

# ***POWERTECH***

**MI5008**

## **12V/1000W**

## **Pure Sine Wave Inverter**



# **Instruction Manual**

Please read and save all instructions to ensure safe and effective use of this product.

**Thank you for purchasing this pure sine wave inverter. For your outdoor or camping activities, the inverter converts 12Vdc into 230Vac that enables the inverter socket to power on your appliances stably and efficiently, with its quality features:**

- Pure sine wave output with low total harmonic distortion
- Extensive internal safety mechanism
- Compatible with 12V LiFePO4 Battery
- Cooled by temperature-controlled fan
- RJ12 communication port for remote control (optional)
- MI5018 Optional remote control sold separately

Note: Battery leads are not included.

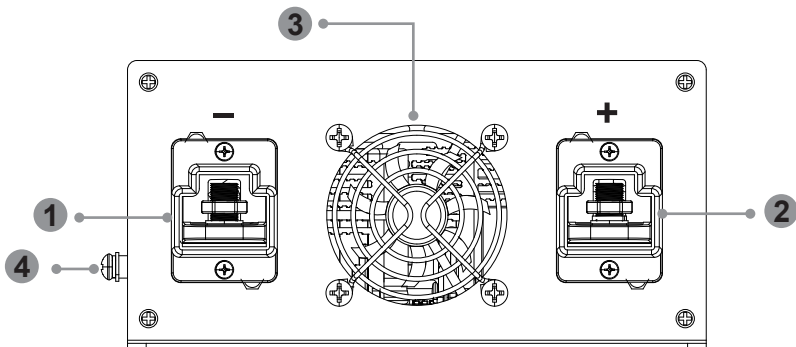
## **WARNINGS & CAUTIONS**

**Please read this manual carefully before using the inverter. Failure to follow these instructions may result in damage to the unit and could also result in serious injury to users. Always consult your licensed dealer/retailer for any repairs or spare parts services.**

- Do not use under wet weather. The inverter is for indoor use only.
- Do not place any objects on the inverter or battery.
- Do not place your inverter to the direct sunlight, external heat source, corrosive chemicals, flammable fumes or gases.
- Do not make ventilation and air vents of inverter obstructed.
- Double check battery negative and positive posts before making any connection; a wrong connection (reverse polarity) will cause fuses blown and may damage the inverter.
- Do not use substandard or damaged wiring with this inverter, it may cause fire or a shock hazard. Ensure that all the DC connections are tight.
- A small spark can occur when making the final battery connection, this is most common when the inverter has not been used for some time. To minimize this, make the last connection quickly and completely.
- Connect 240Vac appliances that are in safe condition only. When the inverter is working, please have someone nearby in case of an emergency.
- Remove personal metal items such as rings, bracelets, necklaces and watches when working with a battery. If battery acid contacts skin or clothing, wash immediately with soap and water. If acid enters eye, immediately flush eye with running cold water for at least 20 minutes and get medical attention immediately.
- For risk of electric shock: Do not attempt to open, disassemble or repair the inverter if damaged. Please keep away from children and pets to touch the inverter.

## PRODUCT OVERVIEW

### Input Side (Vdc):



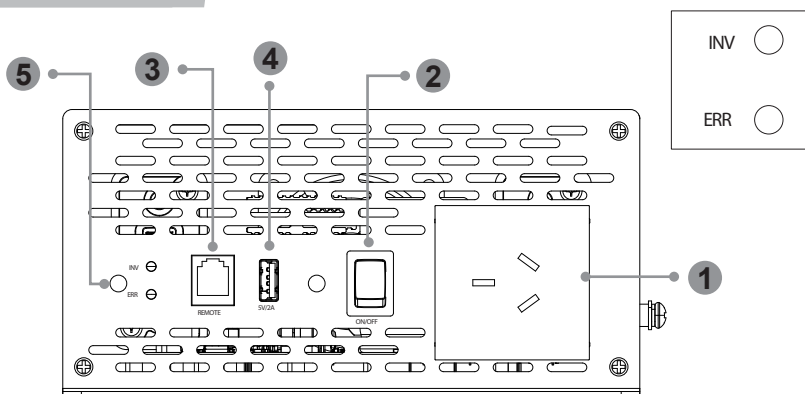
1. Negative Input Terminal

2. Positive Input Terminal

3. Cooling Fan

4. Ground Connection

### Output Side (Vac):



1. AC Socket

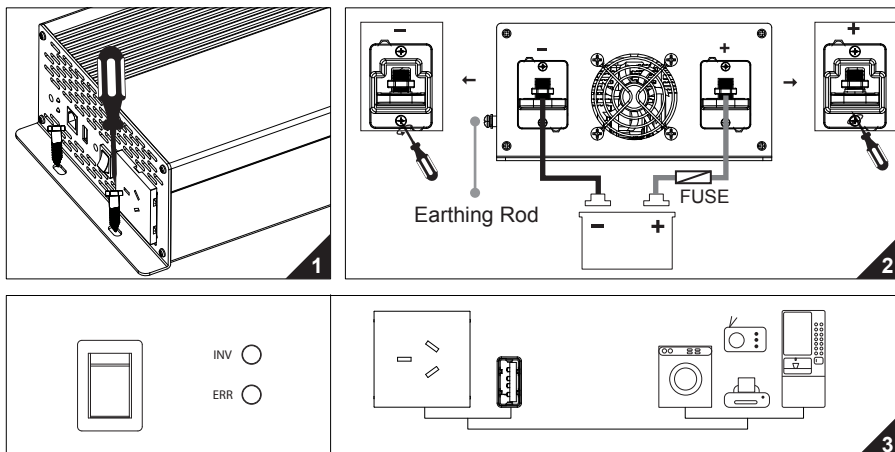
2. ON/OFF Switch

3. RJ12 Port for Remote (Option)

4. USB Port

5. INV/ERR LED

## OPERATION STEPS



### Step.1: Installation



Before the installation, ensure the inverter is always switched off!

- Position proper screws into mounting holes to fix the inverter. Ideally the inverter should be mounted horizontally either on a wall or flat surface with the base facing downward.

### Step.2: Wiring



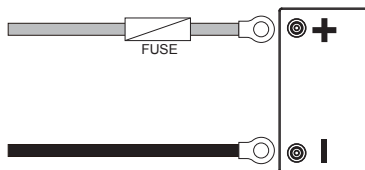
For safety reason to avoid injury by electric leakage, it is necessary to connect earth rod (not supplied) from inverter to vehicle chassis ground.

- Remove the plastic cover from the terminal first, then unscrew the nuts and washers from the inverter's terminals.
- Connect DC input cables (not supplied) with inverter, connect positive lead (+) first, by threading the cable eye and washers over the bolt, then fasten it with the nut . Repeat this process with the negative lead (-). Finally fasten the inverter terminal covers back onto the inverter.
- Connect DC input cables with 12V battery properly. As for battery preparation, make sure the battery is in good state of health and free from any fault or damage.



Make sure positive lead connected to positive terminal (+) and negative lead to negative terminal (-). Reverse connection may cause permanent damage to the inverter. For protection to inverter, it is recommended to use cable lead with inserted fuse close to the battery.

|                          |                    |
|--------------------------|--------------------|
| <b>Reference</b>         | 12V 1000W (MI5008) |
| <b>Battery Capacity:</b> | 100 AH             |
| <b>Cable Size:</b>       | 1M*4AWG (21.1mm2)  |
| <b>Mega Fuse:</b>        | 150Amp             |



### Step.3: Power-on

- Plug the appliance into the inverter's socket. Make sure that the appliance 's total wattage is below the inverter's rated wattage.
- Turn on the inverter by ON-OFF switch, the inverter will beep and run the cooling fan shortly, then the POWER LED will be solid on. Now It is time to use your appliance to enjoy the camping life! 5V2A USB Output is also available.
- When ready to stop using inverter. please switch off the inverter first before any unplug or disconnection!

## INV & ERR LED INDICATION

### LED Indicators for Operation

| Inverter Condition | INV LED (Green) | ERR LED (Red) |
|--------------------|-----------------|---------------|
| Switched ON        | Light on        | Light on 2s   |
| In use             | Light on        | Light off     |
| Overload           | Light on        | Flash         |
| Switched OFF       | Light off       | Light off     |

### LED Indicators for Faults (Protection Mechanism)

| INV LED   | ERR LED            | Trouble                                                                                       | Automatic or Manual Solutions                                                                                                                                                                                                                                                                                                                                                                                                        |
|-----------|--------------------|-----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Light off | Flashes once/5s    | Over Voltage or Under Voltage Fault.<br>The fault occurs when input voltage <10.5V or >15.5V. | The inverter will beep-alarm and stop output then take 1 minute to check voltage to judge if it has reached a voltage level to recovery automatically:<br><ul style="list-style-type: none"> <li>If voltage increases over 12.0V, The inverter will automatically recover from under-voltage protection.</li> <li>If voltage decreases below 14.5V, The inverter will automatically recover from over-voltage protection.</li> </ul> |
| Light off | Flashes twice/5s   | AC Output Short Circuit Fault                                                                 | The inverter will beep-alarm and stop output. Please unplug and check your appliance, then restart your inverter manually.                                                                                                                                                                                                                                                                                                           |
| Light off | Flashes 3 times/5s | Over Temperature Fault<br>When the fan malfunctions or ambient temeptrature is over 50 °C.    | The inverter will beep-alarm and stop output. Please turn off the inverter and unplug your appliance. Leave the inverter for cooling and wait until the temp is below 50°C, then restart your inverter manually.                                                                                                                                                                                                                     |
| Light off | Flashes 4 times/5s | Over-load Running                                                                             | The inverter will beep-alarm and will stop output in serveral seconds. Please unplug and check your appliance, then restart your inverter manually.                                                                                                                                                                                                                                                                                  |
| Light Off | Flashes 5 times/5s | Internal Fault                                                                                | Try to restart your inverter several times. If the inverter still fails to work normally, please consult and send it back to your licensed dealer/retailer for any repairs or spare parts services.                                                                                                                                                                                                                                  |

## SPECIFICATION

|                         |                                                                                                                |
|-------------------------|----------------------------------------------------------------------------------------------------------------|
| Model:                  | MI5008 - 12V 1000W (2000W Surge)                                                                               |
| Output Wave Form:       | Pure Sine Wave                                                                                                 |
| Rated Input Voltage:    | 12Vdc                                                                                                          |
| DC Input Voltage Range: | 10.5V-15.5V                                                                                                    |
| Rated Output Voltage:   | 230Vac                                                                                                         |
| Output Power:           | 1000W                                                                                                          |
| THD:                    | <3%                                                                                                            |
| USB Output:             | TYPE-A 5V2A                                                                                                    |
| Remote Control:         | RJ12 Communication Port                                                                                        |
| Operating Temp:         | -20°C - 50°C                                                                                                   |
| Protection:             | Over/Under Voltage Protection / Short Circuit Protection<br>Over-load Protection / Over Temperature Protection |
| Dimension:              | 357.0*186.0*93.0 MM                                                                                            |

## WARRANTY INFORMATION

Our product is guaranteed to be free from manufacturing defects for a period of 3 Years.

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