



## Swing-Out Bumper Instructions

**Important:** Before installation please do a quick dry install of the doors with their bearings and castle nuts on the bumper. The delrin ramp should be able to fit between the bumper and doors. This is to insure proper fitment.

**Important:** If you received the bumper bare steel, when you paint or powder coat it you must mask all the threaded holes and spindle posts. (20 threaded holes and 2 spindle posts) Failure to do so will make the install extremely difficult.

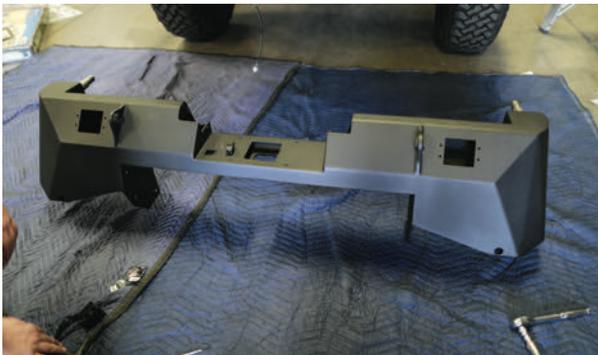
**Important:** DO NOT drive your vehicle when the swing arms open. The swing arms must be locked closed before moving your vehicle.

**Recommended:**

If you also have bought the high clearance receiver hitch, we recommend that you install it first. It can assist with the bumper install.

**Pre-Bumper installation:** Begin here once you have protected your bumper with paint or powder coat.

### 1. Relocate the backup camera



Remove the backup camera from the tailgate and save the 2 small screws that mounted it in place.



Insert the camera into the mounting bracket as shown. **Note:** it will only insert one way and it may be a tight fit.



Firmly press the camera down until it is flush with the mounting bracket.

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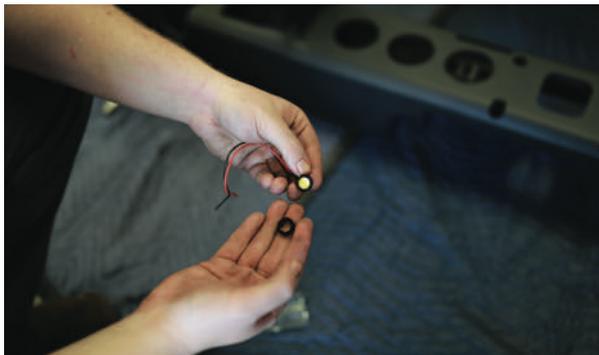


Flip the bumper over and use a small screwdriver as shown to install the small mounting screws. .

**2. Install license plate lights**



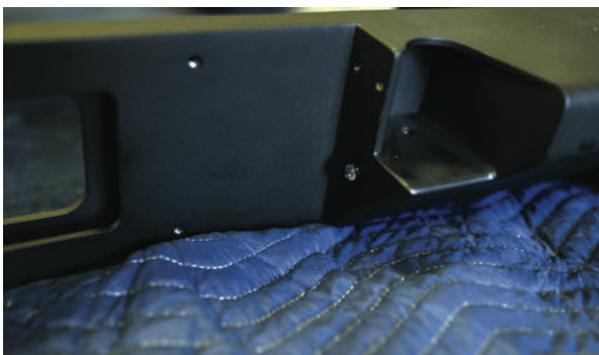
Completed camera install



Unscrew the nut from the LED light as shown.



Feed the wires through the shown hole.



Push the LED light in until it sits flush.



Feed the wire through the nut and proceed to tighten the nut down on the LED light.



Holding the rounded end with your other hand, tighten the nut as shown. Repeat this process for the opposite side.



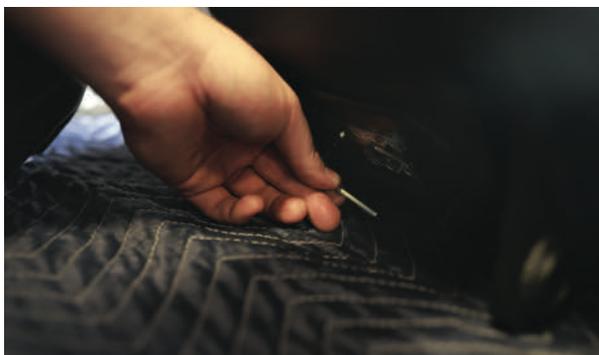
Using the tools shown you will install the LED Flood lights.



Feed the wire through the large rectangular hole on bumper.



Push the LED light flush with bumper surface and begin fastening with the screws and nuts provided.



Tighten screws and nuts with provided hex wrench and a deep well socket. Repeat this process for the opposite side of bumper.

**Note:**

If you also have the rear bumper sides, this is the time to install them. Once the bumper is mounted to the vehicle they are extremely difficult to attach.

**Bumper Installation**

**1. Mounting bumper to vehicle**



Be sure to save the 6 mounting bolts from the stock bumper. With the help of a friend begin to lift the bumper into position. If you have installed the high clearance hitch you can rest the bumper on it and make small adjustments to align the bumper's mounting holes as needed. If you don't have the hitch you may want a 3rd or 4th person underneath the truck to insert the bolts while it is being held in place by the first two people.



Insert all bolts as shown on both sides. Only tighten when you have aligned the bumper properly with the vehicle. Torque bolts to 110ft-lbs. At this point you can plug in the rear facing camera wiring, making sure to route it out of harms way.

**2. Mount delrin ramps**



Install the delrin ramps with the hardware shown.



Using a 5/32 hex key, tighten the flat head cap screws down as far as possible.

### 3. Mount delrin catch seats



Using the shown hardware to install the delrin catch seat



Inset the bolt with the washer as shown to install on bumper.



Tighten down both bolts to 12ft-lbs of torque.

### 4. Install latch anchor bracket



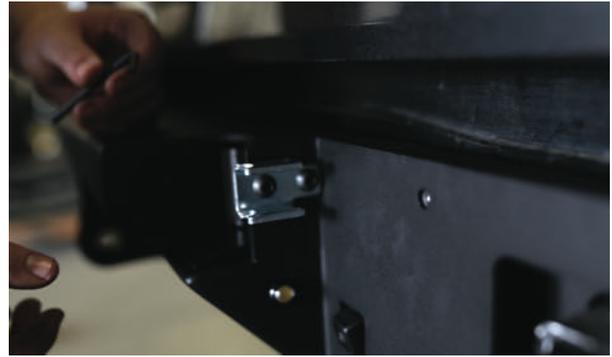
Repeat on the opposite side of the bumper.



Using the hardware show, install the anchor bracket.

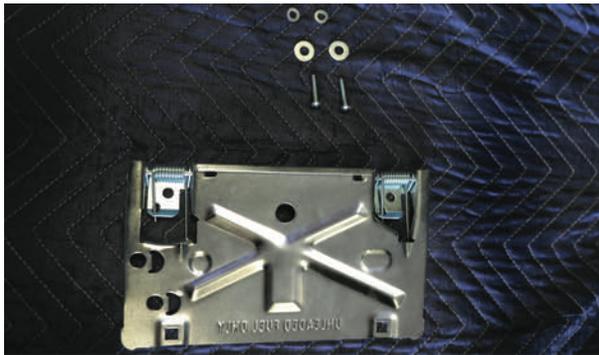


Starting with the hole shown above, use a hex key to install the anchor bracket on the bumper.



Install the second bolt as shown and tighten both bolts to 18ft-lbs of torque. Repeat on opposite side of bumper.

### 5. Install license plate flip up bracket and license plate



Install the license plate flip up bracket with the hardware shown.



Be sure to put the lock washer between the bolt and the flat washer.



Torque the two bolts to 12ft-lbs.



Using the  $\frac{3}{4}$ " long  $\frac{1}{4}$ -20 screws and  $\frac{1}{4}$ " washers to install the license plate on the flip up bracket.



Insert both bolts through the back of the flip up bracket as shown.



Slide the license plate into the top notch of the bracket, then align the bottom holes with the bolts sticking out of the flip up bracket.

#### 6. Install stainless steel wear plates



Using another 1/4" flat washer and provided 1/4-20 top lock nut, tighten the bolts that hold the license plate.



Install the wear plate as shown on the bumper using provided 3/8"-16 button head cap screws.

#### 7. Install tire carrier swing arm.



Torque the bolts to 50ft-lbs. Repeat on opposite side of bumper.



Install the provided Zerk grease fitting on bearing housing as shown. Torque to 15ft-lbs.



Insert pull pin assembly to flange as shown and use provided nut to secure in place. You may use Loctite here if desired.



To install the tire carrier arm, begin with the larger tapered roller bearing and the rubberized grease seal.



Add a small amount of grease around the lower edge of bearing housing cap for ease of installation and better sealing.



Place the grease seal as shown on the bearing housing and begin to tap it in with a hammer.



Continue tapping the seal in until it is flush with the housing as shown above. After the seal is installed lightly grease the seal lips.



Gently begin to place the swing arm on the spindle. The bearing is seated properly when the arm is able to move down as far as depicted above.



Grease the smaller taper roller bearing, gently insert it into the housing. You may have to lift the swing arm in order to seat the bearing fully.



Fasten the castle nut onto the top of the spindle as shown above.



When tightening be sure to align one set of slots in the castle nut with the pin hole on the spindle.



Inset the cotter pin through the castle nut and the spindle hole. Once the cotter pin is fully inserted, bend the legs around the castle nut as shown.



Add a small amount of grease around the lower edge of bearing housing cap for ease of installation and better sealing.



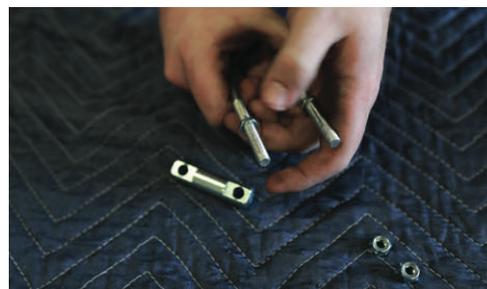
Place grease cap on bearing housing as shown above. Gently tap in grease cap until fully seated on housing.

Repeat these steps to install the accessory swing arm on opposite side of bumper.

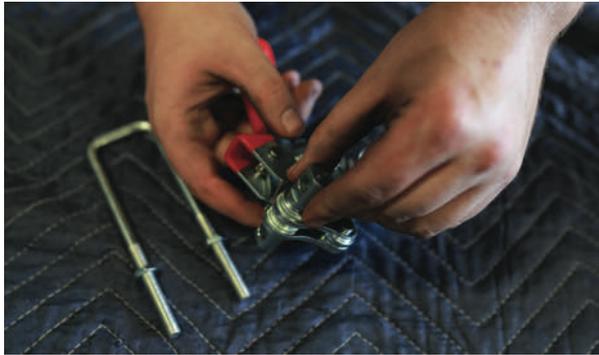
### 8. Assemble and attach arm latches



Assemble each latch using the provided hardware as shown.



Begin by threading the jam nuts about half way down the threading on the U-bolt.



Insert the U-bolt swivel bar into the latch.



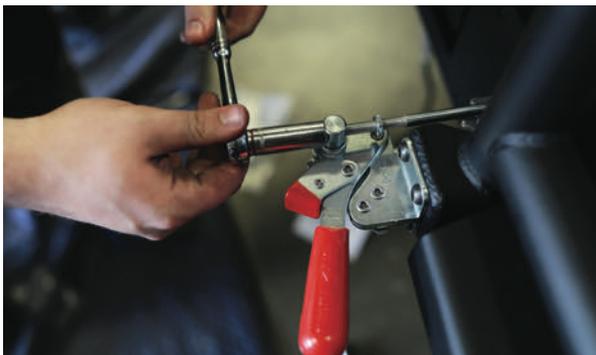
Insert the U-bolt through the rounded end of the swivel bar.



Thread the nylock nuts provided as far as you can by hand for now.



Hold the assembled latch up to the swing arm and begin to add the bolts as shown. Once properly aligned, torque all four bolts to 18ft-lbs.

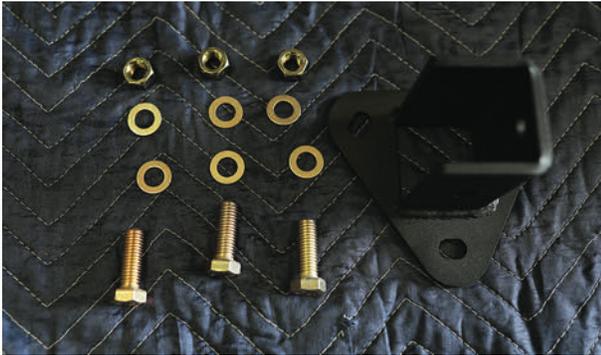


Hook the U-bolt to the anchor bracket and close the latch. From here begin to tighten the nylock nuts to set the clamping strength for the swing arms. They should take some force to close but you shouldn't have to muscle it. You may have to test and adjust the nuts a few times to get the desired feel. Once that is complete tighten the jam nuts up against the swivel bar. Repeat this process for the other swing arm.

**Note:**

The swing arms should not be in contact with you tailgate and should keep approximately a 1/4" gap between them. Depending on the load they are carrying, the arms could land too close to the tailgate so we have included some rectangular shims to place behind the catch seat to adjust the closing point of the swing arm. You will have to adjust the nylock nuts on the latch when you use them.

9. Attach tire carrier brackets



Use the shown hardware to attach the tire carrier base bracket.



Begin to add the bolts to the bracket and place it on the tire carrier swing arm.



Add the washers and nuts to the back side of the swing arm. Torque the fasteners to 120ft-lbs.



Use the shown hardware to attach the tire mount bracket.



Insert the tire mount bracket as shown above.



Using the shorter bolt, insert through the top of the base bracket and through the tire mount bracket. Secure with washer and nut.



Insert the longer bolt through the side of the base bracket as shown above and secure with washer and nut on opposite side. Torque these bolts to 120ft-lbs.



Install the black bolts, lock washers, and flat washers as shown above on all three threaded holes. Torque the bolts to 120ft-lbs.

**NOTE:**

We recommend that your spare tire makes contact with the swing arm to be fully secure. You may have to loosen the 2 bolts that secure the tire mount bracket and the base bracket and slide them to the desired position for this.

**FINAL NOTES:**

All the wear items on this bumper are replaceable. To order more just call our customer service at 559-549-6737.

### Accessory Arm Hole Pattern

