

INSTALLATION GUIDE

AMP RESEARCH Power Step

MADE IN USA

APPLICATION

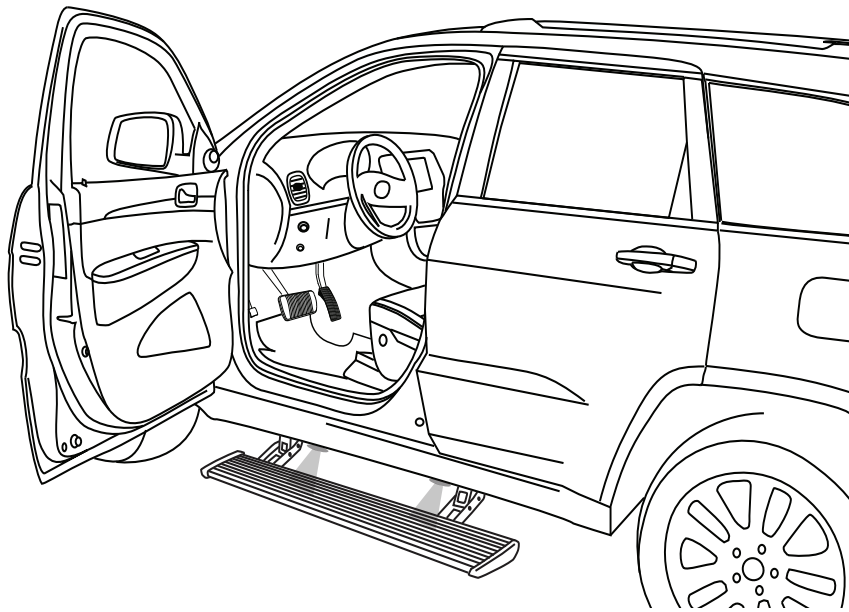
YEAR

AMP PART#

Jeep Grand Cherokee

2018–2019

76334-01A



INSTALLATION TIME

3-5 Hours

Professional installation recommended

SKILL LEVEL



4= Experienced

TOOLS REQUIRED

- Safety Goggles
- Measuring Tape
- 9/16" Wrench
- 7/16" Wrench
- 10mm Wrench
- 13mm Wrench
- 13mm Socket
- 10mm Socket
- Ratchet Wrench and Extension
- Wire Stripper / Cutter
- 3/16" Hex Key (allen wrench)
- 1/8", 9/32", and 17/32" Drill Bit
- Center Punch
- Anti Corrosion Paint
- Electrical Tape
- Utility Knife
- Small flat blade screwdriver
- Heat gun
- Silicon Spray or equivalent
- Drill

Fits these trim models:

**75th Anniversary
Laredo
Laredo E
Altitude
Limited
Overland**

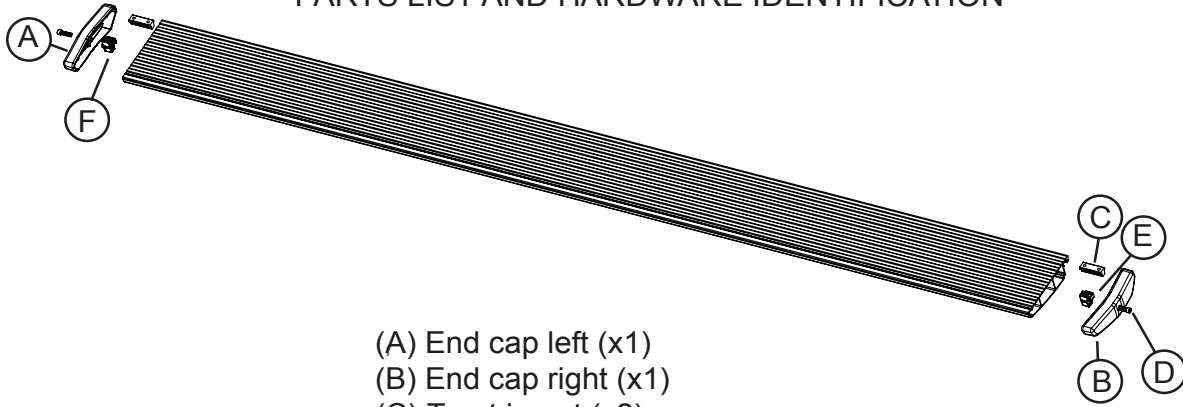
Does not fit these models:

**High altitude
SRT
SRT Red Vapor
Summit
Summit CA Ed.**

Fits 4 x 2 and 4 x 4

Does not fit vehicles with gas tank skid plates, but does fit with front skid plates.

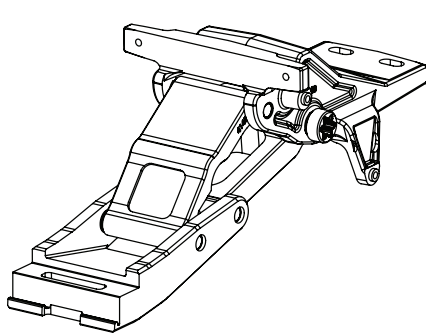
PARTS LIST AND HARDWARE IDENTIFICATION



- (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)

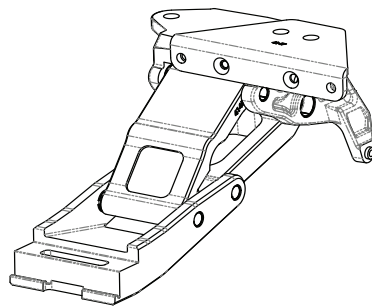
1 x2

Running board assembly



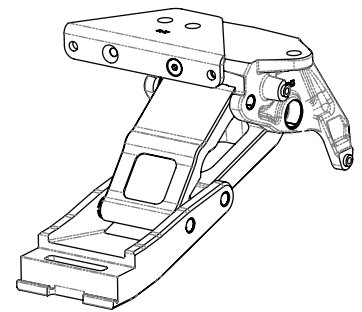
2 x2

Front Drive Linkage



3a

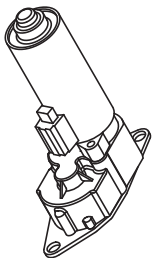
Rear Idler Linkage



3b

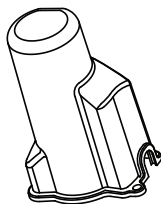
Rear Idler Linkage

(See pg.5 for driver/passenger orientation)



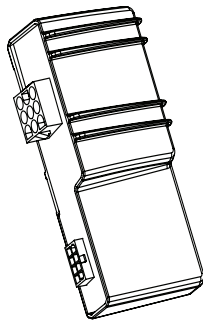
4 x2

Motor



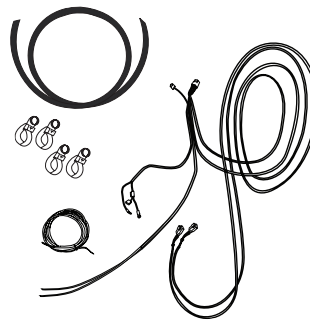
5 x2

Motor Cover



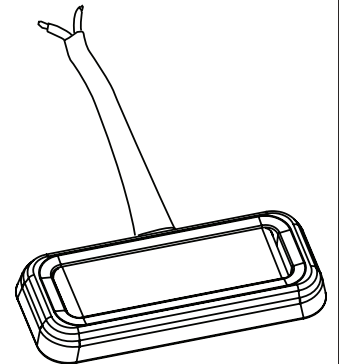
6

Controller STA



7

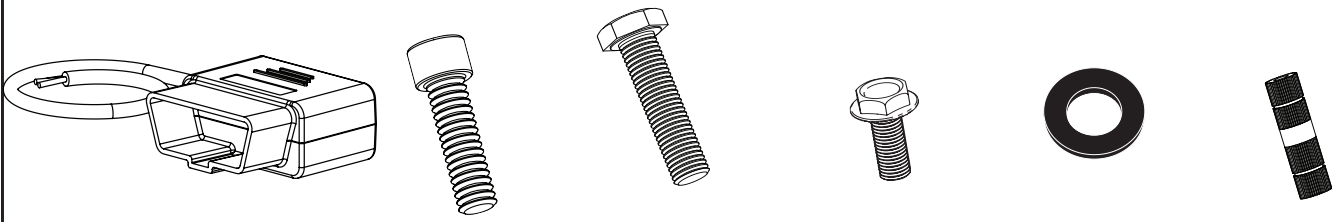
Wire Harness Kit



8 x4

LED Lamp

AMP RESEARCH POWERSTEP™ – JEEP GRAND CHEROKEE



9

Module

10

x8
Socket Cap
Screw

11

x8
Hex bolt

12

x4
Hex Flange
Bolt

13

x8
Black washer

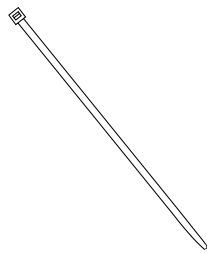
14

x4
Posi-Lock
Connector



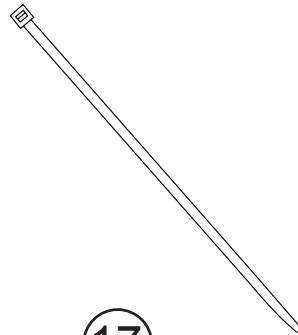
15

x6
Cinch Fastener



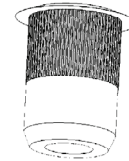
16

x20
Cable Tie 6"



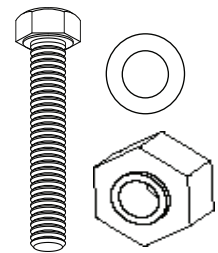
17

x2
Cable Tie 11"



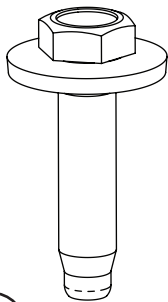
18

x2
Rivet Nut



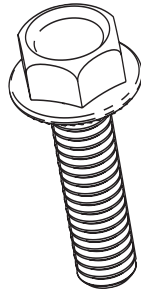
19

Rivet Nut Tool Kit
(Installation Tool)



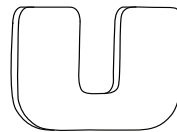
20

x2
Conical Washer Bolt



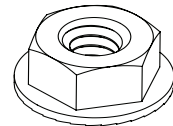
21

x2
Hex Flange Bolt



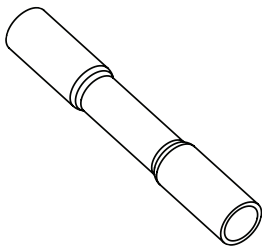
22

Shim



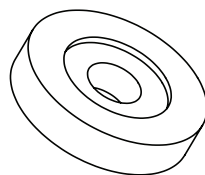
23

x2
Serrated Nut



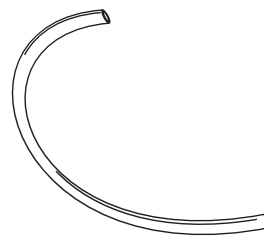
24

x8
Butt Connector



25

x2
Spacer



26

Tubing (Installation Tool)

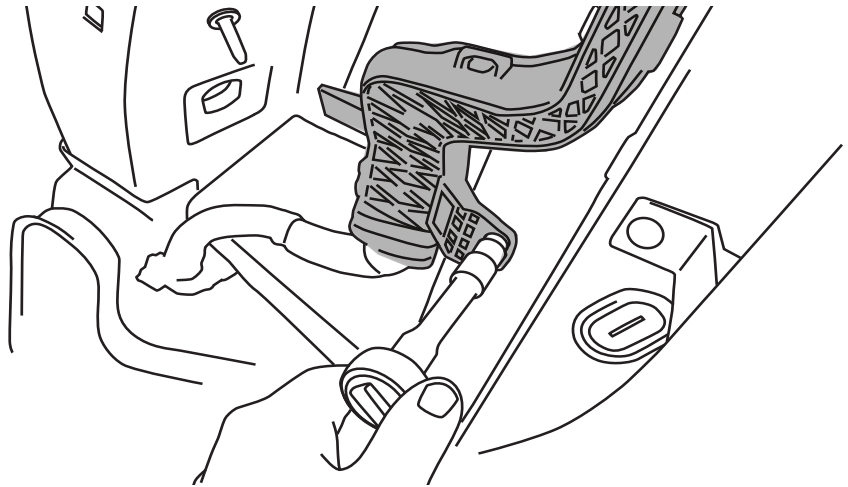


27

Grommet

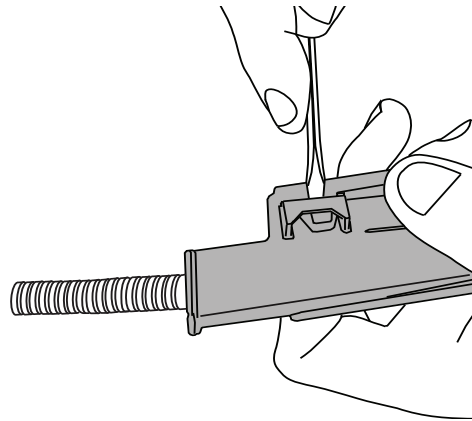
Note: The following 3 steps should be completed first

Remove factory wire harness housing from the passenger side pinch weld area.



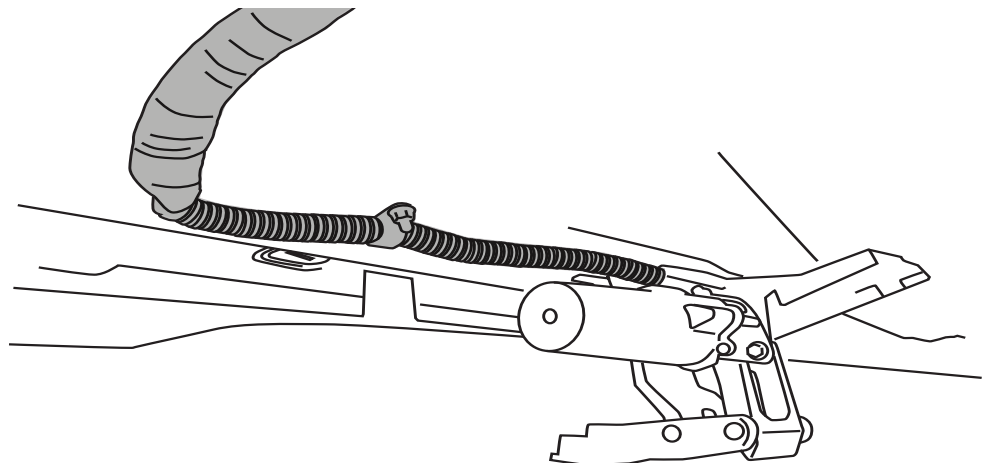
a

Split wire harness housing, unwrap the electrical tape from each end without damaging the wires. Use a small flat blade screwdriver to pry up, then push down, and pull method.



b

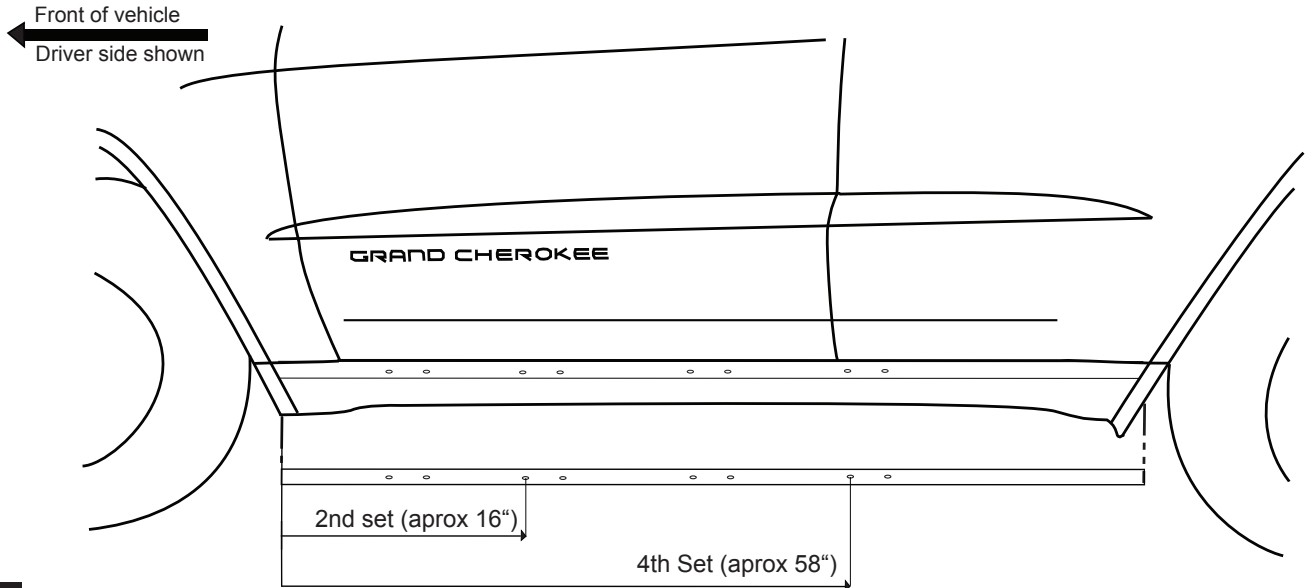
Now wrap the factory wire harness in the supplied split loom. Wrap electrical tape around each end. Use mountable zip ties to attach the harness back to the stud mount locations, be sure to route the harness above the front linkage in the saddle.



c

Installing Linkages

When installing linkages, use the second and fourth set of bolt holes on the pinch weld (see below).

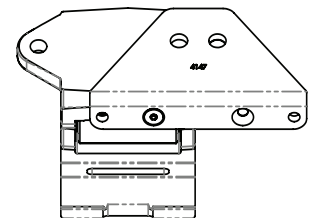
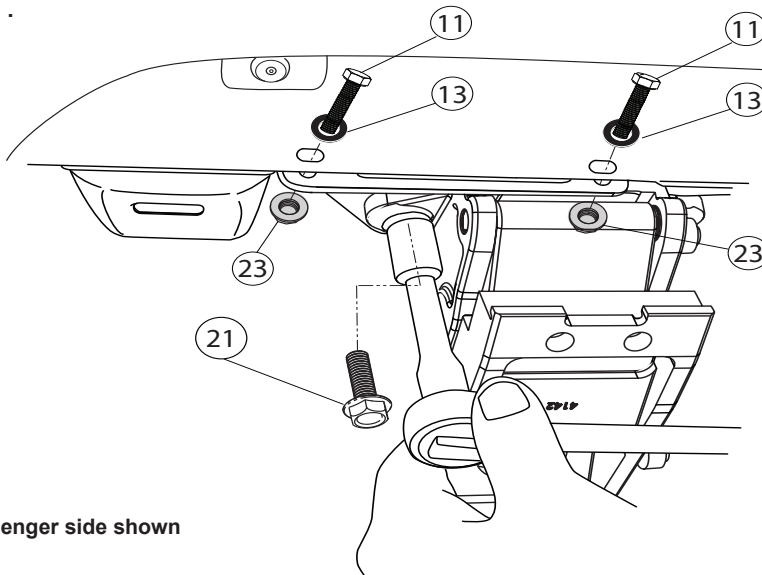


1

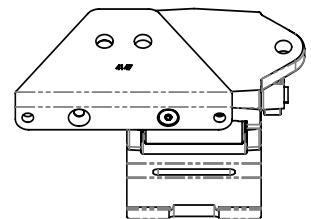
Rear Linkage (Idler Linkage)

Note: Remove existing bolt from fuel tank strap bolt and install linkage with Hex Bolt (21).

Install the rear linkage assembly to rearmost pinch weld holes and fuel tank strap bolt hole. Tighten up fuel tank strap bolt (21) just enough for bracket holes to line up with pinch weld holes. Snug Hex bolt (11) and black washers (13) through bracket hole to Serrated Nut (23).



Driver Side



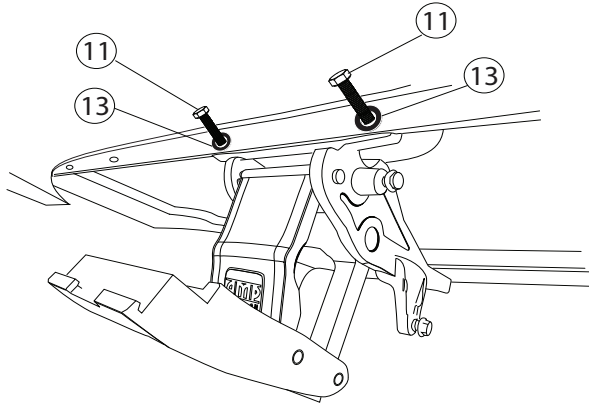
Passenger Side

Direction of brackets on rear linkages, driver and passenger side.

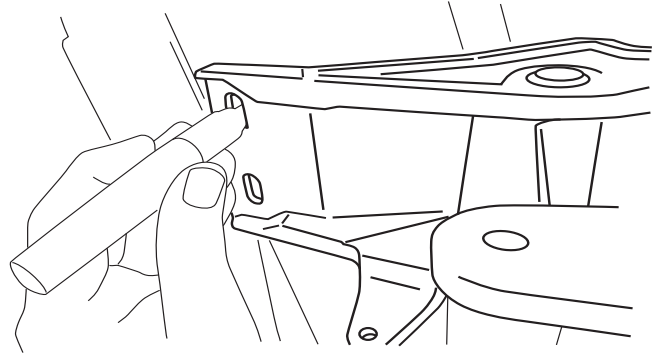
2

Front Linkage (Motor Linkage)

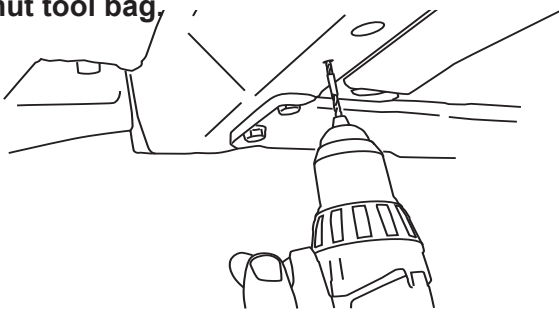
Before installing motor to front linkage, mount linkage to the second set of holes of the pinch weld from the front of the vehicle, use two Hex bolts (11) and two black washers (13).

**3**

Mark the center of the forward most slot for the rivet nut hole. Once done then remove linkage.

**4**

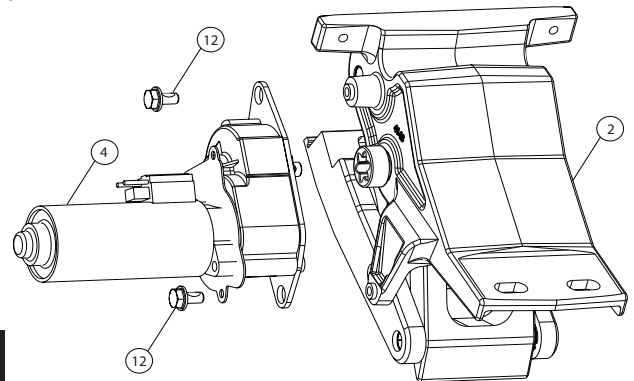
Pre Drill hole at center of slot marking with an 1/8" Drill and then drill to 17/32". Then insert the rivet nut (18) into position. Refer to install card in rivet nut tool bag.

**5**

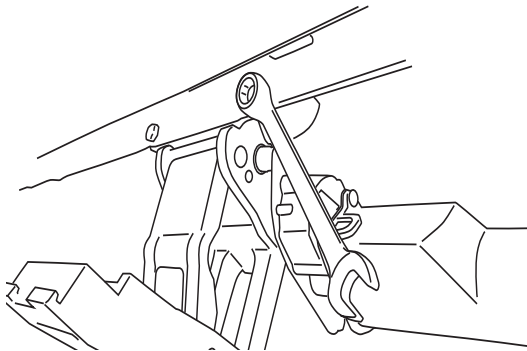
Warning: Rivet nuts not properly collapsed will not hold securely to sheet metal.

Slide the motor assembly (4) onto drive shaft and mounting bosses of front linkage assemblies (2). Use two Hex bolts (12).

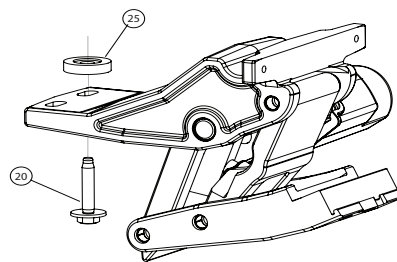
Torque to 8 ft-lb/ 11 Nm

**6**

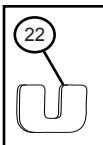
Reinstall front linkage just snug, using the 2 Hex bolts.

**7**

Install the Conical bolt in the installed Rivnut. Use spacer between linkage and rivet nut hole. Line up Conical Washer bolt (20) to Spacer (25) through slot, as shown below.



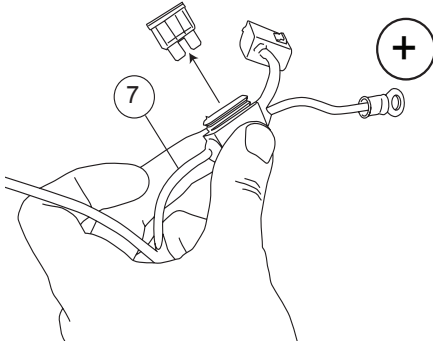
Note: If skid plate is present use shim (22) under skid plate, instead of spacer (25).

**8**

Repeat steps 1 through 8 on the other side. Use forward most hole for marking Rivet Nut location.

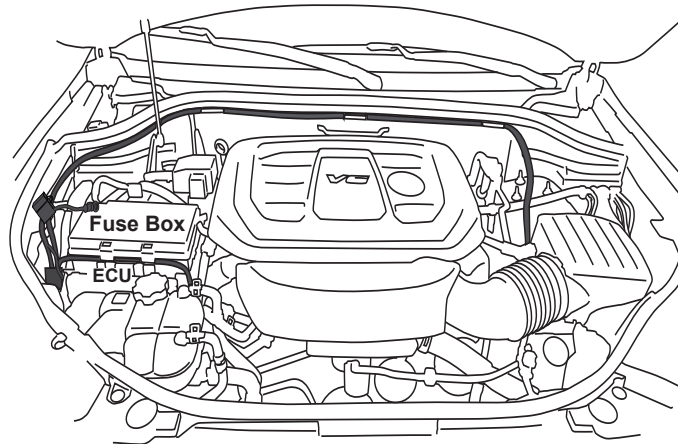
Installing Electrical Components

Remove the fuse from the Powerstep wire harness.



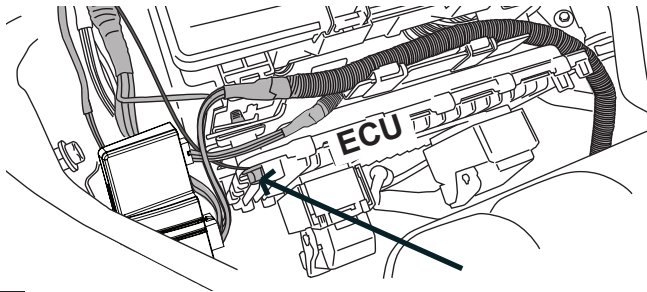
9

Route the long wire harness leg along the top of the firewall and then down away from the steering shaft and exhaust to sub frame then back to pinch weld area. The other leg shall go along the Fuse box, then down away from the exhaust and to the pinch weld area. Zip tie as needed.



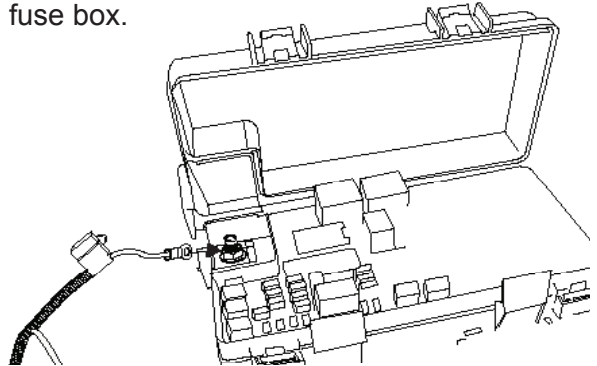
10

Install controller on passenger side wire harness bundle next to the ECU. Secure with 11" cable ties. Connect the Black wire to bolt on ECU.



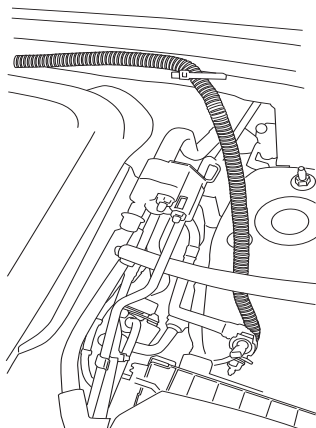
11

Open the Fuse box, (see step 10 for location of fuse box in engine compartment) connect the Red wire to positive power post located on top left corner of the fuse box.



12

Route driver side leg down thru engine bay as seen here.



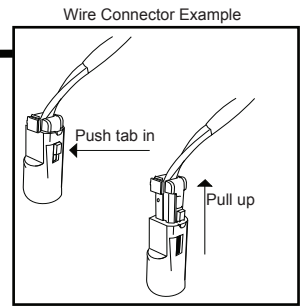
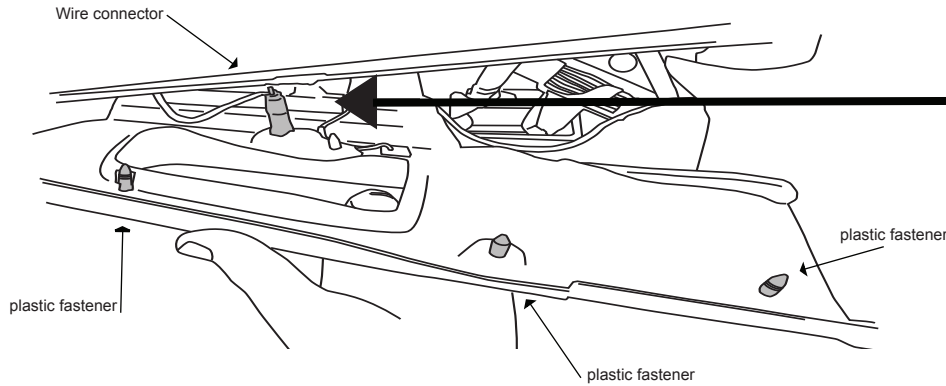
13

The two purple wires left from the harness will connect with wires that will be fed through from under the passenger side. See next steps.



14

Remove passenger lower trim under the glove compartment as shown in the following two steps.

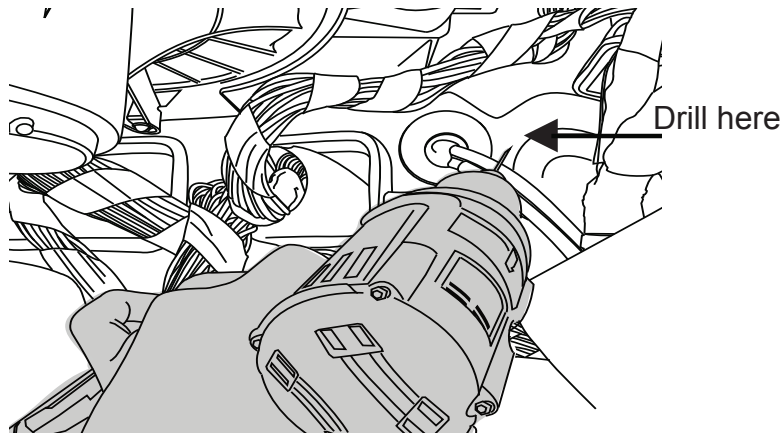


A. remove the three plastic fasteners with a soft pry tool.

B. Using a soft pointed tool, push the tab on the wire connector in, then carefully pull the top part of the connector up to release it. (see example in box above)

15

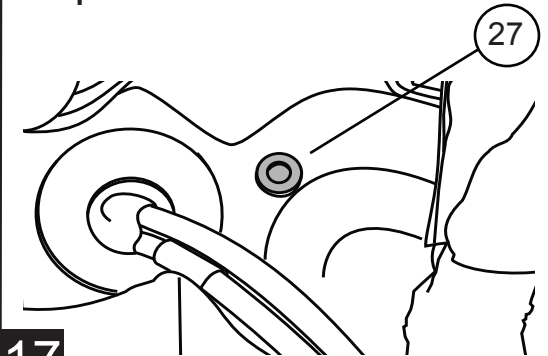
Now using an 1/8" drill bit, drill a hole in the specified area shown below. Make hole bigger by using a 9/32" drill bit.



16

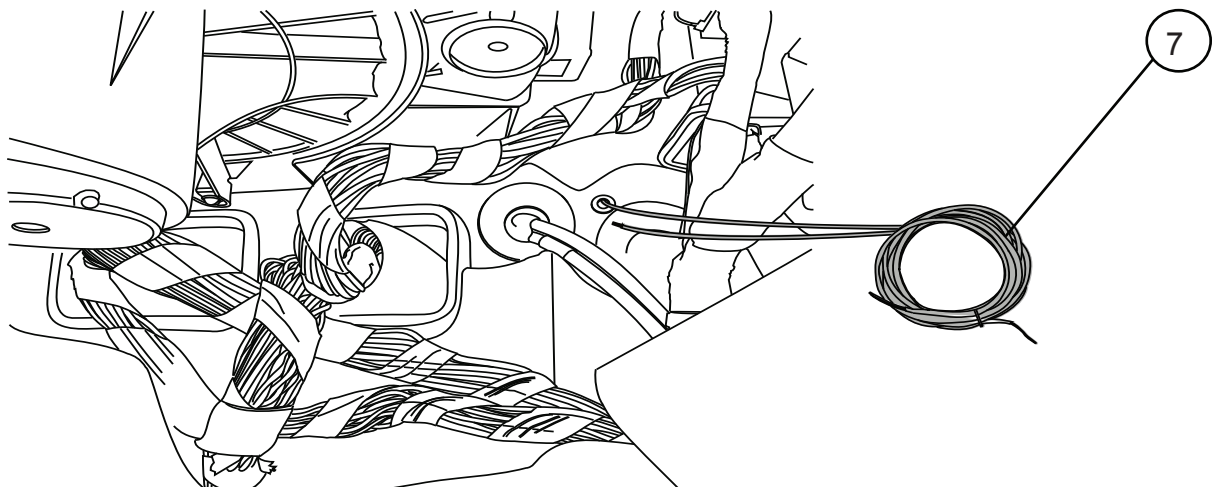
Install Grommet (27) in hole.

Note: It is very important to add the grommet, as damage may occur if wires get stripped from rubbing on the sharp metal of the hole.



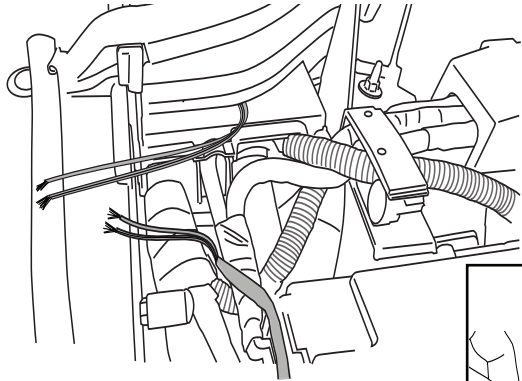
17

Use a lubricant on the two purple wires provided with the wire harness (7). Starting from the passenger lower compartment feed each wire thru the grommet up to the engine compartment. Make sure to feed one wire at a time, and pull wires careful to prevent grommet from coming out.

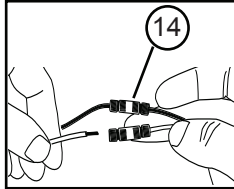


18

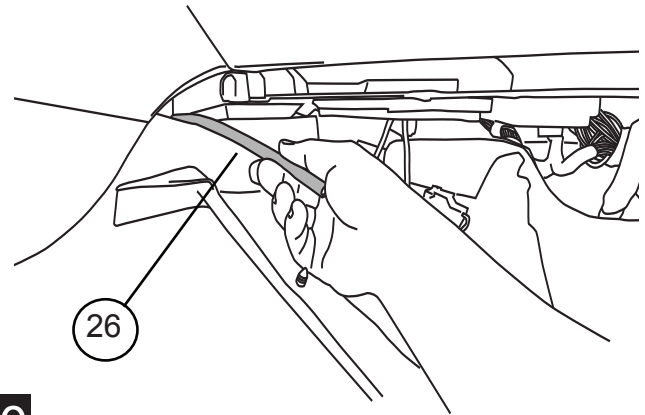
Connect the two purple wires coming from under the passenger side to the two wires in the engine compartment. Use Posi locks to connect them.
Note: Connect the matching wire color/stripe.



19



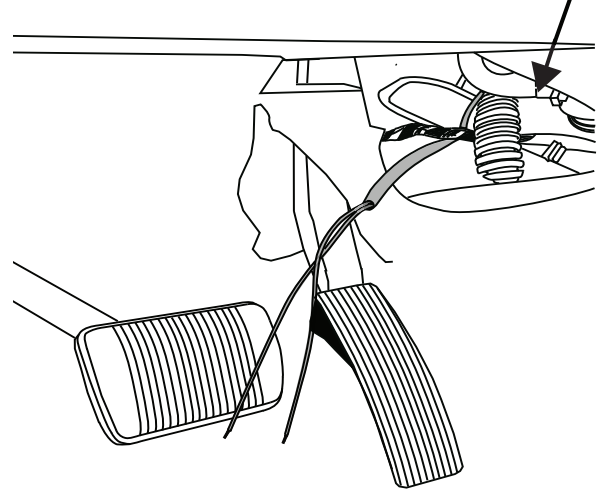
Now, feed the tube (26) thru the lower/center of the dash.



20

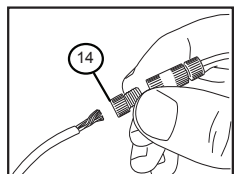
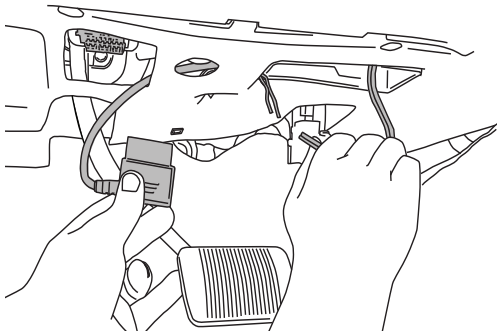
Pull down carpet on dash lower/center on the driver side and pull the tube through from passenger side.
Note: When feeding tube thru, make sure to position it under existing wire harness (see picture) to keep the wires away from the silver AC/Heater tubing as that part may get hot and cause damage to wires. Once the tube is fed thru, feed both purple wires thru the tubing tool. The tube can now be pulled off.

Keep wires away AC/Heater Tube

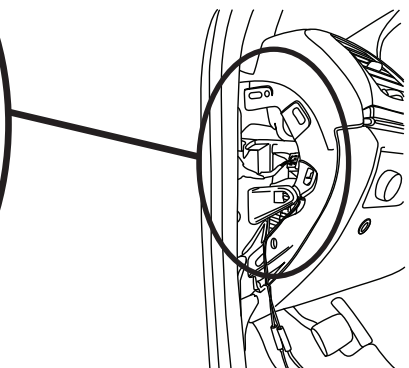
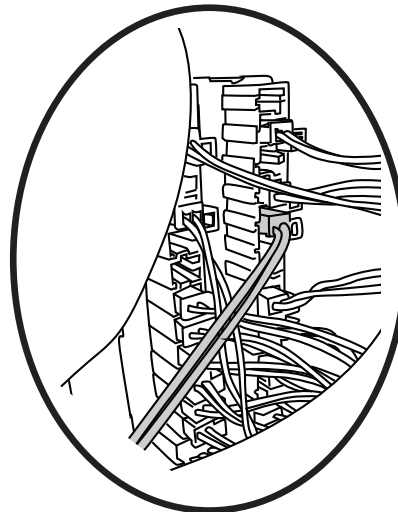


21

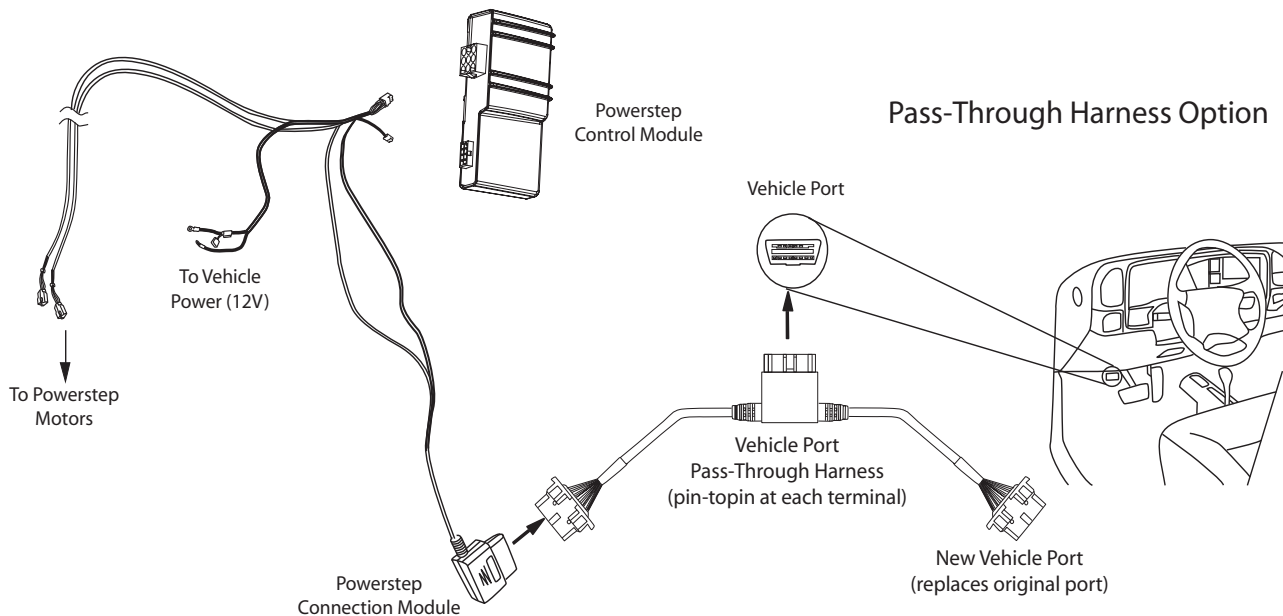
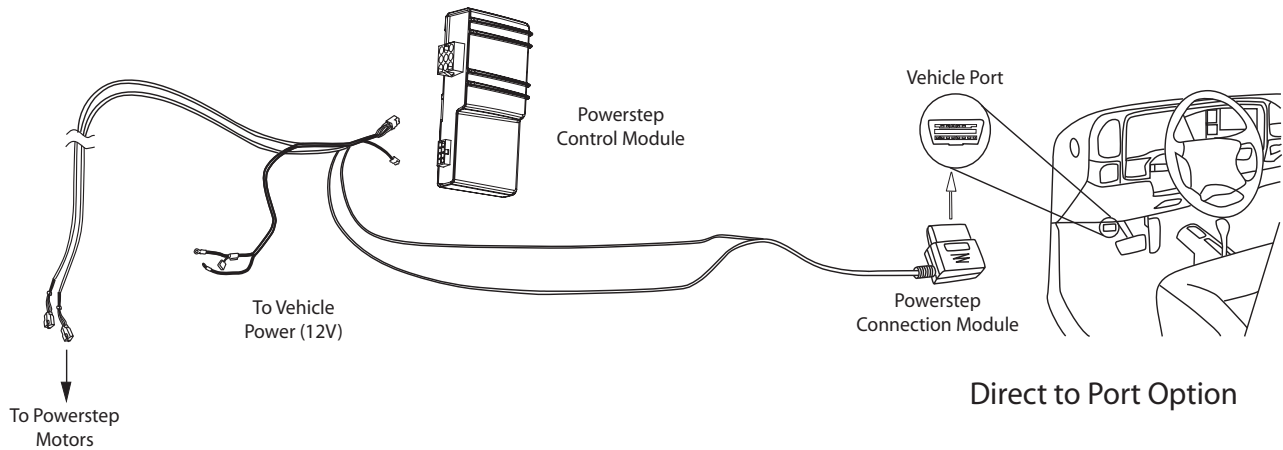
Feed wires thru the under dash cover as shown to keep wires tucked up out of the way. Connect the OBD II plug to the trigger wires with Posi Lock Connector (14). **Connect the matching wire color/stripe.** Next, remove side access panel and connect 2 pin plug on OBD Harness into white bank of open ports as shown



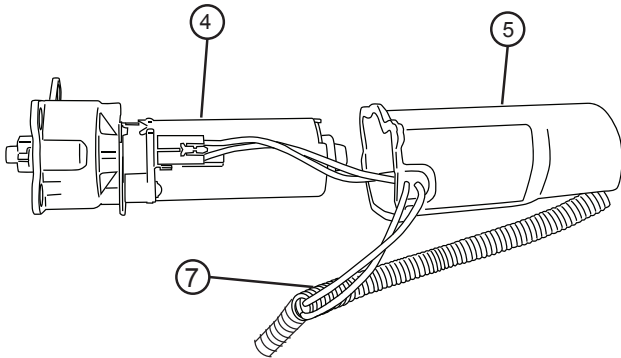
22



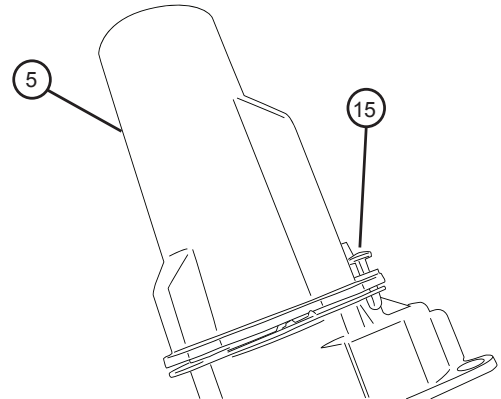
OBD II install: Use Supplied Posi Twist connectors to attach the Plug and Play Module to the Harness. Attach matching colors on the harness to the wires on the module. Plug in module to OBD II port on the vehicle. Secure harness with supplied tie wraps. *Note: If the OBD II pass thru harness (76404-01A) 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.*



Insert plug from wire harness (7) onto motor (4). Slide rubber grommet on wire harness into slot of motor cover (5). Insert motor cover onto motor. Use electrical tape to cover any exposed wire from the motor.



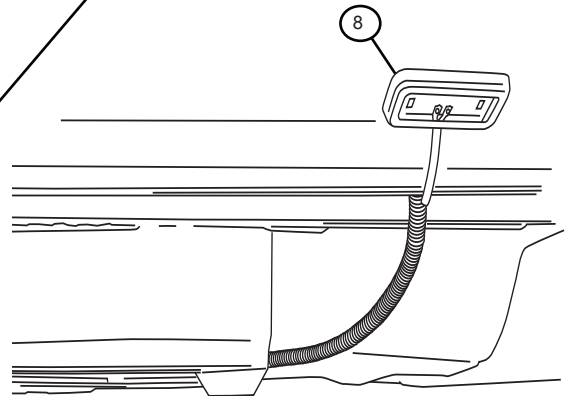
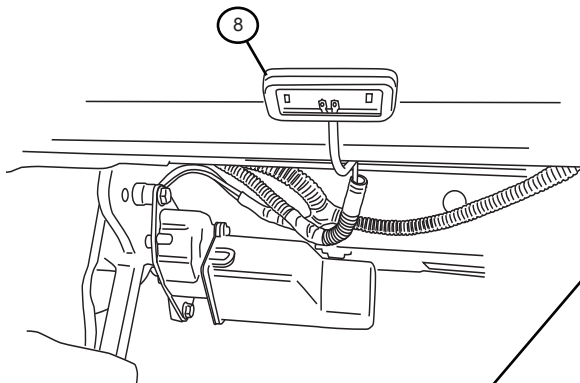
Insert plastic push pin rivets (15) in mounting holes of motor cover (5). Use pliers to ease installation.



24

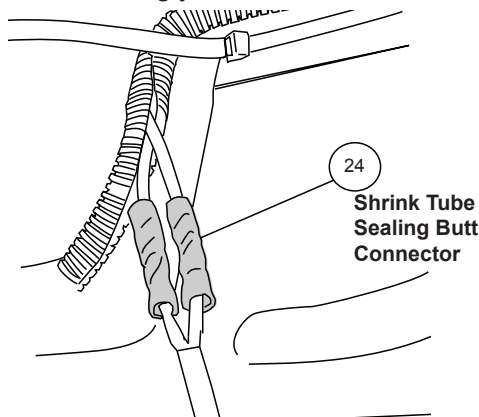
25

On each side of the vehicle Secure the LED light (8) onto the rocker just behind the front linkages and in front of the rear linkages. Make sure lamp is affixed to a flat, clean surface.

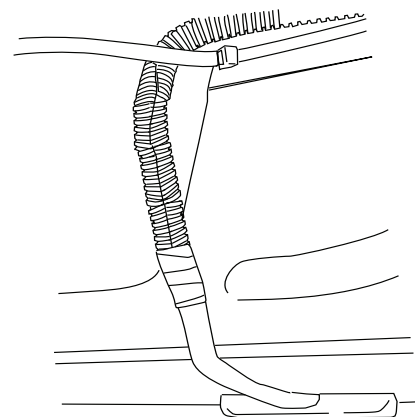


26

Use supplied butt connectors (24), connect the lamp wires. Red to Red and Black to Black. **Once crimped use heat gun to shrink tube.** The wires should be zip tied accordingly.



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.

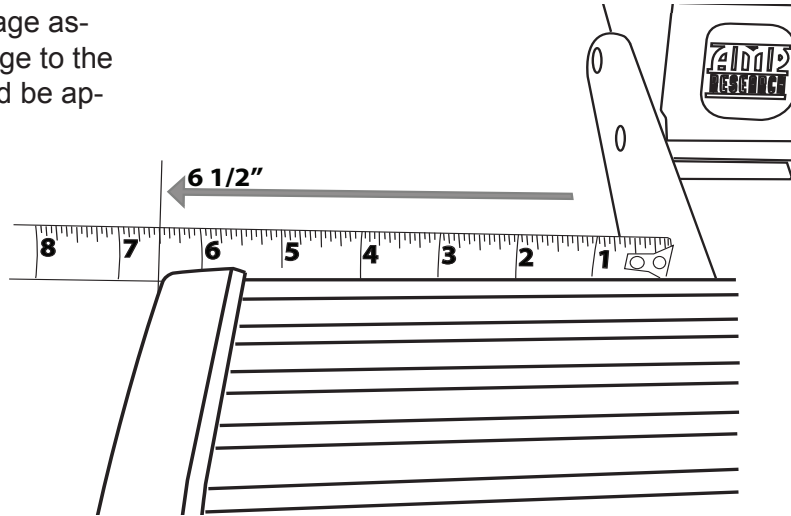


27

28

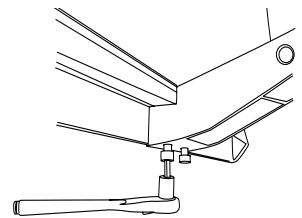
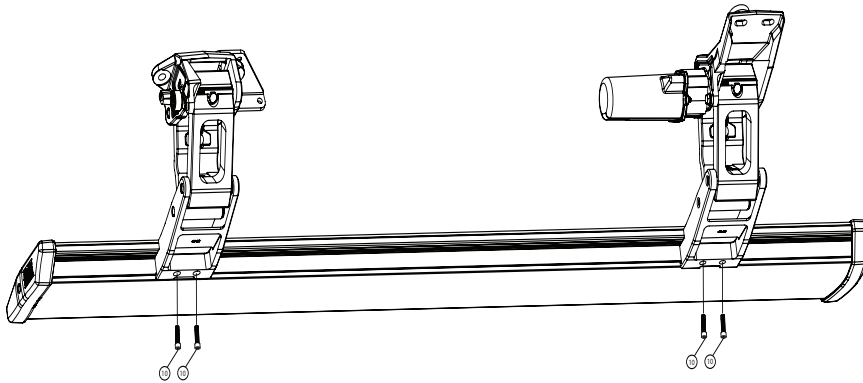
Installing Step Extrusion

Next, mount the step extrusion to linkage assemblies. Measure from the rear linkage to the end of the board. Measurement should be approximately 6 1/2" as shown above.



29

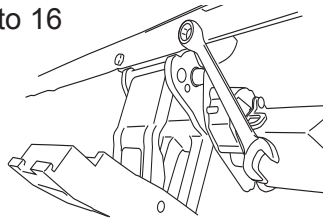
B. Line up t-nuts in step assembly with slots in lower mounts of linkage assemblies. Tighten 4 socket cap screws (10) with 3/16" allen wrench. Fasten loosely to allow for adjustments.



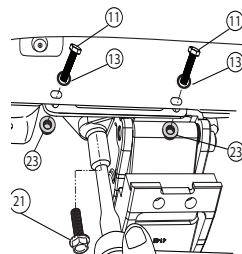
Torque bolts to step extrusion to 10 ft-lbs (13.5 N m).

30

Front Linkage: Torque Hex bolt (11) and Conical bolt (20) to 16 ft-lbs. (22 N m).

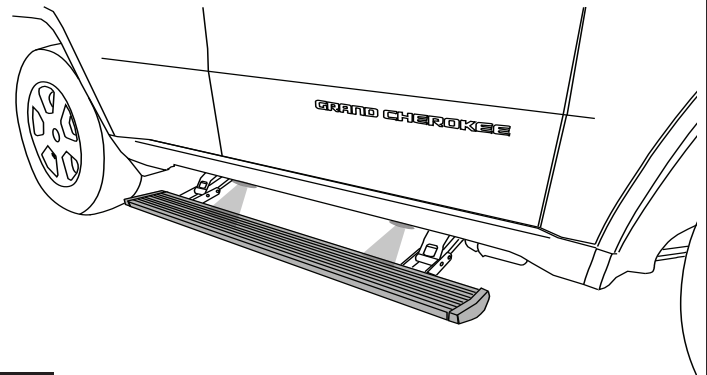


Rear Linkage: Torque fuel tank bolt (21) to 20 ft-lb (27 N m) then pinch weld bolts (11) to 16 ft-lb (22 N m).



31

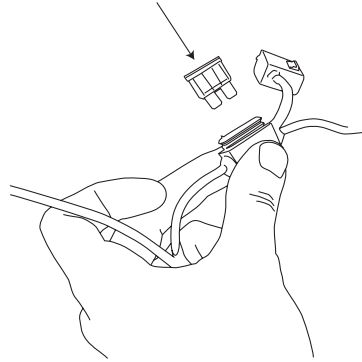
Now, repeat steps 29 through 32 on other side of the vehicle.



32

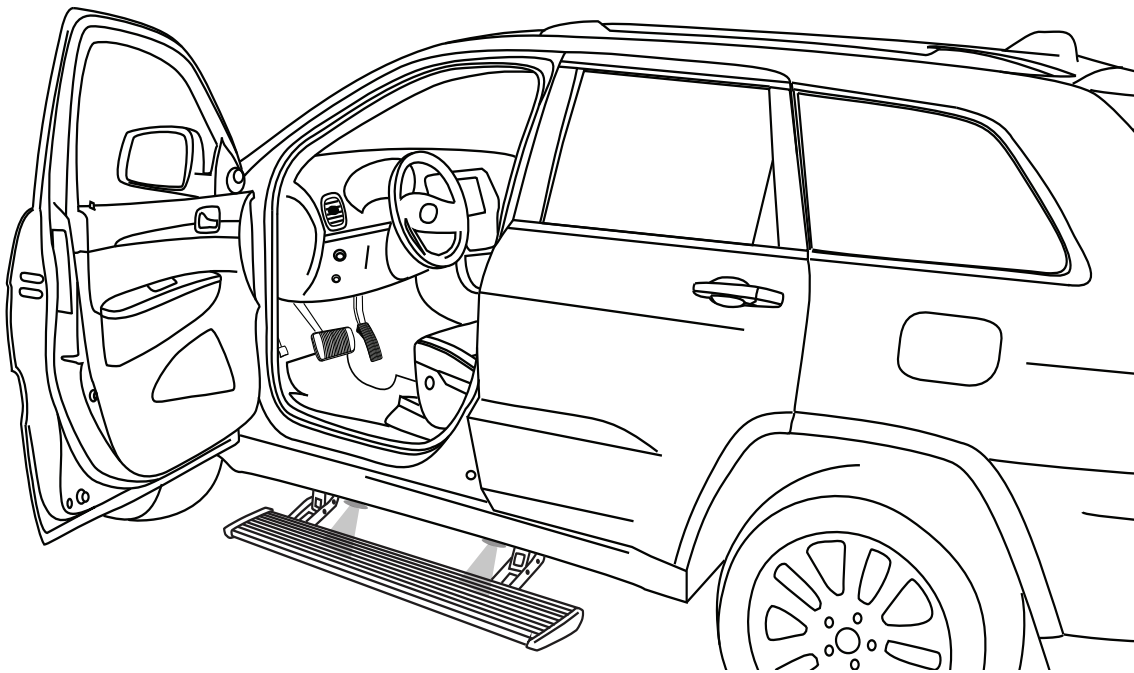
Check for Power

Reinstall fuse.



33

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 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.

34

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.

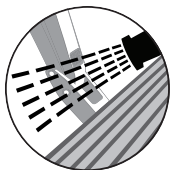
Automatic stop:

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.