

MAXWATT POWER PRO1600i PORTABLE POWER STATION

1600 WATT PEAK POWER
800 WATT RATED POWER

PURE SINE WAVE PORTABLE POWER STATION

Operators Manual



Powered by



Lithium-Ion Battery



1600 WATT
PEAK POWER
891.7
WATT HOURS

SUPER FAST CHARGE TIME (AC)
< 3 HOURS - 0-80%

TERNARY LITHIUM-ION BATTERY

Ternary lithium battery refers to the lithium battery using nickel-cobalt-manganese (NCM) and graphite as the cathode material. Different from lithium iron phosphate, ternary lithium batteries (NCM Batteries) have a high voltage platform, which means that the specific energy and power of ternary lithium batteries are more significant for the same volume or weight. In addition, ternary lithium batteries have substantial advantages in effective charging rate and low-temperature resistance.

PURE POWER
POWER UP BY
CONNECTING ANY
2 MODELS
IN PARALLEL

KNOW NO LIMITS WITH MAXWATT PORTABLE POWER STATIONS



Manufacturer Warranty:

Thank you for purchasing a quality Maxwatt product. This product contains a limited warranty for a period of 2 years from date of purchase, in domestic applications against faulty workmanship or materials, subject to strict adherence to the correct installation, use, maintenance and application required as detailed in the operating manual. This warranty excludes the wear & tear, charging, and discharging cycles of the lithium-ion battery. Any alteration, modification, abuse, non-adherence to prescribed operating instructions invalidates the warranty.

Terms and conditions apply. Refer to the operator's manual.

For all warranty related claims or queries please contact Maxwatt.

Battery Warranty Disclaimer:

The lithium-ion battery supplied with this portable power station has a limited warranty of 2 years or 1000 charge cycles, whichever occurs first, subject to you validating your warranty via our website. The battery is designed to perform as specified. The lifespan of this battery is pre-determined by the amount of charge and discharge cycles it will undergo over a period. These cycles are considered normal "wear and tear" and are not covered by the manufacturer warranty policy.

Regular charging / discharging of the battery will have a direct impact on the performance and or running time of this battery. Please refer to the operator's manual for more information. To register and validate your warranty please go to www.gentechindustries.co.za. Failing to register your warranty online will nullify the warranty.

REPAIR & TECHNICAL INFORMATION CALL Maxwatt Power Product : T. 073 732 5363

This newly designed solar generator MXPRO 1600i uses high-quality lithium-ion batteries as the main body for energy storage. Compact size, light weight, large capacity, easy to carry, with built-in USB ports, DC and AC outputs, this unit can provide power solutions to you quickly and easily wherever you are in outages or outdoors.

Please read this user manual carefully before using this unit. If you have any questions, please feel free to contact us.

- Use the charger provided to charge the unit and keep it works properly.
- Please read this manual before using this unit, check whether the product is in good condition and whether the accessories are complete.
- Product upgrades, appearance and screen printing will be adjusted locally without notice, please refer to the actual product.

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1. Specifications:

General Info

- **Net weight** 8kg(17.64lbs).
- **Dimension** 279.4×193×181mm(11×7.6×7.13inches).
- **Battery Capacity** 241668mAh, 891.7Wh.
- **Warranty** This unit carries a 12-month warranty.

Output Ports

- **Wireless Charging** 15W (DC 5521 Output (x2): 13.6V≈5A, total 8A.
- **Car Outlet Output** (DC 5521 Output (2)+ car port output: 13.6V≈8A max.)
- **Fast Charge Output x 2** 5V≈2.5A, 9V≈2A, 12V≈2A(24W max.)
- **USB-C 65W Output x 2** 5V/9V/12V/15V/20V≈3.2A(65W max.) Total 130W.
- **AC Output x 2** Pure Sine Wave Power 240V~ 50Hz, total 800W.

Input Ports

- **PV Input** 18V-25V≈15A max.
- **DC Input x 2** 48V≈2.5A-120W max, total 240W.
- **Car Charger Input** 12V, 100W max.

Battery Info

- **Powered By** LG CHEM.
 - **Cell** *NCM
 - **Battery Cycle Life** >1000 times, remaining capacity>80%.
 - **BMS Protections**
 - High Temperature Protection.
 - Over Load Protection
 - Over Voltage Protection
 - Under Voltage Protection
 - Overcharge Protection
 - Overcurrent Protection
 - Short Circuit Protection
 - Over Discharge Protection
- * Ternary lithium battery refers to the lithium battery using nickel-cobalt-manganate(NCM) and graphite as the cathode material. Different from lithium iron phosphate, ternary lithium batteries (NCM Batteries) have a high voltage platform, which means that the specific energy and power of ternary lithium batteries are more significant for the same volume or weight. In addition, ternary lithium batteries have substantial advantages in effective charging rate and low-temperature resistance.

- **Running Time of this Unit** The continuous running time of this unit at a 100% load is approximately 1 hour, whilst at a 50% load the running time is approximately 2 hours. This is dependent on the State of Charge (SOC) and the State of Health (SOH) of the batteries. **Please note that this is only a guideline.**

Operating Temperature

- **Discharging Temperature** -10 to 40°Celsius
- **Charging Temperature** 0 to 40°Celsius

1.2 Solar Panel Info:

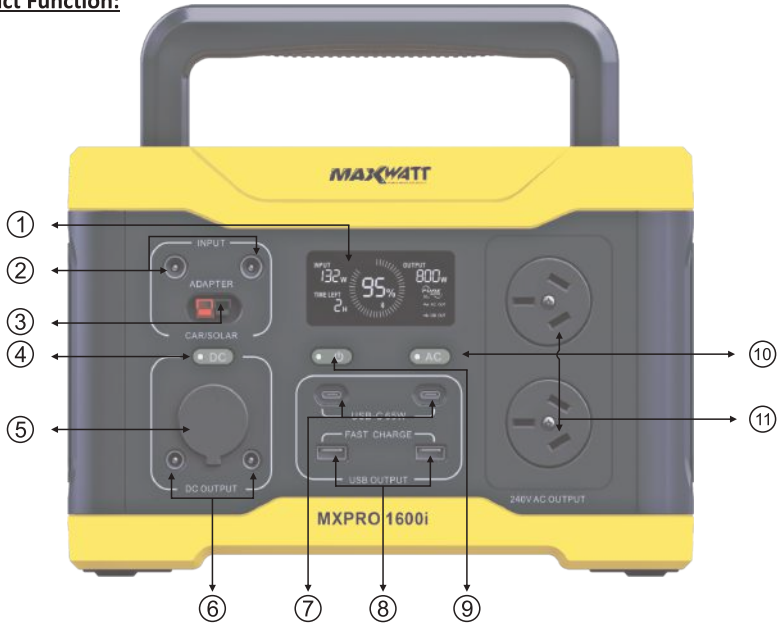
Model	Capacity	Charging	Solar Panel	Recommend	Time
MXPRO1600i	891.7Wh	300W	100W	✓	11.5~12.5Hrs
			200W	✓	6~6.5Hrs
			200W+100W	✓	4~4.5Hrs
			200W+200W	×	/

The data is only the theoretical time; the actual data will vary according to the current light intensity and placement position.

2. Safety Instructions

- Do not attempt to disassemble or open this unit.
- Do not use or store this unit in a high temperature environment and avoid direct sunlight.
- Do not use or store this unit in a dusty or humid environment.
- Do not heat this unit or place it in fire, water or other liquid.
- Do not place the unit sideways or upside down while using or storing.
- Do not charge this unit with any other charger other than the one supplied in the box.
- It is normal for the charger to heat up when charging.
- Do not leave the unit permanently charging, always disconnect the charger as soon as the unit is fully charged.
- Do not touch the input and output ports of this unit.
- Only use the AC sockets to power external devices.
- Check the unit before each use and do not use it if there is any visible evidence that it is damaged.
- Keep this unit out of reach from children.
- If the unit is accidentally dropped, turn it off immediately.
- Carefully read the instructions for the appliances you intend to connect to this unit.
- Please use this unit with caution to avoid the risk of electric shock.
- If an odor, overheating, or other abnormalities are observed, turn the unit off immediately and unplug the charger. Please contact Gentech Industries for technical assistance.
- This unit meets the relevant requirements for the transport of dangerous goods.
- Pay careful consideration to the environment and your safety when disposing of this unit.

2. Product Function:



1. LCD Display:

- This displays the power and usage status of the unit.

2. Power Adaptor Charging:

- Connect the Power Adaptor to this port and connect and plug into the AC mains wall socket.

3. Car/Solar Input:

- A solar input of up to 300 Watts, able to support up to 3 x 100-Watt solar panels connected in parallel with a maximum of 18-25 Volts. It can support a maximum of 100-Watts from the car.

4. DC Output Switch:

- This button controls the product's auto charge output and the DC output of the two DC output ports.

5. Car Output:

- Total 8A max.

6. DC Output:

- This is only an output port, do not try and use as an input charger.

7. USB- Type C 65-Watt PD Output (Power Delivery Technology)

8. USB-A QC 3.0 Fast Charging Output

9. Power On/Off Switch:

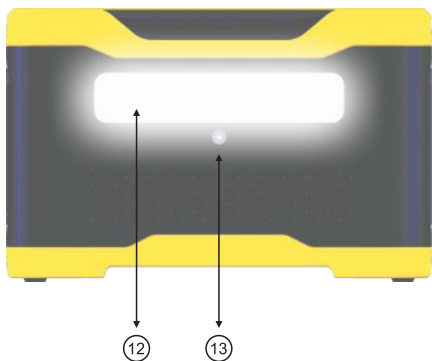
- Push the "power button" to turn on the unit. You can also turn on the USB charging mode. By double clicking the power button the unit will be placed in "sleep mode". To turn of the unit completely, press and hold the "power button" for approximately >3 seconds

10. AC Output Switch:

- This button controls the product's AC output of the AC output ports. To switch it "On/Off".

11. 240V AC Output:

- Charge or power up any device with a voltage requirement of 240 Volts. Be careful not to overload the unit by exceeding the continuous running power of 800 Watts.

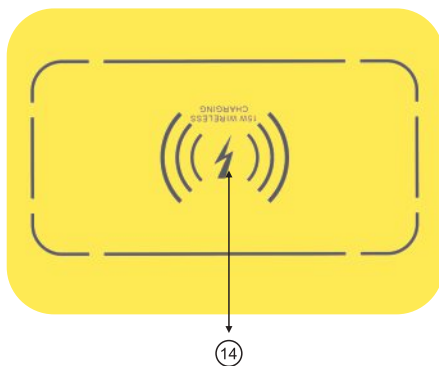


12. LED Light:

- The LED light has five modes, including: three brightness adjustments (25%, 50%, 100%), SOS mode and pop mode.

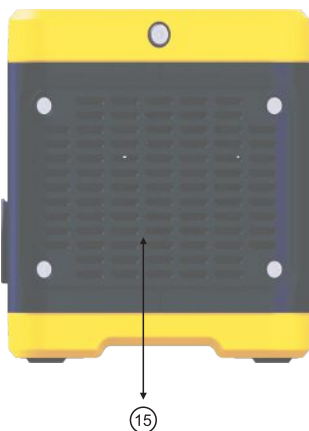
13. LED Light Button:

- Choose the mode of the LED light.



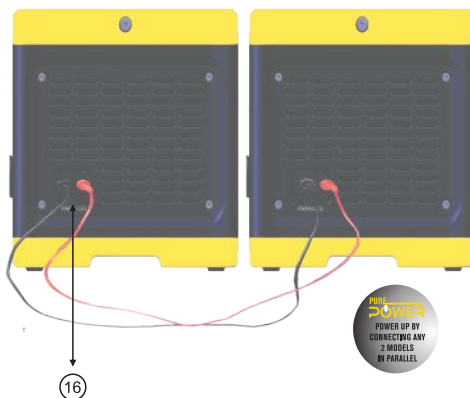
14. Wireless Charging:

- It supports 15w wireless charging function.



15. Cooling Fan:

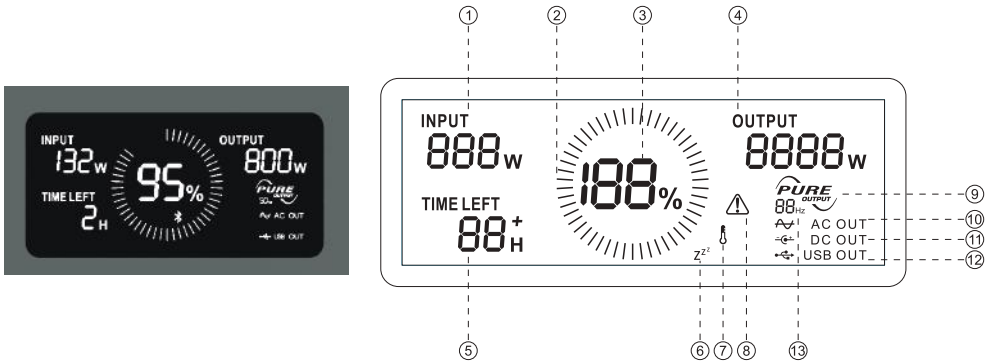
- Cooling fan prevent the unit from overheating. Be careful not to obstruct the heat dissipation holes.



16. Parallel Connection:

- Power up by connecting any 2 models in parallel.

2.1 Smart LCD Display Screen:



1. Input Current:

- Display the current input power of the unit in Watts in real time.

2. Battery Level Indicator:

- Display the remaining battery level. The icon rotates when charging and discharging.

3. Battery Charge Percentage:

- Display the remaining percentage of the battery. Try not to allow the remaining battery percentage to drop below 5%.

4. Output Current:

- Display the current output power of the unit in Watts in real time.

5. Remaining Charge/Discharge Time:

- The remaining charging/discharging time is based on the current power consumption of the unit.

6. Sleep Icon:

- When the unit is in sleep mode, the sleep icon will appear on the screen.

7. Temperature Protection:

- When the unit temperature is too high or too low, a temperature protection warning icon appears on the screen.

8. Warning:

- When the unit output is abnormal an alert icon appears on the screen.

9. Pure Sine Wave:

- When the AC output is being used the pure sine wave AC output icon appears on the screen.

10. AC Output Icon:

- When the AC output port is being used the AC output icon appears on the screen.

11. DC Output Icon:

- When the DC output port is being used the DC output icon appears on the screen.

12. USB Output Icon:

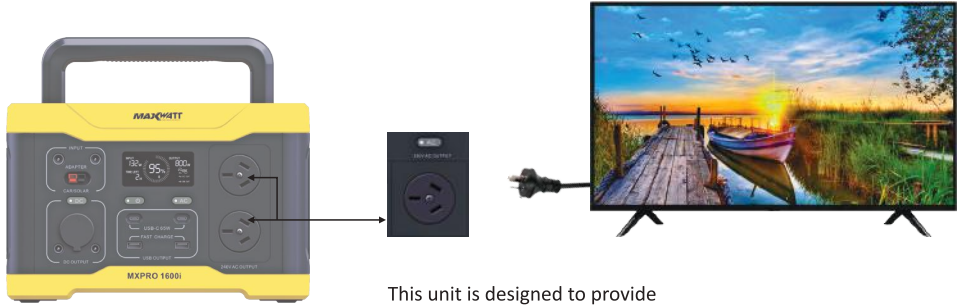
- When the USB output port is being used the USB output icon appears on the screen.

13. Frequency Display Icon:

- When the frequency displays 50/60 Hz this indicates the current frequency status.

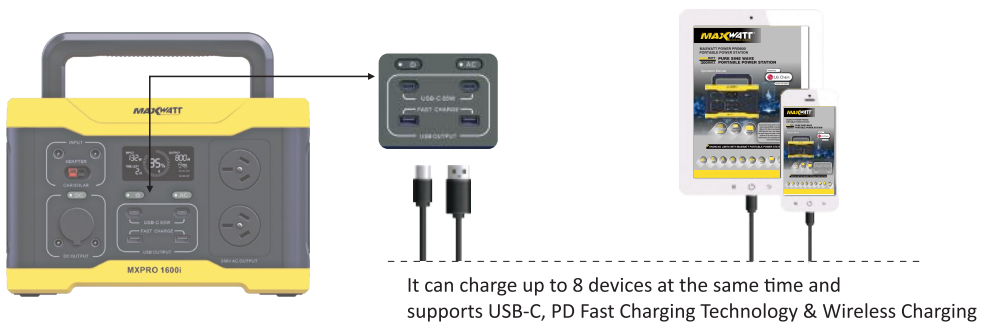
2.2 How to Use:

Example 1:



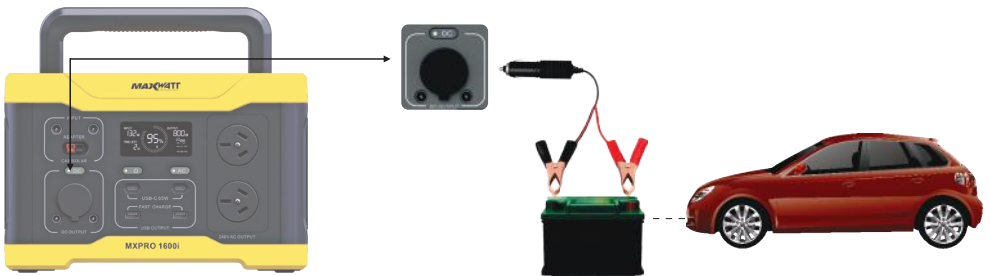
This unit is designed to provide 800 Watts continuous power

Example 2:



It can charge up to 8 devices at the same time and supports USB-C, PD Fast Charging Technology & Wireless Charging

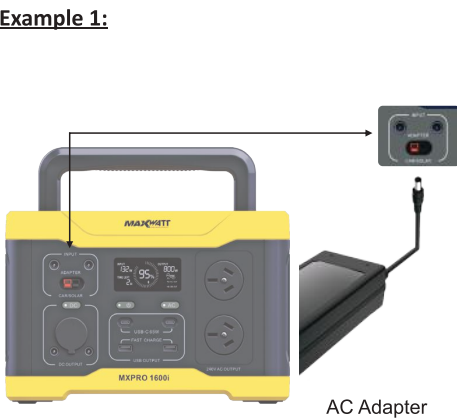
Example 3:



How to charge the car battery?

2.3 Recharging Ways:

Example 1:



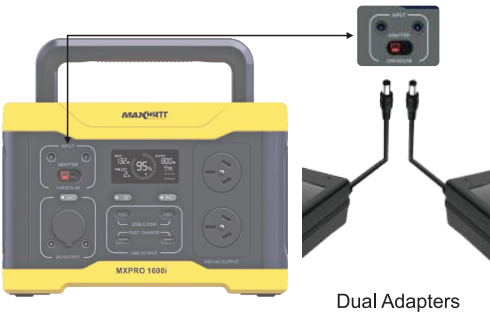
AC Adapter



AC charging using single power adaptor:

This unit is designed to charge up to 80% in < 3 hours, when using a single AC Power Charger. An additional 1 hours is required to charge the unit to 100%

Example 2:



Dual Adapters



AC charging using dual power adaptors:

This unit is designed to charge up to 80% in < 2 hours, when using both AC Power Chargers. An additional 1 hours is required to charge the unit to 100%

Example 3:





Anderson Connection



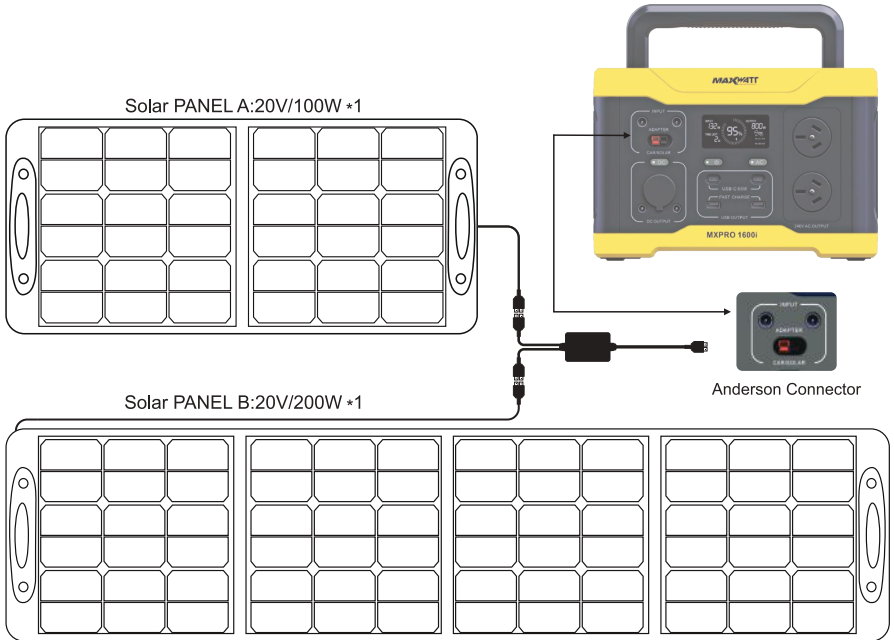
Solar Charging

Charging time is determined by the light intensity and size of the solar panel. (Solar panels are optional accessories)

Troubleshooting

INDICATOR	PROBLEM	SOLUTION
 Icon Stays On	AC Output Overload Protection	Normal operation will be resumed automatically after you remove the overloaded device and restart the product. Electrical appliances should be used within rated power.
 Icon Stays On	High Temperature Discharge Protection	The power supply can be resumed automatically after the battery cools down.

Parallel Demonstration Of Solar Panels



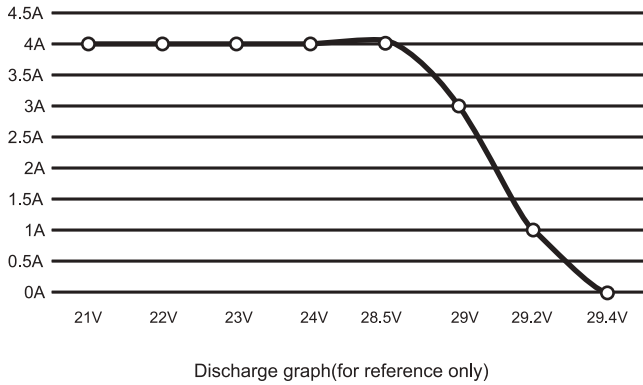
Users can parallel solar panels as shown in the figure to recharge the product.



Solar Anderson Parallel Connection Cable:

Users have to buy the solar panels and other parallel connection accessories separately.

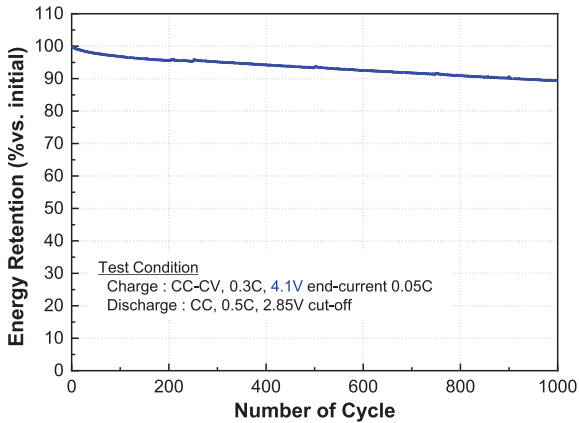
Battery Characteristic Curve:



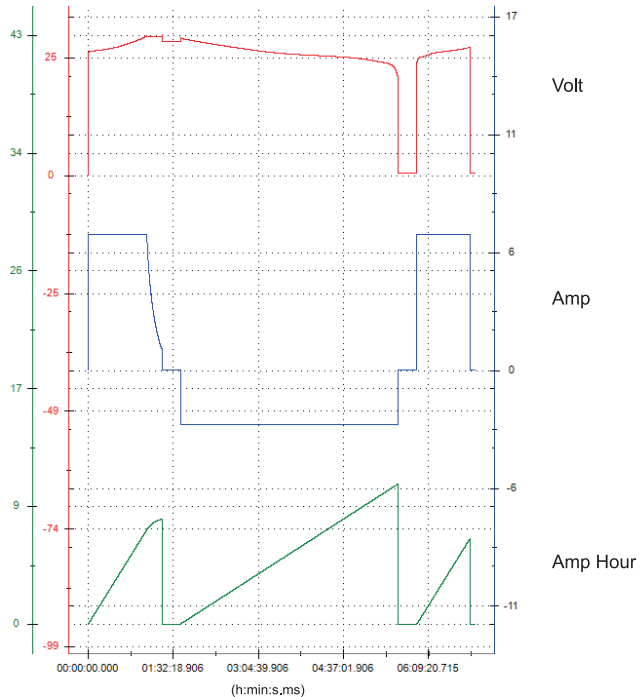
Stage Of Lithium Battery Charging Curve (Guide Line):

The first stage of constant current and voltage charging is to charge with a constant current; When the voltage reaches the predetermined value, it enters the second stage for constant voltage charging, and the current gradually decreases; When the charging current reaches zero, the battery is fully charged.

Cycle Performance of 21700 M50LT@24°C (4.1V-2.85V)



Cycle life discharge curve (for reference only)



Stage Of Discharge Curve For Lithium Batteries (Guide Line):

- 1) In the initial stage, the terminal voltage of lithium batteries rapidly decreases, and the larger the discharge rate, the faster the voltage drops;
- 2) The lithium voltage of the battery enters a stage of slow change, which is called the plateau area of the battery. The lower the discharge rate, the longer the duration of the plateau area. The higher the plateau voltage, the slower the voltage drop. In the actual use of lithium-ion batteries, it is best to expect the batteries to work in the platform area as much as possible;
- 3) When the lithium battery is nearly discharged, the battery load voltage starts to drop sharply until it reaches the discharge cutoff voltage. From the results of capacity testing, the curve relationship between discharge current and capacity can also be obtained. It can be seen that the discharge current of a lithium battery directly affects the actual capacity of the battery. The larger the discharge current, the smaller the battery capacity, indicating that the larger the discharge current, the shorter the time it takes to reach the termination voltage.

Trouble Shooting:

1. Why is the LCD screen not lit up whilst the unit is charging?

- **Analysis:** The LCD display turns off when the unit goes into standby mode.
- **Solution:** The display will light up if you push the Power Button, AC Button or DC Button.

2. Why does the AC Power Supply heat up whilst charging?

- **Analysis:** When using the AC Power Supply ensure that it is not exposed to excessive heat or direct sun light. The operating temperature of this charger should be <70° C.
- **Solution:** Charge at 0~40°C or replace with a new charger with the same specification.

3. Why does the appliance not work when plugged into the AC port?

- **Analysis:** This unit can support up to 800 Watts of continuous power. Check if the appliances connected exceed the rated output power. If so, the overload protection will be triggered.
- **Solution:** Remove all appliances connected to the unit. Switch the unit off and then on again. Check that the appliances you reconnect to the unit do not exceed 800 Watts.

4. Why does the power switch off when using this unit in extremely high temperatures?

- **Analysis:** this unit is designed with over-heating protection and will automatically switch off if exposed to excessive/extremely high temperatures.
- **Solution:** Immediately switch off the unit. Once it has cooled down, turn it back on. The recommended operating temperature is <40° C.

Tips for Use:

- Ensure that all "On/Off" buttons are in the "Off" position when not using this unit for long periods of time.
- To maintain the batteries, ensure that you charge them at least once every 3 months.
- When using this unit, never cover the fan. The fan is designed to keep this unit at the correct operating temperature.
- This unit is designed with an advanced 8 stage BMS (Battery Management System) which integrates overload, overheating, short circuit, overvoltage, under voltage and other safety protection technologies. When troubleshooting, turn the power switch "Off" and then back "On" it to reset the power supply.
- The LED Bar Light on the back of the unit has three brightness modes, 25%/50%/100%. It also has a SOS and Flashing mode.

Recycling:

Please ensure that the used electronics, batteries, and packaging materials are recycled especially the lithium-ion batteries. Do not be irresponsible when disposing of these batteries.

Battery Information:

This unit has high quality ternary lithium-ion batteries. Do not disassemble the unit and remove the batteries. These batteries can be charged and discharged >1000 cycles.

Statement:

Please be aware that this manual is only for this unit MXPRO 1600i and does not represent the manual for others. In addition, this manual is provided as a guide only, the pictures in this manual are for reference only, and all statements, information and suggestions in this manual do not constitute any express or implied warranty.

What's in the Box



Portable Power Station



AC Power Charger x 2



Power Cable x 2



Parallel Cable



Car Charger Cable



Operators Manual

