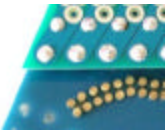




# PROFESSOR MOTOR CONTROLLERS

## Variable Sensitivity Kit Installation Instructions

Step 1. Tap the eight fiberglass circuit board holes just above the soldered connections on the controller top circuit board (along the top of picture below) with a #2-56 tap (tap not included in the kit). DO NOT OMIT THIS STEP ! If necessary (PMTR2050 Commercial Model), remove the two shunt wires that connect the front & back circuit boards and carefully remove the excess solder on both front and back by using a piece of slot car braid saturated in rosin flux and a very hot soldering iron.



Step 2. Insert the long brass screws in the back of the circuit board and thread through the holes you just tapped in the small top circuit board. Run the screws in flush against the back of the circuit board & tighten till just snug (do not overtighten). Solder the heads of these brass screws to the silver ring that the head of the screw rests against using a rosin core solder or solid solder with a rosin flux (do not use acid core solder or acid flux!). High temperature silver bearing soldered is recommended here since these connections will get hot (PMTR1003).

Step 3. Using a Dremel, open up the top cooling slot on the front face (logo side) of the controller handle. Assemble the controller, install one of the small stainless steel springs onto each of the screws and thread on the actuators (as shown below).



This variable sensitivity kit will allow you to short out selectively up to half of the normal 16 active semiconductors and in effect make the controller up to twice as sensitive. To use the system, in general, you will start by shorting out the top “bands” (closest to the nose of the controller) by just turning the actuator until it is snug to the circuit board. Just a slight twist to loosen the actuator and move it just slightly away from the circuit board is all that is needed to disable the “shorting” feature. In total over 40,000 combinations of sensitivity curve are possible using these eight “switches”. Experiment & dial it in for your racing ....

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