

BEFORE PROCEEDING CHECK ALL CONNECTIONS WITH A SOAP SOLUTION TO DETECT LEAKS. THIS ALSO SHOULD INCLUDE A CHECK OF THE FURNACE CONTROLS AND PIPING. NEVER CHECK FOR LEAKS WITH A LIGHTED MATCH.

OPERATING INSTRUCTIONS - AUTOMATIC "DIRECT SPARK" IGNITION MODELS. (Illustrated on Page 2).

IMPORTANT: FAILURE TO FOLLOW THESE LIGHTING INSTRUCTIONS EXACTLY MAY RESULT IN DAMAGE TO THE UNIT.

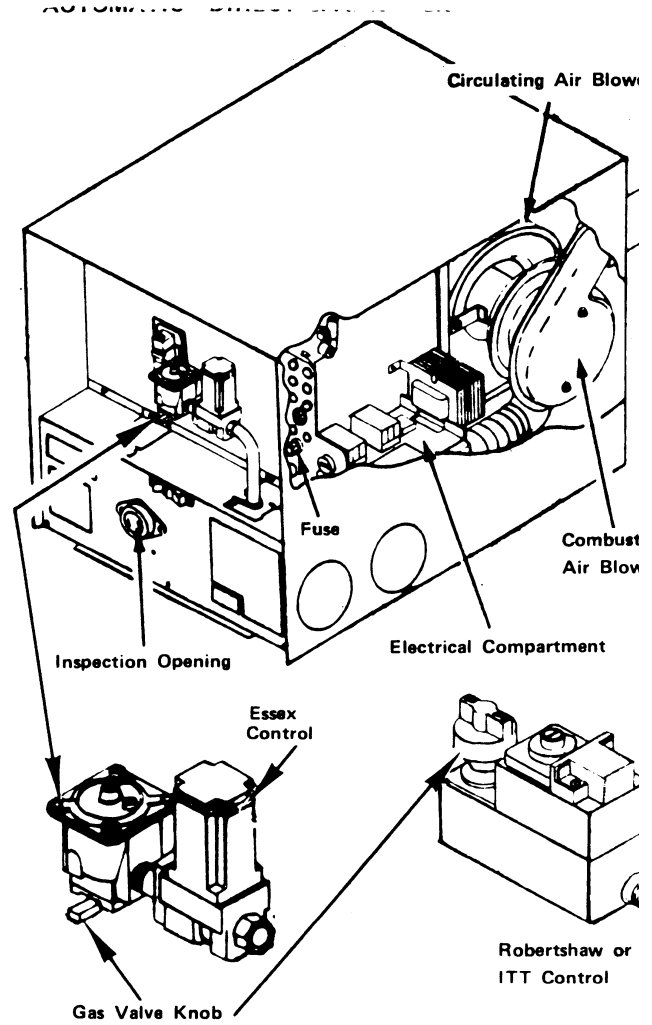
1. Set thermostat on "OFF" position. Remove front panel.
2. Turn gas valve to "OFF" position. Wait 5 minutes.
3. Turn gas valve to "ON" position. Set thermostat to "ON" position and adjust to desired setting.
4. Allow 5 to 8 seconds for burners to ignite.
5. If burners do not light, set thermostat on "OFF" position, wait 5 seconds then re-set thermostat to "ON" position.
6. If ignition is not obtained after 3 tries, go to complete shut-down and determine cause.
7. Replace furnace front panel.

COMPLETE SHUT-DOWN

8. Turn gas valve knob to "OFF" position.
Set thermostat on "OFF" position.

SEQUENCE OF NORMAL OPERATION

1. When the thermostat calls for heat, the blower motor is energized immediately.
2. As the blower motor reaches approximately 75 percent of the normal r.p.m. (within 1 to 2 seconds) the combustion air switch, in response to the air flow that provides a supply of air for combustion, will engage allowing current flow to the gas valve and the automatic ignition device.
3. The current simultaneously opens the main burner valve and provides the ignition spark. As soon as the flame is established, the spark ceases. Should the flame not be established within a period of 5 to 8 seconds, the system provides safety shut-down.
4. If within a period of approximately 1 minute after the main burner is lit, the thermostat is turned back, both the blower motor and gas valve are de-energized. However, if the furnace continues to run longer than 1 minute, which it normally should, a slight snap can be heard from within the casing. The snap is caused by the fan switch as it changes its position. After this occurs, if the thermostat is satisfied or turned back, the gas valve will close, the flame on the main burner will go out, but the blower will continue to run for a short period of time and will then shut off. The purpose of this is to remove most of the remaining gases and heat from the heat exchanger.



COMPONENT PARTS FUNCTION ALL MODELS

BLOWER ASSEMBLY

One motor is used to drive both the combustion air and circulating air blower wheels. Although one motor drives both wheels, the blowers are separate. The combustion blower is sealed so as to allow no passage of air between it and the circulating room air blower. The combustion air blower draws air from the outside atmosphere, discharges it into combustion chamber, and forces the combustion products through the exhaust tube. The circulating room air blower draws return air in and forces it across the heat chamber, discharging it to the area to be heated.

AUTOMATIC SOLID STATE RECTIFIER SYSTEM ON DUAL VOLTAGE MODELS

A step down transformer, in combination with a full wave bridge rectifier, converts 120 volt a.c. to 12 volt d.c.

A double pole, double throw relay switches the unit from d.c./d.c. to a.c. automatically.