

### Optical Encoder Replacement Guide

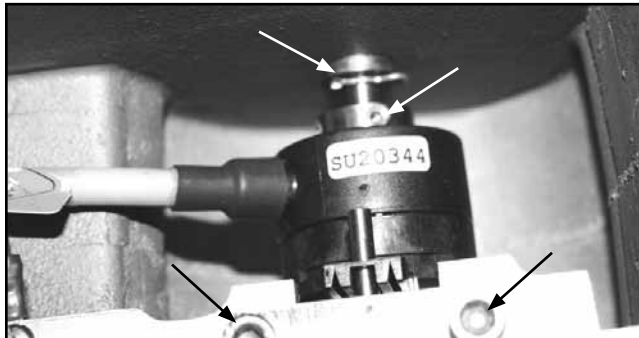
For complete installation and service see the UPT Installation/Service Manual (MN01045) found on the FMC Technologies website ([http://info.smithmeter.com/literature/pdacc\\_manuals.html](http://info.smithmeter.com/literature/pdacc_manuals.html)).

**Safety Note:** Make sure to disconnect power prior to any service.

Description	Part Number
100 Pulses/Rev Replacement Kit	645483-421
200 Pulses/Rev Replacement Kit	645483-420
250 Pulses/Rev Replacement Kit	645483-419
500 Pulses/Rev Replacement Kit	645483-418
1000 Pulses/Rev Replacement Kit	645483-417

#### Tools Needed:

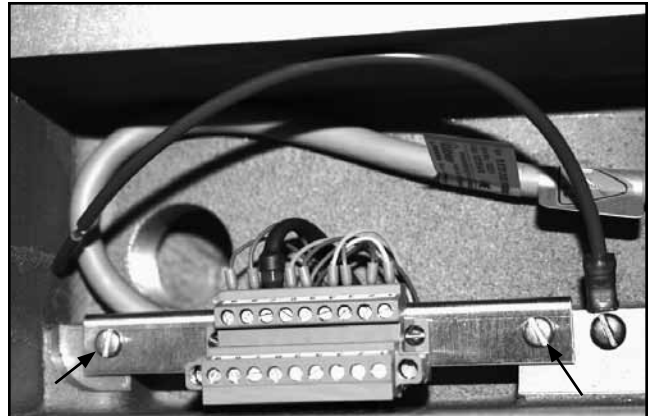
3/16" Hex Allen Wrench  
6mm Hex Allen Wrench  
Flat-Head Screwdriver



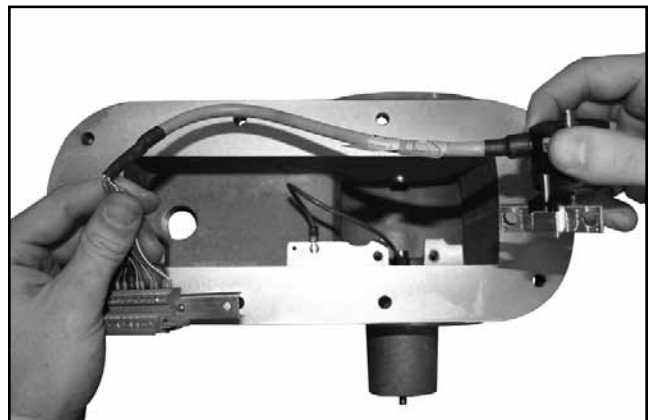
**Step 1.** Remove the cotter pin and T-Bar mounting bolts. Loosen the two set screws on the collar at the top of the encoder.



**Step 2.** Remove the output shaft.



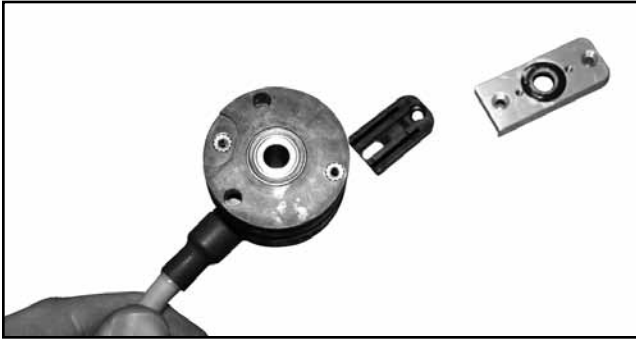
**Step 3.** Remove the terminal block mounting bracket by removing the two screws.



**Step 4.** Remove the encoder assembly.

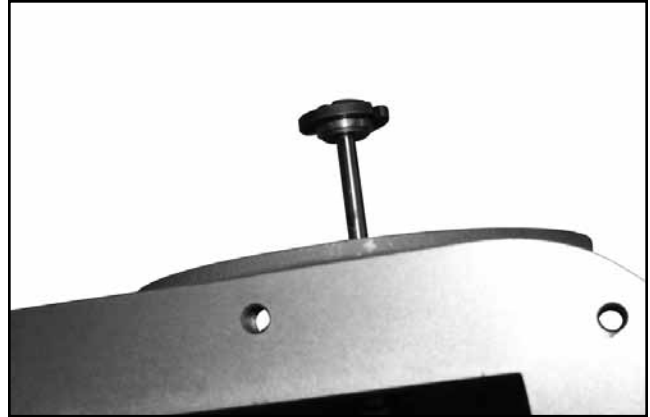


**Step 5.** Disassemble the torque arm assembly from the encoder by removing the two outer screws then the two inner screws.



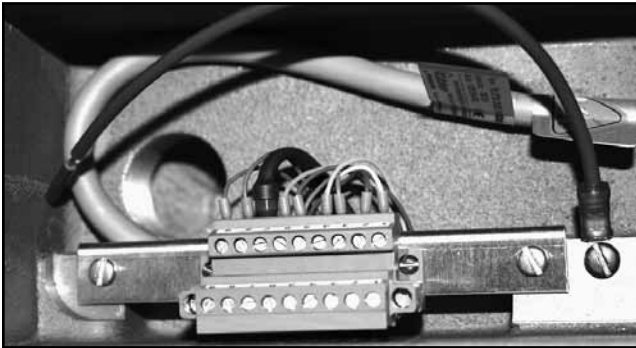
**Step 6.** Install the torque arm, retaining plate, o-ring and o-ring cover on the new encoder in the reverse order as removed.

**Note:** Replace o-ring (641069-476) if damaged or cracked. Lubricate the o-ring with Dow Corning DC55 silicon grade grease.

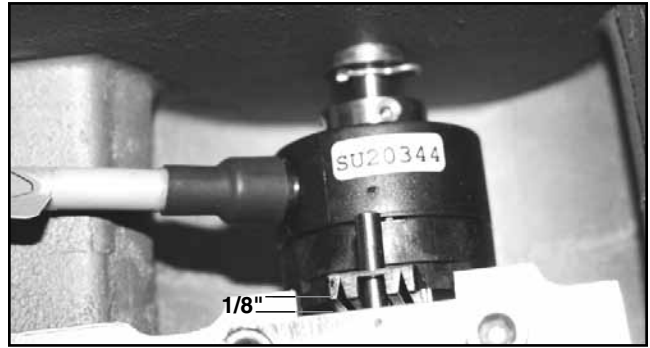


**Step 9.** Insert the output shaft.

**Note:** You may need to lightly tap on the shaft to clear the cotter pin hole.



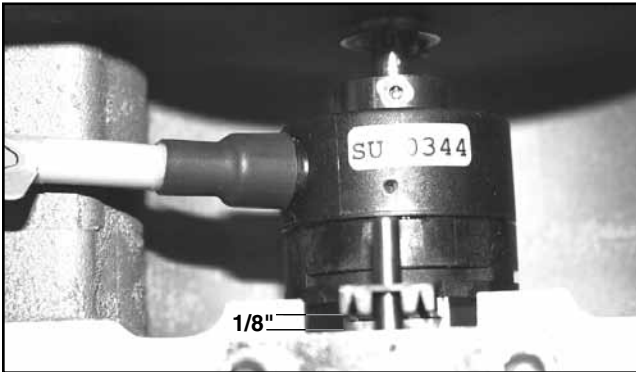
**Step 7.** Install terminal block mounting bracket.



**Step 10.** Insert the cotter pin and tighten both set screws.

**Note:** Make sure that the torque arm is approximately 1/8" above the T-bar base.

**Note:** Ensure that the washer is between the cotter pin and the housing. Apply a light coat of Loctite 222 (included) to the set screw threads prior to tightening. Make certain to not over tighten the set screws to avoid damage to the set screw heads, and the encoder. Rotate the output shaft and check to ensure that the input shaft is rotating as well.



**Step 8.** With the T-bar attached to the encoder, insert the encoder in the housing and install the two bolts into the T-bar base.

The specifications contained herein are subject to change without notice and any user of said specifications should verify from the manufacturer that the specifications are currently in effect. Otherwise, the manufacturer assumes no responsibility for the use of specifications which may have been changed and are no longer in effect.

Contact information is subject to change. For the most current contact information, visit our website at [www.fmctechnologies.com/measurementsolutions](http://www.fmctechnologies.com/measurementsolutions) and click on the "Contact Us" link in the left-hand column.

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