

# INSTALLATION GUIDE

# **AMP** **Power Step** RESEARCH MADE IN USA

APPLICATION

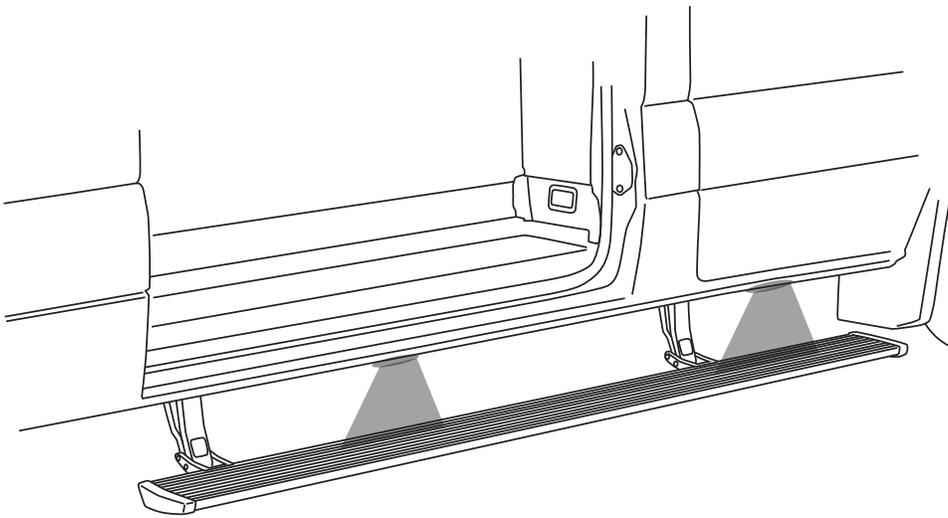
MODEL YR

PART #

Sprinter Van

2007 - 2018

75163-01A



## INSTALLATION TIME

**3-5 Hours**

Professional installation recommended

## SKILL LEVEL



4= Experienced

## TOOLS REQUIRED

- Safety goggles
- Measuring tape
- 13mm wrench
- 19mm wrench
- 13mm socket
- 10mm socket
- Ratchet wrench and extension
- Wire stripper / cutter
- 3/16" hex key ( allen wrench )
- 4mm hex key ( allen wrench )
- Electrical tape

## WARRANTY

**5-Year Limited Warranty**

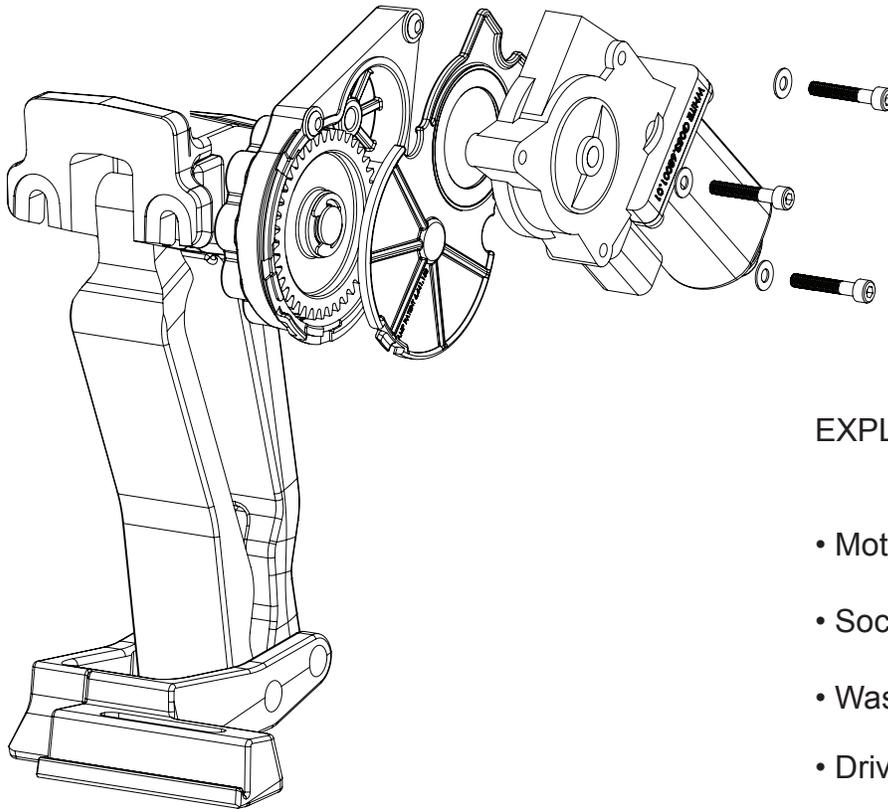
AMP RESEARCH TECH SUPPORT 1-888-983-2204 (Press 2) Monday - Friday, 7:00 AM - 5:00 PM PST

Invented, engineered and manufactured exclusively by AMP Research in the USA. May be covered by one of the following patents: 6,641,158; 6,830,257; 6,834,875; 6,938,909; 7,055,839; 7,380,807; 7,398,985; 7,584,975 ©2012 AMP Research. All rights reserved. Printed in USA.

## INSTALLATION GUIDE

### Attaching motor to linkage assembly

The motors must be attached to the linkage assemblies before continuing the installation process.



EXPLODED VIEW

- Motor
- Socket cap screw
- Washer
- Drive Gear Housing Cover

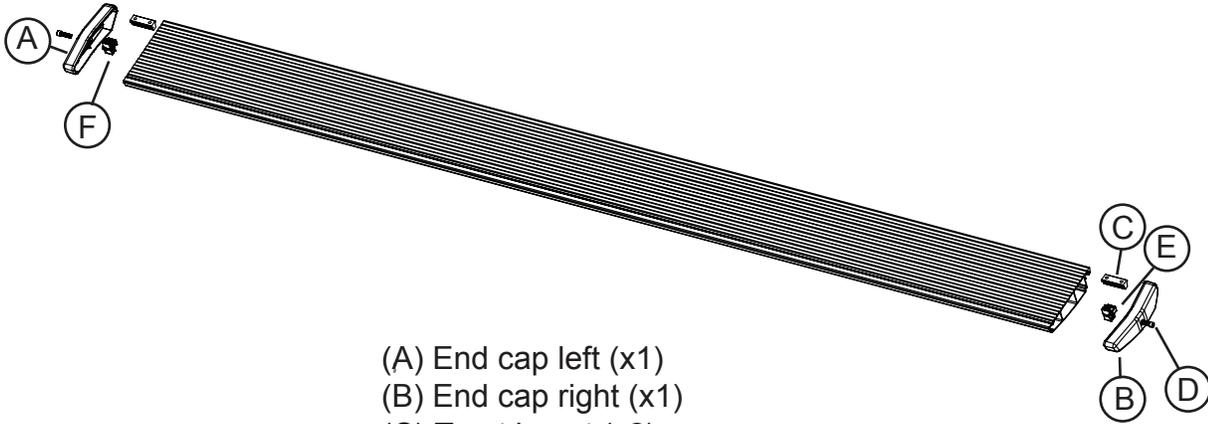
### CAUTION: HANDLE WITH CARE.

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:

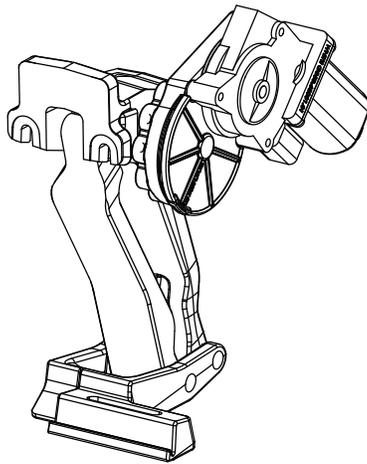
1. Position the gear cover in place as shown if not already in place.
2. Seat motor into position on the three mounting bosses. This may require an adjustment of the gear by moving the swing arms.
3. After seating into place, fasten the motor with the three motor mount screws with 4mm Hex Head. Tighten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



1

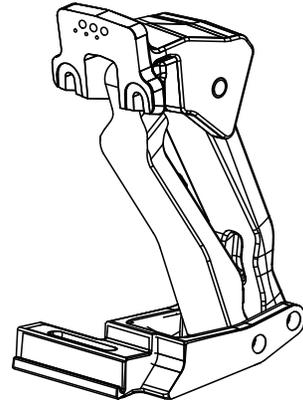
Running board assembly

- (A) End cap left (x1)
- (B) End cap right (x1)
- (C) T-nut insert (x2)
- (D) Socket cap screw (x2)
- (E) End cap wedge right (x1)
- (F) End cap wedge left (x1)



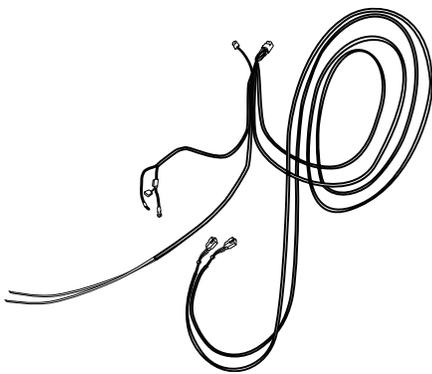
2

Motor Linkage Assembly



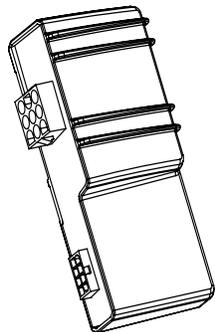
3

Idler Linkage Assembly



4

Wire Harness



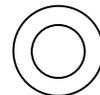
5

Controller STA



6 x4

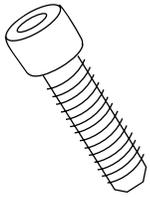
M8 Hex bolt



7 x4

Washer (SS)

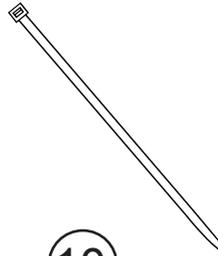
PARTS LIST AND HARDWARE IDENTIFICATION



**8** x4  
Socket Cap  
Screw



**9** x20  
Cable Tie (7")



**10** x2  
Cable Tie (11")



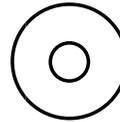
**11** x2  
Posi-Tap™  
Connector



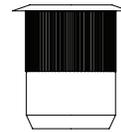
**12** x4  
M8x12 Flange Bolt



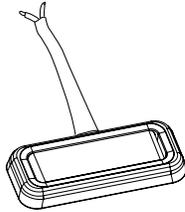
**13** x2  
M8x25 Flange Bolt



**14** x2  
Large Washer



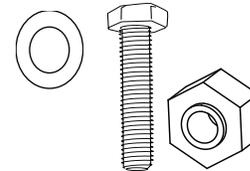
**15** x6  
M8 Rivet Nut



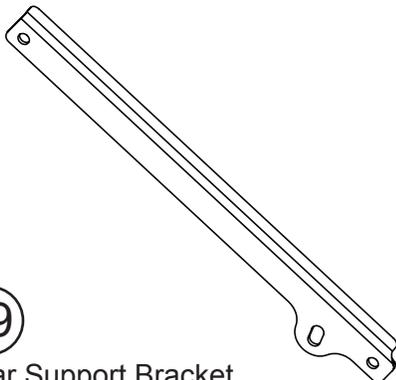
**16** x2  
LED Lamp



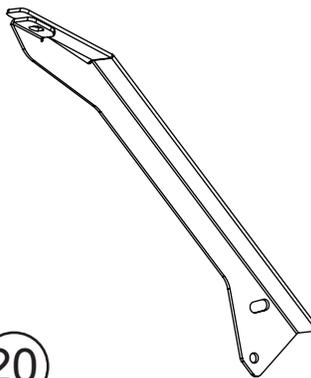
**17** x4  
Butt Connector



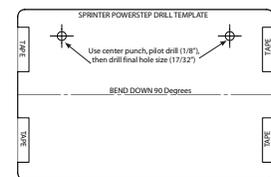
**18**  
Rivet Nut Tool



**19**  
Rear Support Bracket

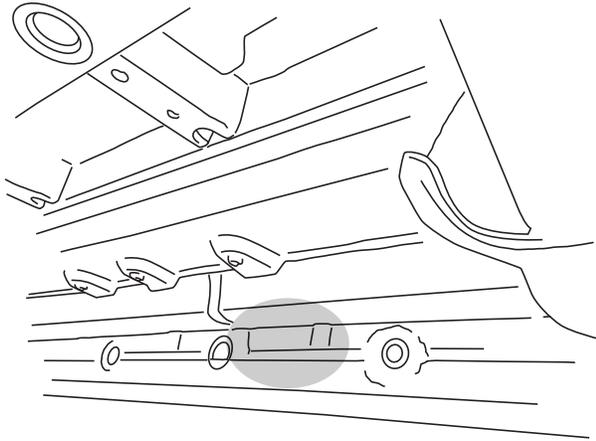


**20**  
Front Support Bracket



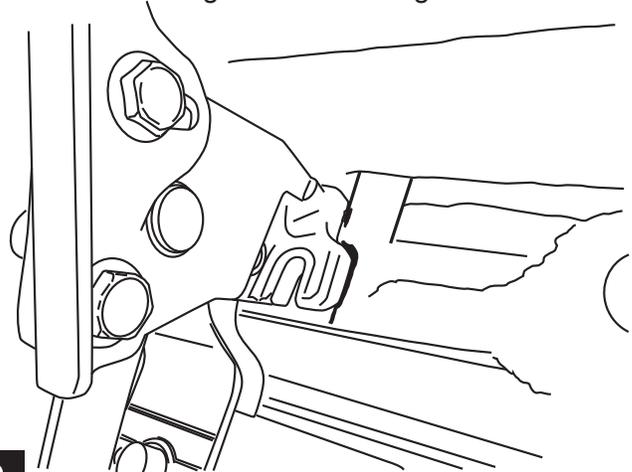
**21**  
Drill Template

**Rear Drive Linkage install:** Locate rear linkage location. Clean undercoating so any proud edges are knocked off and mounting surface is flat.



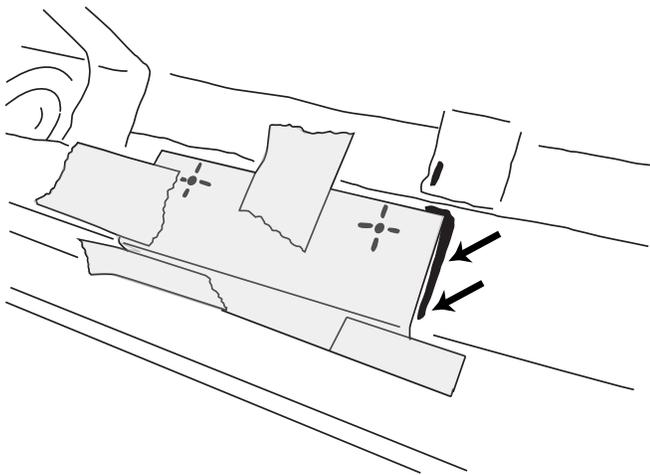
1

Set Upper mount up to bump in sheetmetal and mark side of linkage near mounting slot.



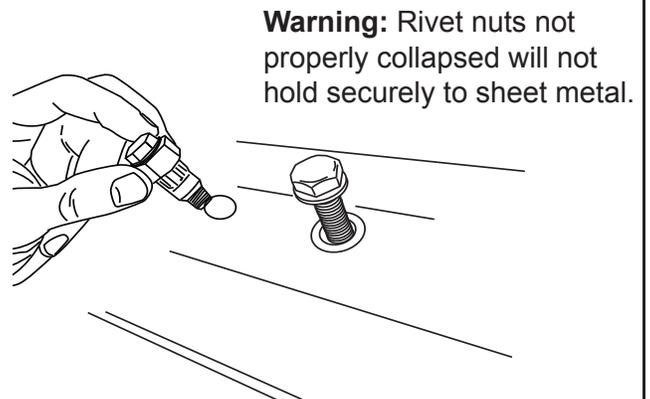
2

Set template up to marked line. Center punch holes.



3

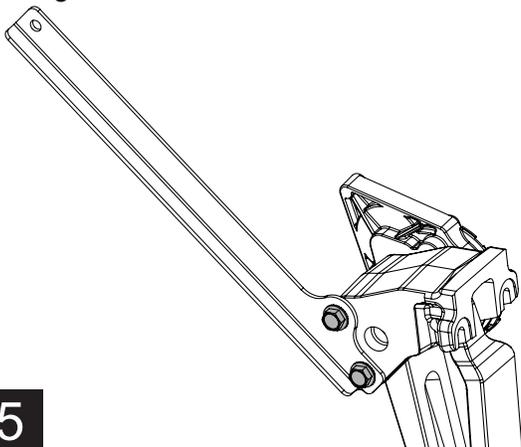
Pre Drill holes with an 1/8" Drill and then drill to 17/32". Then insert rivet nuts into position. Refer to install card in rivet nut tool bag. Then pre thread m8 screws and washers into position



**Warning:** Rivet nuts not properly collapsed will not hold securely to sheet metal.

4

Using supplied Flange bolts install bracket onto Drive linkage Upper mount. Do not tighten to allow for adjustment. Use shorter bolts to prevent bolt and linkage arm interference.

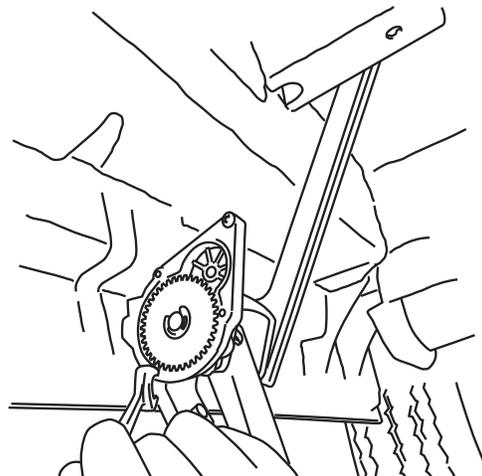


5

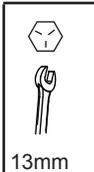


13mm

Set rear linkage over bolts. Using a 13mm box wrench snug up two bolts on linkage.

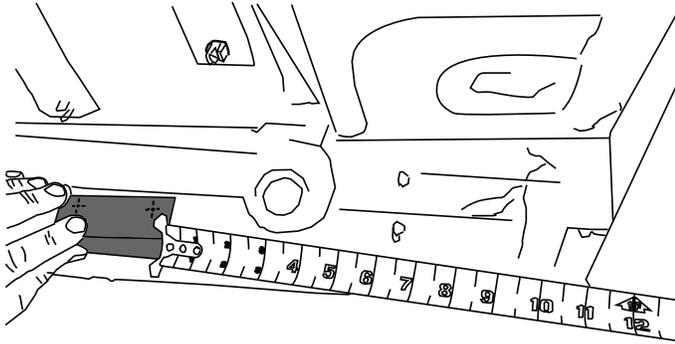


6



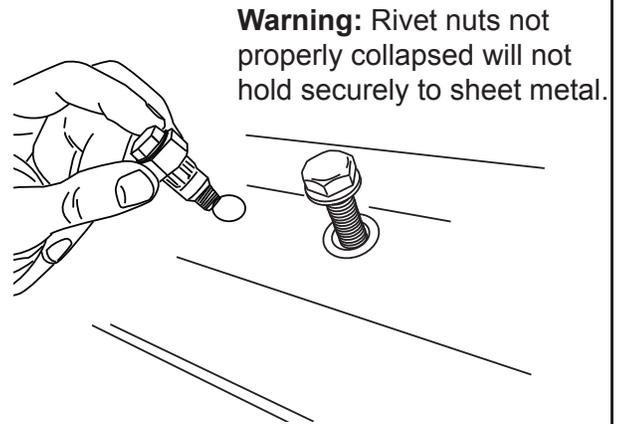
13mm

Front Idler Linkage Install: Locate front linkage mounting position. Location is approx 11" forward of tab in unibody crossmember as show. Tape template in place and center punch holes.



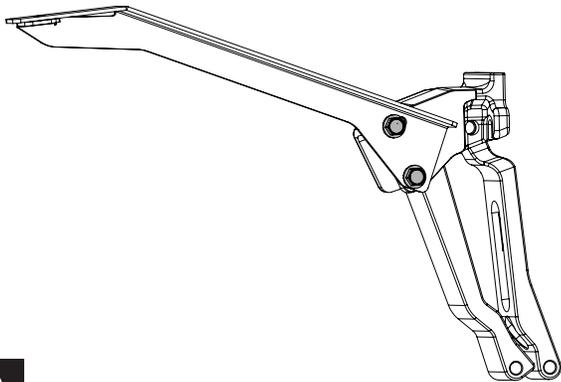
7

Pre Drill holes with an 1/8" Drill and then drill to 17/32". Then insert rivet nuts into position. Refer to install card in rivet nut tool bag. Then pre thread m8 screws and washers into position



8

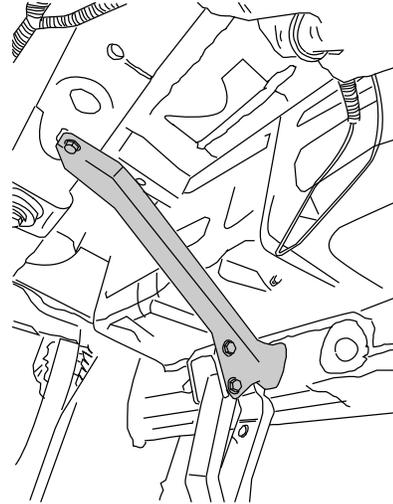
Using supplied Flange bolts install bracket onto Idler linkage Upper mount. Do not tighten to allow for adjustment. Use shorter bolts to prevent bolt and linkage arm interference.



9

13mm

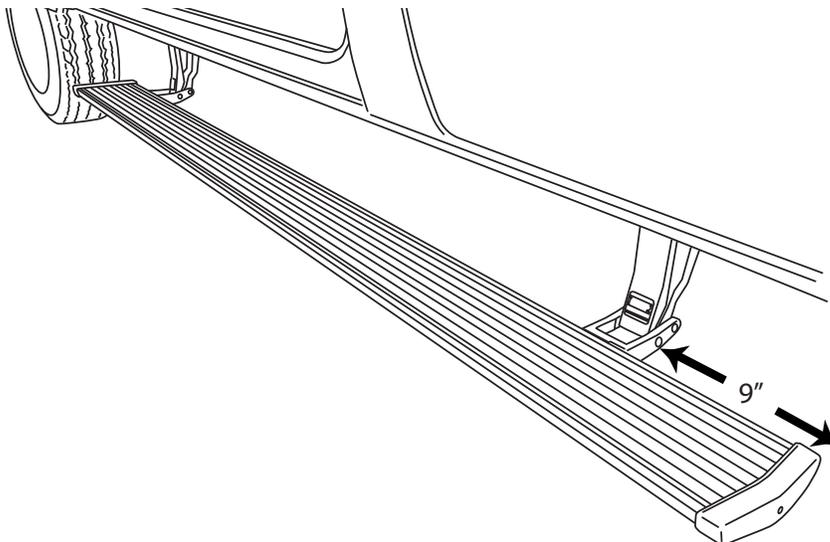
Set front idler linkage over bolts. Using a 13mm box wrench snug up two bolts on linkage.



10

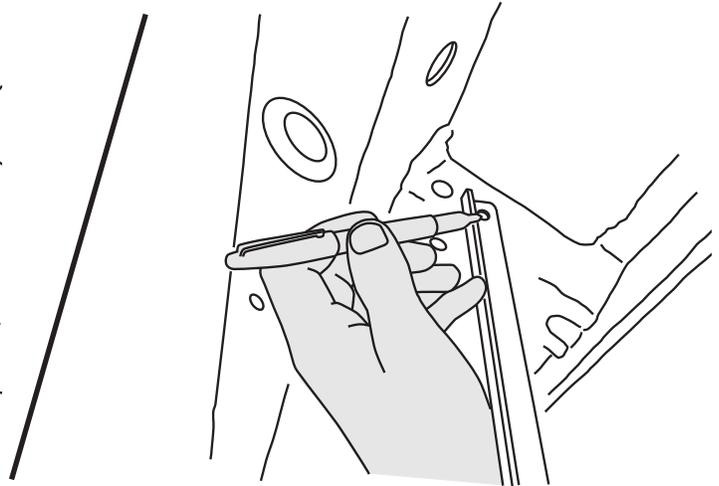
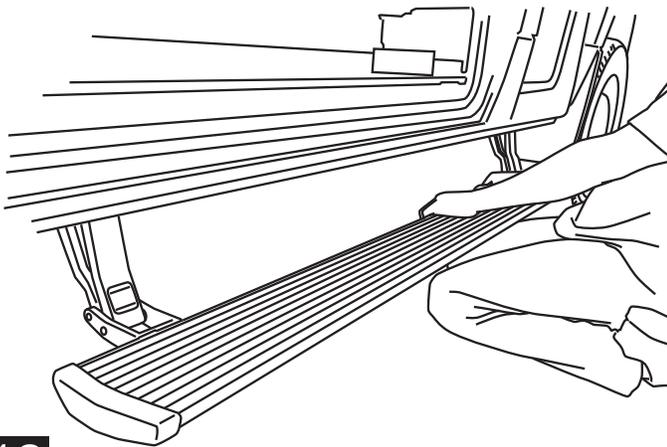
13mm

Install Running board onto lower mounts. Measure 9 inches from end of board to side of linkage as shown below.



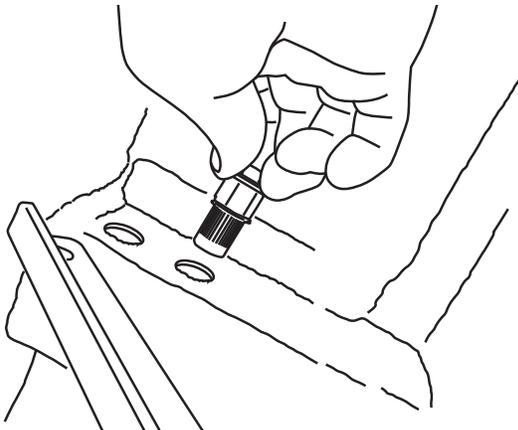
11

Using light pressure pull out from the inside edge of the running board to get the step in the level position. Hold the running board in position. Mark upper hole location in rear bracket.



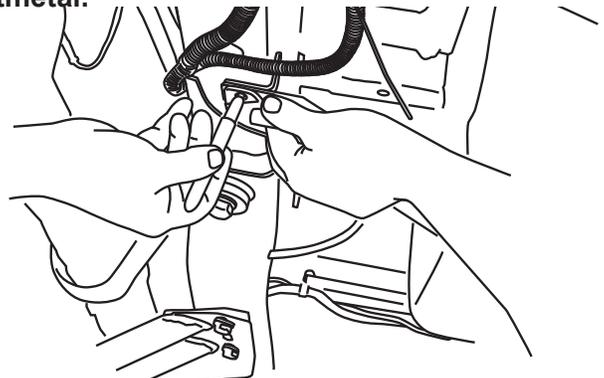
12

Remove bracket bolts on side of upper mount to rotate out of way. Center punch, Pre drill with 1/8" and then final drill to 17/32". Install rivet nut. Install longer flange bolt and reassemble bolts on bracket at linkage.



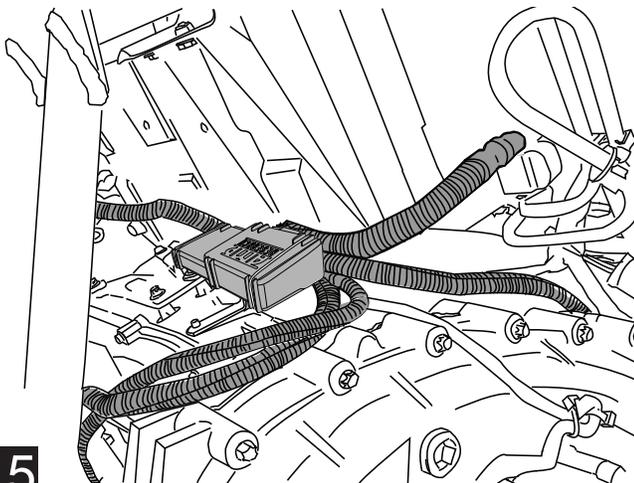
13

With front bracket in place mark hole. Center punch, Pre drill with 1/8" and then final drill to 17/32". Install rivet nut. Install longer flange bolt and reassemble bolts on bracket at linkage. **Note: 2 Washers are provided to space out multiple layers of sheetmetal.**



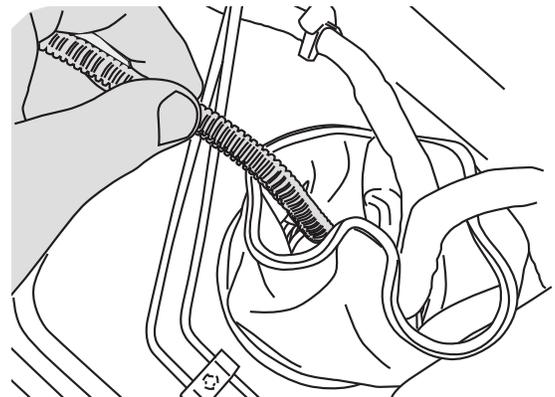
14

Mount controller under vehicle attach to loom that runs along the bottom of the battery box.



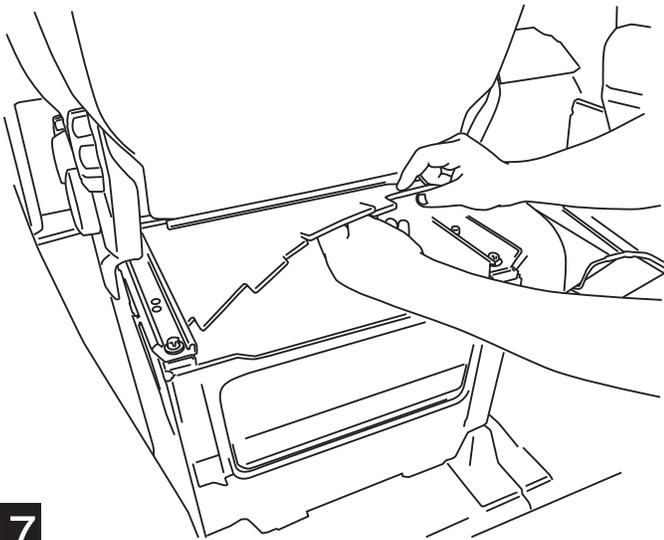
15

Run Positive and negative terminals up through the large rubber boot just rearward of where controller is mounted. Zip tie around boot may need to be removed to route wire through. If so use one supplied and re-seal boot.



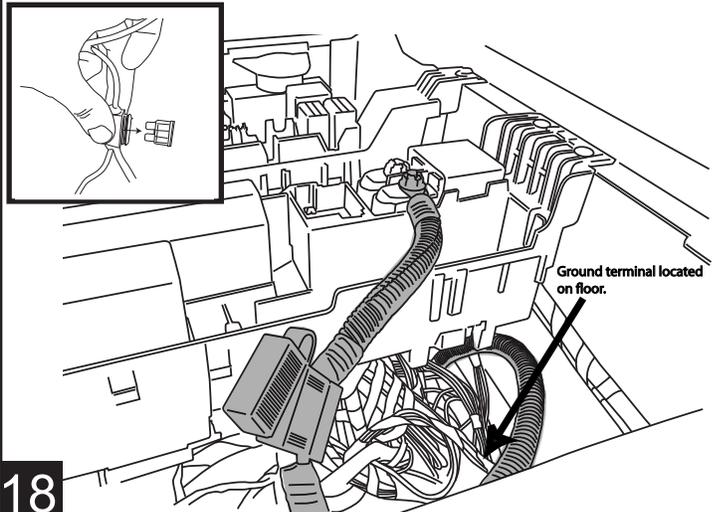
16

Remove Drivers seat box cover. Be careful not to damage wire that runs across cover.



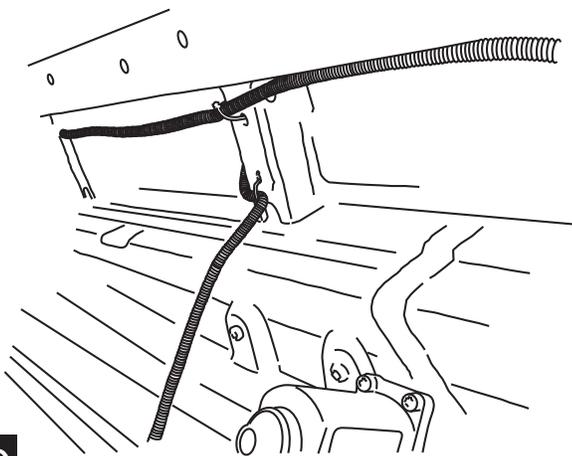
17

Connect positive terminal on power lead using a 10mm socket or wrench. Connect ground to body ground in bottom of seat box. Remove Fuse.



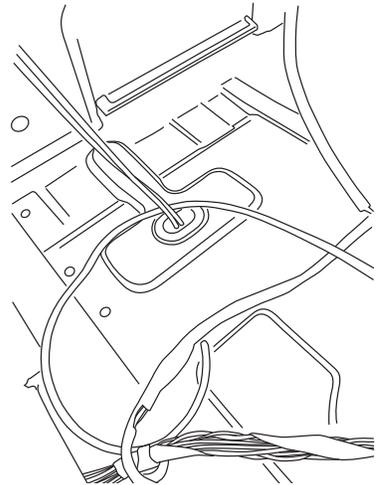
18

Route remaining wires up and over exhaust heat shield and back along passenger side to motor.



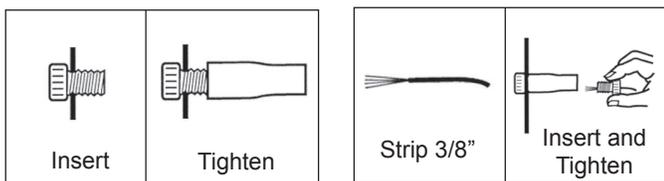
19

Remove side access panel. Locate grommet under passenger side seat. Pull trigger wires up through grommet in floor.



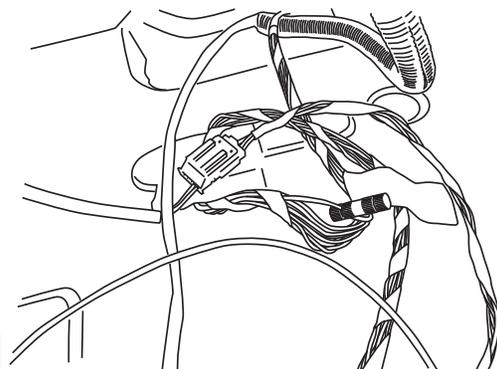
20

Splice Power Step trigger wires into the Door Ajar wires with provided Posi-Tap™ splicers. The Power Step trigger wires color coordinate with the factory Door Ajar wires. Follow the steps below to correctly splice wires.



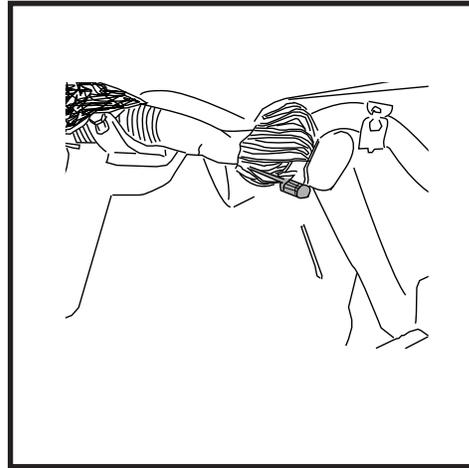
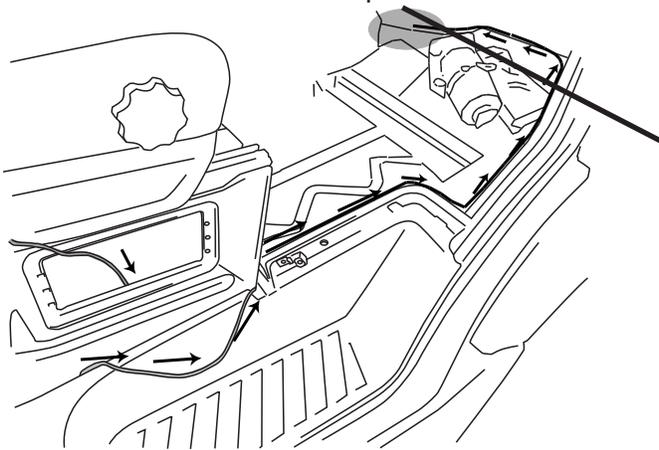
21

**Rear Door:** Located in the loom under the seat look for the pink with a white stripe wire for the rear door. Attach pink trigger wire on harness to pink with a white stripe wire.



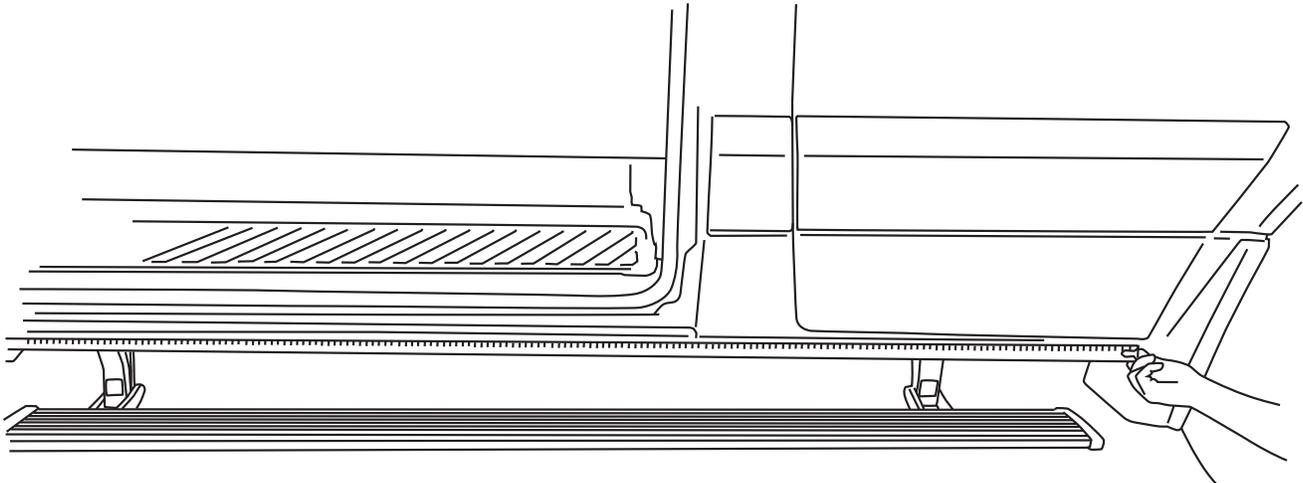
22

**Front Door:** Located in the loom in passenger foot well. Remove mat covering jack. Route Blue Trigger wire up through opening in side of seat base. Route under floor paneling and route up towards foot well. Factory wire will be Blue with a Green stripe



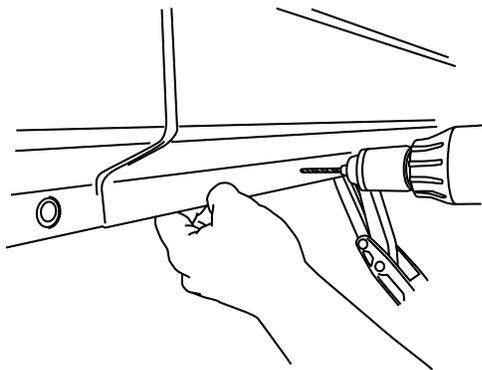
23

Measure from the front edge of door line on the pinch weld to the specified lengths below. Measure at 12" for the front LED Light and 60" for the rear LED Light.

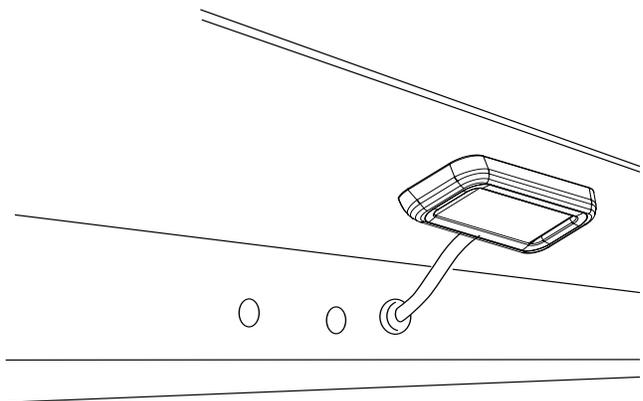


24

Drill a 9/32" hole through the pinch weld at marked locations. Deburr all holes.



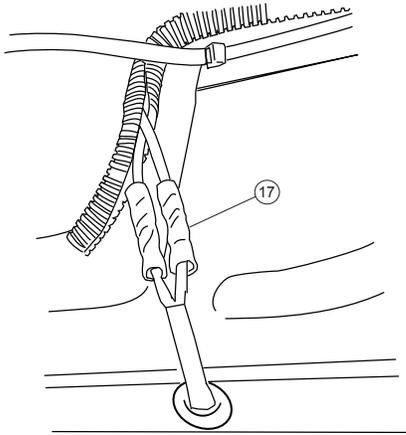
Affix lamp (16) to rocker panel surface. Make sure lamp is affixed to a flat, clean surface.



25

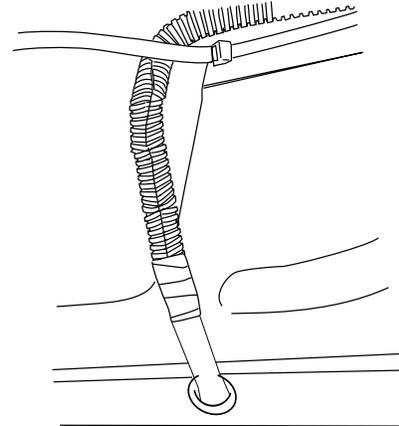
26

Using supplied butt connectors (17), connect the lamp wires. Red to Red, Black to Black



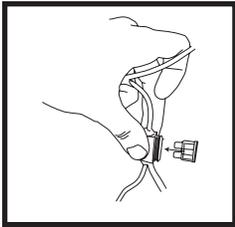
27

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.

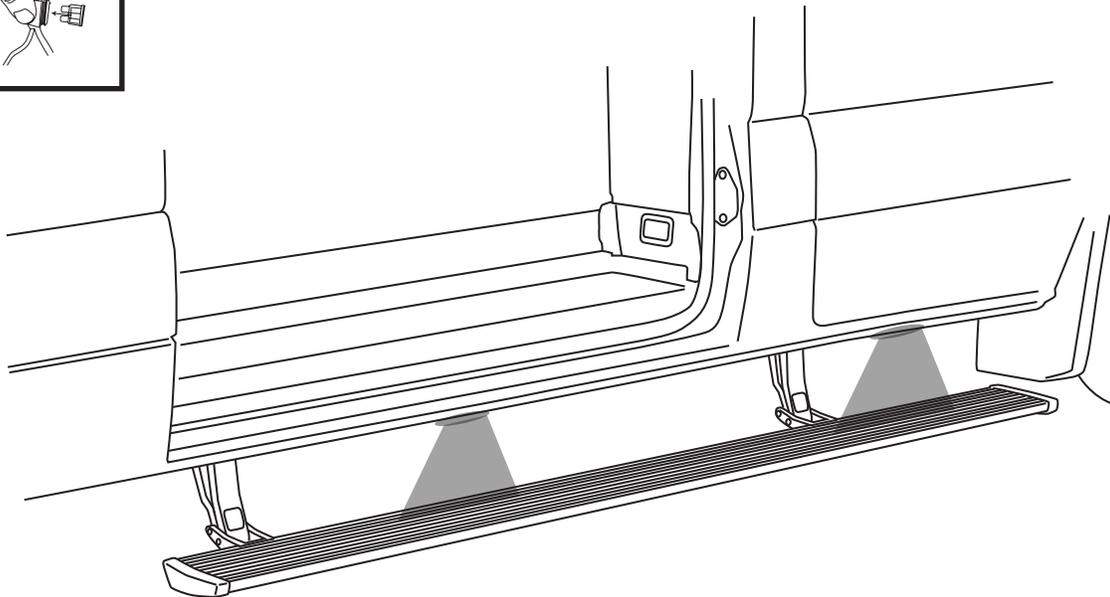


28

Reinstall fuse.



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



### 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**

**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.

29



# PowerStep™

AMERICAN DESIGNED, ENGINEERED AND MANUFACTURED.

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Rev 01.05.21

**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.

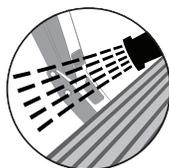
**Automatic stop:**

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.

### 5-YEAR LIMITED WARRANTY

AMP RESEARCH warrants this product to be free from defects in material and workmanship for FIVE (5) YEARS FROM DATE OF PURCHASE, provided there has been normal use and proper maintenance. This warranty applies to the original purchaser only. All remedies under this warranty are limited to the repair replacement of the product itself, or the repair or replacement of any component part thereof, found by the factory to be defective within the time period specified. The decision to repair or replace is wholly within the discretion of the manufacturer.

This warranty specifically excludes labor. If you have a warranty claim, first you must call our factory at the number below for instructions. You must retain proof of purchase and submit a copy with any items returned for warranty work. Upon completion of warranty work, if any, we will return the repaired or replaced item or items to you freight prepaid. Damage to our products caused by accidents, fire, vandalism, negligence, misinstallation, misuse, Acts of God, or by defective parts not manufactured by us, is not covered under this warranty.

ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND/OR FITNESS FOR A PARTICULAR PURPOSE CREATED HEREBY ARE LIMITED IN DURATION TO THE SAME DURATION AND SCOPE AS THE EXPRESS WRITTEN WARRANTY. OUR COMPANY SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGE.

Some states do not allow limitations on how long an implied warranty lasts, or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights that vary from state to state.

**FOR WARRANTY ISSUES WITH THIS PRODUCT PLEASE CALL AMP RESEARCH CUSTOMER SERVICE 1-888-983-2204**

### 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.