Thank you for purchasing Poison Spyder Front Crusher Flares for your Jeep JK. Installation is fairly simple with the right tools and good mechanical abilities. If you are not confident in your mechanical skills, please seek the help of a professional to perform the installation. Please read through these entire instructions before proceeding with installation.

PARTS LIST
Please check your packages immediately upon arrival to ensure that everything listed is included, and to check for damage during shipping. If anything is missing or damaged, call Poison Spyder at (951) 849-5911 as soon as possible.

(1) Driver side front JK Crusher Flare
(1) Passenger side front JK Crusher Flare
(1) Driver side upper sub-frame bracket
(1) Passenger side upper sub-frame bracket
(2) Lower sub-frame bracket
(2) Forward Crusher Flare rubber gasket
(2) Rearward Crusher Flare rubber gasket
(6) Inner fender liner “L” bracket
(18) 5/16-18 X 1 SS flat head cap screw
(10) 5/16-18 X 1-1/4 SS flat head cap screw
(4) 5/16-18 X 3/4” hex head cap screw
(4) 1/4-20 X 3/4 button head cap screw
(10) 5/16-18 U-nut
(22) 5/16-18 nylon insert lock nut
(4) 1/4-20 nylon insert lock nut

(26) 5/16 flat washer
(8) 1/4 flat washer

TOOLS NEEDED
• 1/2” open end wrench
• 10mm socket 1/4” drive
• Socket extension 1/4” drive
• Ratchet 1/4” drive
• 3/16” hex key
• 1/2” drill motor
• 1/4” drill bit
• 3/8” drill bit
• Small screw-driver or spud bar
• Removal tool for push-in retainer clips (see figure 1)
• Heavy shears or cut-off wheel
• Touch-up paint or clear coat

Optional if Installing LED Side Marker Lamps:
• Wire cutter
• Wire crimper
• Test light
• Butt connectors
• Heat-shrink wrap
• Heat gun
• Nylon tie-wraps (zip-ties)

Optional if welding upper sub-frame brackets (see step 17):
• Welder
4”. angle grinder or sander
• Die grinder or rat-tail file

INSTALLATION PROCEDURE
The following procedure is for preparation and installation of the JK Crusher Flare on one side of the Jeep. Once complete, repeat the procedure for the other side.

1. Park vehicle on a level surface and set the emergency brake. You will want to wear eye protection beyond this point in time.

2. Remove the inner fender by using a 10mm socket to remove the factory hex head bolts, and a push-in retainer removal tool to pop out the plastic push-in retainers.

Try not to damage the inner fender or the plastic retainers. Set the inner fender, all of the plastic retainers and hex head bolts aside, as some will be re-used during the installation process.

3. Disconnect the side marker lamp by pulling the wiring harness plug out of the lamp socket.

4. Remove the plastic fender/flare support. You may need to remove more hex head bolts and/or plastic retainer clips.

Set the fender/flare support aside. It will not be re-used.

5. Remove the stock fender flare. There will be several more plastic retainer clips to remove in order to remove the flare.
Some of these retainer clips are of a different type than the others, and are tougher to remove. Be careful when removing them not to bend or deform the Jeep body sheet metal. Set the stock fender flare aside. It will not be re-used.

6. **Pre-install the Crusher Flare.** Place it against the Jeep and line up the bolt holes. It will rest somewhat on the stock fender brace to make this task easier. Still, be careful while handling the Crusher Flare, to keep it from contacting the exterior finish of the Jeep and scratching the paint.

Pre-install two of the stainless steel flat head cap screws, one at each end of the Crusher Flare, to support and align the Crusher Flare during the next few steps.

Visually align the mounting holes in the Crusher Flare with the corresponding holes in the Jeep body before tightening the bolts. Note that some of the holes in the Jeep body are missing, these we will mark and drill in the following steps. Continue to check for alignment as you tighten the two pre-install bolts, and adjust as necessary.

7. **Mark where extra mounting holes** will need to be drilled. These are shown in Figure 12.
Use a fine tip felt marker to mark the holes. If your Jeep has black paint, as our test vehicle did, use a silver or gray marker to show up against the dark paint.

8. **Remove the Crusher Flare** from the Jeep. You’ll now see the marks you made for drilling the extra mounting holes.

9. **Use an auto-punch or** a center punch with small hammer to punch a pilot mark into the center of each of the hole marks you made. If you use a hammer and punch, be careful not to strike the punch too hard, as the sheet metal is thin and bends easily.

10. **Drill a pilot hole** at each drill mark using a 1/4” bit. Note that two of the hole marks will land on the edge bead of the sheet metal. You must be especially careful when starting to drill these two holes, as the bit will want to walk off of the bead. Hold the drill so that the bit is angled directly into the edge of the bead, wherever it happens to be along the curvature of the bead, in order to prevent walking.

Once all of the pilot holes are drilled, switch to the 3/8” bit and re-drill each hole out to its final size. Be careful when drilling, as the larger bit may want to grab the thin sheet metal and deform it. After the holes are drilled, apply some touch-up paint or clear coat to the bare metal of the hole edges to protect them from rust.

11. **Pre-Install one of the** Lower Sub-Frame Brackets into the area between the outer fender sheet metal and the inner tub bracing, as shown in Figure 17. The Lower Sub-Frame bracket is designed so that it may be used on either side, and it has no top or bottom to make orienting it confusing.
The holes on the Lower Sub Frame Bracket can only align with two specific holes in the outer fender, so position it until you have it properly aligned with the two holes.

12. With the Lower Sub-Frame Bracket in place, use the fine-tip felt marker to mark the two hole locations in the inner tub brace. Then remove the bracket.

13. Follow the same procedures as in steps 9 and 10 to punch and drill the two holes in the inner tub brace. Drill the 1/4” pilot hole first, then step up to the 3/8” bit. You will have to pass the bit through the hole in the outer fender to reach the inner tub brace. After the holes are drilled, apply some touch-up paint or clear coat to the bare metal of the hole edges to protect them from rust.

14. Re-install the Lower Sub-Frame Bracket. Use two 5/16-18 X 3/4 hex head cap screws with flat washers and nylon insert lock nuts to attach the bracket to the inner tub brace. Keep the holes in the bracket properly aligned with the holes in the outer fender as you tighten the bolts.

15. Locate the Upper Sub-Frame Bracket for the side you are working on. Note that there is a left and right bracket. Use the photos in the following steps to properly identify the correct bracket and its orientation for the side you are working on. Install a 5/16-18 U-nut into each of the five (5) holes along the top edge of the bracket. Orient the u-nut so that the threaded extrusion is toward the inside of the L-shape of the bracket, as shown in Figure 21.

16. Align the Upper Sub-Frame Bracket as shown in figure 22, and slide it upward between the outer fender sheet metal and the inner tub brace. It may be a tight fit, and could require a firm shove or two. Position it so that the threads of the u-nuts are roughly aligned with the 5 corresponding holes in the outer fender.
Re-use three (3) of the OEM metric hex head bolts to attach the Upper Sub-Frame Bracket, bolting them through the holes along the bottom of the bracket.

17. (OPTIONAL) If you plan to use your Jeep in extremely tough conditions, you may choose to add some strengthening welds to the Upper Sub-Frame Brace. We have provided four (4) extra holes in the bottom surface of the brace, as shown in Figure 24, where you may plug-weld it to the heavy-gauge metal of the inner tub support.

If you choose to weld, use the fine-tip felt pen to mark the areas through the holes, then remove the Upper Sub-Frame Bracket. Sand or grind the paint from the area of the Jeep’s inner tub where you intend to weld. Also, use a die grinder or rat-tail file to remove the powder-coat from the inner edges of the weld holes in the bracket. Then re-install the bracket and plug-weld at the designated holes. Allow the welds to cool, then apply some paint to protect the welds from rust.

18. Use a small screw-driver or spud bar to finish aligning the u-nuts with the holes in the outer fender. The u-nuts “float” somewhat and have some room for adjustment.

19. Re-install the Crusher Flare, but only install one of the flat head cap screws at this time, using one of the holes along the top edge, with the u-nut you installed previously. This is only to hold the fender while you install the rubber gaskets.

20. Locate the rubber gaskets that go between the Crusher Flare and the Jeep’s sheet metal. There are two pieces per side—front and rear—and you can identify them by shape. With the Crusher Flare loosely installed, slide the rubber gasket in between the Crusher Flare and the Jeep’s sheet metal, and align it with
21. Install the rest of the flat head cap screws that hold the Crusher Flare to the Jeep. Use the 1-1/4" long ones for the five (5) holes that are backed by the u-nuts you previously installed in the Upper Sub-Frame Brackets. Use the 1" long ones for the remainder of the holes, along with lock nuts and flat washers. Use the hex key and 1/2" wrench to tighten all but the three flat head cap screws that are along the inner, rearward edge (see step 23).

22. (OPTIONAL) If you are installing LED side marker lights (sold separately), do so now. Remove the OEM marker light pigtail from the harness, at the plug as shown in figure 28. Press on the tang with your index finger, as shown in the photo, to free the plug from the socket while pulling.

Cut the OEM pigtail approximately 2” from the plug you just removed, and discard the opposite end. Use butt connectors to attach the OEM pigtail plug to the LED pigtail. Note that on the LED’s sold by Poison Spyder, the white wire is ground and the black wire is positive. Use a test light to determine which wire on the factory harness is ground and which is positive, then make the appropriate connections. Use heat-shrink wrap to protect the connection. Install the LED into the small hole in the forward corner of the Crusher Flare mounting plate using the supplied rubber grommet. Then plug the pigtail (now with the OEM plug) into the socket in the factory harness. Use a couple of nylon tie-wraps (zip-ties) to secure any slack in the pigtail wiring.

NOTE: If you intend to trim and re-use the factory inner fender liner, proceed to the following steps. If you do not intend to use it, you are finished and may continue by repeating the entire procedure for the remaining side.

23. Install three (3) Inner Fender Liner “L” Brackets at the three bolt locations left loose in step 21. The flat head cap screw should pass through the slotted hole in the “L” bracket.

Adjust the “L” bracket so that the flat surface of the bracket is parallel with, but recessed between 1/16” and 1/8” back from, the edge.
of the Crusher Flare mount plate. Tighten the lock nut on each bracket.

24. **To re-install the OEM** inner fender liner, it must first be trimmed to fit. Be aware that proper trimming of the OEM inner fender liner requires care, attention and patience. We cannot provide a cut template for this, so you will have to rely on your own test-fitting, marking, cutting and trimming to provide the best fit. Begin by holding the plastic inner fender up in the wheel well, as close to its mounting position as possible. Use a fine-tip felt marker to designate your initial rough cut lines. Be conservative, only mark and cut away the most obviously unneeded parts first.

25. **Once the inner fender** liner is trimmed to fit, attach it by first removing the two previously-installed bolts from Upper Sub-Frame Bracket that appear through the access holes in the inner fender liner. Remove each of these bolts, place one of the provided 5/16 fender washers under the head of each, then re-install and tighten.

Once the large parts are out of the way, test-fit the inner fender again and make marks for more fine-tuned trimming. It should take several of these steps to finally get it right. Just be sure not to cut away too much in any step, be patient and you will eventually get it just right.

26. **At the rearward edge** of the inner fender liner, mark where the holes in the “L” brackets are located behind the inner fender.

The inner fender liner is flexible plastic, and you will be able to pull it away enough to take your measurements. Mark the hole locations then drill the three holes with a 1/4” bit.
27. Re-use three (3) of the OEM plastic retainer clips that were removed at the beginning of this procedure. Use one at each of the three holes you just drilled. Insert the retainer into the hole in the inner fender liner, and through the corresponding hole in the “L” bracket. Push firmly into place until the head of the retainer is snug against the surface of the inner fender liner.

28. Toward the front of the inner fender liner, there is a small hole in the OEM tub frame brace, behind the inner fender liner, as shown in figure 37.

Transfer the location of this hole to the surface of the inner fender liner, mark and drill a corresponding hole with the 1/4" bit. Install another of the OEM plastic retainer clips at this location.

29. Repeat the procedure for the opposite side.

Congratulations, you have completed the installation of your Poison Spyder JK Crusher Flares!
WARRANTY

Poison Spyder Customs™ warranties all of the products we sell and distribute for one (1) year from the date of sale. These products will be free from defects in material and workmanship under normal installation, and use. Due to the intended use the powder coat finish is warranted for ninety (90) days. The finish warranty will not cover a product if it has been damaged in any way. Warranty is limited to repair or replacement. Poison Spyder Customs™ does not offer any type of labor or shipping allowance and all warranty claims are subject to inspection by Poison Spyder Customs™.

At the discretion of Poison Spyder Customs™, the products in question can be repaired or replaced when found defective. Prior to any replacement or repair, written authorization must be obtained from Poison Spyder Customs™. Failure to contact us prior to having warranty work performed will immediately void all applicable warranties; and it is then the sole responsibility of the customer to remit any payment incurred.

The warranty expressed above is the sole warranty of Poison Spyder Customs™, and any other expressed or implied warranties are hereby specifically excluded and disclaimed.

HOLD HARMLESS AGREEMENT

1. In purchasing a Poison Spyder Customs Product™ I release, waive, discharge and covenant not to sue Poison Spyder Customs officers, servants, agents, or employees (hereinafter referred to as Releasees) from any and all liability, claims, demands, actions and causes of action whatsoever arising out of or related to any loss, damage, or injury, including death, that may be sustained by me (or anyone else), any property belonging to me (or anyone else), whether caused by the negligence of the releasees or otherwise, while working on, using or any activity related to this product.

2. I am fully aware of risks and hazards connected with the use of a this product and I elect to voluntarily engage in such use of this product knowing that the use may be hazardous to me and my property. I voluntarily assume full responsibility for any risks of loss, property damage or personal injury, including death, that may be sustained by me (or anyone else), or any loss or damage to property owned by me (or anyone else), as a result of using this product, whether caused by the negligence of releasees or otherwise.

3. I further agree to indemnify and hold harmless the releasees from any loss, liability, damage or costs, including court cost and attorney fees, that they may incur due to my use of a this product, whether caused by negligence of releasees or otherwise.

4. It is my express intent that this Release and Hold Harmless Agreement shall bind the members of my family and spouse, if I am alive, and my heirs assigns and personal representative, if I am deceased, and shall be deemed as a release, waiver, discharge, and covenant not to sue the above named releasees. I further agree that this Waiver of Liability and Hold Harmless Agreement shall be construed in accordance with the laws of the State of California.

By accepting this product, I acknowledge and represent that I have read the above Waiver and Liability and Hold Harmless Agreement, understand it and accept it voluntarily as my own free act and deed; no oral presentations, statements, or inducements, apart from the foregoing written agreement, have been made; I am at least eighteen (18) years of age and fully competent; and I execute this Release for full, adequate and complete consideration fully intending to be bound by same.

If you do not agree with the preceding Hold Harmless Agreement, you may return the product and receive a full refund. Please, contact a Poison Spyder Customs™ sales representative and they will issue a call tag for the product in question. Once the product has been received by Poison Spyder Customs™ a full refund will be issued.