

# Line-interactive UPS VP600/ VP1000/ VP2000 User's Manual

K01-C000387-00

## IMPORTANT SAFETY INSTRUCTIONS

### (SAVE THESE INSTRUCTIONS)

This manual contains important safety instructions. Please read and follow all instructions carefully during installation and operation of the unit. Read this manual thoroughly before attempting to unpack, install, or operate your UPS.

**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' 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!** Internal battery voltage is 12Vdc. Sealed, lead-acid, 6-cell battery.

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

## INSTALLING YOUR UPS SYSTEM

### UNPACKING

Inspect the UPS upon receipt. The box should contain the following:

(1) UPS (2) User Manual

### OVERVIEW

The VP600/VP1000/VP2000 provides automatic voltage regulation for inconsistent utility power, and battery backup during power outages. The VP600/VP1000/VP2000 ensures consistent power to your computer system and its included software will automatically save your open files and shutdown your computer system during a utility power loss.

### HOW TO DETERMINE THE POWER REQUIREMENTS OF YOUR EQUIPMENT

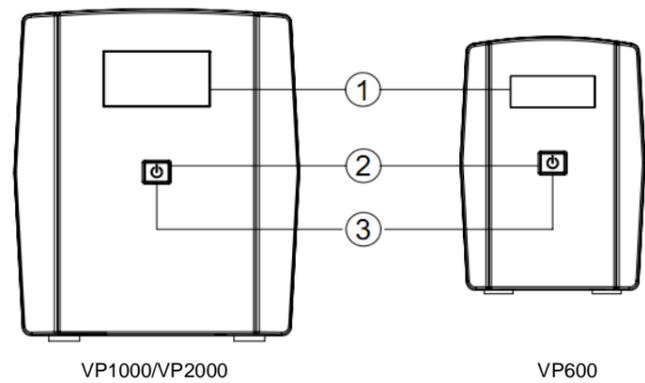
1. Insure that the equipment plugged into the battery power-supplied outlets does not exceed the UPS unit's rated capacity. If rated unit capacities are exceeded, an overload condition may occur and cause the UPS unit to shut down or the circuit breaker to trip.
2. There are many factors that can affect the amount of power that your computer system will require. For optimal system performance keep the attached load below 80% of the UPS's rated capacity.

### HARDWARE INSTALLATION GUIDE

1. Your new UPS may be used immediately upon receipt. However, recharging the battery for at least 8 hours is recommended to ensure that the battery's maximum charge capacity is achieved. Charge loss may occur during shipping and storage. To recharge the battery, plug the UPS into an AC outlet. The unit will charge in both the on and off position.
2. With the UPS turned off and unplugged, connect the computer, monitor, and any equipment into the battery power supplied outlets. **DO NOT plug a laser printer, copier, space heater, vacuum, paper shredder or other large electrical device into the battery power supplied outlets. The power demands of these devices will overload and possibly damage the unit.**
3. Plug the UPS into a 2 pole, 3 wire grounded receptacle (wall outlet). Make sure the wall branch outlet is protected by a fuse or circuit breaker and does not service equipment with large electrical demands (e.g. air conditioner, refrigerator, copier, etc.) Avoid using extension cords.
4. Depress the power switch to turn the UPS on. The power on indicator light will illuminate and the UPS will "beep".
5. If an overload is detected, an audible alarm will sound and the-UPS will emit one long beep. To correct this, turn the UPS off and unplug at least one piece of equipment from the battery power supplied outlets. Wait 10 seconds. Make sure the circuit breaker is depressed and then turn the UPS on.
6. To maintain optimal battery charge, leave the UPS plugged into an AC outlet at all times.
7. To store your UPS for an extended period, cover it and store with the battery fully charged. Recharge the battery every three months to ensure battery life.

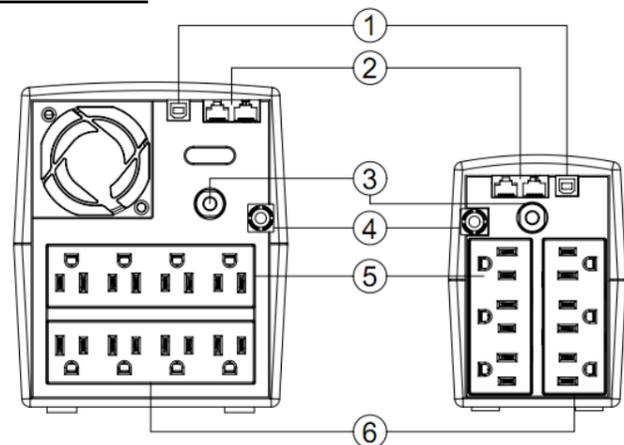
## BASIC OPERATION

### FRONT PANEL DESCRIPTION



1. **LCD Display**  
The LCD will display the UPS status including input voltage, output voltage, runtime, percentage of load and battery etc.
2. **Power On/Off Switch**  
Press the power switch to turn the UPS ON or OFF.
3. **Led Indicators**  
This LED is illuminated when the UPS is working.

### REAR PANEL DESCRIPTION



1. **USB Port**  
This port allows connection and communication from the USB port on the computer to the UPS. The UPS communicates its status to the **Power Guide** software.
2. **Communication Protection Ports**  
Communication protection ports will protect any standard modem, fax, telephone line, or network cable.
3. **Input Circuit Breaker**  
The circuit breaker provides overload protection.
4. **Input power cord**  
Connect to utility power.
5. **Surge Protected Outlets**  
Provides surge protection for devices that don't require battery backup.
6. **Battery Backup & Surge Protected Outlets**  
Provides battery backup and surge protection. They ensure power is provided to connected equipment over a period of time during a power failure.

### REPLACING THE BATTERY

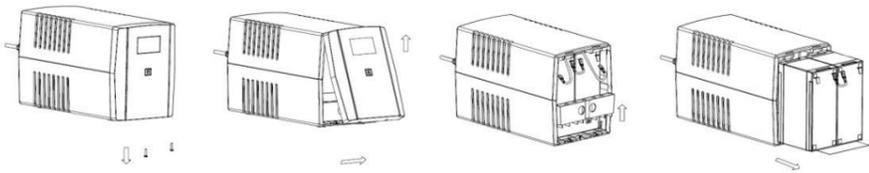
Replacement of batteries located in an **OPERATOR ACCESS AREA**.

1. When replacing batteries, replace with the same number of the battery.
2. **CAUTION!** Risk of Energy Hazard! Before replacing batteries, remove conductive jewelry such as chains, wrist watches, and rings. High energy conducted through these materials could cause severe burns.
3. **CAUTION!** Do not dispose of batteries in a fire. The batteries may explode.
4. **CAUTION!** Do not open or mutilate batteries. Released material is harmful to the skin and eyes. It may be toxic.
5. **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.

**CAUTION - RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO LOCAL REGULATIONS.**

### BATTERY REPLACEMENT PROCEDURE

1. Turn off and unplug all connected equipment.
2. Turn the UPS off and unplug it from the AC power source.
3. Turn the UPS on its side.
4. Remove the screws on the bottom of the front panel and lay aside.
5. Remove the front panel of the UPS: pull and lift it.
6. Take out the battery compartment cover.
7. Disconnect the battery wires from the battery.
8. Remove the battery from the compartment.
9. Put the battery back into the compartment.
10. Install the replacement battery by connecting the red wire (+) and black wire (-) to the same color connectors from the battery pack.
11. Take in the battery compartment cover.
12. Fit the front panel on and tighten the retaining screws.
13. Recharge the UPS for 8-16 hours to fully charge the battery.



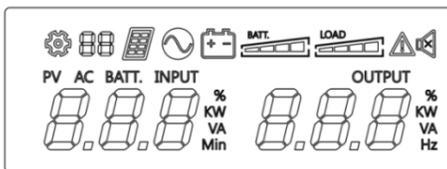
**REMINDER:** Batteries are considered HAZARDOUS WASTE and must be disposed of properly. Most retailers that sell lead-acid batteries collect used batteries for recycling, as required by local regulations.

### TECHNICAL SPECIFICATIONS

Model	VP600	VP1000	VP2000
Capacity (VA/W)	600/300	1000/600	1920/1200
<b>Input</b>			
Voltage Range	82~148Vac		
Frequency	50/60Hz(Auto Sensing)		
<b>Output</b>			
On Battery Output Voltage	Simulated Sine Wave at 120Vac +/-10%		
On Battery Output Frequency	50/60 Hz +/-1Hz		
Overload Protection	Breaker/Internal Current Limiting		
<b>Physical</b>			
Outlets-total	6	8	8
Outlets-Battery & Surge Protected	3	4	4
Outlets-Surge Only Protected	3	4	4
Dimensions(W X H X D)mm	96 X 138 X 286	148 X 178 X 298	
Weight (kg)	4.35	8.66	11.36
<b>Battery</b>			
Sealed Maintenance Free Lead Acid Battery	12V/7AH*1	12V/7AH*2	12V/9AH*2
Typical Recharge Time	4 Hours to 90% capacity		
<b>Warning Diagnostics</b>			
Indicators	Power On, UPS Status Display, Capacity Display, Digital Value Display		
Audible Alarms	On Battery, Low Battery, Overload		
<b>Environmental</b>			
Operating Temperature	0°C to 40°C		
Operating Relative Humidity	0 to 90%		
<b>Communication</b>			
Power Guide	Windows 10/ Windows 8/ Windows 7/ Windows Server 2012 R2/ Windows Server 2008 R2,linux,Mac		
<b>Management</b>			
Auto-Charger	Yes		
Auto-Restart	Yes		
USB	Yes		
RJ45/11 Communication Protection Ports	Yes		

### DEFINITIONS FOR ILLUMINATED LCD INDICATORS

LCD Indication



	Setting Item		
	Line mode		Bat-mode
	Fault		Sound disable (Press the display key 3s to disable and enable the buzzer sound)
	Bat mode: battery capacity Line mode: 1. Battery charging: cycle lighting 2. Battery full charged: lighting 3. Line mode without charger: battery capacity		Load capacity

Line mode & BATT. Mode

	PV AC BATT. INPUT % KW VA Min		OUTPUT % KW VA Hz	
Initial	AC INPUT(Voltage) V		OUTPUT(Voltage) V	

### TROUBLE SHOOTING

Problem	Possible Cause	Solution
The UPS does not perform expected runtime.	Batteries are not fully charged.	Recharge the battery by leaving the UPS plugged in.
	Battery is slightly worn out.	Contact Technical Support.
The UPS will not turn on.	The on/off switch is designed to prevent damage by rapidly turning it off and on.	Turn the UPS off. Wait 10 seconds and then turn the UPS on.
	The unit is not connected to an AC outlet.	The unit must be connected to a 120Vac 50/60Hz outlet.
	The battery is worn out.	Contact Technical Support.
Outlets do not provide power to equipment	Mechanical problem.	Contact Technical Support.
	Circuit breaker is tripped due to overload	Turn the UPS off and unplug at least one piece connected equipment. Unplug the power cord of the UPS then press the circuit breaker knob.
	Batteries are discharged	Allow the unit to recharge for at least 4 hours.
Power Guide is inactive	Unit has been damaged by a surge or spike.	Contact Technical Support.
	The serial/USB cable is not connected.	Connect the serial/USB cable to the UPS unit and an open serial port on the back of the computer. You must use the cable that came with the unit.
	The unit is not providing battery power.	Shutdown your computer and turn the UPS off. Wait 10 seconds and turn the UPS back on. This should reset the unit.

### FCC COMPLIANCE STATEMENT

#### FCC Compliance Statement

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

**Note:** This equipment has been tested and found to comply with 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 to 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.

**Important:** Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

**Canadian Compliance**  
CAN ICES-3 (B)/NMB-3(B)

### SOFTWARE DOWNLOAD

Power Guide management software provides a user-friendly interface for your power systems. The graphic user-interface is intuitive and displays essential power information at a glance.

Please follow procedure below to install the software.

Installation procedure:

Download Power Guide from the website:

<http://www.powermonitor.software/>

Double-click the file and follow the installation steps.

When your computer restarts, the Power Guide software will appear as a blue icon located in the system tray.



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