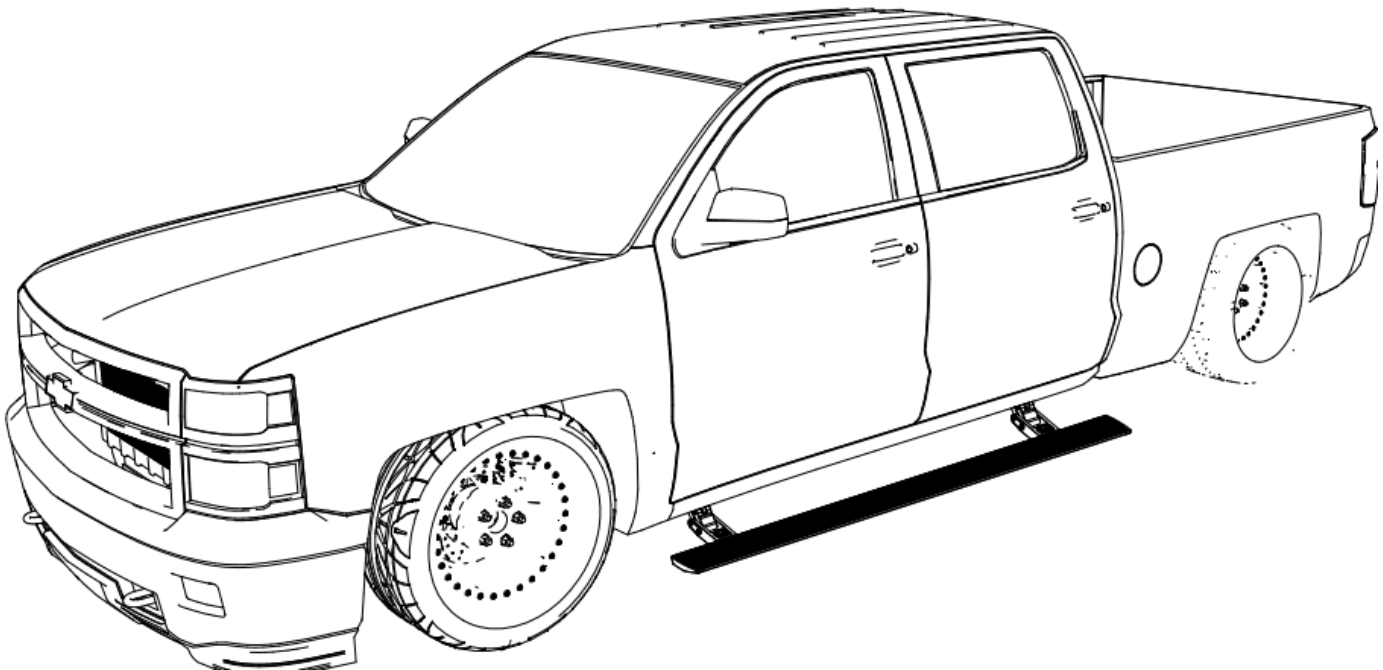


# INSTALLATION INSTRUCTIONS

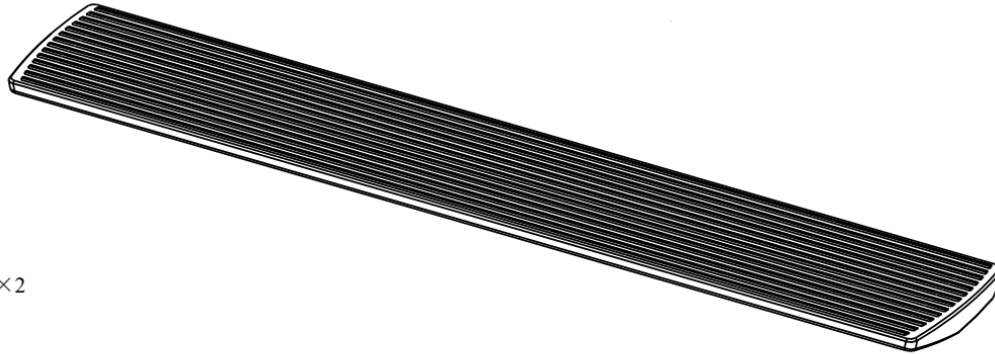
**2019-2023 Chevy Silverado 1500/2500/3500 Crew Cab**  
**Part#- GM-4501**

**PARTS LIST:**

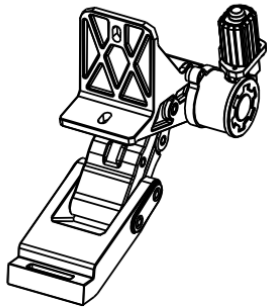
2	Step Board	1	Rear passenger motor linkage
1	Controller assembly w/ harness	8	Hex flange bolt M8x30mm
1	Front driver side linkage	8	Socket cap screw M6x25mm
1	Rear driver side linkage	2	Hex flange bolt M8x25mm
1	Front passenger linkage	1	Controller assembly
1	Rear passenger linkage	25	Wire ties
1	Front driver motor linkage (left)	2	Fuse
1	Rear driver motor linkage (left)	2	Wired magnetic induction module
1	Front passenger motor linkage (right)	4	Magnet
4	LED Lamps	1	Power board switch



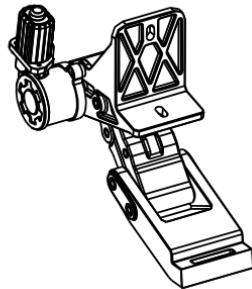
## Parts layout



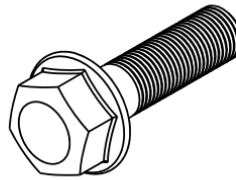
①- Board Assembly × 2



② - Front Motor Linkage Left × 1  
Rear Motor Linkage Left × 1  
6114100.11



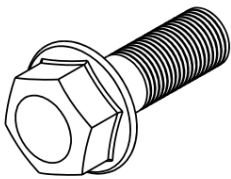
③ - Front Motor Linkage Right × 1  
Rear Motor Linkage Right × 1  
6114100.12



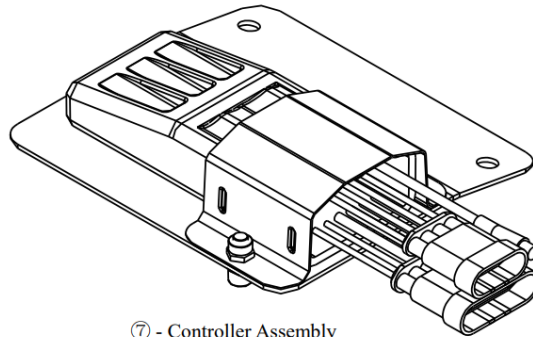
④ - Hexagon Flange Bolt × 8  
QC/T340-1999 M8 × 30



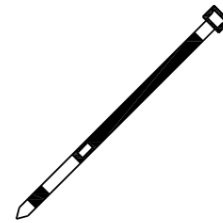
⑤ - Socket Cap Screw × 8  
GB/T70.1-2000 M6 × 25



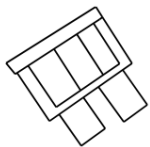
⑥ - Hexagon Flange Bolt × 2  
QC/T340-1999 M8 × 25



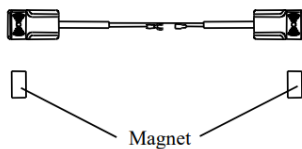
⑦ - Controller Assembly  
6114100.4.4ZJ



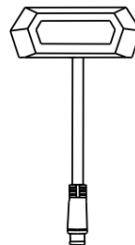
⑧ - Wire Tie × 25  
GB/T22344-2008 5 × 300



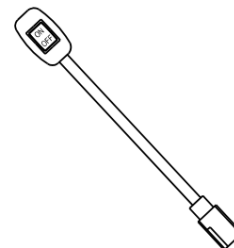
⑨ - Fuse × 2



⑩ - Wired Magnetic Induction Module × 2  
- Magnet × 4



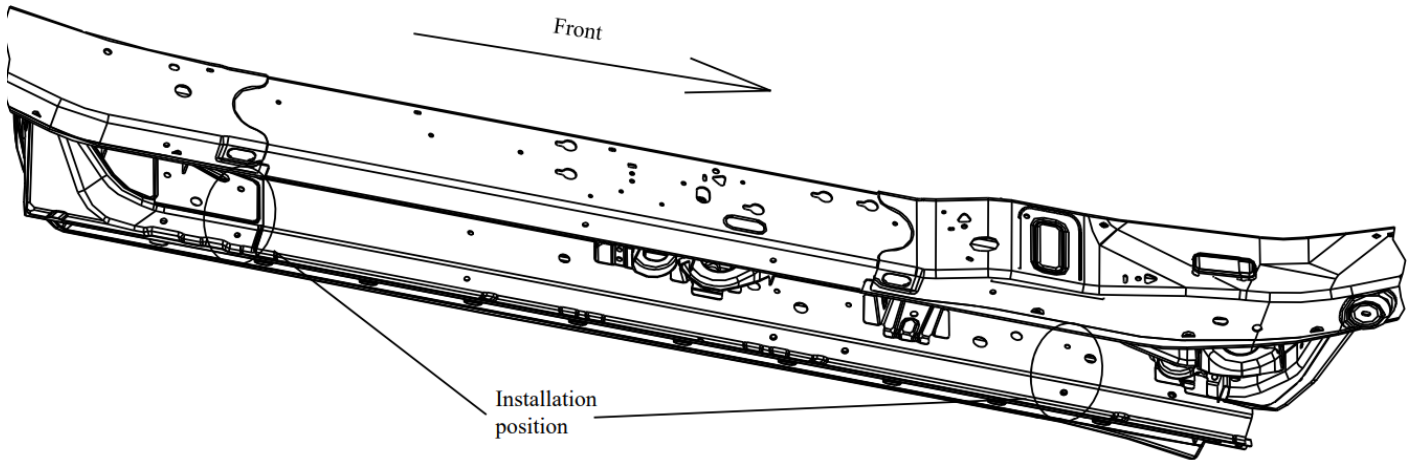
⑪ - LED Lamp × 4  
6161100.4.8  
(Optional)



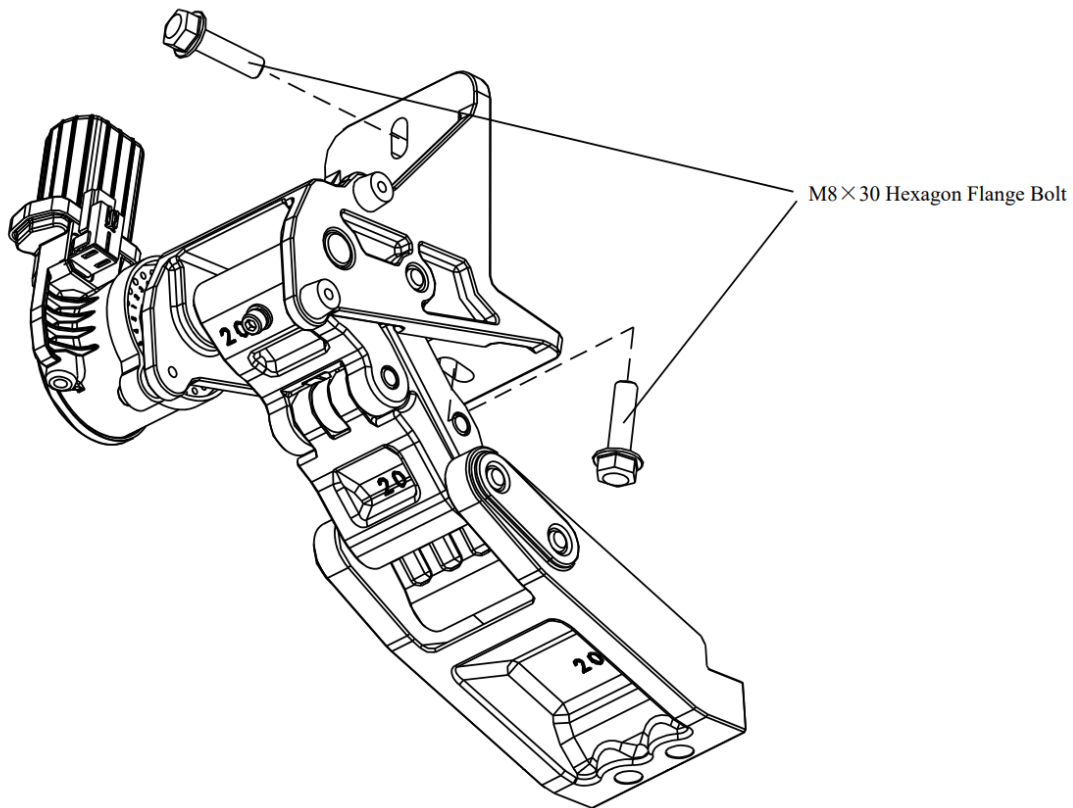
⑫ - Power Board Switch × 1  
6124151.4.9

## Mechanical Installation

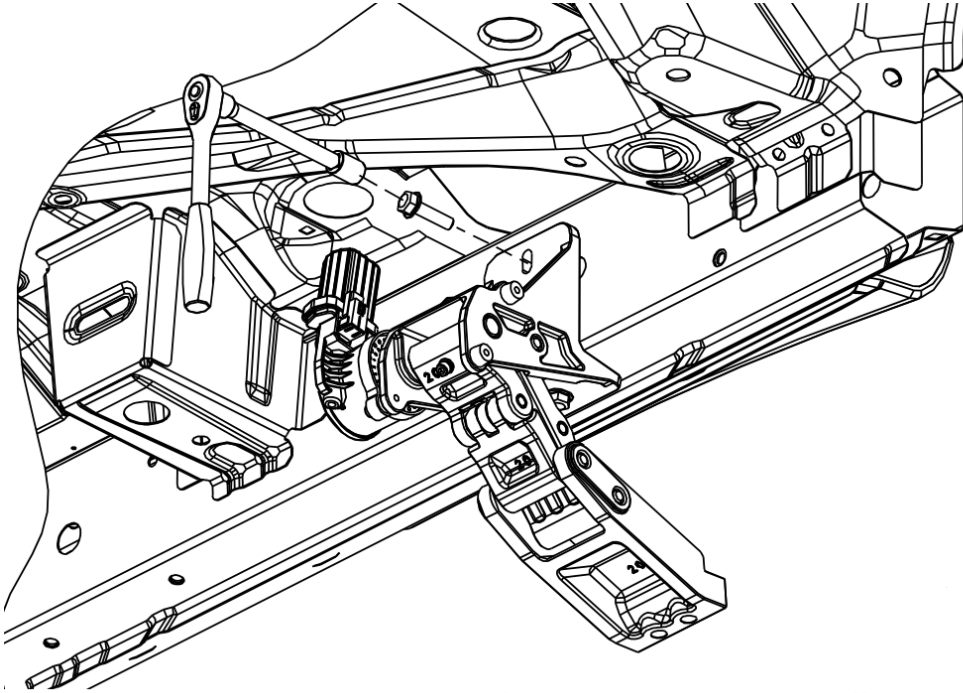
**Step 1.** Identify the mounting points below the vehicle by the pinch welds of the body as seen in photo below.



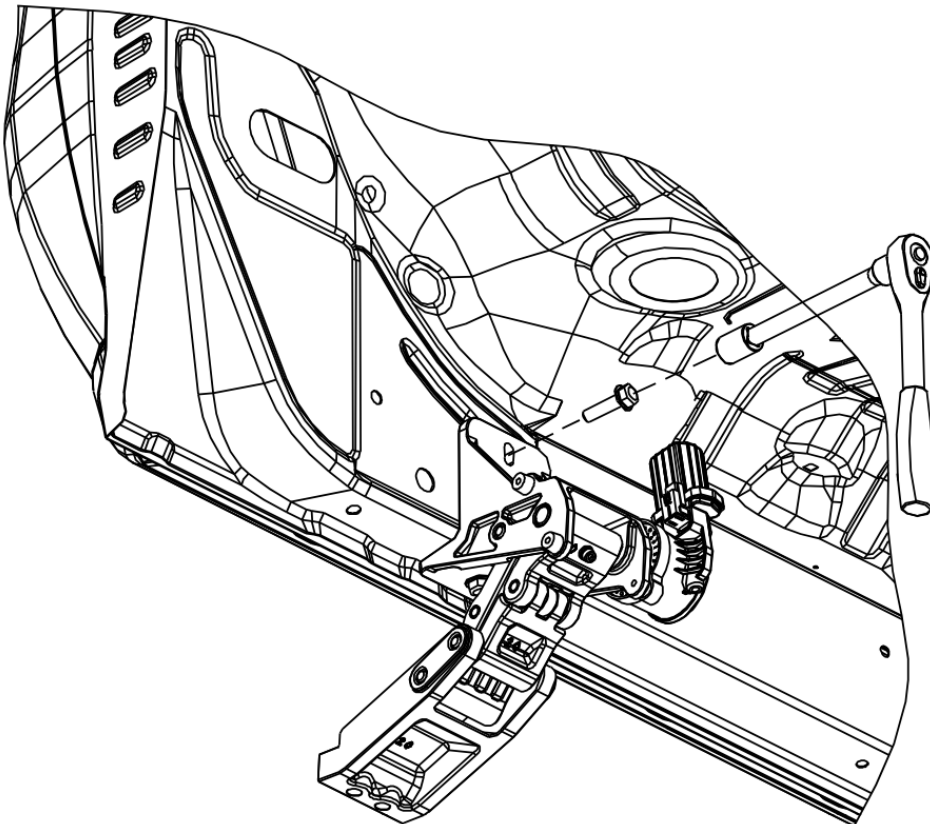
**Step 2.** Using the M8x30mm hardware begin to install the linkages to the mounting locations.



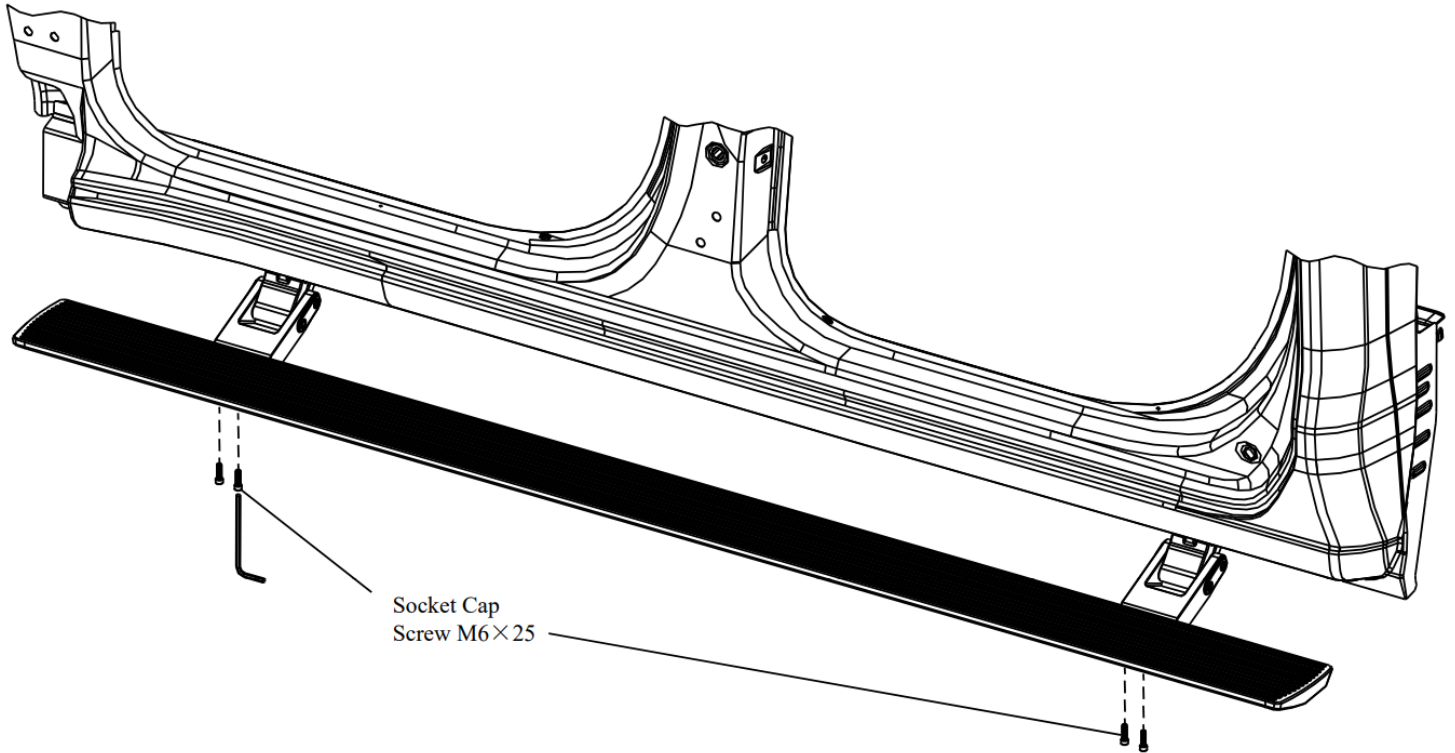
Step 2b. Begin to install components  
Front-



Rear-

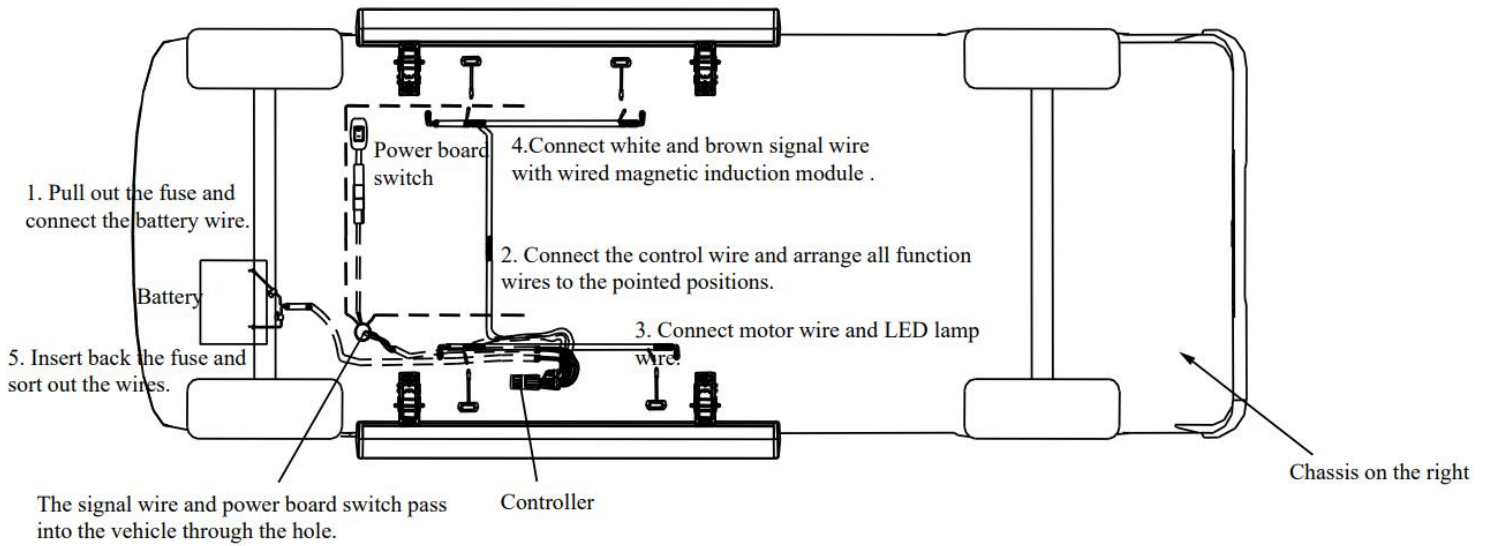


**Step 3.** Mount the board assemblies onto the linkages using the T-nuts and M6x25mm, adjust the board side to side to get it to sit even to the cab. Then tighten the bolts down.

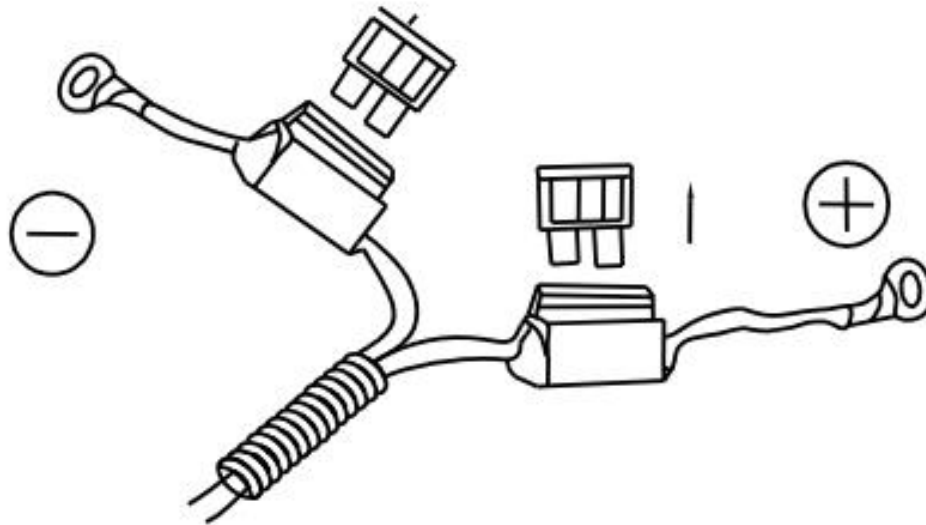


# INSTALLATION INSTRUCTIONS

## Electrical installation overview



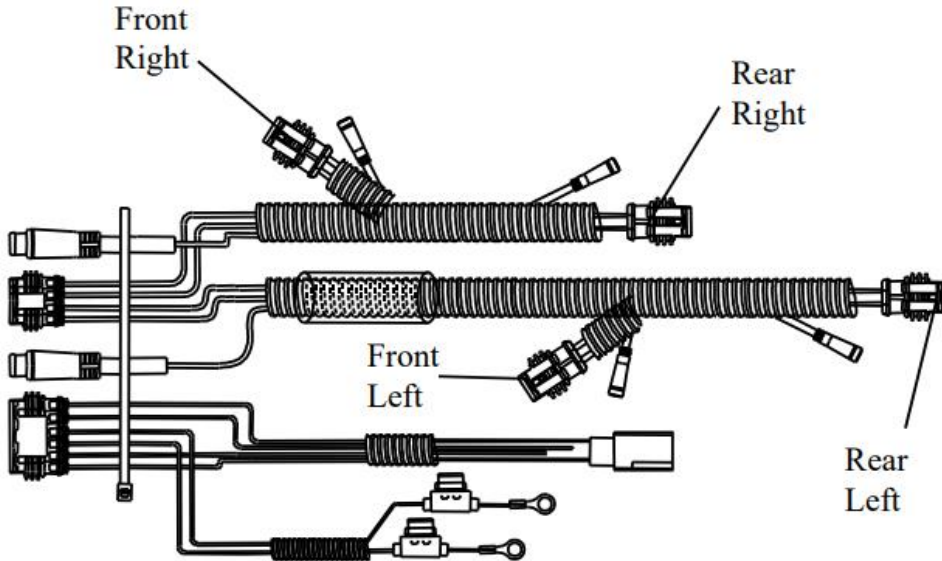
### BEFORE INSTALLING REMOVE THE FUSES FROM THE HARNESS



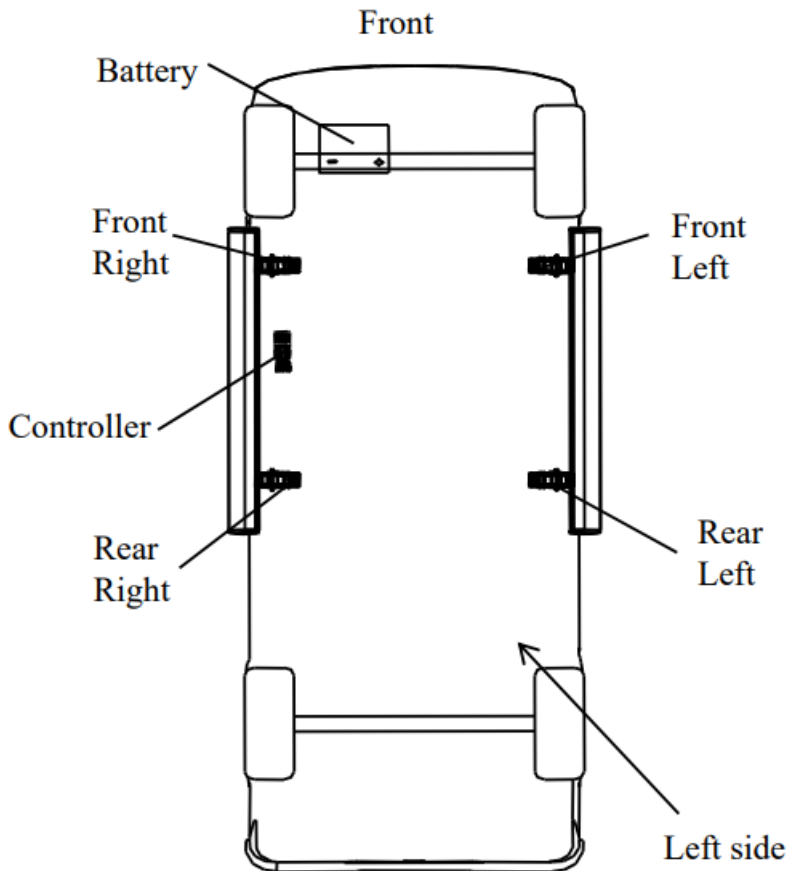
**Step 1.** Once you remove the fuses. Connect the negative and positive harness to the battery to the correct posts.

# INSTALLATION INSTRUCTIONS

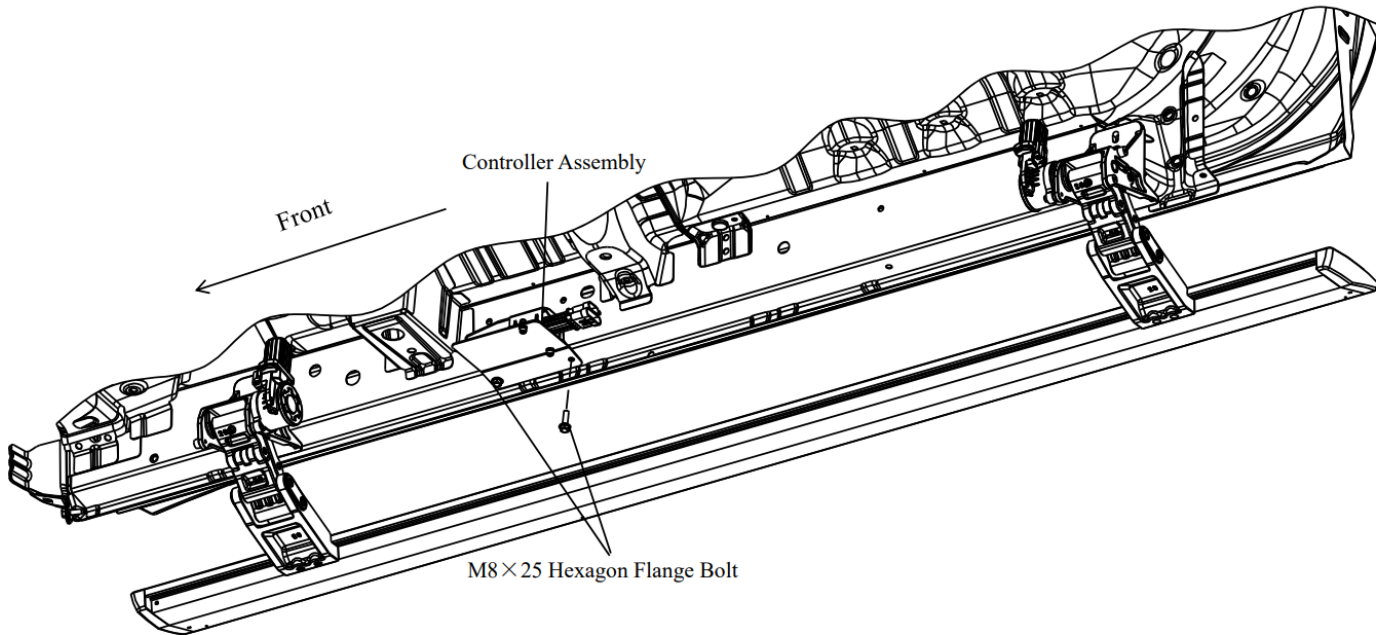
**Step 2.** Identify the connectors on the harness. (Front right, rear right, left front, left rear)



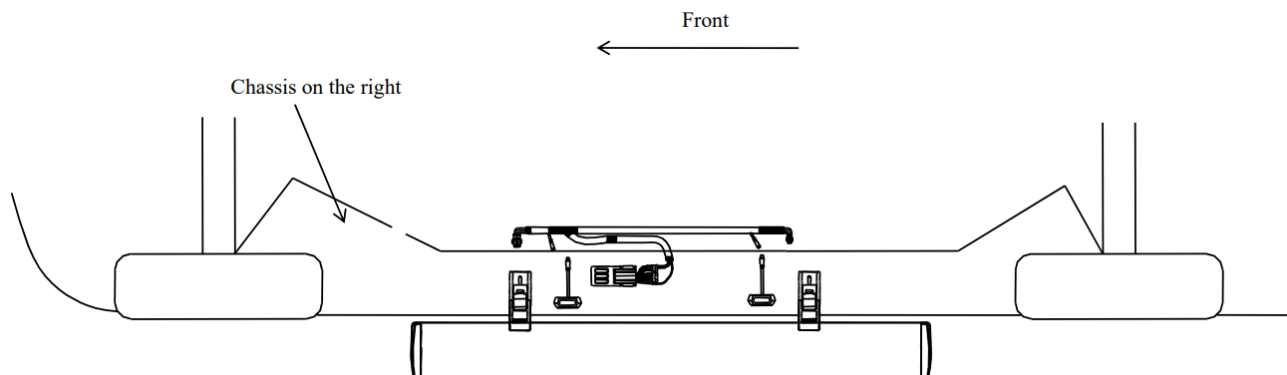
**Step 3.** Connect the harness to the respective linkages



**Step 3.** Mount the controller assembly on the driver side using 2 of the M8x25mm

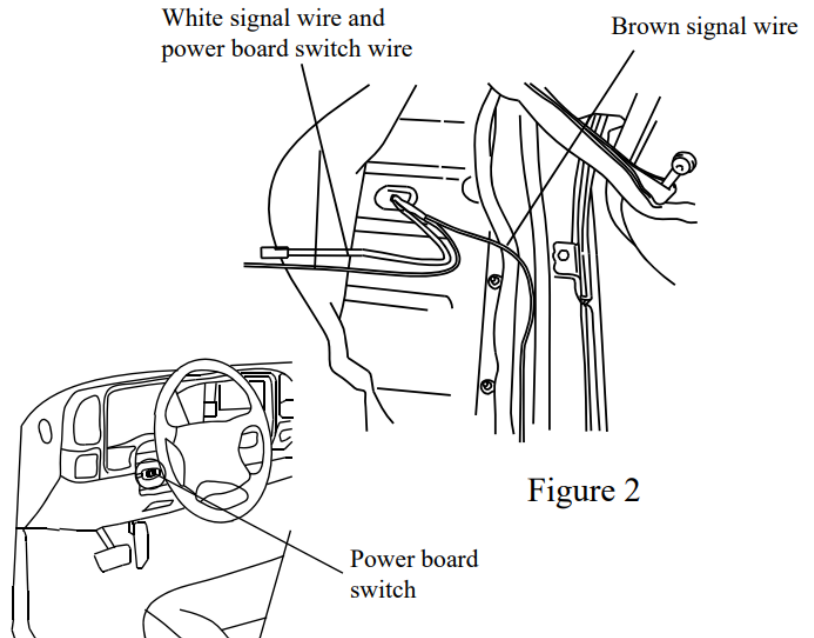
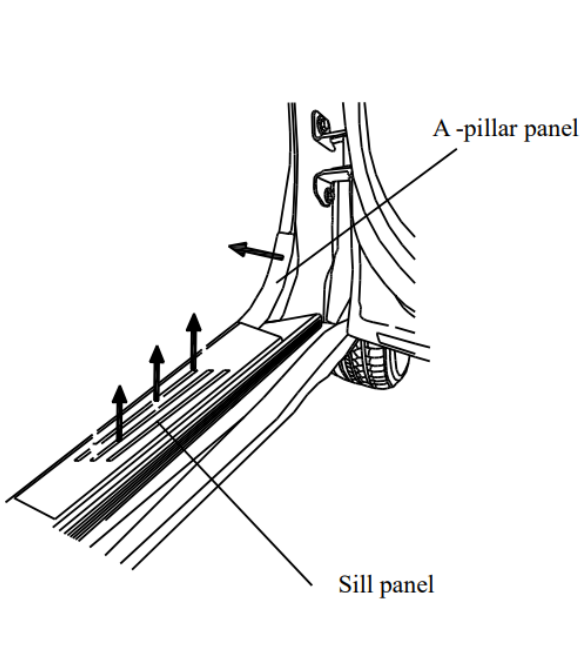


**Step 4.** Organize and clean up the harness against the rocker panel

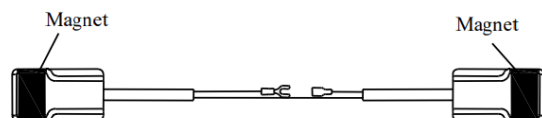
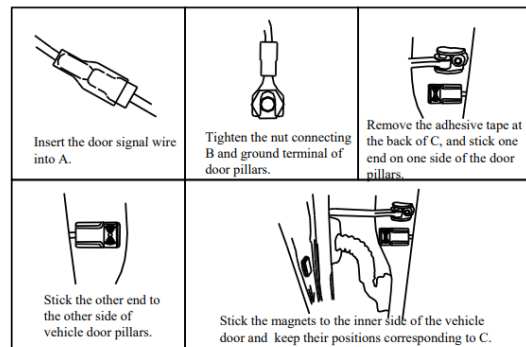
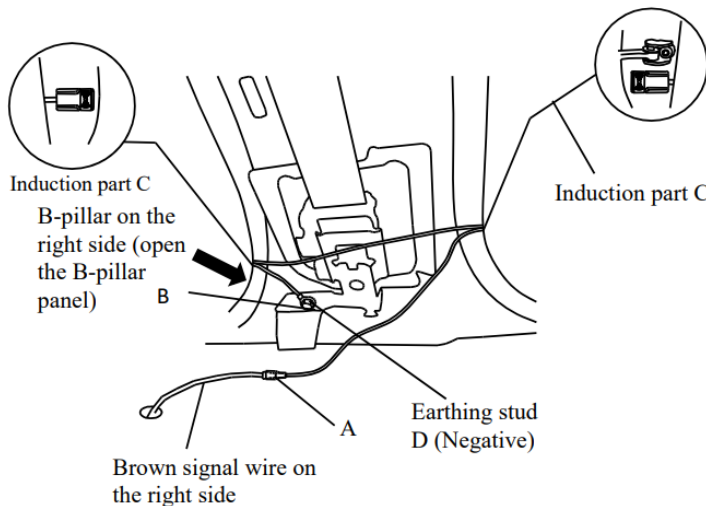
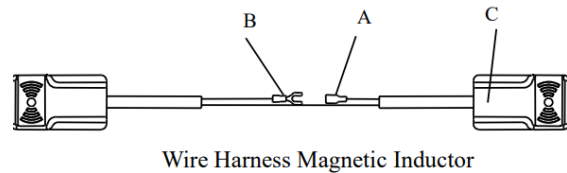




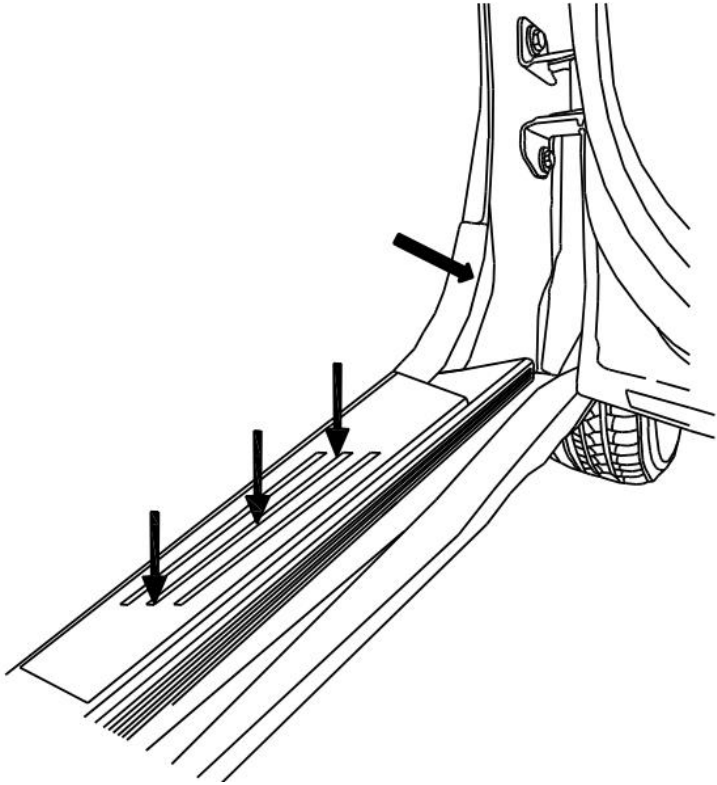
**Step 5.** Remove the sill and A-pillar panels, proceed to pull the brown signal wire into the vehicle through the right-side rubber grommet of the body. Then pull the white signal wire and proceed to feed it to the left side under the carpet. Then feed the switch into the dash under the steering wheel.



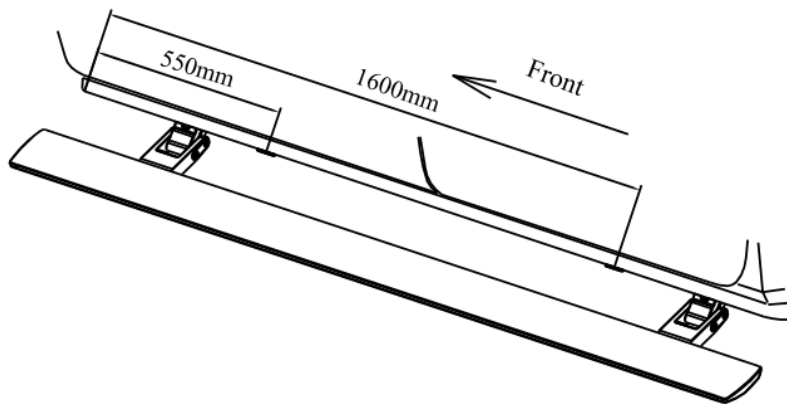
**Step 6.** Remove the B-Pillar panel on the right side of the vehicle. Connect the brown signal wire to Terminal A of the magnetic inductor. Loosen the stud (D) and proceed to connect the fork style terminal B to the stud (D). Tighten the stud down. Install the induction part C to both sides of the B-Pillar, take the magnet and stick it to the inside of the door at the same height as the inductor. Installation of the white wire is the same on both sides.



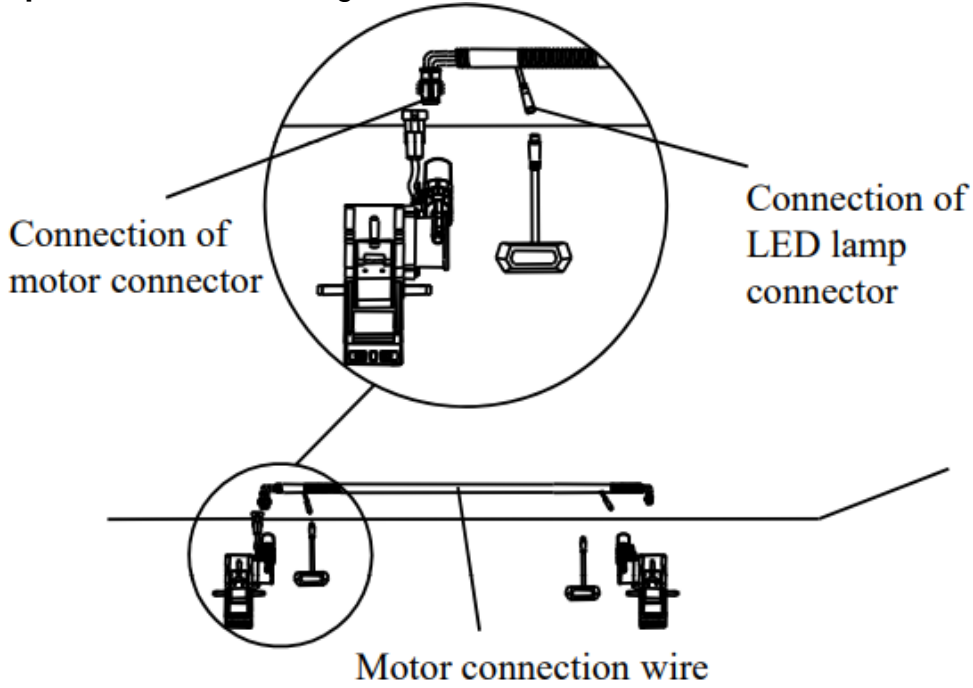
Step 7. Organize the harness and reinstall the panels.



Step 8. Install the LED light strip by using the double-sided adhesive tape and stick it to the pinch weld facing downward. Be sure it's in proper alignment using the figure below for reference.



Step 9. Connect the led light harness as shown below.





# INSTALLATION INSTRUCTIONS

## Maintenance

Inspect the operation of the step, ensure it works as it's supposed to.

At every oil change interval, take the time to inspect for damage to each cable connection and the exposed components, apply dielectric grease to the electrical components and dry Teflon lubricant (PTFE LUBE) to the mechanical

Inspect hardware to be sure hardware is still tight.

Be sure the board is still stable with the motor fully actuated.

Keep the underside of boards clean and free of debris and ice if in colder weather.

## Warranty

2 Year Limited warranty on electrical and mechanical components

The following can potentially void warranty

- Failure to maintain the steps in accordance with the maintenance guidelines provided in the installation instructions
- Misuse of the steps (Using the product in any manner other than for the intended use of the product)
- Installation errors causing damage to the product
- Electrical and mechanical modifications

To file a warranty claim

- Contact an authorized BA dealer to initiate warranty process. Authorized dealers must contact BA to assist in evaluating the warranty claims. Valid warranties will have an RGA issued. Once issued the dealer will request the product be returned to BA facilities.
- Products purchased through an authorized BA dealer will be refunded and/or credited by that BA dealer.
- Warranty contact: [help@bodyarmor4x4.com](mailto:help@bodyarmor4x4.com)
- Return address: Body Armor 4x4, 1050 N. Vineyard Ave. Ontario CA, 91764



# INSTALLATION INSTRUCTIONS

## Troubleshooting Guide

After installing the steps, when the door is opened one motor goes up while the other goes down.

**Disconnect the motors and swap connections.**

How do I extend or retract the motor linkages when I am installing these?

**Make sure your connected to the battery, connect the power to the motors and the disable switch. Then hit the disabled switch, this is a great way to control the extension or retraction of the motors.**

When I open the door, the steps do not retract and come down.

**Flip the override switch from "I" or "on" position. If the steps retract after the override switch is powered, then the steps have proper power. If the boards do not retract check the fuses.**

The steps only work on one side.

**Flip the switch on and off a few times to confirm the steps go up and down. If they don't move, check the power connectors at the front and rear motor. Then check the 6 pin and 4 pin connectors at the controller to be sure it's secure. If the steps did retract when flipping the switch a few times. Check the door magnets and sensor alignment to be sure they are in spec per the instructions. Be sure to double check the grounds on the chassis.**

My steps are operating in reverse. They go up when I open the door and drop when I close the door.

**Disconnect the harness to the motors and swap connections. Disconnect the harness to each front motor and plug it into the rear motor on the same side and vice versa.**

My steps were working fine, now they won't go up

**Check the door magnet and sensor alignment on the front and rear doors to make sure they're in spec per the instructions. Check that the ground terminal to the truck is making good contact. Check the fuses on the positive and negative power wiring harness leads.**

My LED lights aren't working.

**Check the round wiring connectors for each LED light. Make sure that the small arrows on the mating plug and connector are aligned and the connection is tight and secure. Check the two round connectors at the controller. Make sure that the small arrows on the mating plug and connector are aligned and the connection is tight and secure. Open a door on the Driver side of the truck and check to see if the LED lights are illuminated on the Passenger side. If opening a Driver side door is causing the Passenger side LED lights to come on, simply swap the two LED Power wires at the controller. These are two small round connectors.**

I open the driver side door and the passenger side LED lights turn on.

**Swap the two round connectors at the controller, making sure the small arrows on each plug are aligned and the connections are tight and secure.**

My running boards are squeaking.

**Using a water hose, spray the hinges on the front and rear motors to remove any dirt, sand, or mud. Dry with a towel and generously lubricate all the hinges using a PTFE LUBE.**