Preparation

Part Number: PZQ64-42096

Kit Contents

KII COI	itents			
Item#	Quantity Reqd.	Description		
1	1	TOW BAR WELDED		
		ASSEMBLY		
2	1	TONGUE		
3	1	LH SIDE ARM ASSEMBLY		
4	1	RH SIDE ARM ASSEMBLY		
5	2	BODY BRACE		
6	1	LH REINFORCEMENT		
		PLATE		
7	1	RH REINFORCEMENT		
		PLATE		
8	1	LH REAR BRACKET		
		ASSEMBLY		
9	1	RH REAR BRACKET		
		ASSEMBLY		
10	1	BUMPER COVER TRIM &		
		GLUE		
11	2	SHIM PLATE		
12	1	PIN & CLIP		
13	21	BOLT HEX M12 x 50 x 1.25		
14	31	WASHER FLAT M12		
15	10	NUT HEX M12 x 1.25		
16	6	BOLT HEX M8 x 35 x 1.25		
17	14	WASHER FLAT M8		
18	8	BOLT HEX M8 x 25		
19	1	WASHER THICK M12		
20	1	HITCH PLUG		
21	1	WARNING LABEL		

Additional Items Required For Installation

Item#	Quantity Reqd.	Description
1	1	3M Ultra Underbody Sealant (C0009-08302)
2		
3		

General Applicability

Conflicts

Recommended Sequence of Application

Item #	Accessory
1	Trailer Module & Power Wire Harnesses
2	Tow Hitch
3	Trailer 4-Flat Harness

*Mandatory

Vehicle Service Parts (may be required for reassembly)

Item#	Quantity Reqd.	Description
1		

Recommended Tools

Personal & Vehicle	Notes		
Protection			
Blankets			
Tape			
Special Tools	Notes		
Installation Tools	Notes		
Clip Removal Tool			
Screw Driver	Phillips #2, Small Flat		
Ratchet	3/8" Drive, 1/2" Drive		
1/2" Drive Sockets	17mm, 18mm		
3/8" Drive Sockets	10mm, 12mm, 13mm,		
	14mm, 18mm		
Medium Extension	3/8" Drive, 1/2" Drive		
Wrench	18mm		
Torque Wrench	3/8" Drive, 1/2" Drive		
Exhaust Hanger Removal			
Tool			
Scraper			
Scissors			
Tin Snips			
Special Chemicals	Notes		

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.



<u>CAUTION:</u> 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.

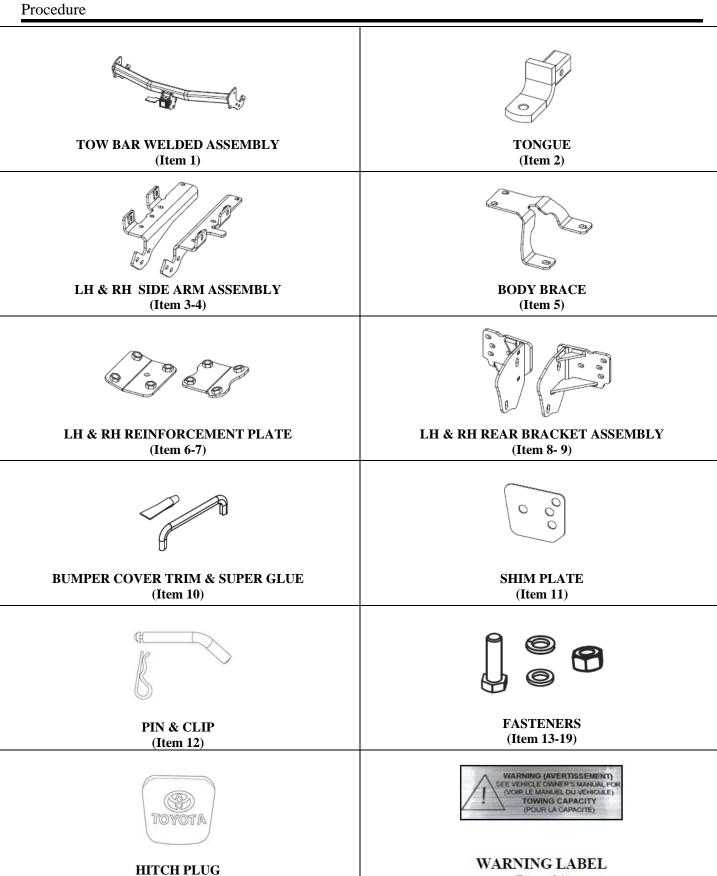


TOOLS & EQUIPMENT: Used in Figures calls out the specific tools and equipment recommended for this process.



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.



(Item 21)

(Item 20)

Procedure

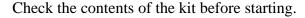
Care must be taken when installing this accessory to ensure damage does not occur to the vehicle. The installation of this accessory should follow approved guidelines to ensure a quality installation.

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 the Interior Parts.

(a) Remove the tonneau cover and lift out the trunk floor panel (Fig. 1-1).

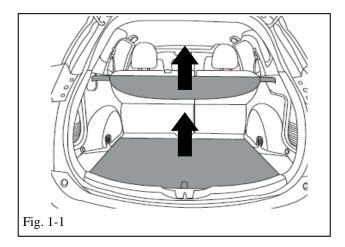
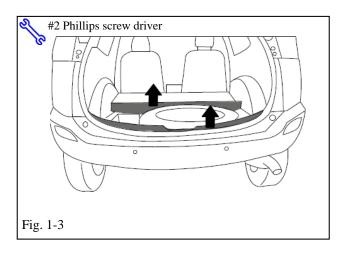
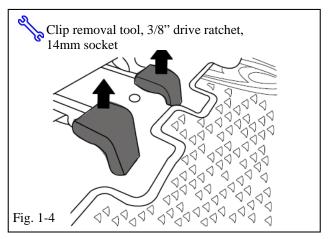
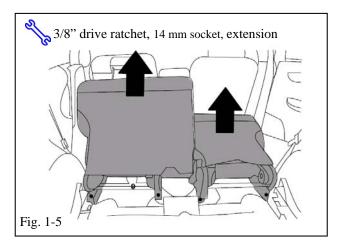


Fig. 1-2

(b) Remove the LH storage tub by removing the three clips. Pull up to release and retain the parts for reinstallation (Fig. 1-2).





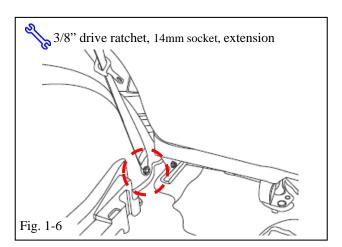


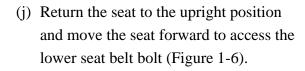
- (c) Remove the rear scuff panel by pulling up to release it (Fig. 1-3).
- (d) Remove the rear intermediate cover by removing the four Phillips head screws, then pull up to release it (Fig. 1-3). Retain all parts.

- (e) Remove the four covers from the rear seat forward mounts (Fig. 1-4).
- (f) Disconnect the three wiring loom plugs from behind the rear seats (if applicable).
- (g) Remove the four seat bolts (LH and RH seats). Retain all parts.

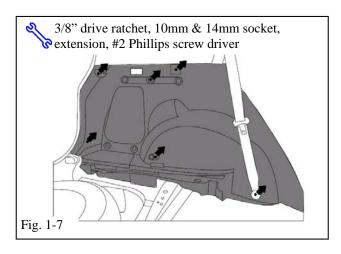
- (h) Fold the LH rear seat and remove the three rear seat fasteners (Fig 1-5).
- (i) Repeat for the RH side.

Procedure

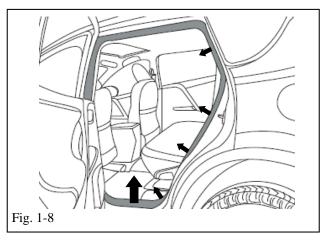




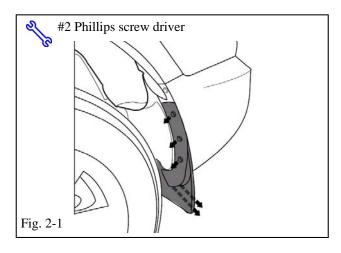
(k) Repeat for the RH side.

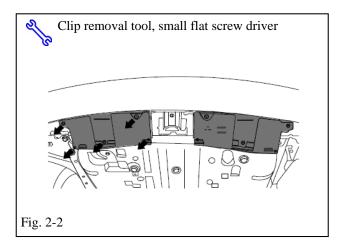


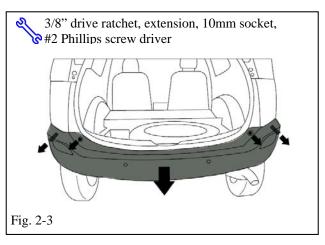
(l) Remove the LH rear interior trim panel by removing the seat belt lower mount bolt, the cargo tie-down bolt, the three small mount bolts & the Phillips head screw (Fig. 1-7).



- (m)Rear door area disassembly.
 - (1) Lift the LH rear doorway scuff panel (Fig. 1-8).
 - (2) Lift the rear door weather strip (Fig. 1-8)
 - (3) Disconnect LH interior light plug.
 - (4) Retain all parts for reinstallation.
 - (5) Repeat for RH side.





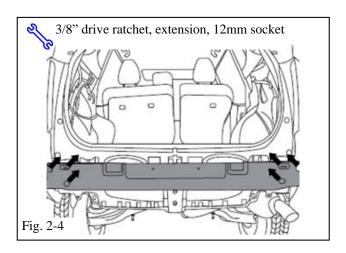


2. Remove the Exterior Parts.

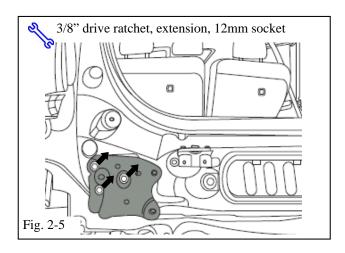
- (a) Remove the LH mud flap.
 - (1) Remove the three screws in the wheel arch and the two screws underneath (Fig. 2-1).
 - (2) Retain all parts for reinstallation.
 - (3) Repeat for the RH side.

- (b) Remove the LH rear under tray.
 - (1) Remove the five clips (Fig. 2-2).
 - (2) Retain all parts for reinstallation.
 - (3) Repeat for RH Side.

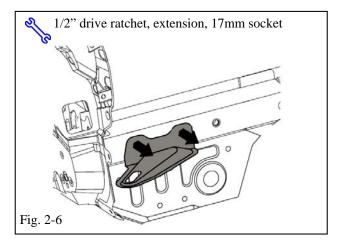
- (c) Remove the rear bumper cover.
 - (1) Remove the screw in each wheel arch and the two screws on the rear face (Fig. 2-3).
 - (2) Disconnect the rear park assist wiring loom plug in the LH rear inner corner (if equipped).
 - (3) Pull the bumper cover sides outwards to release the ten claws (five per side).
 - (4) Retain all parts for reinstallation.



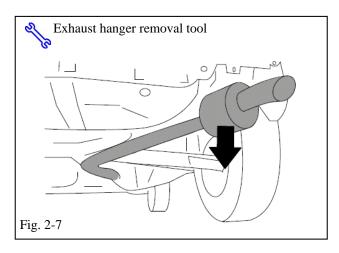
(d) Remove the rear impact beam by removing the six bolts (Fig. 2-4). It will not be reused.



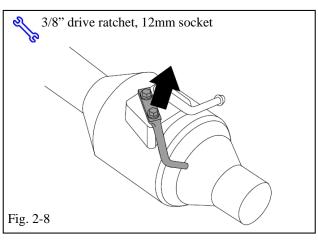
(e) Remove the rear impact beam side brackets (LH & RH) by removing the six bolts (Fig. 2-5). Discard the side brackets and fasteners.



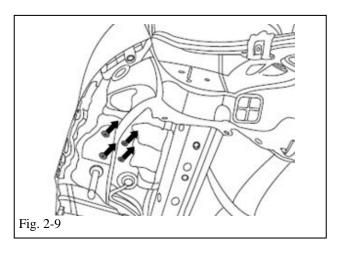
(f) Remove the tow hook from under the LH side chassis by removing the two bolts (Fig. 2-6). Retain the tow hook but discard the fasteners.



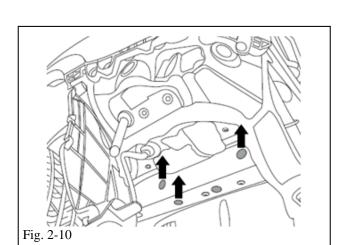
(g) Release the muffler by unhooking the rubber hanger on the muffler and the rubber hanger behind the rear suspension cradle. Allow the muffler to hang loose (Fig. 2-7).



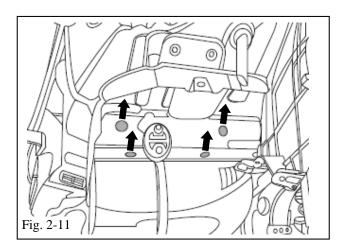
(h) Remove the inner muffler bump stop by removing the two fasteners (Fig. 2-8). Discard the bump stop and fasteners.



(i) Remove the four grommets from the LH rear floor and discard them (Fig. 2-9). Repeat for the RH side.



(j) Remove the three hole plugs from the LH chassis rail and discard them (Fig. 2-10).



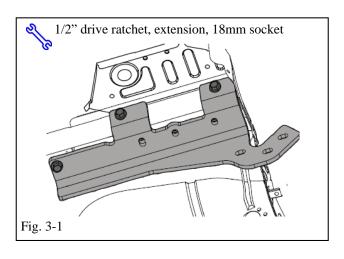
(k) Remove the four hole plugs from the RH chassis rail and discard them (Fig. 2-11).



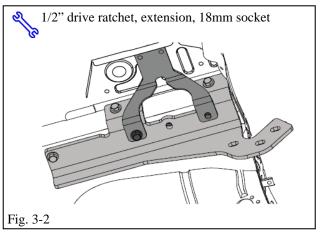
3. Tow hitch installation.



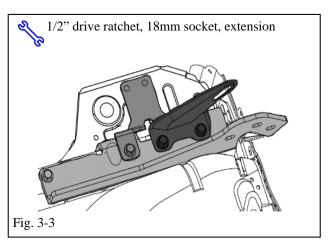
NOTE: REMOVE THE BOLT USED FOR SHPPING AND DISCARD.

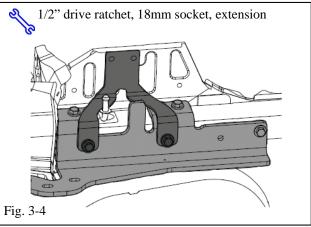


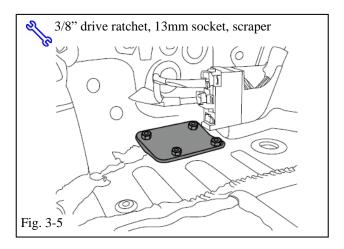
- (a) Loosely secure the LH side arm (Item 3) to the chassis rail using two M12 bolts & positions and one M12 bolt & washer in the forward most vertical position (Fig. 3-1).
- (b) Repeat for the RH side arm (Item 4).



(c) Loosely secure the body brace (Item 5) over the LH sidearm (Item 3) using one M12 bolt & washer (Items 13 & 14) in the forward most vertical position (Fig. 3-2).





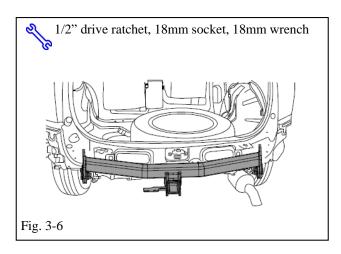


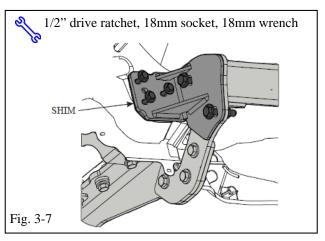
- (d) Reinstall the tow hook on the LH chassis over the body brace (Item 5, Fig. 3-3).
 - (1) Use one M12 thick washer (Item 19) in the forward most mount point (between the tow hook and LH side arm) to accommodate the body brace material thickness
 - (2) Use two M12 bolts & washers (Items 13 & 14).
- (e) Loosely secure the body brace (Item 5) over the RH sidearm (Item 4) using two M12 bolts & washers (Items 13 & 14, Fig. 3-4).

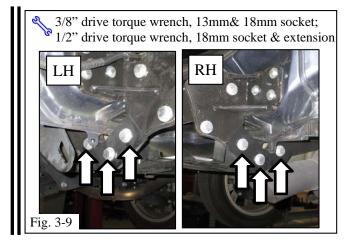
(f) Loosely secure the LH reinforcement plate (Item 6) inside the vehicle cabin using four M8 washers and M8 x 25 bolts (Items 17 & 18, Fig. 3-5). Install the bolts & washers from the underside through the body brace (Item 5).

NOTE: Remove all excess sealant so that the reinforcement plates sit flat. Coat any bare metal with 3M Ultra Underbody Sealant - C0009-08302 (Item 22).

(g) Repeat for the RH reinforcement plate (Item 7).





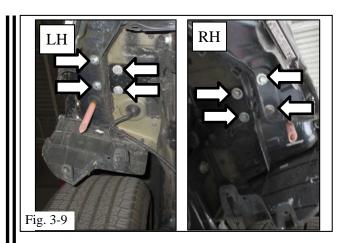


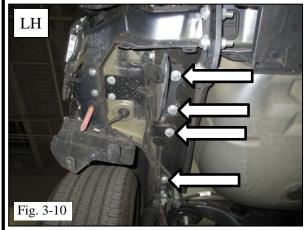
(h) Loosely secure the tow bar center section (Item 1) to the side arms (Items 3 & 4) using six M12 bolts, 12 M12 washers & six M12 nuts (Items 13, 14 & 15; Fig. 3-6).

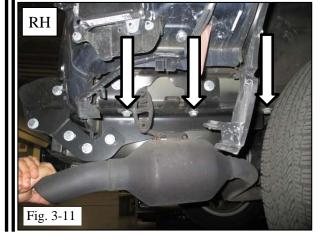
- (i) Loosely secure the LH rear bracket assembly (Item 8) and one shim plate (Item 11) between the tow bar center section (Item 1) and the rear panel (Fig. 3-7).
 - (1) Fasten the LH rear bracket assembly and shim plate to the rear panel with three M8 x 35 bolts & washers (Items 16 & 17).
 - (2) Fasten the LH rear bracket assembly to the tow bar center section (Item 1) with two M12 bolts, four M12 washers & two M12 nuts (Items 13, 14 & 15).
 - (3) Repeat for the RH side.
- (i) Align the tow bar center section to the side arms and the center of the vehicle (Fig. 3-8). Torque the fasteners in the following sequence:
 - (1) M12 center section horizontal to rear corner brackets (Fig. 3-8):



(x6) **Torque: 92 Nm (68 ft-lbf).**







(2) M8 rear vertical corner brackets to the body (Fig. 3-9):



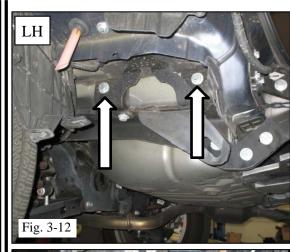
(x8) **Torque: 25 Nm (18 ft-lbf).**

(3) M12 chassis vertical connections (Fig. 3-10 & Fig. 3-11):

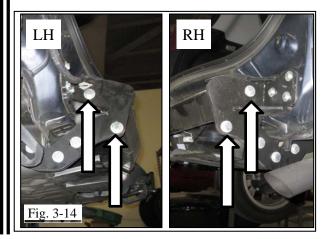


(x7) **Torque: 92 Nm (68 ft-lbf).**

Procedure







(4) M12 chassis horizontal connections (Fig 3-12 & Fig. 3-13):

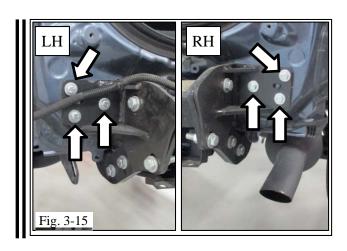


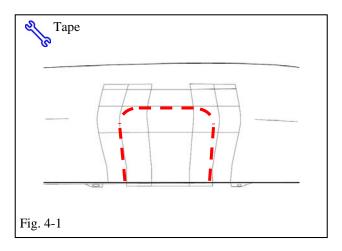
(x4) **Torque: 92 Nm (68 ft-lbf).**

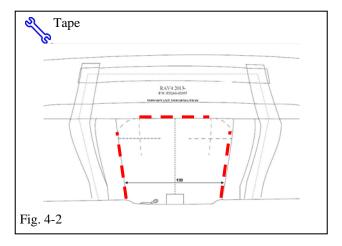
(5) M12 center section to the side arms (Fig. 3-14):



(x4) Torque: 92 Nm (68 ft-lbf).







(6) M8 nut plates (Fig. 3-15):

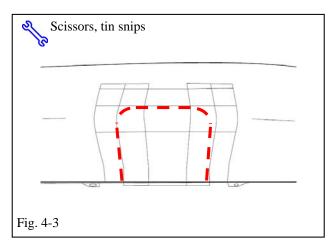


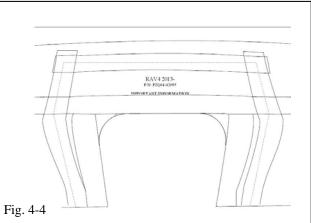
(x6) Torque: 25 Nm (18 ft-lbf).

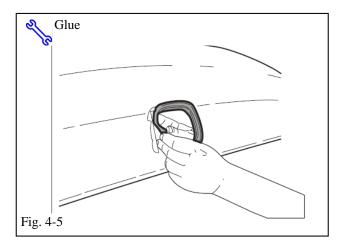
4. Modify the Bumper Cover.

- (a) Use the template provided on Page 19 to cut the center section of the rear bumper cover.
- (b) Ensure that all dimensions of the template are to scale before proceeding.
- (c) Cut the lower edge of the template using scissors.
- (d) Generously apply tape to the anticipated cutting area on the bumper cover to protect it from damage (Fig. 4-1).

- (e) Position the template on the outside of the bumper cover (Fig. 4-2).
 - (1) Align the edge of the template with the lowest edge on the bumper cover and tape the template in place.
 - (2) Apply additional tape to the main cutting edges of the template as a visual aid for cutting the bumper cover.



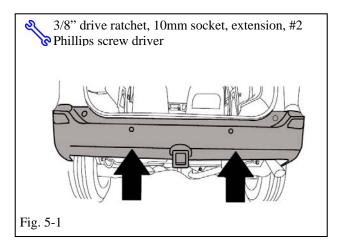




- (f) Use tin snips to carefully cut along the DOTTED LINES marked on the template (Fig. 4-3 and Fig. 4-4).
 - (g) Carefully remove the template and tape from the bumper cover.

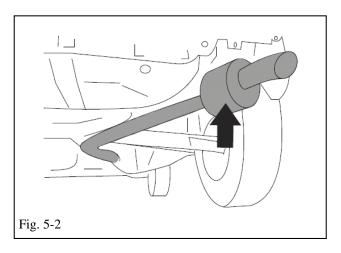
NOTE: Take care to cut safely and neatly along the dotted lines marked on the template.

- (h) Fit the bumper cover trim (Item 10a) to the cut-out and work it into position.
- (i) Lift the inside edge of the bumper cover trim and apply glue (Item 10b) evenly around the length of the bumper cover trim (Fig. 4-5).
- NOTE: Do not use an excessive amount of glue. Prevent glue from running into the visible area of the bumper cover.
- NOTE: Use masking tape to secure the bumper cover trim in place until the glue has set, then remove the masking tape and cut off any excess bumper cover trim material.
- If installing the trailer wire harness, refer to the trailer wire harness instructions for wire routing prior to reinstalling the rear bumper cover.



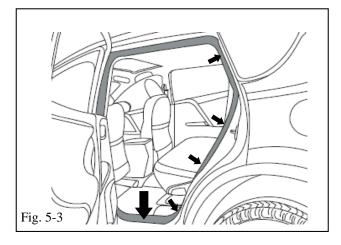
5. Reinstall the Factory Parts.

- (a) Reinstall the bumper cover (Fig. 5-1). See Step 2(c).
- (b) Reinstall the LH and RH rear under tray. See Step 2(b).
- (c) Reinstall the LH and RH mud flaps. See Step 2(a).

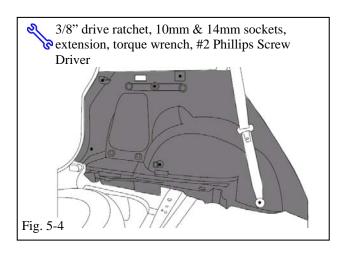


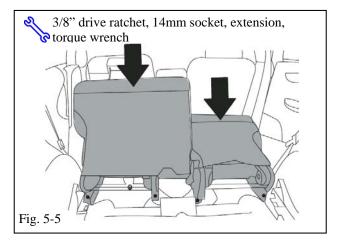
(d) Refit the muffler (Fig. 5-2). See Step 2(g).

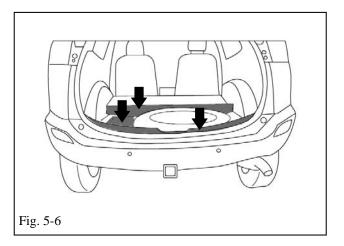
If the trailer wire harness is being installed, refer to the trailer wire harness instructions.



- (e) Reinstall the LH and RH door weather strip (Fig. 5-3). See Step 1(m)(2).
- (f) Reinstall the LH and RH rear door scuff panel (Fig. 5-3). See Step 1(m)(1).







- (g) Refit the LH and RH rear interior trim panels (Fig. 5-4). See Step 1(1).
 - (1) Ensure the rear interior light plug is reconnected.
 - (2) Torque the seat belt and cargo tiedown bolts to 42 Nm (31 ft-lbf).



Torque: 42 Nm (31 ft-lbf)

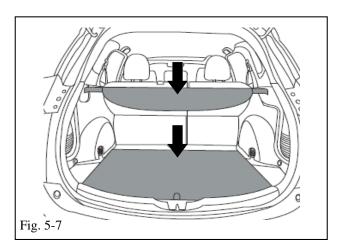
- (h) Reinstall the rear seats (Fig. 5-5). See Steps 1(e) through 1(k).
 - (1) Torque the bolts to 42 Nm (31 lbf).

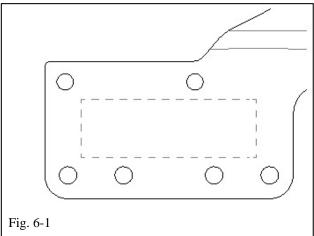


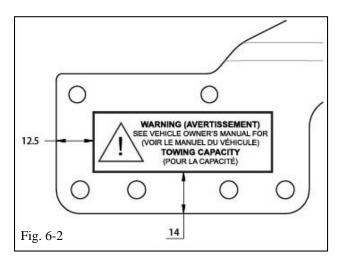
Torque: 42 Nm (31 ft-lbf)

- (2) Replace the rear seat forward mount fastener covers.
- (3) Reconnect the rear seat wiring (if applicable).
- (i) Reinstall the rear intermediate cover, rear scuff panel and LH storage tub (Fig. 5-6). See Steps 1(b) through 1(d).

Procedure







(j) Reinstall the trunk floor panel and the tonneau cover (Fig. 5-7). See Step 1(a).

6. Install the Sticker and Store Parts.

(a) Use the alcohol preparation pads to wipe off any dirt, water or oil from the hitch bracket surface (Fig. 6-1).

- (b) Peel the protective backing from the provided warning label (Item 21) and apply it to the hitch bracket in the location marked in Fig. 6-2.
- (c) Store the hitch plug (Item 20) in the glove box.
- (d) Store the tongue (Item 2) in a secure location within the vehicle.

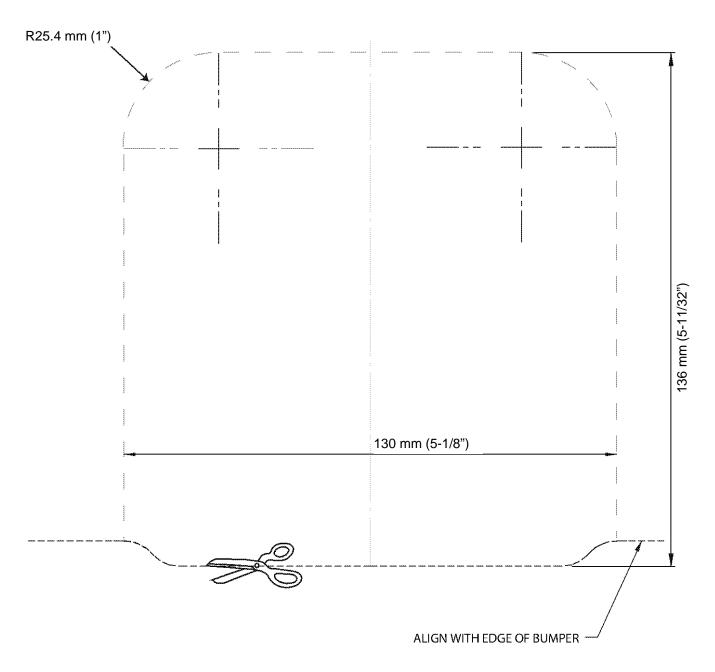
Checklist - these points **MUST** be checked to ensure a quality installation.

Check:		Look For:
Accessory Function Checks Bolt Torques		M12 center section to rear corner brackets – 92 Nm (68 ft-lbf) M8 rear corner brackets to the body – 25 Nm (18 ft-lbf) M12 chassis vertical connections – 92 Nm (68 ft-lbf) M12 chassis horizontal connections – 92 Nm (68 ft-lbf) M12 center section to the side arms – 92 Nm (68 ft-lbf)
		M8 nut plates – 25 Nm (18 ft-lbf) Seat belt anchors and seats – 42 Nm (31 ft-lbf)
		Verify the hitch plug is in the glove box.
	<u>^</u>	The tongue should be removed and stored when not towing
Vehicle Function Checks		
Vehicle Appearance Check After accessory installation and removal of protective cover(s), perform a visual inspection.		Ensure no damage (including scuffs and scratches) was caused during the installation process. (For PPO installations, refer to TMS Accessory Quality Shipping Standard.)

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Issue: C 4/13/15 Page 21 of 22 pages



Ensure that all dimensions of the template are to scale before proceeding.

- 1. Cut the lower edge of the template using scissors.
- 2. Generously apply tape to the anticipated cutting area on the bumper cover to protect it from damage. See Fig. 4-1.
- 3. Position the template on the outside of the bumper cover.
- 4. Align the edge of the template with the lowest edge on the bumper cover and tape the template to the bumper cover. See Fig. 4-2.
- 5. Use tin snips to carefully cut along the **DOTTED LINES** marked on the template. See Fig. 4-3 and Fig. 4-4.
- 6. Carefully remove the template and tape from the bumper cover.

 \bigwedge

NOTE: Take care to cut safely and neatly along the dotted lines marked on the template.

Issue: C 4/13/15 Page 22 of 22 pages