

Preparation

**Part Number: Tuner Assy 86180-0W030  
Mounting Kit PT546-47060**

**NOTE:** Part number of this accessory may not be the same as the part number shown.

**Tuner Assy Kit Contents (86180-0W030)**

Item #	Quantity Req.	Description
1	1	Tuner Assy, Stereo Component

**Mounting Kit Contents (PT546-47060)**

Item #	Quantity Req.	Description
1	1	Wire, To Radio Installation
2	1	Tuner Bracket A (Long Arm)
3	1	Tuner Bracket B (Short Arm)
4	1	Tuner Cover
5	1	Template (Bracket)
6	1	Antenna

**Hardware Bag Contents – 1 (PT546-47060)**

Item #	Quantity Req.	Description
1	2	Cushion Tape (100mm x 50mm)
2	9	Lock Tie

**Hardware Bag Contents – 2 (PT546-47060)**

Item #	Quantity Req.	Description
1	2	Nut (M6)
2	4	Screws (M5 x L8)

**Hardware Bag Contents - 3 (PT546-47060)**

Item #	Quantity Req.	Description
1	1	Ground Plate
2	1	Template (Antenna)
3	1	Sheet Tape (30mm x 30mm)

**Additional Items Required For Installation**

Item #	Quantity Req.	Description

**Conflicts**

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**Recommended Tools**

Safety Tools	Notes
Safety Goggles	
Seat Covers	
Floor Protectors	
Special Tools	Notes
I/R Temperature Sensor	

Installation Tools	Notes
Ratchet	
Extension	6"
Socket	10mm, 12mm
10mm wrench	
Phillips Screwdriver	
Nylon Removal Tool	
Masking Tape (50 mm wide)	
Torque Wrench	
Side Cutter	
Drill	7mm Drill Bit, Drill Stop
Needle-Nose Pliers	
Center Punch	
De-burring Tool	
Vacuum	
Special Chemicals	Notes
Cleaner	3M™ Prep Solvent-70
Sealant	3M™ Ultra-Pro Body Sealant

**General Applicability**

Premium Audio/JBL required
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**Recommended Sequence of Application**

Item #	Accessory

\*Mandatory

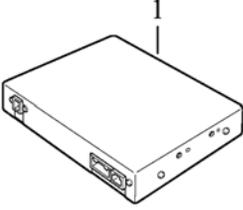
**Vehicle Service Parts** (may be required for reassembly)

Item #	Quantity Req.	Description

**Legend**

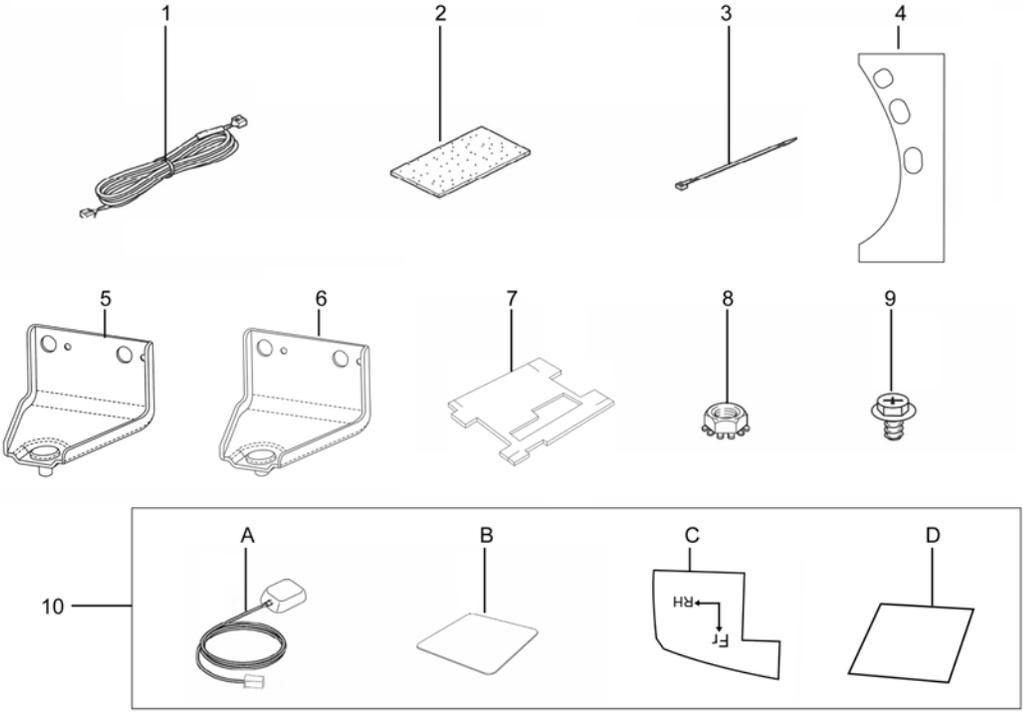
	<b>STOP:</b> Damage to the vehicle may occur. Do not proceed until process has been complied with.
	<b>OPERATOR SAFETY:</b> Use caution to avoid risk of injury.
	<b>CAUTION:</b> A process that must be carefully observed in order to reduce the risk of damage to the accessory/vehicle and to ensure a quality installation.
	<b>TOOLS &amp; EQUIPMENT:</b> Used in Figures calls out the specific tools and equipment recommended for this process.

Parts Description of Tuner Assy (86180-0W030)



Item #	Parts Name	Parts No.	Qty
1	Tuner	86180-0W030	1

Parts Description of Mounting Kit (PT546-47060)



Item #	Parts Name	Parts No.	Qty
1	WIRE, TO RADIO INSTALLATION		1
2	CUSHION TAPE (100mm x 50mm)		2
3	LOCK TIE		9
4	TEMPLATE (BRACKET)		1
5	TUNER BRACKET A (LONG ARM)		1
6	TUNER BRACKET B (SHORT ARM)		1
7	COVER (FOAM INSULATOR)		1
8	NUT (M6)		2
9	SCREWS (M5 x L8)		4
10	A ANTENNA		1
	B GROUND PLATE		1
	C TEMPLATE (ANTENNA)		1
	D SHEET TAPE (30mm x 30mm)		1

Care must be taken when installing this accessory to ensure damage does not occur to the vehicle. The installation of this accessory should follow approved guidelines to ensure a quality installation.

These guidelines can be found in the "Accessory Installation Practices" document.

This document covers such items as:-

- Vehicle Protection (use of covers and blankets, cleaning chemicals, etc.).
- Safety (eye protection, rechecking torque procedure, etc.).
- Vehicle Disassembly/Reassembly (panel removal, part storage, etc.).
- Electrical Component Disassembly/Reassembly (battery disconnection, connector removal, etc.).

Please see your Toyota dealer for a copy of this document.

### 1. Vehicle Disassembly: Luggage Area



**NOTE:** Place all removed parts on a protected surface.



**NOTE:** When disconnecting connectors do not pull on the wires, pull on the connectors.

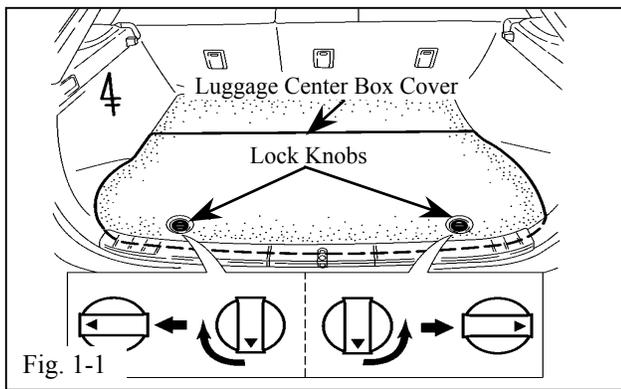


Fig. 1-1

- (a) Remove the luggage center box cover (rear floor board no. 2) as follows: (Fig. 1-1)
  - (1) Before starting, cover the rear trunk edge and bumper with a blanket.
  - (2) Rotate the lock knobs to the unlock position.

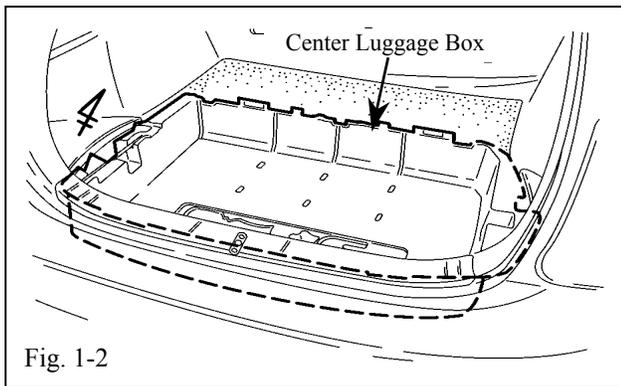


Fig. 1-2

- (b) Remove the center luggage box (deck floor box rear). (Fig. 1-2)

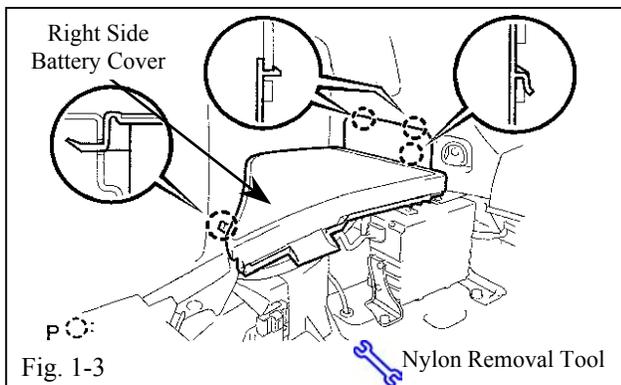
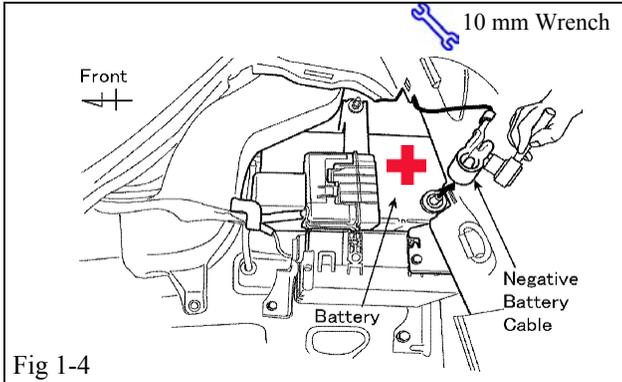


Fig. 1-3

- (c) Remove the right (passenger) side battery cover (rear floor board no. 3) including vertical trim cover by separating the four (4) clips. (Fig. 1-3)

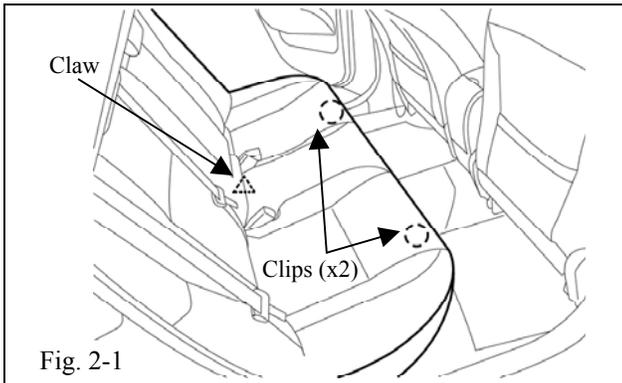


(d) Remove the negative battery cable of the auxiliary battery. (Fig. 1-4)



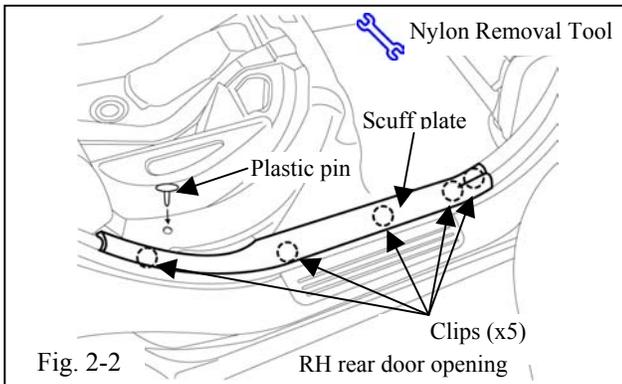
(1) Do not touch the positive terminal with any tool when removing the cable.

## 2. Vehicle Disassembly: Rear Seat Area



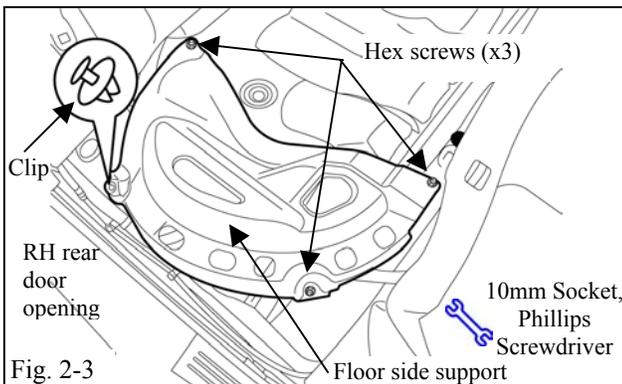
(a) Remove the rear seat cushion. (Fig. 2-1)

(1) Lift the front edge, then pull forward to release the seat cushion.



(b) Remove the rear passenger door sill trim cover. (Fig. 2-2)

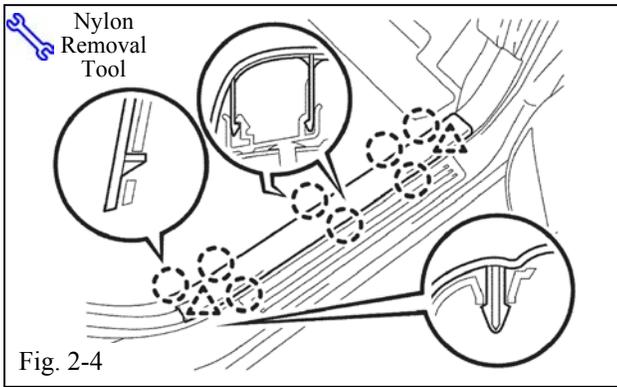
(c) Remove Plastic pin and fold back carpet to access floor side support. (Fig 2-2)



(d) Remove the floor side support as follows. (Fig. 2-3)

(1) Remove the clip using a Phillips screwdriver.

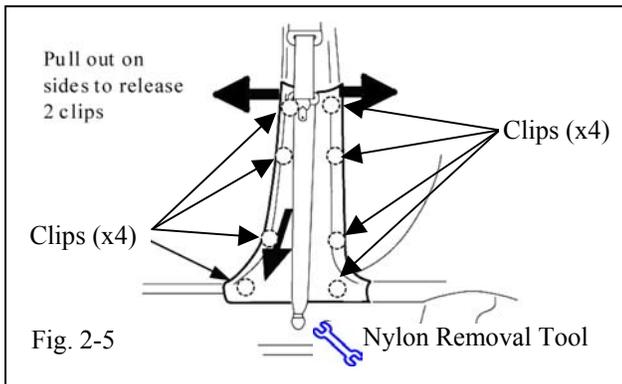
(2) Remove the three (3) hex screws using a 10mm socket, and then release the floor side support.



(e) Remove the front door scuff plate RH.

- (1) Using a nylon removal tool, detach the eight (8) clips and two (2) claws and remove the scuff plate. (Fig. 2-4)

(f) Remove the B-pillar trim. (Fig. 2-5)



(g) Remove the cowl side trim board RH. (Fig. 2-6)

- (1) Using a nylon removal tool, detach the clip and two (2) claws, and then remove the trim board.

### 3. Vehicle Disassembly: Front Seat Area

(a) Remove the A pillar garnish. (Fig. 3-1)

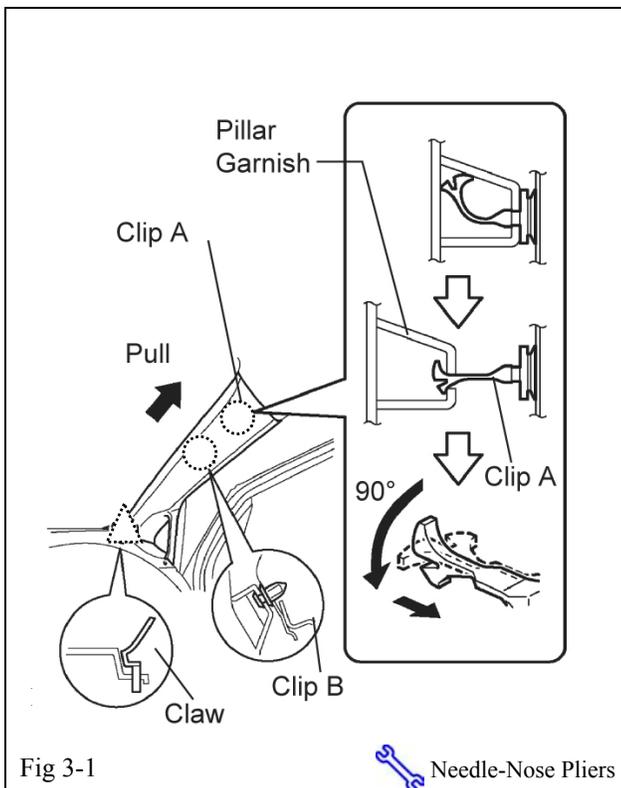


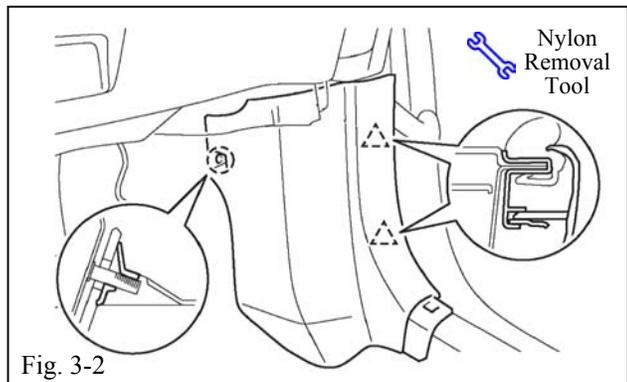
- (1) Pull the pillar garnish so that clip B detaches, the base of clip A detaches, and the tip of clip A locks in the pillar garnish's hole.



- (2) Using needle-nose pliers, rotate clip A 90°, and then pull the pillar garnish to release the tip of clip A from the pillar garnish.

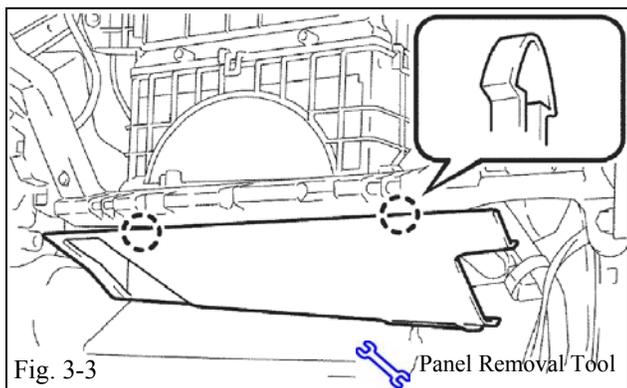
- (3) Pull the pillar garnish in the direction indicated by the arrow in the illustration to detach the clip.





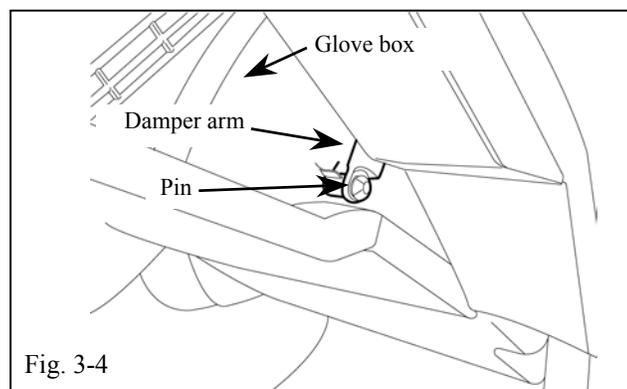
(b) Remove the cowl side trim board RH.  
(Fig. 3-2)

- (1) Using a nylon removal tool, detach the clip and two (2) claws, and then remove the trim board.



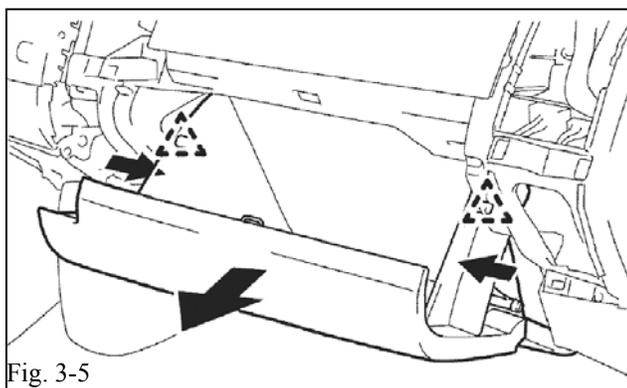
(c) Remove lower glove box trim panel.

- (1) Detach the two (2) claws and remove the panel. (Fig. 3-3)

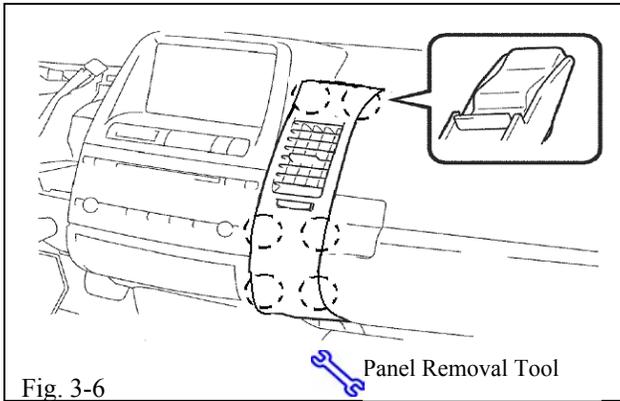


(d) Remove the glove compartment door as follows:

- (1) Slide the damper arm from the pin on the glove box door. (Fig. 3-4)



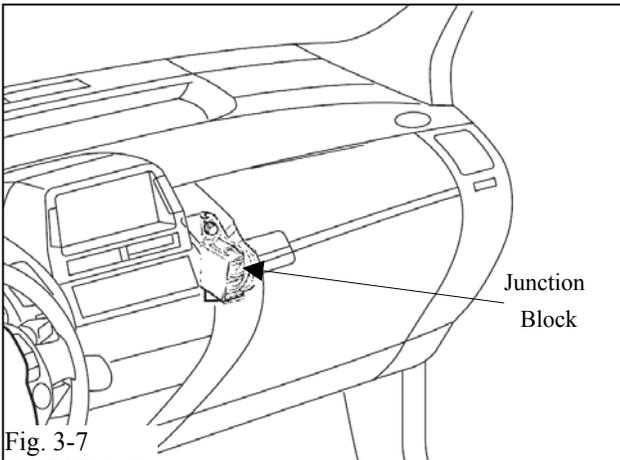
- (2) Push inward on each side to release the two (2) stoppers. (Fig. 3-5)
- (3) Pull the glove box straight back to detach the two (2) hinges and remove. (Fig. 3-5)



(e) Remove the right instrument panel register.



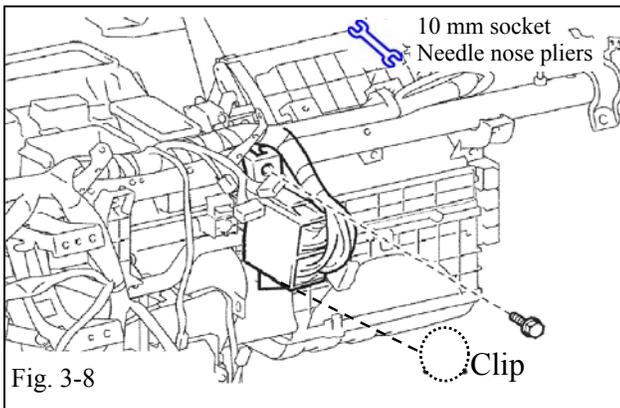
(1) Detach the six (6) clips and remove the IP register. (Fig 3-6)



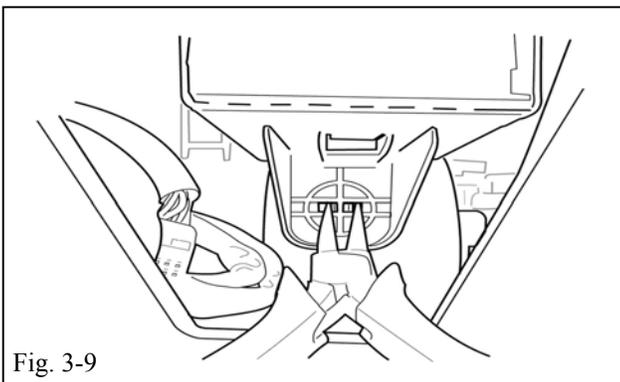
(f) Loosen the junction block behind the register. (Fig. 3-7 & 3-8)

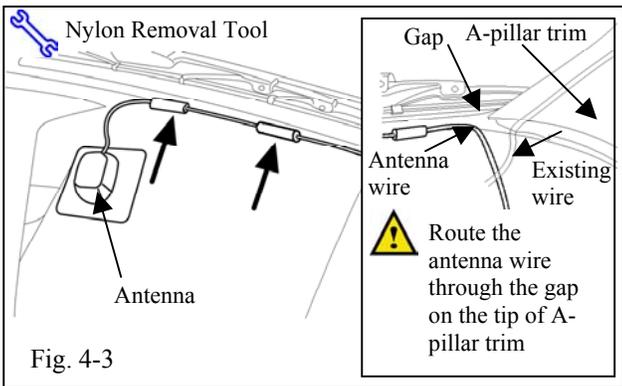
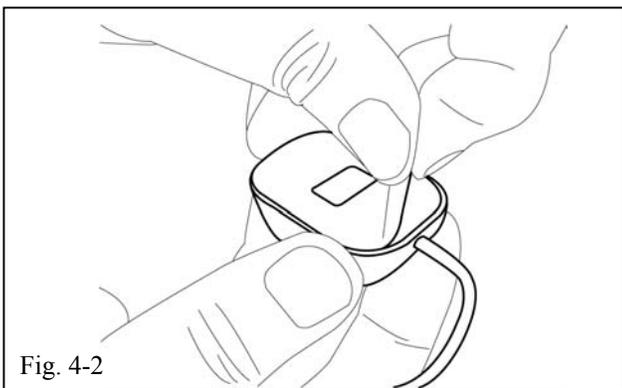
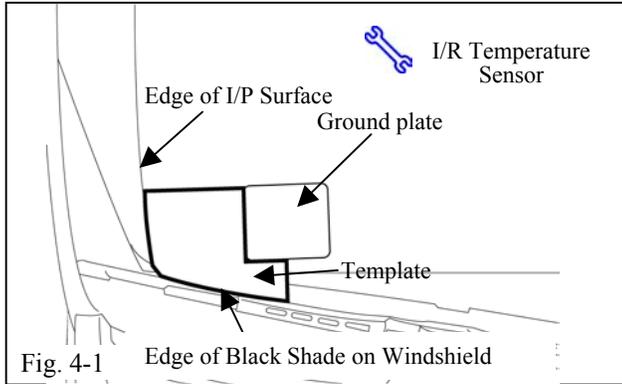
(1) Using a 10 mm socket remove the top bolt. (Fig. 3-8)

(2) Using small needle nose pliers squeeze the clip & pull out on the junction block. (Fig. 3-8 & 3-9)



(3) Move junction block out of the way to access the back of the radio.





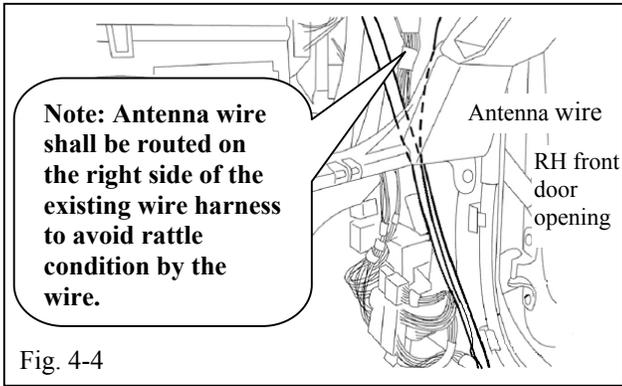
**4. Install Antenna, Receiver, and Harness:**

(a) Install the receiver antenna

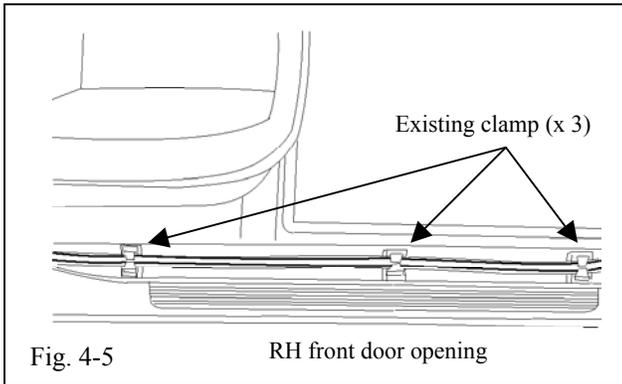
- ⚠ (1) Clean the ground plate mounting area with the recommended solvent/cleaning solution.
- ⚠ (2) Using an I/R temperature sensor, check the temperature of the dash. Installation temperature should be 10-30 degrees Celsius.
- (3) Tape the antenna template onto the passenger end of the instrument panel aligning to the right edge of the instrument panel and the topside of the edge of the black shade on the windshield. (Fig. 4-1)
- (4) Remove the backing, and then fasten the antenna ground plate along the edge of the template as shown. (Fig. 4-1)
- (5) Remove the backing from the antenna, and then fasten the antenna onto the middle of the ground plate with the antenna wire pointing forward. (Fig. 4-2)

(b) Route the antenna wire (from front to rear).

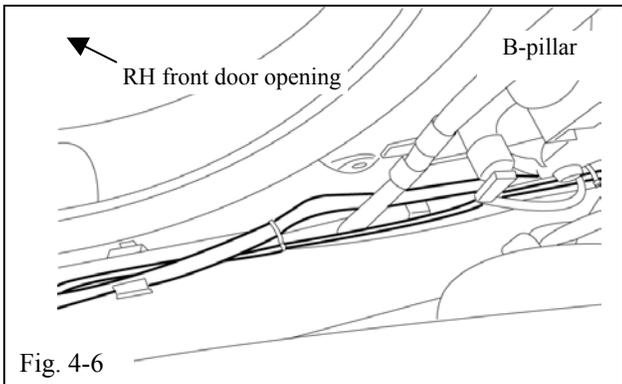
- (1) Route the antenna wire into the space between the instrument panel and windshield by pushing the antenna wire with a nylon removal tool. (Fig. 4-3)
- (2) Route the antenna wire along the forward and right edge of the instrument panel, then route the antenna wire on the right side of the existing wire. (Fig. 4-3)

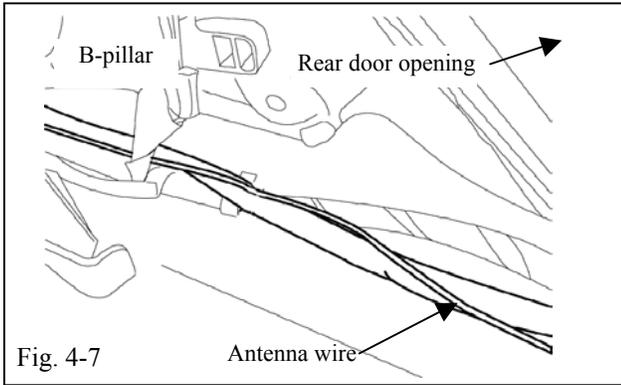


- (3) Route the antenna wire downward toward the cowl side trim board area along the existing harness. (Fig. 4-4)



- (4) Route the antenna wire rearward along the front and rear passenger door sills using the existing clamps. (Fig. 4-5 and 4-6)

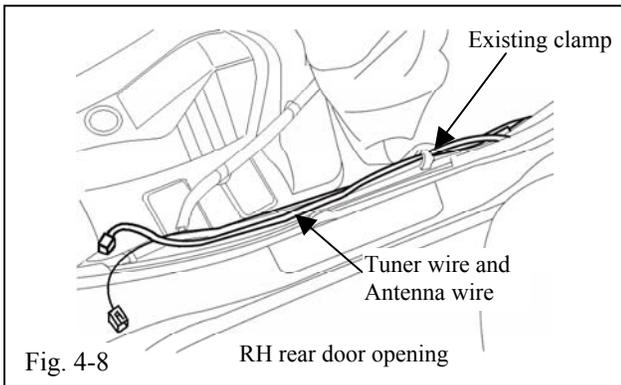




(5) Route the antenna wire rearward along the front and rear passenger door sills using the existing clamps. (Fig. 4-7 and 4-8)

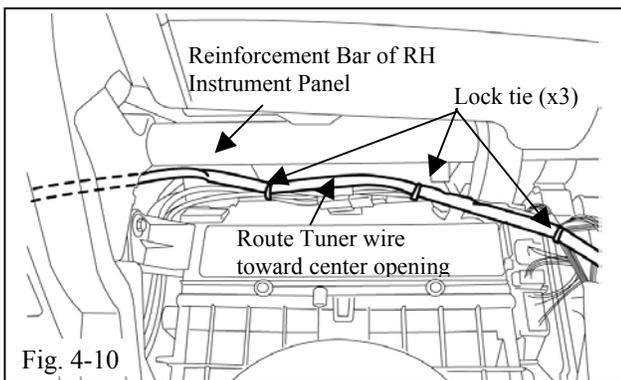
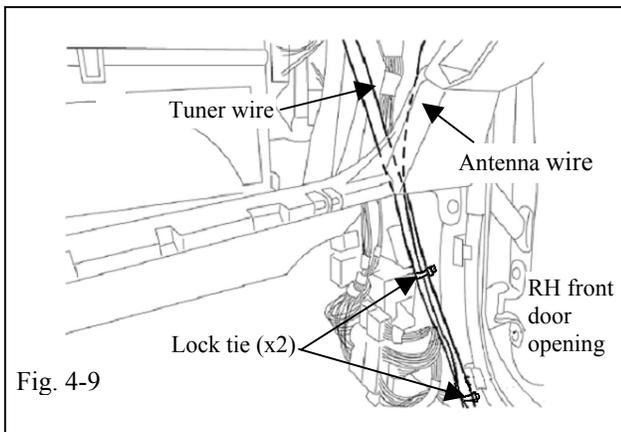


**NOTE:** Do not secure the antenna wire with lock ties at this stage.



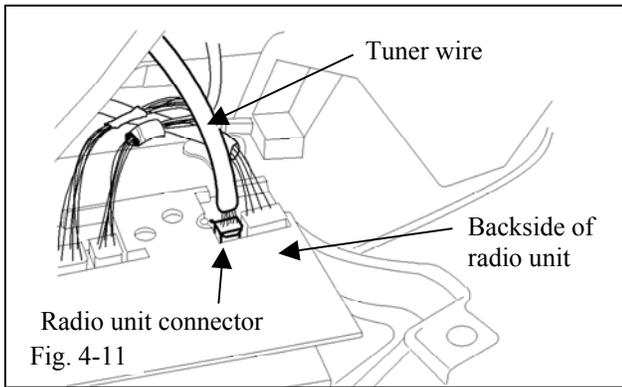
(c) Install the tuner wire (from front to rear).

(1) Starting at the right front passenger doorsill, route the tuner wire upward towards the glove box as shown. (Fig. 4-9)



(2) Route tuner wire along the reinforcement bar into the instrument panel center opening. (Fig. 4-10)

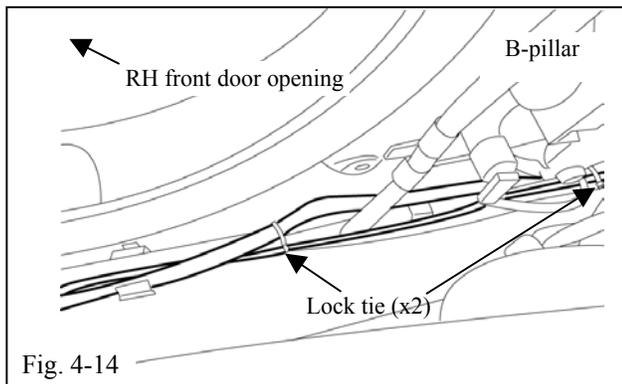
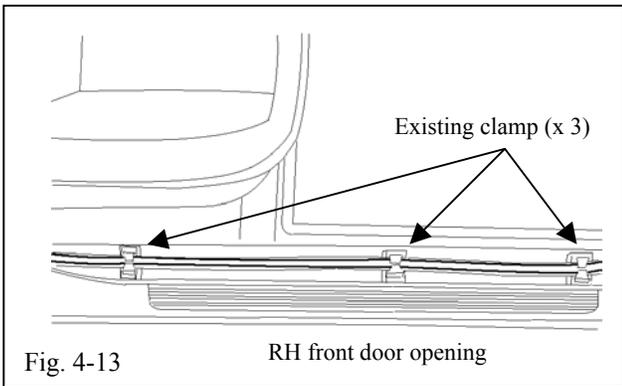
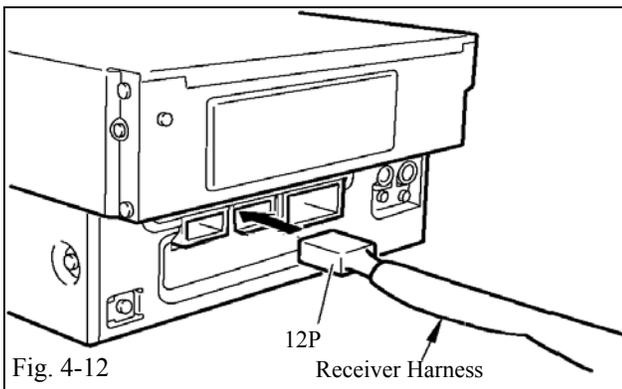
(3) Install lock ties as shown in cowl and glove box areas. (Fig. 4-9 and 4-10)

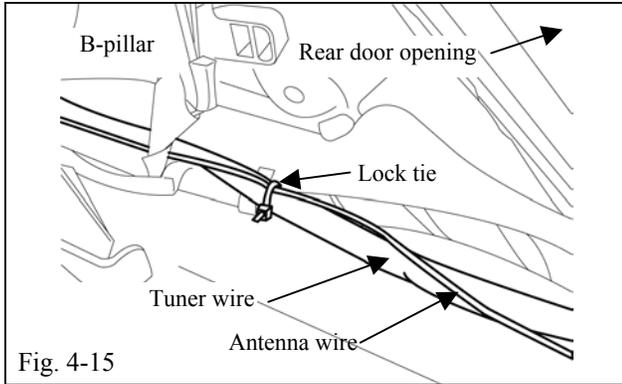


- (4) Reach to the back of the radio unit and connect the tuner wire to the radio unit. (Fig. 4-11, Fig 4-12)

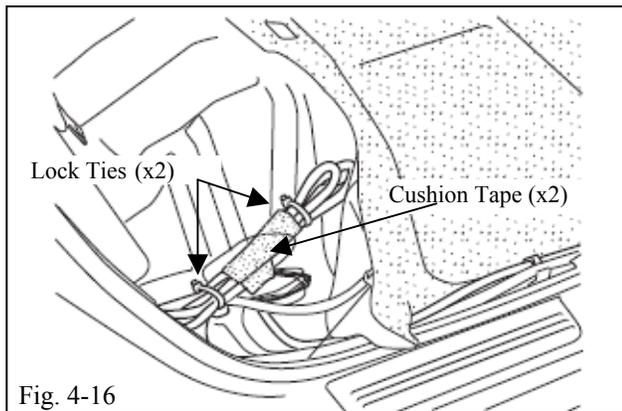
**NOTE:** Radio unit does not need to be removed to connect tuner wire.

- (5) Route the tuner wire next to the antenna wire along the rear and front door sills using the existing clamps. (Figs 4-13, 4-14)

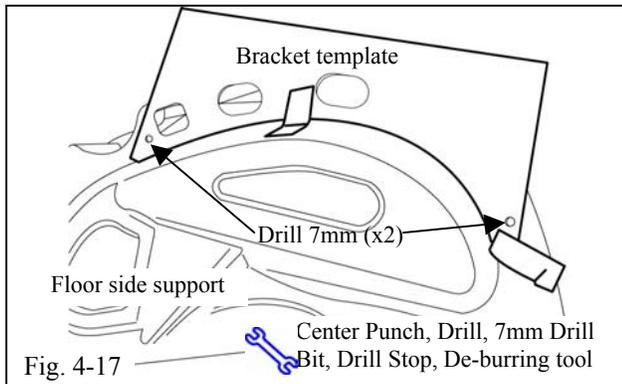




- (6) Route the tuner wire next to the antenna wire along the rear and front door sills using the existing clamps. (Figs 4-15, 4-16)
- (7) Bundle the excess Tuner wire and antenna wire under the floor side support. Apply two (2) lock ties and cushion tape as shown. (Fig. 4-16)



**NOTE:** Make sure to leave enough slack of the tuner wire and the antenna wire to insure connection to the XM tuner. (Fig. 4-16)



- (d) Install the receiver.
  - (1) Align the holes in the template with those in the floor side support as shown. (Fig. 4-17)



- (2) Using a center punch, mark the hole locations, then drill two holes into the floor side support. Discard the template.



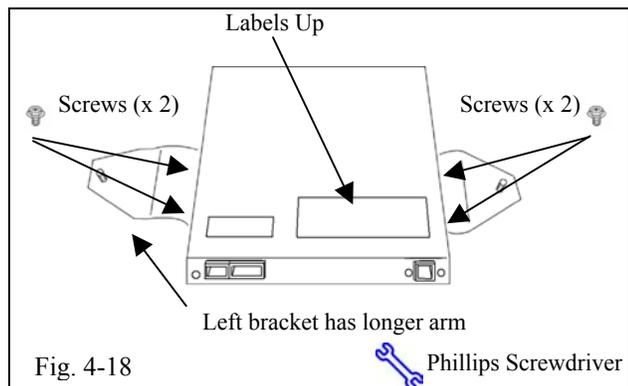
**NOTE:** Drill the floor side support outside the vehicle on a bench.



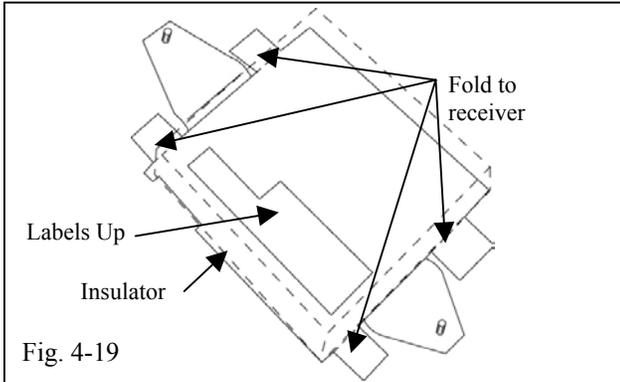
**NOTE:** De-burr hole after drilling.



**NOTE:** Vacuum all metal shavings before proceeding.



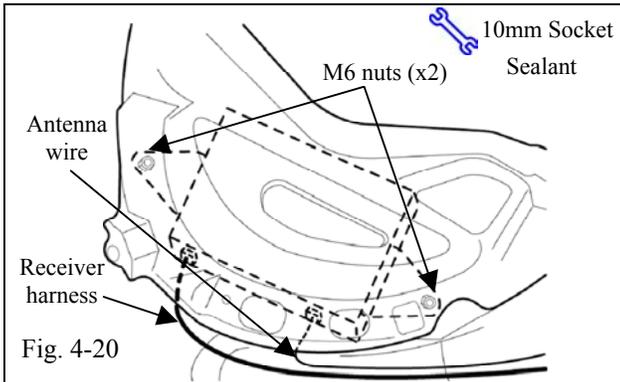
- (3) Assemble the side brackets onto the receiver using the supplied hex screws. Longer bracket is on left hand side. (Fig 4-18)



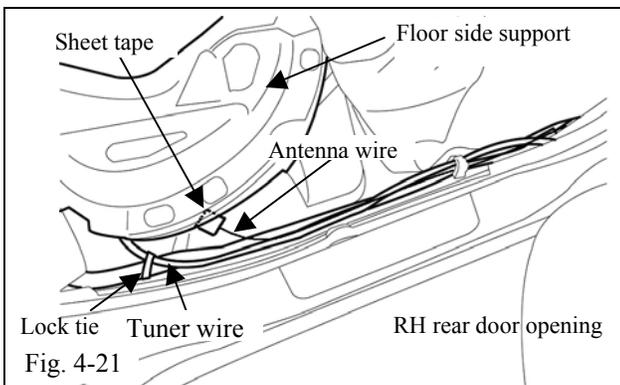
- (4) Apply the foam insulation sheet onto the bottom of the receiver, then fold the tabs downward as shown. (Fig. 4-19)
- (5) Plug the antenna and receiver connectors into the receiver then route. (Fig. 4-20)
- (6) Assemble the receiver unit to the floor side support with two M6 serrated nuts. (Fig. 4-20)



**NOTE:** Use sealant around two (2) mounting studs to prevent leakage and corrosion.



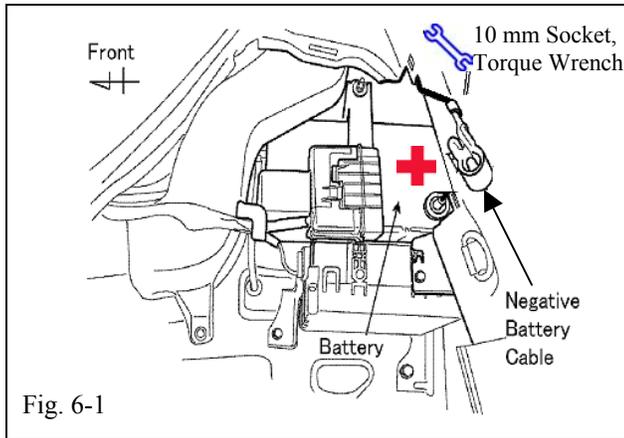
- (7) Reinstall the floor side support/receiver assembly. (Fig. 4-20)



- (8) Secure the tuner wire with the lock tie to the existing wire harness. Clean the area with the recommended solvent/cleaning solution, then secure the antenna wire with the sheet tape to the floor of the vehicle body as shown. (Fig. 4-21)

**5. Complete the Reassembly of the Vehicle.**

- (a) Reconnect any disconnected connectors.
- (b) Reinstall all trim panels. Allow no uneven gaps between them.
- (c) Clean Up and Remove Any Trash.



## 6. Completing the Installation.

- (a) Reconnect the vehicle's negative battery cable.
  - (1) Position the battery negative cable at 180 degrees from the original factory position.



- (2) Tighten the nut. Specified tightening torque: 6.0 N·m (53 lbf·in)



- (3) Do not touch the positive terminal with any tool when replacing the cable.

- (b) Reinstall the right (passenger) side battery cover (rear floor board no. 3).
- (c) Reinstall the center luggage box (deck floor box rear).
- (d) Reinstall the luggage center box cover (rear floor board no. 2)
- (e) Reinstall the center luggage box (deck floor box rear).



- (f) Place the XM brochure in the glove box.

Check:

Look For:

Accessory Function Checks

- Verify the proper operation of the satellite radio tuner. Refer to the receiver assembly and radio owner's manuals.
  
- Verify the proper operation of the receiver assembly and radio. Refer to the receiver assembly and radio owner's manuals.

Vehicle Function Checks

- Verify the proper operation of the start/ignition switch.
  
- Verify the proper operation of the hazard switch.
  
- Verify the removed seat cushion is securely fastened.
  
- Verify the proper operation of the air conditioning system.
  
- Verify the proper operation of the multi-information displays.