

Part Number: PT413-21110

Kit Contents

Item #	Quantity Reqd.	Description
1	1	Fog Light Bezel, Left Side
2	1	Fog Light Bezel, Right Side
3	1	Fog Lamp, Left Side
4	1	Fog Lamp, Right Side
5	1	Wire Harness
6	1	Hardware Kit

Hardware Bag Contents

Item #	Quantity Reqd.	Description
1	2	#10-16 Hex Head Self-Tapping Screw
2	1	Switch
3	1	Relay
4	10	7.5" Nylon wire ties, black

Additional Items Required For Installation

Item #	Quantity Reqd.	Description
1	1	Ratchet
2	1	10mm Socket (or Nut Driver)
3	1	5/16" socket
4	1	6" Extension
5	1	Nylon pry-tool
6	1	Diagonal cutting pliers

Conflicts

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Recommended Tools

Personal & Vehicle Protection	Notes
Vehicle Protection	Blankets
Special Tools	Notes
Hella Photometric Beam Setter (or equivalent)	If available
Nylon pry-tool	
Car Lift or Jack with Jack Stands	
Installation Tools	Notes
Ratchet	
Socket or Nut Driver	10mm
Socket	5/16"
Ratchet extension, 6"	
Special Chemicals	Notes
none	

General Applicability

Scion tC

Recommended Sequence of Application






Item #	Accessory
1	

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

Vehicle Service Parts (may be required for reassembly)

Item #	Quantity Reqd.	Description
1		

Legend

	STOP: Damage to the vehicle may occur. Do not proceed until process has been complied 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.

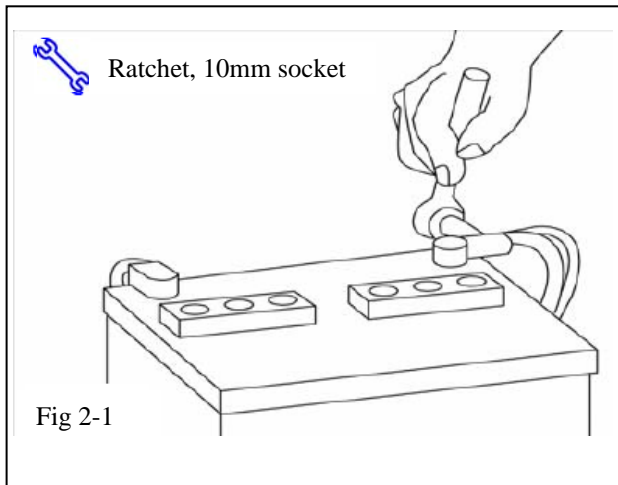
Care must be taken when installing this accessory to ensure damage does not occur to the vehicle. The installation of this accessory should follow approved guidelines to ensure a quality installation.

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.

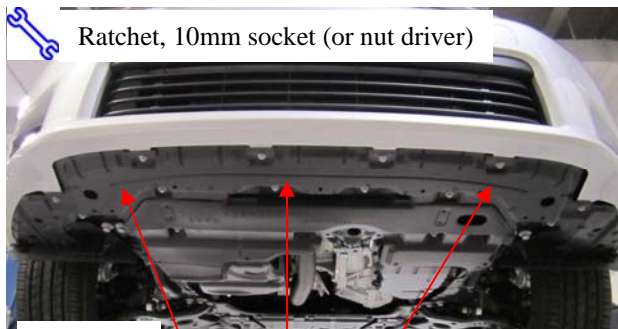


1. Precautions

- +** (a) Engine components and coolant may be hot, use caution.

2. Remove Battery Cable

- STOP** (a) Protect fender before starting.
- (b) Remove battery cable from negative terminal. (Fig. 2-1)
- +** (1) Do not touch the positive terminal with any tool when removing cable.

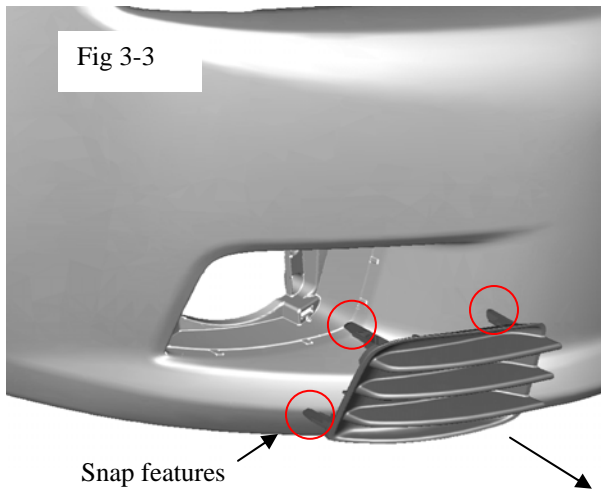


Engine under-cover



3. Exterior Parts Removal

- (a) Remove the engine under-cover. (Fig 3-1)
- STOP** (1) Save all screws, clips, and the under-cover.
- (2) Remove screws and snap-fastener circled in Figure 3-2 from fender liner
- (3) Repeat for other side of vehicle.



- (b) Remove existing covers; push cover outward, reach underneath bumper and push in snap features at all four attachment locations. (Fig 3-3)



(1) Be sure not to scratch or otherwise damage bumper fascia.

- (c) Cover should push out once the fourth snap feature has been depressed.

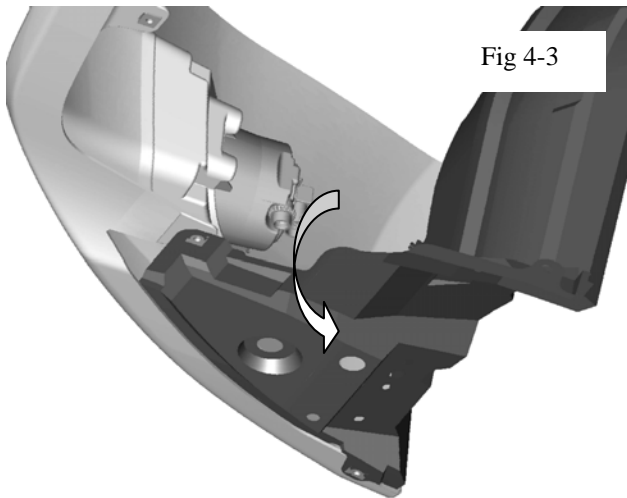


4. Installation of Fog Light


- (a) Install lamps by inserting them through openings sideways, outboard side first. (Fig 4-1)



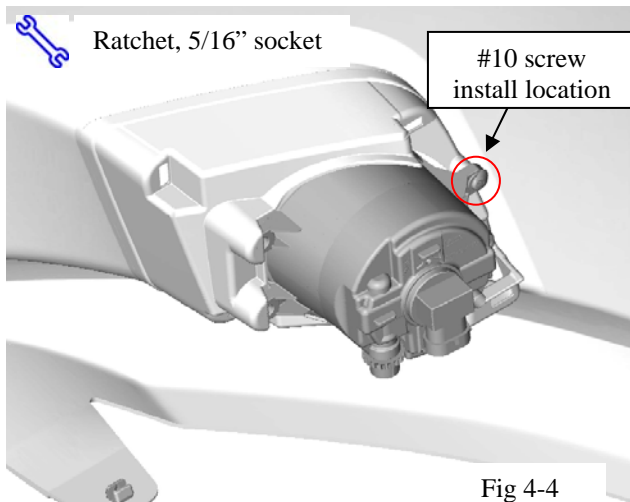
- (b) Insert inboard tabs into sockets in bumper. Rotate lamp into installed position and make sure tab on outboard side is on the boss on the bumper. (Fig 4-2)



(c) Pull fender liner aside for access to rear of lamp. Use a #10 self-tapping hex washer head screw (provided with kit) and screw lamp to bumper. (Fig 4-3, 4-4)


 (1) Fender liner does not get removed. Do not damage fender liner while pulling it aside to install screws.

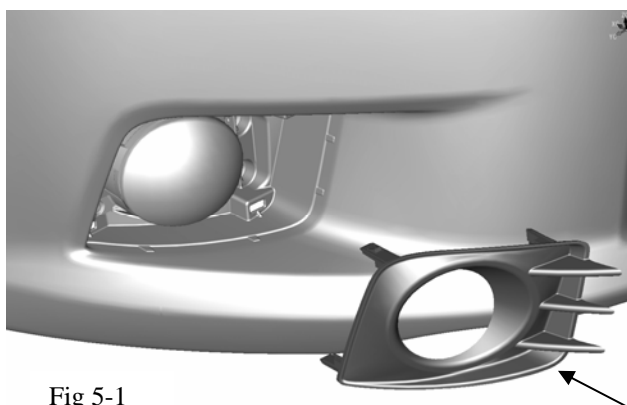
(d) Repeat for other vehicle side.

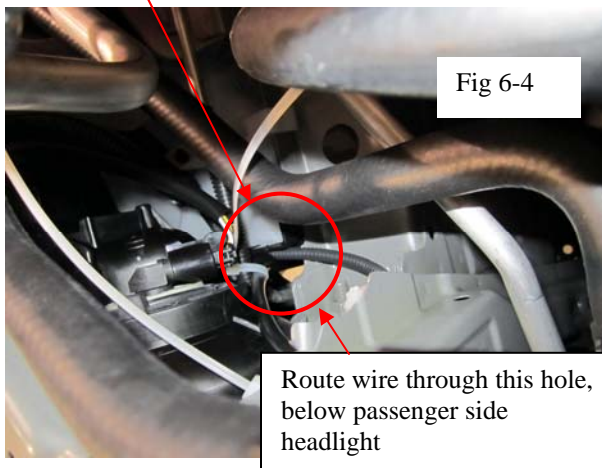
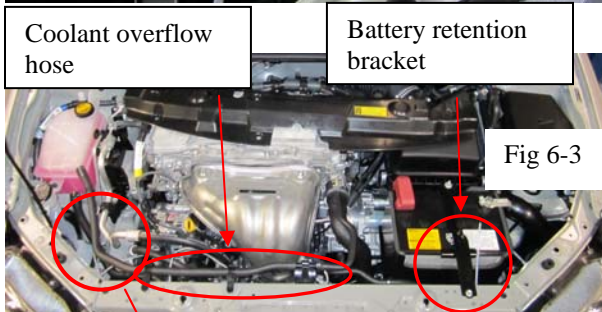
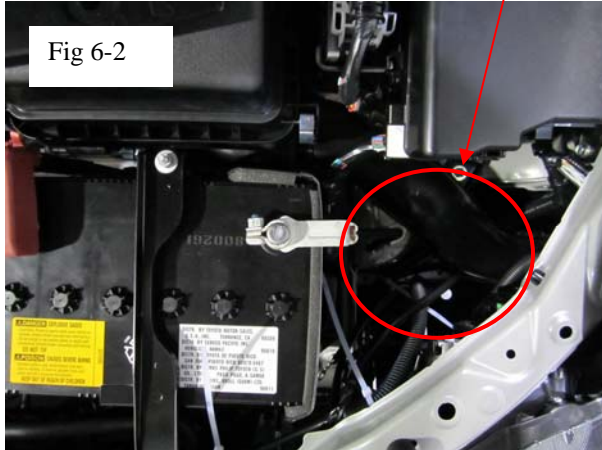


5. Installation of Bezels

(a) Line up the four snap features with the holes in the bumper and press into place. (Fig 5-1)

 (b) Check to make sure part is secure and the snaps have grabbed onto bumper



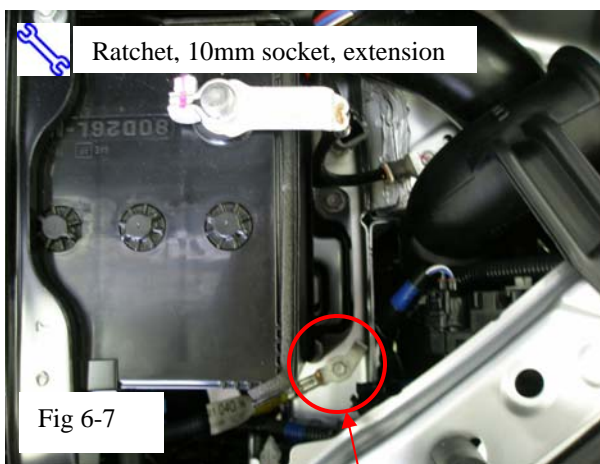
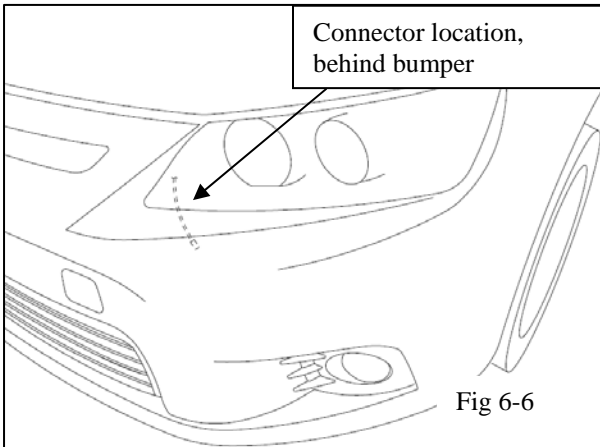
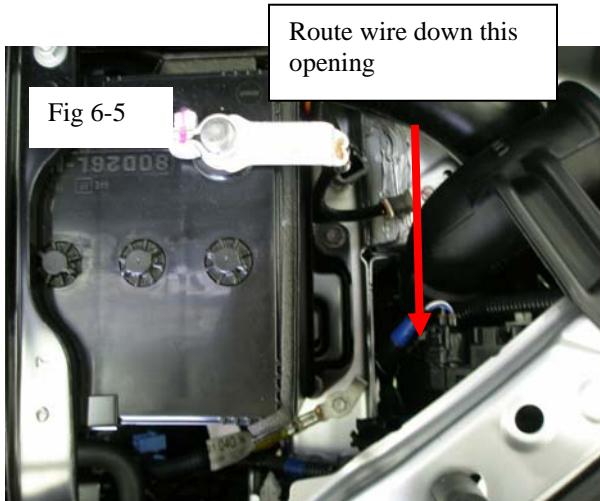


6. Installation of Wire Harness

(a) Lay harness over top of engine. Route short end of wire down through the opening near the driver side of the battery and plug it into the driver side (vehicle-left) lamp. (Fig 6-1 and 6-2)

(b) Route wiring underneath battery retention bracket and coolant overflow hose. (Fig 6-3)

(c) Route remaining connector through opening under passenger (vehicle-right) side headlight. Reach underneath bumper and plug harness into lamp. (Fig 6-4)




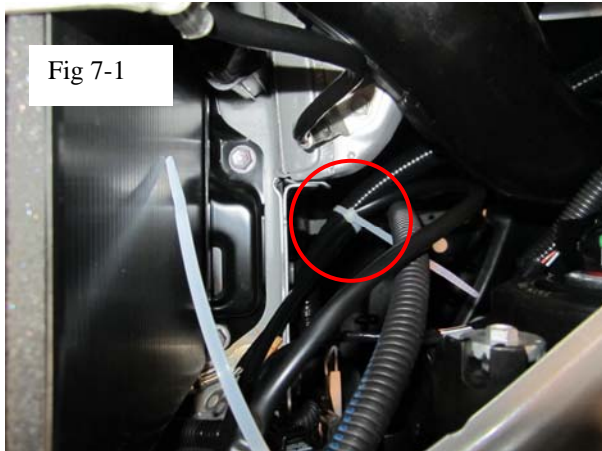
(d) Route wire with single-pin connector down beside battery (Fig 6-5)

(1) Locate vehicle single-pin connector behind bumper, below and in front of battery. Connect harness to this connector. (Fig 6-6)


(2) Breakaway tape may need to be removed from connector before use.

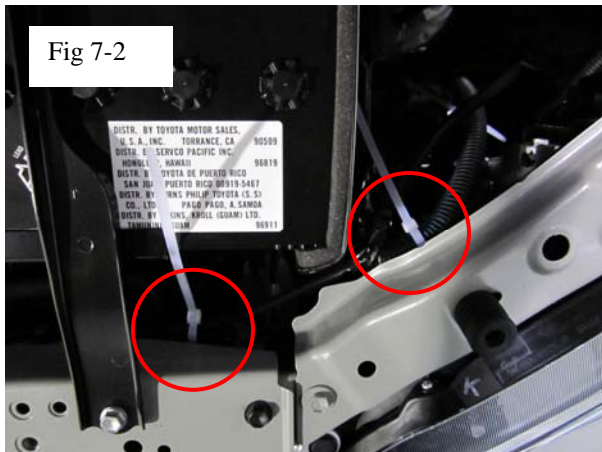
(e) Locate grounding screw near battery. Unscrew this, add wire harness ring terminal (ground) and replace screw through both terminals. (Fig 6-7)

 (f) Check all connectors to make sure they are securely connected to lamps and vehicle.

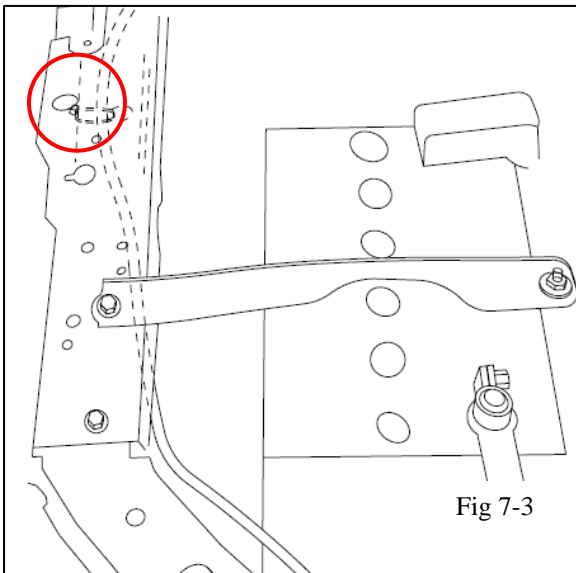


7. Wire management

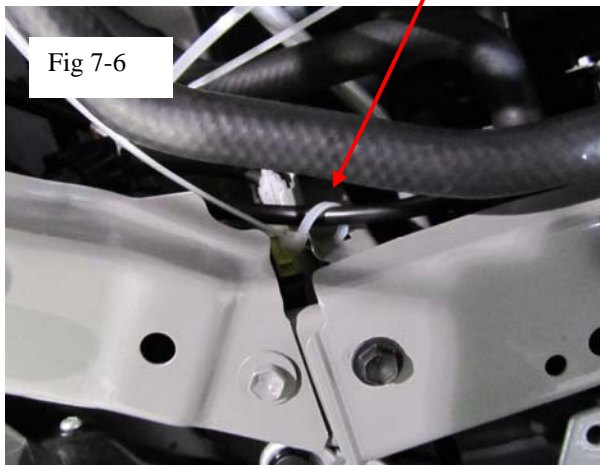
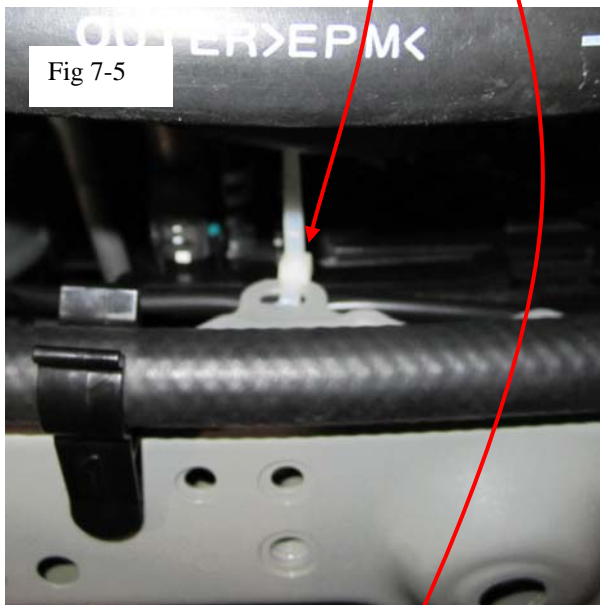
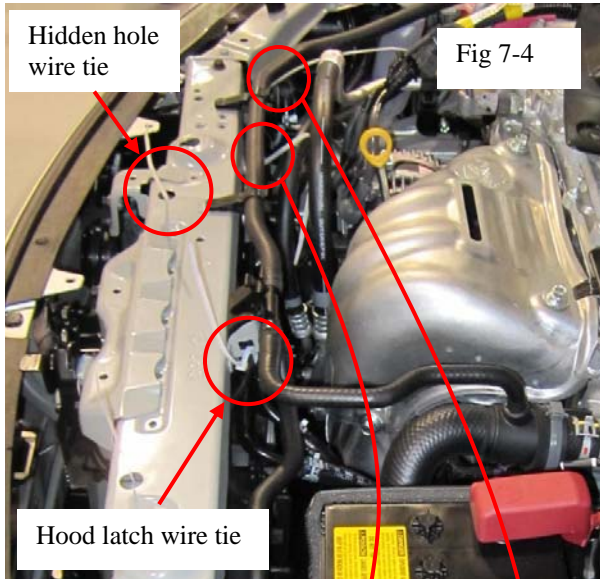
-  (a) Install all wire ties so that when they are trimmed they will not cut, pierce, or otherwise damage existing components. The latching end of the wire tie should be kept away from hoses and wiring.
- (b) On driver side of battery, use a wire tie to secure all 3 wires to the existing wire that leads to ground. (Fig 7-1)



- (c) At front of battery, secure wire harness to hood-latch cable in two places, as shown. (Fig 7-2)



- (d) Locate hole in horizontal support. Route wire-tie through hidden hole in support, and then loop back around wire harness to original hole. (Fig 7-3)

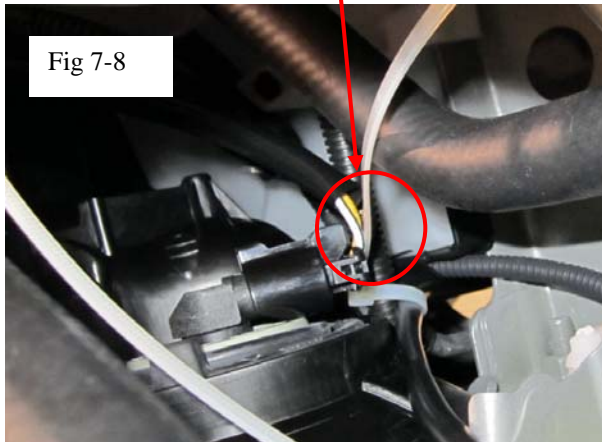
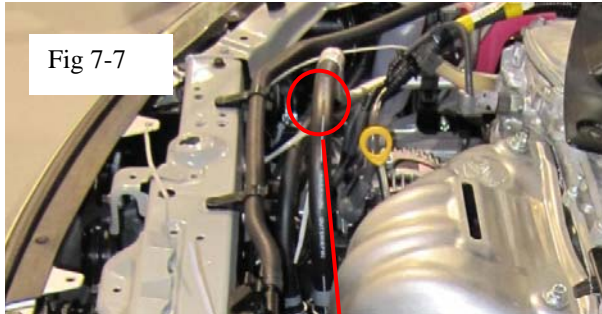



(e) Loop wire-tie through one opening in the hood latch bracket and secure wire harness. (Fig 7-4)

(f) Use visible and hidden hole in horizontal support to secure wire harness, similarly to step 7d (Fig 7-4)

(g) Locate hole in vertical surface of support, under coolant overflow hose. Secure wire harness to this hole. (Fig 7-5)


(h) Locate hole in vertical support. Secure wire harness to this hole. (Fig 7-6)



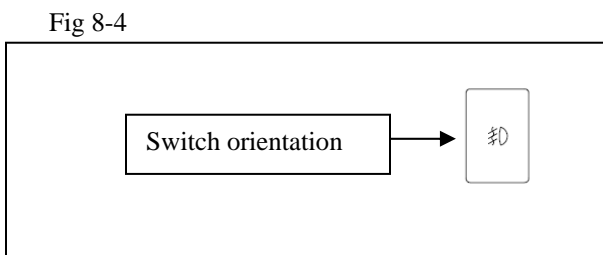
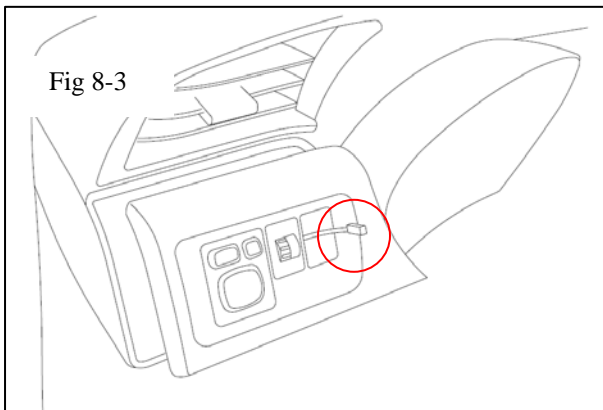
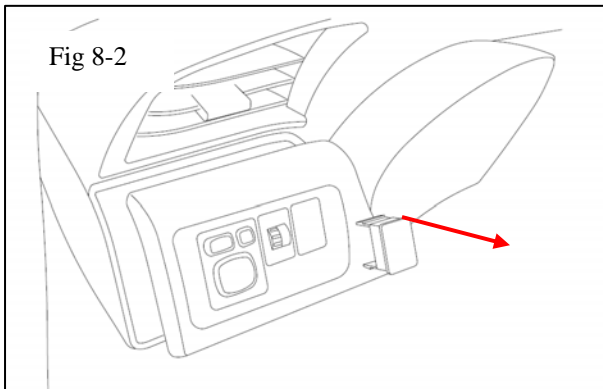
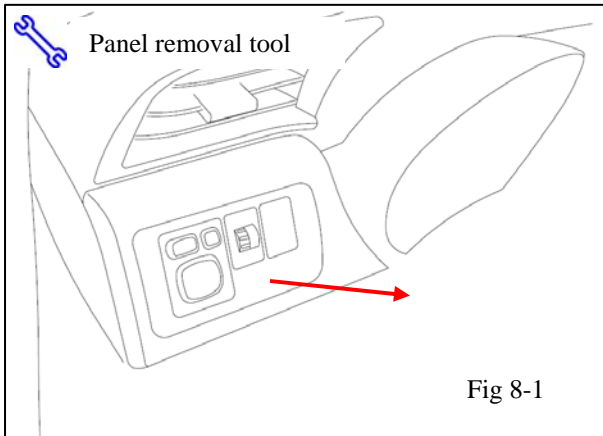
-  (i) Locate existing wiring with corrugated tubing under passenger side headlight. Secure wire harness to this wire with a wire-tie. (Fig 7-8)



- (j) Locate mounting hole on windshield wiper fluid reservoir above and behind passenger side fog lamp. Secure wire harness to this mounting hole. (Fig 7-9)

-  (k) Trim off all excess from wire ties. Keep sharp ends to a minimum.

- (l) Reattach fender liner with original fasteners
- (m) Reattach under-engine cover with original fasteners




8. Switch Installation

(a) With the aid of a nylon pry-tool, detach mirror control panel (Fig 8-1)

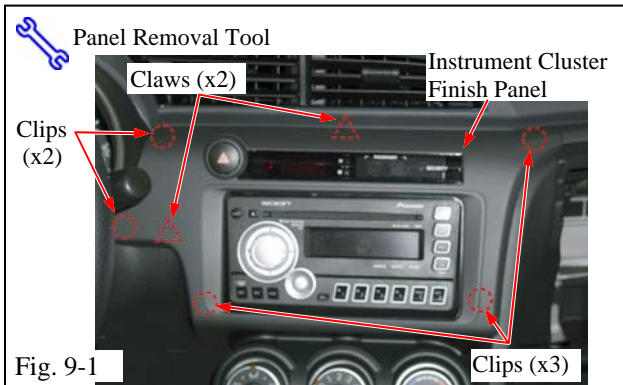
(b) Remove right knock-out from this panel (Fig 8-2)

(c) Find 4-pin connector inside of instrument panel and remove electrical tape.

(d) Thread wire through opening in panel and connect to switch. (Fig 8-3)

 (e) Install switch by pushing it into the opening in the mirror control panel. Make sure that the graphic is in the indicated orientation. (Fig 8-4)

(f) Reinstall mirror control panel.

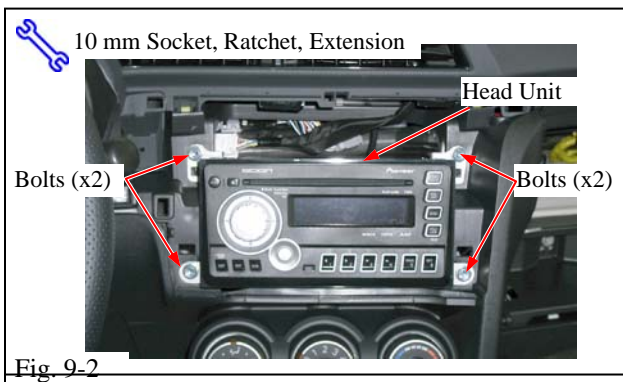


9. Relay Installation

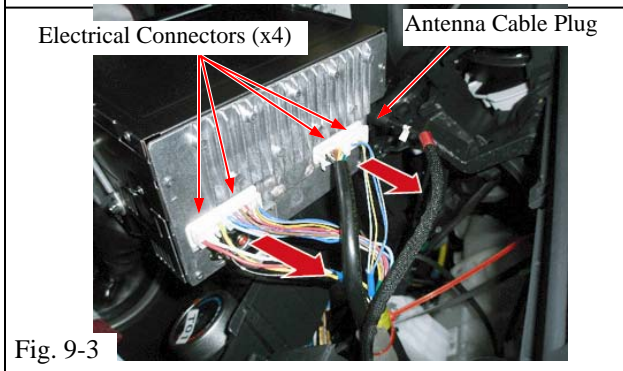
(a) Remove the radio head unit. (Fig. 9-1)

(1) Disengage the five (5) clips and two (2) claws and then remove the instrument cluster finish panel.

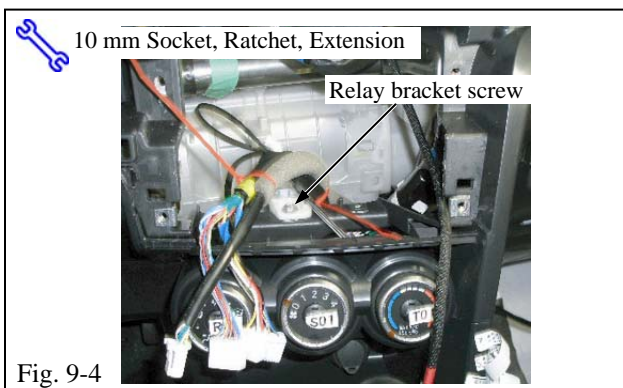
Make sure to disconnect electrical harness at the top of the panel.



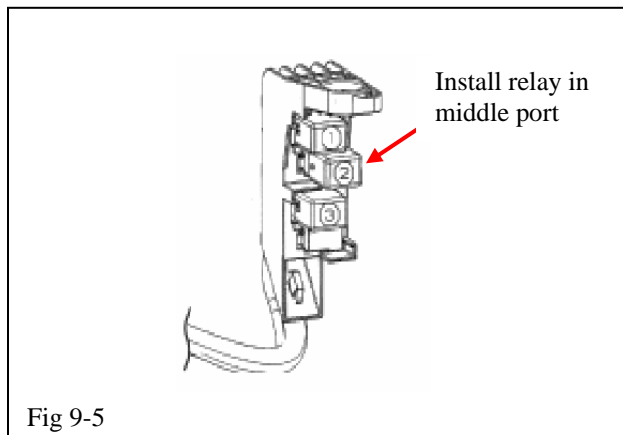
(2) Remove the four (4) bolts and remove the head unit. (Fig. 9-2)



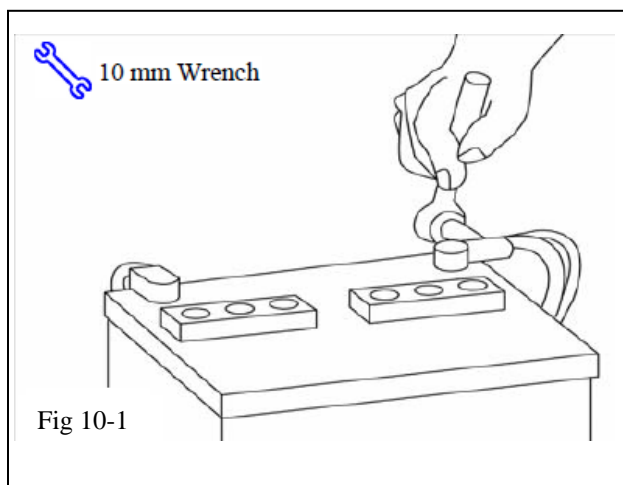
(3) Disconnect the four (4) electrical connectors and antenna cable plug from the rear of head unit. (Fig. 9-3)



(b) Loosen screw holding relay bracket in place. (Fig. 9-4)



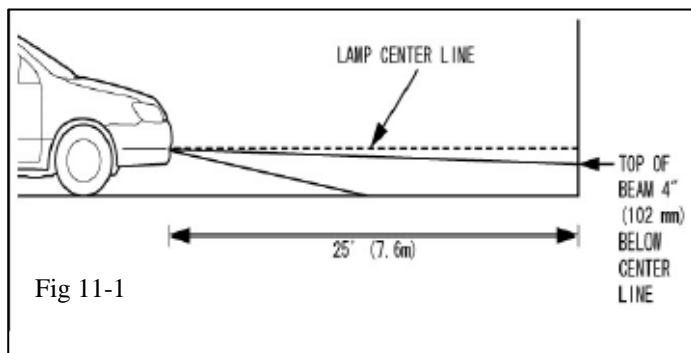
- (c) Raise bracket up and install relay in middle port. (Second port down from the top) (Fig 9-5)
- (d) Reattach relay bracket, reattach wiring to radio head unit, and then reinstall radio.



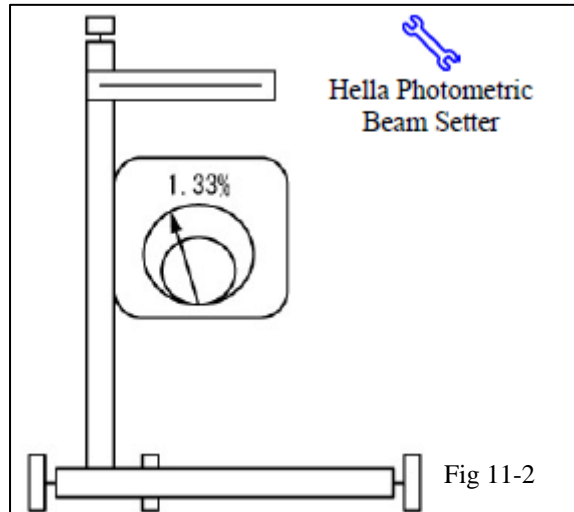
10. Reconnect Negative Battery Cable

- (a) Attach negative battery cable to negative terminal on battery (Fig 10-1)
- +** (1) Do not touch positive terminal with any tool while reattaching cable.
- (b) Tighten the nut to 4.1N-m (36in-lb_f)

11. Aiming Instructions




- (a) Position vehicle on flat surface at a distance of 25 feet (7.6m) from the fog light to the wall (Fig 11-1)
- (1) Measure the distance from the center of the lamp to the ground and mark off the same height on the wall. This is your fog light centerline
- (2) Adjustment of the fog lights is done by turning the adjustment screw using a Phillips screwdriver.



- (3) Turn on the fog lights and adjust them so that the top of the beam (high intensity portion) falls 4 inches (102mm) below the mark on the wall (fog light centerline)
- (b) Alternate aiming method: Use Hella Photometric Beam Setter (or equivalent) to correctly align fog light beam. (Fig 11-2)
 - (1) Adjustment of the fog lights are done by turning the adjustment screw using a Phillips screwdriver.
 - (c) Repeat for other side of vehicle.

Checklist - these points **MUST** be checked to ensure a quality installation.

<u>Check:</u>	<u>Look For:</u>
<hr/>	
<p><u>Accessory Function Checks</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Turn on headlights  <input type="checkbox"/> Turn on fog lights <input type="checkbox"/> Turn off headlights <input type="checkbox"/> Check fog light switch orientation <input type="checkbox"/> Switch on high beams <input type="checkbox"/> Check dashboard lights 	<ul style="list-style-type: none"> Headlights "ON" Fog lights "ON" Fog lights are not "ON" with headlights "OFF" Lamp symbol is facing left High beams "ON" / Fog lights "OFF" Low beams "ON" / Fog lights "ON"
<hr/>	
<p><u>Vehicle Function Checks</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Check taillights. <input type="checkbox"/> Turn off headlights. <input type="checkbox"/> Check brake lights. <input type="checkbox"/> Check turn signals. <input type="checkbox"/> Check reverse lights. <input type="checkbox"/> Check emergency flashers. <input type="checkbox"/> Check mirror controls. <input type="checkbox"/> Check battery terminals for tightness with 10mm socket and torque wrench. 	<ul style="list-style-type: none"> Taillights "ON" Headlights "OFF" Brake lights "ON" Turn signals "ON" Reverse lights "ON" Emergency flashers "ON" Mirrors can be adjusted Terminals are tight