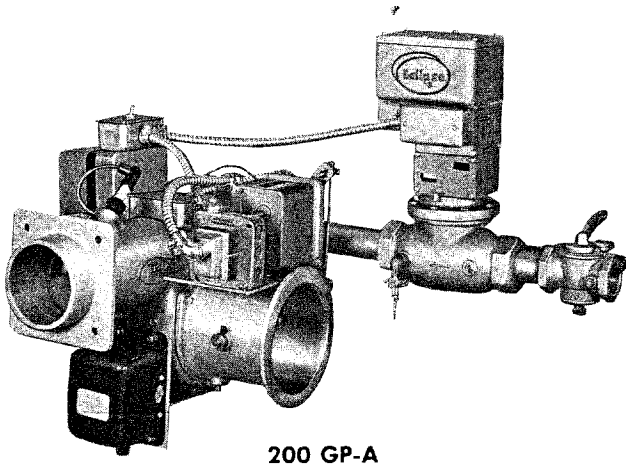


## GAS - PAK<sup>®</sup> BURNERS SERIES 200 GP & 200 GPA



200 GP-A

Eclipse Gas-Pak Burners are completely prepiped and prewired packaged assemblies. They are available for either ON-OFF or HI-LOW control. Gas-Pak Burners are particularly suited for firing incinerators, ovens, metal melters, small furnaces and boilers.

### CAUTION

The flame monitoring equipment furnished with these burners may or may not meet local safety and/or insurance requirements. The owner/user and/or his insurance underwriter must assume responsibility for the acceptance, use and proper maintenance of flame supervision, limit controls and other safety devices.

#### 1.0 MOUNTING THE BURNER

- 1.1 It is necessary that a five inch diameter opening be provided for the nosepiece which will be inserted into the refractory wall. In order to insure a tight seal, use suitable fireclay or asbestos packing to seal the nosepiece into the access hole.
- 1.2 Bolt the mounting flange snugly to the furnace wall. Carefully draw up the mounting bolts so that too much stress is not placed on the casting, as this may lead to casting failure.
- 1.3 THE GAS-PAK BURNER MUST BE INSTALLED IN SUCH A POSITION THAT NO REFUSE OR ASHES WILL FALL INTO THE MOUTH OF THE BURNER.

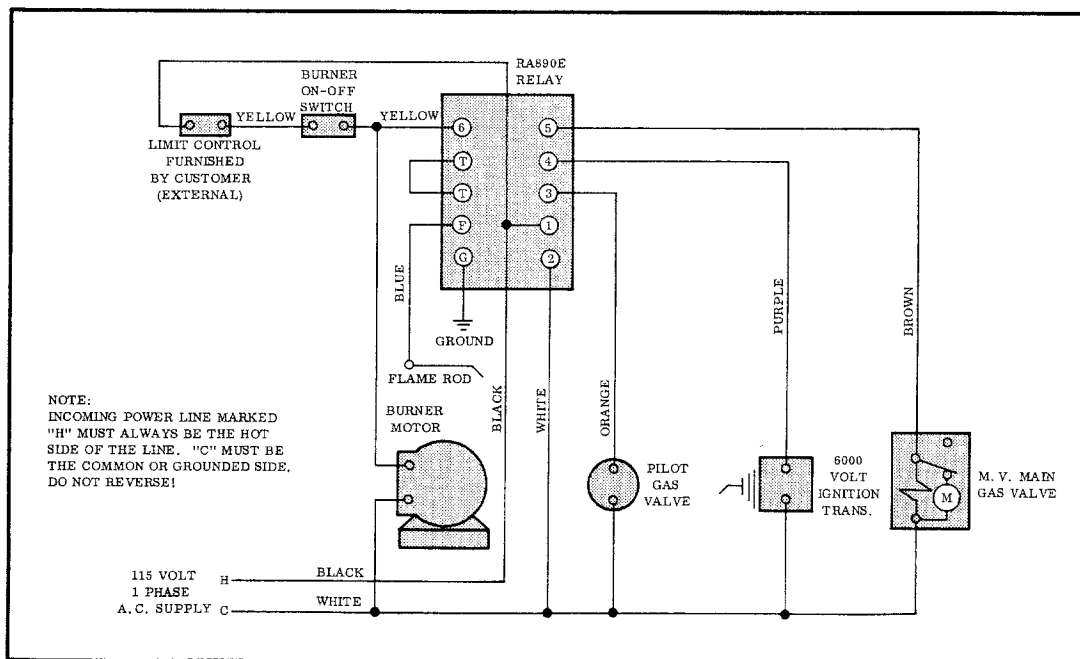


FIGURE 1



Eclipse Combustion

ISO 9001 Registered

## 2.0 ELECTRICAL CONNECTIONS

- 2.1 Connect the burner to an electrical source of the proper voltage and frequency. (Refer to the blower motor and control valve nameplate for the electrical requirements.)
- 2.2 For the Series 200 GP Burner (ON-OFF operation), refer to the wiring diagram in Figure 1.
- 2.3 For the Series 200 GP-A Burner (HI-LOW operation), refer to the wiring diagram in Figure 2.

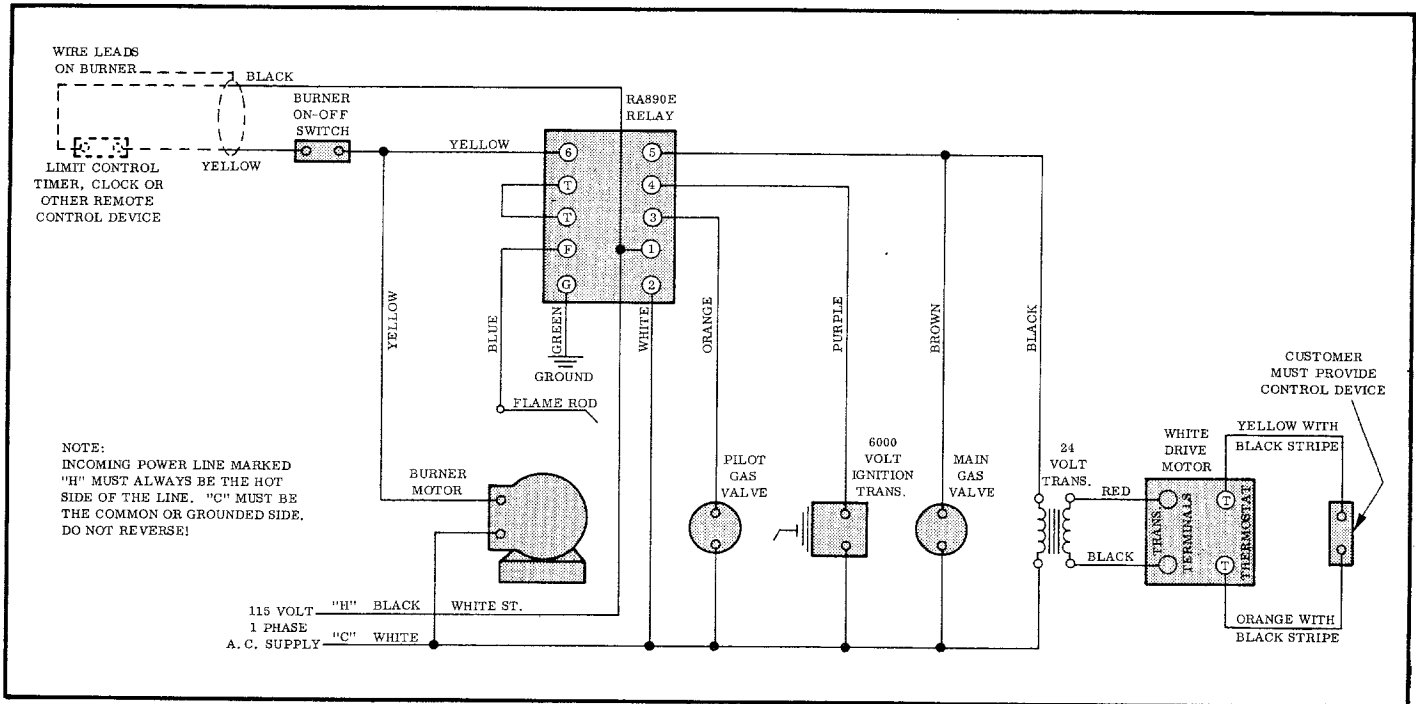
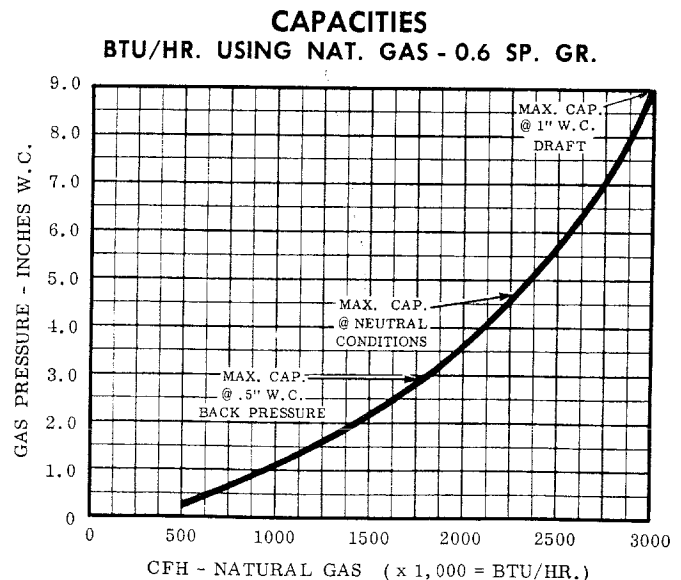


FIGURE 2

## 3.0 GAS CONNECTION

- 3.1 Connect the gas supply line to the burner. The Gas-Pak Burner has a 1-1/2" N. P. T. inlet. If long pipe runs are necessary, oversize the piping in order to prevent excessive pressure losses. If in doubt about proper pipe sizing and gas pressures, check with your local gas company.
- 3.2 The burner must not be used to support the piping. Suitable brackets or hangers should be used for this purpose.
- 3.3 Gas pressure to the inlet of the burner valve train should be steady. If gas pressure fluctuates, install a suitable pressure regulator. The gas pressure required at the inlet to the standard valve train is 6" w.c. minimum and 14" w.c. maximum. Gas-Pak Burners will fire against a maximum back pressure of 0.5" w.c. and deliver an input of 1,750,000 Btu/hr. Under neutral conditions, input is 2,250,000 Btu/hr., and at a maximum draft of 1" w.c., the burner will fire 3,000,000 Btu/hr. if ample secondary air is available.



#### 4.0 INITIAL LIGHT-OFF

##### 4.1 ON-OFF Burner (200 GP) (Refer Figure 3).

- 4.1.1 Inlet air shutter is factory preset for high fire under factory test conditions.
- 4.1.2 Move the burner "ON-OFF" Switch to the "ON" position.
- 4.1.3 Open main manual gas cock.

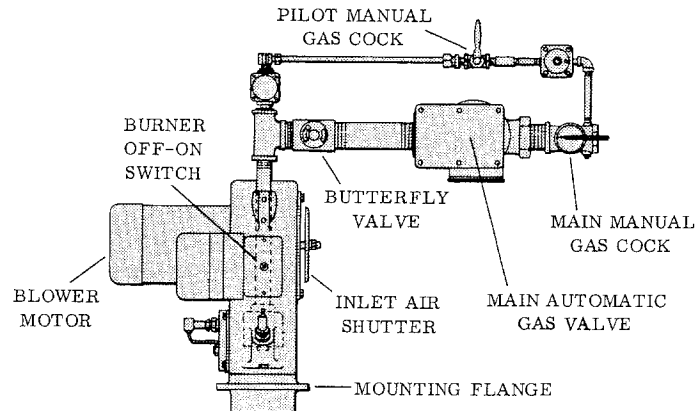


FIGURE 3

- 4.1.4 Open pilot manual gas cock. Pilot will now ignite. NOTE: Pilot is pre-adjusted at the factory. However, pilot can be adjusted if desired by adjustable orifice in pilot manual gas cock. (See Figure 5.)
  - 4.1.5 Once pilot is established, the main automatic gas valve will open and the burner will light.
  - 4.1.6 Each burner is tagged with a differential pressure between the pressure tap on the main manual gas valve and the pressure tap on the body of the main automatic gas valve. (See Figure 6.) Using a manometer, adjust the butterfly valve in the gas line. For full capacity at high fire, adjust the butterfly valve so the drop read on the manometer corresponds with the drop given on the burner tag.
  - 4.1.7 Make final adjustment on the inlet air shutter to attain desired flame characteristics if necessary.
- ##### 4.2 HI-LOW Burner (200 GP-A) (Refer Figure 4).

- 4.2.1 Burner low-fire and high-fire positions are preset at the factory. If necessary to reset in the field, disconnect linkage from control arm on air inlet butterfly, open butterfly 3/16" from full closed for low fire position and reconnect linkage.

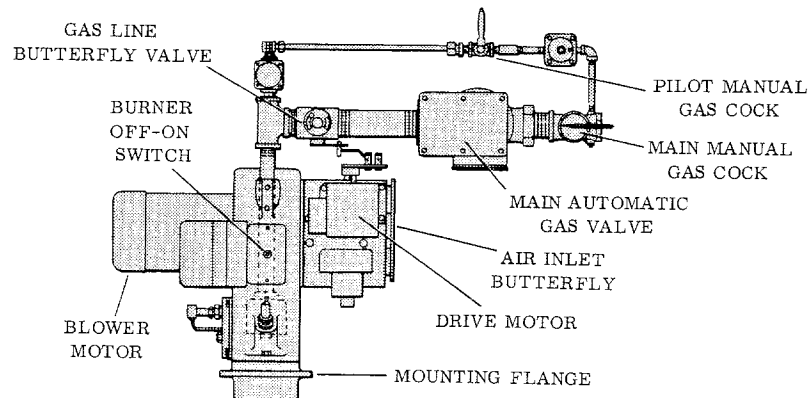


FIGURE 4

- 4.2.2 Move the burner "ON-OFF" Switch to the "ON" position.
- 4.2.3 Open main manual gas cock.
- 4.2.4 Open pilot manual gas cock. Pilot will now ignite. NOTE: Pilot is pre-adjusted at the factory. However, pilot can be adjusted if desired by adjustable orifice in pilot manual gas cock. (See Figure 5.)
- 4.2.5 Once pilot is established, the main automatic gas valve will open. If the control device is calling for heat, the control motor will drive to the high-fire position. NOTE: For lowest possible pilot or minimum heat input it is necessary that the main manual gas valve be open before pilot is ignited. If the sequence is reversed, control motor will drive air butterfly valve to high-fire position without main gas being on and pilot may be extinguished.
- 4.2.6 Each burner is tagged with a differential pressure between the pressure tap on the main manual gas valve and the pressure tap on the body of the main automatic gas valve. (See Figure 6.) Using a manometer, adjust the butterfly valve in the gas line. For full capacity at high-fire, adjust the butterfly valve so the drop read on the manometer corresponds with the drop given on the burner tag.

ADJUSTABLE ORIFICE  
COCK

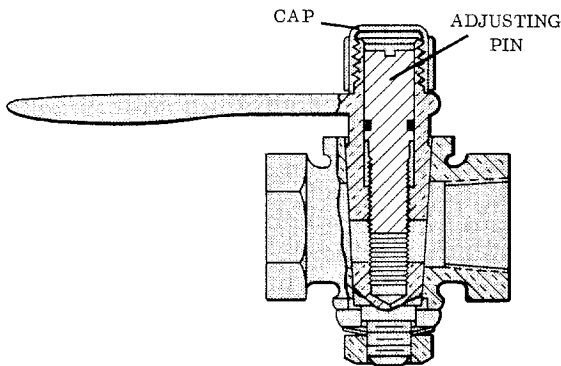
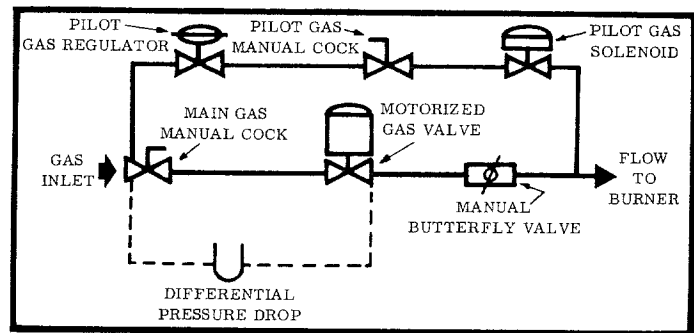


FIGURE 5



DIFFERENTIAL PRESSURE DROP \_\_\_\_\_ " W.C. FLOW—CFH \_\_\_\_\_

FIGURE 6

## 5.0 BURNER SHUT-DOWN

- 5.1 Turn pilot and main manual gas valves off.
- 5.2 Turn "ON-OFF" Switch to the "OFF" position.

## 6.0 SUBSEQUENT LIGHT-OFF

- 6.1 Move the burner "ON-OFF" Switch to the "ON" position.
- 6.2 Open main manual gas cock.
- 6.3 Open pilot manual gas cock.





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