

U P S

Uninterruptible Power System

UPS-200/250/400

USER MANUAL

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1. IMPORTANT SAFETY INSTRUCTIONS, SAVE THESE INSTRUCTIONS

- 1.1 · This manual contains important instructions for Model UPS series that should be followed during installation and maintenance of the UPS.
- Unplug the unit from the AC outlet and make certain of all switches are in the “off” position before cleaning. Do not use liquid or aerosol cleaners, use only a water dampened cloth for cleaning.
 - Do not attempt to service this product by yourself. Opening or removing covers may expose you to dangerous voltage. Return the unit to your dealer for proper handling.
 - The output receptacles may have high voltage even the unit is not connected to wall power.
 - If the fuse is opened, to reduce the risk of fire, replace only with the same type and rating of fuse.
 - Servicing of battery should be performed by personnel knowledgeable of battery and the required precautions. Keep unauthorized personnel away from battery.

1.2 SAFETY

CAUTION:

- This unit is should be installed from service personnel.
- The equipment can be operated by any individuals with no previous experience.
- The socket-outlet shall be installed near the equipment and easily accessible.
- Attention, hazardous through electric shock. Also with disconnection of this unit from the main, hazardous voltage still may be accessible through supply from battery. The battery supply should be therefore disconnected in the plus and minus pole through the from the outer enclosure accessible battery fuses when maintenance of service work inside the UPS is considered.

2. INTRODUCTION

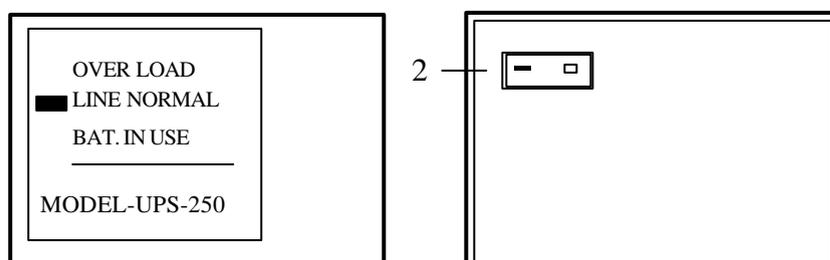
2.1 SYSTEM DESCRIPTION:

This unit is a stand by uninterruptable power supply (UPS.), it can keep computers or other critical equipments performing through power disturbances and outages.

2.2 FEATURES:

- Utilizes microprocessor based controls, minimizes the dependency on hardware, maximizes system flexibility and assures super reliability.
- Extremely compact in size, suitable for any available space.
- Unit can be TURNED ON any time with or without utility power.
Suitable for emergency applications, especially during utility power failure.
- Automatic frequency selection to mate with utility power.
- Two-Step battery charger (first with cyclic charging voltage; second with stand by charge voltage) to prolong battery life and fully charge the battery.
- With actually overload protection both in line and battery mode.

2.3 OUTLOOKING



1—

UPS-200/250/400 Front Side View	UPS-200/250/400 Rear Side View
1 BRAND NAME	2 POWER SWITCH
	3 OUTLET SOCKET
	4 INLET SOCKET

3 INSTALLATION AND OPERATION

3.1 SITE SELECTION

This unit can be installed besides the computer or equipment, do not install it in non-ventilated areas.

3.2 Unpacking

The following items are included in the carton

- User's manual.
- Power cord.
- UPS

3.3 Connecting the UPS

For UPS series: Use the power cord to connect the wall power (utility power) and inlet socket. Connecting the power cord of your computer to the UPS output receptacle.

3.4 Starting operation

- 3.4.1 Turn on the UPS by pressing switch on rear panel to "ON" position, the LED will light up, if the line voltage is absent, the LED will be slowly

flash and buzzer will be slowly beeping.

- 3.4.2 Turn on the computer, if it is over loaded, the LED and buzzer will rapidly flash and beep, you should check the power rating of the loaded equipment then remove the less critical one. Generally, the total power consumption of one set of personal computer (color monitor) will not exceed the rating of this UPS.
- 3.4.3 Unplug the input power cord to test the UPS backup function.
The LED and buzzer will be slowly flash and beeping. The computer or other equipment shall still work well, without any malfunctions or reset action.
- 3.4.4 Reapply the line power to the UPS, the UPS shall return to line mode in 2 seconds.
- 3.4.5 Keep line power applied continuously to the unit for at least 5 hours to ensure battery is fully charged.

3.5 Backup operation

If the line power is outage or input voltage is too high or too low, the UPS will transfer to battery mode. The back up time should be about 10 minutes for one set computer, if the back up time is less than 3 minutes, and the UPS have been long time charged, the battery is not good enough and better to replace with a new one.

4 MAINTENANCE

The unit is designed for years of trouble-free operation, so only a little maintenance is required.

A few helpful hints:

- Periodically vacuum dust from ventilation openings.
- Occasionally wipe exterior with a damp cloth.

5 TROUBLESHOOTING

If the UPS fails to operate properly, please check the following TROUBLESHOOTING CHART. If the unit is to be returned for service, please note the following information and pack it in the original carton .

- a. model number, serial number.
- b. Date of purchase.
- c. Full description of problem.

TRUBLE SHOOGING CHART

PROBLEM	POSSIBLE CAUSE	ACTION TO TAKE
UPS not on LED not light	main switch not on	turn on the main switch
	battery failure battery voltage less than 10V	replace or recharge the battery call for service
	PC board failure	replace the PC board, call for service
UPS always at battery mode	power cord lose	replug the power cord.
	AC fuse burn out	replace the AC fuse
	Line voltage too high, too low or black out	normal condition
	PC board failure	replace PC board, call for service
Back up time too short	battery not fully charged	recharge the UPS at least 4 hr.
	PCB failure	replace the PC board, call for service
LED rapidly blinking Buzzer rapidly beeping	over load	remove the least critical load

6 BATTERY REPLACEMENT

Your battery should run any where from 3-5 years before eve needing to be replaced.

Please follow the instructions below for easy battery replacement.

- 1) Unplug unit from AC power source and disconnect all connected equipment.
- 2) Disconnect AC power cord from unit.
- 3) Turn unit upside down and using a phillips screws driver, unscrew the 4 screws holding the top of the unit to bottom. Put screws in a safe place for reconnection.
- 4) Holding the top together firmly with the bottom, turn the entire unit right side up.
- 5) Carefully lift top cover off and place to the side. The connecting wires and electronics will be exposed. Be careful not to touch any inner components when changing the battery.
- 6) Remove the 2 connecting wires from the battery.
- 7) You can now easily remove the battery from the unit

CAUTION: Do not dispose of battery in fire.

CAUTION: Do not attempt to open the battery.

CAUTION: The following precautions should be taken when replacing the battery

- Remove watches, rings, etc
 - Use tools with insulated handles
- 8) Place your new battery in the same position/direction and reconnect the wires red wire-position(+) and black wire negative(-)
 - 9) Please follow steps 5.4 and 3 (in that order) to reconnect the entire unit.
 - 10) Please follow manual instructions in order to properly reconnect your equipment.

7 STORAGE

7.1 Storage conditions

Store the UPS covered and upright in a cool, dry location, with its battery fully

charged. Before storing, charge the UPS for at least 4 hours. Remove any accessories in the accessory slot and disconnect any cables connected to the computer interface port to avoid unnecessary draining the battery.

7.2 Extended storage

During extended storage in environments where the ambient temperature is –15 to +30 (+5 to +86),charge the UPS' s battery every 6 months.

During extended storage in environments where the ambient temperature is +30 to +48 (+86 to +118.4), charge the UPS' s battery every 3 months.

8. SPECIFICATIONS

MODEL		UPS200	UPS-250	UPS-400
INPUT	Capacity	200VA	250VA	400VA
	Voltage	100V,115V,230V		
	Frequency	50 or 60 Hz +/-5% (auto sensing)		
OUTPUT	Voltage (on battery)	Simulated sine wave at Line Input +/-5%		

	Frequency (on battery)	50 or 60 Hz +/-2%		
	Transfer Time	2/4 milliseconds, including detection time		
PROTECTION and FILTERING	Spike Protection	320 joules, 2ms		
	Overload Protection	UPS automatic shutdown if overload exceeds 110% of nominal at 60 seconds and 130% at 3 seconds.		
	Unit Input	Fuse for overload & short circuit protection		
	Short Circuit	UPS output cut off immediately or input fuse protection		
BATTERY	Type	Sealed, maintenance-free lead acid		
	Typical Recharge Time	4 hours (to 90% of full capacity)		
	Back up Time	3-30 minutes (depending on computer load)		
PHYSICAL	Net Weight kg (lbs)	5.0 (11)	5.5 (12)	6.0 (13)
	Shipping Weight kg (lbs)	5.5 (12)	6.0 (13)	6.5 (14)
	Dimension (mm) WxDxH	97 x 260 x 135		
	Input Inlet	IEC 320 power inlet		
INDICATOR	Line normal	Steady ON of green LED		
	Battery in use	Slow blinking of green LED (about 0.47Hz)		
	Battery low	Fast blinking of green LED (about 1.825 Hz)		
	Over low	Very rapid blinking of green LED (about 3.75 Hz) between 110% to 130% load.		
ALARM	Battery in use	Slow beeping sound (about 0.74 Hz) 1 minute		
	Battery low	Medium beeping sound (about 1.825Hz)		
	Over load	Rapid beeping sound (about 3.75 Hz) within 110% to 130% load.		
CONFORMANCE	Safety	cUL, TUV, CE, meet FCC		
	Surge	Meet IEEE 587 standard		
ENVIRONMENT	Ambient operation	3,500 meters max. elevation, 0-95% humidity non-condensing 0-48 deg C		
	Audible noise	<40 dBA (1 meter from surface)		
	Storage condition	15000 meters max. elevation		

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