

Part Number: PT228-48160

Kit Contents

Item #	Quantity Req.	Description
1	1	Trailer Hitch
2	1	Trailer Hitch Plug
3	1	LH Mounting Bracket
4	1	RH Mounting Bracket

Hardware Bag Contents

Item #	Quantity Req.	Description
1	13	M12 x 1.25 x 38mm bolt
2	1	M12 x 1.25 Flange nut

Additional Items Required For Installation

Item #	Quantity Req.	Description
1		
2		
3		

Conflicts

Vehicles without tow package

Recommended Tools

Personal & Vehicle Protection	Notes
Safety Glasses	
Safety Shoes	
Vehicle Protection	Cloth (shop towel)
Special Tools	Notes
Installation Tools	Notes
Torque wrench	0 – 100 lb-ft.
½” socket wrench	
½” socket	8,14 & 17 mm
½” x 6” socket extension	
¾” socket wrench	
¾” socket	10 mm
¾” x 6” socket extension	
Small flat-head screwdriver	
Phillips head screwdriver	
Tin snips / side cutters	
4mm Allen socket	
½” x 3” socket extension	
¾” x 3” socket extension	
Long needle nose pliers	
Scissors	
Marking pen	
Special Chemicals	Notes

General Applicability

Vehicles with tow package

Recommended Sequence of Application







Item #	Accessory
11	Tow Hitch*
2	Mudguards*
3	

*Mandatory

Vehicle Service Parts (may be required for reassembly)

Item #	Quantity Req.	Description
1	1	Bumper cover with cutout: 52108-0E060 – Hybrid 52108-0E020 – Gas (standard) 52108-0E040 – Gas (F-Sport)

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 Lexus dealer for a copy of this document.

1. Prepare for the Installation.



(a) Verify the kit contents.



(b) Wear safety glasses.



CAUTION: The muffler may be hot.

(c) Protect the exhaust pipe(s) with a shop towel.

(d) Protect the quarter panel, fascia, and tail light bezel with tape (Fig. 1-1).

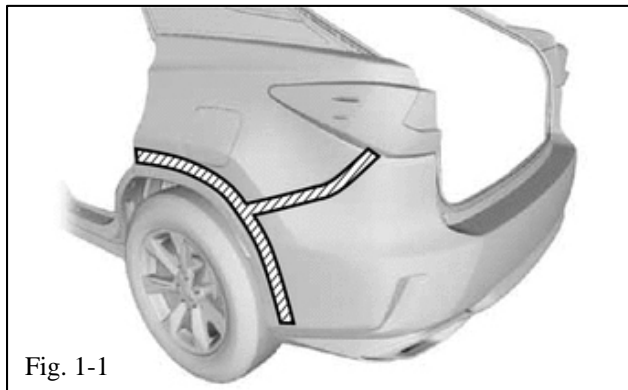


Fig. 1-1

2. Remove the Body Panels & Hardware.

(a) If the vehicle has mudguards, the rear ones need to be removed.

(1) Remove the screws at locations A and B (Fig. 2-1).

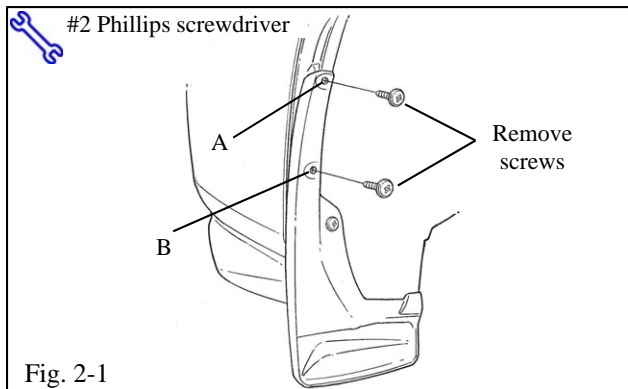
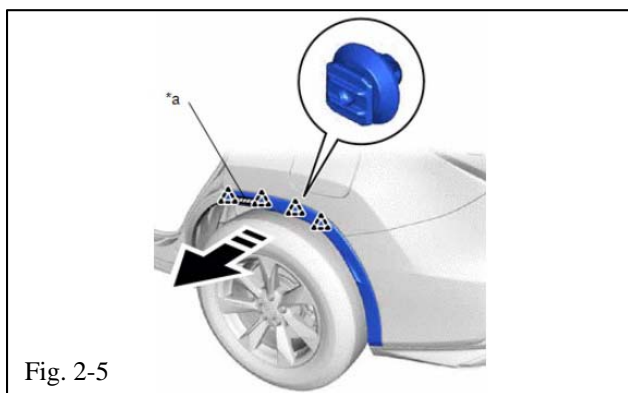
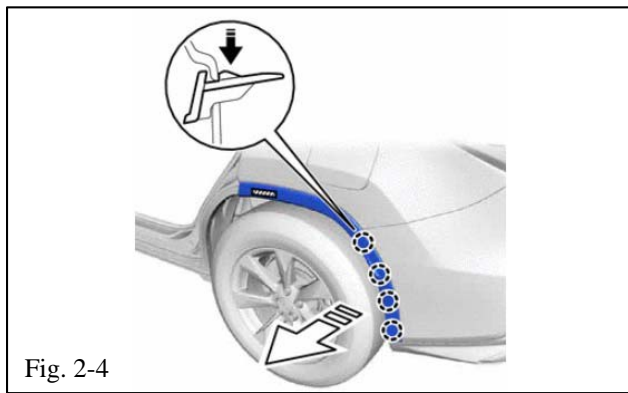
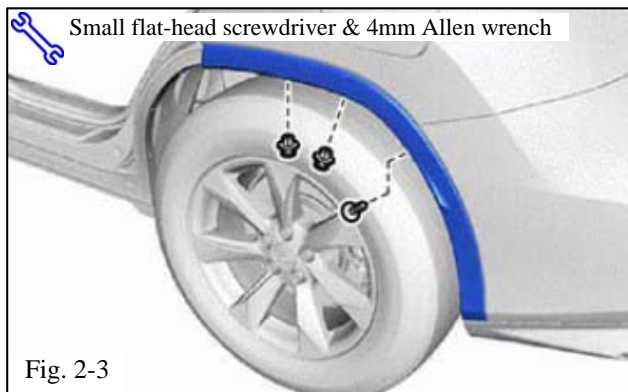
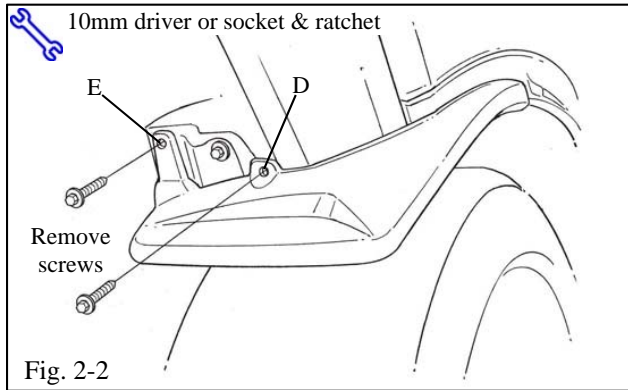


Fig. 2-1



(2) Remove the screws at locations D and E (Fig. 2-2).

(b) Remove the fender trim piece around the wheel well (LH/RH)

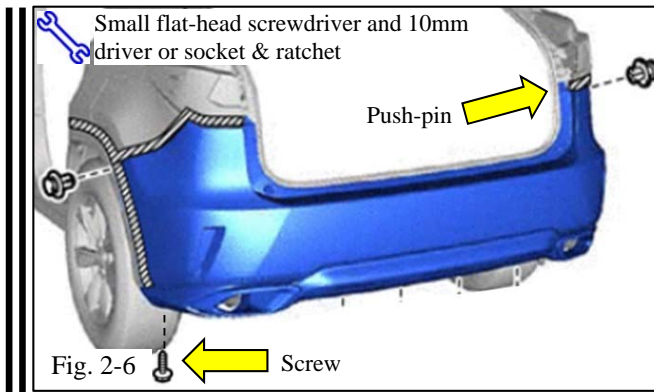
(1) Remove the 2 push-pins and 1 screw on the underside of the trim (Fig. 2-3).

(2) Pull back the edge of the rear wheel house liner (LH/RH) and disengage the 4 claws by pushing the area indicated by the arrow in the illustration with a finger (Fig. 2-4).

! NOTE: Do not apply excessive force when pulling back the rear wheel house liner.

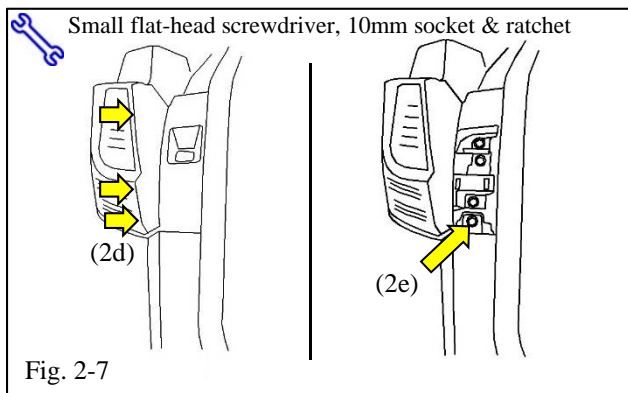
! NOTE: To avoid damaging the claws, do not forcibly pull the quarter outside molding sub-assembly.

(3) Disengage the clips to disconnect the quarter outside molding sub-assembly (LH/RH) from the rear bumper assembly (Fig. 2-5).



(c) Remove the fascia attachment hardware (1 screw and 1 push pin) in the wheel well area (LH/RH) (Fig. 2-6).

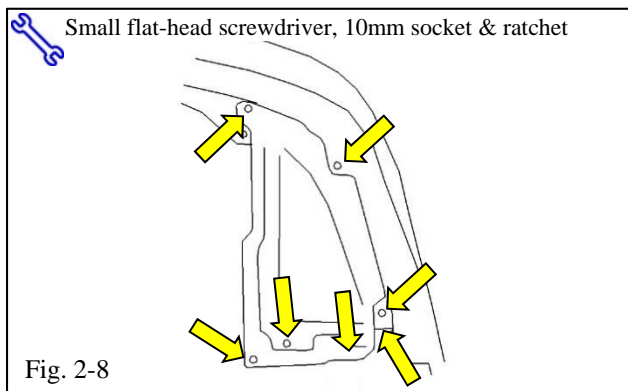
NOTE: The push-pin removed here is different in size than all other push-pins removed in later steps. Take care to keep these 2 (1 LH/1 RH) push-pins separate so they can be reinstalled in the correct location.



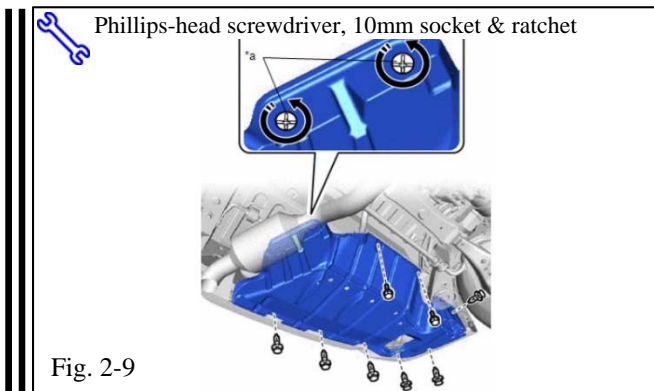
(d) Remove the rear tail light trim piece from each side (Fig. 2-7).

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

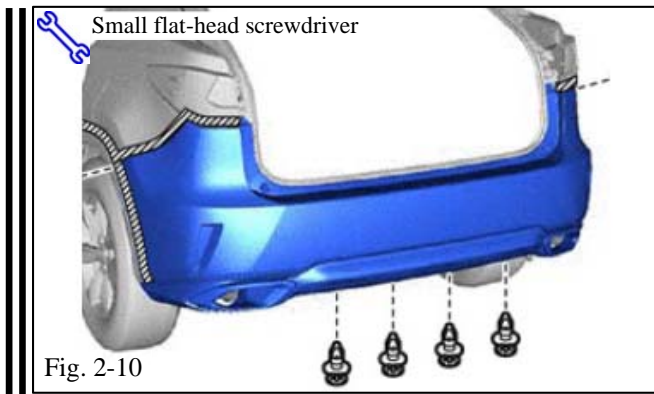
(e) Remove the bottom screw from each rear tail light assembly (Fig. 2-7).



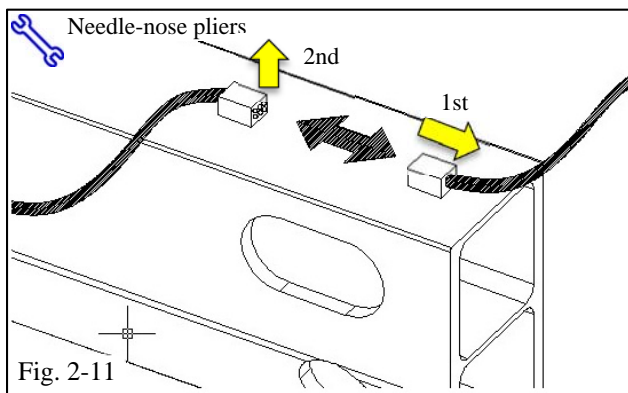
(f) **Hybrid only:** Remove and save the RH under cover and attachment hardware (5 bolts and 2 push-pins) (Fig. 2-8).



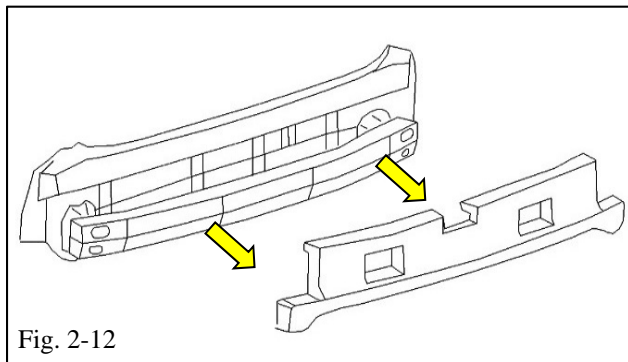
(g) **Hybrid only:** Remove and save the LH under cover and attachment hardware (8 bolts and 4 push-pins) (Fig. 2-9).



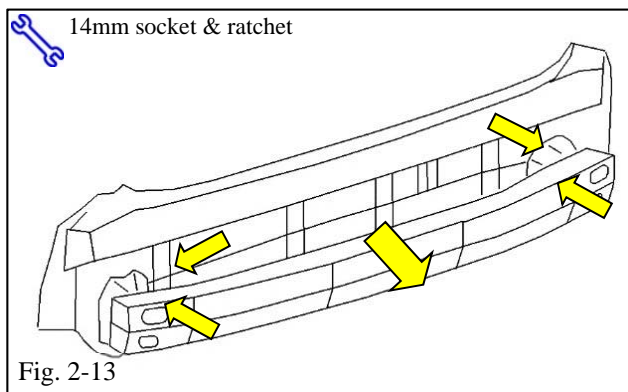
- (h) Remove the 4 push-pins to remove rear bumper fascia & lower cover assembly (Fig. 2-10). Starting at the wheel wells, disengage the fascia snaps and carefully start to remove the fascia.



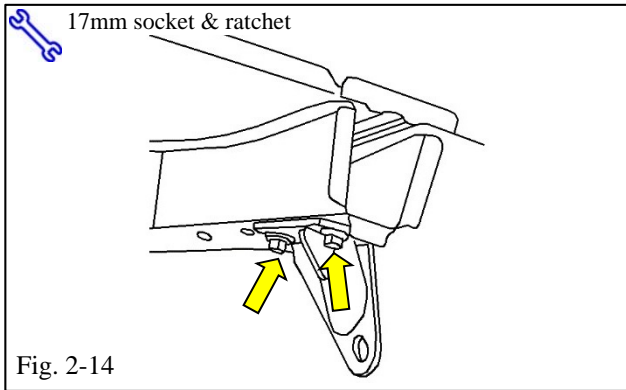
- (i) If the vehicle is equipped with back-up sensors, disconnect the plug from the bumper fascia and use needle nose pliers to free the clip from the bumper beam (Fig. 2-11).
- (j) Set the bumper aside, taking care to prevent damage.



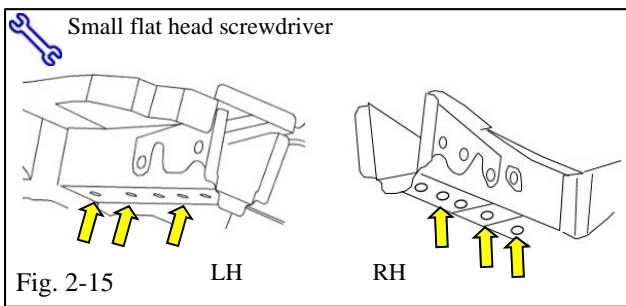
- (k) Remove the foam support from the rear crash beam and retain it for reinstallation (Fig. 2-12).



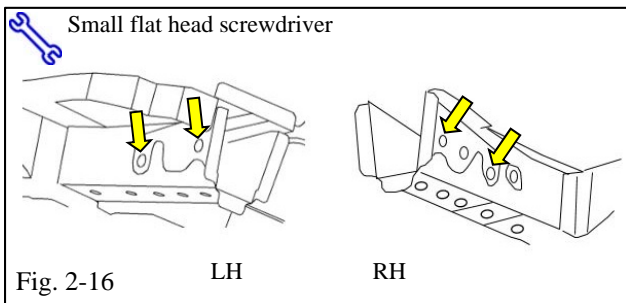
- (l) Remove the rear crash beam by removing 3 nuts per side. Discard the beam and nuts (Fig. 2-13).



- (m) Remove and discard the RH transport hook and the (2) M12 bolts (Fig. 2-14).
- (n) Remove and discard the LH transport hook and the (2) M12 bolts, if present.

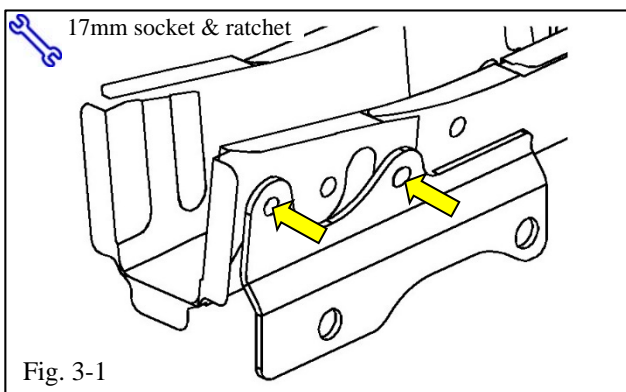


- (o) Remove and discard the plugs in the bottom of the LH/RH frame rails (Fig. 2-15).

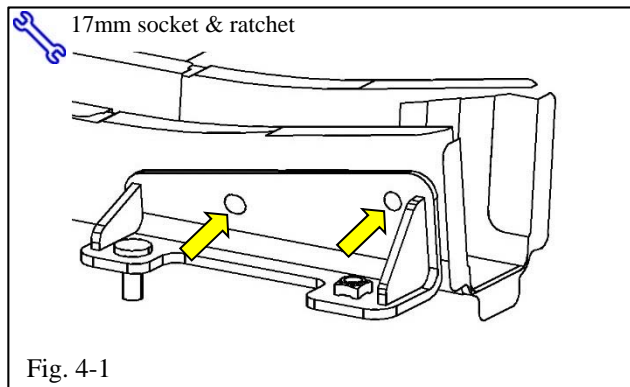


- (p) Remove and discard both (2) plugs in the side of the LH frame rail (Fig. 2-16).
- (q) Remove and discard 2 of the 4 plugs in the side of the RH frame rail (Fig. 2-16).

3. Install the RH bracket (51995).

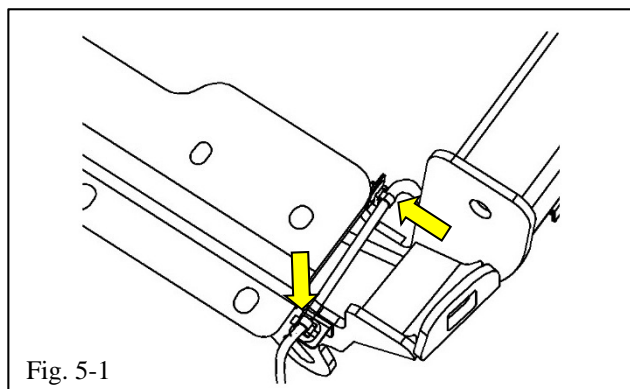


- (a) Use (2) M12 bolts to install the RH bracket to the side of the frame rail (Fig. 3-1).
- (b) Only finger tighten the bolts at this time.




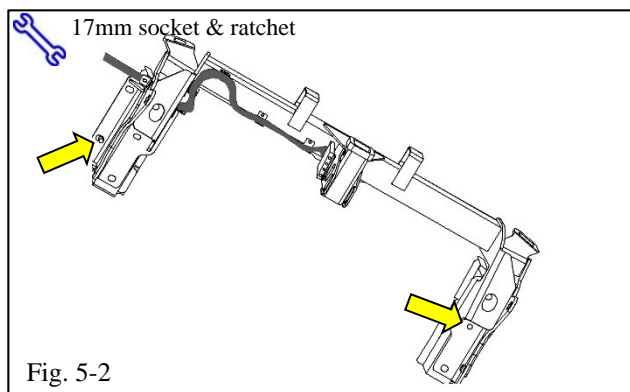
4. Install the LH bracket (51996).


- (a) Use (2) M12 bolts to install the LH bracket to the side of the frame rail (Fig. 4-1)
- (b) Only finger tighten the bolts at this time.




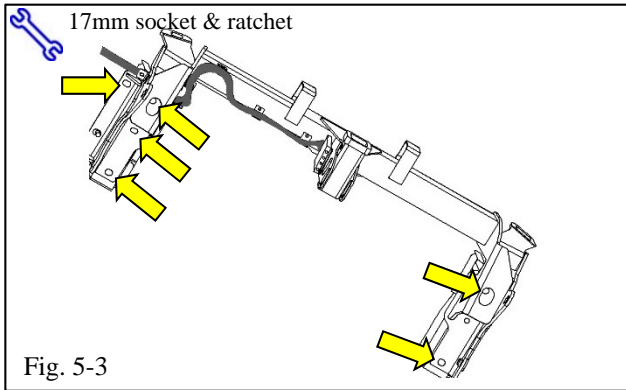
5. Install the Hitch.

-  (a) Install the last two push-pin mounts in the wiring harness into the hitch clips (Fig. 5-1).

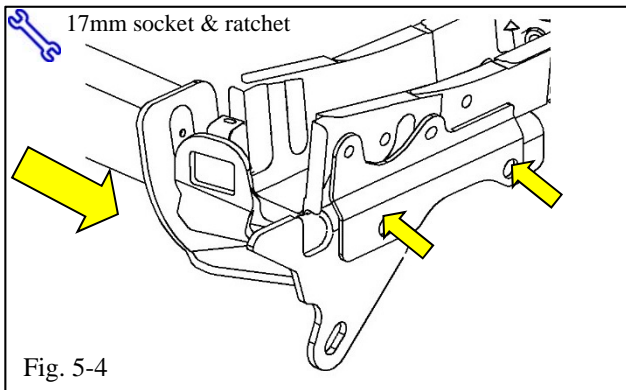


-  (b) Carefully raise the hitch into position between the LH and RH brackets. Hand start the M12 nut onto the bolt in the LH bracket and hand start an M12 bolt into the frame through the middle slot in the RH bracket (Fig. 5-2).

 **NOTE:** It may be necessary to loosen the exhaust to complete this step. Once removed from the hanger, support the exhaust; do not allow the exhaust to hang freely.



(c) Loosely install (6) M12 bolts until the hitch contacts the frame rail (Fig. 5-3).



(d) Fasten the RH bracket to the hitch using (2) M12 bolts (Fig. 5-4).

(e) Slide the hitch to the RH side as far as possible. A gap may exist which is normal.

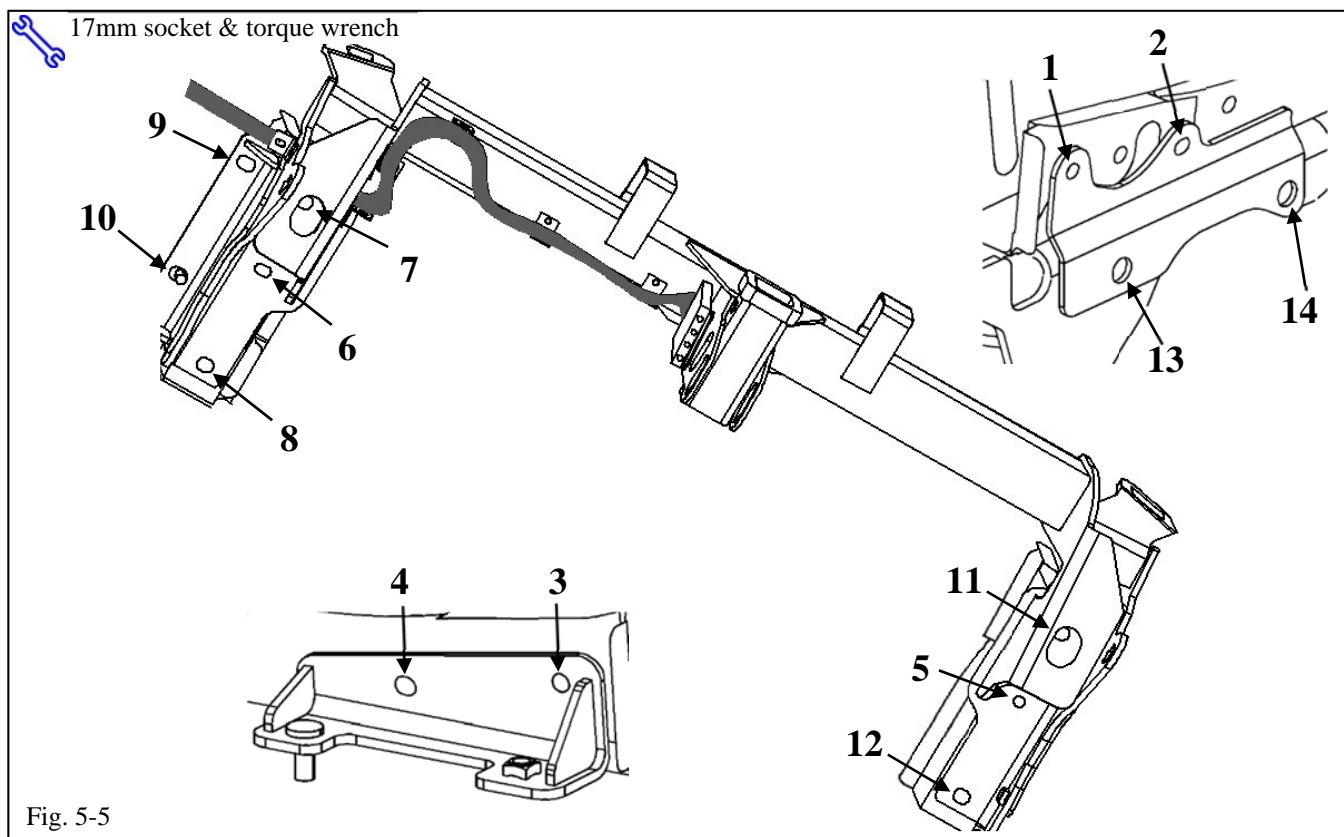


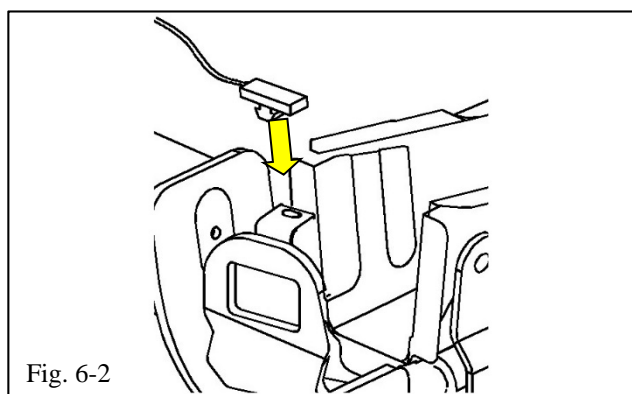
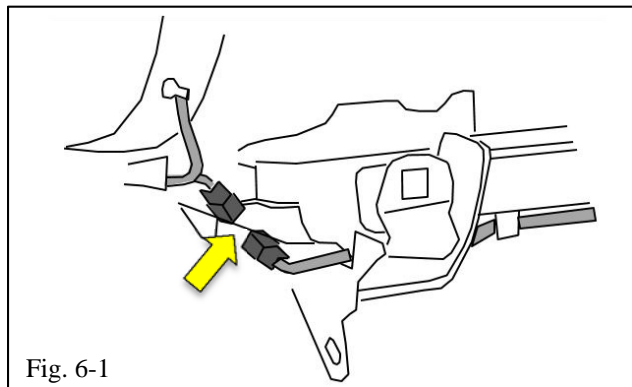
Fig. 5-5

(f) Tighten all of the bolts to 80 Nm (60 ft-lb) in the order shown (Fig. 5-5).

S Torque: 80 Nm (60 ft-lb)

(g) Re-torque all of the bolts to 80 Nm (60 ft-lb) in the same order (Fig. 5-5).

S Torque: 80 Nm (60 ft-lb)



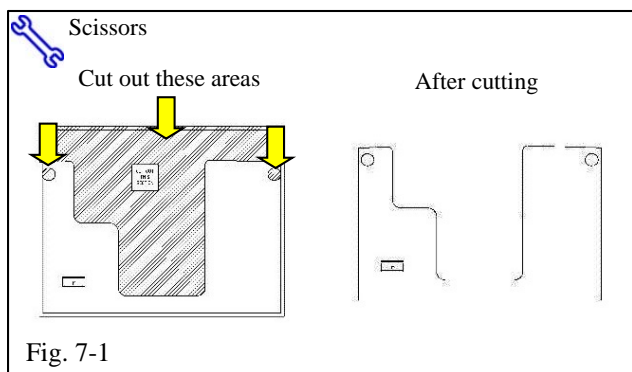
6. Connect the Wiring & Reinstall the Exhaust.

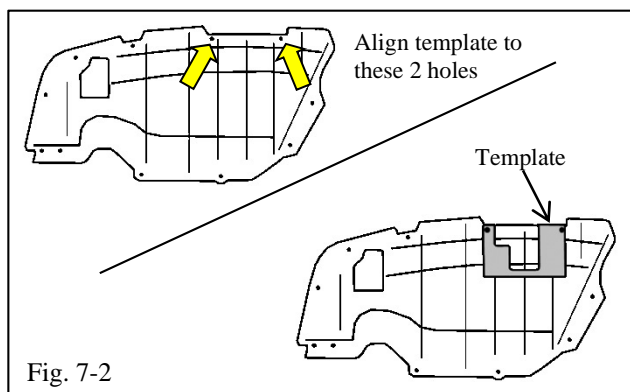
- (a) Connect the hitch wiring harness connector to the vehicle connector plug at the rear LH corner of the vehicle (Fig. 6-1).
- (b) If the vehicle has back-up sensors, reattach the clip removed in Step 2(h) to the clip on the RH bracket (Fig. 6-2).
- (c) Reconnect the exhaust if it was previously removed.

STOP NOTE: Complete Steps 7 & 8 for Hybrid vehicles only. For gas vehicles (Standard & F-Sport), skip to Step 9.

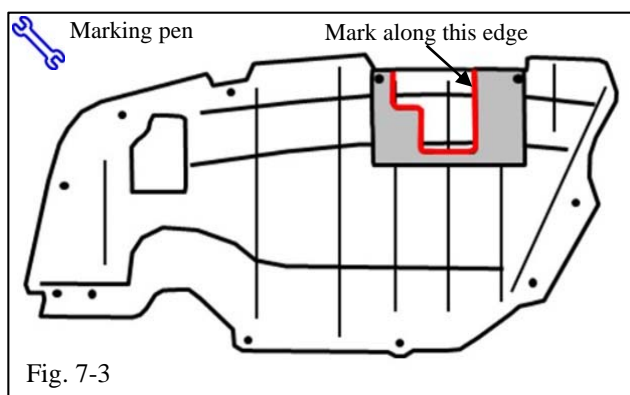
7. Cut the Hitch Opening into the LH Under Cover (Hybrid vehicles only).

- (a) Print out the template on the last page.
- (b) Cut out the hatched section and holes as shown in Fig. 7-1.

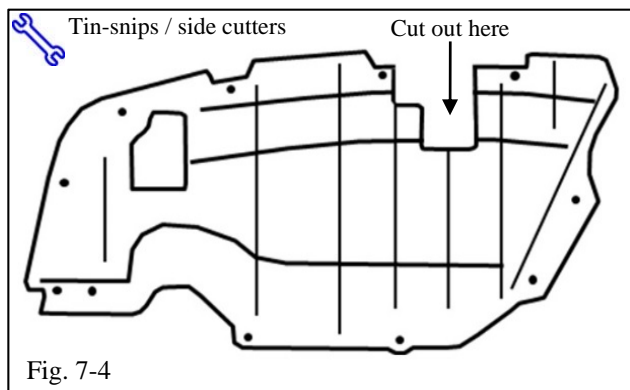




- (c) Overlay the template onto the LH under cover (removed in Step 2(f)) and align the template with the holes in the part (Fig. 7-2).



- (d) Use the template as a guide to mark the cover and define the cut for the hitch opening (Fig. 7-3).



- (e) Cut along the marked line and remove the cut-out section (Fig. 7-4).

8. Reinstall the LH and RH Under Covers (Hybrid vehicles only).

- (a) Reinstall the LH under cover that was modified in Step 7.
- (b) Reinstall the RH under cover that was removed in Step 2(e).

9. Replace the Lower Bumper Fascia (all models).

(a) Gas Models Only.

(1) Remove the 3 clips (Fig. 9-1).

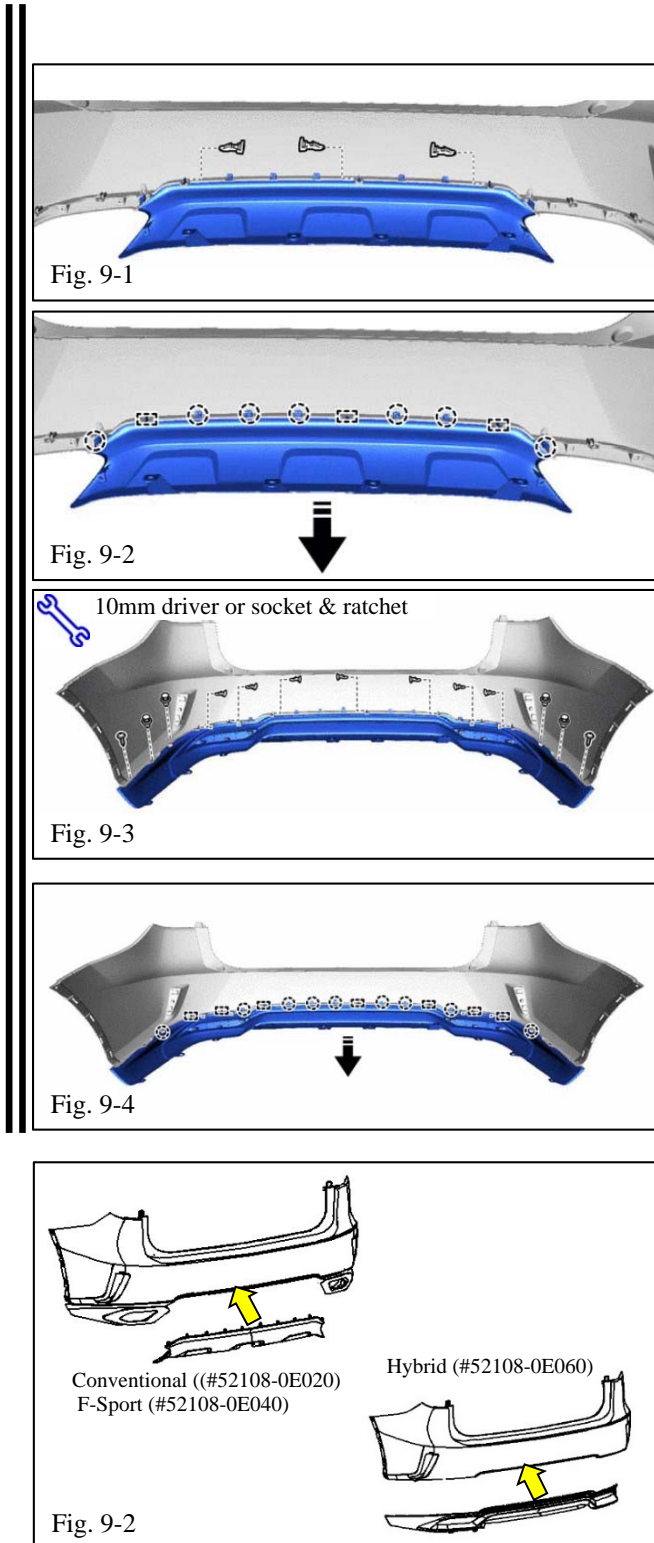
(2) Disengage the 7 claws and 3 guides to remove the center rear bumper extension subassembly (Fig. 9-2).

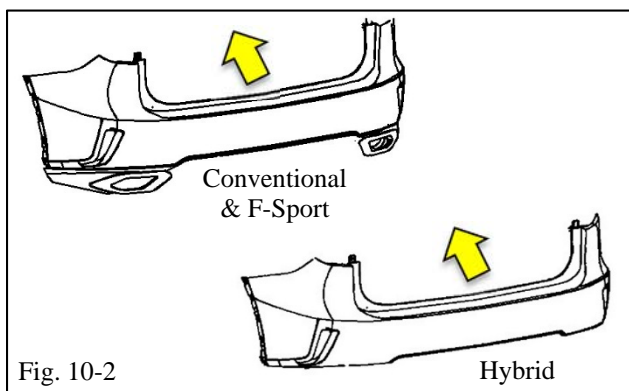
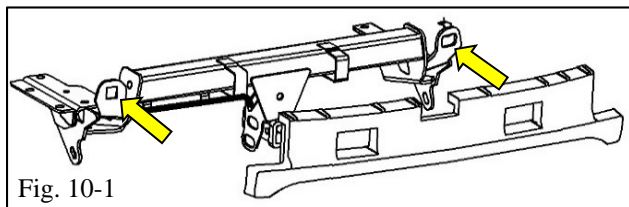
(b) Hybrid Models Only.

(1) Remove the 2 screws and 11 clips (Fig. 9-3).

(2) Disengage the 9 claws and 7 guides to remove the center rear bumper extension subassembly (Fig. 9-4).

(c) Replace the lower bumper fascia with the lower bumper fascia with hitch cutout. Reinstall the fasteners removed in the previous step (Fig. 9-2).







10. Reinstall the Rear Bumper Fascia.

- (a) Install the bumper foam onto the hitch. Insert the locators on the foam into the windows in the hitch bracket (Fig. 10-1).
- (b) Carefully move the rear bumper assembly from in Step 9 into position. Reconnect the back-up sensors (if equipped) and reattach all hardware removed in the previous steps (Fig. 10-2).
- (c) Reinstall the rear tail light trim cover removed in Step 2(d).
- (d) Reinstall the fender trim removed in Step 2(b).

11. Complete the Installation.

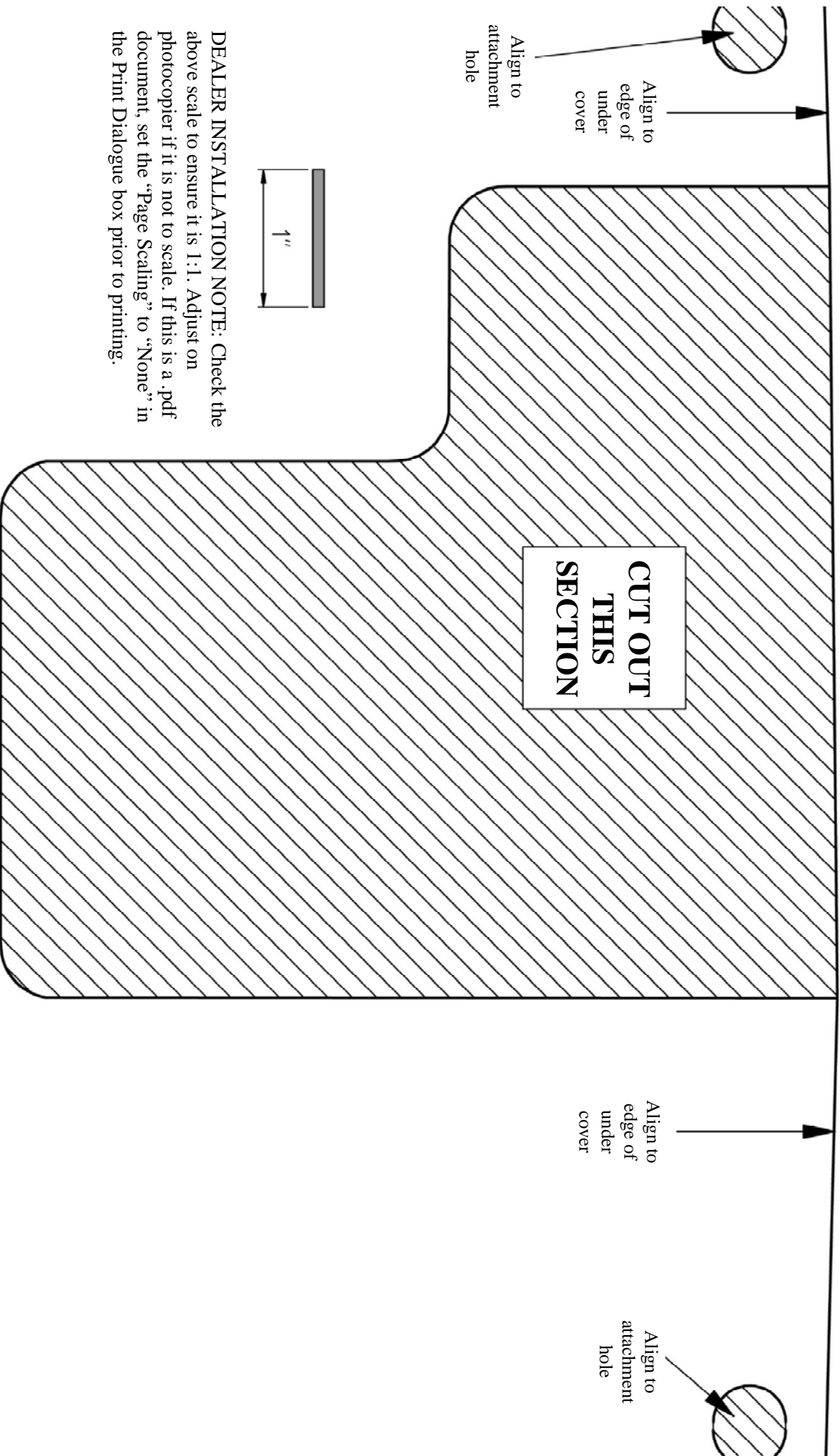
- (a) Place the receiver cover in the glove compartment.
- (b) Remove all protection tape.

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

Check:	Look For:
<p><u>Accessory Function Checks</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Perform visual check of Trailer Hitch <input type="checkbox"/> Installation Torque (M12 bolts) <input type="checkbox"/> Hitch plug <input type="checkbox"/> Receiver neck clearance <input type="checkbox"/> Removed parts 	<p>No visible gaps between mating parts or loose bolts.</p> <p>80 Nm (60 lbf-ft)</p> <p>Placed in glove box</p> <p>Must not be touching lower bumper cover opening</p> <p>Scratches or other damage</p>
<p><u>Vehicle Function Checks</u></p> <p>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:</p> <p> CAUTION: Be sure the exhaust gas is completely ventilated.</p> <p> CAUTION: Be sure the vehicle is in "Park" and that the parking brake is applied.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Turn on headlamps <input type="checkbox"/> Turn on left turn signal <input type="checkbox"/> Turn on right turn signal <input type="checkbox"/> Apply foot brake <input type="checkbox"/> Turn on left turn signal and apply foot brake <input type="checkbox"/> Turn on right turn signal and apply foot brake <input type="checkbox"/> Turn on hazard lights switch <input type="checkbox"/> With hazard lights switch on, apply the foot brake <input type="checkbox"/> Turn off the hazard lights switch, apply the foot brake 	<p>Marker and tail lights on both SST and vehicle are lit.</p> <p>Left turn lights on both SST and vehicle are flashing.</p> <p>Right turn lights on both SST and vehicle are flashing.</p> <p>Stop lights on both SST and vehicle are lit.</p> <p>Left turn lights are flashing and right stop lights are lit on both SST and vehicle.</p> <p>Right turn lights are flashing and left stop lights are lit on both SST and vehicle.</p> <p>All turn signal lights are flashing on both SST and vehicle.</p> <p>Both stop lights on the vehicle are lit, both turn/stop lights on the SST and the turn lights on the vehicle are flashing.</p> <p>Both turn/stop lights on the SST and the stop lights on the vehicle are lit.</p>

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

<u>Check:</u>	<u>Look For:</u>
<p>The following checks are to be performed with the ignition switch off and the engine stopped.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Turn on headlamps <input type="checkbox"/> Apply foot brake <input type="checkbox"/> Turn on left turn signal <input type="checkbox"/> Turn on right turn signal <input type="checkbox"/> Turn on left turn signal and apply foot brake <input type="checkbox"/> Turn on right turn signal and apply foot brake <input type="checkbox"/> With hazard lights switch on, apply foot brake <input type="checkbox"/> Turn off the hazard light switch, apply foot brake 	<ul style="list-style-type: none"> Marker and tail lights on both SST and vehicle are lit Stop lights on both SST and vehicle are lit Left turn lights are not lit on both SST and vehicle Right turn lights are not lit on both SST and vehicle Both stop lights are lit and not flashing on both SST and vehicle Both stop lights are lit and not flashing on both SST and vehicle All turn signal lights are flashing on both SST and vehicle Both stop lights on the vehicle and the turn/stop lights on the SST are lit, but not flashing
<p><u>Vehicle Appearance Check</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> After accessory installation and removal of protective cover(s), perform a visual inspection. 	<p>Ensure no damage (including scuffs and scratches) was caused during the installation process. (For PPO installations, refer to TMS Accessory Quality Shipping Standard.)</p>



DEALER INSTALLATION NOTE: Check the above scale to ensure it is 1:1. Adjust on photocopier if it is not to scale. If this is a .pdf document, set the "Page Scaling" to "None" in the Print Dialogue box prior to printing.