

EnginStar R300

EnginStar Portable Power Station R300

USER MANUAL



1. INTRODUCTION

The EnginStar Portable Power Station R300 is a versatile and compact power solution designed for various applications, including outdoor activities, camping, hunting, and emergency backup. With a 296Wh capacity and 300W pure sine wave AC output, it provides reliable power for a wide range of electronic devices and small appliances.



The EnginStar Portable Power Station R300, showcasing its compact design and accessible ports.

2. PRODUCT FEATURES

The EnginStar R300 is equipped with advanced features to ensure efficient and safe power delivery:

- **Portable and Powerful:** Compact size (9 x 5.5 x 7.5 inches, 6.5 lbs) with 296Wh capacity and 300W AC output.
- **Pure Sine Wave AC Output:** Two 110V pure sine wave AC outlets provide stable and clean power, protecting sensitive electronics.
- **Multi-Port Design:** Features 2 regulated DC outputs (12V/24V), 1 Fast Charger USB (5V/3.1A Max), and 1 USB-C (18W) port for simultaneous charging of multiple devices.
- **Superior Protection System:** Advanced Battery Management System (BMS) with voltage control and temperature control, offering protection against short circuit, overcharging, and overload.
- **Durable Battery:** Utilizes 100% original high-quality lithium-ion batteries supporting over 1000 charge cycles.
- **Multiple Charging Ways:** Can be recharged via compatible 12-25V solar panels (not included), wall outlet, or 12V car socket.



Internal view highlighting the advanced lithium-ion battery and comprehensive protection system.



Examples of devices and their approximate charge times or usage duration with the R300.

3. SETUP GUIDE

3.1 Unpacking

Upon receiving your EnginStar Portable Power Station R300, carefully unpack all components. The package should include:

- 1 x EnginStar Rechargeable Electrical Power Station
- 1 x User Manual
- 1 x Home Charger (AC adapter)

- 1 x Car Charger Cable

3.2 Initial Charging

It is recommended to fully charge the power station before its first use to optimize battery performance.

1. **AC Wall Charging:** Connect the provided home charger to the input port of the power station and plug it into a standard wall outlet. The LCD display will indicate charging status. A full charge takes approximately 7 hours at a maximum charging speed of 65W.
2. **Car Charging:** Use the provided car charger cable to connect the power station to your vehicle's 12V socket.
3. **Solar Charging (Solar Panel Not Included):** Connect a compatible 12-25V solar panel to the input port. The built-in controller will manage the charging process.



The three primary methods for recharging your EnginStar R300 power station.

4. OPERATING INSTRUCTIONS

4.1 Powering On/Off

To power on the unit, press and hold the main POWER button located on the front panel. To power off, press and hold the same button until the display turns off.

4.2 Using AC Outlets

The R300 features two 110V pure sine wave AC outlets. To activate them, press the AC SWITCH button. Ensure your device's power consumption is less than 300 Watts. The display will show the AC output wattage.

4.3 Using DC/USB Ports

The DC and USB ports are always active when the unit is powered on. Simply plug your devices into the appropriate ports (12V/24V DC, USB-A, USB-C). The display will show the DC and USB output wattages.

4.4 LCD Display Information

The smart LCD display provides real-time information:

- **Battery Level:** Indicates the remaining battery charge.
- **Input Wattage:** Shows the power being drawn during charging.
- **Output Wattage:** Displays the power being consumed by connected devices for AC, DC, and USB outputs.

EnginStar

Portable Power Station & Solar Generator

EnginStar is established in 2012, is a global famous brand focusing on the research and development, production and sales of portable emergency power products. EnginStar aims to provide a solution of portable, powerful and pure clean energy, to show our love to the ONLY Earth.

EnginStar fulfills to discover potential demand, generate solar power to the great outdoors, and its product innovation has been recognized by the international consumer electronics field.

Making every corner of the world uninterrupted electricity forever!

The smart LCD display provides essential operational data at a glance.

4.5 LED Light Modes

The power station includes an integrated LED light with three modes for various situations:

- **Steady:** Provides continuous illumination.
- **Strobes:** Flashing light for signaling.
- **SOS:** International Morse code signal for emergencies.



The integrated LED light offers multiple modes for convenience and emergencies.

5. MAINTENANCE AND STORAGE

Proper maintenance ensures the longevity and optimal performance of your EnginStar Portable Power Station R300:

- **Regular Charging:** Recommend fully charging the unit every 2-3 months, even when not in use, to keep the power station in good working condition.
- **Avoid Deep Discharge:** Recharge the unit in time before draining all the power to prevent battery degradation.
- **Storage Conditions:** Store the power station between -20 and 45 °C (-4 to 113 °F).
- **Environmental Protection:** Keep your portable power station away from water and fire. Avoid extreme temperatures and direct sunlight.
- **Cleaning:** Use a dry, soft cloth to clean the exterior of the unit. Do not use abrasive cleaners or immerse the unit in water.

6. TROUBLESHOOTING

6.1 Common Issues and Solutions

- **Device Not Charging via AC Outlet:**
 - Ensure the AC output is activated by pressing the AC SWITCH button.
 - Verify that the device's power consumption is less than 300 Watts. Overload protection will shut down the AC output if the limit is exceeded.
 - Check if the power station's battery level is sufficient.
- **Power Station Not Charging:**
 - Ensure the charging cable (AC adapter, car charger, or solar panel) is securely connected to both the power station and the power source.
 - Verify the power source is active (wall outlet, car socket, or sufficient sunlight for solar panel).
 - Check the input wattage displayed on the LCD screen to confirm charging activity.
- **Unit Not Turning On:**
 - Ensure the battery is not completely depleted. Try connecting it to a charger.
 - Press and hold the POWER button for a few seconds to ensure it registers.

6.2 CPAP Machine Working Time Calculation

The working time for a CPAP machine depends on its power consumption. For an approximate calculation:

Working time = $296\text{Wh} \times 0.85 / \text{operating power of your device (in Watts)}$

For example, if your CPAP machine consumes 50W, the running time will be approximately $296\text{Wh} \times 0.85 / 50\text{W} = 5$ hours. This calculation assumes the heater and humidifier functions of the CPAP machine are turned OFF, as these significantly increase power consumption.

SPRING JOURNEY WITH ENGINSTAR



Estimated working times for common CPAP machines (heater & humidifier OFF).

7. TECHNICAL SPECIFICATIONS

Specification	Value
Brand	EnginStar
Model Name	R300
Wattage	296 Watt-hours
Output Wattage	300W
Voltage (AC)	110 Volts
Fuel Type	Electric
Power Source	Battery Powered
Item Weight	3.6 Kilograms (7.92 pounds)
Product Dimensions	9.1"L x 5"W x 7"H
Battery Cell Type	Lithium Ion
Included Components	300W portable power station
Special Features	Digital Display, Flashlight, LED Indicator Lights, Overload Protection, Portable
UPC	717121884500

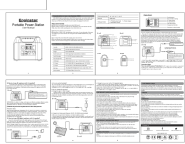
8. WARRANTY AND CUSTOMER SUPPORT

EnginStar provides a limited service time for the Portable Power Station R300.

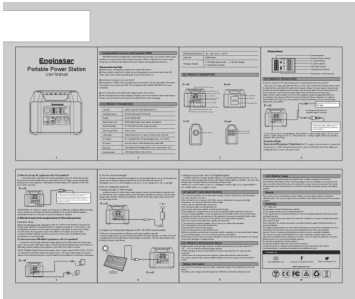
- **Warranty Period:** 12 months limited service time from the date of purchase.
- **Contact Support:** For any questions, technical assistance, or warranty claims, please refer to the contact information provided in your product packaging or visit the official EnginStar store on Amazon: [EnginStar Store](#).

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Related Documents

	<p>EnginStar R300 Portable Power Station User Manual</p> <p>Comprehensive user manual for the EnginStar R300 Portable Power Station. Learn about product features, specifications, charging instructions, security, maintenance, and application tips for this 296Wh lithium battery backup power station.</p>
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