

Voltage Regulators

McGraw-Edison® VR-32 Regulator Control Heater Part No. 9000: Installation and Parts Replacement Instructions

Service Information

S225-10-12

INTRODUCTION

These installation, maintenance and parts replacement instructions apply to part number 9000 McGraw-Edison control heater accessory (Fig. 1) used with a McGraw Edison® CL-2A, CL-4C or CL-5A voltage regulator control.

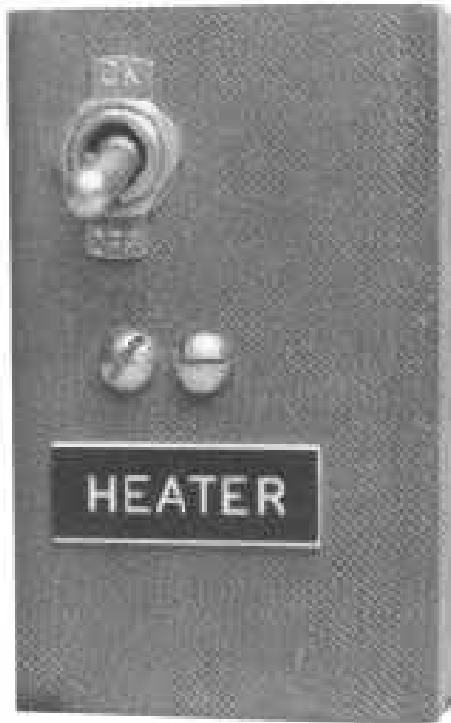


Figure 1.
Thermostatically controlled heater assembly.

The heater can be manually turned ON or OFF by means of the toggle switch located on the heater assembly. In the ON position, the thermostat located in the heater assembly will energize the heater when the temperature falls below 85°F. The thermostat turns the heater off when the temperature exceeds 100°F. Figure 2 is the schematic diagram of the heater and its connection to the regulator control.

Only trained and experienced personnel should install or operate this equipment.

These instructions are written to assist such personnel, and are not intended to replace proper training and experience. If additional information is required, please contact your Cooper Power Systems representative.

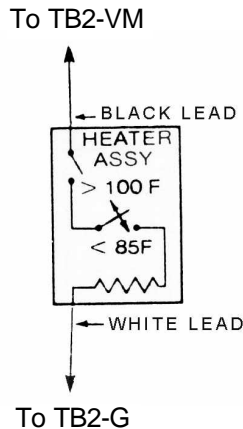


Figure 2.
Schematic diagram.

WARNING/DANGER ALERTS

Warning/Danger alerts in this manual describe hazardous situations that may cause death and/or personal injury if the instructions in the Warning/Danger alerts are not followed. Warning/Danger alerts are highlighted as follows:



WARNING/DANGER A Warning/Danger alert describes a hazardous situation that may cause death and/or personal injury and gives instructions on how to avoid death and/or personal injury.

CAUTION ALERTS

Caution alerts in this manual describe hazardous situations that may cause personal injury and/or property damage if the instructions in the Caution alerts are not followed. Caution alerts are highlighted as follows:



CAUTION A Caution alert describes a hazardous situation that may cause personal injury and/or property damage and gives instructions on how to avoid personal injury and/or property damage.

INITIAL INSPECTION

Each field installed McGraw-Edison® No. 9000 heater is shipped in a carton designed to protect the unit from in-transit damage. Immediately upon receipt of a heater:

- Thoroughly inspect the housing and the wiring to make sure the heater is in good condition.

If initial inspection reveals damage or evidence of rough handling in transit, immediately file a claim with the carrier and notify your Cooper representative.



CAUTION Do not install a damaged heater. A damaged heater can cause fuse blowing.

These instructions do not claim to cover all details or variations in the equipment, procedure, or process described, nor to provide directions for meeting every possible contingency during installation, operation or maintenance. When additional information is desired to satisfy a problem not covered sufficiently for the user's purpose, please contact your Cooper Power Systems representative.

INSTALLING HEATER IN A CL-2A, CL-4C OR CL-5A CONTROL ENCLOSURE

To install a heater in a control enclosure:

1. Open the front panel to gain access to the rear panel by:
 - A. Loosening the knurled captive screws on the left of the front panel.
 - B. Swinging the front panel out.

CAUTION Open the V₁ knife switch and V₆ knife switch if present, and close the C knife switch to de-energize the control before installing the heater accessory.

2. De-energize the control by:
 - A. Opening the V₁ disconnect knife switch.
 - B. Opening the V₆ disconnect knife switch if present.
 - C. Closing the C knife switch.
3. Using two-6-32 x 3/8 in. machine screws, mount the heater to the tapped holes on the rear panel.
4. Refer to Figure 2 and wire the heater to Terminal Board TB2 by:
 - A. Connecting the white lead to TB2-G.
 - B. Connecting the black lead to TB2-VM.

5. Energize the control by:
 - A. Opening the C knife switch.
 - B. Closing the V₆ disconnect knife switch if present.
 - C. Closing the V₁ disconnect knife switch.
6. Activate the heater by placing the ON/OFF toggle switch on the front of the heater in the ON position.

NOTE: In the ON position, the thermostat turns the heater on when the temperature falls below 85°F and turns the heater off when the temperature exceeds 100°F.

7. Close the control front panel by:
 - A. Swinging the front panel back into place.
 - B. Tightening the knurled captive screws on the left side of the front panel to hold the panel securely in place.

The control - with thermostatically controlled heater - is now in service.

Table 1 and Figure 3 locate and list replacement parts.

TABLE 1
Heater Assembly (part code 9000)
Parts Description

Item No.	Description	Part Code No.
1	Resistor	9001
2	Thermostat	9002
3	Switch	9003

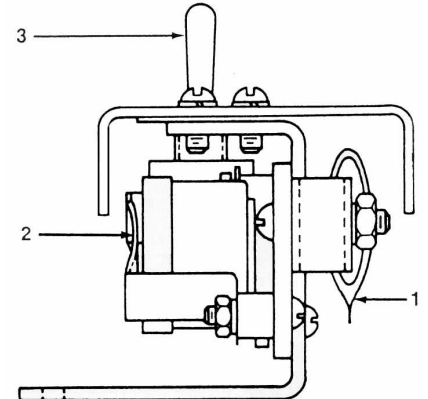


Figure 3.
Heater assembly replacement parts location. For part description and part number, see Table 1.

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