INSTALLATION INSTRUCTIONS

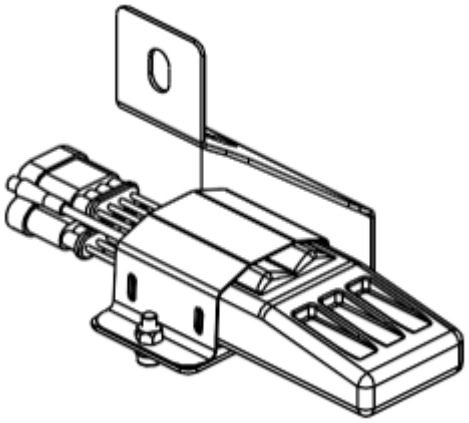
2020-Present Ford Bronco 4DR/2DR
PART# FB-4501 FB-4500

Install time- 3-5 Hours

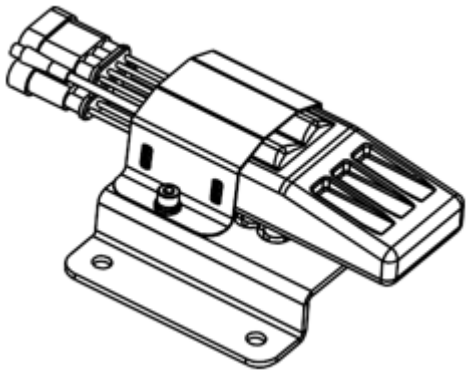
PARTS LIST:

2	Board Assembly	4	M10 x 35mm Hex Bolt
1	Front Motor Linkage Left 6188100.1L	2	M8 Lock Washer
1	Front Motor Linkage Right 6188100.1R	2	M8 Large Washer
1	Rear Motor Linkage Left 6188100.2L	12	M10 Lock Washer **(10 is used for 2 DR)**
1	Rear Motor Linkage Right 6188100.2R	12	M10 Large Washer **(10 is used for 2 DR)**
1	Rear Motor Linkage Left 6188101.2R **(2DR ONLY)**	8	M10 X 25mm Hex Socket Cap Screws
1	Rear Motor Linkage Right 6188101.2R **(2DR ONLY)**	2	M8 Hex Flange Nut
2	M8 x 25mm Hex Bolt	2	Plastic Retainer **(2DR ONLY)**
8	M10 x 25mm Hex Bolt **(6 is used for 2 DR)**	1	U Bolt Plate **(2DR ONLY)**
2	Fuse	2	Controller Assembly
1	Power Switch	25	Wire Tie
2	Wired Magnetic Module	4	Magnets
4	LED Lamp (Optional)	1	Control Input Wire

4 DOOR CONTROLLER ASSEMBLY



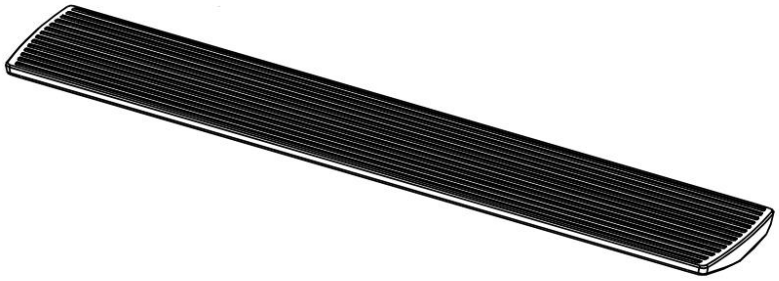
2 DOOR CONTROLLER ASSEMBLY



ONLY ONE CONTROLLER ASSEMBLY IS USED FOR INSTALLTION.
Identify the one needed for your Bronco before continuing the installation

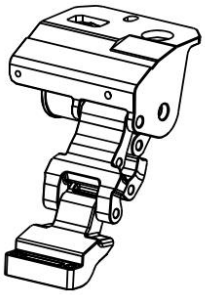
INSTALLATION INSTRUCTIONS

PACKING LIST- Be sure all hardware and components are present before attempting installation

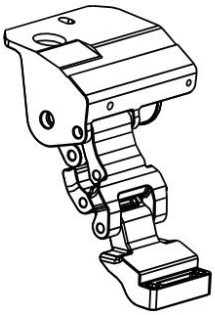


①- Board Assembly ×2
6100136.3

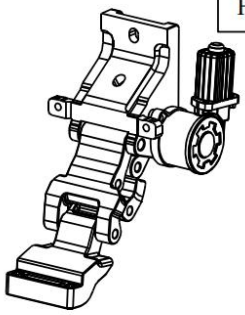
Four door



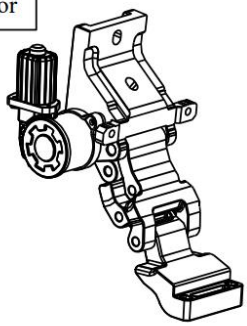
② - Front Motor Linkage Left ×1
6188100.1L



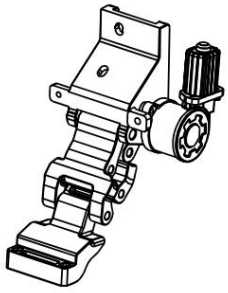
③ -Front Motor Linkage Right ×1
6188100.1R



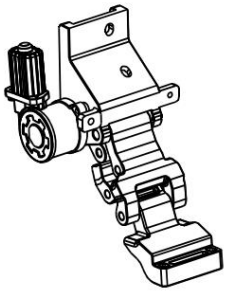
④ - Rear Motor Linkage Left ×1
6188100.2L



⑤ - Rear Motor Linkage Right ×1
6188100.2R



⑥ - Rear Motor Linkage Left×1
6188101.2R

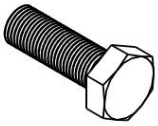


⑦ - Rear Motor Linkage Right ×1
6188101.2R

Two door

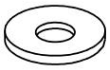
⑧ –Hexagon bolt×2
GB/T5781-86 M8×25

⑨ –Hexagon bolt×8
GB/T5781-86 M10×25
（Six for two door）



⑩ –Hexagon bolt×4
GB/T5781-86 M10×35

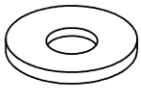
⑪ –Spring washer×2
GB/T93-1987 8



⑫ –Large washer×2
GB/T96.1-2002 8

⑬ –Spring washer×12
GB/T93-1987 10
(Ten for two door)

INSTALLATION INSTRUCTIONS

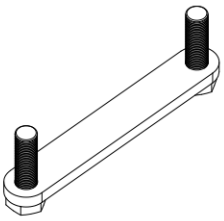


⑭ –Large washer×12
GB/T96.1-2002 10
(Ten for two door)

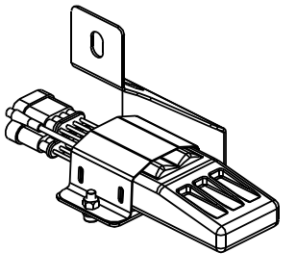
⑮ –Hexagon Socket cap screw×8
GB/T70.1-2008 M10×25

⑯–Hexagon flange nut ×2
GB/T6177.1-2000 M8
（Special for two door）

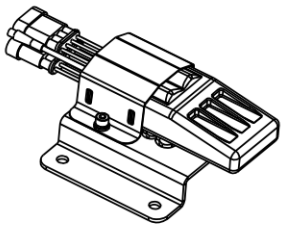
⑰–Lock washer×2
6154100.0-3
(Two door)



⑱ –U-type bolt ×1
（ Special for two door ）



⑲ - Controller Assembly
(Four door)

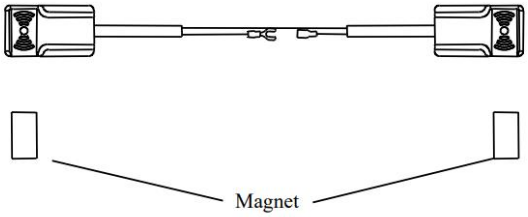


⑳ - Controller Assembly
(Two door)

㉑ –Fuse×2

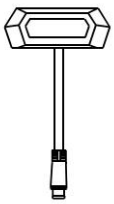
㉒ –Power Board Switch ×1
6124151.4.9

㉓ –Wire Tie×25
GB/T22344-2008 5×300

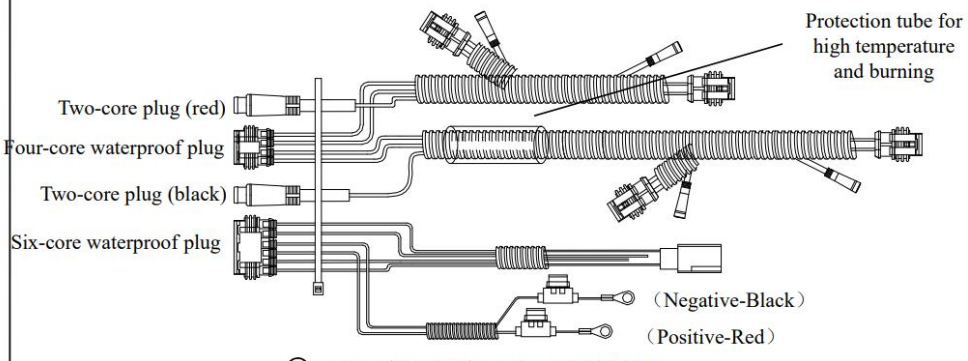


㉔ -Wired Magnetic Induction
Module ×2

㉕ –Magnet ×4



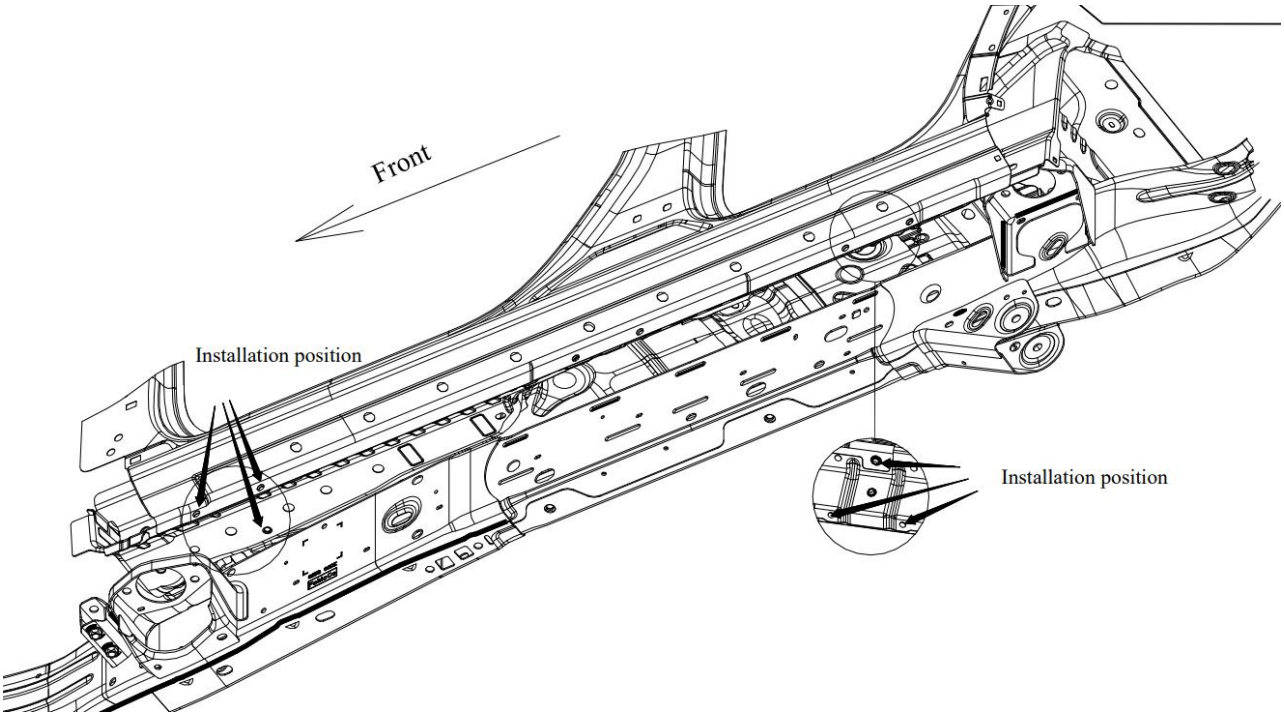
㉖–LED Lamp ×4
6161100.4.8
(Optional)



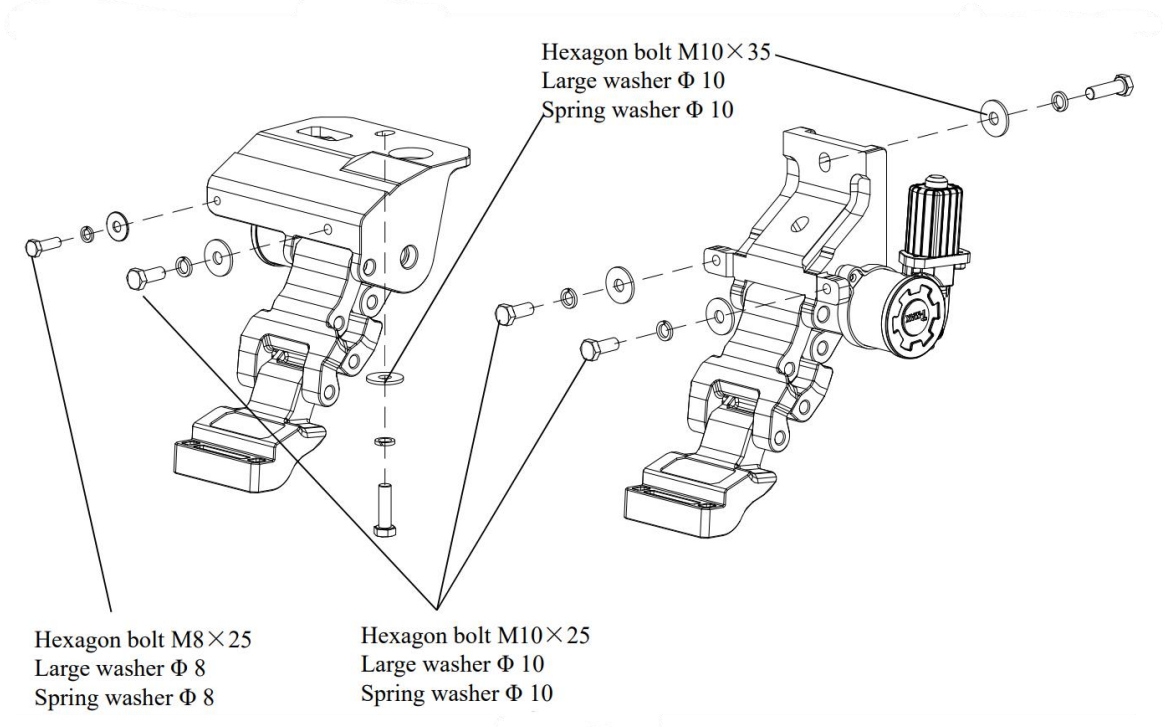
㉗ - Control Input Wire ×1 6188100.4.1

Linkage and Board installation

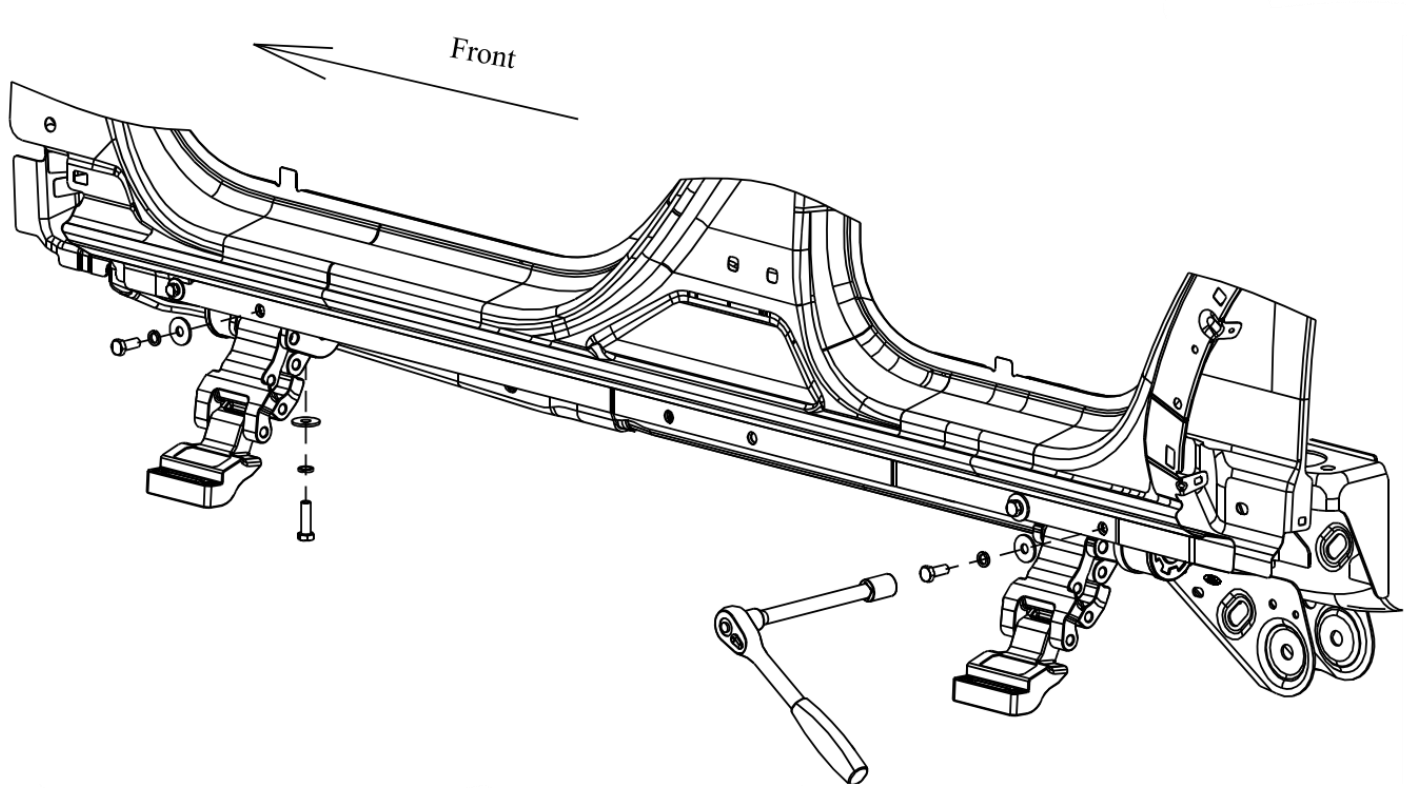
Step 1. Locate the 3 holes under the driver side front and rear door. Refer to photo below.



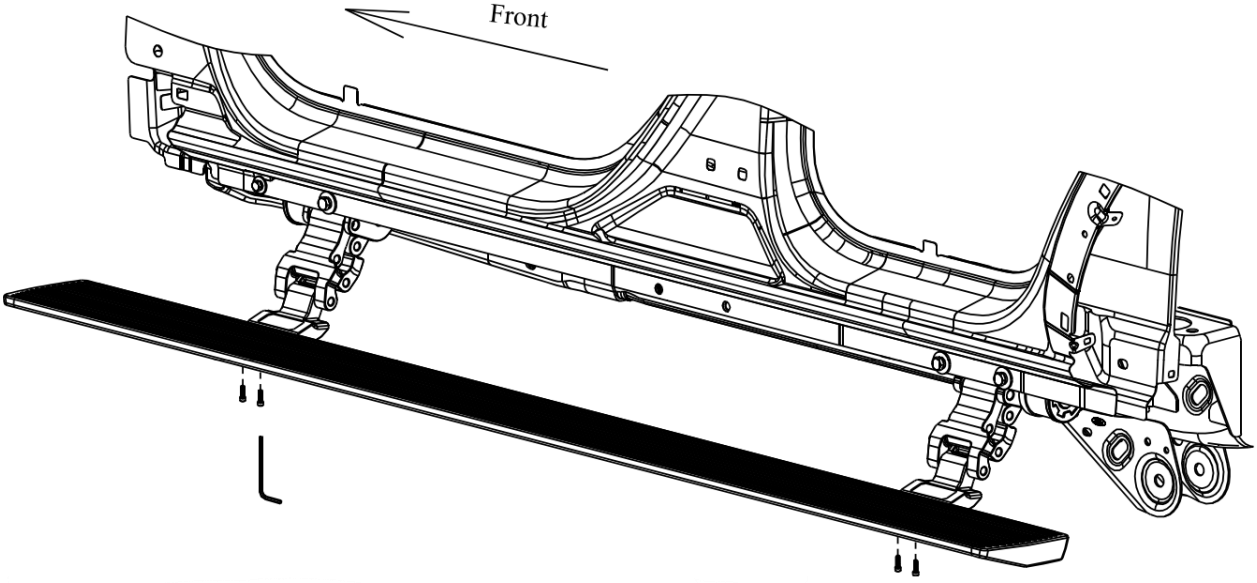
Step 2. Prep the linkage components with the proper hardware.



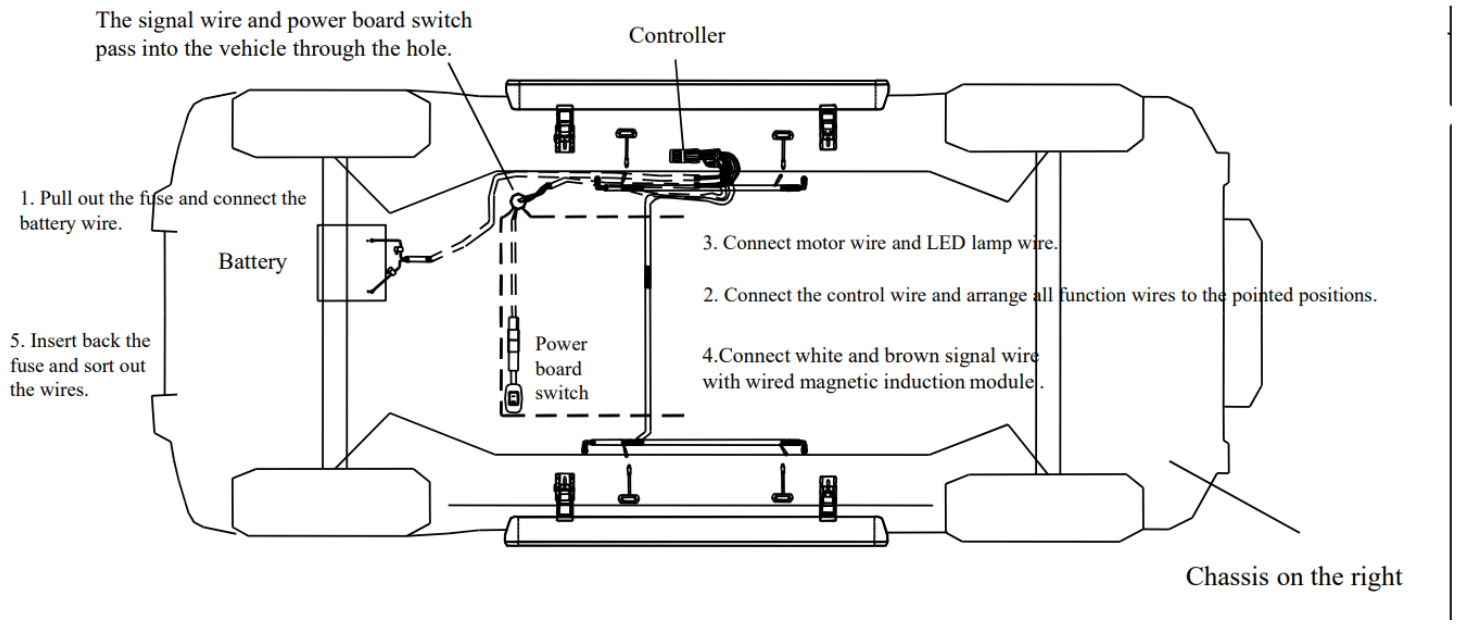
Step 3. Using the hardware, mount the linkages. Do not tighten, just tight enough to prevent movement. (Repeat step 1-3 on passenger side)



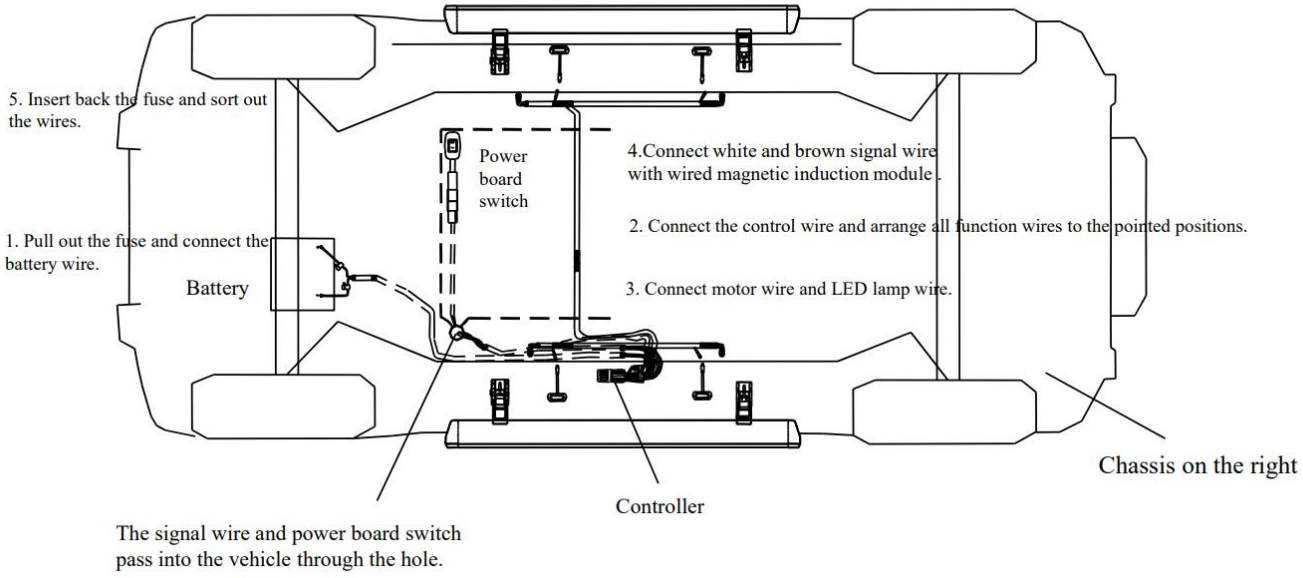
Step 4. Install the boards using the T-Nuts and the M6x25 Socket Cap Screw. Adjust the step board side to side to have it sit evenly on the vehicle. Once set, tighten all hardware including the linkage.



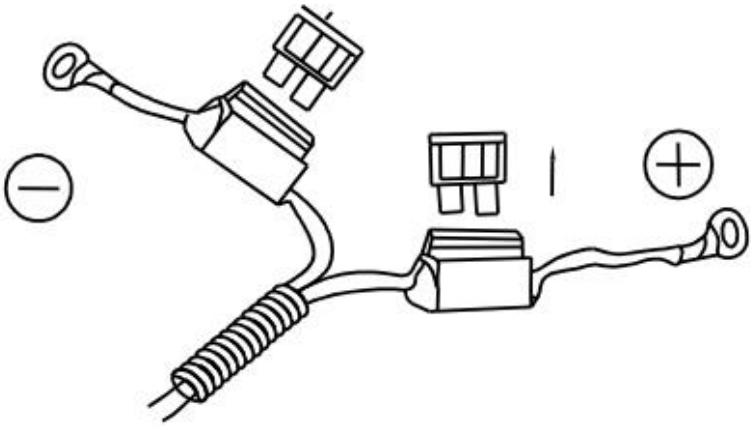
Wiring routing instructions- 4 Door



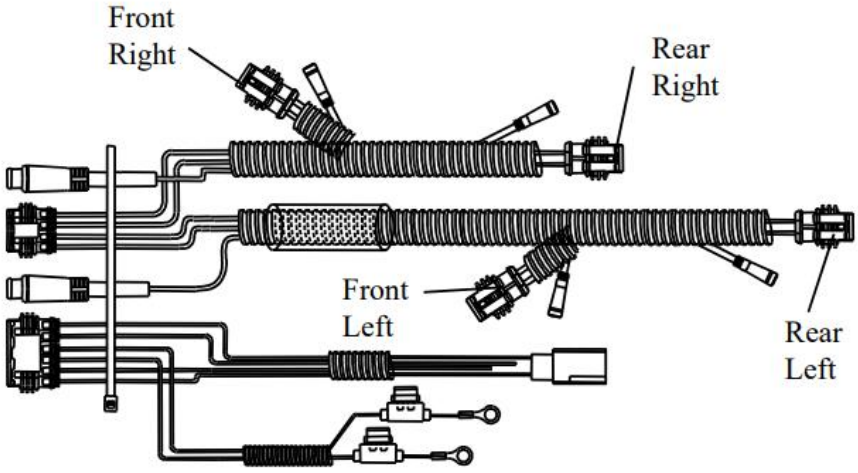
Wiring routing instructions- 2 Door



Wiring harness and controller install diagram

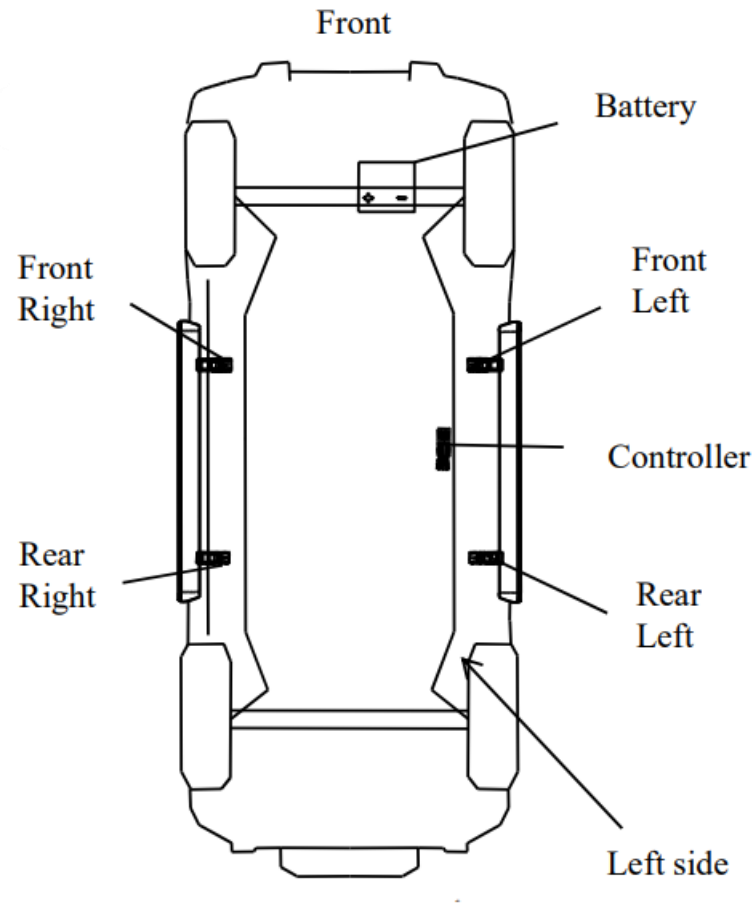


Step 1. Remove the fuse from the harness for safety. Then connect the positive and negative wire terminals to the battery.
Control harnesses cannot be modified. Doing so will void warranty.

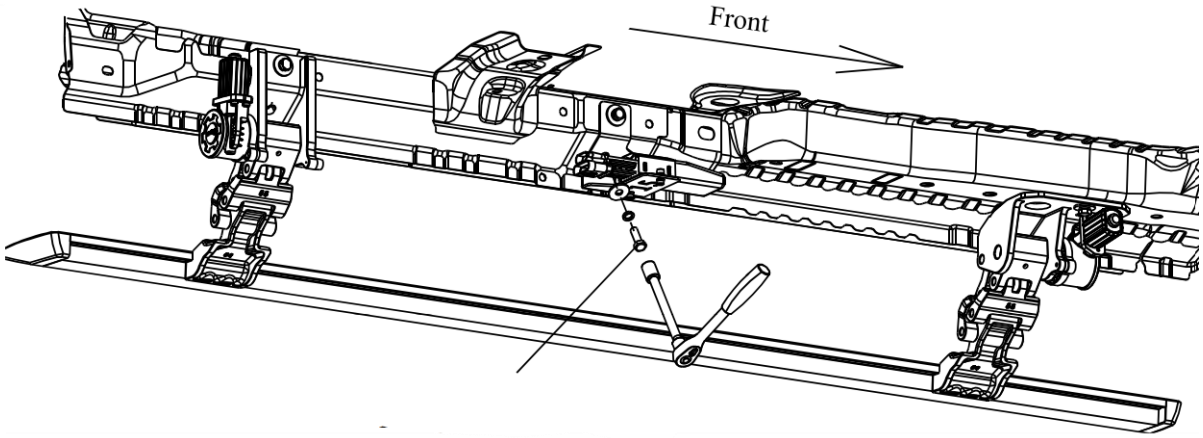


Step 2. Identify the connectors to their respective motor linkages.

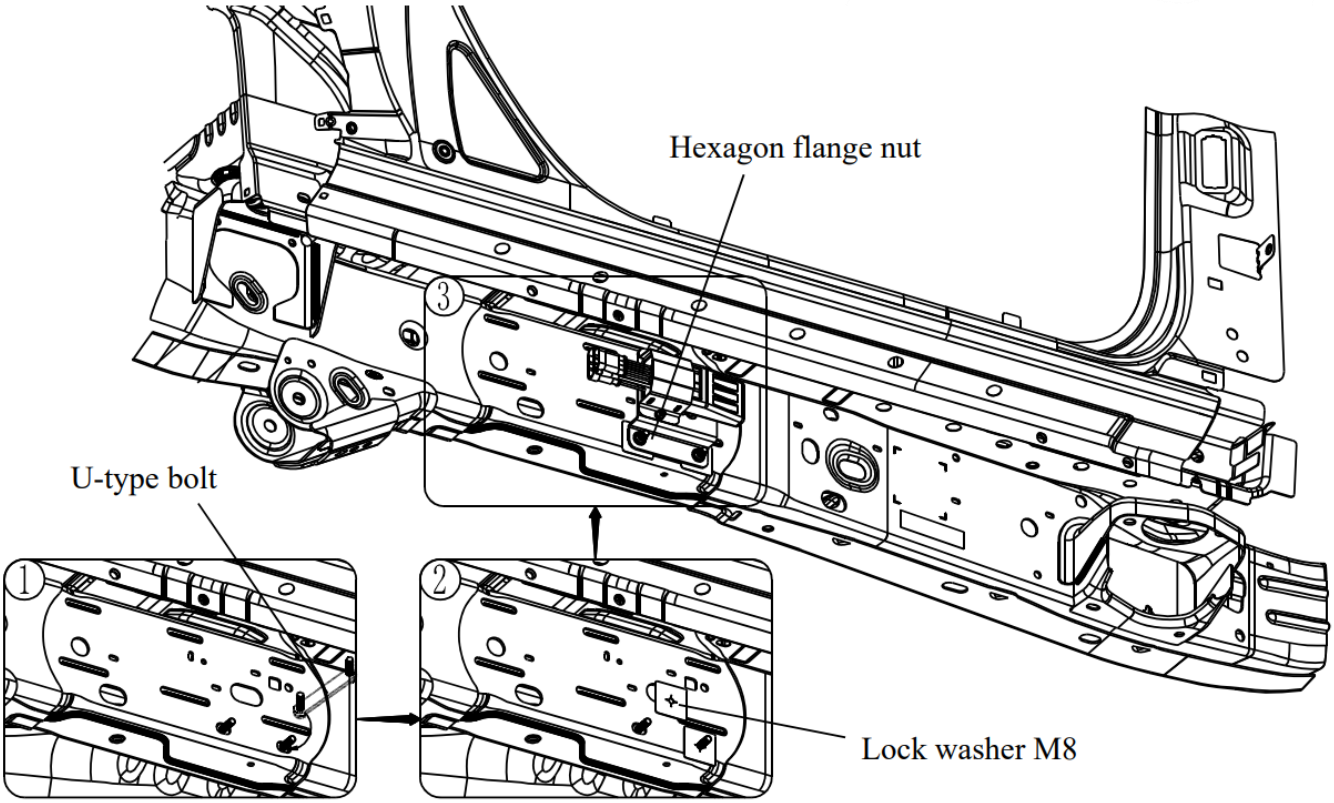
Step 3. Begin installing the harness into the proper linkages and terminals using the diagram below.



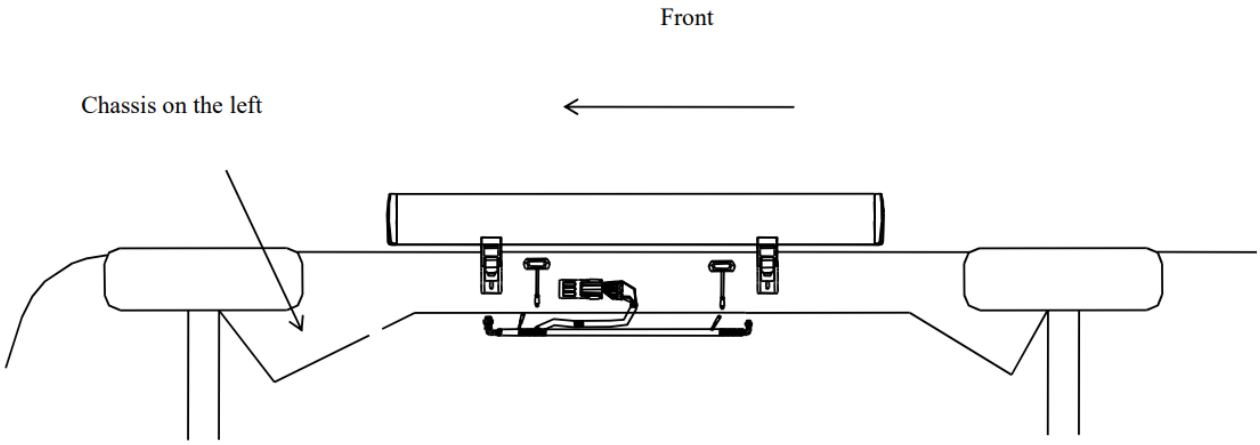
Step 4. (4 Door) Install the controller using the provided M10x25mm hex bolt, flat washer and lock washer.



(2 Door)

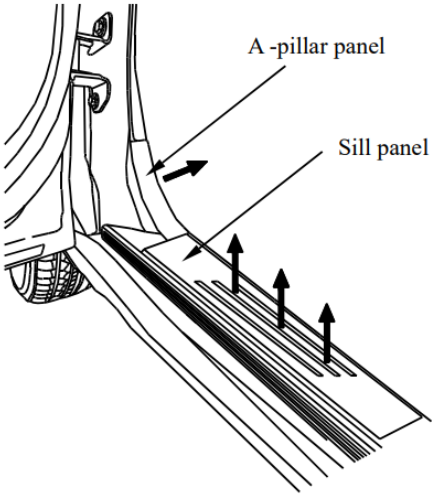


Step 5. LED light installation

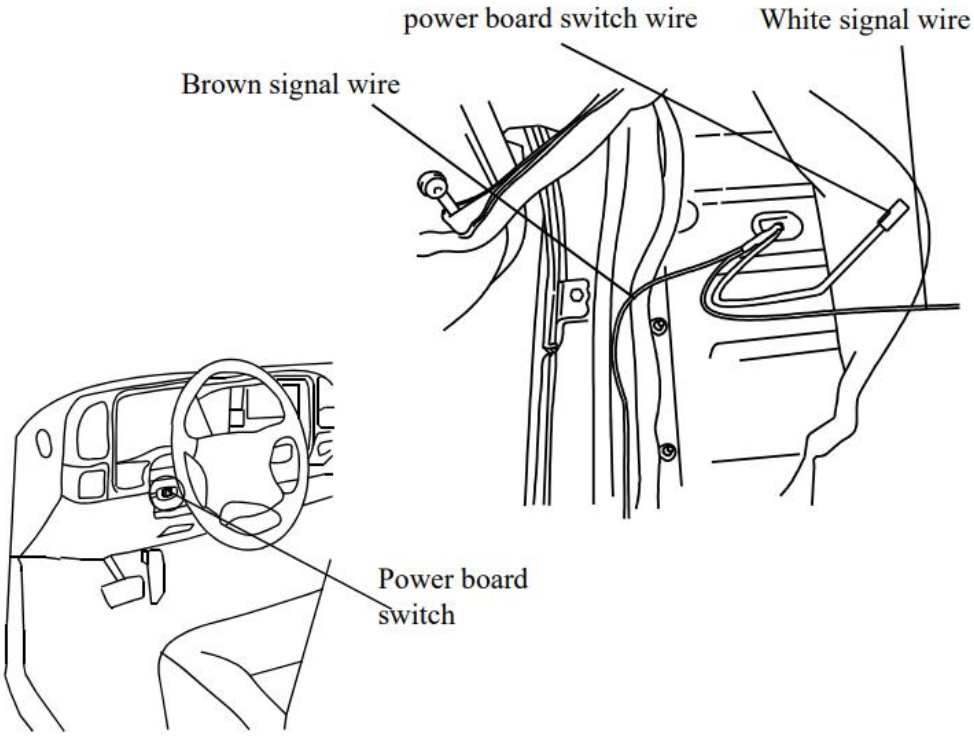


Run the LED light strip along the harness with the light facing down. Take the time to also tidy up the wiring harness. Apply the same instructions to both sides.

Step 6. Pry the sill panel and A-piller panel on the driver side.

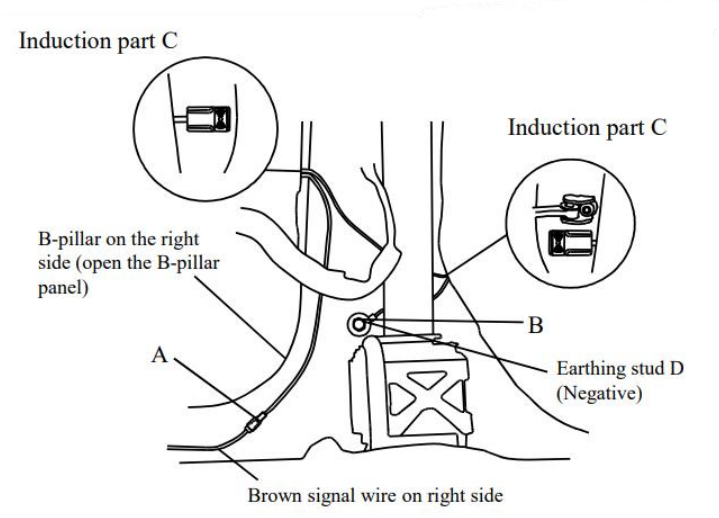


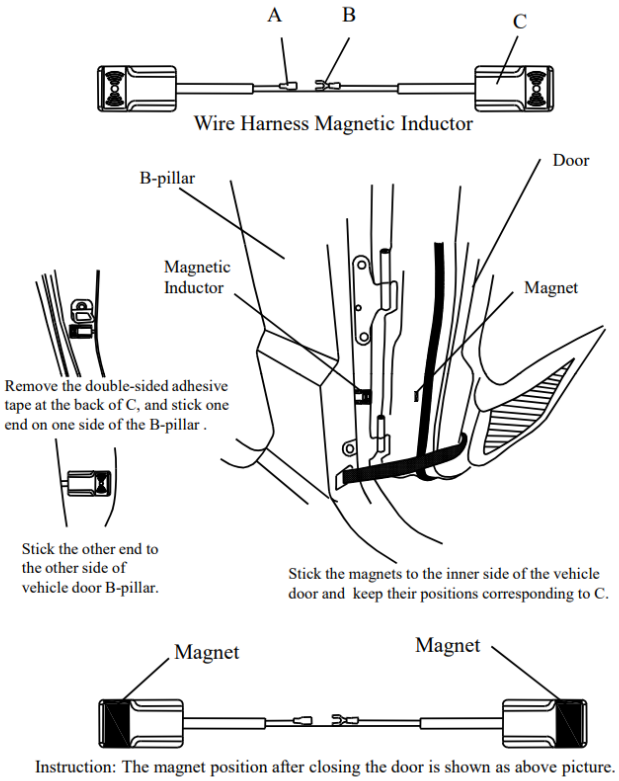
Step 7. Pull the white and brown signal wire, as well as the power board switch wire through the rubber grommet on the left (driver) side of the vehicle. The white wire must be fed through under the carpet. The switch must be fed under the steering wheel of the vehicle.



Magnetic Inductor installation (4 Door)

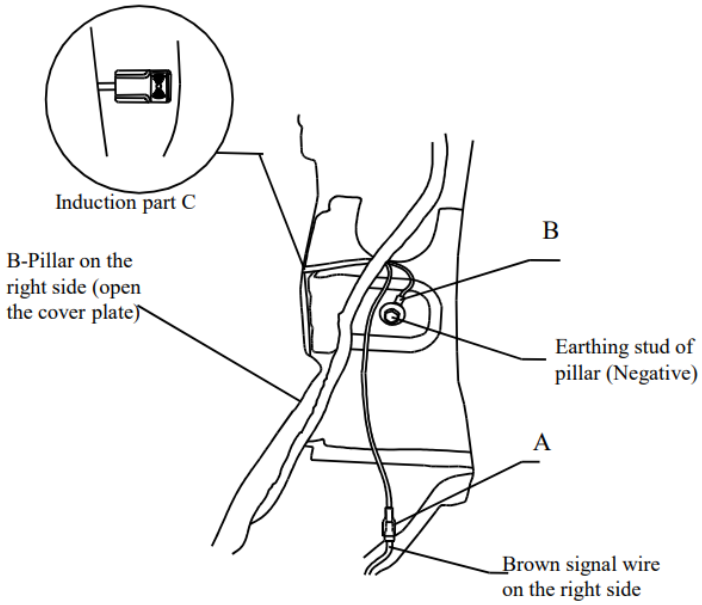
Step 1. Pry open the B-Pillar on the right side of the vehicle. Connect the brown signal wire to the female insulated terminal A. Loosen the stud D (be sure the stud is clean), connect fork type terminal B to the stud. Tighten down the stud. Take the Induction part labeled C to both sides of the B-pillar. Stick the magnet on the inside of the door which corresponds with the Induction part labeled C. The installation of the white signal cable and cable harness induction on the left side is the same right.

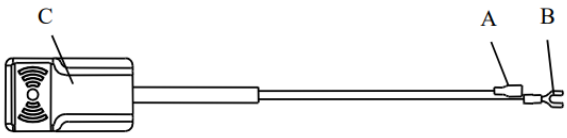




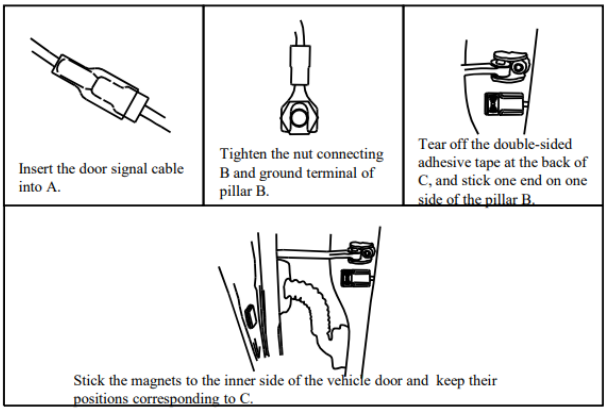
Magnetic inductor installation (2 Door)

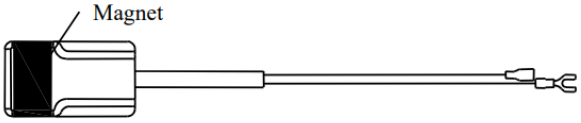
Step 1. Open the B-Pillar on the right side of the vehicle. Connect the brown signal wire to terminal A. Loosen the stud on the B-Pillar (be sure its clean), connect the fork type terminal B to the stud. Then tighten it down. Take the induction part C and stick it to the left side of the B-Pillar. Stick the magnet on the inside of the vehicle door. The connection of the white signal wire and wire harness induction is the same on both sides.





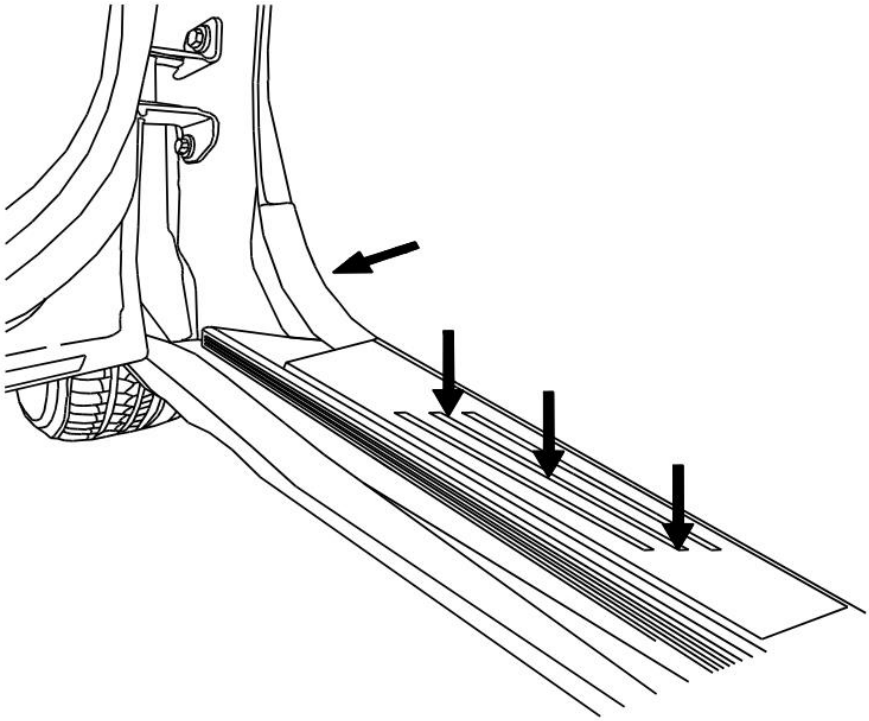
Wire Harness Magnetic Inductor





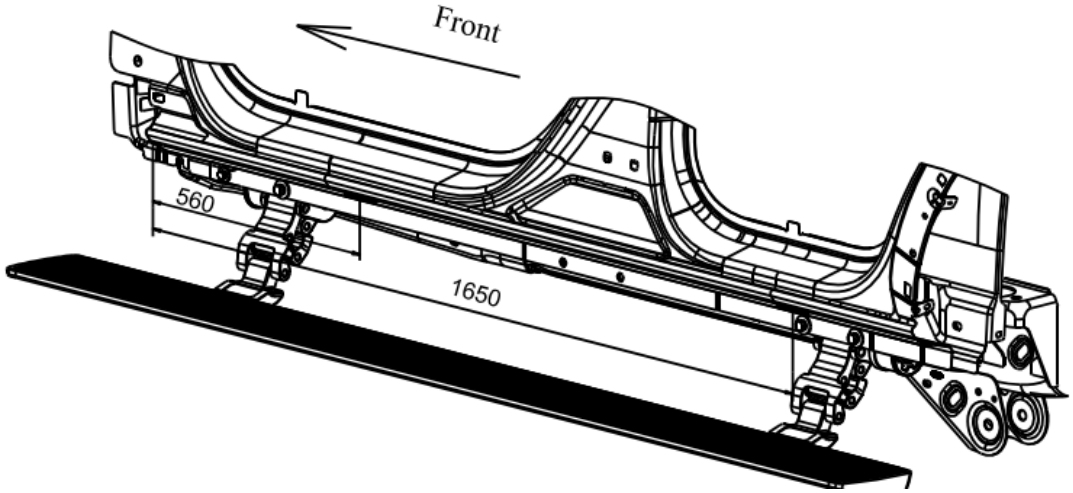
Instruction: The magnet position after closing the door is shown as above picture.

Neatly sort the harness and reinstall the panels



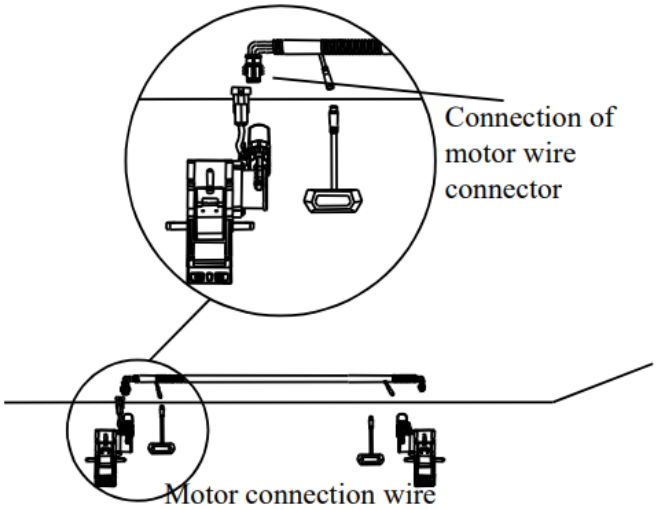
LED Lighting install

Peel the double sided adhesive tape behind the LED lamp and stick it to the thin part of the body below the apron.



Connecting the motor wire

Connect the connector of the motor with the control input wire harness. Sort out and zip tie the harness along the vehicles body frame.



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
• 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.