



SWINV150

150W
300W PEAK

Modified Sine Wave
Inverter

Information for use

Recommended battery	Running time at rated continuous rated power
12V/45Ah	3 hour

Health & Safety Guidelines

IMPORTANT: This inverter is only suitable for use with 12V batteries only. This appliance is primarily designed for operating Class 2 appliances.

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. Class 1 appliances. See Class 1/Class 2 section.

Intention For Use

Thank you for purchasing this 150W 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 800W.

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 tradespeople.

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.

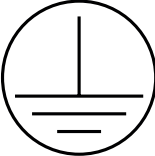
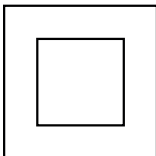
In addition, this inverter is primarily designed for operating a wide range of Class 2 appliances. Class 2 appliances are double insulated and do not require earth connections. Most computers, laptops, photocopiers, cordless power tools, and plastic-cased appliances are identified as Class 2 appliances.

Class 1 appliances, on the other hand, are protected by basic insulation and earthing provision and most typically come in a metal casing. This product is not suitable for operating Class 1 appliances. Typical Class 1 appliances include toasters, kettles, washing machines and irons.

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.

Class 1 / Class 2

As mentioned in the Intention For Use section, this product is primarily designed for operating **Class 2 appliances**, which don't require earthing provisions.

	Class 1	Class 2
Symbol		
Earth Wiring Present	Yes	No
Insulation	Basic Insulation	Double Insulation
Appliance casing	Metal	Plastic
Appliance examples	Toasters, kettles, washing machines and irons	Hedge trimmers, lawn mowers and drill

Product Elements

1. Modified sine wave inverter
 2. 12V connection cables
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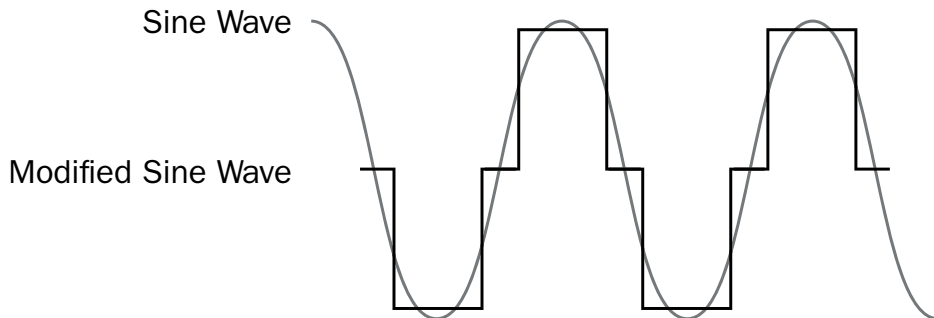
Pure Sine Wave & Modified Sine Wave Inverters

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.



Operating Instructions

PLEASE NOTE: There are two ways of operating the inverter. The first way is to power the inverter via your vehicle's 12V socket. This is ideal for power appliances that require less than 150W. The second way is through direct connection to the battery, via the supplied battery clamp connection cables. This is ideal for powering appliances more than 150W.

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 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

This operating method is ideal for powering appliances more than 150W.

To use the inverter through direction to your 12V battery, first ensure that 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 150W as well as a peak output of 300W. Meaning, when you try to power appliances that total more than 150W, the inverter has the capability to automatically adjust the wattage up to 300W.

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.

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.

Safety Features

Troubleshoot/Problem	Possible Cause	Suggested Solution
Inverter is not working	Poor battery connection	Turn off the inverter and disconnect it from the battery. Then reconnect the inverter to the battery and check to see if the connection is correct.
	Short circuit	Turn off the inverter and disconnect it from your 12V battery. Reconnect the inverter to the battery's terminals and check to see if terminal connections are correct.
	DC input is below 10V	Turn off the inverter and disconnect it from your 12V battery. Please check the Voltage of your battery. This inverter is only suitable for 12V batteries only.
	DC input is above 10V	Turn off the inverter and disconnect it from your 12V battery. Please check the Voltage of your battery. This inverter is only suitable for 12V batteries only.
	Blown Fuse	Check and replace the fuse. See opposite how to replace the fuses.

Troubleshooting

What To Do When The Inverter Is Not Working

Troubleshoot/Problem	Possible Cause	Suggested Solution
Inverter gets really hot	Overheat	Turn off the inverter and disconnect it from your 12V battery and allow the inverter to fully cool down. Ensure your inverter is operating in a cool area.
Inverter shuts down after operating for a short time.	Overload	The total Wattage is exceeding the inverter's specified continuous power output. Turn off the inverter and disconnect it from your 12V battery. Then disconnect any appliances that are not required to reduce the Wattage load.

How to Replace the Fuse

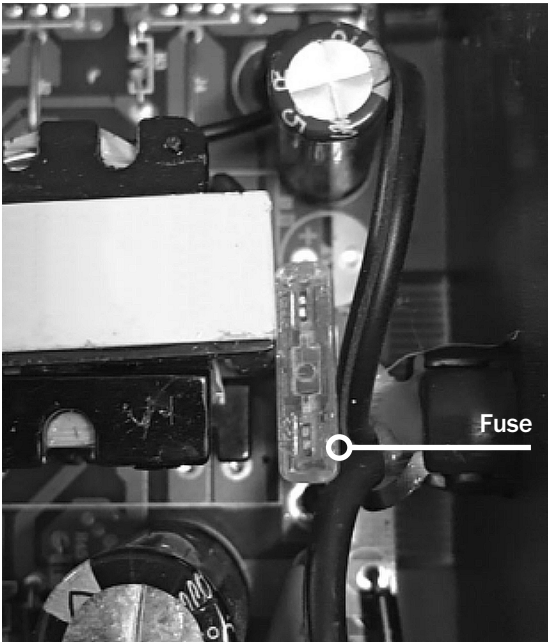



Fig. 1

If in rare circumstances, the inverter does not operate properly, you will need to replace the fuse. To replace the fuse, loosen and remove the screws located on the base of the unit, then remove the base plate to reveal inside the inverter.

Locate the fuse as shown in the image below, and replace with a blade style 35 Amp

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@streetwizeaccessories.com and provide the product name and supplier code (see Technical Specifications) along with the technical query and proof of purchase.

Technical Specifications

Product Name	Streetwize 150W Modified Sine Wave Inverter
Max Continuous Power	150W
Peak Power	300W
Input Voltage	12V (10 to 15V) DC
Output Voltage	230V AC
Output Waveform	Modified Sine Wave
USB output	5V DC 1000mA
No load current	<0.3A
Battery low shutdown	10+/-0.5V DC
Battery low alarm	11+/-0.5V DC
Thermal shutdown	60+/-5°C
Fuse	20A (x1)
Product dimensions	16.4 x 12.6 x 5.5cm



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