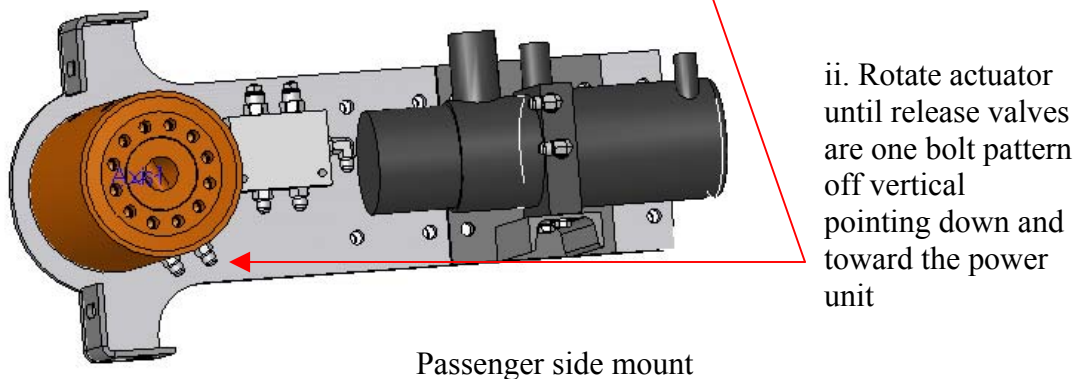
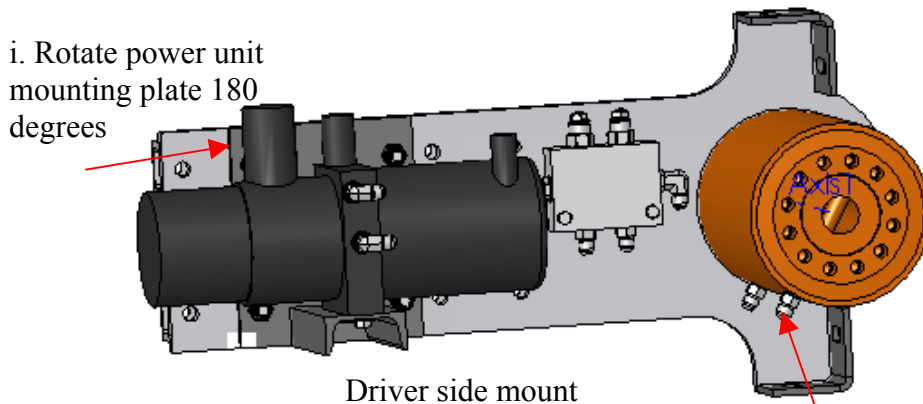


FLIP TARP ASSEMBLY INSTRUCTIONS

The Flip tarp is designed and pre-assembled for a drivers side mount, however it can also be mounted on the passenger side by applying some simple modifications. **FOR A DRIVERS SIDE MOUNT SKIP TO STEP II.**

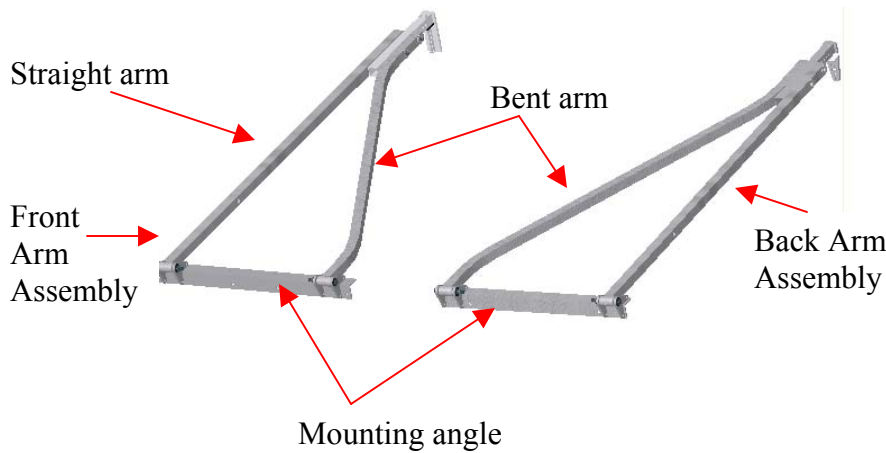
- I. Modifications for a drivers side mount
 - a. Locate the power unit mounting plate in the motor assembly.
 - b. Unbolt the mounting plate and rotate 180 degrees. Re-place bolts.
 - c. Unbolt the actuator and rotate it until the valves are one bolt pattern off vertical, pointing down and towards the power pack. Re-place bolts. (task is best accomplished with **2 people**, one holds the actuator which weighs approx. 50 lbs, and the other removes and places the bolts.)
 - d. Unbolt the Sun Hydraulic Counterbalance Valve and rotate it 180 degrees. Re-place bolts.



II. Front and rear arm assemblies

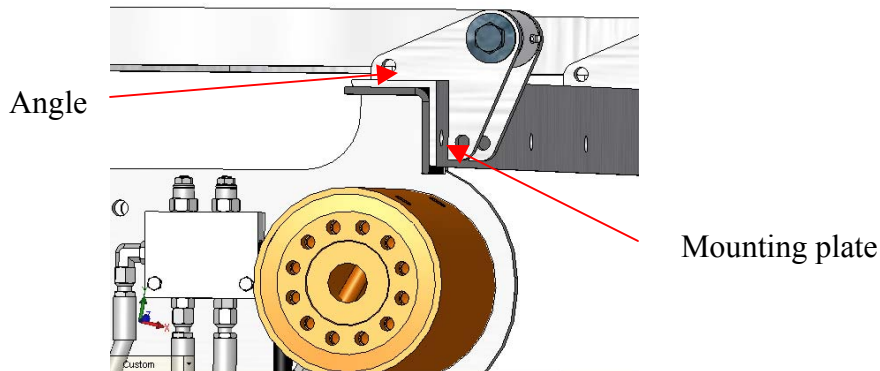
- a. Attach the straight arm and the bent arm to the mounting angle using 5/8" x 6" bolts with washers placed under the bolt head and the nut. Snug the nut against the ear; do NOT deform ears when tightening.
- b. When mounting the arms, mount the bent arms to the middle most ears in relation to the trailer body.
- c. The end plate is then bolted between the two arms. Adjust the end plate so that it clears the trailer by approximately one (1) inch.

Note: The holes on the arms and end plate will not line up; the assembly must be slightly deformed to attach the end plate. The bent arm must come towards the straight arm.



III. Connecting the arm and the motor assembly to the trailer body

- a. Once the front arm is assembled, position the holes in the outside of the mounting plate on the out side of the straight arm in alignment with the holes on the three-inch angle located on the motor assembly. Bolt the mounting plate to the motor assembly.



- b. Using a lifting device such as a forklift or a crane, lift the two pieces until the mounting angle for the arms is resting on the side of the truck, and the back plate of motor assembly is flush against the front of the trailer.
- c. Clamp the motor assembly and the mounting plate to the trailer. If necessary shim under the mounting plate.
- d. Drill holes and bolt mounting plate to the trailer.
- e. Make sure that the motor assembly is still properly placed; adjust connection between mounting plate and motor assembly if needed.
- f. Drill holes and bolt motor assembly into place.

Note: The end of the straight arm should be about 1" off of the final desired position, straight along the edge of the truck.

IV. Mounting the back arm assembly

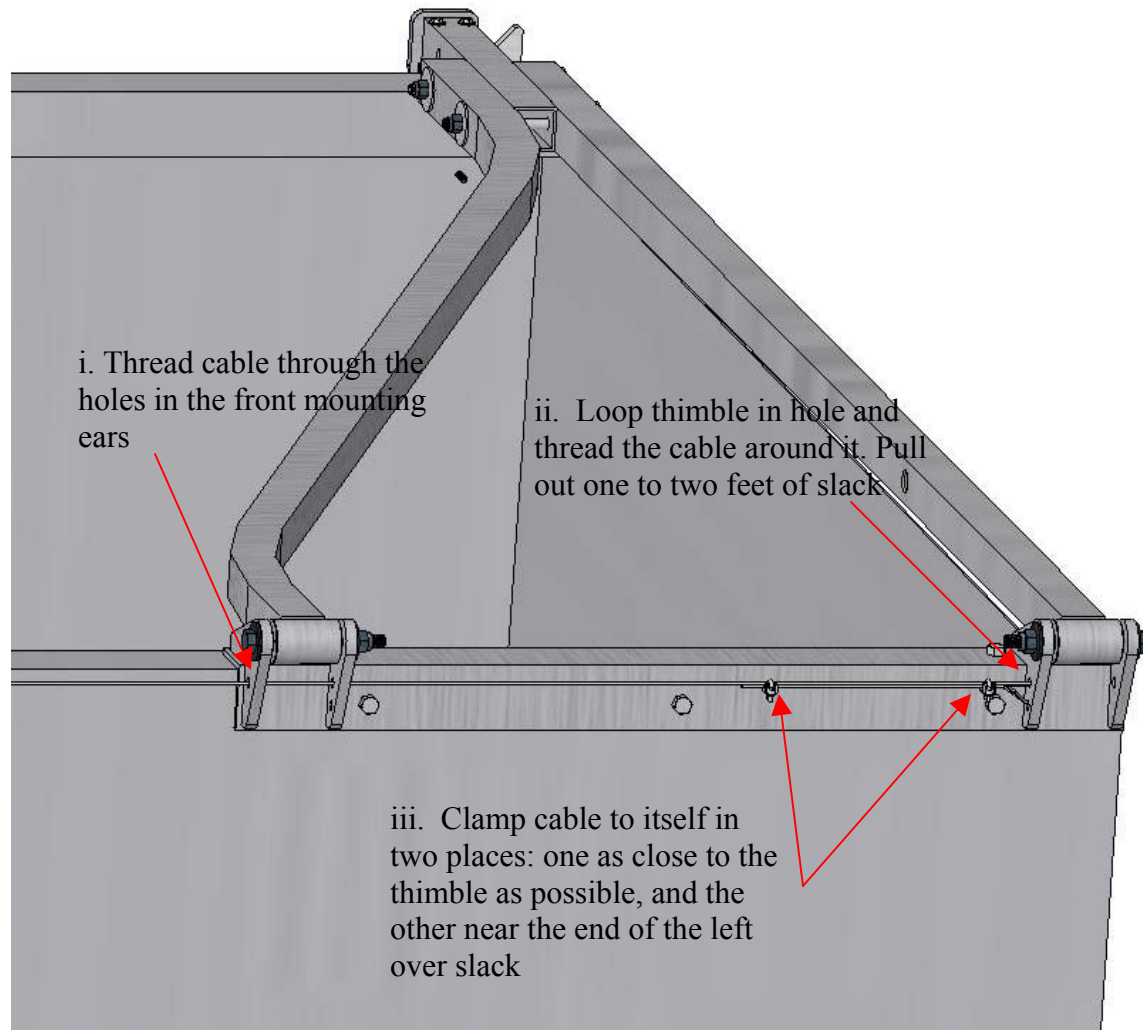
- a. Clamp the mounting plate to the truck.

Note: make sure there is enough room for the tail gate to open without interfering; also make sure that there is nothing on the side of the trailer that would hinder the motion of the arms, such as large hinges.

- b. Drill holes and bolt the mounting plate in place.

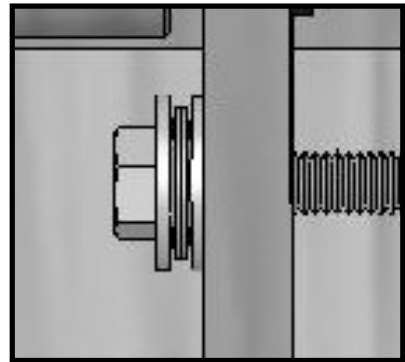
V. Attaching the cables

- a. Make sure the arms are in the closed position.
- b. Attach cable at the rear of the trailer first. (See figure 5 below)
- c. Run cable through the bottom holes of the ears on the arm assembly on the mounting side of the trailer.
- d. Loop thimble in holes and thread the cable around it. Pull out one to two feet of slack
- e. Clamp the cable to itself in two places: one as close to the thimble as possible, and the other near the end of the left over slack (1-2 ft away).



Attaching the cable to the front end-

- f. Mount turnbuckle leaving it as far open as possible.
 - i. Slide the 4" bolt through the hole in the ear furthest from the edge of the trailer.
 - ii. Attach the turnbuckle body to the bolt.
 - iii. Attach eyebolt to turnbuckle body.
- g. Loop the thimble through the eyebolt and thread the cable.
- h. Grease the cable, allowing it to slide freely over the thimble.
- i. Pull the cable as tight as you can by hand and clamp it using the method described in step e.
- j. Attach three hose clamps along the entire length of the cable equal distances apart, to attach the cable to the trailer body.
- k. Flip arms to "open" position and run cable between arm assemblies from end plate to end plate.
- l. Attach cable at rear endplate first.
 - i. Loop thimble through the hole in the rear end plate.
 - ii. Thread the cable through and clamp in two places using the method described in step e.
- m. Attach cable to front endplate.
 - i. See step f, inserting the Bellville washers as seen in fig.)
 - ii. Follow steps G, H, I.
 - iii. Tighten the turnbuckle until Bellville washers are flat.



VI. Wire power to the motor

- a. Run a wire from the battery port of the circuit breaker to the positive battery terminal.
- b. Run a wire from the auxiliary terminal of the circuit breaker to the positive port of the GMC quick-connect.
 - i. Cramp the end piece onto the wire before inserting it into the GMC quick-connect
- c. Run a wire from the trailer frame to the negative terminal of the GMC quick-connect, cramping on the end piece before inserting.
- d. Run the switch box wire through the corner post or along the outside of the trailer.
- e. Grommet any holes the wire goes through.
- f. FILL THE RESERVE WITH ATF TRANSMITION FLUID.

VII. Attaching the link and motor arm.

- a. Run the rotary actuator to the end of its "open" stroke (clockwise for driver side mount and counter clockwise for passenger side mount)
 - i. If the motion is jerky, bleed the air out of the hydraulic lines.
- b. Mount the motor arm in the vertical down (open) position.

- c. Place three bolts evenly spaced around the bolt pattern, you may have to adjust the inner ring with a screwdriver, and then place the rest of the bolts and tighten firmly.
- d. With motor arm and tarper arm still in the “open” position. Attach linkage to the motor arm-mounting hole that is furthest from the trailer body.
- e. Place link attachment boss in tarper arm. Bolt the linkage, boss, and tarper arm together.

VIII. Mounting the tarp.

- a. With the arms still in the open position start attaching the tarp along the top cable.
 - i. Attach the corners of the tarp with zip ties to hold it in place.
 - ii. Starting in the middle, roll the tarp 2-3 times around the cable then tie it with a zip tie.
 - iii. Continue rolling and tying every foot along the length of the cable.
 - iv. Leave the zip-ties loose so they can slide along the cable easily
- b. Use Tec-screws and washers to attach the tarp the out side of the front, straight, arm, every foot along the length of the arm.
- c. Once again using tech-screws and washers attach the tarp to the rear, straight-arm pulling the tarp tight lengthwise as you put in the screws.
- d. Cut off the excess length of tarp
- e. Tighten the ties along the cable
- f. Using zip-ties attach the tarp to bottom cable. Leave a 6-inch bend in the tarp so it does not pull the cables when it is closed over the body of the trailer.

IX. Mounting the latch

- a. Place latch at rear of the trailer on the side opposite the mounting ears
- b. Place a ¼” shim (2 zip ties) on the top of the polyethylene latch plate to keep spacing. (Latch plate is attached to the rear arm endplate).
- c. Rest the latch hook on the shim keeping the latch mounting plate square with the trailer.
- d. Drill and bolt (using Tec-screws) through the top and bottom-left holes
- e. Lift the arms out of the way and drill and bolt through the remaining hole attaching the spring to the last bolt.

-For a passenger side mount

- a. Remove the snap ring and flip the latch over.

Polyethylene
latch plate.

Place shim here
-2 zip ties

Place these two
screws first
Attach spring before
placing bottom screw

Place this screw
last

