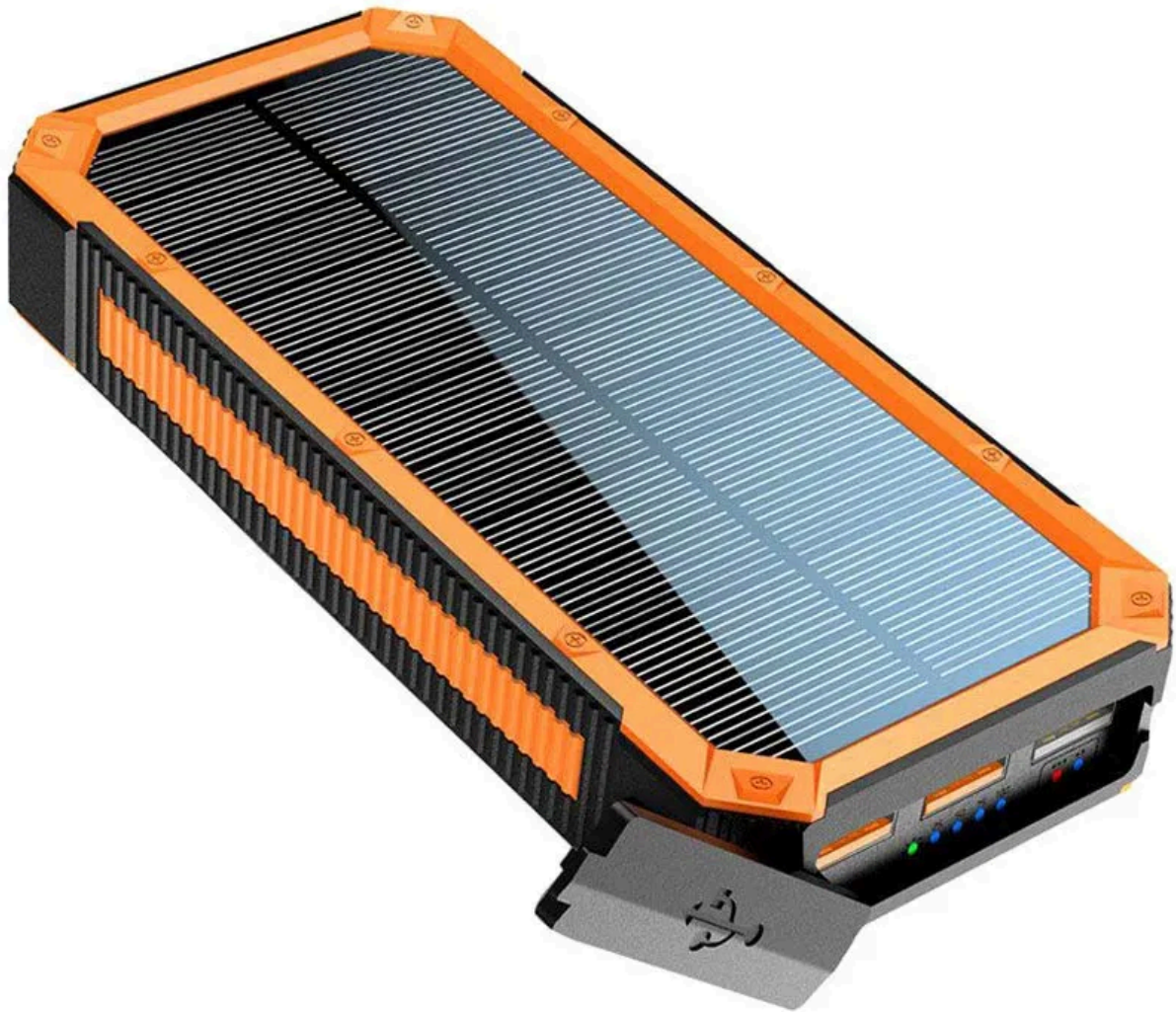# Lippa 20000mAh Solar Power Bank - PD 18W
User Manual

Product Specifications

- Input (Micro USB): 5V/2A, 9V/2A
- Input (USB Type-C): 5V/3A, 9V/2A
- Solar Charging: 5.5V / 250mA
- Maximum Output Power: 18W

Output:
- USB-A1 Port: 5V/3A, 9V/2A, 12V/1.5A
- USB-A2 Port: 5V/3A, 9V/2A, 12V/1.5A
- USB-A3 Port: 5V/3A
- USB Type-C Port: 5V/3A, 9V/2A, 12V/1.5A

Additional Information:
- Charging Time: Approximately 7 hours (when using an 18W adapter)
- Working Temperature Range: 0°C - 50°C
- Battery Type: Li-Polymer
- Product Dimensions: 160 mm (L) x 75 mm (W) x 26 mm (H)
- Product Weight: ±415g

Instruction for use

1. LED Lights On/Off Operation Method

- Step 1: Press and hold the power switch button to turn on the LED light (lighting mode).
- Step 2: Click the switch button again to dim the LED light (atmosphere light mode).
- Step 3: Click the switch button once more, and the LED light will flash three times slowly, activating the SOS Distress Signal Mode.
- Step 4: Click the power switch button again to activate the Flash Warning Function (danger warning mode).
- Step 5: Finally, click the switch button once more to turn off the LED light.

For any mode, long press the power button to turn off all LED functions.

Lighting Modes:
- Flashlight Mode
- Soft Light Mode
- SOS Mode
- Strobe Mode

Important Note:

The output power of the solar panel depends on various factors such as solar irradiance, temperature, and natural conditions including time of day, season, and weather (e.g., sunny, cloudy, or rainy). The solar panel's performance is affected by geographic location and altitude.

For optimal performance:
- The best time to charge is between 10 am to 3 pm when the sun is at its peak.
- The ideal conditions are when the atmospheric mass is AM1.5, with a light intensity of 1000W/m² and a temperature of 25°C. Under these conditions, the maximum output from the solar panel is referred to as the "peak power."

2. LED Lighting Function

This solar-powered device features a unique LED lamp design with 6 distributed LED lamp beads to ensure uniform light.

Power and Brightness: The total power of the lamp is 1.2W, producing 144 lumens. The lighting system is designed with two brightness levels to accommodate various environments and close-range lighting needs.

Battery Life: When fully charged, the device can provide:
  - 50 hours of continuous illumination in highlight mode.
  - 80 hours in soft light mode.

Additional Functions: The device includes an SOS international distress signal mode and a flash warning mode, making it versatile for emergency situations.
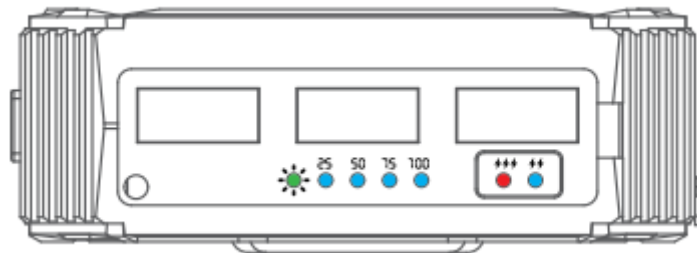
Applications: Perfect for a wide range of uses such as:
- Outdoor camping
- Outdoor adventures
- Car repairs
- Maintenance tasks
- Warehousing
- Machine tools
- Construction
- Room lighting
- Emergency response

3. LED Light Status Display

To check the power status of your device, briefly press the power switch. The four LED indicators will show the current battery capacity as follows:

- 18W Input/Output Indicator (red): Shows when 18W charging or output is in use.
- 10W Input/Output Indicator (blue): Shows when 10W charging or output is in use.

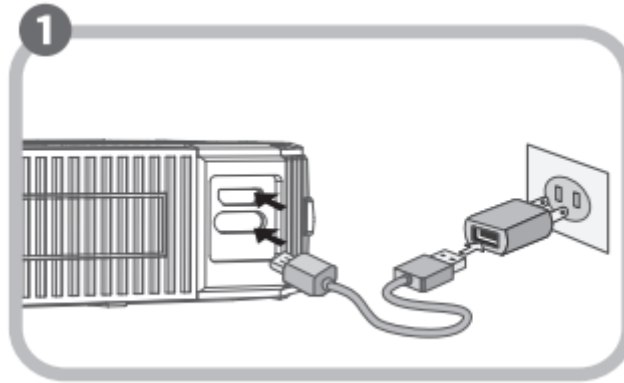| Indicator light ON ⬤ OFF ⬤	Battery Capacity
⬤ ⬤ ⬤ ⬤	0% (No Power)
🔵 ⬤ ⬤ ⬤	1%-25%
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4. Product Charging

a. Using the Adapter to Charge the Product

1. Connect the product to a power adapter for charging. The battery level indicator lights will flash, indicating the charging process. Once fully charged, all four LED lights will remain lit.
2. This product is compatible with 18W fast charge adapters for quicker charging.
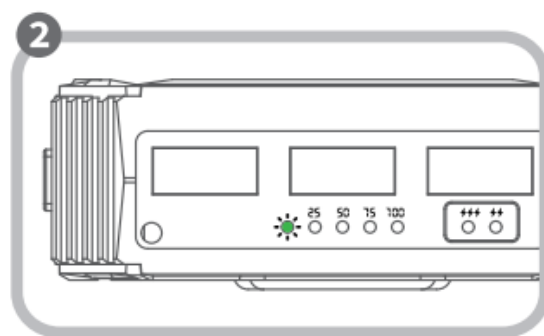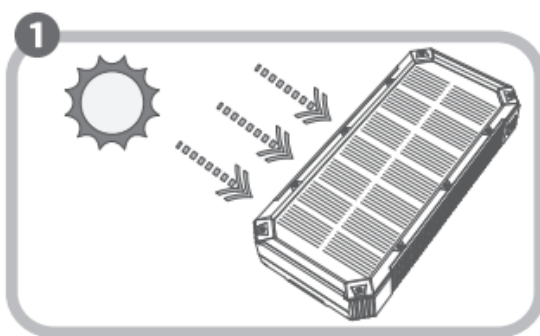
3. While using an 18W adapter, the red indicator will light up, indicating fast charging mode.
4. The charging time depends on the power output of the adapter being used.

- Blue Light: 10W charging
- Red Light: 18W fast charging

b. Using Sunlight to Charge the Product

1. Place the solar panel of the product in direct, vertical sunlight for optimal charging performance. Avoid high temperatures as they may damage the battery.
2. The product will charge automatically in sufficient sunlight without requiring any additional operation.
3. The indicator light will turn green during solar charging, and all four LED power indicator lights will remain on once fully charged.
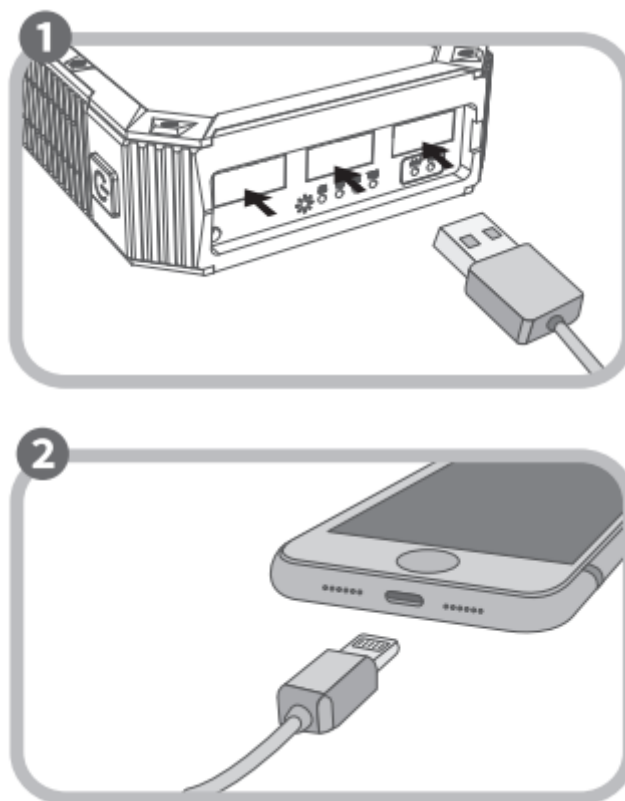
5. Product Discharge

Charging Digital Products (Smartphones and Tablets)

This product has 3 USB-A output ports and 1 Type-C output port. You can charge your mobile devices by connecting them to any of these output ports using a USB data cable.
- When a device is connected, the LED battery indicator will light up, showing that the device is charging.
- Once the mobile device is fully charged, the product will intelligently detect this and automatically stop the charging process, turning off the charge indicator.

Support for Fast Charging

The USB-A1, USB-A2, and Type-C output ports support 18W fast charging, and they are compatible with mainstream fast-charging devices.

However, if the power bank is charging two devices simultaneously, the output from any port will be limited to 10W for each.

6. Low Battery Alarm

- When the battery power drops below 10%, the product will enter low voltage alarm mode. During this mode, the first LED power indicator will start blinking.
- If you continue to charge devices, the LED indicator will keep blinking until the battery is completely depleted, resulting in an automatic shutdown.
- If no charging device is connected, the LED indicator will stop flashing and turn off after 30 seconds.

Precautions

- Fully charge the product before first use.
- If the product shows signs of battery expansion, leakage, deformation, water damage, or short circuit, stop using it immediately.
- Do not expose this product to high temperatures, humidity, or strong magnetic environments.
- Keep the product out of reach of children.
- Avoid placing metal objects on the wireless charging area to prevent danger.
- Use only original factory accessories such as charging cables and power adapters to ensure safe and proper operation.
- After charging is complete, unplug the connection to avoid loss or damage.
- If the product enters protection mode due to short circuit or over-discharge (indicated by no output), try reactivating it by pressing the power button. If this doesn't work, connect the product to an external power adapter to recover.
- Avoid using all-in-one data cables to charge multiple devices at once to prevent damage.
- The product includes over-temperature protection. If the ambient temperature exceeds normal levels, the protection feature will activate. In this case, move the product to a cooler environment and press the button to restore normal function.
- If the product is not used for an extended period, it may experience over-discharge. To maintain optimal performance, fully charge and discharge the product at least every three months.

Warning

- This product contains lithium-ion batteries. Unauthorized opening of the product can lead to damage and safety hazards caused by the battery or other components.
- Never disassemble, crush, puncture, short-circuit, or expose the product to temperatures above 60°C, as this can create a fire hazard.