

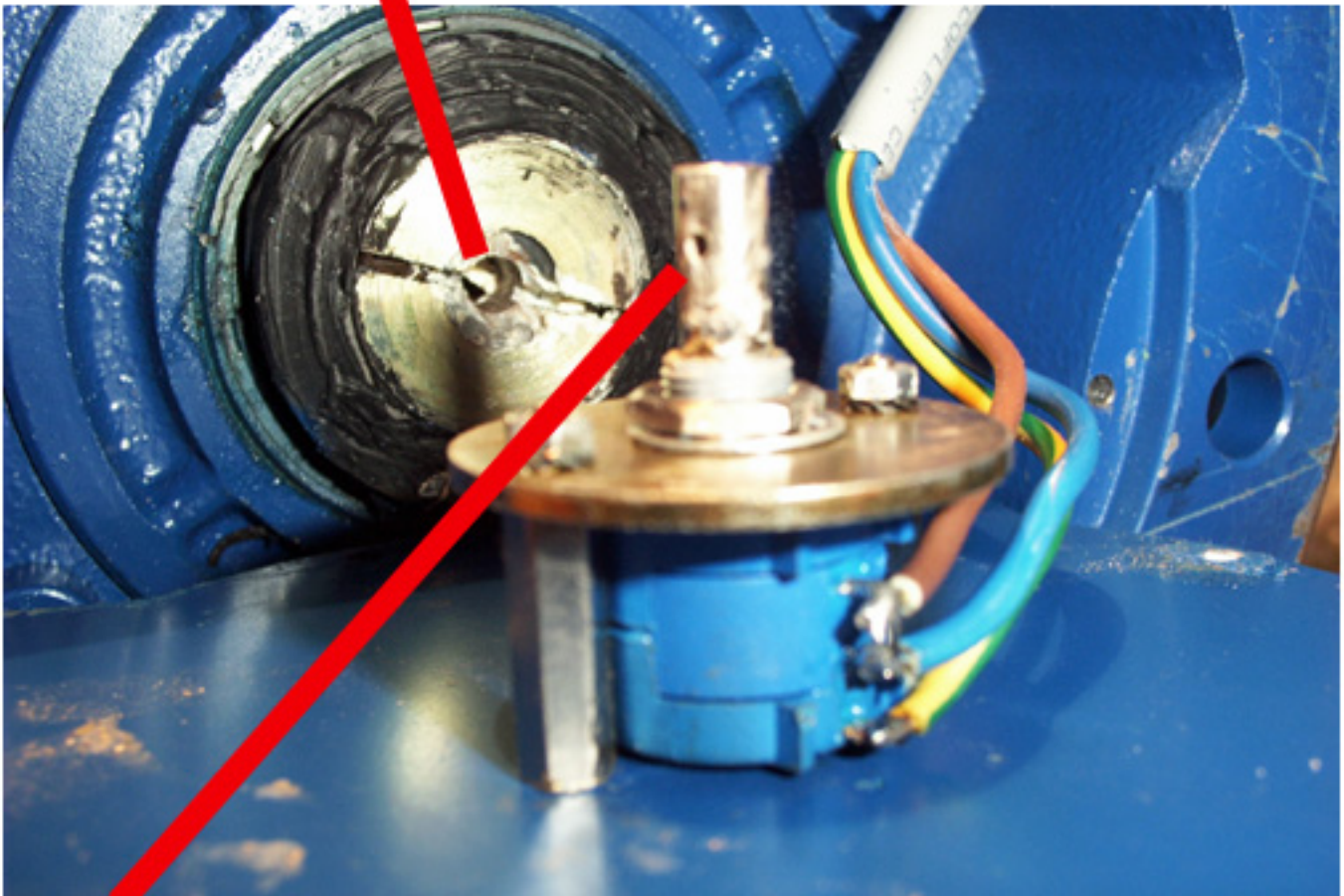
**PST D Model (DC Motor)
Prosistel Rotator Pot replacement calibration**

1. Replace the 10 turn pot, **but set it to be 7.65 K ohm from the wiper pin 3 to the ground lead pin 5** before inserting it into the slotted shaft of the rotators output shaft. See pictures and procedure below. The pot is available from Mouser.com #**594-53611103**
2. We recommend the use a AS-8-SP control cable protector for all the motor windings and the pot windings to help protect pot and motor. Place it at the rotator or at the base of the tower.
3. Test rotator by installing a control cable. Make sure you have the wires on the correct terminals of the junction box. You can test for 0v and +5V DC on the Pot wires. As well as the P (wiper terminal) for approx 3.14V DC. Is 0 degrees north.
4. Plug in the controller and turn on power. The rotator bearing readout should be 0 degrees if the P wire is exactly 3.14 VDC. The valid zone for bearing indication is from 2.8V DC (East side Overtravel range) to 3.48 V DC (West side Overtravel) between the P terminal, pin3 and ground pin 5 ground terminal, the controller should now read a bearing.
5. Place the controller in **the Absolute Value Voltage reading mode by turning it on with the CW button depressed for a few seconds**. This will show the voltage value being seen from the DC amplifier output to the display driver board. If the voltage should coincide with the chart in your manual for degree readout page 6.
6. Drive the rotator both CW and CCW to assure it is able to drive in both directions. If not then the voltage value is over or under the electronic limits of **0.00 V and .500 V or 00.0 and 50.0** shown on the display. Make sure you have approximately 3.14 VDC on the pot wiper pin3 and ground pin 5. If not you should be able to drive the motor in the correct direction to obtain this reading.
7. Test accuracy of rotator to go from 000 to say 90 and 180 degrees, etc. If this is not accurate you can correct it by using the software to adjust the calibration factor, or an internal trim pot. See manual.
8. You can now center your antenna mast to 000 degrees and tighten the mast clamp.
9. The rotator should turn in both directions and should be accurate at all headings. The DC amplifier potentiometer should not require any adjustment but if you find the gain is incorrect you may follow the instructions for setting it correctly in the manual.

Replacing pot

- Remove the four screws holding the bottom plate to the rotator body.
- Open plate, you may need to use a small screwdriver as a pry bar.
- See picture below. The pot will slide out of the slotted output shaft. Note that the pot has a pin in the shaft and remove the pin to be used with the replacement pot.

pot inserts into this shaft note slot

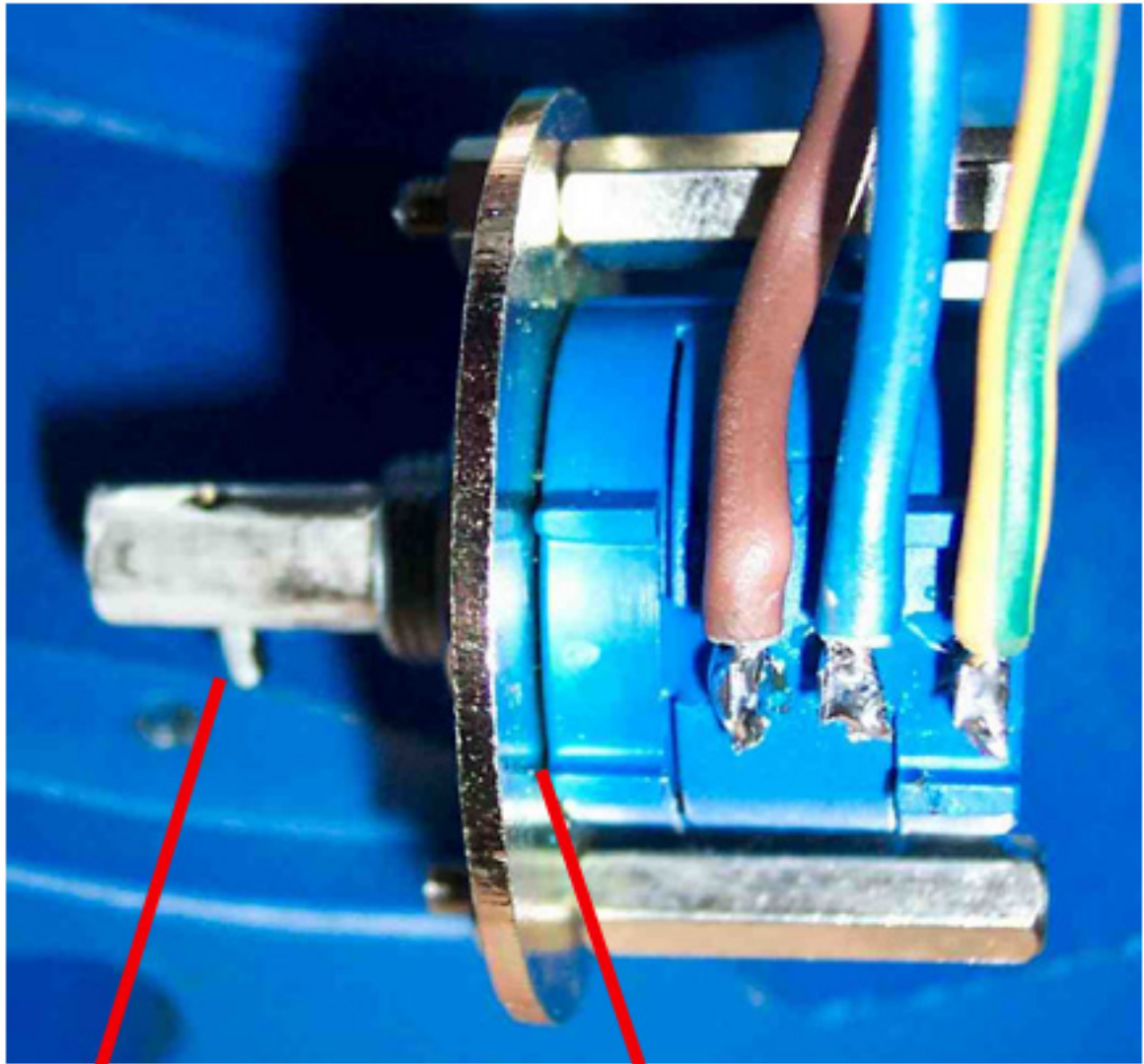


Pin goes into this hole and fits in slot of shaft so it will not turn

- Unsolder the pot wires, note the colors and remove the pot by unscrewing the two screws holding the bracket to the bottom cover.

- Take the pot out of the bracket and insert new pot. Make sure it seats fully to the bracket and no washer is used on the pot body between it and the bracket. In some older rotators you may need to drill the hole out slightly to fully seat the body. See picture below.

Pot removed from bottom cover



Pin is visible in this pot shaft. note that the pot top is directly in contact with the bracket, no washer

- This pot was replaced and is ready to be put back onto the bottom cover. The shaft pin is inserted and the shaft turned to the correct impedance (see text above). The wire colors may be different then in this picture be careful to note them on the pot you replaced.

- Reverse the procedure. **Be careful not to stress the pot terminals** with these stiff wires. The wires can break the solder terminals
- Put some silicon grease or silicon sealant into the shaft hole and slot to keep the rotator shaft and pin captive and from wiggling around.