SWINV2000

DC to AC
Power Inverter

- 2000 Watt [Continuous Power]
- 4000 Watt Peak Power

CAUTION: THIS INVERTER IS FOR USE WITH 12v BATTERIES ONLY.

Read these instructions before operating this power inverter and retain for future reference!

Your 2000 watts power inverter converts 12-volt vehicle battery power into 230 volts of AC power. You can use the inverter in your vehicle to operate many types of appliances that use AC power such as TVs, VCRs, portable computers, power tools and lights for emergency use.

The inverter works with your vehicle's engine turned on or off (accessory mode). It provides a continuous output of up to 2000 watts.

BASIC OPERATION

- Use the right operating voltage for both input and output of the inverter.
- Powering the inverter by connecting RED from inverter terminal to + of battery terminal and connect Black from inverter terminal to – of battery terminal.
- Insert the plug of your appliances into AC socket at the front of the inverter. Turn ON the power switch that is located at the front of the inverter, and the green LED will light as indicator that the unit at work.

INSTALLATION

Where to install

The power inverter should be installed in a location that meets the following requirements:

a. Dry- Do not allow water to drip or splash onto the inverter.
b. Cool- Ambient air temperature should be between 0 ℃ to 40℃, the cooler the better.
c. Ventilation- Allow at least 2 inches of clearance around the inverter for airflow. Ensure the ventilation openings on the rear and front of the unit are not obstructed.
d. Safety- Do not install the inverter in the same compartment as batteries or in any compartment capable of storing flammable liquids such as gasoline.

CABLES

DC to AC inverters require high amperage/low voltage DC power to low amperage/high voltage AC power. To operate properly connect inverter DC input terminals direct to batteries with heavier wires available. For our 2000Watts power inverter, we need 1 RED and 1 BLACK cables of 25mm² as the connecting cables.

GROUNDINGS

The power inverter has a Lug on the rear panel. This is to connect the chassis of the power inverter to the ground. The ground terminals in the AC outlets on the front panel of the inverters are also connected to the ground lug.

The chassis ground lug must be connected to the grounding point, which will vary depending on where the power inverter is installed. In a vehicle, connect the chassis ground to the chassis of the vehicle. In a boat, connect to the boat's grounding systems. In a fixed location, connect the chassis ground lug to earth.

The neutral (common) conductor of the power inverter AC output circuit is connected to the chassis ground. Therefore, when the chassis is connected to the ground, the neutral conductor will also be grounded. This conforms to the national electrical code requirements the separately derived AC sources (such as inverters and generators) have their neutral tied to the ground in the same way that the neutral conductor from the utility line to the ground at AC breaker panel.

CAUTION

The negative DC input of the power inverter is connected to the chassis. Do not install the power inverter in a positive ground DC system. As positive ground DC system has the positive terminal of battery connected to the chassis of the vehicle or to the ground point.

QUICK HOOK UP AND TESTING

If you would like to quickly hook up the power inverter and check its performance before going ahead with your installation, please follow these guidelines:

1. Unpack and inspect the power inverter, check to see that the power switch in the OFF position.
2. Connect the cable to the power input terminals on the rear panel of power inverter. The red terminal is positive (+) and black terminal is negative (-). Connect the cable into the terminals and tighten the wing nut to clamp the wires securely.
3. Connect the cable from the negative terminal of the inverter to negative terminal of the power source. Make a secure connection.

Caution

Loosely tightened connectors result in excessive voltage drop and many cause overheated wires and melted insulation.

4. Before proceeding further, carefully check that the cable you have just connected connects from the negative terminal of inverter to negative output terminal of power source.
5. When connecting the inverter directly to your battery terminals, it is important to connect with right polarity.

Warning

You must observe a spark when you make this connection since current may flow to charge capacitors in the power inverter. Do not make this connection in the presence of flammable fumes, as explosion or fire may result.

6. Set the power inverter switch to ON position. Check the indicator in the front panel of the inverter. The Green indicator will light.
7. Set the power inverter switch to OFF position, the indicator lights may blink and the internal alarm may sound momentarily. This is normal. Plug the test load into the AC receptacle on the front panel of inverter. Leave the test load switch off.
8. Set power inverter switch to the ON position and turn the test load on, the inverter should supply power to the load. If you plan to measure the true output R.M.S. voltage of the inverter, a meter such as FLUKE 87A, BACKMAN4410 or TRIPLETT 4200 must be used.

CAUTION:

- DO NOT USE THE INVERTER IN A POSITIVELY GROUNDED VEHICLE.

RECOMMENDATION

- If the power inverter makes a beefing sound, turn OFF the power inverter and disconnect all appliances from inverter and disconnect the inverter from the power supply. The beefing sound is simply the low battery warning, which indicates that the voltage of the battery power supply is getting low. Please restart the vehicle engine before operating the power inverter.
- When you are not using the inverter, turn the power switch to OFF and disconnect the inverter from the power supply.
- Disconnect the inverter when starting the vehicle's engine.

CAUTION:

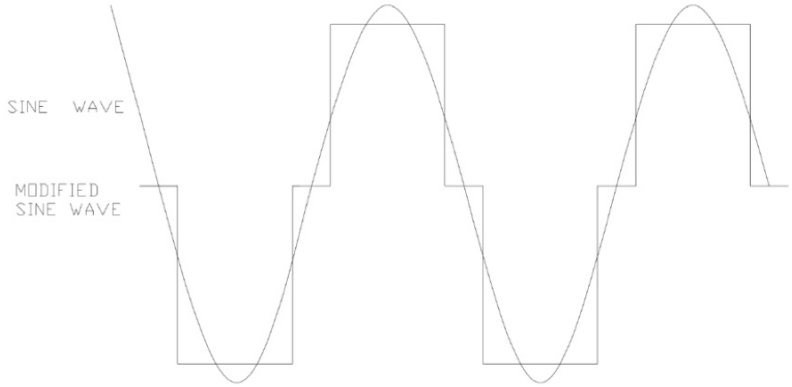
THE FOLLOWINGS OPERATION WILL DAMAGE THE UNIT:

- REVERSE POLARITY BY CONNECTING THE WIRES TO THE INCORRECT TERMINALS.
- CONNECTING THE BATTERY CHARGER TO REPLENISH BATTERY WITHOUT DISCONNECTING THE INVERTER FIRST.
- CONNECTING THE INVERTER TO POWER SOURCE GREATER THAN 15- VOLT DC.
- OPERATING THE INVERTER AND BATTERY IN OR AROUNT WATER.

THE INVERTER WILL WORK WHEN IT IS BEING CONNECTED TO SOLAR PANELS FOR CHARGING PURPOSE

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 PRECAUTION

Do not open the case of the inverter. The high voltage inside the unit is the same type of power as our electrical outlets at home.

Do not let the cord of the inverter or any appliance's cord get wet.

Do not operate the inverter in or around water. The voltage of the unit makes electrical shock hazard if operated in wet conditions.

Do not connect the AC inverter directly to another AC power source.

Keep it away from children, the inverter produces power just like your AC wall outlets at home and should be treated serious.

Allow at least 2 inch of clearance around the inverter for airflow.

If you operate the inverter in a moving vehicle, you need to secure the inverter to prevent it from shifting around while the vehicle is moving.

If there is anything wrong with the inverter, disconnect from 12V power supply.

TROUBLE SHOOTING

TROUBLE/INDICATION	POSSIBLE CAUSE	SUGGESTED REMEDY
No AC output-the Green LED light is not on	•DC input below 10 Volts	•Recharge or replace battery
No AC output --inverter is cold	Poor connect with the battery.	• Disconnect load from inverter. Reconnect the unit to the battery terminals.
Shut down after operating for a long time	•Over-temperature	•Disconnect the inverter and put aside for while to cool down the unit.

MAINTENANCE

Very little maintenance is required to keep the inverter operating properly.

DESCRIPTION

4000W Peak power- Allow you to power appliances that require a large amount of initial power to work (such as many TVs and motor-power equipments).

Low Battery Alarm- the inverter sounds an audible alarm and turns itself off if the source battery becomes too low.

Auto shutdown/reset protection--- the inverter temporarily shuts itself down to protect itself from overheating.

Overload/Short Circuit Protection--- the inverter automatically turns itself off if the connected load is too high or if it shorts.

Fuse—The inverter comes with fuse/s already installed inside.

HEAT DISPERSAL

The inverter generates heat while it is working. This is not a malfunction. However, if the inverter gets too hot while working, it will turn off by itself.

Position the inverter where air flows freely around it to allow the heat to disperse.

The inverter's thermal protection prevents it from operating when its temperature exceeds 140+/-9 °F (60+/-5 °C).

SPECIFICATION

Name	Description
Input	12V(10-15V) DC
Output	230VAC
Output frequency	50Hz
Output waveform	Modified Sine Wave
Continuous power	2000 watts
Surge power	4000 watts
With USB output	DC5V 1000mA
Best efficiency	Approx. 85%
No load current	<1A
Battery low alarm	10.5+/-0.5V DC
Battery low shutdown	10+/-0.5V DC
Thermal shutdown	140+/-9°F (60+/--5°C)
Product dimension	410x192x100mm

IMPRORTANT:ADDITIONAL SAFETY INFORMATION

This Power Inverter is NOT intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience or knowledge. Unless they are supervised or have been given instruction concerning the use of the Power Inverter by a person responsible for their safety.

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