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› Protemp PT-220T-SDR 220,000 BTU Kerosene/Diesel Forced Air Heater User Manual

Pro-Temp PT-220T-SDR

Protemp PT-220T-SDR 220,000 BTU Kerosene/Diesel Forced Air Heater User Manual

Model: PT-220T-SDR | Brand: Pro-Temp

INTRODUCTION

This manual provides comprehensive instructions for the safe and efficient operation, setup, maintenance, and troubleshooting of your Protemp PT-220T-SDR 220,000 BTU Kerosene/Diesel Forced Air Heater. Please read all instructions carefully before use to ensure proper function and safety.

IMPORTANT SAFETY INSTRUCTIONS

Failure to follow these safety instructions can result in fire, explosion, electric shock, or carbon monoxide poisoning, which could lead to property damage, personal injury, or death.

- **Read and Understand All Instructions:** Before operating the heater, thoroughly read and understand all instructions and warnings provided in this manual and on the heater itself.
- **Ventilation:** Always operate the heater in a well-ventilated area. Ensure adequate fresh air supply to prevent oxygen depletion and carbon monoxide buildup.
- **Fuel Type:** Use only Kerosene (No. 1) or Diesel (No. 1 or No. 2) fuel. **DO NOT** use gasoline, paint thinners, alcohol, or any other highly flammable liquids. Avoid using off-road diesel or bio-diesel as these can damage the heater's components.
- **Clearances:** Maintain minimum clearances from combustible materials. The heater requires a minimum of 8 feet (2.4 meters) from the front outlet and 4 feet (1.2 meters) from the sides and rear.
- **Hot Surfaces:** The heater's surfaces become extremely hot during operation. Avoid touching the heater while it is running or immediately after shutdown to prevent burns.
- **Indoor Use Only:** This heater is designed for indoor use in well-ventilated spaces. Do not use in residential living areas.
- **Stable Surface:** Always place the heater on a stable, level, non-combustible surface.
- **Electrical Connection:** Ensure the electrical supply matches the heater's requirements (120V, 60Hz, 3.1A). Use a properly grounded outlet.

PRODUCT FEATURES AND COMPONENTS

Key Features

- Matched direct drive motors and blades for high airflow, rated up to 12,000 CFM.
- Powder-coated steel guards for corrosion resistance and durability.
- Energy-efficient design for cost savings, drawing as little as 1.6 amps.
- Thermally protected, heavy-duty, maintenance-free, 2-speed motors for extended life.

Component Identification



Figure 1: Overview of the Protemp PT-220T-SDR heater with key components labeled for easy identification. This includes the unique, easy-lift handles, reliable steel construction, fuel gauge, easy-grip fuel cap, built-in thermostat, LED digital readout, power on/off switch, dependable built-in air pressure gauge, and versatile, solid wheels.

SETUP

Unpacking and Initial Assembly

1. Carefully remove the heater and all components from the packaging.
2. Inspect the heater for any shipping damage. If damage is found, do not operate and contact customer support.
3. Attach the wheels to the heater's frame using the provided hardware. Ensure they are securely fastened.
4. Attach the handles to the heater's body. These handles are designed for easy lifting and portability.



Figure 2: Detail of the robust wheel assembly, designed for easy maneuverability of the heater.

Fueling the Heater

1. Ensure the heater is turned off and unplugged before fueling.
2. Locate the fuel cap on top of the fuel tank. Unscrew and remove it.
3. Carefully pour Kerosene (No. 1) or Diesel (No. 1 or No. 2) fuel into the tank. Do not overfill.
4. Monitor the fuel gauge to avoid overfilling.
5. Securely replace the fuel cap. Wipe up any spilled fuel immediately.



Figure 3: The fuel cap and integrated fuel gauge, indicating the current fuel level in the tank.

OPERATING INSTRUCTIONS

Starting the Heater

1. Ensure the heater is placed on a stable, level surface in a well-ventilated area, maintaining all required clearances from combustibles.
2. Plug the heater into a grounded 120V, 60Hz electrical outlet.
3. Turn the power switch to the 'ON' position. The LED digital readout should illuminate.
4. Set the desired temperature using the thermostat controls. The heater will automatically ignite and begin heating when the ambient temperature falls below the set point.



Figure 4: The heater's control panel, featuring the digital temperature display and adjustment buttons, alongside the product specification label.

Adjusting Temperature

Use the '+' and '-' buttons on the control panel to increase or decrease the desired temperature. The heater's thermostat will regulate the heat output to maintain the set temperature.

Shutting Down the Heater

1. Turn the power switch to the 'OFF' position.
2. Allow the heater to cool down completely before unplugging or moving. The fan may continue to run for a short period to dissipate residual heat.
3. Unplug the heater from the electrical outlet.

MAINTENANCE

The Protemp PT-220T-SDR heater is designed for reliability and requires minimal routine maintenance. However, periodic checks are recommended to ensure optimal performance and longevity.

- **Exterior Cleaning:** Keep the exterior of the heater clean. Wipe down with a damp cloth as needed. Do not use abrasive cleaners or solvents.
- **Fuel System Inspection:** Periodically inspect fuel lines and connections for any signs of leaks or damage. Address any issues immediately.
- **Air Intake/Outlet:** Ensure the air intake and heat outlet are free from obstructions. Dust and debris can reduce efficiency and pose a fire hazard.
- **Storage:** When storing the heater for extended periods, ensure the fuel tank is empty and clean. Store in a dry, safe location.

TROUBLESHOOTING

Refer to the table below for common issues and their potential solutions.

Problem	Possible Cause	Solution
Heater stops after a few minutes of operation.	Low fuel level; Clogged fuel filter; Overheating sensor activation.	Check fuel level and refill if necessary. Inspect and clean/replace fuel filter. Ensure adequate ventilation and clear any obstructions.
Heater blows raw fuel out the front.	Incorrect fuel type; Clogged or damaged fuel nozzle; Fuel pump malfunction.	Ensure correct fuel (Kerosene/Diesel) is used. Clean or replace the fuel nozzle. If problem persists, contact customer support.
Heater displays an 'E1' error code.	Ignition failure; Flame sensor malfunction; Overheating.	Check for proper fuel supply and ignition. Clean flame sensor. Ensure proper ventilation. If error persists, contact customer support.
Heater does not start.	No power; No fuel; Thermostat set too low.	Check power connection and circuit breaker. Verify fuel level. Adjust thermostat to a higher setting than ambient temperature.

SPECIFICATIONS

Technical details for the Protemp PT-220T-SDR Forced Air Heater.

Specification	Value
Model Number	PT-220T-SDR
BTU Output	220,000 BTU
Fuel Type	Kerosene / Diesel
Air Flow Capacity	685 Cubic Feet Per Minute (CFM)
Heating Coverage	Up to 5500 square feet
Product Dimensions (D x W x H)	42" x 23" x 19"
Item Weight	77 pounds
Amperage	1.6 Amps

Specification	Value
Number of Speeds	2
Manufacturer	Pinnacle Climate Technologies

WARRANTY AND SUPPORT

Warranty Information

This Protemp PT-220T-SDR heater comes with a **1-Year Limited Warranty**. Please refer to the warranty documentation included with your product for full terms and conditions. Keep your proof of purchase for warranty claims.

Customer Support

For technical assistance, parts, or warranty inquiries, please contact the manufacturer, Pinnacle Climate Technologies. Contact information can typically be found on the product packaging or the manufacturer's official website.