



SWINV1000

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# 1000W Modified Sine Wave 2000W PEAK Inverter

Information for use

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**PLEASE NOTE:** Maximum continuous load is shared when both plugs are used together.  
**DO NOT OVERLOAD.** Check the power ratings of the appliances being used.

## Intention For Use

Thank you for purchasing this 1000W modified sine wave inverter from Streetwize. This inverter safely converts your vehicle's 12V DC battery into a 240V AC power supply for using standard UK electrical appliances that require up to 1000W.

It is intended for people who require access to an AC power supply in areas where there is restricted access to power. They're suitable for caravan/campervan users as well as trades people.

This modified sine wave inverter is not suitable for use with appliances with AC motors (i.e. microwaves, refrigerator), medical equipment, laser printers and fluorescent lights.

**IMPORTANT:** This inverter is primarily designed for powering appliances up to its stated continuous output. The stated peak output is only available for a limited time.

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<b>Recommended battery</b>	Running time at rated continuous rated power
<b>12V/120Ah</b>	1 hour 20 mins

## Health & Safety Guidelines

**IMPORTANT:** This inverter is only suitable for use with 12V batteries only.

### **Warning! Electric Hazard. Keep away from children**

1. This inverter is not a toy, and it should never be used by children.
2. This inverter generates the same voltage as a UK 3-pin plug socket. Please operate it as if you are using any other AC mains socket.
3. Never insert any kind of foreign object into the inverter's plug sockets, fan or vent openings.
4. Do not operate or expose the inverter to water, rain, snow or spray
5. Never connect the inverter to an AC power source. This inverter is only designed to accept a DC power supply.

### **Warning! Heated Surface**

6. The inverter's outer casing may become hot after prolonged use or overloading. During operation, ensure there is at least a 5cm (2 inches) gap between the inverter and any other walls.
7. Please keep any flammable materials away from the inverter during operation.

### **Warning! Explosion Hazard**

8. Never use the inverter in the presence of flammable substances

### **Caution!**

9. Do not connect a live AC power source to the inverter's AC output sockets. This will damage the inverter, even if the inverter is switched off.
10. Do not expose the inverter to temperatures over 40 °C.

### **Caution! Do not use the inverter with the following equipment:**

11. Appliances that have a AC motor. This includes refrigerators, heavy duty power tools, washing machines, dishwashers and medical equipment.
12. Devices that have a thyristors. This includes laser printers and photocopiers.
13. Large electrical appliances such as newer electrical TVs with LED display.
14. Fluorescent lights.

## Product Elements

1. Modified sine wave inverter
2. Battery clamp connection cables

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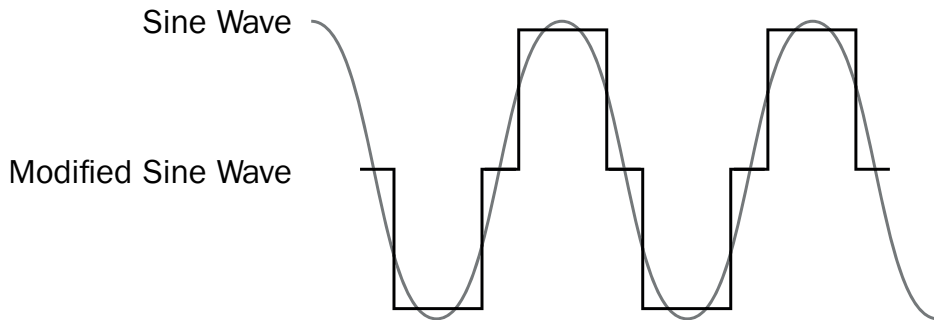
## Pure Sine Wave & Modified Sine Wave Inverters

There are two types of inverters: Pure Sine Wave & Modified Sine Wave.

The figure below shows a graphical comparison of modified sine wave inverters and pure sine wave inverters.

Modified sine wave inverters provide a cost-effective option of powering 230V AC appliances from a 12V battery. However, a pure sine wave inverters provide even flow of electric output where a modified sine wave inverter is staggered.

The figure below shows a graphical comparison of modified sine wave inverters and pure sine wave inverters.



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## Operating Instructions

### Optimum Working Conditions

For safe & optimum performance, please install the inverter in a location that is:

- Dry - The inverter should not be near any liquid or moisture.
- Cool - Keep it away from any high heat source.
- Well-ventilated - Allow for atleast 5cm of space on all sides.
- Clean - To prevent any dust or unwanted elements from getting inside the inverter.
- Away from flammable substances - To prevent fire or explosion.

## 12V Socket

To use the inverter via your vehicle's 12V socket, simply connect the O-rings of the 12V connection cable (not supplied) to the inverter's terminals, with the black cable going to the negative terminal and the red cable going to the positive terminal. Plug the 12V plug into the 12V socket, then switch on your vehicle.

**WARNING:** Only use the 12V plug for powering appliances that require less than 150W. Do NOT power an appliance that requires more than 150W as this will risk damaging your vehicle's fuse.

## Direct Battery Connection

Before connecting this inverter, please ensure your vehicle is fully switched off.

Then, connect the black (negative) battery clamp connection cable to the negative terminal of the inverter via the O-ring first, and then connect the clamp to the negative battery terminal of your 12V battery. Then, connect the red (positive) battery clamp connection cable to the positive terminal of the inverter via the O-ring and then connect the clamp to the positive battery terminal of your 12V battery.

**IMPORTANT:** When starting your vehicle's engine, please disconnect the inverter first before starting the engine.

## Operating Appliances

### Operating an Appliance Through The 3-Pin Plug

Once the inverter is connected to your battery, just plug in your appliance via the 3 pin socket, and then turn ON the power switch.

### Operating an Appliance Via The USB

Once the inverter is connected to your battery, just plug in the device via the USB socket, and then turn ON the power switch.

## Peak Output

This inverter provides a continuous output of 1000W as well as a peak output of 2000W. Meaning, when you try to power appliances that total more than 1000W, the inverter has the capability to automatically adjust the wattage up to 2000W.

**IMPORTANT:** When operating appliances that require more than the specified continuous power wattage, the inverter will operate for a very limited amount of time and it will automatically shut-down.

For long lasting performance, we recommend that you use this inverter for appliances requiring less than specified continuous power wattage.

## After Use

After you have finished using the inverter (or when the inverter is not in use), turn off the unit and make sure your vehicle's fully switched off.

Then, turn the unit off and then disconnect the inverter from the 12V power supply. When disconnecting from the battery, disconnect the negative cable first, followed by the positive cable.

### Best Practices for Protecting Your 12V Battery

- To prevent your vehicle's 12V battery from being depleted. We recommend running the engine for 10 to 20 minute to recharge the battery after using the inverter for 2 to 3 hours. Important: Before starting your vehicle's engine, please disconnect the inverter from your battery/power supply.
- When connecting the inverter to your battery's terminals, it is important that you connect it via the correct polarity (i.e. Connect + from inverter to + of battery terminal and connect – from inverter to – of battery terminal) to prevent reverse polarity.
- When you are using the inverter and you hear a beeping sound coming from the inverter, this means your 12V battery is low. To recharge, disconnect the inverter from your battery and turn on the engine for 2 to 3 hours.
- When charging your 12V battery using a battery charger, please disconnect the inverter.

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## Measuring The AC Voltage

The output waveform of the AC output is a MODIFIED SINE WAVE. To measure the AC output voltage, you must have a TRUE RMS VOLTMETER.

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## Safety Features

Feature	Explanation
Anodized Aluminium Casing	Prevents corrosion & wear. The case effectively protects the inverter's interior elements.
Low Battery Alarm	Sounds when your 12V battery is low. To resolve, disconnect the inverter from battery/power supply and recharge the battery.
Built-in Cooling Fan	The built-in cooling helps to prevent overheating during use.
Overheat Protection	After prolonged use (more than 2 to 3 hours), the inverter will generate heat. This is not a malfunction of the built-in cooling fan. However, if the inverter does overheat, after prolonged use, the unit will automatically shut off for it to cool down.
Overload/Short Circuit Protection	The inverter automatically turns itself off if the connected load is too high or if it too low
Thermal Protection	The inverter's thermal protection feature prevents it from operating when its temperature exceeds 60+/-5 °C

# Troubleshooting

## What To Do When The Inverter Is Not Working

Troubleshoot/Problem	Possible Cause	Suggested Solution
No AC out - the green LED light is not coming on	DC input is below 10V	Recharge or replace the battery
No AC output - the inverter is cold	Poor connection with the battery	Switch off vehicle & disconnect inverter from battery. Then reconnect the inverter to the battery, check to see if the connection is correct.
Inverter shuts down after using the unit for a long time	Overheat	Switch off vehicle & disconnect inverter from battery. Allow the unit to cool down for 15 mins before reconnecting.
Inverter shuts down after operating for a short time	Overload	The appliance wattage require may be too high
Red LED light &/or audible beeping	Fuse could have been blown	Check and replace the fuse. See Replacing the Fuse.

## How to Replace the Fuse



Fig. 1

If the unit stops working, and you see a red LED light and/or you hear an audible beeping. Then you will need to check to see if any of the fuses are working, and replace any blown fuses if necessary.


**PLEASE NOTE:** In total, there are 3 x 35amp fuses

To check & replace the fuse, please follow the instructions below:

Locate the fuses as shown in fig. 1 above. Use a suitable pair of tweezers to take the fuse out so you can check/replace as necessary. Please note, you can check the fuse size when you take out the fuse.

## WEEE



The WEEE symbol  on this product means that the Power Inverter should be ethically dismantled or recycled to minimise environmental impact. Please check with your local authority for more information.

## Technical Support

If you require any technical support for your product within the warranty period, please contact us on [support@streetwize.co.uk](mailto:support@streetwize.co.uk) and provide the product name and supplier code (see Technical Specifications) along with the technical query and proof of purchase.

## Technical Specifications

<b>Product Name/Code</b>	Streetwize 1000W Modified Sine Wave Inverter/SWINV1000
<b>Max Continuous Power</b>	1000W
<b>Peak Power</b>	2000W
<b>Input Voltage</b>	12V (10 to 15V) DC
<b>Output Voltage</b>	230V AC
<b>Output Waveform</b>	Modified Sine Wave
<b>USB output</b>	5V DC 1000mA
<b>No load current</b>	<0.3A
<b>Battery low shutdown</b>	10+/-0.5V DC
<b>Battery low alarm</b>	11+/-0.5V DC
<b>Thermal shutdown</b>	60+/-5°C
<b>Fuse</b>	35A x 3
<b>Product dimensions</b>	29.8cm x 17cm x 6.7cm



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