

**Part Number: PT374-02090****Kit Contents**

Item #	Quantity Req'd.	Description
1	1	AD Mirror Assembly w/ PRNDL
2	1	Hardware bag

**Hardware Bag Contents**

Item #	Quantity Req'd.	Description
1	2	T-tap Connectors, Red 3M™
2	1	Wire Cover (short)
3	1	Wire Cover (long)
4	1	EC Wire Harness
5	9	Foam Tape
6	6	Wire Ties, small
7	1	Corrugated tubing
8	1	Operation Instruction Card

**Additional Items Required For Installation**

Item #	Quantity Req'd.	Description

**Conflicts**

None
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**Recommended Tools**

<b>Personal &amp; Vehicle Protection</b>	<b>Notes</b>
Blankets, Towels	
<b>Special Tools</b>	<b>Notes</b>
None	
<b>Installation Tools</b>	<b>Notes</b>
Ratchet	
Socket	10 mm
Torx Head Driver	T20
Pliers	Needle Nose
Side cutters	
Nylon Panel Removal Tool	e.g. Panel Pry Tool #1 Toyota SST# 00002-06001-01
Dark Towel or Cloth	For Testing
Torque Wrench	36 lbf-in
Masking tape	
Electrical tape	

<b>Special Chemicals</b>	<b>Notes</b>
Cleaner	3M™ Prep Sol-70

**General Applicability**

All Corolla models.
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**Recommended Sequence of Application**

Item #	Accessory
1	Security System
2	RES
3	EC Rearview Mirror
4	Satellite Radio

\*Mandatory

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

Item #	Quantity Req'd.	Description
1	1	90950-08004, A Pillar clip.
1	1	74318-52020-B1, Driver side visor clip cover

**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.**SAFETY TORQUE:** This mark indicates that torque is related to safety.

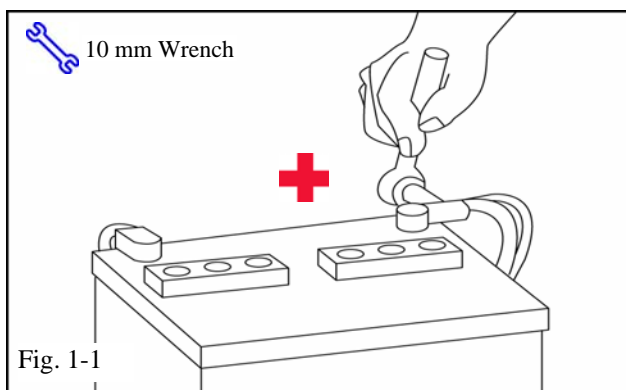
Care must be taken when installing this accessory to ensure damage does not occur to the vehicle. The installation of this accessory should follow approved guidelines to ensure a quality installation.

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 Toyota dealer for a copy of this document.



### 1. Remove Battery Cable.



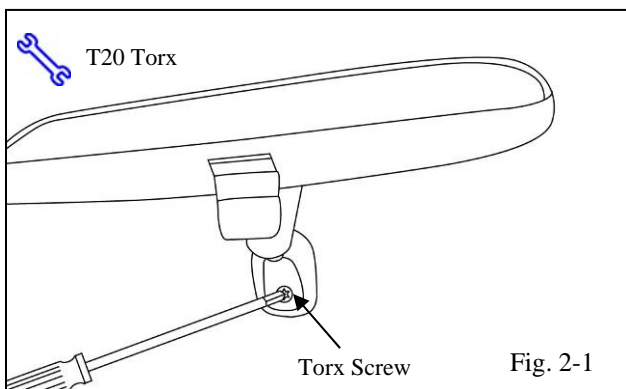
(a) Protect fender before starting.



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

(c) Remove the negative battery cable.

(Fig. 1-1)



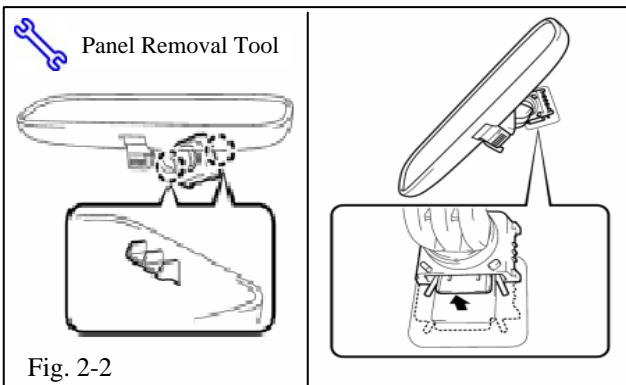
### 2. Vehicle Disassembly.

(a) Remove OE mirror and discard.

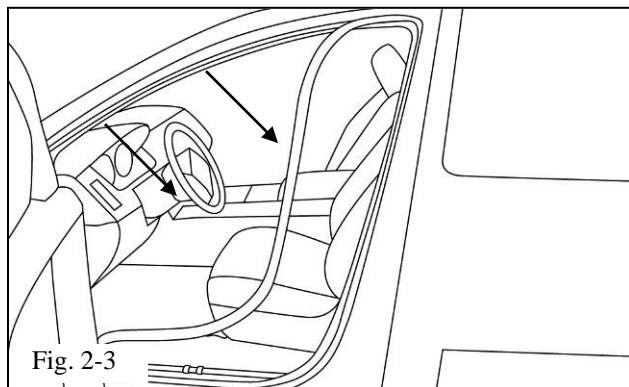
#### For screw-on type mirrors:

- (1) Using T20 Torx driver, loosen Torx screw in mirror mount and slide mirror up off from windshield button. (Fig. 2-1)

#### For clip on type mirrors:



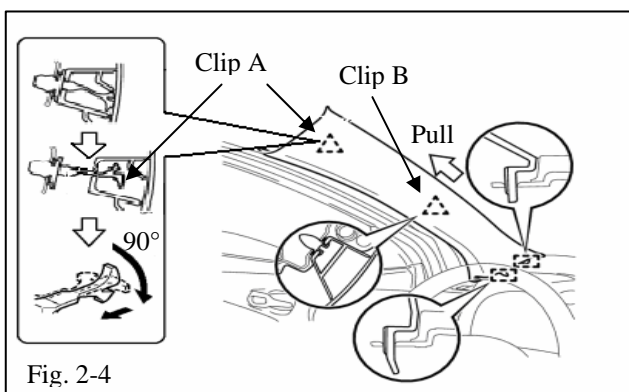
- (2) Disengage the two claws and remove the mirror cover from the mirror base. (Fig. 2-2)
- (3) Pull the lever in the direction indicated by the arrow shown in the illustration and slide the inner rear view mirror assembly upward to remove it. (Fig. 2-2)



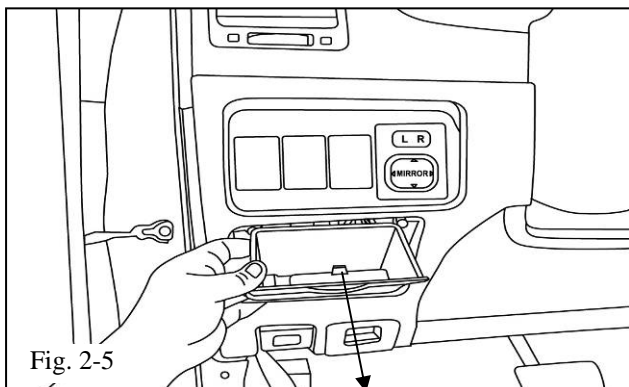
- (b) Pull driver-side weather-seal down past top of A-pillar and out of the way of access to vehicle occupant compartment. (Fig. 2-3)

- (c) Detach A-pillar garnish from body.

- (1) Starting from the top, pull the A pillar garnish outward so that clip B detaches, the base of clip A detaches, and the tip of clip A locks in the pillar garnish's hole. (Fig. 2-4)

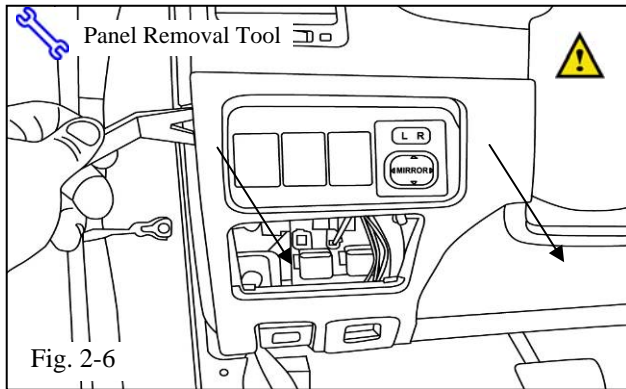


- (2) Put masking tape around the jaws of the needle-nose pliers to prevent clip damage.
- (3) Using needle-nose pliers, rotate the center portion of clip A 90°, then pull the pillar garnish to release the tip of clip A from the pillar garnish. (Fig. 2-4)
- (4) DO NOT remove clip A from the A-pillar body. If clip A is damaged or removed from the body, replace with a new clip.
- (5) Pull the pillar garnish in the direction indicated by the arrow in the illustration to detach the claws. (Fig. 2-4)



- (d) Remove dash storage compartment.

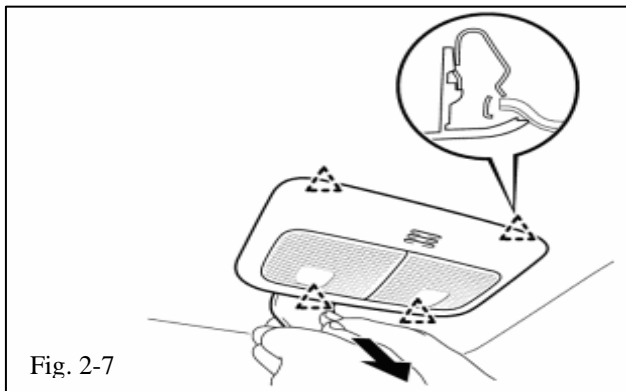
- (1) Push in on sides of storage compartment and pull outwards to release top guides. (Fig. 2-5)
- (2) Pull base of storage compartment outwards to disengage clips at bottom. (Fig. 2-5)



(e) Remove lower IP panel.



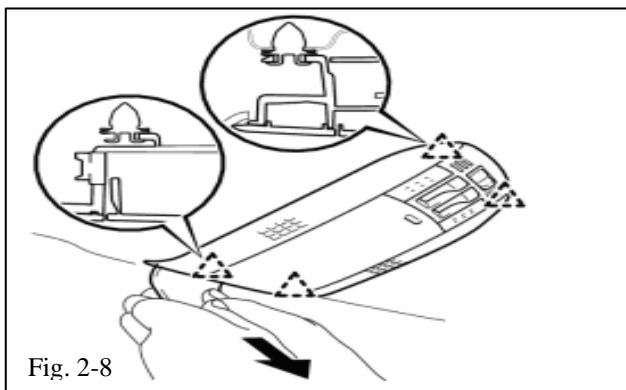
- (1) Pull inside edge out first then outer edge.  
(Fig. 2-6)
- (2) Disconnect Outer Mirror Switch connector.



(f) Remove overhead console.

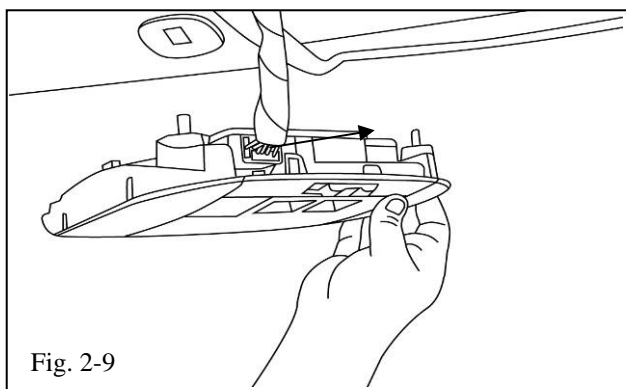
**Non-sunroof models only:**

- (1) Using panel removal tool remove overhead console from headliner.  
(Fig. 2-7)

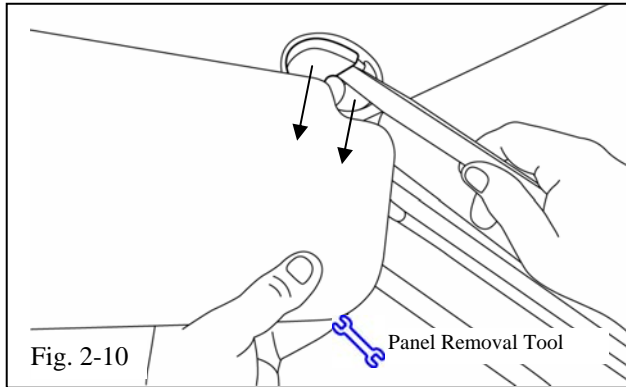


**Sunroof models only:**

- (2) Using panel removal tool remove overhead console from headliner.  
(Fig. 2-8)



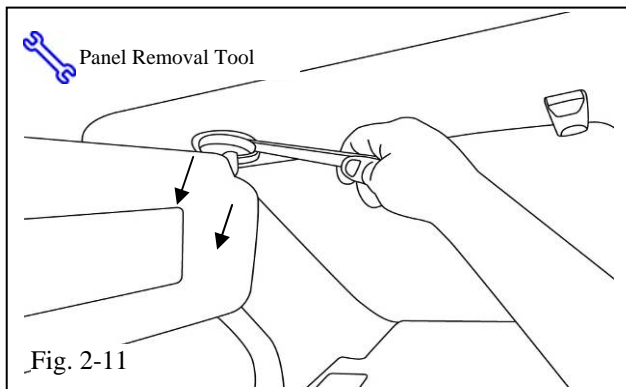
- (3) Disconnect overhead console connector.  
(Fig. 2-9)



- (g) Using panel removal tool, pry driver-side visor mount cover off from visor mount. (Fig. 2-10)



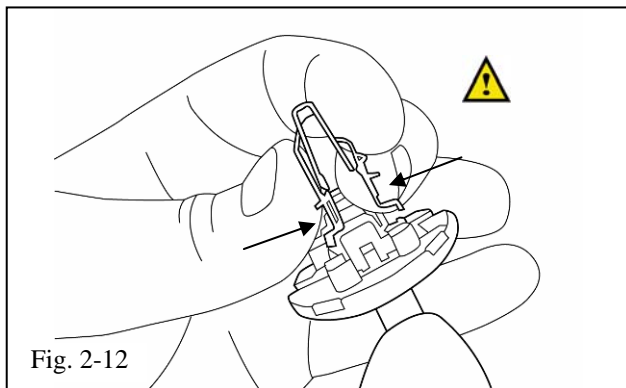
- (1) DO NOT fully remove cover.



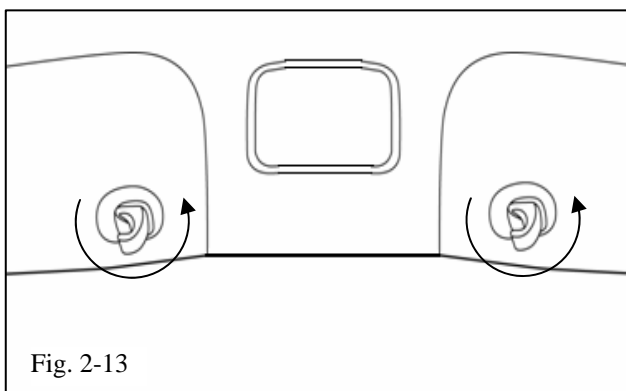
- (h) Using panel removal tool, pry downward on visor mount to disengage two (2) clips. (Fig. 2-11)



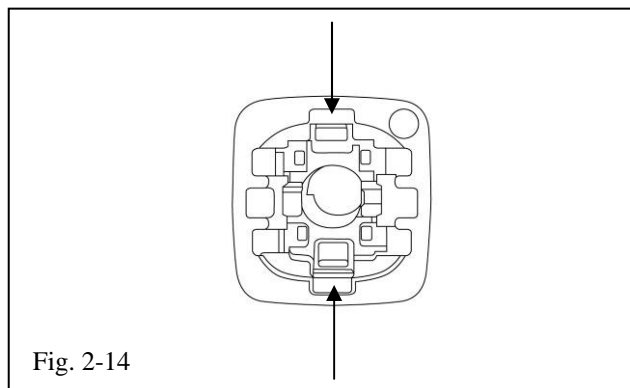
- (1) Disconnect vanity light connector if equipped.



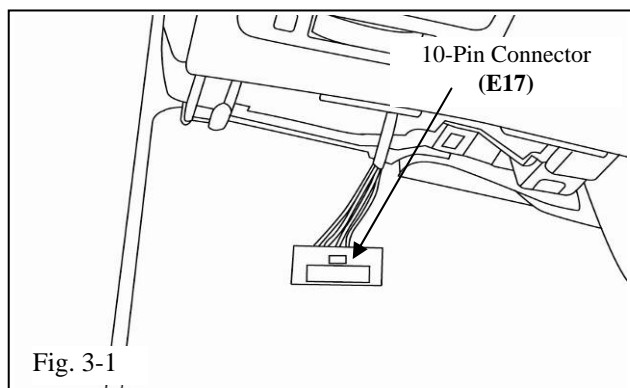
- (i) If metal fastener clips remain in vehicle headliner, remove and reinsert into visor mount by squeezing sides of clips together and inserting into visor mount. (Fig. 2-12)



- (j) Remove both driver side and passenger side sun visor clips by rotating counter clockwise. (Fig. 2-13)

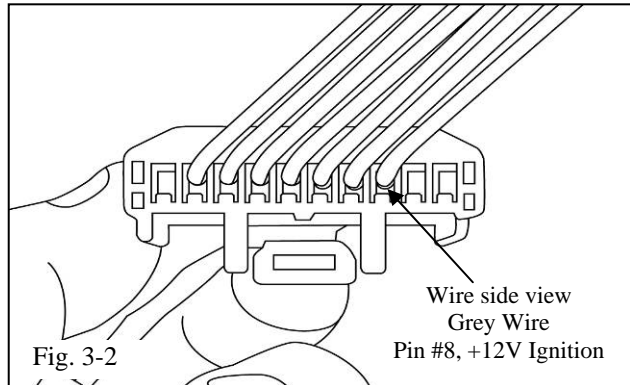


- (k) Remove both driver side and passenger side visor clip bases by pressing in on the two inner tabs. (Fig. 2-14)

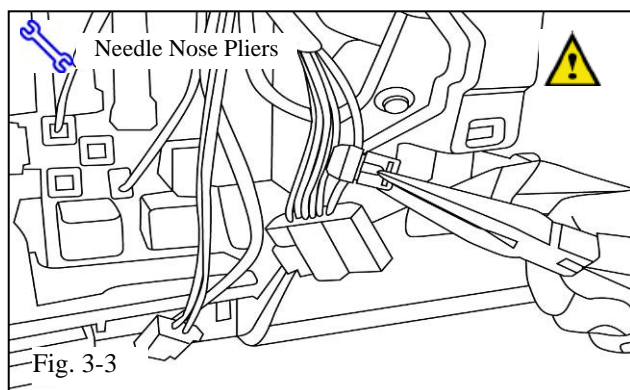


### 3. Install T-taps.

- (a) Locate the disconnected 10 pin Outer Mirror Switch connector (E17). (Fig. 3-1)



- (b) Locate the GREY wire in pin #8 on the 10 pin connector. (Fig. 3-2)

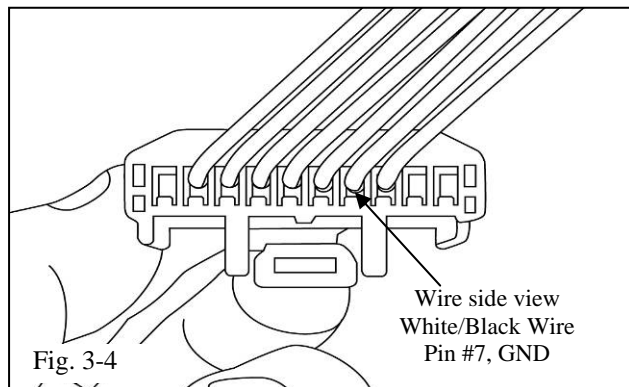


- (c) Attach T-tap connector to GREY wire (pin #8) on the 10 pin connector with needle-nose pliers about 1 inch from the connector. (Fig. 3-3)

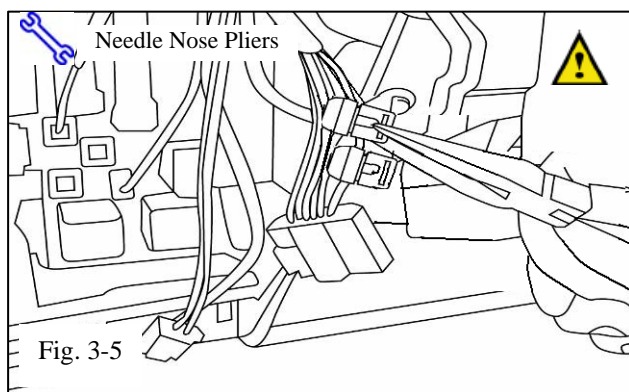


- (1) Ensure both halves of T-tap connector are snapped together.





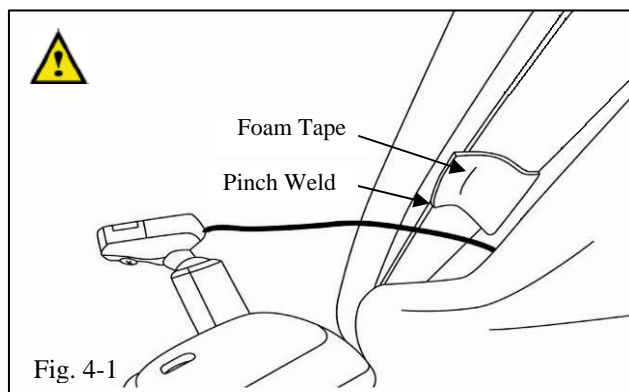
- (d) Locate the WHITE/BLACK wire in pin #7 on the 10 pin connector. (Fig. 3-4)



- (e) Attach T-tap connector to WHITE/BLACK wire (pin #7) on the 10 pin connector with needle-nose pliers about 1.5 inches from the connector. (Fig. 3-5)



- (1) Ensure both halves of T-tap connector are snapped together.

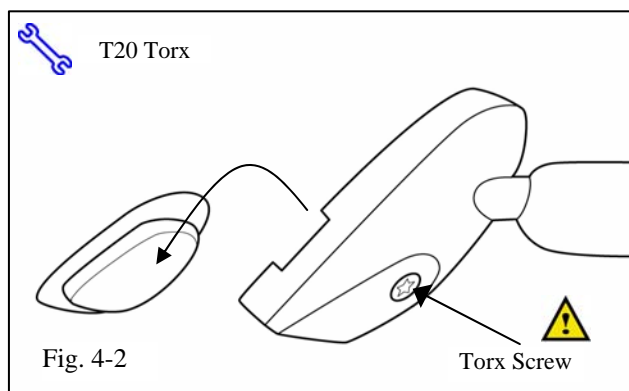


#### 4. Wire harness and mirror installation.

- (a) Apply one (1) piece of foam tape to the pinch weld between the windshield and the headliner above the center of the mirror. (Fig. 4-1)



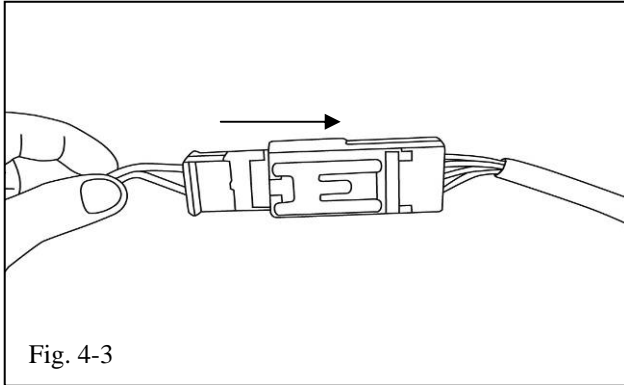
- (1) Do not use excessive force when pulling headliner, this may cause headliner to crease.



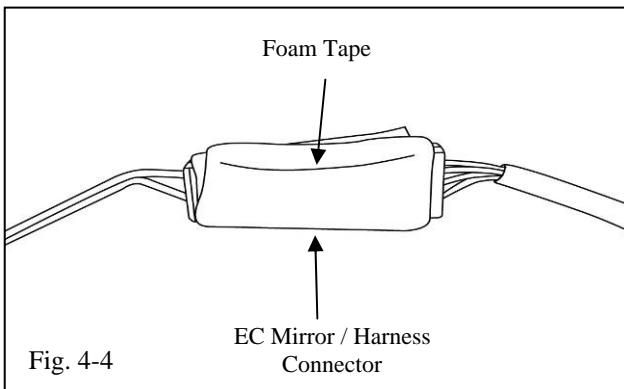
- (b) Slide the EC mirror onto the mounting button on windshield. (Fig. 4-2)



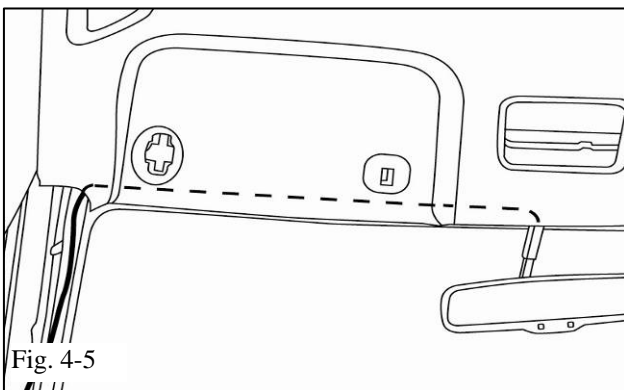
- (1) Tighten the screw in the mirror mounting bracket with torque wrench to 1.75 N-m (15.5 lbf-in).



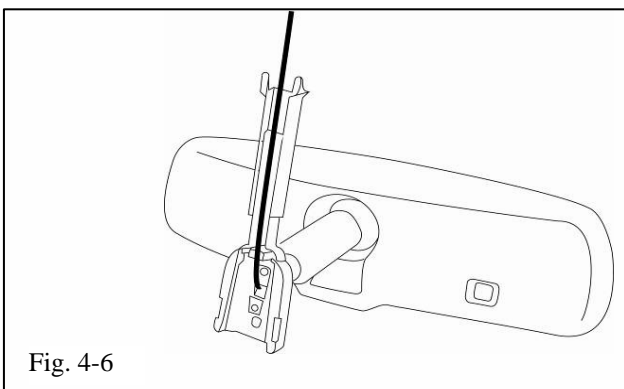
- (c) Plug EC wire harness 2-pin connector into the 2-pin mirror harness. (Fig. 4-3)



- (d) Wrap one (1) piece of foam tape around EC mirror connector and EC harness connector. (Fig. 4-4)

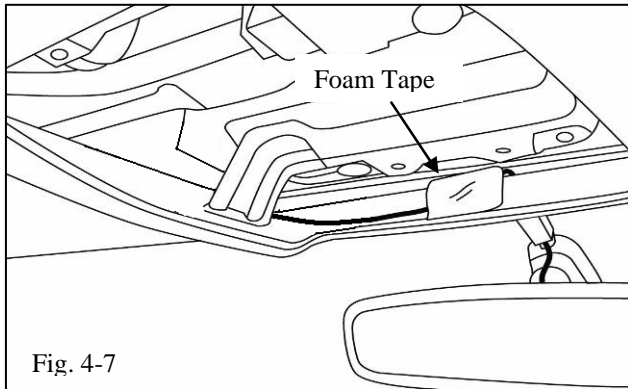


- (e) Route the wire along the bottom curve of the headliner toward the A-pillar. (Fig. 4-5)

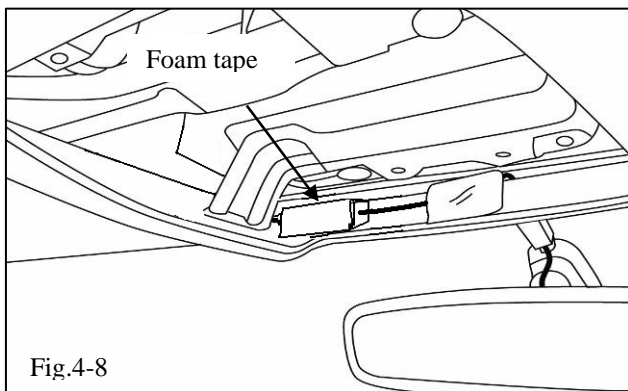


- (f) Install the LONG wire harness cover over the wire harness. (Fig. 4-6)
- (1) Seat the bottom of the cover securely to base.
  - (2) Extend the top of the cover fully into headliner.
  - (3) For mirrors with a smaller gap, separate the two halves and seat the bottom cover to the mirror, then seat the top cover to the headliner and snap the two pieces together.





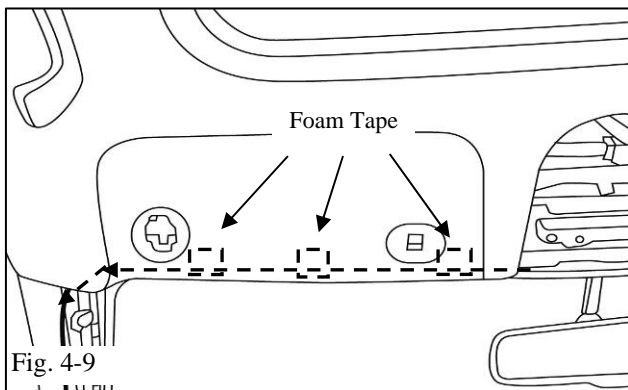
- (g) Secure the harness to the front center of the headliner with one (1) piece of foam tape. (Fig. 4-7)



- (h) Secure the connector to an open area in the center of the headliner with one (1) piece of foam tape. (Fig. 4-8)



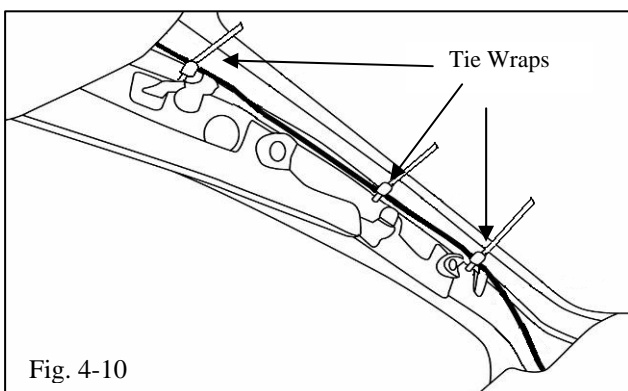
- (1) Ensure EC harness connector does not cause interference with headliner and roof of vehicle.



- (i) Secure the harness in the DS visor area to the headliner with three (3) pieces of foam tape in the locations shown. (Fig. 4-9)



- (1) Make sure the wire harness does not block any of the visor mounting holes.



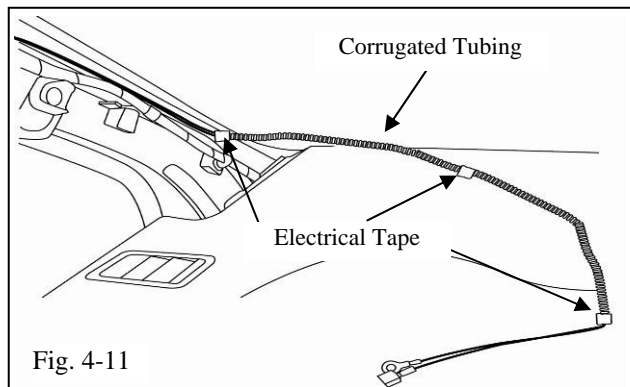
- (j) Route EC mirror harness down vehicle A-pillar above the OE harness. Secure the wire harness to the OE harness in front of and above each wire clip with three (3) tie wraps. (Fig. 4-10)



- (1) Verify mirror harness will not interfere with airbag deployment.

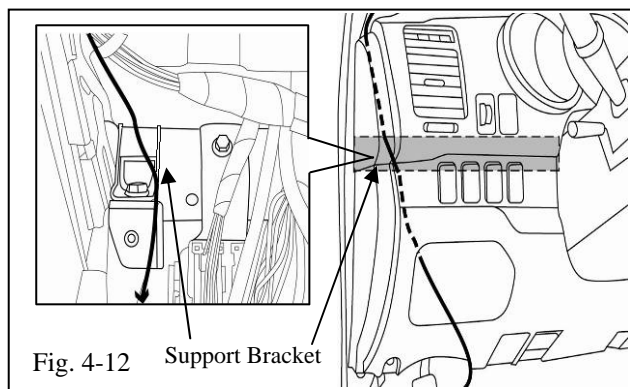


- (2) Do not wire tie to the sunroof drain tube if equipped.



(k) Apply corrugated tube to the remaining portion of the wire about 3 inches from the last wire tie. (Fig. 4-11)

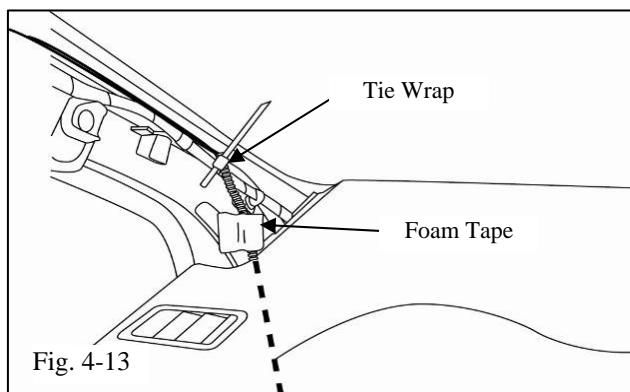
(1) Use electrical tape to secure the tube to the wire at the top, in the middle, and at the bottom of the tube.



(l) Carefully route harness through center dash panel, in front of the support bar and to the front of the junction block.

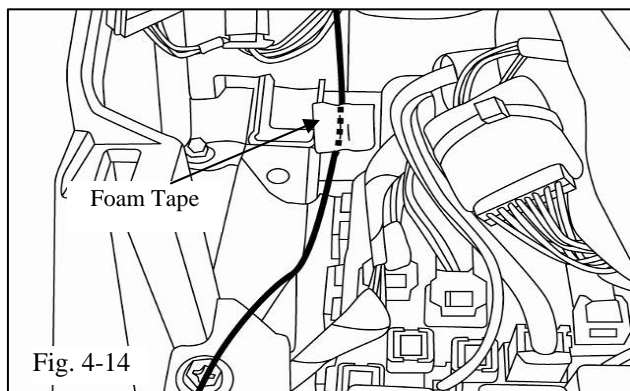


(1) Use care when routing through the center dash, as there are many sharp edges. (Fig. 4-12)



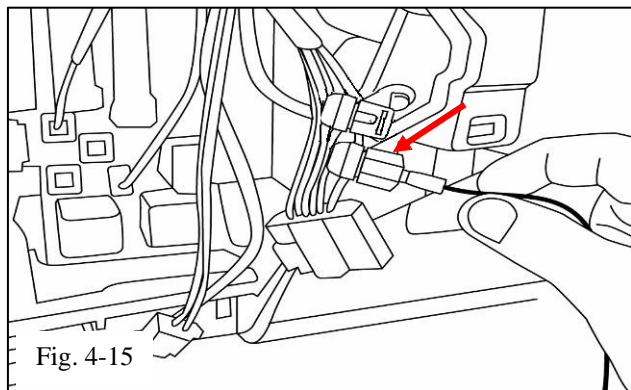
(m) Secure the corrugated tube to OE harness clip at the bottom of the A pillar with one (1) tie wrap. (Fig. 4-13)

(n) Secure the corrugated tube to the bottom of the A pillar body with one (1) piece of foam tape. (Fig. 4-13)



(o) Clean the support bar surface to the right of the bracket with an approved cleaner.

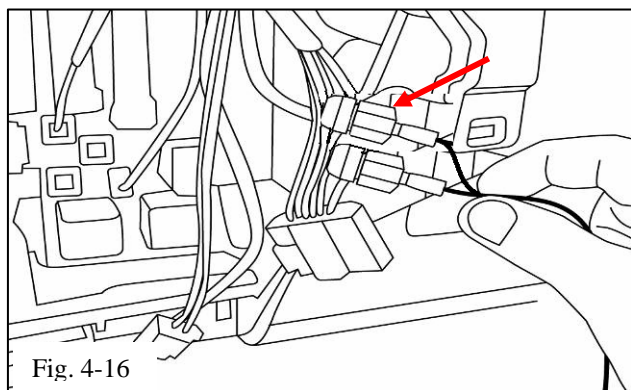
(p) Secure EC mirror harness corrugated tube to the support bar with one (1) piece of foam tape as shown. (Fig. 4-14)



- (q) Plug the BLACK/RED wire spade end of the EC mirror harness into T-tap connector on the GREY wire. (Fig. 4-15)



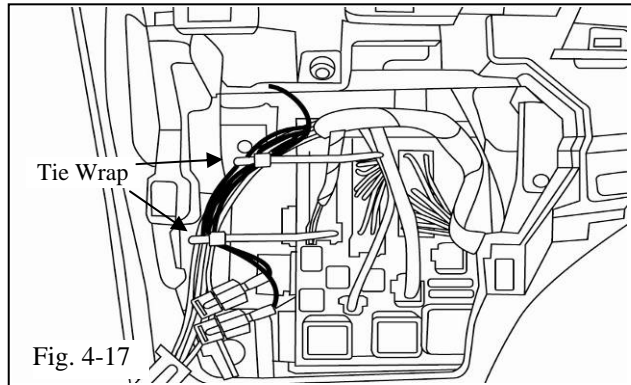
- (1) Ensure that the spade end is properly seated in the T-tap.



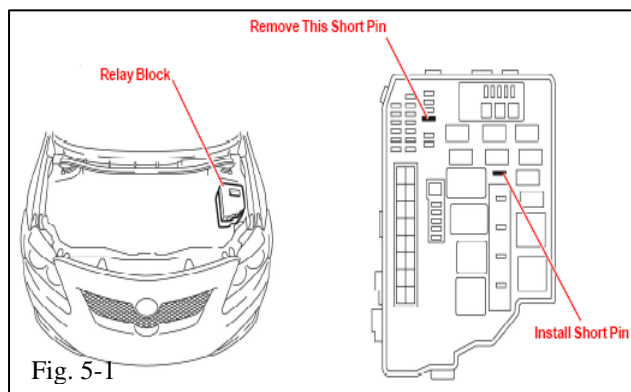
- (r) Plug the BLACK wire spade end of the EC mirror harness into T-tap connector on the WHITE/BLACK wire. (Fig. 4-16)



- (1) Ensure that the spade end is properly seated in the T-tap.

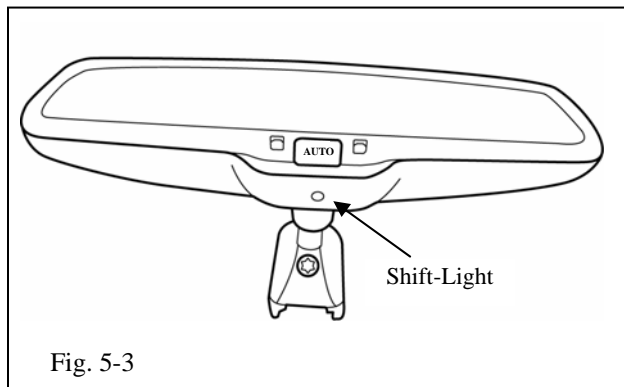
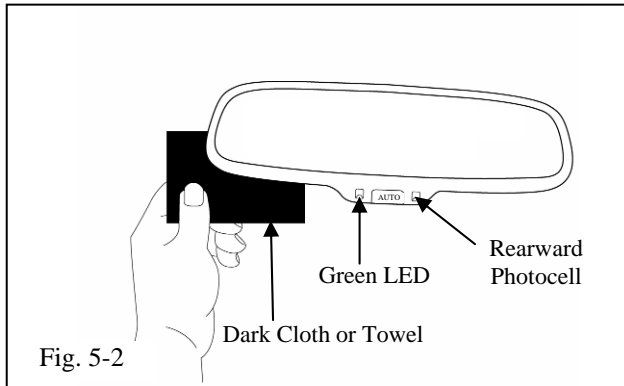


- (s) Bundle any access wire and secure it to the Outer Mirror Switch harness as shown with (2) tie wraps. (Fig. 4-17)



## 5. Testing.

- If required, install the short pin located in the engine compartment relay block. (Fig 5-1)
- Temporarily reconnect the vehicle's negative battery cable.
- Turn ignition switch to ON.



(d) With the vehicle in a fairly well lit area, perform the following test:

(e) Auto Dimming Feature:

(1) To make sure the auto-dimming feature is on, verify that the LED indicator light is on. If it is not on, push the "On/Off" button for 3 seconds, or until the LED is illuminated.

(2) Cover the forward-looking light sensor located on the back of the mirror with a dark cloth or towel. (Fig. 5-2)

(3) In a few seconds, the mirror will begin to darken (time may vary with ambient light levels).

(4) Remove the cover from the forward-looking light sensor and the mirror will begin to clear.

(f) Shift-light Feature:

(1) With ignition ON, cover forward-looking light sensor on back of the mirror. Low-level ambient lighting should be visible from the bottom of the mirror. (Fig. 5-3)

(g) Turn ignition OFF.

(h) Disconnect the negative battery terminal.



(i) If required, remove and replace the short pin in its original location.

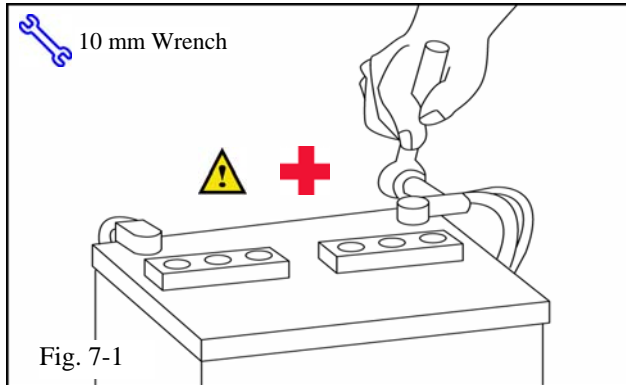
## 6. Final Assembly.

(a) Trim excess off all tie wraps.

(b) Re-install the driver side sun visor assembly, visor clip, and hinge cover.

(c) Reconnect the overhead console connector and install the overhead console.

- (d) Re-install the driver side IP and storage compartment.
  - (1) Reconnect any disconnected connectors.
- (e) Re-install the A pillar garnish.
  - (1) Inspect the upper A pillar clip, clip A. If it is damaged, replace it.
  - (2) Set the claws of the lower A pillar garnish into the upper IP.
  - (3) Insert the tip of clip A into the pillar garnish's hole by using needle-nose pliers to rotate the tip of clip A 90°.
  -  (4) Ensure that clip A is properly secure in the A pillar garnish, and that the clip is properly engaged in the garnish when in the deployed position.
  -  (5) Before installing the A pillar garnish, be sure the air bag or wire harnesses will not get pinched or tangled.
  - (6) Push the pillar garnish toward the vehicle body to attach the base of clip A and clip B.
- (f) Reinstall the weather seal.
- (g) Ensure components are securely fastened and do not interfere with existing OE or EC harnesses.
- (h) Place the operation instruction card in the vehicle glove box.
- (i) Remove fingerprints, smudges, dirt, etc. from mirror and windshield with a 3M™ Prep Sol-70.
- (j) Verify each reinstalled component for proper fit and function.



## 7. Reconnect Negative Battery Cable.

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



(1) Tighten the nut to 4.1 N-m (36 lbf-in)



(2) Do not touch the positive terminal with any tools when replacing the cable.



# TOYOTA COROLLA 2009 - EC REARVIEW MIRROR

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

Check:	Look For:
<u>Accessory Function Checks</u>  <b>Vehicle should be in a fairly well lit area.</b>  Turn ignition (ACC power) to ON.  <b>Auto-dimming feature:</b>  <input type="checkbox"/> Cover the forward-looking light sensor (located below the wire harness connection on the back of the mirror).  <b>Mirror clears:</b>  <input type="checkbox"/> Remove cover from photocell.  <b>Shift-light Feature:</b>  <input type="checkbox"/> Turn ignition ON, cover forward-looking light sensor and observe shift-light.   <input type="checkbox"/> Operation Instruction Card	  Verify green LED is on. If it is not ON press On / Off button - confirm LED is ON.   Verify mirror darkens.    Mirror returns to clear state.   Light is visible from bottom of mirror.    Placed in the vehicle glove box.
<u>Vehicle Function Checks</u>  <input type="checkbox"/> Check dome light. <input type="checkbox"/> Check sunroof if equipped. <input type="checkbox"/> Check power mirrors. <input type="checkbox"/> Check security system if equipped. <input type="checkbox"/> Check traction control if equipped.	  Verify dome light functions properly.  Verify sunroof functions properly.  Verify power mirrors function properly.  Verify security system works properly.  Verify the traction control functions properly.