

POWERTECH

MI5740

2000W 12VDC to 230VAC Pure Sine Wave Inverter



Instruction Manual

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WARNINGS & SAFETY INFORMATION

- Please read and understand this manual before installing and using this inverter.
- Do not connect to equipment that exceeds the inverter's specified power rating
- Permanent damage may occur that will not be covered by the warranty.
- Place the inverter on a reasonably flat surface, either horizontally or vertically.
- The inverter should not be installed in the engine compartment, due to possible water/oil/acid contamination, and excessive heat under the bonnet, as well as potential danger from petrol fumes and the spark that an inverter can occasionally produce. It's best to run battery cables to a dry, cool mounting location.
- Keep the inverter dry. Do not expose it to rain or moisture. DO NOT operate the inverter if the inverter, the device being operated, or any other surfaces that may come in contact with any power source are wet. Water and many other liquids can conduct electricity which may lead to serious injury or death.
- Do not operate the inverter in dusty environments. Keep the fan clean and free of dust.
- Avoid placing the inverter on or near heating vents, radiators or other sources of heat. Do not place the inverter in direct sunlight. Ideal operating temperature is between 10°C and 30°C. Allow at least 2 inches (5cm) of air space on all sides of the inverter. During operation, keep away from materials that may be affected by high temperatures.
- In order to properly disperse heat generated while the inverter is in operation, keep it well ventilated. While in use, maintain several inches of clearance around the top and sides of the inverter.
- DO NOT use the inverter near flammable materials
- DO NOT install inverters in unvented battery compartments
- DO NOT expose the inverter to temperatures exceeding 40°C
- DO NOT connect live AC power to the inverter's AC outlets. The inverter will be damaged even if it is switched OFF.
- Any internal adjustment on the inverter is prohibited. Do not disassemble.

WARNING: The manufacturer is not responsible for any potential injury from misuse

WARNING: High voltages inside; do not open the inverter case while power is connected.

BEFORE FIRST USE

Prior to using your product, please read all the safety and operating instructions thoroughly. Please ensure you follow the steps below before using the product. We recommend you keep the original packaging for storing the product when not in use.

Please pay close attention to the section entitled Warnings & Safety Information. Find a safe and convenient place to keep this instruction manual for future reference.

Unpack the product but keep all packaging materials until you have made sure your new product is undamaged and in good working order. Ensure you have all accessories listed in this manual.

BOX CONTENTS

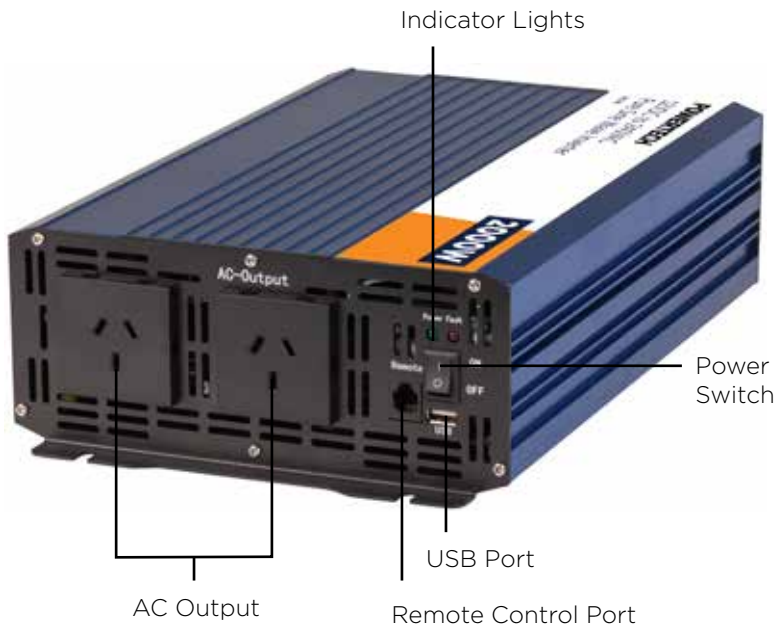
1 x Power Inverter

1 x User Manual

1 x Pair of Battery Cables

1 x Remote Control Kit

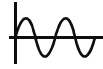
PRODUCT DIAGRAM



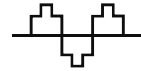
INVERTER INFORMATION

Types of Inverters

There are 2 types of inverters available for use in consumer applications. These are:



Pure



Modified

Pure Sine Wave Inverters

The name “pure sine wave” inverter comes from the wave form of its output, as shown in the above diagram. This is identical to or replicates as closely as possible the normal AC mains. As most electronic products are designed to be powered by sine wave AC, pure sine wave inverters are suitable for all applications, especially motorized devices where it is proven that pure sine wave power will lengthen the product’s lifetime and run much quieter. Pure sine wave inverters are more expensive than modified sine wave inverters because they involve a much more complicated design in order to simulate the smooth sine wave output of standard mains power.

Modified Sine Wave Inverters

Again, modified sine wave are named after their output waveform. The output of the modified sine wave inverter cycles through positive, ground and negative voltage as shown in the diagram above, to give a rough approximation of a sine wave.

Modified sine wave inverters are a cheaper alternative to pure sine wave inverters as they don’t require the complicated system needed to smooth and render the output waveform. The main down side with a modified sine wave is that it can introduce electrical noise (buzzing) to inductive and A-V equipment. This is caused by the fast reversal of the output voltage 100 times per second. However, modified sine wave inverters are OK for heat element devices (kettle, heaters, etc) and devices that have an external or built-in adaptor (laptop, TV, etc).

How do I choose between Modified Sine Wave or Pure Sine Wave Inverters?

1. Inductive loads such as microwave ovens run faster, quieter, cooler and more efficiently on pure sine wave.
2. Pure sine wave reduces audible and electrical noise (buzzing) in fans, fluorescent lights, audio amplifiers, TVs etc
3. Pure sine wave prevents crashes in computers, glitches and noise in monitors
4. Pure sine wave reliably powers the following devices that normally won’t work with modified sine wave inverters:
 - Laser printers, photocopiers, magneto-optical hard drives.
 - Some fluorescent lights with old-type ballasts.
 - Power tools using variable speed controllers AC motors.
 - Sewing machines with speed/microprocessor control.
 - Battery chargers

USING THE REMOTE CONTROL

WARNING: The power switch on the Inverter must be set to “Off” (no lights showing) before the remote switch can operate.

- Make sure the inverter’s on-board switch is set to “Off” (No lights showing)
- Plug the white remote cable into the “Telephone” type socket on the front panel of the inverter.
- Press and hold the button on the remote unit for about 1 second.
- The green light on the remote unit should come on, and the inverter should switch on.
- To turn the inverter off, press and hold the remote button until the green light goes out.

NOTE: If you switch the inverter on using the remote control, and then after that also set the inverter’s onboard switch to “ON,” the green light on the remote unit will stay on. If you press the remote’s on-off button, the green light will go out, but the inverter will stay on. After that, pressing the remote button has no further effect.

TROUBLESHOOTING

TONE	LED INDICATOR	FAULT	SOLUTION
1 beep	Green LED solid on	Working normally	N/A
2 beep	N/A	Undervoltage warning	Check battery input.
3 beep	Red LED solid on	Undervoltage protection	Check battery input.
4 beep	Red LED solid on	Overvoltage protection	Check battery input.
5 beep	Red LED solid on	Overheat protection	Ensure unit has appropriate ventilation. Leave unit switched off until it cools down.
Continuous beep	N/A	Inverter overload protection	Ensure load is within the rating of the inverter. Turn unit off for 10 seconds to reset.

SPECIFICATIONS

AC Input	Continuous Power	2000W
	Surge Power	4000W
	Max Constant Power Start	2400W for 10 seconds
	Output Wave Form	Pure Sine Wave (THD<3%)
	Output Frequency	50Hz+/-3Hz
	Voltage	230VAC
DC Output	Input Voltage	12VDC
	Voltage Range	10V-15V
	Low Voltage Alarm	10.5V+/-0.5V
	Low Voltage Shut Down	10V+/-0.5V
	Over Voltage Shut Down	15V+/-0.5V
Over Thermal Protection		Shut Off Output Automatically, Temperature>75°C
Short Circuit Protection		Reverse Polarity (External fuse)
Cooling Fan Automatically Run		Temperature ≥45°C
Working Temperature		-10°C ~ +50°
Working Humidity		20%-90% RH Non-Condensing
Storage Temperature Range		-30°C ~ +70°C
Converting Max Efficiency		90% (FullLoading) / 95% (1/3Loading)
No Load Consumption		<1.2A
Led Indicator Light		Inverter, Fault
Product Size		320 x 220 x 92mm
Inner Box Dimensions(mm)		446 x 285 x 162mm
Net Product Weight (kg)		4.65kg
Inner Box Weight (kg)		5.46kg

WARRANTY INFORMATION

Our product is guaranteed to be free from manufacturing defects for a period of 12 Months.

If your product becomes defective during this period, Electus Distribution will repair, replace, or refund where a product is faulty; or not fit for intended purpose.

This warranty will not cover modified product; misuse or abuse of the product contrary to user instructions or packaging label; change of mind and normal wear and tear.

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and failure does not amount to a major failure.

To claim warranty, please contact the place of purchase. You will need to show receipt or other proof of purchase. Additional information may be required to process your claim.

Any expenses relating to the return of your product to the store will normally have to be paid by you.

The benefits to the customer given by this warranty are in addition to other rights and remedies of the Australian Consumer Law in relation to the goods or services to which this warranty relates.

This warranty is provided by:

Electus Distribution

Address 46 Eastern Creek Drive, Eastern Creek NSW 2766

Ph. 1300 738 555