

Part Number: PT228-60100

Kit Contents

Item #	Quantity Req'd.	Description
1	1	Hitch Assembly
2	1	Wiring Harness Bracket
3	1	Hardware Bag
4	1	Hitch Cover
5	2	Center Spacer

Hardware Bag Contents

Item #	Quantity Req'd.	Description
1	4	M12 x 1.25 x 45mm bolt
2	2	M12 x 1.25 x 50mm bolt
3	2	M12 x 1.25 x 55mm bolt
		<i>(see template below for sizes)</i>
4	4	M8 x 1.25 x 25mm bolt
5	2	M8 x 1.25 x 20mm bolt
6	1	Cable Tie w/push mount head
7	1	Corrugated Slit Tubing

Additional Items Required For Installation

Item #	Quantity Req'd.	Description
1		
2		

Conflicts

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Recommended Tools

Personal & Vehicle Protection	Notes
Safety Glasses	
Vehicle Protection	Cloth (shop towel)
Special Tools	Notes
L.E.D. Tester – 4-pin	SST 00002-62195
L.E.D. Tester – 7-pin	IADS# TUN07-024-02 (PPO only)
Installation Tools	Notes
Exhaust Hanger Removal Tool	e.g. Snap-on p/n Ya3202
Socket Wrench	
Socket Extension	6"
Sockets	10mm, 12mm, 17mm 12mm flex-head
Torque Wrench (x2)	0-100 lbf-ft, 0-100 lbf-in
Electrical Tape	
Small Flathead Screwdriver	
Phillips head screwdriver	
Special Chemicals	Notes
None	

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

General Applicability

GX with Tow Package

Recommended Sequence of Application


Item #	Accessory
1	
2	
3	


*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.

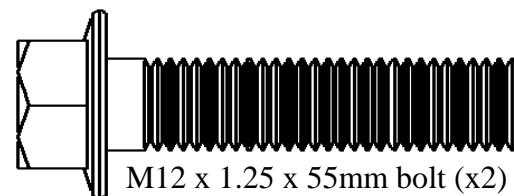
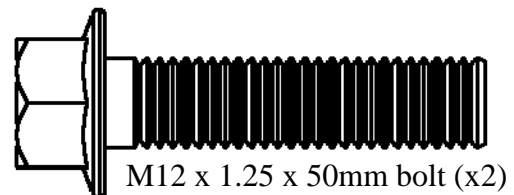
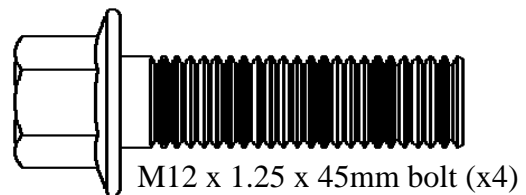
 **OPERATOR SAFETY:** Use caution to avoid risk of injury.

 **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.

 **SAFETY TORQUE:** This mark indicates that torque is related to safety.



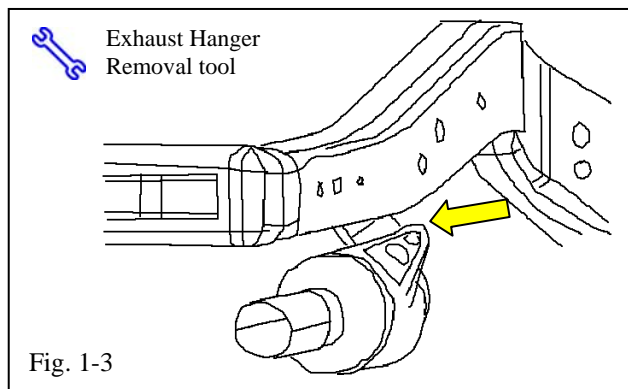
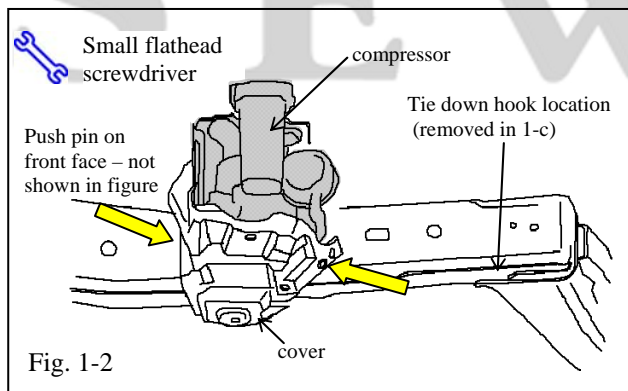
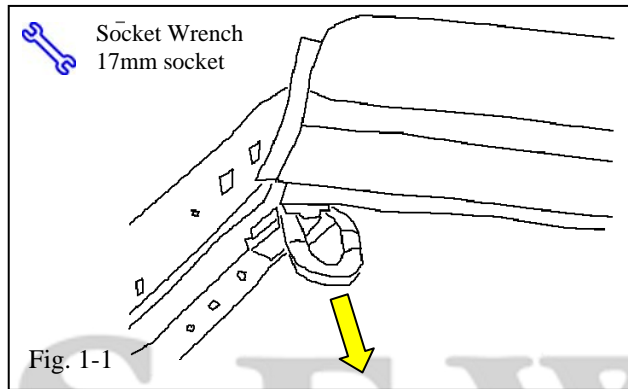
Care must be taken when installing this accessory to ensure damage does not occur to the vehicle. The installation of this accessory should follow approved guidelines to ensure a quality installation.

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



This document covers such items as:-

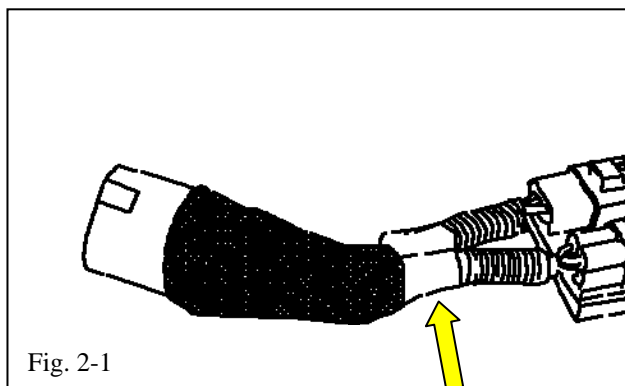
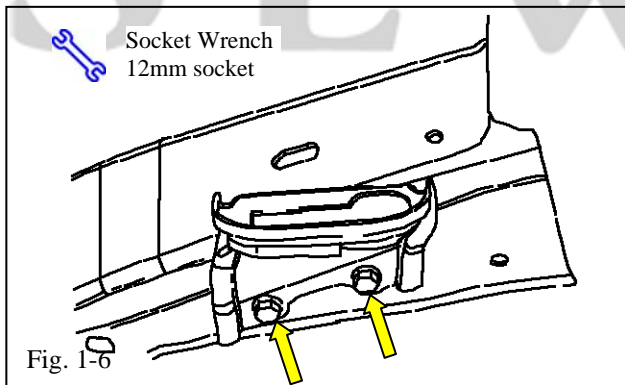
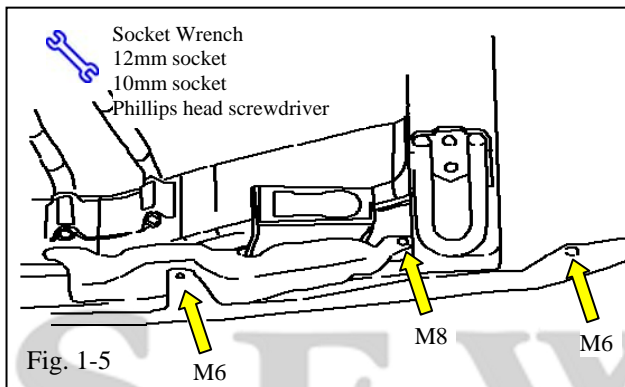
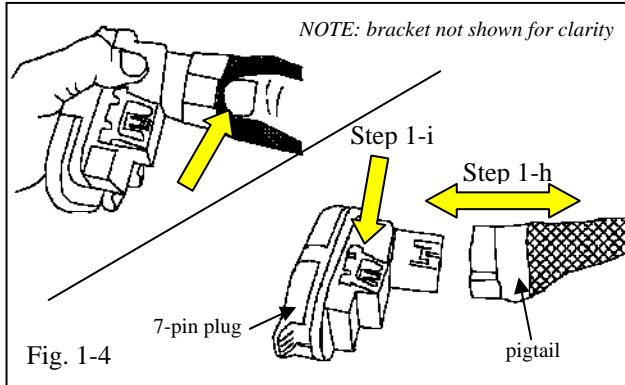
- Vehicle Protection (use of covers and blankets, cleaning chemicals, etc.).
- Safety (eye protection, rechecking torque procedure, etc.).
- Vehicle Disassembly/Reassembly (panel removal, part storage, etc.).
- Electrical Component Disassembly/Reassembly (battery disconnection, connector removal, etc.).

Please see your Toyota dealer for a copy of this document.



1. Prepare Vehicle for Hitch Installation.

- (a) Verify Kit Contents.
- (b) Lower the spare tire, shift the tire forward away from the frame cross member and raise back up to create additional space for hitch installation.
- (c) Cover exhaust pipe with clean shop towel.
- (d)  Caution: muffler may be sharp and/or hot
- (e)  Remove and save vehicle tie down on driver's side frame rail. Discard the (2) bolts removed from the vehicle. (Fig. 1-1)
- (f) Remove the plastic cover from the air suspension compressor unit by removing (2) plastic push pin connectors. Set aside the cover and fasteners for later use. (Fig.1-2)
- (g) Lower exhaust by disconnecting the rubber exhaust hanger from one of the connection points. (Fig. 1-3)



(h) Disconnect the wire harness 7-pin plug from the pigtail. Unlatch the connector plug housing by pressing on the tab as shown in Fig. 1-4.

(i) Push in on the metal spring clips on the top and bottom of the 7-pin wire harness plug to release it from the bracket. Remove the plug from the bracket and set aside for later use. Discard the bracket.

(j) Remove the vertical M8 bolt attaching fascia bracket to frame. Remove M6 bolt that attaches the fascia tab to the bracket. Remove outboard M6 fascia bolt. Set bolts aside for later use. Carefully pull bracket down to gain clearance for removal of wire harness bracket bolts (Fig. 1-5)

(k) Remove the two (2) M8 bolts securing the factory wiring bracket to the frame. Discard the two (2) bolts. (Fig 1-6)

(l) Carefully push fascia bracket back into original position. (Fig. 1-5)

(1) Reinstall the (1) M8 bolts. Tighten to 19 lbf-ft (25 N•m).

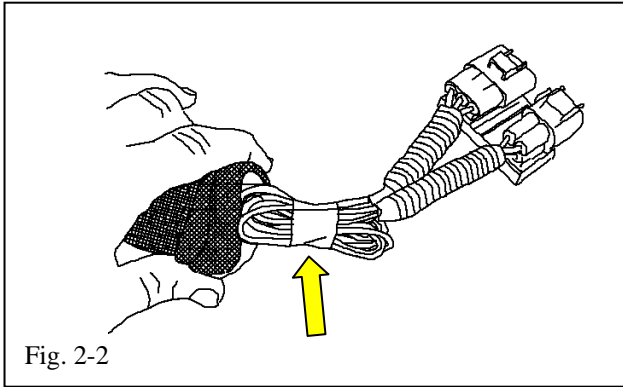
(2) Reinstall the (1) M6 bolt bracket bolt. Tighten to 72 lbf-in (8 N•m).

(3) Reinstall the (1) M6 outboard fascia bolt and tighten.

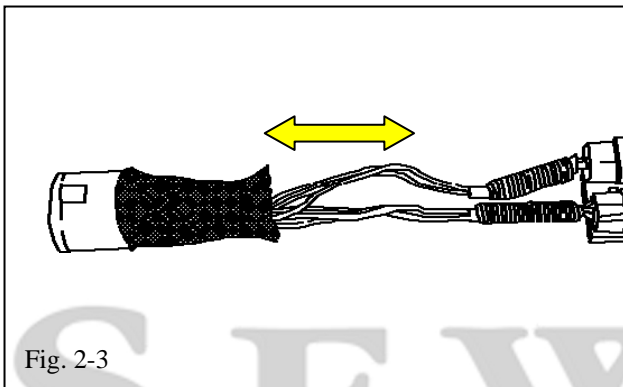
2. Prepare Wire Harness.

⚠ NOTE: All work in the following steps on the wire harness is done in place on the vehicle. The harness remains connected to the frame.

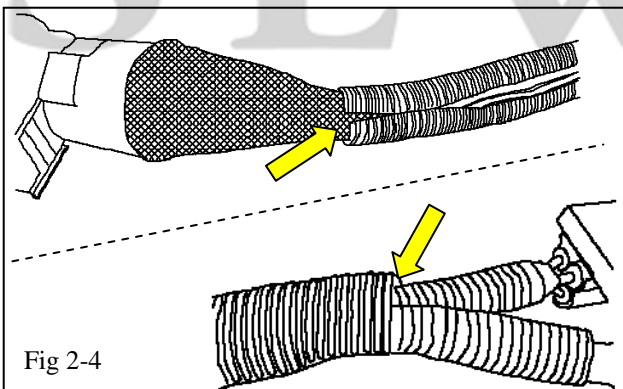
(a) Carefully remove the tape covering the strain relief mesh and the (2) corrugated tubes. (Fig. 2-1)



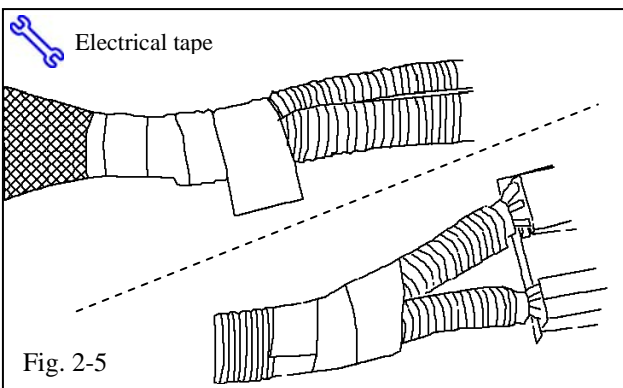
- (b) Pull back the mesh to expose the extra length of wiring wrapped underneath. Remove the tape holding the wiring together. (Fig. 2-2)



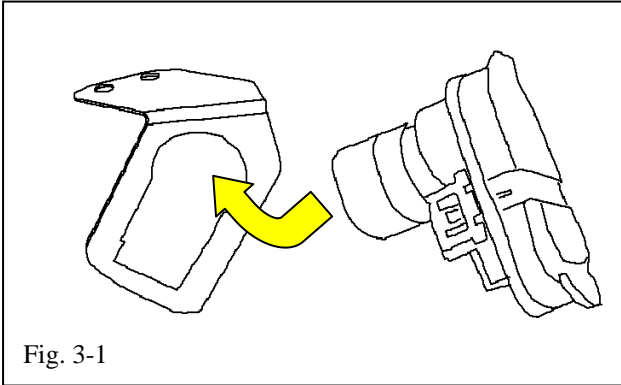
- (c) After removing the tape, unfold and straighten out the extra wiring. (Fig. 2-3)



- (d) Use the corrugated, slit tubing provided in the component kit to cover the exposed length of wiring. Begin at one end and continue along the length to the opposite end. Be sure that the mesh netting and the (2) smaller tubes are captured underneath the slit tubing. (Fig. 2-4)

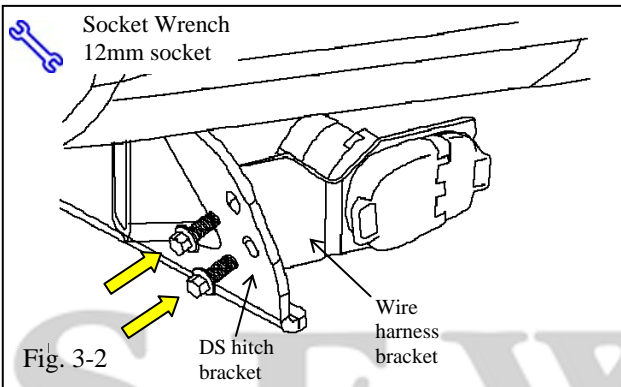


- (e) Use electrical tape to secure each end of the slit corrugated tubing to the wire harness. In addition, add a few loops around the center of the tube. (Fig. 2-5)

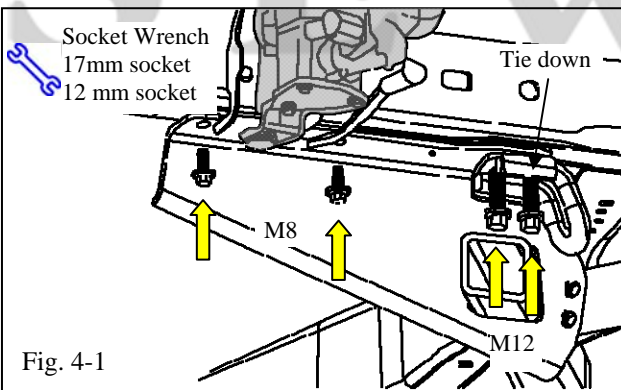


3. Install Wire Harness to Hitch.

- (a) Install wire harness plug removed in Step 1-i into the bracket provided in hitch kit. Snap connector into place as shown (Fig. 3-1)



- (b) Install wire harness bracket to the inside surface of driver side hitch bracket. Secure loosely using (2) M8 x 20 mm bolts. (Fig. 3-2)

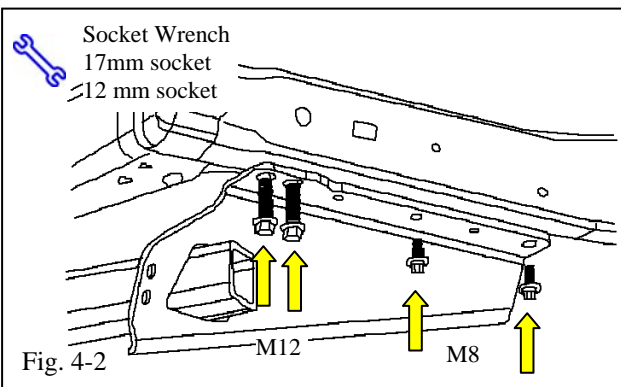


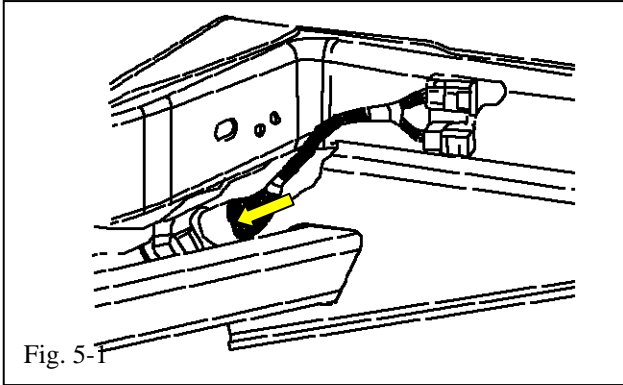
4. Install Hitch to Frame Rail.

- Separate (8) M12 bolts by length prior to hitch installation to ensure bolts are installed in correct locations. There are (4) 45mm bolts, (2) 50mm bolts, and (2) 55mm bolts.

NOTE: this step requires two people

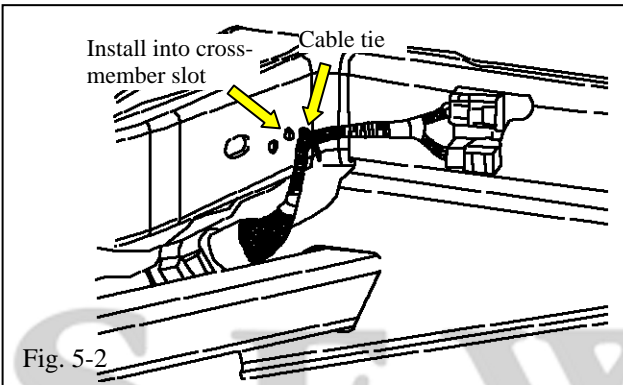
- (a) Reinstall tie-down to driver side hitch bracket and attach the tie down and hitch to the frame using (2) M12 x 45mm bolts in the rearward most frame holes. (Fig. 4-1)
- (b) Attach passenger side hitch bracket to frame using (2) M12 x 45mm bolts. (Fig 4-2)
- (c) Install (2) M8 bolts each on driver and passenger sides. (Figs. 4-1 & 4-2)



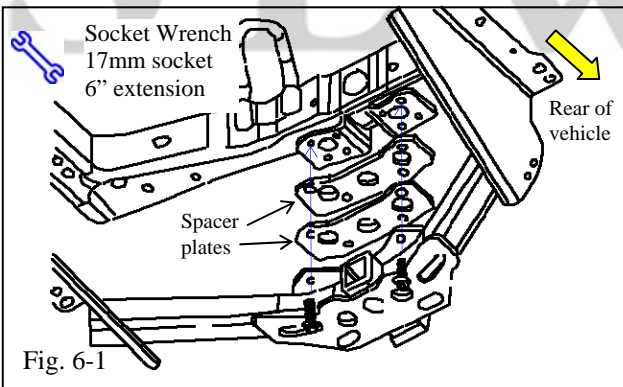


5. Reconnect and secure wire harness.

- (a) Plug wire harness pigtail back into connector plug housing. (Fig. 5-1)

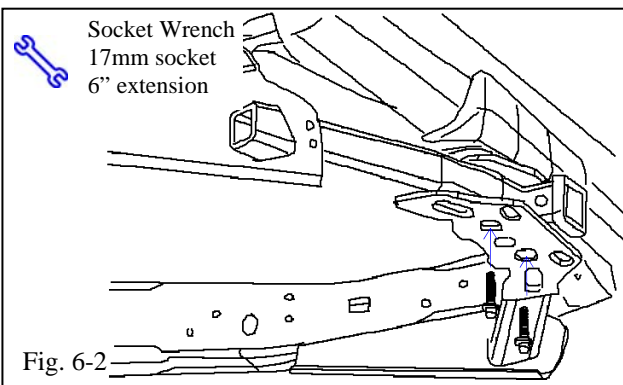


- (b) Wrap a cable tie around the wire harness tubing and secure it to the frame cross member by installing the push mount into the slot in the cross member. (Fig. 5-2)

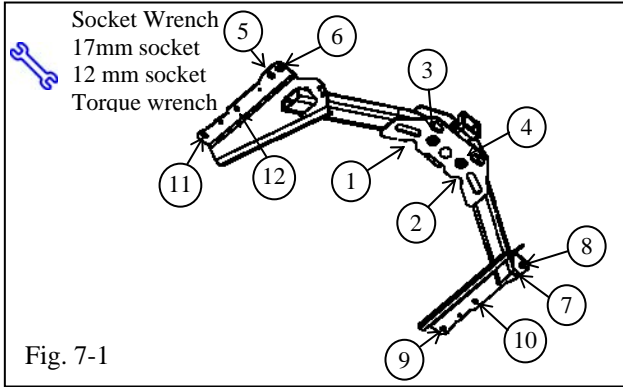


6. Attach Hitch Center to Vehicle.

- (a) Align hitch with (2) spacer plates and the center frame bracket assembly and lift into position. Install (2) M12 x 50mm bolts from underneath the hitch top plate, through the spacer plates, and into the frame bracket weld nuts. (Fig. 6-1)



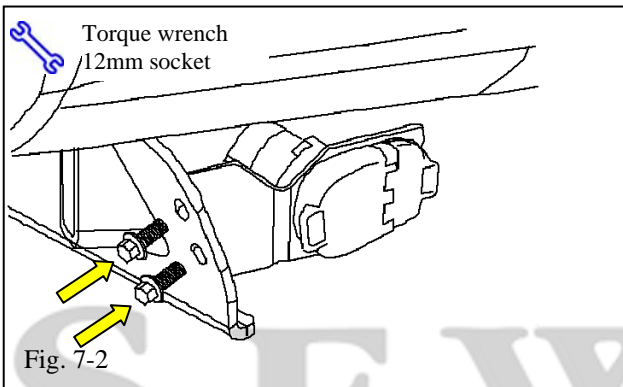
- (b) Install (2) M12 x 55mm bolts by feeding bolts through the holes in the bottom of the hitch cross tubes, through the (2) spacer plates, and into the rearmost weld nuts on the frame bracket. (Fig. 6-2)



7. Tighten Hitch Hardware.

NOTE: Tighten bolts in the order specified in Fig. 7-1

- (a) Tighten (4) M12 bolts in the center (labeled 1-4) to 60 lbf-ft (80 N-m). (Fig. 7-1)
- (b) Tighten (4) M12 bolts on the frame rail (labeled 5-8) to 60 lbf-ft (80 N-m). (Fig. 7-1)
- (c) Tighten (4) M8 bolts on the frame rail (labeled 9-12) to 19 lbf-ft (25 N-m). (Fig. 7-1)
- (d) Tighten (2) M8 wire harness bracket bolts to 19 lbf-ft. (25 N-m) (Fig. 7-2)

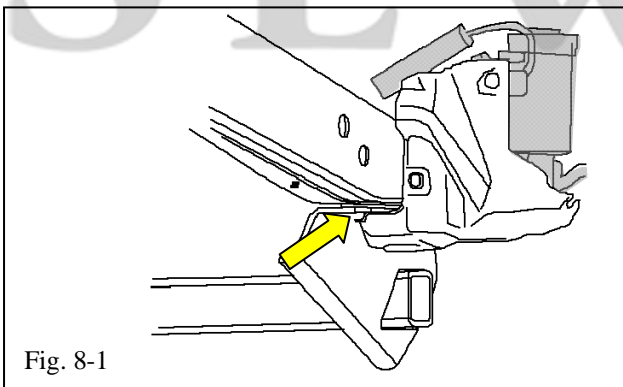


8. Completing the installation.

- (a) Reconnect exhaust to exhaust hanger. Ensure that hanger is fully engaged.
- (b) Reinstall air suspension compressor cover using the (2) plastic push-pins removed in step 1-d. (Fig. 8-1).

NOTE: cover will fit tightly against hitch bracket

- (c) Place the hitch plug in the glove compartment.
- (d) Perform a function check on the 4-pin trailer harness connector.
- (e) Perform a function check on the 7-pin trailer harness connector.





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


Check:

Look For:


Accessory Function Checks


 Inspection Torque (M12 bolts)

 Inspection Torque (M8 bolts)

 Inspection Torque (M6 bolts)

Center Spacers

 4-pin connector


 7-pin connector


Wiring Bracket

Hitch Plug

Vehicle Function Checks

N/A

 60±12 lbf-ft (80±16 N-m)

 19±4 lbf-ft (25±5 N-m)

72±2 lbf-in (8±2 N-m)

Installed between hitch and center frame bracket assembly

4-pin connector should function properly

7-pin connector should function properly

Installed with wiring fed between hitch and vehicle cross member.

Placed in glove compartment