

Preparation

**Part Number: Mounting Kit: PT546-07090**  
**Tuner Assy: 86180-0W031**

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

**Tuner Assy Kit Contents (86180-0W031)**

Item #	Quantity Reqd.	Description
1	1	Tuner assy, stereo component

**Mounting Kit Contents (PT546-07090)**

Item #	Quantity Reqd.	Description
1	1	Wire, to radio installation
2	2	Bracket
3	1	Antenna
4	1	XM Satellite Radio Brochure

**Hardware Bag Contents-1 (PT546-07090)**

Item #	Quantity Reqd.	Description
1	9	Cushion Tape
2	11	Lock Tie

**Hardware Bag Contents-2 (PT546-07090)**

Item #	Quantity Reqd.	Description
1	2	Nut
2	4	Screw (M5 x 8)

**Additional Items Required For Installation**

Item #	Quantity Reqd.	Description
1		
2		
3		

**Conflicts**

iPod Interface, Sirius Satellite Radio
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**Recommended Tools**

Personal & Vehicle Protection	Notes
Safety Goggles	
Seat Covers	
Floor Protectors	
Protective Tape	Masking Tape

Special Tools	Notes
None	
Installation Tools	Notes
Ratchet	
Extension	
Sockets	10 mm, 14 mm
Screwdriver	Philips, #2
Nylon Panel Removal Tool	e.g. Panel Pry Tool #1 Toyota SST # 00002-06001-01
Utility Knife	
Torque Wrench	4.1 N-m (3lbf-ft), 18 N-m (13lbf-ft), 5 N-m (3.75lbf-ft)
Side Cutter	
Needle nose pliers	
Special Chemicals	Notes
Cleaner	3M™ Prep Sol-70

**General Applicability**

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**Recommended Sequence of Application**







Item #	Accessory
1	

\*Mandatory

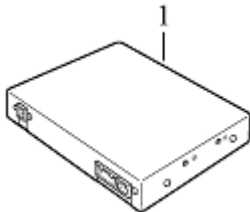
**Vehicle Service Parts** (may be required for reassembly)

Item #	Quantity Reqd.	Description
1		

**Legend**

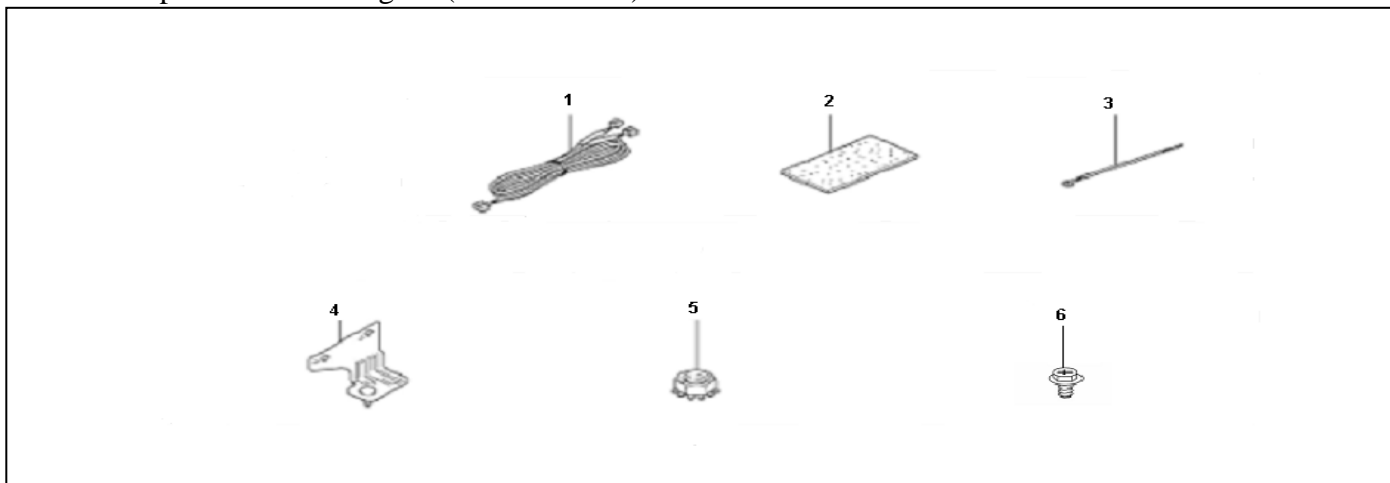
	<b>STOP:</b> Damage to the vehicle may occur. Do not proceed until process has been complied with.
	<b>OPERATOR SAFETY:</b> Use caution to avoid risk of injury.
	<b>CAUTION:</b> A process that must be carefully observed in order to reduce the risk of damage to the accessory/vehicle and to ensure a quality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

Parts Description of Tuner Assembly:



Item #	Parts Name	Parts No.	Qty
1	Tuner	86180-0W031	1

Parts Description of Mounting kit (PT546-07090):



Item #	Parts Name	Qty
1	WIRE, TO RADIO INSTALLATION	1
2	CUSHION TAPE	9
3	LOCK TIE	11
4	BRACKET	2
5	NUT	2
6	SCREWS (M5 x 8)	4

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.

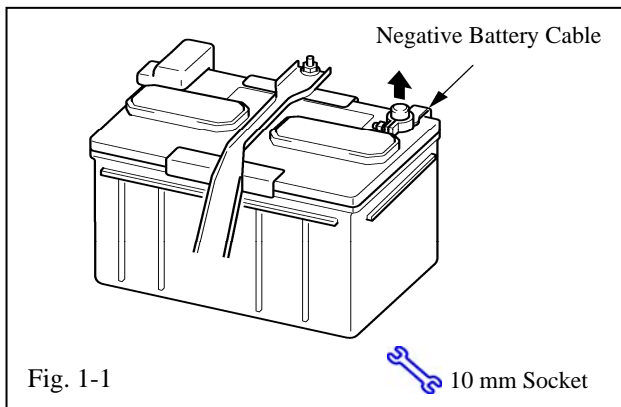
These guidelines can be found in the "Accessory Installation Practices" document.

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.**



- (a) Remove the negative battery cable.  
(Fig. 1-1)



- (1) Protect fender before starting.

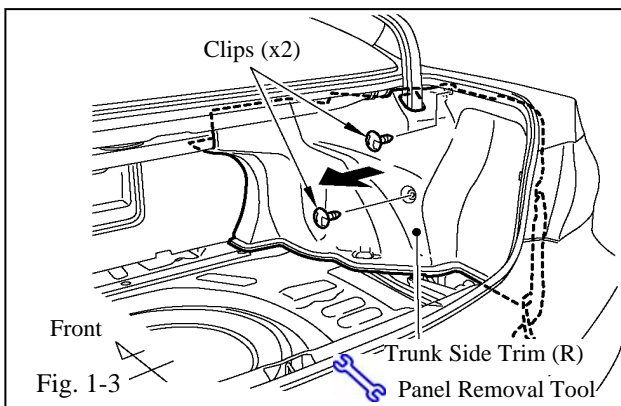
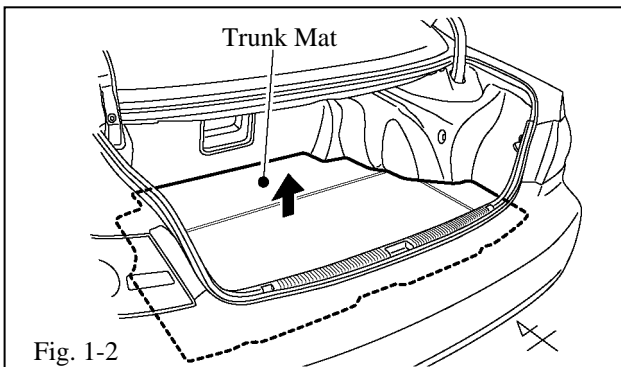


- (2) For vehicles equipped with automatic transmission, place in park and set the parking brake prior to disconnecting the battery.



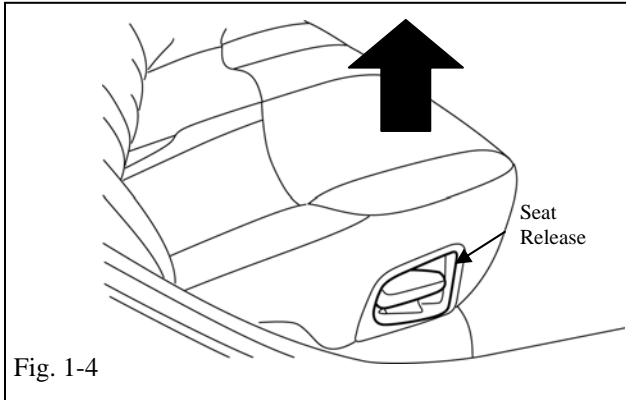
- (3) Do not touch the positive terminal with any tool when removing cable.

- (b) Remove the trunk mat. (Fig. 1-2)



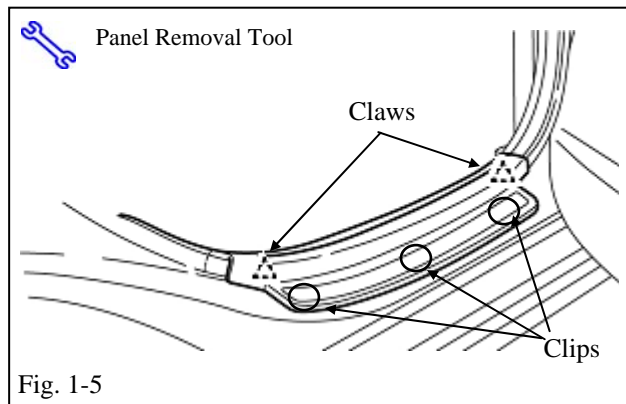
- (c) Remove the trunk side trim (R). (Fig. 1-3)

- (1) Remove the clips and pull the side trim in the direction of the arrow.



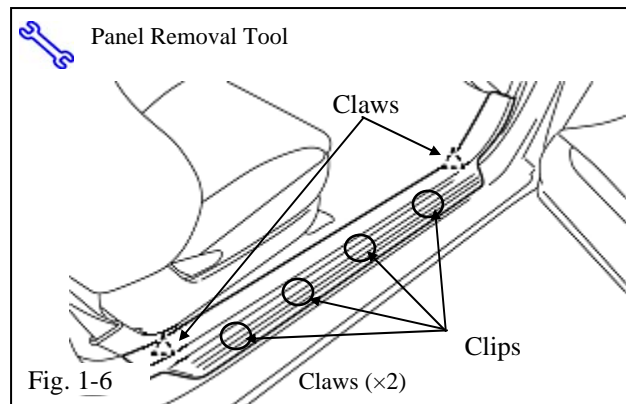
(d) Rear seat removal.

- (1) Pull up on the rear seat (passenger side) to disengage the seat. (Fig. 1-4)
- (2) Use a box to support (prop up) the rear seat cushion (passenger side.)

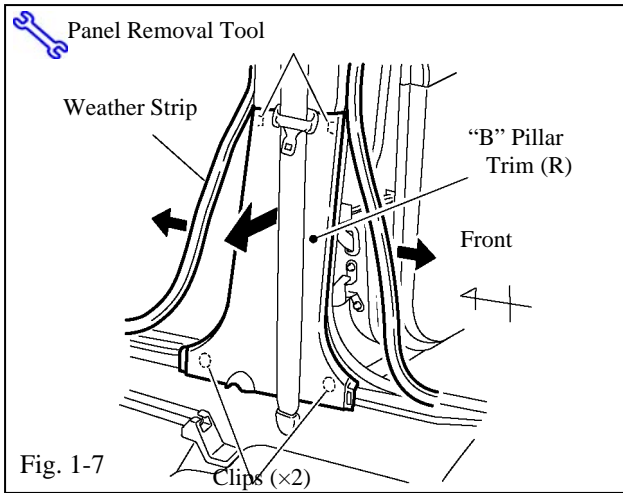


(e) Remove rear passenger side doorsill.  
(Fig. 1-5)

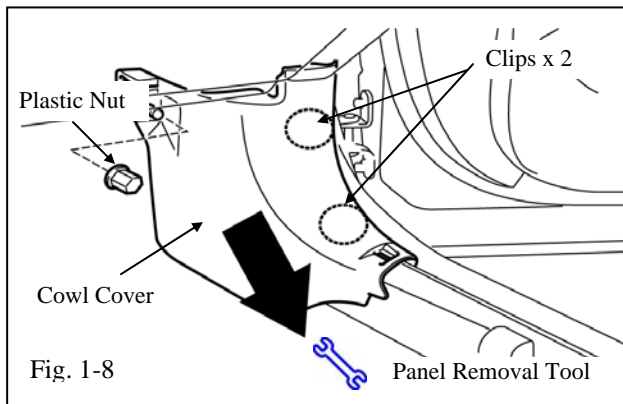
**NOTE:** If a clip remains on the vehicle, remove it and replace it into the plastic doorsill cover.



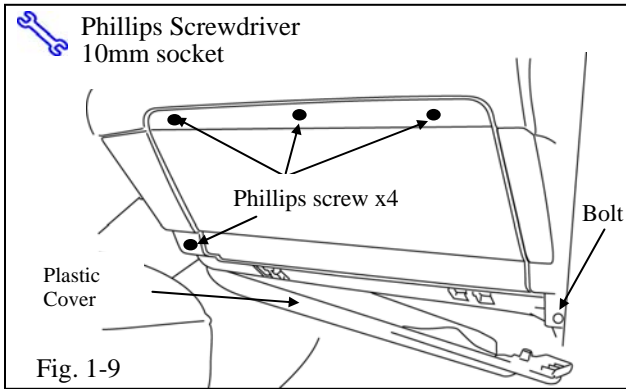
(f) Remove the front passenger side doorsill  
(Fig. 1-6)



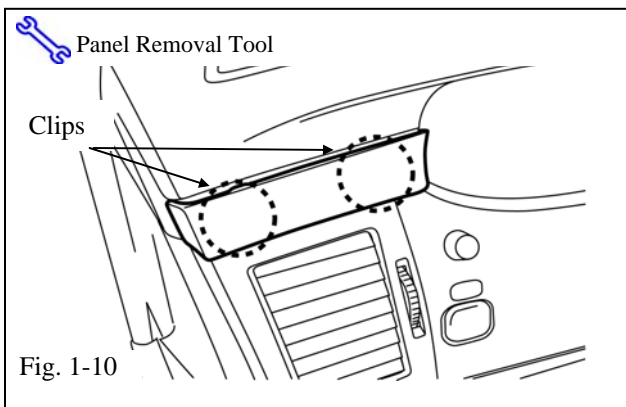
- (g) Remove the "B" pillar trim (R) (Fig. 1-7).
- (1) Peel off the front and rear weather strip.
  - (2) Pull the trim in the direction of the arrow, and remove the clips and claws.



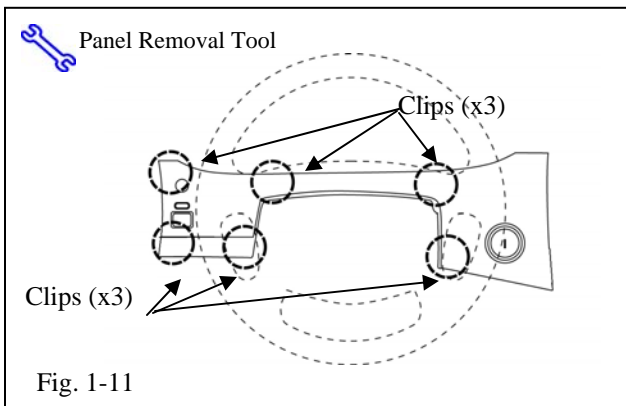
- (h) Remove cowl cover. (Fig. 1-8)
- (1) Remove the plastic nut
  - (2) Pull on the cover in the direction shown to remove.



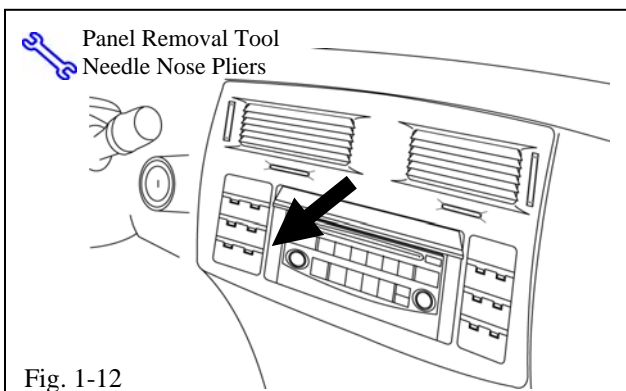
- (i) Remove the glove box. (Fig. 1-9)
  - (1) Remove the plastic cover
  - (2) Open the glove box.
  - (3) Remove 4 screws and 1 bolt.
  - (4) Pull the glove box straight out to remove.



- (j) Remove the dash and headunit.
  - (1) Remove the trim piece to the left of the steering wheel. (Fig 1-10)



- (2) Remove the trim piece around the steering wheel. (Fig 1-11)

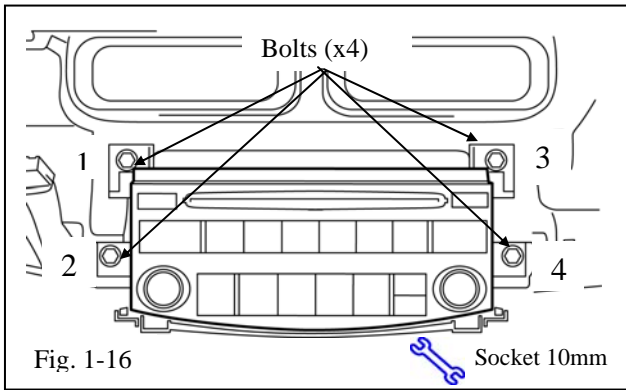


- (3) Remove the head unit trim piece (Fig. 1-12)



- (4) Disconnect any connectors.

**NOTE:** Needle nose pliers will be needed to disconnect these connectors.

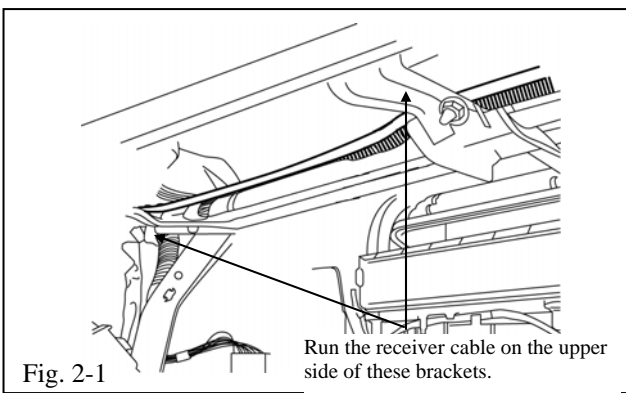


(5) Remove the head unit. (Fig. 1-16)

(6) Disconnect the head unit connectors.

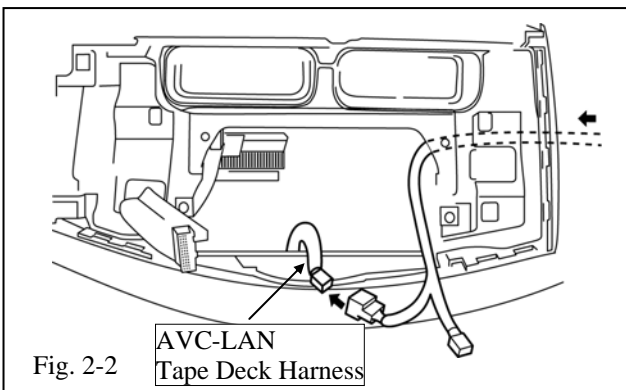


**NOTE:** During re-installation, bolts 1 and 2 are to be secured first.

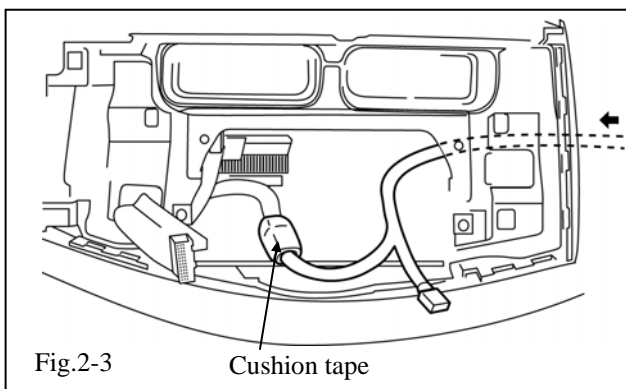


## 2. Installation of the Receiver.

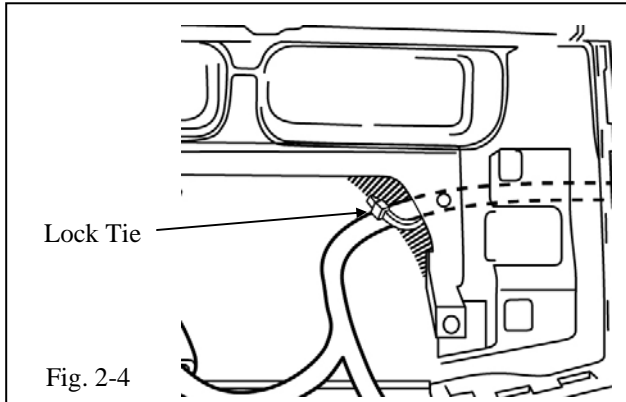
(a) Route the receiver cable through the glove box area as shown in the figure. (Fig. 2-1)



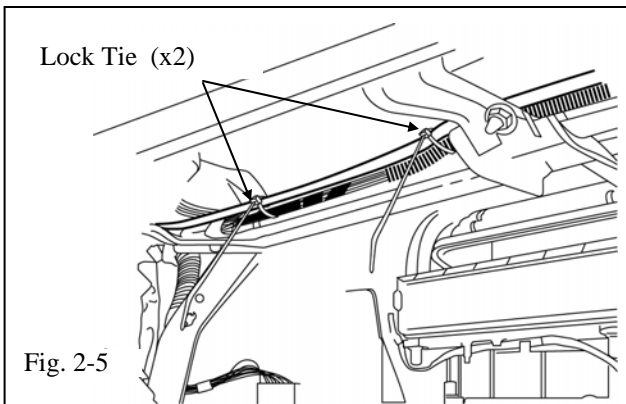
(b) For vehicles with tape deck or other AVC-LAN, connect the receiver cable to the radio harnesses. (Fig. 2-2).



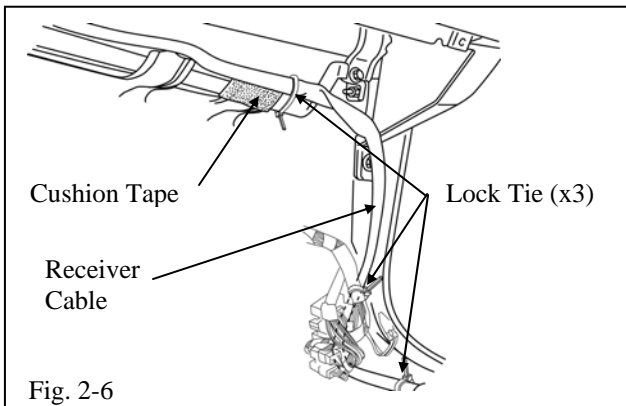
(c) Wrap cushion tape around the connector connection. (Fig. 2-3)



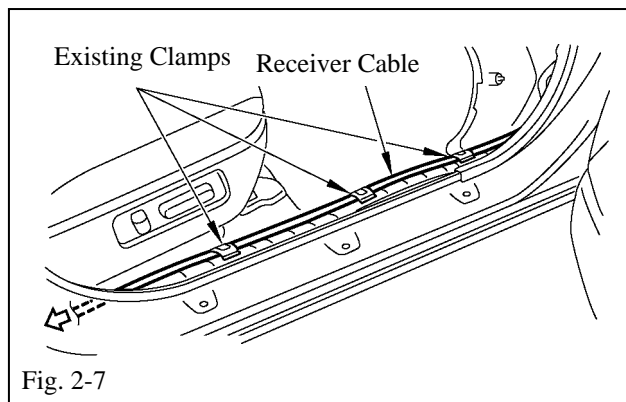
- (d) Secure the receiver cable to the existing cable bundle in the head unit area with one lock tie. (Fig. 2-4)



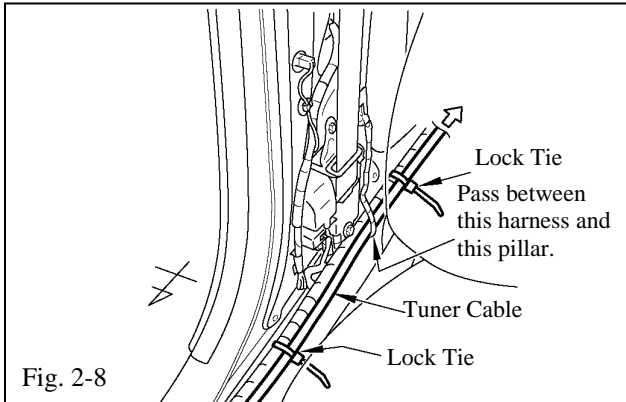
- (e) Secure the receiver cable in the glove box area with two lock ties as shown. (Fig. 2-5)



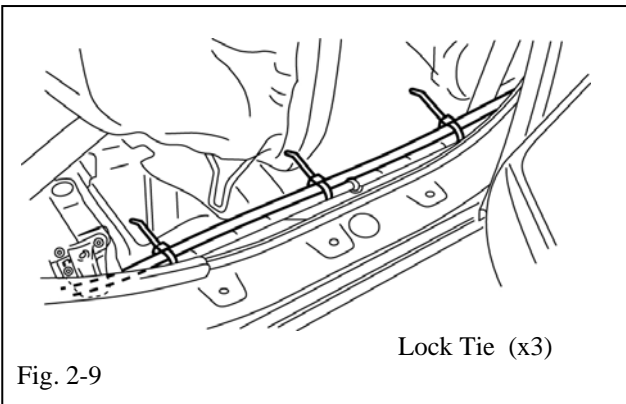
- (f) Cover the bracket on the right side of the glove box with cushion tape. (Fig. 2-6)
- (g) Secure the receiver cable in the right corner of the glove box area with three lock ties. (Fig. 2-6)



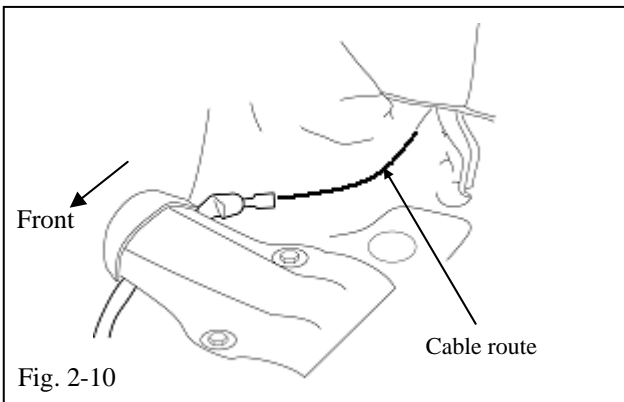
- (h) Route the receiver cable through the existing harness clamps as shown. (Fig. 2-7)



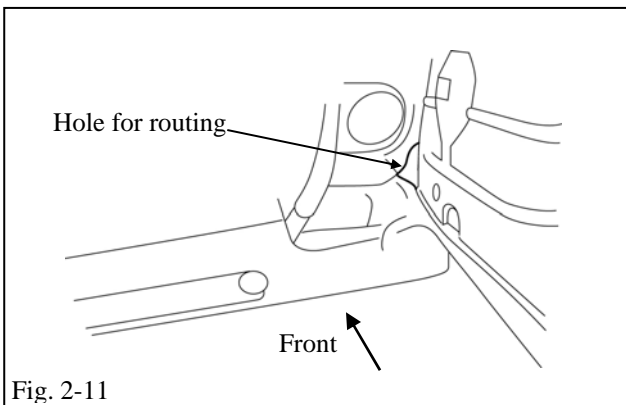
- (i) Route the receiver cable through the existing cables as shown. (Fig. 2-8)
- (j) Secure the receiver cable with lock ties. (Fig. 2-8)



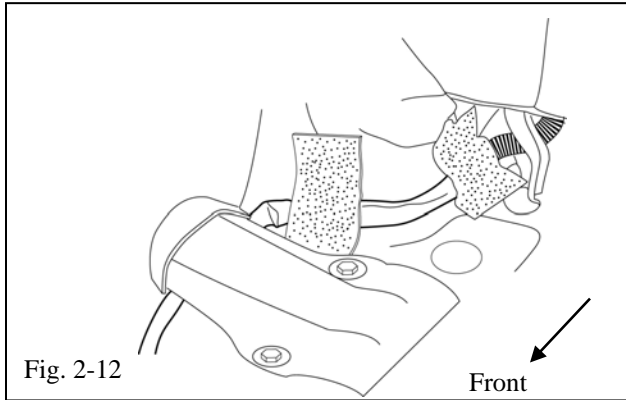
- (k) Route the cable underneath the bracket shown and secure with lock ties. (Fig. 2-9)



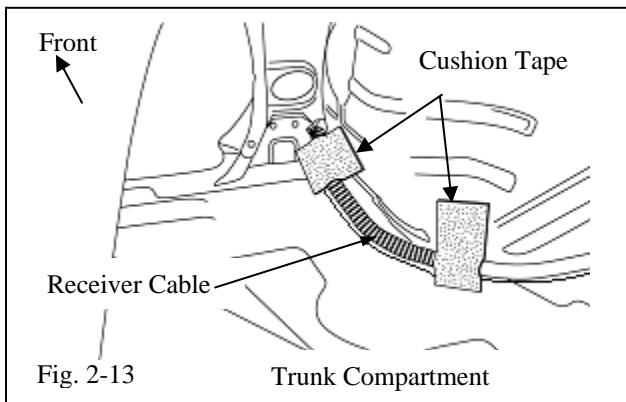
- (l) Route the cable as shown. (Fig. 2-10)



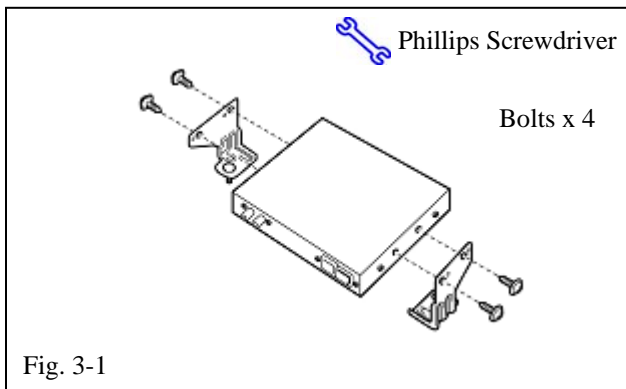
- (m) Confirm the cable has been routed through the appropriate hole in the trunk. (Fig. 2-11)



- (n) Secure the receiver cable to the car frame in the back seat area using cushion tape. (Fig. 2-12)

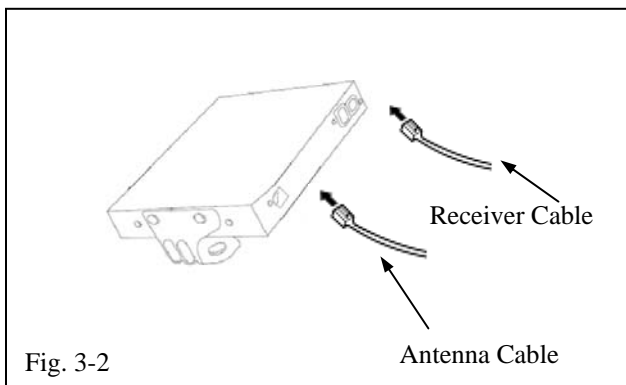


- (o) Route the receiver cable as shown, and fix with cushion tape. (Fig. 2-13)

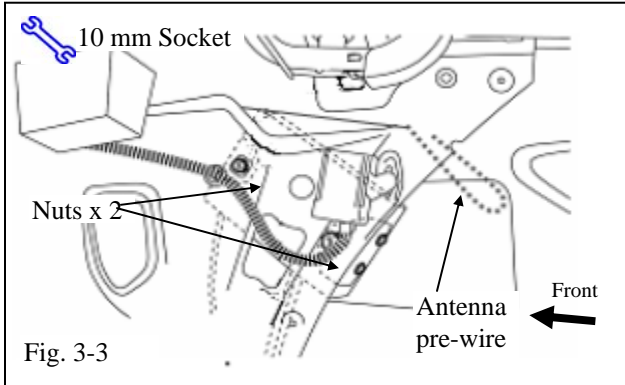


### 3. Install the Satellite Radio Receiver.

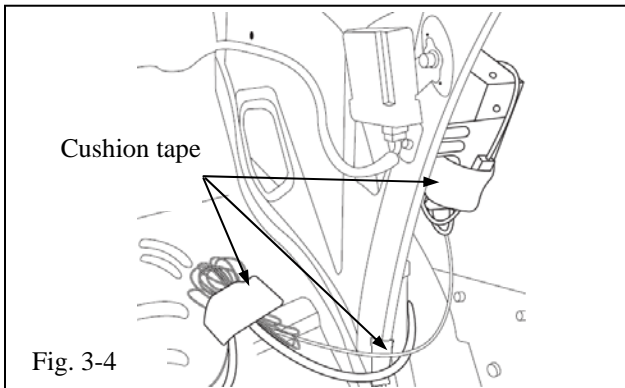
- (a) Install the mounting brackets onto the receiver. (Fig. 3-1)



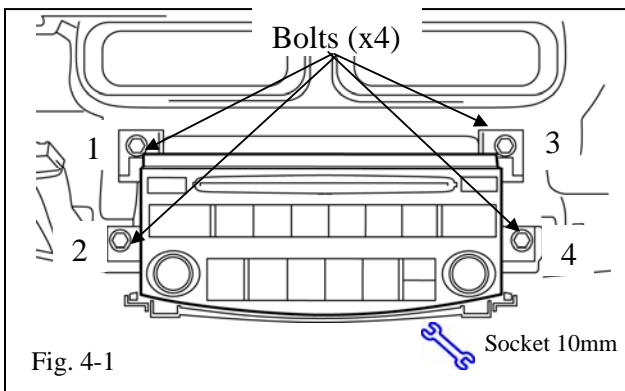
- (b) Attach antenna to receiver.
  - (1) Plug antenna connector into receiver; provided in kit & installed per above instructions. (Fig. 3-2)
  - (2) Plug receiver cable into receiver; bright green cable near the tuner mount location. (Fig. 3-2)




- (c) Install the receiver on the right side of the luggage compartment using nuts. Orient the tuner so the receiver connectors are facing downward as shown. Torque the nuts to 5 N-m (45 lbf-in). (Fig. 3-3)



- (d) Clean the cushion tape mounting area.
- (e) If there is excessive slack, bundle the excess using another cushion tape. (Fig. 3-4)
- (f) Determine the area where the receiver cable rubs the rear inner fender. Place cushion tape in that area. (Fig. 3-4)
- (g) Secure the antenna cable connection to the receiver as shown. (Fig.3-4)



**4. Reinstall the Radio/Player Head Unit.**

- (a) Connect the satellite tuner cable and connectors into the rear of the head unit.
-  (b) Insert head unit into opening and re-install the four bolts. Be sure to install the bolts on the left side (1 & 2) before installing the bolts on the right. (Fig. 4-1)

**5. In Process Functional Test.**

- (a) Temporarily reconnect battery negative cable.
- (b) Press the ignition button once (turn ignition key).
- (c) Press the power button on the receiver/player head unit. Verify the backlighting illuminates.
- (d) Press and release the "SAT" button on the head unit.

- (1) Verify that a satellite channel is received, or a "NO SIGNAL" message appears on the display.

**NOTE:** If "ANTENNA" appears (flashing) on the display – then the antenna cable is disconnected from the satellite tuner.

**NOTE:** If the head unit will not tune or go into satellite mode – then the tuner cable is disconnected from the satellite tuner.

- (e) Disconnect battery negative cable.

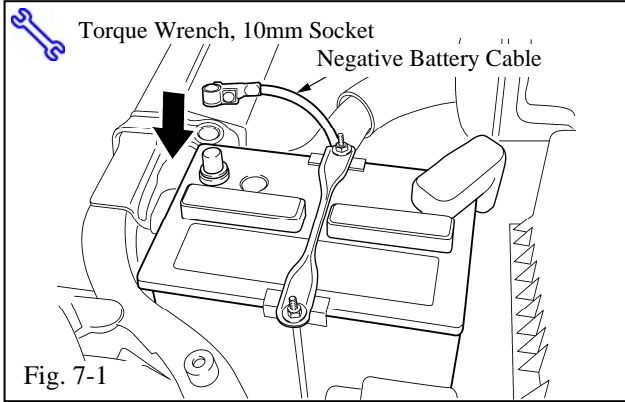
## 6. Complete the Reassembly of the Vehicle.

- (a) Reinstall glove box.
- (b) Reinstall console panel.
  - (1) Reconnect any disconnected connectors.
- (c) Reinstall trim pieces around steering column.
  - (1) Reconnect any disconnected connectors.
- (d) Reinstall cowl cover.
- (e) Reinstall B-pillar column cover and weather strip.
- (f) Reinstall front doorsill.
- (g) Reinstall rear doorsill.
- (h) Reinstall rear passenger seat.



**NOTE:** Torque the seat back bolt to 18 N-m. (13 lbf-ft)

- (i) Reinstall trunk trim piece and trunk mat.
- (j) Verify the panels fit together properly with no uneven gaps between them.



**7. Reconnect Battery Cable.**

(a) Reconnect the vehicle's negative battery cable. (Fig. 7-1)

(1) Position the negative terminal at the original factory position.



(2) Tighten the nut with 4.1 N-m (36 lbf-in) of torque.



(3) Be careful not to touch the positive battery terminal.

(b) Clean up and remove any trash.



(c) Place the owner "XM Satellite Radio" brochure in the glove box.

(d) Reset the power windows.

(1) Turn ignition key to ON position.

(2) Push down the power window switches of each door, and lower the windows halfway.

(3) Pull up the switches until the windows close and hold switches up for a further one (1) second (minimum.)

(e) Reset the power moon roof.

(1) Push and hold moon roof switch to close side until moon roof closes. Hold for a further 2 seconds.

**TOYOTA AVALON 2006 - XM SATELLITE RADIO**  
 Checklist - these points **MUST** be checked to ensure a quality installation.

<u>Check:</u>	<u>Look For:</u>
<p><u>Accessory Function Checks</u></p> <p><input type="checkbox"/> Satellite Radio Tuner.</p> <p><input type="checkbox"/> Receiver/player Assembly.</p>	<p>*Verify the proper operation of the Satellite Radio Tuner.</p> <p>*Verify the proper operation of the Receiver/player Assembly</p> <p>*(Refer to the receiver assembly and radio owner's manuals.)</p>
<p><u>Vehicle Function Checks</u></p> <p><input type="checkbox"/> Hazard Switch.</p> <p><input type="checkbox"/> Rear Seat Recliner</p> <p><input type="checkbox"/> HVAC.</p> <p><input type="checkbox"/> Rear Sun Screen</p> <p><input type="checkbox"/> Trunk Lid Lock</p> <p><input type="checkbox"/> IP Dimmer Control</p> <p><input type="checkbox"/> Outside Mirrors</p> <p><input type="checkbox"/> Ignition</p> <p><input type="checkbox"/> Rear Passenger Seat.</p> <p><input type="checkbox"/> Rear Passenger Seat Back.</p> <p><input type="checkbox"/> SRS Warning Light.</p> <p><input type="checkbox"/> Passenger's Seat Belt Reminder Light.</p>	<p>Proper operation of the hazard switch.</p> <p>Rear seat reclines and returns</p> <p>Proper operation of the air conditioning system.</p> <p>Functioning rear sun screen</p> <p>Functioning trunk lid lock</p> <p>Functioning IP illuminator dimmer</p> <p>Functioning outside mirrors</p> <p>Functioning ignition</p> <p>Removed seat is securely fastened.</p> <p>Seat in upright position and seat back lock mechanism secured.</p> <p>SRS warning light illuminates for approximately 6 seconds with the ignition ON, and then goes out.</p> <p>Proper operation of the passenger's seat belt reminder light.</p>