



INSTALLATION INSTRUCTIONS

JK Bruiser™ Front Bumpers

IMPORTANT: Thank you for purchasing this Poison Spyder product. Please read through this entire document before proceeding with installation. If you are not confident in your mechanical skills, please seek the help of a professional to perform the installation. Check your packages immediately upon arrival to ensure that everything listed is included, and to check for damage during shipping. This document last updated April 2018.

APPLICATIONS

These installation instructions apply to the following Poison Spyder products:



17-57-010DBTP1 JK Bruiser Front Bumper (shown above)

17-55-010DBTP1 JK Bruiser MID Front Bumper

PARTS LIST

Please check your packages immediately upon arrival to ensure that everything listed is included, and to check for damage during shipping.

- (1) JK Bruiser™ Front Bumper
- (1) JK Bruiser™ Recessed Winch Cradle
- (2) JK Bruiser Frame Mount Spacer Plate
- (2) Nut Plate
- (1) JK Bruiser™ Front Bumper Hardware Kit
PN: HWKIT-17-57-010 Includes:
 - (10) 1/2" Hardened Flat Washer
 - (8) 1/2-13 Gr8 Nylon Insert Lock Nut
 - (4) 5/16-18 clip-nut
 - (2) 1/2-13 X 1 Gr8 Hex Head Cap Screw
 - (4) 5/16-18 X 1 SS Flat Head Cap Screw
- (1) Vac Pump Relocation Bracket
PN: 17-16-100P1
- (1) Sway Bar Spacer Passenger Side (Vac Pump Relocation)
- (1) Vac Pump Relocation Hardware Kit
PN: HWKIT-17-16-100P1 Includes:
 - (2) 1/4"-20NE 18-8 STAINLESS STEEL NYLON INSERT LOCK NUT
 - (2) "1/4"-20 x 1.5" 18-8 STAINLESS STEEL BUTTON HEAD SOCKET CAP SCREW"
 - (4) "1/4" HIGH STRENGTH SAE YELLOW ZINC FLAT WASHER

YZ THRU HARD"

TOOLS NEEDED

- Mechanic's tool set with assortment of metric and SAE hand tools
- Dead blow hammer or rubber mallet
- Protective tape, film or blankets

INSTALLATION PROCEDURE

1. **Park vehicle on a level** surface and set the emergency brake. You will want to wear eye protection beyond this point.
2. **Remove the plastic lower air dam.** Use a push-in retainer removal tool to pop out the plastic push-in retainers along the front edge and also underneath/behind the air dam where it attaches to the crash bar. If you do not have a push-in retainer tool, a flat-edge screwdriver or small pry-bar may be used.



3. **If your Jeep is equipped** with factory fog lamps, reach behind the bumper and disconnect the wiring harness plugs from the sockets at the back of each lamp. A small flat head screwdriver may be useful to release the tangs on the plug
4. **Use a ratchet and 19mm** deep socket to remove the eight (8) nuts that fasten the bumper to the frame. There are two of these nuts on the inner side, and two on the outer side, of each frame rail where it joins the bumper.



With these nuts removed, remove the bumper from the Jeep.



- 5. Remove the plastic top bumper cover.** You may be able to remove the two plastic screws with a Phillips screwdriver. But it is likely they're "frozen" in place and will have to be pried up with the push-in retainer removal tool.



- 6. Remove the two bolts that hold the vacuum pump into the mount on the Jeep's frame.**



- 7. Disconnect both hoses from the vacuum pump.**



- 8. Disconnect the vacuum pump's electrical wire pigtail from the vehicle wiring harness by separating the connector.**



- 9. There are two rubber bushings in the mounting flanges on the vacuum pump, with steel sleeves inserted**

into these bushings. Remove the steel sleeves, then re-insert them into the rubber bushings from the opposite side of the mounting flange. This will move the flat washer surface of the steel sleeve to the other side of the rubber bushing.



10. Attach the vacuum pump into the relocation bracket, oriented as shown in the photo. Use the supplied 1/4-20 X 1-1/2 SS Button Head Cap Screws, SS lock nuts and washers.



11. Loosen the two bolts that hold the sway bar bushing block to the underside of the driver side frame rail.



12. Insert the mount flange of the vacuum pump relocation bracket between the swaybar bushing block and the underside of the driver side frame rail. Reinstall and re-tighten the two swaybar bushing blocks.



13. Loosen the two bolts that hold the sway bar bushing block to the underside of the passenger side frame rail, and insert the swaybar spacer in between the swaybar bushing block and the frame rail.



14. Reinstall and re-tighten the two swaybar bushing blocks.



- 15. Re-attach the two vacuum hoses** to the canister. Re-attach the electrical pigtail to the wiring harness. Use zip-ties to secure any loose hoses or wiring.



- 16. Use a reciprocating saw or cut-off wheel** to remove the original vacuum pump mount bracket from the inside of the frame. If retaining the factory "crash bar", be careful to not cut through the crash bar upright mount. Use a grinder or flap wheel to smooth the cuts, then paint any resulting bare metal with touch-up paint to inhibit rust.



IMPORTANT: If installing the optional Skid Plate, refer at this point to the instructions that came with the Skid Plate, and proceed with those steps. Return to these instructions and proceed with the next step, below, once the Skid Plate installation instructions have been completed.

- 17. Drop the Recessed Winch Cradle** into place between the frame rails. The cradle will have to be dropped down

from above, to clear the bumper mounting flanges on the ends of the frame rail.



- 18. Temporarily "hang" the Cradle** by the resting the right-angle flanges on to the tops of the Jeep's bumper mounting flanges.



- 19. Insert a Nut Plate** into the "crash bar" vertical support. Make sure the flush side of the nut plate is facing toward the center of the Jeep.



- 20. Insert a 1/2-13 X 1 Gr8 Hex Head Cap Screw** with 1/2" Flat Washer through the corresponding hole in the side of the Recessed Winch Cradle, through the crash bar vertical support, into the Nut Plate. Leave this fastener loose.



- 21. Repeat the Nut Plate installation for the other side of the Recessed Winch Cradle.
- 22. Install the supplied 5/16-18 clip-nuts into the four nut flanges along the front of the Recessed Winch Cradle. Make sure that the extruded barrel of the clip-nut points downward through the hole in the flange.



- 23. A rubber mallet or soft dead-blow hammer may be needed to properly seat and position the clip-nuts.



- 24. Place the winch into the Recessed Winch Cradle. If the winch is new, install it without the cable or rope. If the cable or rope is already installed, it will need to have a removable hook or thimble. Otherwise the cable or rope will need to be un-spooled prior to this step, and re-spooled after the end of the bumper installation. It is also recommended to hook up your winch wiring at this time.



- 25. Install the four mounting bolts that came with your winch, through the bottom of the Recessed Winch Cradle, into the mounting nuts in the winch.



- 26. Tighten the four winch bolts to whatever specification is recommended by the winch manufacturer.



- 27. Pre-position the two Frame Mount Spacer Plates, between the Recessed Winch Cradle and the bumper mounting flanges on the ends of the Jeep's frame rails. Slightly loosen the previously-installed Nut Plate bolts, if necessary, to allow necessary movement of the Cradle. But keep the Nut Plate bolts tight enough to hold the Spacer Plates in place, once positioned.



28. Note that the Spacer Plates are not symmetrical and must be oriented correctly, to match the four corresponding bolt holes in the Cradle and the frame. A spud bar or pry bar will be helpful in fine-tuning the placement of the spacer plate.



29. Pre-install a pair of LED cube lights (sold separately) into the light mounts of the Bruiser bumper. Use the mounting brackets that were supplied with the lights, to mount them to the light pedestals welded into the interior of the Bruiser bumper. Adjust the position of the light so that it is flush with the exterior surface of the bumper.



30. Install a winch fairlead (sold separately) to the front of the Bruiser bumper, using the provided mounting holes, and the hardware that was supplied with the winch fairlead.



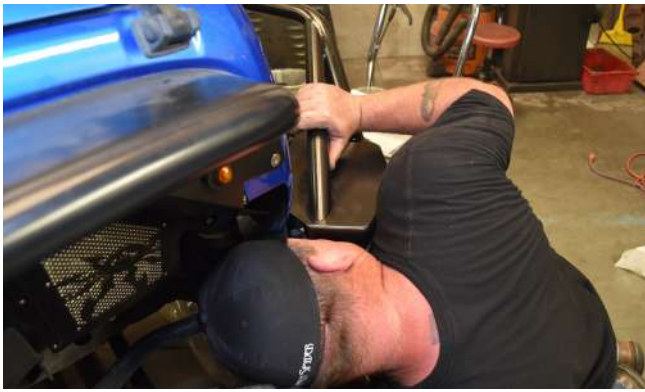
31. With the help of a friend, move the bumper (and pre-installed skid, if desired) into position close to the front of the Jeep. A padded surface to set the bumper close to the Jeep is helpful. Thread the end of the winch rope (if present) through the fairlead. Also make sure the wiring pigtails for the LED lights are positioned out of the way, so they don't get caught between bumper mounting surfaces.



32. With the help of a friend, lift the bumper/skid assembly into position on the Jeep.



33. There are floating bolt plates pre-installed inside the Bruiser bumper. These bolts interface with the four large bolt holes on each of the two mounting flanges on the ends of the Jeep's frame rails. The bolt plates are "floating", that is, they can move around slightly, in order to accommodate slight variations in the Jeep manufacturing tolerances. However, this can make it somewhat tedious to get all 8 mounting bolts started into their corresponding bolt holes.



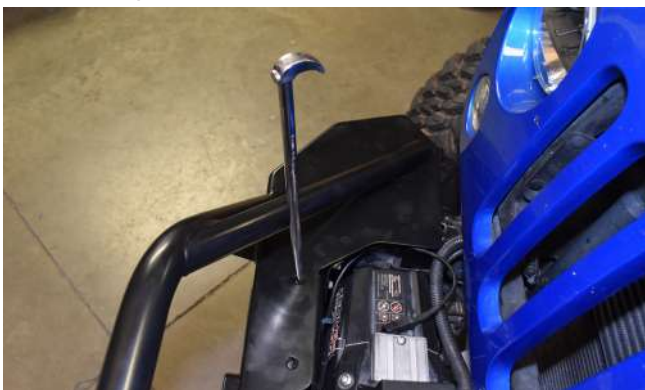
34. The best strategy is to first try to get one nut threaded on, on either side of the bumper, to start. Once there is at least one nut started on either side, it will be easier to coax the remaining threaded studs through their corresponding bolt holes.



35. Once the bumper has been drawn into place by tightening the mounting nuts, make sure there is a flat washer installed under each of the mounting nuts, then fully tighten all 8 of them. A deep socket with an extension will be required to reach each nut from the back side of the bumper.

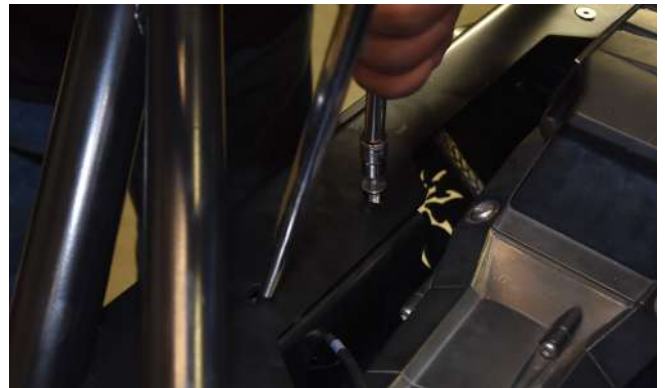
36. Final-tighten the two Nut Plate bolts at either side of the Recessed Winch Cradle.

37. Use a spud bar to get each of the previously-installed Clip Nuts aligned with the corresponding holes in the Bruiser bumper.



38. Insert a provided Stainless Steel Flat Head Cap Screw into each of the four counter-sunk holes along the top

of the Bruiser bumper, into the corresponding previously-installed clip-nuts. It may be necessary to use the spud bar, in the adjacent hole, to help with alignment while installing these fasteners. Leave all of the flat head cap screws loose until all of them are started.



39. Use a wrench to final-tighten the flat head cap screws. Note that stainless steel is a softer alloy than the hardened steel of the clip-nut, and it may gall or strip if cross-threaded or over-tightened. Do not over-tighten.



40. Installation of the Bruiser bumper is now complete. Finish your installation by making your wiring connections for lights, and attaching winch thimble (or installing rope).



Congratulations, you have completed the installation of your off-road bumper!