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Samlex America PST-300S-12E

Samlex PST-300S-12E 3000W Pure Sine Inverter User Manual

Model: PST-300S-12E

1. Introduction

This manual provides essential information for the safe and efficient operation of your Samlex PST-300S-12E 3000W Pure Sine Inverter. This high-efficiency inverter converts 12 Volts DC to 3000 Watts of AC power at 230 Volts, 50 Hz. Please read all instructions carefully before installation and use.

2. Safety Instructions

WARNING: Failure to follow these instructions may result in serious injury or property damage.

- Ensure proper ventilation around the inverter.
- Do not expose the inverter to rain, moisture, or excessive heat.
- Connect the inverter only to a 12V DC power source.
- Always disconnect the battery before performing any wiring or maintenance.
- Do not open the inverter casing; there are no user-serviceable parts inside.
- Keep children away from the inverter.
- This device generates high voltage AC power. Handle with extreme caution.

3. Product Overview

The Samlex PST-300S-12E is a robust pure sine wave inverter designed for reliable AC power conversion. Key features include temperature-controlled cooling, low interference, and comprehensive protection mechanisms.

3.1 Front Panel



Image Description: This image displays the front panel of the Samlex PST-300S-12E inverter. Visible components include the Schuko AC outlet, power indicator lights, and the main power switch. The design is compact and functional, indicating ease of access for primary controls and power output.

- **AC Output:** Schuko outlet for 230 VAC, 50 Hz power.
- **Indicators:** Power, Fault, and Overload status lights.
- **Power Switch:** ON/OFF control for the inverter.

3.2 Rear Panel

The rear panel houses the DC input terminals, cooling fan, and remote control port.

- **DC Input Terminals:** Connect to 12V DC battery bank.
- **Cooling Fan:** Temperature-controlled for optimal performance.
- **Remote Input:** Port for optional remote control (RC-300, sold separately) or ignition switch connection.

4. Setup

4.1 Mounting the Inverter

Mount the inverter in a dry, well-ventilated area, away from direct sunlight and heat sources. Ensure sufficient clearance around the cooling fan for proper airflow. Use appropriate fasteners to secure the inverter to a stable surface.

4.2 DC Input Connection

1. Ensure the inverter's power switch is in the OFF position.
2. Connect the positive (+) terminal of the inverter to the positive (+) terminal of the 12V battery bank using appropriately sized cables.
3. Connect the negative (-) terminal of the inverter to the negative (-) terminal of the 12V battery bank.
4. Ensure all connections are tight and secure to prevent voltage drop and overheating.
5. It is recommended to install a fuse or circuit breaker in the positive DC line, close to the battery, for protection.

4.3 AC Output Connection

Connect your AC appliances directly to the Schuko outlet on the front panel. For hard-wired applications, consult a qualified electrician.

4.4 Remote Control Connection (Optional)

The inverter features a remote input for an optional LCD remote control (Samlex RC-300, sold separately) or for connection to an ignition switch. Refer to the RC-300 manual for specific connection instructions.

5. Operating Instructions

5.1 Turning the Inverter ON/OFF

1. To turn ON: Press the power switch on the front panel to the 'ON' position. The power indicator light should illuminate.
2. To turn OFF: Press the power switch to the 'OFF' position. The power indicator light will turn off.

5.2 Connecting AC Loads

Plug your AC appliances into the Schuko outlet. Ensure the total wattage of all connected appliances does not exceed the inverter's continuous output rating of 3000 Watts. Some appliances, especially those with motors, may have a higher surge wattage requirement at startup. The inverter is designed to handle temporary surges.

5.3 Understanding Indicators

- **Power Indicator:** Illuminates when the inverter is ON and operating normally.
- **Fault Indicator:** Illuminates to indicate an internal fault or protection mode (e.g., over-temperature, short circuit).
- **Overload Indicator:** Illuminates when the connected load exceeds the inverter's capacity. The inverter may shut down to protect itself.

6. Maintenance

The Samlex PST-300S-12E inverter requires minimal maintenance. Regular checks ensure optimal performance and longevity.

- **Cleaning:** Periodically clean the exterior of the inverter with a dry cloth. Ensure ventilation openings are free from dust and debris. Do not use liquid cleaners.
- **Connections:** Annually check all DC input connections for tightness. Loose connections can cause overheating and poor performance.
- **Environment:** Ensure the operating environment remains within specified temperature and humidity ranges.

7. Troubleshooting

Problem	Possible Cause	Solution

Problem	Possible Cause	Solution
Inverter does not turn ON	No DC input power; Loose connections; Blown fuse/breaker; Low battery voltage.	Check battery connections and voltage; Verify fuse/breaker; Recharge battery.
No AC output	Overload; Over-temperature; Short circuit; Low battery voltage.	Reduce load; Allow inverter to cool; Check for short circuits in AC wiring; Recharge battery.
Fault indicator ON	Internal fault; Over-temperature; Short circuit.	Turn off inverter, disconnect loads, wait 15 minutes, restart. If fault persists, contact support.
Overload indicator ON	Connected load exceeds 3000W.	Reduce the total wattage of connected appliances.

8. Specifications

Feature	Detail
Model Name	3000 WATT PS INVERTER
Input Voltage	10.7 - 16.5Vdc (12 Volts)
Output Power (Continuous)	3000 Watts
Output Voltage	230 Volts AC
Frequency	50 Hz
Waveform	Pure Sine Wave
Low Battery Alarm / Shut Down	Yes
Overload Protection	Yes
Over Temperature Protection	Yes
Short Circuit Protection	Yes
Idle Power Draw	Less than 2.5 Amp
Item Weight	24.8 Pounds
Mfr Part Number	PST-300S-12E
UPC	622988077654

9. Warranty and Support

For warranty information and technical support, please refer to the official Samlex America website or contact their

customer service department. Keep your purchase receipt for warranty claims.
Samlex America Contact: www.samlexamerica.com

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