

L4069C LIMIT CONTROL

APPLICATION

The L4069C provides high temperature burner cutout protection in a warm air system. The bimetal element is inserted into the heated discharge air system.

The L4069 provides—

1. A limit switch with cutout set point adjustable from 180 F to 250 F and fixed cut-in differential of 25 F (nominal).

2. An optional limit stop which can be installed in the field.

3. A 3 or 7 inch bimetal temperature sensing element.

An optional case and cover may be ordered if required (Part No. 132475E).

ELECTRICAL RATING:

| | 120V AC | 240V AC |
|--------------|---------|---------|
| Full Load | 8 | 4 |
| Locked Rotor | 48 | 24 |

Pilot Duty—50 VA at 24V ac,
 0.25 amp at 0.25 to 12V dc.
 (Millivoltage Systems.)

INSTALLATION

CAUTION

1. Installer must be a trained, experienced serviceman.
2. Disconnect power supply before making wiring connections to prevent electrical shock and equipment damage.
3. Limit stop cannot be removed or adjusted after installation. Follow instructions carefully.
4. All wiring must comply with applicable codes and ordinances.
5. Always conduct a thorough checkout when installation is complete.

REPLACING LIMIT SWITCH

NOTE: Before replacing limit switch, check to make sure that the existing element opening and case are suitable. Do not mount L4069C where ambient temperature exceeds 190 F at the switch or 350 F at the element. If a new case and cover are required, order Part No. 132475E and follow instructions accompanying device. After new case has been mounted proceed as follows:

1. Remove old limit switch by loosening backplate mounting screw and lifting out assembly.
2. Note limit setting on old control.
3. Set white set point knob on replacement control to this same setting or according to the directions of the furnace manufacturer.
4. Install limit stop on new control as follows:

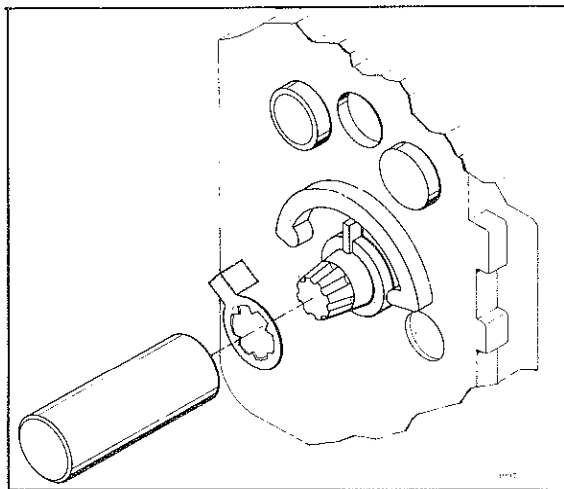


Fig. 1—Installing limit stop.

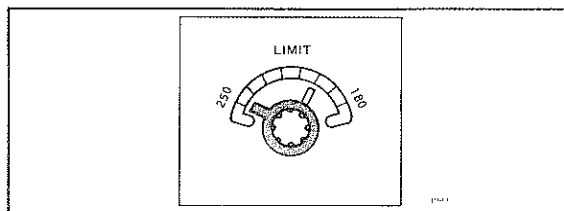


Fig. 2—Properly installed limit stop.

- a. Place limit stop with lugs down over set point knob, making sure that lugs are flush against the LEFT HAND stop of the scale.
 - b. Place open end of the insertion tool over limit stop.
 - c. Press down firmly, making sure that setting is not moved. (See Fig. 1.)
5. Mount the L4069 in enclosure and tighten the backplate mounting screw.

WIRING

All wiring must comply with applicable codes, ordinances, and regulations. Follow any wiring instructions furnished with the heating system. Make certain the L4069 is wired into the system to operate the same way as the old control.

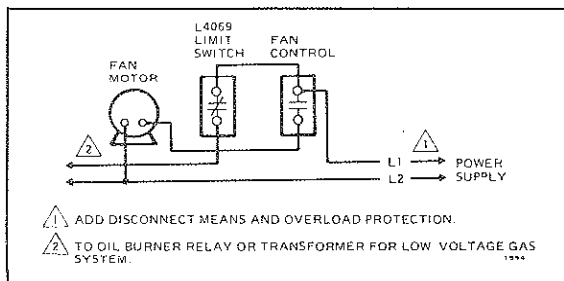


Fig. 3—Typical wiring diagram for limit control in forced air heating system.

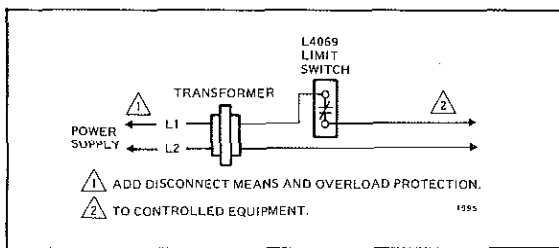




Fig. 4—Typical wiring diagram showing limit switch on low voltage side of forced air or gravity heating system.

To connect push-in terminals use the following procedure:

1. No. 14, 16, or 18 solid or No. 14 or 16 stranded wire may be connected to these terminals.
2. Strip insulation from wires the exact length shown by the strip gauge on the front of the switch.
3. If stranded wire is used, insert a small screwdriver into the rectangular hole (marked ) on the front of the switch above the round terminal hole; push inward and hold. Insert wire in round terminal hole, and remove screwdriver (see Fig. 4). If solid conductor is used, it may be inserted into the round terminal hole without using a screwdriver.

4. Do not connect aluminum wire to the push-in terminals on this device.

To disconnect either stranded or solid wire, proceed as follows:

1. Insert screwdriver into the rectangular hole (marked ) on the front of the switch. Push inward to release grip on wire.
2. With grip released, pull wire out of round terminal hole.

NOTE: If the limit control is used in a gravity system, or the low voltage side of a forced air system, connect as shown in Fig. 4. Insert wire from the "hot" line into top terminal (marked COMMON) and insert the wire leading to the controlled equipment into bottom terminal hole (marked LOAD).

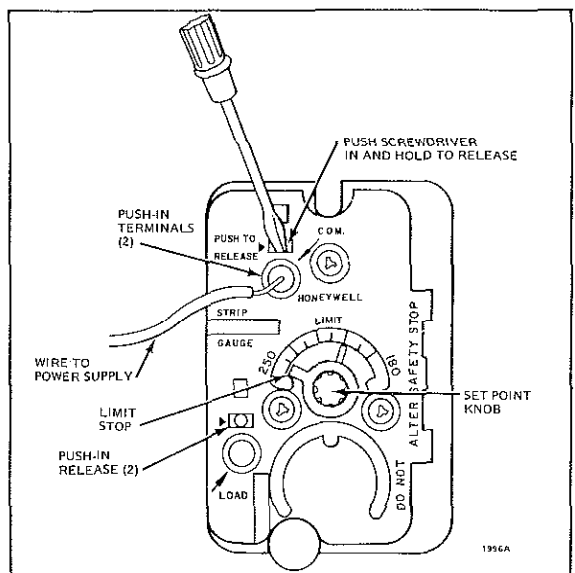


Fig. 5—Internal view of L4069C showing screwdriver to connect or disconnect wires at push-in terminals.

SETTINGS

Because heating systems differ, the burner or furnace manufacturer's recommendations should be followed when selecting proper setting. The set point knob may be field adjusted to cut out at any point between 180 F and 250 F. The differential is fixed at 25 F (nominal). Cut-in point is set point less differential.

To adjust the setting, remove the cover and use light finger pressure to move the set point knob to the same setting as the control being replaced, or to the setting recommended by the heating equipment manufacturer.

CHECKOUT

IMPORTANT

Always check out the entire system immediately following installation or replacement.

After mounting and wiring are completed, disconnect the fan. Set thermostat to call for heat. Burner should come on. High limit control should shut off burner when plenum temperature reaches high limit setting. Reconnect fan when checkout is complete and operate unit through one complete cycle.

WARRANTY "Unless otherwise specified, the Company warrants all Residential Division equipment manufactured by it and bearing its nameplate to be free from defects in workmanship and materials under normal use and service as follows:

1. Equipment which is received transportation prepaid at the factory originating shipment (1) within twelve months after date of manufacture, or (2) with a certification by the installer to be within twelve months after date of installation, and found by the Company's inspection to be defective in workmanship or materials within the guarantee, will be repaired or replaced at the Company's option, free of charge and returned lowest cost transportation prepaid. Premium transportation will be used at customer's request and expense;
2. If inspection by the Company does not disclose any defect covered by the guarantee, equipment will be repaired or replaced and the Company's regular service charge will apply;
3. WITH EXCEPTION OF THE FOREGOING AND UNLESS SPECIFICALLY EXPRESSED IN WRITING, THE COMPANY MAKES NO EXPRESS WARRANTIES, NO WARRANTIES OF MERCHANTABILITY AND NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF."

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