

CTOLITY Apower400

CTOLITY Apower400 Portable Power Station User Manual

Model: Apower400 | Output: 400W/500W/600W | Battery: 231Wh/300Wh

1. INTRODUCTION

Thank you for choosing the CTOLITY Apower400 Portable Power Station. This device is designed to provide reliable and versatile power for various applications, including outdoor activities, emergency backup, and mobile work. It features a durable LiFePO4 battery, multiple output ports, and flexible charging options. Please read this manual thoroughly before operating the power station to ensure safe and efficient use.



Image 1.1: The CTOLITY Apower400 Portable Power Station shown in an outdoor environment, highlighting its portability.

2. IMPORTANT SAFETY INSTRUCTIONS

- Do not disassemble, repair, or modify the unit. Incorrect reassembly may cause fire or injury.
- Do not expose the unit to fire or extreme temperatures (above 60°C / 140°F).
- Do not use or store the unit in a bathroom or in areas exposed to water or rain.
- Do not use the unit if it is damaged or has been dropped.
- Keep the unit away from children and pets.
- Ensure proper ventilation during use. Do not block ventilation openings.
- Use only recommended accessories and charging cables.

- In case of fire, use a dry powder fire extinguisher. Water may cause electric shock.

3. PACKAGE CONTENTS

Verify that all items listed below are included in your package. If any items are missing or damaged, please contact customer support.

- CTOLITY Apower400 Portable Power Station
- AC Adapter
- Car Charger Cable
- User Manual (this document)

4. PRODUCT OVERVIEW

Familiarize yourself with the various components and ports of your CTOLITY Apower400 Portable Power Station.



Image 4.1: Front panel of the Apower400, displaying the LCD screen, input/output ports, and control buttons.

4.1. Ports and Controls

- **AC Input Port:** For charging the power station using the provided AC adapter.
- **DC Input Port (Car/Solar):** For charging via car charger or compatible solar panels.
- **AC Output Outlets:** Two standard AC outlets for powering household appliances (500W max).
- **USB-A Ports:** Multiple USB-A ports for charging smartphones, tablets, and other USB-powered devices.
- **USB-C Ports:** USB-C ports for faster charging of compatible devices.
- **DC Output Ports:** Two DC ports for powering 12V devices.
- **Wireless Charging Pad:** Located on top of the unit for wireless charging compatible devices.
- **LCD Display:** Shows real-time battery level, input/output wattage, and remaining runtime.
- **Power Buttons:** Separate buttons for AC, DC, and main power control.

4.2. Internal Safety Features



Image 4.2: Exploded view illustrating the internal safety design, including the intelligent temperature control cooling fan, separate battery protection compartment, and V-0 fire and flame retardant housing.

The Apower400 incorporates several safety features:

- **Intelligent Temperature Control Cooling Fan:** Ensures efficient heat dissipation.
- **Separate Battery Protection Compartment:** Protects LiFePO4 battery cells.
- **V-0 Fire and Flame Retardant Housing:** Enhances fire safety.
- **Shock/Impact/Vibration Testing:** Ensures durability and safety under various conditions.

5. SETUP

5.1. Initial Charging

Before first use, it is recommended to fully charge the power station.

1. Connect the provided AC adapter to the AC Input Port on the power station.
2. Plug the AC adapter into a standard wall outlet.
3. The LCD display will show the charging status. The unit is fully charged when the battery indicator reaches 100%.

A full charge via AC input typically takes approximately 90 minutes to reach 80% capacity.

6. OPERATING INSTRUCTIONS

6.1. Charging the Power Station

The Apower400 offers multiple charging methods:



Image 6.1: Visual representation of the three primary charging methods: AC wall input, solar panel input, and car charging.

- **AC Wall Charging:** Connect the provided AC adapter to the AC Input Port and a wall outlet. (150W AC input, 80% in 90 minutes).
- **Solar Panel Charging:** Connect compatible solar panels (not included) to the DC Input Port. Ensure the solar panel output voltage is within the specified range (200W solar panel input).
- **Car Charging:** Use the provided car charger cable to connect the DC Input Port to your vehicle's 12V cigarette lighter socket (120W car charging).

6.2. Using the Power Station to Power Devices

The Apower400 can power various devices through its diverse output ports.



Image 6.2: Examples of power station usage during family emergencies and outdoor camping.

1. **Turn On the Unit:** Press the main power button to activate the power station. The LCD display will light up.
2. **AC Output:**
 - Press the "AC ON/OFF" button to enable the AC outlets.
 - Plug your AC-powered device into one of the AC outlets.
 - Ensure the total wattage of connected devices does not exceed 500W.
3. **DC Output:**
 - Press the "DC ON/OFF" button to enable the DC ports.
 - Connect your 12V DC device to the appropriate DC output port.
4. **USB Output:**
 - The USB ports are typically active when the unit is on.
 - Connect your USB-powered device to a USB-A or USB-C port.

5. **Wireless Charging:**

- Place your Qi-compatible device on the wireless charging pad on top of the unit.
- Ensure the device is properly aligned for charging to begin.

6. **Turn Off the Unit:** After use, press and hold the main power button to turn off the power station and conserve battery.



Image 6.3: The power station supporting wireless charging for a smartphone while a laptop is in use, demonstrating its versatility.

7. **MAINTENANCE**

- **Cleaning:** Use a dry, soft cloth to clean the exterior of the unit. Do not use abrasive cleaners or immerse the unit in water.
- **Storage:** Store the power station in a cool, dry place, away from direct sunlight and extreme temperatures. For long-term storage, charge the unit to 50-80% every 3-6 months to prolong battery life.
- **Battery Care:** The LiFePO4 battery is designed for over 3000 charge cycles to 80% capacity. Avoid fully discharging the battery frequently to maximize its lifespan.

8. **TROUBLESHOOTING**

Problem	Possible Cause	Solution
Unit does not turn on.	Battery is completely discharged.	Connect to AC power and charge for at least 30 minutes.
AC outlets not working.	AC output is not enabled or overloaded.	Press the "AC ON/OFF" button. Reduce the total wattage of connected devices.
Device not charging via USB.	USB cable is faulty or device is incompatible.	Try a different USB cable or port. Ensure your device is compatible.

Problem	Possible Cause	Solution
Solar charging is slow or not working.	Insufficient sunlight, incorrect panel connection, or incompatible panel.	Ensure panels are in direct sunlight. Check connections. Verify panel specifications.
Wireless charging not working.	Device not Qi-compatible or misaligned.	Ensure device supports Qi wireless charging and is centered on the pad. Remove thick cases.

9. SPECIFICATIONS

Feature	Detail
Model Name	Apower400 (Mobile Power Supply)
Battery Type	LiFePO4
Battery Capacity	231Wh / 300Wh (depending on variant)
AC Output	500W (Running), 500W (Starting), 110V
DC Output	200W (Output Wattage)
Charging Input (AC)	150W (approx. 80% in 90 minutes)
Charging Input (Solar)	200W Max
Charging Input (Car)	120W Max
Dimensions (L x W x H)	11"L x 9"W x 15"H
Item Weight	11 Pounds
Material	ABS Plastic
Special Features	Automatic Idle Control, Automatic Shut Down, Automatic Voltage Regulation, Digital Display, Overload Protection, USB Port, Wireless Charging

10. WARRANTY AND SUPPORT

The CTOLITY Apower400 Portable Power Station comes with a **2-year manufacturer's warranty**. This warranty covers defects in materials and workmanship under normal use. It does not cover damage caused by misuse, accidents, unauthorized modifications, or natural disasters.

For warranty claims, technical support, or any questions regarding your product, please contact CTOLITY customer service through the retailer where you purchased the product or visit the official CTOLITY website for contact information.

