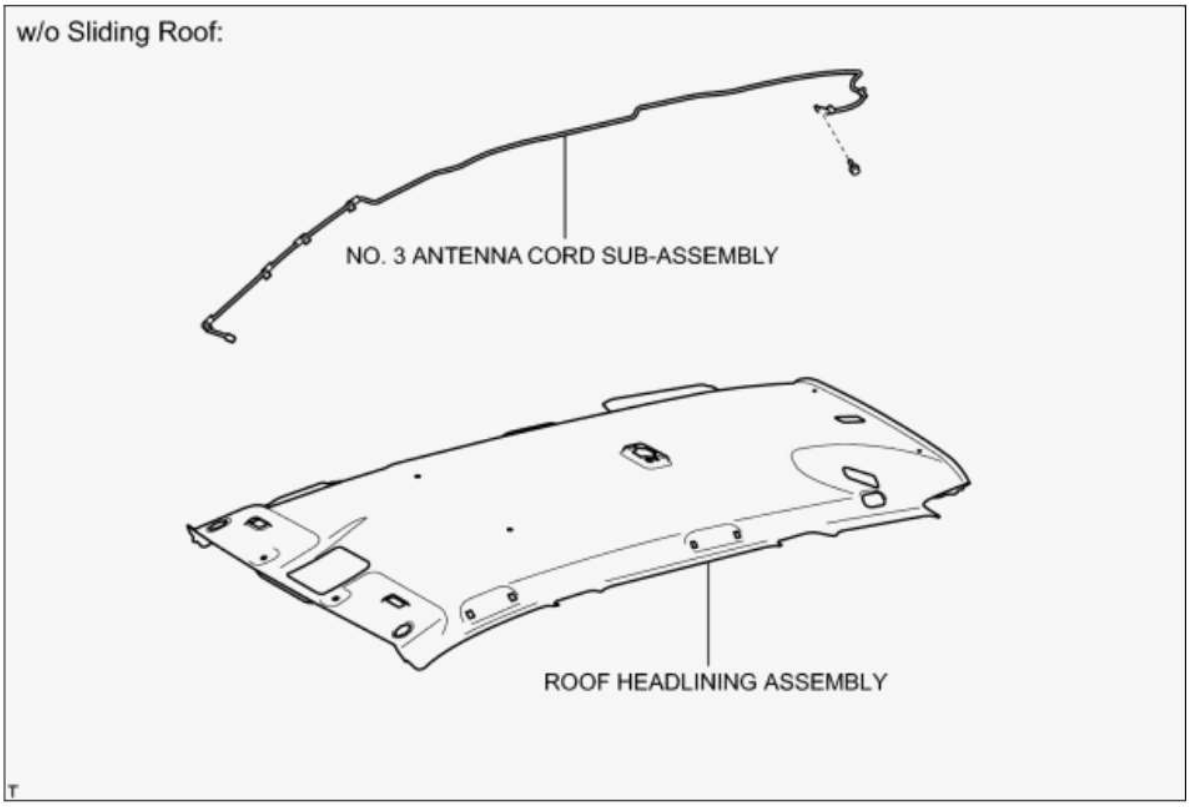
ILLUSTRATION



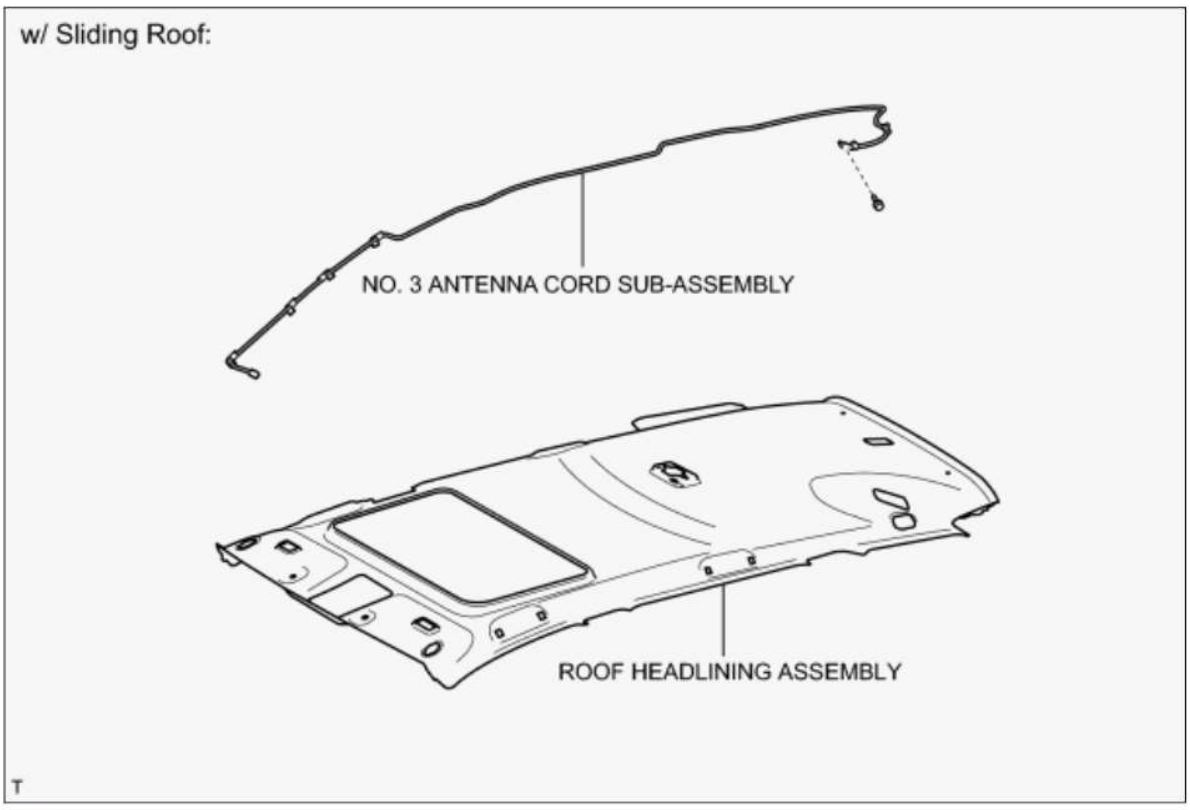
ILLUSTRATION



ILLUSTRATION



ILLUSTRATION



Last Modified: 9-7-2011	6.4 A	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM0000014UQ00YX
Title: AUDIO / VISUAL: RADIO ANTENNA CORD: INSTALLATION (2011 RAV4)		

INSTALLATION

1. INSTALL NO. 3 ANTENNA CORD SUB-ASSEMBLY

(a) w/o Sliding Roof:

(1) Apply new double-sided tape as shown in the illustration.

HINT:

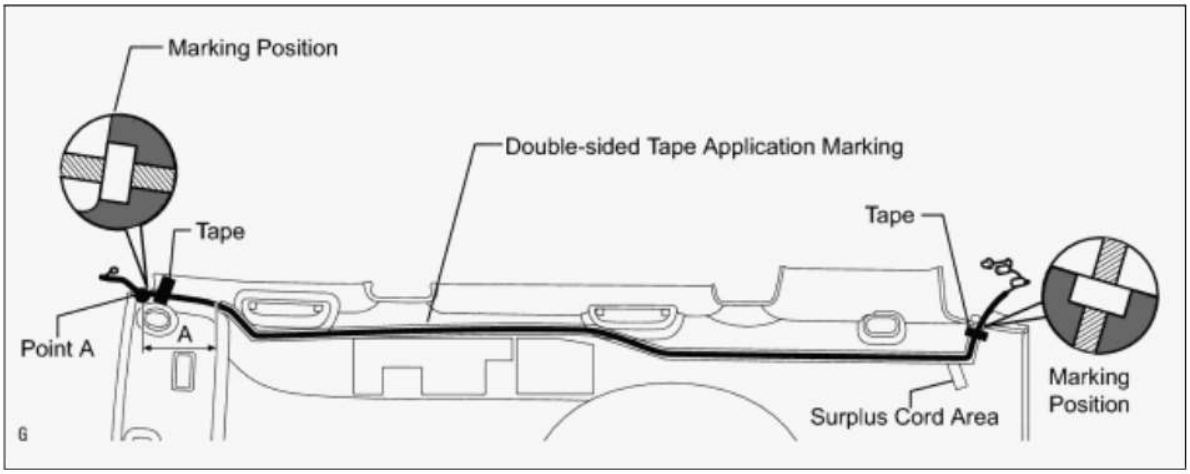
There are no installation markings in area A in the illustration. Therefore, apply the double-sided tape toward point A.

(2) Align the antenna cord masking tape and the edge of the roof headlining. Attach the antenna cord along the double-sided tape to install the cord.

HINT:

Place any extra antenna cord length in the surplus cord area shown in the illustration.

(3) Apply tape to both ends of the antenna cord to fix the cord in place.



(b) w/ Sliding Roof:

(1) Apply new double-sided tape as shown in the illustration.

HINT:

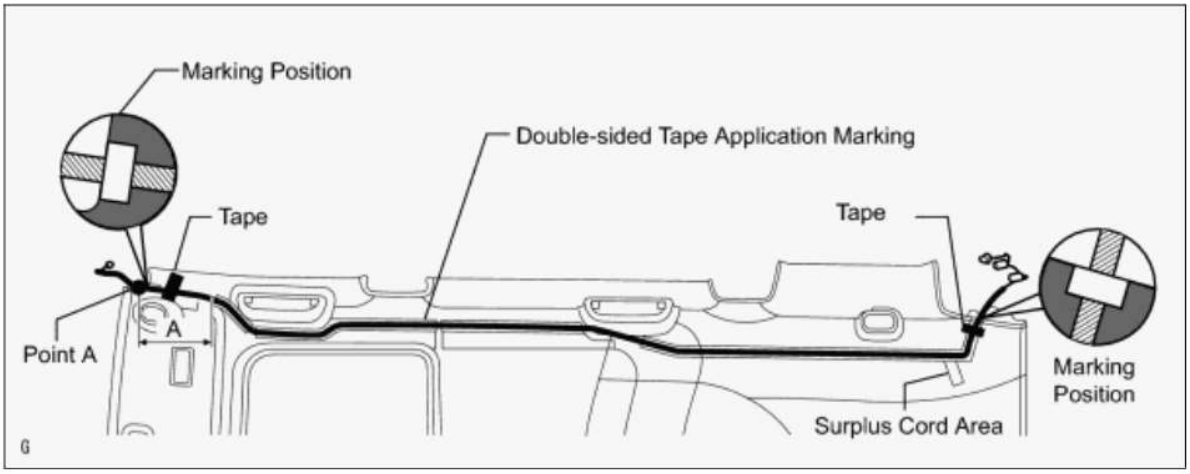
There are no installation markings in area A in the illustration. Therefore, apply the double-sided tape toward point A.

(2) Align the antenna cord masking tape and the edge of the roof headlining. Attach the antenna cord along the double-sided tape to install the cord.

HINT:

Place any extra antenna cord length in the surplus cord area shown in the illustration.

(3) Apply tape to both ends of the antenna cord to fix the cord in place.



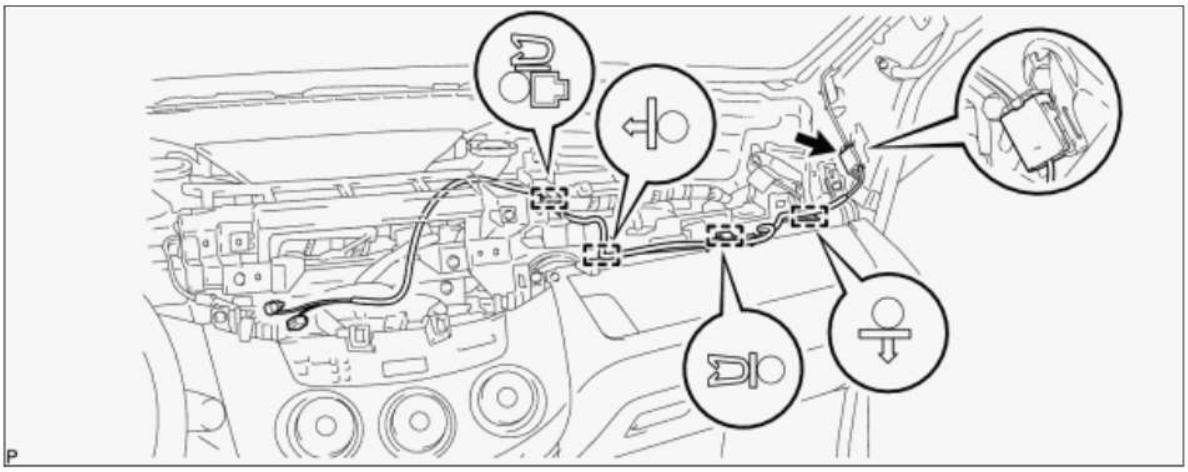
2. INSTALL ROOF HEADLINING ASSEMBLY

(a) Install the roof headlining INFO .

3. INSTALL ANTENNA CORD SUB-ASSEMBLY

(a) Attach the 4 clamps to install the antenna cord.

(b) Connect the connector.



4. INSTALL INSTRUMENT PANEL SUB-ASSEMBLY UPPER INFO

5. INSTALL FRONT PILLAR GARNISH LH INFO

6. INSTALL FRONT PILLAR GARNISH RH INFO

7. INSTALL GLOVE COMPARTMENT DOOR ASSEMBLY INFO

8. INSTALL INSTRUMENT PANEL REGISTER ASSEMBLY CENTER INFO

9. INSTALL NAVIGATION RECEIVER ASSEMBLY WITH BRACKET (w/ Navigation System) INFO

10. INSTALL RADIO RECEIVER ASSEMBLY WITH BRACKET INFO

11. INSTALL NO. 1 INSTRUMENT CLUSTER FINISH PANEL CENTER INFO

12. INSTALL NO. 2 INSTRUMENT CLUSTER FINISH PANEL CENTER INFO

13. INSTALL COMBINATION METER ASSEMBLY INFO

14. INSTALL INSTRUMENT CLUSTER FINISH PANEL SUB-ASSEMBLY INFO

15. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Last Modified: 9-7-2011	6.4 A	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM0000014US00XX
Title: AUDIO / VISUAL: RADIO ANTENNA CORD: REMOVAL (2011 RAV4)		

REMOVAL

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

2. REMOVE INSTRUMENT CLUSTER FINISH PANEL SUB-ASSEMBLY INFO

3. REMOVE COMBINATION METER ASSEMBLY INFO

4. REMOVE NO. 2 INSTRUMENT CLUSTER FINISH PANEL CENTER INFO

5. REMOVE NO. 1 INSTRUMENT CLUSTER FINISH PANEL CENTER INFO

6. REMOVE RADIO RECEIVER ASSEMBLY WITH BRACKET INFO

7. REMOVE NAVIGATION RECEIVER ASSEMBLY WITH BRACKET (w/ Navigation System) INFO

8. REMOVE INSTRUMENT PANEL REGISTER ASSEMBLY CENTER INFO

9. REMOVE GLOVE COMPARTMENT DOOR ASSEMBLY INFO

10. REMOVE FRONT PILLAR GARNISH LH INFO

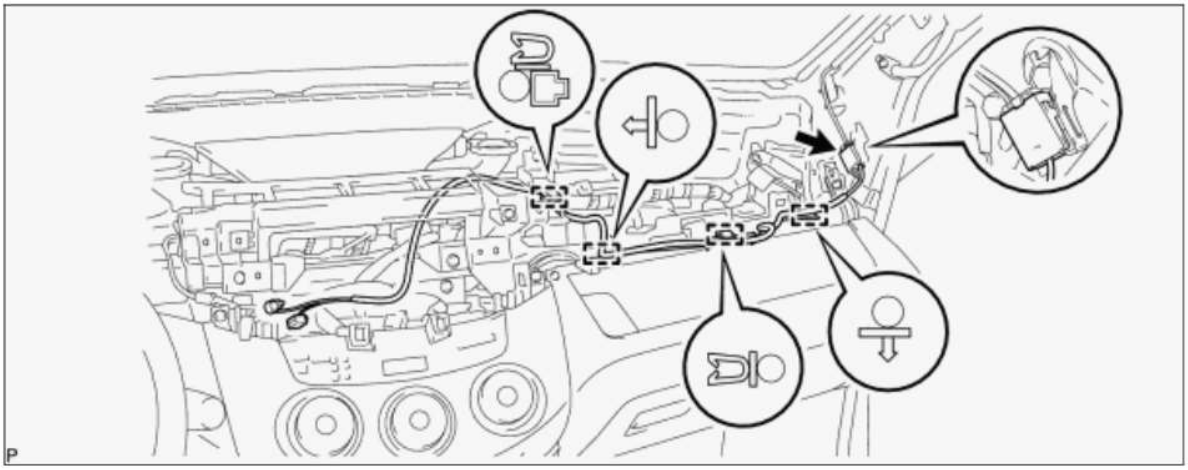
11. REMOVE FRONT PILLAR GARNISH RH INFO

12. REMOVE INSTRUMENT PANEL SUB-ASSEMBLY UPPER INFO

13. REMOVE ANTENNA CORD SUB-ASSEMBLY

(a) Disconnect the connector.

(b) Detach the 4 clamps and remove the antenna cord.



14. REMOVE ROOF HEADLINING ASSEMBLY

(a) Remove the roof headlining INFO .

15. REMOVE NO. 3 ANTENNA CORD SUB-ASSEMBLY

(a) w/o Sliding Roof:

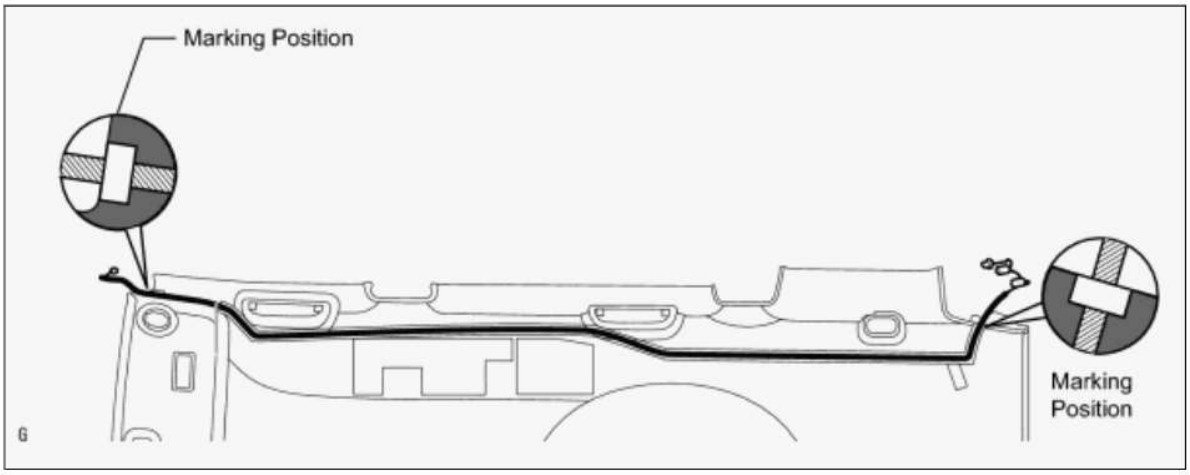
(1) Apply masking tape to the antenna cord to mark it.

HINT:

Apply the masking tape so that the edges of the masking tape and roof headlining are aligned as shown in the illustration.

(2) Remove the antenna cord from the roof headlining.

(3) Remove the double-sided tape from the roof headlining.



(b) w/ Sliding Roof:

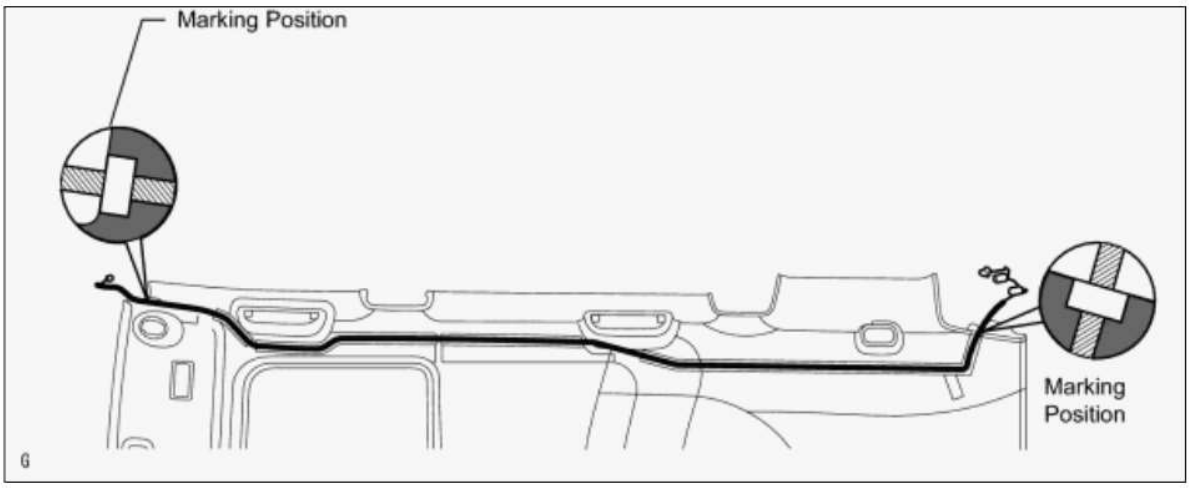
(1) Apply masking tape to the antenna cord to mark it.

HINT:

Apply the masking tape so that the edges of the masking tape and roof headlining are aligned as shown in the illustration.

(2) Remove the antenna cord from the roof headlining.

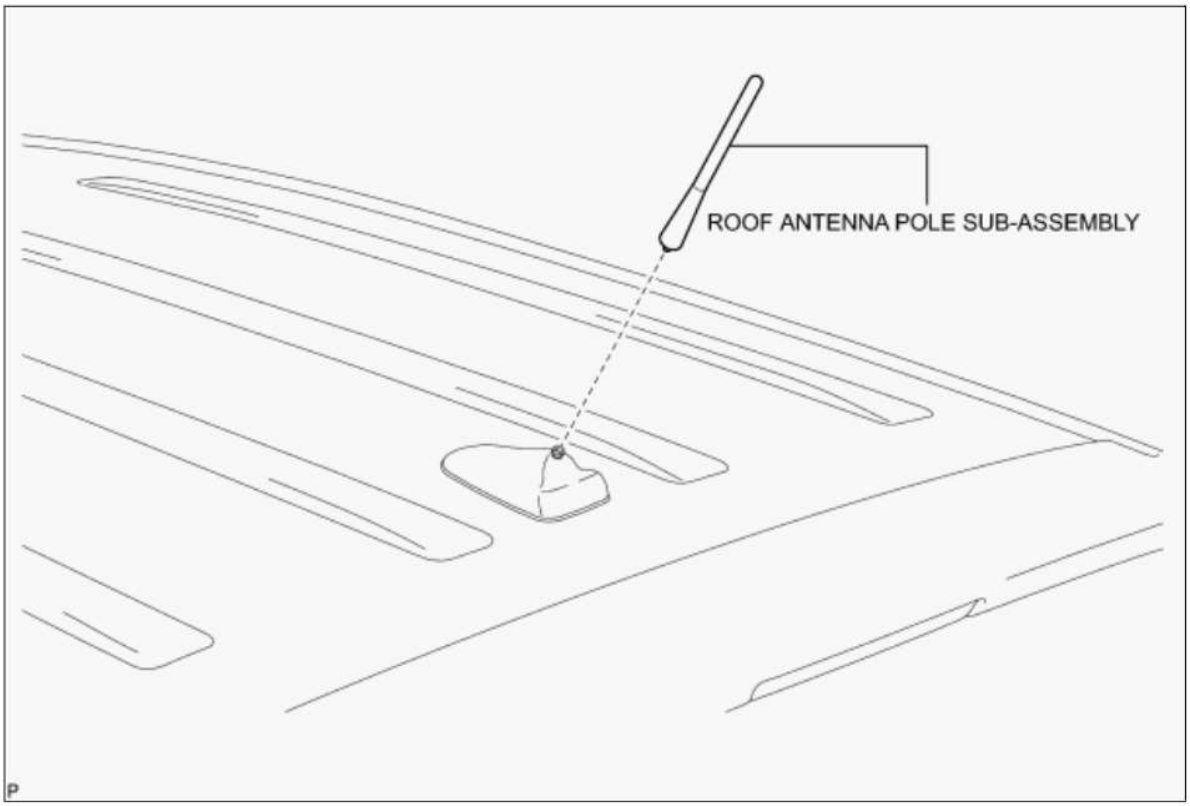
(3) Remove the double-sided tape from the roof headlining.



Last Modified: 9-7-2011	6.4 K	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000003PRP002X
Title: AUDIO / VISUAL: RADIO ANTENNA POLE: COMPONENTS (2011 RAV4)		

COMPONENTS

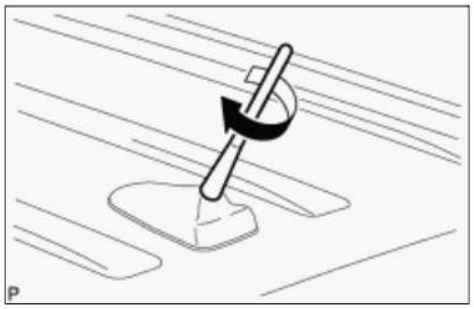
ILLUSTRATION



Last Modified: 9-7-2011	6.4 A	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000003PRO002X
Title: AUDIO / VISUAL: RADIO ANTENNA POLE: INSTALLATION (2011 RAV4)		

INSTALLATION

1. INSTALL ROOF ANTENNA POLE SUB-ASSEMBLY

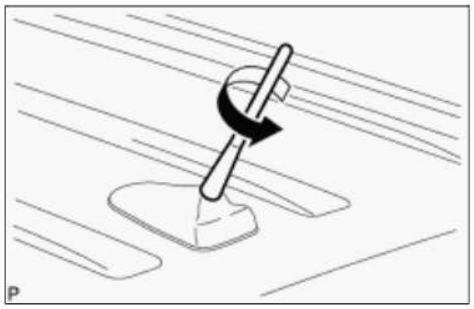


(a) Turn the roof antenna pole in the direction indicated in the illustration to install it.

Last Modified: 9-7-2011	6.4 A	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000003PRQ002X
Title: AUDIO / VISUAL: RADIO ANTENNA POLE: REMOVAL (2011 RAV4)		

REMOVAL

1. REMOVE ROOF ANTENNA POLE SUB-ASSEMBLY

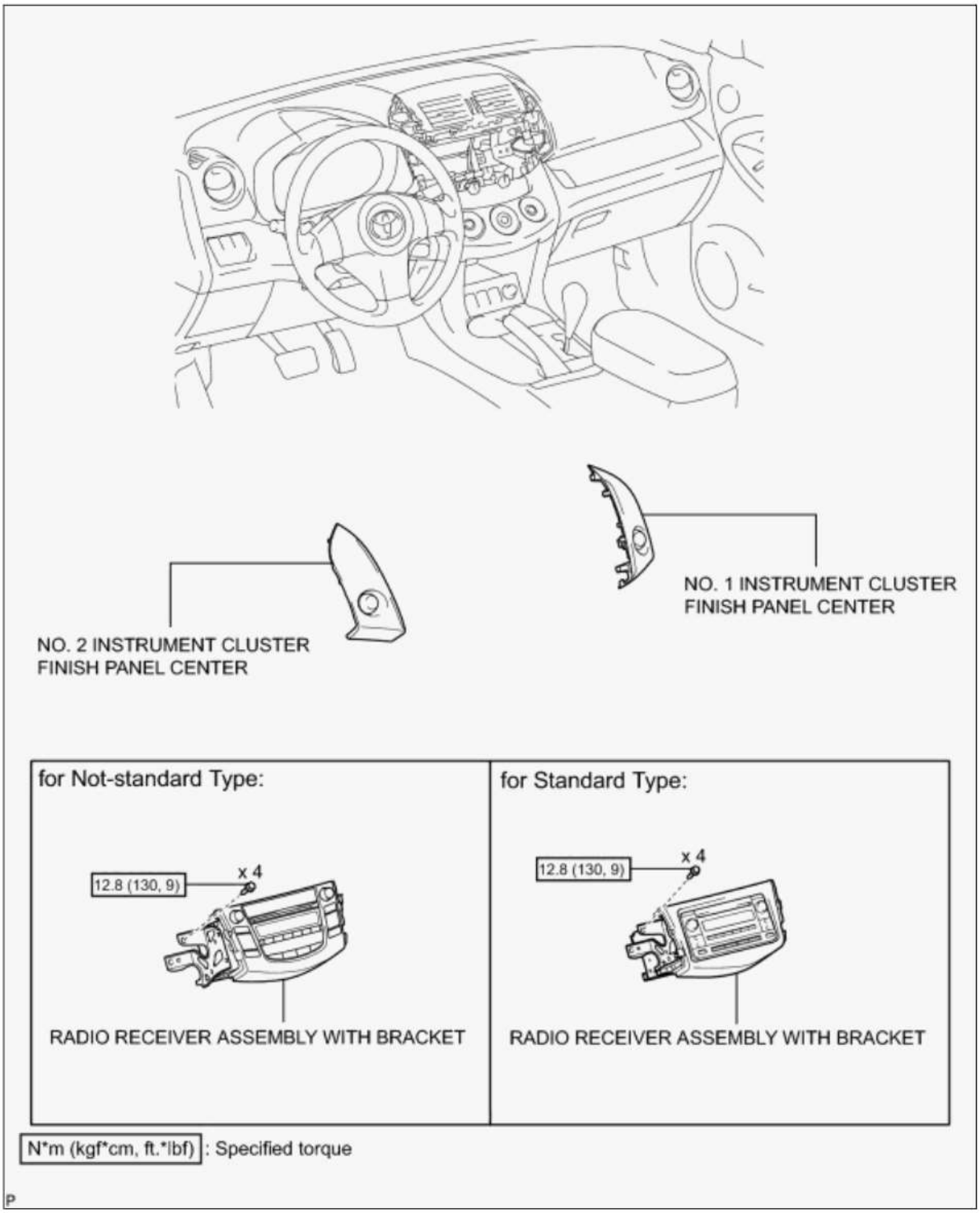


(a) Turn the roof antenna pole in the direction indicated in the illustration and remove it.

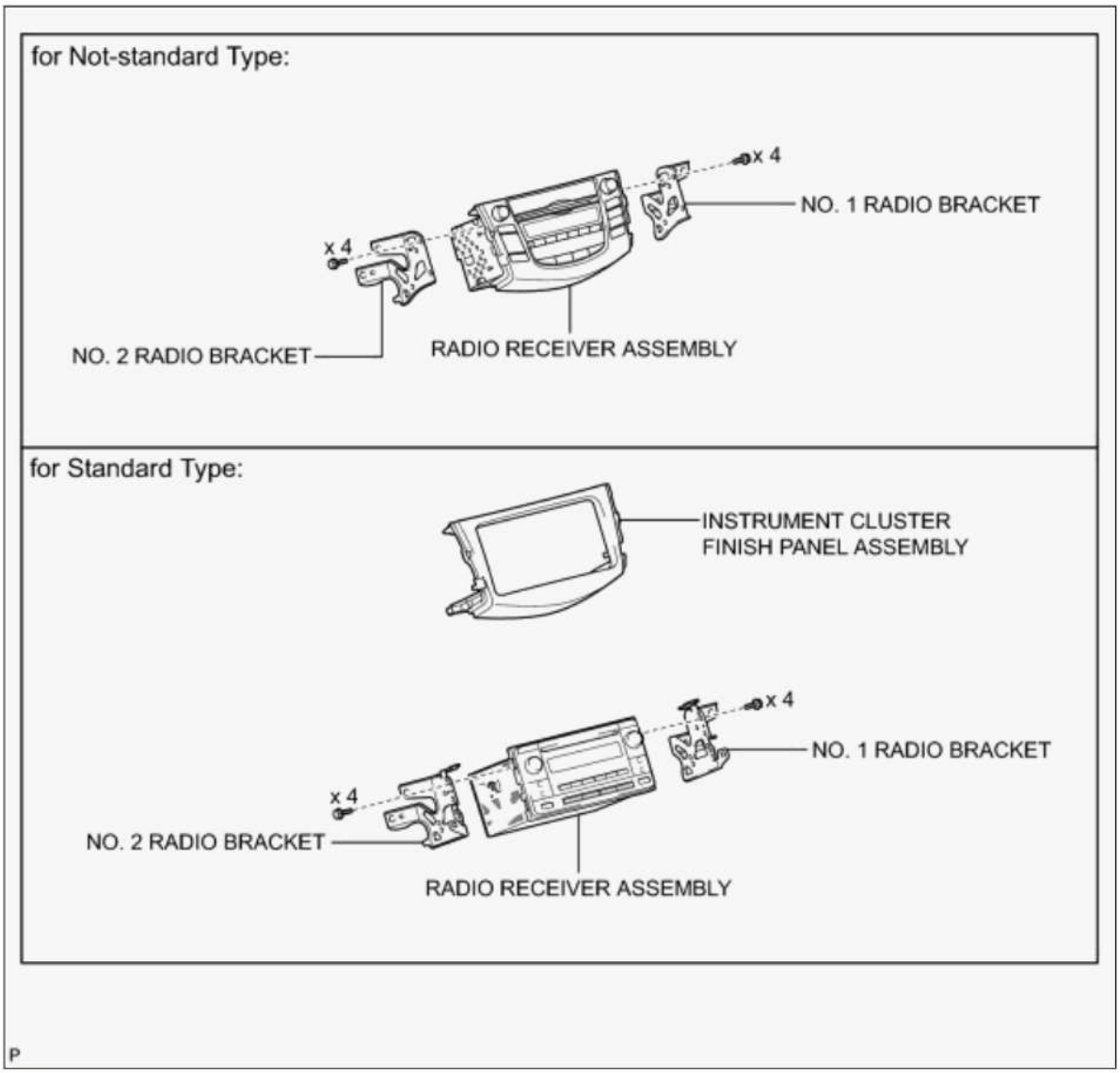
Last Modified: 9-7-2011	6.4 K	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000001H7Q00GX
Title: AUDIO / VISUAL: RADIO RECEIVER: COMPONENTS (2011 RAV4)		

COMPONENTS

ILLUSTRATION



ILLUSTRATION

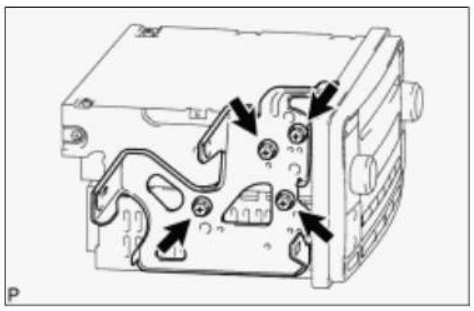


Last Modified: 9-7-2011	6.4 A	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM0000011Q300KX
Title: AUDIO / VISUAL: RADIO RECEIVER: INSTALLATION (2011 RAV4)		

INSTALLATION

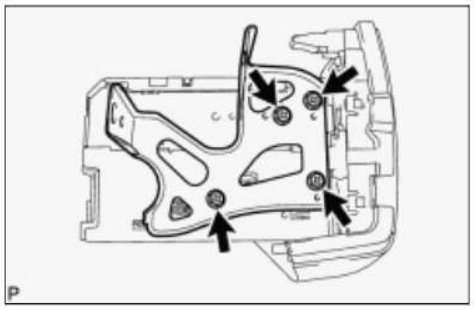
1. INSTALL NO. 1 RADIO BRACKET

(a) for Standard Type:



(1) Install the radio receiver bracket to the radio receiver with the 4 bolts.

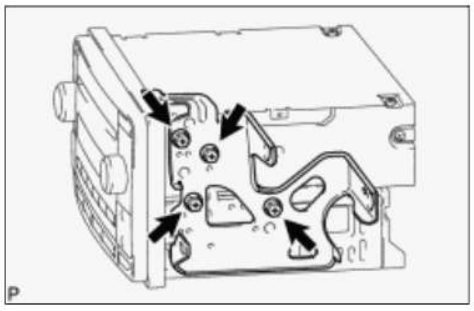
(b) for Not-standard Type:



(1) Install the radio receiver bracket to the radio receiver with the 4 bolts.

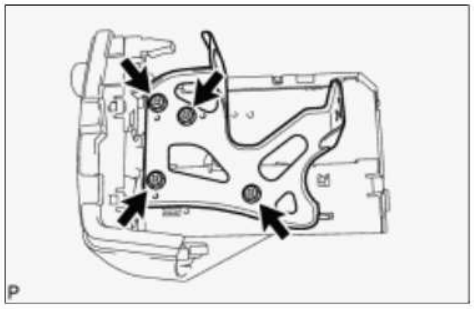
2. INSTALL NO. 2 RADIO BRACKET

(a) for Standard Type:



(1) Install the radio receiver bracket to the radio receiver with the 4 bolts.

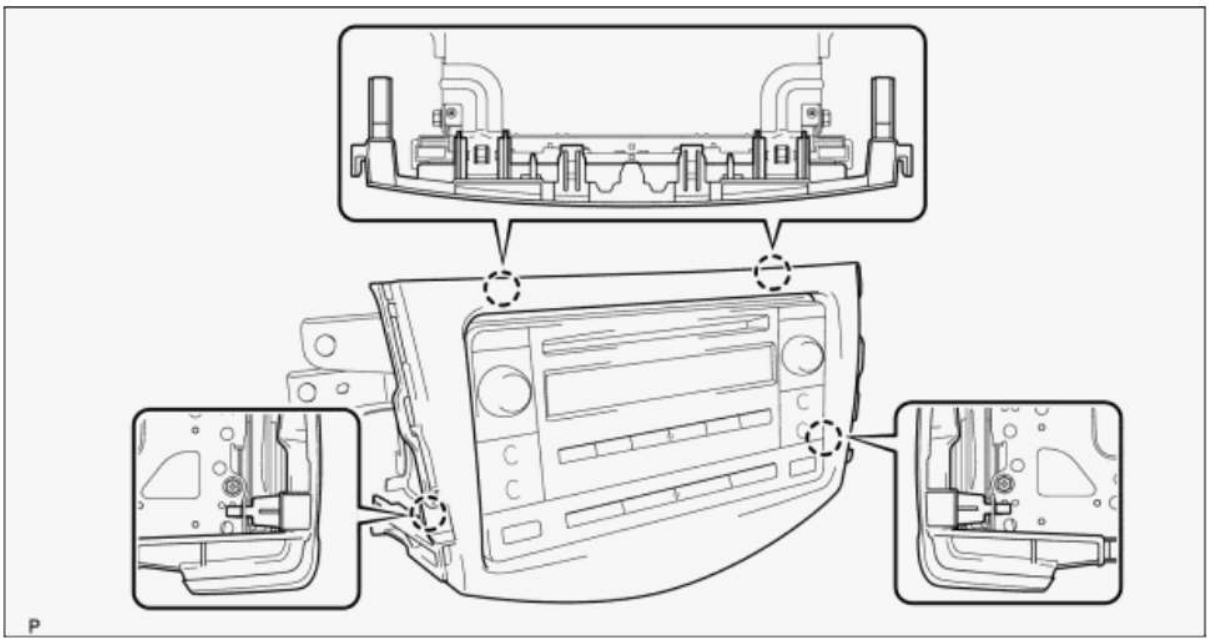
(b) for Not-standard Type:



(1) Install the radio receiver bracket to the radio receiver with the 4 bolts.

3. INSTALL INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY

(a) Attach the 4 claws to install the instrument cluster finish panel.

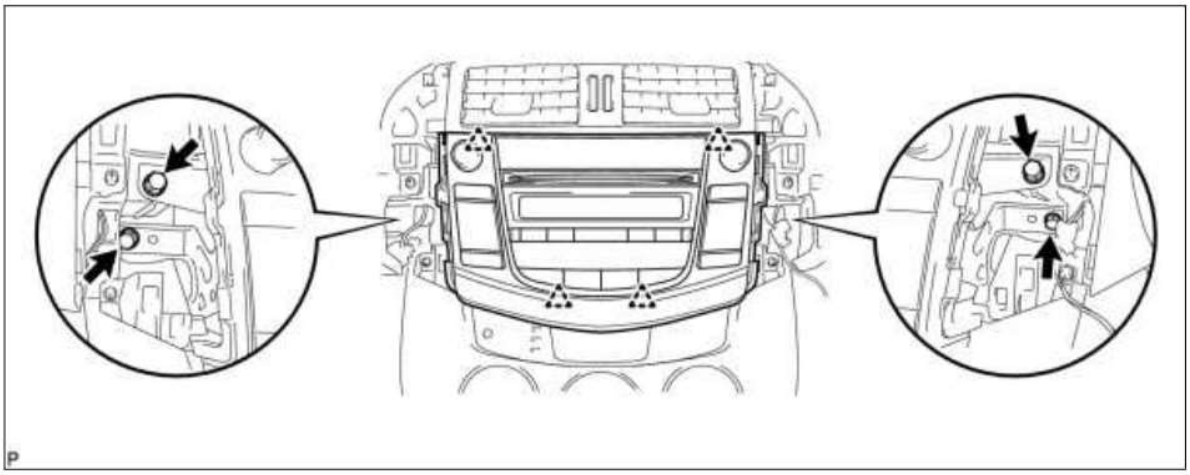


4. INSTALL RADIO RECEIVER ASSEMBLY WITH BRACKET

(a) for Not-standard Type:

(1) Connect all the connectors.

(2) Insert the radio receiver to attach the 2 claws and 4 clips on its backside.



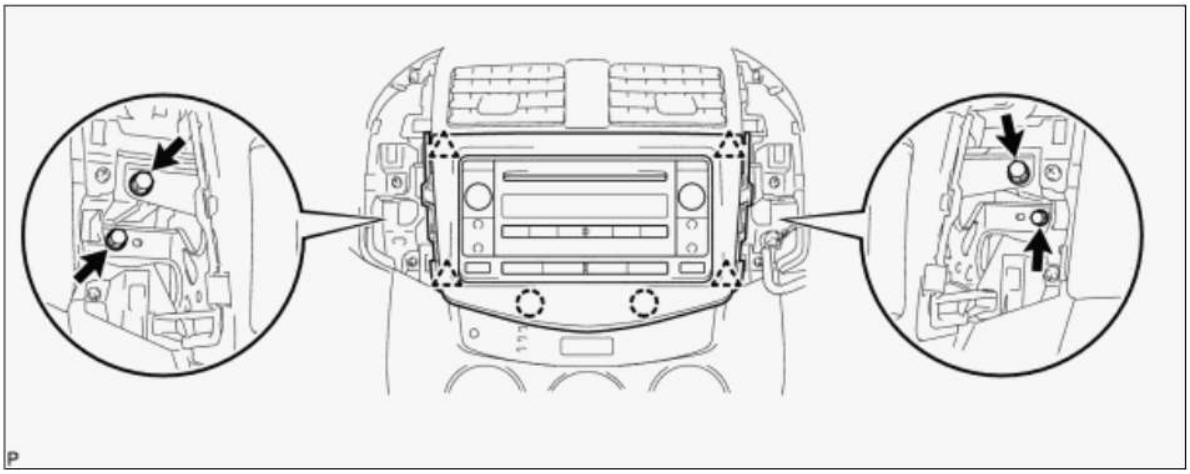
(3) Install the 4 bolts.

Torque: 12.8 N·m (130 kgf·cm, 9ft·lbf)

(b) for Standard Type:

(1) Connect all the connectors.

(2) Insert the radio receiver to attach the 2 claws and 4 clips on its backside.



(3) Install the 4 bolts.

Torque: 12.8 N·m (130 kgf·cm, 9ft·lbf)

5. INSTALL NO. 1 INSTRUMENT CLUSTER FINISH PANEL CENTER INFO

6. INSTALL NO. 2 INSTRUMENT CLUSTER FINISH PANEL CENTER INFO

7. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Last Modified: 9-7-2011	6.4 A	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM0000014UM00JX
Title: AUDIO / VISUAL: RADIO RECEIVER: REMOVAL (2011 RAV4)		

REMOVAL

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

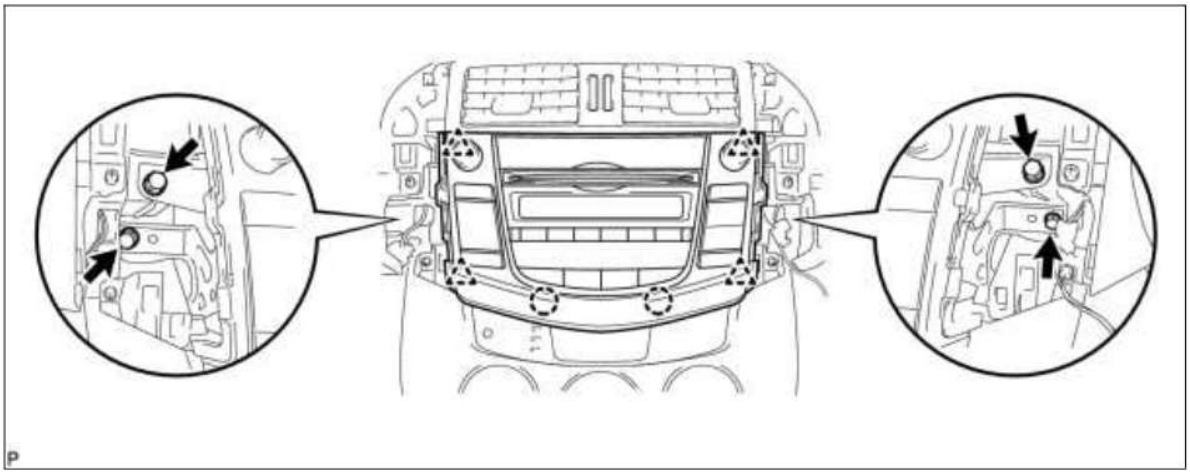
2. REMOVE NO. 2 INSTRUMENT CLUSTER FINISH PANEL CENTER INFO

3. REMOVE NO. 1 INSTRUMENT CLUSTER FINISH PANEL CENTER INFO

4. REMOVE RADIO RECEIVER ASSEMBLY WITH BRACKET

(a) for Not-standard Type:

(1) Remove the 4 bolts.

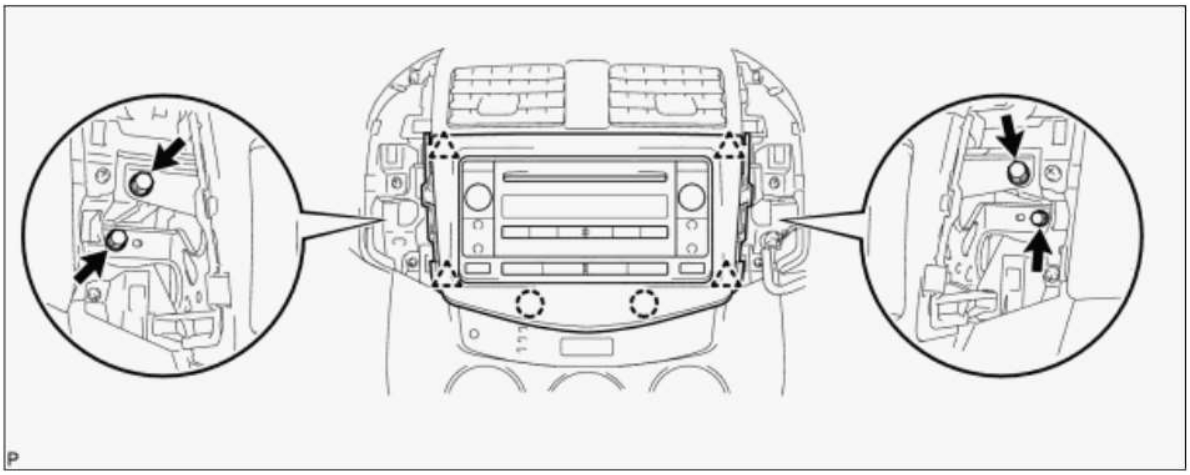


(2) Pull the radio receiver to detach the 2 claws and 4 clips on the backside of the radio receiver.

(3) Disconnect all the connectors and remove the radio receiver with bracket.

(b) for Standard Type:

(1) Remove the 4 bolts.

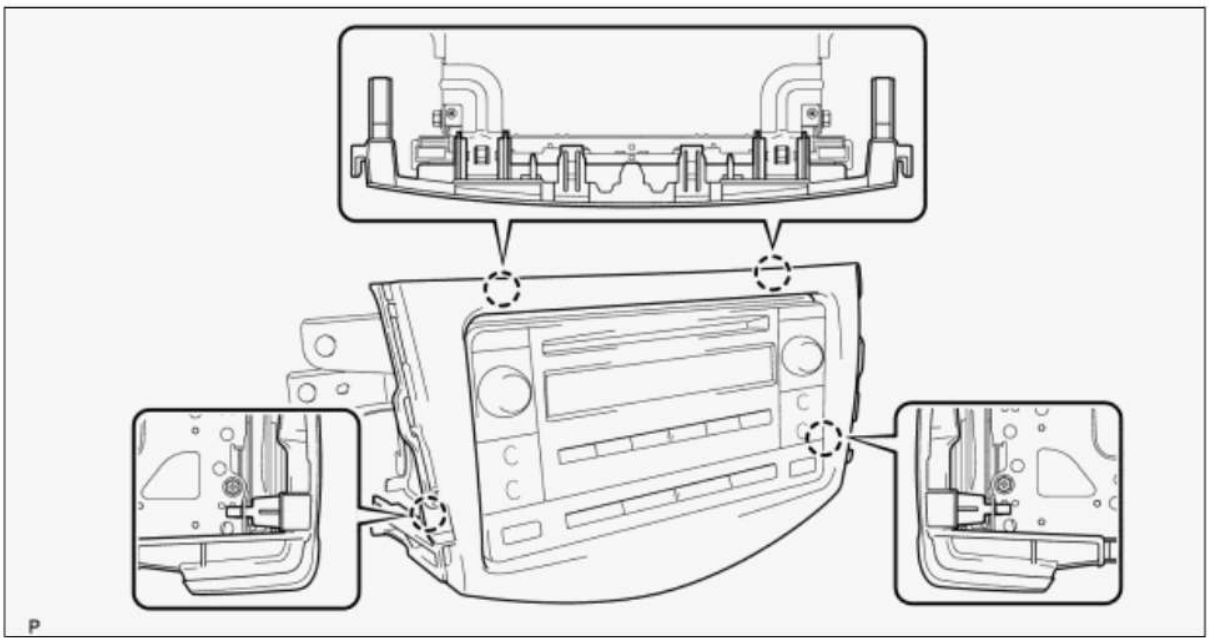


(2) Pull the radio receiver to detach the 2 claws and 4 clips on the backside of the radio receiver.

(3) Disconnect all the connectors and remove the radio receiver with bracket.

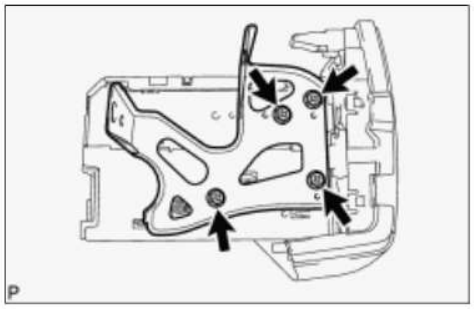
5. REMOVE INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY

(a) Detach the 4 claws and remove the instrument cluster finish panel.



6. REMOVE NO. 1 RADIO BRACKET

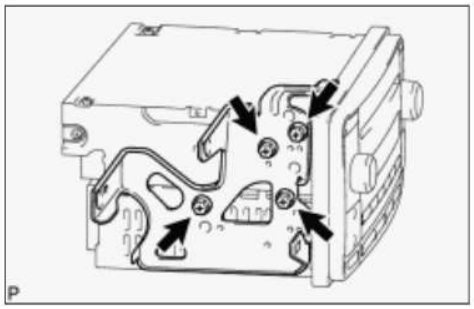
(a) for Not-standard Type:



(1) Remove the 4 bolts and radio receiver bracket from the radio receiver.

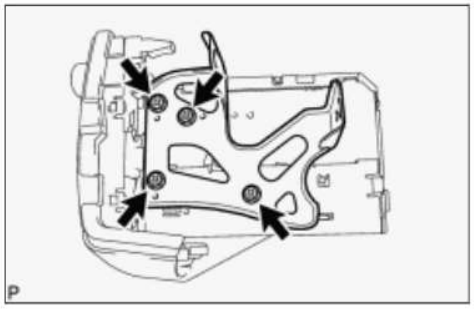
(b) for Standard Type:

(1) Remove the 4 bolts and radio receiver bracket from the radio receiver.



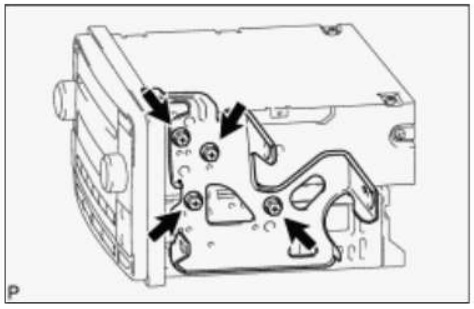
7. REMOVE NO. 2 RADIO BRACKET

(a) for Not-standard Type:



(1) Remove the 4 bolts and radio receiver bracket from the radio receiver.

(b) for Standard Type:

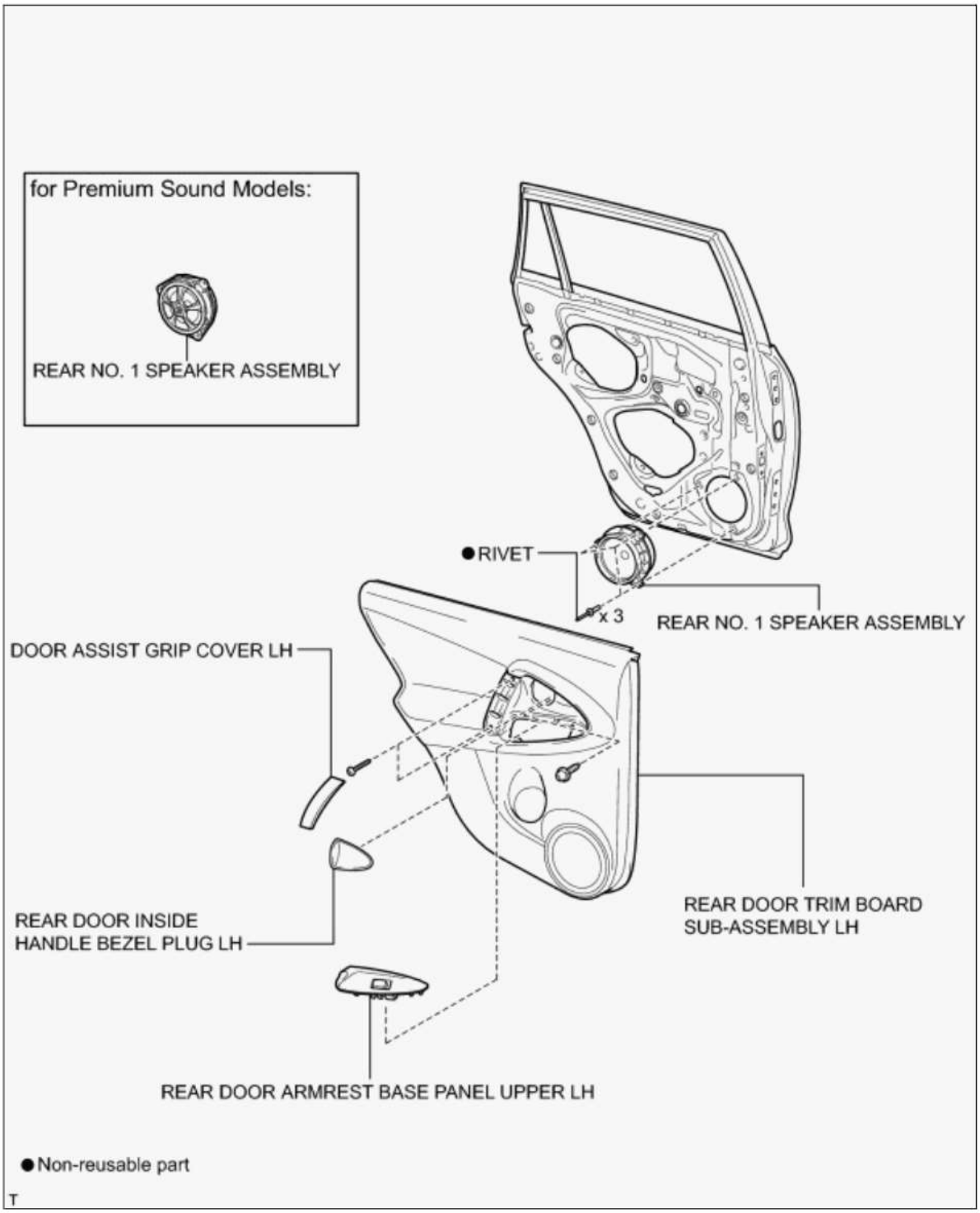


(1) Remove the 4 bolts and radio receiver bracket from the radio receiver.

Last Modified: 9-7-2011	6.4 K	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM0000014TA00TX
Title: AUDIO / VISUAL: REAR DOOR SPEAKER: COMPONENTS (2011 RAV4)		

COMPONENTS

ILLUSTRATION



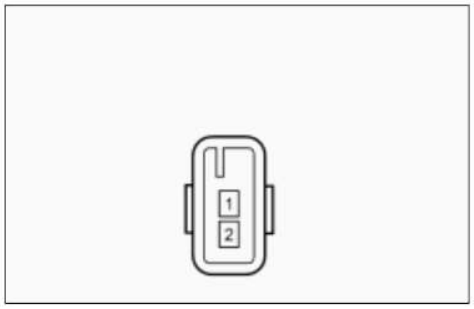



TOYOTA

Last Modified: 9-7-2011	6.4 G	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM0000022B6006X
Title: AUDIO / VISUAL: REAR DOOR SPEAKER: INSPECTION (2011 RAV4)		

INSPECTION

1. INSPECT REAR NO. 1 SPEAKER ASSEMBLY



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

Standard Resistance:

TESTER CONNECTION	SPECIFIED CONDITION
1 - 2*1	3.1 Ω
1 - 2*2	Approx. 4 Ω

*1: for Premium Sound Models

*2: for Standard Models

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

Last Modified: 9-7-2011	6.4 A	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM0000014T900WX
Title: AUDIO / VISUAL: REAR DOOR SPEAKER: INSTALLATION (2011 RAV4)		

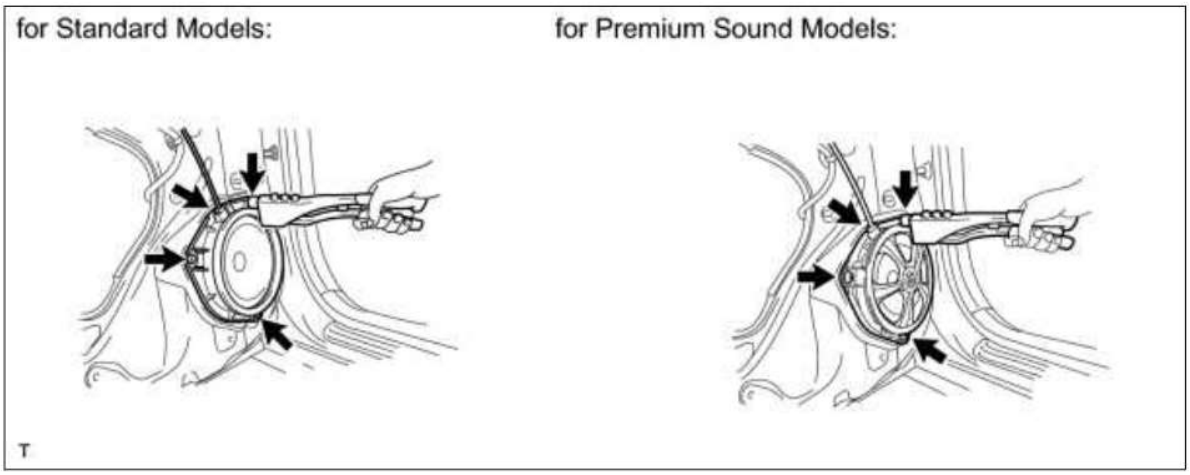
INSTALLATION

HINT:

- Use the same procedure for the RH and LH sides.
- The procedures listed below are for the LH side.

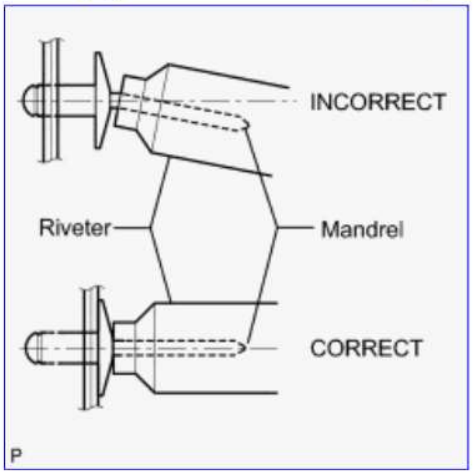
1. INSTALL REAR NO. 1 SPEAKER ASSEMBLY

(a) Using an air riveter or hand riveter, install the speaker with 3 new rivets.

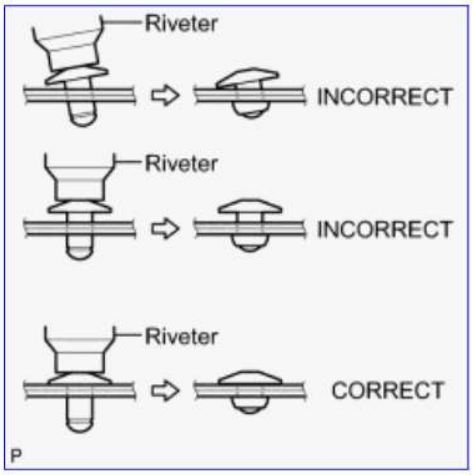


NOTICE:

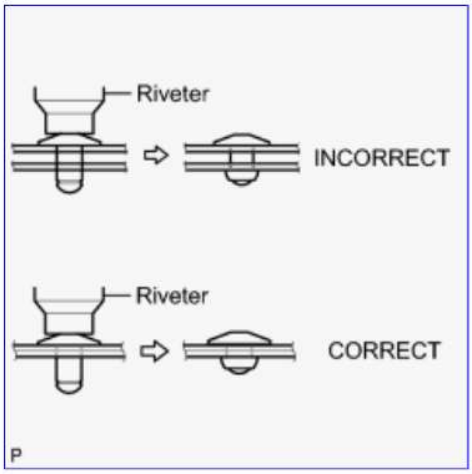
- Do not pry the rivet with the riveter, as this will cause damage to the riveter and mandrel.



- Confirm that the rivets are seated properly against the speaker.



- Do not tilt the riveter when installing the rivet to the speaker.
- Do not leave any space between the rivet head and speaker.
- Do not leave any space between the speaker and door. Firmly hold together the 2 items while installing the rivet.



(b) Connect the connector.

2. INSTALL REAR DOOR TRIM BOARD SUB-ASSEMBLY LH INFO

3. INSTALL REAR DOOR ARMREST BASE PANEL UPPER LH INFO

4. INSTALL REAR DOOR INSIDE HANDLE BEZEL PLUG LH

5. INSTALL DOOR ASSIST GRIP COVER LH

Last Modified: 9-7-2011	6.4 A	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM0000014TB00WX
Title: AUDIO / VISUAL: REAR DOOR SPEAKER: REMOVAL (2011 RAV4)		

REMOVAL

HINT:

- Use the same procedure for the RH and LH sides.
- The procedures listed below are for the LH side.

1. REMOVE DOOR ASSIST GRIP COVER LH

2. REMOVE REAR DOOR INSIDE HANDLE BEZEL PLUG LH

3. REMOVE REAR DOOR ARMREST BASE PANEL UPPER LH INFO

4. REMOVE REAR DOOR TRIM BOARD SUB-ASSEMBLY LH INFO

5. REMOVE REAR NO. 1 SPEAKER ASSEMBLY

(a) Disconnect the connector.

(b) Using a drill bit with a diameter of less than 4 mm (0.16 in.), drill out the 3 rivet heads and remove the speaker.

CAUTION:

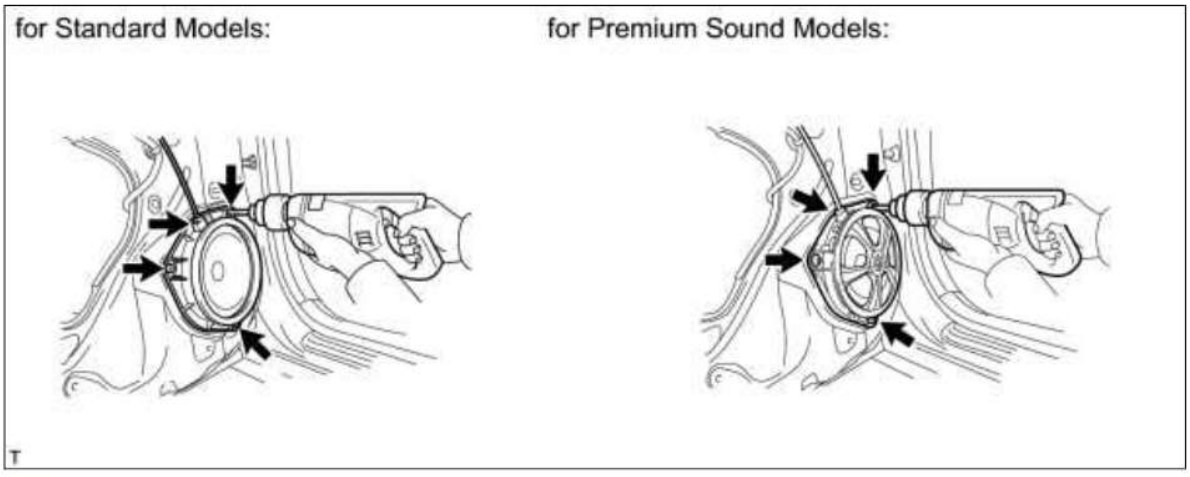
Be careful as the cut rivet will be very hot.

NOTICE:

Do not drill the rivet at an angle as this will cause damage to the drill and drill hole. Line up the drill and rivet, and carefully drill out the rivet head.

(c) Continue drilling and push out the remaining rivet fragments.

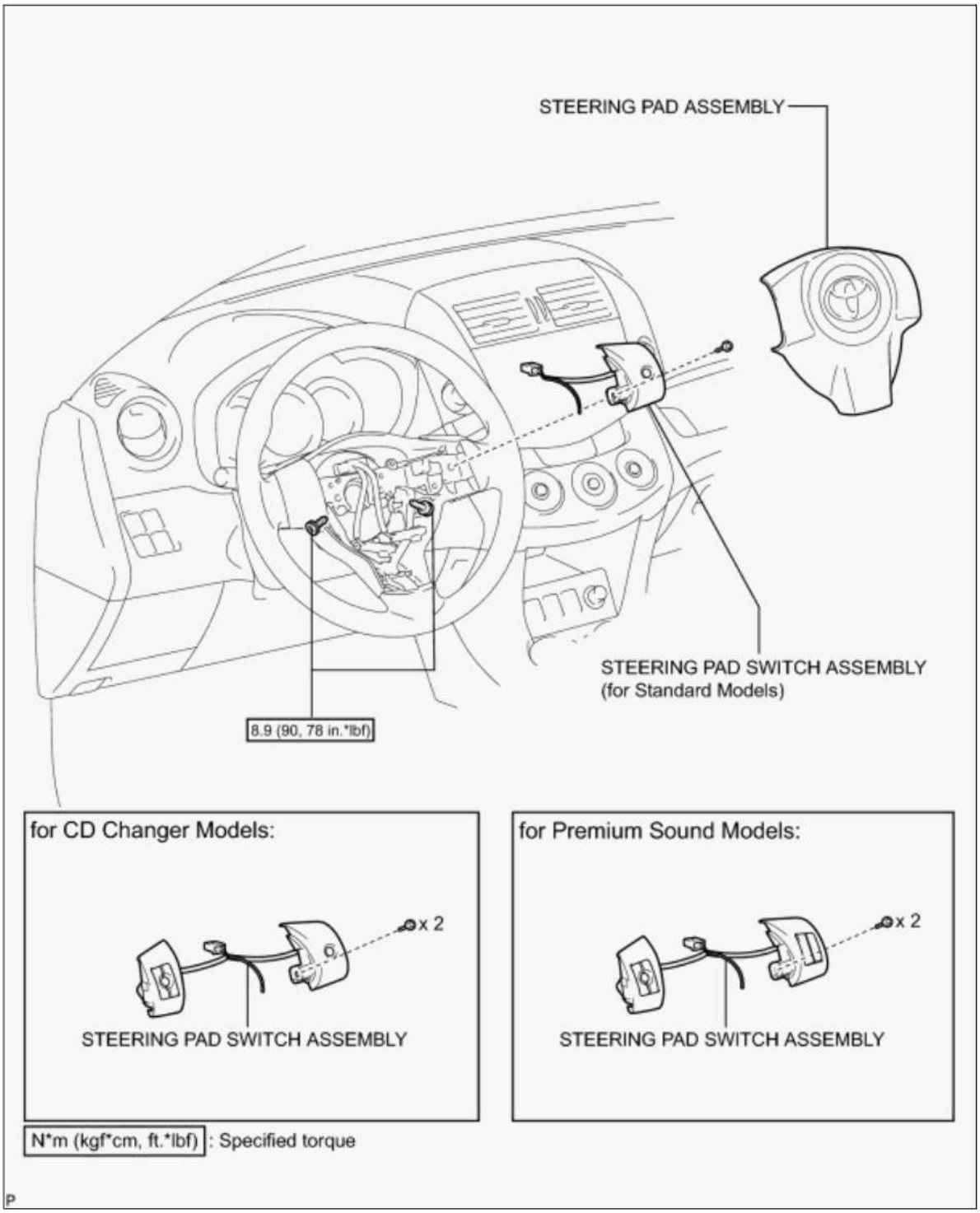
(d) Using a vacuum cleaner, remove the rivet fragments and shavings from the inside of the door.



Last Modified: 9-7-2011	6.4 K	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000001H7J00OX
Title: AUDIO / VISUAL: STEERING PAD SWITCH: COMPONENTS (2011 RAV4)		

COMPONENTS

ILLUSTRATION





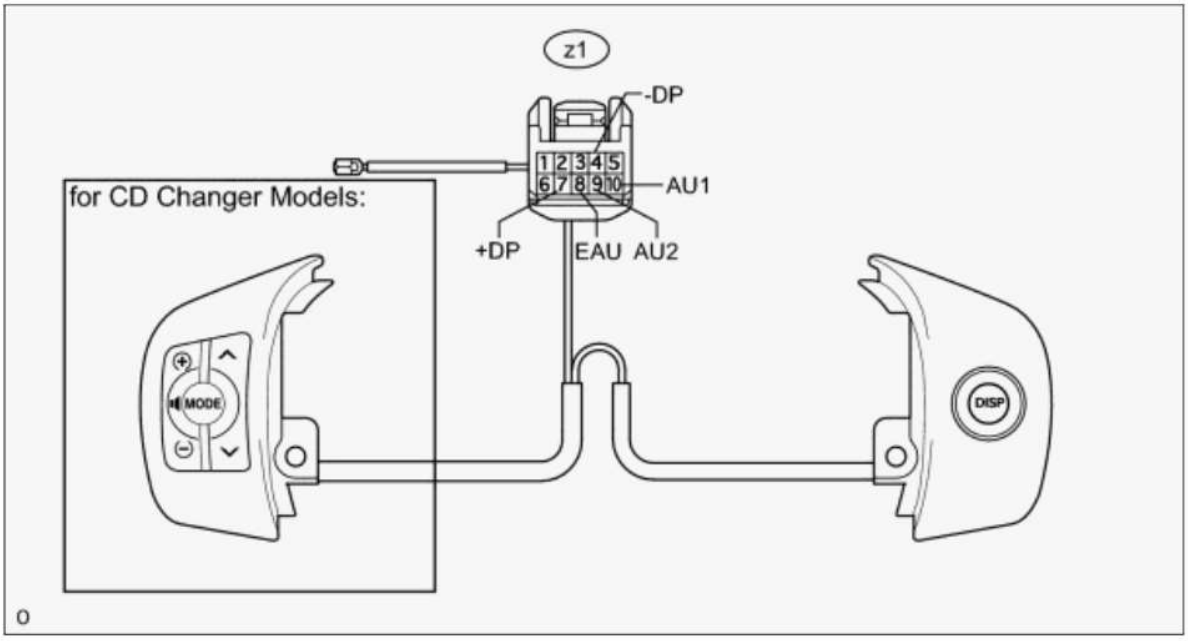

TOYOTA

Last Modified: 9-7-2011	6.4 G	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM0000022CF009X
Title: AUDIO / VISUAL: STEERING PAD SWITCH: INSPECTION (2011 RAV4)		

INSPECTION

1. INSPECT STEERING PAD SWITCH ASSEMBLY

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



Standard Resistance:

for Standard Models

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
z1-7 (+DP) - z1-4 (-DP)	DISP switch pushed	Below 2.5 Ω

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

Standard Resistance:

for CD Changer Models

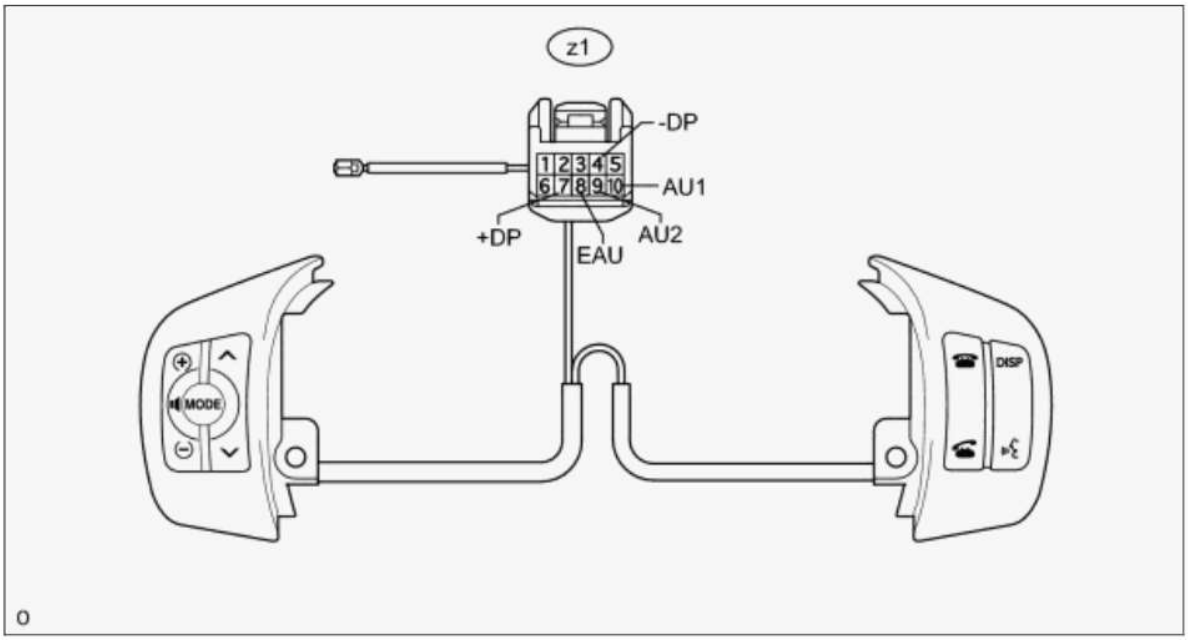
TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
z1-10 (AU1) - z1-8 (EAU)	No switch pushed	95 to 105 kΩ
z1-10 (AU1) - z1-8 (EAU)	SEEK+ switch pushed	Below 2.5 Ω
z1-10 (AU1) - z1-8 (EAU)	SEEK- switch pushed	312.5 to 345.5 Ω
z1-10 (AU1) - z1-8 (EAU)	VOL+ switch pusheh	950 to 1050 Ω
z1-10 (AU1) - z1-8 (EAU)	VOL- switch pushed	2954.5to 3265.5Ω
z1-9 (AU2) - z1-8 (EAU)	No switch pushed	95 to 105 kΩ

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
z1-7 (AU2) - 8 (EAU)	MODE switch pushed	Below 2.5 Ω
z1-7 (+DP) - z1-4 (-DP)	DISP switch pushed	Below 2.5 Ω

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

2. INSPECT STEERING PAD SWITCH ASSEMBLY (for Premium Sound Models)

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



Standard Resistance:

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
z1-10 (AU1) - z1-8 (EAU)	No switch pushed	95 to 105 kΩ
z1-10 (AU1) - z1-8 (EAU)	SEEK+ switch pushed	Below 2.5 Ω
z1-10 (AU1) - z1-8 (EAU)	SEEK- switch pushed	312.5 to 345.5 Ω
z1-10 (AU1) - z1-8 (EAU)	VOL+ switch pushed	950 to 1050 Ω
z1-10 (AU1) - z1-8 (EAU)	VOL- switch pushed	2954.5 to 3265.5Ω
z1-9 (AU2) - z1-8 (EAU)	No switch pushed	95 to 105 kΩ
z1-9 (AU2) - z1-8 (EAU)	MODE switch pushed	Below 2.5 Ω
z1-9 (AU2) - z1-8 (EAU)	VOICE switch pushed	2954.5 to 3265.5 Ω
z1-9 (AU2) - z1-8 (EAU)	ON HOOK switch pushed	312.5 to 345.5 Ω
z1-9 (AU2) - z1-8 (EAU)	OFF HOOK switch pushed	950 to 1050 Ω
z1-7 (+DP) - z1-4 (-DP)	DISP switch pushed	Below 2.5 Ω

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

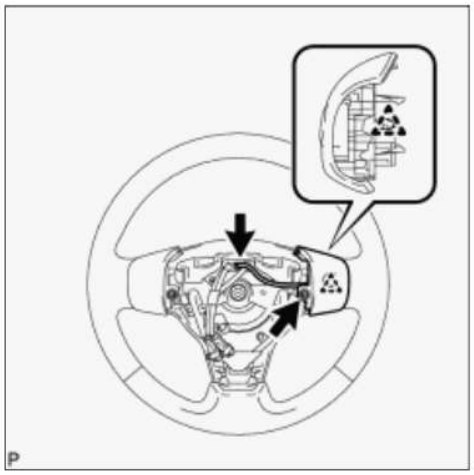




Last Modified: 9-7-2011	6.4 A	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000001H7I00PX
Title: AUDIO / VISUAL: STEERING PAD SWITCH: INSTALLATION (2011 RAV4)		

INSTALLATION

1. INSTALL STEERING PAD SWITCH ASSEMBLY (for Standard Models)

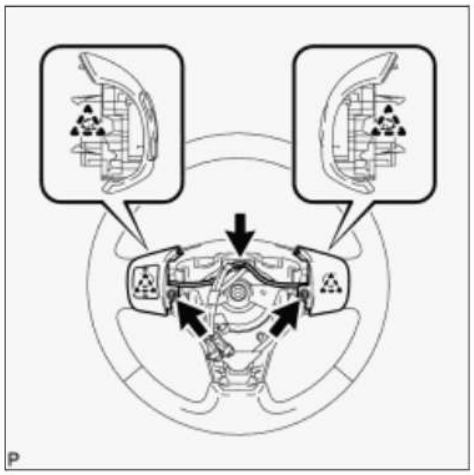


(a) Attach the claw to install the steering pad switch assembly.

(b) Install the screw.

(c) Connect the connector.

2. INSTALL STEERING PAD SWITCH ASSEMBLY (for CD Changer Models)

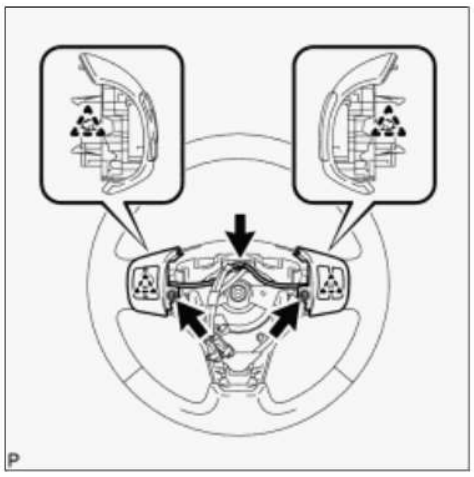


(a) Attach the 2 claws to install the steering pad switch assembly.

(b) Install the 2 screws.

(c) Connect the connector.

3. INSTALL STEERING PAD SWITCH ASSEMBLY (for Premium Sound Models)



(a) Attach the 2 claws to install the steering pad switch assembly.

(b) Install the 2 screws.

(c) Connect the connector.

4. INSTALL STEERING PAD ASSEMBLY INFO

5. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

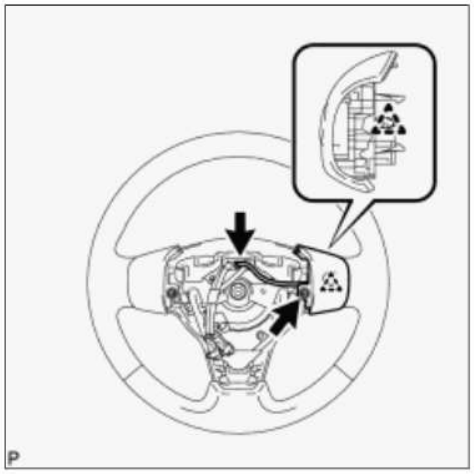
Last Modified: 9-7-2011	6.4 A	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000001H7K00PX
Title: AUDIO / VISUAL: STEERING PAD SWITCH: REMOVAL (2011 RAV4)		

REMOVAL

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

2. REMOVE STEERING PAD ASSEMBLY INFO

3. REMOVE STEERING PAD SWITCH ASSEMBLY (for Standard Models)

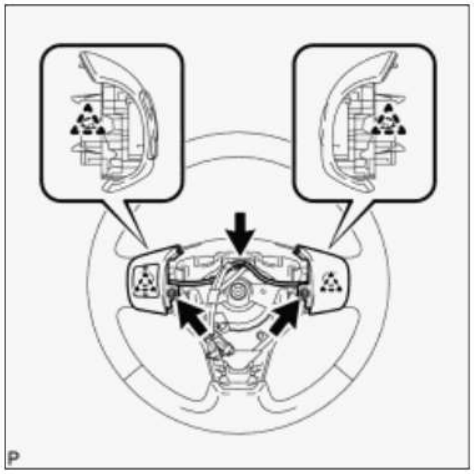


(a) Disconnect the connector.

(b) Remove the screw.

(c) Detach the claw and remove the steering pad switch assembly.

4. REMOVE STEERING PAD SWITCH ASSEMBLY (for CD Changer Models)

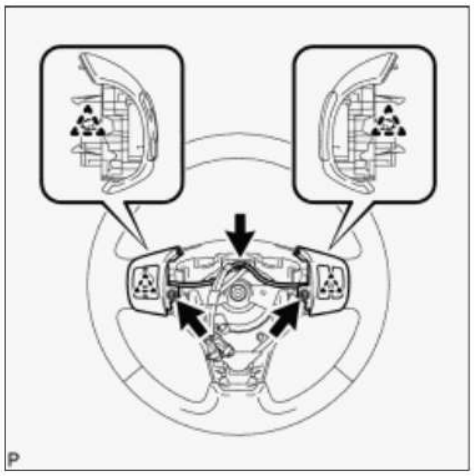


(a) Disconnect the connector.

(b) Remove the 2 screws.

(c) Detach the 2 claws and remove the steering pad switch assembly.

5. REMOVE STEERING PAD SWITCH ASSEMBLY (for Premium Sound Models)



(a) Disconnect the connector.

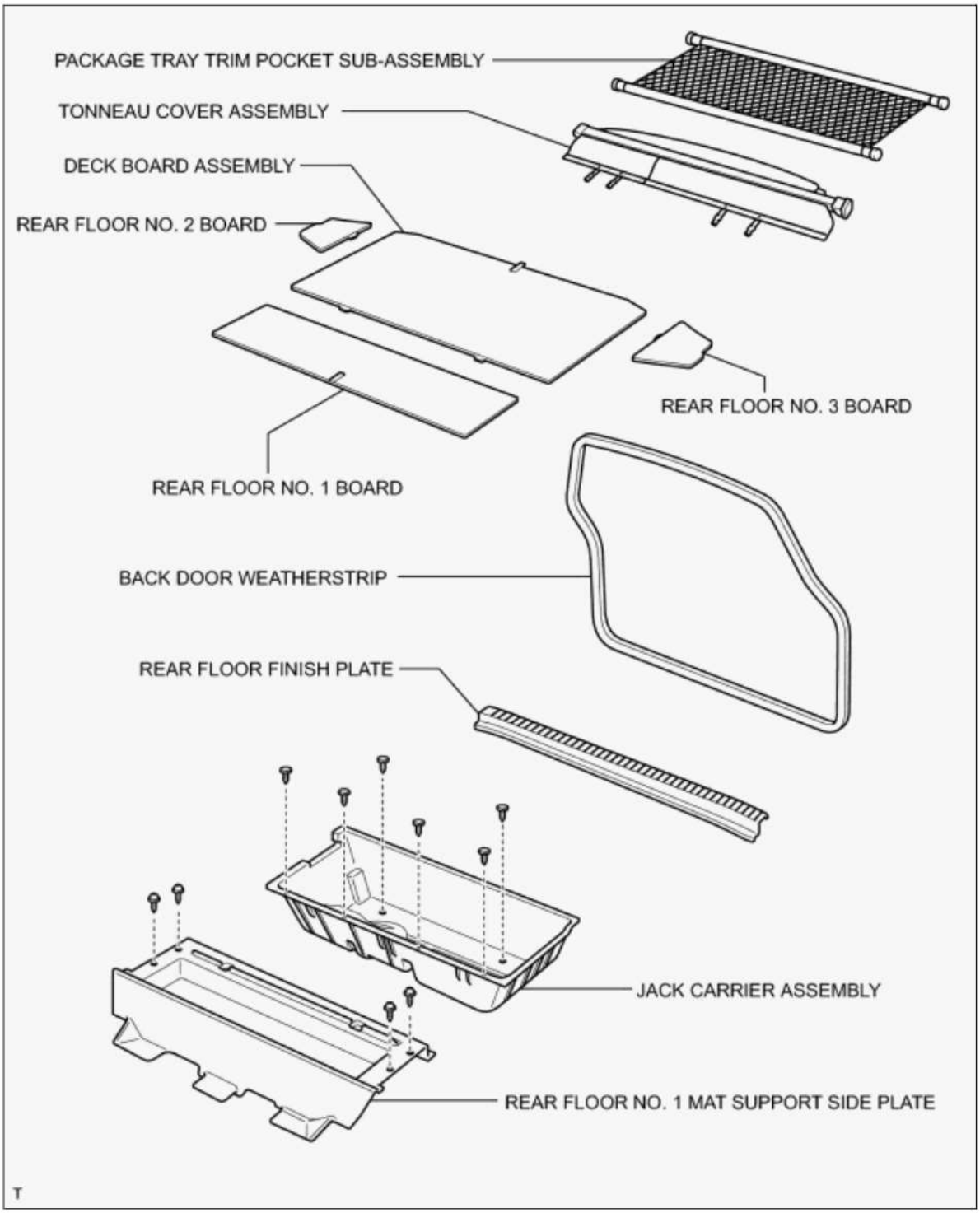
(b) Remove the 2 screws.

(c) Detach the 2 claws and remove the steering pad switch assembly.

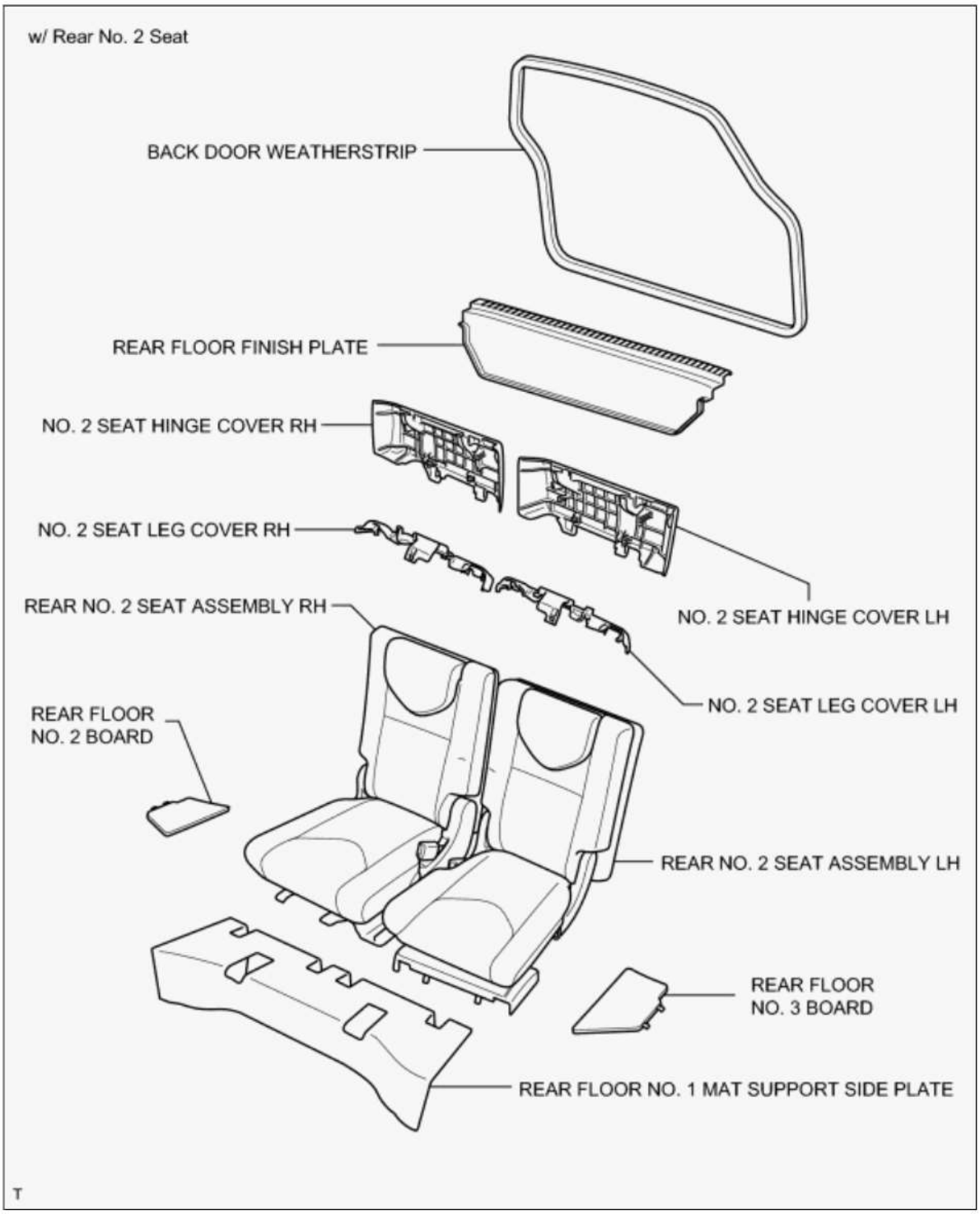
Last Modified: 9-7-2011	6.4 K	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM0000024UV006X
Title: AUDIO / VISUAL: STEREO COMPONENT AMPLIFIER: COMPONENTS (2011 RAV4)		

COMPONENTS

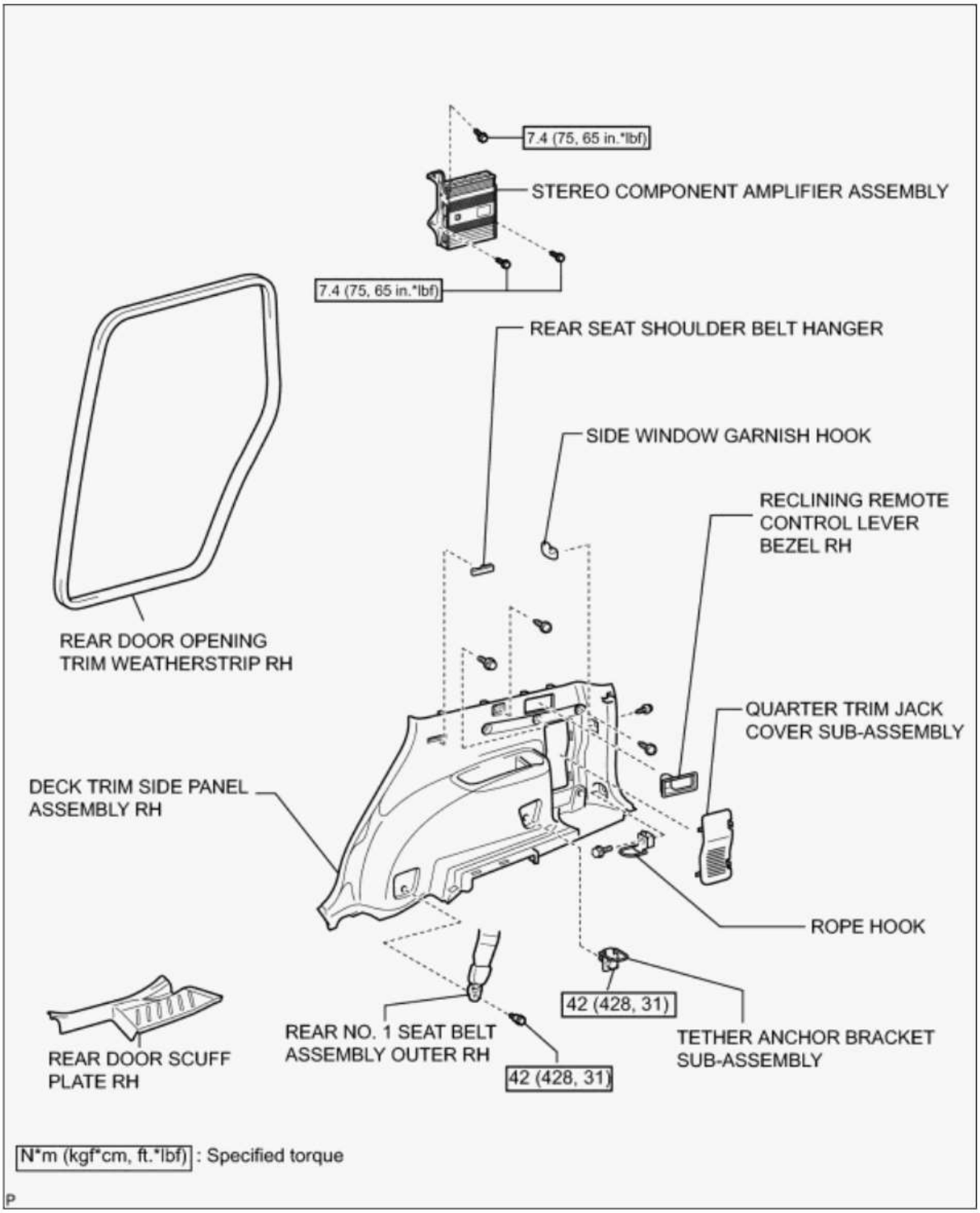
ILLUSTRATION



ILLUSTRATION



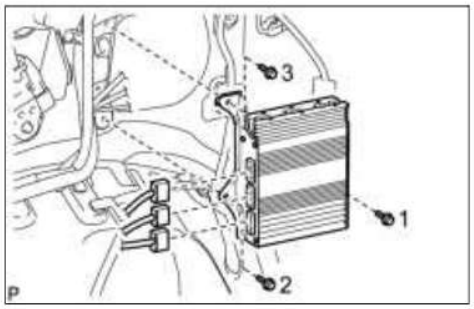
ILLUSTRATION


7.4 (75, 65 in.*lbf)
STEREO COMPONENT AMPLIFIER ASSEMBLY
7.4 (75, 65 in.*lbf)
REAR SEAT SHOULDER BELT HANGER
SIDE WINDOW GARNISH HOOK
RECLINING REMOTE CONTROL LEVER BEZEL RH
REAR DOOR OPENING TRIM WEATHERSTRIP RH
QUARTER TRIM JACK COVER SUB-ASSEMBLY
DECK TRIM SIDE PANEL ASSEMBLY RH
ROPE HOOK
42 (428, 31)
TETHER ANCHOR BRACKET SUB-ASSEMBLY
REAR NO. 1 SEAT BELT ASSEMBLY OUTER RH
42 (428, 31)
REAR DOOR SCUFF PLATE RH
N*m (kgf*cm, ft.*lbf) : Specified torque
P

Last Modified: 9-7-2011	6.4 A	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM0000024UU006X
Title: AUDIO / VISUAL: STEREO COMPONENT AMPLIFIER: INSTALLATION (2011 RAV4)		

INSTALLATION

1. INSTALL STEREO COMPONENT AMPLIFIER ASSEMBLY



(a) Install the stereo component amplifier with the 3 bolts.

HINT:

Install the bolts in the order shown in the illustration.

Torque: 7.4 N·m (75 kgf·cm, 65in·lbf)

(b) Connect the connectors.

2. INSTALL DECK TRIM SIDE PANEL ASSEMBLY RH (w/ Rear No. 2 Seat) INFO

3. INSTALL DECK TRIM SIDE PANEL ASSEMBLY RH (w/o Rear No. 2 Seat) INFO

4. INSTALL TETHER ANCHOR BRACKET SUB-ASSEMBLY (w/o Rear No. 2 Seat) INFO

5. INSTALL RECLINING REMOTE CONTROL LEVER BEZEL RH (w/o Rear No. 2 Seat) INFO

6. INSTALL REAR DECK TRIM COVER RH (w/ Rear No. 2 Seat) INFO

7. INSTALL REAR FLOOR FINISH PLATE INFO

8. INSTALL BACK DOOR WEATHERSTRIP INFO

9. INSTALL REAR FLOOR NO. 1 MAT SUPPORT SIDE PLATE INFO

10. INSTALL REAR FLOOR NO. 2 BOARD INFO

11. INSTALL REAR FLOOR NO. 3 BOARD INFO

12. INSTALL REAR NO. 2 SEAT ASSEMBLY RH (w/ Rear No. 2 Seat) INFO

13. INSTALL REAR NO. 2 SEAT ASSEMBLY LH (w/ Rear No. 2 Seat) INFO

14. INSTALL NO. 2 SEAT LEG COVER RH (w/ Rear No. 2 Seat) INFO

15. INSTALL NO. 2 SEAT LEG COVER LH (w/ Rear No. 2 Seat) INFO

16. INSTALL NO. 2 SEAT HINGE COVER RH (w/ Rear No. 2 Seat) INFO

17. INSTALL NO. 2 SEAT HINGE COVER LH (w/ Rear No. 2 Seat) INFO

18. INSTALL DECK BOARD ASSEMBLY (w/o Rear No. 2 Seat) INFO

19. INSTALL REAR FLOOR NO. 1 BOARD (w/o Rear No. 2 Seat) INFO

20. INSTALL TONNEAU COVER ASSEMBLY (w/o Rear No. 2 Seat) INFO

21. INSTALL PACKAGE TRAY TRIM POCKET SUB-ASSEMBLY (w/o Rear No. 2 Seat) INFO

22. INSTALL REAR DOOR OPENING TRIM WEATHERSTRIP RH INFO

23. INSTALL REAR DOOR SCUFF PLATE RH INFO

24. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Last Modified: 9-7-2011	6.4 A	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM0000024UW006X
Title: AUDIO / VISUAL: STEREO COMPONENT AMPLIFIER: REMOVAL (2011 RAV4)		

REMOVAL

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

2. REMOVE REAR DOOR SCUFF PLATE RH INFO

3. REMOVE REAR DOOR OPENING TRIM WEATHERSTRIP RH INFO

4. REMOVE PACKAGE TRAY TRIM POCKET SUB-ASSEMBLY (w/o Rear No. 2 Seat) INFO

5. REMOVE TONNEAU COVER ASSEMBLY (w/o Rear No. 2 Seat) INFO

6. REMOVE REAR FLOOR NO. 1 BOARD (w/o Rear No. 2 Seat) INFO

7. REMOVE DECK BOARD ASSEMBLY (w/o Rear No. 2 Seat) INFO

8. REMOVE NO. 2 SEAT HINGE COVER LH (w/ Rear No. 2 Seat) INFO

9. REMOVE NO. 2 SEAT HINGE COVER RH (w/ Rear No. 2 Seat) INFO

10. REMOVE NO. 2 SEAT LEG COVER LH (w/ Rear No. 2 Seat) INFO

11. REMOVE NO. 2 SEAT LEG COVER RH (w/ Rear No. 2 Seat) INFO

12. REMOVE REAR NO. 2 SEAT ASSEMBLY LH (w/ Rear No. 2 Seat) INFO

13. REMOVE REAR NO. 2 SEAT ASSEMBLY RH (w/ Rear No. 2 Seat) INFO

14. REMOVE REAR FLOOR NO. 3 BOARD INFO

15. REMOVE REAR FLOOR NO. 2 BOARD INFO

16. REMOVE REAR FLOOR NO. 1 MAT SUPPORT SIDE PLATE INFO

17. REMOVE BACK DOOR WEATHERSTRIP INFO

18. REMOVE REAR FLOOR FINISH PLATE INFO

19. REMOVE REAR DECK TRIM COVER RH (w/ Rear No. 2 Seat) INFO

20. REMOVE RECLINING REMOTE CONTROL LEVER BEZEL RH (w/o Rear No. 2 Seat) INFO

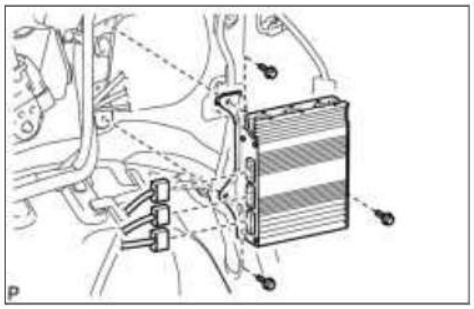
21. REMOVE TETHER ANCHOR BRACKET SUB-ASSEMBLY (w/o Rear No. 2 Seat) INFO

22. REMOVE DECK TRIM SIDE PANEL ASSEMBLY RH (w/o Rear No. 2 Seat) INFO

23. REMOVE DECK TRIM SIDE PANEL ASSEMBLY RH (w/ Rear No. 2 Seat) INFO

24. REMOVE STEREO COMPONENT AMPLIFIER ASSEMBLY

(a) Disconnect the connectors.

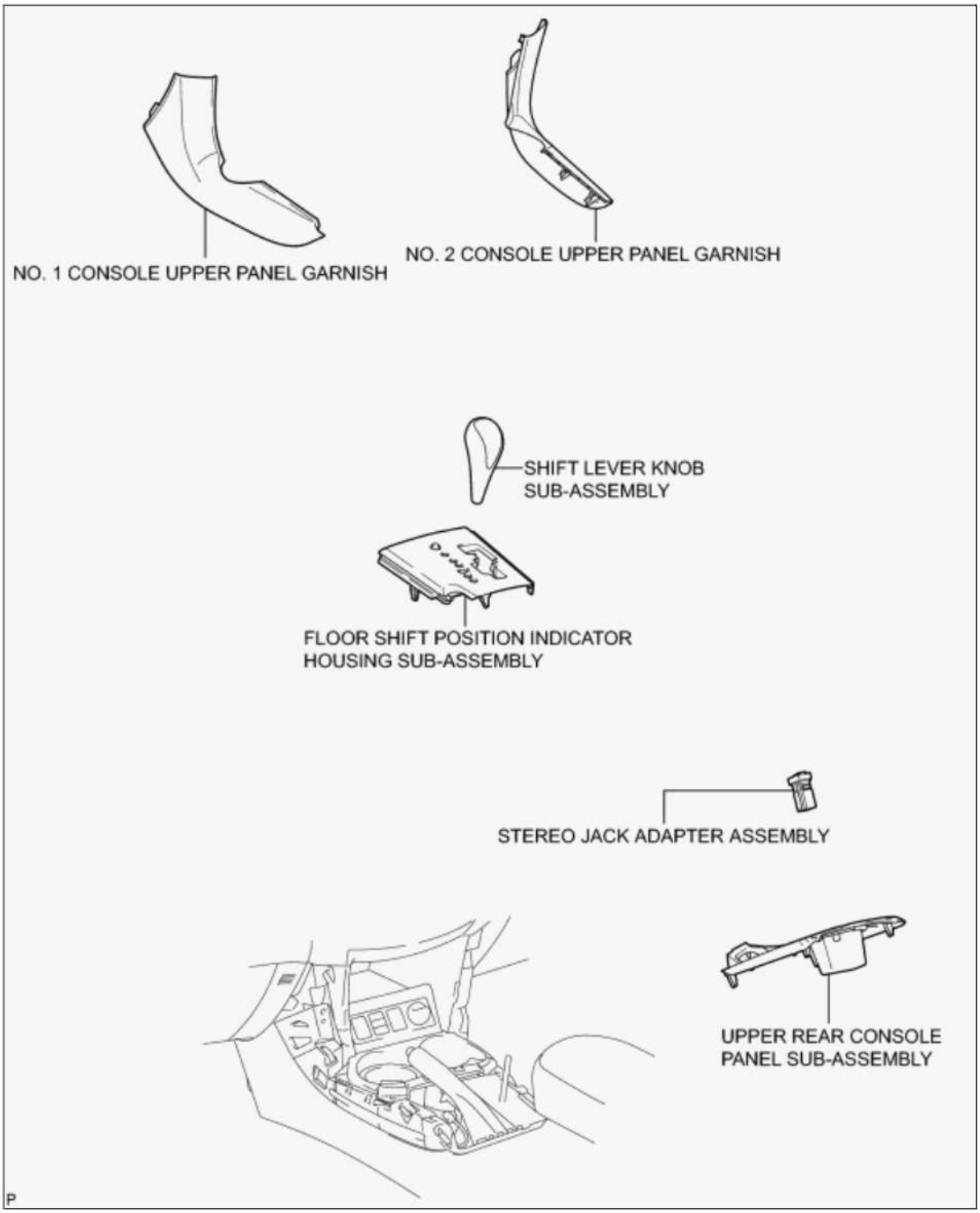


(b) Remove the 3 bolts and remove the stereo component amplifier.

Last Modified: 9-7-2011	6.4 K	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000003PBH004X
Title: AUDIO / VISUAL: STEREO JACK ADAPTER ASSEMBLY: COMPONENTS (2011 RAV4)		

COMPONENTS

ILLUSTRATION



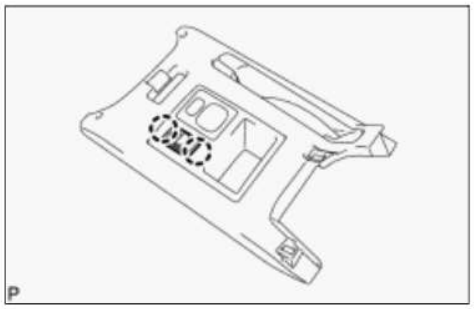



TOYOTA

Last Modified: 9-7-2011	6.4 A	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000003PBG004X
Title: AUDIO / VISUAL: STEREO JACK ADAPTER ASSEMBLY: INSTALLATION (2011 RAV4)		

INSTALLATION

1. INSTALL STEREO JACK ADAPTER ASSEMBLY



(a) Attach the 2 claws to install the stereo jack adapter.

2. INSTALL UPPER REAR CONSOLE PANEL SUB-ASSEMBLY INFO

3. INSTALL FLOOR SHIFT POSITION INDICATOR HOUSING SUB-ASSEMBLY INFO

4. INSTALL NO. 2 CONSOLE UPPER PANEL GARNISH INFO

5. INSTALL NO. 1 CONSOLE UPPER PANEL GARNISH INFO

6. INSTALL SHIFT LEVER KNOB SUB-ASSEMBLY INFO

7. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Last Modified: 9-7-2011	6.4 A	**From:** 201008
Model Year: 2011	**Model:** RAV4	**Doc ID:** RM000003PBI004X
Title: AUDIO / VISUAL: STEREO JACK ADAPTER ASSEMBLY: REMOVAL (2011 RAV4)		

REMOVAL

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

2. REMOVE SHIFT LEVER KNOB SUB-ASSEMBLY INFO

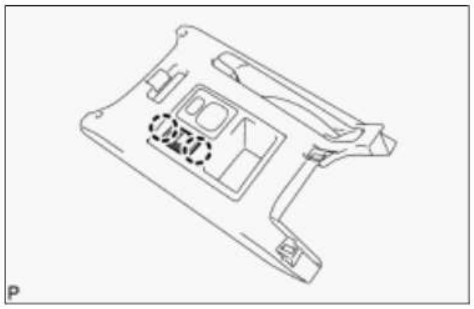
3. REMOVE NO. 1 CONSOLE UPPER PANEL GARNISH INFO

4. REMOVE NO. 2 CONSOLE UPPER PANEL GARNISH INFO

5. REMOVE FLOOR SHIFT POSITION INDICATOR HOUSING SUB-ASSEMBLY INFO

6. REMOVE UPPER REAR CONSOLE PANEL SUB-ASSEMBLY INFO

7. REMOVE STEREO JACK ADAPTER ASSEMBLY



(a) Detach the 2 claws and remove the stereo jack adapter.