

GUARD-LCD LINE-INTERACTIVE UPS



650VA to 2000VA

Uninterruptible Power System

USER MANUAL

IMPORTANT SAFETY INSTRUCTIONS

WARNING : (SAVE THESE INSTRUCTIONS) This manual contains important safety instructions. Please follow up all instructions carefully during installation. Read this manual thoroughly before attempting to unpack, install or operate.

CAUTION : To prevent the risk of fire or electric shock, please install the unit in a temperature and humidity controlled indoor area, which is free of conductive contaminants.

CAUTION : Risk of electric shock, do not remove the cover. No user serviceable parts. Refer servicing to qualified service personnel.

CAUTION : Risk of electric shock. Hazardous live parts inside this UPS can be energized from the battery supply even when the input AC power is disconnected.

CAUTION : Risk of electric shock. Battery Circuit is not isolated from AC input, hazardous voltage may exist between battery terminals and ground. Please test it before touching.

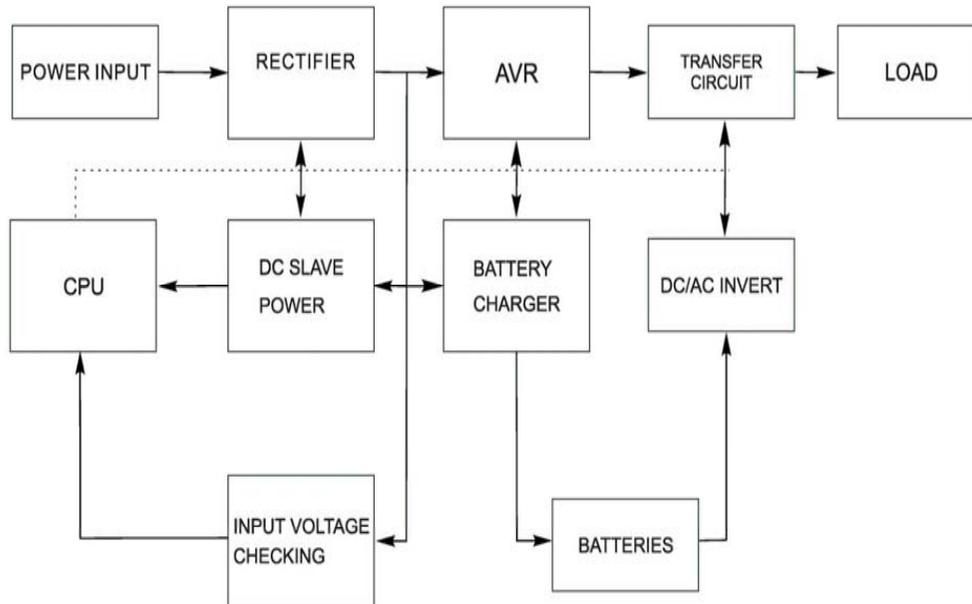
NOTICE: The UPS is designed for computer loads only.

1) INTRODUCTION

Please read and save this manual !

Thank you for selecting this uninterruptible power system (UPS). It provides you with a perfect protection for connected equipment. The manual is a guide to install and use the UPS. It includes important safety instructions for operation and correct installation of the UPS. If you should have any problems with the UPS, please refer to this manual before calling customer service.

2) GENERAL PRINCIPLE DIAGRAM



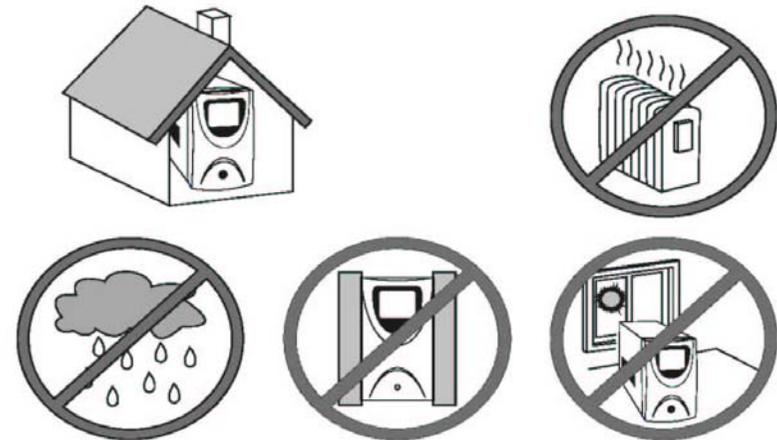
3) PRESENTATION

Line-Interactive Technology equipped with LCD display presents a future design product for reliable power supply to the powered loads. It adapt advanced microprocessor controller and Liquid Crystal Display Panel. With the audible alarms in case of low Voltage, high Voltage, or Over load, it enables the consumer to be informed about the abnormal situation.

This UPS has the following benefits;

- * Liquid Crystal Panel enables the easy display of information
- * Precise Voltage Stabilizer with sensitive AVR
- * Frequency Auto Sensing
- * Short Circuit, Overload, Surge & high/low voltage protections
- * Cold Start & Automatic recharge Functions
- * Intelligent Battery Management System
- * Audible Alarms
- * Reliable protection for Computers and Electrical Equipments
- * User Friendly Operation
- * Monitoring Software Option

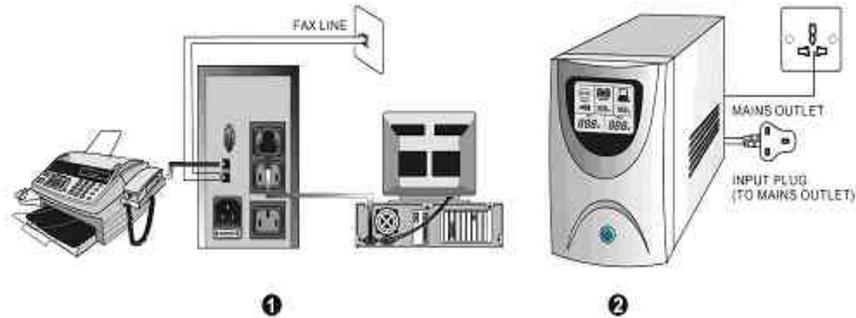
4) PLACEMENT



5) INSTALLATION & OPERATION

1) Inspect the UPS upon receipt. Notify the carrier and dealer if there is damage. The package is recyclable; save it for reuse or dispose of it properly.

2) Connect the computer or fax machine to ups as shown in the below picture, and make sure that the computer is turned off.



3) Connect the ups to the mains utility.

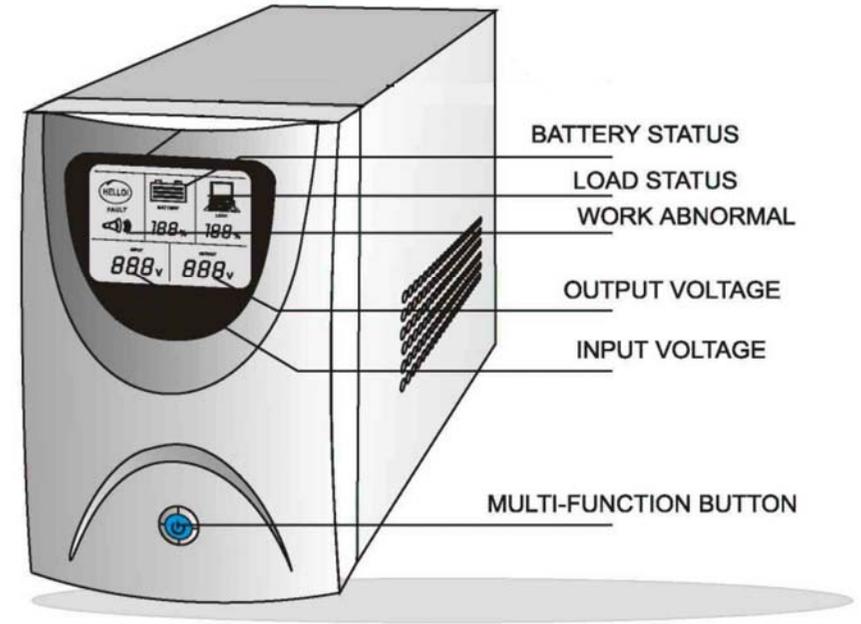
4) Switch on the ups: keep pressing the multi-functional button approximately three seconds, and then release the button when the ups creates the beep sound.

5) In order to switch off the ups, keep pressing the multi-functional button around three seconds, and then release the button when the ups create a beep sound. The ups is switched off.

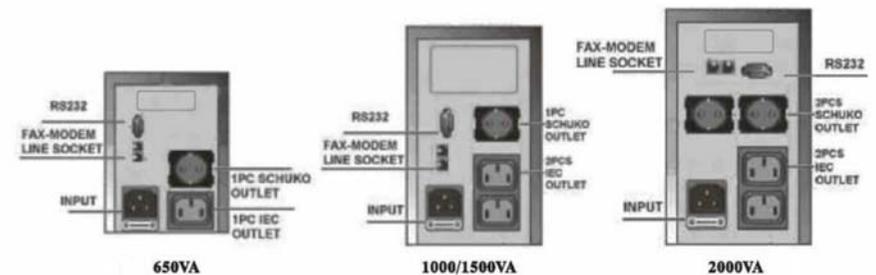
Attention: Plug the UPS into the wall outlet to charge the UPS for over 8 hours before using the UPS

Caution: Do not connect a laser printer to the outlets. These UPS's outlets provide battery power and surge protection to the equipment when utility voltage is outside acceptable limits.

6) FRONT PANEL DEFINITIONS



7) REAR PANEL DEFINITIONS



STORAGE:

Store at -15 to +30 °C (+5 to +86 °F), charge the UPS battery every six months.

Store at +30 to +45 °C (+86 to +113 °F), charge the UPS battery every three months

8) TROUBLESHOOTING

If ups is having an abnormal condition on;

- Then initially disconnect the input power line and output connections, and check whether all connections have been done properly
- Check the fuse, if fuse is blown, then replace it with the one having same current rating with the existing.

***if still can not switch on the ups then;

1. Make sure keep pressing the multi-functional button for 3 seconds, and release the button when the ups create a beep sound.
2. The voltage of the batteries may be too low due to the long time storage. Send the ups to local branch for recharging the batteries

***if still can not switch off the ups then

1. Try to keep pressing the multi-function button longer.
2. Contact with your supplier.

short backup time;

- 1 .Overload condition;

unplug the overload causing computers or other equipments. Make sure the total load capacity is not exceeding the ups capacity

2. The batteries have not been charged fully;

connect the ups to mains for fully charging the batteries

3. The performance of the batteries may not be good due to long time use;

send the ups to your supplier for replacing the batteries with the new ones.

9) TECHNICAL SPECIFICATIONS

MODEL		650	1000	1500	2000
Input	Capacity	650VA	1000VA	1500VA	2000VA
	Voltage	160 to 270V			
	Frequency	50 or 60Hz +/- 10%			
Output	Voltage (Backup mode)	Simulated sine wave like rating voltage, +/- 10%			
	Frequency (Backup Mode)	50 or 60Hz +/- 1%			
	Auto Voltage Regulation (AVR)	AVR automatically increase output voltage 20% above input voltage if -9% to-25% of nominal. AVR decrease output voltage 13% below input voltage if +9% to +25% of nominal			
	Transfer Time	4-6 milliseconds (Typical)			
Protection and Filtering	Short Circuit and Overload	Fuse and current limitation for overload & short circuit protection			
	Over/Low Voltage Protection	Switch to battery mode when the input mains is beyond the allowed limits.			
	Low Battery	Two stage protection, no battery drain after cut off			
Battery	Type	Sealed, maintenance-free lead acid batteries.			
	Typ. Recharge time	8-10 hours (to 90% of full capacity)			
Physical	Net Weight (kg)	5,3	10,5	11,5	15
	Gross Weight (kg)	6	11,3	12,3	15,8
	UPS Dimension (mm) Dx W x H	335x95x157	350x120x195		410x145x215
	Package Dimension (mm) Dx W x H	375x168x205	420x190x250		480x235x320
Function	Cold Start	Availability to switch on from batteries			
	Automatic Recharge	Auto Charge even though the ups is switched off			
	Energy Saving Mode	Switch off itself during battery operation when there is no load at the output			
Interface	RS-232	YES			
Environment	Normal Operation	0-95% humidity non-condensing, 0-40°C			
	Audible Noise	<45 dBA (1 meter from surface)			