

well[®]

USER MANUAL

**Line Interactive UPS
STARK 650 / 850 / 1200**

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1. Package Contents

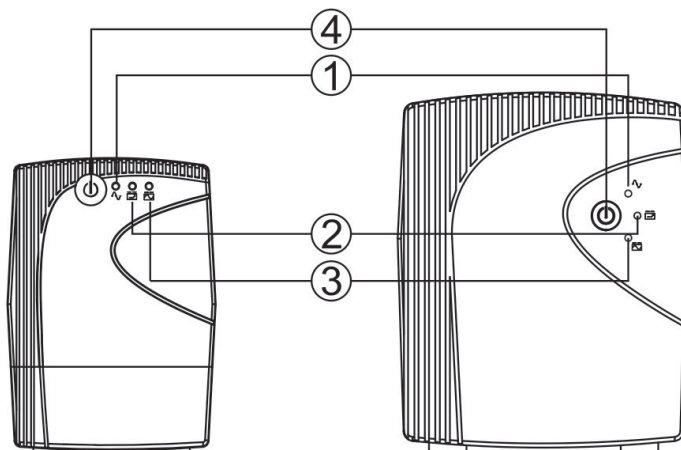
You should have received following items inside of package:

- UPS unit
- user manual
- 1 fuse tube

2. Product overview

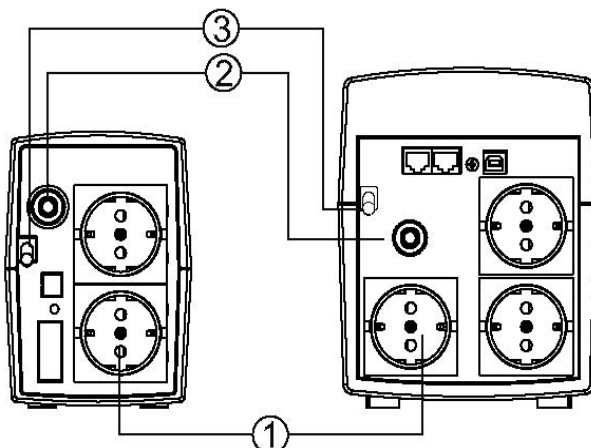
Front View:

LED type:



- 1.AC normal indicator (green)
- 2.Battery charging indicator (amber)
- 3.Back-up indicator (red)
- 4.On/Off button

Tower type back view:



- 1.Output receptacles
- 2.AC Input
- 3.AC Fuse

3. Installation & Initial Startup

NOTE: Before installation, please inspect the unit. Be sure that nothing inside the package is damaged.



Placement & Storage Conditions

Install the UPS in a protected area that is free of excessive dust and has adequate air flow. Please place the UPS away from other units at least 20 cm to avoid interference. DO NOT operate the UPS where the temperature and humidity is outside the specific limits. (Please check the specs for the limitations)



Connect to utility and charging

Plug in the AC input cord to the wall outlet. For the best results, suggest to charge the battery at least 8hours before initial use. The unit charges its battery while connecting to the utility.



Connect to the load

Plug in the loads to output receptacles on the rear panel of the UPS. Simply turn on the power switch of UPS unit, and then devices connected to the UPS will be protected by UPS unit.

CAUTION: NEVER connect a laser printer or scanner to the UPS unit. This may cause the damage of the unit.



Turn on/off the unit

Turn on the ups unit by pressing the power switch. Turn off the LED UPS unit by pressing again the power switch.

Cold start Function

When the UPS is off and there is no power utility, it's still possible to cold start the ups unit to power the loads

Alarm Function

When AC fails, and the battery supplies power, UPS will alarm once every 6 seconds and the beep stops about 40 seconds later.

When battery is nearly used up, the UPS will alarm automatically and the beep frequency is once 2 seconds.

When battery is really used up, the UPS will alarm for a very longtime and turn off automatically.

Protection

Battery over discharge protection: when the battery discharges and the UPS is in inverter mode, the battery will check and monitor the working status of the battery; when the battery voltage drops to the limited lowest voltage, the inverter will turn off automatically and protect the battery; when AC comes back, UPS will turn on automatically.

Battery over charge protection: when in AC mode, UPS automatically enter the charge mode, battery testing system will automatically detect the battery state of charge, when battery full completely, the charge will be automatically closed system to ensure that the service life of batteries, energy conservation.

Short circuit protection: When UPS in battery mode and there is shock or short-circuit, UPS will output limited currency, protecting the UPS. (When in mains mode, the UPS will be protected by input fuse firstly and then transfers to the battery mode.)

Lock phase

In AC mode, the UPS system automatically tracks AC phase and ensures that the output wave form of the inverter is the same with AC voltage wave form, in this way, it reduces the peak pulse and surge voltage and minimizes the interference and damage to the equipment.

Detective input frequency

When it is connected to AC, the frequency is automatically set to 50Hz or 60Hz in accordance with AC.

4. Important Safety Warning

(Save these instructions)

CAUTION! To prevent the risk of fire or electric shock, install in a temperature and humidity controlled indoor area free of conductive contaminants. (See the specifications for the acceptable temperature and humidity range.)

CAUTION! To reduce the risk of overheating the UPS, do not cover the UPS' cooling vents and avoid exposing the unit to direct sunlight or installing the unit near heat emitting appliances such as space heaters or furnaces.

CAUTION! Do not attach non-computer-related items, such as medical equipment, life-support equipment, microwave ovens, or vacuum cleaners to UPS.

CAUTION! Do not plug the UPS input into its own output.

CAUTION! Do not allow liquids or any foreign object to enter the UPS. Do not place beverages or any other liquid-containing vessels on or near the unit.

CAUTION! In the event of an emergency, press the OFF button and disconnect the power cord from the AC power supply to properly disable the UPS.

CAUTION! Do not attach a power strip or surge suppressor to the UPS.

CAUTION! If the UPS is with metal chassis, for safety purpose, grounding is a must during UPS installation in order to reduce leakage current below 3.5mA.

Attention hazardous through electric shock. Also with disconnection of this unit from the mains, hazardous voltage still may be accessible through supply from battery. The battery supply should be therefore disconnected in the plus and minus pole at the quick connectors of the battery when maintenance or service work inside the UPS is necessary.

CAUTION! Servicing of batteries should be performed or supervised by personnel knowledgeable of batteries and the required precautions. Keep unauthorized personnel away from batteries.

CAUTION! When replacing the batteries, use the same number and type of batteries.

CAUTION! Internal battery voltage is 12V dc. Sealed, Lead-acid, 6-cell battery.

CAUTION! 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.

CAUTION! Unplug the UPS prior to cleaning and do not use liquid or spray detergent.

CAUTION! A battery can present a risk of electric shock and high short circuit current. The following precaution should be observed before replacing batteries:

- 1) Remove watches, rings, or other metal objects.
- 2) Use tools with insulated handles.
- 3) Wear rubber gloves and boots.
- 4) Do not lay tools or metal parts on top of batteries.
- 5) Disconnect charging source prior to connecting or disconnecting batteries terminal.

5. Maintenance

Preventative Maintenance

Preventative Maintenance ensures the longer service life of UPS.

Please check the following things every month:

1. make sure the airway not blocked;
2. make sure that the UPS surface is not covered by dust;
3. Check whether the input, output and battery connecting lines are firm or not and the insulation is effective or not;
4. Make sure that the UPS is not affected with damp;
5. Let the UPS work in battery mode for about 5 minutes and in this period, if there is no other alarm from the UPS, then the UPS is normal; if there is other alarm message, please contact the local dealer for help.

Battery maintenance

The UPS contains sealed lead-acid maintenance-free battery. The bad environment, high discharging frequency, high temperature etc will dramatically reduce the service life of battery. The service life of battery will also reduce even it is not used. It is suggested to discharge the battery once every 3 months when AC is normal. When battery is near the end of its life, the battery will end in bad performance.

6. Trouble Shooting

Use the table below to solve minor problems.

Phenomenon	Probably cause	Solution
The mains is normal, but the UPS is in battery mode.	AC input fuse is broken	The fuse is placed on the UPS back panel. After disconnecting the AC plug, put out the fuse and replace it with a new one.
When AC fails, the computer doesn't work.	Battery low voltage.	Please turn on the UPS and charge the battery for at least 10 hours, when AC is normal and then turn on the UPS.
When power fails, backup time is shorten.	The UPS is overload	Remove some critical load.
	Battery voltage is too low	Charge UPS at least 8 hours.
	Battery defect. It might due to high temperature operation environment or improper operation to battery.	Replace the battery with the same type.

7. Specifications

CAPACITY		650VA	850VA	1200VA
INPUT				
Voltage		230V		
Voltage Range		± 25%		
Frequency range		50/60Hz ± 10%		
OUTPUT				
Power Factor		0.6		
Voltage Regulation		± 10%		
Transfer Time		≤ 10ms		
Waveform		Simulated sine wave		
BATTERY				
Type & Number		7.0AH*1	8.0AH*1	7.0AH*2
Charging Time		8 hours recover to 90% capacity		
PHYSICAL				
Tower	Dimension (D*W*H)	95*320*165mm		125*320*220mm
	Net Weight	5.8kg	6.8kg	10.3kg
ENVIRONMENT				
Humidity		20~90% RH @ 0~40°C (non-condensing)		
Noise Level		Less than 45dB		

Waste electrical and electronic equipment are a special waste category, collection, storage, transport, treatment and recycling are important because they can avoid environmental pollution and are harmful to health. Submitting waste electrical and electronic equipment to special collection centers makes the waste to be recycled properly and protecting the environment. Do not forget! Each electric appliance that arrives at the landfill, the field, pollutes the environment!

