

# transformer relays

## 24A01G-3 WIRING

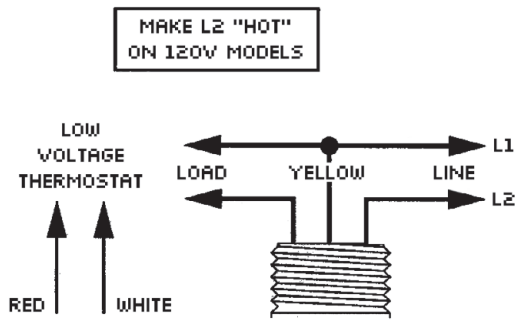


Fig. 1. Diagram of "LEVEL TEMP" wiring

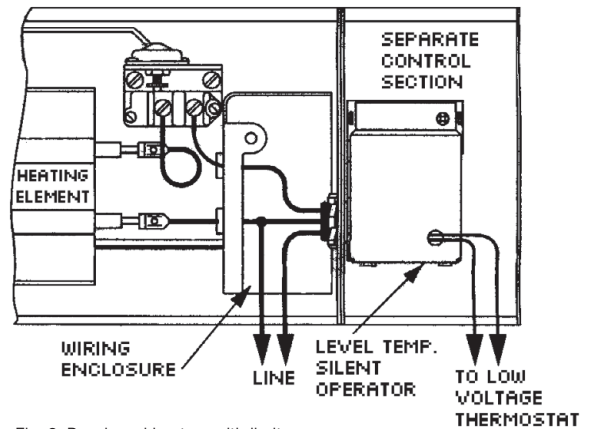


Fig. 2. Baseboard heaters with limit

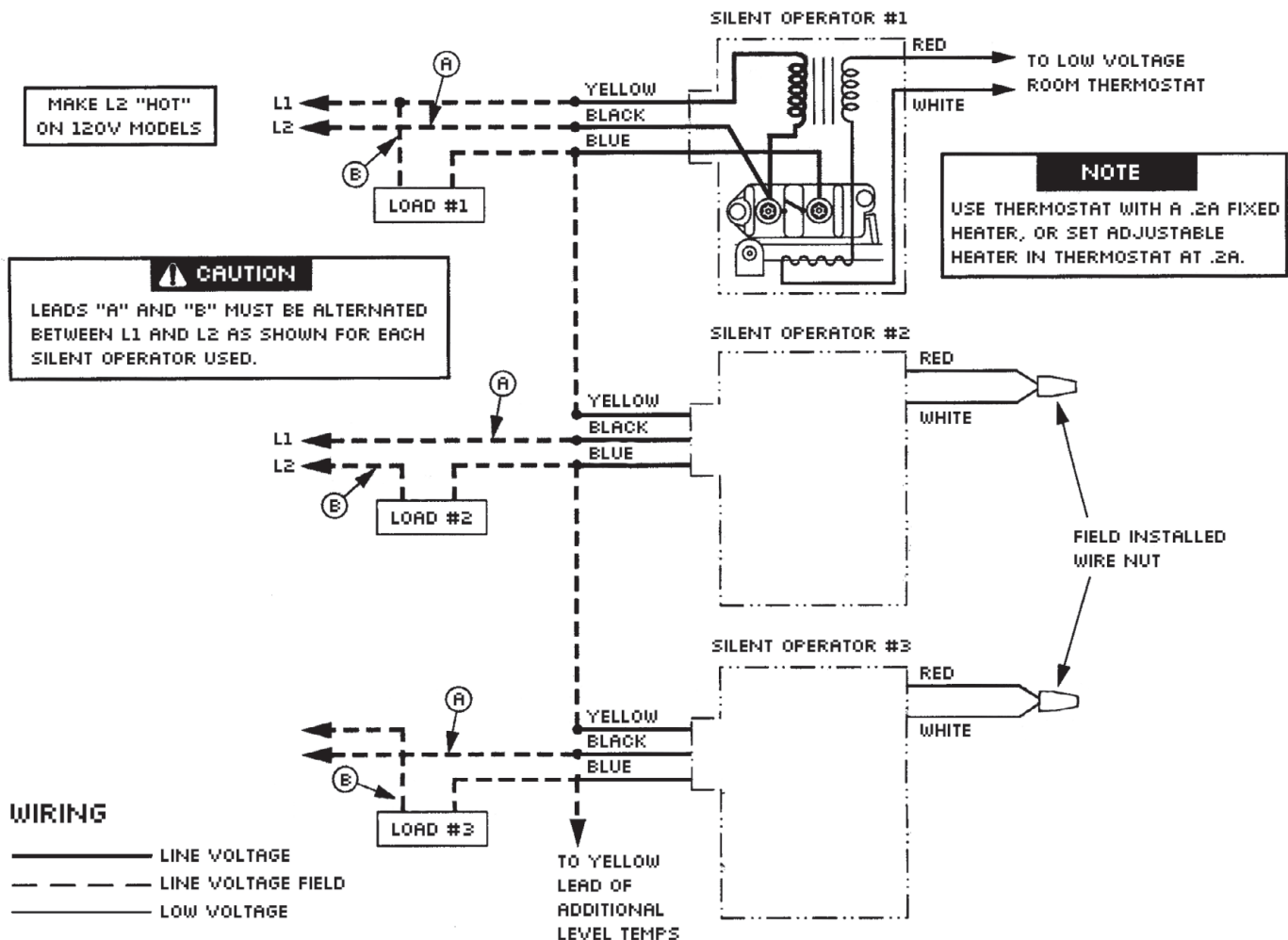
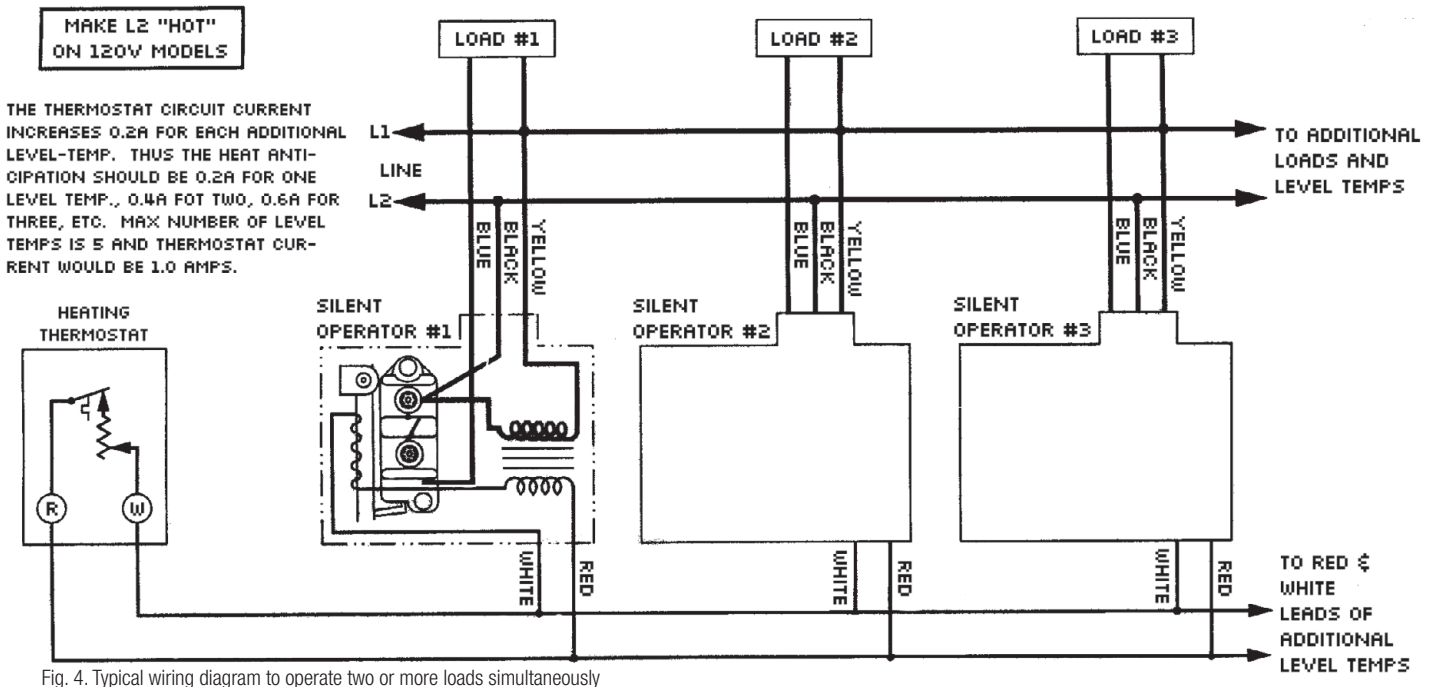


Fig. 3. Typical wiring diagram to "Sequence" two or more loads

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## USING ONE THERMOSTAT AND TWO OR MORE SILENT OPERATORS TO "SEQUENCE" LOADS

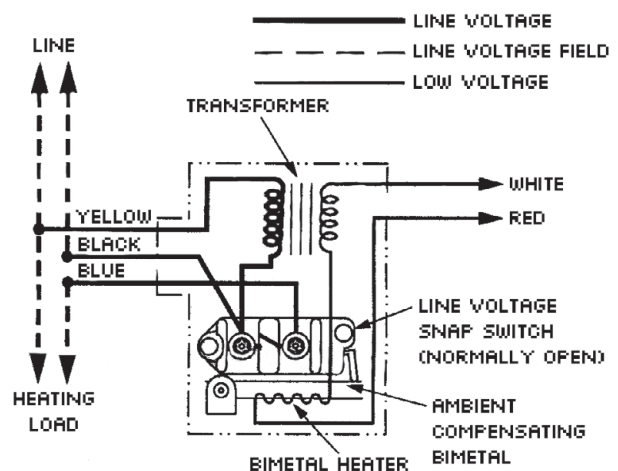
Figure 3 shows how several Level-Temp Silent Operators can be used to "sequence on" separate heating loads. This may be accomplished by "jumping" the thermostat leads of the additional silent operators, and wiring them in careful conformance to the recommended wiring diagram. Note that only one silent operator is in the thermostat circuit. Therefore, set the adjustable heater in thermostat at .2A, or use a thermostat with a .2A fixed heater.

**SEQUENCE OF OPERATIONS:** A circuit is completed through the bi-metal heater of the first silent operator as the contacts of the low voltage thermostat close. In approximately 45 seconds, the line voltage snap-switch of this operator closes, energizing heating load #1 and the

transformer primary of silent operator #2. Since the thermostat leads of this operator are "jumped", its bi-metal heater immediately begins its warping action. In approximately 45 seconds the line voltage switch of operator #2 closes to energize heating load #2 and the transformer primary of silent operator #3. This "sequence on" pattern continues until all successive silent operators and heating loads have been energized. When the single Level-Temp room thermostat opens its contacts each separate heating load will be "sequenced off" in intervals of approximately 45 seconds.

## OPERATION

Basic Silent Operator components are a line-to-low voltage transformer, a low voltage bi-metal heater, an ambient compensating bi-metal and a normally open single pole single throw line voltage snap-action switch. In operation a circuit is completed through the bi-metal heater as the low voltage room thermostat closes its contacts. In approximately 45 seconds the warping action of the heater closes the line voltage snap-action to energize the heating load. When the thermostat opens its contacts the bi-metal heater cools for approximately 45 seconds before the line voltage switch opens to de-energize the heating load.



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## 24A06G-1 WIRING

FIG. 2. USING TWO-WIRE HEATING THERMOSTAT TO OPERATE TWO SEPARATE HEATING LOADS.

### OPERATION

AS THE THERMOSTAT CLOSES ITS CONTACTS, BIMETAL HEATERS #1 AND #2 ARE ENERGIZED. APPROXIMATELY 45 SECONDS LATER, THE WARPING ACTION OF THESE HEATERS CLOSES LINE VOLTAGE SWITCHES #1 AND #2 TO ENERGIZE HEATING LOADS #1 AND #2. WHEN THE THERMOSTAT OPENS ITS CONTACTS, BIMETAL HEATERS #1 AND #2 COOL FOR APPROXIMATELY 45 SECONDS BEFORE LINE VOLTAGE SWITCHES #1 AND #2 OPEN TO DE-ENERGIZE THE HEATING LOADS.

