1. Remove the original Mixer Piston by pulling out the Hitch Cotter Pin (blue arrow) and sliding out the Clevis Pin (red arrow). Also see inset photo for image of the individual parts.

2. Disconnect the yellow pneumatic line from the original Mixer Piston. Push down on the orange flange, while pulling the yellow tube out.

3. Unscrew the 8265 Shoulder Screw from the top of the Mixer Piston using an 1/8" hex wrench.
4. Install the new Mixer Piston. Attach the end of the TDF63 Mixer Piston Assembly to the Mixer Piston Bracket using the Clevis pin (red arrow) and Hitch Cotter Pin (blue arrow).

5. Reattach the brass rod-end to the paddle bar using the 8265 Shoulder Screw. Apply a drop of Thread Locker to the threads of the screw and wipe off any excess so that it is not on the shoulder. Next apply a thin film of TDF107 Synthetic grease to the shoulder of the screw, being careful not to get it on the threads of the screw. Install and tighten with an 1/8” hex wrench.

6. Reattach the yellow pneumatic line to the fitting on the side of the mixer piston as shown.
7. The lock nut and shoulder screw should come threaded down all the way on the Mixer Piston Shaft. Confirm that this is the case. Twist the Shaft Collar 5 turns counter-clockwise. This will raise the brass rod end. This will set the paddle bar backstroke in its approximate location.

![Figure 1](image1.jpg)
![Figure 2](image2.jpg)

8. From the front of the instrument, using a depth gauge set to $\frac{10}{32}$", check the backstroke of the paddles as shown in Figure 2 below. The backstroke should be $\frac{10}{32}$" from the front edge of the grey gasket. To increase the backstroke rotate the Shaft Collar another $\frac{1}{2}$ turn clockwise. Check the backstroke again as was done previously. Repeat adjustments until the proper setting is attained. To ensure adequate thread engagement, do not rotate the Shaft Collar more than 7 turns total (maximum 2 additional turns).

9. If both the backstroke has been adjusted properly, tighten the lock nut against the Rod End with $\frac{3}{8}$" and $\frac{7}{16}$" open-end wrenches.

10. Installation and adjustments are now complete. Turn the power back on to the instrument and check function of the mixer piston by going to Diagnostics / Valve Test / Mixer. Turn Mixer on and confirm that it is working properly and cycling the paddle bar once per second. The ANKOM$^{TDF}$ instrument is now ready to be returned to service.