



# BPP-160

## 160 WATT HOUR POWER PACK



## USER MANUAL

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**PLEASE READ USER MANUAL BEFORE OPERATING THIS PRODUCT!**

**[bioennopower.com](http://bioennopower.com)**

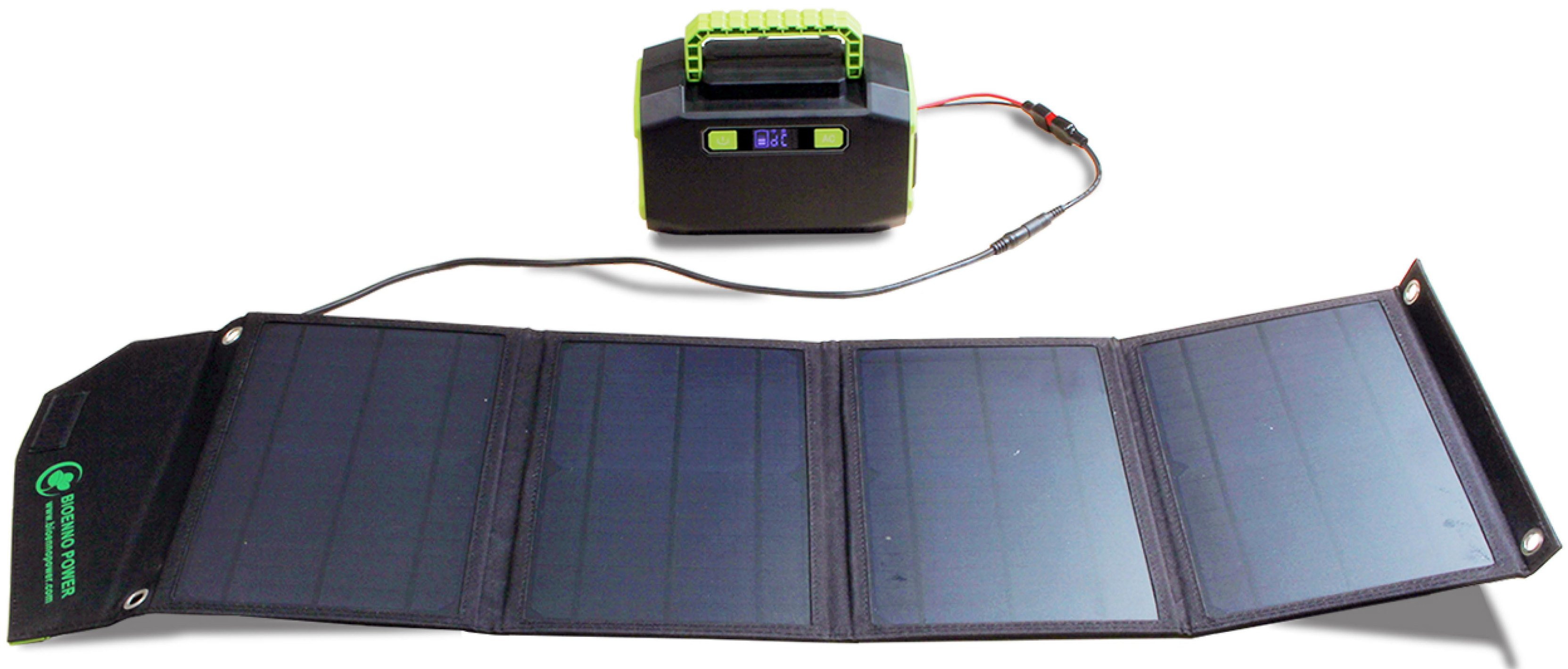
# **BPP-160**

## **INTRODUCTION**

**The Bioenno Power® BPP-160 Power Pack** is a multi-functional energy storage system that supports solar charging, has discharge control management, and uses a state-of-the-art, high-performance *LiFePO4* battery that has overcharge and overdischarge protection.

The BPP-160 provides AC output for various household devices and appliances, as well as DC outputs that support USB charging and 12V coaxial inputs.

The BPP-160 is ideal for basic around-the-house use, electricity outages, travel or camping trips, or even dangerous rescue situations, and it will provide hours of portable power.



*The BPP-160 is shown here being charged with the optional BSP-28 solar panel (sold separately).*

# BPP-160 SAFETY TIPS



## 1. KEEP OUT OF REACH OF CHILDREN.

## 2. DO NOT SHORT-CIRCUIT THE BPP-160.

KEEP THE BPP-160 AWAY FROM METAL OBJECTS LIKE COINS, HAIR PINS, KEYS, ETC.

## 3. DO NOT EXCEED RATED LOAD OF 150W.

IF YOU MEET OR EXCEED THE MAX LOAD OF 150W, THE BPP-160 WILL ENTER "PROTECTION MODE" AND WILL STOP ALL POWER OUTPUT. ALL ATTACHED DEVICES WILL NEED TO BE REMOVED AND THE BPP-160 WILL NEED TO BE REBOOTED IN ORDER TO EXIT "PROTECTION MODE."

## 4. USE IN A WELL-VENTILATED ENVIRONMENT.

KEEP THE BPP-160 AWAY FROM FIRE, LIQUIDS, FLAMMABLE GASES, CORROSIVE SUBSTANCES, EXCESSIVE DUST, HUMIDITY, DIRECT SUNLIGHT, AND HEATING DEVICES. DO NOT COVER THE BPP-160 WITH TOWELS, CLOTHING, BLANKETS, OR OTHER ITEMS. OPERATE THE BPP-160 WITHIN A TEMPERATURE RANGE OF 50 TO 100 DEGREES FAHRENHEIT (10 TO 40 DEGREES CELCIUS).

**THE BPP-160 MAY BECOME HOT WHEN CHARGING. THIS IS NORMAL. USE CAUTION WHEN HANDLING.**

## 5. AVOID HEAVY IMPACTS.

DO NOT DROP OR PLACE OBJECTS ON THE BPP-160.

## 6. KEEP THE BPP-160 CHARGED.

TO EXTEND THE LIFE OF THE INTERNAL LITHIUM-ION BATTERY, RECHARGE YOUR BPP-160 AT LEAST ONCE EVERY 3 TO 6 MONTHS. THE BPP-160 CAN BE RECHARGED OVER 500 TIMES. REMOVE THE CHARGING CABLE WHEN FULLY CHARGED.

**NOTE:** IF THE BPP-160 HAS NOT BEEN USED FOR A LONG TIME, REMOVE THE CHARGING CABLE.

## 7. USE THE BPP-160 ONLY AS INTENDED.

THE BPP-160 PROVIDES A MODIFIED WAVE OUTPUT, COMPATIBLE WITH AC ELECTRICAL APPLIANCES THAT USE SINUSOIDAL WAVEFORMS (<150W). THE EFFECIENCY OF THE ELECTRICAL APPLIANCES WILL BE DIFFERENT FROM AC WITH SINE WAVE, AND SOME APPLIANCES WITH BUILT-IN MOTORS (SUCH AS ELECTRICAL FANS OR PRINTERS) WILL CAUSE SOME NOISE, WHICH IS NORMAL. APPLIANCES SUCH AS REFRIGERATORS, MICROWAVES, AND COMPRESSORS THAT USE MOTORS ARE BETTER OFF USING A PURE SINE WAVE INVERTER.

**THE BPP-160 IS AN EMERGENCY POWER PACK. IT CANNOT REPLACE STANDARD AC OR DC POWER FOR HOUSEHOLD APPLIANCES OR ELECTRONIC DEVICES.**

## 8. DO NOT OPEN OR DISASSEMBLE THE BPP-160.

THE BPP-160 CONTAINS A LARGE-CAPACITY LITHIUM-ION BATTERY. IN ORDER TO AVOID ELECTRIC SHOCK OR FIRE DANGER, ONLY AUTHORIZED PROFESSIONALS SHOULD OPEN OR DISASSEMBLE THE UNIT.

## 9. DISPOSE OF THE BPP-160 PROPERLY.

ALWAYS RETURN YOUR USED ELECTRONIC PRODUCTS, BATTERIES, AND PACKAGING MATERIALS TO DEDICATED COLLECTION POINTS TO PREVENT UNCONTROLLED WASTE DISPOSAL AND PROMOTE THE RECYCLING OF MATERIALS. DO NOT TREAT THE INTERNAL BATTERY AS HOUSEHOLD GARBAGE.

**ENSURE DISPOSAL IS IN ACCORDANCE WITH YOUR LOCAL WASTE REGULATIONS.**



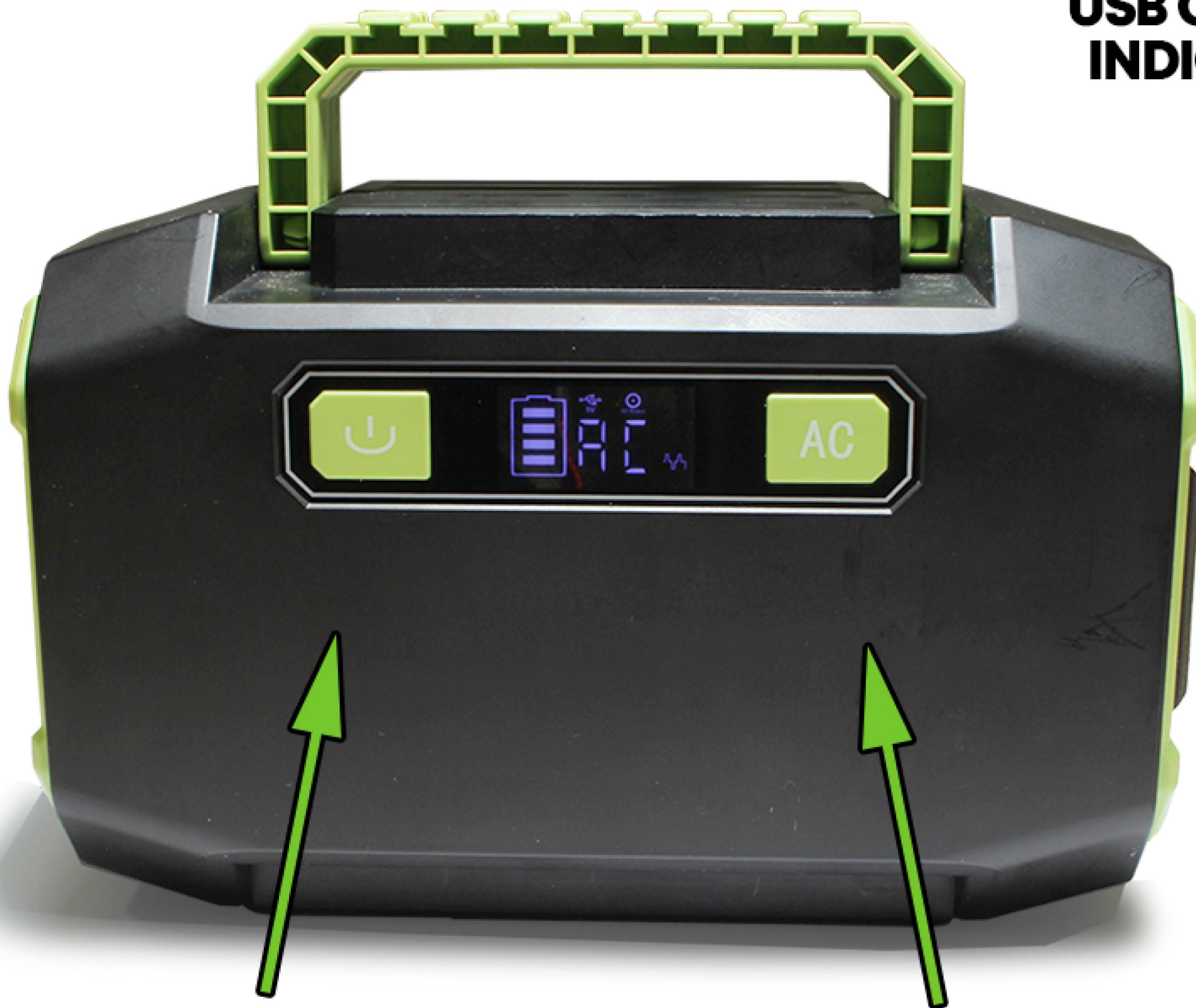
**IN CASE OF SMOKE OR FIRE, USE DRY POWDER FIRE EXTINGUISHER.  
DO NOT USE LIQUID, AS THAT MAY CAUSE ELECTRIC SHOCK.**



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# BPP-160 FEATURES

**CARRY HANDLE**



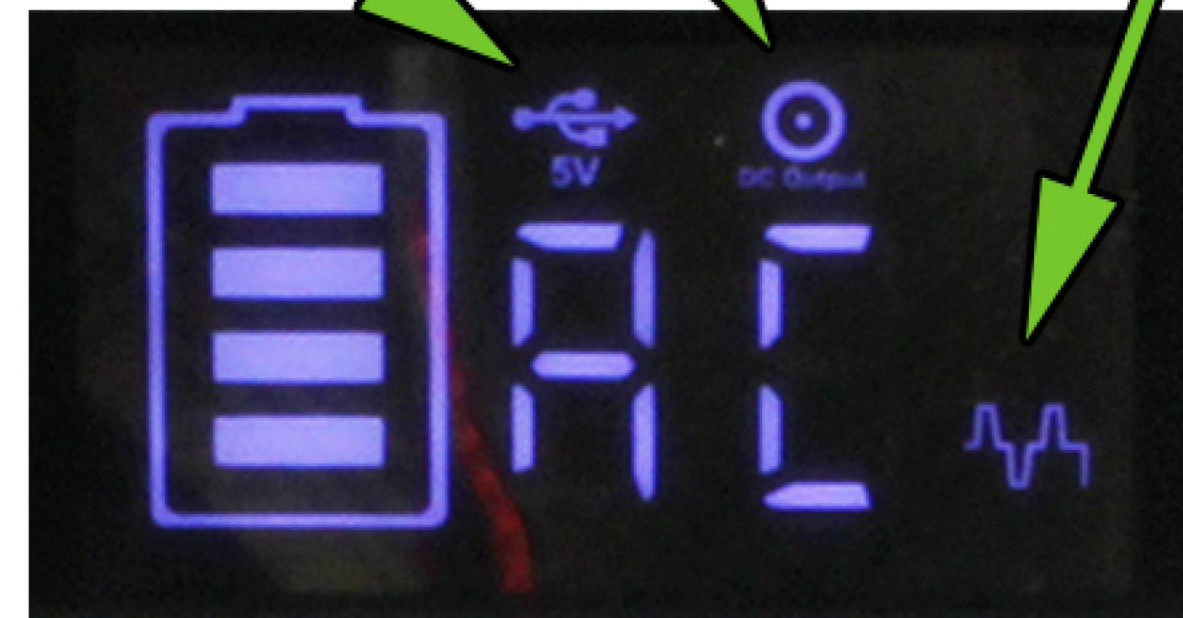
**POWER  
BUTTON**

**AC MODE  
BUTTON**

**USB OUTPUT  
INDICATOR**

**DC OUTPUT  
INDICATOR**

**MODIFIED  
WAVE  
OUTPUT  
INDICATOR**



**BATTERY  
CAPACITY**

**AC/DC  
MODE**

**THREE DC  
OUTPUTS  
(9-12.6V/10A MAX)**

**TWO USB  
OUTPUTS  
(5V/3.1A MAX)**



**DC INPUT  
(15V/2A MAX)**

**TWO AC  
OUTPUTS  
(110V UNIVERSAL SOCKET)**



**⚠ WARNINGS!**

- ⊘ Do not short-circuit the unit. To avoid short-circuiting, keep the unit away from all metal objects (e.g. coins, hair-pins, keys, etc.).
- ⊘ Do not heat the unit, or dispose of it in fire, water or other liquids. Keep away from high temperatures. Do not expose the unit to direct sunlight.
- ⊘ Keep away from high humidity, dusty places.
- ⊘ Do not disassemble or reassemble this unit.

- ⊘ Do not drop, place heavy objects on, or allow strong impact to this unit.
- ⊘ This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- ⊘ Children should be supervised to ensure that they do not play with the appliance.
- ⊘ Do not cover the device with towels, clothing and other items.
- ⊘ The unit may become hot when charging. This is normal. Use caution when handling.
- ⊘ Use the unit properly to avoid electronic shock.

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# BPP-160 OPERATION

## POWERING YOUR BPP-160 ON AND OFF

Hit the  button to power into DC mode. Hit the **AC** button to power into AC mode. While the BPP-160 is powered on, in either mode, hit the  button to power off the unit. Hitting the **AC** button while the BPP-160 is powered on will switch between AC and DC modes.

**NOTE:** If the BPP-160 is powered on but no devices are plugged in, it will shut off in 15 seconds.

## PLUGGING IN 5V USB DEVICES

While the BPP-160 is in either DC or AC mode, plug your USB device into a USB socket and it will begin charging. **NOTE:** Some USB devices may need to be set to USB charging mode.

## PLUGGING IN 110V DEVICES

While the BPP-160 is powered on and in AC mode, plug your 110V device into an AC socket.



**WARNING!** *The interface specifications and voltage standard of various countries are different; please carefully check whether the BPP-160 specifications are consistent with the appliance specifications before use, otherwise it can lead to dangerous situations.*

## PLUGGING INTO THE 5.5mm 12V COAXIAL OUTPUTS

While the BPP-160 is powered on and in DC mode, plug in your 12V device. If your device uses a cigarette lighter connector for power, you can use a special adapter (sold separately) that converts the coaxial input into a cigarette lighter connector.

**WARNING!** *Because the battery is a chemical product, voltage drops with capacity. The DC output voltage of this product is in the range of 9~12.6V, the maximum output current is 10A. If the DC12V appliance you connect does not have the voltage stabilizing function, when the DC voltage drops with the decline of battery voltage, the appliance may stop working. At that time, discontinue use.*

## CHARGING THE BPP-160

With the included AC adapter plugged into a standard AC outlet, plug the DC barrel connector into the DC input interface  located on the BPP-160. The battery indicator  will flash.

When all four bars of the battery indicator  are lit up, the unit is fully charged and you should unplug the AC adapter.

**NOTE:** The BPP-160 takes about 8 hours to fully charge.



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# **BPP-160**

**SPECIFICATIONS**

## **GENERAL SPECS**

<b>MODELNAME:</b>	Bioenno Power® BPP-160
<b>POWER CAPACITY:</b>	12V, 13Ah LiFePO4 Battery
<b>AC OUTPUT VOLTAGE:</b>	110V
<b>AC POWER RATING:</b>	150W
<b>OUTPUT WAVEFORM:</b>	Modified wave
<b>DC WATTAGE (MAX):</b>	9~12.6V / 10A, 120W (max), 13.8VDC via converter
<b>USB OUTPUT RATING:</b>	5V-3.1A (max)
<b>OPERATION TEMPERATURE RANGE:</b>	50~100 F (10~40 C)
<b>LIFECYCLE:</b>	>2,000 Charge Cycles
<b>ADAPTER POWER:</b>	15V 2A
<b>SOLAR CHARGING VOLTAGE:</b>	18~21V Max: 120W
<b>OVER-POWER PROTECTION:</b>	If max load is reached, output discontinues and unit will reboot.
<b>SHORT-CIRCUIT PROTECTION:</b>	If AC output short-circuits, output discontinues and unit will reboot.
<b>WEIGHT:</b>	3.5 lbs. (1.6 kg.)
<b>DIMENSIONS:</b>	7.7" x 4.3" x 5" (196mm x 108mm x 126mm)

## **DC OUTPUT**

3x 12V 3.1A 5.5mm coaxial sockets

2x 5V 3.1A USB sockets

## **AC OUTPUT**

2x 110V three-pronged universal sockets (160 Watts)



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# BPP-160

USES AND RUN-TIMES



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