

**Part Number: Mounting Kit: PT546-21110
Tuner Assy 86180-0W032 or PT546-00090**

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

Tuner Assy Kit Contents:

(86180-0W032 or PT546-00090)

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

Mounting Kit Contents (PT546-21110)

Item #	Quantity Req'd.	Description
1	1	Ground Cable
2	1	Wire, To Radio Installation
3	2	Tuner Bracket
4	2	Base Bracket
5	1	Template (to locate base bracket)
6	6	Butyl Cushion (Flat)
7	2	Butyl Cushion (Step)
8	1	Antenna
9	3	Hardware Bags
10	1	XM Satellite Radio Brochure

Hardware Bag Contents – 1 (PT546-21110)

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

Hardware Bag Contents – 2 (PT546-21110)

Item #	Quantity Req'd.	Description
1	19	Lock Tie
2	1	Silicon Tubing w/slit

Hardware Bag Contents – 3 (PT546-21110)

Item #	Quantity Req'd.	Description
1	1	Connector Housing
2	7	Lock Tie
3	1	Cable Rail (10 mm)
4	7	Sheet Tape (30 x 30 mm)
5	1	Butyl Tape (15 x 15mm)
6	2	Protective Sheet (20 x 40 mm)

Additional Items Required For Installation

Item #	Quantity Req'd.	Description
1	1	Satellite Receiver Cover P/N PT218-52071
2	1	PT546-42090-DC, Data Cable required w/ PT546-00090

Conflicts

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Recommended Tools

Personal & Vehicle Protection	Notes
Safety Goggles	
Seat Covers	
Floor Protectors	
Special Tools	Notes
Installation Tools	Notes
Ratchet	
Extensions	
Sockets	10 mm, 14 mm
Torque Wrench	4.1 N•m (36 lbf•in): Battery cable, 37 N•m (27 lbf•ft): Front Seat
Screwdriver	Phillips, #2
Panel Removal Tool	e.g. Panel Pry Tool #1 Toyota SST # 00002-06001-01
Masking Tape	(2" wide)
Mallet	
Side Cutter	
Cutter	
Special Chemicals	Notes
Cleaner	VDC approved cleaner

General Applicability

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Recommended Sequence of Application







Item #	Accessory
	Fog Lights, Blu Logic, Security, XM, Audio

*Mandatory

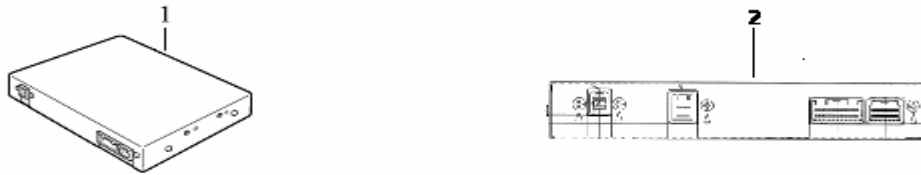
Vehicle Service Parts (may be required for reassembly)

Item #	Quantity Req'd.	Description

Legend

	STOP: Damage to the vehicle may occur. Do not proceed until process has been completed with.
	OPERATOR SAFETY: Use caution to avoid risk of injury.
	CAUTION: 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.
	TOOLS & EQUIPMENT: Used in Figures calls out the specific tools and equipment recommended for this process.
	REVISION MARK: This mark highlights a change in installation with respect to previous issue.
	SAFETY TORQUE: This mark indicates that torque is related to safety.

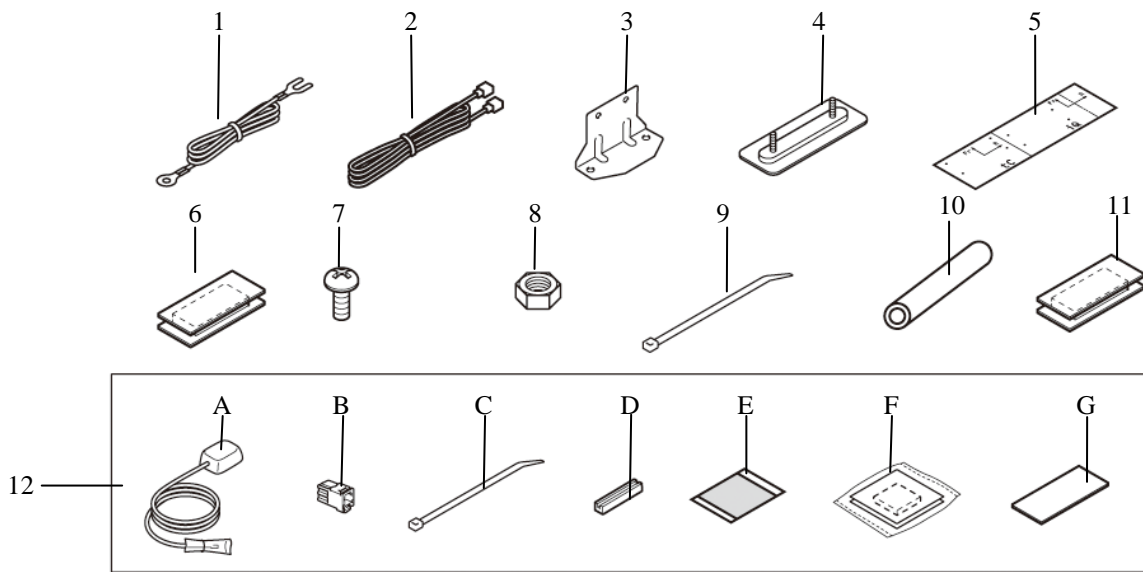
Parts Description of Receiver Assembly Radio Unit (86180-0W032 or PT546-00090)



Item #	Parts Name	Parts No.	Qty
1	Tuner Assy, Stereo Component* ¹	86180-0W032	1
2	Data Tuner	PT546-00090	1

*¹: In the installation instructions and figures, this is referred to as "Tuner".

Parts Description of Mounting Kit (PT546-21110)



Item #	Parts Name	Qty
1	Ground Cable	1
2	Wire, To Radio Installation* ²	1
3	Tuner Bracket	2
4	Base Bracket	2
5	Template (to locate base bracket)	1
6	Butyl Cushion (Flat) (4 are used for tC)	6
7	Screw (M5 x L8)	4
8	Nut (M6)	4
9	Lock Tie	19
10	Silicon Tubing w/slit (Outer Dia. 6.4 mm, Inner Dia. 3.2 mm, L = 60 mm)	1
11	Butyl Cushion (Step) (0 used for tC)	2
12	A Antenna	1
	B Connector Housing	1
	C Lock Tie	7
	D Cable Rail (10 mm)	1
	E Sheet Tape (30 x 30 mm)	7
	F Butyl Tape (15 x 15 mm) (0 used for tC)	1
	G Protective Sheet (20 x 40 mm)	2

*²: In the installation instructions and figures, this is referred to as "Tuner Cable".

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.

NOTES



Removed Parts: -
Place all removed parts on a protected surface.



Connectors: -
When disconnecting connectors, do not pull on the wires; pull on the connectors.



Lock Ties: -
When using lock ties to secure harness, clip the lock ties after securing them.



Machine Screws: -
Start all machine screws by hand.



When disconnecting a yellow connector for the SRS airbag, wait 90 seconds or more after disconnecting the negative battery cable before performing the next task.

1. Vehicle Protection.

- (a) Open rear hatch.
- (b) Remove the negative battery cable. (Fig. 1-1)



- (1) Protect the fender before starting.
- (2) For vehicles equipped with automatic transmission, place the shifter in the N (neutral) position and set the parking brake prior to disconnecting the battery.
- (3) Do not touch the positive terminal with any tool when removing cable.

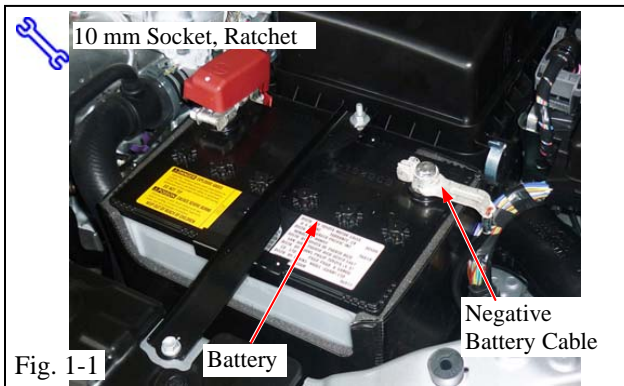
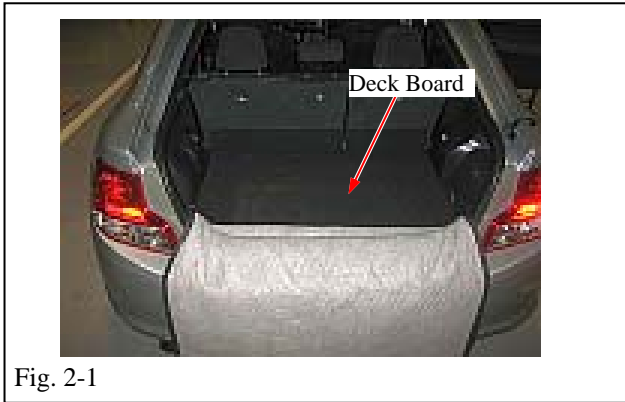


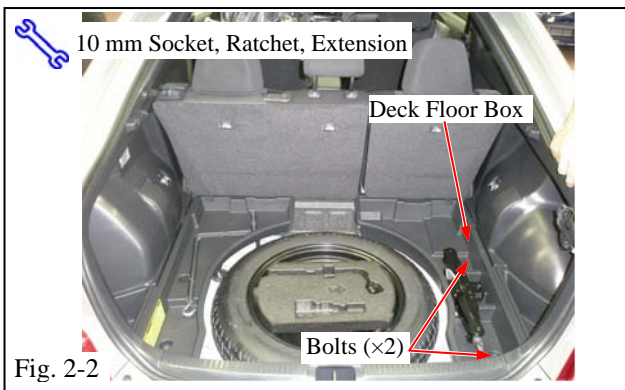
Fig. 1-1



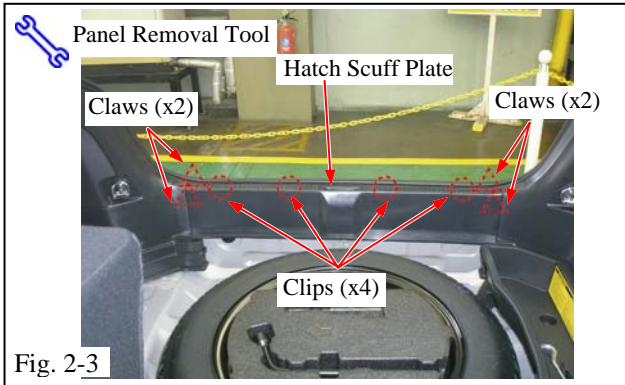
2. Disassembly of Vehicle.

- (a) Remove the deck board cover from the cargo area. (Fig. 2-1)

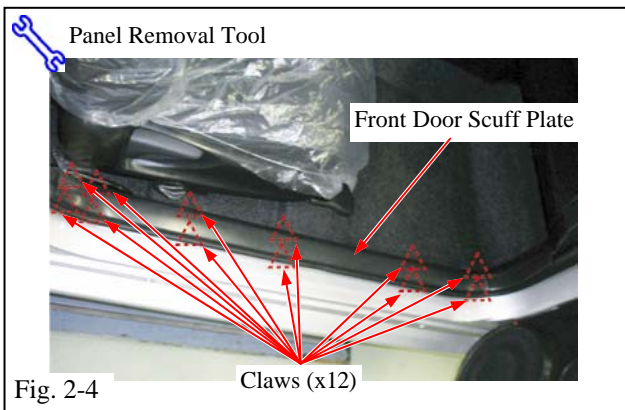
STOP NOTE: Protect the rear bumper with a blanket.



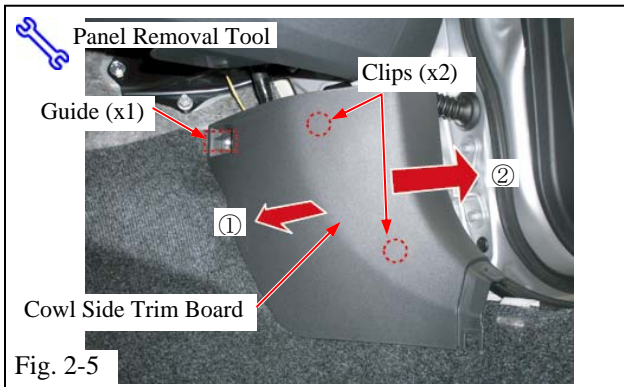
- (b) Remove the right side deck floor box. (Fig. 2-2)
 - (1) Remove the two (2) installation bolts, and remove the right side deck floor box from the cargo area.



- (c) Remove the rear hatch scuff plate. (Fig. 2-3)
 - (1) Disengage the four (4) clips and four (4) claws, and then remove the rear hatch scuff plate.

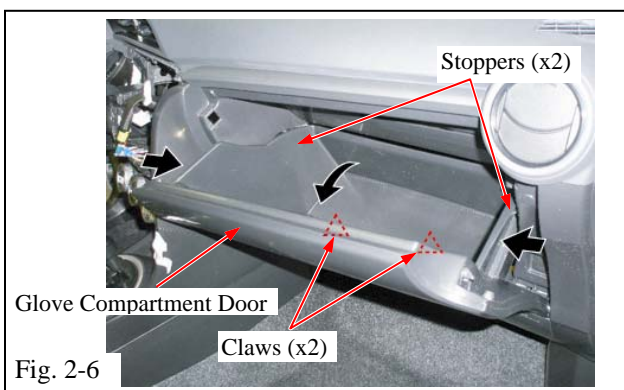


- (d) Remove the right side front door scuff plate. (Fig. 2-4)
 - (1) Disengage the twelve (12) claws, and remove the right side front door scuff plate.



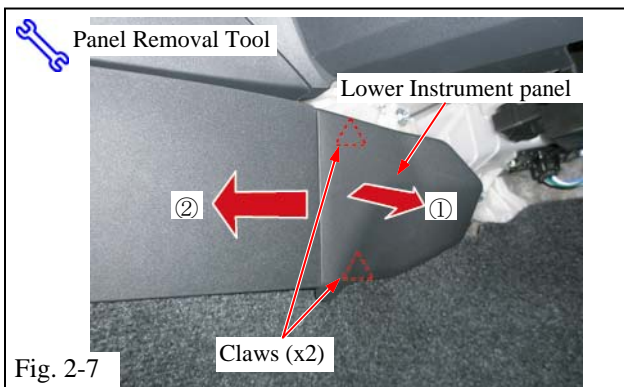
(e) Remove the right side cowl side trim board. (Fig. 2-5)

- (1) Disengage the two (2) clips and one (1) guide, and then remove the right side cowl side trim board.



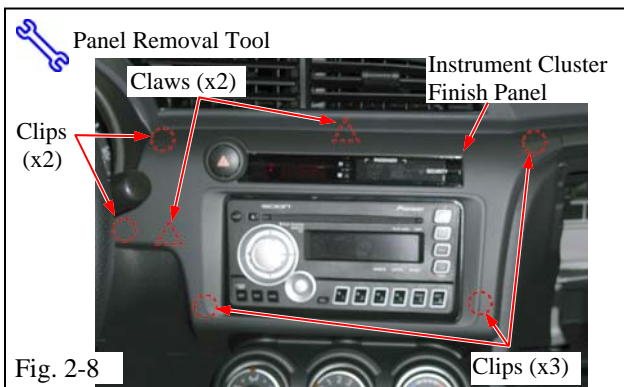
(f) Remove the glove compartment door. (Fig. 2-6)

- (1) Squeeze both ends of the box together to fully extend the box, and then remove the two (2) stoppers.
- (2) Disengage the two (2) claws, and remove the glove compartment door.



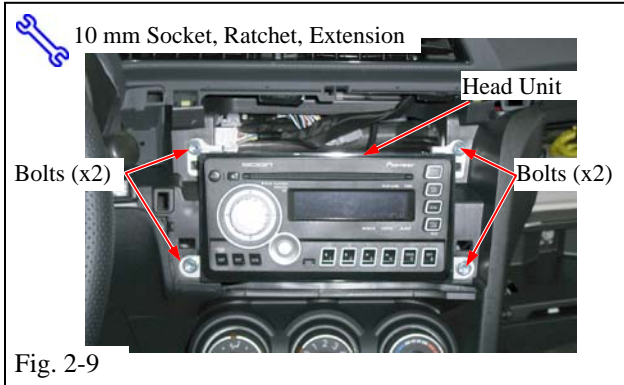
(g) Remove the lower instrument panel. (Fig. 2-7)

- (1) Disengage the two (2) claws, and remove the lower instrument panel.

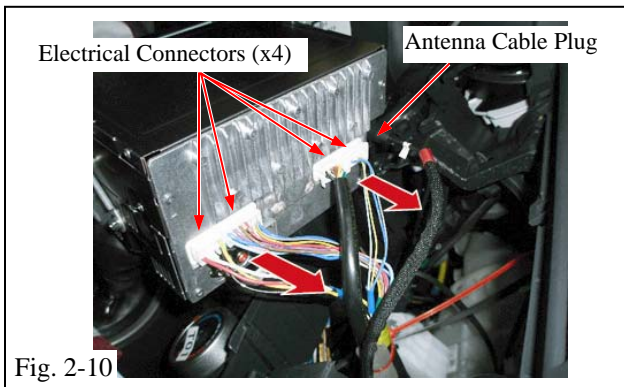


(h) Remove the head unit. (Fig. 2-8)

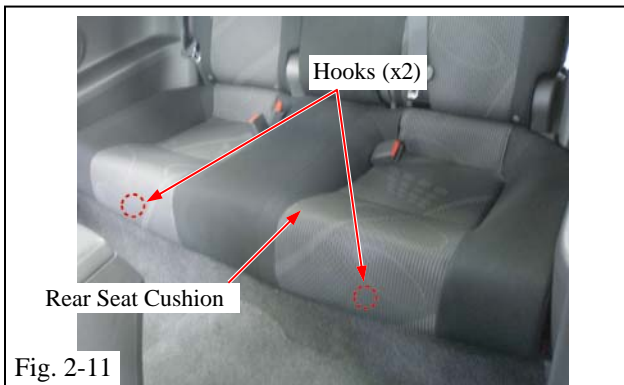
- (1) Disengage the five (5) clips and two (2) claws and then remove the instrument cluster finish panel.
Make sure to disconnect electrical harness at the top of the panel.



(2) Remove the four (4) bolts and remove the head unit. (Fig. 2-9)



(3) Disconnect the four (4) electrical connectors and antenna cable plug from the rear of head unit. (Fig. 2-10)



(i) Remove the rear seat cushion. (Fig. 2-11)

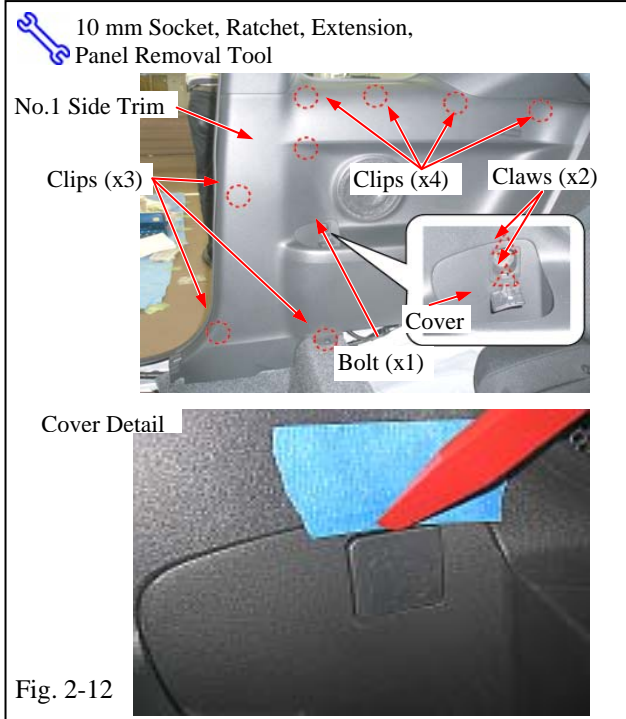
(1) Disengage the two hooks, and remove the rear seat cushion.

NOTE: Replace any broken/missing seat anchor covers with part number;

Inner and outer front covers: 72123-21010-B0

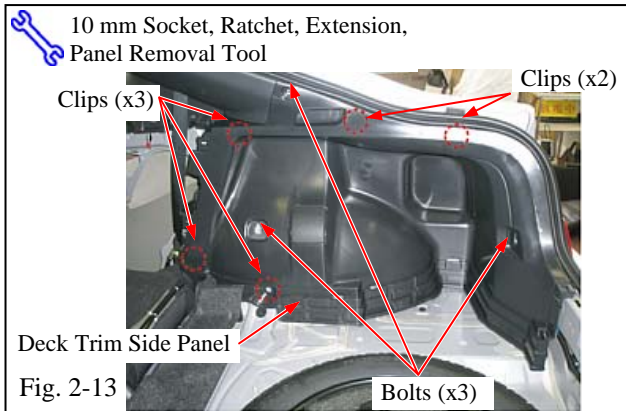
Inner rear cover: 72157-21030-B0

Outer rear cover: 72137-21030-B



- (j) Remove the right side No.1 side trim.
(Fig. 2-12)
 - (1) Disengage the two (2) claws and then remove the cover.
 - (2) Disengage the one (1) bolt and seven (7) clips, and then remove the right side No.1 side trim.

NOTE: Apply tape, then pry cover open from top in order to access bolt.
(See cover detail)



- (k) Fold down the seatback of the right side rear seat.
 - (1) Remove the right side deck trim side panel.
(Fig. 2-13)
 - (1) Disengage the three (3) bolts and five (5) clips, and then remove the right side deck trim side panel.

NOTE: It is not necessary to remove the cargo net snap.



3. Install XM Antenna and Antenna Cable.

(a) Clean the antenna area with VDC approved cleaner and cleaning method. (Fig. 3-1)

<When using VDC approved cleaner>



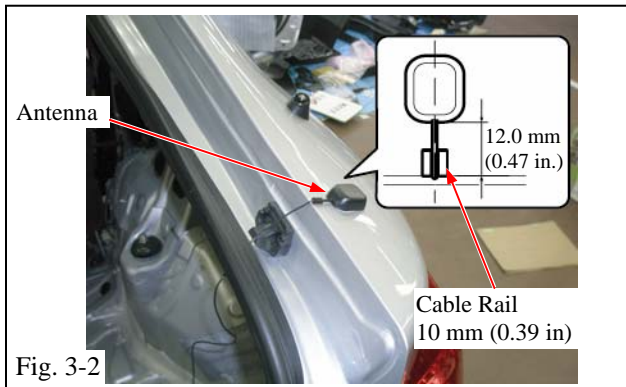
(1) Always use a clean (lint free scratch resistant) soft cloth (or wipe), and clean a small area at a time (3 ft. x 3 ft. max.).



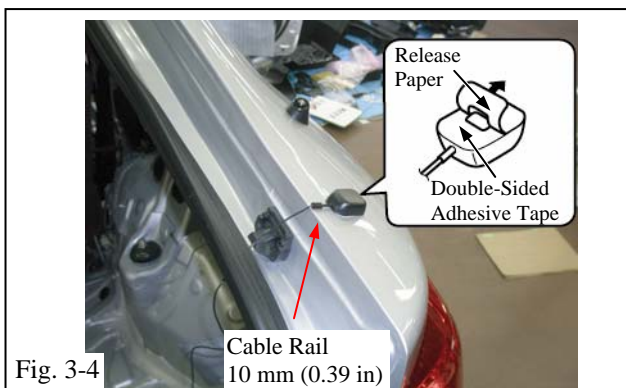
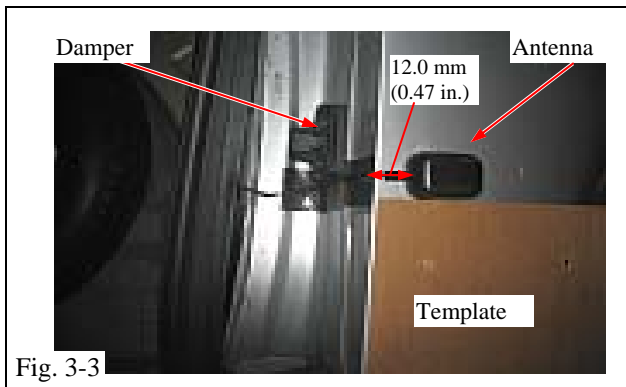
(2) Apply VDC approved cleaner to cloth or wipe. Do not spray cleaning solution directly on any vehicle surfaces.

(3) Clean surface thoroughly and wipe dry immediately with a new clean cloth. Do not allow cleaner to air dry.

(b) Temporarily place the antenna at the position as shown. (Fig. 3-2)

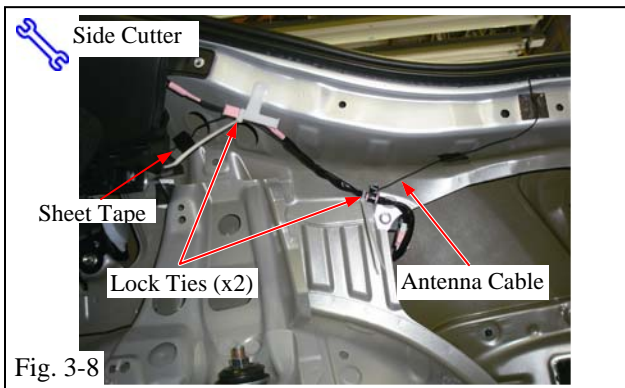
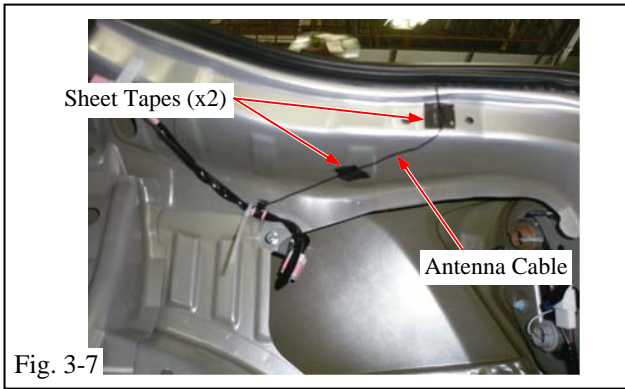
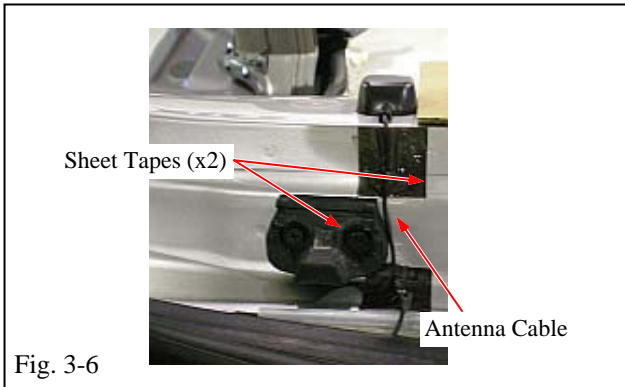
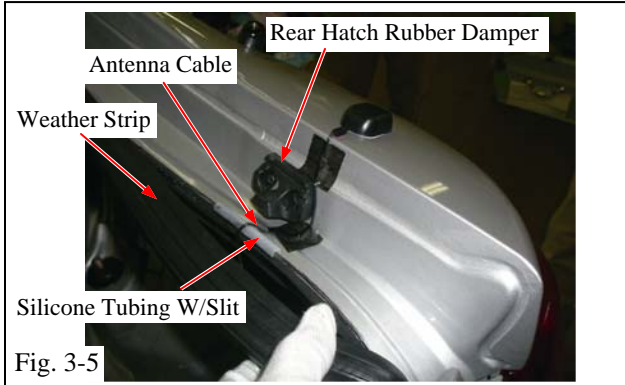


(c) Align tuner template with rear hatch to confirm antenna rotation, and align the wire (center of antenna) with the rearward edge of the rear hatch rubber damper. (Fig. 3-3)



(d) Attach the cable rail on the fender as shown. (Fig. 3-4)

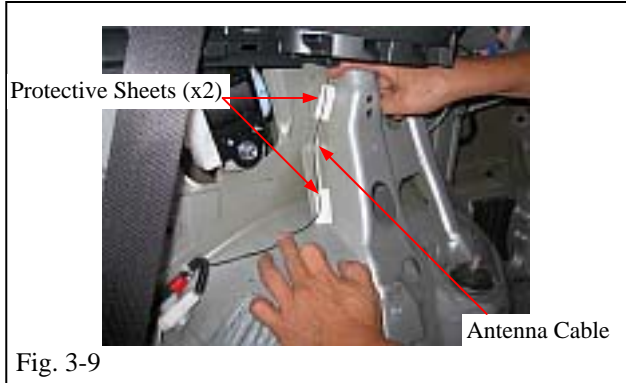
(e) Remove the release paper from the antenna, and then install the antenna to the panel as shown. (Fig. 3-4)



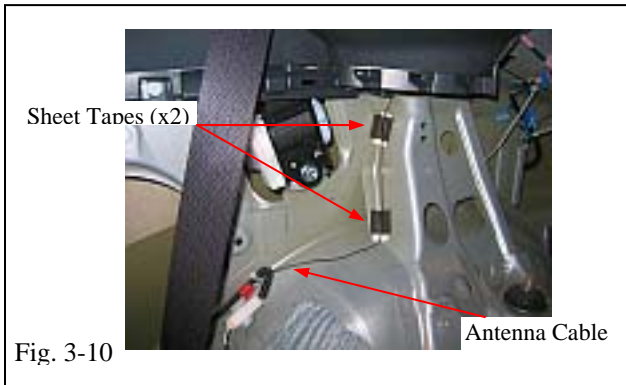
- (f) Partially remove the weather strip. (Fig. 3-5)
- (g) Attach the silicon tubing w/slit behind the weather strip. (Fig. 3-5)
- (h) Clean the sheet tape area with VDC approved cleaner and cleaning method. (Fig. 3-6)
- (i) Route the antenna cable along the edge of rear hatch rubber damper and secure with two (2) sheet tapes (30 x 30 mm). (Fig. 3-6)
- (j) Antenna wire should pass over silicone tube to protect it from the hatch edge

NOTE: Wipe off any grease or residue from the weather strip.

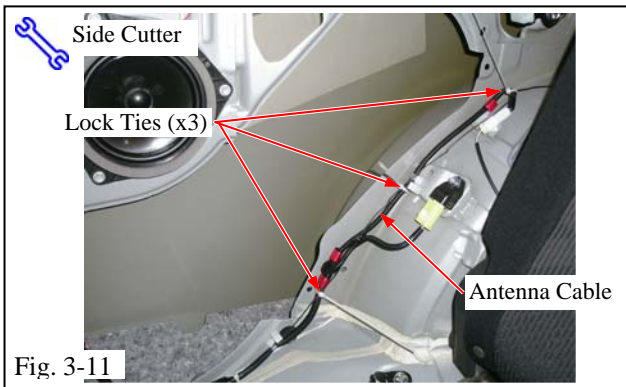
- (k) Clean the sheet tape areas with VDC approved cleaner and cleaning method. (Fig. 3-7)
- (l) Route the antenna cable as shown and secure with two (2) sheet tapes (30 x 30 mm). (Fig. 3-7)
- (m) Route the antenna cable as shown and secure with two (2) lock ties. (Fig. 3-8)
- (n) Use the side cutter to cut off the excess lock ties length.
- (o) Clean the sheet tape areas with VDC approved cleaner and cleaning method. (Fig. 3-8)
- (p) Secure antenna wire with one (1) sheet tape (30 x 30 mm). (Fig. 3-8)



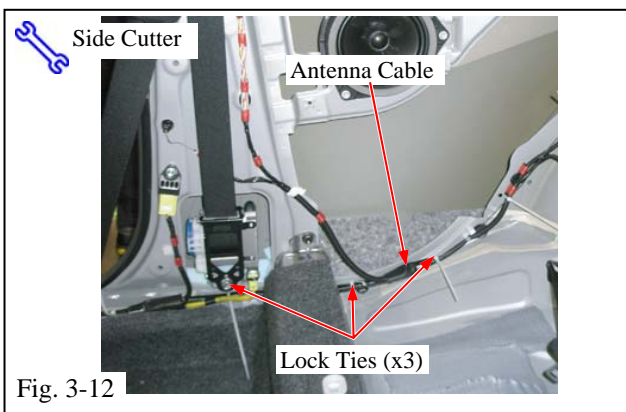
- (q) Clean the sheet tape & protective tape areas with VDC approved cleaner and cleaning method. (Fig. 3-9)
- (r) Apply two (2) protective sheets (20 x 40 mm) to the metal panel joint. (Fig. 3-9)
- (s) Route the antenna cable as shown. (Fig. 3-9)



- (t) Secure antenna wire with two (2) sheet tapes (30 x 30 mm) over the protective sheets as shown. (Fig. 3-10)

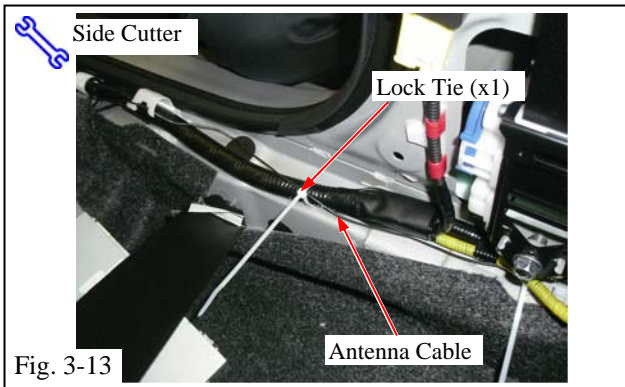


- (u) Route the antenna cable as shown and secure with the three (3) lock ties. (Fig. 3-11)
- (v) Use the side cutter to cut off the excess lock ties length.



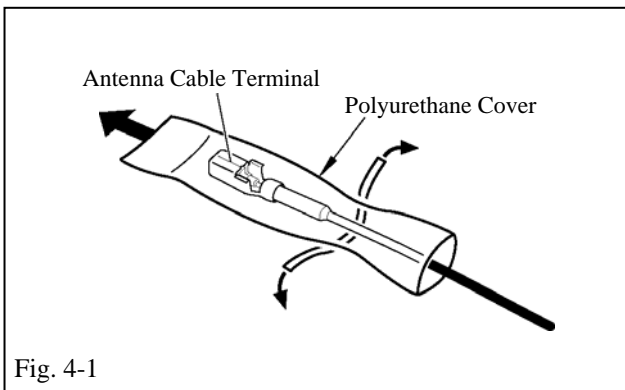
- (w) Route the antenna cable as shown and secure with the three (3) lock ties. (Fig. 3-12)
- (x) Use the side cutter to cut off the excess lock ties length.

⚠ NOTE: Do not wire tie antenna cable to airbag harness at the bottom of the shoulder belt.



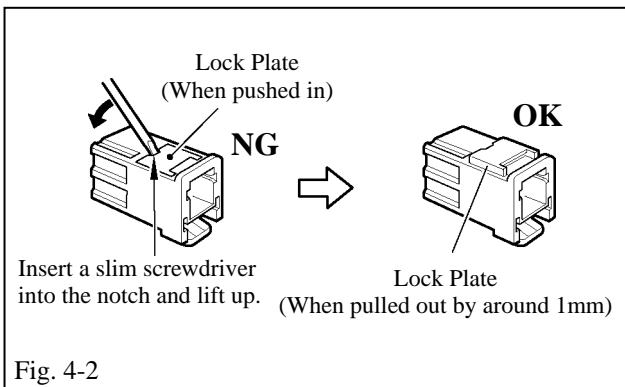
(y) Route the antenna cable as shown and secure with the one (1) lock tie. (Fig. 3-13)

- (1) Bundle remaining antenna cable. Final routing details will be shown after tuner cables are routed.
- (z) Use the side cutter to cut off the excess lock tie length.



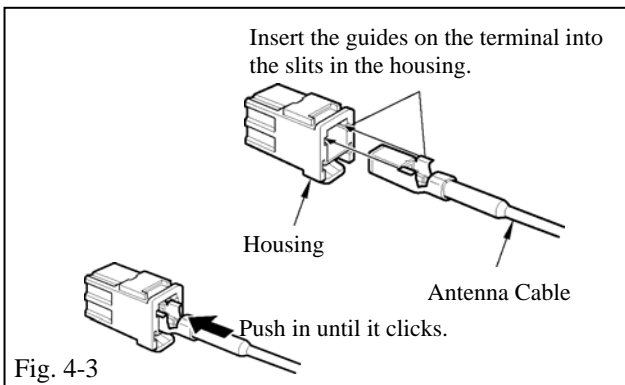
4. Attach the Connector Housing to the Antenna Cable Terminal.

(a) Remove the polyurethane cover from the terminal. (Fig. 4-1)

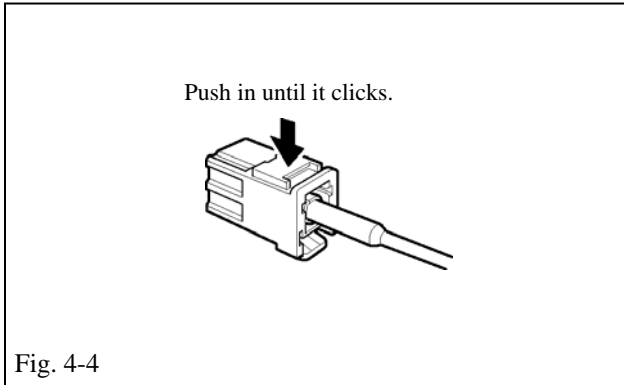


(b) If the lock plate of the housing is pushed in, pull it out. (Fig. 4-2)

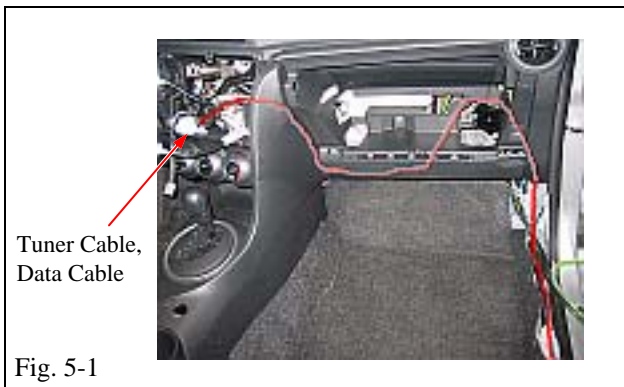
NOTE: This step is not required if the lock plate is already pulled out.



(c) Push the terminal into the housing. (Fig. 4-3)



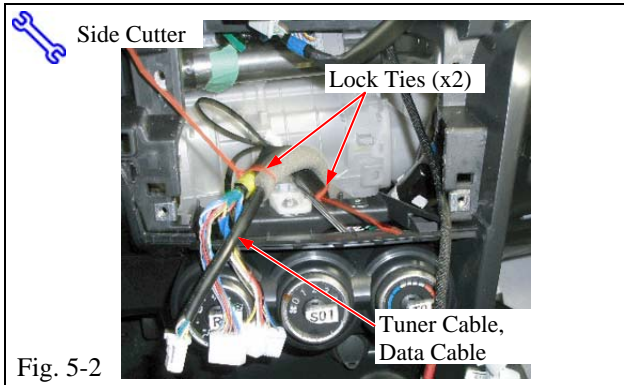
(d) Push the lock plate in. (Fig. 4-4)



5. Install Tuner Cable and Data Cable.
(Data cable is to be installed with Data Tuner PT546-00090 only.)

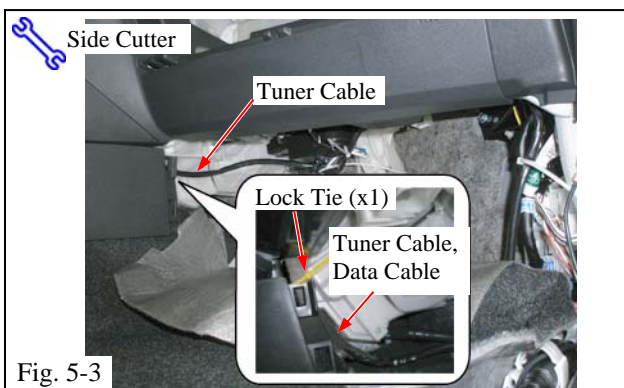
(a) Install and route the tuner cable and data cable from the center cluster, over the dash mounting bracket, then downward toward the cowl side area. (Fig. 5-1)

⚠ NOTE: Route and secure Data Cable with Tuner Cable in all steps if Data Tuner is being installed. Disregard Data Cable notes for music tuner installation.



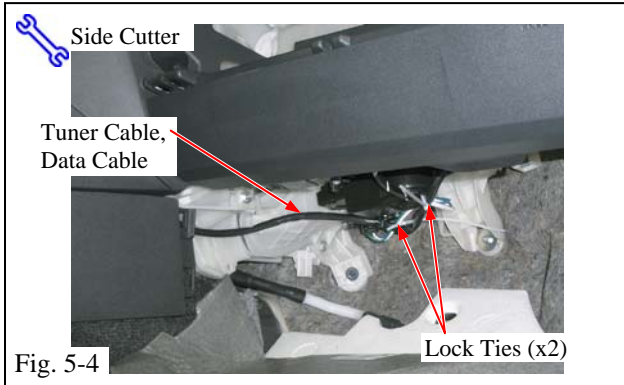
(b) Route the tuner cable and data cable from the center cluster to the glove box side and secure it to the existing wire harness using the two (2) lock ties. (Fig. 5-2)

(c) Use the side cutter to cut off the excess lock ties length.



(d) Secure the tuner cable and data cable in the bracket using the one (1) lock tie. (Fig. 5-3)

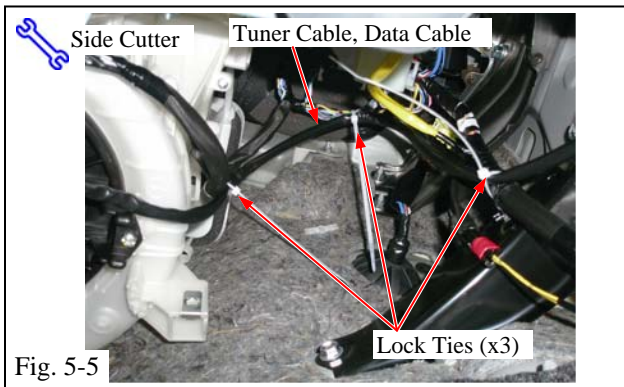
(e) Use the side cutter to cut off the excess lock tie length.



(f) Secure the tuner cable and data cable in the upper area of glove box onto the existing wire harness using the two (2) lock ties. (Fig. 5-4)

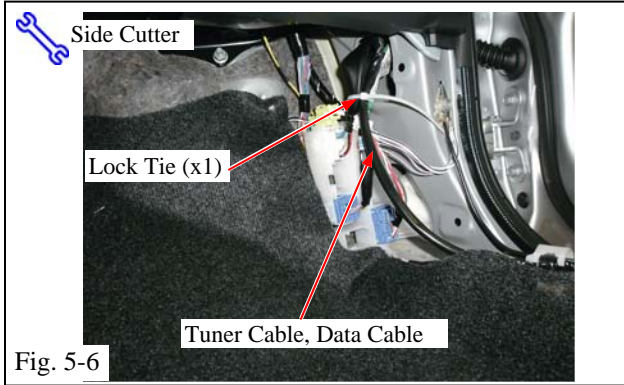
(g) Use the side cutter to cut off the excess lock ties length.

|| **⚠ NOTE:** Do not wire tie cable to airbag harness.



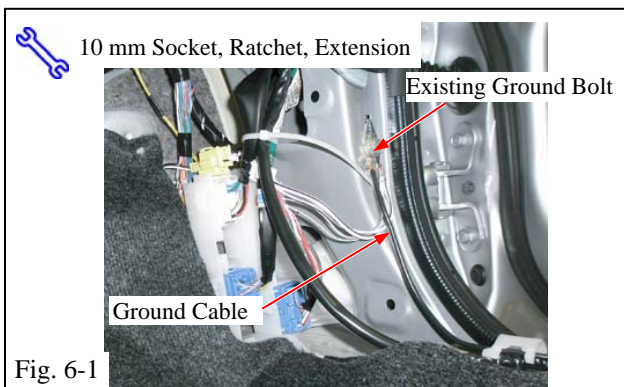
(h) Secure the tuner cable and data cable in the right side area of glove box onto the existing wire harness using the three (3) lock ties. (Fig. 5-5)

(i) Use the side cutter to cut off the excess lock ties length.



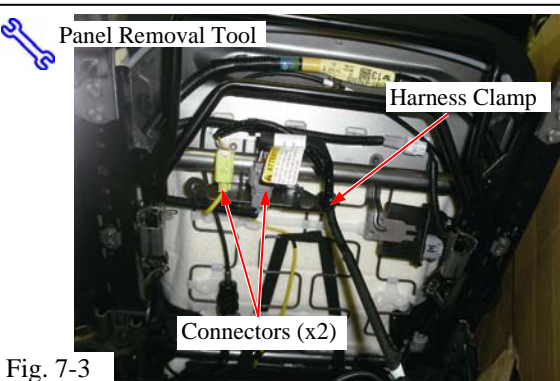
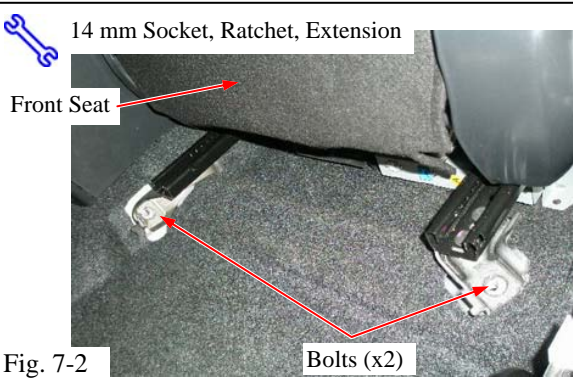
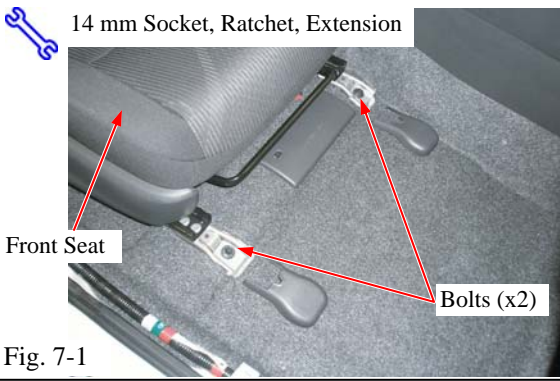
(j) Secure the tuner cable and data cable to the existing vehicle harness using the one (1) lock tie. (Fig. 5-6)

(k) Use the side cutter to cut off the excess lock tie length.



6. Install Ground Cable.

(a) Install the end of the tuner ground cable onto the bolt located on the cowl side. (Fig. 6-1)



7. Route and Install Tuner Cable, Data Cable and Ground Cable.

- (a) Remove the right side front seat bolts.
 - (1) Remove the two (2) covers on front side. (Fig. 7-1)
 - (2) Remove the two (2) bolts on front side. (Fig. 7-1)
 - (3) Slide the right side front seat forward.
 - (4) Remove the two (2) covers on rear side. (Fig. 7-2)
 - (5) Remove the two (2) bolts on rear side. (Fig. 7-2)
- (b) Tilt seat.
 - (1) Tilt the seat back, towards the rear and remove the harness clamp. (Fig. 7-3)

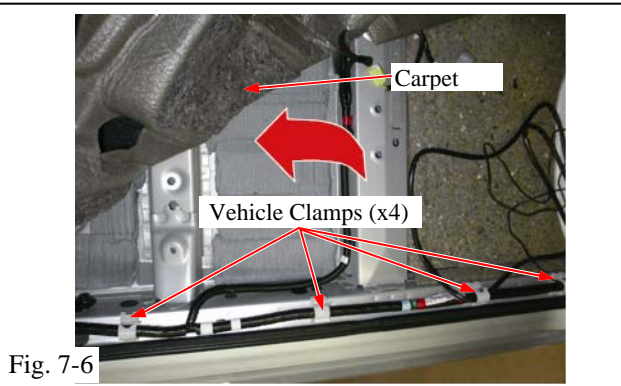
⚠ NOTE: Be careful not to damage the harness clamp by forcibly removing it.

⚠ NOTE: Use blankets for protection of the seat, and other vehicle surfaces.

⚠ NOTE: Use box to support seat, so stress is not on the wiring under the seat. (Fig. 7-4)



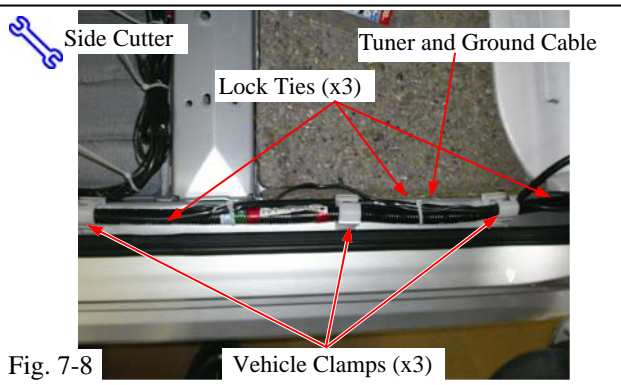
- (c) Remove the frame number cover. (Fig. 7-5)
 - (1) Disengage the two (2) claws and then remove the frame number cover.



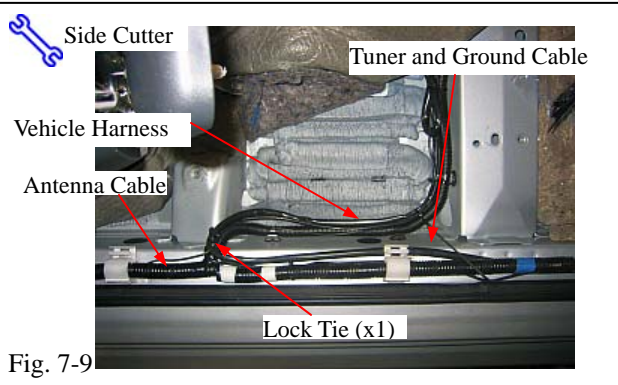
- (d) Release the vehicle clamps in the locations shown, and pull up the carpet to expose the four (4) vehicle clamps.(Fig. 7-6)



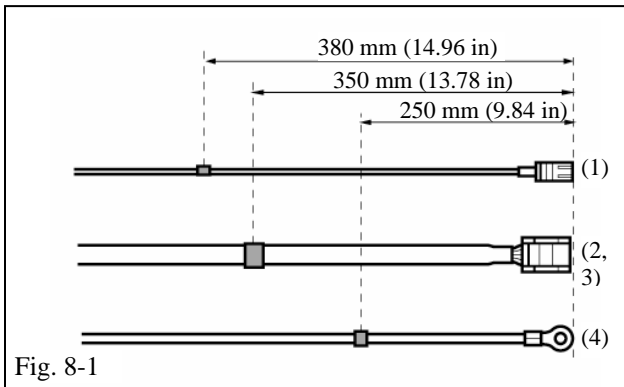
- (e) Route the tuner cable, data cable, & ground cable through the lower section of the three (3) vehicle clamps along the door sill as shown. (Fig. 7-7)



- (f) Secure tuner cables with the three (3) lock ties. (Fig. 7-8)
- (g) Use the side cutter to cut off the excess lock ties length.

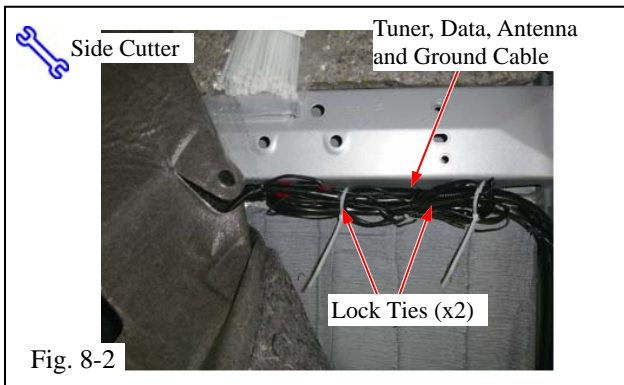


- (h) Route the tuner cable, data cable, and ground cable from the front of the vehicle, the antenna cable from the rear along the vehicle harness, & secure with a lock tie as shown. (Fig. 7-9)
- (i) Use the side cutter to cut off the excess lock ties length.

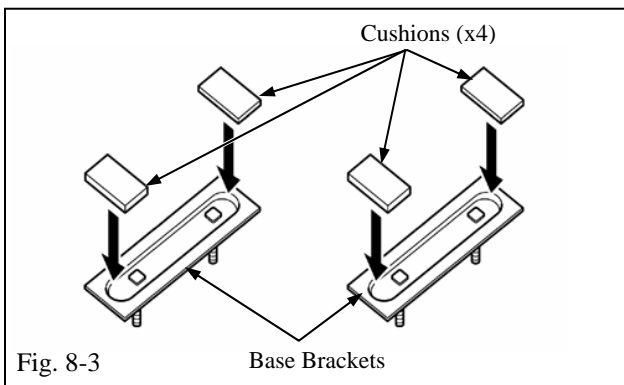


8. Install Tuner and Route the Cables.

- (a) Mark each of the cables as shown in the figure. (Fig. 8-1)
 - (1) Antenna cable: 380 mm (14.96 in)
 - (2) Tuner cable: 350 mm (13.78 in)
 - (3) Data cable: 350 mm (13.78 in)
 - (4) Ground cable: 250 mm (9.84 in)



- (b) Route the tuner cable, data cable, antenna cable and ground cable.
 - (1) Route the cables as shown and secure them using the two (2) lock ties starting from outside. (Fig. 8-2)
- (c) Use the side cutter to cut off the excess lock ties length.



- (d) Install four (4) flat cushions (butyl) onto the bottom of base brackets. (Fig. 8-3)

NOTE: Clean the base brackets and base bracket mounting area (using VDC approved cleaner).

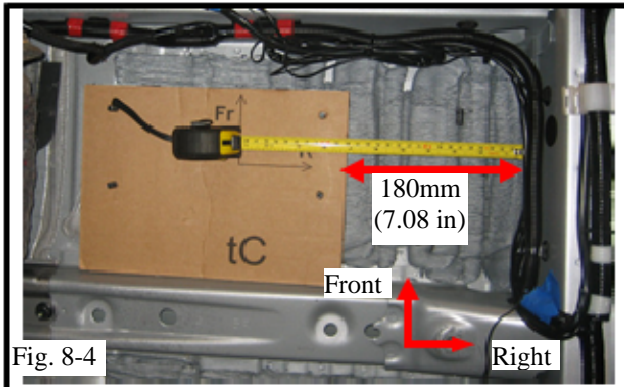


Fig. 8-4

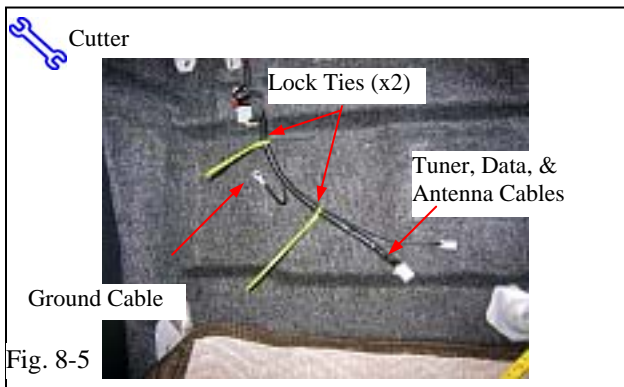


Fig. 8-5

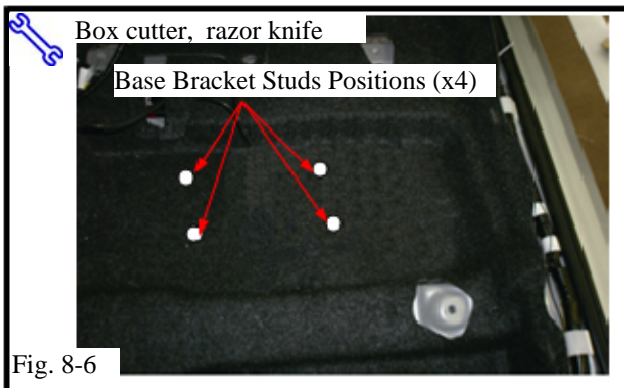


Fig. 8-6

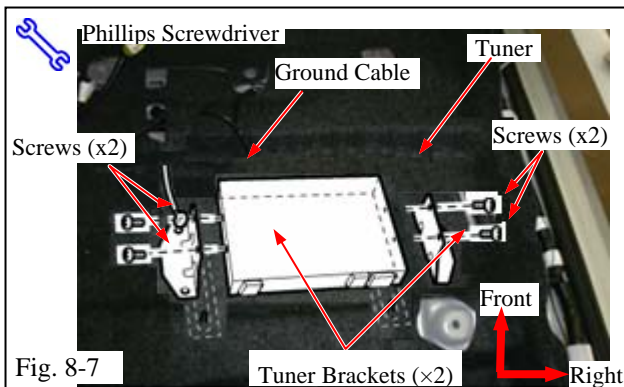
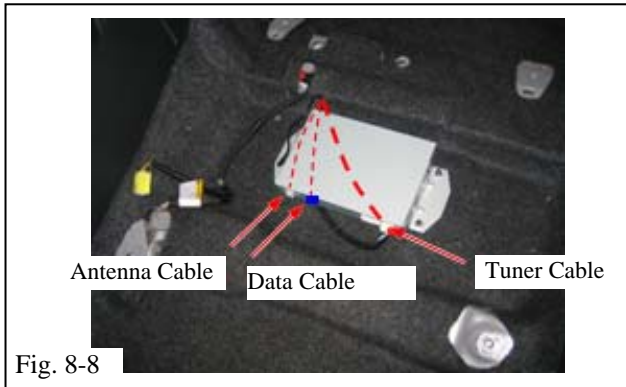
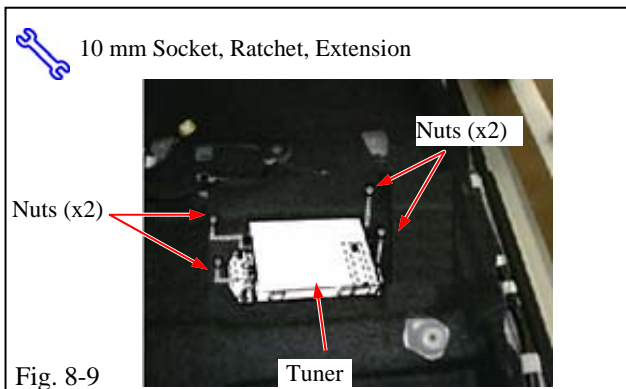


Fig. 8-7

- (e) Insert the base bracket bolts through the backside of the template, and push the brackets to the template.
- (f) Place the edge of the template, with attached brackets, as shown in the picture. The template alignment will be 180mm to the drivers side of the right edge and flush with the back edge of the floor. (Fig. 8-4)
- (g) Apply pressure on the base brackets from above.
- (h) Detach the template from the brackets.
- (i) Route the tuner cable, data cable, antenna cable, ground cable, and seat wire harness through the hole with the seat wire harness as shown. (Fig. 8-5)
- (j) Secure tuner, data, and grounds cables together with two (2) lock ties as shown. (Fig. 8-5)
- (k) Use the side cutter to cut off the excess lock ties length.
- (l) Reinstall the floor carpet to the original position.
- (m) Verify the base bracket studs positions. Transfer each stud location onto the floor carpet using cutter knife to cut the four (4) holes in floor carpet. (Fig. 8-6)
- (n) Pass the base bracket studs through the carpet.
- (o) Install the tuner brackets and ground cable onto the tuner so the connectors face toward the rear side of the vehicle. (Fig. 8-7)

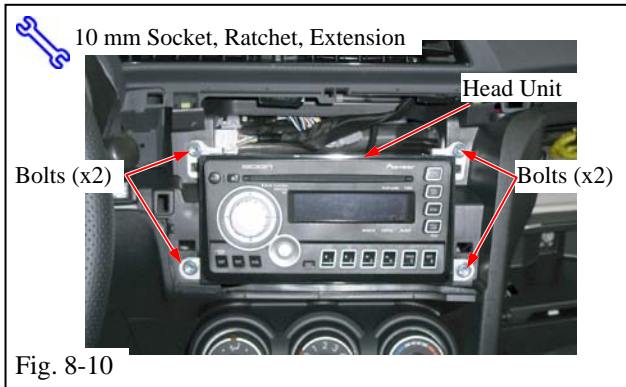


(p) Route the tuner cable, data cable, and antenna cable under the tuner and then plug the tuner and antenna cable connectors into the tuner. (Fig. 8-8)




(q) Secure the tuner onto the base brackets. (Fig. 8-9)


(r) Plug the tuner cable and data cable into the head unit, reconnect the factory harness and antenna; then reinstall the audio head unit. (Fig. 8-10)



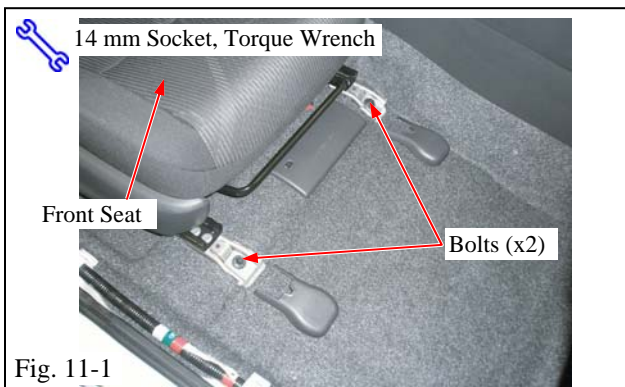
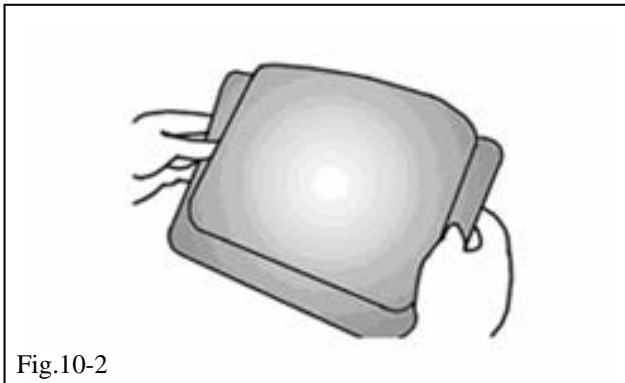
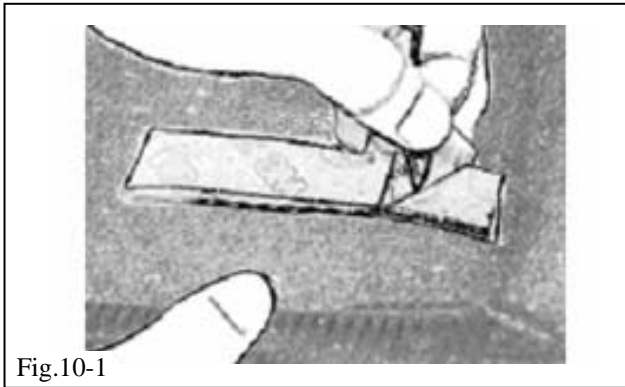
9. In Process Functional Test.

- (a) Temporarily reconnect negative battery cable.
- (b) Turn the ignition switch to "ACC" position.
- (c) Press the power button on the receiver/player head unit.
- (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 negative battery cable again.



10. Installing Receiver Cover.

- (a) Remove the satellite receiver cover (P/N PT218-52071) from the poly bag.
- (b) Shape the cover so that it forms an open box shape with the Velcro™ facing down.



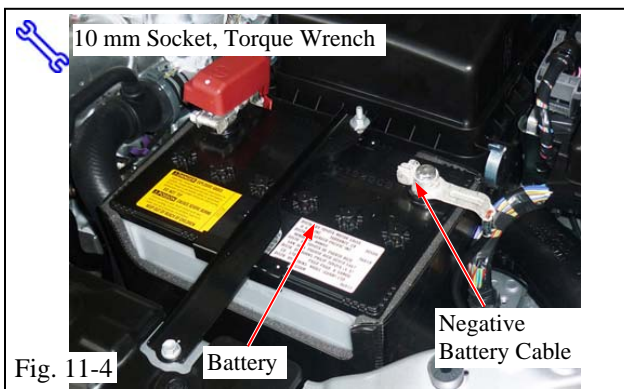
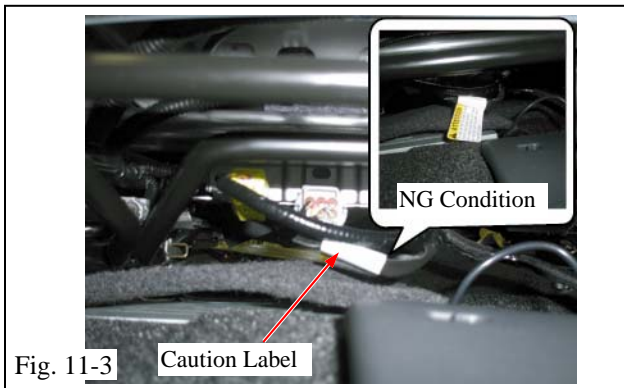
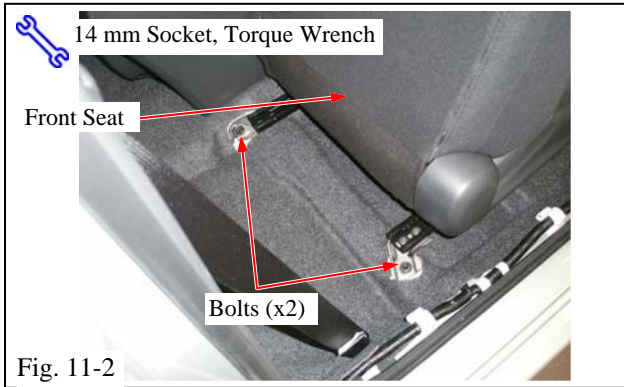
NOTE: Shipping and storage may have caused the shape to distort.

- (c) Peel the backing off the sewn-in Velcro™ strip inside the cover. (Fig. 10-1)
 - (1) Do not separate the Velcro™.
- (d) Clean the top of satellite receiver box with VDC approved cleaner.
- (e) Align the rear edge of the cover with the rear edge of the satellite receiver. (Fig. 10-2)
- (f) Center cover to ensure satellite receiver mounting bolts are covered. Press Velcro™ to the floor carpet around the perimeter.
- (g) Press the sewn-in Velcro™ tab on the top underside of the cover firmly to the satellite receiver. (Fig. 10-3)

11. Completing the Installation.

- (a) Reinstall the frame number cover.
- (b) Reinstall the right side front seat. (Fig. 11-1, 11-2)
 - (1) Reconnect the seat connectors.
 - (2) Reinstall the four (4) bolts loosely, then tighten to specified torque.
 - (3) Tighten bolts to 37 N•m (27 lbf•ft).
 - (4) Reinstall the four (4) bolt covers.





NOTE: Sagging of the caution label from SRS seat air bag W/H causes dragging noise. Need to adjust the caution label position. (Fig. 11-3)

- (c) Reinstall the right side deck trim side panel.
- (d) Reinstall the right side No.1 side trim.
- (e) Reinstall the rear seat cushion.
- (f) Reinstall the instrument cluster finish panel.
- (g) Reinstall the lower instrument panel.
- (h) Reinstall the panel.
- (i) Reinstall the glove compartment door.
- (j) Reinstall the right side cowl side trim board.
- (k) Reinstall the right side front door scuff plate.
- (l) Reinstall the rear hatch scuff plate.
- (m) Reinstall the right side deck floor box.
- (n) Reinstall the deck board.

- NOTE:** (o) Reconnect any disconnected electrical connectors.
- NOTE:** (p) Verify the panels fit together properly with no uneven gaps between them.
- (q) Clean up and remove any trash.
- (r) Place the owner “XM Satellite Radio” brochure in the glove box.
- (s) Reconnect the vehicle’s negative battery cable. (Fig. 11-4)

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



(2) Tighten the nut to 4.1 N•m (36 lbf•in).

CAUTION: Do not touch the positive terminal with any tool when replacing the cable.

12. Airbag Diagnostic Check.

- (a) Connect the Techstream to the vehicle's diagnostic connector.
- (b) Turn the ignition switch to the ON position.
- (c) Check for Airbag ECU Trouble codes – if present then clear the DTC's.



NOTE: Check for the latest version of the software on Toyota Information System (TIS) before setting up the Techstream.



NOTE: Download the latest software from Toyota Information System (TIS).

13. Zero Point Calibration & Sensitivity Check.

- (e) Connect the Techstream connector to the vehicle's diagnostic connector in the lower dash area.
 - (1) Turn the ignition switch to the ON position.
 - (2) Perform the Occupancy Classification Zero Point Calibration and Sensitivity checks as described in the vehicle repair manual.

Accessory Function Checks

- Satellite Radio Tuner. *Verify the proper operation of the Satellite Radio Tuner.

 - Receiver/player Assembly. *Verify the proper operation of the Receiver/player Assembly

*(Refer to the receiver assembly and radio owner's manuals.)
-

Vehicle Function Checks

- Hazard switch Proper operation of the hazard switch.

- Passenger's seat belt reminder light Proper operation of the passenger's seat belt reminder light.

- Removed seat Verify the removed seat is securely fastened

- Proper operation of the removed seat lock mechanism Verify the proper operation of the removed seat lock mechanism.

- SRS warning light Proper operation of the SRS warning light.

- Security warning light. Proper operation of the security warning light.

- Clock switch. Proper operation of the clock switch.