

Toyota Corolla / Matrix 2009 -
Preparation

EC Rearview Mirror w/ Shift Light

Part Number: 00016-79800

Accessory Code: CM1



Kit Contents

Item #	Quantity Req'd.	Description
1	1	AD Mirror Assembly
2	1	Hardware bag
3	1	Installation Manual

Hardware Bag Contents

Item #	Quantity Req'd.	Description
1	1	T-tap Connectors, Red 3M™
2	1	Wire Cover
3	1	EC Wire Harness
4	3	Foam Tape
5	4	Wire Ties, small
6	1	Operation Instruction Card

Additional Items Required For Installation

Item #	Quantity Req'd.	Description

Conflicts

None

Recommended Tools

Personal & Vehicle Protection	Notes
Blankets, Towels	
Special Tools	Notes
None	
Installation Tools	Notes
Ratchet	
Socket	10 mm
Torx Head Driver	T20
Pliers	Needle Nose
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
Side Cutters	

Special Chemicals	Notes
Cleaner	Household Windex

General Applicability

All Corolla / Matrix models

Recommended Sequence of Application

Item #	Accessory
1	EC Rearview Mirror

*Mandatory

Vehicle Service Parts (may be required for reassembly)

Item #	Quantity Req'd.	Description

Legend

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

SPECIAL NOTE: Installation Sequences

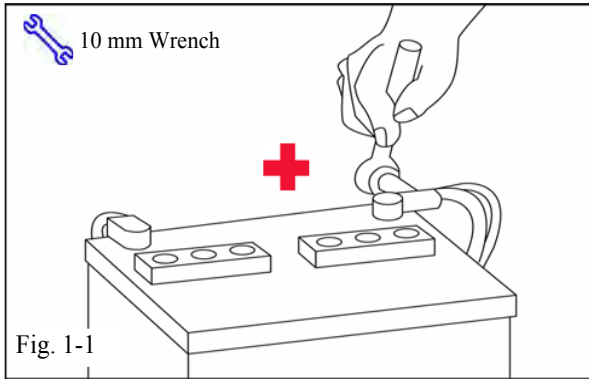
After TMS and Safety mandated preparatory steps have been taken, the installation sequence is the suggested method for completing the accessory installation. In some instances the suggested sequence is written for one associate to install and in others the sequence is given as part of a team accessory installation. Unless otherwise stated in the document, the associates may perform the installation steps in any order to make the installation as efficient as possible while maintaining consistent quality.

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:-

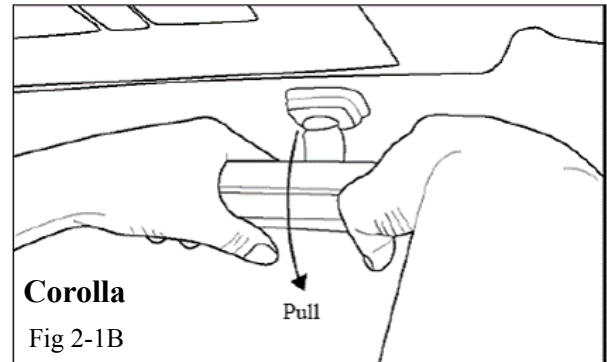
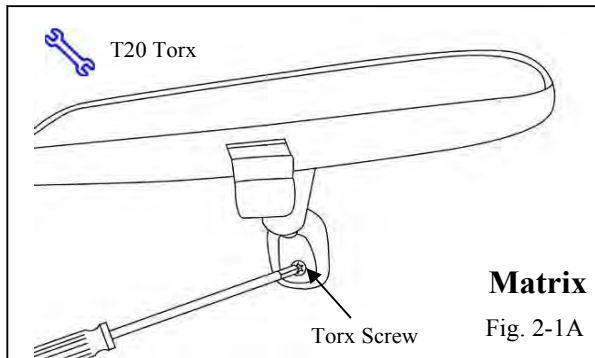
- Vehicle Protection (use of covers and blankets, cleaning chemicals, etc.).
- Safety (eye protection, rechecking torque procedure, etc.).
- Vehicle Disassembly/Reassembly (panel removal, part storage, etc.).
- Electrical Component Disassembly/Reassembly (battery disconnection, connector removal, etc.).



1. Remove Battery Cable.

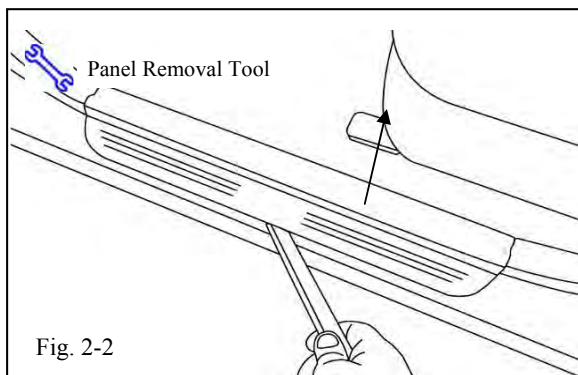
-  (a) Protect fender before starting.
-  (b) Do not touch the positive terminal with any tool when removing cable.
- (c) Remove the negative battery cable. (Fig. 1-1)

2. Vehicle Disassembly.

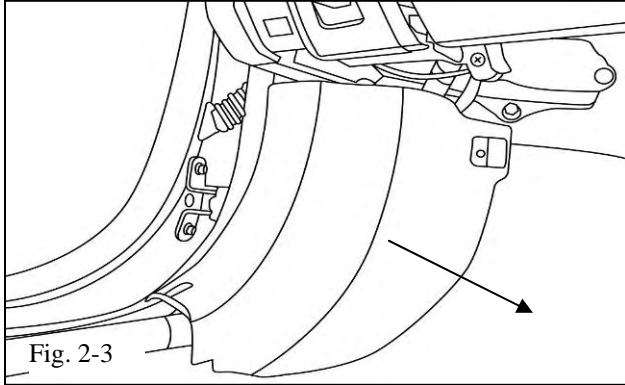


- (a) Remove OE Mirror and discard.
- (1) Using T20 Torx driver, loosen Torx screw in mirror mount & slide mirror up off from windshield button. Fig. 2 - 1A

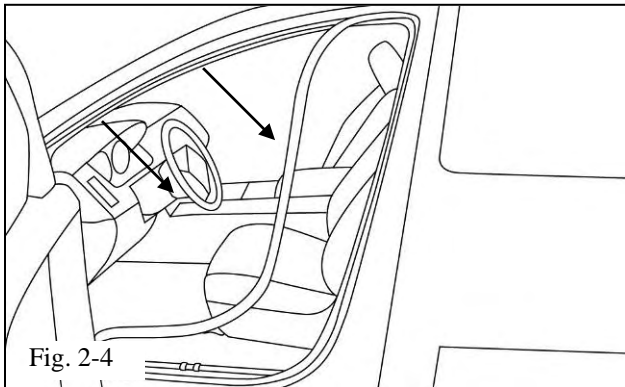
- (a) Remove OE mirror and discard.
- (1) With both hands, grab Mirror firmly on both sides & pull downward sharply until mount releases from windshield button. Fig.2 -1B



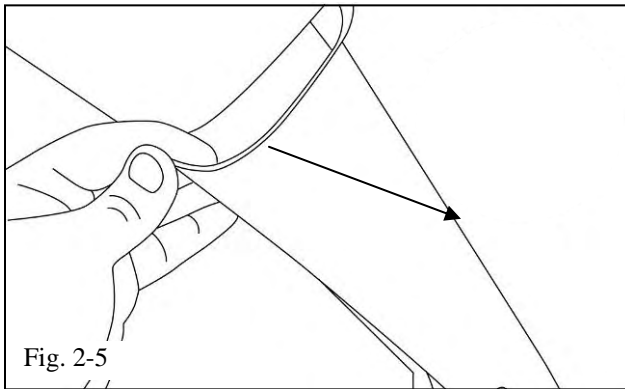
- (b) With a panel removal tool, pry upwards on driver-side scuff plate and remove. (Fig. 2-2)



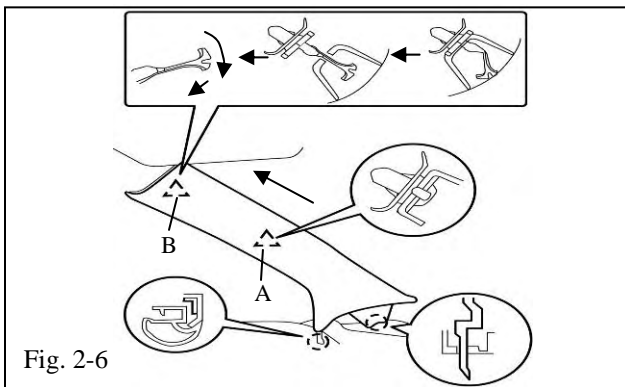
- (c) Grasp driver-side cowl cover and pull out to remove. (Fig. 2-3)



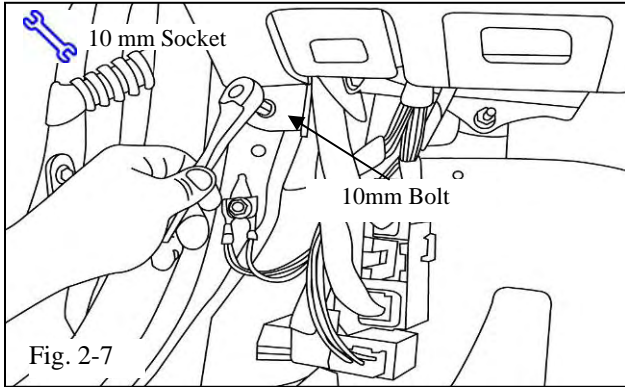
- (d) Pull driver-side weather-seal down past top of A-pillar and out of the way of access to vehicle occupant compartment. (Fig. 2-4)



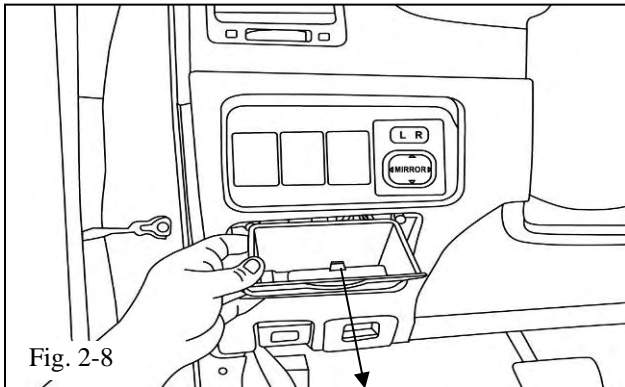
- (e) Dismount A-pillar garnish from body.
 - (1) Pull it from upper part of garnish to inward by hand. (Fig. 2-5)



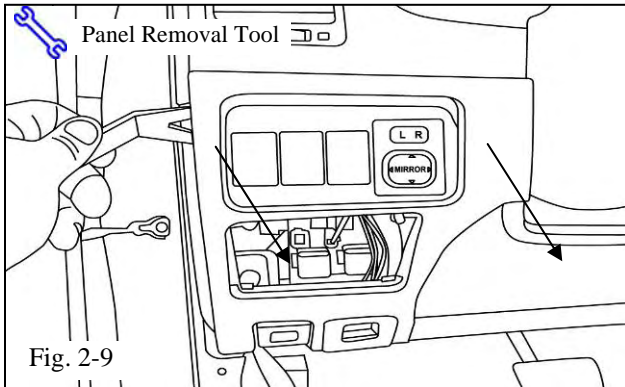
- (2) Remove clips and matching TAB. (Fig. 2-6)
 - (3) Using needle nose pliers, turn clip A 90 degrees and separate from garnish (as per diagram). (Fig. 2-6)
 - (4) Recess TAB and pull out garnish towards direction (as shown in diagram) and remove garnish. (Fig. 2-6)



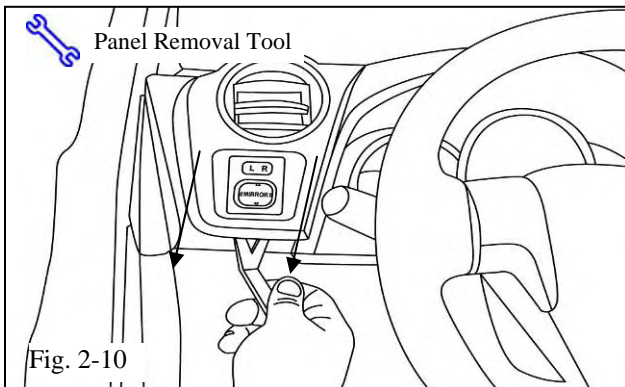
- (f) Remove 10mm bolt from lower dash trim. (Fig. 2-7)



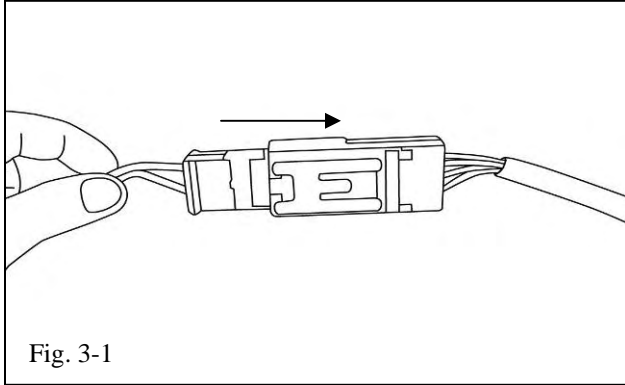
- (g) **Corolla models only**, push in on sides of dash storage compartment and pull outwards to release top guides. (Fig. 2-8)
 - (1) Pull base of storage compartment outwards to disengage clips at bottom. (Fig. 2-8)



- (h) **Corolla models only**, remove center dash panel.
 - (1) Pull inside edge out first then outer edge. (Fig. 2-9)
 - (2) Disconnect Outer Mirror Switch Assembly connector.

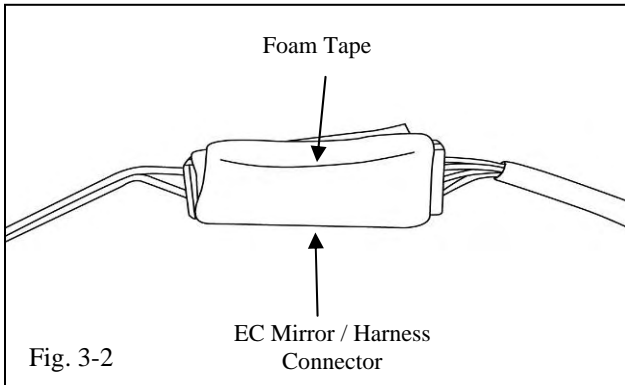


- (3) **Matrix models only**, pull bottom edge out first then top edge. (Fig. 2-10)
- (4) Disconnect Outer Mirror Switch Assembly connector.

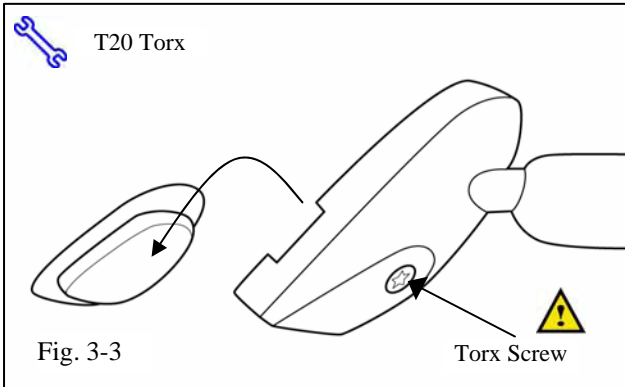


3. Wire harness and mirror installation.

- (a) Plug EC wire harness 5-pin connector into the 5-pin mirror harness. (Fig. 3-1)



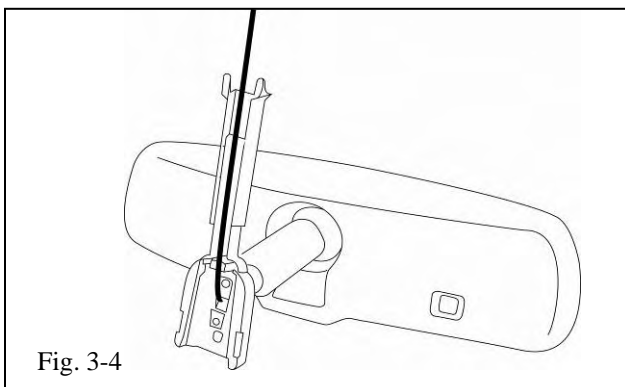
- (b) Wrap one (1) piece of foam tape around EC mirror connector and EC harness connector. (Fig. 3-2)



- (c) Slide the EC mirror onto the mounting button on windshield. (Fig. 3-3)

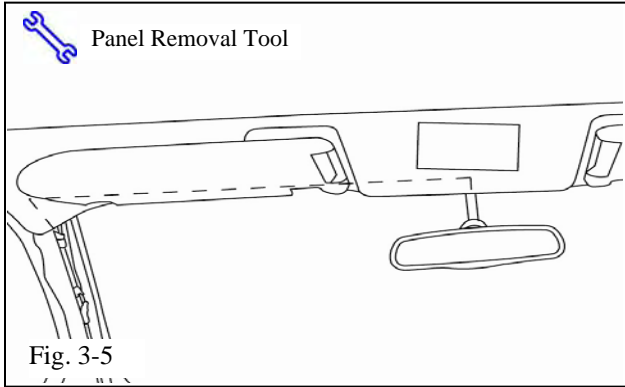


- (d) Tighten the screw in the mirror mounting bracket with torque wrench to 1.75 N-m (15.5 lbf-in).

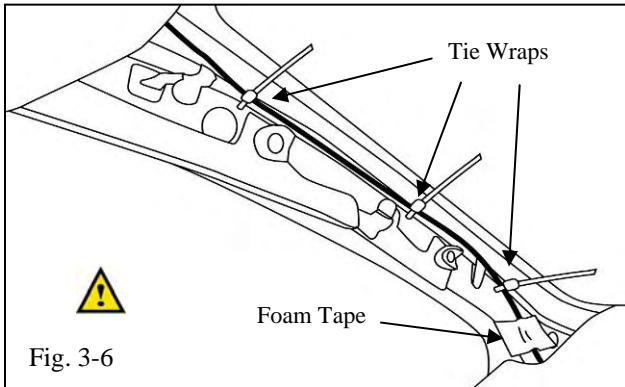


- (e) Slide the wire harness cover over the wire harness and extend to completely cover wire harness. (Fig. 3-4)

- (1) Be sure the bottom of cover is securely mounted to base.
- (2) Be sure top of cover is fully extended into headliner.
- (3) Be sure the mirror has full range of movement.



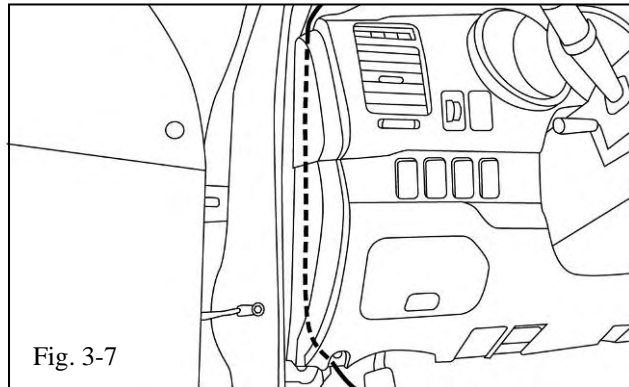
- (f) Route EC harness between headliner and roof, to top of driver-side A-pillar. (Fig. 3-5)



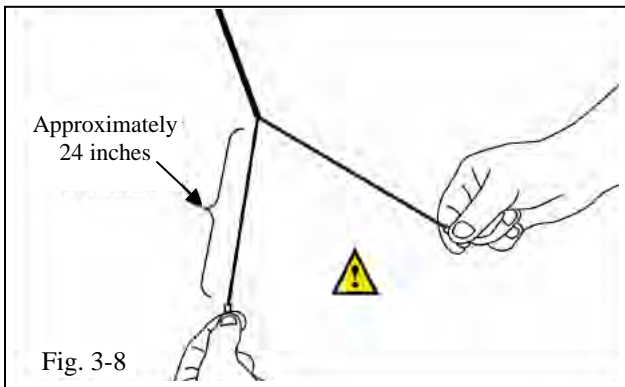
- (g) Route EC mirror harness down vehicle A-pillar, securing to OE harness with three (3) tie wraps and one (1) piece of foam tape. (Fig. 3-6)



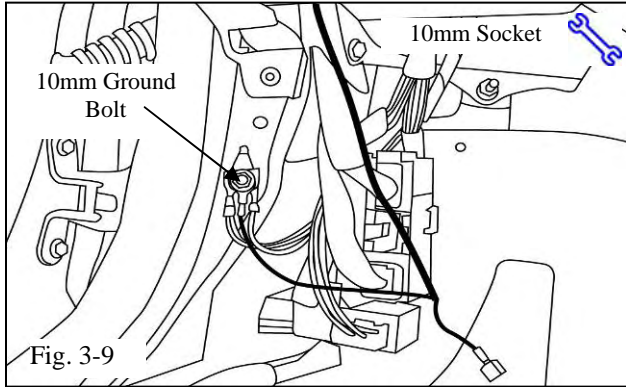
- (h) Verify mirror harness is clear of air bag (if equipped).



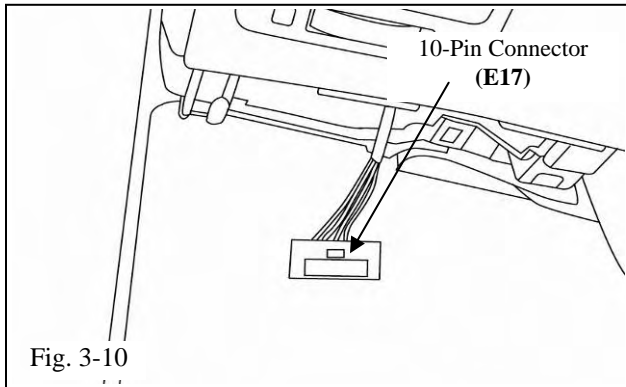
- (i) Route harness through center dash panel. (Fig. 3-7)



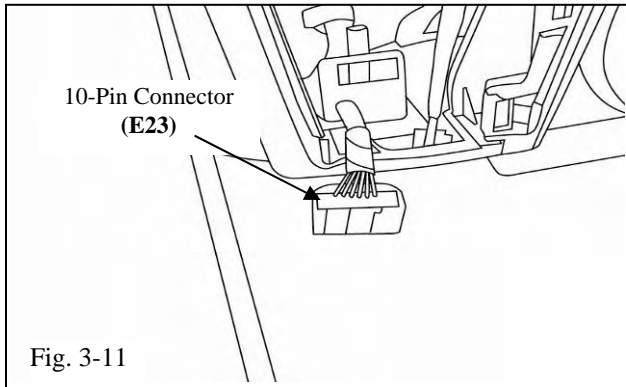
- (j) Pull EC harness wires apart approximately 24 inches. (Fig. 3-8)



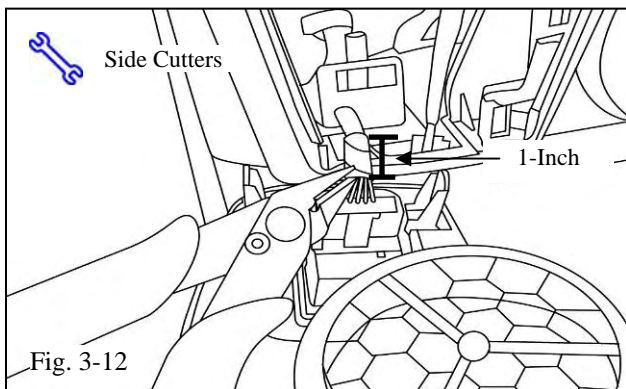
- (k) Locate 10mm ground bolt in driver-side cowl area and remove. (Fig. 3-9)
- (l) Attach mirror harness ring terminal to ground bolt and reinstall.



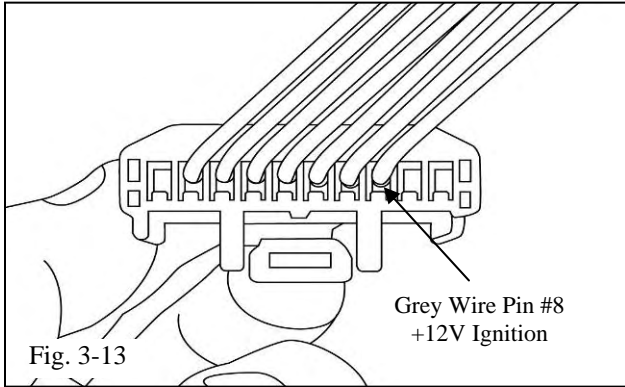
- (m) **Corolla models only**, locate the disconnected 10-pin Outer Mirror Switch Assembly connector (E17) as shown. (Fig. 3-10)



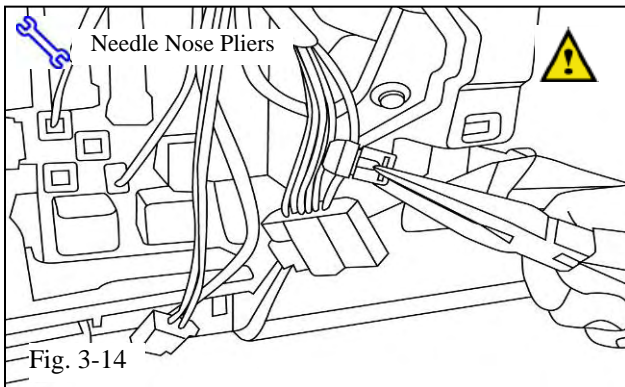
- (n) **Matrix models only**, locate the disconnected 10-pin Outer Mirror Switch Assembly (E23) connector as shown. (Fig. 3-11)



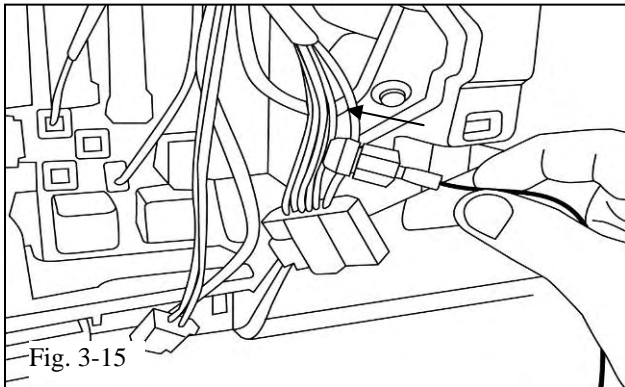
- (1) **Matrix models only**, cut back approximately 1 inch of plastic tubing on 10-pin connector wire bundle, in center dash area. (Fig. 3-12)



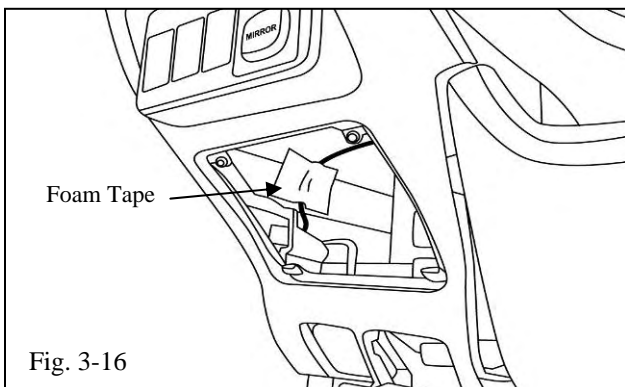
- (o) Locate the GREY wire in pin #8.
(Fig. 3-13)



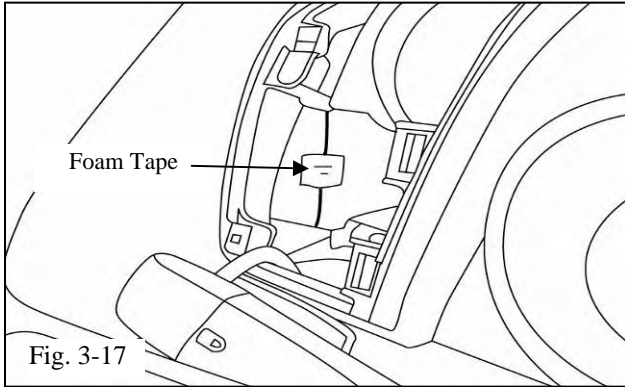
- (p) Attach T-tap connector to GREY wire (pin #8) with needle-nose pliers. (Fig. 3-14)
- ⚠ (1) Ensure both halves of T-tap connector are snapped together.



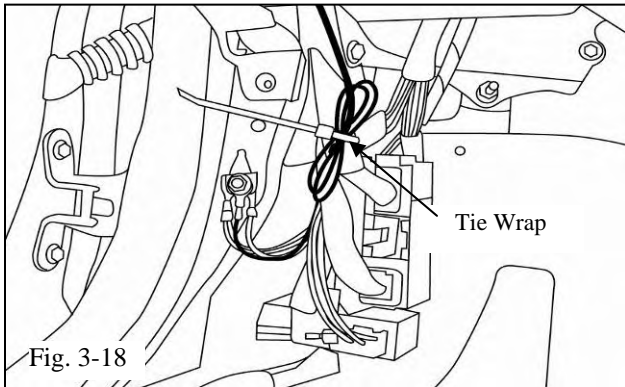
- (q) Plug the spade end of the EC mirror harness into T-tap connector. (Fig. 3-15)



- (r) **Corolla models only**, secure EC mirror harness to inner dash with one (1) piece of foam tape as shown. (Fig. 3-16)



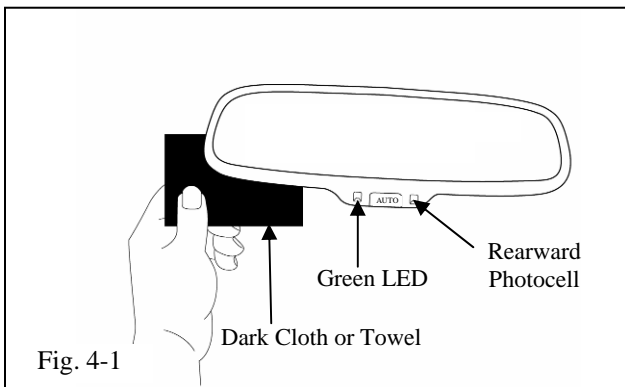
- (s) **Matrix models only**, secure EC mirror harness to inner dash with one (1) piece of foam tape as shown. (Fig. 3-17)



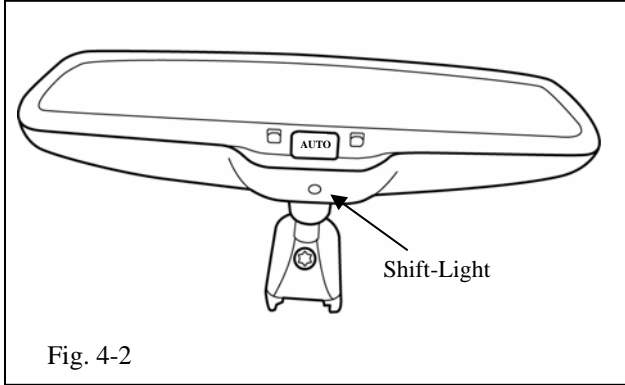
- (t) Secure EC mirror harness to OE wire bundle in cowl area with one (1) tie wrap. (Fig. 3-18)

4. Testing.

- (a) Temporarily reconnect the vehicle's negative battery cable.
- (b) Turn ignition switch to ON.
- (c) With the vehicle in a fairly well lit area, perform the following test:
- (d) Auto Dimming Feature:



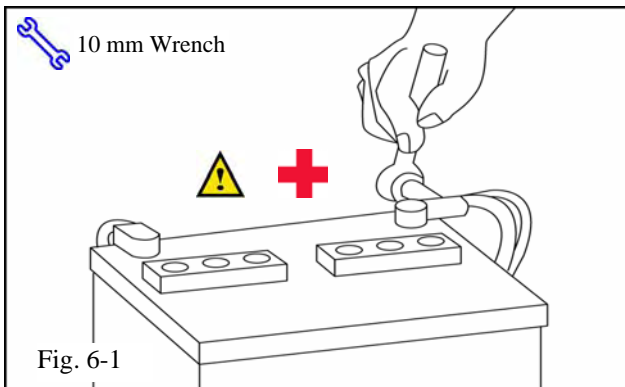
- (1) To make sure the auto-dimming feature is on, verify that the LED indicator light is on. If it is not on, push the "On/Off" button for 3 seconds, or until the LED is illuminated.
- (2) Cover the forward-looking light sensor located on the back of the mirror with a dark cloth or towel. (Fig. 4-1)
- (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.





- (e) 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 button of the mirror. (Fig. 4-2)
- (f) Turn ignition OFF.
- (g) Disconnect the negative battery terminal.

5. Final Assembly.

- (a) Trim excess off all tie wraps.
- (b) Re-install in reverse order, all trim pieces removed during installation.
- (c) Place the operation instruction card in the vehicle glove box.
- (d) Remove fingerprints, smudges, dirt, etc. from mirror and windshield with Household Windex.
 - (1) When cleaning with Household Windex, follow the manufacturer's directions. Do not allow cleaner to air dry.
- (e) Verify each reinstalled component for proper fit and function.



6. Reconnect Negative Battery Cable.

- (a) Reconnect the vehicle's negative battery cable. (Fig. 6-1)
 -  (1) Tighten the nut to 4.1 N-m (36 lbf-in)
 -  (2) Do not touch the positive terminal with any tool when replacing the cable.

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

Check:

Look For:

Accessory Function Checks

Vehicle should be in a fairly well lit area.

Turn ignition (ACC power) to ON.

Auto-dimming feature:

- Cover the forward-looking light sensor (located below the wire harness connection on the back of the mirror).

Mirror clears:

- Remove cover from photocell.

Shift-light Feature:

- Turn ignition ON, cover forward-looking light sensor and observe shift-light.

- 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.

Vehicle Function Checks

Verify dome light functions properly.

Verify sunroof functions properly.

Nut should be tightened to 4.1 N-m (36 lbf-inch).

- Check dome light

- Check Sunroof



- Check battery negative cable