

DC Motor Installation Instructions

The purpose of this document is to instruct the user on how to successfully wire the DC spindle motor and controller. Use the wiring diagram (Figure 1) and instructions below to properly connect the motor and controller. **NOTE: It is important to read and understand this document before power is applied.**

- 1) Use 18 AWG stranded wire should connections.
- 2) Assure that all 0.250" quick-disconnect (QDC) terminations are properly crimped. A wire can NOT be pulled out of a terminal that is crimped successfully.
- 3) Use a wire nut or terminal strip when two wires are to be joined together. Make sure that all connections made with a wire nuts can NOT be separated by pulling on the two wires.

IMPORTANT:

- 4) The controller must be setup **before** power is applied. The potentiometers should be set to the positions shown in Figure 2 and should NOT be otherwise adjusted unless careful consideration has been taken.

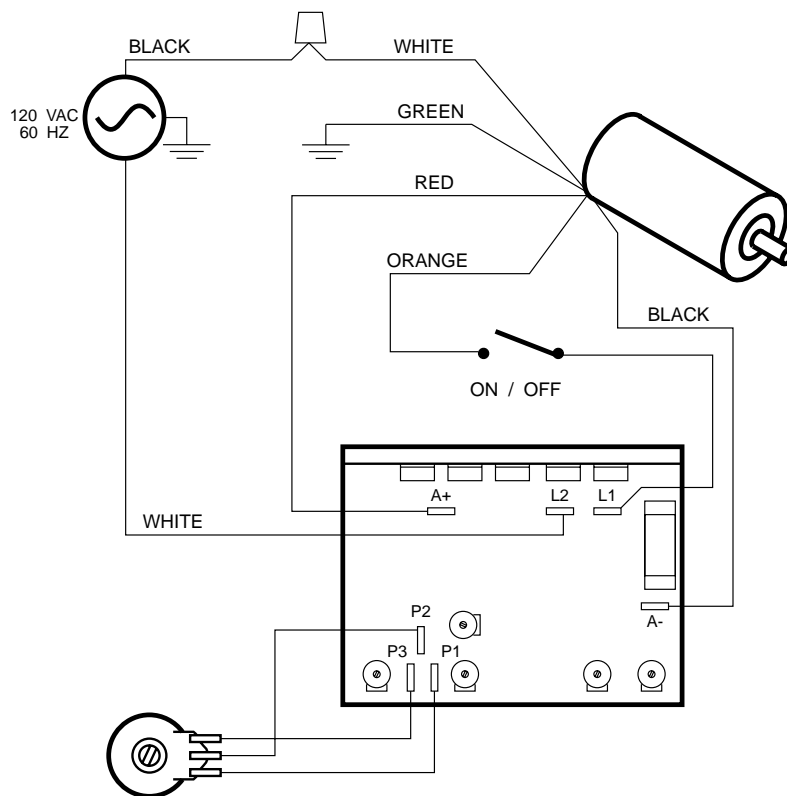


Figure 1 - Wiring Diagram

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The potentiometer settings are factory set for overall performance and should be suitable for most applications. See diagram below for locations and functional descriptions of the potentiometers (arrows indicate typical settings).

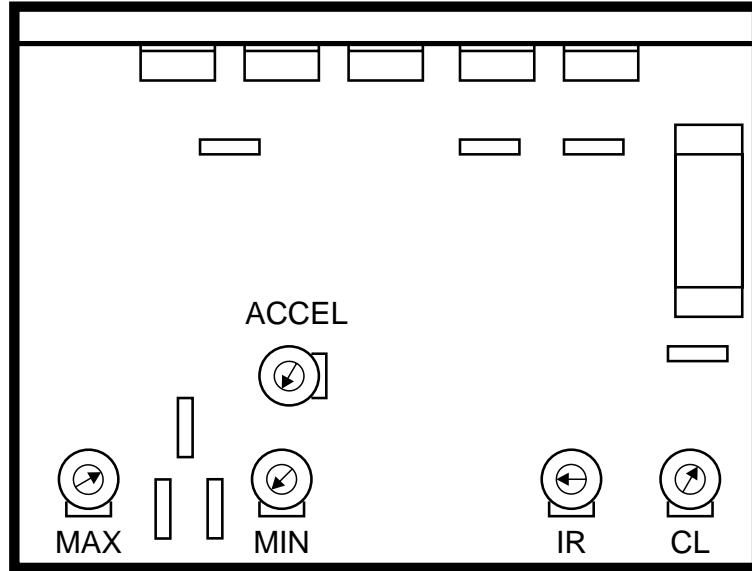


Figure 2 - Controller Settings

| <u>Adjustment</u> | <u>Description</u> |
|-------------------|---|
| MAX | Sets the maximum motor speed (when Speed Control Knob is fully CW). CW rotation increases speed. |
| MIN | Sets the minimum motor speed (when Speed Control Knob is fully CCW). CW rotation increases speed. |
| ACCEL | Sets the ramp-up/ramp-down time (slew speed). CW rotation increases rate of change. |
| IR | Sets IR Compensation. IR Comp is used to improve load regulation. CW rotation increases compensation, however, excessive compensation will result in erratic operation. |
| CL | Sets the current limit. This adjustment is used to protect the motor and controller against overloads. It also limits the inrush current to a safe level during startup. The default setting should <i>NOT</i> be altered. |