



SINE WAVE INVERTER

Please read and save this manual!

This manual is important instruction that you should follow during installation and maintenance of the inverter. Please read all instructions before operating the equipment and save this manual for future reference.

1. INTRODUCTION

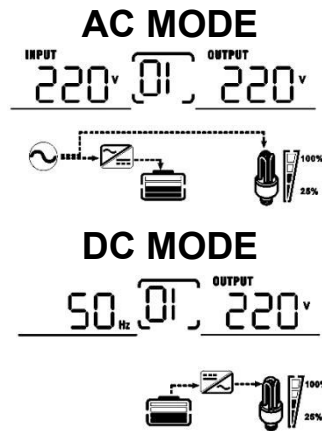
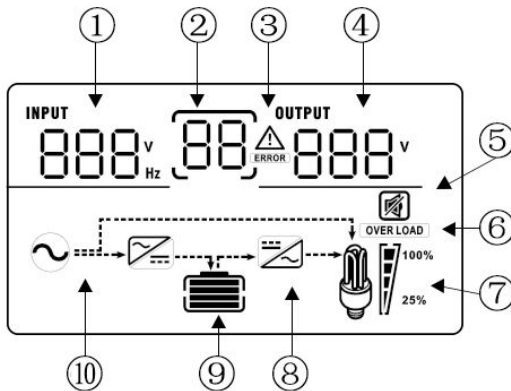
This is an advanced Line-interactive inverter which provides pure sine wave power to your equipment. Unlike the traditional off-line inverter, this series also provides low harmonic distortion and has a very short transfer time when blackouts occur. It provides an efficiency over 98% under normal power condition. Two charge modes, quick charge and trickle charge, are provided to maintain the batteries in best condition.

2. MAIN FEATURES

- *Pure sine wave output.
- *Microprocessor based design.
- *True Line-interactive structure.
- *Smart charging.
- *Real time auto-detection for battery condition.
- *Protection for overload, short circuit, & over temp.
- *Isolation between battery and AC utility.
- *Outstanding dynamic performance.
- *Speed control for cooling fan.

3. INDICATION AND CONTROL

1. LCD Display:



1. Input voltage (AC mode); Output frequency (DC mode)

2. Work mode: 01 AC first
02 power save 03 DC first

3. Fault

4. Output voltage

5. Silent Display

6. Over load Display

7. Load Percentage

8. DC MODE Status

9. Battery Capacity

10. AC MODE Status

4. IMPORTANT SAFETY INSTRUCTIONS

- *When replacing the batteries, use the same number and the same type of batteries.
- *Do not dispose of batteries in a fire; the battery may explode.
- *Do not open or mutilate the battery or batteries, released electrolyte is harmful to the skin and eyes.
- *A battery can present a risk of electric shock and high short circuit current. The following precaution should
- *Batteries will be disposed by the manufacturer or importer. Customers need to send them back with no charge for disposal.
- voltage still may be accessible through supply of battery.
- *The battery supply should be therefore disconnected in the plus and minus pole through or from the outer enclosure accessible battery fuses when maintenance or service work inside the inverter is considered.
- *The lead acid battery may cause chemical hazard.
- *The battery presents a risk of electric shock and energy hazard.

5.TROUBLE SHOOTING

Problem	Possible Causes	Action to take
Inverter no reaction while AC is connected	1. Line cord plug is loose. 2. Breaker broken. 3. Dead wall socket.	1. Check the line cord plug. 2. Replace the breaker. 3. Check wall socket with a table lamp.
Power output is normal, inverter emits continuous beep, Load level indicator flickers	Inverter is overloaded	Turn off inverter and unplug excessive loads from inverter.
Inverter does not provide expected run time.	1.Excessive loads connected at inverter's outlets 2.Battery is weak and can not provide enough	Do not operate the inverter. Leave the inverter plugged in for 10 hours. Then test it again. If inverter still can not provide expected run time, battery should be replaced.
Button on front panel doesn't work.	1.The CPU inside inverter is not running correctly. 2.Button damaged.	Unplug line cord and battery cord from the inverter to let it shut down automatically, and plug line cord and battery cord again, if button still fails, please call for service.
Inverter emits urgent beep, Battery capacity indicator flickers	Low battery	1. Charge batteries. 2. Replace batteries. 3. Call for service.
Inverter cannot DC start	1. Battery polarity wrong. 2. Battery wrong (over voltage). 3. Battery exhaustion. 4. Inverter fault.	1. Check battery and connection. 2. Check battery voltage by voltage meter. 3. Connect AC power cord to charge the battery. 4. Call for service.

6.Specification

Model		SK12-500	SK12-600	SK12-800	SK12-1000	SK12-1200	SK12-1500	SK12-2000
Rated Capacity(W)		400W	480W	640W	800W	1000W	1200W	1600W
Battery Voltage		12V/24V						
AC Input	Voltage	145V~275V / 85V~145V						
	Frequency	45Hz~65Hz						
AC Output	Voltage	110V±3% / 220V±3%(Battery mode)						
	Frequency	50/60Hz±0.5						
Output Waveform		Pure sine wave						
Total Harmonic Distortion(THD)		≤±3%						
Battery Recharge Current		10A-20A (Adjustable)						
Display		LCD						
Transfer Time		< 4ms						
Environment	Noise	≤55dB						
	Temperature	0℃~40℃						
	Humidity	10%~90%(no condense)						
Efficiency		≥85%						

Working Mode

01: Standard inverter mode, AC priority, charging battery while AC output stable

02: Economic mode, under battery mode, inverter output shut off when load less than 10%

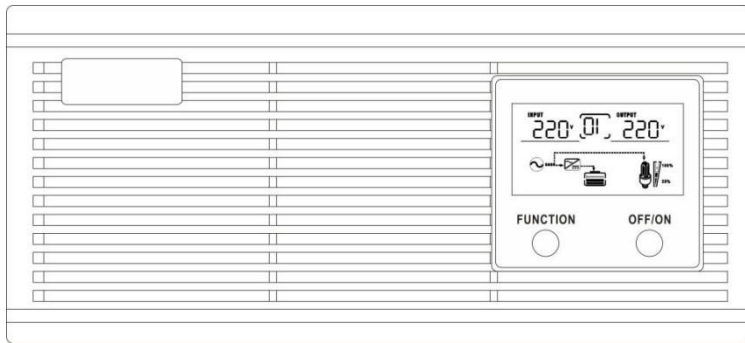
03: Solar inverter mode, solar priority, charging battery mainly by solar controller; under AC mode no charging for the battery

7. OPERATION OF INVERTER

SAVE THESE INSTRUCTION. This manual is important instructions that you should follow during installation and maintenance of the inverter and batteries. Please read all instructions before operating the equipment and save this manual for future reference.

1. Connect the RED battery cable to the anode and the BLACK one to the cathode. Battery cables are required to be connected with the anode and cathode tightly. Short circuit between the anode and cathode, as well as the polarity reverse are strictly forbidden.
2. Connect your equipment to the inverter. To ensure that your equipment will be protected during a utility failure, it is important to make sure that the maximum power needed by the equipment is not over the rated capacity of the inverter. Alarm will beep if the load is over the rated value. Meantime, if the overload is severe, the inverter will shut down immediately for protecting itself.
3. DC start: During a blackout, push the button for 4 seconds; then, the inverter will be turned on and enter into back-up mode. To turn off the power from inverter; please push the button for 4 seconds.
4. Once it's connected with normal city power, the inverter will charge the battery automatically, Please push the button on the front panel for about 4 seconds to turn on the inverter .
5. Pushing the button for 4 seconds to turn off the inverter. The inverter will keep charging the battery if the utility power is normal. Please pull out the power cord if you want to turn off the inverter completely.
6. Under back-up mode, when battery voltage is too low or too high, the inverter will emit alarm; if the voltage is too much low / high, the inverter will turn off itself automatically.

8. FRONT PANEL



9. SIDE VIEW

