

THE FIELD CONTROLS COMPANY

MODEL DIP-1: FAN PROVING SWITCH KIT

This device **MUST** be installed by a qualified installer in accordance with the manufacturer's installation instructions. Wiring **MUST** be in accordance with the National Electrical Code and applicable local codes.

ITEMS SUPPLIED WITH THIS KIT:

- 1 - Remote pressure sensing switch
- 1 - 5 ft. length of aluminum tubing
- 1 - Pressure sensing fitting
- 1 - Brass nut
- 1 - 1/4" O.D. compression nut
- 1 - 1/4" O.D. compression sleeve

INSTALLATION PROCEDURE FOR REMOTE PRESSURE SWITCH KIT:

CAUTION: DISCONNECT ELECTRICAL POWER SUPPLY WHEN WIRING PRESSURE SWITCH

1. Mount the PRESSURE SWITCH on a vertical surface as close as possible to the draft inducer. The pressure switch **MUST** be mounted in the vertical position to maintain maximum sensitivity and removed from any heat source (See Figure 1).
2. Insert the pressure sensing fitting through the hole provided in the side plate of the draft inducer (See Figure 2). Tighten fitting to side plate with brass nut provided.
3. Attach the aluminum tube to the pressure sensing fitting with the 1/4 inch compression nut and sleeve. Then route the aluminum tubing to the PRESSURE SWITCH and connect the end to the negative side pressure port.

Figure 1

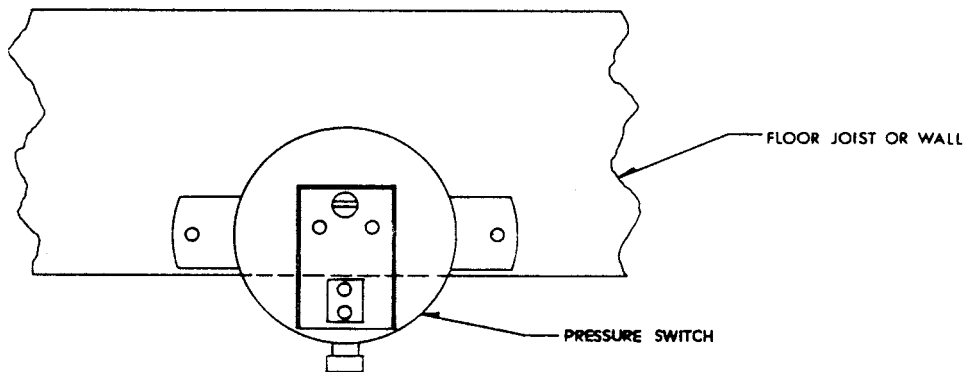
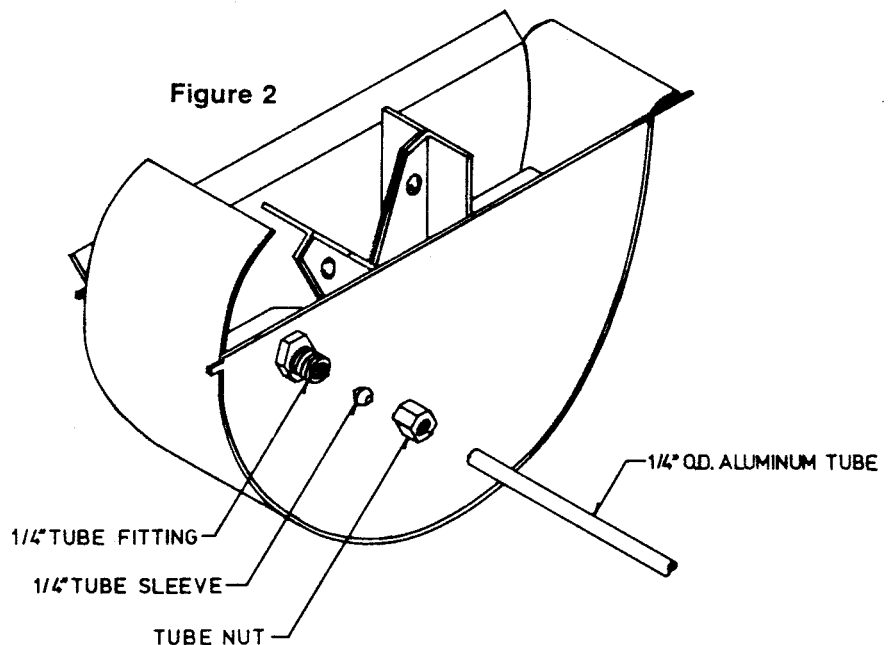


Figure 2



- Wire pressure switch into the thermostat circuit of the power venter in accordance with the National Electrical Code and applicable local codes. For low voltage (24 volts AC) thermostat operated gas fired systems, See Diagram A. For high voltage (120 volts AC) thermostat operated gas fired systems, (See Diagram B).

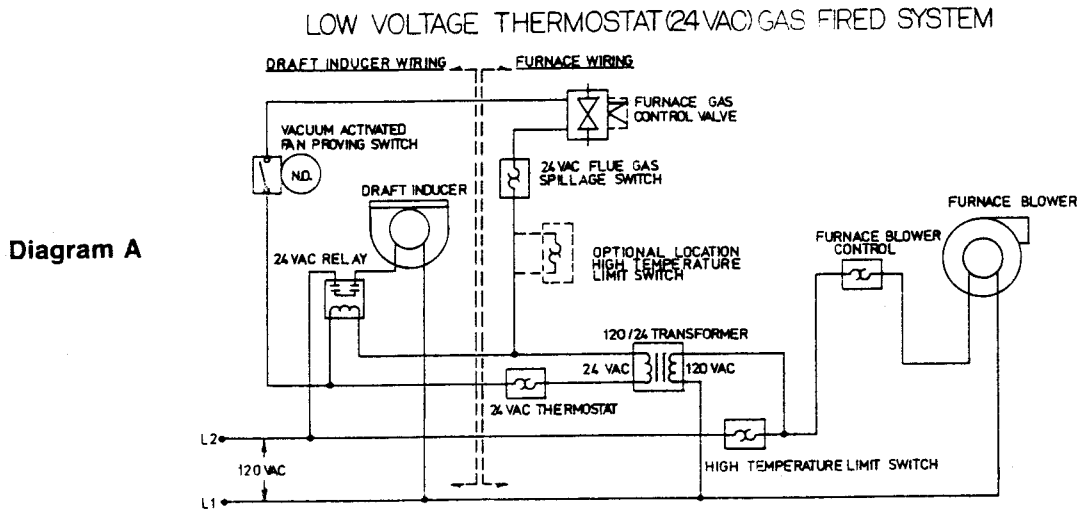


Diagram A

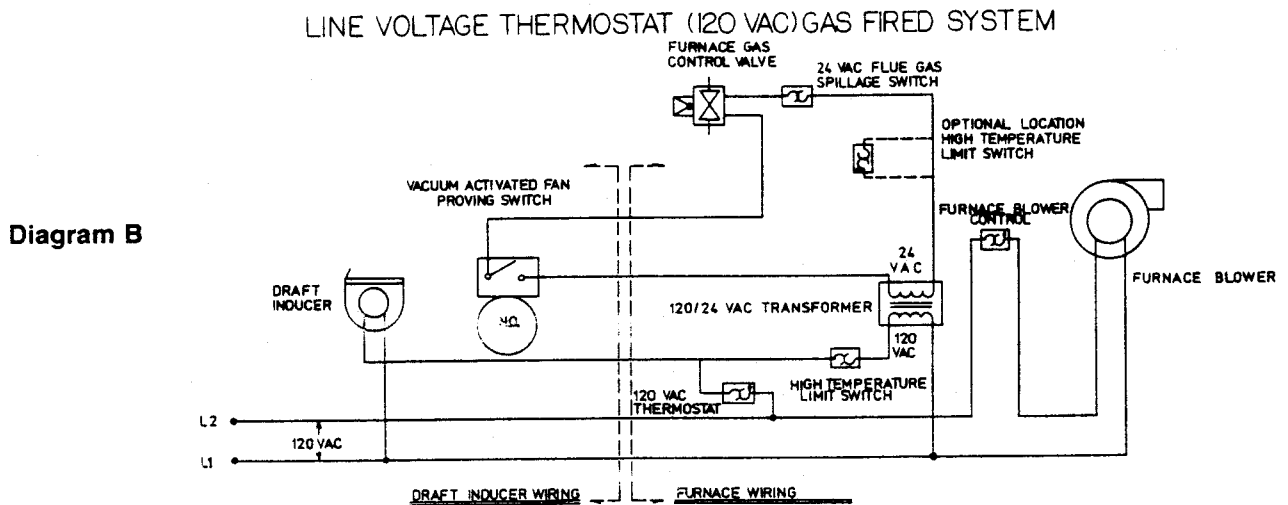


Diagram B

NOTE: For systems not shown, See Draft Inducer Instruction Sheet or contact factory for additional diagrams.

CAUTION: Refer to System Check-out Procedures Section before operating:

- Following appliance manufacturer's instructions, light the appliance and adjust thermostat to call for heat. Adjust pressure switch sensitivity by turning pressure switch adjustment screw clockwise (See Figure 3) until burner operation stops. Then turn the adjustment screw counter-clockwise until burner ignites. Turn the adjustment screw an additional 1/4 turn counter-clockwise to insure adequate switch adjustment.

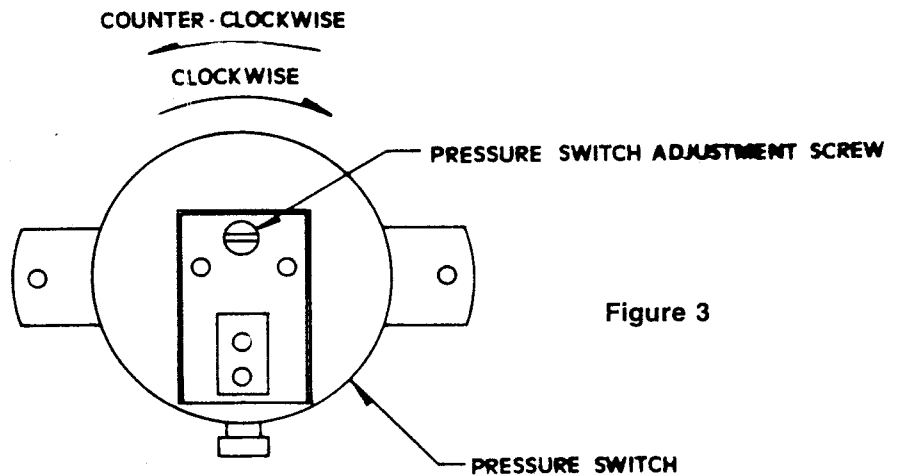
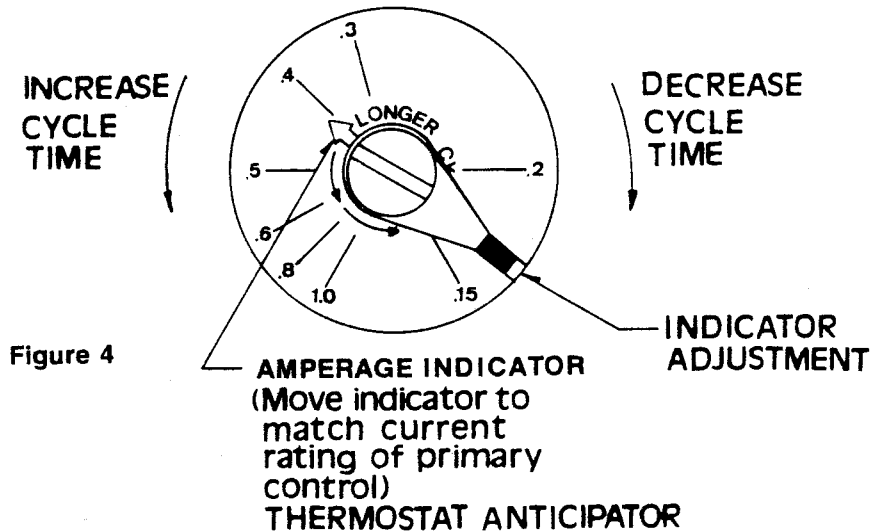


Figure 3

- After wiring the system, determine the amperage draw on the thermostat circuit and adjust the thermostat anticipator accordingly. Refer to thermostat anticipator adjustment instructions on next page.

ADJUSTING THERMOSTAT ANTICIPATOR:

Disconnect one side of the thermostat circuit at the gas valve or burner control, and connect an ampere meter in the circuit. With the system running, take an amperage reading on the circuit. Check the nameplate or instructions for the thermostat to obtain the proper amperage level. Adjust amperage level by moving the anticipator lever. Reconnect the thermostat to the gas valve and start the system operating. Time the burn cycles and adjust as follows: To make the cycle time longer, increase the amount on the anticipator (Example: .45 to .5 AMPS); to decrease cycle time reduce the amount on the anticipator (Example: .45 to .3 AMPS) (See Figure 4).



SYSTEM CHECK-OUT PROCEDURE FOR FAN PROVING SWITCH KIT:

1. Disconnect oil or gas supply to appliance(s).
2. Connect a volt meter or test light to the thermostat terminals of the burner control relay or gas valve.
3. Adjust thermostat to call for heat to operate venter. A voltage reading or the test light should be indicating operation. Block the flue pipe on the exhaust or pressure side of the venter. With the flue pipe blocked, there should be no voltage reading or light indication on the circuit.
4. Re-establish oil or gas supply to appliance.
5. Disconnect electrical power to venter. Adjust thermostat to call for heat.
6. By-pass the pressure switch circuit or manually fix the sail switch arm in the on position, whichever is applicable. Flue gases should be backing up into the system's vent pipe. Allow approximately 2 minutes for the system to back up and the burner to shut down. Wait 2 to 3 minutes and reset safety switch (re-light pilot if applicable) and perform this test again.

CAUTION: If for any reason the system has shut down during operation, the cause of the system failure should be investigated and corrected before resetting the safety switch and re-starting the systems.

Please refer to Draft Inducer Instruction Sheet or consult factory for system installation and safety instruction, multiple venting systems, and maintenance instructions.

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