DaranEner NEO

DaranEner NEO 300W Portable Power Station User Manual

Model: NEO

1. Introduction

Thank you for choosing the DaranEner NEO 300W Portable Power Station. This manual provides essential information for the safe and efficient operation of your device. Please read it thoroughly before use and retain it for future reference.
The DaranEner NEO is a compact and portable power solution featuring a 192Wh (60,000 mAh) LiFePO4 battery, capable of delivering up to 300W (600W surge) of power. It is designed for various applications, including camping, RV trips, travel, tailgating, power outages, and emergency home use.

2. Safety Instructions

To ensure safe operation, always follow these precautions:

- Do not disassemble, repair, or modify the unit.
- Keep the unit away from fire, heat sources, and direct sunlight.
- Do not use or store the unit in a bathroom or in areas exposed to rain or moisture.
- Do not use the unit if it is damaged or has been dropped.
- Keep out of reach of children and pets.
- Ensure proper ventilation during use and charging.
- Use only approved accessories and charging cables.
- Dispose of the unit according to local regulations.

3. Package Contents

Verify that all items are present in your package:

- DaranEner NEO Portable Power Station
- AC Power Adapter
- Car Charger Cable
- User Manual

4. Product Overview

4.1. Ports and Indicators

Familiarize yourself with the various ports and indicators on your DaranEner NEO power station.



Figure 4.1: Front panel of the DaranEner NEO showing 2x AC outlets, 1x car socket, 2x DC5521 ports, 1x USB-A, and 2x USB-C ports.



Figure 4.2: Detailed view of the LED screen display, indicating power, input/output wattage, battery percentage, and various status icons.

- **AC Output:** 2x 110V AC outlets (300W total).
- **Car Socket:** 1x 12V car socket (120W).
- **DC5521 Ports:** 2x DC5521 ports.
- **USB-A Port:** 1x USB-A 18W.
- **USB-C Ports:** 1x USB-C 30W, 1x USB-C PD 60W.
- **LED Display:** Shows battery level, input/output power, and status indicators.
- **LED Flashlight:** Integrated light with multiple modes.

5. Setup and Initial Charging

Before first use, it is recommended to fully charge your DaranEner NEO power station.

5.1. Charging via AC Adapter

1. Connect the AC power adapter to the DC input port on the power station.
2. Plug the AC adapter into a wall outlet.
3. The LED display will show the charging status. A full charge typically takes approximately 2 hours.



Figure 5.1: Charging the power station using the AC adapter.

5.2. Charging via Solar Panel (Optional)

The DaranEner NEO supports solar charging with a maximum input of 100W. An MPPT controller is built-in for efficient charging.

1. Connect a compatible solar panel (not included) to the DC input port.
2. Position the solar panel in direct sunlight for optimal charging.
3. The LED display will indicate solar charging status.



Figure 5.2: Solar charging setup for the power station.

5.3. Charging via Car Charger

You can charge the power station using your car's 12V cigarette lighter socket.

1. Connect the car charger cable to the DC input port on the power station.
2. Plug the other end into your vehicle's 12V car socket.
3. The LED display will show the charging status.



Figure 5.3: Charging the power station in a vehicle.

6. Operating Instructions

The DaranEner NEO provides multiple output options for various devices.

6.1. Using AC Outlets

1. Press the AC power button to turn on the AC output. The AC indicator on the LED display will light up.
2. Plug your AC-powered device into one of the 110V AC outlets.
3. Ensure the total power consumption of your devices does not exceed 300W.
4. After use, press the AC power button again to turn off the AC output.



Figure 6.1: Examples of devices powered by the DaranEner NEO.

6.2. Using DC and USB Outputs

1. Press the DC/USB power button to turn on the DC and USB outputs. The corresponding indicators on the LED display will light up.
2. Connect your devices to the appropriate USB-A, USB-C, DC5521, or car socket ports.
3. The USB-C PD 60W port supports fast charging for compatible devices.
4. After use, press the DC/USB power button again to turn off the outputs.



Figure 6.2: Fast charging a laptop using the USB-C PD port.

6.3. Using the LED Flashlight

1. Press the LED light button once to turn on the light in Normal mode.
2. Press again to cycle through High, Strobe, and SOS modes.
3. Press and hold the button to turn off the LED light.

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Video 6.1: Demonstration of the DaranEner NEO's LED flashlight modes and various charging capabilities.

7. Battery Information

The DaranEner NEO is equipped with an automotive-grade LiFePO4 battery, known for its longevity and safety.

- **Long Lifespan:** Offers over 3500 charge cycles, lasting up to 6 times longer than traditional lithium-ion batteries.
- **Smart BMS:** The integrated Battery Management System (BMS) provides comprehensive protection

against over-voltage, over-current, overheating, and short circuits.

- **Temperature Control:** Features smart temperature control for enhanced safety and performance.

Figure 7.1: Key features of the LiFePO4 battery and BMS.

8. Specifications

Feature	Detail
Model Number	NEO
Battery Capacity	192Wh (60,000 mAh) LiFePO4
AC Output	2x 110V, 300W (600W Surge) Pure Sine Wave
DC Output	1x 12V Car Socket (120W), 2x DC5521 Ports
USB-A Output	1x 18W
USB-C Output	1x 30W, 1x PD 60W
AC Input (Charging)	90W (approx. 2 hours to full)
Solar Input (Charging)	Max 100W (MPPT built-in)
Car Input (Charging)	12V (approx. 3 hours to full)
Dimensions (L x W x H)	8.41 x 5.28 x 7.44 inches
Weight	5.84 lbs (2.65 kg)
Special Features	Portable, Built-in LED Flashlight (Normal, High, Strobe, SOS modes)

Figure 8.1: The DaranEner NEO's portable design.

9. Maintenance

Proper maintenance ensures the longevity and optimal performance of your power station.

- **Storage:** Store the unit in a cool, dry place, away from direct sunlight and extreme temperatures.
- **Charging Frequency:** If storing for extended periods, charge the unit to 50-80% every 3-6 months to maintain battery health.
- **Cleaning:** Use a dry, soft cloth to clean the exterior. Do not use liquid cleaners or immerse the unit in water.
- **Avoid Overloading:** Do not exceed the rated output power to prevent damage.

10. Troubleshooting

If you encounter issues, refer to the following common problems and solutions:

Problem	Possible Cause	Solution

Problem	Possible Cause	Solution
Unit not turning on	Battery is depleted; Power button not pressed correctly.	Charge the unit; Press and hold the main power button for 3 seconds.
AC output not working	AC output is off; Device power exceeds 300W; Overload protection activated.	Press the AC power button; Reduce connected load; Disconnect device and restart AC output.
Slow charging	Using a low-power charger; Solar panel not in direct sunlight.	Use the provided 90W AC adapter; Reposition solar panel for maximum exposure.
LED display not working	Unit is off; Display malfunction.	Turn on the unit; Contact customer support if issue persists.

11. Warranty and Support

DaranEner provides a warranty for this product. For detailed warranty information, please refer to the warranty card included with your purchase or visit the official DaranEner website.
If you have any questions, require technical support, or need assistance with troubleshooting, please contact DaranEner customer service. Contact information can typically be found on the product packaging or the official website.

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