

PowerSmart HB5020

PowerSmart 2500-Watt Gas Powered Portable Inverter Generator User Manual

MODEL: HB5020

1. Important Safety Information

Read and understand all safety precautions before operating this generator. Failure to follow these instructions can result in serious injury or death.

- **Carbon Monoxide Hazard:** Generators produce carbon monoxide, a colorless, odorless, poisonous gas. Operate the generator outdoors only, far away from windows, doors, and vents. Never operate indoors, in a garage, or in any enclosed space.
- **Electrical Shock Hazard:** Do not operate the generator in wet conditions. Ensure all electrical connections are dry and properly insulated. Never touch the generator with wet hands.
- **Fire Hazard:** Gasoline is highly flammable. Refuel in a well-ventilated area with the engine off and cooled. Do not smoke or allow open flames near the generator. Store fuel in approved containers.
- **Hot Surfaces:** The generator's engine and muffler become very hot during operation and remain hot for some time after shutdown. Avoid contact to prevent burns.
- **Children and Pets:** Keep children and pets away from the generator at all times.

2. Product Overview

The PowerSmart 2500-Watt Portable Inverter Generator (Model HB5020) is designed to provide clean, stable power for various applications, including camping, tailgating, and emergency home backup. It features inverter technology for sensitive electronics, a quiet operation, and a lightweight, compact design.



PEAK	2500
RATED	1900
HALF LOAD RUN TIME	5.5 HOURS
OUTLETS	 (2) USB

Image: Generator displaying key power specifications and available outlets.

Key features include:

- **Powerful Output:** 2,500 peak watts and 1,900 running watts of clean power (<3% THD).
- **Super Quiet Operation:** Operates as low as 56 dBA due to a double-insulated acoustic enclosure and advanced engine design.
- **Ultra Lightweight:** Weighs only 39 pounds for easy portability.
- **Versatile Power Panel:** Includes (2) 120V 20A NEMA 5-20R household receptacles, (2) USB receptacles, and (1) 12V DC outlet.
- **Parallel Ready:** Allows connection of two 2500-watt inverters for increased output (parallel kit sold separately).
- **Safety Features:** EPA compliant, low-oil shutdown, overload protection, and Eco-mode.



Image: Detailed view of the generator's control panel and output options.



Image: Generator with its physical dimensions and weight indicated.

3. Setup

Before first use, perform the following steps:

1. **Unpacking:** Carefully remove the generator from its packaging. Inspect for any shipping damage. Retain packaging for future storage or transport.
2. **Add Engine Oil:**
 - Place the generator on a level surface.
 - Locate the oil fill cap/dipstick.
 - Add the recommended 10W-30 engine oil (not included) to the crankcase. Do not overfill. The oil capacity is typically around 0.35-0.4 liters. Refer to the oil fill level indicator.
 - Securely replace the oil fill cap/dipstick.
3. **Add Fuel:**
 - Ensure the generator is off and cooled.
 - Use fresh, unleaded gasoline with an octane rating of 87 or higher. Non-ethanol gasoline is recommended to prevent fuel system issues.
 - Open the fuel tank cap and carefully pour gasoline into the tank. Do not fill above the red indicator line or the bottom of the filler neck. The tank volume is 1.05 gallons.
 - Securely replace the fuel tank cap. Wipe up any spilled fuel immediately.

4. Operation

4.1 Starting the Generator

1. Ensure the generator is on a level, outdoor surface, away from combustible materials.
2. Turn the fuel valve to the 'ON' position.
3. Move the choke lever to the 'CHOKE' position (cold start).
4. Turn the engine switch to the 'ON' position.
5. Pull the recoil starter handle firmly and smoothly until the engine starts.
6. Once the engine starts, gradually move the choke lever to the 'RUN' position.

4.2 Connecting Appliances

Once the generator is running stably, you can connect your electrical devices.

- Ensure the total wattage of connected devices does not exceed the generator's running wattage (1900 watts).
- Plug your devices into the appropriate 120V AC, USB, or 12V DC outlets.
- The generator features an **Eco-mode** switch. When activated, the engine speed adjusts automatically to the load, improving fuel efficiency and reducing noise. For high-demand appliances, it may be necessary to turn Eco-mode off.
- If an overload occurs, the overload indicator light will illuminate, and power output will stop. Disconnect devices, press the reset button, and restart the generator if necessary.

4.3 Parallel Operation

This generator is parallel ready, allowing you to connect two PowerSmart 2500-watt inverter generators for increased power output. A parallel kit is sold separately and required for this function. Refer to the parallel kit's instructions for proper connection and operation.

5. Maintenance

Regular maintenance ensures optimal performance and extends the life of your generator. Always turn off the engine and allow it to cool before performing any maintenance.

- **Check Engine Oil:** Check the oil level before each use. Add oil if necessary.
- **Clean Air Filter:** Inspect the air filter regularly and clean or replace it as needed. A dirty air filter can reduce engine performance.
- **Spark Plug:** Inspect the spark plug periodically. Clean or replace if fouled or worn.
- **Fuel System:** If storing the generator for an extended period, drain the fuel tank and carburetor or use a fuel stabilizer to prevent fuel degradation.
- **General Cleaning:** Keep the generator clean and free of dirt and debris. Use a damp cloth to wipe down exterior surfaces.

6. Troubleshooting

If you encounter issues with your generator, refer to the following common troubleshooting steps:

Problem	Possible Cause	Solution
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Problem	Possible Cause	Solution
Engine will not start	No fuel; Low oil level; Choke incorrect; Engine switch off; Fouled spark plug	Add fuel; Add oil; Adjust choke; Turn engine switch ON; Clean/replace spark plug
No power output	Overload; Circuit breaker tripped; Loose connections	Reduce load, press reset; Check circuit breaker; Secure connections
Engine runs rough	Stale fuel; Dirty air filter; Incorrect choke setting	Drain/replace fuel; Clean/replace air filter; Adjust choke

If problems persist after attempting these solutions, please contact customer support.

7. Specifications

Specification	Detail
Brand	PowerSmart
Model Name	Portable Generator
Model Number	HB5020
Peak Wattage	2500 Watts
Running Wattage	1900 Watts
Fuel Type	Gasoline
Engine Type	4 Stroke
Engine Displacement	79 Cubic Centimeters
Tank Volume	1.05 Gallons
Runtime	Up to 11 hours (at 25% load)
Voltage	120 Volts
Frequency	50 Hz
Total Power Outlets	2 x 120V 20A, 2 x USB, 1 x 12V DC
Item Weight	39 Pounds (approx.)
Item Dimensions (L x W x H)	19.1" x 13.4" x 20.1"
Special Features	Portable, Super Quiet, Eco-mode, Low-oil shutdown, Overload protection

8. Warranty and Support

8.1 Warranty Information

This PowerSmart generator comes with a **2-year warranty** from the date of purchase. Please retain your proof of purchase for warranty claims.

8.2 Customer Support

PowerSmart is a brand by Amerisun Inc., headquartered in Itasca, Illinois. For technical support, service, or replacement parts, please contact PowerSmart customer service. The company maintains over 500 certified repair centers in the U.S. and provides full replacement parts through its IL headquarters.

For assistance, please refer to the contact information provided with your product packaging or visit the official PowerSmart website.