

Part Number: PT374-52040 (Compass)

PT374-21050 (Homelink)

Kit Contents

Item #	Quantity Reqd.	Description
1a	1	AD Mirror Assembly w/Compass & Map Lights (P/N PT374-52040)
1b	1	AD Mirror Assembly w/HomeLink® and Map Lights with Ambient Lighting (P/N PT374-21050)
2	1	Hardware bag

Hardware Bag Contents (PT374-52040)

Item #	Quantity Reqd.	Description
1	2	T-tap Connectors, Red 3M™
2	1	Wire Cover
3	1	EC Wire Harness
4	6	Foam Tape
5	10	Wire Ties, small
6	1	Operation Instruction Card

Hardware Bag Contents (PT374-21050)

Item #	Quantity Reqd.	Description
1	2	T-tap Connectors, Red 3M™
2	1	T-tap Connector, Blue 3M™
3	1	Wire Cover
4	1	EC Wire Harness
5	9	Foam Tape
6	10	Wire Ties, small
7	1	Operation Instruction Card
8	1	Wire Retaining Clip

Additional Items Required For Installation

Item #	Quantity Reqd.	Description
1		

Conflicts

Curtain Side Air Bag

Recommended Sequence of Application

Item #	Accessory
1	TVIP
2	Satellite Receiver
3	Audio
4	Fog Lights
5	EC Mirror

*Mandatory

Recommended Tools

Personal & Vehicle Protection	Notes
Blankets, Towels	
Special Tools	Notes
None	
Installation Tools	Notes
Screwdriver	Phillips #2
Ratchet	
Socket	10 mm
Torx Head Driver	T20
Pliers	Needle Nose
Screwdriver	Blade, 4 mm max.
Nylon Panel Removal Tool	e.g. Panel Pry Tool #1 Toyota SST# 00002-06001-01
Slotted Nylon Removal Tool	A suitable tool can be obtained from: Plastic Factory (310) 532-8850
Dark Towel or Cloth	For Testing
Torque Wrench	0 - 50 lbf-inch
Utility Knife	
Side Cutters	
Masking Tape	
Special Chemicals	Notes
Cleaner	Household Windex


General Applicability


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Vehicle Service Parts (may be required for reassembly)


Item #	Quantity Reqd.	Description
1		


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.

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.

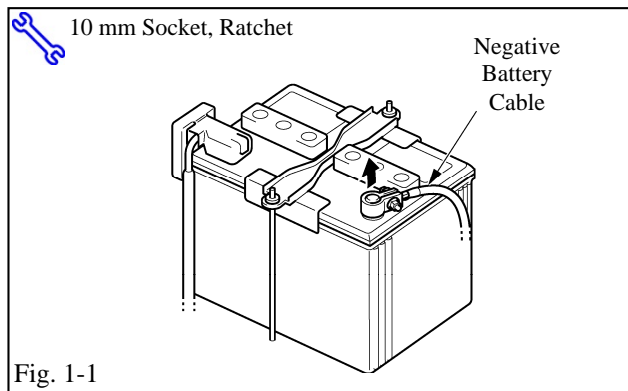


(a) Protect fender before starting.



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

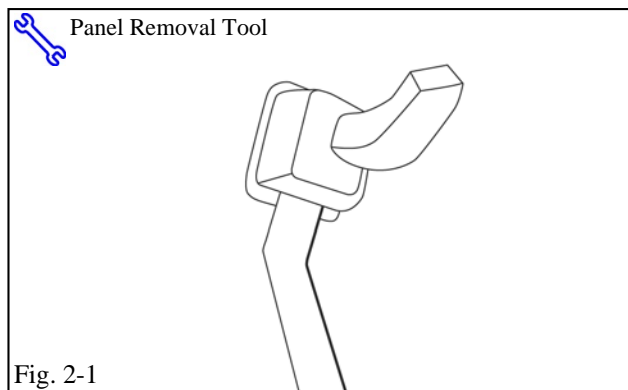
(c) Remove the negative battery cable.
(Fig. 1-1)

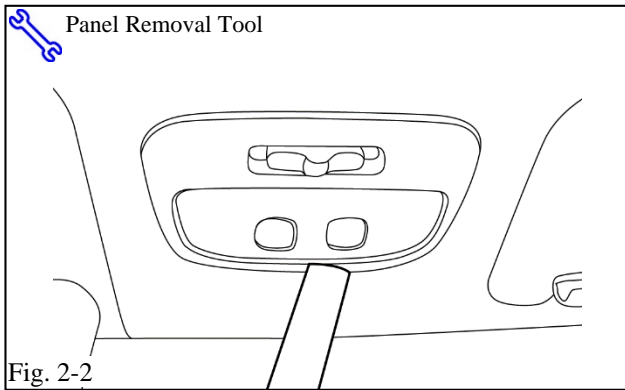


2. Vehicle Disassembly.

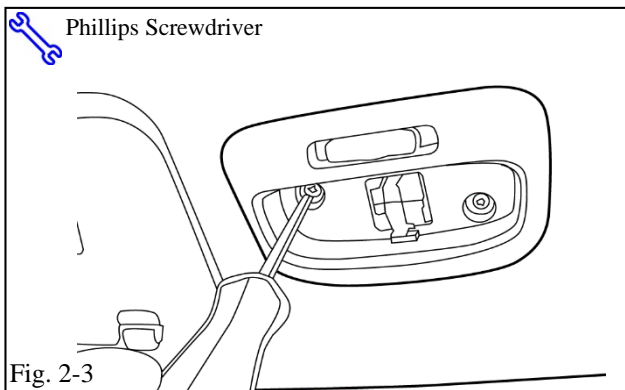
(a) Remove OE mirror and discard.

(1) Insert tip of panel removal tool into mirror base to release mirror from button.
(Fig. 2-1)

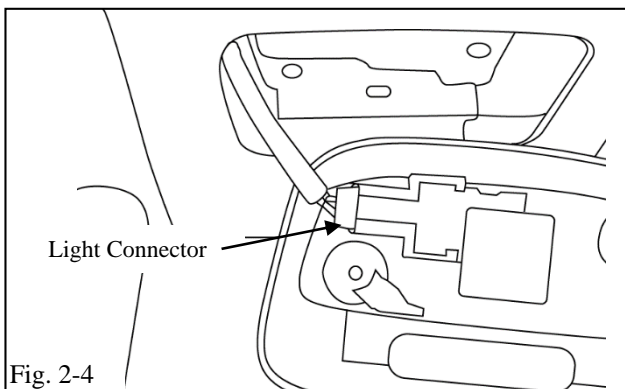




! (b) With a panel removal tool, carefully remove the overhead dome light assembly. (Fig. 2-2)

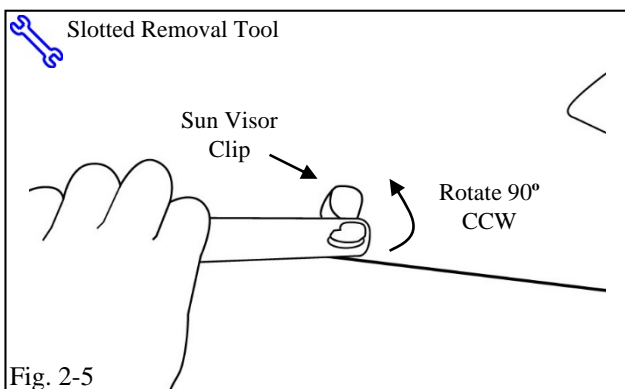


(c) Remove two (2) screws to release overhead. (Fig. 2-3)



! (d) Carefully pull down the dome light assembly to expose the light connector. (Fig. 2-4)

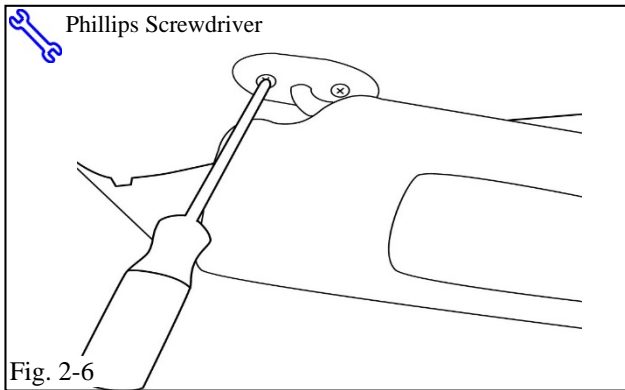
(1) Disconnect the connector.



(e) Using a slotted panel removal tool, loosen both driver side and passenger side sun visor clips by rotating clips 90 degrees counter clockwise. (Fig. 2-5)

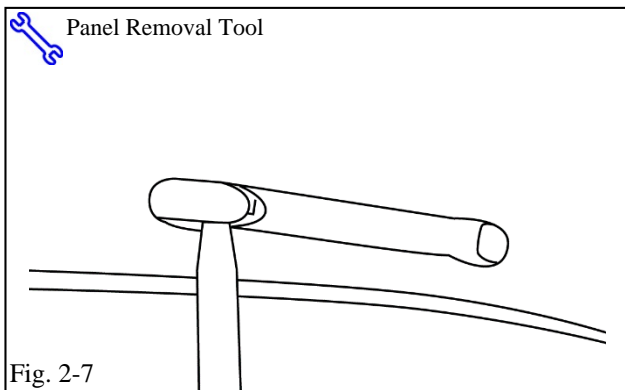
! (1) Rotating clip clockwise or more than 90 degrees will cause damage to clip when trying to remove it.

! (2) Carefully pull clip with headliner down, taking care not to damage the clip. Do not remove clip from the headliner.

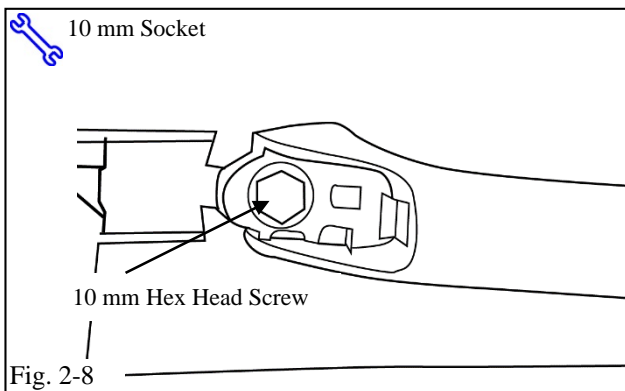


(f) Remove two (2) screws from the driver side sun visor base. (Fig. 2-6)


(1) Remove sun visor.



(g) Use a panel removal tool to remove the two (2) plastic covers on driver side grab handle to expose screws. (Fig. 2-7)



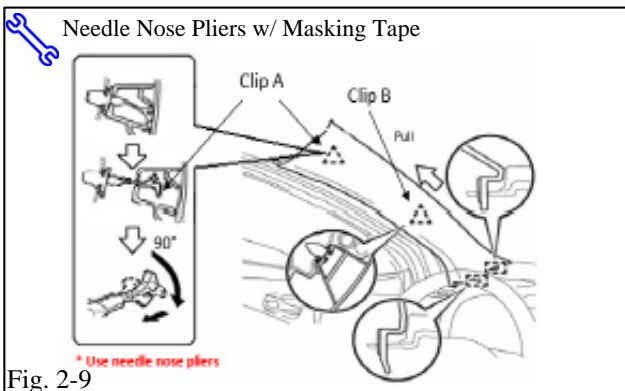
(h) With a 10 mm socket, remove the 10 mm hex head screws in grab handle. (Fig. 2-8)

 (i) Remove the A-pillar garnish.

With Curtain Side Air Bag

(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. 2-9)

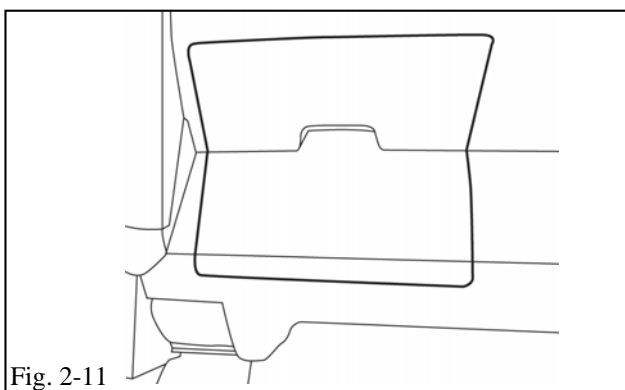
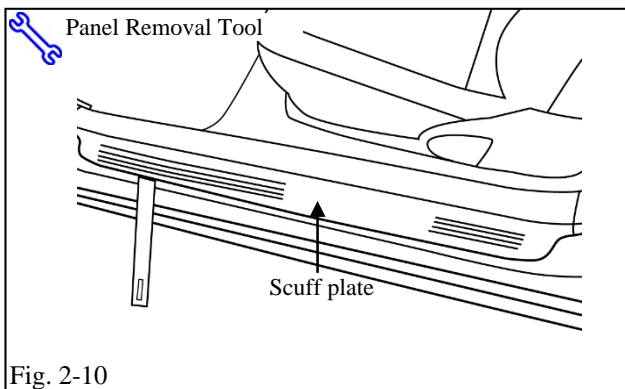
(2) Put masking tape around the jaws of the needle-nose pliers to prevent damage on Clip A.



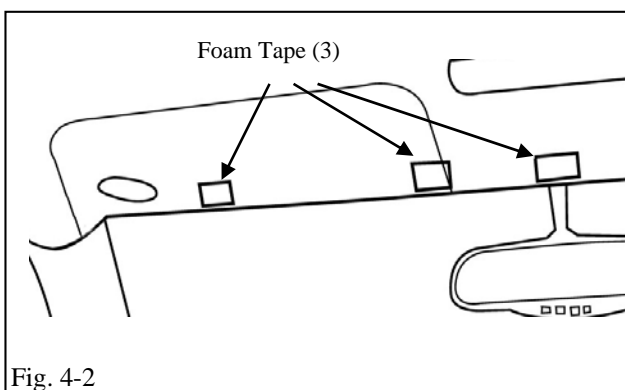
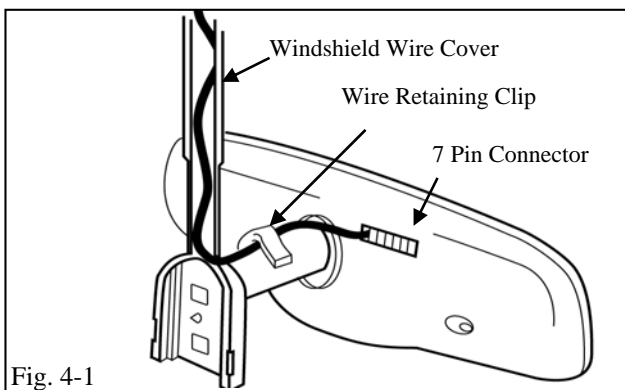
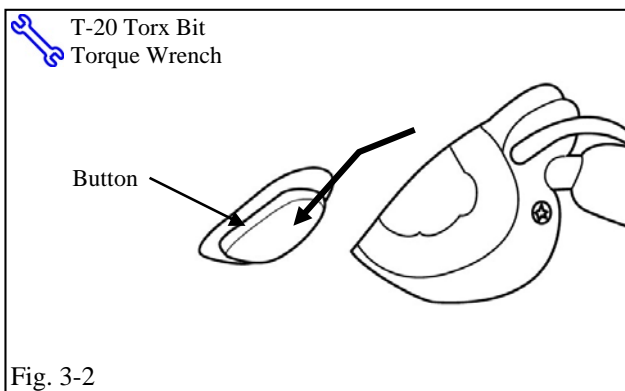
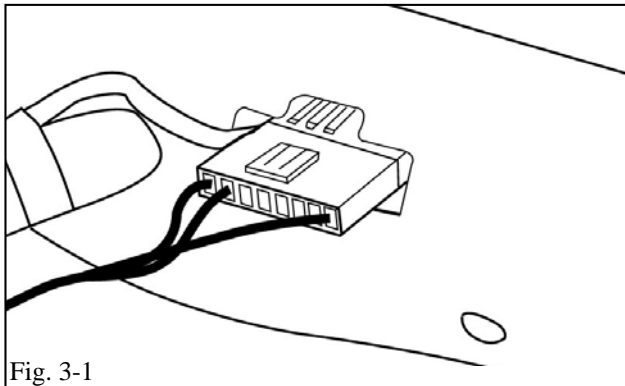
- (3) Use the needle-nose pliers to rotate the center portion of Clip A 90°, then pull the pillar garnish to release the tip of Clip A from the pillar garnish. (See Fig. 2-9)
- (4) DO NOT remove Clip A from the A-pillar body. If Clip A is damaged (i.e. scarred) or removed from the body, replace it with a new clip. Confirm the latest clip P/N via the electronic parts catalog.
- (5) Pull the pillar garnish in the direction indicated by the arrow in the illustration to detach the claws. (See Fig. 2-9)

Without Curtain Side Air Bag

- (1) Insert a nylon removal tool under the garnish and pry outward until the clips are disengaged.
- (2) Slide upward to remove the garnish.
- (j) Remove the driver side door scuff plate with a panel removal tool. (Fig. 2-10)
- (k) Remove the driver side cowl cover.




- (l) Remove fuse panel cover. (Fig. 2-11)



3. Mirror Installation.

- (a) Plug the wire harness 7-pin connector (PT374-52040) or 10-pin connector (PT374-21050) into the back of the mirror. (Fig. 3-1)

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

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

4. Wire Harness Installation.

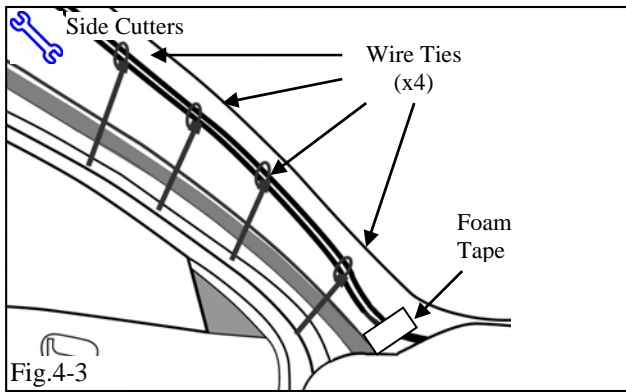
- (a) Remove the wire retaining clip and reattach with wire harness routed under the retaining clip. (Fig. 4-1)

- (1) Slide the wire harness cover over the wire harness and extend to completely cover wire harness

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

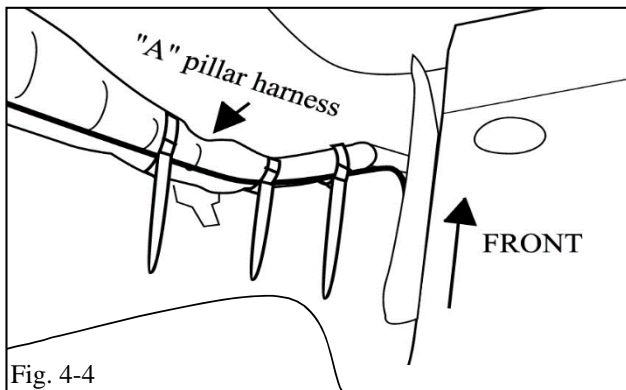
- (b) Secure wire harness to headliner with three (3) pieces of foam tape in locations shown. (Fig. 4-2)

- (1) Before applying foam tape, be sure the mirror has full range of movement.



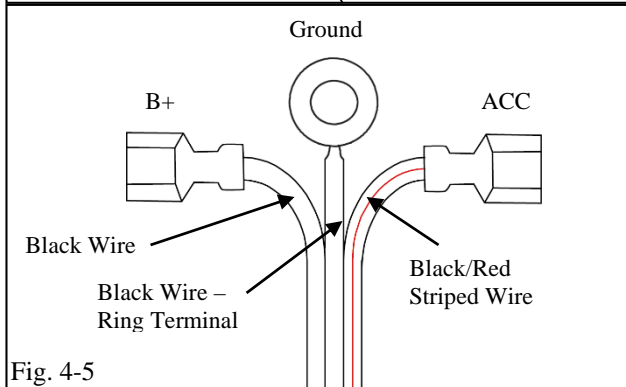
(c) Route wire harness down the A-pillar next to vehicle harness and secure with four (4) wire ties. (Fig. 4-3)

- (1) Secure wire harness with foam tape. (Fig. 4-3)
- (2) Cut excess wire tie material.



(d) Route wire harness between A-pillar and dash, into instrument panel area as shown. (Fig. 4-4)

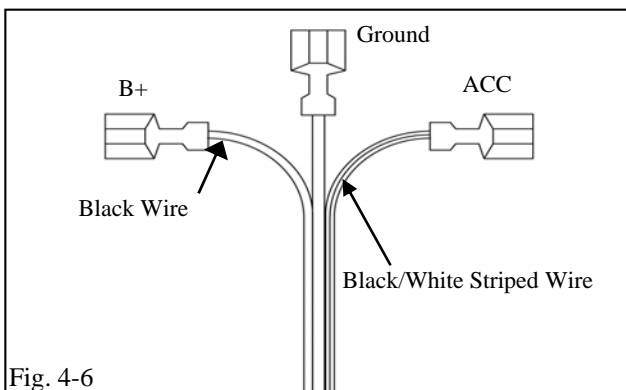
FOR PART NUMBER PT374-52040 ONLY
(Step (e))



(e) Locate the B+ and ACC wires and pull them apart from mirror wire harness (approximately 20 inches). (Fig. 4-5)

- (1) The B+ wire is the outside wire of the harness and opposite the ACC wire with the red stripe.

FOR PART NUMBER PT374-21050 ONLY
(Step (f))



(f) Locate the B+ and ACC wires and pull them apart from mirror wire harness (approximately 20 inches). (Fig. 4-6)

- (1) The B+ wire is the outside wire of the harness and opposite the ACC wire with the white stripe.

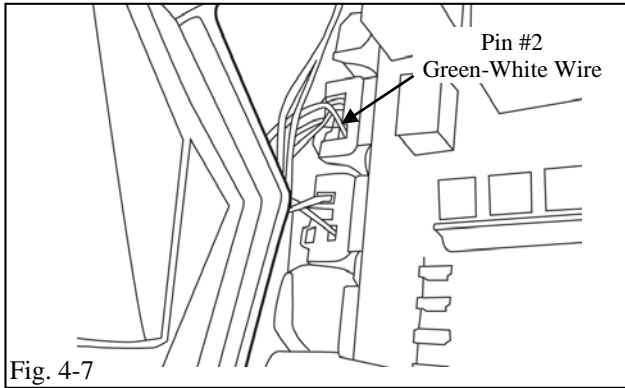


Fig. 4-7

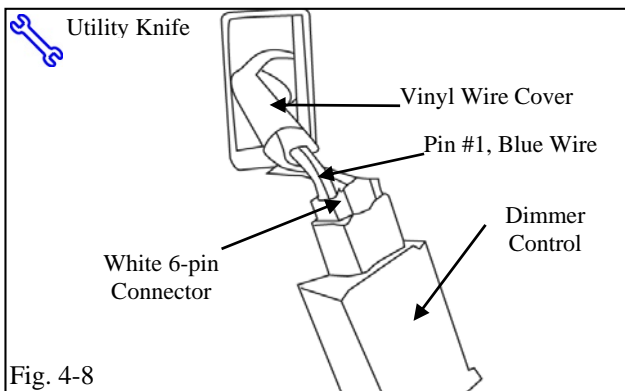


Fig. 4-8

(g) Locate the white connector at the side of junction block for fog light relay connector.

(1) Locate pin #2, Green-White wire.

(Fig. 4-7)

(h) Apply red T-tap to the Green-White wire about one inch from the connector with needle nose pliers.

(1) Make sure T-tap halves are snapped together and secured.

(i) Plug the Black (B+) wire with the spade connector into the T-tap on the Green-White wire (pin #2) of the 4-pin connector.

(j) Remove the IP dimmer control from IP by inserting hand in opening for access to fuse panel and push out the dimmer control.

(Fig. 4-8)

(1) Disconnect the connector for the dimmer control and pull harness down and out of fuse panel cover opening.

(k) Locate the White 6-pin connector for the IP dimmer control. (Fig. 4-8)

(1) Locate pin #1, Blue wire in the 6-pin connector. (Fig. 4-8)

(2) Carefully cut vinyl wire cover to expose wires about 1 ½ inches back from connector. (Fig. 4-8)

(l) Apply red T-tap to the Blue wire about one inch from the connector with needle nose pliers.

(1) Make sure T-tap halves are snapped together and secured.

- (m) Plug the black wire with the white trace (ACC) of the wire harness with the spade connector into the T-tap on the Blue wire (pin #1) of the 6-pin connector.

FOR PART NUMBER PT374-21050 ONLY
(Steps (n) through (o))

- (n) Apply blue T-tap to the White/Black wire about 3/4 inch back from connector with needle nose pliers. (Fig. 4-9)

- (1) Make sure T-tap halves are snapped together and secured.

- (o) Plug the middle black wire (Ground) of the wire harness with the spade connector into the T-tap on the White/Black wire (pin #5) of the 6-pin connector.

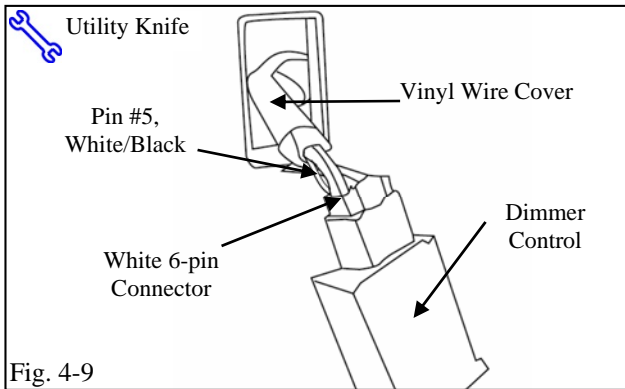


Fig. 4-9

FOR PART NUMBER PT374-52040 ONLY
(Steps (p) through (r))

- (p) Locate the 10 mm ground bolt inside the cowl area. (Fig. 4-10)

- (q) Remove ground bolt and secure ring terminal of ground wire. (Fig. 4-10)

- (1) Retighten bolt with 10 mm socket.

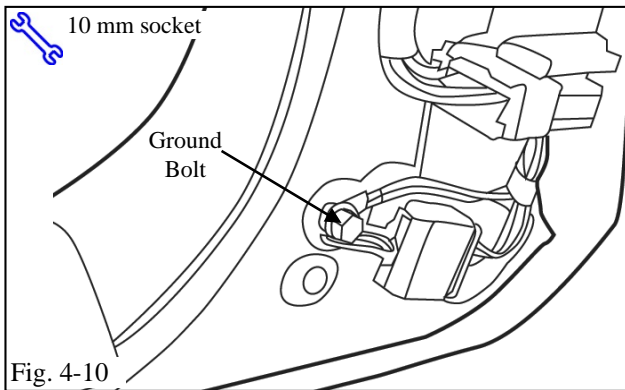
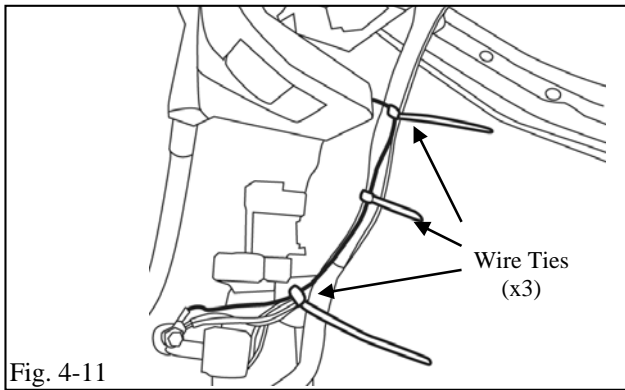
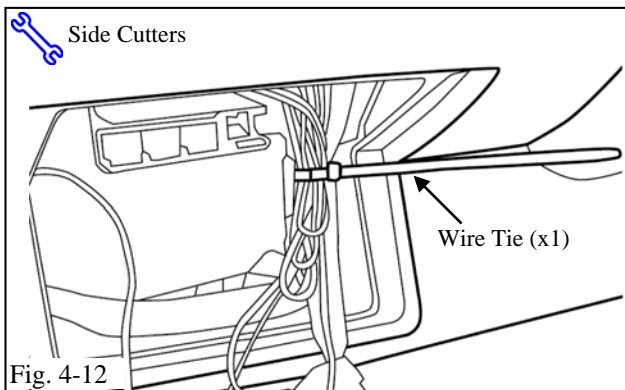


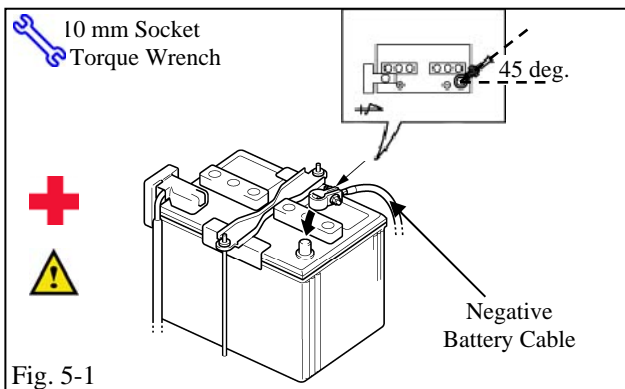
Fig. 4-10





- (r) Secure ground wire with three (3) wire ties. (Fig. 4-11)



- (s) Bundle excess wire to dimmer control wire harness and secure with wire tie. (Fig. 4-12)
 - (1) Cut excess wire tie material.

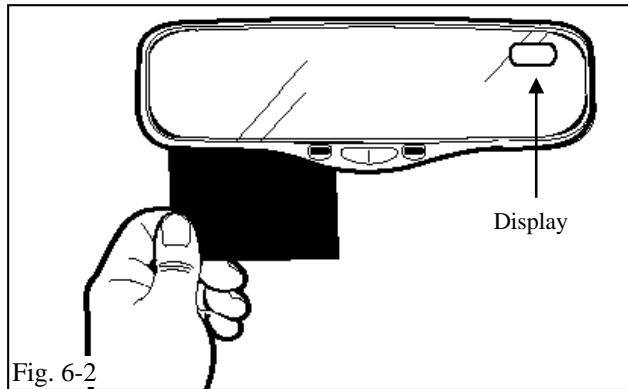
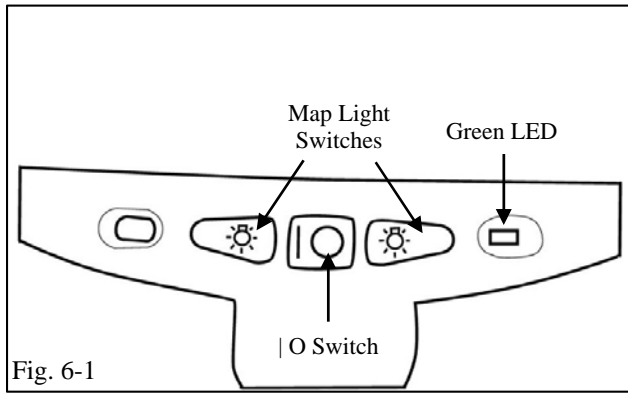


5. Reconnect Negative Battery Cable.

- (a) Reconnect the vehicle's negative battery cable. (Fig. 5-1)
 - (1) Position the negative terminal to the battery as shown (approximately 45 degrees).
 -  (2) Tighten the nut to 4.1 N-m (36 lbf-in).
 -  (3) Do not touch the positive terminal with any tool when replacing the cable.

6. Testing.

FOR PART NUMBER PT374-52040 ONLY
(Steps (a) through (d))



(a) Turn ignition key to ACC position.

(1) Check that both map lights turn on by pushing both switches on mirror. (Fig. 6-1)

(2) With the vehicle in a fairly well lit area, perform the following tests:

(b) Auto Dimming Feature:

(1) To make sure the auto-dimming feature is on, verify that the green LED to the right of the map switch is on. If it is not on, push the "IO" (on/off) button to turn the green LED on. (Fig. 6-1)

(2) Cover the forward-looking light sensor located below the wire harness connection on the back of the mirror (a dark cloth or towel will work). (Fig. 6-2)

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

(4) Remove cover from forward photocell and the mirror will begin to clear.

(c) Compass Feature:

(1) Push the "IO" button and hold for 3 seconds or until the display turns on. The visual display is now in the compass mode and the vehicle's directional heading should be displayed.

(d) Turn the ignition key to OFF position.

FOR PART NUMBER PT374-21050 (Steps (e) through (h))

(e) Ambient Lighting Feature:

(f) Cover the forward-looking light sensor located below the wire harness connection on the back of the mirror (a dark cloth or towel will work).

(1) Verify that the vehicle is in a dark area, so that colors may be checked.

(2) Press and hold the Map Light button. (Fig. 6-3). The initial mode will be bright white map lights.

(3) Continue to hold the Map Light button, to cycle through the ambient lighting options:-

Soft amber will appear after 3 seconds.
Soft blue will appear after 6 seconds.
Soft white will appear after 9 seconds.
Soft amber will appear again after 12 seconds.

(4) Light will turn off (after approximately 15 seconds). Release button during this step.

(g) With the vehicle in a fairly well-lit area, perform the following:

(h) HomeLink® Feature:

(1) Push in HomeLink® switches, one at a time. Verify that the LED Indicator light is red when each switch is pushed.

(2) Remove the ignition key.

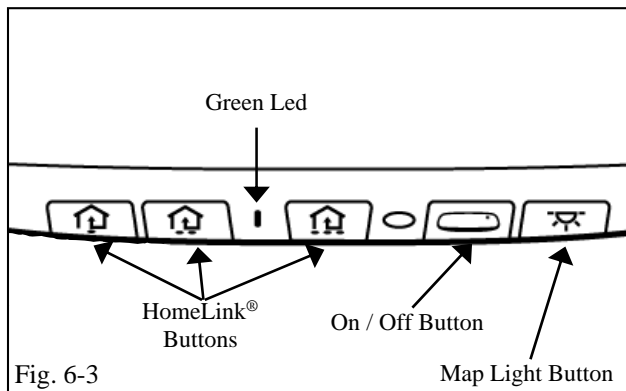


Fig. 6-3

- (3) Push in HomeLink® switches, one at a time. Verify that the LED Indicator light is red when each switch is pushed.

HomeLink® and the HomeLink® house are registered trademarks of Johnson Controls, Inc.

NOTE: The owner of the vehicle will need to program HomeLink®. See the HomeLink® programming instructions or visit the HomeLink® website at www.homelink.com.

(i) Auto Dimming Feature:

- (1) Reinsert ignition key and turn to ON position.
- (2) To make sure the auto-dimming feature is on, verify that the green LED to the left of the center HomeLink® button is on. (Fig. 6-3). If it is not on, push the On / Off) button to turn the feature on.
- (3) Cover the forward-looking light sensor located below the wire harness connection of the back of the mirror (a dark cloth or towel will work). (Fig. 6-4)
- (4) In a few seconds, mirror will begin to darken (time may vary with ambient light level).
- (5) Remove the cover from the forward photocell and the mirror will begin to clear.
- (6) Turn ignition key to OFF position.

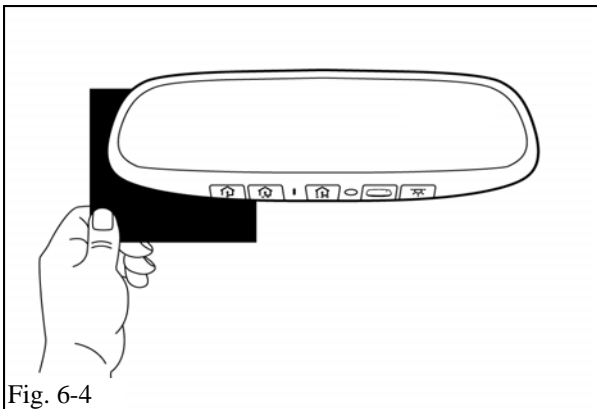


Fig. 6-4

7. Final Assembly.

- (a) Reinstall driver side cowl cover (if removed).
- (b) Reinstall driver side scuff plate (if removed).
- (c) Reinstall fuse cover panel.
- (d) Reinstall driver side A-pillar trim.
- (e) Reinstall driver side sun visor and clips.
- (f) Reinstall IP dimmer and connector.
- (g) Reinstall dome light assembly.



- (h) Place the operation instruction card(s) in the vehicle glove box.
- (i) 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.
- (j) Verify each reinstalled component for proper fit and function.

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

Check:

Accessory Function Checks

Vehicle should be in a fairly well lit area.

- Turn ignition switch 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.

HomeLink® feature:

PART NUMBER PT374-21050 ONLY

- Push in HomeLink® switches with key in AND out of the key slot.

Compass feature:

PART NUMBER PT374-52040 ONLY

- Push the “IO” button and hold for 3 seconds or until the display turns on.
- Push the “IO” button a second time and hold for 3 seconds.

Map lights feature:

- Push the Map Light button on the mirror.

Ambient lighting feature:

PART NUMBER PT374-21050 ONLY

Vehicle should be in a fairly dark area if the ambient lighting colors cannot be seen. Cover forward looking sensor.

- Push the Map Light button on the mirror.

Look For:

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.

Verify LED indicators turns red.

Verify vehicle’s directional heading is displayed.

Verify the visual display turns off.

Verify that map lights turn on.

Verify that white map lights turn on.

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

Check:

- Push the Map Light button on the mirror again and hold until ambient feature is off.
- Homelink® Programming Instructions
- Operation Instruction Card

Look For:

Colored ambient light should turn on, and cycle - amber - blue - white - amber – off.

Placed in the vehicle glove box

Placed in the vehicle glove box.

Vehicle Function Checks

- Check IP light dimmer control
- Check mirror controls

- Check dome light
- Check sunroof (if applicable)
- Check fog light (if applicable)
- Check battery negative cable

Verify IP light dimmer functions properly.

Verify the left and right mirror control functions properly.

Verify dome light functions properly.

Verify sunroof functions properly.

Verify fog light functions properly

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

