

**Part Number: PT922-12170**

**Kit Contents**

| Item # | Quantity Req'd. | Description       |
|--------|-----------------|-------------------|
| 1      | 1               | Main Wire Harness |
| 2      | 1               | Switch            |
| 3      | 1               | Switch Header     |
| 4      | 1               | ECU               |
| 5      | 1               | ECU Bracket       |
| 6      | 1               | Hardware Kit      |
| 7      | 1               | Instruction Card  |
| 8      | 1               | LH Light          |
| 9      | 1               | RH Light          |

**Hardware Bag Contents**

| Item # | Quantity Req'd. | Description                  |
|--------|-----------------|------------------------------|
| 1      | 3               | Red Scotchlok (16-22 gauge)  |
| 2      | 1               | Blue Scotchlok (14-18 gauge) |
| 3      | 1               | Thin Foam Tape               |
| 4      | 5               | Thick Foam Tape              |
| 5      | 25              | 25cm Wire Tie                |
| 6      | 2               | 10cm Wire Tie                |
| 7      | 1               | M6 Bolt                      |
| 8      | 1               | M6 Nut                       |

**Additional Items Required For Installation**

| Item # | Quantity Req'd. | Description |
|--------|-----------------|-------------|
| 1      |                 |             |
| 2      |                 |             |
| 3      |                 |             |

**Conflicts**

|                                  |
|----------------------------------|
| Premium Audio (Extension Module) |
|----------------------------------|

**General Applicability**

|               |
|---------------|
| All iM models |
|---------------|

**Recommended Sequence of Application**

| Item # | Accessory   |
|--------|---|
| 1      | Interior Light Controller (for door sills & lights) |
| 2      | Interior Light Kit                                  |
| 3      | Audio   |
| 4      |   |

\*Mandatory







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

| Item # | Quantity Req'd. | Description |
|--------|-----------------|-------------|
| 1      |                 |             |
| 2      |                 |             |
| 3      |                 |             |

**Recommended Tools**

| Personal & Vehicle Protection | Notes  |
|-------------------------------|--|
| Safety Glasses                |  |
| Safety Gloves                 | Optional                                       |
| Blankets                      |  |
| Special Tools                 | Notes  |
| Nylon Panel Removal Tool      |  |
| Surface Thermometer           | Infrared Non-contact                           |
| Heat Gun                      | Master Heat Gun HG-301A or equivalent          |
| Installation Tools            | Notes  |
| Ratchet                       |  |
| Socket                        | 10mm, 12mm                                     |
| Extension                     | 6"   |
| Torque Wrench                 | 48 in-lbf (5.4 N-m)                            |
| Wrench                        | 10mm, 12mm                                     |
| Pliers                        | Needle Nose                                    |
| Side Cutter                   |  |
| Pick Tool                     |  |
| Center Punch                  |  |
| Drill                         | w/ 6mm bit & drill stop                        |
| Hole Deburring Tool           |  |
| Screwdriver                   | Phillips #2                                    |
| Masking Tape                  |  |
| Special Chemicals             | Notes  |
| Cleaner                       | VDC Approved or mild, water-based solvent free |

**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.  |

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:-

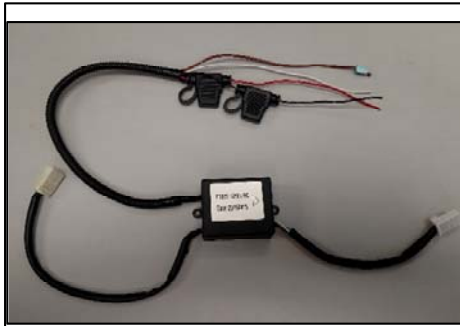
- Vehicle Protection (use of covers and blankets, cleaning chemicals, etc.).
- Safety (eye protection, rechecking torque procedure, etc.).
- Vehicle Disassembly/Reassembly (panel removal, part storage, etc.).
- Electrical Component Disassembly/Reassembly (battery disconnection, connector removal, etc.).

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

### **1. Prepare for the Installation.**

- (a) Install DCC fuse, if necessary.
- (b) Check the following for damage or malfunction:
  - (1) Internal and external trim & body work.
  - (2) Radio pre-set stations.
  - (3) Automatic climate control systems (i.e. temperature control, A/C, fan speed, vent modes, rear defrost, etc.)
  - (4) Other functions (i.e. security, hazard lights, etc.).

(c) Check the kit contents (Fig. 1-1).



Interior Light Kit ECU



Vehicle Wire Harness



ECU Mounting Bracket



Driver Side Light



Passenger Side Light

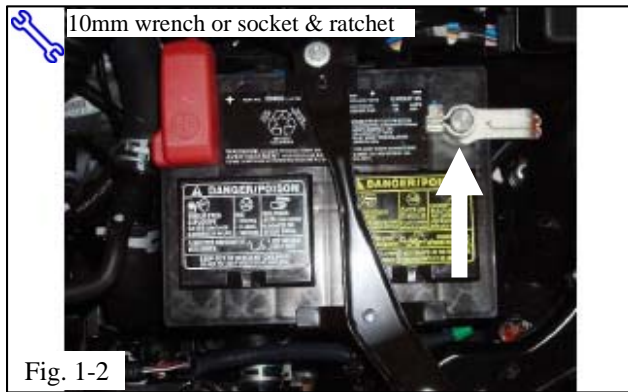


Hardware Bag Contents



Switch

Fig. 1-1

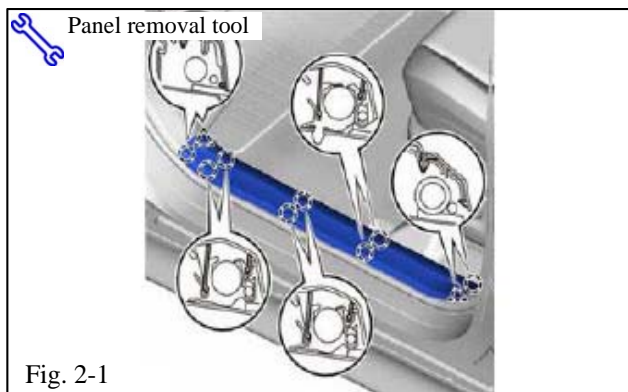


**STOP** (d) Remove the negative battery cable (Fig. 1-2).

**+ CAUTION:** Do not work on the vehicle while the battery's negative terminal is connected. Working on the vehicle with the battery connected may result in a short circuit during the installation.

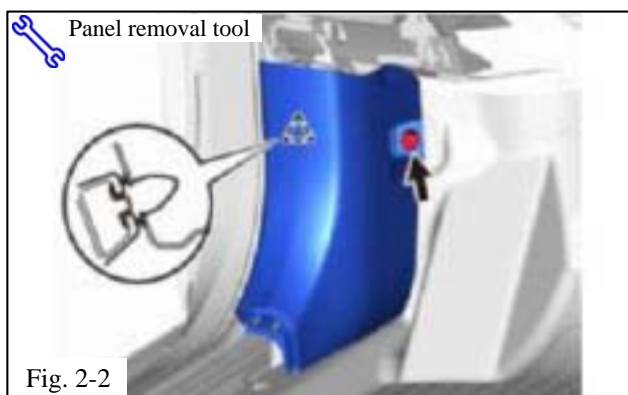
**+ CAUTION:** Do not touch the positive terminal with hands or any tool.

## 2. Disassemble the Vehicle.



(a) Use a panel removal tool to disengage the 2 claws and 8 clips to remove the front left and front right inner door sill plates (Fig. 2-1).

**! NOTE:** Remove the claws first when removing the door sill plates.

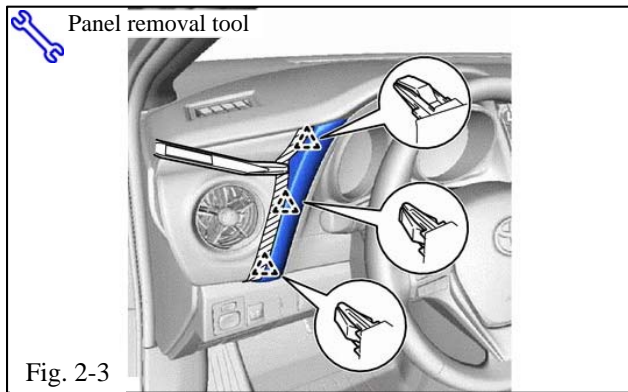


(b) Remove the front left and front right inner cowl cover (Fig. 2-2).

(1) Remove the retaining nut.

(2) Use a panel removal tool to unclip the cowl side cover.

**! NOTE:** If the clip remains in the body, carefully remove it and reinsert the clip into the panel.

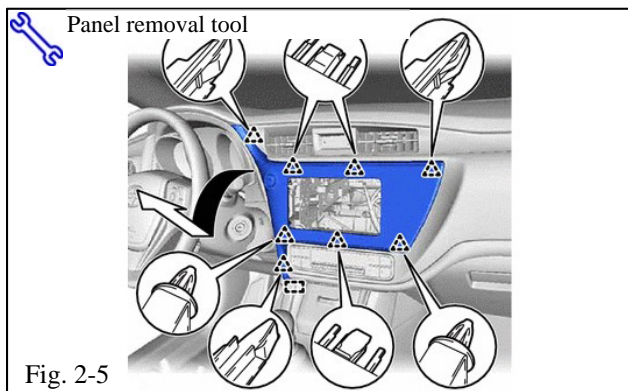


(c) Remove the instrument cluster fascia (Fig. 2-3).

- (1) Apply protective tape.
- (2) Remove the plastic side piece.



(d) Remove the driver side lower IP finish panel (Fig. 2-4).



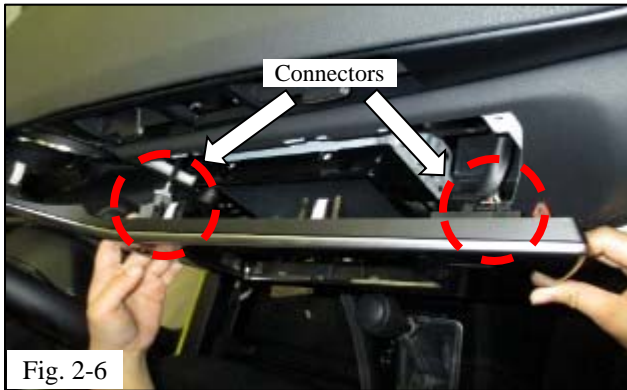
(e) Remove the audio trim panel (Fig. 2-5).

- (1) Detach the first clip at the right top corner of the panel.
- (2) Detach the remaining clips along the top of the panel.

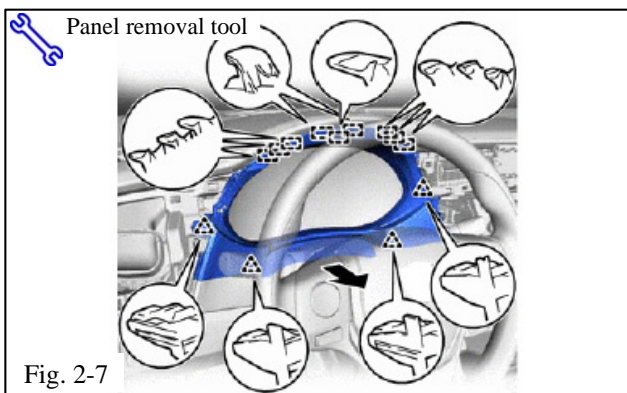
**⚠ CAUTION:** Since the top-left corner is extended from the main body of the trim panel, use special care so as not to damage it.

||

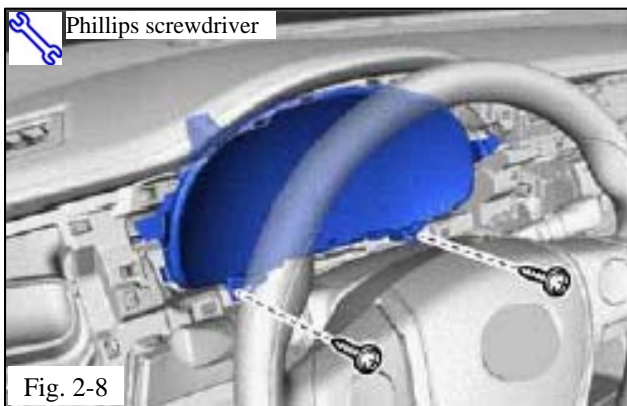
- (3) Remove the radio assembly.
- (4) Detach the center and bottom clips.



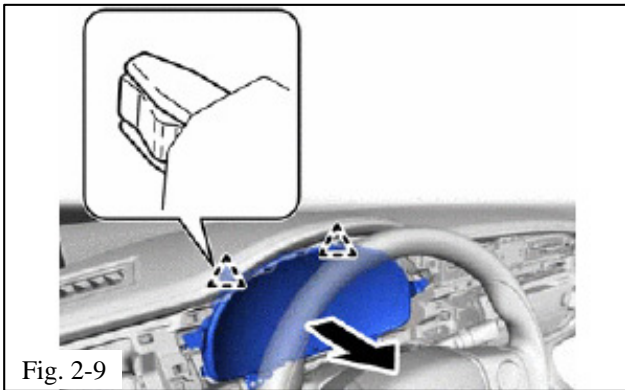
- (5) ⚠ Disconnect the two connectors connected to the back of the trim panel (Fig. 2-6).
- (f) Slide the tab at the bottom left corner of the panel outward to the left and remove the panel.



- (g) Remove the instrument cluster finish panel assembly (Fig. 2-7).
  - (1) Place protection on the steering column.
  - (2) Adjust the steering wheel down and back.
  - (3) Disengage the 4 clips and 9 guides to remove the instrument cluster finish panel assembly.



- (h) Remove the combination meter assembly.
  - (1) Remove the 2 screws (Fig. 2-8).
  - (2) Adjust steering column out and down.



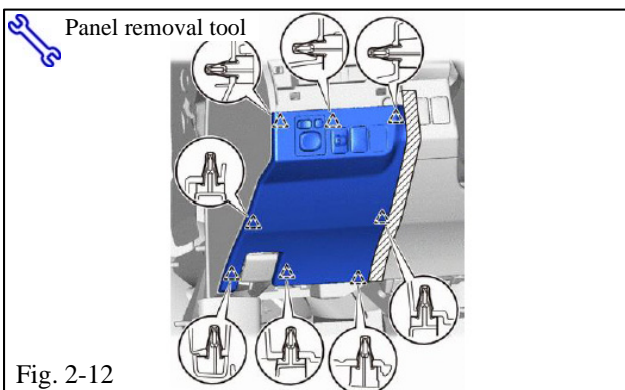
- (3) Disengage the 2 clips (Fig. 2-9).
- (4) Disconnect the 2 connectors and remove the combination meter assembly.



- (i) Remove the side cover.
  - (1) Apply protective tape (Fig. 2-10).
  - (2) Remove the right most blank switch knockout (Fig. 2-10).



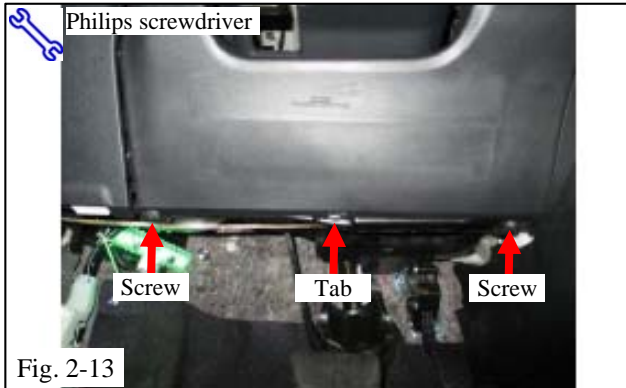
- (3) Remove the screw (Fig. 2-11).



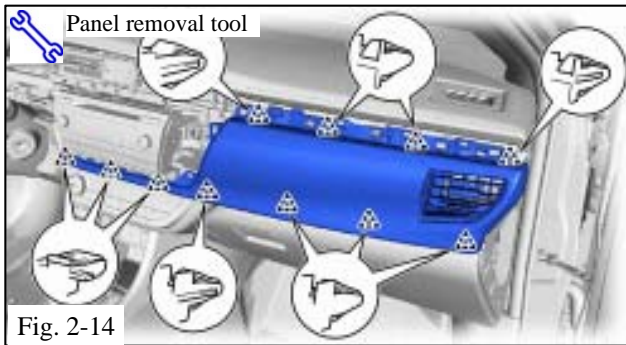
- (4) Protect the interior panels with tape (Fig. 2-12).

**⚠ NOTE:** Failure to use protective tape on the interior panels may result in damage to the vehicle.

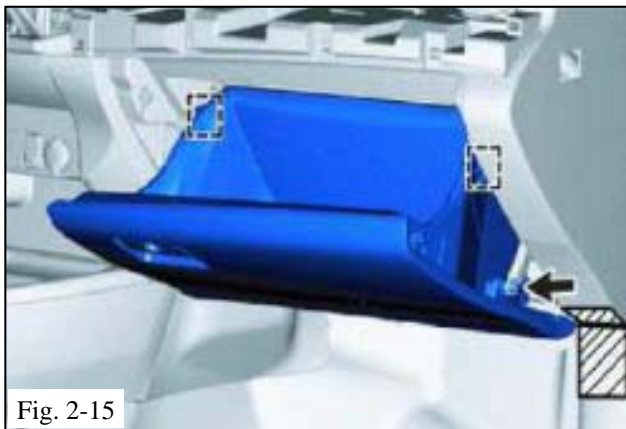
- (5) Disengage the 8 clips to remove the side cover (Fig. 2-12).
- (6) Disconnect the wires on the side cover and set it aside.



- (j) Remove the under dash cover.
  - (1) Remove 2 the screws (Fig. 2-13).
  - (2) Release the center tab (Fig. 2-13).

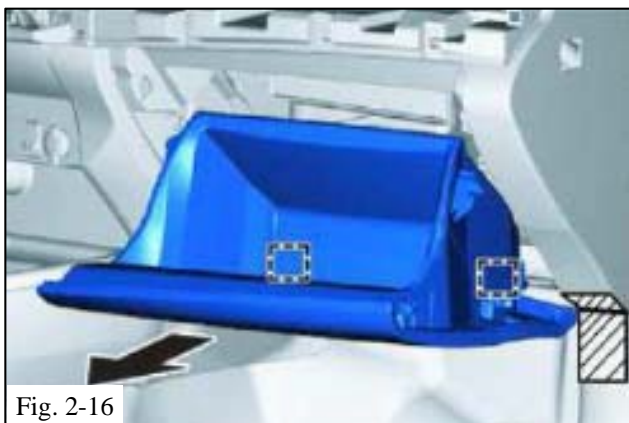


- (k) Use a nylon panel removal tool to disengage the 11 claws, 11 clips and guide to remove the center No.1 instrument panel (Fig. 2-14).



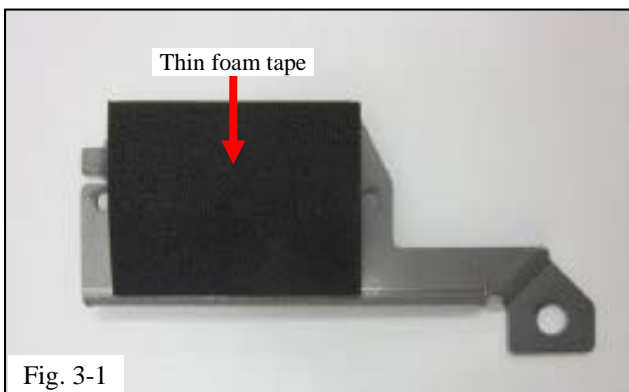
- (l) Remove the glove box.
  - (1) Protect the interior panels with tape (Fig. 2-15).
  - ⚠ NOTE:** Failure to use protective tape on the interior panels may result in damage to the vehicle.
  - (2) Disconnect the glove box door stopper assembly (arrow, Fig. 2-15).
  - (3) Release the 2 stoppers and open the glove box door until it is horizontal (boxes, Fig. 2-15).



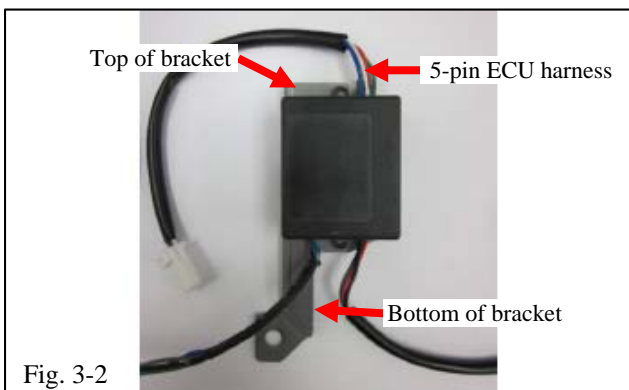


(4) Pull the glove box towards the rear of the vehicle to detach the 2 hinges (Fig. 2-16).

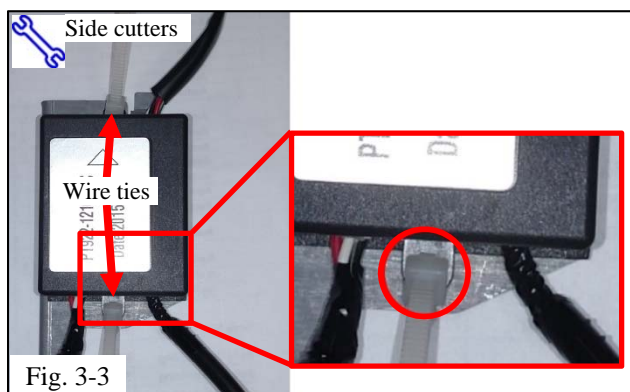
### 3. Prepare the Light Controller ECU.



(a) Remove the adhesive backing on the thin foam tape and secure it onto the bracket (Fig. 3-1).



(b) Orient the ECU as shown with the 5 pin ECU harness pointing toward the top of the bracket (Fig. 3-2).



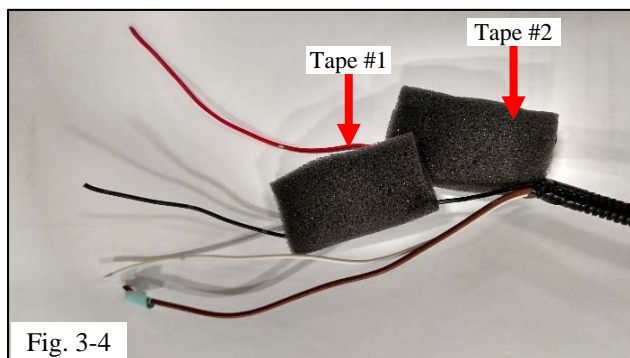
(c) Attach the ECU to the bracket with the provided small wire ties (Fig. 3-3).

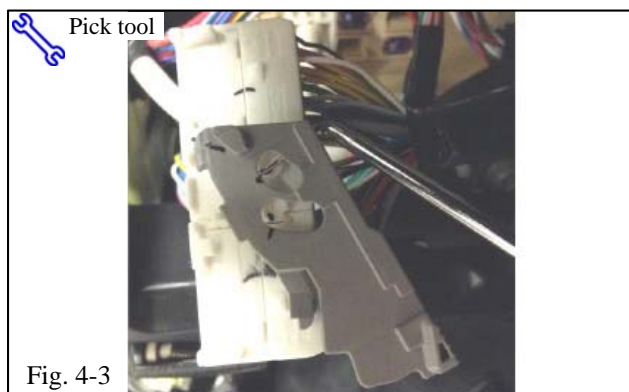
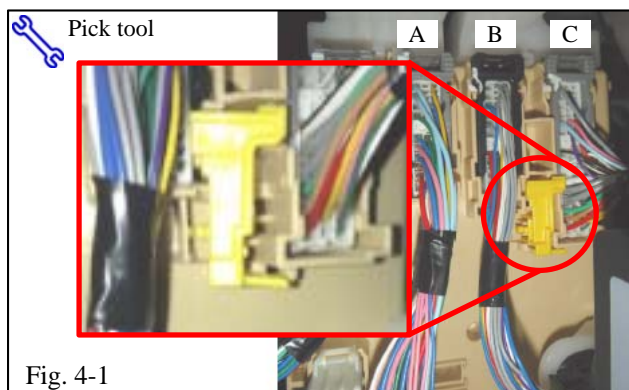
**STOP** **WARNING: DO NOT OVERTIGHTEN THE WIRE TIES OR THE TABS ON THE ECU WILL BREAK. GET THE TIES SNUG BUT STOP BEFORE THE TABS BEND.**

**NOTE:** Ensure the wire tire lock points towards the module or front of the bracket (circle, Fig. 3-3).

(d) Trim all wire ties.

(e) Wrap both fuses with the thick foam tape (Fig. 3-4).





#### 4. Disassemble the Junction Box.

- (a) Disconnect the C connector (Fig. 4-1 and refer to Fig. 5-2 on the next page).
  - (1) Use a pick tool to gently pry the yellow locking tab back.
  - (2) Shift the locking tab to the left to release the connector.
  
- (b) Disengage the grey locking tab (circle in Fig. 4-2) and remove the wire harness connector.
  
- (c) Use a pick tool to remove the locking tab from the connector (Fig. 4-3).
  
- (d) Remove junction block connectors A & B and their respective locking tabs (Fig. 4-1 & refer to Fig. 5-2 on the next page).

**5. Install the Taps in the Junction Box and Mount the ECU.**

(a) Use the provided Scotchloks to tap the wires (Fig. 5-1, Fig. 5-2 and Table 5-1).

**NOTE:** Match the correct color when tapping each wire and place the Scotchloks as far from the connector as possible.

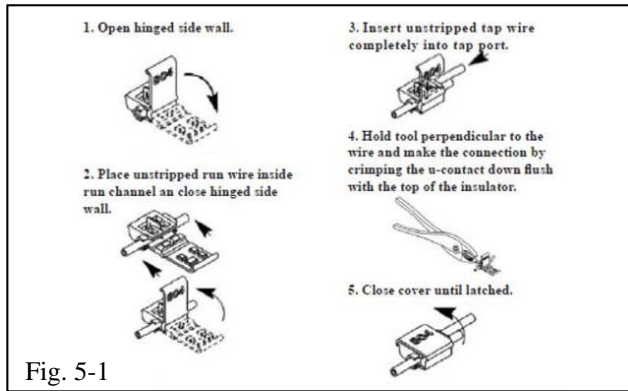


Fig. 5-1

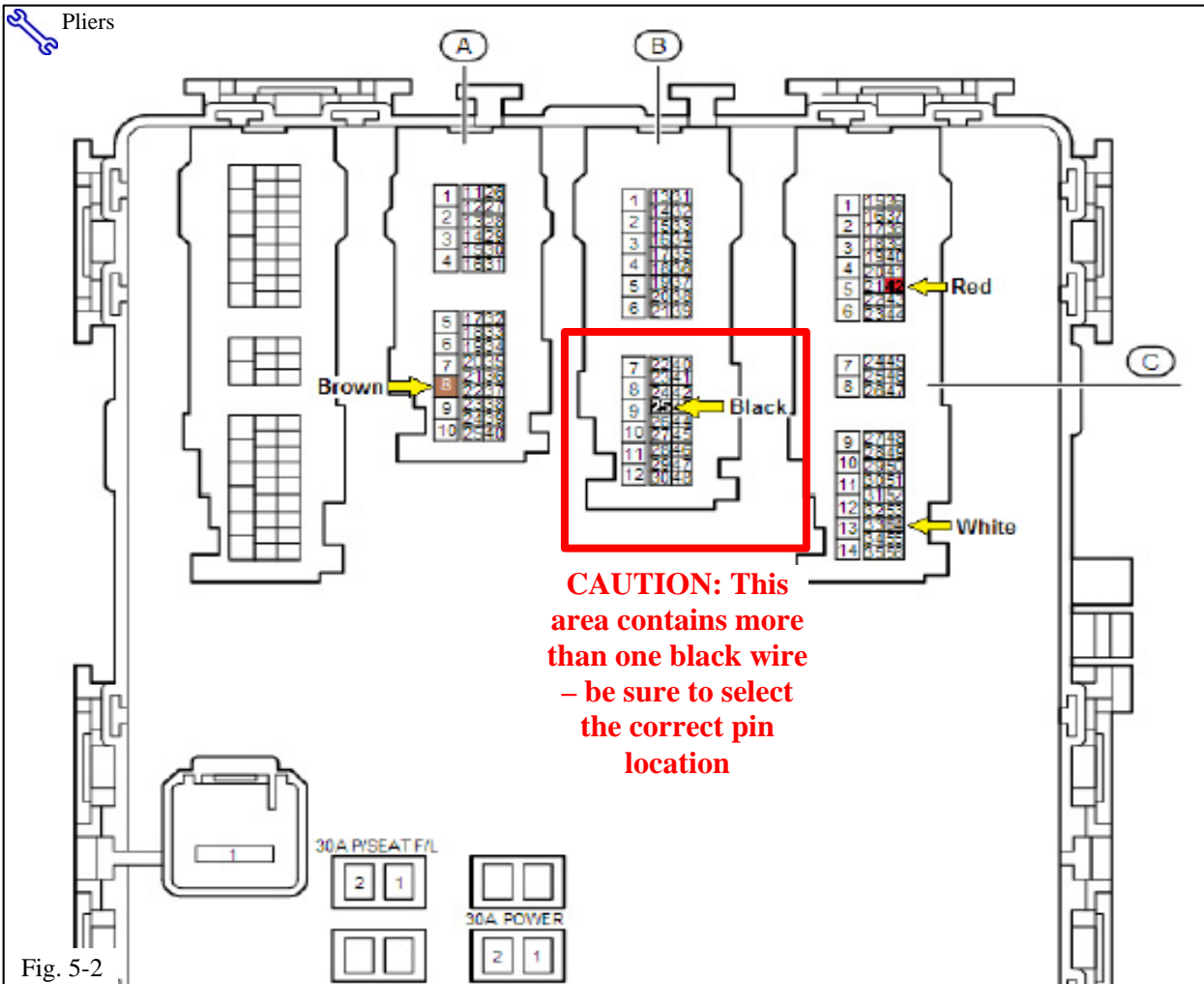
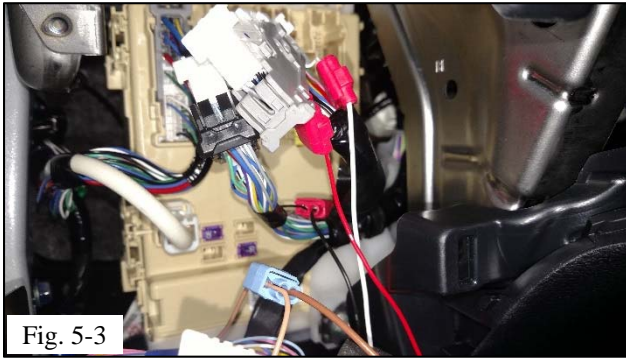
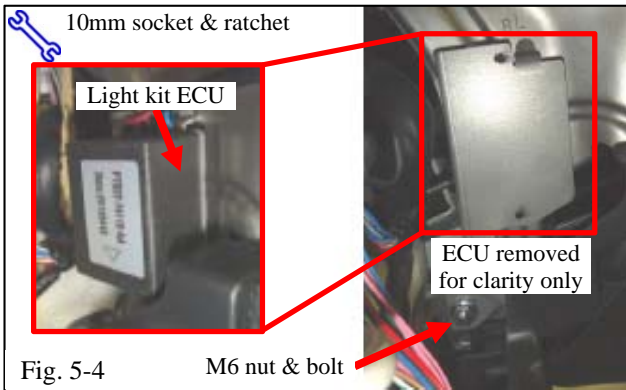


Fig. 5-2

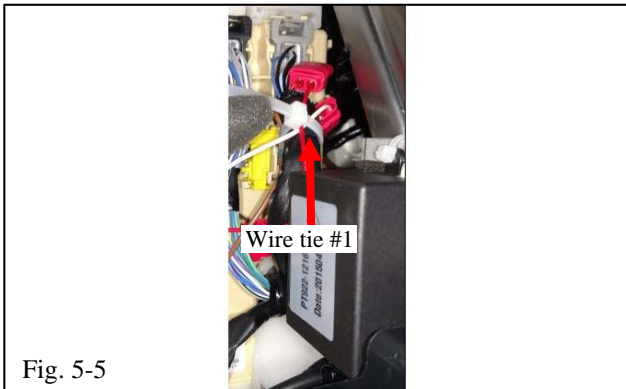
| Junction Block Pin | Junction Box Color     | Interior Light Kit Wire Color |
|--------------------|------------------------|-------------------------------|
| C-42               | Red (Red Scotchlok)    | Red                           |
| B-25               | Black (Red Scotchlok)  | Black                         |
| C-54               | White (Red Scotchlok)  | White                         |
| A-8                | Brown (Blue Scotchlok) | Brown                         |



- (b) Reinstall the locking tabs to each connector and confirm the Scotchlocks are installed correctly (Fig. 5-3).



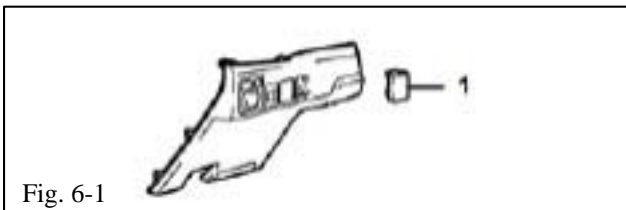
- (c) Insert the ECU bracket tab into the hole on vehicle dashboard support (Fig. 5-4).
- (d) Use the 6.25mm hole on the bracket and the M6 bolt and nut provided in the kit to mount the ECU (Fig. 5-4).



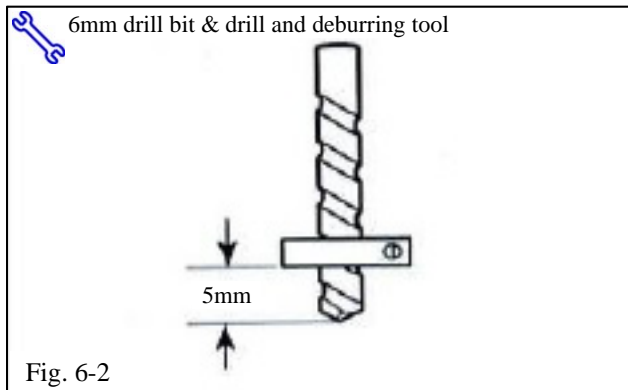
- (e) Reconnect the vehicle connectors and use a wire tie to bundle the ECU wires to the vehicle harness (Fig. 5-5).

**⚠ NOTE:** Make sure all connectors lock properly and the yellow locking tab is back in its original position.

### 6. Install the Knockout Switch.



- (a) Remove the center knockout blank from the left side panel, removed in Step 2(i) (Fig. 6-1).



(b) Use the provided template to drill a 6mm diameter hole (use a drill stop set at 5mm, Fig. 6-2) in the knockout. Deburr the hole.

**⚠ NOTE:** The hole is not centered in the knockout. Use the template for proper location.

**⚠ CAUTION:** Be careful when handling sharp objects to avoid risk of injury.

(c) The plastic switch blank should look like the one pictured in Fig. 6-3.

(d) Use VDC approved cleaner to clean the top surface of the knockout where the switch will be mounted.

**⚠ NOTE:** Verify the working temperature is between 70-100 °F (21-38 °C) for proper adhesion.

(e) Route the switch wires through the hole.

(f) Remove the adhesive backing and stick the switch to the knockout.

**⚠ NOTE:** Test the switch fitment before removing the adhesive backing to ensure the switch is mounted straight.

**⚠ NOTE:** Do not touch the adhesive.

(g) Attach the switch wires to the switch connector.

(1) The wire colors and numbers should match the color and number of the connector slots (Fig. 6-4).



- (2) Position the pins in the proper orientation before inserting them into the connector (Fig. 6-5).
- (3) Check each wire after inserting it to make sure the terminals are locked properly.
- (4) Press down on the pin lock to lock in the terminals.
- (5) Wrap the switch connector with half of a piece of foam tape.



- (h) Verify the completed assembly (Fig. 6-6).



- (i) Install the switch into the left side panel (Fig. 6-7).

### 7. Install the Lights.

- (a) Install the driver side light.

- (1) Remove the nut (Fig. 7-1).

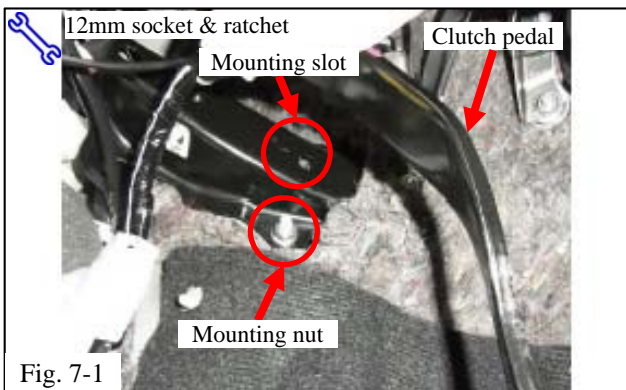




Fig. 7-2



Fig. 7-3



Fig. 7-4

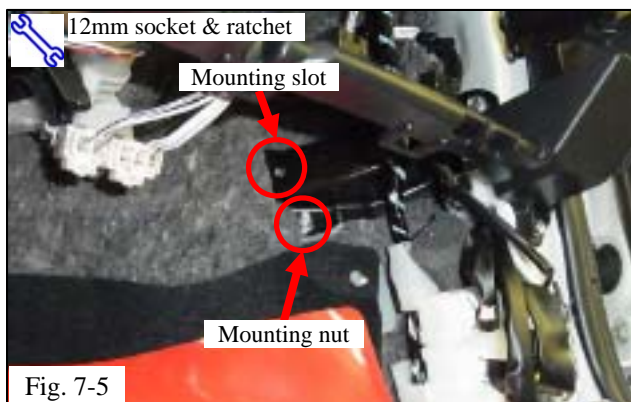


Fig. 7-5

(2) Mount the left side light module (Fig. 7-2 & Fig. 7-3).

**⚠ NOTE:** Some pressure may be necessary to get the light to seat properly in the tab and over the stud.

(3) Reinstall the mounting nut and tighten it (Fig. 7-4).

(b) Install the passenger side light.

(1) Remove the nut (Fig. 7-5).





Fig. 7-6

(2) Mount the right side light module (Fig. 7-6 & Fig. 7-7).

**⚠ NOTE:** Some pressure may be necessary to get the light to seat properly in the tab and over the stud.



Fig. 7-7

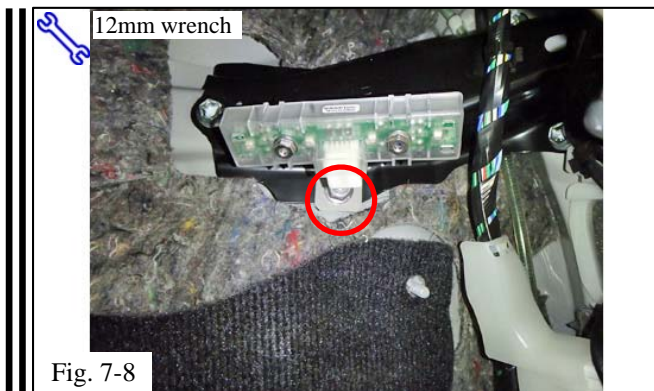
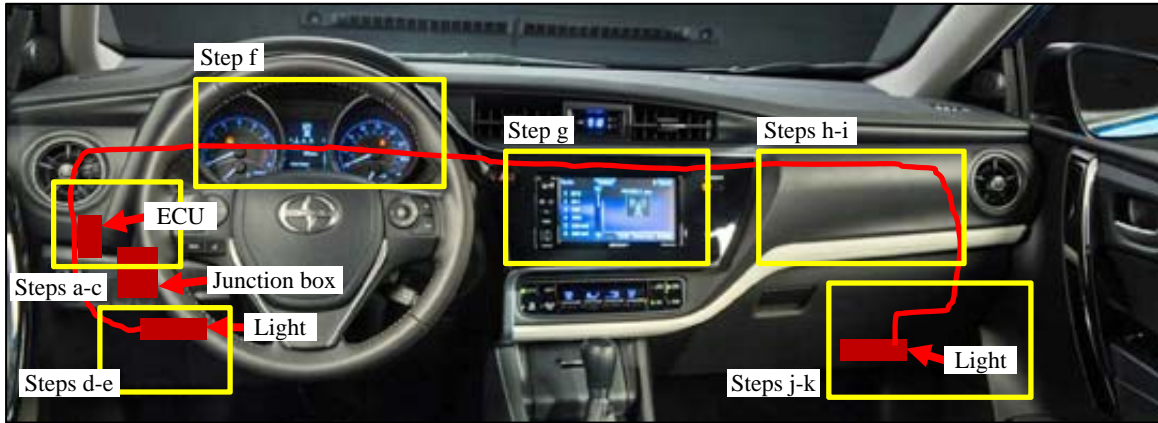


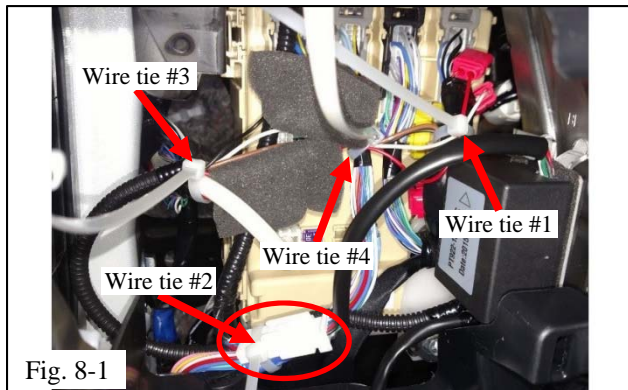
Fig. 7-8

(3) Reinstall the mounting nut and tighten it (Fig. 7-8).



### 8. Install the Wire Harness.

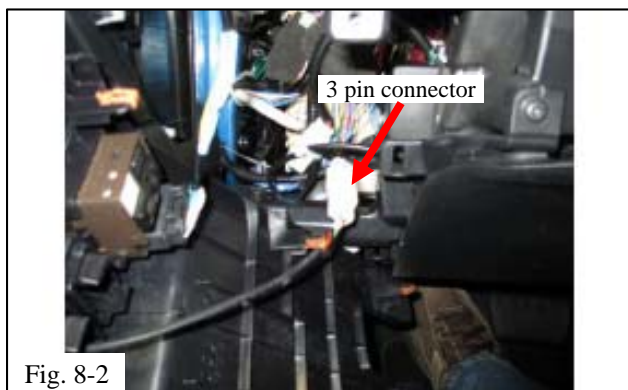
- (a) Connect the main wire harness to the five pin connector from the top cable of the ECU (ellipse in Fig. 8-1).
- (b) On the driver side, route the ECU cables and wire tie them in the three locations shown, #2 through #4 (Fig. 8-1). Wire tie #1 was installed in Step 5(f).

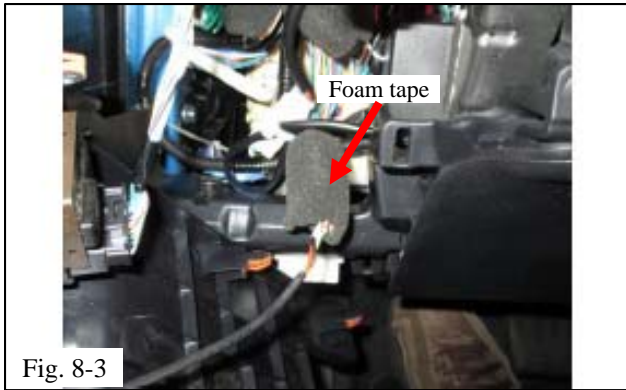


**STOP CAUTION:** Do not route the harness where it can interfere with the accelerator and brake pedals or the steering controls.

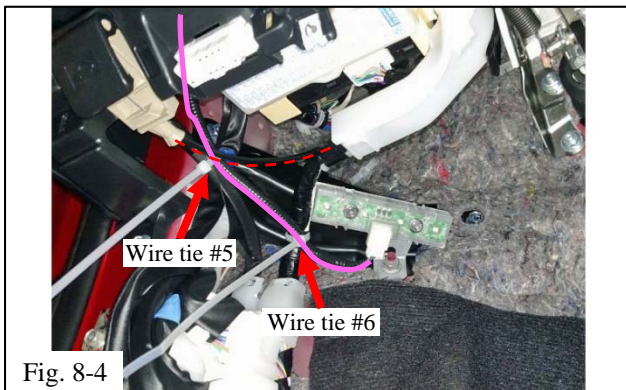
- ⚠ (1) Avoid sharp edges and locations that could pinch the wire.
- ⚠ (2) Do not secure wire ties on bare wire.
- ⚠ (3) Provide extra slack when routing on the steering wheel column.

- (c) Connect the three pin switch connector to the switch header (Fig. 8-2).





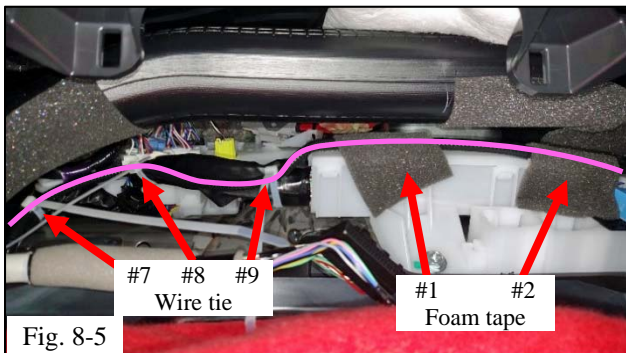
(d) Wrap the connector with the provided foam tape (Fig. 8-3).



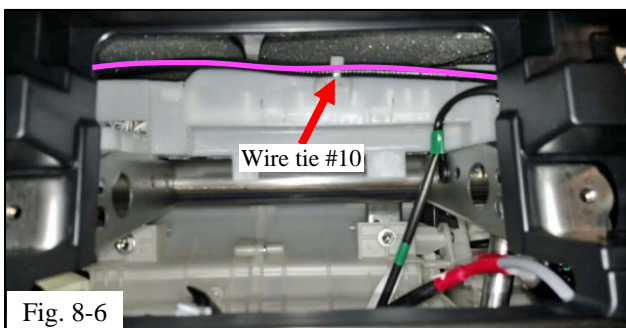
(e) Route the main harness (pink harness) towards the LH Light Module and wire tie it in two locations (Fig. 8-4).

**STOP CAUTION:** Do not secure the harness to the hood release cable (dashed red line, Fig. 8-4).

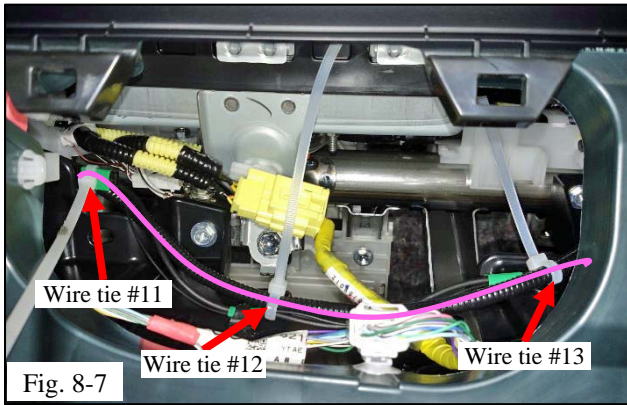
(f) Connect the 5 pin connector to the light module.



(g) Route the main harness (pink line) above and around the steering wheel column, towards the RH Light Module. Wire tie the harness in three locations and tape the harness in two locations (Fig. 8-5).

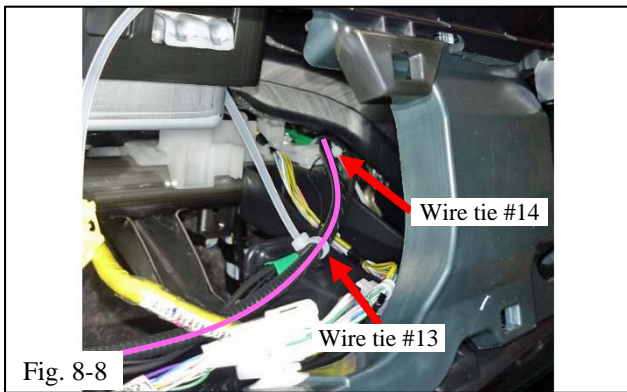


(h) Route the main harness (pink line) behind the radio area and secure it with a wire tie to the slot in the white plastic wire box (Fig. 8-6).

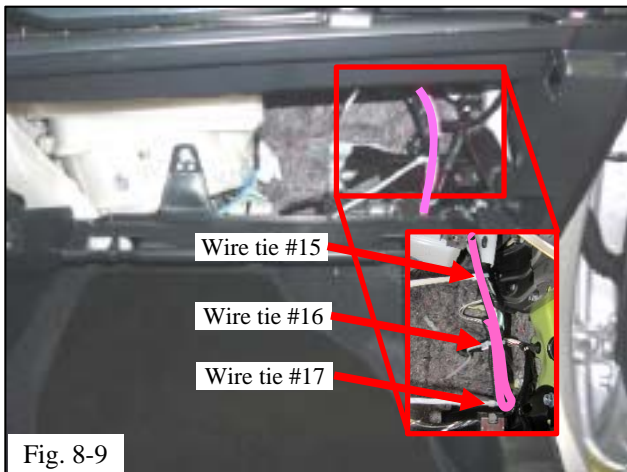


- (i) Route the main harness (pink line) above the glove box area and wire tie it in the three locations (Fig. 8-7).

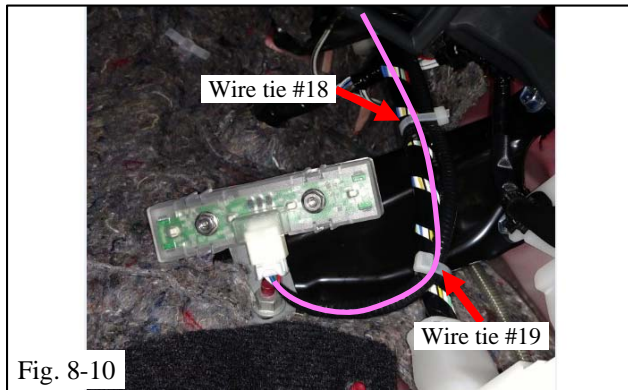
**STOP CAUTION:** Do not secure the harness to the yellow airbag harnesses.



- (j) Route the main harness (pink line) towards the RH Light Module, passing above and behind the white plastic piece, and wire tie in one location (wire tie #14, Fig. 8-8).



- (k) Route the main harness (pink line) down towards the LH Light Module and wire tie it in three locations (Fig. 8-9).



- (l) Route the main harness (pink line) and wire tie it in two locations (Fig. 8-10).
- (m) Connect the five pin connector of the main harness (pink line) to the light module.
- (n) Trim all wire ties.

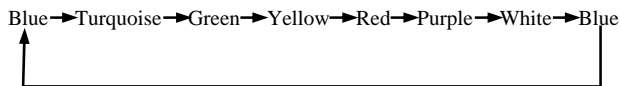
**9. Perform a Function Test.**



- (a) Temporarily reconnect the negative battery cable (Fig. 9-1).

**+** **CAUTION:** Do not touch the positive terminal with hands or any tool.

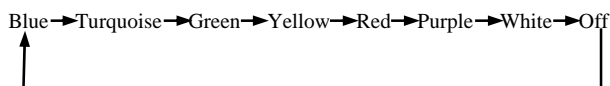
- (b) If required, install a 30A fuse.
- (c) Open a door. The interior light kit should light up. The switch LED should be ON.



- (d) With a door open, press the illumination switch to cycle through all 7 of the colors (Fig. 9-2). (Two blue color positions exist when a door is open.)

- (e) With the key in the OFF position, close all doors (including the trunk). The interior light kit should turn off. The switch LED should turn OFF too.

- (f) With all doors closed, turn the key to ACC/ON. The switch LED should come ON.



- (g) With all doors closed and with the key in the ACC/ON position, press the switch to cycle through all 7 of the colors and the off position (Fig. 9-3).

- (h) Turn the key to the OFF position.

- (i) Disconnect the negative battery cable and remove the 30A fuse.

**+** **CAUTION:** Do not touch the positive terminal with hands or any tool.

#### **10. Reassemble the Vehicle.**

- (a) Reassemble vehicle interior panels in the opposite order of disassembly.
- (b) Be sure to reconnect any disconnected connectors and verify that the panels fit together properly with no uneven gaps between them.
- (c) Replace the negative battery cable.

**+** **CAUTION:** Do not touch the positive terminal with hands or any tool.

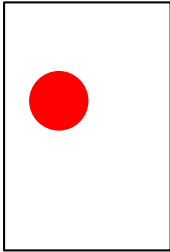
- (d) Torque the negative battery cable to 48 in•lbf (5.4 N•m).

**▽** **Torque: 48 in•lbf (5.4 N•m)**

#### **11. Complete the Installation.**

- (a) Place the operation instruction card in the glove box.
- (b) Perform the vehicle function checks.
- (c) Clean up and remove any trash.
- (d) Remove the DCC fuse, if required.

Drill Template



 Drill Hole

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

| Check:   | Look For:  |
|--|--|
| <p><u>Accessory Function Checks</u></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Open a door</li> <li><input type="checkbox"/> Close doors with key in OFF position</li> <li><input type="checkbox"/> Close doors with key in ACC/ON position</li> <li><input type="checkbox"/> Switch LED</li> <li><input type="checkbox"/> Color selection</li> </ul>   | <p>Interior light kit ON</p> <p>Interior light kit should turn off within a few seconds</p> <p>Interior light kit should remain on (except if color selection is in the off position)</p> <p>Switch LED should be ON when a door is open or when key is in ACC/ON position</p> <p>Color should be selectable when switch LED is illuminated</p>  |
| <p><u>Vehicle Function Checks</u></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> All exterior lights</li> <li><input type="checkbox"/> Airbag Light</li> <li><input type="checkbox"/> Lock/Unlock button</li> <li><input type="checkbox"/> Instrument Cluster</li> <li><input type="checkbox"/> Power outside mirrors</li> <li><input type="checkbox"/> Hazard lights</li> <li><input type="checkbox"/> Mirror adjustments</li> <li><input type="checkbox"/> Mirror retraction</li> <li><input type="checkbox"/> Dome lamp</li> </ul> | <p>Brake lights, turn signals and headlights</p> <p>Light should function normally</p> <p>Lock/Unlock should function normally</p> <p>Cluster should function normally</p> <p>Power outside mirrors should function normally</p> <p>Hazard lights should function properly</p> <p>Mirrors should function normally</p> <p>Mirrors should retract</p> <p>Dome lamp should function properly</p> |
| <p><u>Vehicle Appearance Check</u></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> After accessory installation and removal of protective cover(s), perform a visual inspection.</li> </ul>  | <p>Ensure no damage (including scuffs and scratches) was caused during the installation process.</p> <p>(For PPO installations, refer to TMS Accessory Quality Shipping Standard.)</p>   |