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› [Hayward H250FDP Universal H-Series 250,000 BTU Pool and Spa Heater Instruction Manual](#)

Hayward W3H250FDP

Hayward H250FDP Universal H-Series Pool and Spa Heater

MODEL: W3H250FDP - 250,000 BTU PROPANE, LOW NOX

1. Introduction

This manual provides essential information for the safe and efficient installation, operation, and maintenance of your Hayward H250FDP Universal H-Series 250,000 BTU Propane Gas Pool and Spa Heater. The Universal H-Series is designed to deliver reliable, long-lasting heating performance for pools and spas. It features a durable cupro nickel heat exchanger for protection against corrosion and premature failure due to unbalanced water chemistry. This heater also boasts industry-leading hydraulic performance and rapid heating capabilities, along with low NOx emissions to meet air quality standards.



Figure 1: Hayward H250FDP Universal H-Series Pool and Spa Heater. This image shows the overall unit with its control panel cover closed, indicating its compact and robust design.

2. Key Features

- **Energy Efficient:** Advanced technology maximizes heat output and minimizes fuel consumption for cost-effective operation.
- **Durable Construction:** High-quality materials, including a cupro-nickel heat exchanger, resist corrosion and ensure reliable performance in various weather conditions and water chemistries, including salt pools.
- **Quick Heating:** Fast and consistent heating allows for quicker enjoyment of your pool or spa at the desired temperature.
- **Low NOx Emissions:** Meets stringent air quality standards in all low-NOx areas, reducing environmental impact.
- **Silicon Nitride Ignition System:** Provides reliable and efficient ignition.
- **"Totally Managed" Flow:** Saves energy by reducing pump run time.
- **High Thermal Efficiency:** Achieves 83-84% industry-leading thermal efficiency.



Figure 2: Key features of the Universal H-Series heater, highlighting energy efficiency, durable construction, and quick heating capabilities.



Figure 3: Internal view of the durable cupro-nickel heat exchanger, designed for efficient heat transfer and resistance to corrosion.

3. Setup and Installation

Proper installation is crucial for the safe and efficient operation of your Hayward H250FDP heater. It is highly recommended that installation be performed by a qualified pool professional or licensed technician to ensure compliance with all local codes and regulations.

3.1 Site Selection

- Install the heater outdoors on a non-combustible surface, ensuring adequate clearance from combustible materials and proper ventilation.
- Position the heater to allow for easy access for service and maintenance.
- Ensure the location is protected from excessive wind and direct water spray.

3.2 Plumbing Connections

Connect the heater to your pool's filtration system using appropriate plumbing. Ensure all connections are watertight and properly sealed. The heater requires adequate water flow to operate safely and efficiently. A low flow switch is integrated to prevent operation without sufficient water flow, protecting the heat exchanger.

3.3 Gas and Electrical Connections

Connect the heater to a propane gas supply line. All gas connections must be performed by a licensed gas technician. The heater requires a dedicated electrical circuit; electrical wiring must comply with local electrical codes

and be performed by a licensed electrician.

3.4 Sizing Your Heater

The H250FDP model is rated for 250,000 BTU. To determine if this is the correct size for your pool, calculate your pool's surface area and consult the sizing chart in the full owner's manual. For indoor pool installations, divide the pool's surface area by 3 when using the chart.



Figure 4: Guide for selecting the correct heater size based on pool surface area. The table provides model numbers and corresponding surface areas.

4. Operating Instructions

The Hayward H250FDP heater features an easy-to-read digital display and simple controls for setting your desired water temperature.

4.1 Control Panel Overview



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Figure 5: The digital control panel of the Hayward H-Series heater, showing temperature display, mode selection, and temperature adjustment buttons.

The control panel allows you to:

- View the current water temperature.
- Select between 'Pool' and 'Spa' heating modes.
- Adjust the desired temperature using the 'Temp Set' buttons.
- Monitor system status indicators (Service, Heat, Standby).

4.2 Setting Desired Temperature

1. Ensure the pool pump is running to provide adequate water flow to the heater.
2. Open the control panel cover.
3. Press the 'Mode' button to select 'Pool' or 'Spa' mode.
4. Use the red (up) and blue (down) 'Temp Set' arrows to adjust the desired water temperature. The temperature range is typically 65°F to 105°F (18°C to 40°C).
5. The heater will automatically ignite and begin heating the water to the set temperature.

Note: The heater will only operate when the pool pump is running and there is sufficient water flow. The low flow switch will prevent operation if flow is inadequate.

5. Maintenance

Regular maintenance ensures the longevity and optimal performance of your Hayward H250FDP heater.

5.1 Routine Checks

- **Water Chemistry:** Maintain proper pool/spa water chemistry. Unbalanced water can cause corrosion and damage to the heat exchanger.
- **Clearance:** Ensure the area around the heater is clear of debris, vegetation, and obstructions to allow for proper airflow.
- **Visual Inspection:** Periodically inspect the heater for any signs of leaks, corrosion, or damage to wiring and plumbing.

5.2 Winterization

Before freezing temperatures arrive, it is essential to properly winterize your heater to prevent freeze damage. This typically involves:

1. Shutting off the gas supply to the heater.
2. Draining all water from the heater's heat exchanger and plumbing lines. This usually involves removing drain plugs located on the heater.
3. Disconnecting electrical power.

Consult the full owner's manual for detailed winterization procedures specific to your climate.

6. Troubleshooting

If your heater is not operating as expected, consider the following common issues before contacting a service technician:

- **Heater Not Igniting:** Check if the gas supply is on, the electrical power is connected, and the pool pump is running. Ensure there is adequate water flow.
- **Low Water Flow Error:** This indicates insufficient water circulating through the heater. Check your pool pump, filter, and plumbing for obstructions or low water levels.
- **Inconsistent Heating:** Verify that the desired temperature is set correctly on the control panel. Ensure the pool/spa is adequately covered to minimize heat loss, especially in cooler weather.
- **Error Codes:** Refer to the full owner's manual for a list of specific error codes and their corresponding troubleshooting steps.

For complex issues or if troubleshooting steps do not resolve the problem, contact a qualified Hayward service professional.

7. Specifications

Specification	Value
Model Number	W3H250FDP
BTU Output	250,000 BTU
Fuel Type	Propane Gas

NOx Emissions	Low NOx
Heat Exchanger Material	Cupro-Nickel
Product Dimensions (L x W x H)	33.3 x 32.8 x 30.6 inches
Item Weight	171 pounds
Manufacturer	Hayward



Figure 6: Dimensions of the Hayward Universal H-Series heater, showing height, width, and depth for installation planning.

8. Warranty and Support

For detailed warranty information, please refer to the warranty card included with your product or visit the official Hayward website. Keep your proof of purchase for warranty claims.

For technical support, replacement parts, or service, please contact Hayward Customer Service or an authorized Hayward dealer. It is recommended to have your model number (W3H250FDP) and serial number available when contacting support.

