

INSTALLATION MANUAL

GEN 3 STEP SLIDER JT 4 DOOR 2020-PRESENT BD-SS-300-JT4



Newest features:

- 40% stronger with High Strength Low Alloy Steel (HSLA).
- 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 an install overview of our step slider, scan the QR code with your smart phone camera.

Please note that this manual will have the latest changes to the install process.

https://youtu.be/DSh8yatg4p8



Description	Quantity
Electric Step Slider (Pair)	2
Bump stop plate with VHB backing	2
Wiring harness	1
Double sided adhesive strips	4
Door sensor	4
Magnets	4
Alcohol wipes	4
Rocker cutoff switch	1
1/4" push in plug	10
M10 flange bolt	1
Cable clip	1
Floor Plug Grommet	2
5/16" - 18 nylock nut (pinch seam)	8
5/16" grade 8 washer (pinch seam)	8
1/4" - 20 nylock nut (pinch seam)	4
1/4" - 20 grade 8 washer (pinch seam)	4
5/16" - 18 X 5/8" grade 8 hex head bolt	24
5/16" SAE yellow zinc washer	24
Front bracket (drop style short)	2
Middle bracket (short style)	2
Rear brackets (drop style tall)	2
Rocker cutoff switch bracket	1
Zip Tie	10

Tools Required	
10 mm socket	7/16" socket
18 mm socket	1/2" socket
8 mm socket	Wrench with 3-4"extension
Breaker bar	1/2" Box end ratcheting wrench
7/16" Box end ratcheting wrench	

^{**}Optional for quicker install

Impact Gun with adapters	Heavy Duty Impact Gun with 1/2" driver
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Front Bracket



3 3/8 in.

Drop Style

Short

Middle Bracket



5 3/16 in. Long Style

Rear Bracket



5 1/8 in. Drop Style Tall

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.

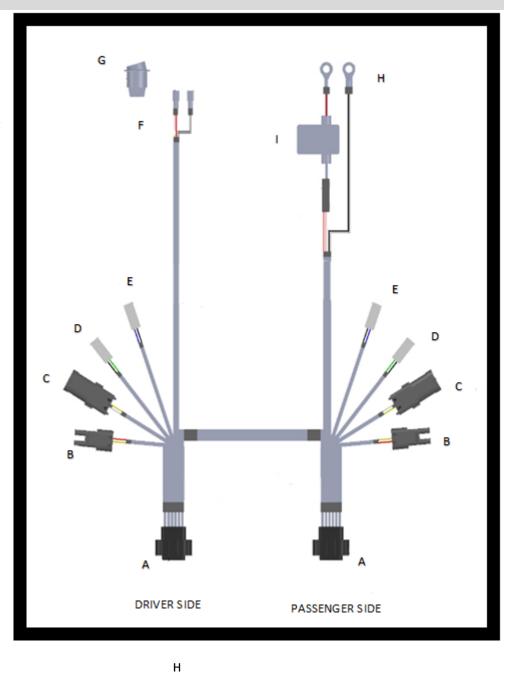
Refer to the last page of this manual for troubleshooting, warranty and product registration information.

Harness Diagram - 1

- A. CIRCUIT BOARD CONNECTOR
- **B. MOTOR CONNECTOR**
- C. LIGHT CONNECTOR
- D. REAR DOOR SENSOR CONNECTOR
- E. FRONT DOOR SENSOR CONNECTOR
- F. ROCKER SWTICH CONNECTORS
- G. ROCKER SWITCH
- H. BATTERY TERMINALS
- I. FUSE HOLDER

E: Blue



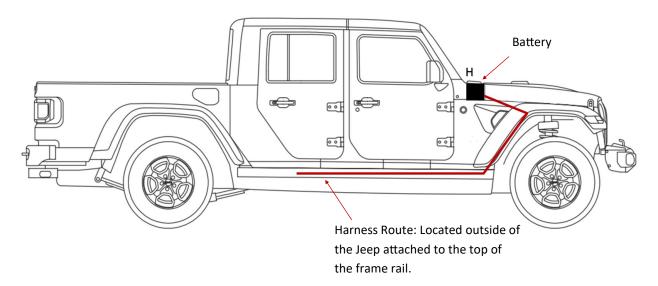




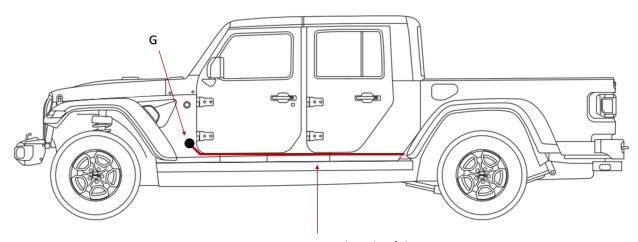




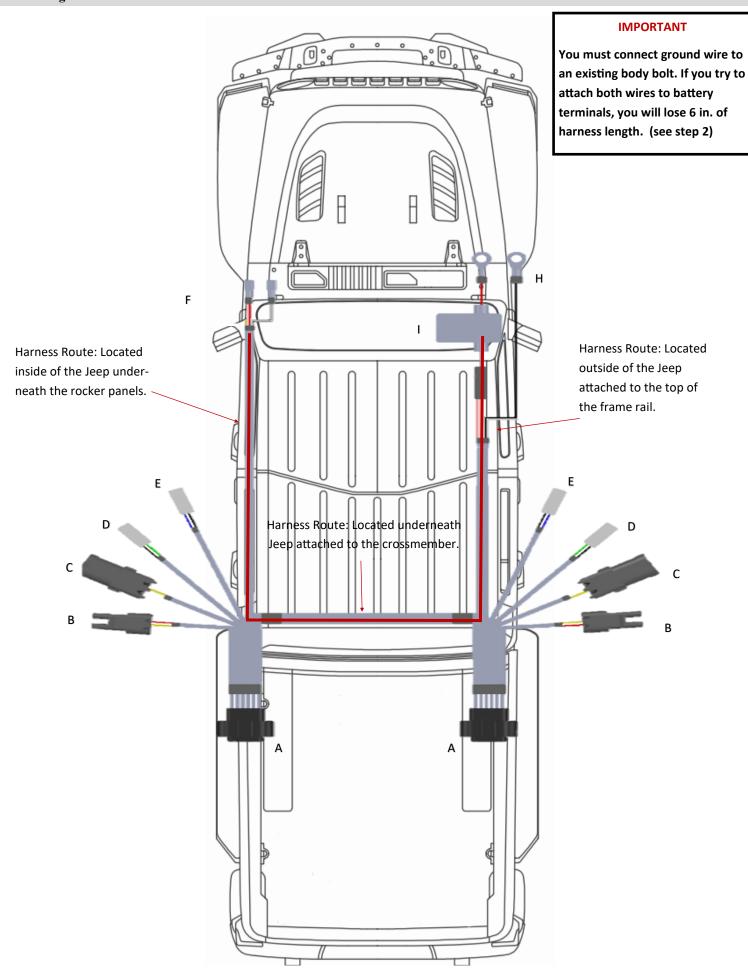
Harness Route: Passenger Side



Harness Route: Driver Side



Harness Route: Located inside of the underneath the rocker panels.



Remove any factory sliders or steps from the vehicle and set aside. You will not need any of the hardware from the factory parts removed. We provide all new hardware for our installation.

REMOVE THE FUSE FROM THE HARNESS

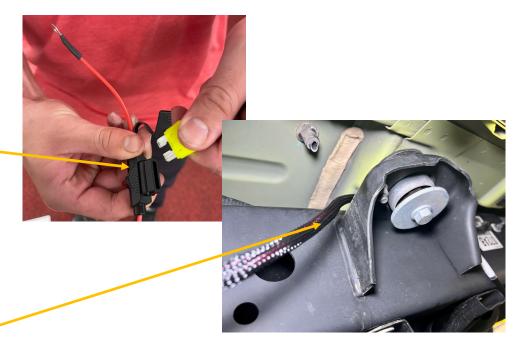


INSTALLING THE PASSENGER SIDE OF THE HARNESS

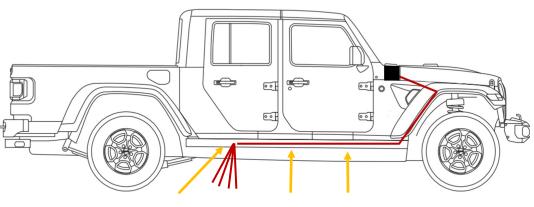
Once the fuse is removed: trace the passenger side of the harness with the fuse case, red wire (+) and black wire (-) from the rear passenger door along the frame rail making sure to run the harness behind the body bolts.

Underneath the passenger side front door, there is a factory hole where you can secure your wiring harness. Use this cable clip and M10 flange bolt. Do not tighten completely until full harness is in place.

Fasten the first junction of wires to the existing factory harness with a zip tie behind the body bolts. Do not pull the zip ties tight yet. Leave the remainder of the harness at the passenger door free.



Passenger Side Harness Zip Tie & Cable Clip Anchor Points



1: Zip Tie

2: Zip Tie

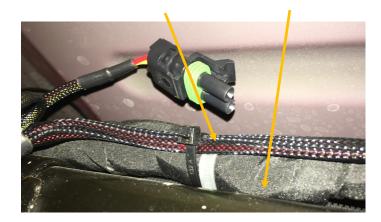
3: Cable Clip





Factory Harness





CONNECTING TO THE BATTERY TERMINAL

ENSURE THE FUSE IS PULLED FROM THE WIRING HARNESS

Run the red wire (+) and black wire (-) with the fuse case along the frame rail, up the fire wall.

Attach the red wire (+) to the positive terminal. The black wire (-) will attach to an existing body bolt on the Jeep. Ensure it has good metal to metal contact to keep paint from interfering with the connection.



IMPORTANT

You must attach the ground wire to the body bolt. If you don't, you will lose 6 inches of harness length on JL models.



Step 3

SECURE HARNESS

With the wires attached to the battery, pull excess wire harness down from battery to frame rail and secure this section of the harness by tightening the M10 flange bolt and cable clip. Tighten up the zip ties along the frame rail to the first junction of wires on the harness at the rear passenger door.



REMOVE ROCKER PANELS

Pop the rocker panels on the rear of the passenger side to allow access to the rear floor plug.

Peel up the carpet and look for this hard plastic plug sealed to the floor.

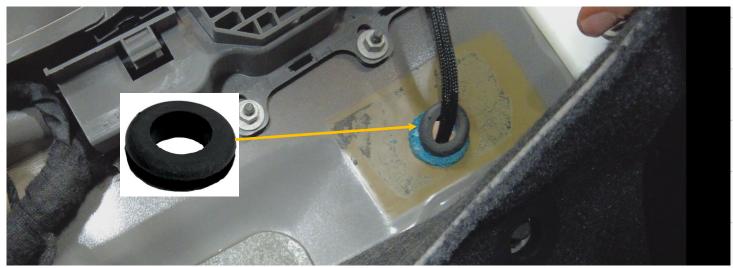
Remove the plug by using a screwdriver and hammer to hit it up and out from underneath the Jeep.

Replace with black rubber grommet provided.









INSTALLING THE PASSENGER SIDE OF THE HARNESS

Thread the green door sensor (D) and blue door sensor (E) connectors up through the rear floor plug on the passenger side. The circuit board (A), Motor (B) and light (C) connectors will remain visible on the passenger side under the vehicle.

Pull the remainder of the harness from the passenger side to the driver side over the frame rail. Run it along the rear cross member in line with the rear wheels and secure the harness with zip ties to the cross member.





If desired, apply a small amount of silicon into the passenger side grommet where the sensor wires come thru to fill any gaps.



Step 6

INSTALLING THE DRIVER SIDE OF THE HARNESS

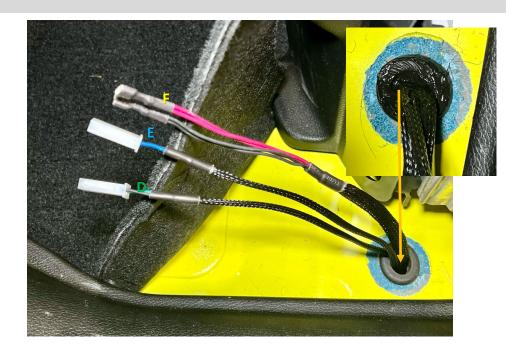
Pop the front and rear panels on the driver side and peel back the carpet to expose the rear floor plug. Remove the plastic plug and replace with the provided grommet. Thread the green door sensor (D), blue door sensor (E) and rocker switch (F) connectors through the floor plug and into the cab.

Leave the rear green door sensor (D) in the back. Run the front blue door sensor (E) and the Rocker Switch (F) along the existing harness towards the front of the Jeep.

The drivers side circuit board (A) and motor (B) connectors remain outside underneath the jeep.

Optional

If desired, apply a small amount of silicon into the driver side grommet where the sensor and switch wires come thru to fill any gaps.



ROCKER SWITCH INSTALLATION

Install master switch cutoff bracket onto the JL OBD2 port 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.

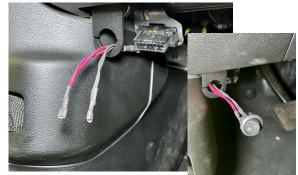
Pull the wires through the bracket.

Plug red and black wires into place. The wires can be plugged in on either side. Push the button back into the bracket until it snaps into place. Turn switch to off position marketed with "OFF" or "O".









Step 8

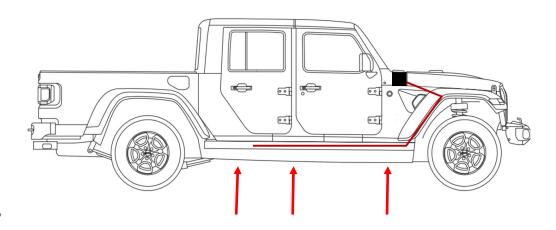
BODY BOLTS

Locate the three body bolts on the underside of the vehicle on each side. Loosen 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.

TIP FROM A MECHANIC

As you start loosening, as soon as you hear the bolt pop or feel it bind, reverse direction 1/8 to 1/4 turn to clear the threads. This will make it easier as you progress. Even if you do not hear it pop do the reverse direction early on to prevent body bolt damage.



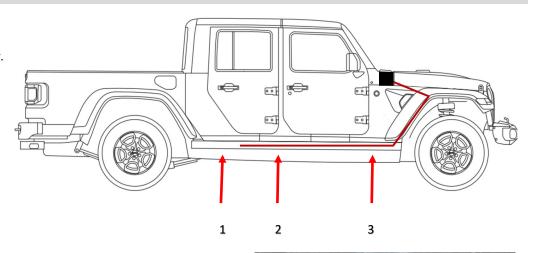


IMPORTANT

RSE is not responsible for any body bolt damage. Please visit your Jeep dealership or regular mechanic for assistance.

BRACKET INSTALLATION

Install each bracket between the bolt head and the washer. Leaving them loose for now.











IMPORTANT

In some cases the washer doesn't allow enough gap you will have to use a small file to remove the two threads closest to the back side of the washer.

You can also try knocking the brackets into place between the bolt head and washer with a rubber mallet.

1. Rear Bracket 2. Middle Bracket 3. Front Bracket



5 1/8 in. Drop Style



5 3/16 in. Long Style



3 3/8 in. Drop Style

BUMP STRAP INSTALLATION

In preparation for the bump straps, make sure the angled section of the Jeeps body near the pinch seam is thoroughly cleaned and wipe it down with an alcohol pad to prep the area. This will ensure good contact of the bump strap adhesive with the painted surface.



IMPORTANT

Before placing the bump strap to the Jeep, do an alignment check. 1 3/4 in. from the bottom of the door seal to the top of the bump strap is a good location.



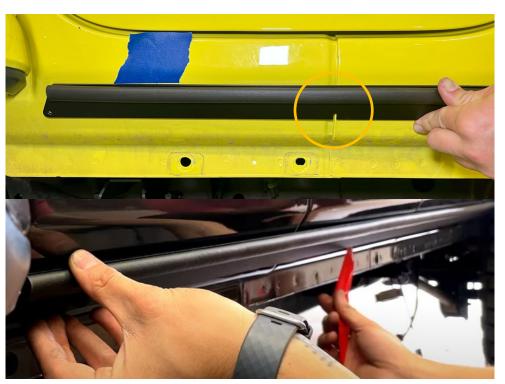
Starting at the rear fender and working toward the front fender, take your time with the actual installation.

Make sure the notch in the bump strap lines up with the rear body seam.

Slowly removing the adhesive as you move along the body of the Jeep, holding the bump strap in place. Press firmly where the red tape backing is removed.

IMPORTANT

Once that tape adheres to the Jeep, it is designed not to come off. The bump strap protects the Jeep's paint and fills the gap between the Jeep and Step Slider.



EXTENSION PIECE PREPERATION

Install the spacer plate between the extension piece and the main body. A small gap is normal until the plate is secured. Bolt the extension piece to the rear of the main body using a 4 5/16 in bolts with washers and nuts. Tighten down the bolts to 18 ft. lbs. or hand tighten securely.



Step 12

STEP SLIDER INSTALLATION

Before placing the Step Slider on the Jeep, pull the motor connector through the last cutout located next to the circuit board so it hangs out of the way.

Tighten the body bolts on each side of the vehicle with the brackets in place so they are snug but still have a small amount of swivel.

Lift the Step Slider onto the Jeep lining up the bolts of the step body with the pinch seam holes of the Jeep.

As you slide the bolts into the holes, make sure the brackets are above the step body.

When you have the bolts of the step slider inserted into the pinch seam holes, the Step Slider will hang and stay on the Jeep allowing you to secure with nyloc nuts.

Secure the Step Slider to the pinch seam by using two 1/4" nyloc nuts and four 5/16" nyloc nuts with washers.

Since the six bolts come in two sizes, work from the front of vehicle toward the back. In this order the nyloc nuts sizes will be 1/4, 5/16, 5/16, 5/16, 1/4, 5/16.

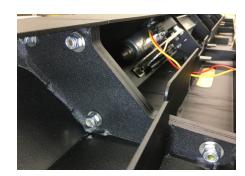
Tighten the pinch seam nuts. 1/4" nuts torque to 8 ft. lbs. and the 5/16" nuts torque to 18 ft. lbs.

Repeat steps for other side.

IMPORTANT

Prep your extension piece to the body on a flat surface. That way the face of the step slider body is even on the top and in front.

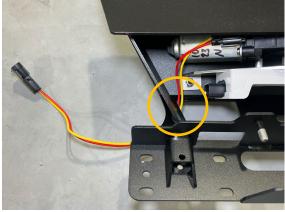






IMPORTANT

Make sure your wires are not being pinched between the brackets, Step Slider or body of the Jeep.







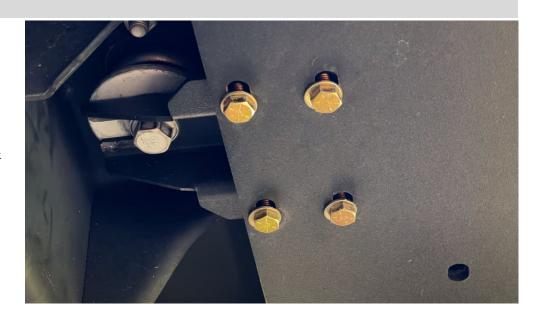


STEP SLIDER INSTALLATION

Bolt the Step Sliders to the body bolt brackets using four 5/16" -18x5/8" hex head bolts and washers on each bracket. You can use a hole punch or screw driver to help line up the holes of the brackets with the step. Do not tighten hex bolts until you have four bolts in each bracket. Then tighten and torque the hex head bolts to 20 ft. lbs. Repeat for other side.



If you will be installing our skid plates leave the 2 rear bolts of the front brackets out until the skid plate is installed. The skid plate will come with 4 longer bolts (2 each side) to replace these on either side. Make sure you leave these bolts out before installing the skid plate rivets.



Step 14

TIGHTEN BODY BOLTS

Tighten the six body bolts by torquing these to 80 ft. lbs.



Step 15

PLUGGING IN THE HARNESS

Pull the circuit board (A) connector through cutouts on the back of the step slider bringing wire out toward the bottom cutout hole by the circuit board.

Plug the circuit board (A) connector from harness into the circuit board. Push firmly till you hear a click.

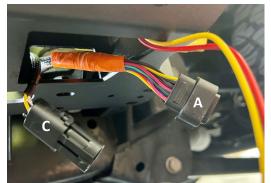
Route the long connector wire from the motor through the back of step slider and plug the motor connector (B) from harness into the wire from the motor. Secure all wires with zip tie so they don't hang down.

NOTE

The wires for the motor connector (B) will be crossed over red to yellow and yellow to red. This is the way.

NOTE

The additional wire on the harness is for the optional light kit connector (C). Tuck away inside of the step slider for later installation.









CALIBRATION CYCLE

With both of your step sliders installed, it is time to calibrate the circuit board.

Install the fuse into fuse holder (I) of our wire harness located at the battery.

Turn ON the switch you installed under the dash.

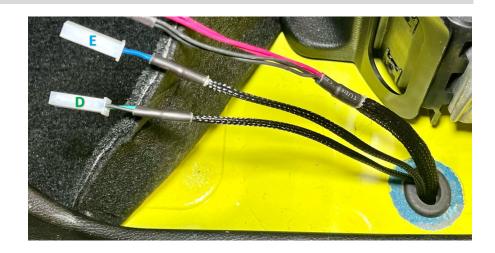




Step 17

Start the calibration with the Driver's Door.

Locate the blue sensor wire (E) and grab a sensor wire setup.



Step 18

Make sure the step is clear of all obstructions prior to calibration.

Plug the door sensor into the blue sensor wire (B) of the wire harness. The step will fully deploy.

Unplug the sensor from the wire harness and the step will fully retract after approximately a three second delay.

The calibration is complete on the driver's side step.

Repeat this process on the passenger side step to calibrate it.



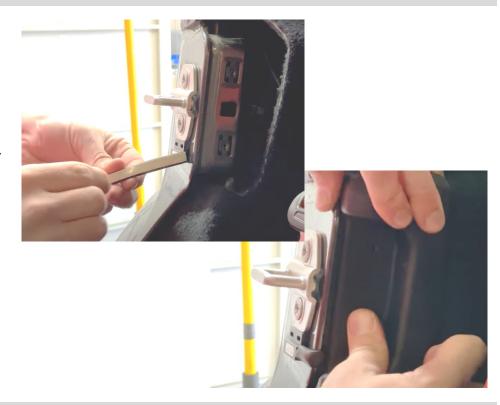
INSTALLING DRIVER DOOR SENSOR

Run the front door sensor (E) along the existing factory harness. Use the alcohol wipes to clean directly below the door latch Striker. Make sure the surface area is clean and ready for the door sensor adhesives.

With the door sensor in hand, use the double sided adhesive and attach it to the back of the sensor. Press the sensor firmly below the door striker.

Expose the adhesive on the foam wire protector next to the sensor and wrap the foam around the frame metal. Connect the door sensor to the blue wire (E) connector and the step will deploy.

When you are finished, you can tuck all of the carpeting back in and reinstall the plastic rocker trim. Snapping right into place.



Step 20

DRIVER DOOR MAGNET INSTALLATION

IMPORTANT Do a test fit to make sure the magnet is properly aligned with the door sensor by placing a magnet on the door but not using the adhesive backing yet.

Magnet location is on the outer part of the door. Opposite where the sensor was placed below the door striker. Roughly 1/4 in. down from the bottom screw below the door latch.

Close the driver's door. If the sensor and magnet are lined up, the step will retract.

Once you have confirmed magnet location in door, use the alcohol pad to clean the inside of the door. Peel off the backing and firmly press the magnet into place.

Now close the driver's door again. If the sensor and magnet are lined up, the step will retract. If it does not retract, check alignment of magnet to sensor.





INSTALLING REAR DRIVER DOOR SENSOR (4DR)

Remove the trim panel. Run the rear door sensor (D) along the existing factory harness and up the inner portion on the B Pillar.

Using the alcohol wipes, clean this area above the rear door hinge. Make sure the surface area is clean and ready for the door sensor adhesives.

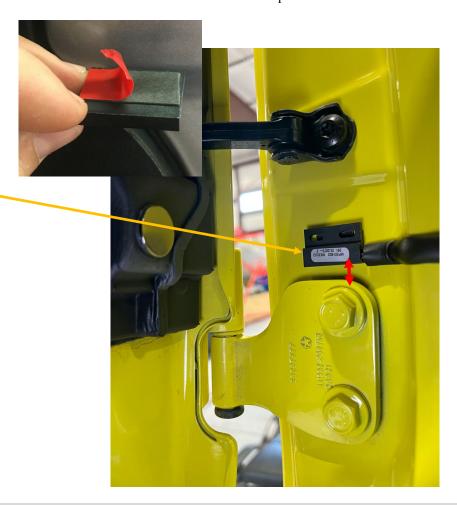
With the door sensor in hand, use the double sided adhesive and attach it to the back of the sensor.

Place the sensor 1/4" above the hinge bracket.

Press the sensor firmly. Expose the adhesive on the foam wire protector next to the sensor and wrap the foam around the frame metal. Connect the door sensor to the green wire (D) connector and the step will deploy.

IMPORTANT

Rear door sensors are located on the INNER portion of the door on the B Pillar.



Step 22

REAR DRIVER DOOR MAGNET INSTALLATION (4DR)

IMPORTANT Do a test fit to make sure the magnet is properly aligned with the door sensors.

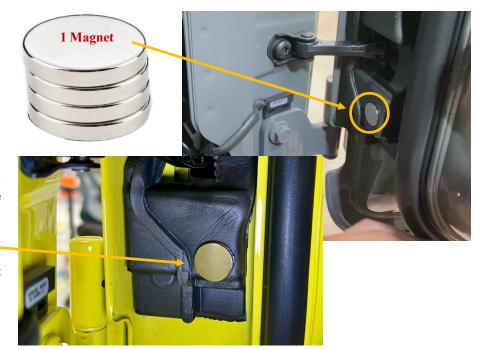
Using the alcohol pad, clean the foam on the inside of the door. Peel off the backing and firmly press the magnet into place.

Magnet location is on the inner side of the door.

Opposite where the sensor was placed on the B Pillar.

Close your rear door after placing the sensor. Opposite the sensor, on the inner part of your door, a foam piece will indent slightly. Place your magnet in the center of the indented foam.

Now close the rear driver door. If the sensor and magnet are lined up, the step will retract. If it does not retract, check alignment of magnet to sensor.



PASSENGER SIDE SENSORS AND MAGNETS

Repeat Steps 18-21 to install door sensors and magnets on the passenger side of your vehicle.

NOTE

On the rear door place the sensor at the hinge bracket. This is different than driver's side to ensure proper alignment of sensor to magnet.



Step 24

Use these plugs to cover the holes in the Step Slider.



You are done!

Scan this code to leave us a review!





FREQUENTLY ASKED QUESTIONS:

I just installed my steps and they are	Double check the connections. Check the fuse to make sure it is plugged in. Is the on / off
not coming down when I open the door.	switch getting power? Is the circuit board plugged in? Are the door sensors plugged in?
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.
the system just shut on. What happened.	Simply remove your 20 amp fuse and re-install. This will reset the system and allow it to work normally again.
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	In rare circumstances, the circuit board that runs the system may be faulty.
still won't work. The steps don't deploy unless I do it manually with 12V power.	Send us an email at Warranty@rockslideengineering.com to request a new circuit board.
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, but we will ship it back to you (from our warehouse to your house) on our account.
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 bypass the door sensors with. Part# SL-DD-100 comes with everything you need allowing to remove your doors and manually deploy and retract the steps with the push of a button.
The steps deployed and won't retract. What is going on?	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.
	OPTION 2
	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.
	should deploy. If the steps deploy right after installation, more than likely your magnets need to be aligned. Do this one by one with each sensor by the method above. Install one sor, test, align the magnet on the door, test, and then mark the position of the magnet so

WARRANTY POLICY

LIMITED TWELVE (12) MONTH WARRANTY FOR FINISH AND ELECTRICAL COMPONENTS

Rock-Slide Engineering, LLC ("RSE") warrants to the original purchaser that (a) the structural and mechanical components of the Step Sliders will be free of defects in material and workmanship for the lifetime of the Step Sliders (the "product"), and (b) the finish (powder

coat) and the electrical components (including the motor) will be free of defects in material and workmanship for a period of twelve (12) months from the original date of purchase. This warranty applies only to the original retail purchaser. Warranty is void if product was not

purchased directly from R- SE or from an authorized RSE retailer or reseller. This warranty applies only with regard to the product as originally installed to the original vehicle. This warranty does not cover removal or reinstallation of the product.

To exercise this warranty and receive any warranty service, the original purchaser must provide RSE with proof of purchase and date of purchase that is acceptable to RSE, such as a copy of the original purchaser's purchase receipt. The original purchaser must return the

defective product to RSE along with a description of the problem, a copy of the original purchase receipt, the original bill of sale and all contact information (name, address, telephone number and email address). To begin the warranty process, the original purchaser must

email RSE's warranty department. During this warranty term, and upon the original purchaser's valid exercise of this warranty, RSE shall, at its option, repair or furnish the replacement product in the event the original product is deemed by RSE to be defective. RSE's sole liability shall be for repairing or

replacing the product, but RSE may refund the purchase price at its sole discretion and option. The original purchaser is responsible for prepayment of all shipping and/or transportation charges with respect to the exercise of this warranty. The product may change without

notice. In the event of a product change, RSE has no obligation to upgrade or modify any older generation product.

THE WARRANTY SET FORTH HEREIN IS THE ONLY WARRANTY COVERING THE PRODUCT. NO OTHER WARRANTY EXISTS, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY AND/OR FITNESS FOR A PARTICULAR PURPOSE. No retailer, reseller, dealer, agent, or employee is authorized to make any modifications, extensions, amendments, or additions to this warranty.

This warranty shall be void in its entirety if RSE determines that the product installation was modified, changed, altered, customized or in any way used other than as instructed. Installation of the product without strictly adhering to the installation instructions shall void this warranty. Installation must be on the proper vehicle or warranty is void.

RSE SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES, UNDER ANY LEGAL THEORY AND/OR UNDER ANY CIRCUMSTANCE WHATSOEVER. IN ANY EVENT, ANY DAMAGES IN ANY SITUATION SHALL BE LIQUIDATED DAMAGES AND MAY NOT EXCEED THE RETAIL PRICE OF THE PRODUCT. RSE SHALL NOT BE LIABLE FOR ANY LOSS, DAMAGE OR INJURY DIRECTLY OR INDIRECTLY ARISING FROM THE USE OF OR INABILITY TO DETERMINE THE USE OF THE PRODUCT. THE ORIGINAL PURCHASER IS RESPONSIBLE TO DETERMINE THE SUITABILITY OF THE PRODUCT FOR ITS INTENDED USE, PRIOR TO USING THE PRODUCT, AND THE ORIGINAL PURCHASER ASSUMES ALL RESPONSIBILITY AND RISK IN CONNECTION THEREWITH.

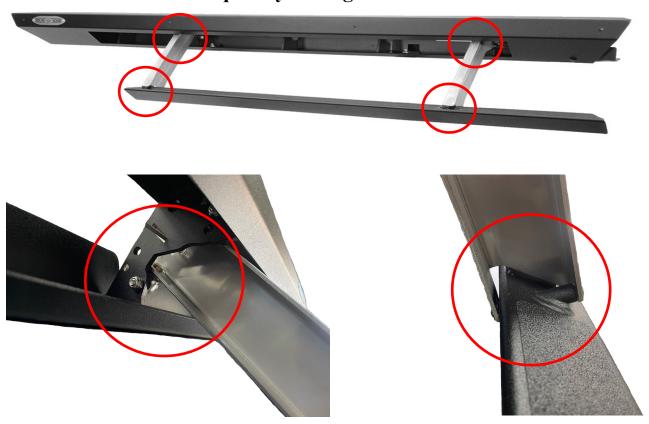
For questions or concerns: please contact our office at 435-752-4580 and ask for the warranty department or email us at warranty@rockslideengineering.com.



GENERAL MAINTENENCE MANUAL

To ensure your Step Sliders function properly, some maintenance is required!

Properly clean and lubricate your Step Sliders after any off-road adventure and frequently during winter months.



Deploy the steps to pressure wash the body of the Step Slider and the internals. Apply a multipurpose lubricant in each of the pivot joints, and a dry Teflon lubricant spray on the spring when clean.







Here are some lubrication options you can find in your local stores!



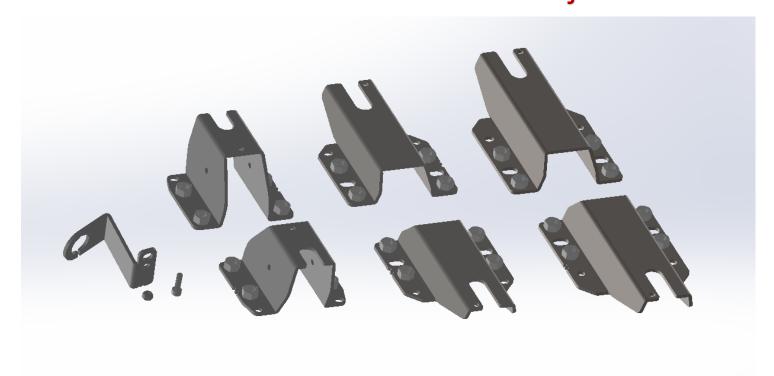
INSTALLATION ADDENDUM

2024 Jeep Wrangler & Gladiator

BD-SS-301-JL2

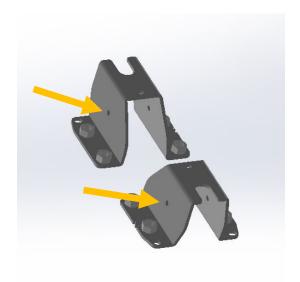
BD-SS-301-JL4

BD-SS-301-JT4



BODY BRACKETS

The 2024 models of the Jeep Wrangler and Jeep Gladiator required a change to the front brackets in order to properly mount. Visually the front brackets now have a hole in the sides to identify them as brackets for the 2024 model year. Installation is exactly the same as in previous model years. Check your hardware for the new front brackets before installing on a 2024 model year.



POWER SWITCH BRACKET

The other change in the 2024 model year is the location of the Power Switch Bracket up under the dashboard. With the ODB2 Port in a different position, you will need to use the included switch bracket with the provided nut and bolt to mount the bracket to the right of the ODB2 port. Locate the hole in the lower dash bracket and secure with nut and bolt.

