

## Empire VFSR24LP

# Empire Vent-Free Slope Glaze Burner VFSR24LP Instruction Manual

Model: VFSR24LP

## 1. INTRODUCTION

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This manual provides essential information for the safe installation, operation, and maintenance of your Empire Vent-Free Slope Glaze Burner, Model VFSR24LP. This 24-inch propane burner features a Millivolt Safety Valve with an on/off switch and is designed for use with Empire "LS" log sets of the same size. It incorporates internal ceramic beads to enhance flame appearance and can produce up to 38,000 BTU.

## 2. IMPORTANT SAFETY INFORMATION

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**Read this entire manual carefully before installation and use of this vent-free gas burner. Failure to follow these instructions could result in property damage, personal injury, or loss of life.**

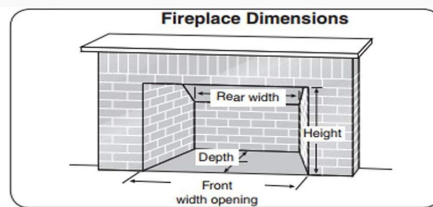
- **Professional Installation:** Installation and service must be performed by a qualified installer, service agency, or gas supplier.
- **Vent-Free Appliance:** This is a vent-free appliance. It obtains combustion air from the room in which it is installed. Adequate ventilation must be provided.
- **Fuel Type:** This burner is designed for use with Propane (LP) gas only. Do not use any other fuel.
- **Clearances:** Maintain proper clearances to combustibles as specified in the installation instructions.
- **Carbon Monoxide:** Vent-free gas products produce carbon monoxide. Ensure proper room size and ventilation. Install a carbon monoxide detector in your home.
- **Hot Surfaces:** The burner and surrounding surfaces will become hot during operation. Keep children, pets, and clothing away.

## 3. SETUP AND INSTALLATION

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### 3.1 Fireplace Requirements

Ensure your fireplace meets the minimum dimensions required for the 24-inch burner and associated log set. Refer to the diagram and table below for guidance.



**Note:** It is recommended that complete firebox dimensions (front width, back wall, and height) be obtained to ensure proper sizing.

**Vent-Free Slope Glaze Burners**

Slope Glaze Burners		Log Length (inches)	Btu Input	Non-Empire Minimum Firebox Dimensions				Ship Wt. (lb)
Model	Description			Front Width (inches)	Rear Width (inches)	Depth (inches)	Height (inches)	
Manual, Standing Pilot/Piezo								
VFSM-18	Slope Glaze Burner	18	32,000	32	21	14	17	22
VFSM-24	Slope Glaze Burner	24	36,000	34	27	14	18	25
VFSM-30	Slope Glaze Burner	30	38,000	38	30	14	20	32
On/Off Millivolt, Standing Pilot								
VFSR-16	Slope Glaze Burner	16	25,000	24	18	11 1/2	18	18
VFSR-18	Slope Glaze Burner	18	32,000	28	17	14	17	24
VFSR-24	Slope Glaze Burner	24	36,000	30	23	14	18	27
VFSR-30	Slope Glaze Burner	30	38,000	34	26	14	20	30
Variable Flame, Includes Variable Remote, Standing Pilot/Piezo								
VFSV-16	Slope Glaze Burner	16	25,000	24	18	11 1/2	18	18
VFSV-18	Slope Glaze Burner	18	32,000	28	17	14	17	24
VFSV-24	Slope Glaze Burner	24	36,000	30	23	14	18	27
VFSV-30	Slope Glaze Burner	30	38,000	34	26	14	20	30
Intermittent Pilot, Includes Thermostat Variable Remote								
VFSE-18	Slope Glaze Burner	18	32,000	28	17	14	17	25
VFSE-24	Slope Glaze Burner	24	36,000	30	23	14	18	28
VFSE-30	Slope Glaze Burner	30	38,000	34	26	14	20	31

**Image Description:** A diagram illustrating fireplace dimensions (front width opening, rear width, depth, and height) with a table below it. The table provides non-Empire minimum firebox dimensions for various Slope Glaze Burner models, including log length, BTU input, front width, rear width, depth, height, and shipping weight. For the VFSR-24 model, it specifies a 24-inch log length, 36,000 BTU input, 34-inch front width, 27-inch rear width, 14-inch depth, and 18-inch height.

## 3.2 Fuel Type Connection

This burner operates on Propane (LP) gas. Ensure your gas supply is correctly connected by a qualified professional.

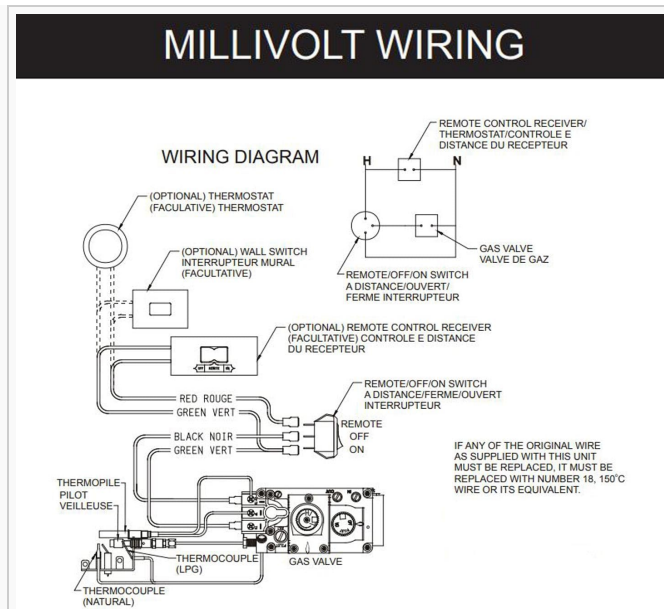


**Image Description:** A circular grey icon with a white silhouette of a propane tank and the word "PROPANE" in white text below it, indicating the required fuel type.

## 3.3 Millivolt Wiring

The burner features a Millivolt Safety Valve. Refer to the wiring diagram for proper electrical connections, especially if installing an optional thermostat or remote control receiver.

## MILLIVOLT WIRING



**Image Description:** A detailed wiring diagram titled "MILLIVOLT WIRING". It shows connections for a gas valve, thermopile, thermocouple, and optional components like a thermostat, wall switch, and remote control receiver. Wires are color-coded (red, green, black) and labeled with their functions. A note indicates that any original wire supplied with the unit must be replaced with number 18, 150°C wire or its equivalent if damaged.

### 3.4 Log Set Placement

This burner requires an Empire "LS" log set of the same size (24-inch) for optimal performance and appearance. Follow the log set manufacturer's instructions for proper placement on the burner.

## 4. OPERATING INSTRUCTIONS

### 4.1 Pilot Ignition (Standing Pilot/Piezo)

1. Ensure the gas supply to the unit is open.
2. Locate the control knob on the Millivolt Safety Valve.
3. Push the control knob in and turn it to the "PILOT" position.
4. While holding the knob in, repeatedly press the piezo igniter button until the pilot flame ignites.
5. Continue to hold the control knob in for approximately 30-60 seconds after the pilot ignites to allow the thermocouple to heat up. Release the knob; the pilot should remain lit. If it extinguishes, repeat steps 3-5.

### 4.2 Burner Operation

1. Once the pilot is lit, turn the control knob from "PILOT" to the "ON" position.
2. Use the integrated on/off switch on the Millivolt Safety Valve to turn the main burner on or off.
3. If a remote control or wall switch is installed, use that device to control the main burner.

### 4.3 Shutting Down the Burner

1. Turn the main burner off using the on/off switch or remote control.
2. To turn off the pilot, turn the control knob to the "OFF" position.
3. For extended periods of non-use, turn off the main gas supply to the appliance.

## 5. MAINTENANCE

Regular maintenance ensures safe and efficient operation of your burner.

- **Annual Inspection:** Have the burner and gas connections inspected annually by a qualified service technician.
- **Cleaning:** Keep the burner and log set free of dust and debris. Use a soft brush or vacuum cleaner. Do not use abrasive cleaners.
- **Pilot and Burner Ports:** Periodically check pilot and burner ports for obstructions. Clean gently if necessary.
- **Log Set:** Inspect the log set for cracks or damage. Replace any damaged logs.

## 6. TROUBLESHOOTING

If you experience issues, consult this section before calling for service.

Problem	Possible Cause	Solution
Pilot will not light	No gas supply Pilot orifice clogged Igniter not sparking	Check gas valve Clean pilot orifice Check igniter electrode gap
Pilot lights but will not stay lit	Thermocouple not heating Loose thermocouple connection	Hold pilot knob longer Tighten thermocouple connection
Main burner will not light	Pilot not lit Control knob not in "ON" position On/off switch off	Light pilot Turn control knob to "ON" Turn on switch
Burner produces yellow flame/soot	Clogged burner ports Incorrect gas pressure	Clean burner ports Contact a qualified technician

## 7. SPECIFICATIONS

Feature	Detail
Model	VFSR24LP
Brand	Empire
Burner Size	24-Inch
Fuel Type	Propane (LP)
BTU Input (Max)	38,000 BTU
Valve Type	Millivolt with On/Off Switch
Pilot Type	Standing Pilot/Piezo Ignition
Log Set Requirement	Empire "LS" log sets of the same size
Material	Ceramic (internal beads)

Feature	Detail
Product Dimensions	28.5"D x 16.75"W x 9"H
Item Weight	27 Pounds
UPC	720968265609

## 8. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the documentation provided with your product or contact Empire customer service directly. Keep your purchase receipt for warranty claims.