

ROUGH COUNTRY

ERBOX11920

Chevy Silverado 1500 (19-25) GMC Sierra 1500 (19-25) POWER BOARD BOX KIT

Thank you for choosing Rough Country for all your vehicle needs.

Please read instructions before beginning installation. Check the kit hardware against the kit contents shown below. Be sure you have all needed parts and know where they go. If question exist, please call us @1-800-222-7023. We will be happy to answer any questions concerning this product. Check all fasteners for proper torque. Check to ensure for adequate clearance between all components. Periodically check all hardware for tightness..



Torque Specs:

Size	Grade 5	Grade 8	Size	Class 8.8	Class 10.9
5/16"	15 ft/lbs	20ft/lbs	6MM	5ft/lbs	9ft/lbs
3/8"	30 ft/lbs	35ft/lbs	8MM	18ft/lbs	23ft/lbs
7/16"	45 ft/lbs	60ft/lbs	10MM	32ft/lbs	45ft/lbs
1/2"	65 ft/lbs	90ft/lbs	12MM	55ft/lbs	75ft/lbs
9/16"	95 ft/lbs	130ft/lbs	14MM	85ft/lbs	120ft/lbs
5/8"	135ft/lbs	175ft/lbs	16MM	130ft/lbs	165ft/lbs
3/4"	185ft/lbs	280ft/lbs	18MM	170ft/lbs	240ft/lbs



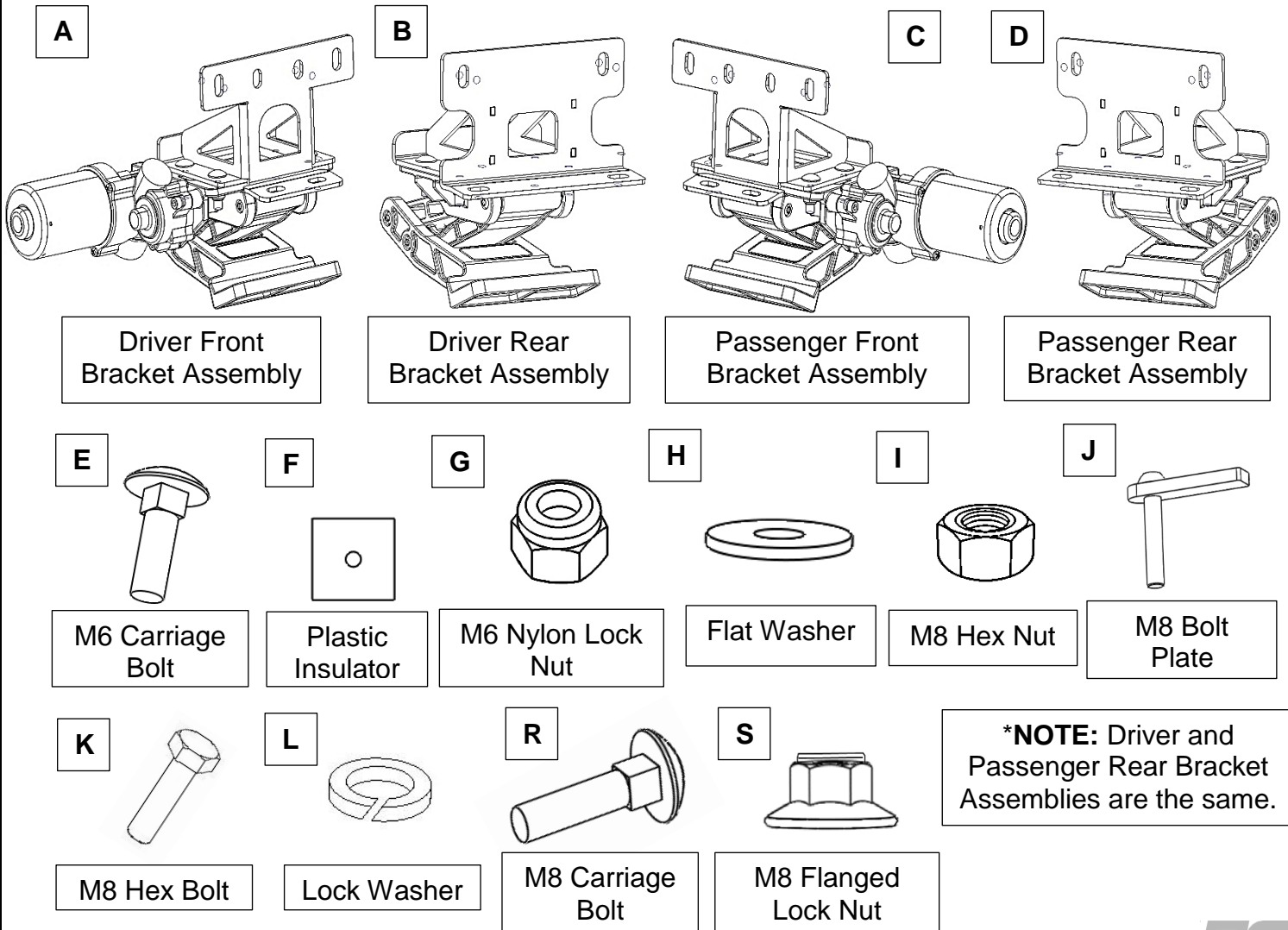
INSTALLATION INSTRUCTIONS

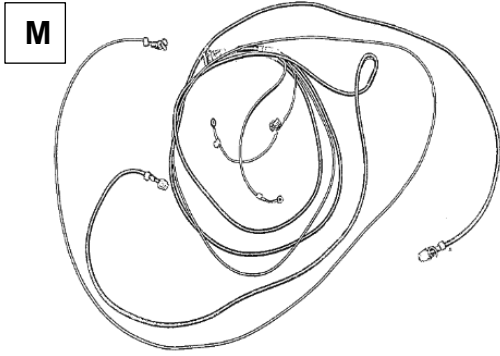
Mechanical PARTS LIST:

Qty	Item Description	Qty	Item Description
2	Running Boards	12	8-1.25x30mm Hex Bolts
1	Driver/Left Front Linkage Assembly	14	8mm Lock Washers
1	Passenger/Right Front Linkage Assembly	14	8mm x 24mm x 2mm Flat Washers
1	Driver/Left Rear Linkage Assembly	2	8mm Hex Nuts
1	Passenger/Right Rear Linkage Assembly	2	8-1.25x40mm Bolt Plates
1	Electronic Materials Package	16	6mm x 16mm x 1.6mm Flat Washers
2	Front Steel Mounting Brackets	16	6mm Nylon Lock Nuts
2	Rear Steel Mounting Brackets	16	6-1.0x20mm Carriage Bolts
16	8mm Flange Lock Nuts	2	Plastic Retainers
16	8-1.25x30mm Carriage Bolts		

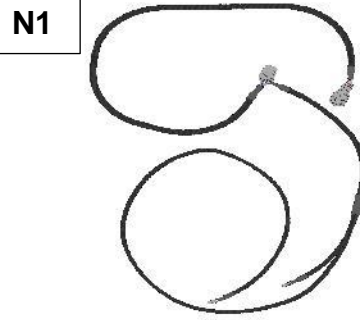
Electronic Materials Package PARTS LIST:

Qty	Item Description	Qty	Item Description
1	Main Harness	1	ECU
4	Magnetic Switches	4	LED lights
1	LED Y-Harness (280mm)	1	LED Y-Harness (1200mm)
4	Magnets and Adhesive Prep Kit	15	Zip Ties

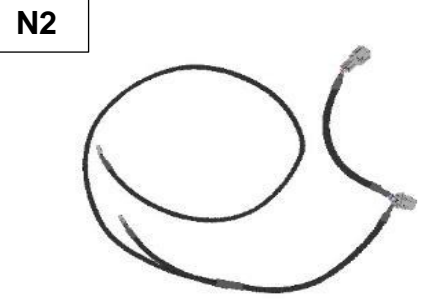




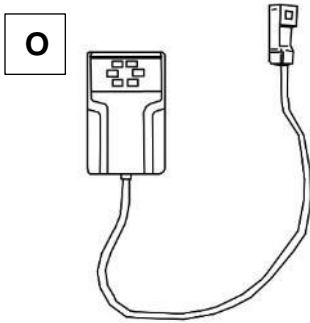
Main Harness



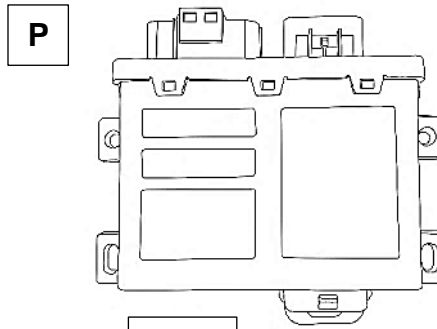
LED Y-Harness (1200mm)



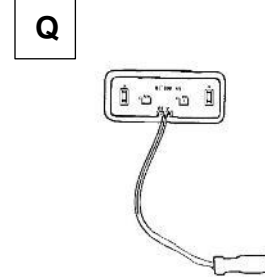
LED Y-Harness (280mm)



Magnetic Switches



ECU



LED Lights

TOOLS REQUIRED



Ratchet



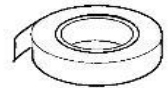
8mm
10mm
13mm
Socket



Extensions



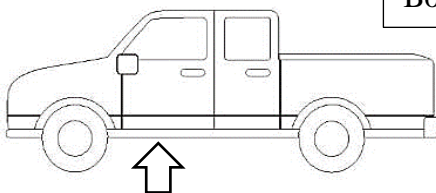
Wrenches



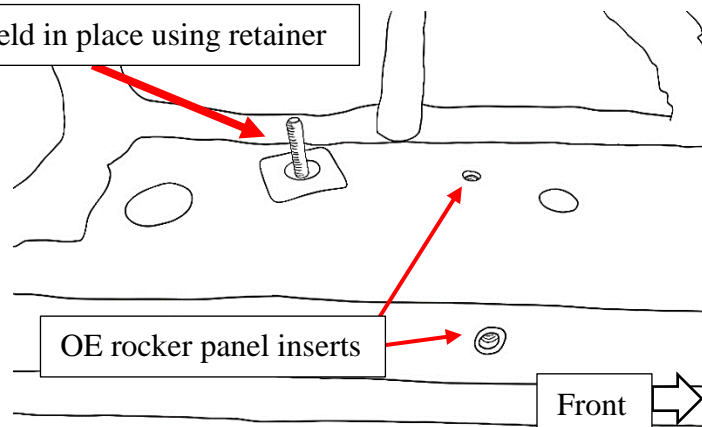
Electrical Tape

1

Locate Driver Side front mounting points on the rocker panel under the front door. Remove any OE plastic insert caps on the mounting area. Insert the bolt plate (J) into the upper left hole with the bolt threads facing the frame. Use the plastic retainer (F) to keep the bolt plate in place for mounting.



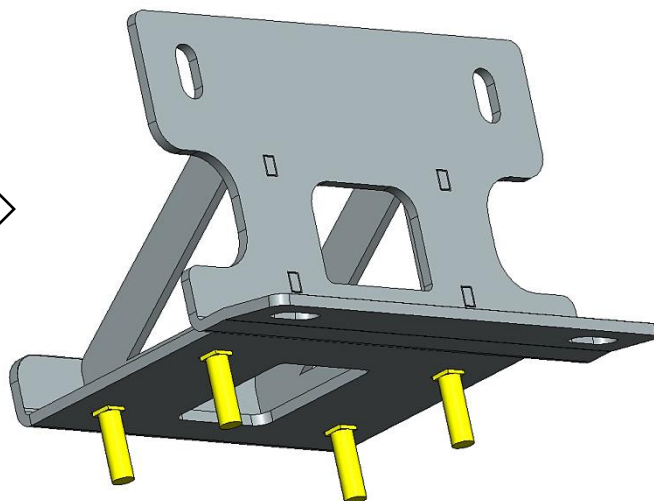
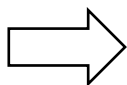
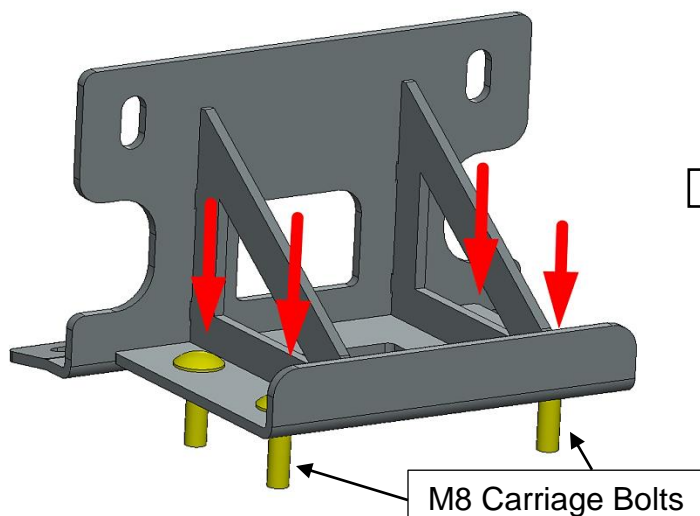
Bolt Plate held in place using retainer



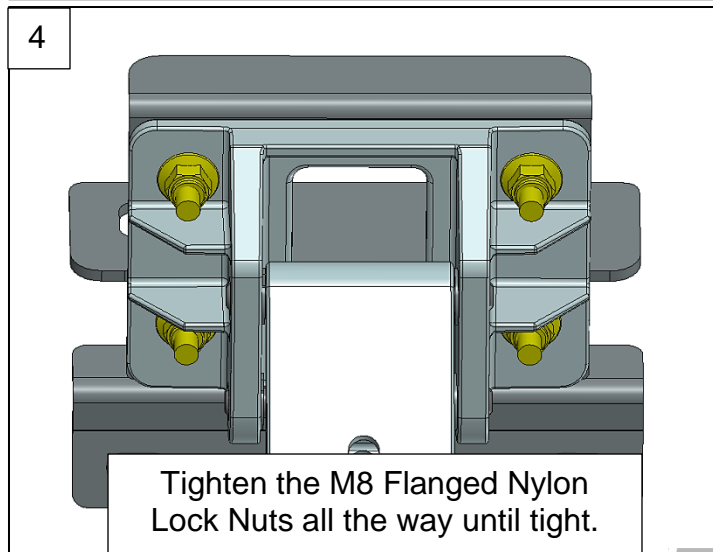
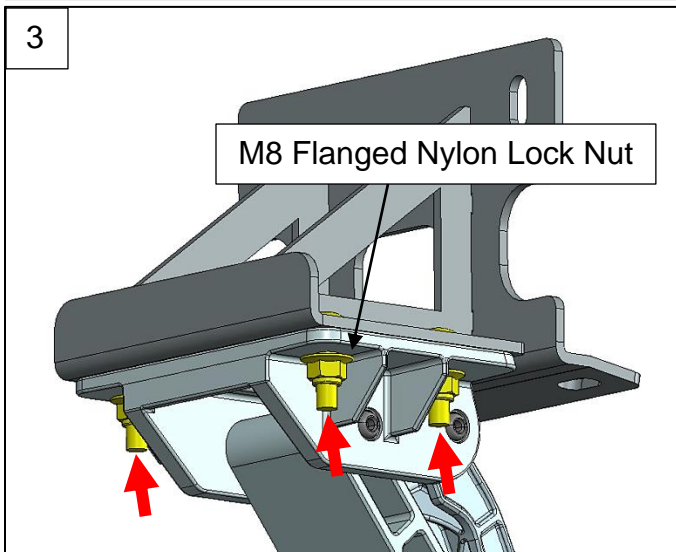
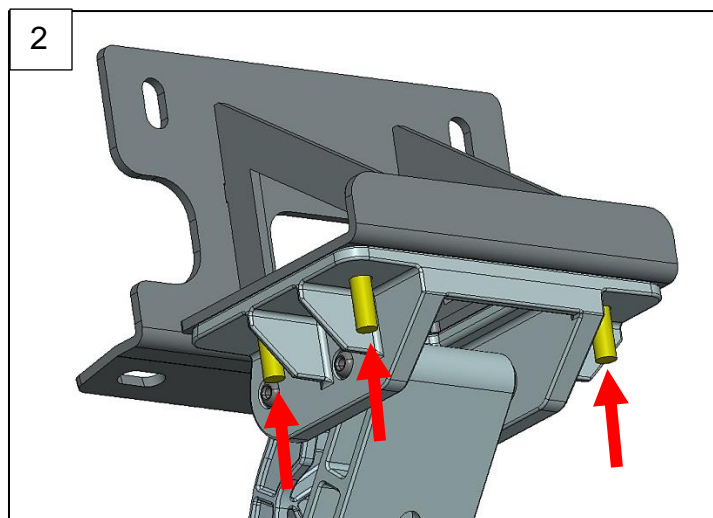
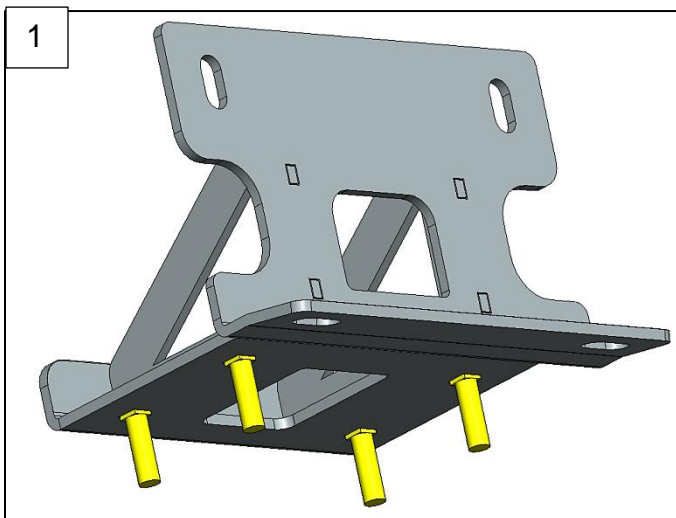
*Note: Pry-tool is recommended for removing plastic insert caps.

Take the mounting brackets and attach them to the linkage arms. First, insert the M8 Carriage Bolts into the square slots on the brackets so that the threads are pointing downwards.

Insert M8 Carriage Bolts downwards.

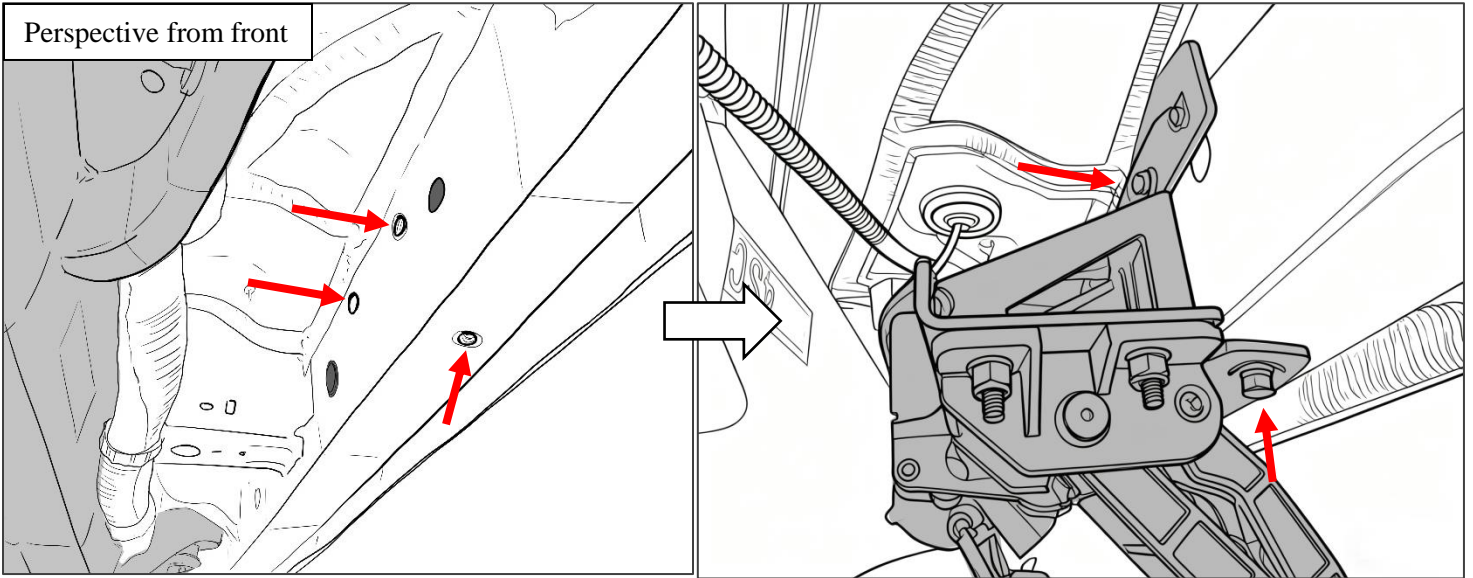


Next, use the M8 Flanged Nylon Lock Nuts to fasten the aluminum linkage arms to the brackets. There are 4 fastening points on each bracket.

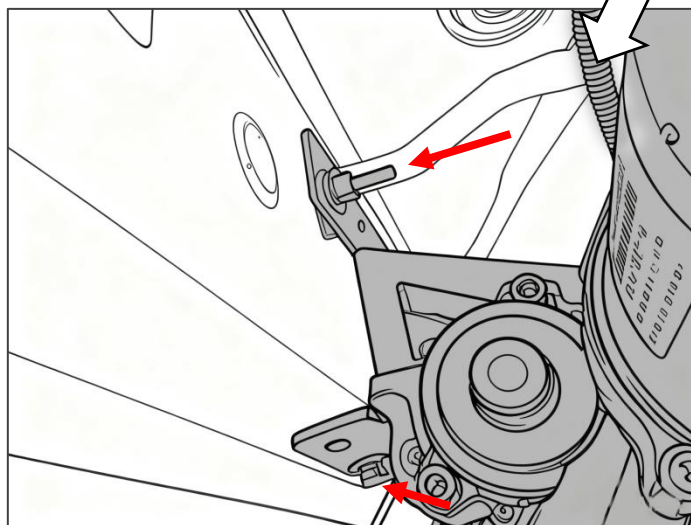
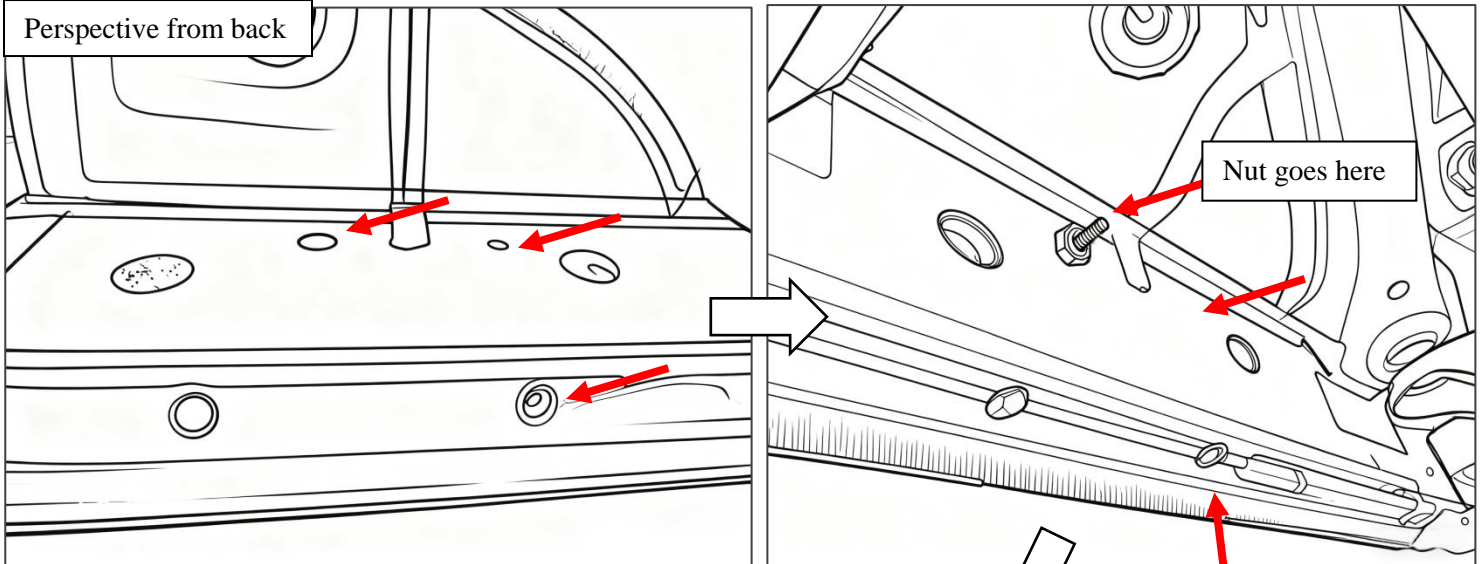


Locate and Line up front mounting bracket slots to the rocker panel threaded inserts and place Driver Side/Left Front Bracket Assembly (A) onto rocker panel. Then fasten 8mm Bolts, Lock Washers, and Flat washers together into the OE inserts and 8mm Hex Nut to the Bolt Plate. Do not tighten all the way yet.

Perspective from front

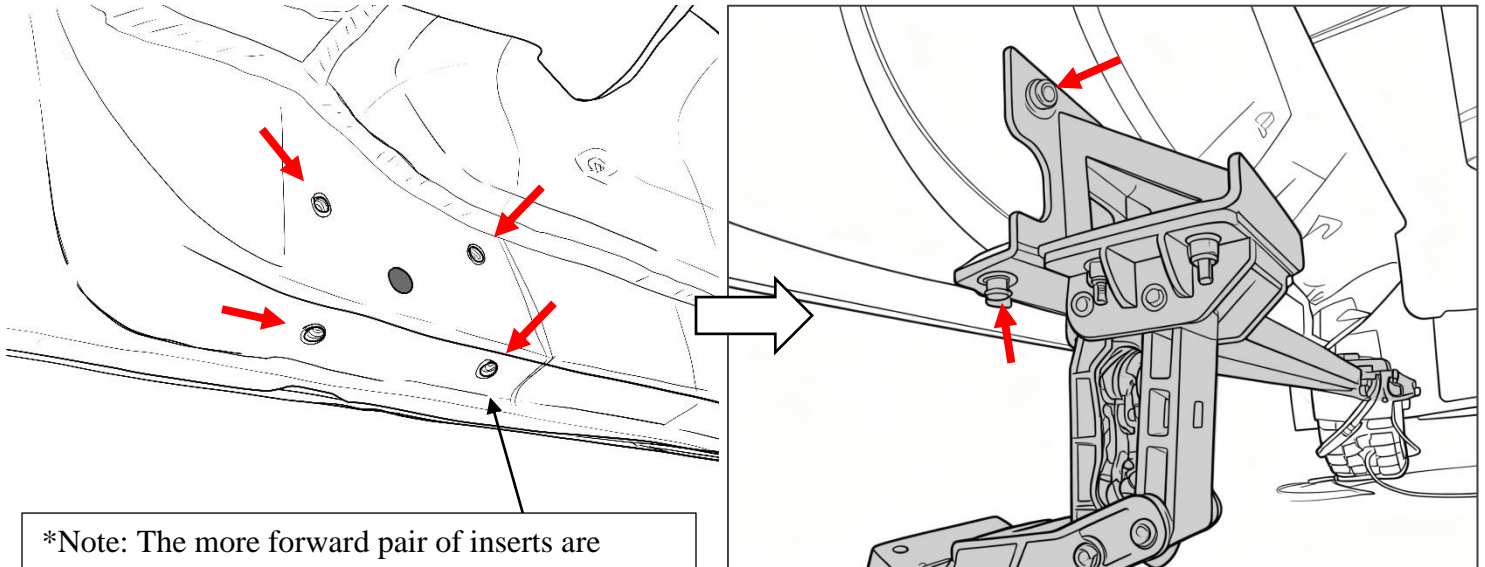


Perspective from back

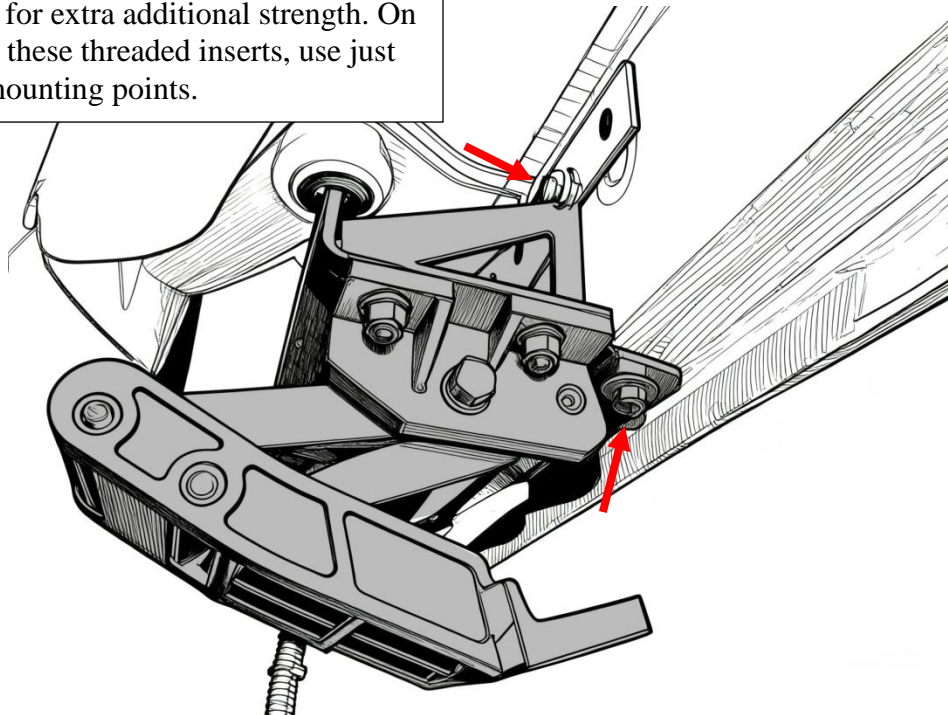


4

Locate rear mounting points. Remove the appropriate plastic OE insert protectors to reveal the threaded inserts. Next, line up rear mounting bracket slots to the studs and place Driver Side/Left Rear Bracket Assembly (B) onto rocker panel. Remove any rubber plugs that may get in the way of the bracket.



*Note: The more forward pair of inserts are additional mounting points. Not all vehicles have these. On vehicles with these inserts available, be sure to use them for extra additional strength. On vehicles without these threaded inserts, use just the rearward 2 mounting points.

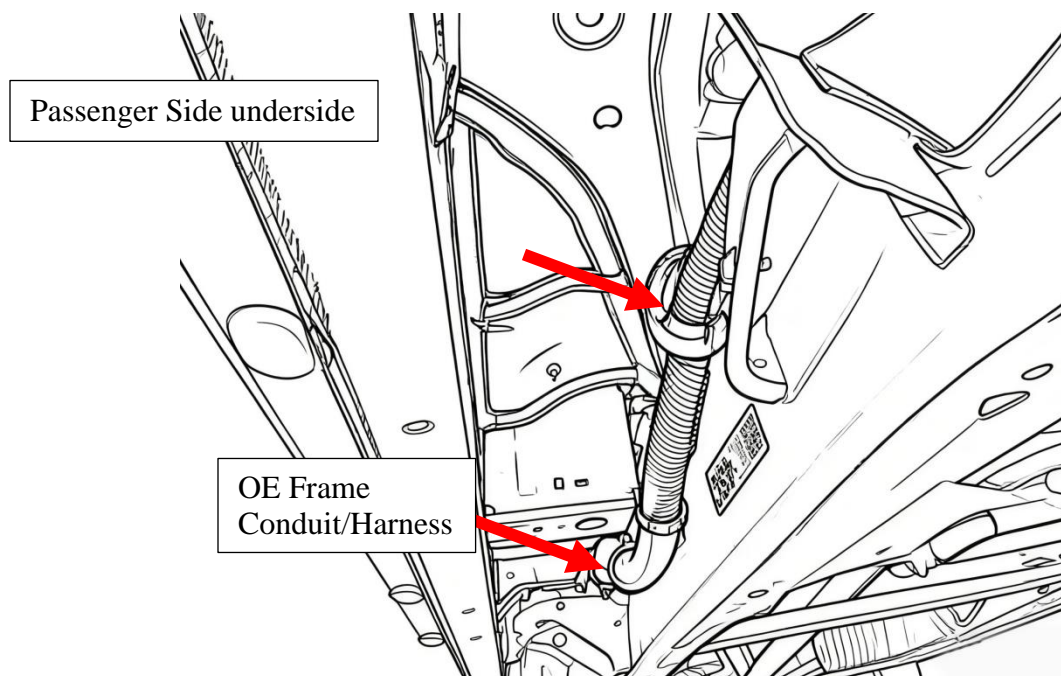


Then fasten the 8mm bolts (K), lock washers (L), and flat washers (H) into. Do not tighten all the way yet.

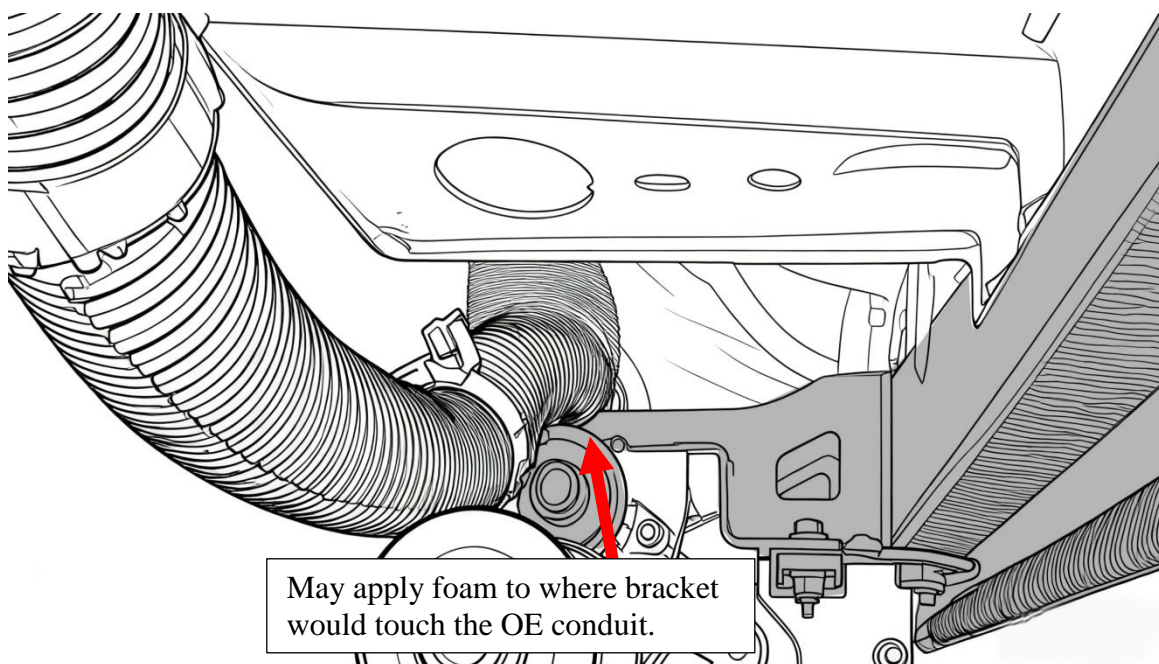
Adjustment may be needed afterwards.

Repeat steps 1 – 3 for the Passenger Side.

On some vehicles, the Passenger Side has large wire conduits running the length of the vehicle frame. These wire harnesses are bendable and can be simply pushed aside when installing the Passenger Side Bracket Assemblies (C & D).



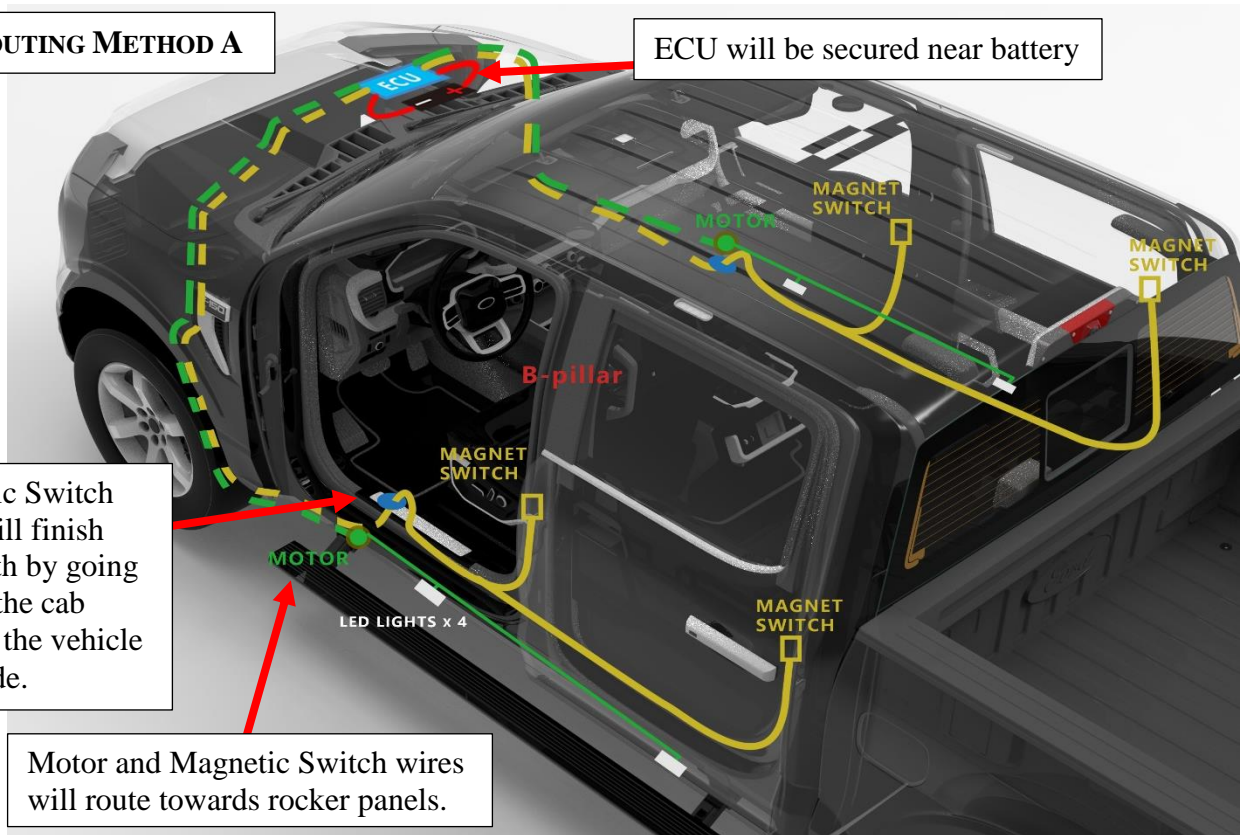
In some cases, foam strips may be applied to the top of the brackets in areas that will touch the OE frame conduit. In most cases, the brackets will not touch.



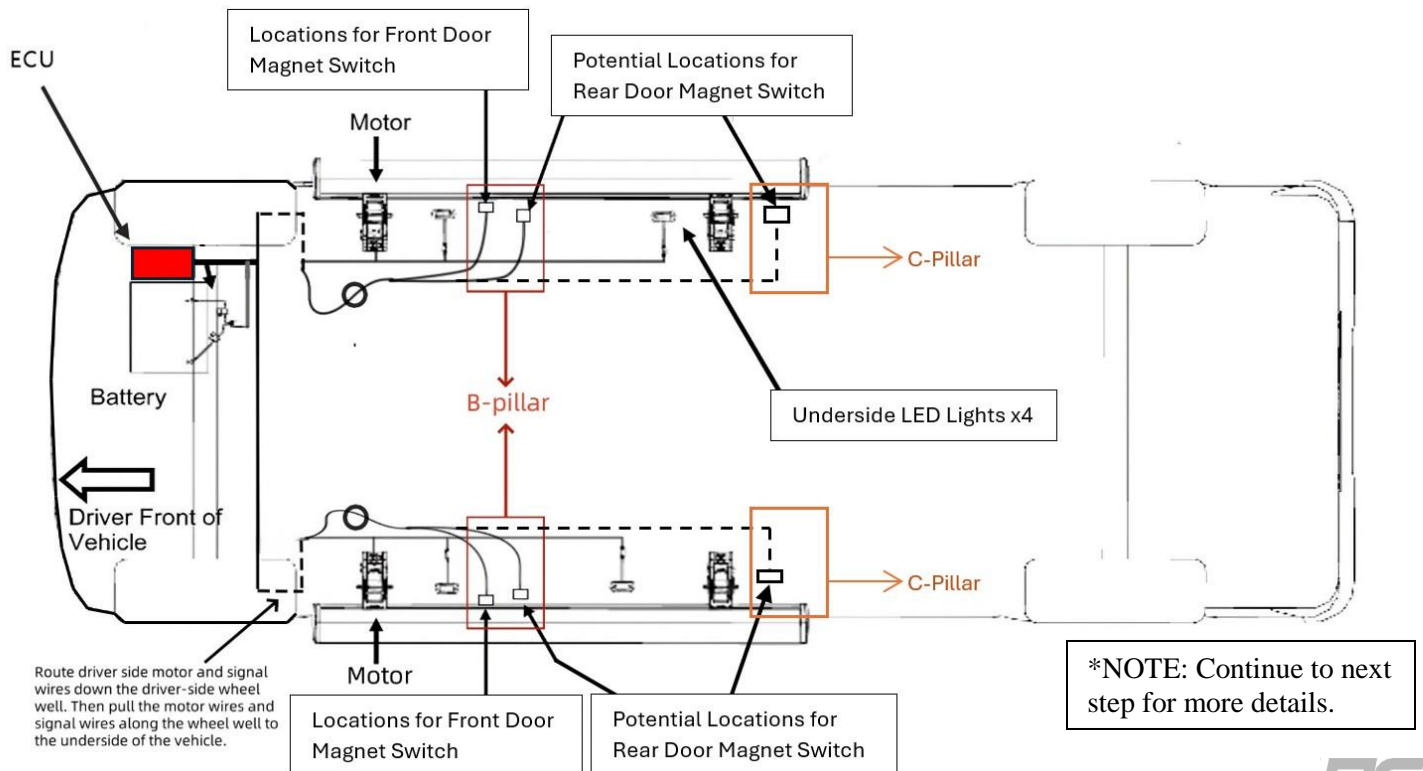
Use electrical Routing Method A or B, whichever is more applicable to your vehicle.

In general, the routing of the wires will follow the basis of the graphic below. The legs of the Main Harness labeled "Passenger Side" will route towards the Passenger Side of the vehicle, and the legs labeled "Driver Side" will route towards the Driver Side of the vehicle.

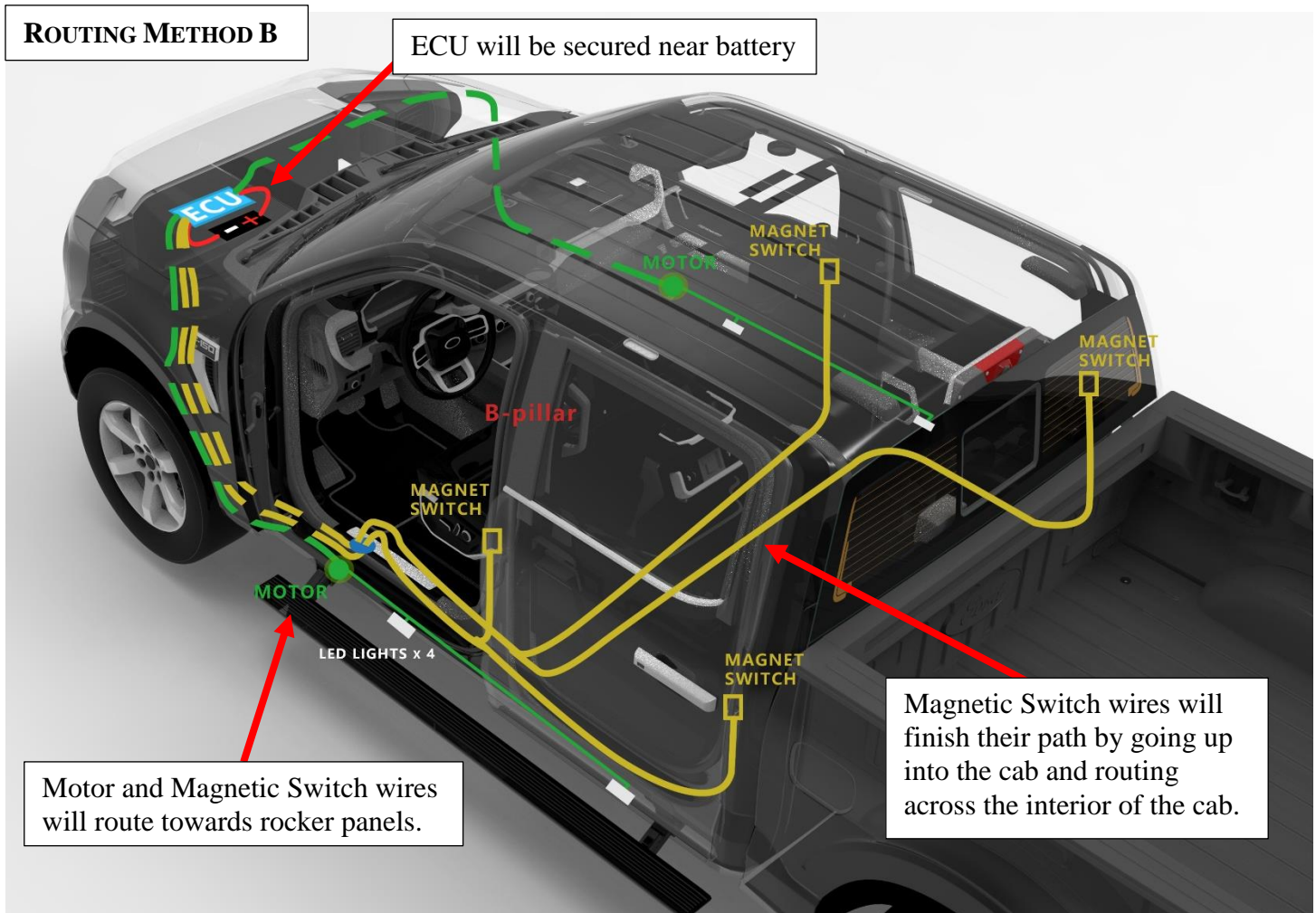
ROUTING METHOD A



The main idea is to route the wires from the battery to the appropriate side, and from there, to route the signal wires for the magnetic switches up through the floor of the vehicle and into the cab. Use the general diagram below as reference while routing the wires:



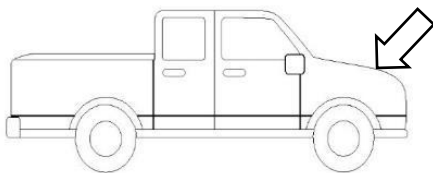
Electrical Routing Method B is the alternative in case the plastic or rubber plugs on the underside of the Driver Side of the vehicle body are not present or accessible on the Passenger Side, or vice versa. Please refer to the graphic below for the general routing paths the wires will take.



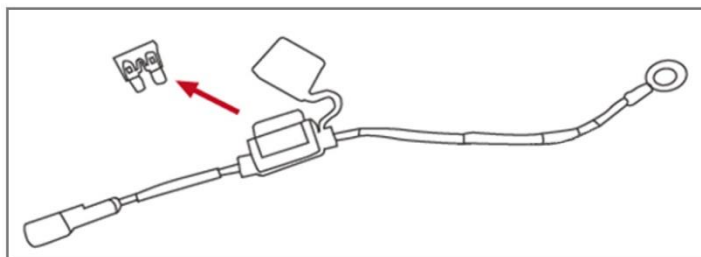
The general steps for Routing Method B are the same as Routing Method A, with the only difference being that the Passenger Side Magnetic Switch wires routing up into the cab via the same grommet/plug as the Driver Side Magnetic Switch wires.

Once the Passenger Side Magnetic Switch wires are routed into the cab, they need to be routed along the inside, across to the Passenger Side of the cab and up to the doors like pictured in the graphic above.

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 (M).

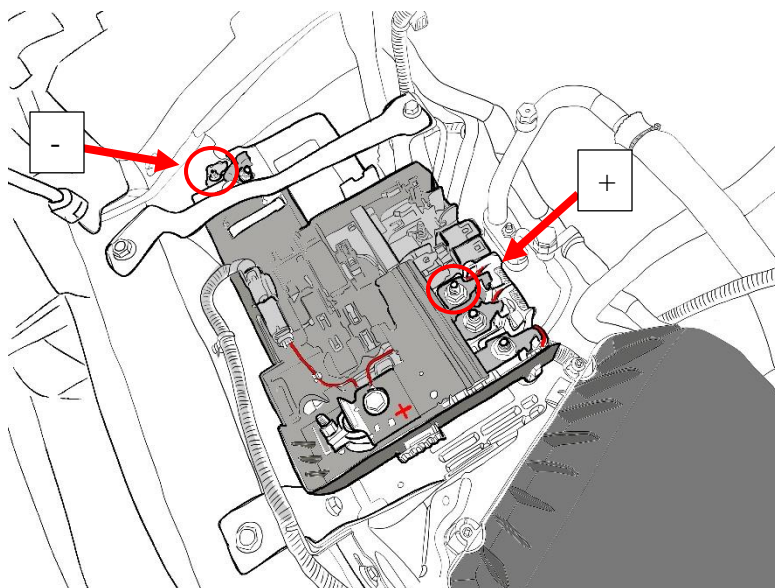


***WARNING:** Keeping the fuse connected to the fuse box may result in electrical sparks and risk of shorting when working with the battery.

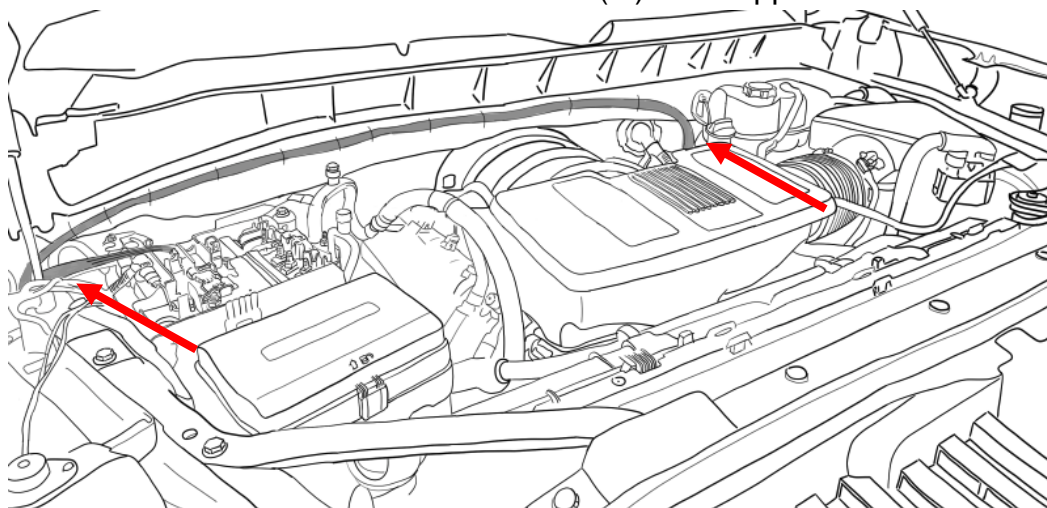


Open fuse holder cap and remove fuse

Connect the positive power lead on the main harness (M) to the positive battery terminal. Connect the negative lead to the negative battery terminal. Make sure both power leads are fully secured. Connect the ECU (P) to the main harness. Connect the Long LED Y-Harness (N1) To the Driver-side branch of the main harness. Connect the Short LED Y-Harness (N2) to the Passenger-side branch of the main harness.



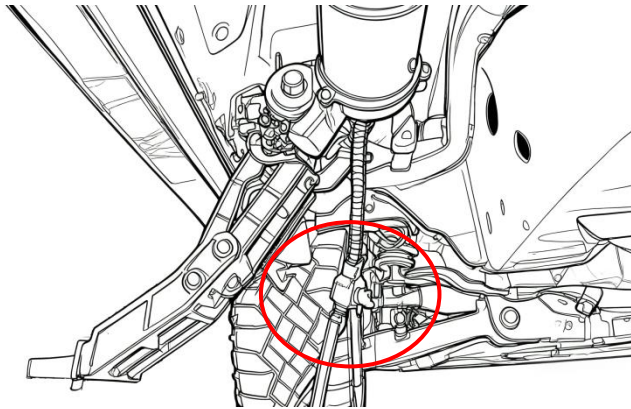
Route the main harness (M) around the battery, up along the rear of the engine compartment, and down the Driver-side wheel well. Route the shorter leg of the harness down the Passenger-side wheel well. **Be sure to avoid contact with any moving or hot engine components.** Attach and secure the main harness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



10

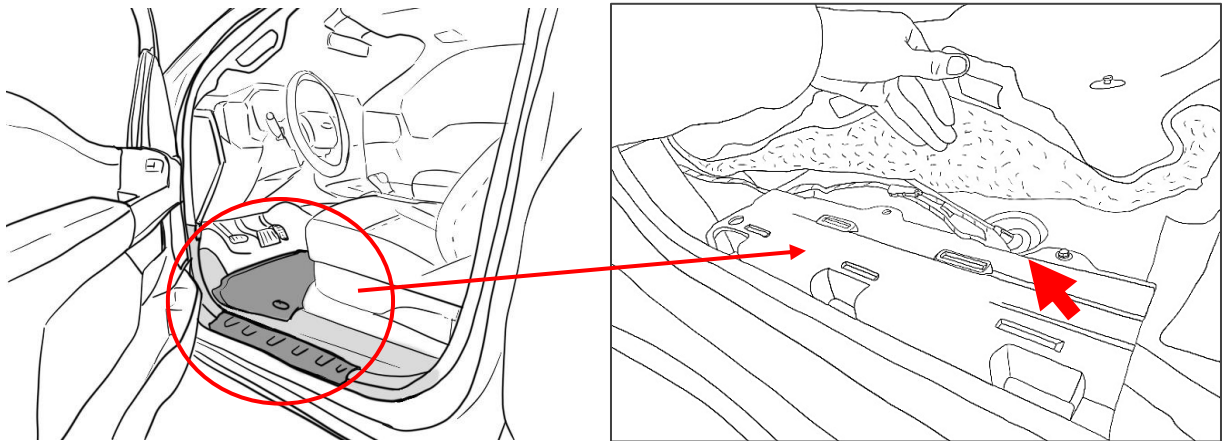
Attach the main harness (M) to the LED Y-Harness (N). Then attach the LED Y-Harness (N) to the motor on the Driver Side. Repeat for Passenger Side. The shorter LED Y-Harness should connect to the motor that is on the same side as the ECU.

Driver side



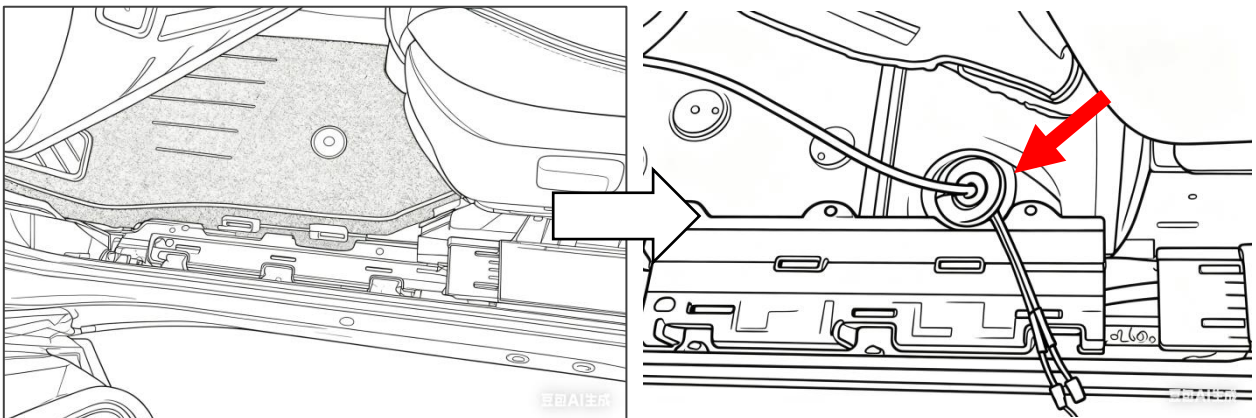
11

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.



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.

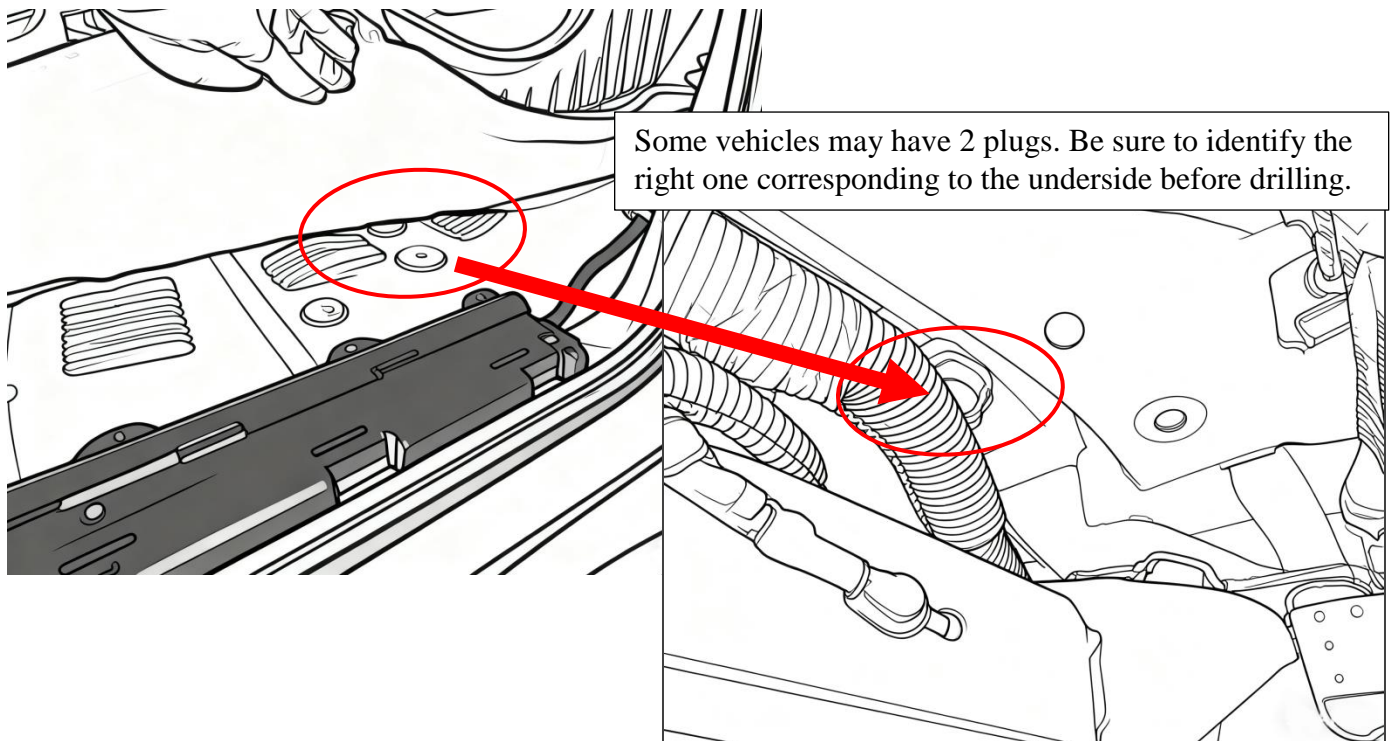
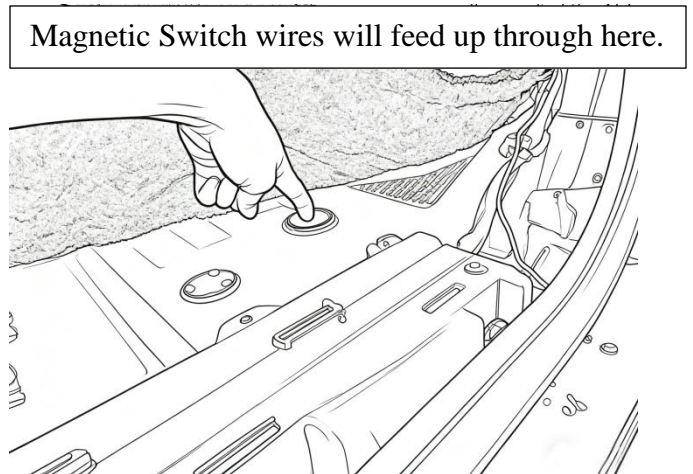
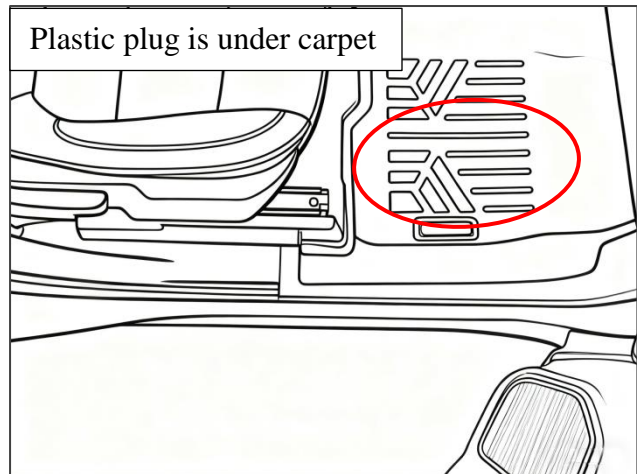
Pull the two signal wires through and determine which of them has longer length. The shorter length wire will be for the front door, and the longer length wire will be for the rear door.



If the vehicle does not have a rubber grommet on the Driver Side, find the appropriate plastic plug that can be drilled through for the wires to enter the cab.

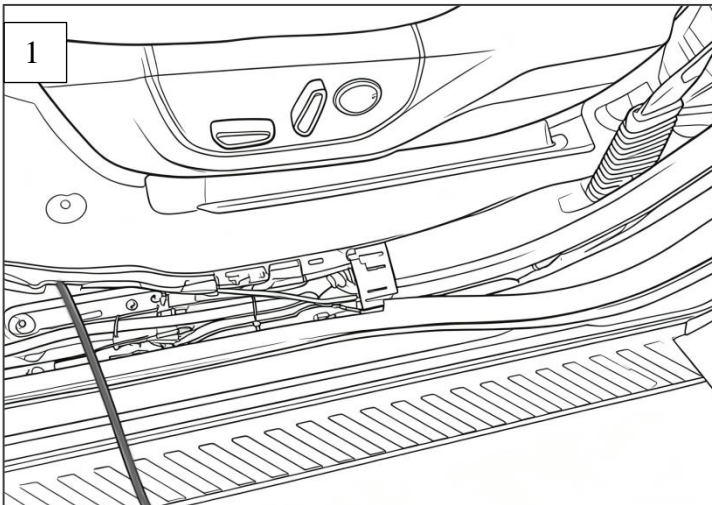
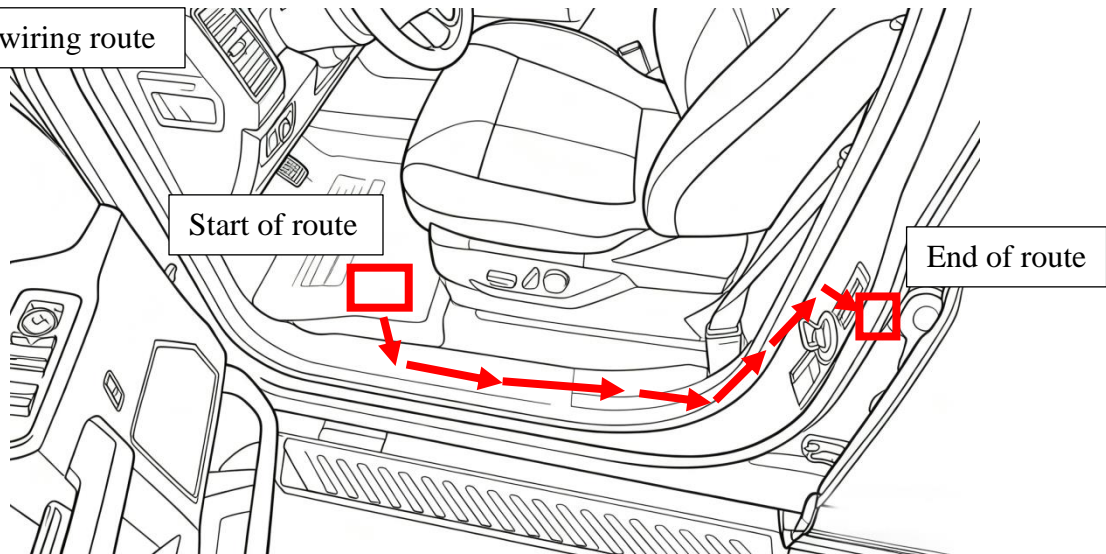
For routing the Passenger Side magnetic switch wires, poke a hole using a drill or punch through the plastic cap on the underside to feed the wires into the cabin.

First, remove the kick panel and door jamb plastic trim (same way as Driver Side). Then lift the carpet up to reveal the plastic plug (as seen below).

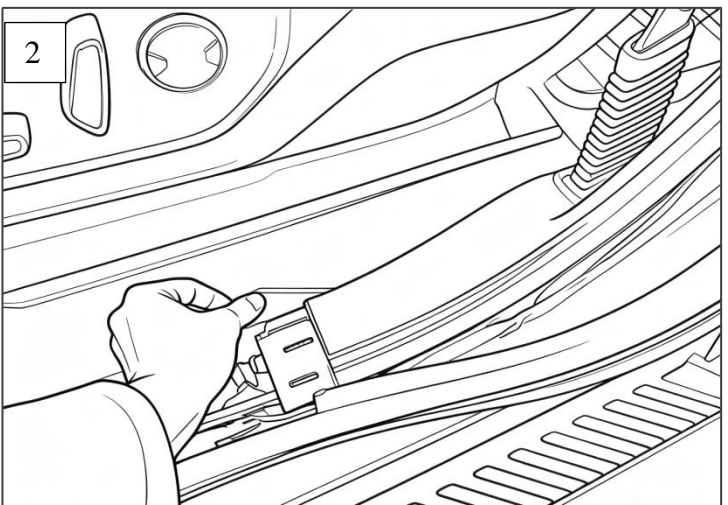


Starting on the front door, take the shorter signal wire and route it up through the underplating and weather seal of the panels up to where the door latch striker is.

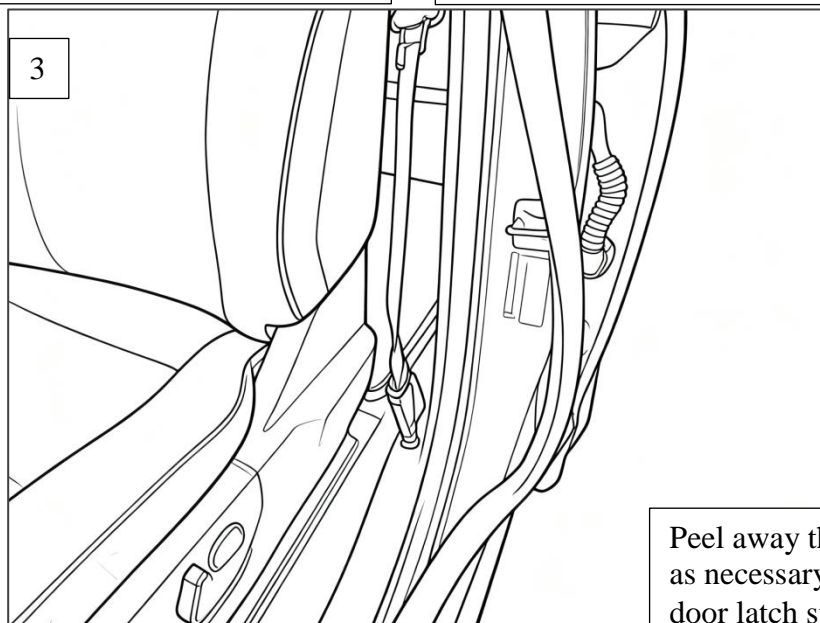
DS Front Door wiring route



Insert the wire into the revealed spaces underneath

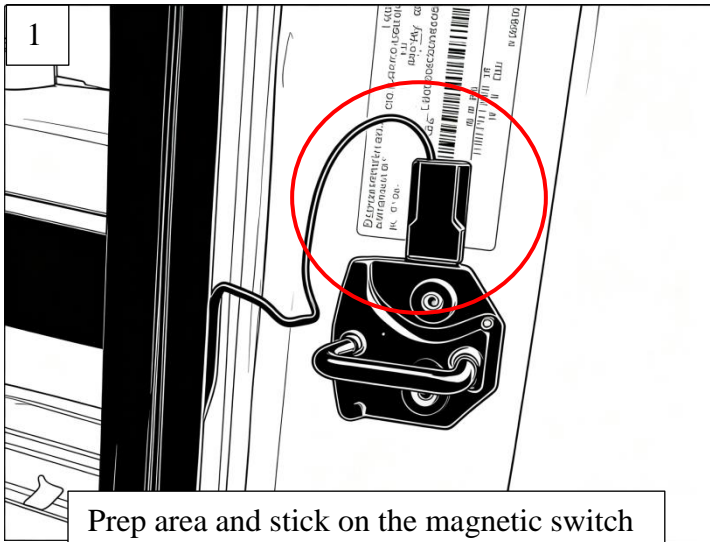


It is recommended to go under the plastic paneling.

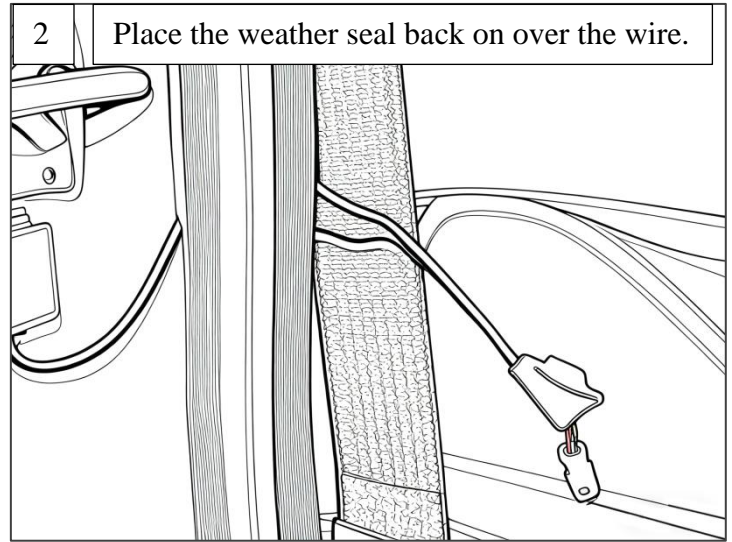


Peel away the weather seal as necessary to reach the door latch striker.

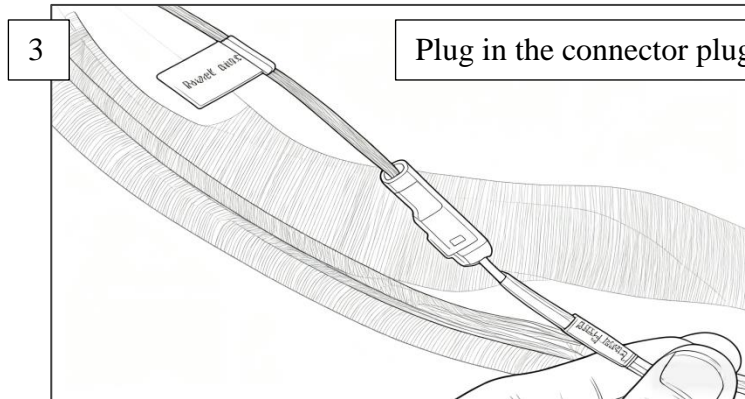
After routing the signal wire near the striker, attach the magnetic switch to the B-pillar just above or below the striker. Be sure to clean the area using alcohol wipes and a clean cloth to ensure maximum adhesion to the surface. Then connect the signal wire plug to the magnetic switch plug.



Prep area and stick on the magnetic switch

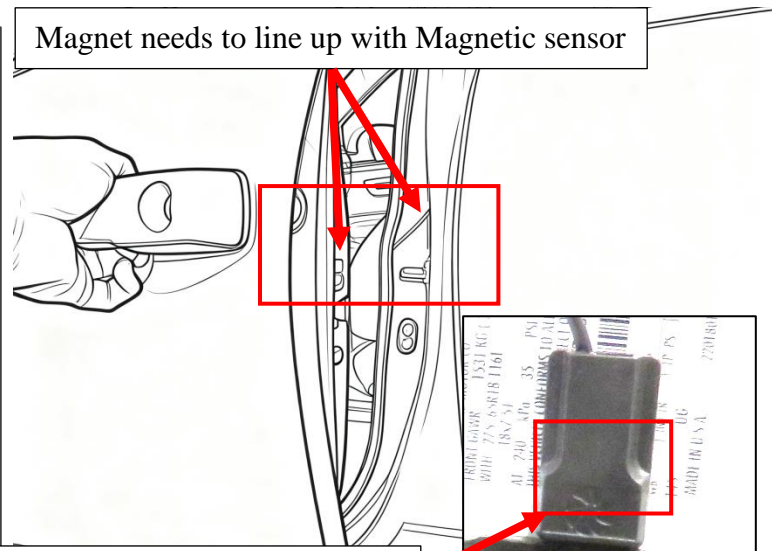
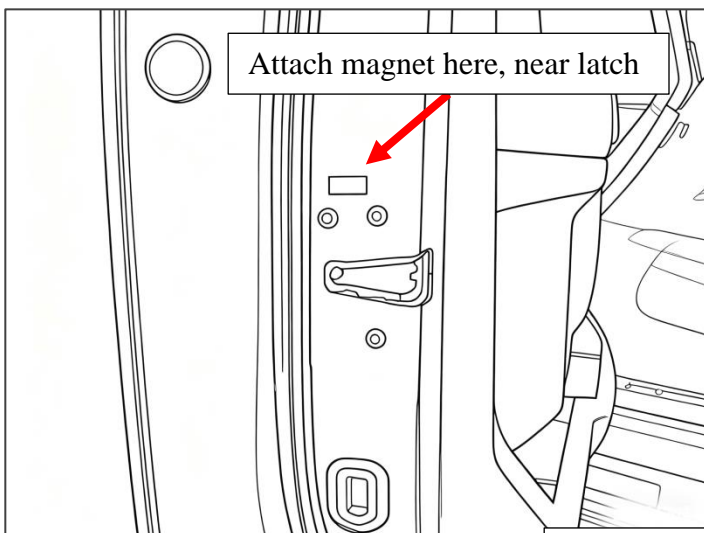


Place the weather seal back on over the wire.



Plug in the connector plugs

Then, take a magnet and place a provided 3M adhesive patch on one side. Take the newly prepped magnet and line it up with the magnetic switch on the door side. When closing the door, the magnet needs to align with the rectangular emboss of the magnetic switch to properly activate. Attach this magnet to the corresponding position.

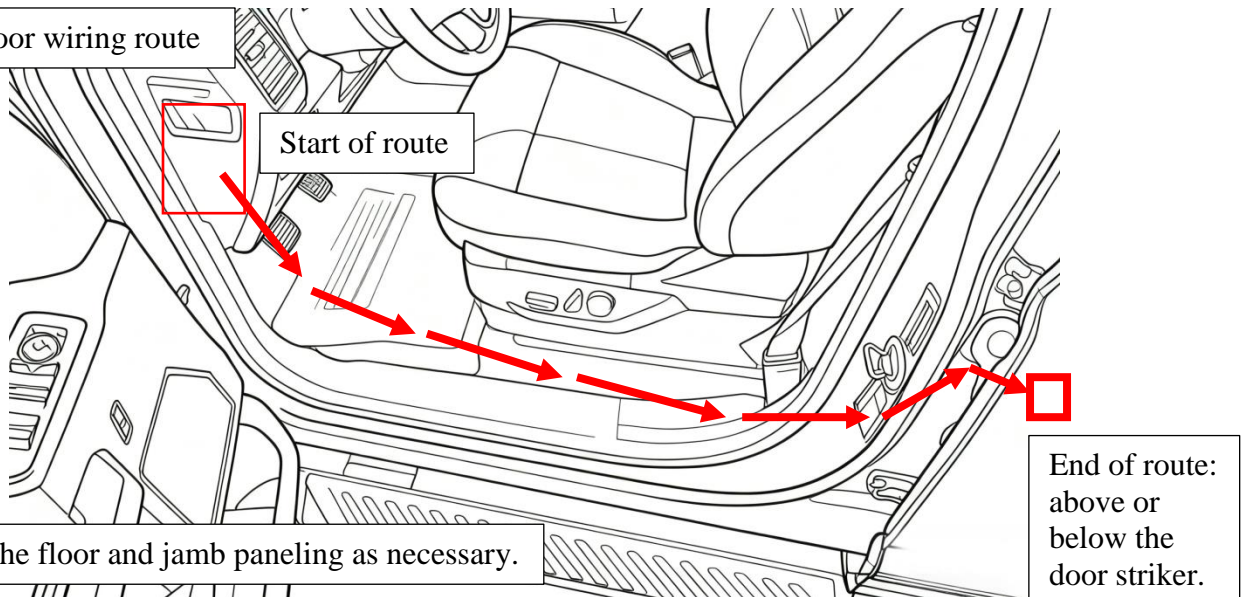


Magnet needs to line up with this emboss

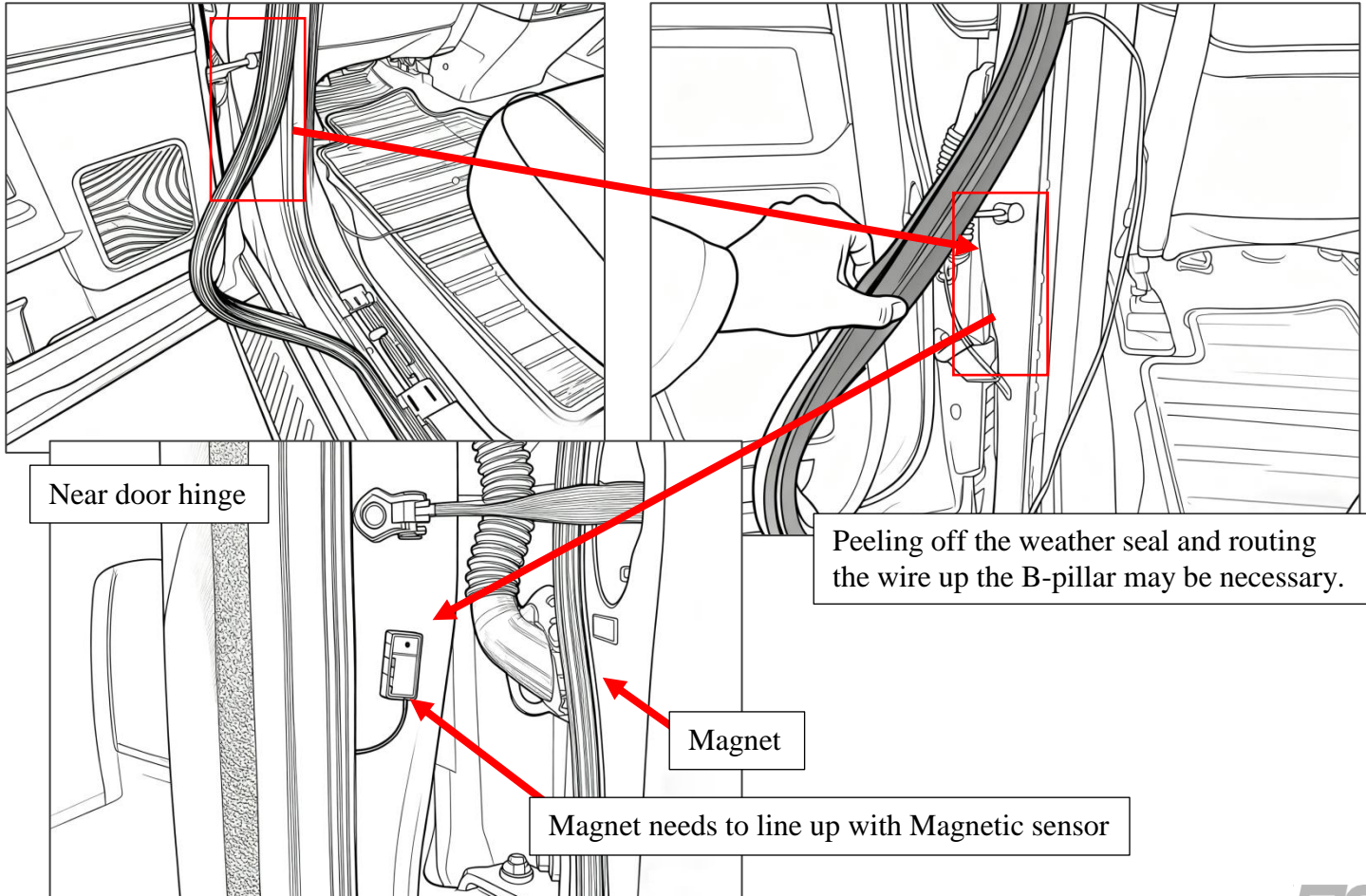
Next, do the same procedure to the Driver-Side rear door too.

Route the longer signal wire following this path. Be sure to give enough length and slack to the wire to reach the door striker while hiding the wiring under the plastic panels.

PS Front Door wiring route



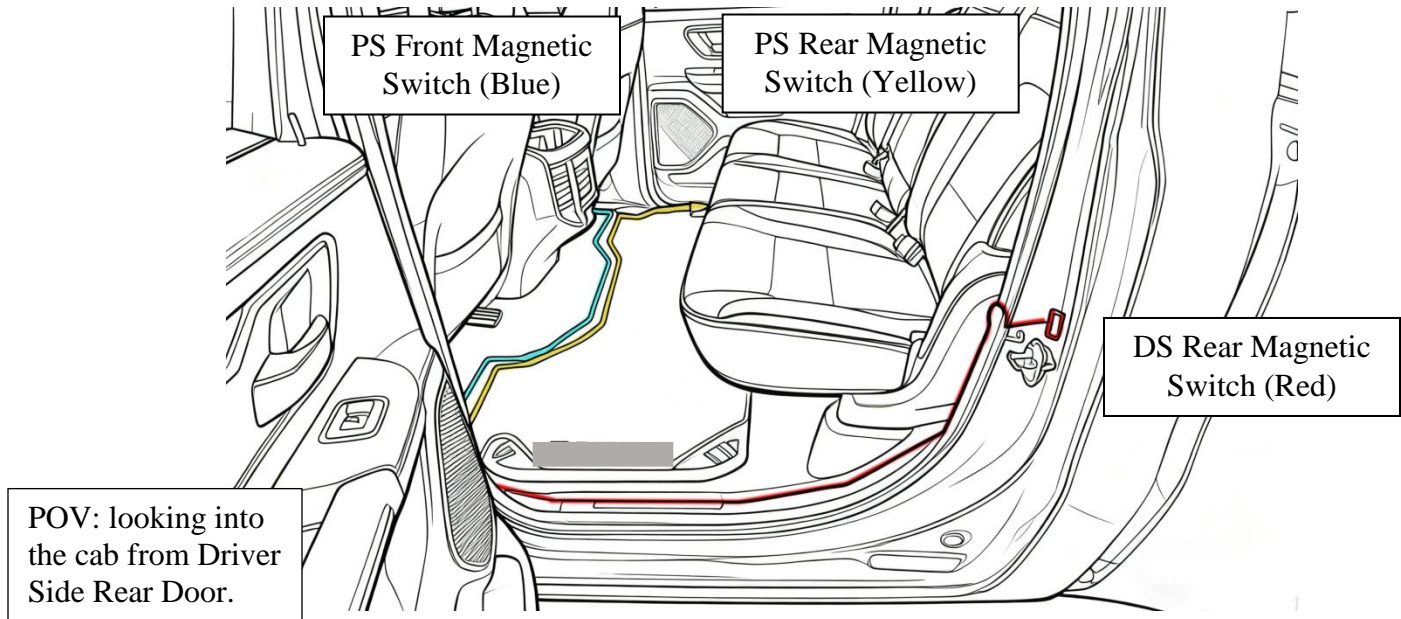
If the signal wire is not long enough for whatever reason, the alternative location for the magnetic switch is at the front of the rear door (near hinge) instead of the back. See pictures below for reference:



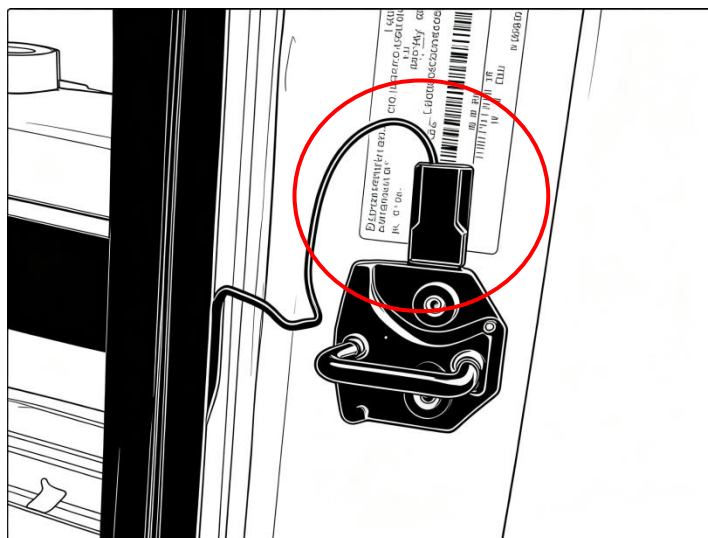
13

Follow Steps 9 to 10 for the Passenger-Side and complete the routing of the wires of the Passenger-Side magnetic switches. Refer to the diagrams in Step 6 (either Routing Method A or B) as a guide.

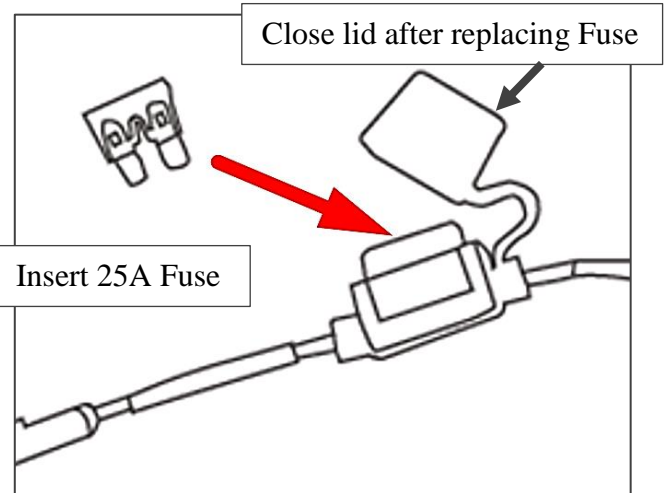
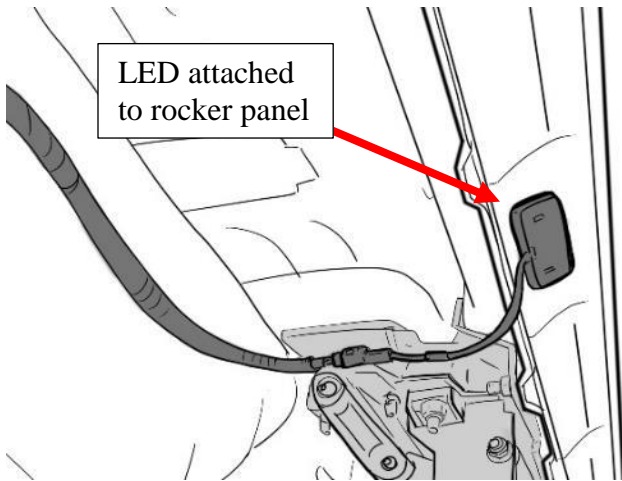
If Routing Method B is being used, after snaking the Passenger-Side magnetic switch wires into the cab through the Driver-Side underside plug, route the Passenger Side Magnetic Switch Wires across the interior over to the other side. The illustration below shows the general paths of the Magnetic Switch wires as colored lines.



Follow the rest of Steps 11-12 to complete Passenger-Side wiring for Magnetic Switches.

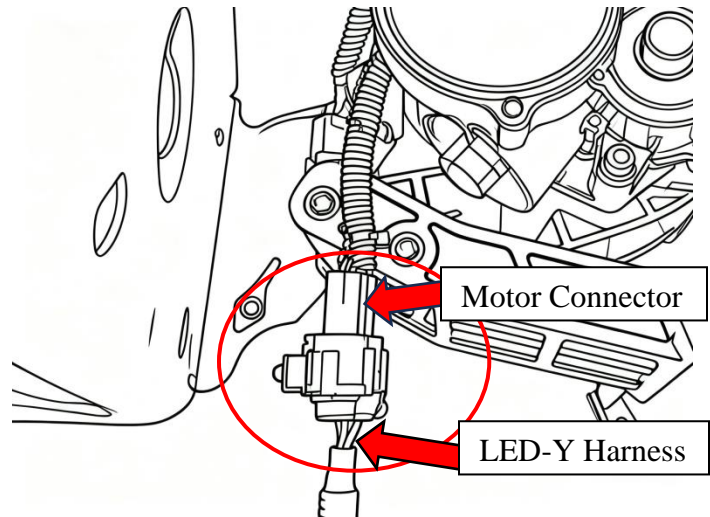


Plug in LED lights (Q) into LED Y-Harness (N) and attach them to the bottom of the rocker panel. Use provided 3M double sided adhesive tape on back of LED light (Q). Replace Fuse into Fuse Box.



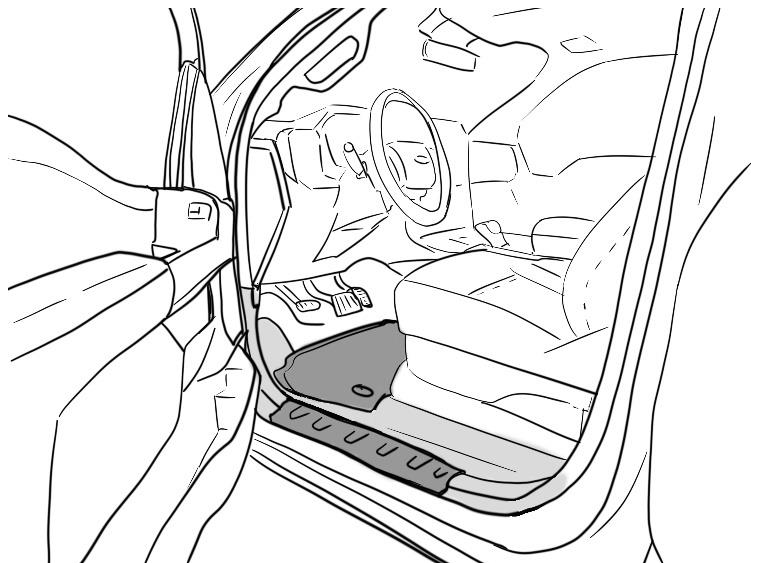
Check to make sure the harnesses on the Driver Side/Left Front Bracket Assembly (A) and Passenger Side Front Bracket Assembly (C) are connected to the main harness (M) via the LED-Y harnesses (N).

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

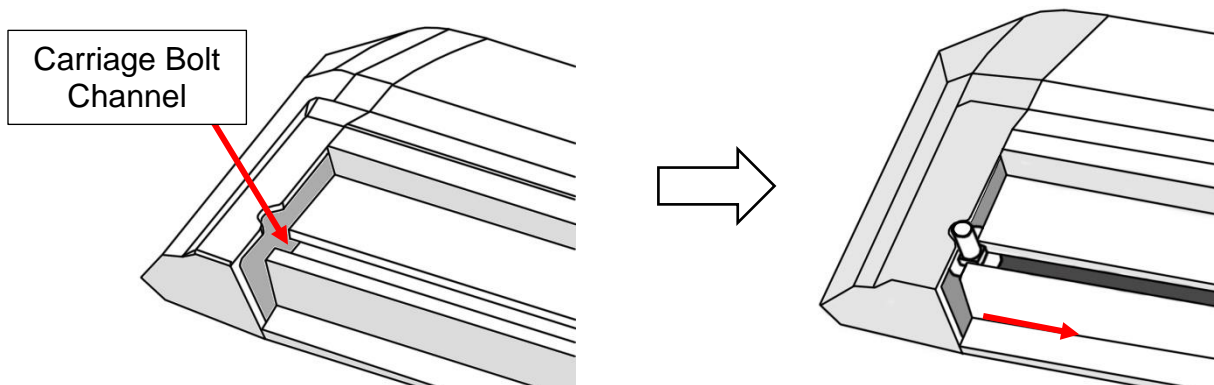


Seal the grommet with RTV Silicone Sealant.

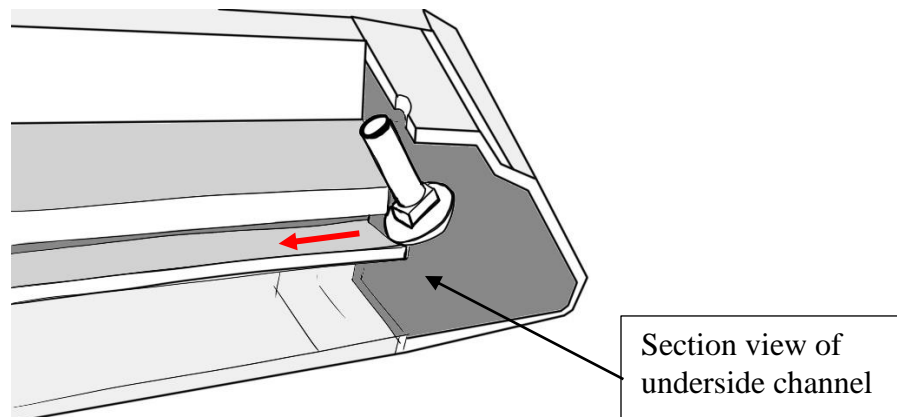
Hide wires and reattach the kick panel with the carpet fully unfurled in its original position. Reattach the door sill panel and check to make sure there are no obstructions or potential snag points around the brake pedal area.



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).



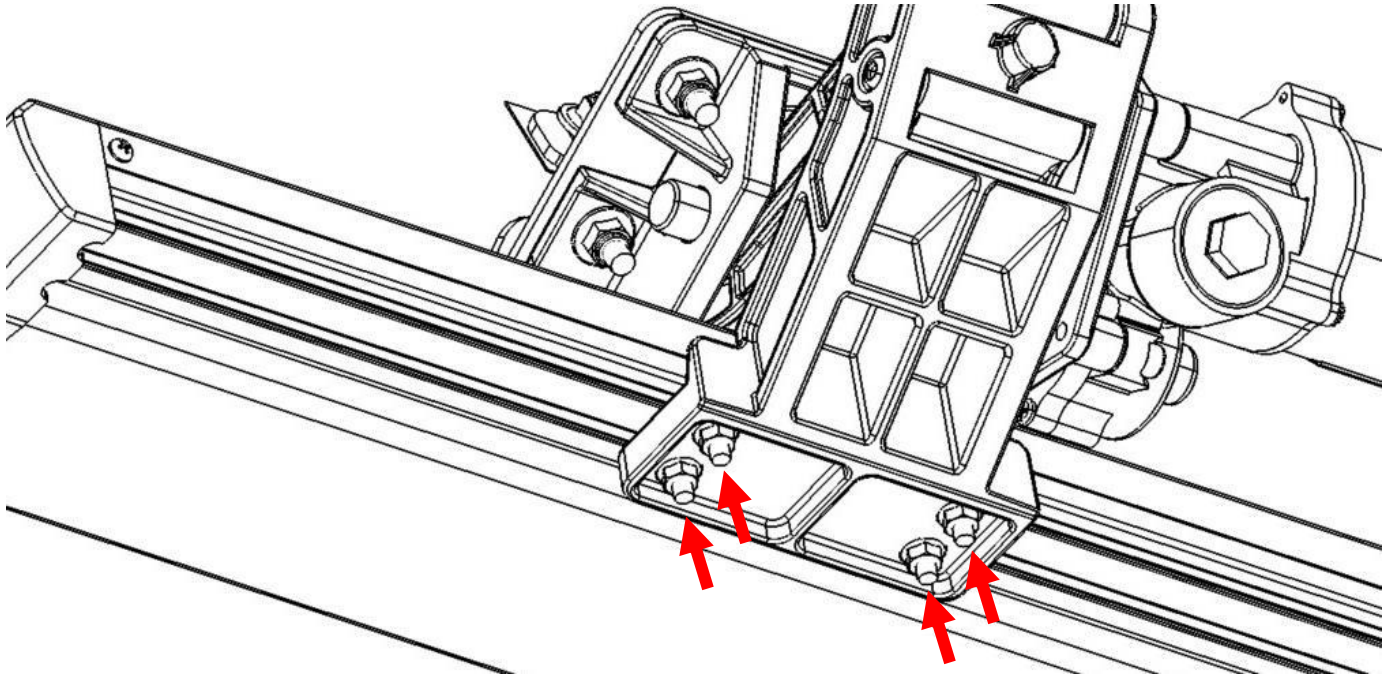
Use the notch in the board's end caps to feed the bolts into the channel.



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 the motor connector from the LED-Y harness (to cut power to the linkage arms), while front door is open, to hold 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 6mm Flat Washers + 6mm Nylon Lock Nuts (G) onto the carriage bolts.



Once the board is adjusted, plug in motor connector to the LED-Y harness (to return power to the linkage arms), making sure that the door remains open. Proceed to 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.

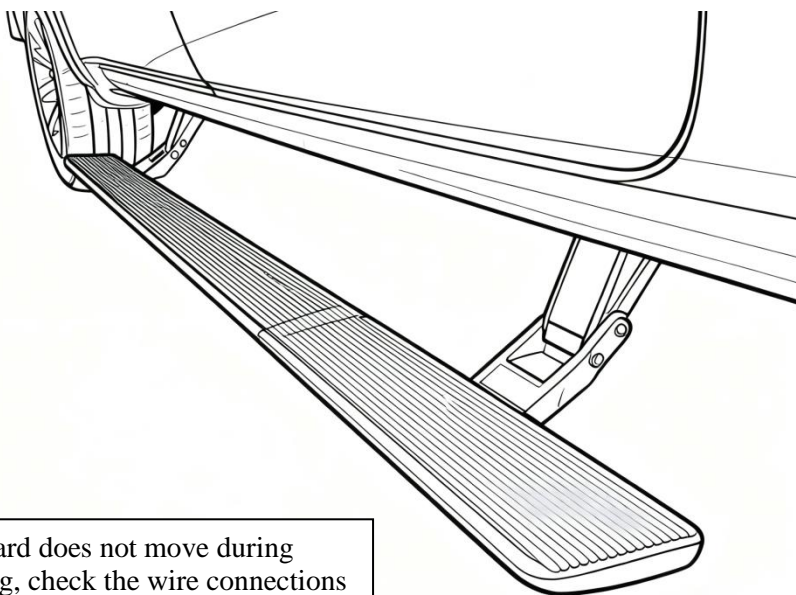
19 Perform system check and troubleshooting. If board is making irregular movements or noise, readjust the boards as follows:

- With board deployed loosen 6mm nuts under board.
- Leave the 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 connections and magnetic switch positioning.

FINAL REMARKS

- Ensure there are no debris or obstacles preventing the power steps from operating.
- Open and close each door on both sides to ensure that power steps are operating correctly.
- Check and ensure that all electrical connections are properly connected.
- Check and ensure that the magnetic switches are lined up correctly and that they directly face each other when the door is closed.
- Check and ensure that the magnetic switches fully adhere to a clean surface.
- Conceal the magnetic switch wiring as best as possible underneath the door sill and along the weather seal.
- Recheck that all mounting hardware is tight.
- Adjust mounting brackets or running board to enable smooth operation even after having stepped on the deployed boards.

MAINTENANCE AND CARE

- Periodically clean the linkage arms and motor of any dirt or debris that may accumulate.
- Avoid spraying the motors directly with high pressure liquids.
- Avoid damaging the power steps.
- Ensure power step ECU is not exposed directly to water to prevent degradation.
- Ensure wiring is properly tucked away and concealed from mechanically moving parts and exposure to high heat or very low temperature conditions.
- Periodically recheck that all mounting hardware is tight
- Do not overload the running board.
- Readjust running board if necessary.

WARNING AND SAFETY

- Do not use boards as a rock slider or as skid protection.
- Do not use solvents, chemicals, oils, or corrosive liquids on power steps. If the power steps encounter these substances, clean the power steps as soon as possible. Mild detergent and water is recommended.
- Do not obstruct the power steps in any way during operations of deployment and retraction.
- Do not rely in any way on the components of this product to keep occupants within the vehicle or to protect against injury or death in the event of an accident.
- Do not sit/stand on the running board for long periods of time.
- Do not jump on power step board or rest heavy objects on boards or subject power steps to excessive force.
- Do not step on plastic end caps of the boards. Failure to do so may result in injury.
- Do not place bodily appendages between running board and the vehicle body. Please mind the gap between the vehicle and the board.
- Do not allow children to use power steps without adult supervision and proper operation. This is not a toy. Improper use may result in injury.

- Remove the fuse on the power lead on the main harness before doing electrical troubleshooting to avoid risk of shock or injury. Make sure the motors do not have power before working on mechanical adjustments to avoid injury.

By purchasing any item sold by Rough Country, LLC, the buyer expressly warrants that he/she is in compliance with all applicable, State, and Local laws and regulations regarding the purchase, ownership, and use of the item. It shall be the buyers responsibility to comply with all Federal, State and Local laws governing the sales of any items listed, illustrated or sold. The buyer expressly agrees to indemnify and hold harmless Rough Country, LLC for all claims resulting directly or indirectly from the purchase, ownership, or use of the items.