

Savvy Off Road Corner Armor TJ/LJ 1997-2006

Thank you for purchasing our Savvy Off Road Corner Armor. Stock lights and flare compatible. Our corners cover the complete corner. No cutouts around the tailgate hinge. Includes all SS hardware, nutserts. The reinforcement 3/8" aluminum backing plates is an option that makes the tub even stronger.

Enclosed you will find a set of instructions that will enable you to install the Corner Armor with a minimum of fuss and little more than basic hand tools. If you are not comfortable with your mechanical ability when it comes to performing work on your vehicle's, please enlist the aid of a competent mechanic to assist you with this installation. If you attempt the install and find yourself not understanding what needs to be done, please stop and contact Savvy Off Road with your technical issue. Do not attempt alternative solutions that may alter the design or function of any of the components included in this kit.

Please take the time to read these instruction and familiarize yourself with the hardware parts list before attempting your installation. The instructions are lengthy, but are written to provide you with a step-by-step guide to install the Savvy Rear Bumper with minimal issues. If you run into problems feel free to call us or email us for technical support.

Parts and tools needed for installation- Outside of the parts supplied in the kit, you will need personal safety equipment, assorted hand tools, drill, a 3/8" drill bit, a 17/32" drill bit and #4 Phillips Bit Socket to complete the installation.

Hardware Parts List

<u>LJ QTY</u>	<u>TJ QTY</u>	<u>Description</u>
2	2	Aluminum Corner Guards
4	2	Aluminum Tub Backers
2	2	Aluminum Tailgate Hinge Spacers
1	1	Nutsert tool
10	10	5/16"-18 Flanged Nutserts
31	23	5/16"-18 Serrated Flange Nut
33	33	5/16-18 x 1" Flathead Phillips Machine Screw
6	—	5/16-18 x 1 1/2" Flathead Phillips Machine Screw



Step 1



As in all things automotive repair related, be safe, wear appropriate safety gear.

Savvy Off road aluminum products are designed to be coated or finished and not left raw. It's best to do this before starting the installation.

In order to install your Savvy Corner Armor please remove the follow components:

- Tailgate Hinges
- Tailgate
- Tail Lights
- License Plate Holder
- Remove Gas Filler Bezel
- Rear Wheel Well Liners
- Rear Fender Flares

Step 2



First remove the tailgate hinge bolts from the tub and tailgate. Be careful not to drop your tailgate!

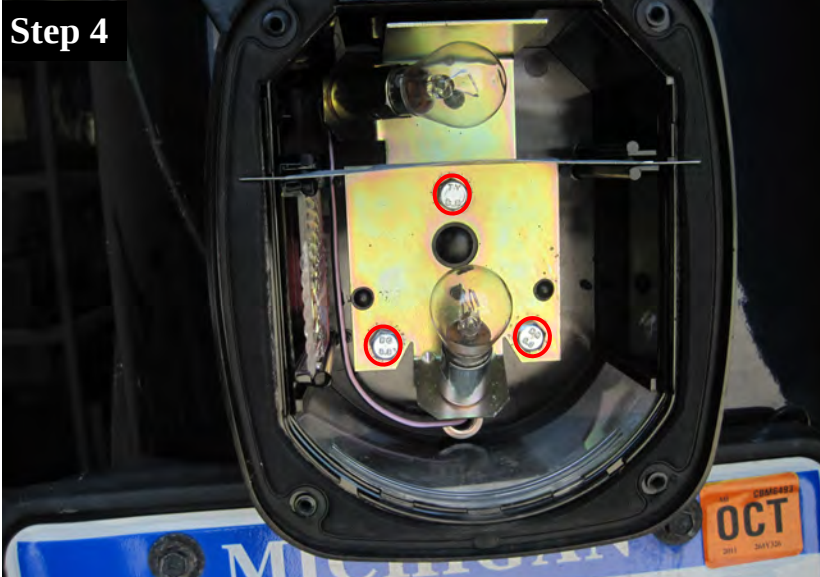
Depending on year model the tailgate bolts are either Torx Head Bolts (T-40 socket) or Hex head Bolts (13mm socket). Remove all 8 bolts and set aside for reuse.

Step 3



Now its time to remove the tail lights. Start by removing the 4 phillips head screws highlighted in green. Use a flat head screwdriver to pop the lens off the tail light.

Step 4



Under each tail light are 3 hex head screws (10mm socket). Remove and set aside for re-use.

Gently remove the tail light housing from the body of the vehicle. On the back you will see an electrical connector possibly wrapped in foam. Remove the foam if necessary, and unplug the electrical harness of tail light housing.

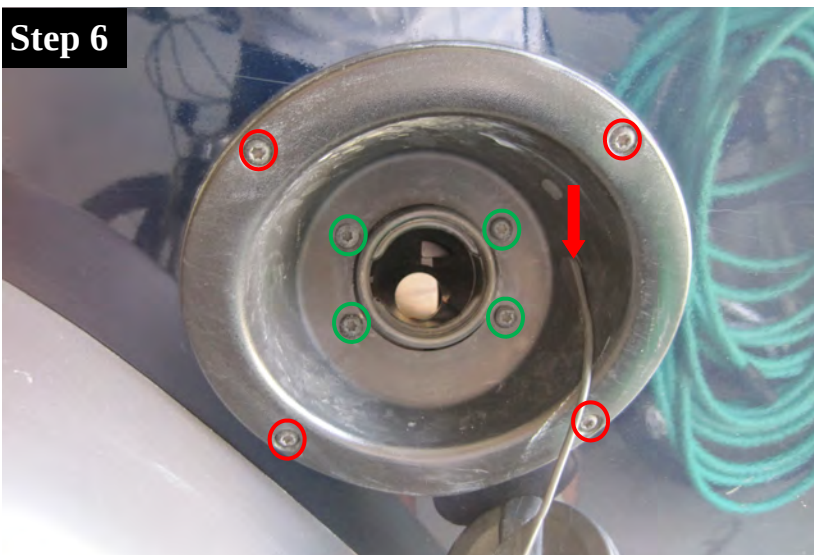
Be sure to observe that the tail light housings are different. The driver side tail light housing has a clear lens at the bottom to illuminate the license plate.

Step 5



Now using a 10mm socket remove your license plate and you will see the 4 highlighted bolts. Remove these bolts and set aside for reuse.

Step 6



Moving to the driver side of the vehicle remove the 8 torx screws as shown.

Tip- after removing the gas filler bezel, take the gas cap off the tethered location and reinstall gas tank cap. (red arrow)

Step 7



Now remove the rear wheel well liners. Remove all plastic push-in fasteners. Be sure to remove all of them before attempting to remove plastic liners. Remove and set aside for reuse.

Remove each fender flare. There are eight 8mm socket head fasteners held in by plastic nuts. Remove hardware and set aside for reuse.

Step 8



Starting on the driver side of the vehicle align and locate the corner armor with the fender flare holes, gas filler bezel holes and tail light holes.

Clamp the corner armor to the tub using spring load clamps or C-clamps as shown. Using your corner armor as a guide, mark, center-punch and drill a pilot hole for each countersunk hole. Un-clamp and remove Body Armor to enlarge all holes using a 3/8" drill bit.

Use a metal file or slightly larger drill bit to clean any excess metal shavings to help with a flush installation.

LJ Owners:

The holes shown in red are double walled, Be sure to drill all the way through to the inside of the tub.

Step 9



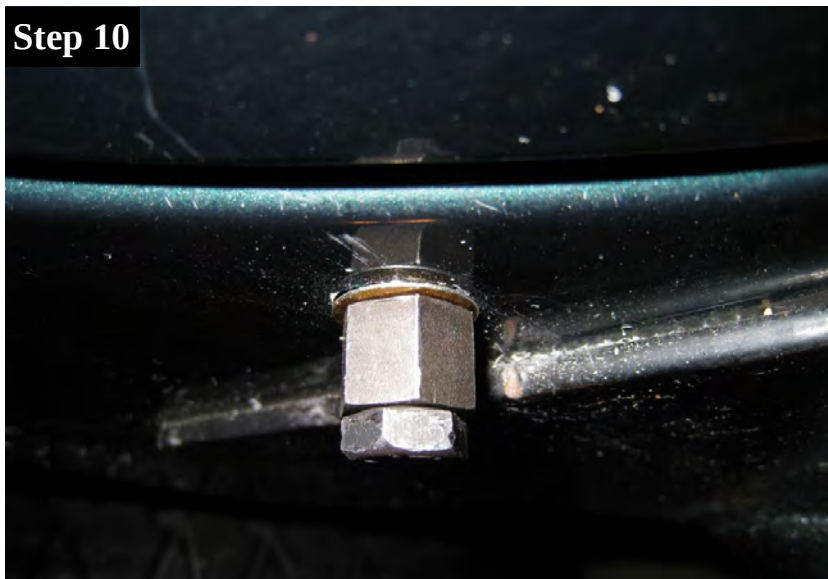
Nutsert Installation Please read FIRST

Nutserts will be required in any mounting hole where interior access for the flange nut is unavailable. In those locations, the holes will have to be enlarged using the 17/32" drill bit for the nutsert. The hole locations where nutserts are needed are identified in later steps.

Once the holes have been enlarged, apply anti-seize to the threads of the nutsert tool before threading on each nutsert.

Using the Nutsert installation tool, screw a nutsert onto the tool and bolt and insert into hole.

Step 10



Push the nutsert into the hole so that the installation is flush.

Step 11



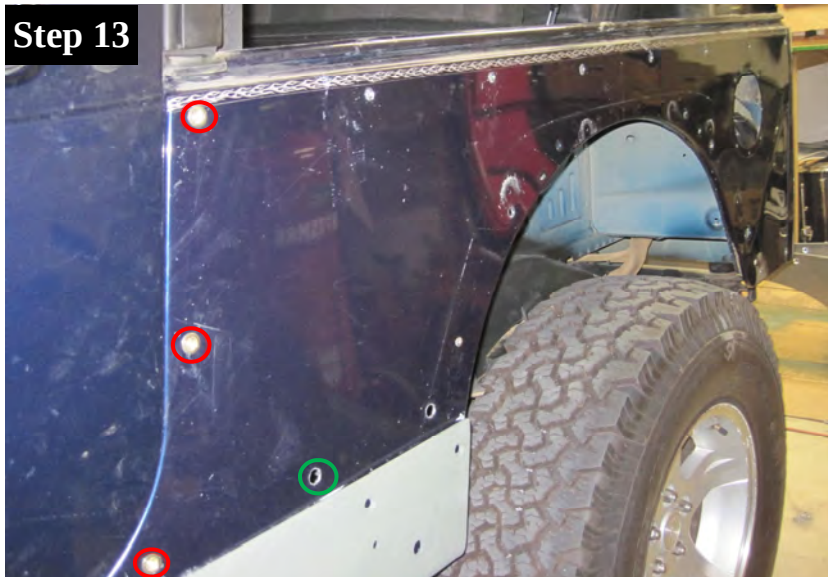
Hold nutsert tool body with a 9/16" open ended wrench (with nutsert flush to the body) and tighten down the 1/2" bolt with socket just past where the nutsert stops turning (take care to not over tighten). Unscrew the nutsert installation tool and repeat for all holes needing nutserts.

Step 12



In those locations, the holes will have to be enlarged using the 17/32" drill bit for the nutsert. Install the nutsert as shown in steps 9-11.

Step 13



LJ Owners:

In those locations, the holes will have to be enlarged using the 17/32" drill bit for the nutserts. Drill the 3 holes identified in the red circles only. Install the nutsert as shown in steps 9-11.

TJ Owners:

In those locations, the holes will have to be enlarged using the 17/32" drill bit for the nutserts. Drill all 4 holes identified in the red and green circles. Install the nutsert as shown in steps 9-11.

Step 14



It's best to install the Corner Armor working from the front to the back of the vehicle panel.

LJ Owners:

There are two set of aluminum reinforcement backers for each side of vehicle. Use one of each size for each side of the vehicle. Shown here is the three hole backer starting from the front of the vehicle.

Loosely install (3) 5/16-18 x 1 1/2" Flathead Phillips Machine Screw and Serrated Nuts in the locations shown. (red arrows) Move on to Step 15.

TJ Owners:

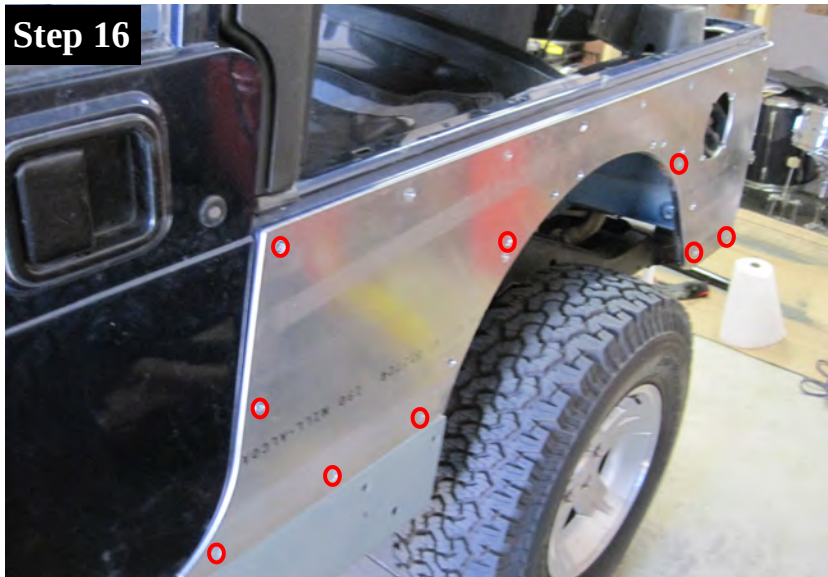
Using one of the supplied backers loosely install (5) 5/16-18 x 1" Flathead Phillips Machine Screw and Serrated Nuts. (not shown) Then move to Step 16.

Step 15



Loosely install the (4) 5/16-18 x 1" Flathead Phillips Machine Screw and Serrated Nuts in the locations shown. (red arrows). Please note that the third hole is hidden behind the rear roll bar and is not shown.

Step 16



LJ Owners:

At this point loosely install (9) 5/16-18 x 1" Flat-head Phillips Machine Screw and Serrated Nuts where applicable. (red circles)

TJ Owners:

At this point loosely install (6) 5/16-18 x 1" Flat-head Phillips Machine Screw and Serrated Nuts where applicable. (not shown)

Step 17



At this point loosely install (5) 5/16-18 x 1" Flat-head Phillips Machine Screw and Serrated Nuts where applicable. (red circles)

Once you have all the Machine Screws started, started tightening from the front the side of the vehicle and work your way towards the back. (red arrow)

Step 18



On the passenger side of the vehicle align and locate the corner armor with the fender flare holes, tailgate holes and tail light holes.

Clamp the Corner Armor as previously done in Step 8. Drill each countersunk hole out with a 3/8" drill bit.

LJ Owners:

In these locations, the holes will have to be enlarged using the 17/32" drill bit for the nutserts. Drill the 3 holes identified in the red circles only. Install the nutsert as shown in steps 9-11.

TJ Owners:

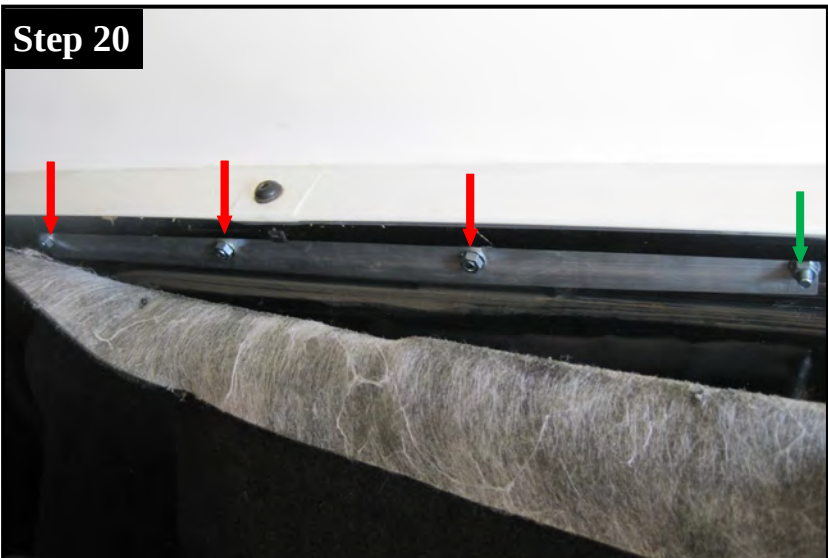
In these locations, the holes will have to be enlarged using the 17/32" drill bit for the nutserts. Drill all 4 holes identified in the red and green circles. Install the nutsert as shown in steps 9-11.

Step 19



In these locations, the holes will have to be enlarged using the 17/32" drill bit for the nutsert. Install the nutsert as shown in steps 9-11.

Step 20



As performed on the previous steps, Shown here is the four hole backer starting from the front of the vehicle.

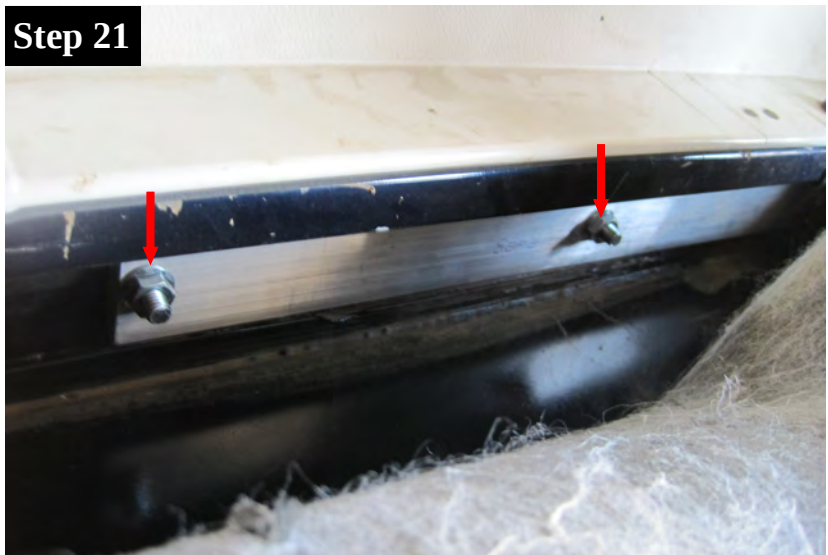
Loosely install the (3) 5/16-18 x 1 1/2" Flathead Phillips Machine Screw and Serrated Nuts in the locations shown. (red arrows)

Install the last 5/16-18 x 1" Flathead Phillips Machine Screw and Serrated Nut as shown by the green arrow.

TJ Owners:

Using one of the supplied backers loosely install (5) 5/16-18 x 1" Flathead Phillips Machine Screw and Serrated Nuts. (not shown) Then move to Step 23.

Step 21



Loosely install the (2) 5/16-18 x 1" Flathead Phillips Machine Screw and Serrated Nuts in the locations shown. (red arrows).

Step 22



Loosely install the third 5/16-18 x 1" Flathead Phillips Machine Screw and Serrated Nuts in the locations shown. (red arrow).

Step 23



LJ Owners:

At this point loosely install (9) 5/16-18 x 1" Flat-head Phillips Machine Screw and Serrated Nuts where applicable. (red circles)

TJ Owners:

At this point loosely install (6) 5/16-18 x 1" Flat-head Phillips Machine Screw and Serrated Nuts where applicable. (not shown)

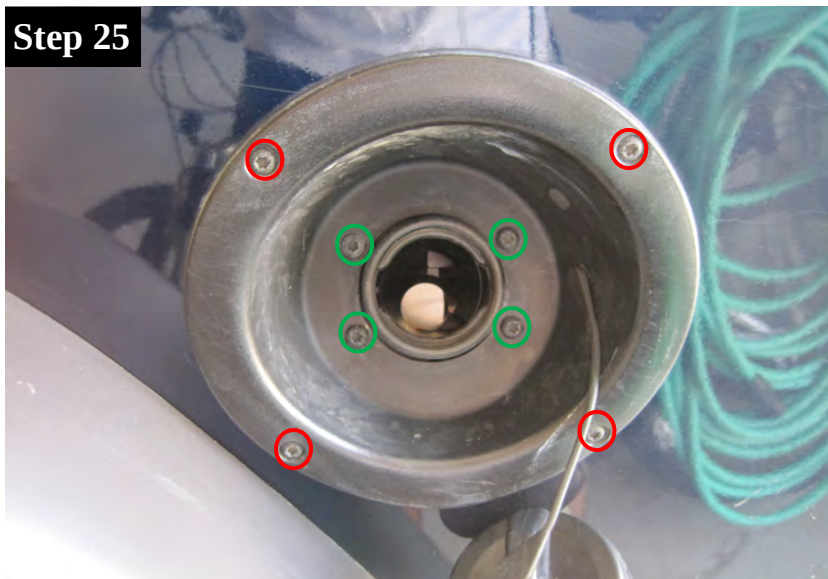
Step 24



At this point loosely install (4) 5/16-18 x 1" Flat-head Phillips Machine Screw and Serrated Nuts where applicable. (red circles)

Once you have all the Machine Screws started, started tightening from the front the side of the vehicle and work your way towards the rear.

Step 25



If removed, reinstall the 8 Torx Screws as shown.

Step 26



Included are two aluminum spacers for your tailgate. Install the spacer between tailgate and the tailgate hinges.

Step 27



If removed, re-install your tail lights or now would be a good time to install your Savvy Tailgate Lights.

If removed, re-install the license plate holder and license plate.

If removed, re-install the fender flares.

If removed, re-install the wheel well liners.