Sollatek™

User Manual

Ultima S Series
650/850/1200/1500/2200

Uninterruptible Power Supply (UPS)

Voltsure™

IMPORTANT SAFETY INSTRUCTION

READ BEFORE INSTALLING

Safety of persons:

- The UPS has its own internal power source (the battery). Consequently, the power outlets may be energised even if the UPS is disconnected from the AC-power source.
- Dangerous voltage levels are present within the UPS. It should be opened exclusively by qualified service personnel.
- Before touching the utility input of UPS when on battery mode, please make sure the power of upstream is disconnected by multimeter.
- The UPS must be properly earthed. Measurements are required to ensure that the total leakage current of the UPS and the protected equipment does not exceed 3.5mA by checking their characteristics.
- The battery supplied with the UPS contains small amounts of toxic materials. To avoid accidents, the directives listed below must be observed:
  - Servicing of batteries should be performed or supervised by personnel knowledgeable about batteries and required precautions.
  - When replacing batteries, replace them with the same type and number of batteries or battery packs.

CAUTION: Do not dispose of batteries in a fire. The batteries may explode. Dispose of used batteries according to the instructions.

CAUTION: Do not open or mutilate batteries. Released electrolyte is harmful to the skin and eyes. It may be toxic.

Product safety:

- The UPS connection instructions and operation described in the manual must be followed in the indicated order.
- UPS must be connected to a nearby wall outlet that is easily accessible. The UPS can be disconnected from the AC-power source by removing the power cord.
- Check that the indications on the rating plate correspond to your AC-power system and to the actual electrical consumption of all the equipment to be connected to the UPS.
- Never install the UPS near liquids or in an excessively damp environment.
- Always prevent a foreign object from entering the UPS.
- Never block the ventilation grates of the UPS.
- Never expose the UPS to direct sunlight or a source of heat.

Product safety *(continued):*

- If the UPS is stored prior to installation, storage must be in a dry place.
- The admissible storage temperature range is -10□ to +40□.
- This UPS can be used in TN power system.
- UPS enclosure IP rating IP20
- Output short-circuit current max RMS & delay time: 16.6A & 4 cycles; The max peak value: 36A
- UPS meets standard: IEC/EN 62040-1, IEC/EN 62040-2, IEC/EN 62040-3

Special precautions:

- Once installed and connected to the AC power source for the first time, the battery will start to charge. Full charging to obtain the rated battery backup time requires at least 8 hours.
- Before and after the installation, if the UPS remains de-energised for a long period, the UPS must be energised for a period of 24 hours, at least once every 6 months (for a normal storage temperature less than 25□). This charges the battery, thus avoiding possible irreversible damage.
- During the replacement of the battery, it is imperative to use the same type and number of battery previously installed in the UPS, to maintain an identical level of performance and safety. In case of doubt, don't hesitate to contact our after-sales department.

CAUTION – 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.
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 battery terminals.
6) Determine if battery is inadvertently grounded. If inadvertently grounded, remove source from ground. Contact with any part of a grounded battery can result in electrical shock. The likelihood of such shock can be reduced if such grounds are removed during installation and maintenance.

1. Introduction

The UPS is an intelligent and compact line interactive UPS (Uninterruptible Power Supply) which is designed to protect your personal computer or sensitive electronic equipment from all forms of power interference, including complete power failures. It is equipped with many features that allow any attached equipment to operate longer and more reliably.

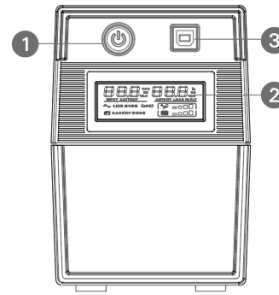
2. Description of Features

- **Easy to use and install with microprocessor control to maximise its reliability and efficiency**
- **Equipped with built-in boost and buck AVR function**
  If the quality of the incoming mains is poor, the AVR boosts a low incoming voltage or reduces a high one. The load receives a voltage within the normal range.
- **DC Cold start function**
  To start the UPS when AC utility power is not available, simply press the power switch.
- **USB-HID Power Device communication**
  HID USB interface enables integration with built-in power management and auto shutdown features of Windows and Mac OS and Linux.
- **Auto restart while AC recovery.**
- **Provides AC Overload protection**
- **RJ11/RJ45 (in/out) LAN/Modem/Phone line protection**

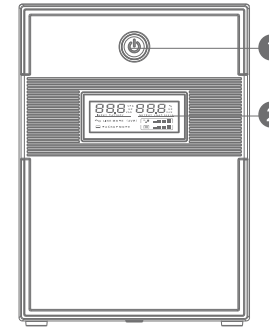
3. Product Overview

Front Panel

① ON/OFF button
② LCD display
③ USB port

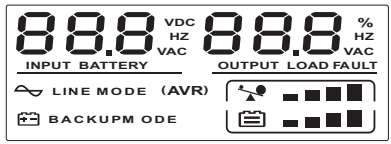
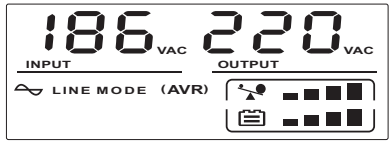
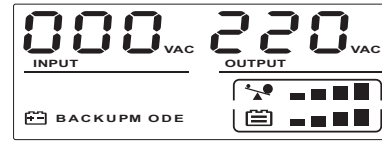


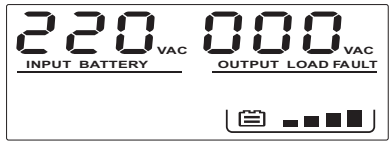
650/850VA

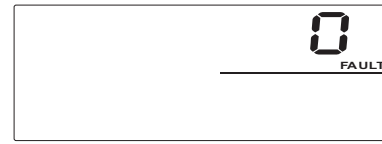


1200/1500/2200VA

1) Display

<table>
<tr>
<td>When LCD starts to work, it will display all information for 3 seconds.
 
</td>
<td>When in normal mode, it will display as below.
 
</td>
</tr>
<tr>
<td>When in AVR mode, it will display as below. And the mark will flicker every 1second.
 
</td>
<td>When in battery mode, it will display as below. And the mark will flicker every 1second.
 

Note: If I/P-V<40V，input voltage will display “000”</td>
</tr>
<tr>
<td>When in off charging mode, it will display as below.
 

Note: the output voltage always is displayed as “000” in off charging mode.</td>
<td>When in fault mode, it will display as below. “FAULT” character and “0” character only.
 
</td>
</tr>
</table>

2) Load level definition:

Load level	Load bar Indication
	0%~25%
	25%~50%
	50%~75%
	75%~100%

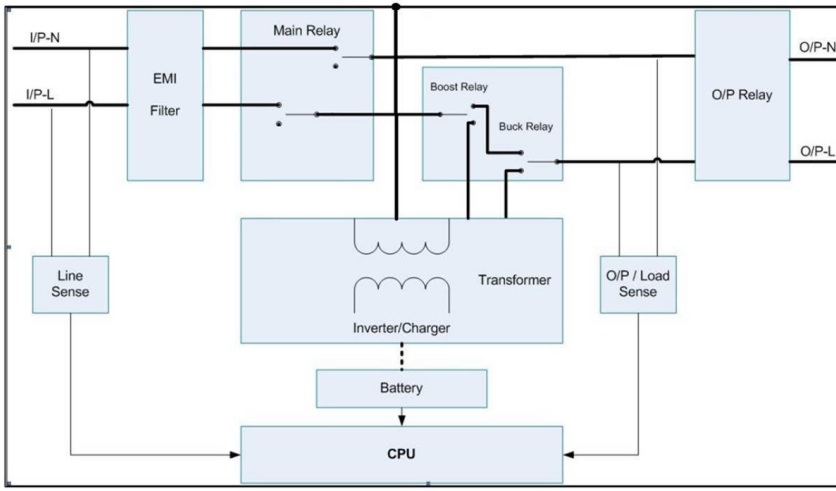
3) **Battery capacity definition:**

1B model battery definition:

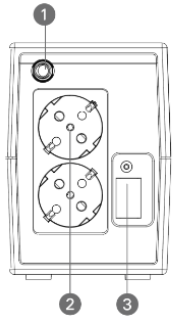
Indicator	Battery charge status
	<20%
	<40%
	<60%
	<80%
	≥80%

4) **When overloaded, the icon will flicker every 1second.**

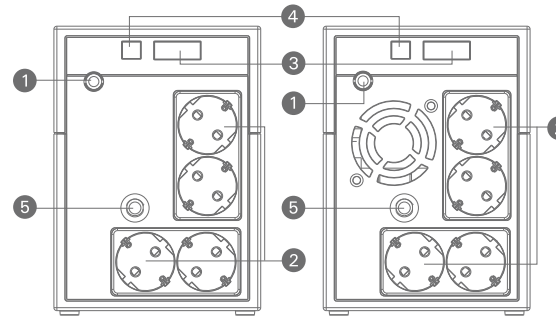
5) **When battery voltage is low, the icon will flicker every 1second.**



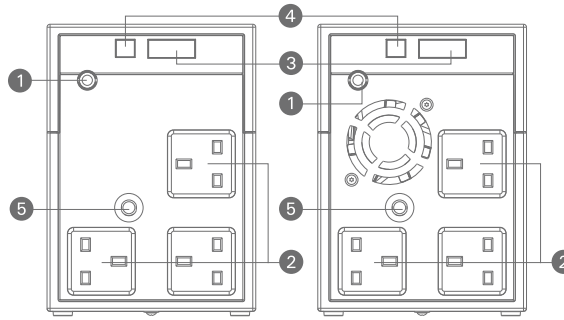
Back Panel:



650/850VA(Schuko)



1200/1500/2200VA (Schuko)



1200/1500/2200VA (UK)

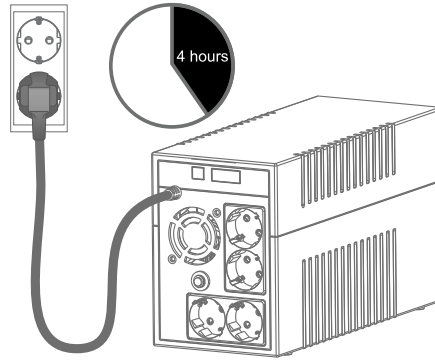
① AC Input
② Output receptacles
③ RJ11 Modem/phone line protection(650/850VA)
RJ45 LAN/Modem/phone line protection(1200/1500/2200VA)
④ USB port
⑤ Breaker

4. Installation and Initial Startup

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

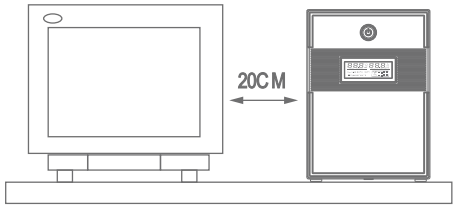
1) Charging

This unit is shipped from the factory with its internal battery fully charged, however, some charge may be lost during shipping and the battery should be recharged prior to use. Plug the unit into an appropriate power supply and allow the UPS to charge fully by leaving it plugged in for at least 4 hours with no load (no electrical devices such as computers, monitors, etc.) connected.



2) Placement & Storage Conditions

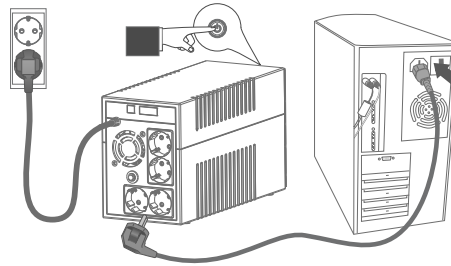
Install the UPS unit in any protected environment that provides adequate airflow around the unit, and is free from excessive dust, corrosive fumes, and conductive contaminants. Do NOT operate the UPS where the temperature exceeds 0-40° C and the humidity is over 0-90 % RH. Place the UPS at least 20cm away from the monitor to avoid interference.



3) Connect the Loads

Plug the UPS into a 2-pole, 3-wire grounded receptacle. Then connect one computer-related device into each of the power receptacles supplied on the back of the UPS.

⚠ Do not attach a power strip or surge suppressor or laser printer / scanner to the UPS.



4) Connect LAN cable, Modem or Phone line for Surge Protection

Connect a single modem or phone line into surge-protected "IN" outlet on the back panel of the UPS unit. Connect from "OUT" outlet to the computer with another phone line cable.

5) Connect USB Cable

To monitor the UPS status, such as unattended UPS shutdown and start-up, by using software, please connect the UPS and PC with USB cable.

⚠ **NEVER** connect a **laser printer** or **scanner** to the UPS unit, **because in-rush current generated by the motor's devices** may cause damage to the UPS.

6) Turn On/Off the Unit

Turn on the UPS unit by pressing the power switch, turn off the UPS unit by pressing again the power switch.

Note:

Before stopping the commercial power to the unit, turn OFF the power switch of the unit.

The unit enters Battery Mode when commercial power is stopped. If you frequently use the unit in Battery Mode, the battery life may be significantly shortened.

5. Software Installation on your PC

1) Go to the website: http://www.ups-software-download.com
2) Choose the operation system you need and follow the instruction described on the website to download the software.
3) When downloading all required files from the internet, enter the serial No: 511C1-01220-0100-478DF2A to install the software.

6. Troubleshooting

Symptom	Possible Cause	Remedy
No LCD display on the front panel.	1. Battery voltage is too low.	1. Charge battery up to 8 hours.
	2. Battery defective.	2. Replace with the same type of battery.
	3. Power switch is not pressed.	3. Press the power switch again.
Alarm buzzer beeps continuously when AC supply is normal.	Overload of the UPS.	Verify that the load matches the UPS capability stated in the specifications.
During a power failure, back-up time is shorter than the specification indicates.	1. Overload of the UPS.	1. Remove some non-critical load.
	2. Battery voltage is too low.	2. Charge battery 8 hours or more.
	3. Battery defective due to high temperature operation environment, or improper operation of battery.	3. Replace with the same type of battery.
Mains normal but LCD is flashing.	Power cord is loose.	Reconnect the power cord properly.

If any abnormal situations occur that are not listed above, please call service people immediately.

7. Battery Replacement

In the event that you need to replace the battery, please contact us at sales@sollatek.com for detailed instructions or call your local Sollatek distributor for assistance.

8. Specification

MODEL	650VA	850VA	1200VA	1500VA	2200VA
CAPACITY	650VA/360W	850VA/480W	1200VA/600W	1500VA/900W	2200VA/1200W
INPUT					
Voltage	220 VAC				
Voltage Range	162~268 VAC				
OUTPUT					
Nominal Voltage	220Vac				
Voltage Regulation	+/-10% (Battery mode)				
Frequency Range	50/60Hz				
Frequency Regulation	±1Hz (Battery mode)				
Transfer Time	Typical 2-6ms		Typical 4-8ms		
Waveform	Stepped Sine Wave				
BATTERY					
Type (Lead-acid)	12V/7Ah*1	12V/9Ah*1	12V/7Ah*2	12V/7Ah* 2	12V/9Ah*2
Charging Time	4 hours to 90% after complete discharge				
Backup Time (est. 100W)	16 min	20 min	40 min	40 min	50 min
SURGE SUPPRESSION					
protection	RJ11		RJ45		
INDICATOR					
LCD	LCD display				
AUDIBLE ALARM					
Backup Mode	Sounding every 10 seconds				
Low Battery	Sounding every 1second				
Overload	Sounding every 0.5 second				
Fault	Continuously sounding				
PROTECTION					
Full protection	Discharge, overcharge and overload protection				
PHYSICAL					
Dimension (D*W*H)	290mm*100mm*143mm		364mm*139mm*195 mm		
Net weight	4.6kg	5.2kg	8.6kg	10.2kg	10.8kg
ENVIRONMENT					
Operating environment	0° to 40° C				
Noise Level（Less than）	40dB				45dB

**Warning: This is a category C2 UPS product. In a residential environment, this product may cause radio interference, in which case the user may be required to take additional measures*

Product Code	Product Description
97602065-EU	ULTIMA UPS650s 220V 650VA LCD EURO
97602085-EU	ULTIMA UPS850 220V 850VA LCD EURO
97602065-IEC	ULTIMA UPS650s 220V 650VA LCD IEC
97602085-IEC	ULTIMA UPS850 220V 850VA LCD LEC
97602122-EU	ULTIMA UPS1.2Ks 220V 1.2kVA LCD EURO
97602122-UK	ULTIMA UPS1.2Ks 220V 1.2kVA LCD UK
97602152-EU	ULTIMA UPS1.5Ks 220V 1.5kVA LCD EURO
97602152-UK	ULTIMA UPS1.5Ks 220V 1.5kVA LCD UK
97602222-EU	ULTIMA UPS2.2Ks 220V 2.2kVA LCD EURO
97602222-UK	ULTIMA UPS2.2Ks 220V 2.2kVA LCD UK

9. WEEE

The crossed-out wheeled bin symbol indicates that waste electrical and electronic equipment should not be discarded together with unseparated household waste but must be disposed of separately. The product should be handed in for recycling in accordance with the local environmental regulations for waste disposal.

By separating waste electrical and electronic equipment, you will help reduce the volume of waste sent for incineration or landfills and minimize any potential negative impact on human health and environment.

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