

**Part Numbers: PT228-48180 (Tow Hitch), PT228-48181 (Bumper Cover),
PT219-48180 (Tow Wire Harness)**

PT228-48180 (Hitch) Kit Contents

Item #	Quantity Req'd.	Description
1	1	Trailer hitch
2	1	LH mounting bracket
3	1	RH mounting bracket
4	1	Trailer hitch plug

PT228-48180 (Hitch) Hardware Bag Contents

Item #	Quantity Req'd.	Description
1	14	M17 x 1.25 x 45mm bolt
2	2	Plastic push pin
3		

Additional Items Required For Installation

Item #	Quantity Req'd.	Description
1		
2		

Conflicts

Vehicles without Tow Prep

Recommended Tools

Personal & Vehicle Protection	Notes
Safety glasses	
Cloth / shop towel	
Special Tools	Notes
17MM Box End Head (e.g. Snap-on QYXM17A)	See steps
Installation Tools	Notes
Torque wrench	0-100 lbf-ft
½" socket	
½" x 6" socket extension	
½" socket	17mm
3/8" socket	
3/8" x 6" socket extension	
3/8" sockets	10mm, 12mm
Small flat head driver	
Phillips head driver	
Hex bit socket	4mm
Cutting tool (Tin Snips or rotary cutting tool)	
Special Chemicals	Notes

General Applicability

MY19 and newer RXL vehicles with Tow Prep Package

Recommended Sequence of Application

Item #	Accessory
1	Tow Converter
2	Follow sequence in these instructions for Tow Hitch, Tow Wire Harness, and Bumper Cover

*Mandatory

Vehicle Service Parts (may be required for reassembly)

Item #	Quantity Req'd.	Description
1		
2		
3		

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) Cover exhaust pipe with clean shop towel.



CAUTION: Muffler may be hot and/or sharp. Wear safety glasses.

- (c) Cover vehicle on both sides with protective tape as shown (Fig. 1-1).
- (d) Remove the lower left hand side undercover.
 - (1) Remove 3 push-pins and 2 screws (Fig. 1-2).



Fig. 1-1

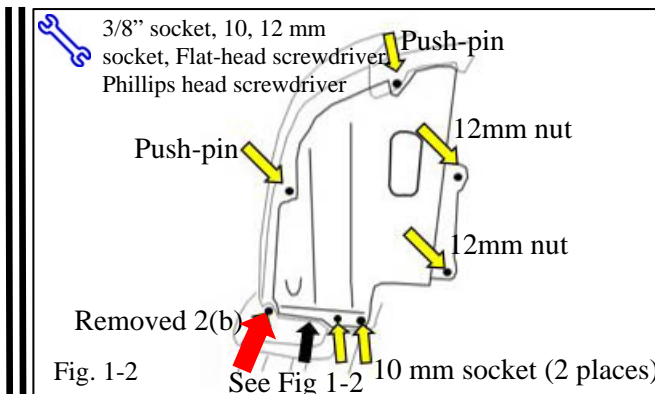


Fig. 1-2

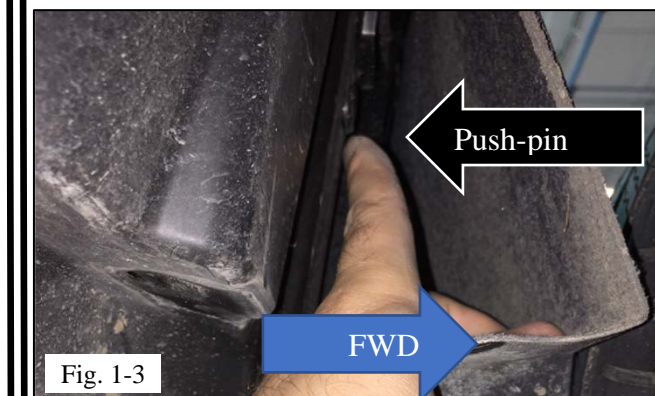
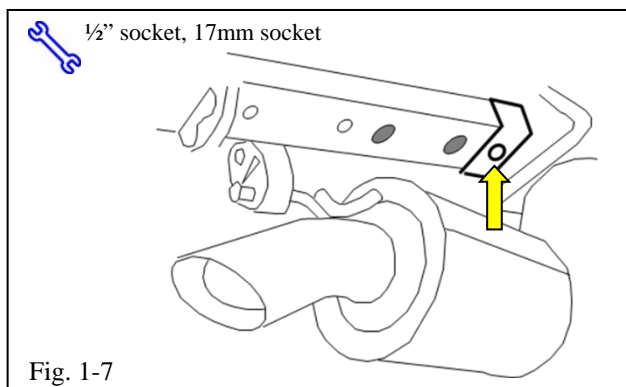
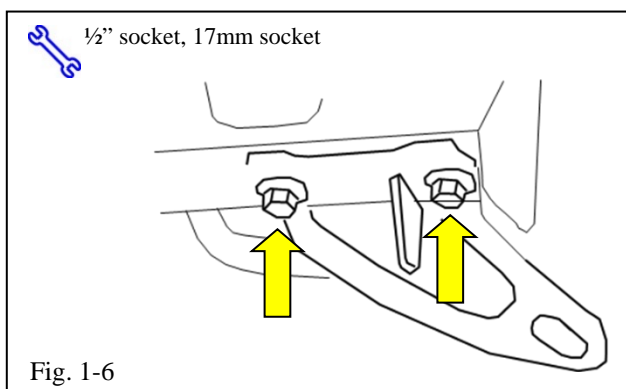
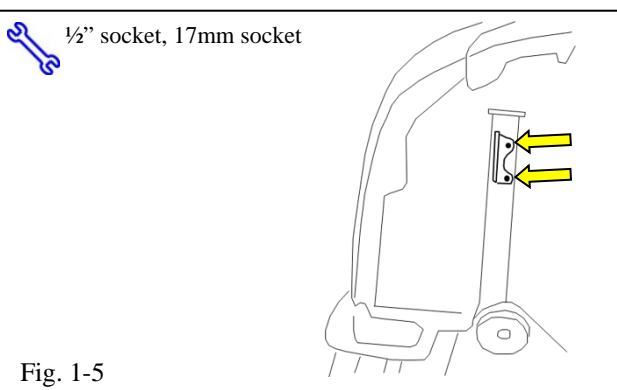
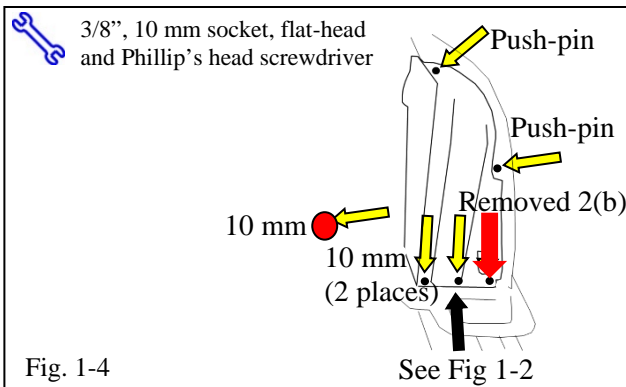


Fig. 1-3



NOTE: One of the push-pins is behind the fender liner in the FWD/AFT orientation and will need to be accessed from the wheel well (Fig. 1-3).

- (2) Rotate the two (2) 12mm nuts (nuts will remain attached to LH side undercover).
- (3) Set aside the cover and fastening hardware for later use.



- (e) Remove the lower RH side undercover by removing 7 fasteners (3 push-pins and 4 screws). One of the push-pins is behind the fender liner and will need to be accessed from the wheel well (Fig 1-3). Set aside the cover and fastening hardware for later use (Fig. 1-4).
- (f) Remove the LH side tie down hook by removing 2 bolts (Fig. 1-5).
- (g) If present, remove the RH side tie down hook and 2 bolts (Fig. 1-6).
- (h) Remove the strap bracket attached to the frame located above the front of the muffler by removing one bolt. Discard the bolt and bracket (Fig. 1-7).



Fig. 1-8

- (i) Remove two clips from the bumper fascia (Fig. 1-8).



Fig. 1-9

- (j) Disconnect the rear sonar harness (Fig. 1-9).

2. Remove the Body Panels and Hardware

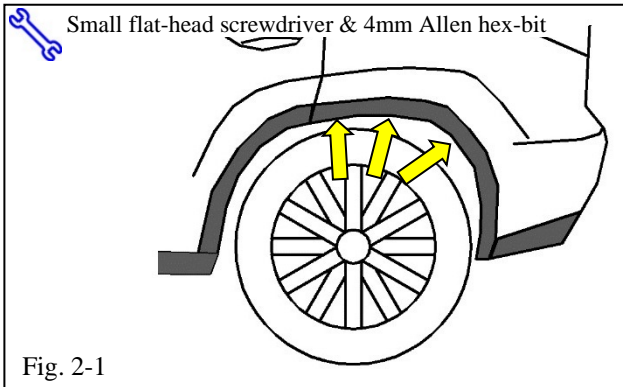
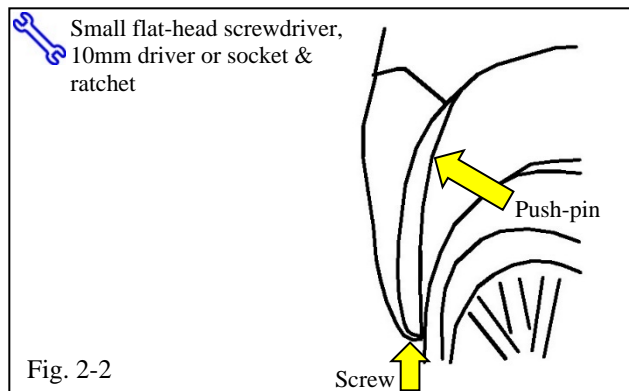


Fig. 2-1

- (a) Remove the fender trim piece around the wheel well (LH/RH) by removing 2 push-pins and 1 screw on the underside of the trim (Fig. 2-1). Remove fender trim piece starting with the rear and working forward.



- (b) Remove the fascia attachment hardware (1 screw & 1 push pin) in the wheel well area behind the fender liner (LH/RH) (Fig. 2-2).

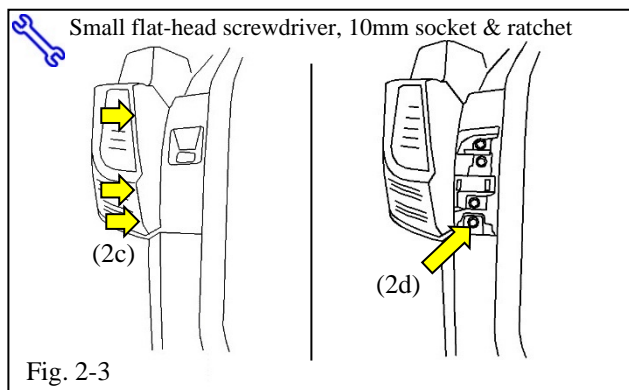
NOTE: The push-pin removed here is different in size than all other push-pins removed in later steps. Take care to keep these 2 (1 LH/1 RH) push-pins separate so they can be reinstalled in the correct location.

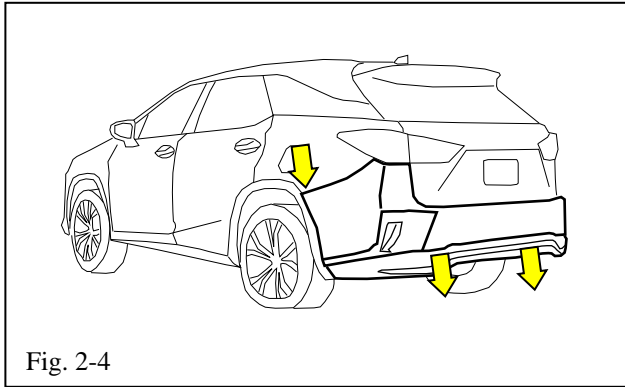
NOTE: There is a square pin in the lower fender trim piece that may come loose during removal. If pin becomes loose, reinstall.

- (c) Remove the rear tail light trim piece from each side (Fig. 2-3).

NOTE: To prevent damage, remove this piece from the outside edge-in; start by removing the flat portion against the tail light first (arrows).

- (d) Remove the bottom screw behind tail light trim piece. (Fig. 2-3)



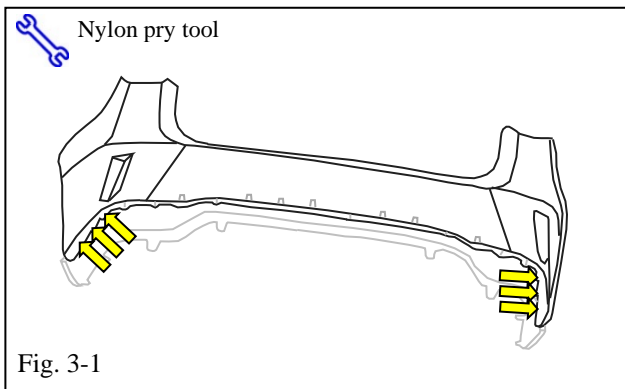


- (e) Starting at the wheel wells, disengage the fascia snaps and carefully start to remove the entire bumper and lower cover assembly. (Fig. 2-4).

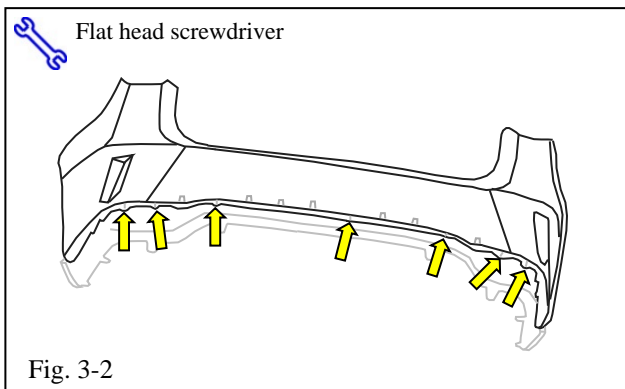
NOTE: Set the bumper down carefully and in a location where it will not get damaged.

3. Remove the Factory Lower Fascia Cover From the Lower Bumper

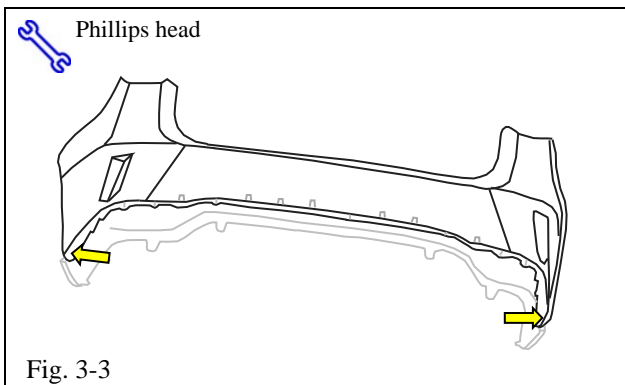
- (a) Remove 6 plastic push pins and save them for later use (Fig. 3-1).

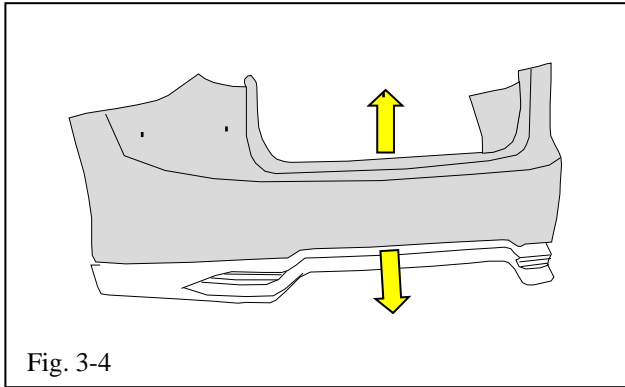


- (b) Remove the 7 white clips and save for later use (Fig. 3-2).



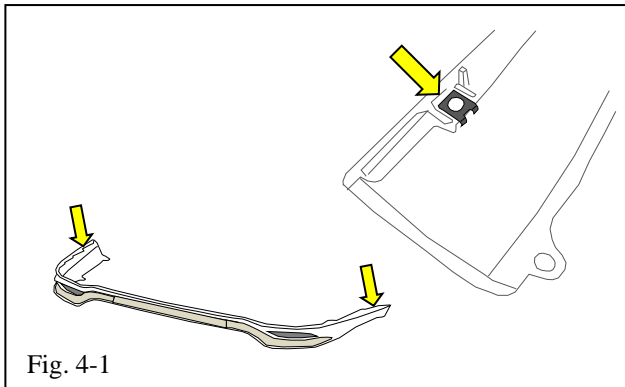
- (c) Remove 2 screws in the locations shown (Fig. 3-3) and save for later use.



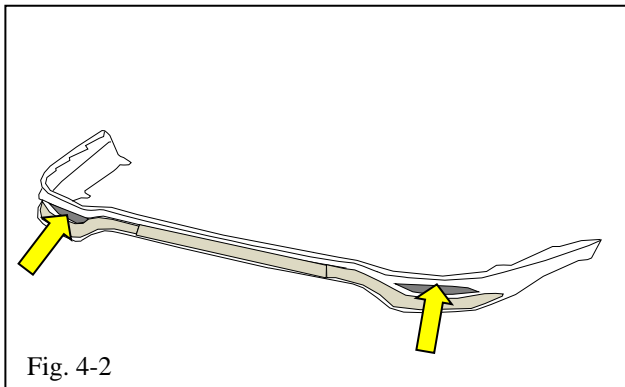


- (d) Unsnap the clips to separate the bumper from the lower bumper cover (Fig 3-4).

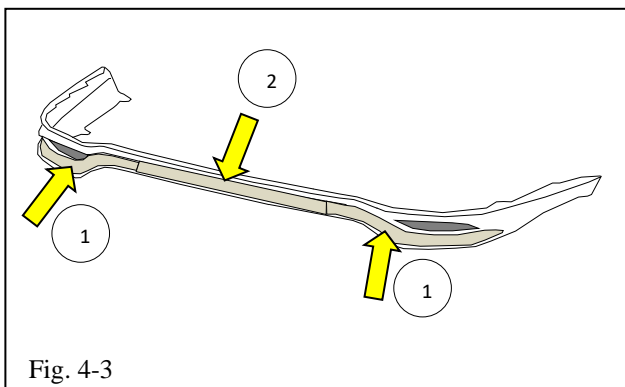
4. Remove the Pieces from the Lower Bumper



- (a) Remove 1 u-nut from each wing (Fig. 4-1).
(b) Reinstall onto hitch lower bumper cover.



- (c) Remove 1 close-out vent from each side by releasing 3 snap-fit tabs from the inside of the cover (Fig. 4-2).
(d) Reinstall these pieces onto hitch lower bumper cover.

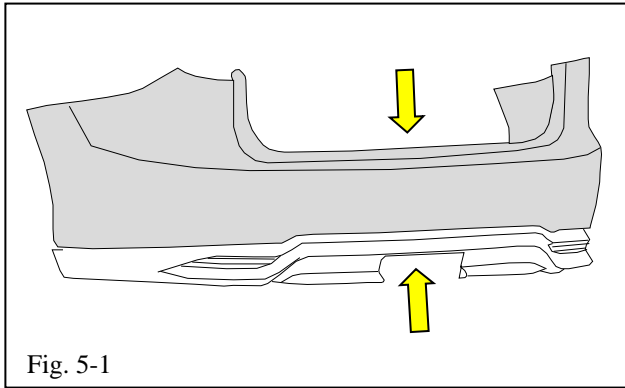


- (e) Remove the 2 outside chrome strips by releasing the snap tabs and unscrewing 2 screws per outside piece (Fig. 4-3).
(f) Remove the center piece in the same manner by removing 1 screw.
(g) Reinstall the 3 pieces onto the hitch lower bumper cover; install the center piece first, followed by the 2 outside pieces.

(h) Discard the lower bumper cover.

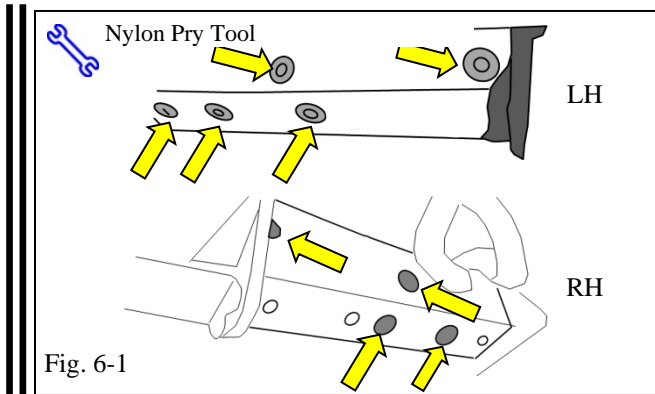
5. Reinstall Hitch Lower Bumper Cover Into Main Bumper.

(a) Install the hitch lower bumper cover into the main bumper by engaging all the snap tabs and using the fasteners removed in Steps 3(a), 3(b), and 3(c) (Fig. 5-1).



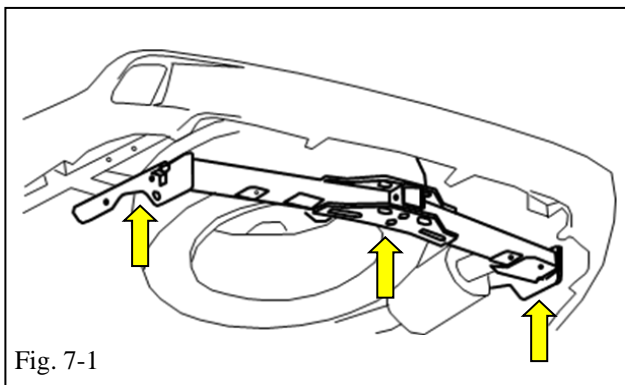
6. Prepare the Frame Rails.

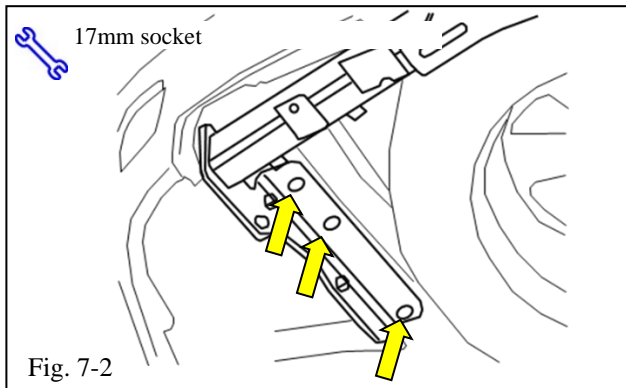
(a) Remove the rubber drain plugs from the bottom and outside of both the LH (5) and RH (4) frame rails (Fig. 6-1).



7. Install the Hitch.

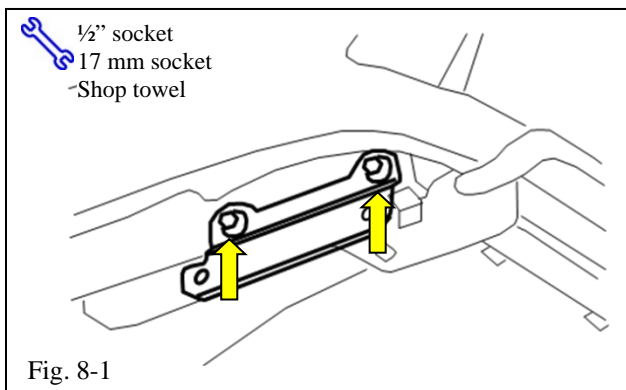
(a) Lift the towing hitch into position under the vehicle frame. Line the slots in the brackets up with the holes in the frame (Fig. 7-1).



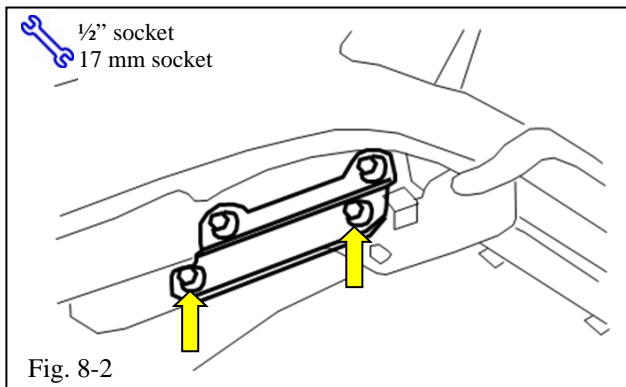


- (b) Install (3) M17 bolts into the bottom of the frame on both the LH and RH sides (Fig. 7-2). Loosely tighten the bolts but allow for cross-car adjustments in later steps.

8. Install LH Mounting Bracket.



- (a) If needed, remove excess sealant on frame at bracket location (Fig. 8-1).
- (b) Align the top two bracket holes with the holes in the frame rail.
- (c) Install (2) M17 bolts into the holes (Fig. 8-1).



- (d) Push the hitch up so it is flush to the frame rail and align the bottom two mounting bracket holes with the hitch bracket holes (Fig. 8-2).
- (e) Install (2) M17 bolts into the holes (Fig. 8-2).

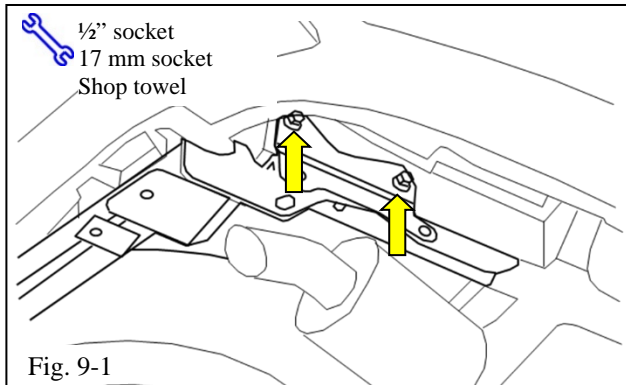


Fig. 9-1

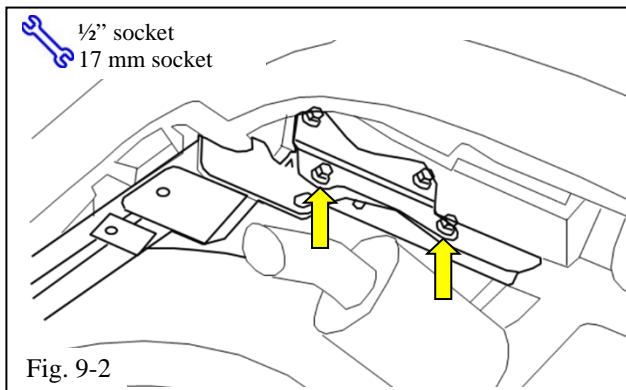


Fig. 9-2

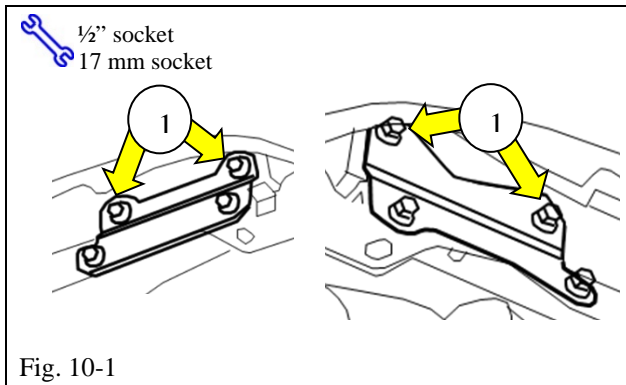


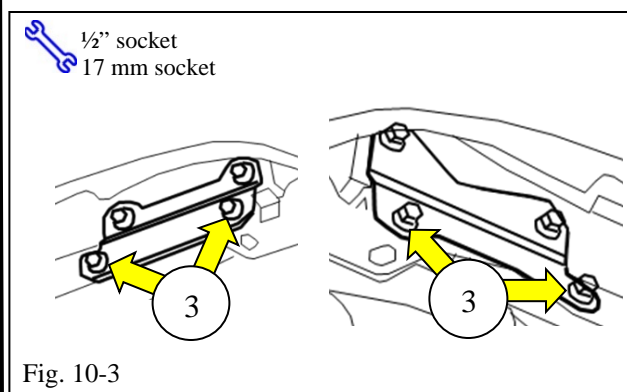
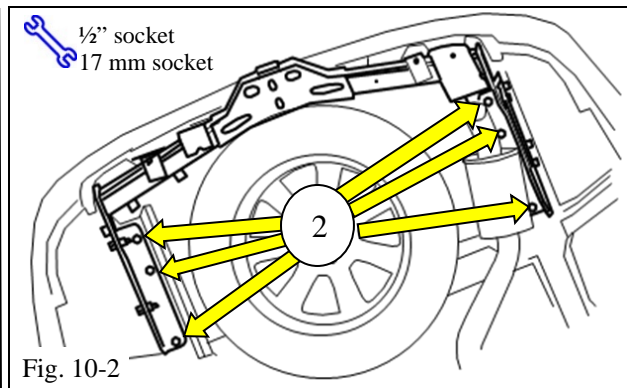
Fig. 10-1

9. Install RH Mounting Bracket.

- (a) If needed, remove excess sealant on frame at bracket location (Fig. 9-1).
- (b) Align the top two bracket holes with the holes in the frame rail.
- (c) Install (2) M12 bolts into the holes (Fig. 9-1).
- (d) Push the hitch up so it is flush to the frame rail and align the bottom two mounting bracket holes with the hitch bracket holes (Fig. 9-2).
- (e) Install (2) M12 bolts into the holes (Fig. 9-2).

10. Tighten the Bolts.

- (a) Tighten (4) M12 bolts (2 per side) labeled "1" (Fig. 10-1). Sequence of "1" bolts optional.



- (b) Tighten (6) M12 bolts (3 per side) labeled “2” to pull the hitch up flush to the frame (Fig. 10-2). Sequence of “2” bolts optional. Note a box end wrench may be required to access the “3” bolt on the rear passenger side (see Special Tools).
- (c) Tighten (4) M12 bolts (2 per side) labeled “3” to pull the mounting brackets flush to the hitch bracket (Fig. 10-3). Sequence of “3” bolts optional.

11. Torque the Bolts.

- (a) Tighten (4) M12 bolts (2 per side) labeled “1” to 80 Nm (60 ft-lbf) (Fig. 10-1). Sequence of “1” bolts optional.

⚠ Torque: 80 Nm (60 ft-lbf)

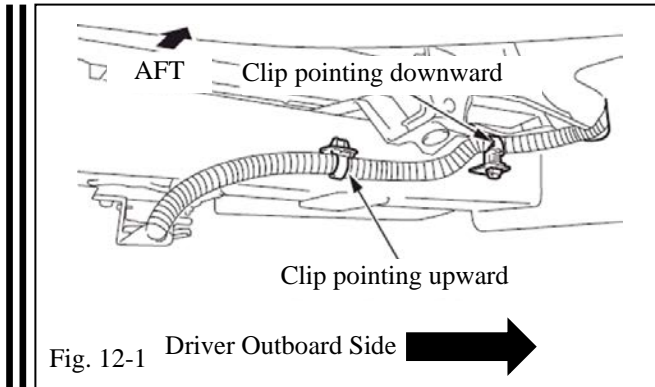
- (b) Tighten (6) M12 bolts (3 per side) labeled “2” to 80 Nm (60 ft-lbf) (Fig. 10-2). Sequence of “2” bolts optional. Note a box end wrench may be required to access the rear bolt on the passenger side (see Special Tools).

⚠ Torque: 80 Nm (60 ft-lbf)

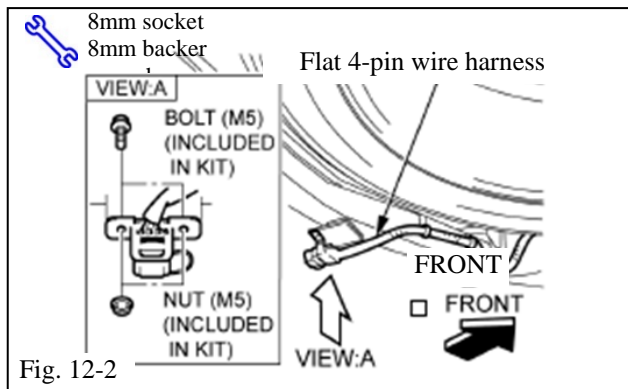
- (c) Tighten (4) M12 bolts (2 per side) labeled “3” to 80 Nm (60 ft-lbf) (Fig. 10-3). Sequence of “3” bolts optional.

⚠ Torque: 80 Nm (60 ft-lbf)

12. Install the Wiring Harness.

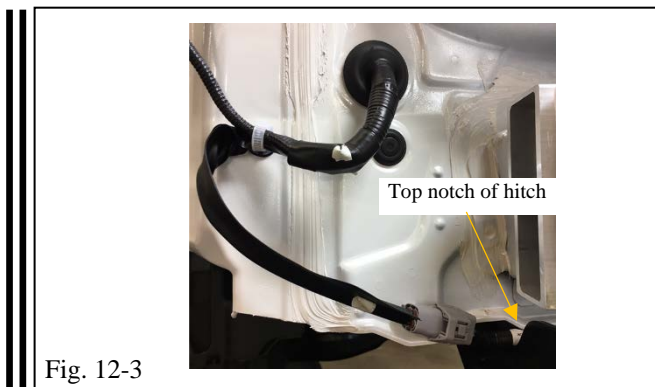


- (a) Route the flat 4-pin wire harness along the trailer hitch and secure with two (2) clips to the trailer hitch (Fig. 12-1).



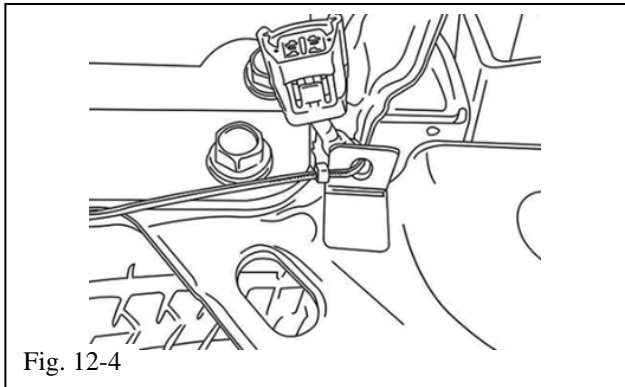
- (b) Secure the flat 4-pin with bolts and nuts. (Fig. 12-2)

Torque: 3.9 Nm (35 lbf-in)




- (c) Connect external wire harness to vehicle wire harness connector (Fig. 12-3).

- (1) Remove plastic protector cap
(2) Route above top notch of hitch



- (d) Secure exterior wire harness to tow hitch member with cable tie (Fig. 12-4).

13. Retorque All Fasteners

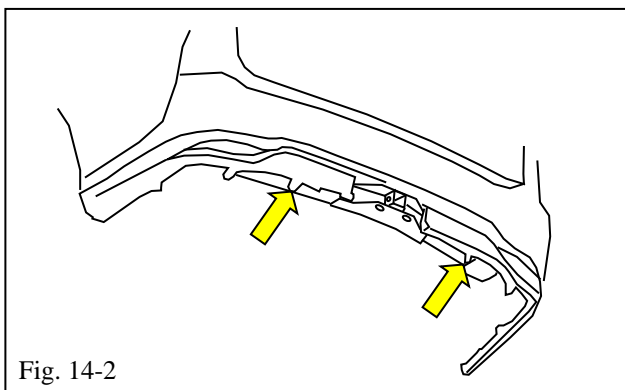
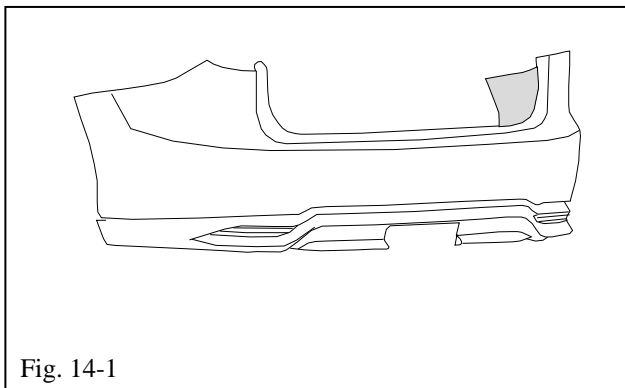
-  (a) Retighten all (14) M17 bolts (7 per side) to 80 Nm (60 ft-lbf) (Fig. 7-1 & Fig. 7-2). Sequence optional. Note a box end wrench may be required to access the “3” bolt on the rear passenger side (see Special Tools).



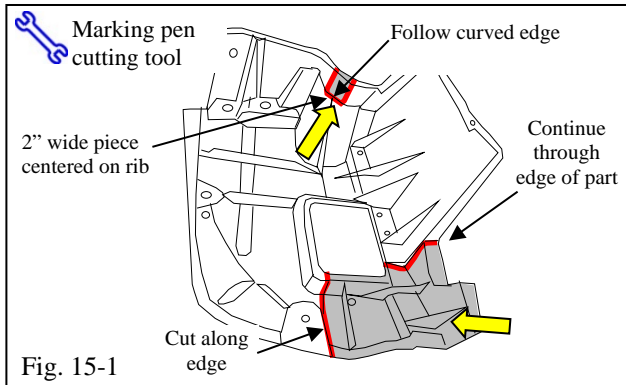
Torque: 80 Nm (60 ft-lbf)

14. Reinstall the Rear Bumper Fascia

- (a) Carefully move the rear bumper assembly from Step 5(a) into position. Snap along top edge and reattach all hardware removed in the previous steps (Fig. 14-1).

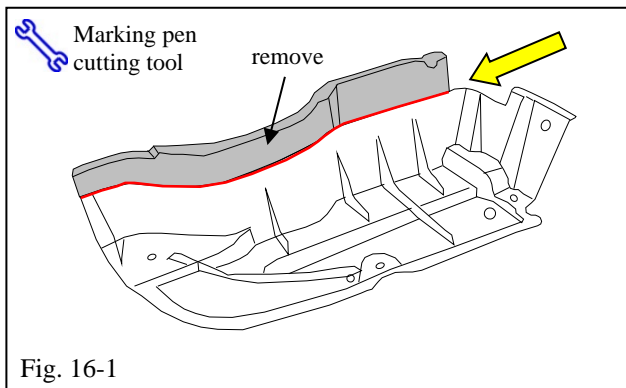


- (b) Bend the lower cover tabs at the hinged portion and attach to the hitch mounting plates using the 2 push pins provided in the kit (Fig. 14-2).
- (c) Reinstall the rear tail light cover removed in Steps 2(c) and 2(d).
- (d) Reinstall the fender trim removed in Steps 2(a) and 2(b).



15. Modify and Reinstall LH Undercover.

- Take the LH undercover removed in Step 1(e) and mark accordingly (Fig. 15-1).
- Cut along the marked lines and remove the cut-out sections.
- Reinstall the modified cover onto the vehicle and secure using the fasteners removed in Step 1(e).





16. Modify and Reinstall RH Undercover.

- Take the RH undercover removed in Step 1(g) and mark as shown (Fig. 16-1).
- Cut along the marked lines and remove the cut-out sections.
- Reinstall the modified cover onto the vehicle and secure using the fasteners removed in Step 1(g).


LEXUS RXL 2018 - TOW HITCH AND WIRING HARNESS

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

Check:	Look For:
<u>Accessory Function Checks</u>	<u>Look For:</u>
<input type="checkbox"/> Perform visual check of trailer hitch	No visible gaps between mating parts of loose bolts.
<input type="checkbox"/> Installation Torque (M12 bolts)	80 Nm (60 lbf-ft)
<input type="checkbox"/> Receiver neck clearance.	Must not be touching lower bumper cover opening.
<input type="checkbox"/> Hitch plug.	Placed in glove box.
<input type="checkbox"/> Removed parts.	Scratches or other damage
<u>Vehicle Function Checks</u>	<u>Look For:</u>
With the Special Service Tool (SST) (Part Number 00002-62195) attached to the trailer sub wire harness plug and with the engine running, perform the following steps:	
 CAUTION: Be sure the exhaust gas is completely ventilated.	
 CAUTION: Be sure the vehicle is in "Park" and that the parking brake is applied.	
<input type="checkbox"/> Turn on headlamps.	Marker and tail lights on both SST and vehicle are lit.
<input type="checkbox"/> Turn on left turn signal	Left turn lights on both SST and vehicle are flashing.
<input type="checkbox"/> Turn on right turn signal	Right turn lights on both SST and vehicle are flashing.
<input type="checkbox"/> Apply foot brake	Stop lights on both SST and vehicle are lit.
<input type="checkbox"/> Turn on left turn signal and apply foot brake.	Left turn lights are flashing and right stop lights are lit on both SST and vehicle.

LEXUS RXL 2018 - TOW HITCH AND WIRING HARNESS

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

Check:	Look For:
<input type="checkbox"/> Turn on right turn signal and apply foot brake	Right turn lights are flashing and left stop lights are lit on both SST and vehicle.
<input type="checkbox"/> Turn on hazard lights switch	All turn signal lights are flashing on both SST and vehicle.
<input type="checkbox"/> With hazard lights switch on, apply the foot brake	Both stop lights on the vehicle are lit, both turn/stop lights on the SST and the turn lights on the vehicle are flashing.
<input type="checkbox"/> Turn off the hazard lights switch, apply the foot brake.	Both turn/stop lights on the SST and the stop lights on the vehicle are lit.
<u>The following checks are to be performed with the ignition switch off and the engine stopped.</u>	
<input type="checkbox"/> Turn on headlamps	Marker and tail lights on both SST and vehicle are lit
<input type="checkbox"/> Apply foot brake	Stop lights on both SST and vehicle are lit
<input type="checkbox"/> Turn on left turn signal	Left turn lights are not lit on both SST and vehicle.
<input type="checkbox"/> Turn on right turn signal	Right turn lights are not lit on both SST and vehicle.
<input type="checkbox"/> Turn on left turn signal and apply foot brake	Both stop lights are lit and not flashing on both SST and vehicle.
<input type="checkbox"/> Turn on right turn signal and apply foot brake	Both stop lights are lit and not flashing on both SST and vehicle.
<input type="checkbox"/> With hazard lights switch on, apply foot brake	All turn signal lights are flashing on both SST and vehicle.
<input type="checkbox"/> Turn off the hazard light switch, apply foot brake	Both stop lights on the vehicle and the turn/stop lights on the SST are lit, but not flashing
<u>The following check is to be performed with the engine running, the car in "Reverse" and the foot brake applied.</u>	
 CAUTION: Be sure the foot brake is applied.	

LEXUS RXL 2018 - TOW HITCH AND WIRING HARNESS

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

<u>Check:</u>	<u>Look For:</u>
<input type="checkbox"/> Rear Back-up sensor connection.	Listen for sound when object is placed near sensor.
<u>Vehicle Appearance Check</u>	<u>Look For:</u>
<input type="checkbox"/> 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.)