U.S.Veteran Owned & Operated
burners, inc.
Combustion Technology and Custom Metal Fabrication

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INSTRUCTIONS

For FL series, FV series & TK series Burners with added safety controls

READ ALL INSTRUCTIONS BEFORE USING

A. GENERAL DESCRIPTION

Model designations of **FV** series burners are designed to be operated on ***VAPOR PROPANE - ONLY*** (Vapor LPG) at fuel delivery pressure of 25 psig or less. Operating this equipment over 25 psig fuel delivery pressure will result in component failure and may result in a fuel leak.

B. INSTALLATION

Mounting - The burner must be secured to the appliance as outlined in the original equipment manufacturers operations manual. The burner must be mounted in an area which will allow fresh air to circulate around the burner. The burner must be mounted away from all flammable objects. When firing into a flue or firing chamber, be certain the system design and burner are compatible. There must be sufficient flue volume and exhaust area for proper operation. The burner must not be mounted inside the firing chamber.

Gas Piping - Gas service and piping must supply the quantity and pressure of the fuel demanded by the burner. All hoses and piping must be in strict accordance with all applicable codes, ordinances and regulations of the governing authority for the area where the burner is to be used. In the absence of these codes, piping should be in accordance with the following standard:

"National Fuel Gas Code" NFPA No. 54, ANSI No. Z223.1.

The gas piping must be internally cleaned and free of foreign material. Before using any burner or burner system in service, a leak test must be performed by a qualified gas technician.

C. START & OPERATING

When installation is complete and all gas piping has been tested to be free from any leaks, the following start up procedure can be used.

1. Turn the shut-off valve, on the burner, to the **OFF** position.
2. Make sure the pressure regulator, supplying fuel to the burner, is turned completely *counter-clockwise*. No pressure should be allowed through the regulator.
3. Open the fuel cylinder valve. If any leaks are detected, immediately shut OFF the cylinder valve and evacuate the area. Contact your fuel gas provider for further instructions.
4. Adjust the pressure regulator to allow **10 psi** of fuel pressure through the system.
5. Open the burner shut-off valve slightly *(approximately 1/4 turn).*
6. Depress & hold the red button on the safety valve. This will allow fuel to escape from the burner.
7. Immediately ignite the fuel discharge end of the burner with a flint-type striker.
8. After a flame is established, continue to hold the red button on the safety valve for approximately 20 seconds.
9. After 20 seconds, you should release the red button on the safety valve and the flame should remain at the burner. If the flame extinguishes after releasing the red button, you should contact an equipment service technician to repair the problem.
10. Open the fuel shut-off valve completely.
11. Adjust the output of the burner by increasing or decreasing the pressure regulator fuel delivery pressure to suit the application as recommended by the original equipment manufacturer.

To discontinue use - ***ALWAYS*** turn the fuel cylinder valve **OFF** first. This will allow the excess fuel to be burned. After the flame has extinguished, turn **OFF** the burner shut-off valve.

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F.A.Q.'s

Why does ice appear on either my propane tank or piping (hose) & regulator?

This is due to pressure loss from the system during normal operation. As pressure is lost, (this happens when your appliance is turned ON) the temperature of the gas drops. This temperature drop will cause the humidity in the air to collect on the surface of the system components. If the temperature of the fuel drops low enough, the moisture (humidity) will freeze. This is the frost on your system.

I'm not sure of the components I have, will they work together?

System design should only be performed by a qualified engineer or system designer. Do not attempt to use components which are not clearly marked for L.P. Gas service and are designed for use in your system. If you are unsure, contact a qualified L.P. Gas service technician for assistance and inspection of your components.

My burner does not seem like it's getting as hot as it used to (when it was new).

A common problem with older systems, is contamination. Contamination can be caused by a number of different reasons, but the outcome is usually the same. As contamination develops in your burner system, it collects at the most restrictive point. The most restrictive point in most burner systems is the orifice (nozzle). By simply removing the orifice, and cleaning the debris from the porting, your system should perform just like it did when it was new.

***REMEMBER** - Only qualified service personal should attempt any maintenance services on L.P. Gas equipment.*

How long will my burner last?

There are a number of different variables in determining the longevity of a burner. Under normal conditions and with proper maintenance, a standard industrial burner should last about 3 to 5 years. However, if a burner is used in high temperature areas (in excess of 1,200°F), the burner will have a very short life span. In these cases, we recommend the use of a stainless steel burner. Stainless steel will withstand the higher temperatures without breaking down. Also, use in corrosive environments will also reduce the life span of a burner. Contact a qualified industrial burner system designer for assistance in selecting the proper burner for your application.

Contact Burners, Inc. Technical Support:

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Or call 800-878-2876