

CyberPower®

Reliability. Quality. Value.

Smart App Sinewave Series PR500LCDRT1U/PR750LCDRT1U/PR1000LCDRT1U User's Manual

K01-0000323-01

IMPORTANT SAFETY WARNINGS

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

CAUTION! The UPS must be connected to a grounded AC power outlet with fuse or circuit breaker protection. DO NOT plug the UPS into an outlet that is not grounded. If you need to de-energize this equipment, turn off and unplug the UPS.

CAUTION! DO NOT USE FOR MEDICAL OR LIFE SUPPORT EQUIPMENT! CyberPower Systems does not sell products for life support or medical applications. DO NOT use in any circumstance that would affect operation or safety of any life support equipment, with any medical applications, or patient care.

CAUTION! The battery can energize hazardous live parts inside even when the AC input power is disconnected.

CAUTION! For pluggable equipment, the socket-outlet shall be installed near the equipment and shall be easily accessible.

CAUTION! To prevent the risk of fire or electric shock, install in a temperature and humidity controlled indoor area, free of conductive contaminants. Please see specifications for acceptable temperature and humidity range.

CAUTION! To reduce the risk of electric shock, do not remove the cover, except to service the battery. There are no serviceable parts inside, except for the battery.

CAUTION! To avoid electrical shock, turn off the unit and unplug it from the AC power source before servicing the battery or installing a computer component.

CAUTION! DO NOT USE WITH OR NEAR AQUARIUMS! To reduce the risk of fire, do not use with or near aquariums. Condensation from the aquarium can come in contact with metal electrical contacts and cause the machine to short out.

CAUTION! DO NOT USE WITH LASER PRINTERS! The power demands of laser printers are too large for a UPS.

INSTALLING YOUR UPS SYSTEM

UNPACKING

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

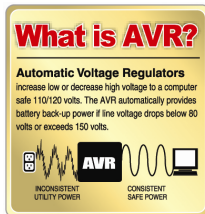
(1) UPS Unit; (1) User's Manual for UPS; (2) Rack Mount Brackets; (2) Wall Mount Brackets; (2) Stands (1) Emergency Power Off Cable (gray) (1) PowerPanel® Business Edition Software CD; (1) Serial Interface Cable (RJ45/DB-9); (1) USB A+B type cable; (1) Warranty Registration Card.

OVERVIEW

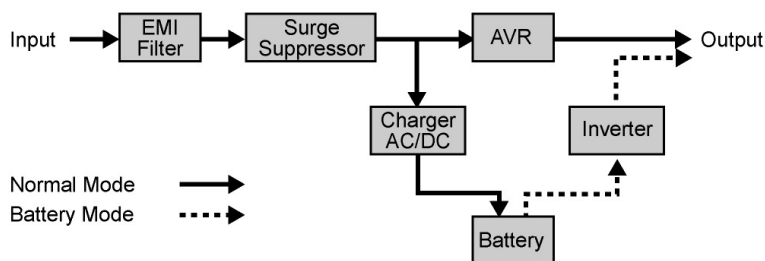
The PR500LCDRT1U/PR750LCDRT1U/PR1000LCDRT1U provides automatic voltage regulation for inconsistent utility power. The PR500LCDRT1U/PR750LCDRT1U/PR1000LCDRT1U features 1030 Joules of surge protection, and provides battery backup during power outages. The PR500LCDRT1U/PR750LCDRT1U/PR1000LCDRT1U ensures 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.

AUTOMATIC VOLTAGE REGULATOR(AVR)

The PR500LCDRT1U/PR750LCDRT1U/PR1000LCDRT1U stabilizes inconsistent utility power. The incoming utility power may be damaging to important data and hardware, but with Automatic Voltage Regulation, the computer will not experience damaging voltage levels. An Automatic Voltage Regulator automatically increases low or decreases high voltage to a consistent, computer safe 110/120V. The unit powerful sealed lead-acid batteries will provide power only if the incoming voltage drops below 80v or increases above 150V.



SYSTEM BLOCK DIAGRAM



HARDWARE INSTALLATION GUIDE

1. Your new UPS may be used immediately upon receipt. However, recharging the battery for at least four 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, simply leave the unit plugged into an AC outlet. The unit will charge in both the on and off position.

2. If you will use the software, connect the serial interface cable to the serial port on the UPS and the computer. If you would like to use USB cable, please connect the USB cable on the UPS then connect the USB cable to your computer.

3. With the UPS unit off and unplugged, connect your computer, monitor, and any externally powered data storage device (Hard drive, Tape drive, etc.) 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 UPS. The power demands of these devices will overload and possibly damage the unit.

4. 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.

5. Depress the power switch to turn the unit on. The power on indicator light will illuminate. If an overload is detected, an audible alarm will sound and the unit 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.

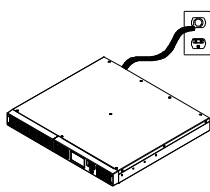
6. To maintain optimal battery charge, leave the UPS plugged into an AC outlet at all times.

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.

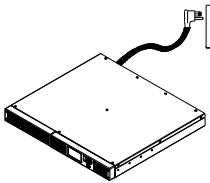
8. Professional Rack Mount UPS provides one RJ45 and one USB port to allow connection and communication between the UPS and computers or equipment. The Primary computers (with PowerPanel® Business Edition installed) are the computers that you will use to control the UPS and make any changes to the operation of the UPS. When there is a power failure, the computer which connects to Primary port will start to shutdown after a user controlled delay. PowerPanel® Business Edition will save and close any open files prior to shutting the system down.

9. EPO (Emergency Power Off) Port:

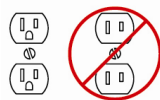
The feature is for the application to enable emergency power shutdown. Use the gray cable provided to connect the UPS to a normally closed or normally open contact switch according to the circuit diagram. EPO function is provided in the UPS. EPO remote switch which is a Push-Back button installed computer room outside by a phone line and not connected any other equipment.



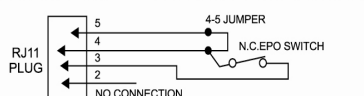
When you first receive the unit, plug in the unit to fully charge the battery.



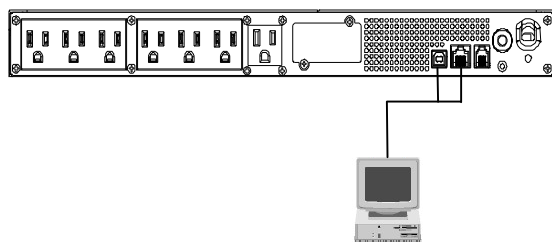
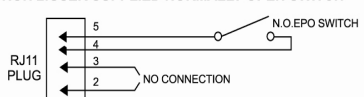
Unplug the unit and turn Power Off when first connecting your computer and peripherals.



OPTION 1: USER SUPPLIED NORMALLY CLOSED SWITCH



OPTION 2: USER SUPPLIED NORMALLY OPEN SWITCH



Install PowerPanel® Business Edition software on the primary computer connected to UPS with either a serial cable or USB cable.

*Note: Both USB and Serial can not be used simultaneously.

BASIC OPERATION

FRONT / REAR PANEL DESCRIPTION

1. Power Switch

Master on/off switch for equipment connected to the UPS.

2. Power On Indicator

Indicates the power is on.

3. LCD Module Display

LCD shows all the UPS information with icons and messages.

4. LCD Display Toggle Button

The button can be used to toggle between different data displays on the LCD.

5. Battery Backup and Surge Protected Outlets

Provides six battery powered, surge protected and AVR outlets for connected equipment and ensures temporary uninterrupted operation of connected equipment during a power failure.

Surge Only

Surge only outlet provide surge protection without backup and AVR function.

Critical /Non-critical

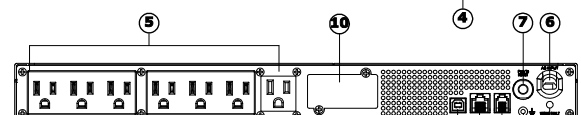
When the UPS is overloaded, the circuit breakers will be tripped to interrupt the power supply to the uncritical outlets while continuing to supply the critical outlets. As well, as the battery capacity depletes under the threshold value, the uncritical outlets will be shut down and provide energy for critical outlets. The threshold can be determined and set by users. Non-critical outlets can also be turned on/off manually through the software package provided.

6. Input Power Cord

Heavy-duty, extra long power cord.

7. Input Circuit Breaker

Resettable circuit breakers provide Input optimal overload Protection.



8. USB port

USB communication port for management software.

9. Serial Port

Serial port allows connection and communication between the UPS and the computer.

10. SNMP/HTTP Network slot

Remove the cover panel to install optional RMCARD that allows remote monitoring and control UPS on networks.

11. Site Wire Fault Indicator

This LED will illuminate to warn the user that a wiring problem exists within the AC receptacle, such as a bad ground, missing ground or reversed wiring. If illuminated, disconnect all equipment and contact an electrician to ensure outlet is properly wired.

12. EPO (Emergency Power Off) port

The interface can be used to connect to switches for emergency power off.

BATTERY REPLACEMENT

Contact your dealer, or email tech@cpsww.com. Refer to replacement battery pack number **RB0690X2A** for **PR500LCDRT1U**, **RB0670X4A** for **PR750LCDRT1U** and **RB0690X4B** for **PR1000LCDRT1U**.

Read and follow the IMPORTANT SAFETY INSTRUCTIONS before servicing the battery. Service the battery under the supervision of personnel knowledgeable of batteries and their precautions. **Servicing the battery should only be performed by trained personnel.** Replacement of batteries located in an OPERATOR ACCESS AREA.

CAUTION! When replacing batteries, replace with the same number of the following battery: **HR9-6FR(BB)** for **PR500LCDRT1U** and **PR1000LCDRT1U, BP7-6FR(BB)** for **PR750LCDRT1U**.

CAUTION! Risk of Energy Hazard, 6V, maximum 8 Ampere-hour batteries. Before replacing batteries, remove conductive jewelry such as chains, wrist watches, and rings. High energy through conductive materials could cause severe burns.

CAUTION! Risk of battery explosion, if battery is replaced by an incorrect type. Dispose of used battery according to the instructions.

CAUTION! To reduce the risk of fire, connect only to a circuit provided with 20 amperes maximum branch circuit overcurrent protection in accordance with the National Electric Code, ANSI/NFPA 70.

CAUTION! Use only the specified type of battery. See your dealer for replacement batteries.

CAUTION! The battery may present the risk of electrical shock. Do not dispose of batteries in a fire, as they may explode. Follow all local ordinances regarding proper disposal of batteries.

CAUTION! Do not open or mutilate the batteries. Release electrolyte is harmful to the skin and eyes and may be toxic.

CAUTION! A battery can present a high risk of short circuit current and electrical shock.

Take the following precautions before replacing the battery:

1. Remove all watches, rings or other metal objects.

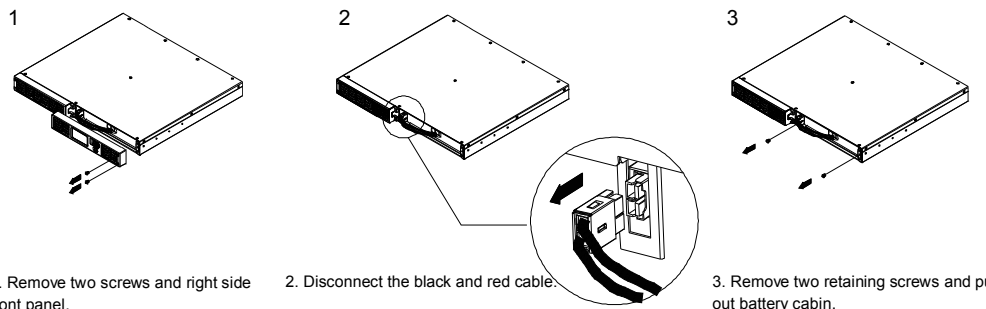
2. Only use tools with insulated handles.

3. Do not lay tools or metal parts on top of battery or any terminals.

4. Wear rubber gloves and boots.

5. Determine if the battery is inadvertently grounded. If inadvertently grounded, remove source of ground. **CONTACT WITH A GROUNDED BATTERY CAN RESULT IN ELECTRICAL SHOCK!** The likelihood of such shock will be reduced if such grounds are removed during installation and maintenance (applicable to a UPS and a remote battery supply not having a grounded circuit)

BATTERY REPLACEMENT PROCEDURE:



LCD STATUS DEFINITION



Line mode

Select SW Press	UPS Status Display				Capacity Display			Digital Value Display			
	Power	Battery	Surge	Load	Load Cap	Battery Cap	Input Voltage	Output Voltage	Run Time	% of Load	% of Battery
Initial	V	X	--	X		V	V				
1 st	V	X	--	X		V	V				
2 nd	V	X	--	X	V					V	
3 rd	V	X	--	X		V					V
4 th	V	X	--	X					V		
5 th (return)	V	X	--	X		V	V				
(overload)	V	X	--	V	--	--	--	--	--	V	--

Battery Mode

Select SW Press	UPS Status Display				Capacity Display			Digital Value Display			
	Power	Battery	Surge	Load	Load Cap	Battery Cap	Input Voltage	Output Voltage	Run Time	% of Load	% of Battery
Initial	X	V	--	X		V	V				
1 st	X	V	--	X		V	V				
2 nd	X	V	--	X	V					V	
3 rd	X	V	--	X		V					V
4 th	X	V	--	X					V		
5 th (return)	X	V	--	X		V	V				
Press>4sec (sound disable)	X	V	V	X	--	--	--	--	--	--	--
Press>4sec again(sound enable)	X	V	X	X	--	--	--	--	--	--	--
overload	X	V	--	V	--	--	--	--	--	V	--

"V" illuminated, "X" Not illuminated, "--" either

LCD SETUP FUNCTIONS

Set-up Mode

Step 1: The machine enters Set-Up Mode after holding the Display toggle for 10 seconds.

Step 2: By pressing the Display toggle, users can switch between setup functions. User configurable functions are as follows:

- Sensitivity:** Set the level of tolerance for UPS. Increase the UPS compatibility for local utility power condition.
High: The UPS will turn to battery power more often to provide the steady power supply to the connected equipment.
Low: The UPS will tolerate more fluctuations and turn to battery power less often.
- Battery Lifetime:** Show the batteries already used time. Reset the logger when battery module replacement or first time installation.
- Firmware Version:** Show the UPS version number.

The settable items are sorted by unit as in the following table :

	Items	Unit
1	Sensitivity	
2	Battery Lifetime	Year
3	Firmware Version	

Step 3: Press and hold the toggle for 4 seconds. When the icons blink, the value of each item can be changed by slightly pressing the toggle.

Step 4: To save the value and return to general mode, press and hold the toggle for 4 seconds.

Note: If the machine is left idle for over 30 seconds during setup, it will turn off the backlight and return to general mode automatically.

Note: If user wants to return to general mode without saving changes, there are two methods:

- Wait for the backlight to turn off
- Press and hold the "Display" toggle for 10 seconds

TROUBLE SHOOTING

Problem	Possible Cause	Solution
Outlet do not provide power to equipment	Circuit breaker has tripped due to an overload.	Turn the UPS off and unplug at least one piece of equipment. Wait 10 seconds, reset the circuit breaker by depressing the button, and then turn the UPS on.
	Batteries are discharged	Recharge the unit for at least 4 hours
	Unit has been damaged by a surge or spike.	Contact CyberPower Systems about replacement batteries at tech@cpsww.com .
	Uncritical outlets have turned off automatically due to an overload	Push the toggle button to make the uncritical outlets turn on.
The UPS does not perform expected runtime.	Battery not fully charged.	Recharge the battery by leaving the UPS plugged in.
	Battery is degraded	Contact CyberPower Systems about replacement batteries at tech@cpsww.com .
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 110/120v outlet.
	The battery is worn out.	Contact CyberPower Systems about replacement batteries at tech@cpsww.com .
	Mechanical problem.	Contact CyberPower Systems at tech@cpsww.com .
PowerPanel® Personal Edition is inactive	The serial cable or USB cable is not connected.	Connect the cable to the UPS unit. You must use the cable that came with the unit.
	The cable is connected to the wrong port.	Try another port of your computer
	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.
	The serial cable is not the cable that was provided with the unit.	You must use the cable included with the unit for the software

Additional troubleshooting information can be found at www.cyberpowersystems.com/support.htm

TECHNICAL SPECIFICATIONS

Model	PR500LCDRT1U	PR750LCDRT1U	PR1000LCDRT1U
Capacity(VA)	500	750	1000
Capacity(Watts)	400	600	800
Input			
Input Plug Type	NEMA 5-15P		
Input Voltage Range	80Vac-150Vac		
Input Frequency Range	60Hz±3Hz(auto sensing)		
Output			
On Battery Output Voltage	Pure Sine Wave at 120Vac±5%		
On Battery Output Frequency	60Hz±1%		
Transfer Time(Typical)	4 ms		
Overload Protection	On Utility: Circuit Breaker, On Battery: Internal Current Limiting		
Surge Protection and Filtering			
Lightning/Surge Protection	Yes		
Physical			
Output Receptacles	(6)NEMA 5-15R+(1)NEMA 5-15R Surge Only		
Dimensions(in)	1U Rack, 17.25" x 9.1" x 1.75"	1U Rack, 17.25" x 16.8" x 1.75"	
Weight (lb)	19.8	30.7	35.9
Battery			
Battery Model	RB0690X2A	RB0670X4A	RB0690X4B
Hot Swappable Battery	Yes		
Warning Diagnostics			
Indicators	Power On, Wiring Fault, LCD Display (Using Battery, AVR, Load Level, Battery Level)		
Audible Alarms	On Battery, Low Battery, Overload		
Environmental			
Operating Temperature	32°F to 104°F (0°C to 40°C)		
Operating Relative Humidity	0 to 95% Non-Condensing		
Operating Elevation	0-10000 feet (0-3000 meters)		
Communication			
PowerPanel® Business Edition	Windows 98/ME/NT/2000/XP/Vista/7		
Management			
Self-Test	Manual Self-Test		
Auto-Charger/ Auto-Restart	Yes		
COM Interface	True RS232 x1		
Built-in USB Interface	Yes		
SNMP/ HTTP Network Slot	Yes		
Safety Approvals	UL1778,cUL107,FCC Part 15 Class A,CSA		

CYBERPOWER GREENPOWER UPS™ TECHNOLOGY

GreenPower UPS™

The CyberPower GreenPower UPS™ cuts UPS energy costs by up to 75% compared to the conventional UPS circuits. Conventional UPS systems pass power through a transformer to provide normal output voltage to protected devices. By contrast, the GreenPower UPS™ circuitry bypasses the transformer when utility power is normal, significantly increasing the power efficiency of the UPS. As a result, a GreenPower UPS™ produces less heat and uses less energy reducing energy costs. When utility power is abnormal, the GreenPower UPS™ operates like a normal UPS. Since utility power operates normally 88% of the time, the GreenPower UPS™ operates primarily in its cost-cutting bypass mode.



LIMITED WARRANTY AND CONNECTED EQUIPMENT GUARANTEE

Read the following terms and conditions carefully before using the CyberPower PR500LCDRT1U/PR750LCDRT1U/PR1000LCDRT1U (the "Product"). By using the Product you consent to be bound by and become a party to the terms and conditions of this Limited Warranty and Connected Equipment Guarantee (together referred to as this "Warranty"). If you do not agree to the terms and conditions of this Warranty, you should return the Product for a full refund prior to using it.

Who is Providing this Warranty?

CyberPower Systems (USA), Inc. ("CyberPower") provides this Limited Warranty.

What Does This Warranty Cover?

This warranty covers defects in materials and workmanship in the Product under normal use and conditions. It also covers equipment that was connected to the Product and damaged because of the failure of the Product.

What is the Period of Coverage?

This warranty covers the Product for three years and connected equipment for as long as you own the Product.

Who is Covered?

This warranty only covers the original purchaser. Coverage ends if you sell or otherwise transfer the Product.

How Do You Get Service?

- Call us at (877) 297-6937 or write to us at Cyber Power Systems (USA), Inc., 4241 12th Ave. E., STE 400, Shakopee, MN 55379 or send us an e-mail message at claims@cpsww.com for instructions.
- When you contact CyberPower, identify the Product, the Purchase Date, and the item(s) of Connected Equipment. Have information on all applicable insurance or other resources of recovery/payment that are available to the Initial Customer and Request a Claim Number.
- You must provide a **dated Proof-of-Purchase receipt** (or other proof of the original purchase) and provide a description of the defect.
- Pack and ship the product with a **dated Proof-of-Purchase receipt** to CyberPower and, if requested, the item(s) of Connected Equipment, a repair cost estimate for the damage to the Connected Equipment, and all claim forms that CyberPower provides to you. Show the Claim Number on the shipping label or include it with the product. **You must prepay all shipping costs, you are responsible for packaging and shipment, and you must pay the cost of the repair estimate.**

How Long Do I Have To Make A Claim?

All claims must be made within ten days of the occurrence.

What Will We Do To Correct Problems?

CyberPower will inspect and examine the Product.

If the Product is defective in material or workmanship, CyberPower will repair or replace it at CyberPower's expense, or, if CyberPower is unable to or decides not to repair or replace the Product (if defective) within a reasonable time, CyberPower will refund to you the full purchase price you paid for the Product (purchase receipt showing price paid is required). If it appears that our Product failed to protect any equipment plugged into it, we will also send you forms for making your claim for the connected equipment. We will repair or replace the equipment that was damaged because of the failure of our Product or pay you the fair market value (NOT REPLACEMENT COST) of the equipment at the time of the damage. We will use Orion Blue Book, or another third-party valuation guide, or eBay, craigslist, or other source to establish that amount. Our maximum liability is limited to **\$400,000 for PR500LCDRT1U/PR750LCDRT1U/PR1000LCDRT1U**.

Who Pays For Shipping?

We pay when we send items to you; you pay when you send items to us.

What Are Some Things This Warranty Does Not Cover?

- This Warranty does not cover any software that was damaged or needs to be replaced due to the failure of the Product or any data that is lost as a result of the failure or the restoration of data or records, or the reinstallation of software.
- This Warranty does not cover or apply to: misuse, modification, operation or storage outside environmental limits of the Product or the equipment connected to it, nor for damage while in transit or in storage, nor if there has been improper operation or maintenance, or use with items not designed or intended for use with the Product, such as laser printers, appliances, aquariums, medical or life support devices, etc.

What Other Limitations Apply?

- This Warranty does not apply unless the Product and the equipment that was connected to it were connected to properly wired and grounded outlets (including compliance with electrical and safety codes of the most current electrical code), without the use of any adapters or other connectors.
- The Product must have been plugged directly into the power source and the equipment connected to the Product must be directly connected to the Product and not "daisy-chained" together in serial fashion with any extension cords, another Product or device similar to the Product, surge suppressor, or power tap. Any such installation voids the Limited Warranty.
- The Product and equipment connected to it must have been used properly in a suitable and proper environment and in conformance with any license, instruction manual, or warnings provided with the Product and the equipment connected to it.
- The Product must have been used at all times within the limitations on the Product's VA capacity.

What are the Limitations?

The sole and exclusive remedies of the Initial Customer are those provided by this Warranty.

The Product was designed to eliminate disrupting and damaging effects of momentary (less than 1ms) voltage spikes or impulses from lightning or other power transients. If it can be shown that a voltage spike lasting longer than 1ms has occurred, the occurrence will be deemed outside the rated capabilities of the Product and the Limited Warranty is void. CyberPower Does Not Cover or Undertake Any Liability in Any Event for Any of the Following:

- Loss of or damage to data, records, or software or the restoration of data or records, or the reinstallation of software.
- Damage from causes other than AC Power Line Transients, spikes, or surges on properly installed, grounded and code-compliant 120 volt power lines in the United States and Canada; transients, surges or spikes on standard telephone land lines, PBX telephone equipment lines or Base 10/100T Ethernet lines, when properly installed and connected. (This exclusion applies, for example, to fluctuations in data transmission or reception, by CATV or RF transmission or fluctuations, or by transients in such transmission.)
- Damage from any circumstance described as excluded above with respect to the Product.
- Damages from fire, flood, wind, rain, rising water, leakage or breakage of plumbing, abuse, misuse or alteration of either the product or the Connected Equipment.
- CyberPower excludes any liability for personal injury under the Limited Warranty and Connected Equipment Guarantee. CyberPower excludes any liability for direct, indirect, special, incidental or consequential damages, whether for damage to or loss of property [EXCEPT FOR (AND ONLY FOR) the specific limited agreement of CyberPower to provide certain warranty benefits regarding "Connected Equipment" under this Warranty], loss of profits, business interruption, or loss of information or data. NOTE: Some States or Provinces do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation may not apply to you.
- The Product is not for use in high-risk activities or with aquariums. The Product is not designed or intended for use in hazardous environments requiring fail-safe performance, or for use in any circumstance in which the failure of the Product could lead directly to death, personal injury, or severe physical or property damage, or that would affect operation or safety of any medical or life support device (collectively, "High Risk Activities"). CyberPower expressly disclaims any express or implied warranty of fitness for High Risk Activities or with aquariums. CyberPower does not authorize use of any Product in any High Risk Activities or with Aquariums. **ANY SUCH USE IS IMPROPER AND IS A MISUSE OF THE PRODUCT.**

What is the Fine Print?

The application of the United Nations Convention of Contracts for the International Sale of Goods is expressly excluded.

CyberPower is the warrantor under this Limited Warranty.

For further information please feel free to contact CyberPower at Cyber Power Systems (USA), Inc. 4241 12th Ave E., STE 400, Shakopee, MN 55379; call us at (877) 297-6937; or send us an e-mail message at claims@cpsww.com.

Recycle Policy

CyberPower Systems encourages environmentally sound methods for disposal and recycling of its UPS products.

Please dispose and/or recycle your UPS and batteries in accordance to the local regulations of your state.



FCC Notice

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.

WARNING!! This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense. Shielded signal cables must be used with this product to ensure compliance with the Class A FCC limits.

The Class A digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulation.
Cet appareil numérique de la class A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada