OMNIPOWER

Authorised Dealer :

OMNIPOWER

POWER TROLLEY 6

Model: HT-T-M1000

Instruction Manual for:

Self Contained Mobile Power System

Version 05

POWER TROLLEY 6

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It is very important to carefully read this User Manual before using the unit!!!

8. WARRANTY

We warrant this product against defects in equipment, materials and workmanship for a period of 12 months from the date of purchase and will repair or replace any defective item within the Power Trolley
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 not include any shipping, transportation or re-installation costs.

The Dealer limits liability for any damage caused to external devices connected to the Power Trolley 6.

It is the responsibility of the end user or third party to ensure sufficient care is taken to protect the Power Trolley 6 from incorrect connection and overload when connected to external devices.

No claims will be considered where the Power Trolley 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.

1. INTRODUCTION

Thank you for purchasing a "Power Trolley 6"

Your Power Trolley is a versatile unit specifically designed to provide power when normal Utility power is not present or frequently fails. It can provide quick-acting emergency power for many situations where either power has failed or when a ready source of portable mains 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 to the environment. It requires virtually no maintenance, and is inexpensive to operate.
It has a number of advanced features allowing you to:

- ✓ See at a glance the condition of the unit with easy to understand LED indicators
- ✓ Connect an additional battery to extend back-up time up to 20 hours of use (load dependant)
- ✓ Connect your cell phone recharger or other peripherals via a USB connector
- ✓ Upgrade the unit to work of solar power or wind generator
- ✓ Have virtually instantaneous back-up power when a mains power failure occurs – with a seamless changeover.
- ✓ Have a powerful LED light source array to see what you are doing immediately after mains power is lost – no more fumbling in the dark for torches.
- ✓ 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 to you the operation of the Power Trolley 6 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 POWER TROLLEY

Moving the unit to where you want to use it is easy. It comes with a retractable handle exactly the same as you've got on your "carry-on" airline suitcase. Lift and fully extend the handle. Put your foot on the centre axle between the wheels, tilt the unit to about 45° and you'll find the unit easy to wheel wherever you need it. If you have to lift it into the boot of a car, for instance, it's easier with two people.

Avoid rough terrain and do not twist the handle

Handling the trolley

What plugs can you connect up to the unit?

It's equipped with two universal ac connectors. Apart from being able to plug in most standard 2 pin European connectors generally fitted to most audio and TV units, you can also plug-in standard SA 5A 3-pin plugs, or 13A UK square pin plugs. The unit is supplied with two 5 metre extension cables where one end has a 5A 3 –pin connector and the other end a dual 15A 3 – pin socket.

Miscellaneous:	
2 x Multi-socket outputs	YES
Supplied with additional external battery connector	YES
Emergency high brightness LED with ON/OFF switch	YES
Audible alarm: Battery Low / Overload	YES
USB Charger Port 5V / 1Amp	YES
Auto temperature controlled cooling fan	YES
Dimensions W x D x H mm	390 x 230 x 450
Net weight kg (with packaging)	45 kg (50kg)

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 covert by the Warranty.

Please return the unit to your nearest service centre.

7. TECHNICAL SPECIFICATIONS

MODEL	HT-T-M1000
Inverter:	
Continuous Output Power	1500VA / 1000W
Max Surge Power	2000W
Output Wave Form	Modified Sine Wave
AC Input Voltage	230VAC / 50Hz
AC Output Voltage	230VAC / 50Hz
Output regulation when in Inverter mode	±8%
Fast change over	<10msecs
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	>85%
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 automatic HF switch mode battery charger	12V/10A
AC Input (ac input range)	180V – 265V / 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 discharged internal battery in:	Only 8 – 10 hrs
With additional external battery 12V/100Ah battery	Only 16 – 20 hrs

For how long will you get power back-up?

The power available is load dependant. Depending on what is plugged into the unit, between 8 – 10 hours of loading is possible with the 'built-in' battery. By connecting an additional specially made power back-up battery, you can extend the time to about 20 hours.

What can you typically connect to the unit?

Hours	Devices	Total
6 - 8	6 x 11W energy saving lamps (CFL's), Laptop Computer system (80W), Printer (54W)	200W
6 - 8	6 x 11 W CFL's, Sony Playstation (105W), Monitor (40W)	215W
8 -10	6 x 11 W CFL's, Ninetendo WII (20W), 54 cm TV (70W), or 32" LCD Monitor (50W)	136W
6 - 8	6 x 11W CFL's, 54 cm TV (70W), VCR/DVD Player (20W), PVR or DSTV Decoder & Satellite Dish (30W)	186W
4 - 6	6 x 11W CFL's, 42" LCD Monitor (180W) or 46" Plasma Screen (210W), VCR/DVD Player (20W), PVR or DSTV Decoder & Satellite Dish (30W)	170 up to 330W
4 - 6	6 x 11W CFL's, Bar Fridge / Freezer (120W), (50% duty cycle)	186W
5 - 7	6 x 11W CFL's, Power Tool Charger (62W), Cell Phone Charger (5W), 54 cm TV (70W), VCR/DVD Player (20W), PVR or DSTV Decoder & Satellite Dish (30W)	260W
4 - 6	6 x 11W CFL's, Microwave oven (750W max) (20% duty cycle)	816W

THESE ARE CALCULATED BACKUP TIMES AND MAY VARY WITH ENVIRONMENTAL, BATTERY AND LOAD CONDITIONS.

As you can see you can mix an assortment of appliances to the Power Trolley 6 covering most of the standard home entertainment and household low power appliances you might want to connect to it.

Using the Power Trolley in Standby mode

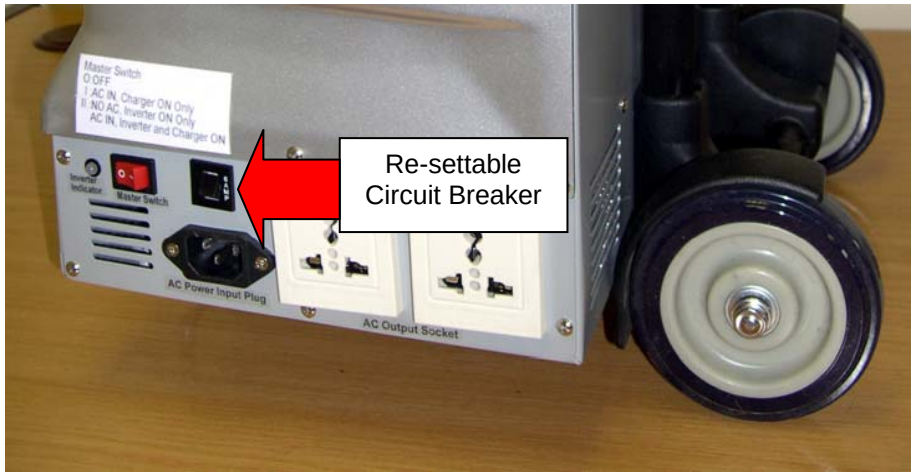
Using the Power Trolley with an external battery

PRECAUTIONARY ADVICE

While 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 not in a moist or wet environment.

You'll see a 'resettable' circuit breaker on the side of the Power Trolley. This is an additional safety device which will trip if you substantially overload the unit. Disconnect the equipment you've connected to the AC connection sockets, reset the breaker and try connecting with *less* equipment connected to the unit.



6. TROUBLE-SHOOTING

Problem	Check
I've plugged in the equipment I want to use but there's no power output.	Is the Power Trolley internal battery fully charged? Check the "Battery Volt & Charger Step" LED's. Have you switched the "Master Switch" to ON? Is the "Inverter" LED ON steady green?
I've plugged in the equipment I want to use but there's no power output. The internal battery is correctly charged and the "Master Switch" is ON.	Unplug the external equipment connected to the AC output socket(s) and, if necessary reset the circuit breaker. If the 6 Amp circuit has 'tripped' reset it by pushing 'in' the button. Check that the "Inverter" LED is lit. Reconnect the equipment, unit by unit to the ac output socket(s).
The internal battery is correctly charged, the "Master Switch" is ON but the "Inverter" LED is flashing yellow and the unit gives a double peep sound. If there is no load connected, than 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 "Master Switch" OFF then ON and check if the "Inverter" LED is steady green.
The Power Trolley was working but its now shut itself OFF	Check the condition of the charge on the battery(s). If only the "10V" LED is lit, the Power Trolley needs recharging. Let the unit recharge back to full power.
The Power Trolley continually sounds a double 'beeps' and the master on LED turns yellow and is flashing then the inverter switches itself OFF	You've overloaded the Power Trolley! Switch OFF the "Master Switch". Remove an appliance, wait a couple of seconds, then switch ON. If necessary, reduce the load still further.

These items should not be used with the "Power Trolley 6"


2/4 plate electric hob


Electric stove


Electric heater


Electric kettle


Hair dryer


Iron


Microwave oven


Geyser


Toaster

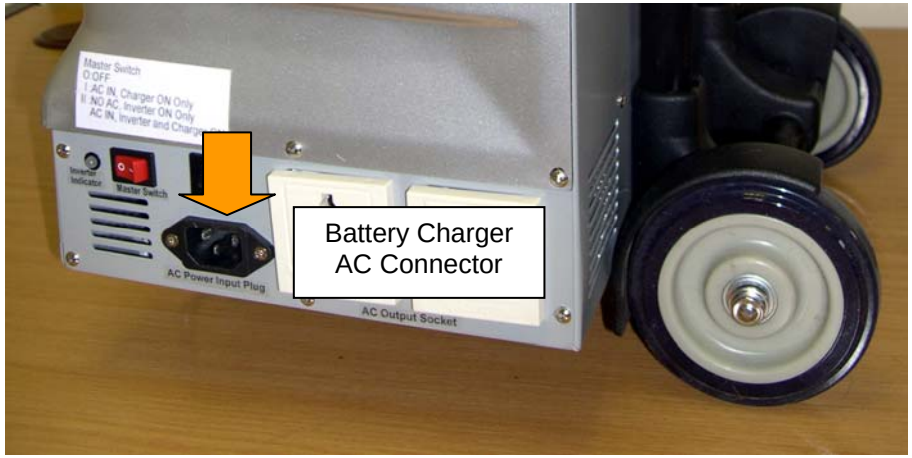

Vacuum cleaner


Air conditioner


Power tools

3. CONNECTIONS TO THE POWER TROLLEY

Supplied with the Power Trolley is a 3-pin 15A cable with a 3-pin ‘kettle connector’. This cable is for the built-in battery charger in the Power Trolley. Connect this cable to an ac mains wall socket to charge the unit. You can leave the unit permanently connected, if you wish or disconnect it when the unit signals it’s “fully charged”.

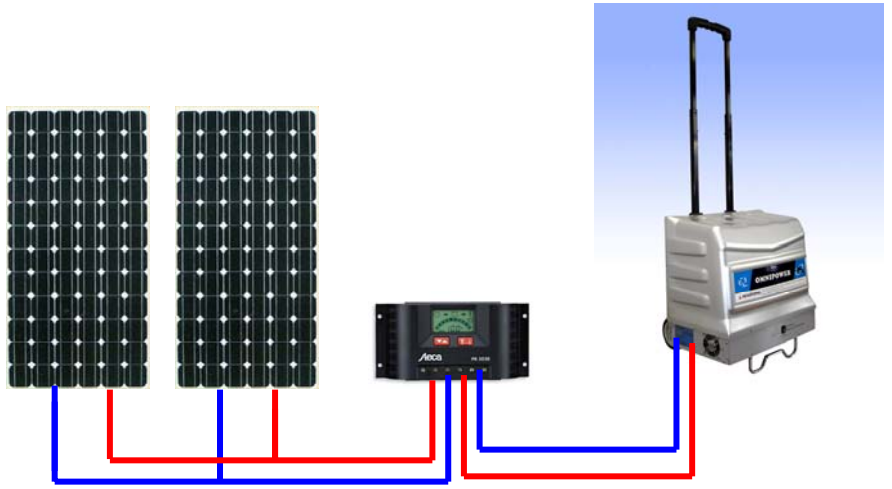


On the left-hand side of the trolley you will find two other connection points:

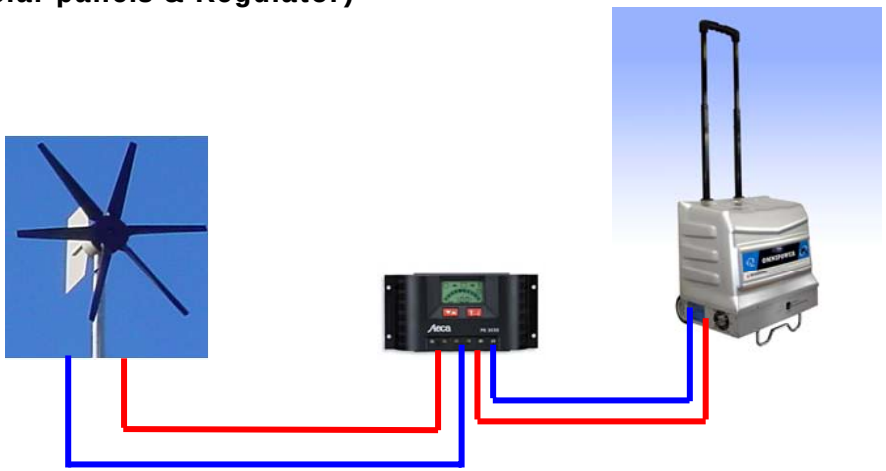
- There is a USB connector to connect a USB power charger cable to the Power Trolley when you need to power or recharge a cell phone or computer peripheral device that you may wish to use, i.e. a printer. (Cable not supplied)
- A DC power cable connector point to connect another power back-up battery to boost the back-up time. The connector is clearly marked as to Positive (+) and Negative (-). As a further safety feature, a pair of standard ‘blade’ fuses are fitted just in case the DC cables get incorrectly connected.

If you look at the picture on the following page you can see these features.

SOLAR / WIND DC POWER CONNECTION



Charging the trolley battery from solar panels (2 x 80Watt solar panels & Regulator)



Charging the trolley battery from a wind generator

When charging is complete, you can switch OFF the “Master Switch”. If you’re going to take the Power Trolley away for the weekend you can unplug the charger cable and use the Power Trolley as and when you need it while camping or other leisure activities. If you are using it for home back-up power, you can leave the unit connected to the ac mains, or disconnect, as you wish – the Power Trolley is ready for use.

Step 2. Use the Power Trolley when and where you need it.

You can now connect the equipment you need to the AC power outlet connectors on the Power Trolley 6. You can do this by plugging the equipment directly into the output sockets or use the extension cables supplied. Switch ON the “Master Switch” when ready.

If you’re using the Power Trolley 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 ‘beeps’ to show its ready for action.

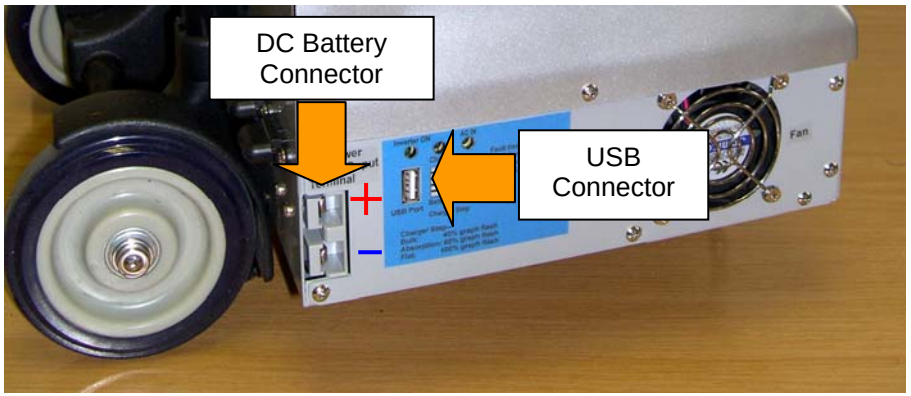
You can use the switch on the front of the Power Trolley to control a powerful LED light to see your way.

Position **“I”** will switch the LED lights permanently on.
(Regardless if power is supplied to the unit or not)

Position **“0”** will switch the LED lights permanently off.

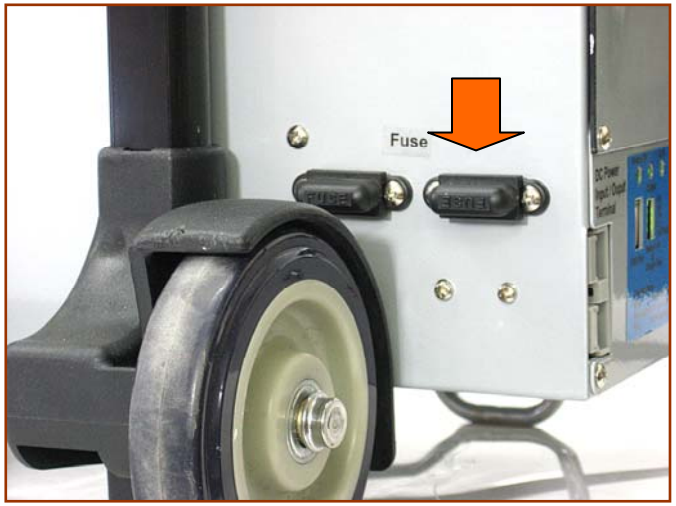
Position **“II”** will put the LED lights in standby mode
(If the power fails, the LED lights will come on automatically and when power returns the LED lights will extinguish automatically)

AC power will be instantly available to the equipment you’ve plugged into the ac power outlets.



If you’ve decided to take the unit away for the weekend, roll the trolley to where you need it, plug in your equipment, turn ON the “Master Switch” and you’ve got instant AC power.

If you decide you want to use an additional external battery, talk to your Dealer about the correct battery to purchase. The dc power cables that specifically connect to the Power Trolley are supplied when you purchase the unit. The DC plug is polarity coded.



You can purchase a USB power charger extension cable at most computer shops.

This picture shows the two ‘blade’ fuses mounted at the rear right of the Power Trolley.

4. SWITCHES, & INDICATORS

At this point, you're ready to start using the Power Trolley.

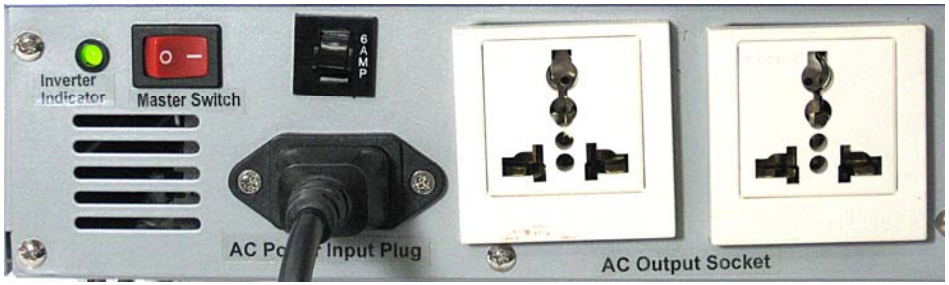
Step 1 is to connect the Power Trolley to an ac mains outlet and get the batteries charged.

Switch the "Red Master Switch" (arrowed) to "ON" (I). After 2 short peeps and on single peep master "ON LED" turns on (Green). Unit is ready for action.

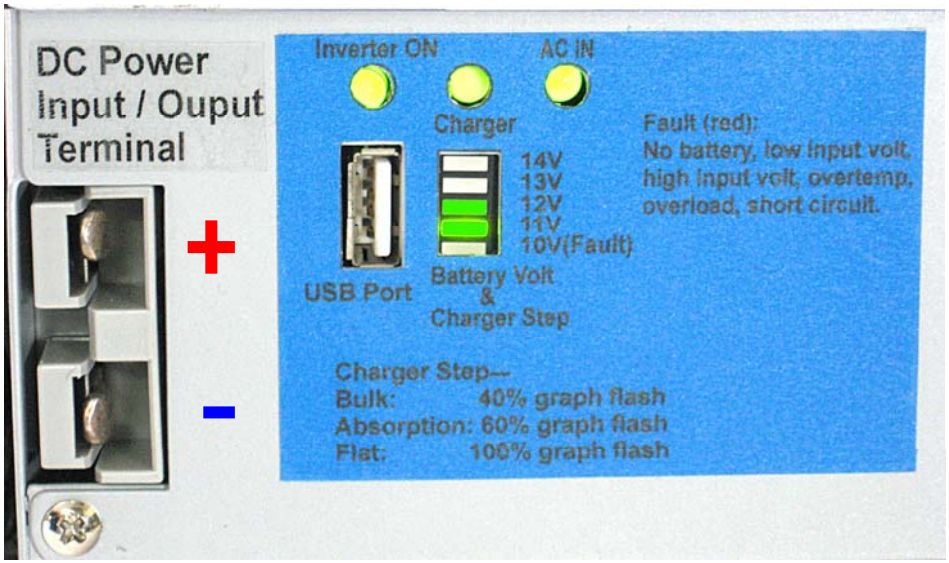
Check the indicators on the left hand sides of the Power Trolley that:

- The main 'Inverter Indicator' LED is lit green
- the "AC IN" LED is lit green
- The "Charger" LED is lit green
- One or more of the LED's is lit on the "Battery Volt and Charger Step"

It will take about 6 - 10 hours to recharge the internal battery, longer if an additional external battery is connected.



In this view, of the right side of the Power Trolley, you can see that the Master Switch is ON and the Inverter indicator LED is lit.



Here you can see the indicators on the left side. The 'Inverter ON' LED is lit, together with the 'Charger' and 'AC IN'
One or more of the LED indicators which show the battery charge status are lit. You will know when the battery charging is complete as the "14V" LED indicator is lit. If the "10V" LED is lit RED, a fault has occurred, please contact your dealer.