



# Installation Instructions

## PowerBoard®

Automatic Retracting Running Board

Vehicle Application:  
Jeep Wrangler 2-Door  
2007-2017  
Part Number 75651-15

### Installation Tips

Read and follow, precisely, all installation instructions provided when installing this product. Failure to do so may result in a poor fit, and could place occupants of the vehicle in a potentially dangerous situation.



#### **WARNING**

The manufacturer strongly recommends that this product be professionally installed.



#### **WARNING**

Failure to carefully follow the electrical installation steps could result in severe electrical shock which could harm the installer and/or damage the vehicle.





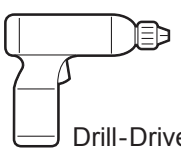





#### **WARNING**

This product is designed primarily to enhance the appearance and comfort of the vehicle. Do not rely in any way on the components of this product to protect the occupants within the vehicle, or to protect against injury or death in the event of an accident. Never operate the vehicle in excess of manufacturer's specifications.



### WEAR SEAT BELTS AT ALL TIMES

Tools			Installation Time	Support	
 5mm Allen Wrench	 Safety Glasses	 10mm Wrench	 4 Hours	We're here to help! Go to <a href="http://www.Bestop.com">www.Bestop.com</a> and click "Ask a Question"	
 Drill-Driver	 1/8" Drill	 3/8" Drill	Skill Level		
 <b>CAUTION</b> Safety glasses should be worn at all times when installing this product.			<div><div>1</div><div>2</div><div>3</div><div>4</div></div> 4 - Difficult		



# Installation Instructions

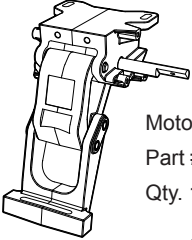
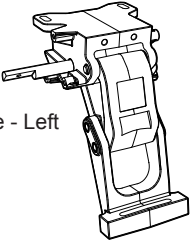
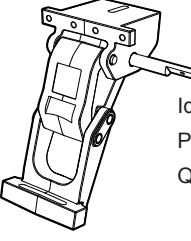
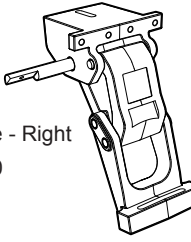
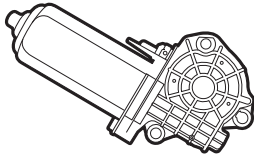
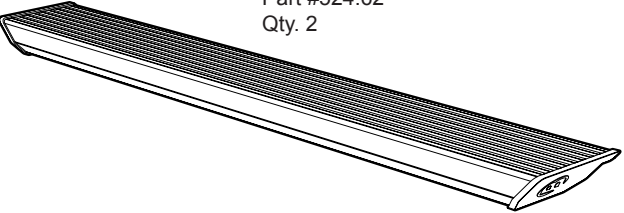
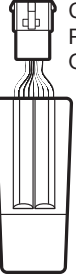
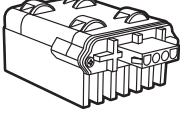
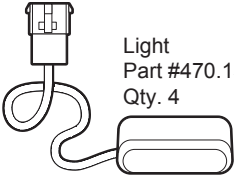


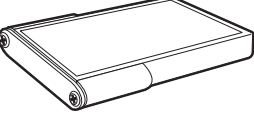

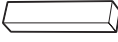
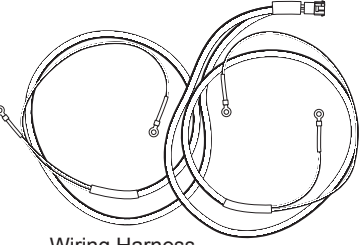


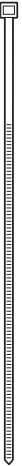
## PowerBoard®

Automatic Retracting Running Board

Vehicle Application:  
Jeep Wrangler 2-Door  
2007- 2017  
Part Number 75651-15

## Parts List

- Required parts for installation

Motor and Idler Linkages	Motor and Running Boards
 <p>Motor Linkage - Right Part #517.96 Qty. 1</p>  <p>Motor Linkage - Left Part #517.89 Qty. 1</p>  <p>Idler Linkage - Left Part #517.91 Qty. 1</p>  <p>Idler Linkage - Right Part #517.90 Qty. 1</p>	 <p>Motor Part #496.12 Qty. 2</p>  <p>Running Board Assembly Part #524.62 Qty. 2</p>
Span Bars, Controller, Receiver, Lights	Wiring Harness & Sensors, Cable Ties
 <p>Controller Part #496.11 Qty. 1</p>  <p>Receiver Part #491.99 Qty. 1</p>  <p>Light Part #470.15 Qty. 4</p>  <p>Torsion Bar Right - Passenger Part #517.93 Qty. 1</p>  <p>Torsion Bar Left - Driver Part #517.94 Qty. 1</p>	 <p>Sensors #492.00 Right (passenger) #492.01 Left (driver) Qty. 1 of each</p>  <p>Magnet Holder Part #491.98 Qty. 3</p>  <p>Magnet Part #491.97 Qty. 3</p>  <p>Wiring Harness Part # 523.19 Qty. 1</p>  <p>7" Cable Tie Part #460.99 Qty. 25</p>  <p>11" Cable Tie Part #470.02 Qty. 2</p>  <p>17" Cable Tie Part #492.06 Qty. 2</p>

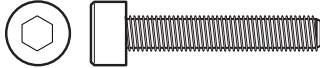


## Parts List

- Required parts for installation

### Fasteners

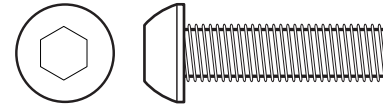
#M6-1.0 x 35  
Socket Cap Screw  
Part # 460.95  
Qty. 6



#M6-1.0  
Nylon Lock Nut  
Part # 490.93  
Qty. 4

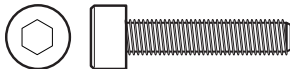


#M6 Flat Washer  
Part # 481.96  
Qty. 14

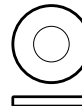


#M8-1.25 x 25  
Button Head Screw  
Part # 522.95  
Qty. 4

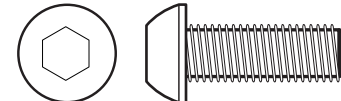
#M6-1.0 x 30  
Socket Cap Screw  
Part # 523.15  
Qty. 4



#M8 -1.25  
Hex Nut  
Part # 473.84  
Qty. 1

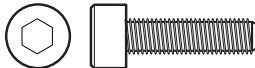


#M8 Flat Washer  
Part # 470.05  
Qty. 12

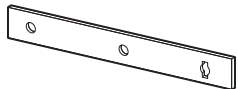


#M8-1.25 x 20  
Button Head Screw  
Part # 473.83  
Qty. 8

#M6-1.0 x 20  
Socket Cap Screw  
Part # 470.00  
Qty. 8



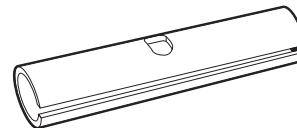
### Miscellaneous Hardware



Drill Template  
Part # 523.18  
Qty. 1



Linkage Mounting Insert  
Part # 522.67  
Qty. 2



Torsion Bar Collar  
Part # 517.95  
Qty. 4



## WARNING

# PowerBoard® Fastener Tightening Sequence

**Fasteners Must Be Tightened in This Sequence to Promote Smooth Operation**

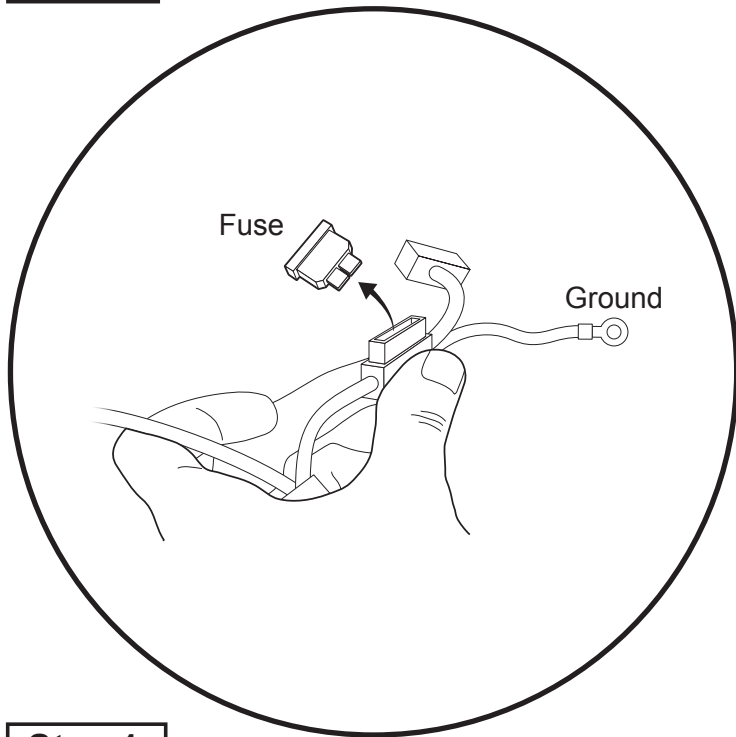
1. Mount linkages to the body of the Jeep finger tight only. (see sections 6 through 8).
2. Install and tighten the torsion bars to specification. (see section 8)
3. Loosely install boards to mounting foot of linkages. (see section 9)
4. Retract the board, then tighten the board to the MOTOR LINKAGE ONLY. (Rear)
5. Open the vehicle door to extend the board, then close the vehicle door to retract the board. Tighten the board to the FRONT idler linkage when the board is retracted or in the up position. (See section 10)
6. Now tighten linkages to the Jeep body and Welded Body Flange.

Torque all fasteners to the following specifications:

5-7 ft-lbs (6.79-9.40 NM / 60-84 in-lbs)

Do not exceed 7 ft-lbs.

## Step 1

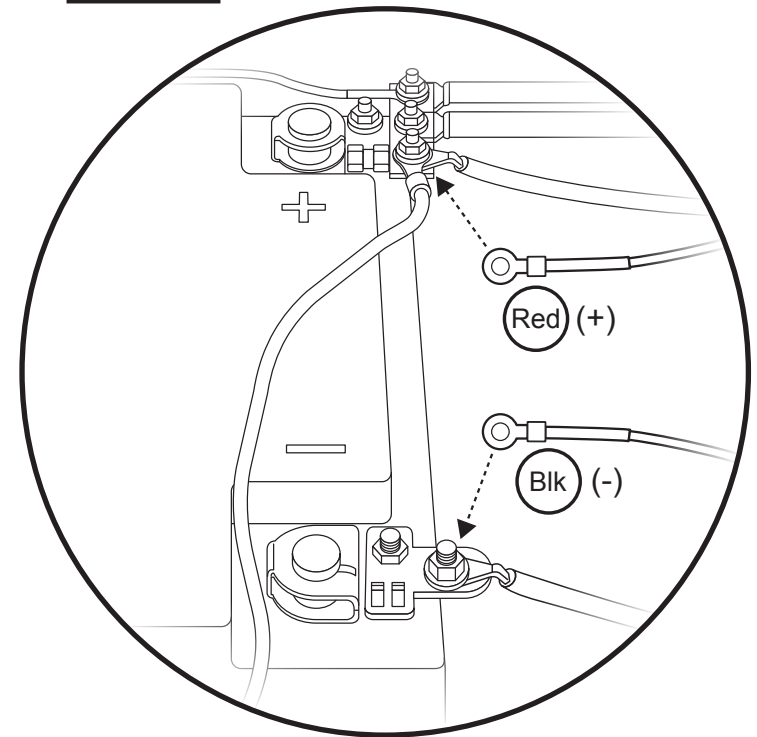


## Step 1

### **WARNING**

Remove the fuse from the wiring harness. Failure to do so could result in severe electrical shock which could harm the installer and/or damage the vehicle.

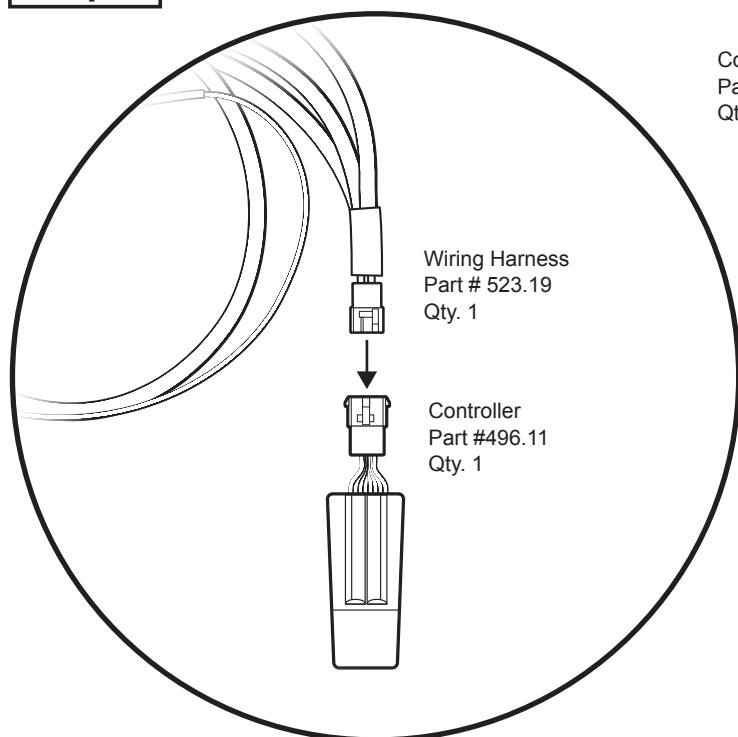
## Step 2



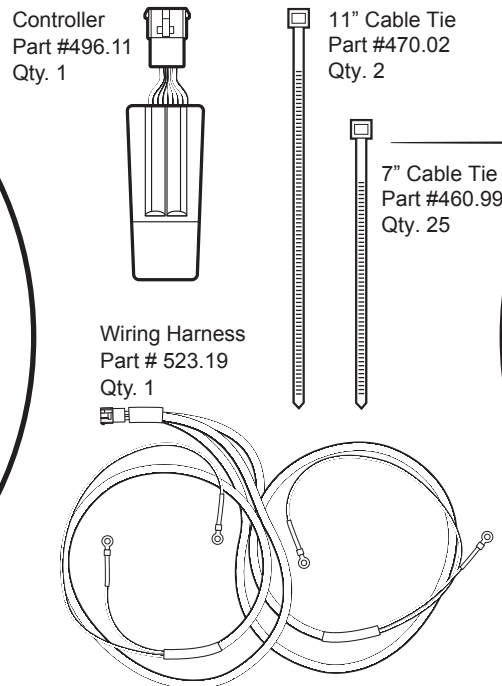
## Step 2

Connect the red lead from the wiring harness to the battery positive and the black lead to the battery negative.

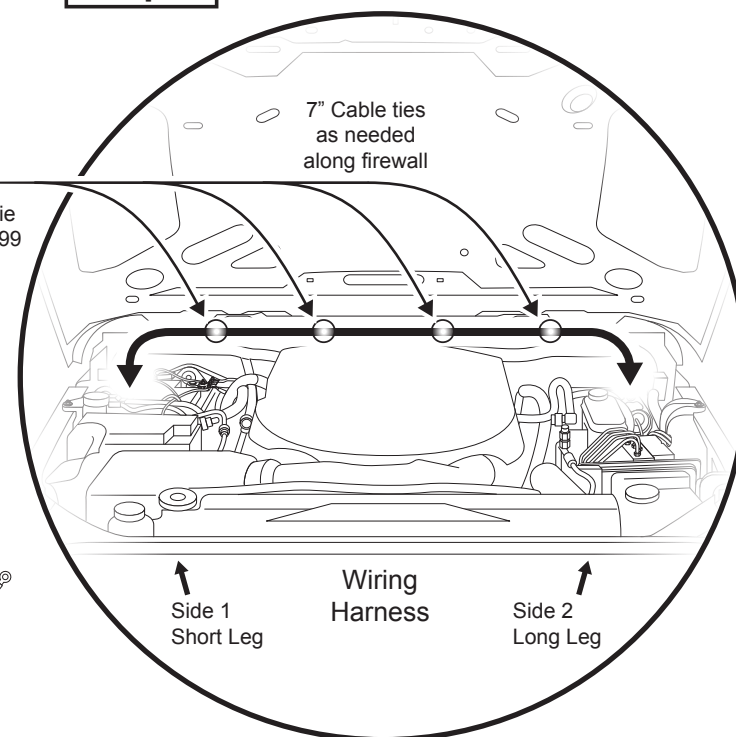
## Step 1



## Hardware



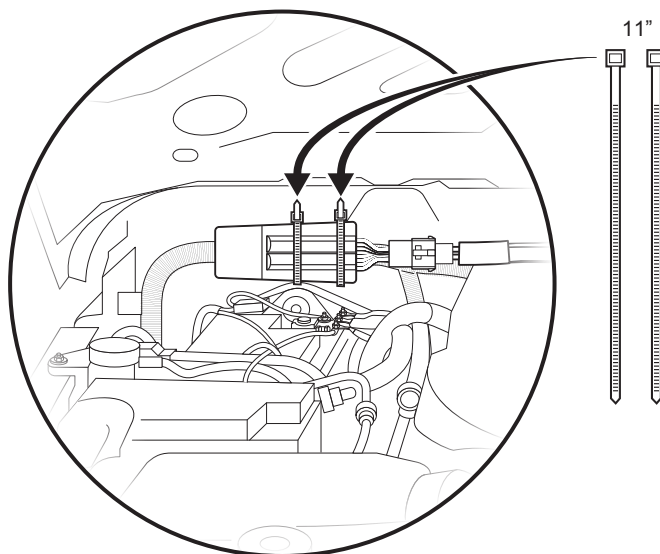
## Step 2



## Step 1

Connect the Wiring Harness to the Controller. Make sure that the locating tabs are fully engaged.

Secure the Controller to the vehicle wiring harness with two 11" Cable Ties.

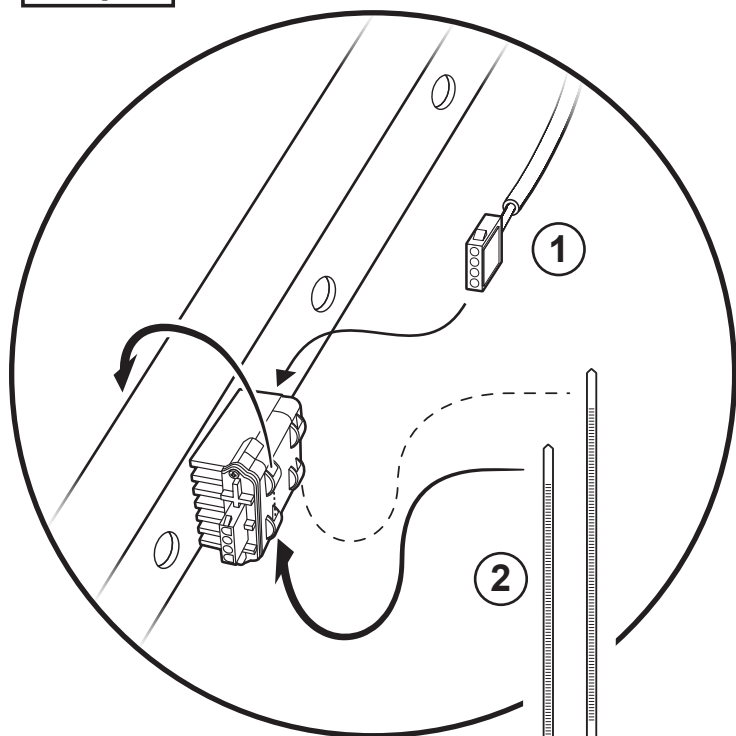


## Step 2

Route the short leg of the Wiring Harness (labeled "Side 1") down the firewall and along the frame rail of the vehicle, on the same side as the battery. Keep the harness away from heat and exhaust system. Secure the harness to the frame using the #460.99 7" cable ties.

Route the long leg of the Wiring Harness (labeled "Side 2") across the firewall and down the opposite side of the vehicle from the battery location. Secure the harness to the firewall and frame using the #460.99 7" cable ties.

## Step 1



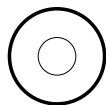
## Step 1

Locate the 4-pin connector on the Short Leg-Side 1 portion of the wiring harness. Plug this connector into the Receiver #491.99.

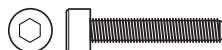
Find a location nearby on the frame that is protected, but not surrounded by dense metal. Strap the Receiver to the frame in this location, using the two #492.06 17" Cable Ties.

Make sure that the molded ribs on the Receiver are against the frame of the vehicle, as shown above.

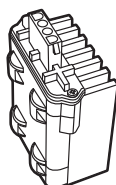
## Hardware



#M6 Flat Washer  
Part # 481.96  
Qty. 3 per linkage



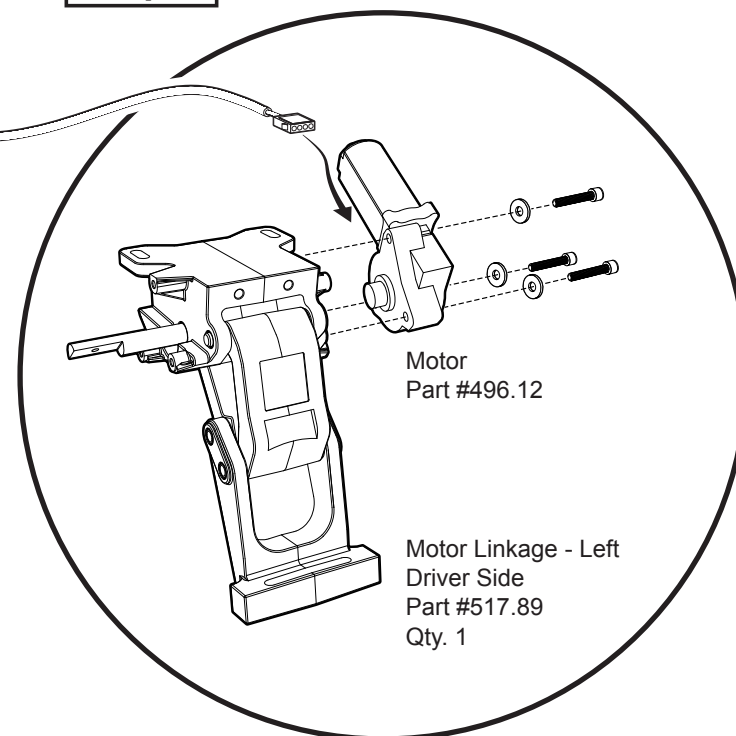
#M6-1.0 x 35  
Socket Cap Screws  
Part # 460.95  
Qty. 3 per linkage



Receiver  
Part #491.99  
Qty. 1

17" Cable Ties  
Part #492.06  
Qty. 2

## Step 2



## Step 2

Attach a Motor to each Motor Linkage using three #M6-1.0 x 35mm Socket Cap Screws, with three #M6 Flat Washers.

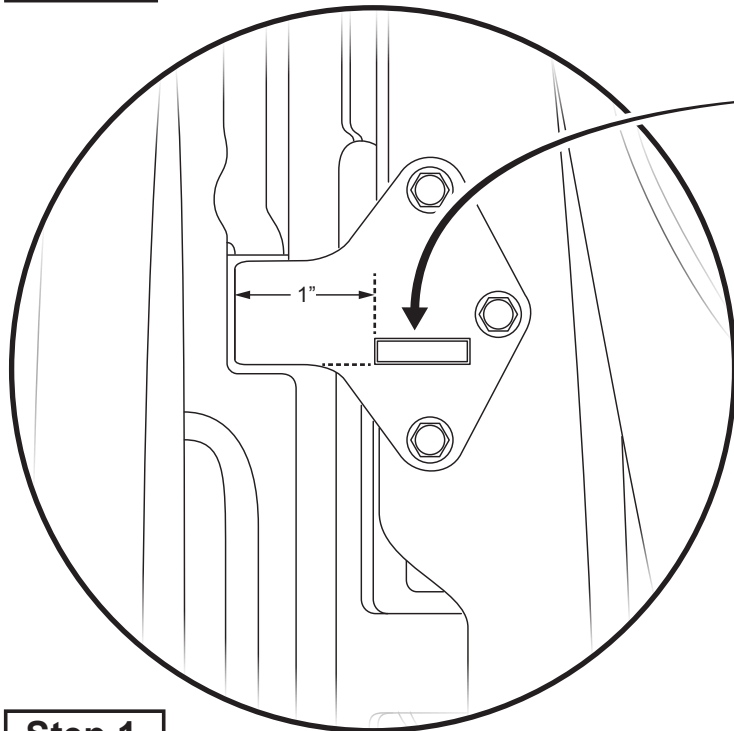
Left (Driver) side motor linkage shown above. Repeat for Right (Passenger) side of the vehicle.

With the Motor-Linkage assembly near the vehicle mounting position - underneath the rear of the vehicle door opening - attach the wiring harness motor connector to the motor.

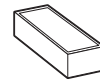
Repeat on the Right (Passenger) side of the vehicle.



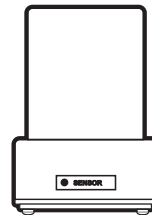
## Step 1



## Hardware



Magnet  
Part #491.97  
Qty. 1 per door



Front Sensor - Left (driver)  
Part #492.01

Front Sensor - Right (passenger)  
Part #492.00  
Qty. 1 of each part

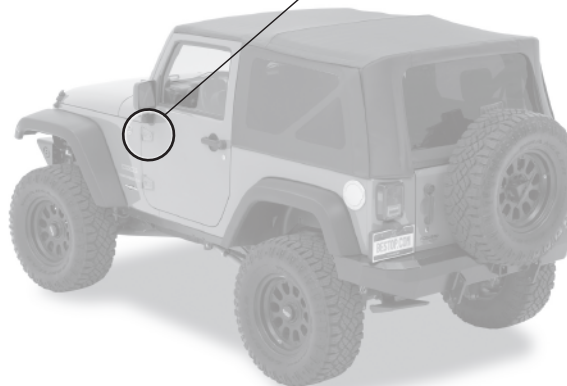
## Step 1

Clean the paint surfaces with a 50/50 mix of water and isopropyl alcohol before attaching magnets.

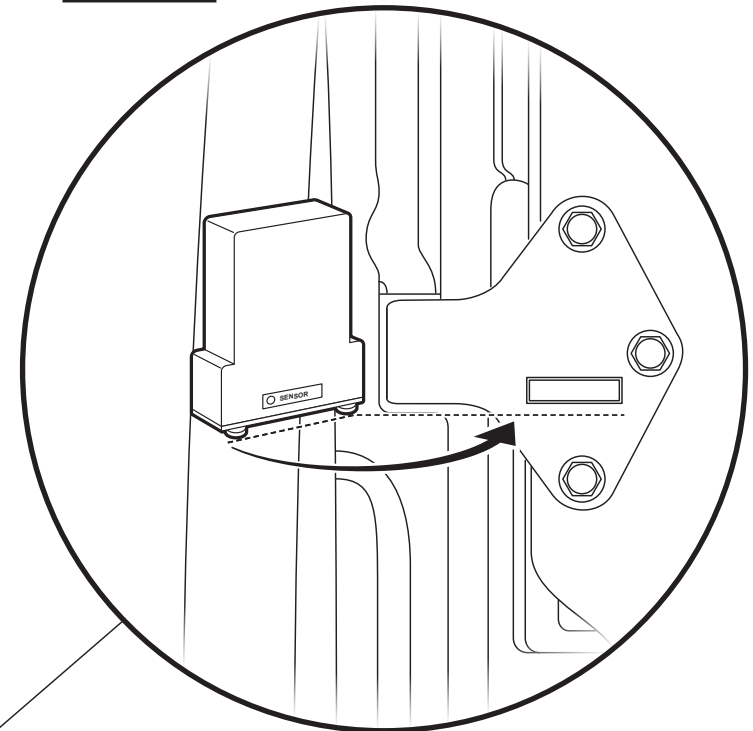
Place the magnet on the driver door hinge as shown above.

Be sure to position the magnet so it is flush with the bottom of the hinge flange and 1" away from the hinge notch in the door.

Repeat on the passenger side door.



## Step 2



## Step 2

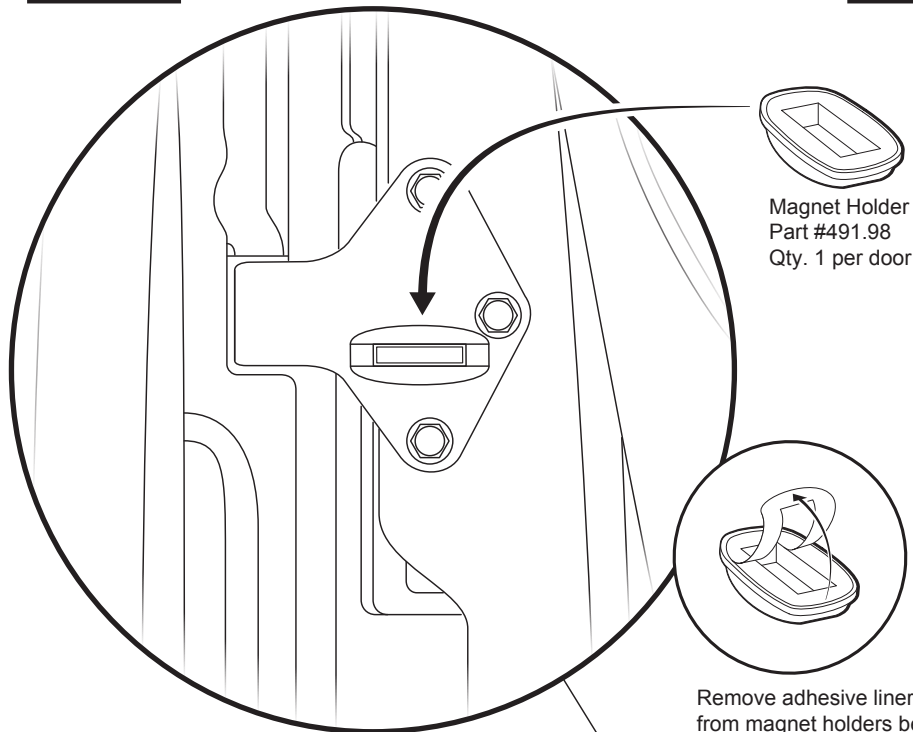
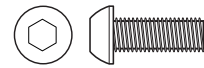
Clean the paint surfaces with a 50/50 mix of water and isopropyl alcohol before attaching sensors.

Remove the adhesive liner from the back of the sensor, and locate it so that the end of the sensor with the two screws is facing down. The bottom of the sensor should align with the top edge of the hinge cutout, with the widest part of the sensor touching the outboard door flange.

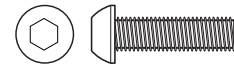
Adhesive is very aggressive - be sure to locate the sensor precisely.

Repeat for passenger side door.

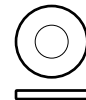


**Step 1****Hardware**

#M8-1.25 x 20  
Button Head Screw  
Part # 473.83  
Qty. 2 per Linkage



#M8-1.25 x 25  
Button Head Screw  
Part # 522.95  
Qty. 1 per Linkage



#M8 Flat Washer  
Part # 470.05  
Qty. 3 per linkage

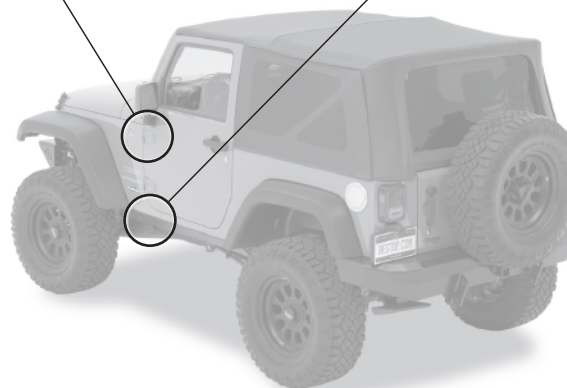
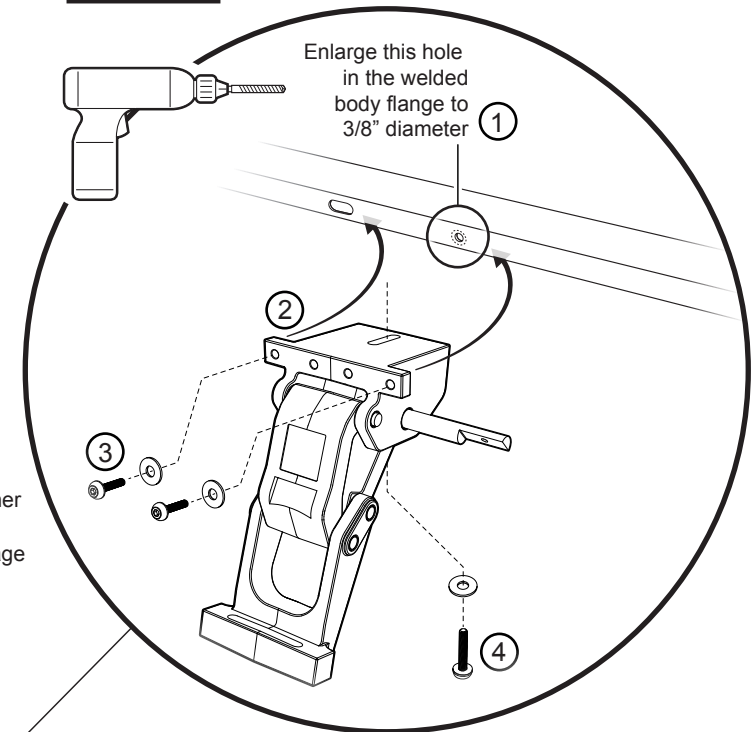
**Step 1**

Remove the adhesive liner from a Magnet Holder and press it firmly around the magnet.

Be careful not to move the magnet while attaching the Magnet Holder to the vehicle.

Adhesive is very aggressive - be sure to locate the Magnet Holder precisely.

Close the door, and repeat on the passenger side of the vehicle.

**Step 2****Step 2**

The Idler Linkage mounts toward the front of the vehicle. Left (driver) side shown.

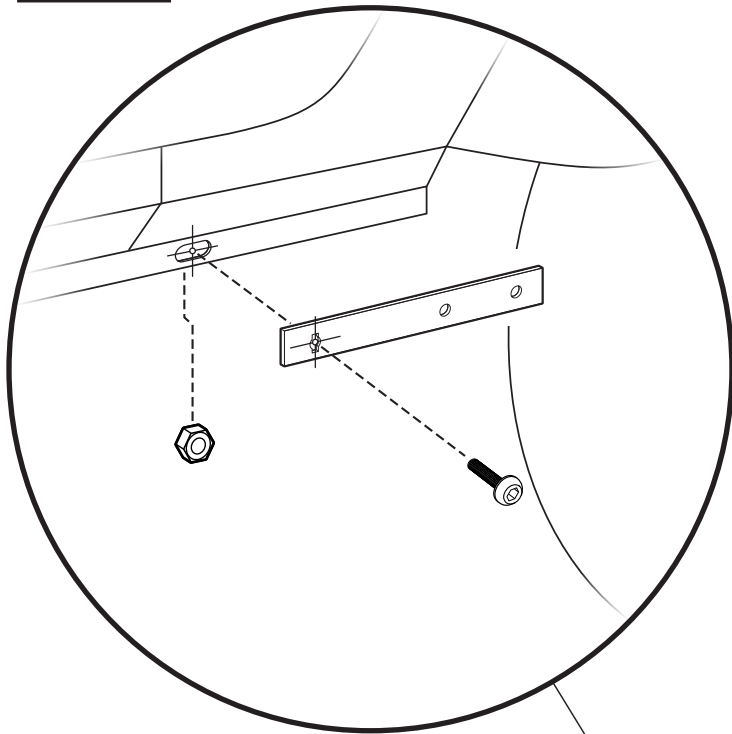
① Enlarge the small hole as shown to 3/8" dia.

② Mount the Idler Linkage behind the welded body flange using ③ two #M8-1.25x20 Button Head Screws with #M8 Flat Washers.

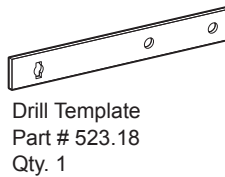
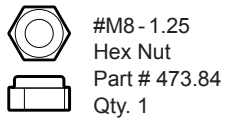
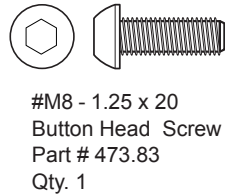
④ Install one #M8-1.25x25 Button Head Screw with #M8 Flat Washer through the bottom of the Idler Linkage into the bottom of the vehicle body.

**⚠ WARNING** Only tighten the screws holding the Idler Linkages to the vehicle finger tight at this time.

## Step 1



## Hardware

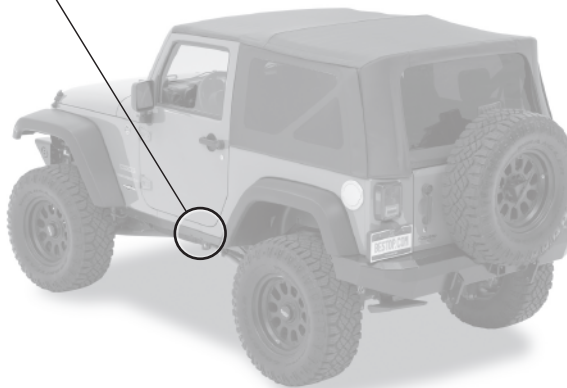


## Step 1

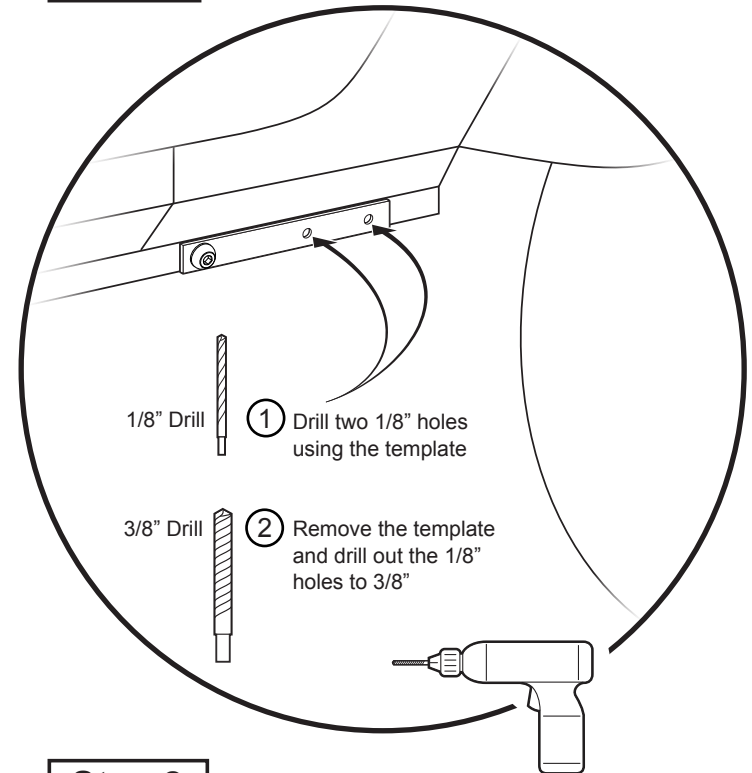
Attach the supplied drilling template #523.18 to the body flange using one #M8 - 1.25x20 Button Head Screw and one #M8-1.25 Hex Nut.

Locate the drilling template so the slotted template hole is centered over the slotted hole in the body flange, toward the rear.

Driver side shown.



## Step 2



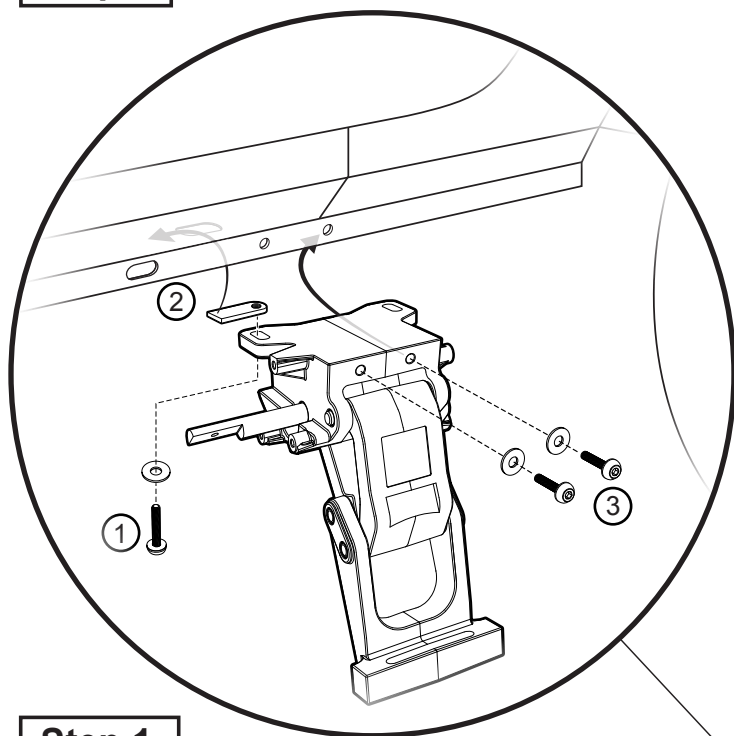
## Step 2

① Drill two 1/8" holes in the vehicle welded body flange, using the drilling template.

② Remove the template, and drill out the two 1/8" holes to 3/8".

Driver side shown. Repeat this process on the passenger side of the vehicle.

## Step 1

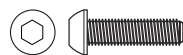


## Step 1

- ① Insert one #M8-1.25x25 Button Head Screw with #M8 Flat Washer through the Motor Linkage flange as shown above, and screw into the Linkage Mounting Insert #522.67 until the screw tip is flush with the top of the insert.
- ② Orient the Linkage Mounting Insert as shown above, and tilt the Motor Linkage so that the Linkage Insert will fit through the hole in the bottom of the Jeep body. The Motor Linkage should be behind the welded body flange.
- ③ Install two #M8-1.25x20 Button Head Screws with #M8 Flat Washers through the welded body flange and into the threaded holes on the face of the Motor Linkage.

**WARNING** Only tighten the screws holding the Motor Linkages to the vehicle finger tight at this time.

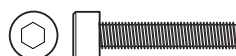
## Hardware



#M8-1.25 x 20  
Button Head Screw  
Part # 473.83  
Qty. 2 per Linkage



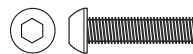
Linkage Mounting Insert  
Part # 522.67  
Qty. 1 per Linkage



#M6-1.0 x 35  
Socket Cap Screw  
Part # 460.95  
Qty. 2 per Bar



#M6 Flat Washer  
Part # 481.96  
Qty. 4 per Bar



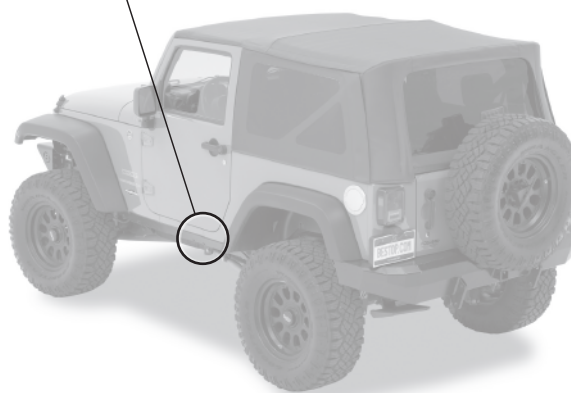
#M8-1.25 x 25  
Button Head Screw  
Part # 522.95  
Qty. 1 per Linkage



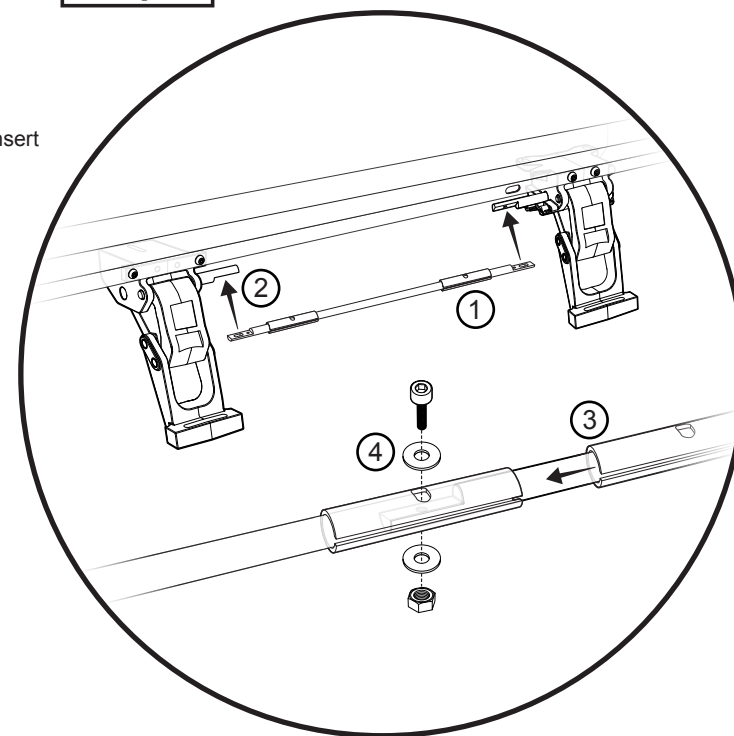
#M6-1.0  
Nylon Lock Nut  
Part # 490.93  
Qty. 2 per Bar



#M8 Flat Washer  
Part # 470.05  
Qty. 3 per linkage



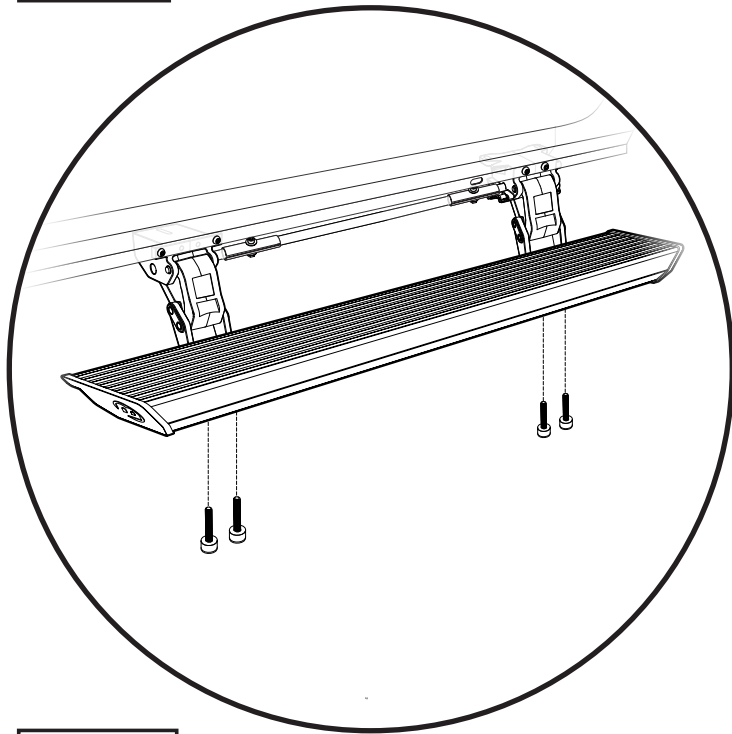
## Step 2



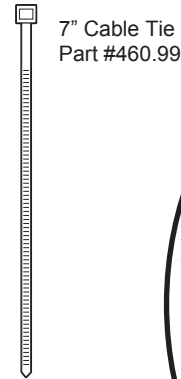
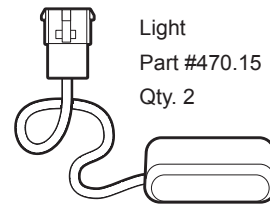
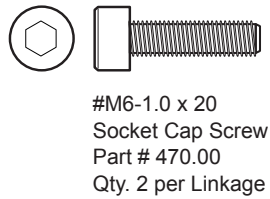
## Step 2

- ① Slide a Torsion Bar Collar #517.95 onto each end of a Torsion Bar.
- ② Place the Torsion Bar and collars into position on the ends of the shafts on each linkage. Make sure that the Torsion Bar is marked with a "D" for Driver side, and "P" for Passenger side.
- ③ Slide the collars over both the Torsion Bar and the linkage shafts, aligning the holes in the collars with the holes in the Torsion Bar and linkage shafts.
- ④ Assemble one #M6-1.0x35 Socket Cap Screw, two #M6 Flat Washers, and one #M6 Nylon Lock Nut through the hole in each collar. Tighten the screw before tightening the lock nut.

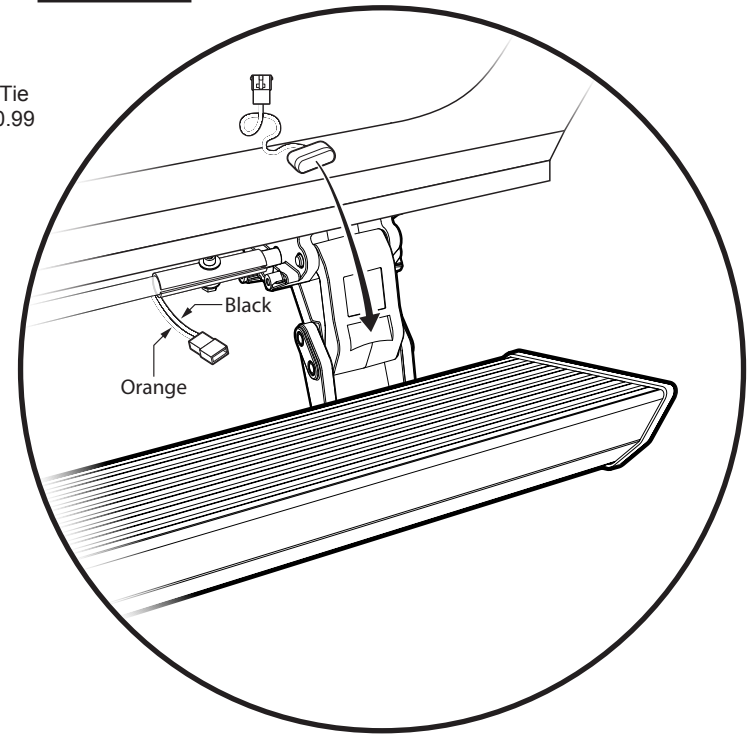
### Step 1



### Hardware



### Step 2



### Step 1

Attach the PowerBoard® to the linkages using two #M6-1.0x20 Socket Cap Screws per linkage.



### WARNING

Only tighten the screws holding the PowerBoards® to the Linkages finger tight at this time.

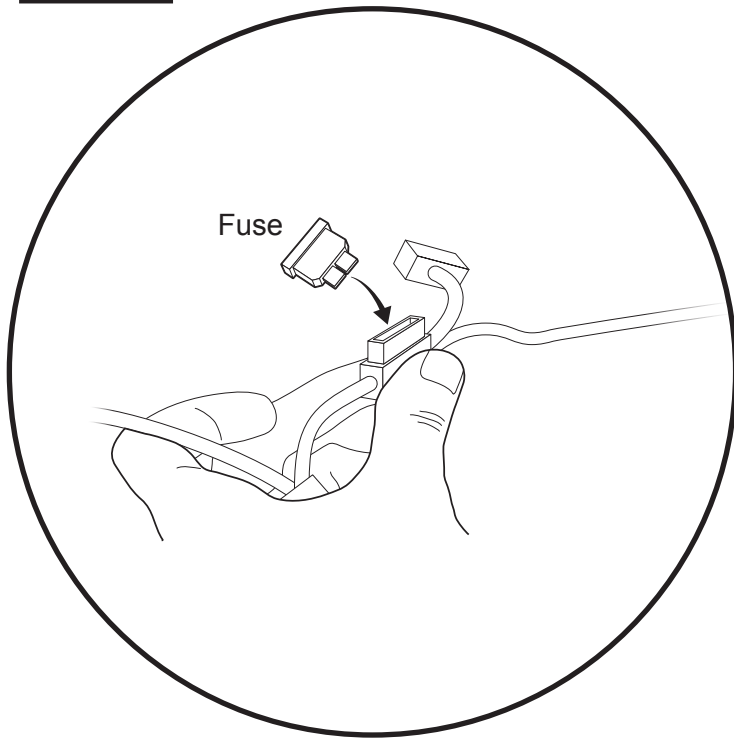
### Step 2

Clean the mounting surfaces with a 50/50 mix of isopropyl alcohol and water.

Remove the adhesive liner from the bottom of the light and firmly press it into the recessed area on the motor linkage.

Plug the pigtail from the light into the connector on the wiring harness with the orange and black wires. Secure loose wires with 7" Cable Ties as necessary.

Driver side shown. Repeat on passenger side.

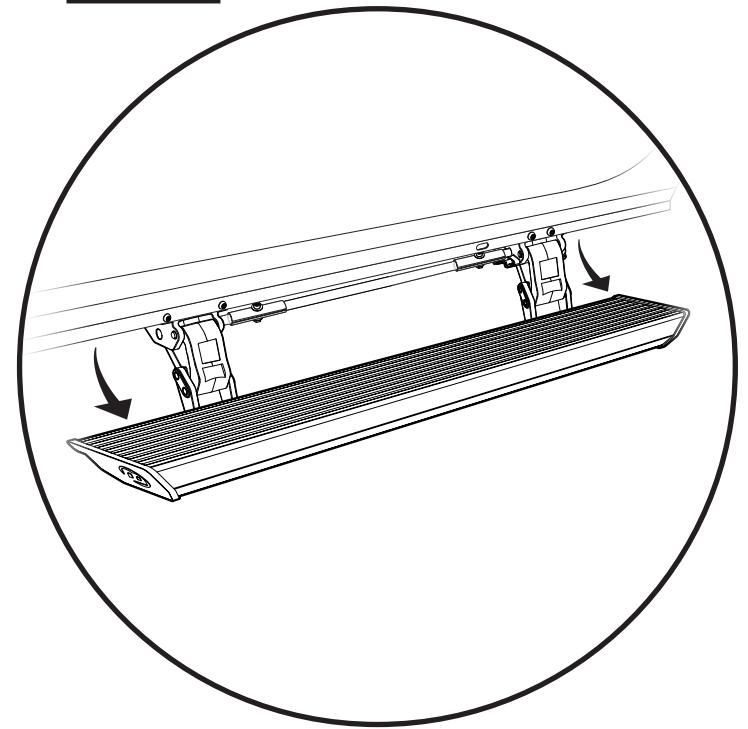
**Step 1****WARNING**

Never force the PowerBoard® up or down. Always use the motors to cycle the boards.

Never step on the PowerBoard® until it is fully deployed.

**WARNING**

Tighten fasteners according to instructions on Page 4 of this guide.

**Step 2****Step 1**

Make sure both doors are closed.

Re-install the fuse in the PowerBoard® Wire Harness, which was removed at the beginning of the installation process.

Keep hands clear of the linkages.

Within approximately 30 seconds the boards will retract.

**Step 2**

Open and shut each door to make sure that the PowerBoards® deploy and retract properly.

Note that there is a slight delay in the board deployment so make sure that the board is fully down before stepping onto it.

There is also a 3-4 second delay in board retraction after a door is closed. This gives you time to open the door again without cycling the board again.

Close the doors to retract the linkages.

**Refer to page 4 of this guide for instructions on the order of tightening fasteners and torque specifications.**



## POWERBOARD® NX TROUBLESHOOTING

### **Problem: Boards do not operate**

Possible Causes:

- Bad Ground
- Bad Battery Connection
- Fuse Burned
- Magnet is too far away from sensor
- Bad receiver connection
- Sensor battery low

### **Problem: Intermittent operation**

Possible Causes:

- Bad battery connection
- Bad ground
- Magnet is too far away from Sensor
- Bad receiver connection
- Sensor battery low

### **Problem: Boards operate randomly**

Possible Causes:

- Wire connections not secure
- Magnet is too far away from Sensor
- Bad receiver connection
- Sensor battery low

### **Problem: Board shakes and/or shudders during operation**

Possible Causes:

- Bad ground
- Wire connections not secure
- Bad receiver connection
- Links misaligned

### **Problem: Delay in board operation or boards operate after doors are shut**

Possible Causes:

- Magnet is too far away from Sensor
- Sensor battery low

### **Problem: Board retracts when doors are left open for a long period of time**

- This is normal to save sensor battery life

## POWERBOARD® NX SERVICE TIPS

### **Adjusting Linkage Alignment:**

The board is designed to stop travel when the system senses a load. Misalignment can cause the board to stop early.

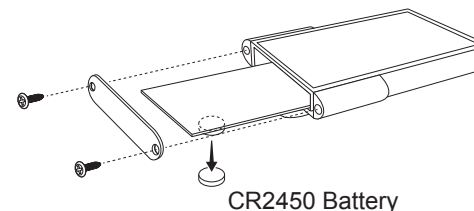
To adjust, loosen the boards from the linkages. Loosen the linkages from the vehicle. Cycle the boards up and down a few times. With the linkages extended, re-tighten the boards to the linkages. Cycle the boards again then re-tighten the linkages to the vehicle.

### **ATTENTION: DO NOT REMOVE THE FASTENERS**

### **Replacing the Sensor Battery:**

Each sensor is powered by a CR2450 3-volt battery that may periodically need to be replaced.

1. Remove the PowerBoard® wire harness fuse that is next to the vehicle battery.
2. Remove the two screws and the cover plate on the sensor. Slide out the circuit board and note the orientation of the board. Replace the battery and slide the circuit board back into the housing with its original orientation. Leave the vehicle door or doors open.
3. Reinstall the PowerBoard® fuse and wait 30 seconds. The sensor is reprogramming its address during this time.
4. Shut the door(s). Open and close the door(s) to check for normal operation.
5. If opening a door fails to operate the PowerBoard®, open the appropriate door and remove the PowerBoard® fuse. Wait 30 seconds and the reprogramming will repeat. Reinstall the fuse and check for normal operation.







# Installation Instructions

## PowerBoard®

Automatic Retracting Running Board

**Vehicle Application:**  
**Jeep Wrangler 2-Door**  
2007-2017  
Part Number 75651-15

### CARE AND MAINTENANCE:

The step pad surface and linkage arms should be washed with mild soap and water using a soft brush or sponge to dislodge any mud, dirt or accumulated road grime. Rinse with fresh water and avoid spraying the motors directly. After it is dry, lubricate the hinge with 3-In-One Oil. To prevent slipping, avoid applying waxes, lubricants, or protectants like Armor All® to the step surfaces.



### ATTENTION

PowerBoard® should always be stowed in the retracted position when driving.

### LIMITED WARRANTY

We warrant our product to be free from defects in material and workmanship, for the terms specified below, 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 or replacement of any item or items found by the factory to be defective within the time period specified.

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.

THE WARRANTY TIME PERIOD IS AS FOLLOWS: ALL PowerBoards® MANUFACTURED BY OUR COMPANY: THREE YEARS/36,000 MILES FROM DATE OF PURCHASE. 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 which vary from state to state.

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes: (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

This device complies with Part 15 of the FCC Rules.

Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

The user is cautioned that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

For further information or request for warranty work, please contact:

Bestop Inc., Customer Service  
Toll-Free: (800) 845-3567  
Main: (303) 465-1755  
E-mail: [csbestop@Bestop.com](mailto:csbestop@Bestop.com)  
Website: [www.Bestop.com](http://www.Bestop.com)