



## **Instructions for installation of Ultra Tec Speed Control (1668.1)**

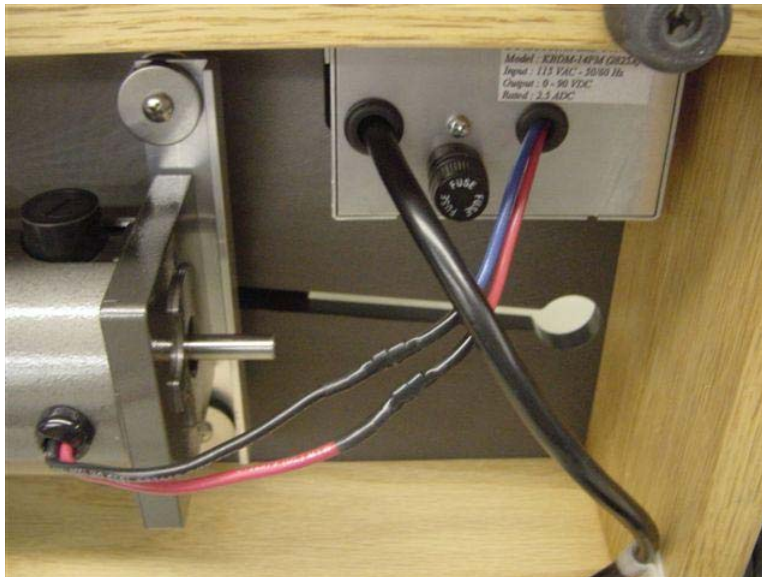
**CAUTION:** Before proceeding with this, confirm that the power cord is not plugged into a source of electrical power. This installation involves “modules” in which the electrical components are in a protective enclosure except for the specific hook-up elements. Do not open the enclosure without having received instructions to do so from Ultra Tec.

**1.0 Remove old Control.** Turn the unit onto its rear side for easy access.

1.0 Electrically disconnect the old control. .

Separate the Power Cord from any restraining clamp – it remains with the old Module as it is removed.

There are two wires that extend from the enclosure, joined to two wires from the motor. The joining connectors are covered with shrink tubing. Remove the shrink tubing by slitting it lengthwise with a blade (careful! Do this safely) – when it is slit through, the shrink tubing will peel away, exposing the wire connectors. They function by a scissor action. Separate them.





- 1.1 Mechanically disconnect the old Module. The Control Panel, a component of the Module, is held to the Baseplate by four screws – one in each corner. Remove them. Grip the Panel and lift the old Module - it should lift easily – be sure that the rear wires are free to follow the Module up and out



## 2.0 Install the new Control

- 2.1 Mechanical assembly. In a reversal of the prior removal operation set the new Module into the hole in the Baseplate and tighten the corner screws.
- 2.2 Electrical assembly. This is a reversal of the removal process.

Note that shrink tubing has been provided – slip the tubing onto the wire leads from the enclosure. Join the connectors (a scissor action). Slip the shrink tubing over the connectors (do not shrink them yet – that will be done after testing, described below).



If there is a safety clamp for the main power cord, reconnect that.

Note that the Module is longer than the old one – but it does not extend below the rubber feet on the box. That additional space is required for electronic upgrade components that have been added.



TESTING: Plug in the main power cord. Turn the unit ON, and observe the direction of rotation, confirming the CW and CCW directional controls. If the directional controls are not correct – that is, if they function opposite expected operation, the hookup wires to the motor need to be reversed. Unplug the power, pull back the shrink tubing, disconnect the connectors--and change their positions. Set the shrink tubing back over the connectors—plug in the power—and confirm that the directional controls are now correct. Shrink the tubing—it can be done with a lighter or a match—carefully.

The new Module has been set for speeds prior to shipment.

Note that the new Module includes a fuse, offering protection from an electrical “spike” (as may happen in an electrical storm).

The new module is designed to suppress electrical noise – audible “hum” – from the motor.