POWERPSSONIC
TRUSTED BATTERY SOLUTIONS

POWERSTEADY

USER MANUAL

400/600/800/1000/1200/1500/2000/2400/3000

www.power-sonic.com

SAFETY-WARNING

- This UPS utilizes voltages that may be hazardous. Do not attempt to disassemble the unit. The unit contains no user serviceable parts. Only factory service personnel may perform repairs.
- Internal battery voltage is 12Vdc. Sealed, lead-acid, 6 cells battery.
- 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 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 is 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.
- Do not attach non-computer-related items, such as medical equipment, life-support equipment, microwave ovens, or vacuum cleaners to UPS
- 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 heaters or furnaces.
- Unplug the UPS prior to cleaning and do not use liquid or spray detergent.
- Do not dispose of batteries in a fire as they may explode.
- Do not open or mutilate the battery or batteries. Released electrolyte is harmful to the skin and eyes. It may be toxic.
- 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 terminals.
- 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. The maximum ambient temperature rating is 40℃.
- This pluggable type A equipment with battery already installed by the supplier is operator installable and may be operated by laymen.

- 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.
- Attention, hazardous through electric shock. Also with disconnection 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 of the battery when maintenance or service work inside the UPS is necessary.
- The mains socket outlet that supplies the UPS shall be installed near the UPS and shall be easily accessible.

INTRODUCTION

This UPS is specially designed for Personal Computer with multi-functions. Its light weight, compact design perfect fits to the limited working environment. The line of UPS is equipped with boost and buck AVR to stabilize input voltage range. It is also built-in with DC start function. This function enables the UPS to be started up without AC power supplied. Although it's a small UPS, the main features of PowerSteady UPS are listed below:

- Microprocessor control guarantees high reliability.
- Equipped with Boost and Buck AVR.
- Green Power Function for energy saving.
- DC Start Function.
- Auto restart while AC recovery.
- Compact size, Light Weight.
- Provides AC Overload protection.

First Inspection

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.

Charging first time

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. Turn on the UPS, Plug the unit into an appropriate power supply and allow the UPS to charge fully by leaving it plugged in for at least 6 hours with no load (no electrical devices such as computers, monitors, etc.) connected.

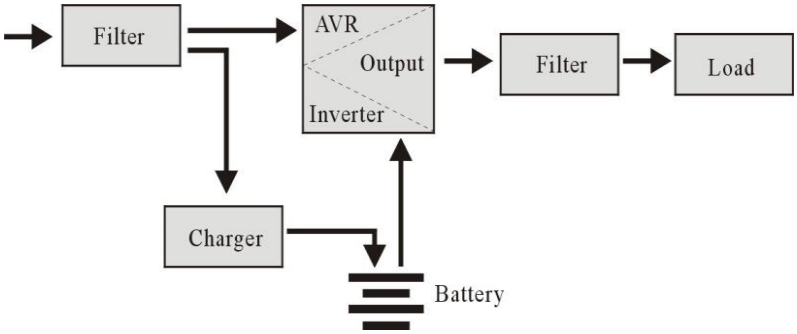
Packing contents

The packaging includes the following items;

- The PowerSteady UPS
- Serial cable
- USB cable
- Detachable power cable, EU and UK plug
- Power cable IEC
- Manual
- Software download card

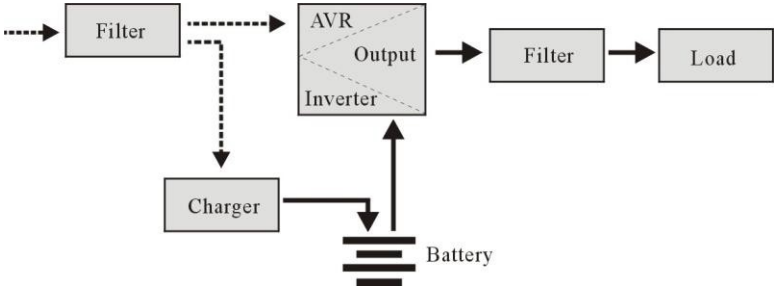
Working Principle AC mode

When UPS is in normal working mode, AC goes through the filter and the harmful waves are filtered. After that, AC charges the battery and meanwhile, passes UPS AVR and the filter and provide power for the equipment.

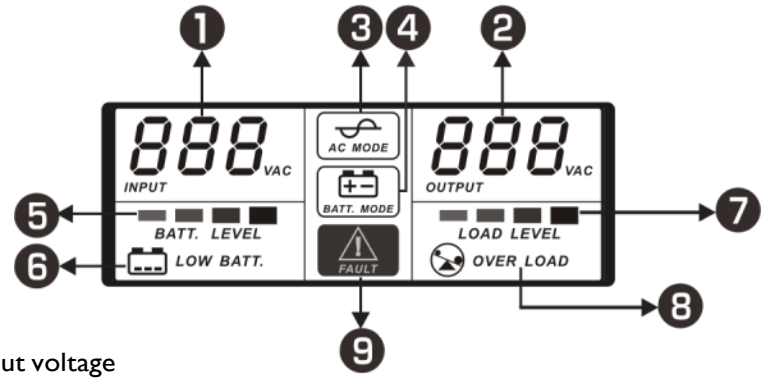


Working Principle AC failure

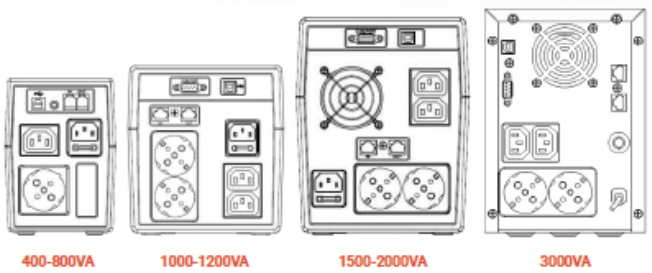
When AC fails, the battery will supply power to the inverter and then passes filter and provide power for the equipment, ensuring the continuous power supply.



Display



1. Input voltage
2. Output voltage
3. AC mode (UPS in AVR mode, this LCD symbol flashes)
4. Battery mode (when AC input voltage is abnormal, this LCD symbol lights)
5. Battery level (Battery capability)
6. Low battery (when battery voltage is low, this LCD symbol flashes)
7. Load level (Load percent)
8. Over load (when there is output over loading, this LCD symbol flashes)
9. Fault model (this LCD symbol lights when UPS in fault mode, such as output shorted, overcharge, overload)



Back Panel

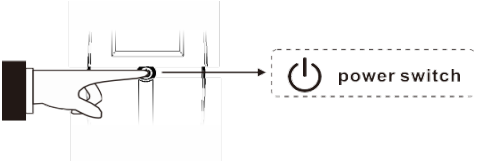
1. AC input
2. Output receptacles
3. USB & RJ11 communication
4. USB & RS232 communication (1500-2000-3000VA)
5. RJ45 (1500-2000-3000VA)
6. Circuit breaker

Installing the PowerSteady

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 your UPS in an environment where the ambient temperature or humidity is high. We advise to place the UPS away from the monitor at least 20cm to avoid interference.

Connection

- Shut down the load (for example PC)
- Put UPS on the proper position
- Connect load (for example PC) to the UPS
- Connect the serial or USB cable to the computer and to the UPS.
- Plug the UPS power cable into a wall outlet.
- Press the ON/OFF button of the PowerSteady to turn it on, you will hear a short beep.



***NOTE**: All PowerSteady Series are equipped with DC Start. To start the UPS when AC utility power is not available, simply press the power switch.*
This UPS is the power supply for the computer, monitor and hard disk(CD) etc. It has a limited backup time for the load, so you'd better not connect a printer or other equipment to it.
Generally speaking, don't turn off the UPS so the battery keeps charging.

UPSilon 2000 software

The PowerSteady is supplied with UPSilon 2000 software. This software package enables you to view the status of the UPS and change multiple settings. During a long lasting power failure the software will correctly shut down your computer before the battery of the UPS is drained.

Installing the software

1. Download the software to your computer .
2. The Setup menu of the software will automatically appear.
3. Click '**Install Program**'.
4. Choose your operating system.
5. Click '**Next**'.
6. Click '**Yes**'.
7. You will now be asked to enter a username, company name and serial number. Enter this information. The serial number can be found on the card supplied with the UPS.
8. Click '**Next**'.
9. Click '**Yes**'.
10. Click '**Next**'.
11. Click '**Next**'.
12. Click '**Finish**' to finish the installation of the software.
13. Start the UPSilon 2000 software.
14. A new screen with four options and a log field will appear.
15. Click the option '**Settings**'.
16. Select the correct communication for serial communication select "**MegaTec**" and COM port number near '**Select Comm Port**'. Usually this is '**COM1**' for USB communication select "**Mega(USB)**".
17. Click '**OK**'. The message 'UPS connected' will appear in the log field. *If this message does not appear, it is possible you selected an incorrect COM port or the cable is incorrectly connected. If the serial cable is correctly connected, you will need to choose another COM port, as explained in steps 15 and 16.*

UPSilon 2000 options and settings

When starting UPSilon 2000 four tabs will appear. These tabs allow you to change the status view. You can choose, amongst others, between voltage meters (*Meter*) or graphs (*Chart*). In the status screen itself you can view items such as Input/Output voltage, temperature, battery status and power consumption.

In the left part of the screen you will see a number of menu options.
We will summarize these options below:

Settings

The menu option '**Settings**' allows you the change a large number of settings.

General

By clicking '**General**' you can set the communication protocol, the COM or USB port and a password if the UPS is managed from another computer. You can also choose whether the status information generated by the UPS has to be saved and how often this needs to be done.

Shutdown

The option '**Shutdown**' enables you to establish the steps UPSilon 2000 needs to take as soon a problem with the power supply occurs. Enable 'Turn Off UPS' to specify the number of minutes after which UPSilon 2000 will shutdown the computer and the UPS after problems with the power supply have been detected.

Warning Message

The option '**Warning Message**' enables you to display a message on the screen when a specific event occurs. Here you can also disable the pop-up messages if preferred.

Email

The option '**Email**' Enables you to setup E-mail messages that will be send from UPSilon 2000 to a specified email. You can also specify which events you wish to receive an e-mail for.

SMS

The option '**SMS**' is not supported.

ACPI

The option '**ACPI**' (Advanced Configuration and Power Interface) provide the possibility to change the UPS Name/Manufacturer/Date of installation. And also provide a self-test function.

Tasks

The menu '**Tasks**' allows you to plan when UPSilon 2000 will turn on the UPS or turn off both the computer and the UPS. You can also plan for the UPS to execute a number of self-tests.

Choose a date and click '**Add**' to add a task. You can then select a time and determine the frequency of this task, for instance every week.

Control

Using '**Control**' you can immediately run a number of self-tests. This option also allows you to shut down the computer.

Close File

Here you can view which files and which programs were most recently saved and closed by UPSilon 2000.

Log File

In the '**Settings**' menu under '**General Settings**' you already specified whether the status information generated by the UPS has to be saved and how often this needs to be done. The result can be viewed by clicking the option '**Log File**'. A maximum of 2000 rows can be recorded. You can also print the information or save it to a file.

About

Here you can find certain information about UPSilon 2000, such as the version and the serial number.

TROUBLE SHOOTING

Symptom	Possible Cause	Remedy
No LED display on the front panel.	1. Battery weak.	1. Charge battery up to 8 hours.
	2. Battery defect.	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 specified in the specs.
When power failure, back-up time is shortened.	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 defect due to high temperature operation environment, or improper operation to battery.	3. Replace with the same type of battery.
Mains normal but LED 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.

SPECIFICATION

MODEL		PowerSteady 400	PowerSteady 1000	PowerSteady 1500
		PowerSteady 600	PowerSteady 1200	PowerSteady 2000
		PowerSteady 800		
CAPACITY	VA	400VA	1000VA	1500VA
		600VA	1200VA	2000VA
		800VA		
INPUT	Voltage	110VAC/120VAC or 220VAC/230VAC/240VAC		
	Voltage Range	81-145VAC or 162-290VAC		
OUTPUT	Voltage Regulation (Batt. Mode)	+/-10%		
	Frequency	50Hz or 60Hz		
	Frequency Regulation (Batt. Mode)	+/-1 Hz		
	Output Waveform	Modified Sine wave		
BATTERY	Battery Type	12V/7.0AH x1	12V/7.0Ah x 2	12V/9.0Ah x 2
	Recharge Time	6-8 hours to 90% after complete discharge		
TRANSFER TIME	Typical	2-6 ms		
INDICATOR	AC Model	Green LED lighting	Green LED lighting	The left green LED lighting &The 1st to 4th green LEDs gradually lighting ndicating load level
	Battery Model	Yellow LED Flashing	Yellow LED Flashing	The left green LED lighting &The 1st to 4th green LEDs gradually lighting ndicating battery capacity
	Fault Model	Red LED Lighting		
AUDIBLE ALARM	Backup Mode	Sounding every 10 seconds		
	Low Battery	Sounding every 1 second		
	Overload	Sounding every 0.5 second		
	Fault	Continuously sounding		
PROTECTION	Full Protection	Discharge, overcharge and overload protection		
PHYSICAL	Dimension(mm),LxWxH	298x101x142	353x149.3x162	380x158x198
ENVIRONMENT	Operating Environment	0°C - 40°C		
	Noise Level	Less than 40dB		

SPECIFICATION

MODEL		PowerSteady 2400	PowerSteady 3000
CAPACITY	VA	2400VA	3000VA
INPUT	Voltage	110VAC/120VAC or 220VAC/230VAC/240VAC	
	Voltage Range	81-145VAC or 162-290VAC	
OUTPUT	Voltage Regulation (Batt. Mode)	+/-10%	
	Frequency	50Hz or 60Hz	
	Frequency Regulation (Batt. Mode)	+/-1 Hz	
	Output Waveform	Modified Sine wave	
BATTERY	Battery Type	12V/7.0AH x 4	12V/9.0AH x 4
	Recharge Time	6-8 hours to 90% after complete discharge	
TRANSFER TIME	Typical	2-6 ms	
INDICATOR	AC Model	The left green LED lighting &The 1st to 4th green LEDs gradually lighting indicating load level	
	Battery Model	The left green LED lighting &The 1st to 4th green LEDs gradually lighting indicating battery capacity	
	Fault Model	Red LED Lighting	
AUDIBLE ALARM	Backup Mode	Sounding every 10 seconds	
	Low Battery	Sounding every 1 second	
	Overload	Sounding every 0.5 second	
	Fault	Continuously sounding	
PROTECTION	Full Protection	Discharge, overcharge and overload protection	
PHYSICAL	Dimension(mm),LxWxH	436 x 145 x 213	
ENVIRONMENT	Operating Environment	0°C - 40°C	
	Noise Level	Less than 40dB	