

safety notice

Please read and remember the safety notice

In order to avoid damage to you and others, here we listed below safety notice. Please make sure to obey and refer for the following meaning of the marks

■ Disregarded or misunderstanding these marks, will lead to the following two situation

- Warn** The mark means "it may cause the person serious injury or death".
- Note** The mark means "it may cause the person injuries or other articles damage".

■ Make sure to obey the content classified, using the marks to explain as follow:

- The mark means for prohibited item
- The mark means for mandatory item

Warn

when connect with the battery will produce spark , connect the former to ensure that no flammable gas.

Battery charging, discharging will produce inflammable gases, should be well-ventilated, do not put in the place may accumulate Flammable gases

FORBID TO OPEN

Do not disassemble or remodel the inverter.

Do not disassemble or remodel the inverter. Disassemble or modify unauthorized inverter may cause a malfunction or fire, electric shock.

FORBID TO OPEN

Put the plug of load of equipment full insert into an electrical outlet.

Failure to fully insert the plug socket, could lead to electric shock and overheating, even cause a fire accident.

Do not use a damaged plug or loosed outlet

Plug the load equipment's power plug, it should first turn off the inverter.

May cause damage to electrical equipment or inverter.

Do not wet the airframe

otherwise may lead to short circuit, even the fire and electric shock

FORBID GET WET

Do not touch power plug with wet hands.

This may cause electric shock. Prohibit wet hands.

FORBID WET HAND

Do not place rod or other metal objects at vent or other openings.

This may touch on the internal components to cause electric shock or injury.

FORBIDDEN

Do not let the volatile substances or combustible materials floating into the machine. Away from the flame,

KEEP AWAY FIRE or may cause fire accident.

Do not to damage output sockets or wires. (Do not cut, remodel, close to the pyrogenic, over-distorted, reversed, wiring and pull wires, or placed outlet weight on wires or sockets.)

When using this machine, please do not bundle wires. Use the broken wire can cause electric shock, short circuit or fire.

FORBIDDEN

ATTENTION

use inverter in the common ground wire power system.

If the output connect with the ground will cause inverter to short circuit and damage. For example: used in the car, the inverter's output terminal have the voltage reflected on the car body.

FORBIDDEN

In power, do not let the load and to type in the loop.

cause the overload protection circuit will invalidate or increase the overload protection power.

FORBIDDEN

Do not install inverter worked in hot, humid environment.

Inverter leakage may cause electric shock or fire caused by accident.

FORBIDDEN

The inverters have not been tested for use in medical equipment.

FORBIDDEN

ATTENTION

- In connection cable should be used to install the appropriate cable, if the 230V output cable is too long or the wire cross-sectional area is too small, will generate a large number of cable power loss, the load performance as low power, low voltage.
- Battery and inverter connection cable are not standardized, cable is too long, cross-sectional area is too small, to connect parts of contact short, and even turn on does not work give a alarm. Meanwhile, cable must have waterproof, insulate strength to meet environment requires.

Applied to the following product:

Bulb, fluorescent light, Rice cooker, electric iron, desktops computer, laptops, graphoscope, fax machines, printers, LCD TV, TV, fans, DVD machine, cell phone chargers, refrigerators, electric drill, microwave oven, induction cooker, electric iron, washing machine, hair dryer and so on.

Not applicable products:

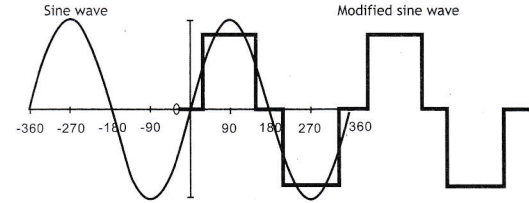
It can't be used to power amplifier, music center, subwoofer and other equipments that with appendiron core transformer power supply.

Introduction of performance environment for use

Inverter is a power equipment that can change DC (storage battery, solar cells, wind dynamo, etc.) to AC. The inverter use high-frequency power conversion technology, and use the ferrite transformer instead of the old bulky silicon steel transformer. That is why Suoer's power inverter is lighter, smaller than other similar inverter. When the inverter working in inversion mode, the output waveform is modified sine wave. It is a practical waveform that is similar to the sine waveform. This waveform is the most appropriate for the linear load and the electronic equipment that use the switching power supply, such as light bulbs, electric cooker, energy saving lights and so on. Also applies to inductive loads such as transformers and motors.

The Inverter output modify sine wave RMS voltage is 230V, it is the same as the standard of household power supply. Most AC voltmeter (digital and analog) is use the sensitive average waveform, rather than RMS. Their calibration is set in the RMS voltage, which is used to measure the pure sine wave. Use them to measure the output voltage of the inverter may have 20-30V lower than the normal. To measure the accuracy, please use the voltmeter that can measure the RMS.

Pic 1 : Comparison of modified sine wave and sine wave



Environment for use

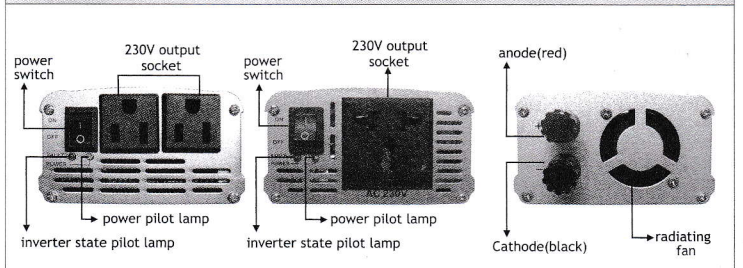
In order to get the best using results, please put the inverter on the flat surface, such as the ground, car floor, or other solid surface which can easily fixed the inverter's power cord. The working place should meet the following criteria:

- Keep dry, should not let the inverter contact the water or other liquids, keep the inverter away from moisture or water.
- Cool environment, keep the temperature between 0 Celsius degrees (no condensation) and 40 Celsius degrees. Do not put the inverter next to heat vents or other heat devices. Try to keep the inverter not be shined directly by the sunshine.
- Ventilation. No objects block around, and keep free flow of the air. Do not put anything on the inverter when it was working, because the fan is help to radiating.
- Safety. Do not use inverter near the place of flammable materials or accumulate flammable gases.
- The battery is not only to provide a 11V to 15V DC voltage also provide sufficient load operating current. Power should be a full power, good lead-acid batteries Rough estimate the current that a load need, can be estimated by the load power dividing 10.

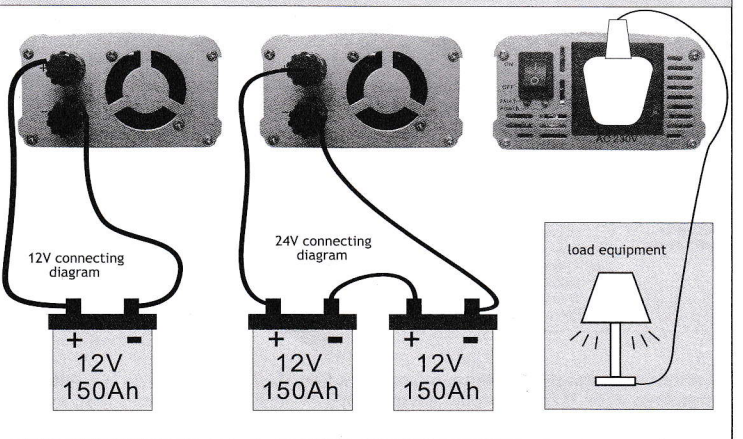
For example: an AC load power is 100W, the power supply must provide a current of 100/10 = 10A. If you need larger current, you can use a few batteries in parallel. The most important is to ensure that there is sufficient cross-sectional area of the connecting cable. This manual can not list all of the battery combinations. Battery charging and battery configuration are other areas of expertise

Installation and use method

Side panel introduction



Connecting diagram



technical parameter

Model	SDA-250A	SDA-250B	SDA-300A	SDA-300B	SDA300A-110	SDA300B-110	SDA-350A	SDA-350B	SDA-400A	SDA-400B	SDA-500A	SDA-500B
Output	Output voltage	AC230V	AC230V	AC230V	AC230V	AC110V	AC110V	AC230V	AC230V	AC230V	AC230V	AC230V
	output power	250W	250W	300W	300W	300W	300W	350W	350W	400W	400W	500W
	Peak power	500W	500W	600W	600W	600W	600W	700W	700W	800W	800W	1000W
	Frequency	50Hz	50Hz	50Hz	50Hz	60Hz	60Hz	50Hz	50Hz	50Hz	50Hz	50Hz
Input	no-load current	<0.3A	<0.2A	<0.5A	<0.3A	<0.5A	<0.3A	<0.5A	<0.3A	<0.5A	<0.3A	<0.3A
	working volt	DC12V	DC24V	DC12V	DC24V	DC12V	DC24V	DC12V	DC24V	DC12V	DC24V	DC12V
	voltage range	10.5-15V	21-30V	10.5-15V	21-30V	10.5-15V	21-30V	10.5-15V	21-30V	10.5-15V	21-30V	10.5-15V
	Efficiency	>90%	>90%	>90%	>90%	>90%	>90%	>90%	>90%	>90%	>90%	>90%
product size	14X9.5X5.5cm		16X9.5X5.5cm		16X9.5X5.5cm			16X9.5X5.5cm		16X9.5X5.5cm		
Weight	0.45Kg		0.54Kg		0.54Kg			0.54Kg		0.54Kg		

Installation connection steps: please refer to the above connection diagram

1. First of all, turn off the inverter power.
2. Use the black DC cable to connect the negative terminal of the battery and the black post head of the inverter.
3. Use the red DC cable to connect the anode terminal of the battery and the red post head of the inverter.
4. Plug the power plug of the equipment in the inverter's output socket.
5. Press the inverter's switch then it can be used.

Dismantle steps:

1. First of all, turn off the inverter power.
2. Disconnect the power plug.
3. Dismantle the red DC cable.
4. Dismantle the black DC cable.

Notes: The connecting diagram just as the basic reference, please contact with the professional technical personnel for the actual installation.

The power inverter can use of one or several battery, it's best to use the battery of 150AH or larger one.

Note: Because these processes may have to connect the battery, before connecting you must ensure that no flammable gas around.

Use the cable of Inverter equipped with (not including high-power mode cable) to connect the inverter and battery, the red cable connect to the red post head of the inverter input terminal and the positive terminal of the battery. The red cable connect to the black post head of the inverter input terminal and the positive terminal of the battery. Make sure all connections solid and reliable. Improper cable connections may result in overheating, post head and lug damage. At the same time will reduce battery time. The inverter mode dial to switch ON, if your battery is fully charged situation, POWER LED glows green below, if the red light, that is, to protect the inverter. Should find a way to solve before use it (check the battery voltage is too high or too low, the inverter output is overloaded or short circuit).

12V inverter power source can be a 12V battery, or a few 12V batteries in parallel to increase the battery power supply time.

Note: The inverter required to connect the same voltage battery, 12V inverter to 12V battery, 24V inverter to 24V battery.

In the plug all your electrical equipment patch, make sure that all equipment is turned off.

Open the inverter's inverter mode switch, LED below POWER glows green, then your device can be opened one by one, if your device does not overload, it can work normally now. If the LED light red, is overloaded. To reduce the load then re-start to work.

Emergency use: when small power inverter supply power to the old TV, the degaussing circuit requires a large current when the TV starts, it can continue to start two or three times to let TV work.

Characteristic (inverter mode)

Super series inverter are equipped with perfect protection circuits. Provide safe automatic shutdown function, including grounding protection, low voltage alarm to prevent damage to your battery. Inverter have advanced anti-jamming technology, fully functional protection circuit and soft start circuit, convenient mode of operation

Protection circuit is automatic, including thermal protection, battery protection, short circuit protection and ground protection.

Soft-start circuit has the function of gradually raise the output voltage when startup to eliminate cold start failure. And also has the function of instantaneous output voltage drop and fast recovery to reduce the load boot instantly overloaded.

Operation tips

Rated current and the actual used equipment

The nominal current or power of most of electromotion tools, household appliances and audio-visual equipment, in the range of nominal power or much lower, but when they startup it will occurred overload protection phenomenon. Inverter most likely to drive resistive loads and switching power supply load. Because the resistive load is linear load that can be work with full load. Such as electric stove, rice cooker, LCD TVs and other devices.

Some audio-visual equipment and electromotion tools need more power than the resistive load to work normally, an asynchronous motor, CRT TV, compressors, pumps and so on. They need 2 to 6 times of the operating current to start. Whether it can run a specific load depend on the subject test.

Note: continuous frequently on and off the inverter may cause damage.

technical parameter

Model	SDA-600AF	SDA-600BF	SDA-600A	SDA-600B	SDA-800A	SDA-800B	SDA-1000A	SDA-1000B	SDA-300F	SDA-350F	SDA-500F
Output	Output voltage	AC230V	AC230V	AC230V	AC230V	AC230V	AC230V	AC230V	AC230V	AC230V	AC230V
	output power	600W	600W	600W	600W	800W	800W	1000W	1000W	300W	350W
	Peak power	1200W	1200W	1200W	1200W	1600W	1600W	2000W	2000W	600W	700W
	Frequency	50Hz	50Hz	50Hz	50Hz	50Hz	50Hz	50Hz	50Hz	50Hz	50Hz
Input	no-load current	<0.6A	<0.3A	<0.6A	<0.3A	<0.6A	<0.3A	<0.6A	<0.3A	<0.1A	<0.1A
	working volt	DC12V	DC24V	DC12V	DC24V	DC12V	DC24V	DC12V	DC24V	DC48V	DC48V
	voltage range	10.5-15V	21-30V	10.5-15V	21-30V	10.5-15V	21-30V	10.5-15V	21-30V	40-60V	40-60V
	Efficiency	>90%	>90%	>90%	>90%	>90%	>90%	>90%	>90%	>90%	>90%
product size	16X9.5X5.5cm		20X9.5X5.5cm		20X9.5X5.5cm		20X9.5X5.5cm		20X9.5X5.5cm		
Weight	0.54Kg		0.77Kg		0.77Kg		0.77Kg		0.64Kg		



Warning: non-professional and technical personnel, please do not open the inverter shell.

Other Frequently Asked Questions

Frequently Asked Questions

Power tools and microwave ovens can not start	Read the parameter of the high-power equipment carefully and make sure the input power and output power that if it has enough power to run the equipment and the microwave ovens, please remember that the electro tools may needs 2 to 6 times power.
Television interference	The inverter just has little interference to the TV signal. But in some case, it will has interference, special when the TV signal is poor. Please try to deal with it in the following way: 1. Let the inverter away from the TV antenna as far as possible or lengthen the TV antenna cable. 2. Adjust the placed direction of the inverter. 3. To ensure that the signal strength the antenna supply to the TV is strong enough, and use a good shielding effect and good quality antenna cable. 4. When you watch TV, do not run the high power electrical equipment or tools. 5. There's no way to completely disappear interference of some old TV.

Attention: Although this inverter is furnished a fuse, the fuse will not burn in normal circumstances, unless there is a serious electrical fault. When the inverter occurs fault, do not try to repair by yourself, please contact a professional technical staff, because inside the machine there is high-voltage that have the danger of electric shock.