

Pellethead PS21

Pellethead Freedom Stove PS21 Pellet Stove Instruction Manual

Model: PS21 | Brand: Pellethead

1. INTRODUCTION AND OVERVIEW

The Pellethead Freedom Stove PS21 is a high-efficiency pellet stove designed to provide consistent warmth for areas ranging from 800 to 1,800 square feet. It features a stacked tube heat exchanger for enhanced thermal efficiency. This model includes advanced controls such as a full-featured touchscreen, Wi-Fi connectivity via a dedicated app, and a remote control for convenient operation. A key feature is its 24V DC battery backup system, capable of delivering over 40 hours of heat on two 12V batteries (sold separately), making it ideal for power outages or off-grid living. The stove comes with a red steel finish and black side panels, with an option to personalize it with 12x12 ceramic tiles. It is engineered for easy cleaning, maintenance, and repair, supported by a 5-year limited warranty and U.S.-based customer service.



Image 1.1: Overview of the Freedom Stove PS21's key features, including emergency readiness, powerful heating, large capacity, self-charging capabilities, and reliable heat.

2. SAFETY INFORMATION

Always prioritize safety when operating your pellet stove. Ensure proper ventilation and use only approved pellet fuel. The stove is equipped with an automatic shut-off feature that activates if pellet levels are too low, preventing damage and ensuring safe operation. Regularly inspect the stove and its components for any signs of wear or damage. Keep combustible materials at a safe distance from the stove. Do not touch hot surfaces during operation. Always allow the stove to cool completely before performing any maintenance or cleaning.

3. SETUP

3.1 Placement and Clearances

The Freedom Stove PS21 is a freestanding unit with product dimensions of 21"D x 18"W x 37"H. Ensure adequate clearance from combustible walls and materials as specified in the full installation manual. The slim design allows for installation in various locations, including mobile home family rooms with proper venting.

3.2 Ventilation

This pellet stove requires direct vent ventilation. Ensure the ventilation system is correctly installed and sealed according to local building codes and manufacturer guidelines. A 4-inch liner is typically required for proper chimney connection.

3.3 Electrical Connection and Battery Backup

Connect the stove to a standard electrical outlet. For enhanced safety and continuous operation during power outages, the PS21 is 24V DC battery backup ready. This system can provide over 40 hours of heat using two 12V batteries (sold separately). The batteries recharge during normal AC power operation.



Image 3.1: The Freedom Stove PS21 highlighting its 24V DC battery backup capability, showing two 12V batteries

connected.



Image 3.2: Diagram illustrating the dimensions of the Freedom Stove PS21, including height, width, and depth, with and without optional legs.

4. OPERATING INSTRUCTIONS

4.1 Filling the Hopper

Open the hopper lid located on the top of the stove. The hopper has a capacity of approximately 40 pounds of pellets. Use only high-quality wood pellets with low ash content (less than 1%) for optimal performance and reduced maintenance. Avoid overfilling the hopper.



Image 4.1: View of the pellet hopper on top of the Freedom Stove PS21, showing the opening where pellets are loaded.

4.2 Powering On/Off

To power on the stove, press the power button on the control panel twice. To power off, press it once. The stove will go through an ignition sequence, which may take several minutes before a visible flame appears.

4.3 Control Panel, Wi-Fi App, and Remote Control

The stove can be controlled via its integrated touchscreen display, a Wi-Fi-enabled mobile app, or the included remote control. The touchscreen allows for direct adjustment of temperature, flame height, and convection fan speed. The Wi-Fi app provides ultimate convenience, allowing you to monitor performance, adjust settings, and check fuel levels from anywhere. The remote control offers basic functions for easy adjustments from a distance.



FREEDOM STOVES INTERFACE LAYOUT

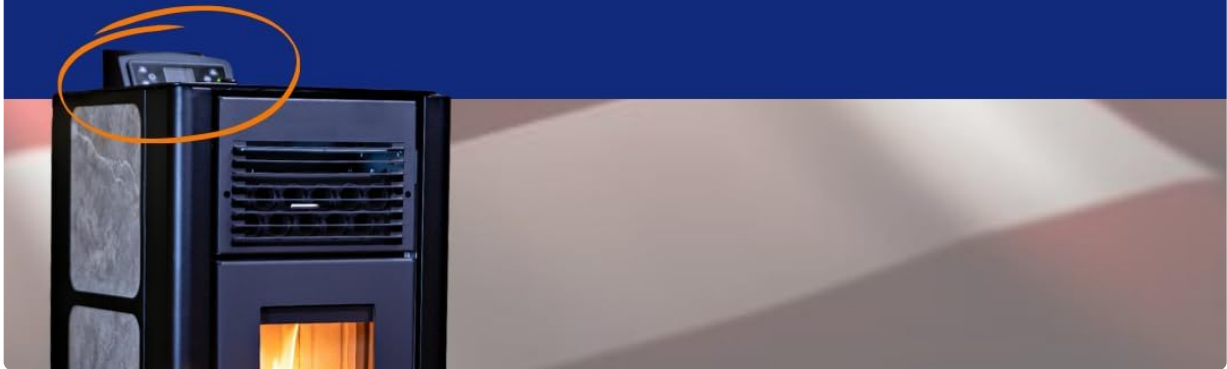
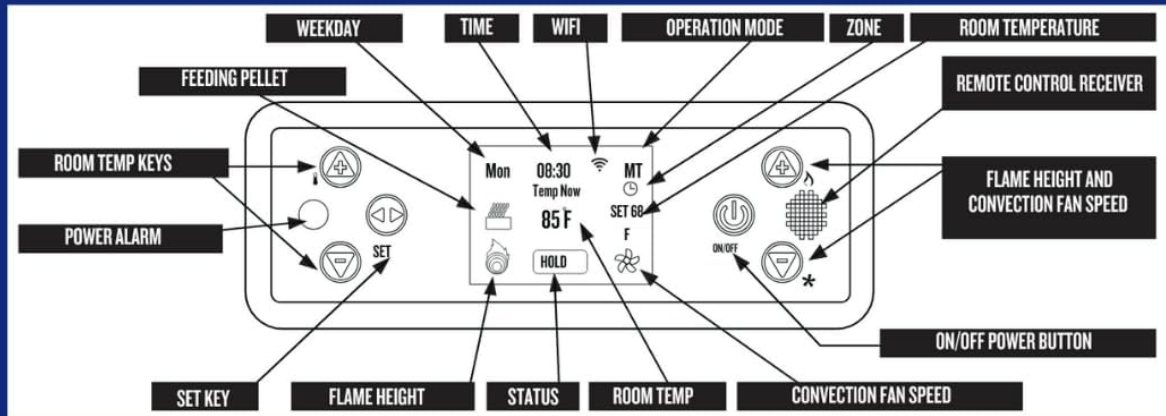


Image 4.2: Detailed view of the Freedom Stove PS21's control panel interface, showing buttons for power, settings, and temperature/fan adjustments.



Image 4.3: Illustration of the Freedom Stove PS21 being controlled via a smartphone app, demonstrating Wi-Fi connectivity and remote management of settings.

Video 4.1: An overview of the Freedom Stove's remote control functionality, demonstrating how to adjust settings from a distance.

Video 4.2: A detailed look at the Freedom Stove's control panel, explaining its various buttons and display features for operation.

5. MAINTENANCE

Regular maintenance is crucial for the longevity and efficient operation of your Freedom Stove PS21. It is recommended to clean the stove daily or every 2-3 days, depending on usage and pellet quality.

5.1 Ash Removal

The stove features an easy-to-remove ash pan. Ensure the stove is completely cool before removing the ash pan to dispose of ashes. Use an ash vacuum for thorough cleaning of the burn pot and surrounding areas.

5.2 Heat Exchanger Cleaning

The stacked tube heat exchanger can be cleaned using a built-in rod mechanism. This helps to keep soot and other debris off the heat exchange surfaces, maintaining thermal efficiency. Perform this cleaning regularly as part of your routine maintenance.

Video 5.1: Instructions on how to change the side panels of the Freedom Stove PS21, which may involve accessing internal components for maintenance or customization.

6. TROUBLESHOOTING

This section addresses common issues you might encounter with your Freedom Stove PS21.

6.1 Low Pellet Shut-off

The stove is designed to automatically shut off and display an error code if pellet levels become too low. To resolve this, refill the hopper with pellets and then locate and press the reset button, typically found behind a side panel.

6.2 Auger Noise

If you hear a