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Flame King YSN-CHS20

Flame King YSN-CHS20 Propane Space Radiant Portable Heater

USER INSTRUCTION MANUAL

Introduction

This manual provides comprehensive instructions for the safe and efficient operation, setup, and maintenance of your Flame King YSN-CHS20 20,000 BTU Propane Space Radiant Portable Heater. Please read all instructions carefully before using the product to ensure proper function and safety.



Image: Flame King YSN-CHS20 Propane Space Radiant Portable Heater, front view.

Important Safety Information

Your safety and the safety of others are paramount. Always adhere to the following safety guidelines:

- **Built-in Safety Features:** This heater is equipped with a Safety Fuel Shutoff, Oxygen Depletion System (ODS), Fire Detection System, Safety Tilt Shutoff, and an Exterior Grate Guard. These features are designed to protect users.

- **Oxygen Depletion System (ODS):** The ODS is a low-oxygen level sensor that automatically shuts off the gas supply to prevent the accumulation of toxic carbon monoxide in the environment.
- **Indoor Use:** This heater is safe for indoor use in small recreational enclosures with adequate combustion air and ventilation, such as enclosed porches, cabins, fishing huts, trailers, tent trailers, tents, truck caps, and vans. It can be used for emergency indoor heating when connected to a 1 lb. disposable propane cylinder. It is also suitable for indoor use in commercial enclosures like construction trailers or temporary work areas. *Note: Indoor use is not allowed in Canada & Massachusetts.*
- **Ventilation:** Ensure proper ventilation when operating the heater indoors.
- **CSA Certified:** The heater is CSA certified, ensuring it meets safety standards.

Tip Over Shutdown System

Heater will automatically shut down
when tipped over to keep everyone safe



Image: Illustration of the heater's Tip Over Shutdown System, showing automatic shut-off when tilted.

LOW OXYGEN AUTOMATIC SHUT OFF



Keeping your loved ones safer and warmer

Image: Illustration of the heater's Low Oxygen Automatic Shut Off feature, with oxygen bubbles indicating detection.

Product Features

The Flame King YSN-CHS20 heater offers a range of features designed for comfort and convenience:

- **Advanced Thermostatic Technology:** Features an efficient thermostatic system that helps maintain a set temperature, optimizing fuel consumption.
- **Adjustable Heat Output:** Provides versatile heating with settings for 5,000, 10,000, and 20,000 BTU output.
- **Built-in Auto Ignition:** For quick and easy startup.
- **Built-in Fan:** Spreads heat evenly for improved comfort. Requires four D cell batteries (not included).
- **Portable Design:** Equipped with a molded handle for easy transport, making it ideal for various indoor and outdoor settings.
- **Long-Lasting Operation:** Can operate for up to 2 hours at 20,000 BTU output using two 1LB propane cylinders, or up to 5 hours at lower settings.

ADVANCED THERMOSTATIC TECHNOLOGY

A thermostat helps you save on fuel by maintaining the set temperature



Image: Heater demonstrating advanced thermostatic technology, maintaining set temperature.



STAY WARM AND ENJOY THE OUTDOORS!

LIGHT AND PORTABLE



Image: Person carrying the light and portable Flame King heater outdoors.

Comes with a
BUILT-IN FAN
to spread even heat



(Four D cell batteries required, not included)

Image: View of the heater's built-in fan compartment, requiring D cell batteries.

Setup Instructions

Follow these steps to set up your Flame King heater:

1. **Unpacking:** Carefully remove the heater from its packaging and inspect for any damage.
2. **Propane Cylinder Connection:** The heater is designed to use two 1LB propane cylinders (sold separately). Insert the cylinders into the designated compartments at the rear of the unit. Ensure they are securely connected.
3. **Battery Installation (for fan):** Open the battery compartment and insert four D cell batteries (not included) according to the polarity markings. Close the compartment securely.
4. **Placement:** Place the heater on a stable, level surface, away from flammable materials and ensuring adequate clearance from walls or other objects.

LONG LASTING

Using two (2) 1-lb propane bottles (sold separately)



Lasts up to 2 hours at 20,000 BTU heat output
Or up to 5 hours at lower temperature settings

Image: Rear view of the heater showing two 1LB propane cylinders inserted, illustrating its long-lasting capability.

Operating Instructions

To operate your Flame King heater:

1. **Ignition:** Fully depress and turn the heater control knob to the "PILOT" position. Hold for a few seconds to allow gas to flow.
2. **Lighting:** While holding the knob, press the auto ignition button to ignite the pilot light. Continue to hold the knob for 30-60 seconds after ignition to ensure the pilot stays lit.
3. **Adjusting Heat:** Once the pilot is lit, release the knob and turn it to your desired heat setting (MIN, 5,000 BTU, 10,000 BTU, or MAX/20,000 BTU).

4. **Fan Operation:** If desired, turn on the built-in fan to circulate warm air. Ensure D cell batteries are installed.
5. **Shutting Off:** To turn off the heater, turn the control dial to the "OFF" position. Ensure the gas supply is fully closed.



Image: Close-up of the heater's control dial, showing adjustable settings for 5,000, 10,000, and 20,000 BTU output.

Maintenance

Regular maintenance ensures the longevity and safe operation of your heater:

- **Cleaning:** Keep the heater's exterior clean. Use a soft, damp cloth to wipe down surfaces. Do not use abrasive cleaners or solvents.
- **Storage:** When not in use, store the heater in a cool, dry place, away from direct sunlight and out of reach of children. Disconnect propane cylinders before storage.
- **Inspection:** Periodically inspect the heater for any signs of damage, wear, or gas leaks. If any issues are found, do not operate the heater and contact customer support.

Troubleshooting

If you encounter issues with your heater, refer to the following common troubleshooting tips:

Problem	Possible Cause	Solution
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Problem	Possible Cause	Solution
Heater does not ignite.	No propane, low propane, or air in line.	Check propane cylinder connection and level. Purge air from the line by holding the control knob in the pilot position for a longer duration.
Pilot light does not stay lit.	Not holding knob long enough, or thermocouple issue.	Hold the control knob in the pilot position for at least 30-60 seconds after ignition. If problem persists, contact support.
Heater shuts off unexpectedly.	Low oxygen (ODS activated), tip-over switch activated, or fuel depletion.	Ensure adequate ventilation. Check if heater was tilted. Replace propane cylinders if empty.
Fan is not working.	No batteries, dead batteries, or incorrect battery installation.	Install four D cell batteries. Check battery polarity. Replace old batteries.

If troubleshooting steps do not resolve the issue, please contact Flame King customer support.

Specifications

Attribute	Detail
Brand	Flame King
Model Number	YSN-CHS20
Heat Output	Up to 20,000 BTU
Fuel Type	Propane (uses two 1LB cylinders)
Burner Type	Radiant
Indoor/Outdoor Usage	Indoor* & Outdoor (*with proper ventilation)
Product Dimensions (D x W x H)	12"D x 17.5"W x 18"H
Item Weight	17.4 pounds
Heating Coverage	500 square feet
Special Features	Adjustable Temperature, Built-in Auto ignition, Built-in Fan, Built-in Safety Fuel Shutoff, Low-Oxygen Safety Shutoff, Portable, Thermostatic Heater, Tip-Over Protection
Recommended Uses	Backpacking, Camping, Garage, Ice Fishing, Outdoor, Patio
UPC	850015730511



Image: Heater with its dimensions (12"D x 17.5"W x 18"H) clearly labeled.

Warranty and Support

Warranty: This Flame King heater comes with a 1-Year Manufacturer's Defect Warranty.

Customer Support: For technical assistance, warranty claims, or any questions regarding your Flame King product, please visit the official Flame King website or contact their customer service department. You can also visit the [Flame King Store on Amazon](#) for more information and product resources.

