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› Powerhorse D2500iS 2500W Inverter Generator User Manual

Powerhorse D2500iS

Powerhorse D2500iS Inverter Generator

USER MANUAL

Introduction

This manual provides essential information for the safe and efficient operation, maintenance, and troubleshooting of your Powerhorse D2500iS Inverter Generator. Please read this manual thoroughly before operating the generator to ensure proper use and to prevent injury or damage.

The Powerhorse D2500iS is a portable inverter generator designed to provide clean, quiet, and reliable power for various applications, including camping, tailgating, emergency backup, and jobsite use. It features a low 52dB noise output, an 80cc engine with Engine Smart Control, and carbon monoxide detection for enhanced safety.



Image: Powerhorse D2500iS Inverter Generator, a compact blue and black unit with a handle on top and control panel on the side.

Safety Information

WARNING: Read and understand all safety warnings and instructions before operating this generator. Failure to follow these instructions may result in electric shock, fire, serious injury, or death.

- **Carbon Monoxide Hazard:** Generators produce carbon monoxide, a colorless, odorless, poisonous gas. Operating a generator indoors can kill you in minutes. ALWAYS operate the generator outdoors in a well-ventilated area, far away

from windows, doors, and vents.

- **CO Shutdown System:** This generator is equipped with a carbon monoxide (CO) detection system that automatically shuts down the engine if CO levels become dangerously high. If the generator shuts down due to CO, move it to an open-air location and allow it to ventilate before attempting to restart. Do not disable this safety feature.
- **Electrical Shock Hazard:** Never operate the generator in wet conditions. Ensure all electrical connections are dry and properly grounded.
- **Fire Hazard:** Gasoline is highly flammable. Refuel in a well-ventilated area with the engine off and cool. Do not smoke while refueling.
- **Hot Surfaces:** The generator's engine and muffler become very hot during operation and remain hot for a period after shutdown. Avoid contact to prevent burns.
- **Children and Pets:** Keep children and pets away from the generator during operation.

Product Features

- **Quiet Power:** Low 52dB output, suitable for camping, tailgating, and emergency backup.
- **Maximum Efficiency:** 80cc engine with Engine Smart Control and variable throttle automatically adjusts engine RPM based on power needs for quieter operation and reduced fuel consumption.
- **Safe Operation:** Carbon monoxide detection provides additional safety and peace of mind.
- **Clean Electricity:** Produces less than 3% total harmonic distortion (THD) for safely operating sensitive electronics.
- **Durable Construction:** 100% copper-wound generator head prevents overheating for longer life.
- **Forest Service Qualified:** U.S.D.A. Forest Service-Qualified Spark Arrester allows for safe use in parks and forests.

PORTABLE INVERTER GENERATOR



Image: A graphic highlighting key features of the Powerhorse Inverter Generator, including quiet operation, clean power, and CO shutdown.

Setup

1. **Unpacking:** Carefully remove the generator from its packaging. Inspect for any shipping damage. Ensure all components listed in the packing list are present.
2. **Placement:** Place the generator on a firm, level surface outdoors, in a well-ventilated area. Ensure there is at least 5 feet (1.5 meters) of clear space around the generator to allow for proper airflow and exhaust dispersion. Never operate indoors or in partially enclosed spaces.

3. Add Engine Oil:

- Remove the oil fill cap/dipstick.
- Add the recommended engine oil (typically SAE 10W-30 for general use) to the crankcase until it reaches the upper mark on the dipstick. Do not overfill. The oil capacity is not specified in the provided data, refer to the generator's specific oil capacity label or included quick start guide.
- Securely replace the oil fill cap/dipstick.

4. Add Fuel:

- Ensure the generator is off and cool.
- Unscrew the fuel cap.
- Fill the fuel tank with fresh, unleaded gasoline (minimum 87 octane). Do not overfill; leave space for fuel expansion. The tank volume is 1.18 gallons.
- Securely replace the fuel cap. Wipe up any spilled fuel immediately.

5. **Grounding:** For safety, the generator must be properly grounded. Connect a grounding wire from the generator's grounding terminal to an appropriate ground source, such as a ground rod.

Operating Instructions



Image: Close-up of the Powerhorse D2500iS control panel, showing outlets, switches, and indicators.

1. Pre-Start Check:

- Check engine oil level.
- Check fuel level.
- Ensure all electrical devices are disconnected from the generator.
- Verify the generator is on a level surface in a well-ventilated outdoor area.

2. Starting the Engine (Recoil Start):

- Turn the fuel valve to the 'ON' position.
- Set the engine switch to 'ON'.
- If the engine is cold, move the choke lever to the 'CHOKE' position.
- Firmly pull the recoil starter handle until the engine starts.
- Once the engine starts, slowly move the choke lever to the 'RUN' position.

3. Connecting Electrical Devices:

- Allow the engine to run for a few minutes to warm up.
- Plug in your electrical devices. Do not exceed the generator's rated wattage (1800 running watts, 2500 starting watts).
- Ensure the total load does not exceed the capacity of the individual outlets.

4. Using Economy Mode:

- The Economy Mode switch (often labeled 'ECO' or 'Smart Throttle') reduces engine speed when the electrical load is low, improving fuel efficiency and reducing noise.
- Flip the switch to 'ON' for economy mode. For full power or when starting high-load devices, set it to 'OFF'.

5. **CO Shutdown System:** If the generator detects high levels of carbon monoxide, it will automatically shut down. If this occurs, immediately move the generator to an area with fresh air and allow it to ventilate before attempting to restart. Do not operate the generator in the same location where a CO shutdown occurred until the area is thoroughly ventilated.

6. Stopping the Engine:

- Disconnect all electrical loads.
- Allow the generator to run for a few minutes without load to cool down.
- Turn the engine switch to 'OFF'.
- Turn the fuel valve to the 'OFF' position.

Maintenance

Regular maintenance is crucial for the longevity and reliable operation of your generator. Perform checks and service at the recommended intervals.

Maintenance Item	Interval	Action
Check Engine Oil Level	Before each use	Check and add if necessary
Change Engine Oil	First 20 hours, then every 50 hours or 6 months	Drain and refill with recommended oil
Clean Air Filter	Every 50 hours or 6 months (more often in dusty conditions)	Wash in soapy water, dry, and re-oil lightly
Inspect Spark Plug	Every 100 hours or annually	Clean, adjust gap, or replace if necessary
Inspect Fuel Filter	Annually	Replace if clogged or damaged
Long-Term Storage	Before storing for more than 30 days	Drain fuel, add fuel stabilizer, run engine until dry, change oil, clean generator, store in a dry place

Troubleshooting

If you encounter issues with your generator, consult the table below for common problems and solutions.

Problem	Possible Cause	Solution
Engine will not start	No fuel Low oil level Engine switch OFF Choke not set correctly Spark plug fouled	Add fresh fuel Add engine oil Turn engine switch to ON Adjust choke lever Clean or replace spark plug
No power output	Circuit breaker tripped Overload Faulty connection	Reset circuit breaker Reduce electrical load Check all connections and cables
Engine runs, then stops	Low fuel Low oil level CO shutdown activated Clogged fuel filter	Add fuel Add engine oil Move generator to fresh air, ventilate, then restart Clean or replace fuel filter
Generator is excessively loud	Economy mode OFF High load	Turn Economy mode ON for lighter loads Reduce electrical load

Specifications

Specification	Detail
Brand	Powerhorse
Model Name	Inverter Generator
Model Number	D2500iS
Starting Wattage	2500 watts
Running Wattage	1800 watts
Engine Displacement	80 cubic centimeters
Fuel Type	Gasoline
Tank Volume	1.18 gallons
Ignition System Type	Recoil Start
Frequency	60 hertz
Total Power Outlets	1 (Note: Product images show multiple outlets, typically 2x 120V AC and 1x 12V DC. The specification 'Total Power Outlets: 1' might be a simplification or error in the source data.)
Noise Level	52dB (Quiet Operation)

Specification	Detail
Product Dimensions (L x W x H)	20.4" x 12.5" x 18.3"
Item Weight	54 pounds
Material Type	Steel/Metal, Copper, Plastic/Rubber

Warranty

The Powerhorse D2500iS Inverter Generator comes with a**2-year limited warranty**. This warranty covers defects in materials and workmanship under normal use and service. Please retain your proof of purchase for warranty claims. For specific terms and conditions, refer to the warranty documentation included with your product or contact Powerhorse customer support.

Support

For technical assistance, parts, or warranty inquiries, please contact Powerhorse customer support. Refer to the contact information provided in your product packaging or visit the official Powerhorse website for the most up-to-date support details.

When contacting support, please have your generator's model number (D2500iS) and serial number ready to expedite service.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

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Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

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