

Preparation

Part Number: PT297-35061

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

Kit Contents

Item #	Quantity Req'd.	Description
1	2	Driving Lamp Assembly
2	1	Switch Harness
3	1	Lamp Harness
4	2	Stone Shield

Hardware Bag Contents

Item #	Quantity Req'd.	Description
1	1	Relay
2	1	15A Fuse
3	1	Switch
4	16	7" Tie Wrap
5	1	24" Tie Wrap
6	2	T-Tap Connectors
7	1	Foam Tape
8	1	Car Care Guide

Additional Items Required For Installation

Item #	Quantity Req'd.	Description
1	1	FJ Auxiliary Lamp Bumper Brackets (PT297-35062) if vehicle does not have brush guard
2		

Conflicts

None

Recommended Tools

Personal & Vehicle Protection	Notes
Safety Goggles	
Watch and Belt Buckle Protectors, Blankets	
Protective Tape	
Special Tools	Notes
Torque wrench	10-50 lbs-ft.
Shop Vacuum	
Drill Template	IADS: FJC07-044-01
Installation Tools	Notes
12mm Socket/box wrench	
17mm Socket/box wrench	
10mm Socket	
Panel Removal Tool	
Drill	
7/8" Hole Saw	
Side Cutters	
Long Nose Pliers	
Exacto Knife	
Masking Tape	
Special Chemicals	Notes

General Applicability

All Models

Recommended Sequence of Application





Item #	Accessory
1	Off Road Lights
2	Auxiliary Lights
3	TVIP

*Mandatory

Vehicle Service Parts (may be required for reassembly)

Item #	Quantity Req'd.	Description
1		
2		
3		

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.

Procedure

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.

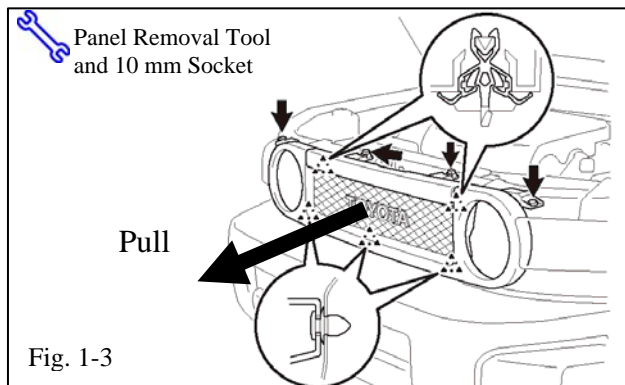
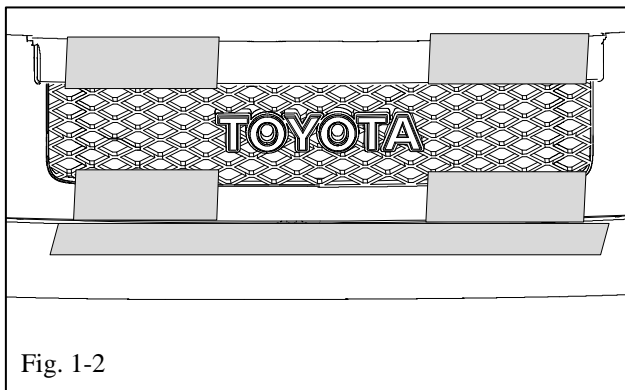
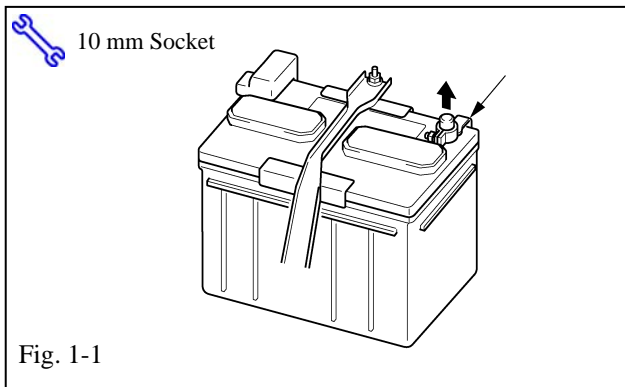
1. Vehicle Dissemble

- (a) Set parking brake.
- (b) Remove the negative battery cable (Fig. 1-1).
 -  (1) Protect the fender before starting.
 -  (2) Do not touch the positive terminal with any tool when removing cable.
- (c) Wait 90 seconds before proceeding to disassemble vehicle.

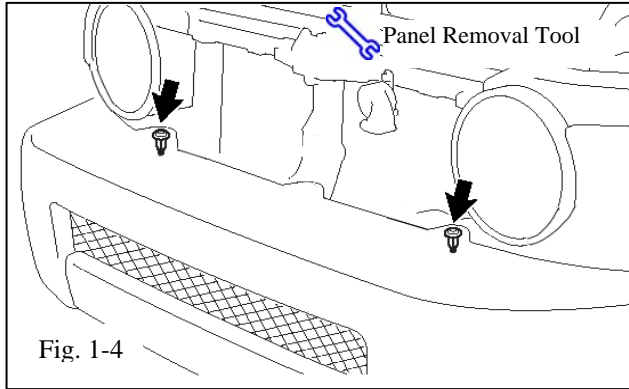
NOTE: Place all removed parts on a protected surface.

NOTE: When disconnecting wiring connectors do not pull on the wiring, pull on the connector only.

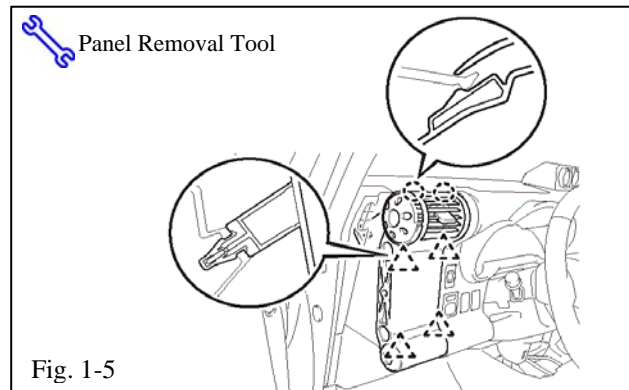
-  (d) Add protective tape to front bumper and grill (Fig. 1-2)



- (e) Remove Front Grill
 - (1) Remove two clips and two screws. (Fig. 1-3)
 - (2) Disengage the five clips and remove the radiator grill by pulling straight forward.

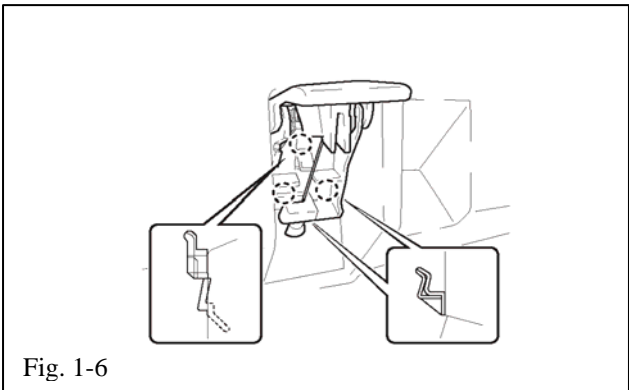


(3) Remove the two clips. (Fig. 1-4)

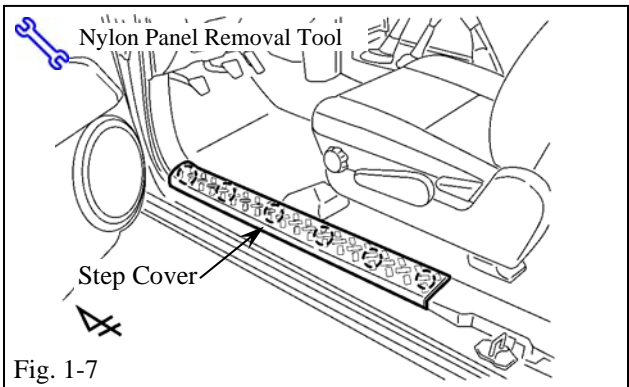


(f) Remove Lower Instrument Panel Finish

(1) Disengage the four clips and two claws and remove the IP register by pulling straight rearward. (Fig 1-5)



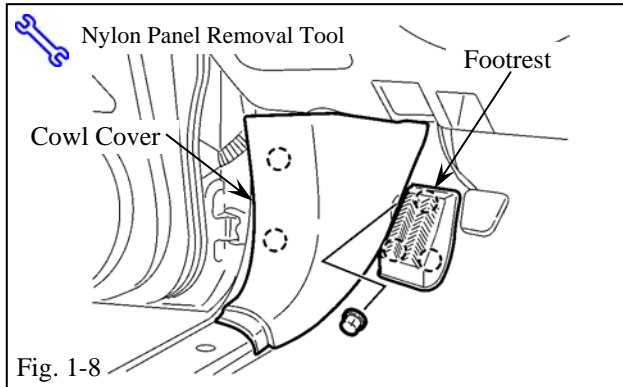
(2) Disengage the three claws and separate the hood release lever. (Fig. 1-6)



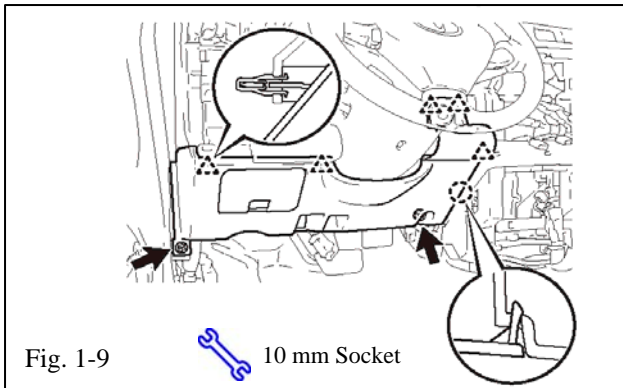
(3) Open driver side rear (2nd) door.

(4) Remove the driver side step cover. (Fig. 1-7)

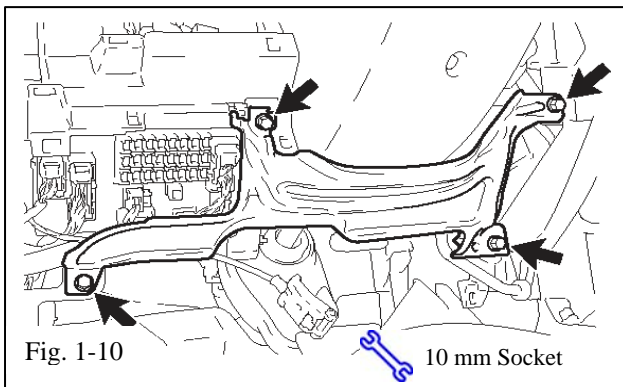
(i) Cover the floor and seats before starting.



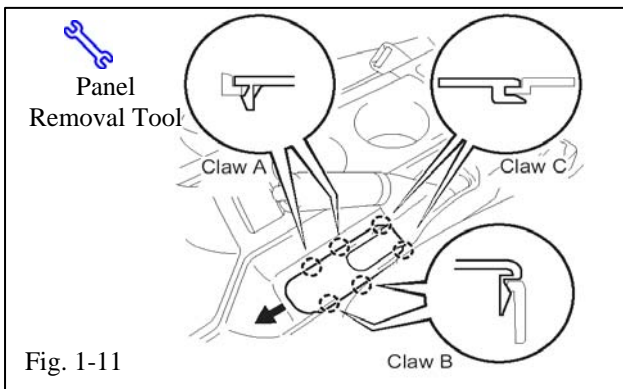
- (5) Remove the footrest. (Fig. 1-8)
- (6) Remove the one nut securing cowl cover and remove cowl cover. (Fig. 1-8)



- (7) Remove the two screws. (Fig. 1-9)
- (8) Disengage the five clips and claw and remove the lower IP trim.



- (9) Remove the four screws and remove the lower metal instrument panel. (Fig. 1-10)



- (10) Remove the parking brake cover plate. (Fig. 1-11).

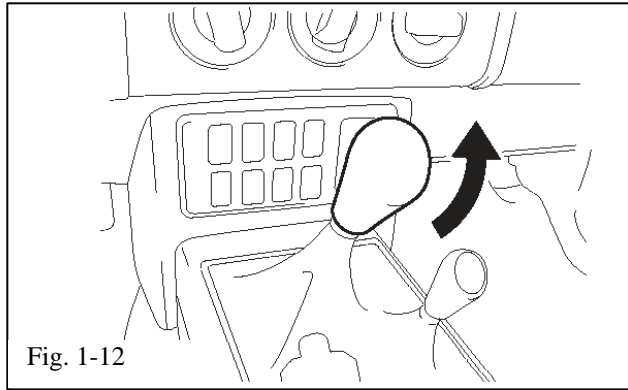


Fig. 1-12

- (11) Shift the lever into the N position.
(Fig. 1-12)
 - (i) Remove the shift lever knob(s).

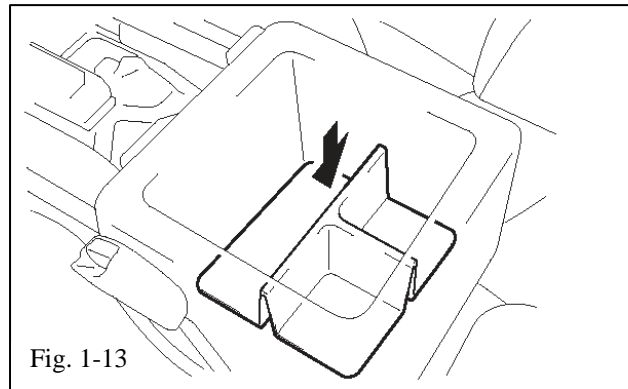


Fig. 1-13

- (12) Remove the box bottom mat.
(Fig. 1-13)

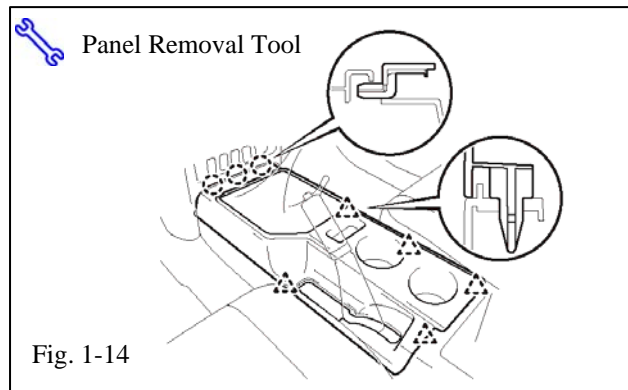


Fig. 1-14

- (13) Disengage and remove the top panel of center console. (Fig. 1-14)
- (14) Reattach shift lever knob(s).

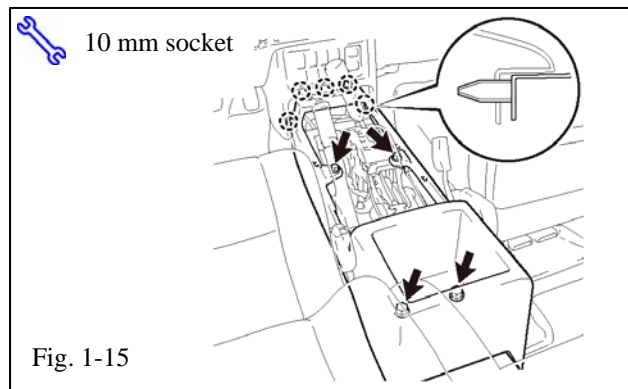
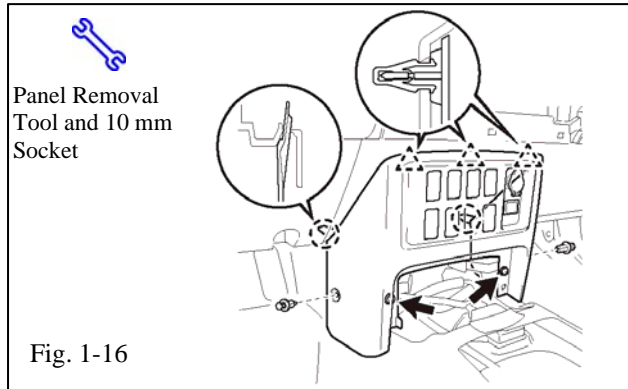


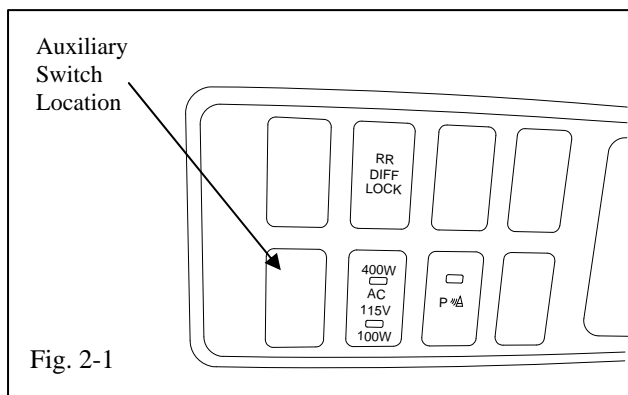
Fig. 1-15

- (15) Remove the four screws. (Fig. 1-15)
- (16) Carefully disengage the console assembly and position rearward.
- (17) Cover front portion of console with cloth.

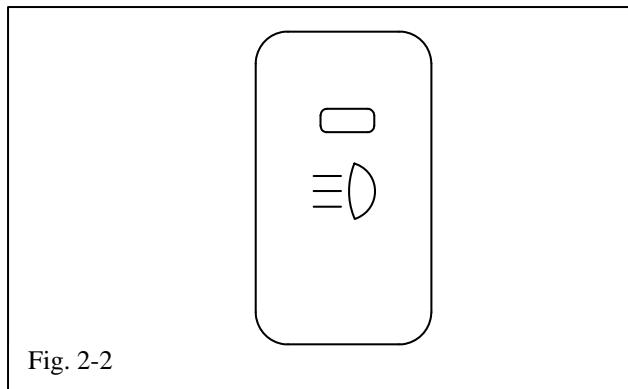


- (18) Remove the lower instrument console assembly. (Fig. 1-16)
 - (i) Remove the two clips and two screws.
 - (ii) Disengage the three clips and two claws and tilt the instrument console rearward to allow access to remove knockouts.

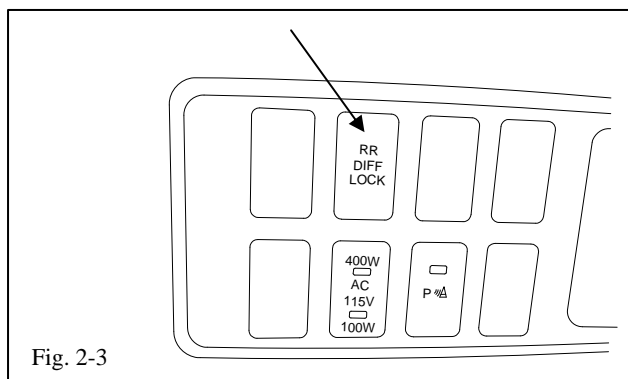
2. Interior Installation of Switch/Wire Harness



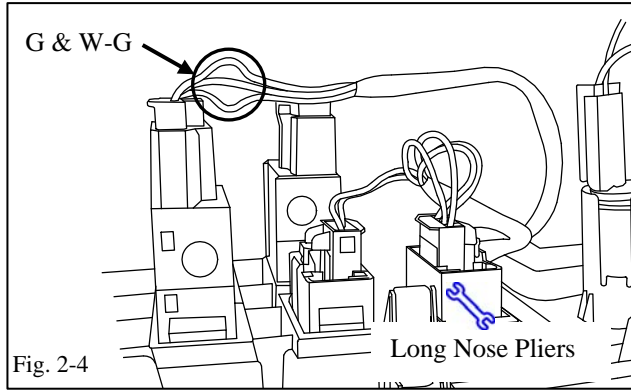
- (a) Locate the bottom left unused knockout. (Fig. 2-1)



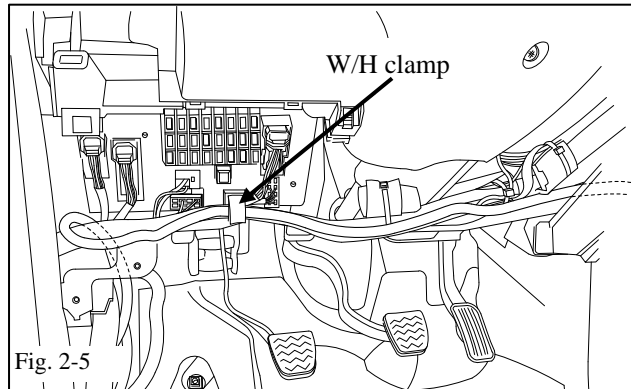
- (b) Install the switch in the orientation shown. (Fig. 2-2)
- (c) Plug the Auxiliary wire harness 6 pin connector into the Auxiliary switch.



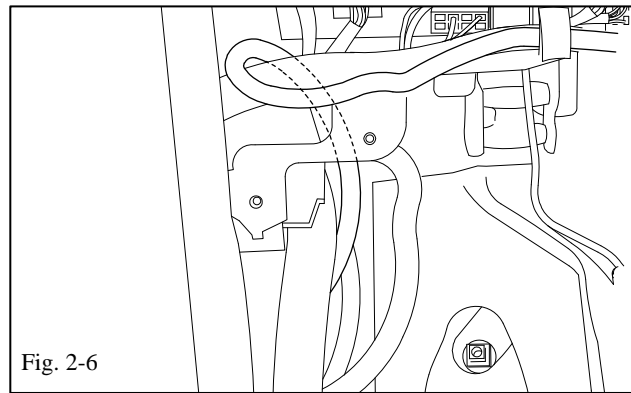
- (d) Locate the grey connector at the rear of the "RR DIFF LOCK" switch. (Fig. 2-3)



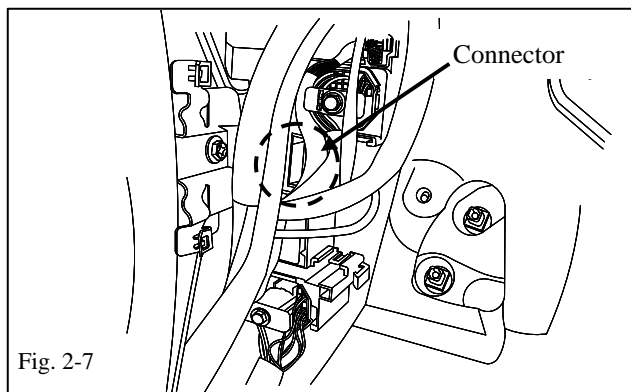
- (e) Locate the Green and White-Green wires at the rear of the knockout/switch in location 2. (Fig. 2-4)
 - (1) Apply T-taps to the Green wire and White-Green wires.
 - (2) Connect the T-taps from the switch wire harness to the T-taps on the Green and White-Green wires.



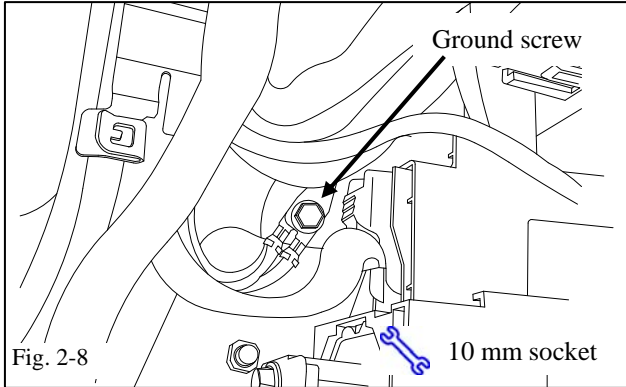
- (f) Route the wire harness from instrument console area and along the vehicle wire harness. (Fig. 2-5)
 - (1) Be sure to route wire harness through the w/h clamp.



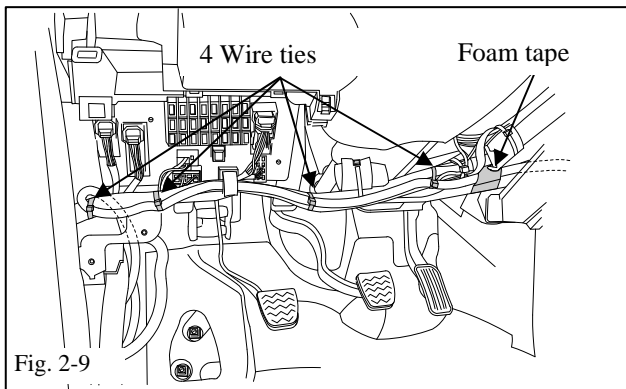
- (g) Continue routing the wire harness down and along vehicle wire harness. (Fig. 2-6)



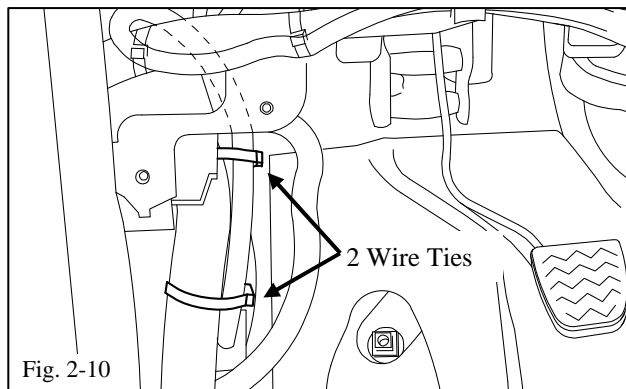
- (h) Connect the 13 pin connector of the wire harness to the vehicle connector located in the left side cowl area. (Fig. 2-7)



- (i) Remove the ground screw and attach the ground wire with terminal to the ground point. (Fig. 2-8)

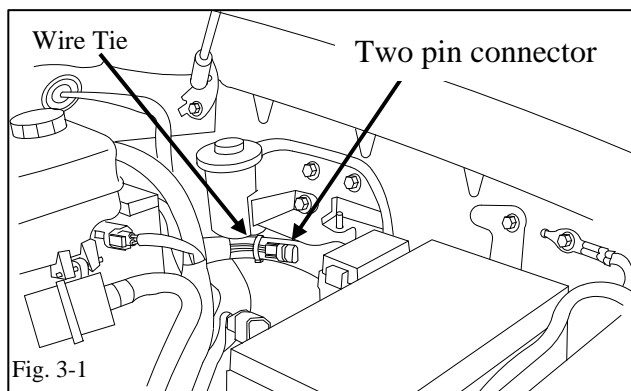


- (j) Adjust wire harness so that the slack is located behind the lower instrument panel.
 - (1) Secure the wire harness with four wire ties to the vehicle wire harness. (Fig. 2-9)
 - (2) Secure the wire harness to the air duct with foam tape.

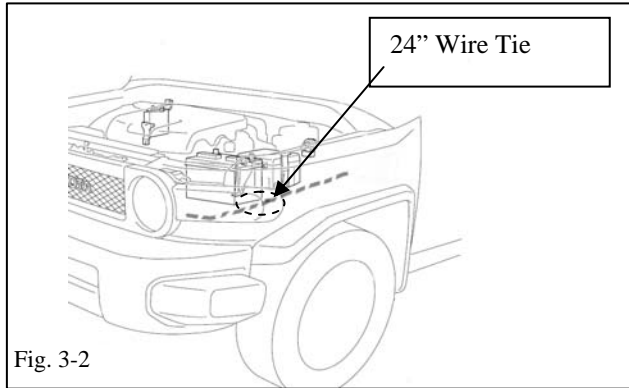


- (k) Secure wire harness with wire tie to main vehicle wire harness. (Fig 2-10)
 - (l) Cut all excess wire ties.
 - (m) Reposition the lower instrument panel.

3. Exterior Installation of the Lamp wire harness and Auxiliary lights.



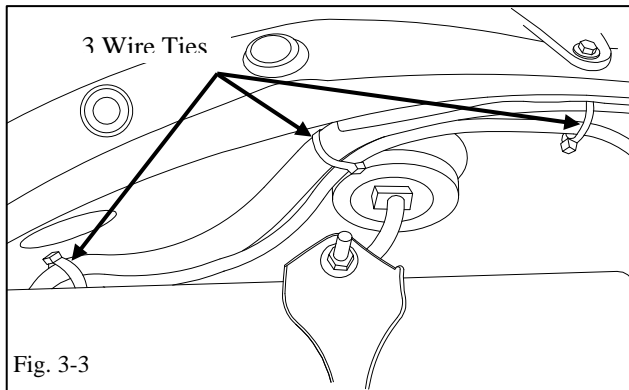
- (a) Locate the two pin connector on the vehicle wire harness. (Fig. 3-1)
 - (1) Remove the break-away tape and connector plug.
 - (2) Plug the accessory wire harness into the two pin connector.
 - (3) Secure the connector to the vehicle harness with wire tie.



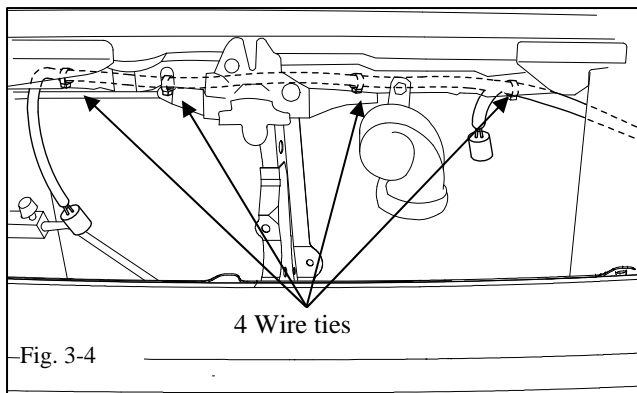
(b) Route the wire harness along side of the fuse box and battery. (Fig. 3-2)

(1) Loosen the battery hold down and slide the battery towards the engine to ease the installation of the wire tie.

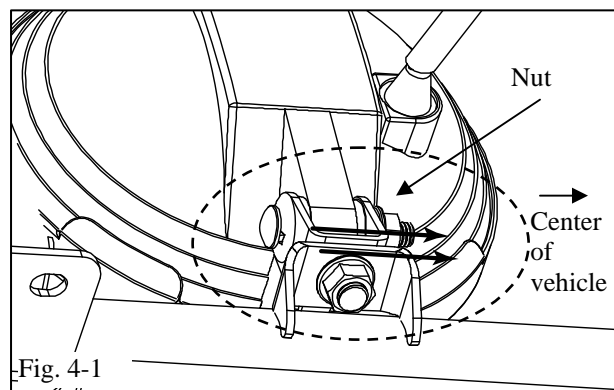
(2) Secure wire harness with the 24" wire tie to the vehicle wire harness at the location between the fuse box and battery. (Fig. 3-2)



(c) Secure the wire harness to the vehicle harness behind the headlamp with 3 wire ties and continue the routing of the harness along the vehicle harness. (Fig. 3-3)



(d) Continue routing the harness along the vehicle harness in front of the radiator. Secure the wire harness to the vehicle wire harness under the top front radiator support with 4 wire ties. (Fig 3-4)

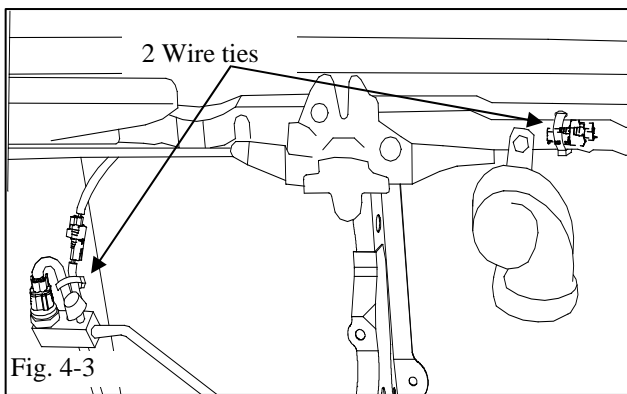
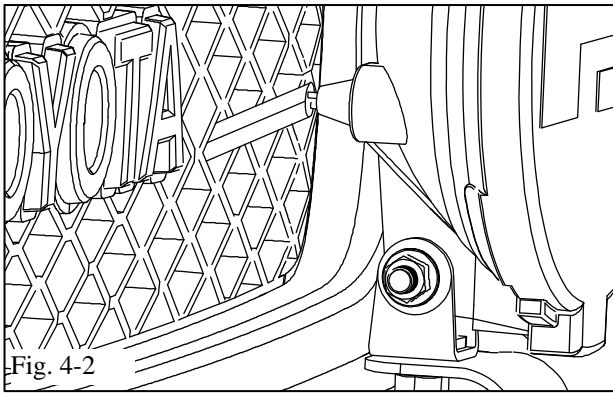


4. Installation of Lights on Brush Guard (see step 5 for bumper installation)

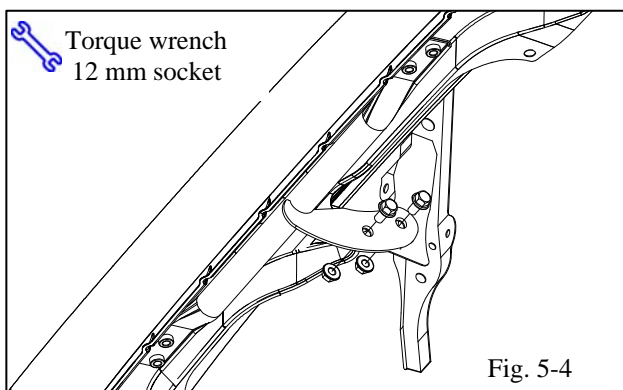
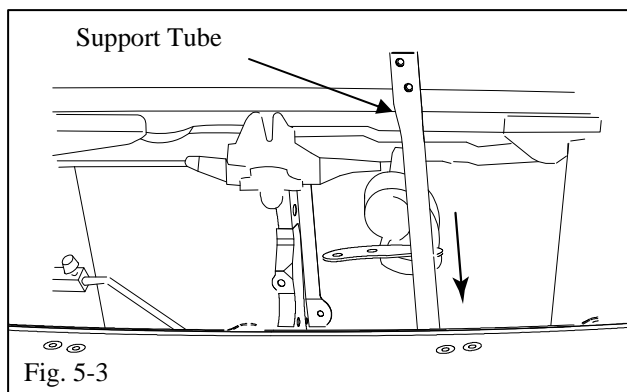
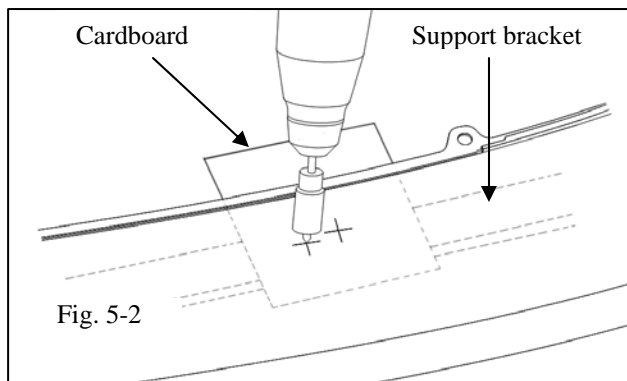
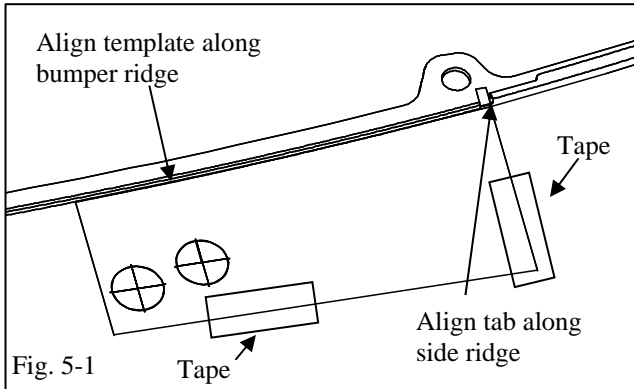
(a) Attached the lamps to the Brush Guard. (Fig. 4-1)

(1) Confirm that the 14 mm nut is installed towards center of vehicle.


(i) If necessary remove nut and bolt and reinstall so nut is towards center of vehicle.




- (2) Align the lamps so that the brackets are parallel to each other as shown.
- (3) Tighten each 14 mm nut to 40 lbs-ft.
- (b) Reattach the front grill with screws and clips.
- (c) Install the Brush Guard as indicated in the Brush Guard installation instructions.
- (d) Route the pig tail wire harness from each lamp directly rearward and through the grill. (Fig. 4-2)
- (e) Connect the pig tail connectors to the mating connectors on the wire harness.
- (f) Secure the pigtails connections with 2 wire ties. (Fig. 4-3)




5. Installation of Lights on Bumper

-  (a) Lay left side template on top of bumper and align along ridge with tab against side ridge. (Fig. 5-1)

-  (1) Apply masking tape to template to secure.

- (b) Center punch the cross hairs.

- (c) Place cardboard between bumper fascia and support bracket to protect metal. (Fig. 5-2)



-  (d) Adjust pilot drill so tip does not exceed height of hole saw teeth.

- (e) At center punch marks, drill 7/8" holes with hole saw. (Fig. 5-2)

- (1) Be sure not to cut through cardboard and scratch the bumper bracket.

- (f) Repeat steps a through f for right side of bumper.

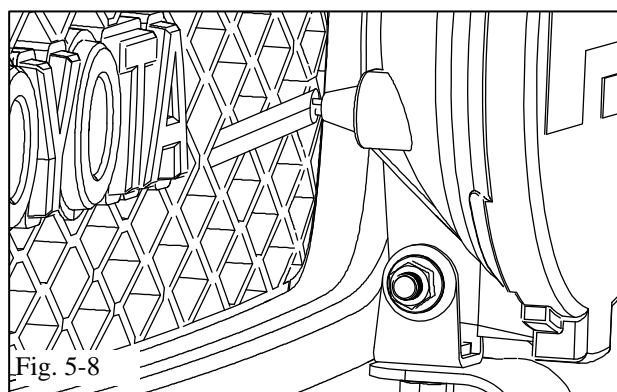
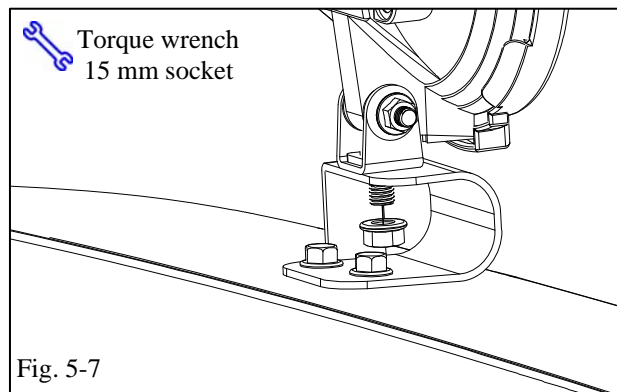
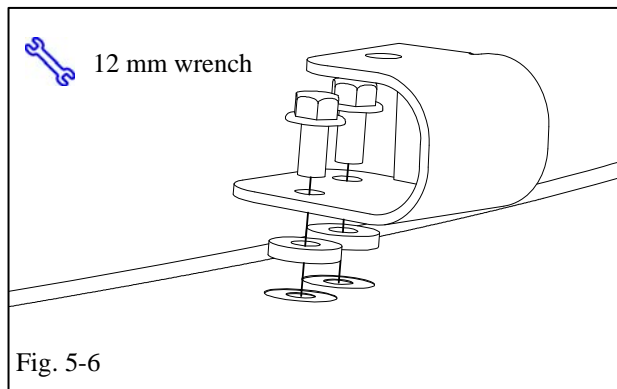
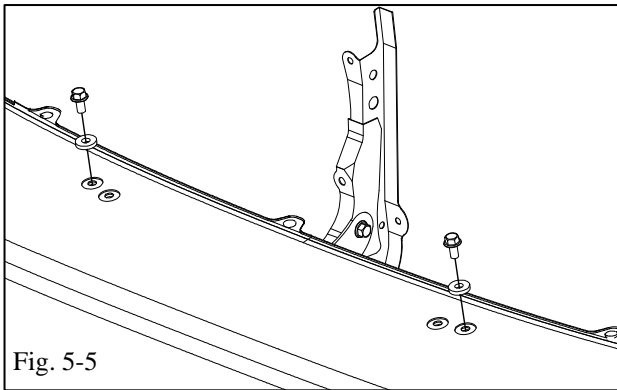
- (g) Remove templates and tape.

-   (h) Remove excess rubber material with Exacto knife to expose the four factory provided holes in the bumper support bracket.

- (i) Vacuum up any remaining rubber material.

- (j) Insert bumper support tube into opening beneath the bumper. (Fig. 5-3)

- (k) Install bumper support tube in the bumper support channel and loosely secure with the 2 M8 bolts and 2 M8 nuts to the center radiator support. (Fig. 5-4)



- (l) Hand tighten 2 bolts and washers to the outside holes on the top of the bumper. (Fig. 5-5)
- (m) Tighten the 2 M8 bolts and 2 M8 nuts that attach the support bracket to the center radiator support to 15 lbs-ft. (Fig 5-4)
- (n) Reattach the front grill with screws and clips.
- (o) Remove the 2 bolts and washers holding the support bracket to the bumper.
- (p) Install left hand lamp bracket with 2 M8 bolts and 2 washers. Tighten the bolts to 15 lbs-ft. (Fig. 5-6)
- (q) Repeat for right hand lamp bracket.
- (r) Remove M10 nut from lamp assembly and attach the lamps to the left and right hand lamp brackets. Tighten each 15 mm nut to 33 lbs-ft. (Fig. 5-7)
- (s) Route the pig tail wire harness from each lamp directly rearward and through the grill. (Fig. 5-8)
- (t) Connect the pig tail connector to the mating connectors on the wire harness and secure the with 2 wire ties as per step 4f.

- (u) Adjust the horizontal and vertical aiming of the lamps as per step 4g and 4h.

6. In Process Function Check

- (a) Install the provided 15 amp fuse. (Fig. 6-1)
 - (1) Install the provided relay.
- (b) Reconnect the negative battery terminal.
- (c) Turn the ignition key to IG position.
- (d) Turn on the running head lamps in high beam mode.
- (e) Press the Auxiliary switch in and out and confirm that the Auxiliary lights turn on and off.
- (f) Confirm that the green indicator lamp is on when the Aux lights are on.
- (g) Confirm that the switch illumination back light is on.

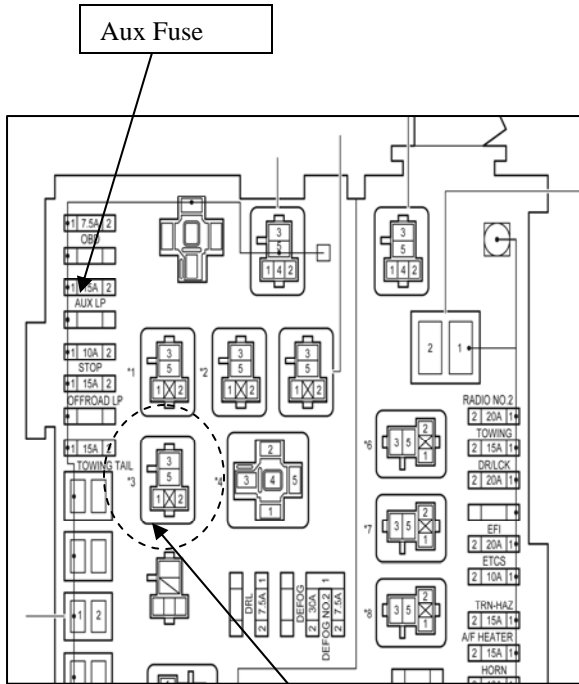


Fig. 6-1

Aux Relay

- (h) Adjust the horizontal and vertical aiming of the lamps as shown. Place horizontal and vertical cross hairs on a wall 10 to 15 feet in front of the vehicle as shown. The center of the bright spot of the beam pattern should be centered on the cross hairs. (Fig. 6-2)
 - (i) Tighten the 12mm nut to 15 lbs-ft.
 - (j) Disconnect the negative terminal of the battery.

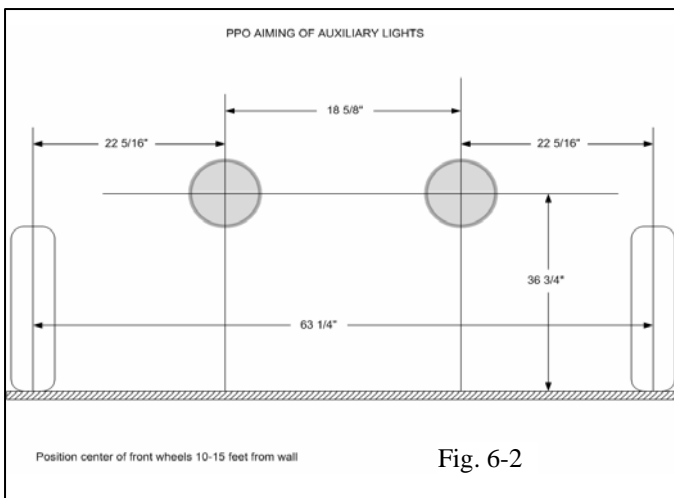


Fig. 6-2

7. Reassembly of Vehicle

- (a) Reassemble the lower instrument console.
- (b) Reassemble the center console.
- (c) Reattach gear shift knobs.
- (d) Reassemble the lower metal instrument panel and trim cover.
- (e) Reassemble the cowl and foot rest.
- (f) Reassemble the door scuff plate.
- (g) Reassemble the IP register.
- (h) Verify the panels fit together properly with no uneven gaps between them.
- (i) Place the care card in the glove box.
- (j) Place the stone shield covers in the front passenger floor.

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



Check:

Look For:

Accessory Function Checks

Auxiliary Lights function



Auxiliary switch indicator

Auxiliary switch back light

Only turns on with high beams

Indicator lamp is on when Aux lights are on.

Switch back light turns on

Vehicle Function Checks

Check functions of all switch functions on center IP console