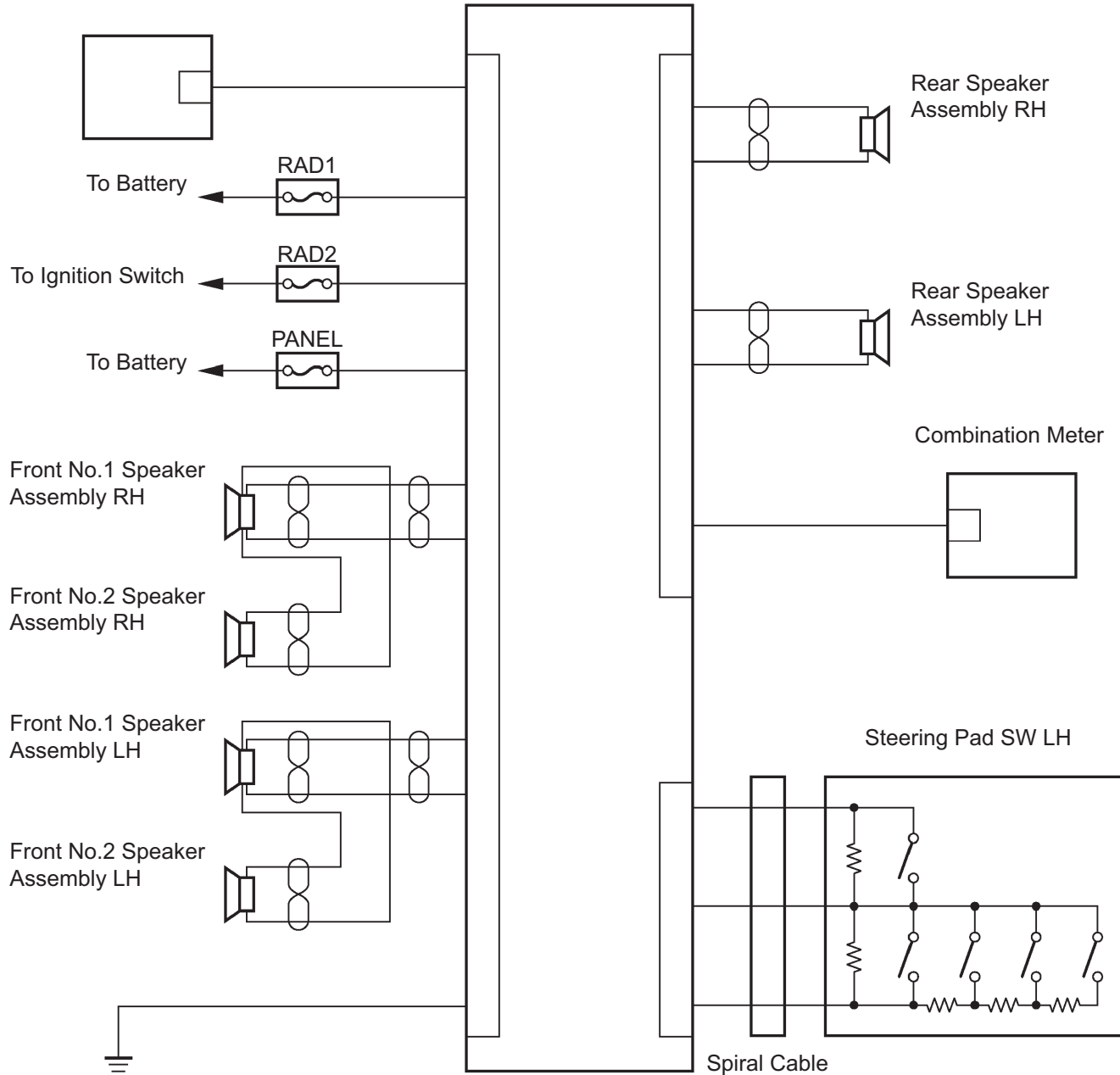


## SYSTEM DIAGRAM

**Built-in Type Amplifier:**w/ Holder Antenna Assembly  
(Antenna Amplifier)

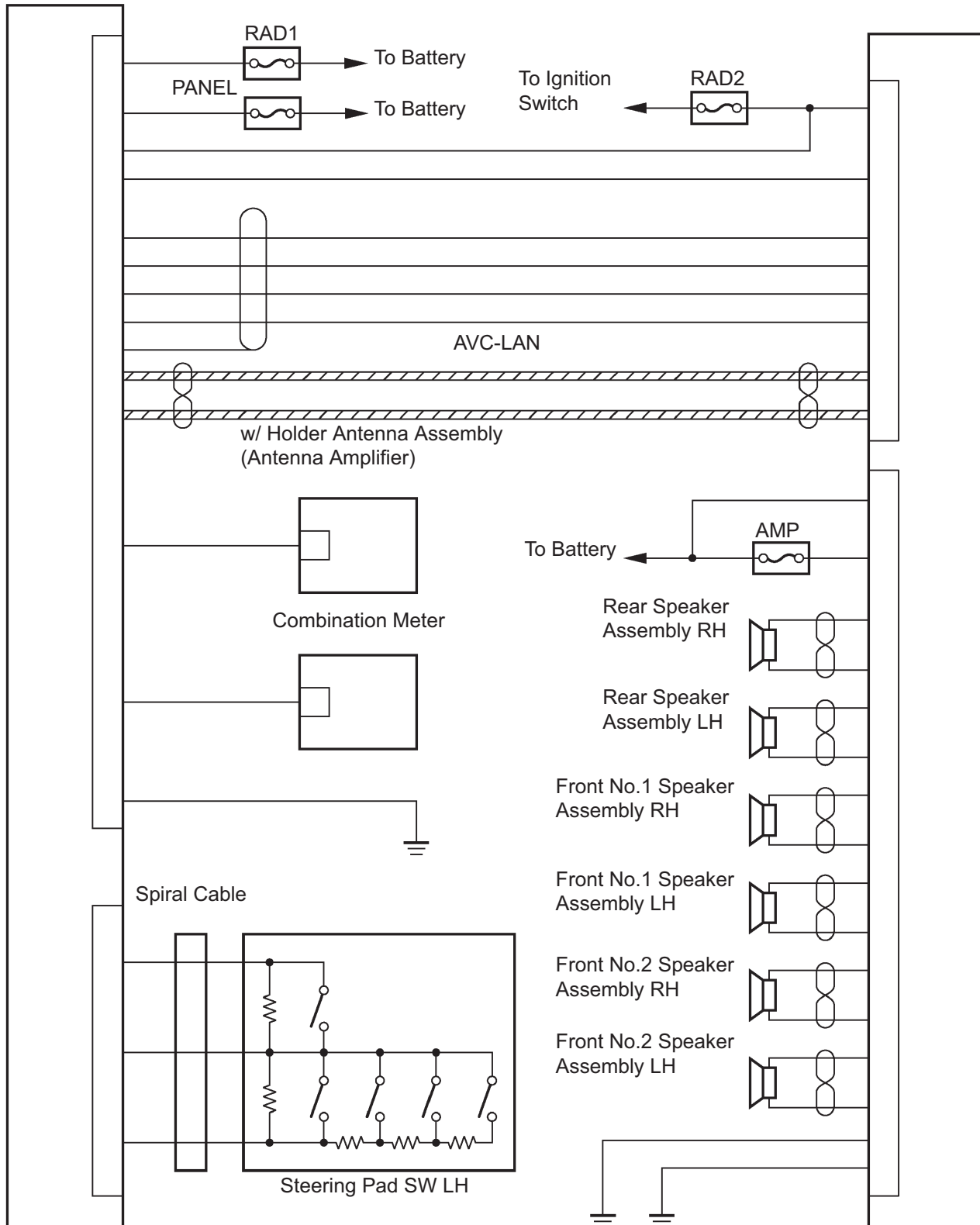
Radio Receiver Assembly



Separate Type Amplifier (Coupe:)

Radio Receiver Assembly

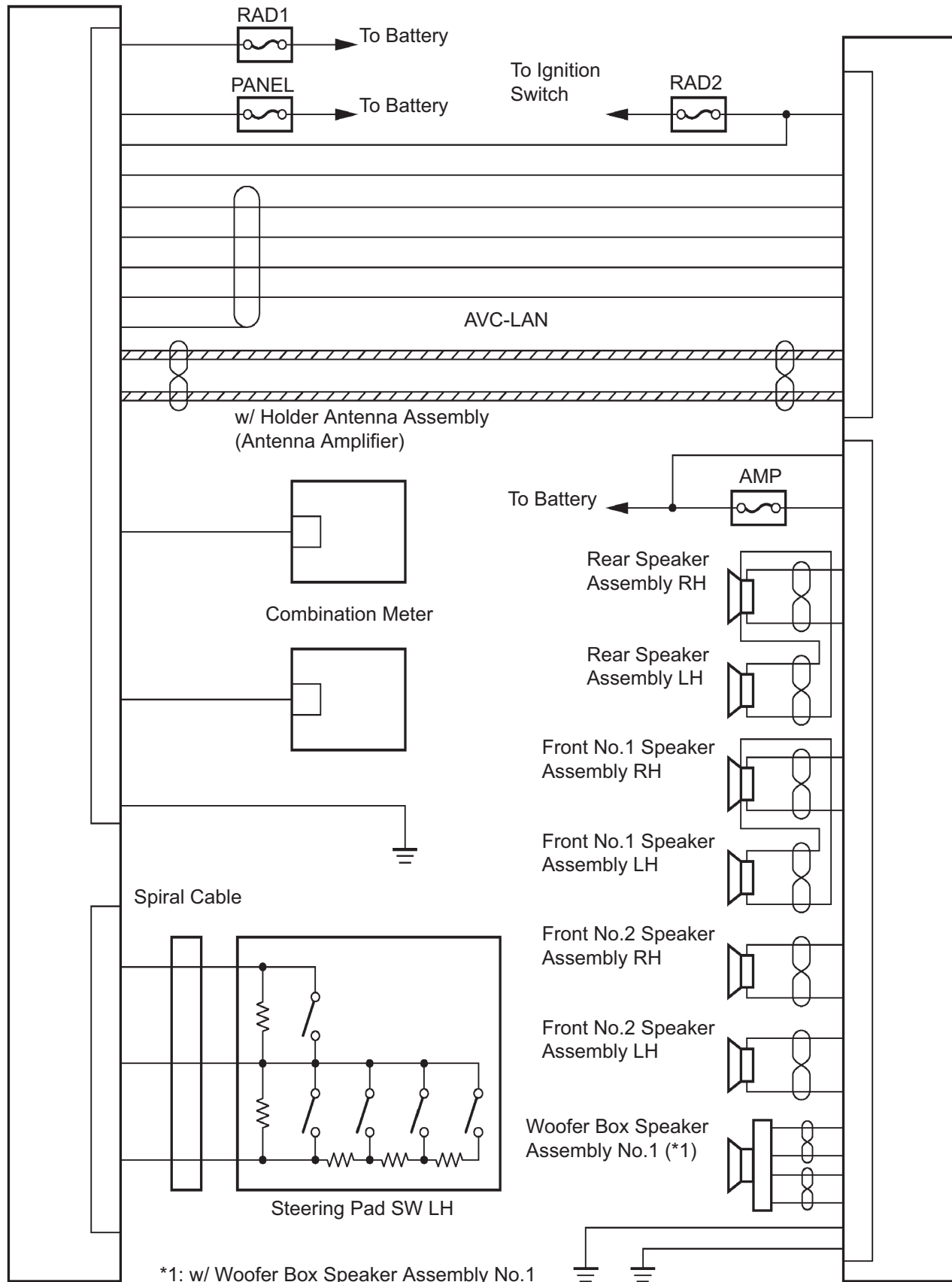
Stereo Compartment  
Amplifier Assembly



AV

**Separate Type Amplifier (Convertible):**

Radio Receiver Assembly

Stereo Component  
Amplifier Assembly

\*1: w/ Woofer Box Speaker Assembly No.1

## SYSTEM DESCRIPTION

### 1. COMPACT DISC PLAYER

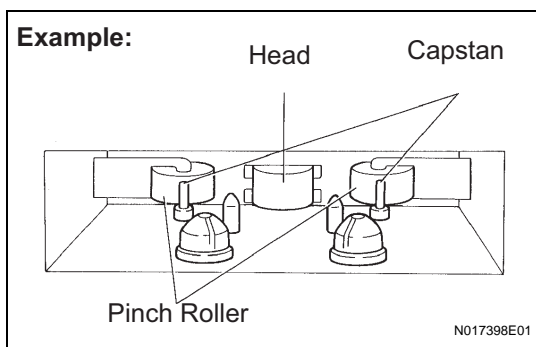
- (a) Compact Disc (hereafter called "CD") players use a laser beam pick-up to read the digital signals recorded on CDs and reproduce analog signals of the music, etc. 4.7 in. (12 cm) and 3.2 in. (8 cm) discs are available for the CD player.

**HINT:**

Never disassemble or apply oil to any part of the player unit. Do not insert any object other than a disc into the CD player.

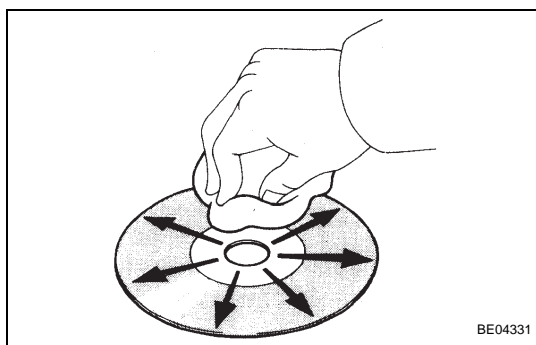
**NOTICE:**

**CD players use an invisible laser beam which could cause hazardous radiation exposure. Be sure to operate the player correctly as instructed.**



### 2. MAINTENANCE (Tape Player / Head Cleaning)

- (a) Raise the cassette door with your finger. Using a pencil or similar object, push in the guide.
- (b) Using a cleaning pen or cotton applicator soaked in cleaner, clean the head surface, pinch rollers and capstans.



### 3. MAINTENANCE (CD Player / Disc Cleaning)

- (a) If the disc gets dirty, clean the disc by wiping the surface from the center to outside in a radial direction with a soft cloth.

**NOTICE:**

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

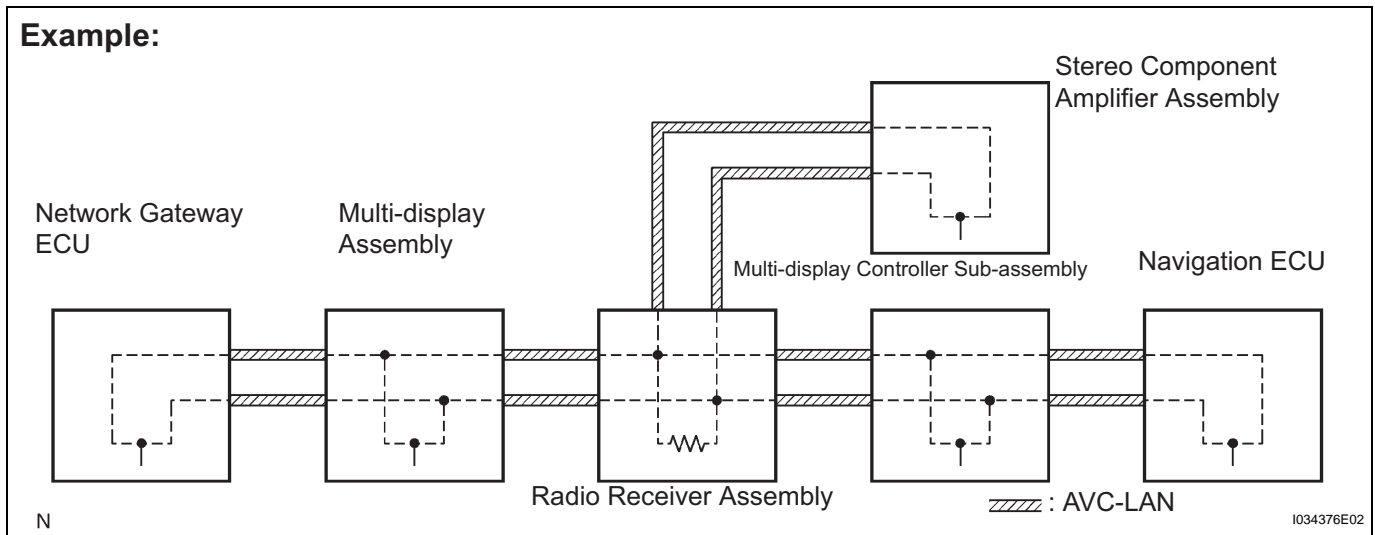
#### 4. OUTLINE OF AVC-LAN

##### (a) What is AVC-LAN?

AVC-LAN is the abbreviation for Audio Visual Communication-Local Area Network. This is a unified standard co-developed by 6 audio manufacturers associated with Toyota Motor Corporation.

The unified standard includes signals, such as audio, visual and signals for switch indication and communication.

##### Example:



##### (b) Objectives

Recently development in car audio systems has been rapid and functions have been changed drastically. The conventional system has been switched to a multi-media type such as a navigation system. At the same time customers want to upgrade their audio systems. This is the factor that lies behind this standardization.

The concrete objectives are explained below.

- (1) When products by different manufacturers were combined together, malfunctions such as sound failure occurred. This problem can be solved by standardization of signals.
- (2) Various types of after market products are available.
- (3) In general, a new product developed by a particular manufacturer could not be used due to a lack of compatibility with other manufacturer's products. By developing this new standard, users can enjoy a range of compatible products from different manufacturers.

- (c) The above stated are the reasons for the introduction of AVC-LAN. Under this standardization, development of new products no longer causes systematic errors.

HINT:

- When +B short or GND short is detected in the AVC-LAN circuit, communication stops, and the audio system will not function.
- When the audio system is not equipped with a navigation system, the audio head unit is the master unit. When the audio system is equipped with a navigation system, the multi-display is the master unit.
- The radio receiver assembly is equipped with a resistor (60 to 80  $\Omega$ ) for communication.
- All car audio systems using an AVC-LAN circuit have a diagnostic function.
- Each unit has its own specified number called a physical address (three-digit number). Numbers are also allotted to each function, which are called logical addresses (two-digit number).

## 5. COMMUNICATION SYSTEM

- (a) Components in the audio system communicate with each other through the AVC-LAN. (Radio receiver with CD changer control function)
- (b) When a short circuit or circuit breakdown occurs in the AVC-LAN circuit, the audio system does not operate normally due to the communication cutoff.

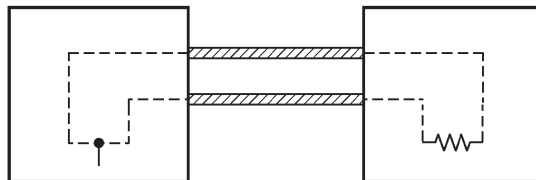
## 6. DIAGNOSTIC FUNCTION

- (a) The audio system has a diagnostic function (The diagnostic result is displayed on the LCD of the radio receiver assembly). (Radio receiver with CD changer control function)
- (b) The component code (physical address), or three-digit number (in hexadecimal) is set for each component comprising AVC-LAN.
- (c) The logical address, or two-digit number (in hexadecimal) is set for each function and component unit in each component.

AVC-LAN:

Stereo Component  
Amplifier Assembly

Radio Receiver Assembly

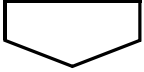


//// : AVC-LAN

I037470E02

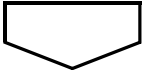
## HOW TO PROCEED WITH TROUBLESHOOTING

### 1 VEHICLE BROUGHT TO WORKSHOP



### 2 CUSTOMER PROBLEM ANALYSIS

- (a) Interview and confirm the trouble.
  - (1) Confirm the condition of the trouble.



### 3 BASIC INSPECTION

- (a) Basic inspection.
  - (1) Check the battery voltage.  
**Voltage:**  
**11 to 14 V**
- (b) Check the power supply to the radio receiver assembly.
  - (1) Turn the ignition switch to the ACC position.
  - (2) Check whether or not the display appears on the radio receiver assembly.



**DISPLAY DOES NOT APPEAR (PROCEED TO PROBLEM SYMPTOMS TABLE)**



**DISPLAY APPEARS (GO TO STEP 4)**

### 4 DTC CHECK



**DTC IS OUTPUT (GO TO STEP 5)**



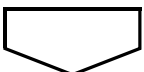
**DTC IS NOT OUTPUT (GO TO STEP 6)**

### 5 DTC CHART

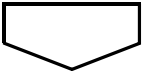


**GO TO STEP 7**

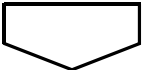
### 6 PROBLEM SYMPTOMS TABLE



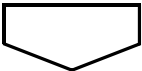
7	CIRCUIT INSPECTION AND PART INSPECTION
---	--



8	IDENTIFICATION OF PROBLEM
---	---------------------------



9	CONFIRMATION TEST
---	-------------------



END
-----



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

### 1 CHECK IF A NORMAL CD IS INSERTED

- (a) Check if a normal CD is inserted.  
 (1) Make sure that the CD is a normal audio CD, and that there is no deformation, flaw, stain, burr or other defects on the CD.

**OK:**

**Normal audio CD is installed.**

**HINT:**

- Translucent or oddly-shaped CD cannot be played.
- Computer CD-ROMs (even those with music) and CD-R discs cannot be played.
- Playing an 8-cm CD does not require an adapter.

**NG**

**CD IS FAULTY**

**OK**

### 2 CHECK IF A CD IS INSERTED PROPERLY

- (a) Check if a CD is inserted properly.  
 (1) Check whether or not the CD is inserted upside down.

**OK:**

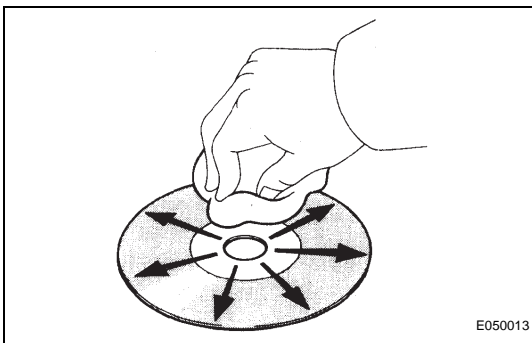
**Not upside down.**

**NG**

**SET DISC CORRECTLY**

**OK**

### 3 DISC CLEANING



- (a) Disc cleaning  
 (1) If the disc gets dirty, clean the disc by wiping the surface from the center to outside in a radial direction with a soft cloth.

**NOTICE:**

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

**OK:**

**Malfunction disappears.**

**OK**

**DISC IS DIRTY**

**NG**

### 4 REPLACE CD WITH ANOTHER AND RECHECK

- (a) Replace the CD with another and recheck.

- (1) Replace the CD with another normal one to see if the same trouble occurs again.

**OK:**

**Malfunction disappears.**

**NG**

**REPLACE RADIO RECEIVER ASSEMBLY**

**OK**

**CD IS FAULTY**

# AUDIO AND VISUAL SYSTEM

## PRECAUTION

### 1. GENERAL PRECAUTION

#### NOTICE:

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

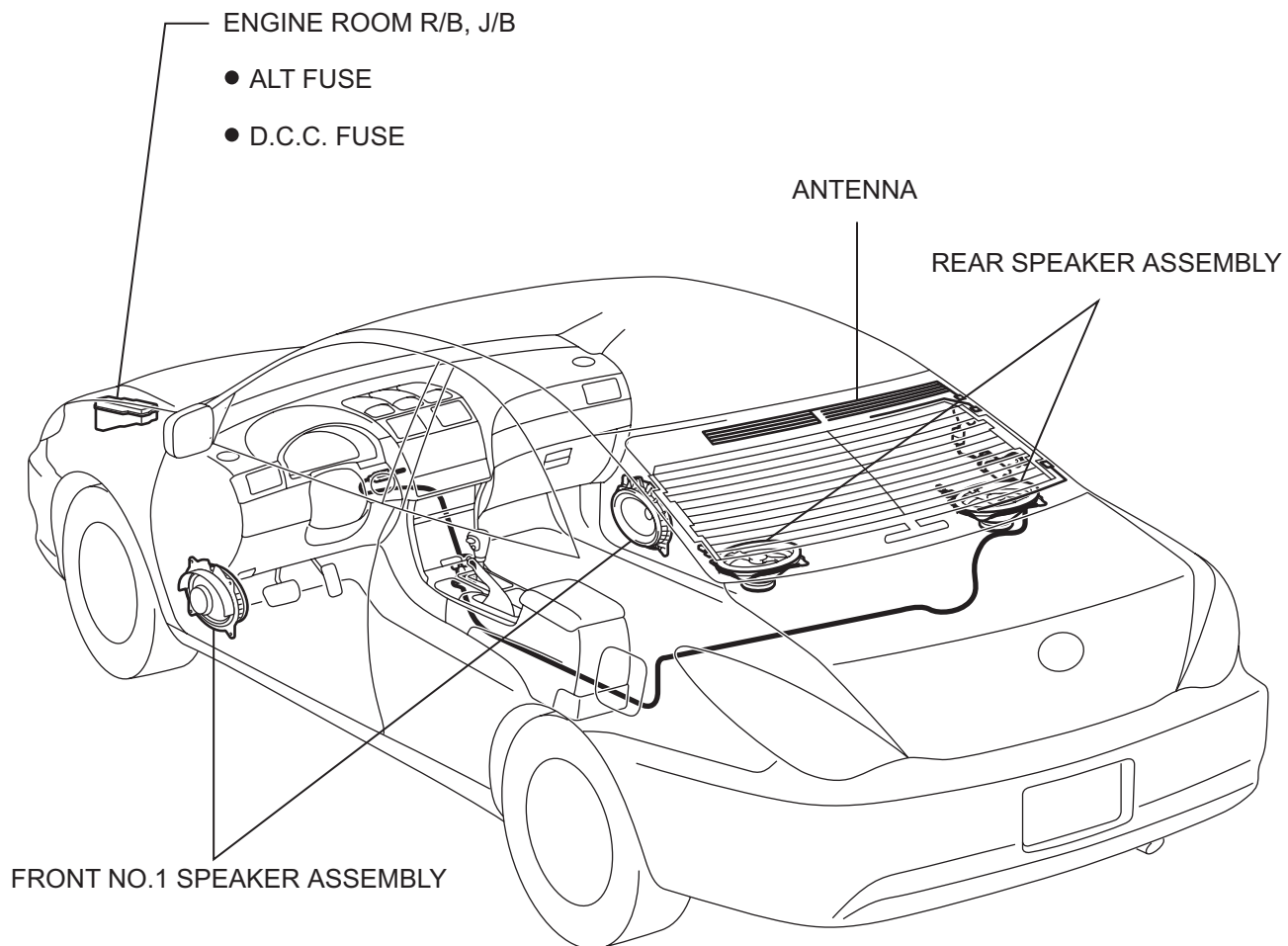
System Name	See Procedure
Power Window Control System	IN-24
Sliding Roof System	IN-24

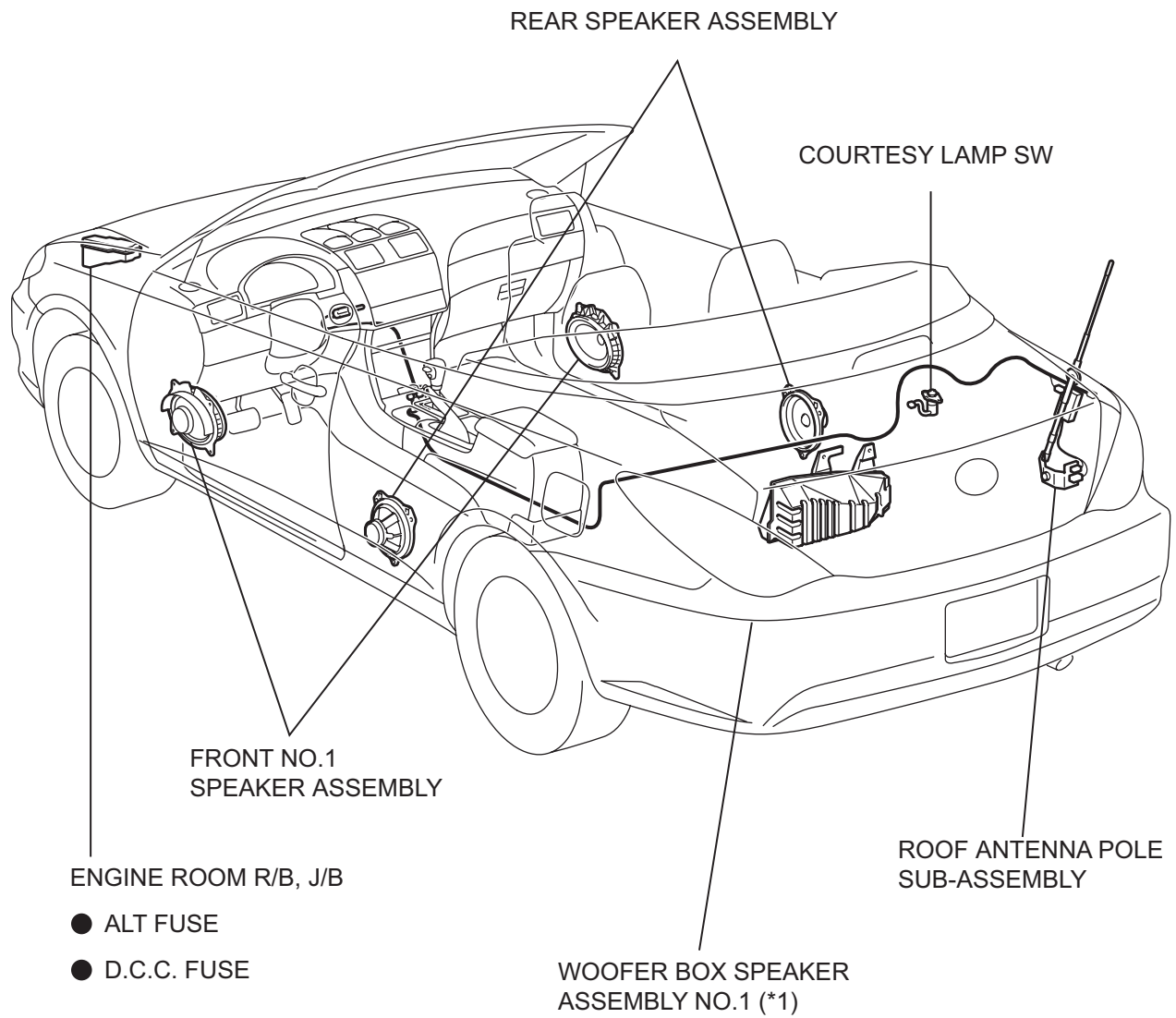
### 2. OBSERVE HANDLING AND OPERATIONAL PRECAUTIONS

- (a) Explain to the customer that when the negative terminal is disconnected from the battery, the AM/FM channel presets of the AM/FM broadcast stations in the radio receiver are cleared. If necessary, make a note of the recorded channel information before the negative terminal is disconnected, then reset the information after the negative terminal is reconnected.
- (b) The removal/installation of the radio receiver should be performed after all cassette tapes and audio CDs are ejected from the radio receiver.  
HINT:  
If a cassette tape and audio CD cannot be ejected due to the malfunction of the radio receiver, do not attempt to remove forcefully. Bring the vehicle to the repair plant.
- (c) Fasten the earth bolt securely when the antenna cord is removed or installed.  
HINT:  
Failure to fasten the earth bolt securely causes noise in the radio reception.
- (d) Do not touch the cone paper of the speaker.

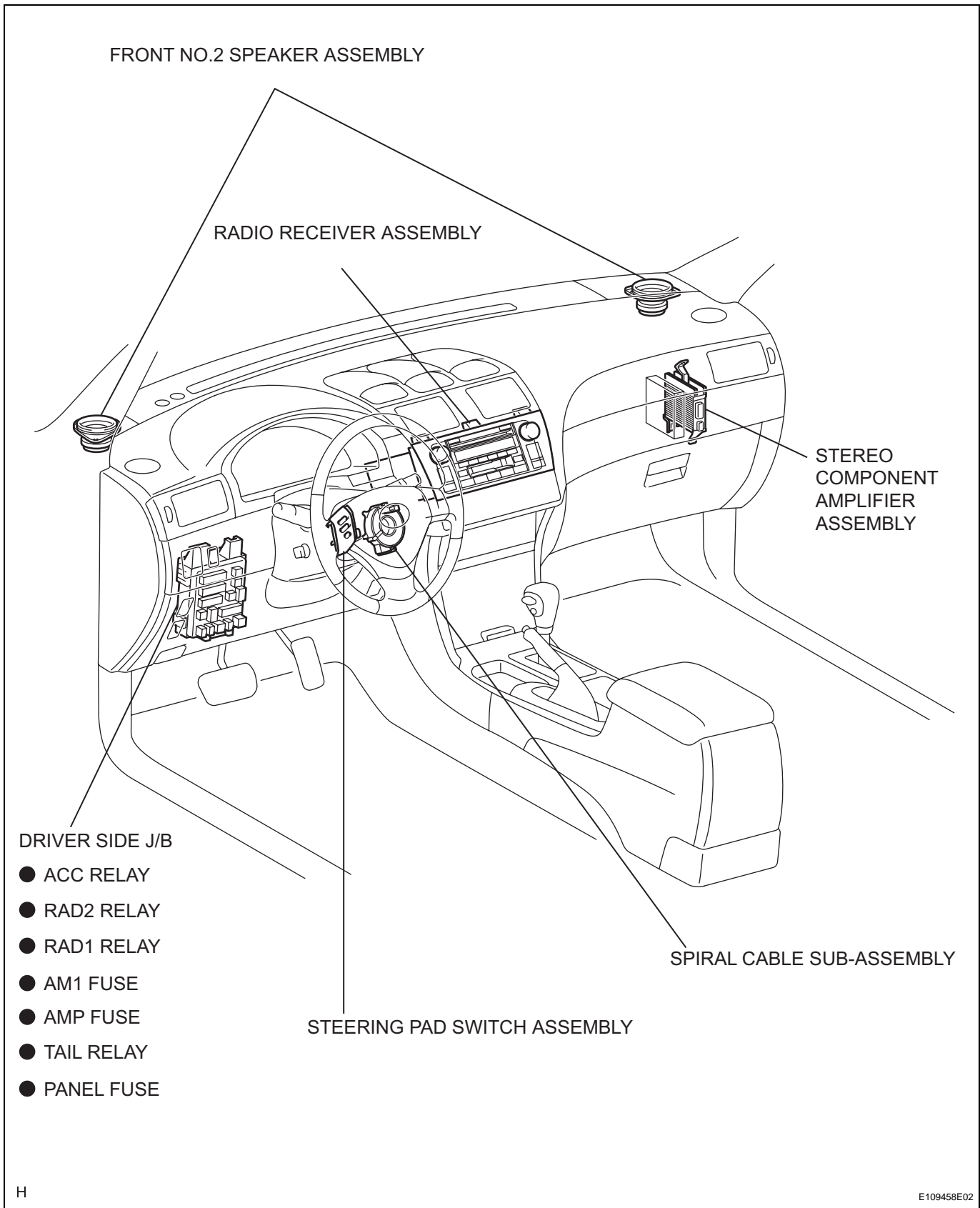
## PARTS LOCATION

Coupe:



**Convertible:**

\*1: w/ WOOFER BOX SPEAKER ASSEMBLY NO.1

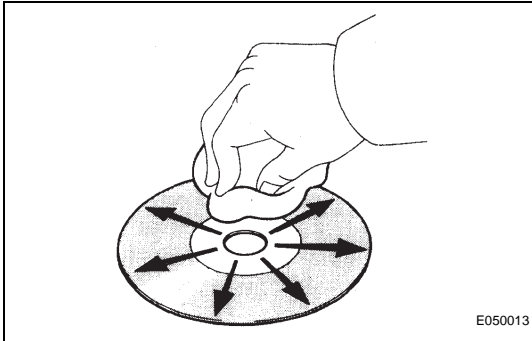


## CD Sound Skips

HINT:

The sound may skip when driving on an unpaved road.

### 1 DISC CLEANING



(a) Disc cleaning

- (1) If the disc gets dirty, clean the disc by wiping the surface from the center to outside in a radial direction with a soft cloth.

**NOTICE:**

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

**OK:**

**Malfunction disappears.**

OK

**DISC IS DIRTY**

NG

### 2 REPLACE CD WITH ANOTHER AND RECHECK

(a) Replace the CD with another and recheck.

- (1) Replace the CD with another normal one to see if the same trouble occurs again.

**OK:**

**Malfunction disappears.**

OK

**CD IS FAULTY**

NG

### 3 CHECK RADIO RECEIVER ASSEMBLY INSTALLATION

(a) Check the radio receiver assembly installation condition.

- (1) Check that the radio receiver assembly is installed properly.

**OK:**

**Installed properly.**

NG

**INSTALL THE RADIO RECEIVER ASSEMBLY PROPERLY**

OK

### 4 DID TEMPERATURE IN CABIN CHANGE RAPIDLY?

(a) Did the temperature in the cabin change rapidly?

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

**OK:**

**A rapid temperature change occurred.**

**HINT:**

A rapid temperature change creates condensation inside the CD player, which may prevent the CD from being played.

**NG****REPLACE RADIO RECEIVER ASSEMBLY****OK****CONDENSATION DUE TO TEMPERATURE CHANGE (LET IT SIT FOR A WHILE BEFORE USING)**



## Radio Broadcast cannot be Received (Bad Reception)

### 1 CHECK IF RADIO AUTO-SEARCH FUNCTIONS PROPERLY

- (a) Check if the radio auto-search functions properly.  
 (1) Perform the auto-search of the radio and check that it functions normally.

**OK:**

The radio auto-search functions properly.

**OK**

**REPLACE RADIO RECEIVER ASSEMBLY**

**NG**

### 2 CHECK OPTIONAL COMPONENT

- (a) Check optional component (sun shade film, telephone antenna, etc.).  
 (1) Check whether or not any optional component such as the sun shade film and the telephone antenna is installed.

**OK:**

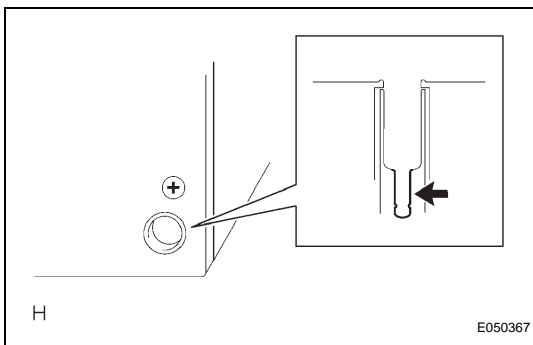
Optional component is installed.

**OK**

**EFFECT FROM OPTIONAL COMPONENT**

**NG**

### 3 INSPECT RADIO RECEIVER ASSEMBLY (ANTENNA)



- (a) Preparation for Check  
 (1) Remove the antenna plug of the radio receiver assembly.  
 (b) Noise Check  
 (1) With the radio receiver assembly connector connected, turn the ignition switch to the ACC position.  
 (2) Turn on the radio and choose the AM mode.  
 (3) Place a screwdriver or a piece of metal such as thin wire on an antenna jack of the radio receiver assembly and check that the noise is heard from the speaker.

**OK:**

Noise occurs.

**NG**

**REPLACE RADIO RECEIVER ASSEMBLY**

**OK**

4

CHECK ANTENNA TYPE

(a) Choose type to be inspected.

Type	Go to step
Glass printed type antenna	A
Roof type antenna	B

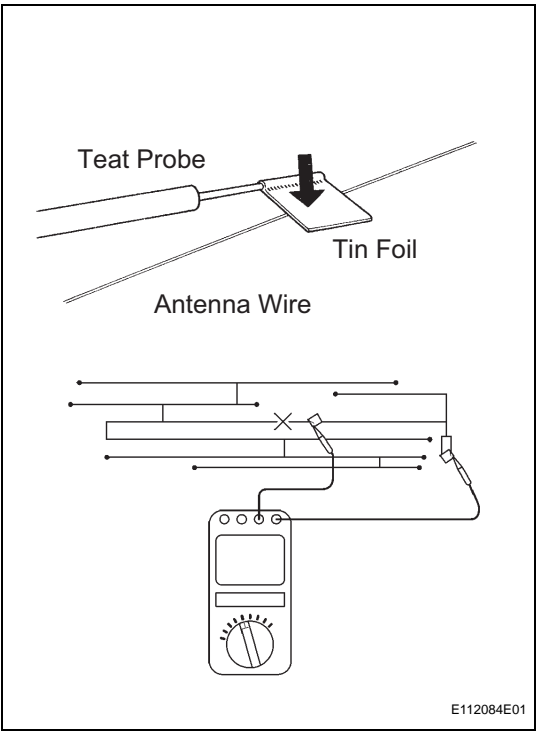
A

B

Go to step 8

5

CHECK ANTENNA ASSEMBLY



- (a) Check for continuity of the antenna.
- HINT:  
Check the continuity at the center of each antenna wire as shown in the illustration.
- NOTICE:**  
When cleaning the glass, wipe it in the direction of the wire with a soft dry cloth. Take care not to damage the wire. Do not use detergents or glass cleaners with abrasive ingredients. When measuring voltage, wind a piece of tin foil around the top of the negative probe and press the foil against the wire with your finger, as shown in the illustration.
- OK:**  
There is continuity in the antenna.

OK

NG

REPAIR ANTENNA ASSEMBLY

6

CHECK ANTENNA CODE SUB-ASSEMBLY

- (a) Remove the antenna plug of the radio receiver assembly and antenna assembly.
- (b) Measure the resistance between the antenna assembly and radio receiver assembly to check for an open circuit in the antenna cord sub-assembly.
- Resistance:**  
**Below 1 Ω**
- (c) Measure the resistance between the antenna code sub-assembly and body ground to check for a short circuit in the antenna cord sub-assembly.
- Resistance:**  
**10 kΩ or higher**

**NG****REPLACE ANTENNA CORD SUB-ASSEMBLY****OK****7****REPLACE AMPLIFIER ANTENNA ASSEMBLY**

- (a) Replace the amplifier antenna assembly and check if it operates normally.

**OK:**

**The amplifier antenna assembly operates normally.**

**OK****NORMAL OPERATION****NG****REPLACE RADIO RECEIVER ASSEMBLY****8****CHECK ANTENNA ASSEMBLY**

- (a) Check that the antenna is securely installed.

**OK:**

**The antenna is installed properly.**

**OK****Go to step 6****NG****INSTALL ANTENNA ASSEMBLY PROPERLY**

## Sound Quality is Bad Only when Playing Tape

### 1 REPLACE CASSETTE TAPE WITH ANOTHER AND RECHECK

(a) Replace the cassette tape with another one and recheck.

- (1) Replace the cassette tape with another normal one to see if the same trouble occurs again.

**OK:**

**Malfunction disappears.**

**OK**

**CASSETTE TAPE IS FAULTY**

**NG**

### 2 CHECK FOR ANY FOREIGN OBJECT

(a) Check for foreign objects.

- (1) Check that no foreign objects or defects are detected in the cassette tape player.

**OK:**

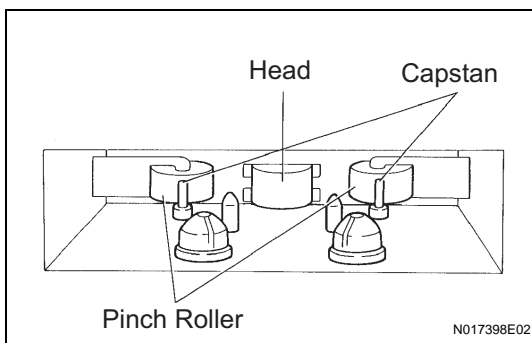
**No foreign objects or defects are detected.**

**NG**

**REMOVE FOREIGN OBJECTS**

**OK**

### 3 CLEAN HEAD AND CHECK OPERATION



(a) Head cleaning

- (1) Raise the cassette door with your finger. Using a pencil or similar object, push in the guide.
- (2) Using a cleaning pen or cotton applicator soaked in cleaner, clean the head surface, pinch rollers and capstans.
- (3) Check if the same trouble occurs again.

**OK:**

**Malfunction disappears.**

**NG**

**REPLACE RADIO RECEIVER ASSEMBLY**

**OK**

**HEAD IS DIRTY**

## Tape is Tangled due to Incorrect Tape Speed or Auto-Reverse Malfunction

### 1 CHECK FOR FOREIGN OBJECTS

- (a) Check for any foreign objects.  
(1) Check that no foreign objects or defects are detected in the cassette tape player of the radio receiver assembly.

**OK:**

**No foreign objects or defects are detected.**

**NG**

**REMOVE FOREIGN OBJECT**

**OK**

### 2 REPLACE CASSETTE TAPE WITH ANOTHER AND RECHECK (BELOW 90 MIN.)

- (a) Replace the cassette tape with another one and recheck.  
(1) Replace the cassette tape with another normal one (90 minutes or less) to see if the same trouble occurs again.

**OK:**

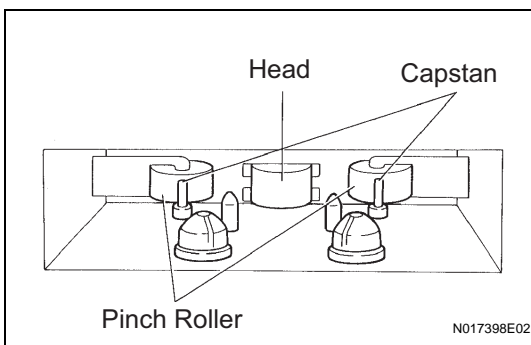
**Malfunction disappears.**

**OK**

**CASSETTE TAPE IS FAULTY**

**NG**

### 3 CLEAN HEAD AND CHECK OPERATION



- (a) Head cleaning  
(1) Raise the cassette door with your finger. Using a pencil or similar object, push in the guide.  
(2) Using a cleaning pen or cotton applicator soaked in cleaner, clean the head surface, pinch rollers and capstans.  
(3) Check if the same trouble occurs again.

**OK:**

**Malfunction disappears.**

**NG**

**REPLACE RADIO RECEIVER ASSEMBLY**

**OK**

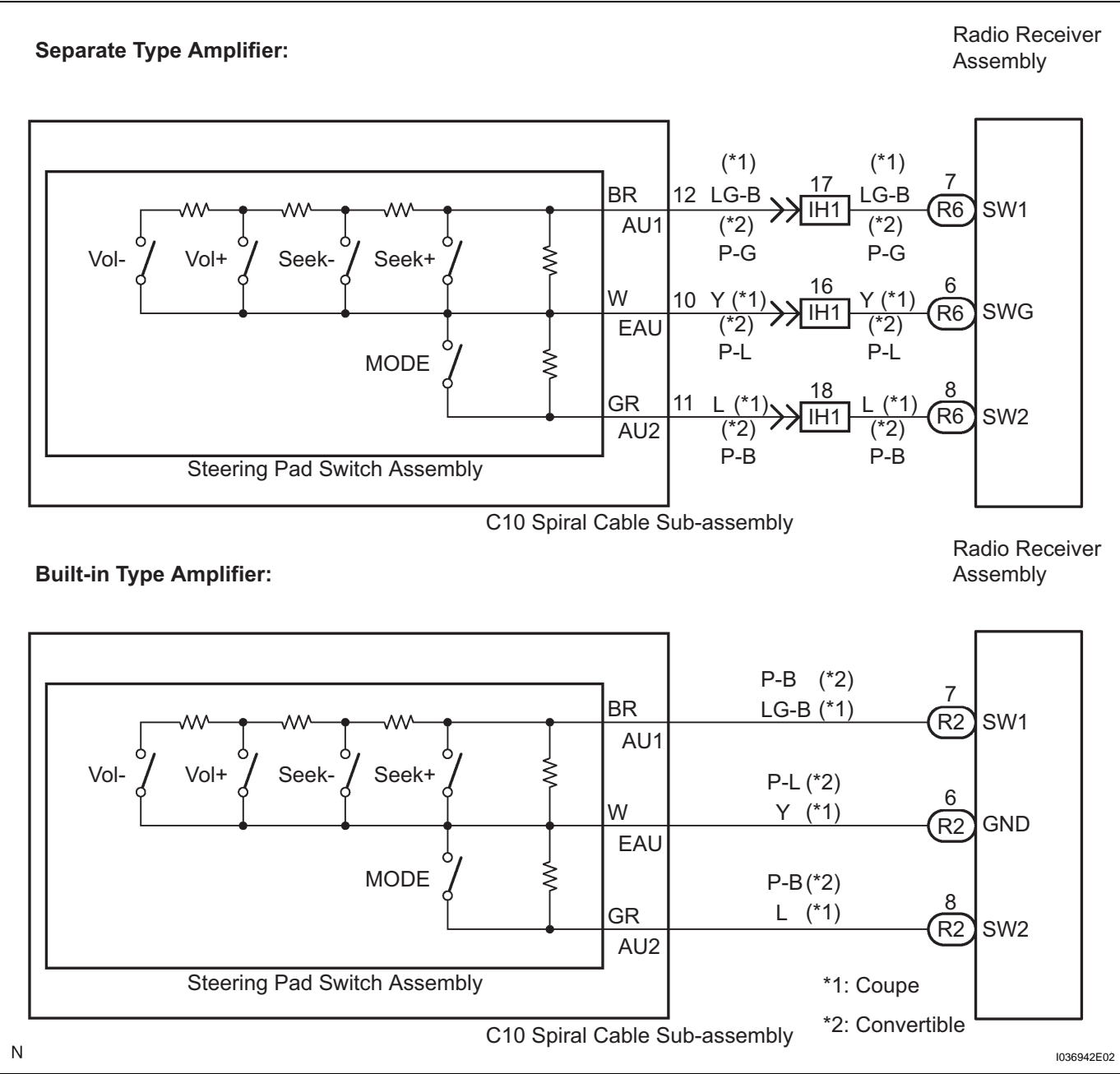
**HEAD IS DIRTY**

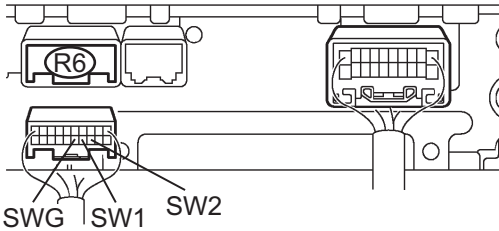
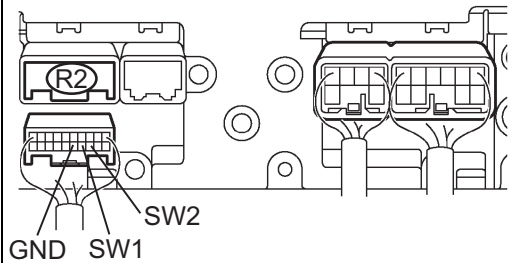
Steering Pad Switch Circuit

DESCRIPTION

This circuit sends an operation signal from the steering pad switch to the radio receiver assembly. If there is an open in the circuit, the audio system cannot be operated by the steering pad switch. If there is a short in the circuit, the same condition as that when the switch is continuously depressed occurs. Therefore, not only the steering pad switch cannot operate the radio receiver assembly, but also the radio receiver assembly itself does not function.

WIRING DIAGRAM



**1 INSPECT STEERING PAD SWITCH ASSEMBLY****Separate Type Amplifier****Wire Harness View:****Built-in Type Amplifier****Wire Harness View:**

I039524E02

- Disconnect the radio receiver assembly R2 or R6 connector.
- Measure the resistance according to the values in the table below.

**Resistance**

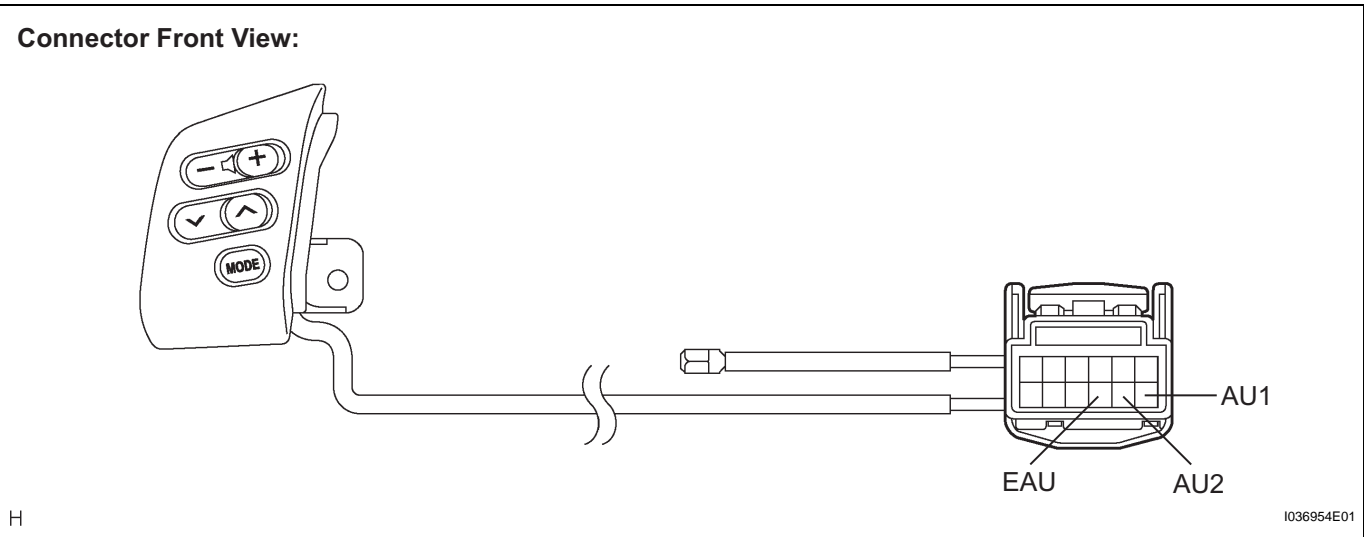
Tester connection	Condition	Specified condition
SW1 (R6-7) - SWG (R6-6) *1	No switch is pushed	Approx. 100 k $\Omega$
SW1 (R6-7) - SWG (R6-6) *1	SEEK+ switch: pushed	Approx. 0 $\Omega$
SW1 (R6-7) - SWG (R6-6) *1	SEEK- switch: pushed	Approx. 0.3 k $\Omega$
SW1 (R6-7) - SWG (R6-6) *1	VOL+ switch: pushed	Approx. 1 k $\Omega$
SW1 (R6-7) - SWG (R6-6) *1	VOL- switch: pushed	Approx. 3.2 k $\Omega$
SW2 (R6-8) - SWG (R6-6) *1	No switch is pushed	Approx. 100 k $\Omega$
SW2 (R6-8) - SWG (R6-6) *1	MODE switch: pushed	Approx. 0 $\Omega$
SW1 (R2-7) - GND (R2-6) *2	No switch is pushed	Approx. 100 k $\Omega$
SW1 (R2-7) - GND (R2-6) *2	SEEK+ switch: pushed	Approx. 0 $\Omega$
SW1 (R2-7) - GND (R2-6) *2	SEEK- switch: pushed	Approx. 0.3 k $\Omega$
SW1 (R2-7) - GND (R2-6) *2	VOL+ switch: pushed	Approx. 1 k $\Omega$
SW1 (R2-7) - GND (R2-6) *2	VOL- switch: pushed	Approx. 3.2 k $\Omega$
SW2 (R2-8) - GND (R2-6) *2	No switch is pushed	Approx. 100 k $\Omega$
SW2 (R2-8) - GND (R2-6) *2	MODE switch: pushed	Approx. 0 $\Omega$

**HINT:**

- \*1: Separate Type Amplifier
- \*2: Built-in Type Amplifier

**NG****Go to step 2****OK****AV****PROCEED TO NEXT CIRCUIT INSPECTION SHOWN ON PROBLEM SYMPTOMS TABEL****2 INSPECT STEERING PAD SWITCH ASSEMBLY**

- Disconnect the steering pad switch assembly connector.



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

Resistance

Tester connection	Condition	Specified condition
AU1 (12) - EAU (10)	No switch is pushed	Approx. 100 kΩ
AU1 (12) - EAU (10)	SEEK+ switch: pushed	Approx. 0 Ω
AU1 (12) - EAU (10)	SEEK- switch: pushed	Approx. 0.3 kΩ
AU1 (12) - EAU (10)	VOL+ switch: pushed	Approx. 1 kΩ
AU1 (12) - EAU (10)	VOL- switch: pushed	Approx. 3.2 kΩ
AU2 (11) - EAU (10)	No switch is pushed	Approx. 100 kΩ
AU2 (11) - EAU (10)	MODE switch: pushed	Approx. 0 Ω

NG

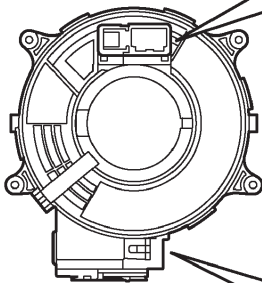
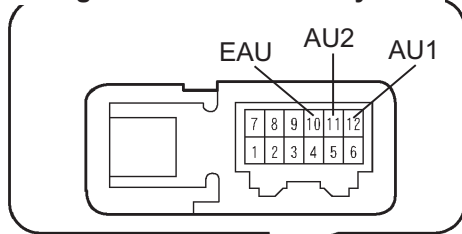
REPLACE STEERING PAD SWITCH ASSEMBLY

OK

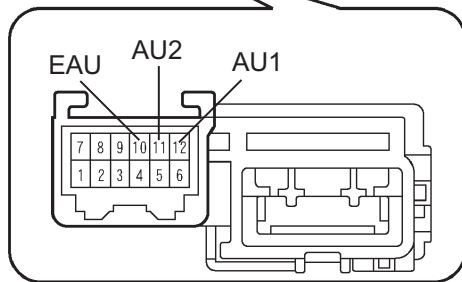


### 3 INSPECT SPIRAL CABLE SUB-ASSEMBLY

Steering Pad Switch Assembly Side:



Vehicle Side:



H

I036956E05

- Disconnect the connectors from the spiral cable sub-assembly.
- Measure the resistance according to the values in the table below.

#### Resistance

Tester connection	Specified condition
EAU (C10-10) - EAU (10)	Below 1 $\Omega$
AU1 (C10-12) - AU1 (12)	Below 1 $\Omega$
AU2 (C10-11) - AU2 (11)	Below 1 $\Omega$

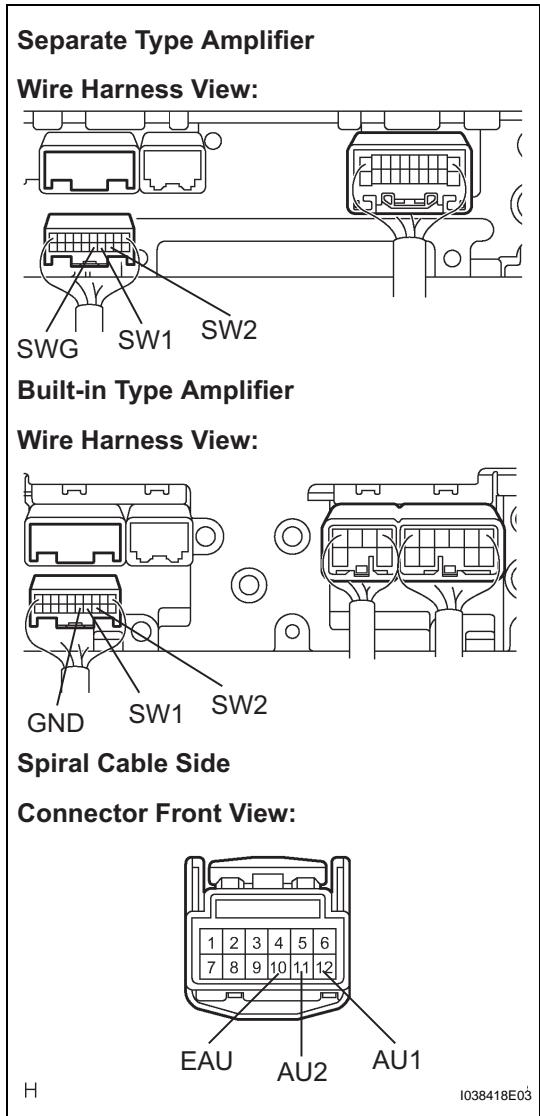
NG

REPLACE SPIRAL CABLE SUB-ASSEMBLY

OK

4

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



- (a) Disconnect the spiral cable sub-assembly connector.
- (b) Measure the resistance according to the values in the table below.

Resistance

Tester connection	Specified condition
SW1 (R6-7) - AU1 (12) *1	Below 1 Ω
SW2 (R6-8) - AU2 (11) *1	Below 1 Ω
SWG (R6-6) - EAU (10) *1	Below 1 Ω
SW1 (R6-7) - Body ground *1	10 kΩ or higher
SW2 (R6-8) - Body ground *1	10 kΩ or higher
SWG (R6-6) - Body ground *1	10 kΩ or higher
SW1 (R2-7) - AU1 (12) *2	Below 1 Ω
SW2 (R2-8) - AU2 (11) *2	Below 1 Ω
GND (R2-6) - EAU (10) *2	Below 1 Ω
SW1 (R2-7) - Body ground *2	10 kΩ or higher
SW2 (R2-8) - Body ground *2	10 kΩ or higher
GND (R2-6) - Body ground *2	10 kΩ or higher

HINT:

- \*1: Separate Type Amplifier
- \*2: Built-in Type Amplifier

NG

REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

PROCEED TO NEXT CIRCUIT INSPECTION SHOWN ON PROBLEM SYMPTOMS TABEL

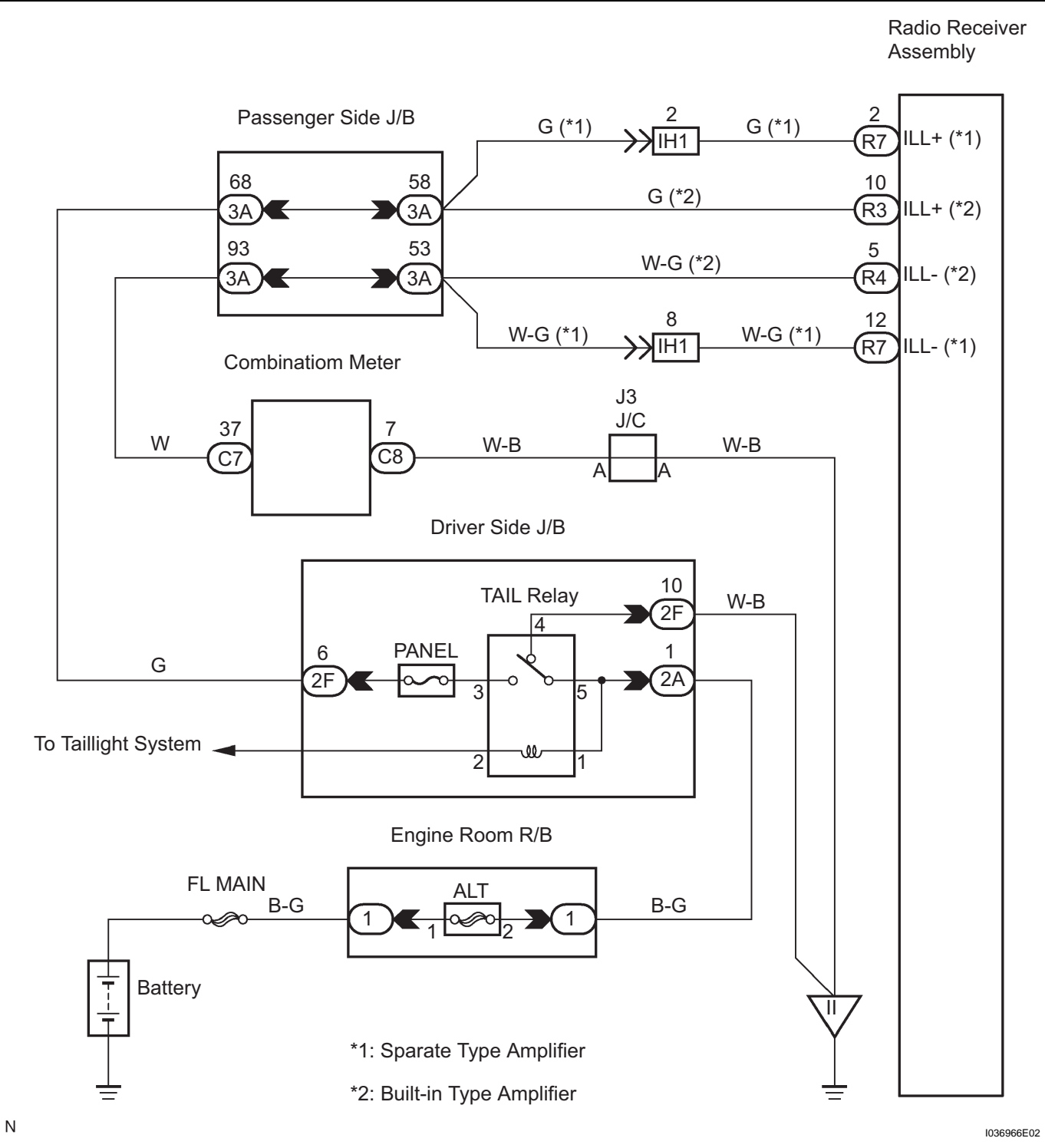
## Illumination Circuit

### DESCRIPTION

Power is supplied to the radio receiver panel illumination when the light control switch is in the TAIL or HEAD position. The body ECU determines the external brightness based on the brightness level detected by the automatic light control sensor, and then operates the tail relay. Power can also be supplied by operating the relay.

The intensity of the radio receiver panel illumination can be adjusted by the rheostat switch in the combination meter assembly.

WIRING DIAGRAM



1

INSPECT APPARATUS

(a) Choose the apparatus to be inspected.

Apparatus	Go to step
Radio receiver assembly	A
All illuminations	B

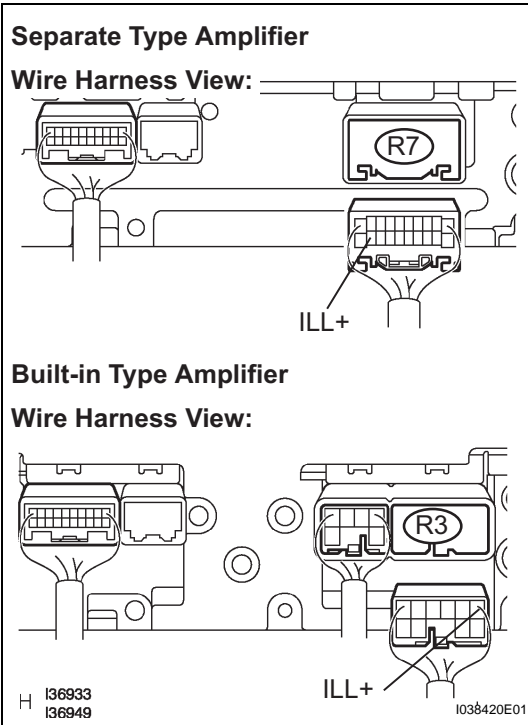
B

GO TO COMBINATION METER SYSTEM

A

2

## CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - BATTERY)



- (a) Disconnect the radio receiver assembly R3 or R7 connector.  
(b) Measure the voltage according to the values in the table below.

**Voltage**

Tester connection	Condition	Specified condition
ILL+ (R7-2) - Body ground *1	Light control switch TAIL	10 to 14 V
ILL+ (R3-10) - Body ground *2	Light control switch TAIL	10 to 14 V

**HINT:**

- \*1: Separate Type Amplifier
- \*2: Built-in Type Amplifier

NG

REPAIR OR REPLACE HARNESS OR CONNECTOR

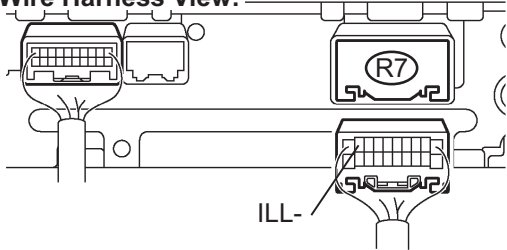
OK

## 3

## CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - COMBINATION METER)

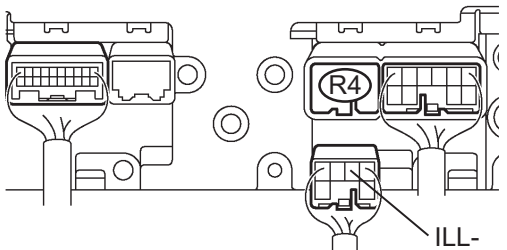
## Separate Type Amplifier

## Wire Harness View:



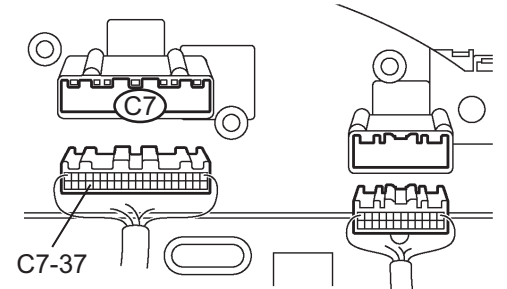
## Built-in Type Amplifier

## Wire Harness View:



## Combination Meter

## Wire Harness View:



H

I038421E01

- Disconnect the radio receiver assembly R4 or R7 connector and combination meter C7 connector.
- Measure the resistance according to the values in the table below.

## Resistance

Tester connection	Specified condition
ILL- (R7-12) - C7-37 *1	Below 1 $\Omega$
ILL- (R7-12) - Body ground *1	10 k $\Omega$ or higher
ILL- (R4-5) - C7-37 *2	Below 1 $\Omega$
ILL- (R4-5) - Body ground *2	10 k $\Omega$ or higher

## HINT:

- \*1: Separate Type Amplifier
- \*2: Built-in Type Amplifier

NG

REPAIR OR REPLACE HARNESS OR CONNECTOR

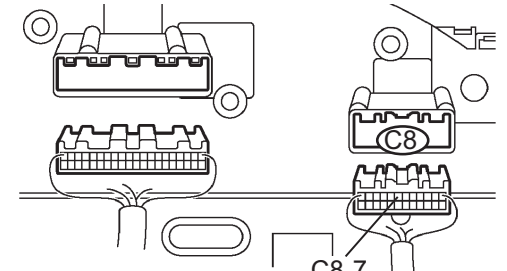
OK

## 4

## CHECK HARNESS AND CONNECTOR (COMBINATION METER - BODY GROUND)

AV

## Combination Meter Wire Harness View:



H

I037760E01

- Disconnect the combination meter C8 connector.
- Measure the resistance according to the value in the table below.

## Resistance

Tester connection	Specified condition
C8-7 - Body ground	Below 1 $\Omega$

NG

REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

PROCEED TO NEXT CIRCUIT INSPECTION SHOWN ON PROBLEM SYMPTOMS TABEL

## Speaker Circuit

### DESCRIPTION

The sound signal that has been amplified by the stereo component amplifier is sent to the speaker from the stereo component amplifier through this circuit.

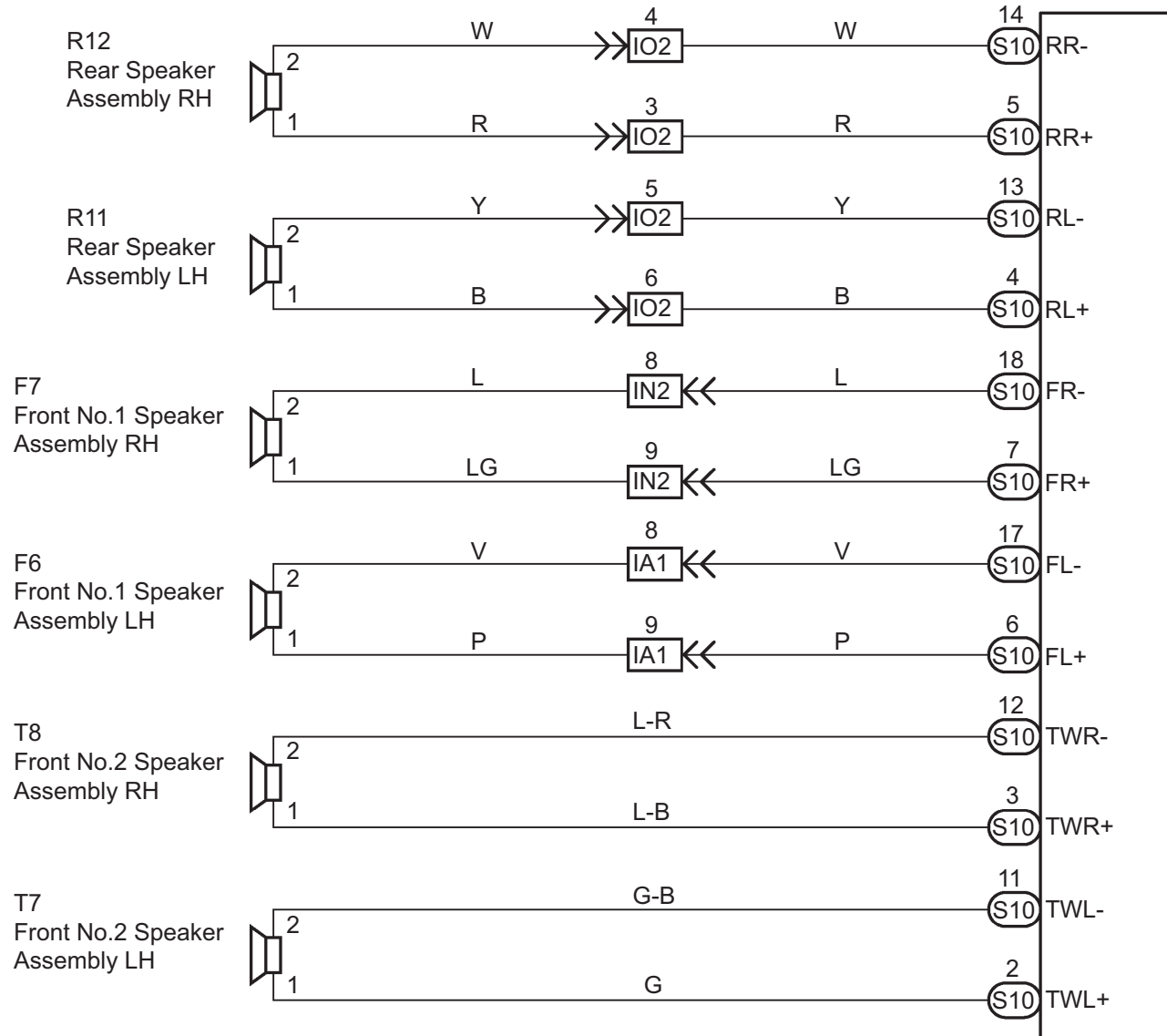
If there is a short in this circuit, the stereo component amplifier assembly detects it and stops output to the speaker.

Thus sound can not be heard from the speaker even if there is no malfunction in the stereo component amplifier assembly or speaker.



## WIRING DIAGRAM

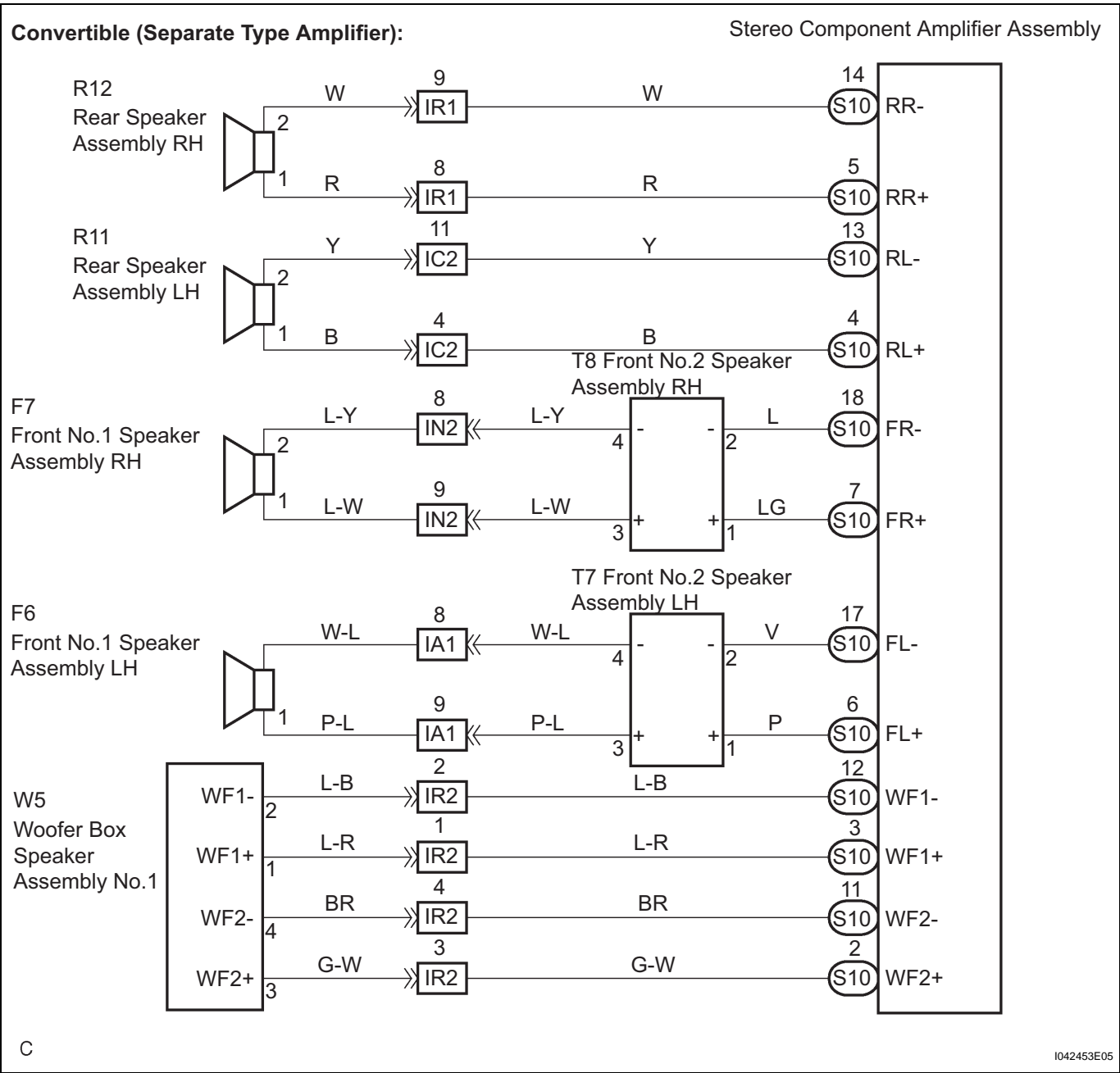
## Coupe (Separate Type Amplifier):

Stereo Component  
Amplifier Assembly

N

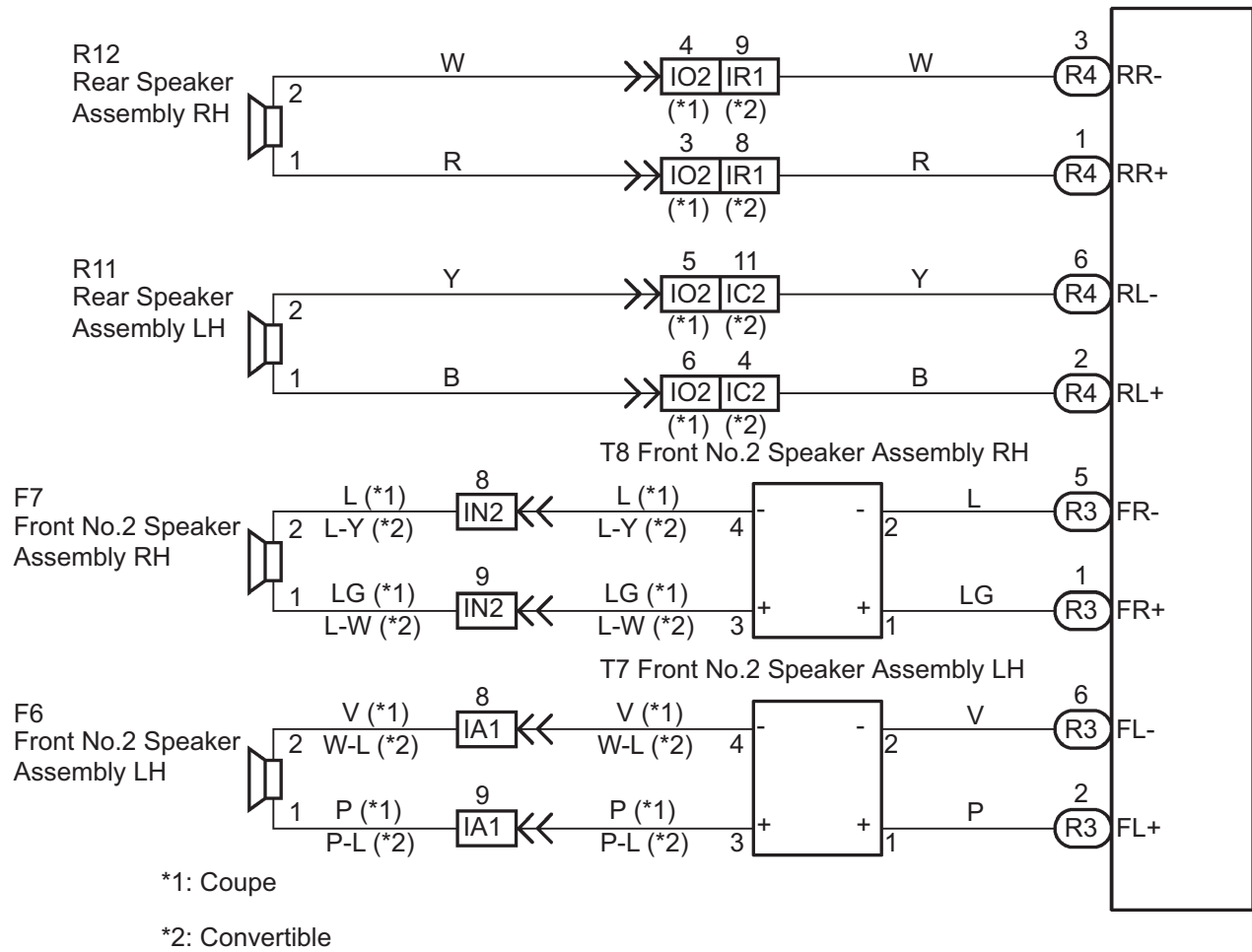
I036944E02

AV



**Built-in Type Amplifier:**

## Radio Receiver Assembly

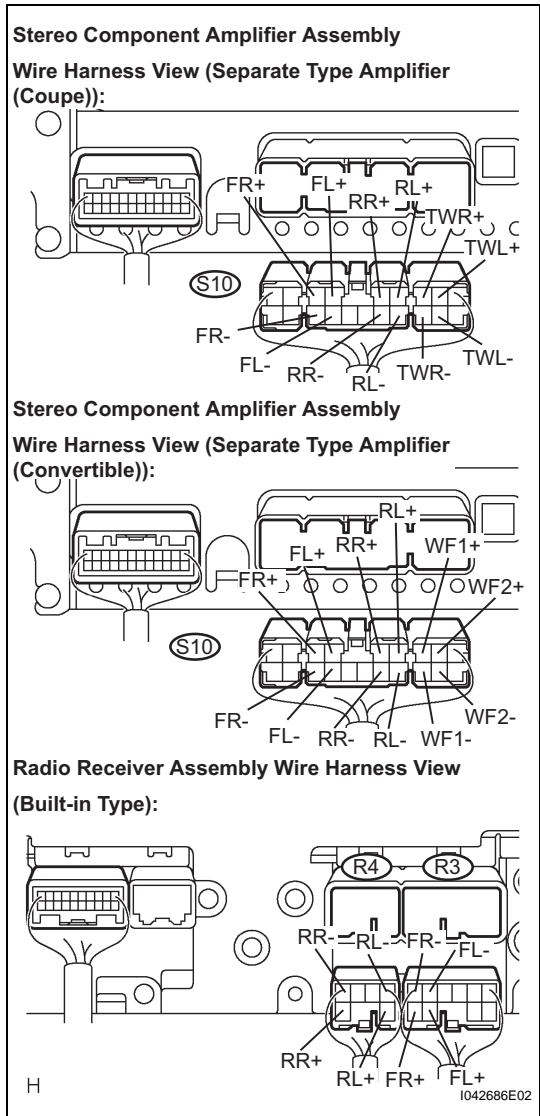


N

I042460E02

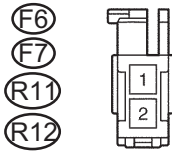
1

CHECK HARNESS AND CONNECTOR

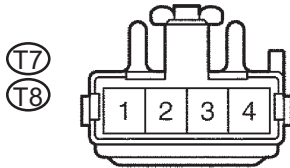


- (a) Disconnect the connectors shown in the illustration on the left from the stereo component amplifier assembly or the radio receiver assembly and speakers.

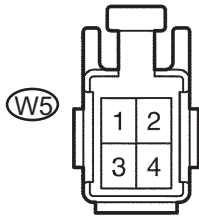
**Connector Front View:**  
**(Front No.1 Speaker Assembly)**  
**(Rear Speaker Assembly)**



**Connector Front View:**  
**(Front No.2 Speaker Assembly)**



**Connector Front View:**  
**(Woofer Box Speaker Assembly)**  
**No.1 (Convertible))**



E112146E01

- (b) Measure the resistance between the speaker and the stereo component amplifier assembly or the radio receiver assembly to check for an open circuit in the wire harness.

**Resistance:**

**Below 1  $\Omega$**

- (c) Measure the resistance between the speaker and body ground to check for a short circuit in the wire harness.

**Resistance:**

**10 k $\Omega$  or higher**

**NG**

**REPAIR OR REPLACE HARNESS OR CONNECTOR**

**OK**

## 2 CHECK VEHICLE TYPE

- (a) Choose type to be inspected.

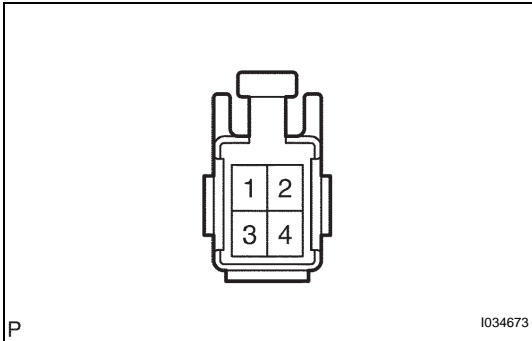
Type	Proceed to
w/ Woofer Box Speaker Assembly No.1	A
w/o Woofer Box Speaker Assembly No.1	B

**B**

**Go to step 4**

**A**

**AV**

**3 INSPECT WOOFER BOX SPEAKER ASSEMBLY NO.1**

- (a) Resistance check.  
 (b) Measure the resistance according to the value(s) in the table below.

**NOTICE:**

**The speaker should not be removed for checking.  
 Resistance**

Tester connection	Condition	Specified condition
1 - 3	Always	0.81 to 1.61 $\Omega$
2 - 4	Always	0.81 to 1.61 $\Omega$

**NG**

**REPLACE WOOFER BOX SPEAKER  
 ASSEMBLY NO.1**

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

- (a) Resistance check.  
 (1) Measure the resistance between the terminals of the speaker.

**Resistance:**

**Separate Type Amplifier (Coupe):**

**3 to 4  $\Omega$**

**Separate Type Amplifier (Convertible):**

**3.5 to 4.5  $\Omega$**

**Built-in Type Amplifier:**

**Approximately 4  $\Omega$**

**NG**

**REPLACE FRONT NO.1 SPEAKER  
 ASSEMBLY**

**OK****5 INSPECT FRONT NO.2 SPEAKER ASSEMBLY**

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

**OK:**

**Malfunction disappears.**

**HINT:**

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

**NG**

**REPLACE FRONT NO.2 SPEAKER  
 ASSEMBLY**

**OK**

**6****INSPECT REAR SPEAKER ASSEMBLY**

- (a) Resistance check.  
(1) Measure the resistance between the terminals of the speaker.

**Resistance:****Separate Type Amplifier (Coupe):****1.75 to 2.75  $\Omega$** **Separate Type Amplifier (Convertible):****Approximately 2.4  $\Omega$** **Built-in Type Amplifier:****5.1 to 6.9  $\Omega$** **NG****REPLACE REAR SPEAKER ASSEMBLY****OK****PROCEED TO NEXT CIRCUIT INSPECTION SHOWN ON PROBLEM SYMPTOMS TABEL**

# AMP Mute Signal Circuit (from Radio Receiver Assembly)

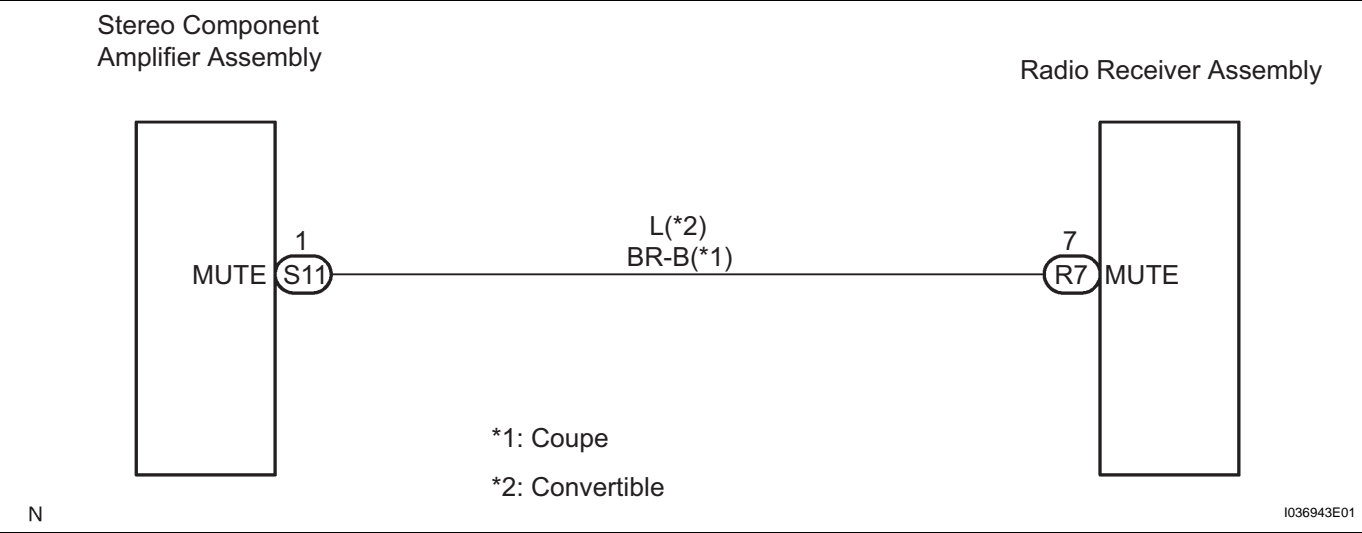
**DESCRIPTION**

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

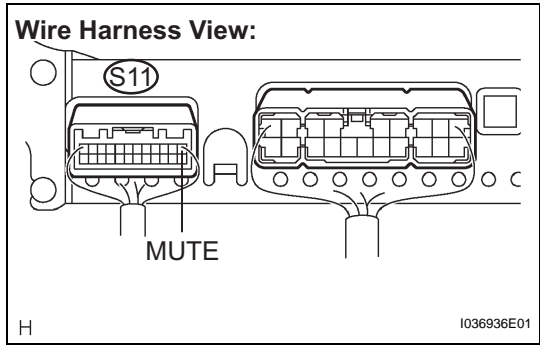
If there is an open in the circuit, noise can be heard from the speaker when changing the sound source.

If there is a short in the circuit, even though the stereo component amplifier assembly is normal, no sound or only extremely small sound can be produced.

## WIRING DIAGRAM



## 1 INSPECT STEREO COMPONENT AMPLIFIER ASSEMBLY



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

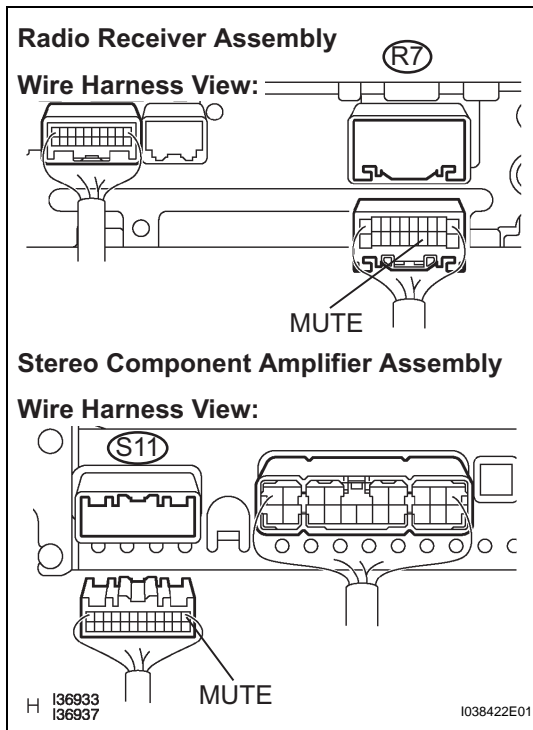
Tester connection	Condition	Specification
MUTE (S11-1) - Body ground	Turn ignition switch to ACC, Audio system is playing → Changing	Above 3.5 V → Below 1 V

NG Go to step 2

OK

PROCEED TO NEXT CIRCUIT INSPECTION SHOWN ON PROBLEM SYMPTOMS TABEL



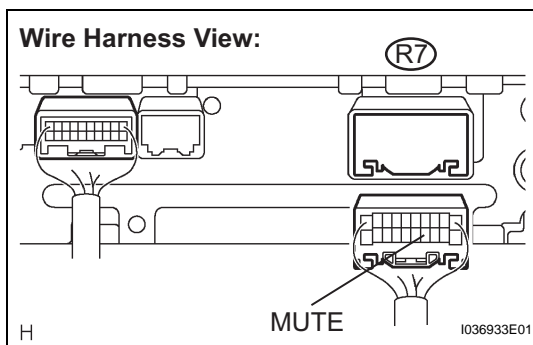
**2****CHECK HARNESS AND CONNECTOR (RADIO RECEIVER - STEREO COMPONENT AMPLIFIER)**

- (a) Disconnect the radio receiver assembly R7 connector and stereo component amplifier assembly S11 connector.

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

**Resistance**

Tester connection	Condition	Specified condition
MUTE (R7-7) - MUTE (S11-1)	Always	Below 1 $\Omega$
MUTE (R7-7) - Body ground	Always	10 k $\Omega$ or higher

**NG****REPAIR OR REPLACE HARNESS OR CONNECTOR****OK****3****INSPECT RADIO RECEIVER ASSEMBLY**

- (a) Reconnect the stereo component amplifier assembly connector.
- (b) Measure the voltage according to the value in the table below.

**Voltage**

Tester connection	Condition	Specification
MUTE (R7-7) - Body ground	Turn ignition switch to ACC	Above 3.5 V

**NG****REPLACE STEREO COMPONENT AMPLIFIER ASSEMBLY****OK****AV****REPLACE RADIO RECEIVER ASSEMBLY**

AMP Sound Signal Circuit

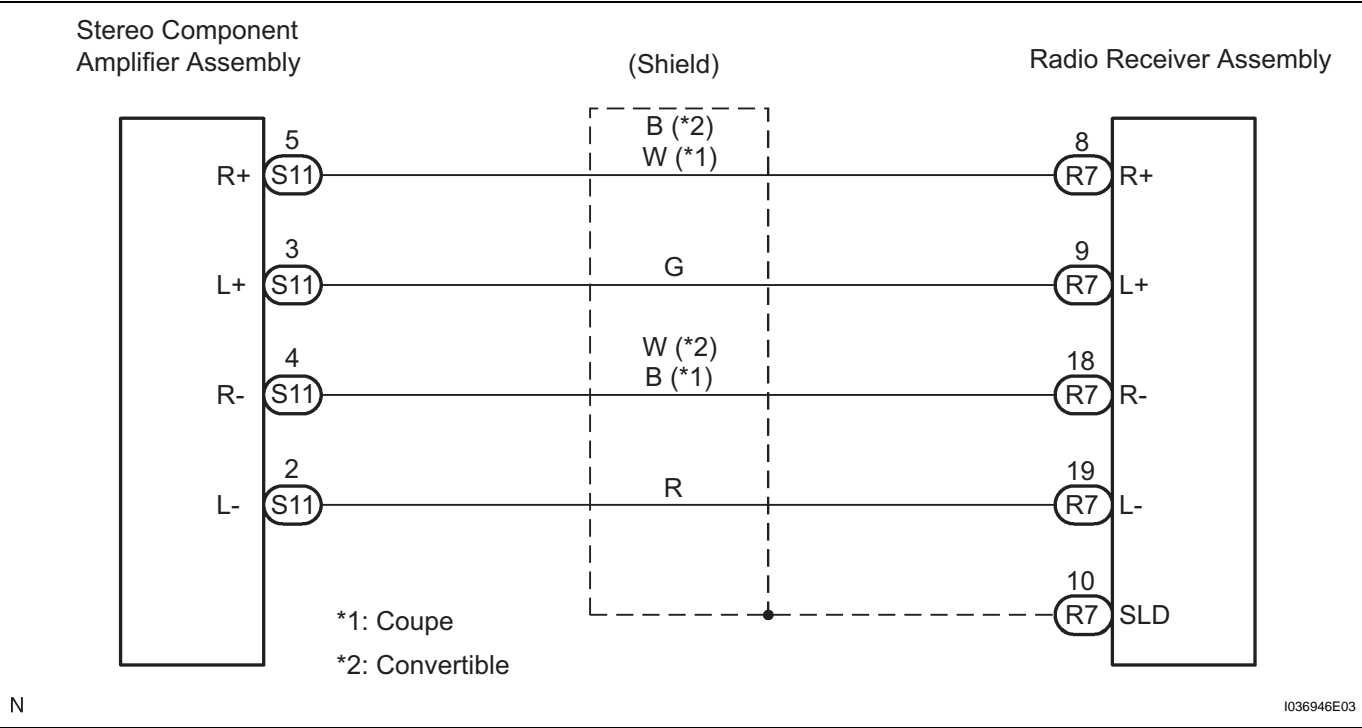
DESCRIPTION

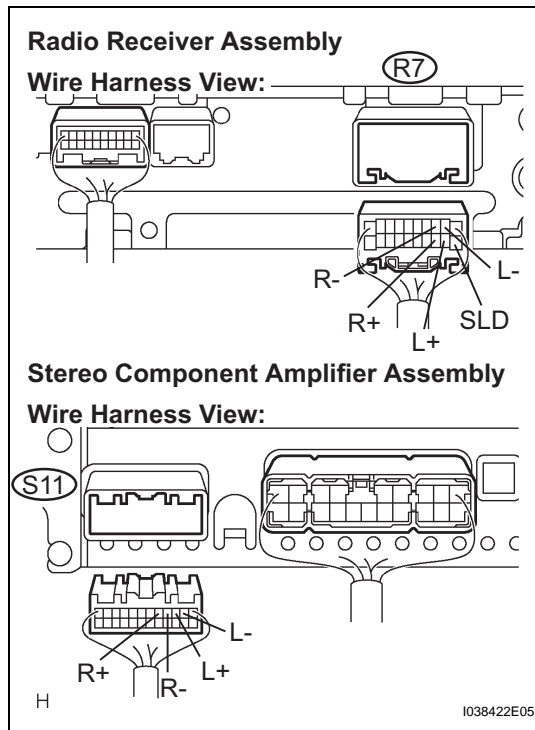
The radio receiver assembly sends a sound signal to the stereo component amplifier assembly through this circuit.

The sound signal that has been sent is amplified by the stereo component amplifier assembly, and then sent to the speaker.

If there is an open or short in the circuit, sound can not be heard from the speaker even if there is no malfunction in the stereo component amplifier assembly or speaker.

WIRING DIAGRAM



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

- (a) Disconnect the radio receiver assembly R7 connector and stereo component amplifier assembly S11 connector.

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

**Resistance**

Tester connection	Specified condition
L+ (S11-3) - L+ (R7-9)	Below 1 $\Omega$
L- (S11-2) - L- (R7-19)	Below 1 $\Omega$
R+ (S11-5) - R+ (R7-8)	Below 1 $\Omega$
R- (S11-4) - R- (R7-18)	Below 1 $\Omega$
L+ (S11-3) - Body ground	10 k $\Omega$ or higher
L- (S11-2) - Body ground	10 k $\Omega$ or higher
R+ (S11-5) - Body ground	10 k $\Omega$ or higher
R- (S11-4) - Body ground	10 k $\Omega$ or higher

**NG****REPAIR OR REPLACE HARNESS OR CONNECTOR****OK****PROCEED TO NEXT CIRCUIT INSPECTION SHOWN ON PROBLEM SYMPTOMS TABEL**

# Sound Signal Circuit between Radio Receiver and Stereo Component Amplifier

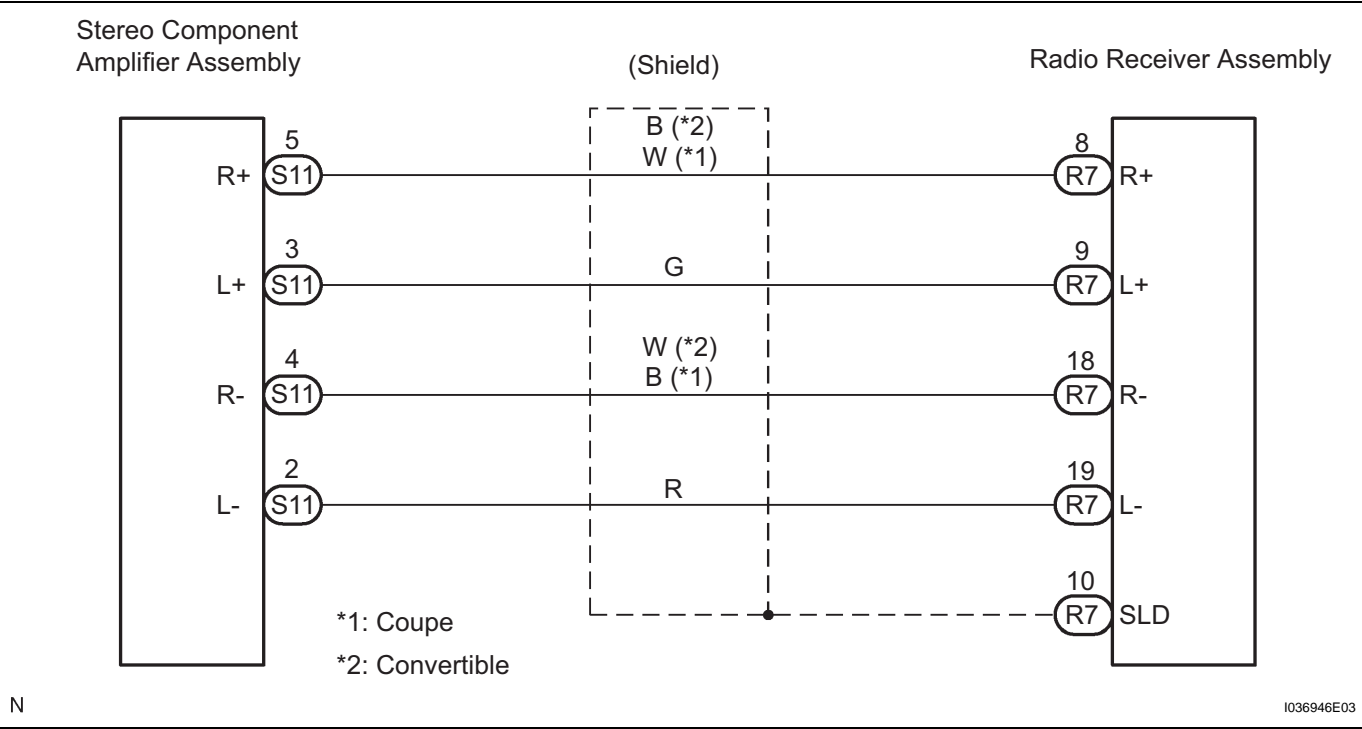
## DESCRIPTION

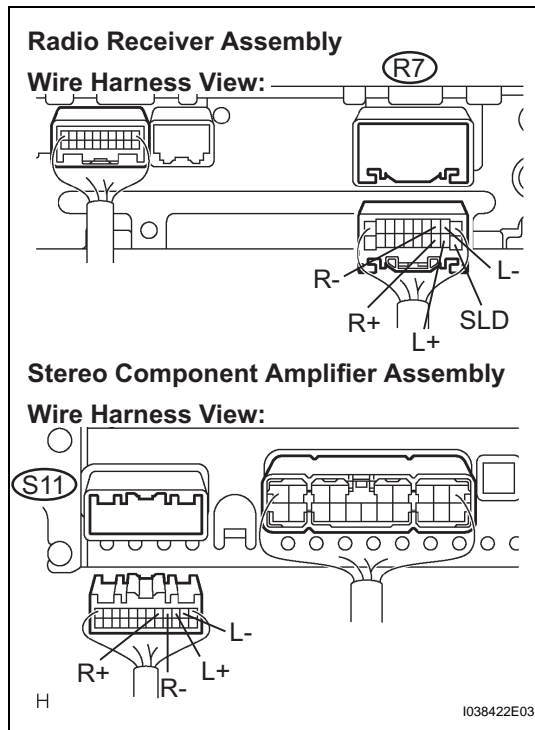
The radio receiver assembly sends a sound signal to the stereo component amplifier assembly through this circuit.

The sound signal that has been sent is amplified by the stereo component amplifier assembly, and then sent to the speaker.

If there is an open or short in the circuit, sound can not be heard from the speaker even if there is no malfunction in the stereo component amplifier assembly or speaker.

## WIRING DIAGRAM



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

- (a) Disconnect the radio receiver assembly R7 connector and stereo component amplifier assembly S11 connector.

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

**Resistance**

Tester connection	Specified condition
L+ (S11-3) - L+ (R7-9)	Below 1 $\Omega$
L- (S11-2) - L- (R7-19)	Below 1 $\Omega$
R+ (S11-5) - R+ (R7-8)	Below 1 $\Omega$
R- (S11-4) - R- (R7-18)	Below 1 $\Omega$
L+ (S11-3) - Body ground	10 k $\Omega$ or higher
L- (S11-2) - Body ground	10 k $\Omega$ or higher
R+ (S11-5) - Body ground	10 k $\Omega$ or higher
R- (S11-4) - Body ground	10 k $\Omega$ or higher

**NG****REPAIR OR REPLACE HARNESS OR CONNECTOR****OK****PROCEED TO NEXT CIRCUIT INSPECTION SHOWN ON TROUBLE SYMPTOMS TABLE**

## IDENTIFICATION OF NOISE SOURCE

### 1. RADIO WAVE BAND

- (a) The radio wave bands used in radio broadcasting are as follows:

Frequency	30 kHz	300 kHz	3 MHz	30 MHz	300 MHz
Designation	LF	MF	HF	VHF	
Radio wave		← AM →		← FM →	
Modulation	Amplitude modulation			Frequency modulation	

E112081E03

HINT:

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

### 2. SERVICE AREA

- (a) There is a great difference in the size of the service areas for AM and FM broadcasting. Sometimes an FM stereo broadcast cannot be received even though AM can be received very clearly. FM stereo has the smaller service area, and it also picks up static and other types of interference ("noise") easily.

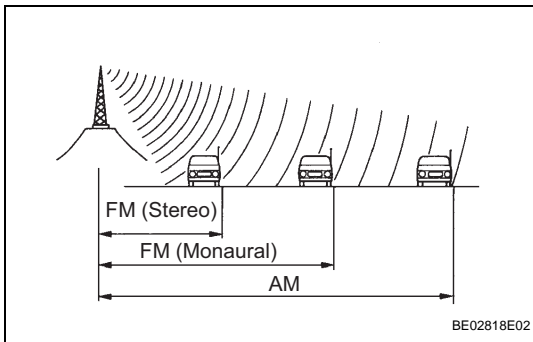
### 3. RECEPTION PROBLEMS

HINT:

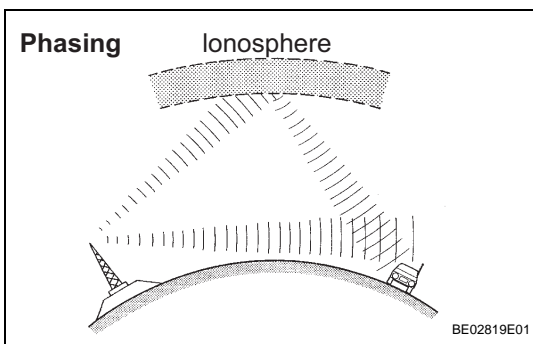
Besides the problem of static, there are other problems, such as "phasing", "multipath" and "fade out". These problems are caused not by electrical noise but by the nature of the radio waves themselves.

- (a) Phasing

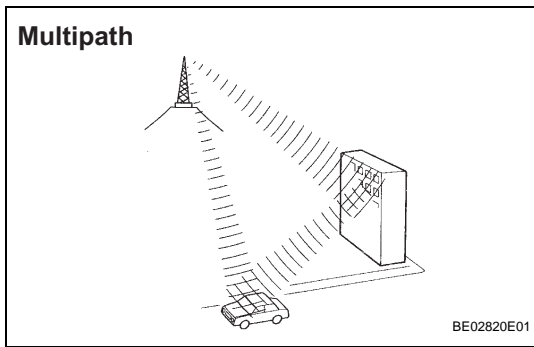
Besides electrical interference, AM broadcasts are also susceptible to other types of interference, especially at night. This is because AM radio waves bounce off the ionosphere at night. These radio waves then interfere with the signals that reach the vehicle's antenna directly from the same transmitter. This type of interference is called "phasing".



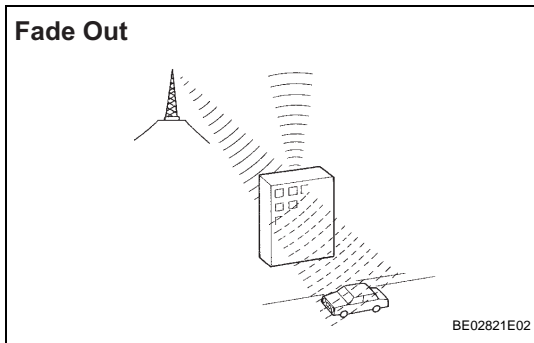
BE02818E02



BE02819E01



- (b) **Multipath**  
Interference caused by reflection of radio waves against obstructions is called "Multipath". Multipath occurs when radio signals emitted from the broadcast transmitter antenna are reflected against tall buildings or mountains and interfere with other signals which are to be received directly.



- (c) **Fade Out**  
FM radio wave tends to be reflected against obstructions such as tall buildings or mountains because FM frequency is higher than AM. For this reason, FM signals often seem to gradually disappear or fade away as the vehicle goes behind those obstructions. This phenomenon is called "fade out".

#### 4. NOISE PROBLEMS

- (a) It is very important for technicians to clearly understand a customer's claim about noise. Use the following table to diagnose the phenomena.

Radio wave	Condition in which noise occurs	Probable cause
AM	Noise occurs at a specific place.	Strong possibility of foreign noise.
	Noise occurs when listening to faint broadcasting.	The same program may be broadcasted from some local stations. If the program is the same, one of those may be tuned in.
FM	Noise occurs only at night.	Strong possibility of an interfering beat from a distant broadcast.
	Noise occurs at a specific place during driving.	Strong possibility of multipath noise and phasing noise caused by changes of FM frequency.

#### HINT:

If the condition when the noise occurs does not meet any of the above, find out the cause based on "Reception Problems". Refer to the description about multipath and phasing mentioned previously.

#### 5. Identify the conditions under which the noise occurs, and check the noise filter on the relevant part.

Conditions under which noise occurs	Noise type
Noise increases when the accelerator pedal is depressed, but stops when the engine is stopped.	Generator noise
Noise occurs during A/C or heater operation.	Blower motor noise
Noise occurs when the vehicle accelerates rapidly on an unpaved road or after the ignition switch is turned to the ON position.	Fuel pump noise
Noise occurs when the horn switch is pressed and released or when pressed and held.	Horn noise
Quiet noise occurs while the engine is running, but stops when the engine is stopped.	Ignition noise
Noise occurs synchronously with the blink of the turn signal.	Flasher noise
Noise occurs during window washer operation.	Washer noise
Noise occurs while the engine is running, and continues even after the engine is stopped.	Water temperature sensor noise

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

**Reference:**

- Make sure first that there is no noise from the outside. Failure to do so makes noise source detection difficult and may lead to a misdiagnosis.
- Noise should be removed in descending order of loudness.
- Tuning the radio so that no station is received makes the noise more noticeable, making the recognition of the phenomenon easier.



AVC-LAN Circuit

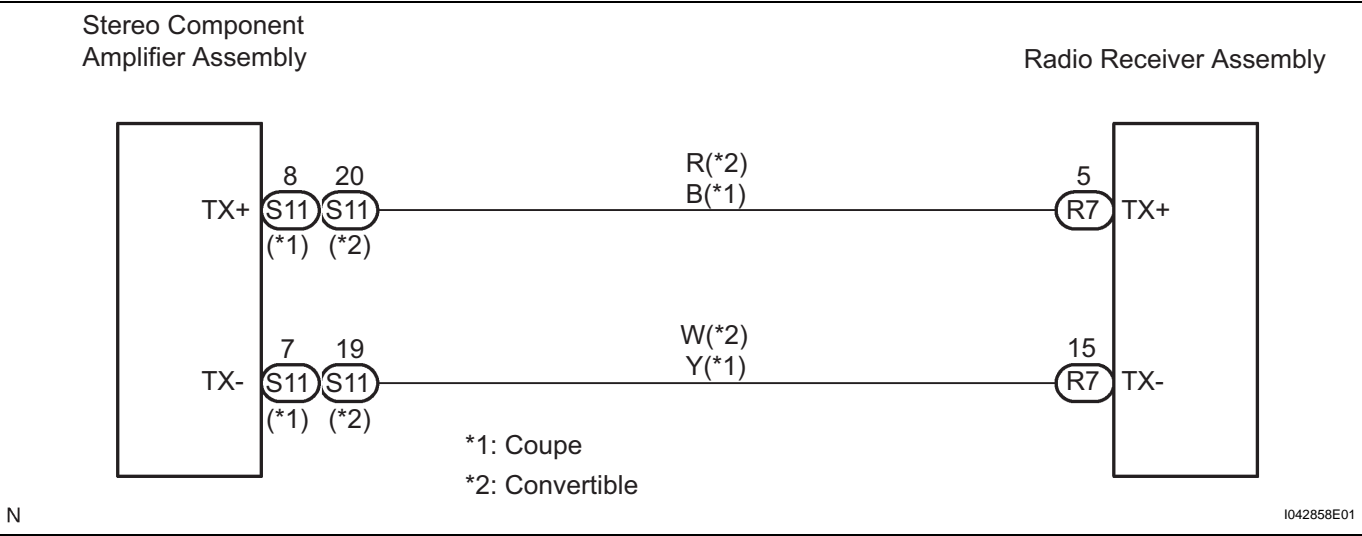
DESCRIPTION

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

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

In this AVC-LAN, the radio receiver assembly becomes the master of the communication, and the radio receiver assembly has resistance necessary for transmitting the communication.

WIRING DIAGRAM



1

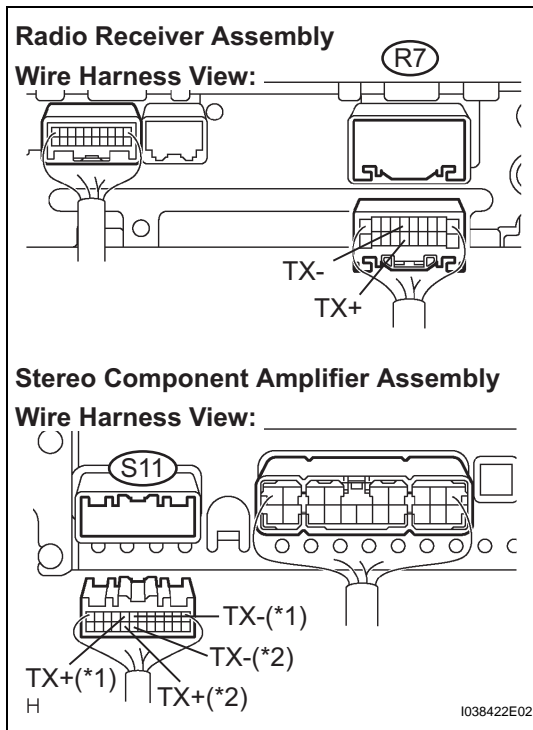
SERVICE CHECK MODE (STEREO COMPONENT AMPLIFIER ASSEMBLY)

- (a) Perform service check.
- (1) Start the diagnostic system and read the check result for the stereo component amplifier assembly.
- Standard

"NCON" is displayed or no display (DSP AMP)	"GOOD" is displayed
A	B

B

REPLACE RADIO RECEIVER ASSEMBLY

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

(a) Disconnect the radio receiver assembly R7 connector and stereo component amplifier assembly S11 connector.

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

**Resistance**

Tester connection	Specified condition
TX+ (S11-8) ( *1) - TX+ (R7-5)	Below 1 $\Omega$
TX- (S11-7) ( *1) - TX- (R7-15)	Below 1 $\Omega$
TX+ (S11-20) ( *2) - TX+ (R7-5)	Below 1 $\Omega$
TX- (S11-19) ( *2) - TX- (R7-15)	Below 1 $\Omega$
TX+ (R7-5) - Body ground	10 k $\Omega$ or higher
TX- (R7-15) - Body ground	10 k $\Omega$ or higher

**HINT:**

- \*1: Coupe
- \*2: Convertible

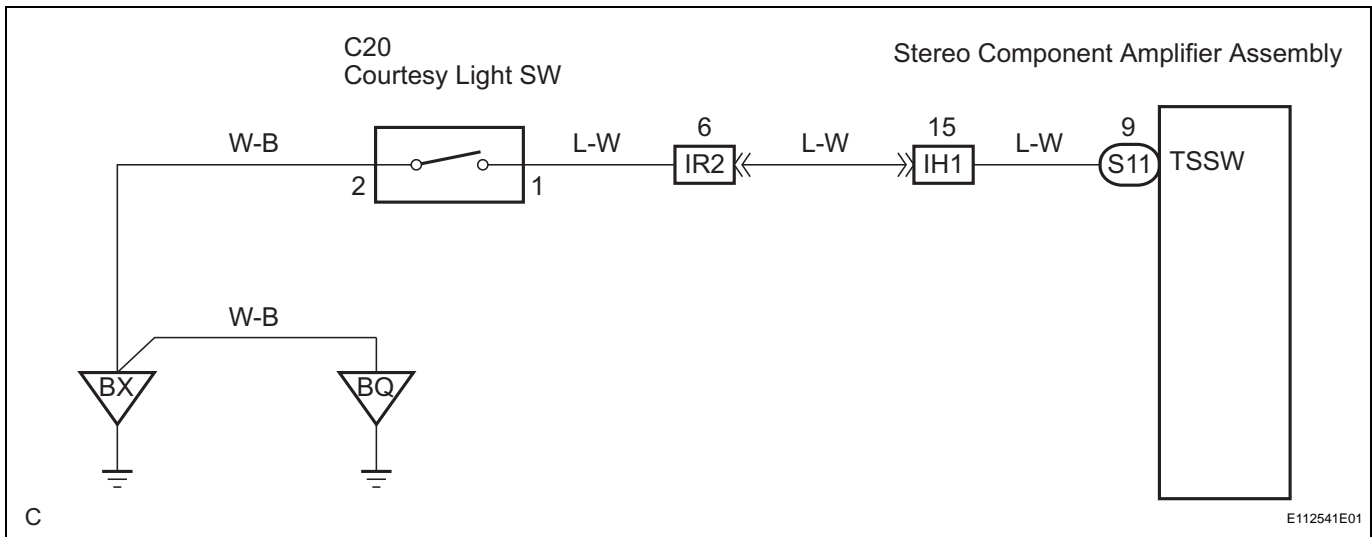
**NG****REPAIR OR REPLACE HARNESS OR CONNECTOR****OK****REPLACE STEREO COMPONENT AMPLIFIER ASSEMBLY**

## Convertible Roof Open / Close Signal Circuit

### DESCRIPTION

This circuit detects the convertible top open/close condition and automatically switches sound characteristic to the appropriate type (between two types). Sound is momentarily muted while the convertible top is opening or closing. If an open or short occurs in this circuit, sound characteristic is not switched even though the convertible top is opened or closed.

### WIRING DIAGRAM



#### 1 CHECK SYMPTOM

- (a) Check if sound is momentarily muted while opening or closing the convertible top.

**OK:**

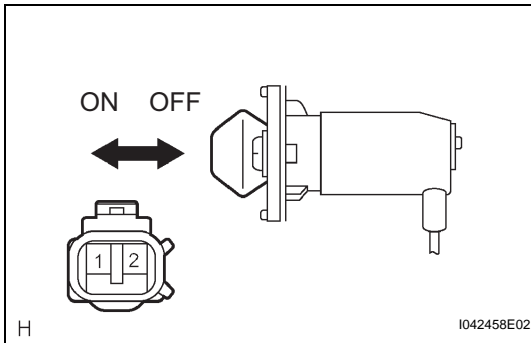
**Sound is momentarily muted.**

**NG**

**Go to step 2**

**OK**

#### REPLACE STEREO COMPONENT AMPLIFIER ASSEMBLY

**2 INSPECT COURTESY LIGHT SWITCH**

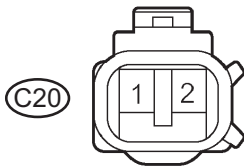
- (a) Disconnect the courtesy light switch.  
 (b) Measure the resistance according to the value(s) in the table below.

**Resistance**

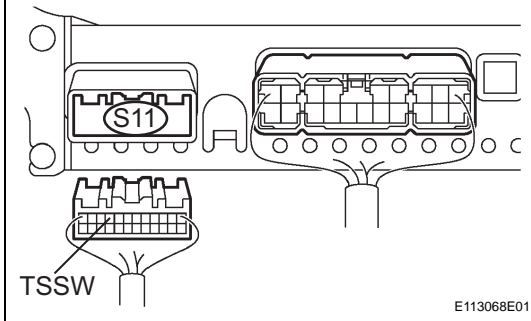
Tester connection	Condition	Specified condition
1 - 2	ON (Shaft is not pressed)	Below 1 $\Omega$
1 - 2	OFF (Shaft is pressed)	10 k $\Omega$ or higher

**NG****REPLACE COURTESY LAMP SWITCH****OK****3 CHECK HARNESS AND CONNECTOR (COURTESY LIGHT SWITCH - STEREO COMPONENT AMPLIFIER ASSEMBLY)**

Connector Front View:  
 (Courtesy Light Switch)



Stereo Component Amplifier Assembly  
 Wire Harness View:



- (a) Disconnect the connectors from the stereo component amplifier assembly and courtesy light switch.  
 (b) Measure the resistance according to the value(s) in the table below.

**Resistance**

Tester connection	Condition	Specified condition
TSSW - 1	Always	Below 1 $\Omega$
TSSW - Body ground	Always	10 k $\Omega$ or higher

**NG****REPAIR OR REPLACE HARNESS OR CONNECTOR****OK**

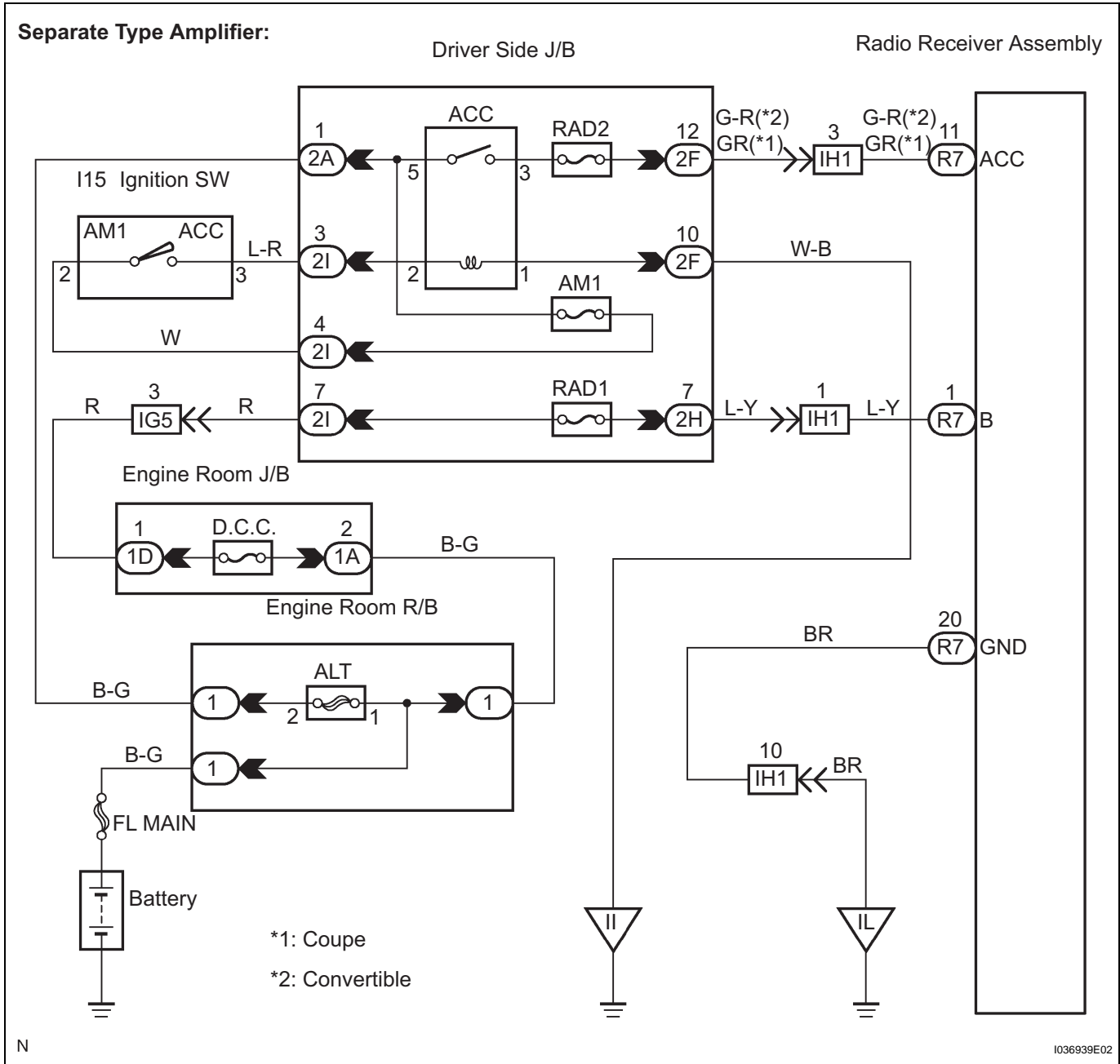
**REPAIR OR REPLACE HARNESS OR CONNECTOR (COURTESY LIGHT SWITCH - BODY GROUND)**

## Radio Receiver Power Source Circuit

### DESCRIPTION

This circuit provides power to the radio receiver assembly.

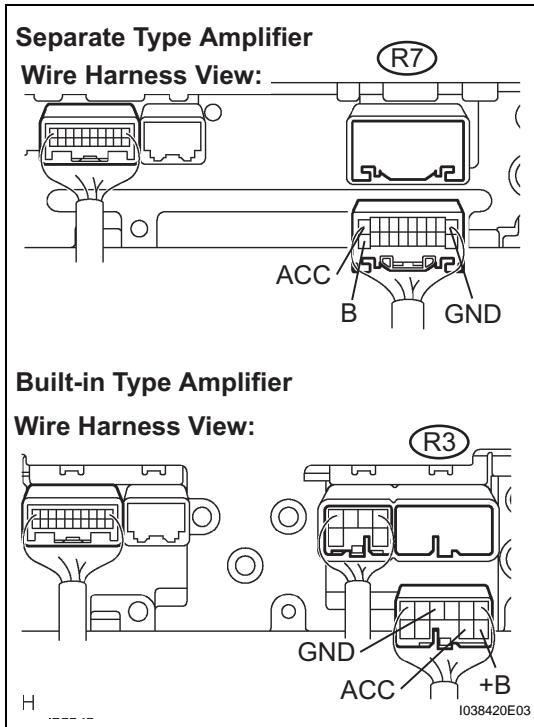
### WIRING DIAGRAM





## 1

## INSPECT RADIO RECEIVER ASSEMBLY



(a) Disconnect the radio receiver assembly R3 or R7 connector.

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

**Resistance**

Tester connection	Condition	Specified condition
GND (R7-20) - Body ground *1	Always	Below 1 $\Omega$
GND (R3-7) - Body ground *2	Always	Below 1 $\Omega$

**HINT:**

- \*1: Separate Type Amplifier
- \*2: Built-in Type Amplifier

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

**Voltage**

Tester connection	Condition	Specified condition
+B (R7-1) - GND (R7-20) *1	Always	10 to 14 V
+B (R3-4) - GND (R3-7) *2	Always	10 to 14 V
ACC+B (R7-11) - GND (R7-20) *1	Ignition SW ACC	10 to 14 V
ACC (R3-3) - GND (R3-7) *2	Ignition SW ACC	10 to 14 V

**HINT:**

- \*1: Separate Type Amplifier
- \*2: Built-in Type Amplifier

NG

**REPAIR OR REPLACE HARNESS OR CONNECTOR (RADIO RECEIVER - BATTERY OR BODY GROUND)**

OK

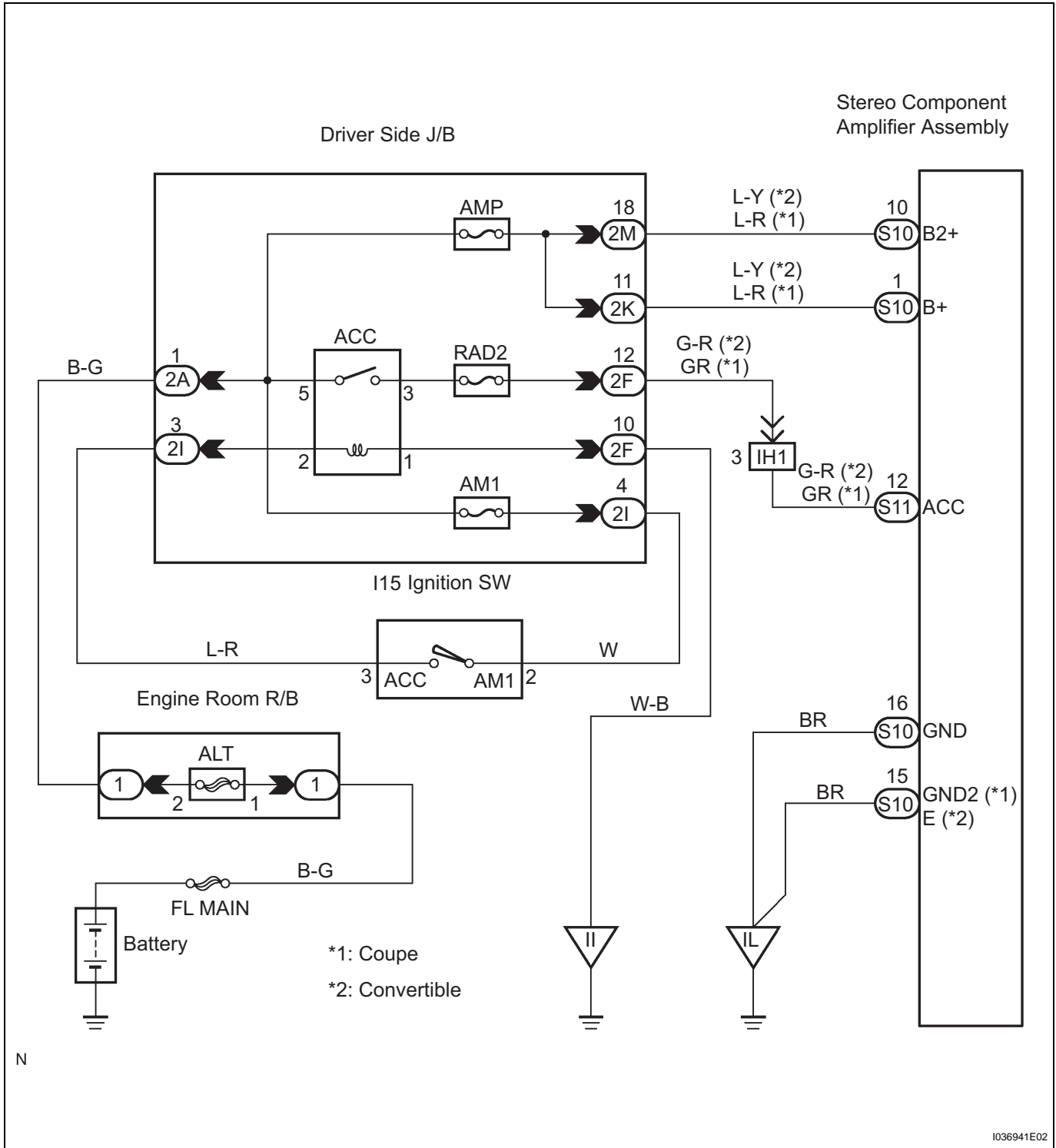
**PROCEED TO NEXT CIRCUIT INSPECTION SHOWN ON PROBLEM SYMPTOMS TABEL**

## Stereo Component Amplifier Power Source Circuit

### DESCRIPTION

This circuit provides power to the stereo component amplifier assembly.

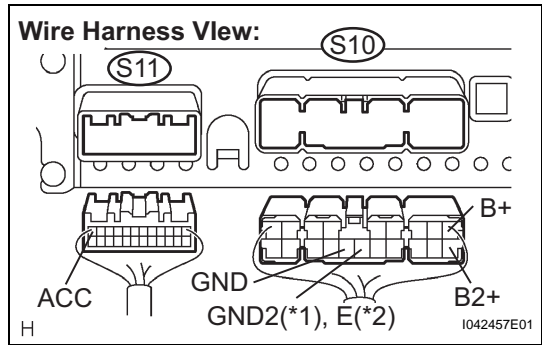
### WIRING DIAGRAM





1

INSPECT STEREO COMPONENT AMPLIFIER ASSEMBLY



- (a) Disconnect the stereo component amplifier assembly S10 and S11 connectors.
- (b) Measure the resistance according to the values in the table below.

Resistance

Tester connection	Condition	Specified condition
GND (S10-16) - Body ground	Always	Below 1 Ω
GND2 ( *1), E ( *2) (S10-15) - Body ground	Always	Below 1 Ω

HINT:

- \*1: Coupe
- \*2: Convertible

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

Voltage

Tester connection	Condition	Specified condition
B+ (S10-1) - GND (S10-16)	Always	10 to 14 V
B2+ (S10-10) - GND (S10-16)	Always	10 to 14 V
ACC (S11-12) - GND (S10-16)	Ignition SW ACC	10 to 14 V

OK

REPAIR OR REPLACE HARNESS OR CONNECTOR (STEREO COMPONENT AMPLIFIER - BATTERY OR BODY GROUND)

OK

PROCEED TO NEXT CIRCUIT INSPECTION SHOWN ON PROBLEM SYMPTOMS TABEL

## DIAGNOSIS DISPLAY DETAILED DESCRIPTION

Terms	Meaning
Physical address	Three-digit code (shown in hexadecimal) which is given to each component comprising the AVC-LAN. Corresponding to the function, individual symbols are specified.
Logical address	Two-digit code (shown in hexadecimal) which is given to each function comprising the inner system of the AVC-LAN.

### HINT:

Titles for each unit are stated in the following order: physical address (parts name).

#### 1. 190 (RADIO RECEIVER ASSEMBLY)

(a) Logical address: 01 (Communication control)

DTC	Diagnosis item	Diagnosis content	Countermeasure
D6 *1	Absence of Master	Component in which this code is recorded was disconnected from system or master component with ignition switch in ACC or ON.	<ul style="list-style-type: none"> <li>Check harness for power supply system of radio receiver assembly.</li> <li>Check harness for communication system of radio receiver assembly.</li> </ul>
D8 *2	No Response to Connection Check	Component shown by sub code is or was disconnected from system after engine start.	<ul style="list-style-type: none"> <li>Check harness for power supply system of component shown by sub code.</li> <li>Check harness for communication system of component shown by sub code.</li> </ul>
D9 *1	Last Mode Error	Audio or visual component operated before engine stop is or was disconnected with ignition switch in ACC or ON.	<ul style="list-style-type: none"> <li>Check harness for power supply system of component shown by sub code.</li> <li>Check harness for communication system of component shown by sub code.</li> </ul>
DA	No Response to ON/OFF Instruction	No response is identified when changing mode (audio and visual mode change). Sound and picture do not change by button operation.	<ul style="list-style-type: none"> <li>Check harness for power supply system of component shown by sub code.</li> <li>Check harness for communication system of component shown by sub code.</li> <li>If error occurs again, replace component shown by sub code.</li> </ul>
DB *1	Mode Status Error	Dual alarm is detected.	<ul style="list-style-type: none"> <li>Check harness for power supply system of component shown by sub code.</li> <li>Check harness for communication system of component shown by sub code.</li> </ul>
DC *3	Transmission Error	Transmission to component shown by sub code has failed. (Detecting this DTC does not necessarily mean actual failure.)	If same sub code is recorded in other component, check harness for power supply and communication systems of all components shown by code. (If not, delete DTC and recheck.)
DD *4	Master Reset (Momentary Interruption)	After the engine was started, master component was disconnected from system.	<ul style="list-style-type: none"> <li>Check harness for power supply system of radio receiver assembly.</li> <li>Check harness for communication system of radio receiver assembly.</li> <li>If this error occurs frequently, replace radio receiver assembly.</li> </ul>
DE *4	Slave Reset (Momentary Interruption)	After the engine was started, component shown by sub code was disconnected from system.	<ul style="list-style-type: none"> <li>Check harness for power supply system of component shown by sub code.</li> <li>Check harness for communication system of component shown by sub code.</li> </ul>

DTC	Diagnosis item	Diagnosis content	Countermeasure
DF *4	Master Error	Due to defective condition of component with a display, master function is switched to audio equipment.	<ul style="list-style-type: none"> <li>Check harness for power supply system of radio receiver assembly.</li> <li>Check harness for communication system of radio receiver assembly.</li> </ul>

Logical address: 01 (Communication control)  
continued

DTC	Diagnosis item	Diagnosis content	Countermeasure
E0 *1	Registration Completion Instruction Error	"Registration Completion Instruction" command from master cannot be received.	Since this DTC is provided for engineering purposes, it may be detected when no actual failure exists.
E2	ON/OFF Instruction Parameter Error	Error occurs in ON/OFF controlling command from master component.	Replace radio receiver assembly.
E3 *1	Registration Request Transmission	Registration Request command is output from component shown by sub code. Receiving Connection Check Instruction, Registration Request command is output from sub-master component.	Since this DTC is provided for engineering purposes, it may be detected when no actual failure exists.
E4 *1	Multiple Frame Abort	Multiple frame transmission is aborted.	Since this DTC is provided for engineering purposes, it may be detected when no actual failure exists.

**HINT:**

- \*1: This code may be recorded depending on the battery condition or engine start voltage even if no failure is detected.
- \*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 ignition key is turned to the START position again with the engine running.
- \*4: This code may be stored if the ignition key is held in the START position for one minute or more before returning to the ON position.

(b) Logical address: 61 (Cassette switch)

DTC	Diagnosis item	Diagnosis content	Countermeasure
40	Mechanical Error of Media	Malfunction due to mechanical failure is identified. Either that, or cassette tape is cut or entangled.	<ul style="list-style-type: none"> <li>Inspect cassette tape.</li> <li>Replace radio receiver assembly.</li> </ul>

(c) Logical address: 62 (CD player)

DTC	Diagnosis item	Diagnosis content	Countermeasure
42	No Disc Readout	Disc cannot be read.	<ul style="list-style-type: none"> <li>Inspect CD.</li> <li>Replace radio receiver assembly.</li> </ul>
44	CD player Error	Error is detected in CD player.	Replace radio receiver assembly.
47	Detection of high temperature	High temperature is detected in CD player.	With ignition switch off, leave vehicle in cool shaded place for a while and recheck. After deleting the DTC memory, if same code is detected, replace radio receiver assembly.
48	Detection of excess current	Over current is present in CD player.	Replace radio receiver assembly.

(d) Logical address: 63 (In-dash CD changer)

DTC	Diagnosis item	Diagnosis content	Countermeasure
42	No Disc Readout	Disc cannot be read.	<ul style="list-style-type: none"> <li>Inspect CD.</li> <li>Replace radio receiver assembly.</li> </ul>

DTC	Diagnosis item	Diagnosis content	Countermeasure
44	CD player Error	Error is detected in CD player.	Replace radio receiver assembly .
47	Detection of high temperature	High temperature is detected in CDCH.	With ignition switch off, leave vehicle in cool shaded place for a while and recheck. After deleting the DTC memory, if the same code is detected, replace radio receiver assembly.
48	Detection of excess current	Over current is present in CDCH.	Replace radio receiver assembly.

## 2. 440 (STEREO COMPONENT AMPLIFIER ASSEMBLY)

### (a) Logical address: 01 (Communication control)

DTC	Diagnosis item	Diagnosis content	Countermeasure
D6 *1	Absence of Master	Component in which this code is recorded was disconnected from system with ignition switch in ACC or ON. Either that, or radio receiver assembly was disconnected when this code was recorded.	<ul style="list-style-type: none"> <li>Check harness for power supply system of radio receiver assembly.</li> <li>Check harness for communication system of radio receiver assembly.</li> <li>Check harness for power supply system of stereo component amplifier assembly.</li> <li>Check harness for communication system of stereo component amplifier assembly.</li> </ul>
D7	Communication Check Error	Component in which this code is recorded is or was disconnected from system after engine start. Either that, or radio receiver assembly was disconnected when this code was recorded.	<ul style="list-style-type: none"> <li>Check harness for power supply system of radio receiver assembly.</li> <li>Check harness for communication system of radio receiver assembly.</li> <li>Check harness for power supply system of stereo component amplifier assembly.</li> <li>Check harness for communication system of stereo component amplifier assembly.</li> </ul>
DC *2	Transmission Error	Transmission to component shown by auxiliary code failed. (Detecting this DTC does not necessarily mean actual failure.)	If same auxiliary code is recorded in other components, check harness for power supply and communication systems of all components shown by code.
DD *3	Master Reset (Momentary Interruption)	After engine was started, radio receiver assembly was disconnected from system.	<ul style="list-style-type: none"> <li>Check harness for power supply system of radio receiver assembly.</li> <li>Check harness for communication system of radio receiver assembly.</li> <li>Check harness for power supply system of stereo component amplifier assembly.</li> <li>Check harness for communication system of stereo component amplifier assembly.</li> <li>If this error occurs frequently, replace radio receiver assembly.</li> </ul>

### Logical address: 01 (Communication control) continued

DTC	Diagnosis item	Diagnosis content	Countermeasure
DF *4	Master Error	Due to defective condition of component with a display, master function is switched to audio equipment. Error occurs in communication between sub-master (audio) and master component.	<ul style="list-style-type: none"> <li>Check harness for power supply system of radio receiver assembly.</li> <li>Check harness for communication system of radio receiver assembly.</li> <li>Check harness for communication system between radio receiver assembly and sub-master component.</li> </ul>
E0 *1	Registration Completion Instruction Error	"Registration Completion Instruction" command from master cannot be received.	Since this DTC is provided for engineering purposes, it may be detected when no actual failure exists.

DTC	Diagnosis item	Diagnosis content	Countermeasure
E1 *1	Audio processor ON error	While source equipment is operating, AMP output stops.	<ul style="list-style-type: none"> <li>• Check harness for power supply system of radio receiver assembly.</li> <li>• Check harness for communication system of radio receiver assembly.</li> </ul>
E2	ON/OFF Instruction Parameter Error	Error occurs in ON/OFF controlling command from radio receiver assembly.	Replace radio receiver assembly.
E3 *1	Registration Request Transmission	Registration Request command is output from slave component.	Since this DTC is provided for engineering purposes, it may be detected when no actual failure exists.

**HINT:**

- \*1: This code may be recorded depending on the battery condition or engine start voltage even if no failure is detected.
- \*2: This code may be stored if the ignition key is turned to the START position again with the engine running.
- \*3: This code may be stored if the ignition key is held in the START position for one minute or more before returning to the ON position.
- \*4: If the device is reported as not existing during verification, check the power source circuit and AVC-LAN circuit for the device.

## PROBLEM SYMPTOMS TABLE

### HINT:

Inspect the "Fuse" and "Relay" before confirming the suspected area as shown in the table below.

### RADIO RECEIVER ASSEMBLY

Symptom	Suspected area	See page
Pressing power switch does not start system.	1. Power source circuit (radio receiver assembly)	<a href="#">AV-73</a>
	2. Radio receiver assembly	<a href="#">AV-83</a>
A audio system cannot be operated.	1. Steering pad switch circuit	<a href="#">AV-45</a>
	2. Radio receiver assembly	<a href="#">AV-83</a>
No sound can be heard (Separate type amplifier).	1. Power source circuit (stereo component amplifier assembly)	<a href="#">AV-76</a>
	2. AMP sound signal circuit	<a href="#">AV-65</a>
	3. Speaker circuit	<a href="#">AV-55</a>
	4. AVC-LAN circuit	<a href="#">AV-69</a>
	5. AMP mute signal circuit	<a href="#">AV-63</a>
	6. Stereo component amplifier assembly	<a href="#">AV-85</a>
	7. Radio receiver assembly	<a href="#">AV-83</a>
No sound can be heard (Built-in type amplifier).	1. Power source circuit (radio receiver assembly)	<a href="#">AV-73</a>
	2. Speaker circuit	<a href="#">AV-55</a>
	3. Radio receiver assembly	<a href="#">AV-83</a>
Sound quality is bad in all modes (volume is too low). (Separate type amplifier)	1. Power source circuit (radio receiver assembly)	<a href="#">AV-73</a>
	2. Power source circuit (stereo component amplifier assembly)	<a href="#">AV-76</a>
	3. Speaker circuit	<a href="#">AV-55</a>
	4. AMP sound signal circuit	<a href="#">AV-65</a>
	5. Sound quality is bad in all modes (volume is too low)	<a href="#">AV-31</a>
Sound quality is bad in all modes (volume is too low). (Built-in type amplifier)	1. Power source circuit (radio receiver assembly)	<a href="#">AV-73</a>
	2. Speaker circuit	<a href="#">AV-55</a>
	3. Sound quality is bad in all modes (volume is too low)	<a href="#">AV-31</a>
Noise occurs.	-	<a href="#">AV-30</a>
Radio broadcast cannot be received (bad reception).	-	<a href="#">AV-40</a>
CD cannot be inserted or is ejected right after insertion.	1. Power source circuit (radio receiver assembly)	<a href="#">AV-73</a>
	2. CD cannot be inserted or is ejected right after insertion	<a href="#">AV-36</a>
CD cannot be ejected.	1. Power source circuit (radio receiver assembly)	<a href="#">AV-73</a>
	2. CD cannot be inserted or is ejected right after insertion	<a href="#">AV-36</a>
Sound quality is bad only when playing CD (volume is too low).	-	<a href="#">AV-32</a>
CD sound skips.	-	<a href="#">AV-38</a>
Cassette tape cannot be inserted or played.	1. Power source circuit (radio receiver assembly)	<a href="#">AV-73</a>
	2. Cassette tape cannot be inserted or played	<a href="#">AV-34</a>
Cassette tape cannot be ejected.	1. Power source circuit (radio receiver assembly)	<a href="#">AV-73</a>
	2. Cassette tape cannot be ejected	<a href="#">AV-33</a>
Sound quality is bad only when playing tape.	-	<a href="#">AV-43</a>
Tape is tangled due to incorrect tape speed or auto-reverse malfunction.	-	<a href="#">AV-44</a>
Automatic sound characteristic function does not operate normally.	1. Convertible top open/close signal circuit	<a href="#">AV-71</a>

### STEERING PAD SWITCH

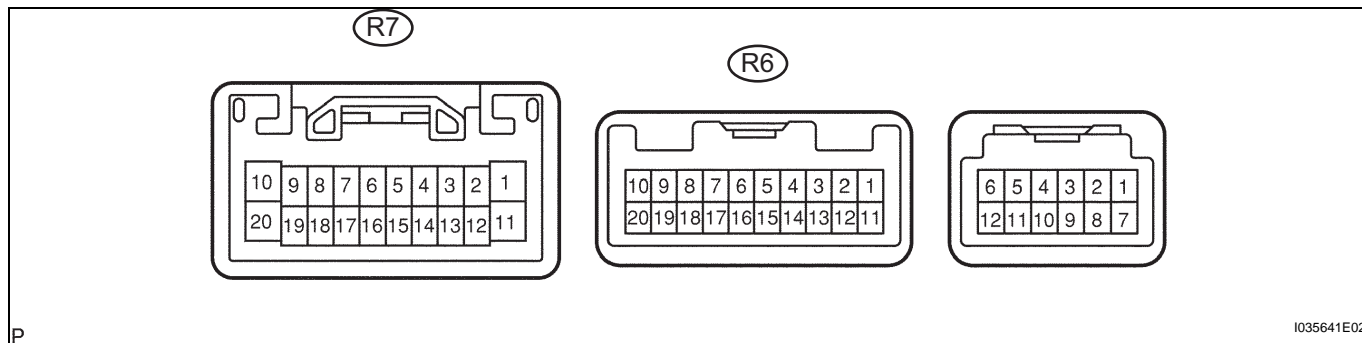
Symptom	Suspected area	See page
A audio system cannot be operated with steering pad switch.	1. Steering pad switch circuit	<a href="#">AV-45</a>
	2. Radio receiver assembly	<a href="#">AV-83</a>

**OTHERS**

Symptom	Suspected area	See page
Radio receiver cannot be dimmed in night time.	1. Illumination circuit	<a href="#">AV-50</a>
	2. Radio receiver assembly	<a href="#">AV-83</a>

## TERMINALS OF ECU

### 1. RADIO RECEIVER ASSEMBLY (SEPARATE TYPE AMPLIFIER)



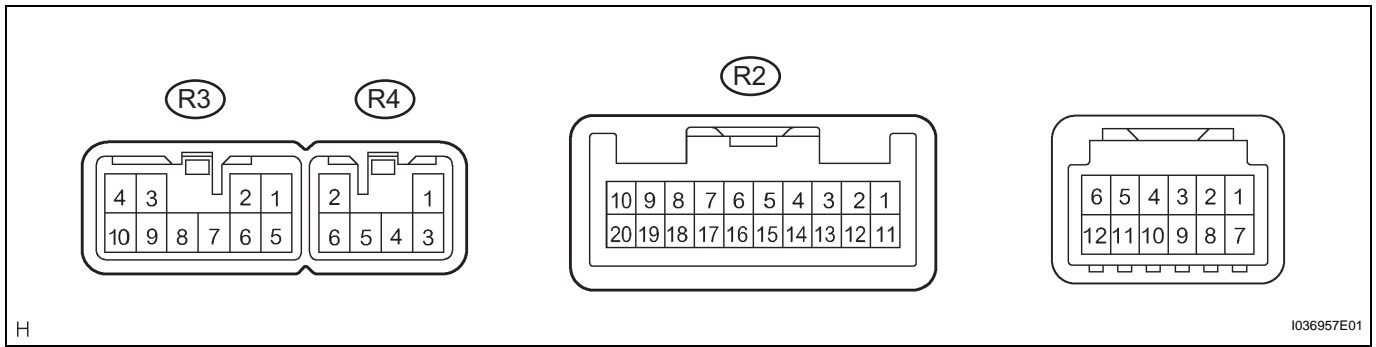
Symbols (Terminal No.)	Wiring Color	Terminal Description	Condition	Specification
B (R7-1) - GND (R7-20)	L-Y - BR	Battery	Always	10 to 14 V
ILL+ (R7-2) - GND (R7-20)	G - BR	Illumination (rheostat) signal	Light control switch OFF → TAIL or HEAD	Below 1 V → 10 to 14 V
TX+ (R7-5) - GND (R7-20)	B (*1), R (*2) - BR	AVC-LAN communication signal	Turn ignition switch to ACC	2 to 3 V
MUTE (R7-7) - GND (R7-20)	BR-B (*1), L (*2) - BR	MUTE signal	Audio system is playing → changing	Above 3.5 V → Below 1 V
R+ (R7-8) - GND (R7-20)	W (*1), B (*2) - BR	Sound signal (Right)	Audio system is playing	A waveform synchronized with sounds is output
L+ (R7-9) - GND (R7-20)	G - BR	Sound signal (Left)	Audio system is playing	A waveform synchronized with sounds is output
SLD (R7-10) - Body ground	Shielded - Body ground	Shield ground	Always	Below 1 Ω
ACC (R7-11) - GND (R7-20)	GR (*1), G-R (*2) - BR	Accessory (ON)	Turn ignition switch OFF → ACC	10 to 14 V
ILL- (R7-12) - GND (R7-20)	W-G - BR	Illumination (rheostat) signal	Light control switch TAIL	Below 1 V → 10 to 14 V
ANT+B (R7-13) - GND (R7-20)	B-R - BR	Power source of antenna	Radio switch ON and AM or FM	10 to 14 V
TX- (R7-15) - GND (R7-20)	Y (*1), W (*2) - BR	AVC-LAN communication signal	Turn ignition switch to ACC	2 to 3 V
R- (R7-18) - GND (R7-20)	B (*1), W (*2) - BR	Sound signal (Right)	Audio system is playing	A waveform synchronized with sounds is output
L- (R7-19) - GND (R7-20)	R - BR	Sound signal (Left)	Audio system is playing	A waveform synchronized with sounds is output
GND (R7-20) - Body ground	BR - Body ground	Ground	Always	Below 1 V
GND (R6-6) - GND (R7-20)	Y (*1), P-L (*2) - BR	Steering pad switch ground	Always	Below 1 V
SW1 (R6-7) - GND (R7-20)	LG-B (*1), P-G (*2) - BR	Steering pad switch signal	Steering pad switch not operated → SEEK+ switch pushed → SEEK- switch pushed → VOL+ switch pushed → VOL- switch pushed	4 V or more → Approx. 0.5 V → Approx. 0.9 V → Approx. 2.0 V → Approx. 3.4 V
SW2 (R6-8) - GND (R7-20)	L (*1), P-B (*2) - BR	Steering pad switch signal	Steering pad switch not operated → MODE switch pushed	4 V or more → Below 2.5 V

#### HINT:

- \*1: Coupe
- \*2: Convertible



## 2. RADIO RECEIVER ASSEMBLY (BUILT-IN TYPE AMPLIFIER)



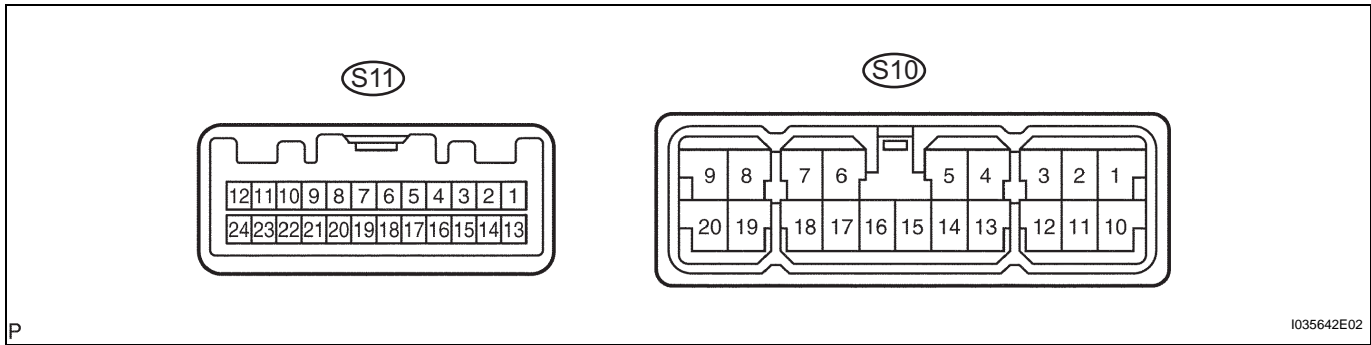
Symbols (Terminal No.)	Wiring Color	Terminal Description	Condition	Specification
GND (R2-6) - Body ground	Y (*1), P-L (*2) - Body ground	Steering pad switch ground	Always	Below 1 V
SW1 (R2-7) - GND (R3-7)	LG-B (*1), P-G (*2) - BR	Steering pad switch signal	Steering pad switch not operated → SEEK+ switch pushed → SEEK- switch pushed → VOL+ switch pushed → VOL- switch pushed	4 V or more → Approx. 0.5 V → Approx. 0.9 V → Approx. 2.0 V → Approx. 3.4 V
SW2 (R2-8) - GND (R3-7)	L (*1), P-B (*2) - BR	Steering pad switch signal	Steering pad switch not operated → MODE switch pushed	4 V or more → Approx. 2.5 V
FR+ (R3-1) - GND (R3-7)	LG - BR	Sound signal (Front Right)	Audio system is playing	A waveform synchronized with sounds is output
FL+ (R3-2) - GND (R3-7)	P - BR	Sound signal (Front Left)	Audio system is playing	A waveform synchronized with sounds is output
ACC (R3-3) - GND (R3-7)	GR (*1), G-R (*2) - BR	Accessory (ON)	Turn ignition switch OFF → ACC	Below 1 V → 10 to 14 V
+B (R3-4) - GND (R3-7)	L-Y - BR	Battery	Always	10 to 14 V
FR- (R3-5) - GND (R3-7)	L - BR	Sound signal (Front Right)	Audio system is playing	A waveform synchronized with sounds is output
FL- (R3-6) - GND (R3-7)	V - BR	Sound signal (Front Left)	Audio system is playing	A waveform synchronized with sounds is output
GND (R3-7) - Body ground	BR - Body ground	Ground	Always	Below 1 V
ANT+ (R3-8) - GND (R3-7)	B-R - BR	Power source of antenna	Radio switch ON and AM or FM	10 to 14 V
ILL+ (R3-10) - GND (R3-7)	G - BR	Illumination (rheostat) signal	Light control switch OFF → TAIL or HEAD	Below 1 V → 10 to 14 V
RR+ (R4-1) - GND (R3-7)	R - BR	Sound signal (Rear Right)	Audio system is playing	A waveform synchronized with sounds is output
RL+ (R4-2) - GND (R3-7)	B - BR	Sound signal (Rear Left)	Audio system is playing	A waveform synchronized with sounds is output
RR- (R4-3) - GND (R3-7)	W - BR	Sound signal (Rear Right)	Audio system is playing	A waveform synchronized with sounds is output
ILL- (R4-5) - GND (R3-7)	W-G - BR	Illumination (rheostat) signal	Light control switch OFF → TAIL or HEAD	Below 1 V → 10 to 14 V
RL- (R4-6) - GND (R3-7)	Y - BR	Sound signal (Rear Left)	Audio system is playing	A waveform synchronized with sounds is output

### HINT:

- \*1: Coupe

- \*2: Convertible

### 3. STEREO COMPONENT AMPLIFIER ASSEMBLY



P

I035642E02

Terminal No. (Symbols)	Wiring Color	Terminal Description	Condition	Specification
B+ (S10-1) - GND (S10-16)	L-R (*1), L-Y (*2) - BR	Battery	Always	10 to 14 V
TWL+ (S10-2) (*1) - GND (S10-16)	G (*1) - BR	Sound signal (Front Left)	Audio system is playing	A waveform synchronized with sounds is output
WF2+ (S10-2) (*3) - GND (S10-16)	G-W (*3) - BR	Sound signal (Woofer Box)	Audio system is playing	A waveform synchronized with sounds is output
TWR+ (S10-3) (*1) - GND (S10-16)	L-B (*1) - BR	Sound signal (Front Right)	Audio system is playing	A waveform synchronized with sounds is output
WF1+ (S10-3) (*3) - GND (S10-16)	L-R (*3) - BR	Sound signal (Woofer Box)	Audio system is playing	A waveform synchronized with sounds is output
RL+ (S10-4) - GND (S10-16)	B - BR	Sound signal (Rear Left)	Audio system is playing	A waveform synchronized with sounds is output
RR+ (S10-5) - GND (S10-16)	R - BR	Sound signal (Rear Right)	Audio system is playing	A waveform synchronized with sounds is output
FL+ (S10-6) - GND (S10-16)	P - BR	Sound signal (Front Left)	Audio system is playing	A waveform synchronized with sounds is output
FR+ (S10-7) - GND (S10-16)	LG - BR	Sound signal (Front Right)	Audio system is playing	A waveform synchronized with sounds is output
B2+ (S10-10) - GND (S10-16)	L-R (*1), L-Y (*2) - BR	Battery	Always	10 to 14 V
TWL- (S10-11) (*1) - GND (S10-16)	G-B (*1) - BR	Sound signal (Front Left)	Audio system is playing	A waveform synchronized with sounds is output
WF2- (S10-11) (*3) - GND (S10-16)	BR (*3) - BR	Sound signal (Woofer Box)	Audio system is playing	A waveform synchronized with sounds is output
TWR- (S10-12) (*1) - GND (S10-16)	L-R (*1) - BR	Sound signal (Front Right)	Audio system is playing	A waveform synchronized with sounds is output
WF1- (S10-12) (*3) - GND (S10-16)	L-B (*3) - BR	Sound signal (Woofer Box)	Audio system is playing	A waveform synchronized with sounds is output
RL- (S10-13) - GND (S10-16)	Y - BR	Sound signal (Rear Left)	Audio system is playing	A waveform synchronized with sounds is output
RR- (S10-14) - GND (S10-16)	W - BR	Sound signal (Rear Right)	Audio system is playing	A waveform synchronized with sounds is output

Terminal No. (Symbols)	Wiring Color	Terminal Description	Condition	Specification
GND2 (S10-15) (*1) - Body ground	BR - Body ground	Ground	Always	Below 1 V
E (S10-15) (*2) - Body ground	BR - Body ground	Ground	Always	Below 1 V
GND (S10-16) - Body ground	BR - Body ground	Ground	Always	Below 1 V
FL- (S10-17) - GND (S10-16)	V - BR	Sound signal (Front Left)	Audio system is playing	A waveform synchronized with sounds is output
FR- (S10-18) - GND (S10-16)	L - BR	Sound signal (Front Right)	Audio system is playing	A waveform synchronized with sounds is output
MUTE (S11-1) - GND (S10-16)	BR-B (*1), L (*2) - BR	Mute signal from radio receiver	Audio system is changing	Above 3.5 V → Below 3.5 V
L- (S11-2) - GND (S10-16)	R - BR	Sound signal from radio receiver (Left)	Audio system is playing	A waveform synchronized with sounds is output
L+ (S11-3) - GND (S10-16)	G - BR	Sound signal from radio receiver (Left)	Audio system is playing	A waveform synchronized with sounds is output
R- (S11-4) - GND (S10-16)	B (*1), W (*2) - BR	Sound signal from radio receiver (Right)	Audio system is playing	A waveform synchronized with sounds is output
R+ (S11-5) - GND (S10-16)	W (*1), B (*2) - BR	Sound signal from radio receiver (Right)	Audio system is playing	A waveform synchronized with sounds is output
TX- (S11-7) (*1) - GND (S10-16)	Y (*1) - BR	AVC-LAN communication signal	Turn ignition switch to ACC	2 to 3 V
TX+ (S11-8) (*1) - GND (S10-16)	B (*1) - BR	AVC-LAN communication signal	Turn ignition switch to ACC	2 to 3 V
TSSW (S11-9) (*2) - GND (S10-16)	L-W (*2) - BR	Convertible top open/close signal	Convertible top is open	Below 1 V
ACC (S11-12) - GND (S10-16)	GR (*1), G-R (*2) - BR	Accessory (ON)	Turn ignition switch OFF → ACC	Below 1 V → 10 to 14 V
TX- (S11-19) (*2) - GND (S10-16)	W (*2) - BR	AVC-LAN communication signal	Turn ignition switch to ACC	2 to 3 V
TX+ (S11-20) (*2) - GND (S10-16)	R (*2) - BR	AVC-LAN communication signal	Turn ignition switch to ACC	2 to 3 V

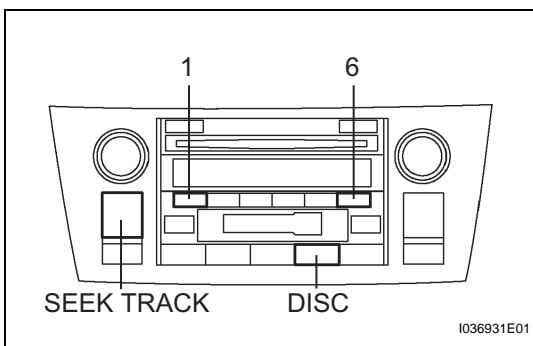
## HINT:

- \*1: Coupe
- \*2: Convertible
- \*3: Convertible (w/ Woofer box speaker assembly No.1)

## DTC CHECK / CLEAR

## 1. DIAGNOSTIC CHECK

- Starting Diagnostic Mode (All elements come on during the SW check mode).
  - Turn off the audio system and turn the ignition switch to the ACC position. While pressing the preset switches "1" and "6" at the same time, press the "DISC" 3 times.
  - Reference:
    - When the system enters the Diagnostic Mode, a beep sound is emitted 3 times and all the elements come on during the SW check mode.



- It takes about 40 seconds to complete the check.
- Turn all the elements in the LCD on.
- When pressing the switch, confirm a beep sound is emitted.

(b) Service Check Screen.

- (1) Press the "SEEK TRACK" switch to enter the "Service Check Screen".
- (2) In the service check mode, the system check and the diagnostic memory check are performed, and the check results are displayed in ascending order of the component codes (physical address.)

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

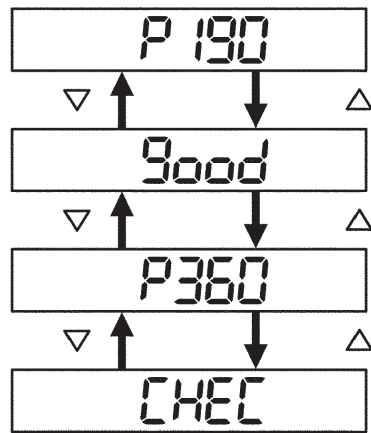
**Code No. (physical address) List**

Code No. (physical address)	Equipment name
190	Radio receiver assembly (Audio head unit).
440	Stereo component amplifier assembly

(c) Finishing Diagnostic Mode.

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

- (d) Service Check Mode Result Display (for checking the current and the past system conditions).
- (1) Press the "SEEK TRACK" switch to see the check result of each component.



P: indicates physical address

190: physical address

good: "The component is normal".

P: indicates physical address

360: physical address

CHEC: "Check needed".

△ : SEEK TRACK UP

▽ : SEEK TRACK DOWN

I034696E02

#### HINT:

- The illustration shows the case that the system has 2 components with codes 190 and 360, and one component (code 360 ) requires a check.
- The check result is displayed in ascending order of component code. The component device code is displayed first, and then the check result follows.

- (2) 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".	-

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

- (3) To perform the Service Check again, press the preset switch "1".
- (e) Detailed Information Mode (when displaying the DTC for a troubled component)
  - (1) With "CHEC" or "ECHN" being displayed, press the preset switch "2" to go to the detailed information mode.

- (2) Press the "SEEK TRACK" switch to display the "System Check Result (SYS)" and "Diagnostic Memory Response (CODE)".

Service Check Mode

PRESET SWITCH "3"

PRESET SWITCH "2"

Detailed Information Mode

\*1

Detailed information  
of the first code is  
displayed

Detailed information  
of the second code is  
displayed

Continue to display detail information when more than one DTC are detected.

Continue to display detailed information when more than one DTC are detected.

△ : SEEK TRACK UP

▽ : SEEK TRACK DOWN

From \*1

To \*1

P: indicates physical address

190: physical address

SYS: system check result

1: the first code

62: logical address

47: DTC

CODE: diagnostic  
memory response result

2: the second code

01: logical address

DC: DTC

P: indicates physical address

360: sub address

\*2

6F: connection check number

05: the number of times  
of occurrence (in decimal)



**HINT:**

- The illustration shows the case that the component with code 190 has DTC "47" and "dC" as a result of the system check and the diagnostic memory response.
- The detailed information mode shows the system check result first, then the diagnostic memory response result follows. (\*2): As for the DTCs that do not have any sub code, sub code is not displayed.

**(3) Displayed Items in Detailed Information Mode**

Division Code for DTC display	Meaning	The order of detailed information displayed when the "TUNE UP" switch is pressed. (The order is reversed when the "TUNE DOWN" switch is pressed.)
SYS	System check result is displayed.	Logical address → DTC
CODE	Diagnostic memory check result is displayed.	Logical address → DTC → Sub code → Connection confirmation number → The number of times of occurrence

(4) Check the trouble area referring to the DTC list.

(5) To return to the service check mode, press the preset switch "3".

**2. DTC CLEAR**

(a) Clearing individual DTC memory (when clearing the memory of the DTC detected in the past individually)

(1) Press the preset switch "5" for 2 seconds or more while the "ECHN" is displayed in the service check mode or during the detailed information mode.

**HINT:**

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

(b) Clearing of all the DTC memory (when clearing all the memory of the DTCs detected in the past)

(1) Start the diagnostic mode after repairing the trouble area.

(2) Press the preset switch "5" for 2 seconds or more ("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.

(3) 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).

- (c) Finishing Diagnostic Mode.
  - (1) Press the "DISC" for 2 seconds or more, or turn the ignition switch off.

## Noise Occurs

### 1 CHECK SPEAKER INSTALLATION

- (a) Check the speaker installation condition.  
 (1) Check that each speaker is securely installed.

**OK:**

**Malfunction disappears.**

**HINT:**

The radio is equipped with a noise prevention system that blocks excessively loud noise. If such noise occurs, check that all wiring is proper and that the antenna installation part ground and noise-prevention equipment are installed.

Conditions under which noise occurs	Noise type
Noise increases when the accelerator pedal is depressed, but stops when the engine is stopped.	Generator noise
Noise occurs during A/C or heater operation.	Blower motor noise
Noise occurs when the vehicle accelerates rapidly on an unpaved road or after the ignition switch is turned on.	Fuel pump noise
Noise occurs when the horn switch is pressed and released or when pressed and held.	Horn noise
Quiet noise occurs while the engine is running, but stops when the engine is stopped.	Ignition noise
Noise occurs synchronously with the blink of the turn signal.	Flasher noise
Noise occurs during window washer operation.	Washer noise
Noise occurs while the engine is running, and continues even after the engine is stopped.	Water temperature sensor noise
Noise occurs during wiper operation.	Wiper noise
Noise occurs when the brake pedal is depressed.	Stop light switch noise
Others	Static electricity stored on the vehicle

**HINT:**

- Identify the conditions under which the noise occurs, and check the noise filter on the relevant part.
- First ensure that the noise is not coming from the outside. Failure to do so makes noise source detection difficult and may lead to a misdiagnosis.
- Noise should be removed in descending order of loudness.

**NG**

**INSTALL IT PROPERLY**

**OK**

### IDENTIFICATION OF NOISE SOURCE

**AV**

**Sound Quality is Bad in All Modes (Volume is Too Low)****1 ADJUST SOUND QUALITY**

(a) Adjust the sound quality.

(1) Operate the radio receiver assembly to adjust the sound quality.

**OK:**

**Malfunction disappears.**

**OK** ➤

**SYSTEM IS OK**

**NG**

**2 REPLACE STEREO COMPONENT AMPLIFIER ASSEMBLY**

**NG** ➤

**REPLACE RADIO RECEIVER ASSEMBLY**

**OK**

**SYSTEM IS OK**

**Sound Quality is Bad Only when CD is Played (Volume is Too Low)****1 REPLACE CD WITH ANOTHER AND RECHECK**

- (a) Replace the CD with another one and recheck.
- (1) Check the installation condition of the radio receiver assembly.

**OK:****Malfunction disappears.****NG****REPLACE RADIO RECEIVER ASSEMBLY****OK****CD IS FAULTY**

**Cassette Tape cannot be Ejected****1 PRESS EJECT AND CHECK OPERATION**

- (a) Press "EJECT" and check the operation.
- (1) Press the cassette tape EJECT switch of the radio receiver assembly for 2 seconds or more and check that the cassette tape is ejected.

**OK:****The cassette tape is ejected.****NG****REPLACE RADIO RECEIVER ASSEMBLY****OK****2 CHECK CASSETTE TAPE**

- (a) Check the cassette tape.
- (1) Check that the ejected cassette tape does not have a peeled label, a cassette body deformation or any other defect.

**OK:****No fault on the cassette tape.****NG****CASSETTE TAPE IS FAULTY****OK****3 REPLACE CASSETTE TAPE WITH ANOTHER AND RECHECK**

- (a) Replace the cassette tape with another and recheck.
- (1) Replace the cassette tape with another normal one to see if the same trouble occurs again.

**OK:****Malfunction disappears.****NG****REPLACE RADIO RECEIVER ASSEMBLY****OK****AV****CASSETTE TAPE IS FAULTY**

**Cassette Tape cannot be Inserted or Played****1 CHECK FOR FOREIGN OBJECTS**

- (a) Check for any foreign objects.  
(1) Check that no foreign objects or defects are detected in the cassette tape player of the radio receiver assembly.

**OK:****No foreign objects or defects are detected.****NG****REMOVE FOREIGN OBJECT****OK****2 CHECK CASSETTE TAPE**

- (a) Check the cassette tape.  
(1) Check that the cassette tape is a normal tape with music or voice recorded.

**OK:****Proper cassette tape with music or voice recorded.****NG****CASSETTE TAPE IS FAULTY****OK****3 REPLACE CASSETTE TAPE WITH ANOTHER AND RECHECK**

- (a) Replace the cassette tape with another one and recheck.  
(1) Replace the cassette tape with another normal one to see if the same trouble occurs again.

**OK:****The function returns to be normal.****NG****REPLACE RADIO RECEIVER ASSEMBLY****OK****CASSETTE TAPE IS FAULTY****AV**

**CD cannot be Ejected****1****PRESS EJECT AND CHECK OPERATION**

- (a) Press "EJECT" and check the operation.
- (1) Press the CD EJECT switch of the radio receiver assembly for 2 seconds or more to see if the CD is ejected.

**OK:****CD is ejected.****HINT:**

- If the CD is not ejected, bring the vehicle in for repair.
- Do not attempt to remove it by force.

**NG****REPLACE RADIO RECEIVER ASSEMBLY****OK****2****REPLACE CD WITH ANOTHER AND RECHECK**

- (a) Replace the CD with another and recheck.
- (1) Replace the CD with another normal one to see if the same trouble occurs again.

**OK:****Malfunction disappears.****NG****REPLACE RADIO RECEIVER ASSEMBLY****OK****CD IS FAULTY**

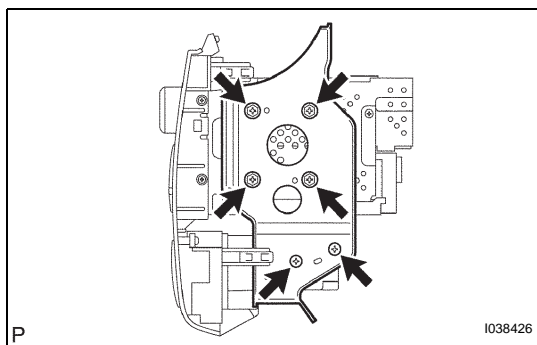
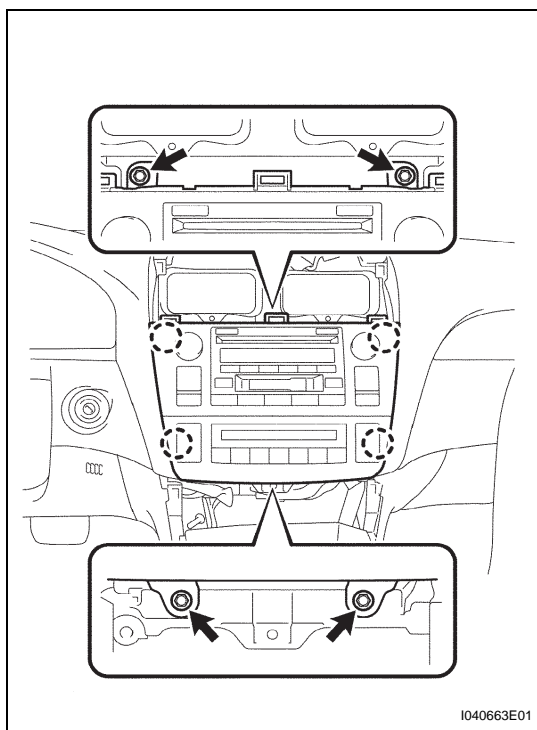


## REMOVAL

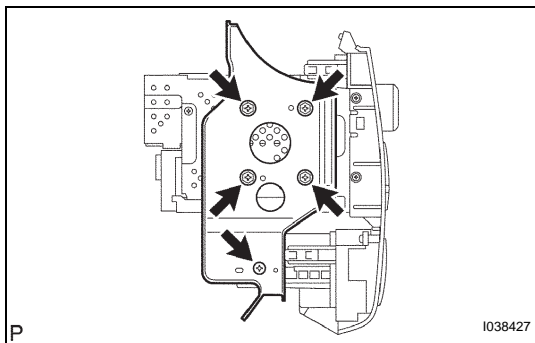
### HINT:

- COMPONENTS: See page [AV-78](#).
- Installation is in the reverse order of removal.

1. REMOVE SHIFT LEVER KNOB SUB-ASSEMBLY (See page [IP-9](#))
2. REMOVE CONSOLE UPPER REAR PANEL SUB-ASSEMBLY (See page [IP-9](#))
3. REMOVE CONSOLE PANEL SUB-ASSEMBLY UPPER (See page [IP-9](#))
4. REMOVE INSTRUMENT CLUSTER FINISH PANEL SUB-ASSEMBLY CENTER (See page [IP-10](#))
5. REMOVE CENTER CLUSTER INTEGRATION PANEL ASSEMBLY
  - (a) Remove the 4 bolts.
  - (b) Disconnect the connector.
  - (c) Disengage the 4 claws and remove the center cluster integration panel assembly.



6. REMOVE RADIO BRACKET NO.1
  - (a) Remove the 6 screws and radio bracket No.1.

**7. REMOVE RADIO BRACKET NO.2**

(a) Remove the 5 screws and radio bracket No.2.

**8. REMOVE RADIO RECEIVER ASSEMBLY**

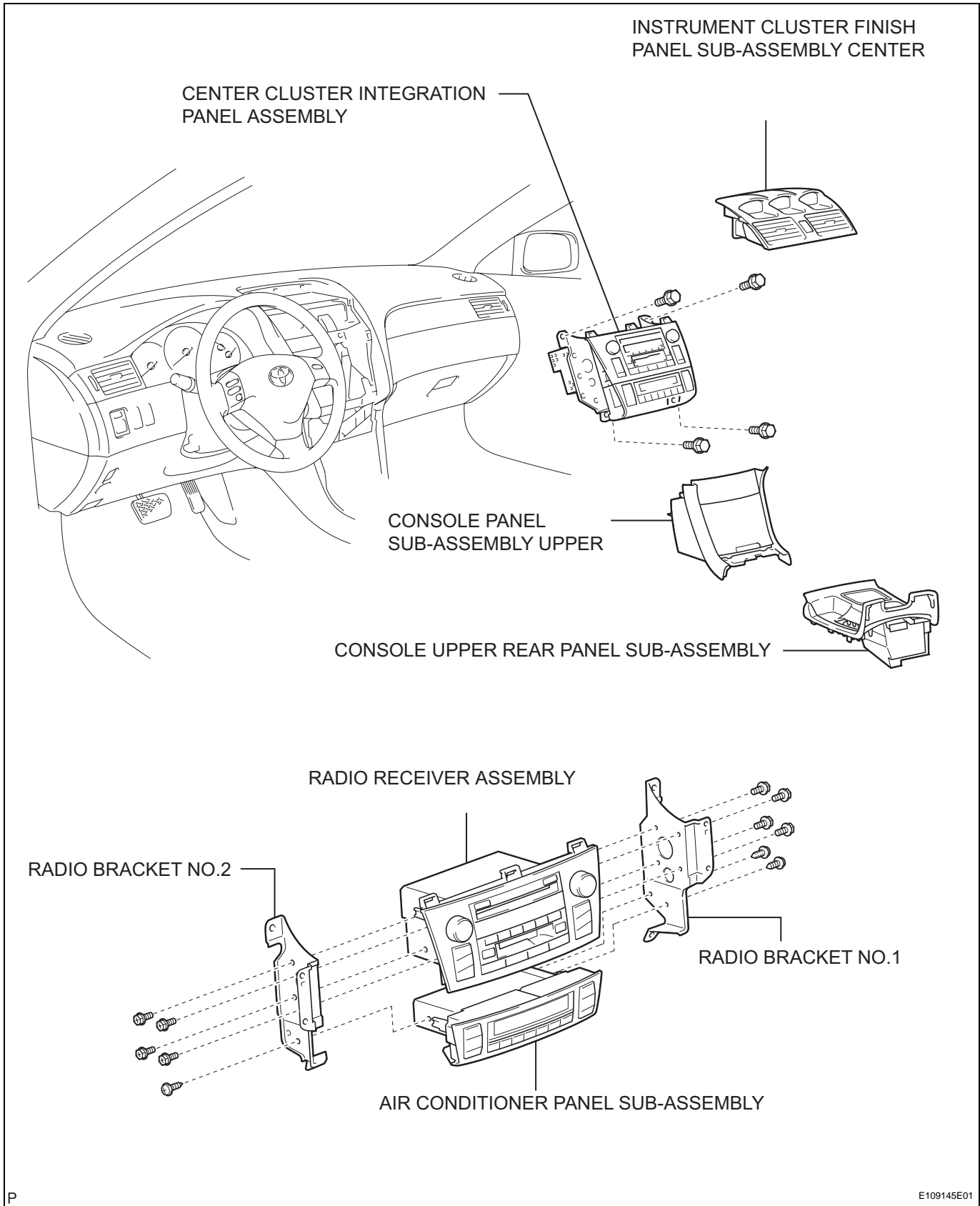
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## **INSTALLATION**

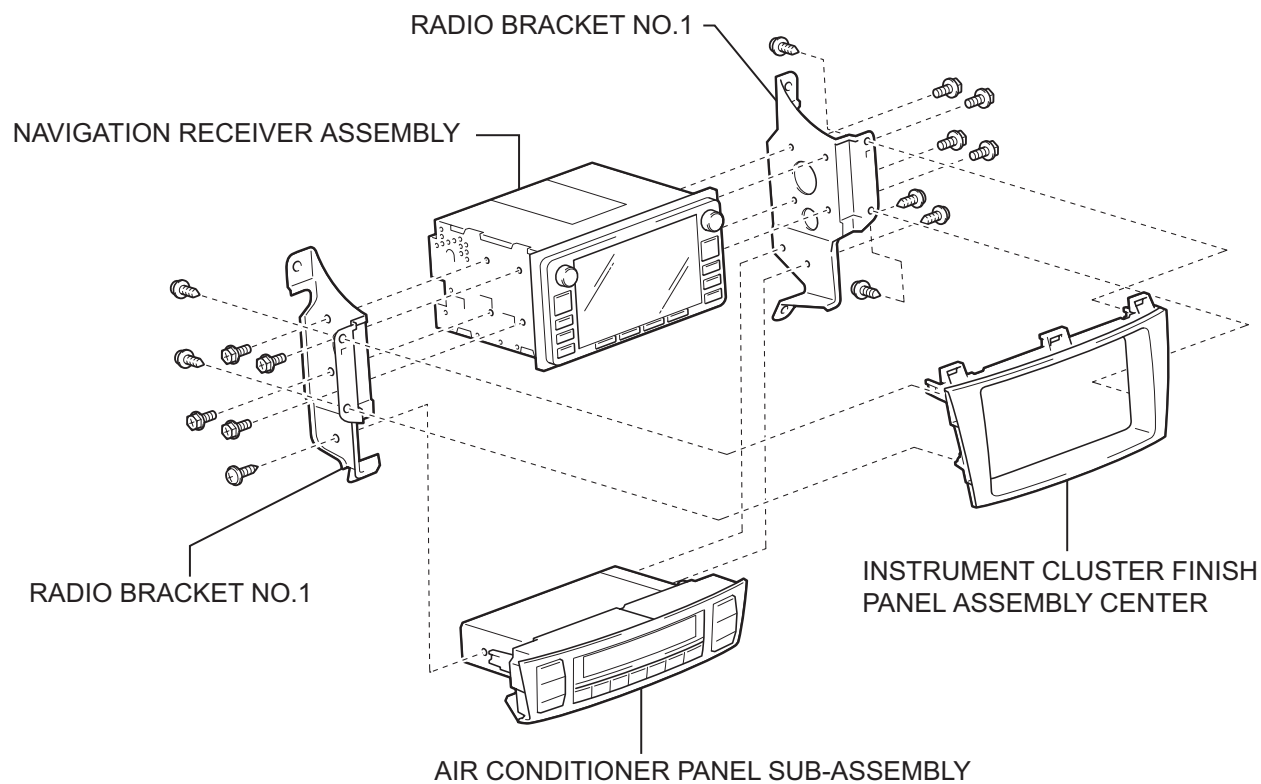
- 1. INSTALL RADIO RECEIVER ASSEMBLY**
- 2. INSTALL RADIO BRACKET NO.2**
- 3. INSTALL RADIO BRACKET NO.1**
- 4. INSTALL CENTER CLUSTER INTEGRATION PANEL ASSEMBLY**
- 5. INSTALL INSTRUMENT CLUSTER FINISH PANEL SUB-ASSEMBLY CENTER**
- 6. INSTALL CONSOLE PANEL SUB-ASSEMBLY UPPER**
- 7. INSTALL CONSOLE UPPER REAR PANEL SUB-ASSEMBLY**
- 8. INSTALL SHIFT LEVER KNOB SUB-ASSEMBLY**

# RADIO RECEIVER

## COMPONENTS



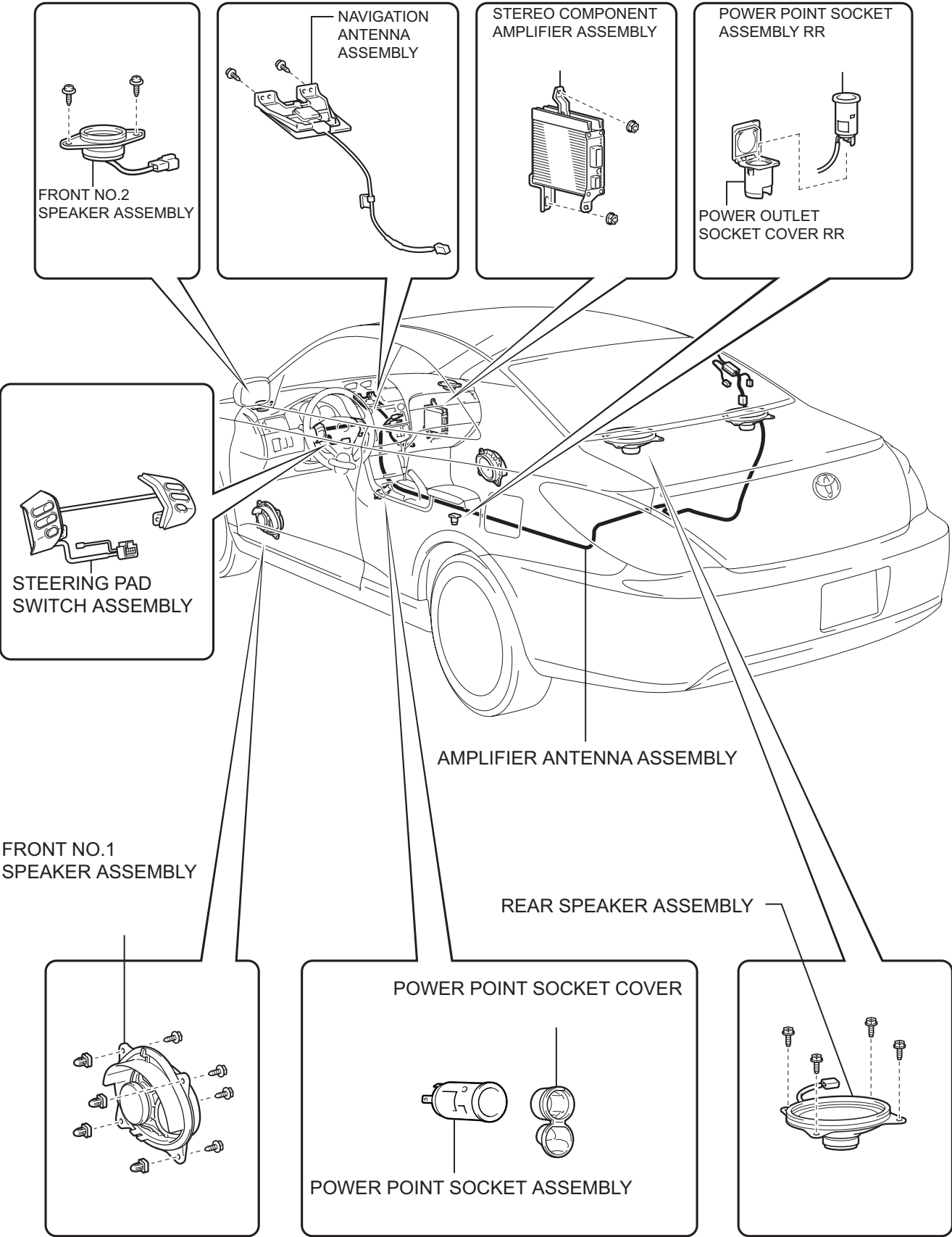
NAVIGATION SYSTEM:



P

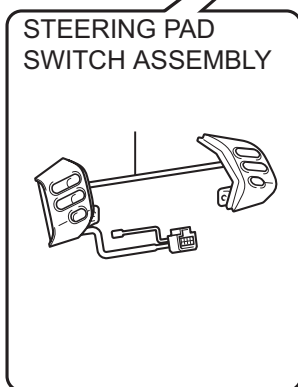
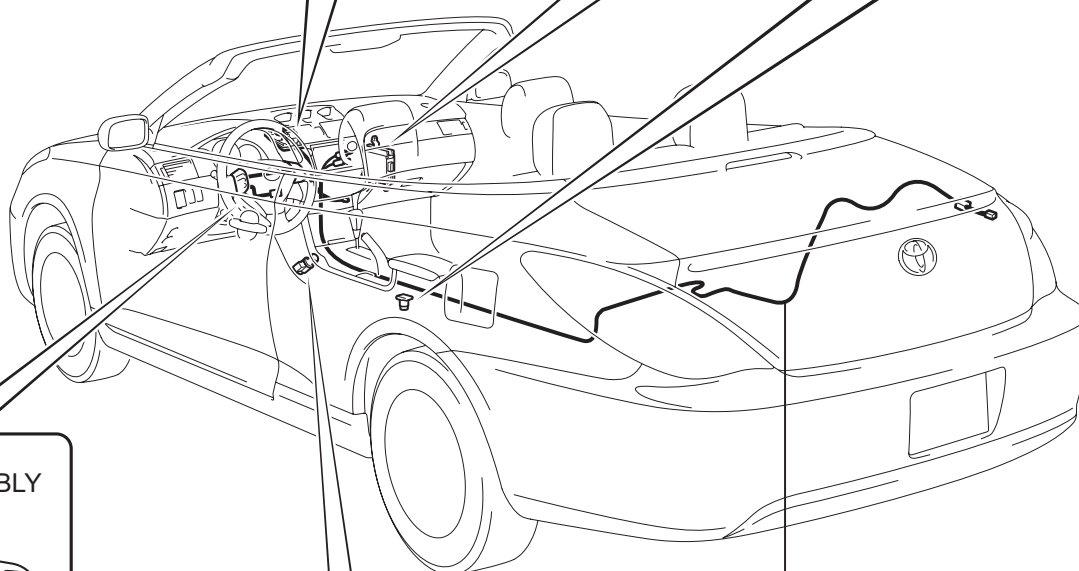
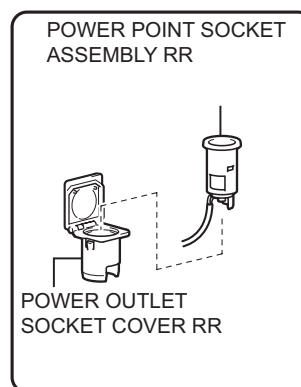
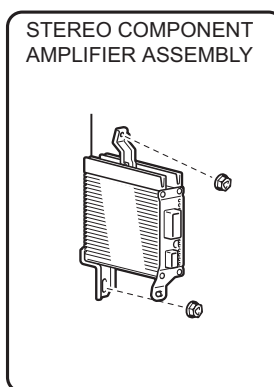
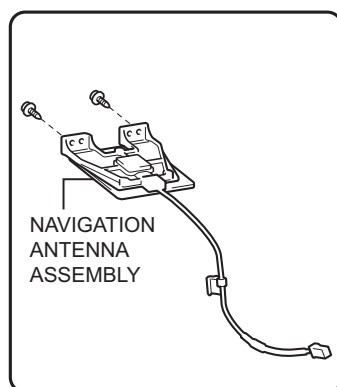
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COUPE:

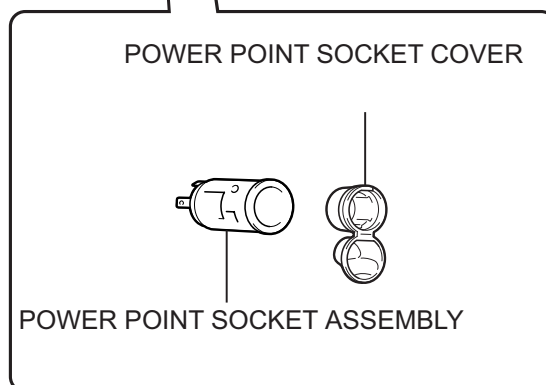


AV

CONVERTIBLE:



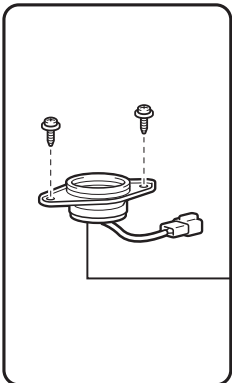
ANTENNA CORD SUB-ASSEMBLY



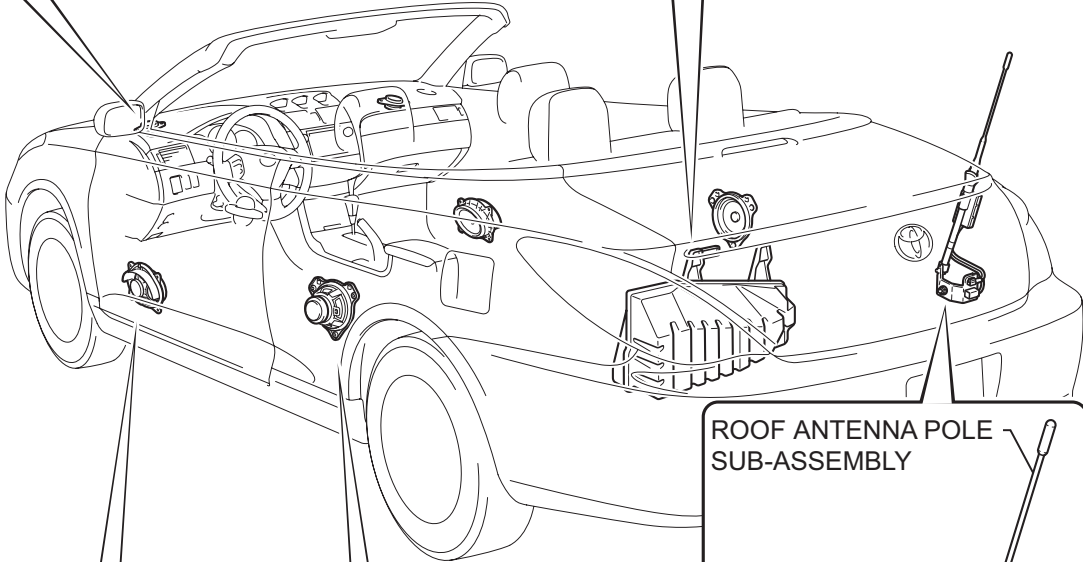
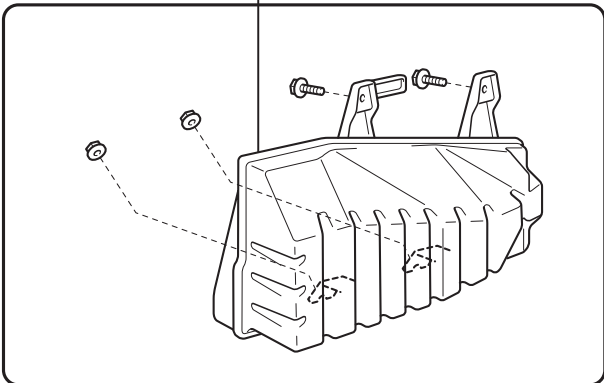
AV

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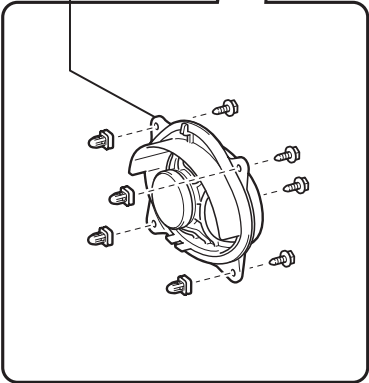
W/ BOX SPEAKER ASSEMBLY NO.1



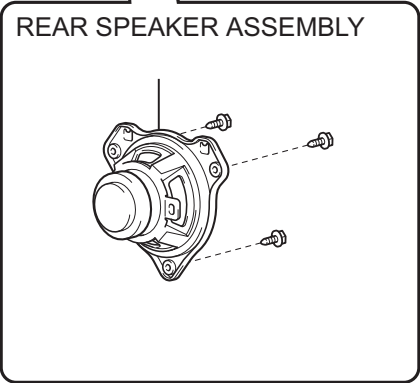
FRONT NO.2  
SPEAKER ASSEMBLY



FRONT NO.1  
SPEAKER ASSEMBLY



REAR SPEAKER ASSEMBLY



ROOF ANTENNA POLE  
SUB-ASSEMBLY

ANTENNA NUT

ANTENNA  
ORNAMENT

AMPLIFIER  
ANTENNA  
ASSEMBLY

AV



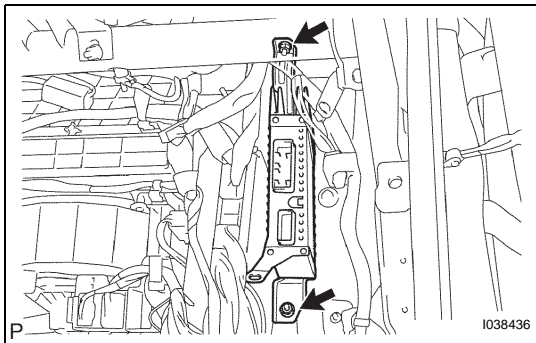
# STEREO COMPONENT AMPLIFIER

## REMOVAL

HINT:

- COMPONENTS: See page [AV-78](#).
- Installation is in the reverse order of removal.

1. **REMOVE INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY NO.1** (See page [IP-7](#))
2. **REMOVE INSTRUMENT PANEL FINISH LOWER PANEL RH** (See page [IP-11](#))
3. **REMOVE STEREO COMPONENT AMPLIFIER ASSEMBLY**
  - (a) Disconnect the connectors.
  - (b) Remove the 2 nuts and stereo component amplifier assembly.



## **INSTALLATION**

- 1. INSTALL STEREO COMPONENT AMPLIFIER ASSEMBLY**
- 2. INSTALL INSTRUMENT PANEL FINISH LOWER PANEL RH**
- 3. INSTALL INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY NO.1**

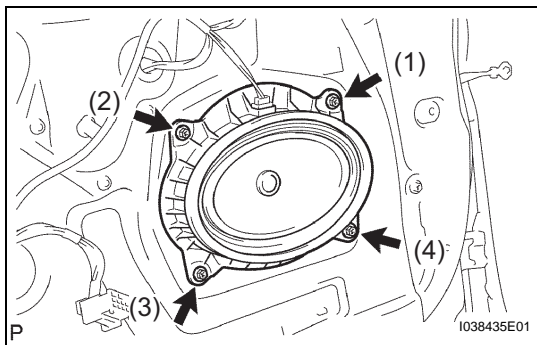
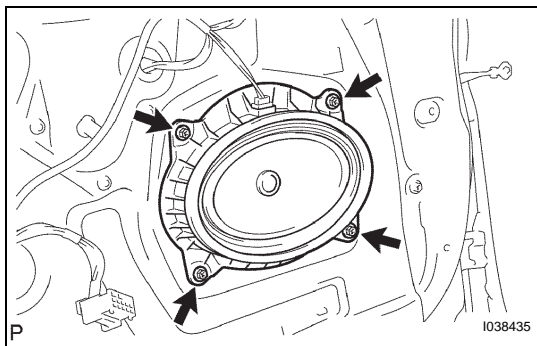
## FRONT NO. 1 SPEAKER

### REMOVAL

#### HINT:

- COMPONENTS: See page [AV-78](#).
- Use the same procedures for the RH side and LH side.
- The procedures listed below are for the LH side.
- Installation is in the reverse order of removal.

1. REMOVE FRONT DOOR LOWER FRAME BRACKET GARNISH LH (See page [ED-10](#))
2. REMOVE FRONT DOOR INSIDE HANDLE BEZEL PLUG LH (See page [ED-10](#))
3. REMOVE FRONT ARMREST BASE PANEL UPPER LH (See page [ED-10](#))
4. REMOVE FRONT DOOR TRIM BOARD SUB-ASSEMBLY LH (See page [ED-11](#))
5. REMOVE FRONT NO.1 SPEAKER ASSEMBLY
  - (a) Disconnect the connector.
  - (b) Remove the 4 screws and front No.1 speaker assembly.



### INSTALLATION

1. INSTALL FRONT NO.1 SPEAKER ASSEMBLY
  - (a) Install the front No.1 speaker assembly with the 4 screws.  
**NOTICE:**  
Install them in the order shown in the illustration.
  - (b) Connect the connector.

## FRONT NO. 2 SPEAKER

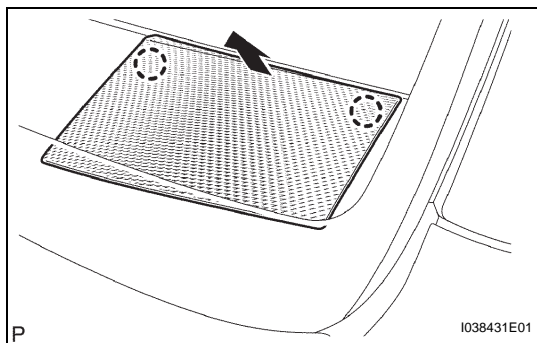
### REMOVAL

#### HINT:

- COMPONENTS: See page [AV-78](#).
- Use the same procedures for the RH side and LH side.
- The procedures listed below are for the LH side.
- Installation is in the reverse order of removal.

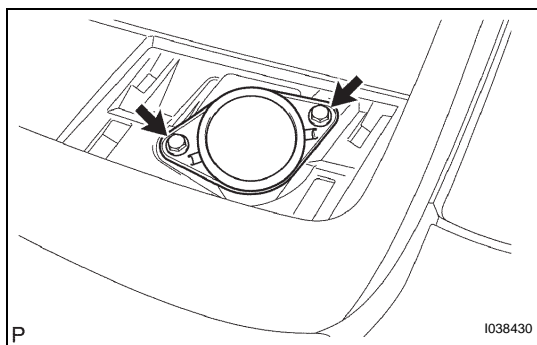
#### 1. REMOVE INSTRUMENT PANEL SPEAKER PANEL SUB-ASSEMBLY

- (a) Disengage the 2 claws and remove the instrument panel speaker panel sub-assembly.



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

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



## INSTALLATION

HINT:

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

1. **INSTALL FRONT NO.2 SPEAKER ASSEMBLY**
2. **INSTALL INSTRUMENT PANEL SPEAKER PANEL SUB-ASSEMBLY**

## REAR SPEAKER (for Coupe)

### REMOVAL

HINT:

- COMPONENTS: See page [AV-78](#).
- Use the same procedures for the RH side and LH side.
- The procedures listed below are for the LH side.
- Installation is in the reverse order of removal.

#### 1. REMOVE REAR SEAT ASSEMBLY

HINT:

See page [SE-40](#)

#### 2. REMOVE FRONT DOOR SCUFF PLATE LH (See page [IR-4](#))

#### 3. REMOVE FRONT DOOR SCUFF PLATE RH (See page [IR-4](#))

#### 4. REMOVE QUARTER TRIM PANEL ASSEMBLY FRONT LH

HINT:

See page [IR-1](#)

#### 5. REMOVE QUARTER TRIM PANEL ASSEMBLY FRONT RH

HINT:

See page [IR-1](#)

#### 6. REMOVE CENTER PILLAR GARNISH LH (See page [IR-5](#))

#### 7. REMOVE CENTER PILLAR GARNISH RH (See page [IR-5](#))

#### 8. REMOVE ROOF SIDE GARNISH ASSEMBLY INNER LH (See page [IR-5](#))

#### 9. REMOVE ROOF SIDE GARNISH ASSEMBLY INNER RH (See page [IR-5](#))

#### 10. REMOVE QUARTER TRIM PANEL UPPER LH

HINT:

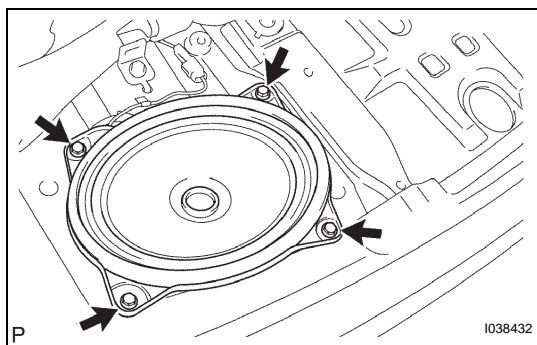
See page [IR-1](#)

#### 11. REMOVE QUARTER TRIM PANEL UPPER RH

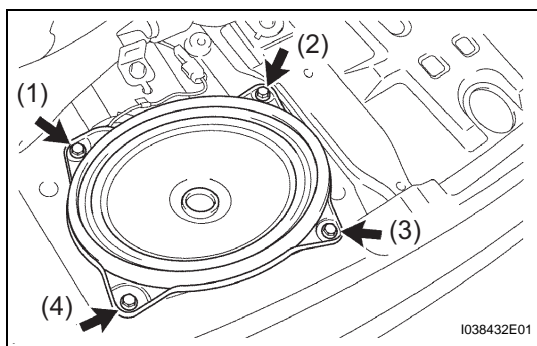
HINT:

See page [IR-1](#)

#### 12. REMOVE PACKAGE TRAY TRIM PANEL ASSEMBLY

**13. REMOVE REAR SPEAKER ASSEMBLY**

- (a) Disconnect the connector.
- (b) Remove the 4 screws and rear speaker assembly.

**INSTALLATION****1. INSTALL REAR SPEAKER ASSEMBLY**

- (a) Install the rear speaker assembly with the 4 screws.

**NOTICE:**

**Install them in the order shown in the illustration.**

- (b) Connect the connector.

## REAR SPEAKER (for Convertible)

### REMOVAL

HINT:

- COMPONENTS: See page [AV-78](#).
- Use the same procedures for the RH side and LH side.
- The procedures listed below are for the LH side.
- Installation is in the reverse order of removal.

1. **REMOVE FRONT DOOR SCUFF PLATE LH** (See page [IR-9](#))

2. **REMOVE COWL SIDE TRIM SUB-ASSEMBLY LH** (See page [IR-9](#))

3. **REMOVE REAR SEAT ASSEMBLY**

HINT:

See page [SE-45](#)

4. **REMOVE CENTER PILLAR UPPER END WEATHERSTRIP LH**

5. **REMOVE CUP HOLDER NO.2**

6. **REMOVE QUARTER TRIM PANEL SUB-ASSEMBLY UPPER LH**

HINT:

See page [CT-22](#)

7. **REMOVE QUARTER TRIM PANEL LOWER LH** [CT-22](#)

HINT:

See page

8. **REMOVE FRONT DOOR OPENING TRIM WEATHERSTRIP LH**

[CT-22](#)

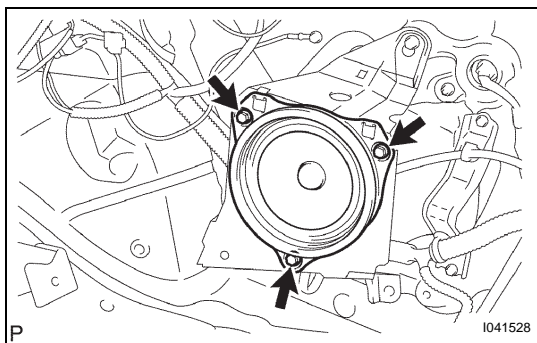
HINT:

See page

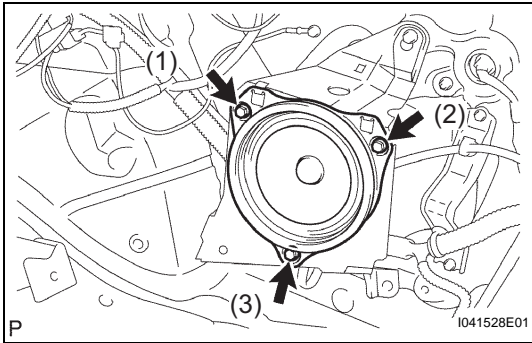
9. **REMOVE REAR SPEAKER ASSEMBLY**

(a) Disconnect the connector.

(b) Remove the 3 screws and rear speaker assembly.







## INSTALLATION

### 1. INSTALL REAR SPEAKER ASSEMBLY

- (a) Install the rear speaker assembly with the 3 screws.

**NOTICE:**

**Install them in the order shown in the illustration.**

- (b) Connect the connector.

## NO. 1 SPEAKER WITH BOX

### REMOVAL

#### HINT:

- COMPONENTS: See page [AV-78](#).
- Use the same procedures for the RH side and LH side.
- The procedures listed below are for the LH side.
- Installation is in the reverse order of removal.

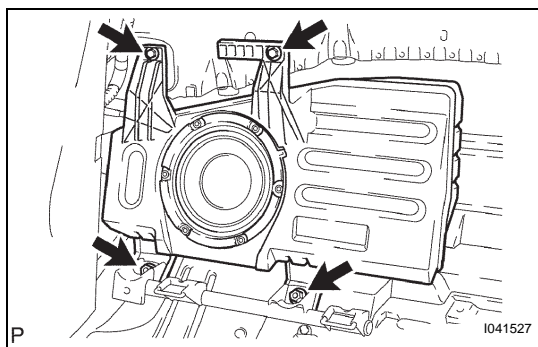
#### 1. REMOVE REAR SEAT ASSEMBLY

##### HINT:

See page [SE-45](#)

#### 2. REMOVE W/ BOX SPEAKER ASSEMBLY NO.1

- (a) Disconnect the connector.
- (b) Remove the 2 bolts, 2 nuts and w/ box speaker assembly No.1.



## INSTALLATION

HINT:

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

1. **INSTALL W/ BOX SPEAKER ASSEMBLY NO.1**
2. **INSTALL REAR SEAT ASSEMBLY**

## **INSTALLATION**

- 1. INSTALL ANTENNA CORD SUB-ASSEMBLY**
- 2. INSTALL QUARTER TRIM PANEL UPPER RH**
- 3. INSTALL ROOF SIDE GARNISH ASSEMBLY INNER RH**
- 4. INSTALL CENTER PILLAR GARNISH RH**
- 5. INSTALL QUARTER TRIM PANEL ASSEMBLY FRONT RH**
- 6. INSTALL FRONT DOOR SCUFF PLATE RH**
- 7. INSTALL REAR SEAT BACK HINGE SUB-ASSEMBLY LH**
- 8. INSTALL REAR SEAT ASSEMBLY**
- 9. INSTALL CENTER CLUSTER INTEGRATION PANEL ASSEMBLY**
- 10. INSTALL INSTRUMENT CLUSTER FINISH PANEL SUB-ASSEMBLY CENTER**
- 11. INSTALL CONSOLE PANEL SUB-ASSEMBLY UPPER**
- 12. INSTALL CONSOLE BOX ASSEMBLY (REAR W/ CONSOLE DOOR)**
- 13. INSTALL CONSOLE UPPER REAR PANEL SUB-ASSEMBLY**
- 14. INSTALL SHIFT LEVER KNOB SUB-ASSEMBLY**

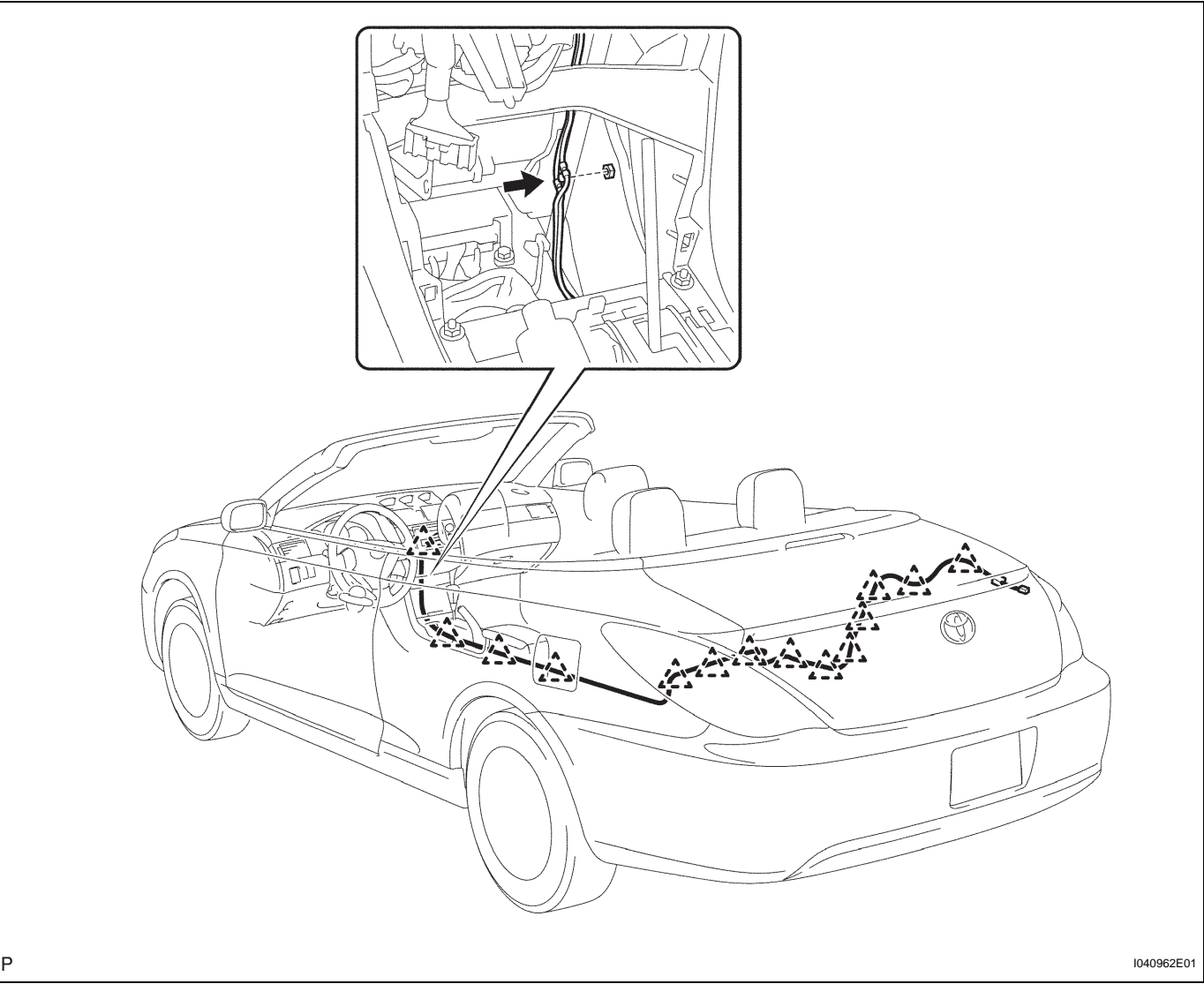
# RADIO ANTENNA CORD

## REMOVAL

HINT:

- COMPONENTS: See page [AV-78](#).
- Installation is in the reverse order of removal.

1. REMOVE SHIFT LEVER KNOB SUB-ASSEMBLY (See page [IP-9](#))
2. REMOVE CONSOLE UPPER REAR PANEL SUB-ASSEMBLY (See page [IP-9](#))
3. REMOVE CONSOLE BOX ASSEMBLY (REAR W/ CONSOLE DOOR) (See page [IP-10](#))
4. REMOVE CONSOLE PANEL SUB-ASSEMBLY UPPER (See page [IP-10](#))
5. REMOVE INSTRUMENT CLUSTER FINISH PANEL SUB-ASSEMBLY CENTER (See page [IP-10](#))
6. REMOVE CENTER CLUSTER INTEGRATION PANEL ASSEMBLY (See page [AV-83](#))
7. REMOVE REAR SEAT ASSEMBLY  
HINT:  
See page [SE-46](#)
8. REMOVE REAR SEATBACK HINGE SUB-ASSEMBLY LH
9. REMOVE FRONT DOOR SCUFF PLATE RH (See page [IR-9](#))
10. REMOVE QUARTER TRIM PANEL ASSEMBLY FRONT RH (See page [CT-28](#))
11. REMOVE CENTER PILLAR GARNISH RH
12. REMOVE ROOF SIDE GARNISH ASSEMBLY INNER RH
13. REMOVE QUARTER TRIM PANEL UPPER RH (See page [IR-10](#))
14. REMOVE ANTENNA CORD SUB-ASSEMBLY
  - (a) Remove the nut and bolt.
  - (b) Disengage the 14 clamps and antenna cord sub-assembly.



## RADIO ANTENNA POLE

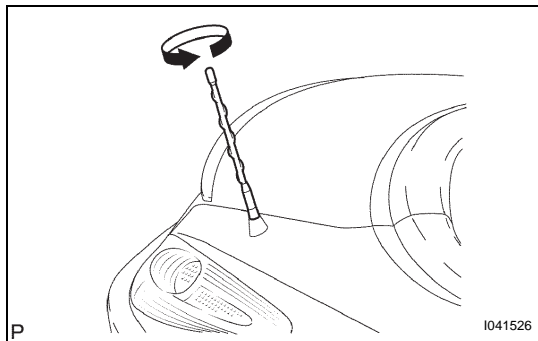
### REMOVAL

HINT:

- COMPONENTS: See page [AV-78](#).
- Installation is in the reverse order of removal.

#### 1. REMOVE ROOF ANTENNA POLE SUB-ASSEMBLY

- (a) Remove the roof antenna pole sub-assembly turning in the direction as shown in the illustration.



---

## INSTALLATION

### 1. INSTALL ROOF ANTENNA POLE SUB-ASSEMBLY



## INSTALLATION

1. INSTALL AMPLIFIER ANTENNA ASSEMBLY
2. INSTALL QUARTER TRIM PANEL UPPER RH
3. INSTALL ROOF SIDE GARNISH ASSEMBLY INNER RH
4. INSTALL CENTER PILLAR GARNISH RH
5. INSTALL QUARTER TRIM PANEL ASSEMBLY FRONT RH
6. INSTALL FRONT DOOR SCUFF PLATE RH
7. INSTALL REAR SEAT BACK HINGE SUB-ASSEMBLY LH
8. INSTALL REAR SEAT ASSEMBLY
9. INSTALL CENTER CLUSTER INTEGRATION PANEL ASSEMBLY
10. INSTALL INSTRUMENT CLUSTER FINISH PANEL SUB-ASSEMBLY CENTER
11. INSTALL CONSOLE PANEL SUB-ASSEMBLY UPPER
12. INSTALL CONSOLE BOX ASSEMBLY (REAR W/ CONSOLE DOOR)
13. INSTALL CONSOLE UPPER REAR PANEL SUB-ASSEMBLY
14. INSTALL SHIFT LEVER KNOB SUB-ASSEMBLY

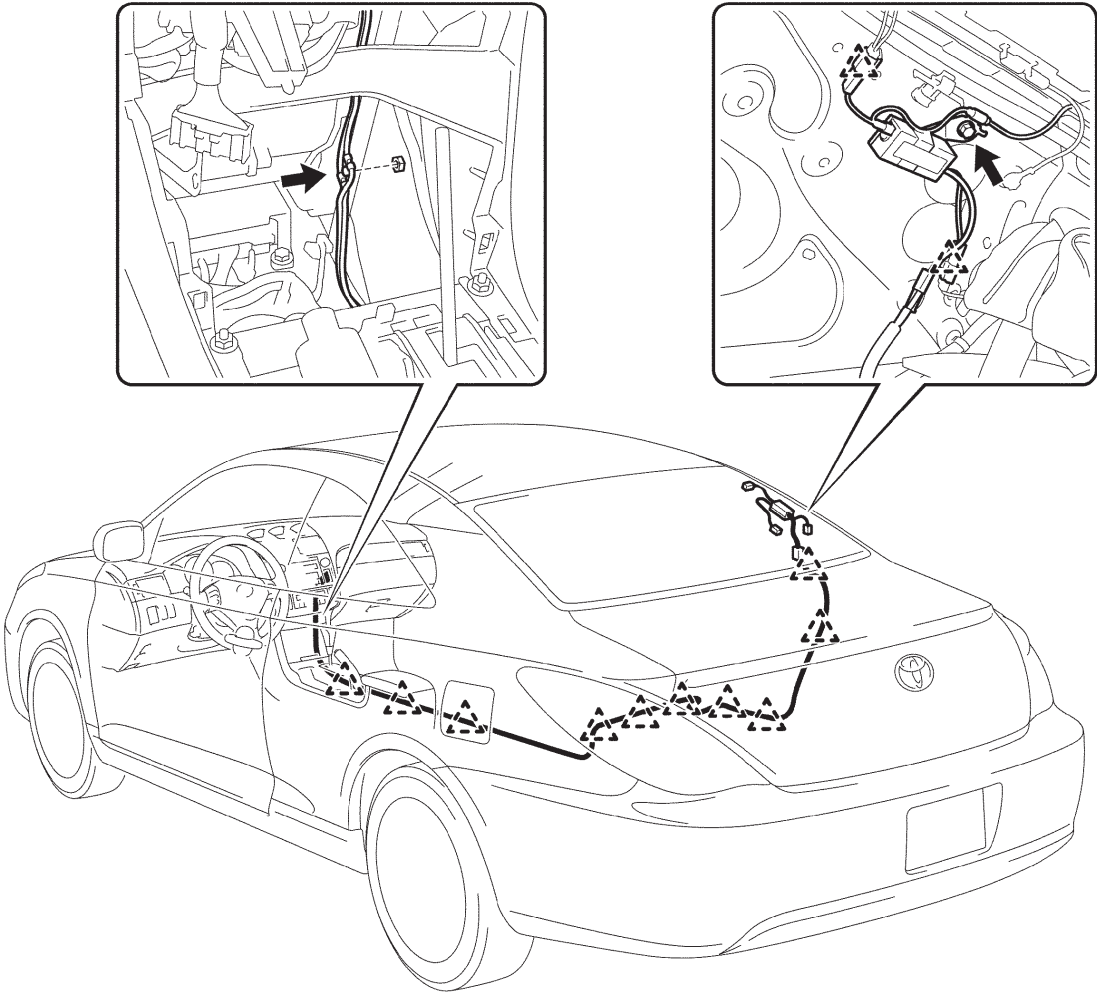
## AMPLIFIER ANTENNA (for Coupe)

### REMOVAL

HINT:

- COMPONENTS: See page [AV-78](#).
- Installation is in the reverse order of removal.

1. REMOVE SHIFT LEVER KNOB SUB-ASSEMBLY (See page [IP-9](#))
2. REMOVE CONSOLE UPPER REAR PANEL SUB-ASSEMBLY (See page [IP-9](#))
3. REMOVE CONSOLE BOX ASSEMBLY (REAR W/ CONSOLE DOOR) (See page [IP-10](#))
4. REMOVE CONSOLE PANEL SUB-ASSEMBLY UPPER (See page [IP-10](#))
5. REMOVE INSTRUMENT CLUSTER FINISH PANEL SUB-ASSEMBLY CENTER (See page [IP-10](#))
6. REMOVE CENTER CLUSTER INTEGRATION PANEL ASSEMBLY (See page [AV-83](#))
7. REMOVE REAR SEAT ASSEMBLY  
HINT:  
See page [SE-40](#)
8. REMOVE REAR SEAT BACK HINGE SUB-ASSEMBLY LH (See page [SE-40](#))
9. REMOVE FRONT DOOR SCUFF PLATE RH (See page [IR-4](#))
10. REMOVE QUARTER TRIM PANEL ASSEMBLY FRONT RH
11. REMOVE CENTER PILLAR GARNISH RH (See page [IR-5](#))
12. REMOVE ROOF SIDE GARNISH ASSEMBLY INNER RH (See page [IR-5](#))
13. REMOVE QUARTER TRIM PANEL UPPER RH
14. REMOVE AMPLIFIER ANTENNA ASSEMBLY
  - (a) Remove the nut and bolt.
  - (b) Disengage the 12 clamps and amplifier antenna assembly.



## AMPLIFIER ANTENNA (for Convertible)

### REMOVAL

HINT:

- COMPONENTS: See page [AV-78](#).
- Installation is in the reverse order of removal.

#### 1. REMOVE ROOF ANTENNA POLE SUB-ASSEMBLY

HINT:

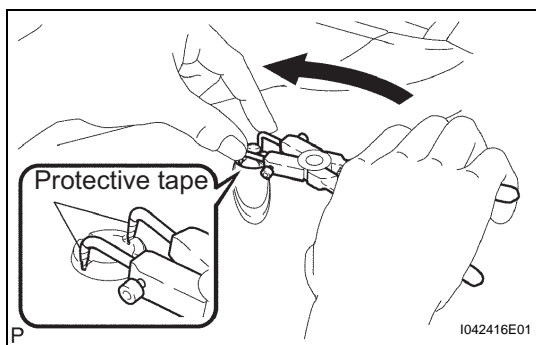
See page [AV-96](#)

#### 2. REMOVE ANTENNA NUT

- (a) Remove the antenna nut as shown in the illustration.

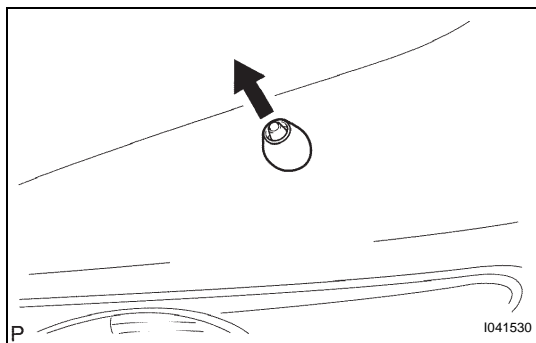
**NOTICE:**

**Wrap the tip of the snap ring pliers with protective tape to prevent damage to the parts.**



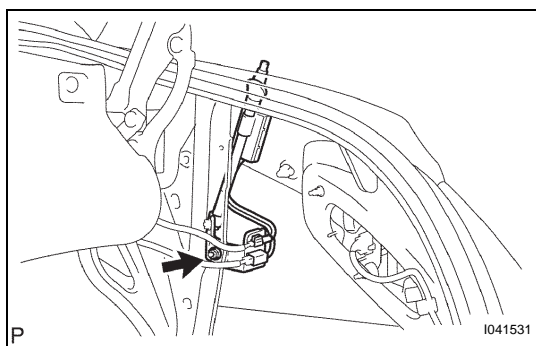
#### 3. REMOVE ANTENNA ORNAMENT

- (a) Remove the antenna ornament in the direction shown by the arrow in the illustration.



#### 4. REMOVE AMPLIFIER ANTENNA ASSEMBLY

- (a) Disconnect the connector.
- (b) Remove the bolt, disconnect all connectors and remove the amplifier antenna assembly.



## **INSTALLATION**

- 1. INSTALL AMPLIFIER ANTENNA ASSEMBLY**
- 2. INSTALL ANTENNA ORNAMENT**
- 3. INSTALL ANTENNA NUT**
- 4. INSTALL ROOF ANTENNA POLE SUB-ASSEMBLY**

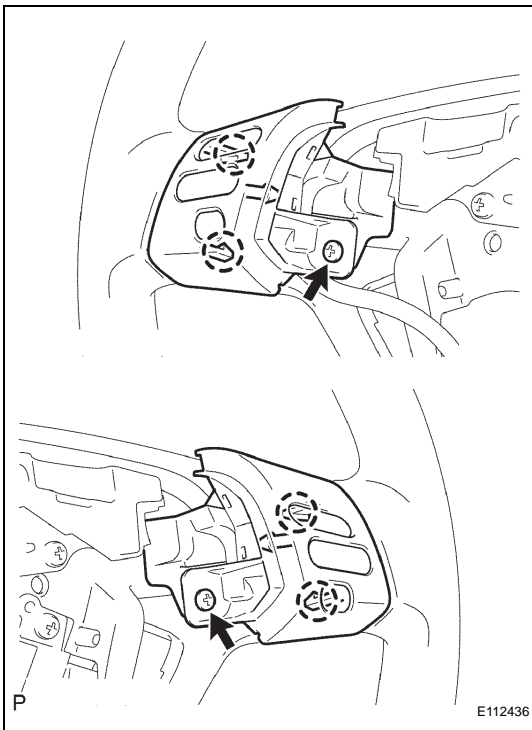
# STEERING PAD SWITCH

## REMOVAL

HINT:

- COMPONENTS: See page [AV-78](#).
- Installation is in the reverse order of removal.

1. **DISCONNECT BATTERY NEGATIVE TERMINAL**
2. **REMOVE STEERING WHEEL COVER LOWER NO.2**  
(See page [RS-262](#))
3. **REMOVE STEERING WHEEL COVER LOWER NO.3**  
(See page [RS-262](#))
4. **REMOVE HORN BUTTON ASSEMBLY** (See page [RS-262](#))
5. **REMOVE STEERING PAD SWITCH ASSEMBLY**
  - (a) Disconnect the connector.
  - (b) Remove the 2 screws.
  - (c) Disengage the 4 claws and the pin.
  - (d) Remove the steering pad switch assembly.



## INSTALLATION

### 1. INSTALL STEERING PAD SWITCH ASSEMBLY

- (a) Connect the connector.
- (b) Install the steering pad switch.
- (c) Engage the 4 claws.
- (d) Install the 2 screws.

### 2. INSTALL HORN BUTTON ASSEMBLY

### 3. INSTALL STEERING WHEEL COVER LOWER NO.3

### 4. INSTALL STEERING WHEEL COVER LOWER NO.2

### 5. CONNECT BATTERY NEGATIVE TERMINAL

HINT:

See page [RS-1](#)

### 6. PERFORM INITIALIZATION

HINT:

See page [IN-24](#)

### 7. INSPECT HORN BUTTON ASSEMBLY

HINT:

See page [SR-12](#)

### 8. INSPECT SRS WARNING LIGHT

HINT:

See page [RS-30](#)

# WINDOW GLASS ANTENNA WIRE

## REPAIR

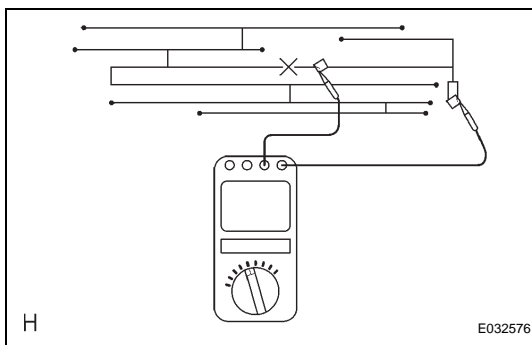
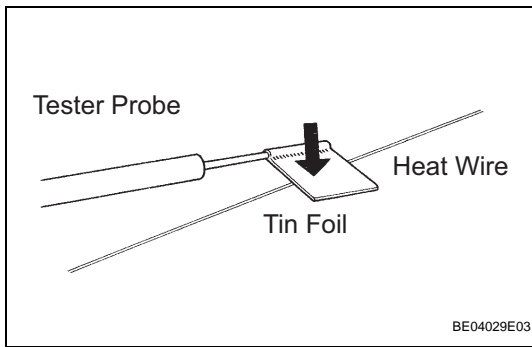
### 1. INSPECT WINDOW GLASS ANTENNA WIRE

- (a) Inspect the window glass antenna wire.

**NOTICE:**

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

- (b) Check the continuity, at the center of each antenna wire, as shown in the illustration.



### 2. REPAIR WINDOW GLASS ANTENNA WIRE

- (a) Clean the broken wire tips with a grease, wax and silicone remover.
- (b) Place masking tape along both sides of the wire to be temporarily hold it in place.
- (c) Thoroughly mix the repair agent (Dupont paste No. 4817).
- (d) Using a fine tip brush, apply a small amount of the mixed repair agent to the wire.
- (e) After a few minutes, remove the masking tape.
- (f) Do not repair the defogger wire for at least 24 hours after the window glass (antenna wire repair).

