

This doc is to aid in the assembly of the SwayLOC torsion bars into the arms, using the installation tool.

Start by placing the inner bar inside the outer bar. The arm installation into the hubs will be done in the following order.

- Inner bar into the dual hub side first
- Outer bar into the dual hub side
- Outer bar into the paddle
- Inner bar into the latching arm

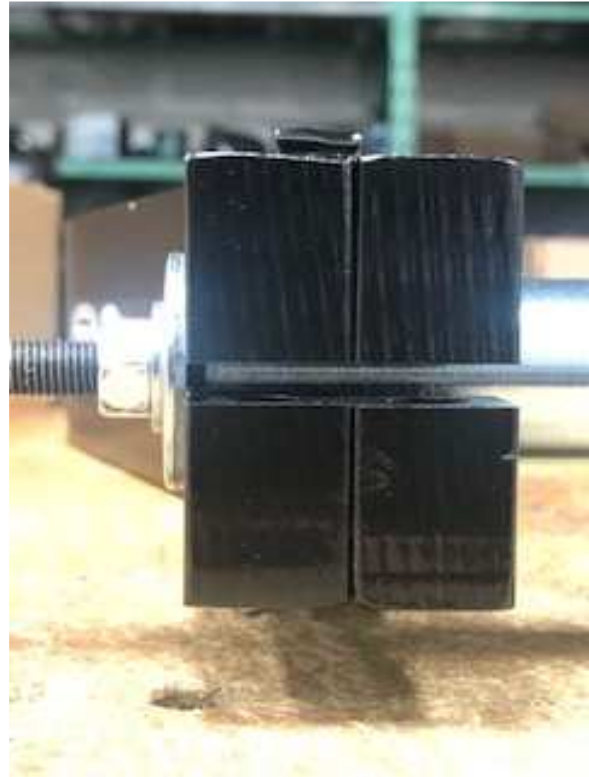
Start by inserting the installation tool stud into the end of the bar, thread in by hand, ensuring it has  $\frac{1}{2}$ " of thread engagement. Notice that we slide the inner bar out of the outer bar a bit to aid in rotating the bar to align with the hub.



Place the arm over the stud, install the large heavy washer, the small washer and a 5/16" nut on the stud. Rotate the bar to match the keying of the hub and snug the nut by hand. Then using a 1/2" wrench, start tightening the nut. MAKE SURE that the arm/hub assembly stays perpendicular to the torsion bar, the RED and YELLOW stripes need to stay perpendicular. Failure to do so may result in the bar digging into the hub. The fit is designed to be snug.



Once you can tell that the bar is sliding into the hub, keep tightening the nut until the bar stops sliding. It should be nearly flush with the outside of the hub, or just a hair short.



Once you have the bar fully seated, install the 3/8" cross bolt and the locking nut (the nut is installed with the wider face towards the hub!) and torque the nut to 50 ft lbs. Place a large washer and the 5/16" x 1/2" bolt onto the end of the torsion bar and tighten as well. Please note, you NEED to tighten the clamp bolt as the end cap bolt will not hold the hub on when doing the next process.

Next, we will use the steel sleeve to push the outer bar into the hub on the dual hub side.

Transfer the install tool stud to the opposite side. Slide the bar assembly so that the large hub is about to engage on the dual hub side. This should result in just a little bit of the inner bar showing on the opposite side as shown. Place the steel sleeve over the stud, along with the heavy washer, small washer and the 5/16" nut.



Now, with the install tool assembled as shown, when you tighten the nut, this will drive the outer bar into the dual hub side. AS you start to tighten it, rotate the bar slightly, make sure that the outer bar is rotated and aligned with the hub interfaces, again, if you force it without it being aligned properly it may scar the opening and you will likely have to fill the burr out to get it to assemble.



Now, simply tighten the nut and the outer bar should slide into the hub on the dual hub side. Make sure to check that it fully seats itself before you stop tightening the nut the outer bar should be able to be seen butting up the side of the small hub thru the gap in the slot. Note the 3/8" bolt and lock nut arrangement for the small hub. Insert the 3/8" bolt in the large hub, tighten to 50 ft lbs.

Next, we will install the short inner arm, the paddle, on the latching arm side. You may be able to slide it on or at least position it close enough to get just a bit of the inner bar to come thru. We need to ensure that the sleeve will slide over the inner bar, make sure it doesn't make contact with it as you tighten the small nut.



Again, using the sleeve, washers and nut, as you tighten the  $\frac{1}{2}$ " nut the hub should slide over the outer bar. MAKE Sure that the hub is perpendicular to the bar, as this one will try to go on at an angle like shown, we find that you can usually hold the rearward edge just enough to get it to go on straight. Sometimes a small tap from a hammer will right itself.



By now, you probably have the feel of, the last arm, the latching arm, is by far the easiest. Remember to open the latch by flipping the level to the rear or is a remote version, slide the latch open and using one of the 1/2' jam nuts, jam the latch open for the next step.

Place the arm over the installation stud. Washers and a nut, tighten the nut, rotate the arm while doing so, to get it to engage the bar.



Once you get the arm fully seated, install the 3/8" clamping bolts, torque to 50 ft lbs, and then remove the stud. We include a second nut in case you need to double nut and lock them together to get a wrench to remove the stud.

At this point, the arms should be fully inserted onto the torsion bar, and if done so correctly, there should be about a dime's width of gap between the hub on the latching arm and the hub on the inner arm. If so, then place the large washer (thin washer for the remote kits) and the bolt with the grease zerk on it to hold the washer in place.

Pump grease into that zerk unit it comes out between the hubs, and do this often to keep it lubricated.