OMNIPOWER

ELECTRICITY EVERYWHERE

USER MANUAL

POWERHEX+

Model: PowerHEXPlus-L-1200B - Black Casing - CF1645L

Model: PowerHEXPlus-L-1200W - White Casing - CF1645L

Self-Contained Mobile Backup Power System
Version 01

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IMPORTANT: Read this User Manual thoroughly before using the unit!!!

1. INTRODUCTION

Thank you for purchasing a PowerHex+.

Your PowerHex+ is a versatile unit specifically designed to provide power when normal Utility power is not present or frequently fails. It can provide instant emergency power for many situations where either power has failed or when a ready source of portable power is needed for leisure activities such as weekend getaways, camping or boating activities.

It's very user friendly and has the added benefit of being clean and noiseless. It requires virtually no maintenance, and is inexpensive to operate.

It has a number of advanced features allowing you to:

- ✓ Have virtually instantaneous back-up power when a mains power failure occurs – with a seamless changeover.
- ✓ Equipped with a fully-sealed lithium iron (LiFePO4) premium battery.
- ✓ Accidentally tip or tilt or turn-over the unit without fear of spilling acid from the fully sealed internal battery.

This manual describes the simple steps to use the unit and explains the operation of the PowerHex+ so you can understand what you can (and cannot) connect to the unit and what to do if you have a problem.

2. USING THE POWERHEX+:

What plugs can you connect to the unit?
The PowerHex+ is equipped with an AC output via 1 x 3-Pin socket (16A), 1 x 2-Pin socket, 2 x USB ports (2.1A).

For how long will you get power back-up?
The back-up time is load related and depends what is plugged into the unit and how long it needs to operate. See table below:

1000W for 1 Hour
750W for 1 Hour 15 Minutes
500W for 2 Hours
250W for 4 Hours

THESE ARE CALCULATED BACKUP TIMES WITH A NEW AND FULLY CHARGED BATTERY AND MAY VARY WITH ENVIRONMENTAL, BATTERY CHARGE AND LOAD CONDITIONS. BASED ON 1600VA CF1645L INVERTER WITH 12V 100AH BATTERY.

PowerHex+ can power an assortment of appliances covering most of the standard home entertainment and household low power appliances you might want to connect to it. The more equipment connected to the unit, the shorter the back-up time.

The following items SHOULD NOT be used with the PowerHex+:


2/4 Plate Stove


Electric Stove / Fridges

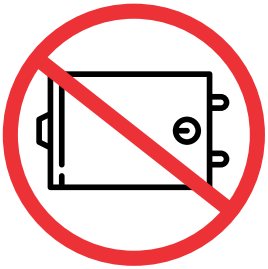

Electric Heater


Electric Kettle


Hairdryer


Iron


Microwave Oven


Geyser


Toaster


Vacuum Cleaner


Air-Conditioner / Fans


Power Tools

This list is not exhaustive and should include any items/appliances with similar power profiles to the items/appliances above.

3. CONNECTIONS TO THE POWERHEX

Supplied with the PowerHex+ is a 3-pin 15A SA cable with a 3-pin 'kettle connector'.

This cable is for the built-in battery charger in the PowerHex+. Connect this cable to an AC mains wall socket to charge the unit. You should leave the unit permanently connected.

If you wish to disconnect the PowerHex+, ensure the battery is “fully charged”.

Never leave the unit standing with a discharged battery; you will damage the battery within a short period of time.

If you've decided to take the unit away for the weekend, place the unit where you need it, plug in your equipment, turn it ON and you've got instant AC power.

4. SWITCHES, & INDICATORS

At this point, you're ready to start using the PowerHex+. The PowerHex+ enclosure is fitted with a RCC control panel which displays the current state of the device and allows the user to switch the device on and off. Below is an image of the RCC control panel.

Step 1:
After connecting the AC plug to the wall socket, switch the unit on to position II. This step will power up the unit. Initially the Inverter LED will be light and after approximately 30 seconds the inverter will accept mains and the AC in LED will be light. The charging LED will also light up and indicate the charger is working.

It will take about 6 - 12 hours to recharge the battery.

When charging is complete, you can switch OFF the “Master Switch”. If you're going to take the PowerHex+ away for the weekend you can unplug the charger cable and use the PowerHex+ as and when you need it while camping or for other leisure activities. If you are using it for home back-up power, you should leave the unit connected to the AC mains and switched on, so that the battery is always charged and ready for use.

Step 2: Use the PowerHex+ when and where you need it.
You can now connect the equipment you need to the AC power outlet connector on the PowerHex+. You can do this by plugging the equipment directly into the output socket. Switch ON the unit when ready.

If you're using the PowerHex+ at home or in the office and Utility power is cut-off, switch ON the “Master Switch” and the inverter in the unit will immediately start; it signals its readiness with 2 'beeps' followed by 1 'beep' to show it is ready for action.

In standby mode the AC power will be available to the equipment you've plugged into the AC power outlets.

5. TROUBLE SHOOTING

Problem	Solution
II've plugged in the equipment I want to use but there's no power output.	Is the PowerHex+ battery fully charged? Have you switched it ON? Is the “Inverter” LED ON steady green? Has the internal breaker tripped?
I've plugged in the equipment I want to use but there's no power output. The internal battery is correctly charged and the unit is ON.	Unplug the external equipment connected to the AC output socket; if necessary, reset the circuit breaker. If the circuit breaker has 'tripped', reset it by pushing 'in' the button. Check that the “Inverter” LED is lit. Reconnect the appliances, one by one, to the AC output socket.
The battery is correctly charged, the unit is ON but the “Fault” LED is solid. Reset the unit by switching the unit on and off allowing 10 seconds between switching. If there is no load connected, then this will indicate that the unit is faulty and must be returned to the nearest workshop for repair.	You have something connected to the AC power outlet(s) that's overloading the inverter. Switch OFF the equipment or appliance. Switch the unit OFF then ON and check if the “Inverter” LED is steady green.
The PowerHex was working but it has now shut itself OFF	Check the condition of the charge on the battery. Let the unit recharge back to full power – 6 to 12 hours.
Due to the high-frequency design of the inverter, the unit may produce a humming sound in hi-fi systems and televisions, and banding may be noticed on certain television screens.	Move unit further away from the affected appliance. If problem persists, the unit may not be suitable for your application.

6. PRECAUTIONARY ADVICE

The manufacturer has taken all possible precautions to protect this unit against overload, over temperature, reverse polarity, etc. If excessive overload, excessive temperature and/or reverse polarity are applied to the unit, the protection circuit will work but with excessive mishandling they may give in after a while and this can cause damage to the unit. It is therefore up to the user to connect the correct loads and to use the unit within the specified parameters.

The user must also ensure that no reverse power is fed back into the output sockets of the system.

The unit must not be kept or operated in direct sunlight and should never be placed in a moist or wet environment.

7. TECHNICAL SPECIFICATIONS

Inverter: Output Power	1600VA / 1200W
Output Wave Form	Pure Sine Wave
AC Input Voltage	230VAC / 50Hz
AC Output Voltage	230VAC / 50Hz
Output regulation when in Inverter mode	±8%
Fast change over	<15msecs
DC nominal input voltage	12V
Battery low voltage alarm	YES 11V±0.5V
Battery low voltage shutdown	YES 10.5V±0.5V
Battery high voltage shutdown	YES 16V±0.5V
Efficiency	89%
No load draw current	0.6A
Over temperature protection	55°C ± 5°C
Overload protection / will attempt restart	YES
Output short circuit protection / inverter shuts down	YES
Input reverse polarity protection / fuse protected	YES
Resettable output circuit breaker for output overload	YES
Operating temperature	-10°C to +45°C
Humidity	20% - 90%
Battery Charger:	
3 Stage auto HF switch mode battery charger	12V/50A
AC Input (ac input range)	230VAC / 50Hz
Charge voltage	13.6V ± 0.5V
Overload protection	YES
Over temperature protection	YES
Operating temperature	-10°C to +45°C
Isolation transformer for additional protection	YES
Recharge time from internal battery in:	Only 6 – 12 hrs

7. TECHNICAL SPECIFICATIONS CONTINUED

Miscellaneous: 1 x Multi-socket outputs	YES
Audible alarm: Battery Low / Overload	YES
Auto temperature controlled cooling fan	YES
Dimensions W x D x H mm	420 x 420 x 875
Net weight kg (with packaging)	60kg

WARNING !!!

The manufacturer of this unit has taken every care to protect this unit with a number of built-in protective circuits. If the specification says e.g. 'reverse polarity protection' or 'short circuit protection' etc. this does not mean that the unit cannot be damaged. Even though the protection circuits are activated, the unit can still be damaged under certain conditions, specifically but not only, if the user repeatedly applies a fault condition.

The protection circuits are there to limit the potential damage caused by reversed polarity or overloads and to stop a potential fire.

If a protective fuse blows, it is a strong indication that the unit is already damaged, do not attempt to replace the fuse.

This type of damage is NOT covered by the Warranty.

Please return the unit to your nearest service centre.

8. WARRANTY

We warrant this product against defects in equipment, materials and workmanship for a period of 36 months from the date of purchase and will repair or replace any defective item within the PowerHex+.

The unit must be returned in its entirety to the Dealer from which you purchased the unit. Proof of purchase must be retained.

Warranty is subject to the unit being used in an adequately ventilated, suitable environment and excludes any fault attributable to incorrect use, misuse or service by unauthorised personal.

The warranty is void if the fault is due to the end user or third party causing in particular, improper or negligent handling, such as 'short circuit' and /or 'reversed polarity' or by improper use or operation.

Warranty repairs do not include any shipping, transportation or reinstallation costs.

The Dealer limits liability for any damage caused to external devices connected to the PowerHex+ to the cost of the PowerHex+.

It is the responsibility of the end user or third party to ensure sufficient care is taken to protect the PowerHex+ from incorrect connection and overload when connected to external devices.

No claims will be considered where the PowerHex+ is used for applications outside the functional specifications for which it is intended.

Severability
If a part of the terms and conditions set out above is held invalid, void or unenforceable due to any particular national or international legislation, it shall not affect other parts of the terms and conditions remaining.

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