



## TECHNICAL INFORMATION

### TI-1081B

#### **SUBSTITUTING EXTERNAL OVERLOAD PROTECTOR FOR MOTOR OVER-TEMPERATURE SWITCH ON TD75 DRYER.**

**MACHINES AFFECTED:** single-phase, 120V TD-75 (gas and steam heated)

**PARTS REQUIRED:** Qty 1 - p/n 098657 Kit, TD75 overload protector

**CAUTION:** THESE INSTRUCTIONS ARE INTENDED TO ASSIST QUALIFIED, EXPERIENCED SERVICE PERSONNEL ONLY! IMPROPER SERVICING OF MACHINERY MAY RESULT IN HAZARDOUS CONDITIONS, PERSONAL INJURY, OR DAMAGE TO PROPERTY. PERSONS NOT TRAINED, OR PERSONS UNFAMILIAR WITH WASCOMAT LAUNDRY MACHINES, SHOULD REFER SERVICING TO QUALIFIED PERSONNEL.

Under certain line-Voltage and high ambient temperature conditions, it is possible that the self-resetting over-temperature protection switch inside the TD-75 drum-drive motor may open, causing the machine to shut down unexpectedly. The thermal protector opens at a temperature that is well below the actual safe operating temperature of the motor. For this reason, and under these conditions, it is necessary to eliminate the built-in thermal protector from the control circuit, and to install a control-panel-mounted overload protector for the motor.

#### **INSTRUCTIONS**

1. Turn off electrical power to the dryer, then remove the rear panels.
2. Remove the terminal-box cover on the drum-drive motor.
3. Use a small screwdriver or awl to pry open the terminal block clamps for the motor thermal protector switch wires on terminals 1B1 and 1B2 (fig 1). Remove these two (blue) wires from the terminal block. (Note that the two removed wires enter the motor itself). Twist the ends of these two wires together and cap them (fig 2).
4. Install a jumper wire between terminals 1B1 and 1B2 on the

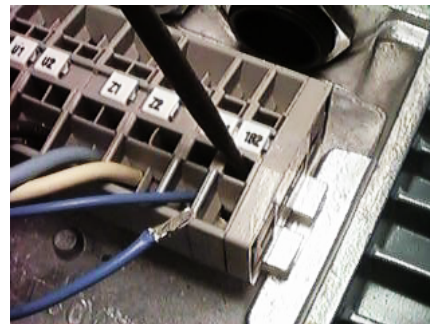


fig 1

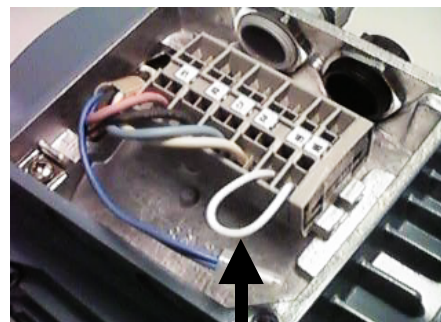


fig 2

Jumper wire

- terminal block (from which the two blue wires were removed in step 3).
5. Re-install the motor terminal-box cover and the dryer back panels. Unlock and prop open the dryer's front control panel. Using the two screws provided, mount the overload protector's base in the control panel as shown in figure 3. Orient the base so that the protruding "I" section is on the right.
  6. Remove ONLY wire 51B from the control-circuit power transformer secondary, leaving wire 51A in place on the transformer terminal. Cut the 1/4" female spade terminal from the end of wire 51B and discard it. Strip 1/4" of insulation from the end of the wire.
  7. Assemble the remaining two components (terminal block and body) of the new overload-protector, and snap the assembly onto its base, according to the instructions provided with the device.
  8. Connect the stripped end of wire 51B (from step 6) to terminal 95 of the new overload protector.
  9. Connect the factory-installed wire from terminal 96 of the overload protector to the power transformer terminal from which wire 51B was removed in step 6 (this terminal still has wire 51A on it).
  10. Locate the motor relay K1. This relay will have wires 301A & 309A on terminal 2 and wires 303A & 311A on terminal 4. Remove all wire ties and cable clamps that restrain the wires to the right of this relay.
  11. Remove wire 301A and 303A from terminals 2 (T1) and 4 (T2) on this relay (leaving wires 309A and 311A in place) and connect them to terminals 5 (L3) and 3 (L2), respectively, on the new overload protector.

NOTE: Use the jumper wires provided in the kit for steps 13 and 14. The ends of these wires are fitted with wire terminals that are intended to provide a reliable connection to relay K1.

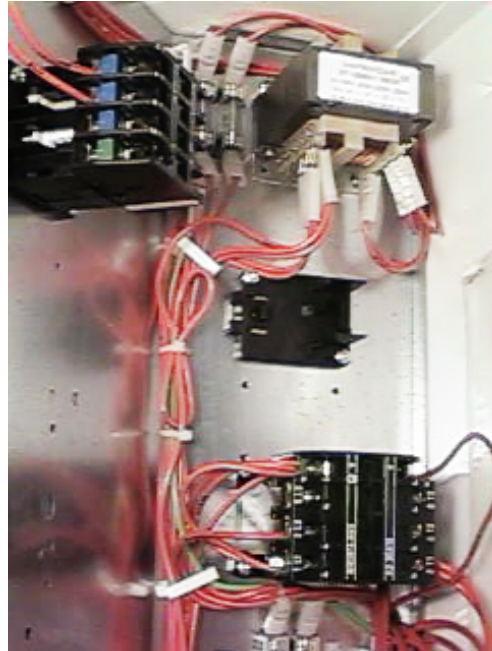


fig. 3

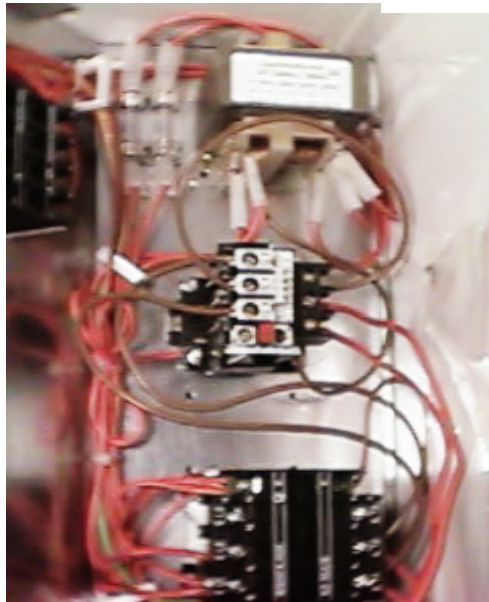


fig. 4

12. Connect the wire from terminal 6 (T3) on the new overload protector to terminal 2 (T1) on relay K1 (from which wire 301A was just removed).
13. Connect the wire from terminal 2 (T1) on the new overload protector to terminal 4 (T2) on relay K1 (from which wire 303A was just removed).
14. Verify that a jumper is installed between terminals 1 (L1) and 4 (T2) on the new overload protector.
15. Check that all wires are fastened securely and safely routed, then install wire ties, as needed, to hold them in place.
16. Restore power to the dryer and test (with heat).
17. Verify that the dryer shuts off when the reset button on the newly installed overload protector is pressed.
18. Close and lock the control panel and return the dryer to service.

If the overload protector detects abnormal current in the drum motor, the normally-closed switch at terminals 95 and 96 will open, disconnecting the power supply for the dryer's controls. The overload protector must be manually reset by pressing the reset button to resume operation of the machine.

Tripping of the overload protector indicates a possible problem with the dryer's drum motor, or the controls that power it. If the protector trips again when reset, the problem must be identified and corrected **BEFORE** resetting the protector a second time. **Failure to correct the cause of the trip may result in serious damage to the machine's components.**

Contact Wascomat's Service Department at 516-371-0700 if you have questions regarding this or any service procedure on Wascomat machines.

(ti1081) 08/2000

# Wiring Diagram

TI-1081B

