

Bioenno Power BPP-M500 User Manual



Introduction

The BPP-M500 is a 500 Watt-hour PowerPack with a 11.1V, 520 Watt-hour rechargeable lithium ion battery. Please note this unit is **not** intended for use with ham radio applications. We highly recommend the “BLF-” series products for 100W PEP ham radio applications because the voltage on the “BLF-” series products is matched for radio applications. If you wish to use the unit for QRP applications under 30W PEP, that would be fine using the included DC to DC converter with the unit. This unit is intended for use with laptop computers, cell phones, tablets, USB devices, CPAP/BiPap machines, and QRP radios (under 30 W PEP).

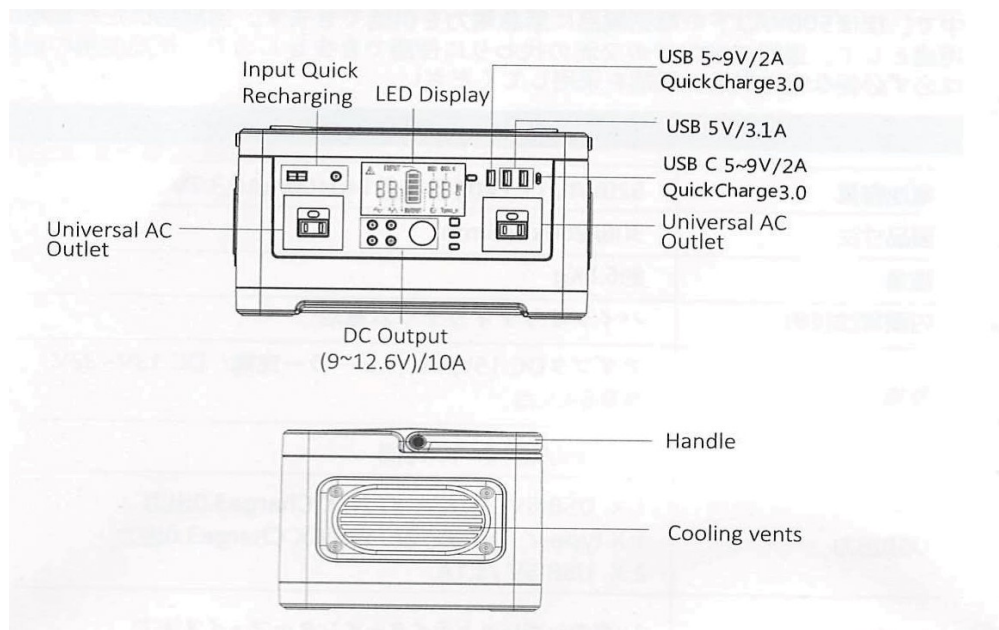


FIGURE 1: Front and Side of BPP-M500

【LED Display】

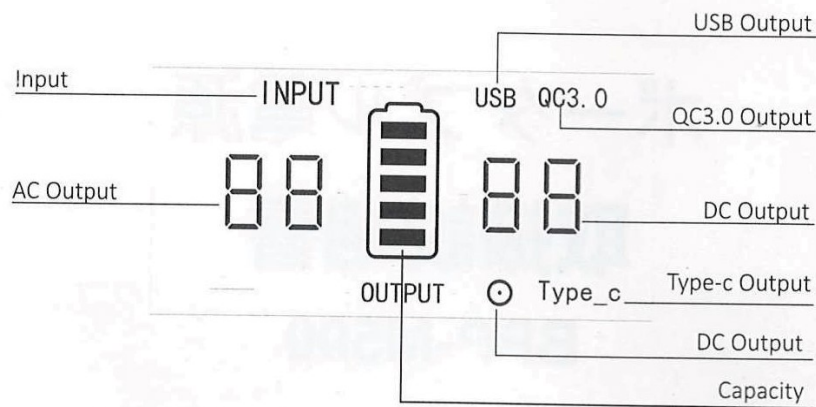


FIGURE 2: LED Display of BPP-M500

How to Use

- 1) First connect the wall charger to the unit to the DC barrel input jack.
- 2) Plug in the wall charger into the AC outlet.
- 3) Tap the Main Power Button on the unit
- 4) Initially, let the unit take a full charge until the battery icon bar is completely full.
- 5) Disconnect the wall charger.
- 6) Tap the AC Power button and DC Power Button to turn on the AC and DC output.
- 7) DC Powered devices can be connected to the 4 DC barrel jacks and the car socket output. The native voltage is at 12.6VDC. However, using the included DC to DC converter the native voltage is

can be raised to 13.8VDC for QRP Radio applications. QRP radios should be under 30 W PEP for optimal performance. Do not use the unit for radios exceeding 30W PEP. (See note above to use the BLF- series product line for radios exceeding 30 W PEP)

- 8) The DC barrel jacks on the DC output are intended for **no more than 6 Amps through the DC barrel jack.**
- 9) The Car Socket output is intended for **no more than 10 Amps through the Car Socket.**
- 10) Plug the included Grey Box DC to DC converter to the Car Socket Input to raise the voltage from 12.6VDC to 13.8 VDC. Then connect the radio to the Red/Black Powerpole connector on the DC to DC converter. This DC to DC converter though mentions 12 Amps max , is limited to the BPP-M500 Car Socket DC output of 10 Amps. Again, this would be for QRP radio applications.
- 11) The USB Output includes the following:
 - a. USB 5 to 9 V (2 Amps) – QuickCharge 3.0
 - b. USB 5V, 3.1 Amps
 - c. USB-C , 5 to 9 VDC, 2 Amps (QuickCharge 3.0)
- 12) AC Output: Pure Sine Wave Inverter: 500 Watts Max. Do not exceed 500 Watts on the AC Output. You may connect a DC powered supply to the AC outlet on the unit for use with 100 W PEP radios.

Solar Charging:

- 1) Disconnect the Wall charger to the input of the unit if it is already attached. Only charge the unit from **either** the wall charger or the solar panel. **Do NOT** charge from the wall charger and the solar panel at the same time. This may damage the unit.
- 2) Connect the solar panel to the Red/Black Powerpole input of the unit.
- 3) Confirm the solar panel has an Open Circuit Voltage (also known as “VOC” or “OCV”, under bright sunlight) ranging from 13 VDC to 22 VDC, and a maximum short circuit current (Isc) of 6 Amps. Do **NOT** plug in panels exceeding 22 VDC. This may damage the unit. Do **NOT** plug in panels exceeding 6 Amps, Isc (short circuit current).

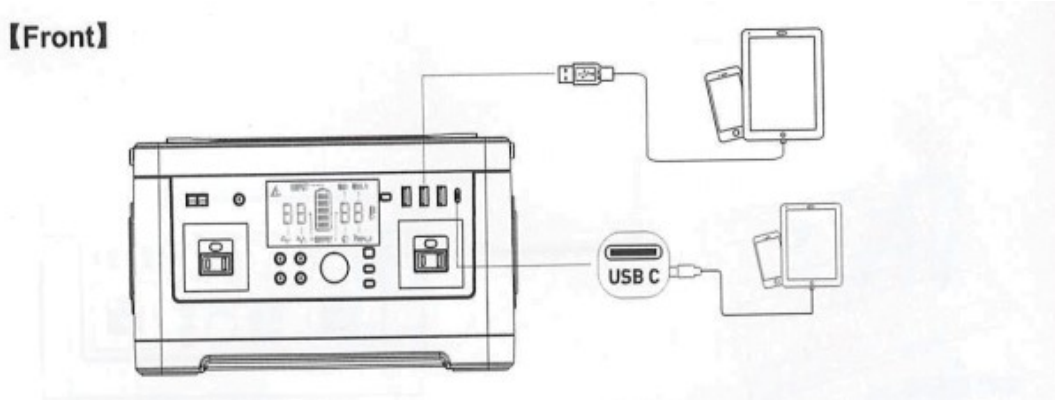


FIGURE 3: Connecting USB devices

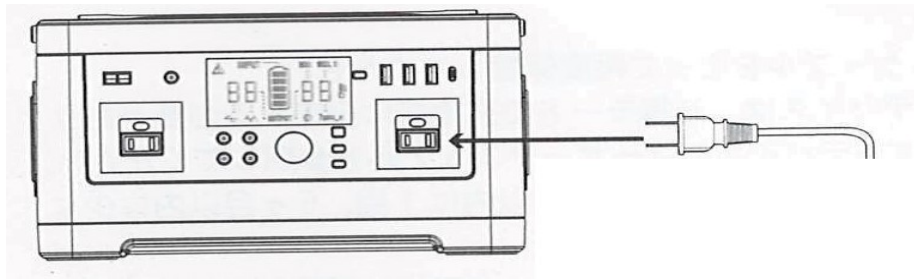


FIGURE 4: Connecting AC Devices

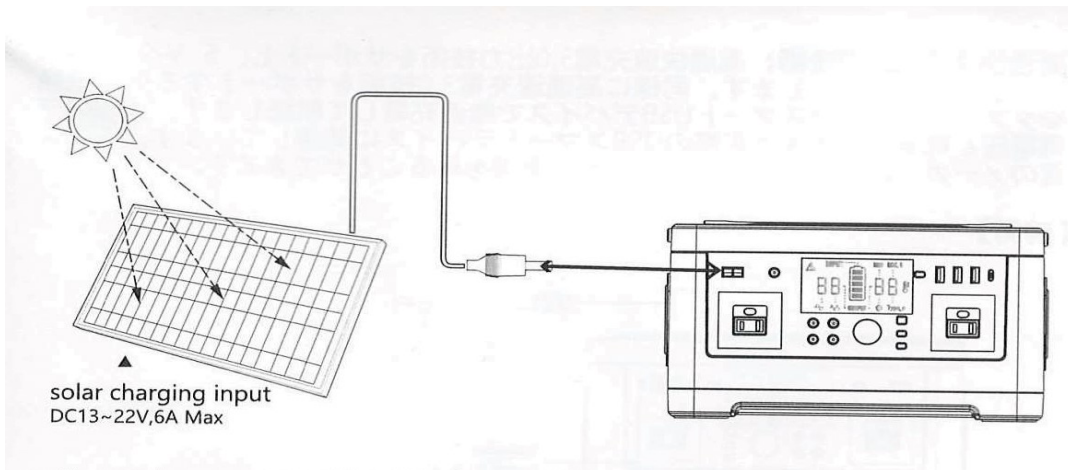


FIGURE 5: Connecting a Solar Panel

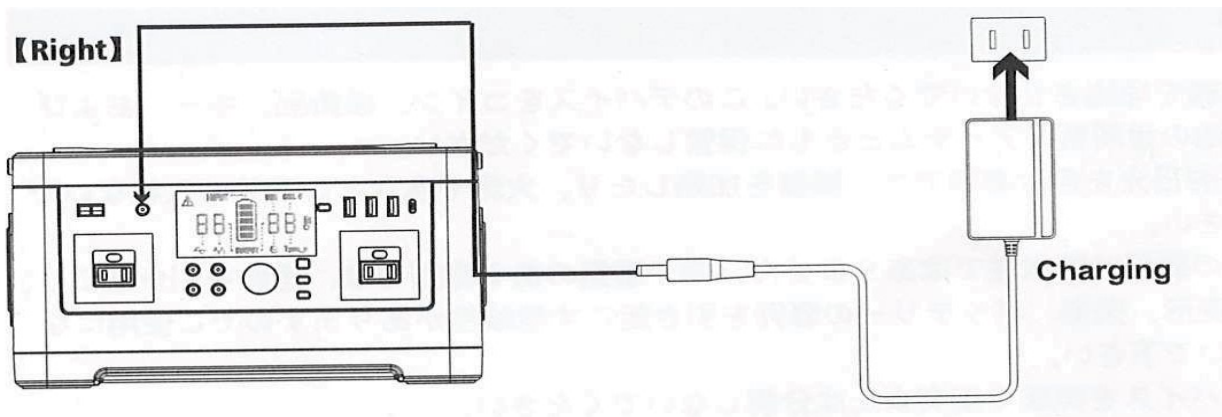


FIGURE 6: Charging the unit from the AC Outlet

Important Notes about the DC Outputs:

The 12V DC output on the front of the unit is natively at 12.6VDC. If you need to raise the voltage on the output to 13.8VDC (for QRP radios), please use the Grey Box DC to DC converter.

Frequently Asked Questions about the BPP- M500

- 1) What happens if there's a short circuit or overcurrent with the DC our AC load?
 - a. The unit will shut down. Remove the fault and reset the unit by pressing the DC switch on and off again. Remove the fault and reset the unit by pressing the AC switch on and off again
- 2) Can I use both the AC and DC Output at the Same Time?
 - a. Yes. Make sure the AC and DC switches are both on

Specifications:

Capacity	520 Watt-Hours, (11.1V), NCM type chemistry
Dimensions	300 x 200 x 176 mm
Weight	~ 6.5 kg
Built In Battery	Rechargeable Li-Ion battery offering 2,000+ charge cycles
Input Recharging	Via the AC Adapter: DC 15V @ 6 Amps Max Solar Panel Charging: DC 13V to 22V @ 6 Amps Max
Charging Time	About 8 to 10 hours
DC Outputs	5.5 mm x 2.1 mm x 4 sockets., Car Socket, at 9VDC to 12.6VDC at 10 Amps max. Please note the DC barrel physically cannot handle more than 6 Amps through it. Please note the Car Socket cannot physically handle more than 10 Amps. Use caution when discharging the DC barrel socket.
USB Output	1 x USB 5V ~ 9V/2A Qualcomm QuickCharge 3.0 1 x Type-C 5V ~ 9V/2A Qualcomm QuickCharge 3.01 2 x USB 5V / 3.1 A
Cycle Life	2,000+ Charge cycles
Grey Box DC to DC Converter	Output Voltage 13.8VDC, max current 12 Amps (limited based on the input amperage and voltage). Used for ham radio QRP (low power) applications.
Temperature of Operation:	-10 deg C to 40 deg C (14 deg F to 104 deg F).