

INSTALLATION INSTRUCTIONS

POWER STEP BOARD

08-16 FORD SUPERDUTY SUPER CAB & CREW CAB

Patent No. US 11945405

PART#HW-PB-FW011

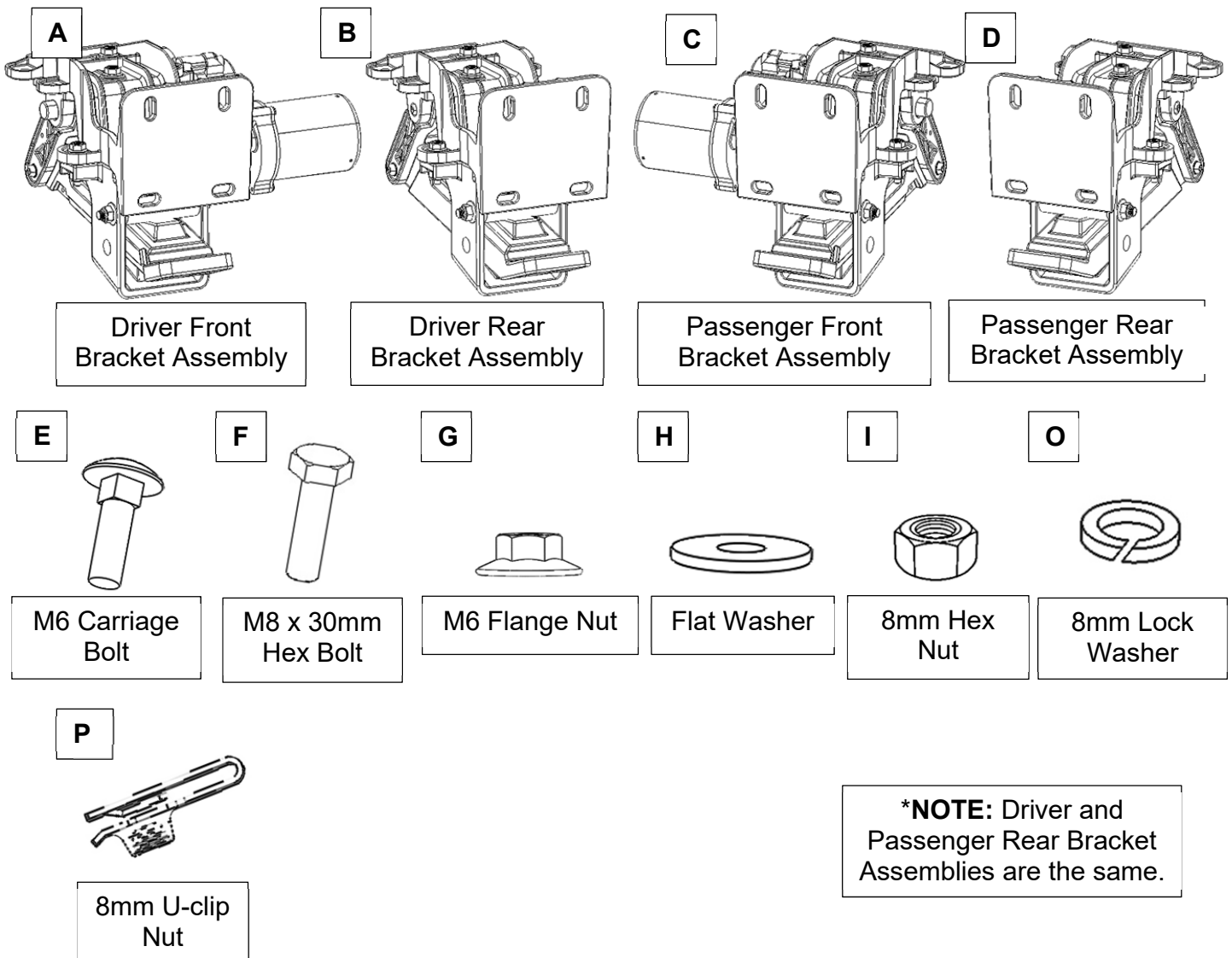
INSTALLATION INSTRUCTIONS

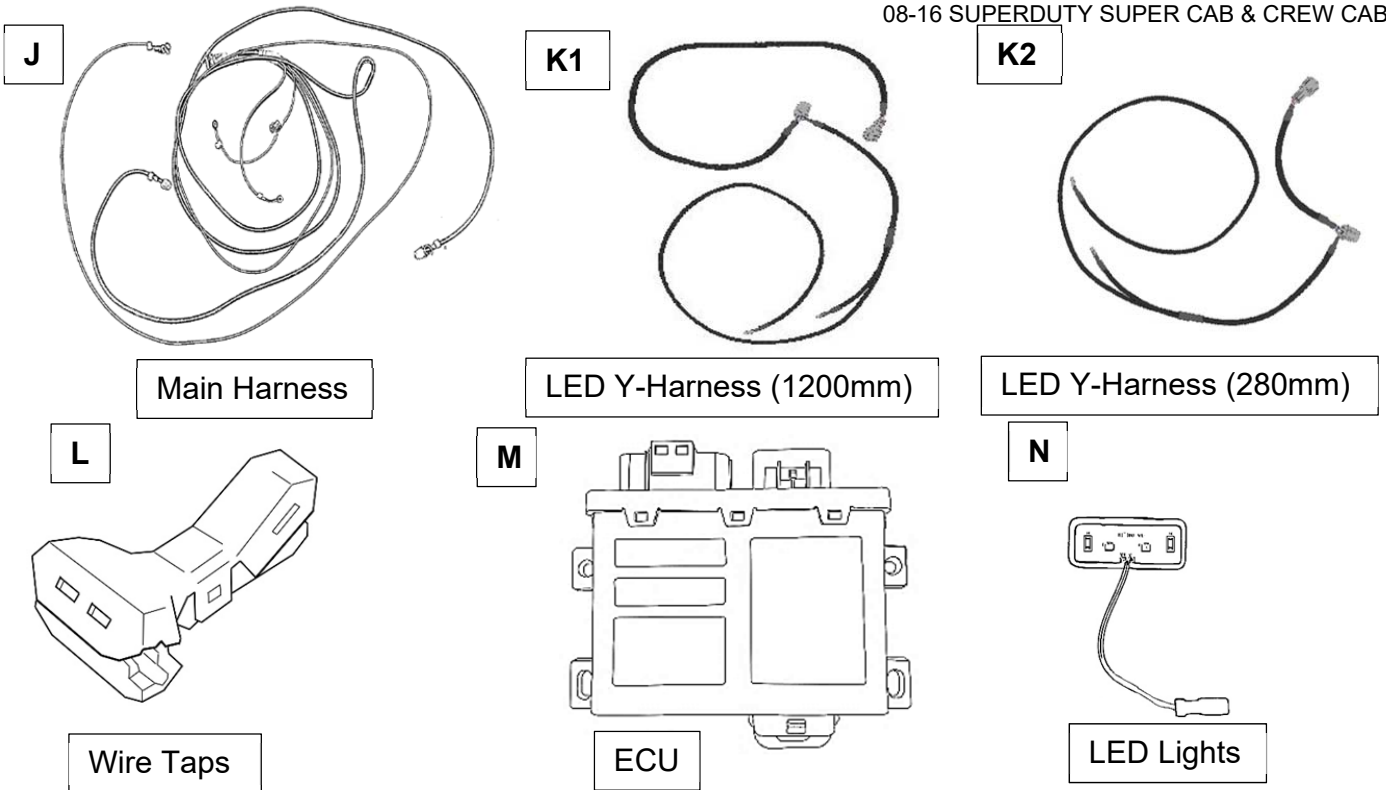
Mechanical PARTS LIST:

Qty	Item Description	Qty	Item Description
2	Running Boards	16	8-1.25mm x 30mm Hex Bolts
1	Driver/Left Front Bracket Assembly	16	8mm Lock Washers
1	Passenger/Right Front Bracket Assembly	24	8mm x 24mm x 2mm Flat Washers
1	Driver/Left Rear Bracket Assembly	8	8mm Hex Nuts
1	Passenger/Right Rear Bracket Assembly	8	8mm U-Clip Nuts
1	Electronic Materials Package	27	Zip ties
8	6-1.0mm x 20mm Carriage Bolts	1	Rubber Sleeve
8	6mm Flange Nuts		

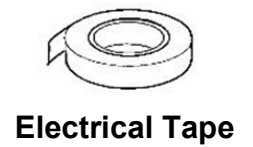
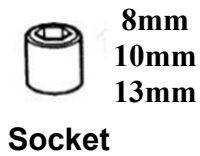
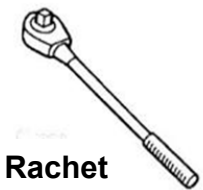
Electronic Materials Package PARTS LIST:

Qty	Item Description	Qty	Item Description
1	Main Harness	1	ECU
2	Wire Taps	4	LED lights
1	LED Y-Harness (Short 280mm)	1	LED Y-Harness (Long 1200mm)

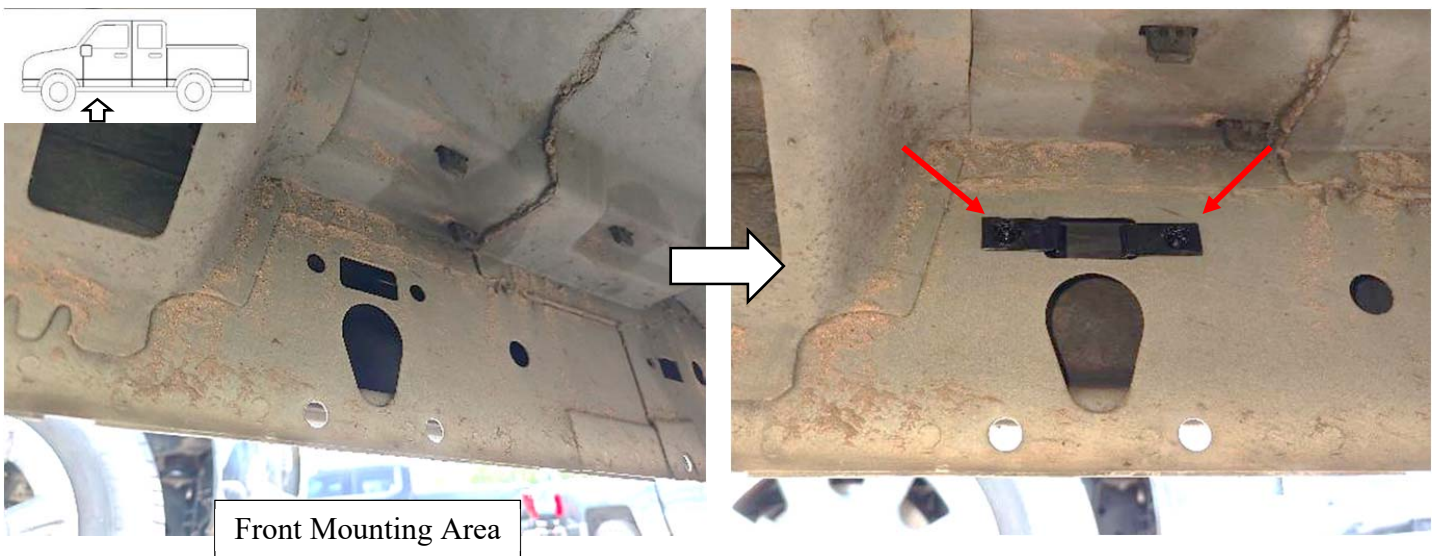




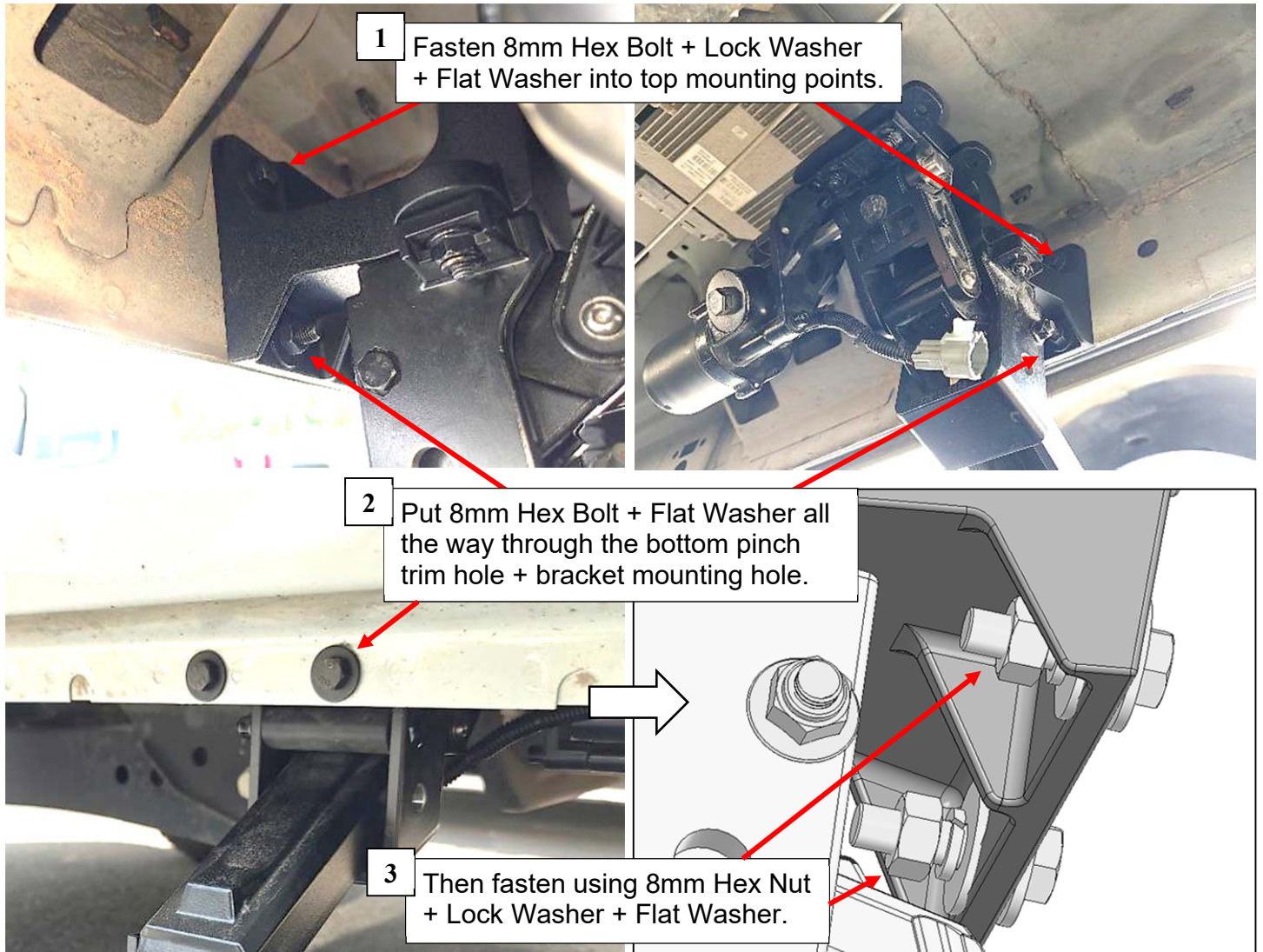
TOOLS REQUIRED



- 1 Locate Driver Side front mounting points on the rocker panel under the front door. Insert U-Clip Nuts (P) into position as shown below.

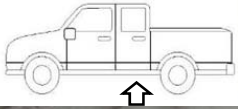


Next, line up front mounting bracket slots to the studs and place Driver Side/Left Front Bracket Assembly (A) onto rocker panel. Then fasten 8mm Hex Bolts + Lock Washers + Flat Washers into the U-Clip Nuts, which are the upper mounting points. After, insert an 8mm Hex bolt + Flat Washer through the bottom pinch trim hole and the hole of the bracket, and then secure using an 8mm Hex Nut+ Lock Washer + Flat Washer. Do not tighten all the way yet.

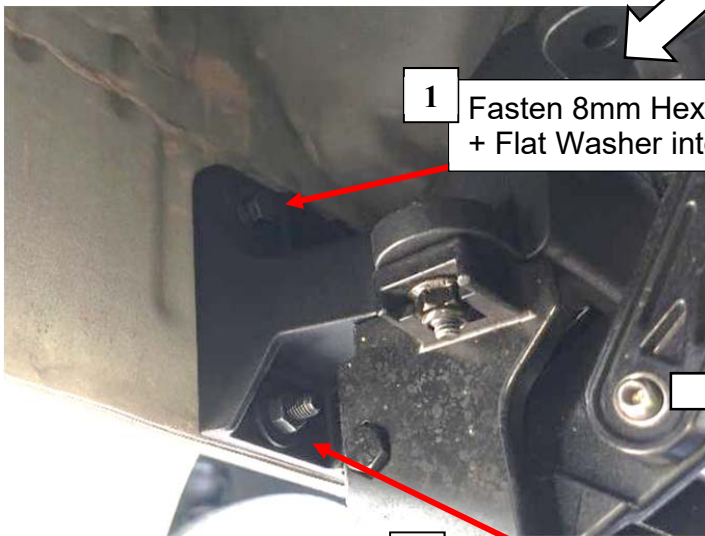


Make sure the brackets are aligned well and generally parallel to the straight line of the cab. Once aligned, tighten all the way.

Locate rear mounting points. Insert the U-Clip Nuts into position before mounting the Driver Side Rear Bracket Assembly (B). Next, line up rear mounting bracket slots to the studs and place Driver Side/Left Rear Bracket Assembly (B) onto rocker panel. Repeat the same procedure as described in step 2 for the Rear Bracket Assembly.



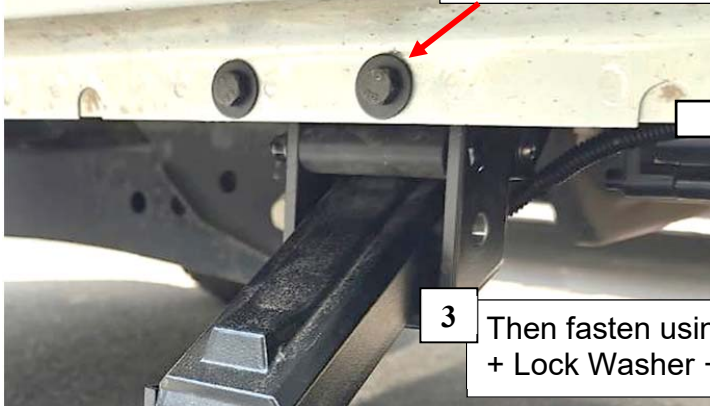
Rear Mounting Area



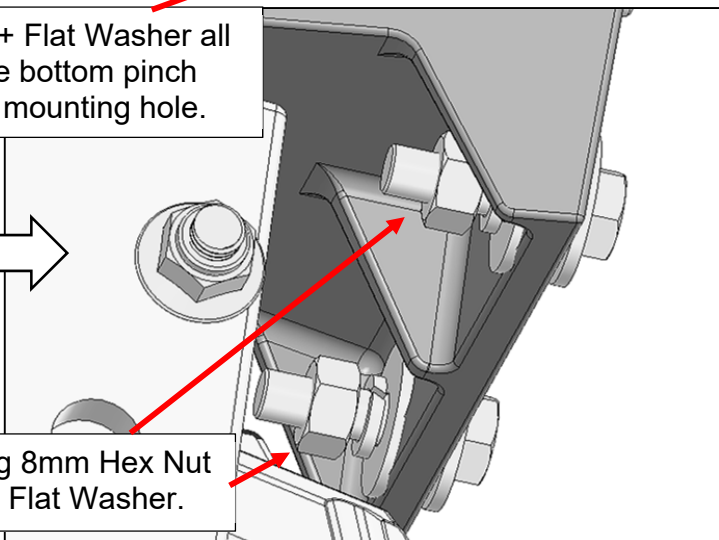
1 Fasten 8mm Hex Bolt + Lock Washer + Flat Washer into top mounting points.



2 Put 8mm Hex Bolt + Flat Washer all the way through the bottom pinch trim hole + bracket mounting hole.

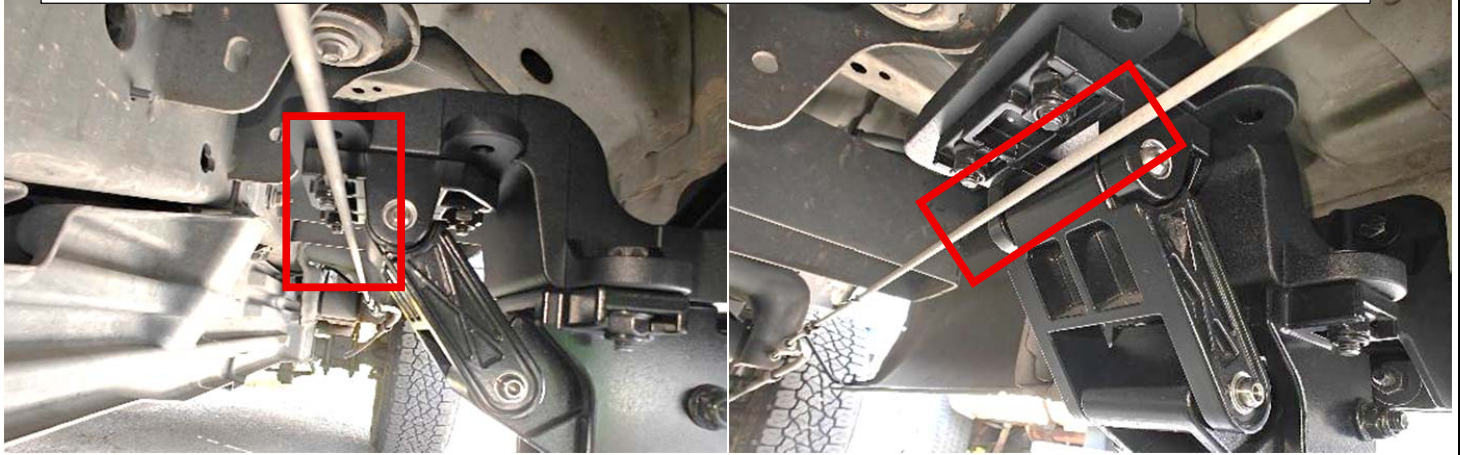


3 Then fasten using 8mm Hex Nut + Lock Washer + Flat Washer.



On some vehicles, there may be a brake line. Be sure to position the bracket above the brake line. If the brake line comes close to the bracket assembly, use the supplied rubber sleeve as a protective layer and secure it using RTV silicone.

Use the provide rubber sleeve to protect brake line in case if it touches the bracket assembly.



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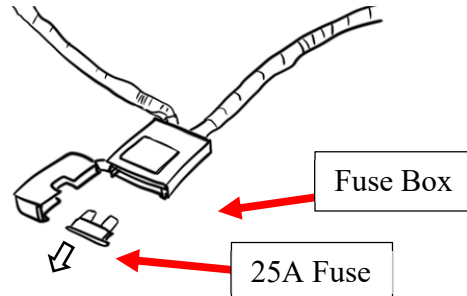
Repeat steps 1 – 3 for the Passenger Side.

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Start from the engine compartment by opening the front hood of the vehicle. Locate the Battery and its terminals (positive/negative). Remove the 25A fuse from the fuse box that comes with the main harness (J).

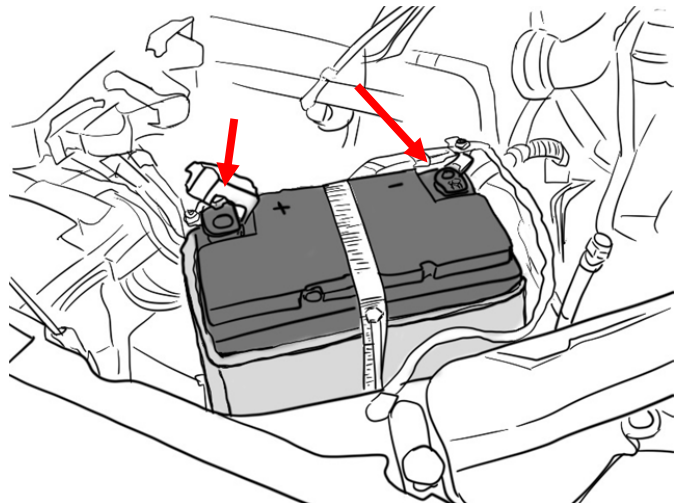


***WARNING:** Keeping the fuse connected to the fuse box may result in electrical sparks and risk of shorting when working with the battery.

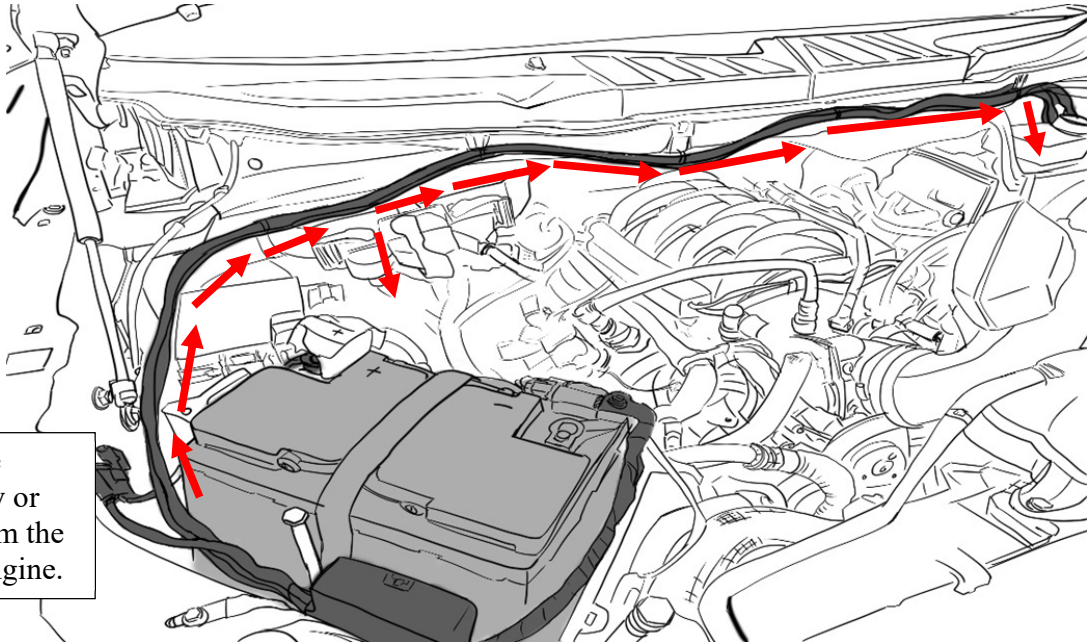


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Connect the positive power lead on the main harness (J) to the positive battery terminal. And the negative lead to the negative battery terminal. Make sure both power leads are fully secured. Connect the ECU (M) to the main harness. Connect the Long LED Y-Harness (K1) to the Driver-side branch of the main harness. Connect the Short LED Y-Harness (K2) to the Passenger-side branch of the main harness.

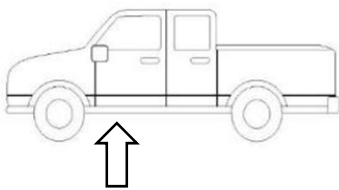


Route the main harness (J) around the battery, up along the rear of the engine compartment, and down the Driver-side wheel well. Route the shorter leg of the harness down the Passenger-side wheel well. **Be sure to avoid contact with any moving or hot engine components.** Attach and secure the main harness (J) with supplied cable ties.

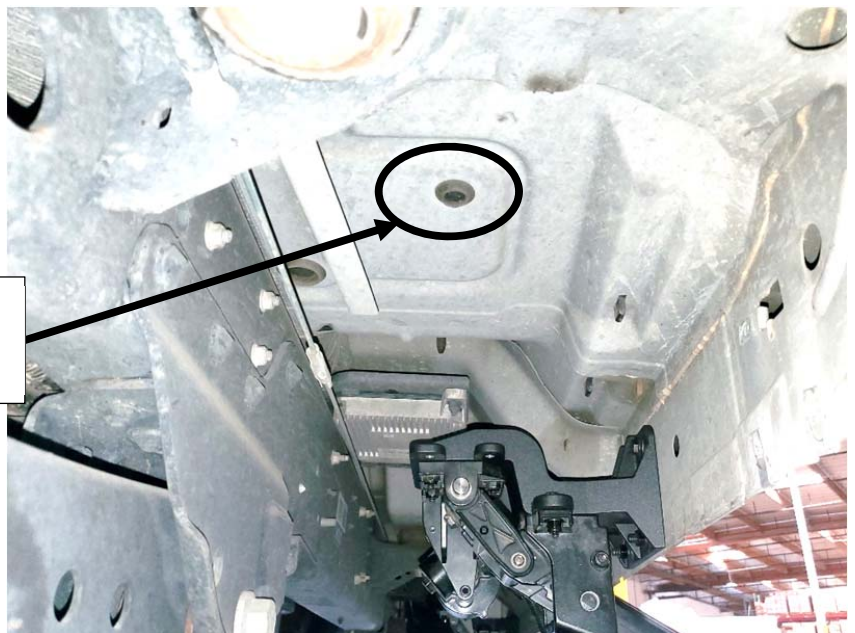


ECU (M) should be secured near battery or any space away from the direct heat of the engine.

On the underside of the driver side, locate and remove the floor grommet in the floor panel behind the front wheel well. The grommet will be close to the front linkage arm. Poke a hole through the grommet and thread the two signal wires through and up into the vehicle cabin.



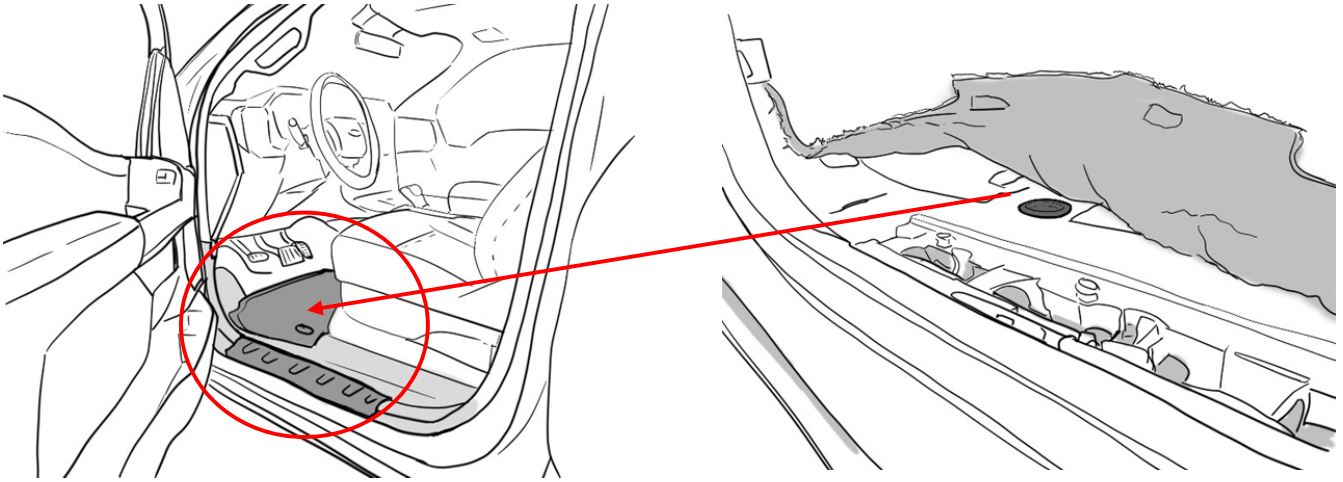
Carefully put wiring through rubber floor plug



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Inside the vehicle cabin, remove the driver-side front kick panel and bottom door sill plate. Peel back the carpet to access the hole where the grommet was removed. Feed the wires through.



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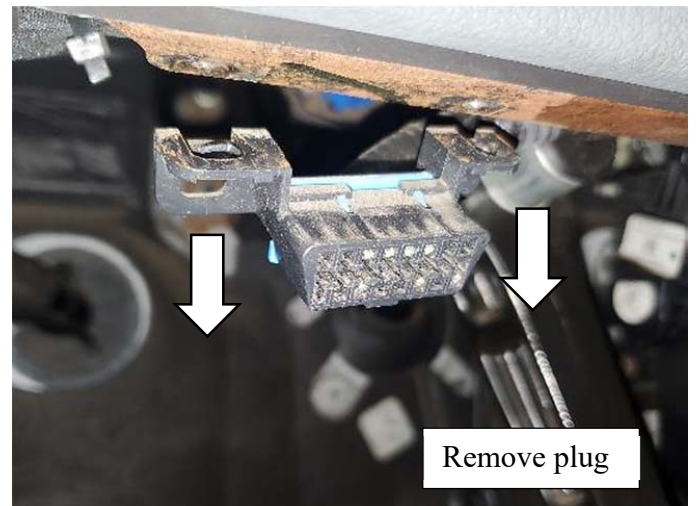
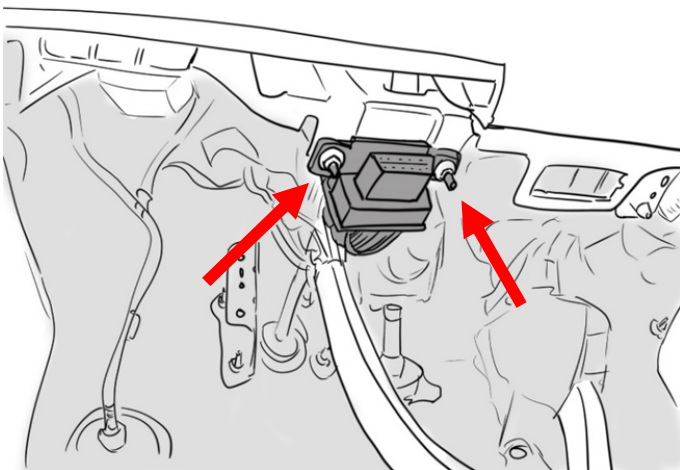
Attach the main harness (J) to one LED Y-Harness (K). Then attach the LED Y-Harness to the motor (do this for driver side first). Repeat for passenger side.

Driver side



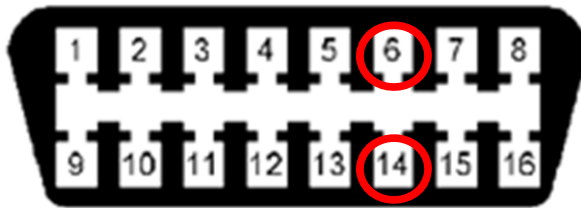
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Locate the OBD-II Port under the steering wheel, near the front hood release lever. Unbolt the two flanged nuts using a socket for easier access to the rear side of the plug.



Identify wire configurations from back of the OBD-II Connector and confirm wires are connected in two rows (Standard OBD-II Connector). Identify the appropriate wires on back of the plug which correspond to the indicated positions on the front of the plug. Connect the Yellow (Low) and White (High) wires from the main harness (J) using the supplied wire taps (L). After successfully connecting the wires, return the module back into its place, tighten the previously removed nuts, and check that it is secure on the bracket.

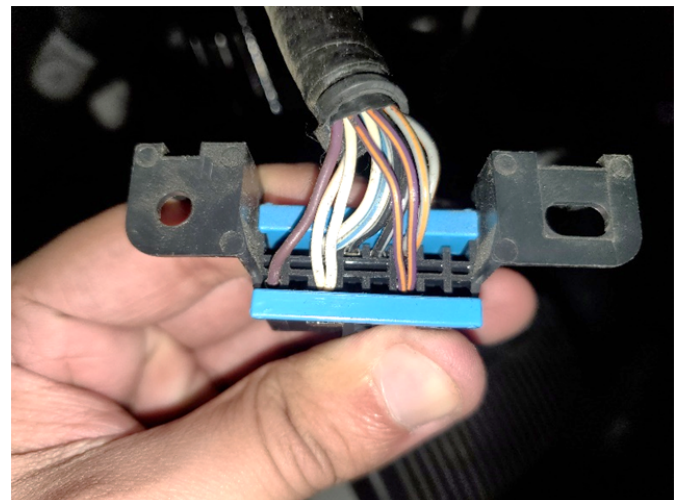
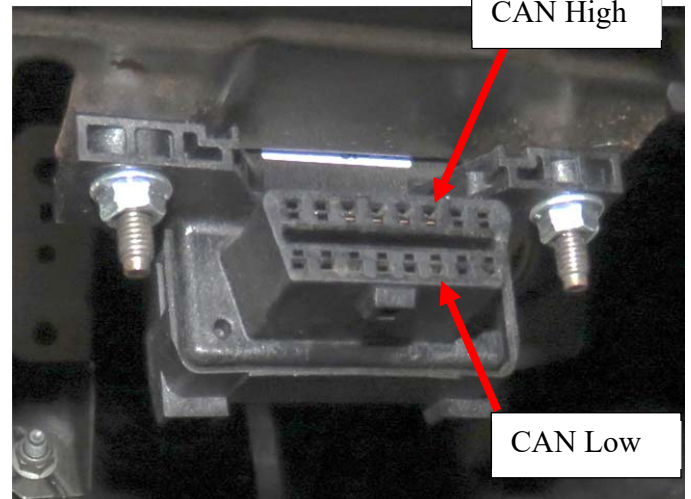
OBD-II Connector Pin Layout



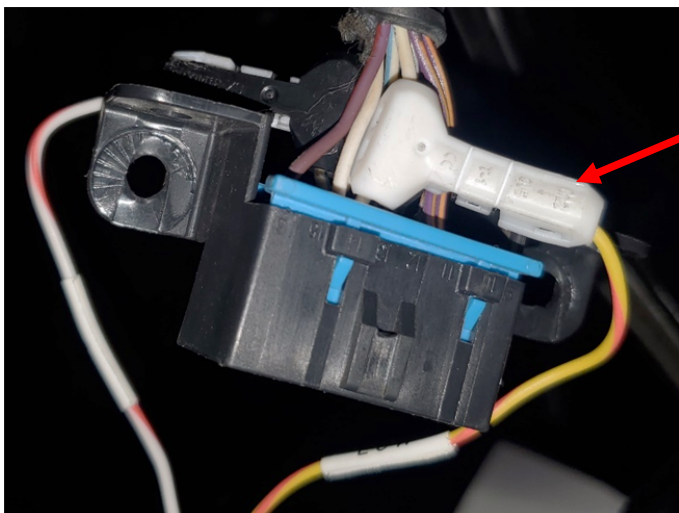
Find and use wire taps on corresponding wires for Pin 6 and 14 on backside of OBD.

Pin 6 = CAN-H
Pin 14 = CAN-L

Right Side

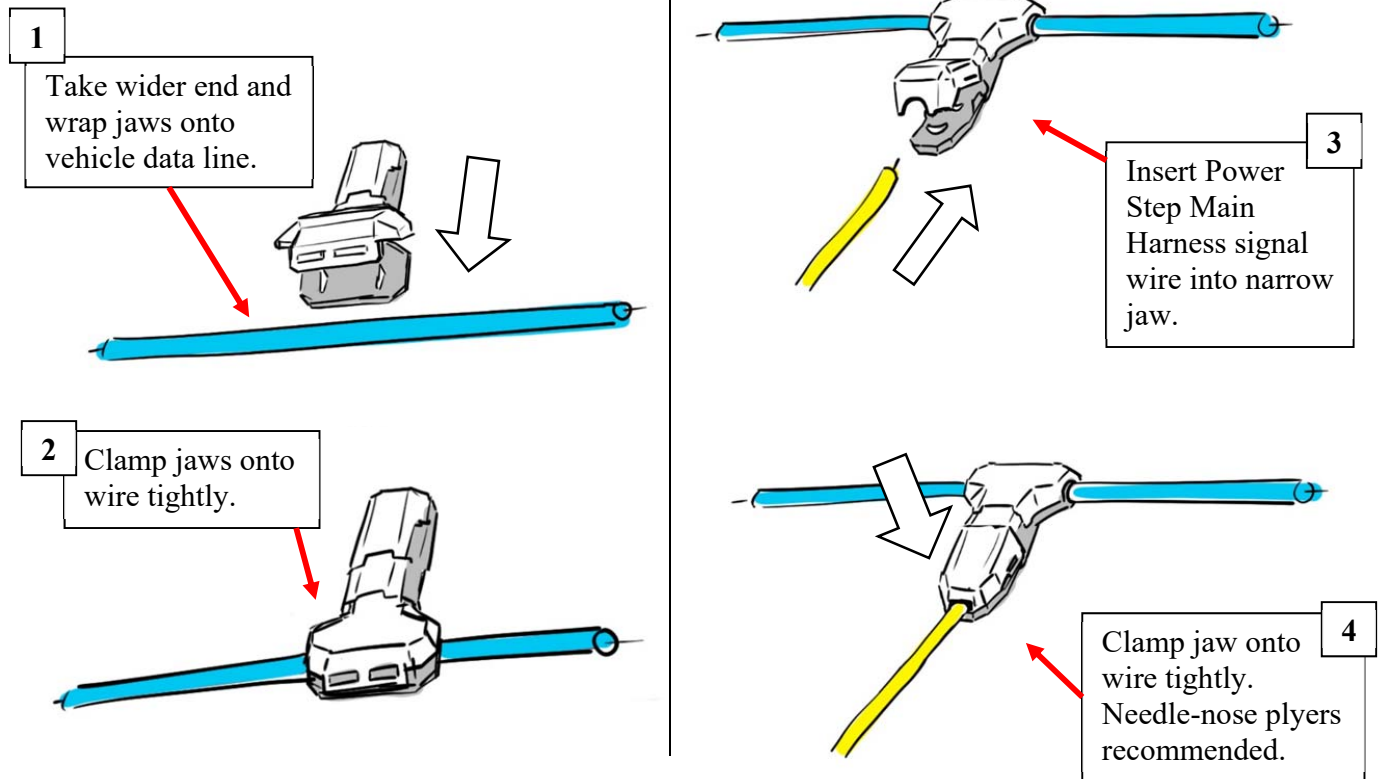


Factory CAN Wire	Main Harness wire color
3rd from right (lower), Pin 14	Yellow (Low)
3rd from right (upper), Pin 6	White (High)



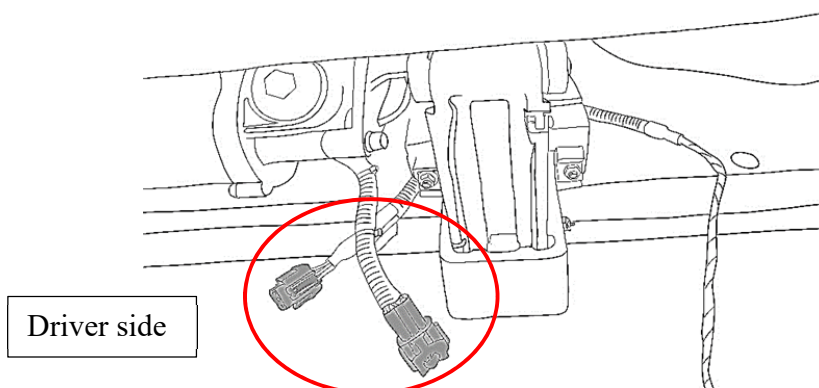
Wire taps supplied with kit.
Please see next page for guide.

The kit comes supplied with wire taps called “shark taps”. Follow the guide below to tap the wire using the “shark tap”:



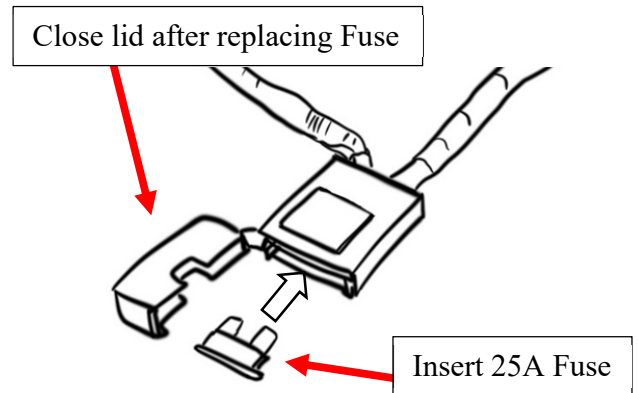
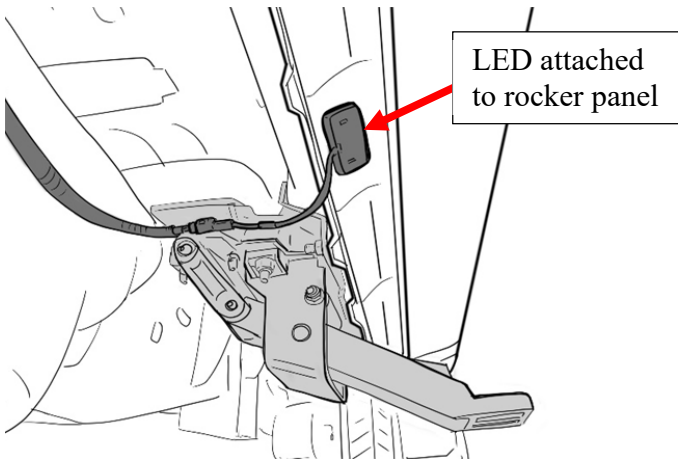
NOTE: Make sure wire is seated properly in the jaws before clamping. The wire being tapped must be centered on the “teeth” to make a proper tap.

- 13** Be sure the main harness (J) is connected to the appropriate length LED Y-Harness (K). Then attach the LED Y-Harness (K) to the motor on the Driver Side. Repeat for Passenger Side.



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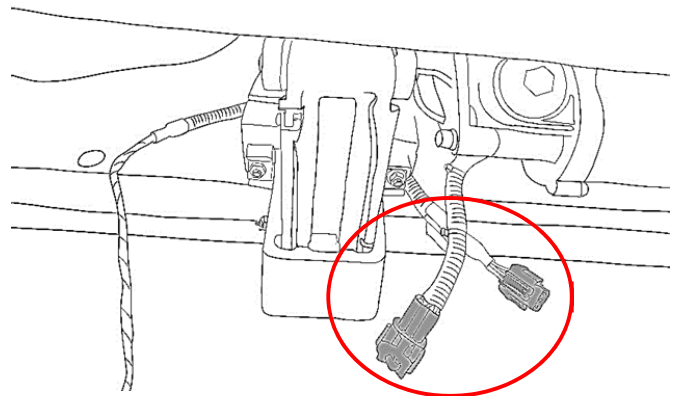
Plug in LED lights (N) into LED Y-Harness (K) and attach them to the bottom of the rocker panel. Use provided 3M double sided adhesive tape on back of LED light (N). Replace Fuse into Fuse Box.



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Check to make sure the harnesses on the Driver Side/Left Front Bracket Assembly (A) and Passenger Side Front Bracket Assembly (C) are connected to the main harness (J) via the LED-Y harnesses (K).

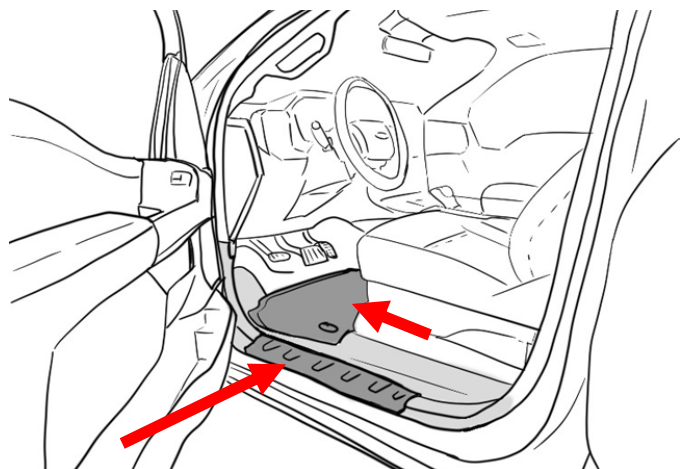
*NOTE: The linkage arms on the front bracket assemblies will not move unless both motors are connected.



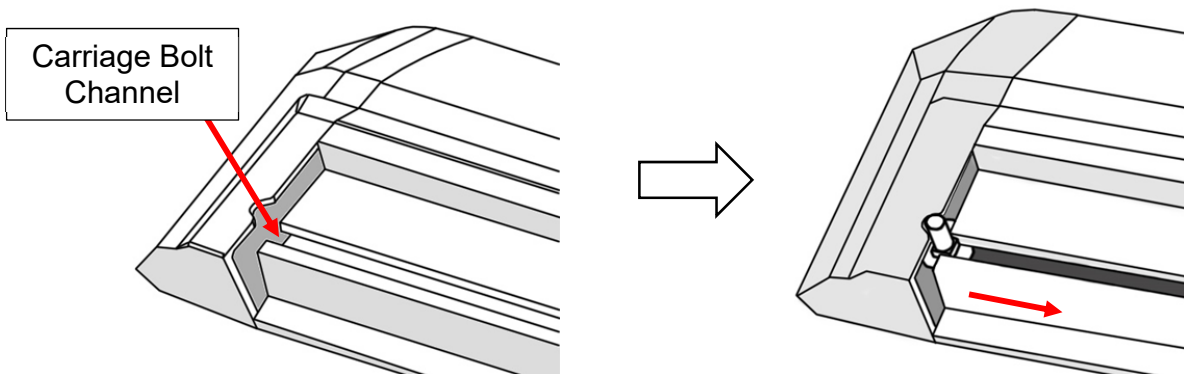
16

Seal the rubber boot with RTV Silicone Sealant if needed.

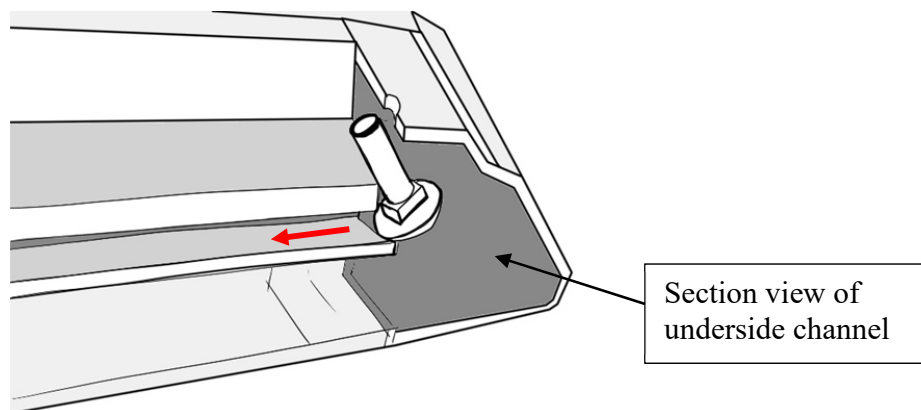
Hide wires and reattach the kick panel with the carpet fully unfurled in its original position. Reattach the door sill panels and check to make sure there are no obstructions or potential snag points around the brake pedal area.



Prepare the power step boards. Locate the end of the boards and slide the M6 Carriage Bolts (E) into the channel on the underside of the board. Insert a total of 4 carriage bolts (E).



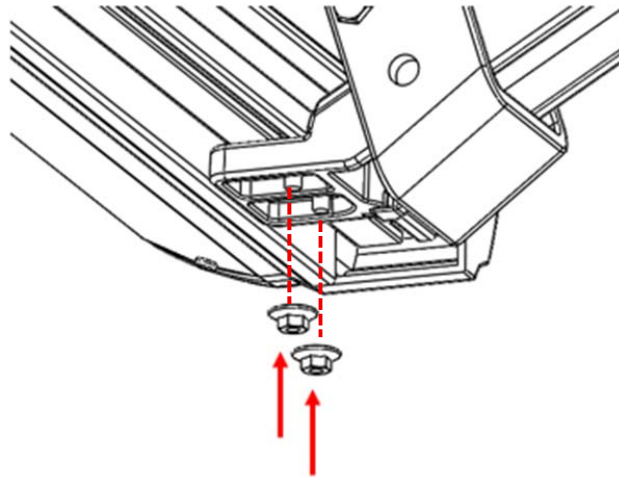
Use the notch in the board's end caps to feed the bolts into the channel.



Perform a function check by closing the driver side front door and opening it again. The front bracket assembly (A) motor should activate the linkage arm and move it into the down or "deployed" position.

After deploying linkage arms, unplug main harness connector while front door is open to hold the board in the deployed position for running board installation.

Line up the carriage bolts (E), under the power step boards, with the slots on the linkage arms (A & B). Insert the 4 carriage bolts (E) into the slots on front and rear linkage arms. Adjust board to desired position. Moderately hand tighten the flange nuts (G) onto the carriage bolts.



Once the board is adjusted, plug in main harness (J) connector to return power to the linkage arms. Open and close doors several times to deploy and retract the steps to settle the steps into their natural alignment. After cycling the step, tighten all hardware on the board and brackets.

Some further adjustment may be required for desired step position. Repeat for passenger side.

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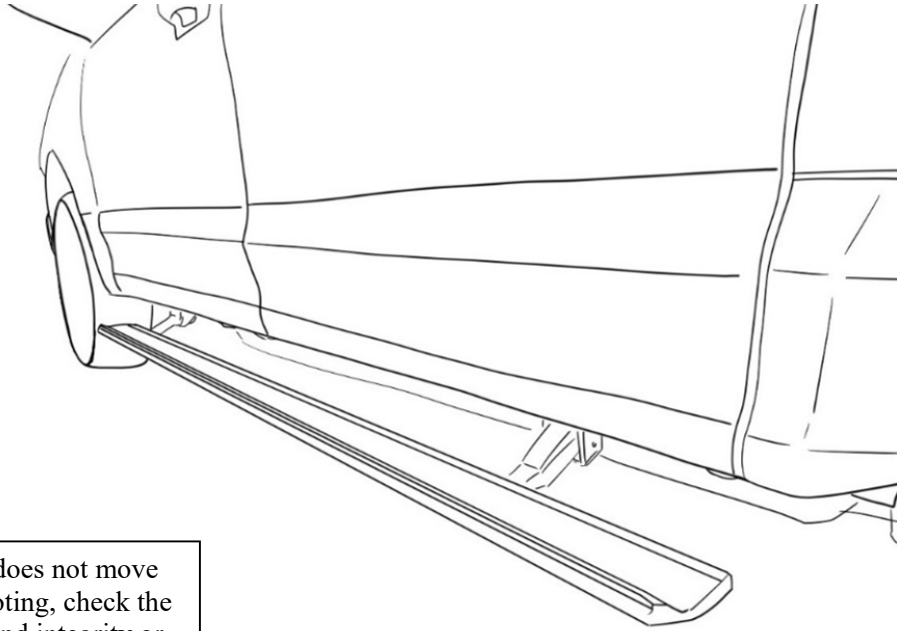
Perform system check and troubleshooting. If board is making irregular movements or noise, readjust the boards as follows:

- With board deployed loosen 6mm flange nuts under board.
- Leave the flange nuts slightly less than snug.
- Open and close door several times for board to settle into position.
- With the step in the deployed position, gradually tighten flange nuts while alternating between each. Do not over tighten.

If board is making abnormal noise or the motion is binding, repeat steps “a” through “d”.

Note: If the above method does not resolve the issue, the brackets mounting to the vehicle may not be aligned properly with the vehicle. In this case, remove the board and realign brackets before attempting steps “a” to “d” once again.

Reinstall any remaining trim panels if necessary. Check and make sure all hardware is fully tightened. Perform a final system check. Finish.



*NOTE: If board does not move during troubleshooting, check the wire tap location and integrity or flip the CAN Signal High and Low wires.