

## POWER2GO WORK

# PORTABLE ENERGY STORAGE POWER SUPPLY USER MANUAL V1.0



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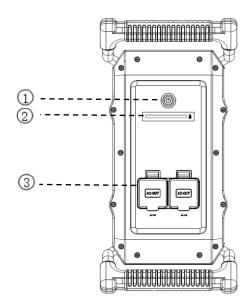
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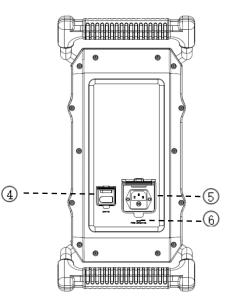
## **1. PRODUCT DESCRIPTION**

POWER2GO is an off-grid portable energy storage power generation system with a built-in longcycle lithium-ion battery pack and a high-strength aluminum alloy body.

POWER2GO is available in two power supply options, either via the matching charging cable or via the MPPT adapter (optional accessories). AC 230V output to power any electrical equipment up to 2500W in total.

POWER2GO can be used to supply power any electronic device such as power tools, outdoor activities, self-driving trips, home backup power, lighting, etc.





NO	INSTRUCTIONS
1)	POWER SWITCH
2	SOC INDICATOR
3	AC OUTPUT PORT
(4)	PV CHARGING PORT
5	AC CHARGING PORT
6	BREAKER FUSE

## 2. ABBREVIATIONS

- M P P T : Maximum Power Point Tracking
- S O C : State Of Charge
- U P S : Uninterrupted Power Supply
- A C : Alternating Current
- D C : Direct Current
- P V : Photovoltaic
- D O D : Depth Of Discharge

## 3. TECHNICAL DATA

4.1 Basic parameters			
Capacity	2500 Wh		
Weight	≈25kg		
Dimension	531 x 233 x 467 mm including handle		
IP Class	IP65 – All covers are closed		
Noise	<30dB		
Certification	UN38.3, CE		
Storage	$\geq$ 3 months, around 50% SOC		

4.2 Working Condition: Discharging			
AC rated output voltage	230V AC/ 50Hz		
AC power rating	2500W		
Overload power 1	3600W, 30S lock		
Allowable Operating Temperature	-10°C to 60°C		

4.3 Working Condition: Charging				
AC input voltage	100V-250V,50Hz/60Hz			
AC input power	1000W			
AC charging time	<4h to 100%			
Solar input	500W Max, Mate with adapters			
Allowable charging temperature	0°C~45°C			

4.4 Connector			
AC Output	Will follow distribution standards (2x)		
AC Charging	C14 connector		
PV Charging	Amass XT90		
Input Fuse	T15A L 250V		

## 4. PACKAGE CONTENT

Check the completeness of the goods after receipt and must contain the following parts:

POWER2GO WORK



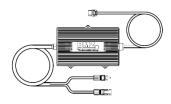
• AC Charging cable



POWER2GO \_WORK User Manual



MPPT Adapter



• MPPT Adapter User Manual



Note: The MPPT adapter is an optional accessory.

## 5. PRELIMINARY COMMISSIONING

Before using POWER2GO for the first time, please do the following:

• Inspect the package for external damage



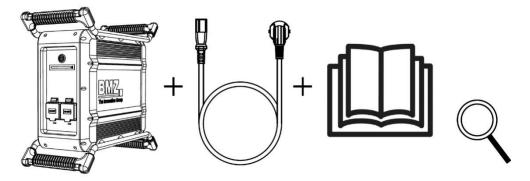
• Open the top of the package



• Take out the POWER2GO along with the pads



• Check if it is complete or damaged



• Connect the POWER2GO to the mains with the charging cable, the LED will automatically light up. Refer to item 7.1 for the details.

## 6. SAFETY DIRECTIVES

#### GENERAL

#### Keep an eye out for these instructions!

The focus of BMZ product development is on safety and reliability. Please read this manual for important safety information about your device. This manual is designed to help you be more comfortable and efficient when using this device. Failure to properly set up, use, and care for your device in accordance with these guidelines may result in damage to the device and cause injury to yourself or others.

- Always operate or store the appliance according to the stated temperature range.
- Do not expose the unit to fire, liquids, dirt, or other contaminants, as this may result in fire or electric shock.
- Do not place the unit on unstable or inclined surfaces.
- Please make sure that the place where you are using the unit is well ventilated and spacious.
- Please keep POWER2GO away from children or pets.
- Do not ignore the warning signs on parts or products.
- Do not disassemble, cut, crush, puncture, or damage the unit in any way.
- Do not insert foreign objects into the charging port, discharge port, or any other port.
- Please use an approved charging cable and MPPT accessories.
- In the event of a malfunction, please shutdown POWER2GO immediately.
- In the event of a fire, a dry chemical fire extinguisher should be used.
- No one other than qualified personnel shall attempt to modify or replace the internal parts of this machine. If necessary, take it to an authorized service center, as incorrect reassembly may result in a risk of fire or electric shock.

#### MAINTENANCE AND STORAGE

#### Keep an eye out for these instructions!

- When the POWER2GO is not in use for more than three months, charge it to 40%-60% SOC to keep it in top condition.
- Before storing the device, turn off the power and remove all electrical connections from the device.
- Store POWER2GO in a cool, dry place with an ideal temperature range of 20°C-30°C.
- For safety, do not store below -10°C or above 45°C for long periods of time.
- If the battery is less than 10% after use, please charge to 80% before storing. If it is idle for a long time in the case of severe power shortage, it will cause irreversible damage to the battery cell and shorten the service life of the product.
- It is recommended to cycle every 6 months to maintain the health of the battery.
- If the SOC drops to 0 (while running or starting), take the following steps to safely charge and start the device:
  - 1) Shut down immediately.
  - 2) Charge within 24 hours.
  - 3) Rest for at least an hour before charging it.

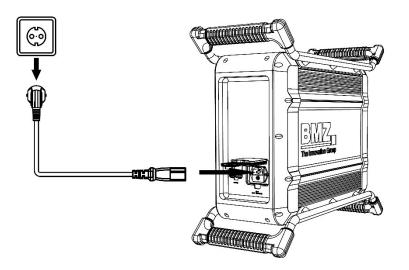
## 7. Operational Instructions

#### 7.1 AC Charge

In the state of power ON or OFF, you can charge the POWER2GO AC, directly plug in the AC charging cable, the internal circuit starts charging in about 3 seconds of self-test, and LED will automatically light up to display the charging status through light bar ratings.

soc 100%
soc 90%
soc 80%
soc 70%
soc 60%
soc 50%
soc 40%
soc 30%
soc 20%
soc 10%





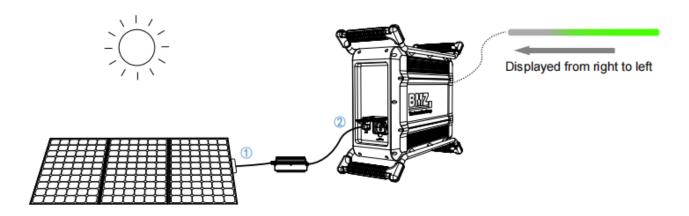
Note:

- Insert the charging socket to POWER2GO charging port first before plugging it to the mains.
- When the SOC shows 100%, the actual charging process is over. It is advisable to
  extend the charging time during your first charging process. This allows the device to do
  self-calibration.
- AC charging power is gradually increasing every minute and will stabilize when maximum charging power is reach.

#### 7.2 PV Charge

POWER2GO has a PV charging function, it should be noted that it must be used with the BMZ matching MPPT adapter.

In the state of power ON or OFF, you can charge the POWER2GO PV, directly plug-in the DC charging cable (XT90), the circuit will start charging in about 3 seconds to lay self-testing. The LED indicator will automatically light up to show running light in right to left direction which serves as a reference for charging.



Note:

- PV charging energy depends on sunlight, it is recommended to use PV charging when the sunlight is sufficient.
- The maximum power of PV charging is 500W, and the actual power may be lower than the maximum power due to the angle of sunlight refraction. Note that power mentioned depends on the solar panel that you will avail. Initially we offer 200W and 400W accordingly.
- Please make sure your solar panel complies with: Open Circuit Voltage: 15Vdc ~ 60Vdc
   Input Power: 500W Max

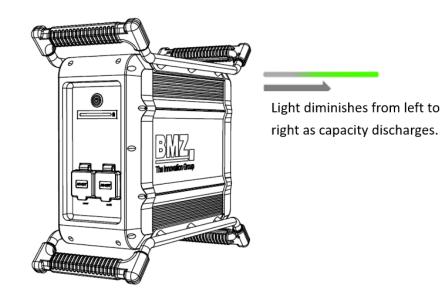
#### 7.3 AC Output

POWER2GO \_WORK has 2 AC output ports, with a maximum total AC output power of 2500W and a peak power of 4400W.

When using AC output to power your device, press and hold the switch for about 1 second, the LED indicator bar will light up, at this point of time, the product can power any device with load rating within 2500W and lower.

Note:

- The discharge time of POWER2GO is affected by many factors such as ambient temperature, discharge rate, battery capacity, load characteristics, etc.
- When the LED bar indicator turns into red, (light usually on the right-side portion), this means that the POWER2GO battery level is 10% or less. During this time, if high power rating device will be used, the system may activate the protection. You are advised to charge the POWER2GO in time.
- During operation, the internal and external temperatures of the POWER2GO are continuously monitored, and the power will be limited to 2000W when the surface temperature reaches 50°C, and the output will be cut off when the surface temperature reaches 60°C. At 25°C and 8.7A, the POWER2GO can be fully discharged (100%->5%) without triggering a shutdown.
- For continuous maximum load operation, devices which operates under the constant power of 2500W can be operated by POWER2GO around more than 35 minutes as protection will cut the operation when surface temperature reaches 60°C.



### 7.4 Warning

- Please do not put your fingers or any metal conductor inside the AC socket to avoid electric shock.
- Before connecting the AC power supply device, make sure that the voltage and power of the device are consistent with the output voltage and frequency of the POWER2GO.
- It is forbidden to connect the AC output of the POWER2GO with its own AC input, otherwise the POWER2GO will be damaged.
- Without any AC and DC output for 30 minutes, the POWER2GO will automatically turn off and enter a low-power mode, which needs to be manually turned ON again.
- POWER2GO supports simultaneous charging and discharging, i.e. UPS function. When the output power is greater than the input power, the load will be satisfied first.
- When the main power switch is turned OFF, the AC, DC, and LEDs are turned off at the same time.

## 8. TROUBLESHOOTING

LED			
State	Operating Conditions	Possible Causes	Solution
LED red display	Charge	An issue was detected. (Overvoltage Protection)	Remove all charging and discharging connections and restore after restarting the device
LED red display	Charge	An issue was detected. (Charging over-temperature protection)	Automatic recovery when the battery cools down
LED red display	Discharge	An issue was detected. (Overload Protection)	Remove the overpowered device and restart the POWER2GO to recover. (Use devices that are within the rating range of the POWER2GO)
LED red display	Discharge	An issue was detected. (SOC low)	Charge POWER2GO or reduce the load power
LED red display	Discharge	An issue was detected. (Low Voltage Protection)	Charge P2GO

## 9. HANDLE POWER2GO SAFELY

- 9.1 POWER2GO cannot be opened under any circumstances, and repairs can only be carried out by professionally trained personnel.
- 9.2 POWER2GO 's control elements, plugs and sockets, etc., must not be modified, and replacement should only be carried out by authorized personnel.
- 9.3 It is forbidden to touch the electrical contacts of POWER2GO with your fingers, tools, or other objects.
- 9.4 POWER2GO cannot be used for other work benches.
- 9.5 The shell of the POWER2GO cannot be immersed in water or mud.
- 9.6 If the battery catches fire, sand is best used to extinguish the fire. If possible, dump the POWER2GO completely into any water container. The fire brigade respondent must be notified and informed that the product has lithium-ion battery on it.
- 9.7 If the POWER2GO is damaged or not properly used, steam may escape. The steam can irritate the respiratory tract, in which case fresh air must be supplied, please go to well-ventilated area. If you have any adverse reactions, seek medical attention immediately.
- 9.8 POWER2GO must not be stored at temperatures higher than 60°C and must be kept away from heat sources (e.g. heaters, heaters, fire).
- 9.9 POWER2GO must not be stored or used in places where there is a risk of explosion and must not be moved using cranes or other lifting equipment to avoid unwanted incidents.
- 9.10 To prevent injury from tipping over or falling of the POWER2GO, the stable positioning of the POWER2GO must be ensured in the case of a connected load, and the load connected to the POWER2GO must be ensured to have sufficient cable length.
- 9.11 The POWER2GO can only be charged using the included charging cable. Alternatively, cables of the same design can be used, and if you have any doubts in this regard, consult an electrical specialist or BMZ. It is forbidden to use the power cord when it is defective or the insulation is damaged, and protect the power cord from being crushed, knotted, or damaged by other reasons. Special attention is paid to the fact that the power plug and charging cable for the POWER2GO can be sourced directly from BMZ.
- 9.12 Before turning on POWER2GO, you must make sure that the connected load is turned off.
- 9.13 POWER2GO must not be used to operate life-sustaining medical device type loads.
- 9.14 POWER2GO cannot be jet cleaned directly with water, especially pressure washers are not allowed.
- 9.15 POWER2GO must avoid contact with chemicals, fuels, and lubricants.
- 9.16 The operation of POWER2GO should always be monitored by experienced users, especially minors or people with disabilities are not recommended to use POWER2GO.

## 10. FAQs

- Q1: How long does it take to fully charge?
   A: A full charge takes a total of 3 hours.
- Q2: Why can't POWER2GO be fully charged?
   A. Perform calibration process by fully charging an
- A: Perform calibration process by fully charging and discharging the device.
- Q3: Why does POWER2GO shut down automatically?
  - A: 1) The battery needs to be charged.
    - 2) If the AC and DC power switches are turned off, and there is no input and output for 30 minutes, the POWER2GO will automatically shut down and enter the low-power mode.
- Q4: Can I use a third-party solar panel to charge my POWER2GO?
  - A: Yes, if the solar panel specifications are within the following ranges:
    - 1) Open circuit voltage: 15Vdc-60Vdc
    - 2) Output power: 500W Max
    - 3) Use the same connector (MC4)
    - 4) Don't mix different types of solar panels
- Q5: How long does it take to switch UPS?
  - A: 15ms.
- Q6: How do I know if my device will work well with this product?
  - A: Please evaluate the total power of your device, if it does not exceed 2500W, POWER2GO can run your device well.
    - Note: Some devices with built-in motors/compressors may start at 2-4 times the rated power, which can easily overload the POWER2GO.
- Q7: How do I clean my POWER2GO?
  - A: Please use a dry or partially wet soft, clean cloth or paper towel to wipe POWER2GO.
- Q8: Is the actual discharge capacity of the POWER2GO consistent with the nominal capacity in the user manual?

A: The target capacity of the user manual is the nominal capacity of the POWER2GO battery pack, and the POWER2GO has a certain efficiency loss during the charging and discharging process, so the actual discharge capacity of the POWER2GO is lower than the nominal capacity of the user manual.

## 11. CONTACT

- Global <u>https://power.bmz-group.com/de</u> +49 6188 9956-9843
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