



Portable Power Technology 1000R-LF Lithium Battery Powerpack User Manual

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Portable Power Technology 1000R-LF Lithium Battery Powerpack



Portable Power Technology 1000R-LF Lithium Battery Powerpack

Please read this manual carefully before using the device.

Introduction

Thank you for choosing the Powerpack 1000R-LF This product is a portable power pack with a power inverter and internal lithium battery which can be charged quickly by both AC and DC power. Please read the manual carefully and follow the guidance.

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Disposal and Recycle

This product should not be disposed along with household waste. Please dispose or recycle this product and battery in the appropriate way. For more advice on battery disposal or recycling please visit [recycle now](https://www.recyclenow.com/what-to-do-with/batteries-1) for more information;

<https://www.recyclenow.com/what-to-do-with/batteries-1>

<https://www.recyclenow.com/what-to-do-with/electrical-items-0>

Cold Weather Warning

Cold temperatures (-20, -60°C) can affect the products battery capacity and lifetime. If you'll be living off grid in sub-zero conditions, it is recommended to keep your product insulated and connected to a power source. (Car charger / AC Adapter / solar panel). The natural heat generated by the product contained in an insulated cooler will keep battery capacity at its highest level.

Charging Your Product

Charging with the AC Adapter.

Connect your external AC charger to a 230V socket and connect the DC output port of the charger into the DC port on the front of the powerpack marked "Input". The powerpack will now turn on if it was not already and you will see a segment on the blue battery icon on the LCD flash intermittently. Charging wattage is displayed on the left of the LCD panel. Fully charged in approximately 7-8 hours.

Charging via DC Socket In-Vehicle

First plug the DC car charger into the DC socket of your vehicle. (Suitable for both 12V and 24V) Then plug the smaller DC port from the charger cable into the "Input" DC port on the powerpack. Charging is indicated by the blue battery icon on the LCD screen. Charging may fluctuate with vehicles with standard alternators. The DC car charger has a built in 10A protector to ensure safety.

Warning:

Charging the powerpack in-vehicle may deplete your starter battery if your vehicle engine is not on.

Charging via Solar through built in MPPT

The 1000R comes complete with a built in MPPT controller, making charging via solar panel easy. Simply connect your 12V or 24V solar array (Max 240W / Max 8A) to the MC4 solar cable provided. Connect the male MC4 connector from the solar cable to the female connector from your solar array. Then connect the male from your solar array into the female MC4 connector on your solar cable. Finally plug the DC port on the other end of the

solar cable into the INPUT DC port on the powerpack.

Charging Notes

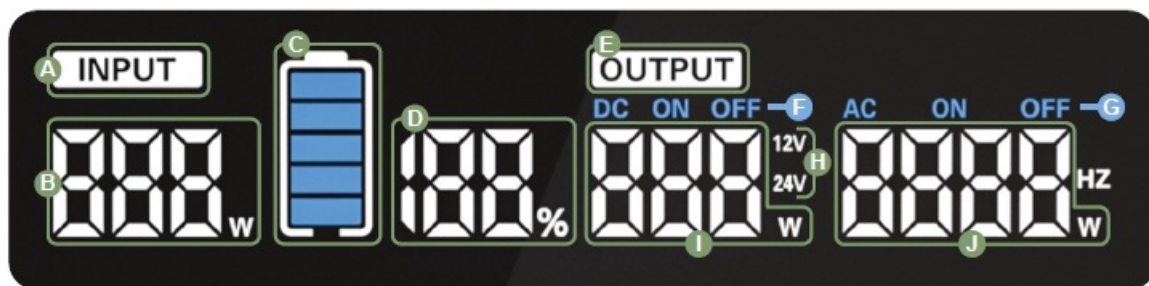
Optimal charging temperature The powerpack cannot be charged if the internal temperature is lower than 0°C or higher than 55°C
Charging voltage protection The powerpack can only be charged while the internal battery is between 17.6V – 30V
Charging over-current protection The powerpack can only be charged at a maximum of 8A.

Using Your Product

Display

The powerpack will automatically turn off after 5 minutes of no operation if the powerpack is not being charged, or if there is no load connected, providing the AC, DC and USB functions are off. When charging, the INPUT icon on the LCD is illuminated. The battery symbol will flicker to display the charging process and will present a completed battery without flickering once fully charged. The percentage next to the battery icon shows the battery's current power. When the DC or USB is on, the LCD will show "DC ON" underneath the OUTPUT icon. This shows 12V and 24V icons when the DC is active, or displays DC ON if only the USB is active. 50HZ is displayed on the far right when the powerpack is turned on but disappears after 5 seconds.

LCD Panel Overview



- INPUT Icon
- Charging wattage
- Battery Indicator Icon
- Battery power percentage
- OUTPUT Icon
- DC On / Off Indicator
- AC On / Off Indicator
- 12V / 24V Active Indicator
- DC Power Consumption
- AC Power Consumption

Buttons and Functions

Note: Each button has a key LED light built in that will illuminate when in the Active state.

- **Power On / Off**

This is located on the front of the powerpack, directly above the left most AC 230V socket. To turn the unit on or off press and hold the power button for up to 5 seconds. Once powered on the powerpack will turn off after 5 minutes if none of the AC, DC or USB outputs have been activated. You can power off the unit to turn off any of the following functions.

- **AC On / Off**

This is located on the front of the powerpack, directly above the two AC 230V sockets. To activate / deactivate

AC functionality, press and hold this button for 1 second. If the AC is enabled the AC indicator (G) will be set to ON and you'll be able to draw 230V from both AC sockets. You can monitor the power consumption (J) from any loads connected to the AC 230V socket.

Note: Please ensure that any 230V AC loads connected do not exceed 1000W max shared.

- **LED Torch On / Off**

This is located on the rear of the powerpack, at the very top, indicated by a green flashlight icon. To activate ensure the powerpack is powered on then press and hold this button for 3 seconds. Once on, you can long press (1 second) this button again to activate S.O.S mode. Long press again to switch back to standard torch mode. To power off the torch, press and hold the button for 5 seconds, until the light is turned off.

Note: S.O.S mode may activate while holding down the flashlight button to turn it off.

- **USB Output On / Off**

This is located on the rear of the power pack, above the USB outputs. To activate/deactivate USB functionality, press and hold this button for 1 second. If USB power is Enabled the DC indicator (F) will be set to ON. You will notice no change if DC power is already on. You can monitor the total power consumption (I) from any DC and USB loads connected. The top USB 2.0 port provides a maximum output current of 2.4A. The following 2x USB 3.0 ports output the following: [5V / 3A] [9V / 2A] [12V / 1.5A] Type-C USB port supports PD (Power transfer) 5V-20V with a maximum output current of 3A.

- **DC Output On / Off (12V / 24V)**

This is located on the rear of the power pack, above the 4 DC ports. To activate 12V functionality, press and hold this button for 1 second. (Long Press) This will provide power to the large 12V socket and 3x 12V DC ports on the back of the unit. Long press this button a second time to activate the 24V functionality to the 24V DC port. Long pressing a third time will turn both 12V and 24V functionality off. If DC is activated, the indicator (F) will be set to ON. If the unit is in 12V mode, you can see this on the LCD display (H). If in 24V mode, both 12V and 24V indicators will be active. You can monitor the total power consumption (I) from any DC and USB loads connected.

Note: The three DC5521, 12V ports (diameter 5.5mm) , are connected in parallel and provide a maximum output current of 10A shared across these ports. The single 24V DC5525 port has a maximum rated output current of 5A. The large DC car socket should only be used for loads up to a maximum of 90W. This provides voltage 13V, $\pm 1V$, rated current at 10A output and automatically distributes current according to the external equipment plugged into the socket.

Automatic Shutdown Mode

While the powerpack is in automatic shutdown mode, it will automatically deactivate the AC, DC and USB outputs from the powerpack, if no consumption is detected after 5 minutes. The powerpack will then shut down after 5 minutes if no buttons are pressed and the powerpack is not charging. To enable/disable DC Automatic shutdown mode, ensure the powerpack is on and the display is illuminated. Then simply hold the Power button and the DC button simultaneously for 5 seconds. You will see the OUTPUT icon flash intermittently if you have done this correctly. Repeating this process will deactivate the DC Automatic shutdown mode. If the powerpack shuts down, automatic shutdown mode will be reactivated each time the powerpack starts up, and will need to be disabled should you not want this to happen on start up.

Product Specification

Battery Information

Cell Type	LiFePO4
Battery Capacity	1382Wh (25.6V / 54Ah)
Life Cycle	>2000 Cycles at 80%
Shelf-life	Charge to full every 3 months minimum.

Output

USB 2.0	5V @ 2.4A Max
USB 3.0 (x2)	5V @ 0 ~ 3A 18W Max (9V @ 2A) (12V @ 1.5A)
USB Type-C	5V ~ 20V @ 3A, 60W Max (Supports PD)
DC 12V Port (x3) DC5521	12V @ 10A Max
DC 24V Port DC5525	18V~29V @ 5A Max
AC 230V UK sockets	12V @ 10A Max

Charging

AC Adapter	DC 28V / 7A
Solar PV Input (MPPT)	12V-36V / 8A Max, 240W Max
DC In-Vehicle	12 / 24V

General Information

Net Weight	20Kg
Product Dimensions	392mm x 208mm x 267mm
Storage Temperature	-20~65°C
Operating Temperature	0~55°C
Relative humidity	65±20%RH

Caution Advice

1. Do not short-circuit the product. To avoid short-circuiting, keep the product away from small metal objects. (e.g. Coins, hair-pins, keys, paper clips)
2. Do not heat the product or dispose of it in fire, water or other liquids. Keep the product away from high ambient temperatures. Do not leave the product unattended in direct sunlight.
3. Keep the product away from humid or dusty places.
4. Do not disassemble/reassemble this product as this will void any warranty given on the product.
5. Do not drop or place heavy objects on this product. Avoid any strong impacts with the product.
6. This product is not intended to be used by any person with reduced physical, sensory or mental capabilities.

Please keep the product away from children.

7. This is not a licensed medical product and is not intended to be used with medical devices.
8. Portable Power Technology LTD is not responsible for any loss of life that may occur when using this power pack for medical purposes. (e.g. Using the product to power a respiratory machine)
9. Do not cover the product with towels, clothing or other items that may restrict airflow or create heat.
10. Please ensure not to overcharge the powerpack.
11. When fully charged, disconnect the product from the power source immediately.
12. While charging, keep away from TV, radio and other equipment to avoid radio wave interference.
13. If you are not going to use this product for a long time, we advise fully recharging the powerpack before storage. Then to ensure battery life, fully recharge at least once every 3 months.
14. To charge some portable electronic devices you may need to set those devices into charge mode. Refer to the corresponding user manual of those devices for confirmation.

Contact Information

More information can be found on our website www.portablepowertech.com. Should you require further information please contact Portable Power Technology; You can reach us by emailing sales@portablepowertech.com, Or call us directly on 01474 761051.

Fault codes

Below are a list of error codes that appear on the front LCD panel. Please contact Portable power technology for further assistance.


Note: Do not attempt to disassemble the product. Error codes E10-13 are for internal use only

Fault Code	Fault Name	Fault
E01	Inverter short circuit protection	Check if the output port is overloaded or shorted
E02	Inverter overload protection	Check if the output port is overloaded or shorted
E03	Inverter over temperature protection	Check whether the environment temperature is higher than 45°C. Check to see if unit is close to a heat source, and whether it is placed to accommodate ventilation and heat dissipation
E04	Overload protection	Remove Load
E05	Battery damage	Restart product, if problem persists contact us
E06	Battery charge low temperature protection	Check if the environment temperature is below -0°C.
E07	Battery discharge low temperature protection	Check if the environment temperature is below -20°C.
E08	Battery discharge high temperature protection	Check whether the environment temperature is higher than 45°C. Check to see if unit is close to a heat source, and whether it is placed to accommodate ventilation and heat dissipation
E09	Battery discharge high temperature protection	Check whether the environment temperature is higher than 45°C. Check to see if unit is close to a heat source, and whether it is placed to accommodate ventilation and heat dissipation
E10	Inverter hardware error	Inspect the internal inverter part
E11	Discharge hardware error	Inspect the internal charging hardware
E12	Charger hardware error	Inspect the charger
E13	Communication error	Inspect the internal comms of the inverter




Warranty Service

Your 1000R-LF is supplied with a 12-month warranty from the date of purchase against defects in material and workmanship under normal use and service. Should your Powerpack 1000R-LF prove defective within 1 year from the date of purchase, please contact us for a returns number quoting the serial number and return the product, along with a copy of the proof of purchase and an explanation of the fault. We do not accept liability for any 3rd party damage however so caused. Under this warranty, we will replace or repair any parts found to be defective due to the manufacturer's defect. We are not responsible in any way for damages, losses, or inconvenience caused by equipment failure or by user negligence, abuse, or use not in accordance with the "User Manual" or any other additional safety, use, or warnings included in the product materials. Furthermore, we are not liable for incidental, data loss, or consequential damages of any nature resulting from the use of this product and any liability shall not exceed the purchase price of the products.

Documents / Resources

	Portable Power Technology 1000R-LF Lithium Battery Powerpack [pdf] User Manual 1000R-LF Lithium Battery Powerpack, 1000R-LF, Lithium Battery Powerpack, Battery Powerpack, 1000R-LF Powerpack, Powerpack
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References

-  [Portable Power Technology - Portable Power Technology](#)
-  [Batteries | Recycle Now](#)
-  [Electrical items | Recycle Now](#)

Manuals+.