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The following is a revised Calibration Instruction for Rotor-EZ controls. There is no change in the actual calibration. Rather, this section has been rewritten to make the process clearer and easier to understand. If you are having problems with the calibration of your Rotor-EZ, start over again, following these directions in their entirety.

CALIBRATION

( ) Using the brake switch and clockwise switch rotate the antenna clockwise and verify that the meter moves left to right. If the meter moves the wrong direction then wires "A" and "C" need to be reversed. Again, be sure to unplug the unit before working on it. When finished power the unit again.

( ) Rotate the front panel set pot fully counter clockwise. Now, using a jeweler's screwdriver, adjust the "zero" meter setting using the mechanical adjustment behind the hole beneath the center of the meter to set the needle for 180 degrees. Note: after 5 seconds the meter pointer will return to its prior reading. Should you need more time, turn the set pot back a few degrees, then back to the fully counter clockwise position and try again.

( ) When performing the following steps, be careful the screwdriver shaft does not short out anything. If necessary, put tape over the screwdriver shaft to temporarily insulate it. Preset pots R16 and R17 by turning them full clockwise when viewing the front side of the pots. It is usually necessary to tip the rotor control up considerably so that access to the pots can be reached from the bottom. The front side body of pots R 15, 16 and 17 is usually orange in color and is molded to accept either a straight or Phillips screwdriver. It also has the numbers "501" printed on the body.

Note that if the rotor pot strip and the rotor-control electronics are closely matched, calibration pots R16 and R17 on the Rotor-EZ board may need little or no further adjustment in the following steps.

Also, the following steps typically require that the front of the control be lifted up to offer access to the calibration pots. After each adjustment, set the control back down flat to see that the meter reading is correct when the unit is sitting flat.

( ) Rotate the front panel mounted set pot fully clockwise. Adjust R-15 so that the meter needle lines up on the clockwise 180 degree line. Reset the needle if the five second timeout occurs.

NOTE - The following two steps have caused confusion for some builders. For this reason some further information is included here. Calibration pots R16 and R17 are read by the processor and are used to calibrate the system using mathematics in software, **not** by using classical analog methods. The result of this is that when the calibration pot is turned

further counter clockwise than necessary no visible effect will be seen on the meter. It is important that both pots are set to the most counter clockwise position needed for calibration **but no further** that results in a visible effect on the meter. This is often the most clockwise setting for the pot. In order to see the effect of the calibration pots, the paddles can be used to select a rotor position 5-10 degrees north of the CCW south. Now when R16 is manipulated the effect will be visible and you can see the pot subtract out the 5-10 degrees of error that you deliberately introduced.

( ) Using the manual paddles, rotate the antenna full counterclockwise. Do not rely on the meter for this as it is not yet calibrated. Now, turn pot R16 counter-clockwise until the meter needle has gone as far left as it will go. STOP at that point – Do NOT turn the pot further - once the calibration calculation reaches its mathematical limit, further pot rotation will cause miss-calibration even though the meter appears correct.

( ) Using the manual paddles, rotate the antenna fully clockwise. Again, do not rely on the meter for this as the meter is not yet calibrated. Once the antenna is fully clockwise, see if the meter needle is reading 180 degrees. If not, turn R17 counterclockwise until the needle reaches the clockwise 180 degree mark. Do NOT go further - further counter-clockwise pot rotation will result in a miss-calibration for other directions even though the meter appears correct, due to physical limits of the meter movement.

This completes assembly and calibration of your unit. Use the supplied cable ties to dress up the wires in the rotor control assembly before replacing the covers. Then, read the operating manual so you will fully understand Rotor-EZ’s capabilities.