

TIC GENERAL MODEL 2020 CONTROLLER

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SPECIFICATIONS

Power Source.....	115VAC +/- 10V at 60 HZ
Power Consumption.....	200 watts Maximum
Output Voltage.....	24VDC at full rated current
Output Current.....	7.5 ADC Maximum
Transient Protection.....	Varistors on power and sensor lines
Meter Accuracy.....	+/- 5% of range does not include calibration or alignment errors.
Preset Control Accuracy.....	+/- 10% of range

INSTALLATION

Upon receipt, inspect the Controller carefully for shipping damage. If damage is evident, do not attempt to use the Controller. Retain all packaging material and notify the carrier of the damage.

Connect the Controller to the TIC Ringrotor as illustrated on the Wiring Diagram. Conductors connected to terminals 4, 5, and 6 should be no smaller than AWG 18. Refer to the Wiring Diagram for conductor sizes for terminals 2 and 3. If desired terminal 1 may be connected to the station ground.

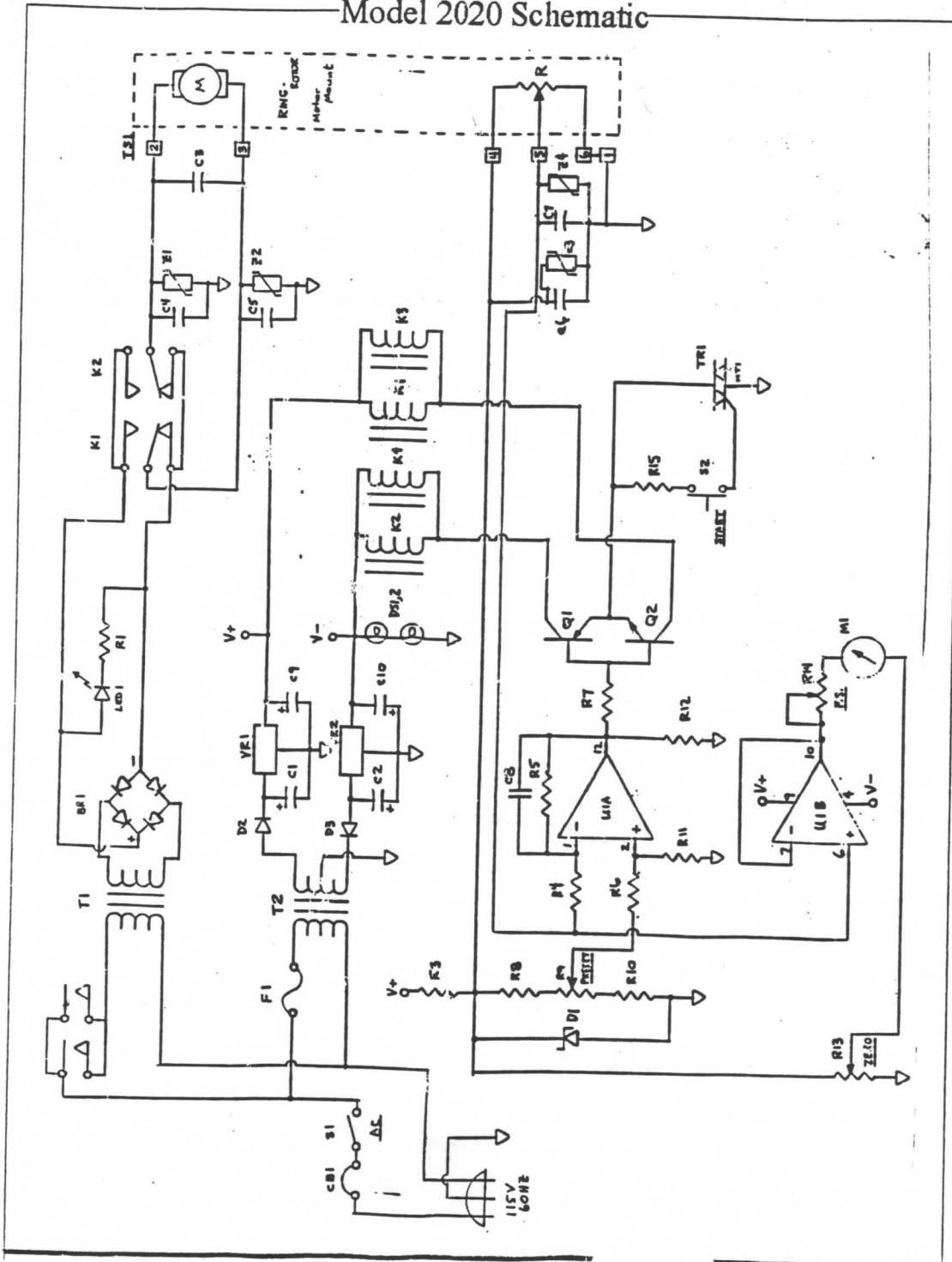
WARNING.....WHEN OPERATING THE CONTROLLER WITH THE COVER REMOVED, LETHAL VOLTAGES ARE PRESENT. ONLY QUALIFIED PERSONS SHOULD ATTEMPT REPAIRS.

1. Connect the Controller to the power AC source and set the AC switch to ON.
2. The meter should now indicate approximately mid-scale. If the meter pegs to either end of the scale do not attempt to operate the Controller. Rather, check for a miswire or open wire.
3. Set the preset Controller to 180' (S) in the CCW direction, and momentarily depress START. (The meter should immediately begin to move in the CCW direction. If not, shut off the AC immediately and check for a miswire or open wire.) When the Rotor reaches the end of travel, the LED under the PRESET knob will turn off.
4. Adjust the "zero" meter calibration adjustment on the left side of the Controller to obtain an exact 180'(S) indication at the left end of the meter scale.
5. Set the PRESET control to 180'(S) in the CW direction and depress the start switch. The meter will move towards the right end of the scale.
6. When the LED turns off, adjust the FULL SCALE meter calibration adjustment to obtain an exact 180' indication at the right end of the scale.
7. Repeat steps 3 through 6 until no further adjustment is necessary.

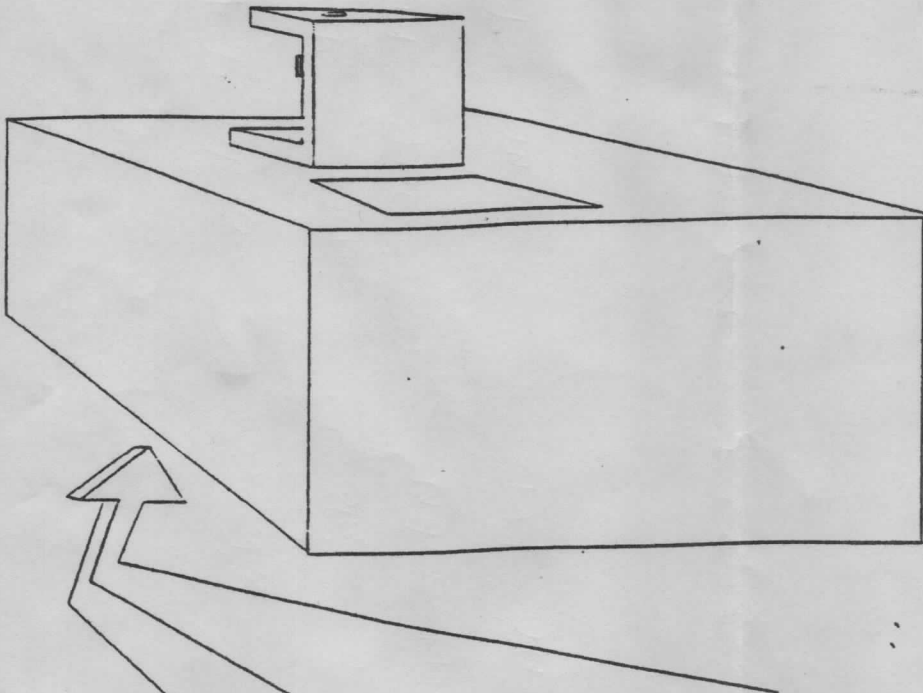
Operational Warning

WARNING...IF AT ANY TIME DURING OPERATION THE NEEDLE ON THE CONTROLLER PEGS TO EITHER END OF THE SCALE, OR IF THE NEEDLE FAILS TO MOVE WHEN THE LED IS ON, SWITCH THE "AC" OFF IMMEDIATELY. FAILURE TO DO SO COULD ALLOW THE ROTOR TO ROTATE MORE THAN 360'. THIS COULD RESULT IN BROKEN ANTENNA COAX OR DAMAGE TO THE ANTENNA. THE CAUSE FOR THESE MALFUNCTIONS CAN BE BROKEN OR IMPROPER WIRING BETWEEN CONTROLLER AND ROTOR OR ELECTRONIC FAILURE.

Model 2020 Schematic



WIRING DIAGRAM

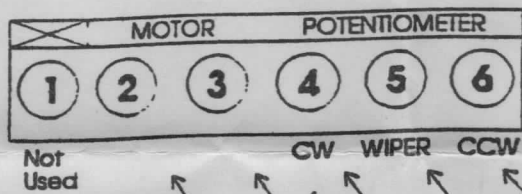


MOTOR WIRE SIZING TERMINALS 2 & 3

TO 400 FEET	18GA.
400 - 500 FEET	16GA.
500 - 800 FEET	14GA.

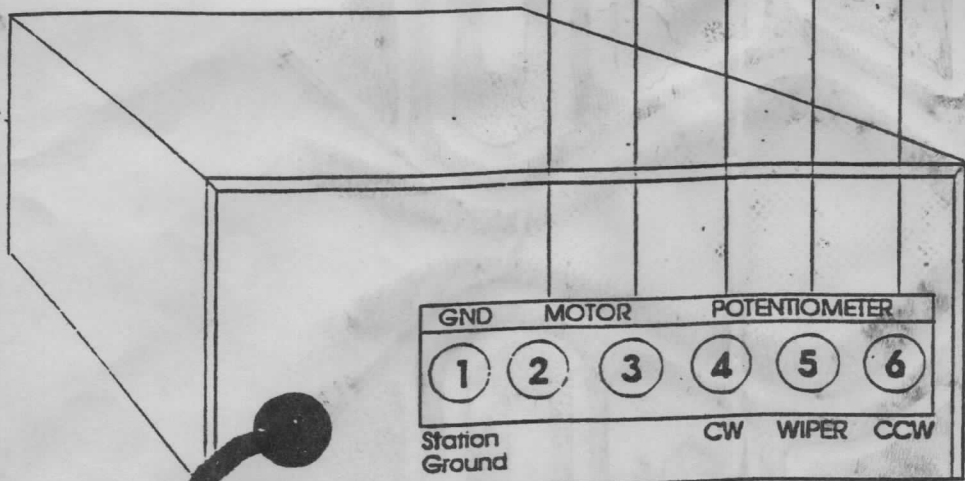
MOTOR WIRE SIZING TERMINALS 2 & 3 (With Second Motor)

TO 300 FEET	18GA.
300 - 450 FEET	16GA.
450 - 700 FEET	14GA.



Hookup Wire Color Code

Terminal# 2	Green
Terminal# 3	Red
Terminal# 4	Yellow
Terminal# 5	Blue
Terminal# 6	Brown



CONTROLLER, MOTOR MOUNT WIRING