INSTALLATION INSTRUCTIONS

R841B & D

ELECTRIC HEATING RELAYS

APPLICATION

The R841 Electric Heating Relay is used with a two-wire, 24-volt thermostat and a 24-volt transformer 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/hour). IMPORTANT: Do not use the R841 with the T86D or E Electric Heating Thermostat. These are fast-cycling thermostats for use with the R8097 Relay only.

The R841B and D must be powered from a remote 24-volt transformer. Leadwires are provided both for low-voltage and line-voltage connections. The R841D is equipped with a male conduit bushing for the line-voltage leadwires.

Make certain that the electrical rating on the R841 cover insert is equal to or greater than the current requirements of the controlled equipment.

INSTALLATION

The R841 must be mounted in an ambient which is within a maximum of 150F and a minimum of -20F the year around. The small size and silent operation of the R841 allow installation in a living area, utility room or basement. The use of a bimetal-operated

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switch permits mounting the relay in any convenient position.

The R841 may be installed within a compartment enclosure on the end of a baseboard heater. The back of the compartment enclosure should be equipped with embossings to clear mounting screws where necessary.

The R841D (with conduit bushing) may be mounted without compartment enclosure on a wireway or junction box (see Fig. 1).

MOUNTING

Use the mounting bracket as a template to mark the location of the mounting hole and mounting slots. Fasten the relay securely to the mounting means with #8 screws, using the enclosed mounting slot on one side of the bracket and the open-end slot of the mounting hole on the other side. The R841D may be fastened directly to a wireway or junction box with the conduit bushing.

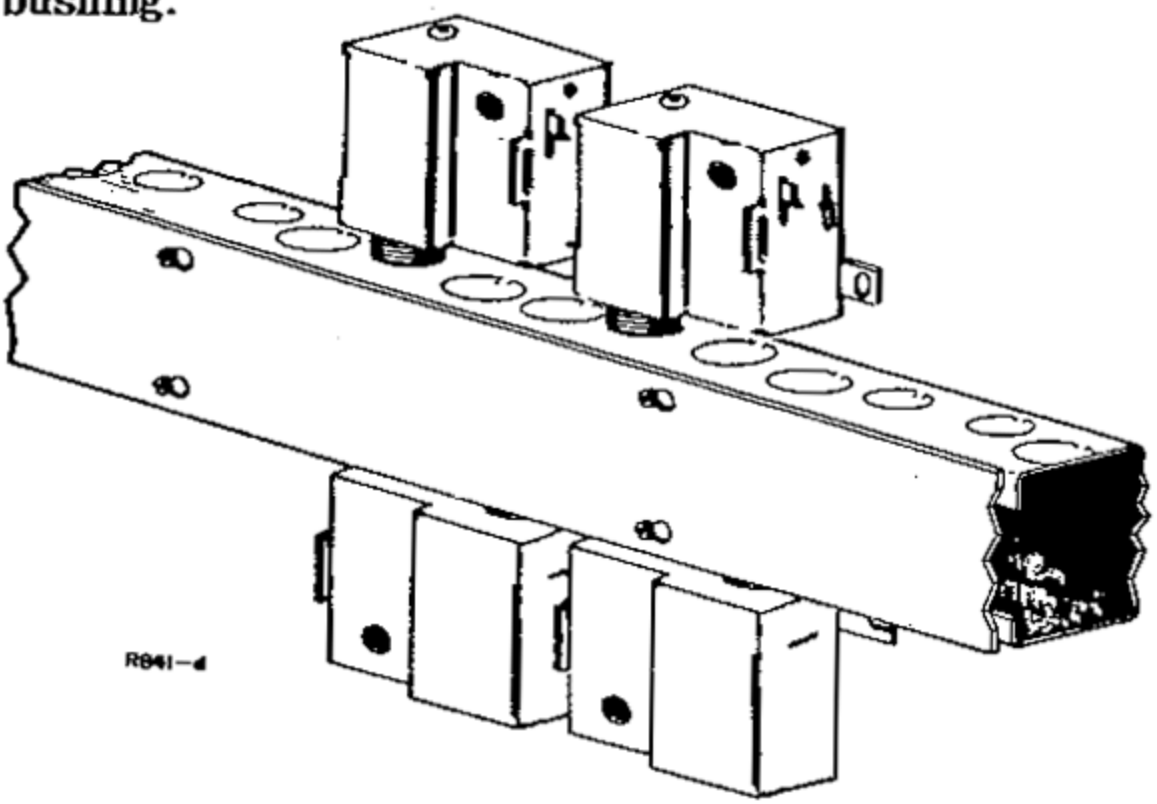

Fig. 1—R841D Relays mounted on wireway.

WIRING

Run wiring to mounted relay and connect according to Figure 2, 3, or 4. IMPORTANT: All wiring must agree with applicable codes, ordinances and regulations in such matters as wire size, type of insulation and enclosure.

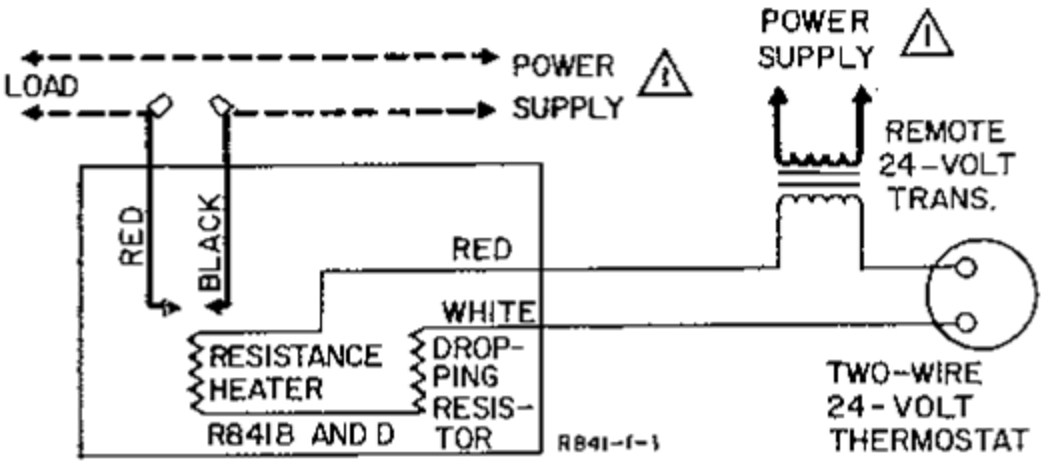

Fig. 2—R841B and D internal schematic and connection diagram.

1 Disconnect and overload protection as required.

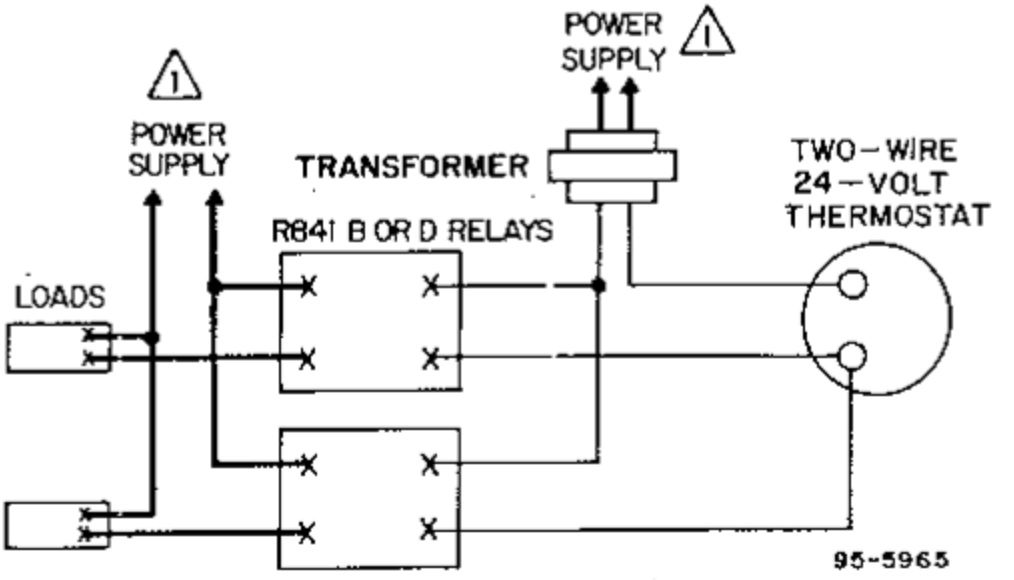

Fig. 3—Connections for two R841B or D Relays used with one transformer and thermostat.

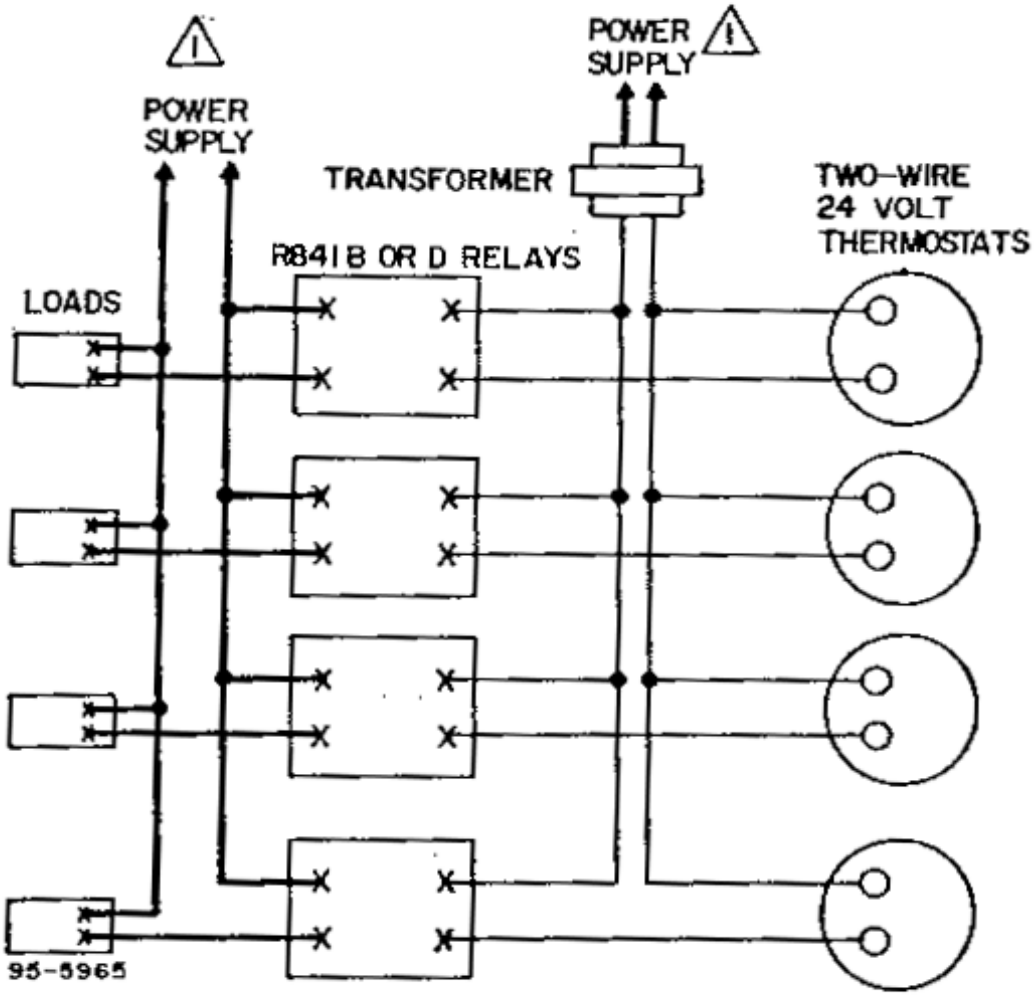

Fig. 4—Connections for four R841B or D Relays and thermostats used with one transformer.

OPERATION

On a call for heat, the thermostat energizes the low-voltage resistance heater in the R841. The heater drives the bimetal to operate an spst MICRO SWITCH* snap switch. The bimetal is ambient-compensated; within the specified ambient range and at rated voltage and frequency, the R841 switch contacts make approximately 65 seconds after the thermostat calls for heat (from a cold start).

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