

INSTALLATION GUIDE



PowerStep SMART
SERIES
MADE IN USA



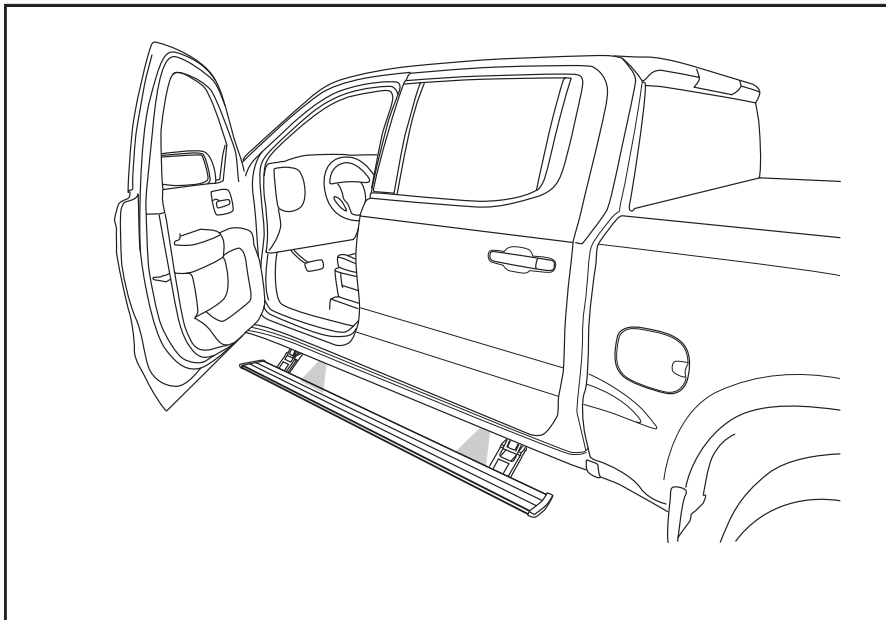
APPLICATION

MODEL YR

PART

Chevrolet Silverado 1500/ GMC Sierra 1500 - Crew Cab	2019-2021	86254-01A
Chevrolet Silverado 1500/ GMC Sierra 1500 - Double Cab	2019-2021	86254-01A
Chevrolet Silverado 2500/3500HD/GMC Sierra 2500/3500HD- Crew Cab	2020-2021	86254-01A
Chevrolet Silverado 2500/3500HD/GMC Sierra 2500/3500HD- Double Cab	2020-2021	86254-01A

* Modification required to running board assembly. See Item 1 on page 3.



INSTALLATION TIME

3-5 Hours

Professional installation recommended

SKILL LEVEL



4= Experienced

TOOLS REQUIRED

- Safety goggles
- Measuring tape
- 1/8", 19/64" Drill bits
- 10 mm socket
- 13 mm socket
- 13 mm ratchet wrench
- Ratchet wrench and extension
- Wire crimpers
- Wire stripper / cutter
- 3/16" hex key wrench (allen wrench)
- 4mm allen wrench
- Electrical tape
- Weather proof caulking (silicone sealer)
- Drill Motor
- Heat Gun

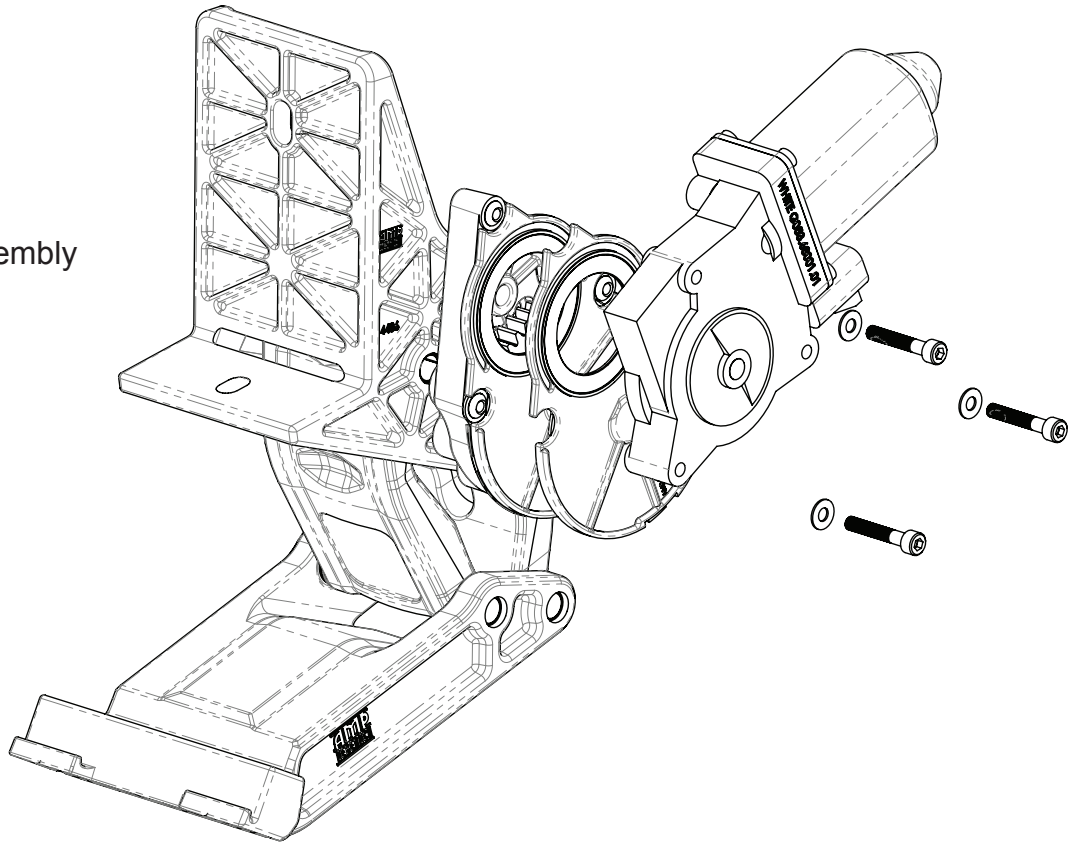
INSTALLATION GUIDE

Attaching motor to Linkage assembly

The motors must be attached to the rear Linkages before installation. The Drivers side motor mounts on the opposite side of the linkage as the Passenger side motor does.

EXPLODED VIEW

- Motor
- Socket cap screws
- Washers
- Motor Linkage assembly



CAUTION: HANDLE WITH CARE.

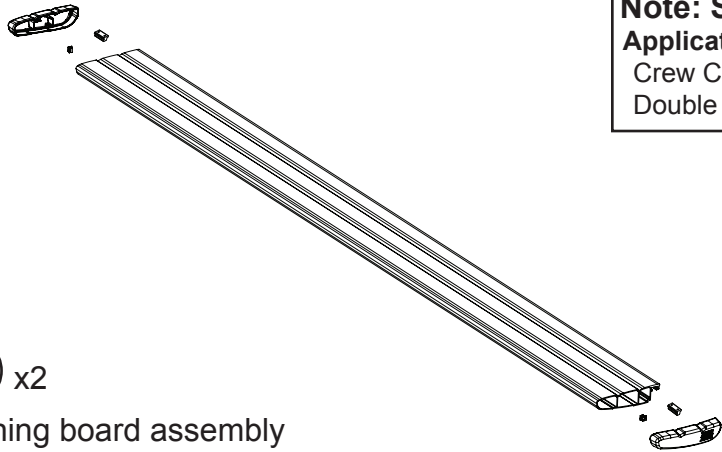
To ensure our customers receive all components with full integrity, we pack the motors separate from their Linkage assemblies. This requires that the installer position and fasten the motor before continuing with the install. Please follow the instructions below and handle the assembly carefully.

CAUTION: Dropping the assembly or any excessive impact MAY cause damage to the motor.

Instructions:

1. Position the gear cover in place as shown if not already in place.
2. Seat motor into position on the three mounting bosses. This may require an adjustment of the gear by moving the swing arms. Position the motor so the linkage is in the mid extension position. This way the lower bolt can still be installed.
3. After seating into place, fasten the motor with the three motor mount screws with 4mm Hex Head. Tighten screws to 36 in-lbs (4N-m). **Do not over torque.**

PARTS LIST AND HARDWARE IDENTIFICATION

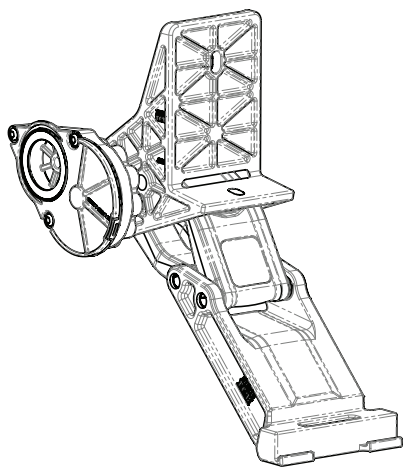


Note: Some Applications require modification.

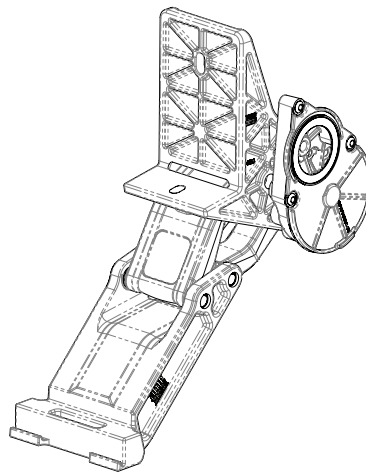
Application	Cut Length
Crew Cab	79" (No Modification Required)
Double Cab	69" (Trim 10")

① x2
Running board assembly

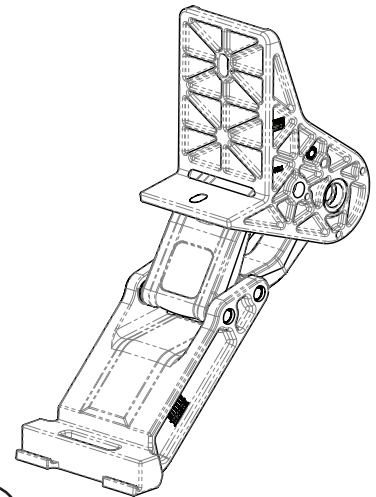
- (A) End cap left (x1)
- (B) End cap right (x1)
- (C) T-nut insert (x2)
- (D) (S) Style clips (x2)



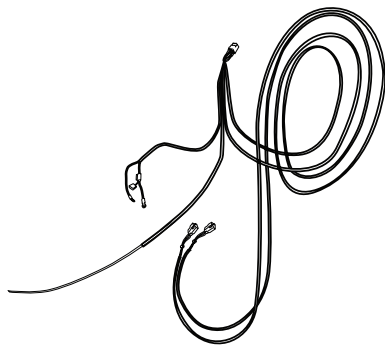
②
Driver Side Motor Linkage



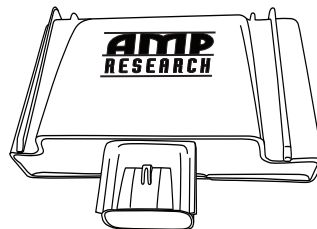
③
Passenger Side Motor Linkage



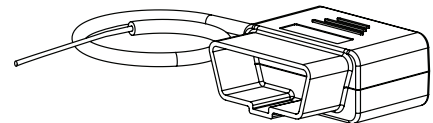
④ x2
Front Idler Linkage Assembly



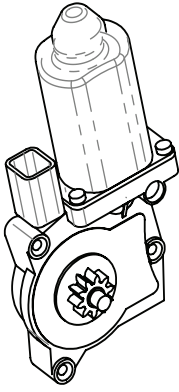
⑤
Wire Harness



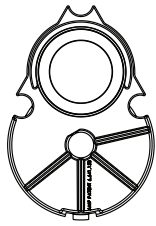
⑥
Controller SSA



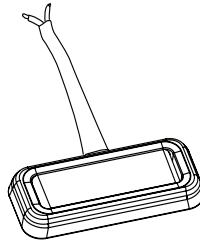
⑦
OBD II Plug FD15 (smart series)



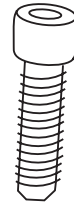
8 x2
Motor



9 x2
Motor Cover



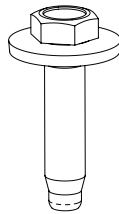
10 x4
LED Lamp



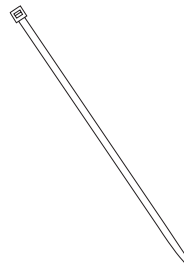
11 x8
Socket Cap Screw



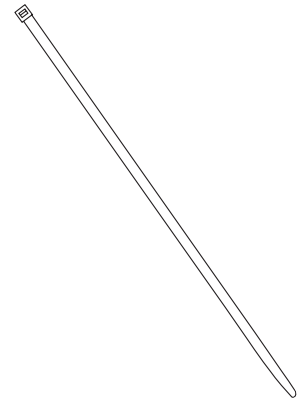
12
Posi-Lock Connector



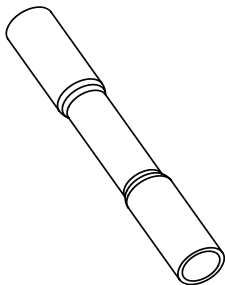
13 x8
Conical Washer Bolt



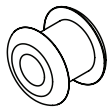
14 x20
Cable Tie 7"



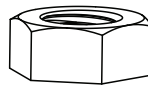
15 x2
Cable Tie 11"



16 x8
Butt Connector



17 x4
Grommet



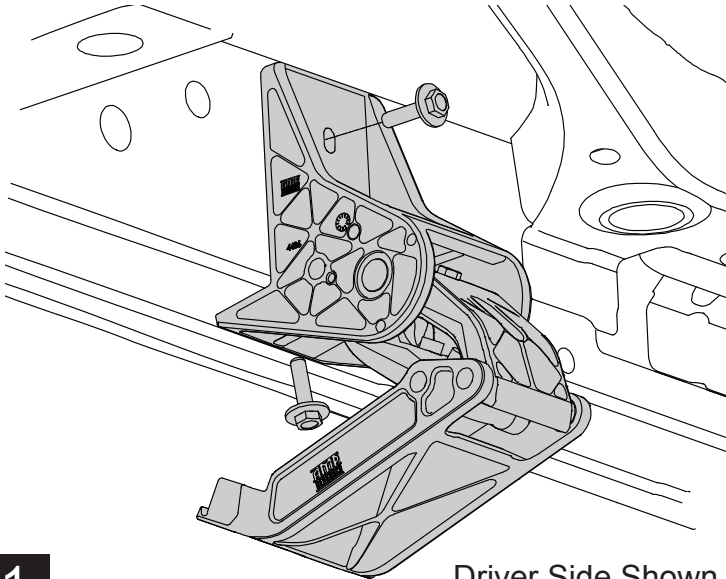
18
Nut



19 x2
(S) Style Clip (Only used
when trimming board length)

Installing Linkages (Driver Side)

Front Linkage (Idler Linkage)



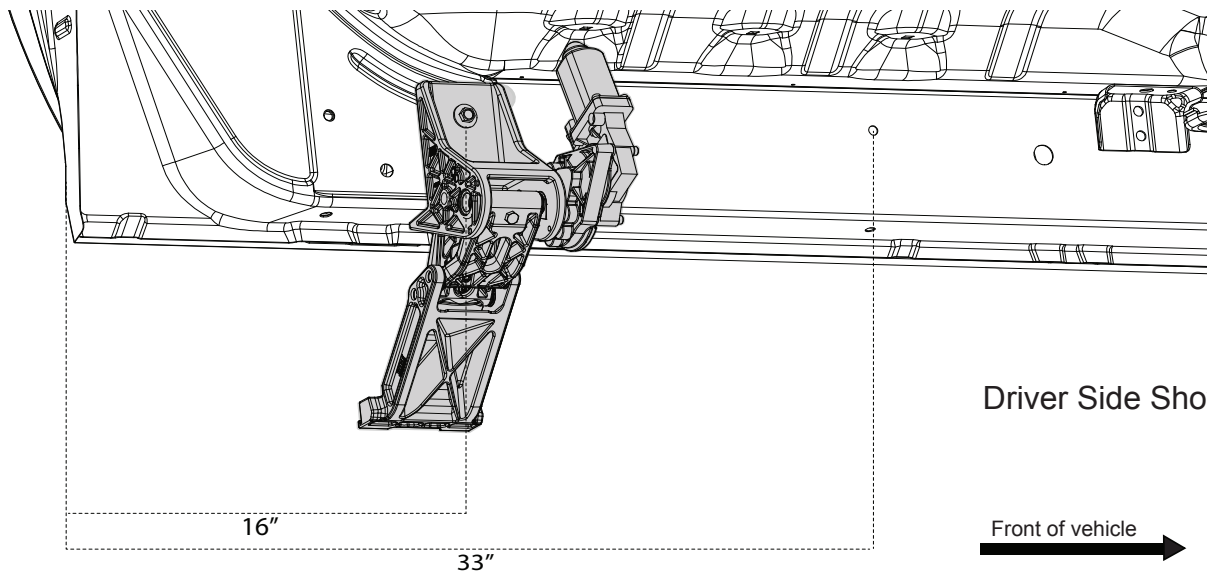
Install the Idler linkage in the **First mount position at the front of the truck**, for Passenger and Driver sides, using the conical washer bolts (13). All plastic or rubber hole plugs need to be removed that are next to the linkage mounts. Also, an extra vertical seam-sealer bead may need to be removed from the front linkage mounting surface.

Torque fasteners to 16 ft-lbs. (22 N·m).

1

Driver Side Shown

Rear Linkage (Motor Linkage)



Driver Side Shown

Front of vehicle →

Assemble the motor to the linkage like the picture before installation shown on page 2. **Position the motor so the linkage is in the mid extension position.** This way the lower bolt can still be installed.

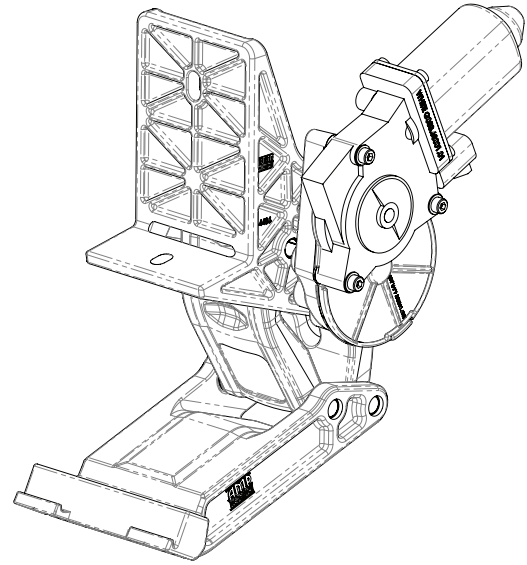
Install the motor linkage with provided Conical washer bolts (13) in the second to last set of holes. Approx 16" from rear of cab. Note: On some models these holes are not present. If so use next set of holes forward. Approx 33" from rear of cab. Keep the linkage held up to the angled surface and the vertical surface. Some structural adhesive remnants may need to be chipped off at the rocker seam. **Torque fasteners to 16 ft-lbs. (22 N·m).**

2

Installing Linkages (Passenger Side)

Rear Linkage (Motor Linkage)

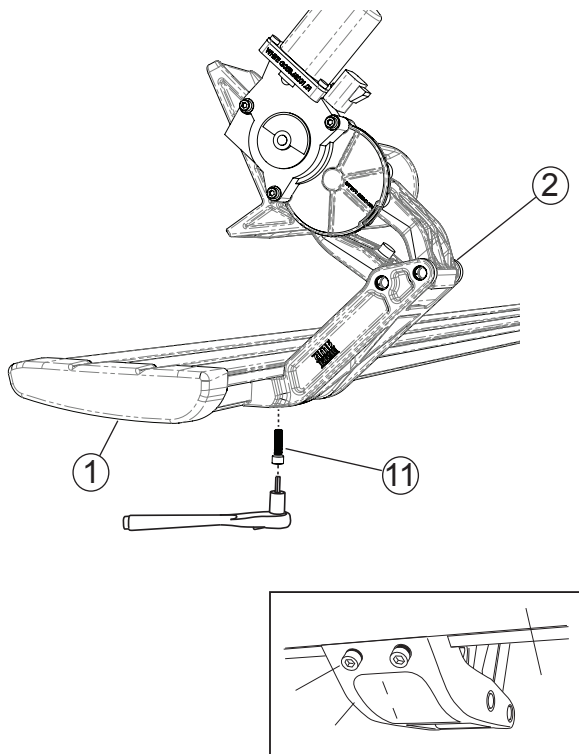
Install the Motor linkage on the passenger side in the second to last set of holes from the rear. The motor should be facing the front of the vehicle for this side as well. Follow the same step as on the Driver side in the previous step. **Torque fasteners to 16 ft-lbs. (22 N·m).**



3

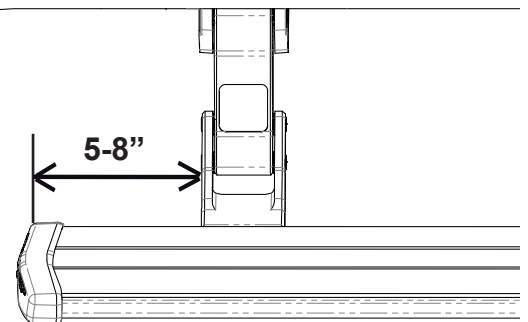
Installing Step Extrusion

Slide the front mounting T-nut into position, place the board(1) about 5 to 8 inches (depending on preference) from the front edge of the front door. Use fasteners(11) to attach boards, finger tighten only. Align the rear T-nut and bolt it to the rear linkage. Then tighten all 4 fasteners to 10 ft-lbs (13.6N·m).



← Front of vehicle
Driver side shown

Driver Front Door

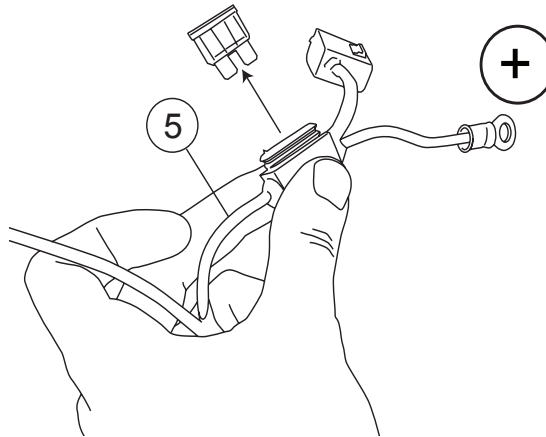


**Torque to 10 ft.lbs.
(13.6N·m)**

4

Installing Electrical Components

Remove the fuse from the Powerstep wire harness.



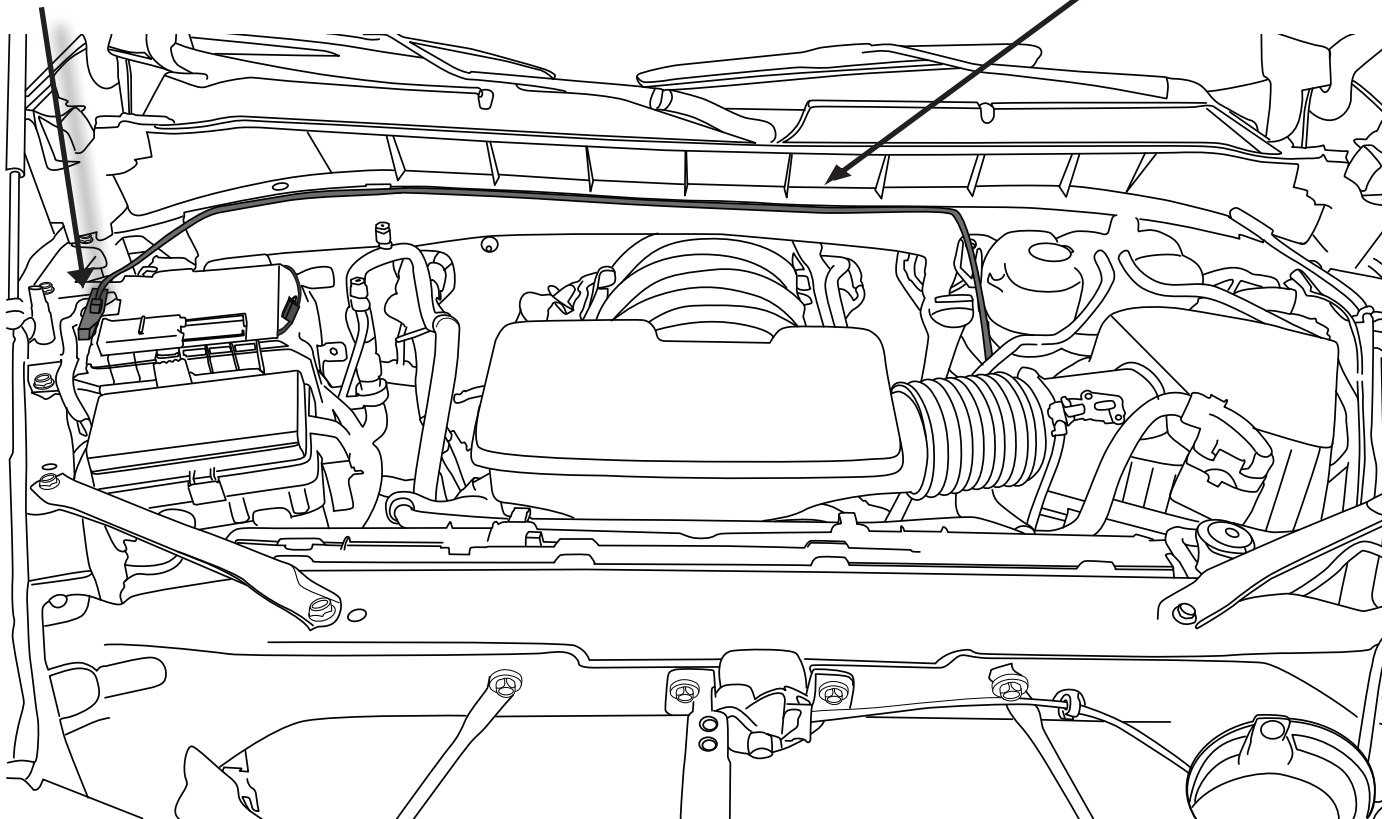
5

Plug in the main connectors(5) to the controller(6), then attach the controller to the passenger side wire harness bundle on the outside of the battery. Secure with 11" cable ties(15). Route the long wire harness leg across the truck under the edge of the cowl (zip tied thru the push rivet slots on the bottom), and then down to the outside of the frame away from the exhaust and steering, cable tie(14) it in place. The other leg shall go down immediately away from the exhaust and to the frame area. Cable tie as needed.

Note: On dual battery vehicles and Diesel models Passenger side battery is still required.

Controller

Cowl Edge

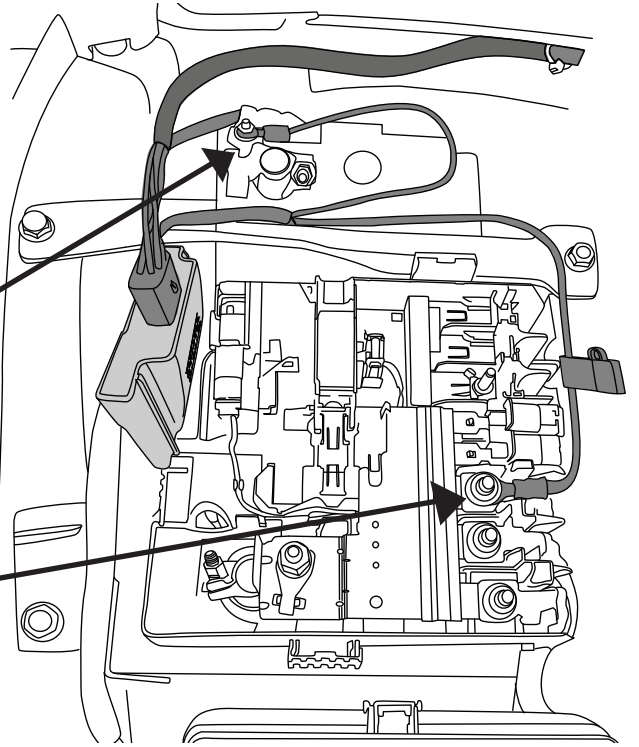


6

Remove the cover on the battery top box and connect the Black wire to the battery terminal accessory stud. Connect the Red wire to the stud on the positive power battery cable terminal using included Nut (18).

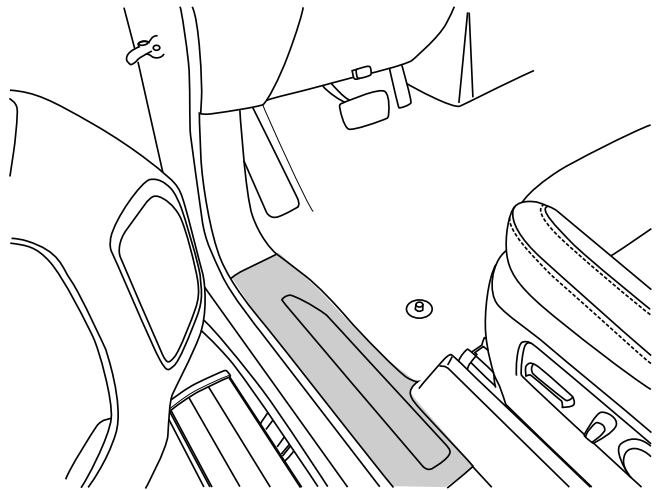
Battery terminal accessory stud, install under factory nut.

Positive terminal accessory stud to attach red wire with Nut(18).



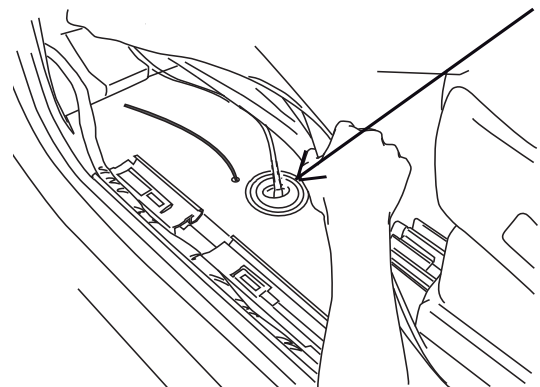
7

Remove the driver side door sill trim and kick panel carefully. Pull up the carpet, and poke a small screwdriver through the rubber insulation material.



8

Route the trigger wire towards the rear of the vehicle above the body mounts, and up through the hole made in the rubber grommet in the previous step. Secure harness with supplied cable ties.

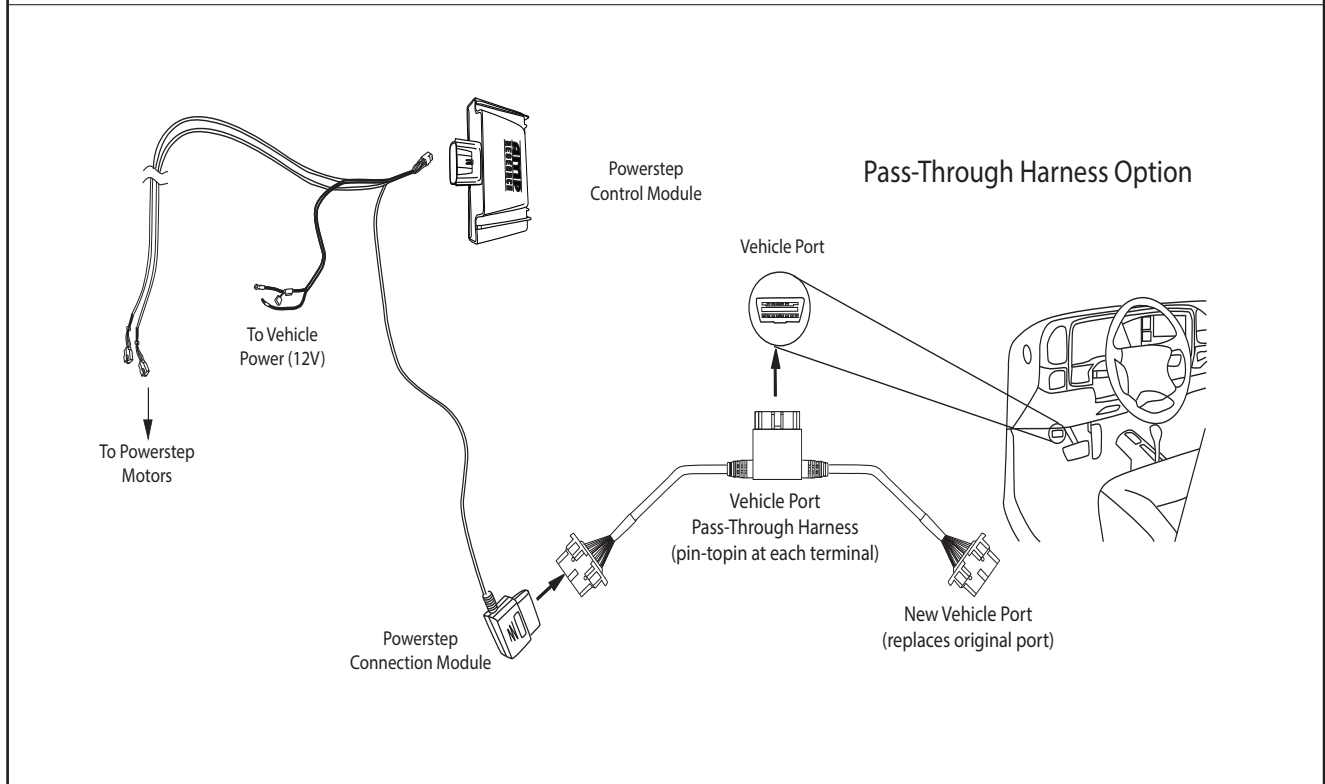
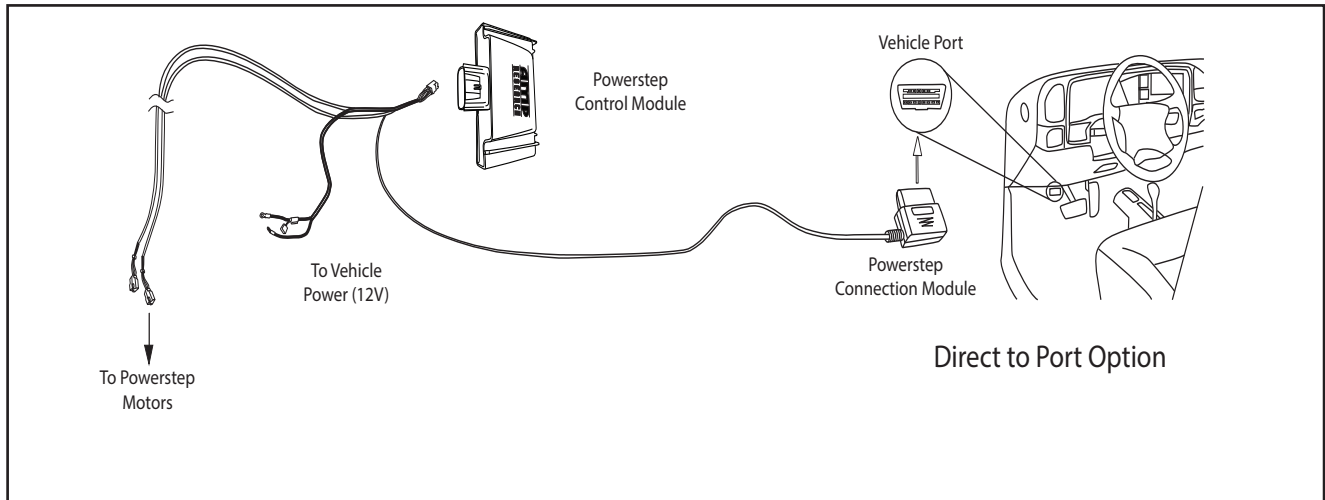


On the Driver side, Do Not zip tie the Wire Harness to the Brake Lines.

9

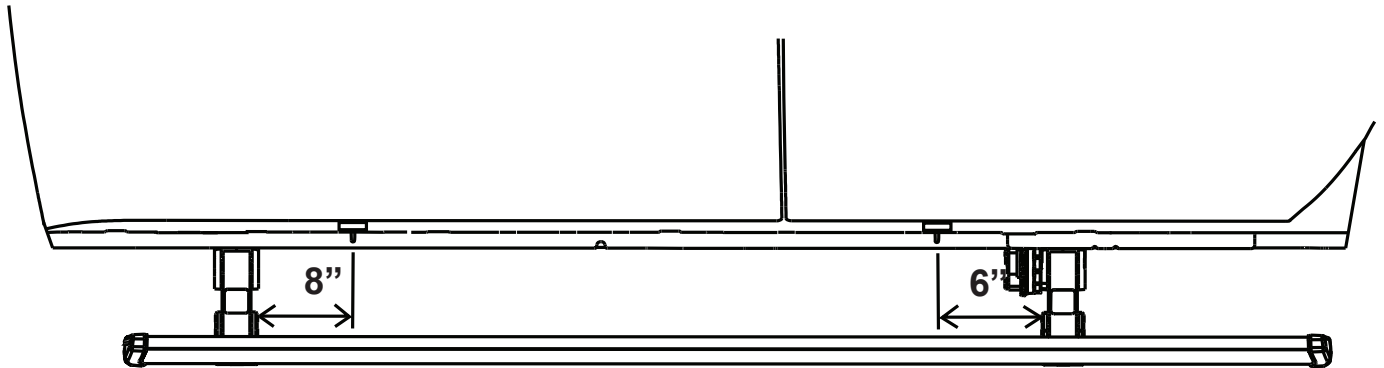
NOTE: Seal holes with silicone glue and cover with tape so carpet does not stick to glue.

OBD II install: Use Supplied Posi Twist connector to attach the Plug and Play Module to the Harness trigger wire. Plug in module to OBD II port on the vehicle. Secure harness with supplied tie wraps. *Note: If the OBD II pass thru harness (76405-01A) was purchased see install sheet supplied in packaging. The pass through harness allows for an open port for other accessories. See below for a brief description.*



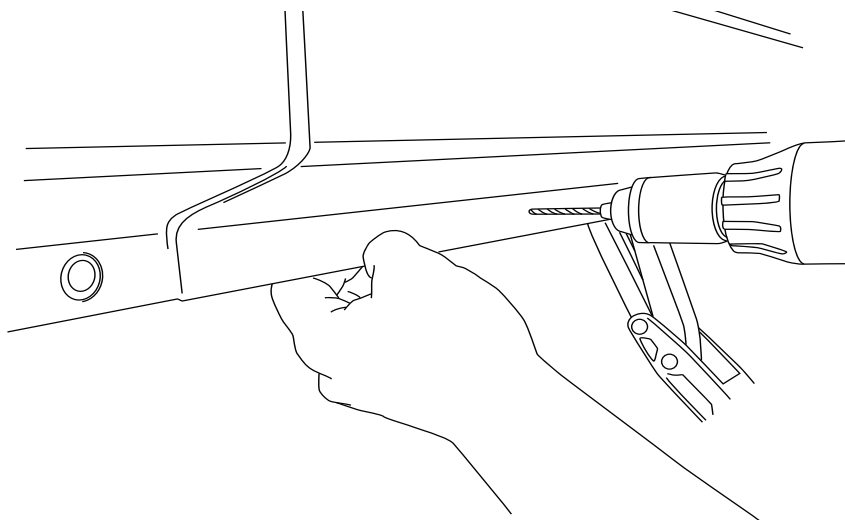
On each side of the vehicle mark the center of each door on the pinch weld and mark for drilling for the light wires in the next step. Make sure there is a clear path to the back of the pinch weld for the wire to enter.

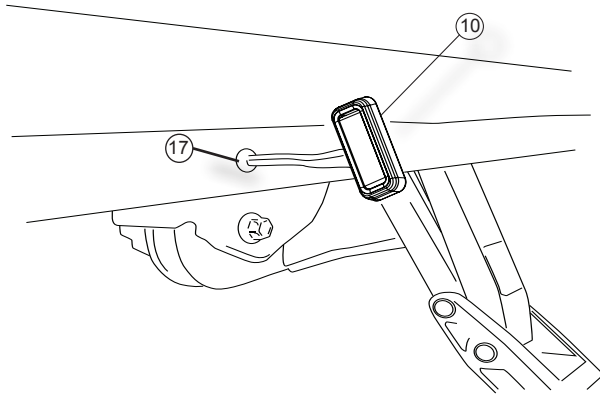
Front of vehicle
←
Driver side shown

**11**

Measure down 1/2" from the top of the pinch weld. Center punch and drill a 1/8" pilot hole then drill a 19/64" hole through the pinch weld at marked locations. Deburr all holes. After drilling apply paint to holes to prevent rusting.

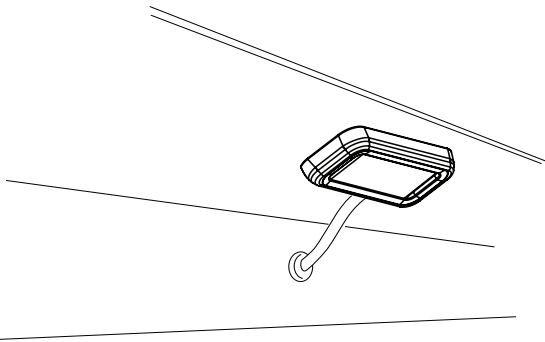
Note: Recommend using a step drill to enlarge holes.

**12**



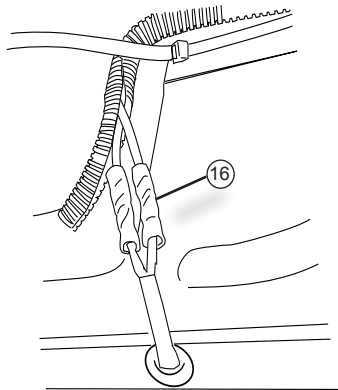
Insert grommet(17) into drilled holes. Insert lamp(10) wires through the grommets. (Silicon lube will help wires slip through grommets.)

13



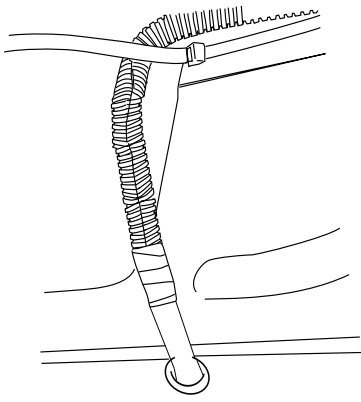
Affix lamp to rocker panel surface. Make sure lamp is affixed to a flat, clean surface.

14



Using supplied butt connectors, connect the lamp wires. Red to Red, Black to Black. Once Crimped use heat gun to shrink tube.

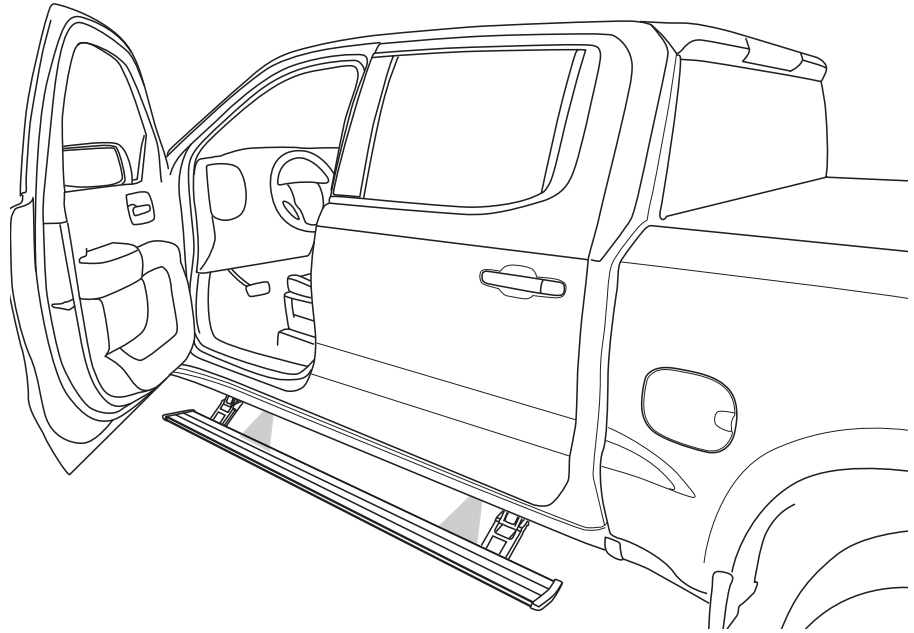
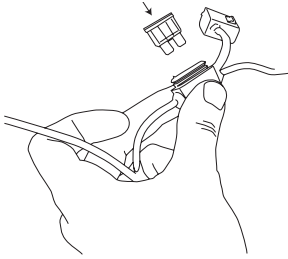
15



Close and wrap with conduit and electrical tape. Secure all loose wires with cable ties, with lamp wires pulled upward to avoid any wire snagging.

16

Check that all doors activate the Power Step and the LED Lights work when doors open and close. Reinstall any remaining trim panels.

Reinstall fuse.**FINAL SYSTEM CHECK**

Check that all doors activate the PowerStep and the LED lights work when doors open and close.

NORMAL OPERATION: When the doors open, PowerStep automatically deploys from under the vehicle. When the doors are closed, PowerStep will automatically return to the stowed/retracted position. **Note that there is a 2-second delay before the PowerStep returns to the stowed/retracted position.**

CORRECT OPERATION OF LIGHTS: All four lamps will illuminate upon opening any door of vehicle. Lamps will stay on until restowing of both Power Steps or until 5 minutes has expired with the doors open. When the lights timeout after 5 minutes, they can be reilluminated by closing and opening any door of vehicle.

POWER-DEPLOYABLE RUNNING BOARDS OPERATION: AMP Research PowerStep running boards automatically move when the doors are opened to assist entering and exiting the vehicle.



Automatic power deploy:

The running boards will extend down and out when the doors are opened.

Automatic power stow:

The running boards will return to the stowed position when the doors are closed. There will be a 2-second delay before the running boards move to the stowed position.

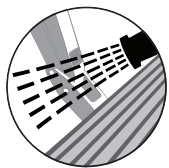
Automatic stop:

If an object is in the way of the moving running board, the running board will automatically stop. To reset, clear any obstruction, then simply open and close the door to resume normal operation.



Manually set in the deployed (OUT) position for access to the roof:

The running boards can be manually set in the deployed position by firmly holding the step down with your foot while at the same time closing the door. To resume normal operation, open and close the door.



Maintenance: In adverse conditions, debris such as mud, dirt, and salt may become trapped in the running board mechanism, possibly leading to unwanted noise. If this occurs, manually set the running boards to the deployed position and flush the front and rear hinge arms with a high-pressure car wash wand. Avoid spraying the motors directly. After washing, apply silicone spray lubricant to the hinge pivot pins. Do not apply silicone, wax or protectants like Armor All® to the running board stepping surface.

Caution! Keep hands away when the running board is in motion.

WARNING

Be sure to read and precisely follow the provided instructions when installing this product. Failure to do so could place the vehicle occupants in a potentially dangerous situation. After installing or reinstalling, re-check to insure that the product is properly installed.



The material that your product is made from can be recycled. Please also consider recycling the packaging that your product came in.

