

LIEBERT® PSA itON-SOHO 650/850/1000VA, 230V



User Manual

IMPORTANT SAFETY INSTRUCTIONS

Save these instructions:

This manual contains important instructions that should be followed during installation and maintenance of the UPS.

- Intended for installation in a controlled environment.
- Maximum ambient temperature 104°F (40°C)

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's 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.

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

CAUTION! Internal battery voltage is 12VDC. Sealed, lead-acid, 6-cell battery.

CAUTION! Electric shock hazard. When UPS is disconnected from the mains source, hazardous voltage may still be available through the batteries. Disconnect all battery connectors from battery terminals prior to doing any maintenance or service works.

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! 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.

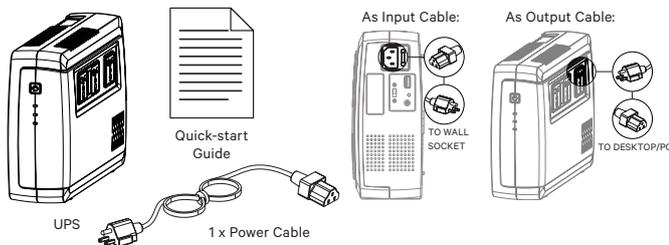
CAUTION! A battery can present a risk of electric shock and high short circuit current. The following precaution should be observed before replacing batteries:

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.

SETUP

1. Inspect the Package

Inspect the package and the UPS upon receipt. Notify the carrier and dealer of visible damage.



2. Decide where to place the UPS

The UPS must be placed indoors, protected from water, direct sunlight and excessive heat. Provide at least 7.8" (20 cm) of clearance on all sides of the unit for proper ventilation.



3. Charge the UPS battery before use

The UPS battery is fully charged before shipping. However, some charge may be lost during shipping and the battery should be recharged prior to use.

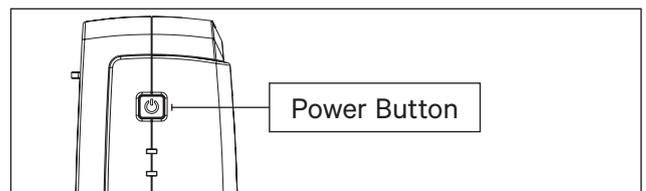
- Plug in the AC input cord of the UPS to the wall outlet. It is recommended to charge the battery at least 4 hours before initial use. The unit charges its battery while connected to the utility.



4. Start the UPS

After the battery is fully charged:

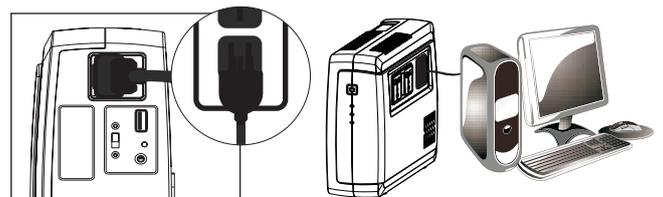
- Turn on the UPS by pressing the On/Off button. (see figure below) LED1 should be illuminated (green), indicating the UPS is operating in Normal Mode.



5. Connect the loads

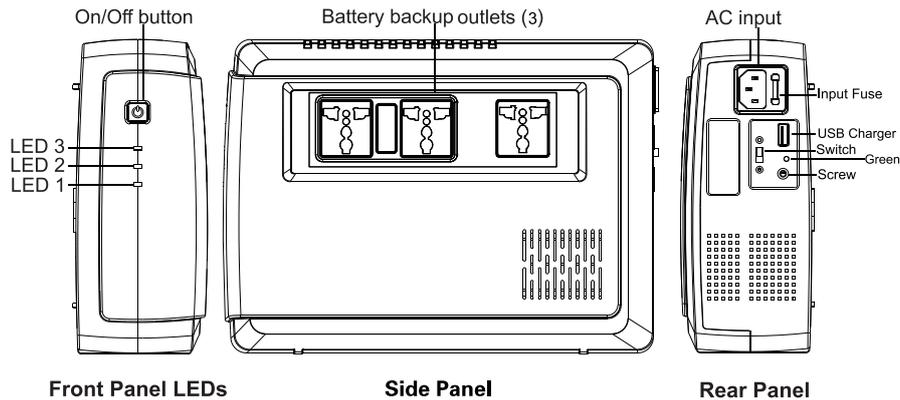
The UPS has dedicated backup outlets that provide power when the UPS operates on battery. (see *UPS Controls and Connections on next page*)

- Plug the loads into the battery backup outlets on the side panel of the UPS

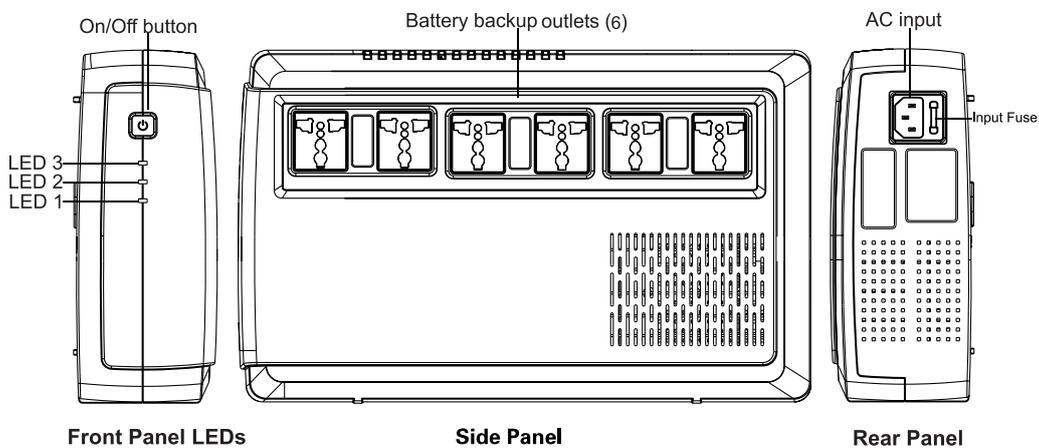


CAUTION: Never connect a laser printer or scanner to the UPS unit. This may damage the unit.

UPS CONTROLS AND CONNECTIONS



PSA650-SOHO / PSA850-SOHO



PSA1000-SOHO

UPS STATUS, ALARM CONDITIONS AND ALERTS

Condition	LED	Color	Solid/Flashing	Audible Alarm
Normal Mode	LED 1	Green	Solid	(none)
Battery Mode	LED 2	Yellow	Flashes	Every 10 seconds
Battery Low	LED 2 / LED 3	Yellow/Red	Flashes/Solid	Every 1 second
Overload at Normal Mode	LED 1	Green	Solid	Every 0.5 second
Overload at Battery Mode	LED 2 / LED 3	Yellow/Red	Flashes/Solid	UPS shuts down immediately
Fault	LED 3	Red	Solid	Continuous until UPS shuts down

TROUBLESHOOTING

If the UPS malfunctions during operation, check the following chart for proper adjustment. For further assistance, please contact your local Vertiv representative

Problem	Possible Causes	Solutions
Utility is normal, but LED 1 is not illuminated	<ul style="list-style-type: none"> Battery capacity may be low. The UPS battery reached end of life. The UPS may not be turned on. 	<ul style="list-style-type: none"> Recharge the UPS at least 6 hours Replace the battery with the same type of battery. Press the ON/OFF button to turn on the UPS.
Alarm buzzer beeps continuously although utility power is normal	<ul style="list-style-type: none"> The UPS may be overloaded 	<ul style="list-style-type: none"> Disconnect some equipment from the UPS
UPS does not provide expected backup time	<ul style="list-style-type: none"> The UPS may be overloaded. Battery voltage may be low. The UPS battery reached end of life. 	<ul style="list-style-type: none"> Disconnect some equipment from the UPS Recharge the UPS at least 6 hours Replace the battery with the same type of battery.
Utility is normal, but LED 1 flashes	<ul style="list-style-type: none"> The power cord may not be connected properly 	<ul style="list-style-type: none"> Connect the power cord securely into a wall outlet

Technical Specifications

Model Number	PSA650-SOHO		PSA850-SOHO	PSA1000-SOHO
Capacity (VA/W)	650VA/390W		850VA/510W	1000VA/600W
Input				
Voltage range	162 – 290VAC, single-phase			
Frequency range	50Hz/60Hz automatic identification			
Output				
Voltage tolerance (Batt. Mode)	Simulated sine wave at nominal voltage ±10%			
Frequency range (Batt. Mode)	50Hz/60Hz automatic identification			
Transfer time	Typical 2–6 ms, 10ms max.			
Battery				
Battery type & Number	12V/7Ah × 1		12V/9AH × 1	
Typical recharge time	4 hours to 90%		6-8 hours recover to 90% capacity (About 1A charging current at Normal Mode)	
Configuration	Battery	1×2.0kg, 7Ah	1×2.4kg, 9Ah	1×2.7kg, 9Ah
	Sockets	3×Universal		6×Universal
	USB Charger	*1	*1	*0
Runtime:		Time (in minutes)		
Load%	25%	15m	16m	18m
	50%	4m	3m	4m
System Features				
Indicators	AC Mode: Solid green led lighting; Battery Mode: Solid yellow led flash; Fault Solid: Red led lighting			
Protection	Discharge, Overload and overcharge protection			
Alarm	1.) Battery Mode: Sounding every 10 seconds; 2.) Low battery: Sounding every 1 second; 3.) Overload: Sounding every 0.5 second; 4.) Fault: Continuously sounding			
Operating temperature	0 ~ 40°C			
Humidity range	0 ~ 90% (non-condensing)		0 ~ 95% (non-condensing)	
Noise level	Less than 40dB (1 meter from surface)			
Fuse Protection	YES			
USB Charging slot	YES (5.0V/1.0A)			NO
Physical				
Dimension D × W × H (mm)	85 × 272 × 201		85 × 272 × 201	87 × 346 × 208
Gross weight (kg)	5 kg		5.4 kg	6.6 kg
Net weight (kg)	4.4 kg		4.9 kg	6.0 kg