

INSTRUCTIONS

For FL series, FV series & TK series Burners without 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).

Model designations of **FL** series and **TK** series burners are designed to be operated on **LIQUID PROPANE - ONLY** (Liquid LPG). All burners are designed to operate effectively between the pressure range of 5 psi through 30 psi. In order to maintain a constant working pressure, all burners must have the appropriate regulator for the designed fuel type and fuel consumption (btu/h).

B. INSTALLATION

Mounting - The burner must be secured to the appliance as intended by the manufacturer. 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 should be sufficient flue volume and exhaust area for proper operation. The burner must not be mounted inside the fire chamber.



NOTE - All high temperature applications, including ceramic kiln firing, must use **STAINLESS STEEL** burners.

Gas Piping - Gas service and piping must supply the quantity and pressure of gas demanded by the burner. All piping must be in strict accordance with applicable codes, ordinances and regulations of the governing authority. In the absence of other codes, piping should be in accordance with the following standards:

"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 in service, a leak test must be performed.

C. START & OPERATING

When installation is complete and all fuel line connections have been made, make certain all connections are tight and free from leaks.

1. Turn the shut-off valve on the burner **OFF**.
2. Make sure the regulator adjusting handle is turned completely *counter-clockwise*, no pressure should be allowed through the regulator.
3. Open the fuel cylinder valve.
4. Adjust the pressure regulator to allow **10 psi** of pressure through the system.
5. Open the burner shut-off valve slightly.
6. Ignite the burner at the front of the burner outlet.
7. Adjust the regulator to establish the desired flame pattern or working pressure.

To discontinue use - **ALWAYS** turn the fuel cylinder valve **OFF** first. This will allow the excess fuel to burn out of the system.

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