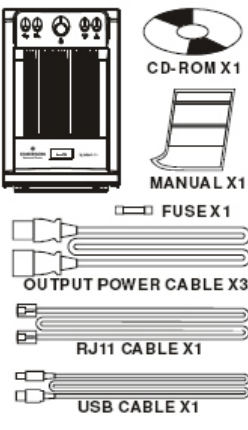

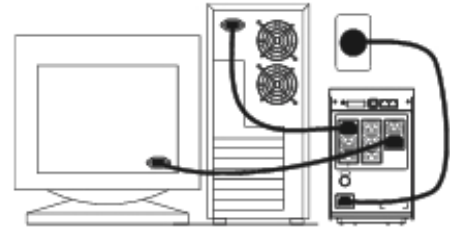
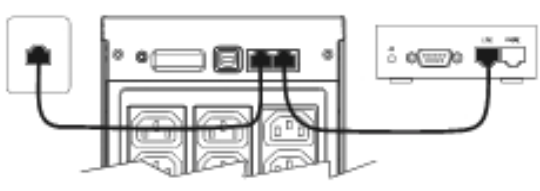
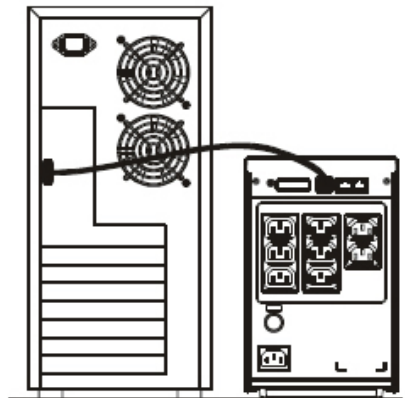


# Liebert PSA 1500VA User Manual

## IMPORTANT SAFETY INSTRUCTIONS

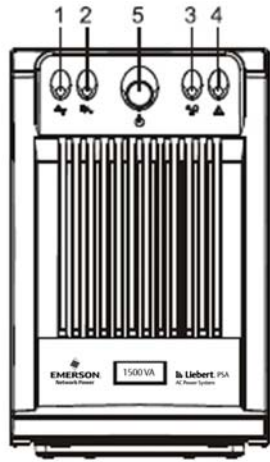
- Do not connect appliances or equipment (e.g. laser printer) to the output socket, which may overload the UPS system.
- Connect the UPS system only to an earthed shockproof socket outlet that meets local electrical safety guideline. This avoids unwanted shock hazards.
- The building wiring socket outlet (shockproof socket outlet) must be easily accessible and close to the UPS system.
- Please use only VDE-tested, CE-marked cables for UPS input mains cable & output cables connected to UPS loads.
- The Liebert PSA has been designed for Commercial/Industrial use only, and is not recommended for use in life support applications.
- In the event of Emergency press 'OFF' button and disconnect the power cord from AC Power supply to properly disable the UPS
- Do not plug UPS input to its own output. Do not attach power-strip or surge suppressors to the UPS
- The UPS must be serviced by an authorized Emerson Network Power representative. Failure to do so could result in personnel safety risk, equipment malfunction and invalidation of warranty.
- For tech support, email [upstech@liebert.com](mailto:upstech@liebert.com)

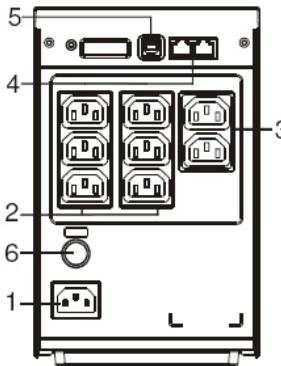
SETUP		
<p style="text-align: center;"><b>Inspection</b></p> <p>Inspect the UPS upon receipt. Notify the carrier and dealer of visible damage. The package is recyclable; save it for reuse or dispose of it properly.</p> <div style="text-align: center;">  </div>	<p style="text-align: center;"><b>Placement</b></p> <div style="text-align: center;">  </div>	<p style="text-align: center;"><b>Connect the loads</b></p> <ol style="list-style-type: none"> <li>1. Use your computer's power cord to connect UPS input to the utility supply.</li> <li>2. Use output cables (supplied) to plug the loads into the output sockets on the rear of the UPS.</li> </ol> <p>Caution: Do not connect a laser printer to UPS</p> <div style="text-align: center;">  </div>
<p style="text-align: center;"><b>Connect telephone / Network Surge protection</b></p> <ol style="list-style-type: none"> <li>1. Connect a single line telephone or network cable into the RJ-45/RJ-11 network/telephone surge protection "IN" jack on the rear of the UPS.</li> <li>2. Connect a telephone cable (supplied) or network cable from "OUT" jack on the rear of the UPS to a fax/modem or network port.</li> </ol> <div style="text-align: center;">  </div>	<p style="text-align: center;"><b>Connect Computer Interface Port</b></p> <ol style="list-style-type: none"> <li>1. Connect the USB cable (supplied) from USB port on the rear of the UPS to your computer.</li> <li>2. See software document for installation instruction.</li> </ol> <div style="text-align: center;">  </div>	<p style="text-align: center;"><b>Operation Test</b></p> <ol style="list-style-type: none"> <li>1. Push the main switch and check if the green line (AC) LED is on.</li> <li>2. Pull off the input power cord of the UPS to simulate utility failure.</li> <li>3. Check if the inverter (AC) LED is flashing every 3 seconds.</li> <li>4. Check if alarm buzzer is beeping.</li> <li>5. Check if protected equipment is getting power backup from the UPS.</li> <li>6. Connect back the input power cord of the UPS to finish test.</li> </ol> <p>Important notice:</p> <ol style="list-style-type: none"> <li>1. Plug the UPS into utility supply to charge the battery for at least 8 hours before using the UPS.</li> <li>2. Charge the UPS battery every six months if stored at -15 to +30 °C and every three months if stored at +30 to +45 °C</li> </ol>

### FRONT PANEL EXPLANATIONS

1. **Line LED (AC) :**  
Green LED is continuously on when Utility is normal.  
Green LED flashes every 0.5 seconds when the UPS is in Battery charging mode.
  2. **Inverter LED (AC) :**  
Yellow LED flashes and buzzer alarms simultaneously every 3 seconds when there is a Utility failure.  
Yellow LED flashes every 0.5 seconds and buzzer alarms every 0.5 seconds when UPS is in battery low condition.
  3. **Overload LED (AC) :**  
Red LED remains continuously on buzzer alarm when the UPS is in overload condition.
  4. **Fault LED (AC) :**  
Red LED remains continuously on when the UPS is in fault condition.
  5. **Main Switch :**
    - a. Starts and stops the UPS when Utility is normal.
    - b. Enables "DC-Start" Function when Utility has failed. (To enable "DC Start" properly, it is recommended to connect <80% output load to the UPS)

P.S. Ensure the computer connected to the UPS is switched on before enabling the "DC-Start" function. It is not recommended to turn on other computers or peripherals after "DC-Start" function has been activated.

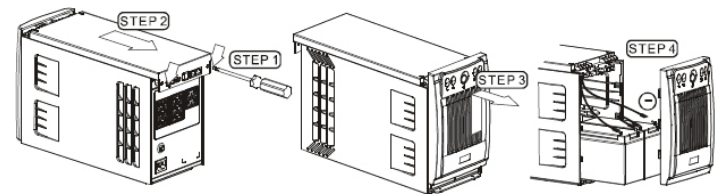


REAR PANEL EXPLANATIONS	SPECIFICATION	
1. AC Inlet 2. Backup Outlets: 6pcs IEC320 3. Surge Outlets: 2pcs IEC320 4. RJ11/RJ45 Jacks: MODEM /LAN Protection 5. USB Interface 6. Input fuse  	<b>Item</b>	<b>Specification</b>
	On-line Input Voltage Window	172-287Vac
	On-line Frequency Window	50/60±5Hz
	Voltage Window (Mains Normal)	188-264Vac
	Voltage Window (Battery Operation)	230Vac±5%
	Capacity (VA/W)	1500/900
	On-battery Wave Form	Stepped sine wave
	Battery Type	12V 9Ah*2
	Typical Recharge Time	6-8 hours to 90%
	Audible and visual	Buzzer/LED
	Physical Size in mm (W x D x H )	147 x 377 x 234
	Net Weight	14.6 kg
	Shipping Weight	16.7 kg
	Backup outlets	IEC 320 C13 x6
	Surge outlets	IEC 320 C13 x2
	Operating Temperature	0 to 40 °C
	Storage Temperature	-15 °C to 45°C
Operating / Storage Relative Humidity	95%	
EMI Classification	Class A	

### REPLACING THE BATTERY

**Note :** Once the battery is disconnected, the loads are not protected from power outages.

- Use a cross-type screwdriver to remove the two top cover screws and slide back the cover  
Please refer to the figures STEP 1 through STEP 4.
- Gently pull the batteries out of the UPS.
- Loosen the black wire from the negative (-) terminal and red wire from the positive (+) terminal.
- Connect the battery leads to the new batteries.
- Note: Small sparks at the battery connectors are normal during connection.
- Gently replace the batteries back into the UPS.
- Close the front panel  
and replace the top cover with the top cover screws
- Dispose of the old batteries properly at an appropriate recycling facility.



### TROUBLE SHOOTING

When your UPS malfunctions during operation, you may check the list below for proper adjustment. For further assistance, please contact your sales agent.

Situation	Check Items	Solution
Mains normal but 'Line' LED is not on.	1. Is the power switch on? 2. Is the power cord loose?	1. Press Main Switch on. 2. Change fuse with same rating. 3. Re-connect the power cord properly.
'Inverter' LED flashes every 3 seconds but no output	Battery voltage is too low	Recharge the UPS for 24 hours.
Alarm buzzer beeps continuously when Utility is normal.	Check to see load status if it is in overload.	Remove some uncritical load.
Alarm buzzer beeps for 10 seconds, then the UPS is turned off		Remove some uncritical load and re-switch on the UPS.
No LEDs display on the front panel		Consult with your sales agent For help.
UPS dose not provide expected back up time.	1. The UPS's battery is weak due to recent outage. 2. The UPS's battery is near the end of its service life.	1. Charge the battery. 2. If the battery is near the end of its service lift, consider replacing the battery.
UPS switch on then connect Utility, but UPS is unable to work under Utility mode	Is the Utility normal?	If Utility is normal, connect Utility first then restart UPS.

Hotline Contacts	Emerson Network Power Local Offices	
<b>UPS Support</b> <a href="mailto:upstech@emersonnetworkpower.com">upstech@emersonnetworkpower.com</a> <b>Software Monitoring Support</b> <a href="mailto:monitoring@emersonnetworkpower.com">monitoring@emersonnetworkpower.com</a> <b>Warranty Administration</b> <a href="mailto:microups.warranty@emersonnetworkpower.com">microups.warranty@emersonnetworkpower.com</a> <b>Reseller Helpdesk Support</b> <a href="mailto:partner.support@emersonnetworkpower.com">partner.support@emersonnetworkpower.com</a>	<b>Australia</b> T: 61-1300367686 F: 61-2-97438737 <b>China</b> T: 86-755-86010808 F: 86-755-86010909 <b>Hong Kong</b> T: 852-25722201F: 852-28310114 <b>India</b> T: 91-22-25807000 / 2388 F: 91-22-25828358 <b>Indonesia</b> T: 62-21-7507800 F: 62-21-7507899 <b>Japan</b> T: 81-3-54038594 F: 81-3-54032924 <b>Korea</b> T: 82-2-34831500 F: 82-2-5927883 <b>Malaysia</b> T: 603-7884 5000 F: 603-7884 5188 <b>New Zealand</b> T: 64-3-3430235 F: 64-3-3430250 <b>Philippines</b> T: 63-2-8934177 / 178 F: 63-2-8112027 <b>Singapore</b> T: 65-64672211 F: 65-64670130 <b>Taiwan</b> T: 886-2-25283535 F: 886-2-25283100 <b>Thailand</b> T: 66-2-6178260 F: 66-2-6178277 / 278	
<b>Country Specific Hotlines</b>		
	<b>Local Phone Access #</b>	<b>International Toll Free #</b>
Australia	+800-147-704	+ 800 1155 4499
New Zealand	+800-447-414	+800 1155 4499
Malaysia	1-800-88-22-88	+800 1155 4499
Singapore		+800 1155 4499
Philippines	(632) 636-8561	+800 10 EMERSON
Indonesia	+800-1-882288	