

Toyota
Preparation

Highlander

2008 -

EC Rearview Mirror

Part Number: 00016-42116

Accessory Code: CM2



Kit Contents

Item #	Quantity Reqd.	Description
1	1	AD Mirror Assembly w/ Compass
2	1	Hardware bag

Hardware Bag Contents

Item #	Quantity Reqd.	Description
1	1	T-tap Connectors, Red 3M™
2	1	Wire Cover
3	1	EC Wire Harness
4	4	Wire Ties, small
5	1	Operation Instruction Card

Additional Items Required For Installation

Item #	Quantity Reqd.	Description

Conflicts

Limited Model

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

Special Chemicals	Notes
Cleaner	Household Windex

General Applicability

Base & Sport Model

Recommended Sequence of Application

Item #	Accessory
1	EC Rearview Mirror

*Mandatory

Vehicle Service Parts (may be required for reassembly)

Item #	Quantity Reqd.	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.

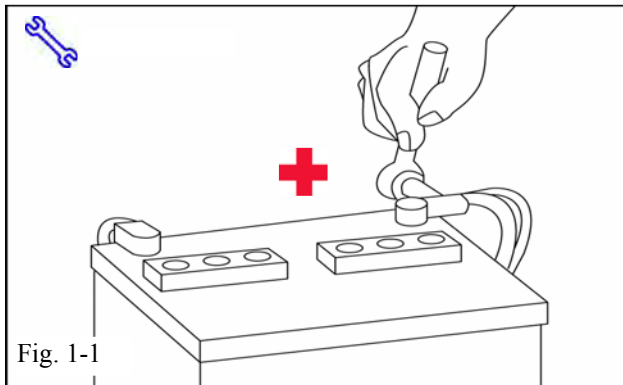
Care must be taken when installing this accessory to ensure damage does not occur to the vehicle. The installation of this accessory should follow approved guidelines to ensure a quality installation.

These guidelines can be found in the "Accessory Installation Practices" document.

This document covers such items as:-

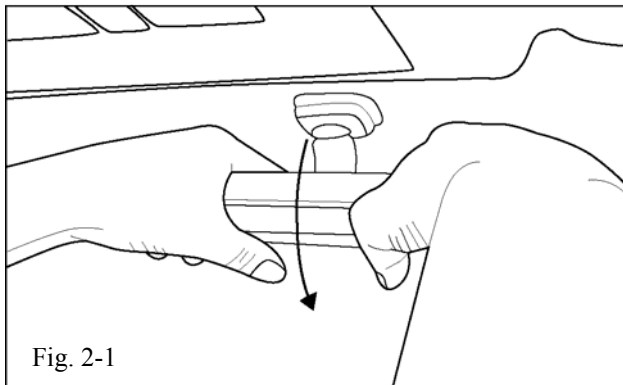
- Vehicle Protection (use of covers and blankets, cleaning chemicals, etc.).
- Safety (eye protection, rechecking torque procedure, etc.).
- Vehicle Disassembly/Reassembly (panel removal, part storage, etc.).
- Electrical Component Disassembly/Reassembly (battery disconnection, connector removal, etc.).

10 mm Wrench



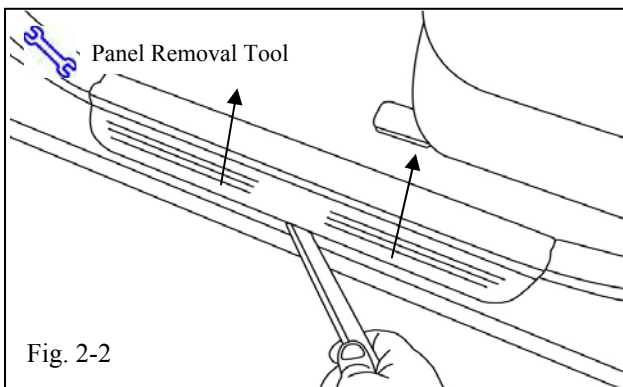
1. Remove Battery Cable.

- STOP (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)

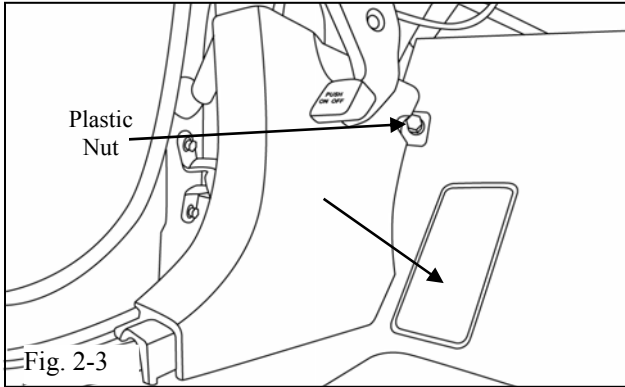


2. Vehicle Disassembly.

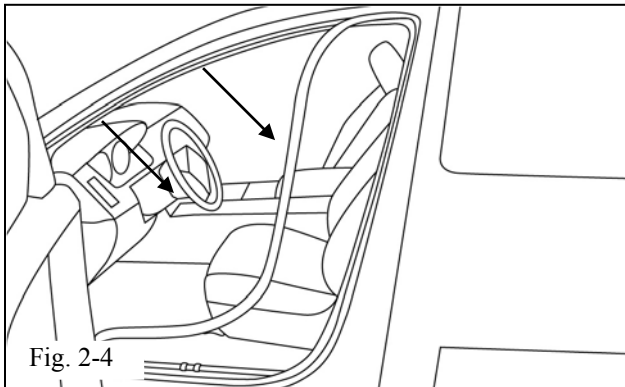
- (a) Remove OE mirror and discard.
 - (1) With both hands, grab Mirror firmly on both sides and pull downward sharply until mount releases from windshield button. (Fig. 2-1)



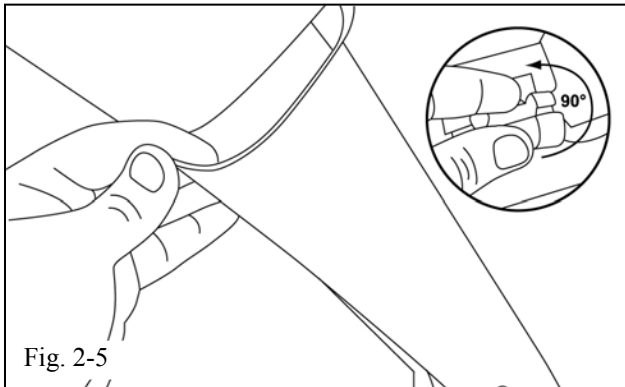
- (b) With a panel removal tool, pry upwards on driver-side scuff plate and remove. (Fig. 2-2)



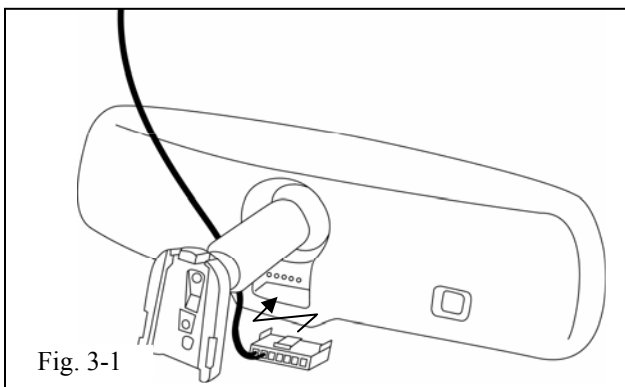
- (c) Remove plastic screw. (Fig. 2-3)
- (d) Grasp driver-side cowl cover and pull out to remove. (Fig. 2-3)



- (e) 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)

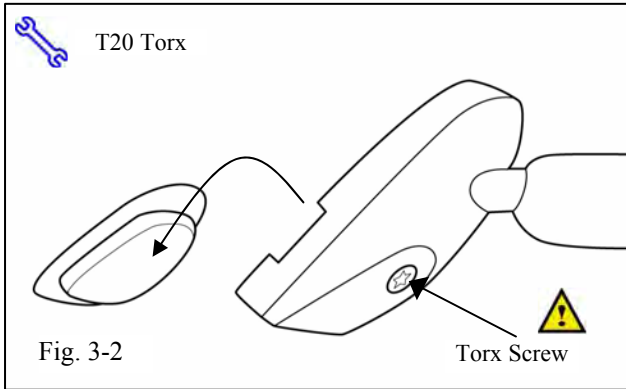


- (f) Remove A-pillar trim. (Fig. 2-5)
 - (1) Pull top of A-pillar trim out.
 - (2) Rotate A-pillar trim retainer 90 and disengage from a-pillar trim.
 - (3) Pull base of A-pillar trim out towards rear of vehicle to remove.



3. Install EC Mirror

- (a) Plug harness into mirror. (Fig. 3-1)



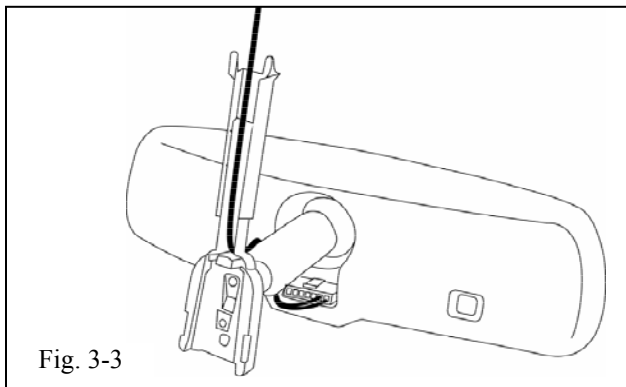
(b) Slide the EC mirror onto the mounting button on windshield. (Fig. 3-2)



(c) Tighten the screw in the mirror mounting bracket until the mirror is snug on the mounting bracket.



DO NOT OVER TIGHTEN!

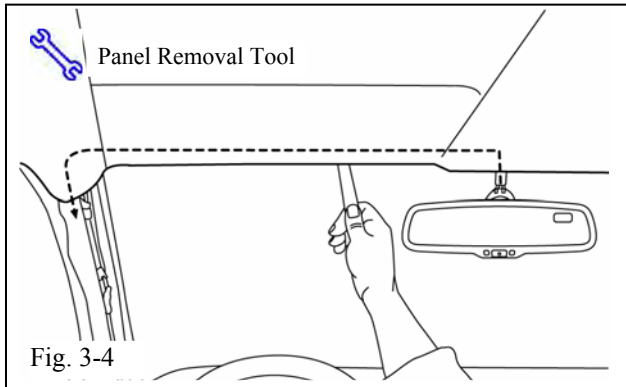


(d) Slide the wire harness cover over the wire harness and extend to completely cover wire harness. (Fig. 3-3)

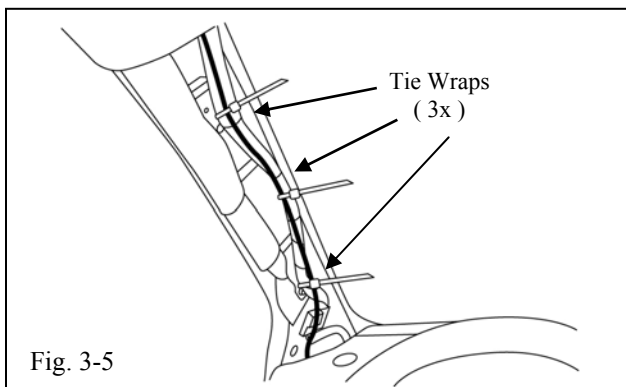
(1) Be sure the bottom of cover is securely mounted to base.

(2) Be sure top of cover is fully extended into headliner.

(3) Be sure the mirror has full range of movement.



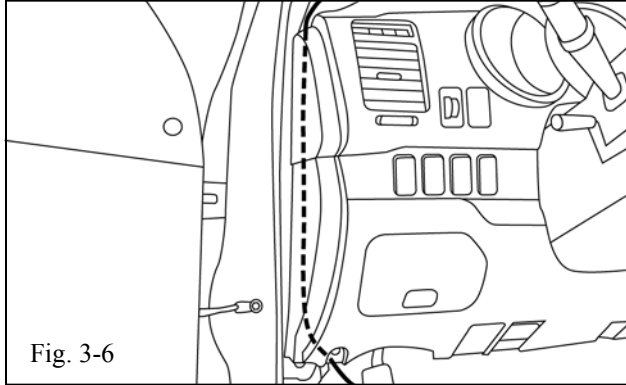
(e) Route harness between headliner and roof, to top of driver-side A-pillar. (Fig. 3-4)



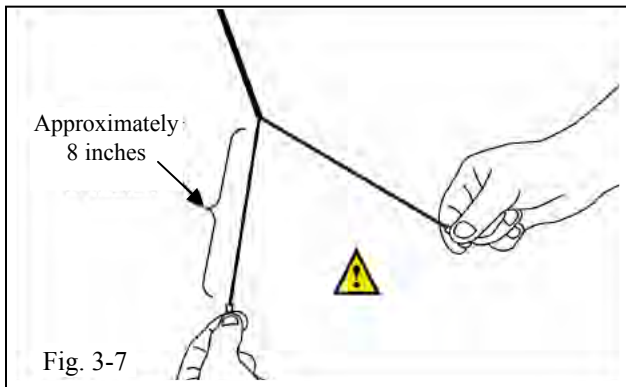
(f) Route EC mirror harness down vehicle A-pillar, securing to OE harness with three (3) tie wraps. (Fig. 3-5)



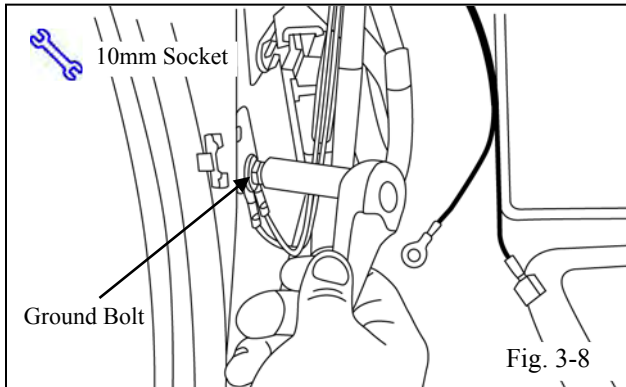
(g) Verify mirror harness is clear of air bag (if equipped).



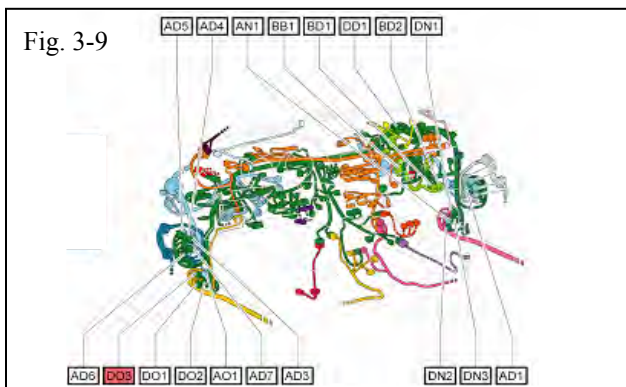
- (h) Route harness through center dash panel. (Fig. 3-6)



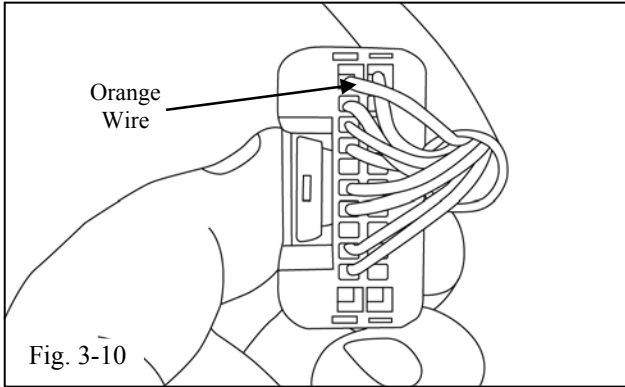
- (i) Pull EC harness wires apart approximately 8 inches. (Fig. 3-7)



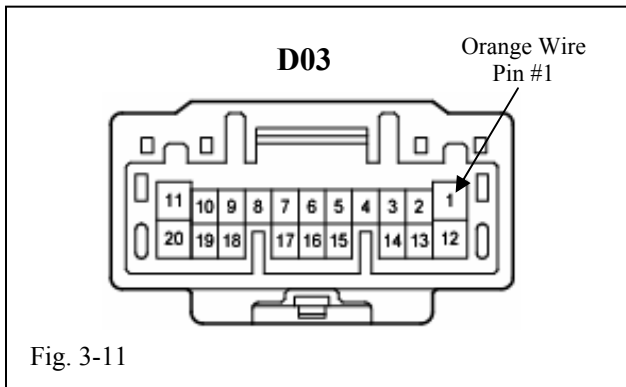
- (j) Locate 10mm ground bolt in driver-side cowl area and remove. (Fig. 3-8)
- (k) Attach mirror harness ring terminal to ground bolt and reinstall.



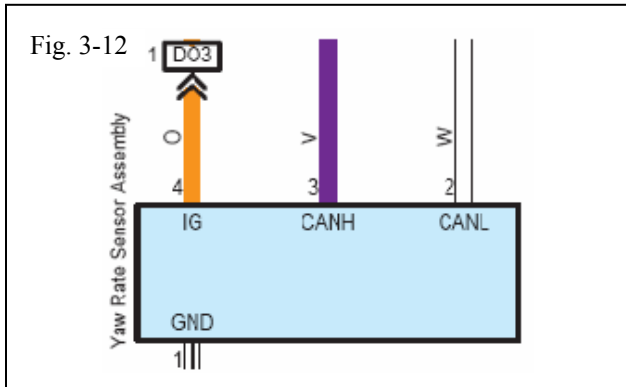
- (l) Locate 20-pin connector (D03) in driver-side cowl area. (Fig. 3-9)



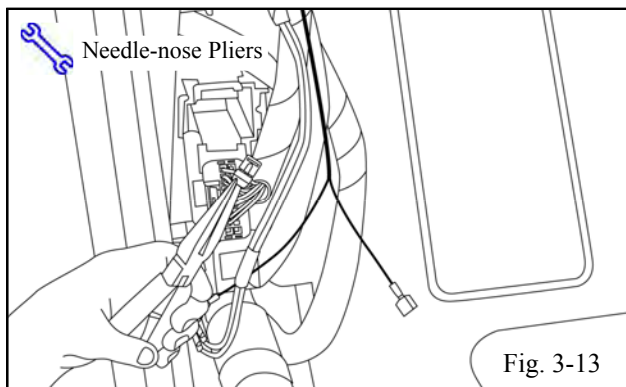
(m) Locate the ORANGE wire in pin # 1.
(Fig. 3-10)



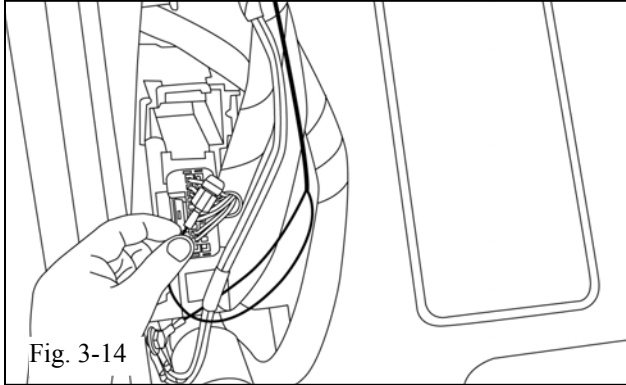
(n) Connector D03, Pin # 1 (Fig. 3-11)




(o) Reference wire diagram for ORANGE wire.
(Fig. 3-12)

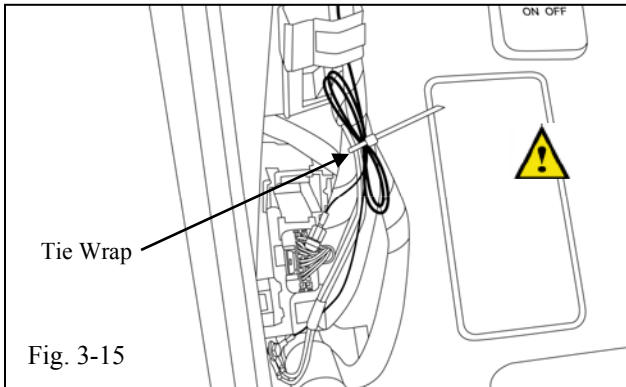


(p) Attach T-tap connector to ORANGE wire
(pin #1) with needle-nose pliers. (Fig. 3-13)



(q) Plug the spade end of the EC mirror harness into T-tap connector. (Fig. 3-14)

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



(r) Secure EC mirror harness wire to OE wire bundle in cowl area with one (1) tie wrap. (Fig. 3-15)

4. Testing.

(a) Temporarily reconnect the vehicle's negative battery cable.

(b) Turn ignition switch to ON.

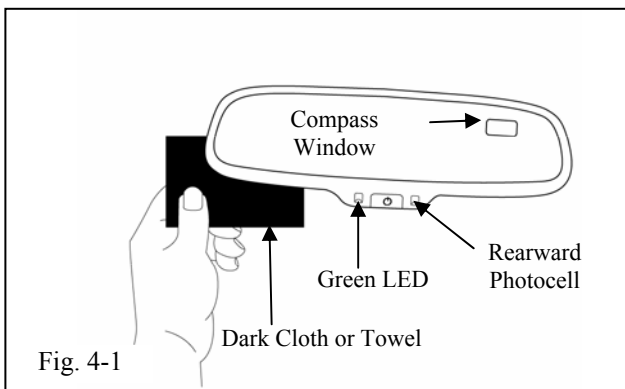
(c) With the vehicle in a fairly well lit area, perform the following test:

(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) Compass Feature:

(1) Push and release the "On/Off" button in less than 3 seconds to toggle the directional heading display On and Off.

(2) Compass is enabled when a direction or a "C" appears in the mirror display window.

(f) Turn ignition OFF.

(g) Disconnect the negative battery terminal.

5. Final Assembly.

(a) Place the operation instruction card in the vehicle glove box.

(b) 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.

(c) Re-install & verify each component for fit function.

6. Reconnect Negative Battery Cable.

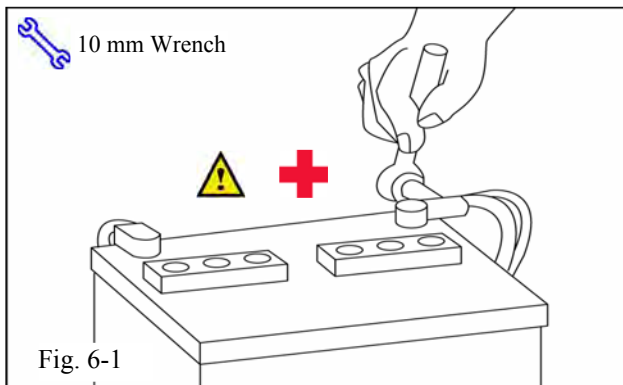
(a) Reconnect the vehicle's negative battery cable. (Fig. 6-1)

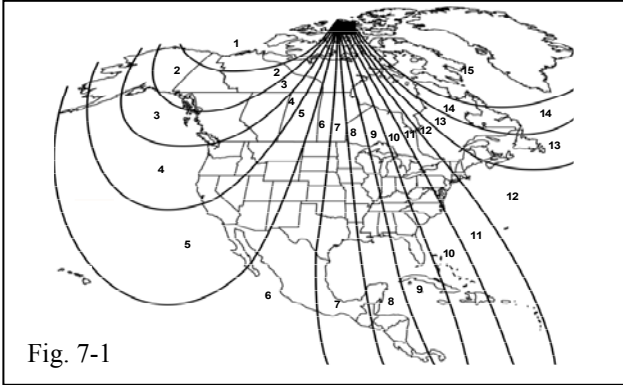


(1) Tighten the nut to 4.1 N-m (36 lbf-in)



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





7. Compass Zone Setting.


- (a) With display turned ON, push the mirror button for 3 seconds or until a number is displayed in the display window.
- (b) Refer to the Zone Map and toggle button until correct zone is displayed. (Fig. 7-1)
- (c) Release button.
- (d) The display will return to normal compass mode (showing either a "C" or a directional heading) within 10 seconds of no switch activity.

8. Calibrate Compass.

- (a) If a "C" is displayed in window, drive the vehicle in one circle at less than 5 mph.
- (b) Correct compass heading should now be displayed.

NOTE: Correct compass zone must be selected prior to compass calibration to ensure accurate calibration. If the vehicle is driven in a new zone, repeat zone selection procedure.

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

<u>Check:</u>	<u>Look For:</u>
<p><u>Accessory Function Checks</u></p> <p>Vehicle should be in a fairly well lit area.</p> <p>Turn ignition (ACC power) to ON.</p> <p>Auto-dimming feature:</p> <p><input type="checkbox"/> Cover the forward-looking light sensor (located below the wire harness connection on the back of the mirror).</p> <p>Mirror clears:</p> <p><input type="checkbox"/> Remove cover from photocell.</p> <p>Compass Feature:</p> <p><input type="checkbox"/> Push the Compass Button.</p> <p><input type="checkbox"/> Operation Instruction Card</p>	<p>Verify green LED is on. If it is not ON press On / Off button - confirm LED is ON.</p> <p>Verify mirror darkens.</p> <p>Mirror returns to clear state.</p> <p>"C" is displayed.</p> <p>Placed in the vehicle glove box.</p>
<p><u>Vehicle Function Checks</u></p> <p><input type="checkbox"/> Check dome light</p> <p><input type="checkbox"/> Check Sunroof</p> <p> <input type="checkbox"/> Check battery negative cable</p>	<p>Verify dome light functions properly.</p> <p>Verify sunroof functions properly.</p> <p>Nut should be tightened to 4.1 N-m (36 lbf-inch).</p>

VEHICLE FUNCTION CHECK

AFTER ALL PANELS, COVERS, AND COMPONENTS HAVE BEEN REINSTALLED, THAT WERE REMOVED, TEST THOROUGHLY, ALL MECHANICAL AND ELECTRICAL COMPONENTS DISCONNECTED AND OR REMOVED FROM THE VEHICLE DURING THE INSTALLATION OF THIS ACCESSORY.