



TJ/LJ-YJ-CJ DEFENDERS INSTALLATION



Thank you for purchasing Poison Spyder DeFenders™ for your Jeep. 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.

IMPORTANT: Completely install and remove the DeFenders™ prior to painting or powder coating it. This will allow you to check for fitment or do any clearancing or fitting ahead of time, to reduce the chance of damage to the finish during final installation. Poison Spyder Customs Inc. is not responsible for costs for or damage to paint or powder coat finish under any circumstances, including paint or powder coat of incorrectly shipped or defective parts.

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 DeFender™
- (1) Passenger side DeFender™
- (1) Driver side DeFender™ Side Insert
- (1) Passenger side DeFender™ Side Insert
- (1) Battery Tray Bracket (TJ/LJ Only)
- (10) 1/4-20 X 3/4 SS button head cap screw
- (10) 1/4-20 nylon insert lock nut
- (10) 1/4 flat washer

- (14) 1/4-20 X 3/4 SS button head cap screw

TJ/LJ CJ-YJ

- (4) (6) 5/16-18 X 1 SS button head cap screw
- (4) (6) 5/16-18 nylon insert lock nut
- (4) (6) 5/16 fender washer

TOOLS NEEDED

- Fine-tip felt marker & measuring tape
- Sockets, ratchet, end-wrenches and hex keys
- Cut-off wheel, pneumatic body saw, plasma cutter or reciprocating saw (or other suitable cutting device)
- Grinder or flap wheel, sanders, file, etc.
- Drill motor with 1/4" and 3/8" drill bits
- Touch-up paint

INSTALLATION PROCEDURE

NOTE: the following steps denote the procedure for making the necessary cuts to the stock fenders, with the fenders and inner fenders not fully removed from the Jeep. Some customers have reported they found it quicker/easier to remove the entire fender from the Jeep to make the necessary cuts to the fender on a workbench. You may choose either method at your discretion, but note that if removing the entire fender to make the cuts, you will need to remove and reinstall all of the under-hood components that mount to the inner fender, for which we do not provide a detailed procedure.

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 any existing plastic fender flares** from the vehicle. Remove the hood latches.
3. **(TJ/LJ ONLY) Disconnect and remove** battery, battery tray, and battery tray bracket. Retain the OE hardware.
4. **Disconnect all turn signal wires** from the turn signal light housing. Check for any other loose wiring and be sure it is out of the way.



FIGURE 1

5. **Remove the three bolts that** attach the stock fender to the grill. Set these bolts aside, they will be re-used to mount the DeFender™.
6. **Loosen the bolts that attach** the fender to the firewall. Thread them most of the way out but leave them in for now. This will allow you to move the fender around slightly during the next few steps. You may find that you need to remove these bolts entirely in order to proceed during the cutting process.
7. **Use a measuring tape and fine tip felt marker** to place a cut line along the top surface of the fender, 1-1/4" from the vertical flange as shown in the photo.



FIGURE 2

8. **At the back of the fender**, end your cut line at a point even with the back side of the grille, and turn it inward toward the vertical flange. At the flange, continue your cut line forward, along the crease where the fender sheetmetal curves downward to mate up with the side of the grille. See the photo below for reference. The cut line will continue forward but we will come back to it in a later step. Note that there will be a small portion of the vertical flange that will be removed, as shown in the photo.

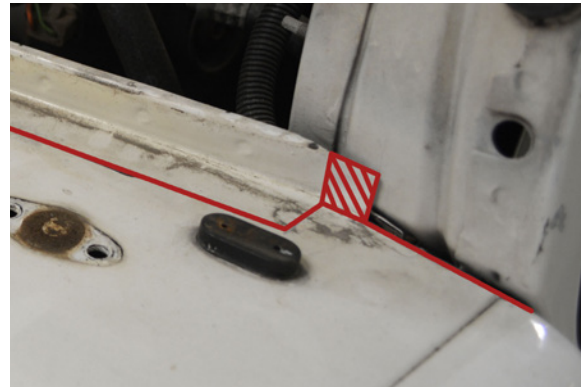


FIGURE 3

9. **At the back of the fender**, closer to where it joins the firewall, trace a line that begins 1/4" from the vertical flange and continues forward, parallel to the outside edge of the fender, to where it joins with the previous line. The resulting cut line should look like the one in the photo below.



FIGURE 4

10. **Continuing at the front of the fender**, continue the cut line along the front of the fender adjacent to where it meets the grille. Continue the cut line downward until it reaches the edge of the fender. Place a rag or other suitable object between the fender and the grille to space it apart to gain access to the cut line with your cutting tool.



FIGURE 5

11. Cut along the traced cut-line with a pneumatic body saw, reciprocating saw, cut-off wheel or other appropriate cutting tool. Note that the sheetmetal is double thickness along the back portion of the fender. Also you will need to further loosen or remove the firewall bolts in order to pull the fender away from the firewall to continue your cut to the end.



FIGURE 6

12. When cutting along the front portion near the grille, be careful not to damage the grille with the cutting tool. This is why the spacer inserted between the fender and the grille is important.



FIGURE 7

13. Once the outer sheetmetal is cut, you will need to go underneath the fender to finish some of the cuts. At the front of the fender, you may need to finish cutting through the thick metal hood latch support from the underside.



FIGURE 8

14. Toward the back, from underneath, notice that the rear of the inner wheel well continues downward from where you had cut through the top surface of the fender. You will want to cut downward from the point of the top-surface cut, continue as close to the outer sheetmetal skin as possible. You may be limited by your cutting tool with regards to how close to the outer sheetmetal you can cut. Mark a cut line, trying to leave as much of this inner wheel well as possible.



FIGURE 9

15. Cut along the traced cut-line with a pneumatic body saw, reciprocating saw, cut-off wheel or other appropriate cutting tool.



FIGURE 10

16. All of the major cutting is now complete, however you may find that you need to do further cutting at various inner flanges and corners, in order to fully free the cut-away portion of the fender. Once this has been done, lift the cut portion away and set it aside.



FIGURE 11

17. There may be a fender support bar behind the inner wheel well, that braced the fender to the firewall. Remove it if the material it had been attached to has been cut away.



FIGURE 12

18. At this point your work should look somewhat like the photo below, with only the inner fender and a narrow strip along the top of the outer fender remaining. *NOTE: your*

stock inner fender will NOT be attached to the Jeep's tub at this time—at this point in the installation process it will be unsupported except by the accessories bolted to it. This is normal. It will regain its rigidity once the DeFender™ has been installed.



FIGURE 13

19. Note the remnants of the stock fender bracing where the fender attaches to the grille, near the top, as shown in the photo below. These will need to be ground flush and smoothed out.



FIGURE 14



FIGURE 15

20. Use a file or sander to de-burr and smooth all of the cut edges. Then paint the bare metal

around all cut edges to protect against rust. Allow the paint to dry before proceeding.



FIGURE 16

- 21. Loosen the front center body mount,** located directly under the grill, as well as the two grille support rods that extend from the firewall to the grille. This will allow the grille to float slightly while fitting the DeFender™.



FIGURE 17

- 22. Carefully position the DeFender™ in place.**



FIGURE 18

- 23. Ensure that the 1-1/4" wide strip of remaining material from the original fender is under the top surface of the DeFender™,** and that the original part of the fender that bolted to the side of the grille is sandwiched between the

corresponding part on the DeFender™, and the side of the grille, as shown in the photo below. Also make sure the sheetmetal at the back of the inner wheel well is positioned behind the wheel well mounting tabs on the DeFenders™.



FIGURE 19

- 24. Use the OE hardware to bolt the DeFender™ to the firewall and to the grille.** Leave the hardware somewhat loose until both DeFenders™ are installed to this point in the instructions. On CJ's, the headlight bezel and assembly will need to be removed to access the top nut (this is the second hole down from the top, and not an original fender mounting hole which is now blocked by the new DeFender™).



FIGURE 20

- 25. Once both DeFenders™ are loosely installed,** tighten all mounting hardware. Check and adjust alignment as you tighten the hardware. Make sure the hood closes without interference, and check that all body lines match up while the hood is closed. Once everything is correctly aligned, re-tighten the front-center body mount and the two grille support rods, then fully tighten the

hardware attaching the DeFenders™ to the firewall and grille.



FIGURE 21

26. Loosely install two (TJ/LJ) or three (YJ-CJ) each of the provided 5/16-18 X 1 SS button head cap screws, 5/16-18 nylon insert lock nuts, and 5/16 fender washers, where the inner wheel well mounting tabs on the DeFenders™ meet the inner wheel well. It may be necessary to enlarge or drill new holes in the inner wheel well. Also, depending on how much of the inner wheel well you managed to leave when cutting, there may be a vertical gap between the edge of the wheel well and the inside wall of the DeFender. If desired, the installer may fashion a sheetmetal or rubber strip to span this gap to keep mud from splashing past the inner wheel well. Otherwise it may simply be left open to promote airflow through the engine bay.

27. Make sure the top edge of the inner fender is snug against the inner edge of the DeFender™ and firmly clamped in place, and drill all ten inner fender mounting holes, using the holes in the DeFender™ as your drill guide. (Note: on some models the forward-most of these holes might not be used, depending on the amount of material removed in the cutting steps). Use the provided 1/4" hardware to attach the inner fender to the DeFender™. On CJ/YJ, use the provided 3/8" hardware to bolt the inside of the DeFender™ to the stock inner fender.

28. (TJ/LJ ONLY) Install the provided Battery Tray Bracket in the same position as the removed OE bracket, using the OE hardware. Reinstall the battery tray and battery, reconnect the battery.

29. Install the Side Inserts using the provided 5/16-18 X 3/4 SS button head cap screws. Note that the Side Inserts come with pre-installed nuts. The insert is designed to be placed on the inside surface of the DeFender™, with the pre-installed nuts facing toward the center of the Jeep.

30. Re-install the hood latches to the top of the DeFenders™.



FIGURE 22

NOTE: It is recommended to relocate turn signals in accordance with your local laws. If you wish to convert to high intensity 3/4" round LED turn signals, the DeFenders™ have a small hole located near the front where it meets the grille, especially for this use. Note that this lamp requires some wiring skill to install, may also require a special "flasher" module, and will only function as either a running light or turn signal (but not as both)

CONGRATULATIONS! You have completed your installation of Poison Spyder DeFenders™!

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 preformed 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.