## Prosistel Rotator Pot replacement calibration.

- 1. Replace the 10 turn pot, **but center it** before inserting it into the slotted shaft of the rotators output shaft. See pictures and procedure below.
- 2. We recommend the use a ICE 349 rotator control cable protector for all the motor windings and the pot windings to help protect the pot in the future. Available from us.
- 3. Install rotator and its control wires. Make sure you have the wires on the correct terminals of the junction box. You can test for +12 and -12V DC on the Pot wires. As well as the P (wiper terminal) for approx 0V DC.
- 4. Plug in the controller and turn on power. The rotator bearing readout should be close to 110 degrees if the P wire is exactly 0.0 VDC. If the reading is negative on the P wire then you need to remove the P connection terminal and drive the rotator in a CW direction until you can see a slightly positive voltage on the P lead. Say .02 VDC.
- 5. Reattach the P lead on the terminal and the controller should now read a bearing.
- 6. Place the controller in the Absolute Value Voltage reading mode. This will show the voltage value being seen from the DC amplifier output to the display driver board. You can now see this pot voltage and the digital degrees reading simultaneously( C box) or just absolute (B Box). If the voltage value is positive it should coincide with the chart in your manual for degree readout.
- 7. Drive the rotator both CW and CCW to assure it is able to drive in both directions. If not then the voltage value may be over or under the electronic limits of 0.00 V and .500 V or 000 and 500 respectively on the display. Remove the P lead and drive the rotator again in the direction which will center the pot reading to approx .25V (250 on the meter). Reattach the P lead and observe that you are now between 000 and 500 relative volt readout.
- Again turn the rotator to 000 degrees. You may wish to re-center pot TR4 if you have ever moved it to adjust for degree correction of your antenna. Otherwise leave it alone. Note newer controllers do not have TR4 on the board.
- 9. You should now center your antenna mast to 000 degrees and tighten the mast clamp.
- 10. 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 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 centered 5 turns from the end. So the same and solder on the wires.
- Reverse the procedure. Be careful not to stress the pot terminals with these stiff wires. The wires can break the solder terminals