

**Part Number(s): PT233-34070,
PT923-35070-11, PT923-35070-43**

NOTE: Part number of this accessory may not be the same as part number shown.

Back Up Monitor Kit Contents
PT923-35070-11 / PT923-35070-43

| Item # | Quantity Req'd. | Description |
|--------|-----------------|--------------------------------|
| 1 | 1 | Back-up Monitor Assembly |
| 2 | 1 | Paper Drill Template |
| 3 | 1 | Foam Tape |
| 4 | 1 | Care and Cleaning Instructions |

Camera Kit Contents
PT233-34070

| Item # | Quantity Req'd. | Description |
|--------|-----------------|-------------------------|
| 1 | 1 | Camera Assembly |
| 2 | 1 | Tailgate Latch Assembly |
| 3 | 1 | Wire Harness |
| 4 | 2 | Wire Harness Protectors |
| 5 | 1 | Tailgate Removal Kit |
| 6 | 1 | Warning Label |
| 7 | 2 | M6 x 10mm Bolts |

Conflicts

None

Recommended Tools

| | |
|--|--|
| Personal & Vehicle Protection | Notes |
| Vehicle protection | Blankets |
| Eye Protection | Safety Glasses |
| Gloves | |
| De-burring Tool | |
| | |
| Special Tools | Notes |
| Aluminum Drill Template (optional) | Toyota SST P/N: TUN07-046-01 |
| | |
| Installation Tools | Notes |
| Panel Clip Removal Tool | e.g. Toyota SST P/N: 00002-06002-01 |
| Torx | T-20, T-30 |
| Hole Saw | 22mm or 7/8" |
| Torque Wrench | 12 lbf•in., 18 lbf•in., 36 lbf•in., 48 lbf•in. |
| Awl or Straight Pick | |
| 10mm Socket | |
| 8mm Socket | |
| | |
| Special Chemicals | Notes |
| None | |

General Applicability

Tundra

Recommended Sequence of Application


| Item # | Accessory |
|--------|-----------------------|
| 1 | EC Mirror |
| 2 | Back Up Camera System |


*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.

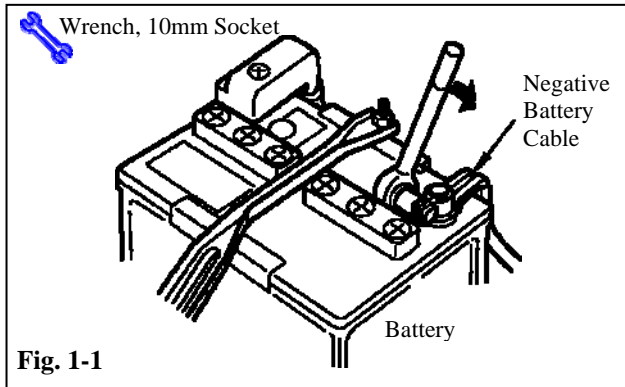
Care must be taken when installing this accessory to ensure damage does not occur to vehicle. Installation of this accessory should follow approved guidelines to ensure a quality installation.

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 the "Accessory Installation Practices" document.



1. Vehicle Protection.

(a) Remove negative battery cable (Fig. 1-1).

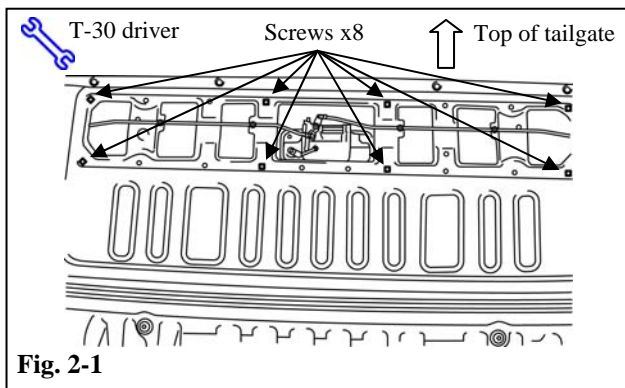


(1) Protect fender before starting.



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

(b) Check kit contents.

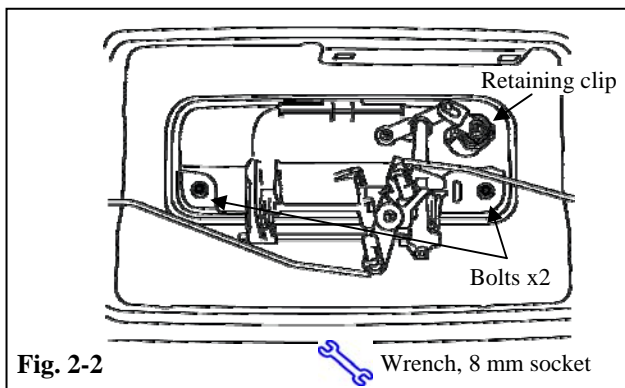


2. Back-up Camera Installation

(a) Lower the tailgate.

(b) Remove the eight (8) T-30 screws to the access panel on the inside of the tailgate. Remove the panel (Fig. 2-1).

(c) Disconnect the tailgate mechanism rods from the purple and orange clips.

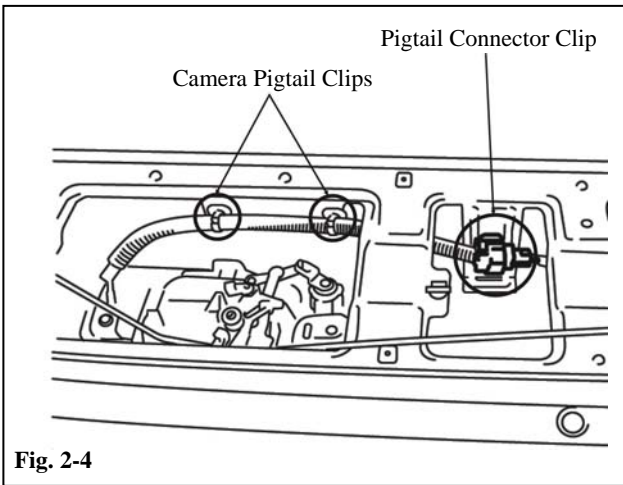
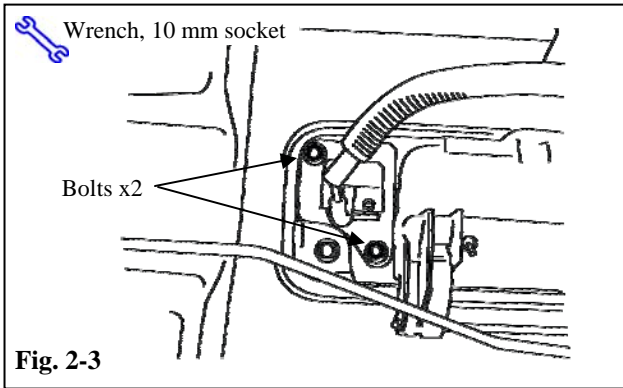


(d) Remove the two (2) M6 x 8mm bolts to the tailgate latch and remove the latch from the tailgate (Fig. 2-2).



(e) Remove the retaining clip to the tailgate lock mechanism and remove the lock assembly. Take care not to cut fingers (Fig. 2-2).

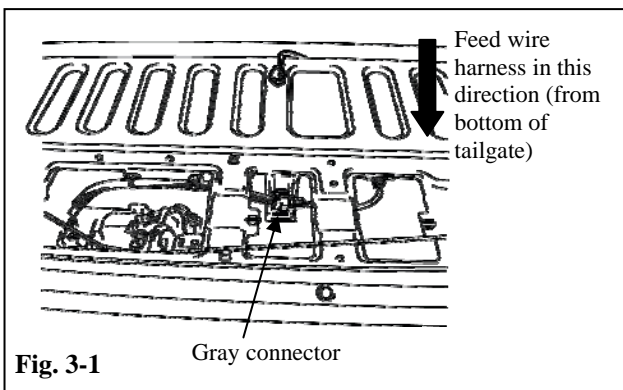
(f) Install the lock assembly in the new tailgate latch provided with the camera kit. The new latch includes an opening for the camera.



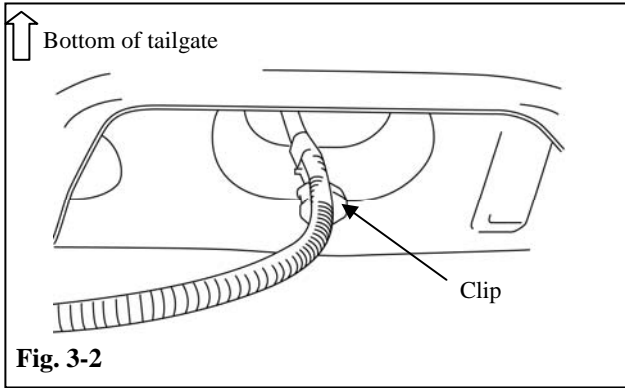
- (g) Install the camera by using the two (2) M6 x 10mm bolts provided with the kit (Fig. 2-3). The locator pins on the new latch will position the camera.
- (h) Install the new tailgate latch/camera assembly. Tighten the bolts to 48 lbf•in. Discard the original tailgate latch.

- (i) Route the camera pigtail harness through the tailgate towards the passenger side of the vehicle.
 - (1) Fasten two black clips on the camera pigtail in the holes on the tailgate located just above the lock mechanism as shown (Fig 2-4).
 - (2) Fasten the camera pigtail connector clip to the tailgate as shown (Fig 2-4).

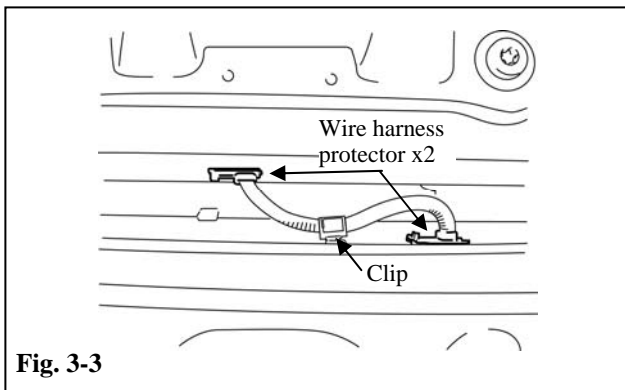
3. Wire Harness Installation



- (a) Starting at the bottom of the tailgate, route the kit wire harness through rectangular opening in the tailgate towards the latch and camera. Beware of sharp metal edges inside the tailgate. The gray connector on the wire harness should be inserted first and connect to the camera pigtail harness (Fig. 3-1).
- (b) Connect the gray harness connector to the camera (Fig. 3-1).



(c) Fasten white clip on harness to the internal tailgate support bracing (Fig 3-2).

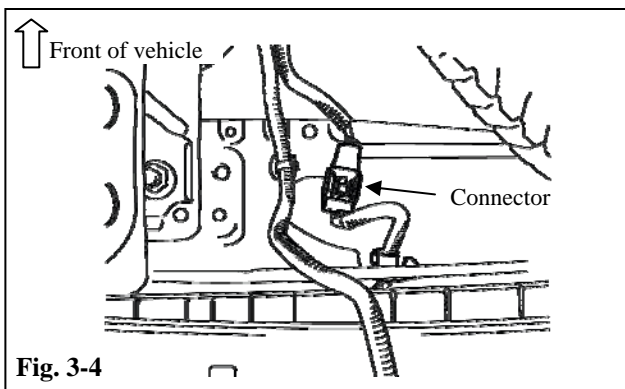


(d) Fasten the black clip on the wire harness to the opening on the bottom of the tailgate.

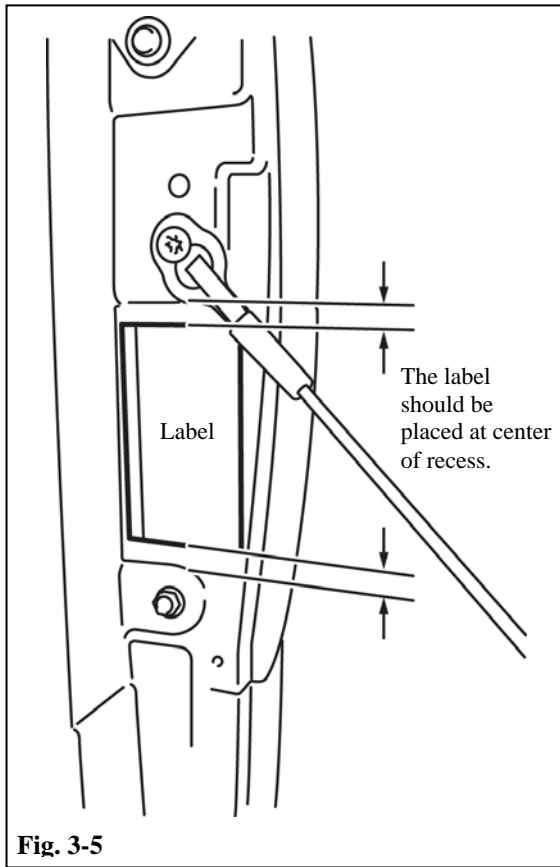
(1) Snap the two (2) black plastic protectors around the wire harness. The protectors must be placed adjacent to the green stripes on the harness.

NOTE: When the protector clips are positioned properly the green stripes will be concealed within the vehicle bed or tailgate.

(2) Insert the black plastic cable protectors into the rectangular openings in the tailgate and truck bed (Fig. 3-3).

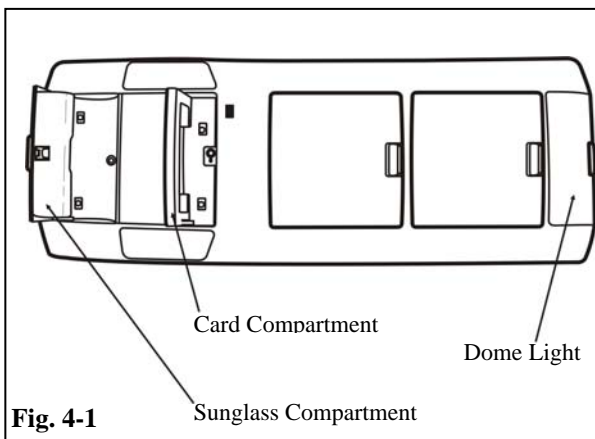


(e) Connect the wire harness to the vehicle harness underneath the truck bed (Fig. 3-4).



(f) Place the safety caution label, included with the camera kit, to the side of the bed opening on the passenger side of the vehicle. Clean application area with VDC approved cleaner and method. The label should be centered in the recess in a vertical position. The top of the label should be towards the front of the vehicle (Fig. 3-5).

(g) Re-install tailgate access panel and torx hardware. Tighten T-30 torx screws to 18 lbf•in.



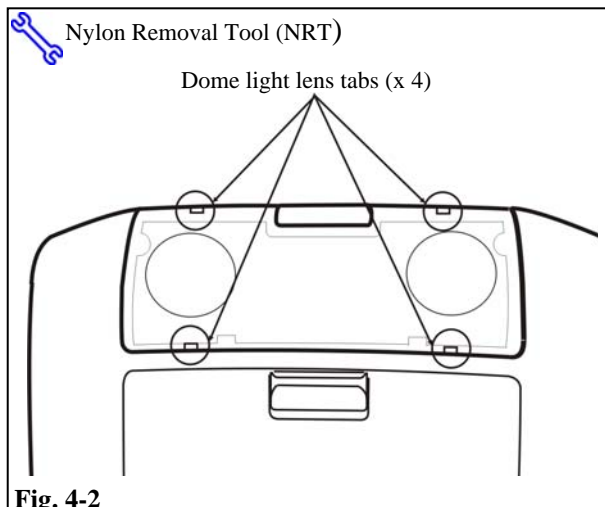
4. Disassembly of Overhead Console.

STOP NOTE: Place all removed parts on a protected surface.

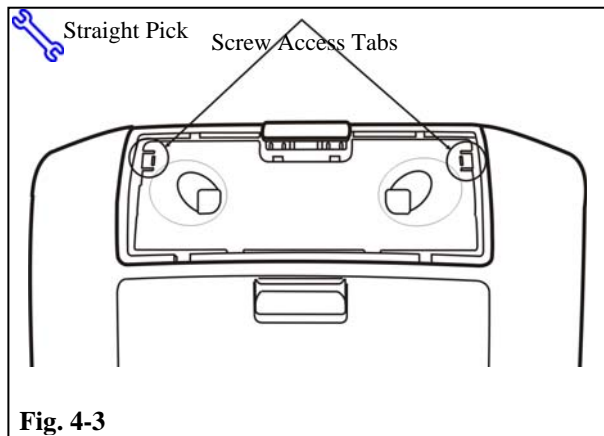
STOP NOTE: When disconnecting wiring connectors, do NOT pull on wiring- pull on connector only.

STOP NOTE: Engage parking brake while working.

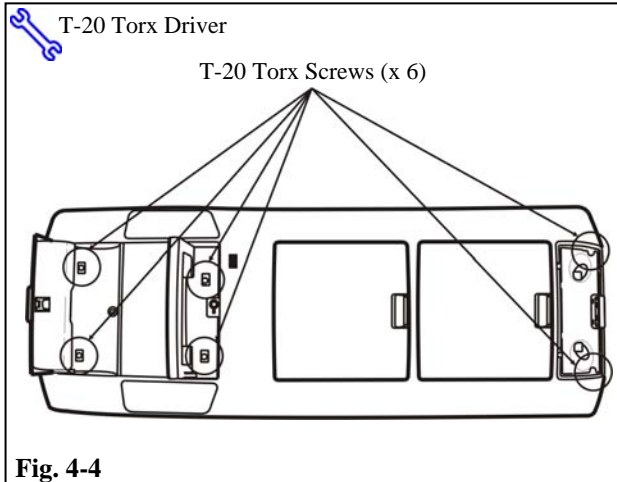
(a) Open front two storage compartments on overhead console (Fig. 4-1).



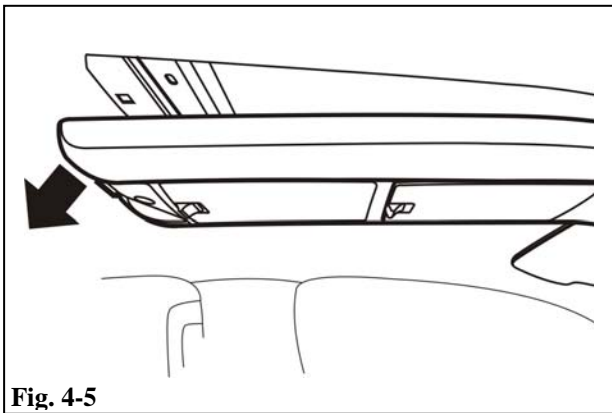
- (b) Remove dome light lens from rear of console with a nylon removal tool (NRT) (Fig. 4-2)



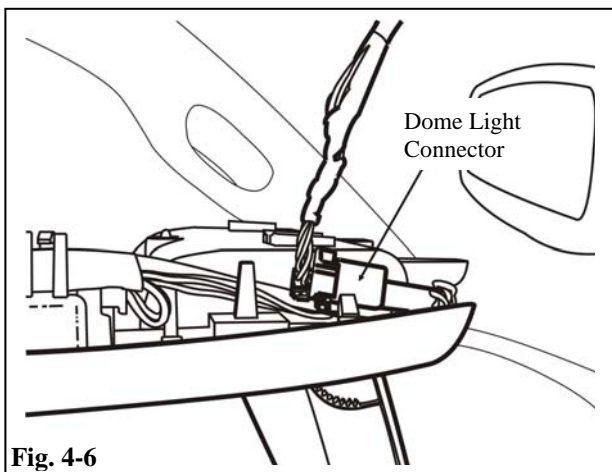
- (c) With dome light lens removed, use a straight pick to bend screw access tabs towards vehicle headliner, revealing two torx screws (Fig. 4-3).



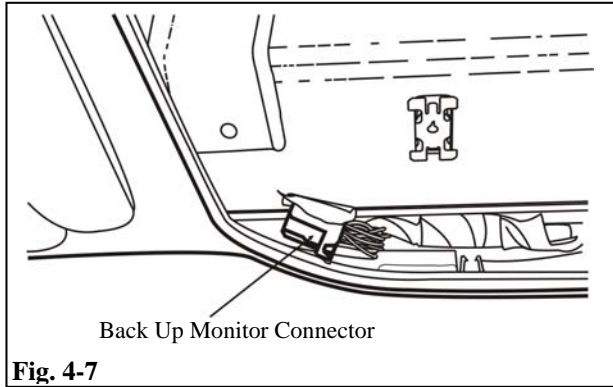
- (d) Remove a total of six (6) T-20 torx screws from overhead console in locations shown (Fig. 4-4).
 - (1) Remove two (2) screws from sunglasses compartment area.
 - (2) Remove two (2) screws from card compartment area.
 - (3) Remove two (2) screws from dome light area.



- (e) Remove overhead console.
 - (1) Slowly lower rear of overhead console while simultaneously moving it rearward to disengage plastic tabs at front of console. (Fig. 4-5).



- (2) Disconnect dome light harness from front of overhead console. Remove console from vehicle (Fig. 4-6)



- (f) Locate back-up monitor connector at left front of headliner opening (Fig. 4-7).

5. Overhead Console Preparation.

NOTE: Ensure that overhead console is properly protected before proceeding.

- (a) With an NRT, disengage pivot points in sunglass compartment and remove from overhead console (Fig. 5-1).

- (1) Discard spring and front compartment.

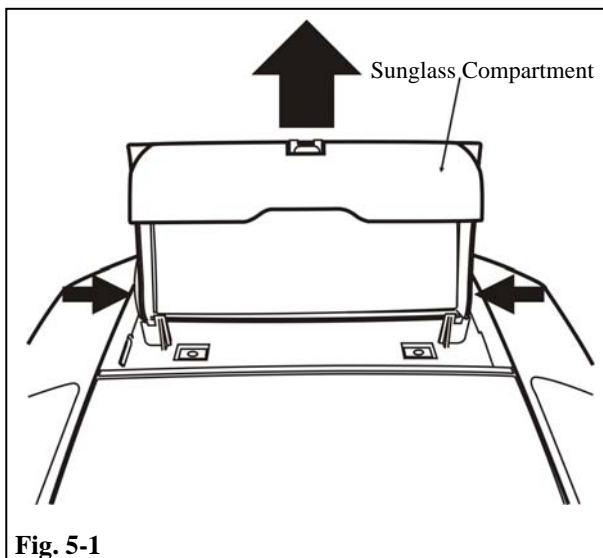


Fig. 5-1

- (b) Remove sunglass compartment deployment dampener by depressing both tabs and pushing dampener through side of console (Fig. 5-2)

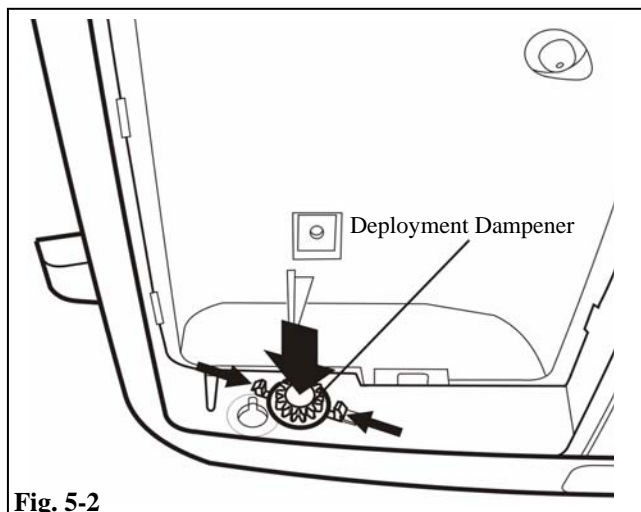
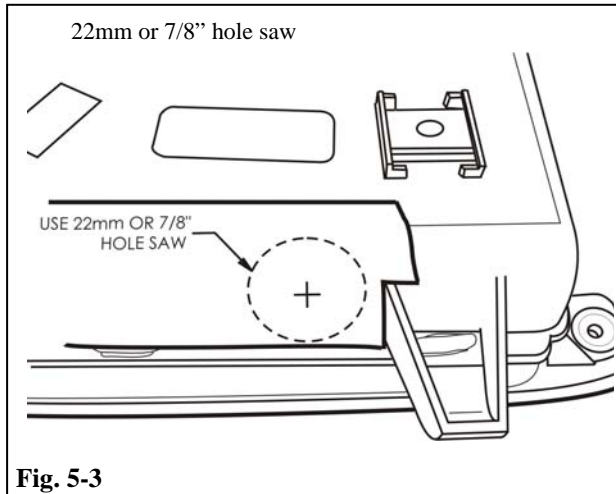
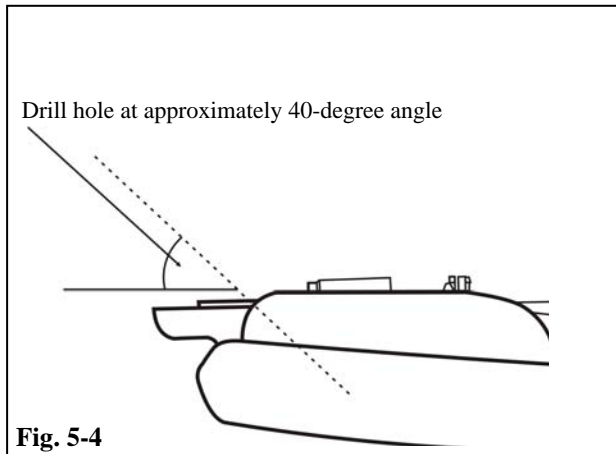


Fig. 5-2



- (c) Place supplied drill template at front of console as shown. (Fig. 5-3).
- (1) Mark center point of hole with an awl or pick.



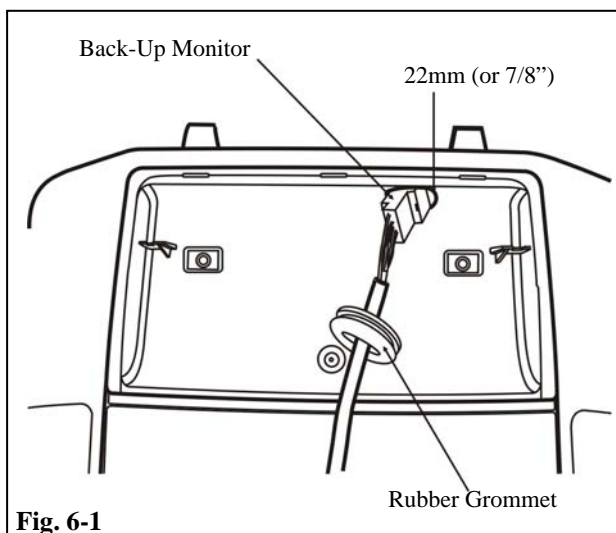
- (d) Using a 22mm (or 7/8") hole-saw, drill through compartment wall at location specified by template.



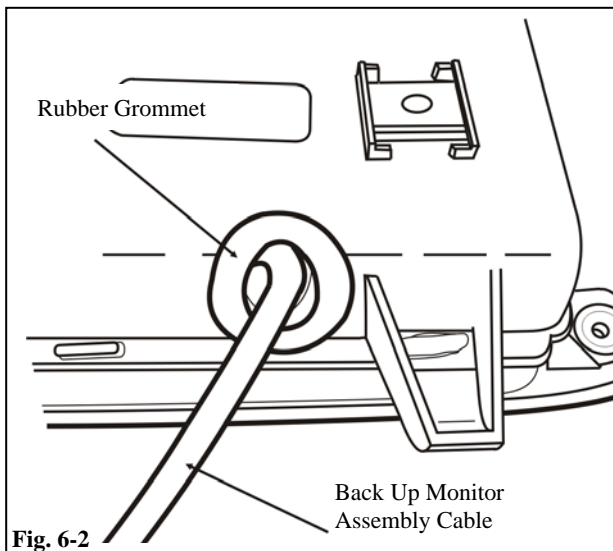
NOTE: Ensure hole is drilled at angle shown (Fig.5-4).

- (e) Clean 22mm (or 7/8") hole and de-burr if necessary.

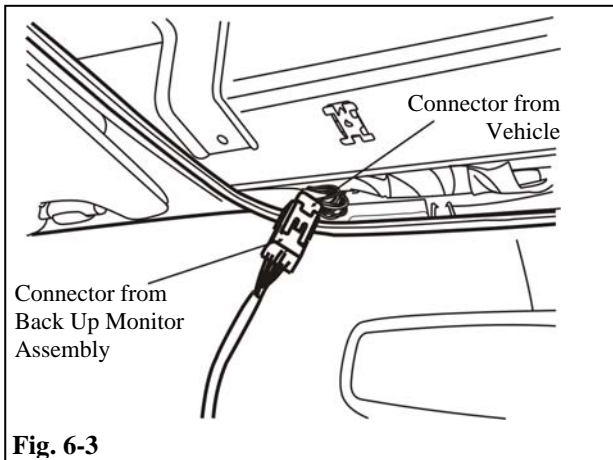
6. Back-up Monitor Installation



- (a) Route Back Up Monitor connector through 22mm (or 7/8") hole previously drilled in step 5d (Fig. 6-1).
- (1) Ensure connector runs from console compartment towards backside of console.



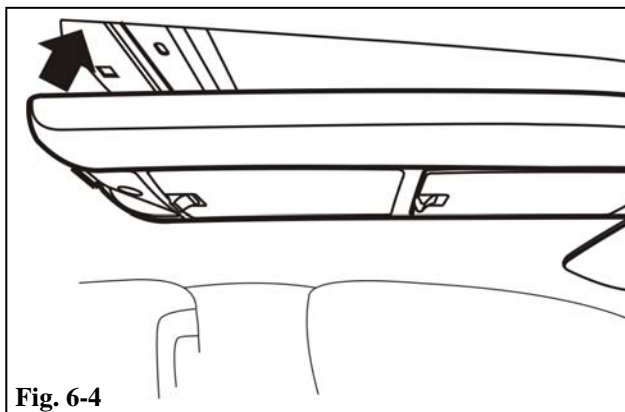
(b) Press rubber grommet into place until fully seated on both sides of console (Fig. 6-2).



(c) Carefully raise overhead console and back-up monitor assembly towards vehicle headliner

- (1) Connect dome light harness previously disconnected in step 4e, part 2.
- (2) Connect back-up monitor harness to factory harness (Fig. 6-3).

(1) Wrap back-up monitor and vehicle connector with supplied foam tape.



(d) Loosely re-install overhead console into position with hardware removed in step 4d (Fig 6-4).

NOTE: To simplify overhead console re-installation, ensure roof mounted clips are in position relative to screw holes in overhead console.

7. In Process Function Test

- (a) Check that the short pin is fitted in relay block.
- (b) Temporarily reconnect battery cable.
- (c) Turn ignition to “ACC,” and put car into reverse.



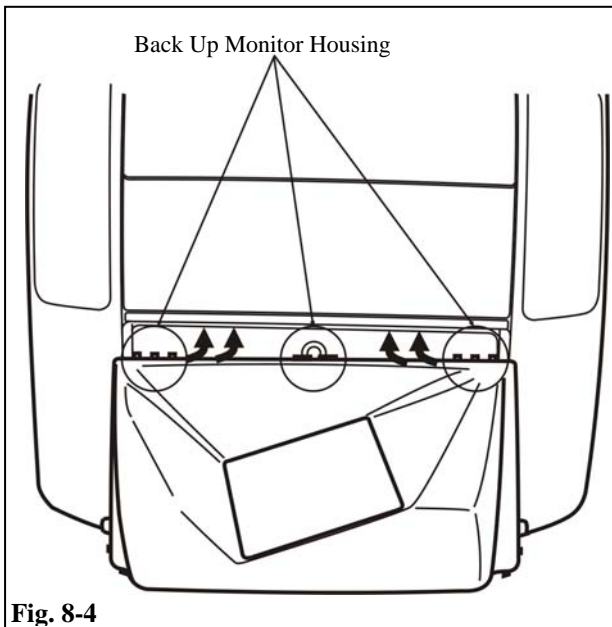
- (1) Ensure that parking-brake is set.
- (2) After one second, confirm backup monitor powers up, displaying rear camera image.
- (d) Turn headlights on to confirm monitor-dimming function.
- (e) Place vehicle back into park and turn ignition key and headlights off.
- (f) Disconnect battery.

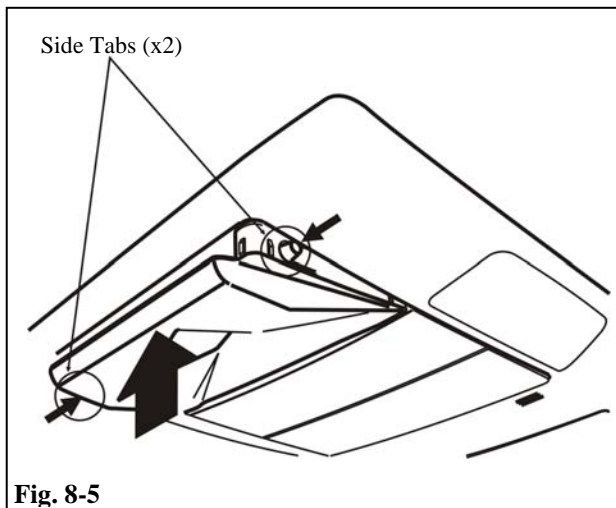
8. Vehicle Reassembly

- (a) Tighten all six (6) T-20 torx screws securing overhead console to vehicle headliner to 12 lbf•in.

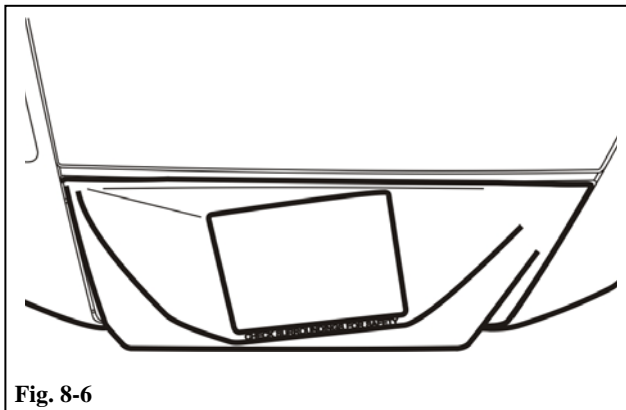
NOTE: Ensure overhead console is properly positioned forwards or rearwards to ensure a flush fit against vehicle headliner.

- (b) Install back-up monitor assembly into overhead console.
 - (1) Starting with rear edge, “hook” tabs on back-up monitor housing into overhead console (Fig 8-4).





- (2) Once rear edge of back-up monitor housing has been located, press side tabs inward and push front of back-up monitor assembly until it locks into position (Figs. 8-5 & 8-6).



9. Completing installation

- (a) Complete reassembly of vehicle.

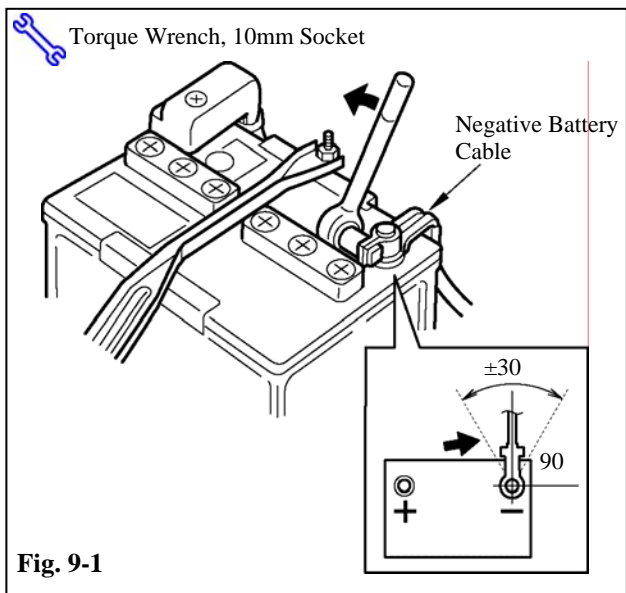


- (1) Reconnect any disconnected connectors.



- (2) Verify panels fit together properly with no uneven gaps between them.

- (b) Clean up and remove any trash.



(c) Reconnect vehicle's negative battery cable (Fig. 9-1).



- (1) Return negative terminal to original factory position .
- (2) Tighten nut to 36 lbf•in.
- (3) Do not touch positive terminal with any tool when replacing cable.

(d) Place user and care instructions along with tailgate removal kit in glove box.

TOYOTA Tundra 2007 - BACK-UP CAMERA SYSTEM
 Checklist - these points **MUST** be checked to ensure a quality installation.

Check:

Look For:

Accessory Function Checks

- Put vehicle into reverse and confirm monitor operation.

Functioning back-up monitor.

- Camera

Free from dirt or debris.

Vehicle Function Checks

- Tailgate lock cylinder

Verify that the key locks and unlocks the tailgate handle freely.

- Tailgate

Verify full range of movement with the tailgate.

- Overhead console dome lights

Dome lights must illuminate when turned on or when doors are opened.