INSTALLATION INSTRUCTIONS

R841E
ELECTRIC HEATING RELAY

APPLICATION

The R841E Electric Heating Relay is used with a two-wire, 24-volt thermostat to provide control of electric heating equipment. It is a direct-following relay which operates with each cycle of the thermostat (4 to 6 cycles per hour with a T86A or T87F Thermostat). It has an integral transformer.

IMPORTANT: Do not use the R841E with the T86D or -E Electric Heating Thermostats. These are fast cycling thermostats for use only with the R8097 Relay.

The R841E is a two-switch device used either with one thermostat to control one or two loads simultaneously, or with two thermostats to control two indipendent loads. The R841E should not be used as a disconnect switch.

INSTALLATION

The R841 must be mounted where the ambient temperature is within the range of -20 to 150 F the year around. The small size and silent operation of the R841 allow installation in a living area, utility room or basement. The bimetal-operated switches permit mounting the relay in any convenient position.

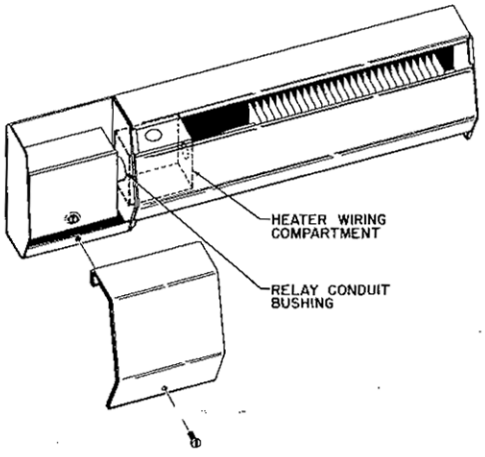

Fig. 2—Four relays mounted on wireway.

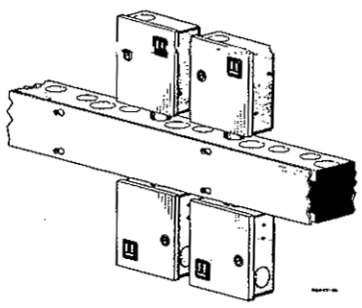

Fig. 2—Four relays mounted on wireway.

Fig. 1 shows a typical installation within a compartment enclosure on the end of a baseboard heater. In this application the conduit bushing can be connected to the wiring compartment in the heater. The back of the compartment enclosure should be equipped with embossings to clear mounting screws.

The R841E may also be mounted without compartment enclosure on a wireway or junction box (Fig. 2).

1. Fasten relay securely to mounting surface using the two mounting holes in the backplate, or the conduit bushing.
2. Disconnect power supply.
3. Run wiring to mounted relay and connect according to Fig. 3, 4 or 5.

WIRING

ALL WIRING MUST AGREE WITH LOCAL CODES. Be sure the power supply voltage agrees with the rating on the relay label.

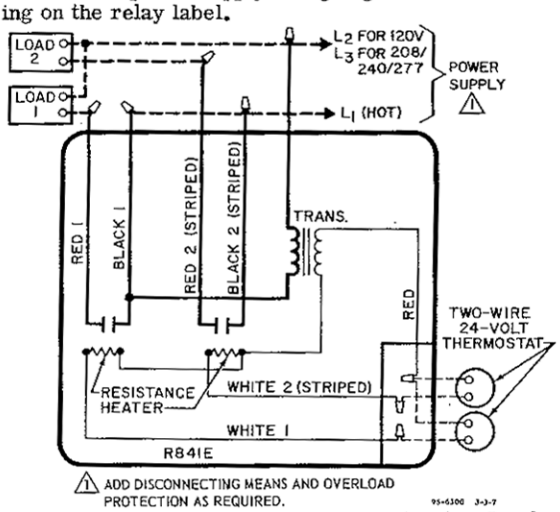

Fig. 3--R841E with two thermostats for two Loads.

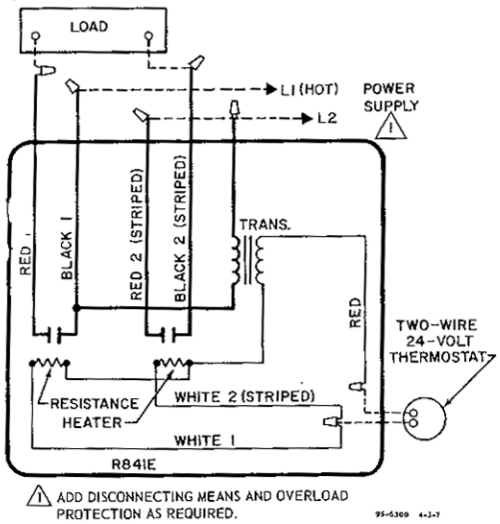

Fig. 4—R841E connected to break both sides of a single-phase load circuit and controlled by one 0.4 amp thermostat.

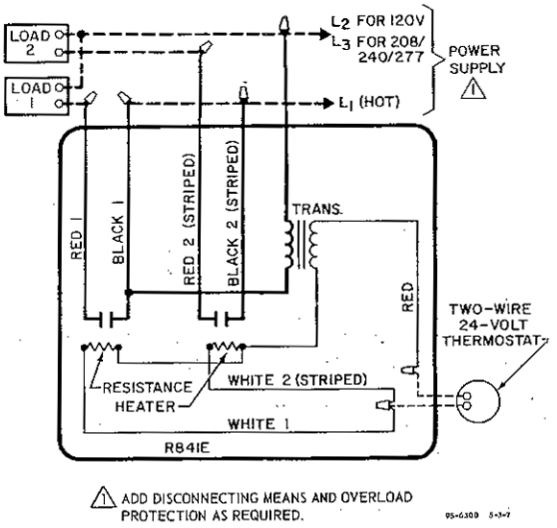

Fig. 5—One thermostat controlling two loads simultaneously.

OPERATION

The cycling pattern of the R841E is determined by the thermostat(s). On a call for heat, the thermostat(s) activates the low-voltage resistance heater(s) in the R841E. The heater(s) drives the bimetal strip(s) to actuate the spst MICRO SWITCH* snap acting switch(es). The bimetal strip is ambient temperature compensated within the specified ambient range. At rated voltage and frequency, the R841 switch contacts "make" approximately 80 seconds (from cold start) after the thermostat calls for heat.

CHECKOUT

After mounting and wiring have been completed, turn on the power supply. Set the thermostat above room temperature until the electric heating equipment starts (allow about 80 seconds from cold start). Permit the system to operate long enough to prove the heating equipment functions properly. Return the thermostat to the desired room temperature before leaving the installation.

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