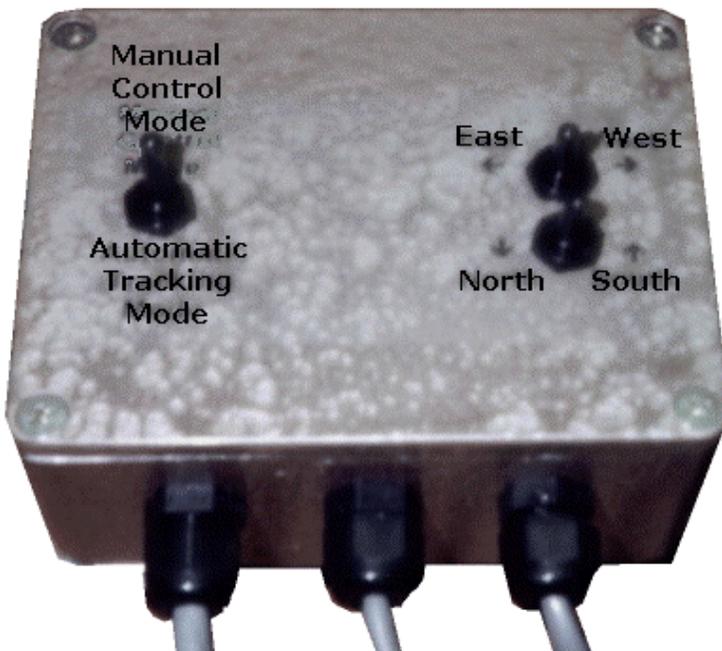




## Field Installation Instructions for Manual Tracker Controls AZ-125, AZ-225 Drive with a V3.3 Sensor

### **FUNCTION:**

Most manual controls are installed on Wattsun Dual-Axis Trackers rather than on Single-Axis Units. The Manual Control Option allows the user to bypass automatic tracking and to move the tracker East, West, North, or South. If the tracker is run to a full North position, the array lays flat in a horizontal stow position. This is especially useful if you experience very strong winds or storms and you want to reduce the wind loading on your tracker. If the tracker is run to a full South position, the array elevates up to a 75-degree angle. This is useful for dumping any snow accumulation on the array.



**Each field kit contains:** 1 manual control board - mounted to a replacement cover, 3 rubber switch boots and 4 cover screws.

### **STEP-BY-STEP INSTRUCTIONS FOR DUAL-AXIS MANUAL CONTROLS:**

- 1) **DISCONNECT POWER TO TRACKER CONTROLLER.**
- 2) Remove the four cover screws of controller chassis.
- 3) Loosen the first and last black Heyco fittings on the controller chassis. These are the wire strain-relief's on the controller chassis for the motor cable and power input cable. Leave the center Heyco fitting tight.

- 4) Using a small screwdriver press on the first small button on the 4 position orange terminal strip (upper left corner of controller board) and pull out the motor output wire that is directly underneath the button. There are five buttons and each button releases a wire directly underneath. Remove all four wires (White; Green; Black; Red).
- 5) Now release the last two wires on the seven position terminal strip (lower center). These are the larger red and black power-input wires on right side of the terminal strip.
- 6) Remove the rubber boots from the switches on the manual control kit.
- 7) Detach the manual control board from the cover.
- 8) Insert the motor output wires (4 wire cable you removed in step 4) into the five hole gray connector of the manual control board. **The current model AZ-125 & AZ-225 Controller does not use the left side hole marked "DR."** The color code is written on the board (Dr,W; G; B; R). Bare drain wire; White; Green; Red; & Black. To insert the four wires you must release the cage inside the connector with a small straight blade screwdriver. The wire goes into the lowest port of the connector and the screwdriver must be inserted in the middle rectangular opening of the connector. Insert all four wires into connector and tug on them to make sure they are secure. Remember that the far left hole is not used for any connection.
- 9) Insert the wires from the manual control board into the orange four hole connector on the tracker control board. These wires will replace the wires you removed in step 4. These wires can be pushed into place with needle nose pliers. The color code is as follows from left to right: White; Green; Red; & Black. Gently tug on each wire to make sure they are secure.
- 10) Now connect the red and black wires coming from the manual control board to the tracker controller board. These wires go into the last two positions on the 7 position orange terminal strip. (This will replace the wires you removed in step 5). Red goes into position 6 and black into position 7.
- 11) Insert the remaining two wires from the power input cable into the gray two-hole connector of the manual control board. From left to right the color code is Red; Black.
- 12) Secure the manual control board to the controller cover-plate using the rubber switch boots. Tighten these boots to secure the cover to the switches.
- 13) Gently tug on the wires coming through the Heyco terminals to position the cover over the controller chassis.
- 14) You will need to gently fold the small 4-wire cable behind the black capacitor on control board. Take the time to neatly arrange the wires so that they will not be pinched between the cover and the controller chassis. Also make sure they are not shorting anything out on the control board.
- 15) Tighten cover screws of chassis so that metal corners of cover are touching metal edge of controller to insure a watertight seal. Also, finger tighten, the two black Heyco fittings that were loosened in step 3.
- 16) Re-connect power to controller and Test.

