



INSTALLATION MANUAL

GEN 3 STEP SLIDER JT 2019-PRESENT

BD-SS-300-JT4



Newest features:

- **40% stronger (tougher) with use of high strength materials (carbon steel).**
- **All new Smart Motor for improved, consistent motion. Intelligent acceleration and deceleration provides quiet, smooth operation.**
- **Updated harness for simplified, quicker installation.**
- **Improved mechanical components increase reliability and reduce maintenance (warranty).**

To watch a installation video on our step slider, scan the QR code and scroll down on the page.



Parts List

Description	Quantity
Electric Step Slider (Pair)	2
Bump stop plate with VHB backing	2
Wiring harness	1
VHB Backed Sensors	4
Magnets	4
Alcohol wipes	4
Rocker cutoff switch	1
5/16" - 18 nylock nut	18
5/16" - SAE yellow zinc washer	50
1/4" - 20 nylock nut	6
1/4" - 20 washer	6
5/16" - 18 X 1" grade 8 hex head bolt	32
Grommets	2
Front bracket (Short drop style)	2
Middle bracket (Flat style)	2
Rear brackets (Tall drop style)	2
Rocker cutoff switch bracket	1
JT Extension Packet	1
Spacer Plate	2

Tools Required	
8 mm socket	10 mm socket
18 mm socket	7/16" box end ratcheting wrench
1/2" box end ratcheting wrench	1/2" socket and wrench
1/2" drive ratchet with extensions	Breaker bar

****Optional for quicker install****

Impact Gun with adapters	Heavy Duty Impact Gun with 1/2" driver
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Notes and Maintenance

Before you begin installation, read all instructions thoroughly.

Proper tools will improve the quality of installation and reduce the time required.

No maintenance required on waterproof harness or water-resistant motors.

If mud or dirt is built up on the steps, simply spray them off and let them air dry.

Mild automotive detergent may be used to clean the product. Do not use dish detergent, abrasive cleaners, abrasive pads, wire brushes or other similar products that may damage the finish.

Periodic inspection of all wires and connections should be performed to ensure there is no visible damage or loose connections.

Refer to the last page of this manual for troubleshooting, warranty and product registration information.

Front Bracket



Middle Bracket

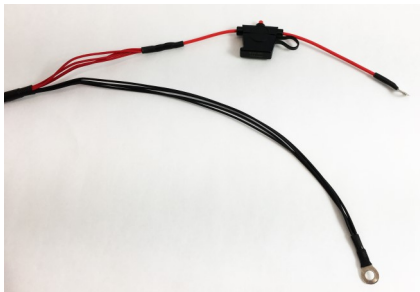


Rear Bracket



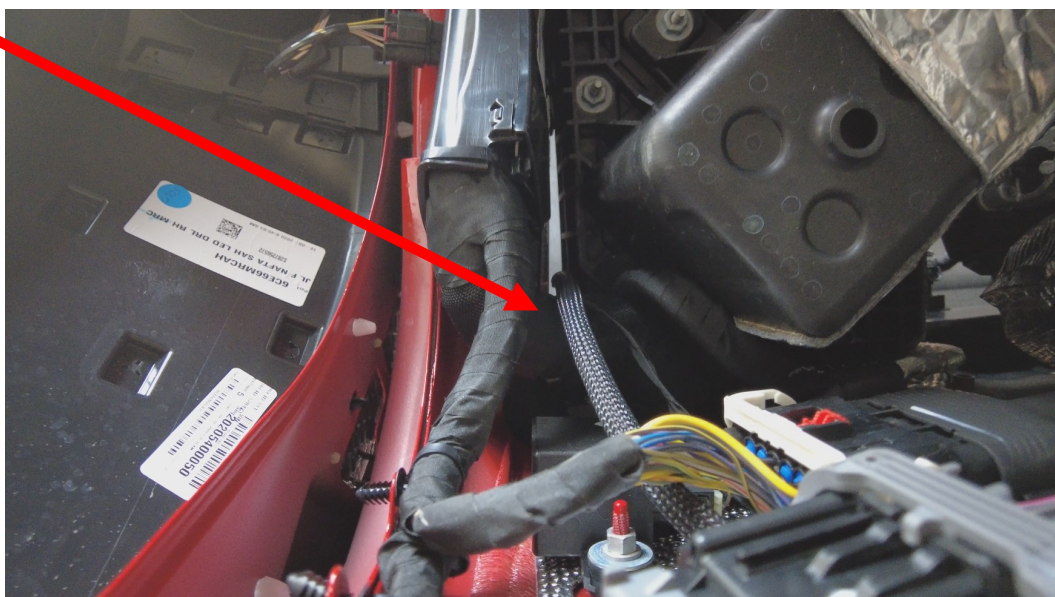
Step 1

REMOVE THE FUSE FROM THE HARNESS.



Attach the wire cable holder and gold flange bolt halfway down the red/black battery wires and into the hole shown. Do not tighten down at this moment.

Run the red wire with fuse holder and black wiring loom from the rear passenger door along the frame, through the wheel well area along the frame, and up through the engine bay next to the lower battery area.



Step 2

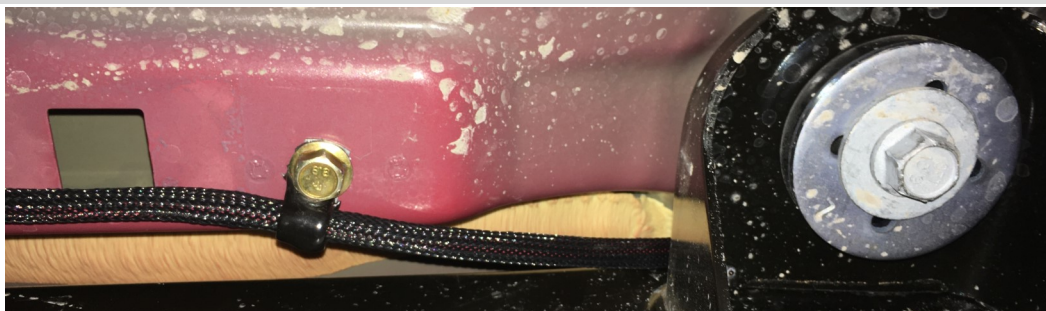
ENSURE THE FUSE IS PULLED FROM THE HARNESS.

With the wiring run up next to the battery, attach the red wire to the positive terminal and black cable to the negative



Step 3

With the wires attached to the battery, secure this section of the harness down to the golden bolt with wire clip leaving just a little bit of slack between the battery and gold bolt to allow wiring to be a little slack.



Step 4

Tracing the frame with the harness, secure the first junction of wires to the existing wire loom below the rear passenger door to the wiring on the frame itself.



Step 5

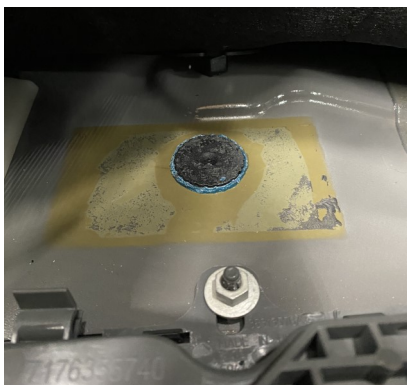
Pop the rocker panels on the front and rear of the passenger side to allow access to the plug and wiring access to the front and rear of the jeep.



Step 6

Remove the silver covering that hides the plug (if applicable), and then pop the plug out from below using a punch or screwdriver and a hammer to hit it up and out.

Run the door sensors up through this hole, run the grommet over the sensor plugs and down the wiring to install in the hole. Press into the hole until secure.



Step 7

Replace the silver covering removed earlier (if applicable), and run light blue/black sensor along the existing harness towards the front (longer sensor harness) and run the other sensor towards the rear along the existing harness.



Step 7.1 Door Sensor Location

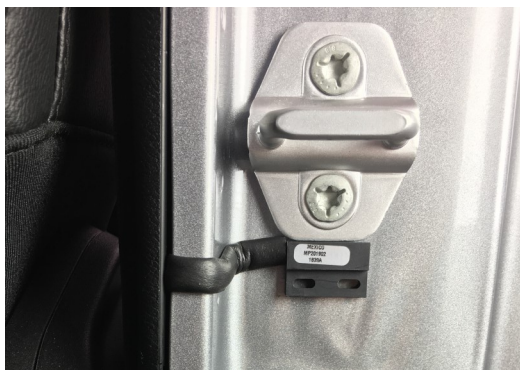
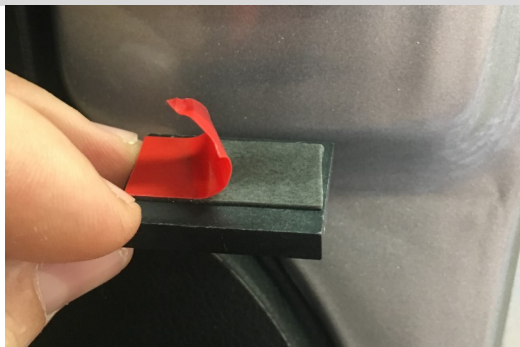
The JT will have a different location for the sensors on the rear vs the JL.

On the front door, mount the sensor below the latch as shown as long as the wires run towards the inside of the vehicle.

Remove the adhesive cover on the sensor, install the sensor below the latch.

Remove the adhesive cover off the rubber tube, and push it onto the bend working from the sensor slowly towards the interior of the jeep and wrap it around the ledge so it hides the wires behind the rocker guard.

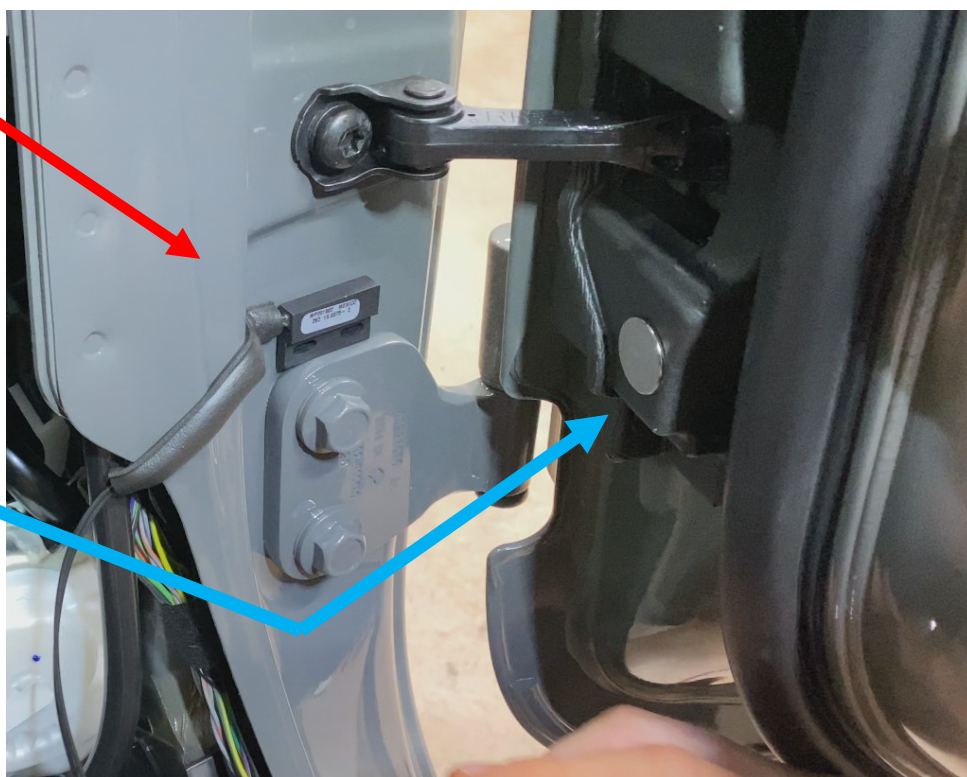
Mount magnet on FRONT door below the latch opening on the door as shown (lower right)



Step 7.2 Door Sensor Location, Rear Door

Mount the sensor on the INNER portion of the door opening above the main lower door bracket.

Install the magnet opposite of it below the limiting latch as shown.



Continue External Harness install—Step 8

Pull the harness from the passenger side to the driver side by running the rest of the harness up over the crossmember and secure it with zip ties to the crossmember.



Step 9

Pop the panels on the driver side. Remove the silver covering (if applicable) and pop the plug out as you did on the passenger side.

Leave the motor connector and circuit board connector below the hole to connect in a later step, and run the sensors AND rocker switch wires up through the hole. Run the rear door sensor to the back of the vehicle, and run the front door sensor including the rocker switch wires along the driver side under the rocker panels. Connect sensors and mount magnets as in previous step 7.1 and 7.2

Rocker switch will be installed in the last 3 steps so you can test the system at that time!



Mechanic Install—Step 10

****IF INSTALLED, REMOVE FACTORY SLIDERS***

Start on the drivers side.

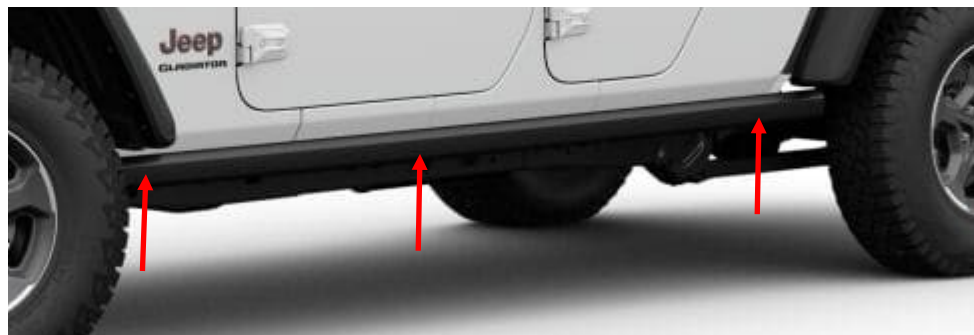
Remove two front pinch seam bolts on the lower front corner panel fender using a 10mm socket and wrench. Leave the holes open. Keep the hardware as you will re-install it in the final step



Step 11

Starting on the driver side, locate the three body bolts on the underside of the vehicle. Back the three body bolts about 1/4" to allow free movement of the washer up and down.

****Breaker bar may be required to loosen the body bolts. SEE BELOW IN STEP THREE FOR TIPS FROM MECHANICS.**



Step 12

****TIP FROM A MECHANIC****

As you start loosening, as soon as you hear the bolt pop or feel it bind, reverse direction 1/4 to 1/2 turn to clear the threads. This will make it easier as you progress.

With each body bolt loose, slide each bracket between the bolt head and the washer in their correct positions. Install the rear bracket at a slight angle and the middle bracket in straight.

Rear—Tall Bracket

Middle— Flat Bracket

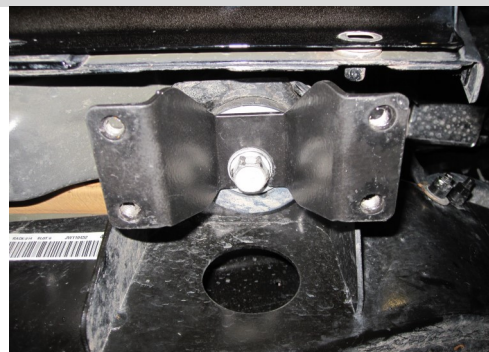
****In some cases the washer doesn't allow enough gap you will have to use a small file or Dremel tool to remove the two-three threads closest to the washer. This can be achieved by either using a file while the bolt is still in the hole or you can remove it completely.**



Step 13

Install the front bracket at a 45 degree angle to the jeep, with the bracket between the head and washer, and twist straight so the bracket faces towards the side of the jeep.

Front—Short Bracket



Step 14 – Bump Strap Install

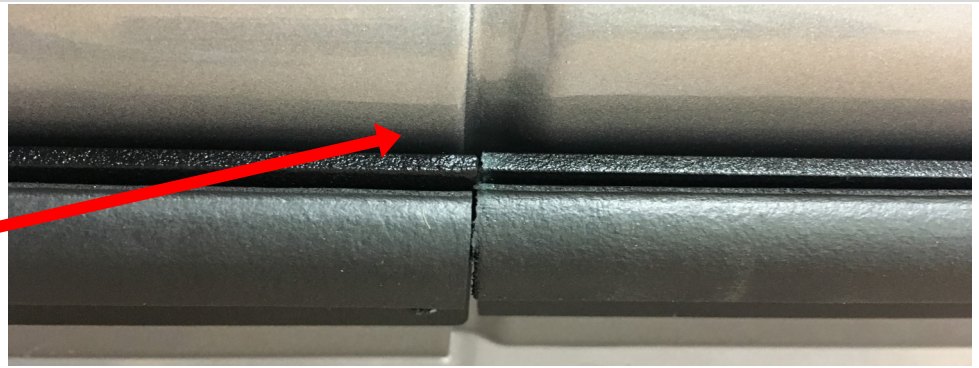
Install bump strap onto the side of the vehicle where the bend just under the door is located:

Clean the area to be fitted with an alcohol wipe.

Test fit the bumper strap by lining up the strap straight across the jeep bend.

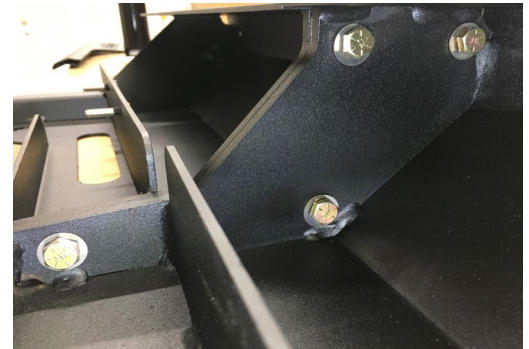
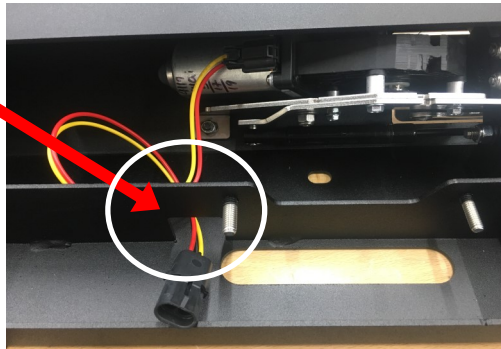
Install the front bump strap about 1/2" inch below the bend on the body from the jeep body notch to the front of the vehicle.

The rear (shorter) bump strap will be installed matching the same line over the notch, BUT when installing allow the rear portion of the bump strap to be about 5/8" off the bend to accommodate the heavier bend around the rear quarter panel.



Step 15 - Extension Piece Prep

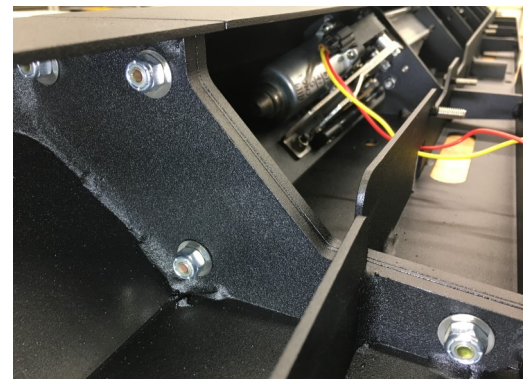
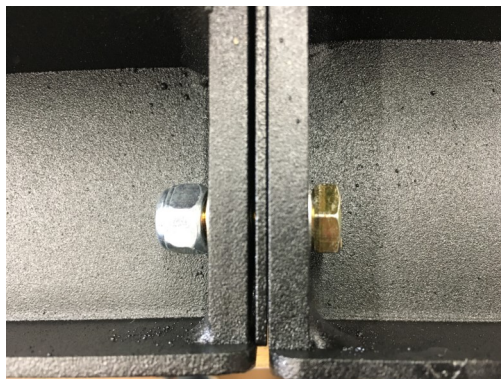
Pull the motor wire out from the housing and slide it through the little cutout between the last bolt and step slider bracket mounting holes.



Install spacer plate between the extension piece and the main body.

Bolt the extension piece together to the rear of the main body using 4 5/16" bolts with washers and nuts.

Tighten the bolts down to 18 ft lbs. or hand tight



We recommend assembling the rear extension piece to the body ON A FLAT SURFACE so the face of the step slider body is even on the top and front of the step slider.

There will be a very small gap between the extension piece and main body. This is normal.



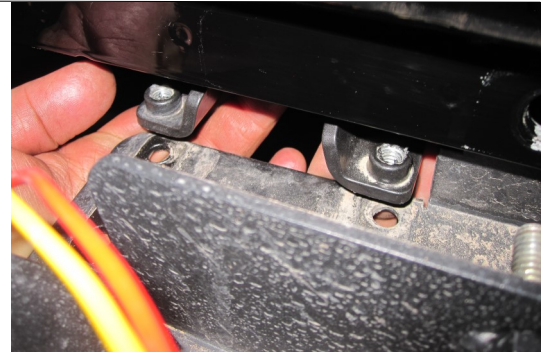
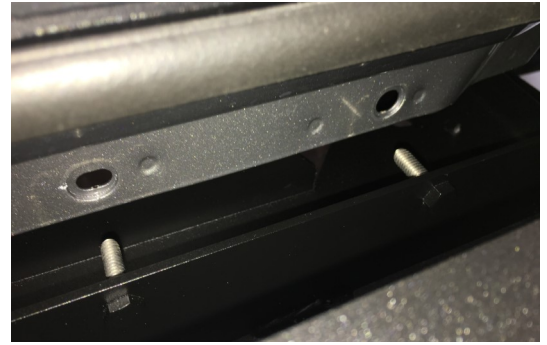
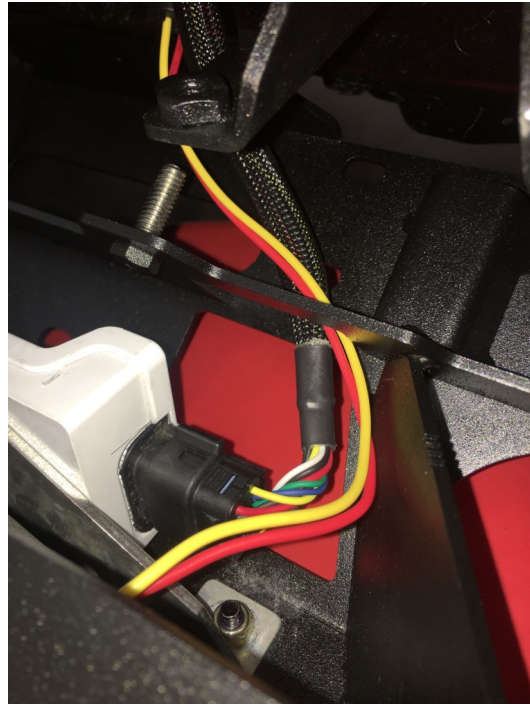
Step 16

Pull the motor wire out from the hosing and slide it through the little cutout between the last bolt and step slider bracket mounting hole and plug into the main harness. Pull the circuit board plug through the hole and plug into the sealed circuit board.

Line up the step with the pinch seam holes and slide the step studs through the pinch seam. The brackets mounted earlier should slide above the body. There should be some play in the brackets to allow up and down movement to slide above the body.

Once mounted, the step should hang on to the pinch seam by itself.

****Do NOT** apply weight to the step yet as it is unsecured.



Step 17

Start to secure Step Slider to the pinch seam using the 1/4" 20 nuts with a flat silver washer and the 5/16" nuts with a flat silver washer.

FROM FRONT TO REAR the bolts are:

1/4" - 20

5/16"

5/16"

5/16"

1/4"-20

5/16"

EXTENSION PIECE

1/4" - 20

5/16"



Install the 1/4"-20 nuts and washers.

Install the 5/16" nuts and washers

Tighten down a couple turns to where the nuts do not fall off. They will be tightened down fully in a later step.

Step 18

Install **12 5/16" - 18 x 1"** with a hex head bolts with yellow SAE washers into the bracket through the slots on the underside of the step slider.

Install bolts halfway.

****If you purchased the optional skid plate, install at this time using those same bolts. The skid plate will use those same holes and bolts.**



Step 19

Once all bolts and nuts have been started, tighten down pinch seam nuts:

Use a **1/2"** socket or box end ratcheting wrench on the **5/16" - 18 nuts**.

Use a **7/16"** socket or box end ratcheting wrench on the **1/4 - 20 nuts**.

Torque 5/16" nuts to 18 ft. lbs.

Torque 1/4" nuts to 8 ft. lbs.



Step 20

Tighten down 5/16" hex hex using a **1/2"** socket and wrench.

Torque to 18 ft. lbs.

****For a quicker install, use a Impact gun with an adapter for a 1/2" socket.**



Step 21

Tighten down body bolts last.

Torque to 80 ft. lbs.

Repeat steps 10-20 on the passenger side



Step 21—Install Master Switch Bracket

Remove the OBD2 port screw using an 8mm socket.

Insert screw through large hole on the master switch bracket, and then back through the OBD2 port bracket, and install back into place to hand tight.

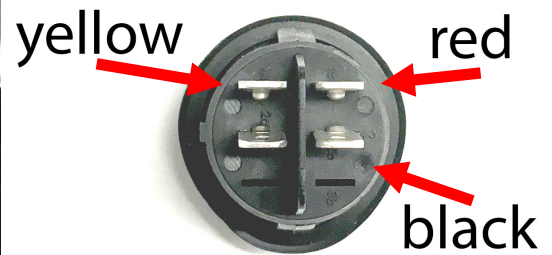
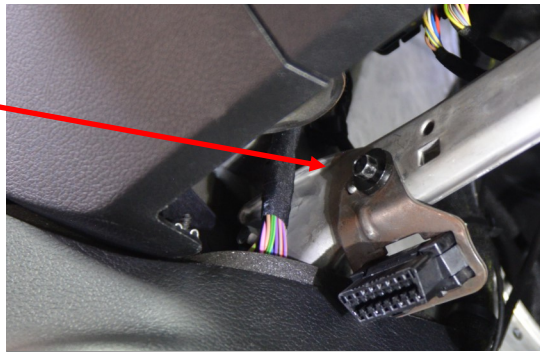
Install ground wire between the bolt and OBD2 plate.

Pull the wires through the bracket.

Plug the blue female connector into the silver male ends and the red female connector into the bronze male end.

Push the button back into the bracket

Install the ground wire to a location on the body of the jeep or right behind the bracket.



Step 23

Replace the two 10 mm head bolts that you removed in the first steps.



Step 24

With all wiring connected and magnets in place, turn the system on and test to ensure operation.

Once steps are functioning correctly, reattach all internal panels, double check wiring is secured, and double check bolts are secured and nothing was left loose.

You are done!

Scan the code on the right to leave us a review!

See our FAQ on the next page for any troubleshooting if you see one of the steps not behaving correctly or give us a call!





TROUBLESHOOTING YOUR STEP SLIDERS:

I just installed my steps and they are not coming down when I open the door.	Double check the connections. Check the fuse to make sure it is plugged in. Is the on / off switch getting power? Is the circuit board plugged in? Are the door sensors plugged in?
My switch is getting power, but the light stays on in both positions.	The light is only supposed to be on when the system is turned on. If it is lit in both positions simply switch the red wires on the back. Will this kill my battery with the light constantly lit? This will not kill your battery unless you leave it lit for a month with no use.
Everything is plugged in and the switch is turning on and off, but the steps still won't deploy.	Check the motor first. Simply unplug it from the wiring harness and apply external 12V power to the leads. One position will make them deploy. Switch the leads again to make them retract. If this works, plug the motor back into the harness. We test each and every motor that leaves our factory by hand along with assembling your step slider by hand. These may fail, but it is extremely rare after we send them after having tested them. If you test the motor and all you hear is a clicking sound but nothing happens, there is likely internal damage.
I tested the motor, and it works. I checked the sensors individually, and the system still won't work. The steps don't deploy unless I do it manually with 12V power.	In rare circumstances, the circuit board that runs the system may be faulty. Send us an email at Warranty@rockslideengineering.com to request a new circuit board.
I opened my door a bunch of times and the system just shut off. What happened?	Our systems have built-in protection against quick cycling like this to prevent damage. Simply turn your on / off switch to off, wait 5 seconds, and then turn it on again. This will reset the system and allow it to work normally again.
Everything is working now. But I want to take my doors off and have the steps still work.	We sell a door delete kit you can replace those sensors with. Part# SL-DD-100 comes with everything you need for two doors. If you want to install a delete kit on the rear doors as well, you will need to purchase two kits.
The steps deployed and won't retract. What is going on?	<p>Chances are your magnets are misaligned. To diagnose which door needs to be adjusted, unplug the rear sensors with the front doors closed. If your steps come up, then it was the rear doors that need to be aligned with your magnet. If the step stays down, the front door needs to be aligned. Open your door, shift the magnet in a direction, and shut it again. Repeat until the step comes up when the door is shut. Mark the magnet placement on the front door. Plug the rear door sensor in, shut the rear door and front door, and see if it comes up. If not, the rear door is misaligned (Since we just aligned the front door we know it's the rear door now). Repeat the previous process of opening your door, shifting your magnet, and shutting your door until the step comes up. It may take a few tries.</p> <p>OPTION 2</p> <p>Check the sensors. Unplug both of them from the wiring harness on the side that is not working, and plug one back in. Manually test your sensors by putting a magnet really close (but not touching) to the sensor. Does it make the step retract? When the magnet is away, the step should deploy. If the steps deploy right after installation, more than likely your magnets just need to be aligned. Do this one by one with each sensor by the method above. Install one sensor, test, align the magnet on the door, test, and then mark the position of the magnet so if for some reason they do move out of place you can easily realign them.</p>
I was off-roading, left my system on, someone left the door ajar and I ripped my step off on a rock. What now?	We can replace these parts for you at cost. You will have to remove the step off your vehicle to replace the innards. Call us and we'll figure out what you need exactly! If you prefer us to do the repair we will do that for you! You will have to cover shipping to us and the cost of the parts.

WARRANTY POLICY

ROCK SLIDE ENGINEERING, LLC (RSE) covers a limited warranty ensuring the structure is free of material defects and workmanship, under proper installation and normal use/conditions. Additionally, the electrical components (including the motor) and the finish (powder coat) will be free of defect for a period of (12) months (1) year from the original purchase date. This warranty only applies to the original retail purchaser, the original installation of the product, and the original installation vehicle. This warranty does not cover removal or reinstallation of the product and is NON-TRANSFERRABLE. No retailer, reseller, dealer, or agent is authorized to make modifications, extensions, amendments, or additions to this warranty.

For products to be considered under the warranty policy, a warranty claim form must be submitted at www.rockslideengineering.com/warranty. All claim fields must be filled out and include the following: name, address, telephone number, email address, original purchase receipt (**required to qualify for warranty**), images, videos, and description of the issue. Once a claim is submitted, all warranty items will be initially reviewed for eligibility utilizing customer provided information from the claim form. Additionally, if the product is sent back to our manufacturing facility, the items will have a physical inspection to assure it meets our criteria; and the original purchaser is responsible for shipping expenses to return the defective product to RSE.

RSE HAS THE RIGHT TO REFUSE/VOID A WARRANTY IF THE PRODUCT FALLS UNDER ANY OF THE VOID ACTIONS AS STATED BELOW; AND WILL NOT BE ELIGIBLE FOR EXCHANGE, REFUND OR WARRANTY CONSIDERATION.

ACTIONS THAT WILL VOID YOUR WARRANTY:

- IF PRODUCT WAS NOT PURCHASED DIRECTLY FROM RSE OR AUTHORIZED RSE RETAILER OR DISTRIBUTOR.
- PROOF OF PURCHASE CANNOT BE PROVIDED OR FOUND.
- INSTALLATION OF THE PRODUCT WITHOUT USE OF PROPER INSTRUCTIONS.
- INSTALLATION OF THE PRODUCT ON THE WRONG VEHICLE OR MODEL.
- IF DETERMINED THAT PRODUCT INSTALLATION WAS MODIFIED, CHANGED, ALTERED OR CUSTOMIZED IN ANY WAY.
- REINSTALLATION OF PRODUCT ON ALTERNATE VEHICLE.

Additional Warranty Information:

Return Merchandise Authorization (RMA) will be assigned from an RSE warranty representative and given to the customer after the initial analysis has been completed. Instructions for how to ship your product safely to RSE will be given with your RMA. **Damages, rebuild, and cleaning fees may apply if the product is delivered without meeting shipping instruction requirements.** If the product arrives to RSE and does not qualify for the warranty after a physical inspection, alternative options will be provided to the customer at that time.

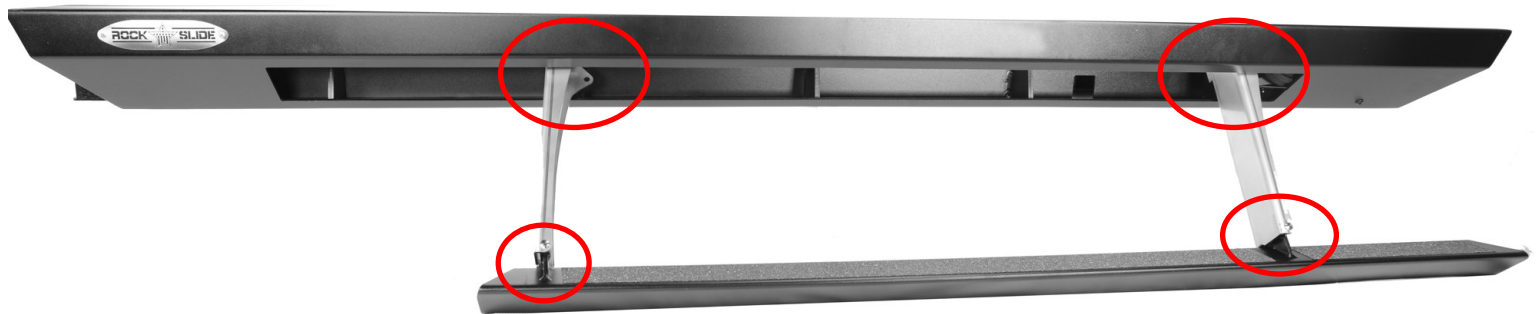
For questions or concerns: please contact our office at 435-752-4580 and ask for the warranty department or email us at warranty@rockslideengineering.com.



MADE IN THE USA

GENERAL MAINTENANCE MANUAL

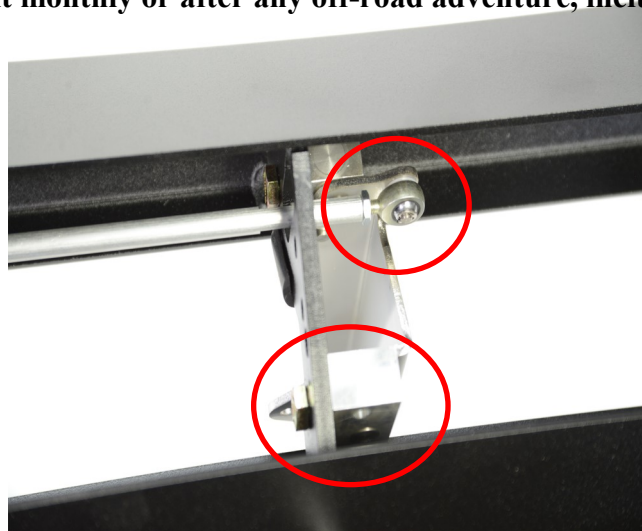
To ensure your step sliders function properly, some maintenance is required!



You will need to lubricate the pivot points that are circled in red shown above.

Lubricate the heim joints and aluminum blocks as shown below.

We recommend you do it monthly or after any off-road adventure, including during winter months.



Deploy the steps, pressure wash the bodies clean including internals, then apply a multipurpose lubricant to each of the areas as shown.



Here are several options on lubrication that are carried at the local auto stores in most areas