



# Model UPSA6-850

## Standby UPS

User & Installation Manual

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# Installation and Operation

## Inspection

The following items are inside the box:

- UPS unit

Remove the UPS from its package and inspect it for damage that may have occurred during shipping. If any damage is discovered, re-pack the unit and return it to the place of purchase.

## Connect to Utility Power

Connect AC power cord to utility power. Then, the UPS will start to charge inside battery. For best result, charge the battery for 6 hours prior to initial use.

## Plug in Equipment

Battery Backup Outlets (4 or 5)

Connect computer and monitor to the “Battery Backup” outlets. These outlets provide battery backup, EMI filtering, line conditioning, and surge protection. Battery power is automatically provided in case of power failure.

Surge-Protected Outlets (4 or 5)

Connect a printer, fax machine, or scanner to the “Surge-protected” outlets. These outlets do not provide power during power failure.

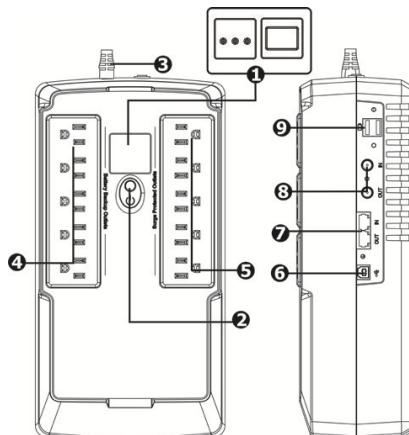
CAUTION: NEVER connect a laser printer or scanner to the battery backup sockets of UPS. The equipment may draw significantly power to overload the UPS.

## Turn On/Off the UPS

To turn on the UPS unit, press the power switch lightly. Then, the LED or LCD will light up. To turn off the UPS unit, press the power switch again. Then, display will shut off.

## Product Overview

1. LCD display or LED indicators (Please check LED or LCD section for the details)
2. Power switch
3. AC input
4. Battery backup outlets
5. Surge-protected outlets
6. USB port (option)
7. Modem/phone/network surge protection (option)
8. Coax surge protection (option)
9. USB charger port (option)

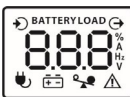
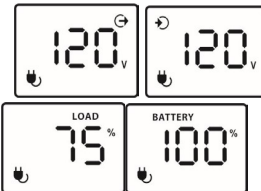
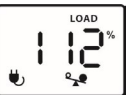
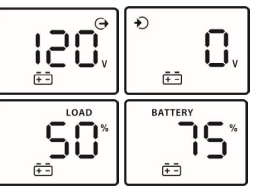

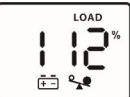


## LED Indicators

LED	Alarm	UPS Status
● Green	Off	The mains is normal and UPS is operated normally.
*Yellow	Sounding every ten seconds	Power failure occurs and UPS is on battery mode.
*Yellow	Sounding every second	Low battery
o Green	Output voltage	UPS is off
● Red	Continuously sounding	UPS fault




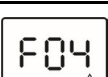
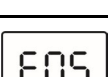
● LED on   o LED Off   \* LED flashing

## Operation Display

UPS Mode	LCD	Description
UPS Power on		When UPS is powered on, it will enter this mode for 4 seconds.
AC Mode		LCD information will be displayed in the following order when LCD is touched. <ol style="list-style-type: none"> <li>Output voltage</li> <li>Input voltage</li> <li>Load level</li> <li>Battery capacity</li> </ol>
Overload in AC mode	 icon will flash.	When overload occurs, alarm will beep every 0.5 second.
Battery Mode	 When battery level is low,  icon will flash.	Alarm will beep every 10 seconds and LCD information will be displayed in the following order when LCD is touched. <ol style="list-style-type: none"> <li>Output voltage</li> <li>Input voltage</li> <li>Load level</li> <li>Battery capacity</li> </ol>
Overload in battery mode	 icon will flash.	When overload occurs, alarm will beep every 0.5 second.

NOTE: If backlight shuts off, you may activate it by touching the screen.

## Fault Code Table:

Fault condition	LCD	Solutions
Output short circuited		Disconnect short-circuited loads and restart the UPS again.
Overload fault		Disconnect all output loads and restart the UPS again.
Overcharge		Call for service immediately.
Bad or severely discharged battery		Please replace the battery.
High output voltage fault		Call for service immediately.

If fault alarm occurs, please call for service immediately.

**WARNING:** Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. **Turn UPS ON/ OFF**

To turn the UPS unit on, press the Power switch on the front of the UPS. To turn the UPS unit off, press the Power switch on the front of the unit again.

## SAVE THESE INSTRUCTIONS - This manual contains important instructions that should be followed during installation and maintenance of the UPS and batteries.

- This UPS utilizes voltage that may be hazardous. Do not attempt to disassemble the unit. The unit contains no user replaceable parts. Only factory service personnel may perform repairs.
- This pluggable type A equipment with battery already installed by the supplier is operator installable and may be operated by laymen.
- The mains socket outlet that supplies the UPS shall be installed near the UPS and shall be easily accessible.
- During the installation of this equipment it should be assured that the sum of the leakage currents of the UPS and the connected loads does not exceed 3.5mA.
- 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 any 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 locations 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.

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- Do not attach non-computer-related items, such as medical equipment, life-support equipment, microwave ovens, or vacuum cleaners to UPS.
  - 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 batteries terminal.
    - 6) Remove battery grounds during installation and maintenance to reduce likelihood of shock.
  - Unplug the UPS prior to cleaning and do not use liquid or spray detergent.
  - Internal battery voltage is 12VDC. Sealed, lead-acid, 6-cell battery.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.
- Do not dispose of batteries in a fire as they may explode.
- Servicing of batteries should be performed or supervised by personnel knowledgeable of batteries and the required precautions. Keep unauthorized personnel away from batteries.
- When replacing batteries, replace with the same number and type of sealed lead-acid battery.
- Do not open or mutilate the battery or batteries. Release electrolyte is harmful to the skin and eyes. It may be toxic.
- Attention, hazardous through electric shock. Also with dis-connection 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 the UPS is necessary.
- 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 heater or furnaces.

## Troubleshooting

Condition	Possible Causes	Alarm
Nothing is displayed on the panel.	The UPS is not on.	Press the power switch again to turn on the UPS.
	Battery voltage is too low.	Charge the battery at least 6 hours.
	Battery fault.	Replace the battery.
The UPS always on battery mode	Power cord loose.	Re-plug the power cord.
The UPS continuously beeps.	Please check the fault code for the details.	Please check the fault code for the details.
Backup time too short	The UPS is overloaded	Remove some of the load from the output of the UPS
	Battery voltage is too low	Charge the UPS at least 8 hours
	Battery defect	Replace the battery with the same type of battery

## Specifications

MODEL NUMBER		UPSA6-850
CAPACITY	Power rating	850VA (500W)
INPUT	Voltage	110/120VAC
	Frequency	50/60Hz auto-sensing
OUTPUT	Voltage	110/120VAC
	Waveform	Simulated sine wave
	Frequency	50Hz ± 1Hz or 60Hz
	Transfer time	2–6ms
BATTERY	Battery type	Sealed, maintenance free lead acid
	Battery quantity and size	(1) 12V 5AH
	Recharge	8 hours to 90% capacity
PHYSICAL	UPS dimensions (W x D x H)	6.2 x 12 x 3.7 in
	UPS weight	6.4 lbs
	Line cord	6 ft, 5-15P
	Receptacles	(10) NEMA 5-15R receptacles (5 battery back up + 5 surge only)
	USB charging port	(2) USB A-type 5V, 2.4A
ENVIRONMENT	Operating temperature	32–104°F (0–40°C)
	Humidity	0–90%
	Altitude	11,500 ft above sea level
INDICATORS & ALARMS	Display	Touch LCD
	Data Line Protection	RJ-11 and RJ45 (10/100)
APPROVALS		UL, cUL, RoHS, TAA
WARRANTY		3 years electronics, 3 years battery (USA and Canada)
COMMUNICATIONS INTERFACE		USB and Cable
INCLUDED IN BOX		USB Cable

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## Obtaining Service

If the UPS requires Service:

1. Use the TROUBLESHOOTING section in this manual to eliminate obvious causes.
2. Verify there are no circuit breakers tripped.
3. Call your dealer for assistance. If you cannot reach your dealer, or if they cannot resolve the problem, call Lowell Manufacturing Company at (800) 325-9660. Technical support inquiries can also be made by email to [sales@lowellmfg.com](mailto:sales@lowellmfg.com). Please have the following information available BEFORE calling:
  - Your name and address.
  - The serial number of the unit.
  - Where and when the unit was purchased.
  - All of the model information about your UPS.
  - Any information on the failure, including LED's that may or may not be illuminated.
  - A description of the protected equipment, including model numbers if possible.
  - A representative will ask you for the above information and, if possible, help solve your problem over the phone. In the event that the unit requires factory service, the representative will issue you a Return Material Authorization number (RMA).

If you are returning the UPS for service, please follow these procedures:

1. Pack the UPS in its original packaging. If the original packaging is no longer available, ask the Lowell representative about obtaining a replacement set of packaging material. It is important to pack the UPS properly in order to avoid damage in transit. Never use Styrofoam beads for a packing material.
2. Include a letter with your name, address, daytime phone number, RMA number, a copy of your original sales receipt, and a brief description of the problem.
3. Mark the RMA number on the outside of all packages. Lowell Manufacturing cannot accept any package without the RMA number marked on the outside of the boxes.
4. Return the UPS by insured, prepaid carrier to the address provided by the Lowell representative.
5. Refer to the Warranty statements in this manual for additional details on what is covered.

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## Limited Warranty

Lowell Manufacturing Company warrants Lowell UPS equipment, when properly applied and operated within specified conditions, against faulty materials or workmanship for a period of **three years for UPSA6-850 products** from the date of purchase. Lowell Manufacturing Company warrants **internal batteries for a period of three years** from the date of purchase. For equipment sites within the United States and Canada, this warranty covers repair or replacement, at the sole discretion of Lowell Manufacturing Company. The customer is responsible for the costs of shipping the defective product to Lowell Manufacturing Company. Lowell Manufacturing Company will pay for ground shipment of the repaired or replacement product. This warranty applies only to the original purchaser.

If equipment provided by Lowell Manufacturing Company is found to be **Dead-on-Arrival (DOA)**, Lowell Manufacturing Company will be responsible for the costs of shipping product to and returning equipment from the customer in a timely manner as agreed to with the customer, once the customer has requested and received a **Return Material Authorization (RMA)** number. DOA equipment is defined as equipment that does not properly function according to user documentation when initially received and connected in conjunction with proper procedures as shown in the user documentation or via support provided by Lowell Manufacturing Company personnel or authorized agents.

This warranty shall be void if (a) the equipment is repaired or modified by anyone other than Lowell Manufacturing Company or a Lowell Manufacturing Company approved third party; (b) the equipment is damaged by the customer, is improperly used or stored, is subjected to an adverse operating environment, or is operated outside the limits of its electrical specifications; or (c) the equipment has been used or stored in a manner contrary to the equipment's operating manual, intended use or other written instructions. Any technical advice furnished by Lowell Manufacturing Company or a Lowell Manufacturing Company authorized representative before or after delivery with regard to the use or application of Lowell Manufacturing Company equipment is furnished on the basis that it represents Lowell Manufacturing Company's best judgment under the situation and circumstances, but it is used at the recipient's sole risk.

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