

LP120 Series User's Manual



Introduction

This sinewave UPS is specially aimed for use with multi function PC and small server. It is equipped with boost & buck AVR to stabilize the wide input voltage range. It also comes with high-efficient switch-mode battery charger. This charger design minimizes power loss to save charging time. The built-in DC start function enables the UPS to be started up without a supply of AC power. The main features of this UPS are listed below:

- ✓ Pure sinewave output
- ✓ Microprocessor control guarantees high reliability
- ✓ Built-in enhanced boost & buck AVR
- ✓ Fast charger
- ✓ DC start function
- ✓ Auto restart during AC recovery
- ✓ Provide Modem and phonline surge production
- ✓ Built-in USB communication port
- ✓ Compact size, light weight

Important Safety Instructions

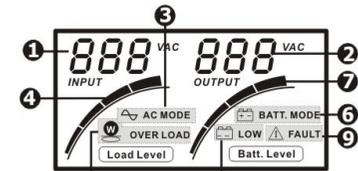
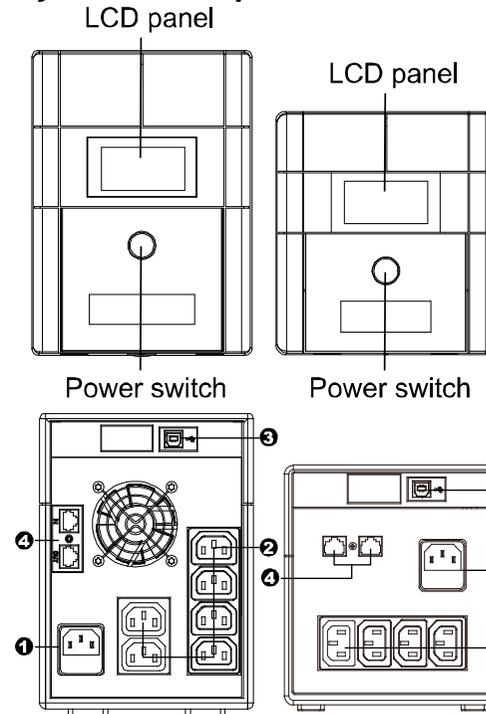
To safely operate this uninterruptible power supply system, please read and follow all instructions carefully. Please read this manual thoroughly before attempting to unpack, install, or operate UPS, and keep this manual for further reference.

- This UPS utilizes voltages that may be hazardous. Do not attempt to disassemble the unit. The unit contains no user replaceable parts. Only authorized service personnel may perform repairs.
- Internal battery voltage is 12V DC. Sealed, lead-acid, 6 cells battery.
- Connection to any other type of receptacle other than a two-pole, three-wire grounded receptacle may result in shock hazard as well as violate local electrical codes.
- 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.
- 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.
- This unit intended for installation in a controlled environment (temperature controlled, indoor area free of conductive contaminants). Avoid installing the UPS in location where there is standing or running water, or excessive humidity.
- DO NOT plug the UPS input into its own output.
- DO NOT attach a power strip or surge suppressor to the UPS.
- DO NOT attach non-computer-related items, such as medical equipment, life-support equipment, microwave ovens, or vacuum cleaners to UPS
- 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.
- Unplug the UPS prior to cleaning and do not use liquid or spray detergent.
- DO NOT dispose of batteries in a fire as they may explode.
- DO NOT open or mutilate the battery or batteries. Released electrolyte is harmful to the

skin and eyes. It may be toxic.

- A battery can present a risk of electrical shock and high short circuit current. The following precautions should be observed when working on batteries :
 - 1) Remove watches, rings, or other metal objects from the hands.
 - 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 battery terminal.
- Servicing of batteries should be performed or supervised by personnel knowledgeable of batteries and the required precautions should be taken. Keep unauthorized personnel away from batteries.
- When replacing batteries, replace with the same number of the sealed lead-acid batteries.
- The socket-outlet shall be installed near the equipment and easily accessible.
- With the installation of the UPS, it should be prevented that the sum of (UPS and) the connected (load) leakage current exceeds 3.5mA.
- This pluggable type A equipment with battery installed by the supplier is operator installable and may be operated by laymen.
- 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 connectors of the battery when maintenance or service work inside of the UPS is necessary.

System Description



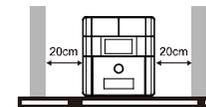
1. Input voltage
2. Output voltage
3. AC mode indicator
4. Load level
5. Overload indicator
6. Battery mode indicator
7. Battery level
8. Low battery indicator
9. Fault indicator

1. AC Input & AC fuse
2. Output receptacles
3. USB com. port
4. Modem/Phone/Network surge protection

Installation & Operation

1. Placement

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.)

2. Charging

Plug in the AC input cord to the wall outlet. For the best results, suggest charging the battery at least 4 hours before initial use. The unit charges its battery while connecting to the utility.



4 hours

3. Connection of Equipment

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

4. Connection of Network

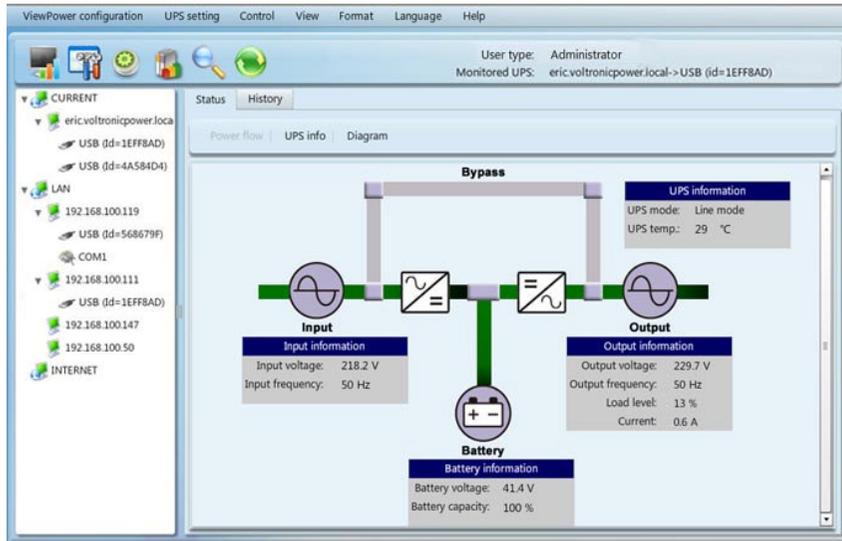
To surge protect a network connection, connect a network cable from the wall jack outlet to the IN jack of the UPS. Then connect a network cable from the OUT jack of the UPS to the network device.

5. Connection of Communication

UPS equipped with communication port allows monitoring and controlling from computer screen. Connect one end of a communication cable to your PC and the other to the com port at the rear of the UPS.

ViewPower is an UPS power management software, allowing users to control and monitor UPS straightly from PC monitor. Insert ViewPower software CD or download ViewPower software from <http://www.power-software-download.com> to your hard drive. Follow on-screen instructions to complete the software installation.

After computer is restarted, ViewPower is geared and presents as an orange plug icon located in the system tray at the right-bottom corner.



6. Turn On/Off

To turn on the UPS, press power switch lightly. To turn off the UPS, please press power switch again.

Trouble-shooting

Use the table below to solve minor problems. If any abnormal situations occur that are not listed above, please call service technician for assistance.

Problem	Possible Cause	Solutions
No words display on the front panel even though the mains is normal.	AC input is not connected well.	Check if the input power cord is firmly connected to the mains.
	AC input is connected to the UPS output.	Plug AC input power cord to AC input correctly.
Battery backup time is shorter than nominal value.	Batteries are not fully charged.	Charge the batteries at least 6 hours and then check the capacity again. If the problem still persists, please consult your dealer.
	Batteries defect.	Contact your dealer to replace the batteries.
Warning or fault icon is shown and alarm is continuously sounding.	Fan is locked or not working.	Check fans and notify your dealer.
	The UPS is overload.	Remove some loads first. Before reconnecting devices, please verify the total loads match the UPS capability specified in the spec.
Low battery icon is shown on the LCD screen.	Low battery	Charge the batteries at least 6 hours.

Specifications

Model	1000	1500	2000
CAPACITY	1000VA/ 600W	1500VA/ 900W	2000VA/ 1200W
INPUT			
Voltage	110/120 VAC or 220/230/240 VAC		
Voltage Range	81-145 VAC / 162-290 VAC		
OUTPUT			
Voltage Regulation	+/-10%		
Transfer Time	Typical 2-6 ms, 10 ms max.		
Waveform	Pure Sine Wave		
BATTERY			
Type & Number	12V/7AHx2	12V/9AHx2	12V/10AHx2
Charging Time	6 hours recover to 90% capacity		
PHYSICAL			
Dimension, DxWxH, (mm)	350x146x 160	397x146x205	
Net Weight (kgs)	9.00	11.60	12.25
Environment			
Humidity	0-90 % RH @ 0-40 °C (non-condensing)		
Noise Level	Less than 40 dB		
MANAGEMENT			
USB	Supports Windows 98 SE/ME/NT 4.x/2000/2003/XP/Vista/2008		

* Product specifications are subject to change without further notice.